SEL

FEB 2014

PROJECT ID: 2160-10-70

WITH: NONE

Order of Sheets

Section No. 1 Title
Section No. 2 Typical Sections and Details
Section No. 3 Estimate of Quantities
Section No. 3 Miscellaneous Quantities
Section No. 4 Right of Way Plat
Section No. 5 Plan and Profile
Section No. 6 Standard Detail Drawings
Section No. 7 Sign Plates
Section No. 8 Structure Plans
Section No. 9 Computer Earthwork Data
Section No. 9 Cross Sections

TOTAL SHEETS = 730

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2160-10-70	WISC 2014022	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

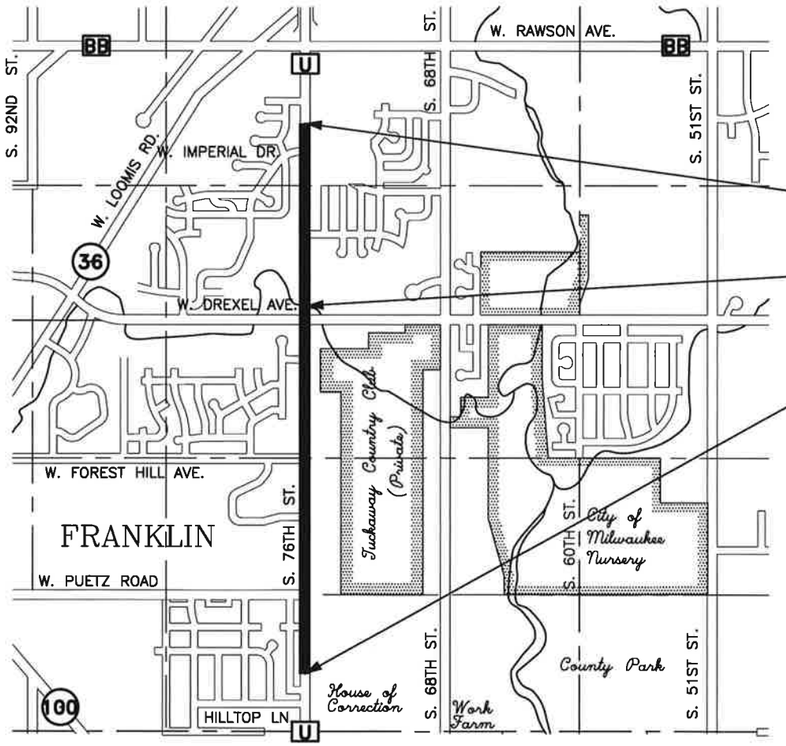
S. 76TH ST.

600' N of HIGH ST. TO CARTER BLVD.

CTH U
MILWAUKEE COUNTY

STATE PROJECT NUMBER
2160-10-70





END PROJECT 2160-10-70
STA. 248+30

LEGEND CREEK CULVERT C-40-0022
STA. 212+50

BEGIN PROJECT 2160-10-70
STA. 144+00
X = 2,533,369.72
Y = 328,218.54

T5N

R21E

N

DESIGN DESIGNATION

A.A.D.T. 2013	=	12,700 VPD
A.A.D.T. 2033	=	21,900 VPD
D.H.V. 2033	=	2,400 VPH
D.	=	50%
T. 2011	=	5.6%
DESIGN SPEED	=	45 M.P.H.
ESALS	=	3,518,600

CONVENTIONAL SYMBOLS

COUNTY LINE
CORPORATE LIMITS
PROPERTY LINE
LIMITED EASEMENT
EXISTING RIGHT OF WAY
PROPOSED OR NEW R/W LINE
SURVEY LINE
SLOPE INTERCEPT
ORIGINAL GROUND
MARSH OR ROCK PROFILE (To be noted as such) — ROCK
MARSH AREA
WOODED OR SHRUB AREA

COMBUSTIBLE FLUIDS — CAUTION
UNDERGROUND UTILITIES
GAS — G
ELECTRIC — E
TELEPHONE OR TELEGRAPH — T
COMMUNICATIONS LINE — C
SERVICE PEDESTAL
POWER POLE
TELEPHONE POLE
RAILROAD
SANITARY SEWER — SAN
STORM SEWER — SS
WATER — W
EXISTING CULVERT
PROPOSED CULVERT (Box or Pipe)
CULVERT (Profile View)

Layout
Scale 0 0.25 MI. 0.5 MI. 0.75 MI. 1 MI.
One Mile

TOTAL NET LENGTH OF CENTERLINE = 1.975 MI.

ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON NGVD29.

ALL COORDINATES SHOWN ON THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM (WSPCS), NAD27 SOUTH ZONE.

MILWAUKEE COUNTY
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION SERVICES DIVISION

WISCONSIN
ANDREA J. WEDDLE
E-32948
MILWAUKEE, WIS.
PROFESSIONAL ENGINEER

PROJECT DESIGNER:
DATE: 10/23/2013

WISCONSIN
DANIEL M. MURPHY
E-42735
MILWAUKEE, WIS.
PROFESSIONAL ENGINEER

TRAFFIC SIGNALS AND SIGNING & MARKING PLANS:
DATE: 10/23/13

RECOMMENDED FOR APPROVAL:
DATE: 10/23/2013
Transportation Engineering Manager

APPROVED:
DATE: 10/24/13
Director of Milwaukee County Department of Transportation

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	Milwaukee County
Designer	Milwaukee County
Management Consultant	DAAR Engineering, Inc.
C.O. EXAMINER	

APPROVED FOR THE DEPARTMENT
DATE: 10/24/2013
Management Consultant Signature
DAAR Engineering, Inc.

E

COUNTY: MILWAUKEE

UTILITIES/FACILITIES

MILWAUKEE COUNTY DEPT. OF TRANSPORTATION
(MCDOT)- MAINTENANCE DIVISION
10190 WEST WATERTOWN PLANK ROAD
WAUWATOSA, WI 53226
ATTN: GREG HEISEL (414) 257-6580

MCDOT
TRANSPORTATION DIVISION- TRAFFIC ENGINEERING
2711 WEST WELLS STREET, SUITE 300
MILWAUKEE, WI 53208
ATTN: DANIEL MURPHY (414) 278-4842

MCDOT
TRANSPORTATION DIVISION- HIGHWAY ENGINEERING
2711 WEST WELLS STREET, SUITE 300
MILWAUKEE, WI 53208
ATTN: JOSEPH WIECZOREK (414) 278-4893

MCDOT
TRANSPORTATION DIVISION- CONSTRUCTION ENGINEERING
2711 WEST WELLS STREET, SUITE 300
MILWAUKEE, WI 53208
ATTN: AZIZ ALEIOW (414) 278-4911

MCDOT
MAINTENANCE DIVISION-TRAFFIC SIGNAL ELECTRICAL SHOP
10190 W. WATERTOWN PLANK ROAD
WAUWATOSA, WI 53226
ATTN: STANLEY JACKSON (414) 257-6593

CITY OF FRANKLIN
9229 WEST LOOMIS ROAD
FRANKLIN, WI 53132
ATTN: MR. JOHN BENNETT (414) 425-7510 EXT. 7550

TIME WARNER CABLE
1320 NORTH MARTIN LUTHER KING DRIVE
MILWAUKEE, WI 53212
ATTN: MR. STEVE CRAMER (414) 277-4045
MR. STEVEN VEEDER (414) 908-4766
(FIELD ENGINEER)

WE ENERGIES (GAS OPERATIONS)
333 WEST EVERETT STREET- A279
MILWAUKEE, WI 53203
ATTN: MR. DAN SANDE (414) 221-4578

WE ENERGIES (ELECTRIC)
333 WEST EVERETT STREET- A279
MILWAUKEE, WI 53203
ATTN: MR. DAN SANDE (414) 221-4578

WE ENERGIES (PAVING COORDINATOR)
500 S. 116TH ST. - WAOC
WEST ALLIS, WI 53214

AT&T WISCONSIN
2005 PEWAUKEE ROAD
WAUKESHA, WI 53188
ATTN: MR. KEVIN ANDERSON (262) 896-7440

UTILITIES KNOWN TO EXIST WITHIN PROJECT

OWNER	UTILITY TYPE	FACILITY ADJUSTMENT IF REQUIRED
MILWAUKEE COUNTY DOT	TRAFFIC SIGNALS AND APPURTENANCES	BY CONTRACTOR
CITY OF FRANKLIN	SANATARY SEWERS AND MANHOLES WATER MAINS, VALVES, LATERALS AND HYDRANTS	BY CONTRACTOR
WE ENERGIES (GAS)	GAS MAINS, VALVES AND LATERALS	BY UTILITY
WE ENERGIES (ELECTRIC)	OVERHEAD CABLES AND BURIED DUCTS	BY UTILITY
TIME WARNER CABLE COMMUNICATIONS	OVERHEAD CABLES ON WE ENERGIES POLES	BY UTILITY
AT&T (FORMERLY SBC)	OVERHEAD CABLES ON WE ENERGIES POLES FIBER OPTICS AND BURIED DUCTS	BY UTILITY

OTHER

WISCONSIN DEPARTMENT OF NATURAL RESOURCES (DNR)
2300 NORTH DR. MARTIN LUTHER KING JR. DRIVE
MILWAUKEE, WI 53212
ATTN: KRISTINA BETZOLD (414) 263-8517

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION (SEWRPC)
W239N1812 ROCKWOOD DRIVE
P.O. BOX 1607
WAUKESHA, WI 53187-1607
ATTN: JOHN WASHBURN (414) 218-2866

ORDER OF SECTION 2 SHEETS

TITLE	SHEET NO.
GENERAL NOTES	
PROJECT OVERVIEW	
TYPICAL SECTIONS	
REMOVALS	
CONSTRUCTION DETAILS	
INTERSECTION DETAILS	
PAVING GRADES	
EROSION CONTROL	
STORM SEWER AND UTILITIES	
SIGN REMOVAL	
PAVEMENT MARKING AND SIGNING	
INTERCONNECT PLANS	
TRAFFIC SIGNALS	
TRAFFIC CONTROL	
ALIGNMENT DIAGRAM	

DIGGERS HOTLINE

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Hearing Impaired TDD (800) 542-2289
www. DiggersHotline.com
WIS. STATUTE 182.0175 (1974)
REQUIRES MIN. OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE.

REVISION DATE: 6/18/2013

GENERAL NOTES

REMOVALS

DO NOT REMOVE TREES OR SHRUBS WITHOUT THE APPROVAL OF THE ENGINEER.

THE REMOVAL OF CONCRETE CORRUGATED MEDIAN IS PAID AS REMOVING PAVEMENT

THE REMOVAL OF BRICK PAVERS IS PAID AS EXCAVATION COMMON.

THE REMOVAL OF CONCRETE/ASPHALT FLUMES IS PAID AS REMOVING SURFACE DRAINS.

CONCRETE SLABS AND CONCRETE DITCH LINING AS SHOWN ON THE PLANS IS PAID AS REMOVING PAVEMENT.

THE REMOVAL OF ASPHALTIC SURFACE TEMPORARY IS PAID AS EXCAVATION COMMON.

BACKFILL ALL OPENINGS BELOW SUBGRADE RESULTING FROM REMOVALS OR ABANDONMENTS WITH GRANULAR MATERIAL, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE COST OF GRANULAR BACKFILL SHALL BE INCIDENTAL TO THE REMOVAL OR ABANDONMENT ITEM. NO ADDITIONAL PAYMENT WILL BE MADE.

EXCAVATION/GRADING

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS, BUT IS MEASURED AND PAID AS EXCAVATION COMMON. THE NEED, LOCATION, DEPTH AND BACK FILL MATERIAL FOR EBS WILL BE DETERMINED AND APPROVED BY THE ENGINEER IN THE FIELD.

GRADE ALL DITCHES WITHIN THE PROJECT LIMITS TO DRAIN.

RESTORE EXISTING DRIVEWAYS IN KIND BEHIND THE CONCRETE APRON AND AT THE LOCATION AND WIDTH DETERMINED BY THE ENGINEER IN THE FIELD.

UTILITIES

THE LOCATION OF EXISTING, ABANDONED AND PROPOSED UTILITIES SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA NOT SHOWN.

STORM SEWER/DRAINAGE

THE COST OF CONNECTING STORM SEWER PIPE OR CULVERT PIPE TO EXISTING OR PROPOSED STRUCTURES SHALL BE INCIDENTAL TO THE COST PER LINEAR FOOT OF THE PERTINENT PIPE.

EXISTING ELEVATIONS OF STORM SEWER TAPS SHOWN ON THE STORM SEWER PROFILES ARE APPROXIMATE. FIELD ADJUSTMENTS MAY BE NECESSARY.

UNCOVER AND CHECK ELEVATION(S) OF EXISTING UTILITIES WHERE CROSSED BY NEW STORM SEWER. ALTERATION OF UTILITY OR REVISION OF SEWER ELEVATION MAY BE NECESSARY.

THE COST TO UNCOVER AND CHECK ELEVATIONS IS PAID AS ITEM SPV.0060.08 UTILITY LINE OPENING (ULO)

EROSION CONTROL/LANDSCAPING

THE EROSION CONTROL ITEMS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATION AND DIMENSIONS SHALL BE DETERMINED BY THE ENGINEER. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

TOPSOIL (4 INCHES), FERTILIZE, MULCH, SEED OR SOD ALL GRASS AREAS THAT ARE DISTURBED BY CONSTRUCTION AS SHOWN ON THE PLANS AND DIRECTED BY THE ENGINEER.

SIGNING/MARKING

DO NOT REMOVE SIGNS WITHOUT THE CONSENT OF THE ENGINEER.

PLACE ALL SIGNS REMOVED AT A SITE SPECIFIED BY THE ENGINEER TO BE PICKED UP BY MILWAUKEE COUNTY.

ALL NEW PERMANENT SIGNS SHALL BE OF ALUMINUM MATERIAL UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

MISCELLANEOUS

DO NOT DAMAGE THE EXISTING STRUCTURES TO REMAIN IN PLACE ALONG THE PROJECT.

MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES.

ALL RADII SHOWN ON THE PLAN WHERE THERE IS CONCRETE CURB & GUTTER ARE MEASURED TO THE FACE OF CURB UNLESS OTHERWISE NOTED.

WHEN QUANTITY OF THE ITEMS OF LOWER OR UPPER LAYER IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

STAMP ALL ENDS OF MONOLITHIC CONCRETE SURFACES WITH A STAMP BEARING THEIR NAME AND THE YEAR OF CONSTRUCTION. ALL LETTERING SHALL BE 2-INCH. THE COST OF THIS WORK SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT BID PRICES FOR OTHER CONCRETE ITEMS AND NO ADDITIONAL PAYMENT WILL BE MADE.

CURB AND GUTTER JOINT SPACING SHALL BE 20 FEET UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER IN THE FIELD.

PLACE A 1/2-INCH THICK EXPANSION FILLER IN THE CURB & GUTTER AT BOTH ENDS OF EACH REMOVAL & REPLACEMENT SECTION AND THE COST SHALL BE INCIDENTAL TO THE CURB & GUTTER BID ITEM.

DETAILS OF CONSTRUCTION NOT SHOWN ON THE PLAN SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

ALL CONCRETE CURB & GUTTER SHOWN ON THE PLANS IS 31-INCH UNLESS OTHERWISE NOTED ON THE PLANS.

ASPHALT SPECIFICATIONS FOR DRIVEWAY AND SIDE ROAD REPLACEMENT

DRIVEWAYS	NOMINAL MIXTURE SIZE	PG GRADE	THICKNESS
UPPER LAYER	9.5 mm	PG64-22	2.00 IN.
LOWER LAYER	9.5 mm	PG64-22	2.00 IN.
BASE AGG. DENSE	1.25 INCHES	N/A	4.00 IN.

SIDE ROADS	NOMINAL MIXTURE SIZE	PG GRADE	THICKNESS
UPPER LAYER	12.5 mm	PG64-22	3.00 IN.
LOWER LAYER	12.5mm	PG64-22	3.00 IN.
BASE AGG. DENSE	1.25 INCHES	N/A	8.00 IN.

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LIST OF STANDARD ABBREVIATIONS

ABUT	Abutment
AGG	Aggregate
AH	Ahead
AADT	Annual Average Daily Traffic
ASPH	Asphlaltic or Asphalt
BK	Back
BM	Bench Mark
CB	Catch Basin
CL or C/L	Center Line
CONC	Concrete
CTH	County Trunk Highway
CABC	Crushed Aggregate Base Course
C&G	Curb and Gutter
DHV	Design Hourly Volume
DD	Directional Distribution
DWY	Driveway
EL or ELEV	Elevation
ESALS	Equivalent Single Axle Loads
EBS	Excavation Below Subgrade
CWT	Hundredweight
INL	Inlet
INV	Invert
MH	Manhole
MIS	Metropolitan Interceptor Sewer
PAVT	Pavement
PT	Point
PCC	Portland Cement Concrete
RL or R/L	Reference Linie
REQD	Required
R/W	Right-of-Way
SEC	Section
SDD	Standard Detail Drawing
STH	State Trunk Highway
STA	Station
SSPRC	Storm Sewer Pipe Reinforced Concrete
S/W	Sidewalk
TLE	Temporary Limited Easement
V	Velocityor Design Speed
VERT	Vertical
VC	Vertical Curve
VPC	Vertical Point of Curve
VPI	Vertical Point of Intersection
VPT	Vertical Point of Tangency

REVISION DATE: 12/2/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY:MILWAUKEE	GENERAL NOTES	NOT TO SCALE	SHEET NO:	E

WISDOT/CADDS SHEET 42

2

STREET

W. HIGH ST.

8981 8965 8949 8933 8917 8901 8865

R/W

SERVICE DRIVE

BDP Sta. = 132+22.00

133+00 134+00 135+00 136+00 137+00 138+00 139+00 140+00 141+00 142+00 143+00 144+00 145+00 146+00 147+00

R/L S. 76TH ST. (CTH U)

BEGIN PROJECT I.D. 2160-10-70
STA. 144+00 R/L

SWAMP
ELEV.
761

8900

BLEACHERS

ATHLETIC FIELD

BLEACHERS

ATHLETIC FIELD

BLEACHERS

BASEBALL PARK

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE: 1" = 100'	SHEET NO: 4	E

REVISION DATE: 6/19/2013

2

LANE

U.C.

END CONSTRUCTION
W PUETZ ROAD
STA 13+25

END CONSTRUCTION
W MARGARET LANE
STA 11+00.00

7632
W. PUETZ RD.

8849
8833
8817
8801
8785
8771
8755
8739
8723
8707
8665
8647

R/W
SERVICE DRIVE
W. MARGARET LN.
W PUETZ RD.

147+00
148+00
149+00
150+00
151+00
152+00
153+00
154+00
155+00
156+00
157+00
158+00
159+00
160+00
161+00
162+00
R/L S. 76TH ST. (CTH U)

PLE

END CONSTRUCTION
W PUETZ ROAD
STA 9+00

BASEBALL PARK
ATHLETIC FIELD
BLEACHERS
ATHLETIC FIELD

REVISION DATE: 7/20/2011

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE: 1" = 100'	SHEET NO: 5	E

2

2

8635
8623
8601
8567
8547
7659 LAKE POINTE DR.
7640 LAKE POINTE DR.
8471
END CONSTRUCTION W. LAKE POINTE DR. STA 10+70
END CONSTRUCTION W. TUCKAWAY SHORES DR. STA 10+70
W. LAKE POINTE DR.
TUCKAWAY SHORES DR.
SERVICE DRIVE
R/W
R/L S. 76TH ST. (CTH U)
162+00
163+00
164+00
165+00
166+00
167+00
168+00
169+00
170+00
171+00
172+00
173+00
174+00
175+00
176+00
177+00
S. CURB SIDEWALK
TWIN OAKS BLVD.
MALLORY WAY
HOLTMANN LN.
END CONSTRUCTION TWIN OAKS BLVD STA 9+45
8465 FOUNTAIN CT.
8455 FOUNTAIN CT.
8405 FOUNTAIN CT.

REVISION DATE: 6/19/2013

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE: 1" = 100'	SHEET NO: 6	E

END CONSTRUCTION
W FOREST HILL AVE
STA 12+75

W. TUCKAWAY CREEK DR.

W. WINDRUSH LN.

7617
W. WINDRUSH LN.

7623
W. WINDRUSH LN.

7639
W. WINDRUSH LN.

7631
W. WINDRUSH LN.

SERVICE DRIVE

R/W

177+00 178+00 179+00 180+00 181+00 182+00 183+00 184+00 185+00 186+00 187+00 188+00 189+00 190+00 191+00 192+00

R/L S. 76TH ST. (CTH U)

10+00 11+00 12+00 13+00 14+00

185+04.36

8402 FOUNTAIN CT.

8+00 FOUNTAIN CT.

END CONSTRUCTION
W FOUNTAIN CT.
STA 12+75

8316

9+00 TUCKAWAY CREEK DR

8300 COUNTRY CLUB CIR

10+00 COUNTRY CLUB CIR.

8290 COUNTRY CLUB CIR

8263 COUNTRY CLUB CIR

8241 COUNTRY CLUB CIR

8227 COUNTRY CLUB CIR

8211 COUNTRY CLUB CIR

8195 COUNTRY C

R-40-613
STA 181+90 - 183+16
63' RT

R-40-592
STA 183+75 - 184+25
63' RT

END CONSTRUCTION
COUNTRY CLUB CIR.
STA 8+80

END CONSTRUCTION
W TUCKAWAY CREEK DR
STA 8+50

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE: 1" = 100'	SHEET NO: 7	E

REVISION DATE: 6/19/2013

S. 77TH STREET

60' R

N

END CONSTRUCTION
W NORWOOD LANE
STA 10+70

E.P.S.

PILE

U.C.

8161
8151
8141
8113
8079
8011
7951
7605 W. NORWOOD LN.
7606 W. NORWOOD LN.

192+00 193+00 194+00 195+00 196+00 197+00 198+00 199+00 200+00 201+00 202+00 203+00 204+00 205+00 206+00 207+00

R/L S. 76TH ST. (CTH U)

8195 COUNTRY CLUB CIR
8103 COUNTRY CLUB CIR
8100 COUNTRY CLUB CIR

COUNTRY CLUB CIR (2)

END CONSTRUCTION
W COUNTRY CLUB CIR.
STA 9+25

8+00

W TUCKAWAY PINES CIR

END CONSTRUCTION
W TUCKAWAY PINES CIR
STA 9+25

AT & T SUBSTATION

GREEN S.T. S.T.

REVISION DATE: 6/19/2013

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE: 1" = 100'	SHEET NO: 8	E

END CONSTRUCTION
W DREXEL AVE
STA 14+00

7651 W. DREXEL AVE.

7620 W. DREXEL AVE.

7613 W. DREXEL AVE.

7951

S. KIEFER DR.

W. DREXEL AVE.

C-40-0022
STA 212+50

7845

7771

7751

7735

R/L S. 76TH ST. (CTH U)

7814

7800

7555 PINEBERRY RIDGE

7556 PINEBERRY RIDGE

7439 W

END CONSTRUCTION
W PINEBERRY RIDGE
STA 8+80

RIGHT OF WAY LINE

RETENTION BASIN

END CONSTRUCTION
W DREXEL AVE
STA 5+50

REVISION DATE: 6/19/2013

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE: 1" = 100'	SHEET NO: 9	E

2

2

S. 77TH STREET

7711

END CONSTRUCTION
W FAITH DRIVE
STA 11+00

W. FAITH DR.

7548 S. 77TH ST.

7536 S. 77TH ST.

7524 S. 77TH ST.

7512 S. 77TH ST.

7500 S. 75TH ST.

7450 S. 75TH ST.

7538 S. 75TH ST.

R/W

222+00 223+00 224+00 225+00 226+00 227+00 228+00 229+00 230+00 231+00 232+00 233+00 234+00 235+00 236+00 237+00

R/L S. 76TH ST. (CTH U)

7439 WOODBURY CT.

7440 WOODBURY CT.

7650

7630

W. SOUTHVIEW DR.

END CONSTRUCTION
W SOUTHVIEW DRIVE
STA 9+00

R-40-593
STA 224+93
51' RT

226+31

WOODBURY CT.

7573 S. 75TH ST.

7561 S. 75TH ST.

7549 S. 75TH ST.

7541 S. 75TH ST.

7525 S. 75TH ST.

7513 S. 75TH ST.

7501 S. 75TH ST.

7475 S. 75TH ST.

S. 75TH STREET

REVISION DATE: 6/19/2013

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE: 1" = 100'	SHEET NO: 10	E

S. 77TH STREET

END CONSTRUCTION
W IMPERIAL DRIVE
STA 11+60

7414
S. 75TH ST.

7426
S. 77TH ST.

7611 W. IMPERIAL DR.

7365

7341

END PROJECT I.D. 2160-10-70
STA. 248+30 R/L

W. TERRACE DR.

CARTER BLVD.

PKNG

PKNG

7460

7440

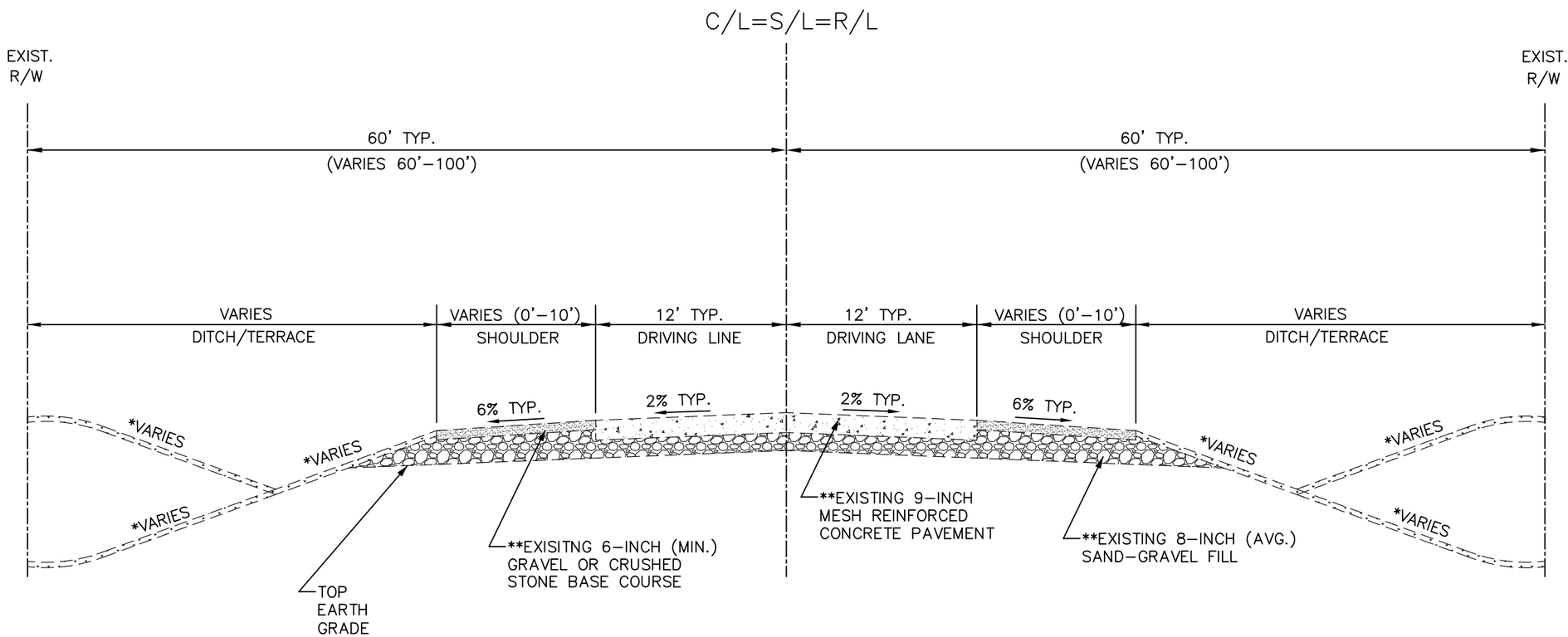
END CONSTRUCTION
W BRUNN DRIVE
STA 8+75

R/L S. 76TH ST. (CTH U)

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE: 1" = 100'	SHEET NO: 11	E

REVISION DATE: 6/19/2013

2



TYPICAL EXISTING SECTION S. 76TH ST. (CTH U) MAINLINE

600' N. OF HIGH STREET TO W. IMPERIAL DR.

(EXCLUDING SIGNALIZED INTERSECTIONS)

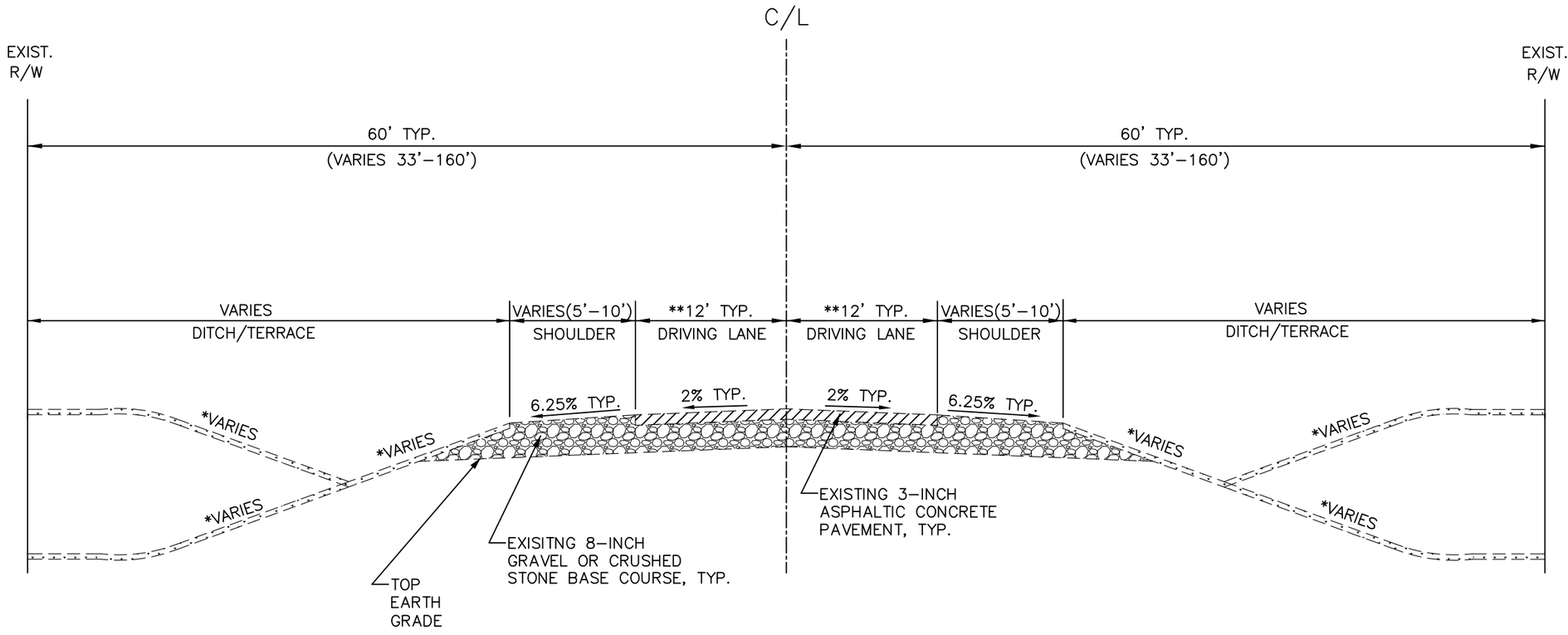
*2.5:1 TO 5:1

**SEE SOIL BORING LOGS IN PLANS FOR MORE INFORMATION

REVISION DATE: 6/18/2013

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TYPICAL EXISTING SECTION	SCALE: NTS	SHEET NO: E

2



TYPICAL EXISTING SECTION S. 76TH ST. (CTH U) SIDE STREET

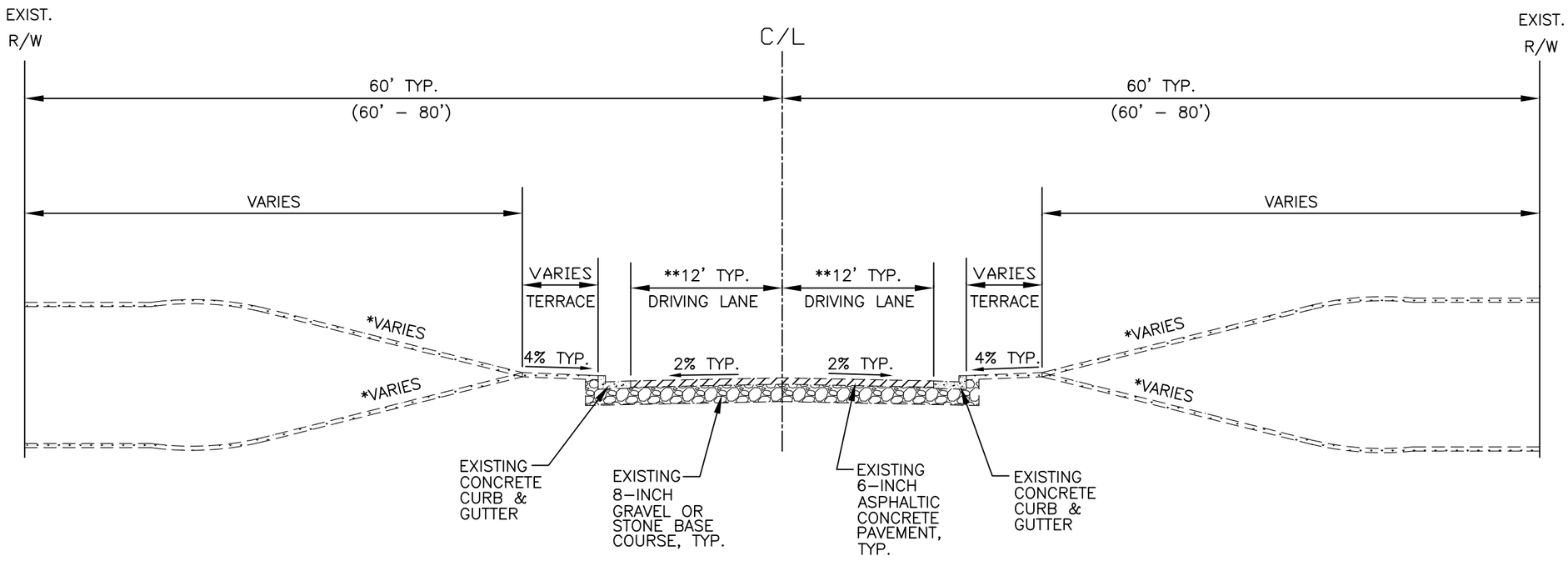
W. MARGARET LN.
W. PUETZ RD.
W. FOREST HILL AVE.
W. DREXEL AVE.

*2.5:1 TO 5:1

**22' AT THE EAST LEG OF W. PUETZ RD.

REVISION DATE: 03/18/2010

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TYPICAL EXISTING SECTION	SCALE: NTS	SHEET NO: E



TYPICAL EXISTING SECTION S. 76TH ST. (CTH U) SIDE STREET

W. LAKE POINTE DR.
TWIN OAKS BLVD.
FOUNTAIN CT.
COUNTRY CLUB CIRCLE #1
W. COUNTRY CLUB CIRCLE #2
***W. NORWOOD LN.
TUCKAWAY PINES CIRCLE
PINEBERRY RIDGE
W. FAITH DR.
***W. SOUTHVIEW DR.
W. IMPERIAL DR.
W. BRUNN DR.

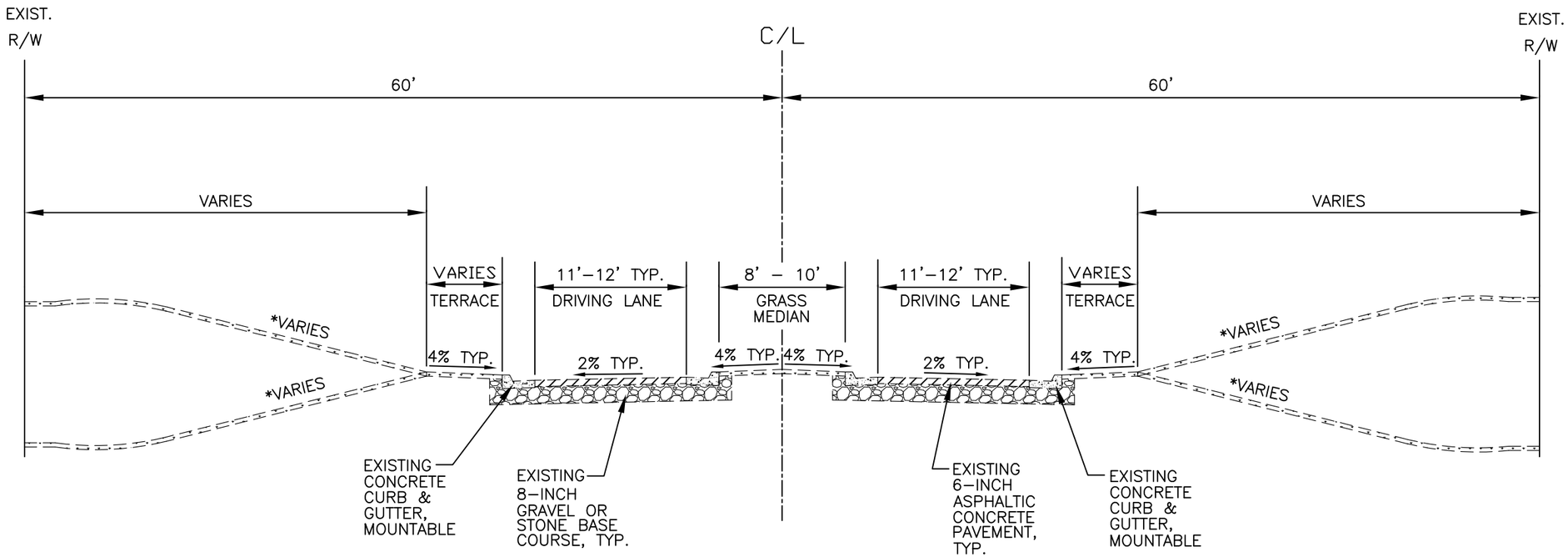
* 2.5:1 TO 5:1

** 17' AT TWIN OAKS BLVD.
18' AT SOUTHVIEW DR. AND W. BRUNN DR.
15' AT W. IMPERIAL DR.

*** HAS MOUNTABLE CONCRETE CURB & GUTTER

REVISION DATE: 5/10/2010

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TYPICAL EXISTING SECTION	SCALE: NTS	SHEET NO: F



TYPICAL EXISTING SECTION S. 76TH ST. (CTH U) SIDE STREET

TUCKAWAY SHORES DR.
TUCKAWAY CREEK DR.

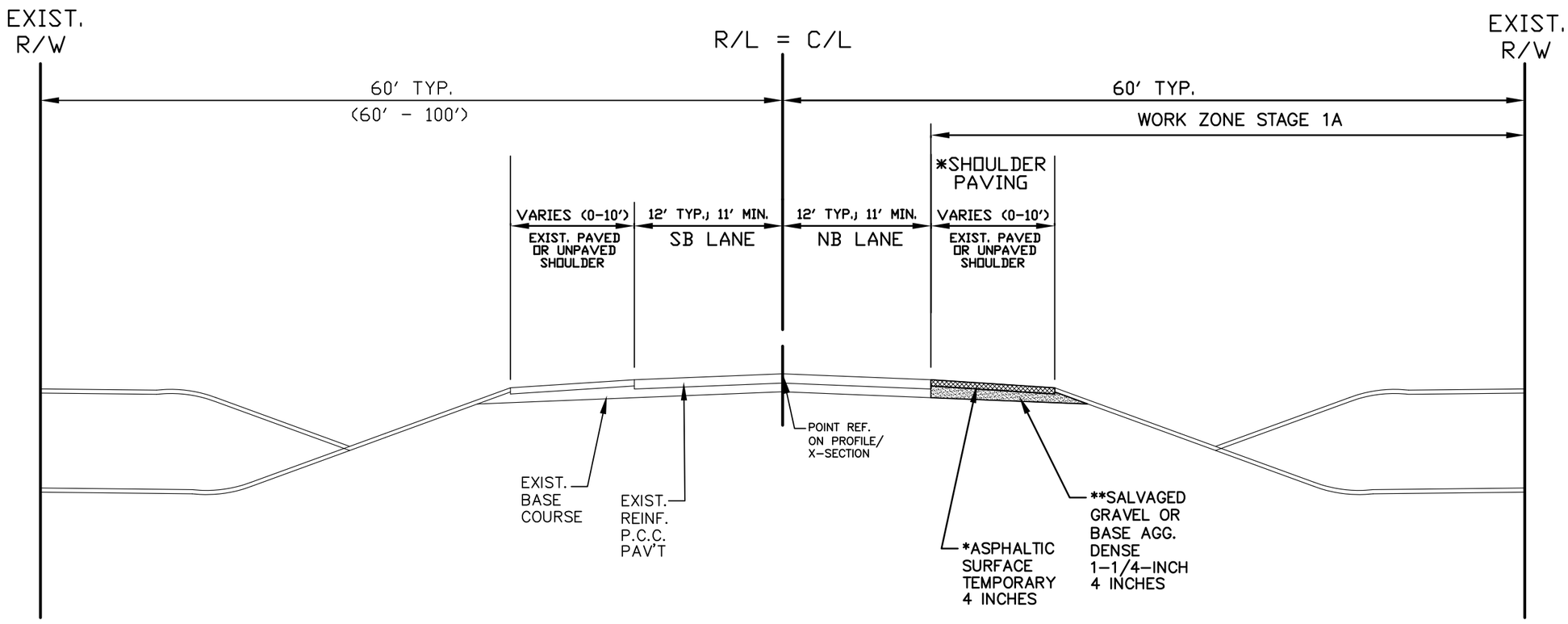
*2.5:1 TO 5:1

REVISION DATE: 3/18/2010

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TYPICAL EXISTING SECTION	SCALE: NTS	SHEET NO: E

WISDOT/CADDS SHEET 42

2



TYPICAL FINISHED SECTION S. 76TH ST. (CTH U)

TEMPORARY SHOULDER PAVING EAST SIDE

600' N. OF HIGH ST. TO CARTER BLVD.

(STATION 144+00 TO STATION 248+30)

* AT LOCATIONS WHERE THE EXISTING SHOULDER IS UNPAVED. SEE THE TEMPORARY TRAFFIC CONTROL PLANS FOR LOCATIONS OF PAVING.

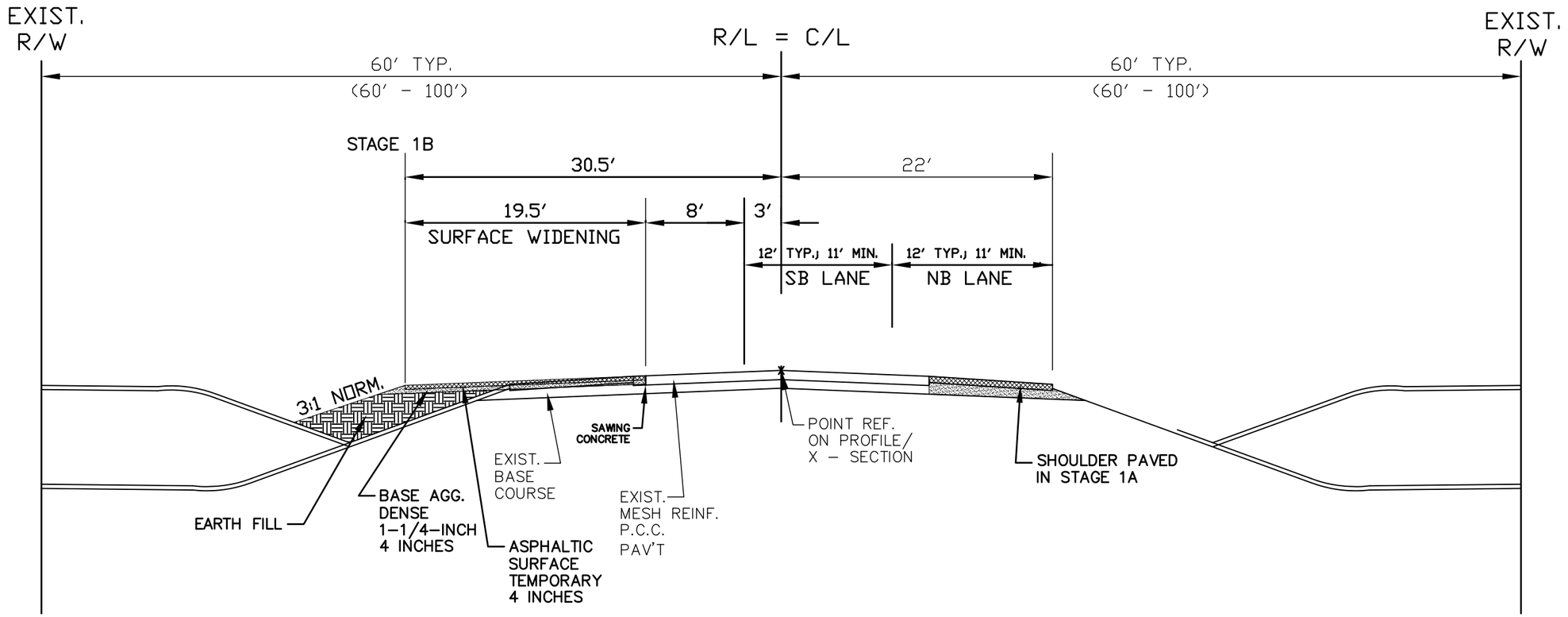
** WHEN EXIST. GRAVEL IS NOT SUITABLE TO BE SALVAGED AND USED, PLACE BASE AGG. DENSE 1-1/4 INCH AS DIRECTED BY THE ENGINEER.

*** MOVING OPERATIONS FOR TEMPORARY TRAFFIC CONTROL MAY BE REQUIRED FOR TEMPORARY SHOULDER PAVING. REFER TO TRAFFIC CONTROL S.D.D.'S FOR WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY AND FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATION).

REVISION DATE: 6/17/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SCALE: NTS	SHEET NO: 16	E

2



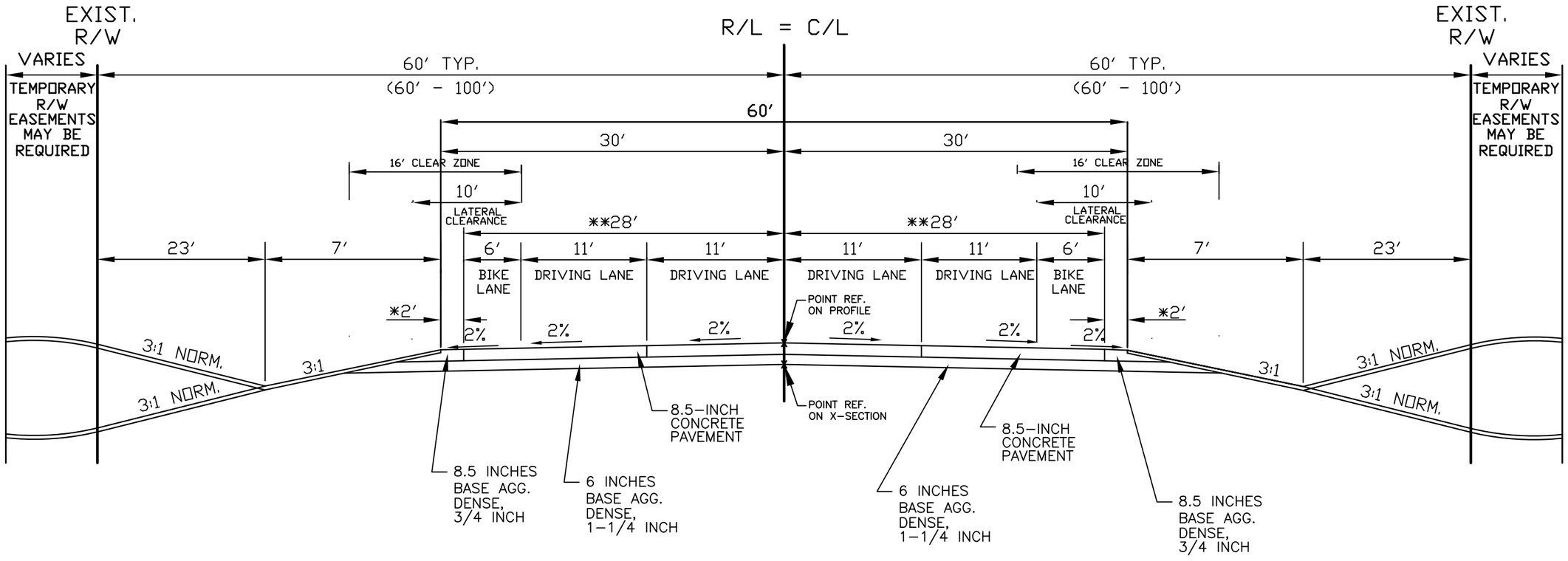
TYPICAL FINISHED SECTION S. 76TH ST. (CTH U)

TEMPORARY SURFACE WIDENING WEST SIDE
600' N. OF HIGH ST. TO CARTER BLVD.
(STATION 144+00 TO STATION 248+30)

REVISION DATE: 6/17/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTION	SCALE: NTS	SHEET NO: 17	E

2



*UNLESS OTHERWISE DIRECTED BY THE ENGINEER IN THE FIELD

**TRANSITION AREA FROM STATION 144+00 TO STATION 150+00 AND THE ROADWAY WIDTH VARIES IN THIS AREA.

TYPICAL FINISHED SECTION S. 76TH ST. (CTH U) MAINLINE

60' PROPOSED ROADWAY WIDTH WITH DITCHES

TRANSITION AREA

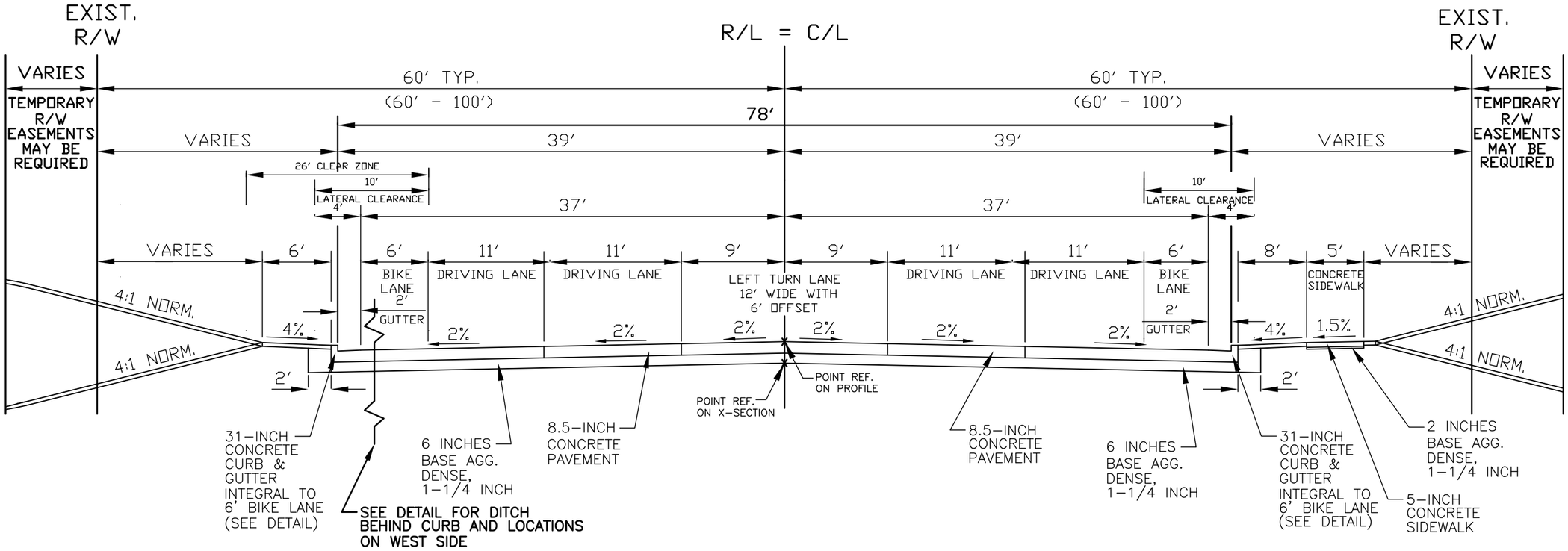
(STATION 144+00 TO STATION 155+75)

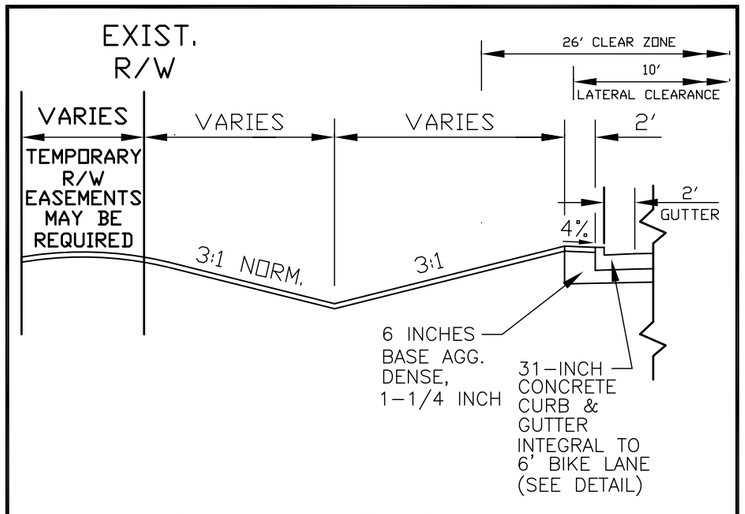
NOTES: 1). THE BIKE LANE BEGINS AT STATION 150+00.

2). TRANSITIONS DUE TO ROADWAY WIDTH WIDENING AT INTERSECTIONS ARE REQUIRED. SEE PLANS FOR EXACT STATION OF TRANSITIONS.

REVISION DATE: 6/19/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTION	SCALE: NTS	SHEET NO: 18	E





DITCH BEHIND CURB DETAIL

(WEST SIDE ONLY)

(STATION 213+00, LT. TO STATION 216+65, LT.)

TYPICAL FINISHED SECTION S. 76TH ST. (CTH U) MAINLINE

78' PROPOSED ROADWAY WIDTH WITH CURB & GUTTER

SIGNALIZED INTERSECTIONS

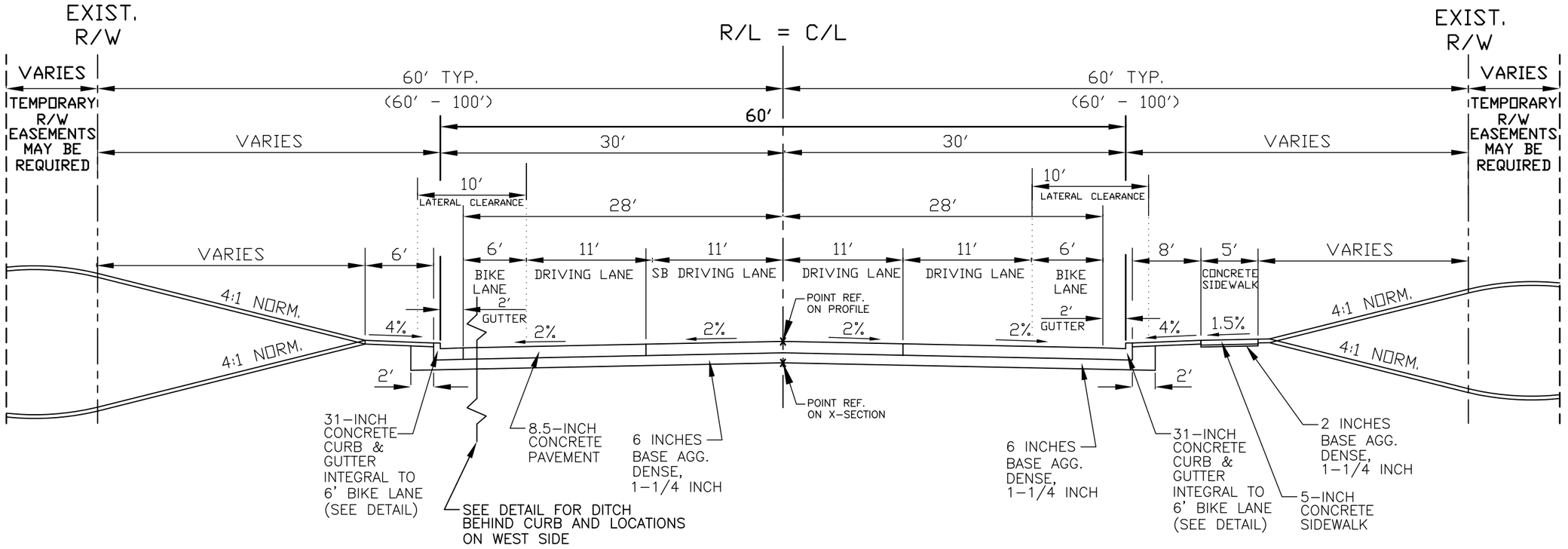
PUETZ RD. (STATION 155+75 TO STATION 162+80)
*DREXEL AVE. (STATION 204+55 TO STATION 212+00; STATION 213+00 TO STATION 216+65)
IMPERIAL/BRUNN (STATION 238+15 TO STATION 246+82)

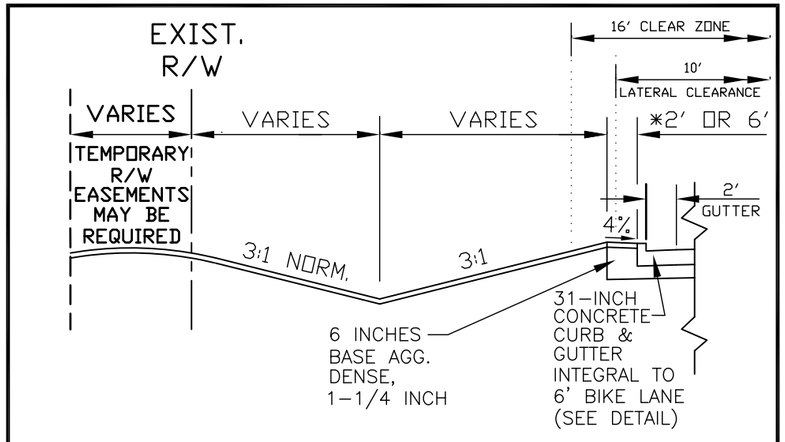
* SEE TYPICAL FINISHED SECTION AT CULVERT (C-40-0022)

NOTE: TRANSITIONS DUE TO ROADWAY WIDTH WIDENING AT INTERSECTIONS ARE REQUIRED. SEE PLANS FOR EXACT STATION OF TRANSITIONS.

REVISION DATE: 5/31/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTION	SCALE: NTS	SHEET NO: 19	E





DITCH BEHIND CURB DETAIL

(WEST SIDE ONLY)

(STATION 175+70, LT. TO STATION 181+50, LT.)
(STATION 188+55, LT. TO STATION 195+00, LT.)
(STATION 231+45, LT. TO STATION 235+00, LT.)

*REFER TO CROSS SECTIONS FOR WIDTH OF TERRACE

TYPICAL FINISHED SECTION S. 76TH ST. (CTH U) MAINLINE

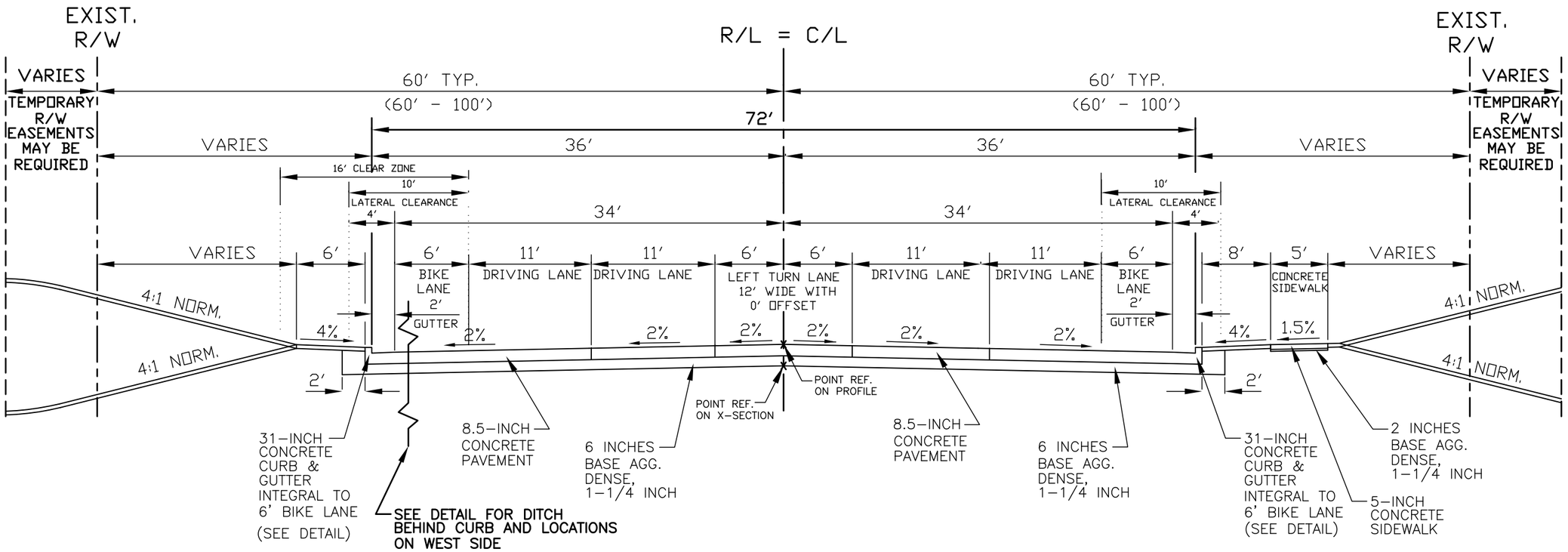
60' PROPOSED ROADWAY WIDTH WITH CURB & GUTTER

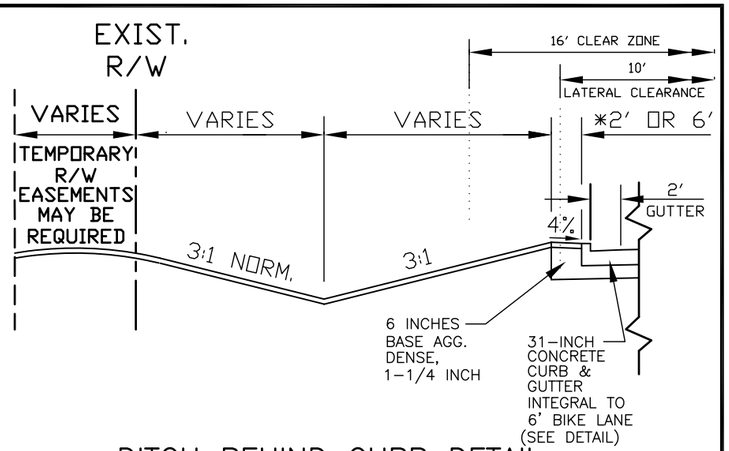
(STATION 162+80 TO STATION 167+45)
(STATION 175+70 TO STATION 181+50)
(STATION 188+55 TO STATION 197+30)
(STATION 231+45 TO STATION 238+15)

NOTE: TRANSITIONS DUE TO ROADWAY WIDTH WIDENING AT INTERSECTIONS ARE REQUIRED. SEE PLANS FOR EXACT STATION OF TRANSITIONS.

REVISION DATE: 6/14/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTION	SCALE: NTS	SHEET NO: E





DITCH BEHIND CURB DETAIL

(WEST SIDE ONLY)

(STATION 181+50, LT. TO STATION 188+55, LT.)
(STATION 201+75, LT. TO STATION 203+00, LT.)
(STATION 216+65, LT. TO STATION 231+45, LT.)

*REFER TO CROSS SECTIONS FOR WIDTH OF TERRACE

TYPICAL FINISHED SECTION S. 76TH ST. (CTH U) MAINLINE

72' PROPOSED ROADWAY WIDTH WITH CURB & GUTTER

UNSIGNALIZED INTERSECTIONS

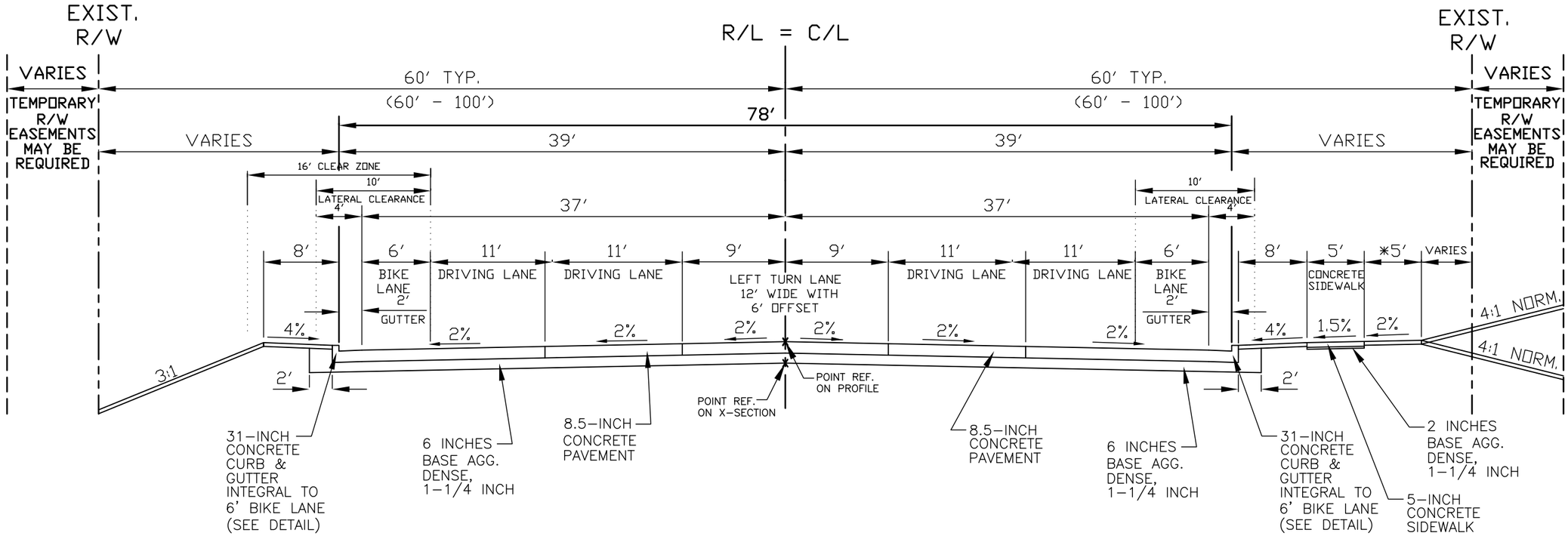
LAKE POINTE DR./TWIN OAKS BLVD. (STATION 167+45 TO STATION 171+50)
TUCKAWAY SHORES DR. T-INTERSECTION (STATION 171+50 TO STATION 175+70)
TUCKAWAY CREEK DR. T-INTERSECTION (STATION 181+50 TO STATION 182+50)
FOREST HILL AVE. T-INTERSECTION (STATION 182+50 TO STATION 186+50)
COUNTRY CLUB CIR. (1) T-INTERSECTION (STATION 186+50 TO STATION 188+55)
NORWOOD LN./TUCKAWAY PINES CIR. INTERSECTION (STATION 197+30 TO 204+55)
PINEBERRY RIDGE T-INTERSECTION (STATION 216+65 TO STATION 222+50)
FAITH DR. T-INTERSECTION (STATION 222+50 TO STATION 228+00)
SOUTHVIEW DR. T-INTERSECTION (STATION 228+00 TO STATION 231+45)

NOTE: TRANSITIONS DUE TO ROADWAY WIDTH WIDENING AT INTERSECTIONS ARE REQUIRED. SEE PLANS FOR EXACT STATION OF TRANSITIONS.

REVISION DATE: 6/19/2013

STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTION	SCALE: NTS	SHEET NO: E

2



* EXTEND TERRACE BEHIND SIDEWALK BY 5'

TYPICAL FINISHED SECTION S. 76TH ST. (CTH U) MAINLINE

78' PROPOSED ROADWAY WIDTH WITH CURB & GUTTER AT CULVERT (C-40-0022)

SIGNALIZED INTERSECTION AT CULVERT

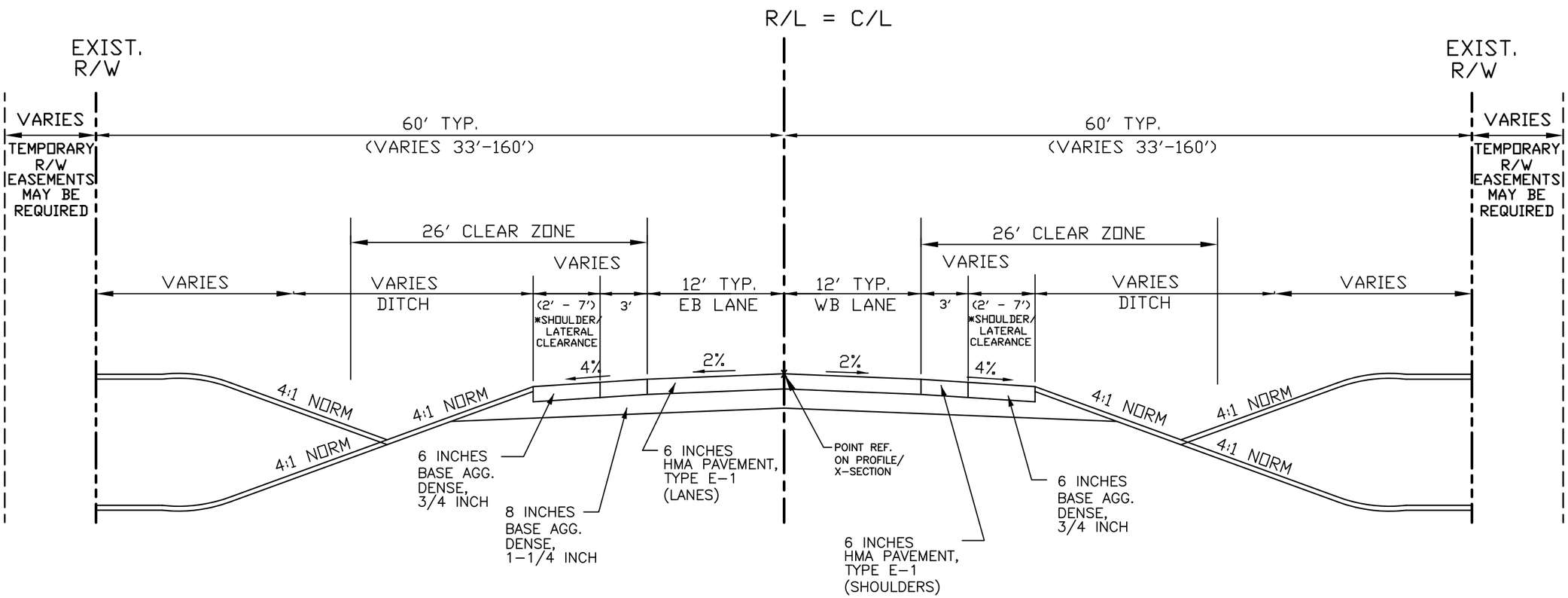
DREXEL AVE. (STATION 212+00 TO STATION 213+00)

NOTES:
1). CULVERT (C-40-0022) OVER LEGEND CREEK IS LOCATED AT STATION 212+51.15
2). TRANSITIONS DUE TO ROADWAY WIDTH WIDENING AT INTERSECTIONS ARE REQUIRED. SEE PLANS FOR EXACT STATION OF TRANSITIONS.

REVISION DATE: 7/1/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTION	SCALE: NTS	SHEET NO: E

2



TYPICAL FINISHED SECTION S. 76TH ST. (CTH U) SIDE STREET

W. MARGARET LN.

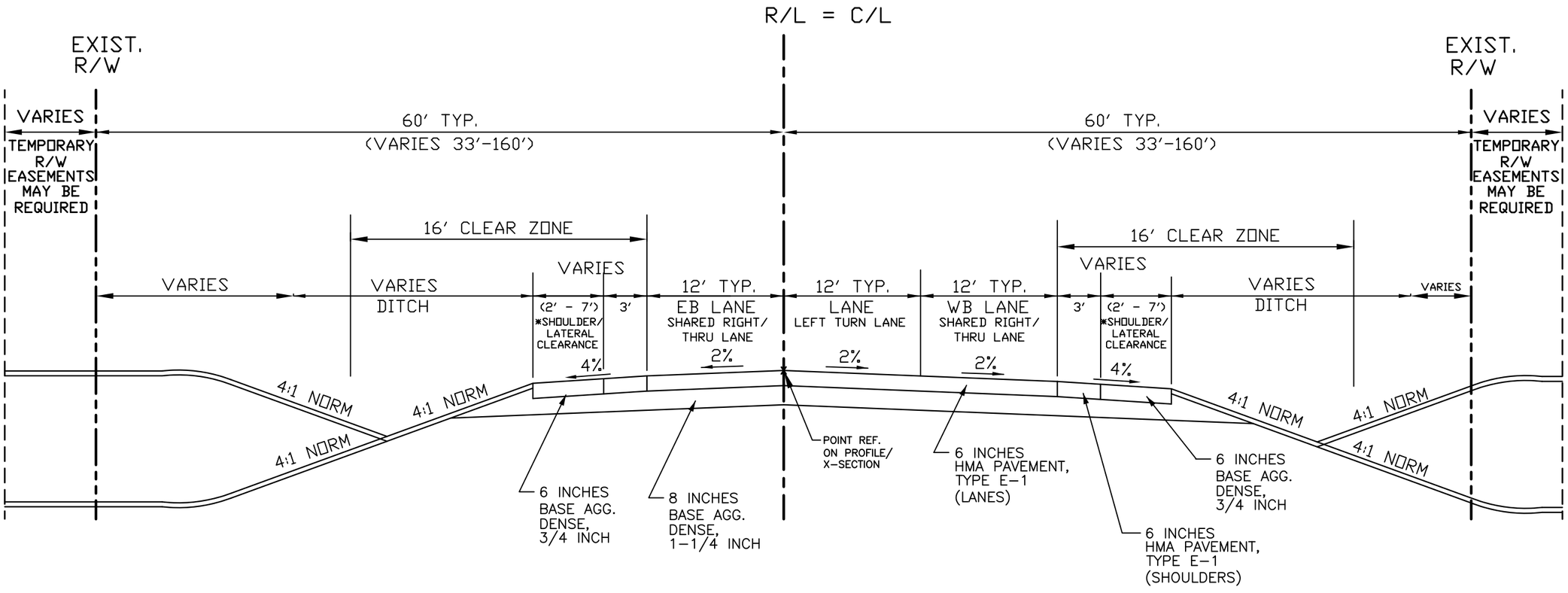
* PAVED SHOULDER WIDTH OF 3' MIN. AND 8' MAX.
(SEE PLANS FOR SPECIFIED WIDTHS).

NOTE: MATCH THE EXISTING SIDE STREET WIDTH

REVISION DATE: 6/8/2011

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTION	SCALE: NTS	SHEET NO: E

2



TYPICAL FINISHED SECTION S. 76TH ST. (CTH U) SIDE STREET

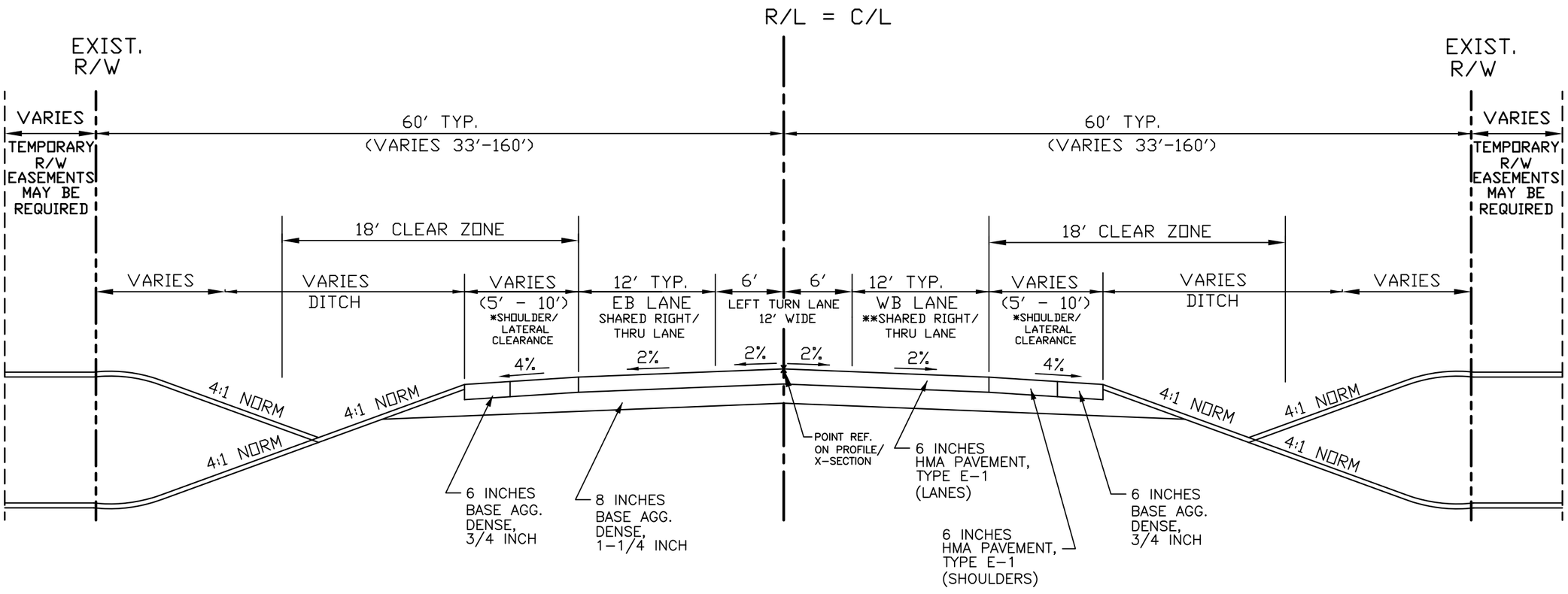
W. PUETZ RD.

* PAVED SHOULDER WIDTH OF 3' MIN. AND 8' MAX.
(SEE PLANS FOR SPECIFIED WIDTHS).

REVISION DATE: 6/8/2011

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTION	SCALE: NTS	SHEET NO: E

2



TYPICAL FINISHED SECTION S. 76TH ST. (CTH U) SIDE STREET

W. FOREST HILL AVE.
W. DREXEL AVE.

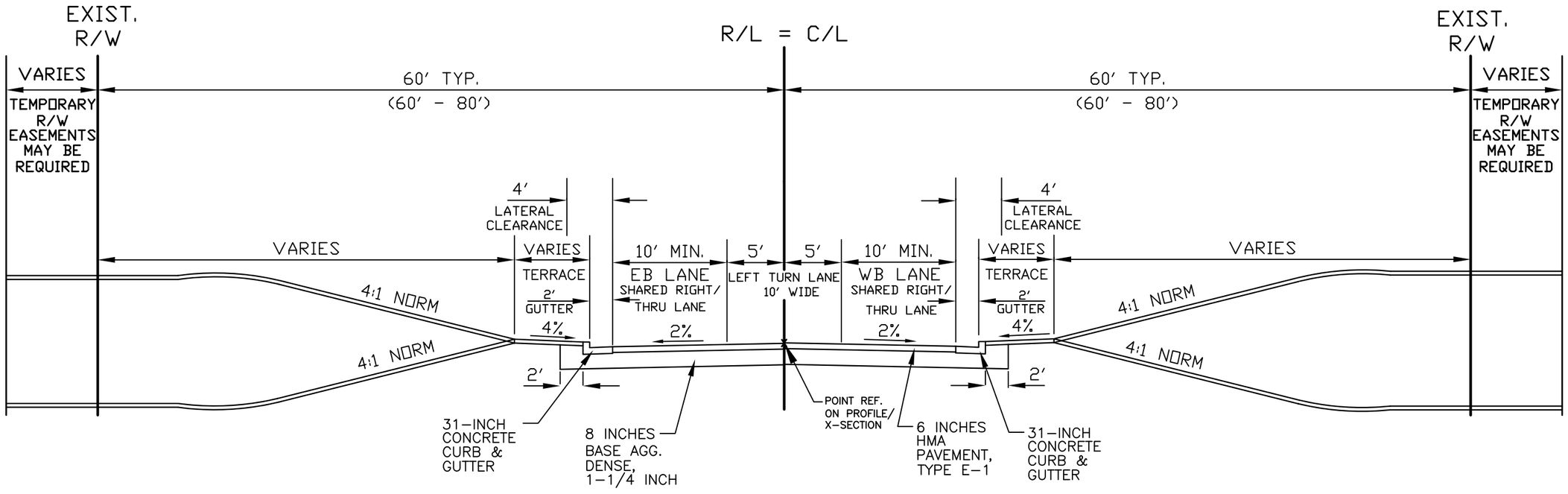
* PAVED SHOULDER WIDTH OF 3' MIN. AND 8' MAX.
(SEE PLANS FOR SPECIFIED WIDTHS).

** ON WB W. DREXEL AVE., THIS LANE IS A THRU LANE
WITH AN ADJACENT 12' WIDE RIGHT TURN ONLY LANE.

REVISION DATE: 6/8/2011

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTION	SCALE: NTS	SHEET NO: E

2

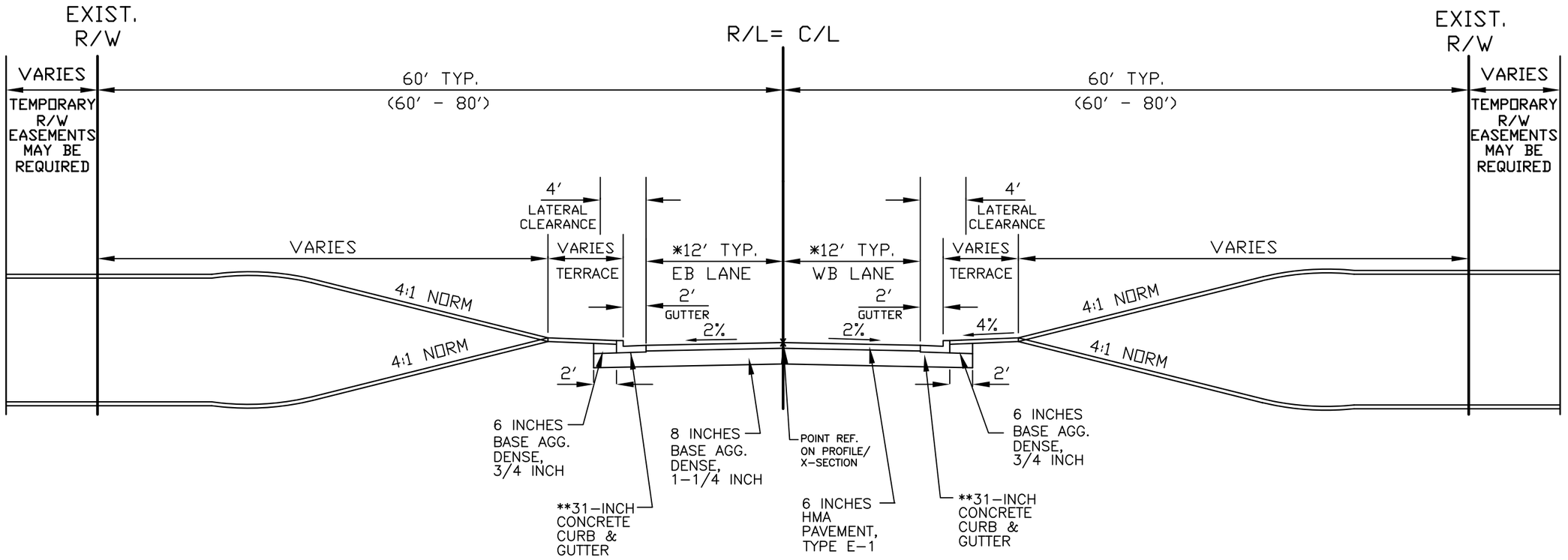


TYPICAL FINISHED SECTION S. 76TH ST. (CTH U) SIDE STREET

W. IMPERIAL DR.
W. BRUNN DR.

REVISION DATE: 6/8/2011

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTION	SCALE: NTS	SHEET NO: E



TYPICAL FINISHED SECTION S. 76TH ST. (CTH U) SIDE STREET

W. LAKE POINTE DR.
TWIN OAKS BLVD.
FOUNTAIN CT.
COUNTRY CLUB CIRCLE #1
W. COUNTRY CLUB CIRCLE #2
**W. NORWOOD LN.
TUCKAWAY PINES CIRCLE
PINEBERRY RIDGE
W. FAITH DR.
**W. SOUTHVIEW DR.

* 17' AT TWIN OAKS BLVD.
18' AT SOUTHVIEW DR.

** TRANSITION REQUIRED FROM 31- INCH CONCRETE CURB AND GUTTER TO MATCH EXISTING MOUNTABLE CONCRETE CURB & GUTTER

NOTE: MATCH THE EXISTING SIDE STREET WIDTH

REVISION DATE: 6/8/2011

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTION	SCALE: NTS	SHEET NO: E

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
- SIGN POST

ABBREVIATIONS

ASPH. - ASPHALT
CONC. - CONCRETE
GRVL. - GRAVEL
MOUNT. - MOUNTABLE
RET. - RETAINING
DRWY. - DRIVEWAY
CMP. - CORRUGATED METAL PIPE
RCP. - REINFORCED CONCRETE PIPE

REMOVALS LEGEND

REMOVING ITEM DESIGNATION

- (A) REMOVING SMALL PIPE CULVERTS
- (B) REMOVING CURB & GUTTER
- (C) REMOVING CONCRETE SIDEWALK
- (D) REMOVING GUARD RAIL
- (E) REMOVING MASONRY
- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

NOTES

1). SEE OTHER REMOVAL PLANS FOR ITEMS RELATED TO SIGNS AND TRAFFIC SIGNALS.

2). SEE THE "REMOVALS" ARTICLE OF THE SPECIAL PROVISION FOR ADDITIONAL INFORMATION ON PAYMENT OF REMOVALS.

3). THE REMOVAL LIMITS OF DRIVEWAYS SHOWN IS APPROXIMATE. THE FINAL LIMITS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

4). REMOVAL OF TEMPORARY ASPHALTIC SURFACE IS PAID AS EXCAVATION COMMON.

PAULINE A JOHNSON 8981

LUKASZ & MONIKA GORKA 8965

CLAYTON G PAUL TRUST 8949

MICHAEL R THILL 8933

JAMES C & W. MUSSATTI 8917

PAULA ET AL POPOUTSIS ANITA NOGALSKI 8901

R/W

8981 R/W

8965

8949

8933

8917 R/W

8901

4" PE

ASPH.

SERVICE DRIVE

6" HP

140+00

141+00

142+00

143+00

144+00

145+00

146

R/L S. 76TH ST. (CTH U)

ASPH.

CMP (22')

VENT

BLOCK RET. WALL W/ PLANTINGS

GUARD RAIL

BEGIN PROJECT I.D. 2160-10-70
STA. 144+00 R/L

PKNG

MATCH LINE STA 146+00

FRANKLIN LITTLE LEAGUE COMPLEX 8900

REVISION DATE: 12/9/13

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 28	E

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
- SIGN POST

ABBREVIATIONS

ASPH. - ASPHALT
CONC. - CONCRETE
GRVL. - GRAVEL
MOUNT. - MOUNTABLE
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CMP. - CORRUGATED METAL PIPE
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REMOVALS LEGEND

REMOVING ITEM DESIGNATION

- (A) REMOVING SMALL PIPE CULVERTS
- (B) REMOVING CURB & GUTTER
- (C) REMOVING CONCRETE SIDEWALK
- (D) REMOVING GUARD RAIL
- (E) REMOVING MASONRY
- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

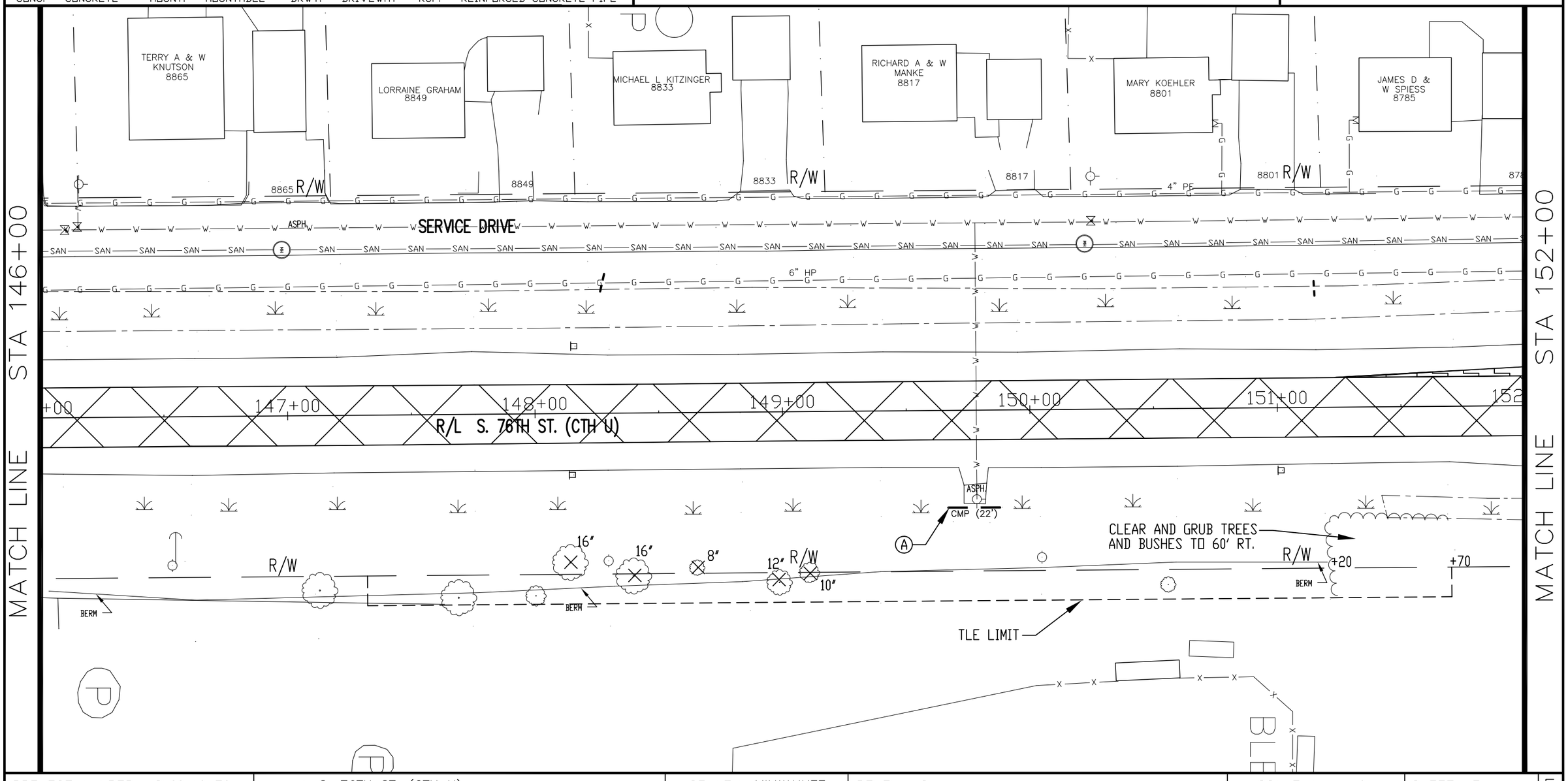
NOTES

1). SEE OTHER REMOVAL PLANS FOR ITEMS RELATED TO SIGNS AND TRAFFIC SIGNALS.

2). SEE THE "REMOVALS" ARTICLE OF THE SPECIAL PROVISION FOR ADDITIONAL INFORMATION ON PAYMENT OF REMOVALS.

3). THE REMOVAL LIMITS OF DRIVEWAYS SHOWN IS APPROXIMATE. THE FINAL LIMITS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

4). REMOVAL OF TEMPORARY ASPHALTIC SURFACE IS PAID AS EXCAVATION COMMON.



REVISION DATE: 12/9/13

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 29	E

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
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ABBREVIATIONS

ASPH. - ASPHALT
CONC. - CONCRETE
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DRWY. - DRIVEWAY
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REMOVALS LEGEND

REMOVING ITEM DESIGNATION

- (A) REMOVING SMALL PIPE CULVERTS
- (B) REMOVING CURB & GUTTER
- (C) REMOVING CONCRETE SIDEWALK
- (D) REMOVING GUARD RAIL
- (E) REMOVING MASONRY
- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

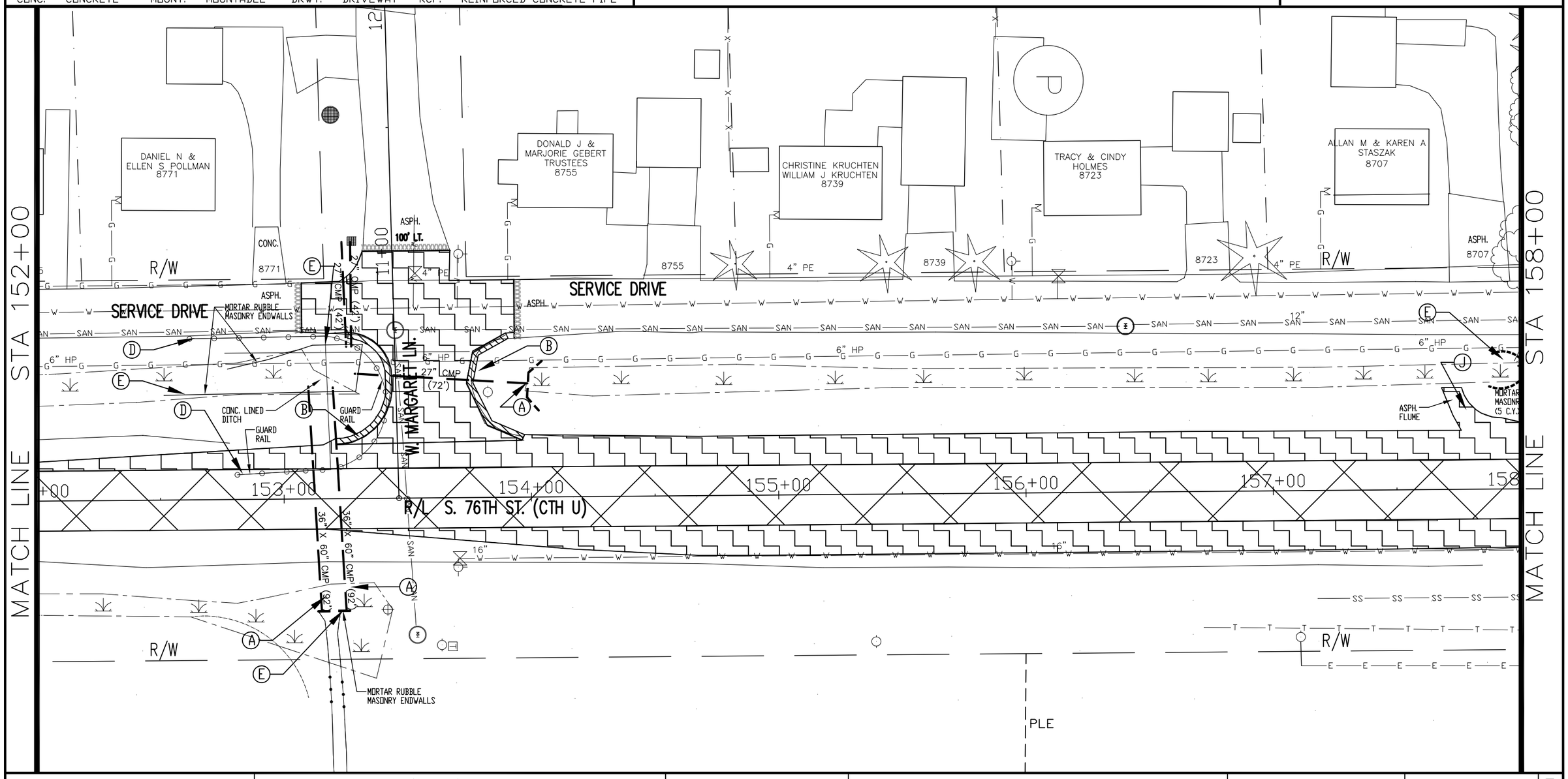
NOTES

1). SEE OTHER REMOVAL PLANS FOR ITEMS RELATED TO SIGNS AND TRAFFIC SIGNALS.

2). SEE THE "REMOVALS" ARTICLE OF THE SPECIAL PROVISION FOR ADDITIONAL INFORMATION ON PAYMENT OF REMOVALS.

3). THE REMOVAL LIMITS OF DRIVEWAYS SHOWN IS APPROXIMATE. THE FINAL LIMITS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

4). REMOVAL OF TEMPORARY ASPHALTIC SURFACE IS PAID AS EXCAVATION COMMON.



PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 30	E

REVISION DATE: 12/9/13

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
- SIGN POST

ABBREVIATIONS

ASPH. - ASPHALT
CONC. - CONCRETE
GRVL. - GRAVEL
MOUNT. - MOUNTABLE
RET. - RETAINING
DRWY. - DRIVEWAY
CMP. - CORRUGATED METAL PIPE
RCP. - REINFORCED CONCRETE PIPE

REMOVALS LEGEND

REMOVING ITEM DESIGNATION

- (A) REMOVING SMALL PIPE CULVERTS
- (B) REMOVING CURB & GUTTER
- (C) REMOVING CONCRETE SIDEWALK
- (D) REMOVING GUARD RAIL
- (E) REMOVING MASONRY
- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

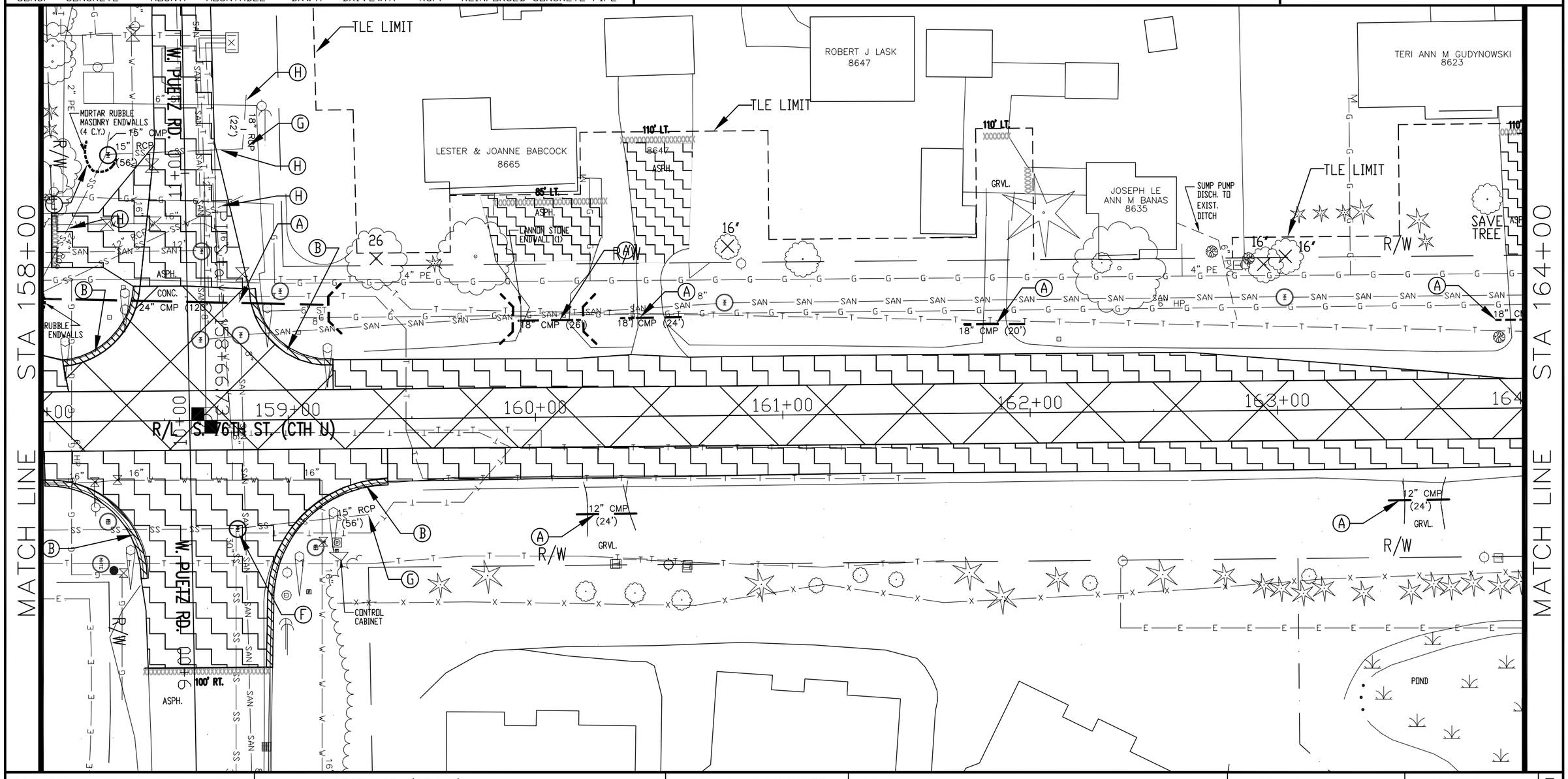
NOTES

1). SEE OTHER REMOVAL PLANS FOR ITEMS RELATED TO SIGNS AND TRAFFIC SIGNALS.

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3). THE REMOVAL LIMITS OF DRIVEWAYS SHOWN IS APPROXIMATE. THE FINAL LIMITS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

4). REMOVAL OF TEMPORARY ASPHALTIC SURFACE IS PAID AS EXCAVATION COMMON.



PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 31	E

REVISION DATE: 12/9/13

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
- SIGN POST

ABBREVIATIONS

ASPH. - ASPHALT
CONC. - CONCRETE
GRVL. - GRAVEL
MOUNT. - MOUNTABLE
RET. - RETAINING
DRWY. - DRIVEWAY
CMP. - CORRUGATED METAL PIPE
RCP. - REINFORCED CONCRETE PIPE

REMOVALS LEGEND

REMOVING ITEM DESIGNATION

- (A) REMOVING SMALL PIPE CULVERTS
- (B) REMOVING CURB & GUTTER
- (C) REMOVING CONCRETE SIDEWALK
- (D) REMOVING GUARD RAIL
- (E) REMOVING MASONRY
- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY) (DARK)

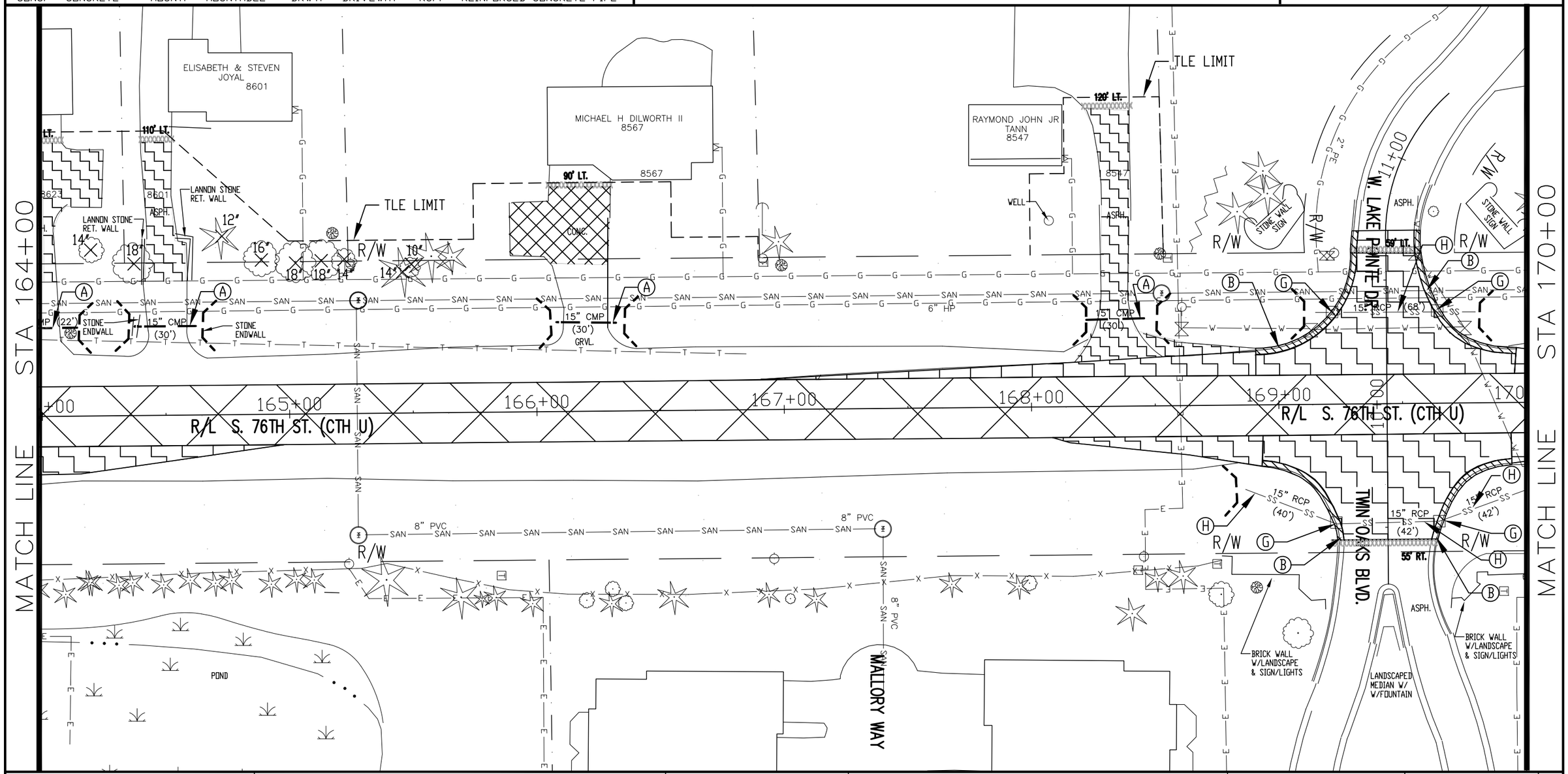
NOTES

1). SEE OTHER REMOVAL PLANS FOR ITEMS RELATED TO SIGNS AND TRAFFIC SIGNALS.

2). SEE THE "REMOVALS" ARTICLE OF THE SPECIAL PROVISION FOR ADDITIONAL INFORMATION ON PAYMENT OF REMOVALS.

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4). REMOVAL OF TEMPORARY ASPHALTIC SURFACE IS PAID AS EXCAVATION COMMON.



REVISION DATE: 12/9/13

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 32	E

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
- SIGN POST

ABBREVIATIONS

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DRWY. - DRIVEWAY
CMP. - CORRUGATED METAL PIPE
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REMOVALS LEGEND

REMOVING ITEM DESIGNATION

- (A) REMOVING SMALL PIPE CULVERTS
- (B) REMOVING CURB & GUTTER
- (C) REMOVING CONCRETE SIDEWALK
- (D) REMOVING GUARD RAIL
- (E) REMOVING MASONRY
- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

NOTES

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MATCH LINE STA 170+00

JEFFREY & ABIGAIL MCGUIRE
7640 LAKE POINTE DR.

STANLEY & BARBARA CELICHOWSKI
8471

115' LT.

TLE LIMIT

8471 GRVL.

DENSE FORESTRY

R/W

4" PE

SAN SAN SAN SAN SAN SAN SAN

6" HP

12"

MOUNT. CONC. C&G

WOOD STREET SIGN

TUCKAWAY SHORES DR.

00+11

LANDSCAPED MEDIAN

4" PE

CONC. SIDEWALK

ASPH.

70' LT.

MOUNT. CONC. C&G

WOOD SIGN W/STONE & LANDSCAPING

SERVICE DRIVE

ASPH.

A

B

C

15" CMP (74')

171+00

172+00

173+00

174+00

175+00

R/L S. 76TH ST. (CTH U)

16"

GRUB BUSH

8"

STONE WALL ALONG DRWY.

77' RT.

STONE WALL ALONG DRWY.

TLE LIMIT

MICHAEL J HILLMAN
8465 FOUNTAIN CT.

HOLLYANN LN.

6"

JOHN M & LISA M COURY
8455 FOUNTAIN CT.

TLE LIMIT

MATCH LINE STA 176+00

REVISION DATE: 12/9/13

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 33	E

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
- SIGN POST

ABBREVIATIONS

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REMOVALS LEGEND

REMOVING ITEM DESIGNATION

- (A) REMOVING SMALL PIPE CULVERTS
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- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

7 of 19

NOTES

1). SEE OTHER REMOVAL PLANS FOR ITEMS RELATED TO SIGNS AND TRAFFIC SIGNALS.

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4). REMOVAL OF TEMPORARY ASPHALTIC SURFACE IS PAID AS EXCAVATION COMMON.

MATCH LINE STA 176+00

MATCH LINE STA 182+00

SERVICE DRIVE

TLE LIMIT

MOUT. CONC. C&G

ASPH.

R/W

WATER METER

72' LT.

SIGN ON WOOD POST

CONC. SLAB FOR MAILBOXES

8" PVC SAN

TUCKAWAY SHORES SIGN W/LIGHT

15" CMP (58')

ASPH. FLUME

CONC. FLUME

177+00

178+00

179+00

180+00

181+00

R/L S. 76TH ST. (CTH U)

15" RCP (52')

15" RCP (40')

8" PVC SAN

4" PE

15" (28')

75' RT.

FOUNTAIN CT.

STONE WALL W/ IN-GROUND LANDSCAPE LIGHTING

8405 FOUNTAIN CT. TWIN OAKS DEVELOPMENT CORP

8400 FOUNTAIN CT. TWIN OAKS DEVELOPMENT CORP

STONE LINED

POND

12" PVC SAN

15" CMP (26')

4" PVC ABOVE GROUND

6" PVC SAN

10" PVC SAN

SAVE TREES

* REMOVE RCP TO CONNECT TO NEW STORM SEWER COST OF REMOVAL AND CONNECTION IS INCIDENTAL TO THE ITEM INLETS 2X2 FT

REVISION DATE: 12/9/13

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 34	E

WISDOT/CADDS SHEET 42

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
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ABBREVIATIONS

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REMOVALS LEGEND

REMOVING ITEM DESIGNATION

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- (E) REMOVING MASONRY
- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

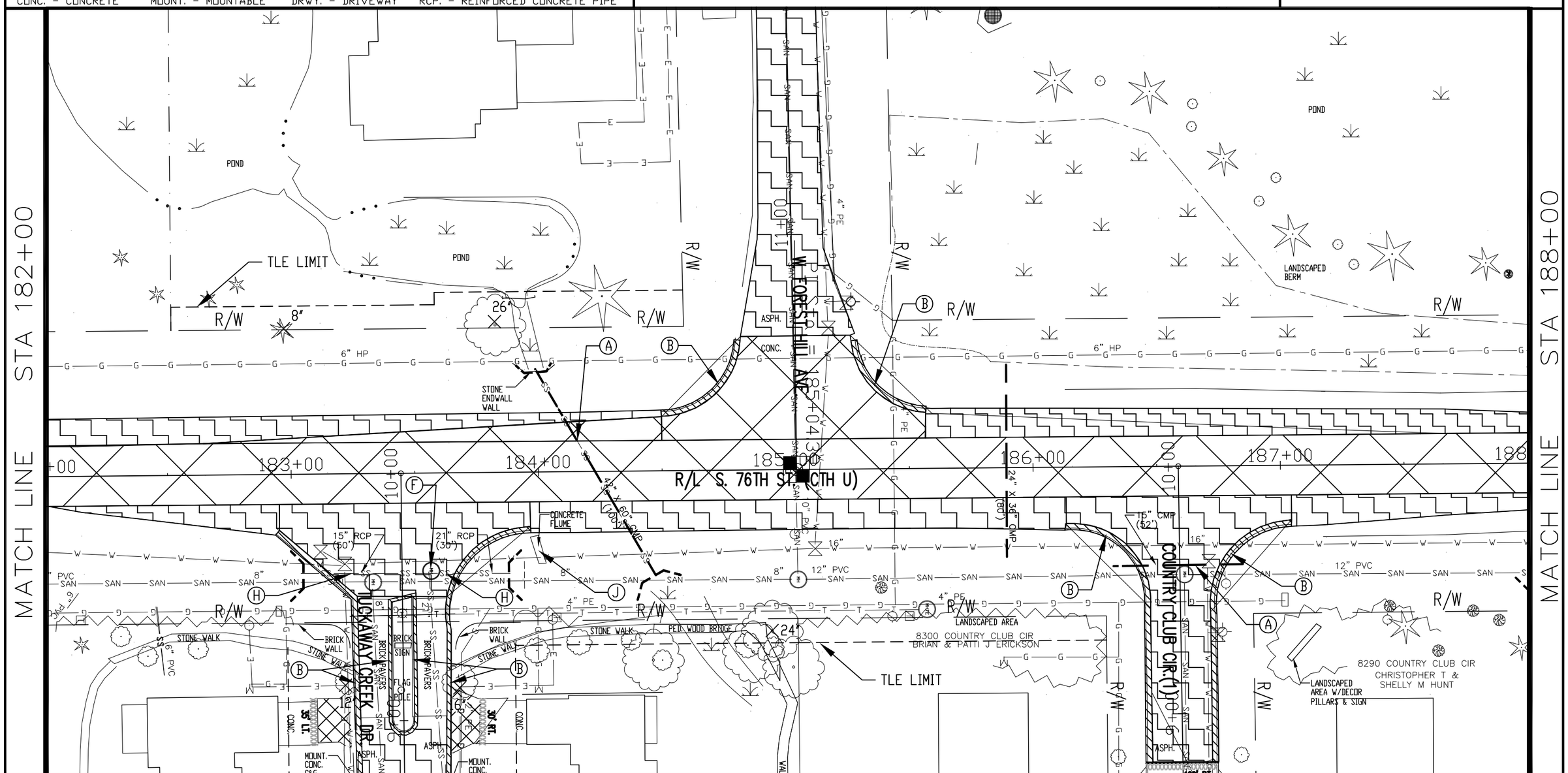
NOTES

1). SEE OTHER REMOVAL PLANS FOR ITEMS RELATED TO SIGNS AND TRAFFIC SIGNALS.

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4). REMOVAL OF TEMPORARY ASPHALTIC SURFACE IS PAID AS EXCAVATION COMMON.



REVISION DATE: 12/9/13

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 35	E

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
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REMOVALS LEGEND

REMOVING ITEM DESIGNATION

- (A) REMOVING SMALL PIPE CULVERTS
- (B) REMOVING CURB & GUTTER
- (C) REMOVING CONCRETE SIDEWALK
- (D) REMOVING GUARD RAIL
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- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

NOTES

1). SEE OTHER REMOVAL PLANS FOR ITEMS RELATED TO SIGNS AND TRAFFIC SIGNALS.

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4). REMOVAL OF TEMPORARY ASPHALTIC SURFACE IS PAID AS EXCAVATION COMMON.

MATCH LINE STA 188+00

MATCH LINE STA 194+00

188+00 189+00 190+00 191+00 192+00 193+00 194

R/L S. 76TH ST. (CTH U)

TLE LIMIT

TLE LIMIT

TLE LIMIT

R/W

R/W

R/W

R/W

8161

8151

ROW OF 3 EVERGREENS & 1 TREE

ASPH.

ASPH.

VENT

65' LT.

65' LT.

15" CMP (26')

15" CMP (26')

24" X 36" CMP (64')

16"

16"

12" PVC

12" PVC

2" PE

2" PE

12" CMP

12" CMP

SS

SS

GREGORY D NISENBAUM
8263 COUNTRY CLUB CIR

JILL L KLIENSCHMIDT
8241 COUNTRY CLUB CIR

TIN & HEIDI CHAN KWOK
8227 COUNTRY CLUB CIR

FRANK K & JANICE M YEE
8211 COUNTRY CLUB CIR

HUGH R GRIFFITH
SANDRA M BERNACCHI
8195 COUNTRY CLUB CIR

8103 COUNTRY CLUB CIR

NEW DITCH

* REMOVE RCP TO CONNECT TO NEW STORM SEWER COST OF REMOVAL AND CONNECTION IS INCIDENTAL TO THE ITEM INLETS 2X2 FT

* REMOVE RCP TO CONNECT TO NEW STORM SEWER COST OF REMOVAL AND CONNECTION IS INCIDENTAL TO THE ITEM INLETS 2X2 FT

* REMOVE RCP TO CONNECT TO NEW STORM SEWER COST OF REMOVAL AND CONNECTION IS INCIDENTAL TO THE ITEM INLETS 2X2 FT

REVISION DATE: 12/9/13

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 36	E

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
- SIGN POST

ABBREVIATIONS

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RCP. - REINFORCED CONCRETE PIPE

REMOVALS LEGEND

REMOVING ITEM DESIGNATION

- (A) REMOVING SMALL PIPE CULVERTS
- (B) REMOVING CURB & GUTTER
- (C) REMOVING CONCRETE SIDEWALK
- (D) REMOVING GUARD RAIL
- (E) REMOVING MASONRY
- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

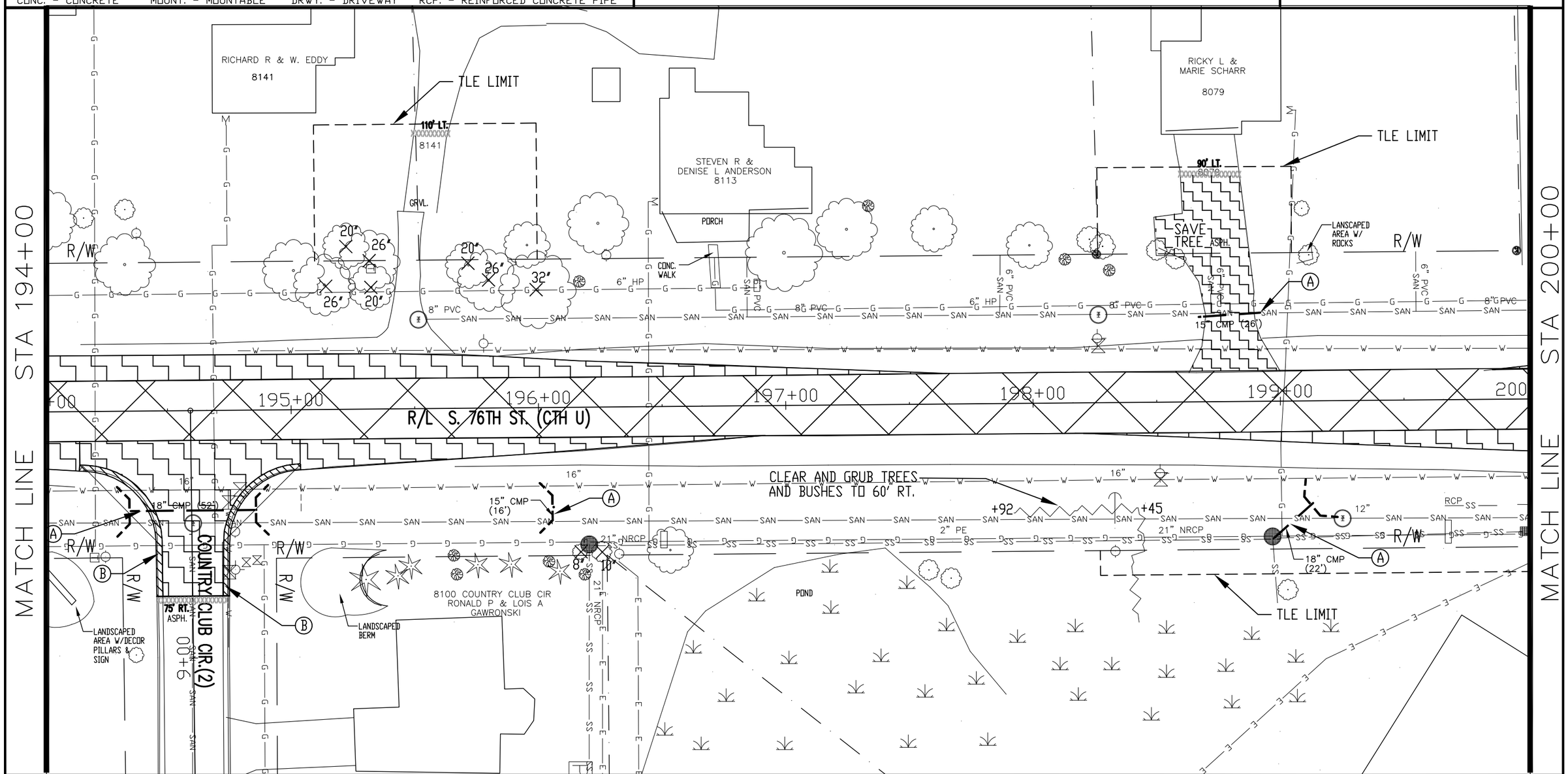
NOTES

1). SEE OTHER REMOVAL PLANS FOR ITEMS RELATED TO SIGNS AND TRAFFIC SIGNALS.

2). SEE THE "REMOVALS" ARTICLE OF THE SPECIAL PROVISION FOR ADDITIONAL INFORMATION ON PAYMENT OF REMOVALS.

3). THE REMOVAL LIMITS OF DRIVEWAYS SHOWN IS APPROXIMATE. THE FINAL LIMITS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

4). REMOVAL OF TEMPORARY ASPHALTIC SURFACE IS PAID AS EXCAVATION COMMON.



REVISION DATE: 12/9/13

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 37	E

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
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- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

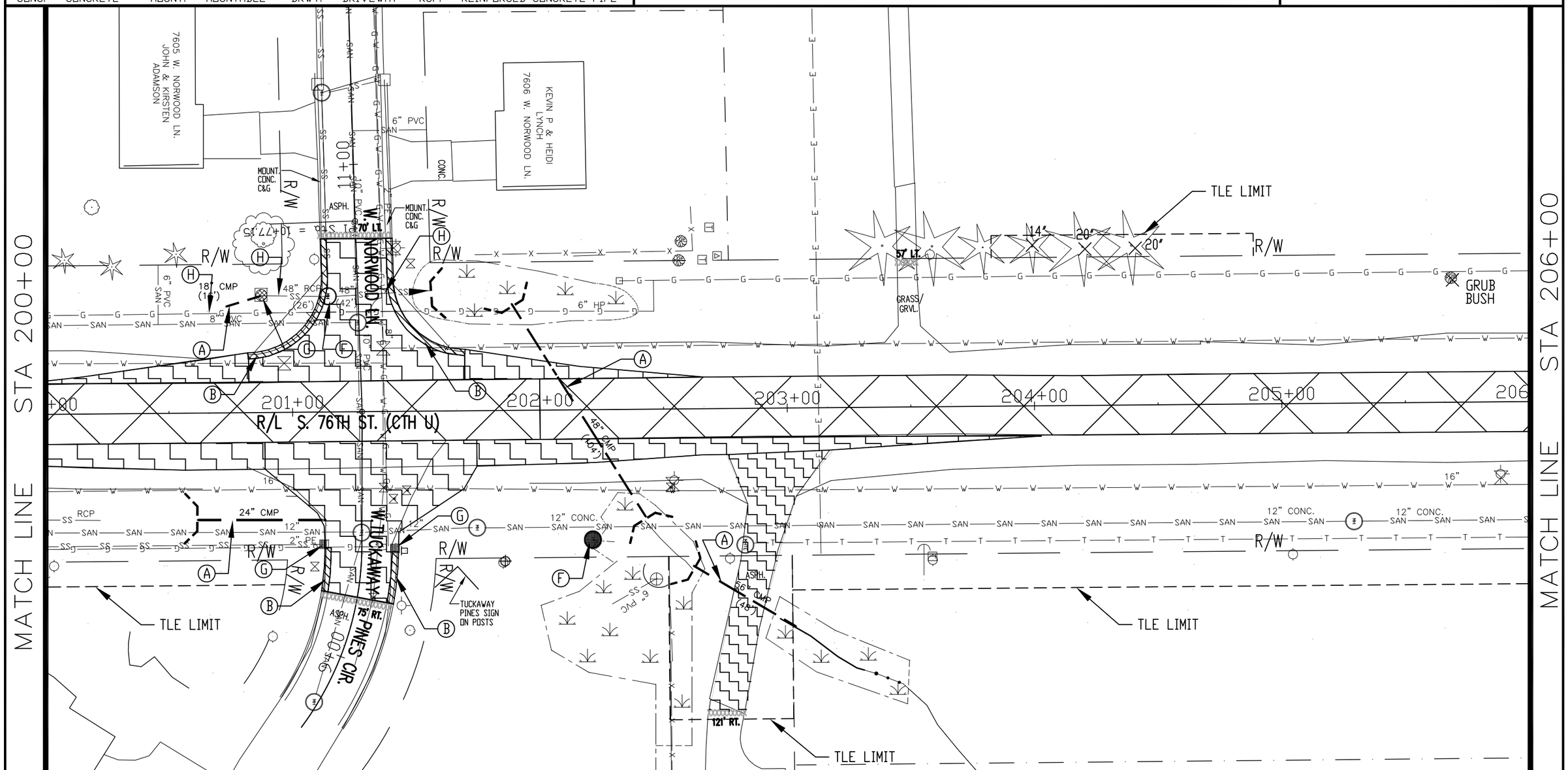
NOTES

1). SEE OTHER REMOVAL PLANS FOR ITEMS RELATED TO SIGNS AND TRAFFIC SIGNALS.

2). SEE THE "REMOVALS" ARTICLE OF THE SPECIAL PROVISION FOR ADDITIONAL INFORMATION ON PAYMENT OF REMOVALS.

3). THE REMOVAL LIMITS OF DRIVEWAYS SHOWN IS APPROXIMATE. THE FINAL LIMITS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

4). REMOVAL OF TEMPORARY ASPHALTIC SURFACE IS PAID AS EXCAVATION COMMON.



PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 38	E

REVISION DATE: 12/9/13

WISDOT/CADDS SHEET 42

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
- SIGN POST

ABBREVIATIONS

ASPH. - ASPHALT
CONC. - CONCRETE
GRVL. - GRAVEL
MOUNT. - MOUNTABLE
RET. - RETAINING
DRWY. - DRIVEWAY
CMP. - CORRUGATED METAL PIPE
RCP. - REINFORCED CONCRETE PIPE

REMOVALS LEGEND

REMOVING ITEM DESIGNATION

- (A) REMOVING SMALL PIPE CULVERTS
- (B) REMOVING CURB & GUTTER
- (C) REMOVING CONCRETE SIDEWALK
- (D) REMOVING GUARD RAIL
- (E) REMOVING MASONRY
- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

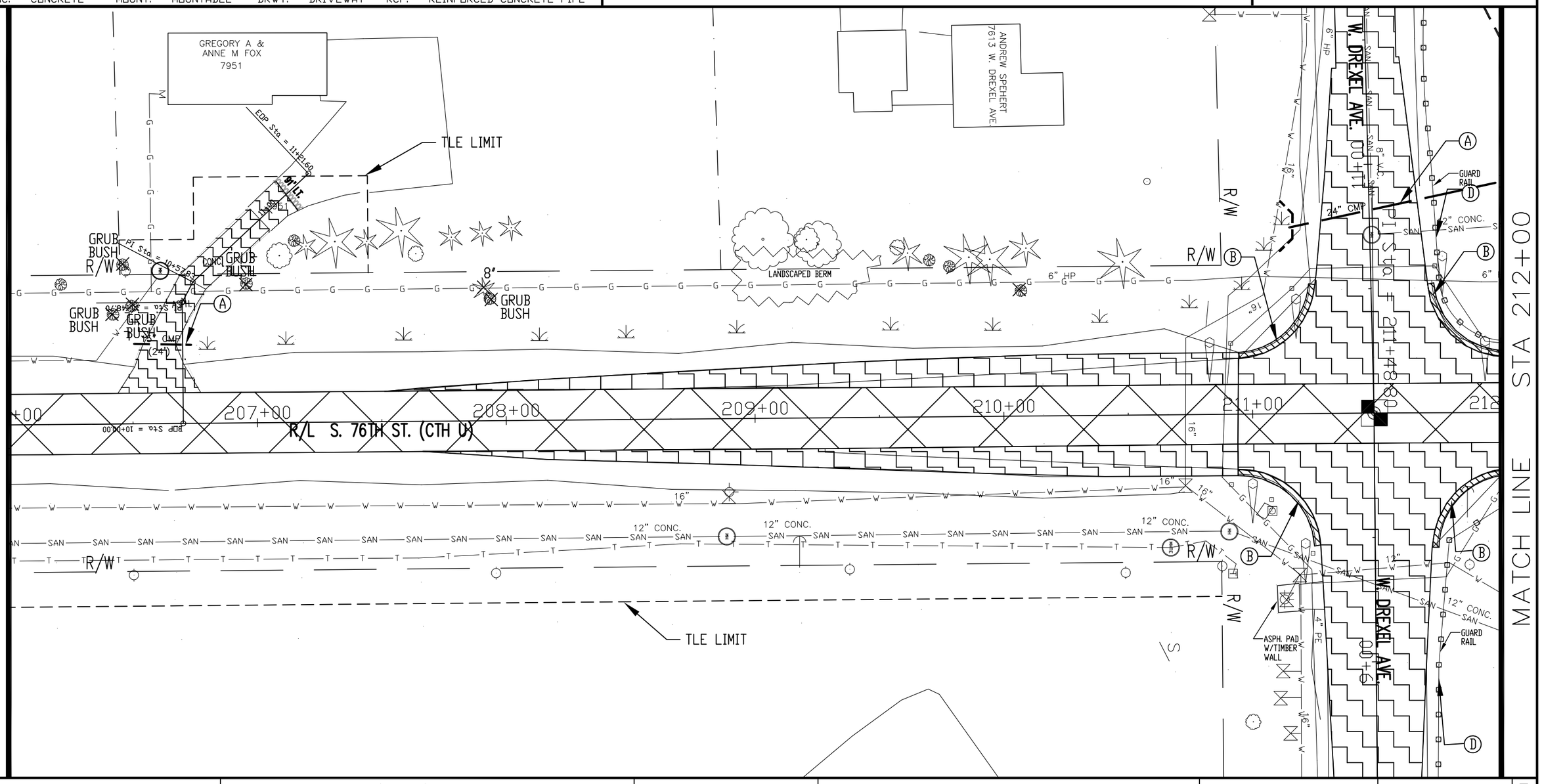
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4). REMOVAL OF TEMPORARY ASPHALTIC SURFACE IS PAID AS EXCAVATION COMMON.



REVISION DATE: 12/9/13

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 39	E

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
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ABBREVIATIONS

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REMOVALS LEGEND

REMOVING ITEM DESIGNATION

- (A) REMOVING SMALL PIPE CULVERTS
- (B) REMOVING CURB & GUTTER
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- (D) REMOVING GUARD RAIL
- (E) REMOVING MASONRY
- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

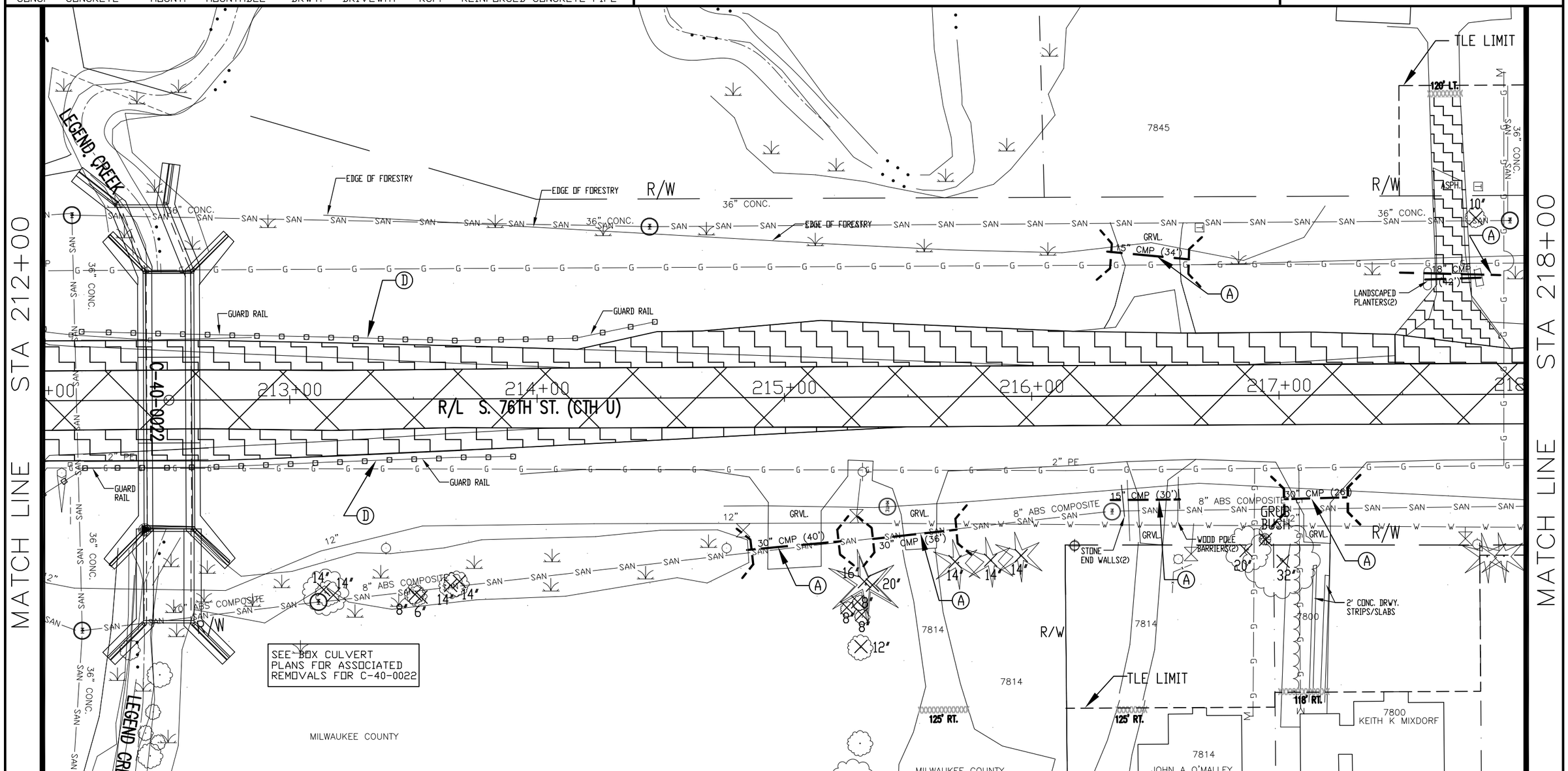
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REVISION DATE: 12/9/13

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 40	E

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
- SIGN POST

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REMOVALS LEGEND

REMOVING ITEM DESIGNATION

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- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

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MATCH LINE STA 218+00

MATCH LINE STA 224+00

VINCENT P GALLO IV
7751

DENNIS F & JOANNE L SCHAEFER
7735

8981

7751

7711

TLE LIMIT

120' LT.

R/W

LOW BERM W/ BUSHES/TREES

50' LT.

ASPH.

6" HP

15" CMP (26')

ROW OF MATURE EVERGREEN TREES

60' LT.

15" CMP (24')

CLEAR AND GRUB TREES TO 60' LT.

61' LT.

15" CMP (38')

GRVL.

+00

219+00

220+00

221+00

222+00

223+00

R/L S. 76TH ST. (CTH U)

CLEAR AND GRUB TREES AND BUSHES TO 60' RT.

2" PE

24" RCP (42')

24" RCP (38')

24" (14')

8" ABS COMPOSITE

12" RCP

15" CMP (24')

BLOCK RET. WALL

+50

+45

+43

WOODBERY ESTATES SIGN W/LANDSCAPING

MICHAEL R KAMPA
VICTORIA A KAMPA
7555 PINEBERRY RIDGE

CHERIE L KAPPUS
7556 PINEBERRY RIDGE

W. PINEBERRY RIDGE

26' RT.

CONC.

ASPH. 120' RT.

TLE LIMIT

WARNING! POISON SUMAC KNOWN IN THIS AREA

ARTHUR V & DARLEEN M OVERBYE
7439 WOODBURY CT.

RICHARD A PAN
LINDA L CAN
7440 WOODBUR

* REMOVE RCP TO CONNECT TO NEW STORM SEWER COST OF REMOVAL AND CONNECTION IS INCIDENTAL TO THE ITEM INLETS 2X2 FT

REVISION DATE: 12/9/13

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 41	E

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
- SIGN POST

ABBREVIATIONS

ASPH. - ASPHALT
CONC. - CONCRETE
GRVL. - GRAVEL
MOUNT. - MOUNTABLE
RET. - RETAINING
DRWY. - DRIVEWAY
CMP. - CORRUGATED METAL PIPE
RCP. - REINFORCED CONCRETE PIPE

REMOVALS LEGEND

REMOVING ITEM DESIGNATION

- (A) REMOVING SMALL PIPE CULVERTS
- (B) REMOVING CURB & GUTTER
- (C) REMOVING CONCRETE SIDEWALK
- (D) REMOVING GUARD RAIL
- (E) REMOVING MASONRY
- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

NOTES

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4). REMOVAL OF TEMPORARY ASPHALTIC SURFACE IS PAID AS EXCAVATION COMMON.

MATCH LINE STA 224+00

MATCH LINE STA 230+00

+00 225+00 226+00 227+00 228+00 229+00

CLEAR AND GRUB TREES AND BUSHES TO 60' RT.

W. FAITH DR.

100' LT.

ASPH.

6" HP

RCP

CHURCH SIGN W/LIGHTS

8" 14" 20" 14" 14" 14" 16" 26"

LANDSCAPED BERM

CONCRETE POSTS (3)

CONC. MH W/GRATE

24" RCP (166')

24" RCP (130')

24" RCP (64')

8" ABS COMPOSITE

RETAINING WALL

+60

GRVL.

20'

ROBERT C & W GRISE 7650

TLE LIMIT

7630

ASPH.

105' RT.

GRUB BUSHES

W. SOUTHVIEW DR.

100' RT.

MOUNT. CONC. C&G

2" PE

5" CMP (62')

TREE LINE

R/W

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 42	E

REVISION DATE: 12/9/13

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
- SIGN POST

ABBREVIATIONS

ASPH. - ASPHALT
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MOUNT. - MOUNTABLE
RET. - RETAINING
DRWY. - DRIVEWAY
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RCP. - REINFORCED CONCRETE PIPE

REMOVALS LEGEND

REMOVING ITEM DESIGNATION

- (A) REMOVING SMALL PIPE CULVERTS
- (B) REMOVING CURB & GUTTER
- (C) REMOVING CONCRETE SIDEWALK
- (D) REMOVING GUARD RAIL
- (E) REMOVING MASONRY
- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

NOTES

1). SEE OTHER REMOVAL PLANS FOR ITEMS RELATED TO SIGNS AND TRAFFIC SIGNALS.

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4). REMOVAL OF TEMPORARY ASPHALTIC SURFACE IS PAID AS EXCAVATION COMMON.

MATCH LINE STA 230+00

7548 S. 77TH ST.
7536 S. 77TH ST.
7512 S. 77TH ST.
7500 S. 77TH ST.
7450
R/W
TLE LIMIT
6" HP
GRUB BUSHES
GRUB BUSH
2" PE
12"
231+00
232+00
233+00
234+00
235+00
R/L S. 76TH ST. (CTH U)
2" PE
12"
R/W
6" PVC ABOVE GROUND
CONC. PAD

MATCH LINE STA 236+00

REVISION DATE: 12/9/13

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 43	E

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
- SIGN POST

ABBREVIATIONS

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REMOVALS LEGEND

REMOVING ITEM DESIGNATION

- (A) REMOVING SMALL PIPE CULVERTS
- (B) REMOVING CURB & GUTTER
- (C) REMOVING CONCRETE SIDEWALK
- (D) REMOVING GUARD RAIL
- (E) REMOVING MASONRY
- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

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& DIANE
ANOWSKI
S. 77TH ST.

7538 S. 77TH ST.
LINDA C DETTMERS

LAURIE SYMONIAK
LAURIE STANISZEWSKI
7414 S. 77TH ST.

7426 S. 77TH ST.
RAFAEL & MYRNA
SANDOVAL

MARK & COLLEEN
MITCHELL
7611 W. IMPERIAL DR.

MATCH LINE STA 236+00

237+00 238+00 239+00 240+00 241+00 242+00

R/L S. 76TH ST. (CTH U)

Pl STA 237+92.90

N=253297.789

W. IMPERIAL DR.

W. BRUNS DR.

160' LT.

GRUB BUSHES

ROW OF EVERGREEN TREES

FIELD STONE ENDWALLS

TLE LIMIT

TLE LIMIT

ROBERT F KARTH REVOC TRUST

15" CMP (28')

18" CMP (28')

15" CMP (48')

18" CMP (48')

21" RCP

6" HP

2" PE

12" PE

8" PVC

54" CMP

39" CMP

WOOD SIGN

CONC. SIDEWALK

ASPH. SIDEWALK

R/W

MATCH LINE STA 242+00

REVISION DATE: 12/9/13

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 44	E

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
- SIGN POST

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REMOVALS LEGEND

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- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
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- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

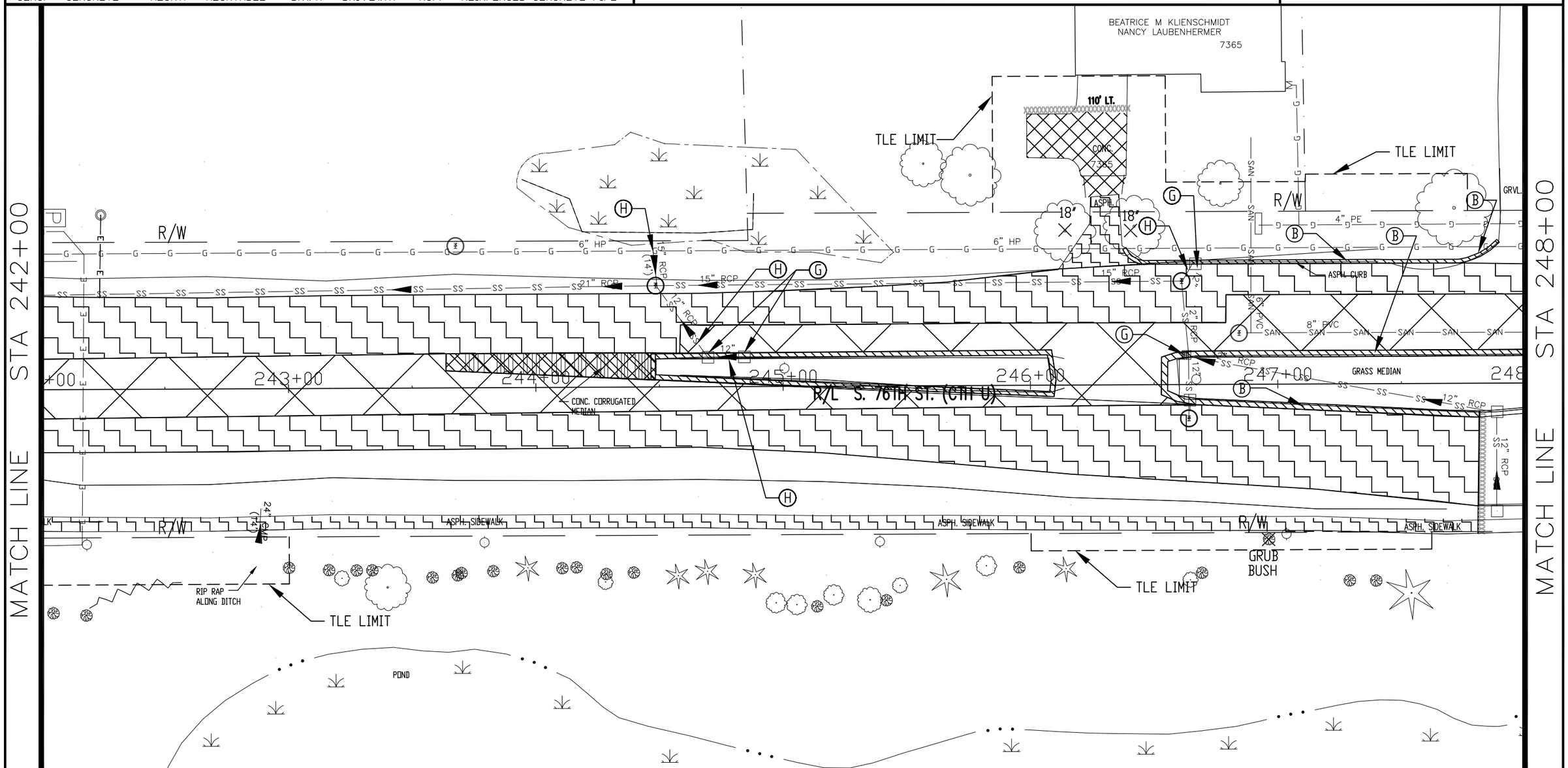
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REVISION DATE: 12/9/13

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 45	E

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
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- WATER
- STORM SEWER
- SANITARY SEWER
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EXISTING PLAN SYMBOLS

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- FENCE
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- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

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MATCH LINE STA 248+00

MATCH LINE STA 254+00

BEATRICE & ETAL KLIENSCHMIDT
NANCY LAUBENHERMER

7341

END PROJECT I.D. 2160-10-70
STA. 248+30 R/L

W. TERRACE DR.

R/W

8" PVC SAN

4" PE

2" PE

6" ST

12" W

ASPH. CURB

6" PVC SAN

GRASS MEDIAN

248+00 249+00 250+00 251+00 252+00 253+00

R/L S. 76TH ST. (CTH U)

617

ASPH. SIDEWALK

CARTER BLVD.

PKNG

REVISION DATE: 12/9/13

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 46	E

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
- SIGN POST

ABBREVIATIONS

ASPH. - ASPHALT
CONC. - CONCRETE
GRVL. - GRAVEL
MOUNT. - MOUNTABLE
RET. - RETAINING
DRWY. - DRIVEWAY
CMP. - CORRUGATED METAL PIPE
RCP. - REINFORCED CONCRETE PIPE

REMOVALS LEGEND

REMOVING ITEM DESIGNATION

- (A) REMOVING SMALL PIPE CULVERTS
- (B) REMOVING CURB & GUTTER
- (C) REMOVING CONCRETE SIDEWALK
- (D) REMOVING GUARD RAIL
- (E) REMOVING MASONRY
- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- (DARK) EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY)

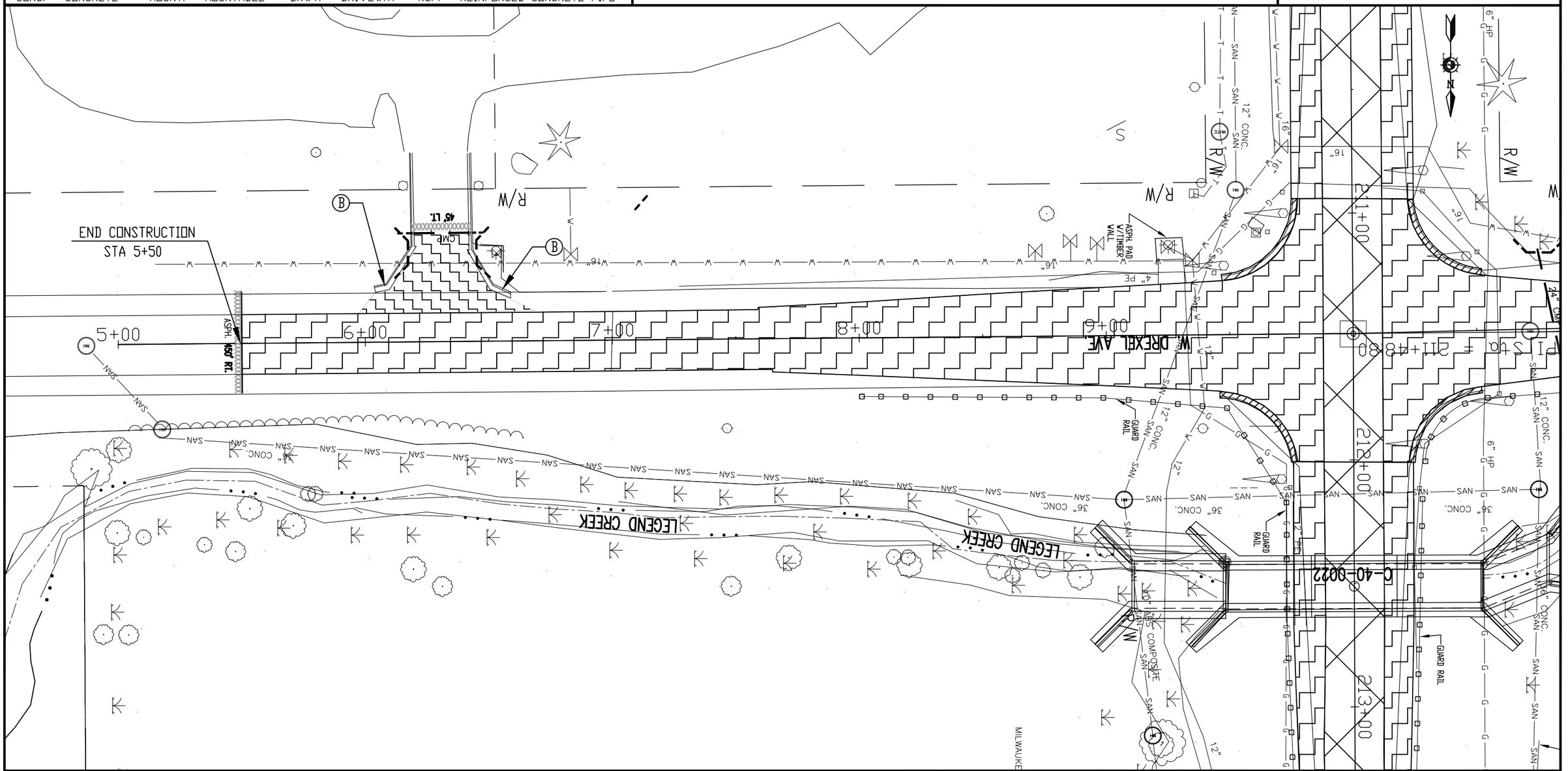
NOTES

1). SEE OTHER REMOVAL PLANS FOR ITEMS RELATED TO SIGNS AND TRAFFIC SIGNALS.

2). SEE THE "REMOVALS" ARTICLE OF THE SPECIAL PROVISION FOR ADDITIONAL INFORMATION ON PAYMENT OF REMOVALS.

3). THE REMOVAL LIMITS OF DRIVEWAYS SHOWN IS APPROXIMATE. THE FINAL LIMITS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

4). REMOVAL OF TEMPORARY ASPHALTIC SURFACE IS PAID AS EXCAVATION COMMON.



REVISION DATE: 12/9/13

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 47	E

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
- SIGN POST

ABBREVIATIONS

ASPH. - ASPHALT
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RET. - RETAINING
DRWY. - DRIVEWAY
CMP. - CORRUGATED METAL PIPE
RCP. - REINFORCED CONCRETE PIPE

REMOVALS LEGEND

REMOVING ITEM DESIGNATION

- (A) REMOVING SMALL PIPE CULVERTS
- (B) REMOVING CURB & GUTTER
- (C) REMOVING CONCRETE SIDEWALK
- (D) REMOVING GUARD RAIL
- (E) REMOVING MASONRY
- (F) REMOVING MANHOLE
- (G) REMOVING CATCH BASIN/INLET
- (H) REMOVING STORM SEWER - SIZE
- (J) REMOVING SURFACE DRAINS

- REMOVE ITEM AS DESIGNATED (LETTER)
- REMOVE ASPHALTIC CONCRETE PAVEMENT
- REMOVE CONCRETE PAVEMENT
- XXXXXXX SAWCUT AND MATCH
- REMOVE TREE
- EXISTING TOPOGRAPHY (FOR REMOVAL PLANS ONLY) (DARK)

NOTES

1). SEE OTHER REMOVAL PLANS FOR ITEMS RELATED TO SIGNS AND TRAFFIC SIGNALS.

2). SEE THE "REMOVALS" ARTICLE OF THE SPECIAL PROVISION FOR ADDITIONAL INFORMATION ON PAYMENT OF REMOVALS.

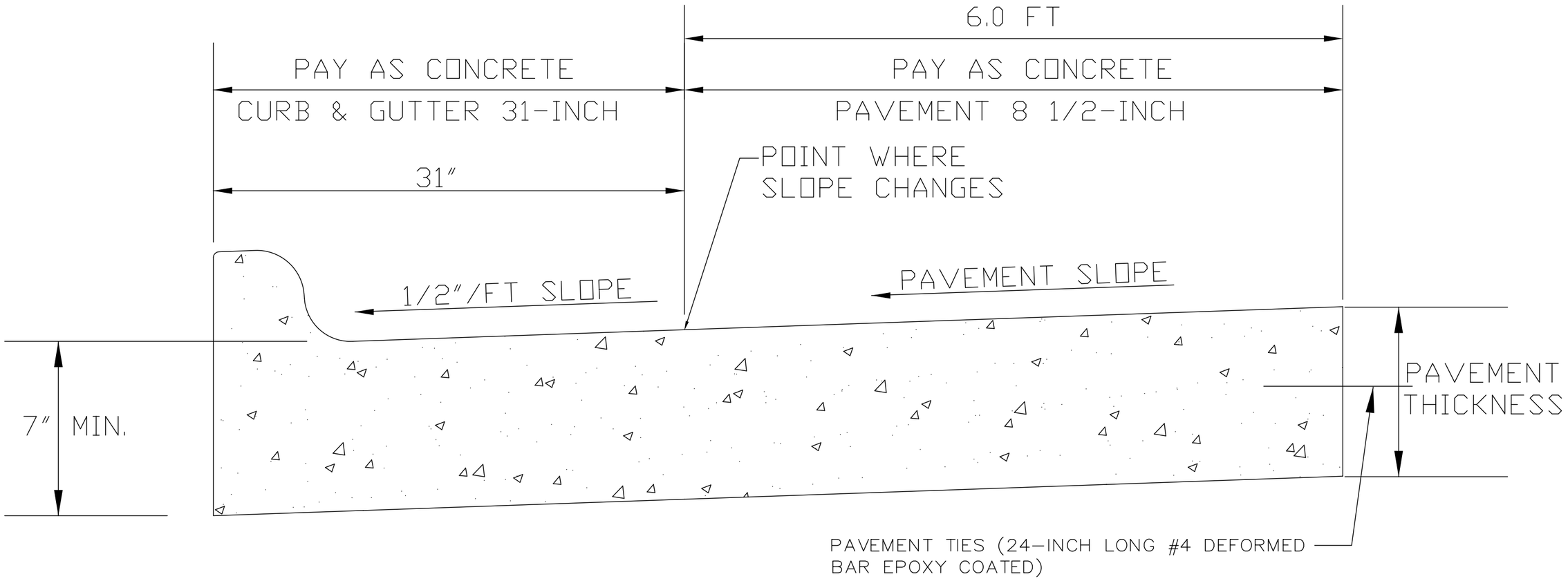
3). THE REMOVAL LIMITS OF DRIVEWAYS SHOWN IS APPROXIMATE. THE FINAL LIMITS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

4). REMOVAL OF TEMPORARY ASPHALTIC SURFACE IS PAID AS EXCAVATION COMMON.

S. KIEFER DR.
W. DREXEL AVE.
LEGEND CREEK
C-40-0022
END CONSTRUCTION STA 14+00
ANDREW SPEHERT
DONALD J & DIANE L MAKOWSKI 7651 W. DREXEL AVE.
7620 W. DREXEL AVE.
JAMES R RYBACKI LISA M CHEREK
NO CLEARING AND GRUBBING IN THIS AREA
SAVE TREE
TLE LIMIT
GUARD RAIL
ASPH. PAD W/TIMBER WALL
12" CONC. SAN
36" CONC.
6" ABS COMPOSITE
24" CMP
ASPH.
400' LT.

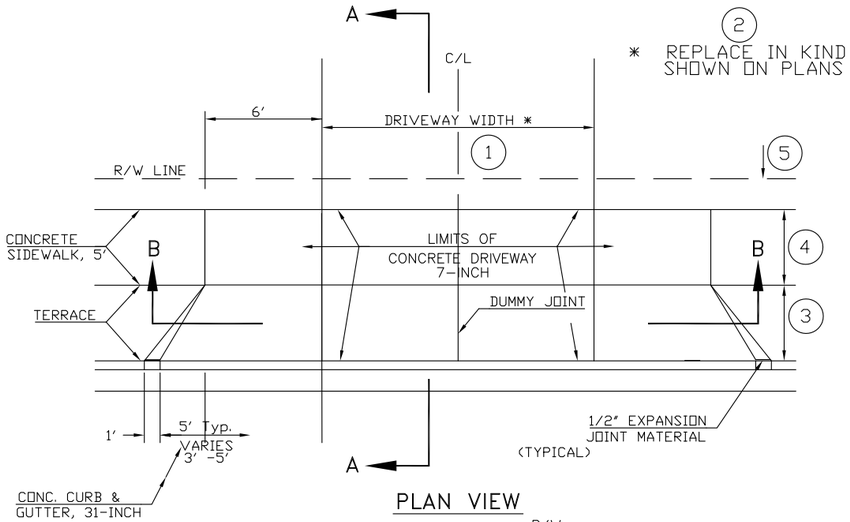
REVISION DATE: 12/9/13

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	REMOVALS	SCALE: 1" = 40'	SHEET NO: 48	E



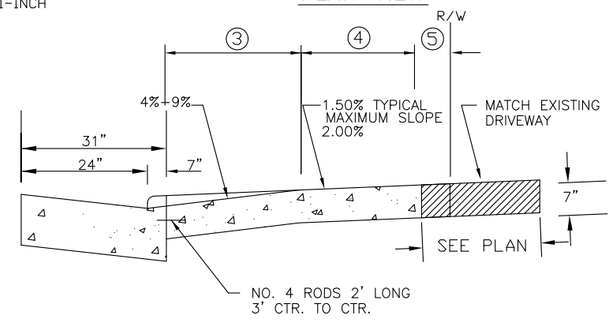
INTEGRAL CURB & GUTTER DETAIL

SEE ALSO SDD "CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES"
(For optional Use in Milwaukee County Only)

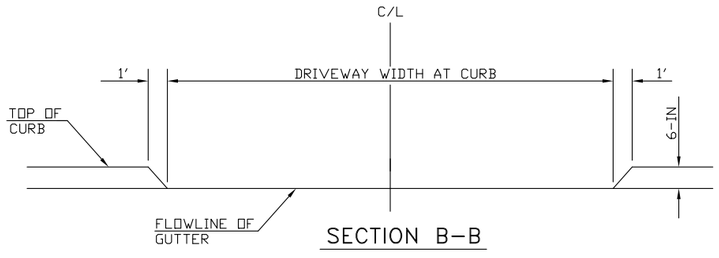


* (2) REPLACE IN KIND TO LIMITS SHOWN ON PLANS

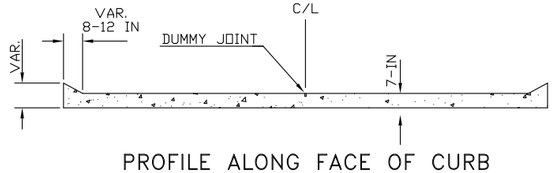
PLAN VIEW



SECTION A–A



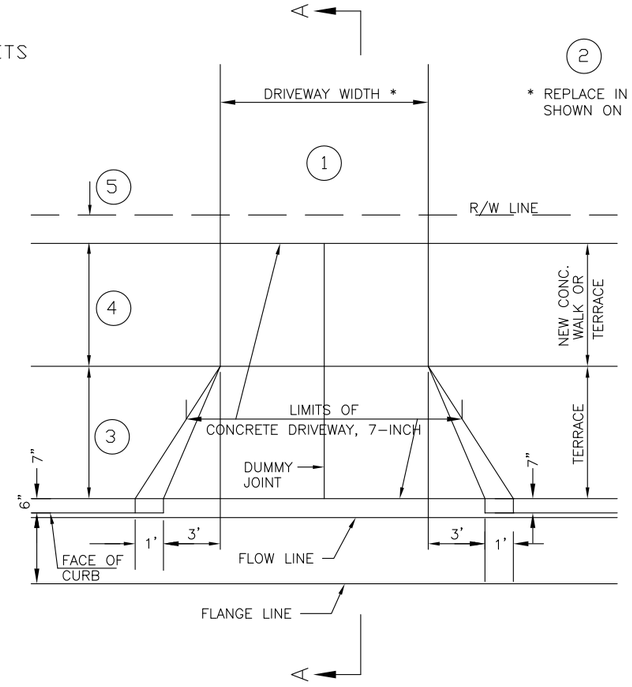
SECTION B–B



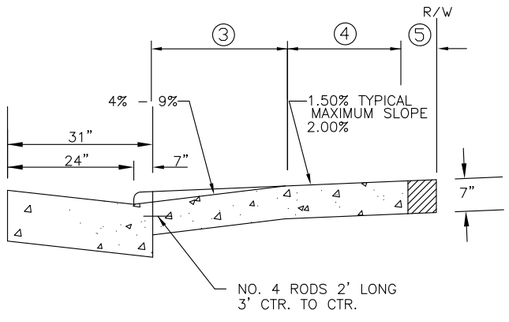
PROFILE ALONG FACE OF CURB

COMMERCIAL CONCRETE DRIVEWAY

(D)



* (2) REPLACE IN KIND TO LIMITS SHOWN ON PLANS



SECTION A–A

RESIDENTIAL CONCRETE DRIVEWAY

(R)

DRIVEWAY CONSTRUCTION NOTES:

ALL DRIVEWAYS SHALL BE CONCRETE FROM THE ROADWAY EXTENDING TO THE FRONT (FLARED) OR BACK (COMMERCIAL) OF THE SIDEWALK AND SHOULD BE REPLACED IN KIND (MATCH) BEHIND THE SIDEWALK AS SHOWN ON THE PLANS AND APPROVED BY THE ENGINEER.

PLACE DUMMY JOINT AT CENTER OF DRIVEWAY OVER 14' IN WIDTH AND/OR AT ALL JOINTS IN THE GUTTER.

NOTES

ALL DIMIENSIONS ARE IN FEET UNLESS OTHERWISE SPECIFIED

MAXIMUM GRADE = 10%

(1) RESIDENTIAL - 10' MIN. , 24' MAX.
COMMERCIAL - 12' MIN., 35' MAX.

(2) DRIVEWAY SURFACE BEHIND WALK SHALL MATCH EXISTING

ASPHALT - 4" ASPHALTIC SURFACE DRIVEWAYS

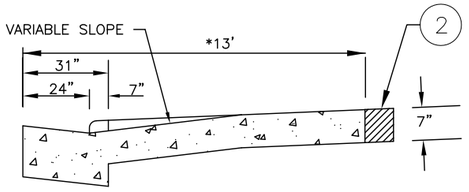
DRIVEWAYS	NOMINAL MIXTURE SIZE	PG GRADE	THICKNESS
UPPER LAYER	9.5 mm	PG64-22	2.00 IN.
LOWER LAYER	12.5 mm	PG64-22	2.00 IN.
BASE AGG. DENSE	1.25 INCHES	N/A	4.00 IN.

CONCRETE - CONCRETE DRIVEWAY 7-INCH ON 4" BASE AGGREGATE DENSE 1 1/4-INCH

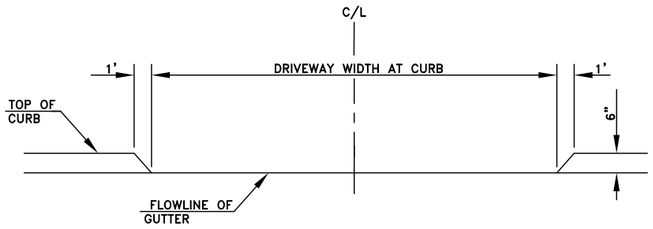
GRAVEL - 6" BASE AGGREGATE DENSE 1 1/4-INCH

LOCATION	(3) TERRACE WIDTH	(4) SIDEWALK WIDTH	(5) BACK OF WALK TO R/W
157+00 TO 248+30 RT	8'	5'	VARIES 7' TO 48'

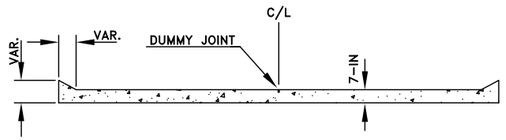
REVISION DATE: 06/22/12



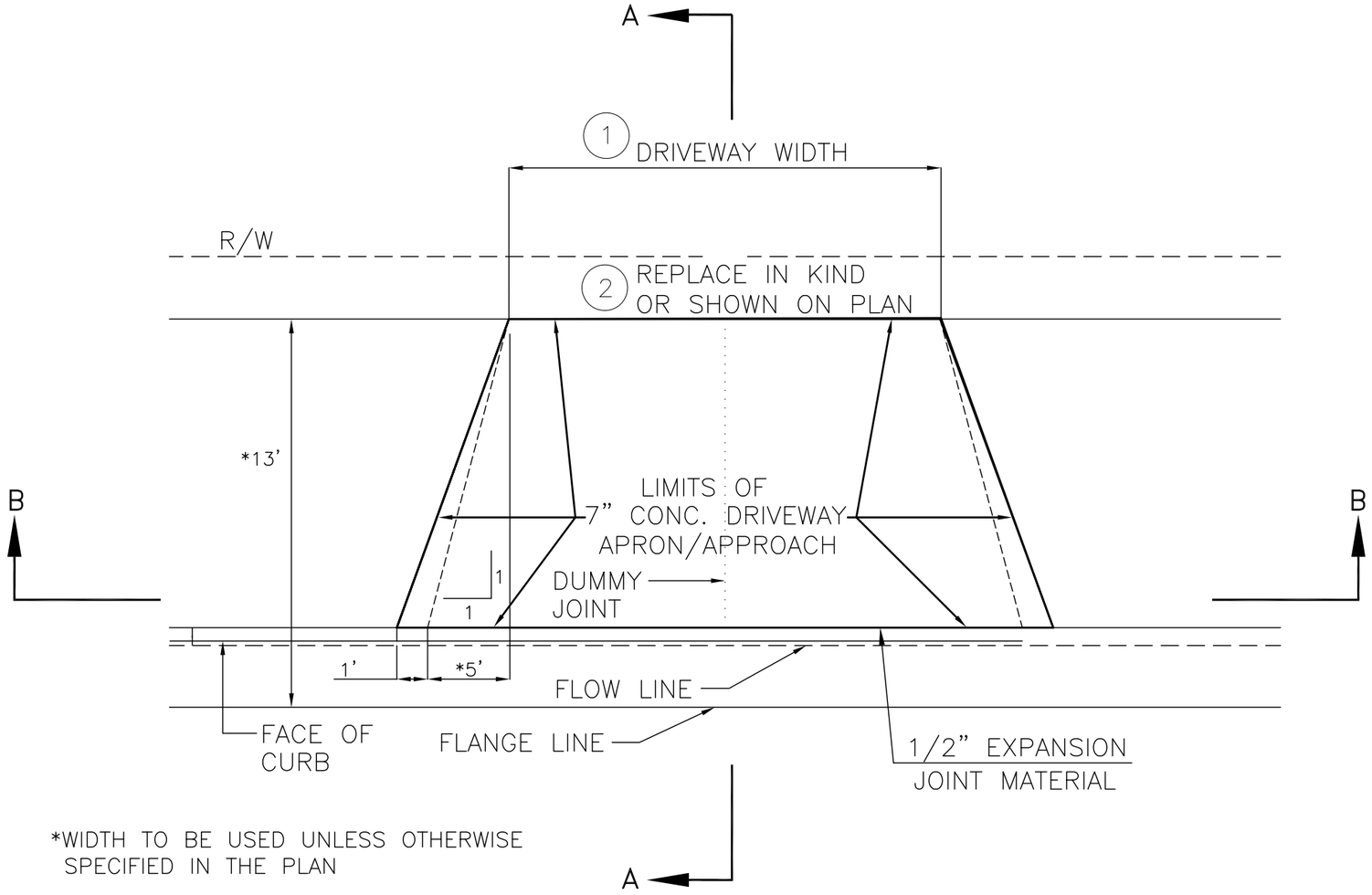
SECTION A–A



SECTION B–B



PROFILE ALONG FACE OF CURB



*WIDTH TO BE USED UNLESS OTHERWISE SPECIFIED IN THE PLAN

(1) DRIVEWAY WIDTHS:

COMMERCIAL (COM) – 12' MIN., 35' MAX.
NON–COMMERCIAL (NON–COM) – 10' MIN., 24' MAX.

(2) DRIVEWAY CONSTRUCTION:

ASPHALT (COM) – 4" ASPHALTIC SURFACE
2" LOWER LAYER, 2" UPPER LAYER
ON 4" BASE AGGREGATE DENSE 1–1/4–INCH

ASPHALT (NON–COM) – 4" ASPHALTIC SURFACE
2" LOWER COURSE, 2" UPPER COURSE
ON 4" BASE AGG. DENSE 1–1/4–INCH

CONCRETE (COM & NON–COM) – 7" CONCRETE DRIVEWAY
ON 4" BASE AGGREGATE DENSE 1–1/4–INCH

GRAVEL (COM & NON–COM)– 6" BASE AGGREGATE DENSE 1–1/4–INCH

TYPICAL
FLARED CONCRETE DRIVEWAY
(WITHOUT SIDEWALK)

CURB & GUTTER SECTION

DRIVEWAY CONSTRUCTION NOTES

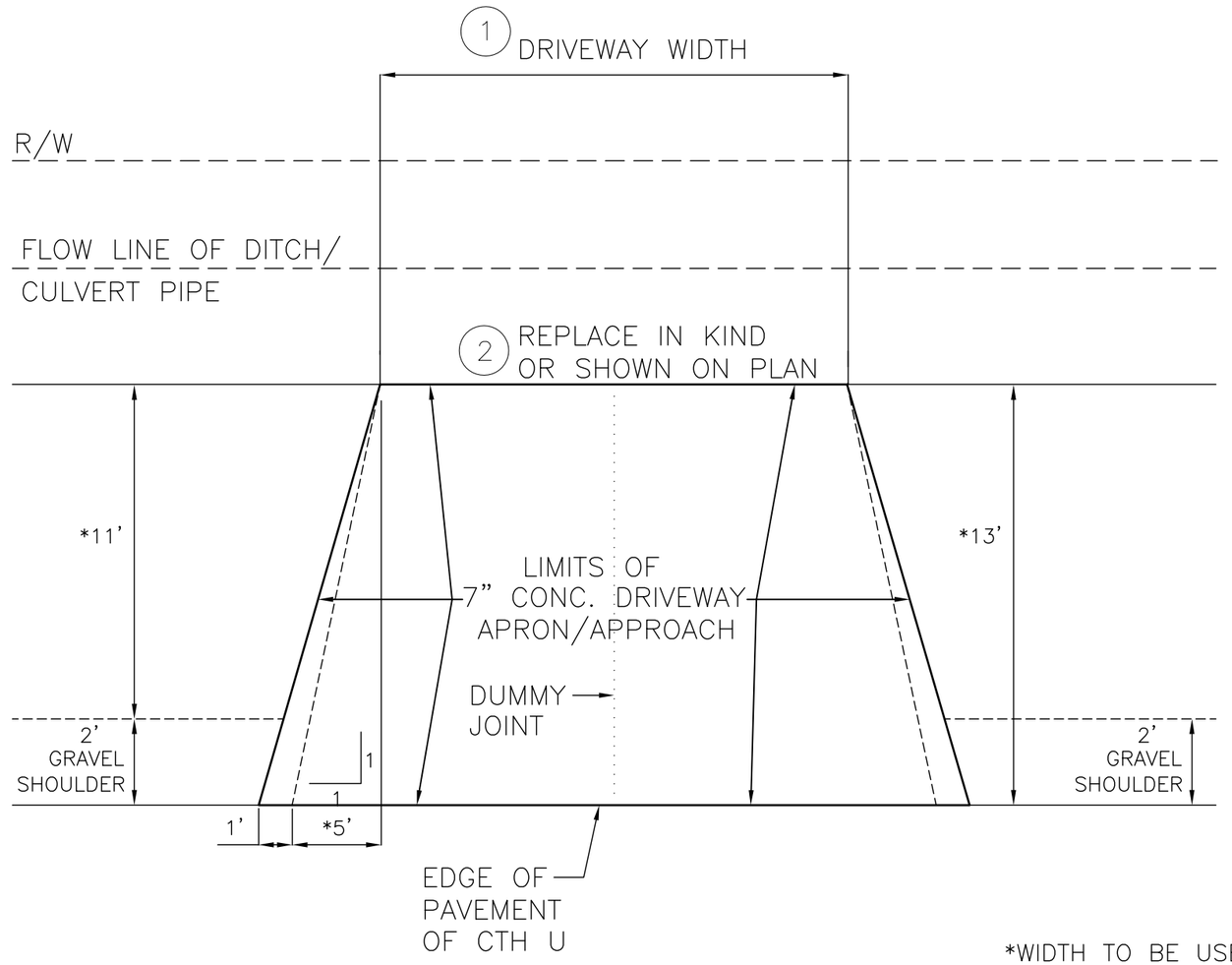
DRIVEWAYS WITHOUT SIDEWALK SHALL BE CONCRETE FROM THE ROADWAY EXTENDING 13 FEET (CONCRETE DRIVEWAY APRON/APPROACH) AND SHOULD BE REPLACED THEREAFTER AS SHOWN ON THE PLANS AND APPROVED BY THE ENGINEER.

PLACE DUMMY JOINTS AT CENTER OF DRIVEWAY OVER 14 FEET IN WIDTH AND/OR AT ALL JOINTS IN THE GUTTER.

MAXIMUM GRADE OF DRIVEWAY IS 10%.

REVISION DATE: 03/18/10

PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SCALE: N.T.S.	SHEET NO: 51	E



*WIDTH TO BE USED UNLESS OTHERWISE SPECIFIED IN THE PLAN

(1) DRIVEWAY WIDTHS:

COMMERCIAL (COM) – 12' MIN., 35' MAX.
NON-COMMERCIAL (NON-COM) – 10' MIN., 24' MAX.

(2) DRIVEWAY CONSTRUCTION:

ASPHALT (COM) – 4" ASPHALTIC SURFACE
2" LOWER LAYER, 2" UPPER LAYER
ON 4" BASE AGGREGATE DENSE 1-1/4-INCH

ASPHALT (NON-COM) – 4.0" ASPHALTIC SURFACE
2" LOWER COURSE, 2" UPPER COURSE
ON 4" BASE AGG. DENSE 1-1/4-INCH

CONCRETE (COM & NON-COM) – 7" CONCRETE DRIVEWAY
ON 4" BASE AGGREGATE DENSE 1-1/4-INCH

GRAVEL (COM & NON-COM)– 6" BASE AGGREGATE DENSE 1-1/4-INCH

TYPICAL
FLARED CONCRETE DRIVEWAY
(WITHOUT SIDEWALK)

DITCH SECTION

DRIVEWAY CONSTRUCTION NOTES

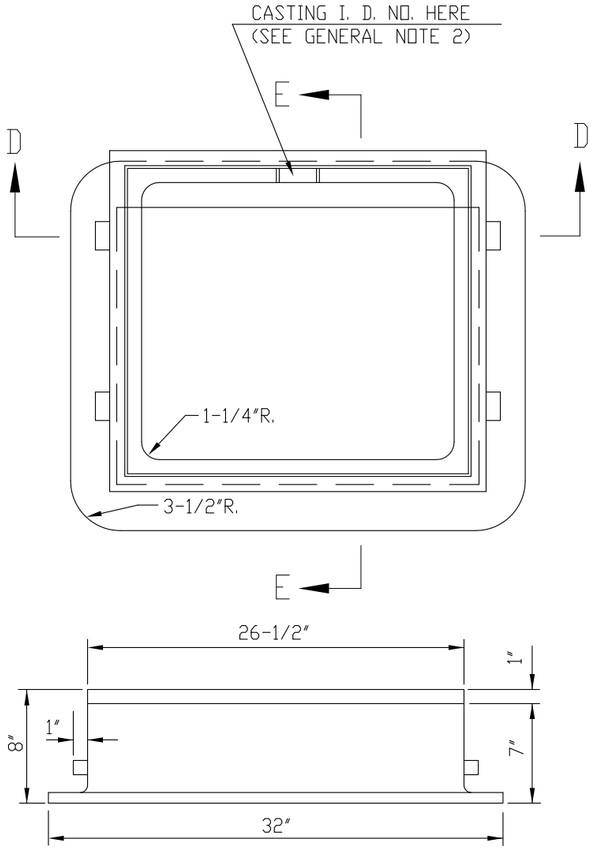
DRIVEWAYS WITHOUT SIDEWALK SHALL BE CONCRETE FROM THE ROADWAY EXTENDING 13 FEET (CONCRETE DRIVEWAY APRON/APPROACH) AND SHOULD BE REPLACED THEREAFTER AS SHOWN ON THE PLANS AND APPROVED BY THE ENGINEER.

PLACE DUMMY JOINTS AT CENTER OF DRIVEWAY OVER 14 FEET IN WIDTH AND/OR AT ALL JOINTS IN THE GUTTER.

MAXIMUM GRADE OF DRIVEWAY IS 10%.

REVISION DATE: 03/18/10

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SCALE: N.T.S.	SHEET NO: 52	E



FRAME

GENERAL NOTES

ALL EDGES ARE TO BE GROUND

ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8"

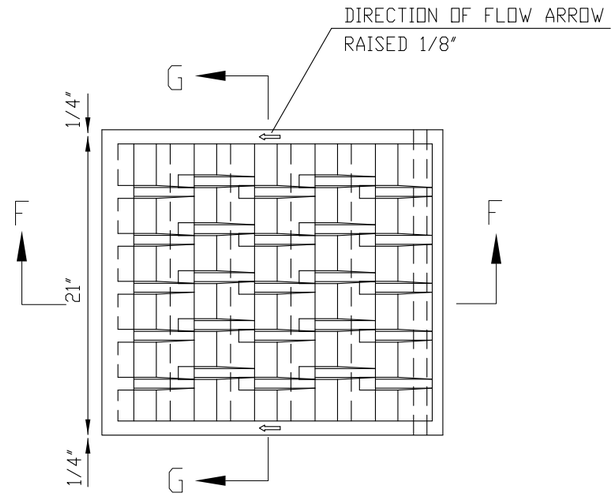
ON THE FRAME

1. ON THE UPPER FACE OF THE FLANGE IN 1 INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

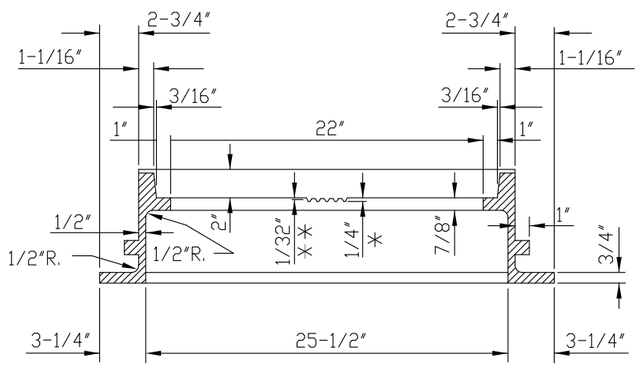
2. ON THE SEAT OF THE FRAME IN 1 INCH HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER (M.S.51).

ON THE GRATE

1. ON THE UPPER SIDE OF THE GRATE IN 1 INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (M.S.57) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.



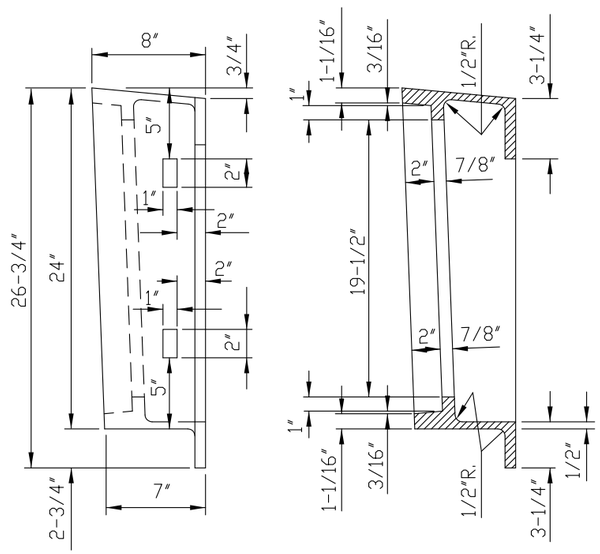
GRATE



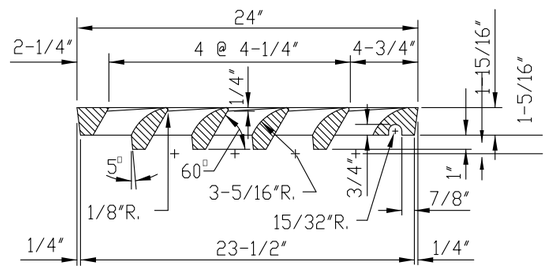
SECTION D-D

* DEPRESSION FOR LETTERS

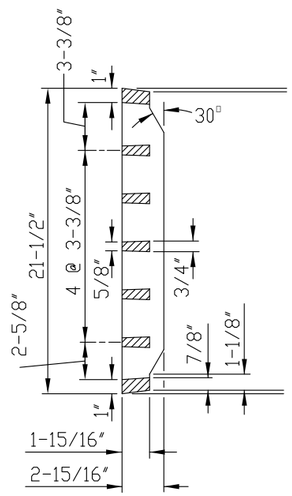
** CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT



SECTION E-E



SECTION F-F



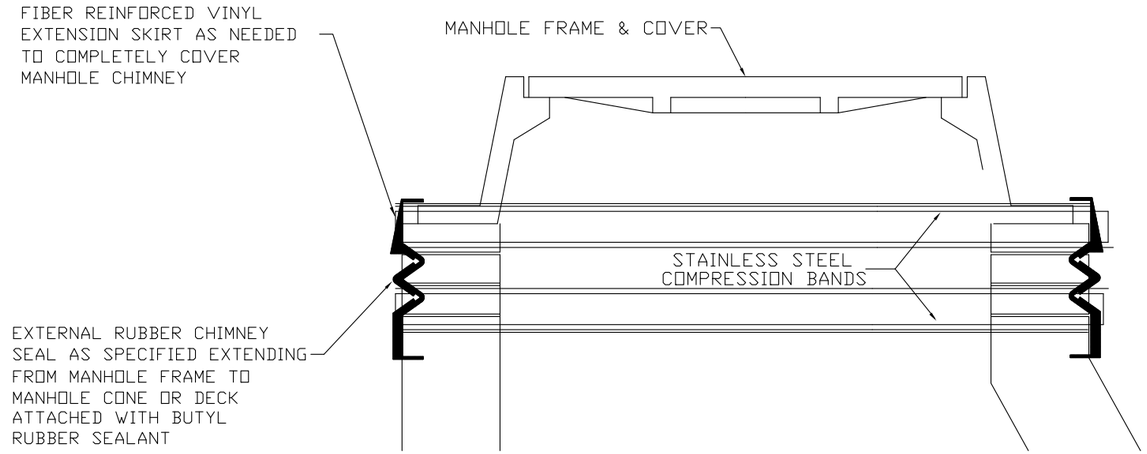
SECTION G-G

INLET COVER - TYPE 57

LID-145 LBS., FRAME-204 LBS.

REVISION DATE: 06/22/12

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 7TH ST. (CTH U)	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET NO: 53	E

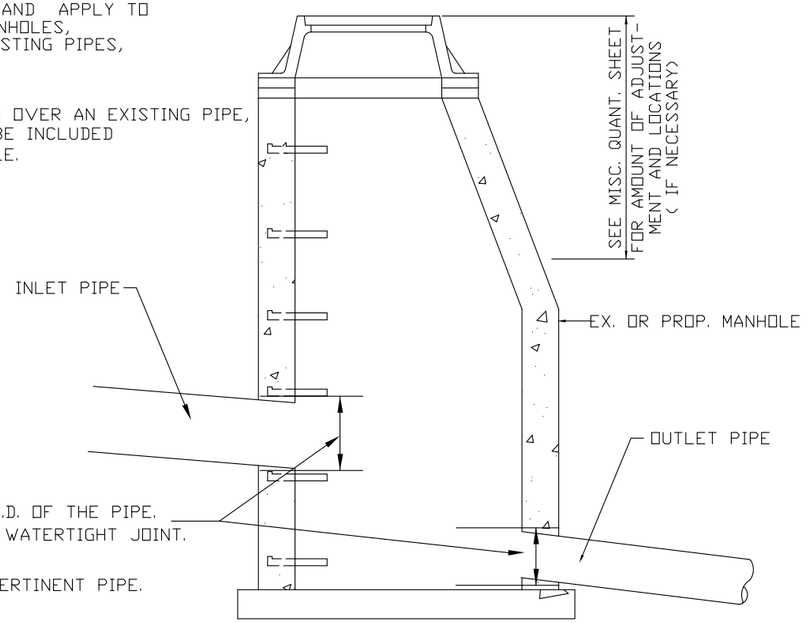


EXTERNAL SANITARY MANHOLE SEAL

CONSTRUCTION NOTES

1. CONSTRUCTION METHODS ARE "TYPICAL" AND APPLY TO NEW PIPE CONNECTING TO EXISTING MANHOLES, NEW MANHOLES CONSTRUCTED OVER EXISTING PIPES, AND NEW CONSTRUCTION

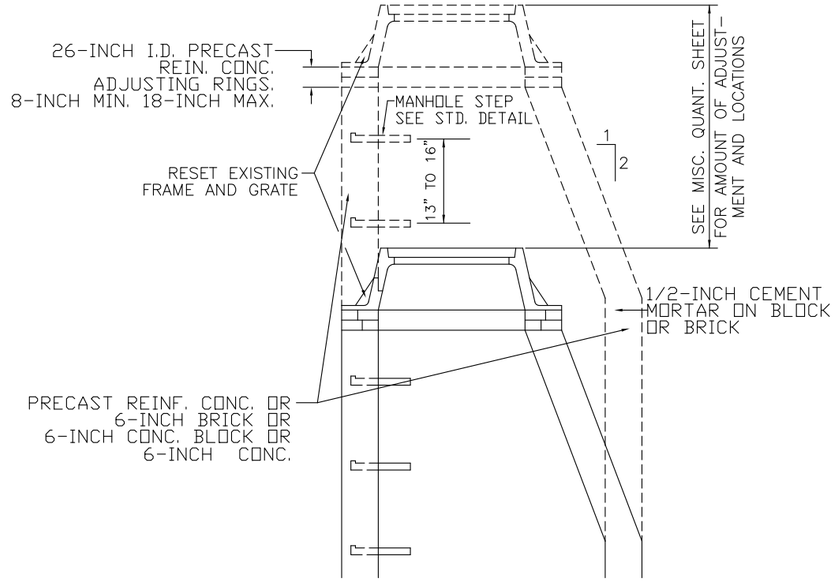
2. WHEN A NEW MANHOLE IS CONSTRUCTED OVER AN EXISTING PIPE, THE COST OF THE CONNECTION SHALL BE INCLUDED IN THE UNIT BID PRICE OF THE MANHOLE.



CUT IN CONNECTION 1-INCH LARGER THAN THE O.D. OF THE PIPE. ANNULAR SPACE TO BE MORTARED TO ENSURE A WATERTIGHT JOINT.

COST OF THIS CONNECTION IS TO BE INCLUDED IN THE UNIT PRICE PER LINEAL FOOT OF THE PERTINENT PIPE.

DETAIL FOR CONNECTION TO MANHOLES



DETAIL FOR RECONSTRUCTING MANHOLES

NOTES FOR RECONSTRUCTING MANHOLES

1. SEE MISCELLANEOUS QUANTITY SHEET FOR ADJUSTMENT DEPTH.

2. CONSTRUCTION METHODS ARE "TYPICAL" AND MAY APPLY TO EITHER RECONSTRUCTING OR ADJUSTING MANHOLES.

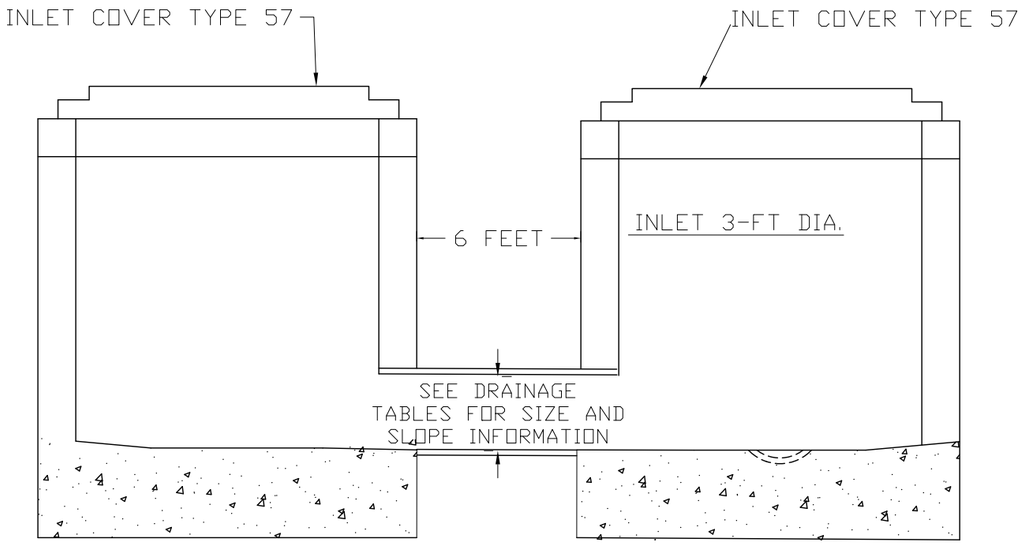
3. ADJUST FRAME TO GRATE WITH PRECAST CONCRETE RINGS OF VARIABLE THICKNESS. MAXIMUM RING HEIGHT IS 18-INCHES . MINIMUM RING HEIGHT IS 8-INCHES. CONCRETE RINGS SHALL BE REINFORCED WITH ONE LINE OF STEEL CENTERED WITHIN THE RING. WHERE NECESSARY, RINGS SHALL BE GROOVED TO RECEIVE STEP.

   CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO DESIGNATION C-478 REQUIREMENTS OF ASTM SPECIFICATIONS. JOINTS SHALL BE WATERTIGHT AND SHALL BE MADE USING RUBBER GASKETS FOR SANITARY MANHOLES.

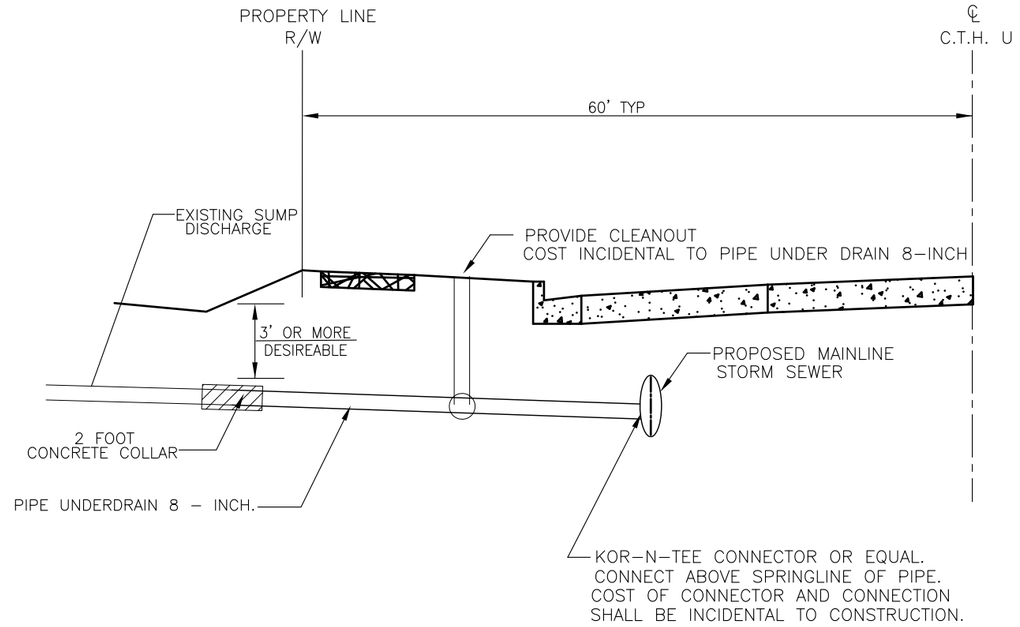
4. WHEN RESETTING EXISTING COVERS, REPAIRING BRICKWORK UP TO 12-INCH DEPTH IS PAID AS ADJUSTING COVERS, UNLESS THERE IS A RECONSTRUCT. WHERE NEW COVERS ARE PLACED, THE FIRST 6-INCHES OF ADJUSTMENT OR REPAIR IS PART OF THE NEW COVER. ADJUSTING OR REPAIRING GREATER THAN 6-INCH AND UP TO 12-INCHES SHALL BE PAID AS ADJUSTING COVERS. WHEN THE DEPTH OF THE WORK IS GREATER THAN 12-INCHES, ALL WORK SHALL BE PAID AS RECONSTRUCT.

REVISION DATE: 06/22/12

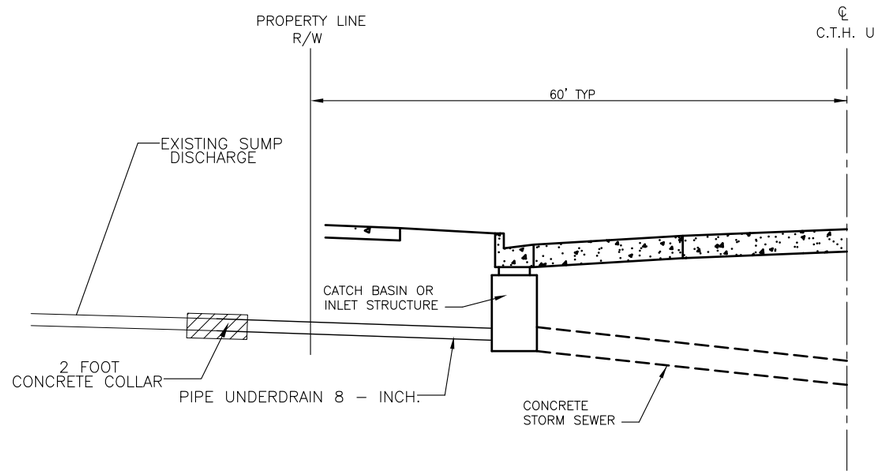
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE: N.T.S.	SHEET NO: 54	E



INLET DETAIL
CODE 53B, 53A



SUMP DISCHARGE CONNECTION TO MAINLINE SEWER



SUMP DISCHARGE CONNECTION TO INLET

2

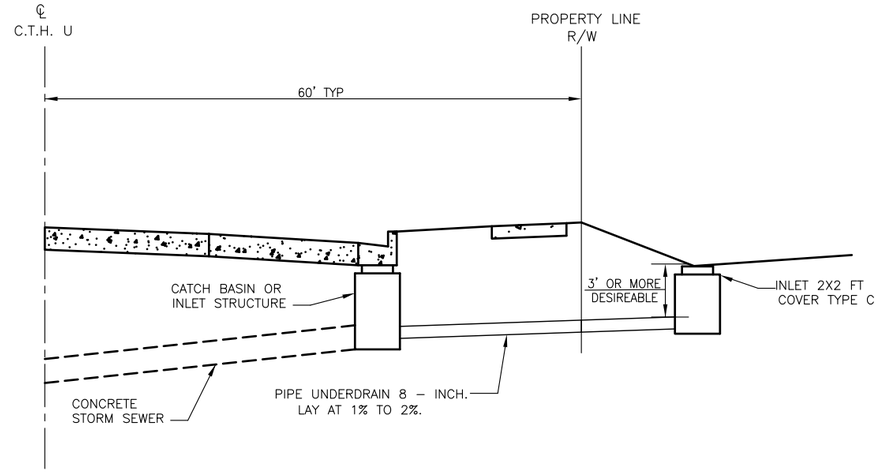
NOTES:

(1) LOCATIONS, IF NEEDED, SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

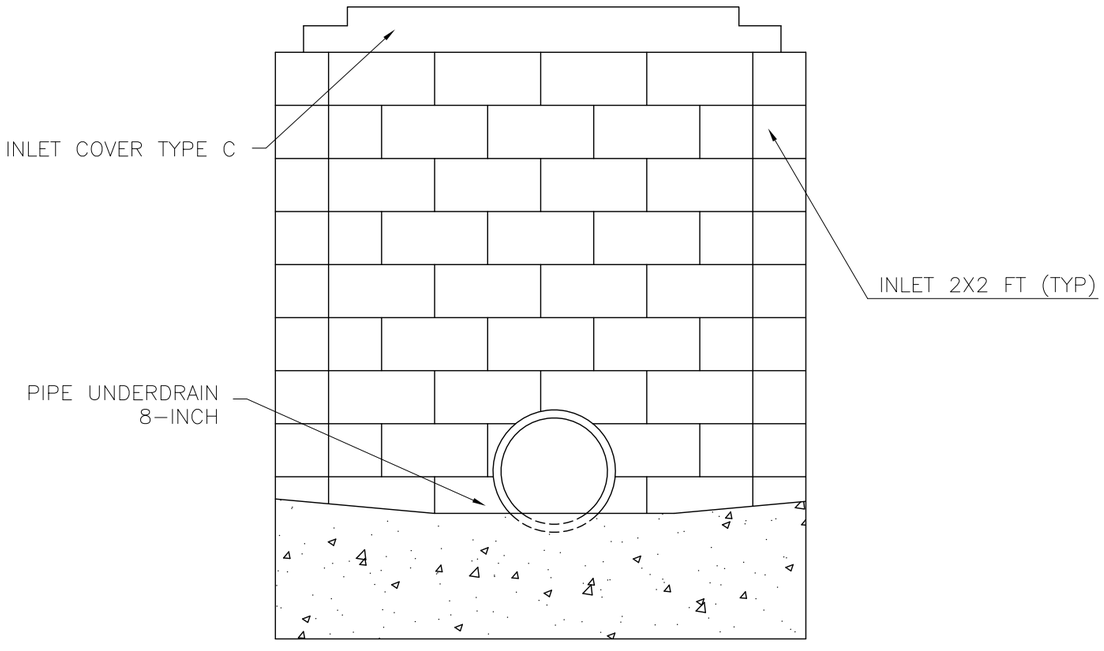
(2) GRADES NECESSARY FOR THIS WORK WILL BE PROVIDED BY THE ENGINEER OR FROM MILWAUKEE COUNTY AS NEEDED BY THE ENGINEER.

(3) ALL WORK AS SHOWN IN THIS DETAIL IS COVERED AND PAID FOR UNDER THE PERTINENT BID ITEMS.

(4) RESETTING THE FRAME TO THE FINAL GRADE IS INCIDENTAL TO THE PAY ITEM INLET COVERS TYPE C.

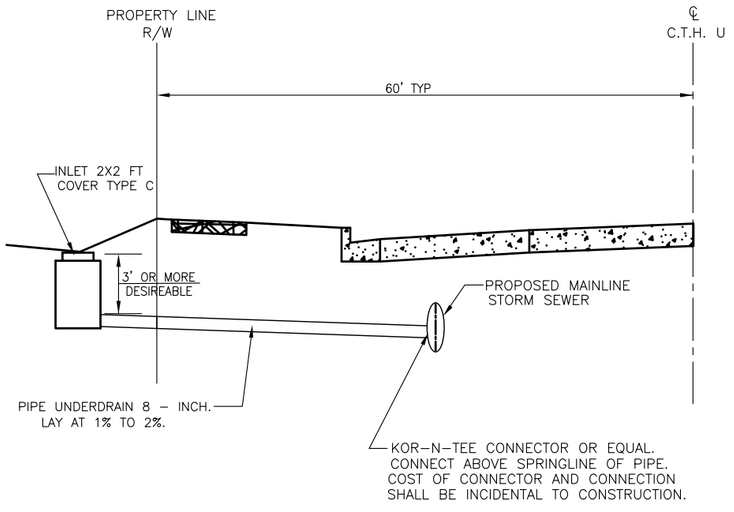


CONNECTION TO CATCH BASIN STRUCTURE



FIELD DRAIN

LOCATIONS TO BE DETERMINED BY ENGINEER IN THE FIELD



CONNECTION TO MAINLINE SEWER

2

SOUTH 76TH STREET

216+00

215+00

214+00

213+00

212+00

R/W

DESIGN WATER SURFACE ELEVATIONS
2 YEAR = 733.80
100 YEAR = 737.04

80 SQ YDS
MEDIUM RIPRAP ON TYPE
HR STABILIZATION FABRIC

SLOPE INTERCEPT

740

740

10' WIDE SAFETY SHELF

B-1

B-2

B-3

PROPOSED RETENTION BASIN

IE=733.85

IE=732.00

727

731

732

738

738

735

735

24'

B-4

B-5

B-6

54'

18"RCP

10"PVC

TOP OF BERM=738.25

IE=731.50

20' WIDE EMERGENCY SPILLWAY
ELEV=737.25

103'

50 SQ YDS
MEDIUM RIPRAP
ON TYPE HR
STABILIZATION
FABRIC

R/W

R/W

WETLAND LIMITS DELINEATED
BY CEDARBURG SCIENCE, LLC
OCTOBER 13, 2010.

SLOPE INTERCEPT

WEST DREXEL AVENUE

CONSTRUCT RETENTION BASIN EARLY IN STAGE 2

NOTES:

1. RESTORE ALL AREAS DISTURBED FOR RETENTION BASIN CONSTRUCTION WITH 4"TOPSOIL, EROSION MAT URBAN CLASS I TYPE A FERTILIZER, MULCH & SEED

2. DO NOT DISTURB ANY VEGETATION OUTSIDE OF THE LIMITS OF BASIN CONSTRUCTION

3. DO NOT DISTURB WETLAND AREAS OUTSIDE OF THE LIMITS OF BASIN CONSTRUCTION

4. ENTER THE SITE ONLY FROM THE EXISTING DRIVEWAY NEAR STATION 215+50, RT

REVISION DATE: 10/18/2013

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE: 1" = 60'	SHEET NO: E

2

EROSION CONTROL NOTES:

1. STABILIZE SOIL STOCKPILES AND OTHER DISTURBED AREAS IN ACCORDANCE WITH WISDOT TRANS 401 IF INACTIVE FOR GREATER THAN SEVEN DAYS.

2. SLOPES EXCEEDING 5:1 SHALL BE EROSION MATTED USING URBAN CLASS 1 TYPE B EROSION MAT IN ACCORDANCE WITH THE STANDARD SPEC.

3. POND CONSTRUCTION SHALL CONFORM TO WISDOT TRANS 401

4. PROVIDE A 24" THICK CLAY LINER IN ACCORDANCE WITH PROJECT SPECIAL PROVISIONS.

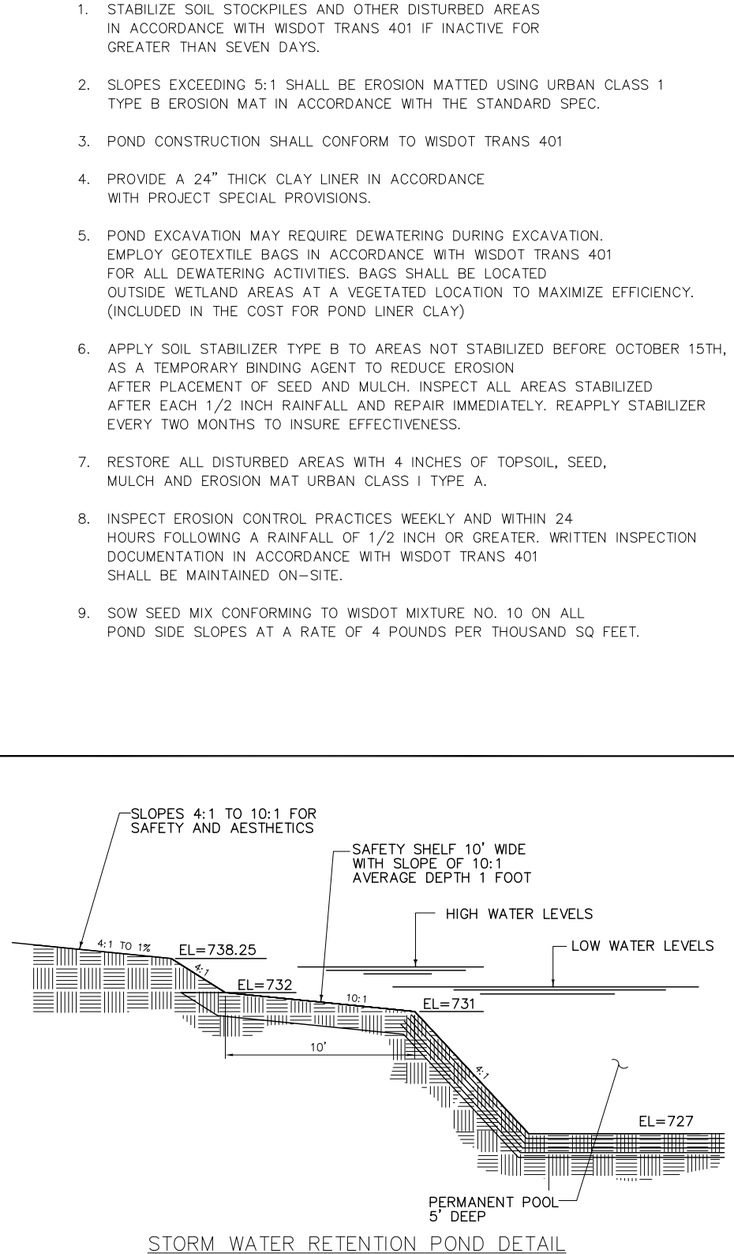
5. POND EXCAVATION MAY REQUIRE DEWATERING DURING EXCAVATION. EMPLOY GEOTEXTILE BAGS IN ACCORDANCE WITH WISDOT TRANS 401 FOR ALL DEWATERING ACTIVITIES. BAGS SHALL BE LOCATED OUTSIDE WETLAND AREAS AT A VEGETATED LOCATION TO MAXIMIZE EFFICIENCY. (INCLUDED IN THE COST FOR POND LINER CLAY)

6. APPLY SOIL STABILIZER TYPE B TO AREAS NOT STABILIZED BEFORE OCTOBER 15TH, AS A TEMPORARY BINDING AGENT TO REDUCE EROSION AFTER PLACEMENT OF SEED AND MULCH. INSPECT ALL AREAS STABILIZED AFTER EACH 1/2 INCH RAINFALL AND REPAIR IMMEDIATELY. REAPPLY STABILIZER EVERY TWO MONTHS TO INSURE EFFECTIVENESS.

7. RESTORE ALL DISTURBED AREAS WITH 4 INCHES OF TOPSOIL, SEED, MULCH AND EROSION MAT URBAN CLASS I TYPE A.

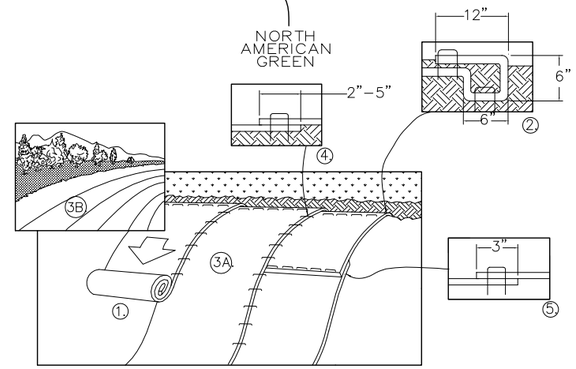
8. INSPECT EROSION CONTROL PRACTICES WEEKLY AND WITHIN 24 HOURS FOLLOWING A RAINFALL OF 1/2 INCH OR GREATER. WRITTEN INSPECTION DOCUMENTATION IN ACCORDANCE WITH WISDOT TRANS 401 SHALL BE MAINTAINED ON-SITE.

9. SOW SEED MIX CONFORMING TO WISDOT MIXTURE NO. 10 ON ALL POND SIDE SLOPES AT A RATE OF 4 POUNDS PER THOUSAND SQ FEET.



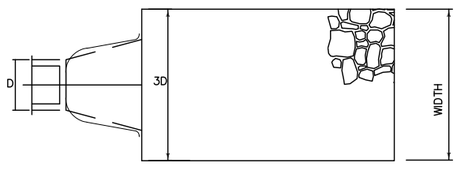
STORM WATER RETENTION POND DETAIL
SECTION VIEW

SLOPE INSTALLATION

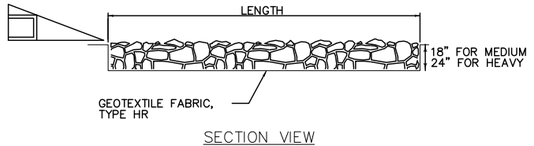


1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH.

EROSION MAT DETAIL - SLOPE INSTALLATION



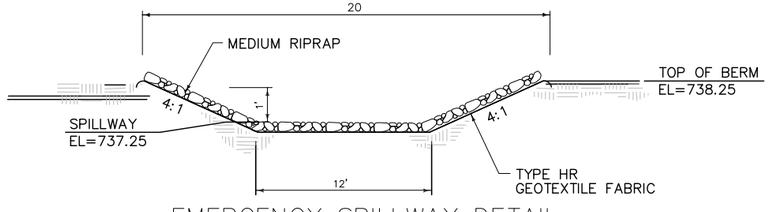
PLAN VIEW



SECTION VIEW

LOCATION	LENGTH (FT)	WIDTH (FT)
INLET	35	21
10" ORIFICE	19	10
18" ORIFICE	25	15

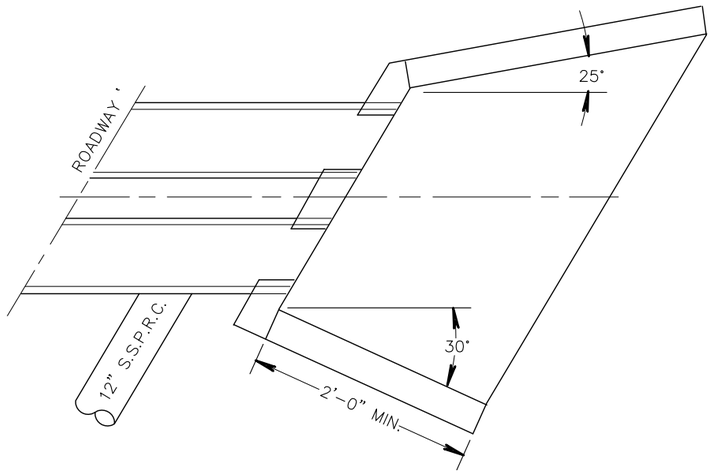
RIPRAP DISCHARGE APRON DETAIL



EMERGENCY SPILLWAY DETAIL

REVISION DATE: 10/18/2013

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE: N.T.S.	SHEET NO: E



WINGWALL ANGLE DETAILS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

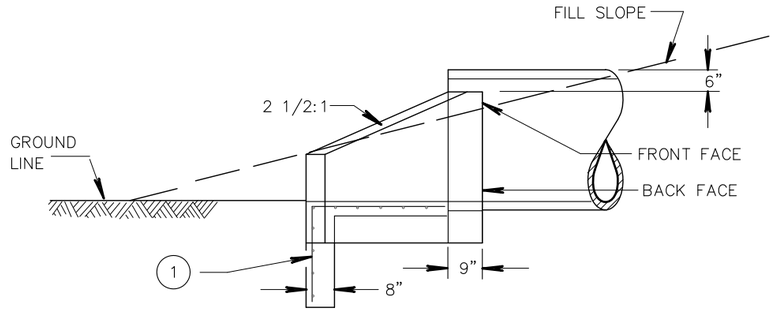
FILL SLOPES FLATTER THAN 2 1/2:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

(1) MINIMUM REINFORCEMENT SHALL BE 6" X 6" – W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C–C IN BOTH DIRECTIONS.

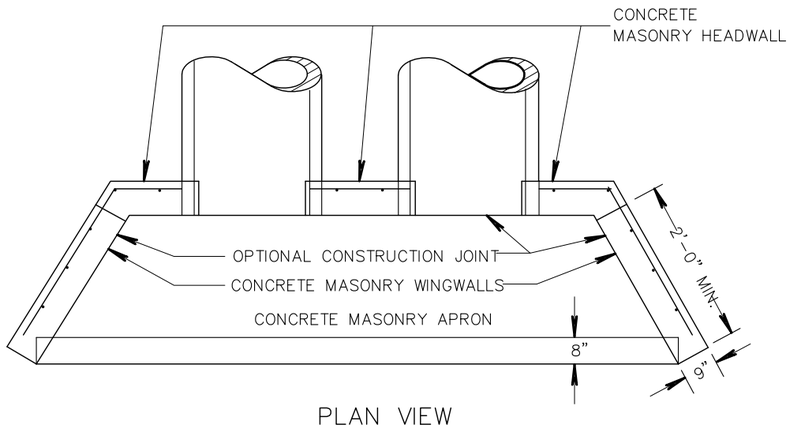
(2) THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2'–0"
OVER 48" TO 72"	DIA. OR SPAN
OVER 72"	3'–0"



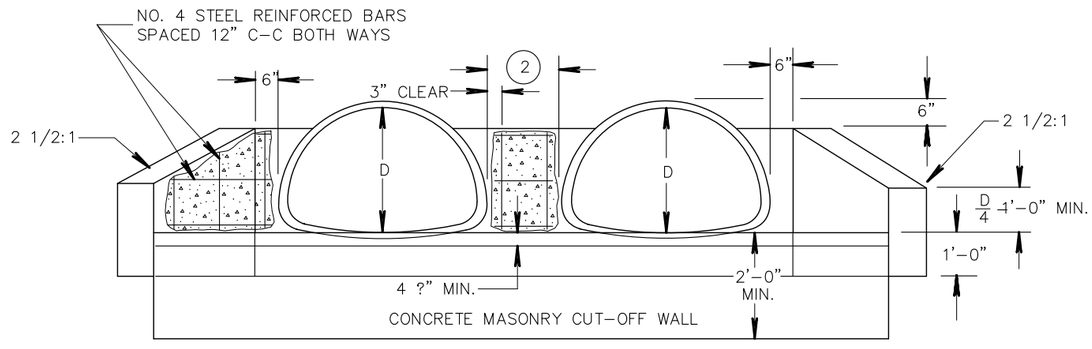
SIDE ELEVATION

PIPE ARCH



PLAN VIEW

PIPE ARCH



END ELEVATION

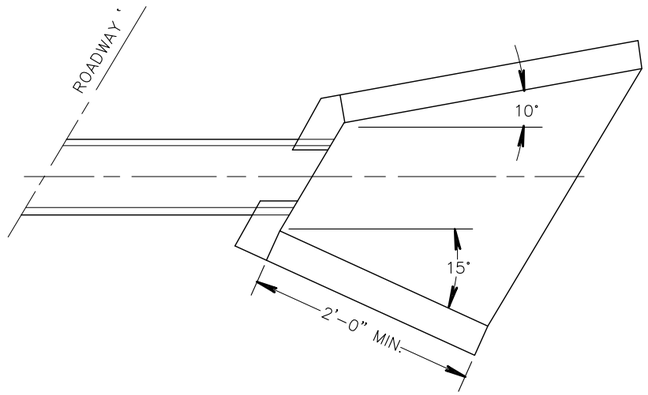
PIPE ARCH

CONCRETE MASONRY ENDWALLS FOR PIPE ARCH

STA 152+95, 47'LT

PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE: N.T.S.	SHEET NO:	E

2



WINGWALL ANGLE DETAILS

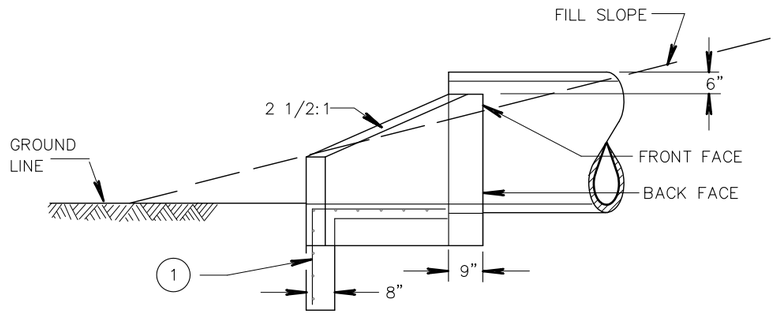
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

FILL SLOPES FLATTER THAN 2 1/2:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

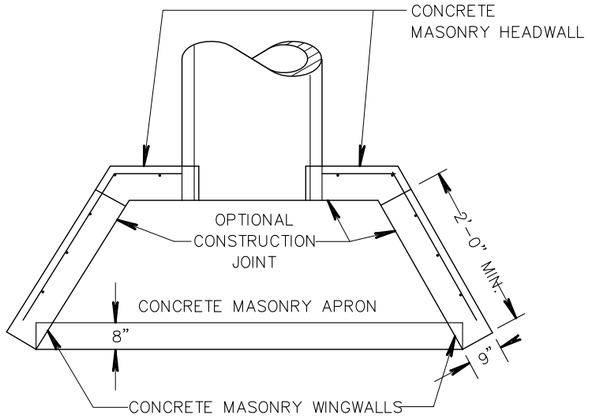
ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

(1) MINIMUM REINFORCEMENT SHALL BE 6" X 6" – W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C–C IN BOTH DIRECTIONS.



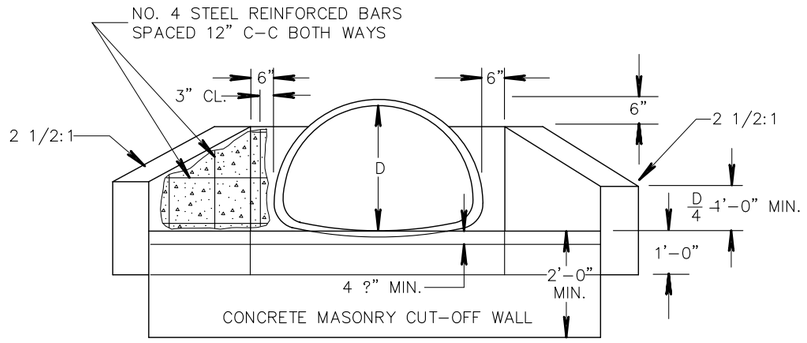
SIDE ELEVATION

PIPE ARCH



PLAN VIEW

PIPE ARCH



END ELEVATION

PIPE ARCH

CONCRETE MASONRY ENDWALLS FOR PIPE ARCH

STA 153+06, 60'LT

PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE: N.T.S.	SHEET NO: E

2

W. DREXEL AVE.

11+00

12+00

S 88°-35'-23" W

13+00

END CONSTRUCTION
STA 14+00.00

14+00

12'

15'

+69

+69

+89

+89

+65

+65

18"CMP@45°
W/END SEC.

30' RT

34' RT

VARIES

36"
OAK

NO CLEARING
AND GRUBBING
IN THIS AREA

SAVE TREE

57' RT

24"
OAK

22"
OAK

28"
OAK

68' RT

76' LT

40"
OAK

SAVE TREE

40.5'

21.5'

18'

30' RT

29' RT

GRADING LIMIT

48' RT

60'

R/W

R/W

7620 W. DREXEL AVE.

JAMES R. RYBACKI
LISA M. CHEREK

LEGEND CREEK

81' LT

80' LT

95' LT

83' LT

83' LT

212+00

212+00

212+00

C-40-0022

FEE AREA

LIMIT OF GROUND
DISTURBANCE AND
WORK ZONE

TLE AREA

SILT FENCE

R/W

LEGEND CREEK

THE CONTRACTOR SHALL NOT
DISTURB ANY TREES WHICH
ARE OUTSIDE OF THE LIMIT
OF GROUND DISTURBANCE
OR IN THE TLE AREA

LEGEND

- TLE AREA
- FEE AREA
- DRIVEWAY AREA BY MILWAUKEE COUNTY
- DRIVEWAY AREA BY OTHERS THROUGH AGREEMENT
- SILT FENCE FOR EROSION CONTROL
- GRADING LIMIT
- LIMIT OF WORK AREA

REVISION DATE: 8/8/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SCALE: 1"=30'	SHEET NO: 61 E

2

PI Sta = 10+48.70
Δ = 28°01'40.62"R

PI Sta = 10+57.83
Δ = 19°16'38.35"R

GREGORY A & ANNE M FOX
7951

N62°28'14.85"W
9.13 FT

N 43°11'33.49" W
63.76 FT

11+00

97 LT

(37)

10+00 S89°30'07.53"W
48.70 FT

5' CONC. SIDEWALK

R/W

MATCH STA = 11+08
EL = 754.06

FINISHED DRIVEWAY PROFILE

EXISTING DRIVEWAY PROFILE

-2.00%

0.95%

STA	EL
10+00	754.06
10+34	753.38
10+48.70	753.84
10+57.83	753.93
11+08	754.06

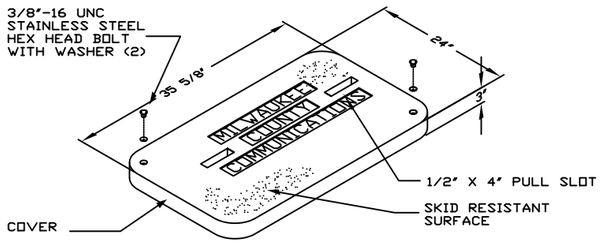
754.06
752.82
10+00

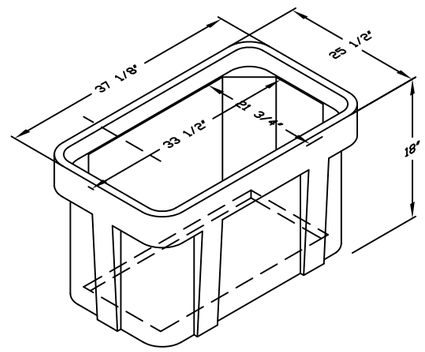
775.00
770.00
765.00
760.00
755.00
750.00
745.00
740.00
735.00

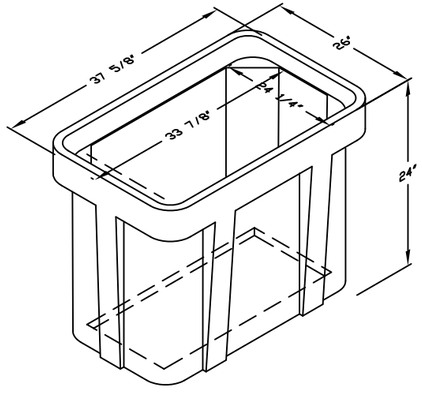
REVISION DATE: 09/24/2013

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE: N.T.S.	SHEET NO: E

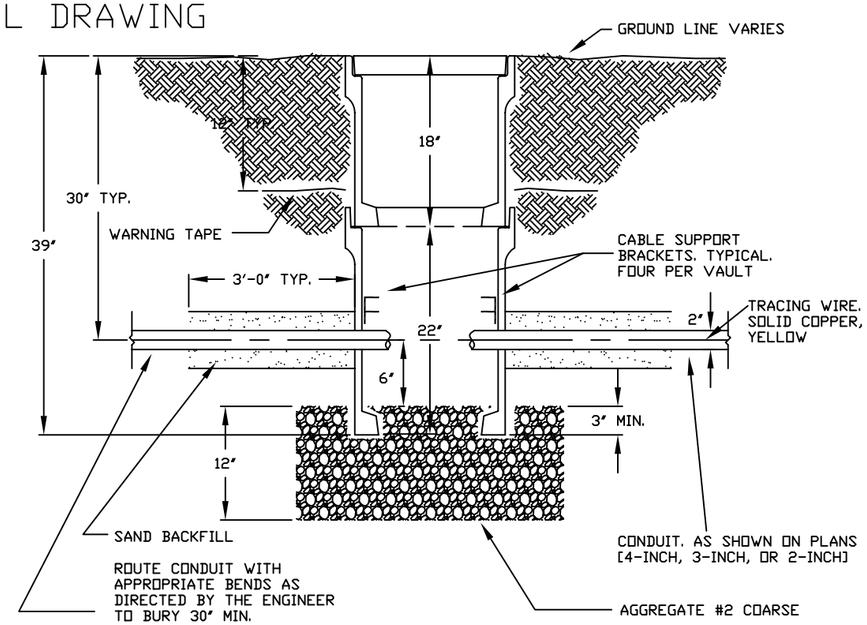
MILWAUKEE COUNTY STANDARD DETAIL DRAWING



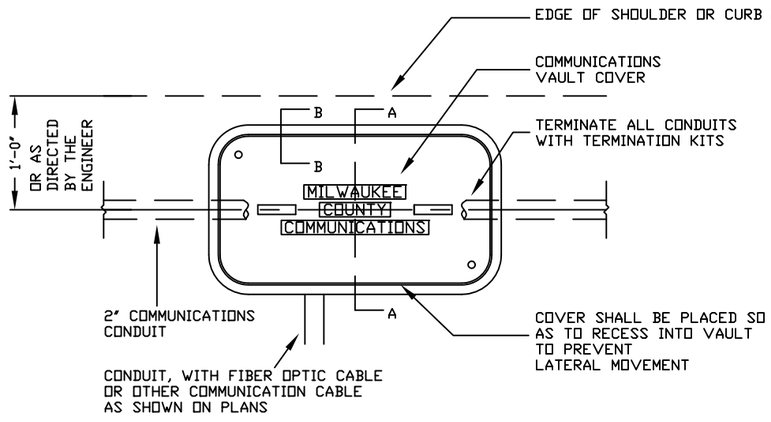




ISOMETRIC



SECTION A-A

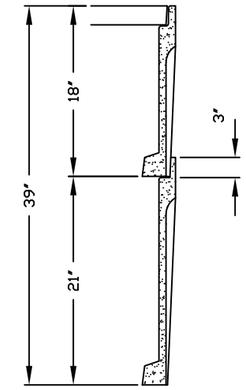


PLAN

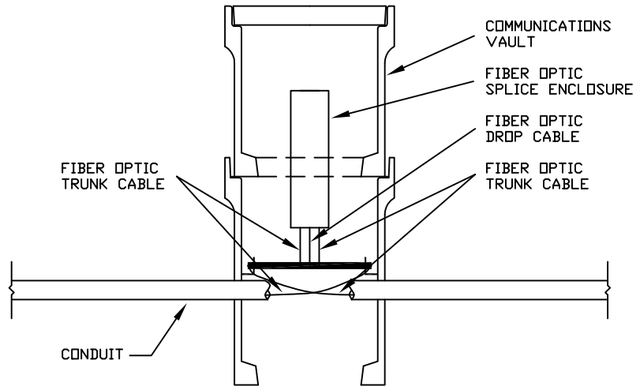
COMMUNICATIONS VAULT

NOTES

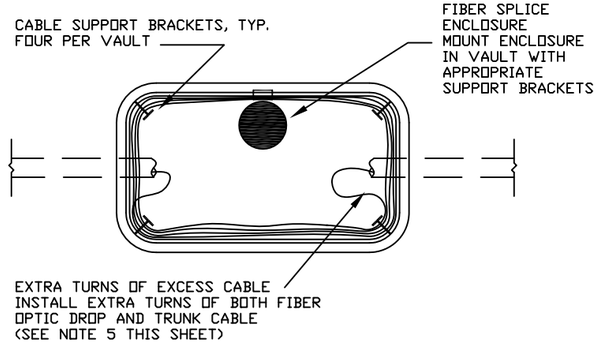
1) INSTALL 24"x36" VAULTS AT BOTH DROP AND TRUNK CABLE SPLICE LOCATIONS.
2) BOX SHALL HAVE OPEN BASE
3) COVER SHALL HAVE MINIMUM DESIGN LOAD OF 15,000 LBS. AND SHALL LOCK.
4) ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION OR PUNCH DRIVEN AT TIME OF PLACEMENT
5) FIELD PLACEMENT OF COMMUNICATIONS VAULT SHALL BE DIRECTED BY THE ENGINEER
6) INSTALL EXTRA TURNS OF CABLE IN EACH COMMUNICATIONS VAULT ACCORDINGLY OR AS NOTED:
   - COIL 60' OF EXTRA CABLE FOR BOTH DROP AND TRUNK CABLES AT SPLICE LOCATIONS
   - COIL 30' OF EXTRA TRUNK CABLE AT NON-SPLICE LOCATIONS



SECTION B-B



PROFILE

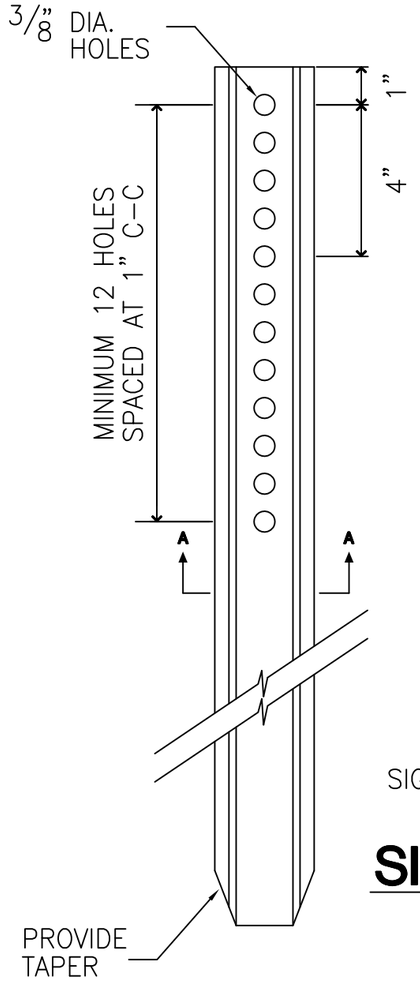


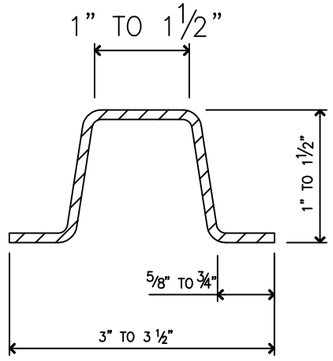
PLAN

FIBER OPTIC DROP SPLICE IN COMMUNICATIONS VAULT

PROJECT NUMBER: 2160-10-70	HWY: S.76TH ST. (CTH U)	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL – COMMUNICATIONS VAULT – 24x36	SCALE: N.T.S.	SHEET NO: 63

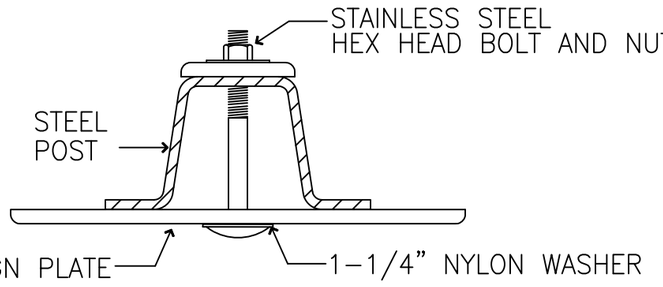
MILWAUKEE COUNTY STANDARD DETAIL DRAWING





SECTION A-A

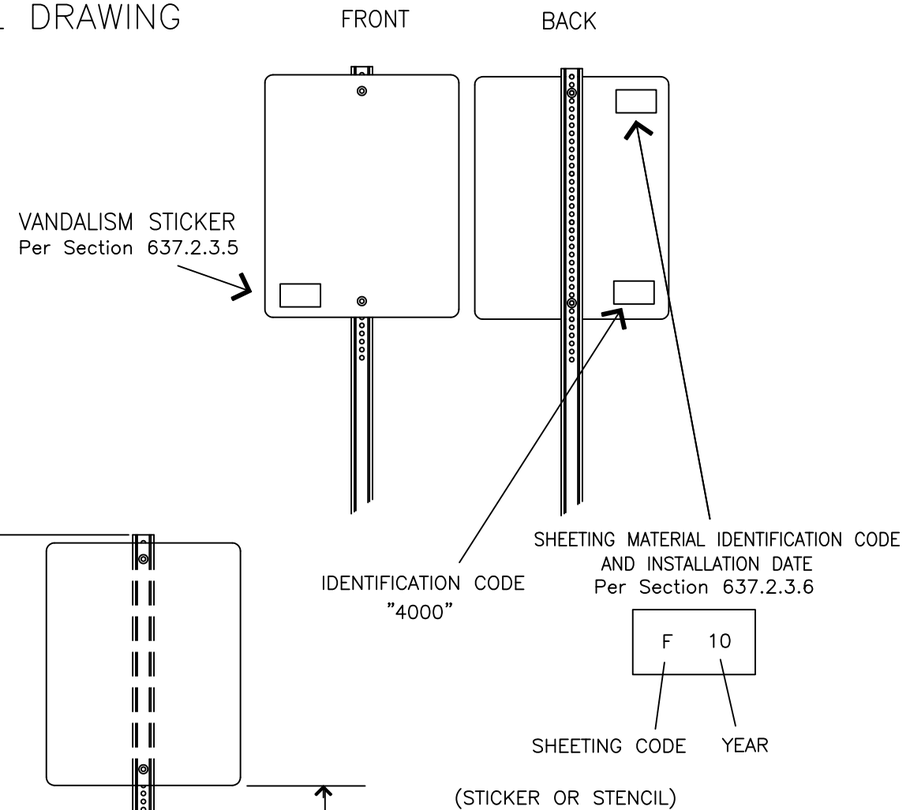
WEIGHT 2.5 LBS. PER FOOT ± 0.1 LB.

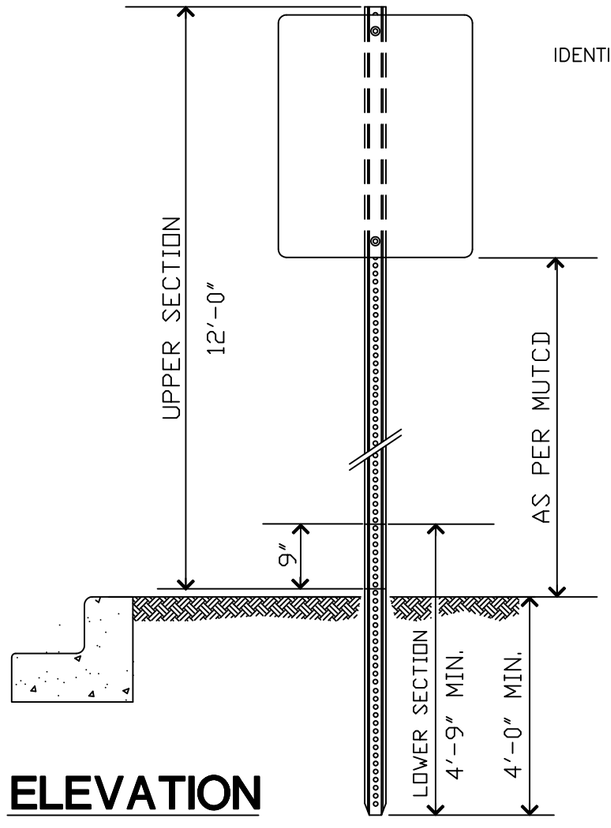


SIGN MOUNTING DETAIL

CONSTRUCTION NOTES

1. ALL POSTS SHALL CONSIST OF A TWO PART BREAKAWAY ASSEMBLY.
2. SIGN ASSEMBLIES LARGER THAN NINE (9) SQUARE FEET SHALL BE MOUNTED ON TWO (2) POSTS.
3. SEE SIGN PLATES A4-3 AND A4-4 FOR TYPICAL MOUNTING INSTALLATIONS.
4. ALL SIGN BLANKS SHALL BE SHEET ALUMINUM PER SECTION 637.2.1.3.
5. SIGN THICKNESS SHALL CONFORM TO CURRENT STANDARD SPECIFICATIONS.
6. SIGN SHEETING SHALL BE PRISMATIC HIGH INTENSITY PER SECTION 637.2.2.3.
7. BOLTS AND NUTS SHALL BE HEX HEAD STAINLESS STEEL.
8. LETTER HEIGHT FOR IDENTIFICATION CODE SHALL BE ONE (1) INCH MINIMUM.





ELEVATION

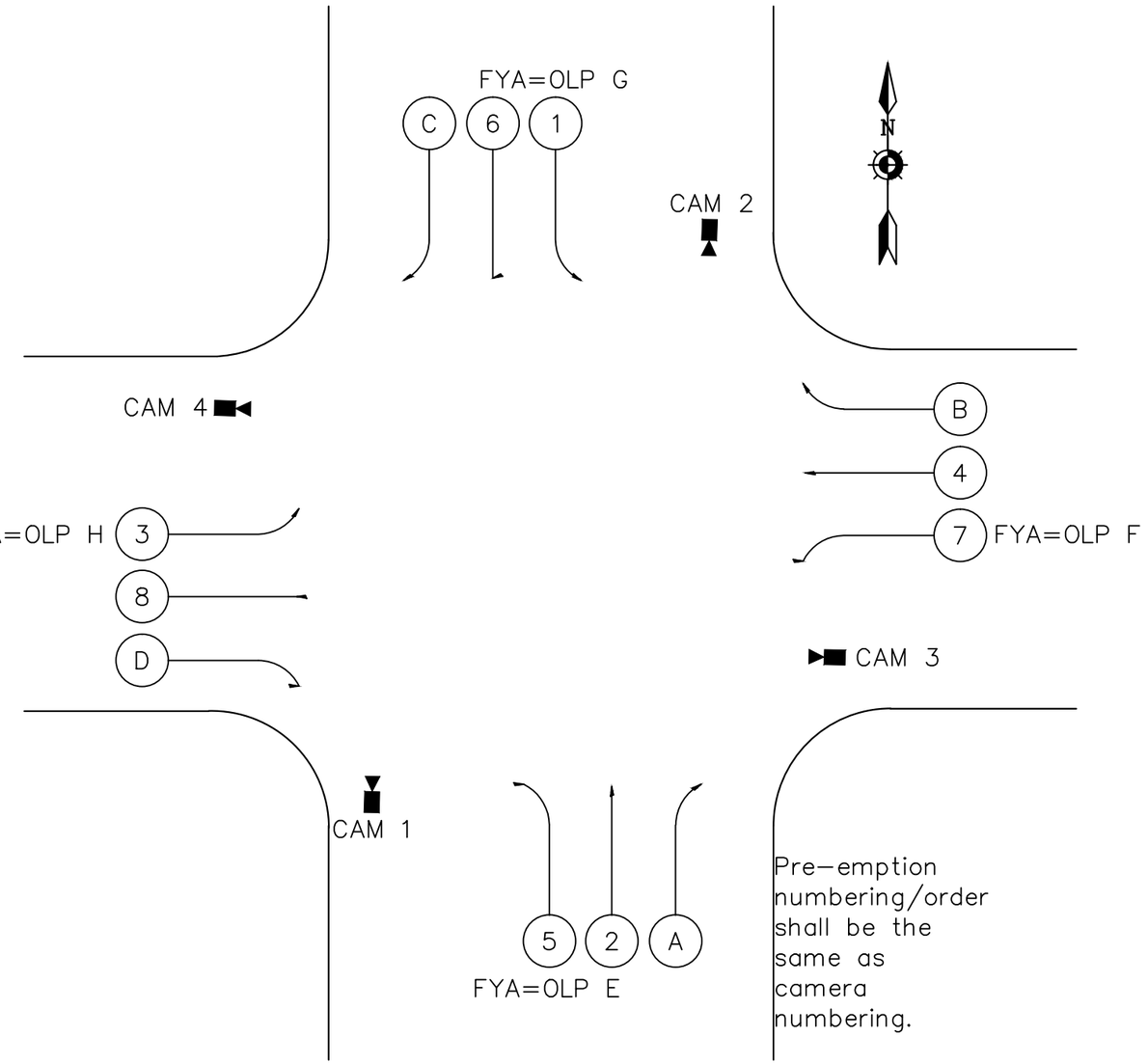
MILWAUKEE COUNTY
DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS

STANDARD DETAIL

U-CHANNEL SIGN POST DETAIL

PROJECT NO: 2160-10-70	HWY: S. 76TH ST (CTH U)	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SCALE: NTS	SHEET NO: 64	E

FILE NAME : PLOT DATE: 10/15/08 PLOT NAME : REVISION DATE:10/15/08 PLOT SCALE :



STANDARD PHASE DESIGNATION DIAGRAM

UNLESS OTHERWISE NOTED ALL CABINETS SHALL FOLLOW THESE DIAGRAMS.

REVISION DATE: 6/12/2012

TRAFFIC SIGNAL DETAILS

MILWAUKEE COUNTY STANDARDIZED INTERSECTION PHASING DETAILS

MILWAUKEE COUNTY DOT

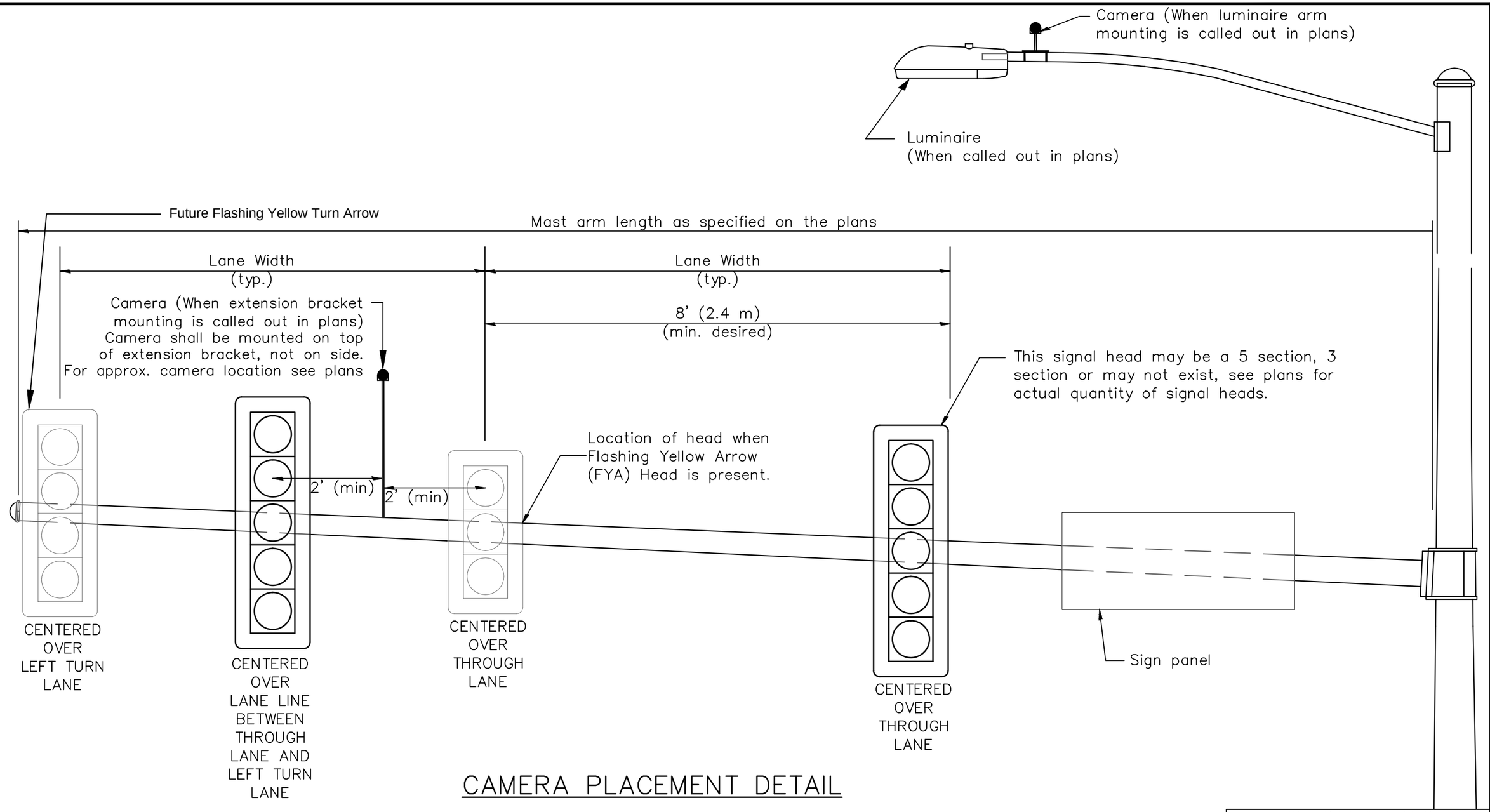
PAGE 1 OF 1

PROJECT NUMBER: 2610-10-70	HWY: S. 76th ST (CTH U)	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE: NTS	SHEET NO: 65

H:\CADD\5070\5083\Traffic Engineering\Specs&Details\Details\Current_Details\TrafficSig_CamPlace_and_StdPh.dwg

WISDOT/CADDS SHEET 40

2



CAMERA PLACEMENT DETAIL

REVISION DATE: 6/12/2012

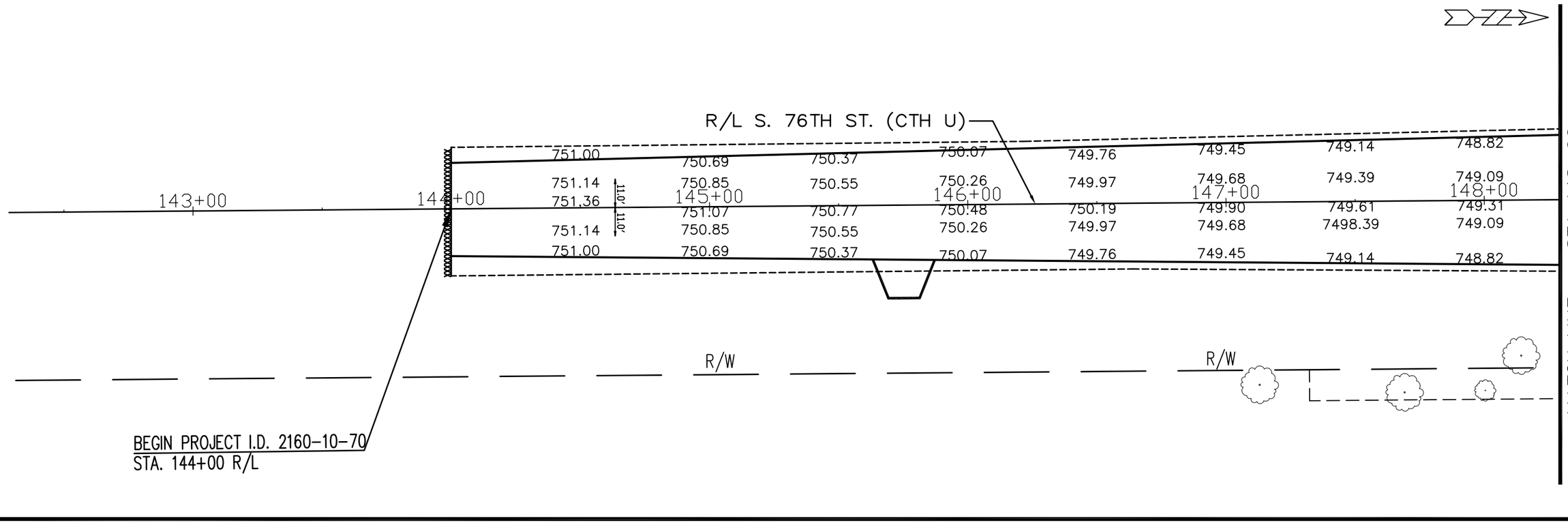
TRAFFIC SIGNAL DETAILS
MILWAUKEE COUNTY
CAMERA PLACEMENT DETAILS

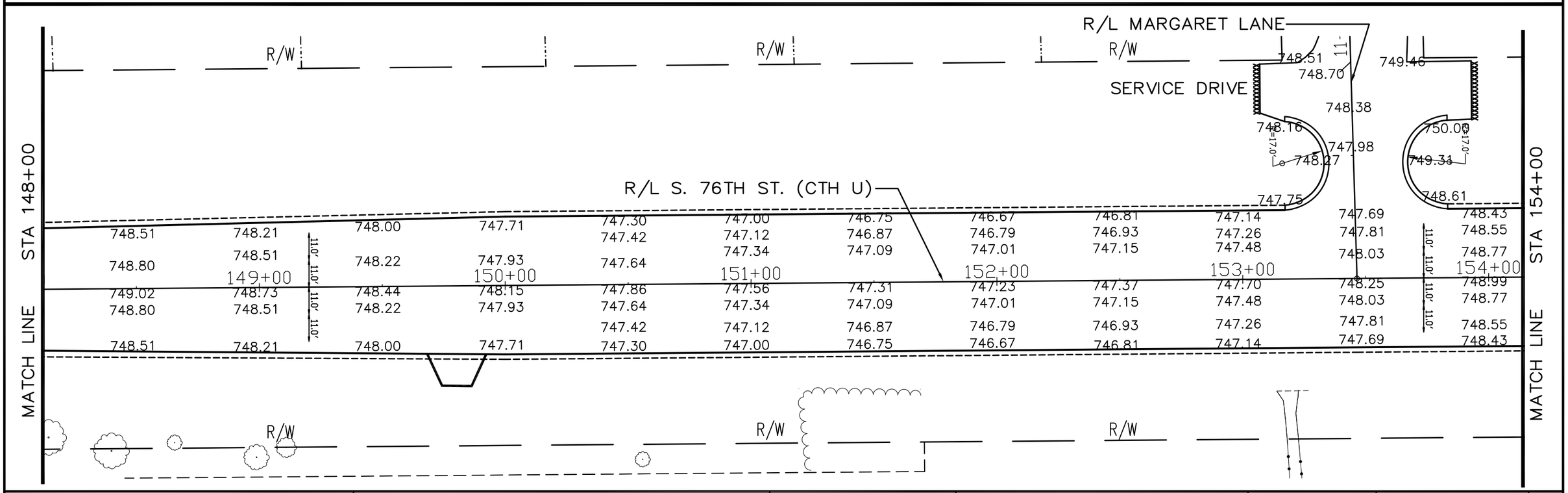
MILWAUKEE COUNTY DOT

PAGE 1 OF 1

PROJECT NUMBER: 2610-10-70	HWY: S. 76th ST (CTH U)	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE: NTS	SHEET NO: 66

H:\CADD\5070\5083\Traffic Engineering\Specs&Details\Details\Current_Details\TrafficSig_CamPlace_and_StdPh.dwg





REVISION DATE: 03/09/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES 144+00 – 154+00	SCALE: NTS	SHEET NO: 67 E

NOTE: ALL CURB GRADES ARE TO TOP OF CURB

R/L S. 76TH ST. (CTH U)

R/L PUETZ ROAD

MATCH LINE STA 154+00

MATCH LINE STA 160+00

MATCH LINE STA 160+00

MATCH LINE STA 166+00

R/W

PI Sta = 158+66.73

FLANGE 761.27

FLANGE 761.32

FLANGE 761.06

FLANGE 759.98

FLANGE 761.75

R=40.0'

761.18

762.14

761.28

761.13

760.94

760.81

760.67

760.62

760.54

760.49

762.51

762.32

762.19

762.09

762.05

762.00

761.93

763.92

764.06

765.41

763.56

764.99

763.51

764.99

763.47

764.99

763.38

764.85

763.27

764.68

763.52

764.86

765.26

17.0' 11.0' 9.0' 11.0' 17.0'

155+00 156+00 157+00 158+00 159+00 160+00

749.39 749.51 749.73 749.95 749.73 749.51 749.39

750.47 750.81 751.03 751.10 751.03 750.81 750.47

751.74 752.09 752.31 752.45 752.31 752.09 751.74

753.69 753.47 753.69 753.83 753.66 753.44 753.50

755.25 755.00 755.11 755.20 755.06 754.90 755.06

756.82 756.48 756.54 756.58 756.49 756.38 756.63

758.38 757.96 757.96 757.96 757.92 757.86 758.20

759.94 759.43 759.37 759.33 759.33 759.33 759.75

757.03 758.60 760.15

R/L S. 76TH ST. (CTH U)

R/L PUETZ ROAD

MATCH LINE STA 160+00

MATCH LINE STA 166+00

R/W

17.0' 11.0' 11.0' 17.0'

161+00 162+00 163+00 164+00 165+00 166+00

766.70 766.36 766.42 766.47 766.29 766.07

767.95 767.70 767.81 767.90 767.72 767.50

769.12 768.96 769.13 769.26 769.08 768.86

770.30 770.22 770.44 770.56 770.44 770.22

771.62 771.55 771.77 771.81 771.77 771.55

772.85 772.77 772.99 772.77

773.98 773.90 774.12 773.90

775.04 774.96 775.18 774.96

776.05 775.97 776.19 775.97

776.99 776.91 777.13 776.91

777.88 777.80 778.02 777.80

778.71 778.63 778.85 778.63

766.15 766.55

767.58 767.98

768.94 769.34

770.70

772.02

773.25

774.38

775.44

776.45

777.39

778.28

779.11

REVISION DATE: 10/31/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES 154+00 – 166+00	SCALE: NTS	SHEET NO: 68 E

WISDOT/CADDS SHEET 40

NOTE: ALL CURB GRADES ARE TO TOP OF CURB

R/L LAKE POINTE DRIVE

R/L S. 76TH ST. (CTH U)

R/L TWIN OAKS BLVD.

MATCH LINE STA 166+00

MATCH LINE STA 172+00

R/L TUCKAWAY SHORES DRIVE

R/L S. 76TH ST. (CTH U)

R/L FOUNTAIN CT.

MATCH LINE STA 172+00

MATCH LINE STA 178+00

SEE DETAIL DRAWING
DETECTABLE WARNING FIELD REQ'D

REVISION DATE: 04/30/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES 166+00 – 178+00	SCALE: NTS	SHEET NO: 69 E

NOTE: ALL CURB GRADES ARE TO TOP OF CURB

SERVICE DRIVE

R/L S. 76TH ST. (CTH U)

MATCH LINE STA 178+00

STA 184+00 MATCH LINE

R/L TUCKAWAY CREEK DRIVE

R/L FOREST HILL AVENUE

I Sta = 185+04.36

R/L COUNTRY CLUB CIRCLE (1)

MATCH LINE STA 184+00

STA 190+00 MATCH LINE

R/W

R=25.0'

R=30.0'

FLANGE 770.32

FLANGE 770.19

FLANGE 770.50

FLANGE 768.01

FLANGE 768.22

779.96	779.23	778.48	777.42	776.57	776.23	775.48	774.49	773.49	772.55	771.61	770.71	
779.88	779.16	778.41	777.76	776.91	776.16	775.41	774.41	773.41	772.47	771.53	770.63	
780.10	779.38	778.63	777.88	777.13	776.38	775.63	774.69	773.75	772.81	771.87	770.97	
779.88	779.16	778.41	777.66	776.91	776.16	775.38	774.34	773.59	772.63	771.69	770.81	
								773.28	772.30	771.36	770.50	
779.96	779.23	778.48	77.73	776.98	776.23	775.41	774.34	773.24	772.86	770.85	770.57	
780.36	779.63	778.88	778.13	777.38	776.63	775.81	774.74	773.64	771.70	771.31	770.46	
											770.86	

770.01	769.92	769.82	769.75	769.56	769.30	769.08	768.87	768.66	768.43	768.20	767.97	767.68	767.39	767.10
769.93	769.48	769.22	769.00	768.79	768.58	768.36	768.12	767.90	767.61	767.32	767.03	
770.15	769.70	769.44	769.22	769.01	768.80	768.58	768.34					
770.27	769.82	769.56	769.34	769.11	768.92	768.70	768.41	768.12	767.83	767.54	767.25	
770.12	769.69	769.44	769.22	769.01	768.80	768.58	768.34					
769.85	769.44	769.22	769.00	768.79	768.58	768.36	768.12	767.90	767.61	767.32	767.03	
769.84	769.48	769.30	769.08	768.45	768.22	768.72	768.43	768.20	767.97	767.68	767.39	767.10
770.24	769.88	769.70	769.48	768.22	769.08	768.83	768.60	768.37	768.08	767.79	767.50	

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES 178+00 – 190+00	SCALE: NTS	SHEET NO: 70 E

REVISION DATE: 04/30/2013

WISDOT/CADDS SHEET 40

NOTE: ALL CURB GRADES ARE TO TOP OF CURB

R/L S. 76TH ST. (CTH U)

STA 190+00

MATCH LINE

766.81 766.52 766.23 765.94 765.65 765.36 765.07 764.78 764.49 764.20 763.50 FLANGE 763.62

766.74 766.45 766.16 765.87 765.58 765.29 765.00 764.71 764.42 764.13 763.84 763.55

17.0' 11.0' 11.0' 17.0'

0 191+00 192+00 193+00 194+00 195+00 196+0

766.96 766.67 766.38 766.09 765.80 765.51 765.22 764.93 764.64 764.35 764.06

766.74 766.45 766.16 765.87 765.58 765.29 765.00 764.71 764.42 764.13 763.84 763.55

764.08 764.05 FLANGE 764.20 FLANGE

766.81 766.52 766.23 765.94 765.65 765.36 765.07 764.78 764.20 763.91 763.62

767.21 766.92 766.63 766.34 766.05 765.76 765.47 765.18 764.32 764.56 764.66 764.60 764.31 764.02

R/W R/W R/W R/W R/W

R=330'

R/L COUNTRY CLUB CIRCLE (2)

STA 196+00

MATCH LINE

R/L NORWOOD LANE

R/L S. 76TH ST. (CTH U)

763.33 763.05 762.76 762.38 762.05 761.76 761.47 761.18 760.89 760.14 759.76

763.26 762.97 762.66 762.31 761.98 761.69 761.40 761.11 760.82 760.48 760.10 759.67

763.77 0 197+00 198+00 199+00 200+00 201+00 202+0

763.48 763.19 762.90 762.61 762.32 762.03 761.74 761.45 761.16 760.82 760.44 760.25 760.01

762.20 761.91 7761.62 761.33 761.04 760.70 760.32 759.89

763.26 762.97 762.66 762.31 761.98 761.69 761.40 761.11 760.82 760.48 760.10 759.67

17.0' 11.0' 6.0' 6.0' 11.0' 17.0'

760.26 FLANGE

763.33 763.05 762.76 762.38 762.05 761.76 761.47 761.18 760.89 760.14 759.76 759.57 FLANGE

763.73 763.45 763.16 762.78 762.45 762.16 761.87 761.58 761.29 760.06 760.05 759.74

760.07 FLANGE 759.71 759.77 FLANGE 760.14

759.55 FLANGE

R/W R/W R/W R/W R/W

R=330'

758.50 759.59 759.51 758.32 760.04 760.01 759.74

R=300'

R/L TUCKAWAY PINES CIRCLE

STA 202+00

MATCH LINE

REVISION DATE: 04/30/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES 190+00 – 202+00	SCALE: NTS	SHEET NO: 71 E

NOTE: ALL CURB GRADES ARE TO TOP OF CURB

R/L S. 76TH ST. (CTH U)

R/W

MATCH LINE STA 202+00

STA 208+00 MATCH LINE

759.27	758.75	757.77 FLANGE	757.56	756.90	756.18	755.48	754.76	754.04	753.32	752.62	751.90
759.20	758.68	758.11	757.49	756.83	756.11	755.41	754.69	753.97	753.25	752.55	751.83
759.42	758.90	758.33	757.71	757.05	756.33	755.63	754.91	754.19	753.47	752.77	752.05
0	203+00		204+00		205+00		206+00	754.34	207+00		208+0
759.54	759.02	758.45	757.83	757.17	756.46	755.76	755.05		753.63	752.93	752.22
759.42	758.90	758.33	757.71	757.05	756.33	755.63	754.91	754.19	753.47	752.77	752.05
759.20	758.68	758.11	757.49	756.83	756.11	755.41	754.69	753.97	753.25	752.55	751.83
759.27	758.75	758.18	757.56	756.90	756.18	755.48	754.76	754.04	753.32	752.62	751.90
759.67	759.15	758.58	757.96	757.30	756.58	755.88	755.16	754.44	753.72	753.02	752.30

17.0', 11.0', 9.0', 11.0', 17.0'

R/W

PI Sta = 10+57.29

11+00

BOP Sta = 10+00.00

R/L DREXEL AVENUE

R/W

R=300'

748.40 FLANGE

748.51 FLANGE

748.62 FLANGE

PI Sta = 211+48.80

748.34 FLANGE

748.18 FLANGE

748.02 FLANGE

R/L S. 76TH ST. (CTH U)

MATCH LINE STA 208+00

STA 214+00 MATCH LINE

751.18	750.66	750.15	749.67	749.31	748.65	748.12	747.89	747.59	747.65	
751.11	750.50	749.90	749.36	748.89	748.53	748.52	747.94	747.70	747.56	747.52	747.58
751.33	750.66	750.01	749.39	748.89	748.48	748.34	747.88	747.70	747.62	747.63	747.75
0	209+00		210+00		211+00	748.15	212+00		213+00		214+00
751.51	750.80	750.10	749.44	748.89	748.43	748.09	747.84	747.70	747.66	747.72	747.89
751.33	750.62	749.92	749.26	748.71	748.25	747.90	747.66	747.52	747.48	747.54	747.71
751.11	750.40	749.70	749.04	748.49	747.69 FLANGE 748.03	747.85	747.44	747.30	747.26	747.32	747.49
751.18	750.47	749.77	749.11	748.56	748.10	747.38	747.10	747.37	747.33	747.39	747.56
751.58	750.87	750.17	749.51	748.96	R/W 747.58	747.13	746.55		747.73	747.79	747.96

17.0', 11.0', 9.0', 11.0', 17.0'

747.87 FLANGE

746.27 FLANGE

R=300'

R/W

746.49 FLANGE

746.08 FLANGE

746.75

747.77

R/W

REVISION DATE: 04/30/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES 202+00 – 214+00	SCALE: NTS	SHEET NO: 72 E

WISDOT/CADDS SHEET 40

NOTE: ALL CURB GRADES ARE TO TOP OF CURB

R/L S. 76TH ST. (CTH U)

MATCH LINE STA 214+00

MATCH LINE STA 220+00

R/W

747.83 748.20 748.67 749.54 750.47 751.36 750.24 753.11 753.57 FLANGE 754.86 755.73 756.60

747.76 748.13 748.60 749.47 750.40 751.28 750.16 753.03 753.91 754.78 755.66 756.53

747.98 748.35 748.82 749.69 750.62 750.50 750.38 753.25 754.13 755.00 755.88 756.75

215+00 216+00 217+00 218+00 219+00 10+00 220+0

748.16 748.53 749.00 749.87 750.75 751.62 752.50 753.37 754.23 755.12 756.00 756.87

747.98 748.35 748.82 749.69 750.62 751.50 750.38 753.25 754.11 755.00 755.88 756.75

747.76 748.13 748.60 749.47 750.40 751.28 750.16 753.03 753.89 754.78 755.66 756.53

17.0' 11.0' 6.0' 6.0' 11.0' 17.0'

747.84 748.21 748.26 FLANGE 749.55 750.05 FLANGE 751.36 750.24 753.11 753.97 754.86 755.32 FLANGE 756.20

748.24 748.61 749.08 749.95 750.87 751.76 750.64 753.51 754.37 755.26 756.14 756.38 755.94 FLANGE 756.40 756.25 FLANGE

R=30.0' R=95.0'

R/W

R/L FAITH DRIVE

R/L S. 76TH ST. (CTH U)

MATCH LINE STA 220+00

MATCH LINE STA 226+00

R/W

758.35 759.21 760.64 761.30 761.91 762.49 763.02 763.10 763.95 764.36

757.07 FLANGE 759.54

757.41 758.28 759.14 759.88 760.57 761.23 761.84 762.42 762.95 763.44 763.88 764.29

757.63 758.50 759.36 760.10 760.79 761.45 762.06 762.64 763.17 763.66 764.10 764.51

221+00 222+00 223+00 224+00 225+00 226+0

757.75 758.62 759.48 760.22 760.91 761.57 762.18 762.76 763.29 763.78 764.22 764.63

757.63 758.50 759.36 760.10 760.79 761.45 762.06 762.64 763.17 763.66 764.10 764.51

757.41 758.28 759.14 759.88 760.57 761.23 761.84 762.42 762.95 763.44 763.88 764.29

757.07 FLANGE

17.0' 11.0' 6.0' 6.0' 11.0' 17.0'

758.35 759.21 759.95 760.64 761.30 761.91 762.49 763.02 763.51 763.95 764.36

757.89 758.75 759.61 760.35 761.04 761.70 762.31 762.89 763.42 763.91 764.35 764.76

763.48 763.49 763.96 763.95 764.08

R=30.0' R=30.0' R=10.0'

RETAINING WALL

R/W

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES 214+00 – 226+00	SCALE: NTS	SHEET NO: 73 E

REVISION DATE: 03/09/2012

WISDOT/CADDS SHEET 40

NOTE: ALL CURB GRADES ARE TO TOP OF CURB

R/L S. 76TH ST. (CTH U)

MATCH LINE STA 226+00

MATCH LINE STA 232+00

R/L SOUTHVIEW DRIVE

R/W

764.72 765.04 765.32 765.56 765.76 765.91 766.03 766.10 766.14 766.28 766.22 766.10

764.65 764.97 765.25 765.49 765.69 765.84 765.96 766.03 766.07 766.20 766.14 766.02

764.87 765.19 765.47 765.71 765.91 766.06 766.18 766.25 766.29 766.20 766.14 766.02

0 227+00 228+00 229+00 230+00 231+00 232+0

764.99 765.31 765.59 765.83 766.03 766.18 766.30 766.37 766.40 766.48 766.36 766.24

764.87 765.19 765.47 765.71 765.91 766.06 766.18 766.25 766.29 766.20 766.14 766.02

764.65 764.97 765.25 765.49 765.69 765.84 765.96 766.03 766.07

17.0' 11.0' 6.0' 6.0' 11.0' 17.0'

765.15 FLANGE

765.35

765.50 FLANGE

764.72 765.04 765.32 766.03 766.10 766.14 766.28 766.22 766.10

765.12 765.44 765.72 765.61 765.55 766.18 766.43 766.50 766.54 766.68 766.62 766.50

765.42 FLANGE

765.40 FLANGE 765.60 FLANGE

R=300.0'

TRANSITION 31" CONC. C & G

R/L S. 76TH ST. (CTH U)

MATCH LINE STA 232+00

MATCH LINE STA 238+00

765.96 765.78 765.96 765.30 764.99 764.65 764.26 763.83 763.36 762.82 762.26 761.70

765.88 765.70 765.48 765.22 764.91 764.57 764.18 763.75 763.28 762.74 762.18 761.62

0 233+00 234+00 235+00 236+00 237+00 238+0

766.10 765.92 765.70 765.44 765.13 764.79 764.40 763.97 763.50 763.00 762.50 761.84

765.88 765.70 765.48 765.22 764.91 764.57 764.18 763.75 763.28 762.74 762.40 761.84

762.18 761.62

765.96 765.78 765.56 765.30 764.99 764.65 764.26 763.83 763.36 762.82 762.26 761.28

766.36 766.18 765.96 765.70 765.39 765.05 764.66 764.23 763.76 763.22 762.66 762.10

17.0' 11.0' 11.0' 17.0'

EL=533.29' 761.28

FLANGE

PI STA = 238+87.78

R/W

REVISION DATE: 04/30/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES 226+00 – 238+00	SCALE: NTS	SHEET NO: 74 E

NOTE: ALL CURB GRADES ARE TO TOP OF CURB

R/L IMPERIAL DRIVE

R/L S. 76TH ST. (CTH U)

R/L BRUNN DRIVE

MATCH LINE STA 238+00

MATCH LINE STA 244+00

END PROJECT I.D. 2160-10-70
STA. 248+30 R/L

761.17	760.67	760.17	759.86	759.55	759.24 FLANGE	759.01	758.64	757.96	757.27	756.68	756.20	755.93
761.10	760.60	760.10	759.70	759.30		759.05	758.35	757.75	757.15	756.60	756.12	755.85
761.32	760.82	760.32	759.86	759.41		759.02	758.43	757.89	757.34	756.82	756.34	756.07
762.00	761.50	761.00	760.00	759.50		759.00	758.50	758.00	757.50	757.00	756.52	756.25
	761.32	760.82	760.32	759.82	759.34		758.93	758.41	757.86	757.32	756.82	756.34	756.07
	761.10	760.60	760.10	759.60	759.15		758.84	758.30	757.70	757.10	756.60	756.12	755.85
	761.17	760.67	759.76 FLANGE	759.67	759.27	758.62 FLANGE	758.68	758.34 FLANGE	758.20 FLANGE	757.70 FLANGE	757.86	757.17	756.68	756.20	755.93
	761.59	761.09	760.59	760.07	759.60			758.32 FLANGE	758.02 FLANGE		758.26	757.76	757.08	756.60	756.33

17.0' 11.0' 11.0' 11.0' 17.0'

239+00 240+00 241+00 242+00 243+00 244+0

R=30.0'

755.93	755.90	756.10	756.52	757.12	757.76	758.37	758.98	759.19 FLANGE			
755.85	755.82	756.02	756.45	757.07	757.74	758.35	758.99	759.61			
756.07	756.04	756.24	756.67	757.33	758.01	759.02	759.64	760.26			
756.25	756.22	756.42	756.85	757.49		759.24	760.06				
756.07	756.04	756.24	756.67	757.33	758.01	759.05	759.66				
755.85	755.82	756.02	756.45	757.07	757.74	758.38	759.00				
755.93	755.90	756.10	756.52	757.12	757.76	758.37	758.99				
756.33	755.30	756.50	756.94	757.52	758.16	758.77	759.39				

17.0' 11.0' 11.0' 11.0' 17.0'

244+00 245+00 246+00 247+00 248+00 249+00

R=2.0'

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES 238+00 – 248+30	SCALE: NTS	SHEET NO: 75 E

REVISION DATE: 04/30/2013

WISDOT/CADDS SHEET 40

2

2

748.51

749.46

748.70

748.38

STA 153+16.43
47.00'LT

748.16

750.00

747.98

748.27

749.31

R/L MARGARET LANE

747.75

748.61

747.14

747.69

748.43

747.26

747.81

748.55

158+00

159+00

R/L S. 76TH ST

TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

759.44
760.31 (T/C)
759.86 (GUT)
759.88
759.92 (FLG)
760.07
759.97
W=8.0'
1/2" EXPANSION JOINT
2'
0.49%
1.50%
759.98 (FLG)
760.05
1.88%
760.55
760.51
0.44%
760.49
2.78%
760.15
Y = 16.6' DISTANCE FROM P.C.
6.0' RAMP
X=6.9' LANDING MEASURED FROM FLOW LINE
759.91 (GUT)
760.04 (FLG)
759.96
760.49 (T/C)
760.48
+00.00
STA 158+03.83
79.00'RT
760.52 (FLG)
R/L PUETZ RD EAST

TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

762.32 (T/C)
761.76 (GUT)
762.65 (FLG)
761.84 (FLG)
761.77
761.86
1/2" EXPANSION JOINT
W=8.0'
762.48
761.75 (FLG)
2'
1.50%
4.22%
761.86
6.0' RAMP
Y = 16.6' DISTANCE FROM P.C.
762.56
761.67 (FLG)
X=6.9' LANDING MEASURED FROM FLOW LINE
761.77
761.67 (GUT)
762.04 (T/C)
+30.58
STA 159+30.58
79.00'RT
760.85 (FLG)

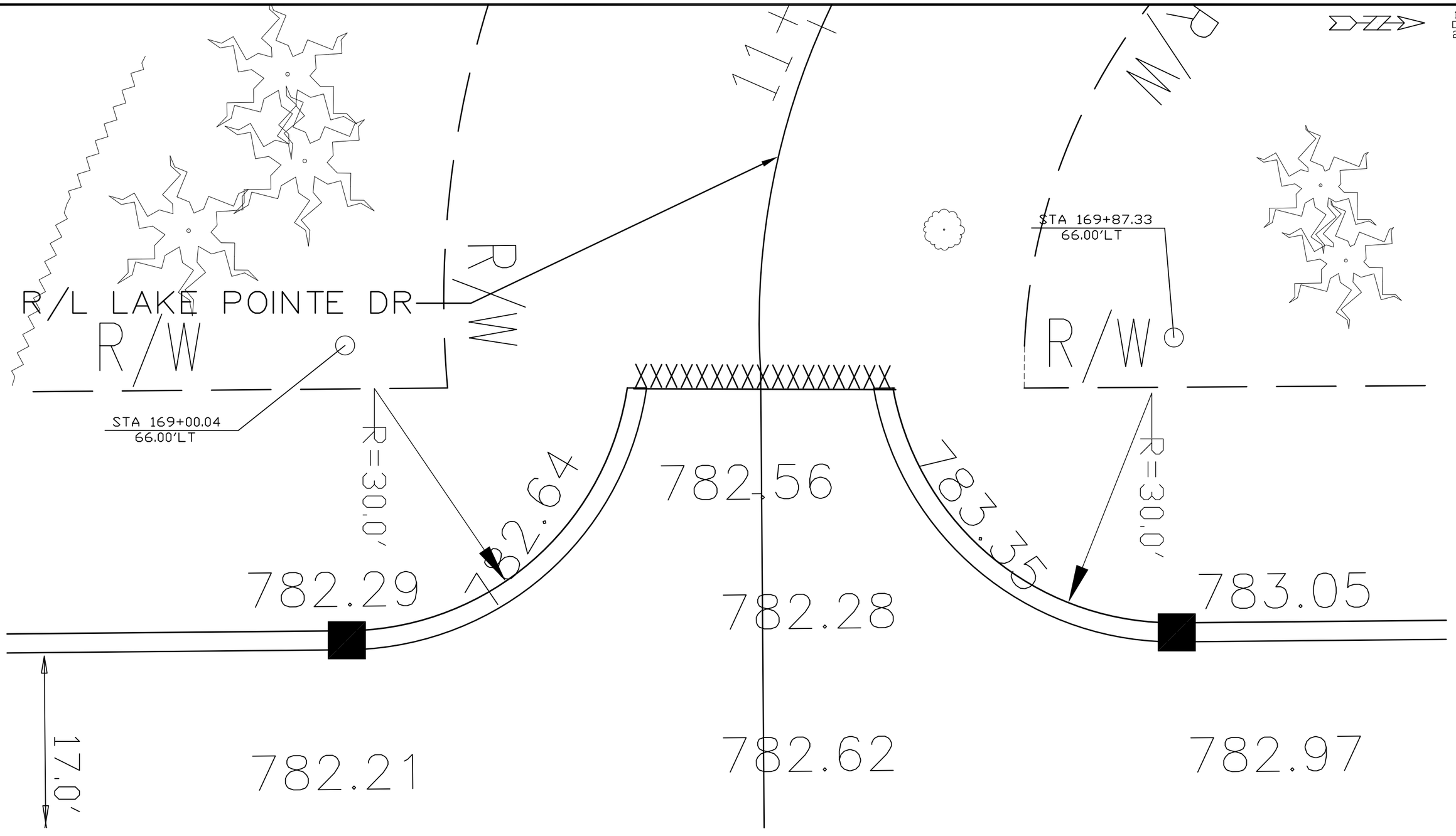
THE DETECTABLE WARNING FIELD LOCATION SHOWN IS APPROXIMATE. THE WARNING FIELD SHALL BE PLACED AS SHOWN ON THE SDD AND THE LEADING EDGE SHALL BE WITHIN AN INCH OF THE BACK OF THE CURB AND ALLOW FOR THE OTHER EDGE TO BE GREATER THAN 6-8" FROM THE FLOW LINE WHERE APPROPRIATE.

REVISION DATE: 03/09/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES PUETZ RD (EAST)	SCALE: NTS	SHEET NO: 77 E

R/L PUETZ RD WEST

765.04
13+00
765.28
764.96
764.04
764.28
763.75
763.04
12+00
763.28
762.75
762.47
762.71
762.15
762.14
762.51
762.32
762.19
763.56
763.51
764.99
764.99
766.36
766.42
767.70
767.81
768.96
769.13
769.26
764.06
765.41
766.70
767.95
769.12
761.28
761.13
760.94
760.81
759.94
759.43
759.37
758.38
757.96
757.96
756.82
756.48
756.54
755.25
755.00
755.11
753.69
753.47
753.69
761.18
R=40.0'
R=40.0'
17.0'
11.0'
9.0'
17.0'
11.0'
9.0'
17.0'
11.0'
9.0'
FLANGE
761.27
FLANGE
761.32
FLANGE
761.27
FLANGE
761.06
11+00
Pi Sta. = 158+66.73
STA 158+03.63
79.00'LT
STA 159+29.73
79.00'LT
R/W
R/W
R/W
156+00
157+00
158+00
159+00
160+00
161+00



REVISION DATE: 03/09/2012

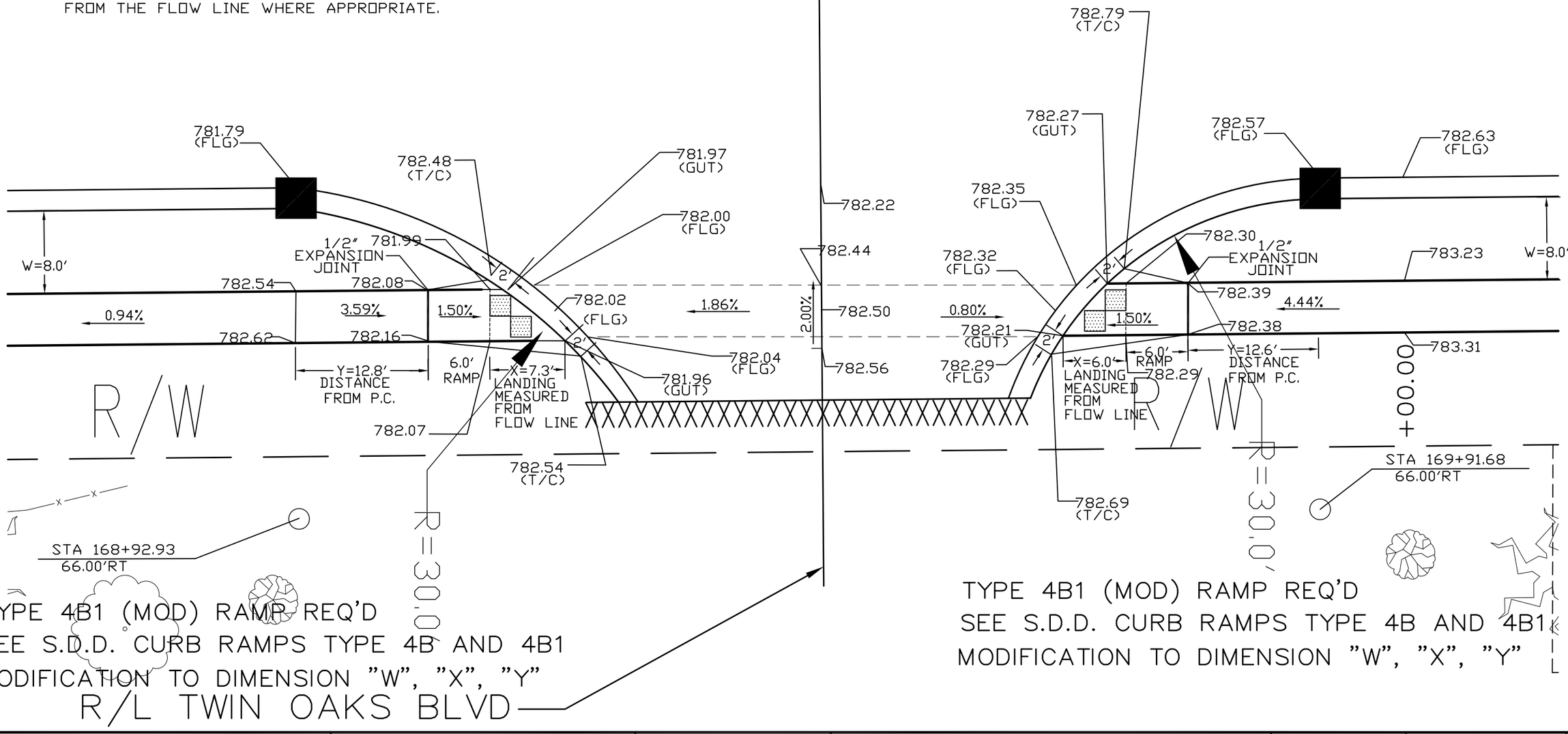
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES LAKE POINTE DRIVE	SCALE: NTS	SHEET NO: 79 E

WISDOT/CADDS SHEET 40

169+00

170+00

THE DETECTABLE WARNING FIELD LOCATION SHOWN IS APPROXIMATE. THE WARNING FIELD SHALL BE PLACED AS SHOWN ON THE SDD AND THE LEADING EDGE SHALL BE WITHIN AN INCH OF THE BACK OF THE CURB AND ALLOW FOR THE OTHER EDGE TO BE GREATER THAN 6-8" FROM THE FLOW LINE WHERE APPROPRIATE.



TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

REVISION DATE: 03/09/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES TWIN OAKS BLVD	SCALE: NTS	SHEET NO: 80 E

R/L TUCKAWAY SHORES DR

EXISTING EL = 784.20

EXISTING EL = 784.30

R=30.0'

R/W

R/W

R/W

R=30.0'

STA 173+18.66
66.00'LT

STA 174+19.44
66.00'LT

W=6.0'

1/2" EXPANSION JOINT

5.45%

Y=10.1' DIST FROM P.C.

6.0' RAMP

1.50%

X=6.8' LANDING MEASURED FROM FLOW LINE

2.00%

783.65 (FLG)
783.50
783.52
783.43
783.41
783.91 (T/C)
783.49 (FLG)
783.39 (GUT)
783.33 (GUT)
783.42 (FLG)
783.39 (FLG)
765.97 (T/C)
783.20 (FLG)

THE DETECTABLE WARNING FIELD LOCATION SHOWN IS APPROXIMATE. THE WARNING FIELD SHALL BE PLACED AS SHOWN ON THE SDD AND THE LEADING EDGE SHALL BE WITHIN AN INCH OF THE BACK OF THE CURB AND ALLOW FOR THE OTHER EDGE TO BE GREATER THAN 6-8" FROM THE FLOW LINE WHERE APPROPRIATE.

TYPE 4B1 RAMP REQ'D

173+00

174+00

R/L S. 76TH ST. (CTH U)

REVISION DATE: 03/09/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES TUCKAWAY SHORES DRIVE	SCALE: NTS	SHEET NO: 81 E

R/L TUCKAWAY SHORES DR

SEE PAVING GRADES SHEET 15A

THE DETECTABLE WARNING FIELD LOCATION SHOWN IS APPROXIMATE. THE WARNING FIELD SHALL BE PLACED AS SHOWN ON THE SDD AND THE LEADING EDGE SHALL BE WITHIN AN INCH OF THE BACK OF THE CURB AND ALLOW FOR THE OTHER EDGE TO BE GREATER THAN 6-8" FROM THE FLOW LINE WHERE APPROPRIATE.

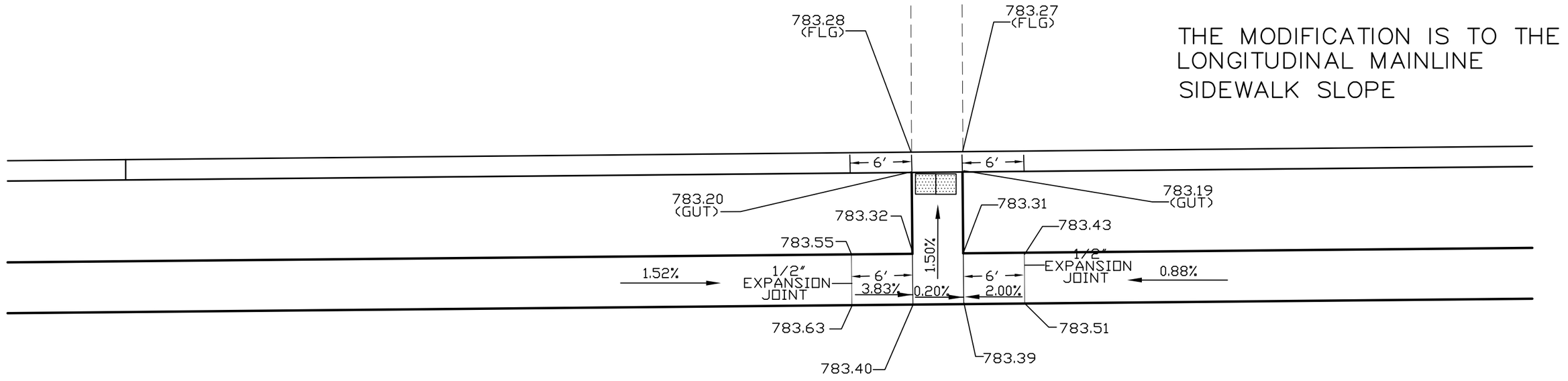
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174+00

R/L S. 76TH ST. (CTH U)

TYPE 7B RAMP(MOD) REQ'D
SEE SDD CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

THE MODIFICATION IS TO THE LONGITUDINAL MAINLINE SIDEWALK SLOPE



REVISION DATE: 03/09/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES TUCKAWAY SHORES DRIVE	SCALE: NTS	SHEET NO: 82 E

R/L S. 76TH ST

177+00

178+00

THE DETECTABLE WARNING FIELD LOCATION SHOWN IS APPROXIMATE. THE WARNING FIELD SHALL BE PLACED AS SHOWN ON THE SDD AND THE LEADING EDGE SHALL BE WITHIN AN INCH OF THE BACK OF THE CURB AND ALLOW FOR THE OTHER EDGE TO BE GREATER THAN 6-8" FROM THE FLOW LINE WHERE APPROPRIATE.

TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

781.03 (FLG)
781.16 (T/C)
780.60
780.57 (GUT)
780.53
780.69
1/2" EXPANSION JOINT
780.71 (FLG)
780.49
W=8.0'
781.68
7.56%
780.77
1.50%
780.69 (FLG)
1.16%
0.28%
780.48
781.76
Y=13.1' DISTANCE FROM P.C.
6.0' RAMP
2'
780.67 (FLG)
780.59 (GUT)
780.68
X=6.0' LANDING MEASURED FROM FLOW LINE
781.02 (T/C)
STA 177+30.35
60.00' RT
R/W
780.30 (FLG)
780.14 (FLG)
780.40
780.44 (T/C)
779.95 (GUT)
799.98
779.97 (FLG)
780.03 (FLG)
780.04 (FLG)
2.33%
780.40
W=8.0'
780.08
2.44%
1.34%
780.15
780.05 (FLG)
780.48 (T/C)
779.97 (GUT)
780.06
780.47
780.11 (FLG)
780.14 (FLG)
STA 178+18.60
60.00' RT
R/W

TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

R/L FOUNTAIN COURT

REVISION DATE: 03/09/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES FOUNTAIN COURT	SCALE: NTS	SHEET NO: 83 E

183+00

100

184+

R/L S. 76TH ST

TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

772.44 (FLG)
771.10
771.07 (GUT)
772.86 (T/C)
1/2" EXPANSION JOINT
771.15 (FLG)
W=8.0'
2'
771.19
773.22
3.55%
771.10 (FLG)
1.50%
771.27
Y=13.1'
6.0' RAMP
X=6.0' LANDING MEASURED FROM FLOW LINE
DISTANCE FROM P.C.
773.30
+50.00
R/W
771.05 (FLG)
771.09 (GUT)
STA 182+94.48
66.00' RT
771.18
770.50 (T/C)
770.08 (FLG)
30'-0"

THE DETECTABLE WARNING FIELD LOCATION SHOWN IS APPROXIMATE. THE WARNING FIELD SHALL BE PLACED AS SHOWN ON THE SDD AND THE LEADING EDGE SHALL BE WITHIN AN INCH OF THE BACK OF THE CURB AND ALLOW FOR THE OTHER EDGE TO BE GREATER THAN 6-8" FROM THE FLOW LINE WHERE APPROPRIATE.

TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

770.15 (FLG)
770.16 (GUT)
770.19
770.57 (T/C)
1/2" EXPANSION JOINT
W=8.0'
770.24 (FLG)
2'
770.28
770.78
1.84%
770.65
1.51%
770.29 (FLG)
1.50%
3.01%
770.36
770.86
770.24 (FLG)
2'
6.0' RAMP
X=6.0' LANDING MEASURED FROM FLOW LINE
Y=13.1' DISTANCE FROM P.C.
770.58
770.27
+00.00
STA 183+94.60
66.00' RT
770.52
770.52
770.18 (GUT)
770.32
770.32
770.08 (FLG)
770.50 (T/C)
30'-0"

R/L TUCKAWAY CREEK DR.

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES TUCKAWAY CREEK DRIVE	SCALE: NTS	SHEET NO: 84 E

REVISION DATE: 01/22/2013

WISDOT/CADDS SHEET 40

R/L FOREST HILL AVE

13+00

STA 184+50.50
66.00' LT

STA 185+56.46
66.00' LT

R/W

R=30.0'

PI Sta= 185+04.39

773.49	772.55	771.61	770.71	770.01	769.92	769.82	769.75	769.30	769.08	768.87	768.66	768.43	768.20
773.41	772.47	771.53	770.63	769.93	769.48	769.22	769.00	768.79	768.58	768.36	768.12		
773.63	772.69	771.75	770.85	770.15	769.70	769.44	769.22	769.01	768.80	768.58	768.34		
773.75	772.81	771.87	770.97	770.27	769.82	769.56	769.34	769.13	768.92	768.70	768.41		
773.59	772.63	771.69	770.81	770.12	769.69	769.44	769.22	769.01	768.80	768.58	768.34		
773.28	772.30	771.36	770.50	769.85	769.44	769.22	769.00	768.79	768.58	768.36	768.12		
773.24	772.86	771.10	770.57	770.19	770.46	769.84	769.48	769.30	769.08	768.45	768.22	768.72	768.43	768.20	768.60

17.0' 11.0' 6.0' 6.0' 11.0' 17.0'

183+00 184+00 185+00 186+00 187+00 188+00

770.74	770.46	770.16	770.13	770.49	770.13	769.87	770.24	769.87	769.60	769.99	769.60	769.97	769.60

REVISION DATE: 03/09/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES FOREST HILL AVENUE	SCALE: NTS	SHEET NO: 85 E

2

2

R/L S. 76TH ST

186+00

187+00

THE DETECTABLE WARNING FIELD LOCATION SHOWN IS APPROXIMATE. THE WARNING FIELD SHALL BE PLACED AS SHOWN ON THE SDD AND THE LEADING EDGE SHALL BE WITHIN AN INCH OF THE BACK OF THE CURB AND ALLOW FOR THE OTHER EDGE TO BE GREATER THAN 6-8" FROM THE FLOW LINE WHERE APPROPRIATE.

TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

768.60 (FLG)
769.02 (T/C)
769.40
769.48
W=8.0'
5.08%
1/2" EXPANSION JOINT
1.50%
6.0' RAMP
Y=13.1' DISTANCE FROM P.C.
X=6.0' LANDING MEASURED FROM FLOW LINE
767.90 (T/C)
767.98 (GUT)
768.06 (FLG)
768.01
768.10
768.01 (FLG)
767.96 (FLG)
767.89 (GUT)
768.26 (T/C)
768.07
767.98
767.39 (FLG)
767.81 (T/C)
STA 186+15.10
66.00'RT
R=30.0'
2.00%
768.54
768.28
768.22
1.50%
0.33%
3.79%
768.70 (T/C)
768.23
768.20 (GUT)
768.28 (FLG)
768.22 (FLG)
768.12 (FLG)
768.06 (GUT)
768.32
1/2" EXPANSION JOINT
1.50%
6.0' RAMP
X=6.0' LANDING MEASURED FROM FLOW LINE
768.15
756.75 (T/C)
767.11 (FLG)
767.54 (T/C)
768.23 (FLG)
768.65 (T/C)
W=8.0'
768.97
768.24
6.18%
769.05
Y=13.1' DISTANCE FROM P.C.
STA 187+03.24
66.00'RT
R=30.0'
R/L COUNTRY CLUB CIR. (1)

REVISION DATE: 01/22/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES COUNTRY CLUB CIRCLE (1)	SCALE: NTS	SHEET NO: 86 E

194+00

195+00

R/L S. 76TH ST

THE DETECTABLE WARNING FIELD LOCATION SHOWN IS APPROXIMATE. THE WARNING FIELD SHALL BE PLACED AS SHOWN ON THE SDD AND THE LEADING EDGE SHALL BE WITHIN AN INCH OF THE BACK OF THE CURB AND ALLOW FOR THE OTHER EDGE TO BE GREATER THAN 6-8" FROM THE FLOW LINE WHERE APPROPRIATE.

764.58

764.29 (FLG)
764.64 (T/C)
764.13 (GUT)
764.21 (FLG)
764.16
764.02
764.25
764.20 (FLG)
764.18
764.29
764.19 (FLG)
764.20
764.11 (GUT)
764.60 (T/C)
764.32
764.14 (FLG)
764.42 (T/C)
763.94 (GUT)
763.77 (FLG)
764.02 (FLG)
763.97
764.06
764.05 (FLG)
764.52
764.00 (GUT)
764.14
764.60
764.08 (FLG)
764.05
764.24 (FLG)
764.52 (T/C)

765.10
765.18
W=8.0'
3.17%
1.50%
0.11%
1.36%
0.68%
5.13%
1.50%
2'
1/2" EXPANSION JOINT
Y=13.1' DISTANCE FROM P.C.
6.0' RAMP
X=6.0' LANDING MEASURED FROM FLOW LINE
+00.00
00.00

R/W

STA 194+15.41
60.00'RT

STA 195+03.71
60.00'RT

R=30.0'

TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

R/L COUNTRY CLUB CIRCLE (2)

REVISION DATE: 03/09/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES COUNTRY CLUB CIRCLE (2)	SCALE: NTS	SHEET NO: 87 E

2 R/L NORWOOD LANE 2

R/W

R/W

STA 200+82.19
66.00' LT

STA 201+70.30
66.00' LT

R=30.00'

R=30.00'

758.32

759.59

759.51

760.04

760.01

759.74

760.14

759.76

760.26
FLANGE

760.48

760.10

759.67

760.70

760.32

759.89

201+00

760.44

760.25

202+0

760.82

760.01

760.70

760.32

759.89

170' 110' 60' 60' 170'

REVISION DATE: 03/09/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES NORWOOD LANE	SCALE: NTS	SHEET NO: 88 E

201+00

R/L S. 76TH ST

202+

THE DETECTABLE WARNING FIELD LOCATION SHOWN IS APPROXIMATE. THE WARNING FIELD SHALL BE PLACED AS SHOWN ON THE SDD AND THE LEADING EDGE SHALL BE WITHIN AN INCH OF THE BACK OF THE CURB AND ALLOW FOR THE OTHER EDGE TO BE GREATER THAN 6-8" FROM THE FLOW LINE WHERE APPROPRIATE.

760.61

759.93

759.68

759.61

760.26 (FLG)
760.52 (T/C)
760.01 (GUT)
760.04
760.09 (FLG)
760.51
760.13
760.07 (FLG)
760.59
760.15
760.05 (FLG)
760.06
759.97 (GUT)
760.46 (T/C)
759.88 (FLG)
759.55 (FLG)
W=8.0'
1/2" EXPANSION JOINT
2'
3.36%
1.50%
1.95%
2.00%
Y=13.1'
DISTANCE FROM P.C. RAMP
6.0'
X=6.0'
LANDING MEASURED FROM FLOW LINE
R=30.0'
R/W
STA 200+82.30
66.00'RT

760.10 (T/C)
759.61 (GUT)
759.57 (FLG)
759.69 (FLG)
759.64
759.73
760.31
759.71 (FLG)
0.17%
4.58%
0.88%
759.79
760.39
759.70
759.61 (GUT)
759.61 (FLG)
760.10 (T/C)
STA 201+71.22
66.00'RT

TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

R/L TUCKAWAY PINES CIRCLE

REVISION DATE: 04/19/2013

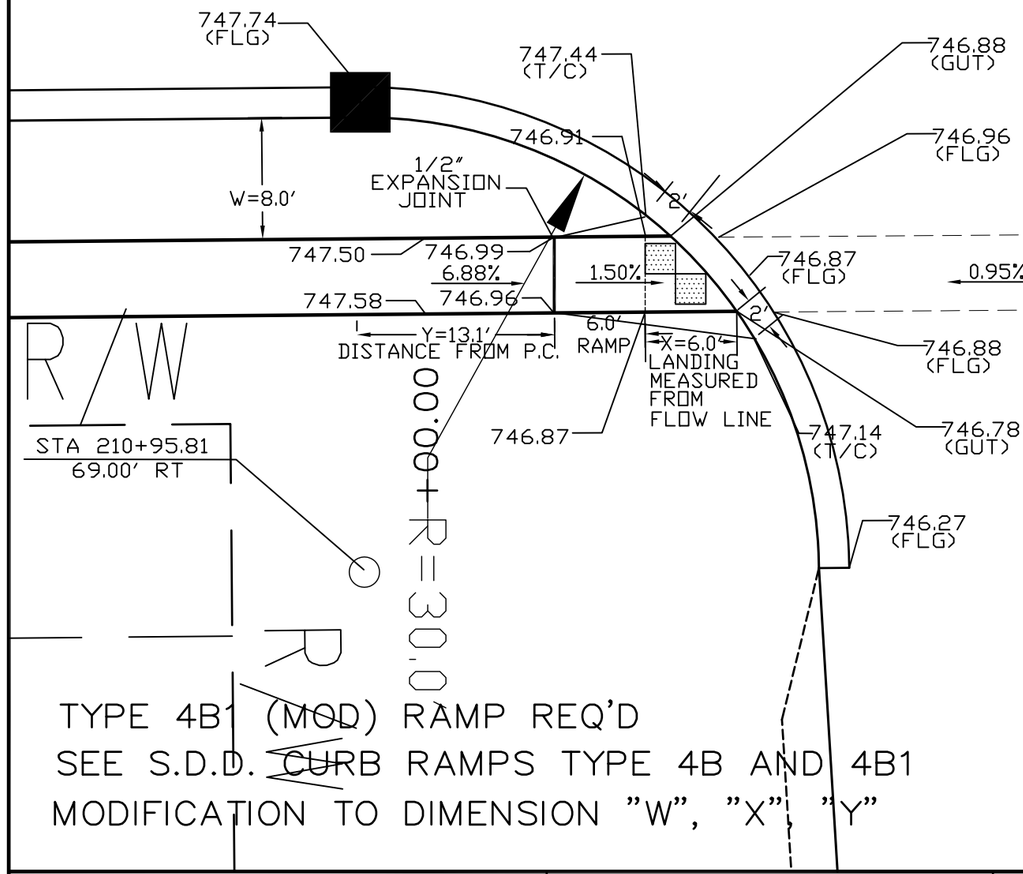
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES TUCKAWAY PINES CIRCLE	SCALE: NTS	SHEET NO: 89 E

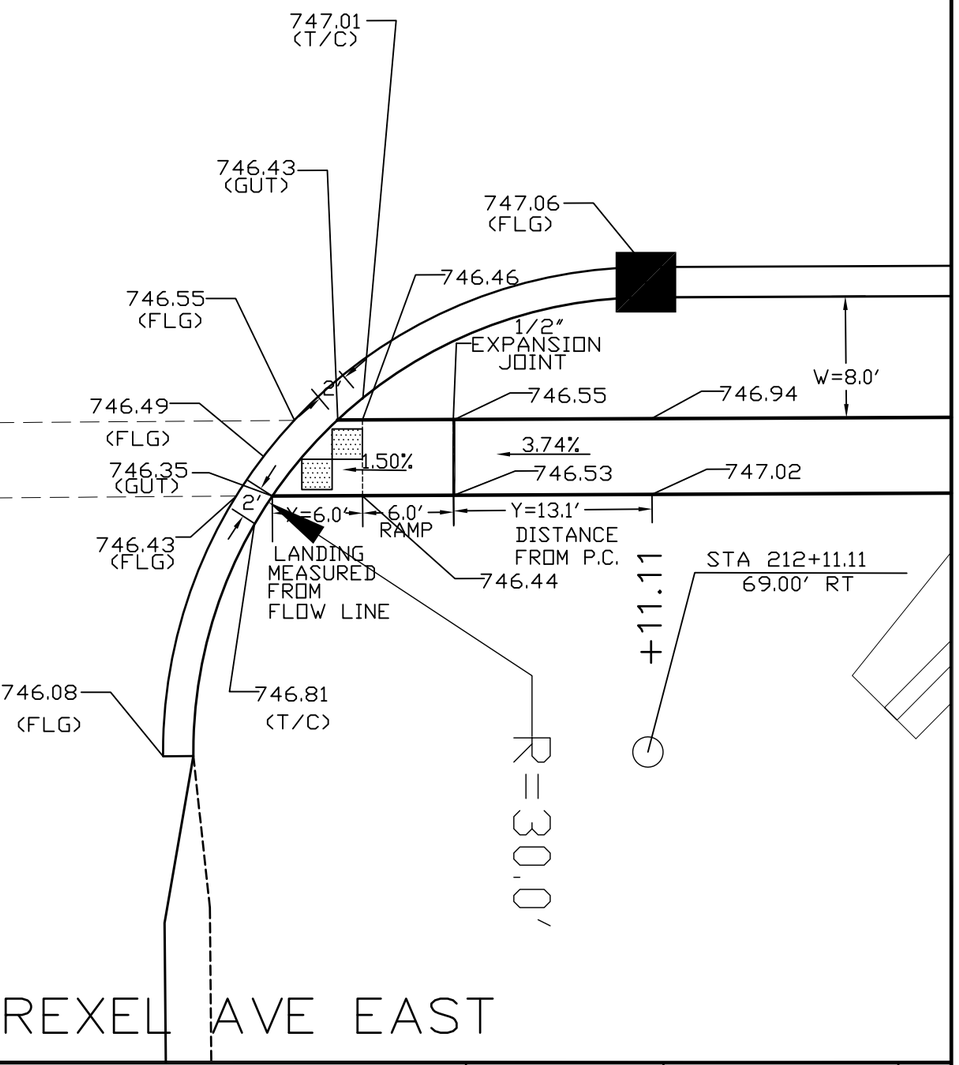
R/L S. 76TH ST

211+00

212+00

THE DETECTABLE WARNING FIELD LOCATION SHOWN IS APPROXIMATE. THE WARNING FIELD SHALL BE PLACED AS SHOWN ON THE SDD AND THE LEADING EDGE SHALL BE WITHIN AN INCH OF THE BACK OF THE CURB AND ALLOW FOR THE OTHER EDGE TO BE GREATER THAN 6-8" FROM THE FLOW LINE WHERE APPROPRIATE.





STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES DREXEL AVENUE (EAST)	SCALE: NTS	SHEET NO: 90 E

REVISION DATE: 03/09/2012

2

2

747.77

746.30' FLANGE

745.43

744.09

742.59

740.84

739.11

737.39

735.68

745.39

743.87

742.65

740.60

738.94

737.29

735.68

9+00

8+00

7+00

6+00

744.99

744.47

742.95

741.20

739.45

737.70

735.95

R/W

R/W

R/L DREXEL AVE EAST

REVISION DATE: 03/09/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES DREXEL AVENUE (EAST)	SCALE: NTS	SHEET NO: 91 E

WISDOT/CADDS SHEET 40

R/L DREXEL AVE WEST

14+00
13+00
12+00
11+00
PI Sta=211+24

755.32
755.04
755.04
753.40
753.74
753.40
753.21
753.57
753.21
751.15
751.51
751.15
749.71
750.09
749.71
748.74
749.15
748.74
748.40 FLANGE
748.34 FLANGE
748.65
748.52
748.32
748.57 FLANGE
748.62 FLANGE
748.53
748.18 FLANGE
748.02 FLANGE
747.94

R/W
R/W
R/W
R/W
R=30.0'
R=30.0'

STA 210+94.63
69.00' LT

STA 212+00.42
69.00' LT

NOTE: ALL CURB GRADES ARE TO TOP OF CURB

| | | |

2

2

R/L S. 76TH ST

9+00

10+00

220+00

THE DETECTABLE WARNING FIELD LOCATION SHOWN IS APPROXIMATE. THE WARNING FIELD SHALL BE PLACED AS SHOWN ON THE SDD AND THE LEADING EDGE SHALL BE WITHIN AN INCH OF THE BACK OF THE CURB AND ALLOW FOR THE OTHER EDGE TO BE GREATER THAN 6-8" FROM THE FLOW LINE WHERE APPROPRIATE.

TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

755.13 (FLG)
756.38 (T/C)
755.51 (T/C)
755.17
W=8.0'
1/2" EXPANSION JOINT
755.91
756.00
1.64%
1.50%
2'
6.0' RAMP
X=6.0'
Y=13.1' DISTANCE FROM P.C.
755.25
+00.00
R/W
STA. 219+37.62
66.00' RT
755.99
756.08
755.94 (FLG)
755.88 (GUT)
755.88 (FLG)
756.31
1.73%
2.00%
756.05
756.17
2.00%
756.39
0.42%
756.37
756.00 (FLG)
756.50 (T/C)
755.90 (GUT)
2.34%
756.63 (T/C)
756.25 (FLG)

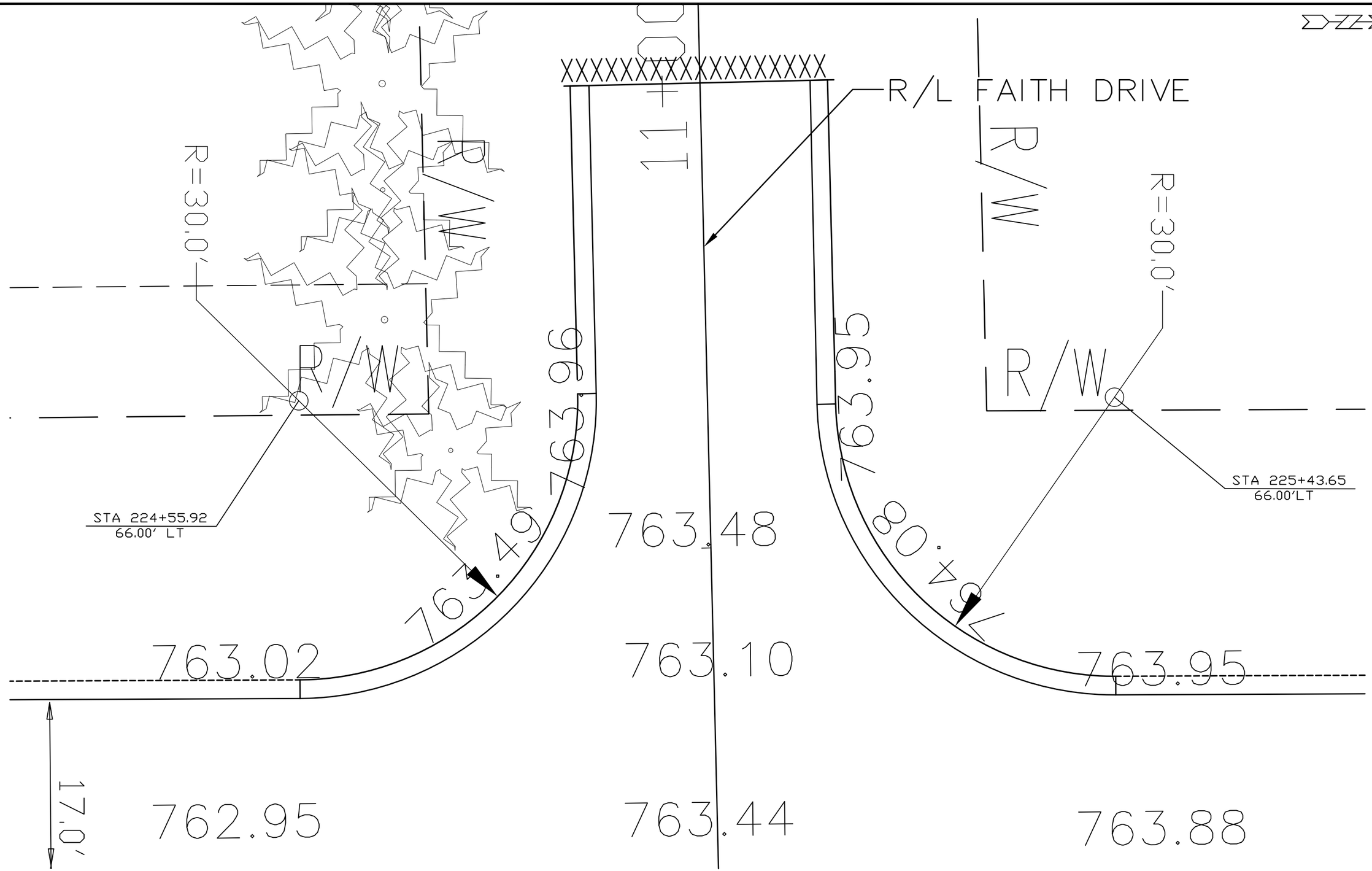
TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

756.89 (T/C)
756.48 (GUT)
756.44 (FLG)
756.40 (FLG)
756.37 (FLG)
756.25 (FLG)
756.75 (FLG)
756.51
1/2" EXPANSION JOINT
756.60
1.50%
2'
6.0' RAMP
X=6.0' LANDING MEASURED FROM FLOW LINE
Y=13.1' DISTANCE FROM P.C.
756.59
3.41%
756.50
756.41 (GUT)
756.75 (T/C)
756.63 (T/C)
757.58
757.17 (T/C)
W=8.0'
757.66
+50.00
STA. 220+32.04
66.00' RT
R/L PINEBERRY RIDGE

REVISION DATE: 01/22/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES PINEBERRY RIDGE	SCALE: NTS	SHEET NO: 93 E

2



REVISION DATE: 03/09/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES FAITH DRIVE	SCALE: NTS	SHEET NO: 94 E

R/L S. 76TH ST

228+00

229+00

THE DETECTABLE WARNING FIELD LOCATION SHOWN IS APPROXIMATE. THE WARNING FIELD SHALL BE PLACED AS SHOWN ON THE SDD AND THE LEADING EDGE SHALL BE WITHIN AN INCH OF THE BACK OF THE CURB AND ALLOW FOR THE OTHER EDGE TO BE GREATER THAN 6-8" FROM THE FLOW LINE WHERE APPROPRIATE.

TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

765.12 (FLG)
765.69 (T/C)
765.20 (GUT)
765.23
765.28 (FLG)
765.37
W=8.0'
1/2" EXPANSION JOINT
765.72
765.32
765.80
0.14%
3.05%
765.40
1.50%
765.30 (FLG)
0.86%
1.09%
765.51
765.55
0.36%
Y=13.1' DISTANCE FROM P.C.
6.0' RAMP
2'
8'
765.32 (FLG)
X=6.0' LANDING MEASURED FROM FLOW LINE
765.75 (T/C)
765.24 (GUT)
765.31
765.42 (FLG)
STA 227+94.12
66.00' RT
R/W
330
765.99 (T/C)
765.50 (GUT)
765.46 (FLG)
765.53
765.58 (FLG)
1/2" EXPANSION JOINT
766.10
W=8.0'
765.62
765.60 (FLG)
2.75%
0.54%
765.67
765.57 (FLG)
765.97 (T/C)
765.49 (GUT)
765.58
766.18
00.00 +
STA 228+93.96
66.00' RT
765.40 (FLG)
330
R/W

TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

R/L SOUTHVIEW DR.

REVISION DATE: 03/09/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES SOUTHVIEW DRIVE	SCALE: NTS	SHEET NO: 95 E

2

2

R/L IMPERIAL DRIVE

TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

THE DETECTABLE WARNING FIELD LOCATION SHOWN IS APPROXIMATE. THE WARNING FIELD SHALL BE PLACED AS SHOWN ON THE SDD AND THE LEADING EDGE SHALL BE WITHIN AN INCH OF THE BACK OF THE CURB AND ALLOW FOR THE OTHER EDGE TO BE GREATER THAN 6-8" FROM THE FLOW LINE WHERE APPROPRIATE.

STA 240+39.12
69'LT

R=30.0'

11+00

758.90

759.00

758.95

759.06

759.14

W = VARIES

758.56
(FLG)

1.40%

758.60

758.68

1.50%

R/W

R=30.0'

STA 241+43.16
69'LT

DISTANCE FROM P.C.

Y=18.6'

1/2" EXPANSION JOINT

1.51%

758.40

758.39

758.31

758.30

1.50%

6.0' RAMP

X=4.9' LANDING MEASURED FROM FLOW LINE

758.68
(T/C)

2%

2%

758.27
(GUT)

758.64
(T/C)

758.24
(GUT)

758.33
(FLG)

REVISION DATE: 03/09/2012

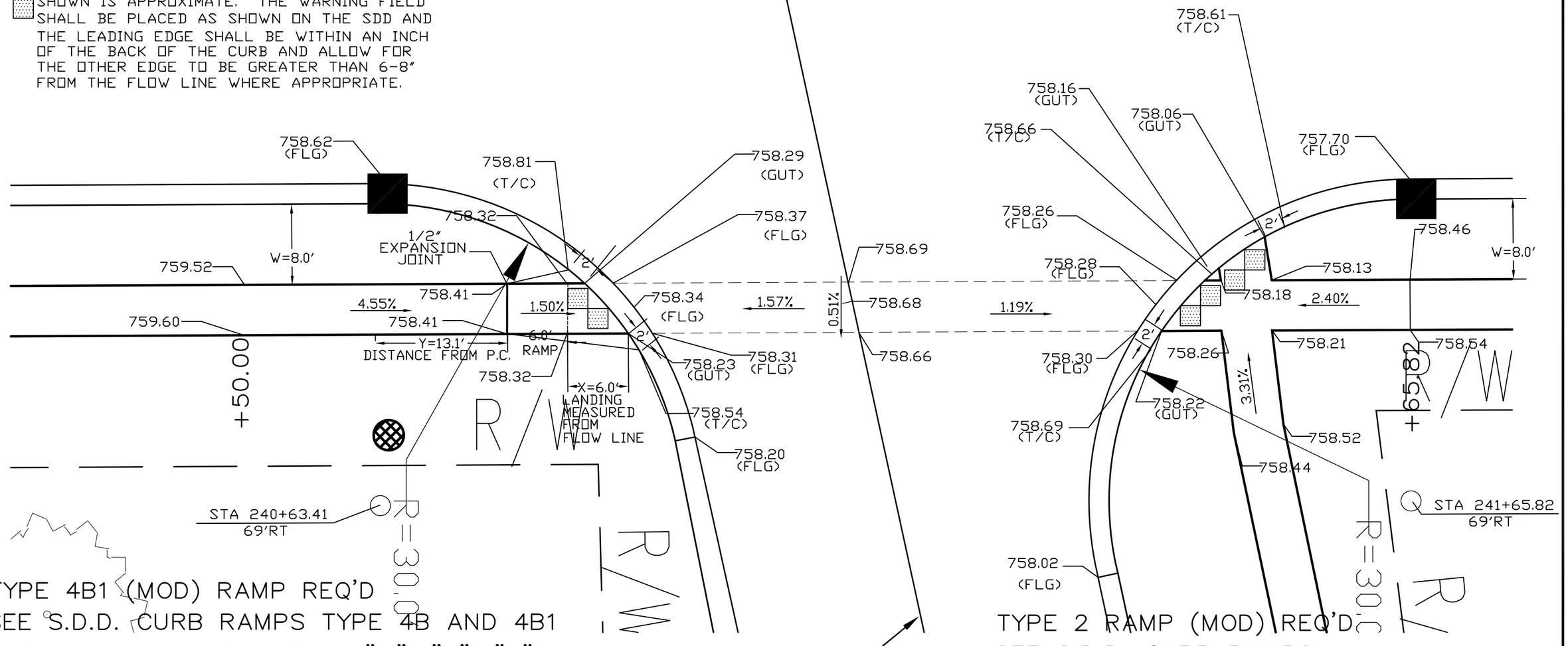
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES IMPERIAL DRIVE	SCALE: NTS	SHEET NO: 96 E

241+00

R/L S. 76TH ST

THE DETECTABLE WARNING FIELD LOCATION SHOWN IS APPROXIMATE. THE WARNING FIELD SHALL BE PLACED AS SHOWN ON THE SDD AND THE LEADING EDGE SHALL BE WITHIN AN INCH OF THE BACK OF THE CURB AND ALLOW FOR THE OTHER EDGE TO BE GREATER THAN 6-8" FROM THE FLOW LINE WHERE APPROPRIATE.

TYPE 2 RAMP (MOD) REQ'D
SEE S.D.D. CURB RAMPS
TYPE 2
MODIFICATIONS INCLUDE ADDITIONAL GRADES AS REQUIRED



TYPE 4B1 (MOD) RAMP REQ'D
SEE S.D.D. CURB RAMPS TYPE 4B AND 4B1
MODIFICATION TO DIMENSION "W", "X", "Y"

TYPE 2 RAMP (MOD) REQ'D
SEE S.D.D. CURB RAMPS
TYPE 2

R/L BRUNN DRIVE

REVISION DATE: 03/09/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PAVING GRADES BRUNN DRIVE	SCALE: NTS	SHEET NO: 97 E

	Hydrologic Soil Group											
	A			B			C			D		
	Slope Range (Percent)			Slope Range (Percent)			Slope Range (Percent)			Slope Range (Percent)		
Land Use:	0 - 2	2 - 6	6 & Over	0 - 2	2 - 6	6 & Over	0 - 2	2 - 6	6 & Over	0 - 2	2 - 6	6 & Over
Row Crops	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
Median Strip Turf	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
Side Slope Turf			.25 .32			.27 .34			.28 .36			.30 .38
Pavement												
Asphalt	.70 -.95											
Concrete	.80 -.95											
Brick	.70 -.80											
Drives, Walks	.75 -.85											
Roofs	.75 -.95											
Gravel Roads, Shoulders	.40 -.60											

Total Project Area = 42.19 Acres
Total Area Expected To Be Disturbed By Construction Activities = 30.26 Acres

REVISION DATE: 9/4/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL RUNOFF COEFFICIENT TABLE	SCALE: NTS	SHEET NO: 98	E

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

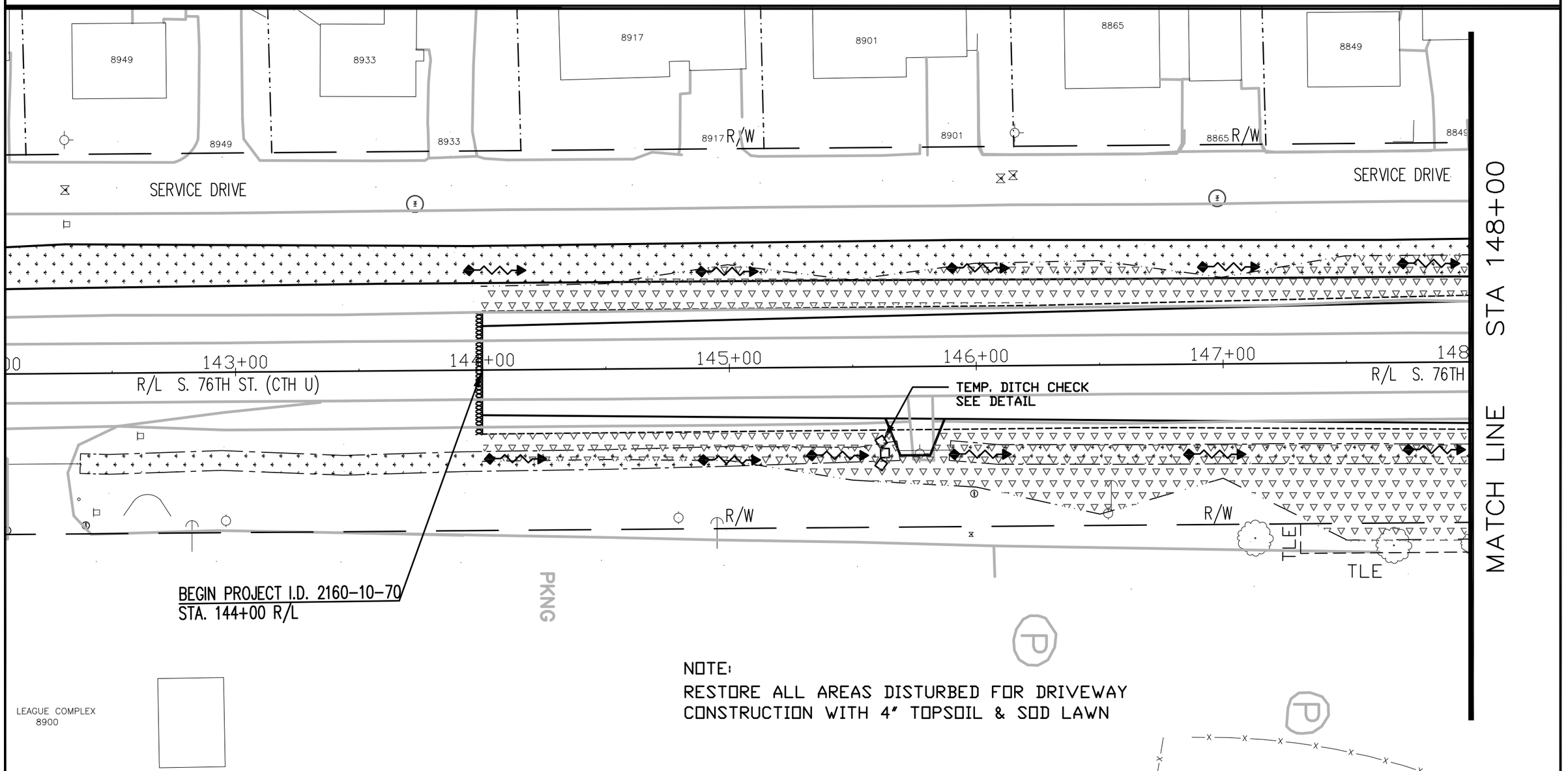
4"TOPSOIL & SOD LAWN

TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM



NOTE:
RESTORE ALL AREAS DISTURBED FOR DRIVEWAY CONSTRUCTION WITH 4" TOPSOIL & SOD LAWN

REVISION DATE: 9/3/12

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 144+00 TO 148+00	SCALE: 1" = 40'	SHEET NO: 99	E

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

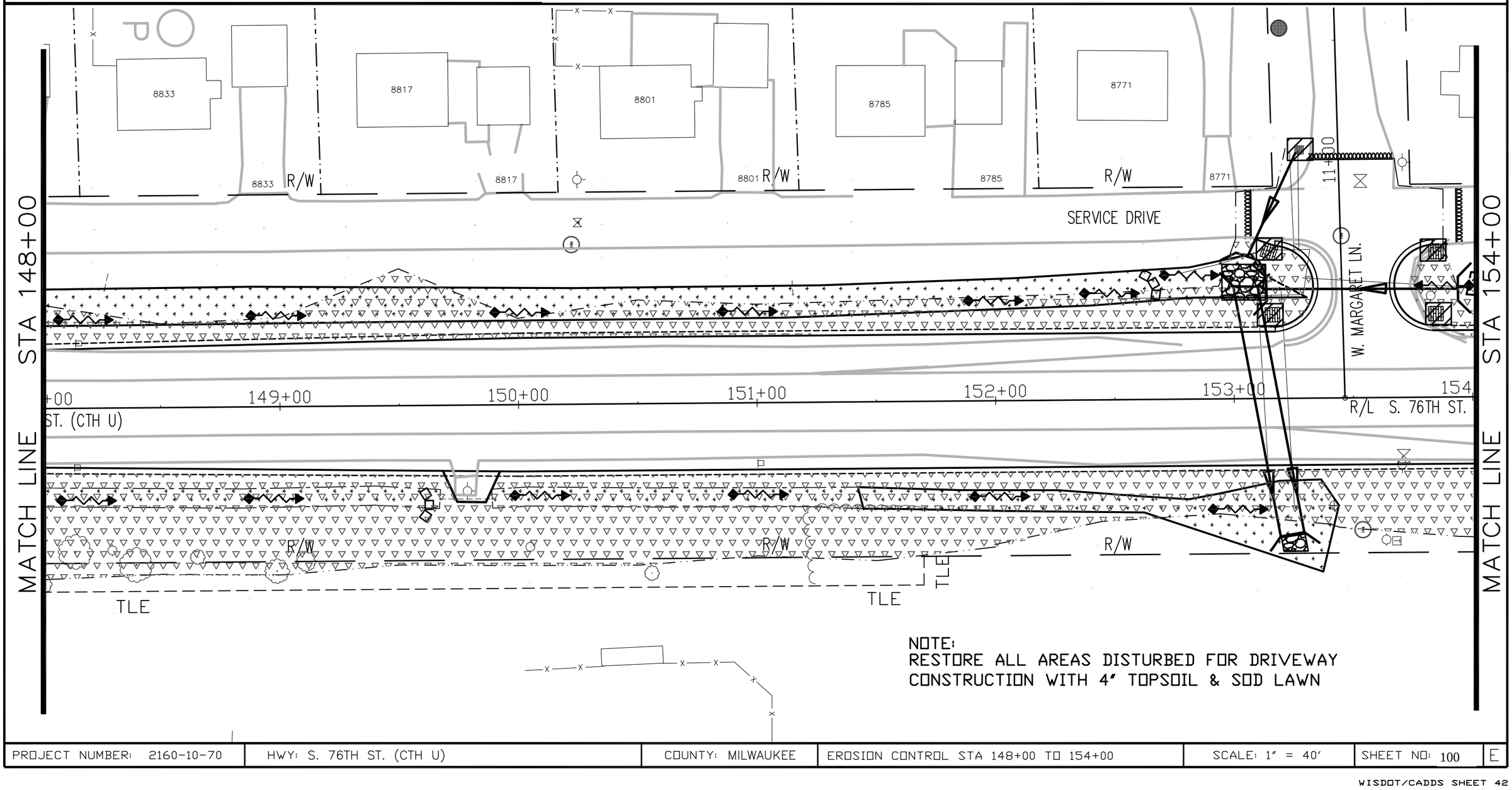
4"TOPSOIL & SOD LAWN

TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM



NOTE:
RESTORE ALL AREAS DISTURBED FOR DRIVEWAY CONSTRUCTION WITH 4" TOPSOIL & SOD LAWN

REVISION DATE: 9/3/12

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 148+00 TO 154+00	SCALE: 1" = 40'	SHEET NO: 100	E

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

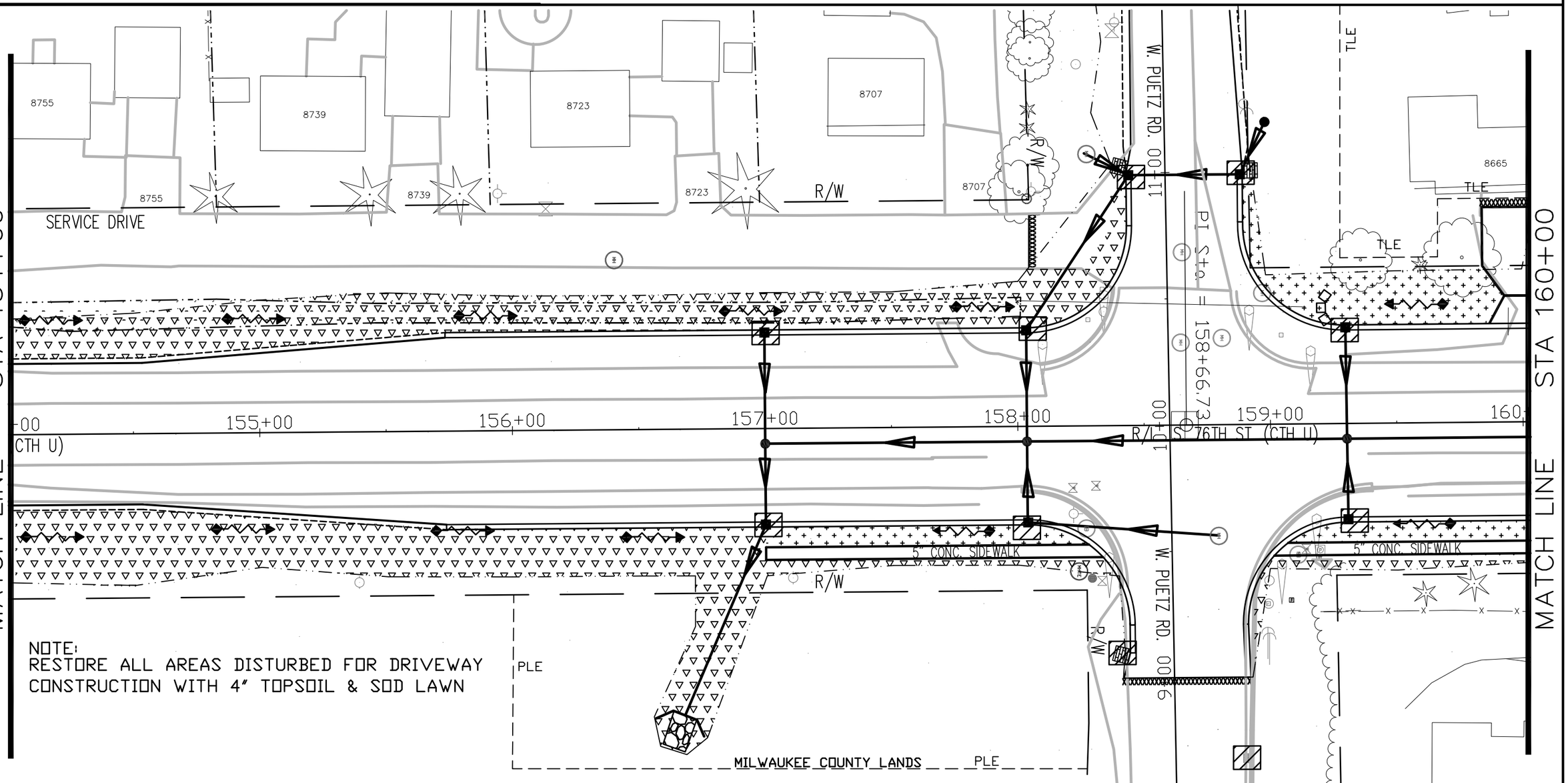
4"TOPSOIL & SOD LAWN

TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM



PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 154+00 TO 160+00	SCALE: 1" = 40'	SHEET NO: 101	E

REVISION DATE: 10/23/13

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

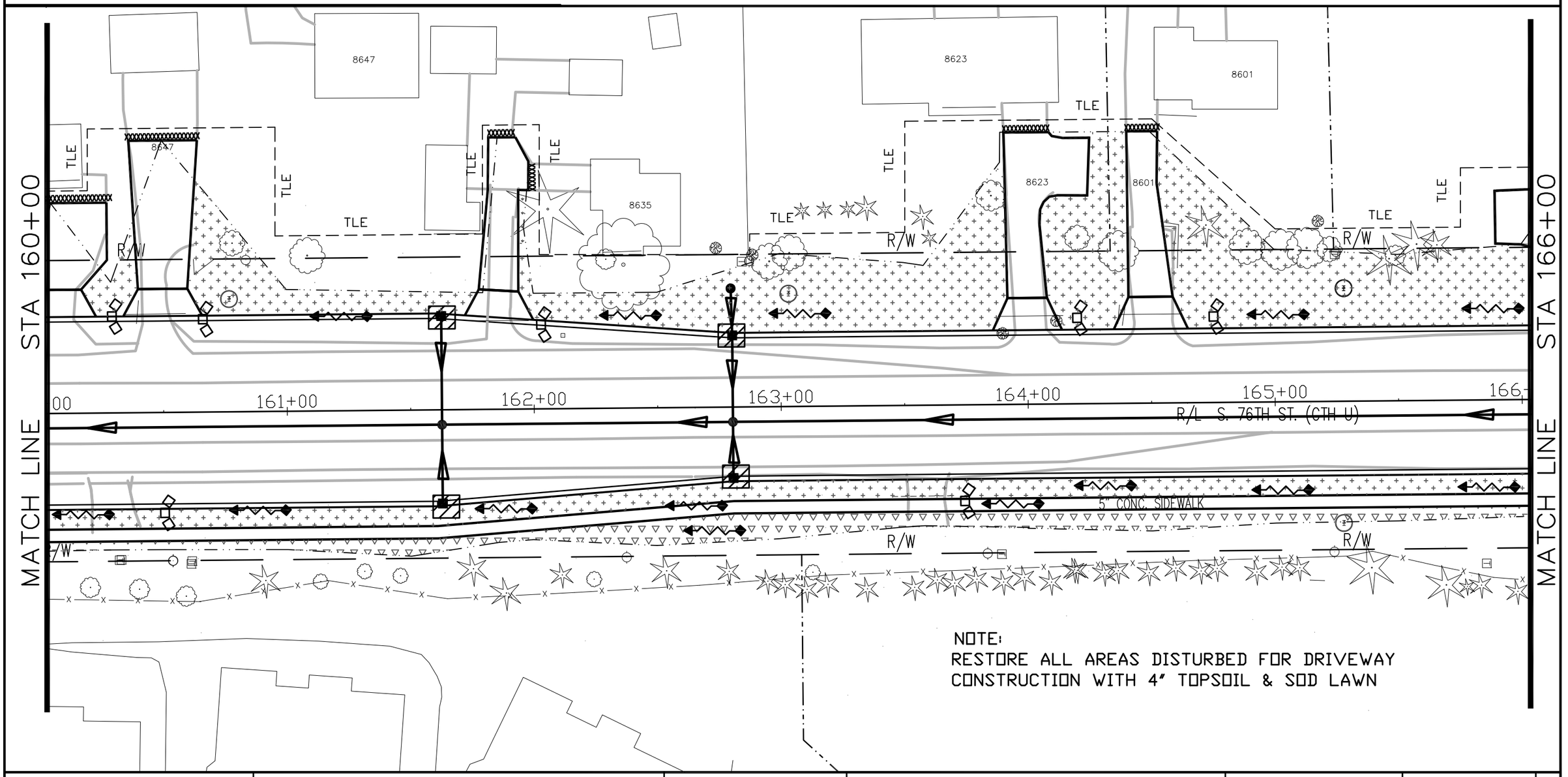
4"TOPSOIL & SOD LAWN

TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM



REVISION DATE: 9/4/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 160+00 TO 166+00	SCALE: 1" = 40'	SHEET NO: 102	E

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

4"TOPSOIL & SOD LAWN

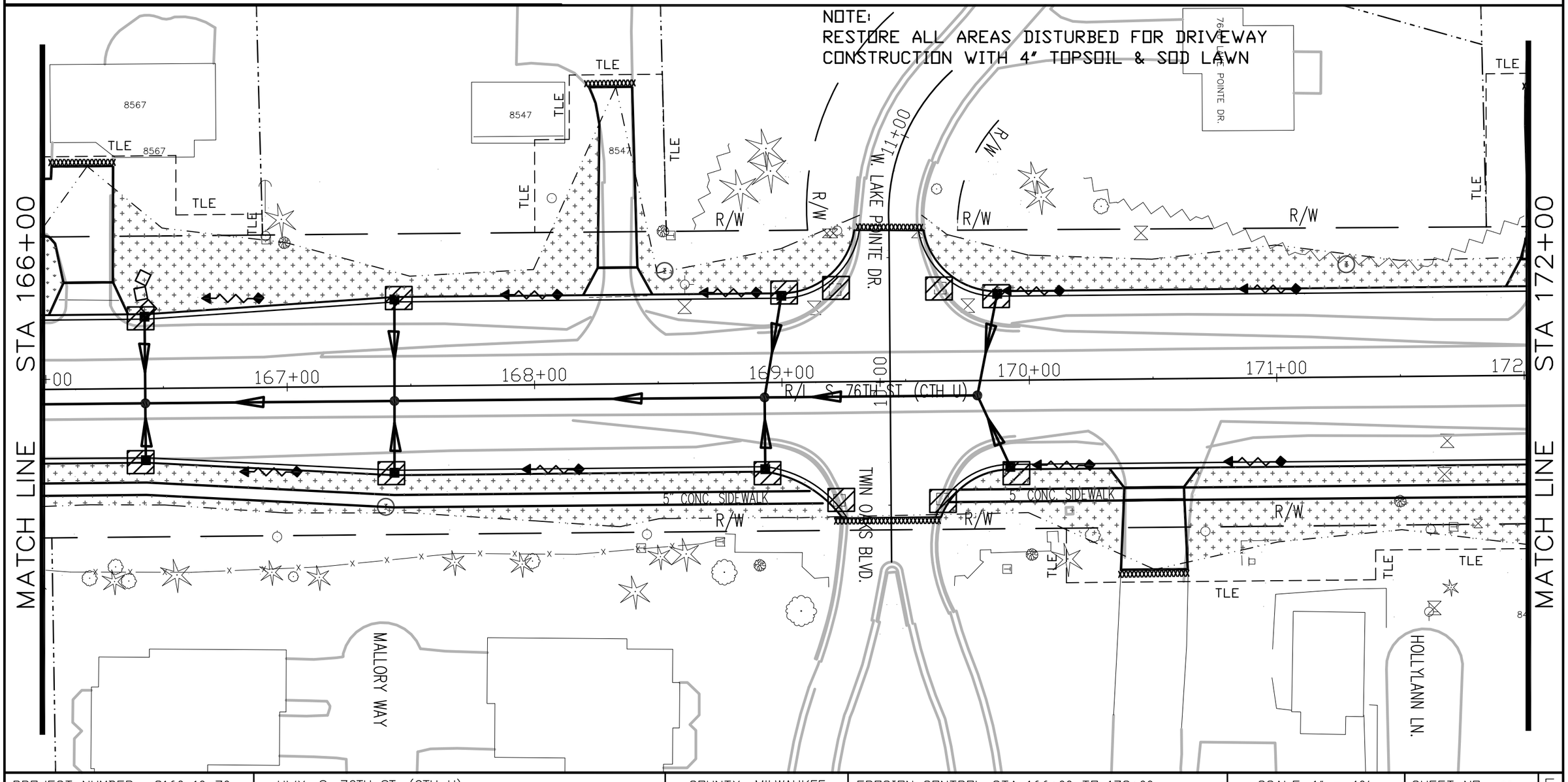
TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM

NOTE:
RESTORE ALL AREAS DISTURBED FOR DRIVEWAY CONSTRUCTION WITH 4" TOPSOIL & SOD LAWN



PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 166+00 TO 172+00	SCALE: 1" = 40'	SHEET NO: 103	E

REVISION DATE: 9/7/2012

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

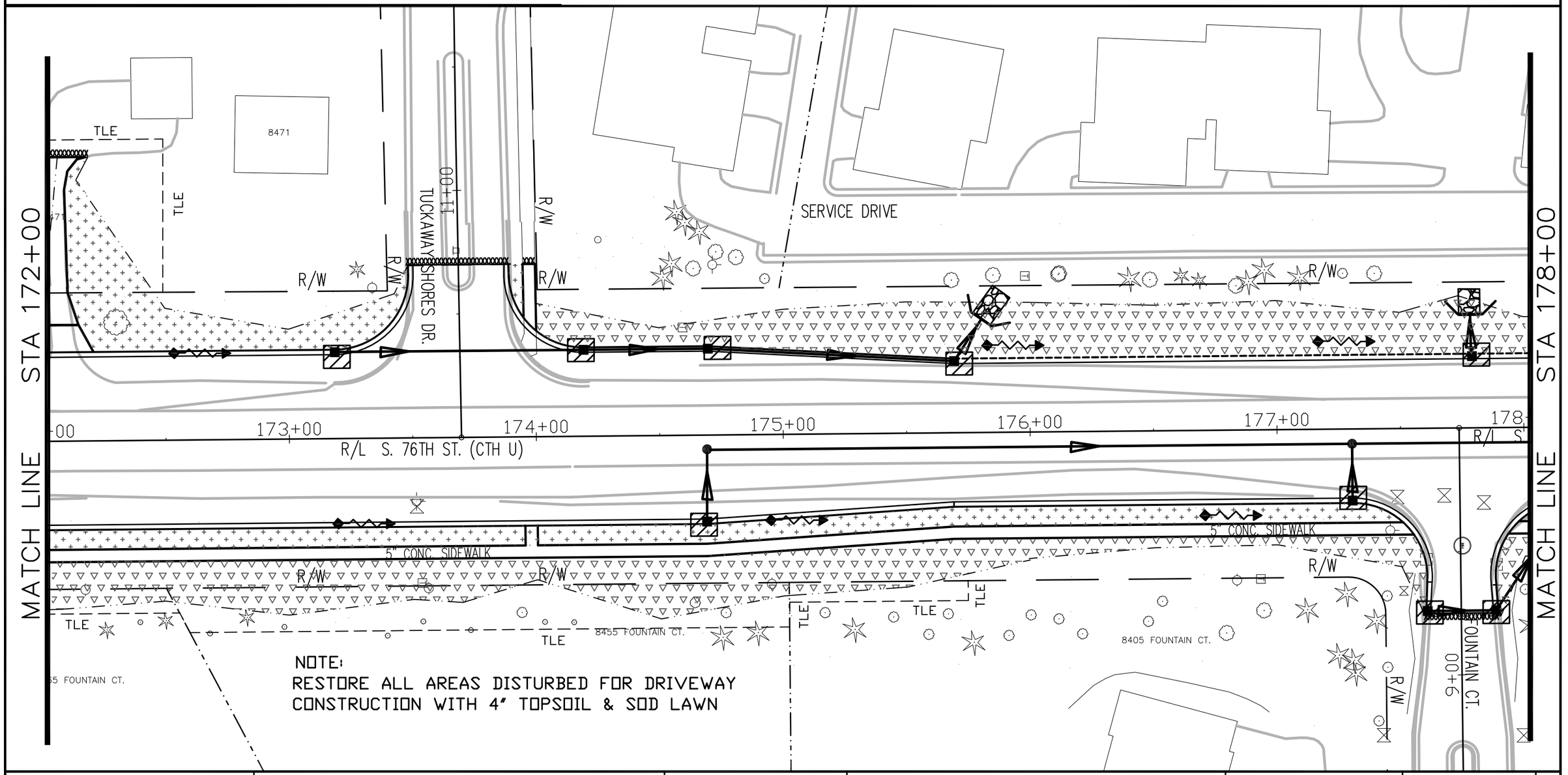
4"TOPSOIL & SOD LAWN

TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM



NOTE:
RESTORE ALL AREAS DISTURBED FOR DRIVEWAY CONSTRUCTION WITH 4" TOPSOIL & SOD LAWN

REVISION DATE: 9/4/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 172+00 TO 178+00	SCALE: 1" = 40'	SHEET NO: 104	E

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

4"TOPSOIL & SOD LAWN

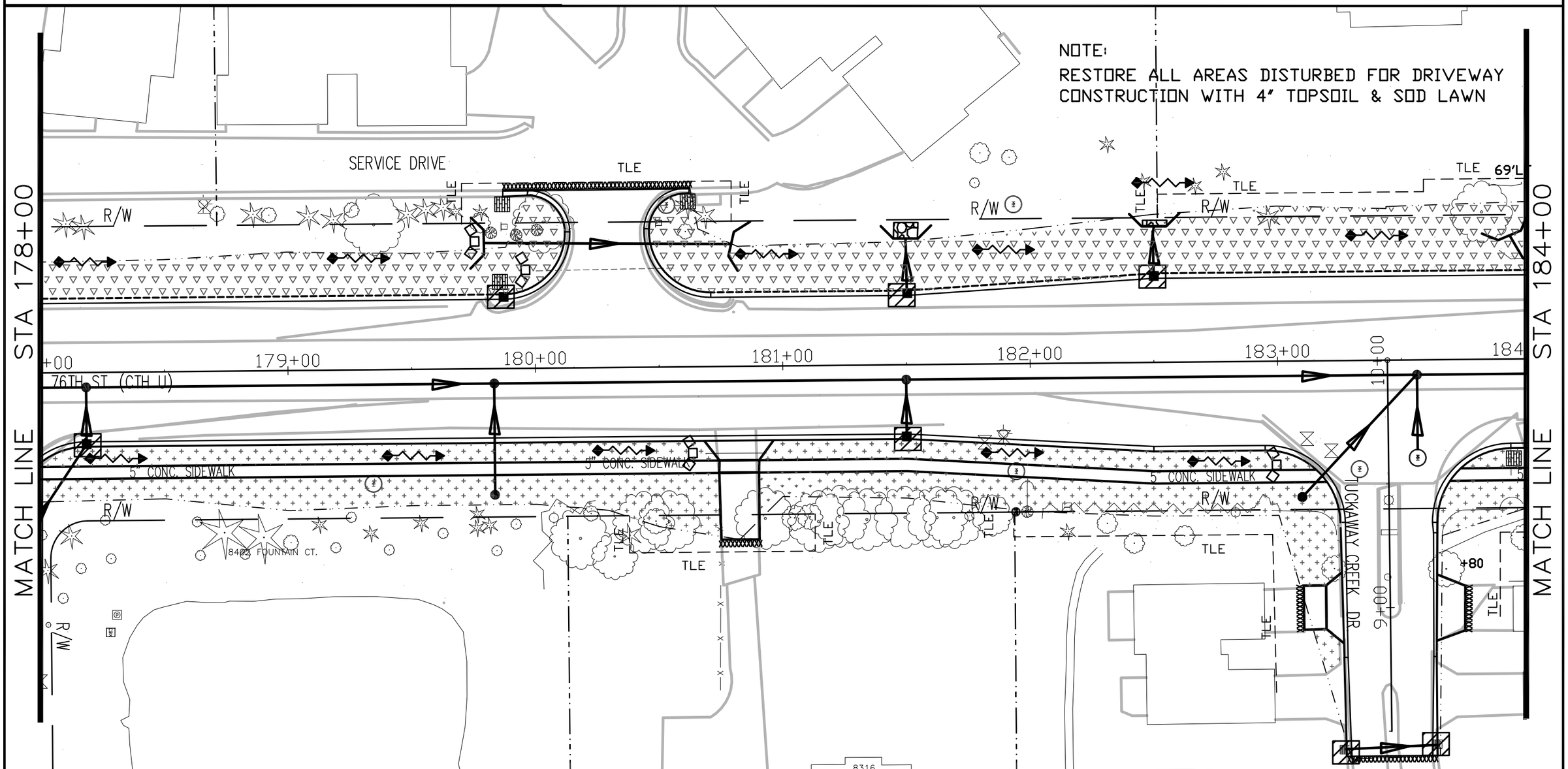
TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM

NOTE:
RESTORE ALL AREAS DISTURBED FOR DRIVEWAY CONSTRUCTION WITH 4" TOPSOIL & SOD LAWN



PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 178+00 TO 184+00	SCALE: 1" = 40'	SHEET NO: 105	E

REVISION DATE: 9/4/2012

WISDOT/CADDS SHEET 42

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

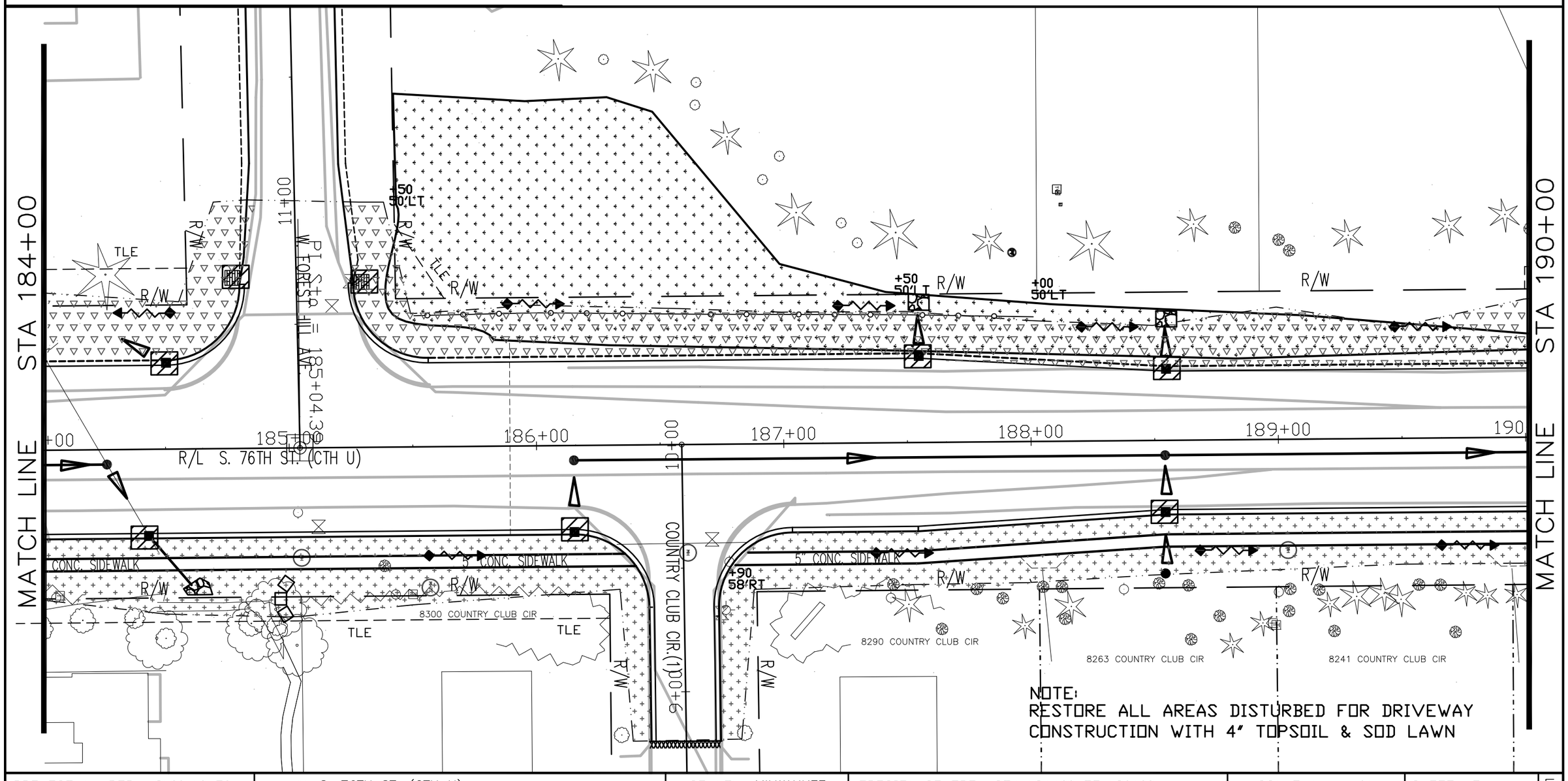
4"TOPSOIL & SOD LAWN

TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM



NOTE:
RESTORE ALL AREAS DISTURBED FOR DRIVEWAY CONSTRUCTION WITH 4" TOPSOIL & SOD LAWN

REVISION DATE: 11/1/2013

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 184+00 TO 190+00	SCALE: 1" = 40'	SHEET NO: 106	E

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

4"TOPSOIL & SOD LAWN

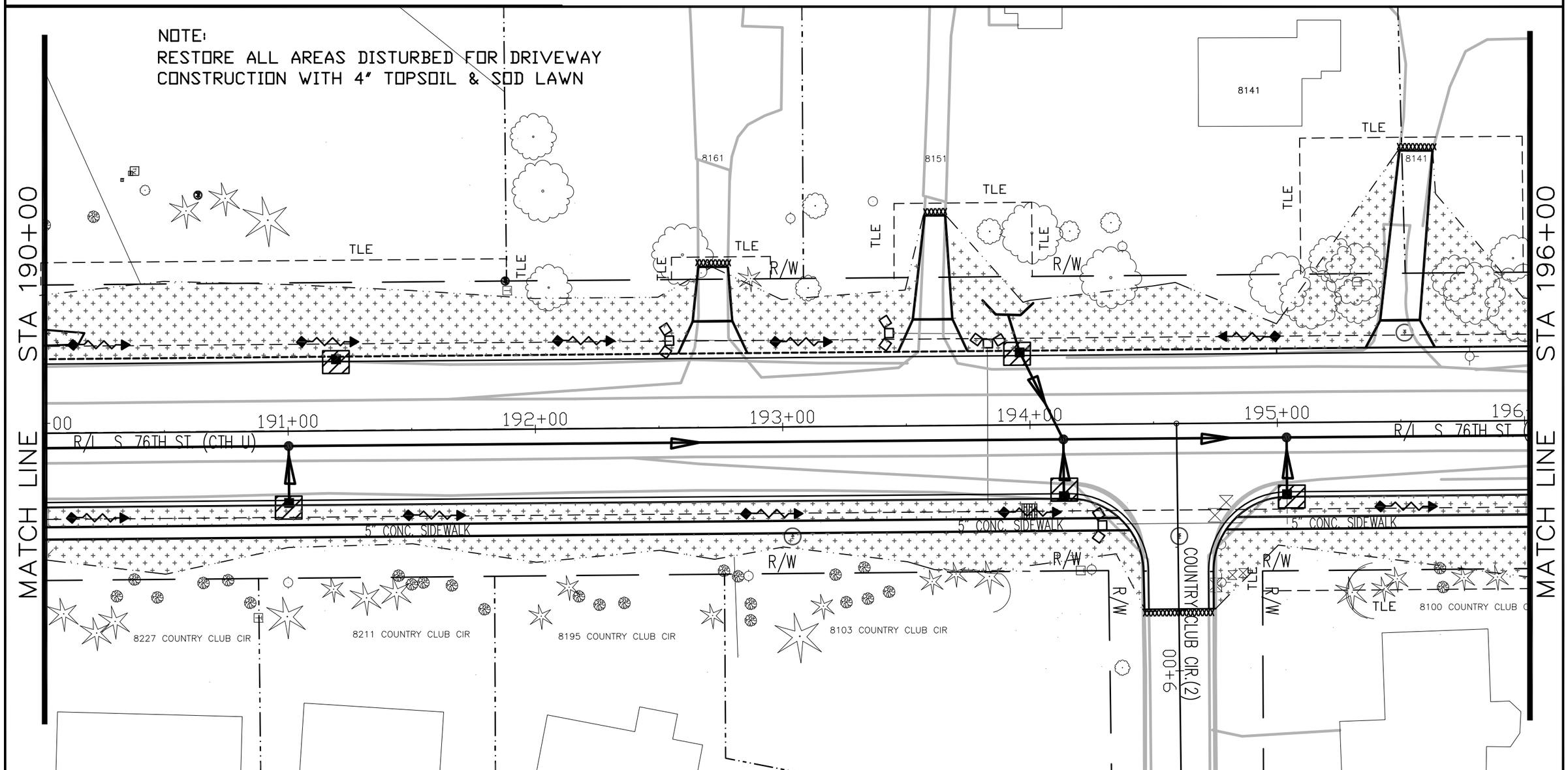
TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM

NOTE:
RESTORE ALL AREAS DISTURBED FOR DRIVEWAY CONSTRUCTION WITH 4" TOPSOIL & SOD LAWN



PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 190+00 TO 196+00	SCALE: 1" = 40'	SHEET NO: 107	E

REVISION DATE: 9/4/2012

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

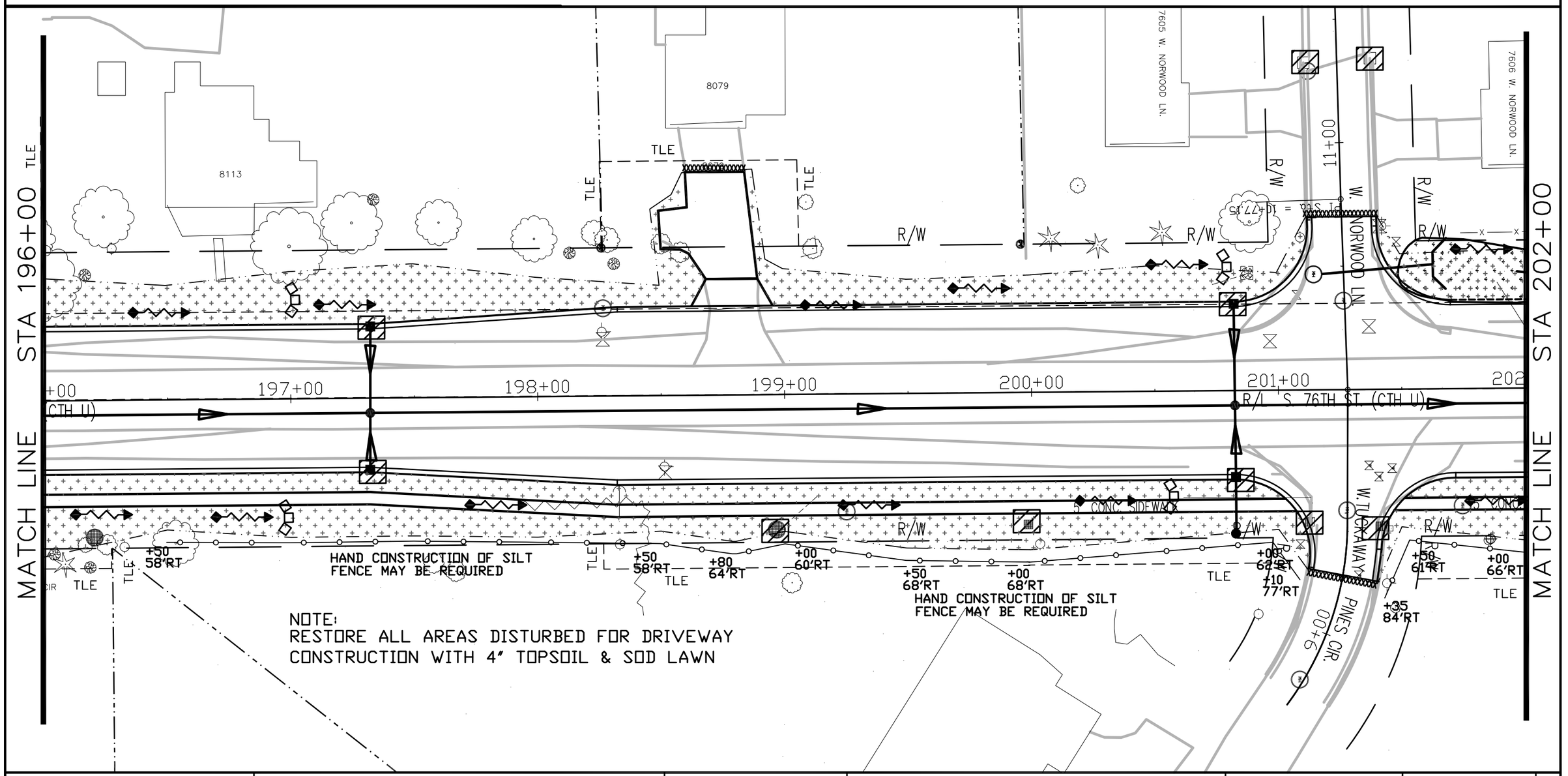
4"TOPSOIL & SOD LAWN

TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM



REVISION DATE: 7/3/12

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 196+00 TO 202+00	SCALE: 1" = 40'	SHEET NO: 108	E

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

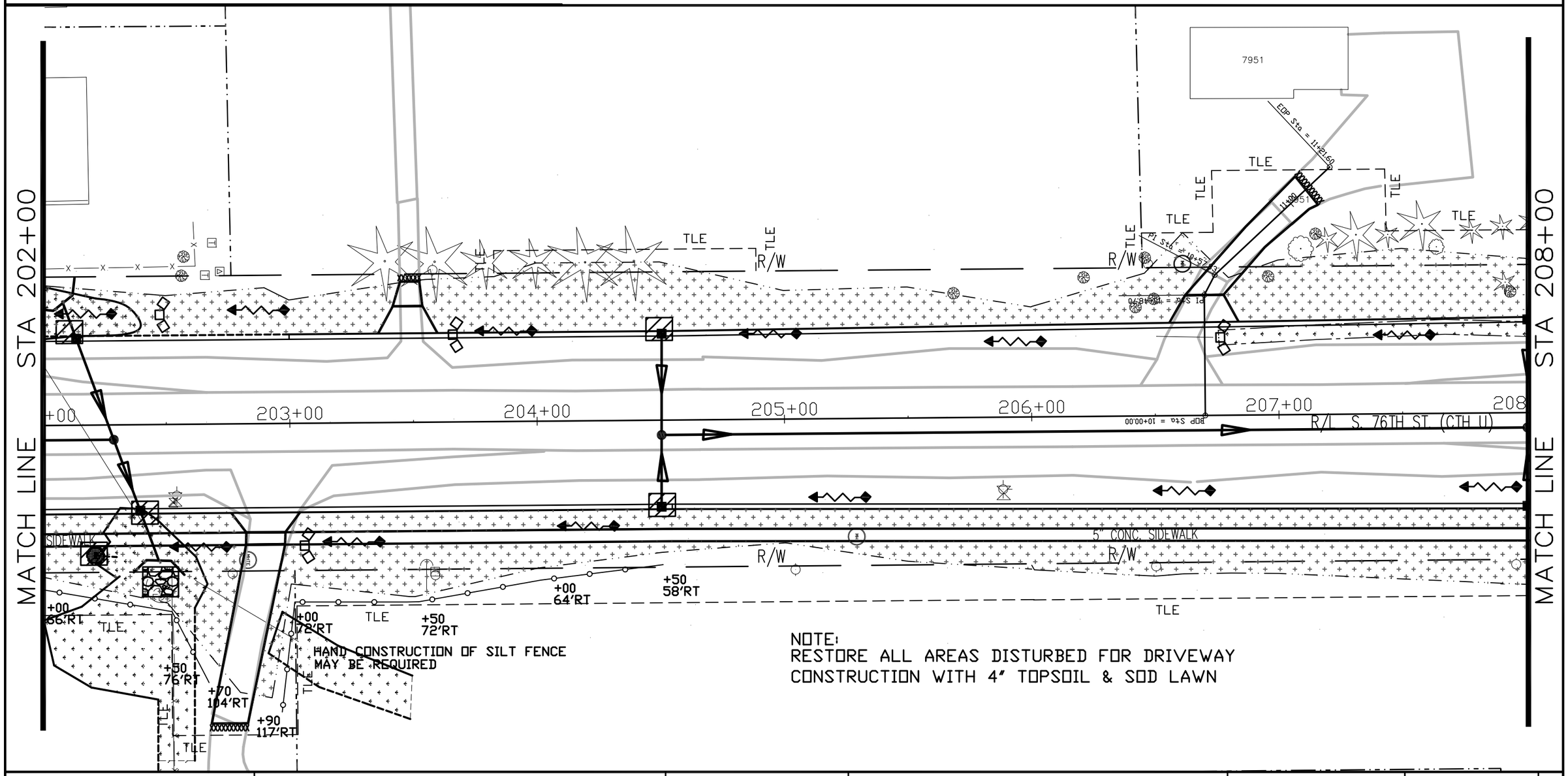
4"TOPSOIL & SOD LAWN

TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM



NOTE:
RESTORE ALL AREAS DISTURBED FOR DRIVEWAY CONSTRUCTION WITH 4" TOPSOIL & SOD LAWN

REVISION DATE: 9/4/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 202+00 TO 208+00	SCALE: 1" = 40'	SHEET NO: 109	E

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

4"TOPSOIL & SOD LAWN

TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM

NOTE:
RESTORE ALL AREAS DISTURBED FOR DRIVEWAY CONSTRUCTION WITH 4"TOPSOIL & SOD LAWN

SEE BOX CULVERT PLANS FOR ADDITIONAL EROSION CONTROL ITEMS

7613 W. DREXEL AVE.

W. DREXEL AVE. 00+11

PI Sta = 211+48.80

W. DREXEL AVE. 00+6

LEGEND CREEK

C-40-0022

MATCH LINE STA 208+00

MATCH LINE STA 214+00

208+00 209+00 210+00 211+00 212+00 213+00 214+00

R/L S. 76TH

TLE

R/W

+08 149'LT

+08 99'LT

+00 55'LT

+00 150'LT

+00 116'LT

+50 109'LT

+00 105' LT

+50 88'LT

+00 84'LT

5" CONC. SIDEWALK

+00 59'RT

+00 74'RT

+02 107'RT

+00 100'RT

+00 96'RT

+00 93'RT

SEE RETENTION BASIN PLANS FOR ADDITIONAL EROSION CONTROL ITEMS

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 208+00 TO 214+00	SCALE: 1" = 40'	SHEET NO: 110	E

REVISION DATE: 9/4/2012

2

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

4"TOPSOIL & SOD LAWN

TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM

NOTE:
RESTORE ALL AREAS DISTURBED FOR DRIVEWAY CONSTRUCTION WITH 4" TOPSOIL & SOD LAWN

HAND CONSTRUCTION OF
SILT FENCE MAY BE REQUIRED

MATCH LINE STA 214+00

MATCH LINE STA 220+00

214+00 215+00 216+00 217+00 218+00 219+00 220+00

S. 76TH ST. (CTH U)

R/L S. 76TH ST. (C

W. PINEBERRY RIDGE

7555 PINEBERRY RIDGE

MILWAUKEE COUNTY LANDS

+00 84'LT
+50 81'LT
+00 84'LT
+00 83'LT
+50 68'LT
+10 70'LT
+00 66'LT
+50 65'LT
+59 120'LT
+75 120'LT
+00 66'LT
+30 91'LT
+00 93'RT
+00 85'RT
+00 83'RT
+74 120'RT
+43 130'RT
+36 126'RT
+56 126'RT
+00 75'RT
+25 120'RT
+50 63'RT
+40 60'RT
+00 100'RT

TLE
R/W
5" CONC. SIDEWALK
7845
8981
7814
7800

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 214+00 TO 220+00	SCALE: 1" = 40'	SHEET NO: 111	E

REVISION DATE: 7/3/12

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

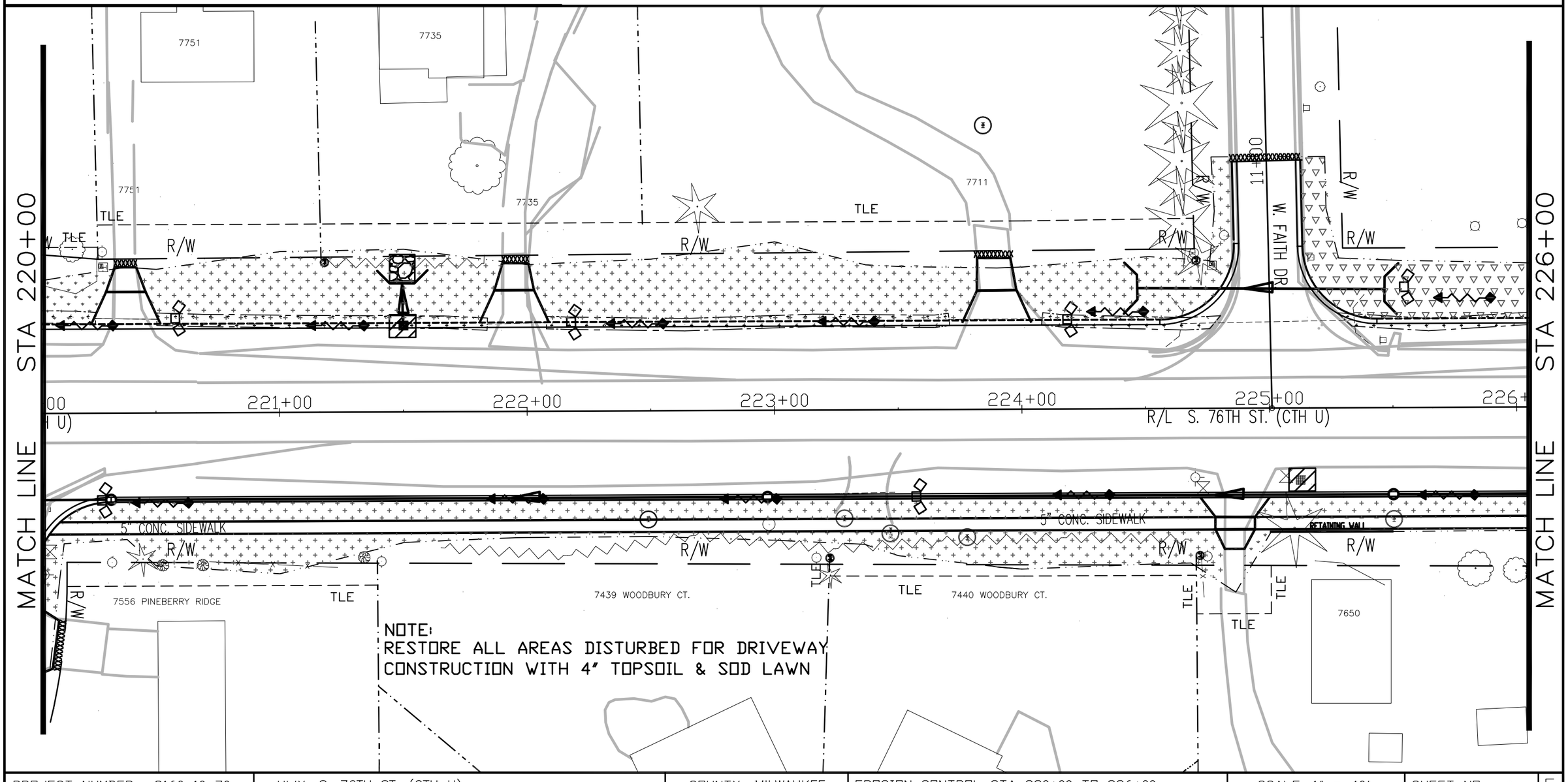
4"TOPSOIL & SOD LAWN

TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM



REVISION DATE: 9/4/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 220+00 TO 226+00	SCALE: 1" = 40'	SHEET NO: 112	E

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

4"TOPSOIL & SOD LAWN

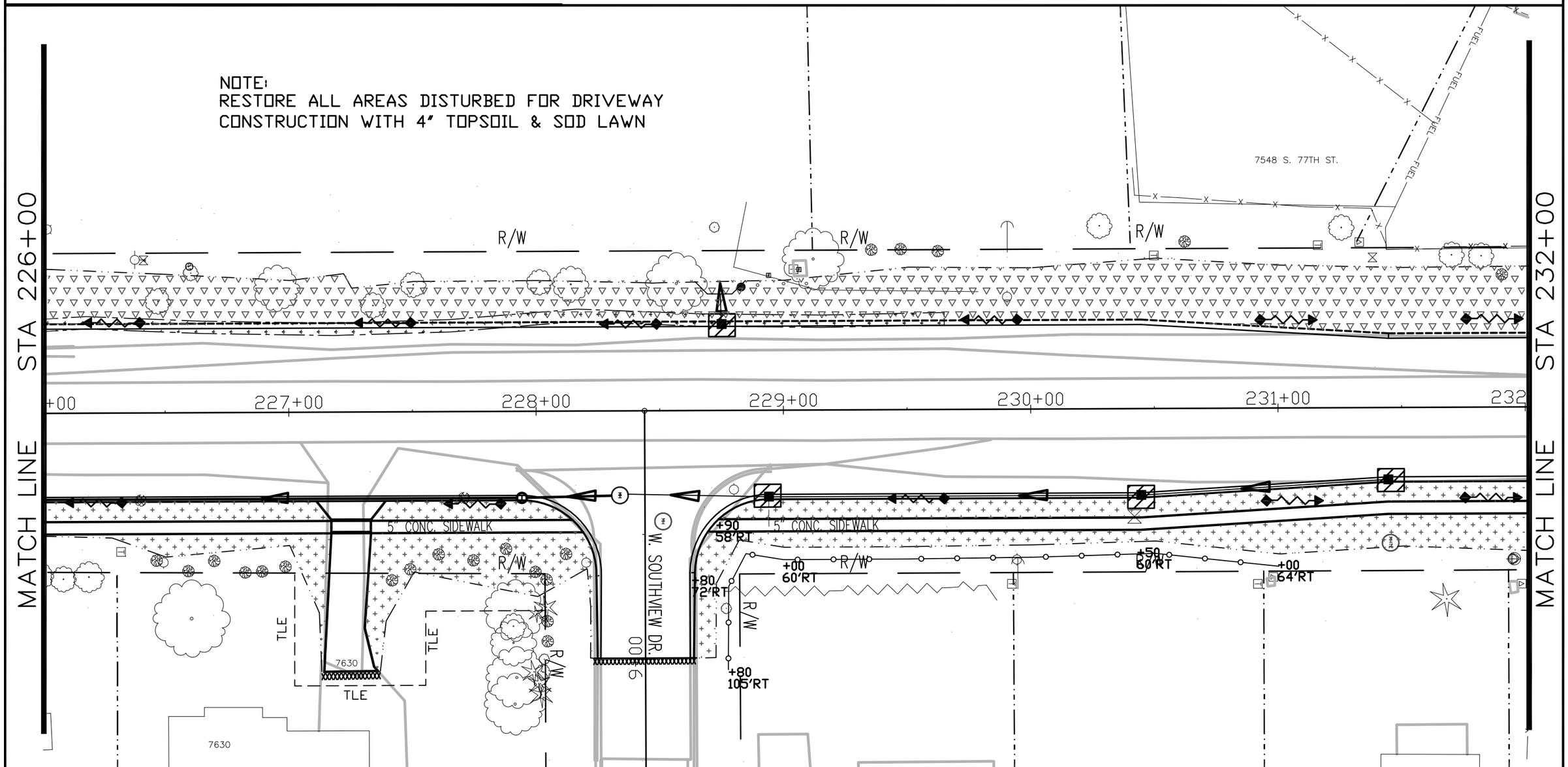
TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM

NOTE:
RESTORE ALL AREAS DISTURBED FOR DRIVEWAY
CONSTRUCTION WITH 4" TOPSOIL & SOD LAWN



REVISION DATE: 9/4/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 226+00 TO 232+00	SCALE: 1" = 40'	SHEET NO: 113	E

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

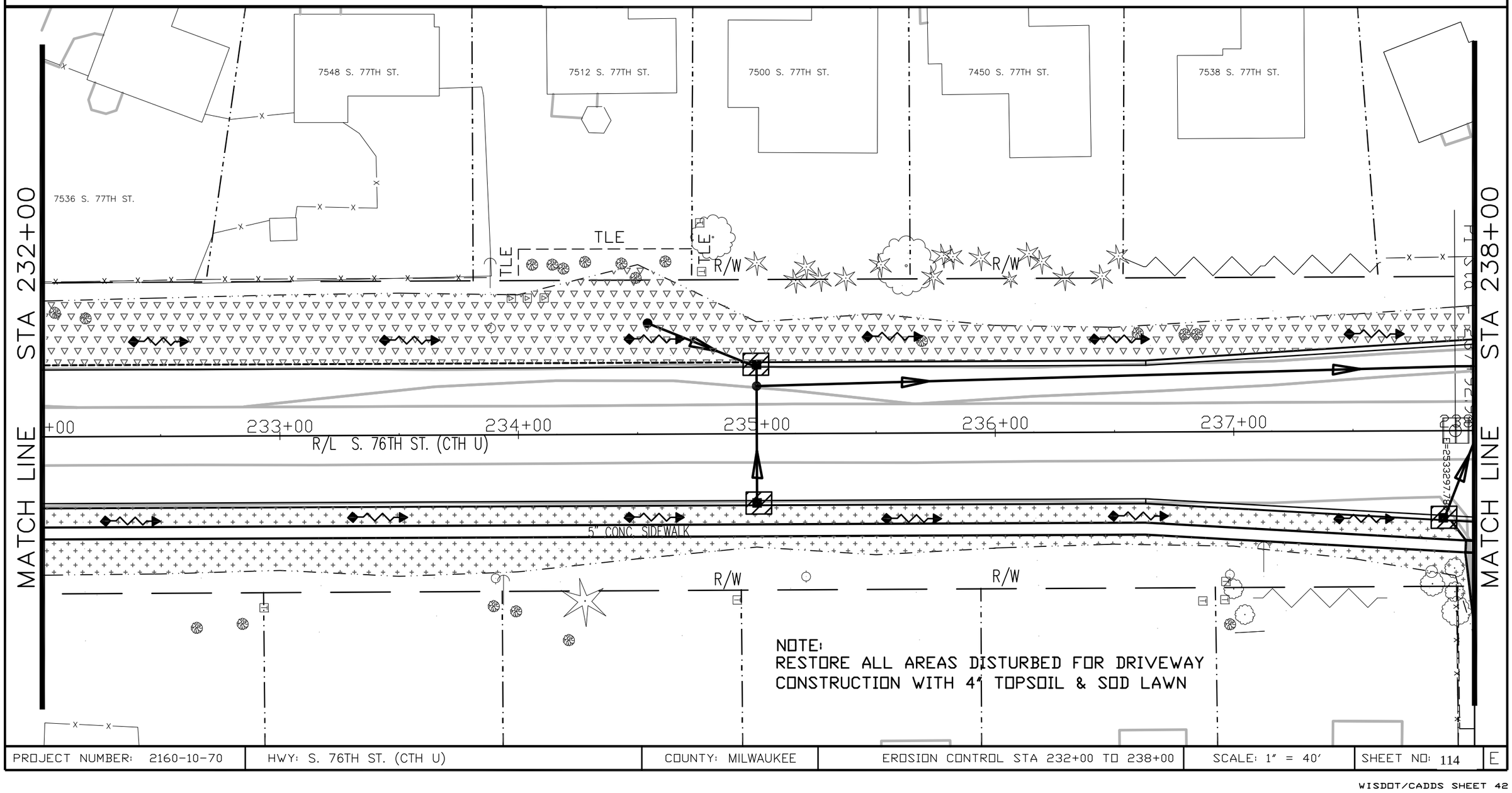
4"TOPSOIL & SOD LAWN

TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM



NOTE:
RESTORE ALL AREAS DISTURBED FOR DRIVEWAY CONSTRUCTION WITH 4" TOPSOIL & SOD LAWN

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 232+00 TO 238+00	SCALE: 1" = 40'	SHEET NO: 114	E

REVISION DATE: 9/4/2012

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

4"TOPSOIL & SOD LAWN

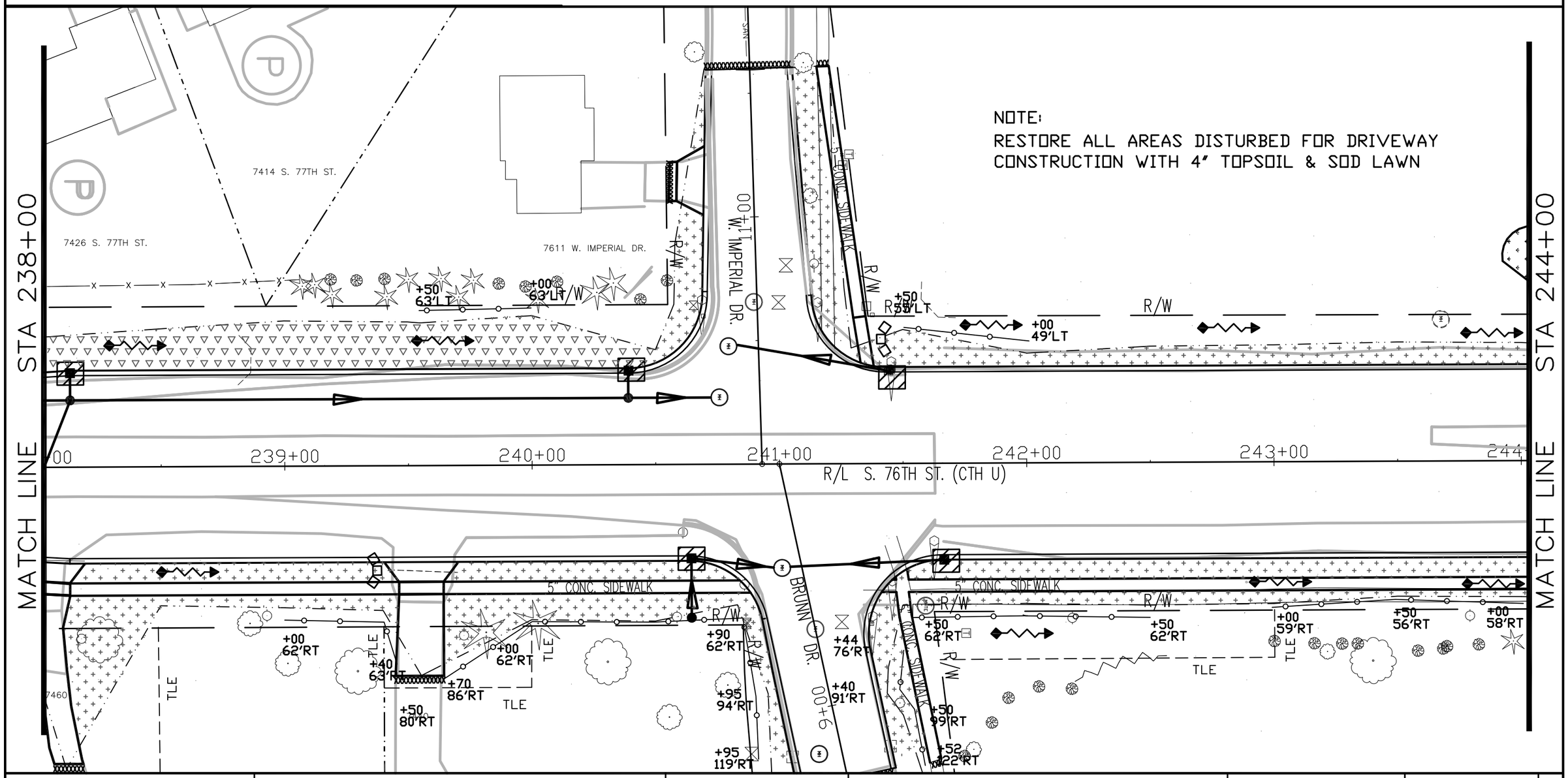
TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM

NOTE:
RESTORE ALL AREAS DISTURBED FOR DRIVEWAY CONSTRUCTION WITH 4" TOPSOIL & SOD LAWN



REVISION DATE: 9/4/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 238+00 TO 244+00	SCALE: 1" = 40'	SHEET NO: 115	E

EROSION CONTROL LEGEND

SILT FENCE

INLET PROTECTION
TYPE B UNLESS NOTED

4"TOPSOIL & SOD LAWN

TEMPORARY DITCH
CHECK (TYP)

4"TOPSOIL, EROSION MAT
URBAN CLASS I TYPE A
FERTILIZER, MULCH & SEED

DRAINAGE FLOW

RIPRAP MEDIUM

NOTE:
RESTORE ALL AREAS DISTURBED FOR DRIVEWAY CONSTRUCTION WITH 4" TOPSOIL & SOD LAWN

MATCH LINE STA 244+00

7365

7365

7341

TLE

TLE

TLE

TLE

TLE

TLE

R/W

R/W

R/W

END PROJECT I.D. 2160-10-70
STA. 248+30 R/L

+00

245+00

246+00

247+00

248+00

249+00

250

R/L S. 76th St. (CTH U)

5" CONC. SIDEWALK

5" CONC. SIDEWALK

+00
62'RT

+30
64'RT

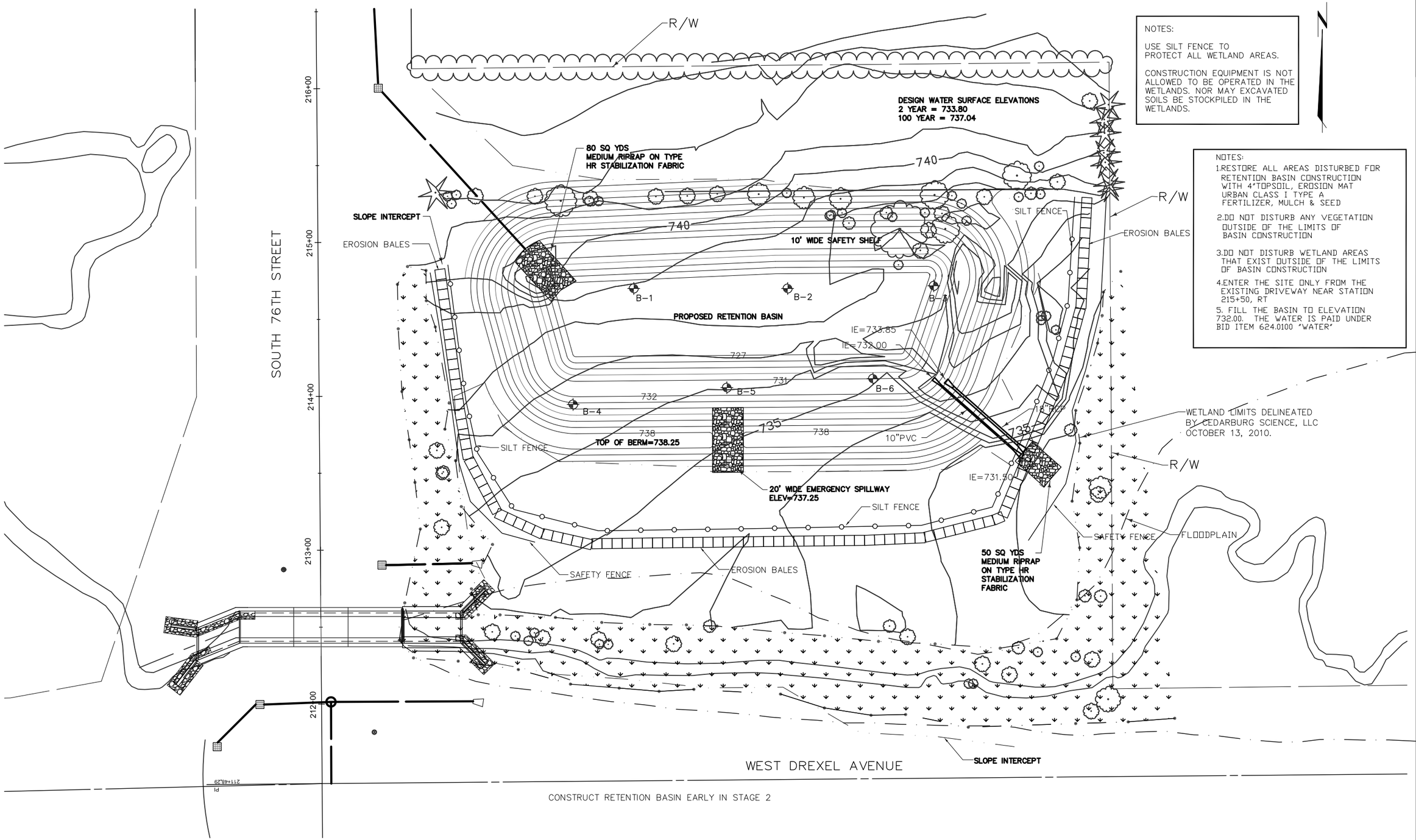
+50
64'RT

+62
62'RT

HAND CONSTRUCTION
MAY BE REQUIRED

REVISION DATE: 9/4/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL STA 244+00 TO 250+00	SCALE: 1" = 40'	SHEET NO: 116	E



NOTES:

USE SILT FENCE TO PROTECT ALL WETLAND AREAS.

CONSTRUCTION EQUIPMENT IS NOT ALLOWED TO BE OPERATED IN THE WETLANDS. NOR MAY EXCAVATED SOILS BE STOCKPILED IN THE WETLANDS.

NOTES:

1. RESTORE ALL AREAS DISTURBED FOR RETENTION BASIN CONSTRUCTION WITH 4"TOPSOIL, EROSION MAT URBAN CLASS I TYPE A FERTILIZER, MULCH & SEED
2. DO NOT DISTURB ANY VEGETATION OUTSIDE OF THE LIMITS OF BASIN CONSTRUCTION
3. DO NOT DISTURB WETLAND AREAS THAT EXIST OUTSIDE OF THE LIMITS OF BASIN CONSTRUCTION
4. ENTER THE SITE ONLY FROM THE EXISTING DRIVEWAY NEAR STATION 215+50, RT
5. FILL THE BASIN TO ELEVATION 732.00. THE WATER IS PAID UNDER BID ITEM 624.0100 "WATER"

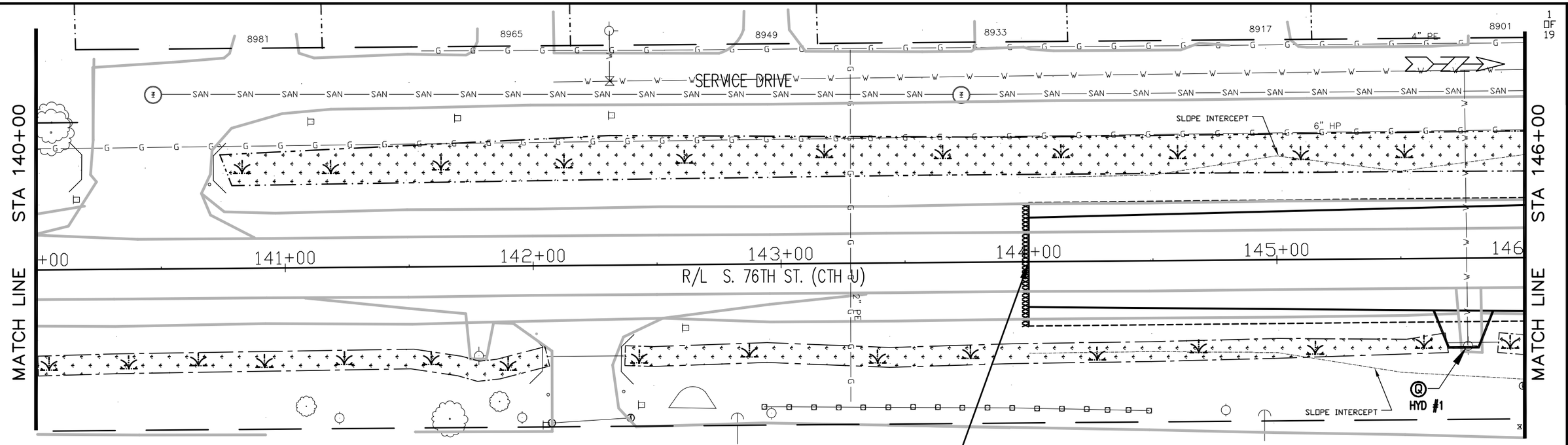
CONSTRUCT RETENTION BASIN EARLY IN STAGE 2

REVISION DATE: 10/18/2013

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EROSION CONTROL RETENTION BASIN	SCALE: 1" = 60'	SHEET NO: E

WISDOT/CADD: [illegible] T 40

2



BEGIN PROJECT I.D. 2160-10-70
STA. 144+00 R/L

SCALES:
1" = 40' HOR
1" = 5' VER

EXISTING UTILITY SYMBOLS

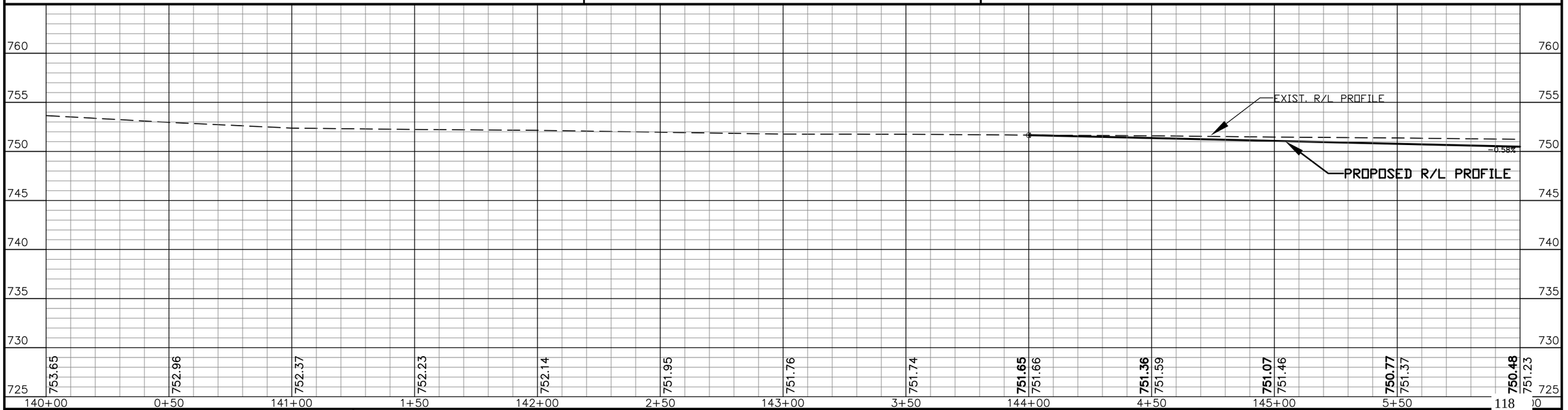
- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- T — TELEPHONE
- G — GAS
- E — ELECTRICAL
- W — WATER
- SS — STORM SEWER
- SAN — SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- x — FENCE
- SHRUBBERY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
- SIGN POST

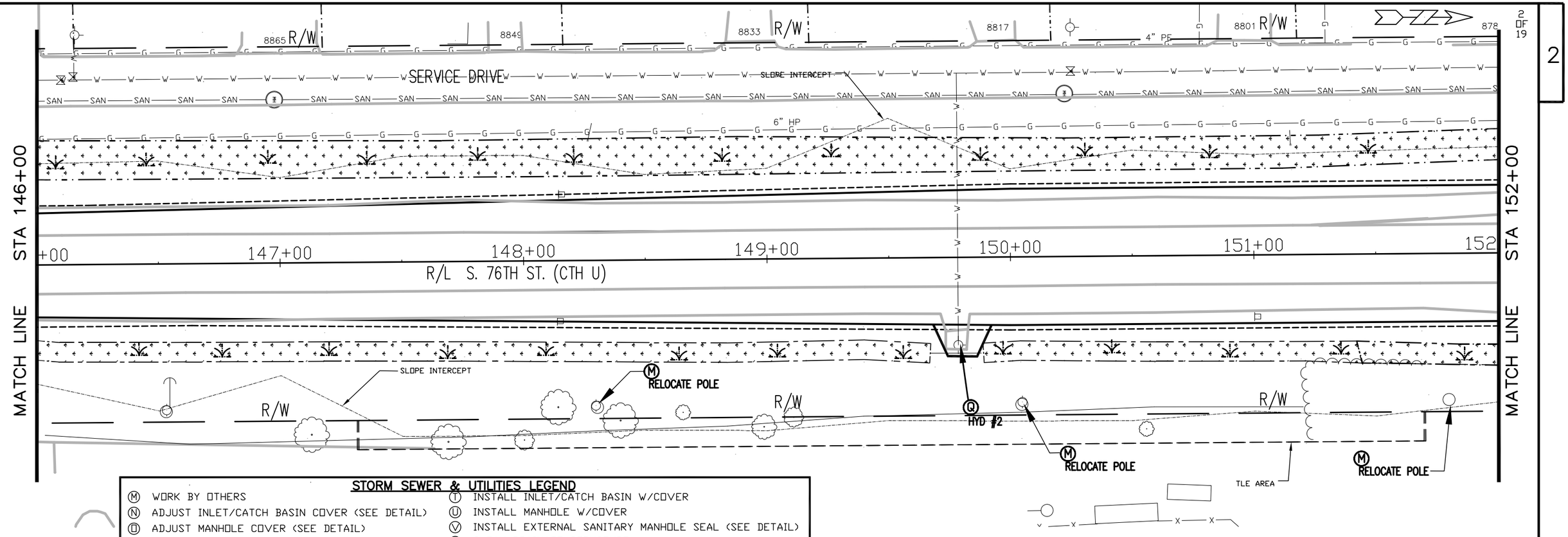
STORM SEWER & UTILITIES LEGEND

- (M) WORK BY OTHERS
- (N) ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- (O) ADJUST MANHOLE COVER (SEE DETAIL)
- (P) ADJUST WATER VALVE BOX
- (Q) ADJUST HYDRANT
- (R) RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- (S) RECONSTRUCT MANHOLE (SEE DETAIL)
- (T) INSTALL INLET/CATCH BASIN W/COVER
- (U) INSTALL MANHOLE W/COVER
- (V) INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- (W) CLEAN DRAINAGE STRUCTURE
- (X) RELOCATE HYDRANT
- [#] (#) STRUCTURE NUMBER



REVISION DATE: 3/5/2013

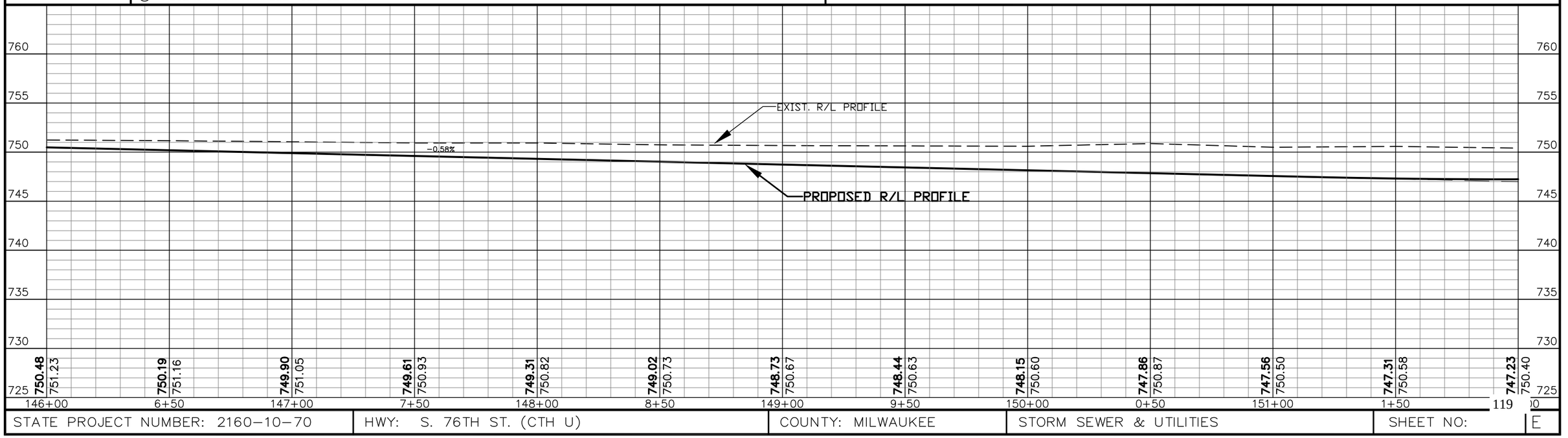
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	STORM SEWER & UTILITIES	SHEET NO: E



STORM SEWER & UTILITIES LEGEND

- Ⓜ WORK BY OTHERS
- Ⓝ ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- Ⓞ ADJUST MANHOLE COVER (SEE DETAIL)
- Ⓟ ADJUST WATER VALVE BOX
- Ⓠ ADJUST HYDRANT
- Ⓡ RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- Ⓢ RECONSTRUCT MANHOLE (SEE DETAIL)
- Ⓣ INSTALL INLET/CATCH BASIN W/COVER
- Ⓤ INSTALL MANHOLE W/COVER
- Ⓥ INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- Ⓦ CLEAN DRAINAGE STRUCTURE
- Ⓧ RELOCATE HYDRANT
- [#] (#) STRUCTURE NUMBER
- WETLAND/POND

SCALES:
1" = 40' HOR
1" = 5' VER



REVISION DATE: 10/9/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	STORM SEWER & UTILITIES	SHEET NO: E

MATCH LINE STA 152+00

MATCH LINE STA 158+00

STA. 153+27, 105'LT.
TYPE 14 MH
TYPE 57 COVER

STA. 153+06, 60'LT.
34X53 CONC. MASONRY
ENDWALL
(SEE DETAIL)

STA. 152+90, 47'LT.
STA. 153+00, 47LT.
2@34X53 CONC. MASONRY
ENDWALL
(SEE DETAIL)

STA. 153+14, 46'LT.
CONN. 12" TO 34X53
AT SPRINGLINE

STA. 153+14, 60'RT.
STA. 153+24, 56'RT.
2@34X53 CONC END SEC.

HYD #3 STA 153+70.27
70.0' RT

STA. 153+94, 46'LT.
12" CONC. END SEC.

RELOCATE POLE

SLOPE INTERCEPT

STA. 157+00, 30.29'LT.
CB 3-FT DIA
TYPE 57 COVER

4-IN. POLYSTYRENE
INSULATION REQ'D
OVER WATER MAIN

STA. 157+00, 6'RT.
MH 6-FT DIA
TYPE Q COVER

STA. 157+00, 38.29' RT.
MH 6-FT DIA
TYPE 57 COVER

STA. 156+67, 114'RT.
30" CONC. END SEC.

5" CONC. SIDEWALK

CAUTION

W. MARGARET LN.

R/L S. 76TH ST. (CTH U)

SERVICE DRIVE

R/W

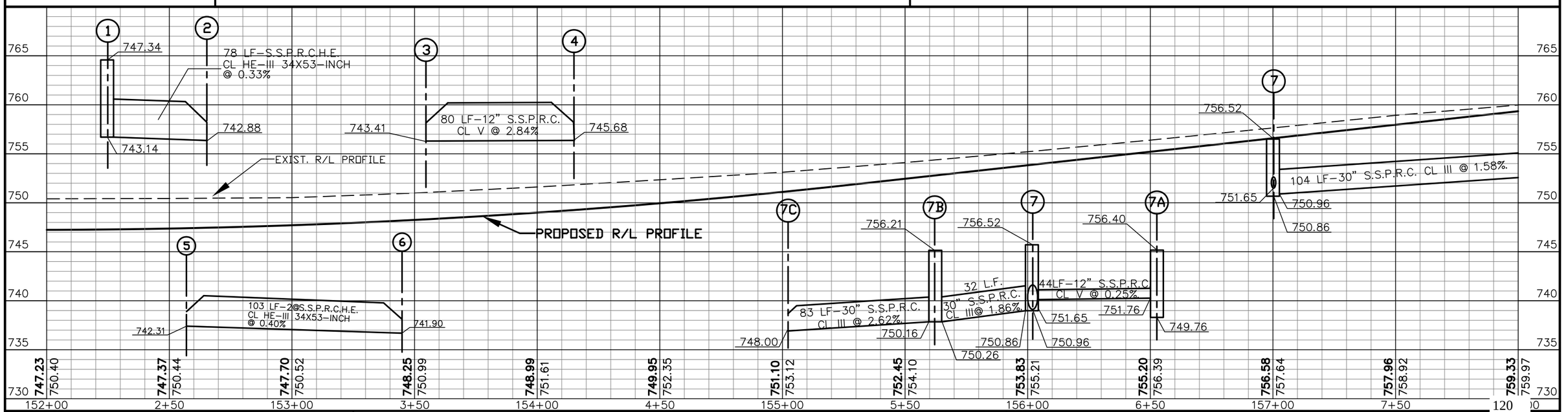
PLE

NOTE: COST OF 4-IN POLYSTYRENE INSULATION MATERIAL AND INSTALLATION IS INCIDENTAL TO THE PERTINENT STORM SEWER PIPE

STORM SEWER & UTILITIES LEGEND

- (M) WORK BY OTHERS
- (N) ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- (D) ADJUST MANHOLE COVER (SEE DETAIL)
- (P) ADJUST WATER VALVE BOX
- (Q) ADJUST HYDRANT
- (R) RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- (S) RECONSTRUCT MANHOLE (SEE DETAIL)
- (T) INSTALL INLET/CATCH BASIN W/COVER
- (U) INSTALL MANHOLE W/COVER
- (V) INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- (W) CLEAN DRAINAGE STRUCTURE
- (X) RELOCATE HYDRANT
- (#) (#) STRUCTURE NUMBER
- WETLAND/POND
- CONC. SURFACE DRAIN (SEE SDD)

SCALES:
1" = 40' HOR
1" = 5' VER



REVISION DATE: 03/14/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	STORM SEWER & UTILITIES	SHEET NO: 120 E

MATCH LINE STA 158+00

MATCH LINE STA 164+00

STA. 158+28.108' LT.
CB 3-FT DIA
TYPE 57 COVER

STA. 158+45, 99' LT.
TYPE 14 MH
TYPE 57 COVER

STA. 158+04, 38.29' LT.
TYPE 14 MH
TYPE 57 COVER

STA. 158+04, 6' RT.
MH 6-FT DIA
TYPE Q COVER

STA. 158+04, 38.29' RT.
MH 6-FT DIA
TYPE 57 COVER

HYD #4

RELOCATE POLE

REMOVE 15" SS

STA. 158+69.73' RT.

100' RT.

W. PUETZ RD. (CTH U)

S. 76TH ST (CTH U)

15" CMP

18" RCP (22')

12" RCP

16" SS

12" SAN

8" SAN

STA. 159+00, 120' LT.
CONC. END SECTION

STA. 158+89, 99' LT.
MH 6-FT DIA
TYPE 57 COVER

STA. 159+30, 38.29' LT.
CB 3-FT DIA
TYPE 57 COVER

STA. 159+30, 6' RT.
MH 4-FT DIA
TYPE Q COVER

STA. 159+30, 38.29' RT.
CB 3-FT DIA
TYPE 57 COVER

LESTER & JOANNE BABCOCK
8665

110' LT.
8647

85' LT.

SLOPE INTERCEPT

4" PE

8" SAN

RELOCATE TEL LINE
BY OTHERS
STA 157+00 TO 160+05

STA. 161+63, 6' RT.
MH 4-FT DIA
TYPE Q COVER

STA. 161+63, 38.29' LT.
CB 3-FT DIA
TYPE 57 COVER

STA. 161+63, 38.29' RT.
CB 3-FT DIA
TYPE 57 COVER

JOSEPH LE
ANN M BANAS
8635

SUMP PUMP
DISCHARGE
TO DITCH
(ABOVE GRND)

STA. 162+81, 48' LT
CB 3-FT DIA
TYPE 57 COVER

STA. 162+81, 29.29' LT.
CB 3-FT DIA
TYPE 57 COVER

STA. 162+81, 6' RT.
MH 4-FT DIA
TYPE Q COVER

STA. 162+81, 29.29' RT.
CB 3-FT DIA
TYPE 57 COVER

5" CONC. SIDEWALK

CONC. SURFACE DRAIN
(SEE SDD)

R/W

CAUTION

203 205 206 207 208 209 210

STORM SEWER & UTILITIES LEGEND

- (M) WORK BY OTHERS
- (N) ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- (D) ADJUST MANHOLE COVER (SEE DETAIL)
- (P) ADJUST WATER VALVE BOX
- (Q) ADJUST HYDRANT
- (R) RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- (S) RECONSTRUCT MANHOLE (SEE DETAIL)
- (T) INSTALL INLET/CATCH BASIN W/COVER
- (U) INSTALL MANHOLE W/COVER
- (V) INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- (W) CLEAN DRAINAGE STRUCTURE
- (X) RELOCATE HYDRANT
- (#) (#) STRUCTURE NUMBER
- WETLAND/POND

SCALES:
1" = 40' HOR
1" = 5' VER

44 LF-30" S.S.P.R.C.
CL III @ 0.72%.

32 LF-30" S.S.P.R.C.
CL III @ 1.00%.

44 LF-12" S.S.P.R.C.
CL V @ 0.65%.

32 LF-12" S.S.P.R.C.
CL V @ 0.90%.

75 LF-30" S.S.P.R.C.
CL III @ 0.77%.

24 LF-18" S.S.P.R.C.
CL IV @ 16.00%.

19 LF-15" S.S.P.R.C.
CL V @ 0.52%.

8D 759.63
8 759.44
8E 759.44
753.12
752.70
753.02
753.02
752.70
752.60

9A 763.22
9 762.88
9B 762.65
756.09
757.80
758.09
758.09
757.80
757.20

8E 759.44
207 759.90
753.12
753.02
753.02
753.70

8B 761.27
8A 760.61
755.77
754.27
756.77

11 772.32
769.48
10 767.25
766.90
767.50

8X 760.87
8C 761.27
754.85
756.85
756.75
755.40

PROPOSED R/L PROFILE

EXIST. R/L PROFILE

126 LF-18" S.S.P.R.C. CL IV @ 2.68%.

233 LF-18" S.S.P.R.C. CL IV @ 2.85%.

118 LF-18" S.S.P.R.C. CL IV @ 2.50%.

361 LF-15" S.S.P.R.C. CL V @ 1.96%.

18.71 LF-12" S.S.P.R.C.
CL V @ 9.83%.

35 LF-12" S.S.P.R.C.
CL V @ 0.88%.

23 LF-12" S.S.P.R.C.
CL V @ 1.76%.

44 LF-30" S.S.P.R.C.
CL II @ 0.62%.

73 LF-30" S.S.P.R.C.
CL III @ 3.10%.

44 LF-12" S.S.P.R.C.
CL V @ 0.52%.

32 LF-12" S.S.P.R.C.
CL V @ 0.70%.

8D 759.63
8C 761.27
8B 761.27
753.12
753.02
755.40
755.50
756.75
755.40
755.77
754.27

10A 768.98
10 769.48
10B 768.86
762.78
764.55
764.78
764.78
764.55
763.95
762.78

11A 773.75
11B 771.88
11 772.32
11C 771.88
767.75
769.75
767.91
767.81
767.55
765.81
767.91
767.50
766.90
765.91

764.44
763.95
764.55
764.05

| | | |

MATCH LINE STA 164+00

MATCH LINE STA 170+00

3623 8601 8567 8541

90' LT.

SLOPE INTERCEPT

R/W

6" HP

ADJUST VALVES (M) 214A 214B

(Q) HYD #5

(P)

(S)(V) 211

(D)(V) 212

(D)(V) 213

(D)(V) 214

CAUTION

W. LAKE PINTE DR.

TWIN OAKS BLVD.

55' RT.

5" CONC. SIDEWALK

8" PVC

SAN

SMALLORY WAY

R/L S. 76TH ST. (CTH U)

+00 165+00 166+00 167+00 168+00 169+00 170+00

15" 12"

STA. 166+42, 6' RT.
MH 4-FT DIA
TYPE Q COVER
12

STA. 166+42, 29.29' LT.
CB 3-FT DIA
TYPE 57 COVER
12A

STA. 166+42, 29.29' RT.
CB 3-FT DIA
TYPE 57 COVER
12B

STA. 167+44, 35.29' LT.
CB 3-FT DIA
TYPE 57 COVER
13A

STA. 167+44, 6' RT.
MH 4-FT DIA
TYPE Q COVER
13

STA. 167+44, 35.29' RT.
CB 3-FT DIA
TYPE 57 COVER
13B

STA. 168+92, 6' RT.
MH 4-FT DIA
TYPE Q COVER
14

STA. 168+92, 35.29' RT.
CB 3-FT DIA
TYPE 57 COVER
14B

STA. 169+00, 35.29' LT.
CB 3-FT DIA
TYPE 57 COVER
14A

STA. 169+79, 6' RT.
MH 4-FT DIA
TYPE Q COVER
15

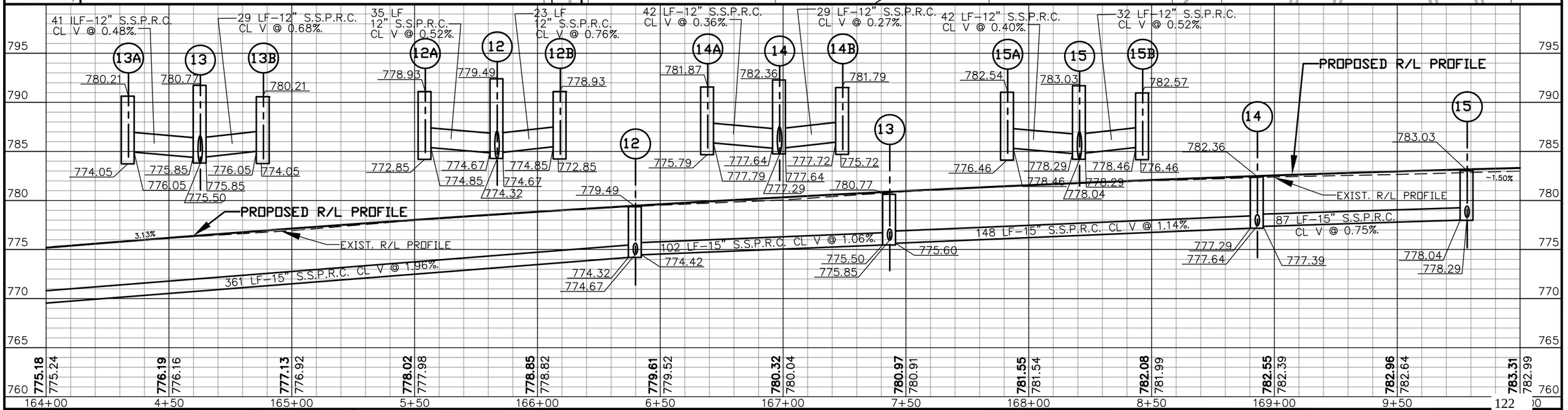
STA. 169+87, 35.29' LT.
CB 3-FT DIA
TYPE 57 COVER
15A

STA. 169+92, 35.29' RT.
CB 3-FT DIA
TYPE 57 COVER
15B

STORM SEWER & UTILITIES LEGEND

- (M) WORK BY OTHERS
- (N) ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- (D) ADJUST MANHOLE COVER (SEE DETAIL)
- (P) ADJUST WATER VALVE BOX
- (Q) ADJUST HYDRANT
- (R) RECONSTRUCT INLET/CATCH BASIN (SEE DETAILS)
- (S) RECONSTRUCT MANHOLE (SEE DETAIL)
- (T) INSTALL INLET/CATCH BASIN W/COVER
- (U) INSTALL MANHOLE W/COVER
- (V) INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- (W) CLEAN DRAINAGE STRUCTURE
- (X) RELOCATE HYDRANT
- (#)(#) STRUCTURE NUMBER
- WETLAND/POND
- CONC. SURFACE DRAIN (SEE SDD)

SCALES:
1" = 40' HOR
1" = 5' VER



REVISION DATE: 03/14/2013

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	STORM SEWER & UTILITIES	SHEET NO: E

MATCH LINE STA 170+00

MATCH LINE STA 176+00

TUCKAWAY SHORES DR.

SERVICE DRIVE

STA. 175+80, 45' LT.
CONC. END SEC.
16D

STA. 174+70, 35.29' LT.
CB 3-FT DIA
TYPE 57 COVER
16C

STA. 173+18, 35.29' LT.
CB 3-FT DIA
TYPE 57 COVER
16A

STA. 174+19, 35.29' LT.
TYPE 2 CB
TYPE 57 COVER
16B

STA. 175+70, 29.29'LT.
CB 3-FT DIA
TYPE 57 COVER
16

STA. 174+69, 6' RT.
MH 4-FT DIA
TYPE Q COVER
17

STA. 174+69, 35.29' RT.
CB 3-FT DIA
TYPE 57 COVER
17A

R/L S. 76TH ST. (CTH U)

STA 173+51.24
40.0' RT

HYD #6

215

215A

ADJUST VALVE

RELOCATE POLE

RELOCATE POLE AND PEDESTAL

MICHAEL J HILLMAN
8465 FOUNTAIN CT.

JOHN M & LISA M COURY
8455 FOUNTAIN CT.

77' RT.

5" CONC. SIDEWALK

SLOPE INTERCEPT

70' LT.

4" PE

6" HP

12"

16"

R/W

CONC. SURFACE DRAIN (SEE SDD)

SCALES:
1" = 40' HOR
1" = 5' VER

STORM SEWER & UTILITIES LEGEND

- (M) WORK BY OTHERS
- (N) ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- (D) ADJUST MANHOLE COVER (SEE DETAIL)
- (P) ADJUST WATER VALVE BOX
- (Q) ADJUST HYDRANT
- (R) RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- (S) RECONSTRUCT MANHOLE (SEE DETAIL)
- (T) INSTALL INLET/CATCH BASIN W/COVER
- (U) INSTALL MANHOLE W/COVER
- (V) INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- (W) CLEAN DRAINAGE STRUCTURE
- (X) RELOCATE HYDRANT
- [#] (#) STRUCTURE NUMBER
- WETLAND/POND

PROPOSED R/L PROFILE

EXIST. R/L PROFILE

16A 783.44
101 LF-12" S.S.P.R.C. CL V @ 0.25%.
779.00
781.00

16B 783.20
51 LF-12" S.S.P.R.C. CL V @ 0.20%.
780.75
778.65

16C 782.98
100 LF-12" S.S.P.R.C. CL V @ 0.40%.
780.55
778.45

16 782.49
18 LF-12" S.S.P.R.C. CL V @ 0.44%.
780.05
780.00
778.00

16D
779.92

17 783.55
261 LF-12" S.S.P.R.C. CL V @ 0.45%.
783.55
778.65
778.75

17A 782.98
29 LF-12" S.S.P.R.C. CL V @ 0.52%.
776.90
778.90

17 783.55
778.75
778.65

| | | |

MATCH LINE STA 176+00

MATCH LINE STA 182+00

STA. 177+79, 44' LT.
CONC. END SEC.
19E

SERVICE DRIVE

STA. 179+79, 45' LT.
CONC. END SEC.
20B

STA. 180+79, 47' LT.
CONC. END SEC.
20C

STA. 181+50, 50' LT.
CONC. END SEC.
21C

STA. 177+79, 29.29' LT.
CB 3-FT DIA
TYPE 57 COVER
19D

STA. 181+50, 29.29' LT.
CB 3-FT DIA
TYPE 57 COVER
21B

STA. 177+30, 6' RT.
MH 4-FT DIA
TYPE Q COVER
18

STA. 178+18, 6' RT.
MH 4-FT DIA
TYPE Q COVER
19

STA. 179+83, 6' RT.
MH 4-FT DIA
TYPE Q COVER
20

STA. 181+50, 6' RT.
MH 4-FT DIA
TYPE Q COVER
21

STA. 178+18 29.29' RT.
INL 3-FT DIA
TYPE 57 COVER
19C

STA. 179+83, 51' RT.
MH 4-FT DIA
TYPE Q COVER
20A

STA. 181+50, 29.29' RT.
CB 3-FT DIA
TYPE 57 COVER
21A

STA. 177+30, 29.29' RT.
CB 3-FT DIA
TYPE 57 COVER
18A

STA. 177+60, 74' RT.
CB 3-FT DIA
TYPE 57 COVER
19A

STA. 177+87 74' RT.
CB 3-FT DIA
TYPE 57 COVER
19B

177+00 178+00 179+00 180+00 181+00 182+00

R/W S. 76TH ST (CTH U) R/W

12" 16" 8" PVC SAN 4" PE 2" PE

5" CONC. SIDEWALK

SLOPE INTERCEPT

HYD #7
STA 177+44.11
48.0' RT

HYD #8
STA 181+88.72
40.0' RT

RELOCATE POLE

8405 FOUNTAIN CT.
TWIN OAKS
DEVELOPMENT CORP

8400 FOUNTAIN CT.
TWIN OAKS
DEVELOPMENT CORP

QUINTAIN CT

72' LT.

75' RT.

70' RT.

CAUTION

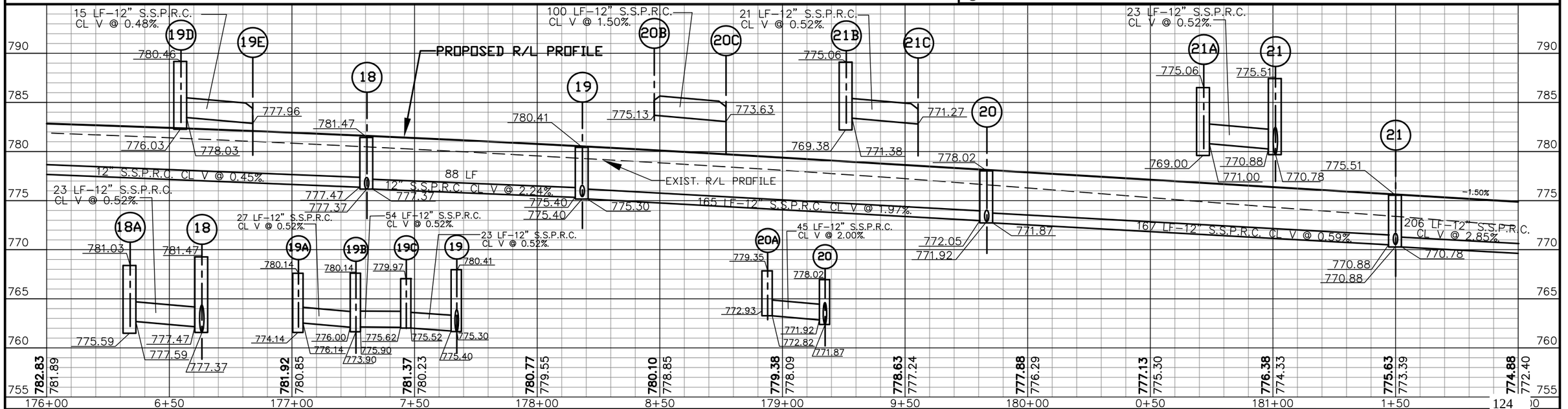
SUMP DISC TO

SCALES:
1" = 40' HOR
1" = 5' VER

CONC. SURFACE DRAIN
(SEE SDD)

STORM SEWER & UTILITIES LEGEND

- (M) WORK BY OTHERS
- (N) ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- (O) ADJUST MANHOLE COVER (SEE DETAIL)
- (P) ADJUST WATER VALVE BOX
- (Q) ADJUST HYDRANT
- (R) RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- (S) RECONSTRUCT MANHOLE (SEE DETAIL)
- (T) INSTALL INLET/CATCH BASIN W/COVER
- (U) INSTALL MANHOLE W/COVER
- (V) INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- (W) CLEAN DRAINAGE STRUCTURE
- (X) RELOCATE HYDRANT
- (#) STRUCTURE NUMBER
- WETLAND/POND



REVISION DATE: 03/14/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	STORM SEWER & UTILITIES	SHEET NO:

MATCH LINE STA 182+00

MATCH LINE STA 188+00

22C STA. 182+50, 60' LT. CONC. END SEC.

23E STA. 184+25 55' LT. CONC. END SEC.

STA. 184+00 50' LT. CONC. END SEC. 23A

STA. 187+55, 53' LT. CONC. END SEC. 24C

HYD #9 221B STA 185+31.40 67.40' LT

SLOPE INTERCEPT

22B STA. 182+50, 35.29' LT. CB 3-FT DIA. TYPE 57 COVER

22 STA. 183+56, 6' RT. MH 4-FT DIA. TYPE Q COVER

23 STA. 184+31, 6' RT. MH 6-FT DIA. TYPE Q COVER

23D STA. 184+51, 35.29' LT. CB 3-FT DIA. TYPE 57 COVER

24 STA. 186+15, 6' RT. MH 4-FT DIA. TYPE Q COVER

24B STA. 187+55 35.29' LT. CB 3-FT DIA. TYPE 57 COVER

22A STA. 183+10, 56' RT. MH 4-FT DIA. TYPE Q COVER

22W STA. 182+93, 35.29' RT. INL 3-FT DIA. TYPE 57 COVER

23B STA. 184+45, 35.29' RT. MH 6-FT DIA. TYPE 57 COVER

220A STA. 183+56, 40' RT. MH 4-FT DIA. TYPE Q COVER

24A STA. 186+15, 35.29' RT. CB 3-FT DIA. TYPE 57 COVER

RELOCATE POLE

221

222

220

21

16"

12"

24"

43x68"

R/L S. 76TH ST. (CTH U)

183+00 184+00 185+00 186+00 187+00 188

1+00 2+00

5' CONC. SIDEWALK

8" PVC SAN

12" PVC SAN

4" PE

R/W

STONE FASCIA RETAINING WALL

SUMP PUMP DISCHARGE(2)

SUMP PUMP DISCHARGE TO DITCH

TO DITCH

5' PUMP DISCHARGE DITCH

4-IN POLYSTYRENE INSULATION REQ'D OVER WATER MAIN

RELOCATE POLE

ADJUST 221A MH AND PEDESTAL

SLOPE INTERCEPT

8300 COUNTRY CLUB CIR BRIAN & PATTI J ERICKSON

8290 COUNTRY CLUB CIR CHRISTOPHER T & SHELLY M HUNT

COUNTRY CLUB CIR.(T)

NOTE: COST OF 4-IN POLYSTYRENE INSULATION MATERIAL AND INSTALLATION IS INCIDENTAL TO THE PERTINENT STORM SEWER PIPE

22Z STA. 183+62, 67' RT. CB 3-FT DIA. TYPE 57 COVER

22Y STA. 183+57, 68' RT. MH 4-FT DIA. TYPE Q COVER CONSTRUCT OVER EXISTING 21" PIPE

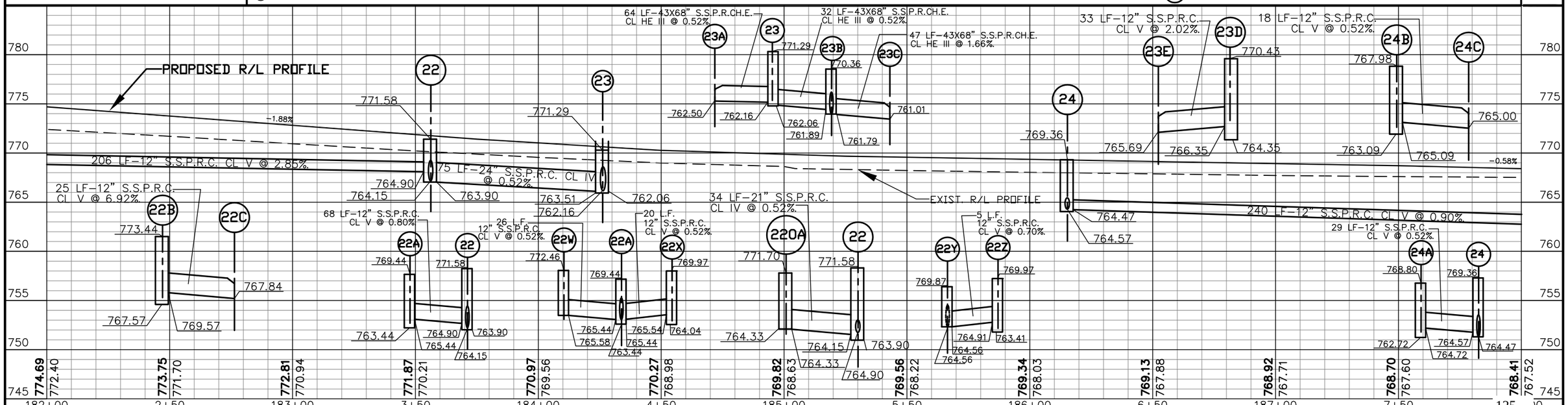
22X STA. 183+26, 67' RT. CB 3-FT DIA. TYPE 57 COVER

23C STA. 184+60, 55' RT. CONC. END SEC.

SCALES:
1" = 40' HOR
1" = 5' VER

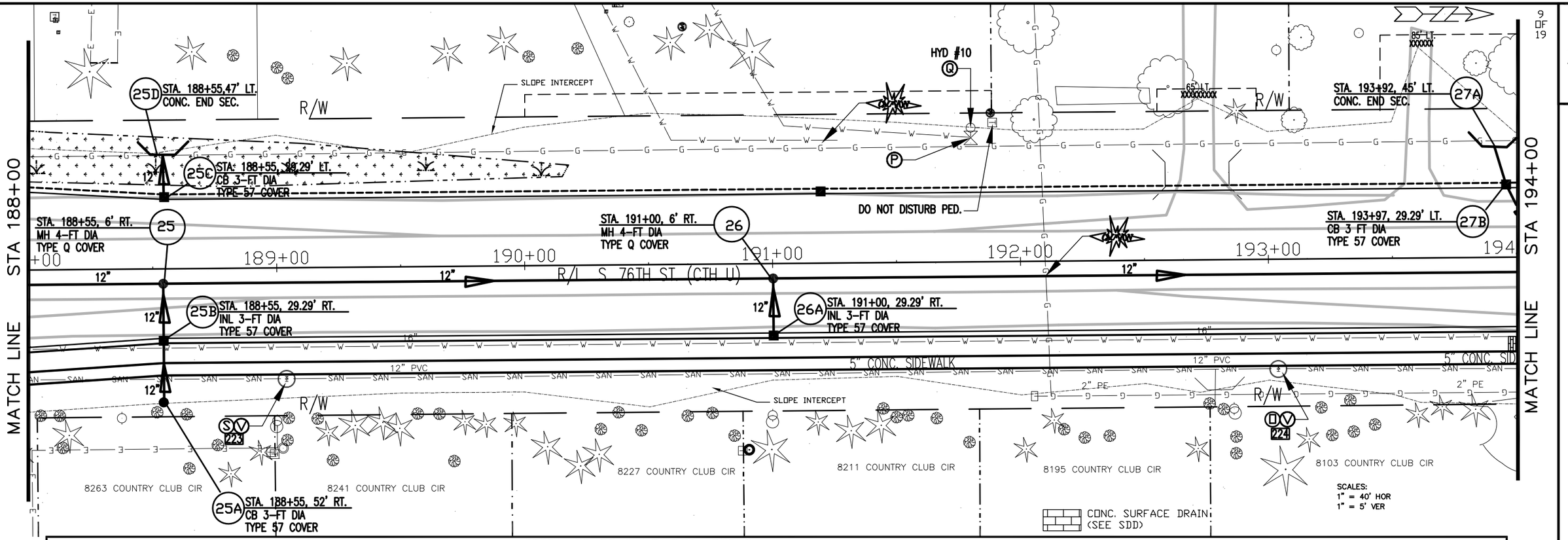
STORM SEWER & UTILITIES LEGEND

- (M) WORK BY OTHERS
- (N) ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- (O) ADJUST MANHOLE COVER (SEE DETAIL)
- (P) ADJUST WATER VALVE BOX
- (Q) ADJUST HYDRANT
- (R) RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- (S) RECONSTRUCT MANHOLE (SEE DETAIL)
- (T) INSTALL INLET/CATCH BASIN W/COVER
- (U) INSTALL MANHOLE W/COVER
- (V) INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- (W) CLEAN DRAINAGE STRUCTURE
- (X) RELOCATE HYDRANT
- (#) (#) STRUCTURE NUMBER
- WETLAND/POND



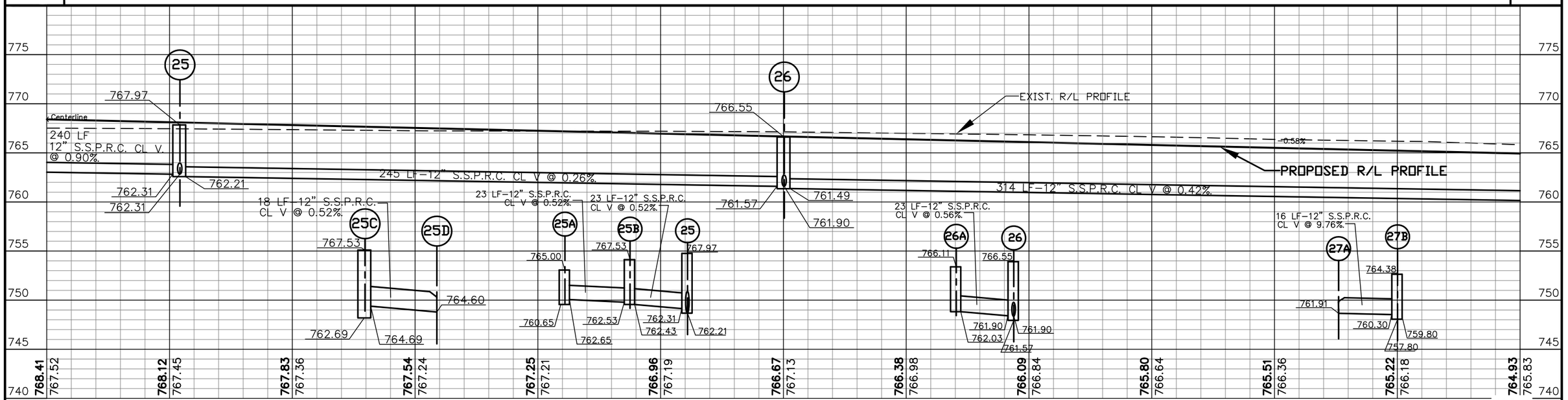
REVISION DATE: 11/18/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	STORM SEWER & UTILITIES	SHEET NO: E



STORM SEWER & UTILITIES LEGEND

- (M) WORK BY OTHERS
- (N) ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- (D) ADJUST MANHOLE COVER (SEE DETAIL)
- (P) ADJUST WATER VALVE BOX
- (Q) ADJUST HYDRANT
- (R) RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- (S) RECONSTRUCT MANHOLE (SEE DETAIL)
- (T) INSTALL INLET/CATCH BASIN W/COVER
- (U) INSTALL MANHOLE W/COVER
- (V) INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- (W) CLEAN DRAINAGE STRUCTURE
- (X) RELOCATE HYDRANT
- (#) STRUCTURE NUMBER
- WETLAND/POND



REVISION DATE: 03/14/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	STORM SEWER & UTILITIES	SHEET NO: E

MATCH LINE STA 194+00

MATCH LINE STA 200+00

27 STA. 194+14, 6' RT. MH 4-FT DIA TYPE Q COVER

27C STA. 194+14, 29.29' RT. INL 3-FT DIA TYPE 57 COVER

28 STA. 195+04, 6' RT. MH 4-FT DIA TYPE Q COVER

28A STA. 195+04, 29.29' RT. INL 3-FT DIA TYPE 57 COVER

29 STA. 197+32, 6' RT. MH 4-FT DIA TYPE Q COVER

29A STA. 197+32, 29.29' LT. CB 3-FT DIA TYPE 57 COVER

29B STA. 197+32, 29.29' RT. INL 3-FT DIA TYPE 57 COVER

HYD #11 40.0' RT STA 195+78.37

HYD #12 45.0' LT STA 198+37.70

HYD #13 40.0' RT STA 198+51.17

R/I S. 76TH ST. (CTH U)

5" CONC. SIDEWALK

8100 COUNTRY CLUB CIR

COUNTRY CLUB CIR

RELOCATE POLE

ADJUST VALVES 225A 225B

SLOPE INTERCEPT

90' LT.

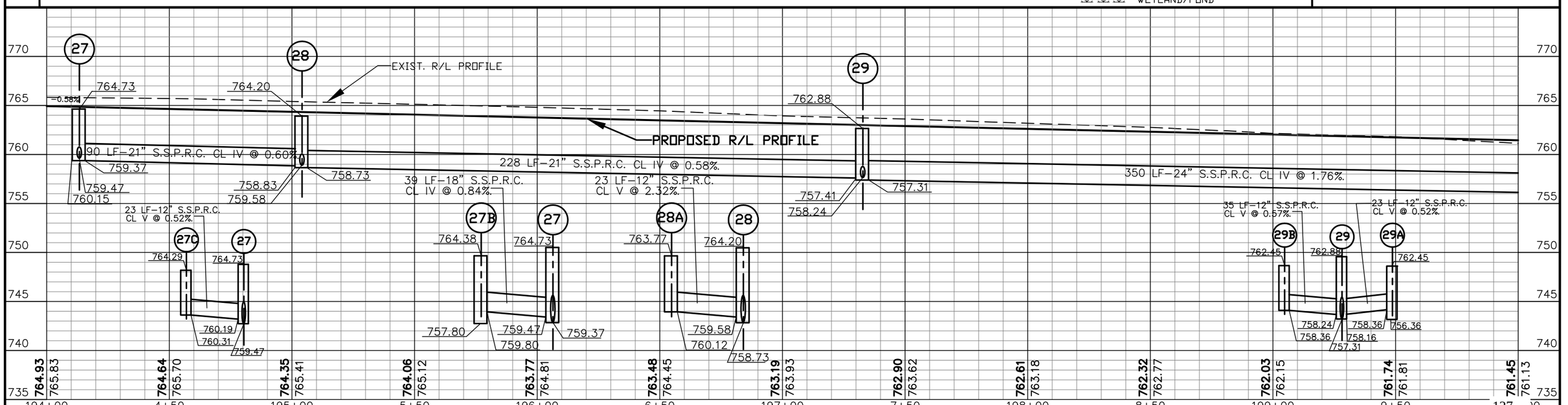
75' RT.

8113

STORM SEWER & UTILITIES LEGEND

- (M) WORK BY OTHERS
- (N) ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- (O) ADJUST MANHOLE COVER (SEE DETAIL)
- (P) ADJUST WATER VALVE BOX
- (Q) ADJUST HYDRANT
- (R) RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- (S) RECONSTRUCT MANHOLE (SEE DETAIL)
- (T) INSTALL INLET/CATCH BASIN W/COVER
- (U) INSTALL MANHOLE W/COVER
- (V) INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- (W) CLEAN DRAINAGE STRUCTURE
- (X) RELOCATE HYDRANT
- (#) STRUCTURE NUMBER
- WETLAND/POND
- CONC. SURFACE DRAIN (SEE SDD)

SCALES:
1" = 40' HOR
1" = 5' VER



REVISION DATE: 11/20/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	STORM SEWER & UTILITIES	SHEET NO: E

MATCH LINE STA 200+00

MATCH LINE STA 206+00

STA. 201+15, 47' LT.
MH 6-FT DIA
TYPE Q COVER

30D

RELOCATE POLE (M)

230C
ADJUST GAS VALVE (M)

31A
STA. 202+09, 55' LT.
CONC. END SEC.

STA. 200+82, 35.29' LT.
CB 3-FT DIA
TYPE 57 COVER

30A

30E
STA. 201+63, 55' LT.
CONC. END SEC.

SLOPE INTERCEPT

ADJUST GAS VALVE (M)

4-IN POLYSTYRENE INSULATION REQ'D OVER WATER MAIN

STA. 204+50, 35.29' LT.
CB 3-FT DIA
TYPE 57 COVER

32A

STA. 202+14, 35.29' LT.
MH 6-FT DIA
TYPE 57 COVER

31B

STA. 204+50, 6' RT.
MH 4-FT DIA
TYPE Q COVER

32

STA. 200+82, 6' RT.
MH 6-FT DIA
TYPE Q COVER

30

201+00 202+00 203+00 204+00 205+00 206

R/L S. 76TH ST. (CTH U)

STA. 202+29, 6' RT.
MH 6-FT DIA
TYPE Q COVER

31

4-IN POLYSTYRENE INSULATION REQ'D OVER WATER MAIN

HYD #14 STA 202+53.57 40.0' RT

STA. 204+50, 35.29' RT.
CB 3-FT DIA
TYPE 57 COVER

32B

HYD #15 STA 205+88.08 40.0' RT

STA. 200+82 35.29' RT.
INL 3-FT DIA
TYPE 57 COVER

30C

STA. 202+39. 35.29' RT.
MH 6-FT DIA
TYPE 57 COVER

31C

5" CONC. SIDEWALK

W. TUCKAWAY PKWY

S. 70TH CIR

STA. 200+82, 54' RT.
CB 3-FT DIA
TYPE 57 COVER

30B

ADJUST GAS VALVE 231A (M)

232

STA. 202+46, 55' RT.
CONC. END SEC.

31D

RELOCATE POLE (M)

RECONSTRUCT MANHOLE 233 (M)

RELOCATE POLE AND PEDESTAL (M)

SLOPE INTERCEPT

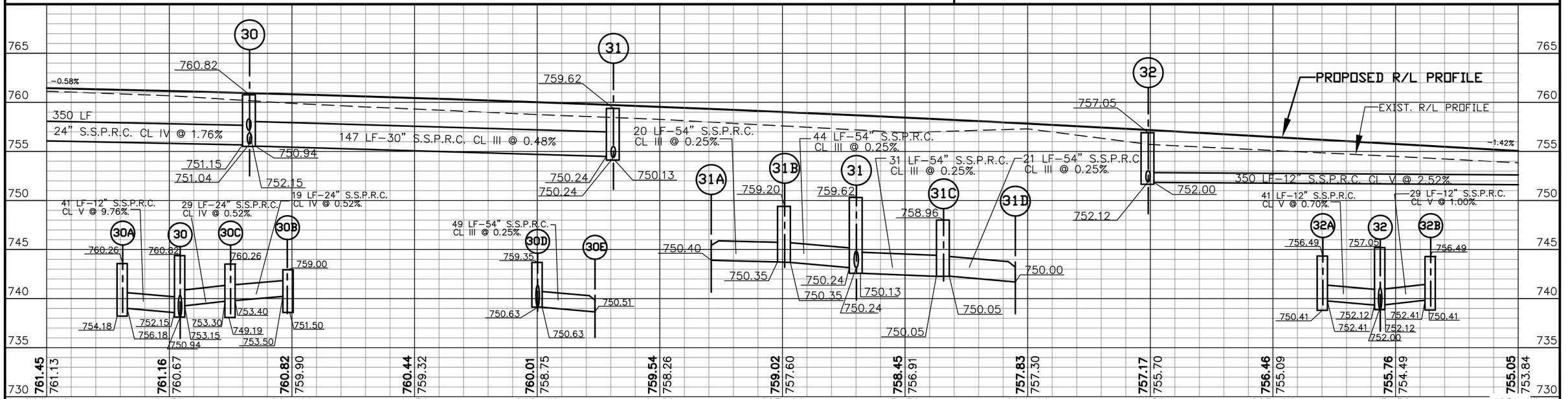
SCALES:
1" = 40' HOR
1" = 5' VER

CONC. SURFACE DRAIN (SEE SDD)

NOTE: COST OF 4-IN POLYSTYRENE INSULATION MATERIAL AND INSTALLATION IS INCIDENTAL TO THE PERTINENT STORM SEWER PIPE

STORM SEWER & UTILITIES LEGEND

- (M) WORK BY OTHERS
- (N) ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- (U) ADJUST MANHOLE COVER (SEE DETAIL)
- (P) ADJUST WATER VALVE BOX
- (Q) ADJUST HYDRANT
- (R) RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- (S) RECONSTRUCT MANHOLE (SEE DETAIL)
- (T) INSTALL INLET/CATCH BASIN W/COVER
- (U) INSTALL MANHOLE W/COVER
- (V) INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- (W) CLEAN DRAINAGE STRUCTURE
- (X) RELOCATE HYDRANT
- (#) (#) STRUCTURE NUMBER
- WETLAND/POND



REVISION DATE: 03/14/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	STORM SEWER & UTILITIES	SHEET NO:

E

STORM SEWER & UTILITIES LEGEND

- (M) WORK BY OTHERS
- (N) ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- (O) ADJUST MANHOLE COVER (SEE DETAIL)
- (P) ADJUST WATER VALVE BOX
- (Q) ADJUST HYDRANT
- (R) RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- (S) RECONSTRUCT MANHOLE (SEE DETAIL)
- (T) INSTALL INLET/CATCH BASIN W/COVER
- (U) INSTALL MANHOLE W/COVER
- (V) INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- (W) CLEAN DRAINAGE STRUCTURE
- (X) RELOCATE HYDRANT
- (#) STRUCTURE NUMBER
- WETLAND/POND
- CONC. SURFACE DRAIN (SEE SDD)

SCALES:
1" = 40' HOR
1" = 5' VER

MATCH LINE STA 212+00

MATCH LINE STA 218+00

39A STA. 212+90, 78' LT. CONC. END SEC.

39C STA. 214+00, 78' LT. CONC. END SEC.

40C STA. 216+00 78' LT. CONC. END SEC.

SLOPE INTERCEPT

39B STA. 214+00, 38.29' LT. CB 3-FT DIA TYPE 57 COVER

39 STA. 212+90, 38.29' LT. CB 3-FT DIA TYPE 57 COVER

40B STA. 216+00, 38.29' LT. CB 3-FT DIA TYPE 57 COVER

35A STA. 212+00, 38.29' LT. CB 3-FT DIA TYPE 57 COVER

35 STA. 212+00, 6' RT. MH 6-FT DIA TYPE Q COVER

38 STA. 212+90, 38.29' RT. CB 3-FT DIA TYPE 57 COVER

R/L S. 76TH ST. (CTH U)

HYD #17 STA 215+29.70 40.0 RT

243A ADJUST MH

40 STA. 216+05, 38.29' RT. MH 6-FT DIA TYPE 57 COVER

36 STA. 212+12, 38.29' RT. MH 6-FT DIA TYPE 57 COVER

5" CONC. SIDEWALK

RELOCATE POLE

FIELD DRAIN REQ'D +50, 60' RT (SEE DETAIL)

37 STA. 212+00, 85' RT. CONC. END SEC.

38A STA. 212+90, 105' RT. CONC. END SEC.

SLOPE INTERCEPT

STA. 214+94, 132' RT. CONC. END SEC. 40A

SCALES:
1" = 40' HOR
1" = 5' VER

CONC. SURFACE DRAIN (SEE SDD)

STORM SEWER & UTILITIES LEGEND

- (M) WORK BY OTHERS
- (N) ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- (D) ADJUST MANHOLE COVER (SEE DETAIL)
- (P) ADJUST WATER VALVE BOX
- (Q) ADJUST HYDRANT
- (R) RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- (S) RECONSTRUCT MANHOLE (SEE DETAIL)
- (T) INSTALL INLET/CATCH BASIN W/COVER
- (U) INSTALL MANHOLE W/COVER
- (X) RELOCATE HYDRANT
- (V) INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- (W) CLEAN DRAINAGE STRUCTURE
- (#) STRUCTURE NUMBER
- WETLAND/POND

PROPOSED R/L PROFILE

EXIST. R/L PROFILE

44 LF-12" S.S.P.R.C. CL V @ 1.00%

34 LF-27" S.S.P.R.C. CL III @ 0.52%

48 LF-27" S.S.P.R.C. CL III @ 2.00%

40 LF-12" S.S.P.R.C. CL V @ 9.68%

145 LF-27" S.S.P.R.C. CL III @ 6.72%

295 LF-27" S.S.P.R.C. CL III @ 1.78%

40 LF-12" S.S.P.R.C. CL V @ 9.68%

67 LF-12" S.S.P.R.C. CL V @ 9.70%

40 LF-12" S.S.P.R.C. CL V @ 9.75%

	35A	35	36	37	39B	39C	40A	39	39A	40	38	38A	40B	40C
	748.02	747.72	747.06		747.23		733.00	747.40		742.77	746.84		749.13	
	741.00	742.56	741.03	739.97	738.25	736.38		738.25	736.38	742.87	739.50	735.00	740.50	738.63
		743.00		740.93	740.25			740.25			741.50		742.50	
		741.31												
	741.21													

	747.84	747.70	747.66	747.72	747.89	748.16	748.53	749.00	749.87	750.75	751.62	752.50	753.37
	747.19	746.91	746.96	747.00	747.03	747.32	747.57	747.98	748.52	749.16	749.92	750.74	751.66

212+00 2+50 213+00 3+50 214+00 4+50 215+00 5+50 216+00 6+50 217+00 7+50

760 755 750 745 740 735 730 725

REVISION DATE: 04/18/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	STORM SEWER & UTILITIES	SCALE: NTS	SHEET NO: 130 E

2

MATCH LINE STA 218+00

MATCH LINE STA 224+00

41B STA. 218+75 53' LT. CONC. END SEC.

42B STA. 221+50, 50' LT. CONC. END SEC.

41A STA. 218+75, 35.29' LT. CB 3-FT DIA TYPE 57 COVER

42A STA. 221+50, 35.29' LT. CB 3-FT DIA TYPE 57 COVER

41 STA. 219+00, 35.29' RT. MH 6-FT DIA TYPE 57 COVER

42 STA. 220+32, 35.29' RT. MH 6-FT DIA TYPE 57 COVER

43 STA. 229+97, 35.29' RT. MH 5-FT DIA TYPE 57 COVER

R/L S. 76TH ST. (CTH U)

PINEBERRY RIDGE

7555 PINEBERRY RIDGE

7556 PINEBERRY RIDGE

7439 WOODBURY CT.

7440 WOODBUR

RELOCATE POLE

ADJUST MH 248A

ADJUST WATER MH

DENSE BRUSH/ LANSCAPING

SLOPE INTERCEPT

CONNECT EXIST. 12" RCP TO NEW SS

CONC. SURFACE DRAIN (SEE SDD)

5' CONC. SIDEWALK

8" ABS COMPOSITE

2" PE

6" HP

246

247

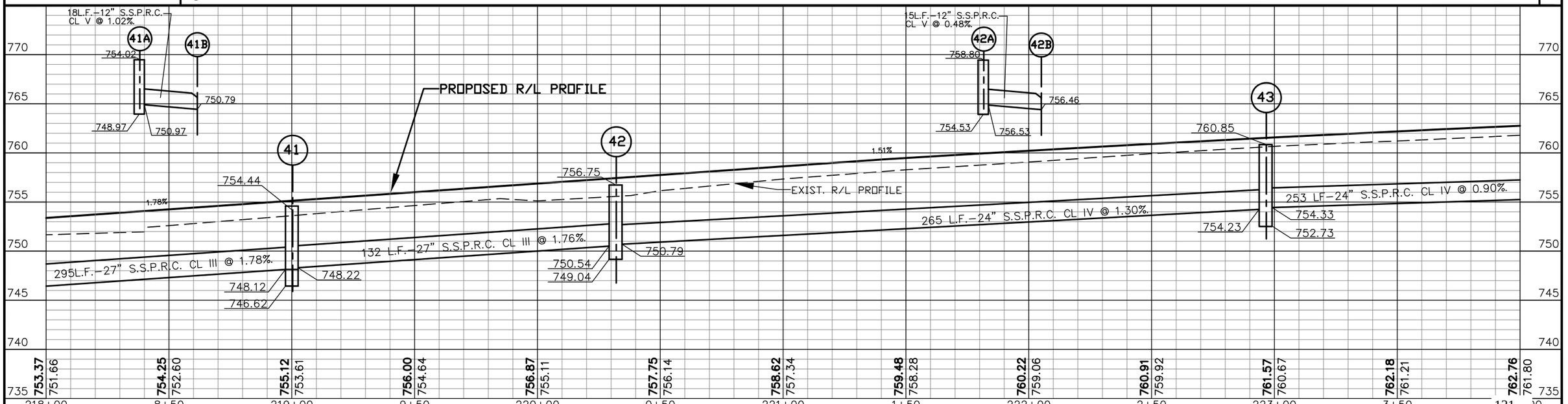
248

245A

SCALES:
1" = 40' HOR
1" = 5' VER

STORM SEWER & UTILITIES LEGEND

- Ⓜ WORK BY OTHERS
- Ⓝ ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- Ⓓ ADJUST MANHOLE COVER (SEE DETAIL)
- Ⓟ ADJUST WATER VALVE BOX
- Ⓠ ADJUST HYDRANT
- Ⓡ RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- Ⓢ RECONSTRUCT MANHOLE (SEE DETAIL)
- Ⓣ INSTALL INLET/CATCH BASIN W/COVER
- Ⓤ INSTALL MANHOLE W/COVER
- Ⓥ INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- Ⓦ CLEAN DRAINAGE STRUCTURE
- Ⓧ RELOCATE HYDRANT
- # STRUCTURE NUMBER
- WETLAND/POND



REVISION DATE: 11/20/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	STORM SEWER & UTILITIES	SHEET NO: E

STA. 224+47, 50' LT.
CONC. END SEC.
44B

STA. 225+47, 50' LT.
CONC. END SEC.
44A

STA. 228+75, 50' LT.
CONC. END SEC.
45B

STA. 228+75, 35.29' LT.
TYPE 2 CB
TYPE 57 COVER
45A

STA. 228+91, 35.29' RT.
CB 3-FT DIA
TYPE 57 COVER
46

STA. 225+50, 35.29' RT.
MH 4-FT DIA
TYPE 57 COVER
44

STA. 227+94, 35.29' RT.
MH 4-FT DIA
TYPE 57 COVER
45

STA. 228+33, 35.29' RT.
MH 4-FT DIA
TYPE Q COVER
251

MATCH LINE STA 224+00

MATCH LINE STA 230+00

W. FAITH DR.

R/L S. 76TH ST. (CTH U)

W. SOUTHVIEW DR.

RELOCATE POLE

RELOCATE PEDESTAL

REMOVE MANHOLE 249

HYD #18 STA 224+55.17 40.0 RT

SLOPE INTERCEPT

6" HP

8" ABS COMPOSITE

5" CONC. SIDEWALK

RETAINING WALL

DENSE BRUSH/ LANSCAPING

2" PE

CAUTION

7650

7630

7600

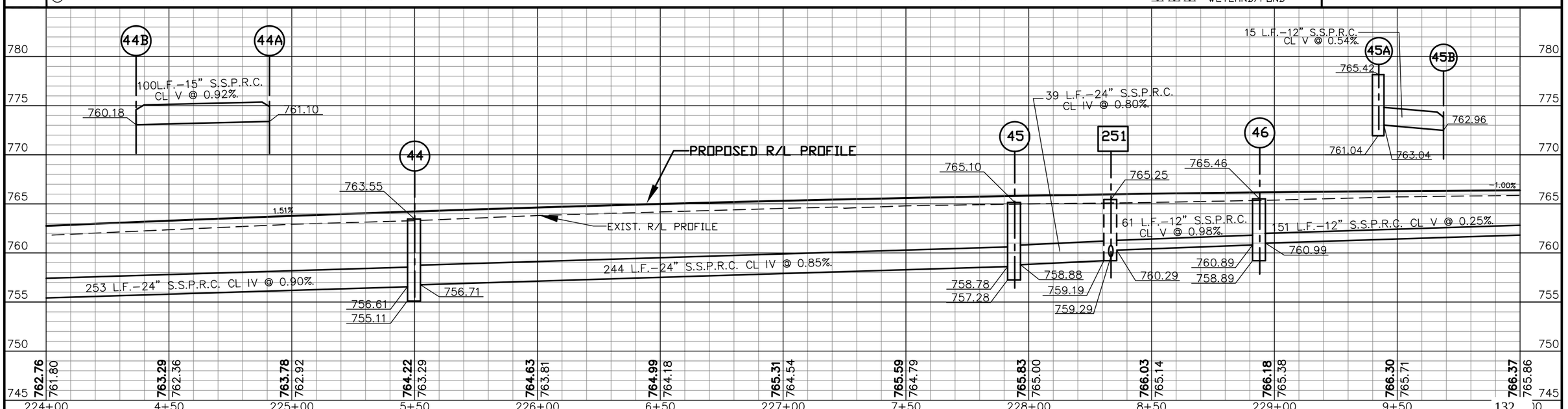
100' RT.

CONC. SURFACE DRAIN (SEE SDD)

SCALES:
1" = 40' HOR
1" = 5' VER

STORM SEWER & UTILITIES LEGEND

- (M) WORK BY OTHERS
- (N) ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- (D) ADJUST MANHOLE COVER (SEE DETAIL)
- (P) ADJUST WATER VALVE BOX
- (Q) ADJUST HYDRANT
- (R) RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- (S) RECONSTRUCT MANHOLE (SEE DETAIL)
- (T) INSTALL INLET/CATCH BASIN W/COVER
- (U) INSTALL MANHOLE W/COVER
- (V) INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- (W) CLEAN DRAINAGE STRUCTURE
- (X) RELOCATE HYDRANT
- [#] (#) STRUCTURE NUMBER
- WETLAND/POND



REVISION DATE: 11/20/2013

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	STORM SEWER & UTILITIES	SHEET NO: E

7548 S. 77TH ST.

7536 S. 77TH ST.

MATCH LINE STA 230+00

MATCH LINE STA 236+00

+00 231+00 232+00 233+00 234+00 235+00 236

R/L S. 76TH ST. (CTH U)

R/W

6" HP

2" PE

SLOPE INTERCEPT

(M) RELOCATE POLE

DO NOT DISTURB PEDESTALS

47 STA. 230+45, 35.29' RT. CB 3-FT DIA TYPE 57 COVER

48 STA. 231+45, 29.29' RT. CB 3-FT DIA TYPE 57 COVER

49A STA. 234+54, 45' LT. CB 3-FT DIA TYPE 57 COVER

49B STA. 235+00, 29.29' LT. CB 3-FT DIA TYPE 57 COVER

49 STA. 235+00, 20' LT. MH 4-FT DIA TYPE Q COVER

49C STA. 235+00, 29.29' RT. CB 3-FT DIA TYPE 57 COVER

12" 15"

2" PE 5" CONC. SIDEWALK

CONNECT SUMP DISCHARGE TO STORM SEWER (SEE DETAIL)

(M) ADJUST MH 253

(P) SUMP PUMP DISCHARGE TO DITCH

6" PVC ABOVE GROUND

SCALES:
1" = 40' HOR
1" = 5' VER

CONC. SURFACE DRAIN (SEE SDD)

STORM SEWER & UTILITIES LEGEND

- (M) WORK BY OTHERS
- (N) ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- (O) ADJUST MANHOLE COVER (SEE DETAIL)
- (P) ADJUST WATER VALVE BOX
- (Q) ADJUST HYDRANT
- (R) RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- (S) RECONSTRUCT MANHOLE (SEE DETAIL)
- (T) INSTALL INLET/CATCH BASIN W/COVER
- (U) INSTALL MANHOLE W/COVER
- (V) INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- (W) CLEAN DRAINAGE STRUCTURE
- (X) RELOCATE HYDRANT
- (#) (#) STRUCTURE NUMBER
- WETLAND/POND

780 775 770 765 760 755 750 745

151 LF-12" S.S.P.R.C. CL V @ 0.25%.

765.72 765.78

100 LF-12" S.S.P.R.C. CL V @ 0.25%.

761.47 761.37 759.37 761.72 759.72

PROPOSED R/L PROFILE

EXIST. R/L PROFILE

-1.00%

48 LF-12" S.S.P.R.C. CL V @ 0.52%.

762.05 764.23 757.80 758.05 757.70 755.70 756.05

9 LF-12" S.S.P.R.C. CL V @ 0.56%.

764.23 757.80 755.70 764.39 757.70 757.65 757.55

44 LF-12" S.S.P.R.C. CL V @ 5.00%.

764.23 760.11 758.11 757.65

313 LF-15" S.S.P.R.C. CL V @ 0.44%.

764.39 757.55 757.65

230+00	0+50	231+00	1+50	232+00	2+50	233+00	3+50	234+00	4+50	235+00	5+50
766.37 765.86	**766.40** 766.00	**766.39** 766.08	**766.33** 766.06	**766.24** 766.02	**766.10** 765.95	**765.92** 765.82	**765.70** 765.58	**765.44** 765.36	**765.13** 765.15	**764.79** 764.89	**764.40** 764.58	**763.97** 764.18

REVISION DATE: 03/14/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	STORM SEWER & UTILITIES	SHEET NO: E

MATCH LINE STA 236+00

MATCH LINE STA 242+00

7426 S. 77TH ST.

7611 W. IMPERIAL DR.

R/L S. 76TH ST. (CTH U)

BRUNN DR.

SLOPE INTERCEPT

BUILD MH OVER EXIST. CONC. PIPE

CONC. SURFACE DRAIN (SEE SDD)

5" CONC. SIDEWALK

CONC. SIDEWALK

STA. 238+13, 38.29' LT. CB 3-FT DIA TYPE 57 COVER — 50C

STA. 238+13, 28' LT. MH 4-FT DIA TYPE Q COVER — 50

STA. 237+88, 37' RT. CB 3-FT DIA TYPE 57 COVER — 50B

STA. 237+83, 59' RT. CB 3-FT DIA TYPE 57 COVER — 50A

STA. 240+39, 38.29' LT. CB 3-FT DIA TYPE 57 COVER — 51A

STA. 240+39, 27' LT. MH 4-FT DIA TYPE Q COVER — 51

STA. 240+64, 38.29' RT. CB 3-FT DIA TYPE 57 COVER — 52

STA. 240+64, 62' RT. CONC. END SEC. — 52A

STA. 240+76, 27' LT. MH 6-FT DIA TYPE Q COVER — 257

STA. 241+01, 42' RT. MH 6-FT DIA TYPE Q COVER — 259

STA. 241+67, 38.29' RT. CB 3-FT DIA TYPE 57 COVER — 52B

ADJUST VALVE 254

RELOCATE POLE

HYD #19

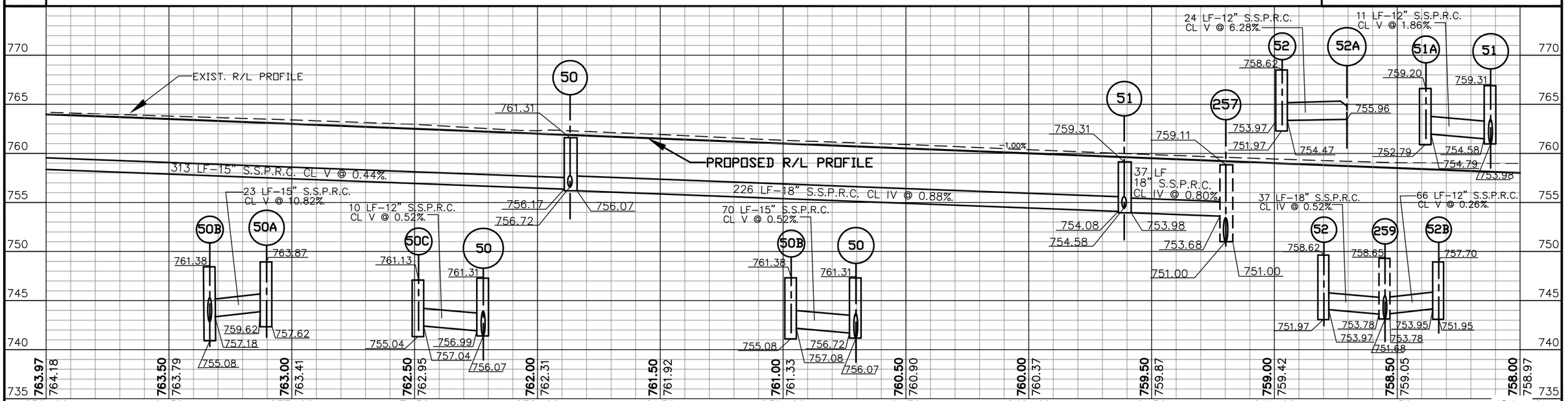
ADJUST MH 260A

258 255 256 260

STORM SEWER & UTILITIES LEGEND

- (M) WORK BY OTHERS
- (N) ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- (D) ADJUST MANHOLE COVER (SEE DETAIL)
- (P) ADJUST WATER VALVE BOX
- (Q) ADJUST HYDRANT
- (R) RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- (S) RECONSTRUCT MANHOLE (SEE DETAIL)
- (T) INSTALL INLET/CATCH BASIN W/COVER
- (U) INSTALL MANHOLE W/COVER
- (V) INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- (W) CLEAN DRAINAGE STRUCTURE
- (X) RELOCATE HYDRANT
- (#) STRUCTURE NUMBER
- WETLAND/POND

SCALES: 1" = 40' HOR, 1" = 5' VER



REVISION DATE: 03/14/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	STORM SEWER & UTILITIES	SHEET NO: E

2

MATCH LINE STA 242+00

MATCH LINE STA 248+00

R/W

R/W

SLOPE INTERCEPT

SLOPE INTERCEPT

6" HP

6" HP

21" RCP

15" RCP

15" RCP

12" SS RCP (14" EQ)

12" SS RCP

12" SS RCP

12" SS RCP

12" SS RCP

12"

12"

12"

12"

12"

STA. 244+40, 38.29' LT.
CB 3-FT DIA
TYPE 57 COVER

53

STA. 244+40, 38.29' RT.
CB 3-FT DIA
TYPE 57 COVER

53B

STA. 244+50, 38.29' RT
CB 3-FT DIA
TYPE 57 COVER

53A

RELOCATE POLE

SEE DETAIL

5" CONC. SIDEWALK

5" CONC. SIDEWALK

R/L S. 76TH ST. (CTH U)

8" PVC SAN

6" PVC SAN

4" PE

7365

DW 261

DW 264

DW 265

SV 266

NW 262

NW 263

+00 243+00 244+00 245+00 246+00 247+00 248

WALK

R/W

R/W

SCALES:
1" = 40' HOR
1" = 5' VER

CONC. SURFACE DRAIN (SEE SDD)

STORM SEWER & UTILITIES LEGEND

- (M) WORK BY OTHERS
- (N) ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- (D) ADJUST MANHOLE COVER (SEE DETAIL)
- (P) ADJUST WATER VALVE BOX
- (Q) ADJUST HYDRANT
- (R) RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- (S) RECONSTRUCT MANHOLE (SEE DETAIL)
- (T) INSTALL INLET/CATCH BASIN W/COVER
- (U) INSTALL MANHOLE W/COVER
- (V) INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- (W) CLEAN DRAINAGE STRUCTURE
- (X) RELOCATE HYDRANT
- [#] (#) STRUCTURE NUMBER
- WETLAND/POND

770 765 760 755 750 745 740 735

EXIST. R/L PROFILE

PROPOSED R/L PROFILE

77 LF-12" S.S.P.R.C.
CL V @ 0.20%.

10 LF-12" S.S.P.R.C.
CL V @ 0.40%.

3 LF-12" S.S.P.R.C.
CL V @ 2.33%.

53 53B 53A

755.46 755.46 755.48

752.96 753.00 751.00

752.6+/- 752.96

752.71 752.81 750.96

750.71

| | | |

END PROJECT I.D. 2160-10-70
STA. 248+30 R/L

SLOPE INTERCEPT

7341

STA 248+00

MATCH LINE

+00 249+00 250+00 251+00 252+00 253+00 254

GRASS MEDIAN

R/L S. 76TH ST. (CTH U)

W. TERRACE DR.

CARTER BLVD.

ASPH. CURB

ASPH. SIDEWALK

R/W

4" PE

2" PE

6" ST

8" PVC SAN

8" SAN

12" W

8" W

4" PE G

2" PE G

2" PE E

4" PE E

2" PE G

EXISTING UTILITY SYMBOLS

- FIRE HYDRANT
- TELEPHONE VAULT
- POWER POLE
- VALVE (WATER, GAS)
- INLET/CATCHBASIN
- MANHOLE
- TRAFFIC SIGNAL POLE
- PULL BOX
- GUY WIRE
- TELEPHONE
- GAS
- ELECTRICAL
- WATER
- STORM SEWER
- SANITARY SEWER
- ELECTRICAL PEDESTAL
- ELECTRICAL TRANSFORMER

EXISTING PLAN SYMBOLS

- DITCH
- FENCE
- SHRUBBRY
- CULVERT W/ENDWALLS
- GUARD RAIL
- WETLAND/POND
- SIGN POST

STORM SEWER & UTILITIES LEGEND

- (M) WORK BY OTHERS
- (N) ADJUST INLET/CATCH BASIN COVER (SEE DETAIL)
- (D) ADJUST MANHOLE COVER (SEE DETAIL)
- (P) ADJUST WATER VALVE BOX
- (Q) ADJUST HYDRANT
- (R) RECONSTRUCT INLET/CATCH BASIN (SEE DETAIL)
- (S) RECONSTRUCT MANHOLE (SEE DETAIL)
- (T) INSTALL INLET/CATCH BASIN W/COVER
- (U) INSTALL MANHOLE W/COVER
- (V) INSTALL EXTERNAL SANITARY MANHOLE SEAL (SEE DETAIL)
- (W) CLEAN DRAINAGE STRUCTURE
- (X) RELOCATE HYDRANT
- (#) STRUCTURE NUMBER
- WETLAND/POND
- CONC. SURFACE DRAIN (SEE SDD)

SCALES:
1" = 40' HOR
1" = 5' VER

770 765 760 755 750 745 740 735

759.81 759.93 759.81 760.03 760.33 760.49 760.56 761.32

248+00 8+50 249+00 9+50 250+00 0+50 251+00 1+50 252+00 2+50 253+00 3+50

REVISION DATE: 8/16/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	STORM SEWER & UTILITIES	SCALE: NTS	SHEET NO: E

NOTES:

1) SIGNS AND/ OR POST REMOVAL QUANTITIES ARE PROVIDED IN THE SIGN QUANTITY TABLES.

2) ALL SIGNS AND POSTS TO BE REMOVED UNLESS OTHERWISE NOTED.

3) ALL SIGNS AND POSTS TO BE STOCKPILED ON SITE TO BE PICKED UP BY MILWAUKEE COUNTY, CONTACT:

HIGHWAY MAINTENANCE
10190 W WATERTOWN PLANK RD
WAUWATOSA, WI 53226
(414) 257-6566

4) CONTRACTOR SHALL MAINTAIN "STOP" SIGN CONTROLS AT ALL TIMES DURING THE REMOVAL AND INSTALLATION PROCESS.

5) ALL STREET NAME SIGNS ARE PROPERTY OF THE CITY OF FRANKLIN AND ARE NOT TO BE REMOVED.

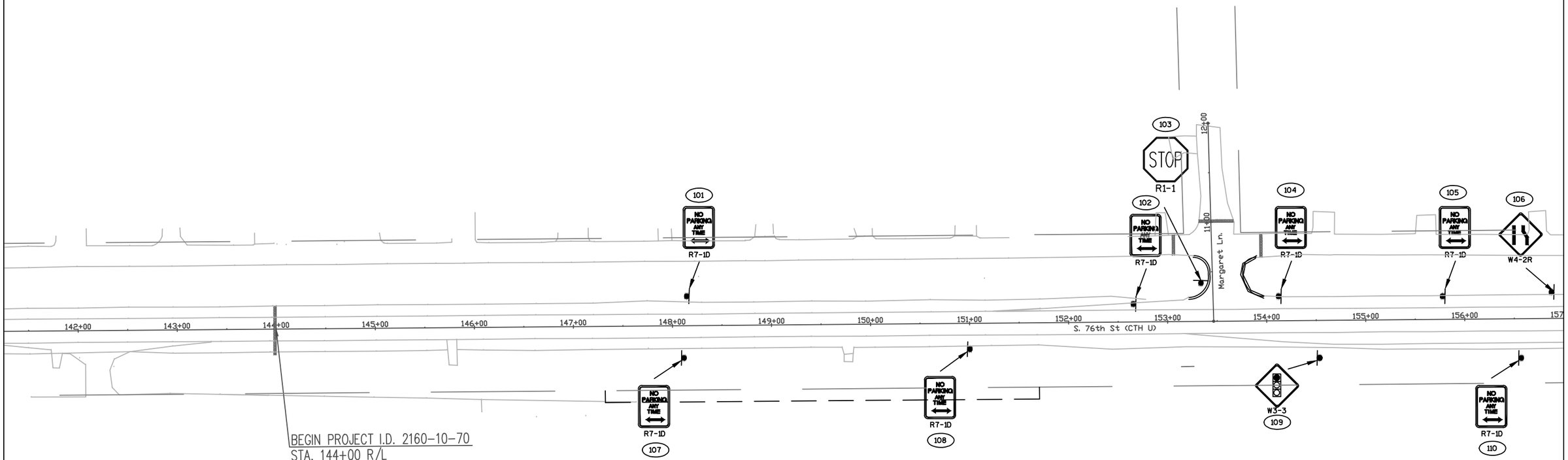
SIGNING LEGEND:

● EXISTING SIGNS POST MOUNTED

○ EXISTING SIGN BANDED TO UTILITY POLE

XXX EXISTING SIGN NUMBER

N



REVISION DATE: 01/15/10

PROJECT NO: 2160-10-70	HWY: S. 76TH ST (CTH U)	COUNTY: MILWAUKEE	SIGN REMOVALS	SCALE: 1" = 100'	SHEET NO: 137

H:\CADD\5070\5083\Traffic Engineering\C T H\U\CADD\S 76th Puetz-Imperial\21601070_Sign Removals.dwg

WISDOT/CADDS SHEET 40

NOTES:

1) SIGNS AND/ OR POST REMOVAL QUANTITIES ARE PROVIDED IN THE SIGN QUANTITY TABLES.

2) ALL SIGNS AND POSTS TO BE REMOVED UNLESS OTHERWISE NOTED.

3) ALL SIGNS AND POSTS TO BE STOCKPILED ON SITE TO BE PICKED UP BY MILWAUKEE COUNTY, CONTACT:

HIGHWAY MAINTENANCE
10190 W WATERTOWN PLANK RD
WAUWATOSA, WI 53226
(414) 257-6566

4) CONTRACTOR SHALL MAINTAIN "STOP" SIGN CONTROLS AT ALL TIMES DURING THE REMOVAL AND INSTALLATION PROCESS.

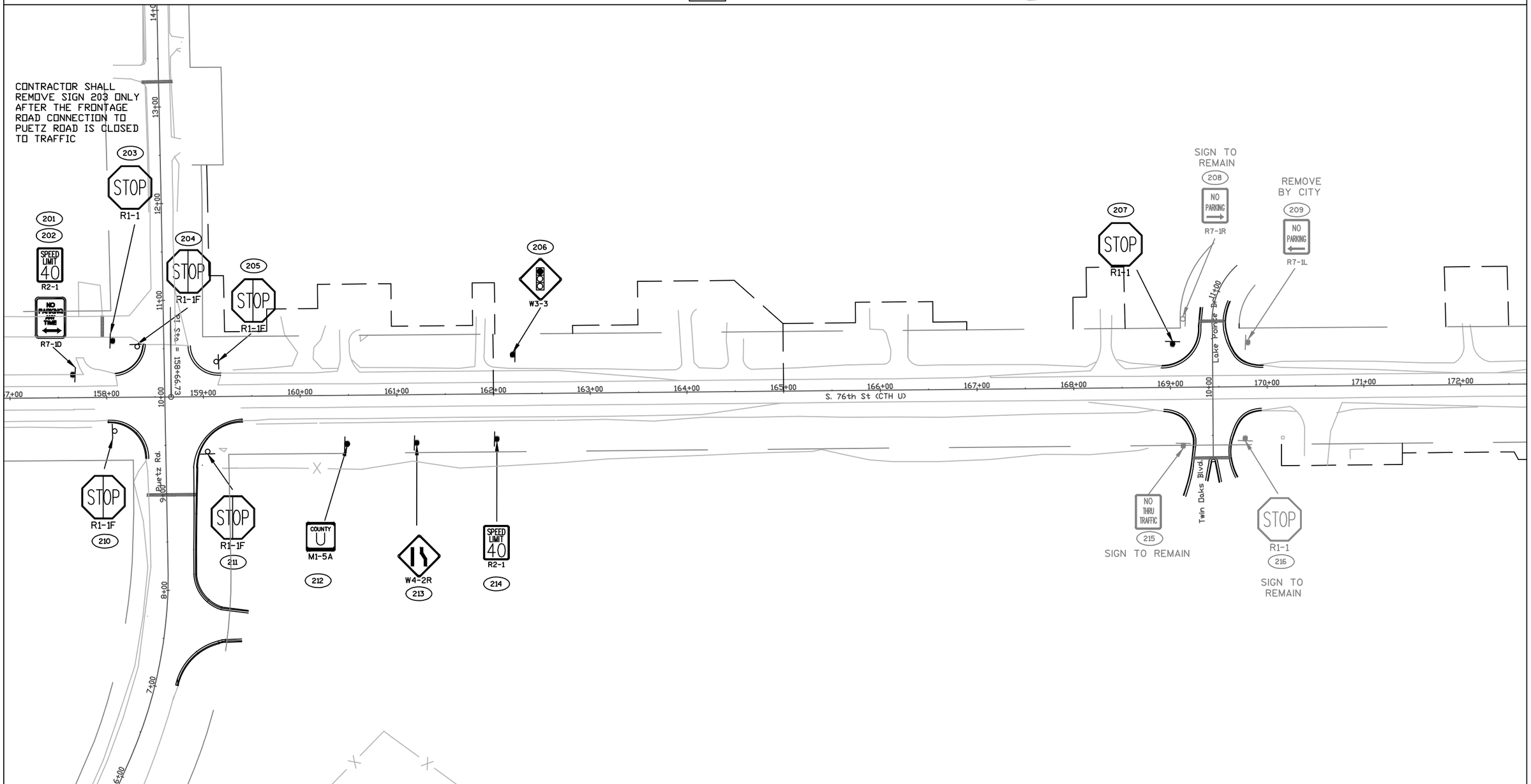
5) ALL STREET NAME SIGNS ARE PROPERTY OF THE CITY OF FRANKLIN AND ARE NOT TO BE REMOVED.

SIGNING LEGEND:

● EXISTING SIGNS POST MOUNTED

○ EXISTING SIGN BANDED TO UTILITY POLE

XXX EXISTING SIGN NUMBER



PROJECT NO: 2160-10-70	HWY: S. 76TH ST (CTH U)	COUNTY: MILWAUKEE	SIGN REMOVALS	SCALE: 1" = 100'	SHEET NO: 138

REVISION DATE: 01/15/10

H:\CADD\5070\5083\Traffic Engineering\CTH\E\cadd\Projects\2090-11-70\20901170_Sign Removals.dwg

NOTES:

1) SIGNS AND/ OR POST REMOVAL QUANTITIES ARE PROVIDED IN THE SIGN QUANTITY TABLES.

2) ALL SIGNS AND POSTS TO BE REMOVED UNLESS OTHERWISE NOTED.

3) ALL SIGNS AND POSTS TO BE STOCKPILED ON SITE TO BE PICKED UP BY MILWAUKEE COUNTY, CONTACT:

HIGHWAY MAINTENANCE
10190 W WATERTOWN PLANK RD
WAUWATOSA, WI 53226
(414) 257-6566

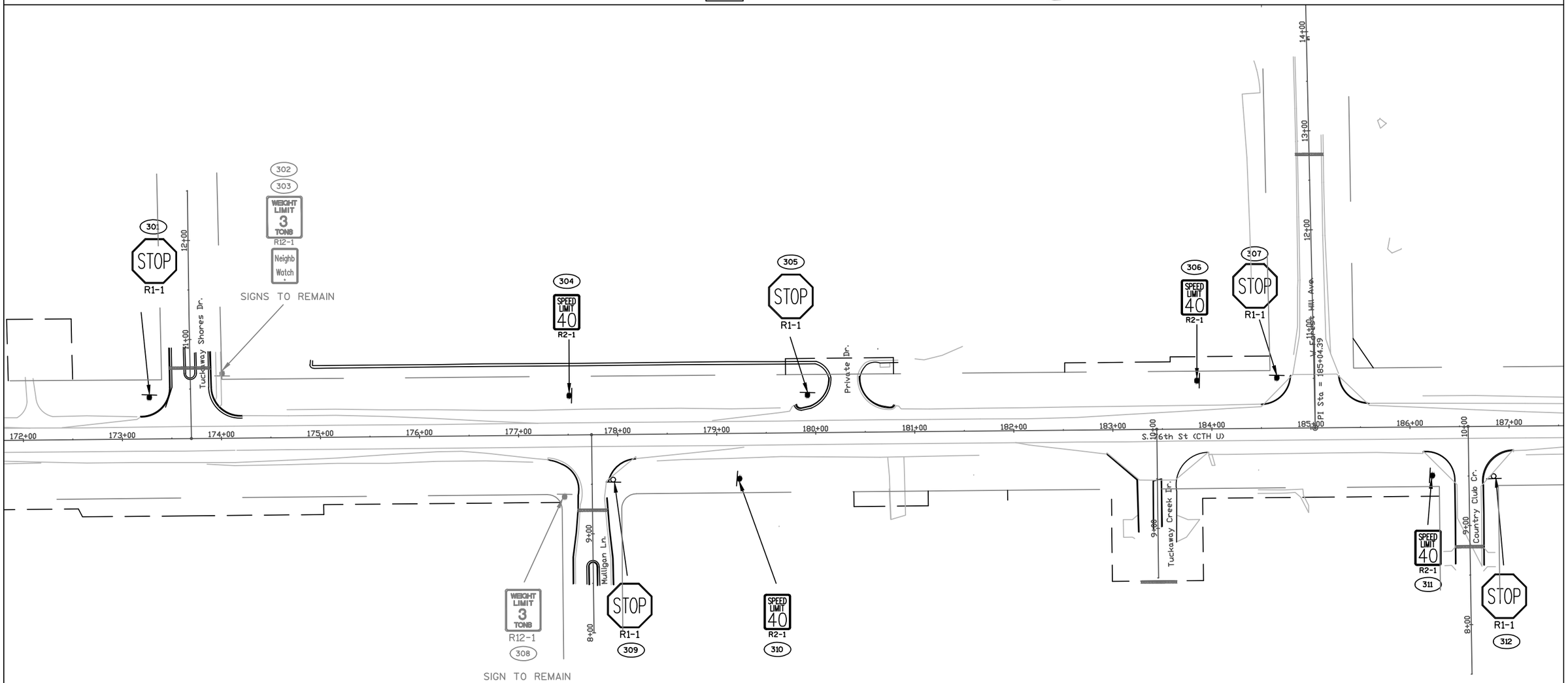
4) CONTRACTOR SHALL MAINTAIN "STOP" SIGN CONTROLS AT ALL TIMES DURING THE REMOVAL AND INSTALLATION PROCESS.

5) ALL STREET NAME SIGNS ARE PROPERTY OF THE CITY OF FRANKLIN AND ARE NOT TO BE REMOVED.

SIGNING LEGEND:

- EXISTING SIGNS POST MOUNTED
- EXISTING SIGN BANDED TO UTILITY POLE

XXX EXISTING SIGN NUMBER



PROJECT NO: 2160-10-70	HWY: S. 76TH ST (CTH U)	COUNTY: MILWAUKEE	SIGN REMOVALS	SCALE: 1" = 100'	SHEET NO: 139

REVISION DATE: 01/15/10

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WISDOT/CADDS SHEET 40

NOTES:

1) SIGNS AND/ OR POST REMOVAL QUANTITIES ARE PROVIDED IN THE SIGN QUANTITY TABLES.

2) ALL SIGNS AND POSTS TO BE REMOVED UNLESS OTHERWISE NOTED.

3) ALL SIGNS AND POSTS TO BE STOCKPILED ON SITE TO BE PICKED UP BY MILWAUKEE COUNTY, CONTACT:

HIGHWAY MAINTENANCE
10190 W WATERTOWN PLANK RD
WAUWATOSA, WI 53226
(414) 257-6566

4) CONTRACTOR SHALL MAINTAIN "STOP" SIGN CONTROLS AT ALL TIMES DURING THE REMOVAL AND INSTALLATION PROCESS.

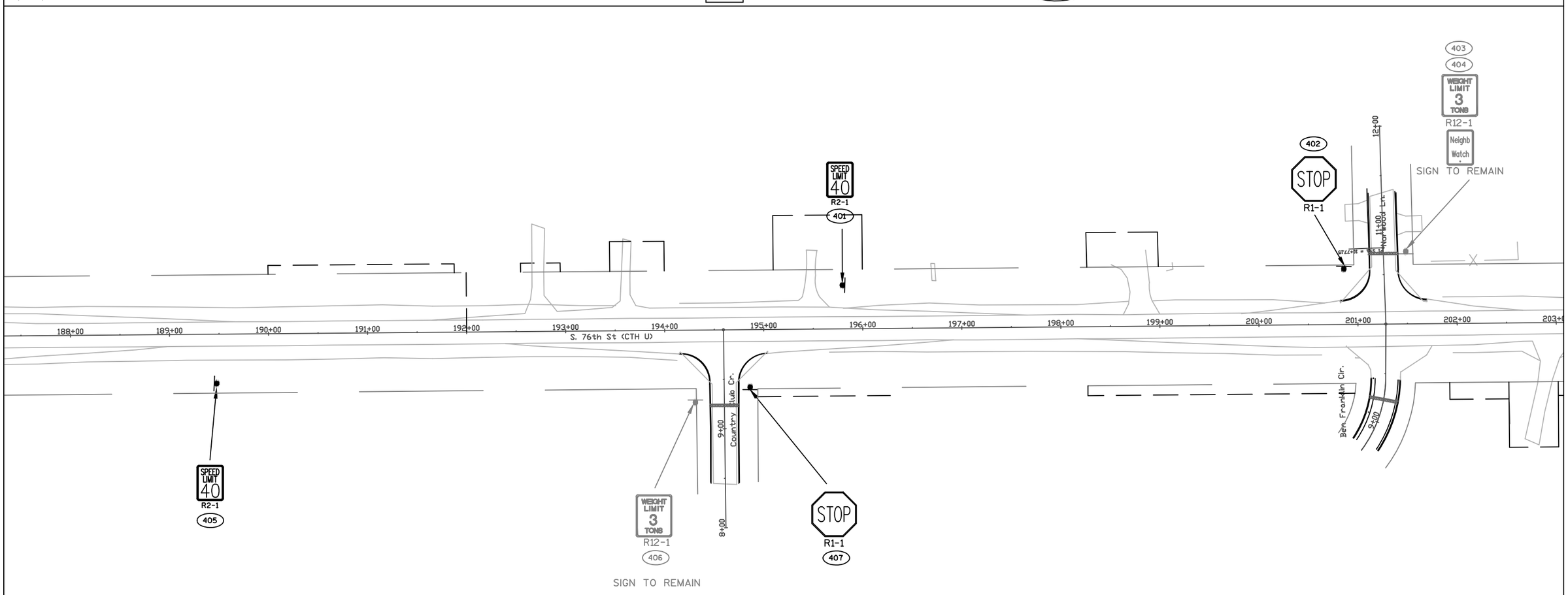
5) ALL STREET NAME SIGNS ARE PROPERTY OF THE CITY OF FRANKLIN AND ARE NOT TO BE REMOVED.

SIGNING LEGEND:

● EXISTING SIGNS POST MOUNTED

○ EXISTING SIGN BANDED TO UTILITY POLE

XXX EXISTING SIGN NUMBER



REVISION DATE: 01/15/10

PROJECT NO: 2160-10-70	HWY: S. 76TH ST (CTH U)	COUNTY: MILWAUKEE	SIGN REMOVALS	SCALE: 1" = 100'	SHEET NO: 140

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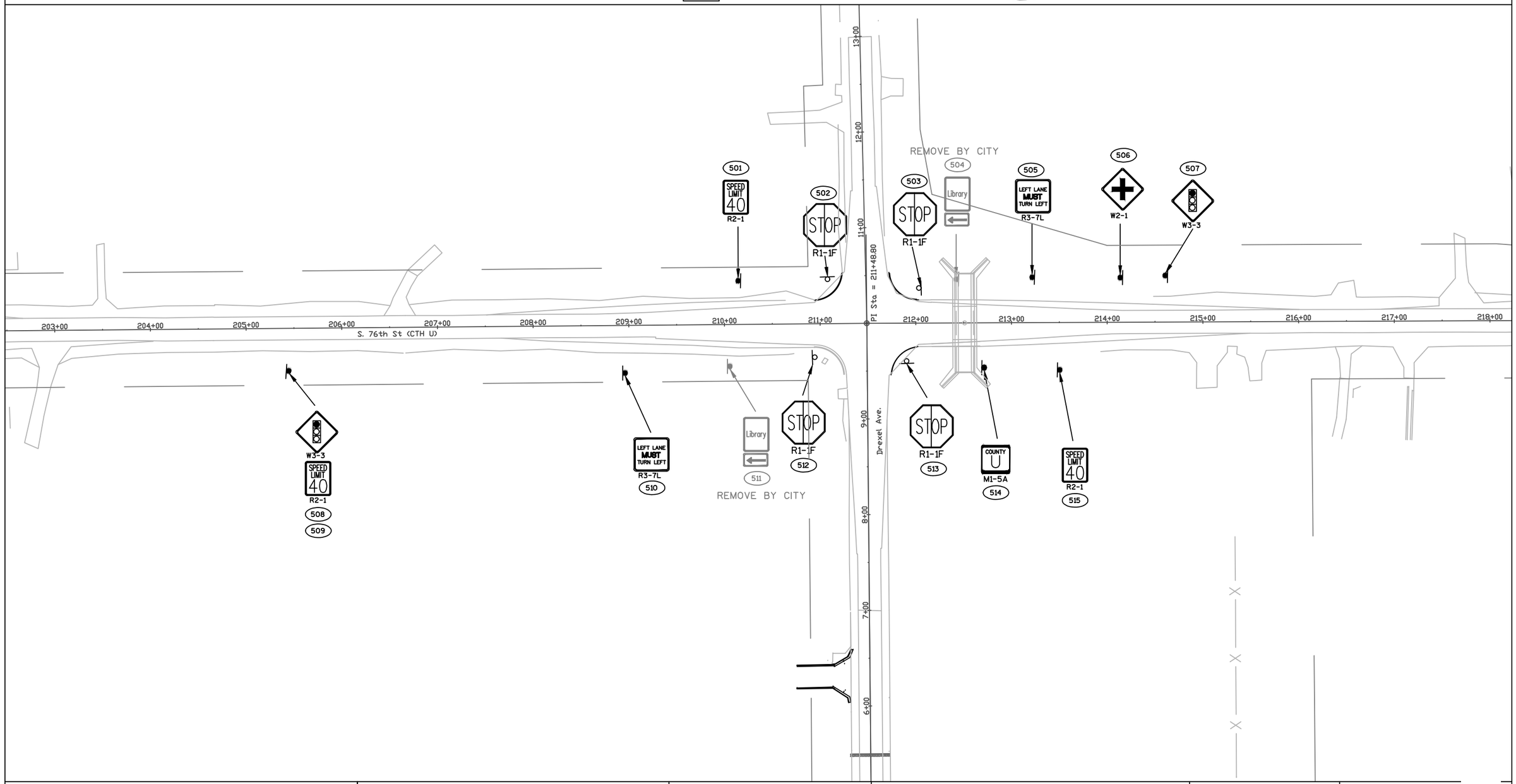
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XXX EXISTING SIGN NUMBER



PROJECT NO: 2160-10-70	HWY: S. 76TH ST (CTH U)	COUNTY: MILWAUKEE	SIGN REMOVALS	SCALE: 1" = 100'	SHEET NO: 141

REVISION DATE: 01/15/10

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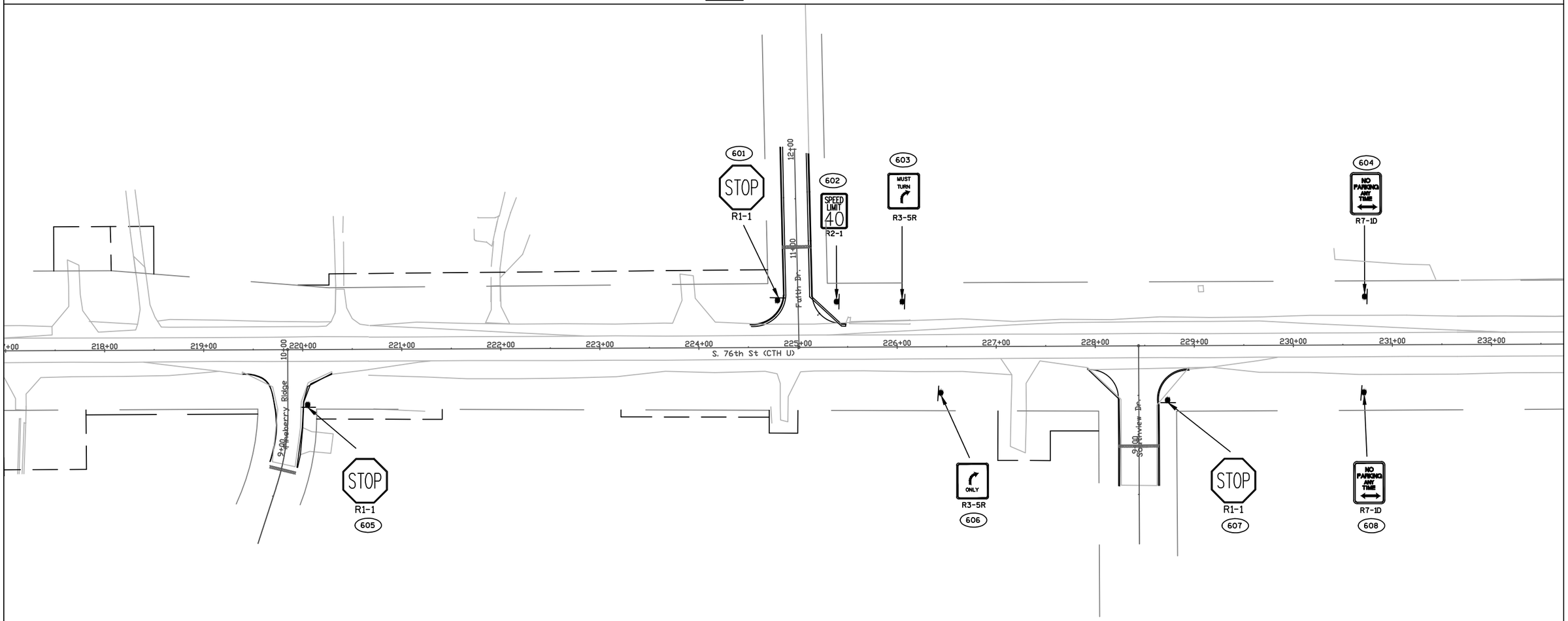
SIGNING LEGEND:

● EXISTING SIGNS POST MOUNTED

○ EXISTING SIGN BANDED TO UTILITY POLE

XXX EXISTING SIGN NUMBER

N



REVISION DATE: 01/15/10

PROJECT NO: 2160-10-70	HWY: S. 76TH ST (CTH U)	COUNTY: MILWAUKEE	SIGN REMOVALS	SCALE: 1" = 100'	SHEET NO: 142

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WISDOT/CADDS SHEET 40

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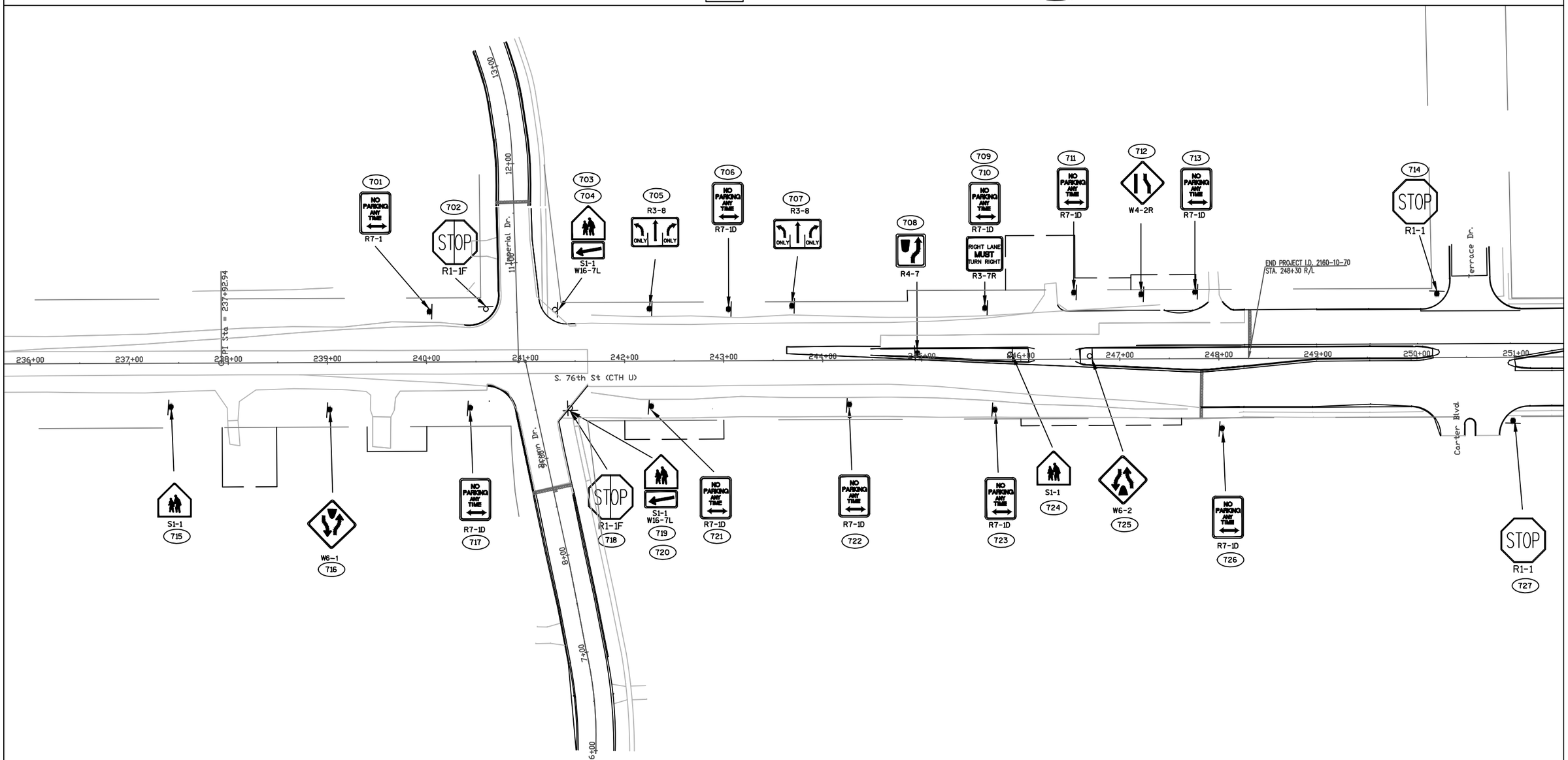
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XXX EXISTING SIGN NUMBER

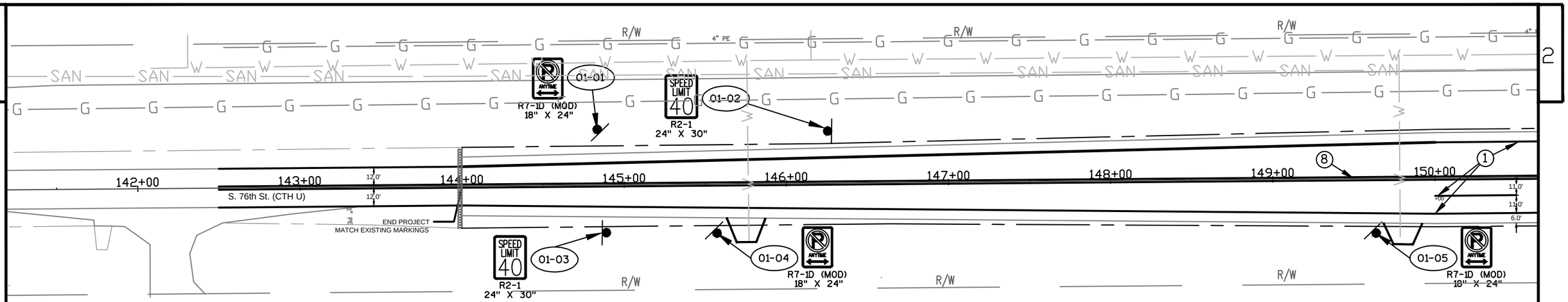
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PROJECT NO: 2160–10–70	HWY: S. 76TH ST (CTH U)	COUNTY: MILWAUKEE	SIGN REMOVALS	SCALE: 1" = 100'	SHEET NO: 143

REVISION DATE: 01/15/10

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NOTES:

1.) PRIOR TO THE INSTALLATION OF PAVEMENT MARKING CONTACT THE PROJECT ENGINEER FOR VERIFICATION OF PROPER LAYOUT.
2.) PAVEMENT MARKING DIMENSIONS ARE FROM PAVEMENT JOINTS, CURB FLANGE OR CENTER OF DOUBLE YELLOW, ADJUST MARKING LOCATION TO AVOID CONTINUOUS MARKINGS ON JOINTS OR FLANGE. SEE STARDARD DETAIL DRAWINGS FOR PLACEMENT DIMENSIONS FROM JOINTS.
3.)ADJUST SIGN LOCATIONS TO AVOID PLACEMENT BEHIND TREES OR POLES.

SIGNING LEGEND:

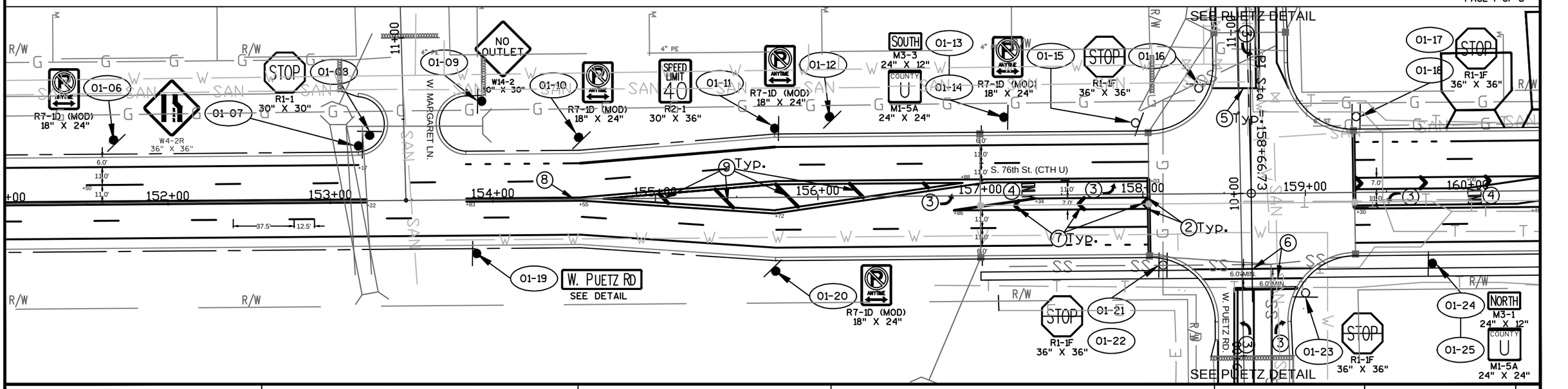
- PROPOSED SIGNS MOUNTED ON U-CHANNEL POST
- PROPOSED SIGN BANDED TO UTILITY, LIGHT OR SIGNAL POLE

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING GROOVED EPOXY 4-INCH, WHITE
2. PAVEMENT MARKING GROOVED EPOXY 8-INCH, WHITE (CHANNELIZING)
3. PAVEMENT MARKING ARROWS EPOXY TYPE 2, WHITE
4. PAVEMENT MARKING WORDS EPOXY, WHITE
5. PAVEMENT MARKING STOP LINE EPOXY 18-INCH, WHITE
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9. PAVEMENT MARKING EPOXY, 18-INCH YELLOW

N

PAGE 1 OF 8

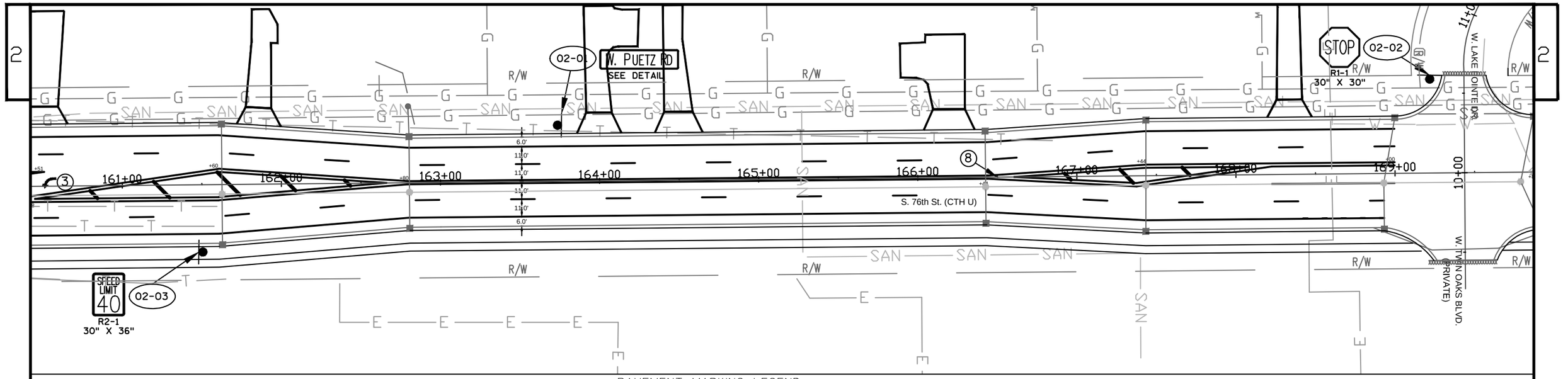


PROJECT NUMBER: 2160-10-70	HWY: CTH U (S. 76th St.)	COUNTY: MILWAUKEE	SIGNING AND PAVEMENT MARKING	SCALE: 1" = 60'	SHEET NO: E

REVISION DATE: 12/9/2013

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WISDOT/CADDS SHEET 40



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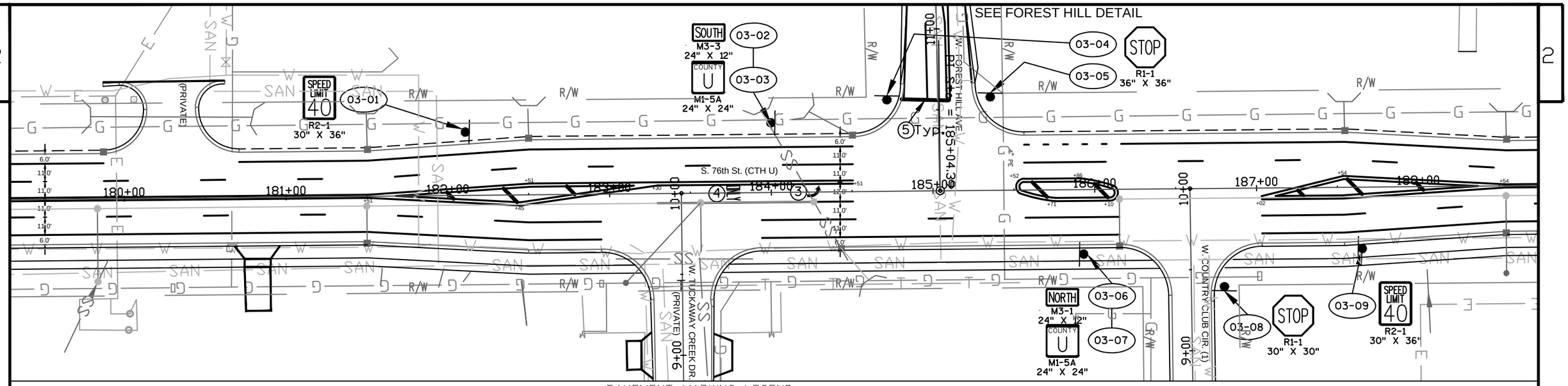
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REVISION DATE: 12/9/2013

PROJECT NUMBER: 2160-10-70	HWY: CTH U (S. 76th St.)	COUNTY: MILWAUKEE	SIGNING AND PAVEMENT MARKING	SCALE: 1" = 60'	SHEET NO: E

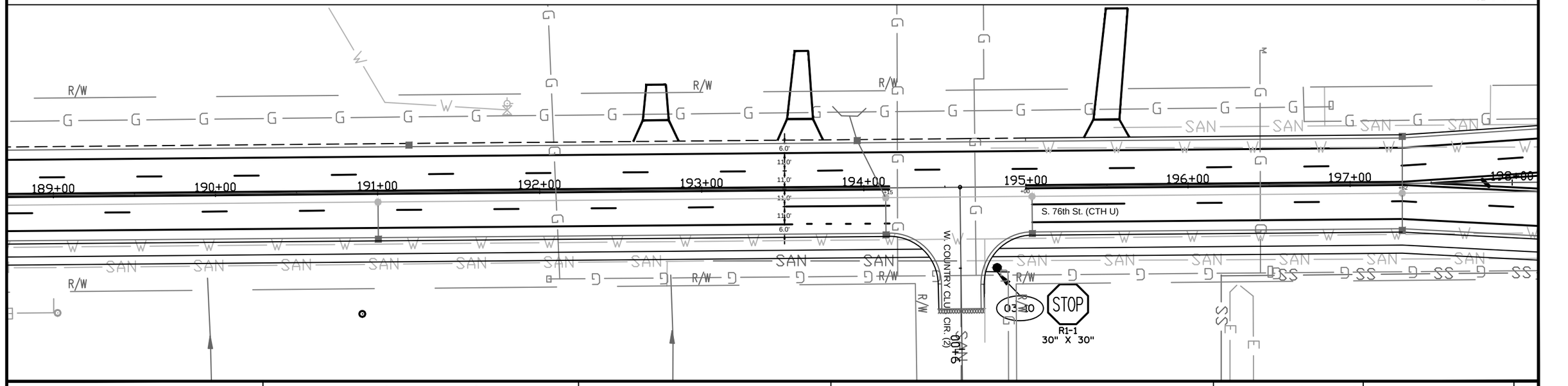
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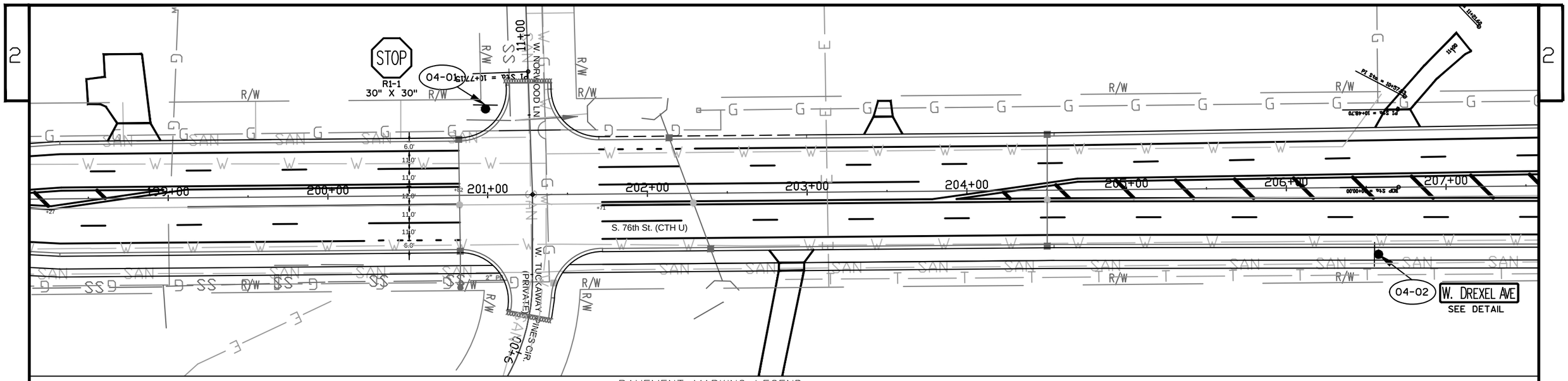


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REVISION DATE: 12/9/2013

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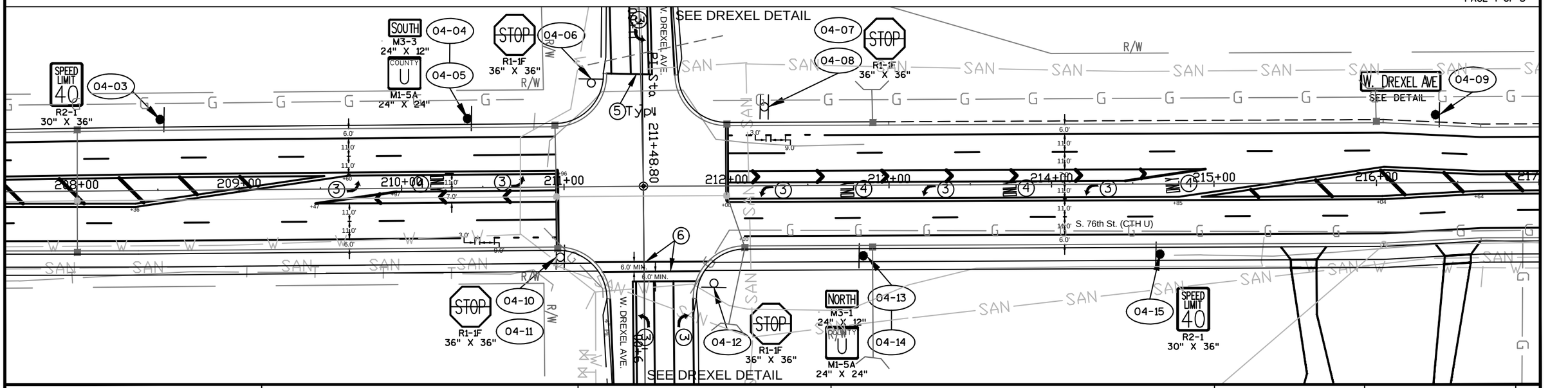
WISDOT/CADDS SHEET 40



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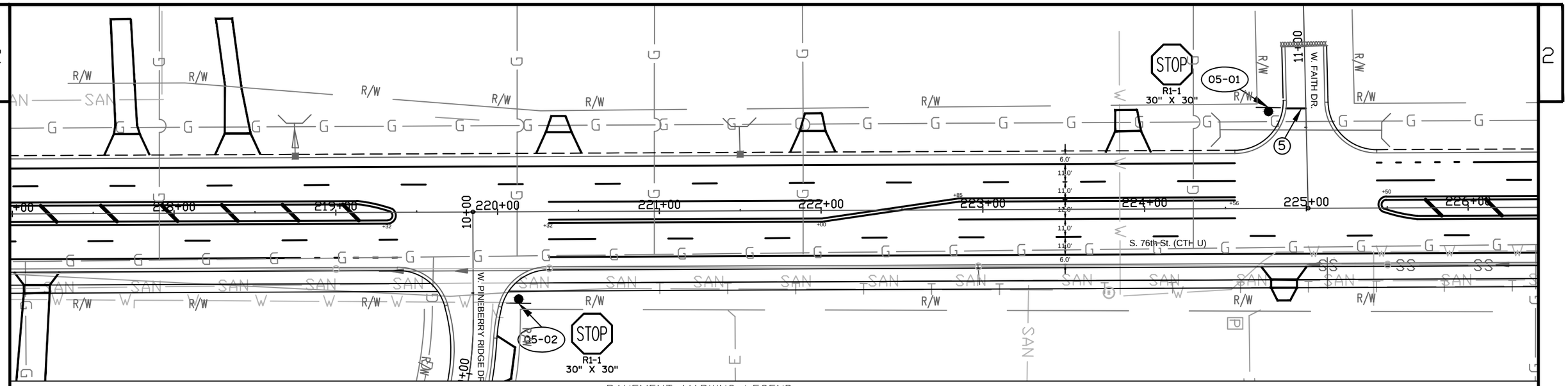


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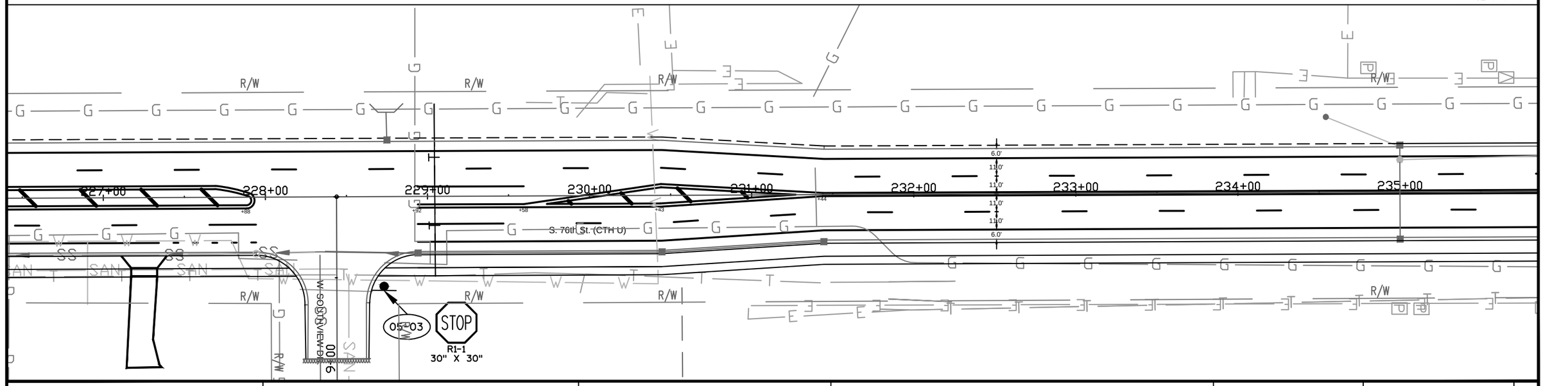
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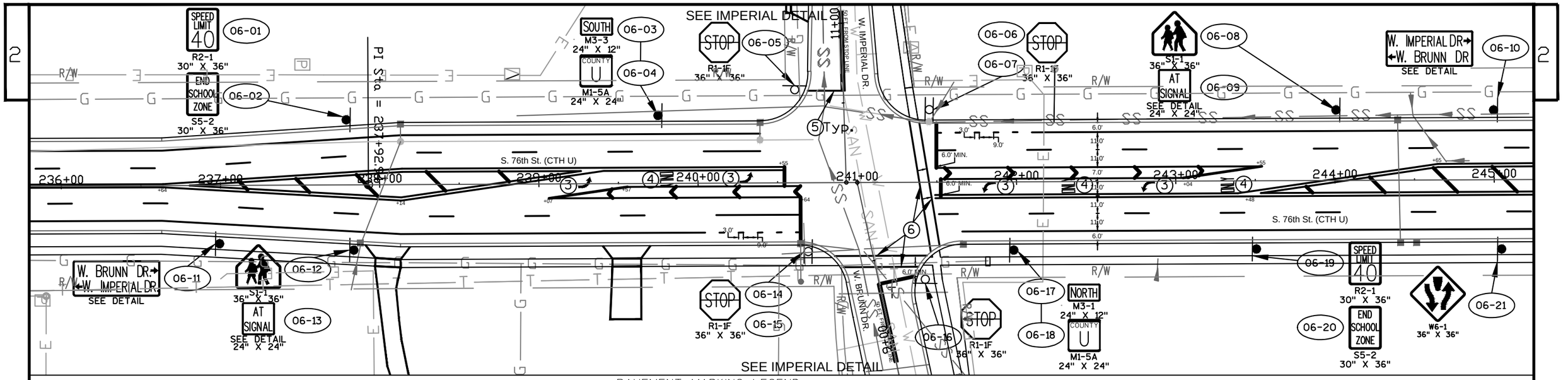
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PROJECT NUMBER: 2160-10-70	HWY: CTH U (S. 76th St.)	COUNTY: MILWAUKEE	SIGNING AND PAVEMENT MARKING	SCALE: 1" = 60'	SHEET NO: E

REVISION DATE: 12/9/2013

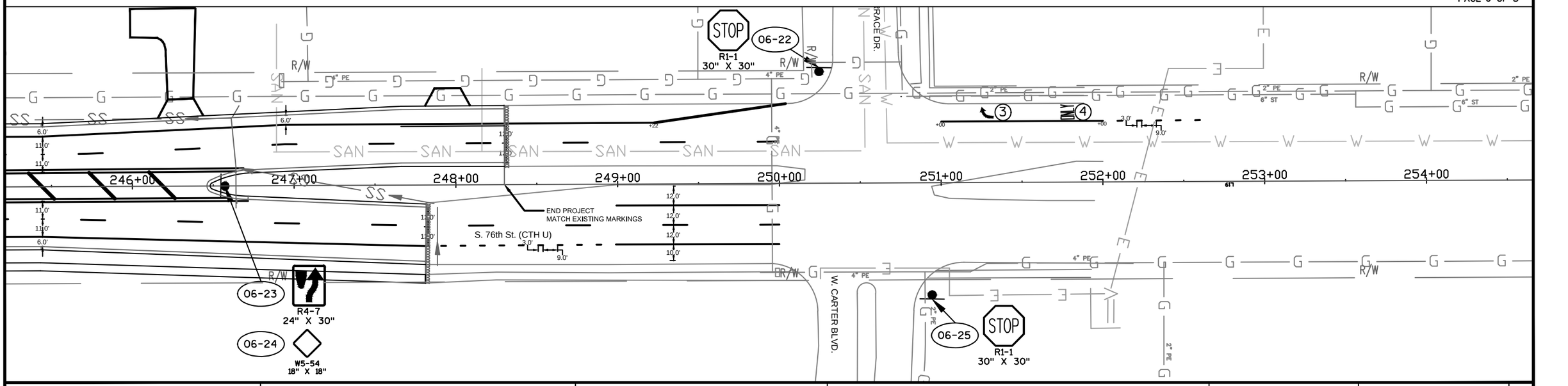
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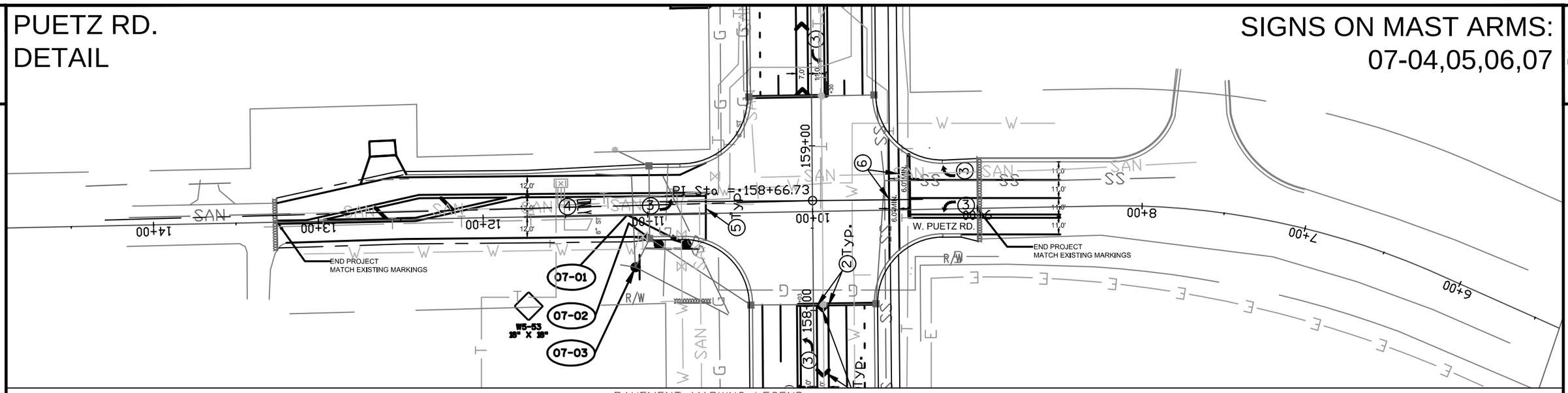
REVISION DATE: 12/9/2013

PROJECT NUMBER: 2160-10-70	HWY: CTH U (S. 76th St.)	COUNTY: MILWAUKEE	SIGNING AND PAVEMENT MARKING	SCALE: 1" = 60'	SHEET NO: E

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PUETZ RD. DETAIL

SIGNS ON MAST ARMS: 07-04,05,06,07

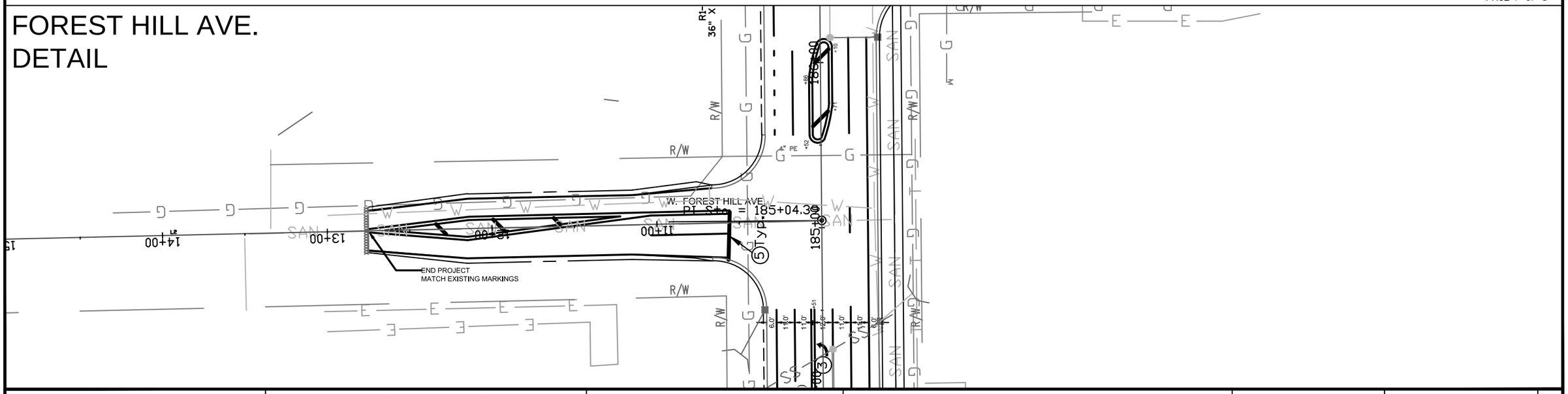


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FOREST HILL AVE. DETAIL



REVISION DATE: 12/9/2013

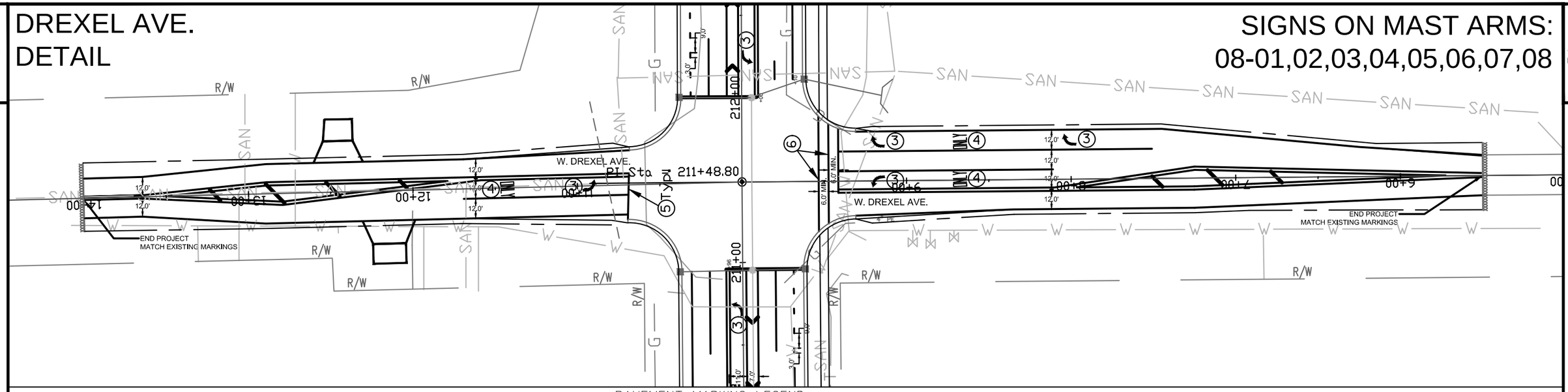
PROJECT NUMBER: 2160-10-70	HWY: CTH U (S. 76th St.)	COUNTY: MILWAUKEE	SIGNING AND PAVEMENT MARKING	SCALE: 1" = 60'	SHEET NO: E

H:\CADD\5070\5083\Traffic Engineering\C T H\U\CADD\2160-10-70_S 76th Puetz-Imperial\Cadd\U_Signing and Marking.dwg

WISDOT/CADDS SHEET 40

DREXEL AVE. DETAIL

SIGNS ON MAST ARMS: 08-01,02,03,04,05,06,07,08



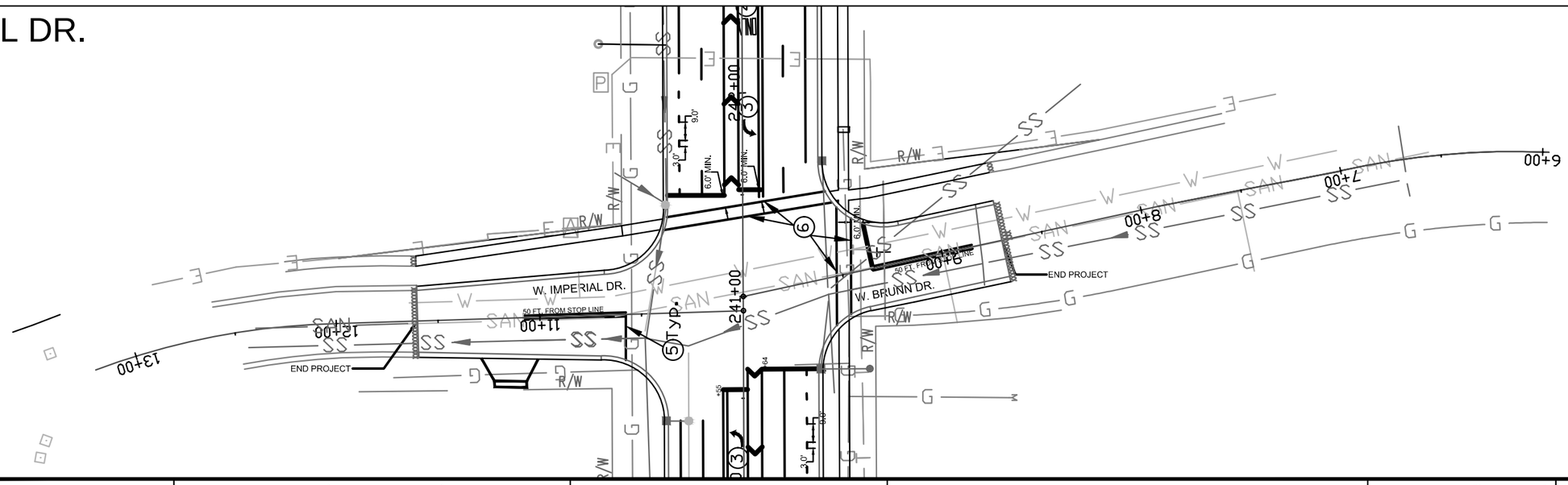
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- PROPOSED SIGNS MOUNTED ON U-CHANNEL POST
- PROPOSED SIGN BANDED TO UTILITY, LIGHT OR SIGNAL POLE

PAVEMENT MARKING LEGEND
1. PAVEMENT MARKING GROOVED EPOXY 4-INCH, WHITE
2. PAVEMENT MARKING GROOVED EPOXY 8-INCH, WHITE (CHANNELIZING)
3. PAVEMENT MARKING ARROWS EPOXY TYPE 2, WHITE
4. PAVEMENT MARKING WORDS EPOXY, WHITE
5. PAVEMENT MARKING STOP LINE EPOXY 18-INCH, WHITE
6. PAVEMENT MARKING CROSSWALK EPOXY, 6-INCH WHITE
7. PAVEMENT MARKING EPOXY, 18-INCH WHITE
8. PAVEMENT MARKING GROOVED EPOXY, 4-INCH DOUBLE YELLOW
9. PAVEMENT MARKING EPOXY, 18-INCH YELLOW

N

IMPERIAL DR. DETAIL

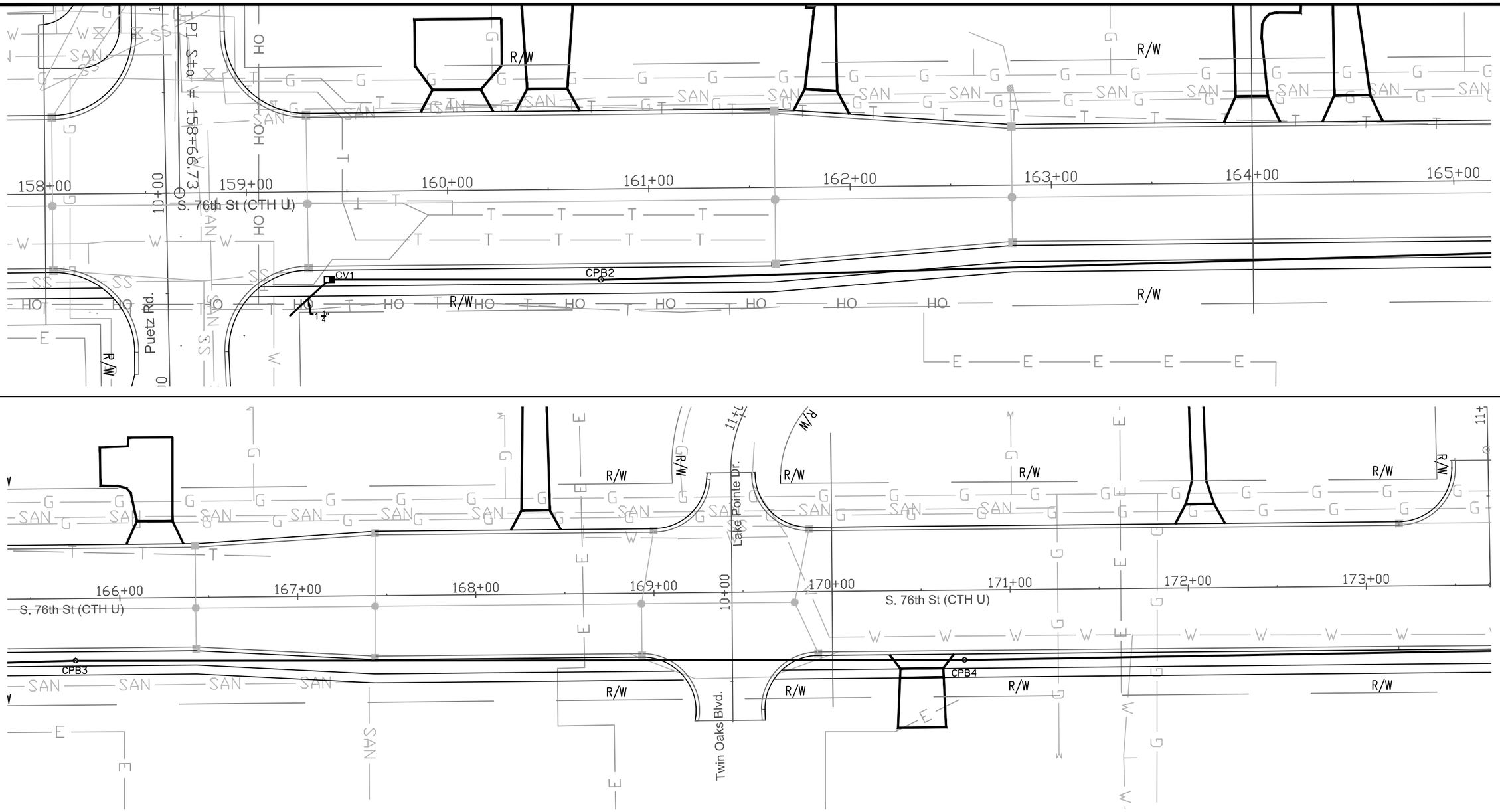


REVISION DATE: 12/9/2013

PROJECT NUMBER: 2160-10-70	HWY: CTH U (S. 76th St.)	COUNTY: MILWAUKEE	SIGNING AND PAVEMENT MARKING	SCALE: 1" = 60'	SHEET NO: E

H:\CADD\5070\5083\Traffic Engineering\C T H\U\CADD\2160-10-70_S 76th Puetz-Imperial\Cadd\U_Signing and Marking.dwg

WISDOT/CADDS SHEET 40



REVISION DATE: 9/26/2013

LEGEND:

- CONTROL CABINET
- RIGID NONMETALLIC CONDUIT–2" EXCEPT AS NOTED
- RIGID NONMETALLIC CONDUIT–2" SPECIAL EXCEPT AS NOTED
- COMMUNICATION VAULT 24 X 36–INCH
- PULL BOX 24" X 42"

NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT LIMITS WHICH ARE NOT SHOWN.

2) FINAL LOCATION OF ALL EQUIPMENT TO BE APPROVED BY THE ENGINEER.

3) GREYSHADE REPRESENTS EXISTING.

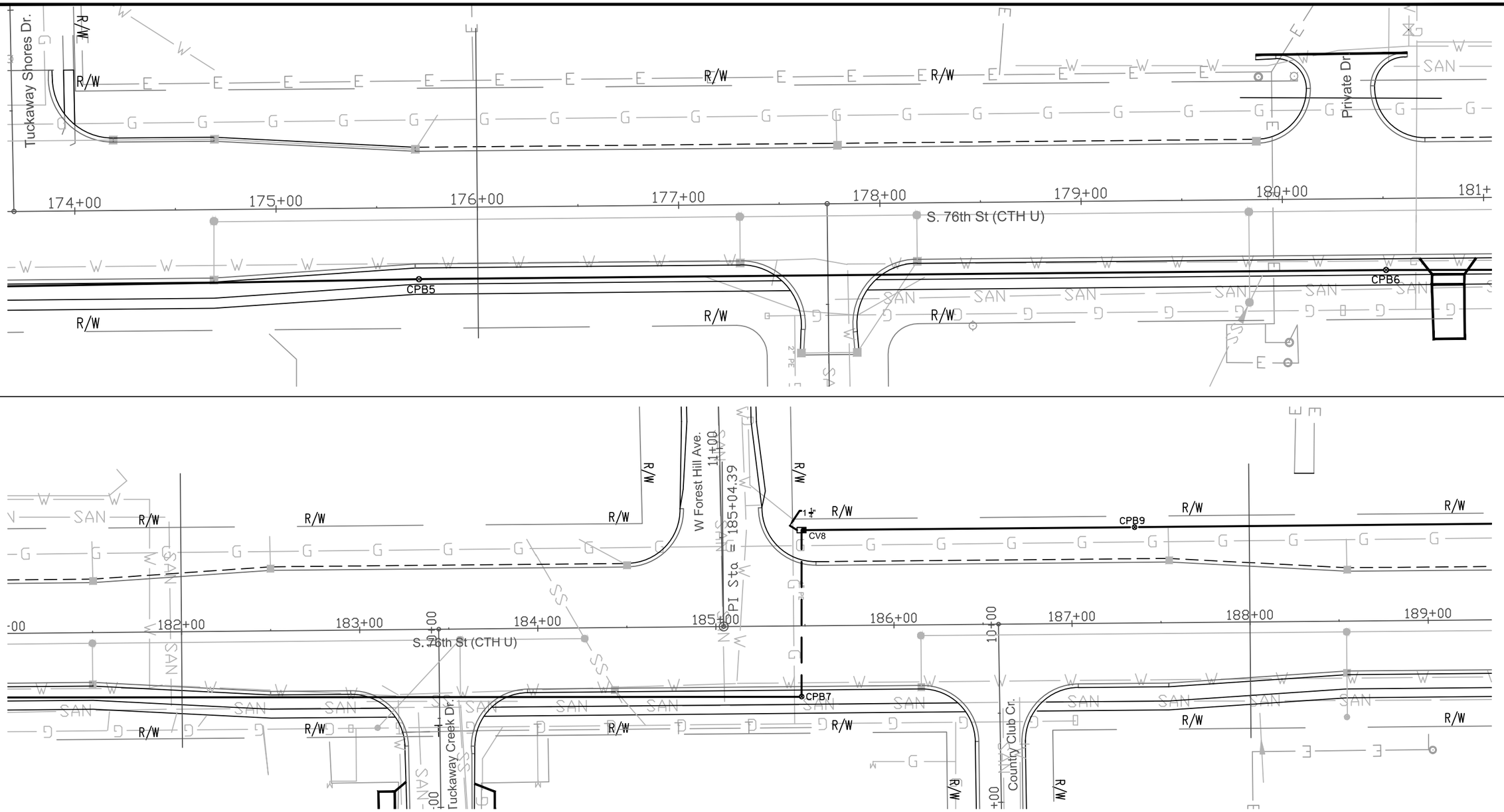
TRAFFIC SIGNAL INTERCONNECT

CTH U (S. 76th ST.)
W. PUETZ RD. TO W. CARTER BLVD.
CITY OF FRANKLIN
MILWAUKEE COUNTY

MILWAUKEE COUNTY DOT

PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST (CTH U)	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SCALE: 1" = 50'	SHEET NO: 152

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REVISION DATE: 4/30/2012

LEGEND:

- CONTROL CABINET
- RIGID NONMETALLIC CONDUIT–2" EXCEPT AS NOTED
- RIGID NONMETALLIC CONDUIT–2" SPECIAL EXCEPT AS NOTED
- COMMUNICATION VAULT 24 X 36–INCH
- PULL BOX 24" X 42"

NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT LIMITS WHICH ARE NOT SHOWN.

2) FINAL LOCATION OF ALL EQUIPMENT TO BE APPROVED BY THE ENGINEER.

3) GREYSHADE REPRESENTS EXISTING.

TRAFFIC SIGNAL INTERCONNECT

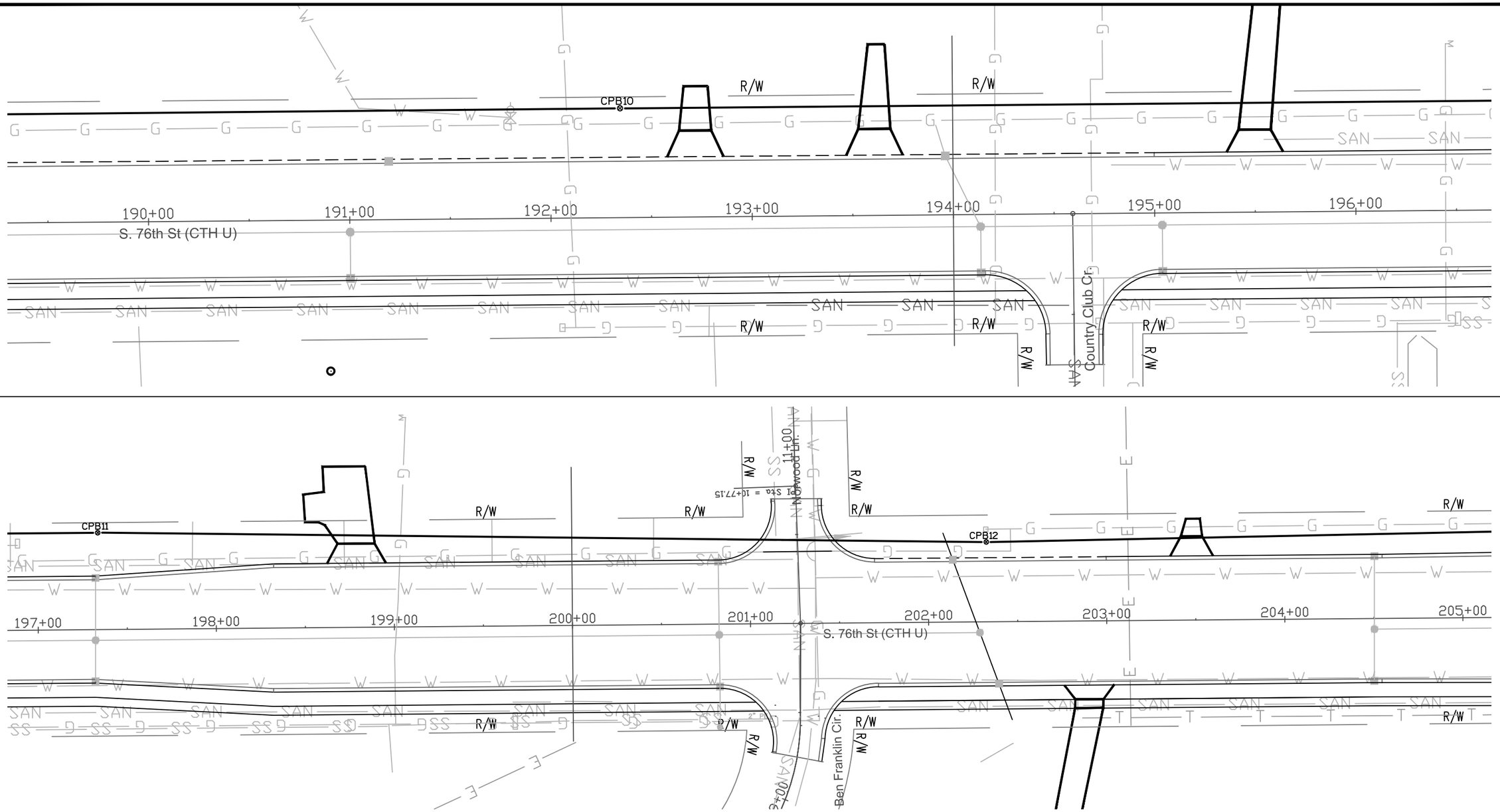
CTH U (S. 76th ST.)
W. PUETZ RD. TO W. CARTER BLVD.
CITY OF FRANKLIN
MILWAUKEE COUNTY

MILWAUKEE COUNTY DOT

PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST (CTH U)	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SCALE: 1" = 50'	SHEET NO: 153

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WISDOT/CADDS SHEET 40



REVISION DATE: 4/30/2012

LEGEND:

- CONTROL CABINET
- RIGID NONMETALLIC CONDUIT–2" EXCEPT AS NOTED
- RIGID NONMETALLIC CONDUIT–2" SPECIAL EXCEPT AS NOTED
- COMMUNICATION VAULT 24 X 36–INCH
- PULL BOX 24" X 42"

NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT LIMITS WHICH ARE NOT SHOWN.

2) FINAL LOCATION OF ALL EQUIPMENT TO BE APPROVED BY THE ENGINEER.

3) GREYSHADE REPRESENTS EXISTING.

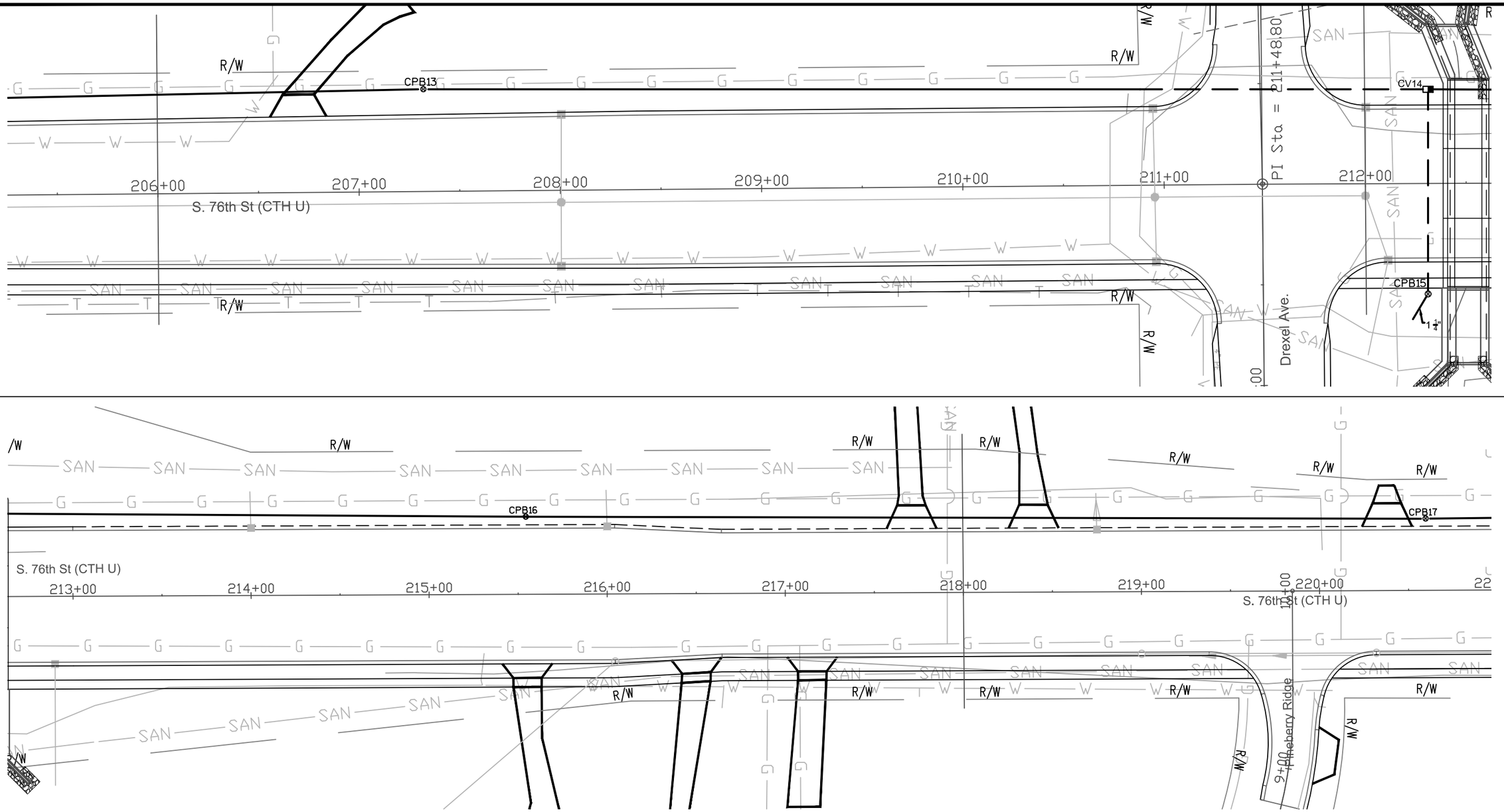
TRAFFIC SIGNAL INTERCONNECT

CTH U (S. 76th ST.)
W. PUETZ RD. TO W. CARTER BLVD.
CITY OF FRANKLIN
MILWAUKEE COUNTY

MILWAUKEE COUNTY DOT

PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST (CTH U)	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SCALE: 1" = 50'	SHEET NO: 154

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LEGEND:

- CONTROL CABINET
- RIGID NONMETALLIC CONDUIT–2" EXCEPT AS NOTED
- RIGID NONMETALLIC CONDUIT–2" SPECIAL EXCEPT AS NOTED
- COMMUNICATION VAULT 24 X 36–INCH
- PULL BOX 24" X 42"

NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT LIMITS WHICH ARE NOT SHOWN.

2) FINAL LOCATION OF ALL EQUIPMENT TO BE APPROVED BY THE ENGINEER.

3) GREYSHADE REPRESENTS EXISTING.

TRAFFIC SIGNAL INTERCONNECT

CTH U (S. 76th ST.)
W. PUETZ RD. TO W. CARTER BLVD.
CITY OF FRANKLIN
MILWAUKEE COUNTY

MILWAUKEE COUNTY DOT

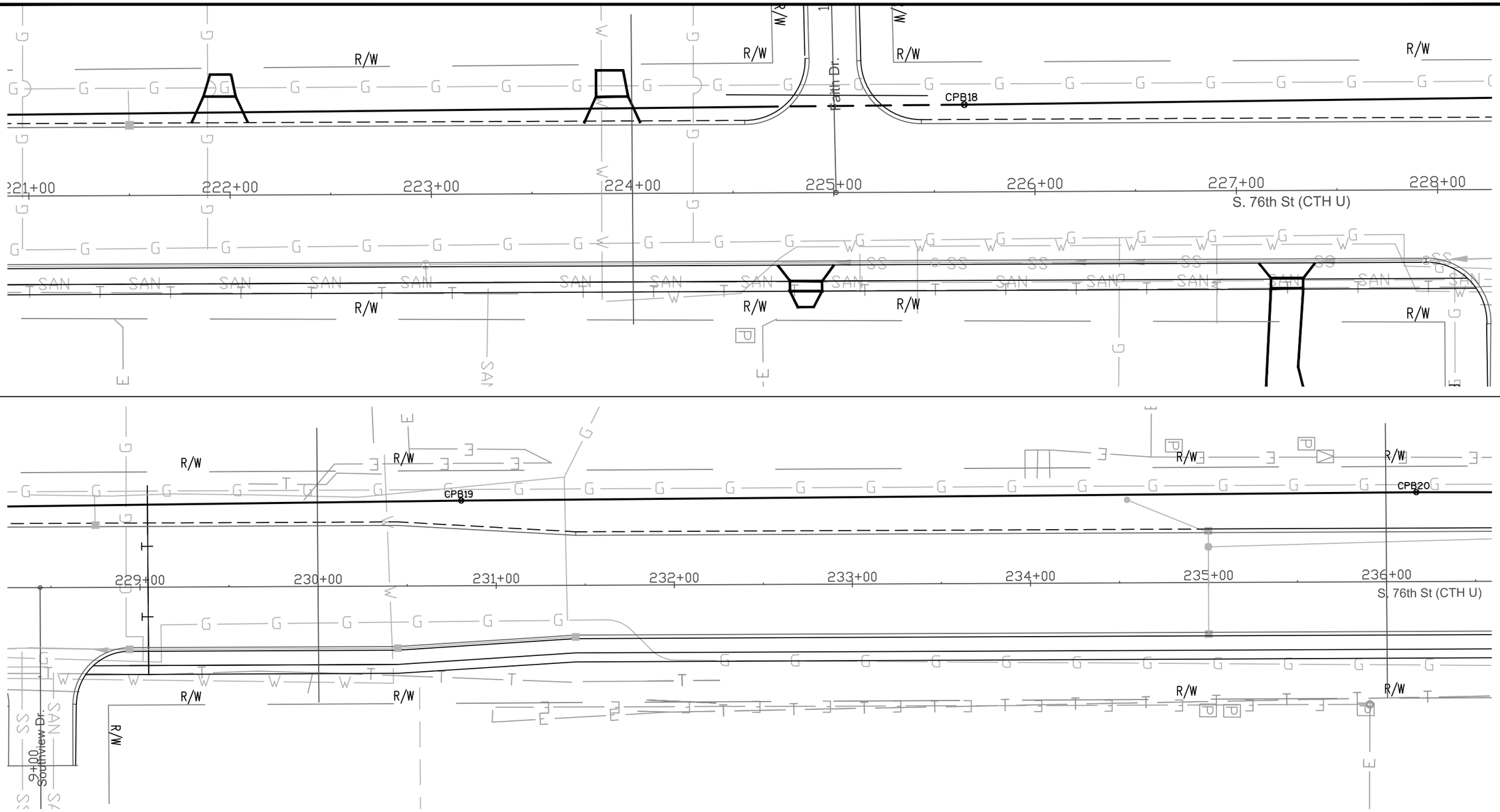
PAGE 4 OF 6

PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST (CTH U)	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SCALE: 1" = 50'	SHEET NO: 155

REVISION DATE: 4/30/2012

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WISDOT/CADDS SHEET 40



REVISION DATE: 4/30/2012

LEGEND:

- CONTROL CABINET
- RIGID NONMETALLIC CONDUIT–2" EXCEPT AS NOTED
- RIGID NONMETALLIC CONDUIT–2" SPECIAL EXCEPT AS NOTED
- COMMUNICATION VAULT 24 X 36–INCH
- PULL BOX 24" X 42"

NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT LIMITS WHICH ARE NOT SHOWN.

2) FINAL LOCATION OF ALL EQUIPMENT TO BE APPROVED BY THE ENGINEER.

3) GREYSHADE REPRESENTS EXISTING.

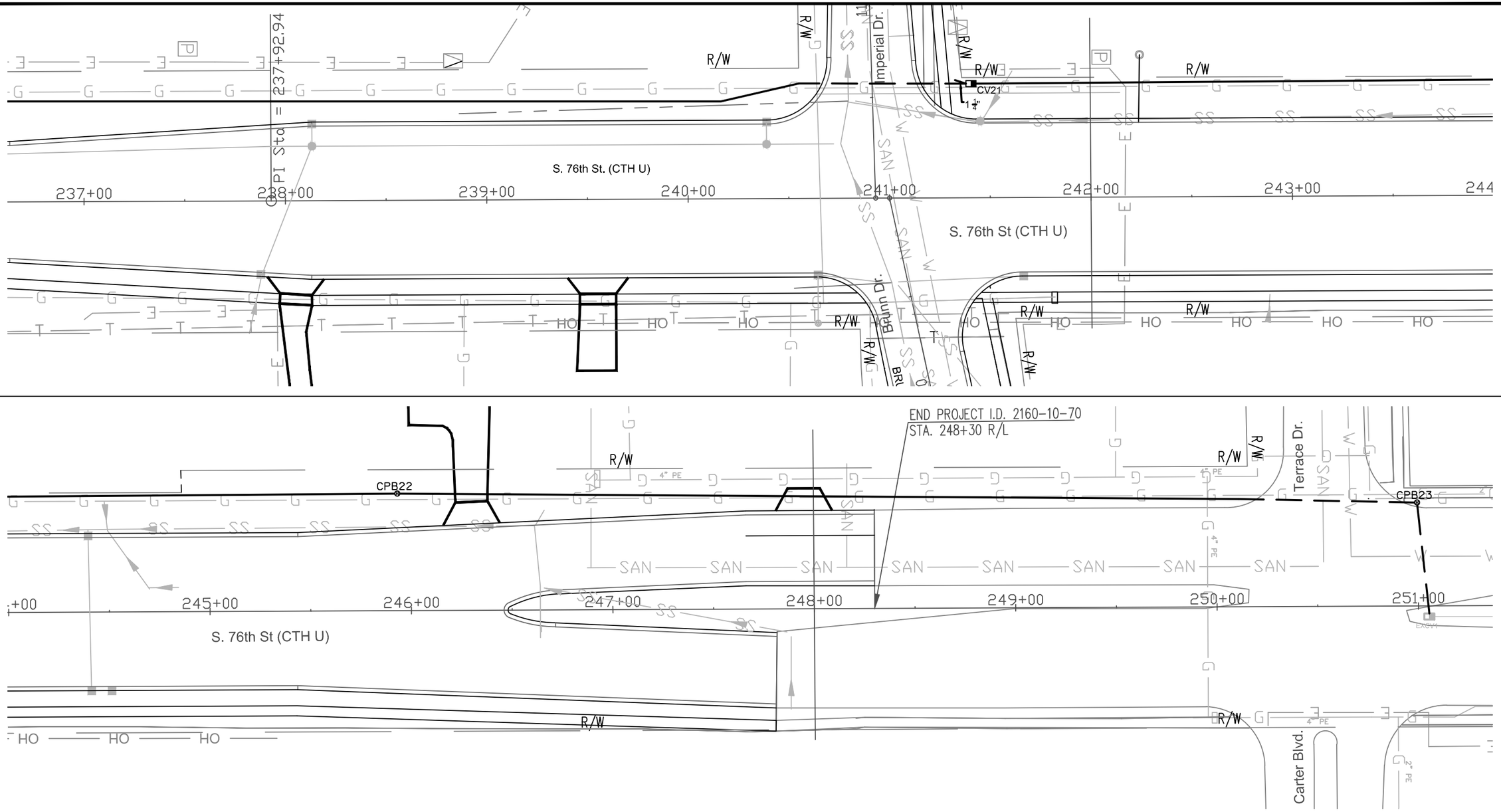
TRAFFIC SIGNAL INTERCONNECT

CTH U (S. 76th ST.)
W. PUETZ RD. TO W. CARTER BLVD.
CITY OF FRANKLIN
MILWAUKEE COUNTY

MILWAUKEE COUNTY DOT

PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST (CTH U)	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SCALE: 1" = 50'	SHEET NO: 156

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REVISION DATE: 4/30/2012

LEGEND:

- CONTROL CABINET
- RIGID NONMETALLIC CONDUIT–2" EXCEPT AS NOTED
- RIGID NONMETALLIC CONDUIT–2" SPECIAL EXCEPT AS NOTED
- COMMUNICATION VAULT 24 X 36–INCH
- PULL BOX 24" X 42"

N

NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT LIMITS WHICH ARE NOT SHOWN.

2) FINAL LOCATION OF ALL EQUIPMENT TO BE APPROVED BY THE ENGINEER.

3) GREYSHADE REPRESENTS EXISTING.

TRAFFIC SIGNAL INTERCONNECT
CTH U (S. 76th ST.)
W. PUETZ RD. TO W. CARTER BLVD.
CITY OF FRANKLIN
MILWAUKEE COUNTY

MILWAUKEE COUNTY DOT

PAGE 6 OF 6

PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST (CTH U)	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SCALE: 1" = 50'	SHEET NO: 157

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WISDOT/CADDS SHEET 40

NOTES

1. TRAFFIC SIGNAL REMOVALS TO BEGIN ONLY AFTER TEMPORARY TRAFFIC CONTROL IS IN OPERATION.

2. REMOVE ALL CONCRETE BASES, POLES, TROMBONE ARMS, PULL BOXES AND TRAFFIC SIGNAL EQUIPMENT EXCEPT AS NOTED.

3. REMOVE ALL LOOP DETECTORS EXCEPT AS NOTED.

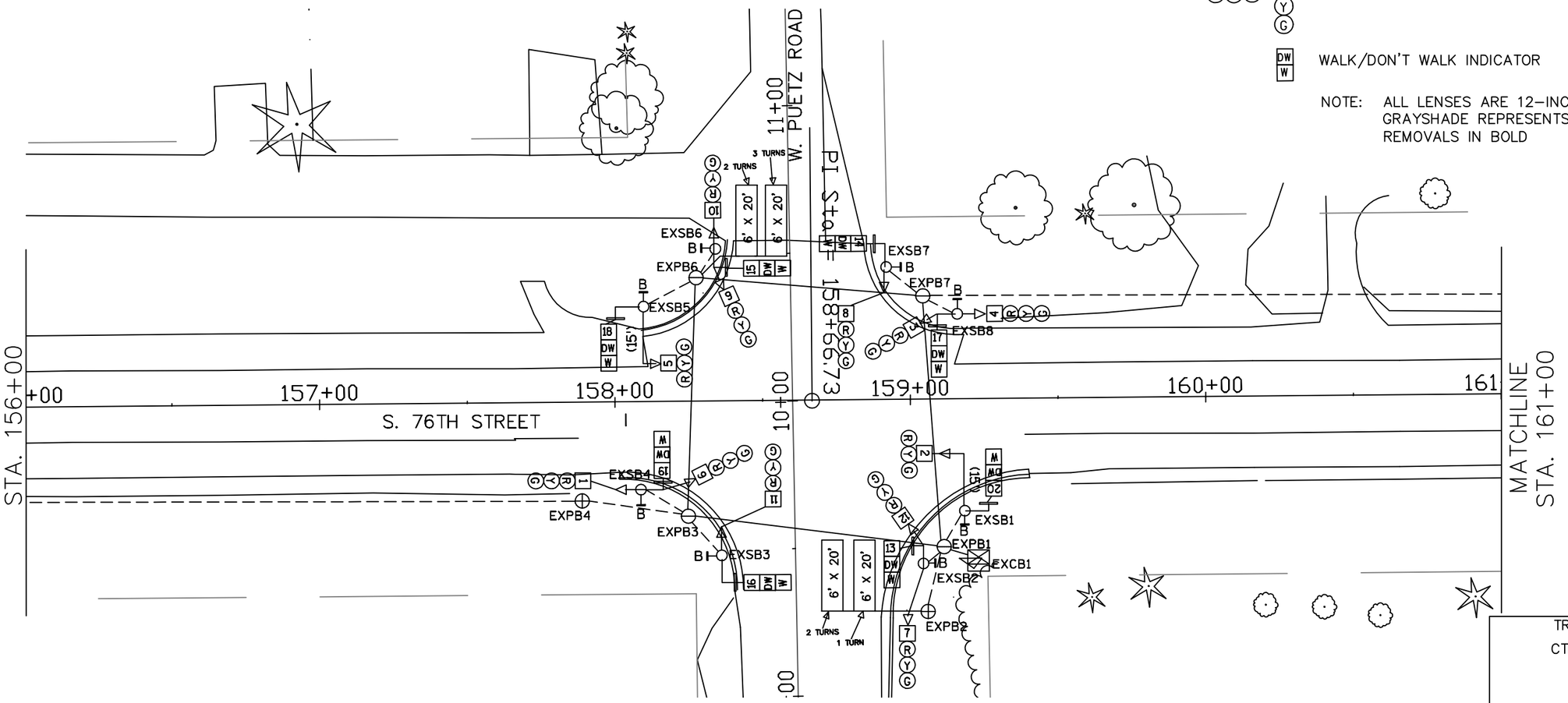
4. REMOVE CONTROL CABINET. DELIVER CABINET AND ALL COMPONENTS TO THE MILWAUKEE COUNTY DTPW ELECTRICAL SHOP.

5. REMOVE ALL TRAFFIC SIGNAL CABLE.

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 3'
- NONMETALLIC CONDUIT 2"
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE, MAST ARM MOUNTED
- PEDESTRIAN HEAD
- PEDESTRIAN PUSH BUTTON
- LOOP DETECTOR IN CONDUIT
- EXISTING PULL BOX, 24" X 36"
- EXISTING PULL BOX, 12" X 24"
- SIGNAL HEAD MOUNTING CONFIGURATION AND NUMBER
- WALK/DON'T WALK INDICATOR

NOTE: ALL LENSES ARE 12–INCH
GRAYSHADE REPRESENTS EXISTING GEOMETRY
REMOVALS IN BOLD



TRAFFIC SIGNAL REMOVALS

CTH U (S. 76th STREET) &
W. PUETZ RD.
CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. MC070

MILWAUKEE COUNTY DOT

PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST (CTH "U")	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVALS	SCALE: 1" = 40'	SHEET NO: E

REVISION DATE 3/24/2010

H:\CADD\5070\5083\Traffic Engineering\CTH\U\cadd\2160–10–70_S 76th Puetz–Imperial

WISDOT/CADDS SHEET 40

NOTES

1. TRAFFIC SIGNAL REMOVALS TO BEGIN ONLY AFTER TEMPORARY TRAFFIC CONTROL IS IN OPERATION.

2. REMOVE ALL CONCRETE BASES, POLES, TROMBONE ARMS, PULL BOXES AND TRAFFIC SIGNAL EQUIPMENT EXCEPT AS NOTED.

3. REMOVE ALL LOOP DETECTORS EXCEPT AS NOTED.

4. REMOVE CONTROL CABINET. DELIVER CABINET AND ALL COMPONENTS TO THE MILWAUKEE COUNTY DTPW ELECTRICAL SHOP.

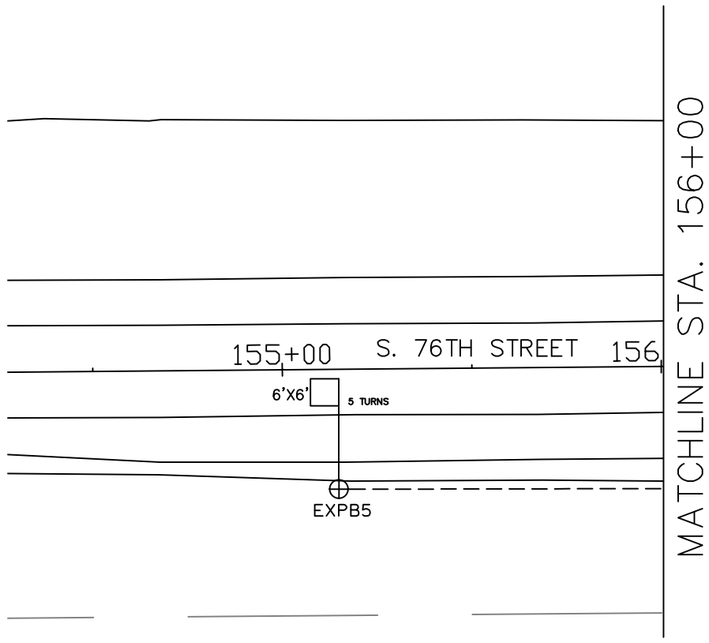
5. REMOVE ALL TRAFFIC SIGNAL CABLE.



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 3'
- NONMETALLIC CONDUIT 2"
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE, MAST ARM MOUNTED
- PEDESTRIAN HEAD
- PB PEDESTRIAN PUSH BUTTON
- LOOP DETECTOR IN CONDUIT
- EXISTING PULL BOX, 24" X 36"
- EXISTING PULL BOX, 12" X 24"
- 1 R Y G — SIGNAL HEAD MOUNTING CONFIGURATION AND NUMBER
- DW W — WALK/DON'T WALK INDICATOR

NOTE: ALL LENSES ARE 12–INCH
GRAYSHADE REPRESENTS EXISTING GEOMETRY
REMOVALS IN BOLD



TRAFFIC SIGNAL REMOVALS
CTH U (S. 76th STREET) &
W. PUETZ RD.
CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. MC070

MILWAUKEE COUNTY DOT

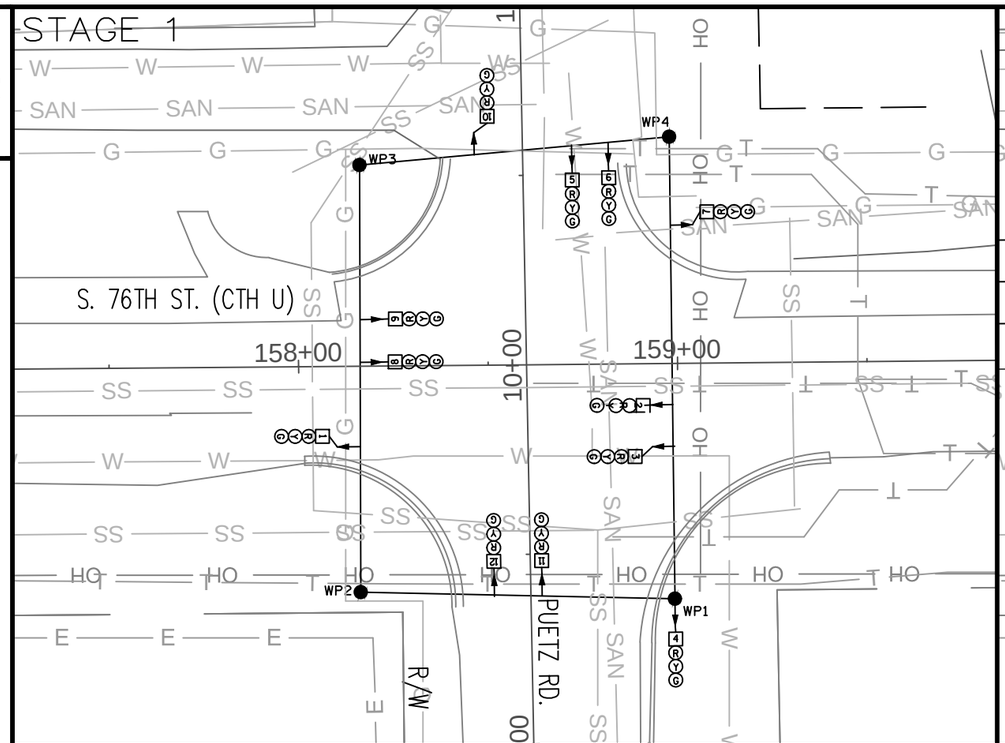
REVISION DATE 3/24/2010

PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST (CTH "U")	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVALS	SCALE: 1" = 40'	SHEET NO:	E

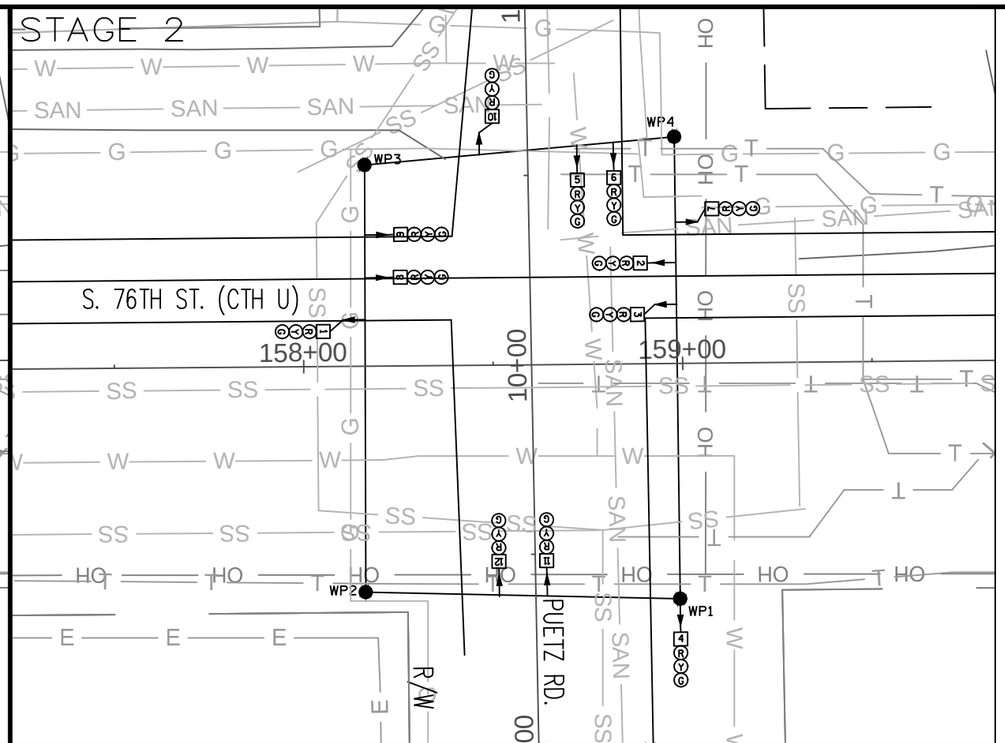
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WISDOT/CADDS SHEET 40

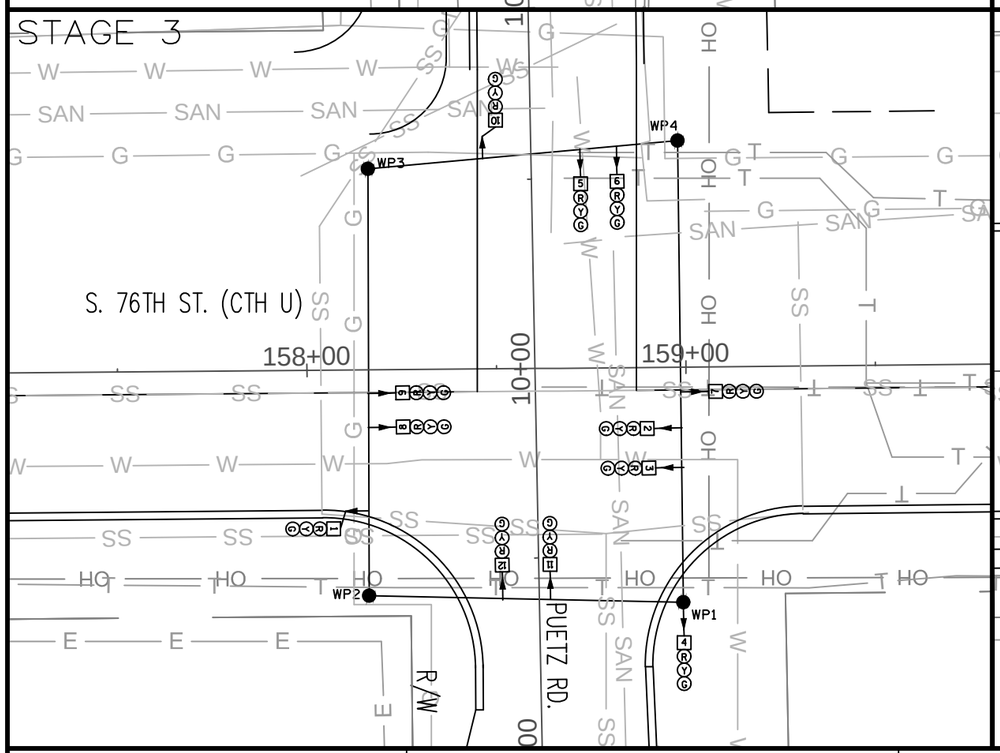
STAGE 1



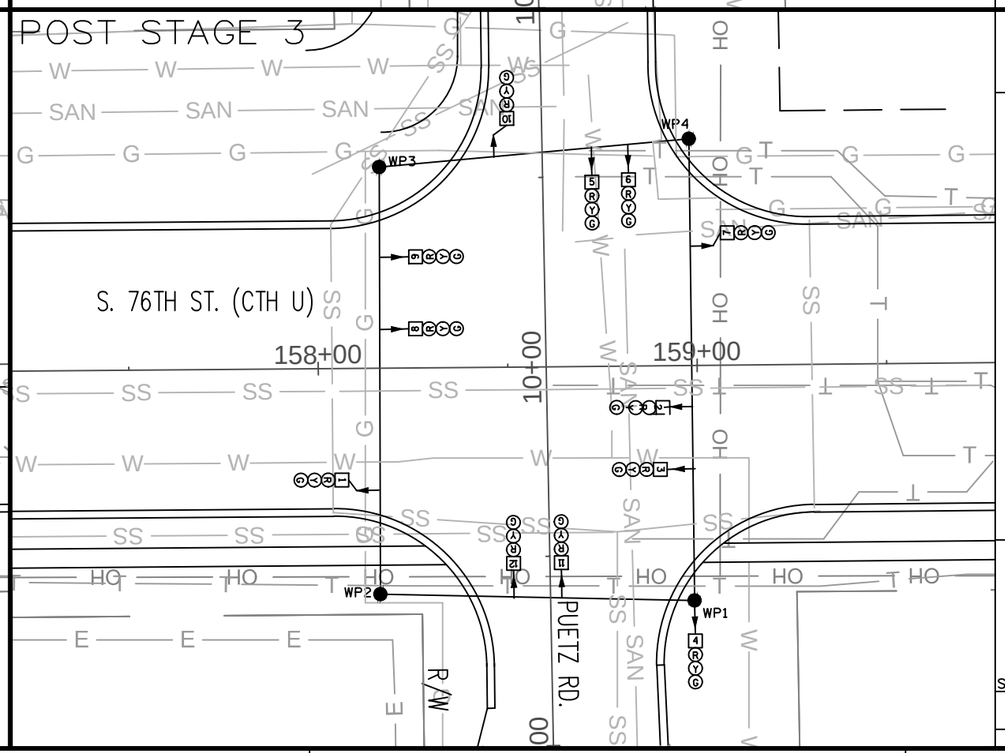
STAGE 2



STAGE 3



POST STAGE 3



NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT LIMITS WHICH ARE NOT SHOWN.

2) FINAL LOCATION OF ALL EQUIPMENT TO BE APPROVED BY THE ENGINEER.

3) NON–ELECTRICAL TEMPORARY TRAFFIC CONTROL HAS BEEN OMITTED FOR CLARITY, SEE THE TEMPORARY TRAFFIC CONTROL PLAN FOR THE LOCATION OF OTHER TEMPORARY TRAFFIC CONTROL EQUIPMENT.

4) PRE–STAGE, IF REQUIRED, SHALL FOLLOW STAGE 1 PLANS.

5) THE PROPOSED SIGNAL SHALL PASS INSPECTION PRIOR TO THE SCHEDULING OF THE TURN OFF OF THE TEMPORARY SIGNAL.

N

LEGEND

- OVERHEAD SIGNAL WIRE
- SIGNAL HEAD, SIGNAL POLE MOUNTED
- SIGNAL HEAD, SIGNAL POLE MOUNTED
- PEDESTRIAN HEAD
- PEDESTRIAN PUSH BUTTON
- SIGNAL HEAD NUMBER
- MOUNTING CONFIGURATION
- 12" VEHICULAR HEADS
- 12" OR 16" PEDESTRIAN HEAD

TEMPORARY TRAFFIC CONTROL SIGNAL

CTH U (S. 76th STREET) &
W. PUETZ RD.
CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. MC070

MILWAUKEE COUNTY DOT

PAGE 1 OF 1

REVISION DATE: 7/8/2013

PROJECT NUMBER: 2160–10–70	HWY: S. 76th ST (CTH U)	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN	SCALE: 1" = 40'	SHEET NO: 160

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LEGEND

- CONTROL CABINET
- VIDEO DETECTION ZONE
- VIDEO DETECTION CAMERA
- RIGID NONMETALLIC CONDUIT–2" EXCEPT AS NOTED
- COMMUNICATION VAULT 24 X 36–INCH
- PULL BOX, 24" X 42"
- PULL BOX, 24" X 48"
- SIGNAL HEAD, SIGNAL POLE MOUNTED
- PEDESTRIAN HEAD
- PEDESTRIAN PUSH BUTTON
- SIGNAL HEAD NUMBER
  MOUNTING CONFIGURATION
  12" VEHICULAR HEADS
  16" PEDESTRIAN HEAD WITH COUNTDOWN INDICATION
- MONOTUBE POLE TYPE 12 OR 13, 35'–55' ARM, TYPE 13 BASE
- MONOTUBE POLE TYPE 9 OR 10, 15'–30' ARM, TYPE 10 BASE
- LED LUMINARE

NOTES:

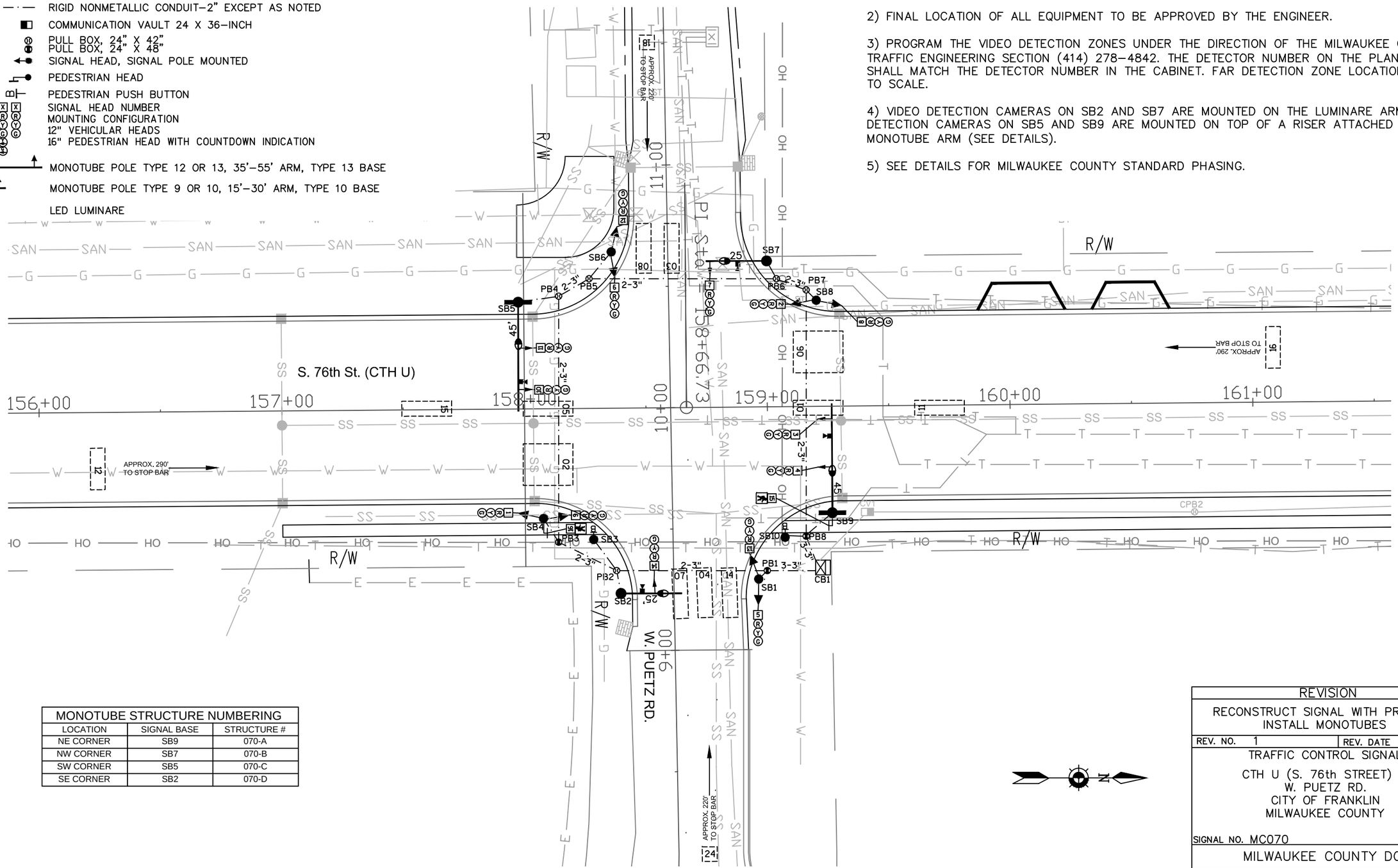
1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT LIMITS WHICH ARE NOT SHOWN.

2) FINAL LOCATION OF ALL EQUIPMENT TO BE APPROVED BY THE ENGINEER.

3) PROGRAM THE VIDEO DETECTION ZONES UNDER THE DIRECTION OF THE MILWAUKEE COUNTY TRAFFIC ENGINEERING SECTION (414) 278–4842. THE DETECTOR NUMBER ON THE PLAN WILL SHALL MATCH THE DETECTOR NUMBER IN THE CABINET. FAR DETECTION ZONE LOCATION IS NOT TO SCALE.

4) VIDEO DETECTION CAMERAS ON SB2 AND SB7 ARE MOUNTED ON THE LUMINARE ARM; VIDEO DETECTION CAMERAS ON SB5 AND SB9 ARE MOUNTED ON TOP OF A RISER ATTACHED TO THE MONOTUBE ARM (SEE DETAILS).

5) SEE DETAILS FOR MILWAUKEE COUNTY STANDARD PHASING.



MONOTUBE STRUCTURE NUMBERING		
LOCATION	SIGNAL BASE	STRUCTURE #
NE CORNER	SB9	070-A
NW CORNER	SB7	070-B
SW CORNER	SB5	070-C
SE CORNER	SB2	070-D

REVISION
RECONSTRUCT SIGNAL WITH PROJECT INSTALL MONOTUBES
REV. NO. 1 — REV. DATE MM/DD/11

TRAFFIC CONTROL SIGNAL

CTH U (S. 76th STREET) &
W. PUETZ RD.
CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. MC070

MILWAUKEE COUNTY DOT

PAGE 1 OF 1

PROJECT NUMBER: 2160–10–70	HWY: S. 76th ST (CTH U)	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SCALE: 1" = 40'	SHEET NO: 161

REVISION DATE: 8/23/2013

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WISDOT/CADDS SHEET 40

PROJECT ID:	2160-10-70
INTERSECTION:	CTH U (S. 76TH ST) & PUETZ RD.

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	# OF COND.	HEAD NO.	PHASE	SIGNAL INDICATION WIRE COLOR								PED BUTTON	OTHER
				RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	D/WALK	WALK		
SB1	12	13	8	RED	ORG	GRN							
		5	4	RED/BLK	ORG/BLK	GRN/BLK							
SB2	12	14	8	RED	ORG	GRN							
SB3	3	B	2									RED	
SB4	15	1	2	RED	ORG	GRN							
		9	6	RED/BLK	ORG/BLK	GRN/BLK							
		16	2							BLU	BLK		
SB5	12	10	6	RED	ORG	GRN							
		11	6	RED	ORG	GRN							
SB6	12	6	4	RED/BLK	ORG/BLK	GRN/BLK							
		12	8	RED	ORG	GRN							
SB7	12	7	4	RED	ORG	GRN							
SB8	12	8	6	RED/BLK	ORG/BLK	GRN/BLK							
		2	2	RED	ORG	GRN							
SB9	12	3	2	RED	ORG	GRN							
		4	2	RED	ORG	GRN							
		15	2							BLU	BLK		
SB10	3	B	2									RED	

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP AND NEUTRAL CONDUCTOR 10 AWG WHT XLP	
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
PB1	SB1
PB2	SB2
PB2	SB3
PB3	SB4
PB4	SB5
PB5	SB6
PB6	SB7
PB7	SB8
PB8	SB9
PB8	SB10

NOTES:

1. DO NOT USE THE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL OF THE PEDESTRIAN BUTTON TO THE COLOR INDICATED IN THE CHART, CONNECT THE OTHER TERMINAL TO THE WHITE CONDUCTOR IN THE SIGNAL CABLE

NOTES

1. TRAFFIC SIGNAL REMOVALS SHALL BEGIN ONLY AFTER TEMPORARY TRAFFIC CONTROL IS IN OPERATION.

2. REMOVE ALL CONCRETE BASES, POLES, ARMS, PULL BOXES, CONTROL CABINET AND TRAFFIC SIGNAL EQUIPMENT EXCEPT AS NOTED.

3. REMOVE ALL LOOP DETECTOR AND TRAFFIC SIGNAL CABLE EXCEPT AS NOTED.

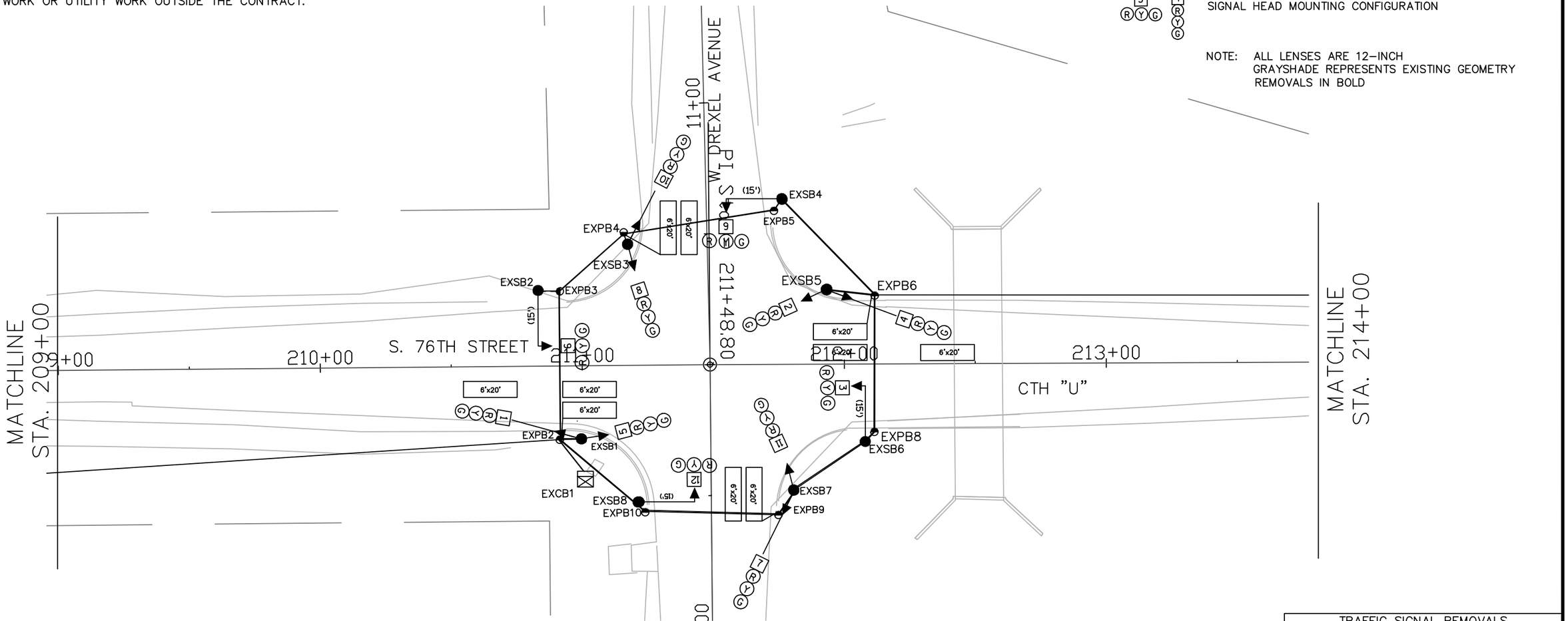
4. SALVAGE ALL MATERIALS EXCEPT CONCRETE BASES AND CONDUIT. DELIVER CABINET AND ALL SALVAGED COMPONENTS TO THE MILWAUKEE COUNTY DOT ELECTRICAL SHOP, CONTACT STANLEY JACKSON, 414–257–6593.

5. ALL CONDUIT SHALL BE ABANDON, IF REQUIRED DURING THE DURATION OF THE PROJECT REMOVE ANY ABANDON CONDUIT THAT CONFLICTS WITH THE PROJECT WORK OR UTILITY WORK OUTSIDE THE CONTRACT.

LEGEND

- CONTROL CABINET
- CONDUIT
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE, MAST ARM MOUNTED
- LOOP DETECTOR IN CONDUIT
- EXISTING PULL BOX, 24" X 36"
- EXISTING PULL BOX, 12" X 24"
- SIGNAL HEAD MOUNTING CONFIGURATION

NOTE: ALL LENSES ARE 12–INCH
GRAYSHADE REPRESENTS EXISTING GEOMETRY REMOVALS IN BOLD



REVISION DATE 3/25/2010

TRAFFIC SIGNAL REMOVALS

CTH U (S. 76th STREET) &
W. DREXEL AVE.
CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. MC062

MILWAUKEE COUNTY DOT

PAGE 1 OF 2

PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST (CTH "U")	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVALS	SCALE: 1" = 40'	SHEET NO: 163

H:\CADD\5070\5083\Traffic Engineering\CTH\U\cadd\2160–10–70_S 76th Puetz–Imperial

WISDOT/CADDS SHEET 40

2

NOTES

1. TRAFFIC SIGNAL REMOVALS TO BEGIN ONLY AFTER TEMPORARY TRAFFIC CONTROL IS IN OPERATION AND IS IN PROPER WORKING ORDER AS DETERMINED BY MILWAUKEE COUNTY DOT.

2. REMOVE ALL CONCRETE BASES, POLES, TROMBONE ARMS, PULL BOXES AND TRAFFIC SIGNAL EQUIPMENT EXCEPT AS NOTED.

3. REMOVE ALL LOOP DETECTORS EXCEPT AS NOTED.

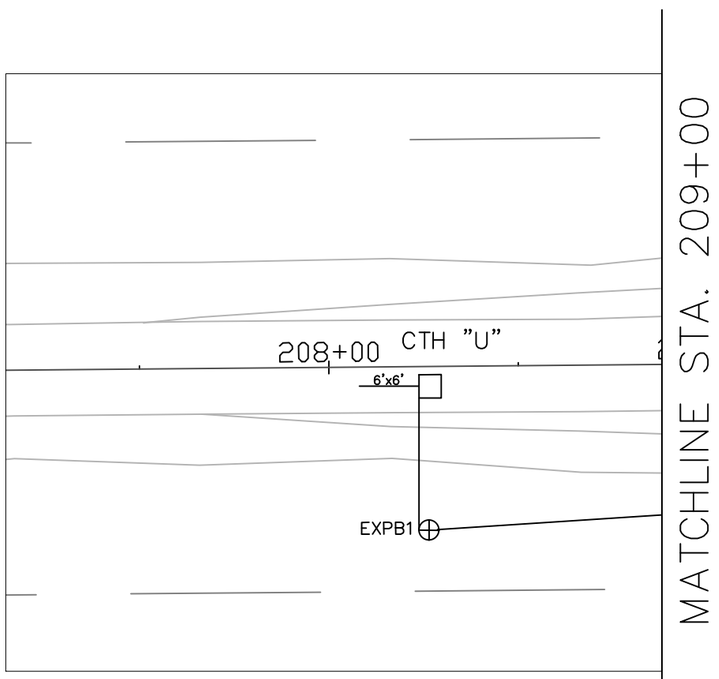
4. REMOVE CONTROL CABINET, DELIVER CABINET AND ALL COMPONENTS TO THE MILWAUKEE COUNTY DOT ELECTRICAL SHOP.

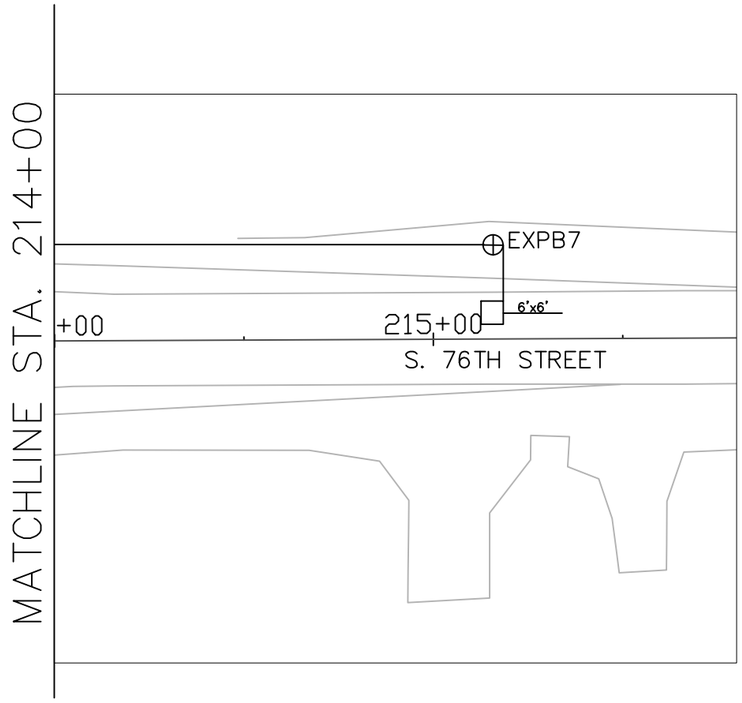
5. REMOVE ALL TRAFFIC SIGNAL CABLE.

LEGEND

- CONTROL CABINET
- CONDUIT 3"
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE, MAST ARM MOUNTED
- LOOP DETECTOR IN CONDUIT
- EXISTING PULL BOX, 24" X 36"
- EXISTING PULL BOX, 12" X 24"
- 3 R Y G / 4 R Y G SIGNAL HEAD MOUNTING CONFIGURATION

NOTE: ALL LENSES ARE 12–INCH
GRAYSHADE REPRESENTS EXISTING GEOMETRY
REMOVALS IN BOLD







TRAFFIC SIGNAL REMOVALS
CTH U (S. 76th STREET) &
W. DREXEL AVE.
CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. MC062

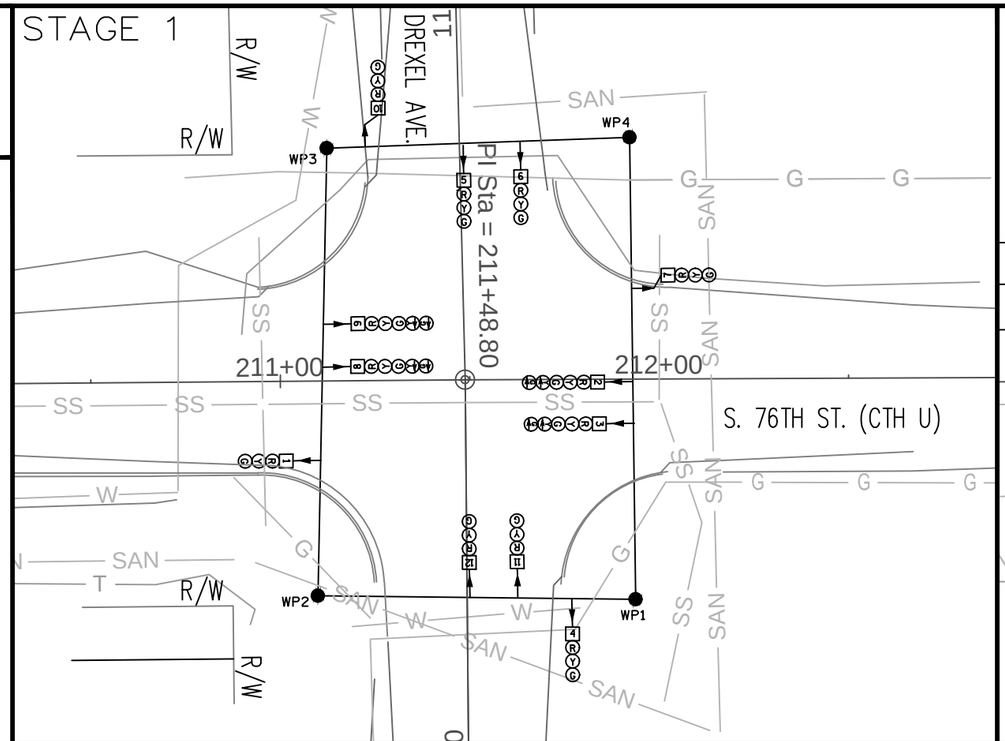
MILWAUKEE COUNTY DOT

PAGE 1 OF 164

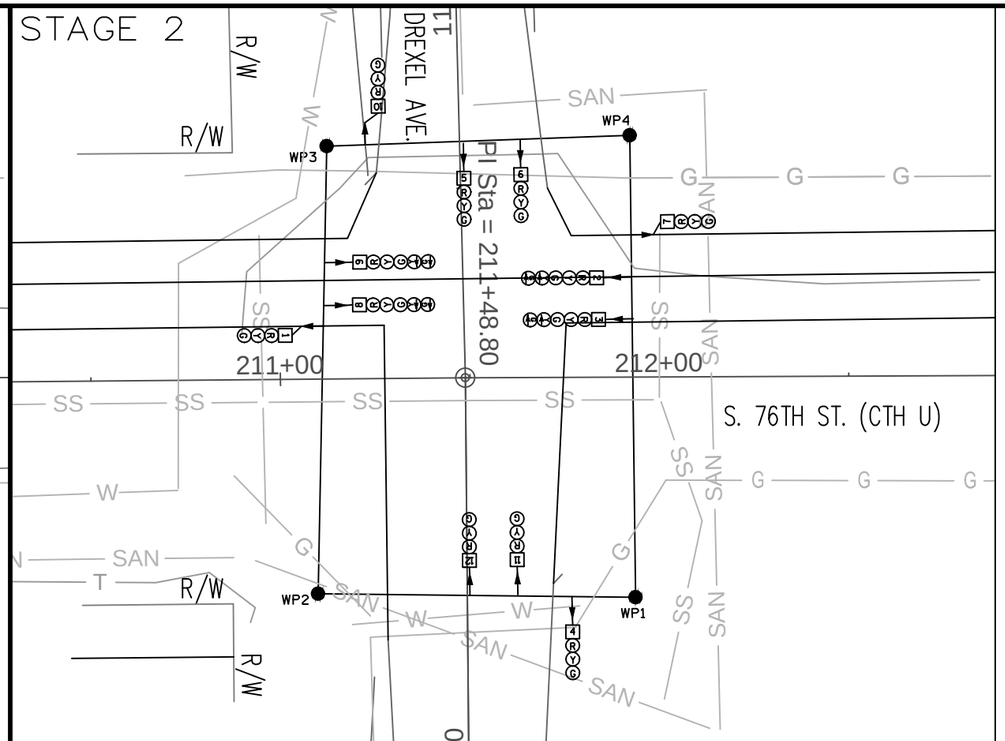
PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST (CTH "U")	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVALS	SCALE: 1" = 40'	SHEET NO: E

REVISION DATE 3/25/2010

STAGE 1



STAGE 2



NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT LIMITS WHICH ARE NOT SHOWN.

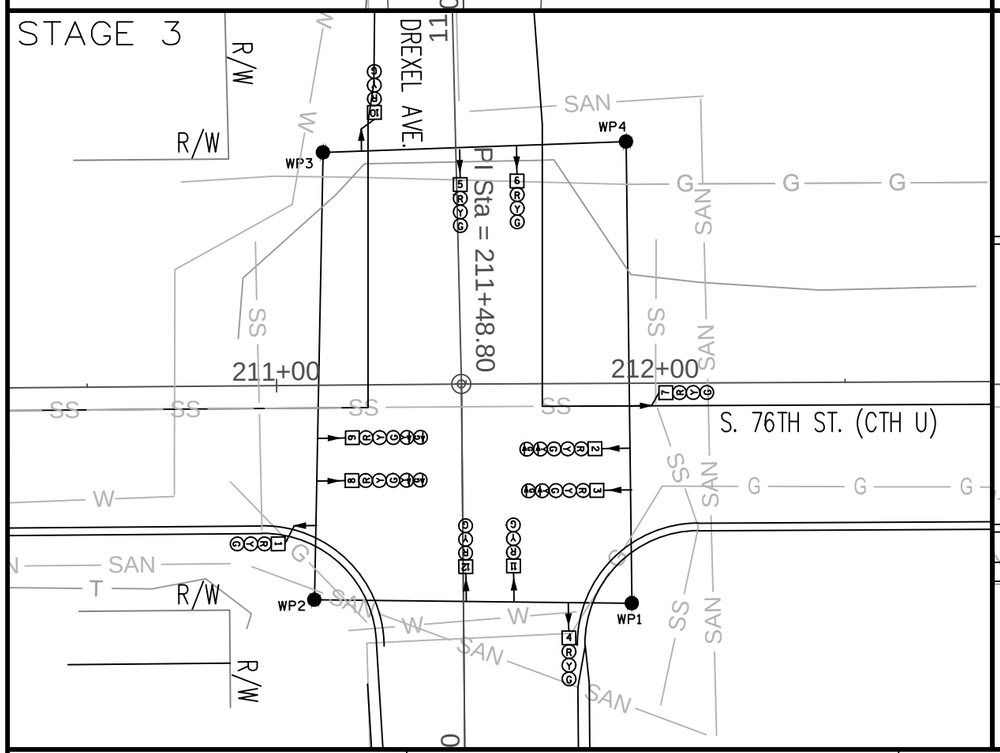
2) FINAL LOCATION OF ALL EQUIPMENT TO BE APPROVED BY THE ENGINEER.

3) NON–ELECTRICAL TEMPORARY TRAFFIC CONTROL HAS BEEN OMITTED FOR CLARITY, SEE THE TEMPORARY TRAFFIC CONTROL PLAN FOR THE LOCATION OF OTHER TEMPORARY TRAFFIC CONTROL EQUIPMENT.

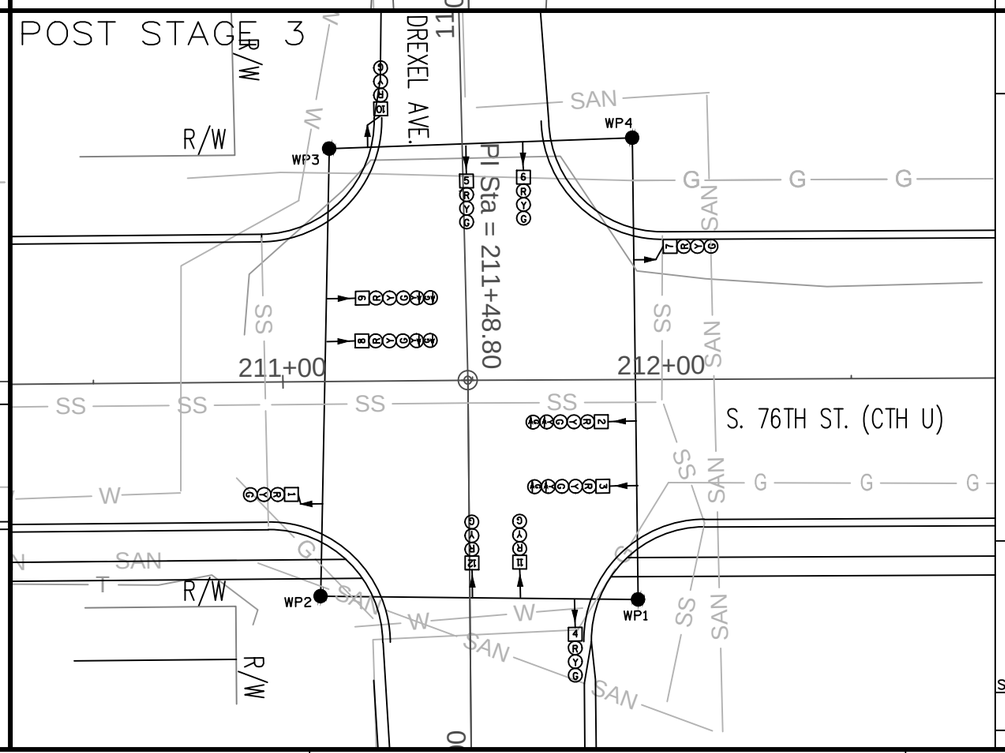
4) PRE–STAGE, IF REQUIRED, SHALL FOLLOW STAGE 1 PLANS.

5) THE PROPOSED SIGNAL SHALL PASS INSPECTION PRIOR TO THE SCHEDULING OF THE TURN OFF OF THE TEMPORARY SIGNAL.

STAGE 3



POST STAGE 3



LEGEND

- OVERHEAD SIGNAL WIRE
- SIGNAL HEAD, SIGNAL POLE MOUNTED
- SIGNAL HEAD, SIGNAL POLE MOUNTED
- PEDESTRIAN HEAD
- PEDESTRIAN PUSH BUTTON
- SIGNAL HEAD NUMBER
- MOUNTING CONFIGURATION
- 12" VEHICULAR HEADS
- 12" OR 16" PEDESTRIAN HEAD

TEMPORARY TRAFFIC CONTROL SIGNAL

CTH U (S. 76th STREET) &
W. DREXEL AVE.
CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. MC062

MILWAUKEE COUNTY DOT

PAGE 1 OF 1

REVISION DATE: 9/27/2013

PROJECT NUMBER: 2160–10–70	HWY: S. 76th ST (CTH U)	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN	SCALE: 1" = 40'	SHEET NO: 165

H:\CADD\5070\5083\Traffic Engineering\C T H\U\CADD\2160–10–70_S 76th Puetz–Imperial\Cadd\U_TEMP_SIG.dwg

LEGEND

- CONTROL CABINET
- VIDEO DETECTION ZONE
- VIDEO DETECTION CAMERA
- RIGID NONMETALLIC CONDUIT–3" EXCEPT AS NOTED
- COMMUNICATION VAULT 24 X 36–INCH
- PULL BOX, 24" X 48"
- PULL BOX, 24" X 42"
- SIGNAL HEAD, SIGNAL POLE MOUNTED
- PEDESTRIAN HEAD
- PEDESTRIAN PUSH BUTTON
- SIGNAL HEAD NUMBER
- MOUNTING CONFIGURATION
- 12" VEHICULAR HEADS
- 16" PEDESTRIAN HEAD WITH COUNTDOWN INDICATION
- MONOTUBE POLE TYPE 12 OR 13, 35'–55' ARM, TYPE 13 BASE
- MONOTUBE POLE TYPE 9 OR 10, 15'–30' ARM, TYPE 10 BASE
- LUMINARE, LED TYPE; ARM LENGTH ACCORDING TO QUANTITIES

NOTES:

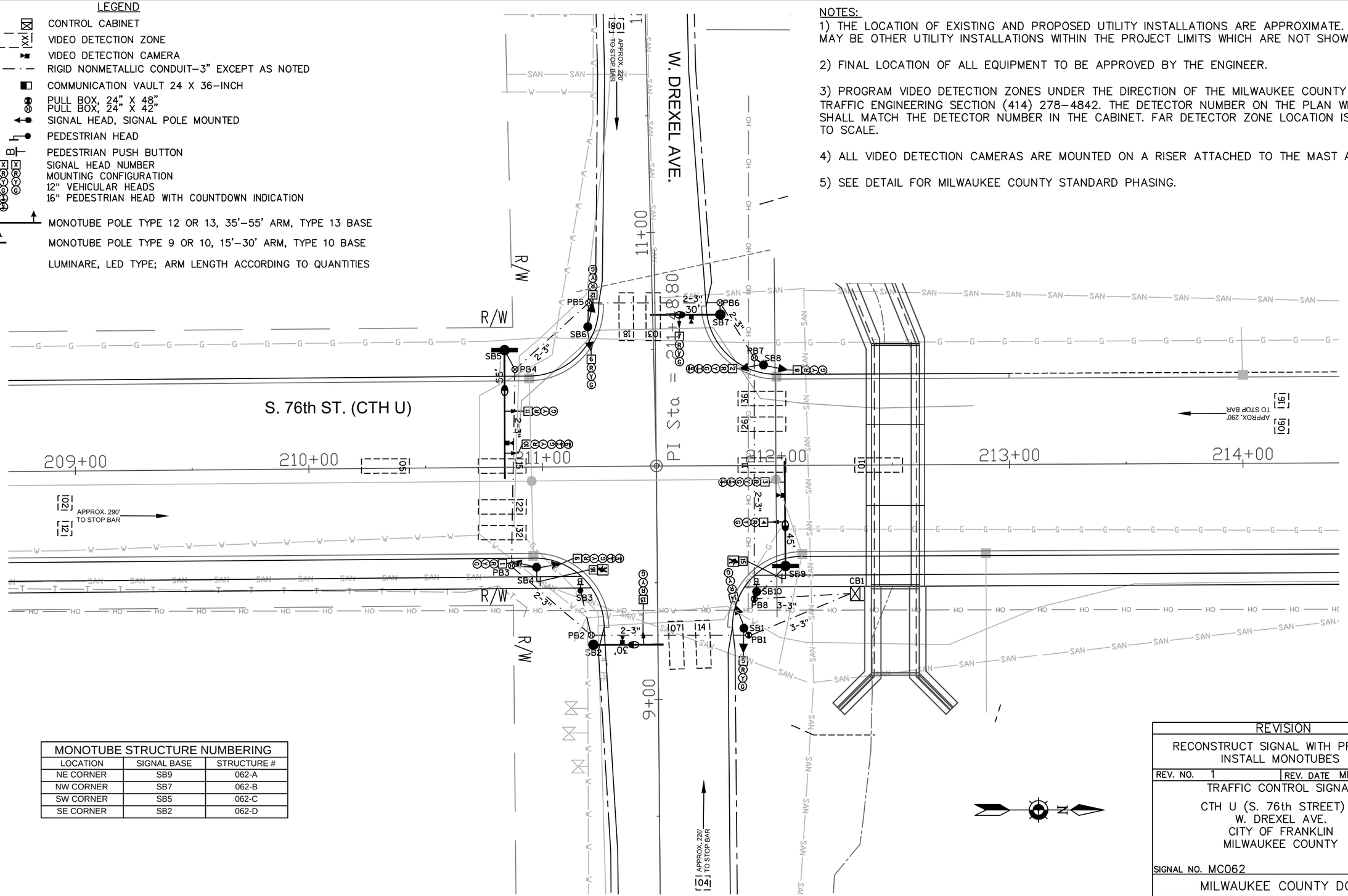
1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT LIMITS WHICH ARE NOT SHOWN.

2) FINAL LOCATION OF ALL EQUIPMENT TO BE APPROVED BY THE ENGINEER.

3) PROGRAM VIDEO DETECTION ZONES UNDER THE DIRECTION OF THE MILWAUKEE COUNTY TRAFFIC ENGINEERING SECTION (414) 278–4842. THE DETECTOR NUMBER ON THE PLAN WILL SHALL MATCH THE DETECTOR NUMBER IN THE CABINET. FAR DETECTOR ZONE LOCATION IS NOT TO SCALE.

4) ALL VIDEO DETECTION CAMERAS ARE MOUNTED ON A RISER ATTACHED TO THE MAST ARM.

5) SEE DETAIL FOR MILWAUKEE COUNTY STANDARD PHASING.



MONOTUBE STRUCTURE NUMBERING		
LOCATION	SIGNAL BASE	STRUCTURE #
NE CORNER	SB9	062-A
NW CORNER	SB7	062-B
SW CORNER	SB5	062-C
SE CORNER	SB2	062-D

REVISION
RECONSTRUCT SIGNAL WITH PROJECT INSTALL MONOTUBES
REV. NO. 1 — REV. DATE MM/DD/11

TRAFFIC CONTROL SIGNAL

CTH U (S. 76th STREET) &
W. DREXEL AVE.
CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. MC062

MILWAUKEE COUNTY DOT

PAGE 1 OF 1

PROJECT NUMBER: 2160–10–70	HWY: S. 76th ST (CTH U)	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SCALE: 1" = 40'	SHEET NO: 166

REVISION DATE: 9/26/2013

H:\CADD\5070\5083\Traffic Engineering\C T H\U\CADD\2160–10–70_S 76th Puetz–Imperial\Cadd\U_DREXEL_SIGNAL PROPOSED.dwg

WISDOT/CADDS SHEET 40

PROJECT ID:	2160-10-70
INTERSECTION:	CTH U (S. 76TH ST) & DREXEL AVE

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	# OF COND.	HEAD NO.	PHASE	SIGNAL INDICATION WIRE COLOR								PED BUTTON	OTHER
				RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	D/WALK	WALK		
SB1	15	13	8	RED	ORG	GRN							
		5	4	RED/BLK	ORG/BLK	GRN/BLK							
SB2	12	14	8	RED	ORG	GRN							
SB3	3	B	2									RED	
SB4	15	1	2	RED	ORG	GRN							
		9	6+1	RED/BLK	ORG/BLK	GRN/BLK		BLU/BLK	BLK/WHT				
		16	2							BLU	BLK		
SB5	15	10	6+1	RED	ORG	GRN		BLU	BLK				
		11	6	RED	ORG	GRN							
SB6	12	6	4	RED/BLK	ORG/BLK	GRN/BLK							
		12	8	RED	ORG	GRN							
SB7	12	7	4	RED	ORG	GRN							
SB8	15	8	6	RED/BLK	ORG/BLK	GRN/BLK							
		2	2+5	RED	ORG	GRN		BLU	BLK				
SB9	15	3	2+5	RED	ORG	GRN		BLU	BLK				
		4	2	RED	ORG	GRN							
		15	2							BLU/BLK	BLK/WHT		
SB10	3	B	2									RED	

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP AND NEUTRAL CONDUCTOR 10 AWG WHT XLP	
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
PB1	SB1
PB2	SB2
PB2	SB3
PB3	SB4
PB4	SB5
PB5	SB6
PB6	SB7
PB7	SB8
PB8	SB9
PB8	SB10

NOTES:

1. DO NOT USE THE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL OF THE PEDESTRIAN BUTTON TO THE COLOR INDICATED IN THE CHART, CONNECT THE OTHER TERMINAL TO THE WHITE CONDUCTOR IN THE SIGNAL CABLE

NOTES

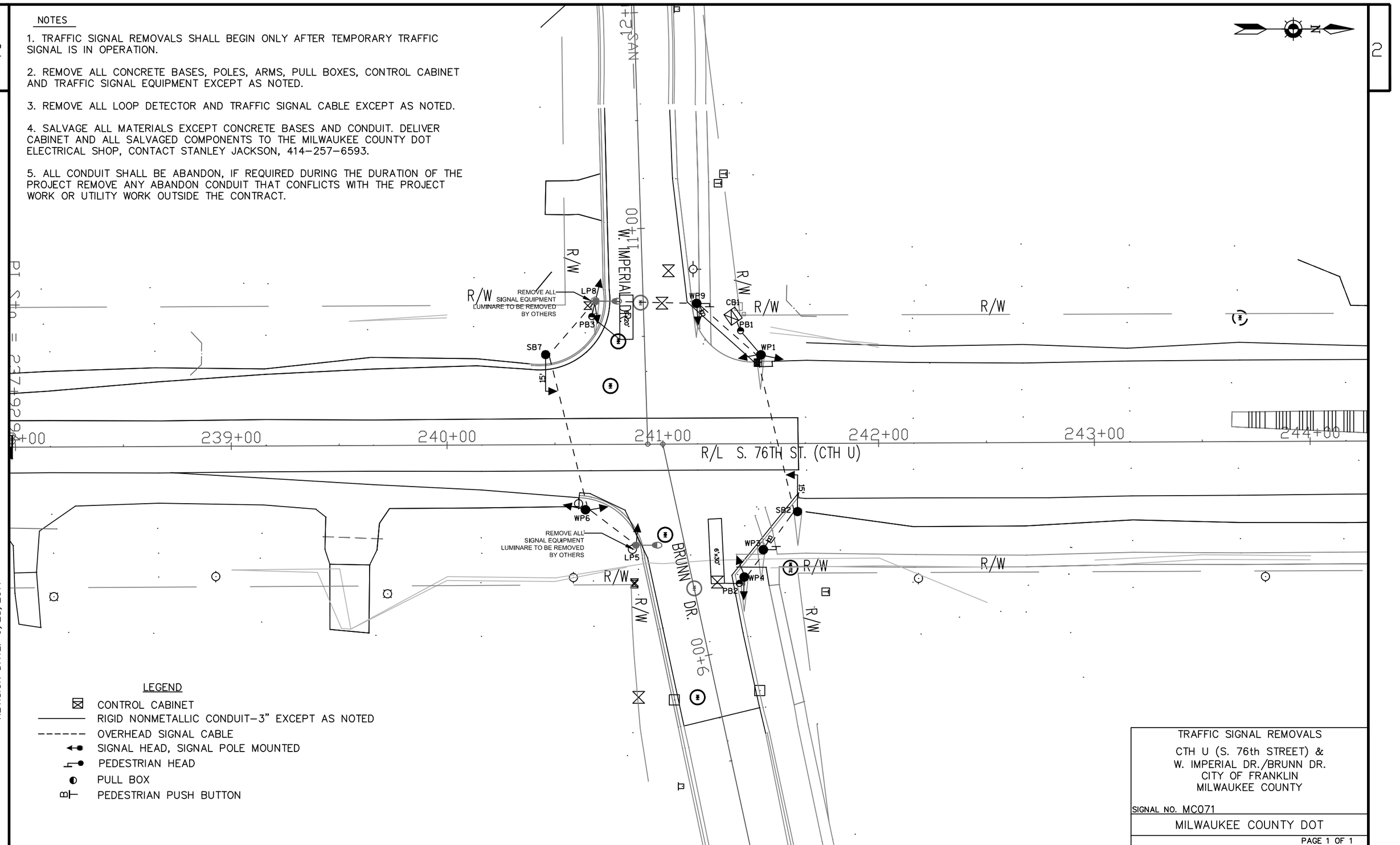
1. TRAFFIC SIGNAL REMOVALS SHALL BEGIN ONLY AFTER TEMPORARY TRAFFIC SIGNAL IS IN OPERATION.

2. REMOVE ALL CONCRETE BASES, POLES, ARMS, PULL BOXES, CONTROL CABINET AND TRAFFIC SIGNAL EQUIPMENT EXCEPT AS NOTED.

3. REMOVE ALL LOOP DETECTOR AND TRAFFIC SIGNAL CABLE EXCEPT AS NOTED.

4. SALVAGE ALL MATERIALS EXCEPT CONCRETE BASES AND CONDUIT. DELIVER CABINET AND ALL SALVAGED COMPONENTS TO THE MILWAUKEE COUNTY DOT ELECTRICAL SHOP, CONTACT STANLEY JACKSON, 414–257–6593.

5. ALL CONDUIT SHALL BE ABANDON, IF REQUIRED DURING THE DURATION OF THE PROJECT REMOVE ANY ABANDON CONDUIT THAT CONFLICTS WITH THE PROJECT WORK OR UTILITY WORK OUTSIDE THE CONTRACT.



LEGEND

- CONTROL CABINET
- RIGID NONMETALLIC CONDUIT–3" EXCEPT AS NOTED
- OVERHEAD SIGNAL CABLE
- SIGNAL HEAD, SIGNAL POLE MOUNTED
- PEDESTRIAN HEAD
- PULL BOX
- PEDESTRIAN PUSH BUTTON

TRAFFIC SIGNAL REMOVALS

CTH U (S. 76th STREET) &
W. IMPERIAL DR./BRUNN DR.
CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. MC071

MILWAUKEE COUNTY DOT

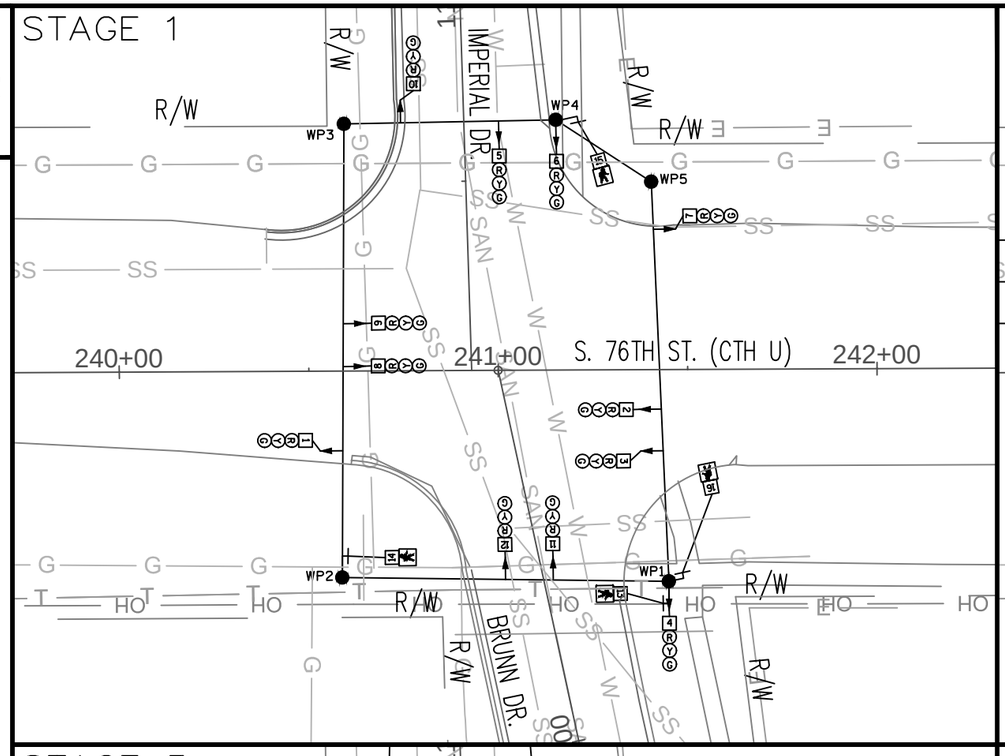
PAGE 1 OF 1

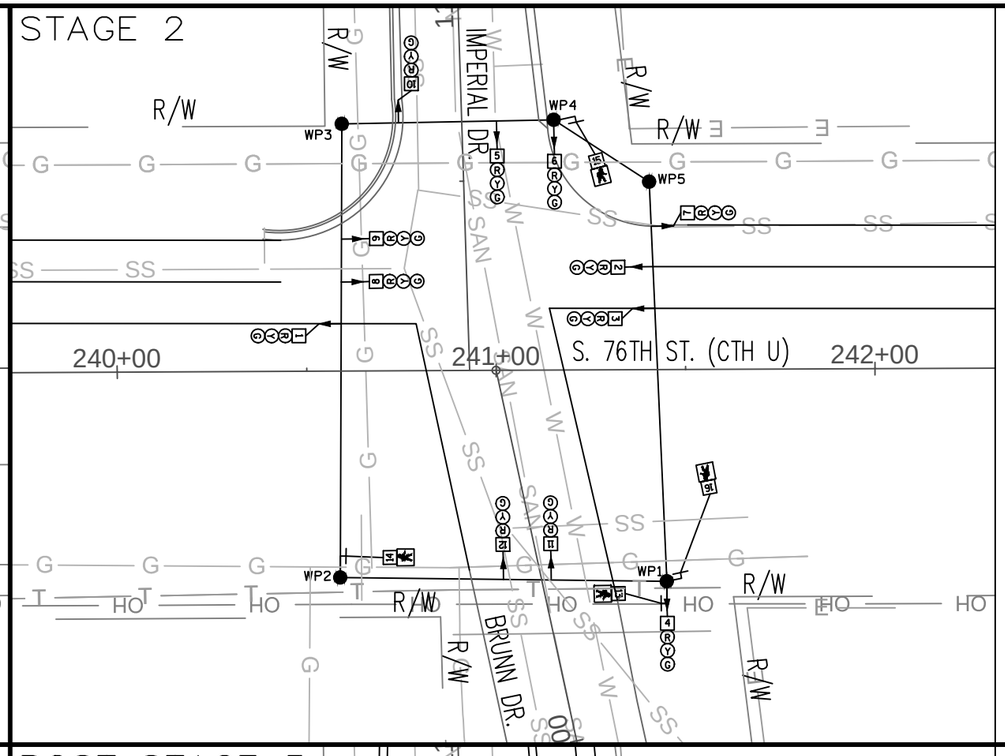
PROJECT NUMBER: 2610–10–70	HWY: S. 76th ST (CTH U)	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SCALE: 1" = 40'	SHEET NO: 168

REVISION DATE: 6/28/2011

H:\CADD\5070\5083\Traffic Engineering\C T H\U\CADD\2160–10–70_S 76th Puetz–Imperial\Cadd\U_IMPERIAL_SIGNAL REMOVALS.dwg

WISDOT/CADDS SHEET 40





NOTES:

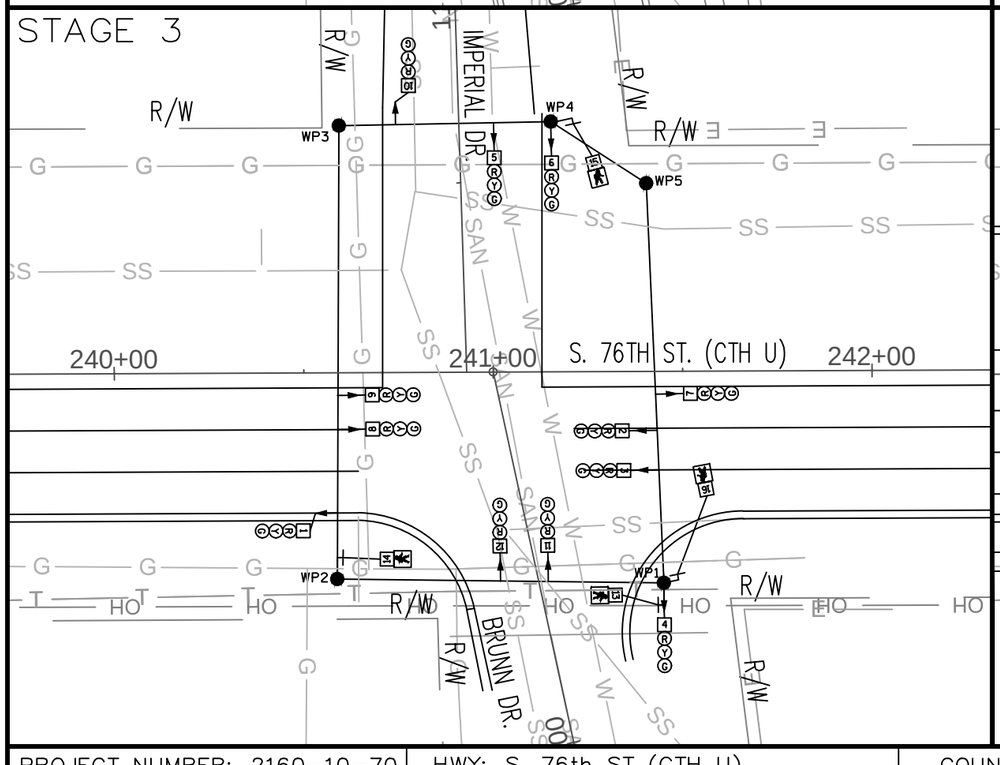
1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT LIMITS WHICH ARE NOT SHOWN.

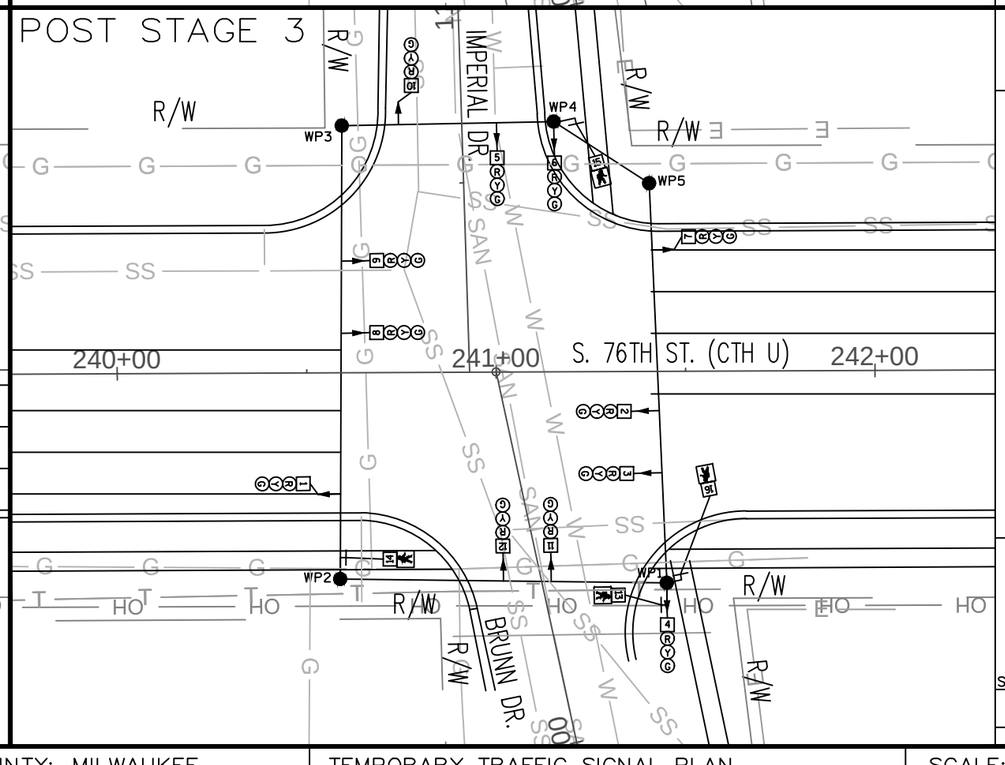
2) FINAL LOCATION OF ALL EQUIPMENT TO BE APPROVED BY THE ENGINEER.

3) NON–ELECTRICAL TEMPORARY TRAFFIC CONTROL HAS BEEN OMITTED FOR CLARITY, SEE THE TEMPORARY TRAFFIC CONTROL PLAN FOR THE LOCATION OF OTHER TEMPORARY TRAFFIC CONTROL EQUIPMENT.

4) PRE–STAGE, IF REQUIRED, SHALL FOLLOW STAGE 1 PLANS.

5) THE PROPOSED SIGNAL SHALL PASS INSPECTION PRIOR TO THE SCHEDULING OF THE TURN OFF OF THE TEMPORARY SIGNAL.





LEGEND

- OVERHEAD SIGNAL WIRE
- SIGNAL HEAD, SIGNAL POLE MOUNTED
- SIGNAL HEAD, SIGNAL POLE MOUNTED
- PEDESTRIAN HEAD
- PEDESTRIAN PUSH BUTTON
- SIGNAL HEAD NUMBER
- MOUNTING CONFIGURATION
- 12" VEHICULAR HEADS
- 12" OR 16" PEDESTRIAN HEAD

TEMPORARY TRAFFIC CONTROL SIGNAL

CTH U (S. 76th STREET) &
W. IMPERIAL DR./W. BRUNN DR.
CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. MC071

MILWAUKEE COUNTY DOT

PAGE 1 OF 1

REVISION DATE: 7/8/2013

PROJECT NUMBER: 2160–10–70	HWY: S. 76th ST (CTH U)	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN	SCALE: 1" = 40'	SHEET NO: 169

H:\CADD\5070\5083\Traffic Engineering\C T H\U\CADD\2160–10–70_S 76th Puetz–Imperial\Cadd\U_TEMP_SIG.dwg

WISDOT/CADDS SHEET 40

LEGEND

- CONTROL CABINET
- VIDEO DETECTION ZONE
- VIDEO DETECTION CAMERA
- RIGID NONMETALLIC CONDUIT–3" EXCEPT AS NOTED
- COMMUNICATION VAULT 24 X 36–INCH
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- SIGNAL HEAD, SIGNAL POLE MOUNTED
- PEDESTRIAN HEAD
- PEDESTRIAN PUSH BUTTON
- SIGNAL HEAD NUMBER
- MOUNTING CONFIGURATION
- 12" VEHICULAR HEADS
- 16" PEDESTRIAN HEAD WITH COUNTDOWN INDICATION
- MONOTUBE POLE TYPE 12 OR 13, 35'–55' ARM, TYPE 13 BASE
- MONOTUBE POLE TYPE 9 OR 10, 15'–30' ARM, TYPE 10 BASE
- LED LUMINARE

NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT LIMITS WHICH ARE NOT SHOWN.

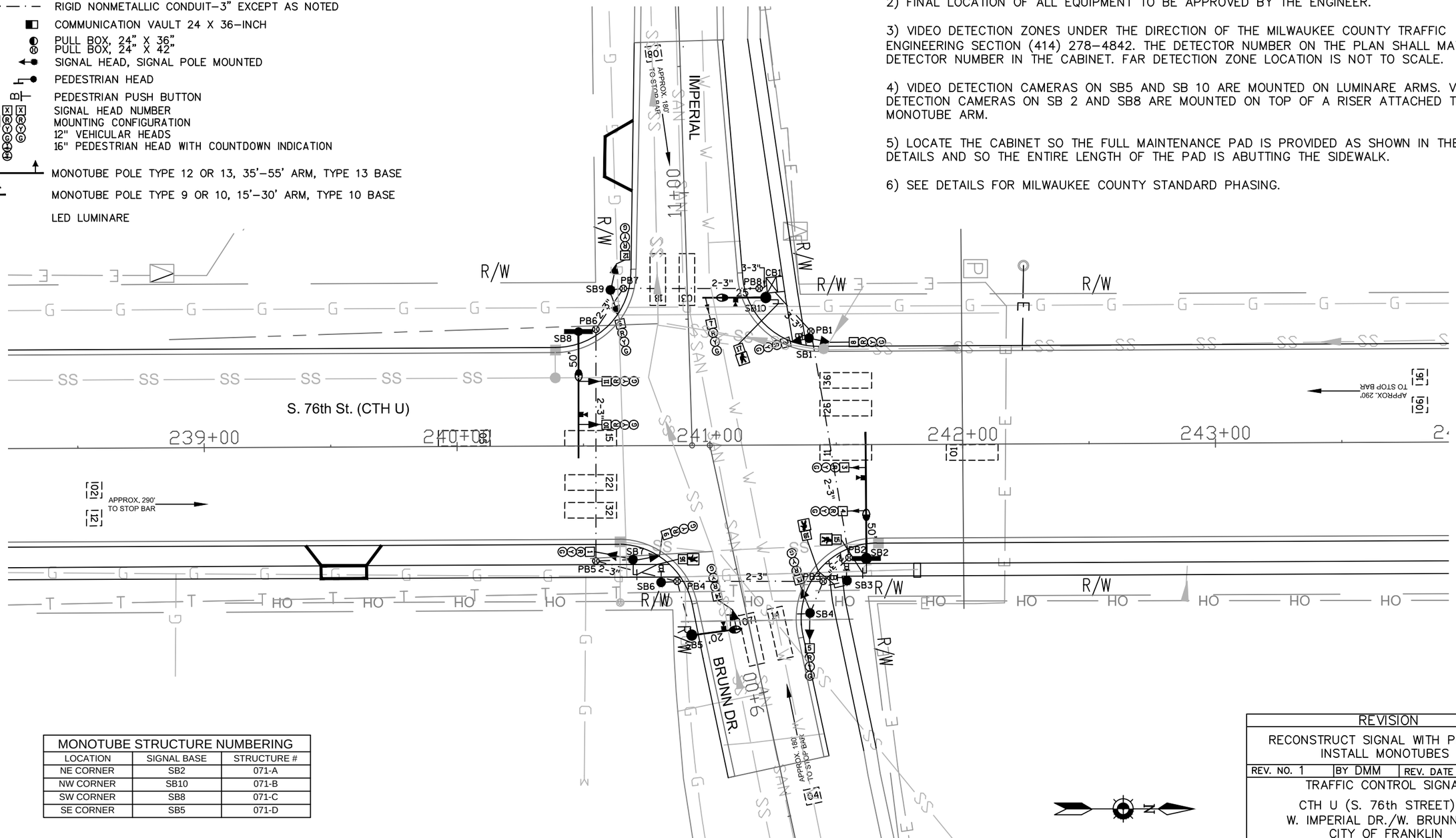
2) FINAL LOCATION OF ALL EQUIPMENT TO BE APPROVED BY THE ENGINEER.

3) VIDEO DETECTION ZONES UNDER THE DIRECTION OF THE MILWAUKEE COUNTY TRAFFIC ENGINEERING SECTION (414) 278–4842. THE DETECTOR NUMBER ON THE PLAN SHALL MATCH THE DETECTOR NUMBER IN THE CABINET. FAR DETECTION ZONE LOCATION IS NOT TO SCALE.

4) VIDEO DETECTION CAMERAS ON SB5 AND SB 10 ARE MOUNTED ON LUMINARE ARMS. VIDEO DETECTION CAMERAS ON SB 2 AND SB8 ARE MOUNTED ON TOP OF A RISER ATTACHED TO THE MONOTUBE ARM.

5) LOCATE THE CABINET SO THE FULL MAINTENANCE PAD IS PROVIDED AS SHOWN IN THE DETAILS AND SO THE ENTIRE LENGTH OF THE PAD IS ABUTTING THE SIDEWALK.

6) SEE DETAILS FOR MILWAUKEE COUNTY STANDARD PHASING.



MONOTUBE STRUCTURE NUMBERING		
LOCATION	SIGNAL BASE	STRUCTURE #
NE CORNER	SB2	071-A
NW CORNER	SB10	071-B
SW CORNER	SB8	071-C
SE CORNER	SB5	071-D

REVISION
RECONSTRUCT SIGNAL WITH PROJECT INSTALL MONOTUBES
REV. NO. 1 | BY DMM | REV. DATE MM/DD/11

TRAFFIC CONTROL SIGNAL

CTH U (S. 76th STREET) &
W. IMPERIAL DR./W. BRUNN DR.
CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. MC071

MILWAUKEE COUNTY DOT

PAGE 1 OF 1

PROJECT NUMBER: 2160–10–70	HWY: S. 76th ST (CTH U)	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SCALE: 1" = 40'	SHEET NO: 170

REVISION DATE: 8/29/2013

H:\CADD\5070\5083\Traffic Engineering\C T H\U\CADD\2160–10–70_S 76th Puetz–Imperial\Cadd\U_IMPERIAL_SIGNAL PROPOSED.dwg

WISDOT/CADDS SHEET 40

PROJECT ID:	2160-10-70
INTERSECTION:	CTH U (S. 76TH ST) & IMPERIAL DR

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	# OF COND.	HEAD NO.	PHASE	SIGNAL INDICATION WIRE COLOR								PED BUTTON	OTHER
				RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	D/WALK	WALK		
SB1	12	8	6	RED/BLK	ORG/BLK	GRN/BLK							
		2	2	RED	ORG	GRN							
		B	4									WHT/BLK	
SB2	12	3	2	RED	ORG	GRN							
		4	2	RED	ORG	GRN							
		15	2							BLU	BLK		
SB3	12	18	4							BLU	BLK		
		B	4									WHT/BLK	
		B	2									RED	
SB4	12	13	8	RED	ORG	GRN							
		5	4	RED/BLK	ORG/BLK	GRN/BLK							
SB5	12	14	8	RED	ORG	GRN							
SB6	3	B	2									RED	
SB7	15	1	2	RED	ORG	GRN							
		9	6	RED/BLK	ORG/BLK	GRN/BLK							
		16	2							BLU	BLK		
SB8	12	10	6	RED	ORG	GRN							
		11	6	RED	ORG	GRN							
SB9	12	6	4	RED/BLK	ORG/BLK	GRN/BLK							
		12	8	RED	ORG	GRN							
SB10	12	7	4	RED	ORG	GRN							
		17	4							BLU	BLK		

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP AND NEUTRAL CONDUCTOR 10 AWG WHT XLP	
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
PB1	SB1
PB2	SB2
PB2	SB3
PB3	SB4
PB4	SB5
PB4	SB6
PB5	SB7
PB6	SB8
PB7	SB9
PB8	SB10

NOTES:

1. DO NOT USE THE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL OF THE PEDESTRIAN BUTTON TO THE COLOR INDICATED IN THE CHART, CONNECT THE OTHER TERMINAL TO THE WHITE CONDUCTOR IN THE SIGNAL CABLE

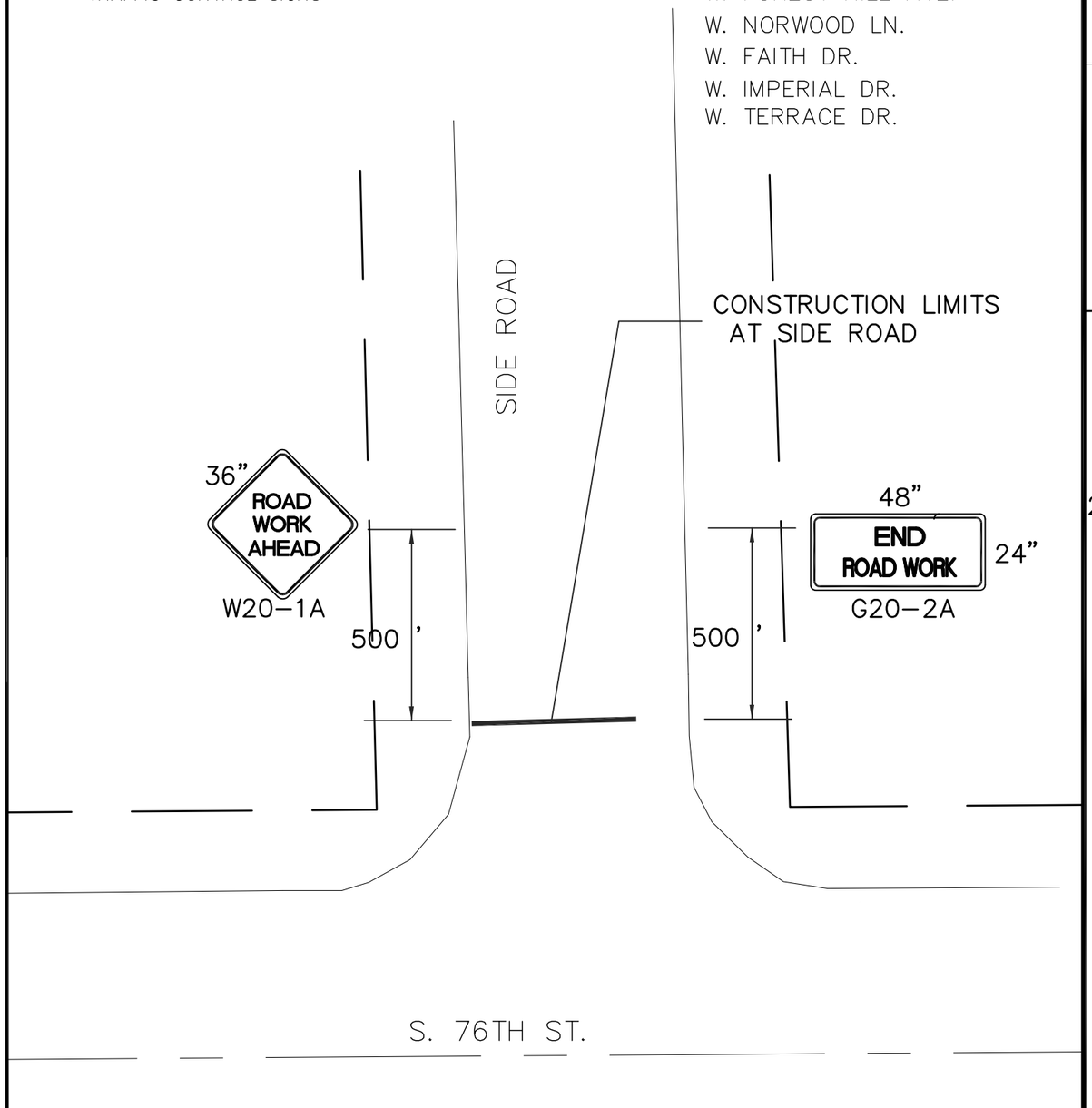
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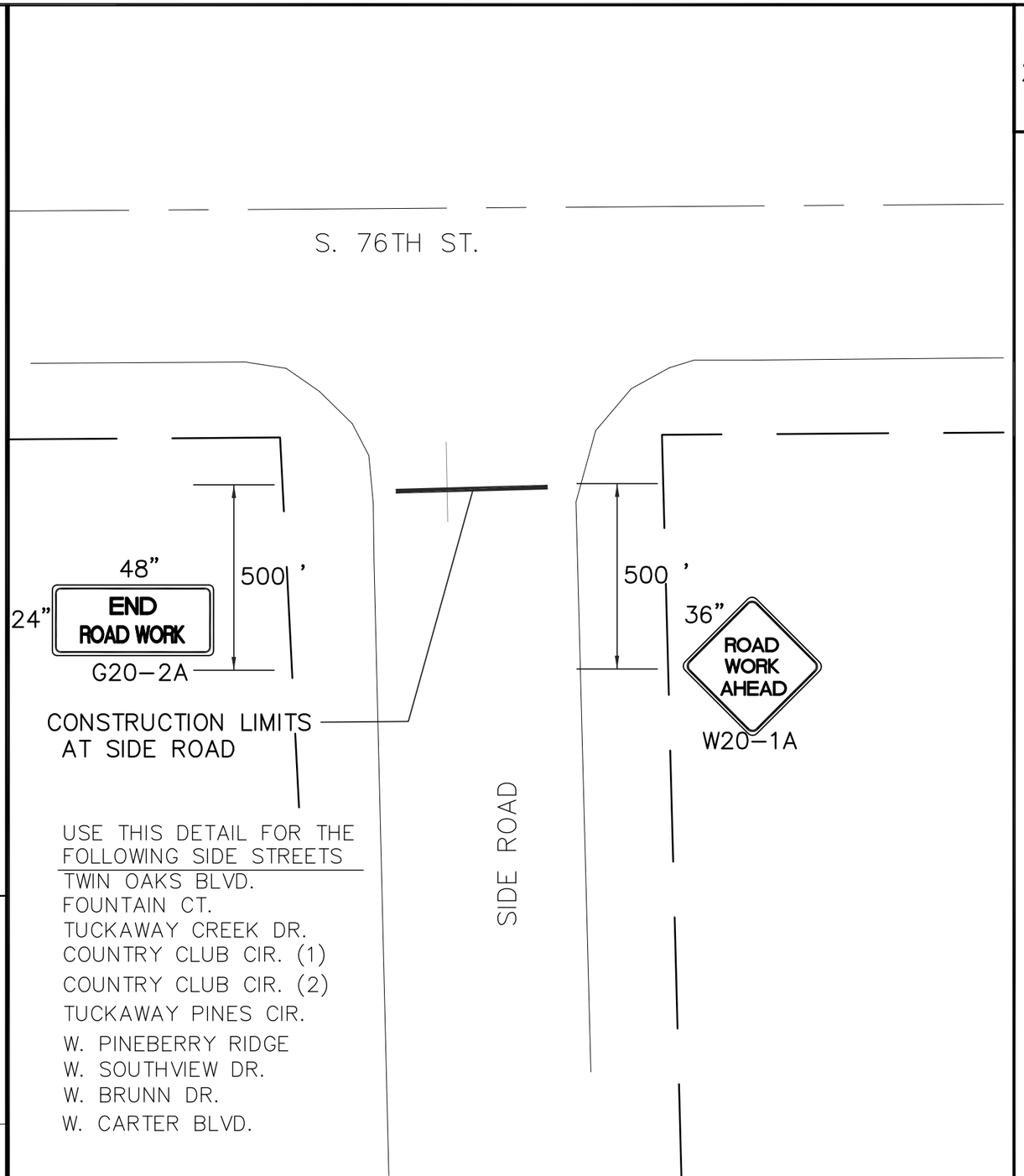
GENERAL NOTES

1. ACCESS TO ALL PROPERTIES SHALL BE MAINTAINED DURING CONSTRUCTION
2. ALL SIGNS SHALL BE PLACED ON PORTABLE SUPPORTS THE COST OF THE SUPPORT IS INCIDENTAL TO THE ITEM "TRAFFIC CONTROL SIGNS"

USE THIS DETAIL FOR THE FOLLOWING SIDE STREETS

W. MARGARET LN.
W. LAKE POINTE DR.
TUCKAWAY SHORES DR.
W. FOREST HILL AVE.
W. NORWOOD LN.
W. FAITH DR.
W. IMPERIAL DR.
W. TERRACE DR.





USE THIS DETAIL FOR THE FOLLOWING SIDE STREETS

TWIN OAKS BLVD.
FOUNTAIN CT.
TUCKAWAY CREEK DR.
COUNTRY CLUB CIR. (1)
COUNTRY CLUB CIR. (2)
TUCKAWAY PINES CIR.
W. PINEBERRY RIDGE
W. SOUTHVIEW DR.
W. BRUNN DR.
W. CARTER BLVD.

REVISION DATE: 01/04/13

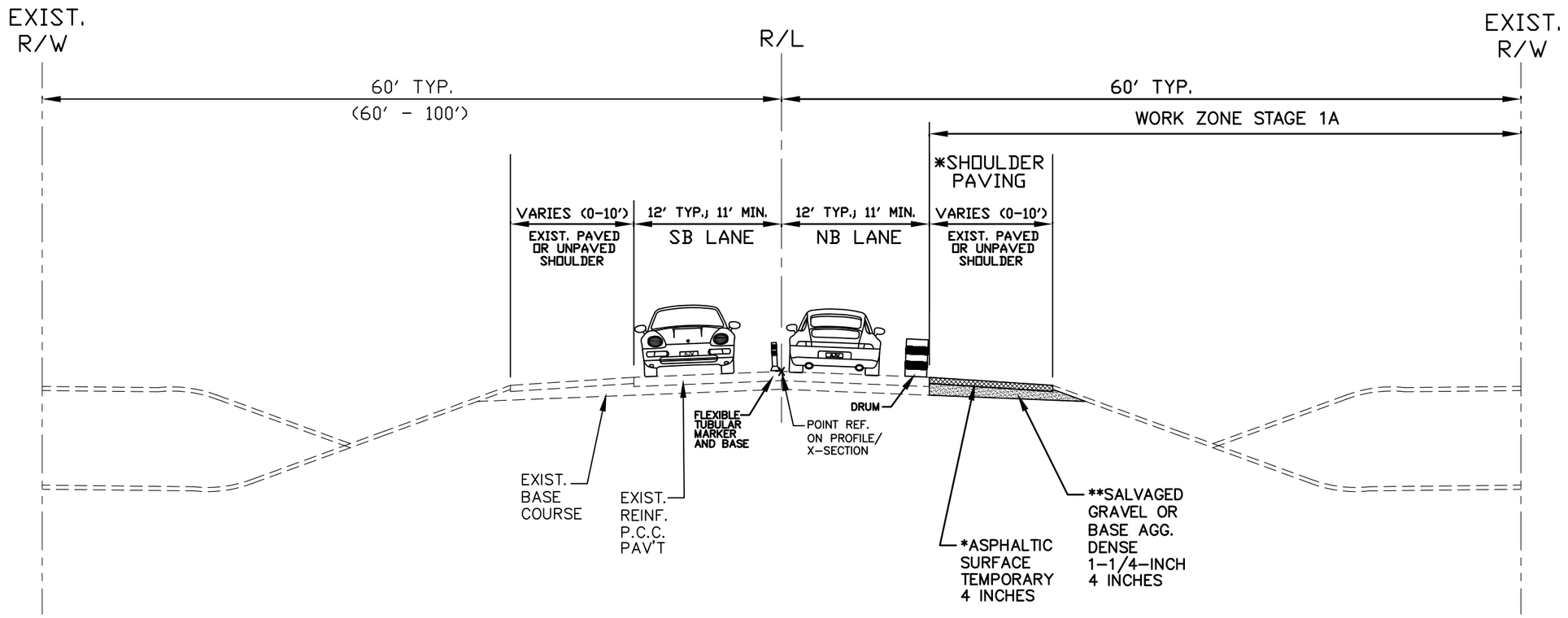
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL – ADVANCE WARNING MINOR SIDE ROADS	SCALE: N.T.S.	SHEET NO: 172	E

2

TRAFFIC CONTROL STAGING TYPICAL SECTION

STAGE 1A – NORTHBOUND S. 76TH ST. (CTH U) SHOULDER PAVING

2



TRAFFIC CONTROL STAGE 1A TYPICAL SECTION S. 76TH ST. (CTH U)

TEMPORARY SHOULDER PAVING

600' N. OF HIGH ST. TO CARTER BLVD.

(STATION 144+00 TO STATION 248+30)

* AT LOCATIONS WHERE THE EXISTING SHOULDER IS UNPAVED. SEE THE TRAFFIC CONTROL PLANS FOR LOCATIONS OF PAVING.

** WHEN EXIST. GRAVEL IS NOT SUITABLE TO BE SALVAGED AND USED, PLACE BASE AGG. DENSE 1-1/4 INCH AS DIRECTED BY THE ENGINEER.

*** MOVING OPERATIONS FOR TEMPORARY TRAFFIC CONTROL MAY BE REQUIRED FOR TEMPORARY SHOULDER PAVING. REFER TO TRAFFIC CONTROL S.D.D.'S FOR WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY AND FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATION).

NOTES

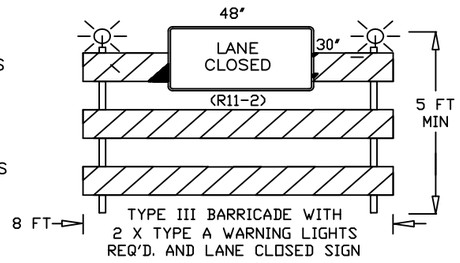
1). THE INTERSECTIONS OF W. PUETZ RD., W. DREXEL AVE. AND W. IMPERIAL DR. TO REMAIN OPEN TO TRAFFIC AT ALL TIMES.
2). SEE SPECIAL PROVISIONS.
3). SEE THE TRAFFIC CONTROL PLANS FOR LOCATION OF TEMPORARY SHOULDER WIDENING.

REVISION DATE: 12/17/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL – STAGE 1A TYPICAL SECTION	SCALE: NTS	SHEET NO: E

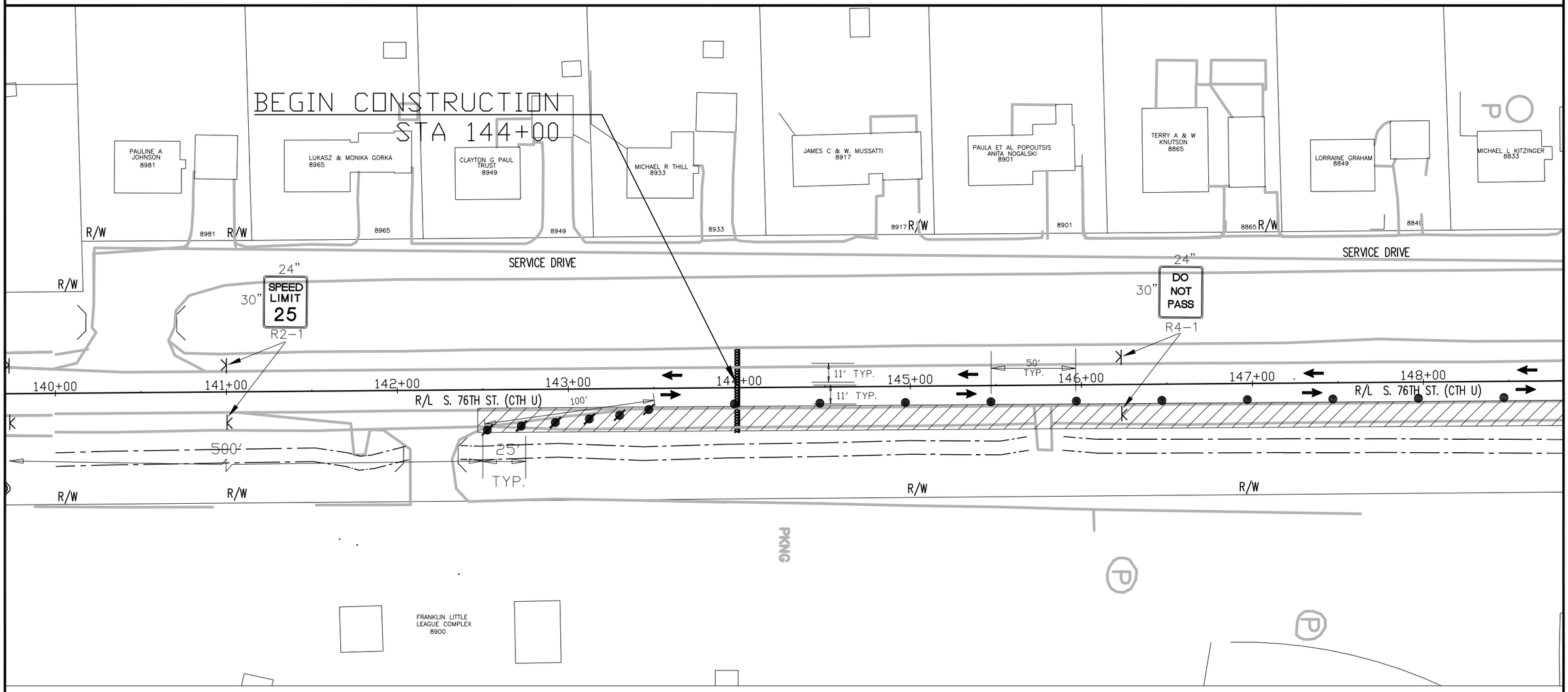
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LEGEND

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- TYPE III BARRICADES WITH / WITHOUT SIGN AND TWO TYPE "A" WARNING LIGHTS (SEE DETAIL THIS SHEET)
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- SIGN ON PERMANENT SIGN POST
- ARROW BOARD
- TRAFFIC FLOW (FOR INFORMATION ONLY)
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TRAFFIC CONTROL - STAGE 1A

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SCALE: 1" = 50'	SHEET NO:

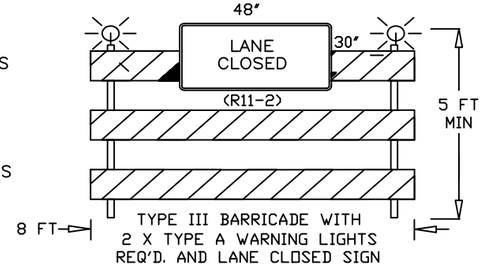
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WISDOT/CADDS SHEET 40

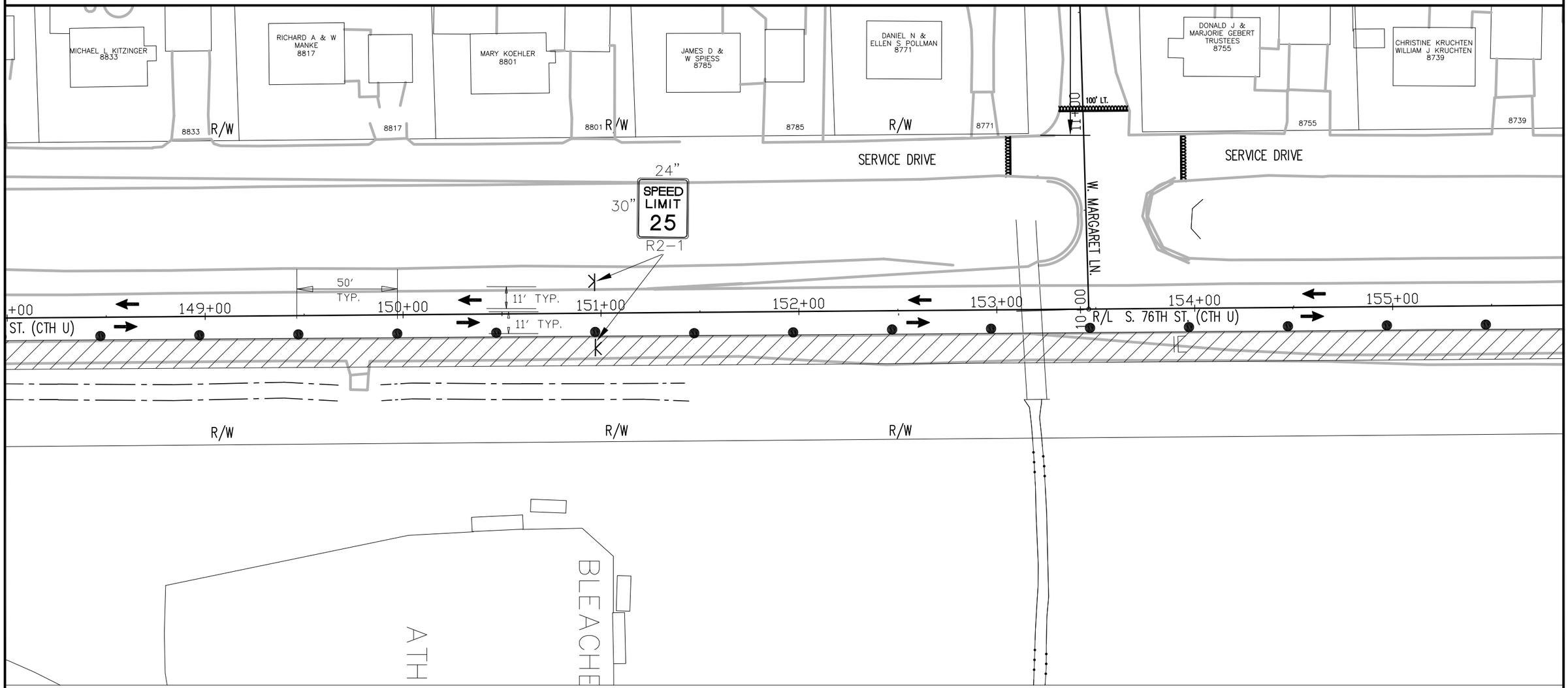
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TRAFFIC CONTROL - STAGE 1A

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SCALE: 1" = 50'	SHEET NO: E

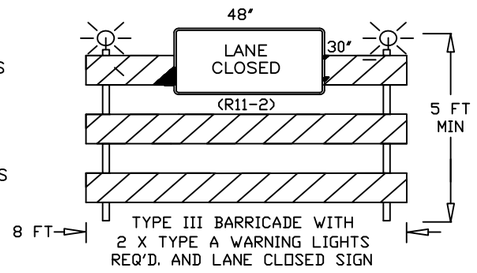
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WISDOT/CADDS SHEET 40

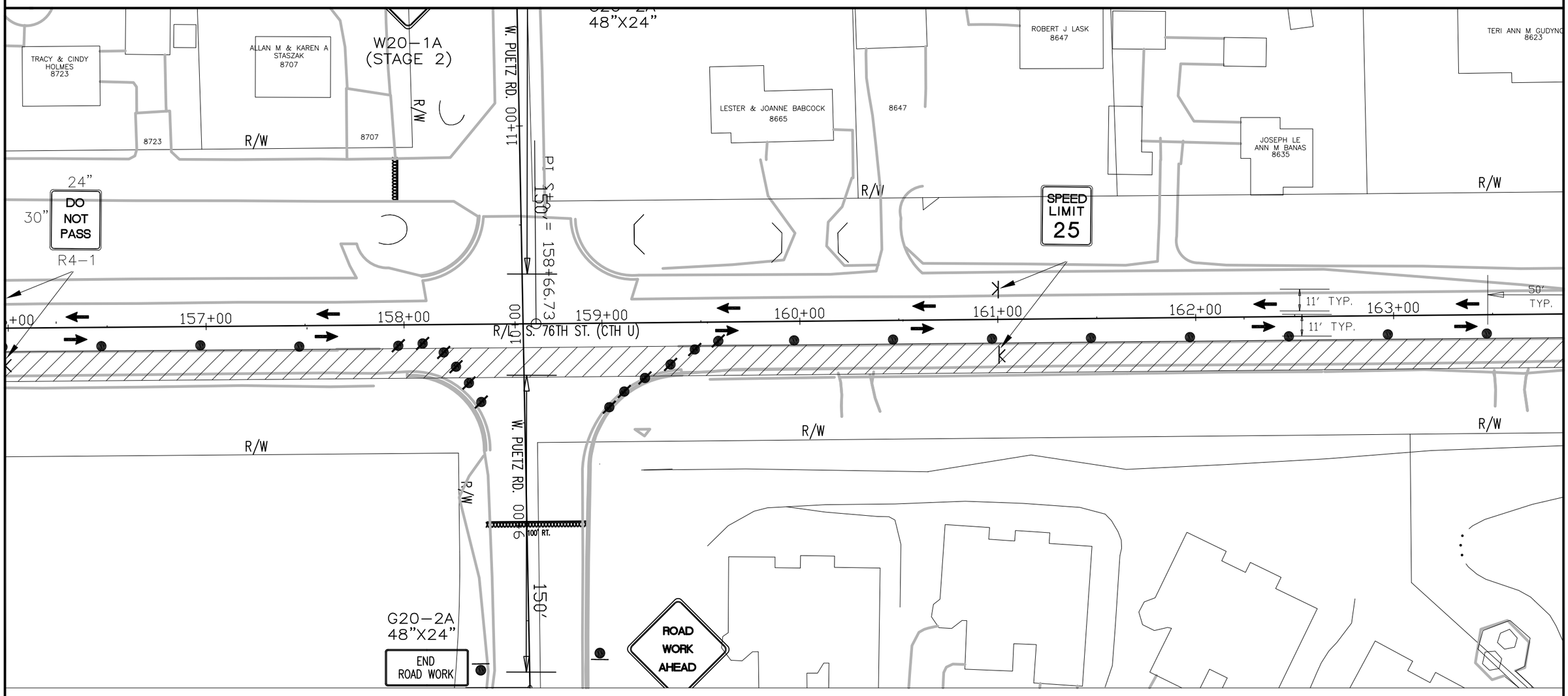
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TRAFFIC CONTROL - STAGE 1A

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SCALE: 1" = 50'	SHEET NO:

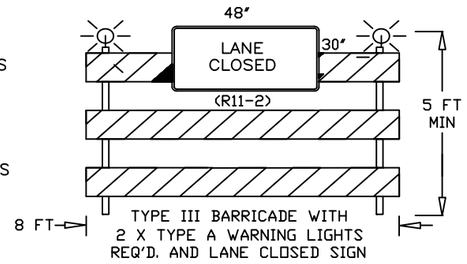
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WISDOT/CADDS SHEET 40

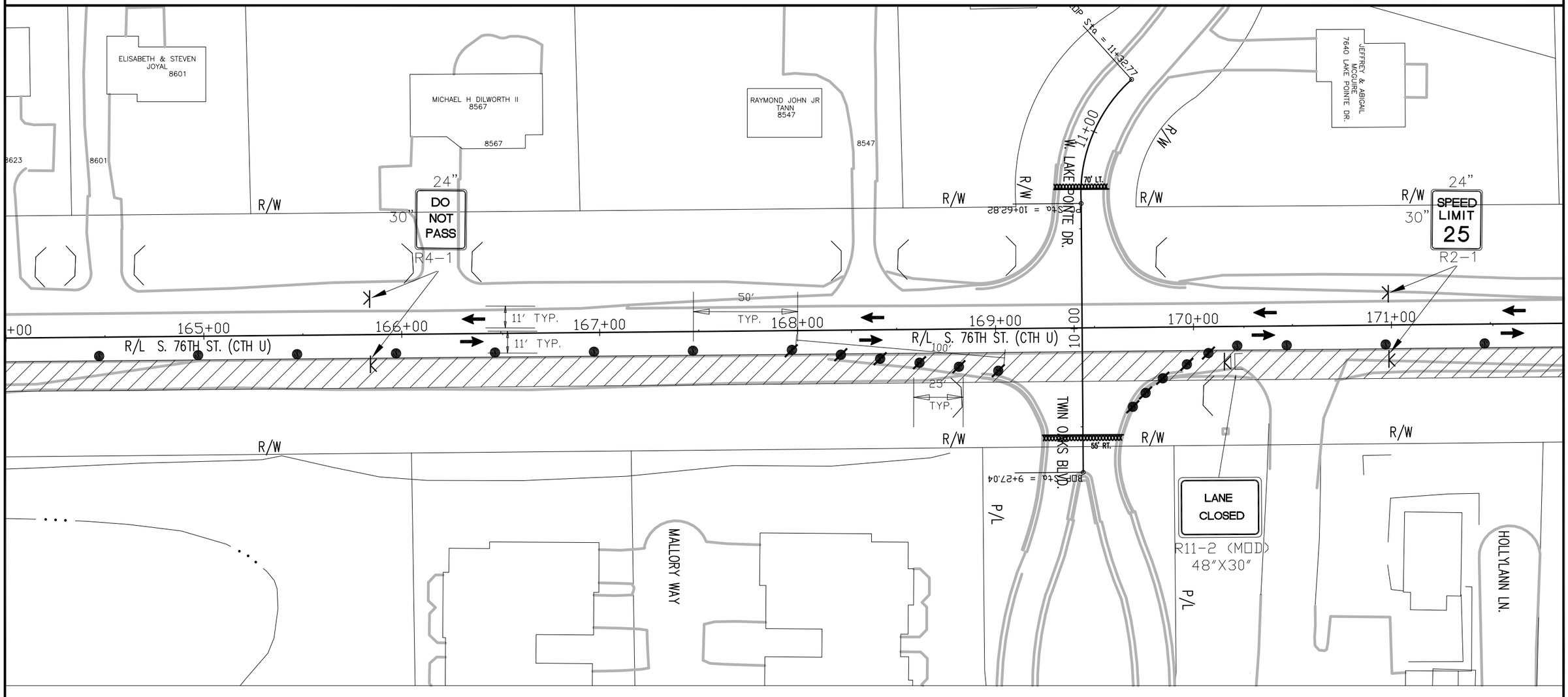
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TRAFFIC CONTROL - STAGE 1A

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SCALE: 1" = 50'	SHEET NO:

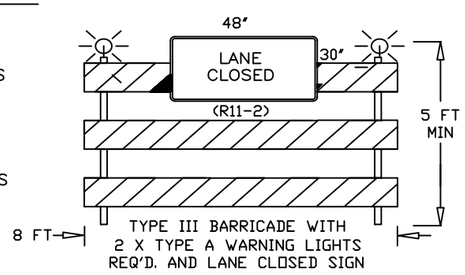
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WISDOT/CADDS SHEET 40

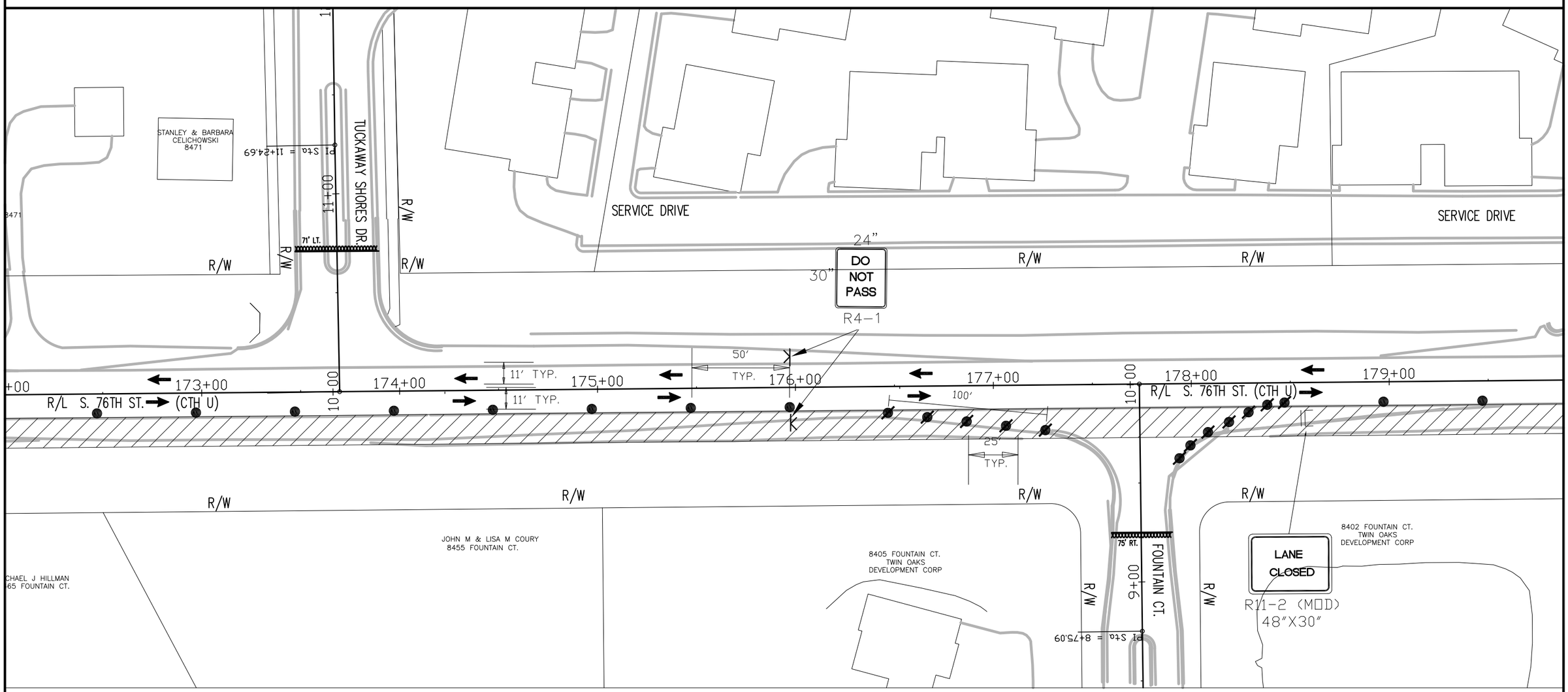
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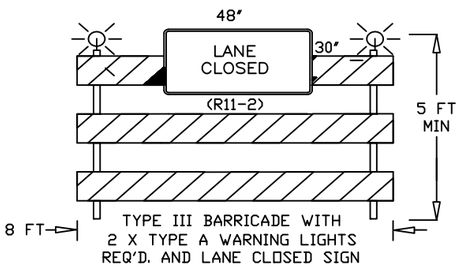
TRAFFIC CONTROL - STAGE 1A

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SCALE: 1" = 50'	SHEET NO:

REVISION DATE: 01/08/2013

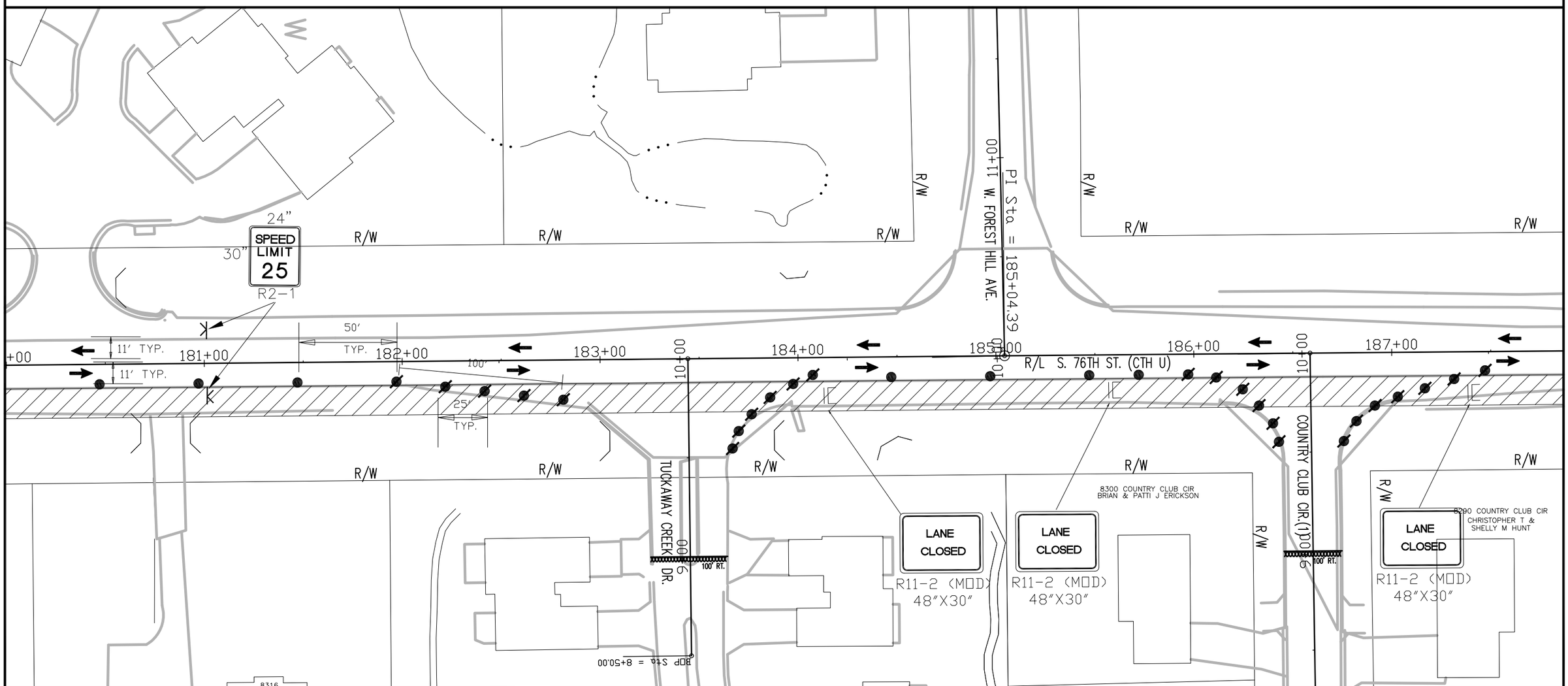
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TEMPORARY TRAFFIC CONTROL - STAGE 1A

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SCALE: 1" = 50'	SHEET NO:

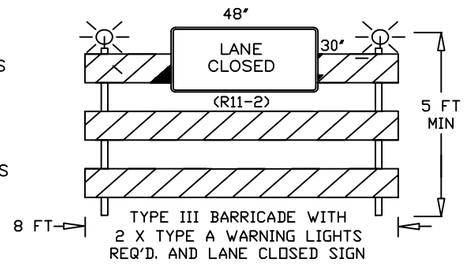
REVISION DATE: 01/08/2013

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WISDOT/CADDS SHEET 40

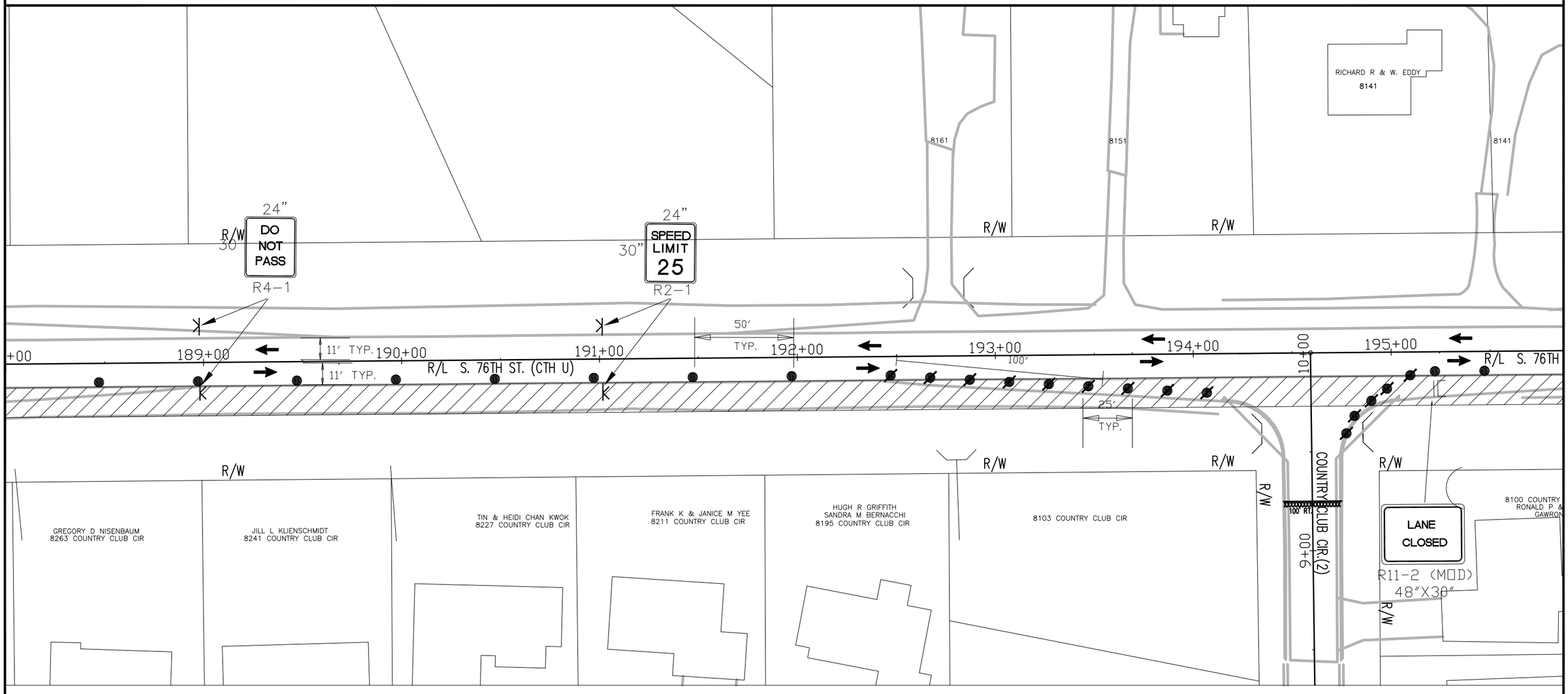
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TRAFFIC CONTROL - STAGE 1A

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SCALE: 1" = 50'	SHEET NO: E

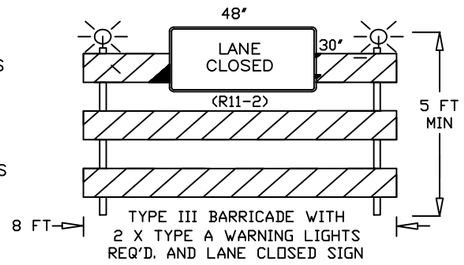
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WISDOT/CADDS SHEET 40

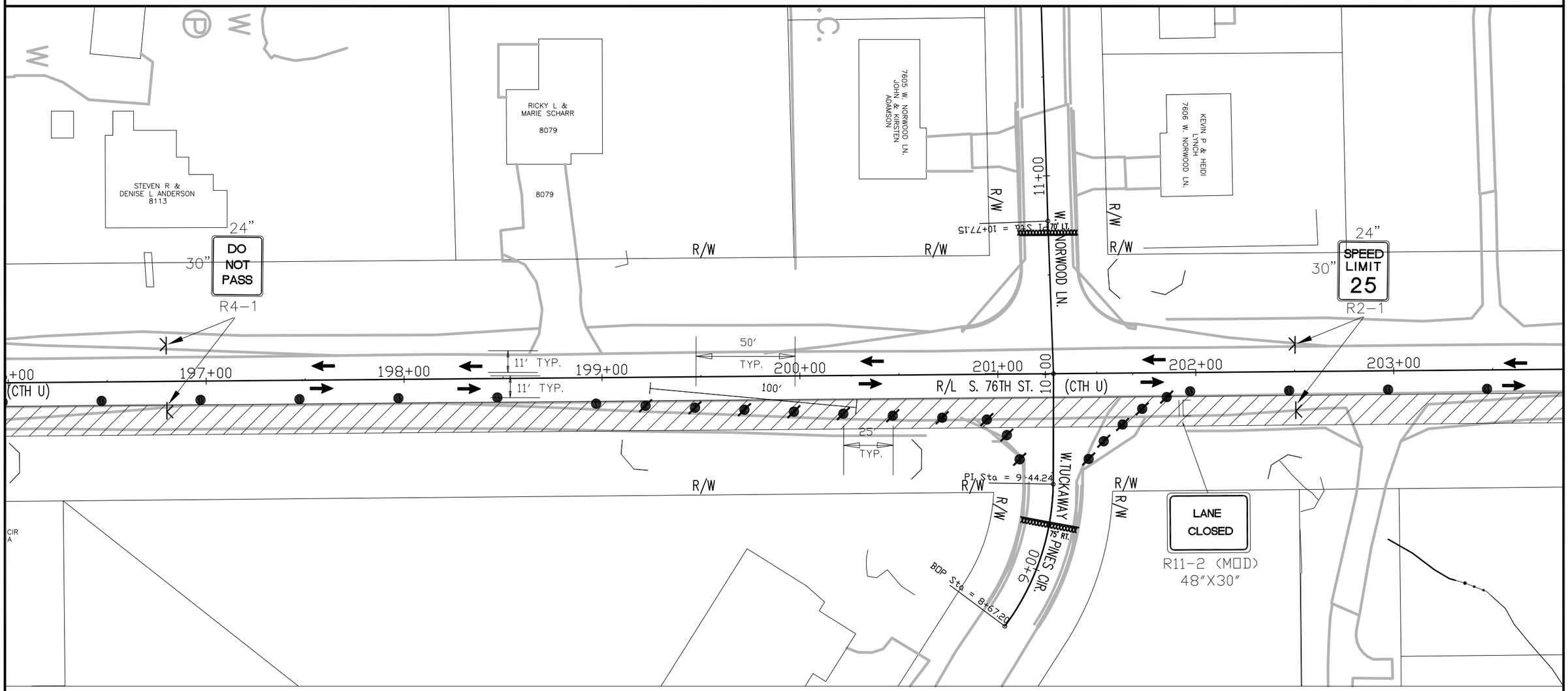
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LEGEND

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- TYPE III BARRICADES WITH / WITHOUT SIGN AND TWO TYPE "A" WARNING LIGHTS (SEE DETAIL THIS SHEET)
- TRAFFIC CONTROL DRUMS WITH/WITHOUT STEADY BURN TYPE "C" LIGHT
- SIGN ON PORTABLE SUPPORT
- SIGN ON PERMANENT SIGN POST
- ARROW BOARD
- TRAFFIC FLOW (FOR INFORMATION ONLY)
- FLEXIBLE TUBULAR MARKER POST AND BASE
- ASPHALT SURFACE TEMPORARY



TRAFFIC CONTROL - STAGE 1A

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SCALE: 1" = 50'	SHEET NO:

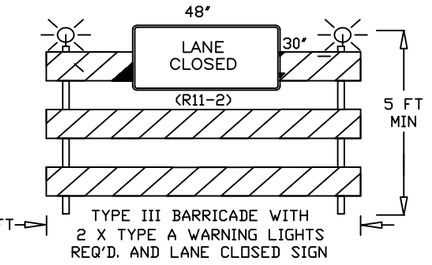
REVISION DATE: 01/08/2013

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WISDOT/CADDS SHEET 40

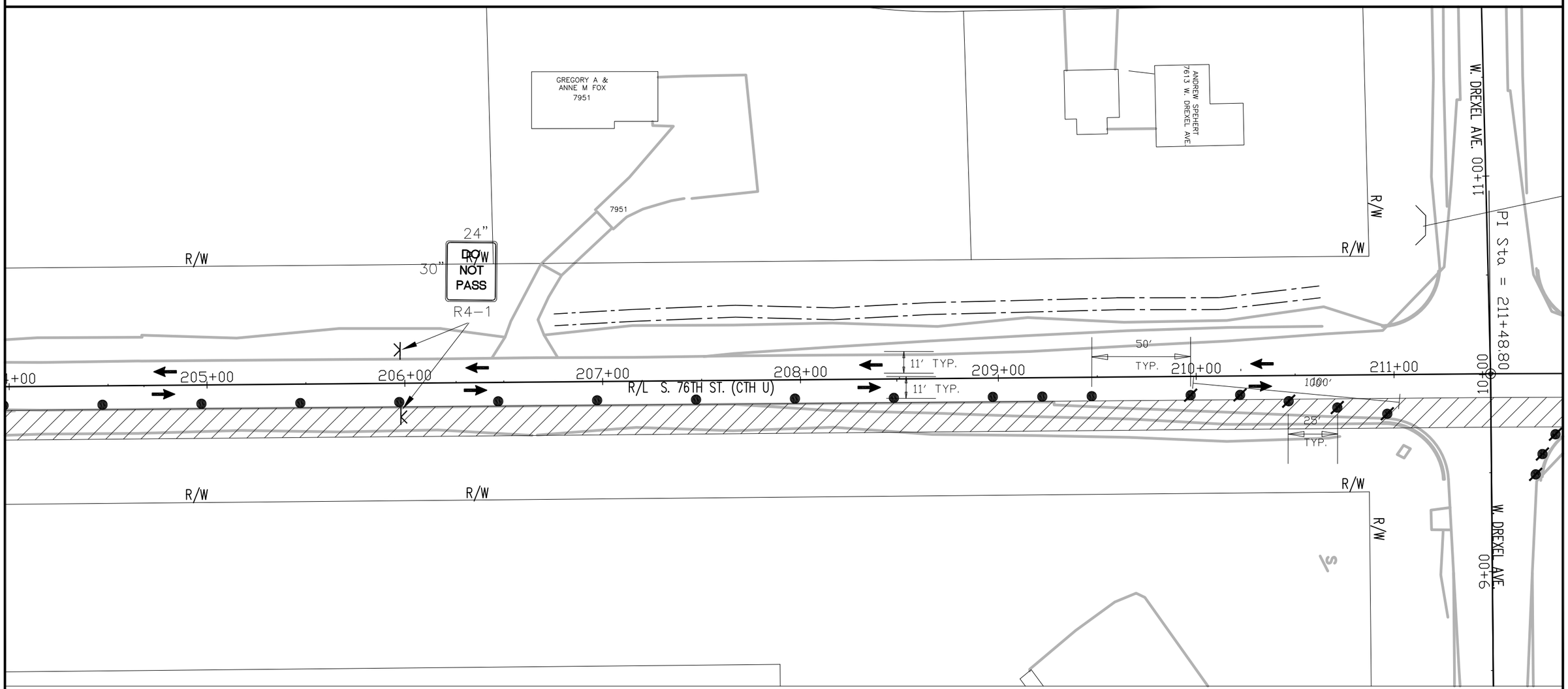
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TRAFFIC CONTROL - STAGE 1A

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SCALE: 1" = 50'	SHEET NO:

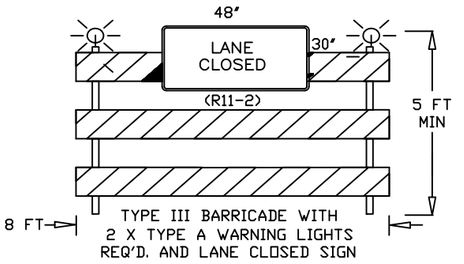
REVISION DATE: 01/08/2013

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WISDOT/CADDS SHEET 40

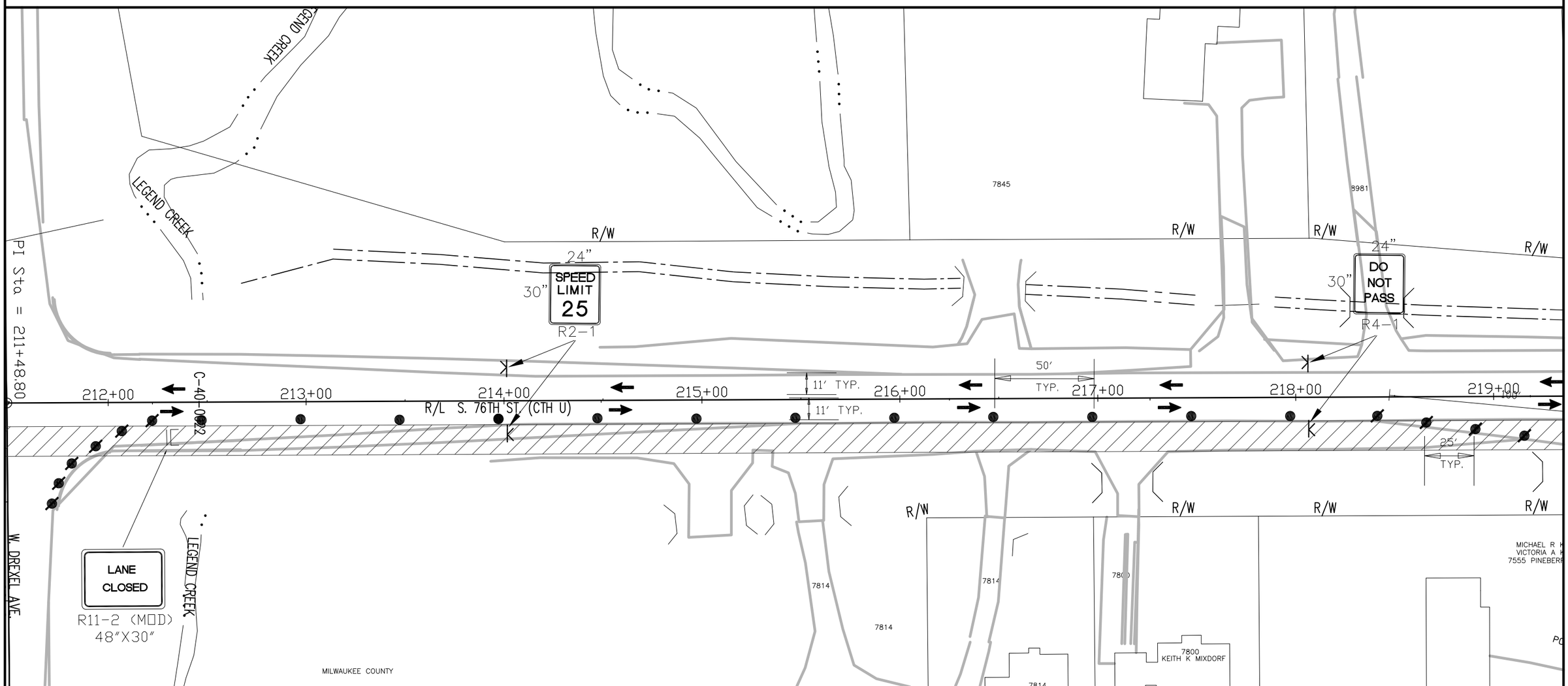
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TRAFFIC CONTROL - STAGE 1A

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SCALE: 1" = 50'	SHEET NO: E

REVISION DATE: 01/08/2013

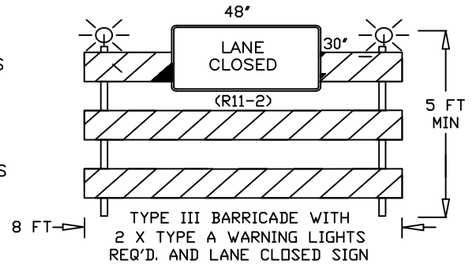
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WISDOT/CADDS SHEET 40

2

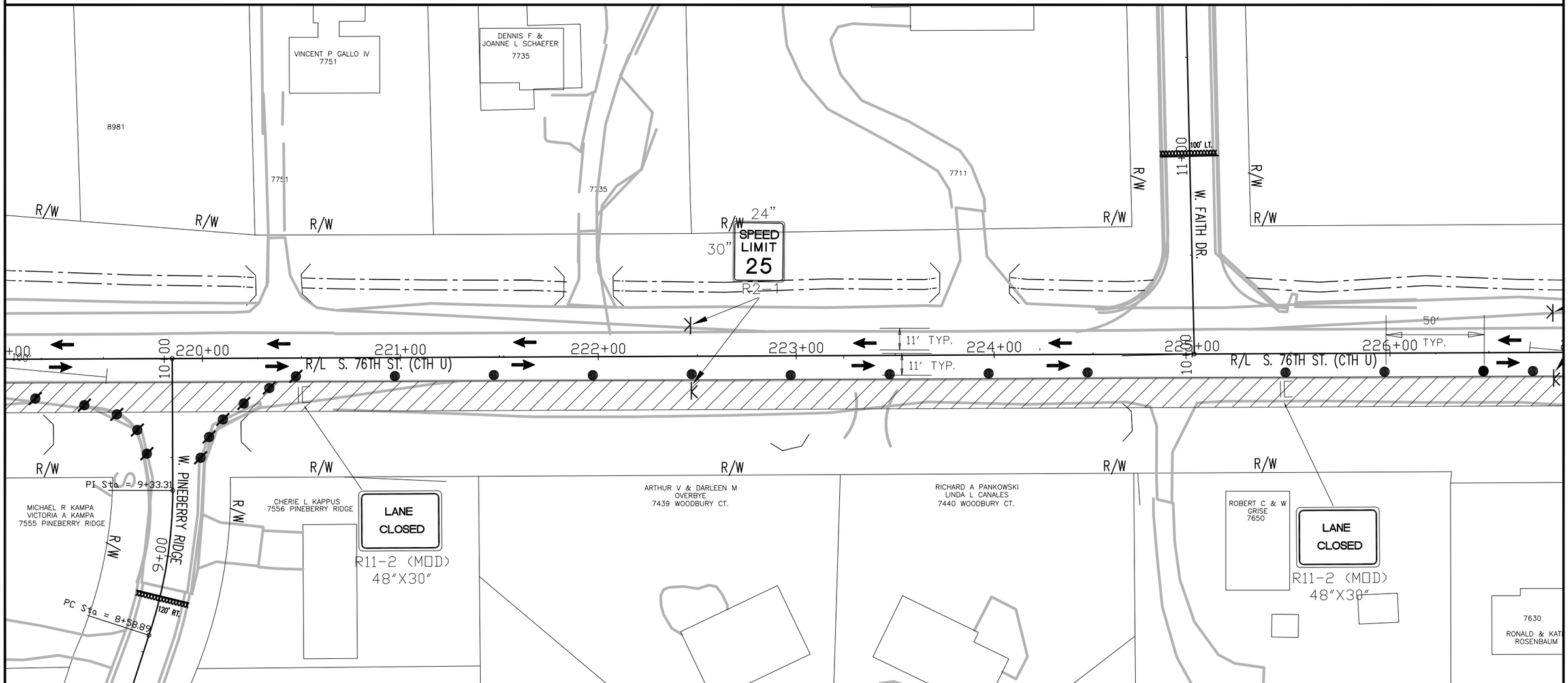
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TRAFFIC CONTROL - STAGE 1A

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SCALE: 1" = 50'	SHEET NO: E

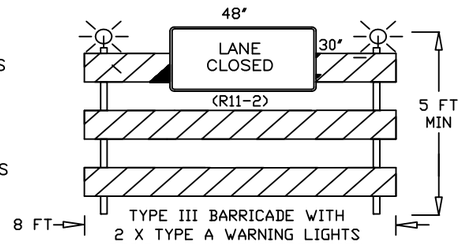
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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

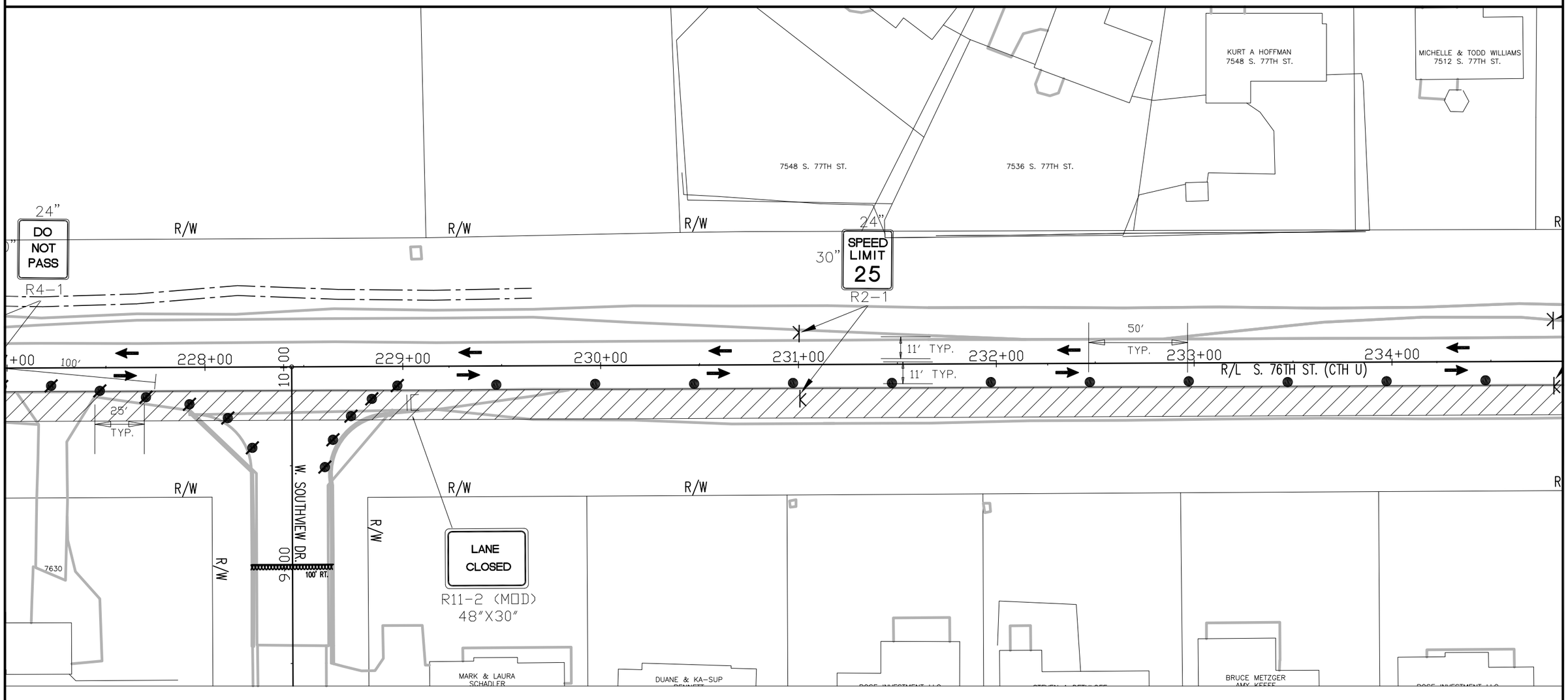
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TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

LEGEND

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TRAFFIC CONTROL - STAGE 1A

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SCALE: 1" = 50'	SHEET NO: E

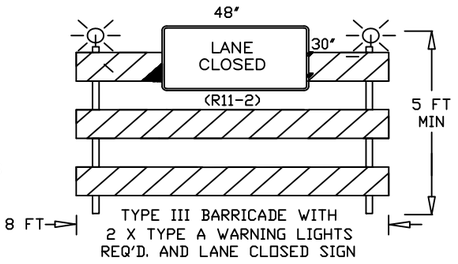
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WISDOT/CADDS SHEET 40

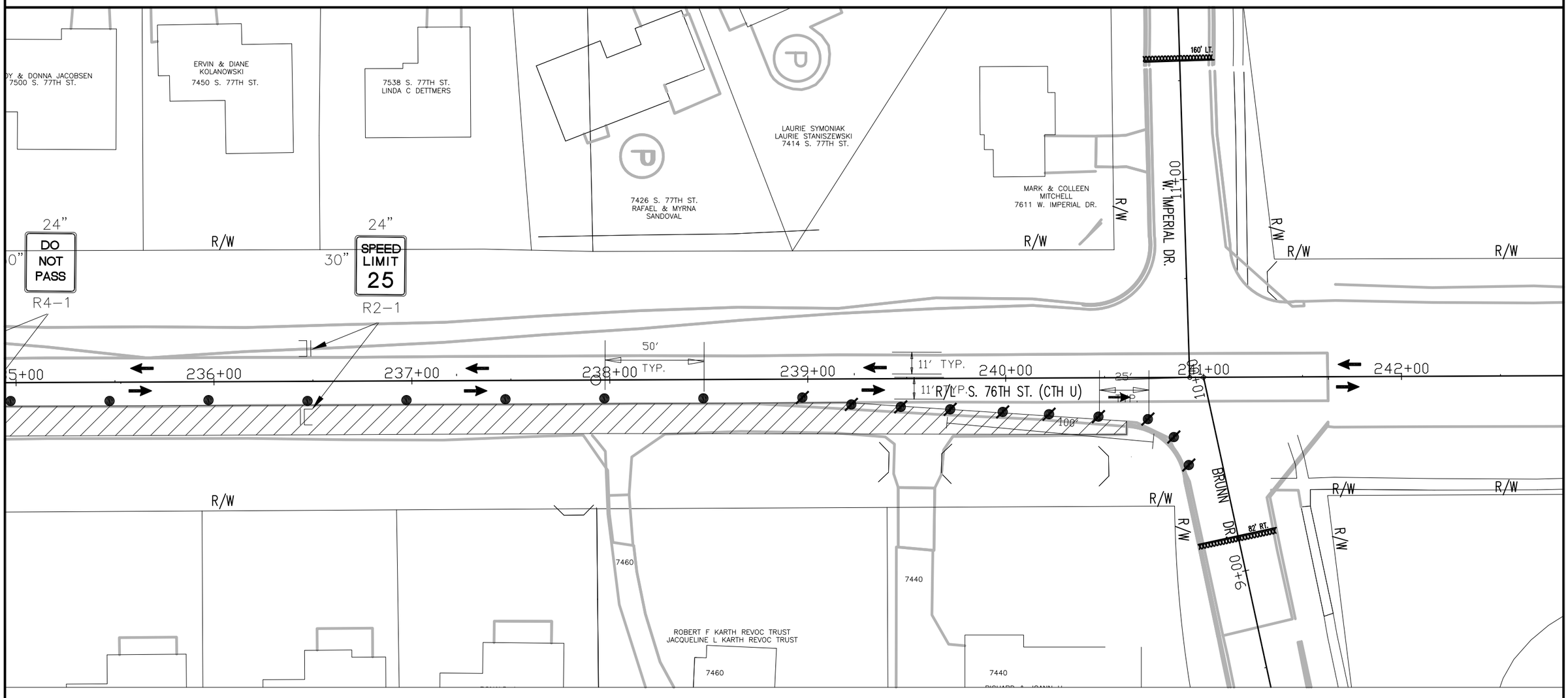
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REVISION DATE: 01/08/2013

TRAFFIC CONTROL - STAGE 1A

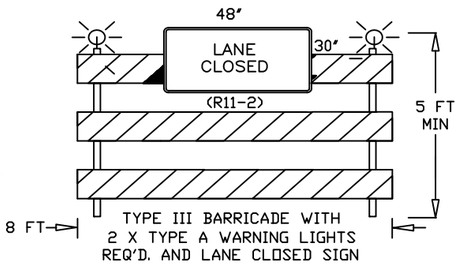
STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SCALE: 1" = 50'	SHEET NO: E

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WISDOT/CADDS SHEET 40

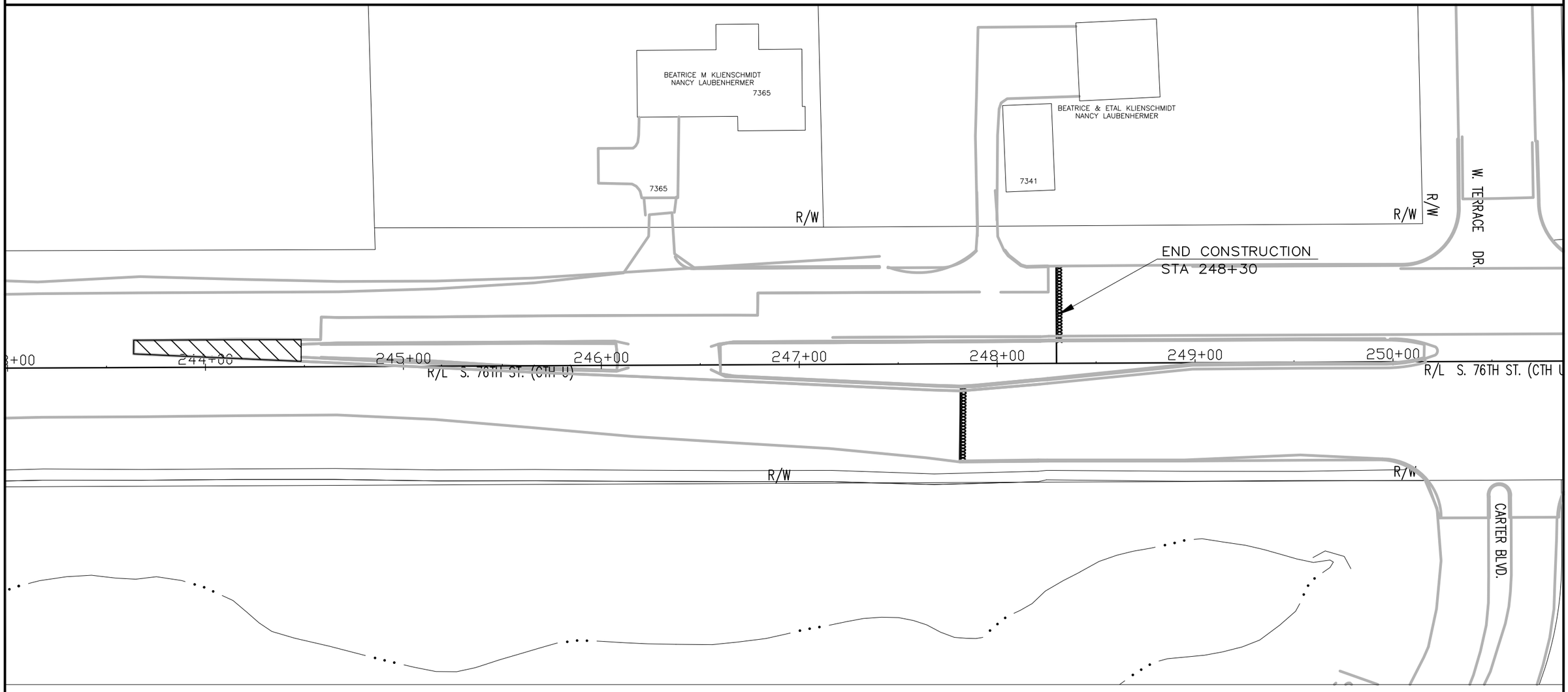
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TRAFFIC CONTROL - STAGE 1A

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SCALE: 1" = 50'	SHEET NO:

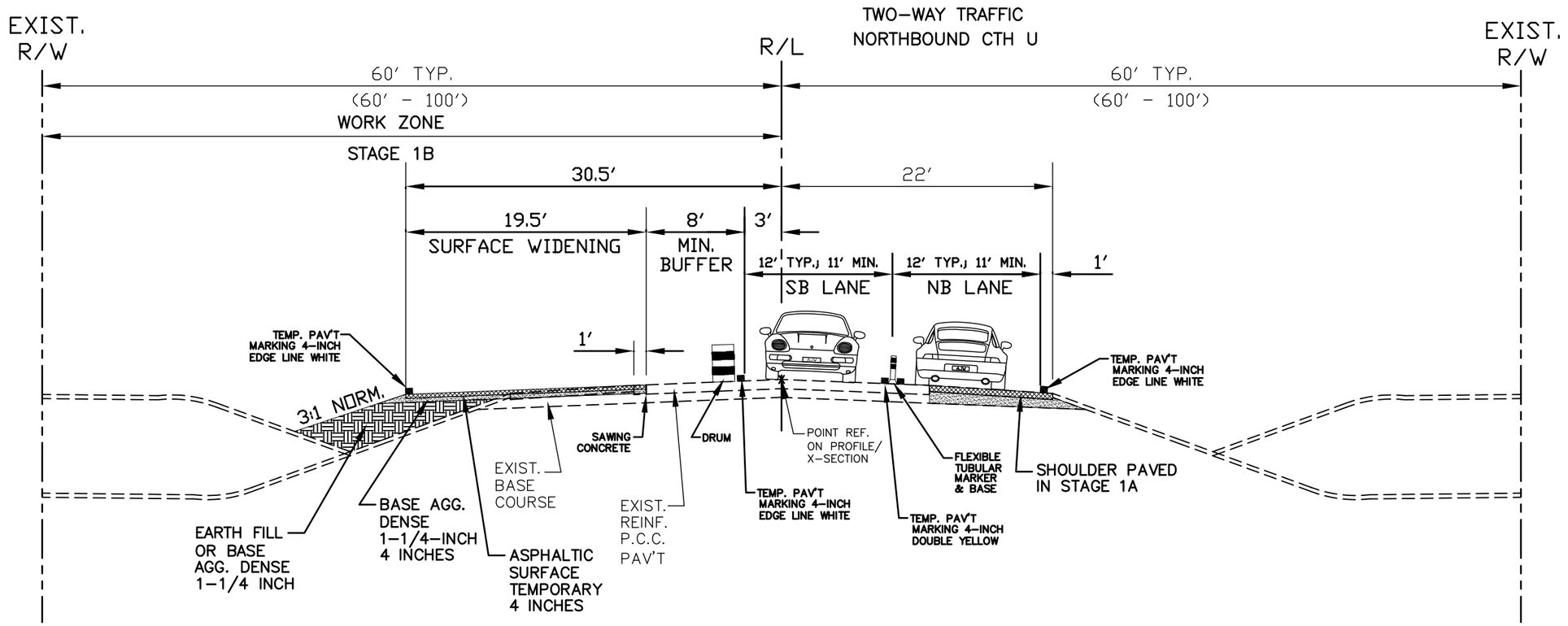
REVISION DATE: 01/08/2013

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WISDOT/CADDS SHEET 40

TRAFFIC CONTROL STAGING TYPICAL SECTIONS

STAGE 1B - SOUTHBOUND TEMPORARY SURFACE WIDENING



TRAFFIC CONTROL STAGE 1B TYPICAL SECTION S. 76TH ST. (CTH U)

TEMPORARY SURFACE WIDENING
600' N. OF HIGH ST. TO CARTER BLVD.
(STATION 144+00 TO STATION 248+30)

NOTES

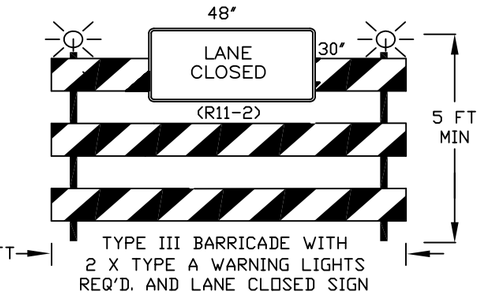
1). THE INTERSECTIONS OF W. PUETZ RD., W. DREXEL AVE. AND W. IMPERIAL DR. TO REMAIN OPEN TO TRAFFIC AT ALL TIMES.
2). SEE SPECIAL PROVISIONS.
3). SEE THE TRAFFIC CONTROL PLANS FOR DETAILS.

REVISION DATE: 12/17/2012

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL – STAGE 1B TYPICAL SECTION	SCALE: NTS	SHEET NO: E

GENERAL TRAFFIC CONTROL NOTES

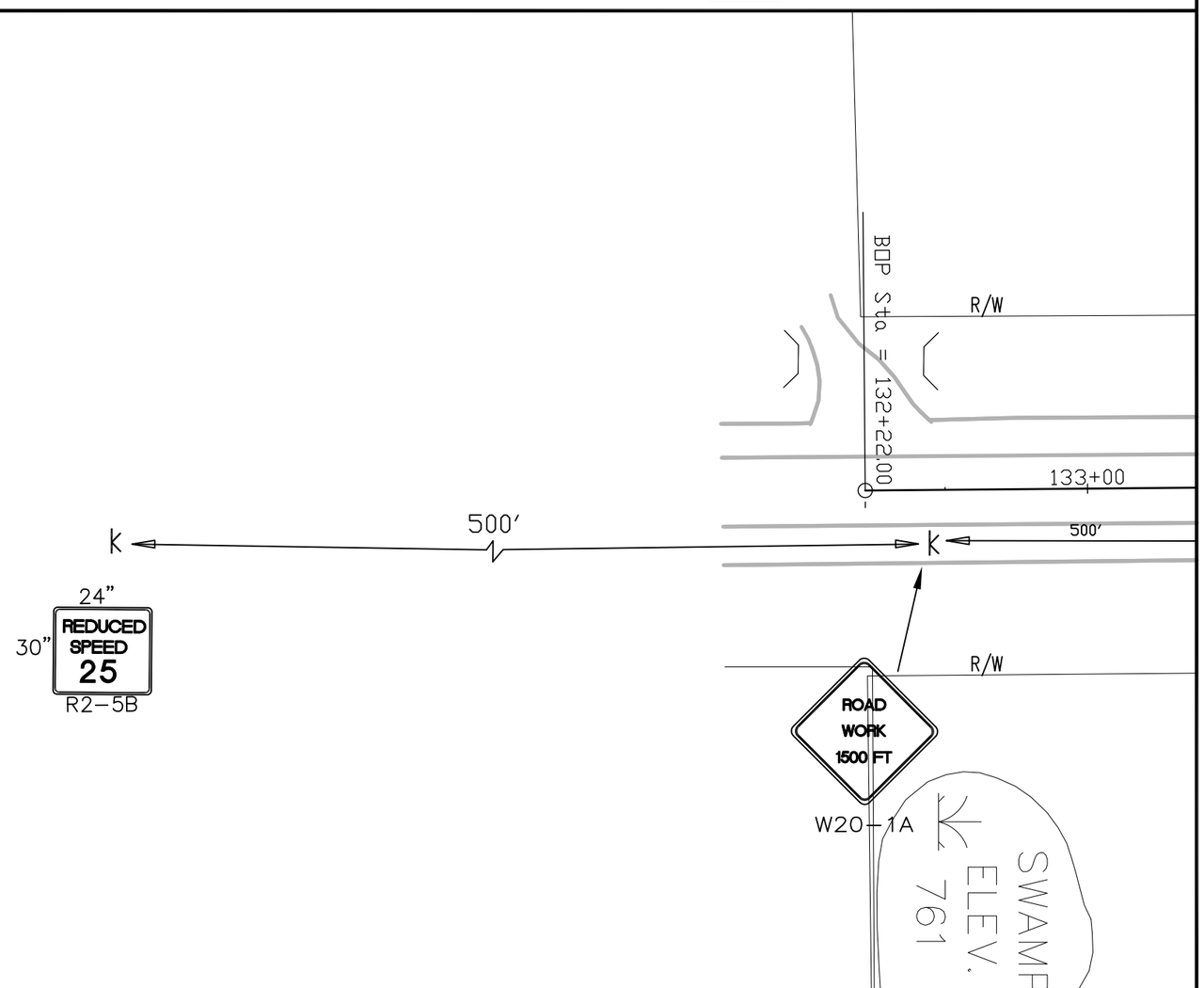
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TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

LEGEND

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TRAFFIC CONTROL - STAGE 1B

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B	SCALE: 1" = 50'	SHEET NO: E

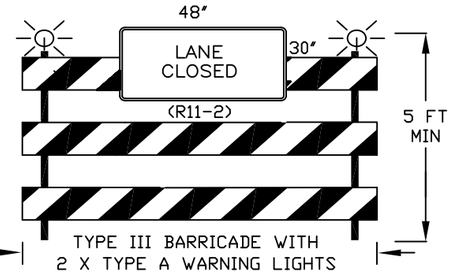
REVISION DATE: 01/08/2013

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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

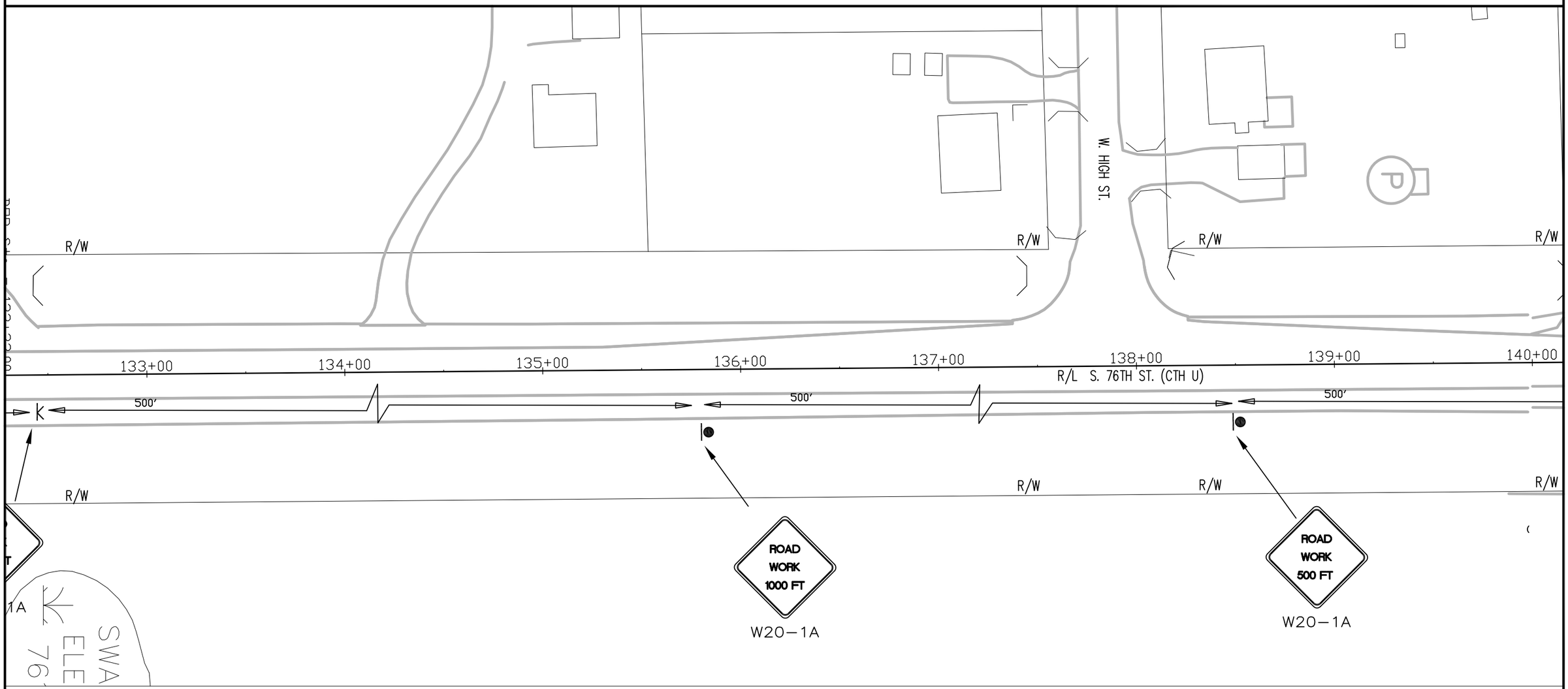
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3. THE CONTRACTOR SHALL COVER ANY SIGNS IN CONFLICT WITH THE TRAFFIC CONTROL IN OPERATION AS DIRECTED BY THE ENGINEER. THE COST OF COVERING SIGNS SHALL BE PAID AS "TRAFFIC CONTROL COVERING SIGNS".
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9. SPEED LIMIT SIGNS SHALL BE R–SERIES REGULATORY SIGNS. W–SERIES WARNING SIGNS SHALL NOT BE USED.
10. SEE THE SPECIAL PROVISIONS AND TRAFFIC CONTROL STAGE 1B TYPICAL SECTION FOR MORE INFORMATION.



TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

LEGEND

- WORK ZONE
- TYPE III BARRICADES WITH / WITHOUT SIGN AND TWO TYPE "A" WARNING LIGHTS (SEE DETAIL THIS SHEET)
- TRAFFIC CONTROL DRUMS WITH/WITHOUT STEADY BURN TYPE "C" LIGHT
- SIGN ON PORTABLE SUPPORT
- SIGN ON PERMANENT SIGN POST
- ARROW BOARD
- TRAFFIC FLOW (FOR INFORMATION ONLY)
- FLEXIBLE TUBULAR MARKER POST AND BASE
- ASPHALT SURFACE TEMPORARY



TRAFFIC CONTROL - STAGE 1B

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B	SCALE: 1" = 50'	SHEET NO:

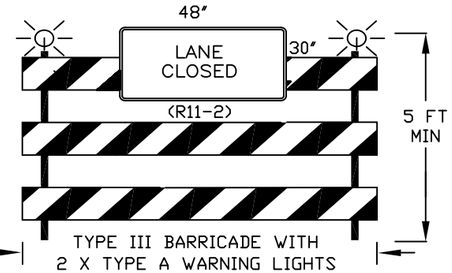
REVISION DATE: 01/08/2013

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WISDOT/CADDS SHEET 40

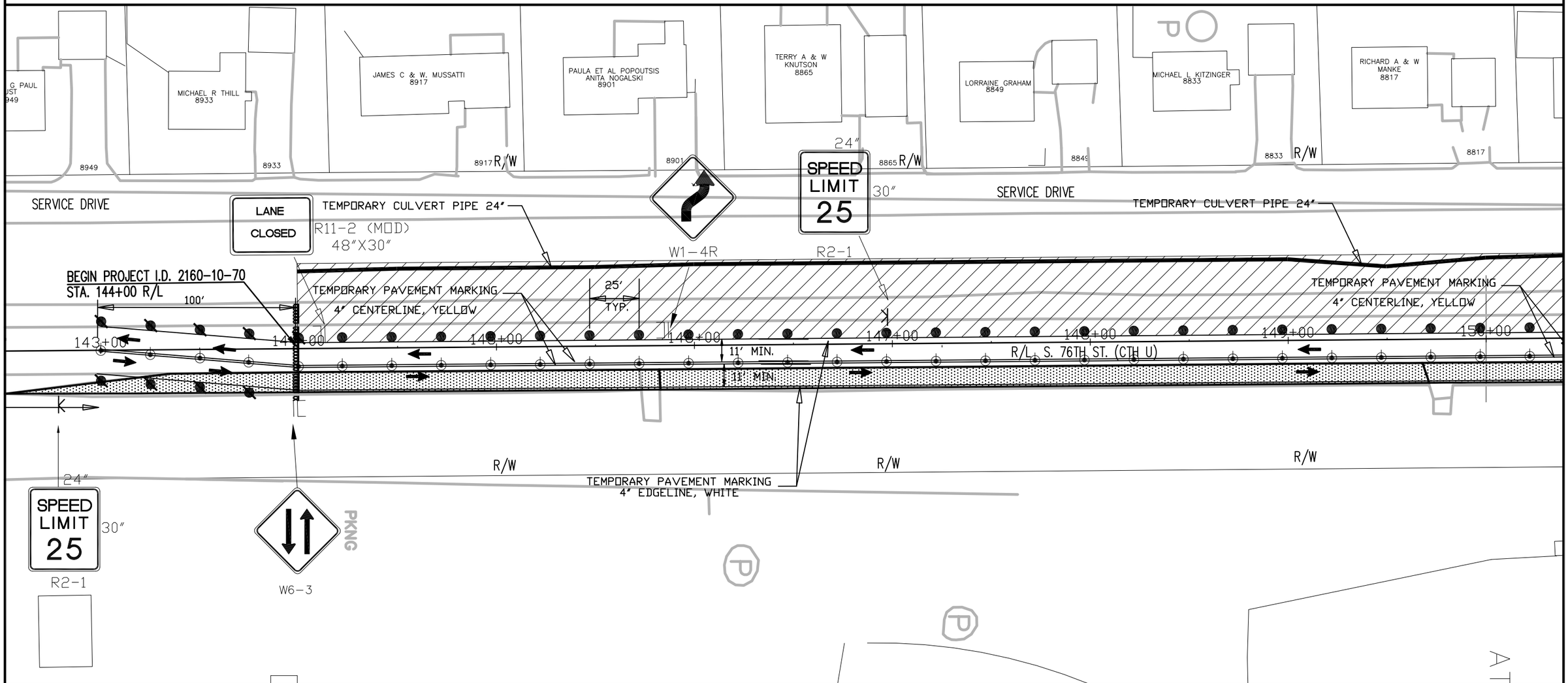
GENERAL TRAFFIC CONTROL NOTES

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LEGEND

- WORK ZONE
- TYPE III BARRICADES WITH / WITHOUT SIGN AND TWO TYPE "A" WARNING LIGHTS (SEE DETAIL THIS SHEET)
- TRAFFIC CONTROL DRUMS WITH/WITHOUT STEADY BURN TYPE "C" LIGHT
- SIGN ON PORTABLE SUPPORT
- SIGN ON PERMANENT SIGN POST
- ARROW BOARD
- TRAFFIC FLOW (FOR INFORMATION ONLY)
- FLEXIBLE TUBULAR MARKER POST AND BASE
- ASPHALT SURFACE TEMPORARY



TRAFFIC CONTROL - STAGE 1B

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B	SCALE: 1" = 50'	SHEET NO:

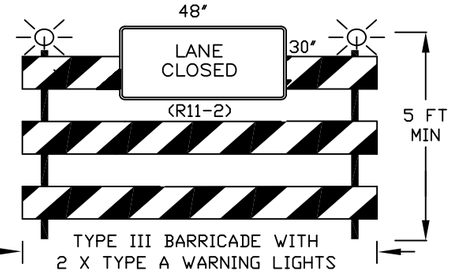
REVISION DATE: 01/08/2013

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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

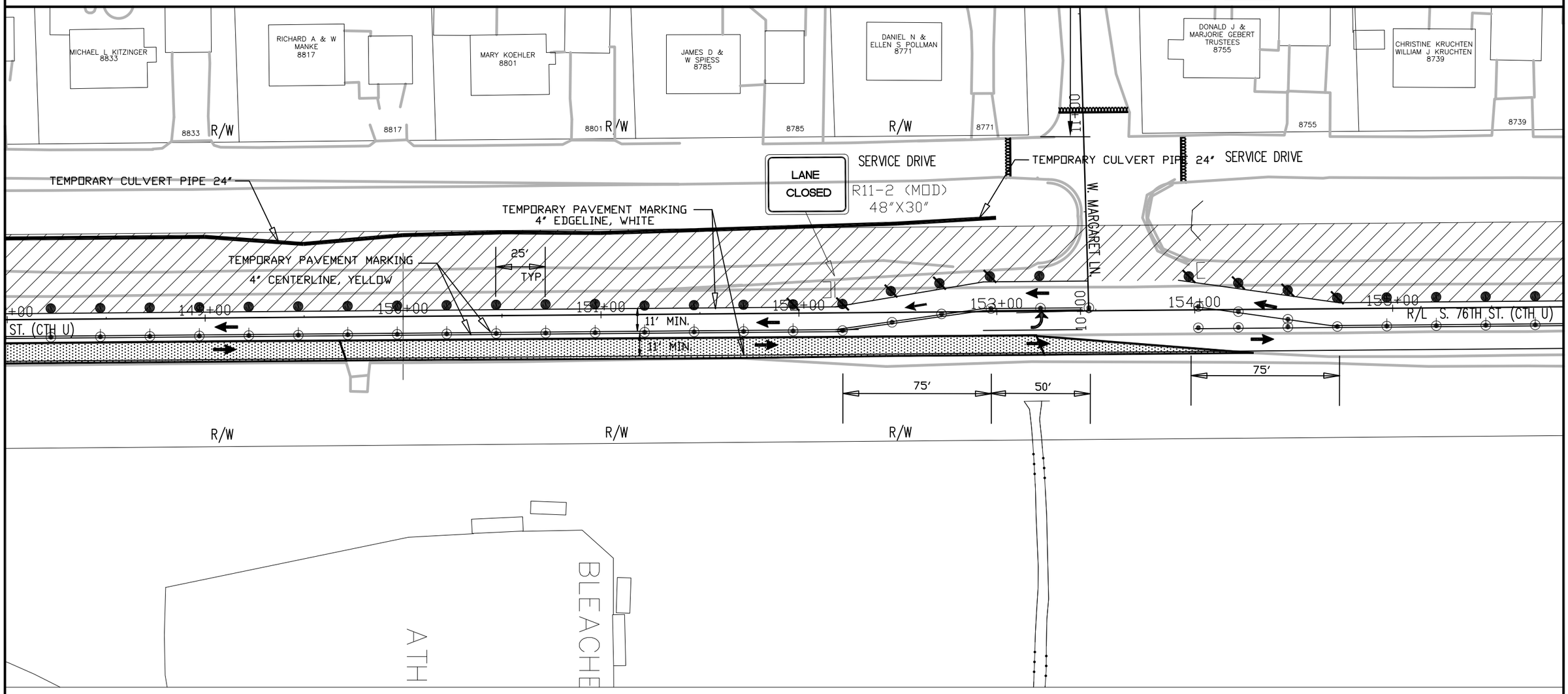
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TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

LEGEND

- WORK ZONE
- TYPE III BARRICADES WITH / WITHOUT SIGN AND TWO TYPE "A" WARNING LIGHTS (SEE DETAIL THIS SHEET)
- TRAFFIC CONTROL DRUMS WITH/WITHOUT STEADY BURN TYPE "C" LIGHT
- SIGN ON PORTABLE SUPPORT
- SIGN ON PERMANENT SIGN POST
- ARROW BOARD
- TRAFFIC FLOW (FOR INFORMATION ONLY)
- FLEXIBLE TUBULAR MARKER POST AND BASE
- ASPHALT SURFACE TEMPORARY



TRAFFIC CONTROL - STAGE 1B

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B	SCALE: 1" = 50'	SHEET NO: E

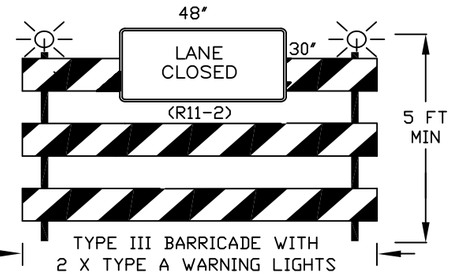
REVISION DATE: 01/08/2013

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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

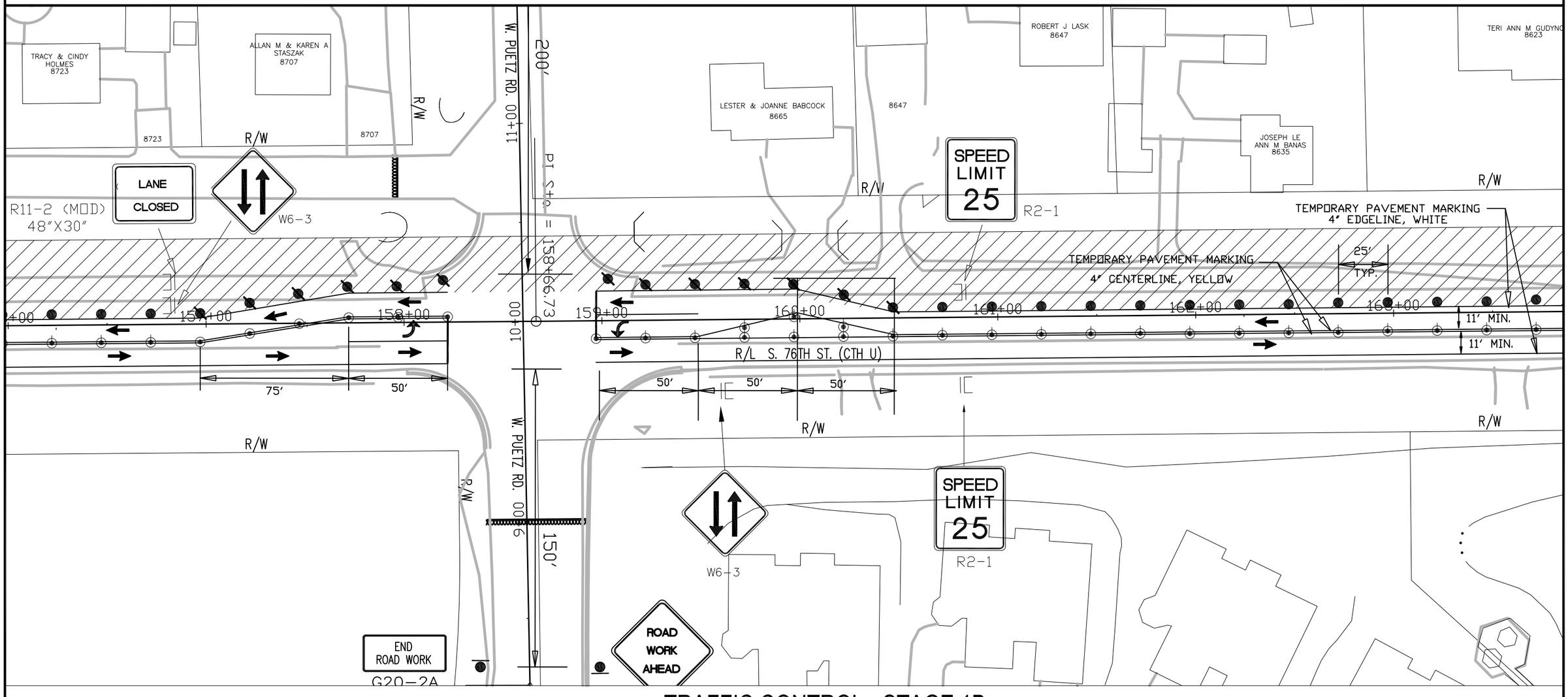
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10. SEE THE SPECIAL PROVISIONS AND TRAFFIC CONTROL STAGE 1B TYPICAL SECTION FOR MORE INFORMATION.



TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

LEGEND

- WORK ZONE
- TYPE III BARRICADES WITH / WITHOUT SIGN AND TWO TYPE "A" WARNING LIGHTS (SEE DETAIL THIS SHEET)
- TRAFFIC CONTROL DRUMS WITH/WITHOUT STEADY BURN TYPE "C" LIGHT
- SIGN ON PORTABLE SUPPORT
- SIGN ON PERMANENT SIGN POST
- ARROW BOARD
- TRAFFIC FLOW (FOR INFORMATION ONLY)
- FLEXIBLE TUBULAR MARKER POST AND BASE
- ASPHALT SURFACE TEMPORARY



TRAFFIC CONTROL - STAGE 1B

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B	SCALE: 1" = 50'	SHEET NO:

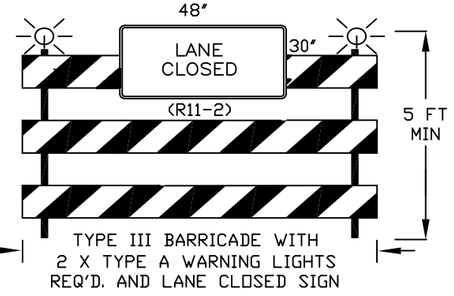
REVISION DATE: 01/08/2013

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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

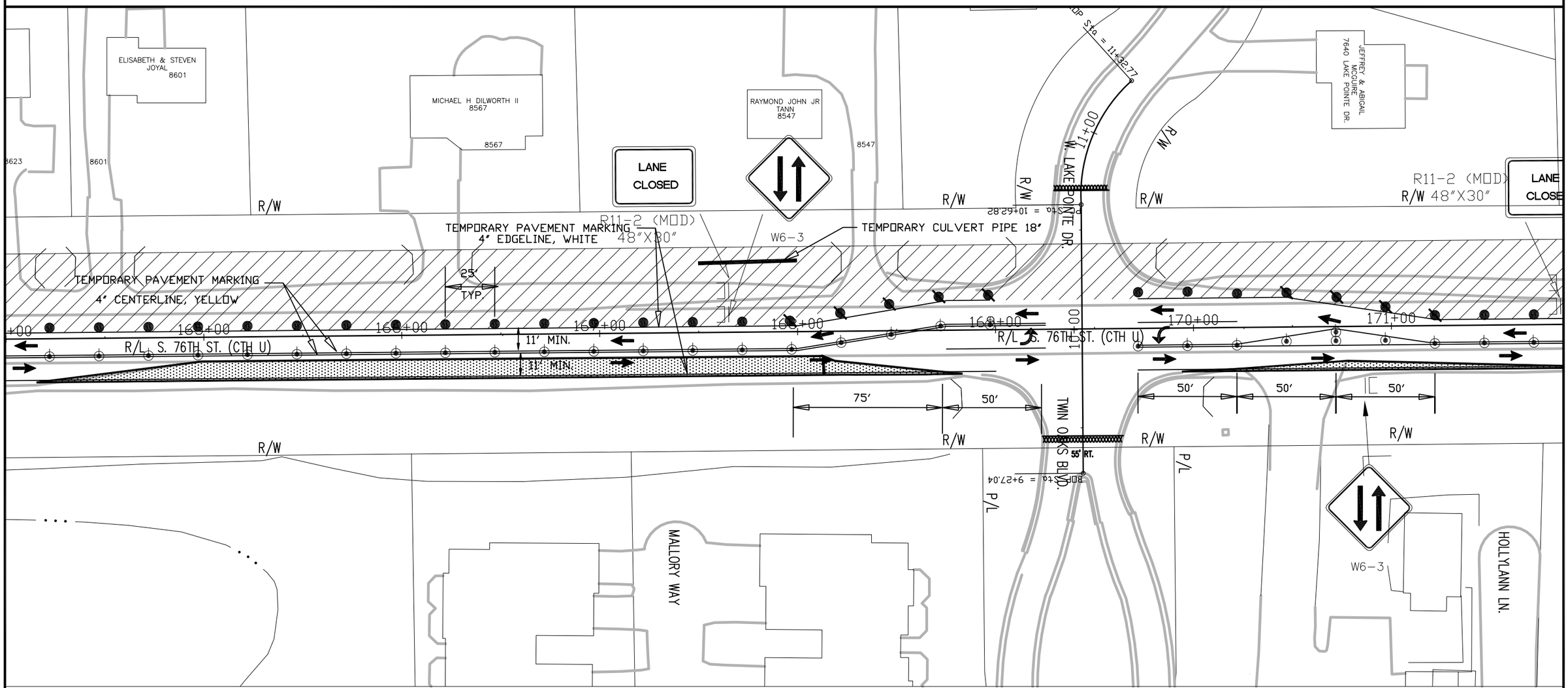
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TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

LEGEND

- WORK ZONE
- TYPE III BARRICADES WITH / WITHOUT SIGN AND TWO TYPE "A" WARNING LIGHTS (SEE DETAIL THIS SHEET)
- TRAFFIC CONTROL DRUMS WITH/WITHOUT STEADY BURN TYPE "C" LIGHT
- SIGN ON PORTABLE SUPPORT
- SIGN ON PERMANENT SIGN POST
- ARROW BOARD
- TRAFFIC FLOW (FOR INFORMATION ONLY)
- FLEXIBLE TUBULAR MARKER POST AND BASE
- ASPHALT SURFACE TEMPORARY



TRAFFIC CONTROL - STAGE 1B

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B	SCALE: 1" = 50'	SHEET NO:

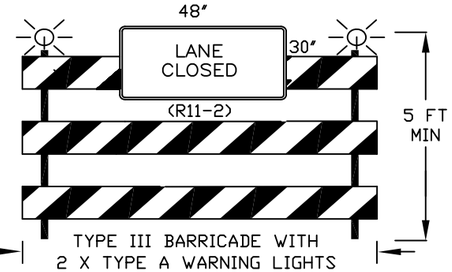
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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

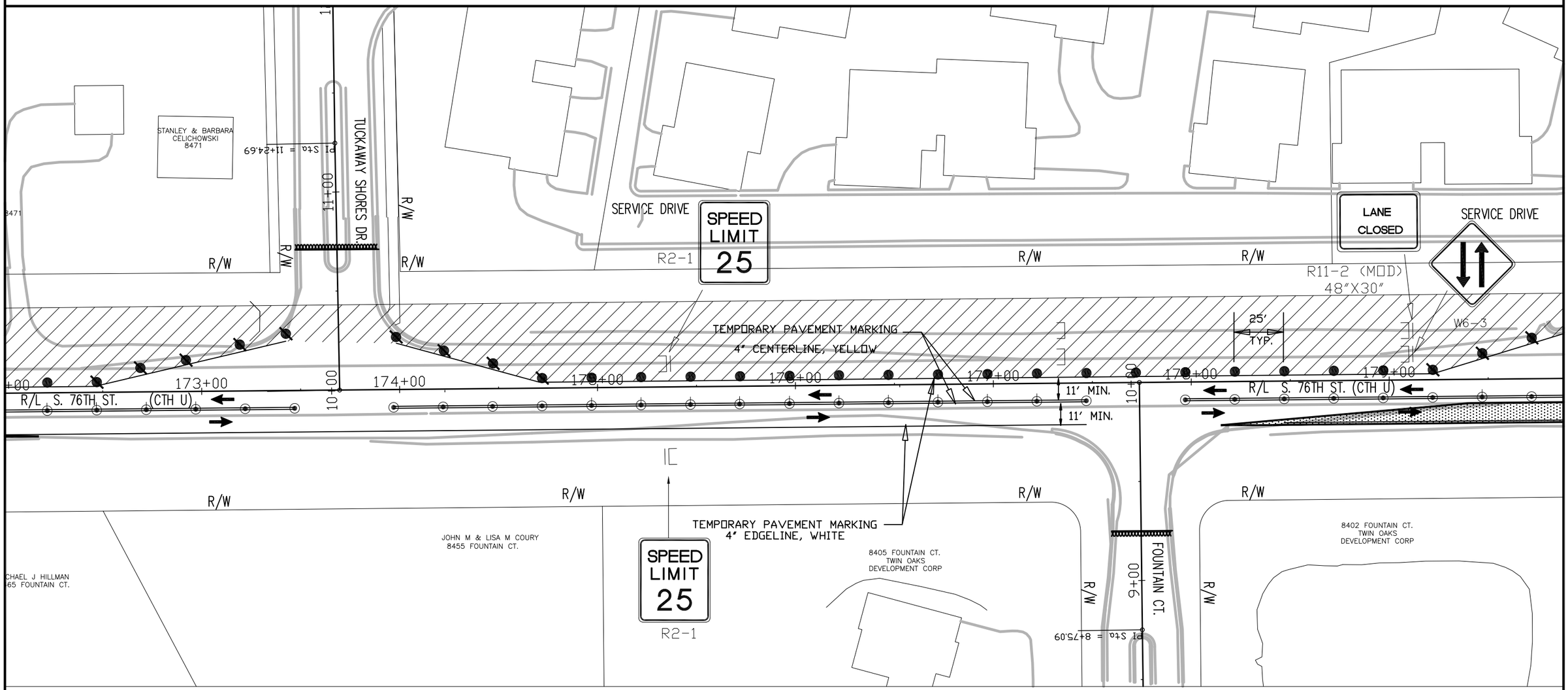
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TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

LEGEND

- WORK ZONE
- TYPE III BARRICADES WITH / WITHOUT SIGN AND TWO TYPE "A" WARNING LIGHTS (SEE DETAIL THIS SHEET)
- TRAFFIC CONTROL DRUMS WITH/WITHOUT STEADY BURN TYPE "C" LIGHT
- SIGN ON PORTABLE SUPPORT
- SIGN ON PERMANENT SIGN POST
- ARROW BOARD
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- FLEXIBLE TUBULAR MARKER POST AND BASE
- ASPHALT SURFACE TEMPORARY



TRAFFIC CONTROL - STAGE 1B

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B	SCALE: 1" = 50'	SHEET NO:

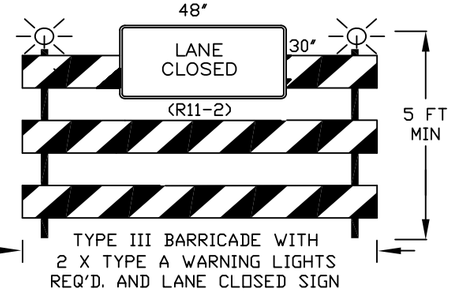
REVISION DATE: 01/08/2013

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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

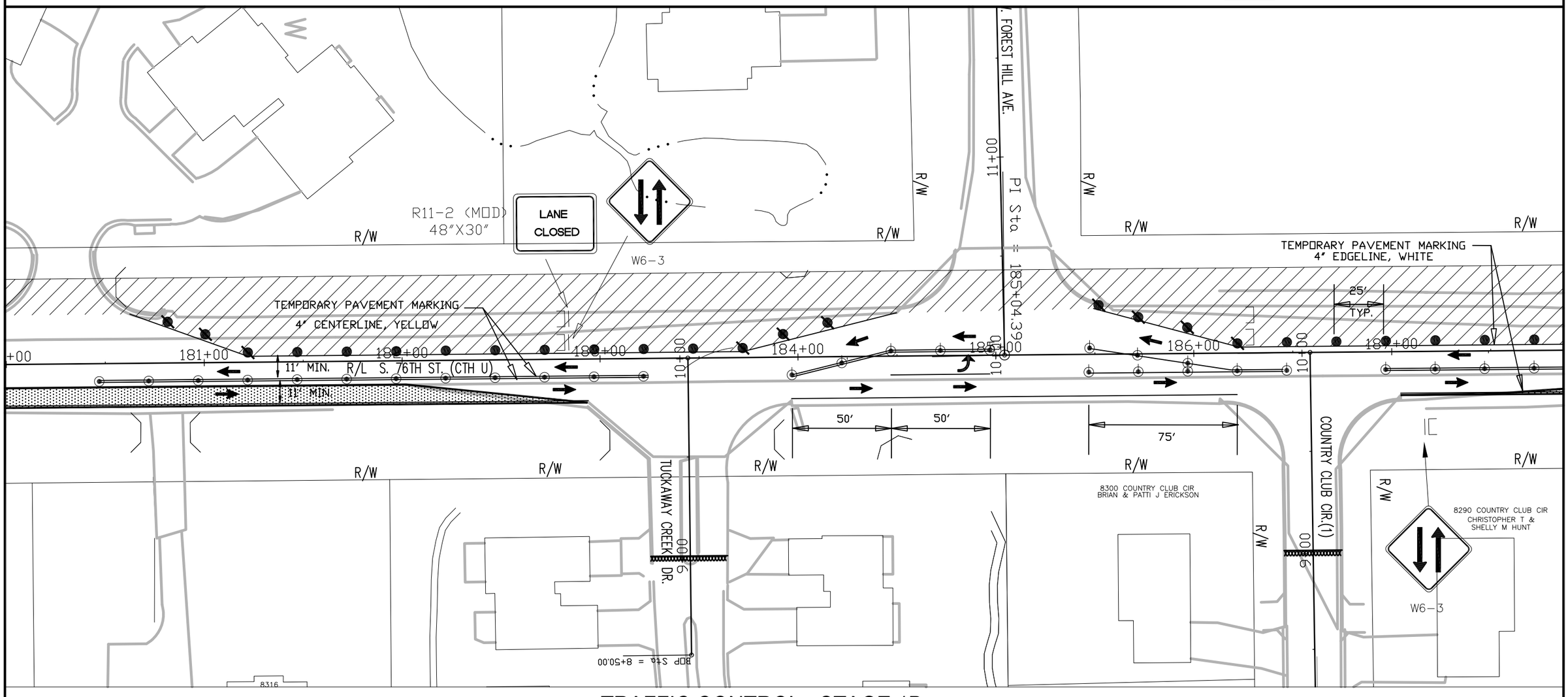
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TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

LEGEND

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TRAFFIC CONTROL - STAGE 1B

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B	SCALE: 1" = 50'	SHEET NO:

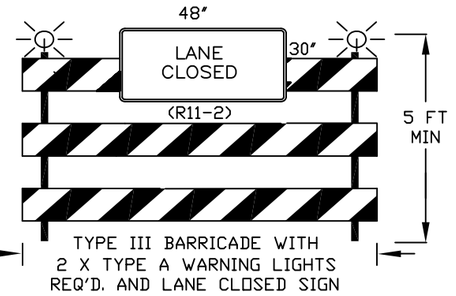
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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

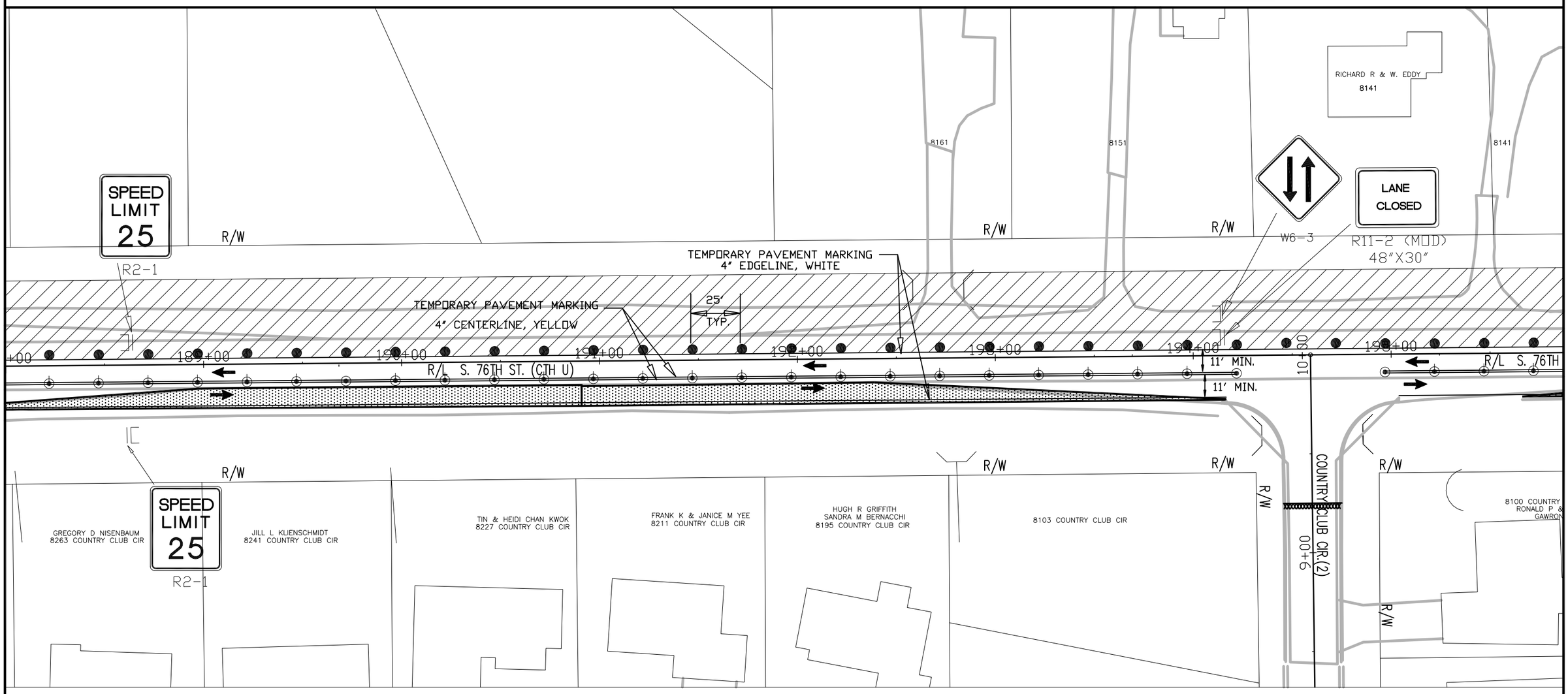
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TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

LEGEND

- WORK ZONE
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TRAFFIC CONTROL - STAGE 1B

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B	SCALE: 1" = 50'	SHEET NO: E

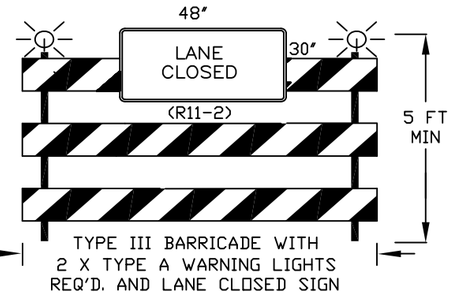
REVISION DATE: 01/08/2013

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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

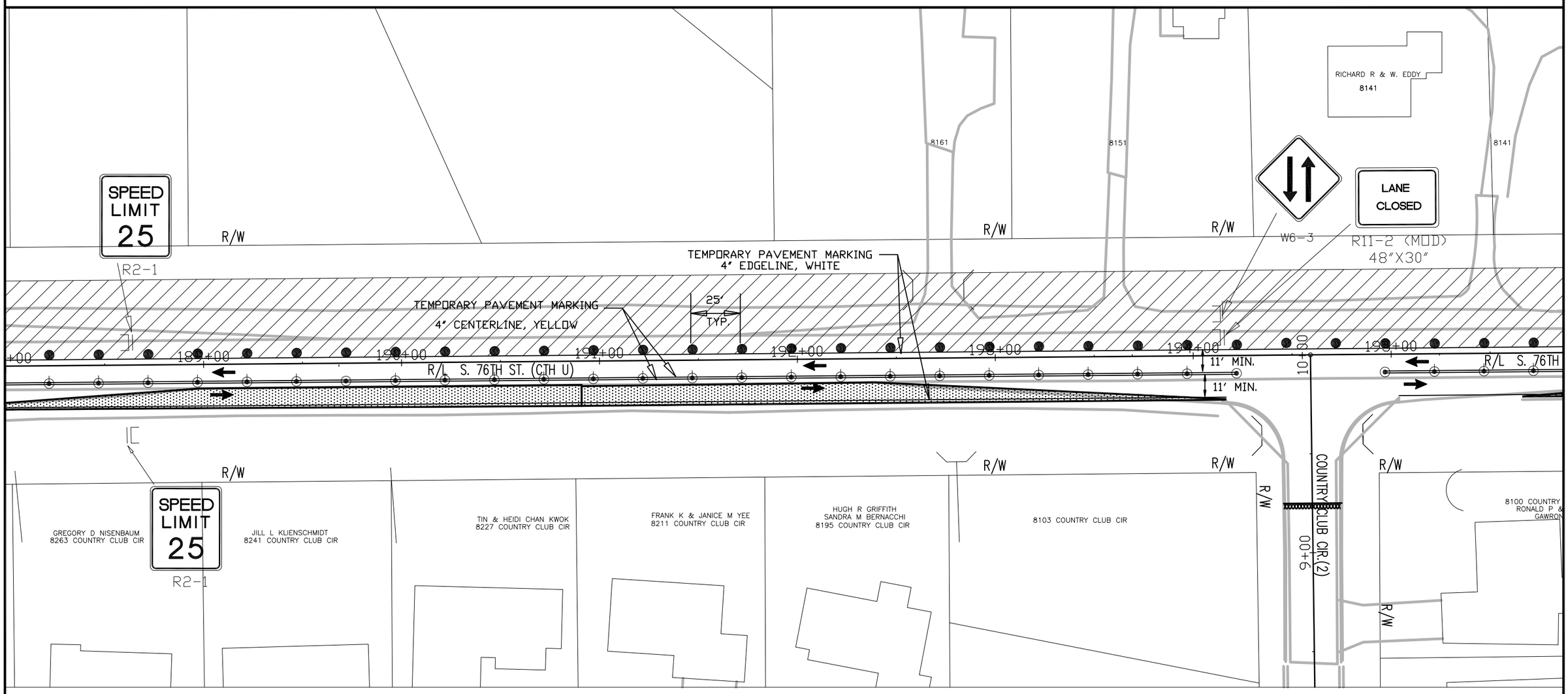
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TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

LEGEND

- WORK ZONE
- TYPE III BARRICADES WITH / WITHOUT SIGN AND TWO TYPE "A" WARNING LIGHTS (SEE DETAIL THIS SHEET)
- TRAFFIC CONTROL DRUMS WITH/WITHOUT STEADY BURN TYPE "C" LIGHT
- SIGN ON PORTABLE SUPPORT
- SIGN ON PERMANENT SIGN POST
- ARROW BOARD
- TRAFFIC FLOW (FOR INFORMATION ONLY)
- FLEXIBLE TUBULAR MARKER POST AND BASE
- ASPHALT SURFACE TEMPORARY



TRAFFIC CONTROL - STAGE 1B

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B	SCALE: 1" = 50'	SHEET NO: E

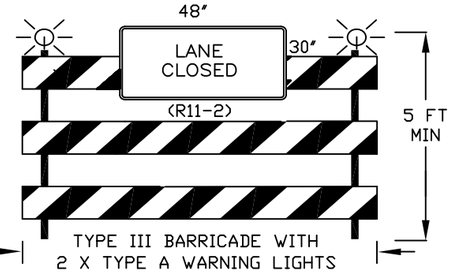
REVISION DATE: 01/08/2013

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WISDOT/CADDS SHEET 40

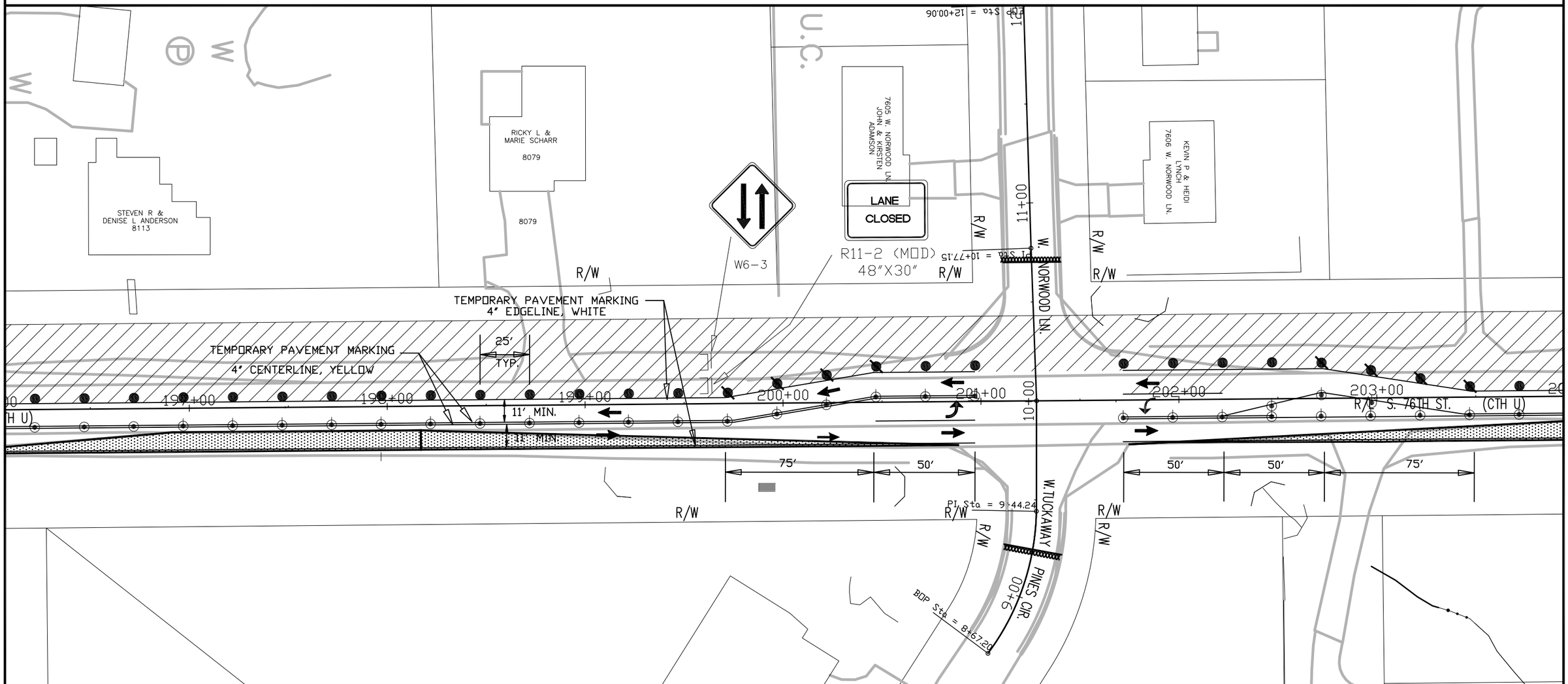
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LEGEND

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TRAFFIC CONTROL - STAGE 1B

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B	SCALE: 1" = 50'	SHEET NO: E

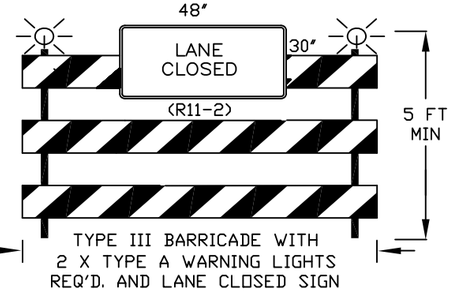
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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

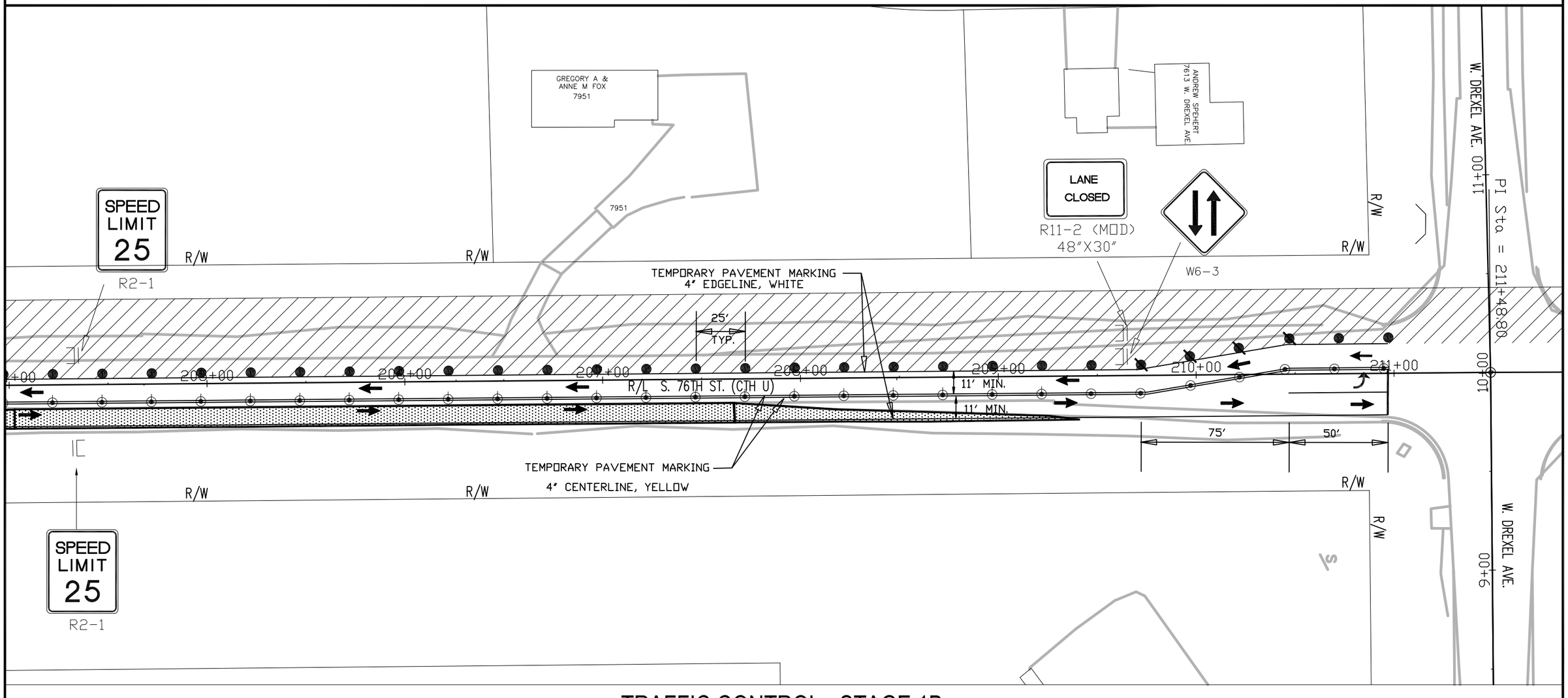
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TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

LEGEND

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TRAFFIC CONTROL - STAGE 1B

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B	SCALE: 1" = 50'	SHEET NO: 200

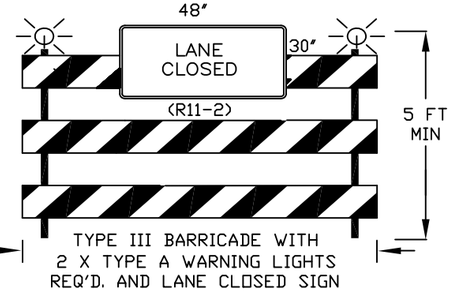
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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

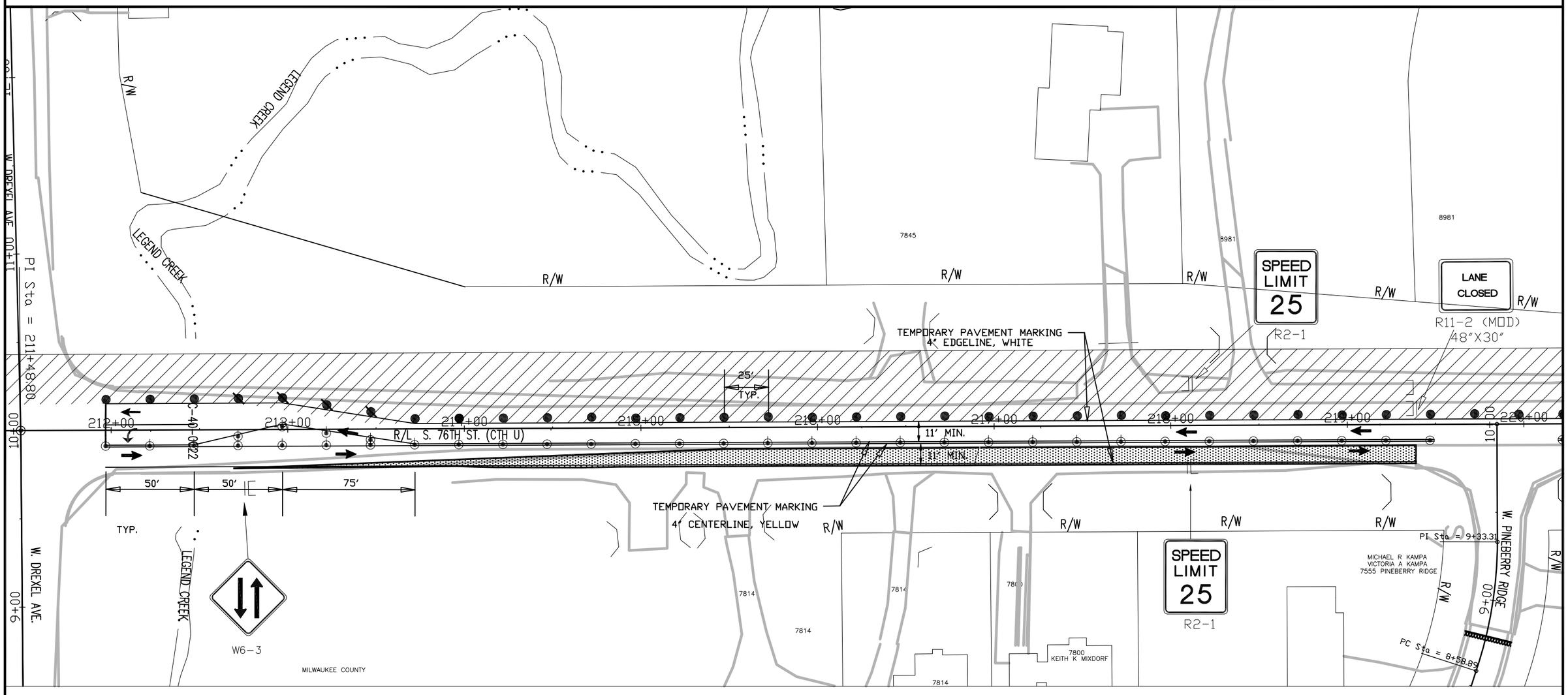
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TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

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TRAFFIC CONTROL - STAGE 1B

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B	SCALE: NTS	SHEET NO:

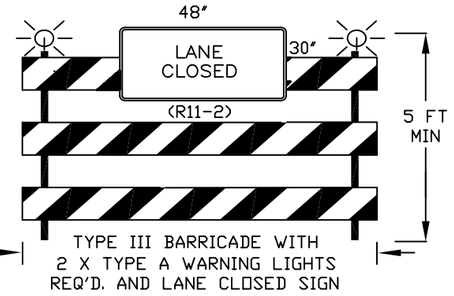
REVISION DATE: 01/08/2013

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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

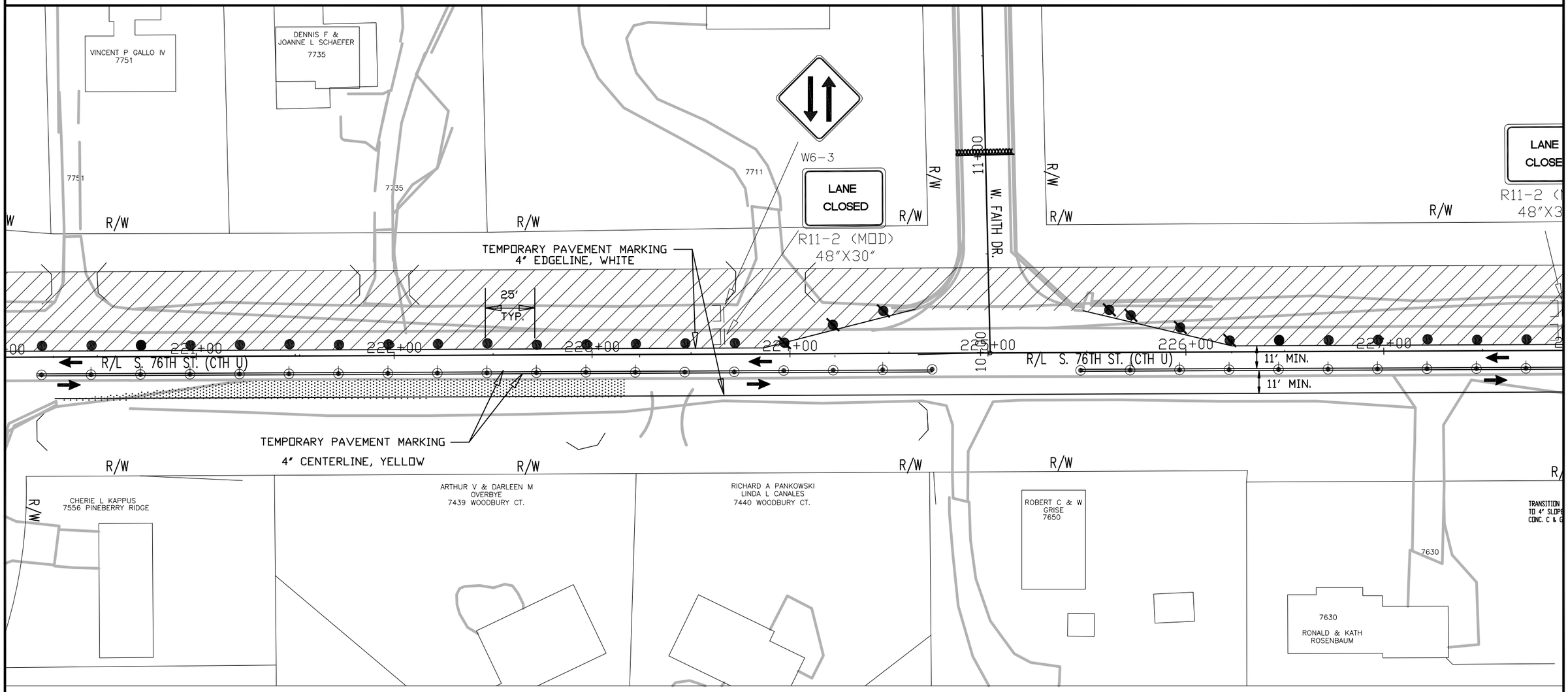
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TRAFFIC CONTROL - STAGE 1B

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B	SCALE: 1" = 50'	SHEET NO: E

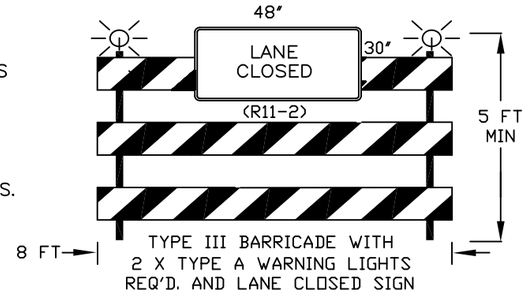
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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

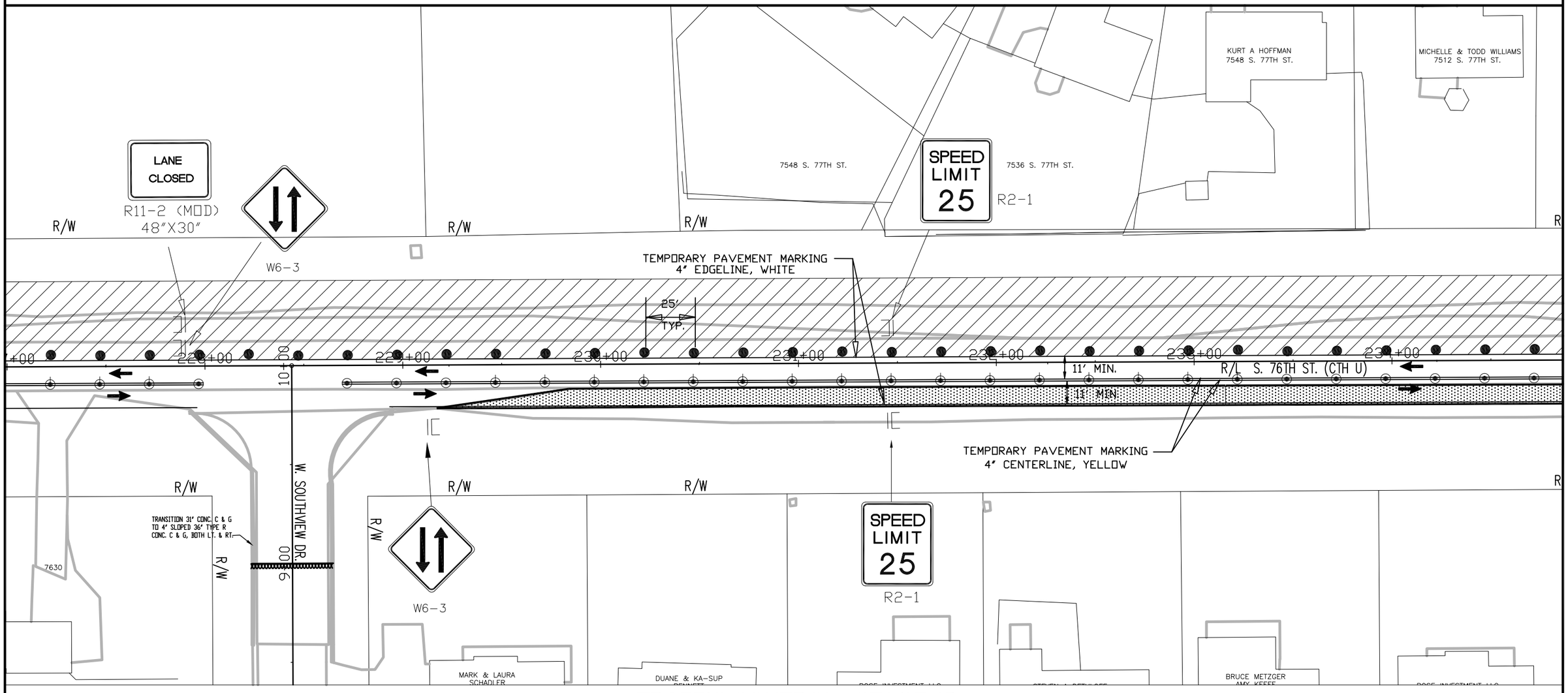
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TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

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TRAFFIC CONTROL - STAGE 1B

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B	SCALE: 1" = 50'	SHEET NO:

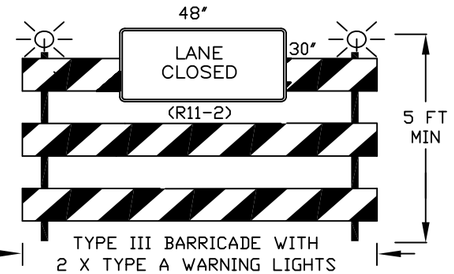
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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

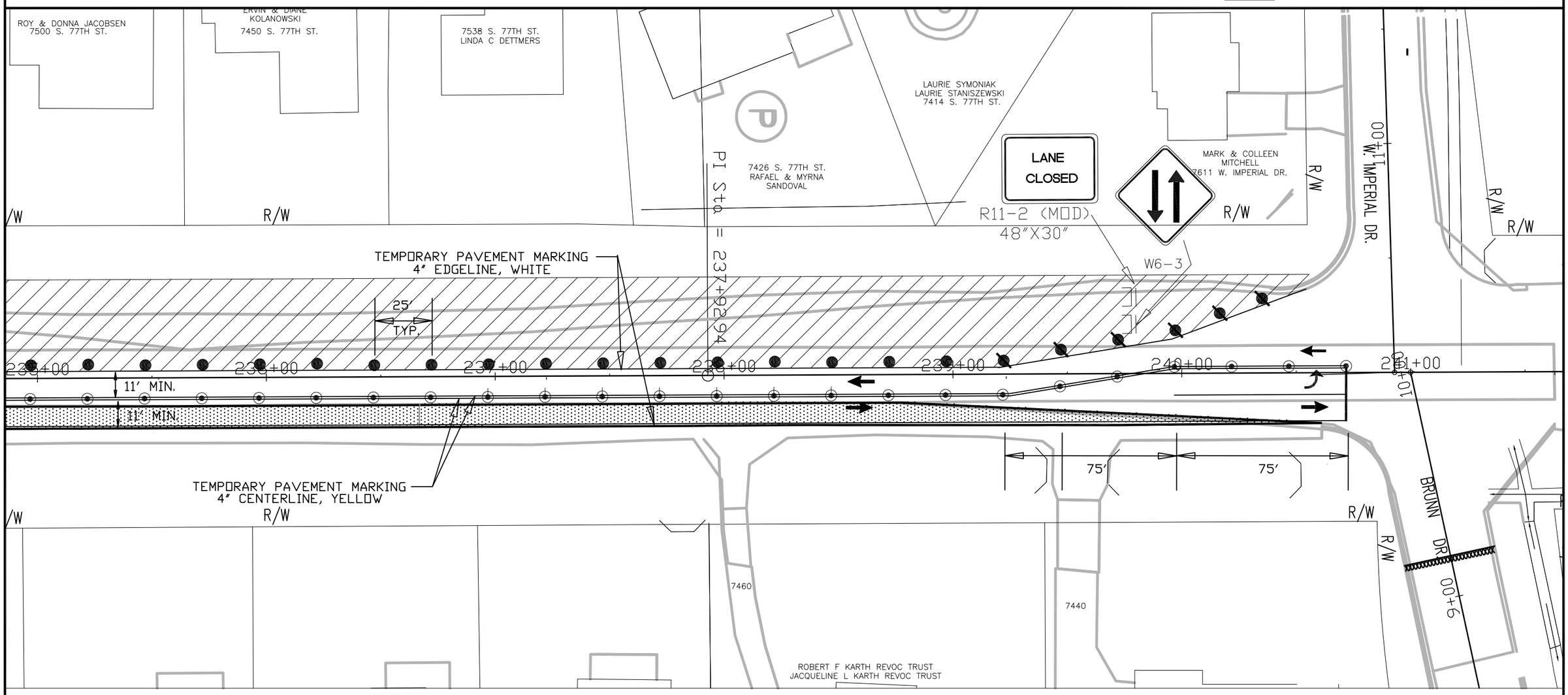
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TRAFFIC CONTROL - STAGE 1B

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B	SCALE: 1" = 50'	SHEET NO:

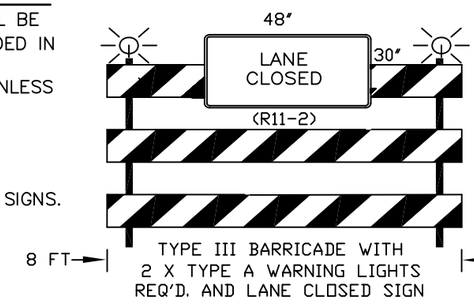
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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

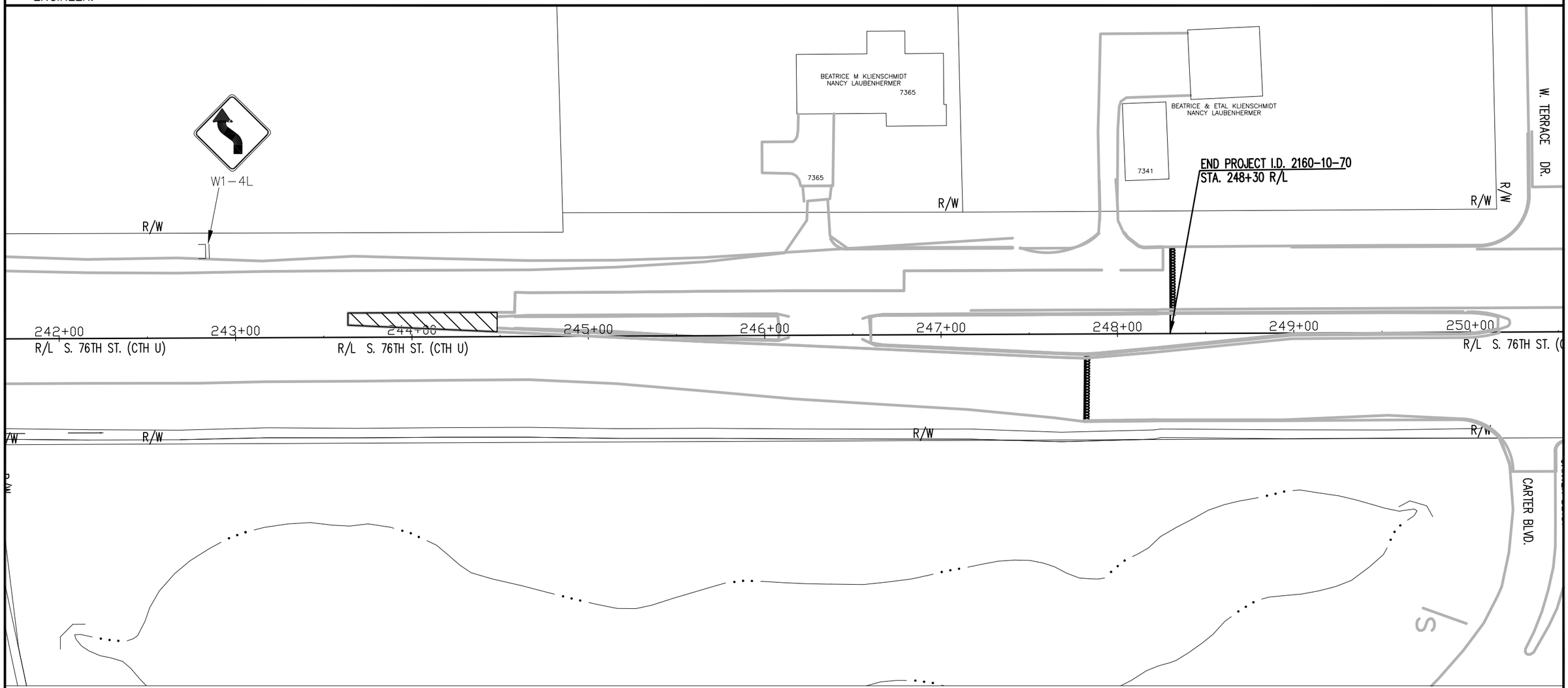
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TRAFFIC CONTROL - STAGE 1B

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B	SCALE: 1" = 50'	SHEET NO:

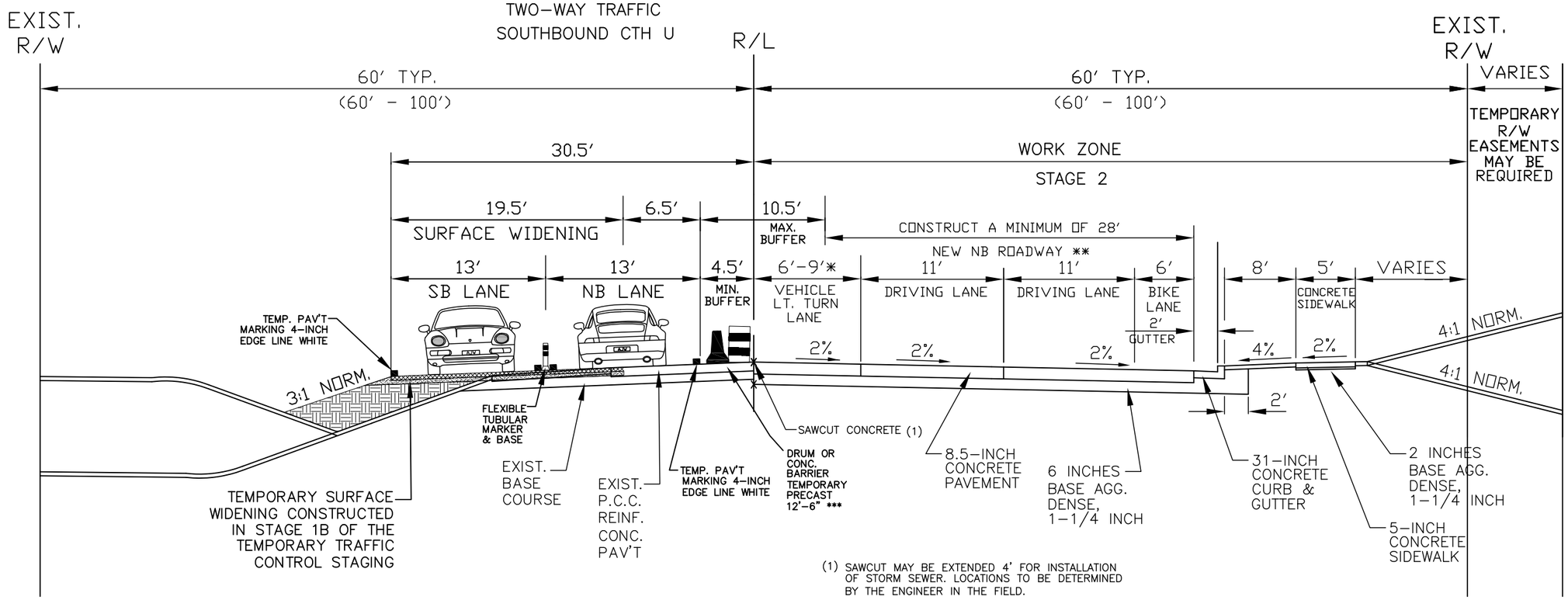
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WISDOT/CADDS SHEET 40

TRAFFIC CONTROL STAGING TYPICAL SECTIONS

STAGE 2 – CONSTRUCT NORTHBOUND LANES



(1) SAWCUT MAY BE EXTENDED 4' FOR INSTALLATION OF STORM SEWER. LOCATIONS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

TRAFFIC CONTROL STAGE 2 TYPICAL SECTION S. 76TH ST. (CTH U)

NORTHBOUND CONSTRUCTION
600' N. OF HIGH ST. TO CARTER BLVD.
(STATION 144+00 TO STATION 248+30)

* AT INTERSECTIONS DESIGNATED ON PLANS. CONSTRUCT THE REMAINING LEFT TURN LANE IN STAGE 3.

** IN ORDER TO PROVIDE A MINIMUM OF ONE 11–FOOT LANE IN EACH DIRECTION AND A 10–FOOT LEFT TURN LANE AT INTERSECTIONS FOR STAGE 3 AS SHOWN ON THE TRAFFIC CONTROL PLANS.

*** PRECAST CONCRETE BARRIER TO BE USED AT DROP–OFFS GREATER THAN 2 FEET AND AT THE BOX CULVERT (C–40–0022), (STATION 159+00 TO STATION 186+00 AND STATION 212+00 TO STATION 236+00) AS SHOWN ON THE TRAFFIC CONTROL PLANS.

NOTES

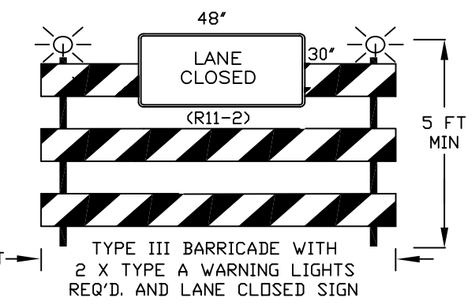
1). THE INTERSECTIONS OF W. PUETZ RD., W. DREXEL AVE. AND W. IMPERIAL DR. TO REMAIN OPEN TO TRAFFIC AT ALL TIMES.
2). SEE SPECIAL PROVISIONS.
3). SEE THE TRAFFIC CONTROL PLANS FOR DETAILS.

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL – STAGE 2 TYPICAL SECTION	SCALE: NTS	SHEET NO: 206	E

REVISION DATE: 12/17/2012

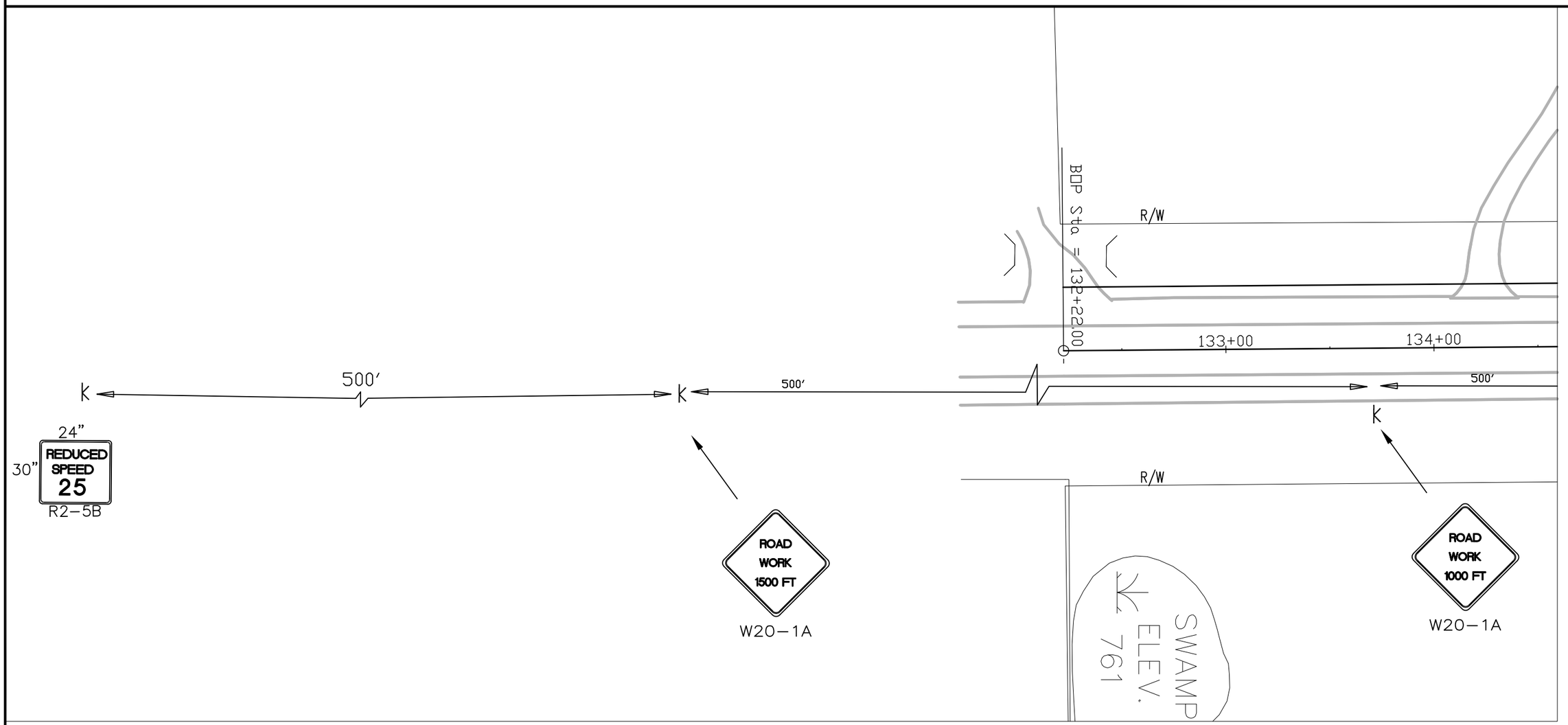
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10. SEE THE SPECIAL PROVISIONS AND TRAFFIC CONTROL STAGE 2 TYPICAL SECTION FOR MORE INFORMATION.



LEGEND

- WORK ZONE
- TYPE III BARRICADES WITH / WITHOUT SIGN AND TWO TYPE "A" WARNING LIGHTS (SEE DETAIL THIS SHEET)
- TRAFFIC CONTROL DRUMS WITH/WITHOUT STEADY BURN TYPE "C" LIGHT
- SIGN ON PORTABLE SUPPORT
- SIGN ON PERMANENT SIGN POST
- ARROW BOARD
- TRAFFIC FLOW (FOR INFORMATION ONLY)
- FLEXIBLE TUBULAR MARKER POST AND BASE
- ASPHALT SURFACE TEMPORARY – SEE TYPICAL SECTIONS



TRAFFIC CONTROL - STAGE 2

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SCALE: 1" = 50'	SHEET NO:

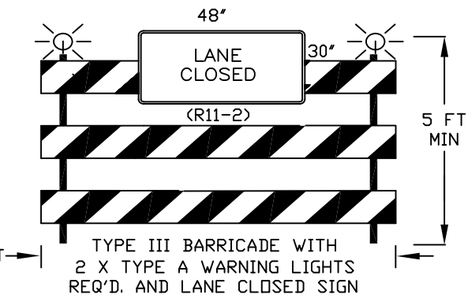
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WISDOT/CADDS SHEET 40

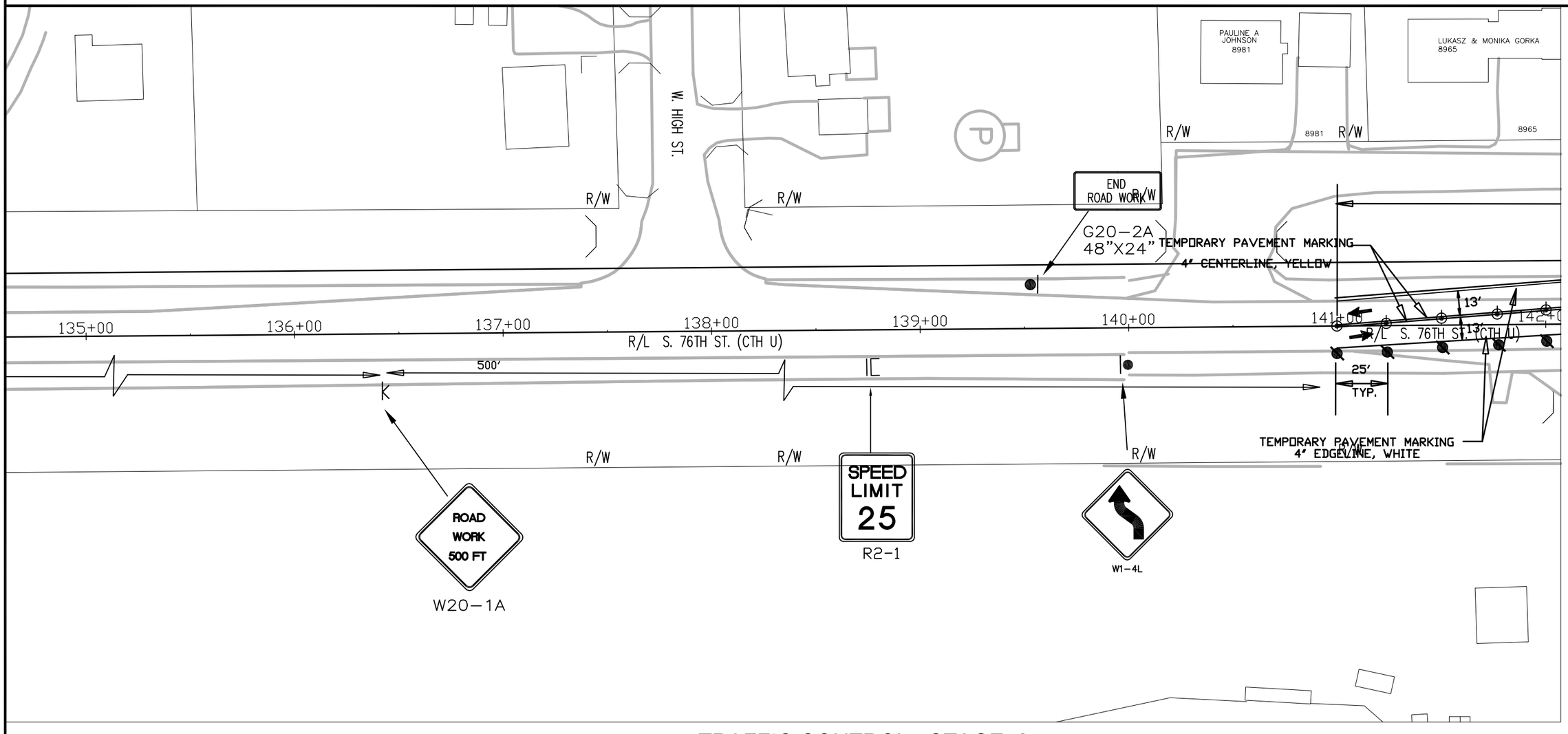
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TRAFFIC CONTROL - STAGE 2

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SCALE: 1" = 50'	SHEET NO:

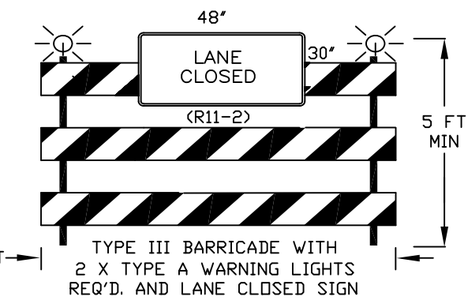
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WISDOT/CADDS SHEET 40

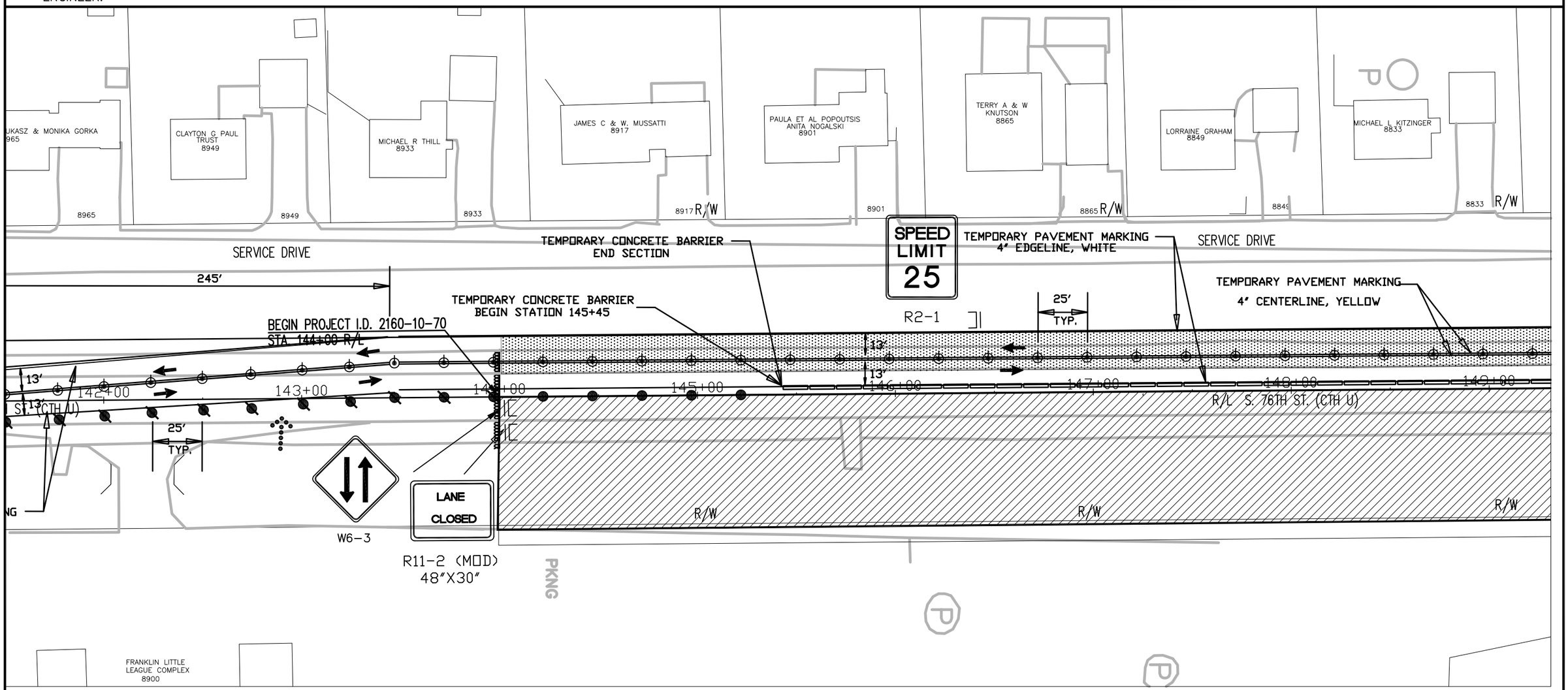
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TRAFFIC CONTROL - STAGE 2

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SCALE: 1" = 50'	SHEET NO:

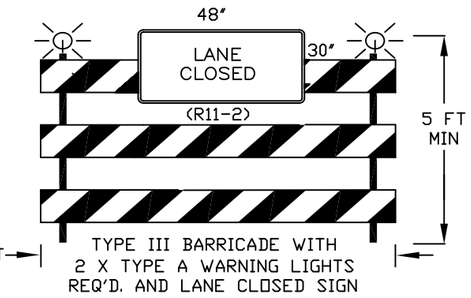
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WISDOT/CADDS SHEET 40

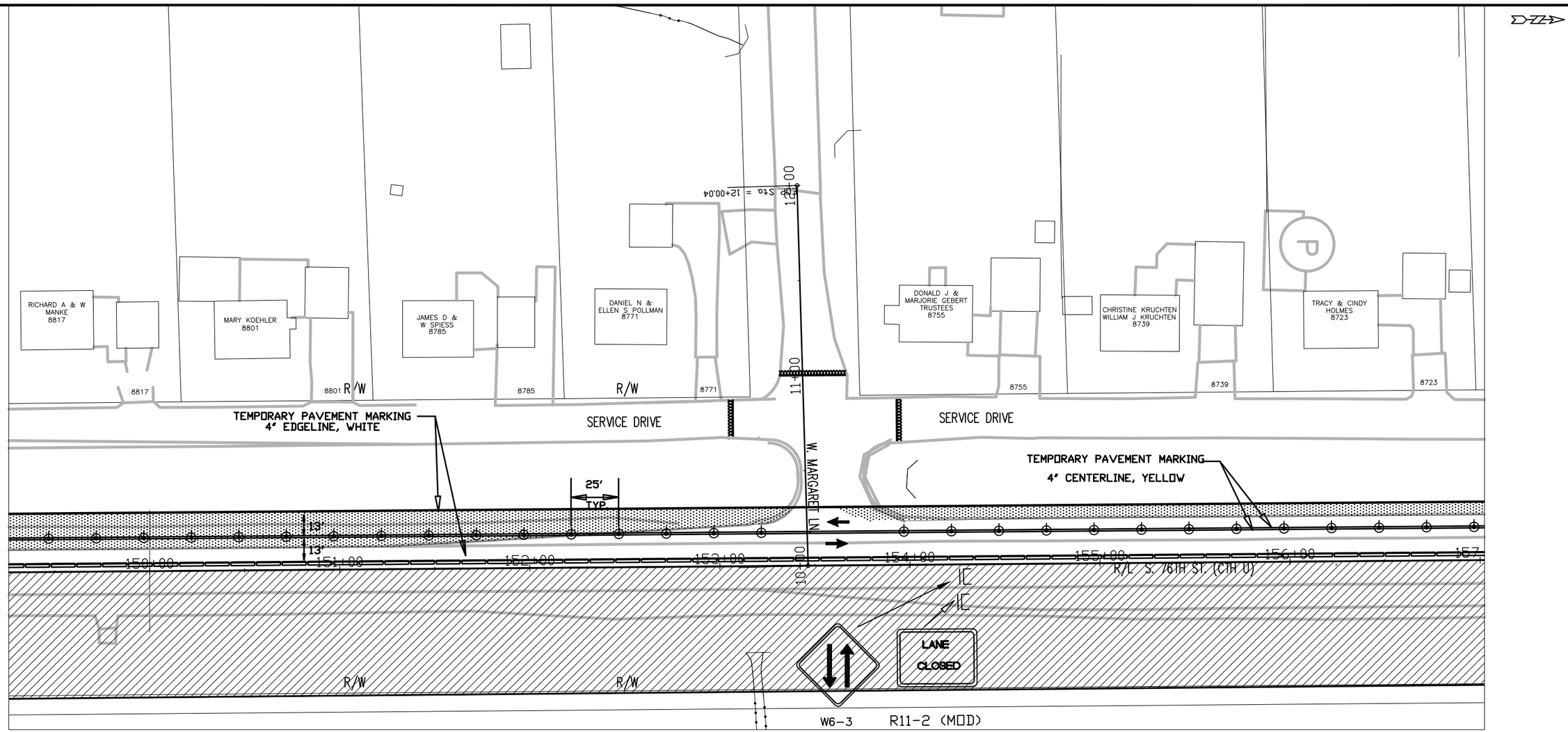
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TRAFFIC CONTROL - STAGE 2

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SCALE: 1" = 50'	SHEET NO:

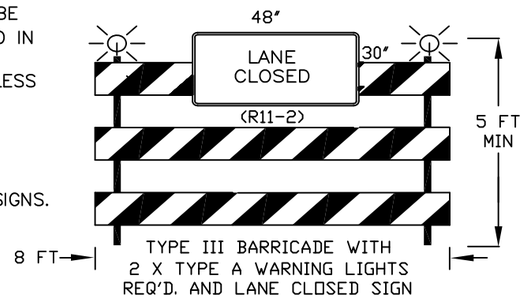
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WISDOT/CADDS SHEET 40

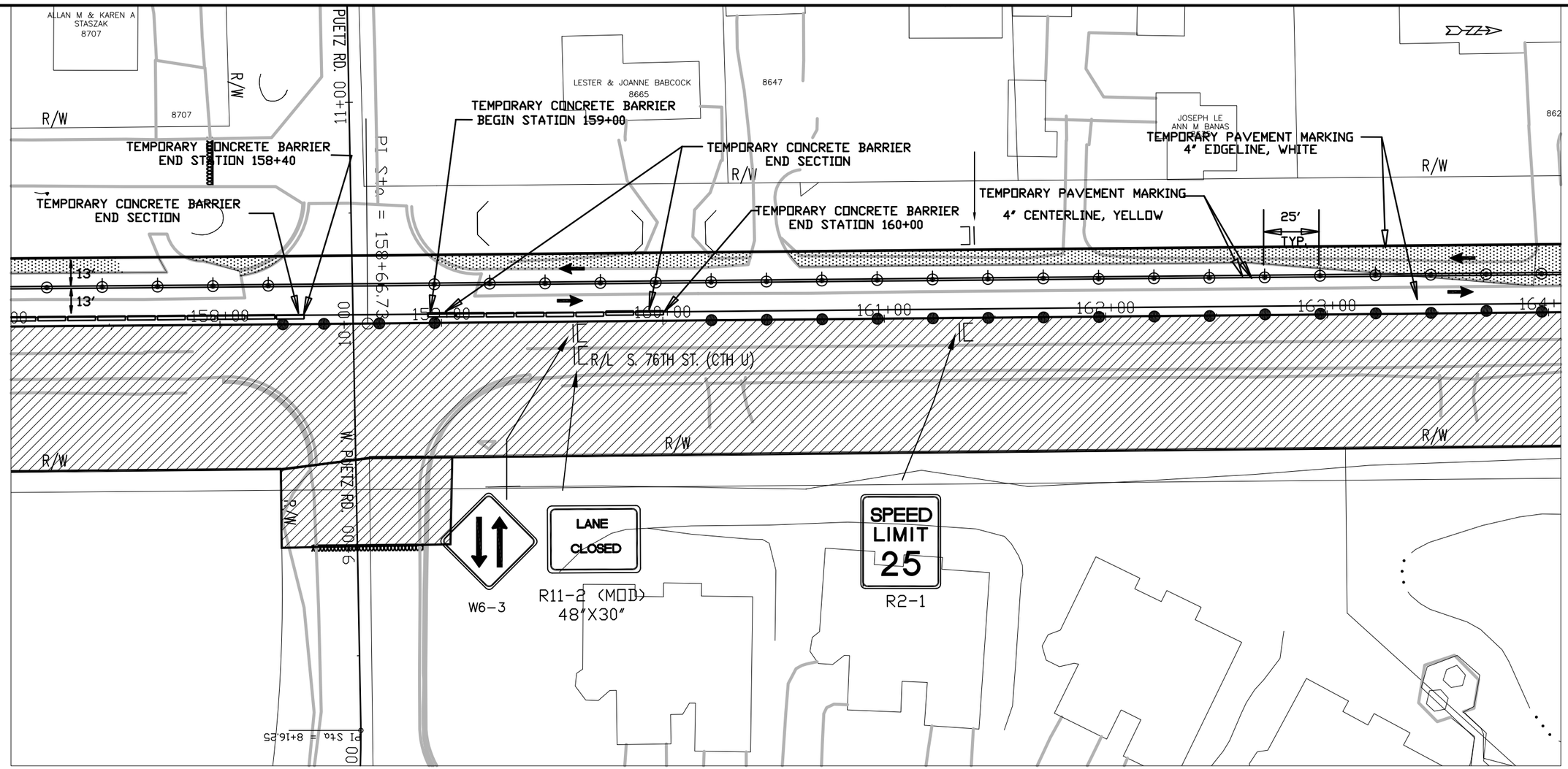
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TRAFFIC CONTROL - STAGE 2

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SCALE: 1" = 50'	SHEET NO:

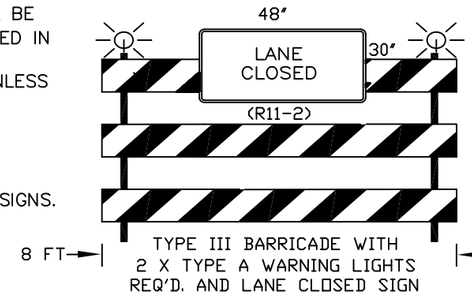
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WISDOT/CADDS SHEET 40

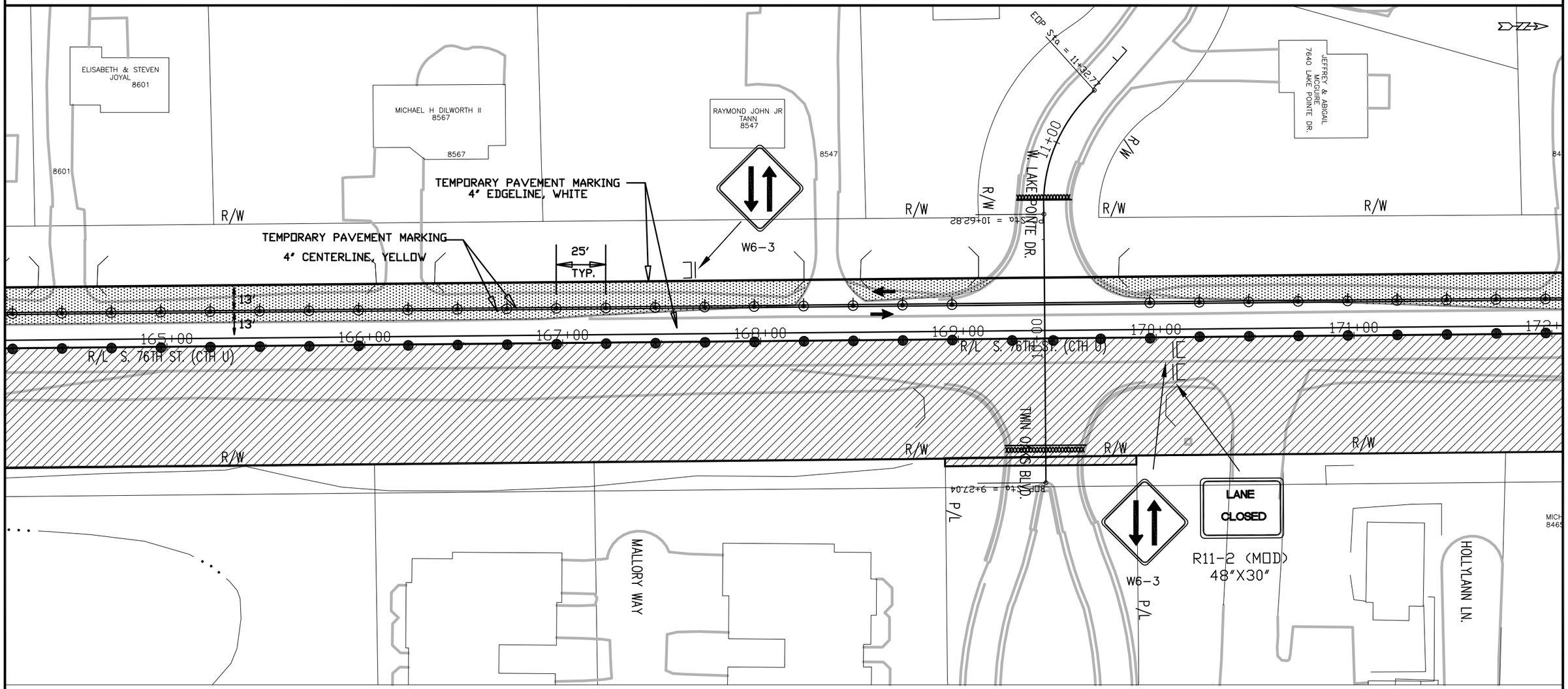
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TRAFFIC CONTROL - STAGE 2

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SCALE: 1" = 50'	SHEET NO:

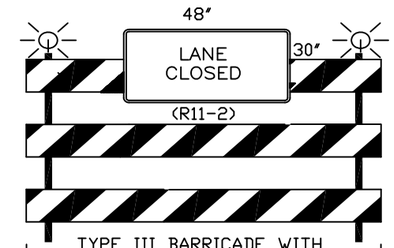
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WISDOT/CADDS SHEET 40

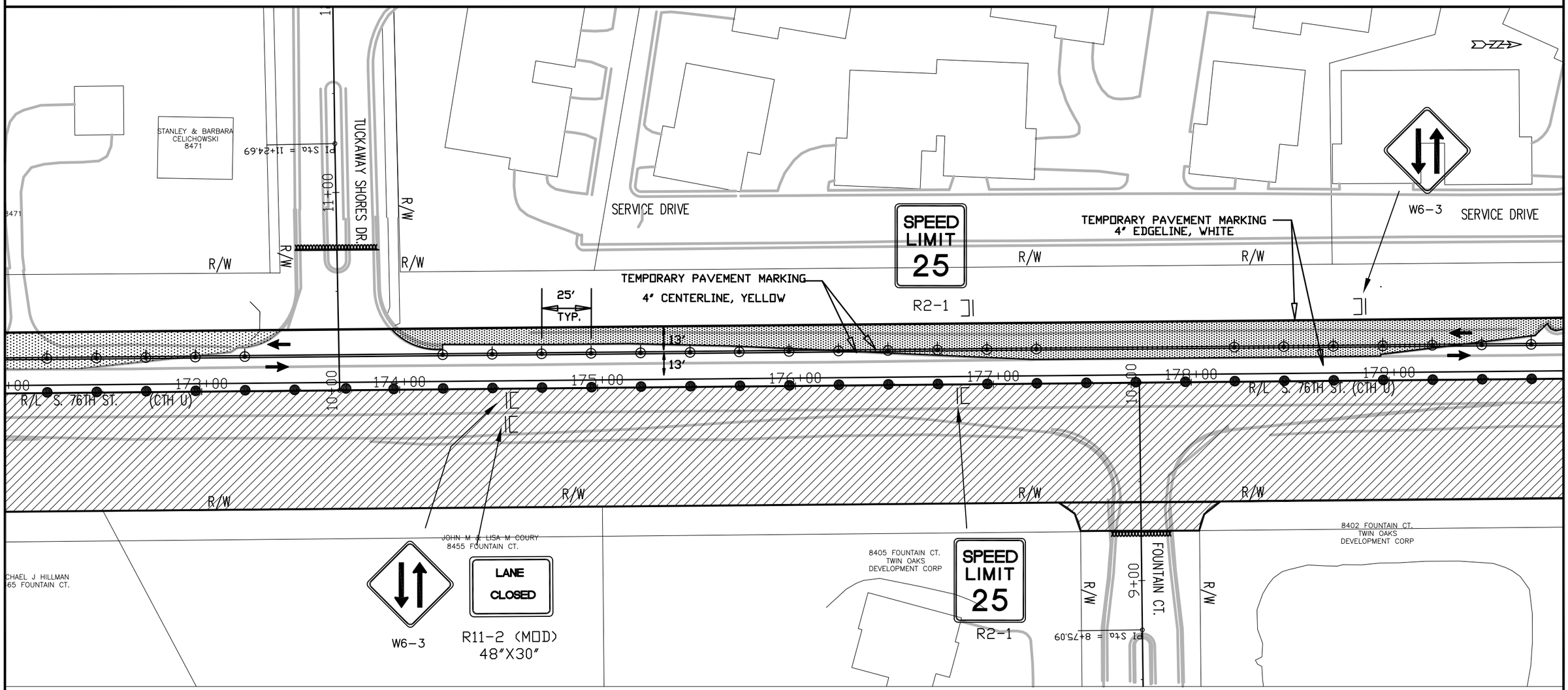
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TRAFFIC CONTROL - STAGE 2

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SCALE: 1" = 50'	SHEET NO:

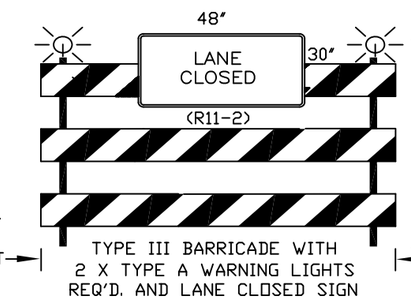
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WISDOT/CADDS SHEET 40

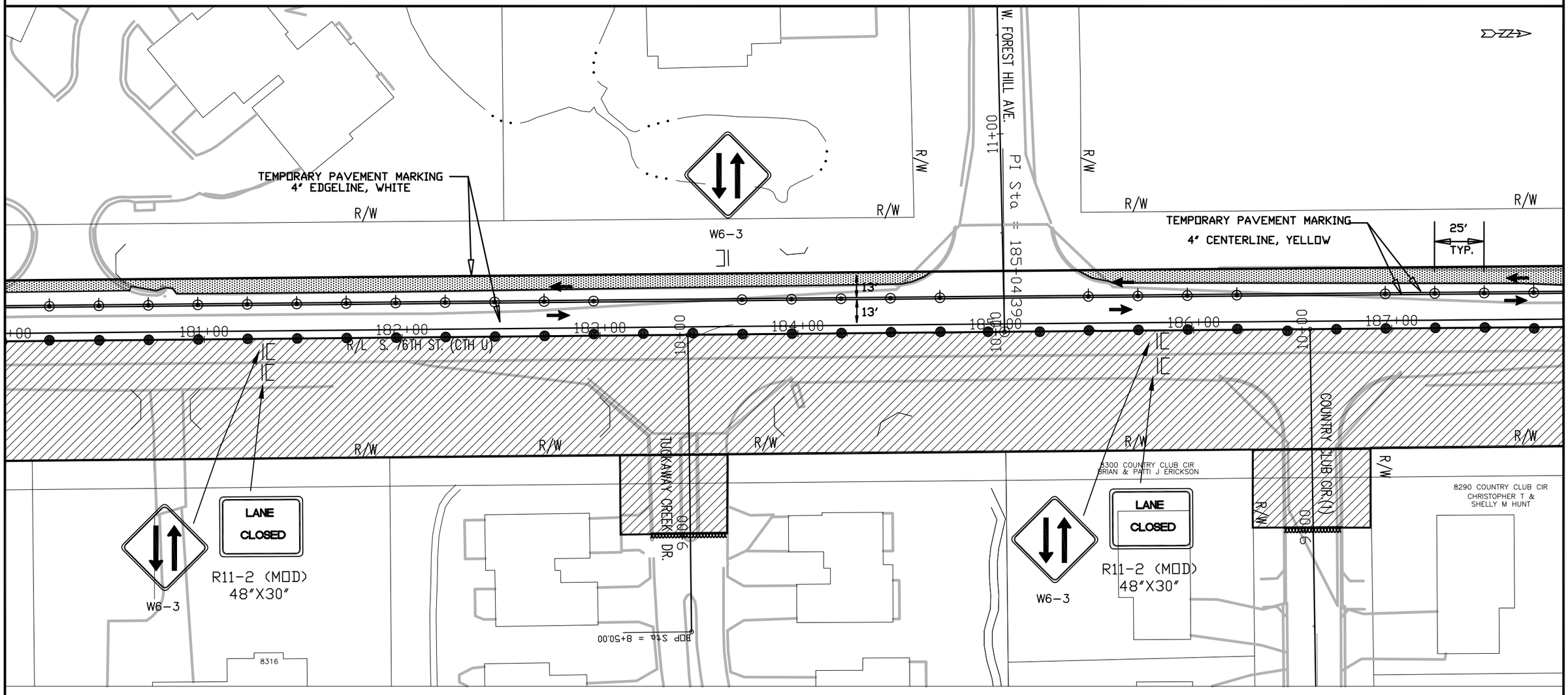
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TRAFFIC CONTROL - STAGE 2

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SCALE: 1" = 50'	SHEET NO: E

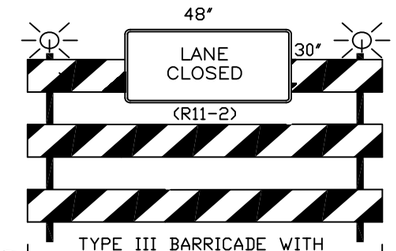
REVISION DATE: 01/03/2013

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WISDOT/CADDS SHEET 40

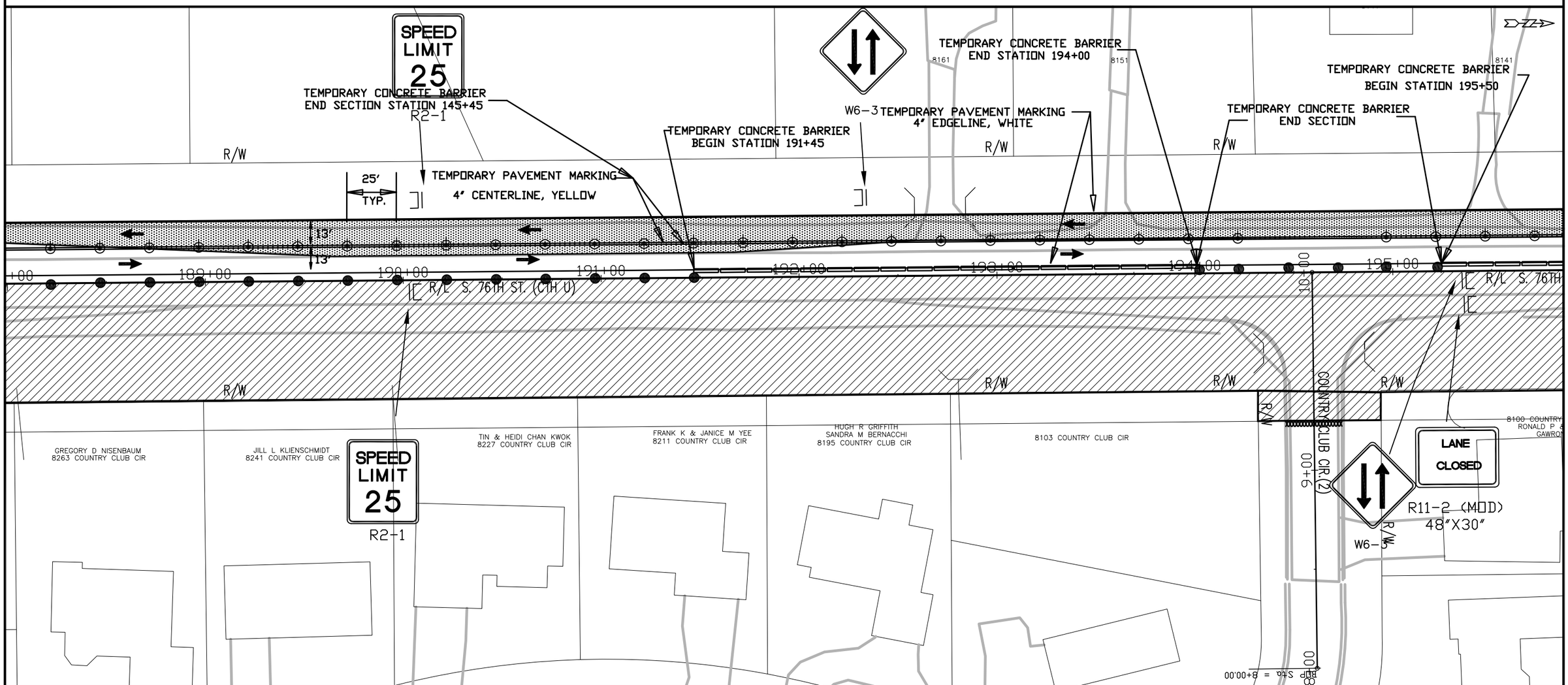
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1. THE CONTRACTOR SHALL AT ALL TIMES DURING CONSTRUCTION MAINTAIN AT LEAST ONE 11–FOOT WIDE LANE (11–FOOT MINIMUM) OF TRAFFIC IN EACH DIRECTION (SEE SPECIAL PROVISIONS).
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9. SPEED LIMIT SIGNS SHALL BE R–SERIES REGULATORY SIGNS. W–SERIES WARNING SIGNS SHALL NOT BE USED.
10. SEE THE SPECIAL PROVISIONS AND TRAFFIC CONTROL STAGE 2 TYPICAL SECTION FOR MORE INFORMATION.



LEGEND

- WORK ZONE
- TYPE III BARRICADES WITH / WITHOUT SIGN AND TWO TYPE "A" WARNING LIGHTS (SEE DETAIL THIS SHEET)
- TRAFFIC CONTROL DRUMS WITH/WITHOUT STEADY BURN TYPE "C" LIGHT
- SIGN ON PORTABLE SUPPORT
- SIGN ON PERMANENT SIGN POST
- ARROW BOARD
- TRAFFIC FLOW (FOR INFORMATION ONLY)
- FLEXIBLE TUBULAR MARKER POST AND BASE
- ASPHALT SURFACE TEMPORARY - SEE TYPICAL SECTIONS



TRAFFIC CONTROL - STAGE 2

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SCALE: 1" = 50'	SHEET NO: E

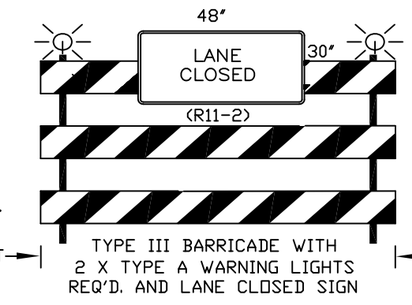
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WISDOT/CADDS SHEET 40

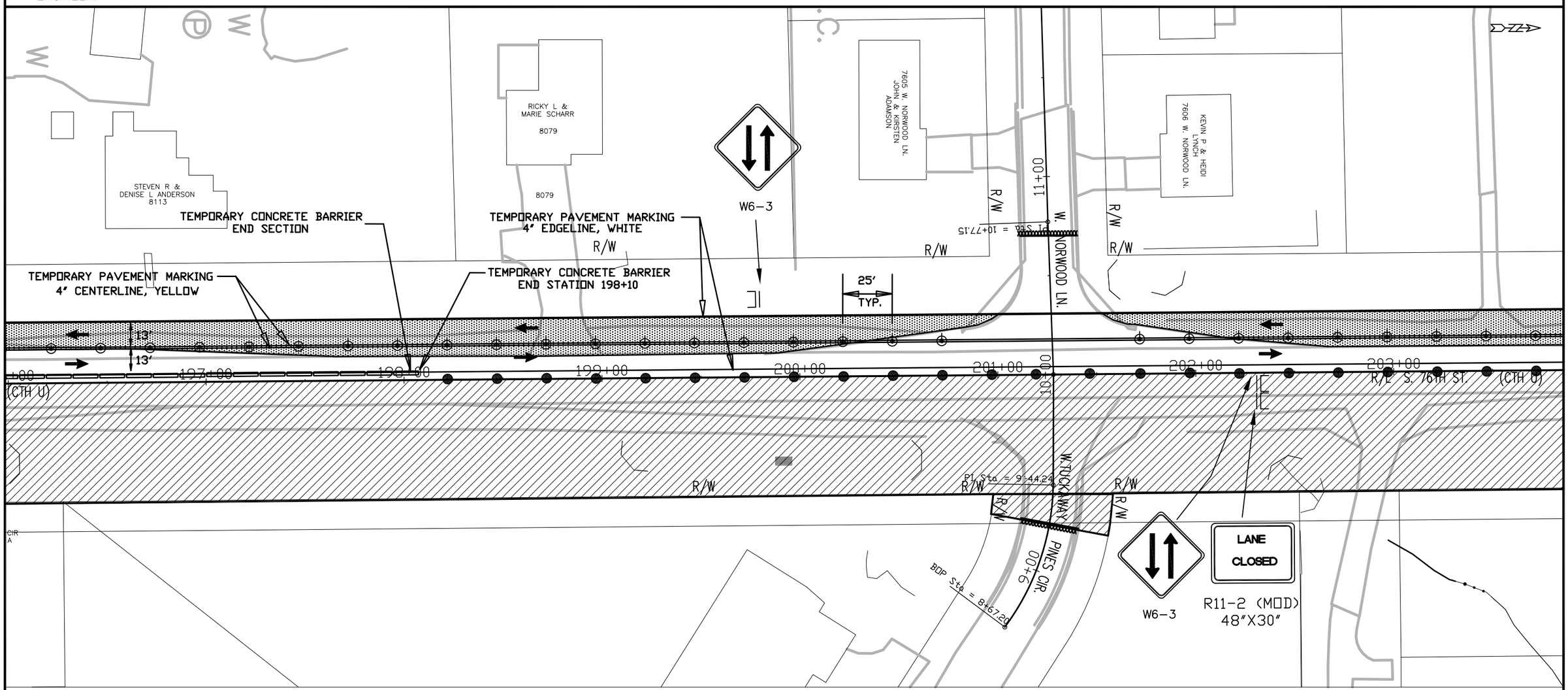
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TRAFFIC CONTROL - STAGE 2

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SCALE: 1" = 50'	SHEET NO: E

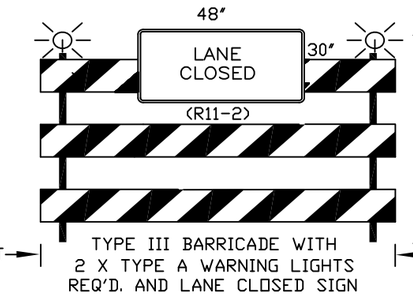
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WISDOT/CADDS SHEET 40

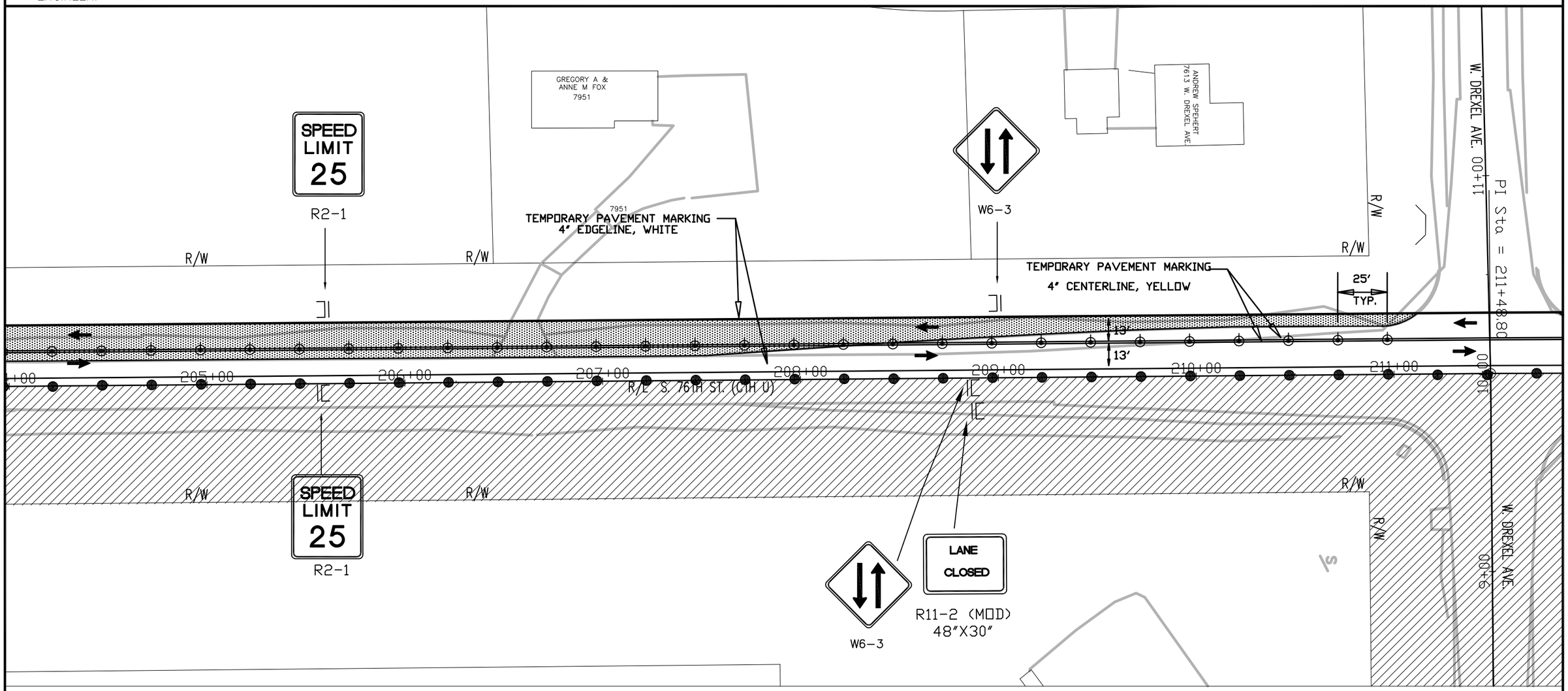
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TRAFFIC CONTROL - STAGE 2

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SCALE: 1" = 50'	SHEET NO:

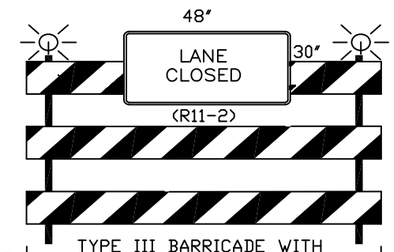
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WISDOT/CADDS SHEET 40

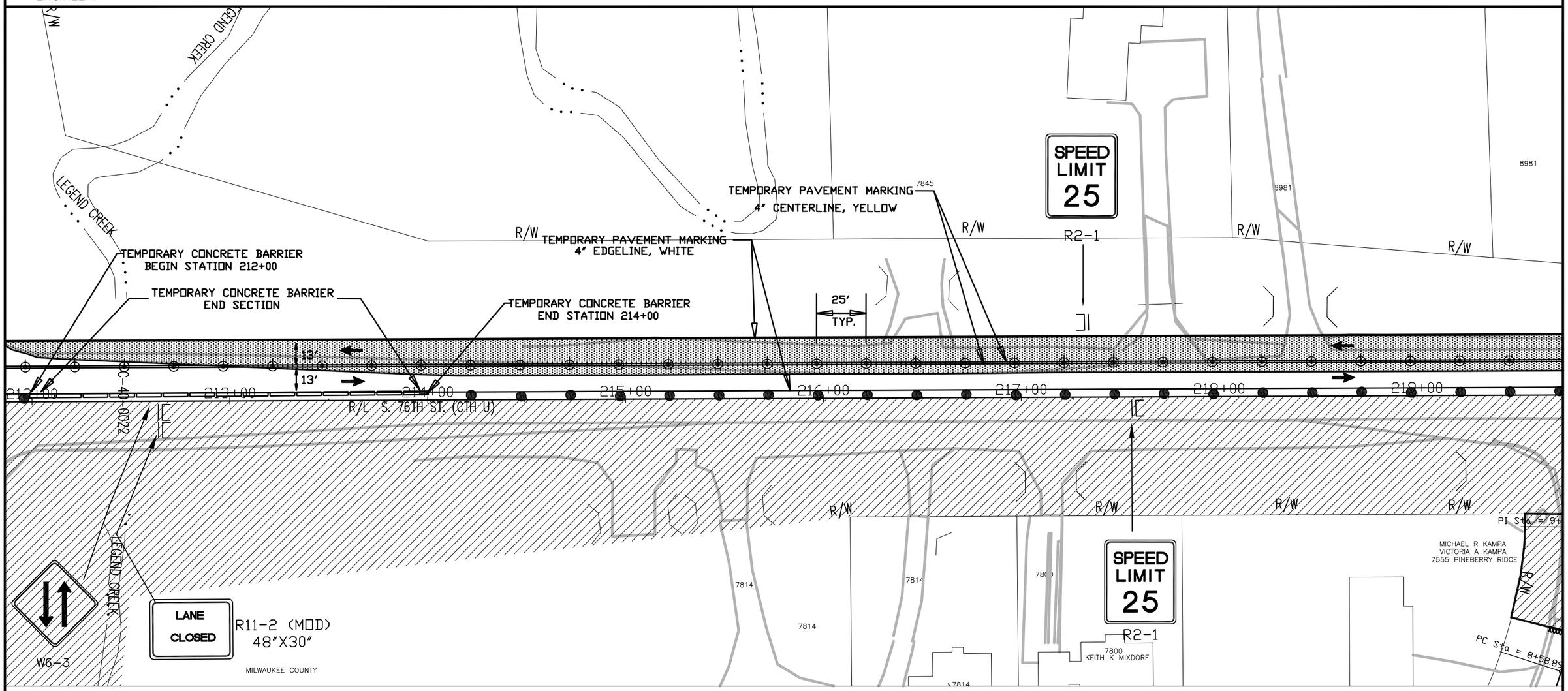
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TRAFFIC CONTROL - STAGE 2

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SCALE: 1" = 50'	SHEET NO:

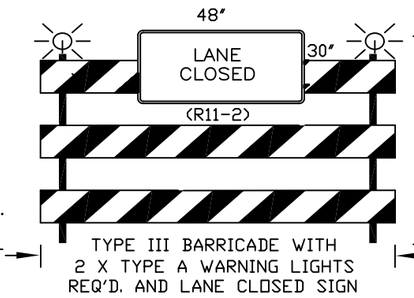
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WISDOT/CADDS SHEET 40

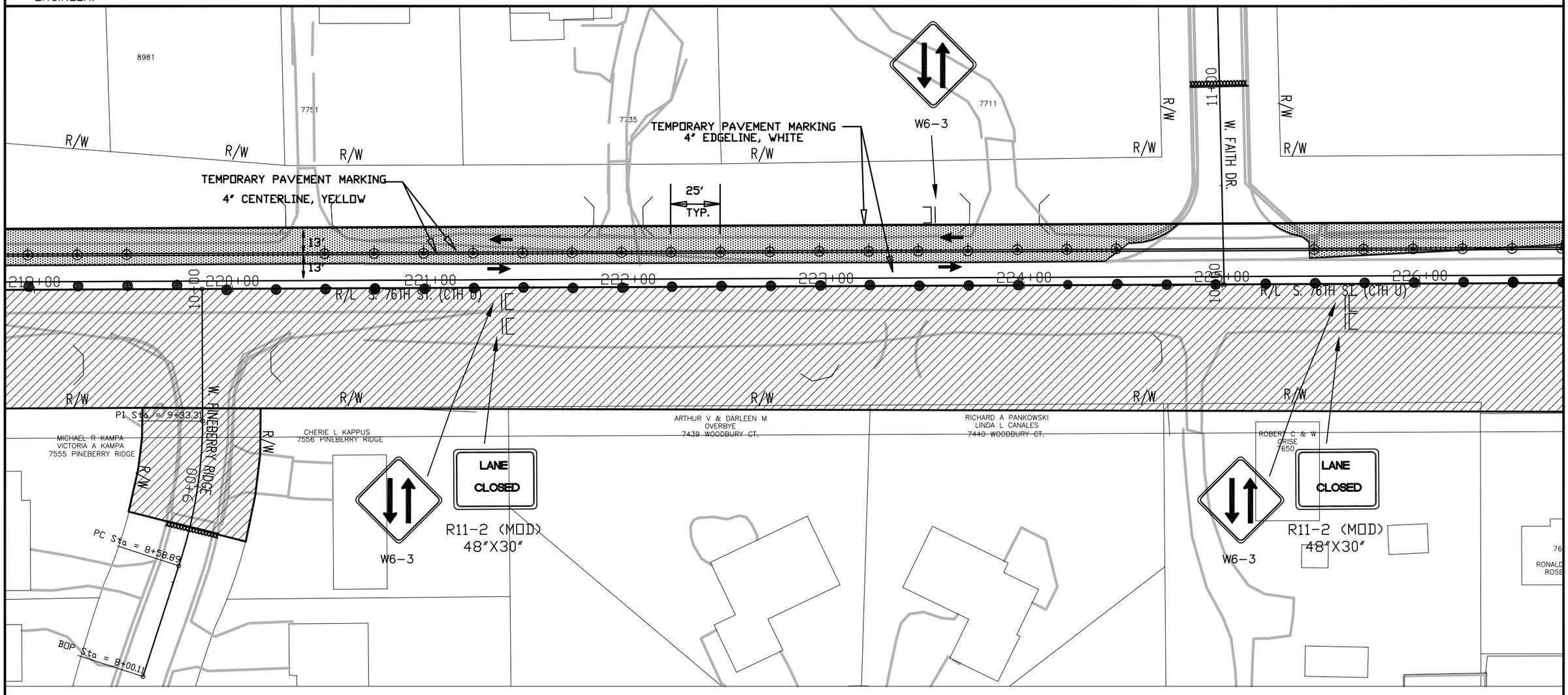
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TRAFFIC CONTROL - STAGE 2

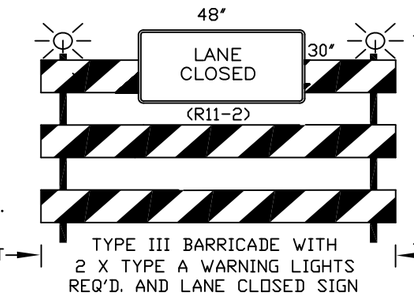
STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SCALE: 1" = 50'	SHEET NO:

REVISION DATE: 01/03/2013

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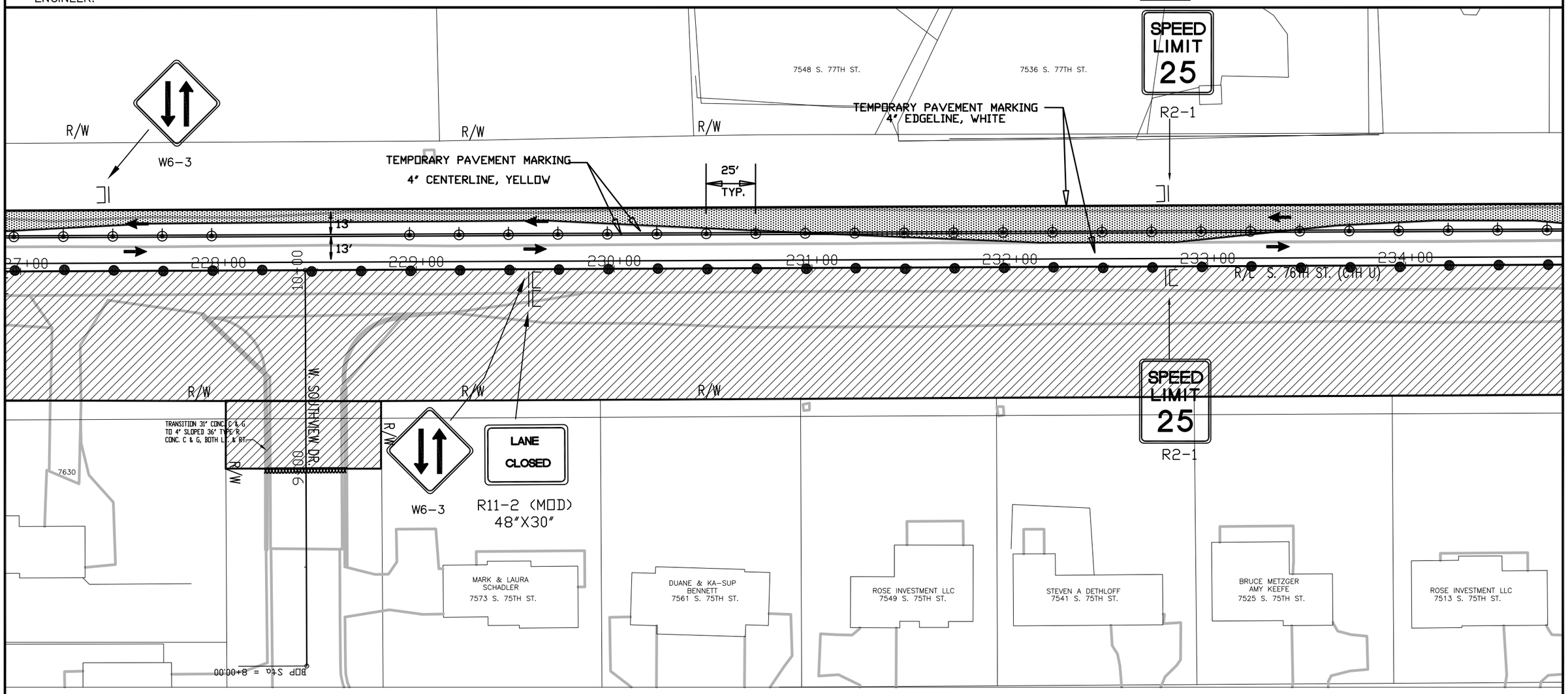
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TRAFFIC CONTROL - STAGE 2

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SCALE: 1" = 50'	SHEET NO:

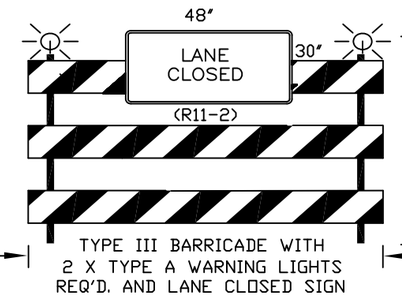
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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

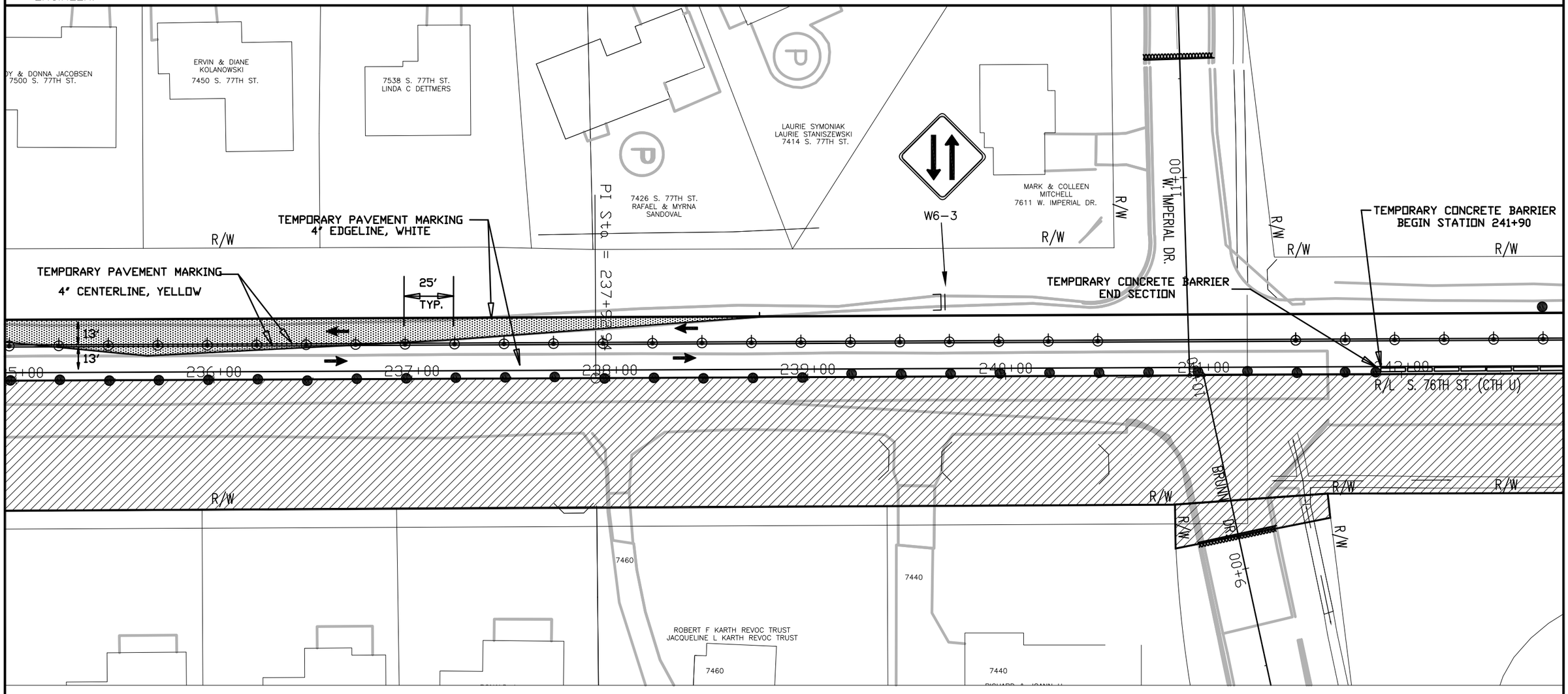
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TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

LEGEND

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TRAFFIC CONTROL - STAGE 2

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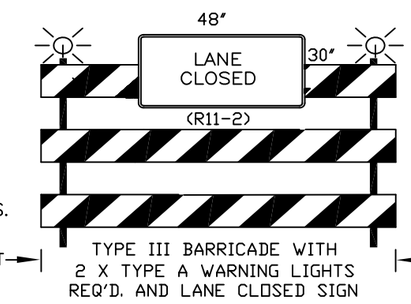
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WISDOT/CADDS SHEET 40

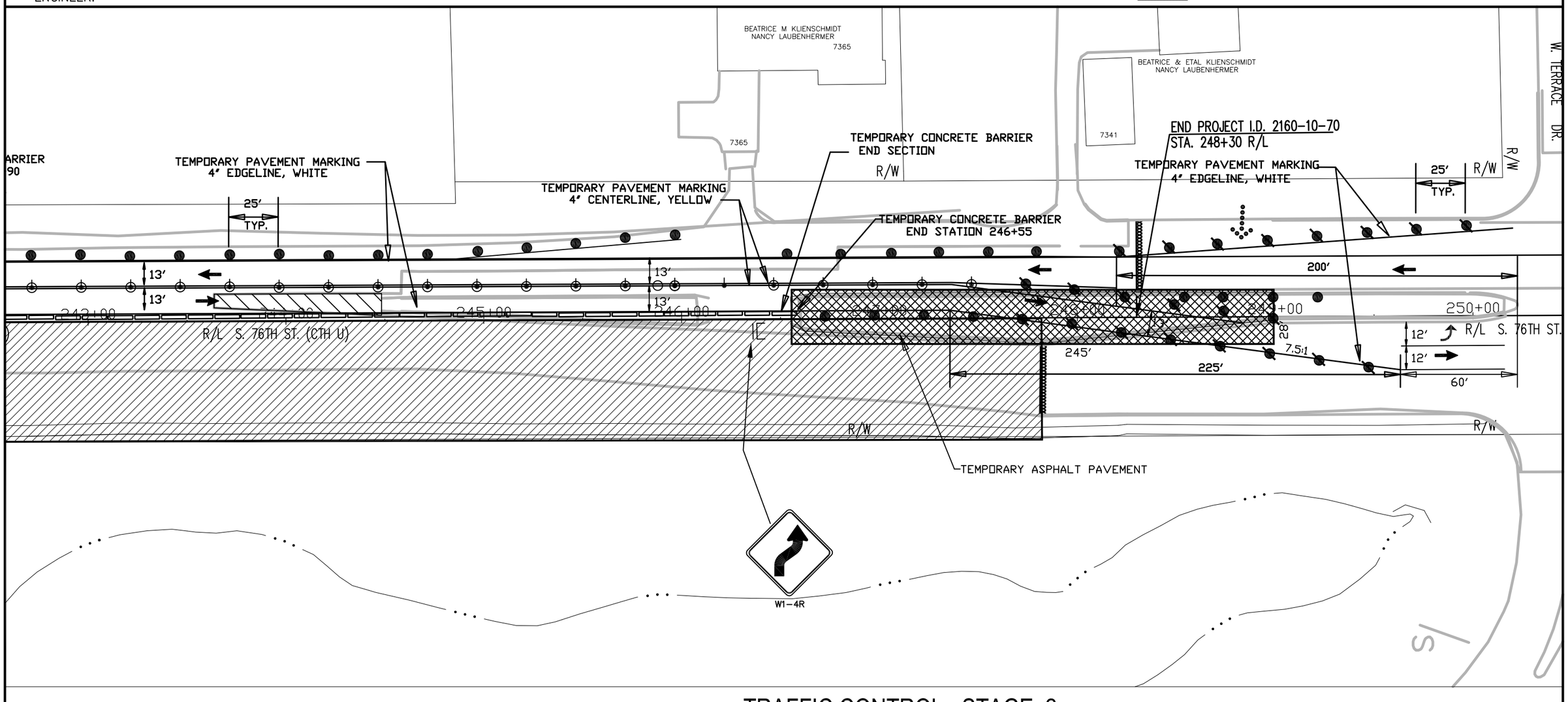
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TRAFFIC CONTROL - STAGE 2

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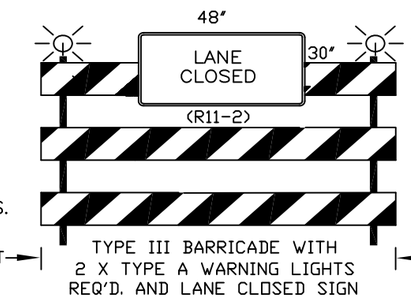
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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

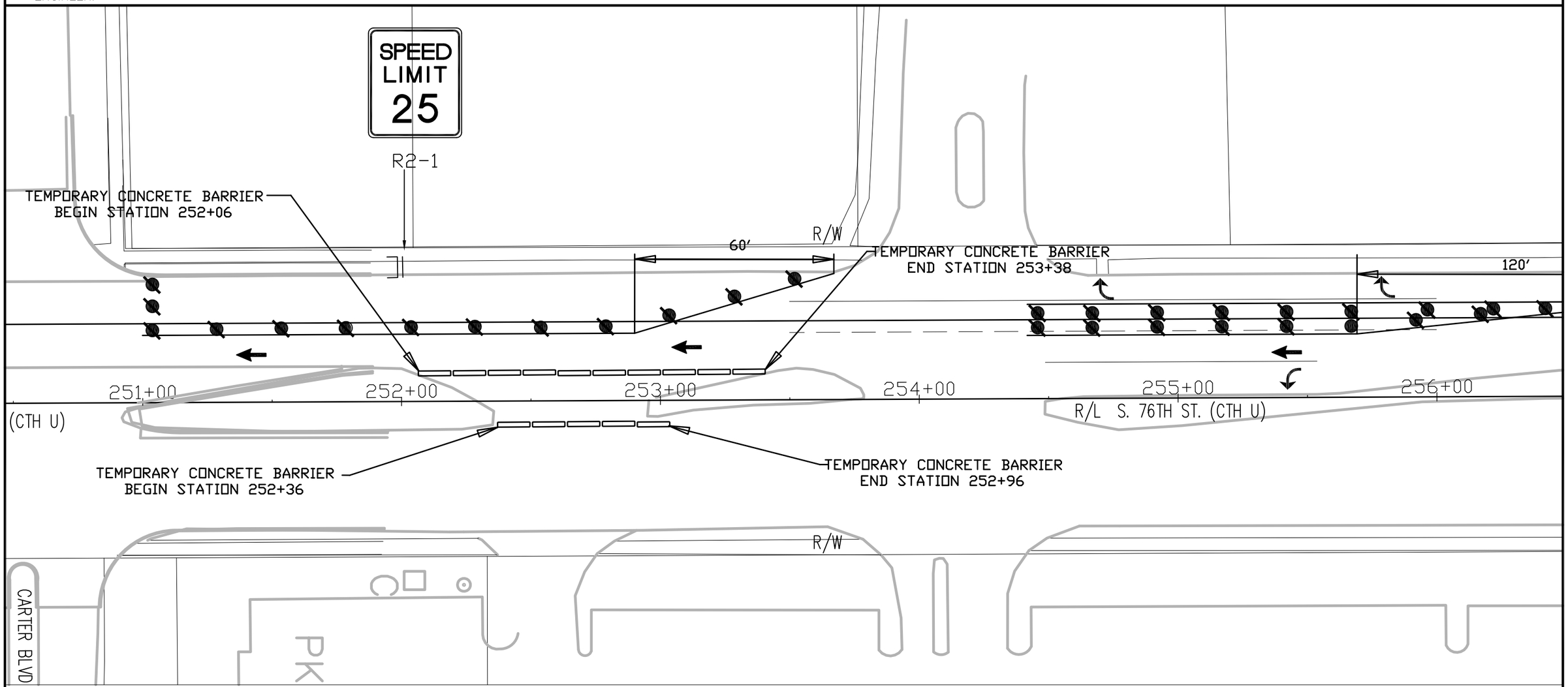
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10. SEE THE SPECIAL PROVISIONS AND TRAFFIC CONTROL STAGE 2 TYPICAL SECTIONS FOR MORE INFORMATION.



TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

LEGEND

- WORK ZONE
- TYPE III BARRICADES WITH / WITHOUT SIGN AND TWO TYPE "A" WARNING LIGHTS (SEE DETAIL THIS SHEET)
- TRAFFIC CONTROL DRUMS WITH/WITHOUT STEADY BURN TYPE "C" LIGHT
- SIGN ON PORTABLE SUPPORT
- SIGN ON PERMANENT SIGN POST
- ARROW BOARD
- TRAFFIC FLOW (FOR INFORMATION ONLY)
- FLEXIBLE TUBULAR MARKER POST AND BASE
- ASPHALT SURFACE TEMPORARY – SEE TYPICAL SECTIONS



TRAFFIC CONTROL - STAGE 2

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SCALE: 1" = 50'	SHEET NO: E

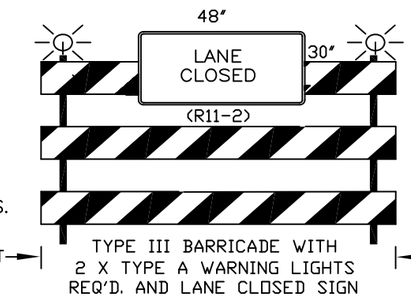
REVISION DATE: 01/03/2013

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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

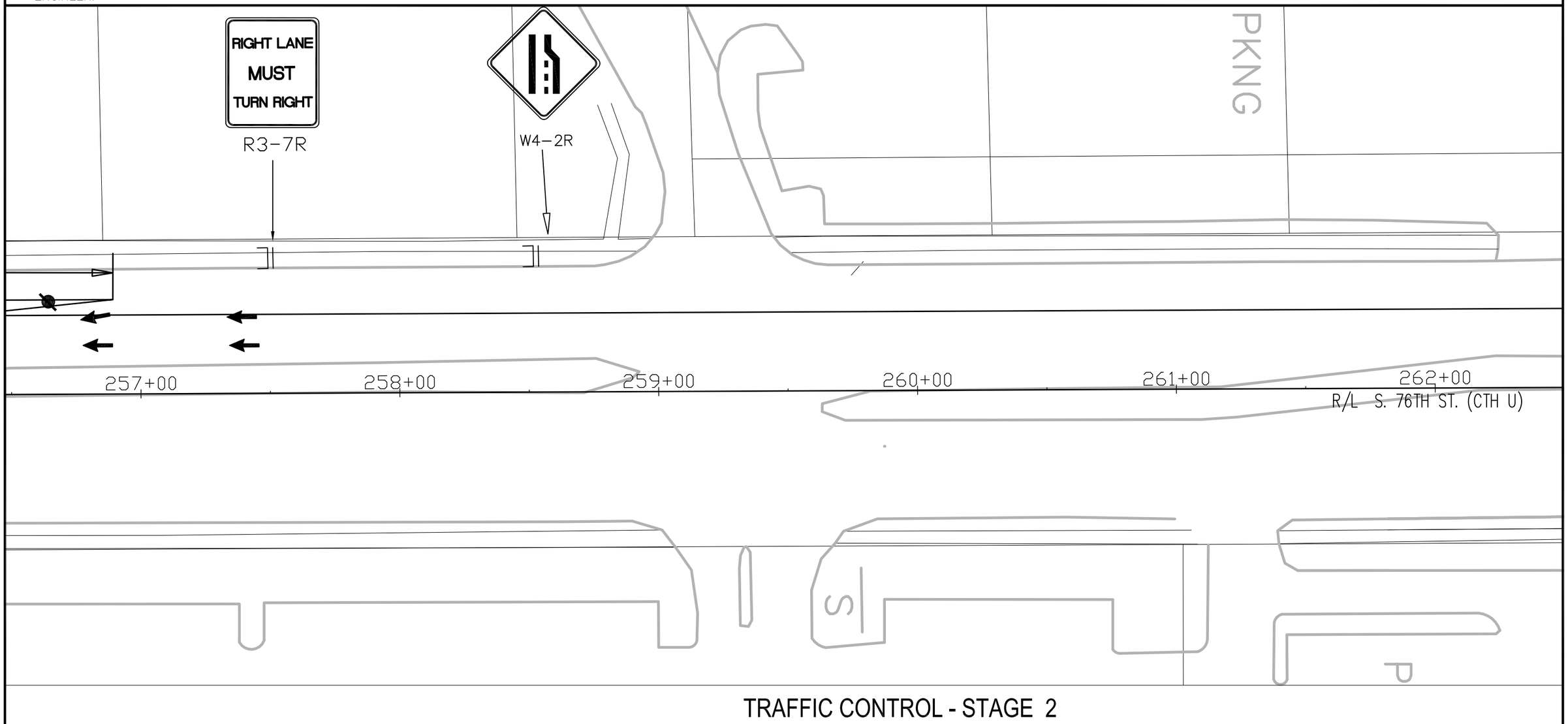
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TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

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- FLEXIBLE TUBULAR MARKER POST AND BASE
- ASPHALT SURFACE TEMPORARY – SEE TYPICAL SECTIONS



REVISION DATE: 01/03/2013

TRAFFIC CONTROL - STAGE 2

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SCALE: 1" = 50'	SHEET NO: E

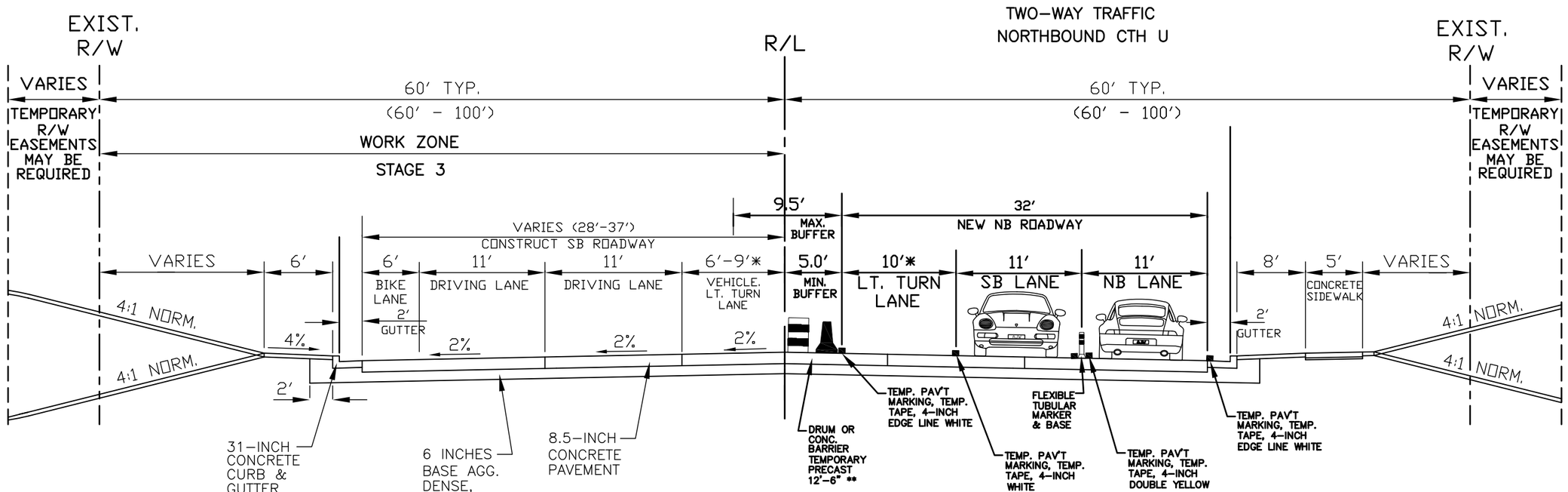
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WISDOT/CADDS SHEET 40

TRAFFIC CONTROL STAGING TYPICAL SECTIONS

STAGE 3 – CONSTRUCT SOUTHBOUND LANES

2



TRAFFIC CONTROL STAGE 3 TYPICAL SECTION S. 76TH ST. (CTH U)

SOUTHBOUND CONSTRUCTION
600' N. OF HIGH ST. TO CARTER BLVD.
(STATION 144+00 TO STATION 248+30)

* AT INTERSECTIONS DESIGNATED ON PLANS. CONSTRUCT REMAINING LEFT TURN LANE FROM TRAFFIC CONTROL STAGE 2.

** PRECAST CONCRETE BARRIER TO BE USED AT DROP–OFFS GREATER THAN 2 FEET AND AT THE BOX CULVERT (C–40–0022), (STATION 159+00 TO STATION 186+00 AND STATION 212+00 TO STATION 236+00) AS SHOWN ON THE TRAFFIC CONTROL PLANS.

NOTES

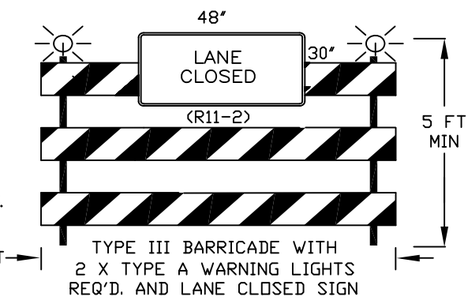
1). THE INTERSECTIONS OF W. PUETZ RD., W. DREXEL AVE. AND W. IMPERIAL DR. TO REMAIN OPEN TO TRAFFIC AT ALL TIMES.
2). SEE SPECIAL PROVISIONS.
3). SEE THE TRAFFIC CONTROL PLANS FOR DETAILS.

REVISION DATE: 12/17/2012

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL – STAGE 3 TYPICAL SECTION	SCALE: NTS	SHEET NO: E

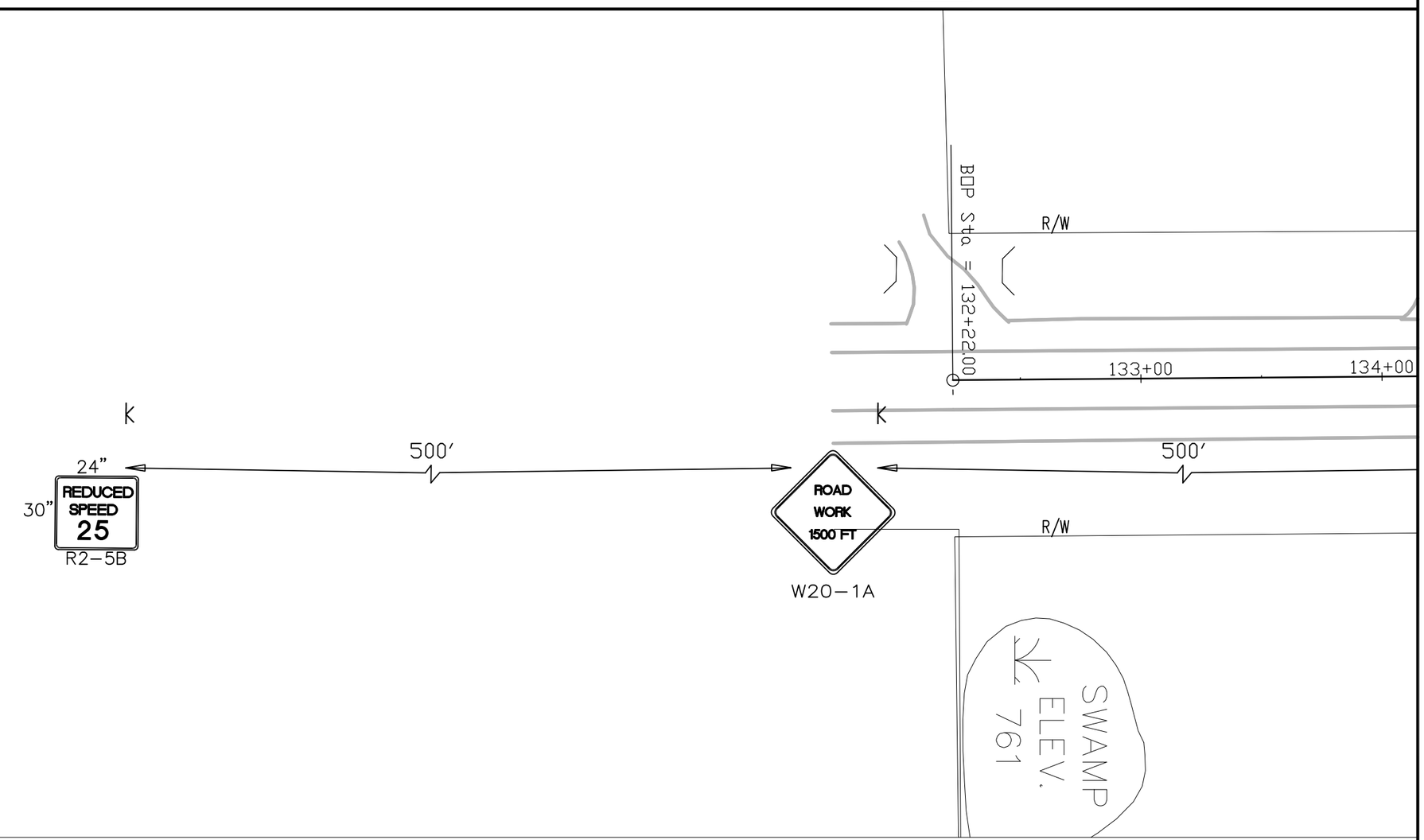
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- ASPHALT SURFACE TEMPORARY – SEE TYPICAL SECTIONS



TRAFFIC CONTROL - STAGE 3

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SCALE: 1" = 50'	SHEET NO: E

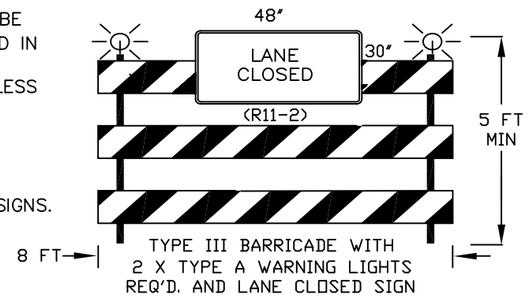
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WISDOT/CADDS SHEET 40

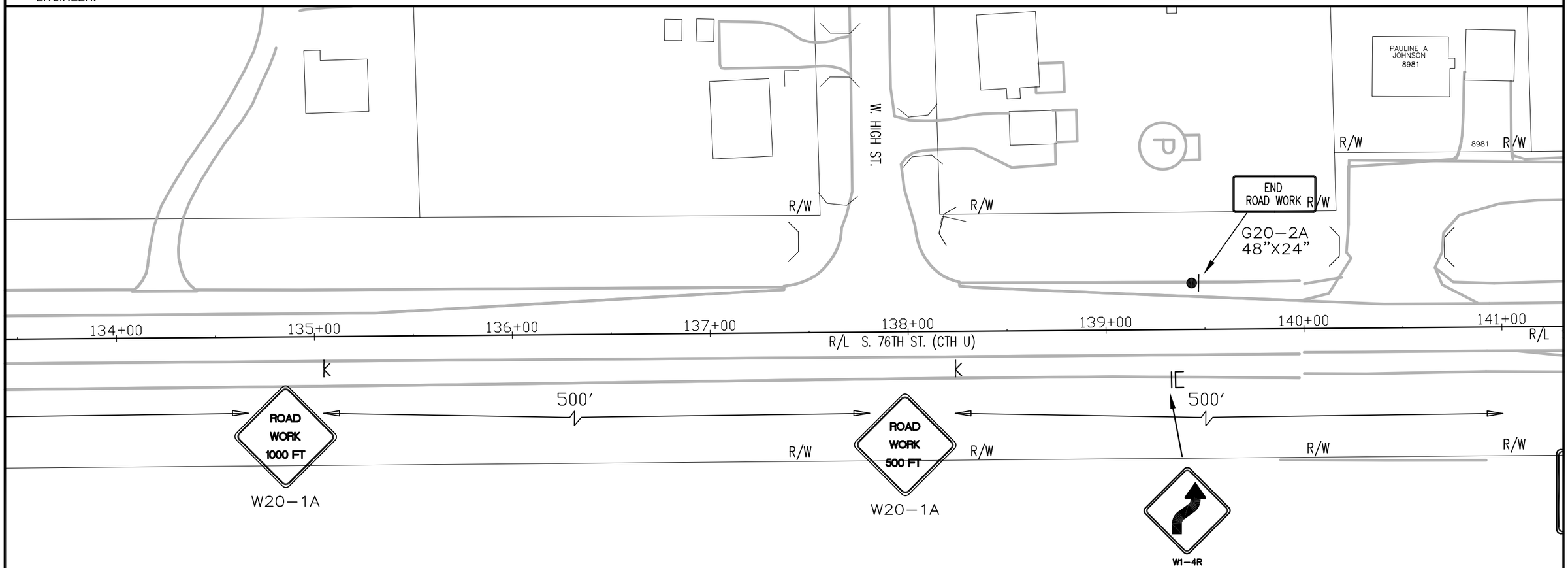
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TRAFFIC CONTROL - STAGE 3

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SCALE: 1" = 50'	SHEET NO: E

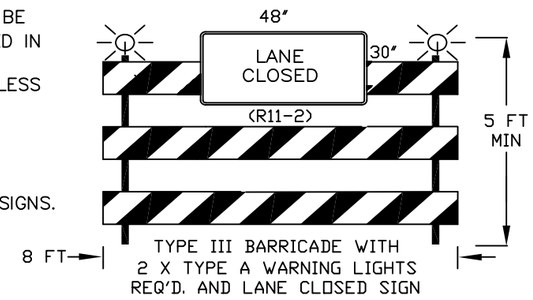
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WISDOT/CADDS SHEET 40

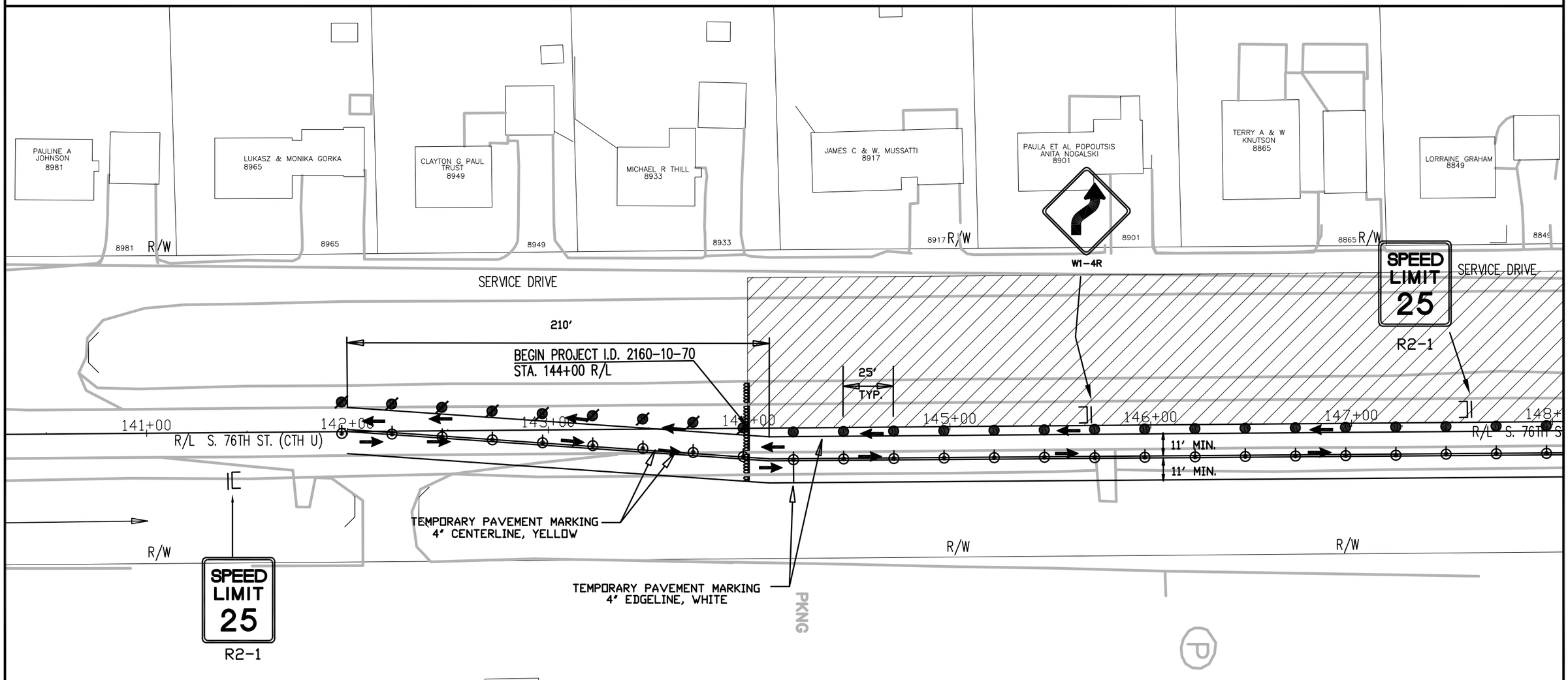
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TRAFFIC CONTROL - STAGE 3

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SCALE: 1" = 50'	SHEET NO: E

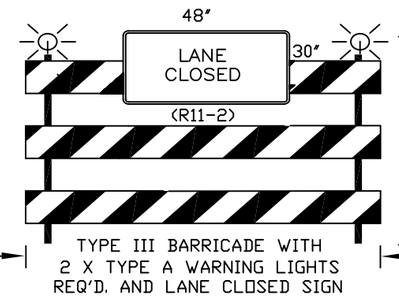
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WISDOT/CADDS SHEET 40

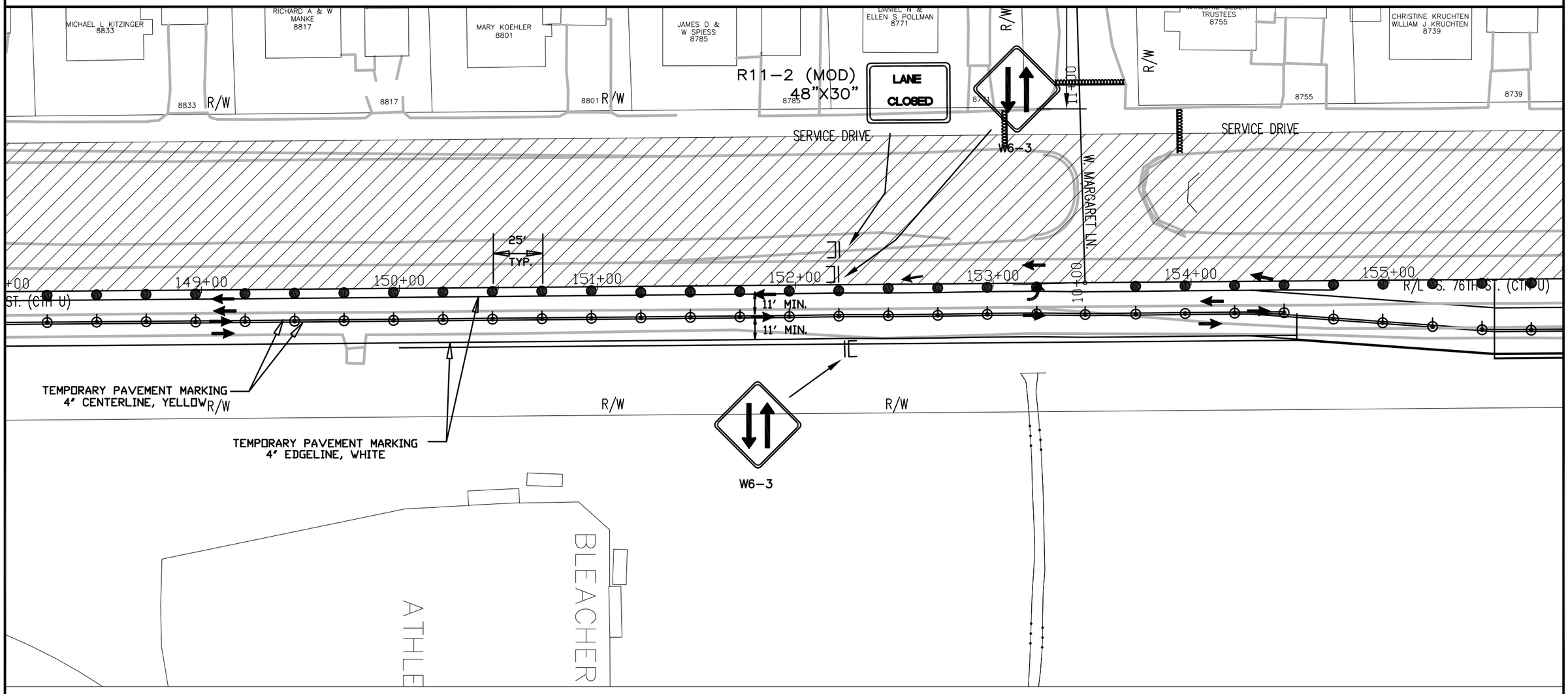
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TRAFFIC CONTROL - STAGE 3

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SCALE: 1" = 50'	SHEET NO: E

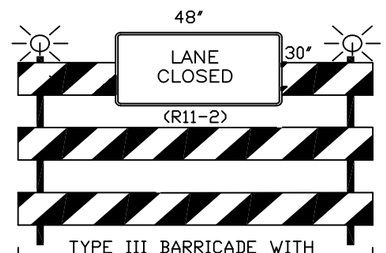
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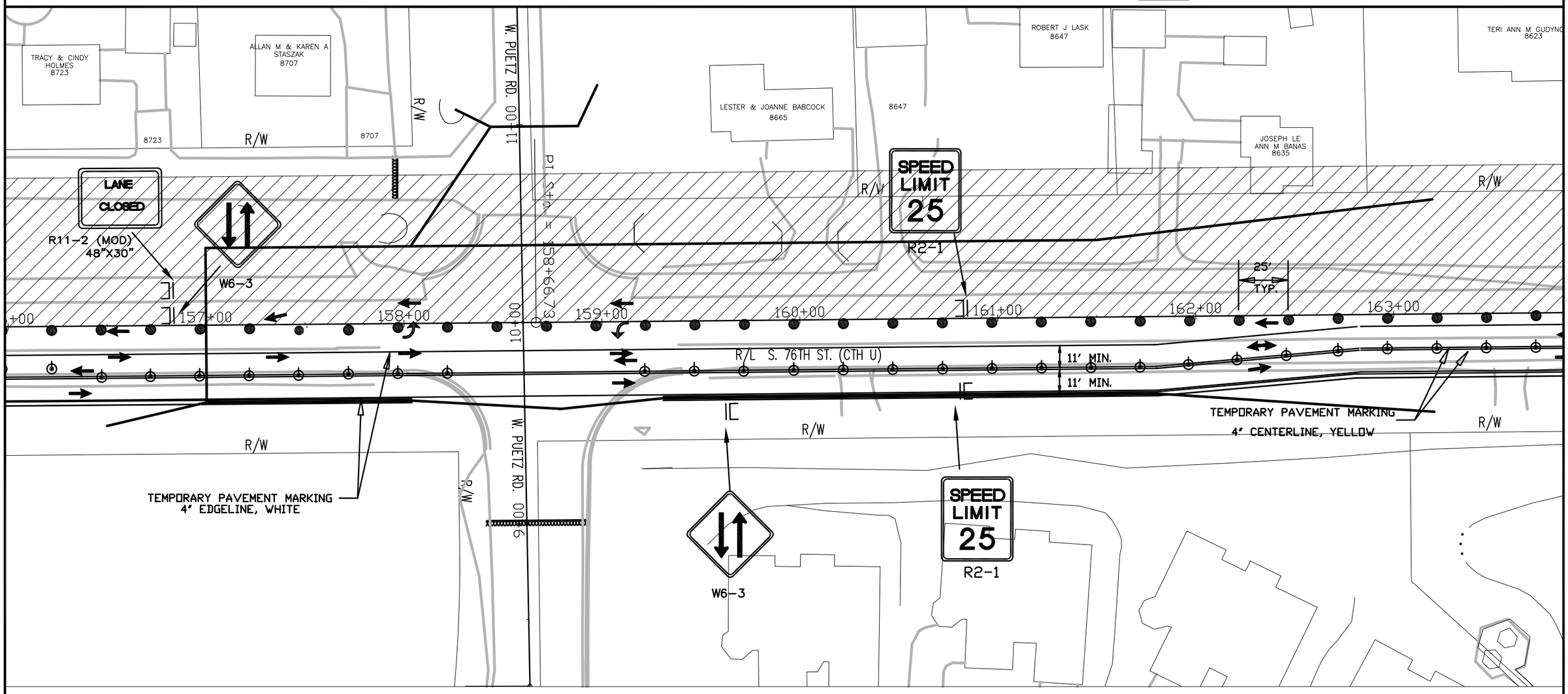
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TRAFFIC CONTROL - STAGE 3

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SCALE: 1" = 50'	SHEET NO: E

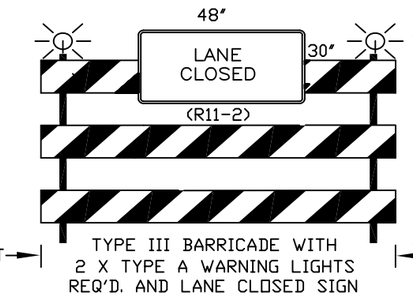
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WISDOT/CADDS SHEET 40

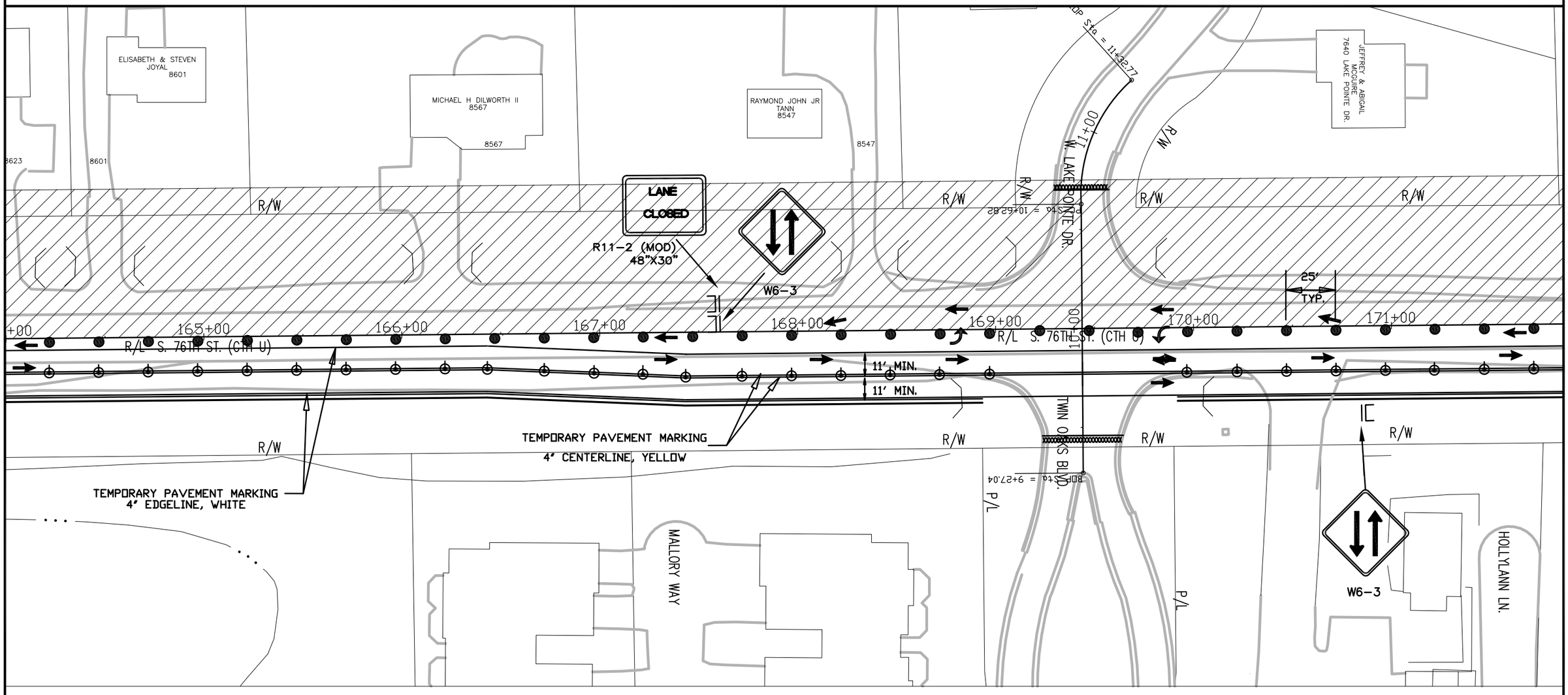
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TRAFFIC CONTROL - STAGE 3

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SCALE: 1" = 50'	SHEET NO:

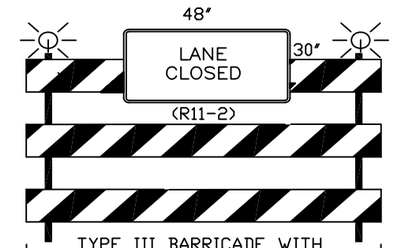
REVISION DATE: 01/03/2013

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WISDOT/CADDS SHEET 40

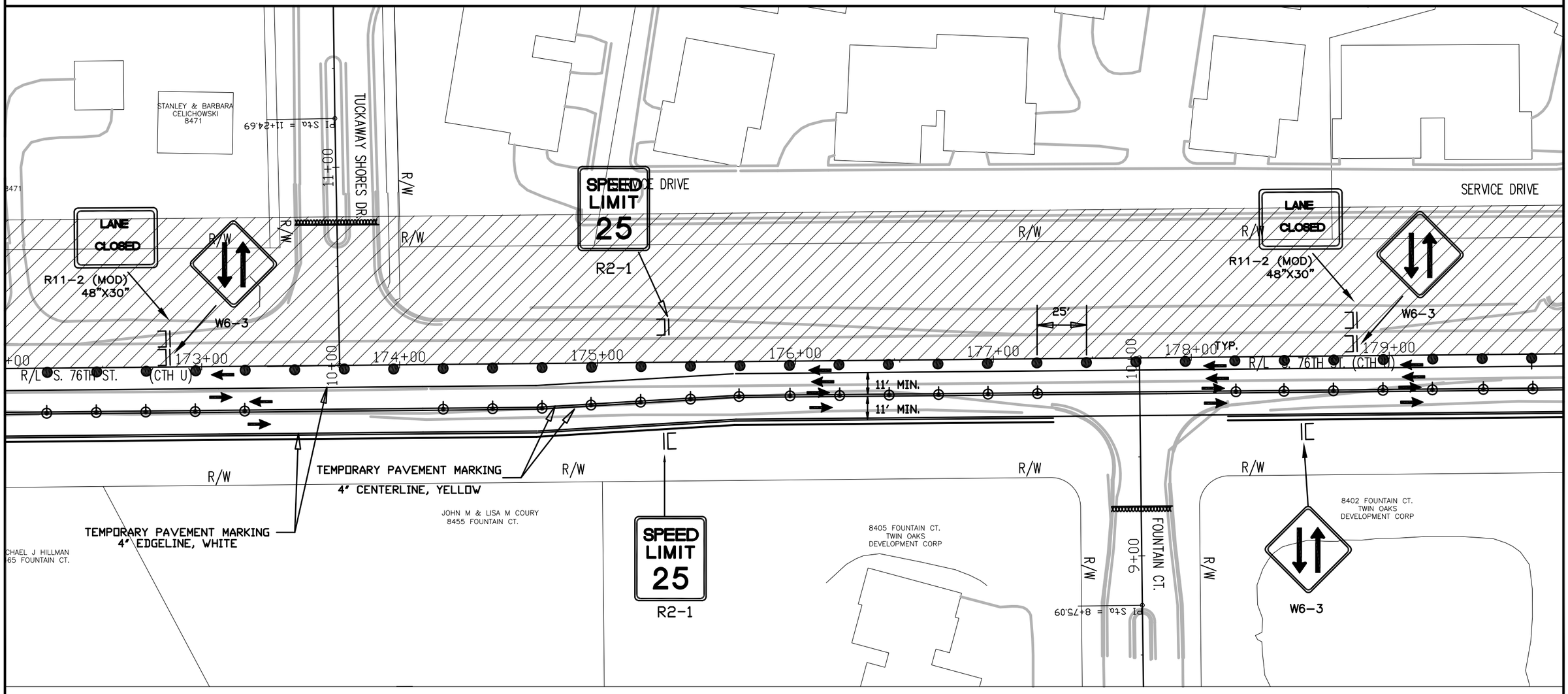
GENERAL TRAFFIC CONTROL NOTES

1. THE CONTRACTOR SHALL AT ALL TIMES DURING CONSTRUCTION MAINTAIN AT LEAST ONE 11–FOOT WIDE LANE (11–FOOT MINIMUM) OF TRAFFIC IN EACH DIRECTION (SEE SPECIAL PROVISIONS).
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9. SPEED LIMIT SIGNS SHALL BE R–SERIES REGULATORY SIGNS. W–SERIES WARNING SIGNS SHALL NOT BE USED.
10. SEE THE SPECIAL PROVISIONS AND TRAFFIC CONTROL STAGE 3 TYPICAL SECTION FOR MORE INFORMATION.



LEGEND

- WORK ZONE
- TYPE III BARRICADES WITH / WITHOUT SIGN AND TWO TYPE "A" WARNING LIGHTS (SEE DETAIL THIS SHEET)
- TRAFFIC CONTROL DRUMS WITH/WITHOUT STEADY BURN TYPE "C" LIGHT
- SIGN ON PORTABLE SUPPORT
- SIGN ON PERMANENT SIGN POST
- ARROW BOARD
- TRAFFIC FLOW (FOR INFORMATION ONLY)
- FLEXIBLE TUBULAR MARKER POST AND BASE
- ASPHALT SURFACE TEMPORARY – SEE TYPICAL SECTIONS



TRAFFIC CONTROL - STAGE 3

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SCALE: 1" = 50'	SHEET NO:

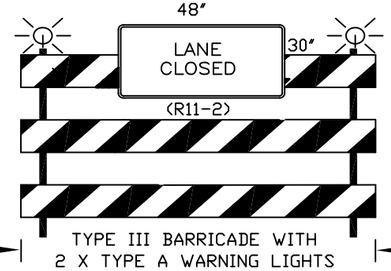
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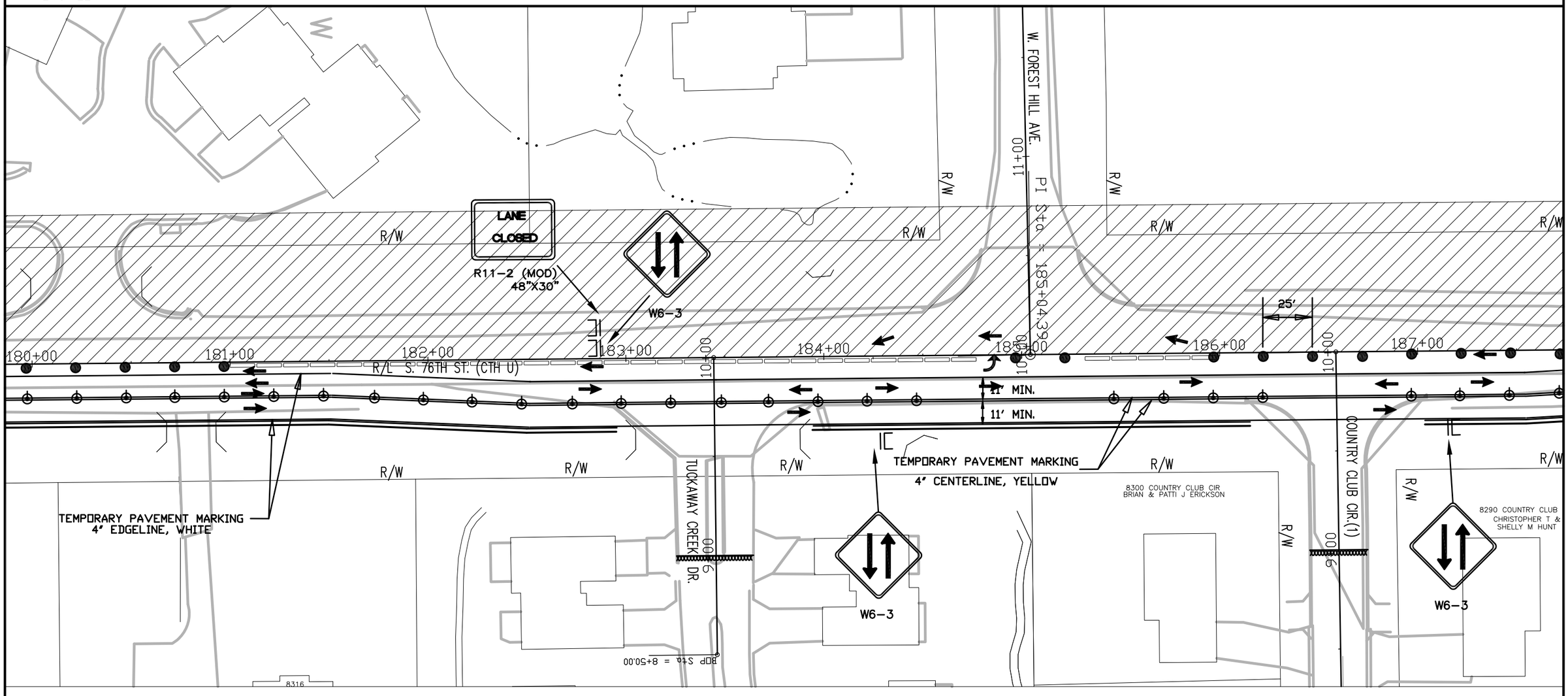
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TRAFFIC CONTROL - STAGE 3

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SCALE: 1" = 50'	SHEET NO: 233 E

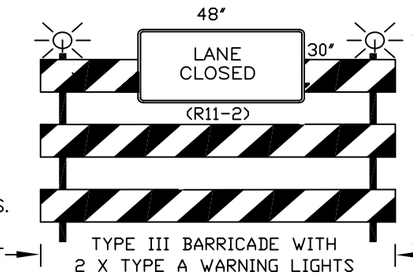
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WISDOT/CADDS SHEET 40

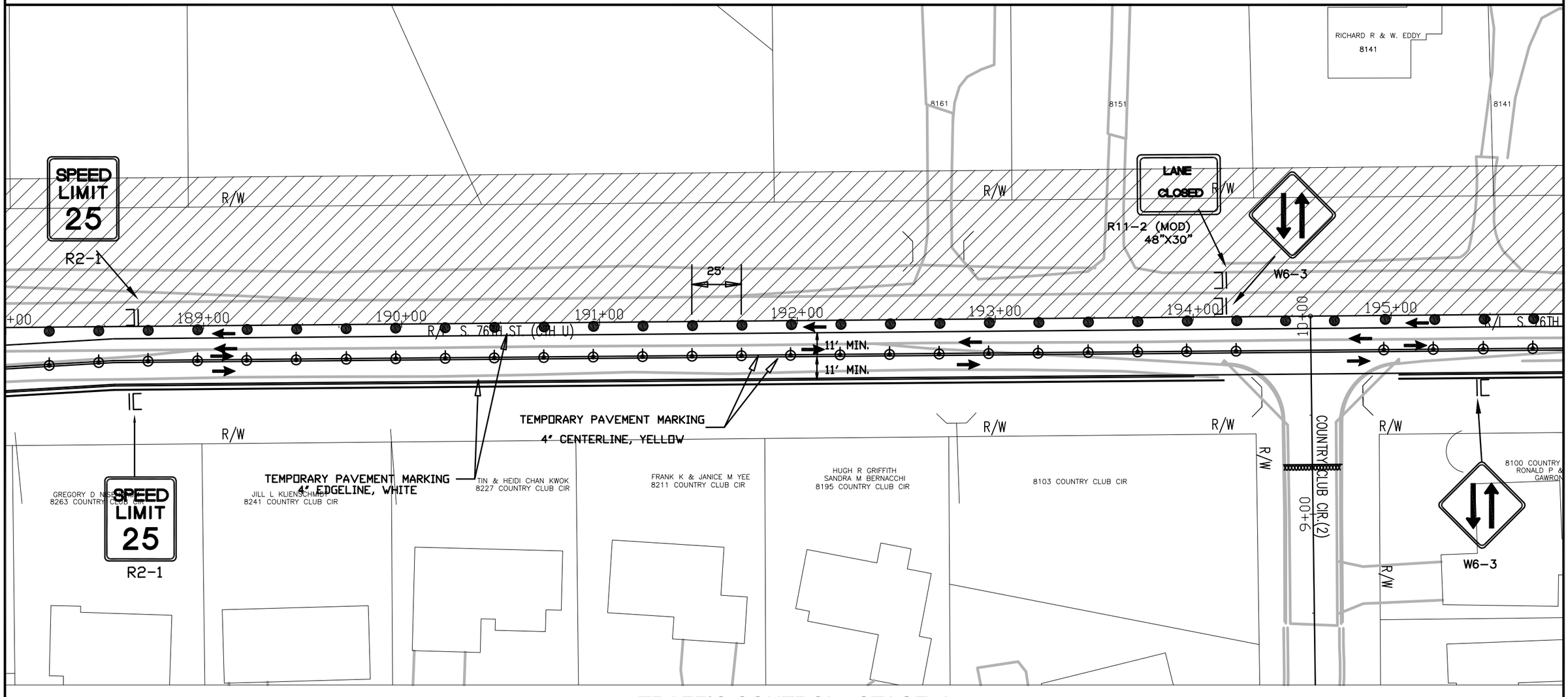
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TRAFFIC CONTROL - STAGE 3

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SCALE: 1" = 50'	SHEET NO: E

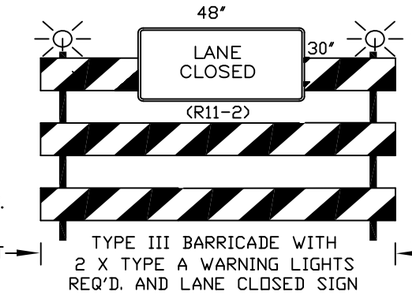
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WISDOT/CADDS SHEET 40

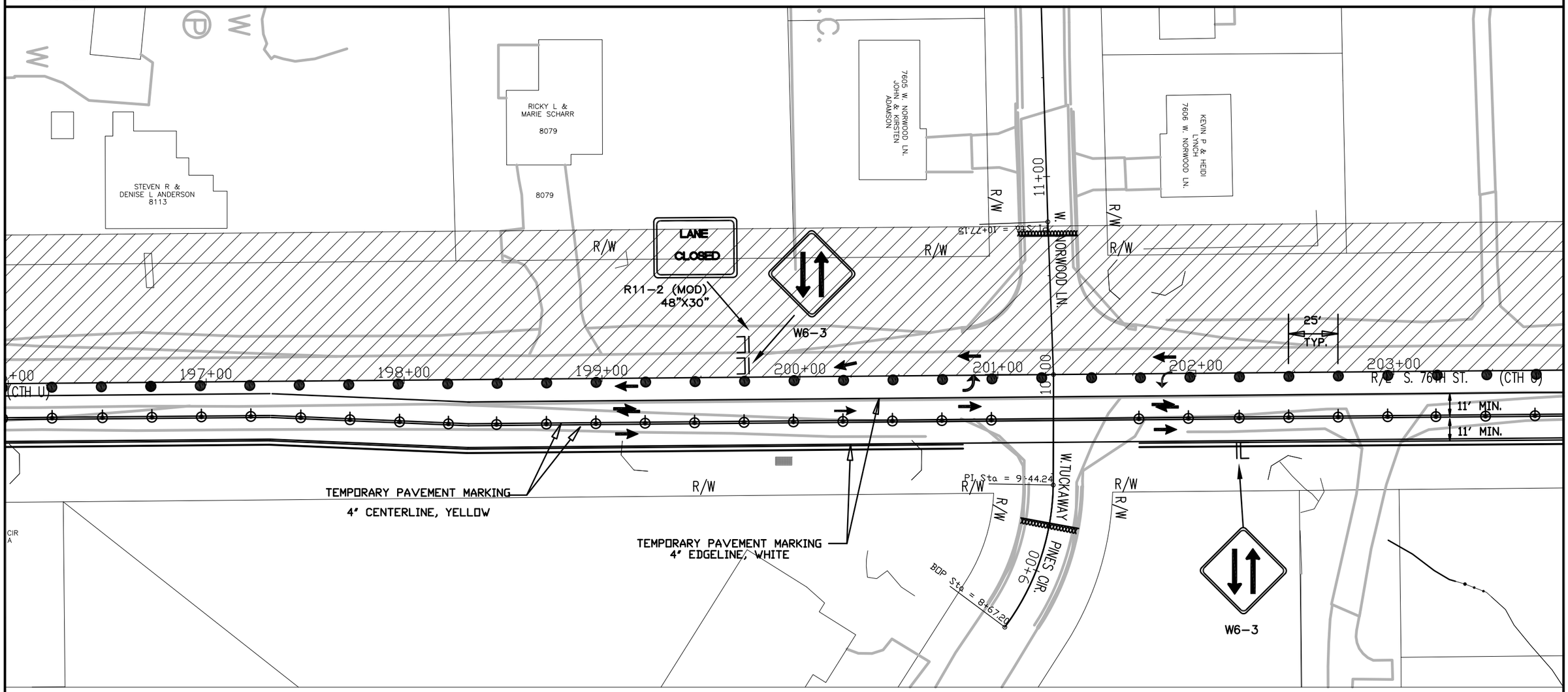
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TRAFFIC CONTROL - STAGE 3

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SCALE: 1" = 50'	SHEET NO: E

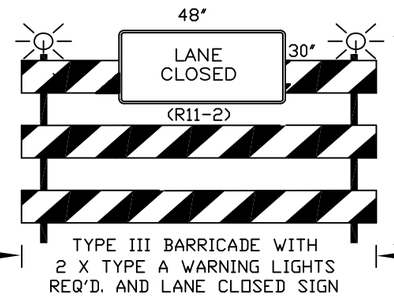
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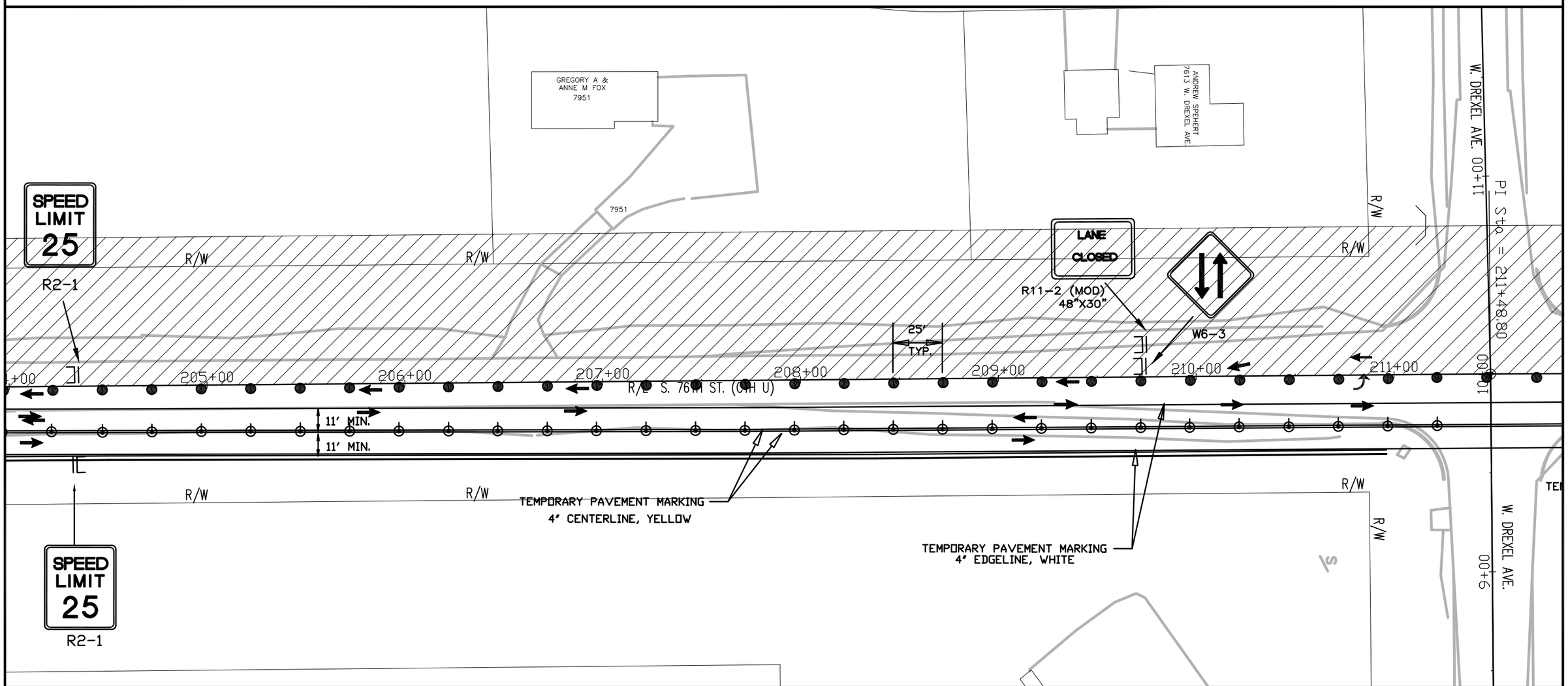
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REVISION DATE: 01/03/2013

TRAFFIC CONTROL - STAGE 3

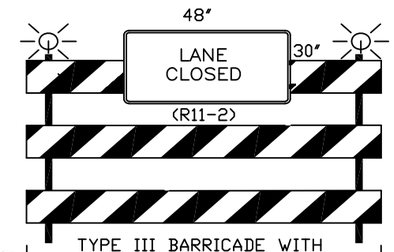
STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SCALE: 1" = 50'	SHEET NO:

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WISDOT/CADDS SHEET 40

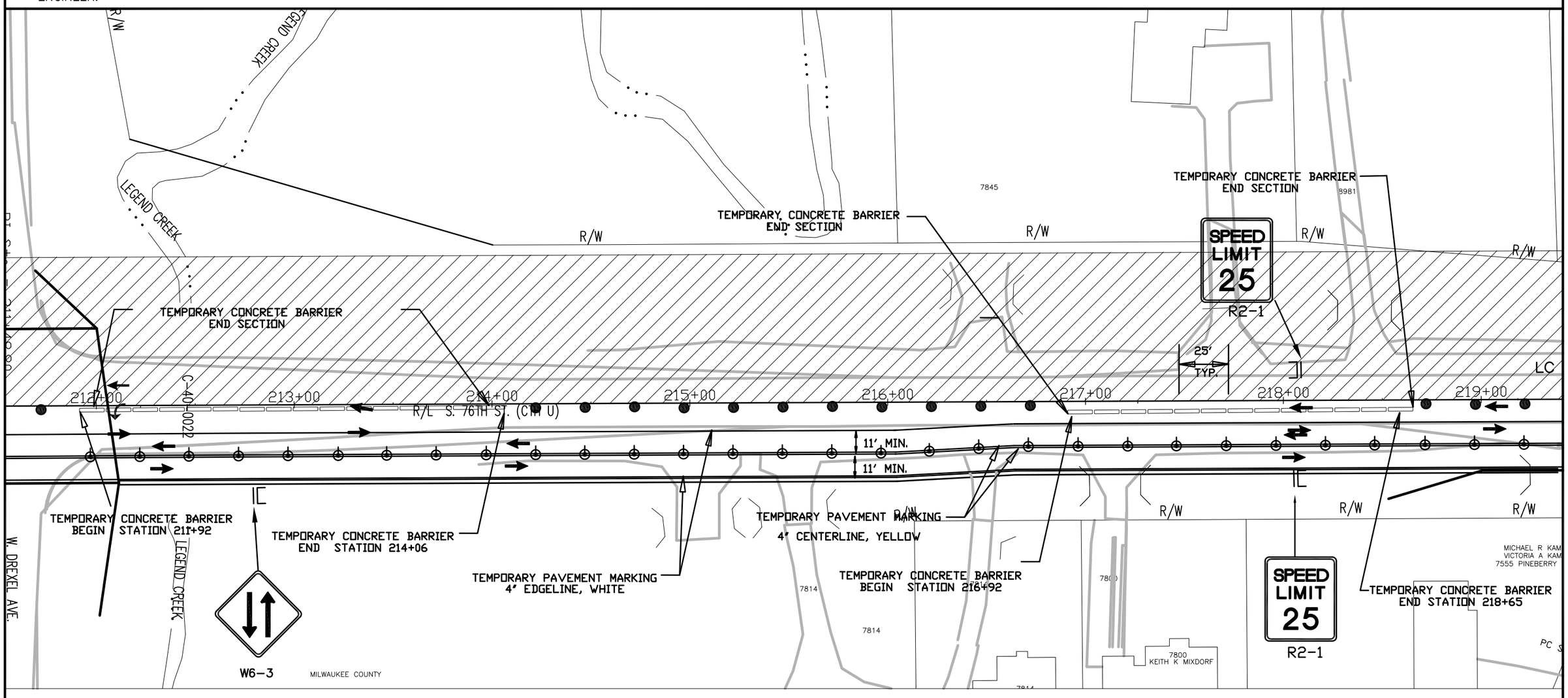
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REVISION DATE: 01/03/2013

TRAFFIC CONTROL - STAGE 3

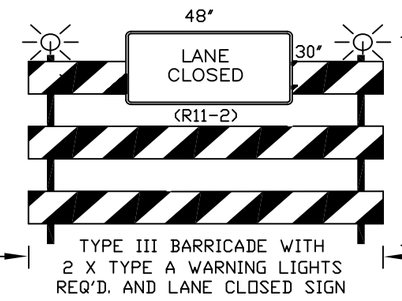
STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SCALE: 1" = 50'	SHEET NO: E

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WISDOT/CADDS SHEET 40

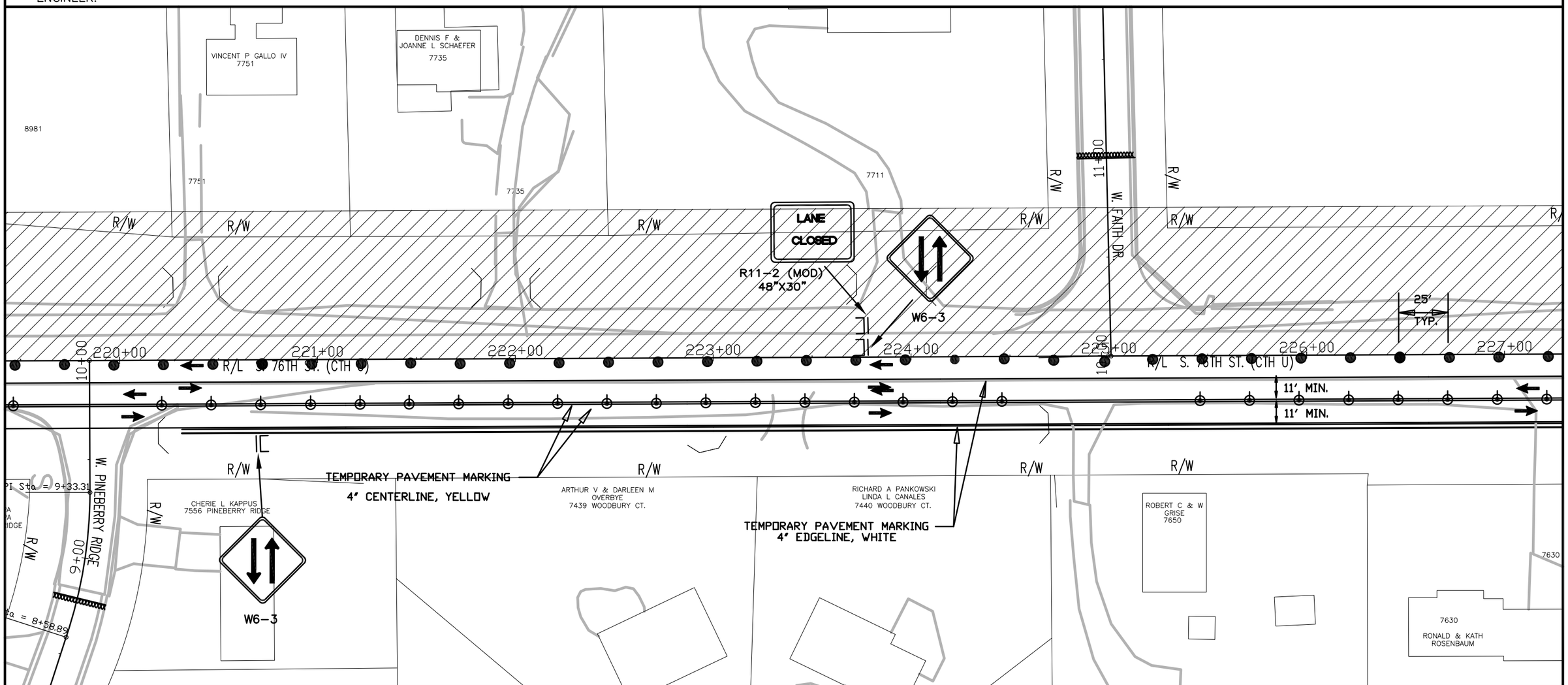
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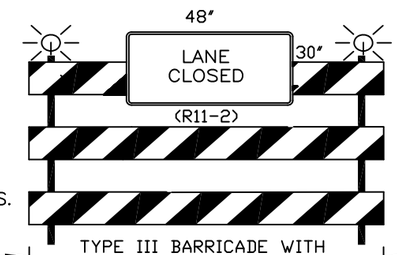
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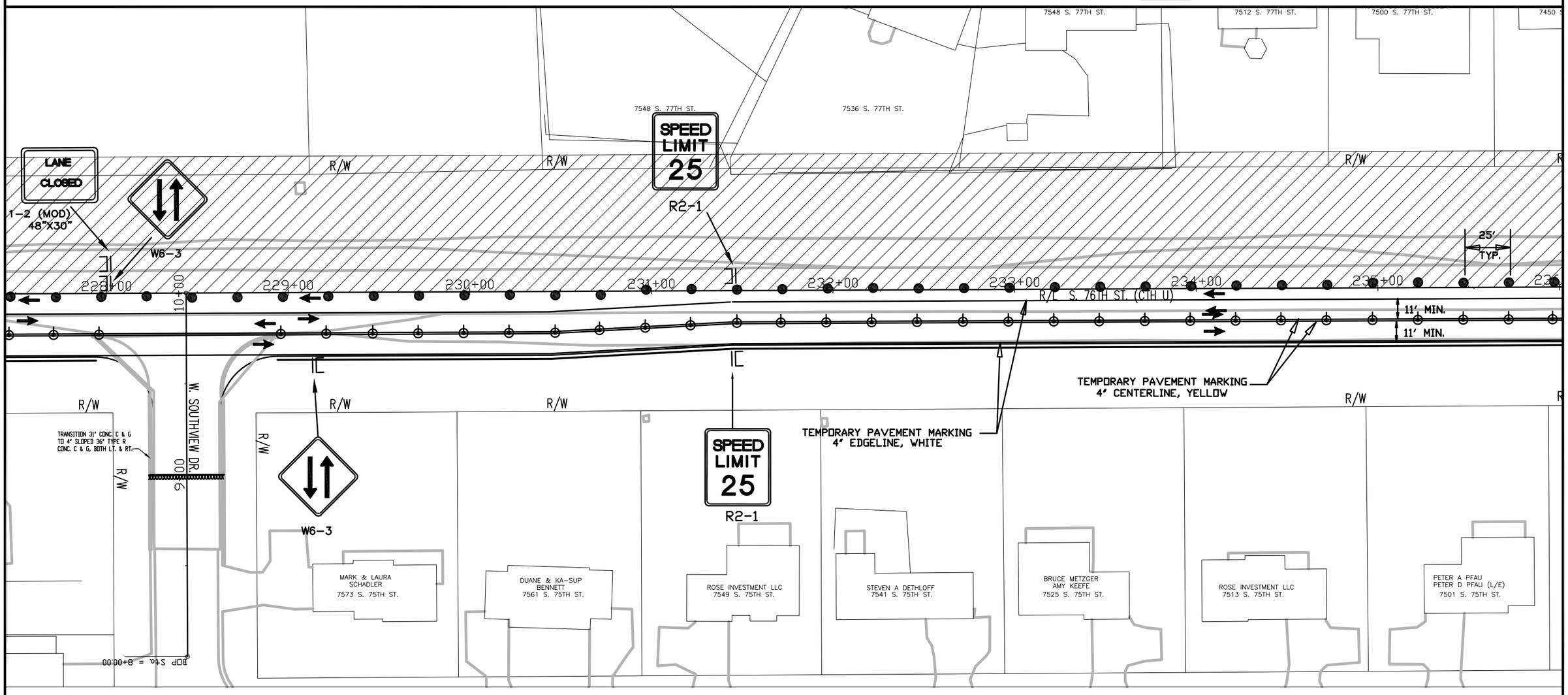
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TRAFFIC CONTROL - STAGE 3

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SCALE: 1" = 50'	SHEET NO: E

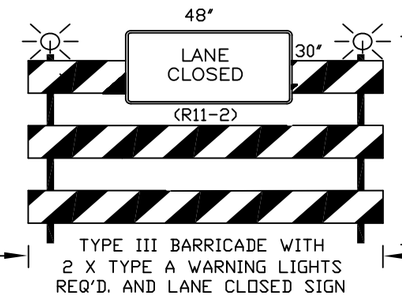
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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

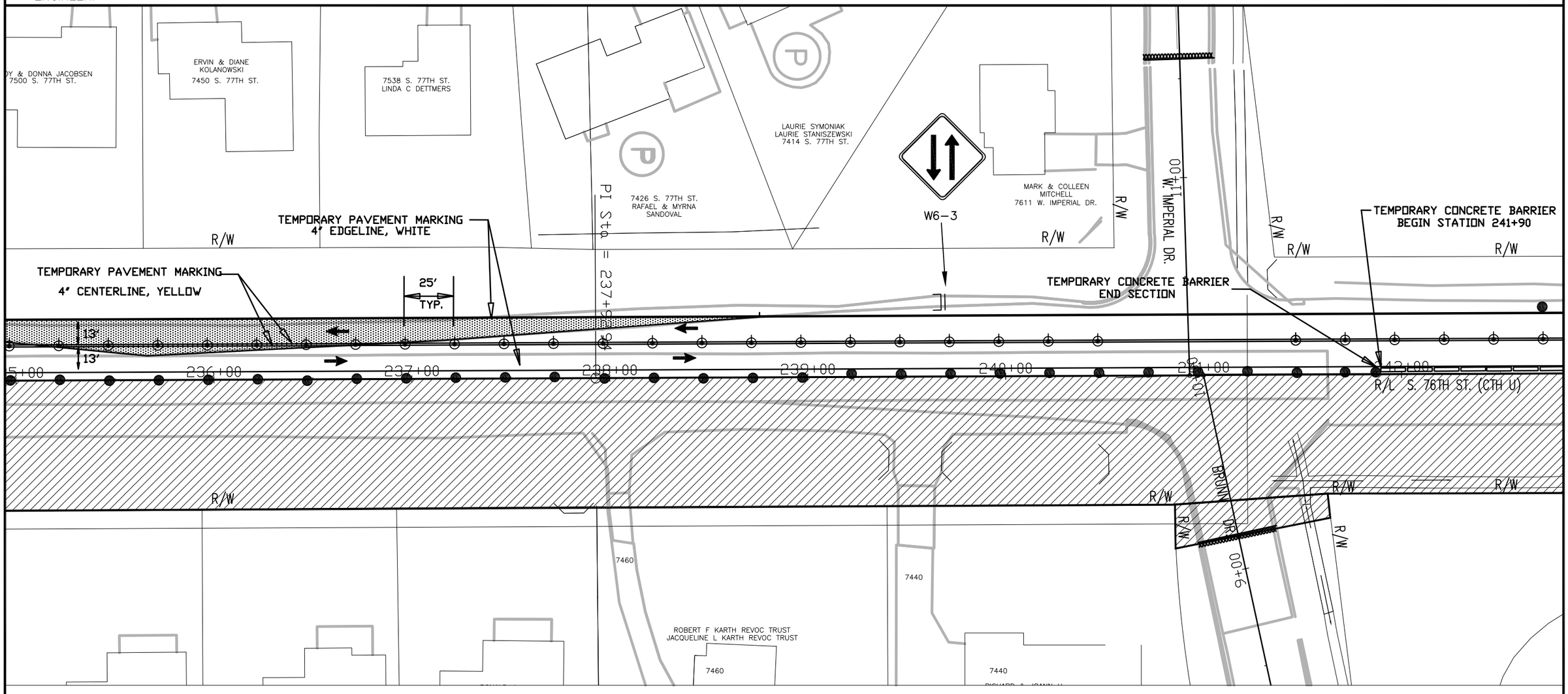
1. THE CONTRACTOR SHALL AT ALL TIMES DURING CONSTRUCTION MAINTAIN AT LEAST ONE 11–FOOT WIDE LANE (11–FOOT MINIMUM) OF TRAFFIC IN EACH DIRECTION (SEE SPECIAL PROVISIONS).
2. THE CONTRACTOR SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR ALL TRAFFIC CONTROL DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL COVER ANY SIGNS IN CONFLICT WITH THE TRAFFIC CONTROL IN OPERATION AS DIRECTED BY THE ENGINEER. THE COST OF COVERING SIGNS SHALL BE INCLUDED IN THE ITEM "TRAFFIC CONTROL".
4. SIGN LOCATIONS SHOWN ARE APPROXIMATE. THE ACTUAL LOCATION AND SPACING MAY BE ADJUSTED BY THE ENGINEER
5. ADEQUATE TURNING PROVISIONS SHALL BE MAINTAINED FOR ALL VEHICLES, INCLUDING TRUCKS, AS DIRECTED BY THE ENGINEER.
6. ALL EXISTING CONFLICTING PAVEMENT MARKING SHALL BE REMOVED. THE COST OF REMOVAL SHALL BE INCLUDED IN THE ITEM "TRAFFIC CONTROL".
7. ALL TRAFFIC CONTROL SIGNS SHALL BE 36" x 36" UNLESS OTHERWISE NOTED IN THE PLANS.
8. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ABUTTING PROPERTIES DURING CONSTRUCTION. (SEE SPECIAL PROVISIONS)
9. SPEED LIMIT SIGNS SHALL BE R–SERIES REGULATORY SIGNS. W–SERIES WARNING SIGNS SHALL NOT BE USED.
10. SEE THE SPECIAL PROVISIONS AND TRAFFIC CONTROL STAGE 2 TYPICAL SECTIONS FOR MORE INFORMATION.



TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

LEGEND

- WORK ZONE
- TYPE III BARRICADES WITH / WITHOUT SIGN AND TWO TYPE "A" WARNING LIGHTS (SEE DETAIL THIS SHEET)
- TRAFFIC CONTROL DRUMS WITH/WITHOUT STEADY BURN TYPE "C" LIGHT
- SIGN ON PORTABLE SUPPORT
- SIGN ON PERMANENT SIGN POST
- ARROW BOARD
- TRAFFIC FLOW (FOR INFORMATION ONLY)
- FLEXIBLE TUBULAR MARKER POST AND BASE
- ASPHALT SURFACE TEMPORARY – SEE TYPICAL SECTIONS



TRAFFIC CONTROL - STAGE 2

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SCALE: 1" = 50'	SHEET NO:

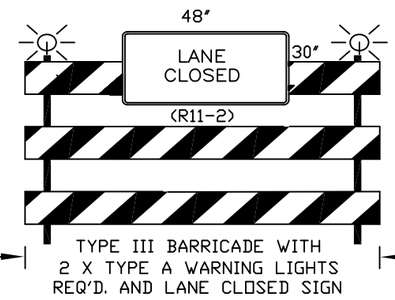
REVISION DATE: 01/03/2013

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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

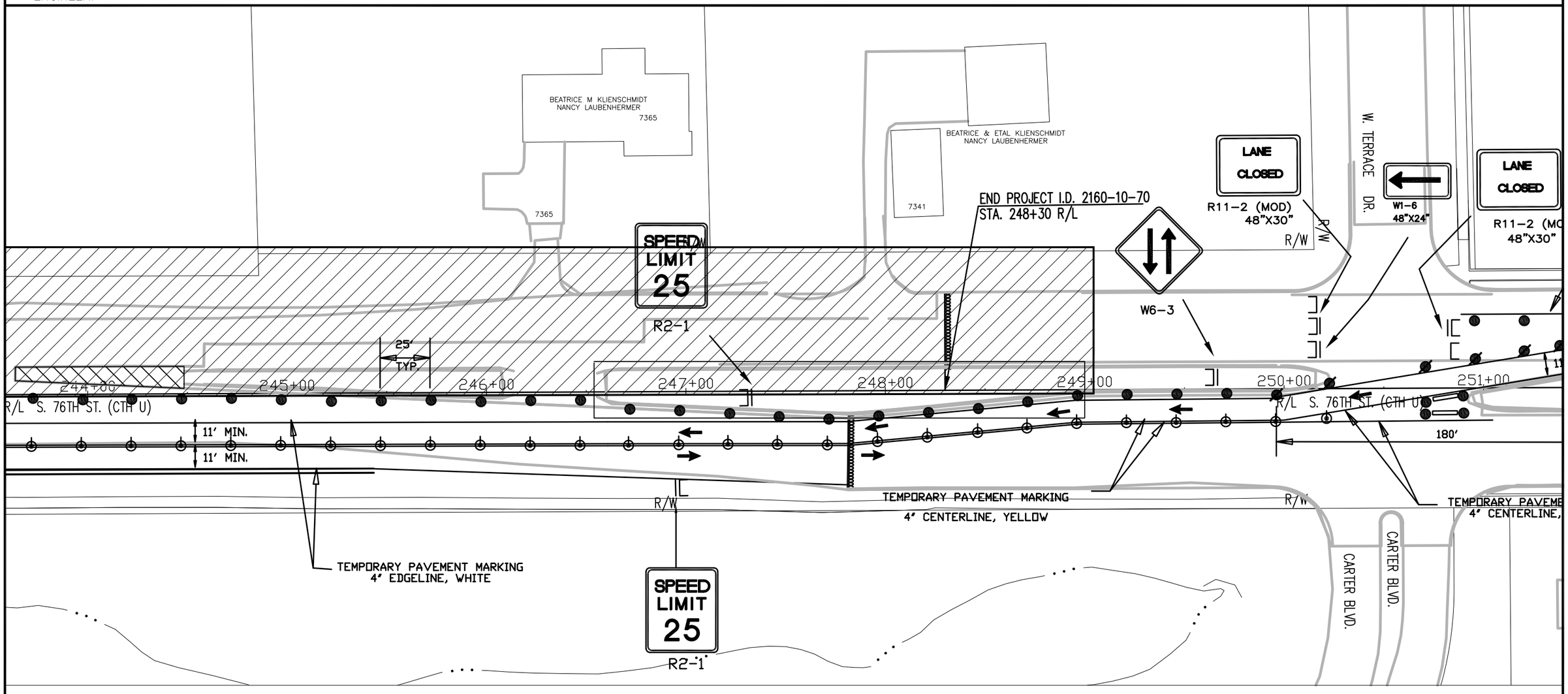
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7. ALL TRAFFIC CONTROL SIGNS SHALL BE 36" x 36" UNLESS OTHERWISE NOTED IN THE PLANS.
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9. SPEED LIMIT SIGNS SHALL BE R–SERIES REGULATORY SIGNS. W–SERIES WARNING SIGNS SHALL NOT BE USED.
10. SEE THE SPECIAL PROVISIONS AND TRAFFIC CONTROL STAGE 3 TYPICAL SECTION FOR MORE INFORMATION.



TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

LEGEND

- WORK ZONE
- TYPE III BARRICADES WITH / WITHOUT SIGN AND TWO TYPE "A" WARNING LIGHTS (SEE DETAIL THIS SHEET)
- TRAFFIC CONTROL DRUMS WITH/WITHOUT STEADY BURN TYPE "C" LIGHT
- SIGN ON PORTABLE SUPPORT
- SIGN ON PERMANENT SIGN POST
- ARROW BOARD
- TRAFFIC FLOW (FOR INFORMATION ONLY)
- FLEXIBLE TUBULAR MARKER POST AND BASE
- ASPHALT SURFACE TEMPORARY – SEE TYPICAL SECTIONS



TRAFFIC CONTROL - STAGE 3

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SCALE: 1" = 50'	SHEET NO: E

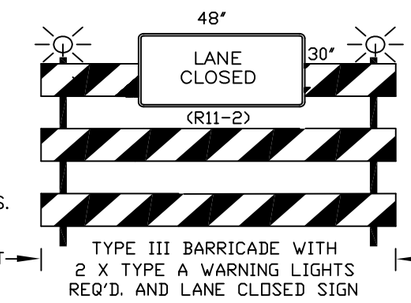
REVISION DATE: 01/037/2013

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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

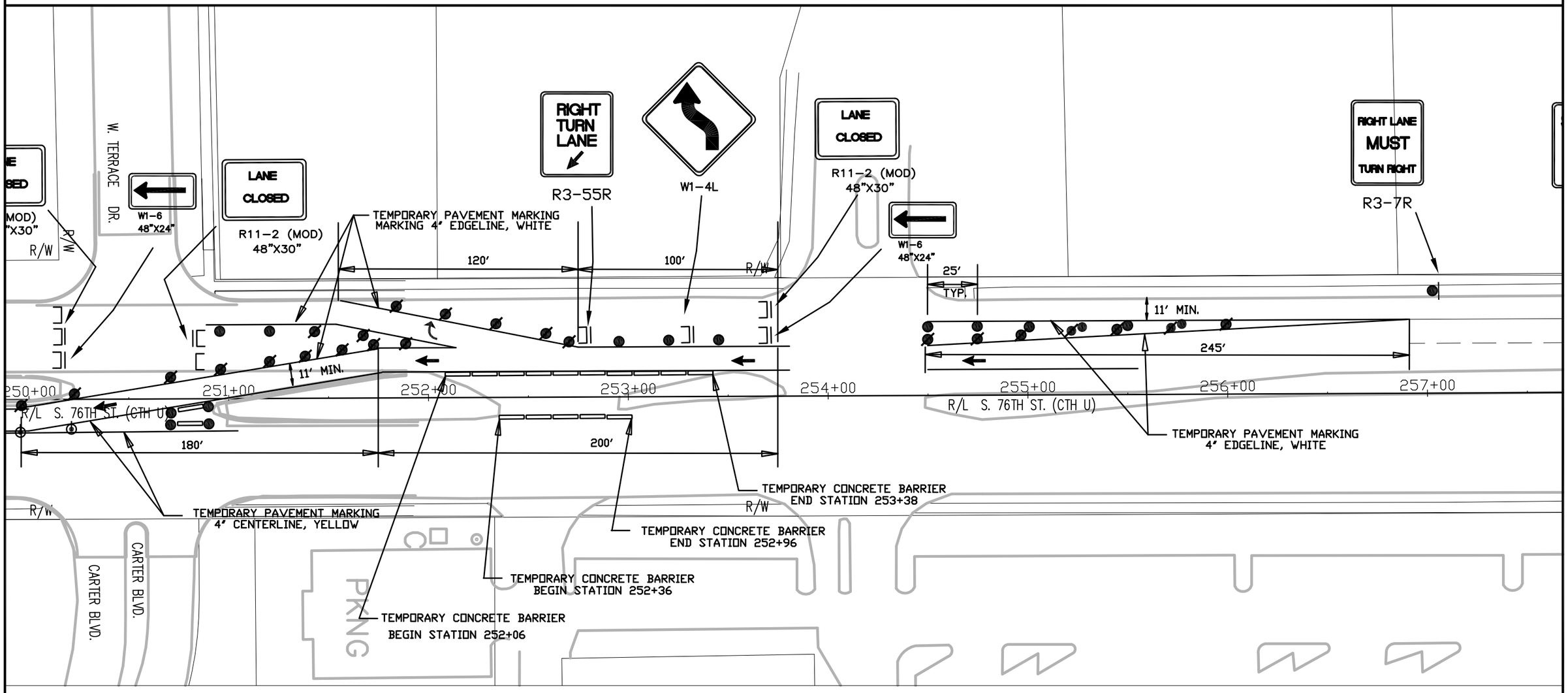
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9. SPEED LIMIT SIGNS SHALL BE R–SERIES REGULATORY SIGNS. W–SERIES WARNING SIGNS SHALL NOT BE USED.
10. SEE THE SPECIAL PROVISIONS AND TRAFFIC CONTROL STAGE 3 TYPICAL SECTION FOR MORE INFORMATION.



TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

LEGEND

- WORK ZONE
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- SIGN ON PORTABLE SUPPORT
- SIGN ON PERMANENT SIGN POST
- ARROW BOARD
- TRAFFIC FLOW (FOR INFORMATION ONLY)
- FLEXIBLE TUBULAR MARKER POST AND BASE
- ASPHALT SURFACE TEMPORARY – SEE TYPICAL SECTIONS



TRAFFIC CONTROL - STAGE 3

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SCALE: NTS	SHEET NO: E

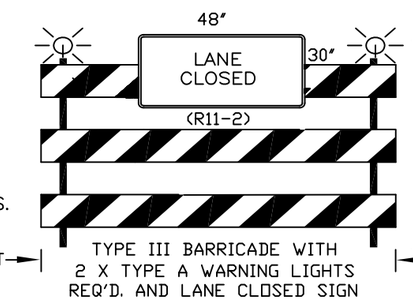
REVISION DATE: 01/03/2013

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WISDOT/CADDS SHEET 40

GENERAL TRAFFIC CONTROL NOTES

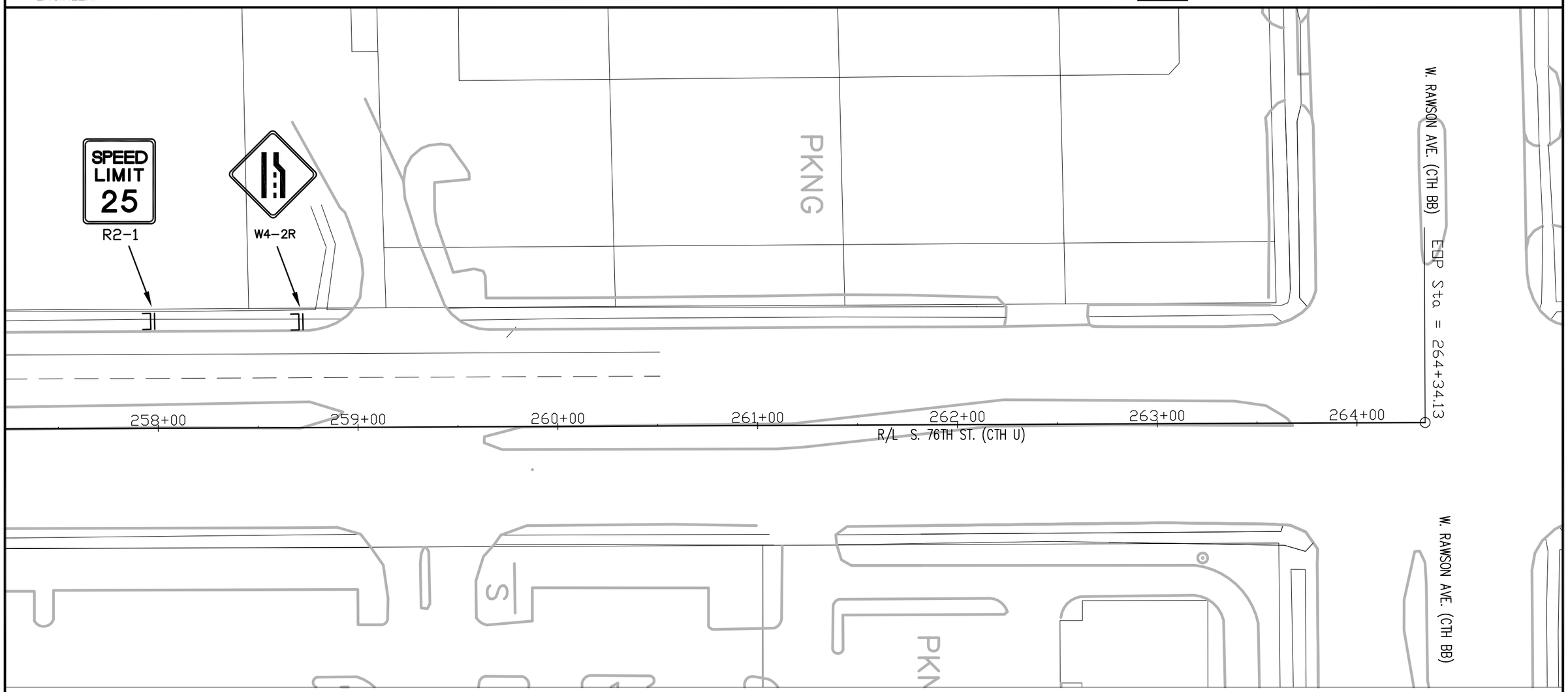
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TYPE III BARRICADE WITH 2 X TYPE A WARNING LIGHTS REQ'D. AND LANE CLOSED SIGN

LEGEND

- WORK ZONE
- TYPE III BARRICADES WITH / WITHOUT SIGN AND TWO TYPE "A" WARNING LIGHTS (SEE DETAIL THIS SHEET)
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- ARROW BOARD
- TRAFFIC FLOW (FOR INFORMATION ONLY)
- FLEXIBLE TUBULAR MARKER POST AND BASE
- ASPHALT SURFACE TEMPORARY – SEE TYPICAL SECTIONS



TRAFFIC CONTROL - STAGE 3

STATE PROJECT NUMBER: 2160–10–70	HWY: S 76TH ST. (CTH U)	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SCALE: NTS	SHEET NO: E

REVISION DATE: 01/03/2013

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WISDOT/CADDS SHEET 40

W. HIGH ST.

BOP Sta = 132+22.00

R/W

133+00 134+00 135+00 136+00 137+00 138+00 139+00 140+00 141+00 142+00 143+00 144+00 145+00 146+00 147+00

N 00°-28'-28" W
L1= 2124.45'

R/L = S/L S. 76TH ST. (CTH U)

BEGIN PROJECT I.D. 2160-10-70
STA. 144+00 R/L

T. 5 N.
21 22
R. 21 E.

Y 327,040.58
X 2,533,379.47
STA. 132+22.00
ELV. 763.31

NOTE:
SEE ALIGNMENT TABLES FOR MORE DETAILED INFORMATION

W. MARGARET LN.

EOP=12+00.04

S 88°-19'-17" W
L1= 200.04'

11+00 12+00

147+00 148+00 149+00 150+00 151+00 152+00 153+00 154+00 155+00 156+00 157+00 158+00

N 00°-28'-28" W
L1= 2124.45'

R/L = S/L S. 76TH ST. (CTH U)

N 00°-28'-28" W
L2= 513.70'

STA. 153+46.45 CTH U R/L
STA. 10+00 W. MARGARET LN.

STA. 158+60.15 CTH U R/L
STA. 10+00 W. PUETZ RD.

N 00°-28'-28" W
L3= 6.58'

W. PUETZ RD.

N/B

PI Sta = 158+66.73

CTH U

90.55°
89.38°
90.62°
89.45°

10+00 9+00 8+00

159+00 160+00 161+00 162+00

N 00°-32'-41" W
L4= 1077.01'

BM 1

SURVEY CONTROL

BM

T. 5 N.
16 15
21 22
R. 21 E.

SEE ADDNL. ALIGNMENT
FOR W. PUETZ RD.

Y 329,685.22
X 2,533,357.57
STA. 158+66.73
ELV. 761.70
BRASS PLUG

NOTE:
SEE ALIGNMENT TABLES FOR MORE DETAILED INFORMATION

REVISION DATE: 06/22/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	ALIGNMENT DIAGRAM	SCALE: 1" = 100'	SHEET NO: 244	E

CURVE 4 (C4)
Ic= 51°35'34"
Da= 73°45'16"
Dc= 80°07'34"
CD= N67°52'56"W
T= 37.55
R= 77.68
L= 69.95
C= 67.61
E= 8.60
M= 7.74

W. LAKE POINTE DR.

EOP=11+32.77

PC=10+62.82

STA. 169+43.74 CTH U R/L
STA. 10+00 W. LAKE POINTE DR.
STA. 10+00 TWIN OAKS BLVD.

S 89°-33'-39" W
L1= 135.78'

R/L = S/L S. 76TH ST. (CTH U)

N 00°-32'-41" W
L4= 1077.01'

N 00°-32'-41" W
L5= 425.95'

N 00°-32'-41" W
L6= 404.07'

EOP=12+50.01

TUCKAWAY SHORES DR.

S 89°-10'-39" W
L2= 125.32'

PI=11+24.69

S 89°-53'-50" W
L1= 124.69'

CP 27

CP 28

CP 25

BOP=9+27.04

BM 2

BM 3

BM 5

SURVEY CONTROL

STA. 173+69.70 CTH U R/L
STA. 10+00 TUCKAWAY SHORES DR.

NOTE:
SEE ALIGNMENT TABLES FOR MORE DETAILED INFORMATION

W. FOREST HILL AVE.

T. 5 N.
16 15
R. 21 E.

Y 332,322.76
X 2,533,332.49
STA. 185+04.39
ELV. 768.42

BM

SEE ADDNL. ALIGNMENT FOR W. FOREST HILL AVE. & COUNTRY CLUB CIR. (1)

STA. 186+58.73 CTH U R/L
STA. 10+00 COUNTRY CLUB CIR. (1)

NOTE:
SEE ALIGNMENT TABLES FOR MORE DETAILED INFORMATION

STA. 177+73.77 CTH U R/L
STA. 10+00 FOUNTAIN CT.

N 0°-32'-41"W
L6= 404.07'

R/L = S/L S. 76TH ST. (CTH U)

N 00°-32'-41" W
L7=570.60'

N 00°-32'-41" W
L8=160.02'

N 00°-29'-52" W
L9=154.34'

N 00°-29'-52" W
L10= 800.52'

CP 26

CP 16

CP 3

CP 14

SURVEY CONTROL

FOUNTAIN CT.

S 89°-18'-32" W
L2= 124.91'

PI=8+75.09

S 89°-14'-13" W
L1= 75.09'

BOP=8+00.00

STA. 183+44.37 CTH U R/L
STA. 10+00 W. TUCKAWAY CREEK DR.

W. TUCKAWAY CREEK DR.

S 89°-17'-39" W
L1= 150.00'

BOP=8+50.00

COUNTRY CLUB CIR. (1)

BM 8

REVISION DATE: 06/22/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	ALIGNMENT DIAGRAM	SCALE: 1" = 100'	SHEET NO: 245	E

STA. 194+59.25 CTH U R/L
STA. 10+00 COUNTRY CLUB CIR. (2)

N 00°-29'-52" W
L10= 800.52'

N 00°-29'-52" W
L11= 668.86'

R/L = S/L S. 76TH ST. (CTH U)

N 00°-29'-52" W
L12= 1020.69'

CP 15
CP 17
CP 18

BM 9
BM 10

SURVEY CONTROL

COUNTRY CLUB CIR. (2)
S 89°-15'-06" W
L1= 200.00'
BOP=8+00.00

W. NORWOOD LN.
S 86°-15'-06" W
L6= 122.91'
PI=10+77.15

S 87°-53'-57" W
L5=477.15'

EOP=12+00.06

STA. 201+28.11 CTH U R/L
STA. 10+00 W. NORWOOD LN.
STA. 10+00 W. TUCKAWAY PINES CIR.

W. TUCKAWAY PINES CIR.
S 89°-52'-49" W
L4=534.76'
PI=9+44.24

CURVE 2 (C2)
Ic= 35°40'34"
Da= 46°18'25"
Dc= 47°40'13"
CD= N71°10'39"W
T= 39.82
R= 123.73
L= 77.04
C= 75.50
E= 6.25
M= 5.95

NOTE:
SEE ALIGNMENT TABLES FOR MORE DETAILED INFORMATION

SEE ADDNL. ALIGNMENT FOR W. DREXEL AVE.

W. DREXEL AVE.

STA. 219+84.73 CTH U R/L
STA. 10+00 PINEBERRY RIDGE

N 00°-15'-07" W
L13= 835.93'

N 00°-15'-07" W
L14= 516.40'

CP 20
CP 21
CP 36
CP 37
CP 23

BM 11
BM 12
BM 13
BM 14
BM 15

T. 5 N.
R. 21 E.
9 10 16 15

Y 334,967.07
X 2,533,309.51
STA. 211+48.80
ELV. 747.11
BRASS PLUG
W. DREXEL AVE.

PINEBERRY RIDGE
S 89°-45'-28" W
L1= 58.76'
BOP=8+00.17

CURVE 3 (C3)
Ic= 18°28'22"
Da= 24°49'14"
Dc= 25°01'08"
CD= N80°37'25"W
T= 37.54
R= 230.84
L= 74.43
C= 74.10
E= 3.03
M= 2.99

NOTE:
SEE ALIGNMENT TABLES FOR MORE DETAILED INFORMATION

REVISION DATE: 06/22/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	ALIGNMENT DIAGRAM	SCALE: 1" = 100'	SHEET NO: 246	E

NOTE:
SEE ALIGNMENT TABLES FOR MORE DETAILED INFORMATION

W. FAITH DR. 12+00
EOP=12+00.04
S 88°-38'-56" W
L1= 200.04'

STA. 228+43.86 CTH U R/L
STA. 10+00 W. SOUTH VIEW DR.

CP 29

SURVEY CONTROL

222+00 223+00 224+00 225+00 226+00 227+00 228+00 229+00 230+00 231+00 232+00 233+00 234+00 235+00 236+00 237+00

N 00°-15'-07" W
L14= 516.40'

N 00°-15'-07" W
L15= 342.72'

R/L = S/L S. 76TH ST. (CTH U)

N 00°-15'-07" W
L16= 949.08'

CP 22

CP 31

BM 16

SURVEY CONTROL

STA. 225+01.13 CTH U R/L
STA. 10+00 W. FAITH DR.

W. SOUTH VIEW DR. 9+00
S 89°-45'-54" W
L1= 200.00'
BOP=8+00.00

SEE ADDNL. ALIGNMENT FOR W. IMPERIAL DR. & BRUNN DR.

W. IMPERIAL DR. 12+00

W. TERRACE DR.

END PROJECT I.D. 2160-10-70
STA. 248+30 R/L

STA. 240+93.01 CTH U R/L
STA. 10+00 W. IMPERIAL DR.

STA. 241+22.19 CTH U R/L
STA. 10+00 BRUNN DR.

BM 18

CPI Sta. = 237+92.94

237+00 238+00 239+00 240+00 241+00 242+00 243+00 244+00 245+00 246+00 247+00 248+00 249+00 250+00 251+00 252+00

N 00°-15'-38" W
L17= 300.07'

N 00°-15'-38" W
L18= 29.18'

R/L = S/L S. 76TH ST. (CTH U)

N 00°-15'-38" W
L19= 2311.94'

CP 6

CP 30

SURVEY CONTROL

T. 5 N.
9 10
R. 21 E.

Y . 337,611.18
X 2,533,297.88
STA. 237+92.94
ELV. 762.33

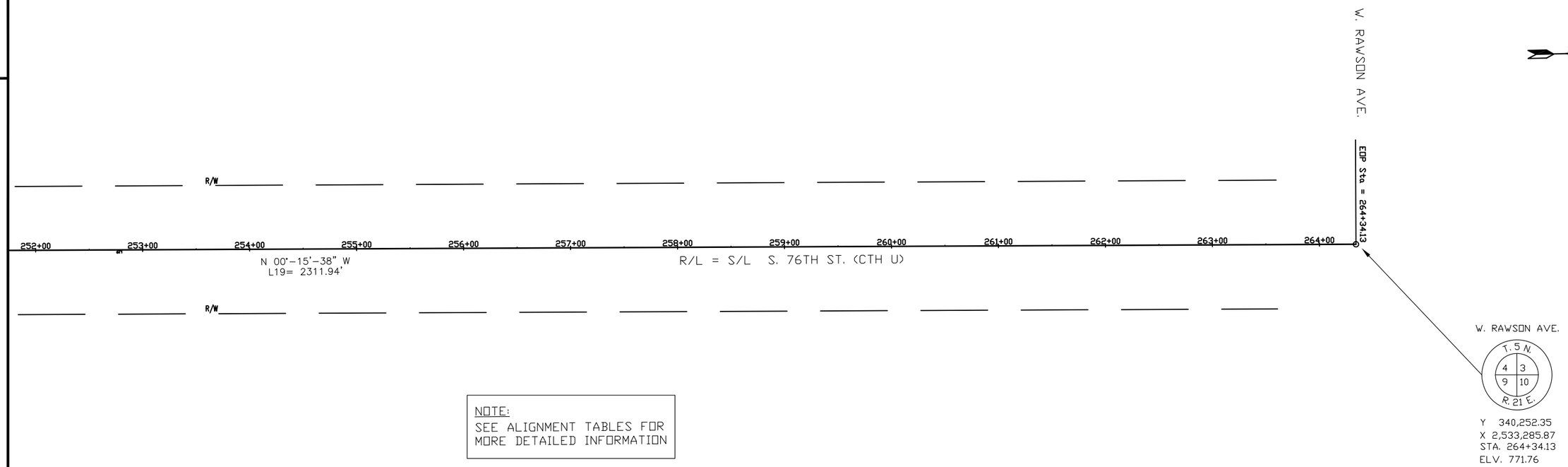
BRUNN DR. 8+00

CARTER BLVD.

NOTE:
SEE ALIGNMENT TABLES FOR MORE DETAILED INFORMATION

REVISION DATE: 06/22/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	ALIGNMENT DIAGRAM	SCALE: 1" = 100'	SHEET NO: 247	E

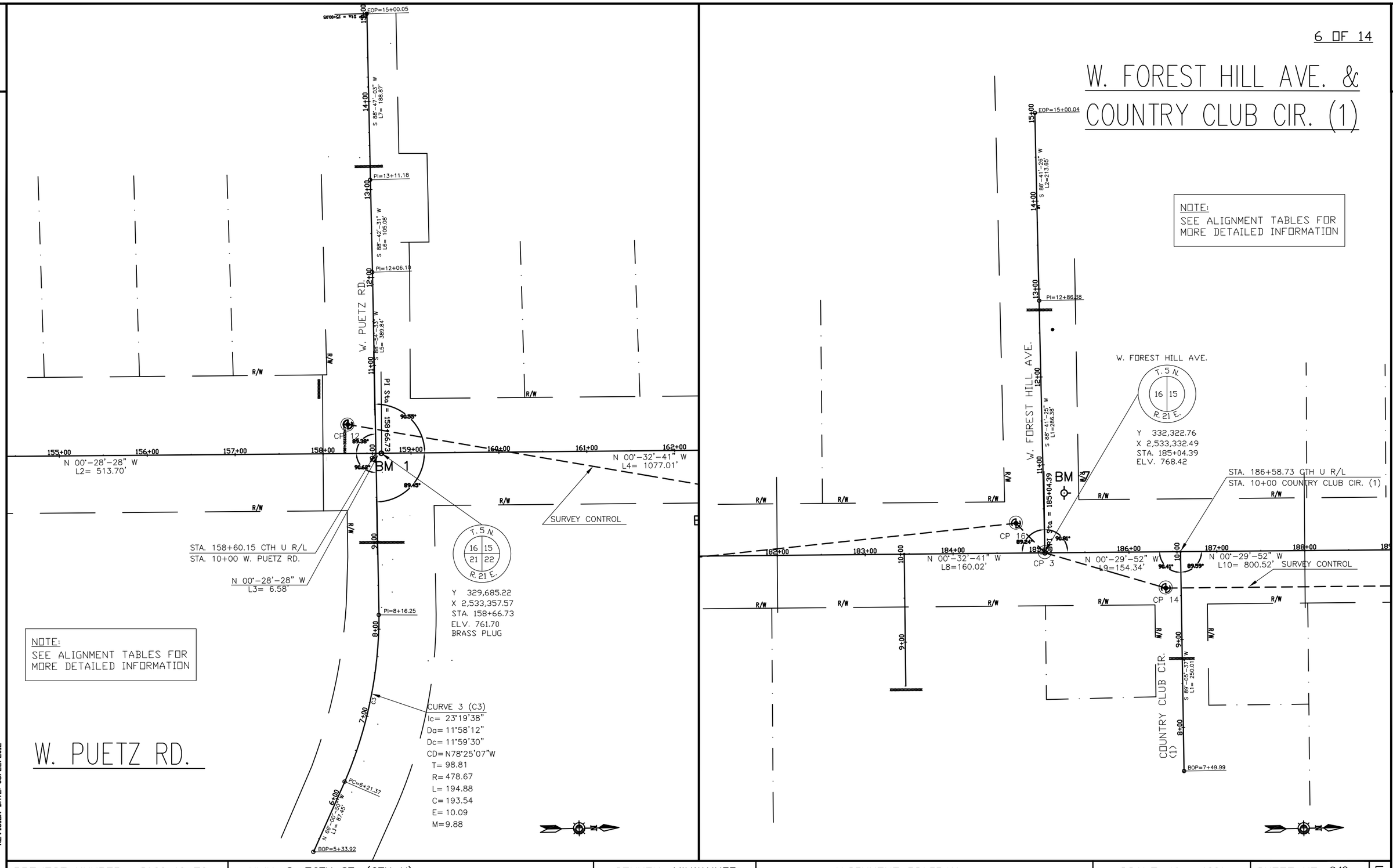


NOTE:
SEE ALIGNMENT TABLES FOR MORE DETAILED INFORMATION

REVISION DATE: 06/22/2012

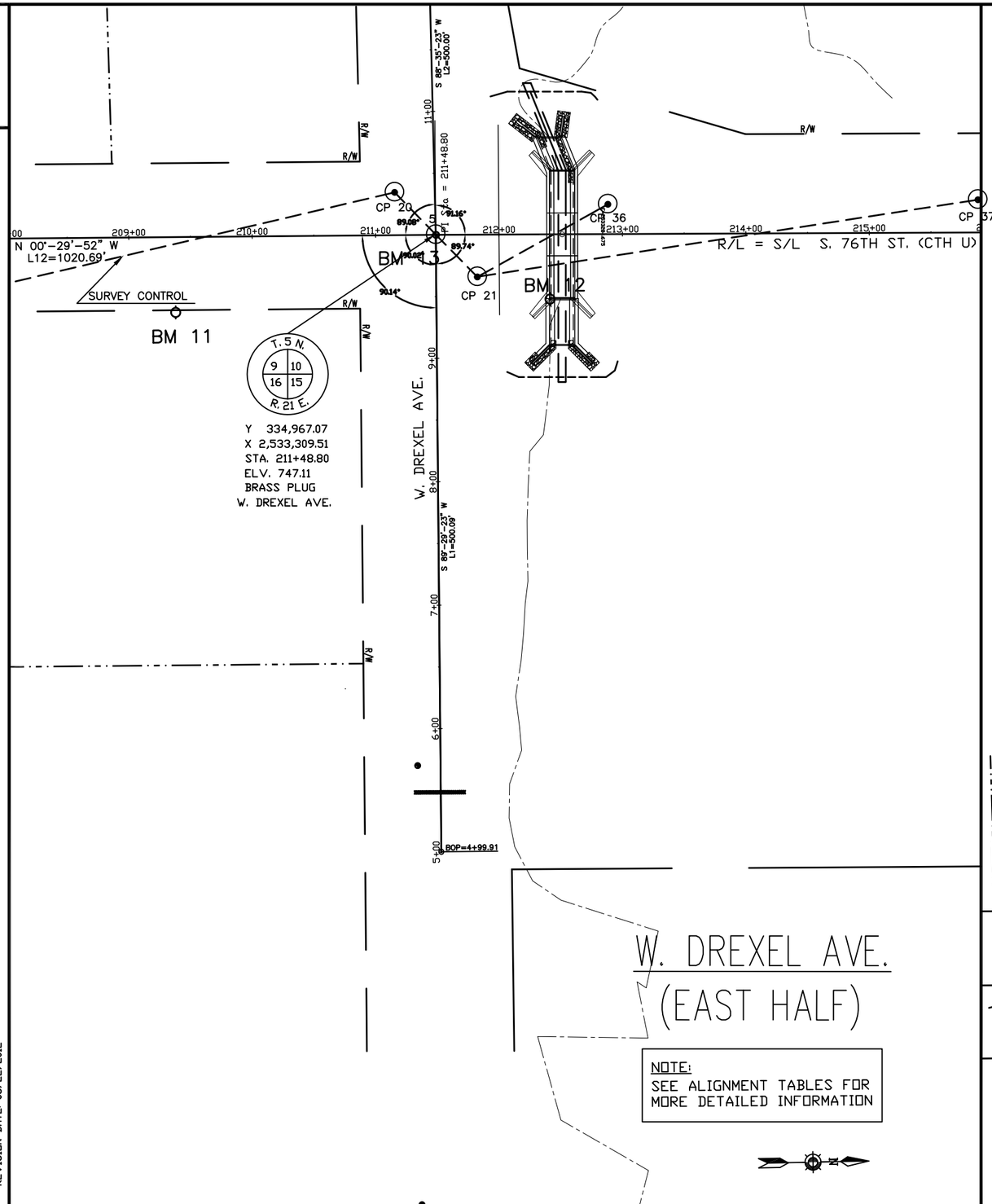
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W. FOREST HILL AVE. & COUNTRY CLUB CIR. (1)



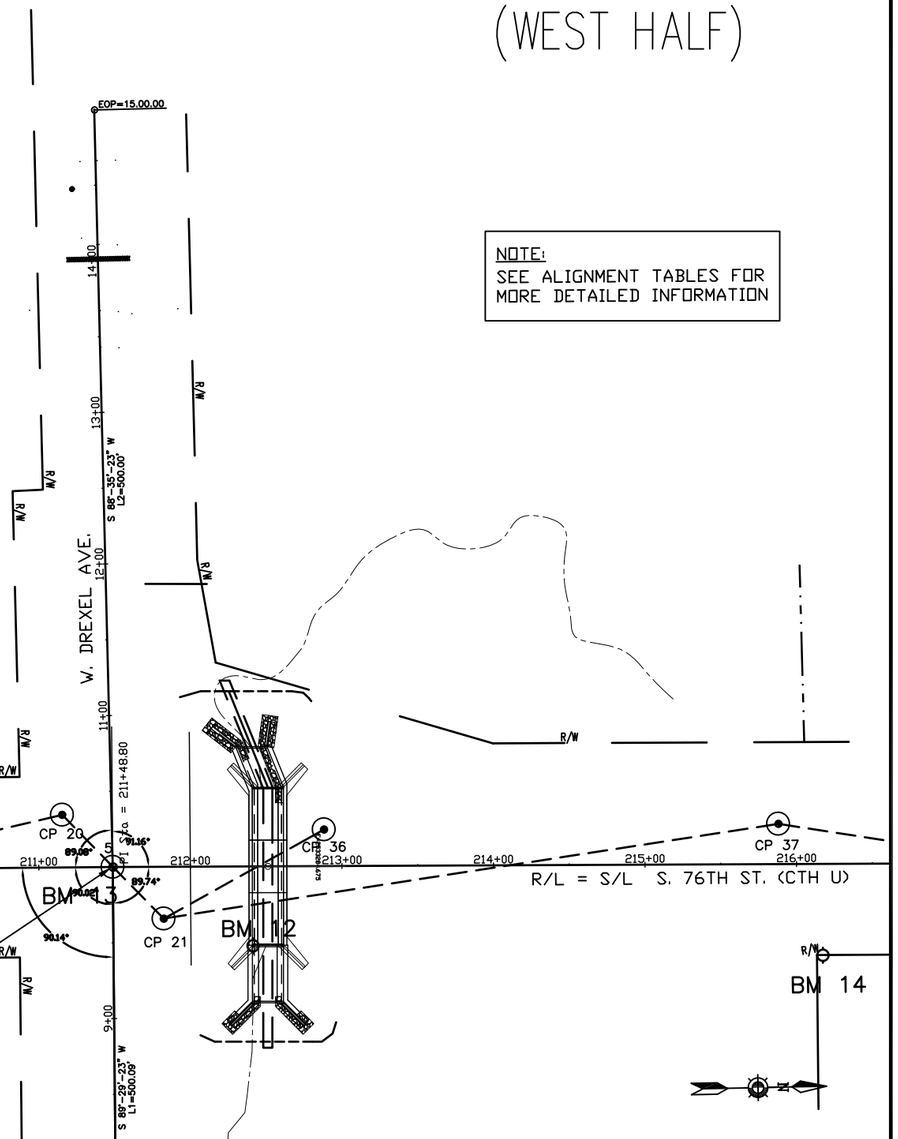
REVISION DATE: 06/22/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	ALIGNMENT DIAGRAM	SCALE: 1" = 100'	SHEET NO: 249	E



W. DREXEL AVE.
(EAST HALF)

NOTE:
SEE ALIGNMENT TABLES FOR MORE DETAILED INFORMATION

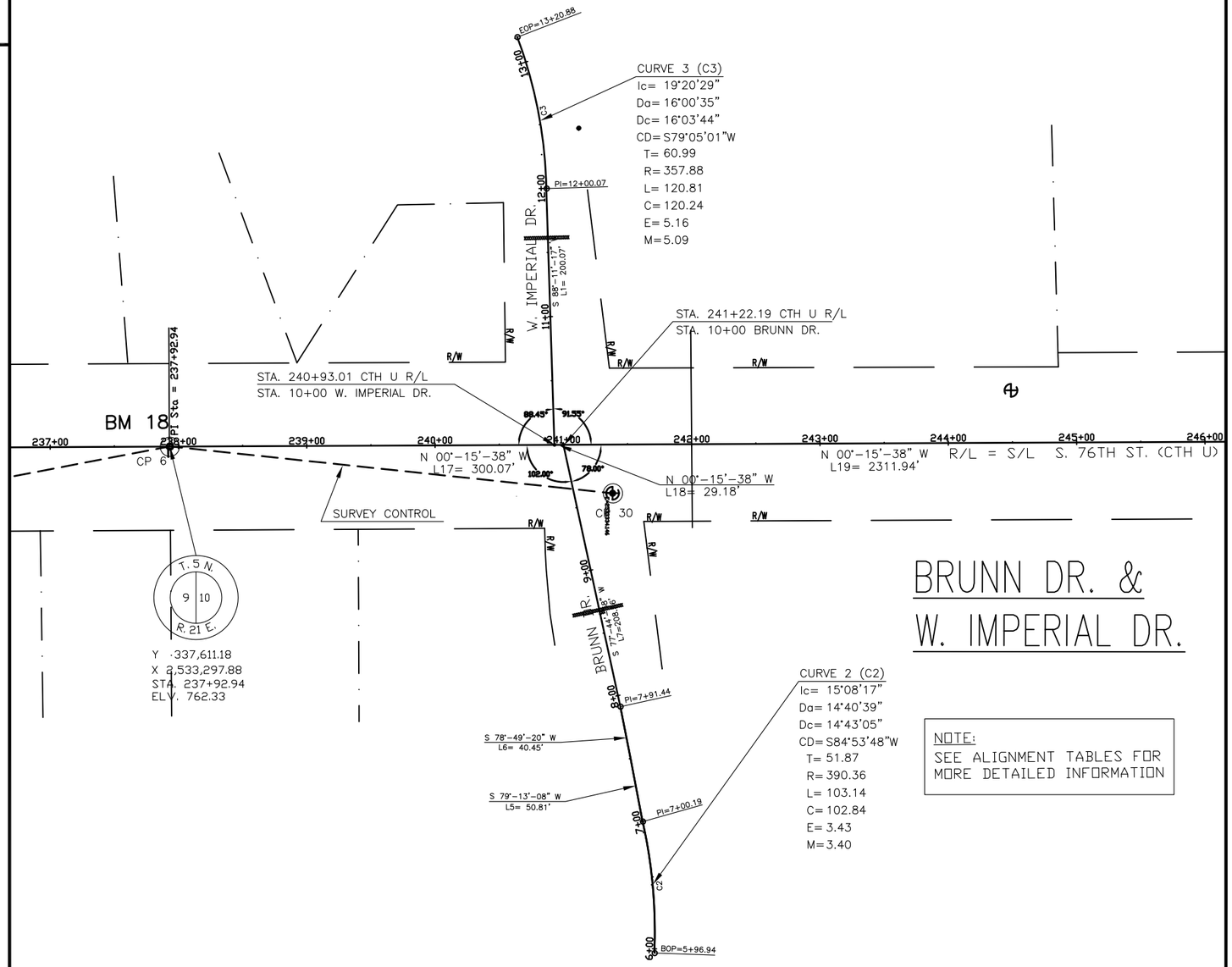


W. DREXEL AVE.
(WEST HALF)

NOTE:
SEE ALIGNMENT TABLES FOR MORE DETAILED INFORMATION

REVISION DATE: 06/22/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	ALIGNMENT DIAGRAM	SCALE: 1" = 100'	SHEET NO: 250	E



BRUNN DR. & W. IMPERIAL DR.

NOTE:
SEE ALIGNMENT TABLES FOR MORE DETAILED INFORMATION

REVISION DATE: 06/22/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	ALIGNMENT DIAGRAM	SCALE: 1" = 100'	SHEET NO: 251	E

SURVEY BENCH MARKS
2160-10-70

BENCH MARK (BM) NO.	STATION & OUT	NORTHING	EASTING	ELEVATION	DESCRIPTION	REMARKS
BM 1	158+66.73, R/L	329,685.22	2,533,357.57	761.70	BRASS PLUG; SECTION CORNER PUETZ RD.	
BM 2	162+36.88, 60.36' RT	330,055.93	2,533,414.40	773.36	RR SPIKE; POWER POLE #59-2236	GROUND ELEV.
BM 3	165+23.44, 60.84' RT	330,342.48	2,533,412.16	778.19	RR SPIKE; POWER POLE #59-2237	GROUND ELEV.
BM 4	174+94.84, 60.53' RT	331,313.83	2,533,402.61	789.89	SPIKE; POWER POLE #59-2230	
BM 5	185+26.90, 67.82' LT.	332,344.68	2,533,264.48	769.49	NOZZLE; HYDRANT NW CORNER FOREST HILL AVE.	
BM 6	190+99.52, 61.18' RT	332,918.40	2,533,388.50	769.60	SPIKE; POWER POLE #90-04895	
BM 7.	194+24.45, 58.75' RT	333,243.30	2,533,383.24	765.40	SPIKE; POWER POLE #90-04897	
BM 8	201+85.53, 61.16' RT	334,004.37	2,533,379.04	758.04	RR SPIKE; POWER POLE #59-2215	
BM 9	209+37.55, 60.98' RT	334,756.36	2,533,372.33	754.00	SPIKE; POWER POLE #59-2205	
BM 11	212+41.13, 52.39' RT	335,059.63	2,533,361.50	740.47	BRASS PLUG; SE CORNER OF BOX CULVERT	
BM 10	211+48.80, R/L	334,967.24	2,533,309.51	747.11	BRASS PLUG; SECTION CORNER DREXEL AVE.	SAME AS CP 5
BM 12	216+17.15, 60.26' RT	335,435.68	2,533,367.71	744.29	SPIKE; POWER POLE #59-2206	
BM 13	220+04.69, 65.28' RT	335,823.24	2,533,371.02	758.56	NOZZLE; HYDRANT NE CORNER PINEBERRY RIDGE	
BM 14	231+95.33, 61.26' RT	337,013.56	2,533,361.77	767.47	SPIKE; POWER POLE #91-03285	
BM 15	237+92.94, R/L	337,611.18	2,533,297.88	762.33	BRASS PLUG; SECTION CORNER	SAME AS CP 6

SURVEY CONTROL POINTS
2160-10-70

CONTROL POINT (CP) NO.	STATION & OUT	NORTHING	EASTING	ELEVATION	DESCRIPTION	REMARKS
CP 12	158+28.26, 33.03' LT.	329,646.47	2,533,324.86	761.70	CROSS; NEAR PUETZ RD.	
CP28	163+09.40, 53.59' RT.	330,128.38	2,533,406.95	773.33	SPIKE	
CP 24	169+66.37, 41.95' RT.	330,785.21	2,533,389.06	781.99	CROSS	
CP 27	174+01.21, 28.82' LT.	331,219.36	2,533,314.16	783.42	CROSS	
CP 26	177+52.95, 35.86' RT.	331,571.70	2,533,375.49	780.25	CROSS	
CP 16	184+71.90, 33.89' LT.	332,289.95	2,533,298.91	768.70	CROSS	
CP 3	185+04.39, R/L	332,322.76	2,533,332.49	768.42	SEC CORNER; FOREST HILL AVE.	
CP 14	186+41.62, 41.31' RT.	332,460.35	2,533,372.61	767.16	CROSS	
CP 15	194+42.29, 40.65' RT.	333,260.98	2,533,364.99	765.25	CROSS	
CP 17	200+99.64, 29.83' LT.	333,917.70	2,533,288.80	759.49	CROSS	
CP 18	207+13.49, 56.05' RT.	334,532.27	2,533,369.34	757.28	SPIKE	
CP 20	211+15.73, 34.72' LT.	334,933.70	2,533,275.08	747.95	CROSS	
CP 5	211+48.80, R/L	334,967.24	2,533,309.51	747.11	SEC CORNER; DREXEL AVE.	SAME AS BM 1
CP 21	211+83.27, 33.57' RT.	335,000.74	2,533,343.60	747.34	CROSS	
CP 36	212+88.31, 24.15' LT.	335,106.47	2,533,284.75	746.84	PK	
CP 37	215+88.17, 26.54' LT.	335,406.32	2,533,281.04	747.13	SPIKE	
CP 23	219+62.31, 32.96' RT.	335,780.72	2,533,338.89	755.33	CROSS	
CP 29	233+80.15, 36.88' LT.	336,198.25	2,533,267.22	761.43	STAKE	
CP 22	228+68.00, 39.10' RT.	336,686.42	2,533,341.05	765.61	CROSS	
CP 31	235+66.10, 42.34' RT.	337,384.53	2,533,341.22	763.59	STAKE	
CP 6	237+92.94, R/L	337,611.18	2,533,297.88	762.33	SEC CORNER	SAME AS BM 1
CP 30	241+38.15, 37.91' RT.	337,956.56	2,533,334.22	758.55	CROSS; IMPERIAL DR.	

REVISION DATE: 08/10/2010

ALIGNMENT TABLE – MAINLINE

ITEM	L1 (SEC. COR.)	L2	L3	L4 (SEC. COR.)	L5	L6	L7	L8	L9 (SEC. COR.)	L10
CONTROL POINT	BOP	PI	PI	PI	PI	PI	PI	PI	PI	PI
STATION	132+22.00	153+46.45	158+60.15	158+66.73	169+43.74	173+69.70	177+73.77	183+44.37	185+04.39	186+58.73
Y	327040.58	329164.96	329678.64	329685.22	330762.18	331188.12	331592.17	332162.74	332322.76	332477.09
X	2533379.47	2533361.88	2533357.62	2533357.57	2533347.33	2533343.28	2533339.44	2533334.01	2533332.49	2533331.15
DIRECTION	N 00°28'28" W	N 00°28'28" W	N 00°28'28" W	N 00°32'41" W	N 00°32'41" W	N 00°32'41" W	N 00°32'41" W	N 00°32'41" W	N 00°29'52" W	N 00°29'52" W
DISTANCE	2124.45	513.70	6.58	1077.01	425.95	404.07	570.60	160.02	154.34	800.52
DEFLECTION ANGLE		00°00'00"	00°00'00"	00°04'13"	00°00'00"	00°00'00"	00°00'00"	00°00'00"	-00°02'49"	00°00'00"
DELTA ANGLE										
DEGREE OF CURVE - ARC										
DEGREE OF CURVE - CHORD										
CHORD DIRECTION										
TANGENT										
RADIUS										
ARC LENGTH										
CHORD LENGTH										
EXTERNAL										
MID ORDINATE										

ITEM	L11	L12	L13 (SEC. COR.)	L14	L15	L16	L17 (SEC. COR.)	L18		SEC. COR.
CONTROL POINT	PI	PI	PI	PI	PI	PI	PI	PI	PI	EOP
STATION	194+59.25	201+28.11	211+48.80	219+84.73	225+01.13	228+43.86	237+92.94	240+93.01	241+22.19	264+34.13
Y	333277.58	333946.42	334967.07	335802.99	336319.39	336662.11	337611.18	337911.25	337940.43	340252.35
X	2533324.19	2533318.38	2533309.51	2533305.83	2533303.56	2533302.05	2533297.88	2533296.52	2533296.38	2533285.87
DIRECTION	N 00°29'52" W	N 00°29'52" W	N 00°15'07" W	N 00°15'07" W	N 00°15'07" W	N 00°15'07" W	N 00°15'38" W	N 00°15'38" W	N 00°15'38" W	
DISTANCE	668.86	1020.69	835.93	516.40	342.72	949.08	300.07	29.18	2311.94	
DEFLECTION ANGLE	00°00'00"	00°00'00"	-00°14'45"	00°00'00"	00°00'00"	00°00'00"	00°00'31"	00°00'00"	00°00'00"	
DELTA ANGLE										
DEGREE OF CURVE - ARC										
DEGREE OF CURVE - CHORD										
CHORD DIRECTION										
TANGENT										
RADIUS										
ARC LENGTH										
CHORD LENGTH										
EXTERNAL										
MID ORDINATE										

REVISION DATE: 06/22/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	ALIGNMENT DIAGRAM	SCALE: NTS	SHEET NO: 253	E

ALIGNMENT TABLE – SIDE STREETS

W. MARGARET LN.

ITEM	L1	
CONTROL POINT	BOP	EOP
STATION	10+00.00	12+00.04
Y	329164.96	329159.10
X	2533361.88	2533161.92
DIRECTION	S 88°19'17" W	
DISTANCE	200.04	
DEFLECTION ANGLE		
DELTA ANGLE		
DEGREE OF CURVE - ARC		
DEGREE OF CURVE - CHORD		
CHORD DIRECTION		
TANGENT		
RADIUS		
ARC LENGTH		
CHORD LENGTH		
EXTERNAL		
MID ORDINATE		

TUCKAWAY SHORES DR.

ITEM	L1	L2	
CONTROL POINT	BOP	PI	EOP
STATION	10+00.00	11+24.69	12+50.01
Y	331188.12	331185.72	331183.93
X	2533343.28	2533218.61	2533093.31
DIRECTION	S 88°53'50" W	S 89°10'59" W	
DISTANCE	124.69	125.32	
DEFLECTION ANGLE		-00°17'09"	
DELTA ANGLE			
DEGREE OF CURVE - ARC			
DEGREE OF CURVE - CHORD			
CHORD DIRECTION			
TANGENT			
RADIUS			
ARC LENGTH			
CHORD LENGTH			
EXTERNAL			
MID ORDINATE			

W. PUETZ RD.

ITEM	L1	L2			C3	L4	L5	L6	L7	
CONTROL POINT	BOP	PI	PC	RADIUS	PI	PI	PI	PI	PI	EOP
STATION	5+33.92	6+21.37	6+21.37		7+20.18	8+16.25	8+16.25	12+06.10	13+11.18	15+00.05
Y	329607.73	329643.28	329643.28	329203.47	329682.28	329682.14	329682.14	329674.71	329672.35	329668.34
X	2533810.84	2533730.94	2533730.94	2533542.02	2533640.15	2533541.34	2533541.34	2533151.57	2533046.51	2532857.68
DIRECTION	N 66°00'50" W	N 66°45'18" W					S 88°54'33" W	S 88°42'31" W	S 88°47'03" W	
DISTANCE	87.45						389.84	105.08	188.87	
DEFLECTION ANGLE					23°19'38"			00°12'02"	-00°04'33"	
DELTA ANGLE				23°19'38"						
DEGREE OF CURVE - ARC				11°58'12"						
DEGREE OF CURVE - CHORD				11°59'30"						
CHORD DIRECTION				N78°25'07"W						
TANGENT				98.81						
RADIUS				478.67						
ARC LENGTH				194.88						
CHORD LENGTH				193.54						
EXTERNAL				10.09						
MID ORDINATE				9.88						

W. TWIN OAKS BLVD./W. LAKE POINTE DR.

ITEM	L1	L2	L3			C4	L5	
CONTROL POINT	BOP	PI	PI	PC	RADIUS	PI	PI	EOP
STATION	9+27.04	10+62.82	10+62.82	10+62.82		11+00.37	11+32.77	11+32.77
Y	330762.74	330761.70	330761.70	330761.70	330839.23	330759.29	330787.16	330787.16
X	2533420.29	2533284.51	2533284.51	2533284.51	2533279.53	2533247.04	2533221.88	2533221.88
DIRECTION	S 89°33'39" W		S 86°19'17" W					
DISTANCE	135.78							
DEFLECTION ANGLE						51°35'34"		
DELTA ANGLE					51°35'34"			
DEGREE OF CURVE - ARC					73°45'16"			
DEGREE OF CURVE - CHORD					80°07'34"			
CHORD DIRECTION					N67°52'56"W			
TANGENT					37.55			
RADIUS					77.68			
ARC LENGTH					69.95			
CHORD LENGTH					67.61			
EXTERNAL					8.60			
MID ORDINATE					7.74			

REVISION DATE: 06/22/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	ALIGNMENT DIAGRAM	SCALE: NTS	SHEET NO: 254	E

ALIGNMENT TABLE – SIDE STREETS (CONT.)

FOUNTAIN CT.

ITEM	L1	L2	
CONTROL POINT	BOP	PI	EOP
STATION	8+00.00	8+75.09	10+00.00
Y	331594.68	331593.68	331592.17
X	2533539.42	2533464.34	2533339.44
DIRECTION	S 89°14'13" W	S 89°18'32" W	
DISTANCE	75.09	124.91	
DEFLECTION ANGLE		-00°04'18"	
DELTA ANGLE			
DEGREE OF CURVE - ARC			
DEGREE OF CURVE - CHORD			
CHORD DIRECTION			
TANGENT			
RADIUS			
ARC LENGTH			
CHORD LENGTH			
EXTERNAL			
MID ORDINATE			

W. TUCKAWAY CREEK DR.

ITEM	L1	
CONTROL POINT	BOP	EOP
STATION	8+50.00	10+00.00
Y	332164.59	332162.74
X	2533484.00	2533334.01
DIRECTION	S 89°17'39" W	
DISTANCE	150.00	
DEFLECTION ANGLE		
DELTA ANGLE		
DEGREE OF CURVE - ARC		
DEGREE OF CURVE - CHORD		
CHORD DIRECTION		
TANGENT		
RADIUS		
ARC LENGTH		
CHORD LENGTH		
EXTERNAL		
MID ORDINATE		

W. FOREST HILL AVE.

ITEM	L1	L2	
CONTROL POINT	BOP	PI	EOP
STATION	10+00.00	12+86.38	15+00.04
Y	332322.76	332316.21	332311.33
X	2533332.49	2533046.18	2532832.58
DIRECTION	S 88°41'25" W	S 88°41'26" W	
DISTANCE	286.38	213.65	
DEFLECTION ANGLE			
DELTA ANGLE			
DEGREE OF CURVE - ARC			
DEGREE OF CURVE - CHORD			
CHORD DIRECTION			
TANGENT			
RADIUS			
ARC LENGTH			
CHORD LENGTH			
EXTERNAL			
MID ORDINATE			

COUNTRY CLUB CIR. (1)

ITEM	L1	
CONTROL POINT	BOP	EOP
STATION	7+49.99	10+00.00
Y	332481.05	332477.09
X	2533581.12	2533331.15
DIRECTION	S 89°05'37" W	
DISTANCE	250.01	
DEFLECTION ANGLE		
DELTA ANGLE		
DEGREE OF CURVE - ARC		
DEGREE OF CURVE - CHORD		
CHORD DIRECTION		
TANGENT		
RADIUS		
ARC LENGTH		
CHORD LENGTH		
EXTERNAL		
MID ORDINATE		

COUNTRY CLUB CIR. (2)

ITEM	L1	
CONTROL POINT	BOP	EOP
STATION	8+00.00	10+00.00
Y	333280.19	333277.58
X	2533524.18	2533324.19
DIRECTION	S 89°15'08" W	
DISTANCE	200.00	
DEFLECTION ANGLE		
DELTA ANGLE		
DEGREE OF CURVE - ARC		
DEGREE OF CURVE - CHORD		
CHORD DIRECTION		
TANGENT		
RADIUS		
ARC LENGTH		
CHORD LENGTH		
EXTERNAL		
MID ORDINATE		

W. TUCKAWAY PINES CIR./W. NORWOOD LN.

ITEM	L1			C2	L3	L4	L5	L6	
CONTROL POINT	BOP	PC	RADIUS	PI	PI	PI	PI	PI	EOP
STATION	8+67.20	8+67.20	N/A	9+07.01	9+44.24	9+44.24	10+00.00	10+77.15	12+00.06
Y	333921.85	333921.85	333822.59	333945.62	333946.30	333946.30	333946.42	333943.59	333939.84
X	2533445.89	2533445.89	2533372.02	2533413.95	2533374.14	2533374.14	2533318.38	2533241.28	2533118.43
DIRECTION	N 53°20'22" W					N 89°52'49" W	S 87°53'57" W	S 88°15'06" W	
DISTANCE						55.76	77.15	122.91	
DEFLECTION ANGLE				35°40'34"			02°13'13"	-00°21'09"	
DELTA ANGLE			35°40'34"						
DEGREE OF CURVE - ARC			46°18'25"						
DEGREE OF CURVE - CHORD			47°40'13"						
CHORD DIRECTION			N71°10'39"W						
TANGENT			39.82						
RADIUS			123.73						
ARC LENGTH			77.04						
CHORD LENGTH			75.80						
EXTERNAL			6.25						
MID ORDINATE			5.95						

REVISION DATE: 06/22/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	ALIGNMENT DIAGRAM	SCALE: NTS	SHEET NO: 255	E

ALIGNMENT TABLE – SIDE STREETS (CONT.)

W. DREXEL AVE.

ITEM	L1	L2	
CONTROL POINT	BOP	PI	EOP
STATION	4+99.91	10+00.00	15+00.00
Y	334971.52	334967.07	334954.76
X	2533809.58	2533309.51	2532809.67
DIRECTION	S 89°29'23" W	S 88°35'23" W	
DISTANCE	500.09	500.00	
DEFLECTION ANGLE		00°54'01"	
DELTA ANGLE			
DEGREE OF CURVE - ARC			
DEGREE OF CURVE - CHORD			
CHORD DIRECTION			
TANGENT			
RADIUS			
ARC LENGTH			
CHORD LENGTH			
EXTERNAL			
MID ORDINATE			

W. FAITH DR.

ITEM	L1	
CONTROL POINT	BOP	EOP
STATION	10+00.00	12+00.04
Y	336319.39	336314.68
X	2533303.56	2533103.58
DIRECTION	S 88°38'56" W	
DISTANCE	200.04	
DEFLECTION ANGLE		
DELTA ANGLE		
DEGREE OF CURVE - ARC		
DEGREE OF CURVE - CHORD		
CHORD DIRECTION		
TANGENT		
RADIUS		
ARC LENGTH		
CHORD LENGTH		
EXTERNAL		
MID ORDINATE		

PINEBERRY RIDGE

ITEM	L1	L2			C3	L4	L5	L6	
CONTROL POINT	BOP	PI	PC	RADIUS	PI	PI	PI	PI	EOP
STATION	8+00.11	8+58.89	8+58.89		8+96.42	9+33.31	9+33.31	9+33.31	10+00.00
Y	335773.13	335791.20	335791.20	335572.44	335803.18	335803.28	335803.28	335803.28	335802.99
X	2533501.57	2533445.63	2533445.63	2533371.96	2533410.06	2533372.52	2533372.52	2533372.52	2533305.83
DIRECTION	N 72°05'28" W	N 71°23'14" W						S 89°45'28" W	
DISTANCE	58.78								
DEFLECTION ANGLE					18°28'22"				
DELTA ANGLE				18°28'22"					
DEGREE OF CURVE - ARC				24°49'14"					
DEGREE OF CURVE - CHORD				25°01'08"					
CHORD DIRECTION				N80°37'25"W					
TANGENT				37.54					
RADIUS				230.84					
ARC LENGTH				74.43					
CHORD LENGTH				74.10					
EXTERNAL				3.03					
MID ORDINATE				2.99					

W. SOUTHVIEW DR.

ITEM	L1	
CONTROL POINT	BOP	EOP
STATION	8+00.00	10+00.00
Y	336662.93	336662.11
X	2533502.05	2533302.05
DIRECTION	S 89°45'54" W	
DISTANCE	200.00	
DEFLECTION ANGLE		
DELTA ANGLE		
DEGREE OF CURVE - ARC		
DEGREE OF CURVE - CHORD		
CHORD DIRECTION		
TANGENT		
RADIUS		
ARC LENGTH		
CHORD LENGTH		
EXTERNAL		
MID ORDINATE		

REVISION DATE: 06/22/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	ALIGNMENT DIAGRAM	SCALE: NTS	SHEET NO: 256	E

ALIGNMENT TABLE – SIDE STREETS (CONT.)

W. BRUNN DR.

ITEM	L1			C2	L3	L4	L5	L6	L7	
CONTROL POINT	BOP	PC	RADIUS	PI	PI	PI	PI	PI	PI	EOP
STATION	5+96.94	5+96.94		6+48.81	7+00.08	7+00.08	7+00.19	7+50.99	7+91.44	10+00.00
Y	337989.11	337989.11	337599.11	337991.35	337979.97	337979.97	337979.86	337970.36	337962.52	337918.24
X	2533692.29	2533692.29	2533675.50	2533640.47	2533589.86	2533589.86	2533589.88	2533539.97	2533500.29	2533296.48
DIRECTION	N 87°32'04" W					S 10°46'52" E	S 79°13'08" W	S 78°49'20" W	S 77°44'38" W	
DISTANCE						0.11	50.81	40.45	208.56	
DEFLECTION ANGLE				15°08'17"				00°23'48"	01°04'42"	
DELTA ANGLE			15°08'17"							
DEGREE OF CURVE - ARC			14°40'39"							
DEGREE OF CURVE - CHORD			14°43'05"							
CHORD DIRECTION			S84°53'48"W							
TANGENT			51.87							
RADIUS			390.36							
ARC LENGTH			103.14							
CHORD LENGTH			102.84							
EXTERNAL			3.43							
MID ORDINATE			3.40							

W. IMPERIAL DR.

ITEM	L1	L2			C3	L4	
CONTROL POINT	BOP	PI	PC	RADIUS	PI	PI	EOP
STATION	10+00.00	12+00.07	12+00.07	N/A	12+61.06	13+20.88	13+20.88
Y	337911.25	337904.93	337904.93	337547.13	337903.60	337882.15	337882.15
X	2533296.52	2533096.54	2533096.54	2533104.32	2533035.57	2532978.48	2532978.48
DIRECTION	S 88°11'17" W	S 88°45'15" W					
DISTANCE	200.07						
DEFLECTION ANGLE					19°20'29"		
DELTA ANGLE				19°20'29"			
DEGREE OF CURVE - ARC				16°00'35"			
DEGREE OF CURVE - CHORD				16°03'44"			
CHORD DIRECTION				S79°05'01"W			
TANGENT				60.99			
RADIUS				357.88			
ARC LENGTH				120.81			
CHORD LENGTH				120.24			
EXTERNAL				5.16			
MID ORDINATE				5.09			

REVISION DATE: 06/22/2012

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	ALIGNMENT DIAGRAM	SCALE: NTS	SHEET NO: 257	E

DATE 17DEC13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2160-10-70 QUANTITY
0010	201.0105	CLEARING	STA	7.000	7.000
0020	201.0115	CLEARING	ACRE	3.000	3.000
0030	201.0120	CLEARING	ID	1,210.000	1,210.000
0040	201.0205	GRUBBING	STA	7.000	7.000
0050	201.0215	GRUBBING	ACRE	3.000	3.000
0060	201.0220	GRUBBING	ID	1,210.000	1,210.000
0070	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	54.000	54.000
0080	203.0200	REMOVING OLD STRUCTURE (STATION) 01. 212+51.15	LS	1.000	1.000
0090	204.0100	REMOVING PAVEMENT	SY	28,950.000	28,950.000
0100	204.0110	REMOVING ASPHALTIC SURFACE	SY	27,960.000	27,960.000
0110	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	325.000	325.000
0120	204.0150	REMOVING CURB & GUTTER	LF	4,150.000	4,150.000
0130	204.0155	REMOVING CONCRETE SIDEWALK	SY	125.000	125.000
0140	204.0165	REMOVING GUARDRAIL	LF	955.000	955.000
0150	204.0185	REMOVING MASONRY	CY	41.000	41.000
0160	204.0190	REMOVING SURFACE DRAINS	EACH	4.000	4.000
0170	204.0195	REMOVING CONCRETE BASES	EACH	21.000	21.000
0180	204.0210	REMOVING MANHOLES	EACH	6.000	6.000
0190	204.0220	REMOVING INLETS	EACH	20.000	20.000
0200	204.0245	REMOVING STORM SEWER (SIZE) 01. 12-INCH	LF	170.000	170.000
0210	204.0245	REMOVING STORM SEWER (SIZE) 02. 15-INCH	LF	440.000	440.000
0220	204.0245	REMOVING STORM SEWER (SIZE) 03. 18-INCH	LF	110.000	110.000
0230	204.0245	REMOVING STORM SEWER (SIZE) 04. 21-INCH	LF	30.000	30.000
0240	204.0245	REMOVING STORM SEWER (SIZE) 05. 24-INCH	LF	530.000	530.000
0250	204.0245	REMOVING STORM SEWER (SIZE) 06. 48-INCH	LF	70.000	70.000
0260	205.0100	EXCAVATION COMMON	CY	69,330.000	69,330.000
0270	205.0400	EXCAVATION MARSH	CY	7,143.000	7,143.000
0280	206.5000	COFFERDAMS (STRUCTURE) 01. C-40-22	LS	1.000	1.000
0290	208.0100	BORROW	CY	32,520.000	32,520.000
0300	210.0100	BACKFILL STRUCTURE	CY	1,310.000	1,310.000
0310	213.0100	FINISHING ROADWAY (PROJECT) 01. 2160-10-70	EACH	1.000	1.000
0320	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	1,580.000	1,580.000
0330	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	41,700.000	41,700.000
0340	311.0110	BREAKER RUN	TON	6,000.000	6,000.000
0350	415.0085	CONCRETE PAVEMENT 8 1/2-INCH	SY	85,230.000	85,230.000
0360	415.0210	CONCRETE PAVEMENT GAPS	EACH	12.000	12.000
0370	415.1085	CONCRETE PAVEMENT HES 8 1/2-INCH	SY	1,000.000	1,000.000
0380	416.0170	CONCRETE DRIVEWAY 7-INCH	SY	1,915.000	1,915.000
0390	416.0270	CONCRETE DRIVEWAY HES 7-INCH	SY	150.000	150.000
0400	416.1010	CONCRETE SURFACE DRAINS	CY	11.000	11.000
0410	440.4410.S	INCENTIVE IRI RIDE	DOL	11,000.000	11,000.000
0420	455.0115	ASPHALTIC MATERIAL PG64-22	TON	175.000	175.000
0430	455.0605	TACK COAT	GAL	270.000	270.000
0440	460.1101	HMA PAVEMENT TYPE E-1	TON	2,370.000	2,370.000
0450	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	5,000.000	5,000.000
0460	465.0110	ASPHALTIC SURFACE PATCHING	TON	50.000	50.000
0470	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	500.000	500.000
0480	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	5,710.000	5,710.000
0490	502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	EACH	128.000	128.000
0500	504.0100	CONCRETE MASONRY CULVERTS	CY	346.000	346.000
0510	504.0500	CONCRETE MASONRY RETAINING WALLS	CY	63.000	63.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2160-10-70 QUANTITY
0520	504.0900	CONCRETE MASONRY ENDWALLS	CY	3.000	3.000
0530	505.0410	BAR STEEL REINFORCEMENT HS CULVERTS	LB	18,110.000	18,110.000
0540	505.0415	BAR STEEL REINFORCEMENT HS RETAINING WALLS	LB	1,870.000	1,870.000
0550	505.0610	BAR STEEL REINFORCEMENT HS COATED CULVERTS	LB	35,830.000	35,830.000
0560	506.3008	WELDED STUD SHEAR CONNECTORS 5/8X5-INCH	EACH	512.000	512.000
0570	509.1500	CONCRETE SURFACE REPAIR	SF	45.000	45.000
0580	512.0500	PILING STEEL SHEET PERMANENT DELIVERED	SF	3,625.000	3,625.000
0590	512.0600	PILING STEEL SHEET PERMANENT DRIVEN	SF	3,625.000	3,625.000
0600	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	55.000	55.000
0610	520.4072	CULVERT PIPE TEMPORARY 72-INCH	LF	250.000	250.000
0620	521.0118	CULVERT PIPE CORRUGATED STEEL 18-INCH	LF	460.000	460.000
0630	521.1018	APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	EACH	22.000	22.000
0640	522.1012	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	EACH	22.000	22.000
0650	522.1015	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH	EACH	2.000	2.000
0660	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	3.000	3.000
0670	522.1027	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 27-INCH	EACH	2.000	2.000
0680	522.1030	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH	EACH	1.000	1.000
0690	522.1054	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 54-INCH	EACH	3.000	3.000
0700	523.0534	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 34X53-INCH	EACH	2.000	2.000
0710	523.0543	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 43X68-INCH	EACH	2.000	2.000
0720	532.0200.S	WALL MODULAR BLOCK GRAVITY	SF	765.000	765.000
0730	550.0010	PRE-BORING UNCONSOLIDATED MATERIALS	LF	160.000	160.000
0740	550.0600	PILE REDRIVING	EACH	15.000	15.000
0750	550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	3,745.000	3,745.000
0760	601.0331	CONCRETE CURB & GUTTER 31-INCH	LF	20,100.000	20,100.000
0770	602.0410	CONCRETE SIDEWALK 5-INCH	SF	41,500.000	41,500.000
0780	602.0420	CONCRETE SIDEWALK 7-INCH	SF	1,650.000	1,650.000
0790	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	200.000	200.000
0800	603.8000	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	LF	3,830.000	3,830.000
0810	603.8125	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	LF	3,830.000	3,830.000
0820	606.0200	RIPRAP MEDIUM	CY	380.000	380.000
0830	606.0300	RIPRAP HEAVY	CY	153.000	153.000
0840	608.0327	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 27-INCH	LF	759.000	759.000
0850	608.0330	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	634.000	634.000
0860	608.0354	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 54-INCH	LF	165.000	165.000
0870	608.0418	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	LF	1,235.000	1,235.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2160-10-70 QUANTITY
0880	608.0421	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 21-INCH	LF	352.000	352.000
0890	608.0424	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH	LF	1,274.000	1,274.000
0900	608.0512	STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH	LF	4,853.000	4,853.000
0910	608.0515	STORM SEWER PIPE REINFORCED CONCRETE CLASS V 15-INCH	LF	1,267.000	1,267.000
0920	610.0134	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34X53-INCH	LF	284.000	284.000
0930	610.0143	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 43X68-INCH	LF	121.000	121.000
0940	611.0420	RECONSTRUCTING MANHOLES	EACH	21.000	21.000
0950	611.0430	RECONSTRUCTING INLETS	EACH	1.000	1.000
0960	611.0555	MANHOLE COVERS TYPE Q	EACH	39.000	39.000
0970	611.0612	INLET COVERS TYPE C	EACH	6.000	6.000
0980	611.1003	CATCH BASINS 3-FT DIAMETER	EACH	71.000	71.000
0990	611.2004	MANHOLES 4-FT DIAMETER	EACH	30.000	30.000
1000	611.2005	MANHOLES 5-FT DIAMETER	EACH	2.000	2.000
1010	611.2006	MANHOLES 6-FT DIAMETER	EACH	23.000	23.000
1020	611.3003	INLETS 3-FT DIAMETER	EACH	7.000	7.000
1030	611.3220	INLETS 2X2-FT	EACH	6.000	6.000
1040	611.8110	ADJUSTING MANHOLE COVERS	EACH	34.000	34.000
1050	611.8115	ADJUSTING INLET COVERS	EACH	2.000	2.000
1060	611.9800.S	PIPE GRATES 01. 12-INCH	EACH	19.000	19.000
1070	611.9800.S	PIPE GRATES 02. 15-INCH	EACH	2.000	2.000
1080	611.9800.S	PIPE GRATES 03. 18-INCH	EACH	1.000	1.000
1090	611.9800.S	PIPE GRATES 04. 27-INCH	EACH	2.000	2.000
1100	611.9800.S	PIPE GRATES 05. 30-INCH	EACH	1.000	1.000
1110	611.9800.S	PIPE GRATES 06. 54-INCH	EACH	3.000	3.000
1120	611.9800.S	PIPE GRATES 07. 34 X 53-INCH	EACH	2.000	2.000
1130	611.9800.S	PIPE GRATES 08. 43 X 68-INCH	EACH	2.000	2.000
1140	612.0108	PIPE UNDERDRAIN 8-INCH	LF	250.000	250.000
1150	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	160.000	160.000
1160	616.0204	FENCE CHAIN LINK 4-FT	LF	117.000	117.000
1170	616.0700.S	FENCE SAFETY	LF	500.000	500.000
1180	619.1000	MOBILIZATION	EACH	1.000	1.000
1190	620.0300	CONCRETE MEDIAN SLOPED NOSE	SF	300.000	300.000
1200	624.0100	WATER	MGAL	793.000	793.000
1210	625.0100	TOPSOIL	SY	60,500.000	60,500.000
1220	627.0200	MULCHING	SY	30,500.000	30,500.000
1230	628.1504	SILT FENCE	LF	9,050.000	9,050.000
1240	628.1520	SILT FENCE MAINTENANCE	LF	9,050.000	9,050.000
1250	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	4.000	4.000
1260	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	4.000	4.000
1270	628.2006	EROSION MAT URBAN CLASS I TYPE A	SY	2,750.000	2,750.000
1280	628.6510	SOIL STABILIZER TYPE B	ACRE	14.400	14.400
1290	628.7010	INLET PROTECTION TYPE B	EACH	115.000	115.000
1300	628.7504	TEMPORARY DITCH CHECKS	LF	950.000	950.000
1310	628.7555	CULVERT PIPE CHECKS	EACH	20.000	20.000
1320	629.0210	FERTILIZER TYPE B	CWT	30.000	30.000
1330	630.0110	SEEDING MIXTURE NO. 10	LB	425.000	425.000
1340	630.0200	SEEDING TEMPORARY	LB	950.000	950.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2160-10-70 QUANTITY
1350	631.0300	SOD WATER	MGAL	190.000	190.000
1360	631.1000	SOD LAWN	SY	30,000.000	30,000.000
1370	637.2220	SIGNS TYPE II REFLECTIVE SH	SF	363.990	363.990
1380	637.2225	SIGNS TYPE II REFLECTIVE SH FOLDING	SF	134.280	134.280
1390	637.2230	SIGNS TYPE II REFLECTIVE F	SF	46.660	46.660
1400	638.2602	REMOVING SIGNS TYPE II	EACH	85.000	85.000
1410	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	68.000	68.000
1420	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
1430	643.0200	TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 01. 2160-10-70	DAY	390.000	390.000
1440	643.0300	TRAFFIC CONTROL DRUMS	DAY	159,820.000	159,820.000
1450	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	15,300.000	15,300.000
1460	643.0500	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	EACH	101,750.000	101,750.000
1470	643.0600	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	EACH	101,750.000	101,750.000
1480	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	18,300.000	18,300.000
1490	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	220.000	220.000
1500	643.0900	TRAFFIC CONTROL SIGNS	DAY	31,000.000	31,000.000
1510	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	28.000	28.000
1520	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	535.000	535.000
1530	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	17.000	17.000
1540	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	11.000	11.000
1550	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	640.000	640.000
1560	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	LF	1,460.000	1,460.000
1570	647.0766	PAVEMENT MARKING CROSSWALK EPOXY 6-INCH	LF	390.000	390.000
1580	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	68,450.000	68,450.000
1590	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	53,750.000	53,750.000
1600	649.0701	TEMPORARY PAVEMENT MARKING 8-INCH	LF	525.000	525.000
1610	649.0900	TEMPORARY PAVEMENT MARKING STOP LINE 12-INCH	LF	260.000	260.000
1620	649.1000	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 12-INCH	LF	75.000	75.000
1630	649.1700	TEMPORARY PAVEMENT MARKING ARROWS	EACH	9.000	9.000
1640	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	165.000	165.000
1650	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	13,000.000	13,000.000
1660	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	30.000	30.000
1670	650.7000	CONSTRUCTION STAKING CONCRETE PAVEMENT	LF	13,000.000	13,000.000
1680	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 2160-10-70	LS	1.000	1.000
1690	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	13,000.000	13,000.000
1700	651.1000.S	SIGNAL CONTROLLER TRAINING	LS	1.000	1.000
1710	652.0215	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH	LF	55.000	55.000
1720	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	325.000	325.000
1730	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	785.000	785.000
1740	652.0615	CONDUIT SPECIAL 3-INCH	LF	1,960.000	1,960.000
1750	653.0140	PULL BOXES STEEL 24X42-INCH	EACH	22.000	22.000
1760	653.0145	PULL BOXES STEEL 24X48-INCH	EACH	2.000	2.000
1770	653.0180	PULL BOXES STEEL COMMUNICATIONS (INCH) 01. 24 X 42 - INCH	EACH	19.000	19.000
1780	653.0905	REMOVING PULL BOXES	EACH	21.000	21.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2160-10-70 QUANTITY
1790	654.0101	CONCRETE BASES TYPE 1	EACH	18.000	18.000
1800	654.0110	CONCRETE BASES TYPE 10	EACH	6.000	6.000
1810	654.0113	CONCRETE BASES TYPE 13	EACH	6.000	6.000
1820	654.0217	CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL	EACH	3.000	3.000
1830	655.0210	CABLE TRAFFIC SIGNAL 3-14 AWG	LF	500.000	500.000
1840	655.0230	CABLE TRAFFIC SIGNAL 5-14 AWG	LF	1,420.000	1,420.000
1850	655.0240	CABLE TRAFFIC SIGNAL 7-14 AWG	LF	170.000	170.000
1860	655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	LF	2,100.000	2,100.000
1870	655.0270	CABLE TRAFFIC SIGNAL 15-14 AWG	LF	1,150.000	1,150.000
1880	655.0305	CABLE TYPE UF 2-12 AWG GROUNDED	LF	2,170.000	2,170.000
1890	655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	LF	4,580.000	4,580.000
1900	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 01. S76TH ST (CTH U) & W. PUETZ RD	LS	1.000	1.000
1910	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 02. S 76TH ST & W. DREXEL AVE	LS	1.000	1.000
1920	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 03. S 76TH ST & W. IMPERIAL BLVD	LS	1.000	1.000
1930	657.0100	PEDESTAL BASES	EACH	18.000	18.000
1940	657.0405	TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT	EACH	5.000	5.000
1950	657.0425	TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT	EACH	12.000	12.000
1960	657.0430	TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT	EACH	1.000	1.000
1970	658.0110	TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL	EACH	38.000	38.000
1980	658.0120	TRAFFIC SIGNAL FACE 5-12 INCH VERTICAL	EACH	4.000	4.000
1990	658.0215	BACKPLATES SIGNAL FACE 3 SECTION 12-INCH	EACH	38.000	38.000
2000	658.0225	BACKPLATES SIGNAL FACE 5 SECTION 12-INCH	EACH	4.000	4.000
2010	658.0416	PEDESTRIAN SIGNAL FACE 16-INCH	EACH	8.000	8.000
2020	658.0500	PEDESTRIAN PUSH BUTTONS	EACH	8.000	8.000
2030	658.0600	LED MODULES 12-INCH RED BALL	EACH	42.000	42.000
2040	658.0605	LED MODULES 12-INCH YELLOW BALL	EACH	42.000	42.000
2050	658.0610	LED MODULES 12-INCH GREEN BALL	EACH	42.000	42.000
2060	658.0620	LED MODULES 12-INCH YELLOW ARROW	EACH	4.000	4.000
2070	658.0625	LED MODULES 12-INCH GREEN ARROW	EACH	4.000	4.000
2080	658.0635	LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH	EACH	8.000	8.000
2090	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 01. S76TH ST (CTH U) & W. PUETZ RD	LS	1.000	1.000
2100	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 02. S 76TH ST & W. DREXEL AVE	LS	1.000	1.000
2110	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 03. S 76TH ST & W. IMPERIAL BLVD	LS	1.000	1.000
2120	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 01. S76TH ST (CTH U) & W. PUETZ RD	LS	1.000	1.000
2130	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 02. S 76TH ST & W. DREXEL AVE	LS	1.000	1.000
2140	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 03. S 76TH ST & W. IMPERIAL BLVD	LS	1.000	1.000
2150	671.0112	CONDUIT HDPE 1-DUCT 2-INCH	LF	7,880.000	7,880.000
2160	671.0212	CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-IN	LF	910.000	910.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2160-10-70 QUANTITY
2170	678.0300	FIBER OPTIC SPLICE	EACH	20.000	20.000
2180	678.0400	FIBER OPTIC TERMINATION	EACH	12.000	12.000
2190	690.0150	SAWING ASPHALT	LF	22,300.000	22,300.000
2200	690.0250	SAWING CONCRETE	LF	32,500.000	32,500.000
2210	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	675.000	675.000
2220	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5.00/HR	HRS	5,000.000	5,000.000
2230	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	3,200.000	3,200.000
2240	SPV.0035	SPECIAL 01. BACKFILL SLURRY	CY	50.000	50.000
2250	SPV.0035	SPECIAL 02. POND LINER CLAY	CY	3,400.000	3,400.000
2260	SPV.0055	SPECIAL 01. ELECTRICAL SERVICE UTILITY CHARGES	DOL	5,500.000	5,500.000
2270	SPV.0060	SPECIAL 01. SIGN POSTS U-CHANNEL	EACH	58.000	58.000
2280	SPV.0060	SPECIAL 02. EXTERNAL MANHOLE SEALS	EACH	47.000	47.000
2290	SPV.0060	SPECIAL 03. ADJUSTING WATER VALVE BOXES	EACH	59.000	59.000
2300	SPV.0060	SPECIAL 04. ADJUSTING HYDRANTS	EACH	9.000	9.000
2310	SPV.0060	SPECIAL 05. CLEANING DRAINAGE STRUCTURES	EACH	7.000	7.000
2320	SPV.0060	SPECIAL 06. INLET COVER TYPE 57	EACH	94.000	94.000
2330	SPV.0060	SPECIAL 07. REMOVING LANDMARK REFERENCE MONUMENT	EACH	4.000	4.000
2340	SPV.0060	SPECIAL 08. UTILITY LINE OPENING (ULO)	EACH	10.000	10.000
2350	SPV.0060	SPECIAL 09. RELOCATING HYDRANTS	EACH	14.000	14.000
2360	SPV.0060	SPECIAL 10. COMMUNICATIONS VAULT, 24 X 36-INCH	EACH	4.000	4.000
2370	SPV.0060	SPECIAL 11. LED LUMINAIRES 10K LUMENS	EACH	12.000	12.000
2380	SPV.0060	SPECIAL 12. POLES TYPE 10	EACH	6.000	6.000
2390	SPV.0060	SPECIAL 13. POLES TYPE 13	EACH	6.000	6.000
2400	SPV.0060	SPECIAL 14. MONOTUBE ARMS 25-FT	EACH	4.000	4.000
2410	SPV.0060	SPECIAL 15. MONOTUBE ARMS 30-FT	EACH	2.000	2.000
2420	SPV.0060	SPECIAL 16. MONOTUBE ARMS 45-FT	EACH	3.000	3.000
2430	SPV.0060	SPECIAL 17. MONOTUBE ARMS 50-FT	EACH	2.000	2.000
2440	SPV.0060	SPECIAL 18. MONOTUBE ARMS 55-FT	EACH	1.000	1.000
2450	SPV.0060	SPECIAL 19. LUMINAIRE ARMS 15-FT	EACH	12.000	12.000
2460	SPV.0090	SPECIAL 01. PVC LATERAL 6-INCH	LF	100.000	100.000
2470	SPV.0090	SPECIAL 02. PVC LATERAL 8-INCH	LF	100.000	100.000
2480	SPV.0090	SPECIAL 03. PVC LATERAL 12-INCH	LF	200.000	200.000
2490	SPV.0090	SPECIAL 04. TRACER WIRE 12 AWG	LF	8,940.000	8,940.000
2500	SPV.0090	SPECIAL 05. PAVEMENT MARKING GROOVED EPOXY 4-INCH	LF	52,420.000	52,420.000
2510	SPV.0090	SPECIAL 06. PAVEMENT MARKING GROOVED EPOXY 8-INCH	LF	3,720.000	3,720.000
2520	SPV.0090	SPECIAL 07. CONSTRUCTION STAKING CONCRETE SIDEWALK	LF	9,500.000	9,500.000
2530	SPV.0090	SPECIAL 08. TIMBER FENCE	LF	316.000	316.000
2540	SPV.0090	SPECIAL 09. FURNISH AND INSTALL 12SM FIBER OPTIC COMMUNICATIONS CABLE	LF	9,740.000	9,740.000
2550	SPV.0105	SPECIAL 01. TRAFFIC SIGNAL CTLR & CABINET FULL ACTUATED CTH U & W PUETZ RD	LS	1.000	1.000
2560	SPV.0105	SPECIAL 02. TRAFFIC SIGNAL CTLR & CABINET FULLY ACTUATED CTH U & DREXEL AVE	LS	1.000	1.000
2570	SPV.0105	SPECIAL 03. TRAFFIC SIGNAL CTLR & CABINET FULLY ACTUATED CTH U & IMPERIAL DR	LS	1.000	1.000
2580	SPV.0105	SPECIAL 04. VEHICULAR VIDEO DETECTION SYSTEM CTH U & PUETZ RD (4 CAMERAS)	LS	1.000	1.000

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DATE 17DEC13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2160-10-70 QUANTITY
2590	SPV.0105	SPECIAL 05. VEHICULAR VIDEO DETECTION SYSTEM CTH U & DREXEL AVE (4 CAMERAS)	LS	1.000	1.000
2600	SPV.0105	SPECIAL 06. VEHICULAR VIDEO DETECTION SYSTEM CTH U & IMPERIAL DR (4 CAMERAS)	LS	1.000	1.000
2610	SPV.0105	SPECIAL 07. REMOVE TRAFFIC SIGNAL EQUIPMENT CTH U & PUETZ RD	LS	1.000	1.000
2620	SPV.0105	SPECIAL 08. REMOVE TRAFFIC SIGNAL EQUIPMENT CTH U & DREXEL AVE	LS	1.000	1.000
2630	SPV.0105	SPECIAL 09. REMOVE TRAFFIC SIGNAL EQUIPMENT CTH U & IMPERIAL DR	LS	1.000	1.000
2640	SPV.0105	SPECIAL 10. EXCAVATION FOR STRUCTURES CULVERTS C-40-22 SPECIAL	LS	1.000	1.000
2650	SPV.0165	SPECIAL 01. STONE FASCIA, RETAINING WALL	SF	800.000	800.000
2660	SPV.0170	SPECIAL 01. TEST ROLLING	STA	250.000	250.000
2670	SPV.0180	SPECIAL 01. GEOGRID REINFORCEMENT	SY	15,000.000	15,000.000

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		ITEM 201.0120	ITEM 201.0220		ITEM 201.0105	ITEM 201.0205		ITEM 201.0115	ITEM 201.0215
		CLEARING	GRUBBING		CLEARING	GRUBBING		CLEARING	GRUBBING
		CATEGORY 0010			CATEGORY 0010			CATEGORY 0010	
		STAGE 2	STAGE 2		STAGE 2	STAGE 2		STAGE 2	STAGE 2
STATION	LOCATION	I.D.	I.D.		STA.	STA.		ACRE	ACRE
147+69	74' RT	16	16		0	0		0	0
148+00	74' RT	10	10		0	0		0	0
148+14	60' RT	16	16		0	0		0	0
148+39	66' RT	16	16		0	0		0	0
148+65	63' RT	8	8		0	0		0	0
148+98	69' RT	12	12		0	0		0	0
149+11	65' RT	10	10		0	0		0	0
151+20 - 151+70	45' RT	0	0		1	1		0	0
170+25	63' RT	8	8		0	0		0	0
174+64	68' RT	6	6		0	0		0	0
180+48	62' RT	14	14		0	0		0	0
180+54	63' RT	26	26		0	0		0	0
183+22	84' RT	12	12		0	0		0	0
183+67	85' RT	16	16		0	0		0	0
184+94	65' RT	26	26		0	0		0	0
185+04 - 186+17	62' RT	0	0		2	2		0	0
196+16	59' RT	8	8		0	0		0	0
196+25	58' RT	10	10		0	0		0	0
197+92 - 198+45	42' RT	0	0		1	1		0	0
213+14	78' RT	14	14		0	0		0	0
213+15	78' RT	14	14		0	0		0	0
213+50	79' RT	8	8		0	0		0	0
213+51	80' RT	6	6		0	0		0	0
213+65	76' RT	14	14		0	0		0	0
213+68	75' RT	14	14		0	0		0	0
215+26	86' RT	8	8		0	0		0	0
215+31	83' RT	8	8		0	0		0	0
215+31	101 RT	12	12		0	0		0	0
215+32	89' RT	8	8		0	0		0	0
215+33	76' RT	16	16		0	0		0	0
215+33	76' RT	20	20		0	0		0	0
215+70	67' RT	14	14		0	0		0	0
215+84	66' RT	14	14		0	0		0	0
215+95	64' RT	14	14		0	0		0	0
216+87	62' RT	20	20		0	0		0	0
217+01	67' RT	32	32		0	0		0	0
223+43 - 224+60	54' RT	0	0		2	2		0	0
225+10	49' RT	20	20		0	0		0	0
237+93	58' RT	10	10		0	0		0	0
238+25	70' RT	20	20		0	0		0	0
239+81	68' RT	14	14		0	0		0	0
240+02	64' RT	14	14		0	0		0	0
	ITEM SUBTOTAL	528	528		6	6		0	0

		CONT.	CONT.		CONT.	CONT.		CONT.	CONT.
		ITEM 201.0120	ITEM 201.0220		ITEM 201.0105	ITEM 201.0205		ITEM 201.0115	ITEM 201.0215
		CLEARING	GRUBBING		CLEARING	GRUBBING		CLEARING	GRUBBING
		CATEGORY 0010			CATEGORY 0010			CATEGORY 0010	
		STAGE 3	STAGE 3		STAGE 3	STAGE 3		STAGE 3	STAGE 3
STATION	LOCATION	I.D.	I.D.		STA.	STA.		ACRE	ACRE
159+36	65' LT	26	26		0	0		0	0
160+78	68' LT	16	16		0	0		0	0
162+96	59' LT	16	16		0	0		0	0
163+04	62' LT	16	16		0	0		0	0
163+86	85' LT	14	14		0	0		0	0
164+21	67' LT	14	14		0	0		0	0
164+37	62' LT	18	18		0	0		0	0
164+73	72' LT	12	12		0	0		0	0
164+89	63' LT	16	16		0	0		0	0
165+03	62' LT	18	18		0	0		0	0
165+13	62' LT	18	18		0	0		0	0
165+23	62' LT	14	14		0	0		0	0
165+47	57' LT	14	14		0	0		0	0
165+49	59' LT	10	10		0	0		0	0
172+30	48' LT	12	12		0	0		0	0
182+97	58' LT	8	8		0	0		0	0
183+83	60' LT	26	26		0	0		0	0
195+14	50' LT	26	26		0	0		0	0
195+23	66' LT	20	20		0	0		0	0
195+32	60' LT	26	26		0	0		0	0
195+33	49' LT	20	20		0	0		0	0
195+72	58' LT	20	20		0	0		0	0
195+80	52' LT	26	26		0	0		0	0
196+00	48' LT	32	32		0	0		0	0
198+58	58' LT	10	10		0	0		0	0
204+00	64' LT	14	14		0	0		0	0
204+20	64' LT	20	20		0	0		0	0
204+40	65' LT	20	20		0	0		0	0
207+92	53' LT	8	8		0	0		0	0
217+80	72' LT	10	10		0	0		0	0
221+20 - 221+80	60' LT	0	0		1	1		0	0
226+47	45' LT	14	14		0	0		0	0
226+61	56' LT	8	8		0	0		0	0
226+95	50' LT	20	20		0	0		0	0
227+34	43' LT	14	14		0	0		0	0
227+51	51' LT	14	14		0	0		0	0
228+02	52' LT	14	14		0	0		0	0
228+14	51' LT	16	16		0	0		0	0
228+57	51' LT	26	26		0	0		0	0
246+14	62' LT	18	18		0	0		0	0
246+42	64' LT	18	18		0	0		0	0
	ITEM SUBTOTAL	682	682		1	1		0	0
RETENTION BASIN		0	0		0	0		3.0	3.0
	ITEM TOTAL	**1210**	**1210**		**7**	**7**		**3**	**3**
		I.D.	**I.D.**		**STA.**	**STA.**		**ACRE**	**ACRE**
	CATEGORY	**(0010)**	**(0010)**		**(0010)**	**(0010)**		**(0010)**	**(0010)**

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		ITEM 203.0100							ITEM 203.0100			
		REMOVING SMALL PIPE							REMOVING SMALL PIPE			
		PIPE CULVERTS							PIPE CULVERTS			
		CATEGORY 0010							CATEGORY 0010			
		Stage 2							Stage 3			
STATION	LOCATION	EACH	DIAMETER (INCH)	LENGTH (FT)	TYPE		STATION	LOCATION	EACH	DIAMETER (INCH)	LENGTH (FT)	TYPE
149+77	RT	1	12	22	CMP		**153+15**	**LT**	**1**	**36X60**	**46**	**CMP**
153+15	RT	1	36X60	46	CMP		153+52	LT	1	27	72	CMP
160+28	RT	1	12	24	CMP		158+57	LT	1	24	120	CMP
163+57	RT	1	12	24	CMP		160+04	LT	1	18	26	CMP
179+86	RT	1	12	15	PVC		160+47	LT	1	18	24	CMP
180+81	RT	1	15	26	CMP		161+86	LT	1	18	20	CMP
184+22	RT	0.5	42X60	50	CMP		164+02	LT	1	18	22	CMP
185+90	RT	1	24X36	40	CMP		164+50	LT	1	15	30	CMP
186+58	RT	1	15	52	CMP		166+20	LT	1	15	30	CMP
188+04	RT	1	12	18	CMP		168+34	LT	1	15	30	CMP
189+94	RT	1	12	20	CMP		173+70	LT	1	15	74	CMP
192+80	RT	1	12	20	CMP		180+28	LT	1	15	58	CMP
193+83	RT	0.5	24X36	32	CMP		184+22	LT	0.5	42X60	50	CMP
194+60	RT	1	18	52	CMP		185+90	LT	1	24X36	40	CMP
196+05	RT	1	15	16	CMP		192+72	LT	1	15	26	CMP
199+05	RT	1	18	22	CMP		193+62	LT	1	15	26	CMP
200+86	RT	1	24	52	CMP		193+83	LT	0.5	24X36	32	CMP
202+16	RT	0.5	48	52	CMP		198+81	LT	1	15	26	CMP
202+84	RT	1	56	48	CMP		200+80	LT	1	18	16	CMP
215+04	RT	1	30	40	CMP		202+16	LT	0.5	48	52	CMP
215+55	RT	1	30	36	CMP		206+62	LT	1	15	24	CMP
216+49	RT	1	15	30	CMP		211+57	LT	1	24	85	CMP
217+14	RT	1	30	26	CMP		216+47	LT	1	15	34	CMP
223+36	RT	1	15	24	CMP		217+71	LT	1	18	42	CMP
228+60	RT	1	15	62	CMP		218+45	LT	1	18	35	CMP
238+06	RT	1	15	28	CMP		220+38	LT	1	15	26	CMP
239+56	RT	1	18	28	CMP		221+96	LT	1	15	24	CMP
240+81	RT	1	18	48	CMP		223+90	LT	1	15	38	CMP
							239+83	LT	1	15	194	CMP
ITEM SUBTOTAL		**26.5**					**ITEM SUBTOTAL**		**27.5**			
		EACH							**EACH**			
CATEGORY		**(0010)**					**CATEGORY**		**(0010)**			
ITEM TOTAL (EACH)		**54**										

	ITEM 204.0100	
	REMOVING PAVEMENT CATEGORY 0010	
	STAGE 2	STAGE 3
LOCATION	S.Y.	S.Y.
144+00 - 146+00	270	265
146+00 - 152+00	810	805
152+00 - 158+00	850	805
158+00 - 164+00	815	1130
164+00 - 170+00	825	795
170+00 - 176+00	820	805
176+00 - 182+00	805	815
182+00 - 188+00	805	1255
188+00 - 194+00	810	825
194+00 - 200+00	810	825
200+00 - 206+00	800	835
206+00 - 212+00	815	810
212+00 - 218+00	810	820
218+00 - 224+00	805	830
224+00 - 230+00	810	820
230+00 - 236+00	810	815
236+00 - 242+00	815	815
242+00 - 248+00	570	945
248+00 - 248+30	0	80
PUETZ RD	0	0
DREXEL AVE	0	0
FOREST HILL	0	0
BRUNN DRIVE	0	0
IMPERIAL DRIVE	0	0
MINOR SIDE ROADS	0	0
STAGE TOTALS	13855	15095
ITEM SUBTOTAL	**13855**	**15095**
	S.Y.	**S.Y.**
CATEGORY	**(0010)**	**(0010)**
ITEM TOTAL	**28950**	
(S.Y.)		

	ITEM 204.0110		
	REMOVING ASPHALTIC SURFACE		
	CATEGORY 0010	CATEGORY 0010	
	STAGE 2	STAGE 3	
LOCATION	S.Y.	S.Y.	REMARKS
144+00 - 146+00	0	0	
146+00 - 152+00	0	15	
152+00 - 158+00	550	740	
158+00 - 164+00	1230	570	SERVICE DR. INCLUDED
164+00 - 170+00	505	410	
170+00 - 176+00	620	765	
176+00 - 182+00	485	960	
182+00 - 188+00	1010	470	
188+00 - 194+00	140	255	
194+00 - 200+00	470	280	
200+00 - 206+00	540	400	
206+00 - 212+00	595	635	
212+00 - 218+00	295	835	
218+00 - 224+00	465	460	
224+00 - 230+00	875	860	
230+00 - 236+00	0	325	
236+00 - 242+00	480	1360	ASPH. WALK RT.
242+00 - 248+00	1350	1710	ASPH. WALK RT.
248+00 - 248+30	0	35	
PUETZ RD	195	820	
DREXEL AVE	1805	1590	
FOREST HILL	0	670	
BRUNN DRIVE	120	0	
IMPERIAL DRIVE	0	330	
MINOR SIDE ROADS	1050	685	
STAGE TOTALS	12780	15180	
ITEM SUBTOTAL	**12780**	**15180**	
	S.Y.	**S.Y.**	
CATEGORY	**(0010)**	**(0010)**	
ITEM TOTAL	**27960**		
0010 ITEM TOTAL	**27960**		
	(S.Y.)		

	ITEM 204.0115		
	REMOVING ASPHALTIC SURFACE, BUTT JOINTS		
	CATEGORY 0010		
	STAGE 2	STAGE 3	Driveways
LOCATION	S.Y.	S.Y.	S.Y.
144+00 - 146+00	0	0	0
146+00 - 152+00	0	0	0
152+00 - 158+00	0	0	5
158+00 - 164+00	0	0	25
164+00 - 170+00	0	0	15
170+00 - 176+00	0	0	10
176+00 - 182+00	0	0	5
182+00 - 188+00	0	0	10
188+00 - 194+00	0	0	5
194+00 - 200+00	0	0	10
200+00 - 206+00	0	0	5
206+00 - 212+00	0	0	5
212+00 - 218+00	0	0	15
218+00 - 224+00	0	0	10
224+00 - 230+00	0	0	10
230+00 - 236+00	0	0	0
236+00 - 242+00	0	0	10
242+00 - 248+00	10	0	15
248+00 - 248+30	0	0	5
PUETZ RD	10	10	0
DREXEL AVE	10	10	0
FOREST HILL	0	0	0
BRUNN DRIVE	10	0	0
IMPERIAL DRIVE	0	0	0
MINOR SIDE ROADS	55	50	0
STAGE TOTALS	95	70	160
ITEM SUBTOTAL	**95**	**70**	**160**
	S.Y.	**S.Y.**	**S.Y.**
CATEGORY	**(0010)**	**(0010)**	**(0010)**
ITEM TOTAL (S.Y.)	**325**		

	ITEM 204.0150	
	REMOVING CURB AND GUTTER	
	CATEGORY 0010	
	L.F.	
	STAGE 2	STAGE 3
LOCATION	L.F.	L.F.
144+00 - 146+00	0	0
146+00 - 152+00	0	0
152+00 - 158+00	0	0
158+00 - 164+00	0	0
164+00 - 170+00	0	0
170+00 - 176+00	0	0
176+00 - 182+00	0	0
182+00 - 188+00	0	0
188+00 - 194+00	0	0
194+00 - 200+00	0	0
200+00 - 206+00	0	0
206+00 - 212+00	0	0
212+00 - 218+00	0	0
218+00 - 224+00	0	0
224+00 - 230+00	0	0
230+00 - 236+00	0	0
236+00 - 242+00	0	0
242+00 - 248+00	215	575
248+00 - 248+30	0	60
PUETZ RD	165	95
DREXEL AVE	95	90
FOREST HILL	0	90
BRUNN DRIVE	150	0
IMPERIAL DRIVE	0	300
MINOR SIDE ROADS	1375	940
STAGE TOTALS	2000	2150
ITEM SUBTOTAL	**2000**	**2150**
	L.F.	**L.F.**
CATEGORY	**(0010)**	**(0010)**
ITEM TOTAL (L.F.)	**4150**	

	ITEM 204.0155	
	REMOVING CONCRETE SIDEWALK	
	CATEGORY 0010	
LOCATION	S.Y.	REMARKS
144+00 - 146+00	0	
146+00 - 152+00	0	
152+00 - 158+00	0	
158+00 - 164+00	0	
164+00 - 170+00	0	
170+00 - 176+00	0	
176+00 - 182+00	0	
182+00 - 188+00	0	
188+00 - 194+00	0	
194+00 - 200+00	0	
200+00 - 206+00	0	
206+00 - 212+00	0	
212+00 - 218+00	0	
218+00 - 224+00	0	
224+00 - 230+00	0	
230+00 - 236+00	0	
236+00 - 242+00	0	
242+00 - 248+00	0	
248+00 - 248+30	0	
PUETZ RD	0	
DREXEL AVE	0	
FOREST HILL	0	
BRUNN DRIVE	35	
IMPERIAL DRIVE	65	
MINOR SIDE ROADS	25	TUCKAWAY SHORES DR.
ITEM SUBTOTAL	**125**	
	S.Y.	
CATEGORY	**(0010)**	

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		ITEM 204.0165
		REMOVING
		GUARDRAIL
		CATEGORY 0010
STAGE 2		
STATION	**LOCATION**	**L.F.**
211+80	RT	195
213+04	RT	175
ITEM SUBTOTAL		370
STAGE 3		
STATION	**LOCATION**	**L.F.**
153+11	LT	175
211+80	LT	175
213+32	LT	235
ITEM SUBTOTAL		585
ITEM TOTALS		**955**
		L.F.
CATEGORY		**(0010)**

	ITEM 204.0185
	REMOVING MASONRY
LOCATION	**CY**
153+20, 50'LT	25
153+20, 50' RT	4
158+30, 70'LT	4
184+00, 45' LT	4
UNDISTRIBUTED	4
ITEM TOTAL	**41**
CATEGORY	**(0010)**

			ITEM 204.0220
			REMOVING INLETS
			CATEGORY 0010
STATION	**LOCATION**		**EACH**
158+83	105'	LT	1
159+32	37'	RT	1
169+21	36'	LT	1
169+21	46'	RT	1
169+63	36'	LT	1
169+63	46'	RT	1
177+60	51'	RT	1
177+86	54'	RT	1
200+89	45'	LT	1
201+12	52'	RT	1
201+40	54'	RT	1
219+62	37'	RT	1
220+05	37'	RT	1
226+40	34'	RT	1
227+69	34'	RT	1
241+44	36'	LT	1
244+63	12'	LT	1
244+83	12'	LT	1
246+62	12'	LT	1
246+65	48'	LT	1
ITEM TOTAL			**20**
			EACH
CATEGORY			**(0010)**

			ITEM 204.0190
			REMOVING SURFACE DRAINS
			CATEGORY 0010
STATION	**LOCATION**		**EACH**
157+78	32'	LT	1
179+81	28'	LT	1
180+81	27'	LT	1
184+00	28'	RT	1
ITEM TOTAL			**4**
			EACH
CATEGORY			**(0010)**

ITEM 213.0100	
FINISHING ROADWAY PROJECT	
CATEGORY 0010	
LOCATION	**L.S.**
PROJ 2160-01-70	1
ITEM TOTAL	**1**
CATEGORY	(0010)

		ITEM 204.0245		ITEM 204.0245		ITEM 204.0245		ITEM 204.0245		ITEM 204.0245		ITEM 204.0245	
		REMOVING STORM SEWER PIPE (SIZE) 12-INCH		REMOVING STORM SEWER PIPE (SIZE) 15-INCH		REMOVING STORM SEWER PIPE (SIZE) 18-INCH		REMOVING STORM SEWER PIPE (SIZE) 21-INCH		REMOVING STORM SEWER PIPE (SIZE) 24-INCH		REMOVING STORM SEWER PIPE (SIZE) 48-INCH	
		CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010
LOCATION		STAGE 2	STAGE 3	STAGE 2	STAGE 3	STAGE 2	STAGE 3	STAGE 2	STAGE 3	STAGE 2	STAGE 3	STAGE 2	STAGE 3
FROM	TO	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.
STA 157+98 LT 52	STA 158+27 LT 108										63		
STA 157+99 LT 51	STA 158+83 FT 91		93										
STA 158+27 LT 108	STA 158+83 LT 110				56								
STA 158+83 LT 110	STA 158+84 LT 131						22						
STA 168+83 RT 83	STA 169+23 RT 48			40									
STA 169+12 LT 37	STA 169+80 LT 37				68								
STA 169+23 RT 48	STA 169+64 RT 48			42									
STA 169+64 RT 48	STA170+05 RT 34			42									
STA 177+12 RT 35	STA 177+60 RT 53			52									
STA 177+60 RT 53	STA177+88 RT 55			28									
STA 177+88 RT 55	STA 178+22 RT 37			40									
STA 183+04 RT 40	STA 183+56 RT 41			50									
STA 183+56 RT 41	STA 183+88 RT 41							30					
STA 200+74 LT 43	STA 200+88 LT 47						16						
STA 200+88 LT 47	STA 201+15 LT 47												26
STA 201+15 LT 47	STA 201+63 LT 50												42
STA 219+25 RT 37	STA 219+67 RT 36									42			
STA 219+67 RT 36	STA 220+05 RT 36									38			
STA 220+05 RT 36	STA 220+19 RT 36									14			
STA 222+97 RT 34	STA 222+98 RT 46	13											
STA 224+65 LT 34	STA 225+35 LT 35						70						
STA 224+70 RT 35	STA 226+40 RT 35									166			
STA 226+40 RT 35	STA 227+71 RT 35									130			
STA 227+71 RT 35	STA 228+34 RT 34									64			
STA 244+48 LT 55	STA 244+49 LT 41				14								
STA 244+49 LT 41	STA 244+70 LT 12		35										
STA 244+70 LT 12	STA 244+84 LT 12		15										
STA 246+62 LT 42	STA 246+66 LT 50		9										
UNDISDTRIBUTED		2	3	6	2		2			6	7		2
ITEM SUBTOTAL		15	155	300	140	0	110	30	0	460	70	0	70
ITEM TOTAL		**170**		**440**		**110**		**30**		**530**		**70**	
		L.F.		**L.F.**		**L.F.**		**L.F.**		**L.F.**		**L.F.**	

EARTHWORK SUMMARY

Division	From/To Station	Location	Common Excavation (1)	EBS Excavation (3)	Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Marsh Excavation (6)	Rock Excavation (7)	Reduced Marsh in Fill (8)	Reduced EBS in Fill (9)	Expanded Marsh Backfill (10)	Expanded EBS Backfill (11)	Expanded Rock (12)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate +/- (14)	Waste	Borrow	Comment:
			Cut (2)						Factor	Factor	Factor	Factor	Factor		Factor				
				item # 205.0100			item #205.0400	item #205.0200	0.60	0.80	1.50	1.30	1.10		1.25			item #208.0100	
DIV 1 STAGE 1A	144+50 to 240+00	Mainline stage 1A	1112	2350	0	1112	1525	0	915	1880	2288	3055	0	78	-3396	4508			
DIV 1 STAGE 1B	144+50 to 240+00	Mainline stage 1B	2532	4442	0	2532	5618	0	3371	3554	8427	5775	0	0	-8655	11187			
DIV 1 STAGE 2	144+50 to 247+80	Mainline stage 2	18904	0	3450	15454	0	0	0	0	0	0	0	17500	21876	-6421			
DIV 1 STAGE 3	144+50 to 247+80	Mainline stage 3	21818	0	3450	18368	0	0	0	0	0	0		8305	10382	7987			
RETENTION BASIN			14900	0	0	14900	0	0	0	0	0	0		780	975	13925			
PUETZ ROAD	9+00 to 13+00	Puetz Road	594	120	90	504	0	0	0	96	0	156	0	30	-82	586			
DREXEL AVENUE	6+00 to 13+00	Drexel Avenue	1278	260	204	1074	0	0				338							
FOREST HILL AVE	10+50 to 12+75	Forest Hill Avenue	15	0	0	15	0	0				0							
MINOR SIDE ROADS			836	170	0	836	0	0				221		70	88	749			
Division 1 Subtotal			61989	7342	7194	54795	7143	0	4286	5529	10715	9544	0	26764	21186	32520			
			0	0	0	0	0	0	0	0	0	0	0	0	0	0			
						0									0	0			
						0									0	0			
						0									0	0			
						0									0	0			
						0									0	0			
Division 2 Subtotal			0	0	0	0	0	0	0	0	0	0	0	0	0	0		32520	See Note 15
Grand Total			61989	7342	7194	54795	7143	0	4286	5529	10715	9544	0	26764	21186	32520	0	32520	
			Total Common Excavation	69330															

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Borrow, or Cut material.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
6) Marsh Excavation - to be backfilled with Borrow, or Cut Material. Item number 205.0400
7) Rock Excavation item number 205.0200
8) Reduced Marsh in Fill - Excavated Marsh material is usuable in Fills outside the 1:1 slope. Marsh in Fill Reduction factor = 0.6
9) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8
10) Expanded Marsh Backfill - This is to be filled with Borrow OR Cut material. Marsh Backfill Factor = 1.5.
11) Expanded EBS Backfill - This is to be filled with Borrow or Cut material. EBS Backfill Factor = 1.3.
12) Expanded Rock - Factor = 1.1.
13) Expanded Fill. Factor = 1.25
Depending on selections:
Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh - Reduced EBS) * Fill Factor
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced EBS) * Fill Factor
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh) * Fill Factor
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor) * Fill Factor
14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.
15) Borrow Excavation item number 208.0100

ALL ITEMS THIS SHEET ARE CATEGORY 0010

3

DRIVEWAYS

	STAGE 2			*ITEM 305.0110	*ITEM 305.0120	ITEM 416.0170	ITEM 416.0270	ITEM 465.0120
				BASE AGGREGATE DENSE 3/4-INCH	BASE AGGREGATE DENSE 1 1/4-INCH	CONCRETE DRIVEWAY 7-INCH	CONCRETE DRIVEWAY HES 7-INCH	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
				CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010
DRIVEWAY NO.	LOCATION		MATERIAL	TON	TON	S.Y.	S.Y.	TON
1	145+75	RT.	ASPHALT	0	10	30	0	0
2	149+79	RT.	ASPHALT	0	10	30	0	0
5	170+52	RT.	ASPHALT	0	40	30	0	20
6	180+80	RT.	GRAVEL	25	0	20	0	0
7	202+95	RT.	ASPHALT	0	50	20	0	30
9	215+50	RT.	GRAVEL	50	0	20	0	0
10	216+50	RT.	GRAVEL	50	0	20	0	0
11	217+15	RT.	GRAVEL	60	0	20	0	0
13	224+84	RT.	GRAVEL	15	0	20	0	0
14	227+25	RT.	ASPHALT	0	45	20	0	25
15	238+05	RT.	CONCRETE	0	45	115	0	0
16	239+55	RT.	GRAVEL/ CONC	0	35	90	0	0
41	Tuckaway Crk 9+00	RT.	CONCRETE	0	15	30	0	0
42	Tuckaway Crk 9+00	LT.	CONCRETE	0	10	35	0	0
43	Drexel Ave 6+30	LT.	ASPHALT	0	30	0	0	20
46	Pineberry Ridge 9+20	RT.	CONCRETE	0	15	35	0	0
	UNDISTRIBUTED			15	5	15	75	20
			ITEM SUBTOTAL	**215**	**310**	**550**	**75**	**115**

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

DRIVEWAYS (CONT.)

	STAGE 3			*ITEM 305.0110	*ITEM 305.0120	ITEM 416.0170	ITEM 416.0270	ITEM 465.0120
				BASE AGGREGATE DENSE 3/4-INCH	BASE AGGREGATE DENSE 1 1/4-INCH	CONCRETE DRIVEWAY 7-INCH	CONCRETE DRIVEWAY HES 7-INCH	ASPHALTIC SURFACE DRIVEWAYS and FIELD ENTRANCES
				CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010
DRIVEWAY NO.	LOCATION		MATERIAL	TON	TON	S.Y.	S.Y.	TON
17	160+05	LT.	ASPHALT	0	65	40	0	35
18	160+51	LT.	ASPHALT	0	65	35	0	35
19	161+86	LT.	GRAVEL	40	0	30	0	0
20	164+00	LT.	ASPHALT	0	65	35	0	40
21	164+50	LT.	ASPHALT	0	50	35	0	25
22	166+20	LT.	CONCRETE	0	70	165	0	0
23	168+36	LT.	ASPHALT	0	50	30	0	30
24	172+07	LT.	GRAVEL	35	0	30	0	0
25	Service Drive Entr 180+28	LT.	CONCRETE	0	75	215	0	0
26	192+72	LT.	ASPHALT	0	25	35	0	10
27	193+60	LT.	ASPHALT	0	30	35	0	15
28	195+50	LT.	GRAVEL	50	0	30	0	0
29	198+82	LT.	ASPHALT	0	55	35	0	35
30	203+50	LT.	GRASS/ GRAVEL	15	0	25	0	0
31	206+72	LT.	ASPHALT	0	45	30	0	25
33	217+73	LT.	ASPHALT	0	45	35	0	25
34	218+41	LT.	ASPHALT	0	45	35	0	20
35	220+40	LT.	ASPHALT	0	15	35	0	5
36	222+00	LT.	ASPHALT	0	20	35	0	5
37	223+92	LT.	GRAVEL	20	0	35	0	0
38	246+31	LT.	CONCRETE	0	65	185	0	15
39	247+96	LT.	GRAVEL	15	0	30	0	0
40	Puetz Rd 12+60	RT.	ASPHALT	0	20	35	0	5
44	Drexel Ave 12+15	LT.	ASPHALT	0	25	40	0	10
45	Drexel Ave 12+45	RT.	ASPHALT	0	20	35	0	10
47	Imperial Dr 11+16	LT.	CONCRETE	0	10	30	0	0
	UNDISTRIBUTED			10	30	30	75	40
			ITEM SUBTOTAL	185	890	1365	75	385
			ITEM TOTAL	400	1200	1915	150	500
				TON	TON	S.Y.	S.Y.	TON
			CATEGORY	(0010)	(0010)	(0010)	(0010)	(0010)

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

	*ITEM 305.0110	
	BASE AGGREGATE DENSE 3/4-INCH	
	CATEGORY 0010	
	STAGE 2	STAGE 3
LOCATION	TON	TON
140+00 - 146+00	65	50
146+00 - 152+00	95	80
152+00 - 158+00	40	35
158+00 - 164+00	0	0
164+00 - 170+00	0	0
170+00 - 176+00	0	0
176+00 - 182+00	0	0
182+00 - 188+00	0	0
188+00 - 194+00	0	0
194+00 - 200+00	0	0
200+00 - 206+00	0	0
206+00 - 212+00	0	0
212+00 - 218+00	0	0
218+00 - 224+00	0	0
224+00 - 230+00	0	0
230+00 - 236+00	0	0
236+00 - 242+00	0	0
242+00 - 248+00	0	0
248+00 - 248+30	0	0
PUETZ RD	0	75
DREXEL AVE	160	150
FOREST HILL	0	65
BRUNN DRIVE	0	0
IMPERIAL DRIVE	0	0
MINOR SIDE ROADS	0	0
DRIVEWAY	175	160
UNDISTRIBUTED	15	15
ITEM SUBTOTAL	**550**	**630**
	TON	TON
CATEGORY	**(0010)**	**(0010)**
ITEM TOTAL (TON)	**1180**	
***Additional Quantities Listed Elsewhere**		

	ITEM 311.0110
	BREAKER RUN
	CATEGORY
	0010
LOCATION	TON
UNDISTRIBUTED	6000
ITEM TOTAL	**6000**
CATEGORY	**(0010)**

	*ITEM 305.0120						
	BASE AGGREGATE DENSE 1 1/4-INCH						
	Stage 1A	Stage 1A Shoulder	Stage 1B	Stage 1B Shoulder	Stage 2	Stage 3	Sidewalk
	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0020
LOCATION	TON	TON	TON	TON	TON	TON	TON
140+00 - 146+00	95	20	110	10	210	195	0
146+00 - 152+00	180	30	320	30	665	660	0
152+00 - 158+00	60	10	140	30	850	815	10
158+00 - 164+00	0	0	145	30	860	870	35
164+00 - 170+00	120	20	245	25	800	795	35
170+00 - 176+00	30	10	205	30	840	840	40
176+00 - 182+00	105	20	235	30	725	730	35
182+00 - 188+00	20	5	130	25	850	855	35
188+00 - 194+00	160	30	270	30	730	730	40
194+00 - 200+00	115	20	275	30	775	775	35
200+00 - 206+00	105	20	250	25	860	860	35
206+00 - 212+00	70	15	205	25	920	910	35
212+00 - 218+00	135	25	285	30	930	920	40
218+00 - 224+00	115	20	315	30	860	860	35
224+00 - 230+00	20	5	175	30	860	860	35
230+00 - 236+00	180	30	230	30	745	760	40
236+00 - 242+00	120	20	75	15	880	880	35
242+00 - 248+00	0	0	0	0	915	940	40
248+00 - 248+30	0	0	0	0	0	50	0
PUETZ RD	0	0	0	0	145	530	0
DREXEL AVE	0	0	0	0	835	645	0
FOREST HILL	0	0	0	0	0	415	0
BRUNN DRIVE	0	0	0	0	165	0	5
IMPERIAL DRIVE	0	0	0	0	0	215	10
DRIVEWAYS	0	0	0	0	165	465	0
MINOR SIDE ROADS	0	0	0	0	805	490	0
UNDISTRIBUTED	20	20	40	45	110	215	25
ITEM SUBTOTAL	**1650**	**320**	**3650**	**500**	**16500**	**17280**	**600**
	TON	TON	TON	TON	TON	TON	TON
CATEGORY	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0020)**
ITEM TOTAL	**40500**						
0010 ITEM TOTAL	**39900**						
0020 ITEM TOTAL	**600**						
	TON						
*Additional Quantities Listed Elsewhere							

	ITEM 415.0085
	CONCRETE PAVEMENT 8 1/2-INCH
	CATEGORY 0010

	STAGE 2	STAGE 3
LOCATION	S.Y.	S.Y.
144+00 - 146+00	445	435
146+00 - 152+00	1725	1715
152+00 - 158+00	2155	2235
158+00 - 164+00	2575	2570
164+00 - 170+00	2270	2210
170+00 - 176+00	2215	2410
176+00 - 182+00	2020	2005
182+00 - 188+00	2575	2455
188+00 - 194+00	1880	1880
194+00 - 200+00	2150	2015
200+00 - 206+00	2440	2425
206+00 - 212+00	2675	2645
212+00 - 218+00	2415	2415
218+00 - 224+00	2395	2270
224+00 - 230+00	2445	2400
230+00 - 236+00	1930	1930
236+00 - 242+00	2520	2450
242+00 - 248+00	2375	2425
248+00 - 248+30	0	115
PUETZ RD	105	1030
DREXEL AVE	1800	1280
FOREST HILL	0	820
BRUNN DRIVE	240	0
IMPERIAL DRIVE	0	360
MINOR SIDE ROADS	855	505
UNDISDTRIBUTED	10	15
ITEM SUBTOTAL	42215	43015
	S.Y.	S.Y.
CATEGORY	(0010)	(0010)
ITEM TOTAL (S.Y.)	85230	

	ITEM 415.1085
	CONCRETE PAVEMENT HES 8 1/2-INCH
	CATEGORY 0010
LOCATION	SY
UNDISTRIBUTED	1000
ITEM TOTAL	1000
CATEGORY	(0010)

	ITEM 715.0415
	INCENTIVE STRENGTH CONCRETE PAVEMENT
	CATEGORY 0010
LOCATION	DOL
UNDISTRIBUTED	675
ITEM TOTAL	675
CATEGORY	(0010)

	ITEM 415.0210
	CONCRETE PAVEMENT GAPS
	CATEGORY 0010
LOCATION	EACH
UNDISTRIBUTED	12
ITEM TOTAL	12
CATEGORY	(0010)

	ITEM 440.4410.S
	INCENTIVE IRI RIDE
	CATEGORY 0010
	DOL
PROJECT 2160-10-70	11000
ITEM TOTAL	11000
CATEGORY	(0010)

	ITEM 465.0110
	ASPHALTIC SURFACE PATCHING
LOCATION	TON
UNDISTRIBUTED	50
ITEM TOTAL	50
CATEGORY	(0010)

DRIVEWAY CULVERT ITEMS

ITEM 521.1018					ITEM 521.0118					
APRON ENDWALLS FOR CULVERT PIPE STEEL					CULVERT PIPE CORRUGATED STEEL 18-INCH					
CATEGORY 0010					CATEGORY 0010					
STAGE 2										
DRIVEWAY NO.	LOCATION	APRON ENDWALL SIZE (INCH)	EACH	REMARKS	SIZE (in)	LENGTH (ft)	SLOPE (%)	INVERT ELEV. UPSTR.	INVERT ELEV. DOWNSTR	REMARKS
1	145+75, 34' RT	18	2		18	38	0.600	748.00	747.77	
2	149+80, 39' RT	18	2		18	38	1.200	746.92	746.45	
	ITEM SUBTOTAL		**4**			**76**				
STAGE 3										
26	192+72, 42 LT	18	2		18	42	0.580	762.72	762.48	
27	193+61, 42' LT	18	2		18	42	0.600	762.21	761.96	
33	217+71, 48' LT	18	2		18	42	1.360	745.48	744.91	
34	218+40, 48' LT	18	2		18	42	4.710	748.46	746.48	
35	220+38, 48' LT	18	2		18	42	1.740	754.81	754.08	
36	221+95, 48' LT	18	2		18	42	1.430	757.33	756.73	
37	223+91, 48' LT	18	2		18	42	1.100	759.77	759.31	
44	12+15, 30' LT	18	2	DREXEL AVENUE	18	46	2.460	750.38	749.25	
45	12+45, 29' RT	18	2	DREXEL AVENUE	18	44	4.160	751.32	749.49	
	ITEM SUBTOTAL		**18**			**384**				
	ITEM TOTAL		**22**			**460**				
			EACH			**L.F.**				
	CATEGORY		**(0010)**			**(0010)**				

	ITEM 416.1010
	CONCRETE SURFACE DRAINS
	CATEGORY 0010
LOCATION	**C.Y.**
179+87, 30.0' LT	0.60
179+87, 69.5.0' LT	0.60
180+63, 70.0' LT	0.80
184+77, 66.0' LT	0.90
185+26.5, 66.5' LT	0.80
MARGARET LN 10+30, 27.5' LT	0.40
MARGARET LN 10+30, 38.0' RT	0.60
MARGARET LN 10+64, 28.0' LT	0.40
MARGARET LN 10+64, 38.0' RT	0.60
PUETZ RD 9+10, 17.3' LT	0.60
PUETZ RD 11+00, 15.5' LT	0.30
PUETZ RD 11+00, 30.5' RT	0.20
DREXEL AVE 9+31, 23.0' LT	1.00
DREXEL AVE 9+31, 32.0' RT	0.80
DREXEL AVE 10+68, 23.0' RT	0.60
DREXEL AVE 10+70, 23.0' LT	0.50
UNDISTRIBUTED	1.30
ITEM TOTAL	11.00 C.Y.
CATEGORY	**(0010)**

CATEGORY 0010	ITEM 455.0115		ITEM 455.0605		ITEM 460.1101		ITEM 465.0125	
	ASPHALTIC MATERIAL PG 64-22		TACK COAT		HMA PAVEMENT TYPE E-1		ASPHALTIC SURFACE TEMPORARY	
	TON	TON	GAL	GAL	TON	TON	TON	TON
STATION - STATION	STAGE 2	STAGE 3	STAGE 2	STAGE 3	STAGE 2	STAGE 3	STAGE 1A	STAGE 1B
140+00 - 146+00	0	0	0	0	0	0	105	115
146+00 - 152+00	0	0	0	0	0	0	195	345
152+00 - 158+00	0	0	0	0	0	0	65	155
158+00 - 164+00	0	0	0	0	0	0	0	155
164+00 - 170+00	0	0	0	0	0	0	130	265
170+00 - 176+00	0	0	0	0	0	0	30	220
176+00 - 182+00	0	0	0	0	0	0	115	255
182+00 - 188+00	0	0	0	0	0	0	20	140
188+00 - 194+00	0	0	0	0	0	0	170	290
194+00 - 200+00	0	0	0	0	0	0	120	300
200+00 - 206+00	0	0	0	0	0	0	115	270
206+00 - 212+00	0	0	0	0	0	0	75	220
212+00 - 218+00	0	0	0	0	0	0	145	310
218+00 - 224+00	0	0	0	0	0	0	125	340
224+00 - 230+00	0	0	0	0	0	0	20	190
230+00 - 236+00	0	0	0	0	0	0	195	250
236+00 - 242+00	0	0	0	0	0	0	130	85
242+00 - 248+00	0	0	0	0	0	0	0	0
248+00 - 248+30	0	0	0	0	0	0	0	0
PUETZ RD	10	25	15	40	105	380	0	0
DREXEL AVE	40	30	65	50	600	465	0	0
FOREST HILL	0	20	0	35	0	300	0	0
BRUNN DRIVE	0	10	0	15	0	155	0	0
IMPERIAL DRIVE	10	0	15	0	120	0	0	0
MINOR SIDE ROADS	10	10	10	10	100	100	0	0
UNDISTRIBUTED	5	5	5	10	35	10	25	25
ITEM SUBTOTAL	**75**	**100**	**110**	**160**	**960**	**1410**	**1780**	**3930**
	TON	**TON**	**GAL**	**GAL**	**TON**	**TON**	**TON**	**TON**
CATEGORY	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**
ITEM TOTAL	**175**		**270**		**2370**		**5710**	

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		ITEM 504.0900	ITEM 522.1012	ITEM 522.1015	ITEM 522.1018	ITEM 522.1027	ITEM 522.1030	ITEM 522.1054	ITEM 523.0534	ITEM 523.0543
		CONCRETE MASONRY ENDWALLS	APRON ENDWALLS FOR CULVERT PIPE REINFORECED CONCRETE 12-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORECED CONCRETE 15-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORECED CONCRETE 18-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORECED CONCRETE 27-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORECED CONCRETE 30-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORECED CONCRETE 54-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORECED CONCRETE 34 X 53-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORECED CONCRETE 43 X 68-INCH
ENDWALL		CY	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
NUMBER	LOCATION	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010
2	153+06, 60' LT.	1								
3	153+14, 46' LT.									
4	153+94, 46' LT.		1							
5	152+95, 47' LT.	2								
6	153+14, 60' RT.								1	
6	153+24, 56' RT.								1	
7C	156+67, 114' RT.						1			
8A	159+00, 120' LT.				1					
16D	175+80, 45' LT.		1							
19E	177+79, 44' LT.		1							
20B	179+79, 45' LT.		1							
20C	180+79, 47' LT.		1							
21C	181+50, 50' LT.		1							
22C	182+50, 60' LT.		1							
23A	184+00, 50' LT.									1
23C	184+75, 70' RT.									1
23E	184+25, 55' LT.		1							
24C	187+55, 53' LT.		1							
25D	188+55, 47' LT.		1							
27A	193+92, 45' LT.		1							
30E	201+63, 55' LT.							1		
31A	202+09, 55' LT.							1		
31D	202+46, 55' RT.							1		
37	212+00, 85' RT.					1				
38A	212+90, 105' RT.		1							
39A	212+90, 78' LT.		1							
39C	214+00, 78' LT.		1							
40A	214+94, 132' RT.					1				
40C	216+00, 78' LT.		1							
41B	218+75, 53' LT.		1							
42B	221+50, 50' LT.		1							
44A	225+47, 50' LT.			1						
44B	224+47, 50' LT.			1						
45B	228+75, 50' LT.		1							
52A	240+64, 62' RT.		1							
	ITEM TOTAL	3	19	2	1	2	1	3	2	2
		CY (0010)	EACH (0010)	EACH (0010)	EACH (0010)	EACH (0010)	EACH (0010)	EACH (0010)	EACH (0010)	EACH (0010)

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		ITEM 611.9800.S.01	ITEM 611.9800.S.02	ITEM 611.9800.S.03	ITEM 611.9800.S.04	ITEM 611.9800.S.05	ITEM 611.9800.S.06	ITEM 611.9800.S.07	ITEM 611.9800.S.08
		PIPE GRATES 12-INCH	PIPE GRATES 15-INCH	PIPE GRATES 18-INCH	PIPE GRATES 27-INCH	PIPE GRATES 30-INCH	PIPE GRATES 54-INCH	PIPE GRATES 34 X 53-INCH	PIPE GRATES 43 X 68-INCH
		EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
NUMBER	LOCATION	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010
2	153+06, 60' LT.								
3	153+14, 46' LT.								
4	153+94, 46' LT.	1							
5	152+95, 47' LT.								
6	153+14, 60' RT.							1	
6	153+24, 56' RT.							1	
7C	156+67, 114' RT.					1			
8A	159+00, 120' LT.			1					
16D	175+80, 45' LT.	1							
19E	177+79, 44' LT.	1							
20B	179+79, 45' LT.	1							
20C	180+79, 47' LT.	1							
21C	181+50, 50' LT.	1							
22C	182+50, 60' LT.	1							
23A	184+00, 50' LT.								1
23C	184+75, 70' RT.								1
23E	184+25, 55' LT.	1							
24C	187+55, 53' LT.	1							
25D	188+55, 47' LT.	1							
27A	193+92, 45' LT.	1							
30E	201+63, 55' LT.						1		
31A	202+09, 55' LT.						1		
31D	202+46, 55' RT.						1		
37	212+00, 85' RT.				1				
38A	212+90, 105' RT.	1							
39A	212+90, 78' LT.	1							
39C	214+00, 78' LT.	1							
40A	214+94, 132' RT.				1				
40C	216+00, 78' LT.	1							
41B	218+75, 53' LT.	1							
42B	221+50, 50' LT.	1							
44A	225+47, 50' LT.		1						
44B	224+47, 50' LT.		1						
45B	228+75, 50' LT.	1							
52A	240+64, 62' RT.	1							
	ITEM TOTAL	19	2	1	2	1	3	2	2
		EACH (0010)	EACH (0010)	EACH (0010)	EACH (0010)	EACH (0010)	EACH (0010)	EACH (0010)	EACH (0010)

	ITEM 601.0331	
	CONCRETE CURB & GUTTER 31-INCH	
	CATEGORY 0010	
	STAGE 2	STAGE 3
LOCATION	L.F.	L.F.
144+00 - 146+00	0	0
146+00 - 152+00	0	0
152+00 - 158+00	230	285
158+00 - 164+00	605	605
164+00 - 170+00	615	615
170+00 - 176+00	600	605
176+00 - 182+00	620	600
182+00 - 188+00	615	595
188+00 - 194+00	600	600
194+00 - 200+00	610	600
200+00 - 206+00	630	620
206+00 - 212+00	585	595
212+00 - 218+00	600	600
218+00 - 224+00	590	600
224+00 - 230+00	600	610
230+00 - 236+00	600	600
236+00 - 242+00	600	595
242+00 - 248+00	695	730
248+00 - 248+30	0	60
PUETZ RD	35	45
DREXEL AVE	0	0
FOREST HILL	0	0
BRUNN DRIVE	120	0
IMPERIAL DRIVE	0	185
MINOR SIDE ROADS	500	200
UNDISTRIBUTED	60	45
ITEM SUBTOTAL	10110	9990
	L.F.	**L.F.**
CATEGORY	**(0010)**	**(0010)**
ITEM TOTAL	**20100**	
0010 ITEM TOTAL	**20100**	
	(L.F.)	

	ITEM 602.0410		ITEM 602.0420	
	CONCRETE SIDEWALK 5 INCH		CONCRETE SIDEWALK 7 INCH	
	CATEGORY	CATEGORY	CATEGORY	CATEGORY
	0010	0020	0010	0020
LOCATION	S.F.	S.F.	S.F.	S.F.
144+00 - 146+00	0	0	0	0
146+00 - 152+00	0	0	0	0
152+00 - 158+00	0	210	0	0
158+00 - 164+00	0	2510	0	130
164+00 - 170+00	0	2615	0	125
170+00 - 176+00	0	2880	0	0
176+00 - 182+00	0	2590	0	125
182+00 - 188+00	0	2275	0	245
188+00 - 194+00	0	3000	0	0
194+00 - 200+00	0	2665	0	125
200+00 - 206+00	0	2610	0	125
206+00 - 212+00	0	2515	0	125
212+00 - 218+00	0	2775	0	0
218+00 - 224+00	0	2640	0	125
224+00 - 230+00	0	2450	0	125
230+00 - 236+00	0	3005	0	0
236+00 - 242+00	0	2425	0	145
242+00 - 248+00	0	2945	0	0
248+00 - 248+30	0	0	0	0
PUETZ RD	0	0	0	25
DREXEL AVE	0	0	0	25
FOREST HILL	0	0	0	25
BRUNN DRIVE	0	330	0	25
IMPERIAL DRIVE	0	535	0	60
MINOR SIDE ROADS	0	60	0	65
UNDISTRIBUTED	0	465	0	30
ITEM SUBTOTAL	**0**	**41500**	**0**	**1650**
	S.F.	**S.F.**	**S.F.**	**S.F.**
CATEGORY	**(0010)**	**(0020)**	**(0010)**	**(0020)**
ITEM TOTAL	**41500**		**1650**	
(S.F.)				

	ITEM 602.0505	
	CURB RAMP DETECTABLE WARNING FIELD YELLOW	
	CATEGORY	
	0010	0020
LOCATION	S.F.	S.F.
144+00 - 146+00	0	0
146+00 - 152+00	0	0
152+00 - 158+00	0	0
158+00 - 164+00	0	0
164+00 - 170+00	0	0
170+00 - 176+00	0	0
176+00 - 182+00	0	0
182+00 - 188+00	0	0
188+00 - 194+00	0	0
194+00 - 200+00	0	0
200+00 - 206+00	0	0
206+00 - 212+00	0	0
212+00 - 218+00	0	0
218+00 - 224+00	0	0
224+00 - 230+00	0	0
230+00 - 236+00	0	0
236+00 - 242+00	0	0
242+00 - 248+00	0	0
248+00 - 248+30	0	0
PUETZ RD	0	16
DREXEL AVE	0	16
FOREST HILL	0	0
BRUNN DRIVE	0	16
IMPERIAL DRIVE	0	8
MINOR SIDE ROADS	0	136
UNDISDTRIBUTED	0	8
ITEM SUBTOTAL	**0**	**200**
	S.F.	**S.F.**
CATEGORY	**(0010)**	**(0020)**
ITEM TOTAL	**200**	
(S.F.)		

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	RIP RAP AND FABRIC	
	*ITEM 606.0200	*ITEM 645.0120
	RIP RAP MEDIUM	GEOTEXTILE FABRIC TYPE HR
	CATEGORY 0010	CATEGORY 0010
LOCATION	C.Y.	S.Y.
144+00 - 148+00	0	0
148+00 - 154+00	30	35
154+00 - 160+00	0	0
160+00 - 166+00	0	0
166+00 - 172+00	0	0
172+00 - 178+00	15	20
178+00 - 184+00	25	30
184+00 - 190+00	45	50
190+00 - 196+00	0	0
196+00 - 202+00	10	15
202+00 - 208+00	15	20
208+00 - 214+00	25	30
214+00 - 220+00	20	25
220+00 - 226+00	20	25
226+00 - 232+00	10	15
232+00 - 238+00	0	0
238+00 - 244+00	0	0
244+00 - 250+00	0	0
UNDISTRIBUTED	35	35
ITEM TOTAL	**250**	**300**
	C.Y.	**S.Y.**
CATEGORY	**(0010)**	**(0010)**

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

EXISTING STORM SEWER FACILITY & OTHER EXISTING UTILITY FACILITY WORK

STRUCT. NO.	LOCATION STATION	OFFSET	STREET	FACILITY TYPE	**SURFACE ELEVATIONS EXIST. ELEV.	NEW ELEV.	DIFF. ELEV.	WORK DONE BY OTHERS	ITEM 204.0210 REMOVING MANHOLES EACH	ITEM *611.8110 ADJUSTING MANHOLE COVERS EACH	ITEM *611.8115 ADJUSTING INLET COVERS EACH	ITEM *611.0420 RECON-STRUCTING MANHOLES EACH	ITEM 611.0430 RECON-STRUCTING INLETS EACH	ITEM SPV.0060.05 CLEANING DRAINAGE STRUCTURES EACH
	Mainline–Northbound													
203	158+25	55' RT.	PUETZ RD.	AT & T MH/VAULT	760.27	760.17	−0.10	X						
207(1)	158+79	44' RT		STORM SEWER MH					1					
215A	171+82	60' RT.		WE ENERGIES GV BOX				X						
220A (1)	183+56	40' RT		STORM SEWER MH					1					
221A	185+55	55' RT.	FOREST HILL AVE.	AT & T MH/VAULT	764.86	764.41	−0.45	X						
225A	194+80	60' RT.	COUNTRY CLUB CIR. #1	WE ENERGIES GV BOX	765.08	764.79	−0.29	X						
225B	194+85	60' RT.	COUNTRY CLUB CIR. #1	WE ENERGIES GV BOX	764.89	764.76	−0.13	X						
227	196+05	55' RT.		STORM SEWER MH	765.06	764.24	−0.82			1				1
229	199+00	55' RT.		STORM SEWER MH	760.95	760.62	−0.33			1				1
231A	201+10	62' RT.		WE ENERGIES GV BOX				X						
233	202+85	55' RT.		AT & T MH/VAULT	756.16	758.96	+2.80	X						
237	210+65	55' RT.	DREXEL AVE.	AT & T MH/VAULT	745.76	748.85	+3.09	X						
243A	215+40	45' RT.		AT & T MH/VAULT	744.84	748.78	+3.94	X						
245A	219+65	60' RT.	PINEBERRY RIDGE	WE ENERGIES GV BOX	756.92	757.35	+0.43	X						
248A	223+45	50' RT.		AT & T MH/VAULT	763.06	763.67	+0.61	X						
248B	223+80	50' RT.		AT & T MH/VAULT	763.92	762.69	−1.23	X						
249	225+13	29' RT.		STORM SEWER MH					1					
251(1)	228+33	35.29' RT		STORM SEWER MH					1					
253	231+45	55' RT.	–	AT & T MH/VAULT	766.85	766.84	−0.01	X						
259(1)	241+01	42' RT		STORM SEWER MH					1					
260A	241+60	55' RT.	IMPERIAL DR.	AT & T MH/VAULT	757.77	758.77	+1.00	X						
263	246+65	5' RT.		STORM SEWER INLET	758.50	758.26	−0.24				1			1
264	246+65	15' RT.		STORM SEWER MH	758.62	758.06	−0.56			1				1
	ITEM SUBTOTAL NORTHBOUND:								5	3	1	0	0	4
	Mainline–Southbound													
208	158+95	50' LT.	PUETZ RD.	WE ENERGIES G MH	763.51	763.26	−0.25	X						
214A	169+18	60' LT.	LAKE POINTE DR.	WE ENERGIES GV BOX	783.99	784.04	+0.05	X						
214B	169+22	60' LT.	LAKE POINTE DR.	WE ENERGIES GV BOX	783.53	783.85	+0.32	X						
221B	185+95	55' LT.	FOREST HILL AVE.	WE ENERGIES GV BOX	765.48	767.17	+1.69	X						
230B	201+07	39' LT.	NORWOOD LN.	WE ENERGIES GV BOX	759.20	760.68	+1.48	X						
230C	201+50	60' LT.	NORWOOD LN.	WE ENERGIES GV BOX	759.10	759.00	−0.10	X						
254	240+65	60' LT.	IMPERIAL DR.	WE ENERGIES GV BOX	760.21	760.34	+0.13	X						
255	240+79	48' LT.	IMPERIAL DR.	STORM SEWER MH	758.93	758.75	−0.17			1				1
257(1)	240+76	27' LT.		STORM SEWER MH	759.19				1					
260	241+44	37' LT.	IMPERIAL DR.		758.53	758.28	−0.25						1	
261	244+50	40' LT.	IMPERIAL DR.	STORM SEWER MH	757.53	755.91	+1.62					1		1
262	246+65	12' LT.		STORM SEWER INLET	758.72	758.26	−0.46				1			
265	246+65	45' LT.		STORM SEWER MH	758.94	758.10	−0.84			1				1
	ITEM SUBTOTAL SOUTHBOUND:								1	2	1	1	1	3
	SUBTOTAL NORTHBOUND + SOUTHBOUND								**6**	**5**	**2**	**1**	**1**	**7**
	***UNDISTRIBUTED CATEGORY 0010:								0	0	0	0	0	0
	***UNDISTRIBUTED CATEGORY 0030:								0	0	0	0	0	0
	ITEM TOTAL:								**6**	**5**	**2**	**1**	**1**	**7**
	CATEGORY 0010 ITEM TOTAL:								6	5	2	1	1	7
	CATEGORY 0030 ITEM TOTAL:								0	0	0	0	0	0

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

** ELEVATIONS/DEPTHS ARE APPROXIMATE AND FINAL ADJUSTMENTS MAY BE REQUIRED IN THE FIELD.

*** AS DIRECTED BY THE ENGINEER

(1) SEE DRAINAGE TABLE

EXISTING SANITARY SEWER FACILITY WORK

STRUCT. NO.	LOCATION (NORTHBOUND) STATION	OFFSET	STREET	SANITARY SEWER FACILITY TYPE	***SURFACE ELEVATIONS EXIST. ELEV.	NEW ELEV.	DIFF. ELEV.	***EXIST. MANHOLE DEPTH FT.	*ITEM 611.8110 **ADJUSTING MANHOLE COVERS EACH	*ITEM 611.0420 **RECON-STRUCTING MANHOLES EACH	ITEM SPV.0060.02 **EXTERNAL SANITARY MANHOLE SEALS EACH
	Mainline-Northbound										
202	153+55	55' RT.	MARGARET LN.	SAN MH	747.75	748.00	+0.25		1		1
212	165+25	50' RT.		SAN MH	776.89	777.14	+0.25	10.27	1		1
213	167+40	50' RT.		SAN MH	781.32	781.01	0.32		1		1
216	177+75	45' RT.	FOUNTAIN CT.	SAN MH	779.92	780.05	+0.13	11.47	1		1
217	179+35	45' RT.		SAN MH	777.84	779.13	+1.29	12.78		1	1
219	181+90	45' RT.		SAN MH	770.29	775.15	+4.86	11.60		1	1
220	183+30	45' RT.	TUCKAWAY CREEK	SAN MH	769.62	771.51	+1.89	12.95		1	1
221	185+05	45' RT.	FOREST HILL AVE.	SAN MH	763.80	770.42	+6.62	10.25		1	1
222	186+60	45' RT.	COUNTRY CLUB #1	SAN MH	767.04	768.34	+1.30			1	1
223	189+05	45' RT.		SAN MH	765.06	768.10	+3.04	12.36		1	1
224	193+05	45' RT.		SAN MH	765.24	765.79	+0.55	13.88	1		1
225	194+60	45' RT.	COUNTRY CLUB #2	SAN MH	765.06	764.27	-0.79		1		1
230	199+25	45' RT.		SAN MH	758.57	762.00	+3.43			1	1
231	201+25	45' RT.	NORWOOD LN.	SAN MH	759.35	759.78	+0.43		1		1
232	201+75	45' RT.	NORWOOD LN.	SAN MH	755.18	760.31	+5.13			1	1
234	205+30	45' RT.		SAN MH	755.36	756.08	+0.72	11.06	1		1
236	208+90	45' RT.		SAN MH	751.60	750.82	-0.78	14.25	1		1
238	210+90	45' RT.	DREXEL AVE.	SAN MH	747.91	748.40	+0.49	13.47	1		1
241	212+15	90' RT.		SAN MH	739.33	740.53	+1.20	11.97		1	1
242	213+10	80' RT.		SAN MH	738.55	739.54	+1.00	20.36		1	1
244	216+30	45' RT.		SAN MH	745.22	750.41	+5.19	16.79		1	1
246	219+90	45' RT.	PINEBERRY RIDGE	SAN MH	755.50	756.20	+0.70	13.52	1		1
247	222+55	45' RT.		SAN MH	759.58	761.04	+1.46			1	1
248	223+30	45' RT.		SAN MH	761.51	762.00	+0.49	11.72	1		1
250	225+50	45' RT.	FAITH DR.	SAN MH	769.03	764.28	-4.75	19.06		1	1
252	228+50	45' RT.	SOUTHVIEW DR.	SAN MH	765.60	765.44	-0.16	11.93	1		1
256	241+05	65' RT.	BRUNN DR.	SAN MH	758.20	758.67	+0.47	8.44	1		1
	ITEM SUBTOTAL NORTHBOUND:								14	13	27

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

** CATEGORY 0030

*** ELEVATIONS/DEPTHS ARE APPROXIMATE AND FINAL ADJUSTMENTS MAY BE REQUIRED IN THE FIELD.

**** AS DIRECTED BY THE ENGINEER

EXISTING SANITARY SEWER FACILITY WORK, CONT.

STRUCT. NO.	LOCATION (SOUTHBOUND) STATION	OFFSET	STREET	SANITARY SEWER FACILITY TYPE	***SURFACE ELEVATIONS EXIST. ELEV.	NEW ELEV.	DIFF. ELEV.	***EXIST. MANHOLE DEPTH FT.	*ITEM 611.8110 **ADJUSTING MANHOLE COVERS EACH	*ITEM 611.0420 **RECON-STRUCTING MANHOLES EACH	ITEM SPV.0060.02 **EXTERNAL SANITARY MANHOLE SEALS EACH
	Mainline-Southbound										
201	153+45	80' LT.	MARGARET LN.	SAN MH	748.93	748.38	-0.55	17.16	1		1
204	158+65	35' LT.	PUETZ RD.	SAN MH	761.77	761.34	-0.43	13.92	1		1
205	158+65	70' LT.	PUETZ RD.	SAN MH	762.45	761.77	-0.68		1		1
206	158+80	35' LT.	PUETZ RD.	SAN MH	762.13	762.03	-0.10		1		1
209	160+75	45' LT.		SAN MH	767.26	767.59	+0.33		1		1
210	163+05	45' LT.		SAN MH	773.25	774.33	+1.08			1	1
211	165+25	45' LT.		SAN MH	776.89	778.71	+1.82			1	1
214	168+50	45' LT.		SAN MH	782.19	782.38	+0.19		1		1
215	171+30	45' LT.		SAN MH	784.54	785.21	+0.67		1		1
218	180+55	65' LT.		SAN MH	776.66	776.71	+0.05	10.73	1		1
226	195+50	35' LT.		SAN MH	765.23	763.57	-1.66	14.23		1	1
228	198+25	35' LT.		SAN MH	762.76	762.58	-0.18	13.18	1		1
230A	201+25	35' LT.	NORWOOD LN.	SAN MH	759.05	759.88	+0.83	11.04		1	1
239	211+50	70' LT.	DREXEL AVE.	SAN MH	747.57	748.81	+1.24			1	1
240	212+15	75' LT.		SAN MH	736.62	744.12	+7.50	20.14		1	1
243	214+50	75' LT.		SAN MH	737.23	737.10	-0.13	13.66	1		1
245	218+00	75' LT.		SAN MH	747.12	747.25	+0.13	21.03	1		1
258	240+90	65' LT.	IMPERIAL DR.	SAN MH	758.95	759.00	+0.05	10.94	1		1
266	246+85	20' LT.		SAN MH	759.31	758.22	-1.09	4.00		1	1
	ITEM SUBTOTAL SOUTHBOUND:								12	7	19

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

** CATEGORY 0030

*** ELEVATIONS/DEPTHS ARE APPROXIMATE AND FINAL ADJUSTMENTS MAY BE REQUIRED IN THE FIELD.

**** AS DIRECTED BY THE ENGINEER

3

EXISTING SANITARY SEWER FACILITY WORK, CONT.

STRUCT. NO.	LOCATION (SOUTHBOUND) STATION	OFFSET	STREET	SANITARY SEWER FACILITY TYPE	***SURFACE ELEVATIONS EXIST. ELEV.	NEW ELEV.	DIFF. ELEV.	***EXIST. MANHOLE DEPTH FT.	*ITEM 611.8110 **ADJUSTING MANHOLE COVERS EACH	*ITEM 611.0420 **RECON-STRUCTING MANHOLES EACH	ITEM SPV.0060.02 **EXTERNAL SANITARY MANHOLE SEALS EACH
	Side Streets										
X	12+15	R/L	DREXEL AVE.	SAN MH	752.21	752.03	-0.18		1		1
	Mainline-Northbound + Southbound & Side Streets										
	ITEM SUBTOTALS NORTHBOUND + SOUTHBOUND:								**27**	**20**	**47**
	****UNDISTRIBUTED CATEGORY 0010:								0	0	0
	****UNDISTRIBUTED CATEGORY 0030:								0	0	0
	ITEM TOTAL:								**27**	**20**	**47**
	CATEGORY 0010 ITEM TOTAL:								0	0	0
	CATEGORY 0030 ITEM TOTAL:								27	20	47

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

** CATEGORY 0030

*** ELEVATIONS/DEPTHS ARE APPROXIMATE AND FINAL ADJUSTMENTS MAY BE REQUIRED IN THE FIELD.

**** AS DIRECTED BY THE ENGINEER

3

EXISTING WATER FACILITY WORK

LOCATION (NORTHBOUND) STATION	OFFSET	WATER FACILITY TYPE	***SURFACE ELEVATIONS EXIST. ELEV.	*ITEM 611.8110 **ADJUSTING MANHOLE COVERS EACH	ITEM SPV.0060.03 **ADJUSTING WATER VALVE BOXES EACH	ITEM SPV.0060.04 **ADJUSTING HYDRANTS EACH	ITEM SPV.0060.09 **RELOCATING HYDRANTS EACH
Mainline–Northbound							
145+75	35' RT.	HYDRANT	748.52			1	
149+80	35' RT.	HYDRANT	749.39			1	
153+70	25' RT.	WV BOX	750.52		1		
153+70	30' RT.	HYDRANT	749.56			1	
158+20	25' RT.	WV BOX	760.27		1		
158+20	35' RT.	HYDRANT	760.19				1
158+30	25' RT.	WV BOX	760.52		1		
159+10	50' RT.	WV BOX	762.53		1		
171+70	25' RT.	WV BOX	782.94		1		
171+70	40' RT.	WV BOX	783.24		1		
173+50	25' RT.	HYDRANT	782.87				1
173+50	30' RT.	WV BOX	782.49		1		
177+45	40' RT.	HYDRANT	781.13				1
177+50	25' RT.	WV BOX	779.74		1		
177+70	25' RT.	WV BOX	779.81		1		
177+85	30' RT.	WV BOX	779.57		1		
181+80	30' RT.	WV BOX	770.34		1		
181+90	28' RT.	HYDRANT	770.34				1
181+90	30' RT.	WV BOX	770.63		1		
183+10	30' RT.	WV BOX	770.25		1		
183+20	35' RT.	WV BOX	769.47		1		
185+10	30' RT.	WV BOX	767.37		1		
186+70	40' RT.	WV BOX	766.78		1		
186+75	65' RT.	WV BOX	766.71		1		
186+90	45' RT.	WV BOX	766.88		1		
194+75	40' RT.	WV BOX	764.86		1		
194+77	40' RT.	WV BOX	764.92		1		
194+77	65' RT.	HYDRANT	764.91			1	
194+80	30' RT.	WV BOX	764.94		1		
198+50	30' RT.	HYDRANT	761.14				1
198+50	40' RT.	WV BOX	761.04		1		

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

** CATEGORY 0030

*** ELEVATIONS/DEPTHS ARE APPROXIMATE AND FINAL ADJUSTMENTS MAY BE REQUIRED IN THE FIELD.

**** AS DIRECTED BY THE ENGINEER

3

EXISTING WATER FACILITY WORK, CONT.

LOCATION (NORTHBOUND) STATION	OFFSET	WATER FACILITY TYPE	***SURFACE ELEVATIONS EXIST. ELEV.	*ITEM 611.8110 **ADJUSTING MANHOLE COVERS EACH	ITEM SPV.0060.03 **ADJUSTING WATER VALVE BOXES EACH	ITEM SPV.0060.04 **ADJUSTING HYDRANTS EACH	ITEM SPV.0060.09 **RELOCATING HYDRANTS EACH
Mainline–Northbound Cont.							
201+35	30' RT.	WV BOX	758.89		1		
201+40	35' RT.	WV BOX	758.80		1		
201+45	30' RT.	WV BOX	758.68		1		
202+55	28' RT.	HYDRANT	757.20				1
202+55	30' RT.	WV BOX	757.20		1		
205+85	28' RT.	HYDRANT	753.59				1
205+85	30' RT.	WV BOX	753.60		1		
208+90	28' RT.	HYDRANT	749.70				1
208+90	30' RT.	WV BOX	749.30		1		
210+75	30' RT.	WV BOX	747.15		1		
211+10	75' RT.	HYDRANT	746.37			1	
211+12	75' RT.	WV BOX	746.54		1		
211+20	65' RT.	WV BOX	745.99		1		
214+80	55' RT.	WV BOX	741.19		1		
215+25	45' RT.	WV BOX	742.45		1		
215+30	30' RT.	HYDRANT	746.59				1
216+65	65' RT.	WV BOX	745.76		1		
217+75	55' RT.	WV BOX	749.74		1		
219+95	60' RT.	WV BOX	756.12		1		
220+00	65' RT.	WV BOX	756.11		1		
220+05	65' RT.	HYDRANT	756.70			1	
220+10	55' RT.	WV BOX	757.14		1		
223+85	55' RT.	WATER MH	–	1			
224+70	28' RT.	HYDRANT	762.68				1
224+75	30' RT.	WV BOX	761.99		1		
225+05	25' RT.	WV BOX	763.38		1		
230+40	45' RT.	WV BOX	765.18		1		
241+25	65' RT.	WV BOX	758.06		1		
ITEM SUBTOTAL NORTHBOUND:				1	42	6	10

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

** CATEGORY 0030

*** ELEVATIONS/DEPTHS ARE APPROXIMATE AND FINAL ADJUSTMENTS MAY BE REQUIRED IN THE FIELD.

**** AS DIRECTED BY THE ENGINEER

EXISTING WATER FACILITY WORK, CONT.

LOCATION (SOUTHBOUND) STATION	LOCATION (SOUTHBOUND) OFFSET	WATER FACILITY TYPE	***SURFACE ELEVATIONS EXIST. ELEV.	*ITEM 611.8110 **ADJUSTING MANHOLE COVERS EACH	ITEM SPV.0060.03 **ADJUSTING WATER VALVE BOXES EACH	ITEM SPV.0060.04 **ADJUSTING HYDRANTS EACH	ITEM SPV.0060.09 **RELOCATING HYDRANTS EACH
Mainline–Southbound							
153+55	90' LT.	WV BOX	749.16		1		
153+70	100' LT.	HYDRANT	750.01			1	
158+25	80' LT.	WV BOX	–		1		
158+45	80' LT.	WV BOX	–		1		
158+80	60' LT.	WV BOX	–		1		
168+60	30' LT.	WV BOX	780.26		1		
168+60	40' LT.	HYDRANT	780.44			1	
169+15	30' LT.	WV BOX	782.27		1		
169+55	60' LT.	WV BOX	782.40		1		
169+75	30' LT.	WV BOX	782.66		1		
185+15	55' LT.	WV BOX	767.40		1		
185+25	65' LT.	WV BOX	767.41		1		
185+28	65' LT.	HYDRANT	767.33				1
191+80	25' LT.	HYDRANT	–				1
191+80	50' LT.	WV BOX	–		1		
195+80	55' LT.	HYDRANT	764.77				1
198+25	20' LT.	WV BOX	762.47		1		
198+25	25' LT.	HYDRANT	762.68				1
200+95	20' LT.	WV BOX	759.53		1		
201+35	25' LT.	WV BOX	758.96		1		
201+45	65' LT.	WV BOX	758.94		1		
206+60	60' LT.	WATER MH	758.69	1			
241+00	65' LT.	WV BOX	758.80		1		
241+05	80' LT.	WV BOX	758.68		1		
241+15	80' LT.	HYDRANT				1	
ITEM SUBTOTAL SOUTHBOUND:				1	17	3	4

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

** CATEGORY 0030

*** ELEVATIONS/DEPTHS ARE APPROXIMATE AND FINAL ADJUSTMENTS MAY BE REQUIRED IN THE FIELD.

**** AS DIRECTED BY THE ENGINEER

3

EXISTING WATER FACILITY WORK, CONT.

LOCATION		WATER FACILITY	***SURFACE ELEVATIONS EXIST.	*ITEM 611.8110 **ADJUSTING MANHOLE COVERS	ITEM SPV.0060.03 **ADJUSTING WATER VALVE BOXES	ITEM SPV.0060.04 **ADJUSTING HYDRANTS	ITEM SPV.0060.09 **RELOCATING HYDRANTS
STATION	OFFSET	TYPE	ELEV.	EACH	EACH	EACH	EACH
Mainline–Northbound + Southbound							
ITEM SUBTOTALS NORTHBOUND+SOUTHBOUND:				**2**	**59**	**9**	**14**
****UNDISTRIBUTED CATEGORY 0010:				0	0	0	0
****UNDISTRIBUTED CATEGORY 0030:				0	0	0	0
ITEM TOTAL:				**2**	**59**	**9**	**14**
CATEGORY 0010 ITEM TOTAL:				0	0	0	0
CATEGORY 0030 ITEM TOTAL:				2	59	9	14

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

** CATEGORY 0030

*** ELEVATIONS/DEPTHS ARE APPROXIMATE AND FINAL ADJUSTMENTS MAY BE REQUIRED IN THE FIELD.

**** AS DIRECTED BY THE ENGINEER

3

DETAIL SUMMARY OF MISCELLANEOUS QUANTITIES

NOTES:

1) ALL STATIONS AND OFFSETS SHOWN ARE TO THE CENTER OF THE STRUCTURE, AS FROM THE CENTERLINE.
2) ALL ELEVATIONS ARE TO THE CENTER OF THE LID OF STRUCTURES NOT IN CURB & GUTTER . OR THE FLANGE LINE OF THE INLET GRATE FOR STRUCTURES IN CURB AND GUTTER.
3) PIPE LENGTHS SHOWN ARE MEASURED AND PAID FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
4) ALL PIPE SHALL BE REINFORCED CONCRETE PIPE STORM SEWER, CLASS III UNLESS OTHERWISE NOTED.

MANHOLES AND INLETS							STORM SEWERS - RCPSS CL III							
CODE	LOCATION	STRUCTURE TYPE	COVE TYPE	RIM ELEV.	DEPT (ft)	REMARKS	LOCATION FROM	LOCATION TO	SIZE (in)	LENGTH (ft)	SLOPE (%)	INVERT ELEV. UPSTR.	INVERT ELEV. DOWNSTR	REMARKS
1	153+27, 105' LT	MH 6 FT DIA	57	747.34	4.20		1	2	34x53	78	0.33	743.14	742.88	HORIZONTAL ELLIPITICAL PIPE CL HE-III
2	153+06, 60'LT	END SEC.	N/A	N/A	N/A	CONCRETE MASONRY ENDWALL								
3	153+14, 46' LT	END SEC.	N/A	N/A	N/A	CONCRETE END SECTION								CONCRETE END SECTION REQ'D, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
4	153+94, 46' LT	END SEC.	N/A	N/A	N/A	CONCRETE END SECTION	4	3	12	80	2.84	745.68	743.41	REINFORCED CONCRETE PIPE CLASS V
5	152+95 47'LT	END SEC.	N/A	N/A	N/A	CONCRETE MASONRY ENDWALL	5	6	TWIN 34X53	103	0.4	742.31	741.90	TWIN 34X53 HORIZONTAL ELLIPTICAL PIPE CL HE=III
6	153+14, 60'RT 153+24, 56'RT	END SEC.	N/A	N/A	N/A	2 CONCRETE END SECTIONS								CONCRETE END SECTION REQ'D, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
7	157+00, 6' RT	MH 6 FT DIA	Q	756.52	5.66		7	7B	30	32	1.86	750.86	750.26	
7A	157+00, 38.29'LT	CB 3 FT DIA	57	756.40	6.64		7A	7	12	44	0.25	751.76	751.65	REINFORCED CONCRETE PIPE CLASS V
7B	157+00, 38.29'RT	MH 6 FT DIA	57	756.21	6.05		7B	7C	30	83	2.62	750.16	748.00	
7C	156+67, 114' RT	END SEC.	N/A	N/A	N/A	CONCRETE END SECTION			30					30-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
8	158+04, 6' RT	MH 6 FT DIA	Q	759.44	6.84		8	7	30	104	1.58	752.60	750.96	
8A	159+00, 120'LT	END SEC.	N/A	N/A	N/A	CONCRETE END SECTION	8A	8B	18	24	16.00	760.61	756.77	REINFORCED CONCRETE PIPE CLASS IV, 18-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
8B	158+89, 99'LT	MH 6 FT DIA	57	761.27	7.00		8B	8C	30	44	0.62	755.77	755.50	
8C	158+45, 99' LT	MH 6 FT DIA	57	761.27	5.87		8C	8D	30	73	3.10	755.40	753.12	
8D	158+04, 38.29' LT	MH 6 FT DIA	57	759.63	6.61		8D	8	30	44	0.72	753.02	752.70	
8E	158+04, 38.29' RT	MH 6 FT DIA	57	759.44	6.42		8E	8	30	32	1.00	753.02	752.70	
8X	158+28, 108' LT	CB 3 FT DIA	57	760.87	6.02		8X	8C	15	19	0.52	756.85	756.75	REINFORCED CONCRETE PIPE CLASS V
207	158+79, 44' RT	MH 6 FT DIA	Q	759.90	6.88	CONST. OVER EXISTING	207	8E	30	75	0.77	753.70	753.12	CONNECT EIXISTING PIPES
9	159+30, 6' RT	MH4 FT DIA	Q	762.88	5.68		9	8	18	126	2.68	757.20	753.82	REINFORCED CONCRETE PIPE CLASS IV
9A	159+30, 38.29' LT	CB 3 FT DIA	57	763.22	7.13		9A	9	12	44	0.65	758.09	757.80	REINFORCED CONCRETE PIPE CLASS V
9B	159+30, 38.29' RT	CB 3 FT DIA	57	762.65	6.56		9B	9	12	32	0.90	758.09	757.80	REINFORCED CONCRETE PIPE CLASS V
10	161+63, 6' RT	MH4 FT DIA	Q	769.48	5.53		10	9	18	233	2.85	763.95	757.30	REINFORCED CONCRETE PIPE CLASS IV
10A	161+63, 38.29' LT	CB 3 FT DIA	57	768.98	6.20		10A	10	12	44	0.52	764.78	764.55	REINFORCED CONCRETE PIPE CLASS V
10B	161+63, 38.29' RT	CB 3 FT DIA	57	768.86	6.08		10B	10	12	32	0.70	764.78	764.55	REINFORCED CONCRETE PIPE CLASS V
11	162+81, 6' RT	MH4 FT DIA	Q	772.32	5.42		11	10	18	118	2.50	766.90	764.05	REINFORCED CONCRETE PIPE CLASS IV
11A	162+81, 48' LT	CB 3 FT DIA	57	773.75	6.00		11A	11B	12	18.71	9.83	769.75	767.91	REINFORCED CONCRETE PIPE CLASS V
11B	162+81, 29.29' LT	CB 3 FT DIA	57	771.88	6.07		11B	11	12	35	0.88	767.81	767.55	REINFORCED CONCRETE PIPE CLASS V
11C	162+81, 29.29' RT	CB 3 FT DIA	57	771.88	5.97		11C	11	12	23	1.76	767.91	767.50	REINFORCED CONCRETE PIPE CLASS V
12	166+42, 6' RT	MH4 FT DIA	Q	779.49	5.17		12	11	15	361	1.96	774.32	767.25	REINFORCED CONCRETE PIPE CLASS V
12A	166+42. 29.29' LT	CB 3 FT DIA	57	778.93	6.08		12A	12	12	35	0.52	774.85	774.67	REINFORCED CONCRETE PIPE CLASS V
12B	166+42, 29.29' RT	CB 3 FT DIA	57	778.93	6.08		12B	12	12	23	0.76	774.85	774.67	REINFORCED CONCRETE PIPE CLASS V
13	167+44, 6' RT	MH4 FT DIA	Q	780.77	5.27		13	12	15	102	1.06	775.50	774.42	REINFORCED CONCRETE PIPE CLASS V
13A	167+44, 35.29' LT	CB 3 FT DIA	57	780.21	6.16		13A	13	12	41	0.48	776.05	775.85	REINFORCED CONCRETE PIPE CLASS V
13B	167+44, 35.29' RT	CB 3 FT DIA	57	780.21	6.16		13B	13	12	29	0.68	776.05	775.85	REINFORCED CONCRETE PIPE CLASS V
14	168+92, 6' RT	MH4 FT DIA	Q	782.36	5.07		14	13	15	148	1.14	777.29	775.60	REINFORCED CONCRETE PIPE CLASS V
14A	169+00, 35.29' LT	CB 3 FT DIA	57	781.87	6.08		14A	14	12	42	0.36	777.79	777.64	REINFORCED CONCRETE PIPE CLASS V
14B	168+92, 35.29' RT	CB 3 FT DIA	57	781.79	6.07		14B	14	12	29	0.27	777.72	777.64	REINFORCED CONCRETE PIPE CLASS V
15	169+79, 6' RT	MH4 FT DIA	Q	783.03	4.99		15	14	15	87	0.75	778.04	777.39	REINFORCED CONCRETE PIPE CLASS V
15A	169+87, 35.29' LT	CB 3 FT DIA	57	782.54	6.08		15A	15	12	42	0.40	778.46	778.29	REINFORCED CONCRETE PIPE CLASS V
15B	169+92, 35.29' RT	CB 3 FT DIA	57	782.57	6.11		15B	15	12	32	0.52	778.46	778.29	REINFORCED CONCRETE PIPE CLASS V
16	175+70, 29.29' LT	CB 3 FT DIA	57	782.49	4.49		16	16D	12	18	0.44	780.00	779.92	REINFORCED CONCRETE PIPE CLASS V
16A	173+18, 35.29' LT	CB 3 FT DIA	57	783.44	4.44		16A	16B	12	101	0.25	781.00	780.75	REINFORCED CONCRETE PIPE CLASS V
16B	147+19, 35.29' LT	CB 3 FT DIA	57	783.20	4.55		16B	16C	12	51	0.20	780.65	780.55	REINFORCED CONCRETE PIPE CLASS V
16C	174+70, 35.29' LT	CB 3 FT DIA	57	782.98	4.53		16C	16	12	100	0.40	780.45	780.05	REINFORCED CONCRETE PIPE CLASS V
16D	175+80, 45' LT	END SEC.	N/A	N/A	N/A									12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
17	174+69, 6' RT	MH4 FT DIA	Q	783.55	4.90		17	18	12	261	0.45	778.65	777.47	REINFORCED CONCRETE PIPE CLASS V
17A	174+69, 35.29' RT	CB 3 FT DIA	57	782.98	6.08		17A	17	12	29	0.52	778.90	778.75	REINFORCED CONCRETE PIPE CLASS V
18	177+30, 6' RT	MH4 FT DIA	Q	781.47	4.10		18	19	12	88	2.24	777.37	775.40	REINFORCED CONCRETE PIPE CLASS V
18A	177+30, 29.29' RT	CB 3 FT DIA	57	781.03	5.44		18A	18	12	23	0.52	777.59	777.47	REINFORCED CONCRETE PIPE CLASS V

MANHOLES AND INLETS							STORM SEWERS - RCPSS CL III							
CODE	LOCATION	STRUCTURE TYPE	COVE TYPE	RIM ELEV.	DEPT (ft)	REMARKS	LOCATION FROM	LOCATION TO	SIZE (in)	LENGTH (ft)	SLOPE (%)	INVERT ELEV. UPSTR.	INVERT ELEV. DOWNSTR	REMARKS
19	178+18, 6' RT	MH4 FT DIA	Q	780.41	5.11		19	20	12	165	1.97	775.30	772.05	REINFORCED CONCRETE PIPE CLASS V
19A	177+60, 74' RT	CB 3 FT DIA	57	780.14	6.00		19A	19B	12	27	0.52	776.14	776.00	REINFORCED CONCRETE PIPE CLASS V
19B	177+87, 74' RT	CB 3 FT DIA	57	780.14	6.24		19B	19C	12	54	0.52	775.90	775.62	REINFORCED CONCRETE PIPE CLASS V
19C	178+18, 29.29' RT	INL 3 FT DIA	57	779.97	4.45		19C	19	12	23	0.52	775.52	775.40	REINFORCED CONCRETE PIPE CLASS V
19D	177+79, 29.29' LT	CB 3 FT DIA	57	780.46	4.43		19D	19E	12	15	0.48	778.03	777.96	REINFORCED CONCRETE PIPE CLASS V
19E	177+79, 44' LT	END SEC.	N/A	N/A	N/A									12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
20	179+83, 6' RT	MH4 FT DIA	Q	778.02	6.15		20	21	12	167	0.59	771.87	770.88	REINFORCED CONCRETE PIPE CLASS V
20A	179+83, 51' RT	MH4 FT DIA	Q	779.35	6.53	CONST. OVER EXIST PIPE	20A	20	12	45	2.00	772.82	771.92	REINFORCED CONCRETE PIPE CLASS V
20B	179+79, 45' LT	END SEC.	N/A	N/A	N/A		20B	20C	12	100	1.50	775.13	773.63	REINFORCED CONCRETE PIPE CLASS V, 12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
20C	180+79, 47' LT	END SEC.	N/A	N/A	N/A									12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
21	181+50, 6' RT	MH4 FT DIA	Q	775.51	4.73		21	22	12	206	2.85	770.78	764.90	REINFORCED CONCRETE PIPE CLASS V
21A	181+50, 29.29' RT	CB 3 FT DIA	57	775.06	6.06		21A	21	12	23	0.52	771.00	770.88	REINFORCED CONCRETE PIPE CLASS V
21B	181+50, 29.29' LT	CB 3 FT DIA	57	775.06	5.68		21B	21C	12	21	0.52	771.38	771.27	REINFORCED CONCRETE PIPE CLASS V
21C	181+50, 50' LT	END SEC.	N/A	N/A	N/A									12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
22	183+56, 6' RT	MH 4 FT DIA	Q	771.58	7.68		22	23	24	75	0.52	763.90	763.51	REINFORCED CONCRETE PIPE CLASS IV
22A	183+10, 56' RT	CB 3 FT DIA	57	769.44	6.00		22A	22	12	68	0.80	765.44	764.90	REINFORCED CONCRETE PIPE CLASS V
22B	182+50, 35.29' LT	CB 3 FT DIA	57	773.44	5.87		22B	22C	12	25	6.92	769.57	767.84	REINFORCED CONCRETE PIPE CLASS V
22C	182+50, 60' LT	END SEC.	N/A	N/A	N/A									12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
220A	183+56, 40' RT	MH 4 FT DIA	Q	771.70	7.37		220A	22	21	34	0.52	764.33	764.15	REINFORCED CONCRETE PIPE CLASS IV
23	184+31, 6' RT	MH 6 FT DIA	Q	771.29	9.23	CONST OVER EXIST PIPE	23	23B	43X68	32	0.52	762.06	761.89	HORIZONTAL ELLIPTICAL PIPE CL HE-III
23A	184+00, 50' LT	END SEC.	N/A				23A	23	43X68	64	0.52	762.50	762.16	HORIZONTAL ELLIPTICAL PIPE CLASS HE-III, CONCRETE END SECTION REQ'D, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
23B	184+45, 35.29' RT	MH 6 FT DIA	57	770.36	8.57		23B	23C	43X68	47	1.66	761.79	761.01	HORIZONTAL ELLIPTICAL PIPE CL HE-III
23C	184+60, 55' RT	END SEC.												CONCRETE END SECTION REQ'D, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
23D	184+51, 35.29' LT	CB 3 FT DIA	57	770.43	6.08		23D	23E	12	33	2.02	766.35	765.69	REINFORCED CONCRETE PIPE CLASS V
23E	184+25, 55' LT	END SEC.	N/A											CONCRETE END SECTION REQ'D, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
24	186+15, 6' RT	MH4 FT DIA	Q	769.36	4.89		24	25	12	240	0.90	764.47	762.31	REINFORCED CONCRETE PIPE CLASS V
24A	186+15, 35.29' RT	CB 3 FT DIA	57	768.80	6.08		24A	24	12	29	0.52	764.72	764.57	REINFORCED CONCRETE PIPE CLASS V
24B	187+55, 35.29' LT	CB 3 FT DIA	57	767.98	4.89		24B	24C	12	18	0.52	765.09	765.00	REINFORCED CONCRETE PIPE CLASS V
24C	187+55, 53' LT	END SEC.	N/A											12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
25	188+55, 6' RT	MH4 FT DIA	Q	767.97	5.76		25	26	12	245	0.26	762.21	761.57	REINFORCED CONCRETE PIPE CLASS V
25A	188+55, 52' RT	CB 3 FT DIA	57	765.00	4.35		25A	25B	12	23	0.52	762.65	762.53	REINFORCED CONCRETE PIPE CLASS V
25B	188+55, 29.29' RT	INL 3 FT DIA	57	767.53	5.10		25B	25	12	23	0.52	762.43	762.31	REINFORCED CONCRETE PIPE CLASS V
25C	188+55, 29.29' LT	CB 3 FT DIA	57	767.53	4.84		25C	25D	12	18	0.52	764.69	764.60	REINFORCED CONCRETE PIPE CLASS V
25D	188+55, 47' LT	END SEC.	N/A											12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
26	191+00, 6' RT	MH4 FT DIA	Q	766.55	5.06		26	27	12	314	0.42	761.49	760.15	REINFORCED CONCRETE PIPE CLASS V
26A	191+00, 29.29' RT	INL 3 FT DIA	57	766.11	4.08		26A	26	12	23	0.56	762.03	761.90	REINFORCED CONCRETE PIPE CLASS V
27	194+14, 6' RT	MH4 FT DIA	Q	764.73	5.36		27	28	21	90	0.60	759.37	758.83	REINFORCED CONCRETE PIPE CLASS IV
27A	193+92, 45' LT	END SEC.	N/A				27A	27B	12	16	9.76	761.91	760.30	REINFORCED ONCRETE PIPE CLASS V, 12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
27B	193+97, 29.29' LT	CB 3 FT DIA	57	764.38	6.58		27B	27	18	39	0.84	759.80	759.47	REINFORCED CONCRETE PIPE CLASS IV
27C	194+14, 29.29' RT	INL 3 FT DIA	57	764.29	3.98		27C	27	12	23	0.52	760.31	760.19	REINFORCED CONCRETE PIPE CLASS V
28	195+04' 6'RT	MH4 FT DIA	Q	764.20	5.47		28	29	21	228	0.58	758.73	757.41	REINFORCED CONCRETE PIPE CLASS IV
28A	195+04, 29.29' RT	INL 3 FT DIA	57	763.77	3.65		28A	28	12	23	2.32	760.12	759.58	REINFORCED CONCRETE PIPE CLASS V
29	197+32, 6' RT	MH 4 FT DIA	Q	762.88	5.57		29	30	24	350	1.76	757.31	751.15	REINFORCED CONCRETE PIPE CLASS IV
29A	197+32, 29.29' LT	CB 3 FT DIA	57	762.45	6.09		29A	29	12	23	0.52	758.36	758.16	REINFORCED CONCRETE PIPE CLASS V
29B	197+32, 29.29' RT	INL 3 FT DIA	57	762.45	4.09		29B	29	12	35	0.57	758.36	758.24	REINFORCED CONCRETE PIPE CLASS V
30	200+82, 6' RT	MH 6 FT DIA	Q	760.82	9.88		30	31	30	147	0.48	750.94	750.24	
30A	200+82, 35.29' LT	CB 3 FT DIA	57	760.26	6.08		30A	30	12	41	9.76	756.18	752.15	REINFORCED CONCRETE PIPE CLASS V
30B	200+82, 54' RT	CB 3 FT DIA	57	759.00	9.61		30B	30C	24	19	0.52	751.39	751.29	REINFORCED CONCRETE PIPE CLASS IV
30C	200+82, 35.29' RT	CB 3 FT DIA	57	760.26	11.07		30C	30	24	29	0.52	751.19	751.04	REINFORCED CONCRETE PIPE CLASS IV
30D	201+15, 47' LT	MH 6 FT DIA	Q	759.35	8.72		30D	30E	54	49	0.25	750.63	750.51	
30E	201+63, 55' LT	END SEC.	N/A											54-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
31	202+29, 6' RT	MH 6 FT DIA	Q	759.62	9.49		31	31C	54	31	0.25	750.13	750.05	
31A	202+09, 55' LT	END SEC.	N/A				31A	31B	54	20	0.25	750.40	750.35	54-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
31B	202+14, 35.29' LT	MH 6 FT DIA	57	759.20	8.85		31B	31	54	44	0.25	750.35	750.24	
31C	202+39, 35.29' RT	MH 6 FT DIA	57	758.96	8.91		31C	31D	54	21	0.25	750.05	750.00	
31D	202+46, 55' RT	END SEC.	N/A											54-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.

MANHOLES AND INLETS							STORM SEWERS - RCPSS CL III							
CODE	LOCATION	STRUCTURE TYPE	COVE TYPE	RIM ELEV.	DEPT (ft)	REMARKS	LOCATION FROM	LOCATION TO	SIZE (in)	LENGTH (ft)	SLOPE (%)	INVERT ELEV. UPSTR.	INVERT ELEV. DOWNSTR	REMARKS
19	178+18, 6' RT	MH4 FT DIA	Q	780.41	5.11		19	20	12	165	1.97	775.30	772.05	REINFORCED CONCRETE PIPE CLASS V
19A	177+60, 74' RT	CB 3 FT DIA	57	780.14	6.00		19A	19B	12	27	0.52	776.14	776.00	REINFORCED CONCRETE PIPE CLASS V
19B	177+87, 74' RT	CB 3 FT DIA	57	780.14	6.24		19B	19C	12	54	0.52	775.90	775.62	REINFORCED CONCRETE PIPE CLASS V
19C	178+18, 29.29' RT	INL 3 FT DIA	57	779.97	4.45		19C	19	12	23	0.52	775.52	775.40	REINFORCED CONCRETE PIPE CLASS V
19D	177+79, 29.29' LT	CB 3 FT DIA	57	780.46	4.43		19D	19E	12	15	0.48	778.03	777.96	REINFORCED CONCRETE PIPE CLASS V
19E	177+79, 44' LT	END SEC.	N/A	N/A	N/A									12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
20	179+83, 6' RT	MH4 FT DIA	Q	778.02	6.15		20	21	12	167	0.59	771.87	770.88	REINFORCED CONCRETE PIPE CLASS V
20A	179+83, 51' RT	MH4 FT DIA	Q	779.35	6.53	CONST. OVER EXIST PIPE	20A	20	12	45	2.00	772.82	771.92	REINFORCED CONCRETE PIPE CLASS V
20B	179+79, 45' LT	END SEC.	N/A	N/A	N/A		20B	20C	12	100	1.50	775.13	773.63	REINFORCED CONCRETE PIPE CLASS V, 12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
20C	180+79, 47' LT	END SEC.	N/A	N/A	N/A									12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
21	181+50, 6' RT	MH4 FT DIA	Q	775.51	4.73		21	22	12	206	2.85	770.78	764.90	REINFORCED CONCRETE PIPE CLASS V
21A	181+50, 29.29' RT	CB 3 FT DIA	57	775.06	6.06		21A	21	12	23	0.52	771.00	770.88	REINFORCED CONCRETE PIPE CLASS V
21B	181+50, 29.29' LT	CB 3 FT DIA	57	775.06	5.68		21B	21C	12	21	0.52	771.38	771.27	REINFORCED CONCRETE PIPE CLASS V
21C	181+50, 50' LT	END SEC.	N/A	N/A	N/A									12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
22	183+56, 6' RT	MH 4 FT DIA	Q	771.58	7.68		22	23	24	75	0.52	763.90	763.51	REINFORCED CONCRETE PIPE CLASS IV
22A	183+10, 56' RT	CB 3 FT DIA	57	769.44	6.00		22A	22	12	68	0.80	765.44	764.90	REINFORCED CONCRETE PIPE CLASS V
22B	182+50, 35.29' LT	CB 3 FT DIA	57	773.44	5.87		22B	22C	12	25	6.92	769.57	767.84	REINFORCED CONCRETE PIPE CLASS V
22C	182+50, 60' LT	END SEC.	N/A	N/A	N/A									12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
220A	183+56, 40' RT	MH 4 FT DIA	Q	771.70	7.37		220A	22	21	34	0.52	764.33	764.15	REINFORCED CONCRETE PIPE CLASS IV
23	184+31, 6' RT	MH 6 FT DIA	Q	771.29	9.23	CONST OVER EXIST PIPE	23	23B	43X68	32	0.52	762.06	761.89	HORIZONTAL ELLIPTICAL PIPE CL HE-III
23A	184+00, 50' LT	END SEC.	N/A				23A	23	43X68	64	0.52	762.50	762.16	HORIZONTAL ELLIPTICAL PIPE CLASS HE-III, CONCRETE END SECTION REQ'D, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
23B	184+45, 35.29' RT	MH 6 FT DIA	57	770.36	8.57		23B	23C	43X68	47	1.66	761.79	761.01	HORIZONTAL ELLIPTICAL PIPE CL HE-III
23C	184+60, 55' RT	END SEC.												CONCRETE END SECTION REQ'D, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
23D	184+51, 35.29' LT	CB 3 FT DIA	57	770.43	6.08		23D	23E	12	33	2.02	766.35	765.69	REINFORCED CONCRETE PIPE CLASS V
23E	184+25, 55' LT	END SEC.	N/A											CONCRETE END SECTION REQ'D, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
24	186+15, 6' RT	MH4 FT DIA	Q	769.36	4.89		24	25	12	240	0.90	764.47	762.31	REINFORCED CONCRETE PIPE CLASS V
24A	186+15, 35.29' RT	CB 3 FT DIA	57	768.80	6.08		24A	24	12	29	0.52	764.72	764.57	REINFORCED CONCRETE PIPE CLASS V
24B	187+55, 35.29' LT	CB 3 FT DIA	57	767.98	4.89		24B	24C	12	18	0.52	765.09	765.00	REINFORCED CONCRETE PIPE CLASS V
24C	187+55, 53' LT	END SEC.	N/A											12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
25	188+55, 6' RT	MH4 FT DIA	Q	767.97	5.76		25	26	12	245	0.26	762.21	761.57	REINFORCED CONCRETE PIPE CLASS V
25A	188+55, 52' RT	CB 3 FT DIA	57	765.00	4.35		25A	25B	12	23	0.52	762.65	762.53	REINFORCED CONCRETE PIPE CLASS V
25B	188+55, 29.29' RT	INL 3 FT DIA	57	767.53	5.10		25B	25	12	23	0.52	762.43	762.31	REINFORCED CONCRETE PIPE CLASS V
25C	188+55, 29.29' LT	CB 3 FT DIA	57	767.53	4.84		25C	25D	12	18	0.52	764.69	764.60	REINFORCED CONCRETE PIPE CLASS V
25D	188+55, 47' LT	END SEC.	N/A											12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
26	191+00, 6' RT	MH4 FT DIA	Q	766.55	5.06		26	27	12	314	0.42	761.49	760.15	REINFORCED CONCRETE PIPE CLASS V
26A	191+00, 29.29' RT	INL 3 FT DIA	57	766.11	4.08		26A	26	12	23	0.56	762.03	761.90	REINFORCED CONCRETE PIPE CLASS V
27	194+14, 6' RT	MH4 FT DIA	Q	764.73	5.36		27	28	21	90	0.60	759.37	758.83	REINFORCED CONCRETE PIPE CLASS IV
27A	193+92, 45' LT	END SEC.	N/A				27A	27B	12	16	9.76	761.91	760.30	REINFORCED ONCRETE PIPE CLASS V, 12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
27B	193+97, 29.29' LT	CB 3 FT DIA	57	764.38	6.58		27B	27	18	39	0.84	759.80	759.47	REINFORCED CONCRETE PIPE CLASS IV
27C	194+14, 29.29' RT	INL 3 FT DIA	57	764.29	3.98		27C	27	12	23	0.52	760.31	760.19	REINFORCED CONCRETE PIPE CLASS V
28	195+04' 6'RT	MH4 FT DIA	Q	764.20	5.47		28	29	21	228	0.58	758.73	757.41	REINFORCED CONCRETE PIPE CLASS IV
28A	195+04, 29.29' RT	INL 3 FT DIA	57	763.77	3.65		28A	28	12	23	2.32	760.12	759.58	REINFORCED CONCRETE PIPE CLASS V
29	197+32, 6' RT	MH 4 FT DIA	Q	762.88	5.57		29	30	24	350	1.76	757.31	751.15	REINFORCED CONCRETE PIPE CLASS IV
29A	197+32, 29.29' LT	CB 3 FT DIA	57	762.45	6.09		29A	29	12	23	0.52	758.36	758.16	REINFORCED CONCRETE PIPE CLASS V
29B	197+32, 29.29' RT	INL 3 FT DIA	57	762.45	4.09		29B	29	12	35	0.57	758.36	758.24	REINFORCED CONCRETE PIPE CLASS V
30	200+82, 6' RT	MH 6 FT DIA	Q	760.82	9.88		30	31	30	147	0.48	750.94	750.24	
30A	200+82, 35.29' LT	CB 3 FT DIA	57	760.26	6.08		30A	30	12	41	9.76	756.18	752.15	REINFORCED CONCRETE PIPE CLASS V
30B	200+82, 54' RT	CB 3 FT DIA	57	759.00	9.61		30B	30C	24	19	0.52	751.39	751.29	REINFORCED CONCRETE PIPE CLASS IV
30C	200+82, 35.29' RT	CB 3 FT DIA	57	760.26	11.07		30C	30	24	29	0.52	751.19	751.04	REINFORCED CONCRETE PIPE CLASS IV
30D	201+15, 47' LT	MH 6 FT DIA	Q	759.35	8.72		30D	30E	54	49	0.25	750.63	750.51	
30E	201+63, 55' LT	END SEC.	N/A											54-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
31	202+29, 6' RT	MH 6 FT DIA	Q	759.62	9.49		31	31C	54	31	0.25	750.13	750.05	
31A	202+09, 55' LT	END SEC.	N/A				31A	31B	54	20	0.25	750.40	750.35	54-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
31B	202+14, 35.29' LT	MH 6 FT DIA	57	759.20	8.85		31B	31	54	44	0.25	750.35	750.24	
31C	202+39, 35.29' RT	MH 6 FT DIA	57	758.96	8.91		31C	31D	54	21	0.25	750.05	750.00	
31D	202+46, 55' RT	END SEC.	N/A											54-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.

MANHOLES AND INLETS							STORM SEWERS - RCPSS CL III							
CODE	LOCATION	STRUCTURE TYPE	COVE TYPE	RIM ELEV.	DEPT (ft)	REMARKS	LOCATION FROM	LOCATION TO	SIZE (in)	LENGTH (ft)	SLOPE (%)	INVERT ELEV. UPSTR.	INVERT ELEV. DOWNSTR	REMARKS
32	204+50, 6' RT	MH4 FT DIA	Q	757.05	5.05		32	33	12	350	2.52	752.00	747.17	REINFORCED CONCRETE PIPE CLASS V
32A	204+50, 35.29' LT	CB 3 FT DIA	57	756.49	6.08		32A	32	12	41	0.70	752.41	752.12	REINFORCED CONCRETE PIPE CLASS V
32B	204+50, 35.29' RT	CB 3 FT DIA	57	756.49	6.08		32B	32	12	29	1.00	752.41	752.12	REINFORCED CONCRETE PIPE CLASS V
33	208+00, 6' RT	MH4 FT DIA	Q	752.10	5.43		33	34	18	295	1.41	746.67	742.50	REINFORCED CONCRETE PIPE CLASS IV
33A	208+00, 38.29' LT	CB 3 FT DIA	57	751.48	6.33		33A	33	15	44	0.52	747.15	746.92	REINFORCED CONCRETE PIPE CLASS V
33B	208+00, 38.29' RT	CB 3 FT DIA	57	751.48	6.08		33B	33	12	32	0.70	747.40	747.17	REINFORCED CONCRETE PIPE CLASS V
34	210+95, 6' RT	MH 5 FT DIA	Q	748.36	6.61		34	35	27	105	0.42	741.75	741.31	
34A	210+95, 38.29' LT	CB 3 FT DIA	57	747.66	6.50		34A	34	18	44	1.49	743.16	742.50	REINFORCED CONCRETE PIPE CLASS IV
34B	210+95, 38.29' RT	CB 3 FT DIA	57	747.74	6.08		34B	34	12	32	0.52	743.66	743.49	REINFORCED CONCRETE PIPE CLASS V
35	212+00, 6' RT	MH 6 FT DIA	Q	747.72	6.51		35	36	27	34	0.52	741.21	741.03	
35A	212+00, 38.29' LT	CB 3 FT DIA	57	748.02	7.02		35A	35	12	44	1.00	743.00	742.56	REINFORCED CONCRETE PIPE CLASS V
36	212+12, 38.29' RT	MH 6 FT DIA	57	747.06	6.13		36	37	27	48	2.00	740.93	739.97	
37	212+00, 85' RT	END SEC.	N/A											27-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
38	212+90, 38.29' RT	CB 3 FT DIA	57	746.84	7.34		38	38A	12	67	9.70	741.50	735.00	REINFORCED CONCRETE PIPE CLASS V
38A	212+90, 105' RT	END SEC.	N/A											12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
39	212+90, 38.29' LT	CB 3 FT DIA	57	747.48	9.23		39	39A	12	40	9.68	740.25	736.38	REINFORCED CONCRETE PIPE CLASS V
39A	212+90, 78' LT	END SEC.	N/A											12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
39B	214+00, 38.29' LT	CB 3 FT DIA	57	747.33	9.08		39B	39C	12	40	9.68	740.25	736.38	REINFORCED CONCRETE PIPE CLASS V
39C	214+00, 76' LT	END SEC.	N/A											12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
40	216+05, 38.29' RT	MH 6 FT DIA	57	749.22	6.45		40	40A	27	145	6.72	742.77	733.00	27-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
40A	214+94, 132' RT	END SEC.	N/A											
40B	216+00, 38.29' LT	CB 3 FT DIA	57	749.13	8.63		40B	40C	12	40	9.75	742.50	738.63	REINFORCED CONCRETE PIPE CLASS V
40C	216+00, 78' LT	END SEC.	N/A											
41	219+00, 35.29' RT	MH 6 FT DIA	57	754.44	7.82	1.5' SUMP	41	40	27	295	1.78	748.12	742.87	
41A	218+75, 35.29' LT	CB 3 FT DIA	57	754.02	5.05		41A	41B	12	18	1.02	750.97	750.79	REINFORCED CONCRETE PIPE CLASS V
41B	218+75, 53' LT	END SEC.	N/A											12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
42	220+32, 35.29' RT	MH 6 FT DIA	57	756.75	7.71	1.5' SUMP	42	41	27	132	1.76	750.54	748.22	
42A	221+50, 35.29' LT	CB 3 FT DIA	57	758.80	4.27		42A	42B	12	15	0.48	756.53	756.46	REINFORCED CONCRETE PIPE CLASS V
42B	221+50, 50' LT	END SEC.	N/A											12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
43	223+97, 35.29' RT	MH 5 FT DIA	57	760.85	8.12	1.5' SUMP	43	42	24	265	1.30	754.23	750.79	REINFORCED CONCRETE PIPE CLASS IV
44	225+50, 35.29' RT	MH 4 FT DIA	57	763.55	8.44	1.5' SUMP	44	43	24	253	0.90	756.61	754.33	REINFORCED CONCRETE PIPE CLASS IV
44A	225+47, 50' LT	END SEC.	N/A				44A	44B	15	100	0.92	761.10	760.18	REINFORCED CONCRETE PIPE CLASS V, 15-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
44B	224+47, 50' LT	END SEC.	N/A											15-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
45	227+94, 35.29' RT	MH 4 FT DIA	57	765.10	7.82	1.5' SUMP	45	44	24	244	0.85	758.78	756.71	REINFORCED CONCRETE PIPE CLASS IV
45A	228+75, 35.29' LT	CB 3 FT DIA	57	765.42	4.38		45A	45B	12	15	0.54	763.04	762.96	REINFORCED CONCRETE PIPE CLASS V
45B	228+75, 50' LT	END SEC.	N/A											12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
251	228+33, 35.29' RT	MH 4 FT DIA	Q	765.25	6.06	REPLACE EXIST MH	251	45	24	39	0.80	759.19	758.88	REINFORCED CONCRETE PIPE CLASS IV
46	228+91, 35.29' RT	CB 3 FT DIA	57	765.46	6.57		46	251	12	61	0.98	760.89	760.29	REINFORCED CONCRETE PIPE CLASS V
47	230+45, 35.29' RT	CB 3 FT DIA	57	765.72	6.35		47	46	12	151	0.25	761.37	760.99	REINFORCED CONCRETE PIPE CLASS V
48	231+45, 29.29' RT	CB 3 FT DIA	57	765.78	6.06		48	47	12	100	0.25	761.72	761.47	REINFORCED CONCRETE PIPE CLASS V
49	235+00, 20' LT	MH4 FT DIA	Q	764.39	6.84		49	50	15	313	0.44	757.55	756.17	REINFORCED CONCRETE PIPE CLASS V
49A	234+54, 45' LT	CB 3 FT DIA	57	762.05	6.00		49A	49B	12	48	0.52	758.05	757.80	REINFORCED CONCRETE PIPE CLASS V
49B	235+00, 29.29' LT	CB 3 FT DIA	57	764.23	8.53		49B	49	12	9	0.56	757.70	757.65	REINFORCED CONCRETE PIPE CLASS V
49C	235+00, 29.29' RT	CB 3 FT DIA	57	764.23	6.12		49C	49	12	44	5.00	760.11	757.65	REINFORCED CONCRETE PIPE CLASS V
50	238+13, 28' LT	MH4 FT DIA	Q	761.31	5.24		50	51	18	226	0.88	756.07	754.08	REINFORCED CONCRETE PIPE CLASS IV
50A	237+83, 59' RT	CB 3 FT DIA	57	763.87	6.25		50A	50B	15	23	10.82	759.62	757.18	REINFORCED CONCRETE PIPE CLASS V
50B	237+88, 37' RT	CB 3 FT DIA	57	761.38	6.30		50B	50	15	70	0.52	757.08	756.72	REINFORCED CONCRETE PIPE CLASS V
50C	238+13, 38.29' LT	CB 3 FT DIA	57	761.13	6.09		50C	50	12	10	0.52	757.04	756.99	REINFORCED CONCRETE PIPE CLASS V
51	240+39, 27' LT	MH4 FT DIA	Q	759.31	5.33		51	257	18	37	0.80	753.98	753.68	REINFORCED CONCRETE PIPE CLASS IV
51A	240+39, 38.29' LT	CB 3 FT DIA	57	759.20	6.41		51A	51	12	11	1.86	754.79	754.58	REINFORCED CONCRETE PIPE CLASS V
257	240+76, 27' LT	MH 6 FT DIA	Q	759.11	8.11	REPLACE EXIST MH								
52	240+64, 38.29' RT	CB 3 FT DIA	57	758.62	6.65		52	259	18	37	0.52	753.97	753.78	REINFORCED CONCRETE PIPE CLASS IV
52A	240+64, 62' RT	END SEC.	N/A				52A	52	12	24	6.28	755.96	754.47	REINFORCED CONCRETE PIPE CLASS V, 12-INCH END SECTION, JOINT TIES REQ'D 2 PIPE LENGTHS FROM AND AT END SECTION.
52B	241+67, 38.29' RT	CB 3 FT DIA	57	757.70	5.75		52B	259	12	66	0.26	753.95	753.78	REINFORCED CONCRETE PIPE CLASS V
259	241+01, 42' RT	MH 6 FT DIA	Q	758.65	6.97	REPLACE EXIST MH								
53	244+40, 38.29' LT	CB 3 FT DIA	57	755.46	4.75	CONN. TO EXIST SEWER	53	EXIST PIPE	12	3	2.33	752.71	752.6+/-	CLASS V PIPE, CONNECT TO EXISTING SEWER
53A	244+50, 38.29' RT	CB 3 FT DIA	57	755.48	4.48		53A	53B	12	10	0.40	753.00	752.96	REINFORCED CONCRETE PIPE CLASS V
53B	244+40, 38.29' RT	CB 3 FT DIA	57	755.46	4.50		53B	53	12	77	0.20	752.96	752.81	REINFORCED CONCRETE PIPE CLASS V
22W	182+93, 35.29' RT	INL 3FT DIA	57	772.46			22W	22A	12	26	0.52	765.58	765.44	REINFORCED CONCRETE PIPE CLASS V
22X	183+26, 67' RT	CB 3 FT DIA	57	769.97			22X	22A	12	20	0.52	765.54	765.44	REINFORCED CONCRETE PIPE CLASS V
22Y	183+57, 68' RT	MH 4 FT DIA	Q	769.87								764.56+/-		CONSTRUCT OVER EXISTING SEWER LINE
22Z	183+62, 67' RT	CB 3 FT DIA	57	769.97			22Z	22Y	12	5	0.70	764.91	764.56	REINFORCED CONCRETE PIPE CLASS V

STORM SEWER PIPE REINFORCED CONCRETE

		ITEM 608.0327		ITEM 608.0330		ITEM 608.0354		ITEM 608.0418		ITEM 608.0421		ITEM 608.0424		ITEM 608.0512		ITEM 608.0515		ITEM 610.0134		ITEM 610.0143	
		STORM SEWER PIPE REINFORCED CONCRETE CLASS III 27-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS III 54-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 21-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS V 15-INCH		STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34X53-INCH		STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 43X68-INCH	
		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.	
LOCATION		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY	
FROM	TO	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020
1	2																	78			
3	4													80							
5	6																	206			
7	7B			32																	
7A	7													44							
7B	7C			83																	
8	7			104																	
8A	8B							24													
8B	8C			44																	
8C	8D			73																	
8D	8			44																	
8E	8			32																	
8X	8C															19					
207	8E			75																	
9	8							126													
9A	9													44							
9B	9													32							
10	9							233													
10A	10													44							
10B	10													32							
11	10							118													
11A	11B													19							
11B	11													35							
11C	11													23							
12	11															361					
12A	12													35							
12B	12													23							
	SHEET TOTAL	0	0	487	0	0	0	501	0	0	0	0	0	411	0	380	0	284	0	0	0
		L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.
		(0010)	(0020)	(0010)	(0020)	(0010)	(0020)	(0010)	(0020)	(0010)	(0020)	(0010)	(0020)	(0010)	(0020)	(0010)	(0020)	(0010)	(0020)	(0010)	(0020)

*Additional Quantities Listed Elsewhere

STORM SEWER PIPE REINFORCED CONCRETE (CONT.)

		ITEM 608.0327		ITEM 608.0330		ITEM 608.0354		ITEM 608.0418		ITEM 608.0421		ITEM 608.0424		ITEM 608.0512		ITEM 608.0515		ITEM 610.0134		ITEM 610.0143	
		STORM SEWER PIPE REINFORCED CONCRETE CLASS III 27-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS III 54-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 21-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS V 15-INCH		STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34X53-INCH		STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 43X68-INCH	
		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.	
LOCATION		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY	
FROM	TO	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020
13	12															102					
13A	13													41							
13B	13													29							
14	13															148					
14A	14													42							
14B	14													29							
15	14															87					
15A	15													42							
15B	15													32							
16	16D													18							
16A	16B													101							
16B	16C													51							
16C	16													100							
17	18														261						
17A	17														29						
18	19														88						
18A	18														23						
19	20														165						
19A	19B														27						
19B	19C														54						
19C	19														23						
19D	19E													15							
20	21														167						
20A	20														45						
20B	20C													100							
21	22														206						
21A	21														23						
SHEET TOTAL		0	0	0	0	0	0	0	0	0	0	0	0	600	1111	337	0	0	0	0	0
TOTAL FROM PREVIOUS SHEET		0	0	487	0	0	0	501	0	0	0	0	0	411	0	380	0	284	0	0	0
	ITEM SUB TOTAL	0	0	487	0	0	0	501	0	0	0	0	0	1011	1111	717	0	284	0	0	0
		L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)

*Additional Quantities Listed Elsewhere

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STORM SEWER PIPE REINFORCED CONCRETE (CONT.)

		ITEM 608.0327		ITEM 608.0330		ITEM 608.0354		ITEM 608.0418		ITEM 608.0421		ITEM 608.0424		ITEM 608.0512		ITEM 608.0515		ITEM 610.0134		ITEM 610.0143	
		STORM SEWER PIPE REINFORCED CONCRETE CLASS III 27-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS III 54-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 21-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS V 15-INCH		STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34X53-INCH		STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 43X68-INCH	
		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.	
LOCATION		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY	
FROM	TO	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020
21B	21C													21							
22	23												75								
22A	22														68						
22B	22C													25							
220A	22										34										
23	23B																				32
23A	23																			64	
23B	23C																				25
23D	23E													33							
24	25														240						
24A	24														29						
24B	24C													18							
25	26														245						
25A	25B														23						
25B	25														23						
25C	25D													18	0						
26	27														314						
26A	26														23						
27	28										90										
27A	27B														16						
27B	27							39													
27C	27													23							
28	29										228										
28A	28														23						
29	30											350									
29A	29													23							
29B	29													35							
SHEET TOTAL		0	0	0	0	0	0	39	0	0	352	350	75	196	1004	0	0	0	0	64	57
TOTAL FROM PREVIOUS SHEET		0	0	487	0	0	0	501	0	0	0	0	0	1011	1111	717	0	284	0	0	0
	ITEM SUBTOTAL	0	0	487	0	0	0	540	0	0	352	350	75	1207	2115	717	0	284	0	64	57
		L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)

STORM SEWER PIPE REINFORCED CONCRETE (CONT.)

		ITEM 608.0327		ITEM 608.0330		ITEM 608.0354		ITEM 608.0418		ITEM 608.0421		ITEM 608.0424		ITEM 608.0512		ITEM 608.0515		ITEM 610.0134		ITEM 610.0143	
		STORM SEWER PIPE REINFORCED CONCRETE CLASS III 27-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS III 54-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 21-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS V 15-INCH		STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34X53-INCH		STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 43X68-INCH	
		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.	
LOCATION		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY	
FROM	TO	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020
30	31			147																	
30A	30													41							
30B	30C											19									
30C	30											29									
30D	30E					49															
31	31C					31															
31A	31B					20															
31B	31					44															
31C	31D					21															
32	33													350							
32A	32													41							
32B	32													29							
33	34							295													
33A	33															44					
33B	33													32							
34	35	105																			
34A	34							44													
34B	34													32							
35	36	34																			
35A	35													44							
36	37	48																			
38	38A														67						
39	39A													40							
39B	39C													38							
40	40A		145																		
40B	40C													40							
41	40		295																		
SHEET TOTAL		187	440	147	0	165	0	339	0	0	0	48	0	687	67	44	0	0	0	0	0
TOTAL FROM PREVIOUS SHEET		0	0	487	0	0	0	540	0	0	352	350	75	1207	2115	717	0	284	0	64	57
ITEM SUBTOTAL		187	440	634	0	165	0	879	0	0	352	398	75	1894	2182	761	0	284	0	64	57
		L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)

STORM SEWER PIPE REINFORCED CONCRETE (CONT.)

LOCATION		ITEM 608.0327 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 27-INCH L.F. CATEGORY		ITEM 608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH L.F. CATEGORY		ITEM 608.0354 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 54-INCH L.F. CATEGORY		ITEM 608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH L.F. CATEGORY		ITEM 608.0421 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 21-INCH L.F. CATEGORY		ITEM 608.0424 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH L.F. CATEGORY		ITEM 608.0512 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH L.F. CATEGORY		ITEM 608.0515 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 15-INCH L.F. CATEGORY		ITEM 610.0134 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34X53-INCH L.F. CATEGORY		ITEM 610.0143 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 43X68-INCH L.F. CATEGORY	
FROM	TO	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020
41A	41B													18									
42	41		132																				
42A	42B													15									
43	42												265										
44	43												253										
44A	44B															100							
45	44												244										
45A	45B													15									
251	45											39											
46	251														61								
47	46														151								
48	47														100								
49	50															313							
49A	49B													48									
49B	49													9									
49C	49													44									
50	51							226															
50A	50B															23							
50B	50															70							
50C	50													10									
51	257							37															
51A	51													11									
52	259							37															
52A	52													24									
52B	259													66									
53	EXIST PIPE													3									
53A	53B													10									
SHEET TOTAL		0	132	0	0	0	0	300	0	0	0	39	762	273	312	506	0	0	0	0	0		
TOTAL FROM PREVIOUS SHEET		187	440	634	0	165	0	879	0	0	352	398	75	1894	2182	761	0	284	0	64	57		
	ITEM SUBTOTAL	187	572	634	0	165	0	1179	0	0	352	437	837	2167	2494	1267	0	284	0	64	57		
		L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)	L.F. (0010)	L.F. (0020)		

STORM SEWER PIPE REINFORCED CONCRETE (CONT.)

		ITEM 608.0327		ITEM 608.0330		ITEM 608.0354		ITEM 608.0418		ITEM 608.0421		ITEM 608.0424		ITEM 608.0512		ITEM 608.0515		ITEM 610.0134		ITEM 610.0143	
		STORM SEWER PIPE REINFORCED CONCRETE CLASS III 27-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS III 54-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 21-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH		STORM SEWER PIPE REINFORCED CONCRETE CLASS V 15-INCH		STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34X53-INCH		STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 43X68-INCH	
		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.		L.F.	
LOCATION		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY	
FROM	TO	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020
53B	53													77							
22W	22A														26						
22X	22A														20						
22Z	22Y														5						
SHEET TOTAL		0	0	0	0	0	0	0	0	0	0	0	0	77	51	0	0	0	0	0	0
TOTAL FROM PREVIOUS SHEET		187	572	634	0	165	0	1179	0	0	352	437	837	2167	2494	1267	0	284	0	64	57
ITEM GRAND TOTAL		**187**	**572**	**634**	**0**	**165**	**0**	**1179**	**0**	**0**	**352**	**437**	**837**	**2244**	**2545**	**1267**	**0**	**284**	**0**	**64**	**57**
		L.F. (0010)	**L.F. (0020)**	**L.F. (0010)**	**L.F. (0020)**	**L.F. (0010)**	**L.F. (0020)**	**L.F. (0010)**	**L.F. (0020)**	**L.F. (0010)**	**L.F. (0020)**	**L.F. (0010)**	**L.F. (0020)**	**L.F. (0010)**	**L.F. (0020)**	**L.F. (0010)**	**L.F. (0020)**	**L.F. (0010)**	**L.F. (0020)**	**L.F. (0010)**	**L.F. (0020)**

STORM SEWER STRUCTURES

		ITEM 611.1003		ITEM 611.3003		ITEM 611.2004		ITEM 611.2005		611.2006		ITEM SPV.0060.06		ITEM 611.0555		
		CATCH BASINS 3-FT DIA		INLETS 3-FT DIA		MANHOLES 4-FT DIA		MANHOLES 5-FT DIA		MANHOLES 6-FT DIA		INLET COVER TYPE 57		MANHOLE COVERS TYPE Q		
		EACH		EACH		EACH		EACH		EACH		EACH		EACH		
STRUCTURE		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		CATEGORY		
NUMBER	LOCATION	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	0010	0020	REMARKS
1	153+27, 105' RT									1		1				
7	157+00, 6' RT									1				1		
7A	157+00, 38.29' LT	1										1				
7B	157+00, 38.29' RT									1		1				
8	158+04, 6' RT									1				1		
8B	158+89, 99' LT									1		1				
8C	158+45, 99' LT									1		1				
8D	158+04, 38.29' LT									1		1				
8E	158+04, 38.29'M RT									1		1				
8X	158+28, 108' LT	1										1				
207	158+79, 44' RT									1				1		
9	159+30, 6' RT					1								1		
9A	159+30, 38.29' LT	1										1				
9B	159+30, 38.29' RT	1										1				
10	161+63, 6' RT					1								1		
10A	161+63, 38.29' LT	1										1				
10B	161+63, 32.29' RT	1										1				
11	162+81, 6' RT					1								1		
11A	162+81, 48' LT	1										1				
11B	162+81, 29.29' LT	1										1				
11C	162+81, 29.29' RT	1										1				
12	166+42, 6' RT					1								1		
12A	166+42, 29.29' LT	1										1				
12B	166+42, 29.29' RT	1										1				
13	167+44, 6' RT					1								1		
13A	167+44, 35.29' LT	1										1				
13B	167+44, 35.29' RT	1										1				
14	168+92, 6' RT					1								1		
14A	169+00, 35.29' LT	1										1				
14B	168+92, 35.29' RT	1										1				
	SHEET SUBTOTAL	15	0	0	0	6	0	0	0	9	0	21	0	9	0	
		EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	

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STORM SEWER STRUCTURES (CONT.)

		ITEM 611.1003		ITEM 611.3003		ITEM 611.2004		ITEM 611.2005		611.2006		ITEM SPV.0060.06		ITEM 611.0555		
		CATCH BASINS 3-FT DIA		INLETS 3-FT DIA		MANHOLES 4-FT DIA		MANHOLES 5-FT DIA		MANHOLES 6-FT DIA		INLET COVER TYPE 57		MANHOLE COVERS TYPE Q		
		EACH		EACH		EACH		EACH		EACH		EACH		EACH		
STRUCTURE NUMBER	LOCATION	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	REMARKS
15	169+79, 6' RT					1								1		
15A	169+87, 35.29' LT	1										1				
15B	169+92, 35.29' RT	1										1				
16	175+70, 29.29' LT	1										1				
16A	173+18, 35.29' LT	1										1				
16B	147+19, 35.29' LT	1										1				
16C	174+70, 35.29' LT	1										1				
17	174+69, 6' RT						1								1	
17A	174+69, 35.29' RT		1										1			
18	177+30, 6' RT						1								1	
18A	177+30, 29.29' RT		1										1			
19	178+18, 6' RT						1								1	
19A	177+60, 74' RT		1										1			
19B	177+87, 74' RT		1										1			
19C	178+18, 29.29' RT				1								1			
19D	177+79, 29.29' LT	1										1				
20	179+83, 6' RT						1								1	
20A	179+83, 51' RT						1								1	
21	181+50, 6' RT						1								1	
21A	181+50, 29.29' RT		1										1			
21B	181+50, 29.29' LT	1										1				
22	183+56, 6' RT						1								1	
22A	183+10, 56' RT		1										1			
22B	182+50, 35.29' LT	1										1				
220A	183+56, 40' RT						1								1	
23	184+31, 6' RT										1				1	
23B	184+45, 35.29' RT										1		1			
23D	184+51, 35.29' LT	1										1				
	SHEET SUBTOTAL	10	6	0	1	1	8	0	0	0	2	10	8	1	9	
	TOTAL FROM PREVIOUS SHEET	15	0	0	0	6	0	0	0	9	0	21	0	9	0	
	ITEM SUBTOTAL	25	6	0	1	7	8	0	0	9	2	31	8	10	9	
		EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	

STORM SEWER STRUCTURES (CONT.)

		ITEM 611.1003		ITEM 611.3003		ITEM 611.2004		ITEM 611.2005		611.2006		ITEM SPV.0060.06		ITEM 611.0555		
		CATCH BASINS 3-FT DIA		INLETS 3-FT DIA		MANHOLES 4-FT DIA		MANHOLES 5-FT DIA		MANHOLES 6-FT DIA		INLET COVER TYPE 57		MANHOLE COVERS TYPE Q		
		EACH		EACH		EACH		EACH		EACH		EACH		EACH		
STRUCTURE NUMBER	LOCATION	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	REMARKS
24	186+15, 6' RT						1								1	
24A	186+15, 35.29' RT		1									1				
24B	187+55, 35.29' LT	1										1				
25	188+55, 6' RT						1								1	
25A	188+55, 52' RT		1										1			
25B	188+55, 29.29' RT				1								1			
25C	188+55, 29.29' LT	1										1				
26	191+00, 6' RT						1								1	
26A	191+00, 29.29' RT				1								1			
27	194+14, 6' RT						1								1	
27B	193+97, 29.29' LT	1										1				
27C	194+14, 29.29' RT				1								1			
28	195+04' 6'RT						1								1	
28A	195+04, 29.29' RT				1								1			
29	197+32, 6' RT					1								1		
29A	197+32, 29.29' LT	1										1				
29B	197+32, 29.29' RT			1								1				
30	200+82, 6' RT									1				1		
30A	200+82, 35.29' LT	1										1				
30B	200+82, 54' RT	1										1				
30C	200+82, 35.29' RT	1										1				
30D	201+15, 47' LT									1				1		
31	202+29, 6' RT									1				1		
31B	202+14, 35.29' LT									1		1				
31C	202+39, 35.29' RT									1		1				
32	204+50, 6' RT					1								1		
32A	204+50, 35.29' LT	1										1				
32B	204+50, 35.29' RT	1										1				
	SHEET TOTAL	9	2	1	4	2	5	0	0	5	0	13	5	5	5	
	TOTAL FROM PREVIOUS SHEET	25	6	0	1	7	8	0	0	9	2	31	8	10	9	
	ITEM SUBTOTAL	34	8	1	5	9	13	0	0	14	2	44	13	15	14	
		EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	

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STORM SEWER STRUCTURES (CONT.)

		ITEM 611.1003		ITEM 611.3003		ITEM 611.2004		ITEM 611.2005		611.2006		ITEM SPV.0060.06		ITEM 611.0555		
		CATCH BASINS 3-FT DIA		INLETS 3-FT DIA		MANHOLES 4-FT DIA		MANHOLES 5-FT DIA		MANHOLES 6-FT DIA		INLET COVER TYPE 57		MANHOLE COVERS TYPE Q		
		EACH		EACH		EACH		EACH		EACH		EACH		EACH		
STRUCTURE NUMBER	LOCATION	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	REMARKS
33	208+00, 6' RT					1								1		
33A	208+00, 38.29' LT	1										1				
33B	208+00, 38.29' RT	1										1				
34	210+95, 6' RT							1						1		
34A	210+95, 38.29' LT	1										1				
34B	210+95, 38.29' RT	1										1				
35	212+00, 6' RT									1				1		
35A	212+00, 38.29' LT	1										1				
36	212+12, 38.29' RT									1		1				
38	212+90, 38.29' RT		1										1			
39	212+90, 38.29' LT	1										1				
39B	214+00, 38.29' LT	1										1				
40	216+05, 38.29' RT										1		1			
40B	216+00, 38.29' LT	1										1				
41	219+00, 35.29' RT										1		1			
41A	218+75, 35.29' LT	1										1				
42	220+32, 35.29' RT										1	1				
42A	221+50, 35.29' LT	1										1				
43	223+97, 35.29' RT								1				1			
44	225+50, 35.29' RT						1						1			
45	227+94, 35.29' RT						1						1			
45A	228+75, 35.29' LT	1										1				
251	228+33, 35.29' RT						1								1	
46	228+91, 35.29' RT		1										1			
47	230+45, 35.29' RT		1										1			
48	231+45, 29.29' RT		1										1			
49	235+00, 20' LT					1								1		
49A	234+54, 45' LT	1										1				
	SHEET TOTAL	12	4	0	0	2	3	1	1	2	3	14	9	4	1	
	TOTAL FROM PREVIOUS SHEET	34	8	1	5	9	13	0	0	14	2	44	13	15	14	
	ITEM SUBTOTAL	46	12	1	5	11	16	1	1	16	5	58	22	19	15	
		EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	

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STORM SEWER STRUCTURES (CONT.)

		ITEM 611.1003		ITEM 611.3003		ITEM 611.2004		ITEM 611.2005		611.2006		ITEM SPV.0060.06		ITEM 611.0555		
		CATCH BASINS 3-FT DIA		INLETS 3-FT DIA		MANHOLES 4-FT DIA		MANHOLES 5-FT DIA		MANHOLES 6-FT DIA		INLET COVER TYPE 57		MANHOLE COVERS TYPE Q		
		EACH		EACH		EACH		EACH		EACH		EACH		EACH		
STRUCTURE NUMBER	LOCATION	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0020	REMARKS
49B	235+00, 29.29' LT	1										1				
49C	235+00, 29.29' RT	1										1				
50	238+13, 28' LT					1								1		
50A	237+83, 59' RT	1										1				
50B	237+88, 37' RT	1										1				
50C	238+13, 38.29' LT	1										1				
51	240+39, 27' LT					1								1		
51A	240+39, 38.29' LT	1										1				
257	240+76, 27' LT									1				1		
52	240+64, 38.29' RT	1										1				
52B	241+67, 38.29' RT	1										1				
259	241+01, 42' RT									1				1		
53	244+40, 38.29' LT	1										1				
53A	244+50, 38.29' RT	1										1				
53B	244+40, 38.29' RT	1										1				
22W	182+93, 35.29' RT				1								1			
22X	183+26, 67' RT		1										1			
22Y	183+57, 68' RT						1								1	
22Z	183+62, 67' RT		1										1			
	SHEET TOTAL	11	2	0	1	2	1	0	0	2	0	11	3	4	1	
	TOTAL FROM PREVIOUS SHEET	46	12	1	5	11	16	1	1	16	5	58	22	19	15	
	ITEM GRAND TOTAL	**57**	**14**	**1**	**6**	**13**	**17**	**1**	**1**	**18**	**5**	**69**	**25**	**23**	**16**	
		EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	EACH (0010)	EACH (0020)	

	ITEM 616.0700.S
	FENCE SAFETY
	CATEGORY 0010
LOCATION	L.F.
UNDISTRIBUTED	500
ITEM TOTAL	500
CATEGORY	(0010)

	ITEM 620.0300
	CONCRETE MEDIAN SLOPED NOSE
	CATEGORY 0010
LOCATION	S.F.
STA 246+50	300
ITEM TOTAL	300
CATEGORY	(0010)

	ITEM 628.1910
	MOBILIZATIONS EMERGENCY EROSION CONTROL
	CATEGORY 0010
LOCATION	EACH
PROJ 2160-10-70	4
ITEM TOTALS	4
CATEGORY	(0010)

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	ITEM 619.1000
	MOBILIZATION
LOCATION	EACH
PROJ 2160-10-70	1
ITEM TOTAL	1
CATEGORY	(0010)

	ITEM 628.1905
	MOBILIZATIONS EROSION CONTROL
	CATEGORY 0010
LOCATION	EACH
PROJ 2160-10-70	4
ITEM TOTALS	4
CATEGORY	(0010)

	ITEM 642.5001
	FIELD OFFICE TYPE B
LOCATION	EACH
PROJ 2160-10-70	1
ITEM TOTAL	1
CAYEGORY	(0010)

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LANDSCAPE ITEMS

	ITEM 624.0100	ITEM 625.0100	ITEM 627.0200	ITEM 629.0210	ITEM 630.0110	ITEM 631.1000	ITEM 631.0300
	WATER	TOPSOIL	MULCHING	FERTILIZER TYPE B	SEEDING MIXTURE NO. 10	SOD LAWN	SOD WATER
	CATEGORY	CATEGORY	CATEGORY	CATEGORY	CATEGORY	CATEGORY	CATEGORY
	0010	0010	0010	0010	0010	0010	0010
LOCATION	MGAL	S.Y.	S.Y.	CWT	LB	S.Y.	MGAL
144+00 - 148+00	3	1700	1700	1	25	0	0
148+00 - 154+00	6	3200	3200	2	45	0	0
154+00 - 160+00	4	2100	1700	1	25	400	2
160+00 - 166+00	5	2600	400	0	5	2200	13
166+00 - 172+00	4	2100	0	0	0	2100	13
172+00 - 178+00	5	2700	1800	1	25	900	5
178+00 - 184+00	5	2700	1400	1	20	1300	8
184+00 - 190+00	6	2850	1450	1	20	1400	8
190+00 - 196+00	6	2900	0	0	0	2900	17
196+00 - 202+00	4	2200	0	0	0	2200	13
202+00 - 208+00	6	2750	1350	1	20	1400	8
208+00 - 214+00	8	4050	2550	2	35	1500	9
214+00 - 220+00	8	4000	0	0	0	4000	24
220+00 - 226+00	5	2500	300	0	5	2200	13
226+00 - 232+00	5	2500	1400	1	20	1100	7
232+00 - 238+00	5	2600	1500	1	20	1100	7
238+00 - 244+00	4	2100	500	1	10	1600	10
244+00 - 250+00	2	1100	200	0	5	900	5
RETENTION BASIN	683	8100	8100	15	100	0	0
UNDISTRIBUTED	19	5750	2950	2	45	2800	27
ITEM TOTAL	**793**	**60500**	**30500**	**30**	**425**	**30000**	**190**
	MGAL	**S.Y.**	**S.Y.**	**CWT**	**LB**	**S.Y.**	**MGAL**
CATEGORY	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**

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EROSION CONTROL ITEMS

	ITEM 628.1504 SILT FENCE			ITEM 628.1520 SILT FENCE MAINTENANCE			ITEM 628.2006 EROSION MAT URBAN CLASS I TYPE A			ITEM 628.6510 SOIL STABILIZER, TYPE B	ITEM 628.7010 INLET PROTECTION TYPE B			ITEM 628.7504 TEMPORARY DITCH CHECKS			ITEM 628.7555 CULVERT PIPE CHECKS			ITEM 630.0200 SEEDING, TEMPORARY MIXTURE NO. 10
	ITEM	CATEGORY 0010		ITEM	CATEGORY 0010		ITEM	CATEGORY 0010		CATEGORY	ITEM	CATEGORY 0010		ITEM	CATEGORY 0010		ITEM	CATEGORY 0010		CATEGORY
	TOTAL	STAGE 1A	STAGE 1B	TOTAL	STAGE 1A	STAGE 1B	TOTAL	STAGE 2	STAGE 3	0010	TOTAL	STAGE 2	STAGE 3	TOTAL	STAGE 1A	STAGE 1B	TOTAL	STAGE 2	STAGE 3	0010
LOCATION	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	S.Y.	S.Y.	S.Y.	ACRE	EACH	EACH	EACH	L.F.	L.F.	L.F	EACH	EACH	EACH	LB
144+00-148+00	400	0	400	400	0	400	0	0	0	0.35	0	0	0	20	20	0	1	1	0	25
148+00-154+00	546	46	500	546	46	500	0	0	0	0.65	5	0	5	20	0	20	1	1	0	45
154+00-160+00	300	100	200	300	100	200	0	0	0	0.45	10	5	5	0	0	0	0	0	0	30
160+00-166+00	350	350	0	350	350	0	0	0	0	0.55	4	2	2	140	40	100	2	2	0	35
166+00-172+00	150	100	50	150	100	50	0	0	0	0.45	12	6	6	0	0	0	0	0	0	30
172+00-178+00	50	0	50	50	0	50	0	0	0	0.55	7	2	5	0	0	0	0	0	0	40
178+00-184+00	560	180	380	560	180	380	0	0	0	0.55	4	1	3	80	40	40	2	2	0	40
184+00-190+00	1300	650	650	1300	650	650	0	0	0	0.60	8	3	5	0	0	0	0	0	0	40
190+00-196+00	50	50	0	50	50	0	0	0	0	0.60	5	3	2	80	20	60	2	2	0	40
196+00-202+00	800	550	250	800	550	250	0	0	0	0.45	10	6	4	40	20	20	2	2	0	30
202+00-208+00	650	350	300	650	350	300	0	0	0	0.60	4	3	1	100	40	60	2	2	0	40
208+00-214+00	620	320	300	620	320	300	0	0	0	0.85	9	5	4	20	0	20	2	2	0	55
214+00-220+00	1100	450	650	1100	450	650	0	0	0	0.85	2	0	2	120	60	60	2	2	0	55
220+00-226+00	70	70	0	70	70	0	0	0	0	0.55	2	1	1	120	40	80	2	2	0	35
226+00-232+00	250	250	0	250	250	0	0	0	0	0.55	4	3	1	0	0	0	0	0	0	35
232+00-238+00	0	0	0	0	0	0	0	0	0	0.55	3	2	1	0	0	0	0	0	0	35
238+00-244+00	600	500	100	600	500	100	0	0	0	0.45	5	2	3	60	40	20	2	2	0	30
244+00-250+00	165	165	0	165	165	0	0	0	0	0.25	10	5	5	0	0	0	0	0	0	15
RETENTION BASIN	730	365	365	730	365	365	2750	1375	1375	1.70	0	0	0	0	0	0	0	0	0	110
UNDISTRIBUTED	359	179	180	359	179	180	0	0	0	2.85	11	6	5	150	75	75	0	0	0	185
ITEM SUBTOTAL	**9050**	**4675**	**4375**	**9050**	**4675**	**4375**	**2750**	**1375**	**1375**	**14.40**	**115**	**55**	**60**	**950**	**395**	**555**	**20**	**20**	**0**	**950**
		L.F.	**L.F.**		**L.F.**	**L.F.**		**L.F.**	**L.F.**			**L.F.**	**L.F.**		**L.F.**	**L.F.**		**L.F.**	**L.F.**	
CATEGORY		**(0010)**	**(0010)**		**(0010)**	**(0010)**		**(0010)**	**(0010)**	**(0010)**		**(0010)**	**(0010)**		**(0010)**	**(0010)**		**(0010)**	**(0010)**	**(0010)**
ITEM TOTAL		**9050**			**9050**			**2750**		**14.40**		**115**			**950**			**20**		**950**
		L.F.			**L.F.**			**S.Y.**		**ACRE**		**EACH**			**L.F.**			**EACH**		**LB**

3

TRAFFIC CONTROL

	ITEM 603.8000	ITEM 603.8125	ITEM 643.0200	ITEM 643.0300	ITEM 643.0420	ITEM 643.0500	ITEM 643.0600	ITEM 643.0715	ITEM 643.0800	ITEM 643.1050	ITEM 643.0900	ITEM 649.0100	ITEM 649.0400	ITEM 649.0701	ITEM 649.0900	ITEM 649.1000	ITEM 649.1700
	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	TRAFFIC CONTROL SURVEILANCE & MAINTENANCE	TRAFFIC CONTROL DRUMS	TRAFFIC CONTROL BARRICADES TYPE III	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS POSTS	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS BASES	TRAFFIC CONTROL WARNING LIGHTS TYPE C	TRAFFIC CONTROL WARNING ARROW BOARDS	TRAFFIC CONTROL SIGNS PORTABLE CHANGEABLE MESSAGE	TRAFFIC CONTROL WARNING SIGNS	TEMPORARY PAVEMENT MARKING 4-INCH	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	TEMPORARY PAVEMENT MARKING 8-INCH	TEMPORARY PAVEMENT MARKING 12-INCH STOP LINE	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 12-INCH	TEMPORARY PAVEMENT MARKING ARROWS
LOCATION	**LF**	**LF**	**DAYS**	**DAYS**	**DAYS**	**DAYS**	**DAYS**	**DAYS**	**DAYS**	**DAYS**	**DAYS**	**LF**	**LF**	**LF**	**LF**	**LF**	**EA**
S. 76TH ST																	
STAGE 1A	0	0	40	16,600	480	0	0	6,560	0	28	4,000	0	0	0	55	0	0
STAGE 1B	0	0	30	11,310	1,440	11,550	11,550	2,850	0	0	2,940	35,750	0	525	130	0	8
STAGE 2	2,630	2,630	110	39,930	5,940	42,680	42,680	3,850	220	0	11,220	32,700	10,960	0	75	0	1
STAGE 3	1,200	1,200	210*	91,980*	7,440	47,520	47,520	5,040	0	0	12,840		42,790	0	0	75	0
*INCLUDES QUANTITIES FOR LANDSCAPING																	
ITEM TOTAL	**3,830**	**3,830**	**390**	**159,820**	**15,300**	**101,750**	**101,750**	**18,300**	**220**	**28**	**31,000**	**68,450**	**53,750**	**525**	**260**	**75**	**9**
	LF	**LF**	**DAYS**	**DAYS**	**DAYS**	**DAYS**	**DAYS**	**DAYS**	**DAYS**	**DAYS**	**DAYS**	**LF**	**LF**	**LF**	**LF**	**LF**	**EACH**
CATEGORY	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**	**(0010)**

	ITEM 650.4000 CONSTRUCTION STAKING STORM SEWER SYSTEM		ITEM 650.4500 CONSTRUCTION STAKING SUBGRADE	ITEM 650.6000 CONSTRUCTION STAKING PIPE CULVERTS	ITEM 650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT	ITEM 650.9920 CONSTRUCTION STAKING SLOPE STAKES	ITEM SPV.0090.07 CONSTRUCTION STAKING CONCRETE SIDEWALK		ITEM 650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL*	
	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0020		CATEGORY 0010	
LOCATION	EACH	EACH	L.F.	EACH	L.F.	L.F.	L.F.		LOCATION	L.S.
144+00 - 148+00	0	0	400	0	400	400	0		PROJECT 2160-10-70	1
148+00 - 154+00	2	0	600	3	600	600	0			
154+00 - 160+00	15	0	600	0	600	600	300			
160+00 - 166+00	6	0	600	0	600	600	600			
166+00 - 172+00	12	0	600	0	600	600	600			
172+00 - 178+00	15	0	600	0	600	600	600			
178+00 - 184+00	14	0	600	1	600	600	600			
184+00 - 190+00	12	0	600	2	600	600	600			
190+00 - 196+00	8	0	600	2	600	600	600			
196+00 - 202+00	9	0	600	0	600	600	600			
202+00 - 208+00	9	0	600	2	600	600	600			
208+00 - 214+00	13	0	600	0	600	600	600			
214+00 - 220+00	0	7	600	2	600	600	600			
220+00 - 226+00	0	5	600	3	600	600	600			
226+00 - 232+00	0	7	600	0	600	600	600			
232+00 - 238+00	0	6	600	0	600	600	600			
238+00 - 244+00	0	9	600	0	600	600	600			
244+00 - 250+00	0	3	400	0	400	400	400			
SIDE STREETS	0	3	2000	6	2000	2000	300			
UNDISTRIBUTED	5	5	600	9	600	600	100			
ITEM SUBTOTAL	**120**	**45**	**13000**	**30**	**13000**	**13000**	**9500**			**1**
	EACH	**EACH**	**L.F.**	**EACH**	**L.F.**	**L.F.**	**L.F.**			**L.S.**
CATEGORY	**0010**	**0020**	**0010**	**0010**	**0010**	**0010**	**0020**			**0010**
ITEM TOTAL	**165**		**13000**	**30**	**13000**	**13000**	**9500**			**1**
	EACH		**L.F.**	**EACH**	**L.F.**	**L.F.**	**L.F.**			**L.S.**

* INCLUDES LAYOUT AND STAKING OF RETENTION BASIN

	ITEM 690.0150	
	SAWING ASPHALT	
	CATEGORY 0010	
	STAGE 1A	STAGE 1B
LOCATION	L.F.	L.F.
144+00 - 146+00	200	200
146+00 - 152+00	600	600
152+00 - 158+00	600	600
158+00 - 164+00	600	600
164+00 - 170+00	600	600
170+00 - 176+00	600	600
176+00 - 182+00	600	600
182+00 - 188+00	600	600
188+00 - 194+00	600	600
194+00 - 200+00	600	600
200+00 - 206+00	600	600
206+00 - 212+00	600	600
212+00 - 218+00	600	600
218+00 - 224+00	600	600
224+00 - 230+00	600	600
230+00 - 236+00	600	600
236+00 - 242+00	600	600
242+00 - 248+00	600	600
248+00 - 248+30	0	0
PUETZ RD	50	0
DREXEL AVE	50	0
FOREST HILL	50	0
BRUNN DRIVE	50	0
IMPERIAL DRIVE	50	0
MINOR SIDE ROADS	500	200
DRIVEWAYS	100	400
UNDISTRIBUTED	50	0
ITEM SUBTOTAL	**11300**	**11000**
	L.F.	**L.F.**
CATEGORY	**(0010)**	**(0010)**
ITEM TOTAL	**22300**	
CATEGORY 0010	**L.F.**	

	ITEM 690.0250			
	SAWING CONCRETE			
	CATEGORY 0010			
	STAGE 1A	STAGE 1B	STAGE 2	STAGE 3
LOCATION	L.F.	L.F.	L.F.	L.F.
144+00 - 146+00	200	200	200	0
146+00 - 152+00	600	600	600	0
152+00 - 158+00	600	600	600	0
158+00 - 164+00	600	600	600	0
164+00 - 170+00	600	600	600	0
170+00 - 176+00	600	600	600	0
176+00 - 182+00	600	600	600	0
182+00 - 188+00	600	600	600	0
188+00 - 194+00	600	600	600	0
194+00 - 200+00	600	600	600	0
200+00 - 206+00	600	600	600	0
206+00 - 212+00	600	600	600	0
212+00 - 218+00	600	600	600	0
218+00 - 224+00	600	600	600	0
224+00 - 230+00	600	600	600	0
230+00 - 236+00	600	600	600	0
236+00 - 242+00	600	600	600	0
242+00 - 248+00	600	600	600	0
248+00 - 248+30	0	0	50	0
PUETZ RD	35	0	0	0
DREXEL AVE	0	0	0	0
FOREST HILL	0	0	0	0
BRUNN DRIVE	120	0	0	0
IMPERIAL DRIVE	0	0	0	0
MINOR SIDE ROADS	500	200	0	0
DRIVEWAYS	100	100	0	0
UNDISTRIBUTED	45	100	50	0
ITEM SUBTOTAL	**11200**	**10800**	**10500**	**0**
	L.F.	**L.F.**	**L.F.**	**L.F.**
CATEGORY	**(0010)**	**(0010)**	**(0010)**	**(0010)**
ITEM TOTAL	**32500**			
	L.F.			

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	ITEM SPV.0090.01
	PVC LATERAL 6-INCH
LOCATION	L.F.
UNDISTRIBUTED	100
ITEM TOTAL	100
CATEGORY	0010

	ITEM SPV.0090.02
	PVC LATERAL 8-INCH
LOCATION	L.F.
UNDISTRIBUTED	100
ITEM TOTAL	100
CATEGORY	0010

	ITEM SPV.0090.03
	PVC LATERAL 12-INCH
LOCATION	L.F.
UNDISTRIBUTED	200
ITEM TOTAL	200
CATEGORY	0010

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	SPV.0060.07
	REMOVING
	LANDMARK
	REFERENCE
	MONUMENT
LOCATION	EACH
W. PUETZ RD. (STATION 158+66.73)	1
W. FOREST HILL AVE. (STATION 185+04.39)	1
W. DREXEL AVE. (STATION 211+48.80)	1
W. IMPERIAL DR. (STATION 237+9.94)	1
ITEM TOTAL	4
	EACH
CATEGORY	(0010)

	SPV.0170.01
	TEST
	ROLLING
LOCATION	STA.
MAINLINE	210
SIDE STREETS	30
UNDISTRIBUTED	10
ITEM TOTAL	250
CATEGORY	(0010)

	ITEM SPV.0035.01
	BACKFILL SLURRY
LOCATION	C.Y.
UNDISTRIBUTED	50
ITEM TOTAL	50
CATEGORY	(0010)

	ITEM SPV.0060.08
	UTILITY LINE OPENING
LOCATION	EACH
UNDISTRIBUTED	10
ITEM TOTAL	10
CATEGORY	(0010)

	ITEM 611.0612
	INLET COVERS TYPE C
LOCATION	EACH
162+81, LT	1
182+00, RT	1
182+50, RT	1
198+90, RT	1
217+50, RT	1
230+50, RT	1
ITEM TOTAL	6
CATEGORY	0010

	ITEM 611.3220
	INLETS 2X2 FT
LOCATION	EACH
162+81, LT	1
182+00, RT	1
182+50, RT	1
198+90, RT	1
217+50, RT	1
230+50, RT	1
ITEM TOTAL	6
CATEGORY	0010

	ITEM SPV.0180.01
	GEOGRID
	REINFORCEMENT
LOCATION	S.Y.
UNDISTRIBUTED	15000
ITEM TOTAL	15000
CATEGORY	(0010)

	ITEM 612.0108
	PIPE UNDERDRAIN 8-INCH
LOCATION	L.F.
UNDISTRIBUTED	250
ITEM TOTAL	250
CATEGORY	0010

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RETENTION BASIN ITEMS

*ITEM 522.1012	*ITEM 522.1018	*ITEM 606.0200	*ITEM 608.0418	*ITEM 608.0512	*ITEM 645.0120
APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	RIP RAP MEDIUM	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH	GEOTEXTILE FABRIC TYPE HR
CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0010
EACH	EACH	C.Y.	L.F.	L.F.	S.Y.
3	2	130	56	64	130
EACH	EACH	C.Y.	L.F.	L.F.	S.Y.
(0010)	(0010)	(0010)	(0010)	(0010)	(0010)
*ADDITIIONAL QUANTITIES LISTED ELSEWHERE					

POND LINER CLAY

CATEGORY	LOCATION	ITEM SPV.0035.02 (CY)
0010	RETENTION POND	3400
PROJECT TOTAL		**3400 CY**

PROJECT NO: 2160-10-70	HWY: S. 76th ST (CTH U)	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET 313	E

FILE NAME : PLOT DATE : 12/3/2013 PLOT BY : DMM PLOT SCALE : 1:1

CATEGORY 0010

SIGN REMOVAL SUMMARY

SIGN #	DESCRIPTION	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	Direction	NOTES
101	No Parking Anytime <-->	1	1	SB	
102	No Parking Anytime <-->	1	1	SB	
103	STOP	1	1	EB	
104	No Parking Anytime <-->	1	1	SB	
105	No Parking Anytime <-->	1	1	SB	
106	Right Lane Ends	1	1	SB	
107	No Parking Anytime <-->	1	1	NB	
108	No Parking Anytime <-->	1	1	NB	
109	Signal Ahead	1	1	NB	
110	No Parking Anytime <-->	1	1	NB	
201	Speed Limit 40	1	1	SB	
202	No Parking Anytime <-->	1	1	SB	ON SAME POST AS 201
203	STOP (Folding)	1	--	EB	ON SIGNAL POLE
204	STOP (Folding)	1	--	SB	ON SIGNAL POLE
205	Signal Ahead	1	1	SB	
206	STOP	1	1	EB	
207	No Parking Anytime --->	1	--	WB	ON UTILITY POLE- LAKE POINTE DR
208	No Parking Anytime <---	1	1	WB	LAKE POINTE DR
209	STOP (Folding)	1	--	NB	ON SIGNAL POLE
210	STOP (Folding)	1	--	WB	ON SIGNAL POLE
211	CTH "U"	1	1	NB	
212	Right Lane Ends	1	1	NB	
213	Speed Limit 40	1	1	NB	
214	No Thru Traffic	--	--	EB	Remove by others
215	STOP	1	1	WB	
301	STOP	1	1	EB	
302	Weight Limit 3 Tons	--	--	WB	Remove by others
303	Neighborhood Watch	--	--	WB	Remove by others
304	Speed Limit 40	1	1	SB	
305	STOP	1	1	EB	
306	Speed Limit 40	1	1	SB	
307	STOP	1	1	EB	
308	Weight Limit 3 Tons	--	--	EB	Remove by others
309	STOP	1	1	WB	
310	Speed Limit 40	1	1	NB	
311	Speed Limit 40	1	1	NB	
312	STOP	1	1	WB	
401	Speed Limit 40	1	1	SB	
402	STOP	1	1	EB	
403	Weight Limit 3 Tons	1	--	WB	Remove by others
404	Neighborhood Watch	1	--	WB	Remove by others
405	Speed Limit 40	1	1	NB	
406	Weight Limit 3 Tons	1	1	EB	Remove by others
407	STOP	1	1	WB	

SIGN REMOVAL SUMMARY

SIGN #	DESCRIPTION	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	Direction	NOTES
501	Speed Limit 40	1	1	SB	
502	STOP (Folding)	1	--	EB	ON SIGNAL POLE
503	STOP (Folding)	1	--	SB	ON SIGNAL POLE
504	Library --->	--	--	SB	Remove by others
505	Left Lane Must Turn Left	1	1	SB	
506	Cross Street Warning	1	1	SB	
507	Signal Ahead	1	1	SB	
508	Signal Ahead	1	1	NB	
509	Speed Limit 40	1	--	NB	On Same Post As 508
510	Left Lane Must Turn Left	1	1	NB	
511	Library <---	--	--	NB	Remove by others
512	STOP (Folding)	1	--	NB	ON SIGNAL POLE
513	STOP (Folding)	1	--	WB	ON SIGNAL POLE
514	CTH U	1	1	NB	
515	Speed Limit 40	1	1	NB	
601	STOP	1	1	EB	
602	Speed Limit 40	1	1	SB	
603	Right Lane Must Turn Right	1	1	SB	
604	No Parking Anytime <-->	1	1	SB	
605	STOP	1	1	WB	
606	Right Turn Only	1	1	NB	
607	STOP	1	1	WB	
608	No Parking Anytime <-->	1	1	NB	
701	No Parking Anytime <-->	1	1	SB	
702	STOP (Folding)	1	--	EB	ON SIGNAL POLE
703	School	1	--	SB	ON SIGNAL POLE
704	Arrow	1	--	SB	ON SIGNAL POLE
705	Lane Designation < ^ >	1	1	SB	
706	No Parking Anytime <-->	1	1	SB	
707	Lane Designation < ^ >	1	1	SB	
708	Keep Right	1	1	NB	ON MEDIAN
709	No Parking Anytime <-->	1	1	SB	
710	Right Lane Must Turn Right	1	1	SB	ON SAME POST AS 709
711	No Parking Anytime <-->	1	1	SB	
712	Right Lane Ends	1	1	SB	
713	No Parking Anytime <-->	1	1	SB	
714	School	1	1	NB	
715	Divided Highway Ahead	1	1	NB	
716	No Parking Anytime <-->	1	1	NB	
717	STOP (Folding)	1	--	WB	ON SIGNAL POLE
718	School	1	--	NB	ON SIGNAL POLE
719	Arrow	1	--	NB	ON SIGNAL POLE
720	No Parking Anytime <-->	1	1	NB	
721	No Parking Anytime <-->	1	1	NB	
722	No Parking Anytime <-->	1	1	NB	
723	School	1	1	SB	ON MEDIAN
724	Divided Highway Ends	1	1	SB	ON MEDIAN
725	No Parking Anytime <-->	1	1	NB	
ITEM TOTAL		85	68		

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PROPOSED SIGN SUMMARY

SIGN NO.	SIGN CODE	DESCRIPTION	SIZE INCHES	X	SIZE INCHES	637.2220 SIGNS TYPE II REFLECTIVE SH SF	637.2225 SIGNS TYPE II REFLECTIVE SH FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	SPV.0060.01 SIGN POSTS U-CHANNEL EACH	NOTES
01 - 01	R7-1D (MOD)	NO PARKING ANYTIME <-->	18	X	24	3.00	--	--	1	
01 - 02	R2-1	SPEED LIMIT 40	24	X	30	5.00	--	--	1	
01 - 03	R2-1	SPEED LIMIT 40	24	X	30	5.00	--	--	1	
01 - 04	R7-1D (MOD)	NO PARKING ANYTIME <-->	18	X	24	3.00	--	--	1	
01 - 05	R7-1D (MOD)	NO PARKING ANYTIME <-->	18	X	24	3.00	--	--	1	
01 - 06	R7-1D (MOD)	NO PARKING ANYTIME <-->	18	X	24	3.00	--	--	1	
01 - 07	W4-2R	RIGHT LANE ENDS	36	X	36	--	--	9.00	1	
01 - 08	R1-1	STOP	30	X	30	5.18	--	--	1	FACING WEST
01 - 09	W14-2	NO OUTLET	30	X	30	--	--	6.25	1	ON FRONTAGE ROAD, FACING SOUTH
01 - 10	R7-1D (MOD)	NO PARKING ANYTIME <-->	18	X	24	3.00	--	--	1	
01 - 11	R2-1	SPEED LIMIT 40	30	X	36	7.50	--	--	1	
01 - 12	R7-1D (MOD)	NO PARKING ANYTIME <-->	18	X	24	3.00	--	--	1	
01 - 13	M3-3	SOUTH	24	X	12	2.00	--	--	1	
01 - 14	M1-5	CTH "U"	24	X	24	4.00	--	--	1	ON SAME POST AS 01-13
01 - 15	R7-1D (MOD)	NO PARKING ANYTIME <-->	18	X	24	3.00	--	--	--	ON SIGNAL POLE
01 16	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SIGNAL POLE
01 - 17	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SIGNAL POLE
01 - 18	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SAME POLE AS 01-18
01 - 19		W. PUETZ RD		X			--	--	1	SEE DETAIL
01 - 20	R7-1D (MOD)	NO PARKING ANYTIME <-->	18	X	24	3.00	--	--	1	
01 - 21	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SIGNAL POLE
01 - 22	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SAME POLE AS 01-21
01 - 23	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SIGNAL POLE
01 - 24	M3-1	NORTH	24	X	12	2.00	--	--	1	
01 25	M1-5	CTH "U"	24	X	24	4.00	--	--	--	ON SAME POST AS 01-24
02 - 01		W. PUETZ RD		X					1	SEE DETAIL
02 - 02	R1-1	STOP	30	X	30	5.18	--	--	1	FACING WEST
02 - 03	R2-1	SPEED LIMIT 40	30	X	36	7.50	--	--	1	
02 - 04	R1-1	STOP	30	X	30	5.18	--	--	1	FACING EAST
03 - 01	R2-1	SPEED LIMIT 40	30	X	36	7.50	--	--	1	
03 - 02	M3-3	SOUTH	24	X	12	2.00	--	--	1	
03 - 03	M1-5	CTH "U"	24	X	24	4.00	--	--	--	ON SAME POST AS 03-02
03 - 04	R1-1	STOP	36	X	36	7.46	--	--	1	FACING WEST
03 - 05	R1-1	STOP	36	X	36	7.46	--	--	1	FACING WEST, LEFT SIDE
03 - 06	M3-1	NORTH	24	X	12	2.00	--	--	1	
03 - 07	M1-5	CTH "U"	24	X	24	4.00	--	--	--	ON SAME POST AS 03-09
03 - 08	R1-1	STOP	30	X	30	5.18	--	--	1	FACING EAST
03 - 09	R2-1	SPEED LIMIT 40	30	X	36	7.50	--	--	1	
03 - 10	R1-1	STOP	30	X	30	5.18	--	--	1	FACING EAST
*QUANTITIES SHOWN ELSEWHERE, COUNTINUED ON NEXT SHEET			SHEET TOTAL:			128.82	44.76	15.25	29.00	

CATEGORY 0010

PROPOSED SIGN SUMMARY

SIGN NO.	SIGN CODE	DESCRIPTION	SIZE INCHES	X	SIZE INCHES	637.2220 SIGNS TYPE II REFLECTIVE SH SF	637.2225 SIGNS TYPE II REFLECTIVE SH FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	SPV.0060.01 SIGN POSTS U-CHANNEL EACH	NOTES
04 - 01	R1-1	STOP	30	X	30	5.18	--	--	1	FACING WEST
04 - 02		W. DREXEL AVE	15	X	66	6.88	--	--	1	SEE DETAIL
04 - 03	R2-1	SPEED LIMIT 40	30	X	36	7.50	--	--	1	
04 - 04	M3-3	SOUTH	24	X	12	2.00	--	--	1	
04 - 05	M1-5	CTH "U"	24	X	24	4.00	--	--	1	ON SAME POST AS 04-04
04 - 06	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SIGNAL POLE
04 - 07	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SIGNAL POLE
04 - 08	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SAME POLE AS 04-07
04 - 09		W. DREXEL AVE	15	X	66	6.88	--	--	1	SEE DETAIL
04 - 10	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SIGNAL POLE
04 - 11	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SAME POLE AS 04-10
04 - 12	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SIGNAL POLE
04 - 13	M3-1	NORTH	24	X	12	2.00	--	--	1	
04 - 14	M1-5	CTH "U"	24	X	24	4.00	--	--	--	ON SAME POST AS 04-13
04 - 15	R2-1	SPEED LIMIT 40	30	X	36	7.50	--	--	1	
05 - 01	R1-1	STOP	30	X	30	5.18	--	--	1	FACING WEST
05 - 02	R1-1	STOP	30	X	30	5.18	--	--	1	FACING EAST
05 - 03	R1-1	STOP	30	X	30	5.18	--	--	1	FACING EAST
06 - 01	R2-1	SPEED LIMIT 40	30	X	36	7.50	--	--	1	
06 - 02	S5-2	END SCHOOL ZONE	30	X	36	7.50	--	--	1	
06 - 03	M3-3	SOUTH	24	X	12	2.00	--	--	1	
06 - 04	M1-5	CTH "U"	24	X	24	4.00	--	--	--	ON SAME POST AS 06-02
06 - 05	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SIGNAL POLE
06 - 06	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SIGNAL POLE
06 - 07	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SAME POLE AS 06-06
06 - 08	S1-1	SCHOOL CROSSING	36	X	36	--	--	6.75	1	
06 - 09		AT SIGNAL	20	X	24	--	--	3.33	--	ON SAME POST AS 06-08
06 - 10		W IMPERIAL DR -> / <-W BRUNN DR	28	X	72	14.00	--	--	2	
06 - 11		W BRUNN DR-> / <-W IMPERIAL DR	28	X	72	14.00	--	--	2	
06 - 12	S1-1	SCHOOL CROSSING	36	X	36	--	--	6.75	1	
06 - 13		AT SIGNAL	20	X	24	--	--	3.33	--	ON SAME POST AS 06-12
06 - 14	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SIGNAL POLE
06 - 15	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SAME POLE AS 06-07
06 - 16	R1-1F	STOP (Folding)	36	X	36	--	7.46	--	--	ON SIGNAL POLE
06 - 17	M3-1	NORTH	24	X	12	2.00	--	--	1	
06 - 18	M1-5	CTH "U"	24	X	24	4.00	--	--	--	ON SAME POST AS 06-10
06 - 19	R2-1	SPEED LIMIT 40	30	X	36	7.50	--	--	1	
06 - 20	S5-2	END SCHOOL ZONE	30	X	36	7.50	--	--	1	
06 - 21	W6-1	DIVIDED HIGHWAY AHEAD	36	X	36	--	--	9.00	1	
06 - 22	R1-1	STOP	30	X	30	--	--	--	1	FACING WEST
06 - 23	R4-7	KEEP RIGHT	24	X	30	--	--	--	--	
06 - 24	W5-54	OBJECT MARKER	18	X	18	--	--	2.25	--	YELLOW
06 - 25	R1-1	STOP	30	X	30	--	--	--	1	FACING EAST
07 - 01	W5-56	OBJECT MARKER - END OF ROAD	18	X	18	2.25	--	--	1	RED
07 - 02	W5-56	OBJECT MARKER - END OF ROAD	18	X	18	2.25	--	--	1	RED
07 - 03	W5-56	OBJECT MARKER - END OF ROAD	18	X	18	2.25	--	--	1	RED
07 - 04		W PUETZ RD	15	X	56	5.83	--	--	--	SEE DETAIL, MAST ARM MOUNTED
07 - 05		W PUETZ RD	15	X	56	5.83	--	--	--	SEE DETAIL, MAST ARM MOUNTED
07 - 06		S 76TH ST	15	X	51	5.31	--	--	--	SEE DETAIL, MAST ARM MOUNTED
07 - 07		S 76TH ST	15	X	51	5.31	--	--	--	SEE DETAIL, MAST ARM MOUNTED
08 - 01		W DREXEL AVE	15	X	66	6.88	--	--	--	SEE DETAIL, MAST ARM MOUNTED
08 - 02		W DREXEL AVE	15	X	66	6.88	--	--	--	SEE DETAIL, MAST ARM MOUNTED
08 - 03		S 76TH ST	15	X	51	5.31	--	--	--	SEE DETAIL, MAST ARM MOUNTED
08 - 04		S 76TH ST	15	X	51	5.31	--	--	--	SEE DETAIL, MAST ARM MOUNTED
08 - 05		W IMPERIAL DR -> / <-W BRUNN DR	28	X	72	14.00	--	--	--	SEE DETAIL, MAST ARM MOUNTED
08 - 06		W BRUNN DR-> / <-W IMPERIAL DR	28	X	72	14.00	--	--	--	SEE DETAIL, MAST ARM MOUNTED
08 - 07		S 76TH ST	15	X	51	5.31	--	--	--	SEE DETAIL, MAST ARM MOUNTED
08 - 08		S 76TH ST	15	X	51	5.31	--	--	--	SEE DETAIL, MAST ARM MOUNTED
		SHEET TOTAL:				223.51	89.52	31.41	29	
		ITEM TOTAL:				363.99	134.28	46.66	58	

3

PAVEMENT MARKING QUANTITIES

			SPV.0090.05	SPV.0090.05	SPV.0090.05	SPV.0090.06	647.0166	647.0356	647.0566	647.0726	647.0726	647.0766
			PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT
			MARKING	MARKING	MARKING	MARKING	MARKING	MARKING	MARKING	MARKING	MARKING	MARKING
			4-INCH	4-INCH	4-INCH	8-INCH	ARROWS	WORDS	STOP LINE	DIAGONAL	DIAGONAL	CROSSWALK
			GROOVED	GROOVED	GROOVED	GROOVED	EPOXY	EPOXY	EPOXY	EPOXY	EPOXY	EPOXY
			EPOXY	EPOXY	EPOXY	EPOXY	TYPE 2		18-INCH	12-INCH	12-INCH	6-INCH
			12.5 SKIPS			CHANNELIZING						
STATIONS			WHITE	YELLOW	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	YELLOW	WHITE
START		END	LF	LF	LF	LF	EACH	EACH	LF	LF	LF	LF
142+50	-	150+50	20	1,400	1,400	--	--	--	--	--	--	--
150+50	-	160+50	420	1,920	1,590	480	3	2	330	110	--	140
160+50	-	170+00	430	1,710	1,700	80	1	--	--	--	80	--
170+00	-	179+30	420	2,120	1,680	250	--	--	--	--	40	--
179+30	-	188+70	390	1,820	1,460	130	--	--	20	--	80	--
188+70	-	198+20	460	1,860	1,810	--	--	--	--	--	10	--
198+20	-	207+55	400	2,230	1,580	390	--	--	--	--	180	--
207+55	-	217+00	420	4,410	1,470	530	5	4	160	140	140	140
217+00	-	226+40	430	2,200	1,700	340	--	--	--	--	120	--
226+40	-	235+85	460	2,500	1,800	50	--	--		--	90	--
235+85	-	245+25	430	2,730	1,690	640	--	--	130	--	130	110
245+25	-	252+00	240	580	840	190	1	1	--	110	70	--
		PUETZ	--	600	600	300	3	1	--	--	30	--
		FOREST HILL	--	400	400	40	--	--	--	--	30	--
		DREXEL	--	800	800	300	4	3	--	--	100	--
		IMPERIAL	--	100	--	--	--	--	--	--	--	--
		SUBTOTAL	4,520	27,380	20,520	3,720	17	11	640	360	1,100	390
		ITEM TOTAL	52,420			3,720	17	11	640	1,460		390

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REMOVING CONCRETE BASES - 76TH & PUETZ

	204.0195	
	REMOVING	
	CONCRETE	
	BASES	
BASE NO.	EACH	REMARKS
EXSB1	1	NE CORNER
EXSB2	1	NE CORNER
EXSB3	1	SE CORNER
EXSB4	1	SE CORNER
EXSB5	1	SW CORNER
EXSB6	1	SW CORNER
EXSB7	1	NW CORNER
EXSB8	1	NW CORNER
CB1	1	
INTERSECTION TOTAL	9	

REMOVING CONCRETE BASES - 76TH & DREXEL

	204.0195	
	REMOVING	
	CONCRETE	
	BASES	
BASE NO.	EACH	REMARKS
EXSB1	1	SE CORNER
EXSB2	1	SW CORNER
EXSB3	1	SW CORNER
EXSB4	1	NW CORNER
EXSB5	1	NW CORNER
EXSB6	1	NE CORNER
EXSB7	1	NE CORNER
EXSB8	1	SE CORNER
CB1	1	
INTERSECTION TOTAL	9	

REMOVING CONCRETE BASES - 76TH & IMPERIAL

	204.0195	
	REMOVING	
	CONCRETE	
	BASES	
BASE NO.	EACH	REMARKS
SB2	1	NE CORNER
SB7	1	SW CORNER
CB1	1	
INTERSECTION TOTAL	3	
ITEM TOTAL	21	

REMOVING PULL BOXES - 76TH & PUETZ

	653.0905	
	REMOVING	
	PULL	
	BOXES	
PULL BOX NO.	EACH	REMARKS
EXPB1	1	NE CORNER
EXPB2	1	NE CORNER
EXPB3	1	SE CORNER
EXPB4	1	SE CORNER
EXPB5	1	275 FT. SOUTH OF EXPB4
EXPB6	1	SW CORNER
EXPB7	1	NW CORNER
EXPB8	1	310 FT. NORTH OF EXPB7
INTERSECTION TOTAL	8	

REMOVING PULL BOXES - 76TH & DREXEL

	653.0905	
	REMOVING	
	PULL	
	BOXES	
PULL BOX NO.	EACH	REMARKS
EXPB1	1	275 FT. SOUTH OF EXCB1
EXPB2	1	SE CORNER
EXPB3	1	SW CORNER
EXPB4	1	SW CORNER
EXPB5	1	NW CORNER
EXPB6	1	NW CORNER
EXPB7	1	305 FT. NORTH OF EXPB6
EXPB8	1	NE CORNER
EXPB9	1	NE CORNER
EXPB10	1	SE CORNER
INTERSECTION TOTAL	10	

REMOVING PULL BOXES - 76TH & IMPERIAL

	653.0905	
	REMOVING	
	PULL	
	BOXES	
PULL BOX NO.	EACH	REMARKS
PB1	1	NW CORNER
PB2	1	NE CORNER
PB3	1	SW CORNER
INTERSECTION TOTAL	3	
ITEM TOTAL	21	

REMOVE TRAFFIC SIGNAL EQUIPMENT

LOCATION	BID ITEM	LS
S. 76TH ST. (CTH U) & W. PUETZ RD.	SPV.0105.07	1
S. 76TH ST. (CTH U) & W. DREXEL AVE.	SPV.0105.08	1
S. 76TH ST. (CTH U) & IMPERIAL DR.	SPV.0105.09	1

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CONCRETE CONTROL CABINET BASE TYPE 9 SPECIAL

LOCATION	BID ITEM	EACH	REMARKS
S. 76TH ST. (CTH U) & PUETZ	654.0217	1	
S. 76TH ST. (CTH U) & DREXEL	654.0217	1	
S. 76TH ST. (CTH U) & IMPERIAL DR.	654.0217	1	
	ITEM TOTAL:	3	

ELECTRICAL SERVICE METER BREAKER PEDESTAL

LOCATION	BID ITEM	EACH	REMARKS
S. 76TH ST. (CTH U) & PUETZ	656.0200.01	1	
S. 76TH ST. (CTH U) & DREXEL	656.0200.02	1	
S. 76TH ST. (CTH U) & IMPERIAL DR.	656.0200.03	1	
	ITEM TOTAL:	3	

SIGNAL MOUNTING HARDWARE

LOCATION	BID ITEM	LS	REMARKS
S. 76TH ST. (CTH U) & PUETZ	658.5069.01	1	
S. 76TH ST. (CTH U) & DREXEL	658.5069.02	1	
S. 76TH ST. (CTH U) & IMPERIAL DR.	658.5069.03	1	
	ITEM TOTAL:	3	

SIGNAL HEAD CABLING

	655.0230	655.0240
INTERSECTION:	CABLE TRAFFIC SIGNAL 5-14 AWG	CABLE TRAFFIC SIGNAL 7-14 AWG
76th and Puetz	510	--
76th and Drexel	360	170
76th and Imperial	550	--
ITEM TOTAL:	1420	170

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TEMPORARY TRAFFIC SIGNALS			
LOCATION	BID ITEM	EACH	REMARKS
S. 76TH ST. (CTH U) & PUETZ	661.0200.01	1	
S. 76TH ST. (CTH U) & DREXEL	661.0200.02	1	
S. 76TH ST. (CTH U) & IMPERIAL DR.	661.0200.03	1	
	ITEM TOTAL:	3	

ELECTRICAL SERVICE UTILITY CHARGES			
	BID ITEM	DOL	REMARKS
ELECTRICAL SERVICE UTILITY CHARGES	SPV.0055.01	5500	
	ITEM TOTAL:	5500	

TRAFFIC SIGNAL CONTROLLER AND CABINET, FULLY ACTUATED 16-PHASE			
LOCATION	BID ITEM	LS	REMARKS
S. 76TH ST. (CTH U) & PUETZ	SPV.0105.01	1	
S. 76TH ST. (CTH U) & DREXEL	SPV.0105.02	1	
S. 76TH ST. (CTH U) & IMPERIAL DR.	SPV.0105.03	1	
	ITEM TOTAL:	3	

VEHICULAR VIDEO DETECTION SYSTEM			
LOCATION	BID ITEM	LS	REMARKS
S. 76TH ST. (CTH U) & PUETZ	SPV.0105.04	1	4-CAMERA
S. 76TH ST. (CTH U) & DREXEL	SPV.0105.05	1	4-CAMERA
S. 76TH ST. (CTH U) & IMPERIAL DR.	SPV.0105.06	1	4-CAMERA
	ITEM TOTAL:	3	

TRAFFIC SIGNAL BASES, STANDARDS, POLES, MAST ARMS & SIGNAL FACES — CATEGORY 0010

76TH & PUETZ

NO.	654.0101 CONCRETE BASES TYPE 1 EACH*	654.0110 CONCRETE BASES TYPE 10 EACH*	654.0113 CONCRETE BASES TYPE 13 EACH*	657.0100 PEDESTAL BASES EACH	657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	SPV.0060.12 POLES TYPE 10 EACH	SPV.0060.13 POLES TYPE 13 EACH	SPV.0060.14 MONOTUBE ARMS 25-FT EACH	SPV.0060.17 MONOTUBE ARMS 45-FT EACH	SPV.0060.18 MONOTUBE ARMS 55-FT EACH	SPV.0060.19 LUMINAIRE ARMS STEEL 15' EACH
SB1	1	--	--	1	--	1	--	--	--	--	--	--	--
SB2	--	1	--	--	--	--	--	1	--	1	--	--	1
SB3	1	--	--	1	1	--	--	--	--	--	--	--	--
SB4	1	--	--	1	--	1	--	--	--	--	--	--	--
SB5	--	--	1	--	--	--	--	--	1	--	1	--	1
SB6	1	--	--	1	--	1	--	--	--	--	--	--	--
SB7	--	1	--	--	--	--	--	1	--	1	--	--	1
SB8	1	--	--	1	--	1	--	--	--	--	--	--	--
SB9	--	--	1	--	--	--	--	--	1	--	1	--	1
SB10	1	--	--	1	1	--	--	--	--	--	--	--	--
INTERSECTION TOTAL:	6	2	2	6	2	4	0	2	2	2	2	0	4

* FINAL LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD
** FOR INFORMATION ONLY
ADDITIONAL ITEMS SHOWN ELSEWHERE

76TH & PUETZ CONTINUED

NO.	658.0110 TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL EACH	658.0120 TRAFFIC SIGNAL FACE 5-12 INCH VERTICAL EACH	658.0215 BACKPLATES SIGNAL FACE 3-12 EACH	658.0225 BACKPLATES SIGNAL FACE 5-12 EACH	658.0600 LED MODULES RED BALL 12-INCH EACH	658.0605 LED MODULES YELLOW BALL 12-INCH EACH	658.0610 LED MODULES GREEN BALL 12-INCH EACH	658.0620 LED MODULES YELLOW ARROW 12-INCH EACH	658.0625 LED MODULES GREEN ARROW 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACE COUNTDOWN 16-INCH EACH	658.0635 LED MODULE PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	SPV.0060.11 LED VIDEO DETECTION LUMINARES 10k LUMENS SYSTEM CAMERA EACH	VEHICULAR VIDEO DETECTION SYSTEM CAMERA LOCATION**
SB1	2	--	2	--	2	2	2	--	--	--	--	--	--	--
SB2	1	--	1	--	1	1	1	--	--	--	--	--	1	1
SB3	--	--	--	--	--	--	--	--	--	--	--	1	--	--
SB4	2	--	2	--	2	2	2	--	--	1	1	--	--	--
SB5	2	--	2	--	2	2	2	--	--	--	--	--	1	1
SB6	2	--	2	--	2	2	2	--	--	--	--	--	--	--
SB7	1	--	1	--	1	1	1	--	--	--	--	--	1	1
SB8	2	--	2	--	2	2	2	--	--	--	--	--	--	--
SB9	2	--	2	--	2	2	2	--	--	1	1	--	1	1
SB10	--	--	--	--	--	--	--	--	--	--	--	1	--	--
INTERSECTION TOTAL:	14	0	14	0	14	14	14	0	0	2	2	2	4	

* FINAL LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD
** FOR INFORMATION ONLY
ADDITIONAL ITEMS SHOWN ELSEWHERE

3

TRAFFIC SIGNAL BASES, STANDARDS, POLES, MAST ARMS & SIGNAL FACES

CATEGORY 0010

76TH & DREXEL

NO.	654.0101 CONCRETE BASES TYPE 1	654.0110 CONCRETE BASES TYPE 10	654.0113 CONCRETE BASES TYPE 13	657.0100 PEDESTAL BASES	657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT	SPV.0060.12 POLES TYPE 10	SPV.0060.13 POLES TYPE 13	SPV.0060.15 MONOTUBE ARMS 30-FT	SPV.0060.16 MONOTUBE ARMS 45-FT	SPV.0060.18 MONOTUBE ARMS 55-FT	SPV.0060.19 LUMINAIRE ARMS STEEL 15'
	EACH*	EACH*	EACH*	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
SB1	1	--	--	1	--	1	--	--	--	--	--	--	--
SB2	--	1	--	--	--	--	--	1	--	1	--	--	1
SB3	1	--	--	1	1	--	--	--	--	--	--	--	--
SB4	1	--	--	1	--	1	--	--	--	--	--	--	--
SB5	--	--	1	--	--	--	--	--	1	--	--	1	1
SB6	1	--	--	1	--	1	--	--	--	--	--	--	--
SB7	--	1	--	--	--	--	--	1	--	1	--	--	1
SB8	1	--	--	1	--	1	--	--	--	--	--	--	--
SB9	--	--	1	--	--	--	--	--	1	--	1	--	1
SB10	1	--	--	1	1	--	--	--	--	--	--	--	--
INTERSECTION TOTAL:	6	2	2	6	2	4	0	2	2	2	1	1	4

* FINAL LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD
** FOR INFORMATION ONLY
ADDITIONAL QUANTITIES SHOWN ELSEWHERE

76TH & DREXEL

NO.	658.0110 TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL	658.0120 TRAFFIC SIGNAL FACE 5-12 INCH VERTICAL	658.0215 BACKPLATES SIGNAL FACE 3-12	658.0225 BACKPLATES SIGNAL FACE 5-12	658.0600 LED MODULES RED BALL 12-INCH	658.0605 LED MODULES YELLOW BALL 12-INCH	658.0610 LED MODULES GREEN BALL 12-INCH	658.0620 LED MODULES YELLOW ARROW 12-INCH	658.0625 LED MODULES GREEN ARROW 12-INCH	658.0416 PEDESTRIAN SIGNAL FACE COUNTDOWN 16-INCH	658.0635 LED MODULE PEDESTRIAN COUNTDOWN TIMER 16-INCH	658.0500 PEDESTRIAN PUSH BUTTONS	SPV.0060.11 LED LUMINARES 10k LUMENS	VEHICULAR VIDEO DETECTION SYSTEM CAMERA LOCATION**
	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
SB1	2	--	2	--	2	2	2	--	--	--	--	--	--	--
SB2	1	--	1	--	1	1	1	--	--	--	--	--	1	1
SB3	--	--	--	--	--	--	--	--	--	--	--	1	--	--
SB4	1	1	1	1	2	2	2	1	1	1	1	--	--	--
SB5	1	1	1	1	2	2	2	1	1	--	--	--	1	1
SB6	2	--	2	--	2	2	2	--	--	--	--	--	--	--
SB7	1	--	1	--	1	1	1	--	--	--	--	--	1	1
SB8	1	1	1	1	2	2	2	1	1	--	--	--	--	--
SB9	1	1	1	1	2	2	2	1	1	1	1	--	1	1
SB10	--	--	--	--	--	--	--	--	--	--	--	1	--	--
INTERSECTION TOTAL:	10	4	10	4	14	14	14	4	4	2	2	2	4	

* FINAL LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD
** FOR INFORMATION ONLY
ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL BASES, STANDARDS, POLES, MAST ARMS & SIGNAL FACES

CATEGORY 0010

76TH & IMPERIAL

NO.	654.0101 CONCRETE BASES TYPE 1 EACH*	654.0110 CONCRETE BASES TYPE 10 EACH*	654.0113 CONCRETE BASES TYPE 13 EACH*	657.0100 PEDESTAL BASES EACH	657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	SPV.0060.12 POLES TYPE 10 EACH	SPV.0060.13 POLES TYPE 13 EACH	SPV.0060.14 MONOTUBE ARMS 25-FT EACH	SPV.0060.15 MONOTUBE ARMS 30-FT EACH	SPV.0060.16 MONOTUBE ARMS 45-FT EACH	SPV.0060.17 MONOTUBE ARMS 50-FT EACH	SPV.0060.18 MONOTUBE ARMS 55-FT EACH	SPV.0060.19 LUMINAIRE ARMS STEEL 15' EACH
SB1	1	--	--	1	--	1	--	--	--	--	--	--	--	--	--
SB2	--	--	1	--	--	--	--	--	1	--	--	--	1	--	1
SB3	1	--	--	1	--	--	1	--	--	--	--	--	--	--	--
SB4	1	--	--	1	--	1	--	--	--	--	--	--	--	--	--
SB5	--	1	--	--	--	--	--	1	--	1	--	--	--	--	1
SB6	1	--	--	1	1	--	--	--	--	--	--	--	--	--	--
SB7	1	--	--	1	--	1	--	--	--	--	--	--	--	--	--
SB8	--	--	1	--	--	--	--	--	1	--	--	--	1	--	1
SB9	1	--	--	1	--	1	--	--	--	--	--	--	--	--	--
SB10	--	1	--	--	--	--	--	1	--	1	--	--	--	--	1
SUBTOTAL:	6	2	2	6	1	4	1	2	2	2	0	0	2	0	4
ITEM TOTAL:	18	6	6	18	5	12	1	6	6	4	2	3	2	1	12
	EACH*	EACH*	EACH*	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH

* FINAL LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD

** FOR INFORMATION ONLY

3

76TH & IMPERIAL

NO.	658.0110 TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL EACH	658.0120 TRAFFIC SIGNAL FACE 5-12 INCH VERTICAL EACH	658.0215 BACKPLATES SIGNAL FACE 3-12 EACH	658.0225 BACKPLATES SIGNAL FACE 5-12 EACH	658.0600 LED MODULES RED BALL 12-INCH EACH	658.0605 LED MODULES YELLOW BALL 12-INCH EACH	658.0610 LED MODULES GREEN BALL 12-INCH EACH	658.0620 LED MODULES YELLOW ARROW 12-INCH EACH	658.0625 LED MODULES GREEN ARROW 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACE COUNTDOWN 16-INCH EACH	658.0635 LED MODULE PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	SPV.0060.11 LED LUMINARES 10k LUMENS EACH	VEHICULAR VIDEO DETECTION SYSTEM CAMERA LOCATION**
SB1	2	--	2	--	2	2	2	--	--	--	--	--	--	--
SB2	2	--	2	--	2	2	2	--	--	1	1	--	1	1
SB3	--	--	--	--	--	--	--	--	--	1	1	2	--	--
SB4	2	--	2	--	2	2	2	--	--	--	--	--	--	--
SB5	1	--	1	--	1	1	1	--	--	--	--	--	1	1
SB6	--	--	--	--	--	--	--	--	--	--	--	1	--	--
SB7	2	--	2	--	2	2	2	--	--	1	1	--	--	--
SB8	2	--	2	--	2	2	2	--	--	--	--	--	1	1
SB9	2	--	2	--	2	2	2	--	--	--	--	--	--	--
SB10	1	--	1	--	1	1	1	--	--	1	1	1	1	1
SUBTOTAL:	14	0	14	0	14	14	14	0	0	4	4	4	4	
ITEM TOTAL:	38	4	38	4	42	42	42	4	4	8	8	8	12	
	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	

* FINAL LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD

** FOR INFORMATION ONLY

3

CONDIT RIGID NONMETALLIC - 76TH & PUETZ

FROM	TO	652.0225 SCHEDULE 40 2-INCH LF	652.0235 SCHEDULE 40 3-INCH LF	652.0615 SPECIAL 3-INCH LF	REMARKS
CB1	PB1		60	--	3 RUNS
PB1	SB1	5	--	--	
PB1	PB2	--	--	130	2 RUNS
PB2	SB2	10	--	--	
PB2	SB3	15	--		
PB2	PB3	--	50	--	2 RUNS
PB3	SB4	10	--	--	
PB3	PB4	--	--	210	2 RUNS
PB4	SB5	15	--	--	
PB4	PB5	--	30	--	2 RUNS
PB5	SB6	15	--	--	
PB5	PB6	--	--	150	2 RUNS
PB6	SB7	10	--	--	
PB6	PB7	--	30	--	2 RUNS
PB7	SB8	5	--	--	
PB7	PB8	--	--	210	2 RUNS
PB8	SB9	15	--	--	
PB8	SB10	10	--	--	
PB8	CB1	--	30	--	3 RUNS
INTERSECTION TOTAL:		105	140	700	

PULL BOXES - 76TH & PUETZ

NO.	653.0140 STEEL 24X42 - INCH EACH*	653.0145 STEEL 24X48 - INCH EACH*
PB1	1	--
PB2	1	--
PB3	1	--
PB4	1	--
PB5	1	--
PB6	1	--
PB7	1	--
PB8	1	--
TOTAL:	8	0

* FINAL LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD

ADDITIONAL QUANTITES SHOWN ELSEWHERE

TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRING - 76th & Puetz

FROM	THROUGH	TO	655.0210 CABLE TRAFFIC SIGNAL 3-14 AWG LF	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG LF	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED LF	655.0515 ELECTRICAL WIRE TRAFFIC (NEUTRAL) 10 AWG WHITE LF	655.0515 ELECTRICAL WIRE TRAFFIC (EQUIPMENT GROUNDING) 10 AWG GREEN LF
CB1	PB1	SB1	--	30	--	--	--	--
CB1	PB1, PB2	SB2	--	90	--	120	--	--
CB1	PB1, PB2	SB3	100	--	--	--	--	--
CB1	PB1, PB2, PB3	SB4	--	--	130	--	--	--
CB1	PB1, PB2, PB3, PB4	SB5	--	240	--	270	--	--
CB1	PB8, PB7, PB6, PB5	SB6	--	230	--	--	--	--
CB1	PB8, PB7, PB6	SB7	--	150	--	180	--	--
CB1	PB8, PB7	SB8	--	--	130	--	--	--
CB1	PB8	SB9	--	30	--	60	--	--
CB1	PB8	SB10	30	--	--	--	--	--
CB1	PB1	SB1	--	--	--	--	30	30
SB1	PB1, PB2	SB2	--	--	--	--	60	60
SB2	PB2	SB3	--	--	--	--	30	30
SB3	PB2, PB3	SB4	--	--	--	--	70	70
SB4	PB3, PB4	SB5	--	--	--	--	130	130
SB5	PB4, PB5	SB6	--	--	--	--	50	50
SB6	PB5, PB6	SB7	--	--	--	--	110	110
SB7	PB6, PB7	SB8	--	--	--	--	30	30
SB8	PB7, PB8	SB9	--	--	--	--	120	120
SB9	PB8	SB10	--	--	--	--	30	30
SB10	PB8	CB1	--	--	--	--	30	30
PB1		SB1	--	--	--	--	--	10
PB2		SB2	--	--	--	--	--	20
PB2		SB3	--	--	--	--	--	30
PB3		SB4	--	--	--	--	--	20
PB4		SB5	--	--	--	--	--	20
PB5		SB6	--	--	--	--	--	20
PB6		SB7	--	--	--	--	--	10
PB7		SB8	--	--	--	--	--	10
PB8		SB9	--	--	--	--	--	10
PB8		SB10	--	--	--	--	--	10
	SUBTOTAL:		130	770	260	630	690	850
	INTERSECTION TOTAL:		130	770	260	630	1540	
			LF	LF	LF	LF	LF	

3

CONDUIT RIGID NONMETALLIC - 76TH & DREXEL

FROM	TO	652.0225 SCHEDULE 40 2-INCH LF	652.0235 SCHEDULE 40 3-INCH LF	652.0615 SPECIAL 3-INCH LF	REMARKS
CB1	PB1	--	105	--	3 RUNS
PB1	SB1	5	--	--	
PB1	PB2	--	--	140	2 RUNS
PB2	SB2	5	--	--	
PB2	SB3	20	--	--	
PB2	PB3	--	90	--	2 RUNS
PB3	SB4	10	--	--	
PB3	PB4	--	--	170	2 RUNS
PB4	SB5	10	--	--	
PB4	PB5	--	90	--	2 RUNS
PB5	SB6	10	--	--	
PB5	PB6	--	--	120	2 RUNS
PB6	SB7	5	--	--	
PB6	PB7	--	60	--	2 RUNS
PB7	SB8	5	--	--	
PB7	PB8	--	--	210	2 RUNS
PB8	SB9	20	--	--	
PB8	SB10	10	--	--	
PB8	CB1	--	70	--	3 RUNS
INTERSECTION TOTAL:		100	415	640	

PULL BOXES - 76TH & DREXEL

NO.	653.0140 STEEL 24X42 - INCH EACH*	653.0145 STEEL 24X48 - INCH EACH*
PB1	--	1
PB2	1	--
PB3	1	--
PB4	1	--
PB5	1	--
PB6	1	--
PB7	1	--
PB8	--	1
TOTAL:	6	2

* FINAL LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD

ADDITIONAL QUANTITES SHOWN ELSEWHERE

TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRING - 76th & Drexel

FROM	THROUGH	TO	655.0210 CABLE TRAFFIC SIGNAL 3-14 AWG LF	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG LF	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED LF	655.0515 ELECTRICAL WIRE TRAFFIC (NEUTRAL) 10 AWG WHITE LF	655.0515 ELECTRICAL WIRE TRAFFIC (EQUIPMENT GROUNDING) 10 AWG GREEN LF
CB1	PB1	SB1	--	--	50	--	--	--
CB1	PB1, PB2	SB2	--	110	--	150	--	--
CB1	PB1, PB2	SB3	120	--	--	--	--	--
CB1	PB1, PB2, PB3	SB4	--	--	160	--	--	--
CB1	PB1, PB2, PB3, PB4	SB5	--	--	250	300	--	--
CB1	PB8, PB7, PB6, PB5	SB6	--	250	--	--	--	--
CB1	PB8, PB7, PB6	SB7	--	180	--	220	--	--
CB1	PB8, PB7	SB8	--	--	140	--	--	--
CB1	PB8	SB9	--	--	50	100	--	--
CB1	PB8	SB10	40	--	--	--	--	--
CB1	PB1	SB1	--	--	--	--	50	50
SB1	PB1, PB2	SB2	--	--	--	--	80	80
SB2	PB2	SB3	--	--	--	--	30	30
SB3	PB2, PB3	SB4	--	--	--	--	80	80
SB4	PB3, PB4	SB5	--	--	--	--	110	110
SB5	PB4, PB5	SB6	--	--	--	--	70	70
SB6	PB5, PB6	SB7	--	--	--	--	70	70
SB7	PB6, PB7	SB8	--	--	--	--	40	40
SB8	PB7, PB8	SB9	--	--	--	--	130	130
SB9	PB8	SB10	--	--	--	--	30	30
SB10	PB8	CB1	--	--	--	--	40	40
PB1		SB1	--	--	--	--	--	10
PB2		SB2	--	--	--	--	--	10
PB2		SB3	--	--	--	--	--	20
PB3		SB4	--	--	--	--	--	20
PB4		SB5	--	--	--	--	--	10
PB5		SB6	--	--	--	--	--	10
PB6		SB7	--	--	--	--	--	10
PB7		SB8	--	--	--	--	--	10
PB8		SB9	--	--	--	--	--	20
PB8		SB10	--	--	--	--	--	10
	SUBTOTAL:		160	540	650	770	730	860
	INTERSECTION TOTAL:		160	540	650	770	1590	
			LF	LF	LF	LF	LF	

CONDUIT RIGID NONMETALLIC - 76TH & IMPERIAL

FROM	TO	652.0225 SCHEDULE 40 2-INCH LF	652.0235 SCHEDULE 40 3-INCH LF	652.0615 SPECIAL 3-INCH LF	REMARKS
CB1	PB1	--	60	--	3 RUNS
PB1	SB1	10	--	--	
PB1	PB2	--	--	180	2 RUNS
PB2	SB2	10	--	--	
PB2	PB3	--	30	--	2 RUNS
PB3	SB3	10	--	--	
PB3	SB4	15	--	--	
PB3	PB4	--	--	120	2 RUNS
PB4	SB5	25	--	--	
PB4	SB6	10	--	--	
PB4	PB5	--	70	--	2 RUNS
PB5	SB7	15	--	--	
PB5	PB6	--	--	200	2 RUNS
PB6	SB8	10	--	--	
PB6	PB7	--	40	--	2 RUNS
PB7	SB9	5	--	--	
PB7	PB8	--	--	120	2 RUNS
PB8	SB10	10	--	--	
PB8	CB1	--	30	--	3 RUNS
INTERSECTION TOTAL:		120	230	620	
ITEM TOTAL:		325	785	1960	

PULL BOXES - 76TH & IMPERIAL

NO.	653.0140 STEEL 24X42 - INCH EACH*	653.0145 STEEL 24X48 - INCH EACH*
PB1	1	--
PB2	1	--
PB3	1	--
PB4	1	--
PB5	1	--
PB6	1	--
PB7	1	--
PB8	1	--
TOTAL:	8	0
ITEM TOTAL:	22	2

* FINAL LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD

TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRING - 76th & Imperial

FROM	THROUGH	TO	655.0210 CABLE TRAFFIC SIGNAL 3-14 AWG LF	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG LF	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED LF	655.0515 ELECTRICAL WIRE TRAFFIC (NEUTRAL) 10 AWG WHITE LF	655.0515 ELECTRICAL WIRE TRAFFIC (EQUIPMENT GROUNDING) 10 AWG GREEN LF
CB1	PB1	SB1	--	--	30	--	--	--
CB1	PB1, PB2	SB2	--	--	120	160	--	--
CB1	PB1, PB2	SB3	--	130	--	--	--	--
CB1	PB1, PB2, PB3	SB4	--	150	--	--	--	--
CB1	PB1, PB2, PB3, PB4	SB5	--	220	--	260	--	--
CB1	PB1, PB2, PB3, PB4	SB6	210	--	--	--	--	--
CB1	PB8, PB7, PB6, PB5	SB7	--	200	--	240	--	--
CB1	PB8, PB7, PB6	SB8	--	--	90	--	--	--
CB1	PB8, PB7	SB9	--	70	--	110	--	--
CB1	PB8	SB10	--	20	--	--	--	--
CB1	PB1	SB1	--	--	--	--	30	30
SB1	PB1, PB2	SB2	--	--	--	--	110	110
SB2	PB2	SB3	--	--	--	--	20	20
SB3	PB2, PB3	SB4	--	--	--	--	40	40
SB4	PB3, PB4	SB5	--	--	--	--	100	100
SB5	PB4	SB6	--	--	--	--	30	30
SB6	PB4, PB5	SB7	--	--	--	--	60	60
SB7	PB5, PB6	SB8	--	--	--	--	120	120
SB8	PB6, PB7	SB9	--	--	--	--	40	40
SB9	PB7, PB8	SB10	--	--	--	--	80	80
SB10	PB8	CB1	--	--	--	--	20	20
PB1		SB1	--	--	--	--	--	10
PB2		SB2	--	--	--	--	--	10
PB2		SB3	--	--	--	--	--	20
PB3		SB4	--	--	--	--	--	20
PB4		SB5	--	--	--	--	--	30
PB4		SB6	--	--	--	--	--	10
PB5		SB7	--	--	--	--	--	20
PB6		SB8	--	--	--	--	--	10
PB7		SB9	--	--	--	--	--	10
PB8		SB10	--	--	--	--	--	10
	SUBTOTAL:		210	790	240	770	650	800
	INTERSECTION TOTAL:		210	790	240	770	1450	
	ITEM TOTAL:		500	2100	1150	2170	4580	
			LF	LF	LF	LF	LF	

3

FIBER OPTIC SPILCE

	678.0300 FIBER OPTIC SPLICE
LOCATION	EACH
CTH U & PUETZ	--
CTH U & DREXEL	4
CTH U & IMPERIAL	4
EXCV1	12
ITEM TOTAL:	20

FIBER OPTIC TERMINATION

	678.0400 FIBER OPTIC TERMINATION
LOCATION	EACH
CTH U & PUETZ	4
CTH U & DREXEL	4
CTH U & IMPERIAL	4
ITEM TOTAL:	12

3

COMMUNICATION VAULTS & PULL BOXES

NO.	653.0180 PULL BOXES STEEL COMMUNICATIONS (24X42-INCH) EACH*	SPV.0060.10 COMMUNICATION VAULT 24X36 - INCH EACH*
CV1	--	1
CPB2	1	--
CPB3	1	--
CPB4	1	--
CPB5	1	--
CPB6	1	--
CPB7	1	--
CV8	--	1
CPB9	1	--
CPB10	1	--
CPB11	1	--
CPB12	1	--
CPB13	1	--
CV14	--	1
CPB15	1	--
CPB16	1	--
CPB17	1	--
CPB18	1	--
CPB19	1	--
CPB20	1	--
CV21	--	1
CPB22	1	--
CPB23	1	--
ITEM TOTAL:	19	4

* FINAL LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD

FIBER OPTIC INTERCONNECT

FROM	TO	652.0215 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4 INCH LF	671.0112 CONDUIT HDPE 1-DUCT 2-INCH LF	671.0212 CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-INCH LF	SPV.0090.04 TRACER WIRE 12 AWG LF	SPV.0090.09 FURNISH AND INSTALL 12SM FIBER OPTIC COMMUNICATIONS CABLE LF
CB1	CV1	25	--	--	30	100
CV1	CPB2	--	130	--	130	160
CPB2	CPB3	--	480	--	480	510
CPB3	CPB4	--	360	80	440	470
CPB4	CPB5	--	460	--	460	490
CPB5	CPB6	--	405	70	480	500
CPB6	CPB7	--	360	70	430	460
CPB7	CV8	--	--	80	90	110
CV8	CPB9	--	165	--	170	190
CPB9	CPB10	--	485	--	490	510
CPB10	CPB11	--	470	--	470	500
CPB11	CPB12	--	370	60	430	460
CPB12	CPB13	--	455	--	460	480
CPB13	CV14	--	360	135	500	520
CV14	CPB15	--	--	100	100	130
CPB15	CB3	15	--	--	20	50
CV14	CPB16	--	290	--	290	320
CPB16	CPB17	--	440	--	440	470
CPB17	CPB18	--	410	90	500	530
CPB18	CPB19	--	485	--	490	510
CPB19	CPB20	--	470	--	480	500
CPB20	CV21	--	425	75	500	550
CV21	CB4	15	--	--	10	60
CV21	CPB22	--	450	--	460	490
CPB22	CPB23	--	410	90	520	570
CPB23	EXCV1	--	--	60	70	100
ITEM TOTAL:		55	7880	910	8940	9740

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
2160-10-20	4.1	11
FEDERAL PROJECT NUMBER ----------		

PLAT OF RIGHT-OF-WAY REQUIRED FOR

SOUTH 76TH STREET CTH U

600' N OF HIGH ST. CARTER BLVD.

CTH U MILWAUKEE CO.

CONSTRUCTION PROJECT NUMBER
2160-10-70

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	**CURVE DATA**	
HOUSE	H	LONG CHORD	LCH
HIGHWAY EASEMENT	H.E.	LONG CHORD BEARING	LCB
LAND CONTRACT	LC	RADIUS	R
MONUMENT	MON.	DEGREE OF CURVE	D
PAGE	P.	CENTRAL ANGLE OR DELTA	DELTA
PERMANENT LIMITED EASEMENT	PLE	LENGTH OF CURVE	L
PROPERTY LINE	PL	TANGENT	TAN
RECORDED AS	(100')		

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN (1" UNLESS NOTED)

R/W MONUMENT ● =(SET)

R/W STANDARD ▲ =(SET)

SIGN (SIGN)

SECTION CORNER MONUMENT

SECTION CORNER SYMBOL

FEE (HATCH VARIES)

TEMPORARY LIMITED EASEMENT

PERMANENT LIMITED EASEMENT

R/W BOUNDARY POINT 600

PARCEL NUMBER 102

UTILITY PARCEL NUMBER 192

SIGN NUMBER (OFF PREMISE) 21-1

BUILDING

PROPOSED R/W LINE

EXISTING H.E. LINE

PROPERTY LINE

LOT & TIE LINES

SLOPE INTERCEPTS

CORPORATE LIMITS

NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)

NO ACCESS (BY ACQUISITION)

NO ACCESS (BY STATUTORY AUTHORITY)

SECTION LINE

QUARTER LINE

SIXTEENTH LINE

EXISTING CENTERLINE

PROPOSED REFERENCE LINE

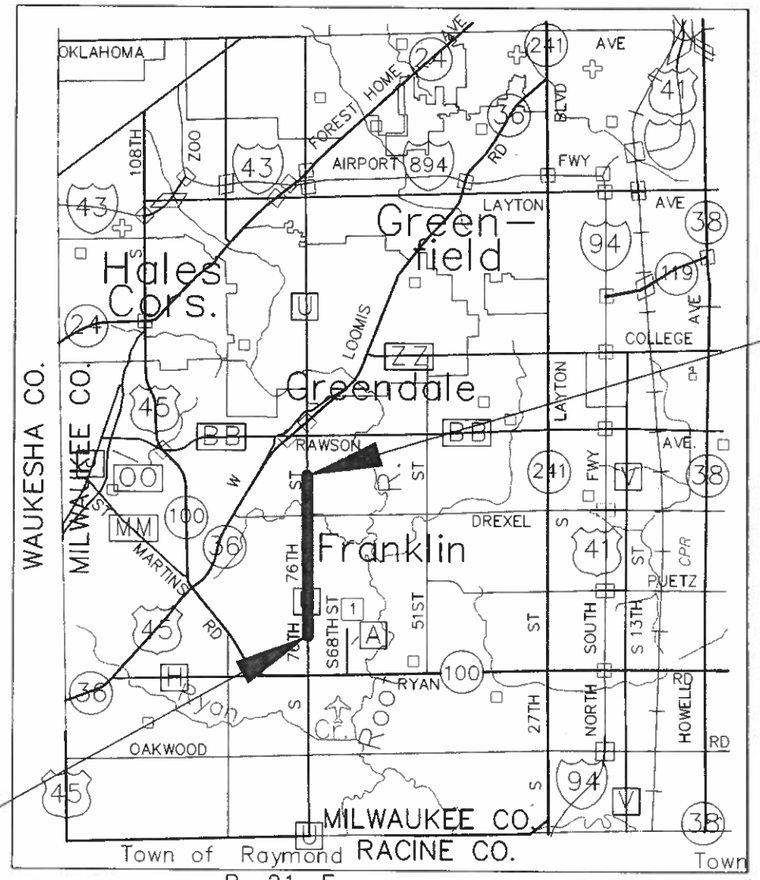
PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

	NON COMPENSABLE	COMPENSABLE
WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD	OH	
TRANSMISSION LINES ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
ELECTRICAL PEDESTAL		
ELECTRICAL TRANSFORMER		
GUY WIRE		
MANHOLE		
MANHOLE TELEPHONE		
POWER POLE		
TELEPHONE BOX		
TRAFFIC SIGNAL POLE		
VALVE (WATER, GAS)		
VENT		

T-6-N

T-5-N



R-21-E R-22-E

END RELOCATION ORDER
STA. 250+53.36
Y 338,871.60
X 2,533,292.15
1260.42' N. OF AND 5.73' W. OF THE E 1/4 CORNER OF SEC. 9, T5N, R21E.

BEGIN RELOCATION ORDER
STA. 143+85.54
Y 328,204.08
X 2,533,3669.83
1481.14' S. OF AND 12.27' E. OF THE NE CORNER OF SEC. 21, T5N, R21E.

NOTES

COORDINATES AND BEARINGS ON THIS PLAT ARE ORIENTED TO THE WISCONSIN COORDINATE SYSTEM SOUTH ZONE (NORTH AMERICAN DATUM OF 1927). ALL PLAT DISTANCES ARE GROUND LENGTH AND MAY BE CONVERTED TO GRID LENGTH BY MULTIPLYING THE DISTANCE BY THE GRID FACTOR PROVIDED ON THE DETAIL SHEETS.

RIGHT OF WAY MONUMENTS ARE TYPE 2 AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER, BY MILWAUKEE COUNTY.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

N

LAYOUT
SCALE 0 0.95 MI.

TOTAL NET LENGTH OF CENTERLINE = 2.00 MI.

ORIGINAL PLANS PREPARED BY
KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
MILWAUKEE, WISCONSIN
414.351.6668

WISCONSIN GARY D. SCHNEIDER S-2297 West Bend Wisconsin LAND SURVEYOR

06/15/2012 (Date) (Signature)

REVISION	DATE
1.	06/08/12
2.	11/01/13

MILWAUKEE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

APPROVED FOR HIGHWAY PURPOSES

DATE 11/4/13

DIRECTOR OF TRANSPORTATION & PUBLIC WORKS

328

E

FILE NAME : S:\Milw_Co\CO_Gov\Transportation\100072-S_76thRW\Survey\DWG\040101_RP.dwg PLOT DATE : 11/4/13 PLOT BY : Raisa Khayting PLOT NAME : ----------

WISDOT/CADDS SHEET 50

2013 NOV -7 A 11:02

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED OR S.F. NEW	EXISTING	TOTAL	TLE ACRES	PLE ACRES	PARCEL NUMBER
1*	4.09	DREXEL 76TH STREET LLC	FEE	2.96	1.54	4.50			1*
2	4.05	LESTER M & JOANNE J BABCOCK	TLE				0.139		2
3	4.05	ROBERT J LASK	TLE				0.099		3
4	4.05	JOSEPH & LE ANN M BANAS	TLE				0.034		4
5	4.04	MILWAUKEE COUNTY	PLE, TLE				0.121	0.360	5
6	4.05	TERI ANN M GUDYNOWSKI	TLE				0.120		6
7	4.05	STEVEN J & ELISABETH S JOYAL	TLE				0.064		7
8	4.05	2 MIKE'S LLC	TLE				0.155		8
9	4.05	TWIN OAKS DEV CORP	TLE				0.072		9
11	4.06	STANLEY & BARBARA CELICHOWSKI	TLE				0.092		11
12	4.06	TUCKAWAY SHORES HOMEOWNERS ASSOCIATION	TLE				0.088		12
14	4.05,4.06	MICHAEL J & JAQUELYN HILLMAN	TLE				0.018		14
16	4.06	JOHN M & LISA M COURY	TLE				0.101		16
17	4.06	DAVID M DORO	TLE				0.013		17
18	4.06	TURNBULL BARBARA REVOCABLE TRUST OF 2005	TLE				0.026		18
19	4.06	TUCKAWAY CREEK CONDOMINIUM HOMEOWNERS ASSOCIATION	TLE				0.247		19
20	4.07	TUCKAWAY MEADOWS, LLC	TLE				0.007		20
21	4.07	NEIL T & LYNN M MAGNER	TLE				0.008		21
22	4.07	MUHAMMAD AFZAL	TLE				0.031		22
23	4.07	GEORGE G & VICTORIA RAKOWSKI	TLE				0.008		23
24	4.07	ROBERT A, JR & TRICIA A MC CUEN	TLE				0.038		24
26	4.07	DAVID ROBERT MATTHEWS AND KATHERINE ANN MATTHEWS	TLE				0.051		26
27	4.07	STEVEN R & DENISE L ANDERSON	TLE				0.063		27
28	4.07	BRIAN L & PATTI J ERICKSON	TLE				0.029		28
29	4.07	MICHAEL K. SULLIVAN	TLE				0.025		29
31	4.07, 4.08	TUCKAWAY PINES CONDOMINIUM ASSOCIATION	TLE				0.087		31
32	4.08	RICKY L & MARIE A SCHARR	TLE				0.064		32
33	4.08	JEROME & JUNE DYBUL	TLE				0.022		33
34	4.08	GREGORY A & ANNE M FOX	TLE				0.097		34
36	4.08	WI TELEPHONE CO OF MILW	TLE				0.076		36
37	4.08	FAIRWAY MEADOWS ASSOCIATES, LLP	TLE				0.253		37
38	4.09	JAMES R RYBACKI & LISA M CHEREK	FEE, TLE	0.11		0.11	0.138		38
39	4.09	BLASE & CATHLEEN CATANESE	TLE				0.061		39
41	4.09	VINCENT P. GALLO IV	TLE				0.029		41
42	4.09	DENNIS F & JOANNE L SCHAEFER	TLE				0.042		42
43	4.09	THOMAS C KYSER, TRUSTEE/T.C.KYSER LIVG TRUST	TLE				0.071		43
45	4.09	JOHN E & DIANNE M TICE	TLE				0.061		45
46	4.09	HOFFMAN 76TH STREET LLC	FEE	0.88	0.13	1.00			46
47	4.09	STEPHEN J SPIDELL	TLE				0.128		47
48	4.09	KEITH K MIXDORF	TLE				0.116		48
49	4.09	MICHAEL R KAMPA & VICTORIA A LE CLOUX	TLE				0.020		49
50	4.09	CHERIE L KAPPUS	TLE				0.030		50
51	4.09	RICHARD A PANKOWSKI & LINDA L CANALES	TLE				0.024		51
52	4.10	TODD & MICHELLE R WILLIAMS	TLE				0.019		52
53	4.10	ROBERT C & LINDA GRISE	TLE				0.015		53
54	4.10	RONALD M & KATHLEEN P ROSENBAUM	TLE				0.071		54
56	4.11	NANCY LUECK LAUBENHEIMER, BARBARA LUECK NIGH, DIANE HEUP KULPA	TLE				0.104		56
57	4.11	NANCY LUECK LAUBENHEIMER, BARBARA LUECK NIGH, DIANE HEUP KULPA	TLE				0.023		57
58	4.11	ROBERT F KARTH REVOC TRUST, ETC.	TLE				0.076		58
59	4.11	RICHARD A & JOANN H KARTH, ETC.	TLE				0.035		59
61	4.11	CARTER GROVE CONDOMINIUM HOMEOWNERS ASSOCIATION	TLE				0.070		61
101	4.05-4.11	AT&T	RELEASE OF RIGHTS						101
102	4.05-4.11	WE ENERGIES (ELECTRIC)	RELEASE OF RIGHTS						102
103	4.06	WE ENERGIES (GAS)	RELEASE OF RIGHTS						103
104	4.07	TIME WARNER ENTERTAINMENT	RELEASE OF RIGHTS						104

• EARLY ACQUISITION

4

4

REVISION DATE
1. 06/08/12
2. 11/01/13

DATE 11/04/2011

SCALE: FEET
0 --- N/A

HWY: S. 76th St. CTH U

COUNTY: MILWAUKEE

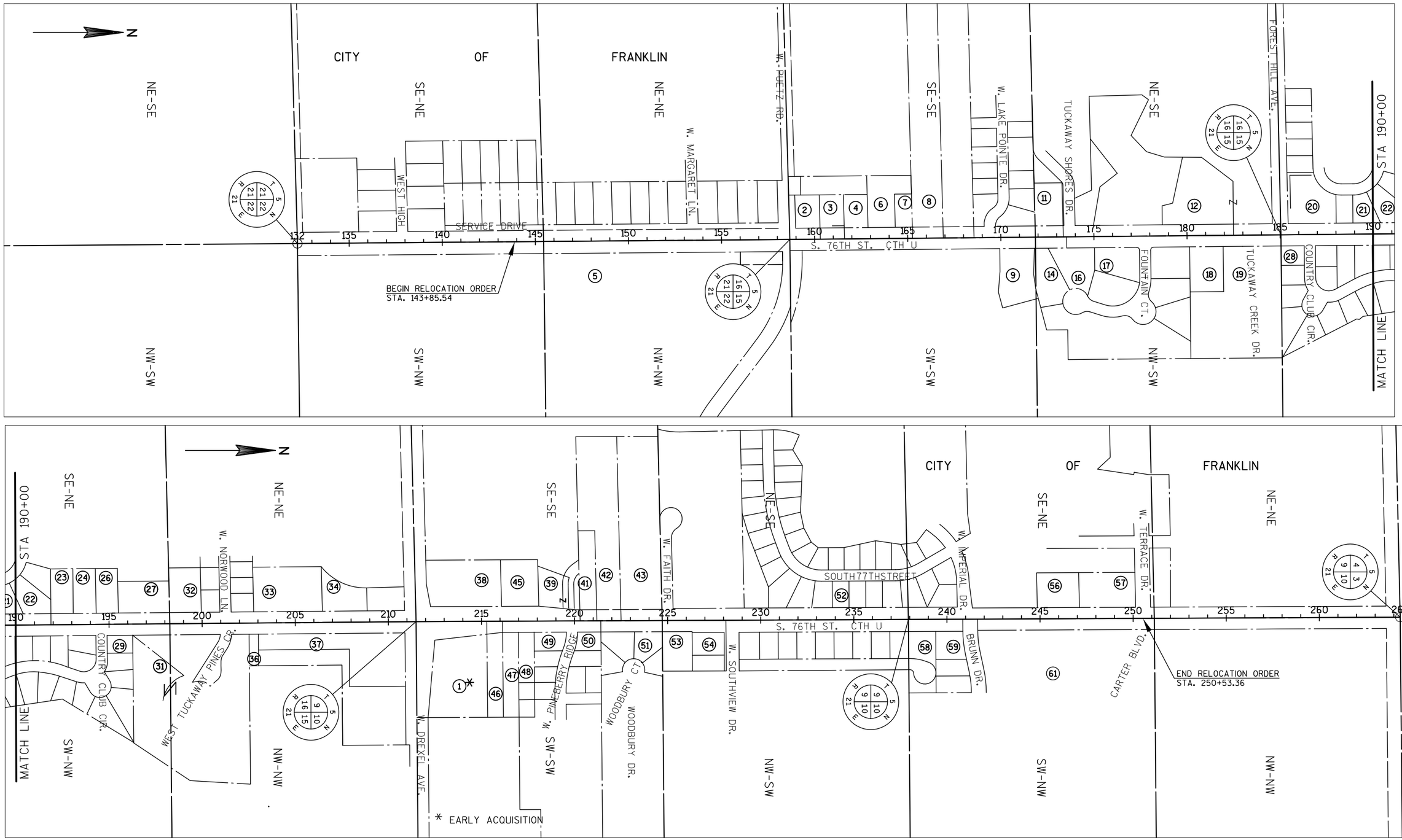
STATE R/W PROJECT NUMBER 2160-10-20

CONSTRUCTION PROJECT NUMBER 2160-10-70

PLAT SHEET 4.02

PS&E SHEET 329

E



REVISION DATE 1. 06/08/12 2. 11/01/13	DATE 11/04/2011	SCALE, FEET 0 250 500	HWY: S. 76th St. CTH U	STATE R/W PROJECT NUMBER 2160-10-20	PLAT SHEET 403
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2160-10-70	PS&E SHEET 330 E

FILE NAME : S:\MILW_CO\CO_GOV\TRANSPORTATION\100072-S_76THRW\SURVEY\DWG\040103_RP.DWG PLOT DATE : 11/5/2013 1:57 PM PLOT BY : RAISA KHAYTINA PLOT NAME : _____ PLOT SCALE : 1 IN:500 FT

WISDOT/CADDS SHEET 75

CITY OF FRANKLIN

GN

SUBDIVISION

1/16 LINE

S88°26'23"W

SECURITY ACRES SUBDIVISION

BLOCK 2

BLOCK 1

PI 12+00.04
Y 329159.10
X 2533161.92

PI 13+11.18
Y 329672.35
X 2533046.51

PI 12+06.10
Y 329674.71
X 2533151.57

W. MARGARET LN.

W. PUETZ RD

R/L

S/L

N88°25'21"E 2658.17'

S88°25'21"W

153+14.99
90.00'

153+74.99
90.00'

158+04.99
90.00'

SLOPE INTERCEPTS

PL

PUBLIC SERVICE STREET

30'

60'

153+46.45 CTH U=
10+00 MARGARET LANE
Y 329164.96
X 2533361.88

158+60.15 CTH U=
10+00 PUETZ RD.
Y 329678.64
X 2533357.62

39.76'

SEE SHEET 4.05

145

150

155

S. 76th ST. CTH U

S0°28'28"E 696.76'

R/L=S/L

65'

N89°31'32"E 65.00'

158+26.97
65.00'

N0°28'28"W 226.97'

40'

N89°19'05"E 49.97'

C1

158+27.15
115'

S89°31'32"W 65.00'

S0°28'28"E 226.95'

156+00.00
134', 65'

158+26.95
134'

134'

PT 8+16.25
Y 329682.14
X 2533541.34

N89°19'05"E 2633.51'

CONC. MON.
Y 329,685.22
X 2,533,357.57
PI 158+66.73
R/L=S/L

BEGIN RELOCATION ORDER
STA. 143+85.54
R/L=1/16 LINE
Y 328204.08
X 2533369.83

S89°18'32"W

147+31.74
77', 65'

77'

TLE
GRADING

151+69.97
77', 65'

SLOPE INTERCEPTS

PLE

CURVE C1
R=681.78'
L=19.03'
CH=19.03'
CHB=S89°52'57"E
Δ=1°35'58"

MILWAUKEE COUNTY

PARCEL 3
CSM 7413

MW-MW

1/16 LINE

CONC. MON.
Y 329,716.57
X 2,535,990.89

PC 6+21.37
Y 329643.28
X 2533730.94

PI 5+33.92
Y 329607.73
X 2533810.84

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	DATE	WIDTH
S 76th STREET	Proj. FAS S 0344(5)	1957	60' (W)
S 76th STREET	CSM 7413	2004	65' (E)
W MARGARET LANE	SECURITY ACRES SUBDIVISION	1955	60'
PUBLIC SERVICE STREET	SECURITY ACRES SUBDIVISION	1955	30'
W PUETZ ROAD (WEST)	SECURITY ACRES SUBDIVISION	1955	60'
W PUETZ ROAD (EAST)	CSM 7413	2004	VARIES

REVISION DATE 1. 06/08/12 2. 11/01/13	DATE 11/04/2011	SCALE, FEET 0 50 100	HWY: S. 76th St. CTH U
	GRID FACTOR		COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 2160-10-20	PLAT SHEET 4.04	
CONSTRUCTION PROJECT NUMBER 2160-10-70	PS&E SHEET 331	E

FILE NAME : S:\MILW_CO\CO_GOV\TRANSPORTATION\100072-S_76THRW\SURVEY\DWG\040104_RP_SHEETS.DWG PLOT DATE : 11/6/13 PLOT BY : RAISA KHAYTINA PLOT NAME : _____ PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 75

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	DATE	WIDTH
S 76th STREET	FAS S 0344(5), CSM 594, OLD ORCHARD SUBD.	1957, 1966, 1992	60' (W)
S 76th STREET	Proj. FAS S 0344(5)	1957	60' (E)
W LAKE POINTE DRIVE	OLD ORCHARD SUBDIVISION	1992	60'
W PUETZ ROAD (WEST)	WIS. STATE STATUTE 82.18	-	33'
W PUETZ ROAD (WEST)	CSM 7922	2007	65'
W PUETZ ROAD (EAST)	TWIN OAKS OF TUCKAWAY, A CONDOMINIUM COMMUNITY	1988	VARIES

CONC. MON.
Y 329,612.04
X 2,530,700.41

(101) AT&T
PARCEL 2
DOC. 6951273
PARCEL 9
DOC. 3571246

(102) WISCONSIN ELECTRIC POWER CO. - ELECTRIC
PARCEL 3
DOC. 1826194
PARCEL 4
DOC. 1826195
PARCEL 6, 7
DOC. 2395926
PARCEL 8
DOC. 3097612
PARCEL 9
DOC. 3571246

(103) WISCONSIN ELECTRIC POWER CO. - GAS
PARCEL 9
DOC. 6119409

CONC. MON.
Y 329,685.22
X 2,533,357.57
PI 158+66.73
R/L=S/L

CONC. MON.
Y 329,716.57
X 2,535,990.89

CITY OF FRANKLIN

SE-SE

OLD ORCHARD SUBDIVISION

W. PUETZ RD

W. LAKE POINTE DR.

TWIN OAK BLVD. (PRIVATE)

HOLLYANN LN. (PRIVATE)

S. 76th ST. CTH U

TWIN OAKS OF TUCKAWAY, A CONDOMINIUM COMMUNITY

LOT 1 CSM 7922

LOT 2 CSM 7922

LOT 1 CSM 594

PARCEL 2 CSM 6424

(2) BABCOCK

(3) LASK

(4) BANAS

(6) GUDYNOWSKI

(7) JOYAL

(8) 2 MIKE'S LLC

(9) TWIN OAKS DEV CORP

(14)

10'x42' AT&T EASEMENT DOC.6623952

DOC.5345017 PRIVATE WELL EASE.

WEPCO BLANKET ELEC. EASEMENT ALONG CTH U DOC.1826194

WEPCO BLANKET EASEMENT DOC.2395926

WEPCO BLANKET EASEMENT DOC.3097612

6' WEPCO/AT&T EASEMENT DOC.3571246

10' ELECTRIC EASEMENT DOC.6307735

10' ELECTRIC EASEMENT DOC.6124598

10' WEPCO/AT&T DOC.6124598

SAN. STORM SEWER &WM. EASE(CITY/FRANKLIN) DOC.6158914

DOC.6119409 10'WEPCO GAS EASEMENT (CENTERED ON GASLINE)

SLOPE INTERCEPTS

TLE GRADING

TLE DRIVES

TLE DRIVE

TLE GRADING & DRIVE

SEE SHEET 4.04

SEE SHEET 4.06

1/16 LINE

PI 11+32.17
Y 330778.16
X 2533221.68

PC 10+62.82
Y 330761.70
X 2533284.51

PI 9+27.04
Y 330762.74
X 2533420.29

169+43.74 CTH U= 10+00.00 LAKE POINTE DR.
Y 330762.18
X 2533347.33

171+85.56 R/L=1/16 LINE

REVISION DATE 1. 06/08/12	DATE 11/04/2011	SCALE, FEET 0 50 100	HWY: S. 76th St. CTH U
	GRID FACTOR		COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 2160-10-20	PLAT SHEET 4.05	
CONSTRUCTION PROJECT NUMBER 2160-10-70	PS&E SHEET 332	E

FILE NAME : S:\MILW_CO\CO_GOV\TRANSPORTATION\100072-S_76THRW\SURVEY\DWG\040104_RP_SHEETS.DWG PLOT DATE : 11/6/13 PLOT BY : RAISA KHAYTINA PLOT NAME : _____PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 75

CITY OF FRANKLIN

(101) AT&T
PARCEL 12 DOC. 6214184
PARCEL 14, 16 DOC. 3567797 DOC. 7797961
PARCEL 17 DOC. 3567797
PARCEL 18, 19 DOC. 3567798
PARCEL 19 DOC. 5762463

(102) WISCONSIN ELECTRIC POWER CO. ELECTRIC
PARCEL 12 DOC. 6214184 DOC. 3334631
PARCEL 14, 16 DOC. 3567797 DOC. 7797961
PARCEL 17 DOC. 3567797
PARCEL 18, 19 DOC. 3567798
PARCEL 19 DOC. 5762463

(103) WISCONSIN ELECTRIC POWER CO. GAS
PARCEL 12 DOC. 6230425 DOC. 6230424

SEE SHEET 4.05

TUCKAWAY SHORES DR.

PI 12+50.01 Y 331183.93 X 2533093.31

TUCKAWAY SHORES CONDO

(11) CELICHOWSKI UNPLATTED LANDS

171+83.65 122' TLE DRIVE

PI 11+24.69 Y 331185.72 X 2533218.61

172+48.65 122', 60'

173+39.63 60'

173+99.63 60.00'

12' WEPCO/AT&T EASEMENT APPROX.LOC. DOC.5815264

10' WEPCO EASEMENT APPROX. LOC. DOC.6230424

WEPCO BLANKET EASEMENT OVER/ACC. PREMS IN NE/SE16 DOC.3334631

TUCKAWAY SHORES CONDOMINIUMS ADD. 6

TUCKAWAY SHORES CONDOMINIUMS ADD. 5

25' SANITARY & WATERMAIN EASEMENT

10' WEPCO EASEMENTG APPROX. LOC. DOC.6230424

10' UTILITY EASEMENT

doc.5994403 WEPCO/AT&T)

12' WEPCO/AT&T EASEMENT DOC.6214184,

10' WEPCO EASEMENT APPROX. LOC. DOC.6230424

12' WEPCO/AT&T EASEMENT DOC.6214184,

SLOPE INTERCEPTS

179+70.00 75', 60'

TLE GRADING

(12) TUCKAWAY SHORES HOMEOWNERS ASSOCIATION

10' WEPCO EASEMENT APPROX.LOC. DOC.6230425

12' WEPCO/AT&T EASEMENT DOC.6214184,

TUCKAWAY SHORES CONDOMINIUMS

180+79.00 75', 60'

182+49.47 68', 60'

TLE GRADING

12' WEPCO/AT&T DOC.5537706

WEPCO/AT&T DOC.5571238

183+58.40 73',68'

184+58.41 73'

184+58.58 60'

W. FOREST HILL AVE.

CONC. MON. Y 332262.03 X 2530676.01

CONC. MON. Y 332,322.76 X 2,533,332.49 PI 185+04.39 CTH U= PI 10+00.00 FOREST HILL AVE.

171+84.62

171+85.56 R/L=1/16 LINE

173+69.70 CTH U= 10+00.00 TUCKAWAY SHORES DR. Y 331188.12 X 2533343.28

177+73.77 CTH U= 10+00.00 FOUNTAIN CT. Y 331592.17 X 2533339.44

183+44.37 CTH U= 10+00.00 TUCKAWAY CREEK DR. Y 332162.74 X 2533334.01

S. 76th ST. CTH U

6' WEPCO/ATT&T EASEMENT DOC.3567797 (PREMISE2574445)

10' WEPCO/AT&T/TW EASEMENT DOC.7797961

30' PRIVATE PLANTING SCREEN

12' UTILITY EASEMENT

8.00'

172+62.16 78'

172+53.03 60'

172+58.10 70'

175+75.00 68', 60'

175+02.78 68', 60'

TLE GRADING

175+02.68 78', 60'

177+29.16 60.00'

177+44.16 75.00'

PI 8+75.09 Y 331593.68 X 2533464.34

PI 8+00.00 Y 331594.68 X 2533539.42

SLOPE INTERCEPTS

12' WEPCO/AT&T/TW EASEMENT DOC.7797961

(14) HILLMAN

12' UTILITY EASEMENT

TUCKAWAY

8 DOC.6549846 10'(WEPCO/AT&T)

(16) COURY

(17) DORO

9

10

7

1

S89°27'19"W 534.39'

S0°32'41"E R/L=S/L

1001.71'

1318.83'

S88°31'53"W

S89°21'16"W 1/16 LINE

FOUNTAIN CT.

30' PRIVATE PLANTING SCREEN

178+04.16 75.00'

178+19.16 60.00'

20' STORM SEWER EASEMENT

OUTLOT 1

DOWNS

15X25' WEPCO EASEMENT DOC.6386169

STORM EASEMENT (OVER/ACC. PLAT) DOC.7585181

12' UTILITY EASEMENT

doc.7797961 elec.etc.ease. width varies(WEPCO/AT&T/TW)

doc.7859166 storm ease(City/Fr

NW-SW

6' WEPCO/ATT&T EASEMENT. DOC.3567798 (PREMISE2574445)

N89°27'19"E 60.00'

181+93.24 60.00'

181+93.27 70.00'

391.39'

254.92'

6' WEPCO/AT&T EASEMENT DOC.3567798 PREMISE2574445

181+13.00 75', 60'

180+38.00 75', 60'

TLE GRADING, DRIVE

PARCEL 1 CSM 4254

(18) TURNBULL REVOC TRUST OF 2005

N89°18'36"E

PI 8+50.00 Y 332164.59 X 2533484.00

182+98.00 153' 70'

183+90.00 153' 70'

185+04.51 60.00'

10.00'

185+04.33 70.00'

TLE GRADING

TLE GRADING, DRIVE

TLE DRIVE

12' WEPCO/AT&T EASEMENT DOC.5762463

TUCKAWAY CREEK DR. (PRIVATE)

TUCKAWAY CONDOMINIUM

CREEK

12' WEPCO/AT&T EASEMENT DOC.5762463

(19) TUCKAWAY CREEK CONDOMINIUMS

N89°23'27"E 2640.22'

CONC. MON. Y 332,350.83 X 2,535,972.56

SEE SHEET 4.07

N88°41'25"E 2657.17'

S89°27'17"W

R/L=S/L

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	DATE	WIDTH
S 76th STREET	TUCKAWAY SHORES CONDO'S ADD'N NO. 3 SUBD.	???	60' (W)
S 76th STREET	FAS S 0344(5), TUCKAWAY DOWNS SUBD., CSM 4254	1957, 1999, 1982	60' (E)
TUCKAWAY SHORES DRIVE	TUCKAWAY SHORES CONDO'S ADD'N NO. 3 SUBD.	1999	60'
FOUNTAIN COURT	TUCKAWAY DOWNS SUBD.	1999	60'
W FOREST HILL AVENUE	???		45'

REVISION DATE 1. 06/08/12

DATE 11/04/2011

GRID FACTOR _____

SCALE, FEET 0 50 100

HWY: S. 76th St. CTH U

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 2160-10-20

CONSTRUCTION PROJECT NUMBER 2160-10-70

PLAT SHEET 4.06

PS&E SHEET 333

E

FILE NAME : S:\MILW_CO\CO_GOV\TRANSPORTATION\100072-S_76THRW\SURVEY\DWG\040104_RP_SHEETS.DWG PLOT DATE : 11/6/13 PLOT BY : RAISA KHAYTINA PLOT NAME : _____ PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 75

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	DATE	WIDTH
S 76th STREET	Proj. FAS S 0344(5) & CSM 578 & CSM 5406	1957 & 1966 & 1990	60' (W)
S 76th STREET	COUNTRY CLUB ESTATES SUBDIVISION	1990	60' (E)
W FOREST HILL AVENUE	???		40'
COUNTRY CLUB CIRCLE	Proj. FAS S 0344(5) & COUNTRY CLUB ESTATES SUBDIVISION	1957, 1990	60'

CITY OF FRANKLIN

CONC. MON.
Y 332262.03
X 2530676.01

(101) AT&T

PARCEL 20
DOC. ???
PARCEL 21, 22
DOC. 9181895
PARCEL 28
DOC. 6454279
DOC. 3567790
PARCELS 29,31
DOC. 3567790
PARCEL 31
DOC. 3382880

(102) WISCONSIN ELECTRIC POWER CO. ELECTRIC

PARCELS 21, 22
DOC. 9181895
PARCELS 21-24, 26,27
DOC. 2712189 BLANKET
PARCELS 28,29
DOC. 6454279
DOC. 3567790
PARCELS 29,31
DOC. 3567790
PARCEL 31
DOC. 3382880

CONC. MON.
Y 332,322.76
X 2,533,332.49
PI 185+04.39 CTH U=
PI 10+00.00 FOREST HILL AVE.

(104) TIME WARNER ENTERTAINMENT

PARCEL 21, 22
DOC. 9181895

CONC. MON.
Y 332,350.83
X 2,535,972.56

W. FOREST HILL AVE. — N88°41'25"E 2657.17' R/L=S/L — S88°41'25"W

W. WINDRUSH LN.
doc.9181895 12' WEPCO/AT&T/TW
15' WEPCO/AT&T/TW EASEMENT DOC.9181895
doc.9181895 15' WEPCO/AT&T/TW approx.location
doc.2712189 BLANKET poles,etc betw: U/bldgs SENE16 WEPCO
20' STORM WATER MAIN EASEMENT GRANTED TO THE CITY OF FRANKLIN
15' STORM WATER MANAGEMENT ACCESS EASEMENT
5' STORM ACC. EASE. DOC.9217303 CITY OF FRANKLIN
30' WIDE LANDSCAPE BUFFERYARD EASEMENT

(20) OUTLOT 1 — TUCKAWAY MEADOWS, LLC
185+43.12 90.00' — S88°41'25"W
N55°15'04"E 36.29'
185+63.54 60.00'
185+43.54 60.00' — S89°30'08"W 60.00'
TLE GRADING

TUCKAWAY MEADOWS
(21) MAGNER
(22) AFZAL
SEE SHEET 4.08
190+00.00 69', 60'
190+35.82 69'
190+39.83 60'
191+88.25 69'
191+88.25 60'
TLE GRADING

SE-NE

WE ENERGIES BLANKET EASEMENT DOC.2712189
(23) RAKOWSKI
(24) MC CUEN
(26) MATTHEWS
(27) ANDERSON
LOT 2 CSM 578
LOT 1 CSM 578
PARCEL 1 CSM 5406
TLE DRIVE
192+55.00 69', 60'
192+95.00 69', 60'
193+45.00 90', 60'
194+00.00 90', 60'
195+10.00 115', 60'
195+49.89 115', 60'
196+00.00 115', 60'
DOC.2712189 BLANKET POLES,ETC BETW: U/BLDGS SENE16 WEPCO
PRIV. DRIVE EASEMENT DOC.4754020
SLOPE INTERCEPTS
S88°38'35"W
S88°38'24"W 1/16 LINE
35.01'

S89°30'01"W — S89°30'08"W 60.00' — S89°30'08"W 60.00'

186+58.73 CTH U= 10+00.00 COUNTRY CLUB CR. Y 332477.09 X 253331.15
194+59.25 CTH U= 10+00.00 COUNTRY CLUB CR. Y 333277.58 X 2533324.19
198+26.59 R/L=1/16 LINE
198+26.66 60.00'

185 — 59.15' — 190 — S0°29'52"E — R/L=S/L — 750.61' — 840.61' — 984.69' — 195 — 1047.22' — 1313.61'

SEE SHEET 4.06

10' OVERHEAD WEPCO/AT&T EASEMENT DOC.6454279
6' WEPCO/AT&T EASEMENT DOC.3567790 PREMS: 1016482
10' OVERHEAD WEPCO/AT&T EASEMENT DOC.6454279
6' WEPCO/AT&T EASEMENT DOC.3567790 PREMS: 3382880
S. 76th ST. CTH U

186+88.95 60'
186+28.96 60'
186+28.96 70'
185+04.51 60.00' 10.00'
185+04.33 70.00'
194+29.08 60.00'
194+89.08 68' 60'
196+26.52 60.00'
196+26.53 68.00'
198+18.00 70', 60'
198+26.67 70'

20' PLANTING STRIP
1 TLE GRADING
SLOPE INTERCEPTS
RETENTION POND EASEMENT (CONSERV. EASE.#1) DOC.6705280

(28) ERICKSON
(29) SULLIVAN
12' WEPCO/AT&T EASEMENT DOC.6454279
12' WEPCO/AT&T EASEMENT DOC.9185821
WEPCO BLANKET EASEMENT UPON/ALG.CTH U DOC.1705533

COUNTRY CLUB CR. — R/L — N89°30'01"E — S89°26'55"W

PI 7+49.99 Y 332481.05 X 2533581.12
PI 8+00.00 Y 333280.19 X 2533524.18
BLANKET WE ENERGIES EASE. DOC.1705533 UPON/ALG.CTH

COUNTRY CLUB ESTATES
TUCKAWAY PINES CONDOMINIUM
(31) TUCKAWAY PINES CONDOMINIUM ASSOCIATION
WETL./CONSERV EASE#1 ACC'L/MAINT.EASE. CITY/FRANKLIN DOC.6705280
12' WE ENERGIES EASE. DOC.8309116 (CSM 7110)

N89°23'27"E 2640.22' — S89°26'25"W 1/16

SW-NW

REVISION DATE 1. 06/08/12 2. 11/01/13	DATE 11/04/2011	SCALE, FEET 0 50 100	HWY: S. 76th St. CTH U	STATE R/W PROJECT NUMBER 2160-10-20	PLAT SHEET 4.07
	GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2160-10-70	PS&E SHEET 334 E

FILE NAME : S:\MILW_CO\CO_GOV\TRANSPORTATION\100072-S_76THRW\SURVEY\DWG\040104_RP_SHEETS.DWG PLOT DATE : 11/4/13 PLOT BY : RAISA KHAYTINA PLOT NAME : _____ PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 75

CITY OF FRANKLIN

(101) AT&T
PARCEL 31
DOC. 3567790
DOC. 2567799
PARCELS 36,37
DOC. 3567800

(102) WISCONSIN ELECTRIC POWER CO. ELECTRIC
PARCELS 32-34
DOC. 2850473
BLANKET
PARCEL 31
DOC. 3567790
DOC. 2567799
PARCELS 36,37
DOC. 3567800
PARCEL 31
DOC. 8309116
PARCELS 36,37
DOC. 1705532

GN

CONC. MON.
Y 334,901.71
X 2,530,654.84
T 5 N R 21 E 16 9 9

CONC. MON.
Y 334,967.07
X 2,533,309.51
PI 211+48.80 CTH U=
PI 10+00.00 DREXEL AVE.
T 5 N R 21 E 16 9 10

CONC. MON.
Y 334,990.67
X 2,535,959.52
T 5 N R 21 E 15 10 10

SEE SHEET 4.07

SEE SHEET 4.09

10' WEPCO/AT&T EASEMENT DOC.5668362

PARCEL 2 CSM 5406

(32) SCHARR

PARCEL 3 CSM 5406

PARCEL 4 CSM 5406

PI 12+00.06
Y 333939.84
X 2533118.43

S88°38'24"W 1/16 LINE

198+25.17 95'

198+25.69 60'

TLE DRIVE

95'

199+05.00 95', 60'

200+95.92 60.00'

PI 10+77.16
Y 333943.59
X 2533241.28

198+26.59 R/L=1/16 LINE

198+26.66 60.00'

35.78'X20' ACC/MAINT STORM SEWER EASEMENT (CITY/FRANKLIN) DOC.8705277

6' WEPCO/AT&T. DOC.3567790,2567799 PREMS: 1016482,3087046

200+97.12 60.00'

PT 9+44.24
Y 333946.50
X 2533375.01

200+95.92 70.00'

8,457.20
Y 333921.85
X 2533445.89

198+26.67 70'

RETENTION POND ACC/MAINT.EASE (CITY/FRANKLIN) DOC.8705275

TLE GRADING

12' WEPCO EASEMENT DOC.8309116 (CSM 7110)

STORM SEWER EASEMENT DOC.8705275

S89°26'25"W 1/16 LINE

TUCKAWAY PINES

W. TUCKAWAY PINES CR.

CONDOMINIUM

(31) TUCKAWAY PINES CONDOMINIUM ASSOCIATION

STORMSEWEASE#1 ACC/MAINT. EASEMENT (CITY/FRANKLIN) DOC.8705275

STORM SEWER EASEMENT DOC.8705275

20' WM. EASEMENT #1 ACC/MAINT. CITY/FRANKLIN DOC.8705278

20' SAN. SEWER ASEMENT #1 ACC/MAINT. CITY/FRANKLIN

DOC.8309116 (CSM 7110) 12' WEPCO

W. NORWOOD LN.

77 FOREST MEADOWS ADDN NO. 1

76

75

201+92.00 60.00'

201+92.00 77', 60'

77'

202+51.52 77'

202+51.57 126'

126'

TLE GRADING

TLE DRIVE

WEPCO BLANKET EASEMENT UPON/ALG. CTH U DOC.1705532

(36) WI TELEPHONE CO OF MILW

CURVE C1
R=90.00'
L=10.08'
CH=10.07'
CHB=N83°38'34"W
Δ=6°24'55"

MN-MN

201+28.11 CTH U=
PI 10+00.00 NORTHWOOD LN.
Y 333946.42
X 2533318.38

1051.68'

897.36'

765.80'

S. 76th ST. CTH U

200 205 210

WEPCO – ELEC. DOC.2850473

PARCEL 1 CSM 3504

(33) JDYBUL

PRIVATE JOINT SAN./WATER EASE. ACROSS PARC.1,CSM2149 FROM DREXEL AVE. (NO LOCATION) DOC.7521974

203+83.00 69', 60'

69'

204+89.00 69', 60'

201+56.00 60.00'

202+77.61 60'

202+51.50 60'

203+01.51 74'

203+01.52 126', 60'

N89°29'23"E

N88°38'35"E

(34) FOX

206+75.00 99', 74'

206+45.85 74'

206+46.06 60'

74'

99'

207+45.00 99', 74'

TLE GRADING

74'

208+22.00 74', 60'

PRIVATE JOINT SAN./WATER EASE. ACROSS PARC.1,CSM2149 FROM DREXEL AVE. (NO LOCATION) DOC.7521974

SLOPE INTERCEPTS

501.84'

S0°29'52"E

R/L=S/L

6' WEPCO/AT&T EASEMENT DOC.3567800 PREMS: 338288

PARCEL 1 CSM 5797

(37) FAIRWAY MEADOWS ASSOCIATES, LLP

PARCEL 2 CSM 5797

DECLAR., EASE., COV, CONDS, RESTRICTS (MUTUAL VEHIC & PED ACCESS & PARK.LOT EASES) DOC.665608

TLE GRADING

SLOPE INTERCEPTS

210+88.81 60'

210+88.82 74'

W. DREXEL AVE.

R/L=S/L

S88°35'23"W 2655.47'

N89°29'23"E 2650.42'

60'

IP

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	DATE	WIDTH
S 76th STREET	Proj. FAS S 0344(5) & CSM 5406	1957 & 1990	60' (W)
S 76th STREET	CSM 5797	1993	60' (E)
W NORWOOD LANE	FOREST MEADOWS ADD. NO. 1	1980	60'
W TUCKAWAY PINES CIRCLE	CSM 7110	2002	60'/VARIES
W DREXEL AVENUE (WEST)	Proj. FAS S 0344(5)	1957	60'
W DREXEL AVENUE (EAST)	CSM 5797	1993	60'

REVISION DATE 1. 06/08/12	DATE 11/04/2011	SCALE, FEET 0 50 100	HWY: S. 76th St. CTH U	STATE R/W PROJECT NUMBER 2160-10-20	PLAT SHEET 4.08	
	GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2160-10-70	PS&E SHEET 335	E

FILE NAME : S:\MILW_CO\CO_GOV\TRANSPORTATION\100072-S_76THRW\SURVEY\DWG\040104_RP_SHEETS.DWG PLOT DATE : 11/6/13 PLOT BY : RAISA KHAYTINA PLOT NAME : _____PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 75

CITY OF FRANKLIN

CONC. MON.
Y 334,901.71
X 2,530,654.84

(101) AT&T

PARCEL 44
DOC. 3567786
DOC's. (2212387, 705531, 1826190)
BLANKETS
PARCELS 46 & 47
DOC. 3567787
DOC's. (2212387, 705531, 1826190)
BLANKETS
PARCEL 48
DOC. 3567788
DOC's. (2212387, 705531, 1826190)
BLANKETS
PARCEL 49
DOC. 3567789
DOC. 6516237
DOC. 6538120
PARCEL 51
DOC. 6419420

CONC. MON.
Y 334,967.07
X 2,533,309.51
PI 211+48.80 CTH U=
PI 10+00.00 DREXEL AVE.

(102) WISCONSIN ELECTRIC POWER CO. ELECTRIC

PARCELS 38,45,39,41-43
DOC. 1716850
BLANKET
PARCEL 44
DOC. 3567786
DOC. 2992154
DOC's. (2212387, 1705531, 1826190)
BLANKETS
PARCELS 46,47,50
DOC. 3567787
DOC's. (2212387, 1705531, 1826190)
BLANKETS
PARCEL 48
DOC. 3567788
DOC's. (2212387, 1705531, 1826190)
BLANKETS
PARCEL 49,50
DOC. 3567789
DOC. 6516237
PARCEL 51
DOC. 6419420

CONC. MON.
Y 334,990.67
X 2,535,959.52

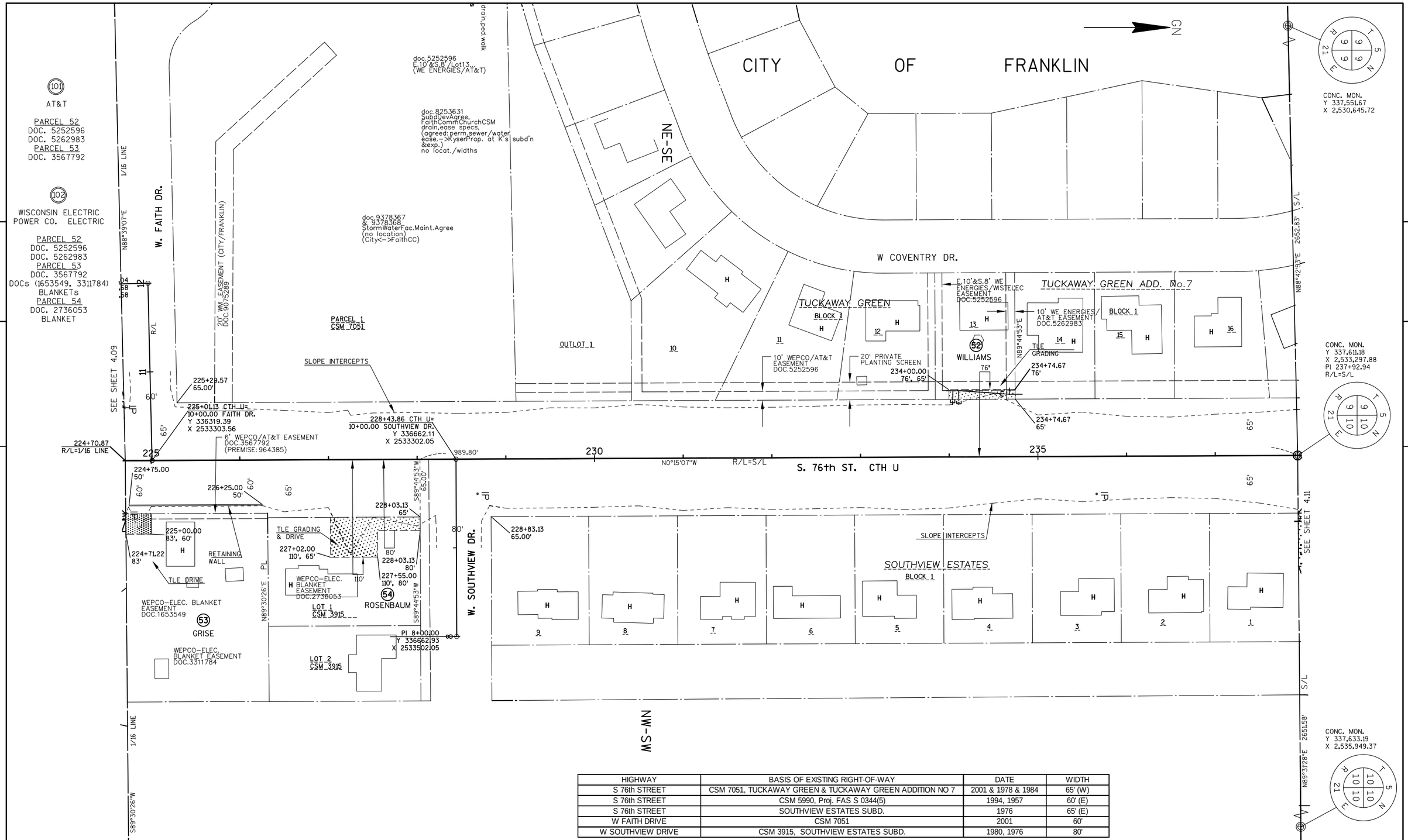
HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	DATE	WIDTH
S 76th STREET	CSM 5320,CSM 3416, Proj. FAS S 0344(5)	1989, 1978 & 1957	80', VARIES, 60' (W)
S 76th STREET	CSM 5990 & Proj. FAS S 0344(5) & WOODBURY ESTATES & WOODBURY ESTATES ADD'N NO. 1	1994 & 1957 & 1990 & 1991	60' (E)
W DREXEL AVENUE (WEST)	CSM 5320	1989	VARIES/60'
W DREXEL AVENUE (EAST)	Proj. FAS S 0344(5)	1957	VARIES
W PINEBERRY RIDGE	WOODBURY ESTATES ADD'N NO. 1	1991	60'

REVISION DATE 1. 06/08/12 2. 11/01/13	DATE 11/04/2011	SCALE, FEET 0 50 100	HWY: S. 76th St. CTH U
	GRID FACTOR _____		COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 2160-10-20	PLAT SHEET 409
CONSTRUCTION PROJECT NUMBER 2160-10-70	PS&E SHEET 336 E

FILE NAME : S:\MILW_CO\CO_GOV\TRANSPORTATION\100072-S_76THRW\SURVEY\DWG\040104_RP_SHEETS.DWG PLOT DATE : 11/4/13 PLOT BY : RAISA KHAYTINA PLOT NAME : _____ PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 75



HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	DATE	WIDTH
S 76th STREET	CSM 7051, TUCKAWAY GREEN & TUCKAWAY GREEN ADDITION NO 7	2001 & 1978 & 1984	65' (W)
S 76th STREET	CSM 5990, Proj. FAS S 0344(5)	1994, 1957	60' (E)
S 76th STREET	SOUTHVIEW ESTATES SUBD.	1976	65' (E)
W FAITH DRIVE	CSM 7051	2001	60'
W SOUTHVIEW DRIVE	CSM 3915, SOUTHVIEW ESTATES SUBD.	1980, 1976	80'

REVISION DATE 1. 06/08/12	DATE 11/04/2011	SCALE, FEET 0 50 100	HWY: S. 76th St. CTH U	STATE R/W PROJECT NUMBER 2160-10-20	PLAT SHEET 4.10
	GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2160-10-70	PS&E SHEET 337 E

FILE NAME : S:\MILW_CO\CO_GOV\TRANSPORTATION\100072-S_76THRW\SURVEY\DWG\040104_RP_SHEETS.DWG PLOT DATE : 11/6/13 PLOT BY : RAISA KHAYTINA PLOT NAME : _____ PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 75

CITY OF FRANKLIN

S. 77th ST. CTH U

S. 76th ST. CTH U

W. IMPERIAL DR.

W. TERRACE DR.

W. CARTER BLVD.

BRUNN DR.

SE-NE

SW-NW

WHITNALL PARK TERRACE CONDOMINIUM

CARTER GROVE CONDOMONIUM

CARTER GROVE CONDOMINIUM - PHASE IX

CONC. MON.
Y 337,551.67
X 2,530,645.72

CONC. MON.
Y 337,611.18
X 2,533,297.88
PI 237+92.94
R/L=S/L

CONC. MON.
Y 337,633.19
X 2,535,949.37

(101) AT&T

PARCELS 58, 59
DOC. 3567793

(102) WISCONSIN ELECTRIC POWER CO. ELECTRIC

PARCEL 58
DOC. 3567793
DOC. 6549853
DOC. 1653548
(BLANKET)

PARCEL 59
DOC. 3567793
DOC. 1653548
(BLANKET)

(56) LAUBENHEIMER

LOT 1 CSM 1048

LOT 2 CSM 1048

(57) LAUBENHEIMER

doc.2836104 poles,etc. over/acc. prems: SENE9 (WE ENERGIES)

doc.4412259 private,well ease. burdens [ ] benefits [ ] (no location)

PI 13+29.88
Y 337882.15
X 2532978.48

PC 12+00.07
Y 337904.93
X 2533096.54

241+37.07
60.00'

245+85.00
115', 60'

246+55.00
115', 72'

247+11.50
72'

247+11.45
75'

247+77.00
75', 60'

247+11.72
60'

250+13.72
60.00'

250+93.73
60.00'

240+55.97
65.00'

240+93.01 CTH U=
10+00.00 IMPERIAL DR.
Y 337911.25
X 2533296.52

241+00.00 CTH U=
10+00.00 BRUNN DR.
Y 337918.24
X 2533296.48

238+48.18
65.00'

237+93.18
65.00'

240+85.08
65.00'

239+39.81
90', 65'

238+48.40
125', 65'

240+00.00
90', 65'

237+93.40
125.00'

241+65.06
60.00'

242+00.00
79', 60'

243+00.00
79', 60'

246+00.00
67', 60'

247+62.00
67', 60'

PI 71+91.44
Y 337962.52
X 2535500.29

6' WEPCO/AT&T EASEMENT DOC.3567793

TLE DRIVE

TLE GRADING

TLE GRADING & DRIVES

20' PRIVATE PLANTING SCREEN

SLOPE INTERCEPTS

BLANKET WEPCO-ELEC. EASEMENT UPON/ALG CTH U, NW10 DOC.1653548

12' WEPCO EASEMENT DOC.6549853 P1,CSM5489

10' WEPCO EASEMENT DOC.6418579

PARCEL 1 CSM 7151

PARCEL 2 CSM 5489

PARCEL 3 CSM 7151

PARCEL 2

OUTLOT 1

(58) KARTH REVOC TRUST

(59) KARTH

(61) CARTER GROVE CONDOMINIUM

PLE DOC.6633890 2160-03-21,P.40

END RELOCATION ORDER
STA. 250+53.36
R/L=1/16 LINE
Y 338871.60
X 533292.15

DOC.6633890 PLE-DRAINAGE 2160-03-21,P.40. E.50'/W.110'/S.60'/N.160', LOT15, BLK1, KARTHEST'S ADD.#1

doc.6549854 10' strips starting 208'E/(NWcor)1/4Blk1 (WE ENERGIES/AT&T)

SEE SHEET 4.10

1/16 LINE

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	DATE	WIDTH
S 76th STREET	TUCKAWAY GREEN & TUCKAWAY GREEN ADD'N NO. 7	1978, 1984	65' (W)
S 76th STREET	Proj. FAS S 0344(5) & S-0371(7)	1957 & ???	60' (W)
S 76th STREET	CSM 1048	1969	70' (W)
S 76th STREET	CSM 5489	1990	65' (E)
S 76th STREET	Proj. FAS S 0344(5) & S-0371(7) & CSM 3915	1957 & ??? & 1980	60' (E)
W IMPERIAL DRIVE	TUCKAWAY GREEN ADD'N NO. 7	1984	66', VARIES
BRUNN DRIVE	KARTH ESTATES ???		80'
W TERRACE DRIVE	??? WHITNALL PLACE TERRACE CONDOMINIUM ???		80'

REVISION DATE 1. 06/08/12

DATE 11/04/2011

GRID FACTOR _____

SCALE, FEET 0 50 100

HWY: S. 76th St. CTH U

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 2160-10-20

CONSTRUCTION PROJECT NUMBER 2160-10-70

PLAT SHEET 4.11

PS&E SHEET 338 E

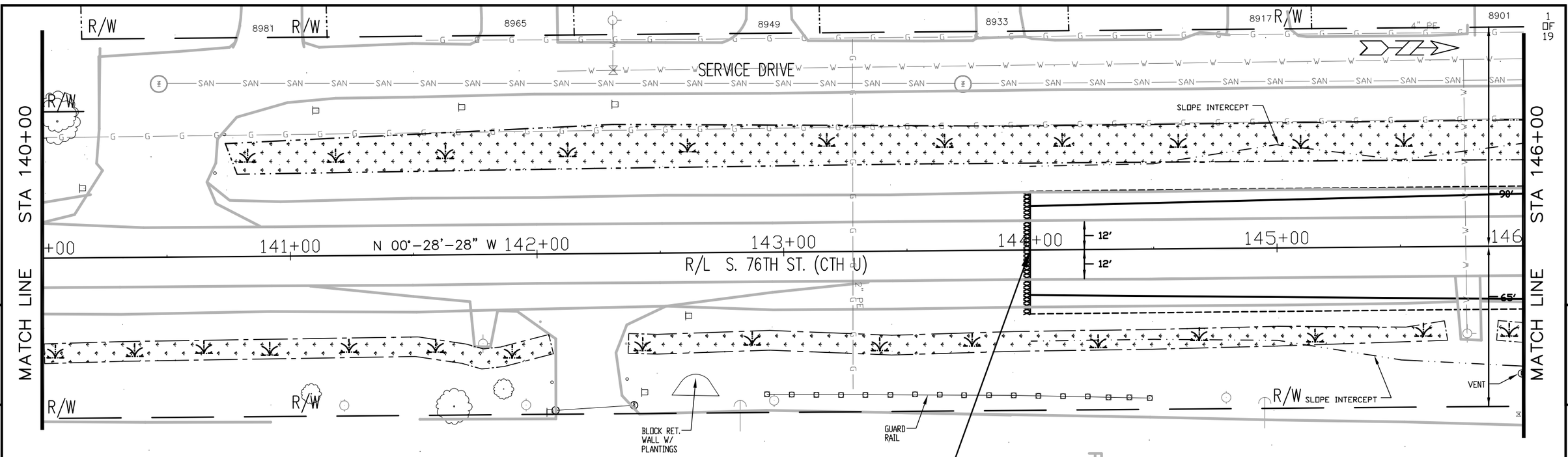
FILE NAME : S:\MILW_CO\CO_GOV\TRANSPORTATION\100072-S_76THRW\SURVEY\DWG\040104_RP_SHEETS.DWG

PLOT DATE : 11/6/13

PLOT BY : RAISA KHAYTINA

PLOT NAME : _____ PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 75



SCALES:
1" = 40' HOR
1" = 5' VER

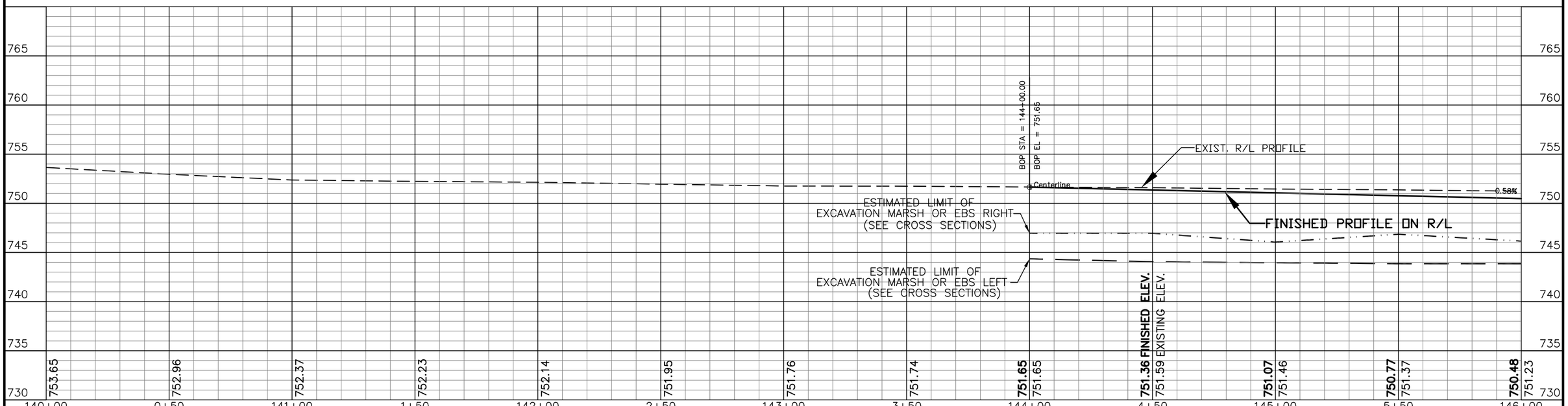
LEGEND

WETLAND/POND

CURB RAMP, TYPE 4B1 WITH DETECTABLE WARNING FIELD

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
1	158+66.73, R/L	BRASS PLUG; SEC. CORNER, PUETZ RD.	761.70
2	162+36.88, 60.36' RT	RR SPIKE PP #59-2236	773.36



REVISION DATE: 12/9/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 339 E

MATCH LINE STA 146+00

MATCH LINE STA 152+00

5

5

8865 R/W

8849

8833 R/W

8817

8801 R/W

878

4" PP

ASPH.

SERVICE DRIVE

SLOPE INTERCEPT

90'

65'

+43

2%

28'

2%

+00

147+00

148+00

149+00

N 00°-28'-28" W

150+00

151+00

152

R/L S. 76TH ST. (CTH U)

R/W

BERM

TLE AREA

SLOPE INTERCEPT

LEGEND

WETLAND/POND

CURB RAMP W / DETECTABLE WARNING FIELD (SEE DETAIL)

SCALES:
1" = 40' HOR
1" = 5' VER

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
1	158+66.73, R/L	BRASS PLUG; SEC. CORNER, PUETZ RD.	761.70
2	162+36.88, 60.36' RT	RR SPIKE PP #59-2236	773.36

760
755
750
745
740
735
730
725

Centerline

-0.58%

EXIST. R/L PROFILE

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS RIGHT (SEE CROSS SECTIONS)

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS LEFT (SEE CROSS SECTIONS)

VPC STA = 151+21.30
VPC EL = 747.44

LP STA = 151+92.54
LP EL = 747.23

FINISHED PROFILE ON R/L

	6+50	7+50	8+50	9+50	0+50	1+50
FINISHED ELEV.	**750.19**	**749.90**	**749.61**	**749.31**	**749.02**	**748.73**	**748.44**	**748.15**	**747.86**	**747.56**	**747.31**	**747.23**
EXISTING ELEV.	751.16	751.05	750.93	750.82	750.73	750.67	750.63	750.60	750.87	750.50	750.58	750.40
	146+00			147+00			148+00			149+00			150+00			151+00			152+00

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 340 E

REVISION DATE: 12/9/2013

WISDOT/CADDS SHEET 40

MATCH LINE STA 152+00

MATCH LINE STA 158+00

5

5

8771 8755 WILLIAM J KRUCHTEN 8739 8723 8707

ASPH. 100' LT.

11+00

CONC.

R/W

4" PE

SERVICE DRIVE

ASPH.

MORTAR RUBBLE MASONRY ENDWALLS

R=17.0

SLOPE INTERCEPT

+74 END SECT. REQ'D

CONC. LINED DITCH

GUARD RAIL

W. MARGARET LN.

ASPH. FLUME

MORTAR MASONRY (5 C.Y.)

90°

+54

28'

37'

65'

2'

N 00°-28'-28" W

88.80'

.02'16

153+00 154+00 155+00 156+00 157+00 158+

R/L S. 76TH ST. (CTH U)

+00

8'

5'

5" CONC. SIDEWALK

13'

PLE

LEGEND

WETLAND/POND

CURB RAMP W / DETECTABLE WARNING FIELD (SEE DETAIL)

SCALES:
1" = 40' HOR
1" = 5' VER

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
1	158+66.73, R/L	BRASS PLUG; SEC. CORNER, PUETZ RD.	761.70
2	162+36.88, 60.36' RT	RR SPIKE PP #59-2236	773.36

765 760 755 750 745 740 735 730

FINISHED PROFILE ON R/L

EXIST. R/L PROFILE

VPT STA = 155+28.70
VPT EL = 751.86

2.75%

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS RIGHT (SEE CROSS SECTIONS)

Centerline

-0.58%

TWIN 34X53 SSPRCHE
STA 153+07
SKEW 7° RHF

ELEV. 742.00

VPI STA = 153+25.00
VPI EL = 746.25
g1 = -0.58%
g2 = 2.75%
CURVE LEN = 407.40
K = 122.03
E = 1.70

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS LEFT (SEE CROSS SECTIONS)

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS LEFT (SEE CROSS SECTIONS)

747.23	750.40		**747.37**	750.44		**747.70**	750.52		**748.25**	750.99		**748.99**	751.61		**749.95**	752.35		**751.10**	753.12		**752.45 FINISHED ELEV.**	754.10 EXISTING ELEV.		**753.83**	755.21		**755.20**	756.39		**756.58**	757.64		**757.96**	758.92		**759.33**	759.97
152+00			2+50			153+00			3+50			154+00			4+50			155+00			5+50			156+00			6+50			157+00			7+50			158+00	

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 341 E

REVISION DATE: 12/9/2013

MATCH LINE 5

STA 158+00

STA 164+00

MORTAR RUBBLE MASONRY ENDWALLS (4 C.Y.)

SLOPE INTERCEPT

LESTER & JOANNE BABCOCK 8665

JOSEPH LE ANN M BANAS 8635

SUMP PUMP DISCH. TO EXIST. DITCH

TLE LIMIT

LANNON STONE ENDWALL (1)

ASPH.

CONC.

GRVL.

R/W

P/L STA 158+66.73

P/L STA 164+00

N 00°-28'-28"W

S 76TH ST (CTH U)

N 00°-32'-41" W

159+00

160+00

161+00

162+00

163+00

5" CONC. SIDEWALK

CONTROL CABINET

W. PUETZ RD. 00

100' RT.

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
1	158+66.73, R/L	BRASS PLUG; SECTION CORNER PUETZ RD.	761.70
2	162+36.88, 60.36' RT.	RR SPIKE; POWER POLE #59-2236	773.36

LEGEND

WETLAND/POND

CURB RAMP W / DETECTABLE WARNING FIELD (SEE DETAIL)

POND

SCALES:
1" = 40' HOR
1" = 5' VER

FINISHED PROFILE ON R/L

EXIST. R/L PROFILE

VPI STA = 159+54.83
VPI EL = 763.60
g1 = 2.75%
g2 = 3.13%
CURVE LEN = 0.00

2.75% ℄ Centerline

3.13%

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS LEFT (SEE CROSS SECTIONS)

	158+00	8+50	159+00	9+50	160+00	0+50	161+00	1+50	162+00	2+50	163+00	3+50	164+00
FINISHED ELEV.	**759.33**	**760.71**	**762.09**	**763.47**	**764.99**	**766.47**	**767.90**	**769.26**	**770.56**	**771.81**	**772.99**	**774.12**	**775.18**
EXISTING ELEV.	759.97	761.40	762.56	764.10	765.55	766.80	768.19	769.61	770.90	772.11	773.25	774.28	775.24

780 775 770 765 760 755 750 745

VPI STA = 159+54.83
VPI EL = 763.60

REVISION DATE: 12/9/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 342 E

5 MATCH LINE STA 164+00

5 MATCH LINE STA 170+00

8601

MICHAEL H DILWORTH II
8567

RAYMOND JOHN JR
TANN
8547

8623

LANNON STONE RET. WALL

ASPH.

CONC.

TLE LIMIT

WELL

SLOPE INTERCEPT

STONE ENDWALL

GRVL.

W. LAKE PTE DR.

STONE WALL SIGN

TWIN OAKS BLVD.

BRICK WALL

BRICK WALL W/LANDSCAPE & SIGN/LIGHTS

R/W

110' LT.

90' LT.

120' LT.

59' LT.

55' RT.

R=32'

+00 165+00 N 00°-32'-41" W 166+00 167+00 168+00 169+00 170+00

R/L S. 76TH ST. (CTH U)

5" CONC. SIDEWALK

SCALES:
1" = 40' HOR.
1" = 5' VER

LEGEND

WETLAND/POND

CURB RAMP W / DETECTABLE WARNING FIELD (SEE DETAIL)

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
2	162+36.88, 60.36' RT.	RR SPIKE; PP #59-2236	773.36
3	165+23.44, 60.84' RT.	RR SPIKE; PP #59-2237	778.19

VPI STA = 169+25.00
VPI EL = 794.00
g1 = 3.13%
g2 = -1.50%
CURVE LEN = 1940.34
K = 418.76
E = 11.24

3.13%

-1.50%

FINISHED PROFILE ON R/L

EXIST. R/L PROFILE

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS LEFT (SEE CROSS SECTIONS)

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS RIGHT (SEE CROSS SECTIONS)

	164+00	4+50	165+00	5+50	166+00	6+50	167+00	7+50	168+00	8+50	169+00	9+50	170+00
FINISHED ELEV.	775.18	776.19	777.13	778.02	778.85	779.61	780.32	780.97	781.55	782.08	782.55	782.96	783.31
EXISTING ELEV.	775.24	776.16	776.92	777.98	778.82	779.52	780.04	780.91	781.54	781.99	782.39	782.64	782.99

REVISION DATE: 12/9/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 343 E

MATCH LINE STA 170+00

MATCH LINE STA 176+00

5

5

CELICHOWSKI
8471

EY & ABIGAIL
MCGUIRE
AKE POINTE DR.

24
115' LT.

TLE LIMIT

SLOPE INTERCEPT

DENSE FORESTRY

R/W

MOUNT. CONC. C&G

WOOD STREET SIGN

TUCKAWAY SHORES DR.

00+11

LANDSCAPED MEDIAN

ASPH.

70' LT.

CONC. SIDEWALK

WOOD SIGN W/STONE & LANDSCAPING

SERVICE DRIVE

ASPH.

24'
2'
34'
60'
30'
28'
+69

+00 N 00°-32'-41" W

171+00

172+00

173+00

89.44°

90.56°

174+00

175+00

176+00

R/L S. 76TH ST. (CTH U)

CURB RAMP W/ DETECTABLE WARNING FIELD (SEE DETAIL)

8'
5'
11'
17'

5" CONC. SIDEWALK

CONC. SIDEWALK

STONE WALL ALONG DRWY.

77' RT.

5

STONE WALL ALONG DRWY.

JOHN M & LISA M COURY
8455 FOUNTAIN CT.

TLE LIMITS

MICHAEL J HILLMAN
8465 FOUNTAIN CT.

SCALES:
1" = 40' HOR
1" = 5' VER

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
3	165+23.44, 60.84' RT.	RR SPIKE; PP #59-2237	778.19
4	174+94.84, 60.53' RT.	RR SPIKE; PP #59-2230	789.89

LEGEND

WETLAND/POND

CURB RAMP W / DETECTABLE WARNING FIELD (SEE DETAIL)

800
795
790
785
780
775
770
765

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS RIGHT (SEE CROSS SECTIONS)

FINISHED PROFILE ON R/L

-1.50%

Centerline

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS LEFT (SEE CROSS SECTIONS)

EXIST. R/L PROFILE

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS LEFT (SEE CROSS SECTIONS)

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS RIGHT (SEE CROSS SECTIONS)

FINISHED ELEV.		**783.60**			**783.83**			**784.00**			**784.10**			**784.16**			**784.15**			**784.08**			**783.95**			**783.76**			**783.51**			**783.20**			**782.83**
EXISTING ELEV.	782.99	783.25	783.31	783.33			783.38			783.44			783.47			783.42			783.29			783.15			782.94			782.68			782.34			781.89
	170+00	0+50		171+00			1+50			172+00			2+50			173+00			3+50			174+00			4+50			175+00			5+50			176+00

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 344 E
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REVISION DATE: 12/9/2013

MATCH LINE STA 176+00

MATCH LINE STA 182+00

5

5

MOUT. CONC. C&G

ASPH.

R/W

SLOPE INTERCEPT

SERVICE DRIVE

MOUT. CONC. C&G

WATER METER

SIGN ON WOOD POST

72' LT.

CONC. SLAB FOR MAILBOXES

TLE LIMIT

TUCKAWAY SHORES SIGN W/LIGHT.

ASPH. FLUME

CONC. FLUME

30'

2'

28'

60'

+50

+00

177+00

178+00

179+00

N 00°-32'-41" W

180+00

181+00

182

R/L S. 76TH ST. (CTH U)

90.15°

89.85°

8'

5'

17'

5" CONC. SIDEWALK

STONE WALL W/ IN-GROUND LANDSCAPE LIGHTING

75' RT. ASPH.

FOUNTAIN CT.

STONE LINED

POND

8405 FOUNTAIN CT. TWIN OAKS DEVELOPMENT CORP

8425 FOUNTAIN CT. TWIN OAKS DEVELOPMENT CORP

75' RT. CONC.

TLE LIMIT

SCALES:
1" = 40' HOR
1" = 5' VER

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
4	174+94.84, 60.53' RT.	RR SPIKE; PP #59-2230	789.89
5	185+26.90, 67.82' LT.	NOZZLE, HYD. NW COR FOREST HILL Ave.	769.49

LEGEND

WETLAND/POND

CURB RAMP W / DETECTABLE WARNING FIELD (SEE DETAIL)

790
785
780
775
770
765
760
755

FINISHED PROFILE ON R/L

Centerline

EXIST. R/L PROFILE

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS RIGHT (SEE CROSS SECTIONS)

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS LEFT (SEE CROSS SECTIONS)

-1.50%

VPT STA = 178+95.17
VPT EL = 779.45

782.83	781.89	**782.41**	781.40	**781.92 FINISHED ELEV.**	780.85 EXISTING ELEV.	**781.37**	780.23	**780.77**	779.55	**780.10**	778.85	**779.38**	778.09	**778.63**	777.24	**777.88**	776.29	**777.13**	775.30	**776.38**	774.33	**775.63**	773.39	**774.69**	772.40
176+00		6+50		177+00		7+50		178+00		8+50		179+00		9+50		180+00		0+50		181+00		1+50		182+00	

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 345 E

REVISION DATE: 12/9/2013

WISDOT/CADDS SHEET 40

MATCH LINE STA 182+00

MATCH LINE STA 188+00

5

5

POND

TLE LIMIT

R/W

R=30.0'

ASPH.

CONC.

W. FOREST HILL AVE.

185+04.30

89°24'

90°31'

LANDSCAPED BERM

SLOPE INTERCEPT

24'

2'

34'

60'

+54

8'

+00

183+00

184+00

185+00

186+00

187+00

188

N 00°-32'-41" W

R/L S. 76TH ST. (CTH U)

N 00°-29'-52" W

90°36'

89°35'

CONCRETE FLUME

5' CONC. SIDEWALK

STONE WALK

BRICK WALL

STONE WALL

TUCKAWAY CREEK DR

BRICK PAVERS

BRICK SIGN

FLAG POLE

PED. WOOD BRIDGE

WOOD BRIDGE, STONE WALK TO BE REMOVED BY OTHERS

LANDSCAPED AREA

8300 COUNTRY CLUB CIR
BRIAN & PATTI J ERICKSON

COUNTRY CLUB CIR.

8290 COUNTRY CLUB CIR
CHRISTOPHER T &
SHELLY M HUNT

LANDSCAPED AREA W/DECOR PILLARS & SIGN

SCALES:
1" = 40' HOR
1" = 5' VER

STONE FASCIA RETAINING WALL

35' LT.

30' RT.

120' RT.

MOUNT. CONC. C&G

CONC.

WALK

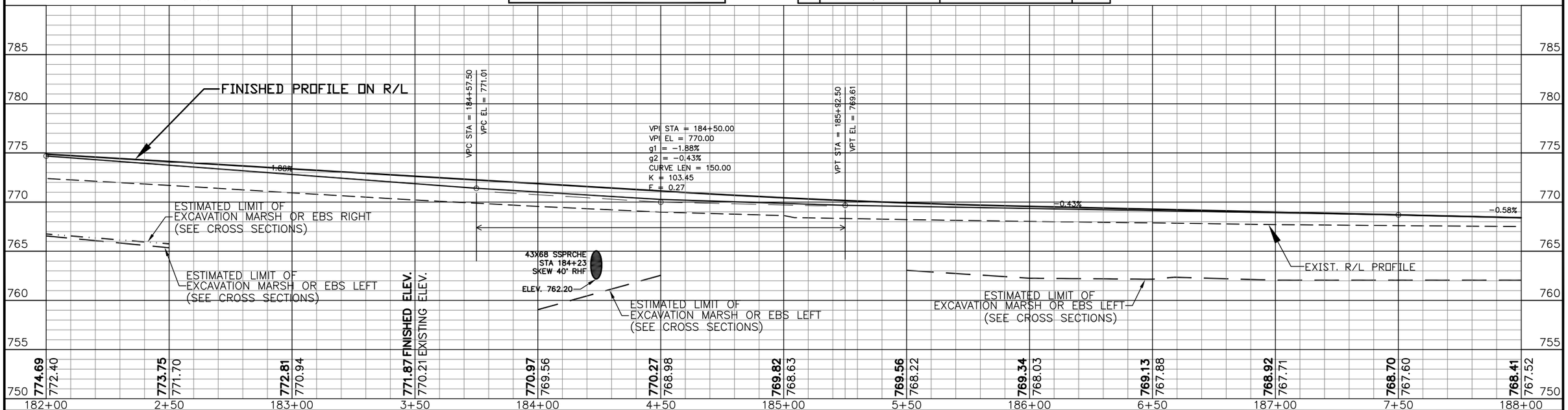
LEGEND

WETLAND/POND

CURB RAMP W / DETECTABLE WARNING FIELD (SEE DETAIL)

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
5	185+26.90, 82' LT.	NOZZLE, HYD., NW COR FOREST HILL AVE.	769.49
6	190+99.52, 61.18' RT.	RR SPIKE; PP #90-0485	769.60



REVISION DATE: 12/9/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 346 E

STA 188+00 MATCH LINE

STA 194+00 MATCH LINE

5

5

TLE LIMIT

SLOPE INTERCEPT

ROW OF 3 EVERGREENS & 1 TREE

ASPH.

VENT

R/W

+54

30'

2'

28'

60'

8'

5'

17'

+00 189+00 190+00 N 00°-29'-52" W 191+00 192+00 193+00 194

R/L S. 76TH ST. (CTH U)

5" CONC. SIDEWALK

GREGORY D NISENBAUM
8263 COUNTRY CLUB CIR

JILL L KLIENSCHMIDT
8241 COUNTRY CLUB CIR

TIN & HEIDI CHAN KWOK
8227 COUNTRY CLUB CIR

FRANK K & JANICE M YEE
8211 COUNTRY CLUB CIR

HUGH R GRIFFITH
SANDRA M BERNACCHI
8195 COUNTRY CLUB CIR

8103 COUNTRY CLUB CIR

SCALES:
1" = 20' HOR
1" = 5' VER

LEGEND

WETLAND/POND

CURB RAMP W / DETECTABLE WARNING FIELD (SEE DETAIL)

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
6	190+99.52, 61.18' RT.	RR SPIKE; PP #90-04895	769.60
7	194+24.45, 58.75'RT.	RR SPIKE; PP #90-04897	765.40

780 775 770 765 760 755 750 745

Centerline

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS RIGHT (SEE CROSS SECTIONS)

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS LEFT (SEE CROSS SECTIONS)

EXIST. R/L PROFILE

FINISHED PROFILE ON R/L

-0.58%

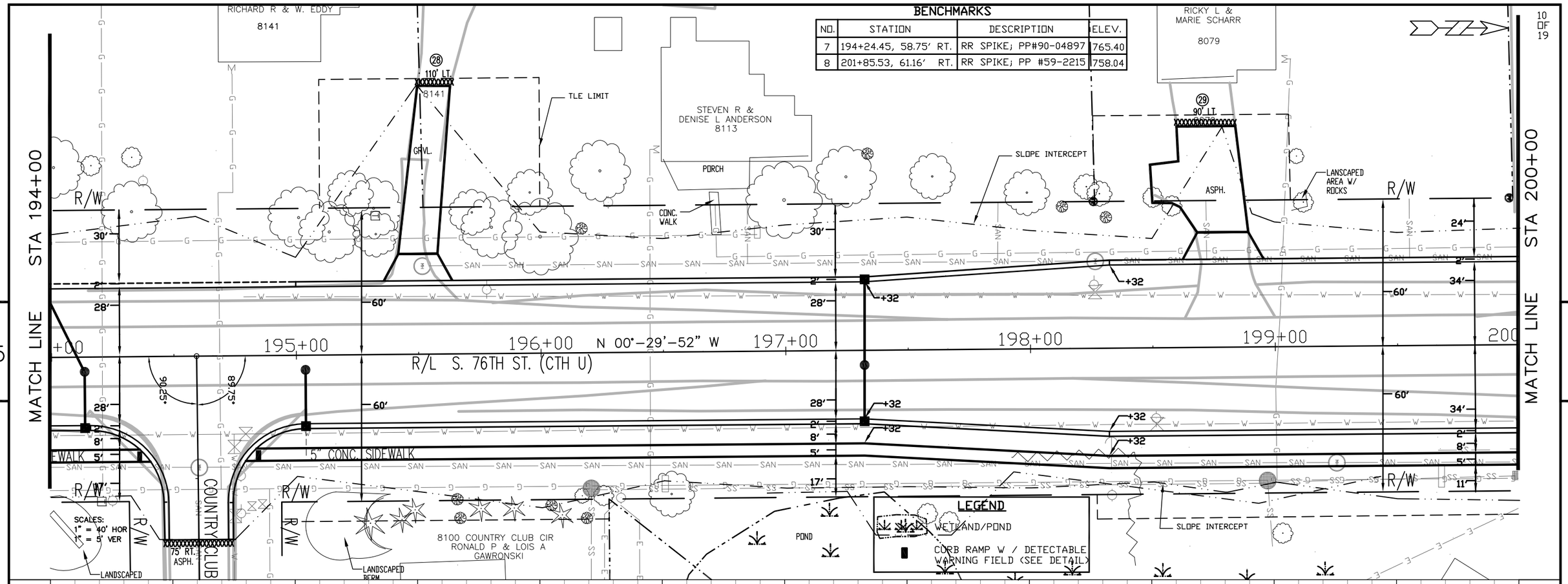
	188+00	8+50	189+00	9+50	190+00	0+50	191+00	1+50	192+00	2+50	193+00	3+50	194+00
FINISHED ELEV.	**768.41**	**768.12**	**767.83**	**767.54**	**767.25**	**766.96**	**766.67**	**766.38**	**766.09**	**765.80**	**765.51**	**765.22**	**764.93**
EXISTING ELEV.	767.52	767.45	767.36	767.24	767.21	767.19	767.13	766.98	766.84	766.64	766.36	766.18	765.83

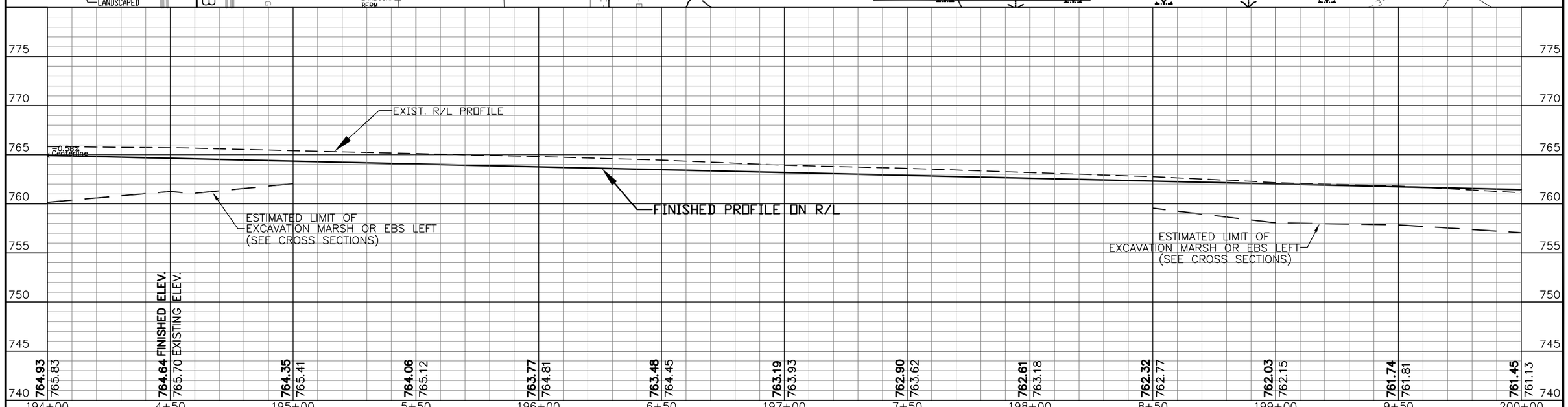
REVISION DATE: 12/9/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 347 E

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
7	194+24.45, 58.75' RT.	RR SPIKE; PP#90-04897	765.40
8	201+85.53, 61.16' RT.	RR SPIKE; PP #59-2215	758.04





REVISION DATE: 12/9/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 348 E

MATCH LINE STA 200+00

MATCH LINE STA 206+00

5

5

MOUNT. CONC. C&G

ASPH.

W. NORWOOD LN.

R/W

R=30.0'

70' LT.

57' LT.

GRASS GRVL.

TLE LIMIT

SLOPE INTERCEPT

24'

2'

34'

60'

+54.5

8'

5'

11'

88.40°

91.60°

90.62°

89.38°

+00 201+00 202+00 N 00°-29'-52" W 203+00 204+00 205+00 206

R/L S. 76TH ST. (CTH U)

5" CONC. SIDEWALK

W. TUCKAWAY LN.

75' RT.

TUCKAWAY PINES SIGN ON POSTS

SCALES:
1" = 40' HOR
1" = 5' VER

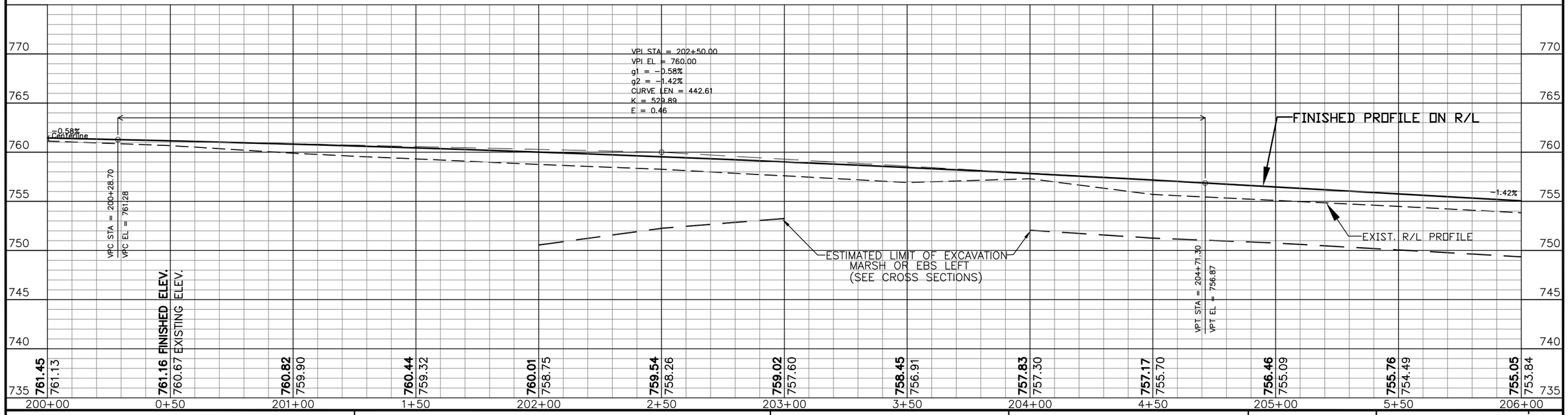
LEGEND

WETLAND/POND

CURB RAMP W / DETECTABLE WARNING FIELD (SEE DETAIL)

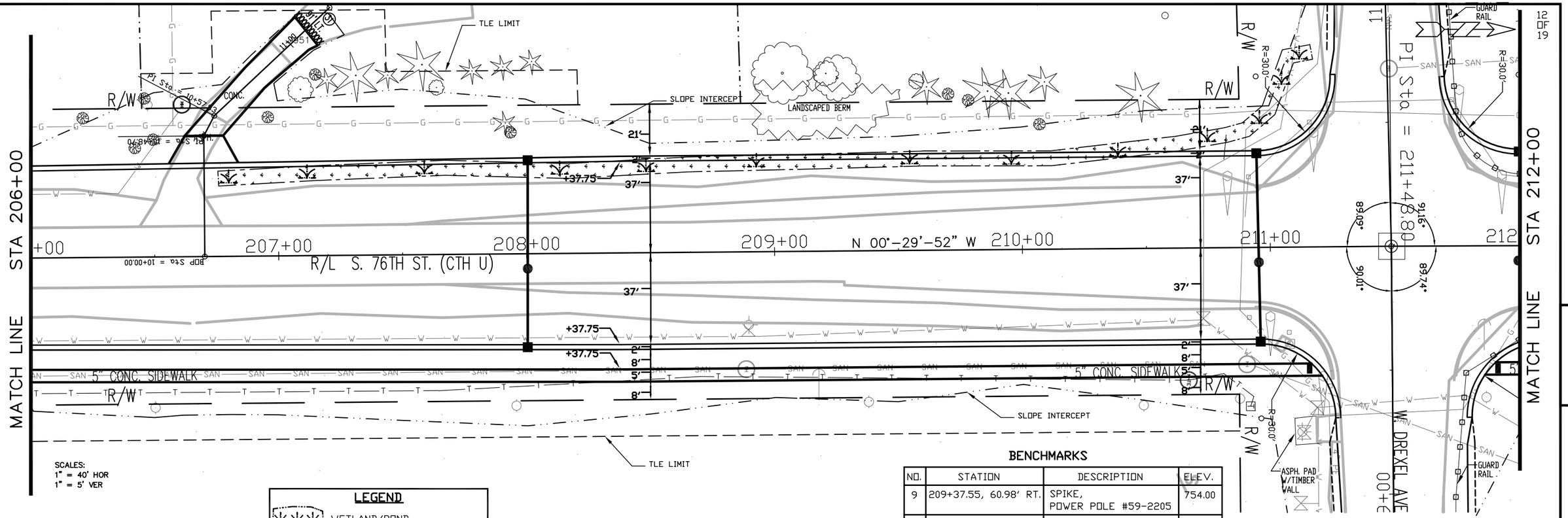
BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
8	201+85.53, 61.16' RT.	RR SPIKE; PP #59-2215	758.04
9	209+37.55, 60.98' RT.	RR SPIKE; PP #59-2205	754.00



REVISION DATE: 12/9/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 349 E



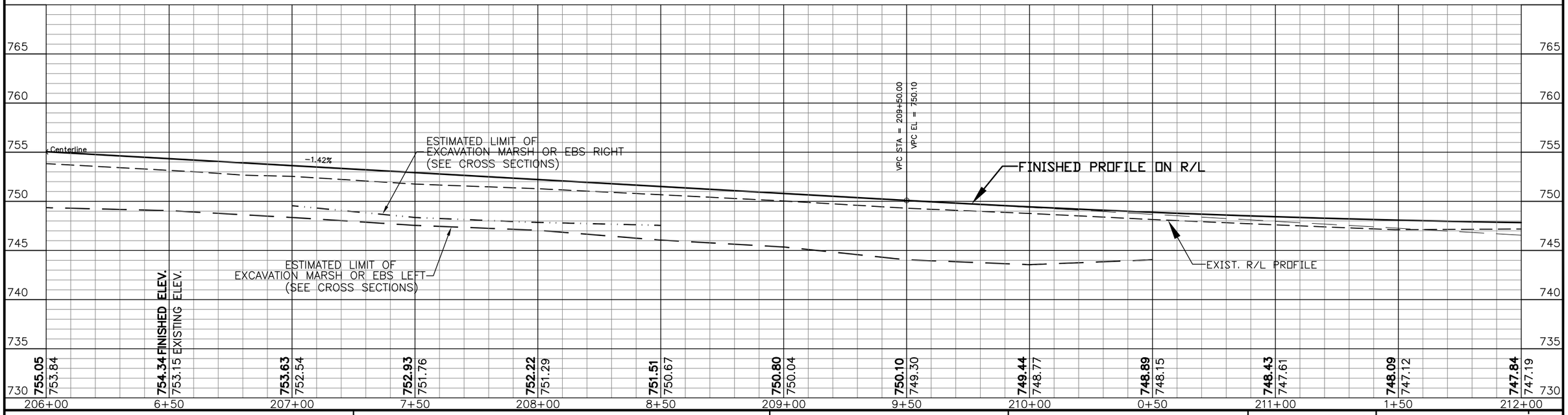
LEGEND

WETLAND/POND

CURB RAMP W / DETECTABLE WARNING FIELD (SEE DETAIL)

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
9	209+37.55, 60.98' RT.	SPIKE, POWER POLE #59-2205	754.00
10	211+48.80, R/L	BRASS PLUG, SECTION CORNER, DREXEL AVE.	747.11



REVISION DATE: 12/9/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 350 E

MATCH LINE STA 212+00

MATCH LINE STA 218+00

MILWAUKEE COUNTY LANDS

LEGEND
WETLAND/POND
CURB RAMP W / DETECTABLE WARNING FIELD (SEE DETAIL)

EDGE OF CREEK

TLE LIMIT

EDGE OF FORESTRY

R/W

SLOPE INTERCEPT

VARIES

GUARD RAIL

C-40-0022

00°-15'-07" W

213+00 214+00 215+00 216+00 217+00 218

R/L S. 76TH ST. (CTH U)

ASPH.

GRVL.

LANDSCAPED PLANTERS(2)

41′ 44′ 37′ 80′ 34′ 60′

2′ 8′ 5′ 11′

+04 +64

CONC. SIDEWALK

5" CONC. SIDEWALK

STONE END WALLS(2)

WOOD POLE BARRIERS(2)

2' CONC. DRWY. STRIPS/SLABS

SCALES:
1" = 40' HOR
1" = 5' VER

MILWAUKEE COUNTY LANDS

MILWAUKEE COUNTY

7814 7800 KEITH K MIXDORF

125' RT. 118' RT.

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
11	212+41.13, 52.39' RT.	BRASS PLUG, SE CORNER OF BOX CULVERT	740.47
12	216+17.15, 60.26' RT.	SPIKE, POWER POLE #59-2206	744.29

VPI STA = 212+50.00
VPI EL = 745.85
g1 = -1.42%
g2 = 1.05%
CURVE LEN = 600.00
K = 243.41
E = 1.85

-1.42%

Centerline

EXISTING C-40-0022
STA 212+51.15
SKEW = 0°

REMOVE WINGWALLS
PAID AS REMOVING STRUCTURE

ELEV. 723.35

VPI STA = 215+50.00
VPI EL = 749.00

1.05%

VPI STA = 215+50.00
VPI EL = 749.00
g1 = 1.05%
g2 = 1.75%
CURVE LEN = 0.00

1.75%

FINISHED PROFILE ON R/L

EXIST. R/L PROFILE

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS LEFT (SEE CROSS SECTIONS)

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS LEFT (SEE CROSS SECTIONS)

	212+00	2+50	213+00	3+50	214+00	4+50	215+00	5+50	216+00	6+50	217+00	7+50	218+00
FINISHED ELEV.	747.84	747.70	747.66	747.72	747.89	748.16	748.53	749.00	749.87	750.75	751.62	752.50	753.37
EXISTING ELEV.	747.19	746.91	746.96	747.00	747.03	747.32	747.57	747.98	748.52	749.16	749.92	750.74	751.66

760 755 750 745 740 735 730

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 351 E

REVISION DATE: 12/9/2013

SAVE ALL TREES

R/W

LOW BERM W/ BUSHES/TREES

TLE LIMIT

ROW OF MATURE EVERGREEN TREES

SLOPE INTERCEPT

ASPH. 7735

7711 GRVL.

7751

ASPH.

59' LT.

60' LT.

61' LT.

STA 218+00

STA 224+00

MATCH LINE

MATCH LINE

5

5

+00 219+00 220+00 221+00 222+00 223+00 224

R/L S. 76TH ST. (CTH U)

N 00°-15'-07" W

1108.00

65.68

90.01

34'

60'

24'

2'

8'

5'

11'

5' CONC. SIDEWALK

BLOCK RET. WALL

W. PINEBERRY RIDGE

26' RT.

CONC.

ASPH. 120' RT.

WOODBERY ESTATES SIGN W/LANDSCAPING

MICHAEL R KAMPA
VICTORIA A KAMPA
7555 PINEBERRY RIDGE

CHERIE L KAPPUS
7556 PINEBERRY RIDGE

ARTHUR V & DARLEEN M OVERBYE
7439 WOODBURY CT.

RICHARD A PAND
LINDA L CANA
7440 WOODBUR

SCALES:
1" = 40' HOR
1" = 5' VER

LEGEND

WETLAND/POND

CURB RAMP W / DETECTABLE WARNING FIELD (SEE DETAIL)

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
12	216+17.15, 60.26' RT.	RR SPIKE; PP #59-2206	744.29
13	220+04.69, 65.28'RT.	NOZZLE, HYDRANT, NE COR. PINEBERRY RIDGE	758.56

770 765 760 755 750 745 740 735

FINISHED PROFILE ON R/L

VPI STA = 221+40.30
VPI EL = 759.33
g1 = 1.75%
g2 = 1.54%
CURVE LEN = 0.00

EXIST. R/L PROFILE

1.75%

Centerline

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS LEFT (SEE CROSS SECTIONS)

VPC STA = 221+40.30
VPC EL = 759.33

	218+00	8+50	219+00	9+50	220+00	0+50	221+00	1+50	222+00	2+50	223+00	3+50	224+00
FINISHED ELEV.	**753.37**	**754.25**	**755.12**	**756.00**	**756.87**	**757.75**	**758.62**	**759.48**	**760.22**	**760.91**	**761.57**	**762.18**	**762.76**
EXISTING ELEV.	751.66	752.60	753.61	754.64	755.11	756.14	757.34	758.28	759.06	759.92	760.67	761.21	761.80

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 352 E

REVISION DATE: 12/9/2013

STA 224+00

MATCH LINE

5

TLE LIMIT

ASPH.

W. FAITH DR.

11+

R/W

CHURCH SIGN W/LIGHTS

SLOPE INTERCEPT

LANDSCAPED BERM

CONCRETE POSTS (3)

29'

65'

34'

2'

8'

5'

16'

+00

225+00

226+00

227+00

228+00

229+00

230

R/L S. 76TH ST. (CTH U)

N 00°-15'-07" W

88.68

20.06

88.90'

91.10'

5" CONC. SIDEWALK

RETAINING WALL

CRVT

+93

+13

ROBERT C & W GRISE 7650

MODULAR BLOCK RETAINING WALL

SLOPE INTERCEPT

ASPH. 7630

TLE LIMIT

W. SOUTHVIEW DR.

ASPH.

TREE LINE

TRANSITION 31' CONC. C & G TO 4' SLOPED 36' TYPE R CONC. C & G, BOTH LT. & RT.

STA 230+00

MATCH LINE

5

KOWSKI
LES
Y CT.

SCALES:
1" = 40' HOR
1" = 5' VER

LEGEND

WETLAND/POND

CURB RAMP W / DETECTABLE WARNING FIELD (SEE DETAIL)

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
13	220+04.69, 65.28'RT.	NOZZLE, HYDRANT, NE COR. PINEBERRY RIDGE	758.56
14	231+95.33, 61.26' RT.	RR SPIKE; PP#91-03285	767.47

780
775
770
765
760
755
750
745

VPI STA = 229+00.00
VPI EL = 771.00
g1 = 1.54%
g2 = -1.00%
CURVE LEN = 1519.40
K = 599.11
F = 4.82

-1.00%

1.54%

Centerline

FINISHED PROFILE ON R/L

EXIST. R/L PROFILE

ESTIMATED LIMIT OF EXCAVATION
MARSH OR EBS LEFT
(SEE CROSS SECTIONS)

| | | |

7548 S. 77TH ST.

7536 S. 77TH ST.

TLE LIMIT

SLOPE INTERCEPT

R/W

STA 230+00

MATCH LINE

5

+00 231+00 232+00 N 00°-15'-07" W 233+00 234+00 235+00 236

R/L S. 76TH ST. (CTH U)

STA 236+00

MATCH LINE

5

29' 2' 65' 34' 16' 2' 8' 5' 22' 35' 28' +44.7

5" CONC. SIDEWALK

CONC. PAD

SLOPE INTERCEPT

SCALES:
1" = 40' HOR
1" = 5' VER

LEGEND

WETLAND/POND

CURB RAMP W / DETECTABLE WARNING FIELD (SEE DETAIL)

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
14	231+95.33, 61.26' RT.	RR SPIKE; PP#91-03285	767.47
15	237+92.94, R/L	BRASS PLUG, SECTION CORNER	758.56

780 775 770 765 760 755 750 745

FINISHED PROFILE ON R/L

-1.00%

EXIST. R/L PROFILE

℄ Centerline

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS LEFT (SEE CROSS SECTIONS)

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS RIGHT (SEE CROSS SECTIONS)

ESTIMATED LIMIT OF EXCAVATION MARSH OR EBS LEFT (SEE CROSS SECTIONS)

	230+00	0+50	231+00	1+50	232+00	2+50	233+00	3+50	234+00	4+50	235+00	5+50	236+00
FINISHED ELEV.	**766.37**	**766.40**	**766.39**	**766.33**	**766.24**	**766.10**	**765.92**	**765.70**	**765.44**	**765.13**	**764.79**	**764.40**	**763.97**
EXISTING ELEV.	765.86	766.00	766.08	766.06	766.02	765.95	765.82	765.58	765.36	765.15	764.89	764.58	764.18

REVISION DATE: 12/9/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 354 E

MATCH LINE STA 236+00

MATCH LINE STA 242+00

7426 S. 77TH ST.
RAFAEL & MYRNA
SANDOVAL

MARK & COLLEEN
MITCHELL
7611 W. IMPERIAL DR.

W. IMPERIAL DR.

WOOD SIGN

CONC. SIDEWALK

PI Sta E 237+92.94
N=253297.79

N 00°-15'-38" W

R/L S. 76TH ST. (CTH U)

BRUNN DR.

5" CONC. SIDEWALK

ASPH.

CONC.

GRVL.

FIELD STONE ENDWALLS

85' RT.
16
7440

7460

ROW OF EVERGREEN TREES

SLOPE INTERCEPT

TLE LIMIT

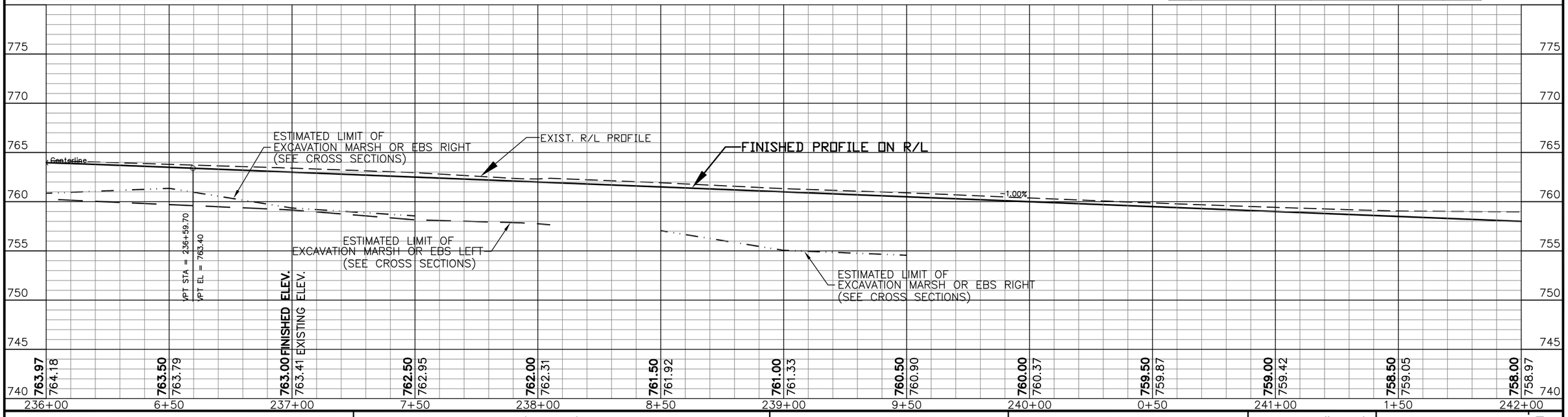
SCALES:
1" = 40' HOR
1" = 5' VER

LEGEND

- WETLAND/POND
- CURB RAMP W / DETECTABLE WARNING FIELD (SEE DETAIL)

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
14	231+95.33, 61.26' RT.	RR SPIKE; PP#91-03285	767.47
15	237+92.94, R/L	BRASS PLUG, SECTION CORNER	758.56

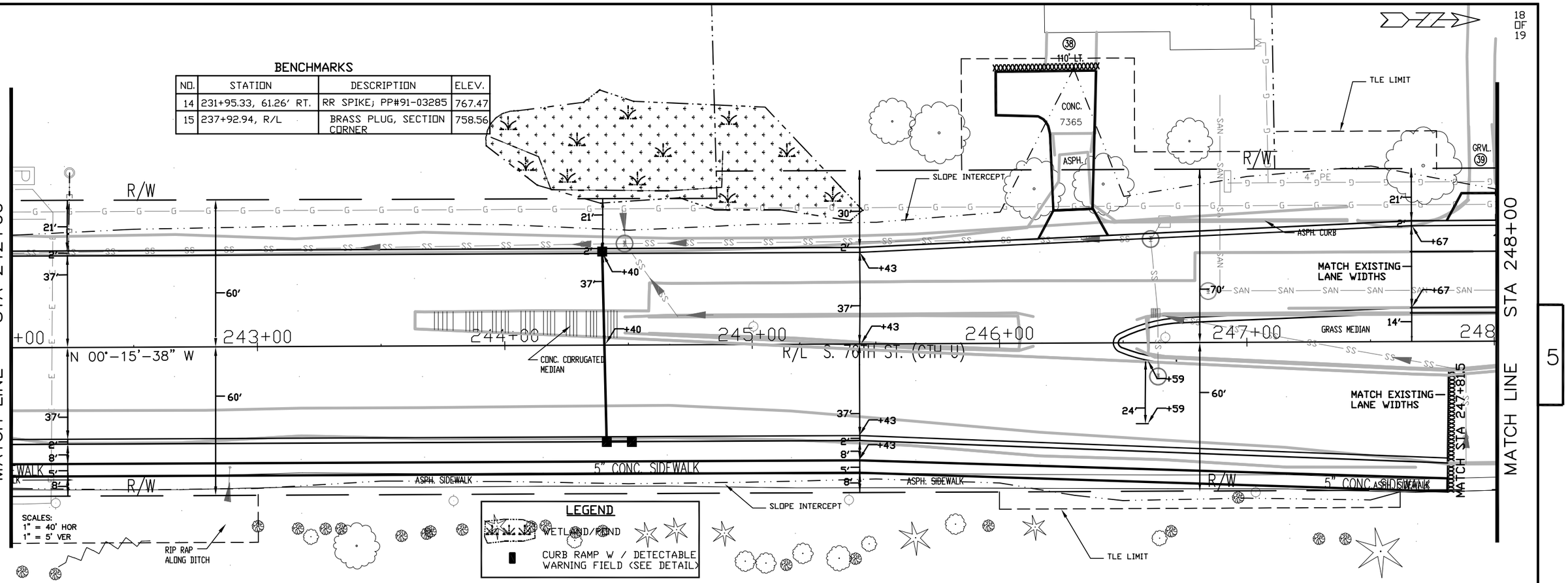


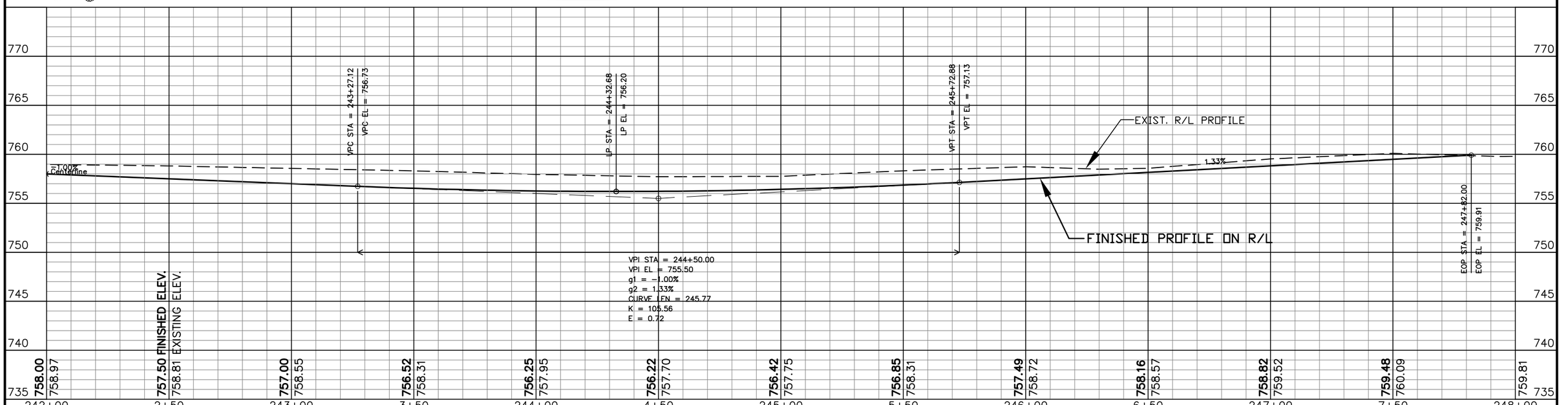
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 355 E

REVISION DATE: 12/9/2013

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
14	231+95.33, 61.26' RT.	RR SPIKE; PP#91-03285	767.47
15	237+92.94, R/L	BRASS PLUG, SECTION CORNER	758.56





REVISION DATE: 8/8/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 356 E

END PROJECT I.D. 2160-10-70
STA. 248+30 R/L

MATCH LINE STA 248+00

MATCH STA 248+30

7341

ASPH. CURB

70'

60'

GRASS MEDIAN

ASPH. SIDEWALK

W. TERRACE DR.

CARTER BLVD.

PKN

R/W

4" PE

2" PE

6" ST

SAN

W

G

E

+00 249+00 250+00 N 00°-15'-38" W 251+00 252+00 253+00 254

R/L S. 76TH ST. (CTH U)

617

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
14	231+95.33, 61.26' RT.	RR SPIKE; PP#91-03285	767.47
15	237+92.94, R/L	BRASS PLUG, SECTION CORNER	758.56

SCALES:
1" = 20' HOR
1" = 5' VER

LEGEND

WETLAND/POND

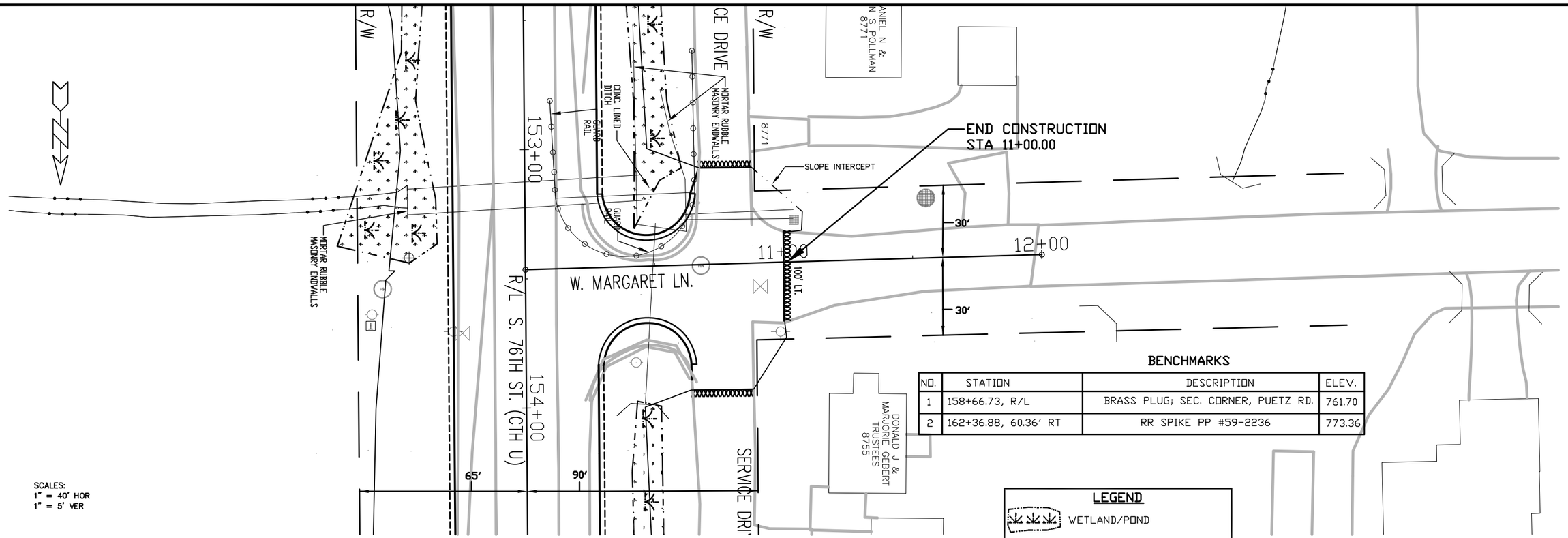
CURB RAMP, TYPE 4B1 WITH DETECTABLE WARNING FIELD

395																									395
390																									390
385																									385
380																									380
375																									375
370																									370
365																									365
360	759.81		759.93		759.81		760.03		760.33		760.49		760.56		761.32		0.00		0.00		0.00		0.00		0.00	360
	248+00		8+50		249+00		9+50		250+00		0+50		251+00		1+50		252+00		2+50		253+00		3+50		254+00	

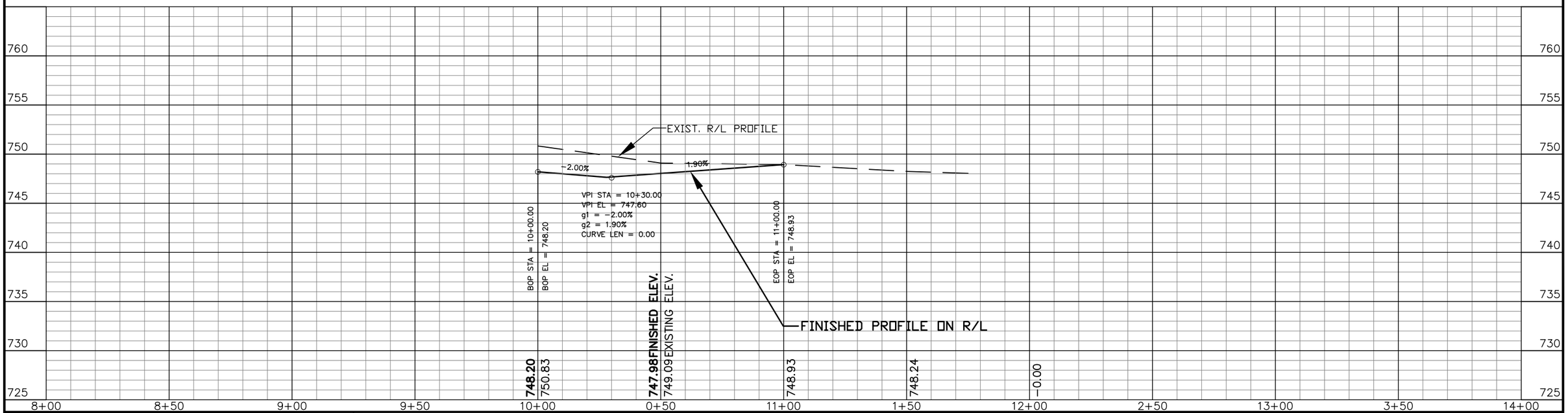
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 357 E

REVISION DATE: 8/8/2012

WISDOT/CADDS SHEET 40



W. MARGARET LN.



STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 358 E

REVISION DATE: 8/8/2012

WISDOT/CADDS SHEET 40

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
1	158+66.73, R/L	BRASS PLUG; SEC. CORNER, PUETZ RD.	761.70
2	162+36.88, 60.36' RT	RR SPIKE PP #59-2236	773.36

END CONSTRUCTION
STA 9+00.00

END CONSTRUCTION
STA 13+25.00

R/L W. PUETZ RD.

SEC. LINE
S 89°-19'-05" W

SEC. LINE
S 88°-54'-33" W

PI STA = 158+66.73

158+00 S. 76TH ST.

159+00

(CTH U)

CONC. SIDEWALK

MORTAR RUBBLE MASONRY HEADWALLS (5 C.Y.)

MORTAR RUBBLE MASONRY HEADWALLS (4 C.Y.)

SLOPE INTERCEPT

SLOPE INTERCEPT

+00 13.5'LT

+00 28.5'RT

+73 26.5'RT

+48 26.5'RT

40'

100' RT.

65'

60'

33'

33'

65'

48' RT

MAIL BOX

CONTROL CABINET

5' CONC. SIDEWALK

LESTER & JOANNE 8665

PAULA K HEYER
7632 W. PUETZ RD.

W. PUETZ RD.

SCALES:
1" = 40' HOR
1" = 5' VER

LEGEND
WETLAND/POND
CURB RAMP, TYPE 4B1 WITH DETECTABLE WARNING FIELD

EXIST. R/L PROFILE

FINISHED PROFILE ON R/L

0.44%

1.14%

2.00%

VPI STA = 10+00.00
VPI EL = 761.00
g1 = 0.44%
g2 = 1.14%
CURVE LEN = 0.00

VPI STA = 12+00.00
VPI EL = 763.28
g1 = 1.14%
g2 = 2.00%
CURVE LEN = 0.00

MATCH EXISTING STA 9+00.00
EL = 760.56

MATCH EXISTING STA 13+00.00
EL = 765.28

EOP STA = 13+25.00
EOP EL = 765.57

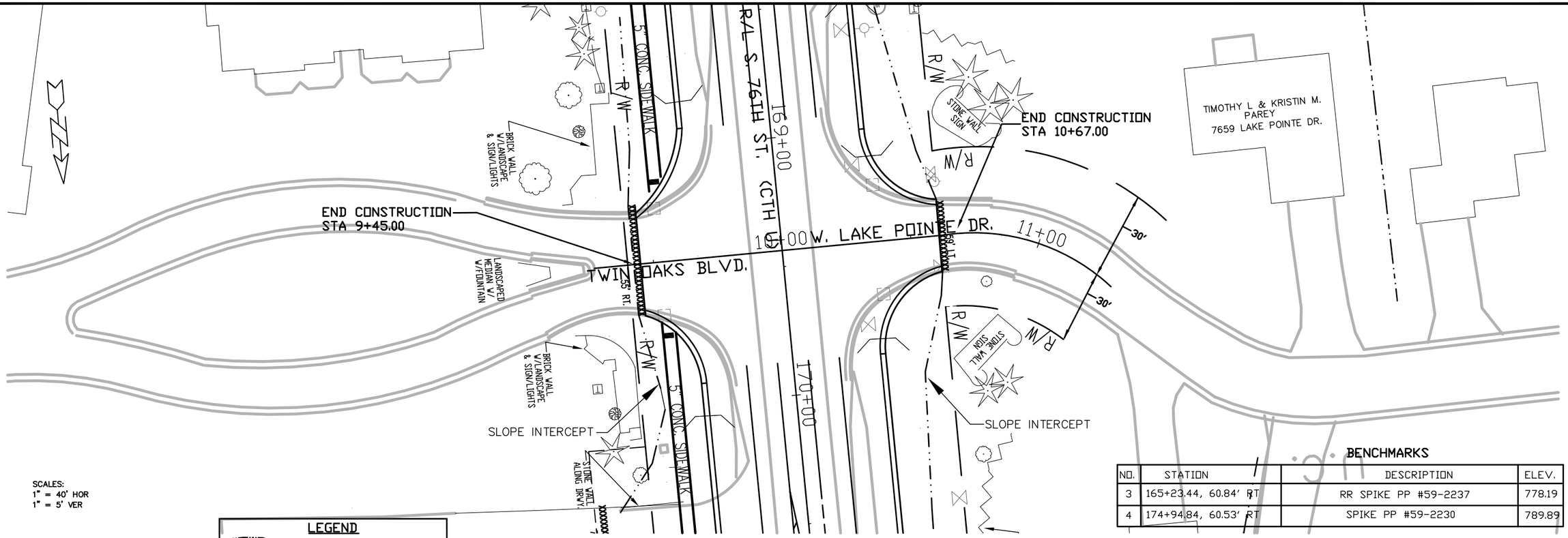
	8+00	8+50	9+00	9+50	10+00	0+50	11+00	1+50	12+00	2+50	13+00	3+50	14+00
FINISHED ELEV.			760.56	760.78	761.00	761.57	762.14	762.71	763.28	764.28			
EXISTING ELEV.			760.56	761.11	761.77	761.77	761.49	763.36					

775 770 765 760 755 750 745 740

REVISION DATE: 11/1/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 359 E

WISDOT/CADDS SHEET 40



SCALES:
1" = 40' HOR
1" = 5' VER

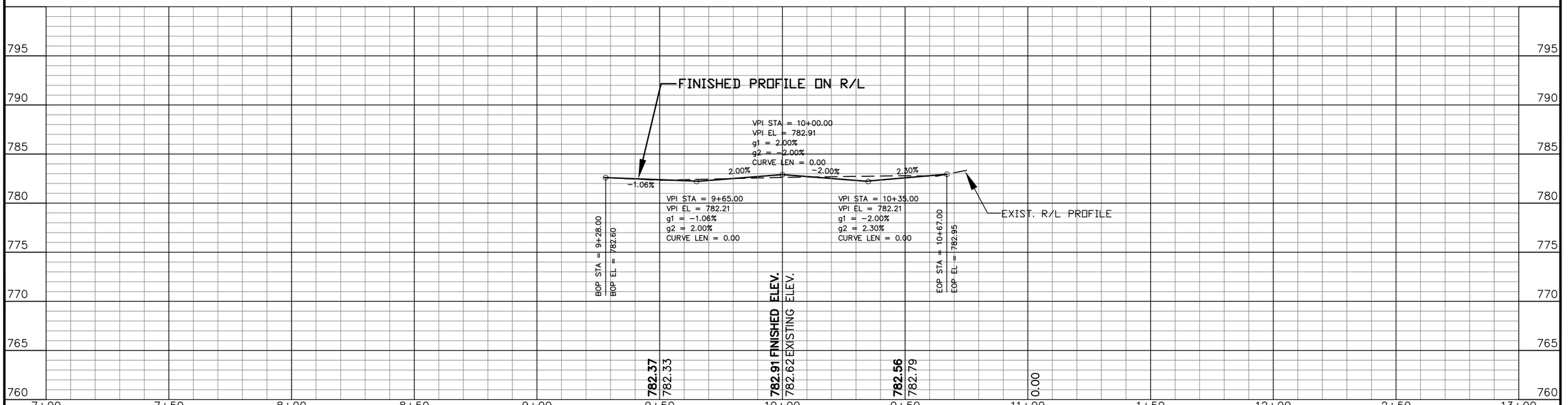
LEGEND

- WETLAND/POND
- CURB RAMP, TYPE 4B1 WITH DETECTABLE WARNING FIELD

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
3	165+23.44, 60.84' RT	RR SPIKE PP #59-2237	778.19
4	174+94.84, 60.53' RT	SPIKE PP #59-2230	789.89

TWIN OAKS BLVD./W LAKE POINTE DR.



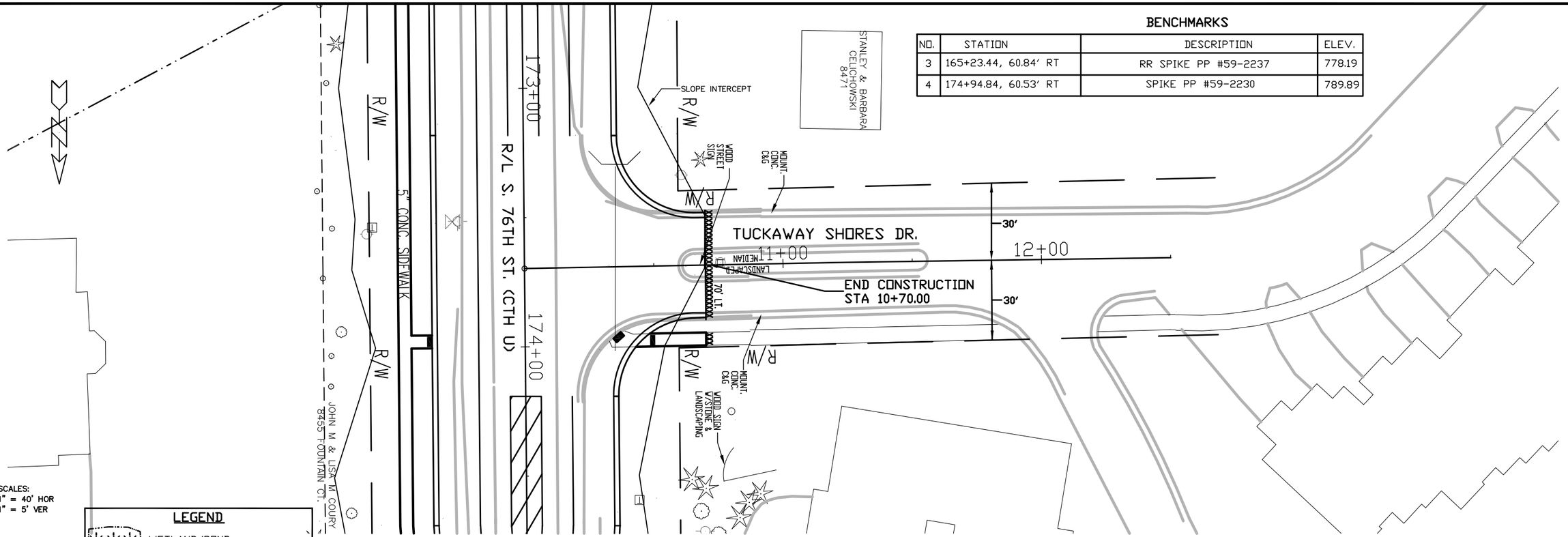
REVISION DATE: 6/8/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 360 E

WISDOT/CADDS SHEET 40

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
3	165+23.44, 60.84' RT	RR SPIKE PP #59-2237	778.19
4	174+94.84, 60.53' RT	SPIKE PP #59-2230	789.89



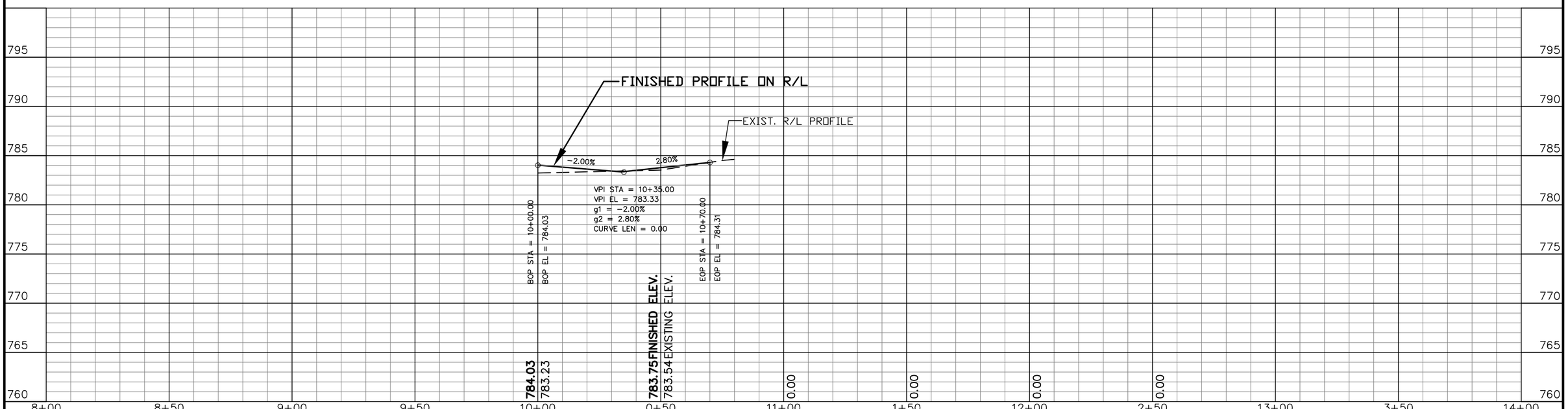
SCALES:
1" = 40' HOR
1" = 5' VER

LEGEND

WETLAND/POND

CURB RAMP, TYPE 4B1 WITH DETECTABLE WARNING FIELD

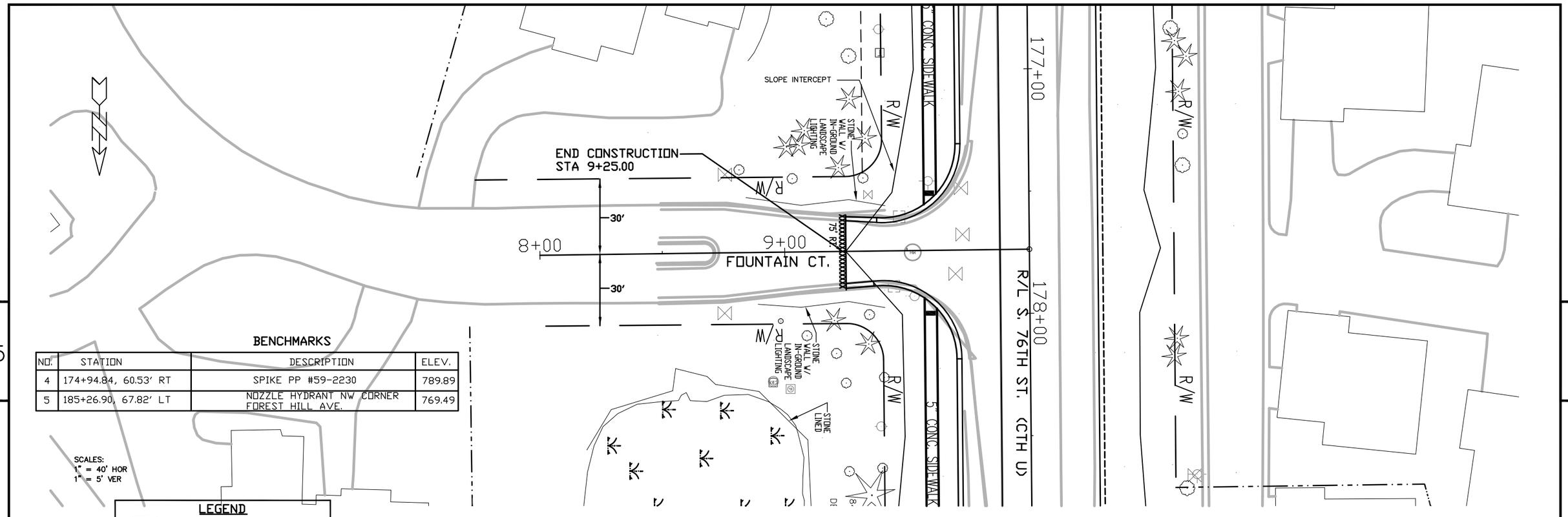
TUCKAWAY SHORES DR.



REVISION DATE: 8/8/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 361 E

WISDOT/CADDS SHEET 40



BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
4	174+94.84, 60.53' RT	SPIKE PP #59-2230	789.89
5	185+26.90, 67.82' LT	NOZZLE HYDRANT NW CORNER FOREST HILL AVE.	769.49

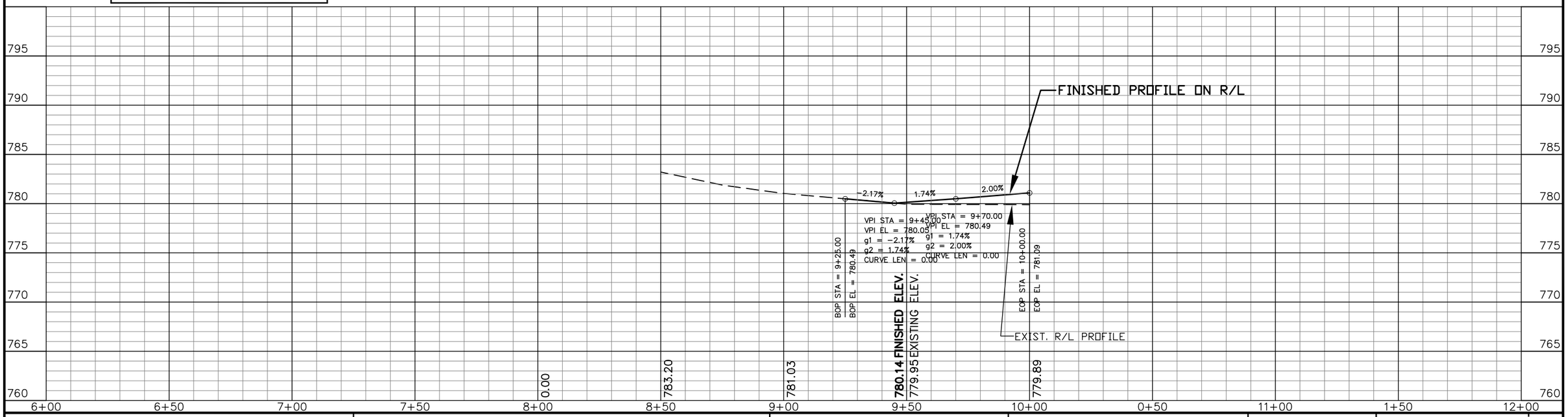
SCALES:
1" = 40' HOR
1" = 5' VER

LEGEND

WETLAND/POND

CURB RAMP, TYPE 4B1 WITH DETECTABLE WARNING FIELD

FOUNTAIN COURT



REVISION DATE: 8/8/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 362 E

WISDOT/CADDS SHEET 40

END CONSTRUCTION
STA 8+40.00

TLE LIMIT 2'
N. OF BUILDING

CONC. STONE FASCIA WALL

SLOPE INTERCEPT

83'

35' LT.

MOUNT. CONC. C&G

STONE WALL

BRICK WALL

5' CONC. SIDEWALK

R/W

RECONSTRUCT ISLAND
REPLACE LIGHT POLE
SIGN AND FLAG POLE
BY OTHERS.

TUCKAWAY CREEK DR.

BRICK PAVERS

92'

FLAG POLE

BRICK SIGN

160' RT.

30' RT.

REMOVE AND REPLACE
DECORATIVE WALL
BY OTHERS

CONC. STONE FASCIA WALL

R/W

REMOVE EXISTING WOOD
PEDESTRIAN BRIDGE
BY OTHERS

REDWOOD BRIDGE

183+00

10+00

R/L S 76TH ST (CTH U)

184+00

CONCRETE FLUME

STONE ENDWALL

R/W

POND

POND

R/W

R/W

TUCKAWAY CREEK DR.

TUCKAWAY CREEK DRIVE

LANDSCAPE AREA

SCALES:
1" = 40' HOR.
1" = 5' VER

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
4	174+94.84, 60.53' RT	SPIKE PP #59-2230	789.89
5	185+26.90, 67.82' LT	NOZZLE HYDRANT NW CORNER FOREST HILL AVE.	769.49

LEGEND

WETLAND/POND

CURB RAMP, TYPE 4B1 WITH DETECTABLE WARNING FIELD

FINISHED PROFILE ON R/L

BOP STA = 8+47.00
BOP EL = 769.01

VPI STA = 9+60.00
VPI EL = 770.78
g1 = 2.00%
g2 = 3.00%
CURVE LEN = 0.00

EOP STA = 10+00.00
EOP EL = 771.98

1.52%

2.00%

3.00%

VPI STA = 9+50.00
VPI EL = 770.58
g1 = 1.52%
g2 = 2.00%
CURVE LEN = 0.00

EXIST. R/L PROFILE

785 780 775 770 765 760 755 750

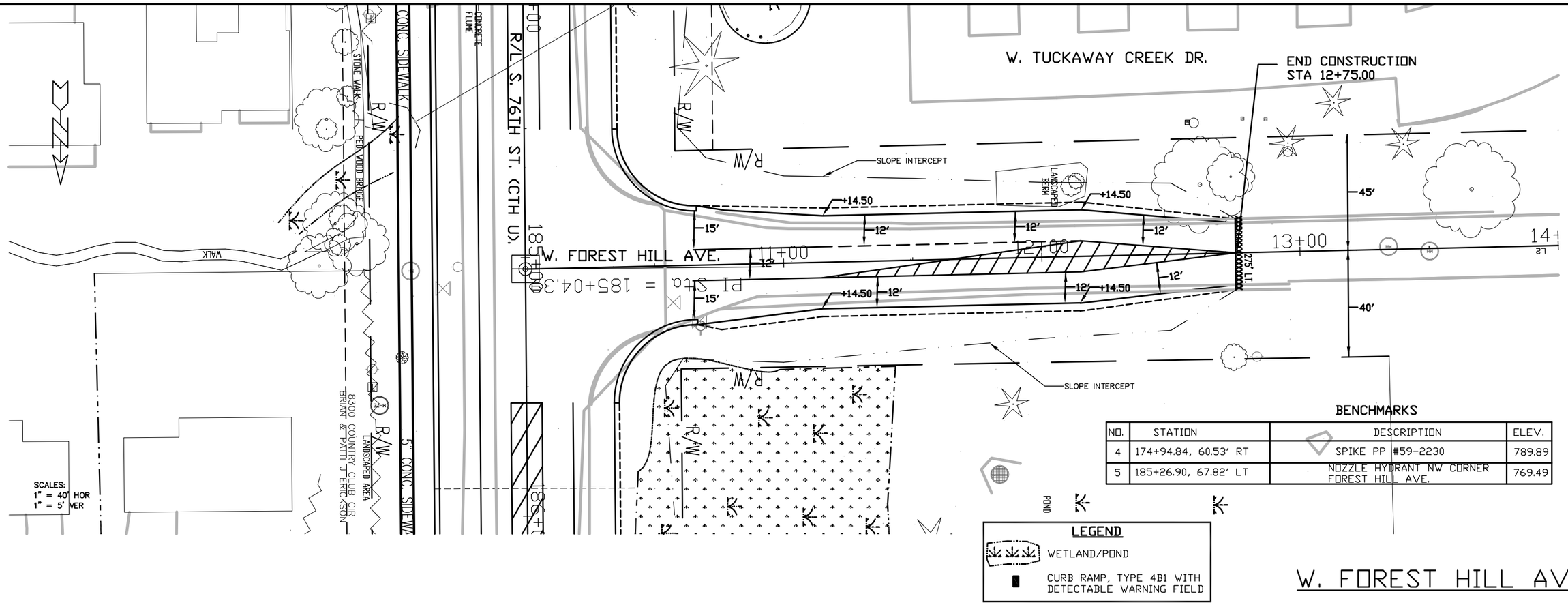
7+00 7+50 8+00 8+50 9+00 9+50 10+00 0+50 11+00 1+50 12+00 2+50 13+00

	8+50	9+00	9+50	10+00
FINISHED ELEV.	769.06	769.82	770.58	771.98
EXISTING ELEV.	768.91	769.81	770.16	770.19

REVISION DATE: 4/22/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 363 E

WISDOT/CADDS SHEET 40



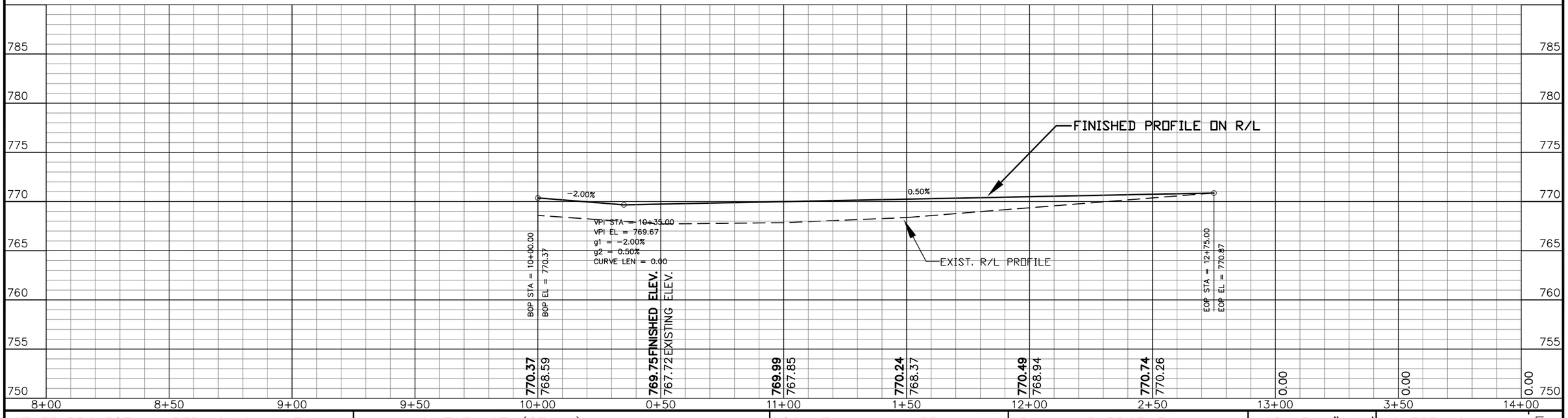
BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
4	174+94.84, 60.53' RT	SPIKE PP #59-2230	789.89
5	185+26.90, 67.82' LT	NOZZLE HYDRANT NW CORNER FOREST HILL AVE.	769.49

LEGEND

- WETLAND/POND
- CURB RAMP, TYPE 4B1 WITH DETECTABLE WARNING FIELD

W. FOREST HILL AVE



STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 364 E

REVISION DATE: 6/8/2012

WISDOT/CADDS SHEET 40

END CONSTRUCTION
STA 8+80.00

30'

8+00

9+00

10+00

120' RT.

COUNTRY CLUB CIR (1)

R/L S. 76TH ST. (CTH U)

187+00

186+00

R/W

5" CONC. SIDEWALK

LANDSCAPED AREA

COUNTRY CLUB CIR & PATTI J ERICKSON

SLOPE, INTERCEPT

R/W

SLOPE INTERCEPT

LANDSCAPED AREA W/DECOR PILLARS & SIGN

8290 COUNTRY CL CHRISTOPHER SHELLY M HU

5" CONC. SIDEWALK

LANDSCAPED BERM

POND

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
4	174+94.84, 60.53' RT	SPIKE PP #59-2230	789.89
5	185+26.90, 67.82' LT	NOZZLE HYDRANT NW CORNER FOREST HILL AVE.	769.49

SCALES:
1" = 40' HOR
1" = 5' VER

LEGEND

WETLAND/POND

CURB RAMP, TYPE 4B1 WITH DETECTABLE WARNING FIELD

COUNTRY CLUB CIRCLE (1)

FINISHED PROFILE ON R/L

BOP STA = 8+80.00
BOP EL = 765.57

VPI STA = 9+65.00
VPI EL = 768.52
g1 = 3.47%
g2 = 2.00%
CURVE LEN = 0200

EOP STA = 10+00.00
EOP EL = 768.22

3.47%

2.00%

EXIST. R/L PROFILE

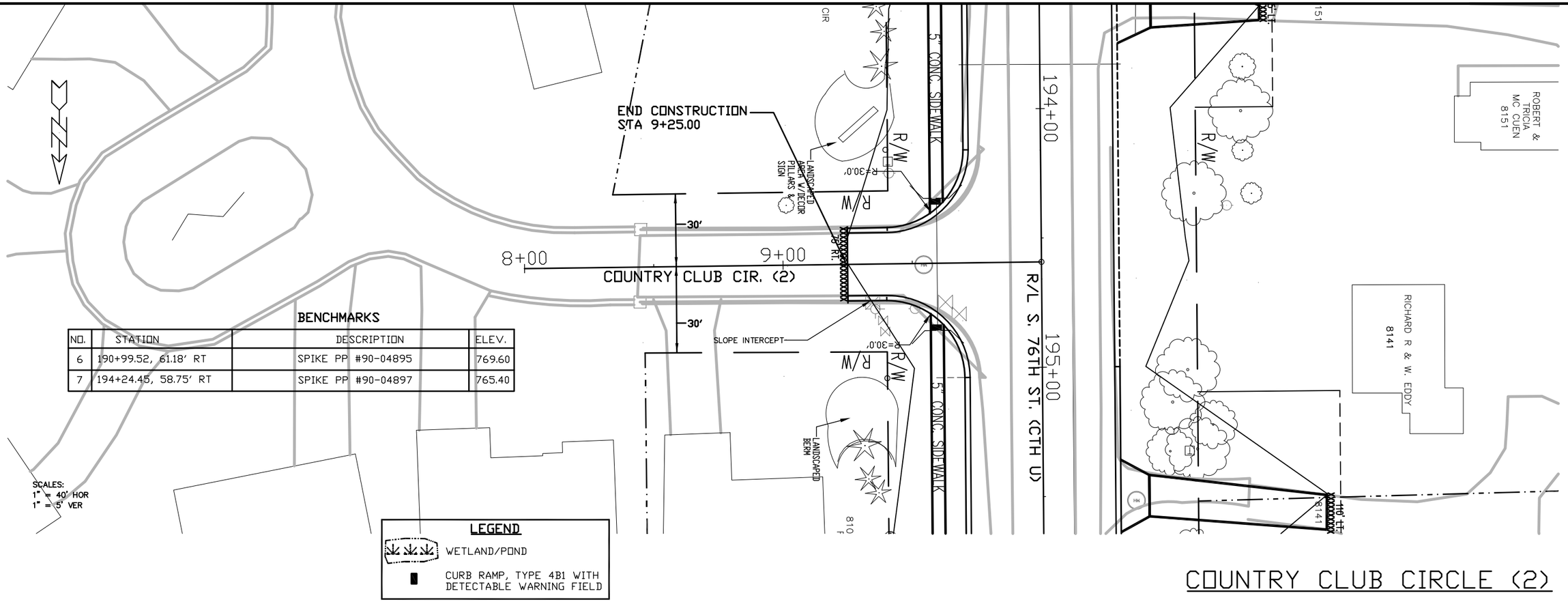
780 775 770 765 760 755 750 745

	6+00	6+50	7+00	7+50	8+00	8+50	9+00	9+50	10+00	0+50	11+00	1+50	12+00
				0.00	0.00	0.00	**766.27**	**768.00**	**767.85**				
FINISHED ELEV.							765.92	766.80					
EXISTING ELEV.													

REVISION DATE: 6/8/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 365 E

WISDOT/CADDS SHEET 40



BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
6	190+99.52, 61.18' RT	SPIKE PP #90-04895	769.60
7	194+24.45, 58.75' RT	SPIKE PP #90-04897	765.40

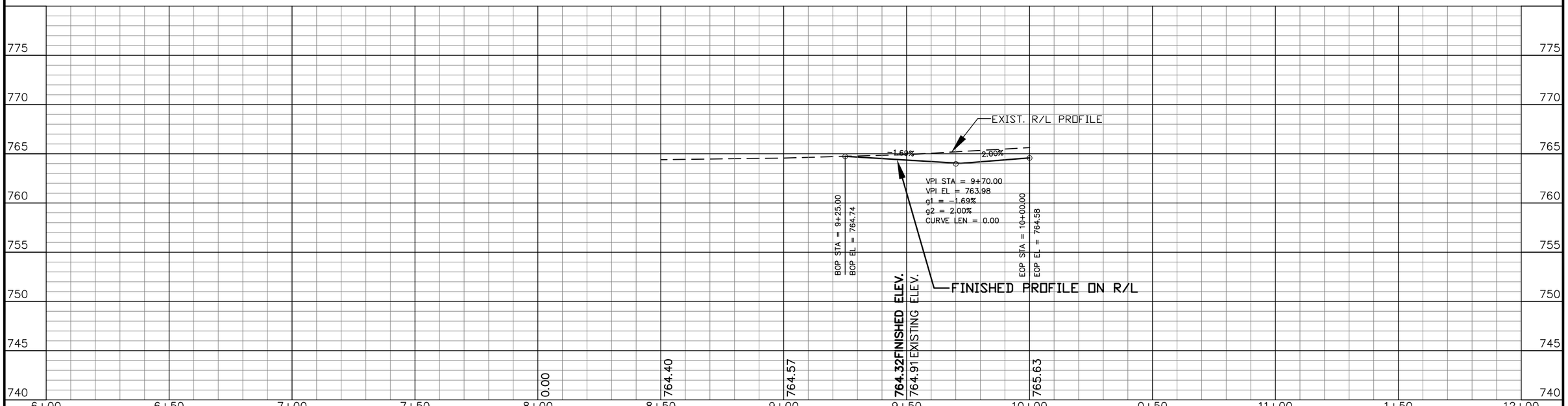
SCALES:
1" = 40' HOR
1" = 5' VER

LEGEND

WETLAND/POND

CURB RAMP, TYPE 4B1 WITH DETECTABLE WARNING FIELD

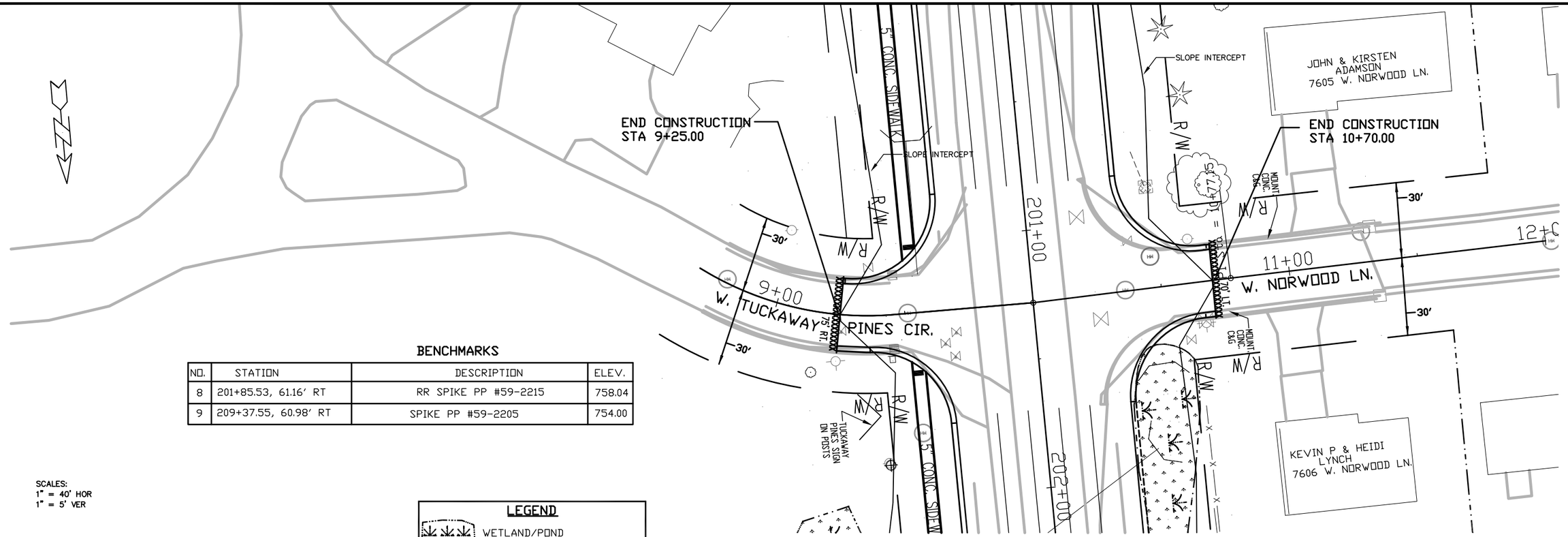
COUNTRY CLUB CIRCLE (2)



STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 366 E

REVISION DATE: 6/8/2012

WISDOT/CADDS SHEET 40



BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
8	201+85.53, 61.16' RT	RR SPIKE PP #59-2215	758.04
9	209+37.55, 60.98' RT	SPIKE PP #59-2205	754.00

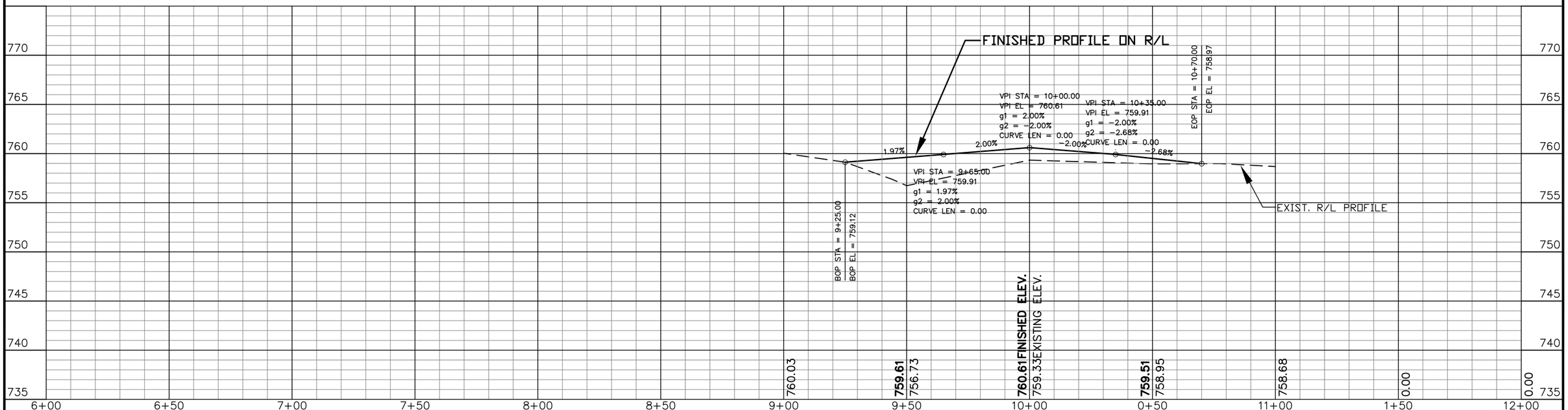
SCALES:
1" = 40' HOR
1" = 5' VER

LEGEND

WETLAND/POND

CURB RAMP, TYPE 4B1 WITH DETECTABLE WARNING FIELD

W. TUCKAWAY PINES CIR. / NORWOOD LN.



REVISION DATE: 6/8/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1'=40'	SHEET NO: 367 E

WISDOT/CADDS SHEET 40

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
10	211+48.80, R/L	BRASS PLUG SEC. COR. DREXEL	747.11
11	212+41.13, 52.39' RT	BRASS PLUG SE CORNER BOX CULVERT	740.47

END CONSTRUCTION
STA 5+50.00

60'

45' LT.

R/W

SLOPE INTERCEPT

ASPH. PAD W/TIMBER WALL

5' CONC. SIDEWALK

R/W

211+00

212+00

= 211+48.80

R/L S. 76TH ST. (CTH U)

GUARD RAIL

5' CONC. SIDEWALK

GUARD RAIL

12'

+25

+35

+45

15'

6+00

7+00

8+00

9+00

S 89°-29'-23" W

DREXEL AVE.

450' RT.

VARIES

SLOPE INTERCEPT

LEGEND CREEK

LEGEND CREEK

SAN

C-40-0022

SCALES:
1" = 40' HOR
1" = 5' VER

LEGEND

WETLAND/POND

CURB RAMP, TYPE 4B1 WITH DETECTABLE WARNING FIELD

DREXEL AVE. (EAST)

VPI STA = 8+00.00
VPI EL = 742.95
g1 = 3.50%
g2 = 3.04%
CURVE LEN = 0.00

VPI STA = 9+00.00
VPI EL = 745.99
g1 = 3.04%
g2 = 2.25%
CURVE LEN = 0.00

VPI STA = 10+00.00
VPI EL = 748.24
g1 = 2.25%
g2 = 0.83%
CURVE LEN = 110.00
K = 77.28
E = 0.20

3.50%
3.04%
2.25%
0.83%

FINISHED PROFILE ON R/L

EXIST. R/L PROFILE

VPC STA = 9+45.00
VPC EL = 747.00

VPT STA = 10+55.00
VPT EL = 748.69

	5+00	5+50	6+00	6+50	7+00	7+50	8+00	8+50	9+00	9+50	10+00	0+50	11+00
FINISHED ELEV.		734.20	735.95	737.70	739.45	741.20	742.95	744.47	745.99	747.11	748.04	748.65	749.15
EXISTING ELEV.		734.20	735.95	737.70	739.45	741.21	742.95	744.66	746.09	746.97	747.25	747.34	748.01

760 755 750 745 740 735 730 725

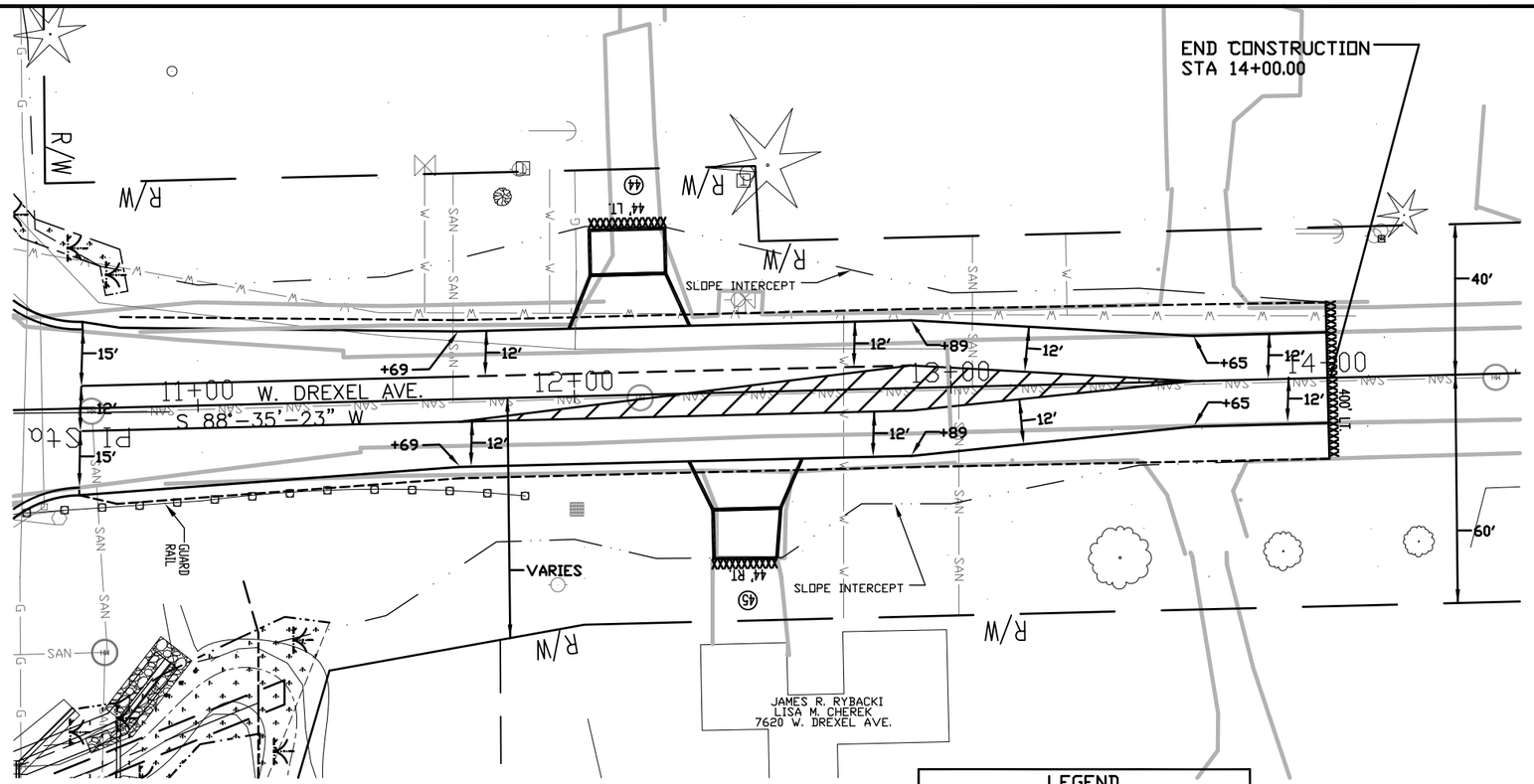
REVISION DATE: 6/8/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 368 E

WISDOT/CADDS SHEET 40

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
10	211+48.80, R/L	BRASS PLUG SEC. COR. DREXEL	747.11
11	212+41.13, 52.39' RT	BRASS PLUG SE CORNER BOX CULVERT	740.47

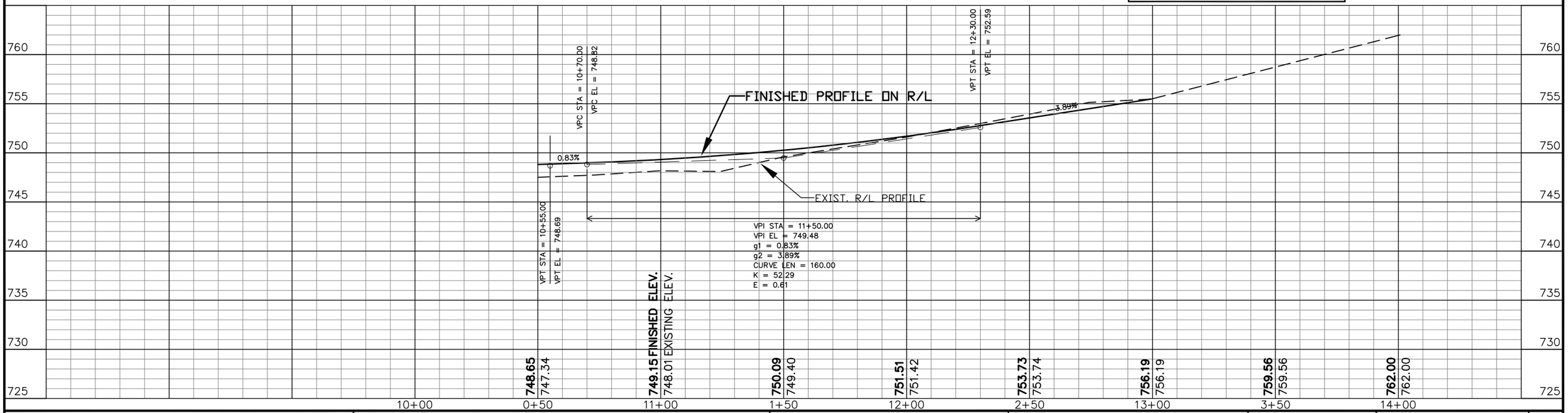


SCALES:
1" = 40' HOR
1" = 5' VER

DREXEL AVE. (WEST)

LEGEND

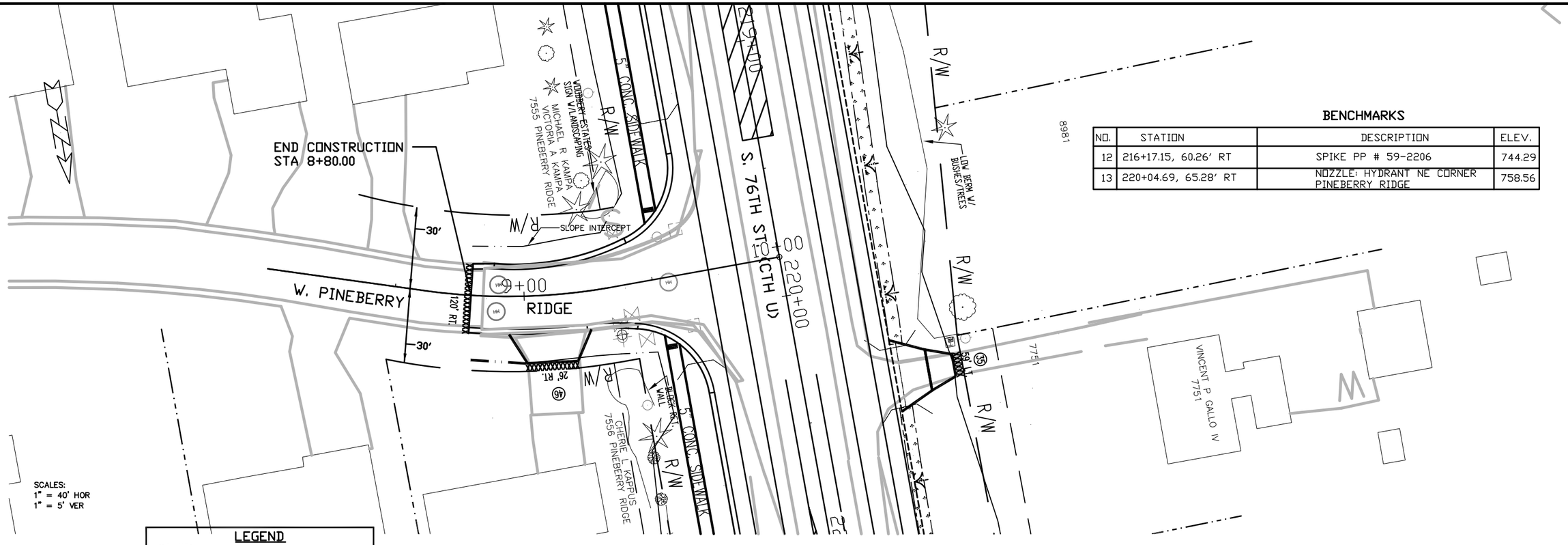
- WETLAND/POND
- CURB RAMP, TYPE 4B1 WITH DETECTABLE WARNING FIELD



REVISION DATE: 6/8/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 369 E

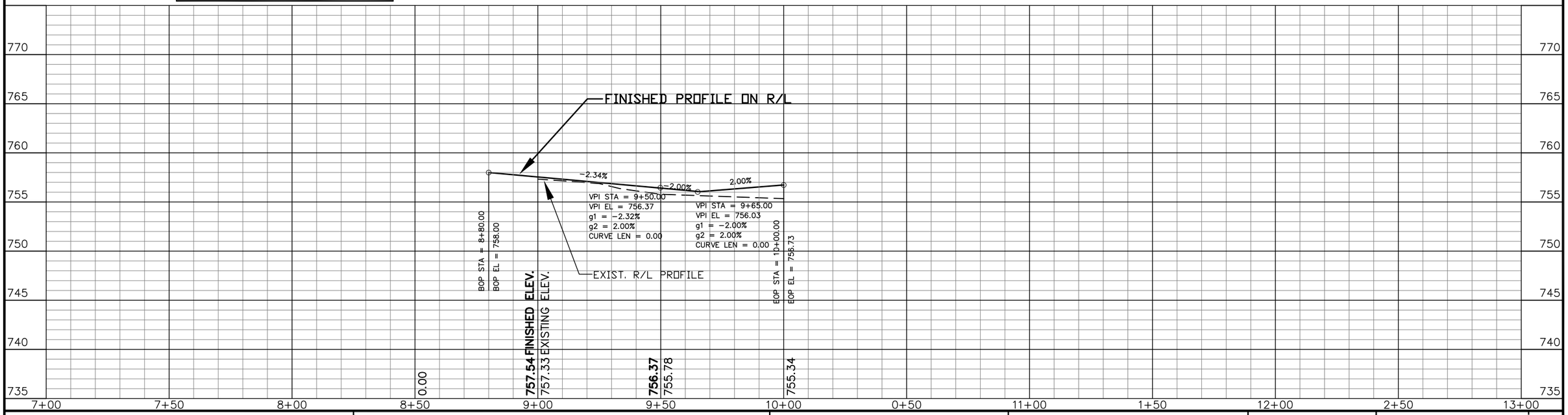
WISDOT/CADDS SHEET 40



BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
12	216+17.15, 60.26' RT	SPIKE PP # 59-2206	744.29
13	220+04.69, 65.28' RT	NOZZLE: HYDRANT NE CORNER PINEBERRY RIDGE	758.56

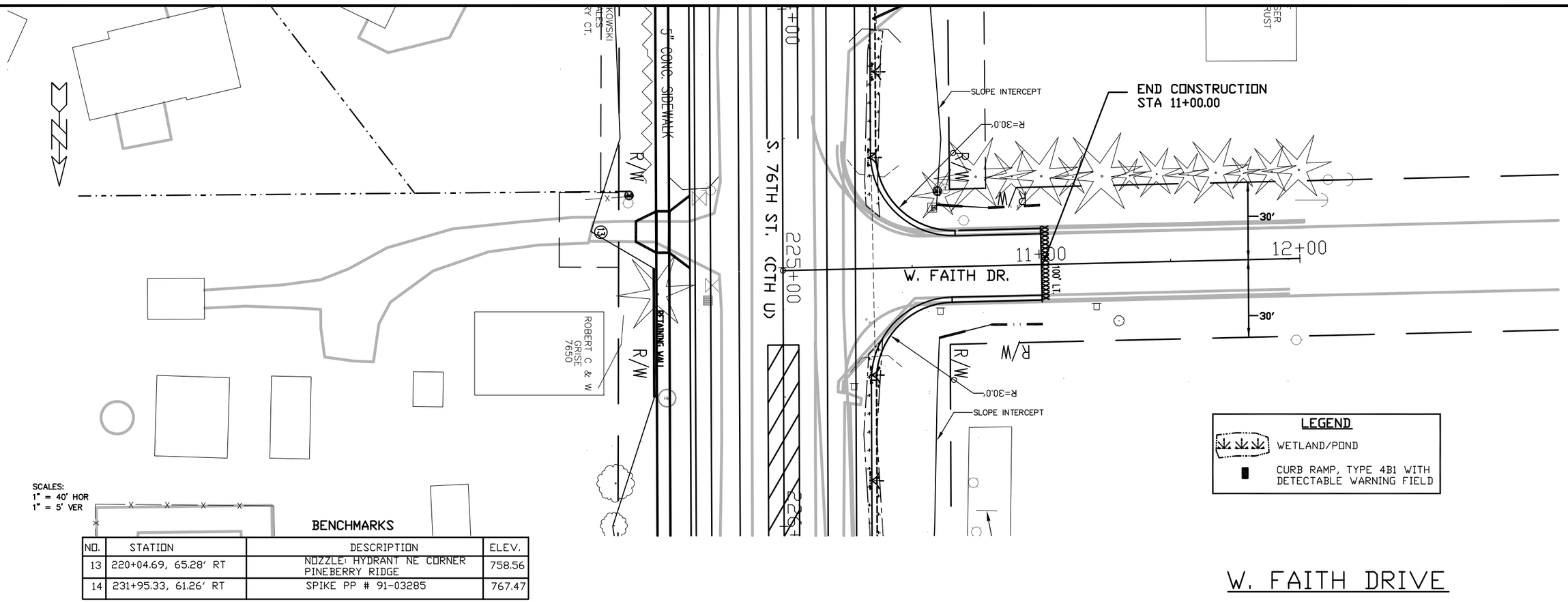
W. PINEBERRY RIDGE



REVISION DATE: 6/8/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 370 E

WISDOT/CADDS SHEET 40

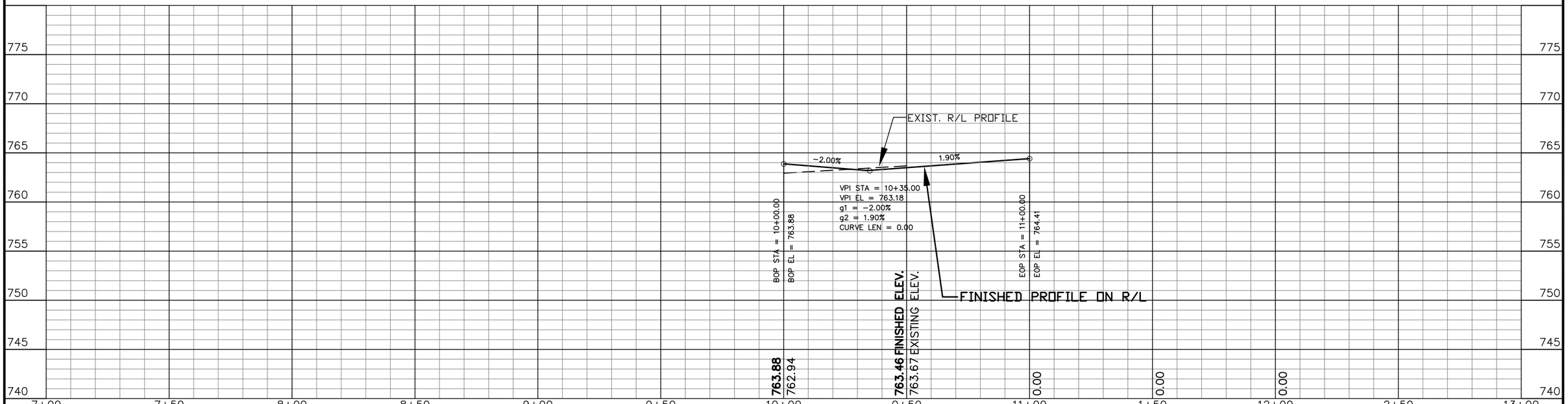


SCALES:
1" = 40' HOR
1" = 5' VER

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
13	220+04.69, 65.28' RT	NOZZLE: HYDRANT NE CORNER PINEBERRY RIDGE	758.56
14	231+95.33, 61.26' RT	SPIKE PP # 91-03285	767.47

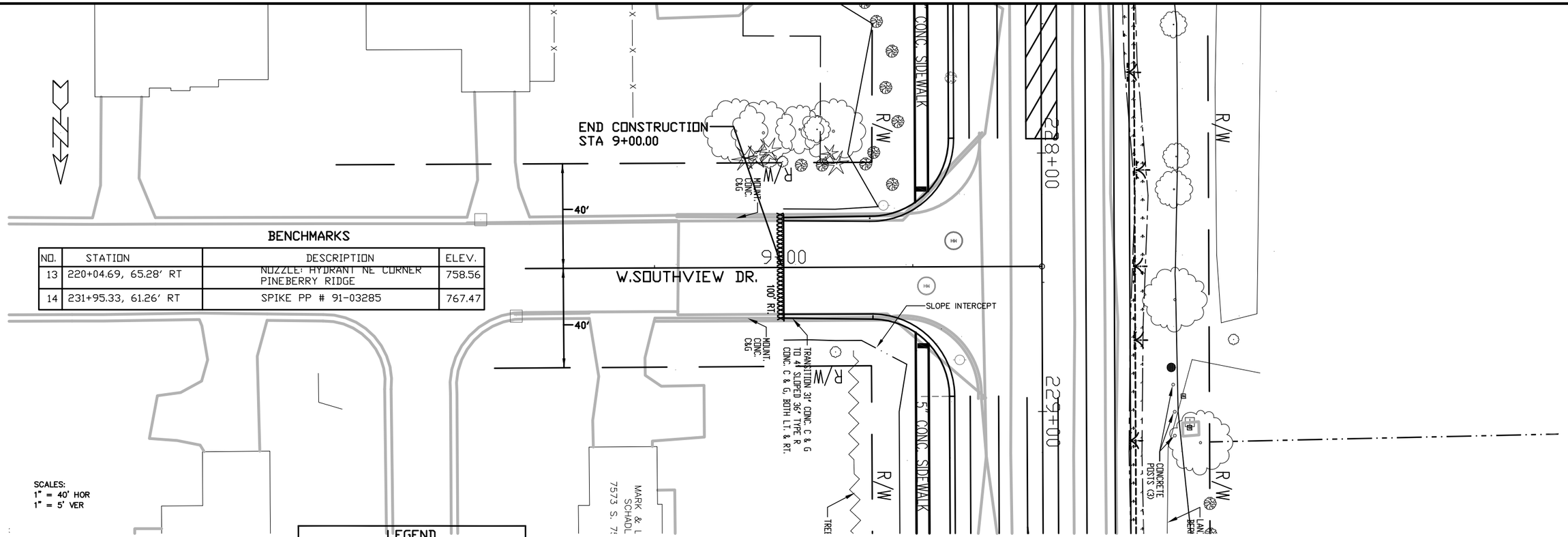
W. FAITH DRIVE



REVISION DATE: 6/8/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 371 E

WISDOT/CADDS SHEET 40



BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
13	220+04.69, 65.28' RT	NOZZLE: HYDRANT NE CORNER PINEBERRY RIDGE	758.56
14	231+95.33, 61.26' RT	SPIKE PP # 91-03285	767.47

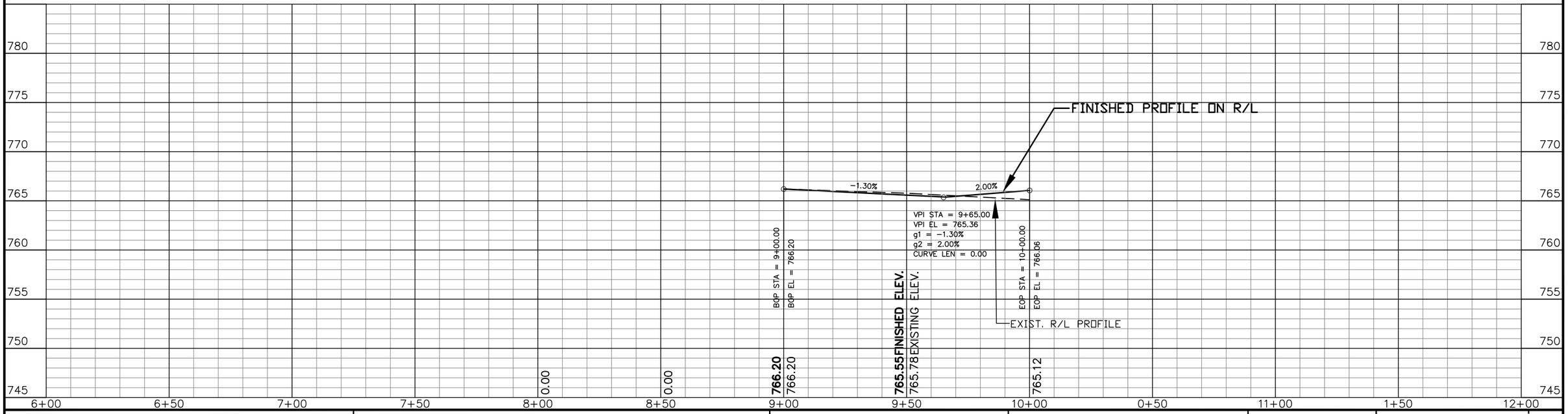
SCALES:
1" = 40' HOR
1" = 5' VER

LEGEND

WETLAND/POND

CURB RAMP, TYPE 4B1 WITH DETECTABLE WARNING FIELD

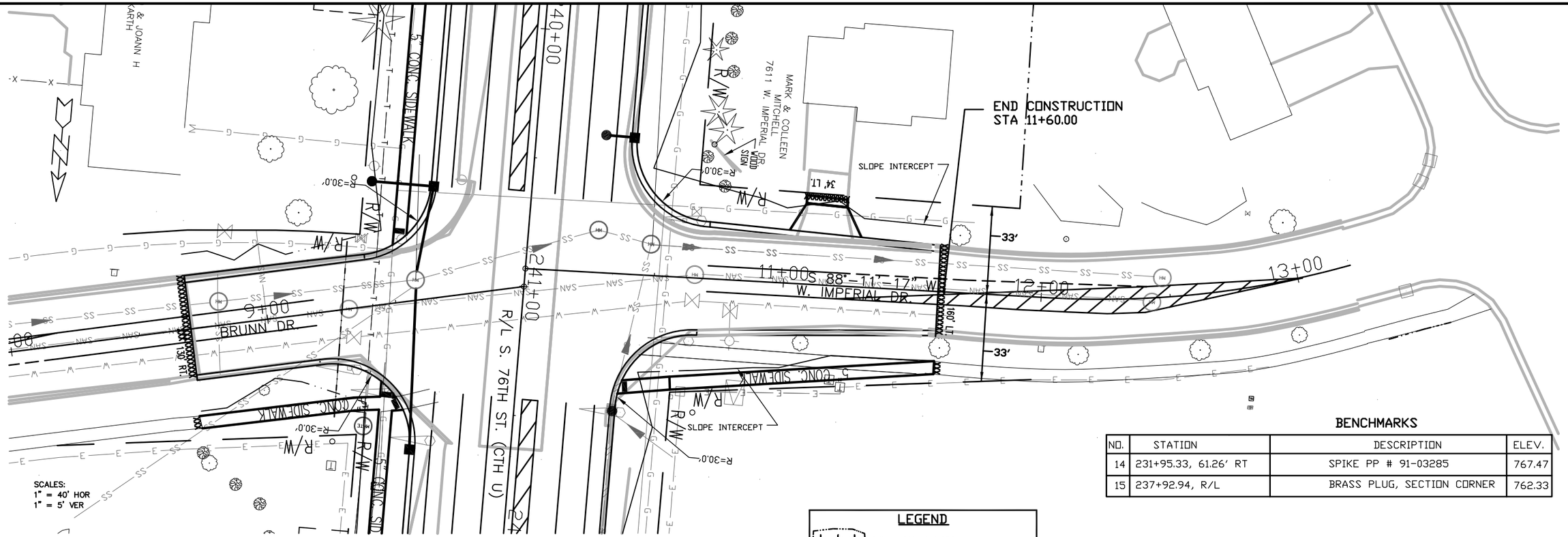
W. SOUTHVIEW DRIVE



REVISION DATE: 6/8/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 372 E

WISDOT/CADDS SHEET 40



BENCHMARKS

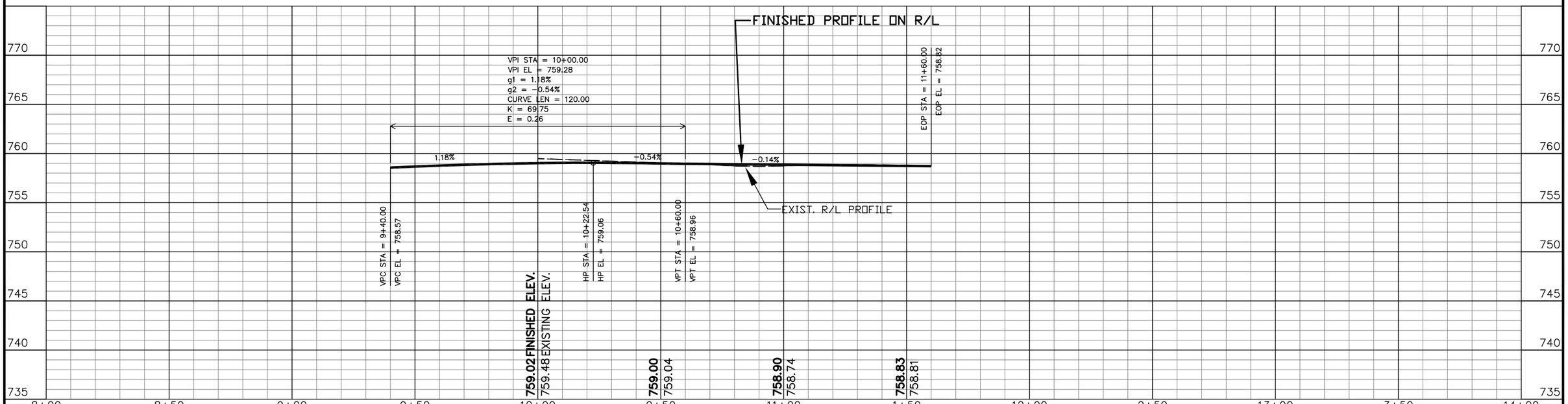
NO.	STATION	DESCRIPTION	ELEV.
14	231+95.33, 61.26' RT	SPIKE PP # 91-03285	767.47
15	237+92.94, R/L	BRASS PLUG, SECTION CORNER	762.33

LEGEND

WETLAND/POND

CURB RAMP, TYPE 4B1 WITH DETECTABLE WARNING FIELD

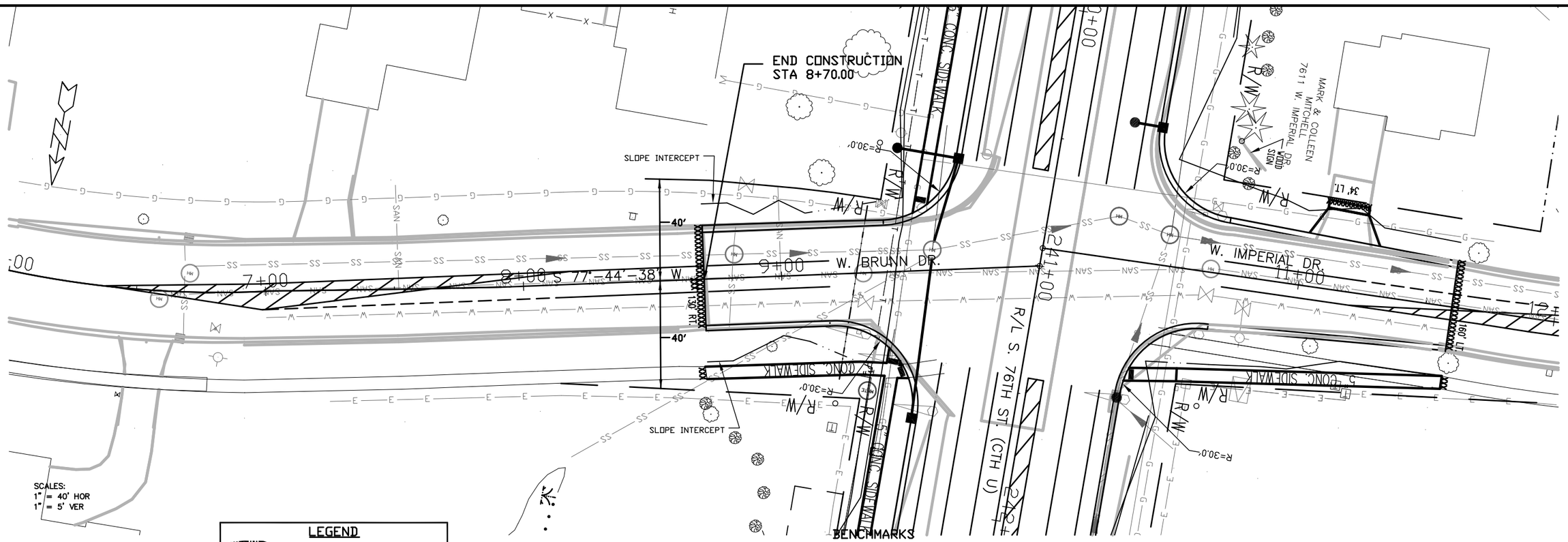
IMPERIAL DRIVE



REVISION DATE: 6/8/2012

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 373 E

WISDOT/CADDS SHEET 40



LEGEND

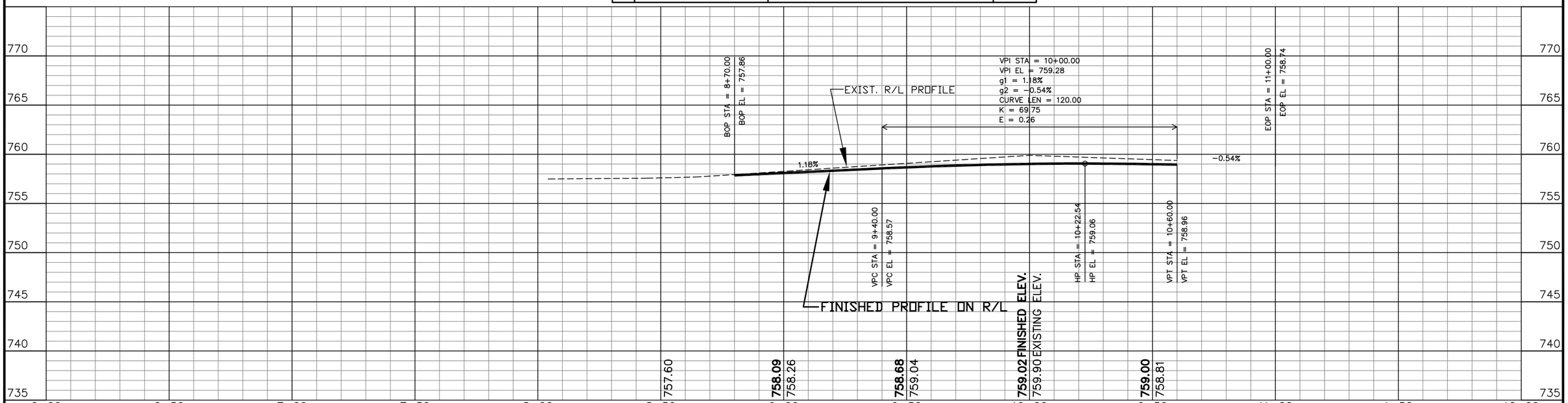
WETLAND/POND

CURB RAMP, TYPE 4B1 WITH DETECTABLE WARNING FIELD

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
14	231+95.33, 61.26' RT	SPIKE PP # 91-03285	767.47
15	237+92.94, R/L	BRASS PLUG, SECTION CORNER	762.33

BRUNN DRIVE



STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	PLAN AND PROFILE	SCALE: 1"=40'	SHEET NO: 374 E

REVISION DATE: 6/8/2012

WISDOT/CADDS SHEET 40

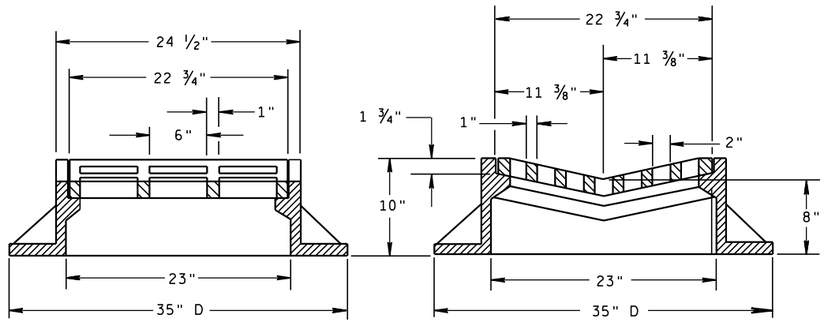
Standard Detail Drawing List

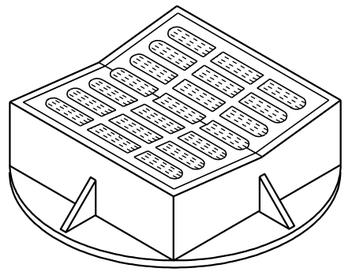
08A05-18B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A08-01	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-01	INLETS 3-FT AND 4-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D16-10	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08D17-06	MANHOLES, MANHOLE & INLET COVERS
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F05-01	CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER
09B02-07	CONDUIT
09B04-10	PULL BOX
09C02-06	CONCRETE BASES, TYPES 1, 2 & 5
09C03-03	TRANSFORMER/PEDESTAL BASES
09C06-05	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C11-03	CONCRETE BASE TYPE 10
09C12-03A	CONCRETE BASE TYPE 13
09C12-03B	CONCRETE BASE TYPE 13
09D01-04	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-02	SIGNAL OR LIGHTING CONTROL CABINET
09E01-12G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-04	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-04B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-04D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-04E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09G01-03A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
13C01-16	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C04-16	URBAN NON-DOWELED CONCRETE PAVEMENT
13C18-02A	CONCRETE PAVEMENT JOINTING
13C18-02B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-02C	CONCRETE PAVEMENT JOINT TIES
13C18-02D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14A01-03	TREE PRESERVATION DETAILS
14B07-13A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
15B03-12A	FENCE CHAIN LINK
15B03-12B	FENCE CHAIN LINK
15C05-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12A	PAVEMENT MARKING SYMBOLS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)

6

Standard Detail Drawing List

15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C11-05	FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES
15C18-03	MEDIAN ISLAND MARKING
15C26-02	END-OF-ROADWAY SIGNING
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

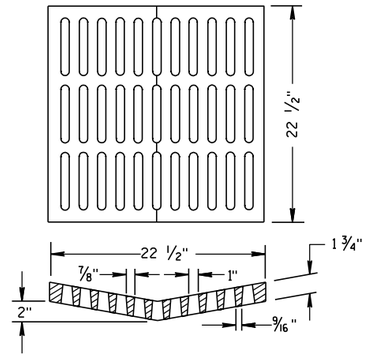




TYPE "B"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME..... 294 LBS.
GRATE..... 111 LBS.

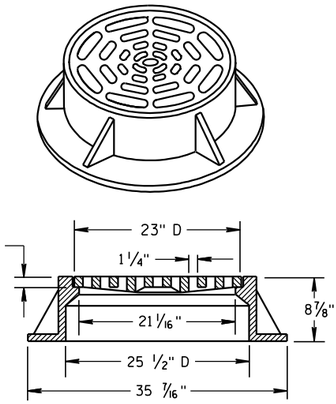


ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 134 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

(APPROXIMATE WEIGHT 259 LBS.)

FRAME..... 152 LBS.
GRATE..... 107 LBS.

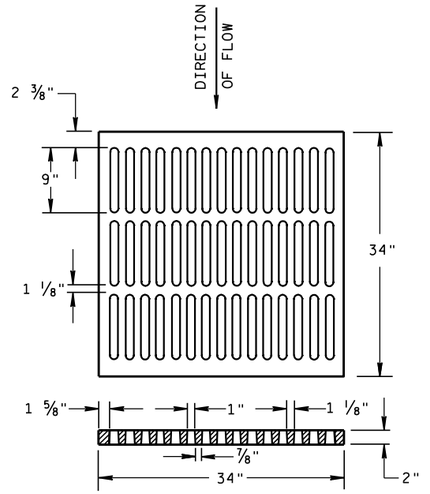
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

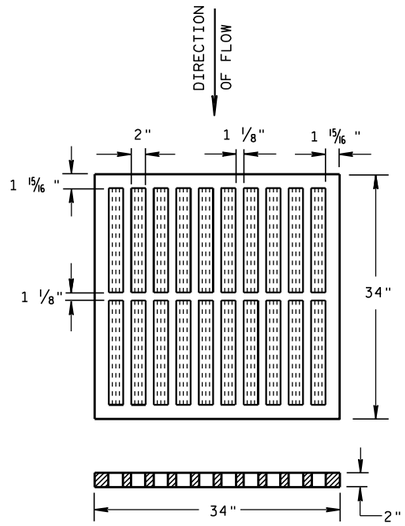


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

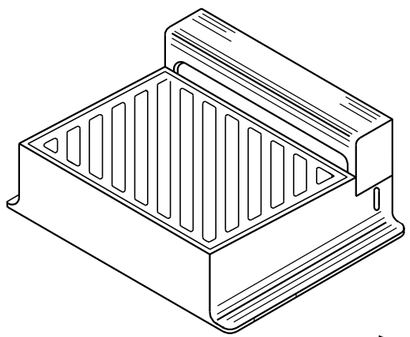


TYPE "MS"

(APPROXIMATE GRATE WEIGHT 268 LBS.)

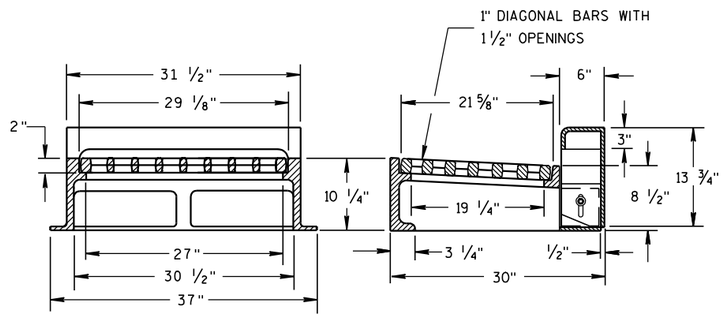
USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE



DIRECTION OF FLOW

DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

(APPROXIMATE WEIGHT 648 LBS.)

FRAME..... 355 LBS.
GRATE..... 156 LBS.
CURB BOX..... 137 LBS.

INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012 DATE

/S/ Jerry H. Zaas
ROADWAY STANDARDS ENGINEER

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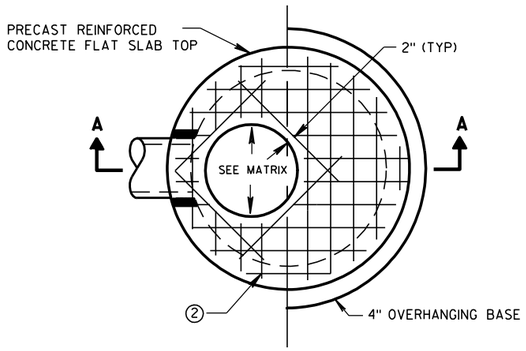
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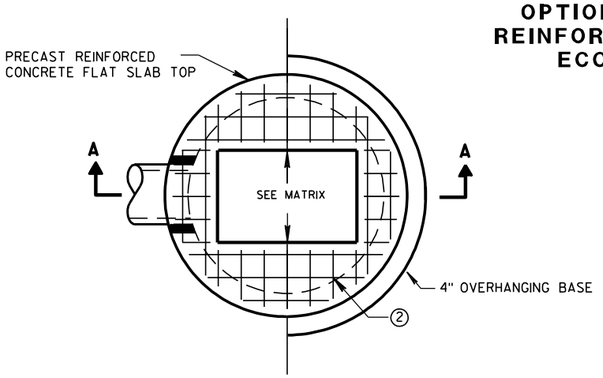
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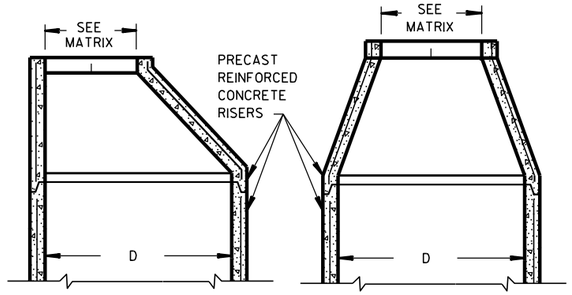
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PLAN VIEW CIRCULAR OPENING

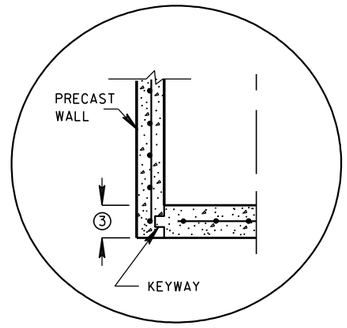


PLAN VIEW RECTANGULAR OPENING

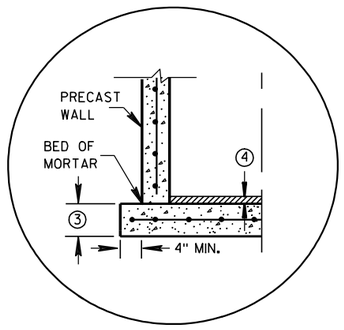


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

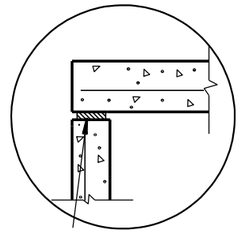


PRECAST REINFORCED
CONCRETE WITH INTEGRAL BASE OPTION



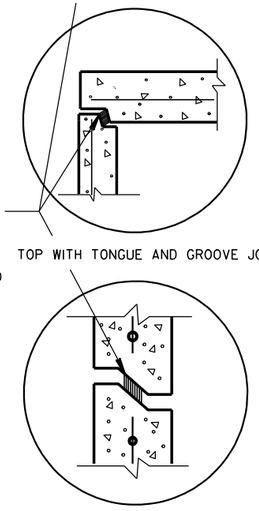
SEPERATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "A"



TOP WITH PLAIN END JOINT

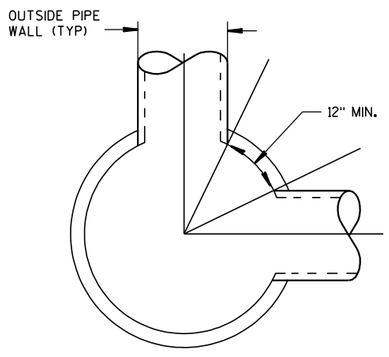
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



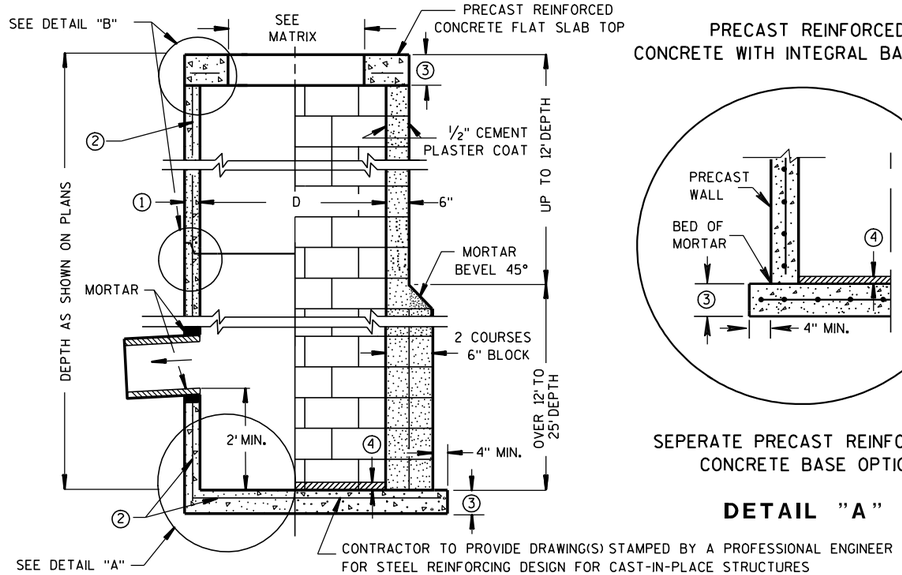
TOP WITH TONGUE AND GROOVE JOINT

RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



DETAIL "C"



CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

SECTION A-A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT)											
3-FT	2X2	X	X					X		X		
	2 DIA.				X							X
4-FT-6-FT	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3					X						

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

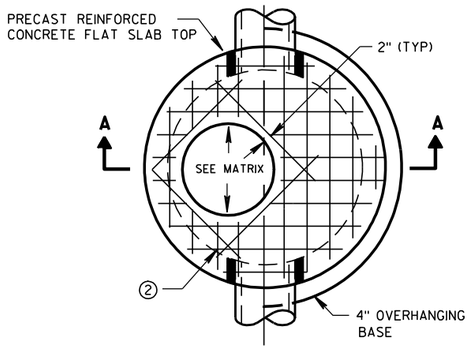
6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

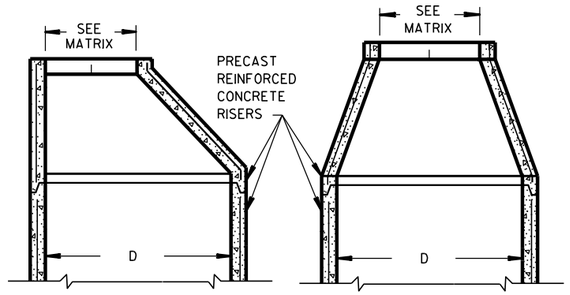
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CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

6
S.D.D. 8 A 8-1

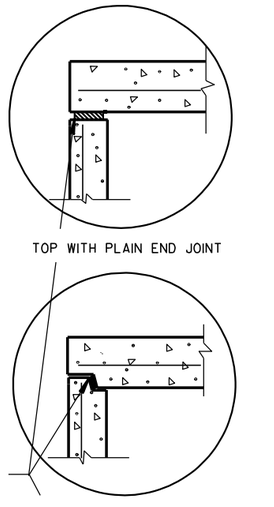


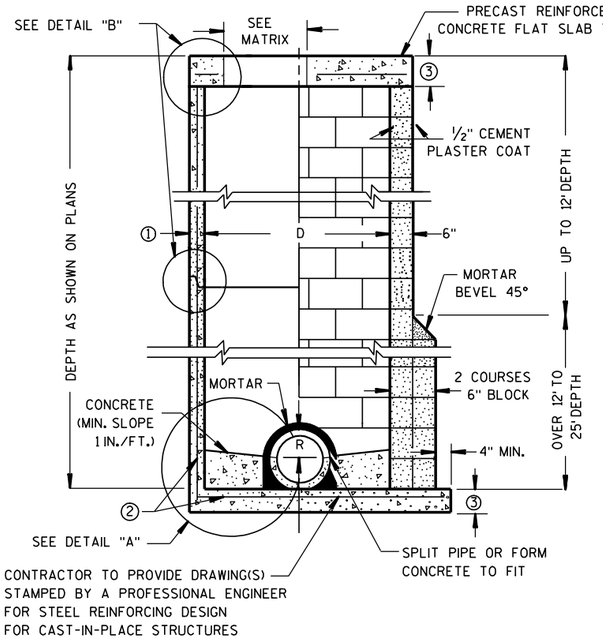
PLAN VIEW CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

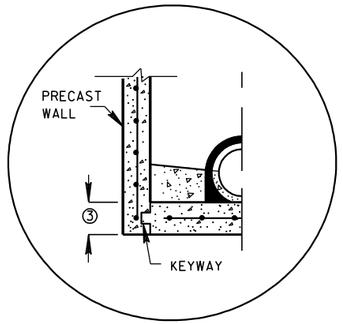
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



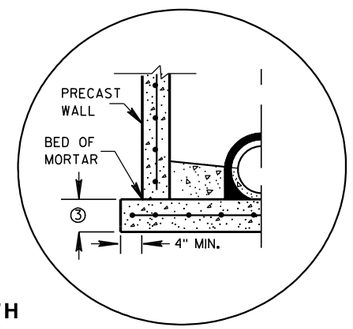


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

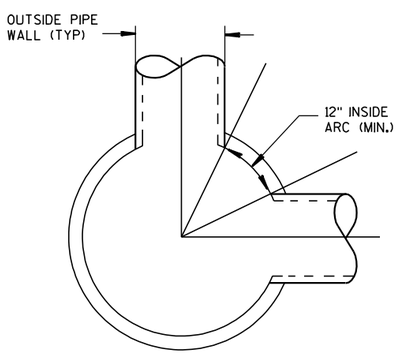


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

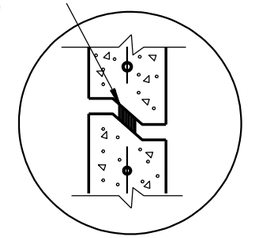


SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



DETAIL "B"

GENERAL NOTES

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ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

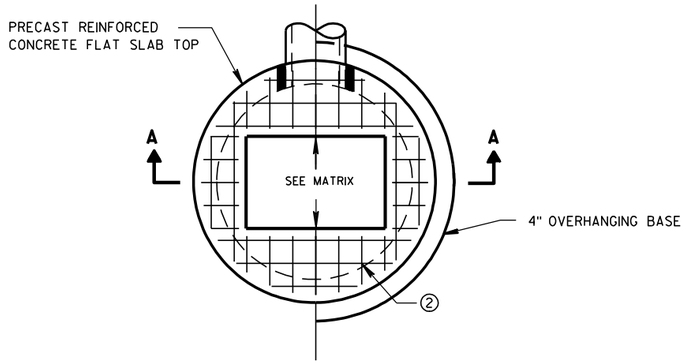
APPROVED

6/5/2012
DATE

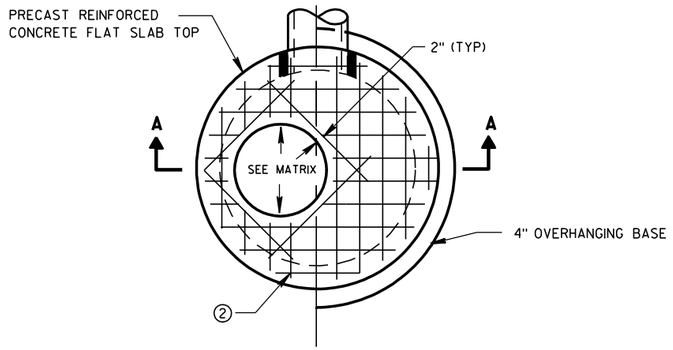
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

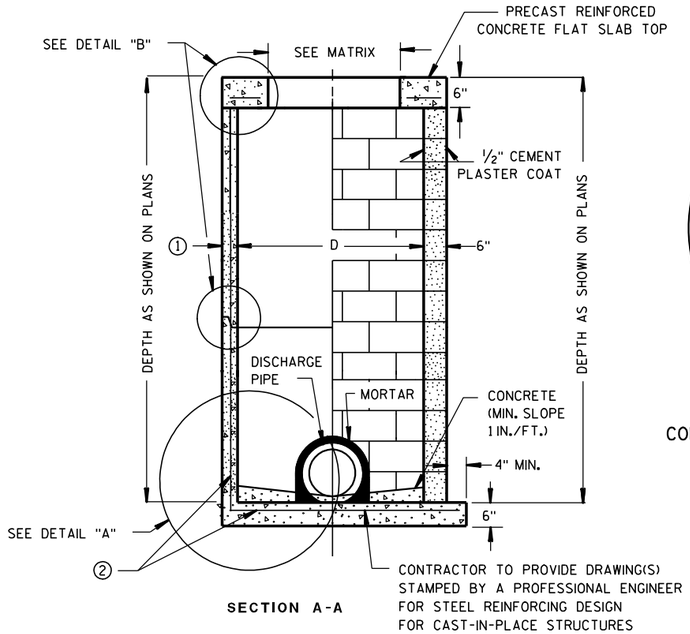
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PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

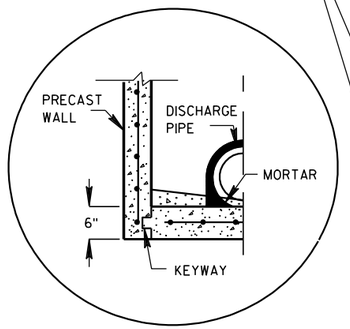


SECTION A-A

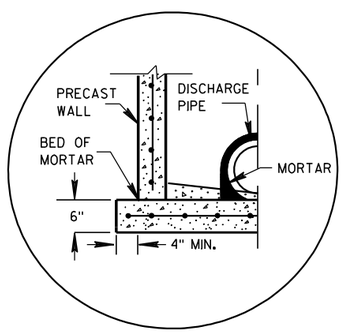
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

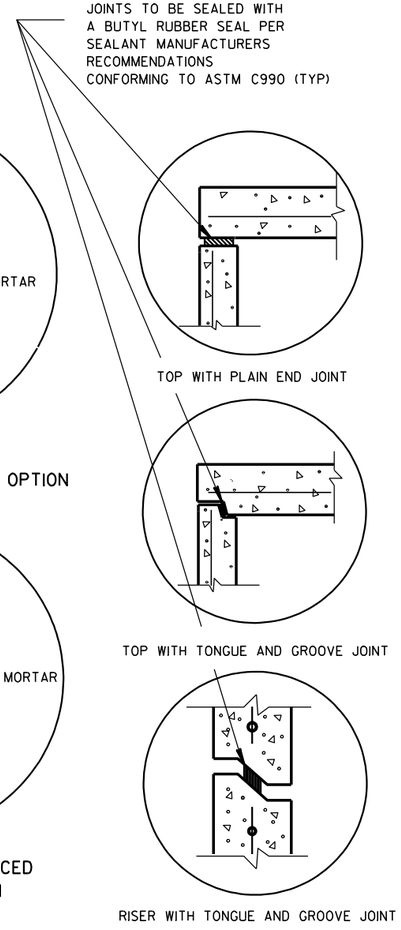


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "B"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

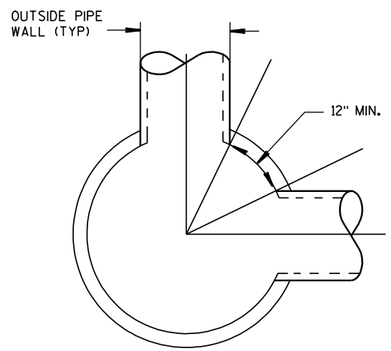
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

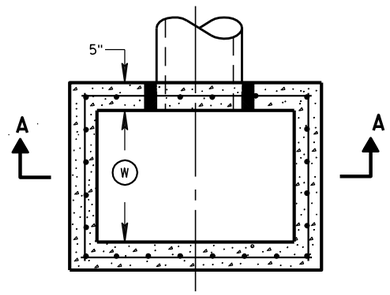
INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

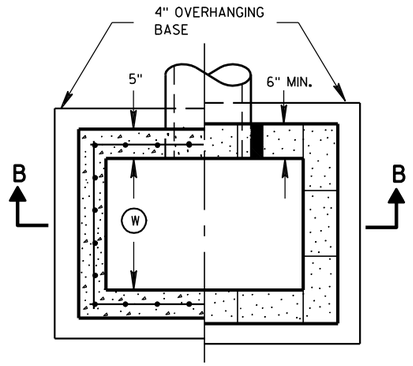
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

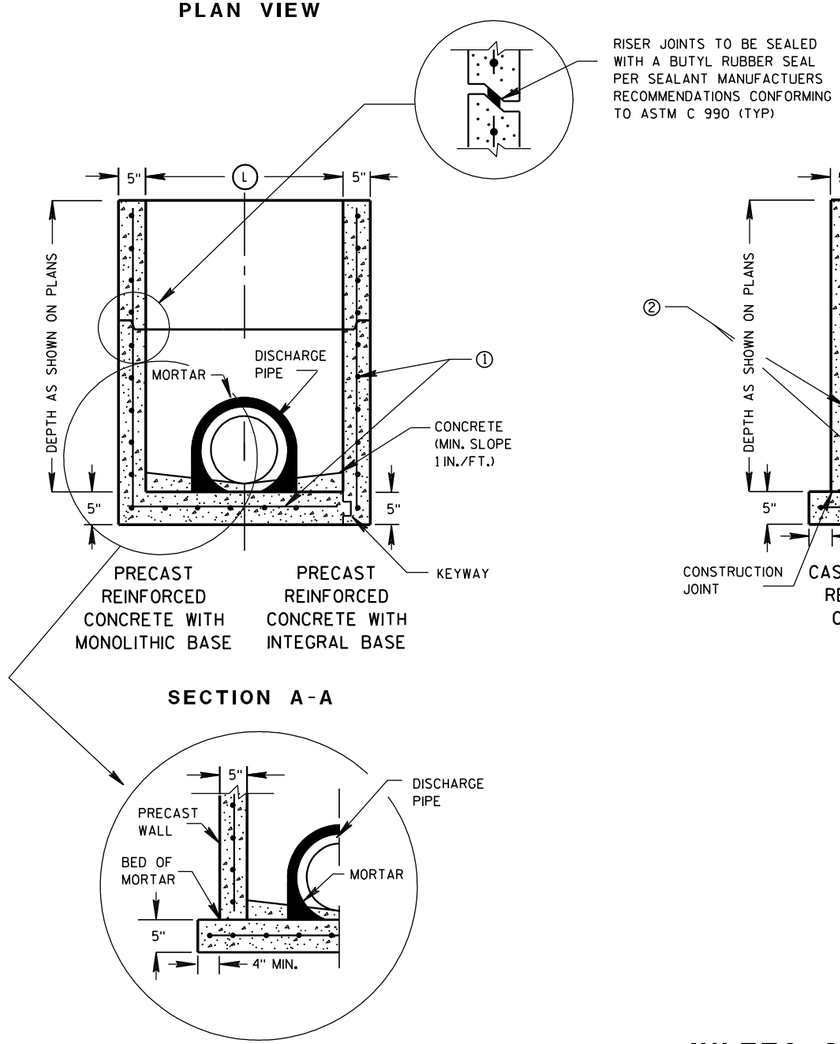
6
S.D.D. 8 C 6-1



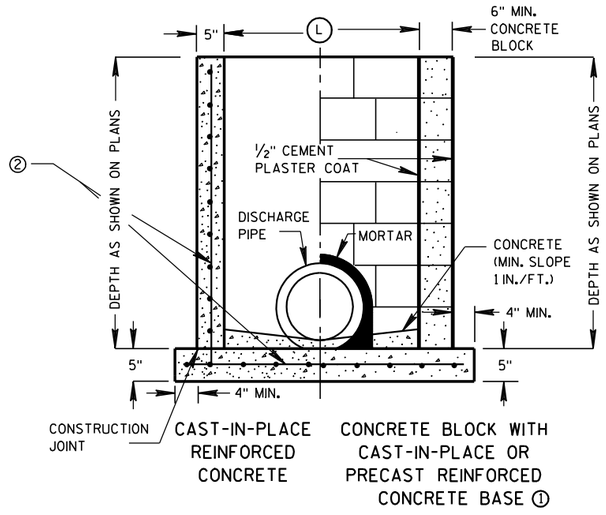
PLAN VIEW



PLAN VIEW



SECTION A-A



SECTION B-B

SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

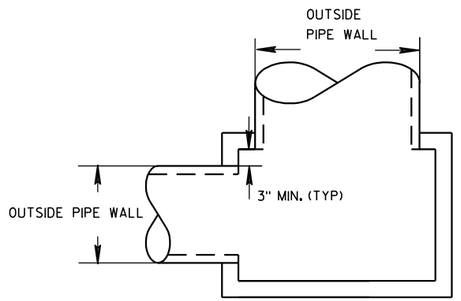
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS D ENGINEER
FHWA

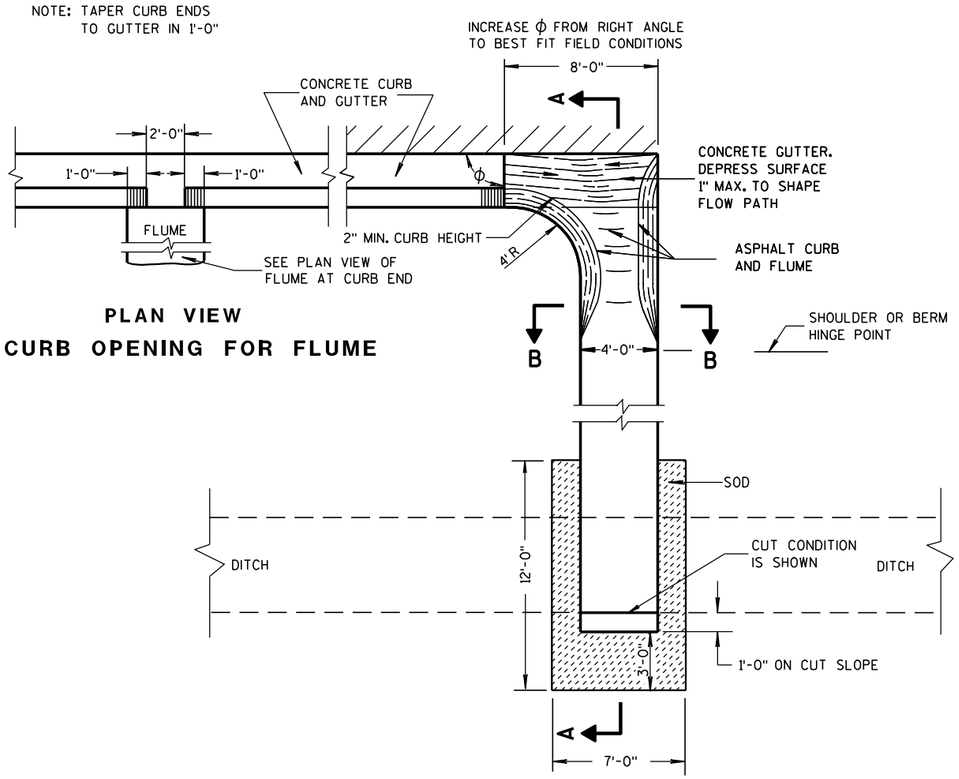
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S.D.D. 8 C 7-1

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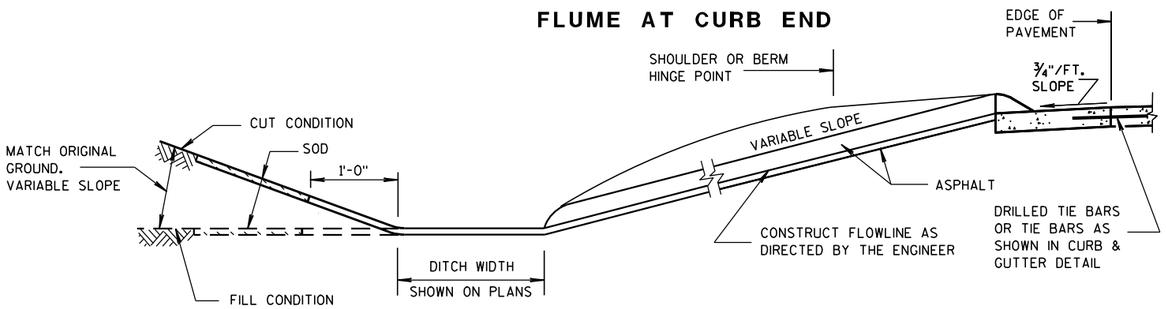
S.D.D. 8 C 7-1

ASPHALTIC FLUME

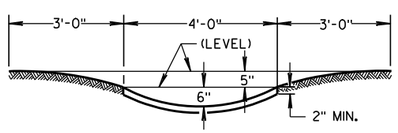


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

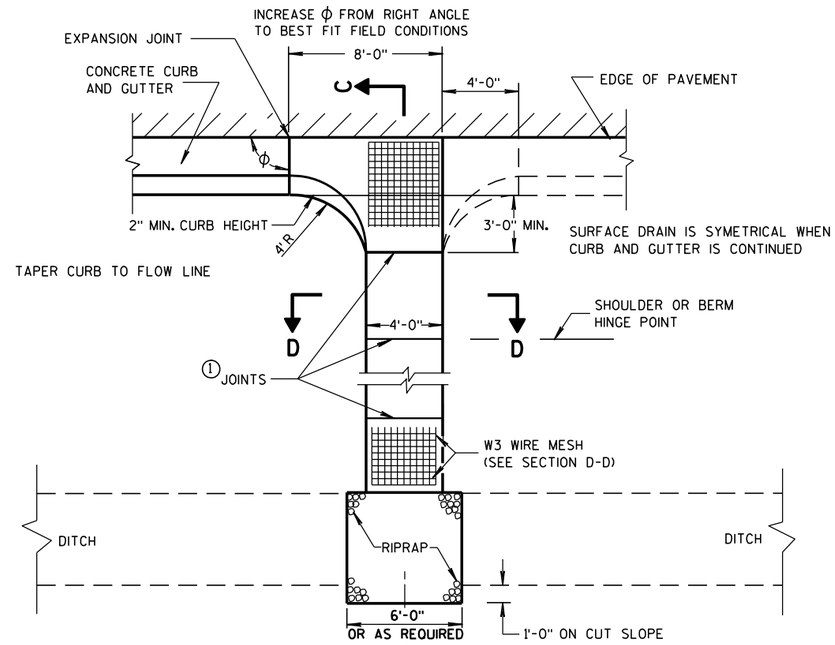
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE ⅛ TO ¼ INCH WIDE BY 1½ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

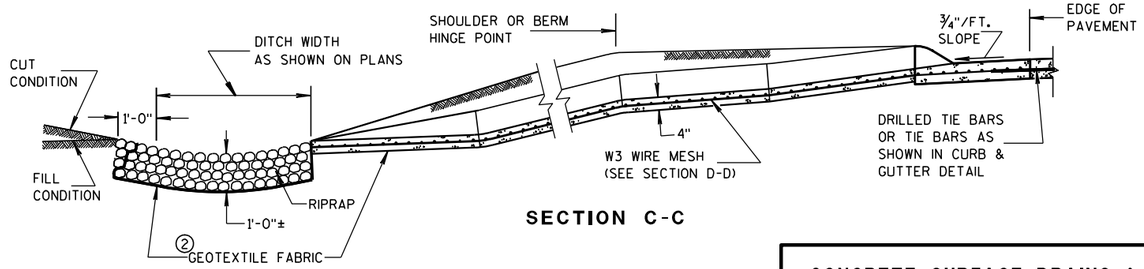
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

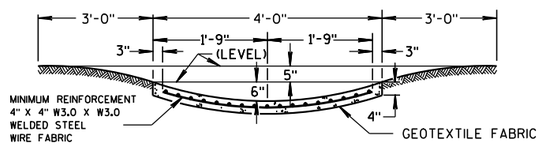
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

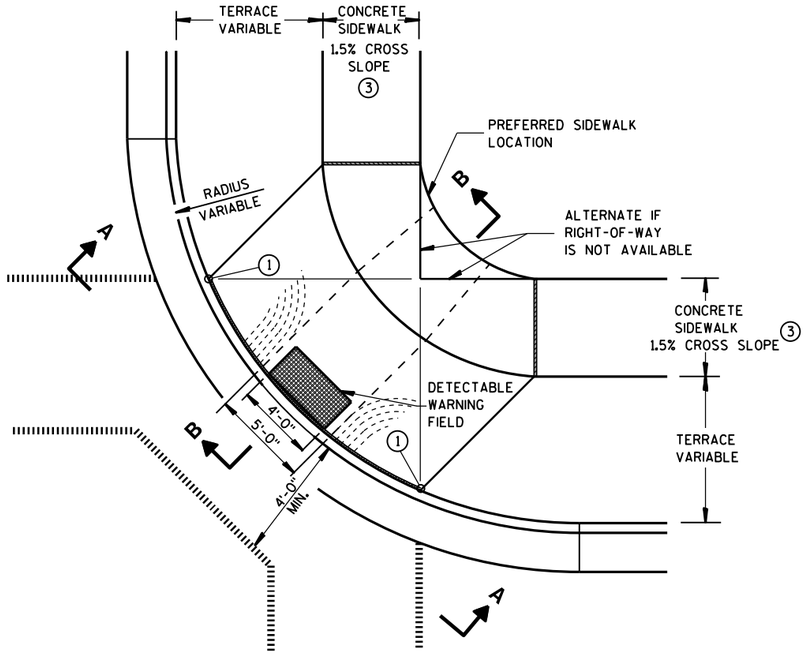
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
MENT
FHWA

6

S.D.D. 8 D 4-5

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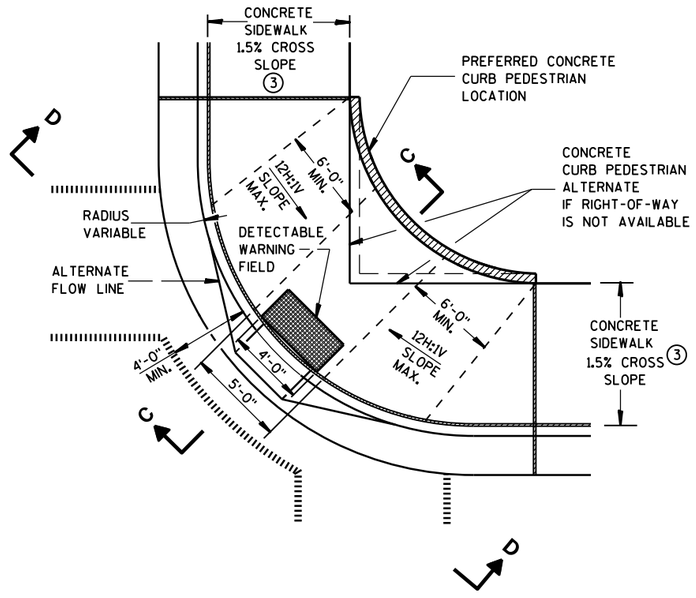
S.D.D. 8 D 4-5



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

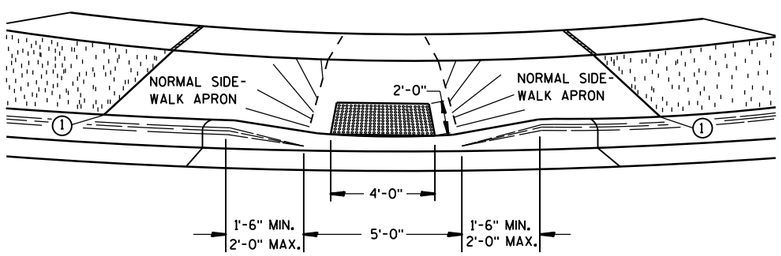
① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

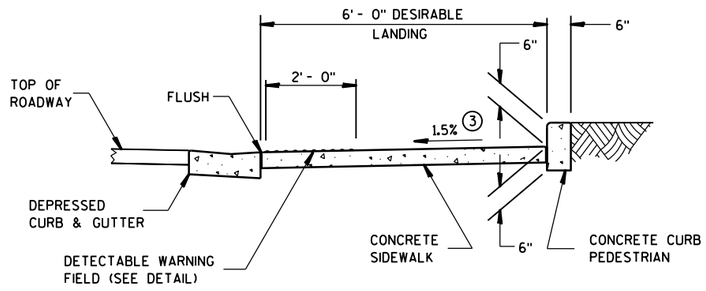
③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

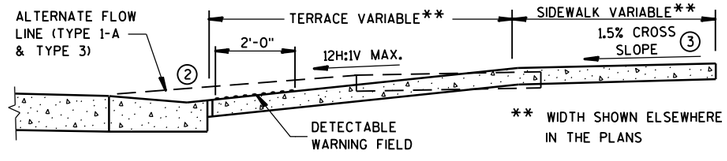
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



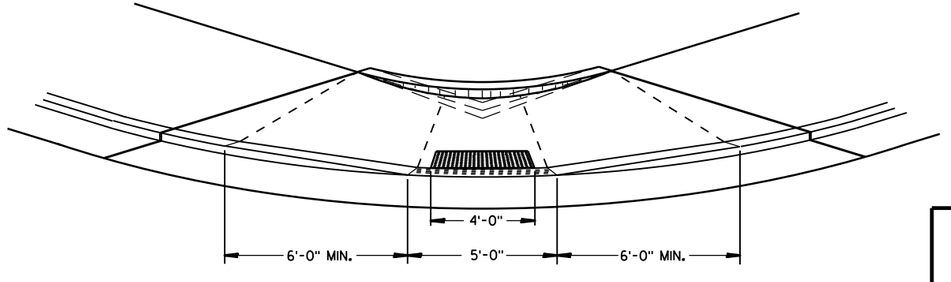
VIEW A-A



SECTION C-C



SECTION B-B



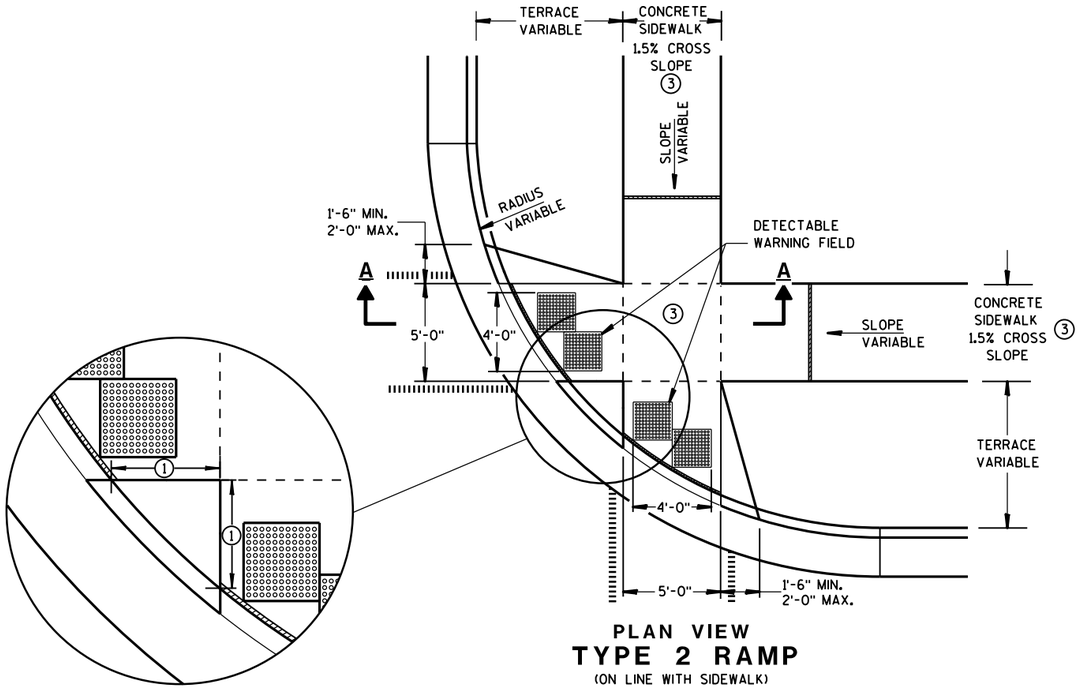
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

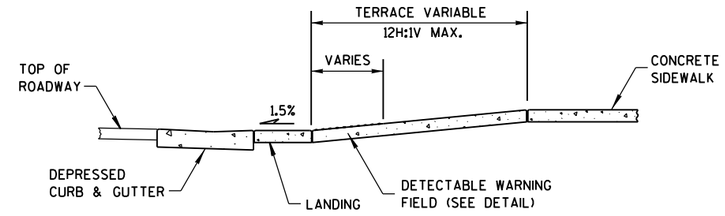
S.D.D. 8 D 5-15a



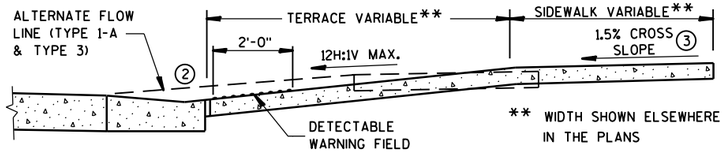
PLAN VIEW

TYPE 2 RAMP

(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

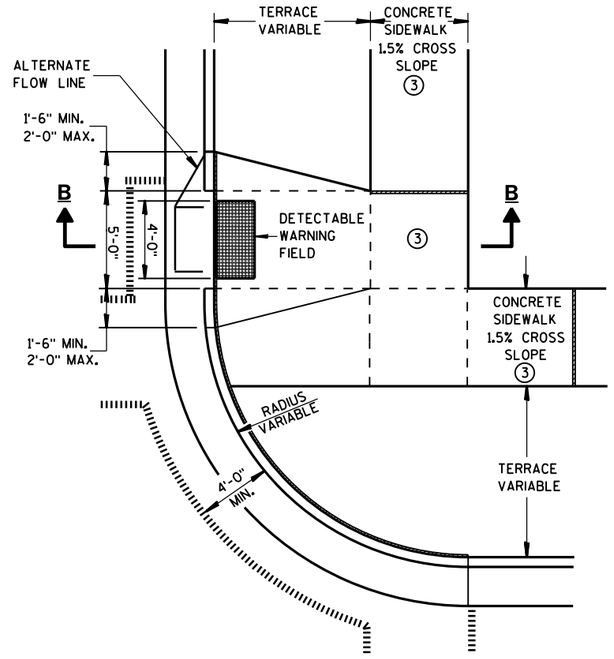
① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

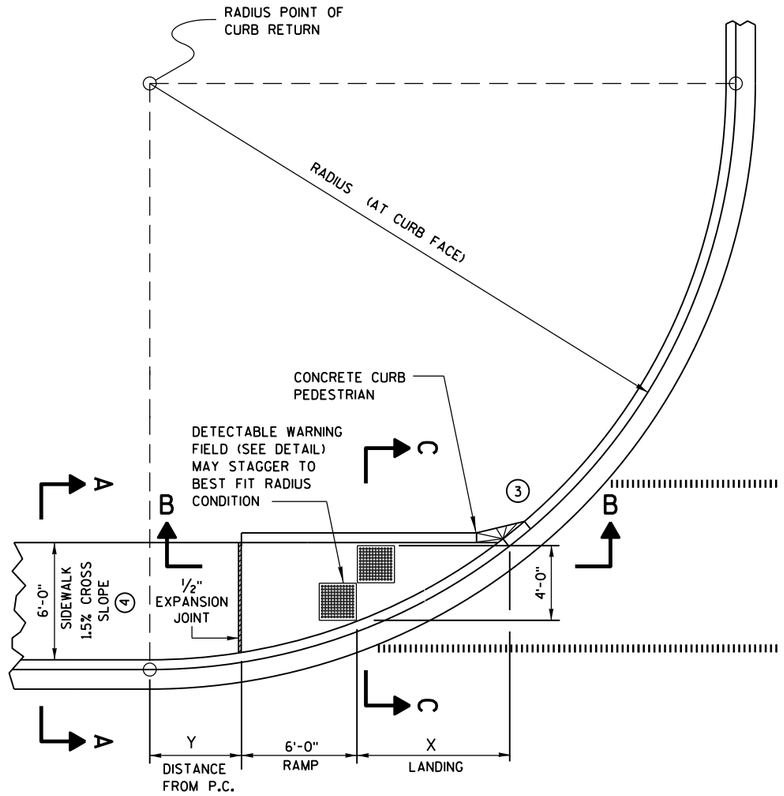
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

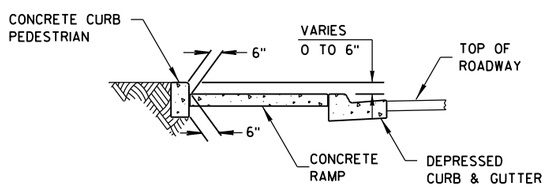
S.D.D. 8 D 5-15b

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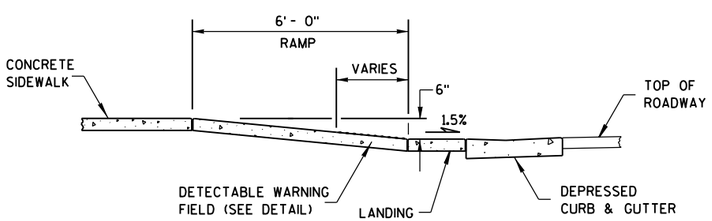
S.D.D. 8 D 5-15b



CURB RAMP TYPE 4A
PLAN VIEW



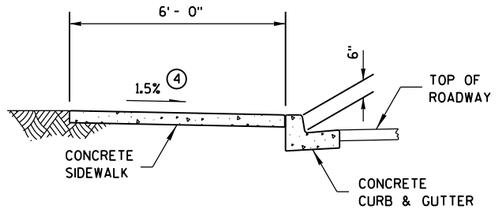
SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

GENERAL NOTES

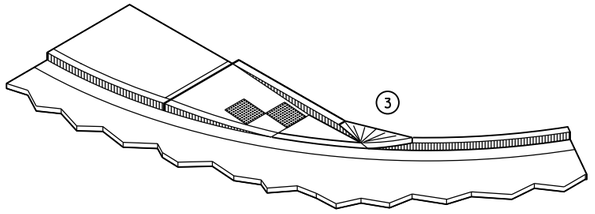
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

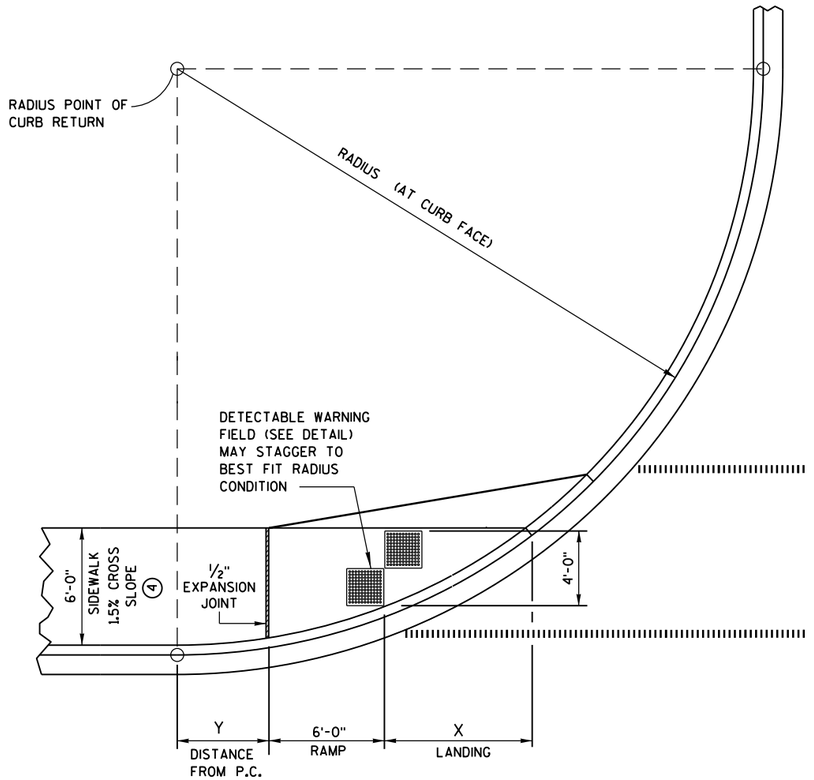
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

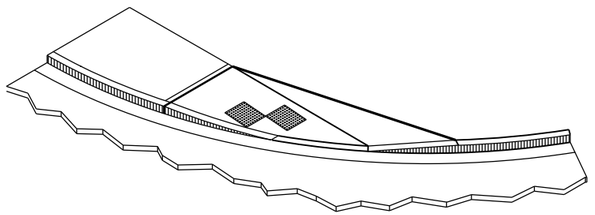
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

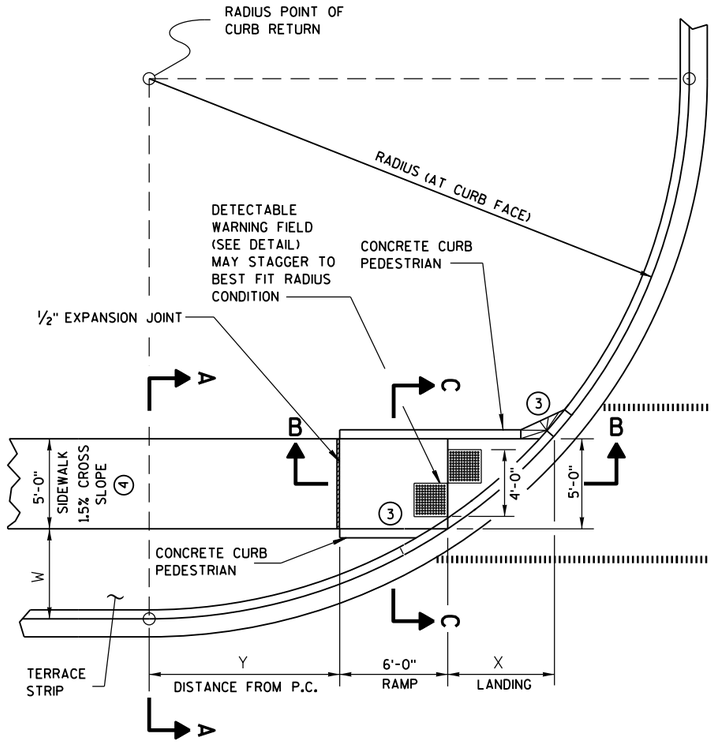
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPES 4A AND 4A1

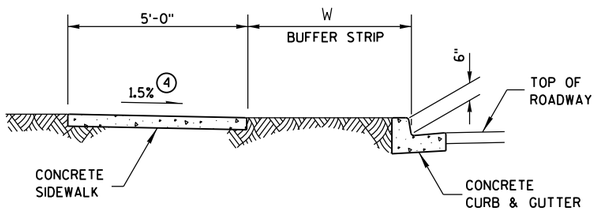
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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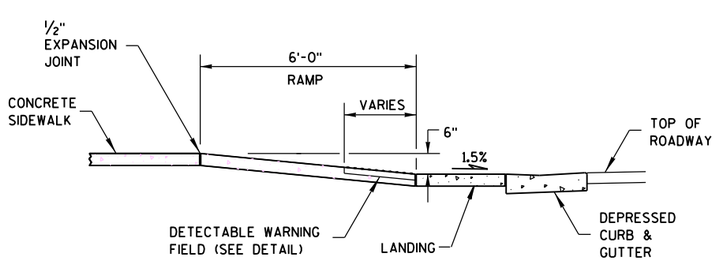
S.D.D. 8 D 5-15c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



SECTION B-B FOR TYPE 4B

LEGEND

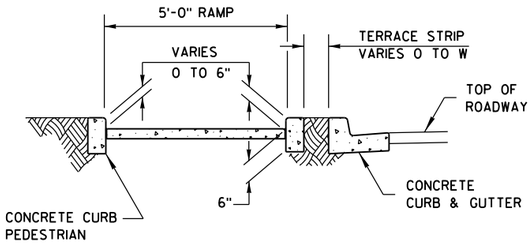
½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4B

GENERAL NOTES

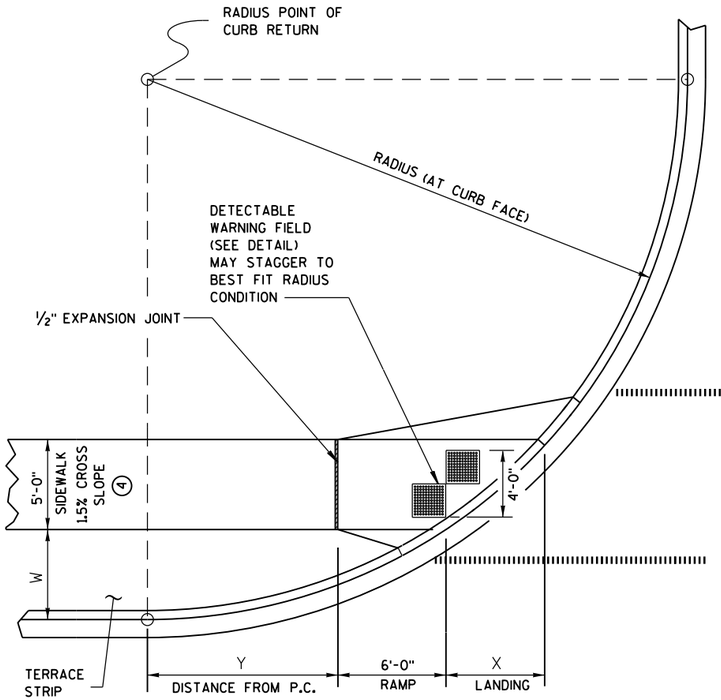
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

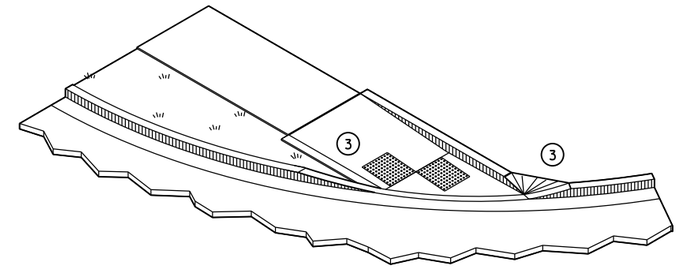
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

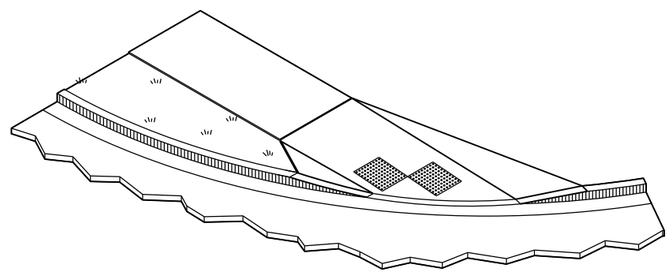
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



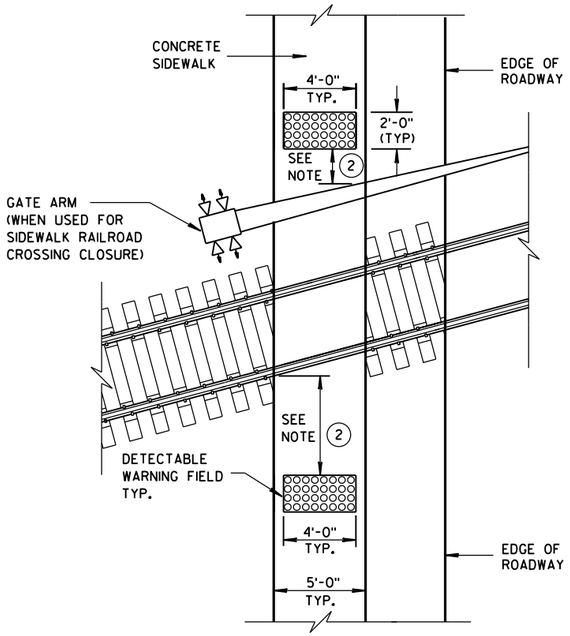
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS
TYPE 4B AND 4B1

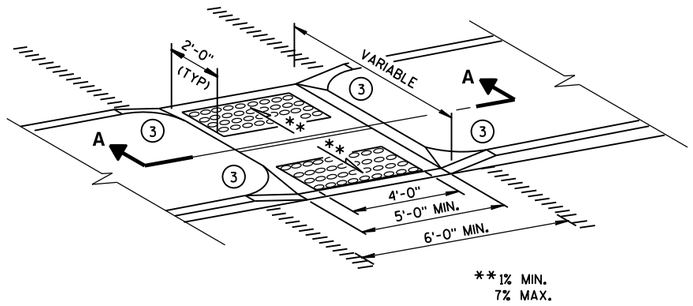
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 8 D 5-15d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

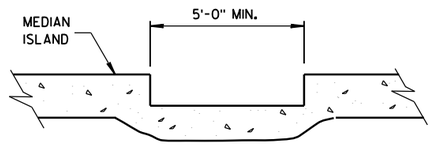
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

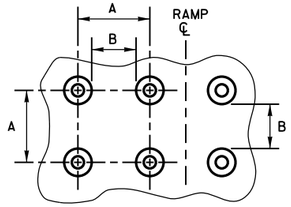
(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



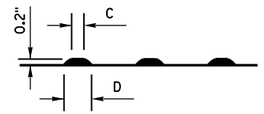
SECTION A-A



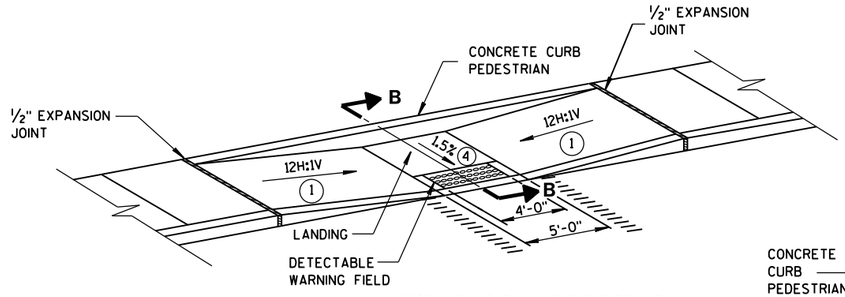
PLAN VIEW

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

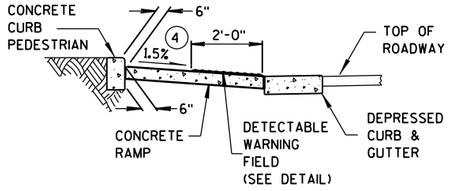
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

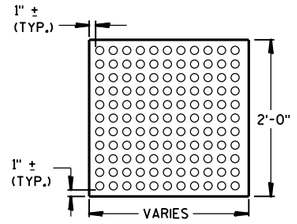


MID-BLOCK CROSSING
TYPE 7A



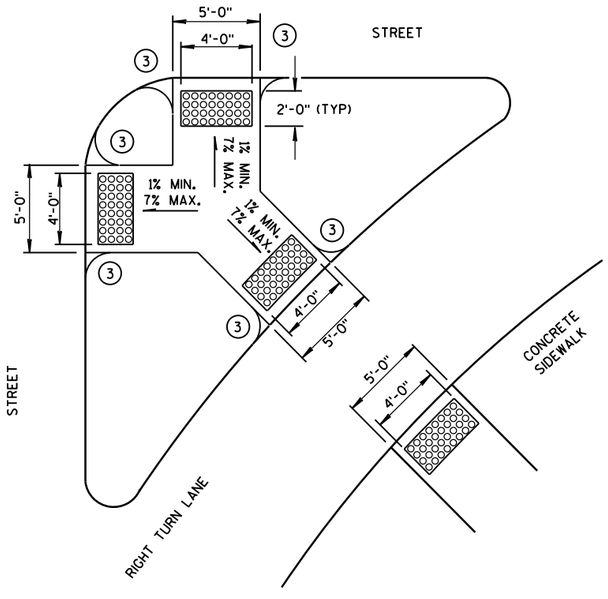
SECTION B-B

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

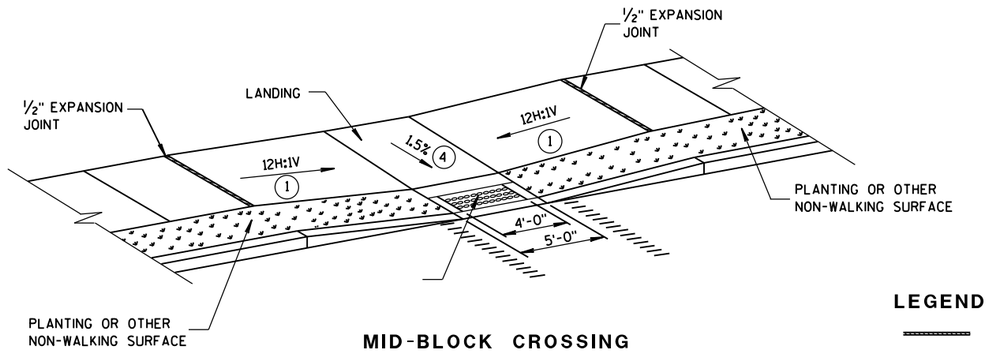


PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

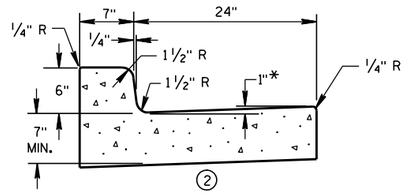
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

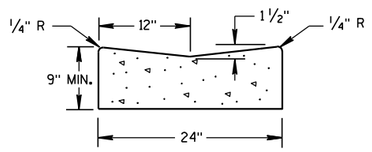
APPROVED
2-6-2013 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

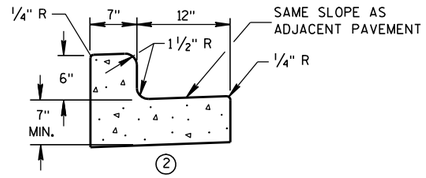
S.D.D. 8 D 5-15e



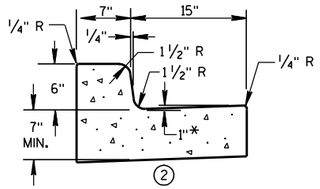
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

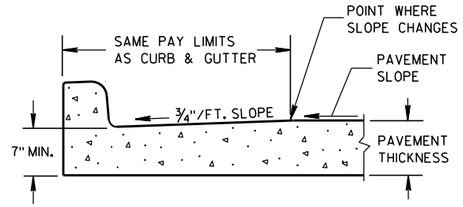


① CONCRETE CURB & GUTTER 19"



① CONCRETE CURB & GUTTER 22"

* TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

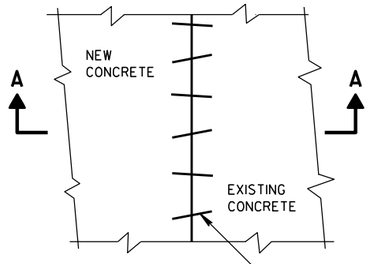
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURB.

① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUIRED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".

② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MIMIMUM GUTTER THICKNESS IS MAINTAINED.

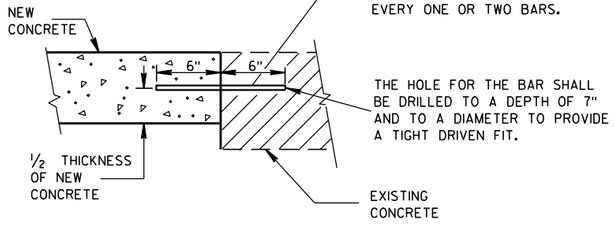
③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.



PLAN VIEW

EXISTING AND NEW CONCRETE MAY BE CURB & GUTTER, SURFACE DRAIN, PAVEMENT OR OTHER CONCRETE STRUCTURE.

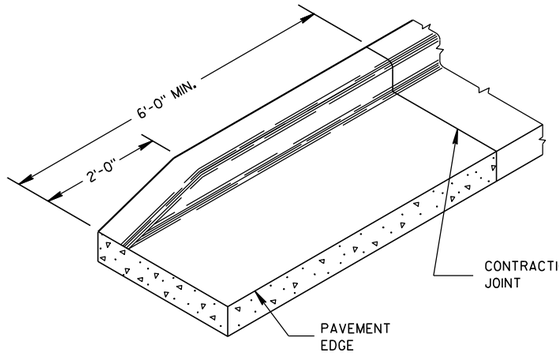
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



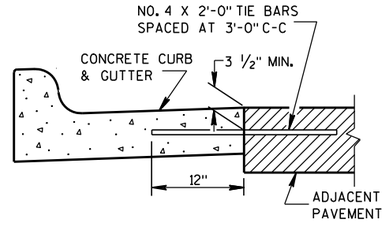
THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO A DIAMETER TO PROVIDE A TIGHT DRIVEN FIT.

SECTION A-A

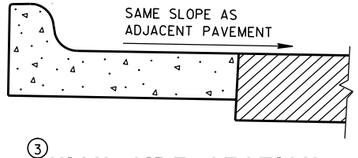
PAVEMENT TIES



END SECTION CURB & GUTTER



① TYPICAL TIE BAR LOCATION



③ HIGH SIDE SECTION

(TYPICAL FOR ALL CURB & GUTTER)

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

(For Optional Use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/2/2010 — DATE

/S/ Jerry Zogg — ROADWAY STANDARDS ENGINEER

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FHWA

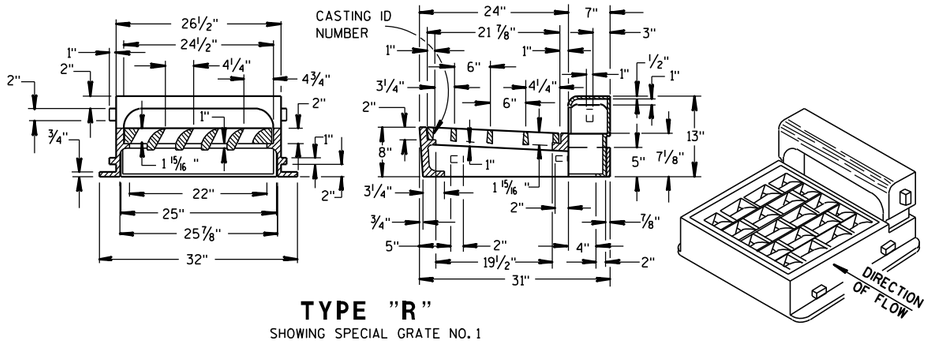
6

S.D.D. 8 D 16-10

6

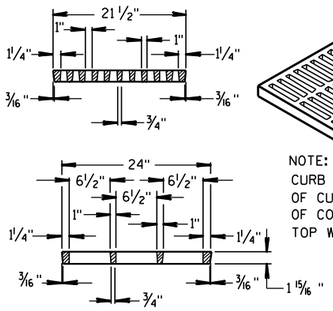
S.D.D. 8 D 16-10

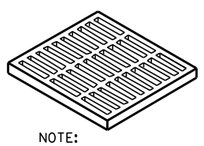
INLET COVERS



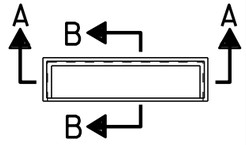
TYPE "R"

SHOWING SPECIAL GRATE NO. 1
(TO BE NOTED AS R-1 IN DRAINAGE TABLE)

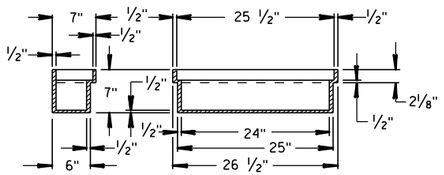




(APPROX. WEIGHT - 510 LBS.)
FRAME..... 245 LBS.
CURB..... 120 LBS.
GRATE..... 145 LBS.



NOTE:
CURB PLUG USED IN PLACE OF CURB BOX IN ABSENCE OF CONC. CURB. FILL TO TOP WITH CONCRETE.



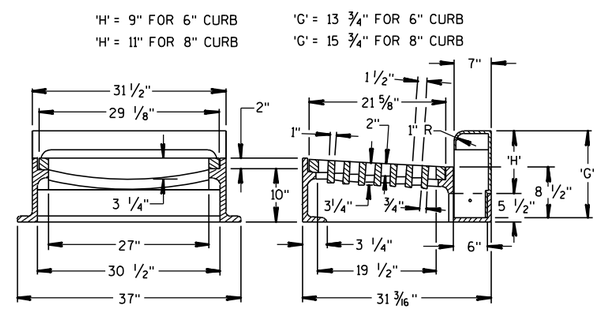
GRATE FOR TYPE "R" INLET COVER

(GRATE..... 150 LBS.)
(TO BE USED UNLESS OTHERWISE NOTED IN DRAINAGE TABLE)

SECTION B-B SECTION A-A

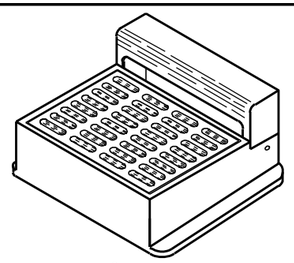
SPECIAL CURB PLUG "P"

(CURB PLUG..... 85 LBS.)
(TO BE NOTED AS R-P IN DRAINAGE TABLE)

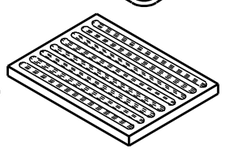


'H' = 9" FOR 6" CURB
'H' = 11" FOR 8" CURB
'G' = 13 3/4" FOR 6" CURB
'G' = 15 3/4" FOR 8" CURB

TYPE "W"



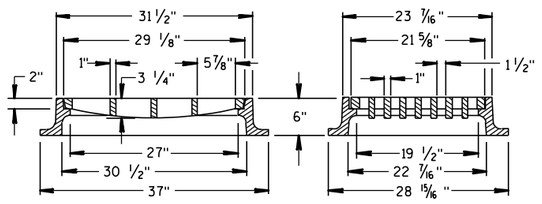
(APPROX. WEIGHT - 670 LBS.)
FRAME..... 350 LBS.
CURB BOX..... 135 LBS.
GRATE..... 185 LBS.



ALTERNATE GRATE

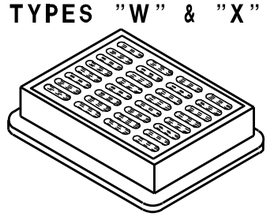
(FOR EXPRESSWAY RAMPS)

TYPES "W" & "X"

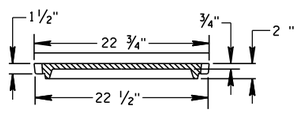


TYPE "X"

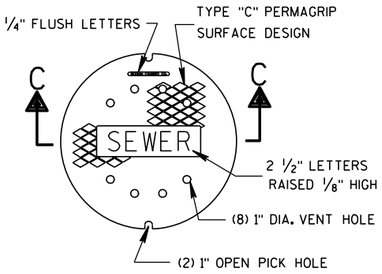
(APPROX. WEIGHT - 470 LBS.)

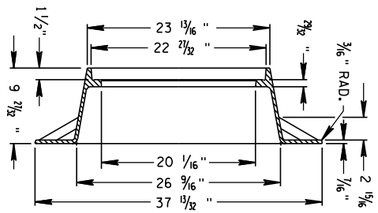


MANHOLE COVER



SECTION C-C





TYPE "Q"

(APPROX. WEIGHT - 290 LBS.)

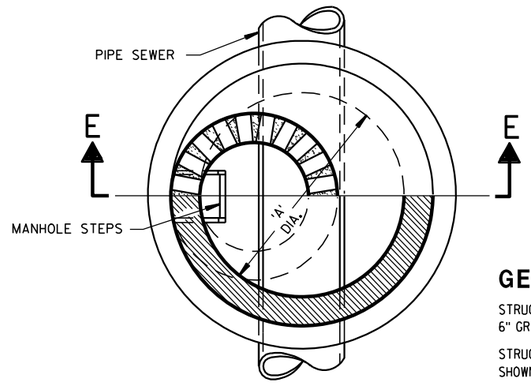
TABLE OF DIMENSIONS

TYPE	'A'	'B'	'C'
11	3'-6"	2'-8"	12" - 36"*
12	4'-0"	3'-8"	12" - 42"**
13	5'-0"	5'-8"	42" - 48"
14	6'-0"	7'-8"	54" - 60"

* 12" - 21" FOR PRECAST MANHOLES
** 12" - 24" FOR PRECAST MANHOLES

THE FIRST STEP SHALL BE PLACED 16" ABOVE THE BENCH.

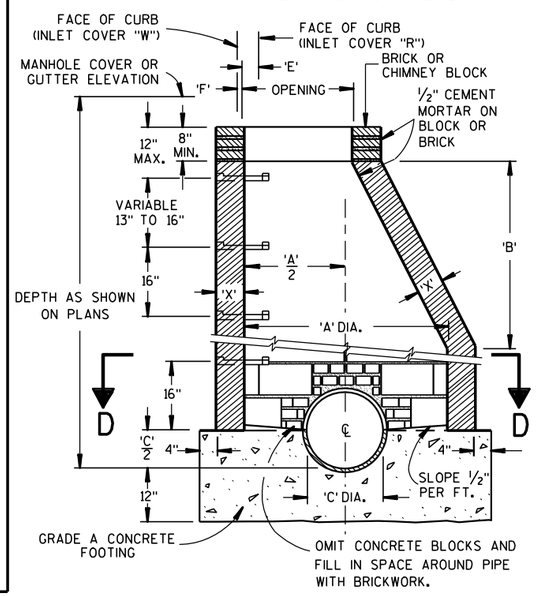
MANHOLE



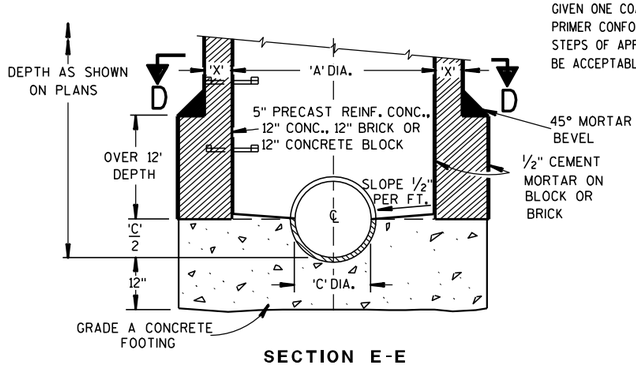
HALF SECTION D-D

TABLE OF OPENING DIMENSIONS

COVER TYPE	COVER DESCRIPTION	OPENING	'E'	'F'
"O"	ROUND	2'-2" DIA.	—	—
"W"	CURB BOX	1'-8" X 2'-6"	—	1"
"X"	INLET	1'-10" X 2'-6"	—	—
"R"	CURB BOX	2'-0" X 2'-1"	4"	—



SECTION E-E



SECTION E-E

TYPES 11, 12, 13 & 14

GENERAL NOTES

STRUCTURE WALL THICKNESS 'X' TO BE 8" BRICK, 6" CONCRETE BLOCK, 6" GRADE A CONCRETE OR 5" PRECAST REINFORCED CONCRETE.

STRUCTURE FOOTINGS ARE TO BE GRADE A CONCRETE OF THE THICKNESS SHOWN IN THE DETAIL OR 5" PRECAST REINFORCED CONCRETE.

REINFORCEMENT FOR 5" PRECAST REINFORCED CONCRETE SHALL BE 6" X 6" W16 X W16 WELDED SREEL WIRE FABRIC AND SHALL BE EMBEDDED 2" CLEAR.

PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

PRECAST CONCRETE FLAT SLAB TOPS MAY BE USED ON THE STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6" IN DEPTH, WHICH MEETS THE REQUIREMENTS FOR GRANULAR BACK-FILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

SET FRAME ELEVATION 0.03 FT. LOWER THAN ELEVATION INDICATED ON THE PLANS.

THE CONTRACTOR MAY FORM AND POUR MONOLITHIC CONCRETE INVERT PROVIDED THE PIPE ENDS ARE EXTENDED INTO THE M.H. AND NOT TERMINATED WITHIN THE M.H. WALLS.

MANHOLE STEPS

STEPS MEETING THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH; 16 INCH C-C MAX. SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM WALL EMBEDMENT OF 3 INCHES IN PRECAST MANHOLE AND 6 INCHES IN 8 INCH BRICK OR 6 INCH BLOCK MANHOLE; TREAD OF STEP SHALL HAVE A NON-SKID SURFACE AND BE FLANKED BY CLEATS, WITH A MINIMUM OF 10 INCHES CLEAR BETWEEN CLEATS, TO PREVENT FOOT SLIPPING OFF THE EDGE CLEATS SHALL BE A MINIMUM OF 3/4 INCH HIGH BY 3/4 INCH WIDE HAVING A MINIMUM THICKNESS OF 5/8 INCH. STEPS SHALL BE CAPABLE OF SUPPORTING A CONCENTRATED LOAD OF 300 LBS. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

SOLID ALUMINUM STEPS SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 0.75 INCH. ALUMINUM SURFACES TO BE EMBEDDED IN CONCRETE SHALL BE GIVEN ONE COAT OF SUITABLE QUALITY PAINT, SUCH AS ZINC CHROMATE PRIMER CONFORMING TO FEDERAL SPECIFICATION TT-P-645 OR EQUIVALENT. STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCING BAR WILL BE ACCEPTABLE.

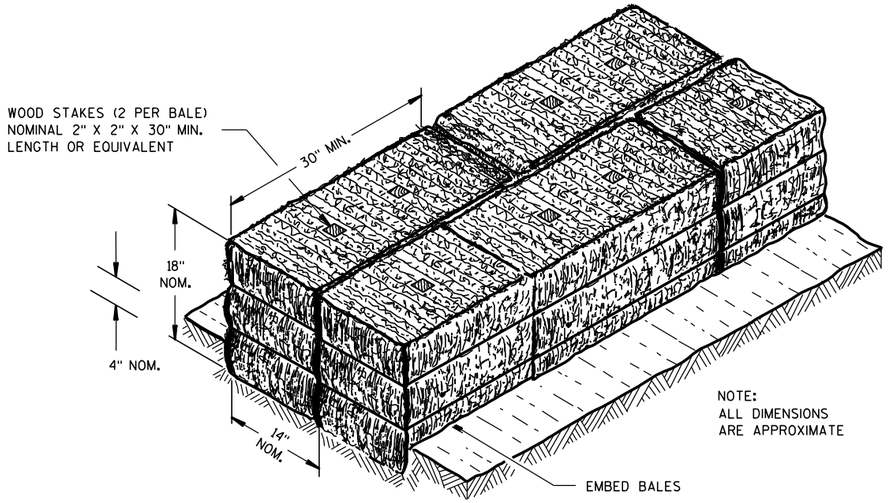
MANHOLES, MANHOLE & INLET COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

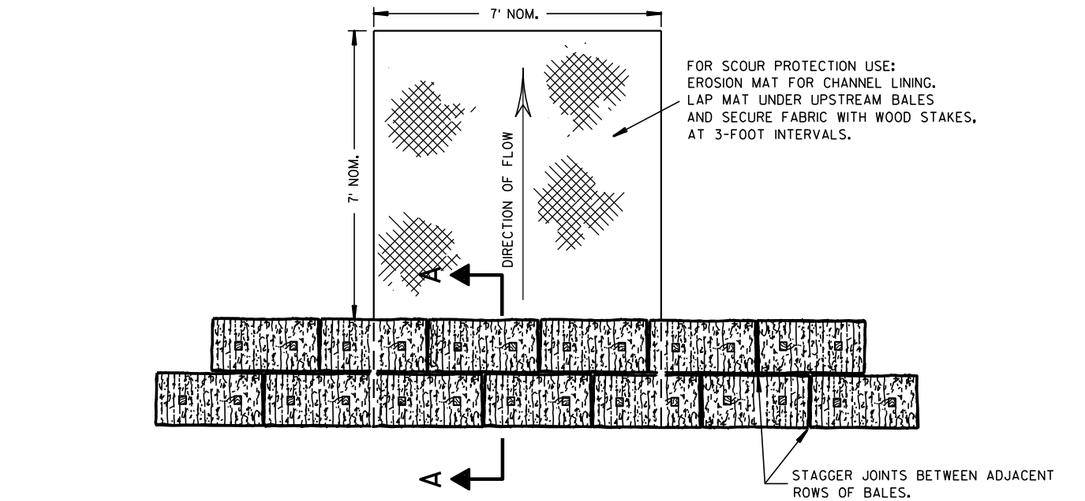
APPROVED
4/12/2011 — DATE
/S/ Jerry H. Zogg — ROADSIDE STANDARDS ENGINEER
FHWA

S.D.D. 8 D 17-6

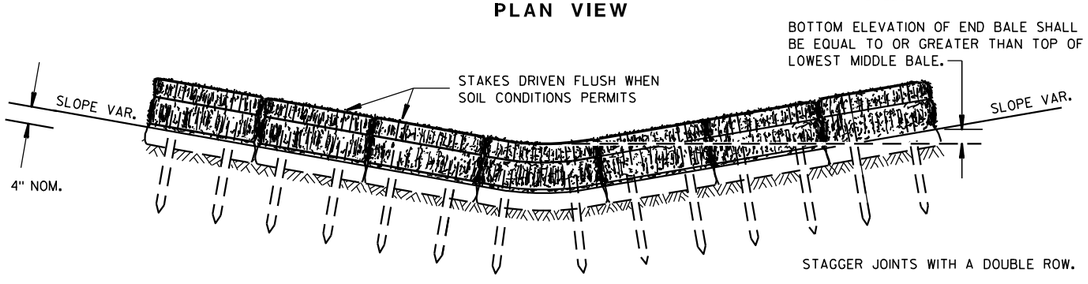
6



SECTION A-A



PLAN VIEW



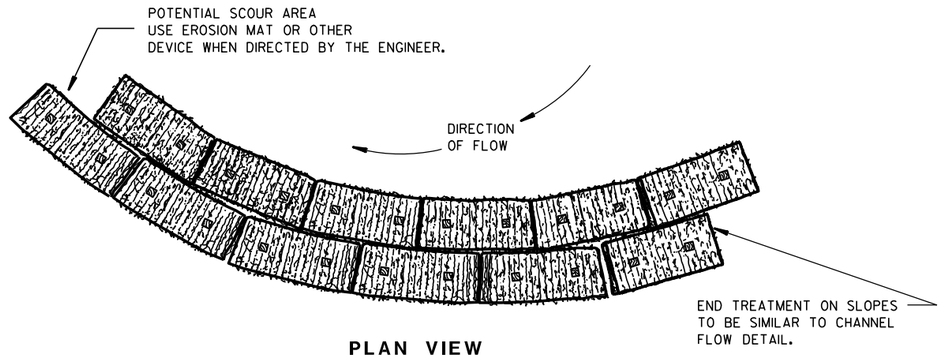
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

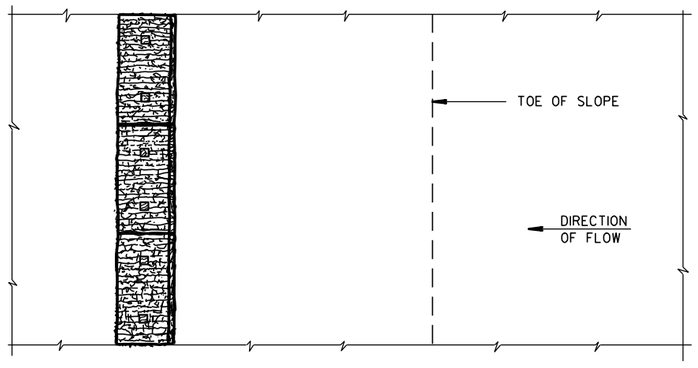
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

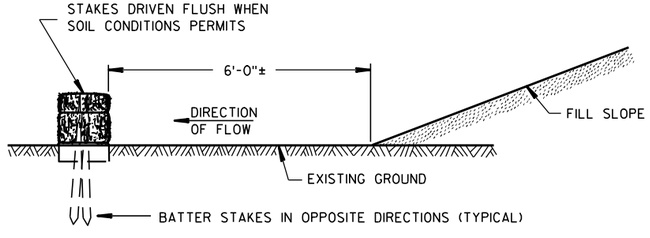


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

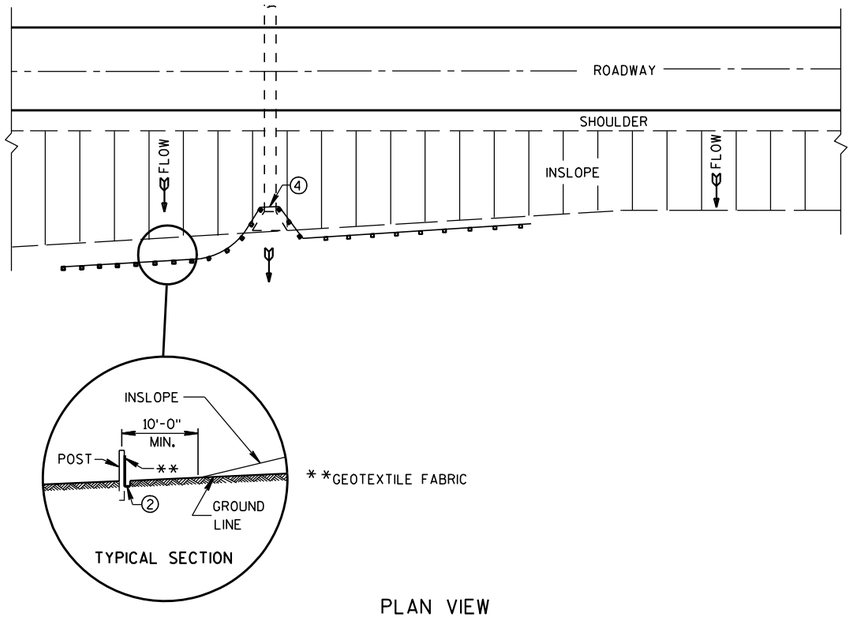
6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

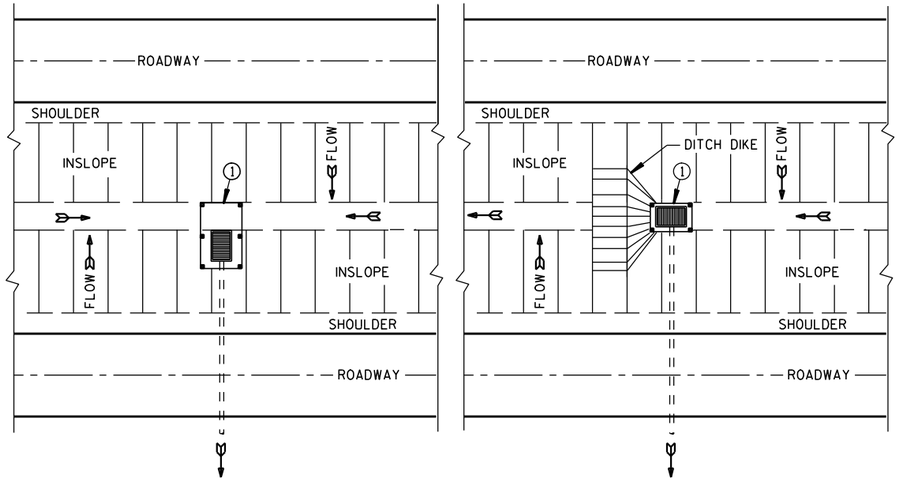
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S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



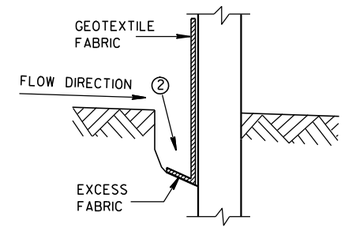
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

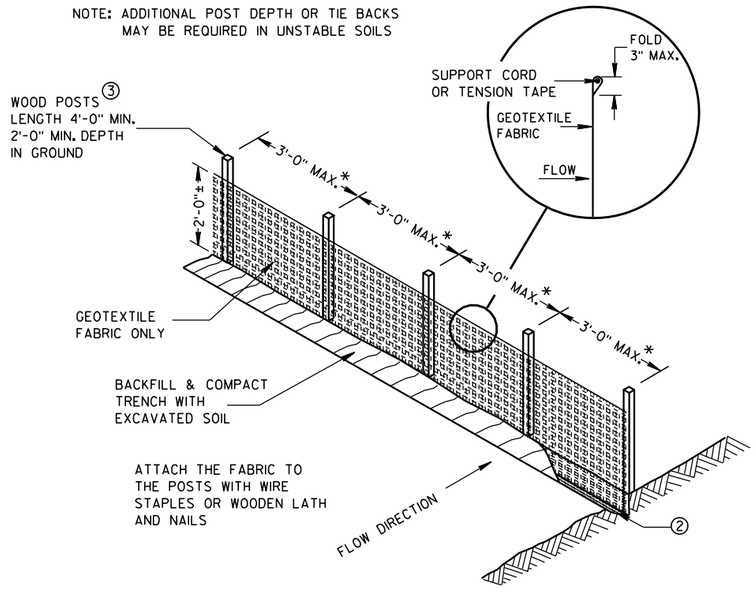
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

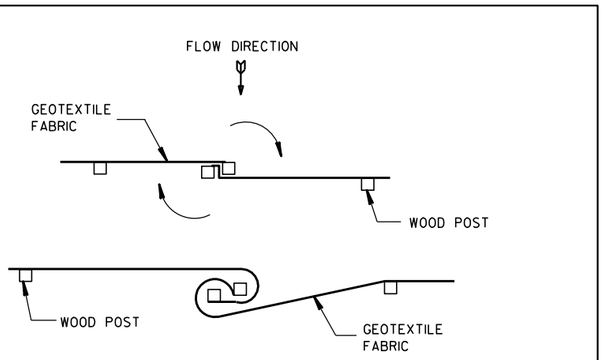
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



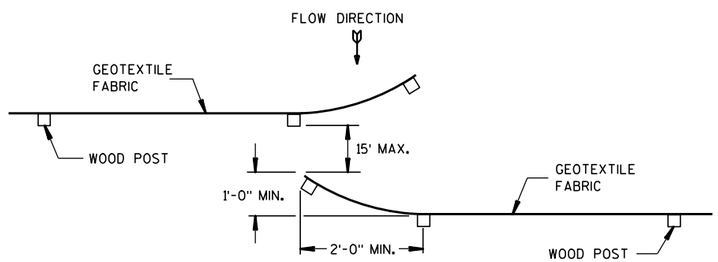
TRENCH DETAIL



SILT FENCE

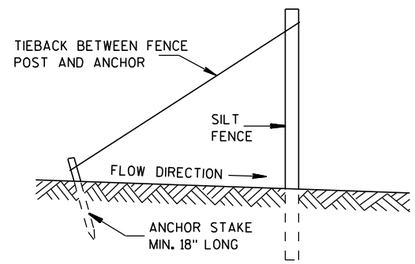


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

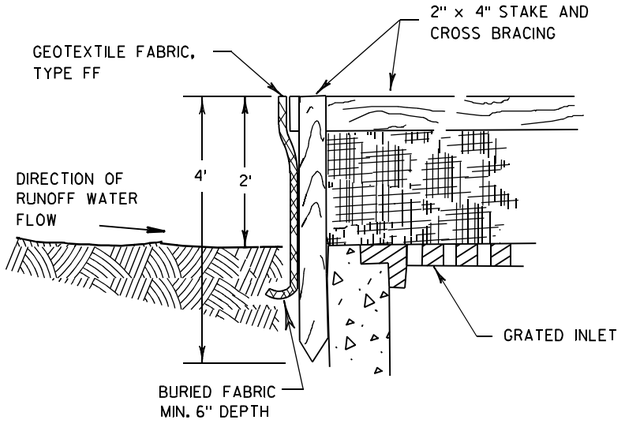
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

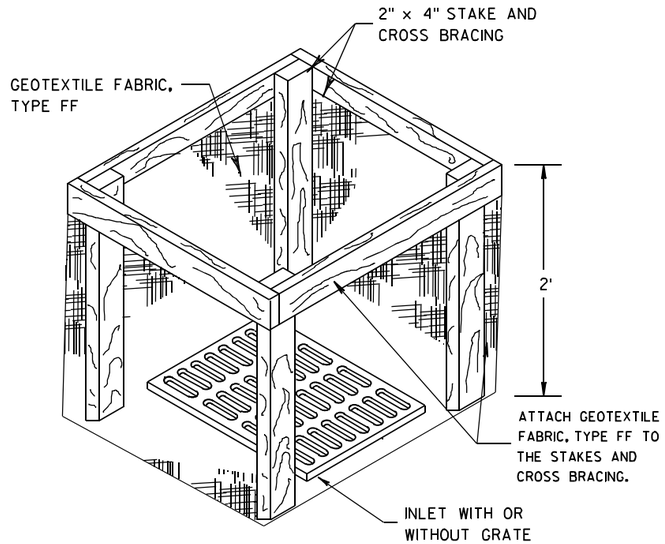
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S.D.D. 8 E 9-6

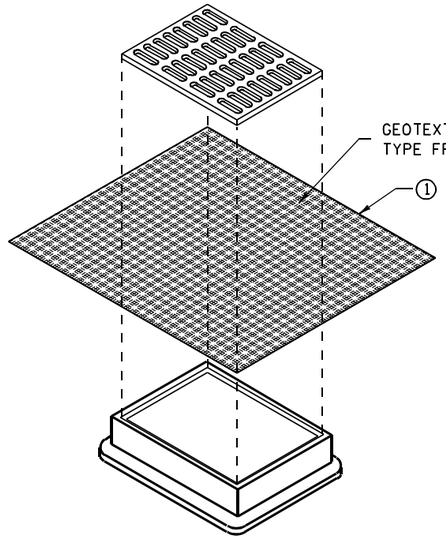
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S.D.D. 8 E 9-6



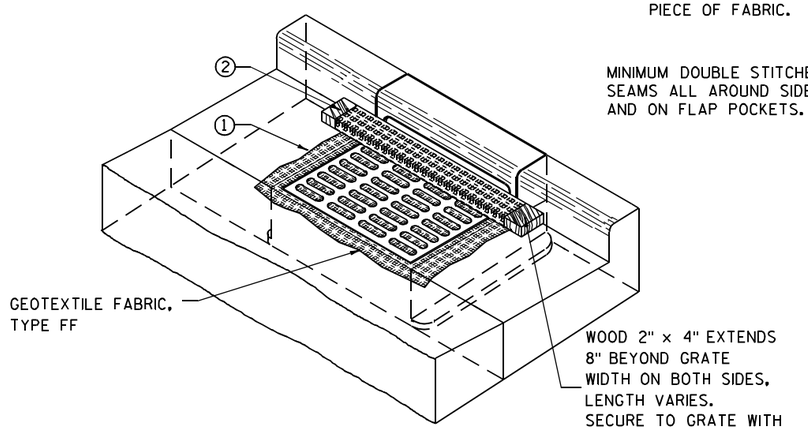


INLET PROTECTION, TYPE A

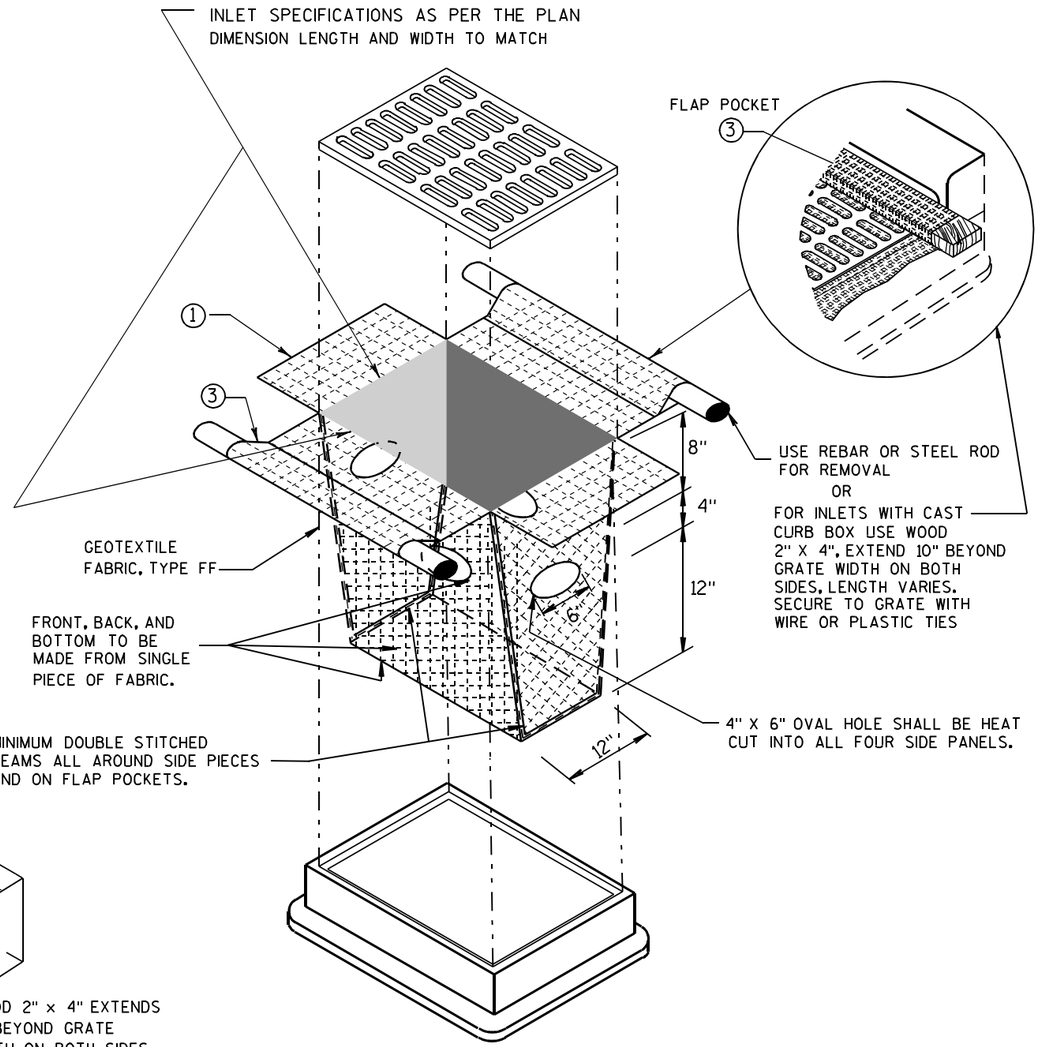


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

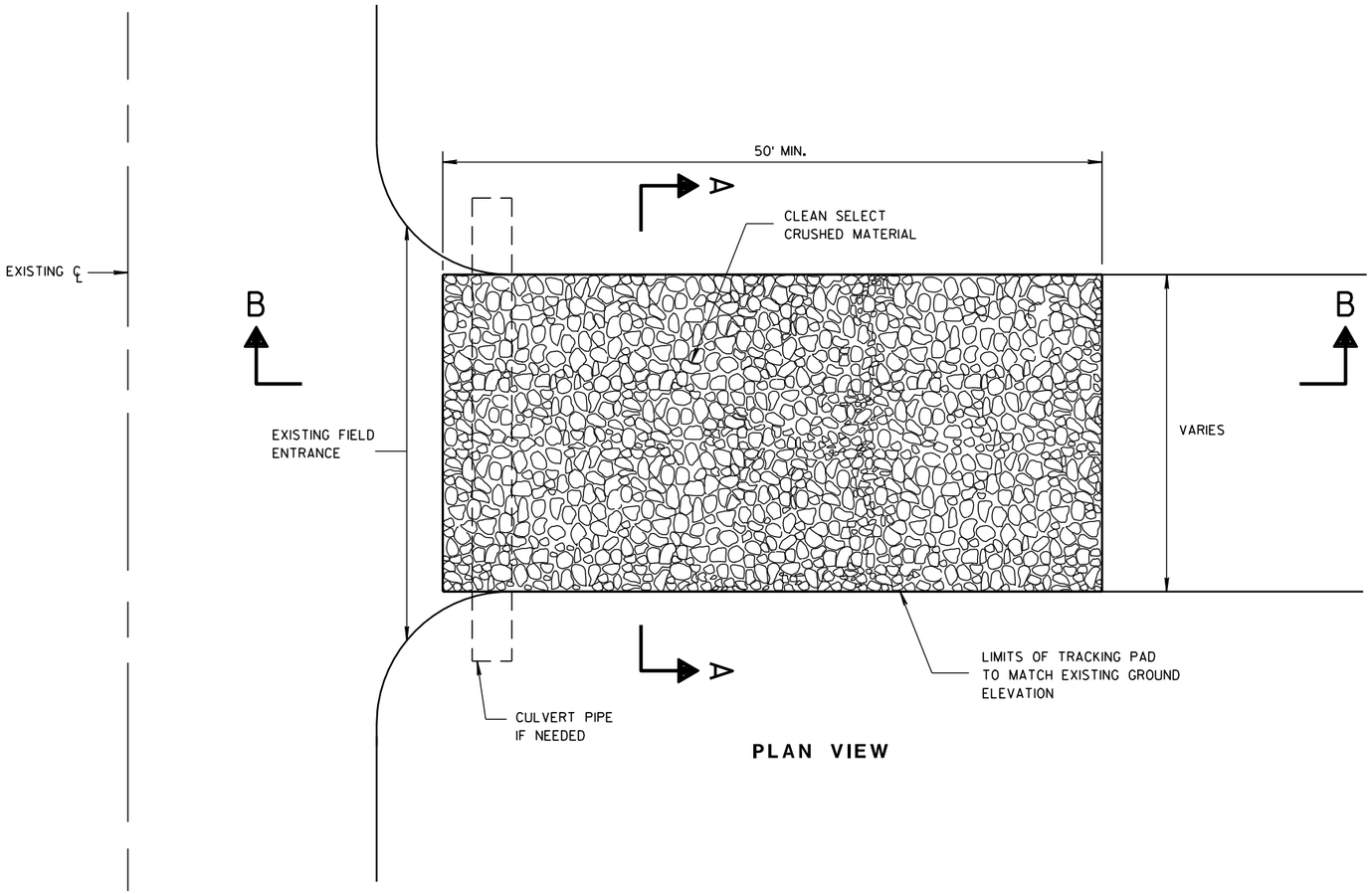
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

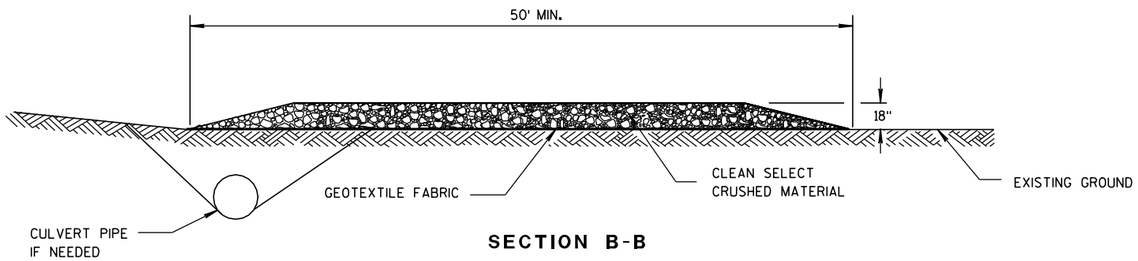
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2



PLAN VIEW



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

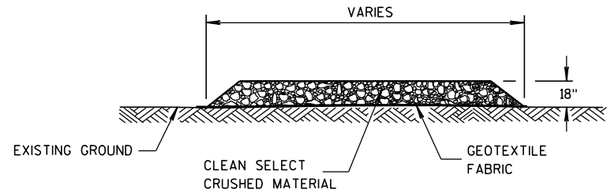
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/24/2011 DATE FHWA	/S/ Jerry H. Zoda ROADWAY STANDARDS ENGINEER
393	ENT

S.D.D. 8 E 14-1
6

METAL APRON ENDWALLS

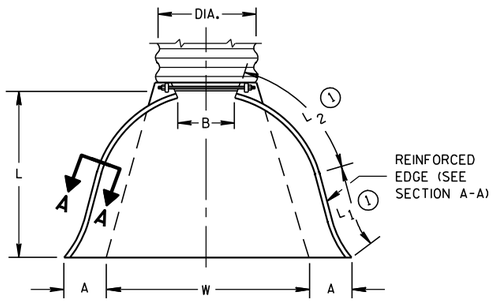
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

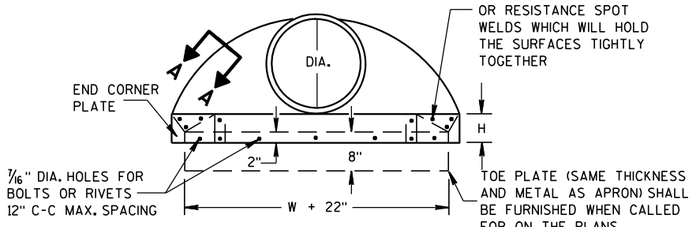
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

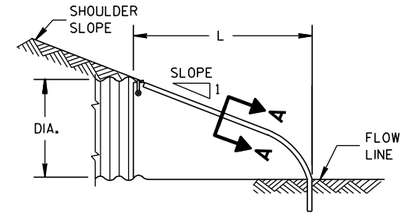
* MINIMUM
** MAXIMUM



PLAN VIEW

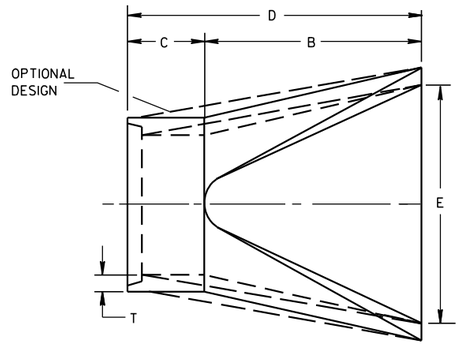


END VIEW

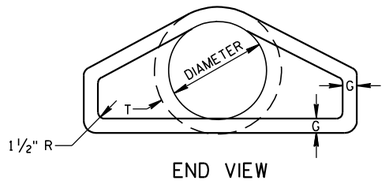


SIDE ELEVATION

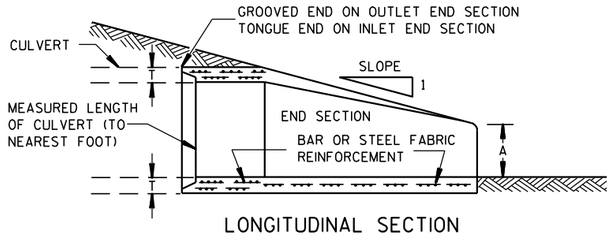
METAL ENDWALLS



PLAN

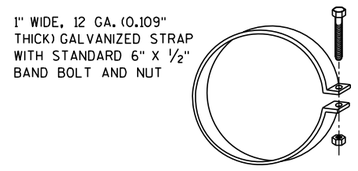


END VIEW



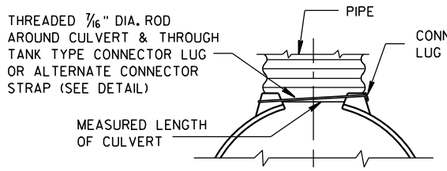
LONGITUDINAL SECTION

CONCRETE ENDWALLS

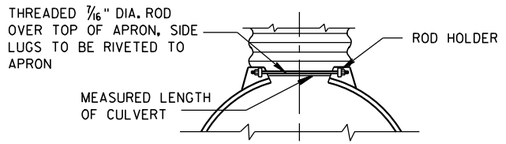


ALTERNATE FOR TYPE 1 CONNECTION

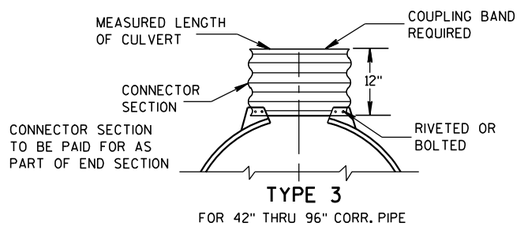
END SECTION CONNECTOR STRAP



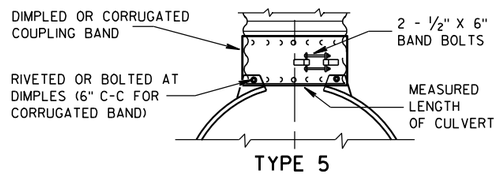
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

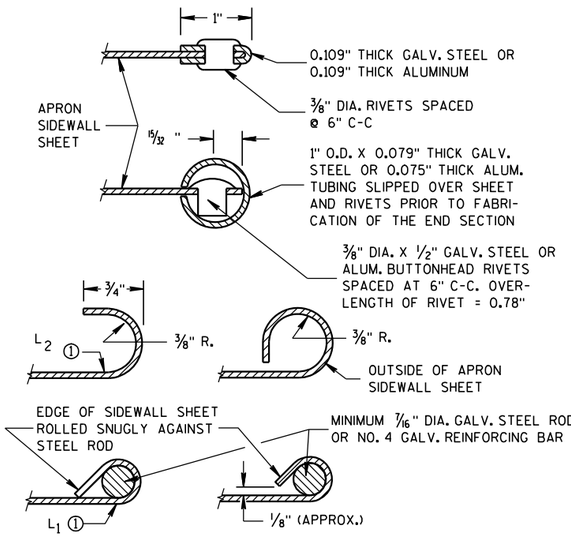
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

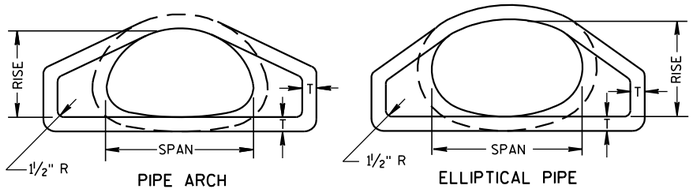
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

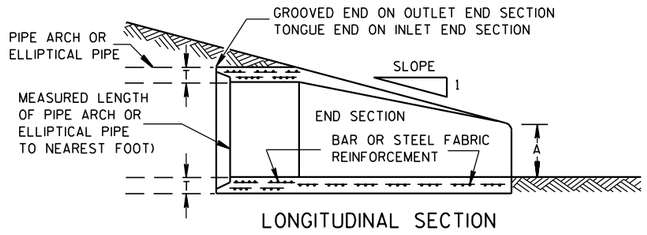
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

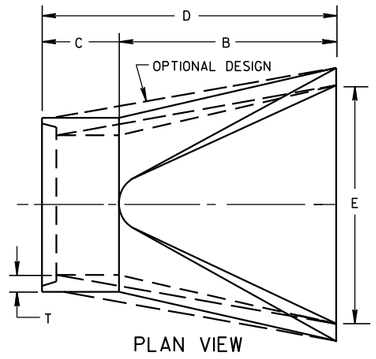
6
S.D.D. 8 F 1-11



END VIEW

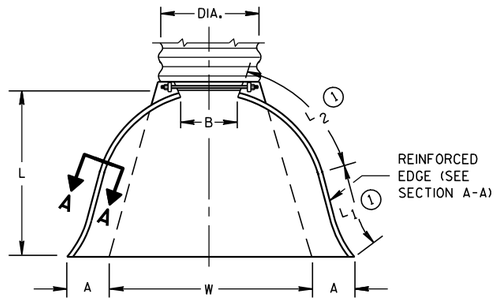


LONGITUDINAL SECTION

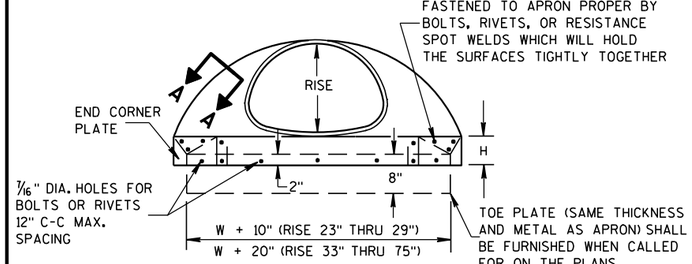


PLAN VIEW

CONCRETE ENDWALLS

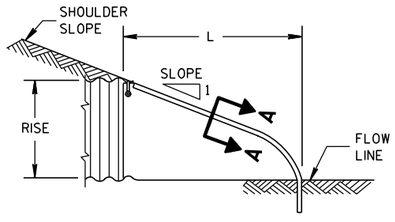


PLAN VIEW



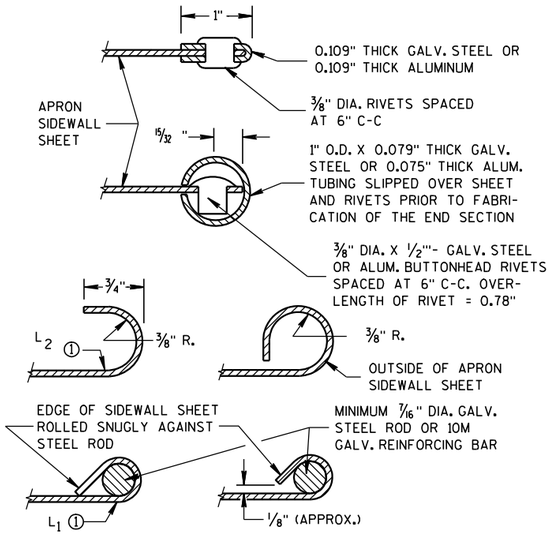
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- ⅔" X ½" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1½")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1½")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

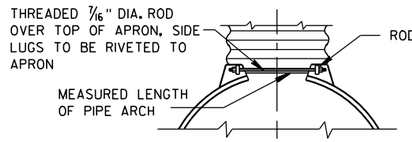
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

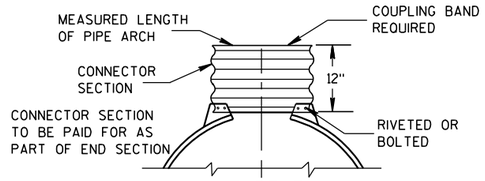
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



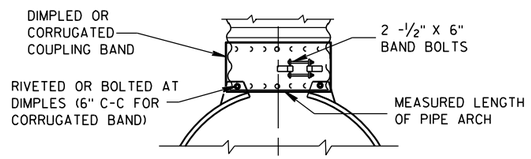
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

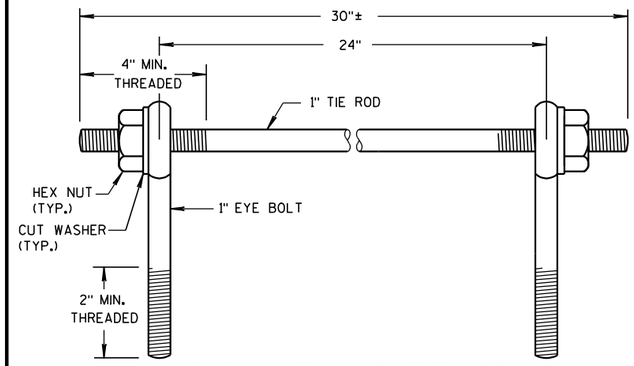
11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

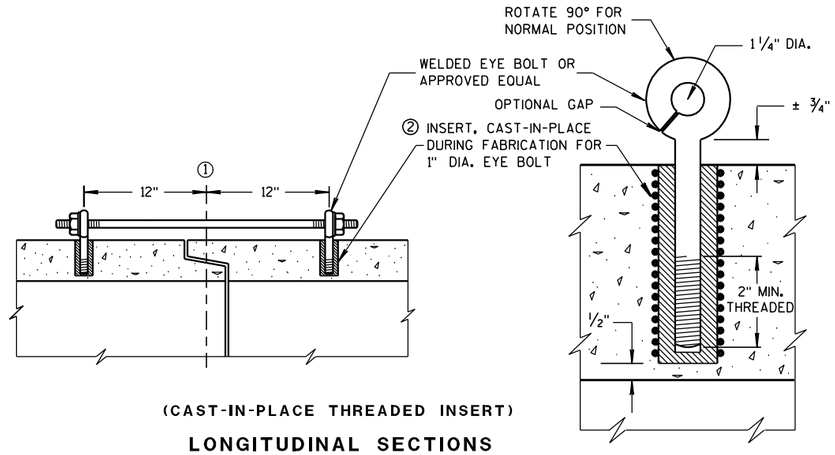
FHWA

6

S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

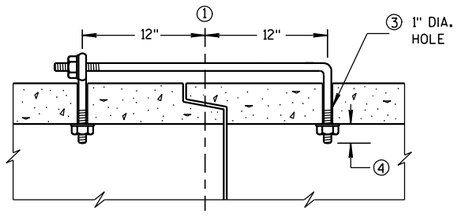
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

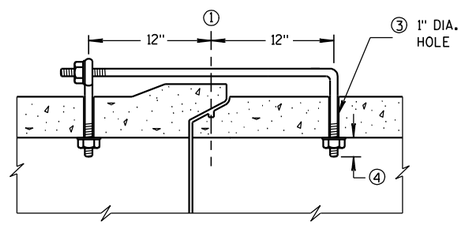
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

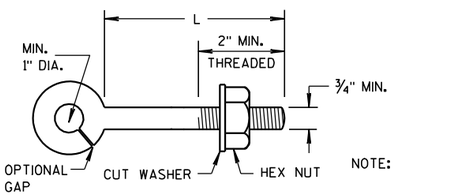


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

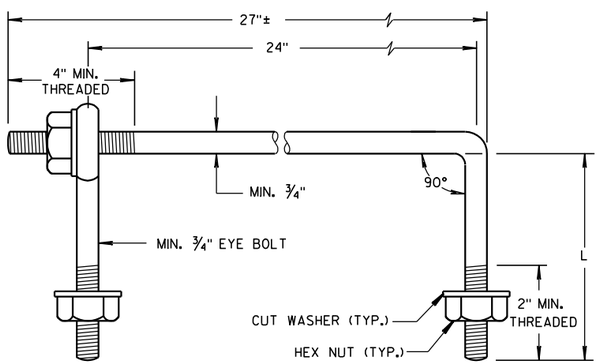
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

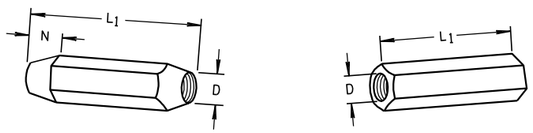
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

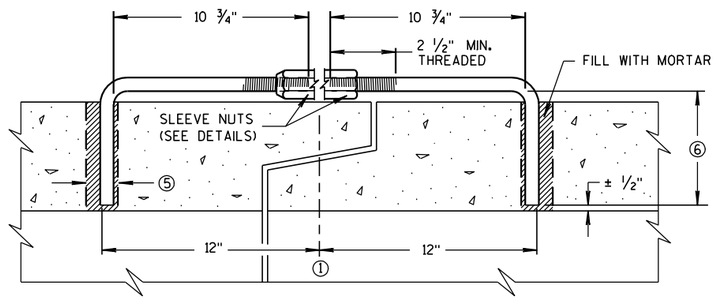
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

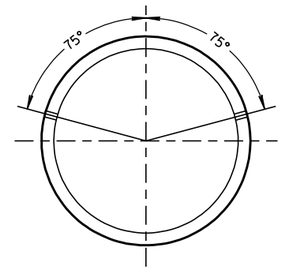
SLEEVE NUTS



LONGITUDINAL SECTION

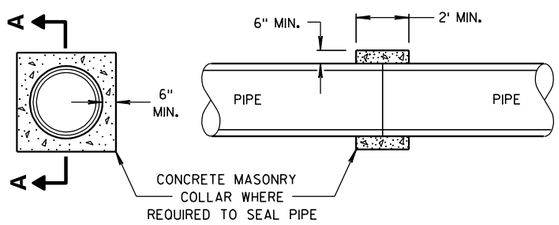
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
396
FHWA

6

S.D.D. 8 F 4-7

6

S.D.D. 8 F 4-7

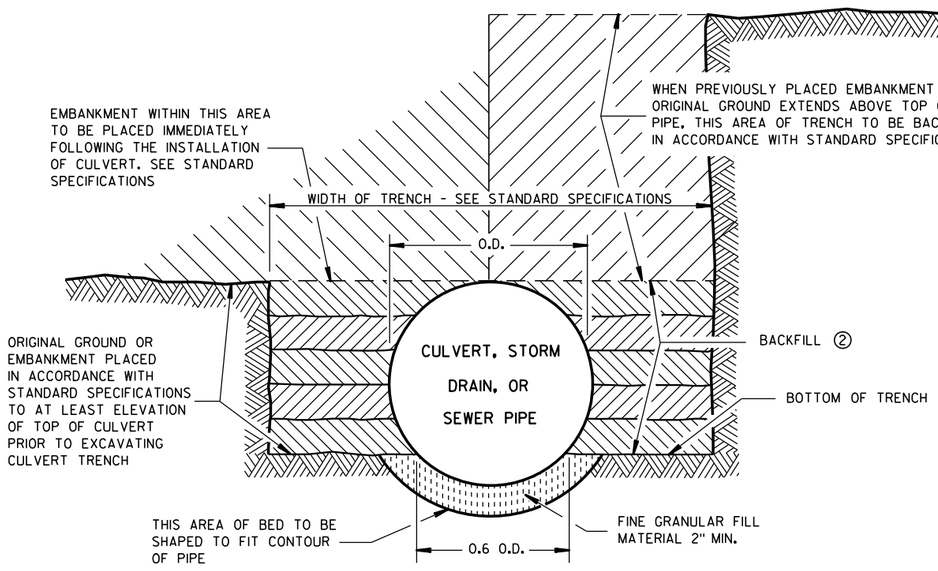
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

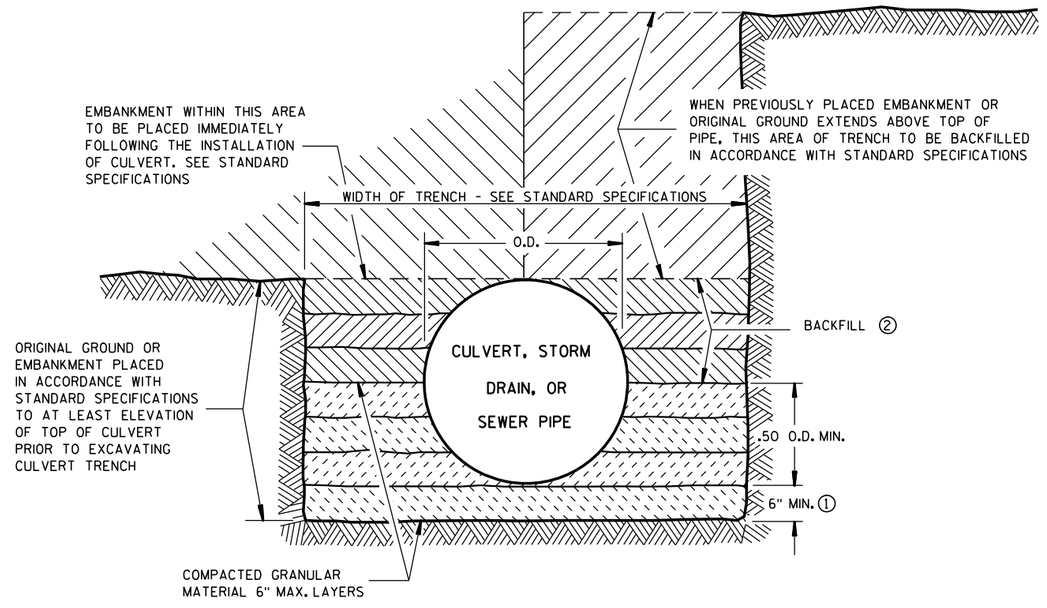
THE SHAPED SUBGRADE WITH GRANULAR FOUNDATION IS AN EQUAL ALTERNATE TO THE GRANULAR FOUNDATION EXCEPT WHERE ROCK IS ENCOUNTERED.

① WHERE ROCK, HARD PAN OR FRAGMENTED MATERIAL IS ENCOUNTERED, THE TRENCH SHALL BE EXCAVATED BELOW THE BOTTOM OF THE PIPE AN AMOUNT EQUAL TO ½ INCH PER FOOT OF PROPOSED EMBANKMENT ABOVE THE TOP OF THE PIPE, BUT NOT LESS THAN 6 INCHES.

② TRENCH SHALL BE BACKFILLED AS REQUIRED BY STANDARD SPECIFICATIONS; SECTION 520 FOR PIPE CULVERTS AND SECTION 607 FOR STORM SEWERS.



SHAPED SUBGRADE WITH GRANULAR FOUNDATION



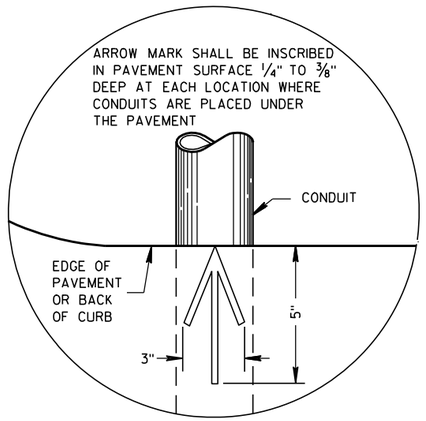
GRANULAR FOUNDATION

CLASS "B" BEDDING

CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4/7/83 DATE	/S/ D. L. Strand STATE DESIGN ENGINEER
FHWA	HWYS

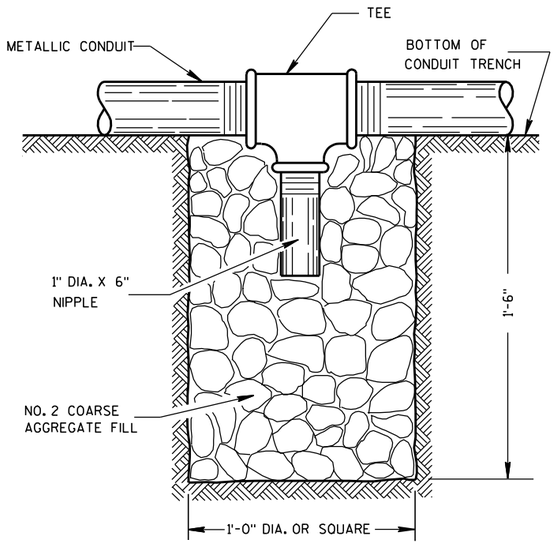
6

S.D.D. 8 F 5-1



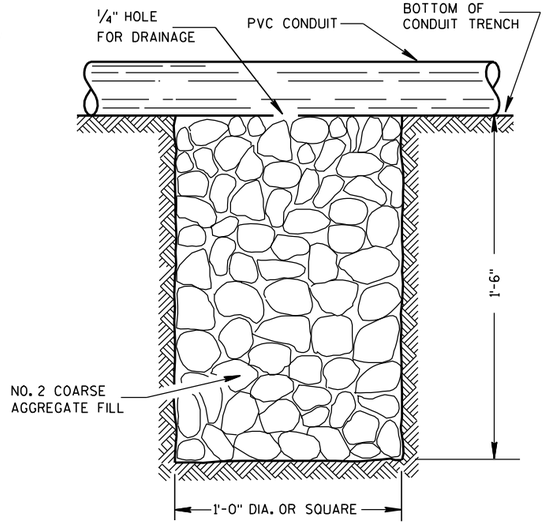
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

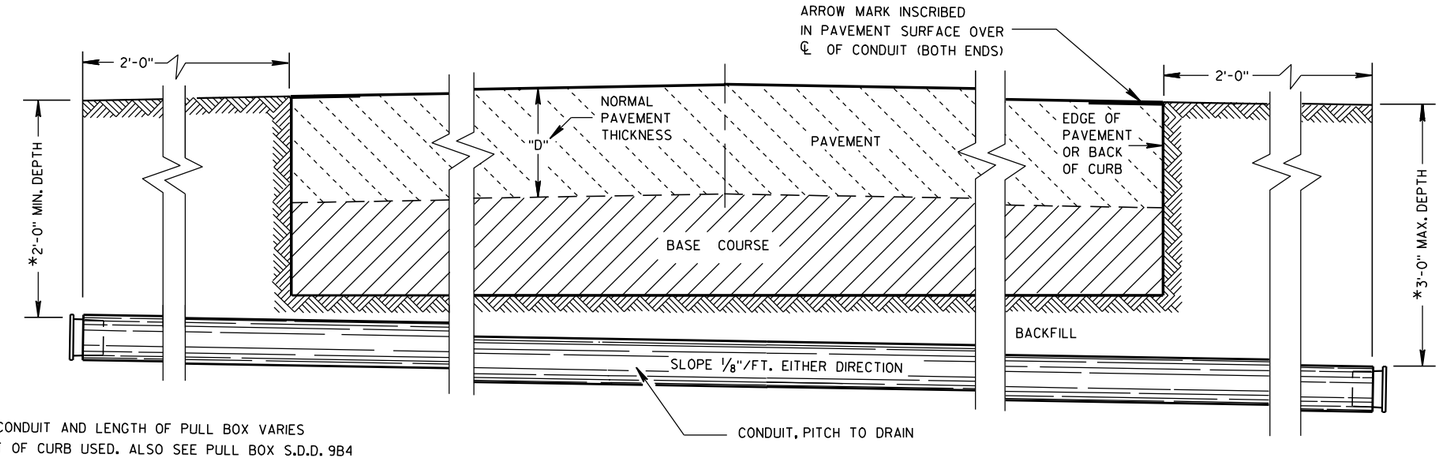
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03 — DATE

/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI 398 HWYS

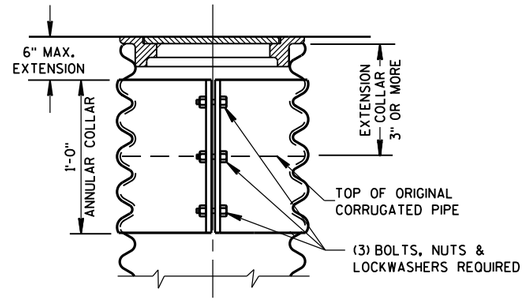
FHWA

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

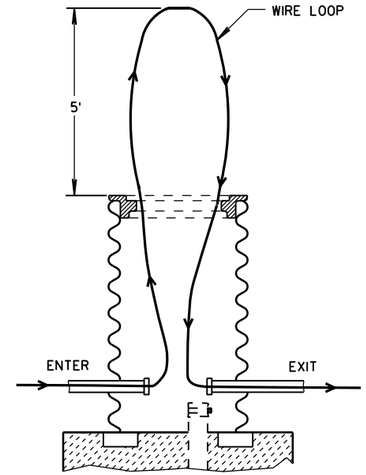
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

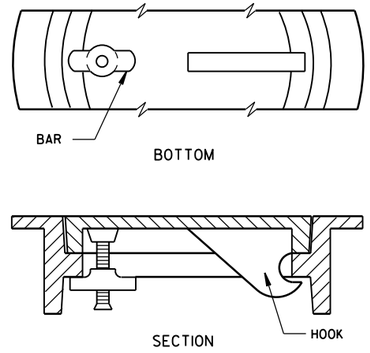
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

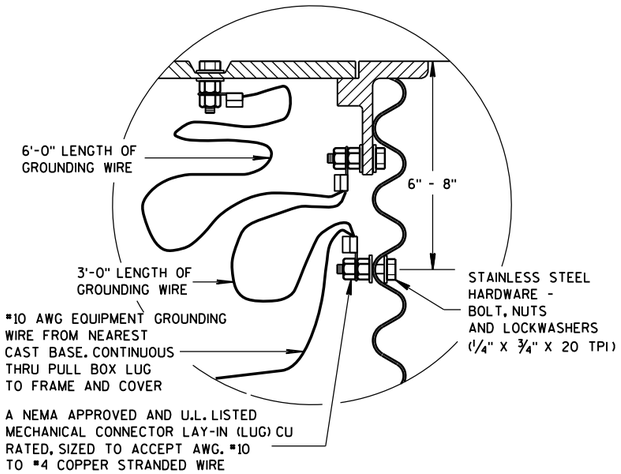


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

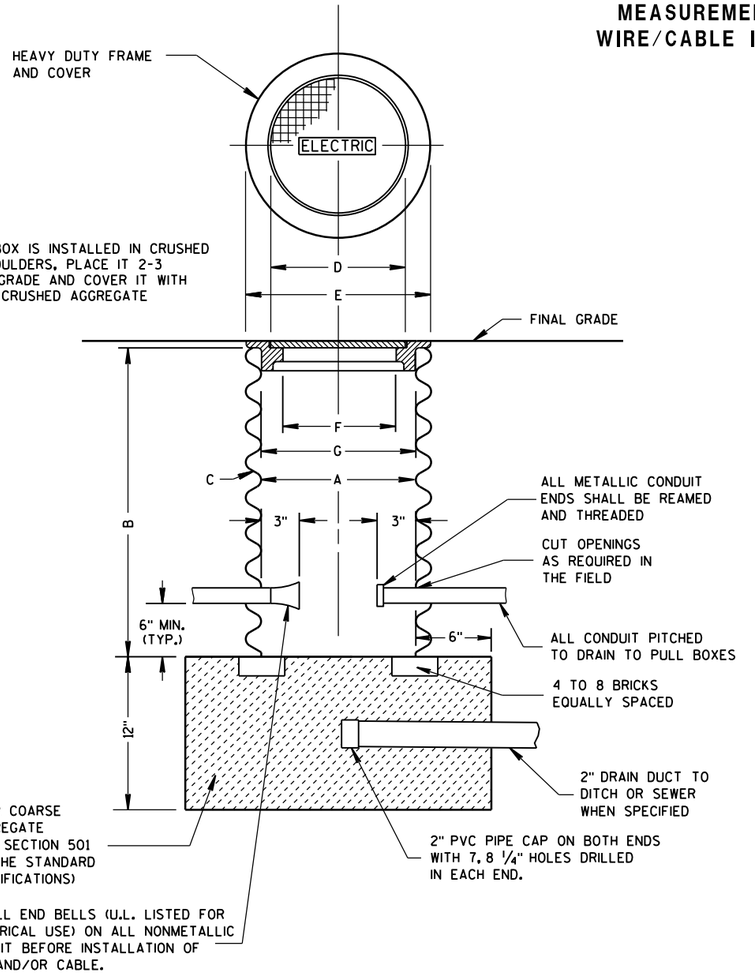


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

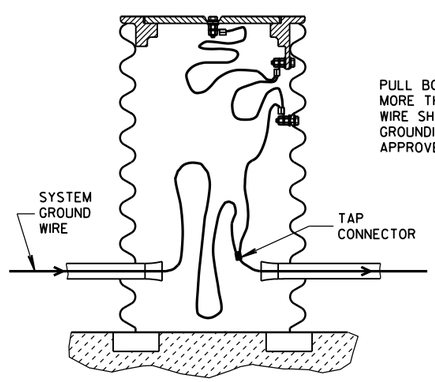
GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2-7-2013 DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

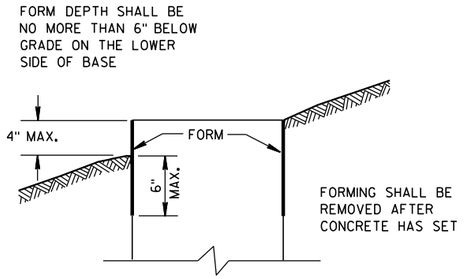
FHWA

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S.D.D. 9 B 4-10

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S.D.D. 9 B 4-10



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2 AND TYPE 5 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

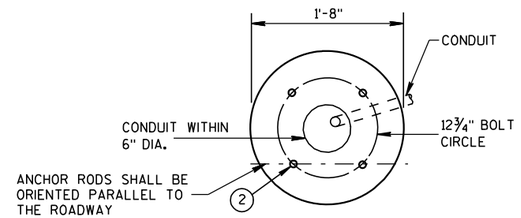
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

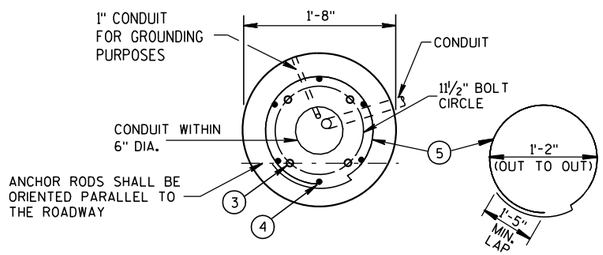
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

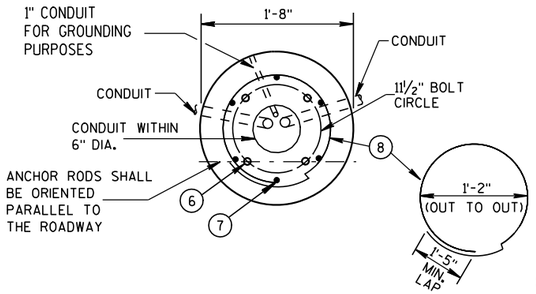
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

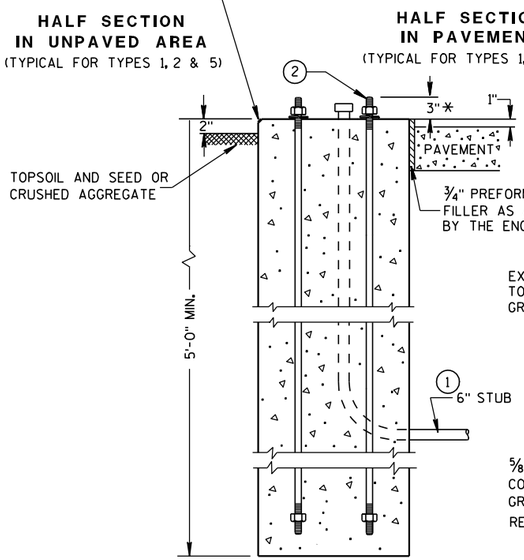






FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

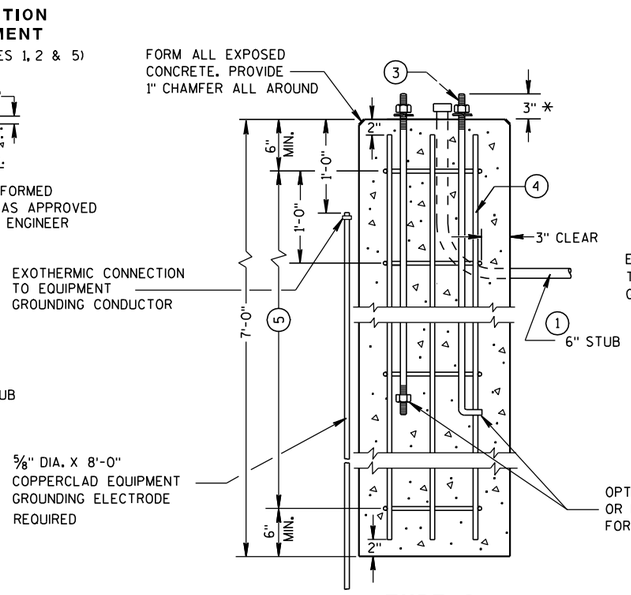
HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2 & 5)



HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2 & 5)

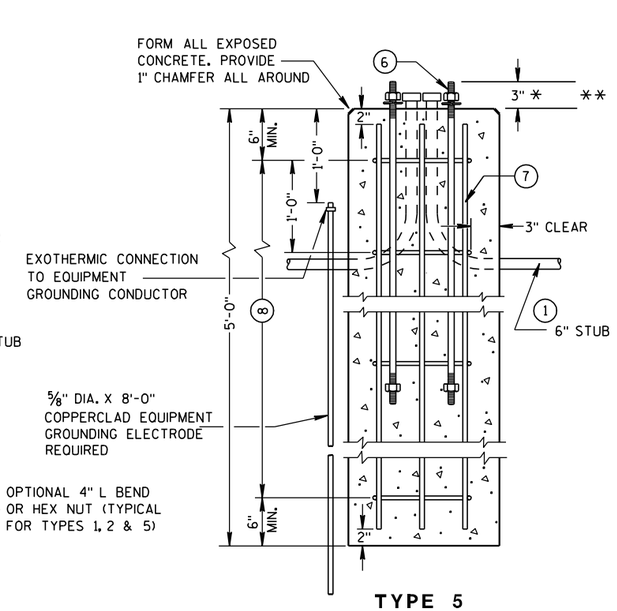
TYPE 1

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 2

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 5

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2 & 5

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/3/10 — DATE
/S/ Joanna L. Rush — STATE ELECTRICAL ENGI
400 — HWYS
FHWA

6

S.D.D. 9 C 2-6

6

S.D.D. 9 C 2-6

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-325, (92,000 YIELD) HEAVY HEX NUT AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED AND U.L. LISTED MECHANICAL CONNECTOR (LUG) AL/CU RATED AND SIZED TO ACCEPT #10 AWG STRANDED WIRE, SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

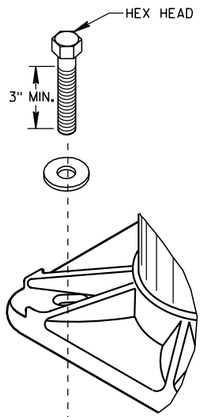
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

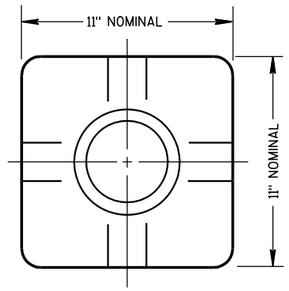
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

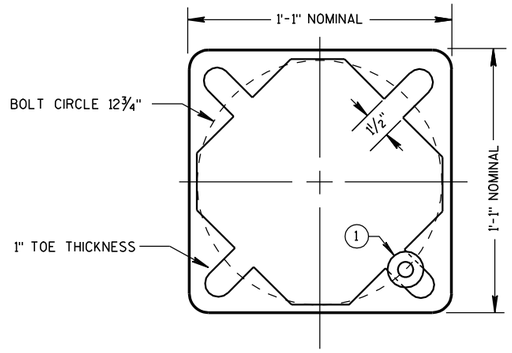
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1½", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

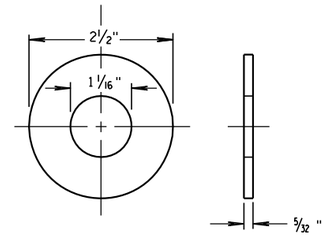




TOP VIEW
(PEDESTAL BASE)

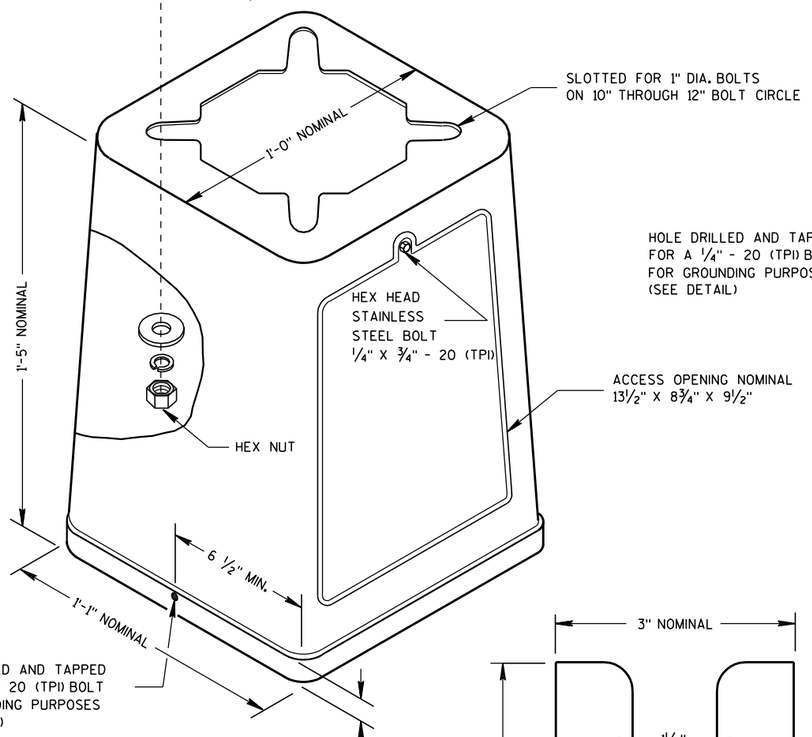


BOTTOM VIEW
(PEDESTAL BASE)

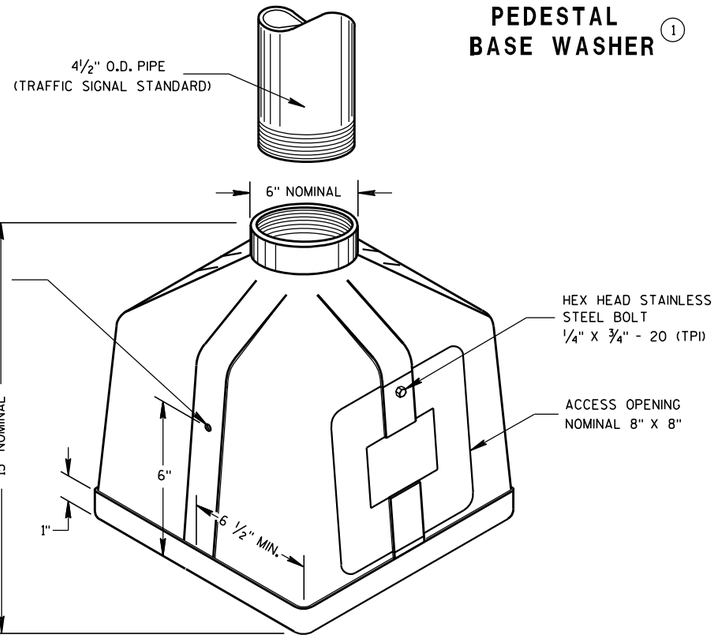


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

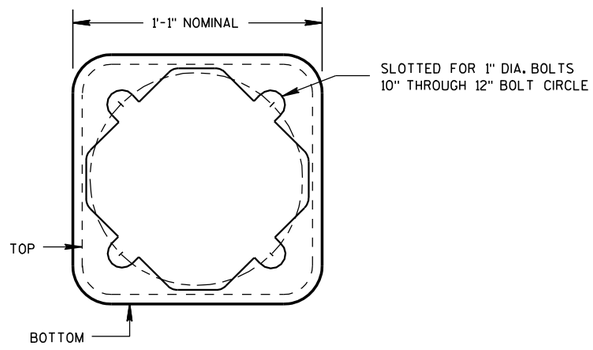


ISOMETRIC VIEW

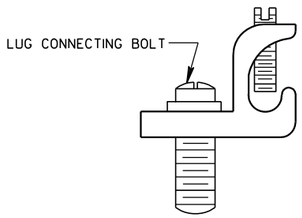


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

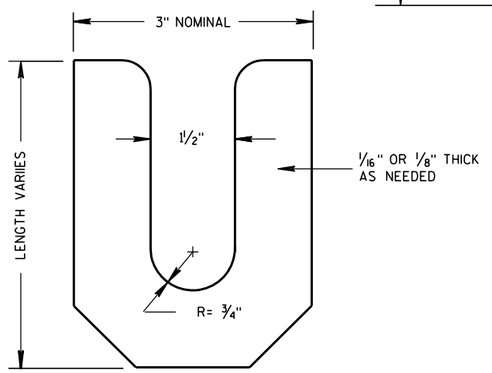


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

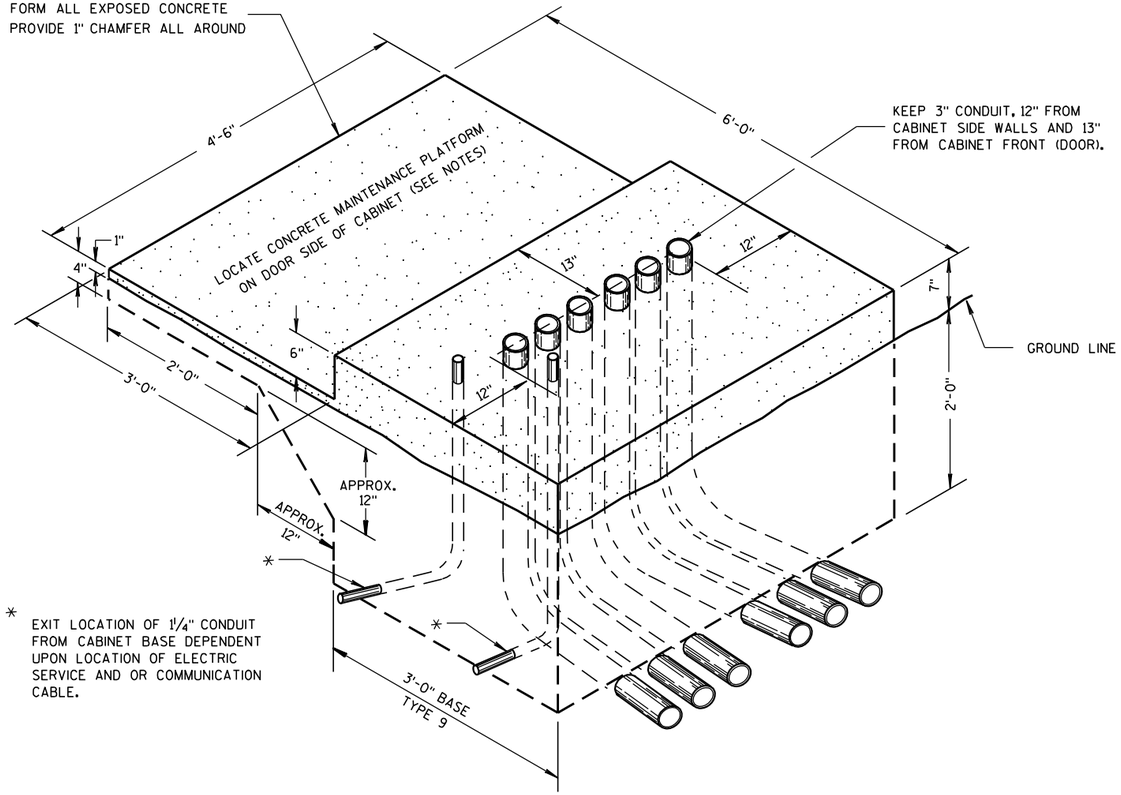
APPROVED
10/27/09 — DATE
/S/ Joanna L. Rush — STATE ELECTRICAL ENGI
401 — HWYS
FHWA

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S.D.D. 9 C 3-3

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S.D.D. 9 C 3-3

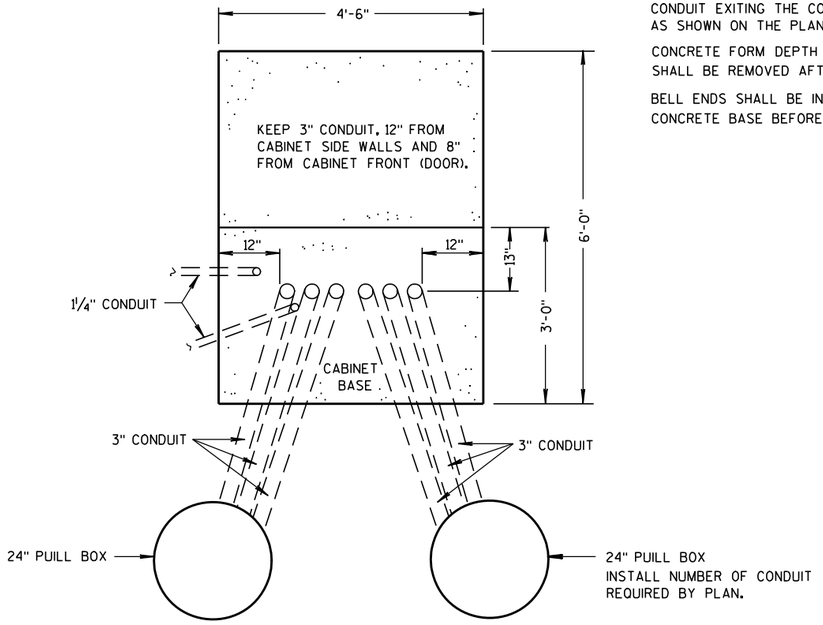


* EXIT LOCATION OF 1¼" CONDUIT FROM CABINET BASE DEPENDENT UPON LOCATION OF ELECTRIC SERVICE AND OR COMMUNICATION CABLE.

ISOMETRIC VIEW

TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/27/07 — DATE

/S/ Balu Ananthapadmanabhan — STATE ELECTRICAL ENGI

402

HWYS

FHWA

6

S.D.D. 9 C 6-5

6

S.D.D. 9 C 6-5

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUIT IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

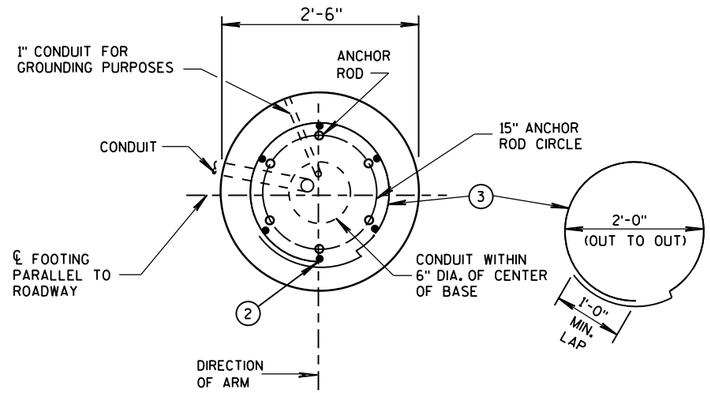
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

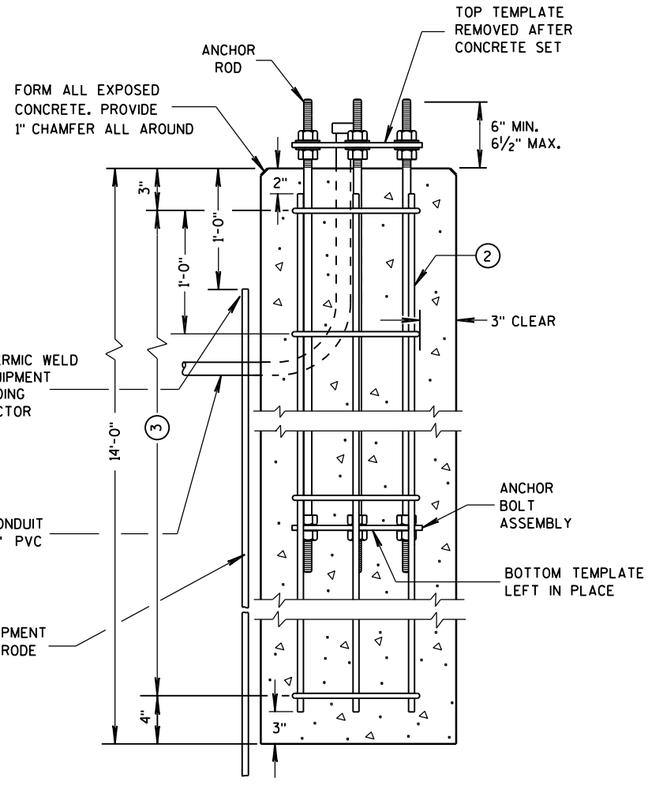
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

(3) (15) NO. 4 X 7'-4" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

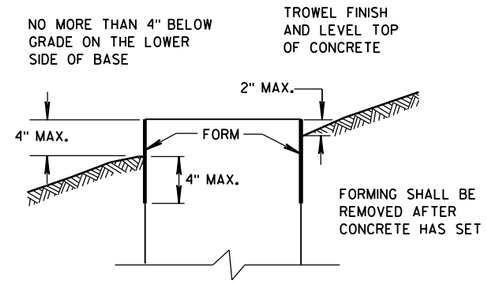
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



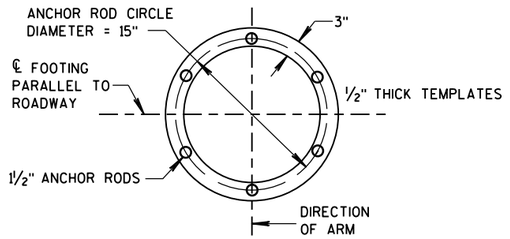


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

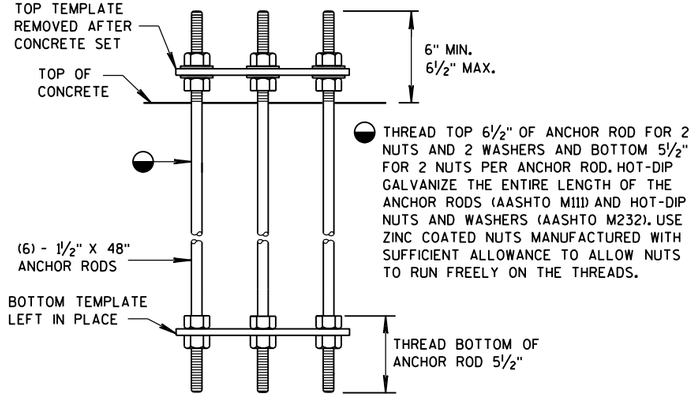
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	69
LBS. OF VERTICAL BAR STEEL	122

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

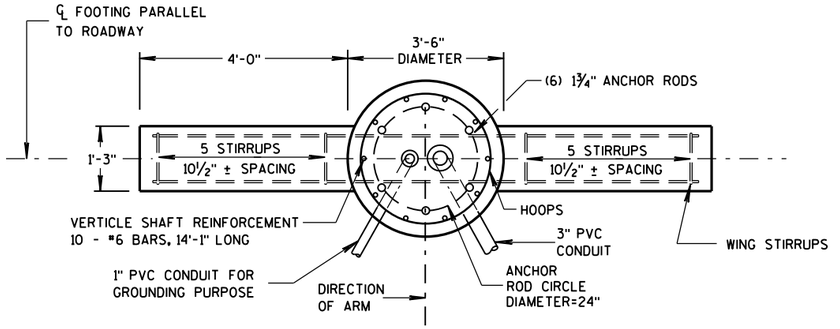
1-16-2013
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

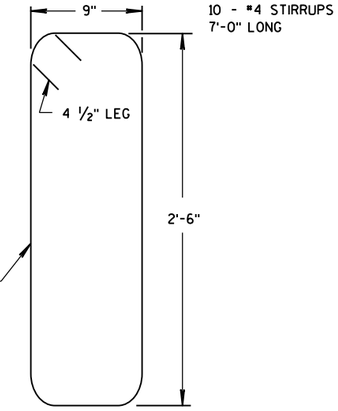
FHWA

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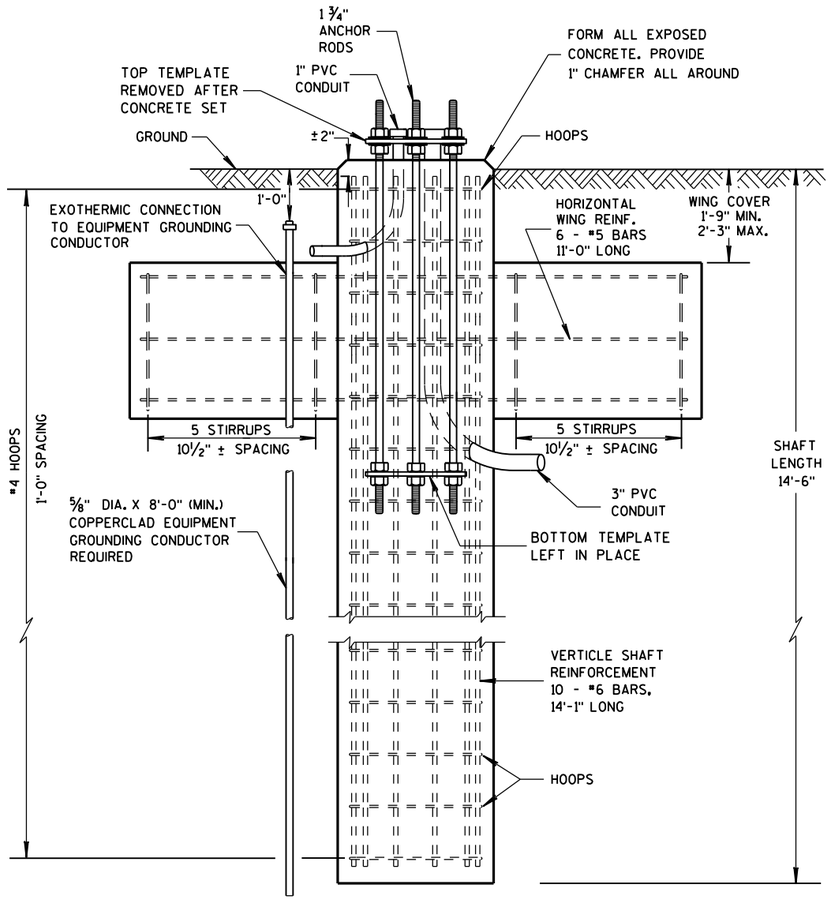
S.D.D. 9 C 11-3



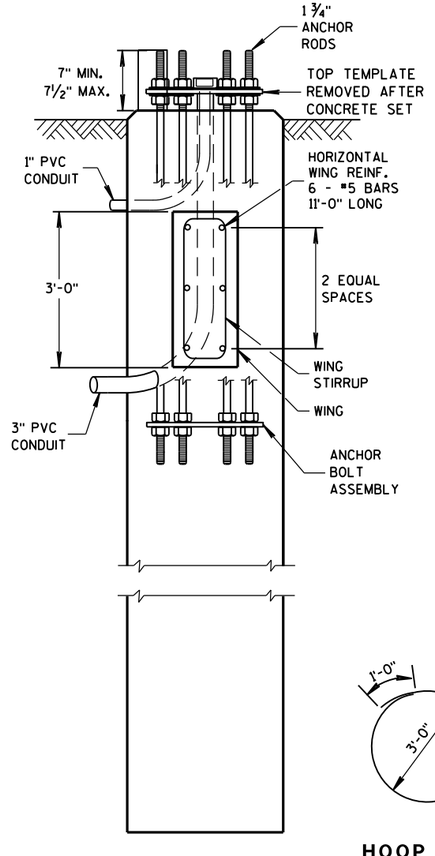
PLAN VIEW



WING STIRRUP

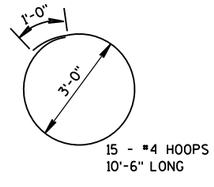


ELEVATION VIEW



SIDE VIEW

DOES NOT SHOW HOOPS OR VERTICAL SHAFT REINFORCEMENT



15 - #4 HOOPS 10'-6" LONG

HOOP DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4-FOOT COIL OF WIRE ABOVE THE CONCRETE BASE, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 POLES)

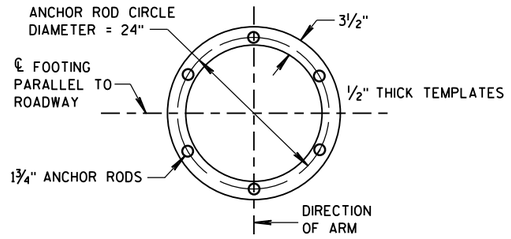
CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 433 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

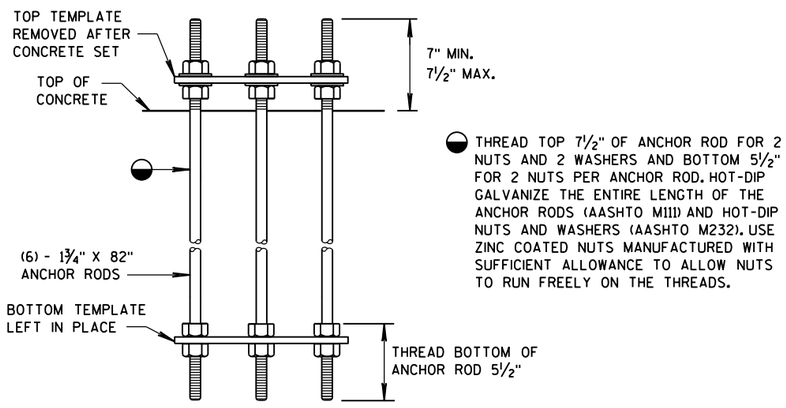
CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 9 C 12-3a

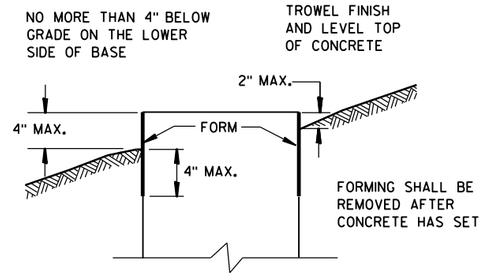


TOP AND BOTTOM TEMPLATES



◒ THREAD TOP 7½" OF ANCHOR ROD FOR 2 NUTS AND 2 WASHERS AND BOTTOM 5½" FOR 2 NUTS PER ANCHOR ROD. HOT-DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR RODS (AASHTO M111) AND HOT-DIP NUTS AND WASHERS (AASHTO M232). USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

ANCHOR BOLT ASSEMBLY DETAIL



FORMING DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY

6

S.D.D. 9 C 12-3b

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

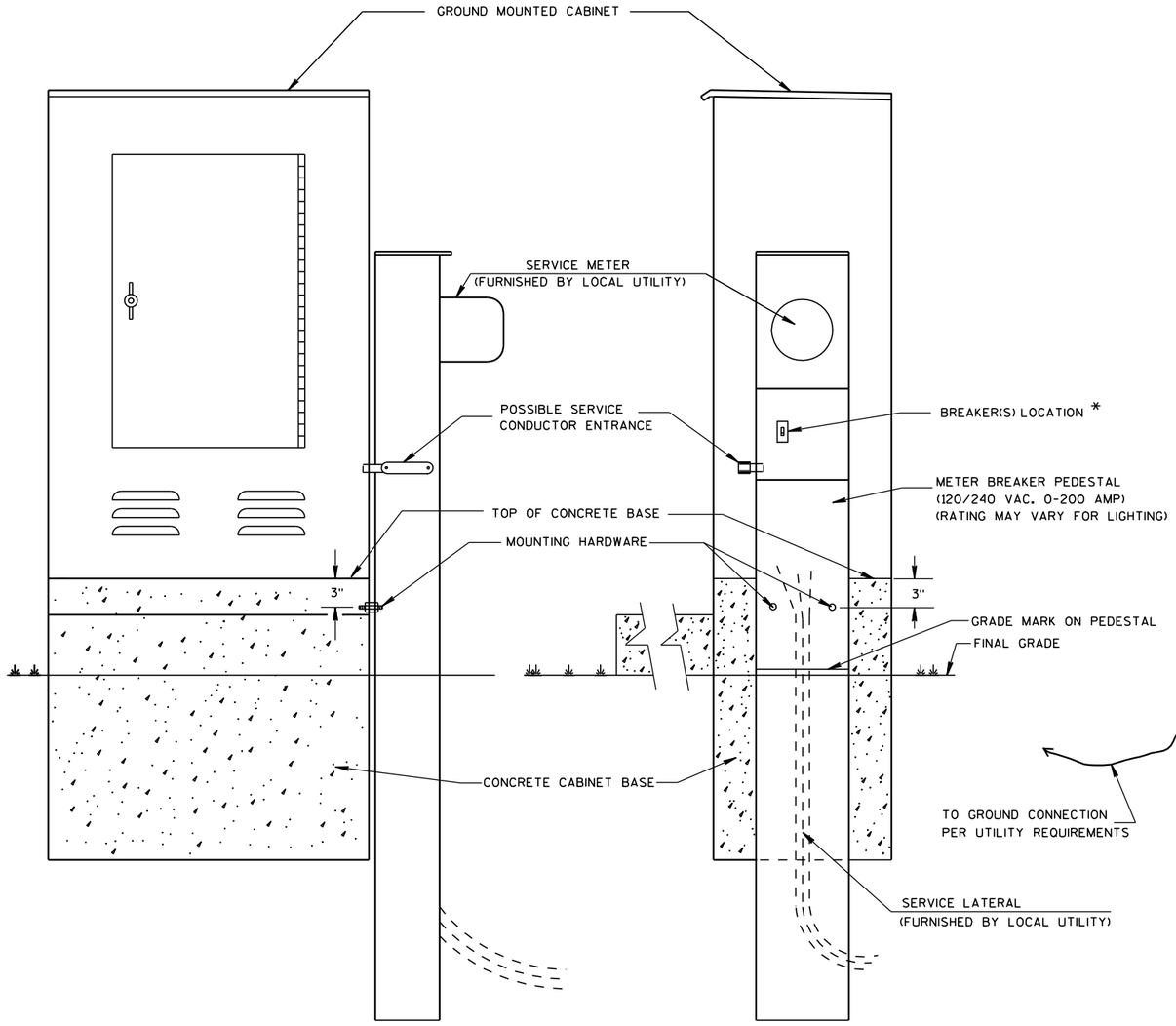
1-16-2013
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

6

S.D.D. 9 C 12-3b



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

6

S.D.D. 9 D 1-4

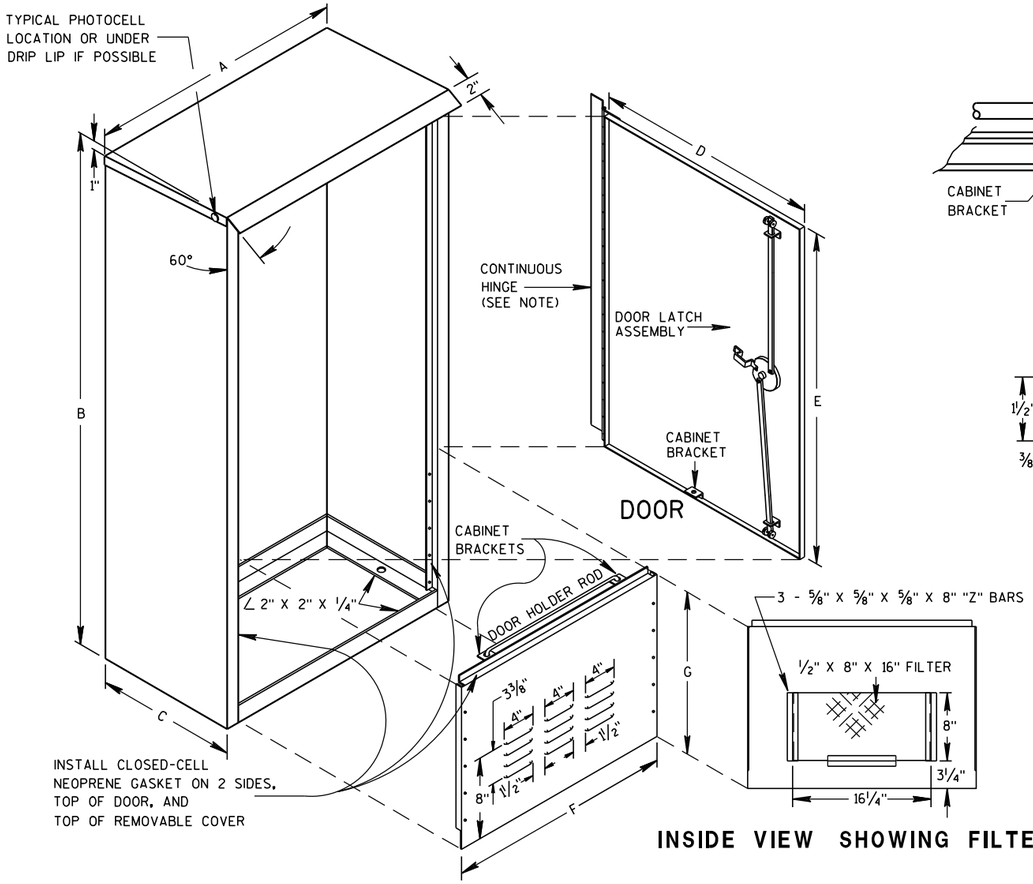
6

S.D.D. 9 D 1-4

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

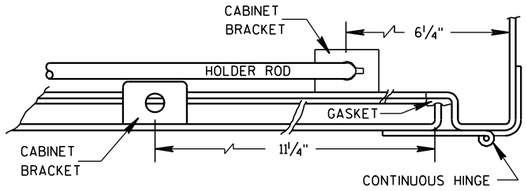
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/27/09 DATE
/S/ Joanna L. Bush
STATE ELECTRICAL ENGI 406 HWYS
FHWA

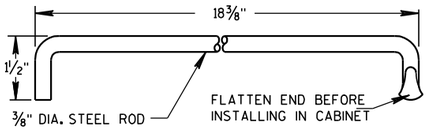


REMOVABLE COVER

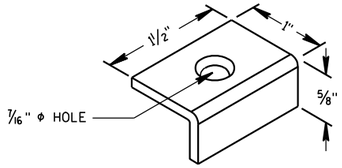
INSIDE VIEW SHOWING FILTER



HINGE & DOOR HOLDER



HOLDER ROD

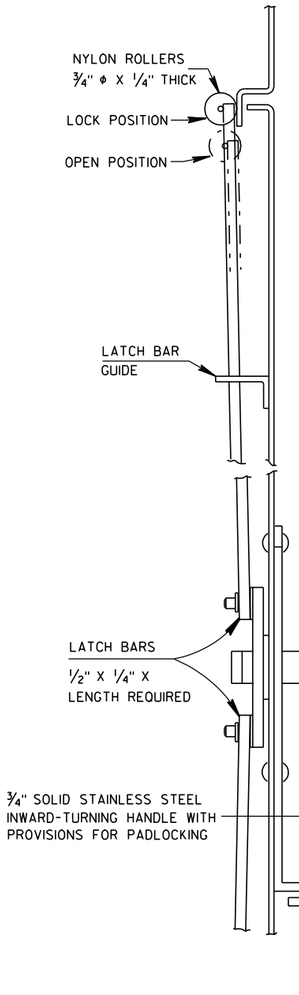


CABINET BRACKET

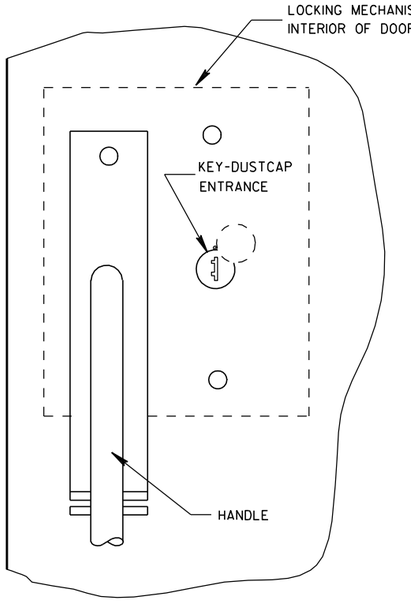
MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 1/4	8 1/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2

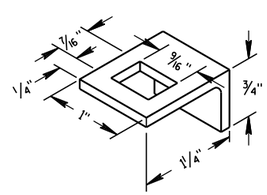


SIDE VIEW



FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/4" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

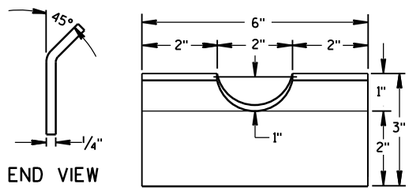
A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH-NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE AN APPROVED TYPE.

DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.

SIGNAL OR LIGHTING CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/21/96 — DATE
/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI
407 HWYS
FHWA

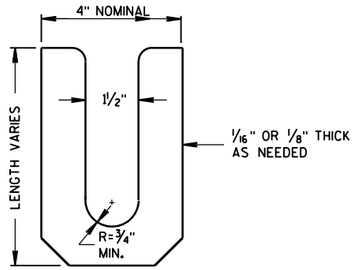


END VIEW

FRONT VIEW

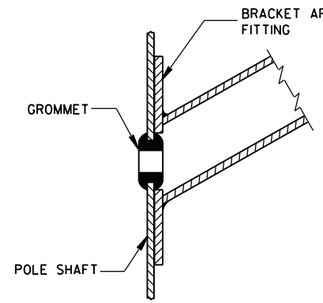
RECTANGULAR CLAMP SHIM

(4 TO A SET)

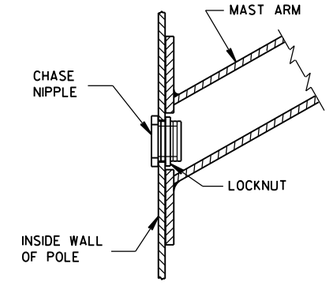


LEVELING SHIM (15)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) OUTSIDE SHIM DIAMETER - (4.5" O.D. FOR LUMINAIRE MAST ARM)
(6.625" O.D. FOR TROMBONE MAST ARM)

(14) VARIABLE SHIM THICKNESS - (0.10", 0.25", 0.35", 0.53" OR 0.70")

SHIM THICKNESS FOR TROMBONE MAST ARMS MAY BE TYPICALLY 0.25", 0.35", 0.53" OR 0.70".

SHIM THICKNESS FOR LUMINAIRE MAST ARMS MAY BE TYPICALLY 0.10", 0.25" OR 0.35".

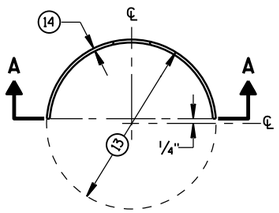
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.

SHIM THICKNESS SHALL BE IMPRESSED INTO EACH SHIM. NUMERALS SHALL BE 1/4" HIGH AND LEGIBLE.

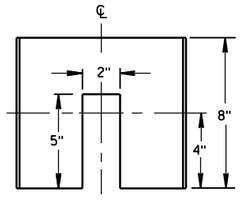
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.

(15) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



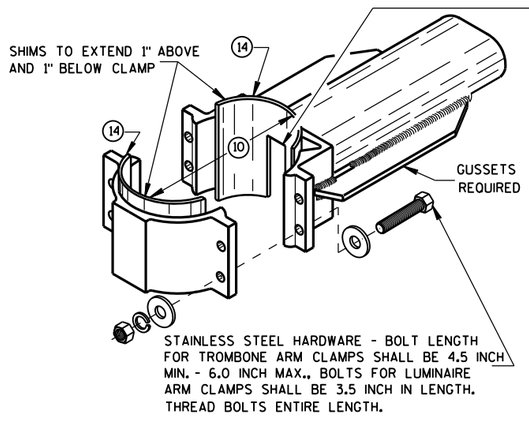
PLAN VIEW



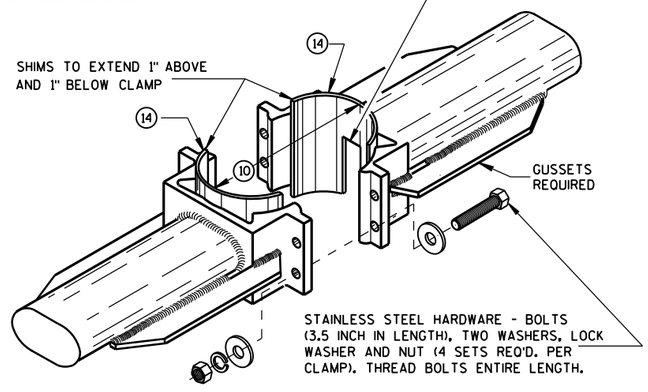
SECTION A-A

CIRCULAR CLAMP SHIM

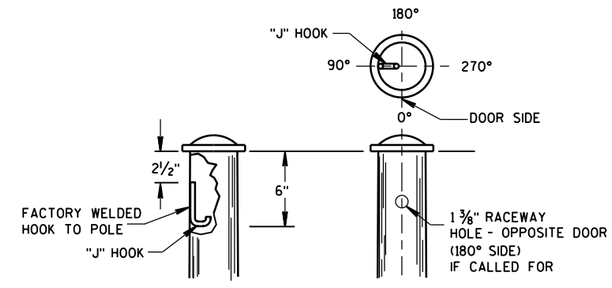
(2 TO A SET)



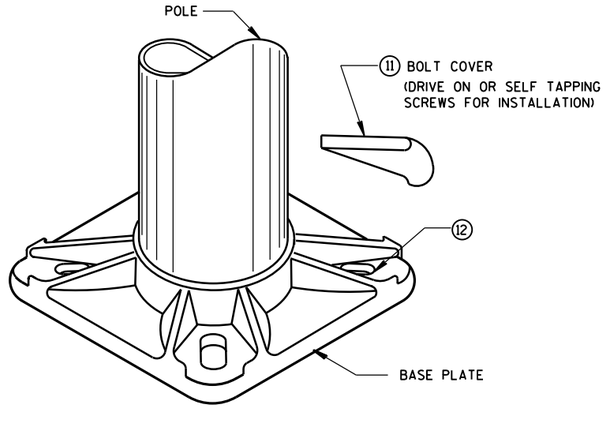
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



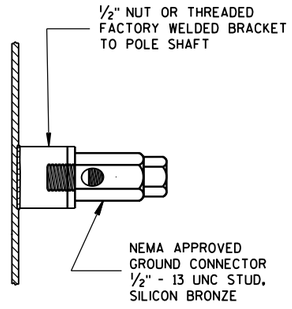
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

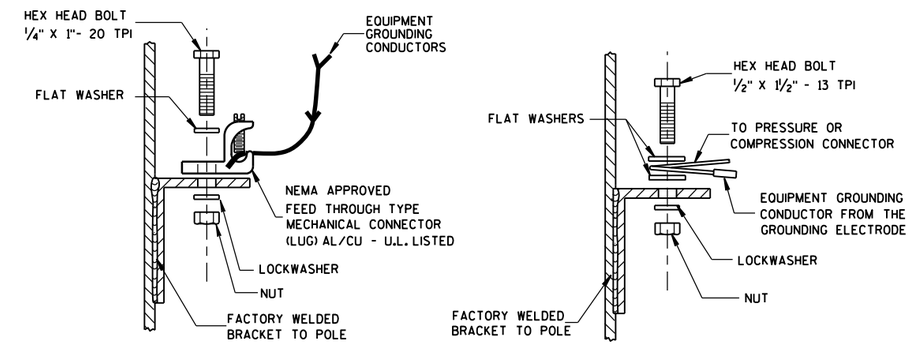


TYPICAL "J" HOOK LOCATION



BASE PLATE





TYPICAL GROUNDING CONNECTIONS

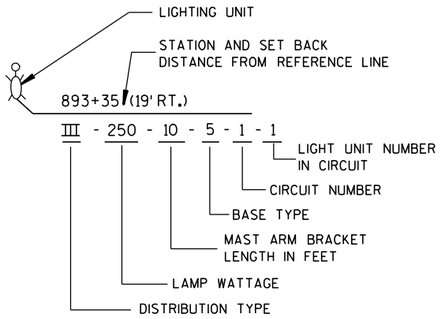
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTINGS

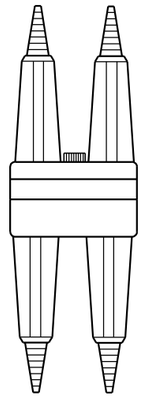
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/7/2013 DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL 408
FHWA

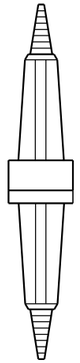
6
S.D.D. 9 E 1-12g



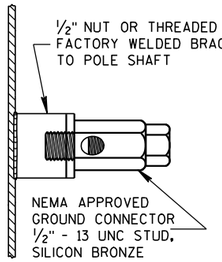
LIGHTING UNIT CODE
(TYPICAL)

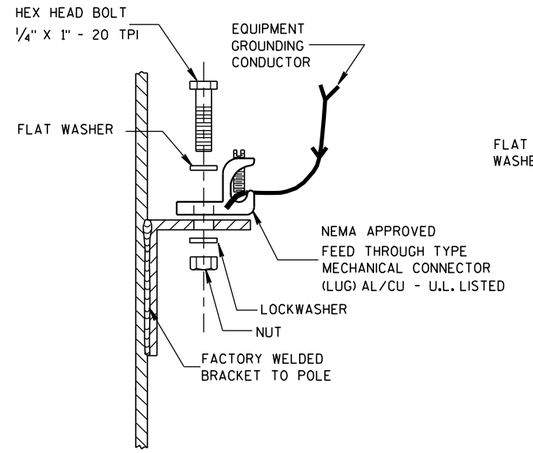


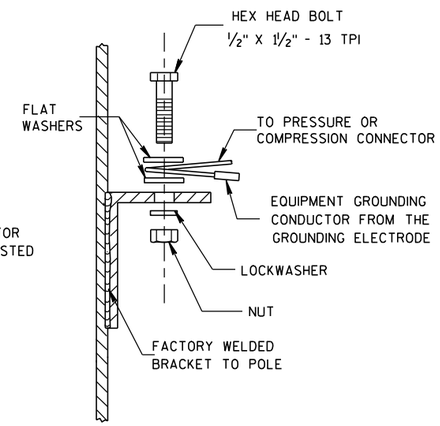
DETAIL "A"
BREAKAWY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT



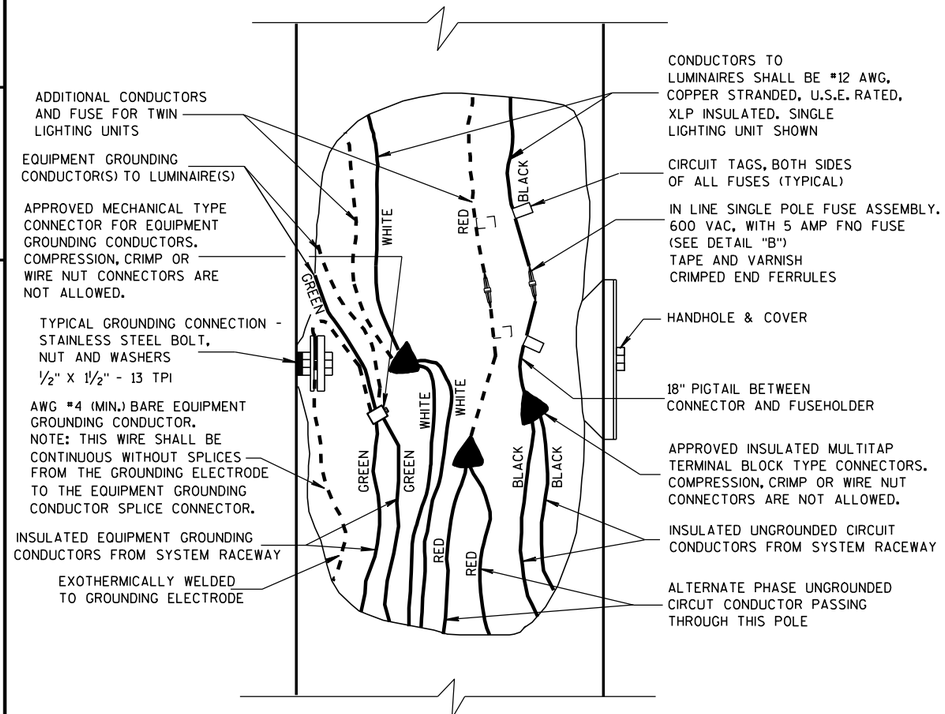
DETAIL "B"
BREAKAWY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



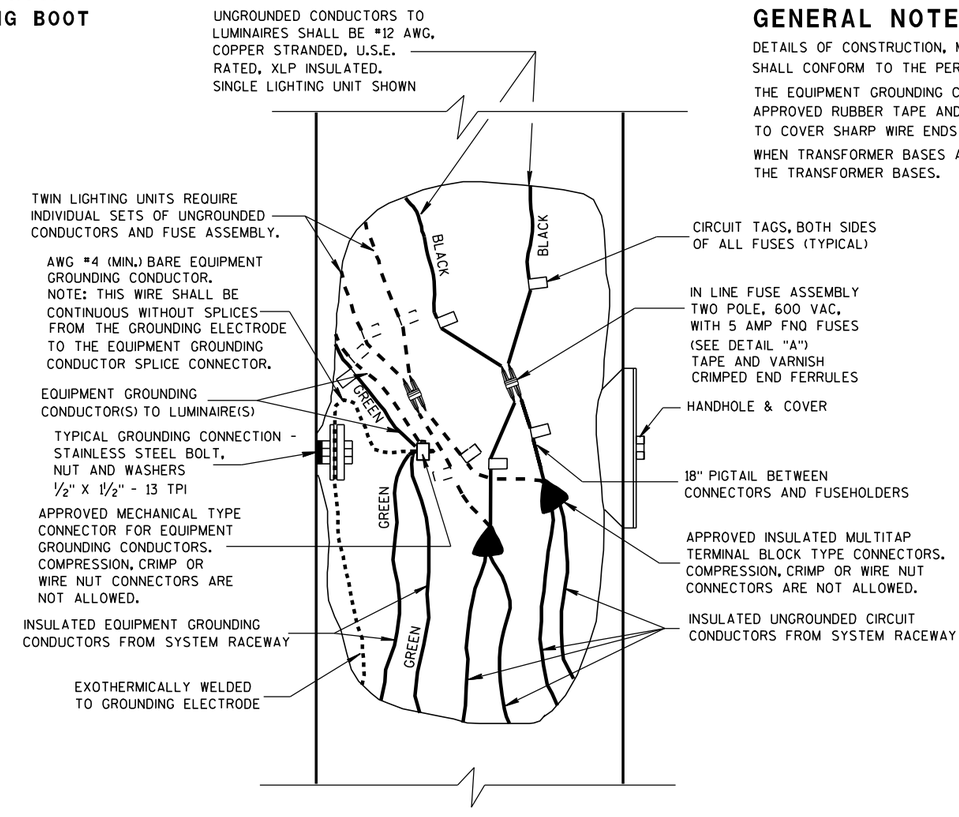




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 — DATE

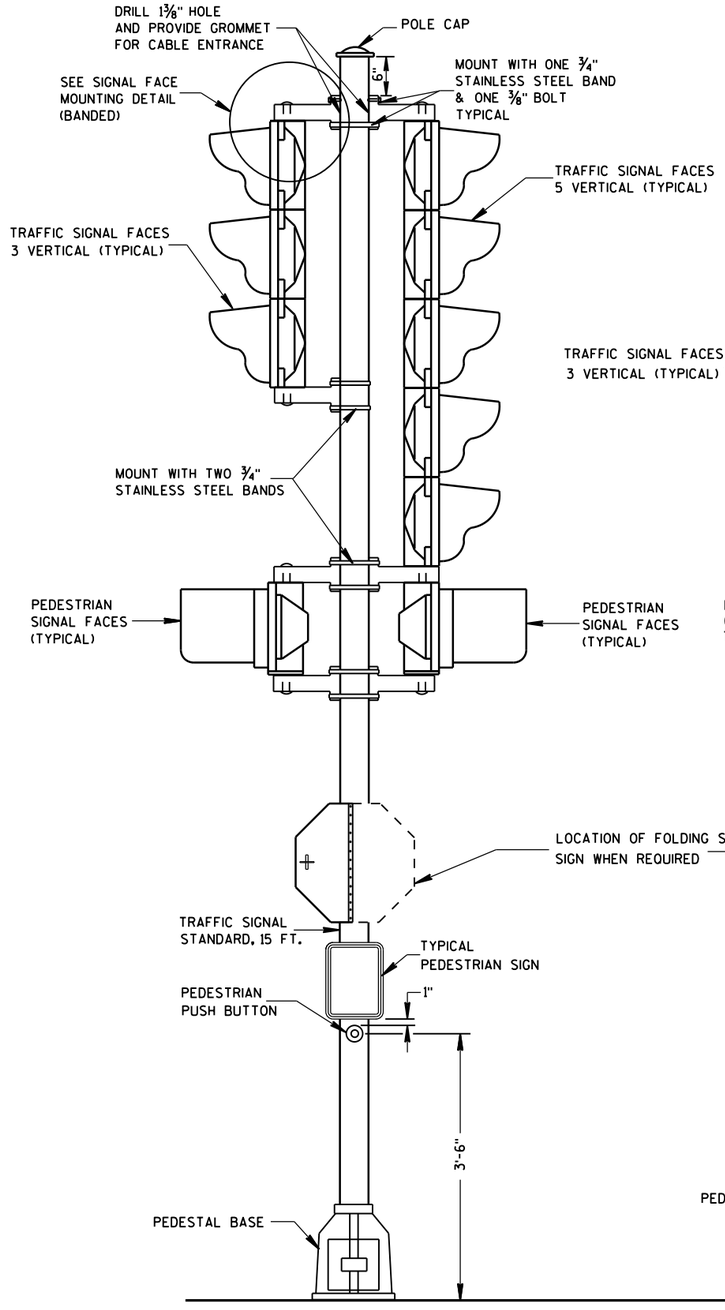
/S/ Thomas J. Gosnell — STATE ELECTRICAL ENGI

409

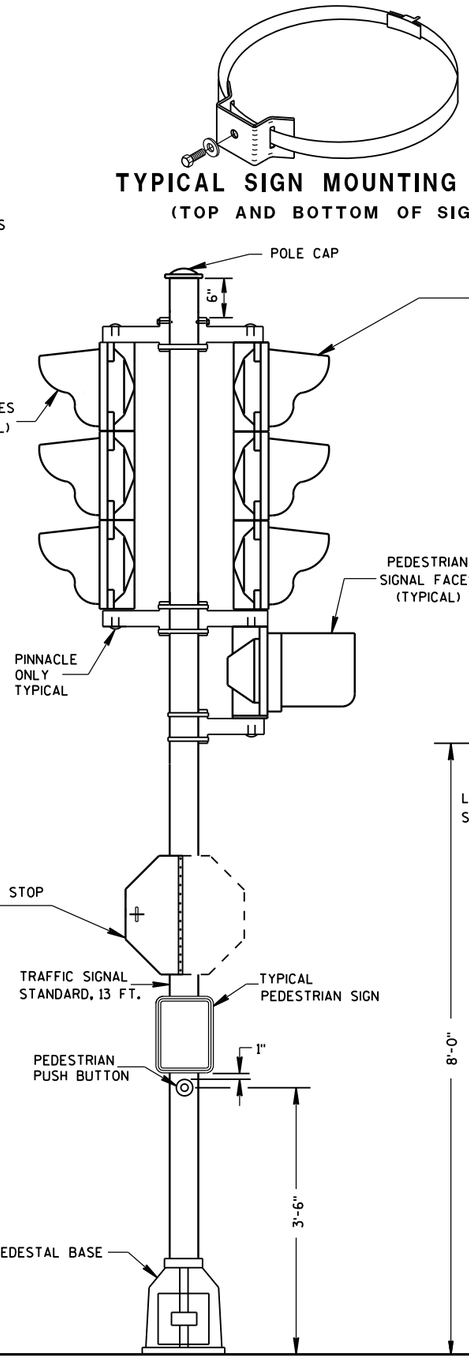
HWYS

FHWA

6
S.D.D. 9 E 3-4

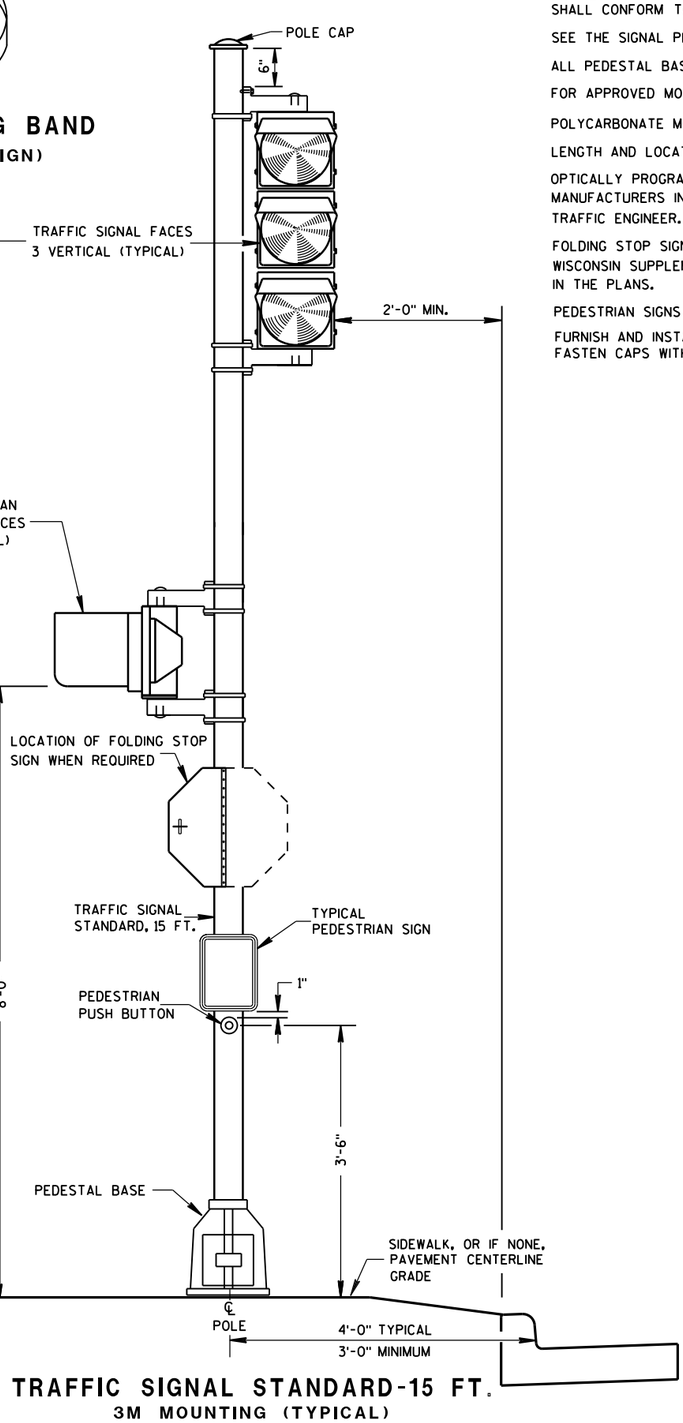


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

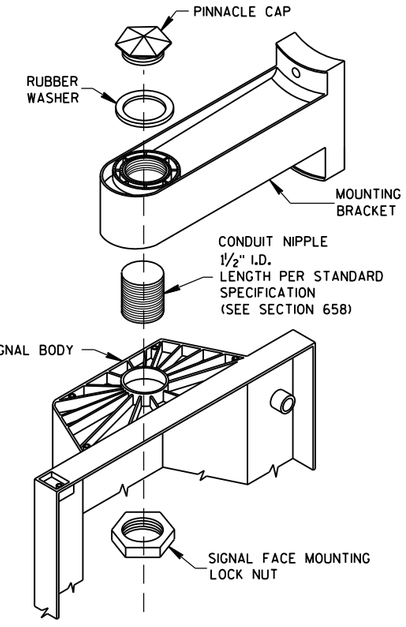
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



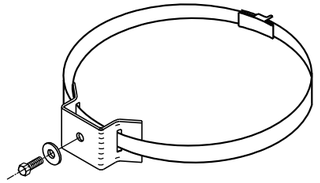
SIGNAL FACE MOUNTING DETAIL
(BANDED)

TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

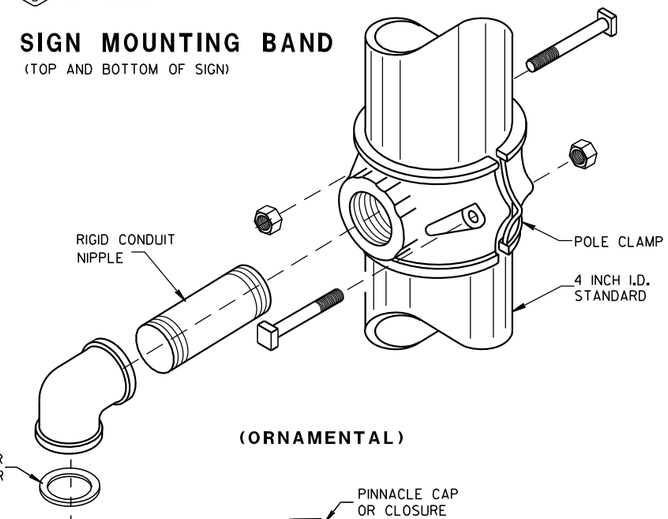
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

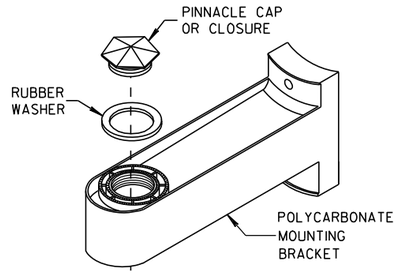
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S.D.D. 9 E 6-5



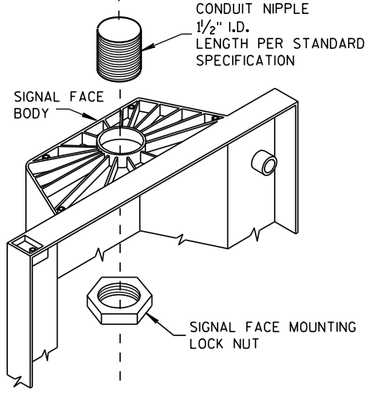
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



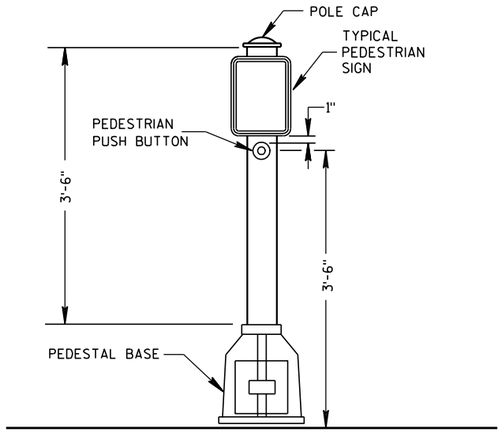
(ORNAMENTAL)



(BANDED)



SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

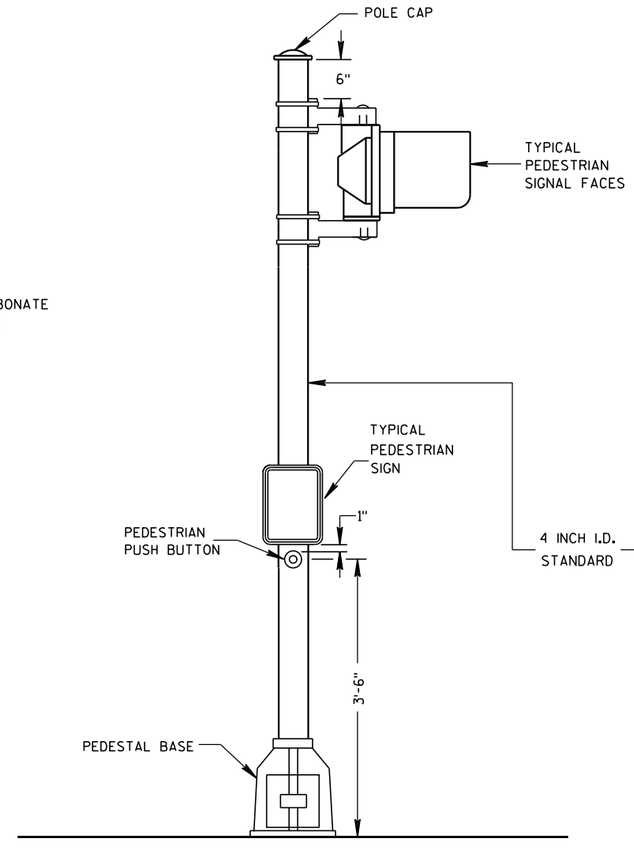
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

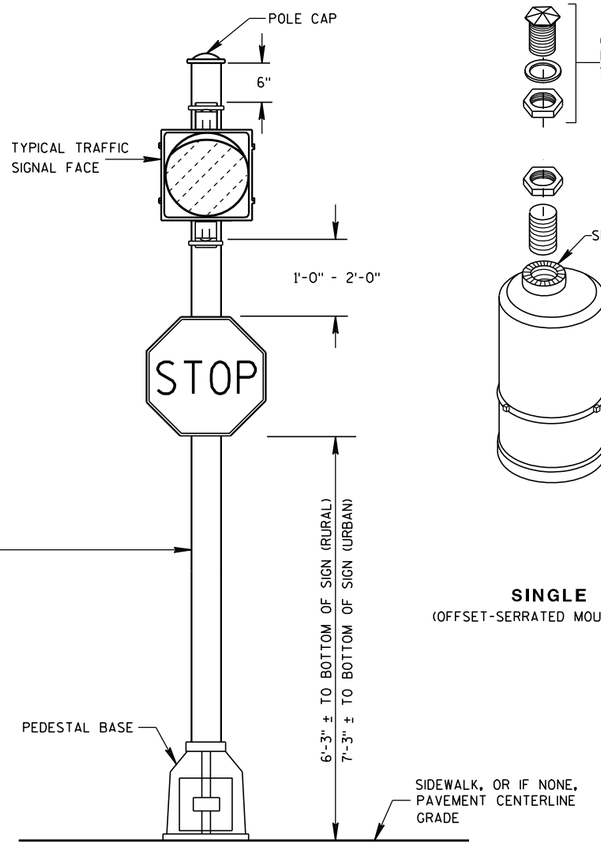
MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

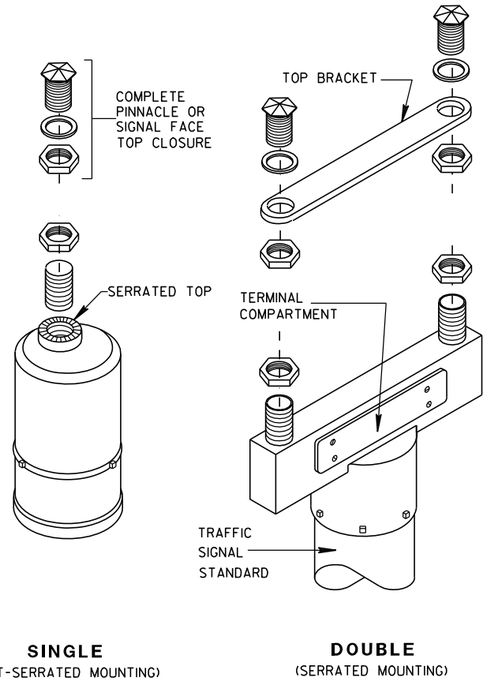
FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



PEDESTRIAN FACE STANDARD-10 FT.
(WALK-DON'T WALK)



STANDARD FLASHER.
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET-SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/11/10
DATE

/S/ John Corbin
STATE ELECTRICAL ENGI

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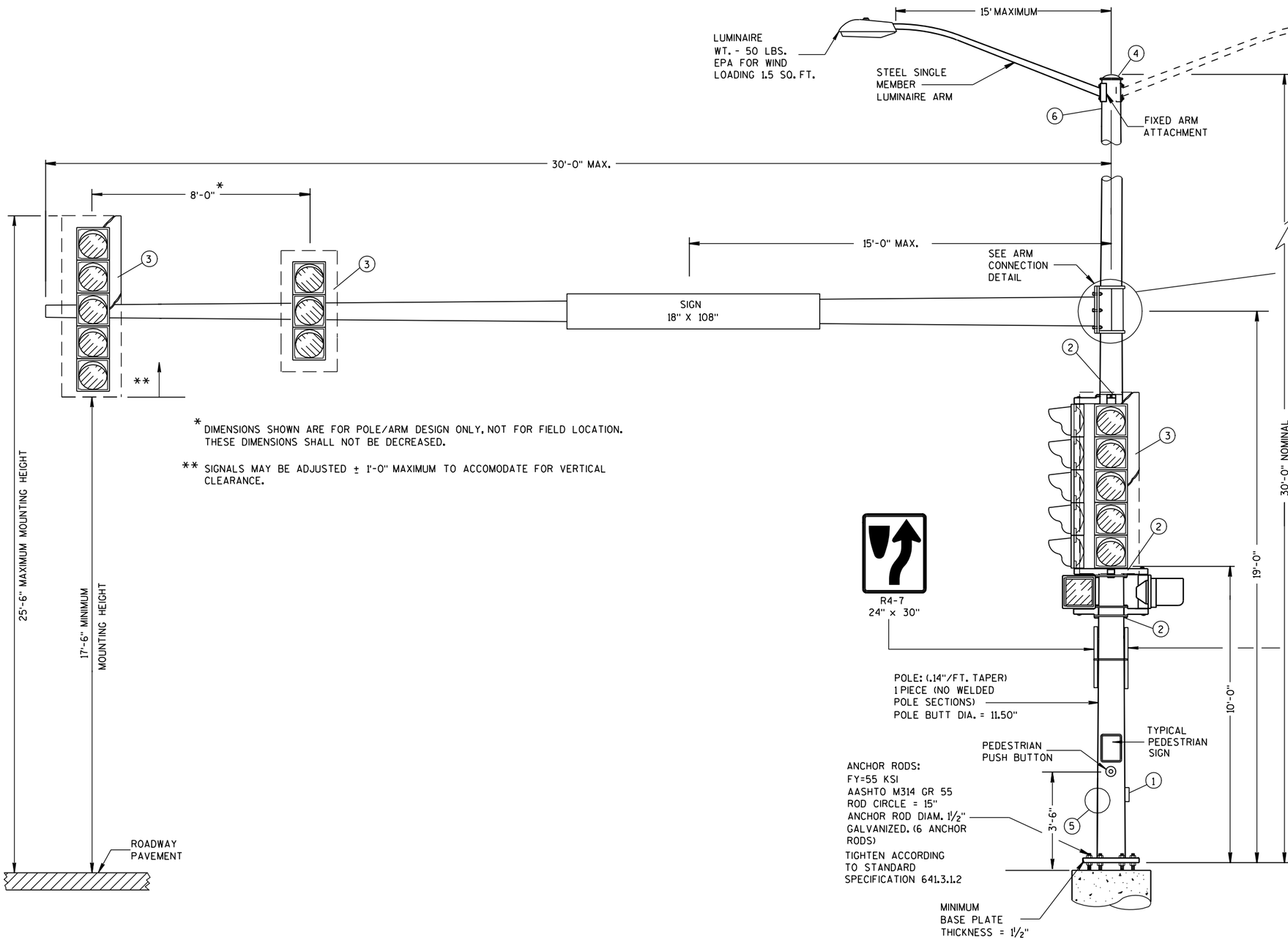
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S.D.D. 9 E 7-5

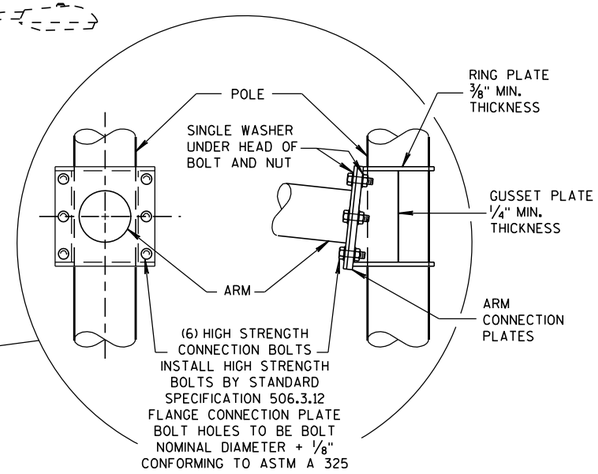
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S.D.D. 9 E 7-5

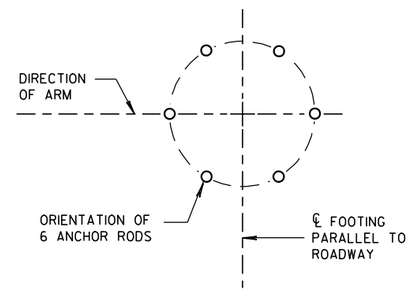


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 10 POLE
15'- 30' MONOTUBE ARM

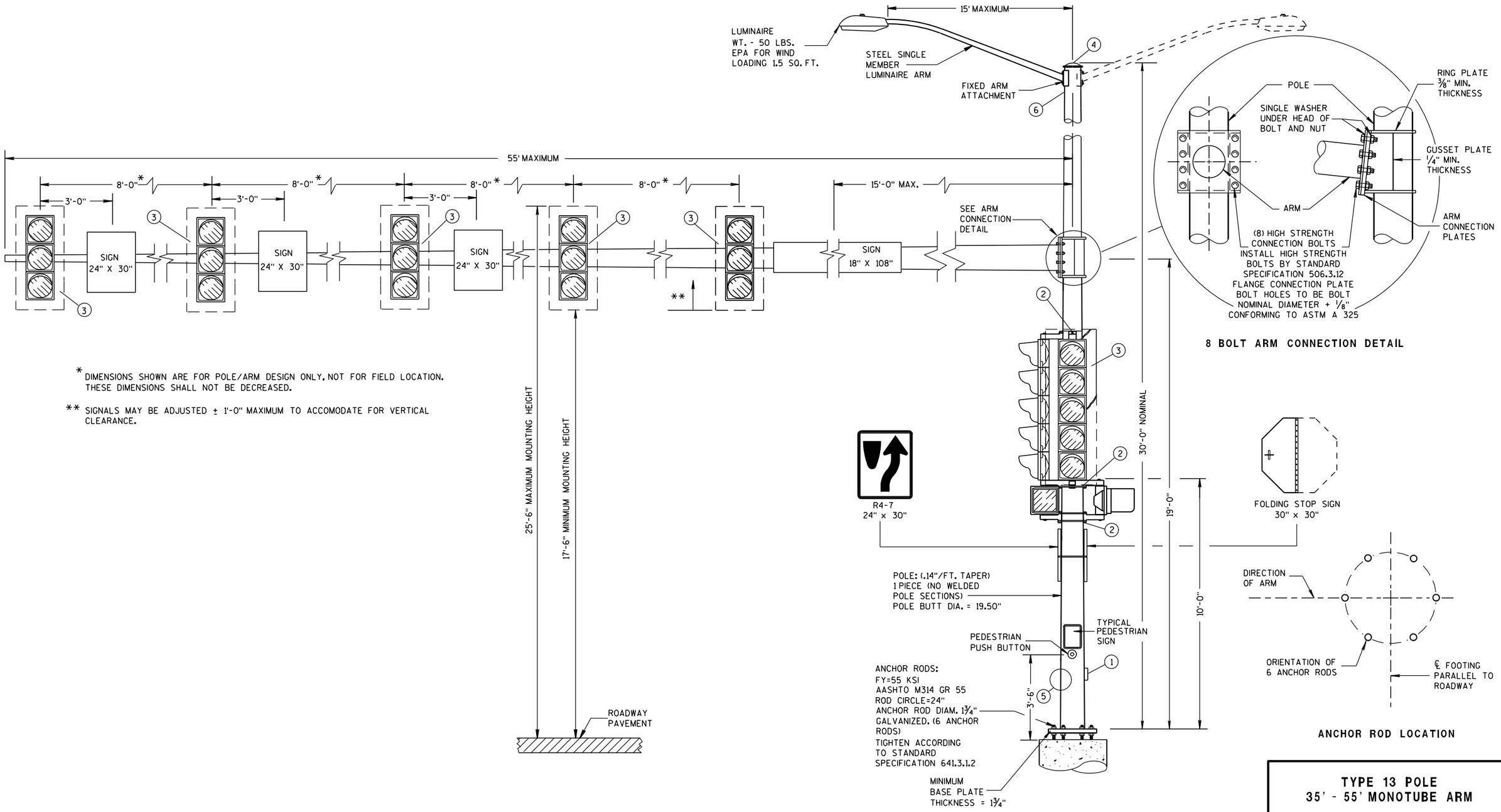
TYPE 10 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/2/2011 DATE	/S/ Thomas J. Corrigo STATE ELECTRICAL ENGI 412 HWYS
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S.D.D. 9 E 8-4b

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S.D.D. 9 E 8-4b



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

8 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 — DATE

/S/ Thomas J. Corrigan — STATE ELECTRICAL ENGI

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S.D.D. 9 E 8-4d

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE LATEST AASHTO AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

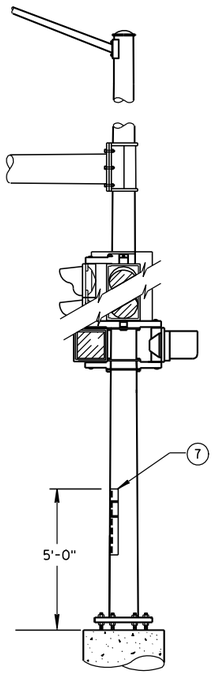
(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

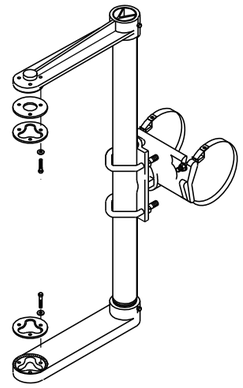
(7) INSTALL DEPARTMENT PROVIDED STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

MOUNTING HEIGHT SHALL BE 5'-0" ABOVE THE CURB OR SHOULDER . ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

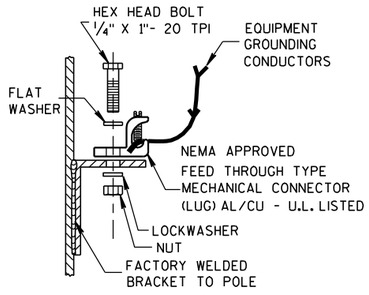


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



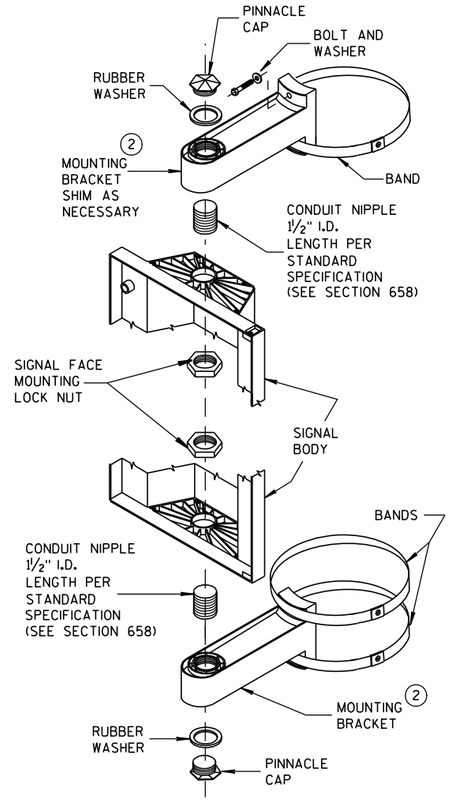
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

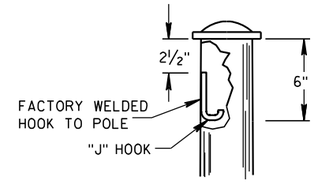


TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 DATE

/S/ Thomas J. Corrigan
STATE ELECTRICAL ENGI

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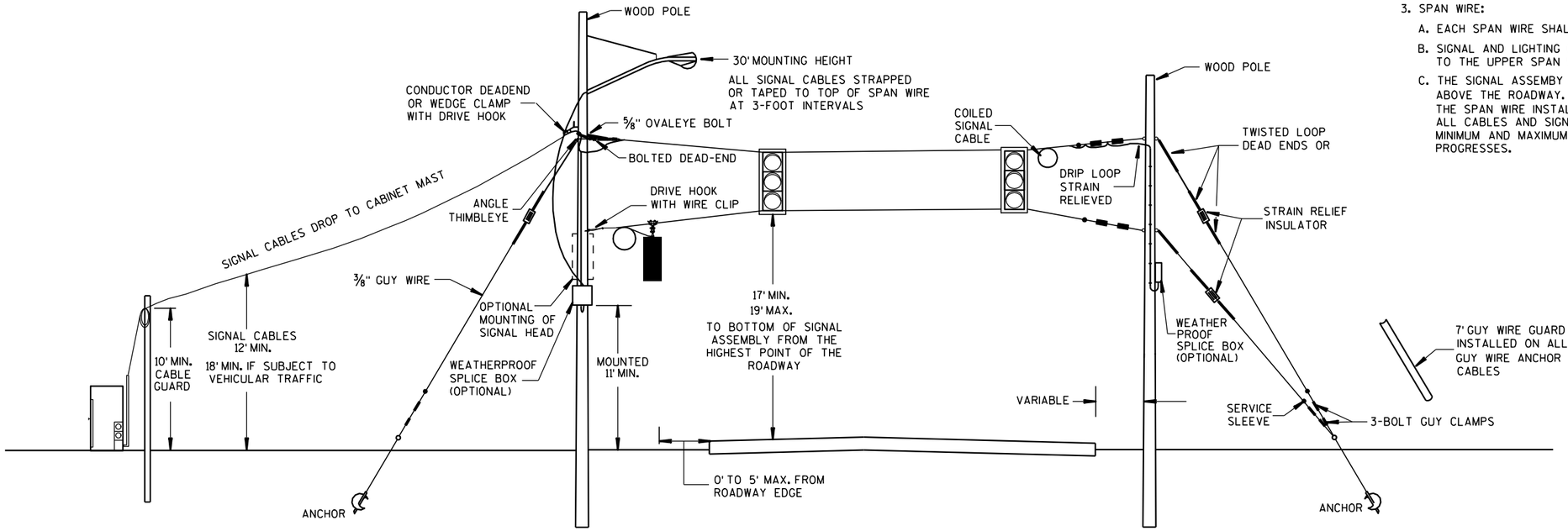
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

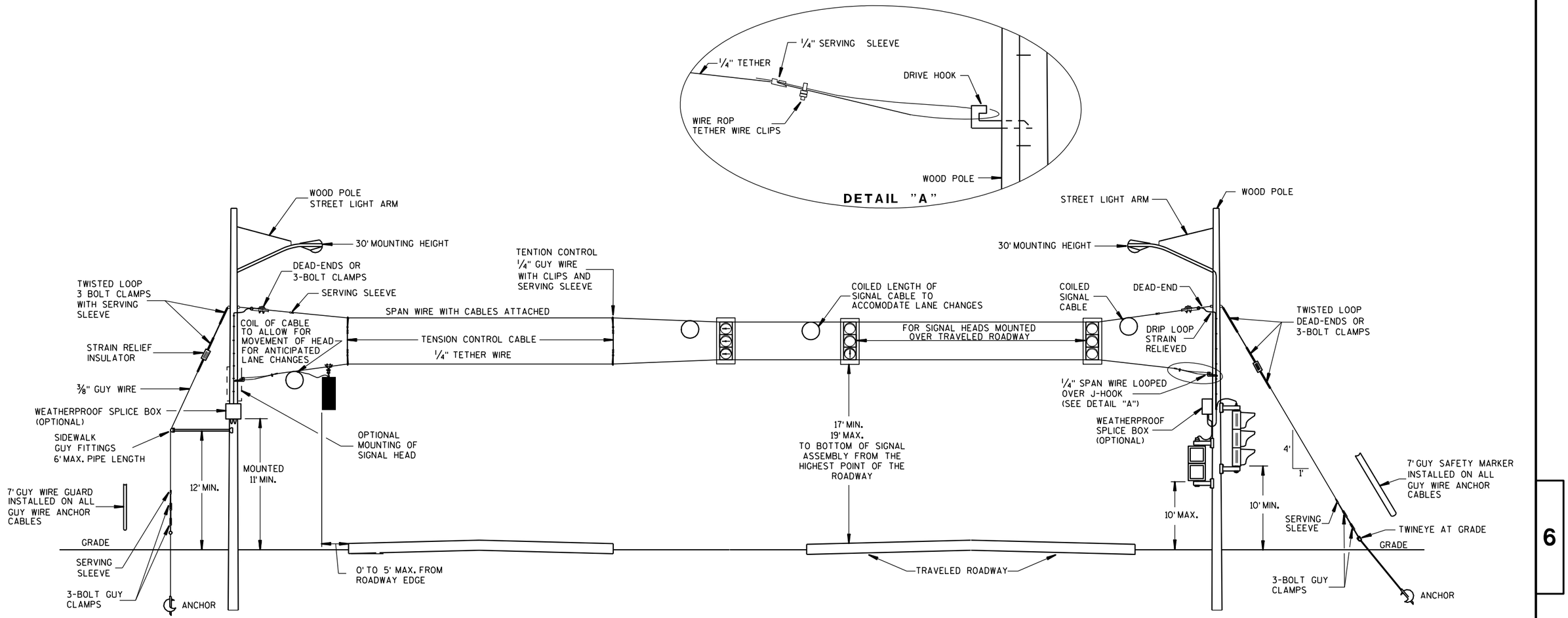
MINIMUM POLE LENGTHS	POLE BURIEL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08 DATE
/S/ Balu Ananthar [illegible]n
STATE ELECTRICAL ENGI 415 HWYS
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GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08 DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI

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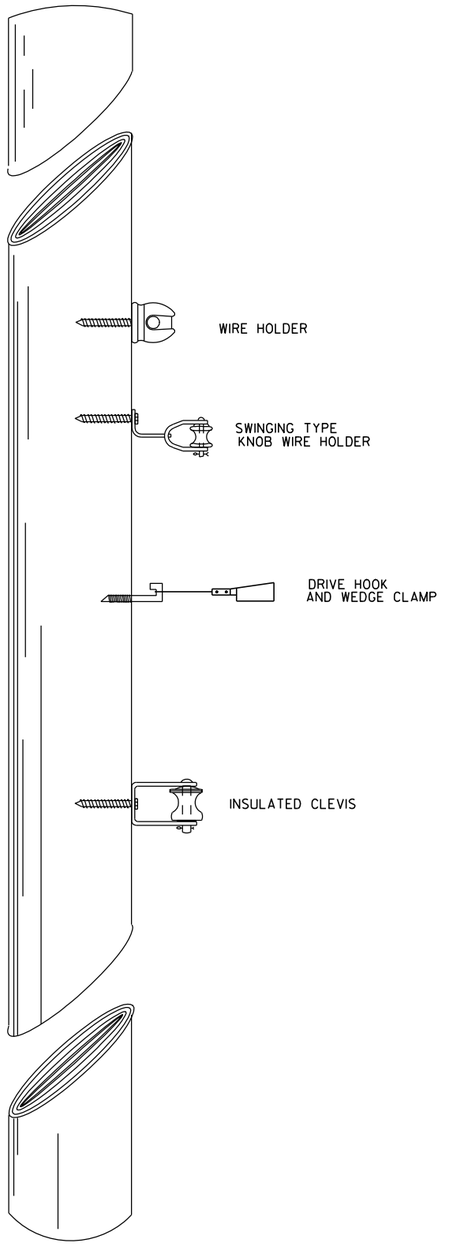
FHWA

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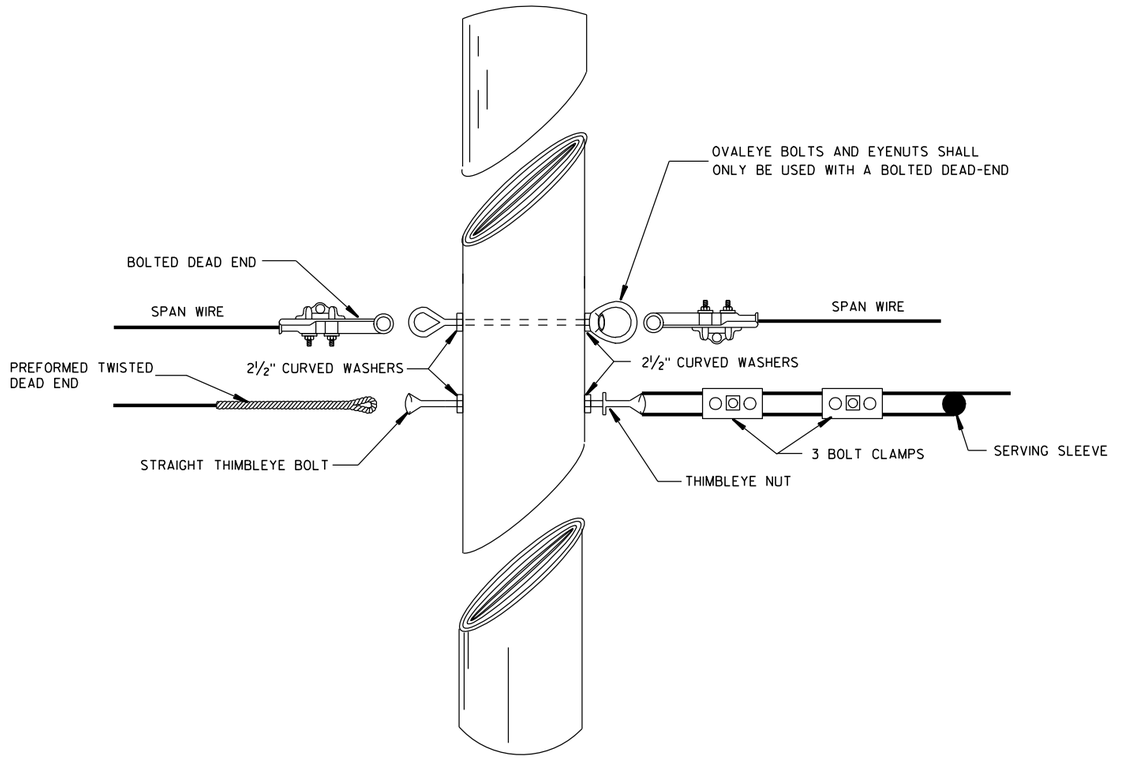
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S.D.D. 9 G 1-3b



TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

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S.D.D. 9 G 1-3d

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SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

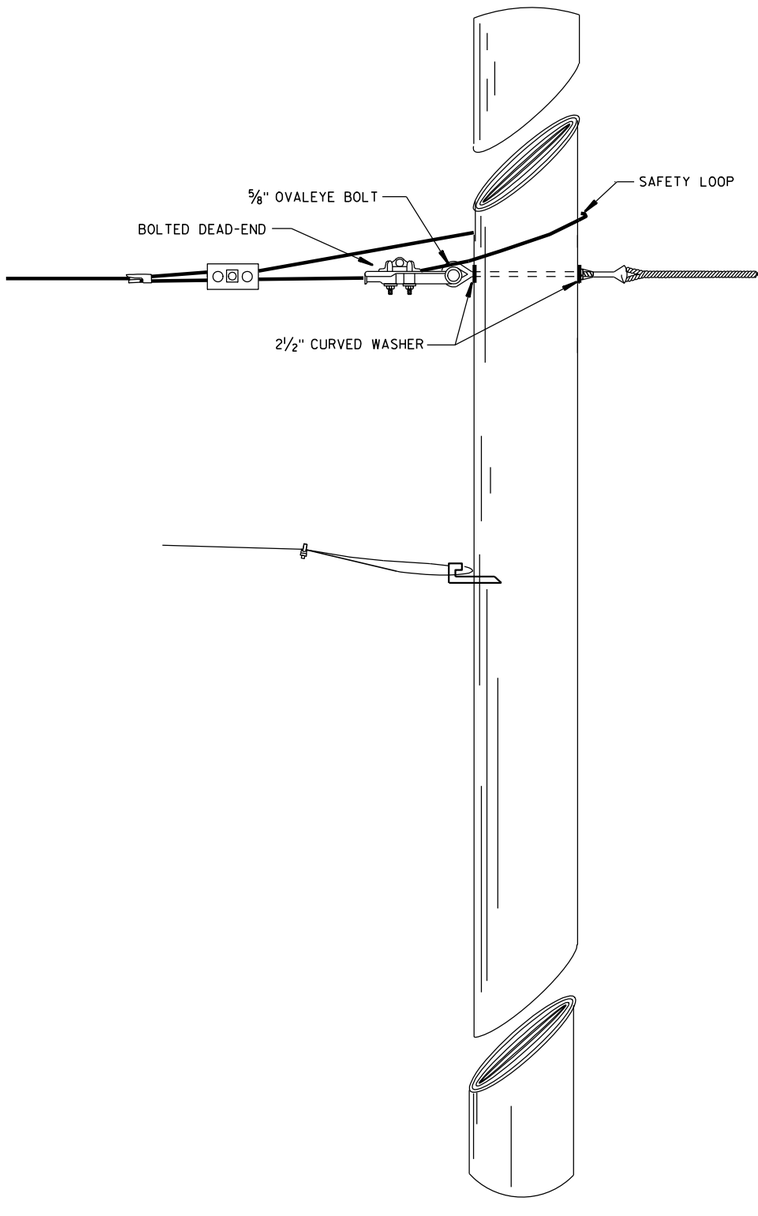
7-14-08
DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI 417 HWYS

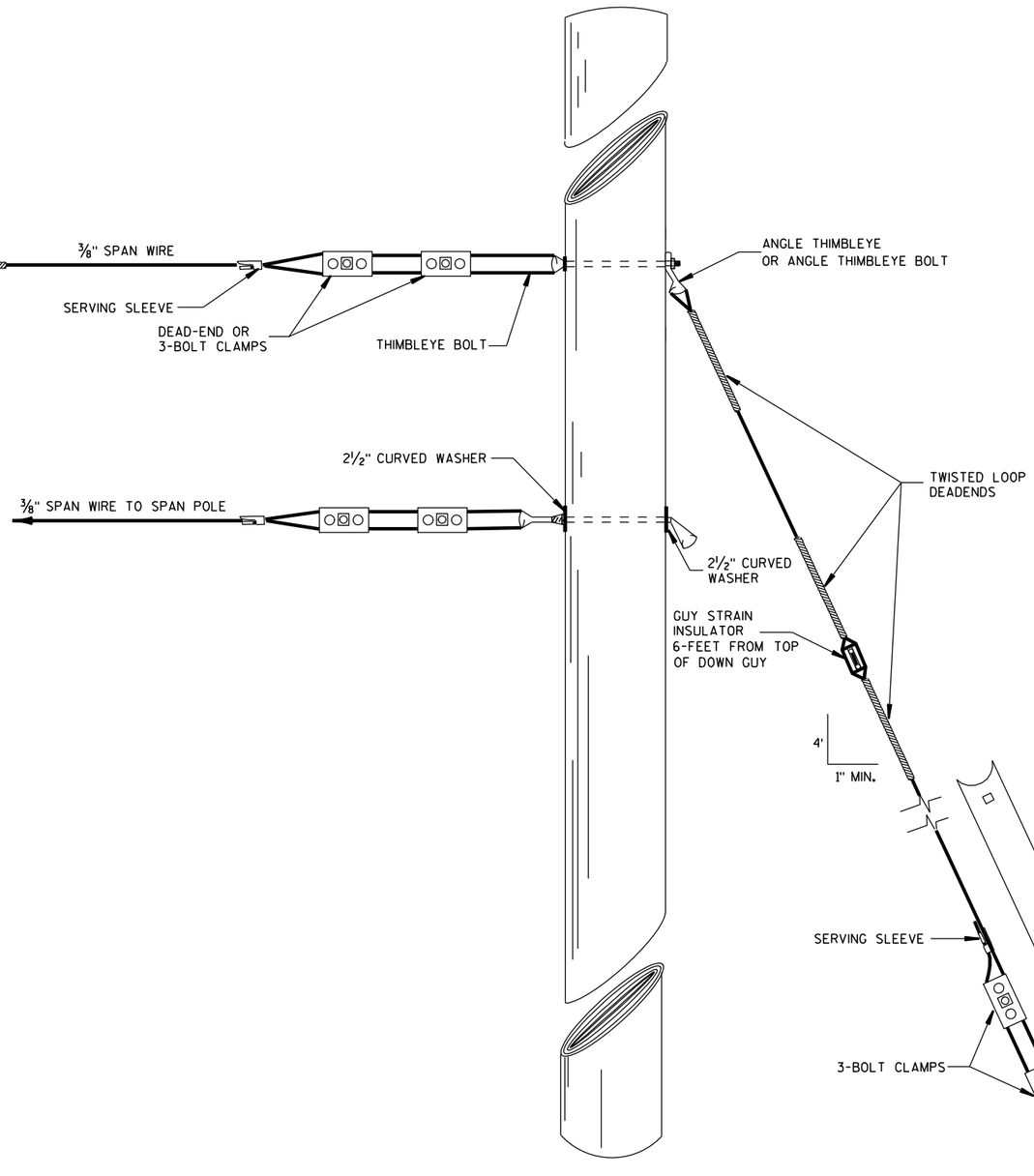
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GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE HOLE FOR ⅝" BOLTS.
2. SAFTY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



GUY POLE

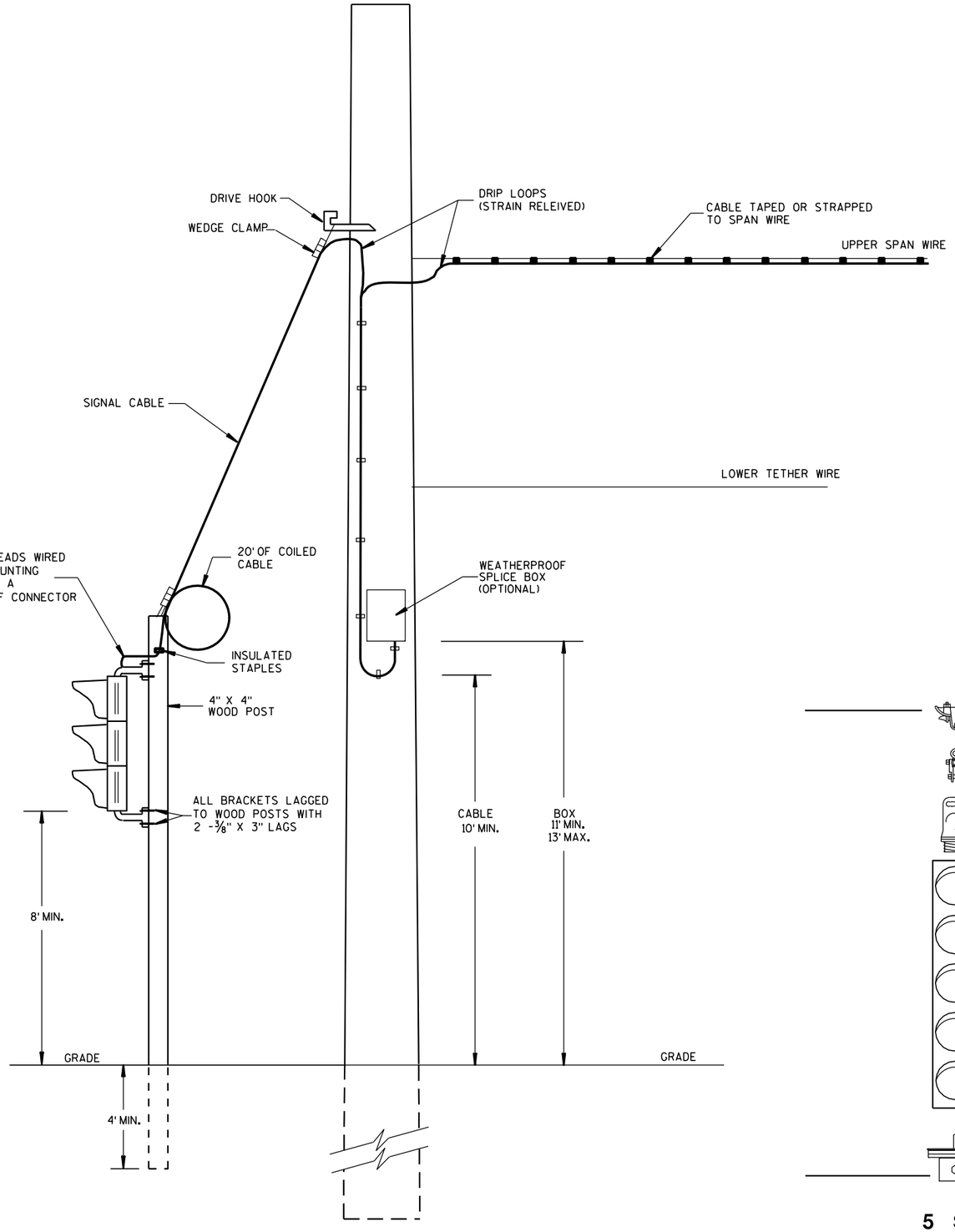
TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

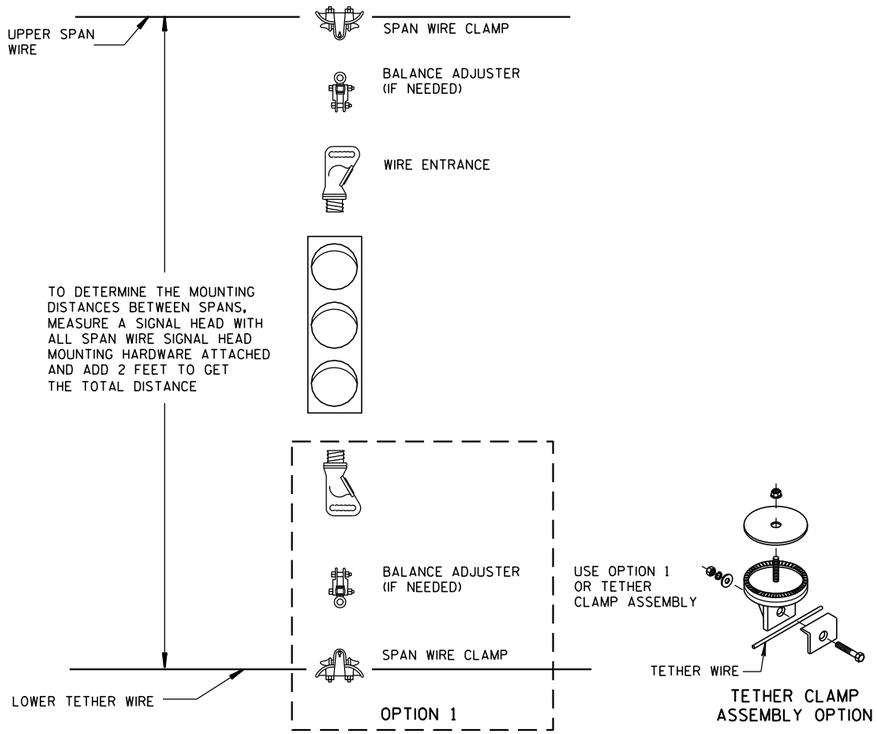
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08 DATE
/S/ Balu Aganthanarayanan
STATE ELECTRICAL ENGI 418 HWYS
FHWA

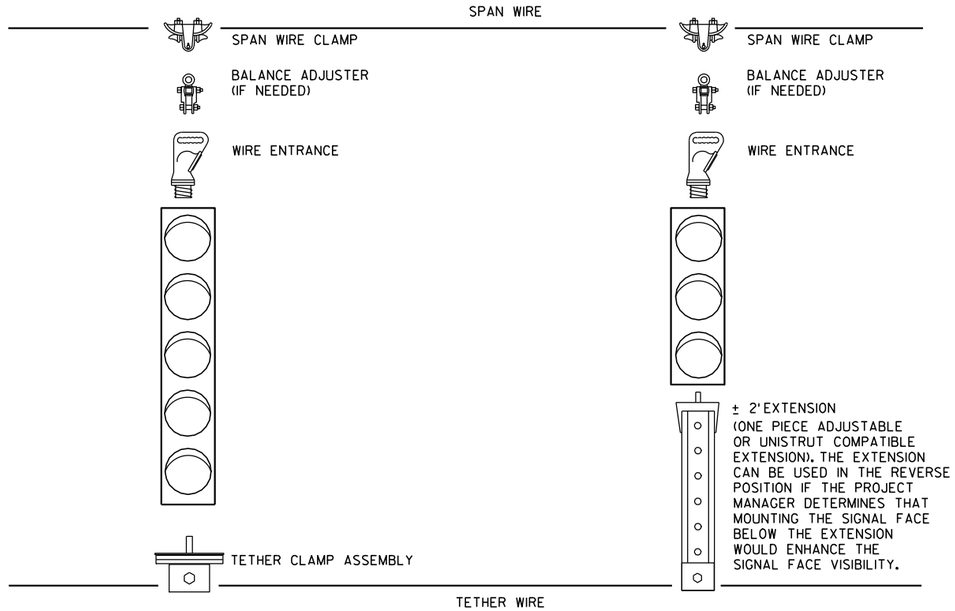
6
S.D.D. 9 G 1-3e



TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TYPICAL SPAN WIRE MOUNTING HARDWARE



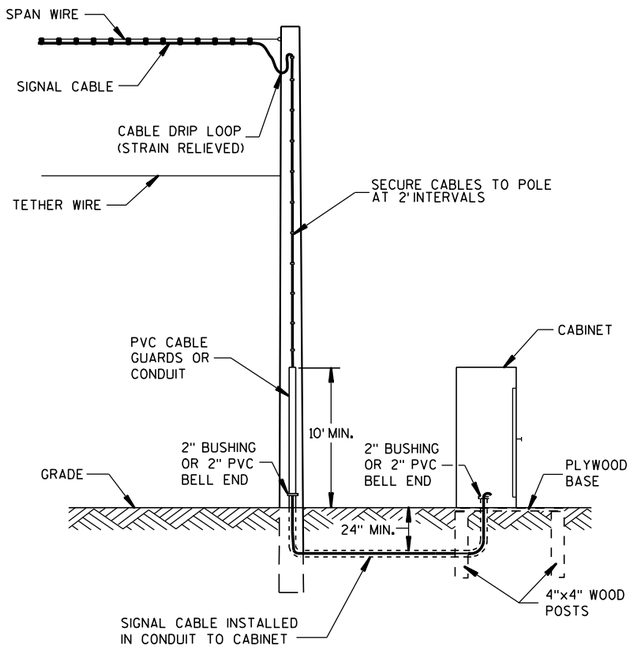
5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

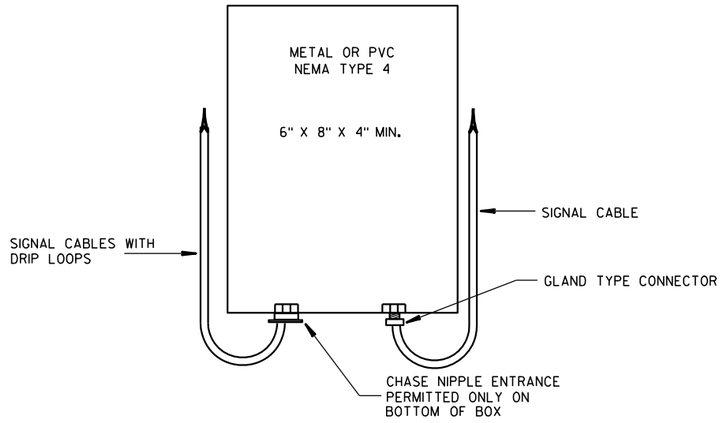
SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

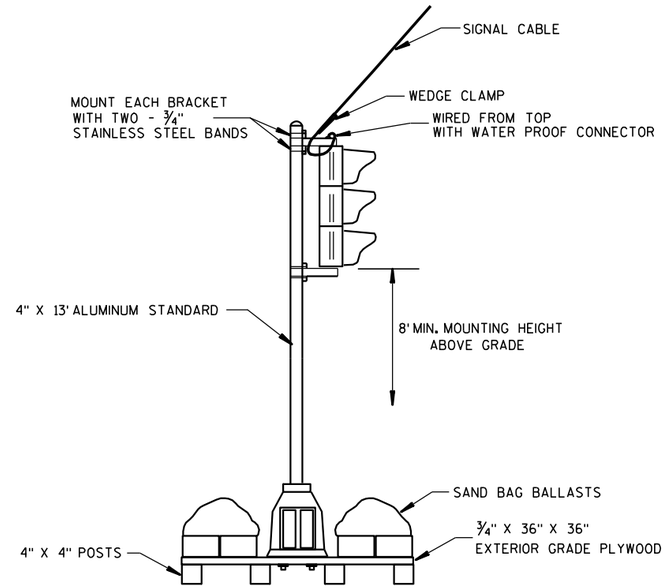
APPROVED
7-14-08 DATE
/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI 419 HWYS
FHWA

6
S.D.D. 9 G 1-3f

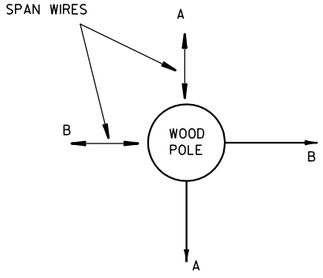




SPLICE BOX

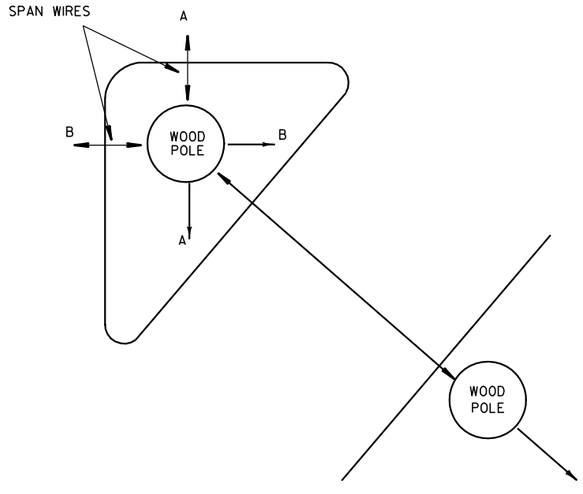


TYPICAL SKID TYPE TEMPORARY

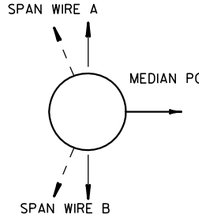


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF THE
SPAN LOADING

MEDIAN POLES

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08
DATE

/S/ Balu Aganthangayanan
STATE ELECTRICAL ENGI 420 HWYS

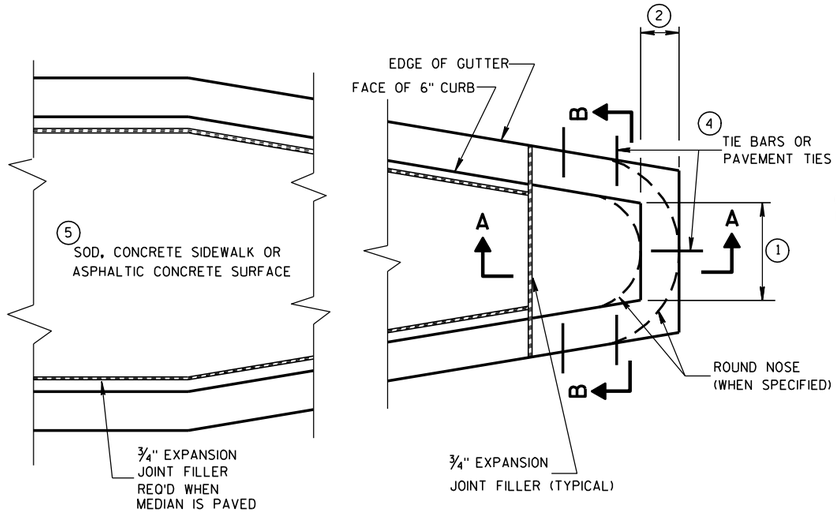
FHWA

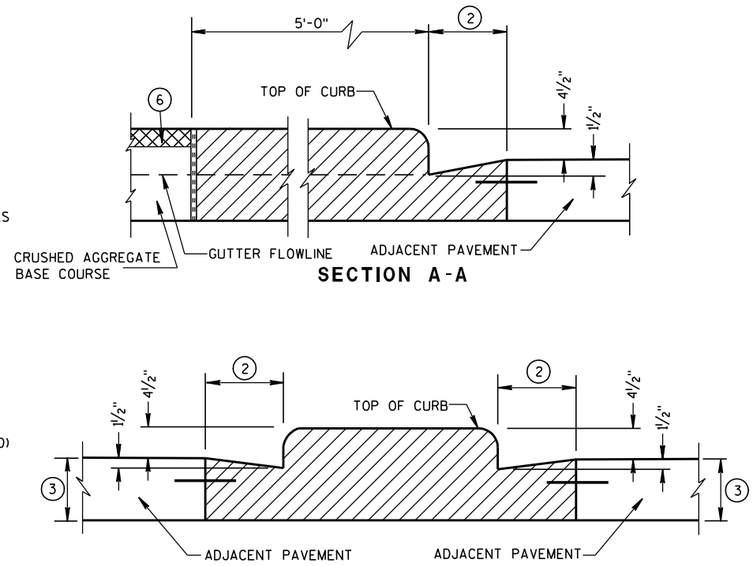
6

S.D.D. 9 G 1-3g

6

S.D.D. 9 G 1-3g





CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

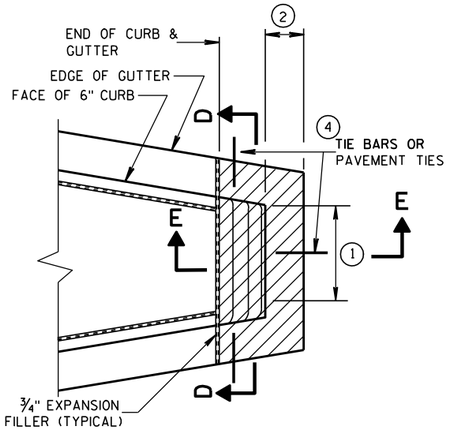
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

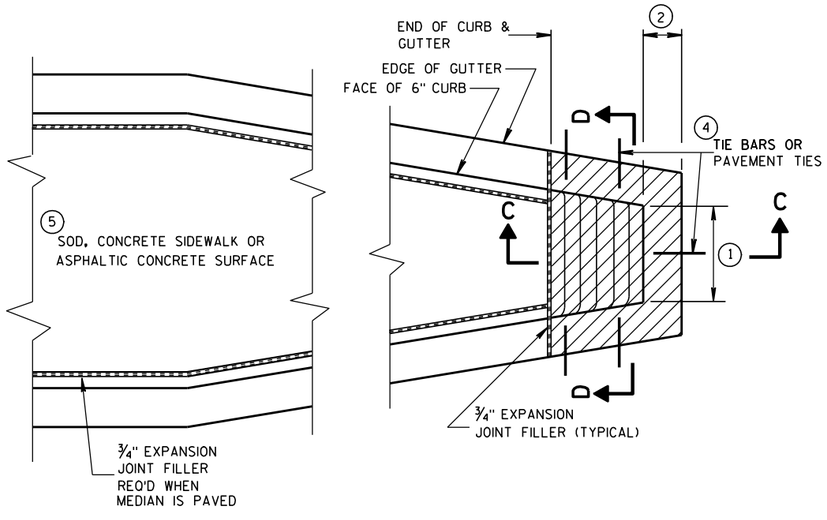
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

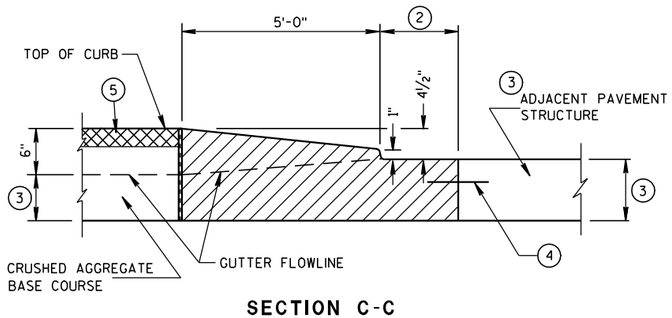
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

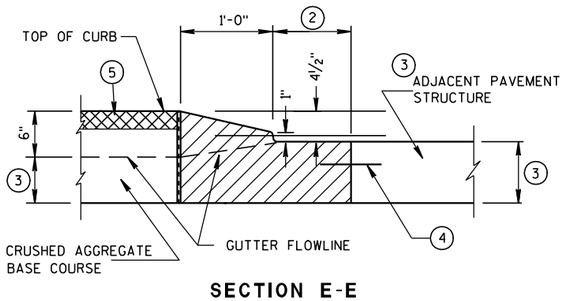
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



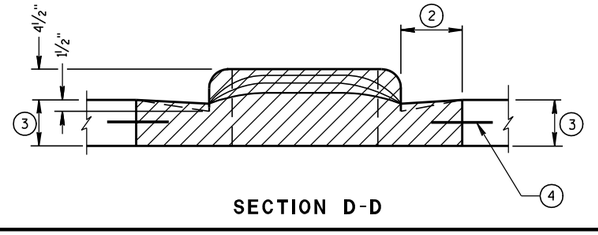






CONCRETE MEDIAN SLOPED NOSE TYPE 1

CONCRETE MEDIAN SLOPED NOSE TYPE 2



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/8/2006
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

421

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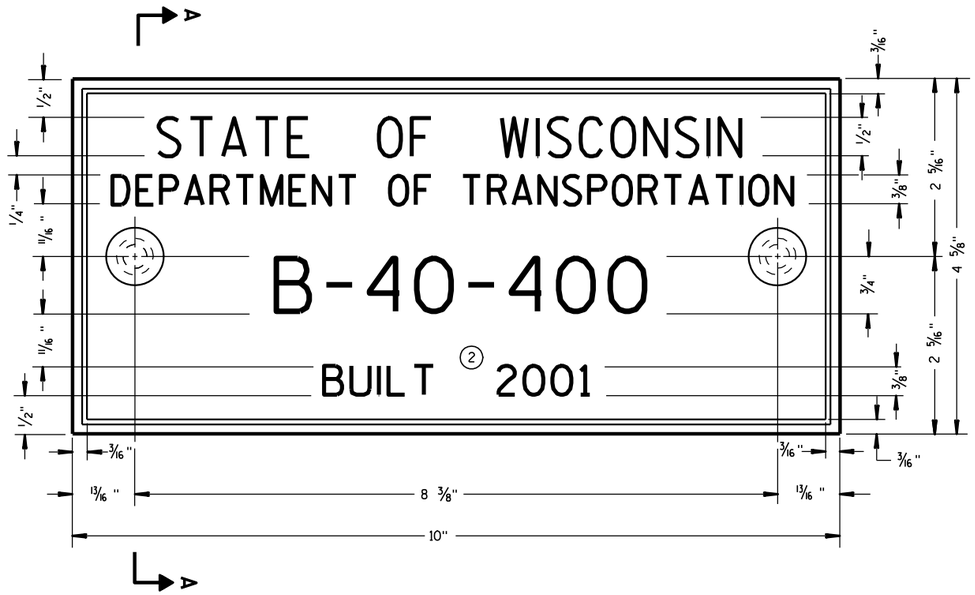
FHWA

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S.D.D. 11 B 2-2

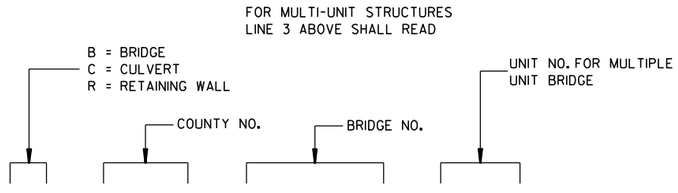
6

S.D.D. 11 B 2-2



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

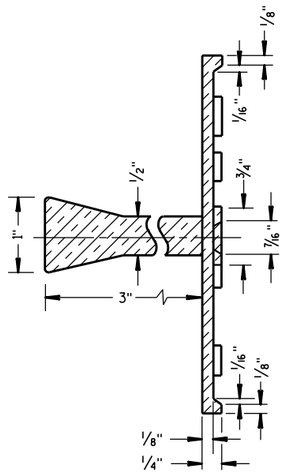
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

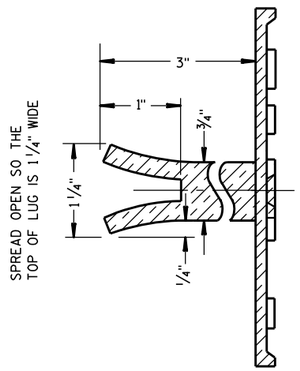
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

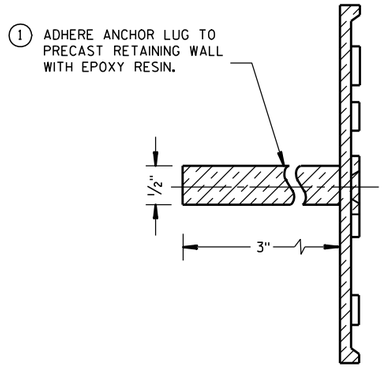
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

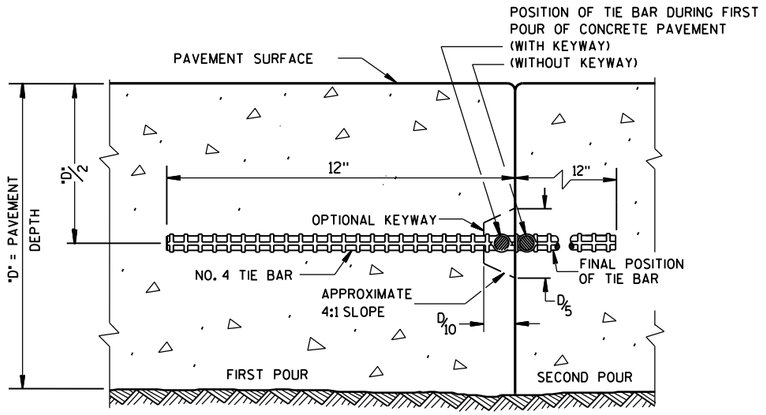
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/26/10 DATE	/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP 422 ENGINEER
FHWA	

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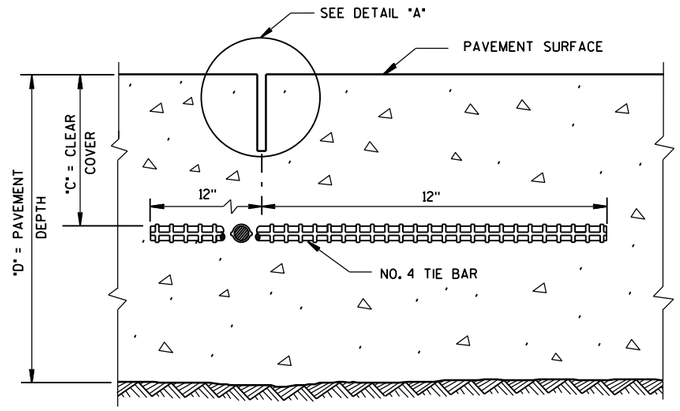
S.D.D. 12 A 3-10

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S.D.D. 12 A 3-10



CONSTRUCTION JOINT



SAWED JOINT

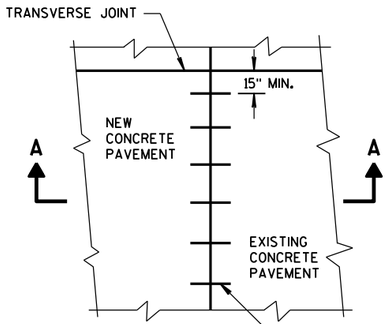
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

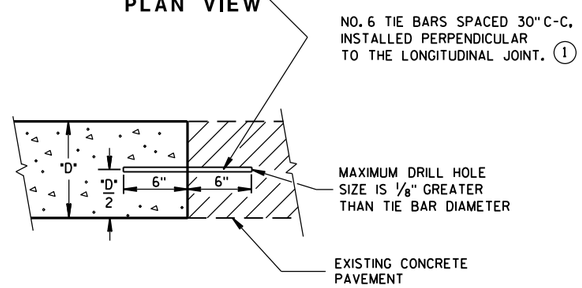
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

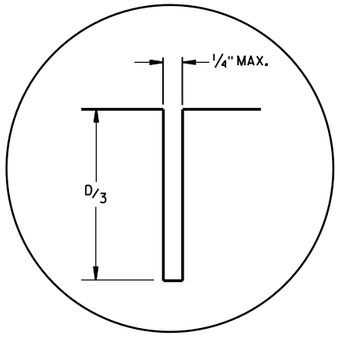


PLAN VIEW



SECTION A-A

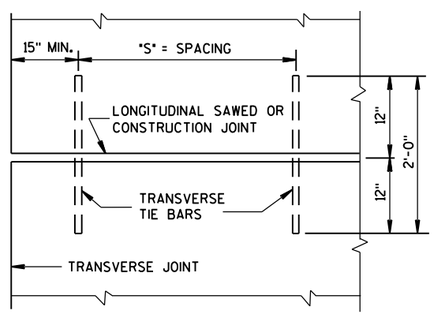
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 1/2"	3"±1/2"	48"	42"
7, 7 1/2"	3 1/4"±1"	45"	36"
8, 8 1/2"	3 3/4"±1"	39"	30"
9, 9 1/2"	4 1/4"±1"	33"	27"
10, 10 1/2"	4 3/4"±1"	30"	24"
11, 11 1/2"	5 1/4"±1"	27"	21"
12"	5 3/4"±1"	24"	21"



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

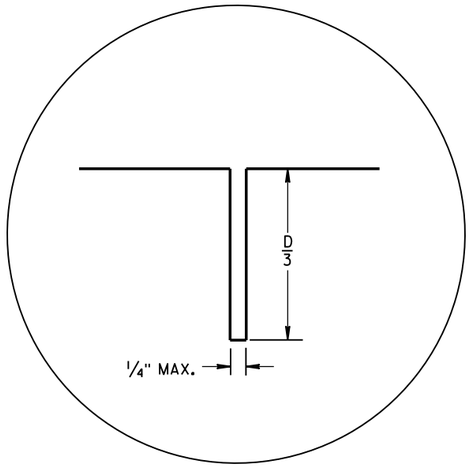
5-3-2013
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE ENGINEER

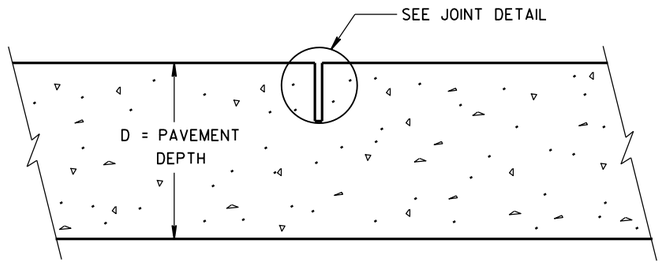
FHWA

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S.D.D. 13 C 1-16
S.D.D. 13 C 1-16



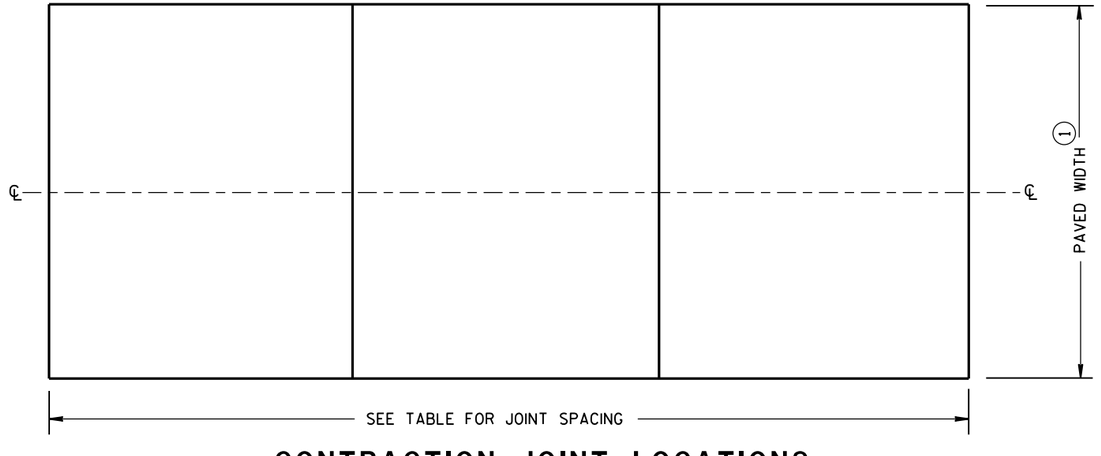
JOINT DETAIL



CONTRACTION JOINT

PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE.

LOCATE AND ORIENT CONTRACTION JOINTS THROUGH INTERSECTIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

CONSTRUCTION JOINTS

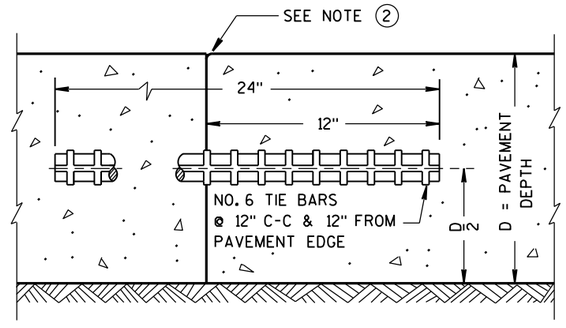
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

FORM OR SAW CONSTRUCTION JOINTS.

THE CONTRACTOR MAY INSERT TIE BARS THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

(1) REFER TO TYPICAL CROSS SECTIONS FOR PAVED WIDTH AND LOCATION OF LONGITUDINAL JOINTS.

(2) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.



TIED TRANSVERSE CONSTRUCTION JOINT

6

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S.D.D. 13 C 4-16

S.D.D. 13 C 4-16

URBAN NON-DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

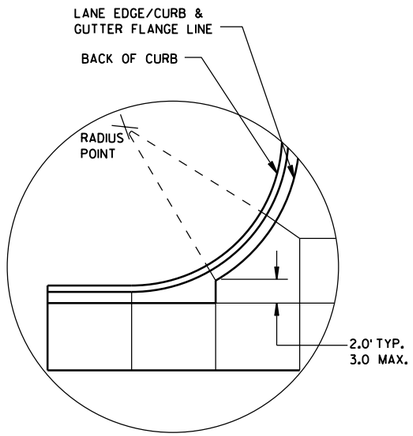
APPROVED

5/3/2013 DATE

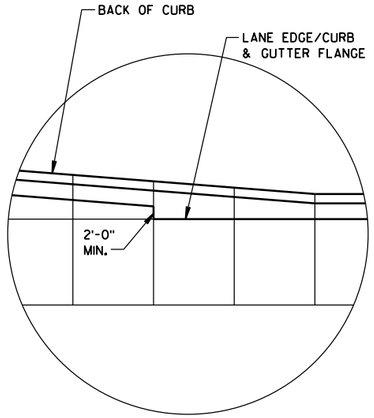
/S/ Deb Bischoff
PAVEMENT POLICY & DE

FHWA

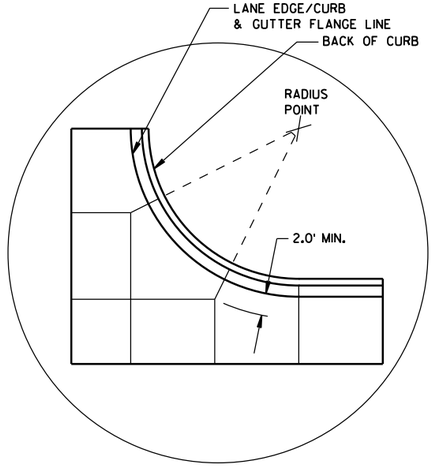
IEER



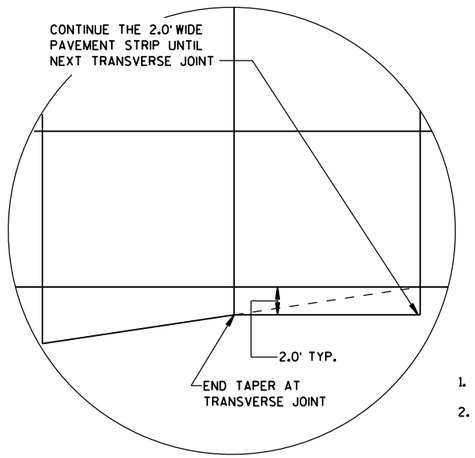
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

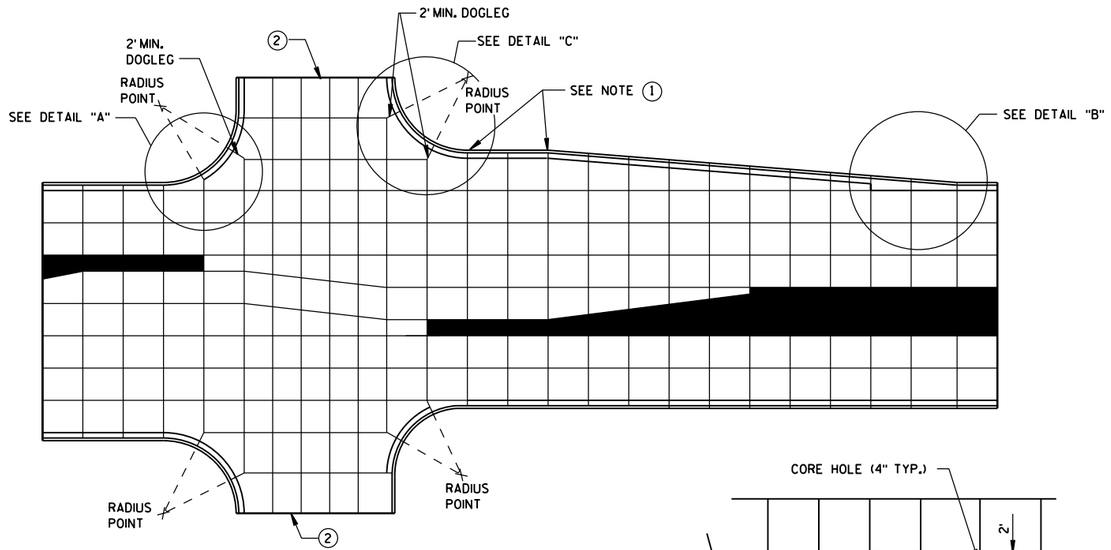
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

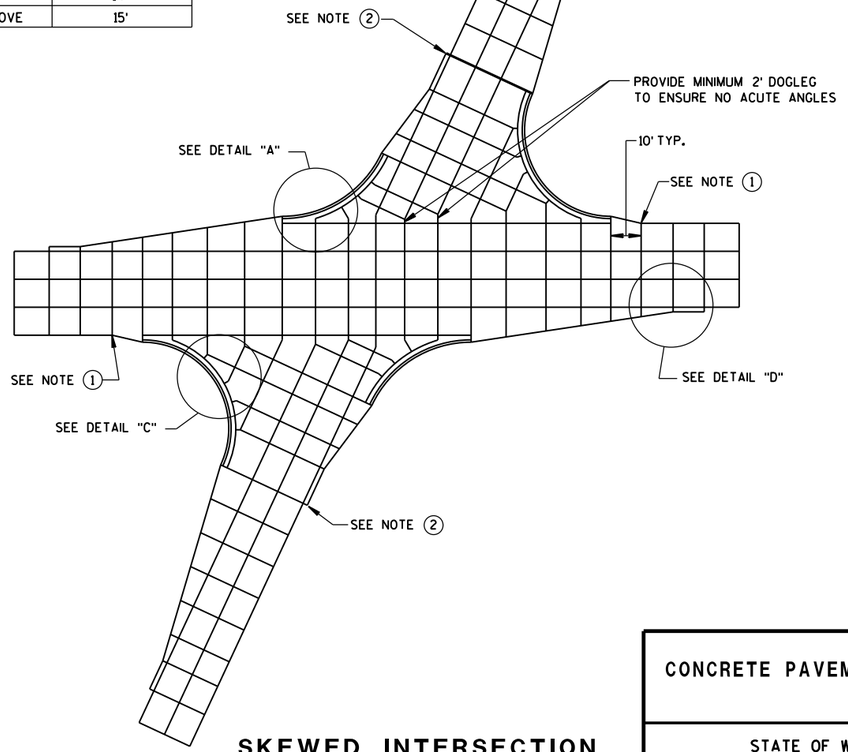
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



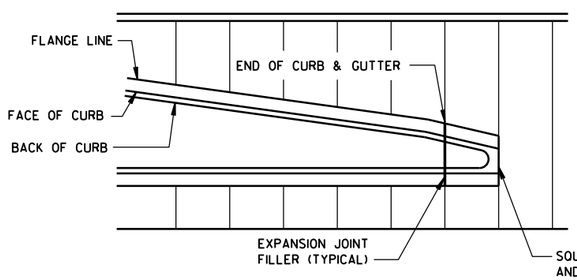
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

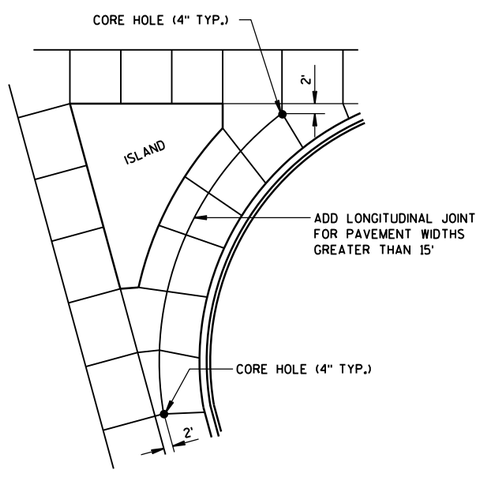
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

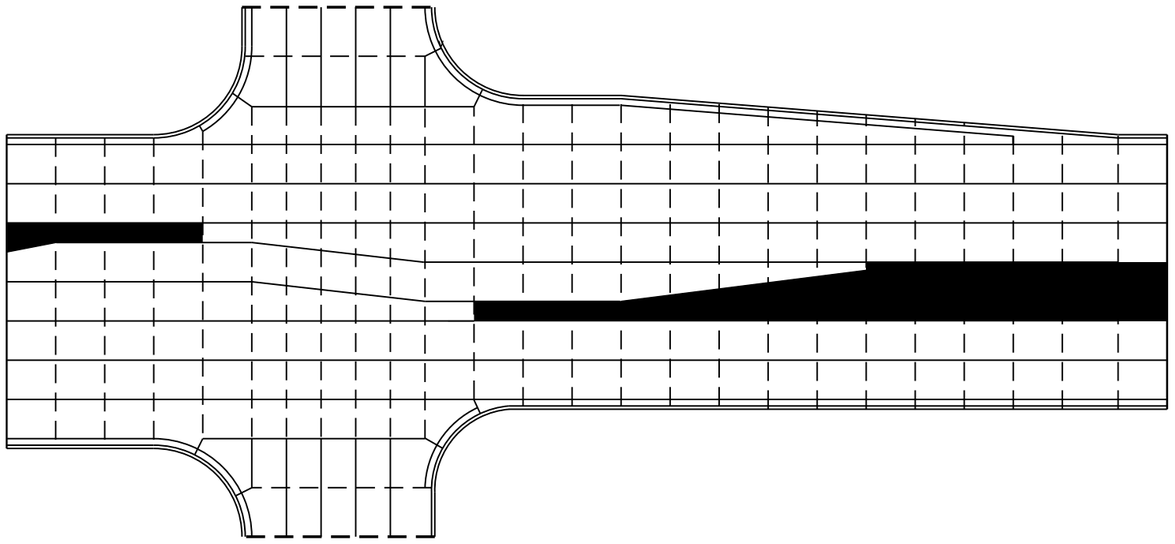
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S.D.D. 13 C 18-2a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

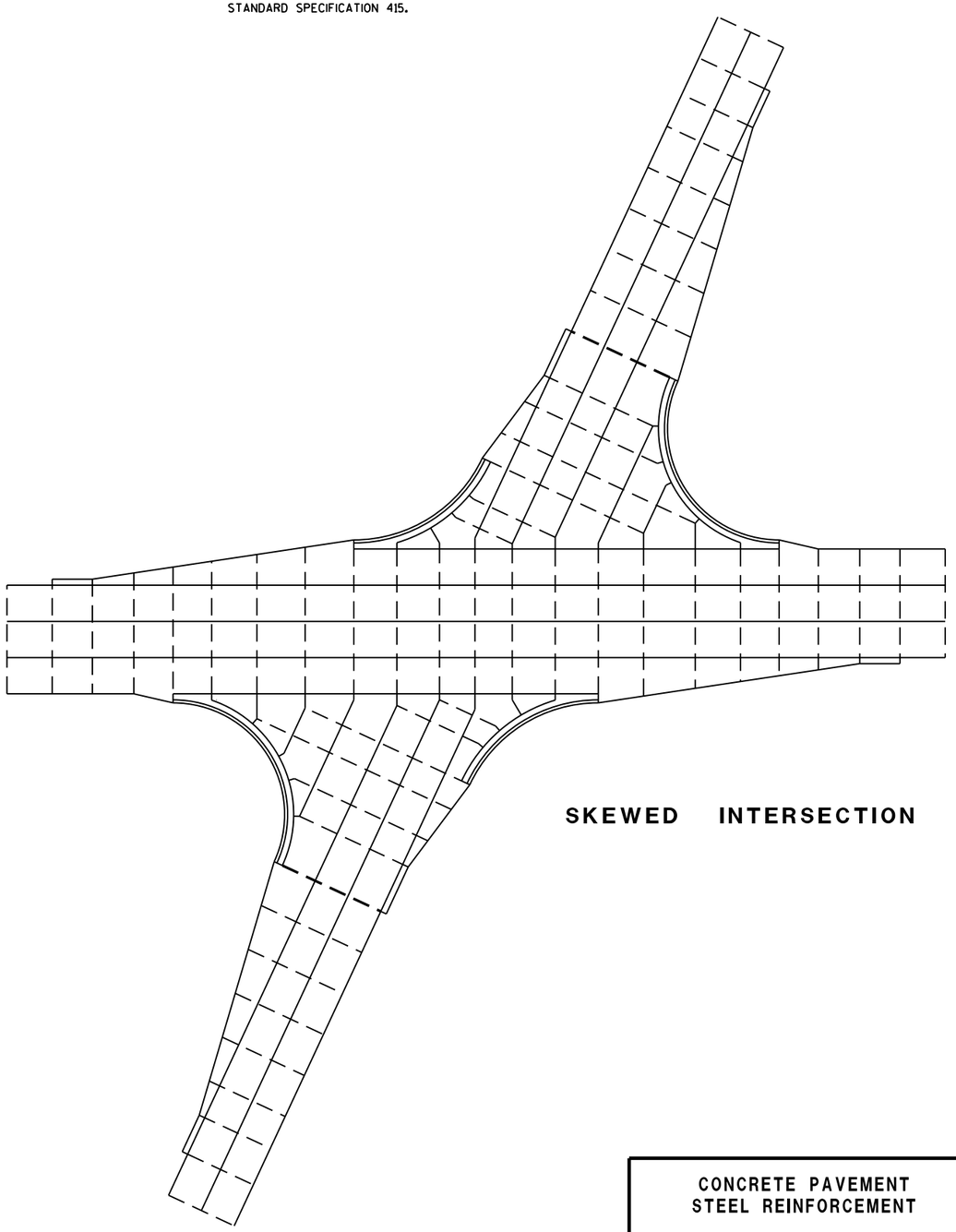
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

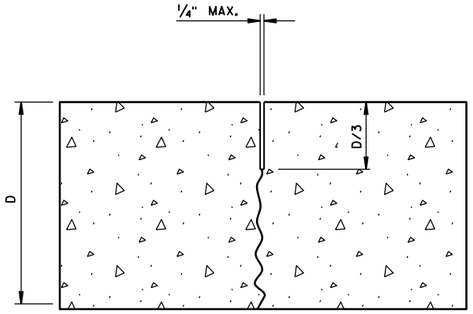
S.D.D. 13 C 18-2b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

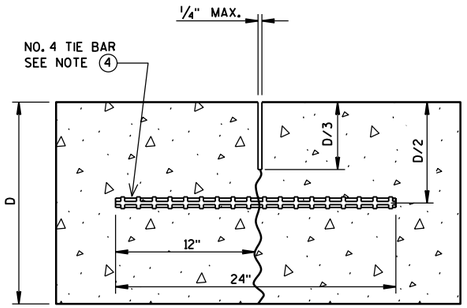
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 13 C 18-2b



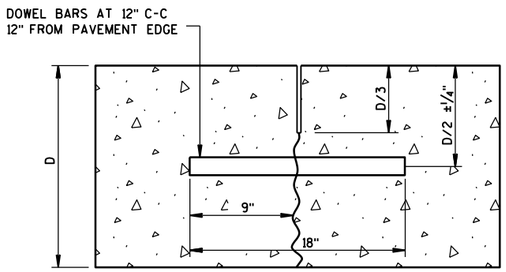
UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

GENERAL NOTES

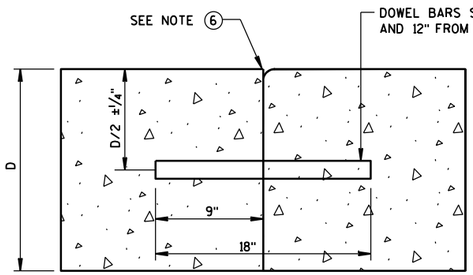
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. SPACE TIE BARS AT LONGITUDINAL CONSTRUCTION OR CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C1.
5. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
6. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.



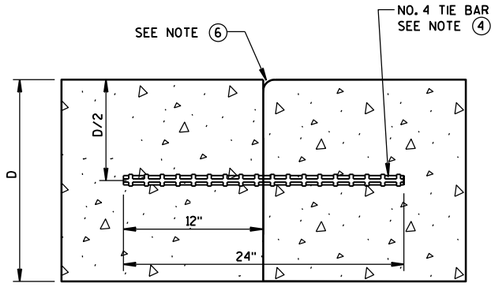
DOWELED-TRANSVERSE

CONTRACTION JOINTS

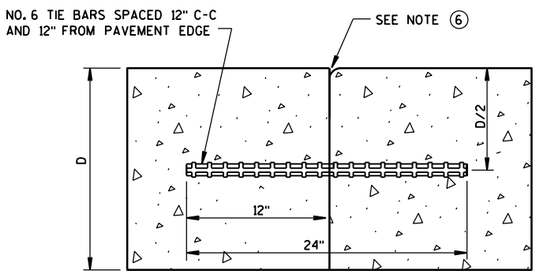
SEE NOTE (2)



DOWELED TRANSVERSE

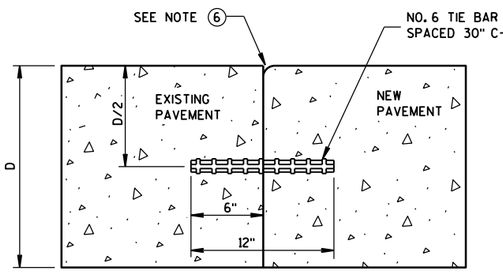


TIED LONGITUDINAL



TIED TRANSVERSE

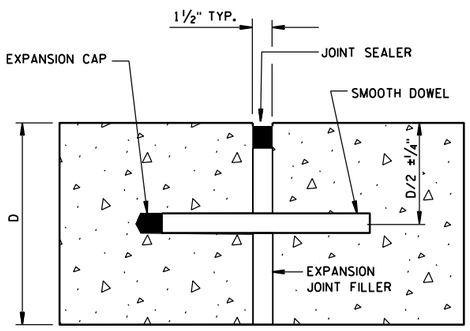
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

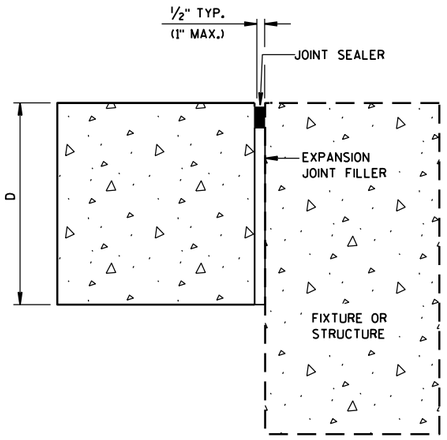
CONSTRUCTION JOINTS

SEE NOTE (5)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

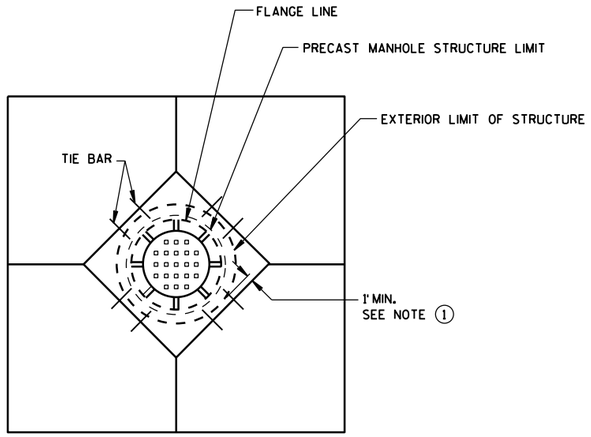
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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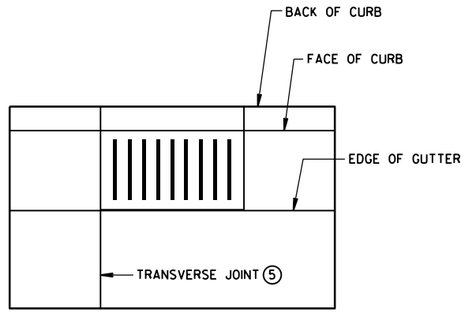
S.D.D. 13 C 18-2c

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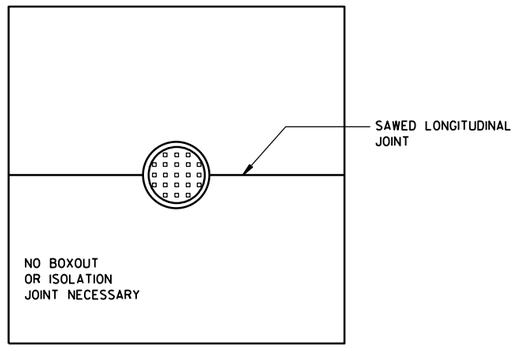
S.D.D. 13 C 18-2c



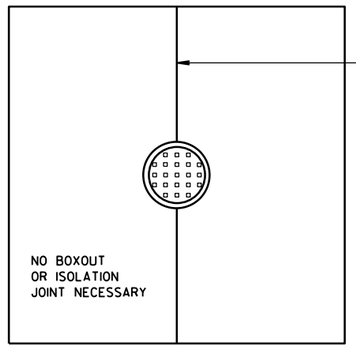
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



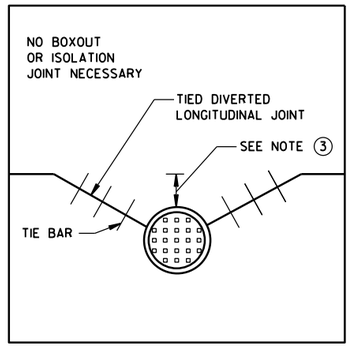
INLET WITH TRANSVERSE JOINT



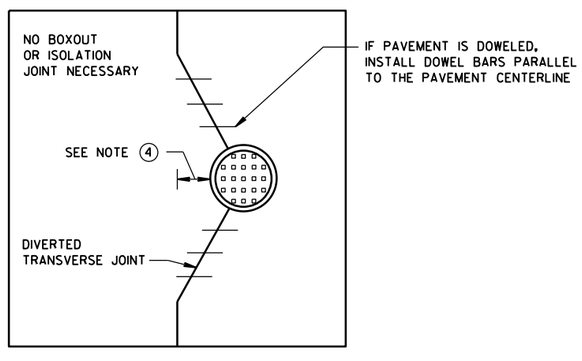
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-3-2013 — DATE

/S/ Deb Bischoff — PAVEMENT POLICY & DE

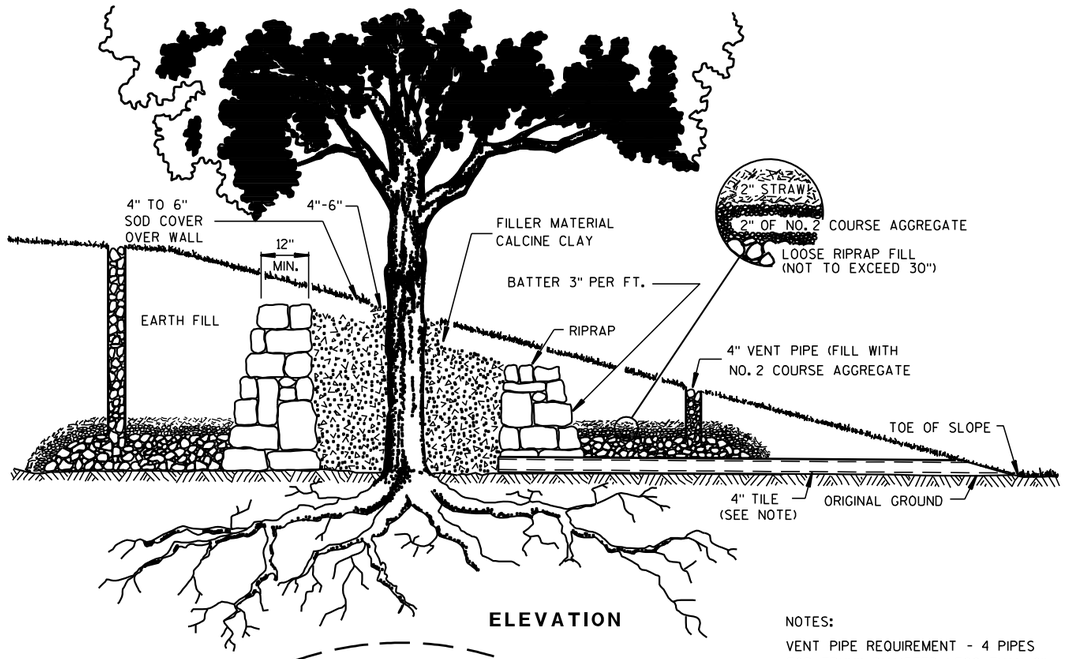
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S.D.D. 13 C 18-2d



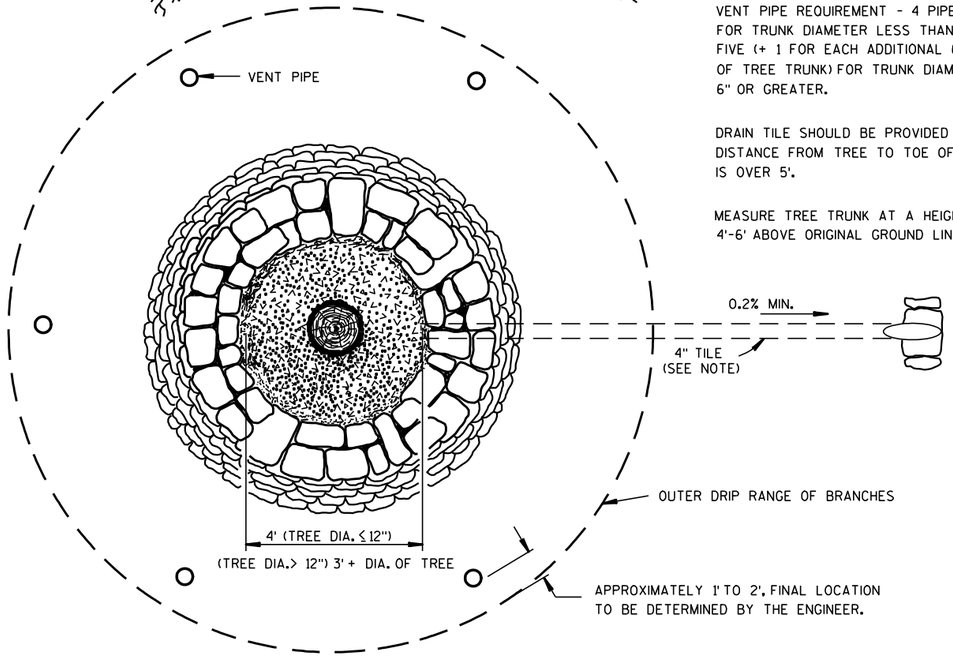
ELEVATION

NOTES:

VENT PIPE REQUIREMENT - 4 PIPES FOR TRUNK DIAMETER LESS THAN 6". FIVE (+ 1 FOR EACH ADDITIONAL 6" OF TREE TRUNK) FOR TRUNK DIAMETER 6" OR GREATER.

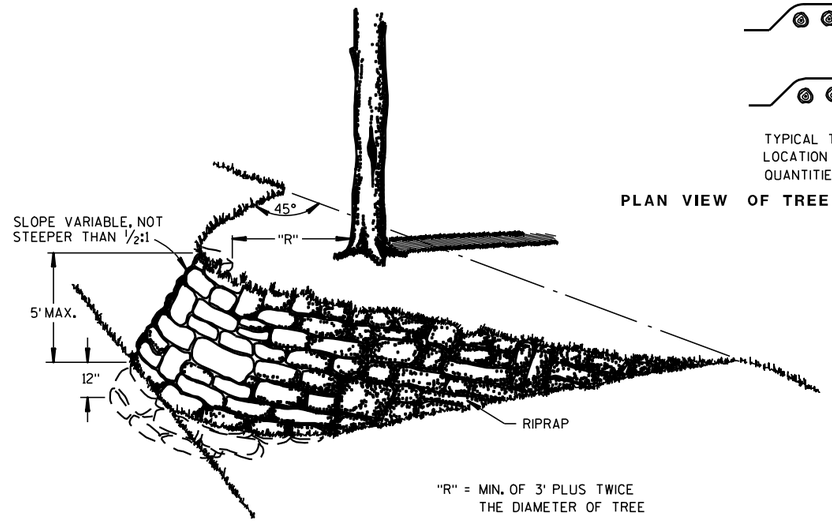
DRAIN TILE SHOULD BE PROVIDED IF DISTANCE FROM TREE TO TOE OF SLOPE IS OVER 5'.

MEASURE TREE TRUNK AT A HEIGHT 4'-6' ABOVE ORIGINAL GROUND LINE.



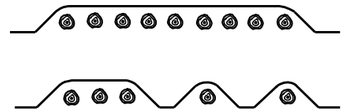
PLAN

FULL TREE WELL WITH RIPRAP WALL



"R" = MIN. OF 3' PLUS TWICE THE DIAMETER OF TREE

DETAILS OF TREE ISLAND AND ROOT PROTECTION



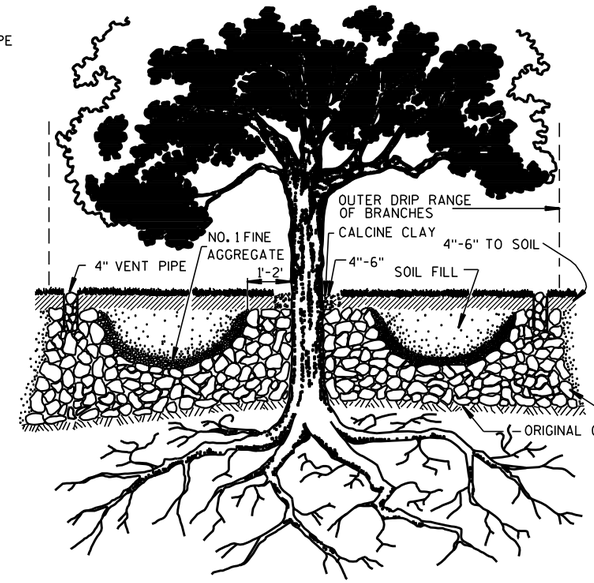
TYPICAL TREATMENTS OF ROOT PROTECTION. LOCATION SHOWN ON MISCELLANEOUS QUANTITIES SHEET.

PLAN VIEW OF TREE ISLANDS FOR ONE OR MORE TREES

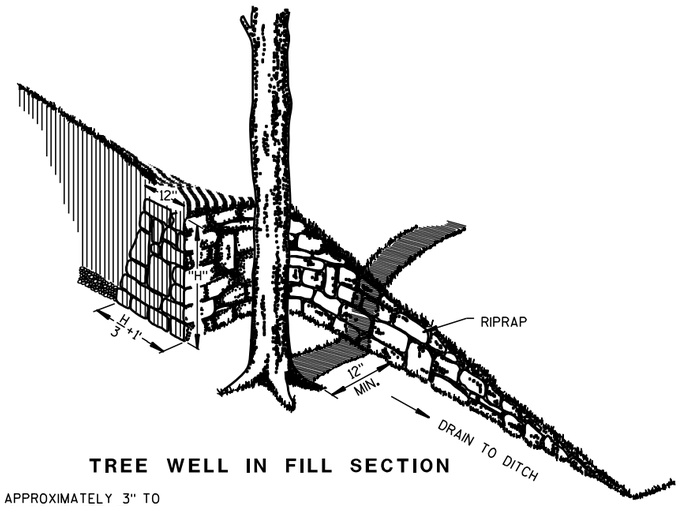
GENERAL NOTES

WALLS TO BE BUILT TO APPROXIMATE SHAPE AND DIMENSIONS SHOWN. STONE TO CONFORM TO SPECIFICATIONS FOR RIPRAP.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.



TREE WELL WITHOUT WALL



TREE WELL IN FILL SECTION

DETAILS FOR TREE WELLS

TREE PRESERVATION DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

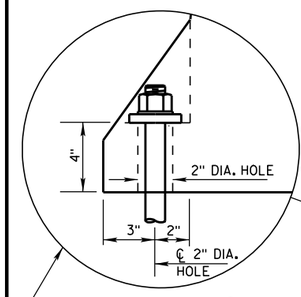
APPROVED
8/25/76 DATE
/S/ D. L. Strand STATE DESIGN ENGINEER
429
WYS
FHWA

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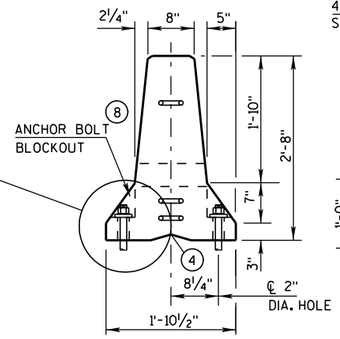
S.D.D. 14 A 1-3

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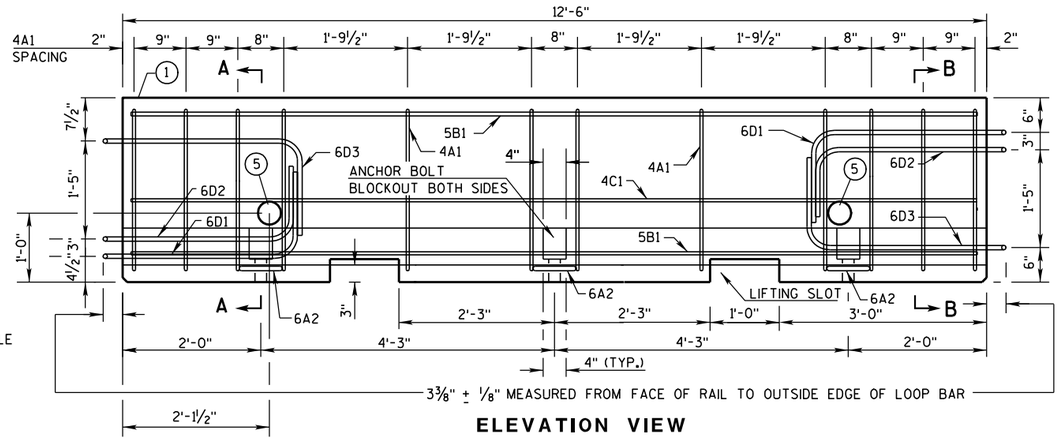
S.D.D. 14 A 1-3



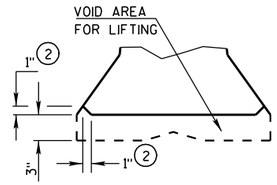
ANCHOR ON TRAFFIC SIDE (8) ONLY WHEN REQUIRED (SEE SHEET D FOR ADDITIONAL ANCHOR DETAIL)



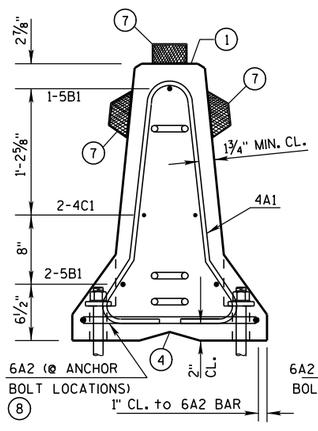
END VIEW



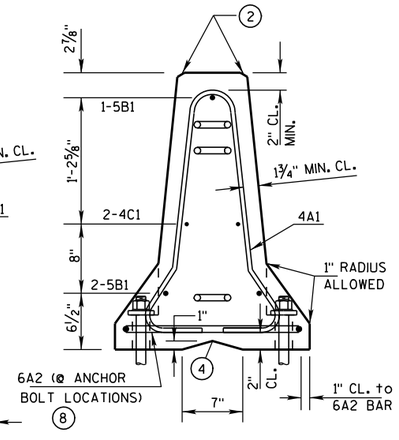
ELEVATION VIEW



DETAIL "B"
LIFTING SLOT DETAIL



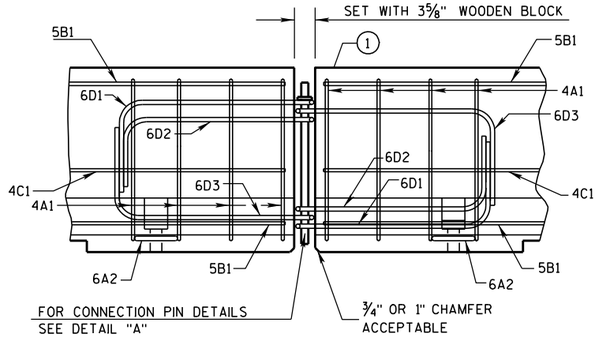
SECTION A-A
(STIRRUP PLACEMENT)



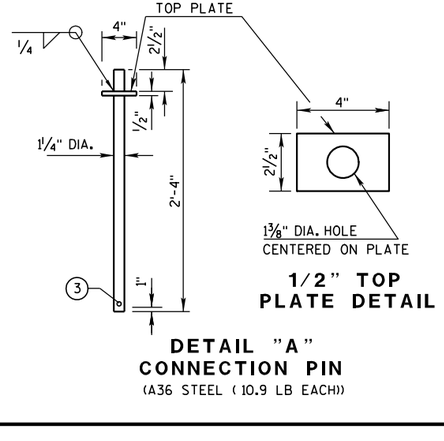
SECTION B-B
(STIRRUP PLACEMENT)

PLAN VIEW

DETAILS OF BARRIER SECTION

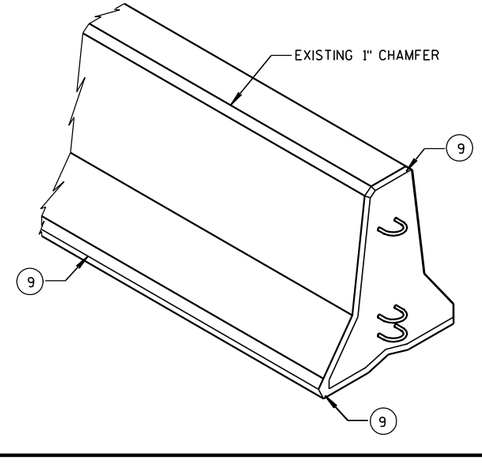


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-13(a) THRU 14B7-13(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR EPOXY ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WICBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

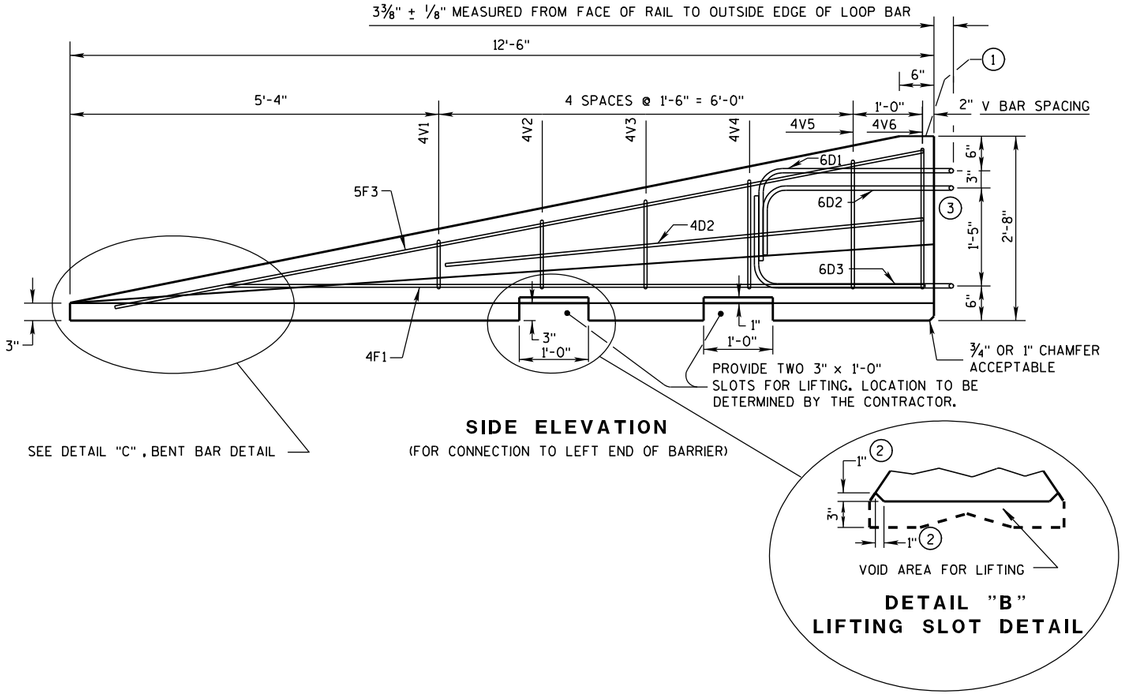
(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

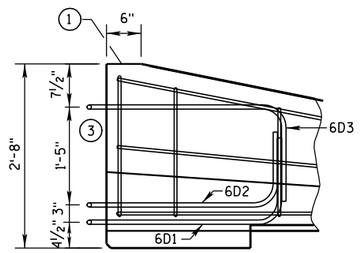
(8) SEE SHEET D FOR ANCHORING CRITERIA.

(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO.....





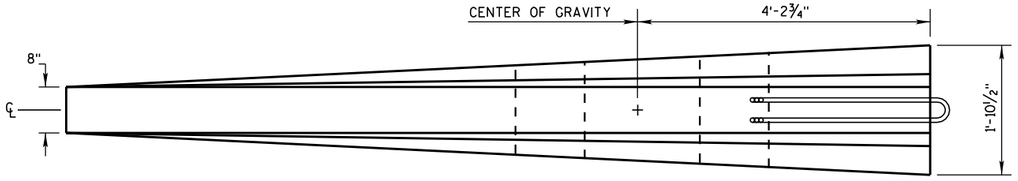
SIDE ELEVATION

LOOP BAR ASSEMBLY INVERTED FOR OPPOSITE END.

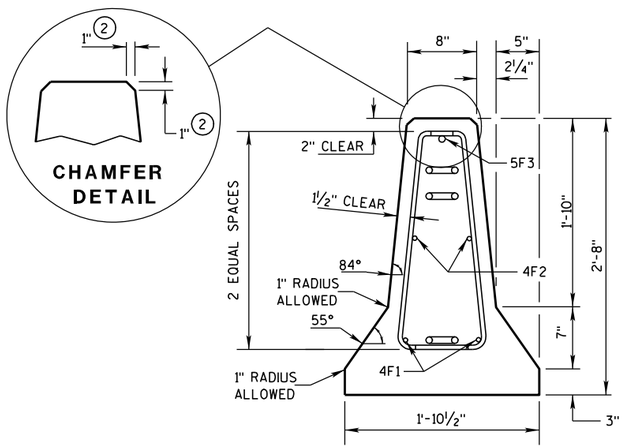
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

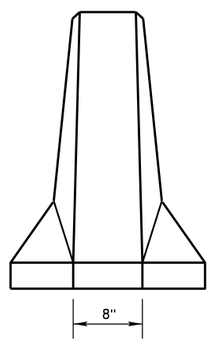
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



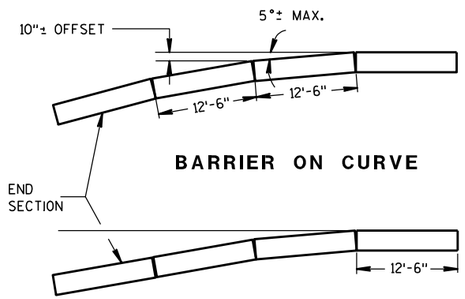
PLAN VIEW



END SECTION



FRONT ELEVATION



FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

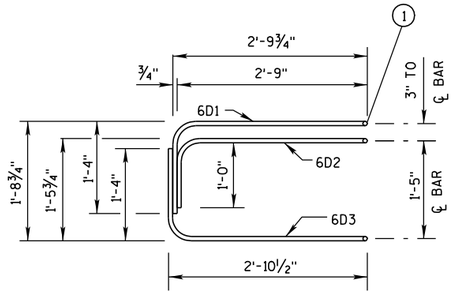
6

S.D.D. 14 B 7-13b

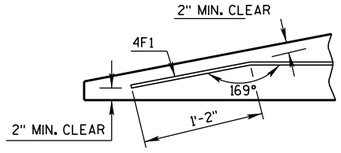
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

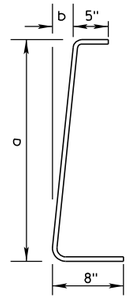
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

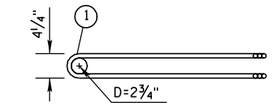
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

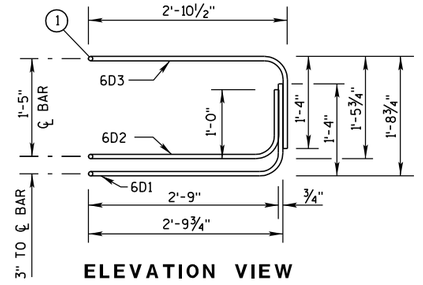
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

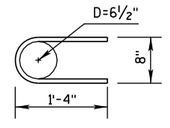
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



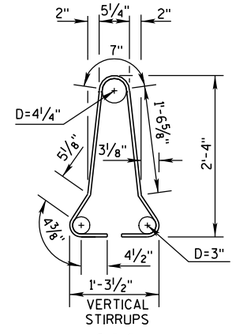
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2



4A1

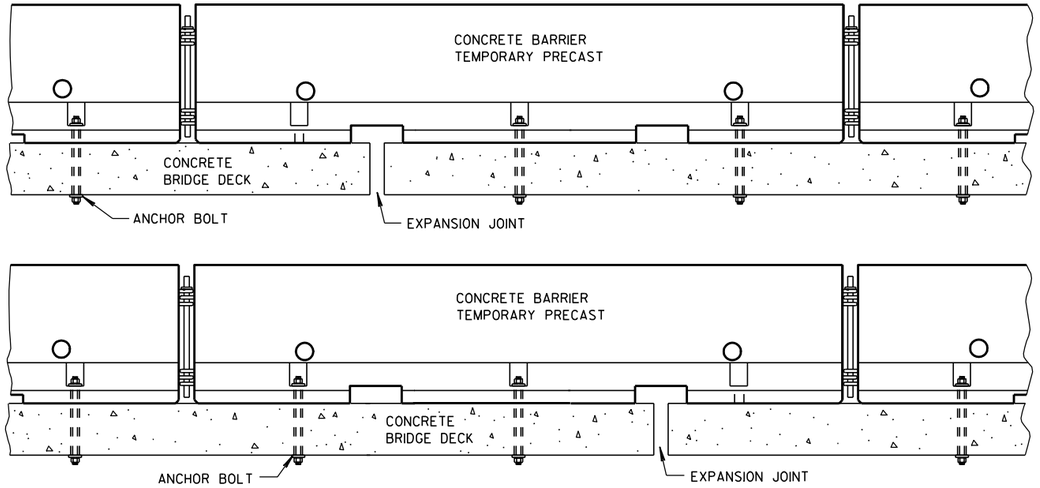
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

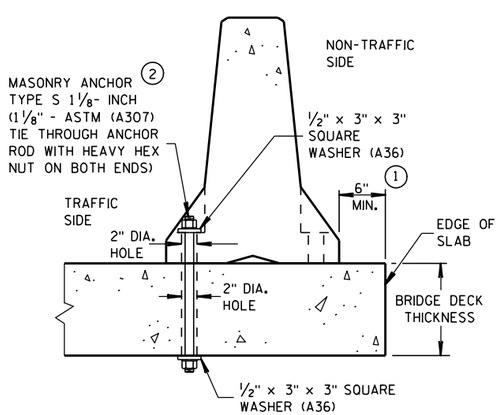
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S.D.D. 14 B 7-13c



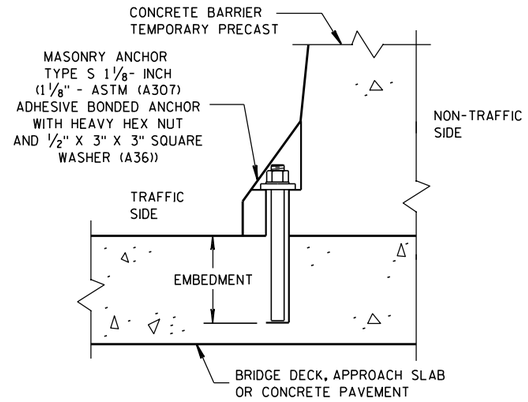
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

2

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

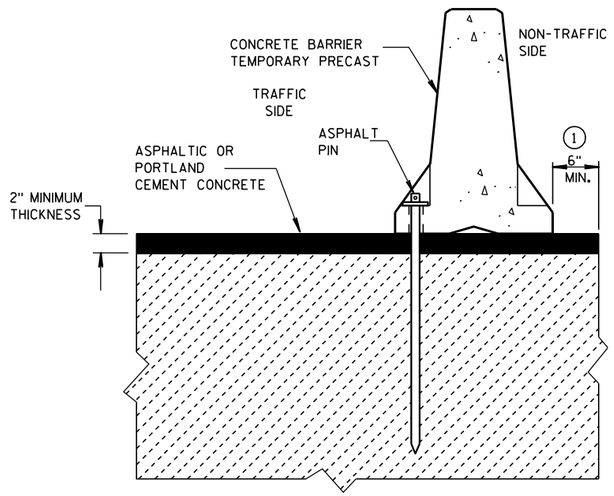
1. CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT. IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

2. ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

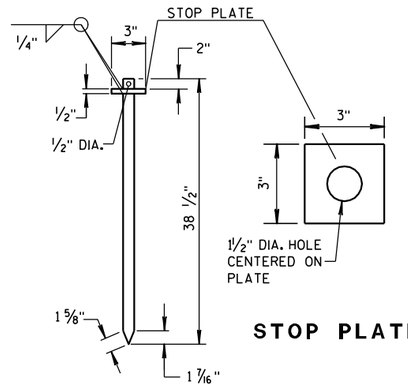
   WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

   UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALLANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

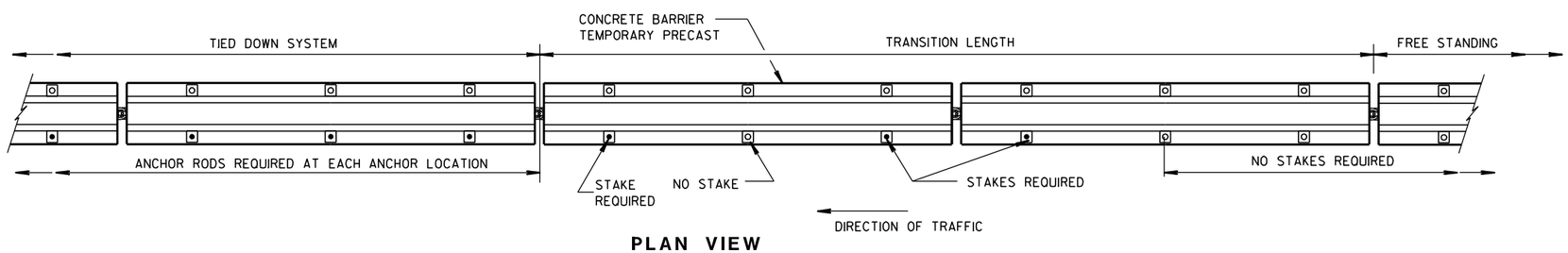
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



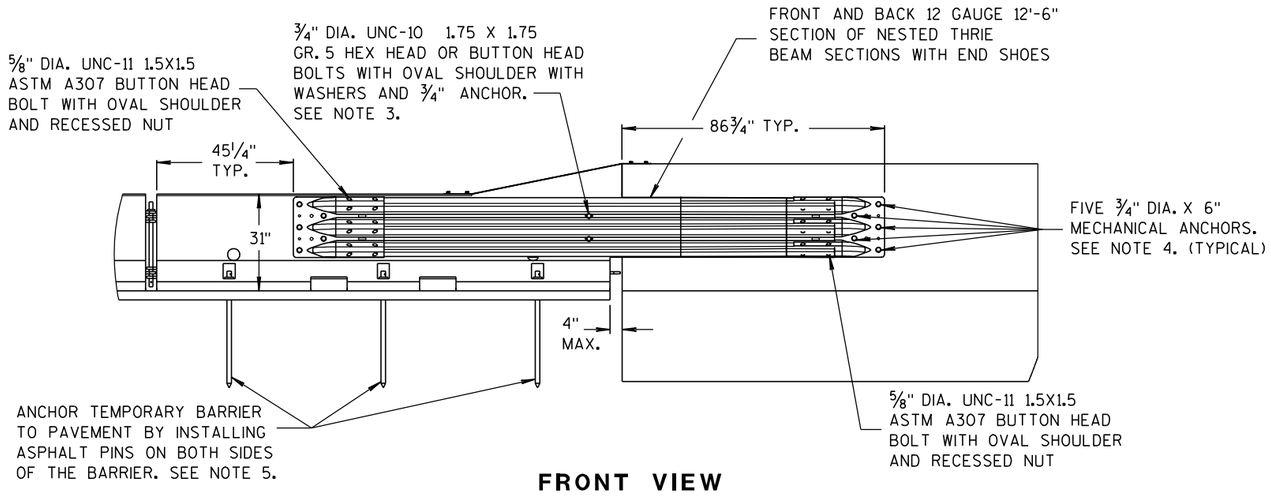
PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

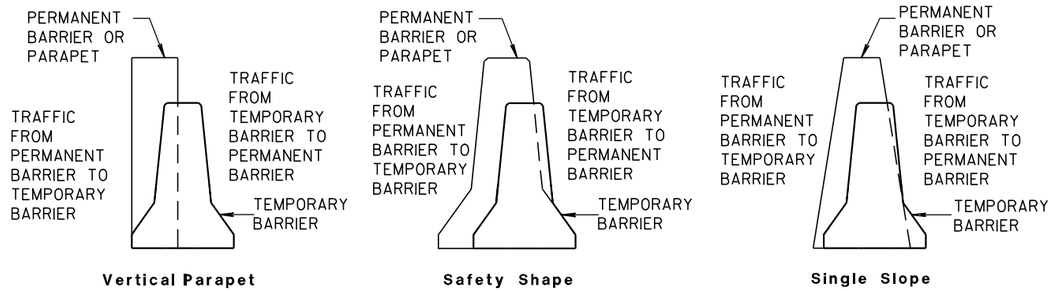
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

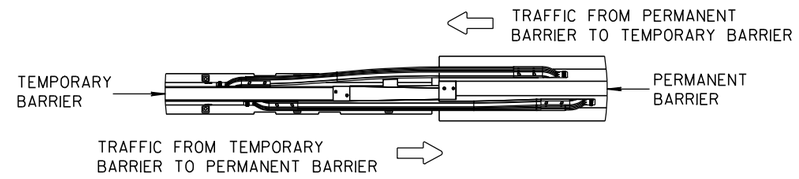


FRONT VIEW

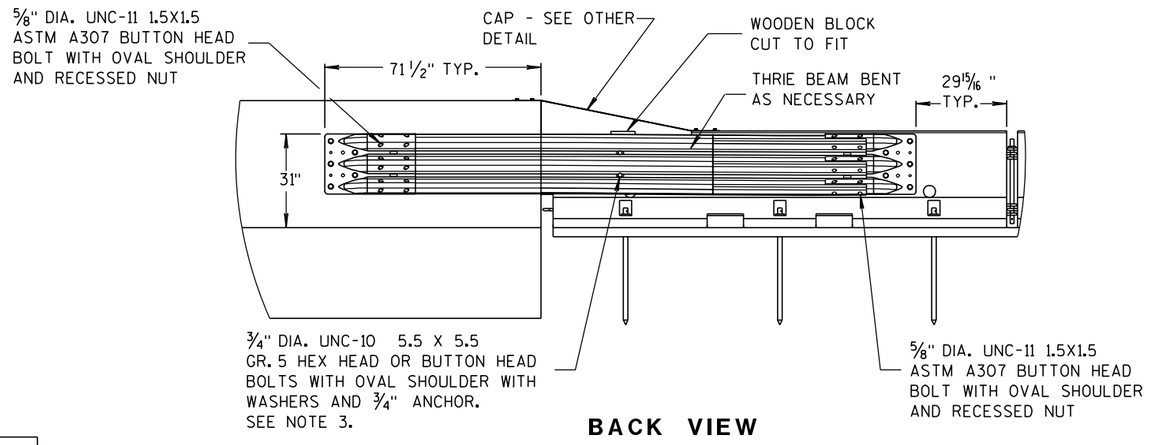
NOTES

1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.

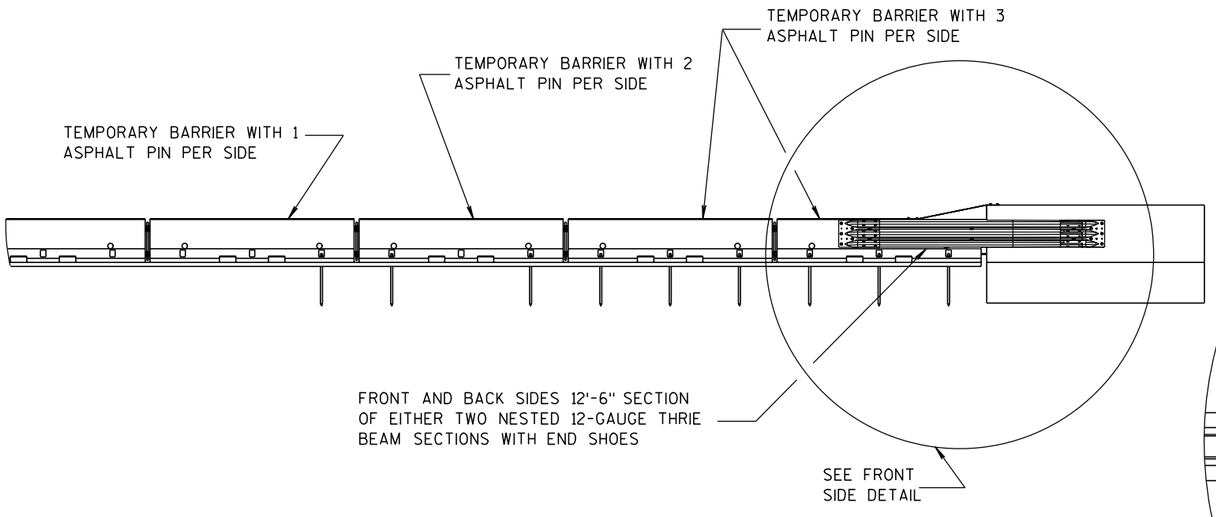




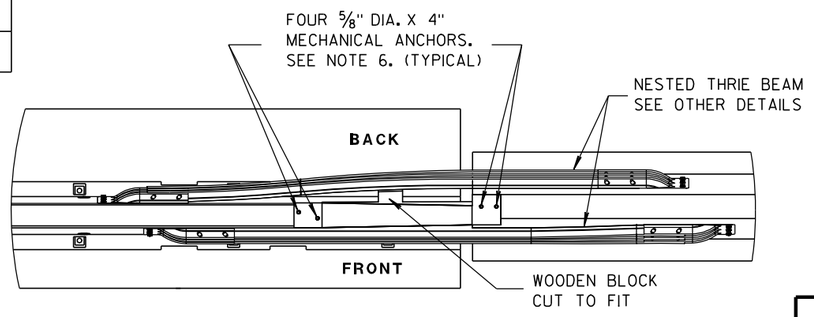
TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



BACK VIEW



FRONT VIEW



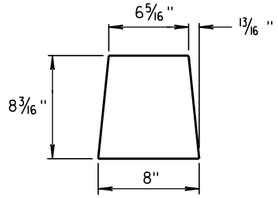
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

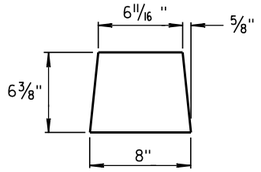
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

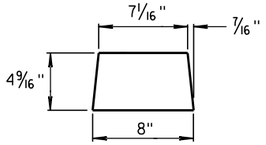
6
S.D.D. 14 B 7-13e



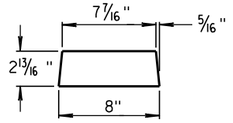
GUSSET 1



GUSSET 2

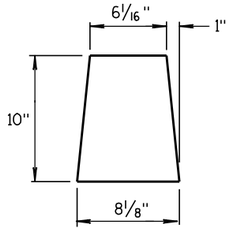


GUSSET 3

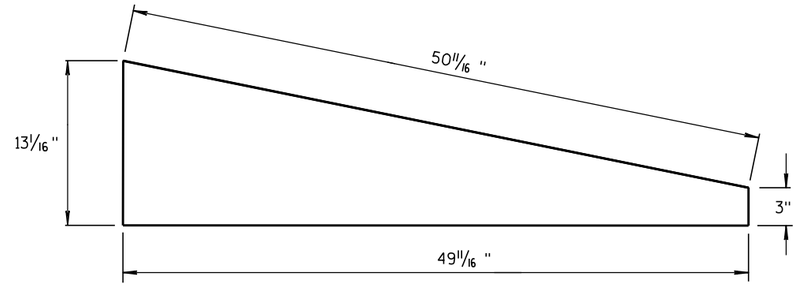


GUSSET 4

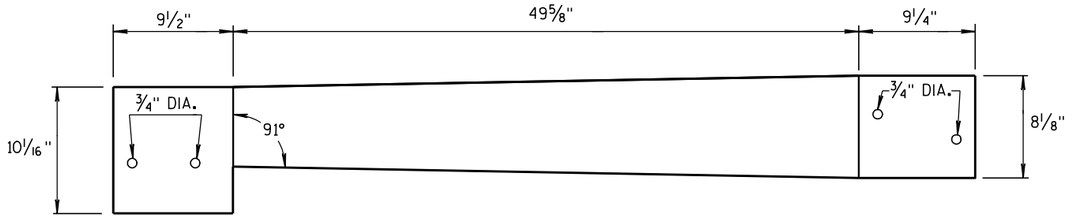
GUSSETS

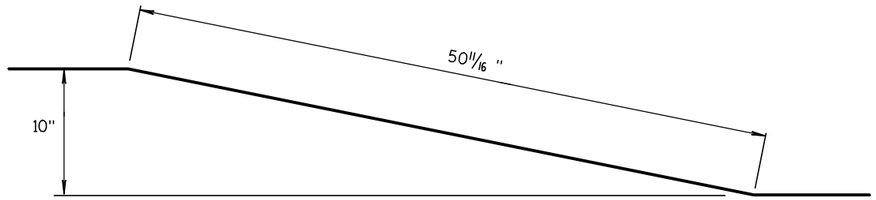


END PLATE

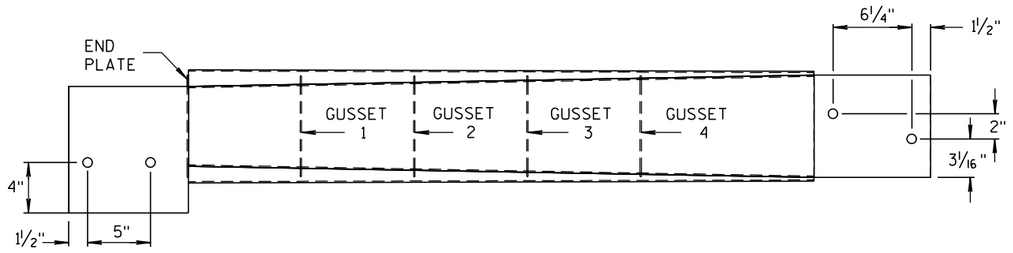


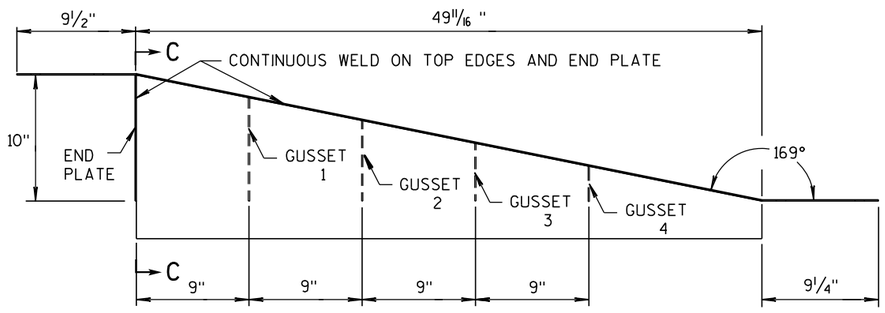
SIDE PLATE

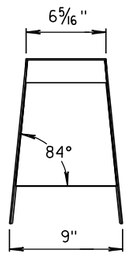




TOP PLATE







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

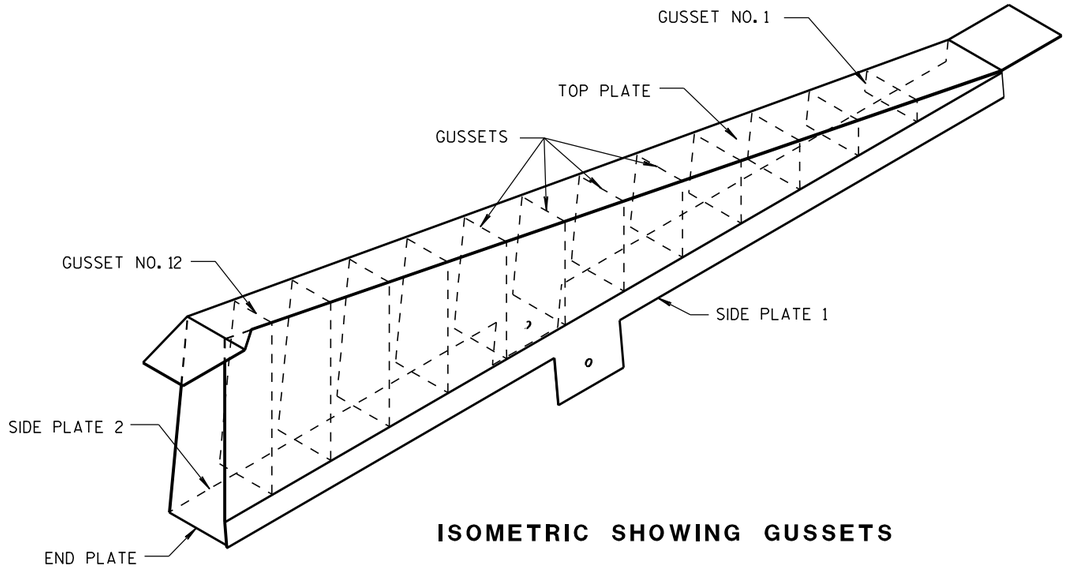
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

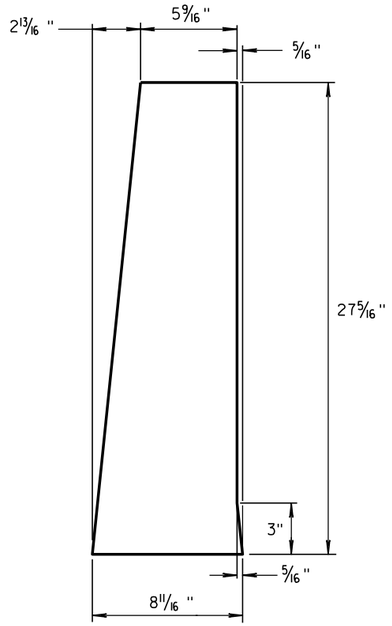
SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

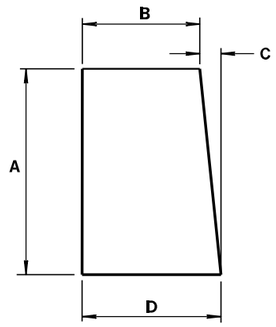


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



GUSSETS 1 - 12

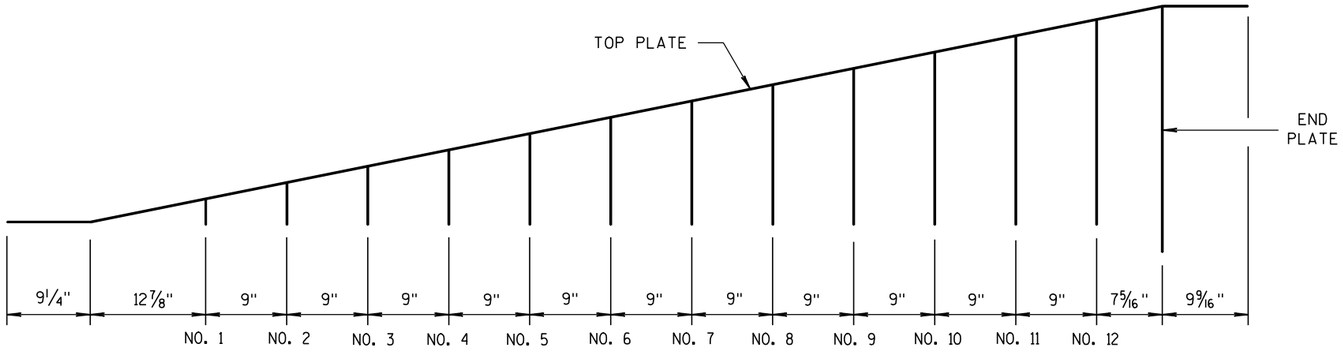
ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS

GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

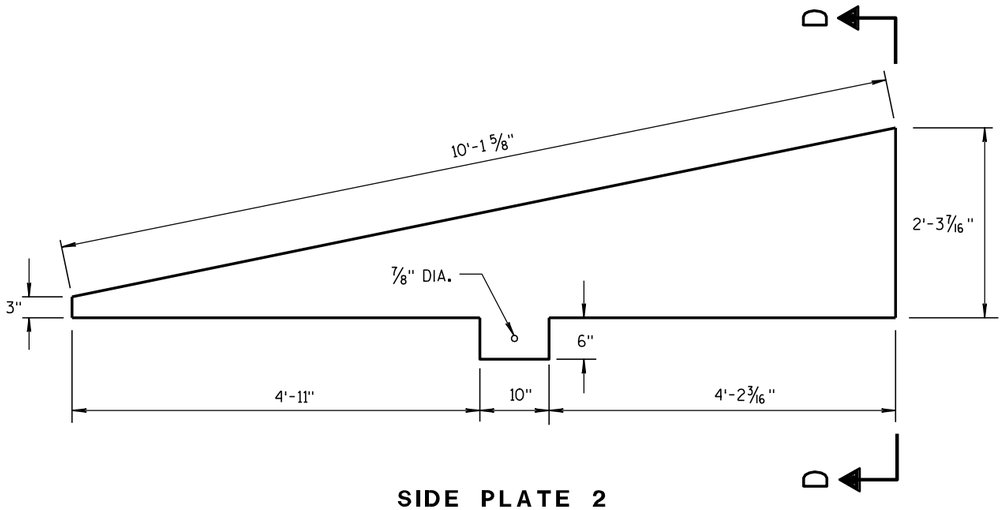
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

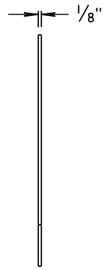
S.D.D. 14 B 7-13g

6

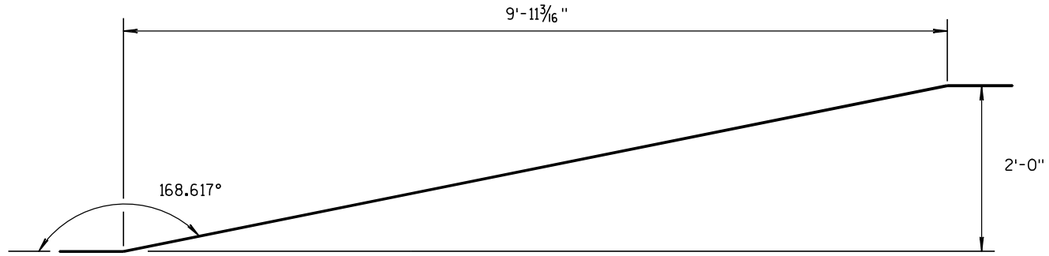
S.D.D. 14 B 7-13g



SIDE PLATE 2

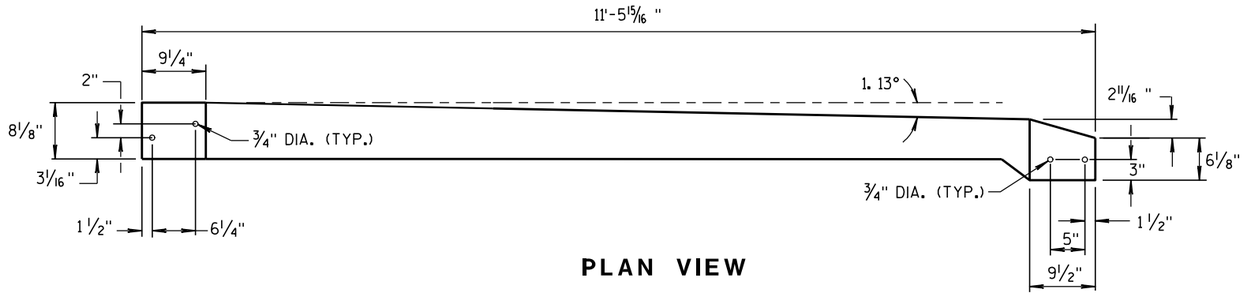


END VIEW



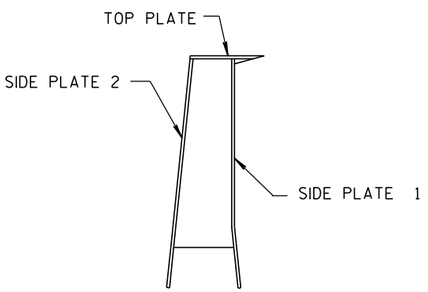
SIDE VIEW

TOP PLATE

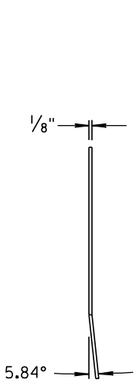


PLAN VIEW

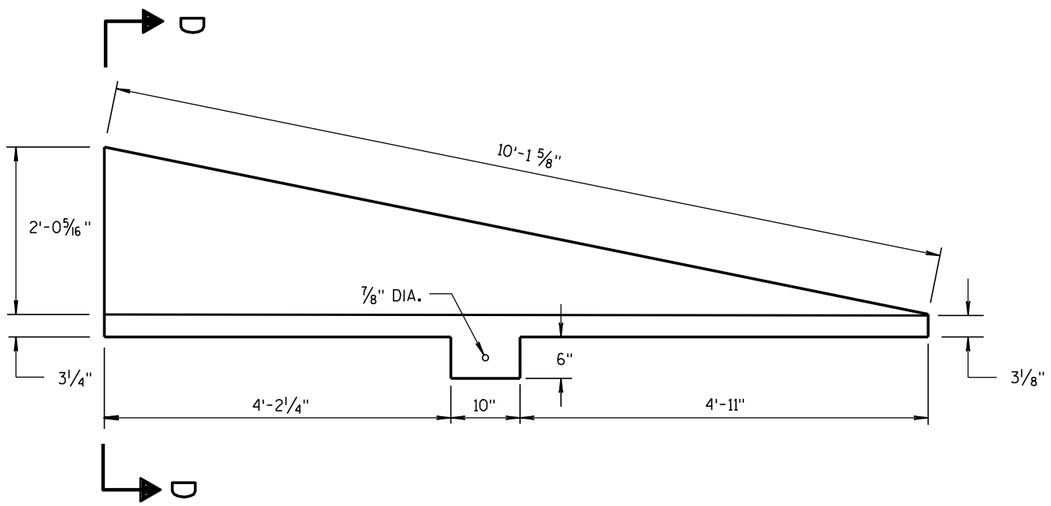
TOP PLATE



SECTION D-D



END VIEW



SIDE PLATE 1

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

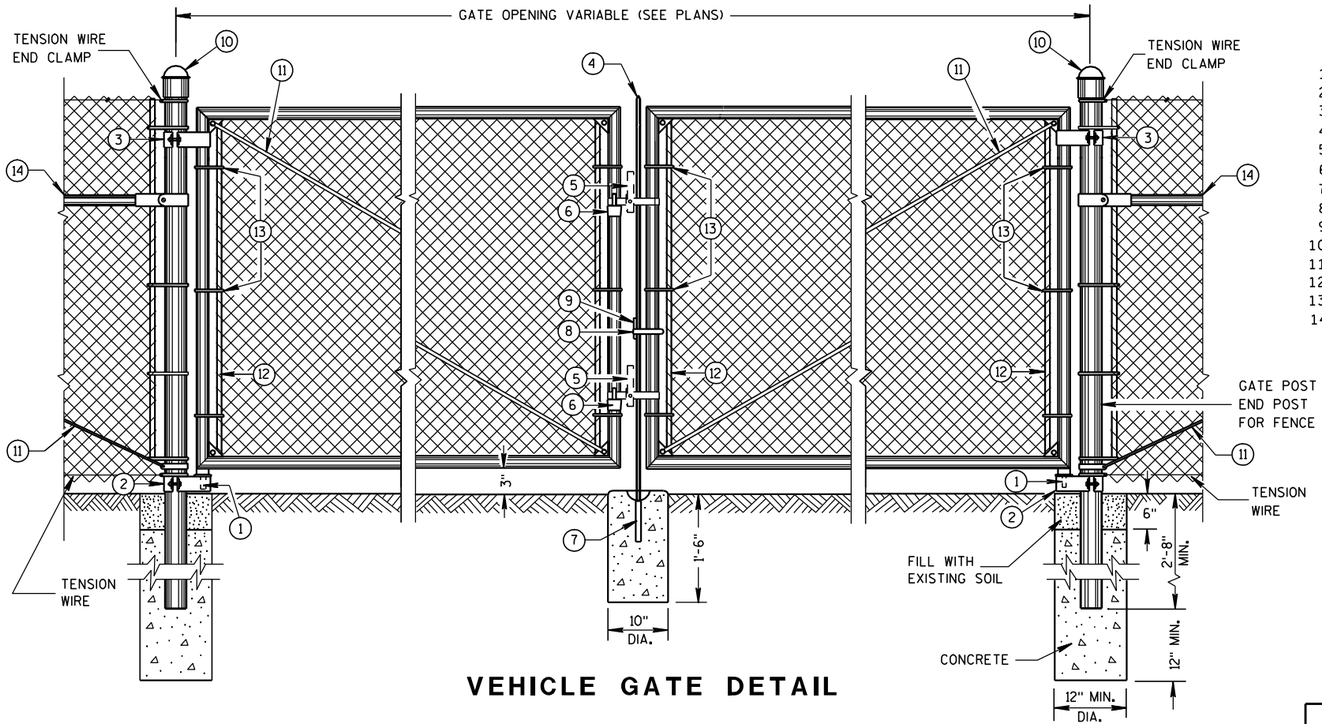
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 8/31/2012 DATE /S/ Jerry H. ROADWAY STANDARDS ENGINEER 437 ENT FHWA

6

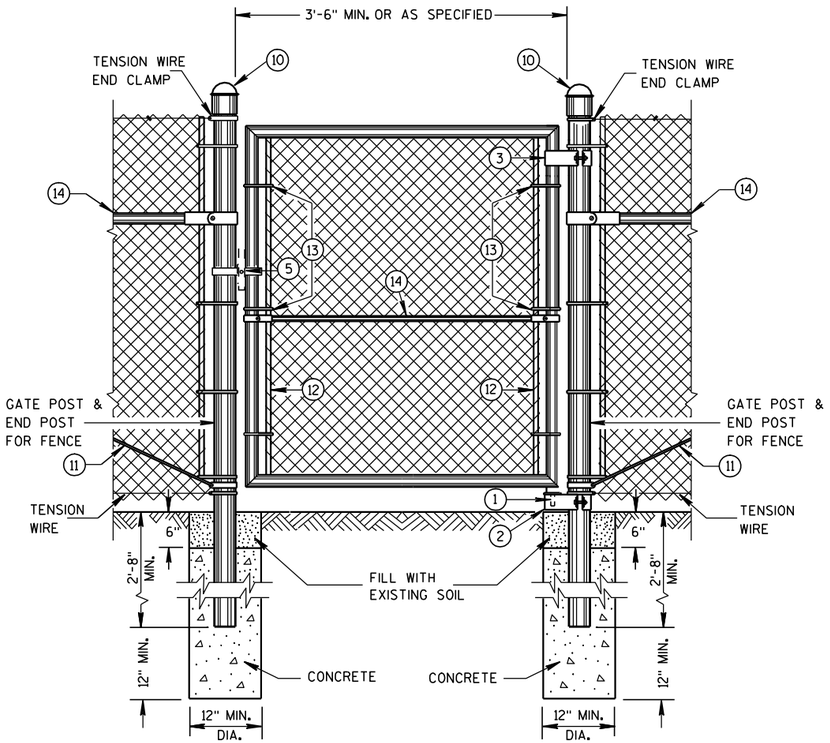
S.D.D. 14 B 7-13h

6

S.D.D. 14 B 7-13h



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

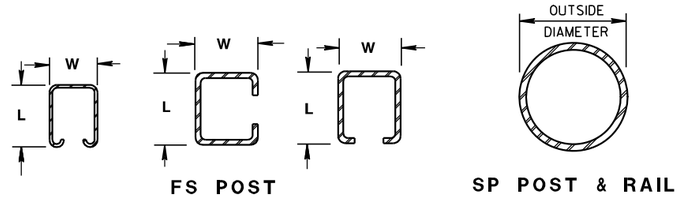
FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.



FS POST

SP POST & RAIL

CROSS SECTIONS OF POSTS AND RAILS

SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR FORMED STEEL FENCE POST

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR ROUND STEEL FENCE POST

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

BRACE RAIL TYPES

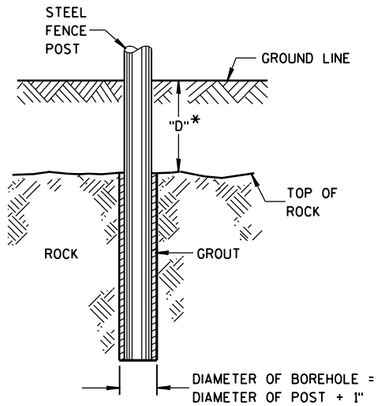
USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

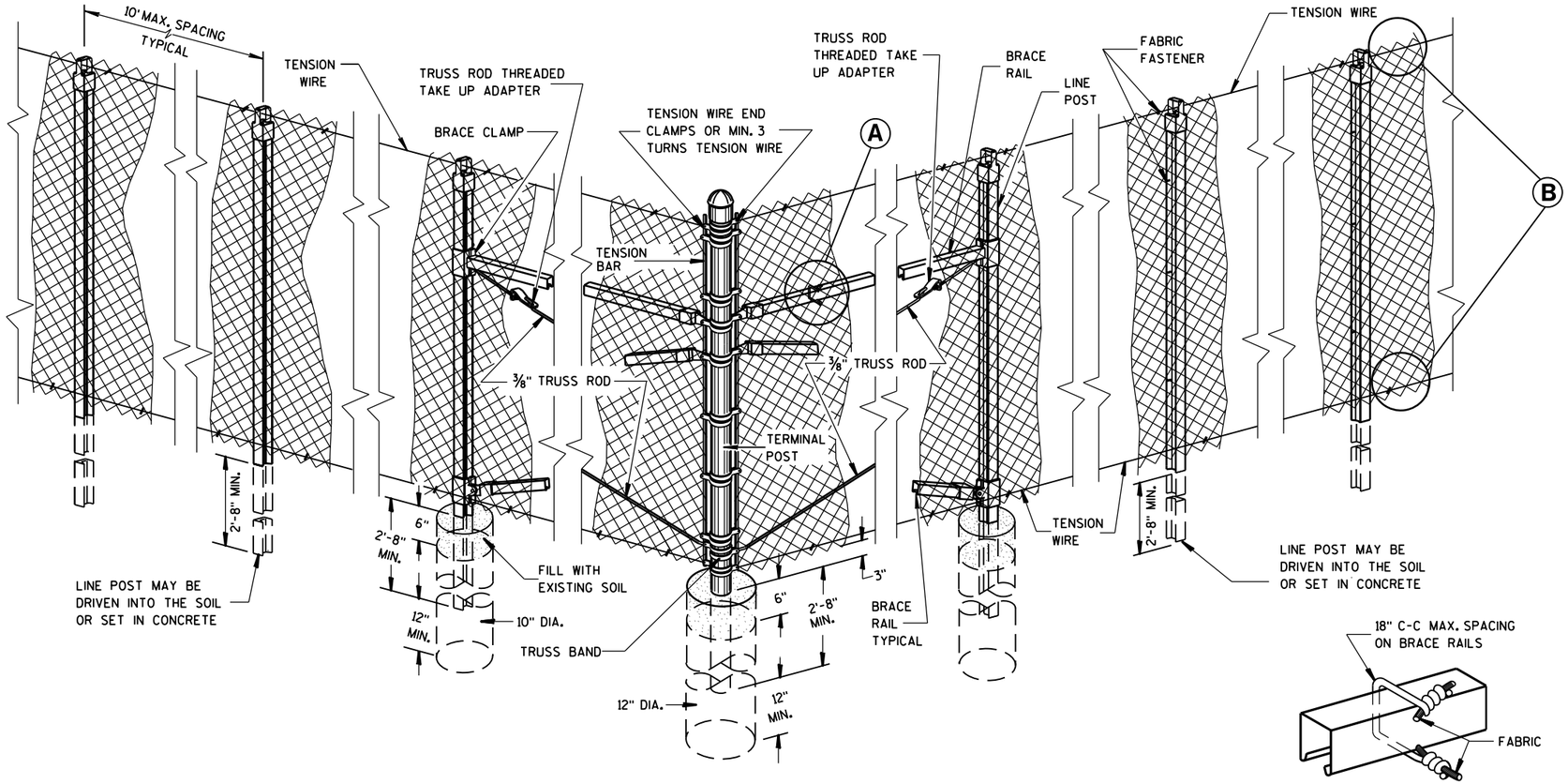
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 15 B 3-12a

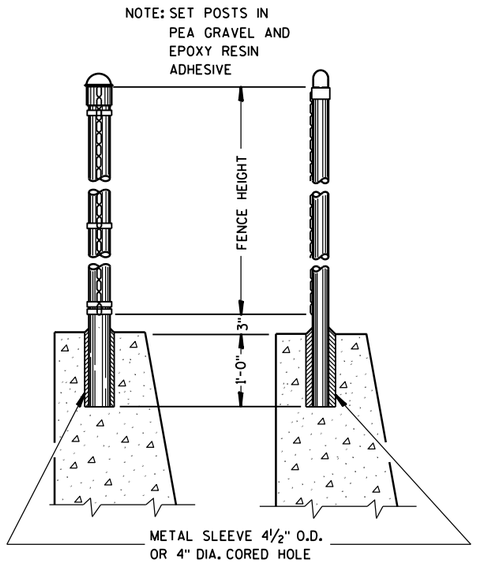


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST

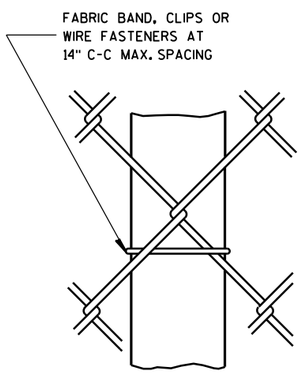


END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



END POST & CORNER POST — LINE POST

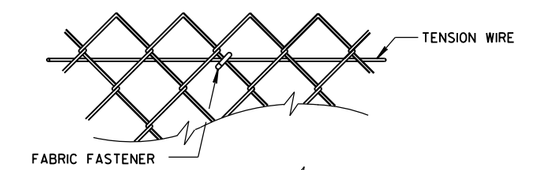
DETAILS OF FENCE ON WALL

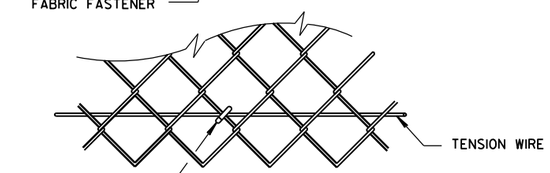


LINE POST

FABRIC FASTENER

AT TOP

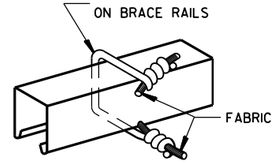




AT BOTTOM

SELVAGES

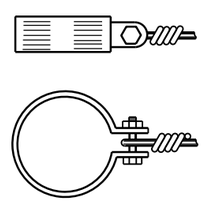
Ⓑ



BRACE RAIL

FABRIC FASTENER

Ⓐ



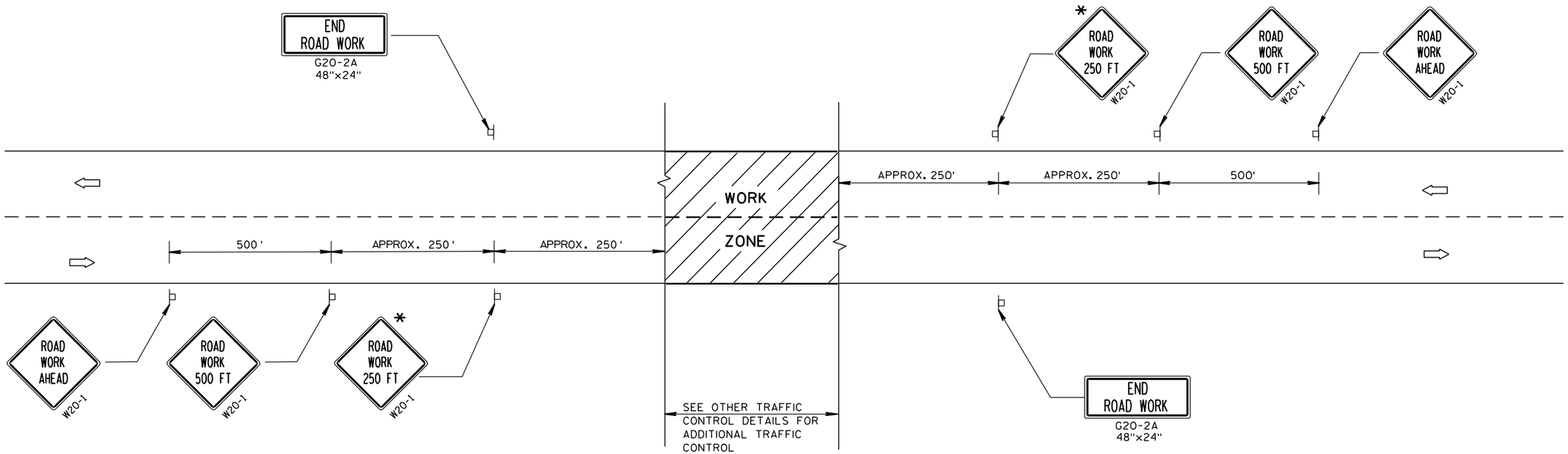
TENSION WIRE END CLAMP

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/19/2010 DATE
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 15 B 3-12b



GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

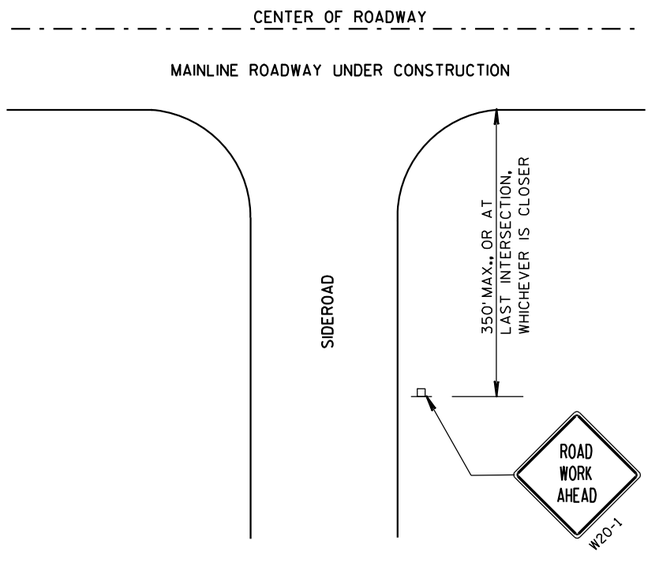
ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"×36" SIGNS MAY BE USED INSTEAD OF 48"×48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



LEGEND

POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/00
DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKING ENGINEER

FHWA

6

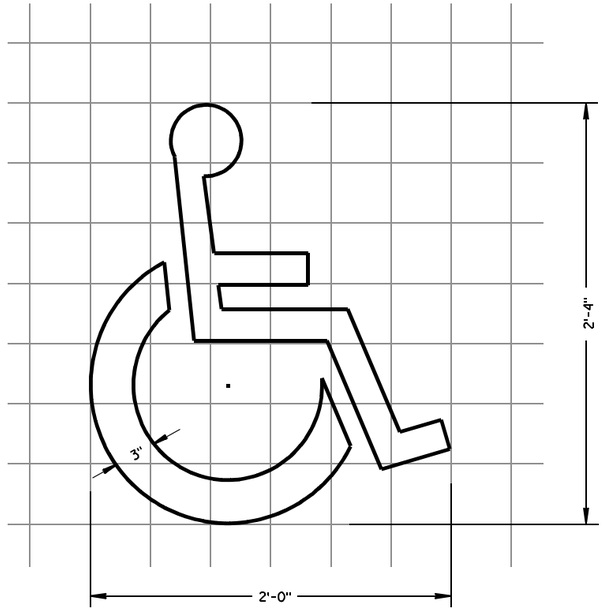
S.D.D. 15 C 5-1

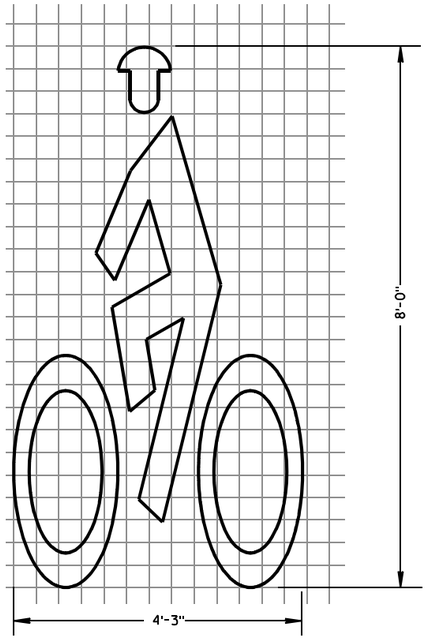
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

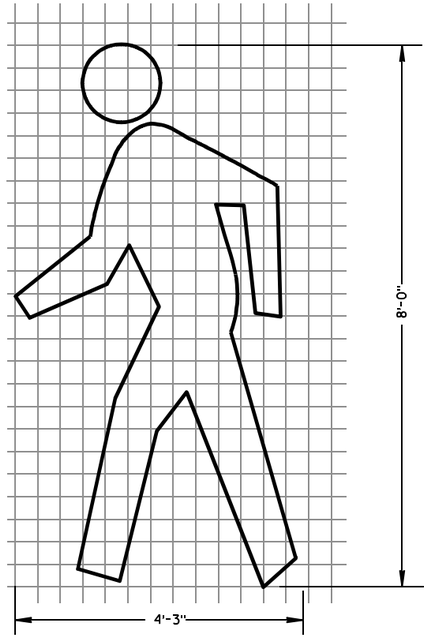
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.

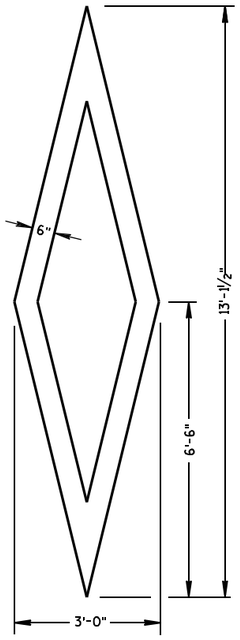




BIKE CROSSING SYMBOL



PEDESTRIAN SYMBOL



PREFERENTIAL LANE SYMBOL

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 DATE

/S/ Thomas N Nathan STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 7-12a

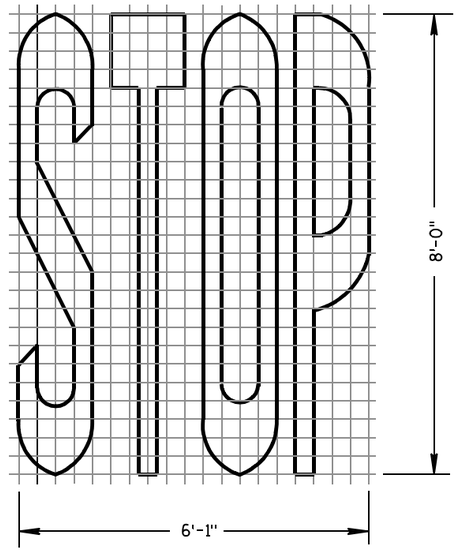
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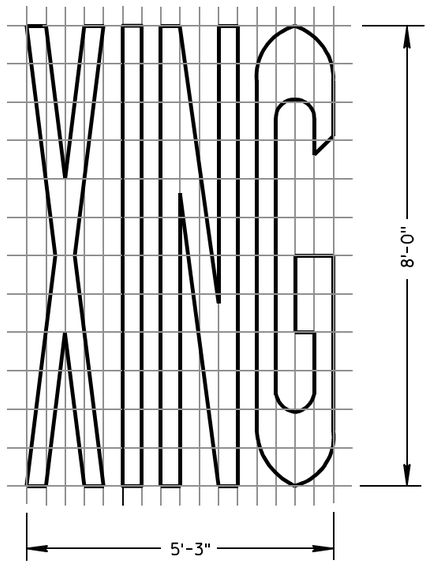
S.D.D. 15 C 7-12a

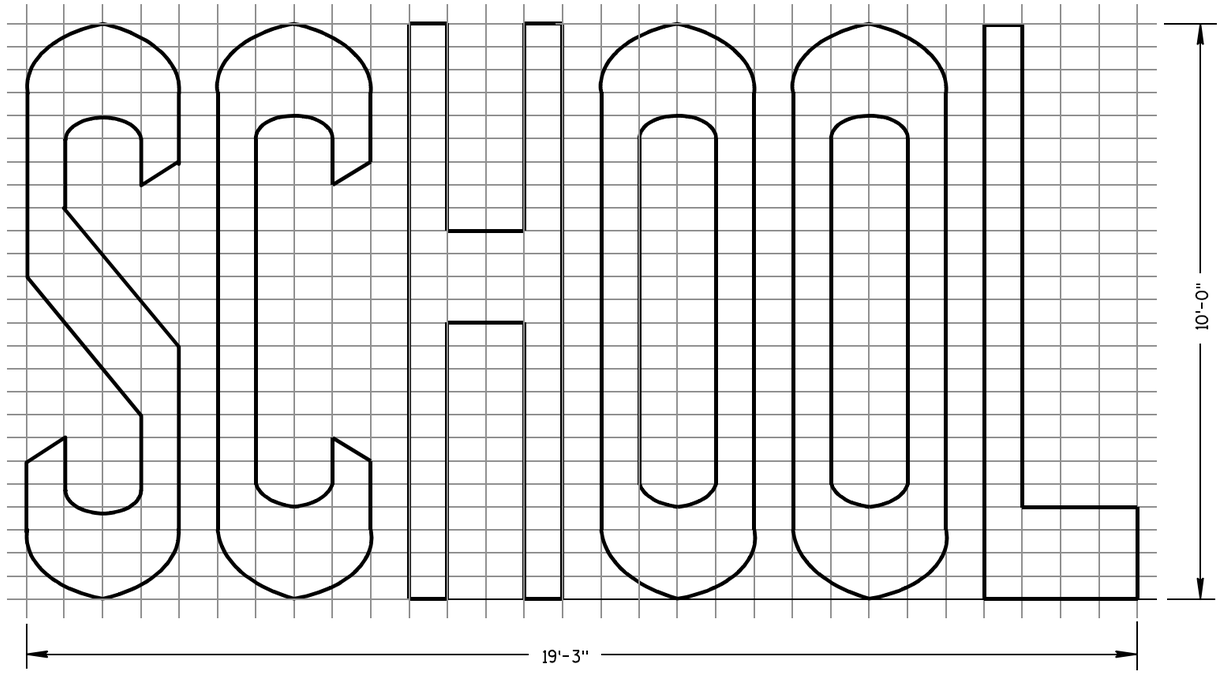
GENERAL NOTES

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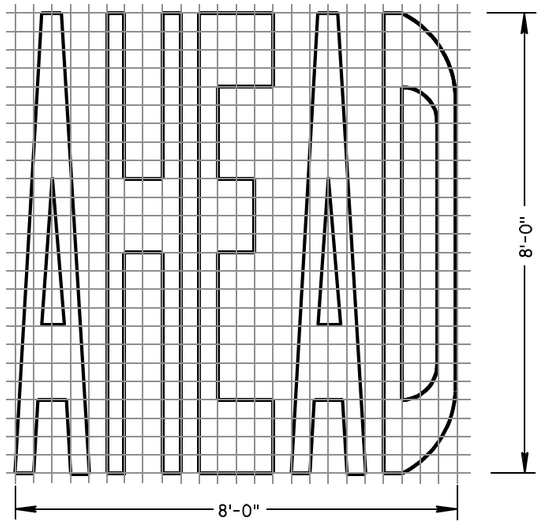
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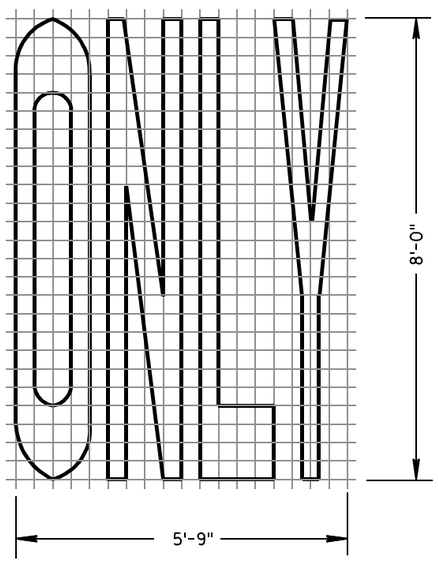


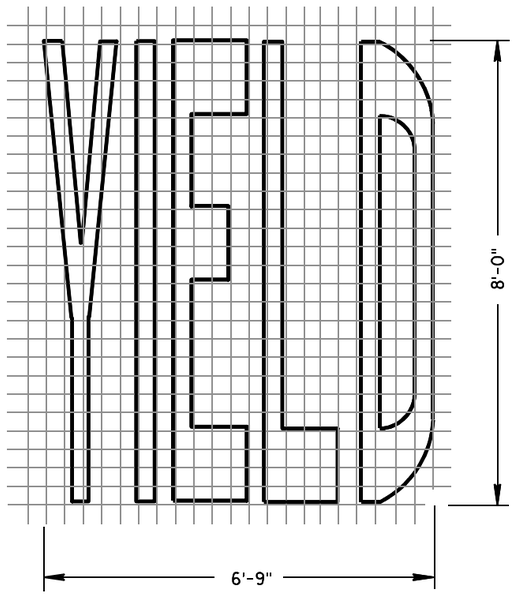


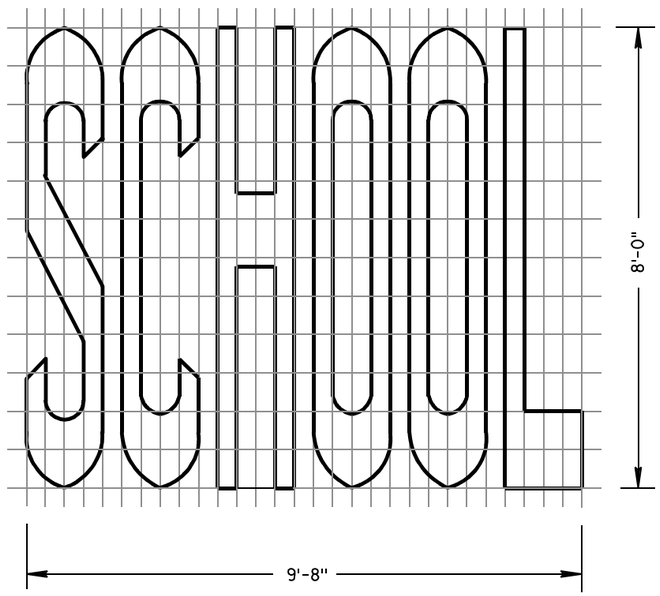


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER

FHWA

IGN

6

S.D.D. 15 C 7-12b

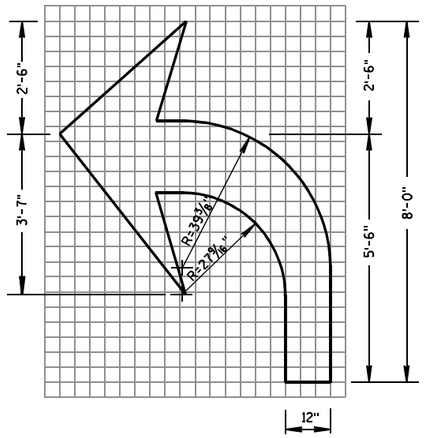
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S.D.D. 15 C 7-12b

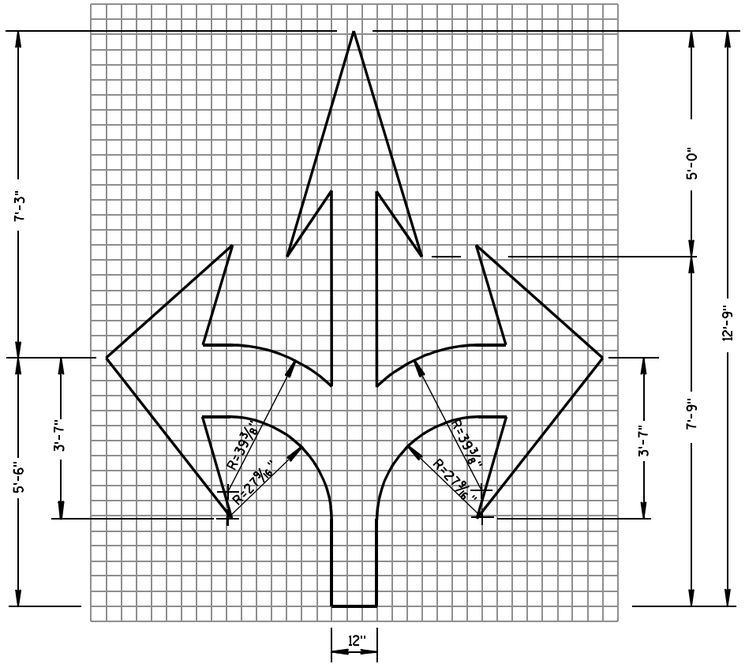
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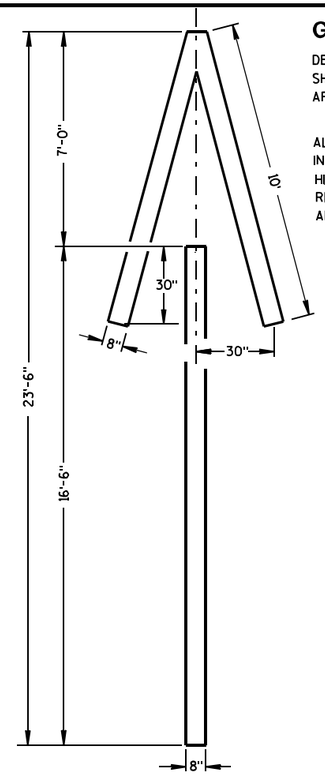
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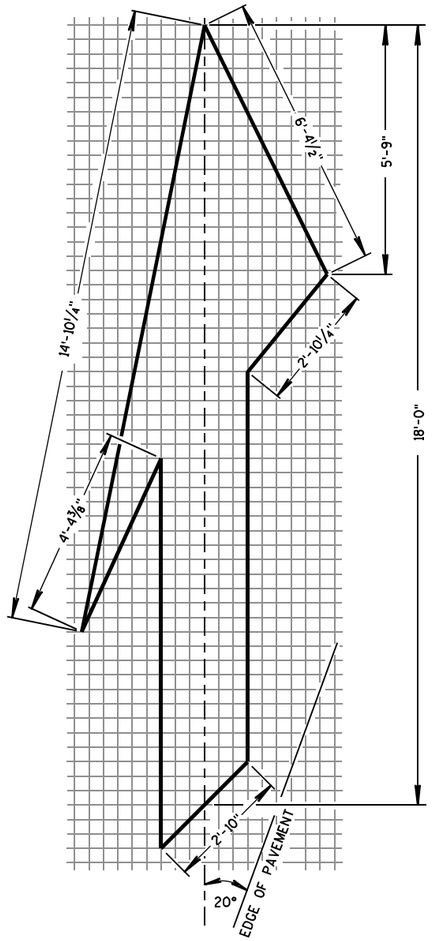
TYPE 2



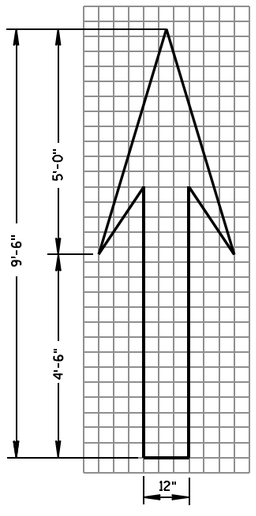
TYPE 6



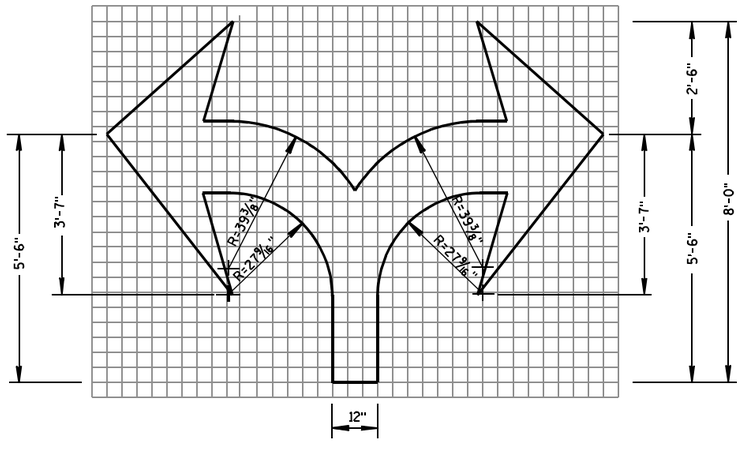
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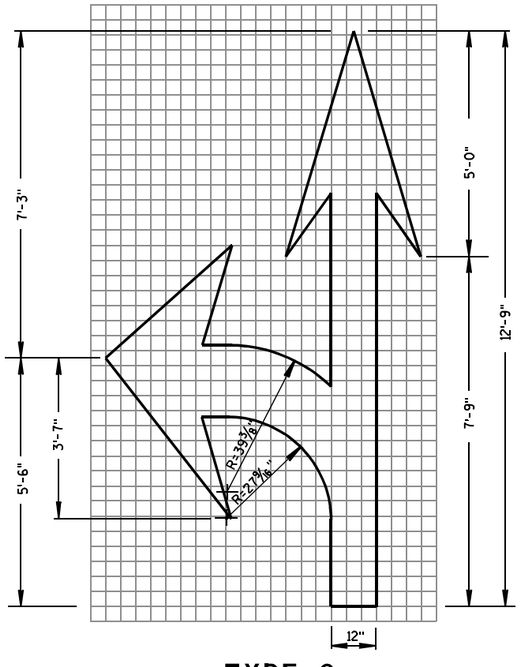
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

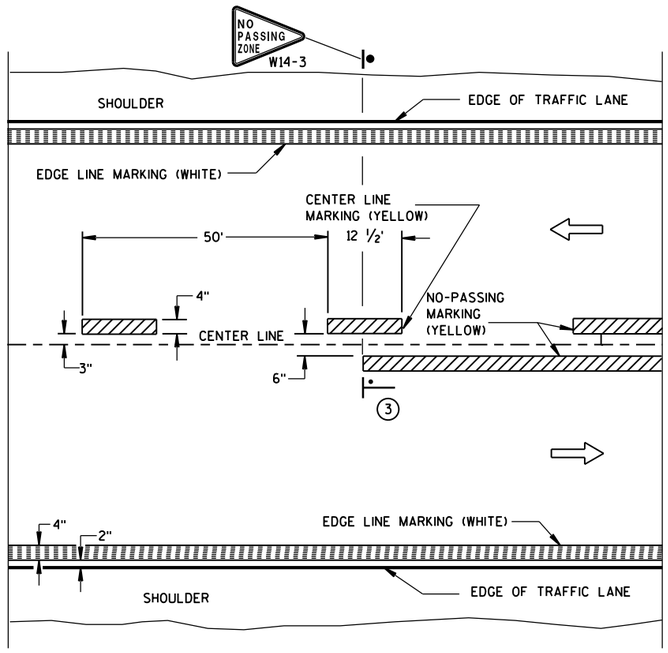
FHWA

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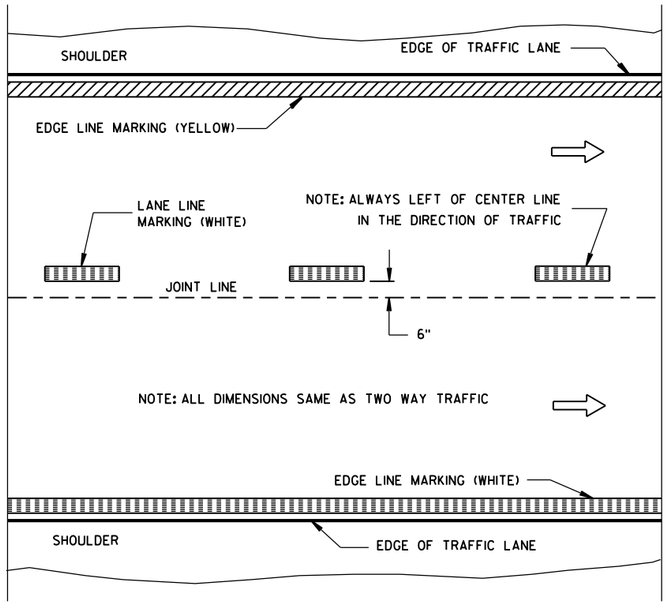
S.D.D. 15 C 7-12c

6

S.D.D. 15 C 7-12c

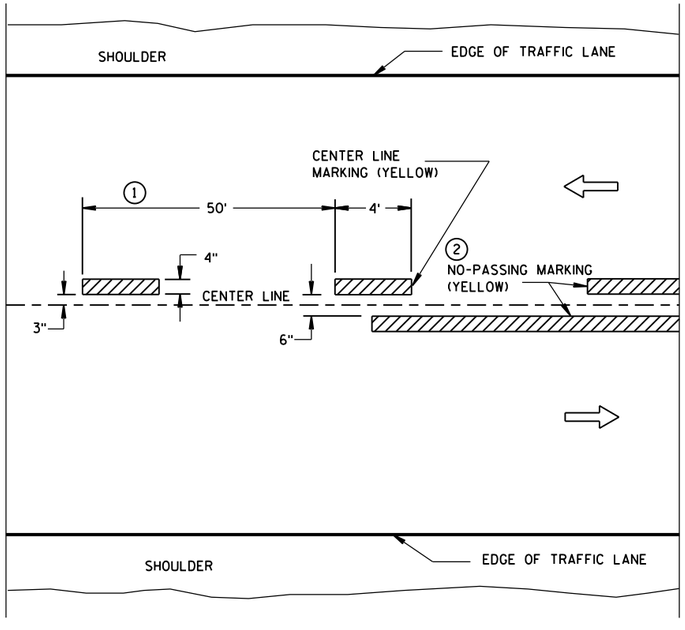


TWO WAY TRAFFIC

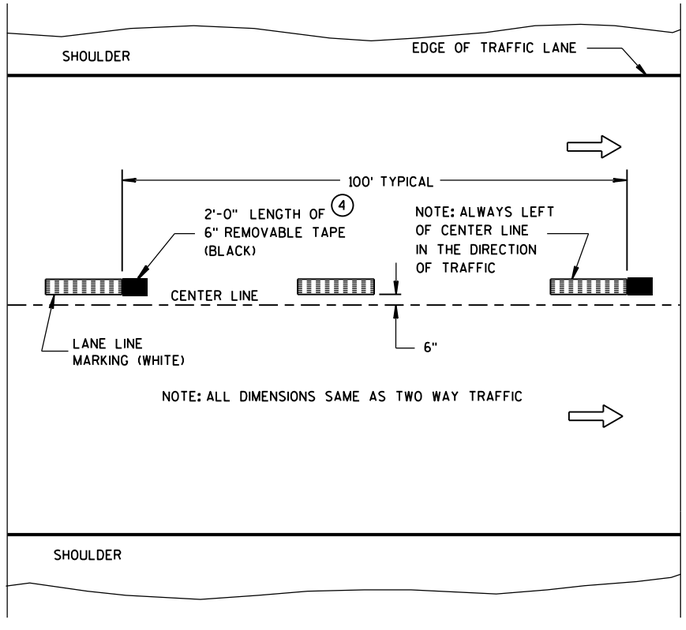


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

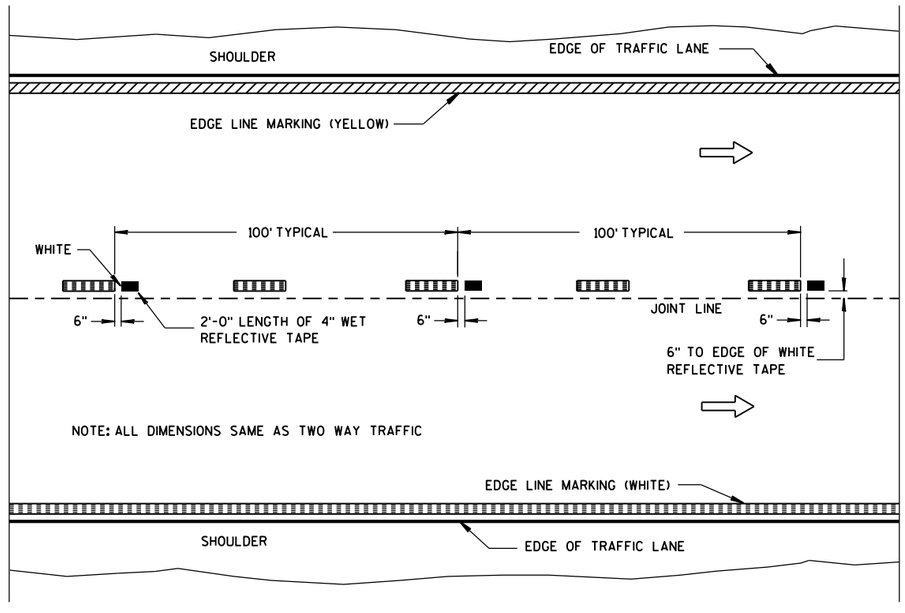
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

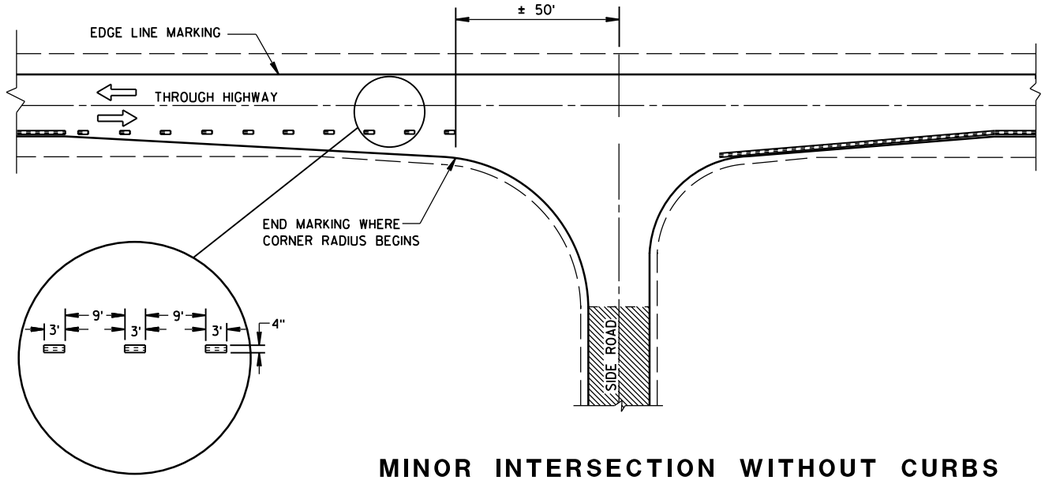
FHWA

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S.D.D. 15 C 8-16a

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S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

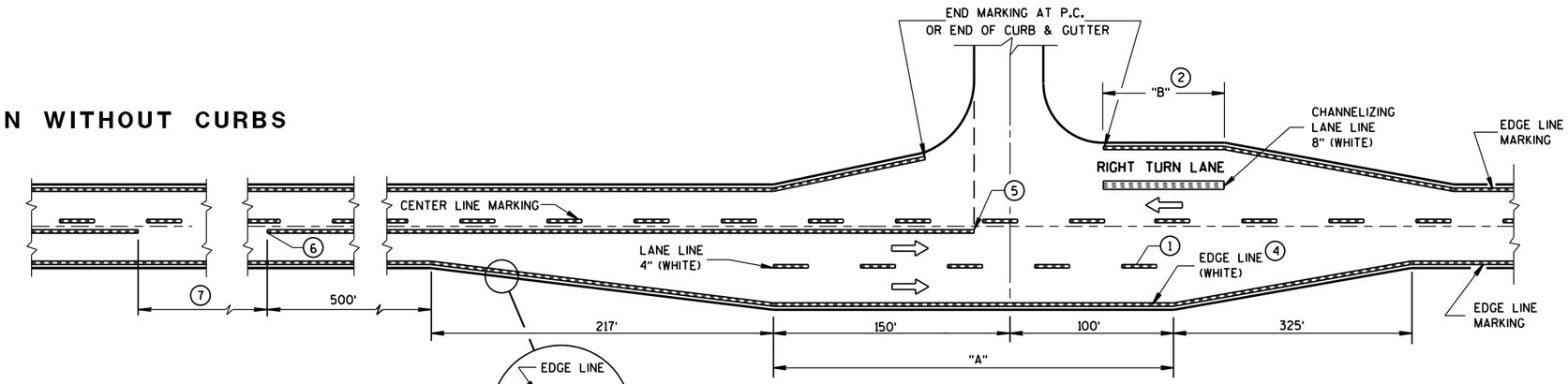
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

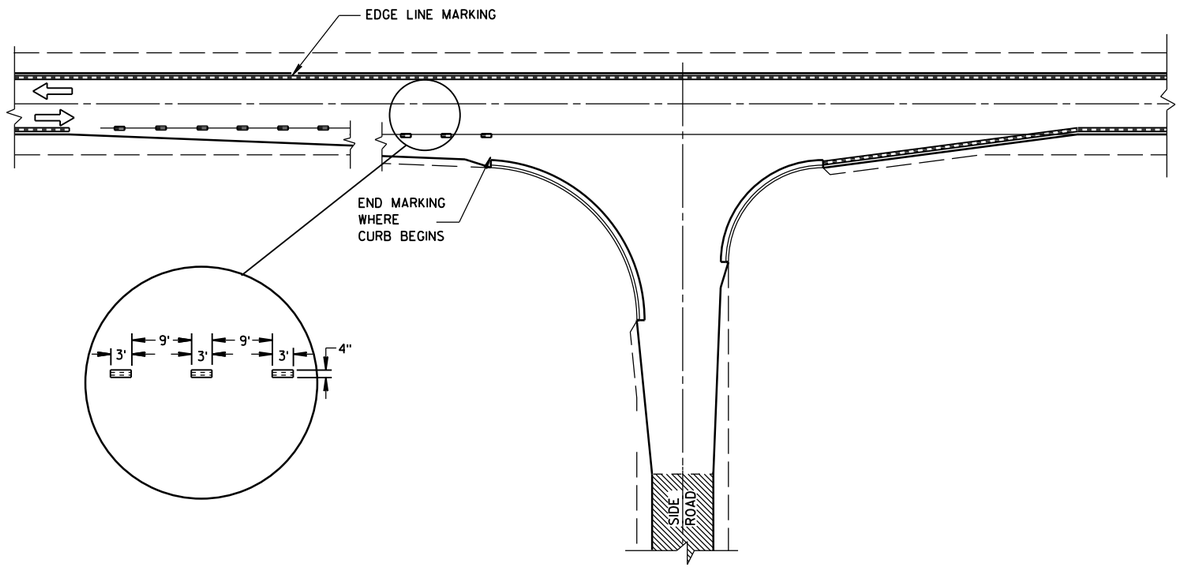
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



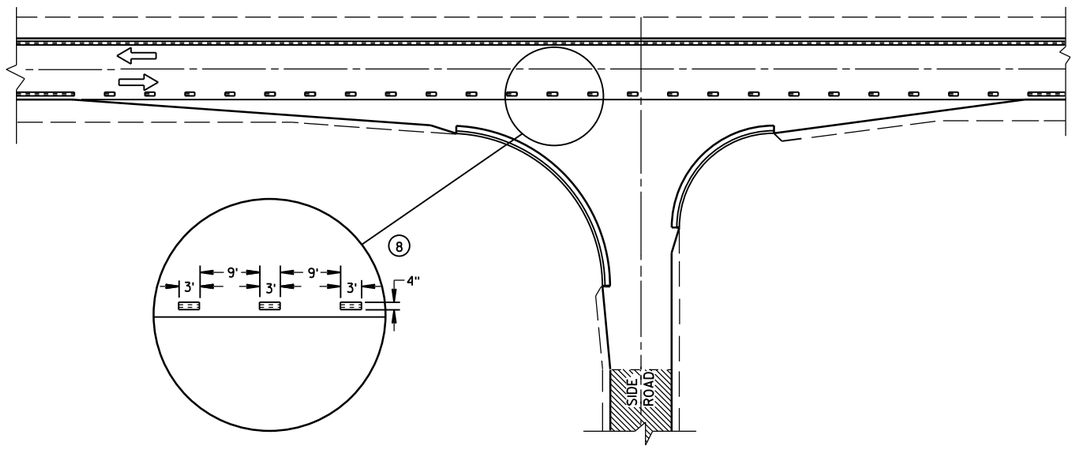
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

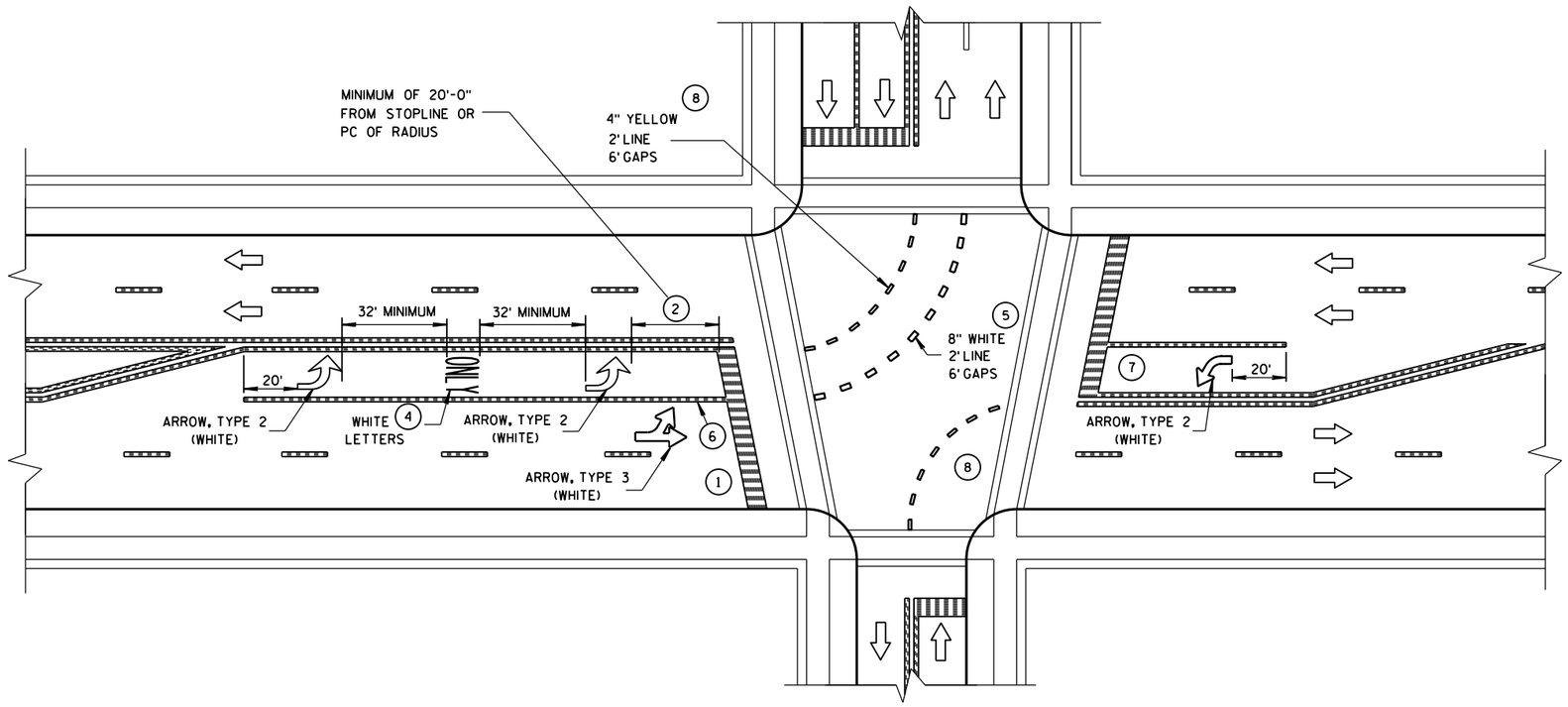
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 445

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S.D.D. 15 C 8-16b

6

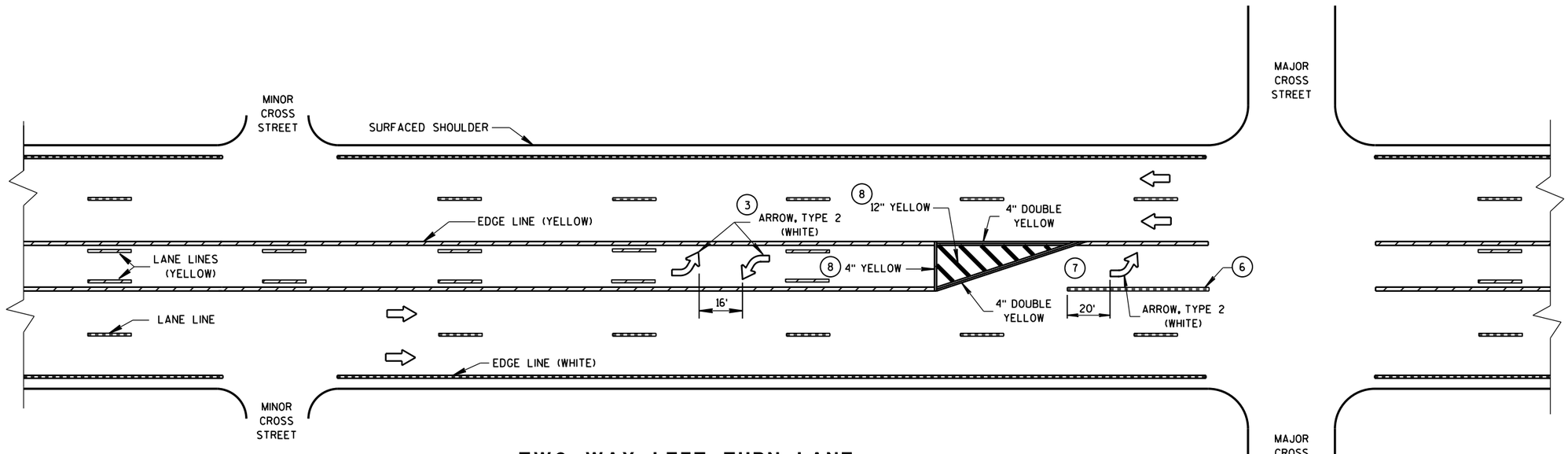
S.D.D. 15 C 8-16b



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

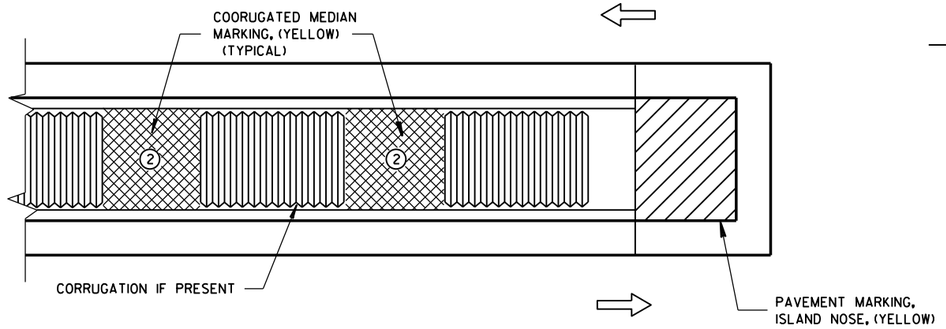
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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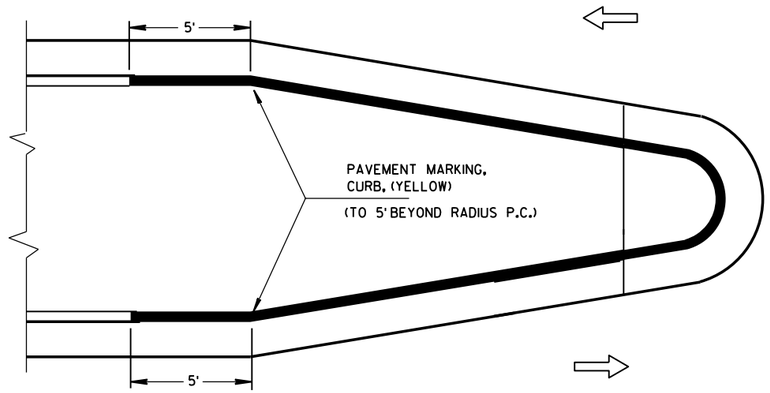
S.D.D. 15 C 8-16e

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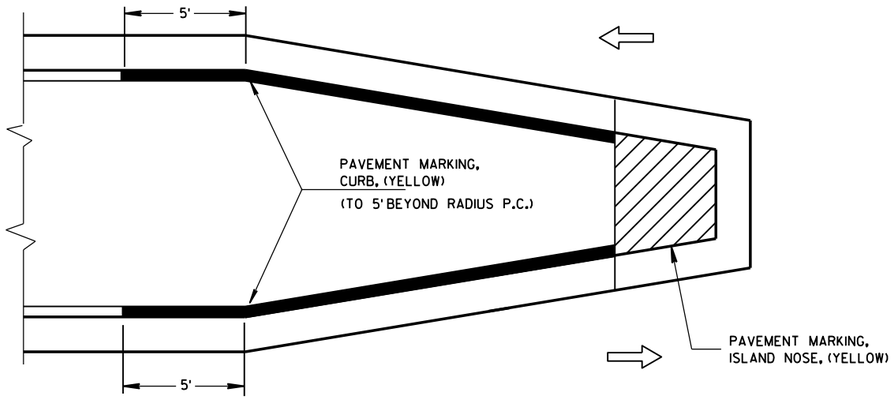
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

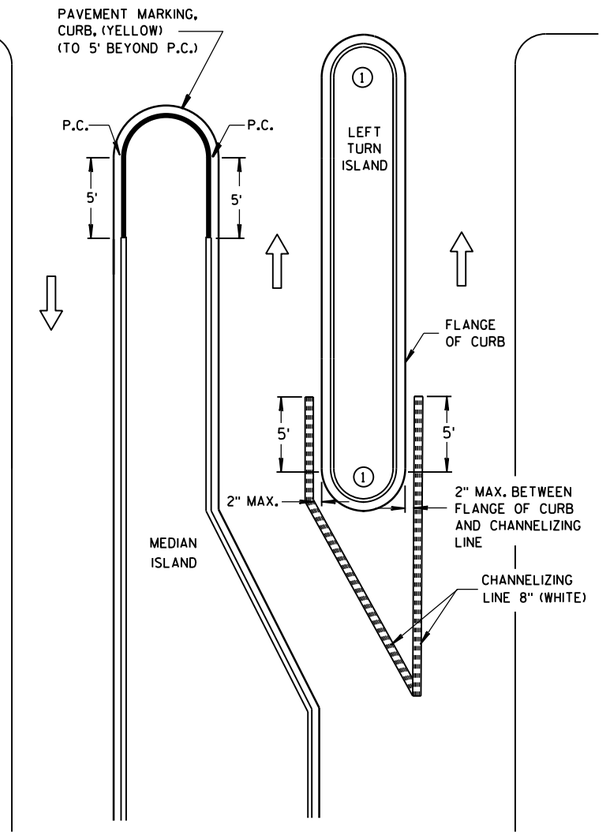


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

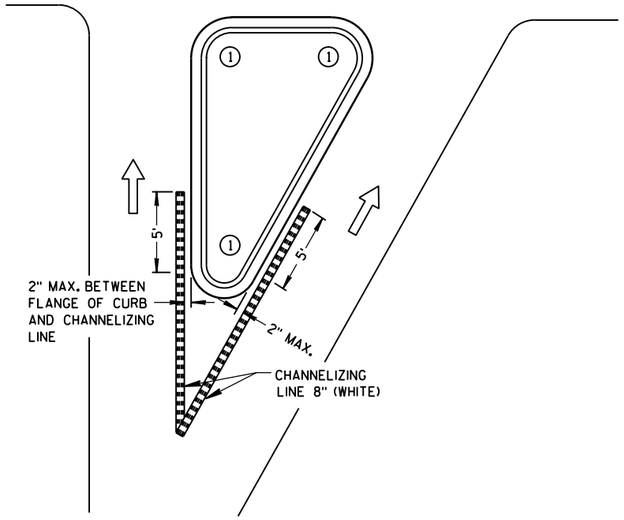


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

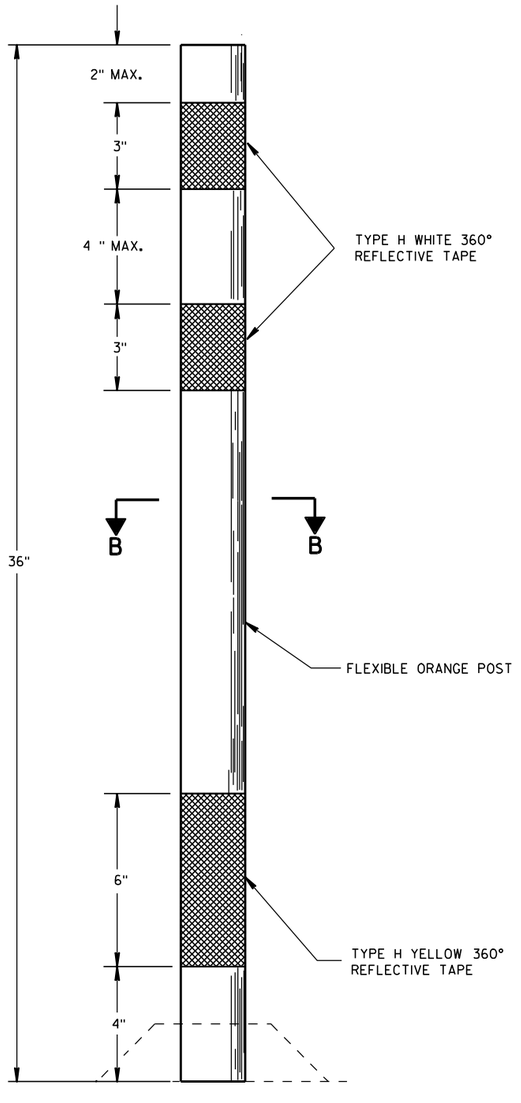
- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

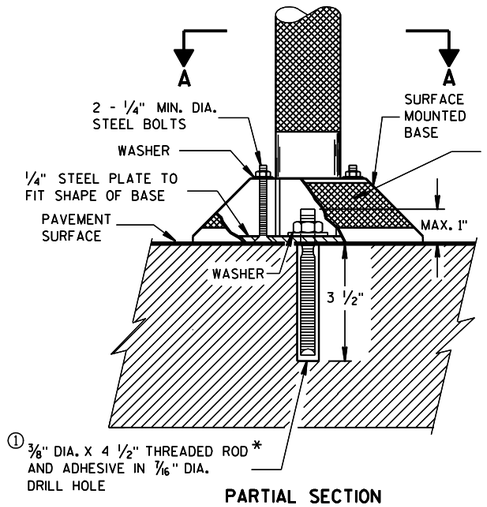
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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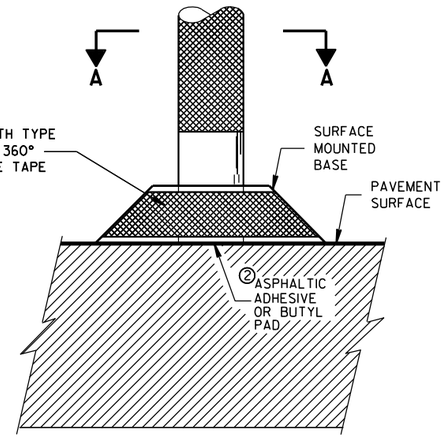
S.D.D. 15 C 8-16f



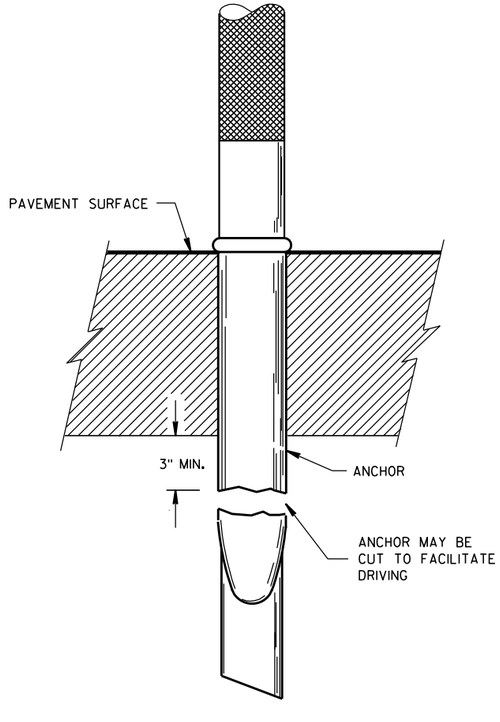
FLEXIBLE TUBULAR MARKER POST



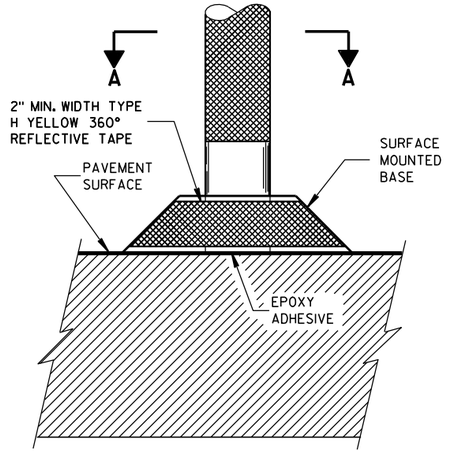
PARTIAL SECTION TO SHOW BOLTS



POST BASES ON NEW OR EXISTING PAVEMENT



POST ANCHOR AND BASE ON PAVEMENT WHICH WILL BE REMOVED



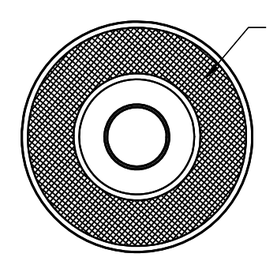
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

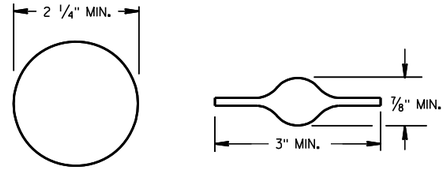
① THREADED ROD SHALL BE MACHINED DOWN TO 0.280 INCH DIA. 1 1/4 INCHES FROM THE TOP.

② THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



SECTION A-A

SURFACE MOUNTED BASE



SECTION B-B

ALTERNATIVE SHAPES

FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

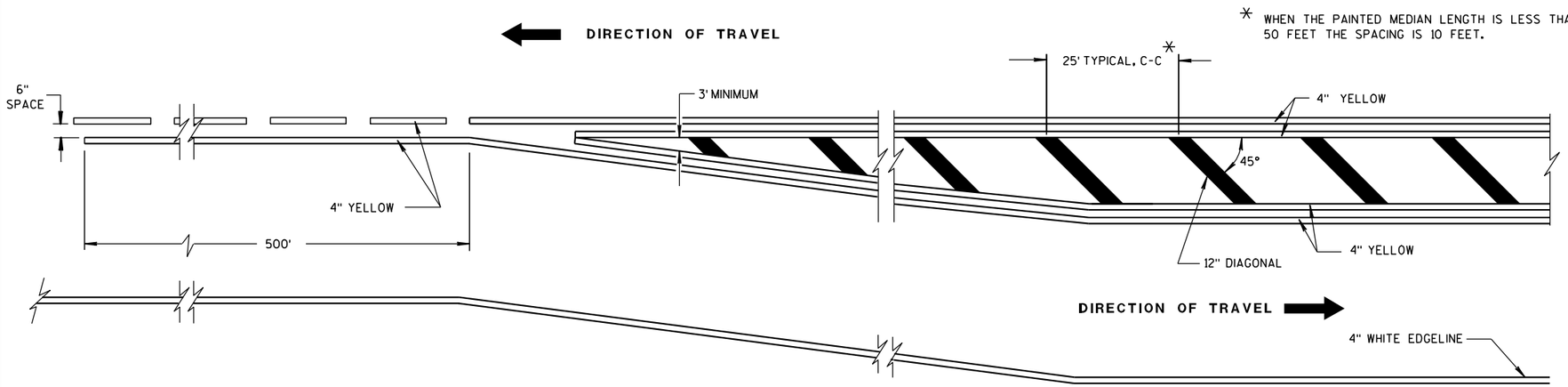
2/17/94 DATE

/S/ Chester J. [illegible]
DIRECTOR, OFFICE O

FHWA

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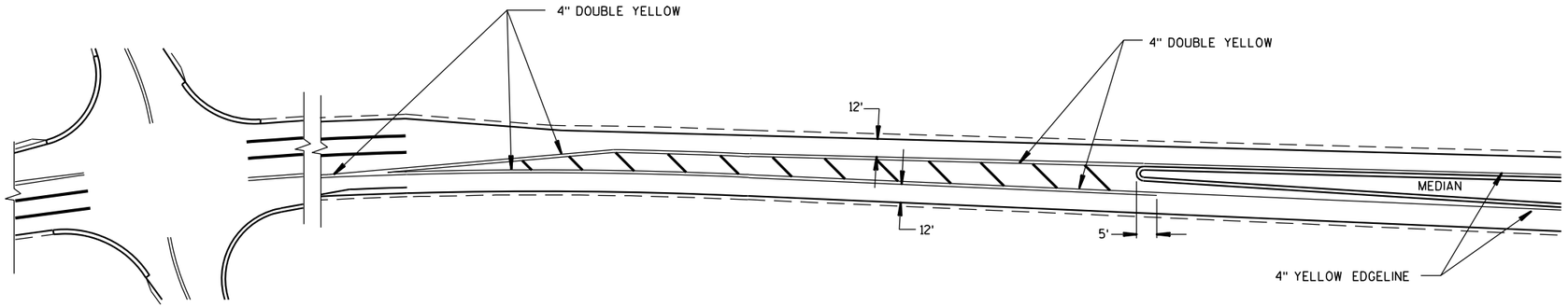
S.D.D. 15 C 11-5



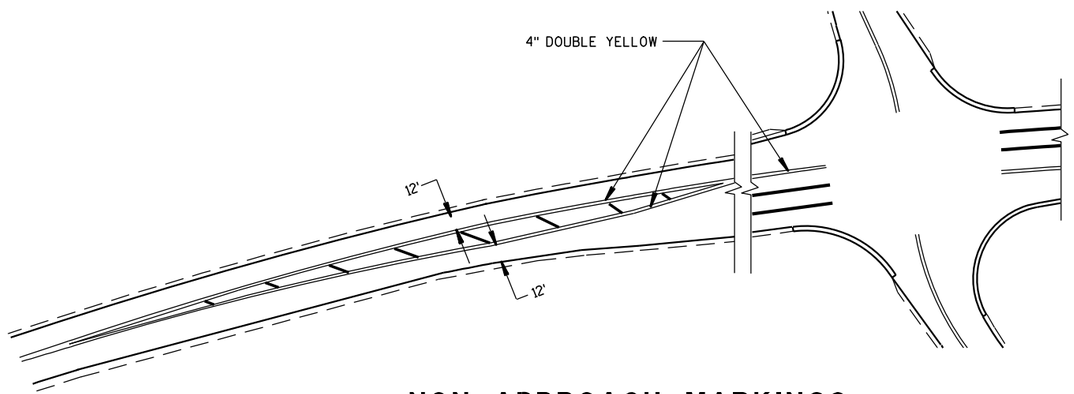
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

6

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S.D.D. 15 C 18-3

S.D.D. 15 C 18-3

MEDIAN ISLAND MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2-5-09 DATE

/S/ Thomas N. Nothohm
STATE TRAFFIC ENGINEER

449 IGN

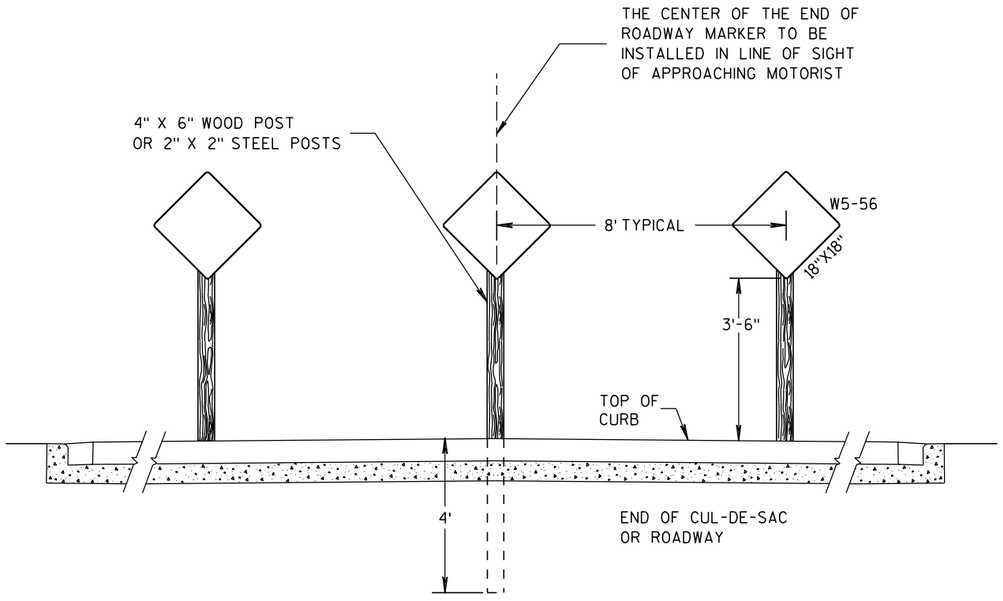
FHWA

GENERAL NOTES

SIGN LOCATIONS SHOWN ARE TYPICAL PLACEMENT AND MAY BE ADJUSTED BY THE ENGINEER AS FIELD CONDITIONS DICTATE.

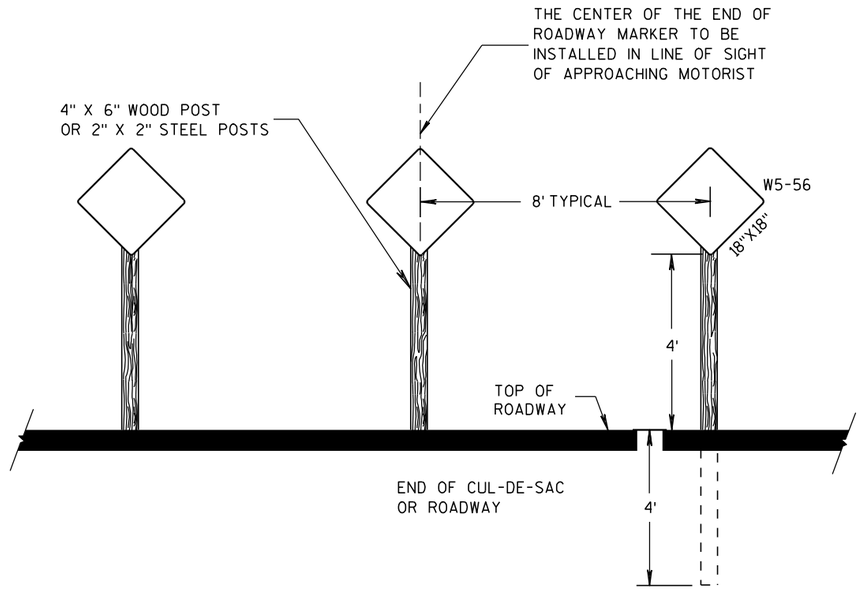
THE MINIMUM NUMBER OF END-OF-ROADWAY SIGNS ARE THREE (AS SHOWN). ADDITIONAL END-OF-ROADWAY SIGNS MAY BE INSTALLED AS FIELD CONDITIONS DICTATE. (SEE SIGNING PLAN).

WHEN BEAMGUARD IS REQUIRED, PLACE END-OF-ROADWAY SIGNING BEHIND BEAMGUARD.



TYPICAL URBAN SIGN INSTALLATION

(WITH CURB & GUTTER)



TYPICAL RURAL SIGN INSTALLATION

(WITHOUT CURB & GUTTER)

6

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S.D.D. 15 C 26-2

S.D.D. 15 C 26-2

END-OF-ROADWAY SIGNING

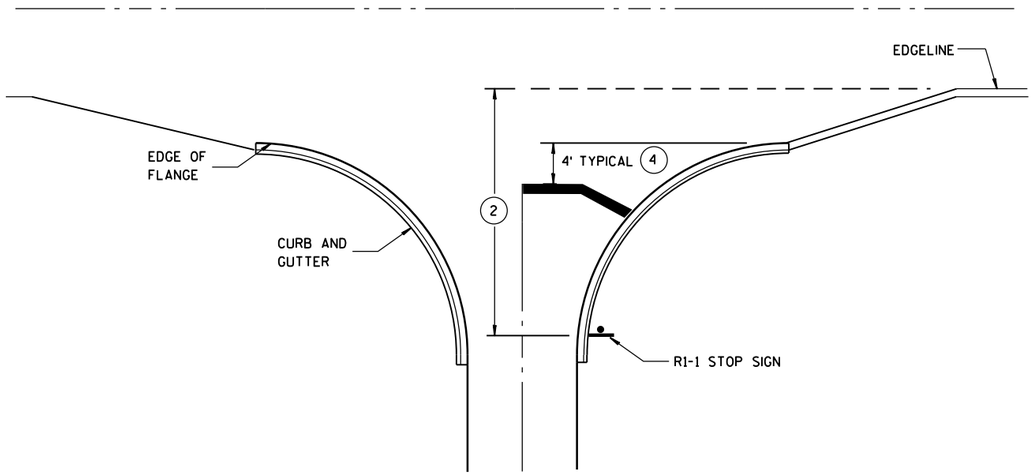
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

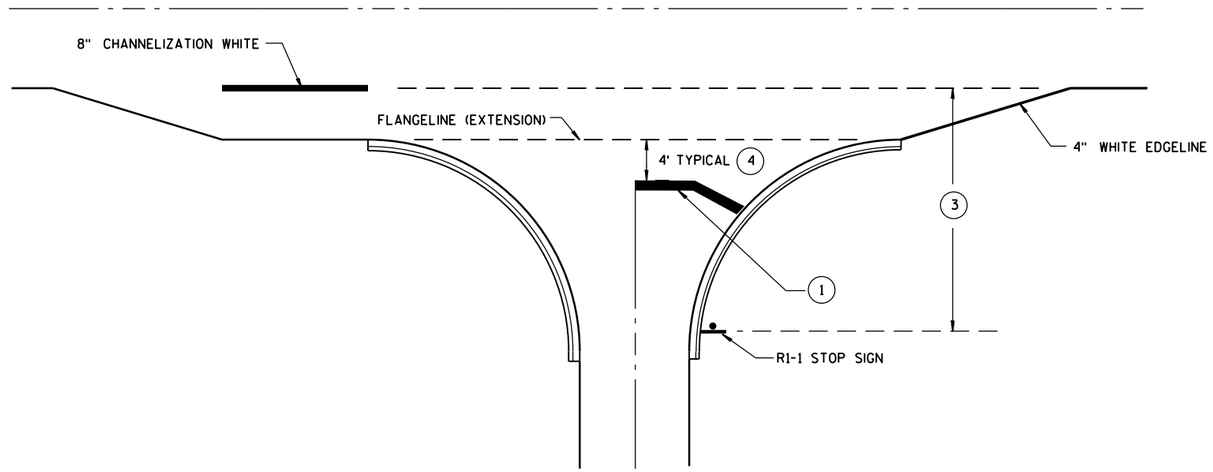
8/1/2011
DATE

/S/ Thomas N. Nothohm
STATE TRAFFIC ENGINEER

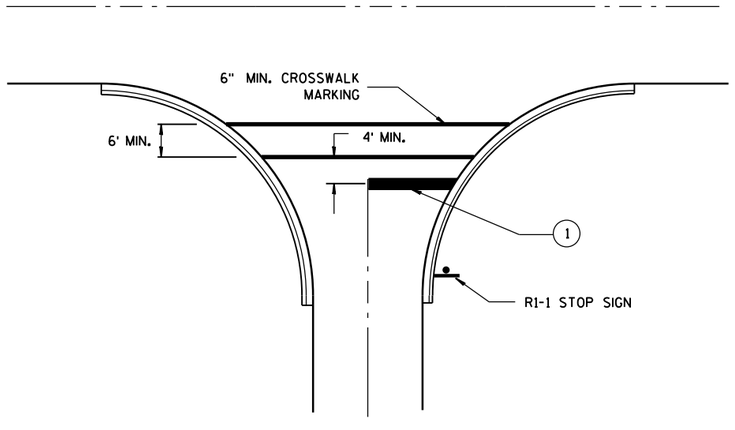
FHWA



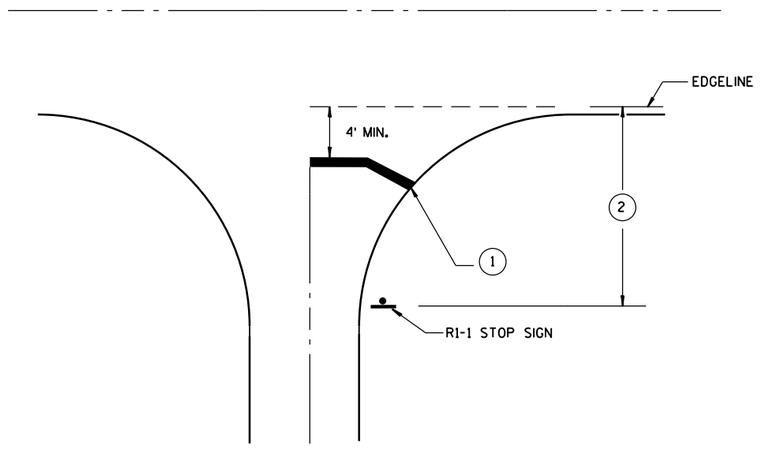
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

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S.D.D. 15 C 33-1

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

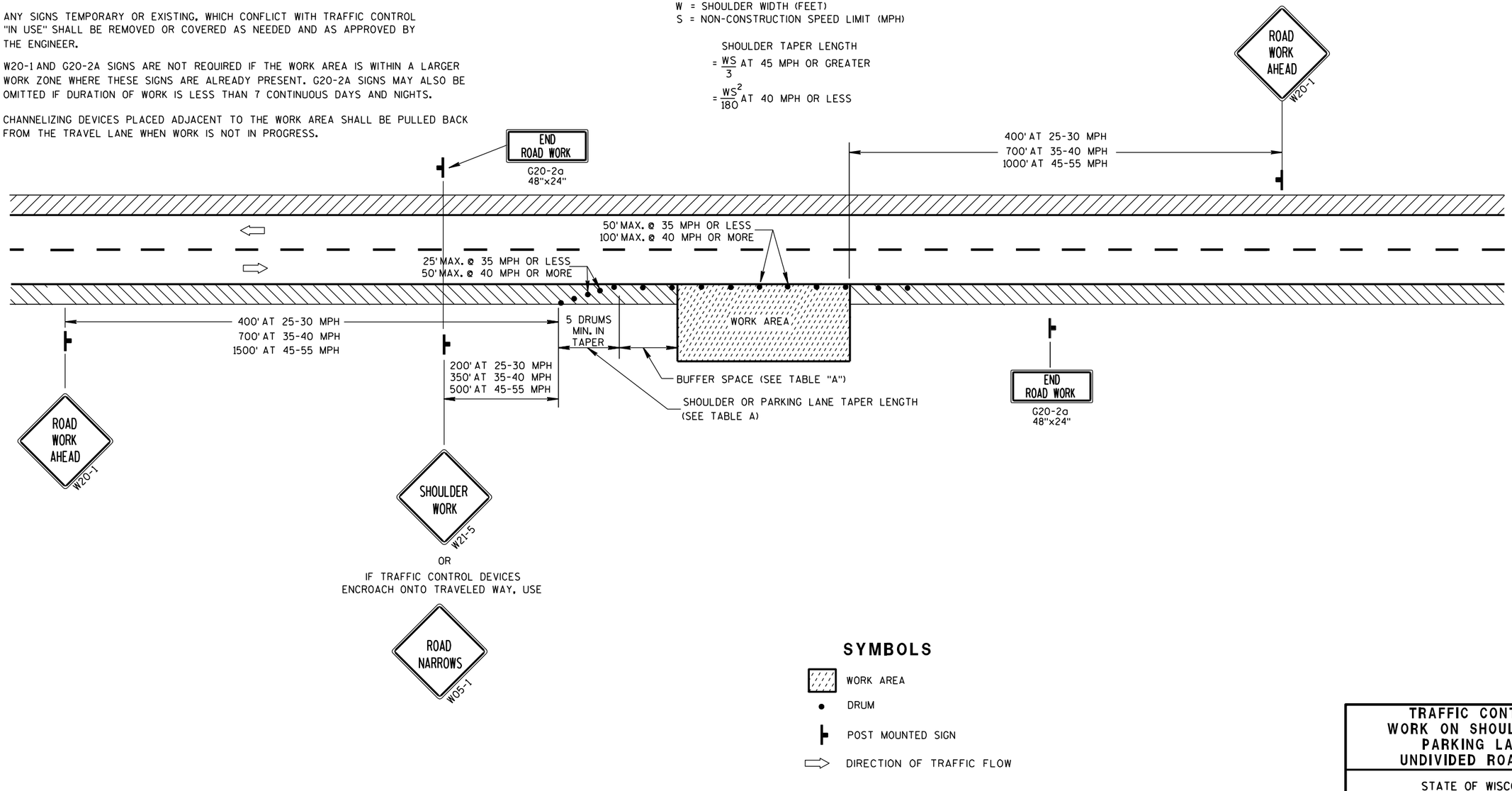
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
$= \frac{WS}{3}$ AT 45 MPH OR GREATER
$= \frac{WS^2}{180}$ AT 40 MPH OR LESS



SYMBOLS

- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

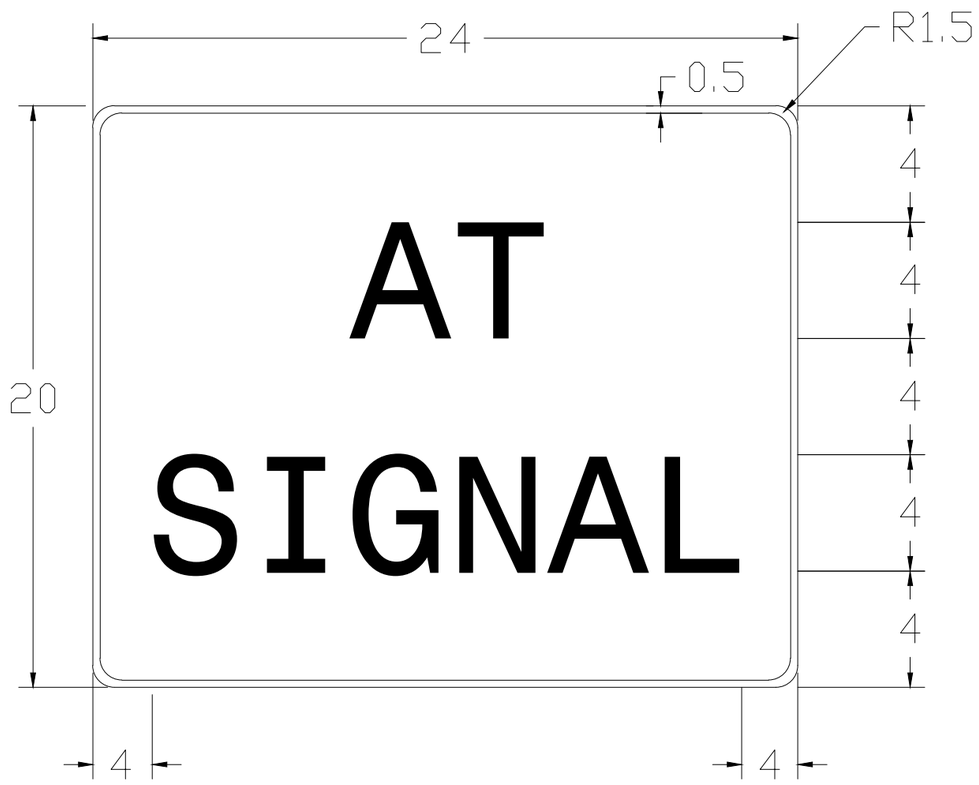
TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible] ENGINEER
FHWA

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S.D.D. 15 D 28-1

AT SIGNAL



CONSTRUCTION NOTES:

1. All Signs are Type II - Type SH Sheeting - reference WisDOT Standard Specifications for Highway and Structure Construction, latest edition.
2. Color: Background - Fluorescent Yellow Green; Message and Border - Black
3. Letters are Series D (spaced to fit); 4" Upper Case
4. Signs shall be metal. The corners and borders shall be rounded.
5. Sign message texts shown are typical. See Sign Quantities for message and quantity of each sign type.
6. All dimensions are in inches.

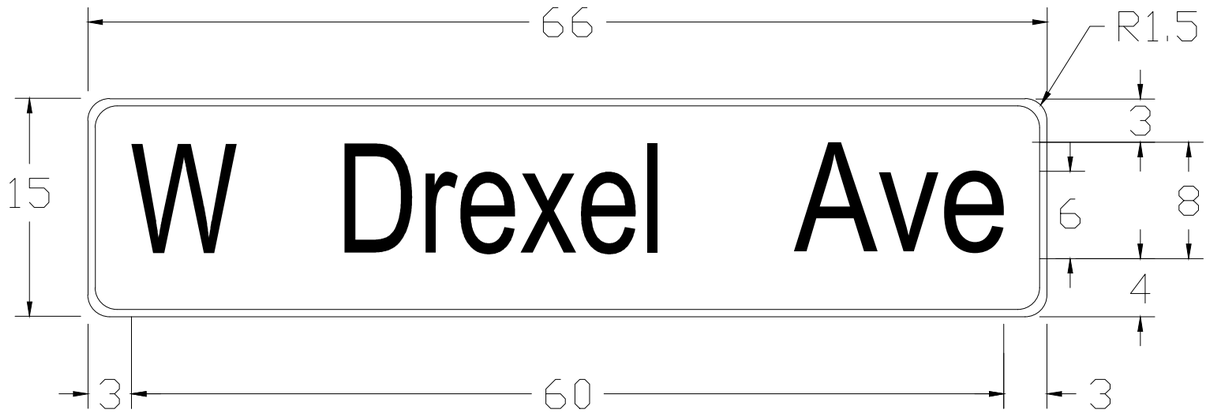
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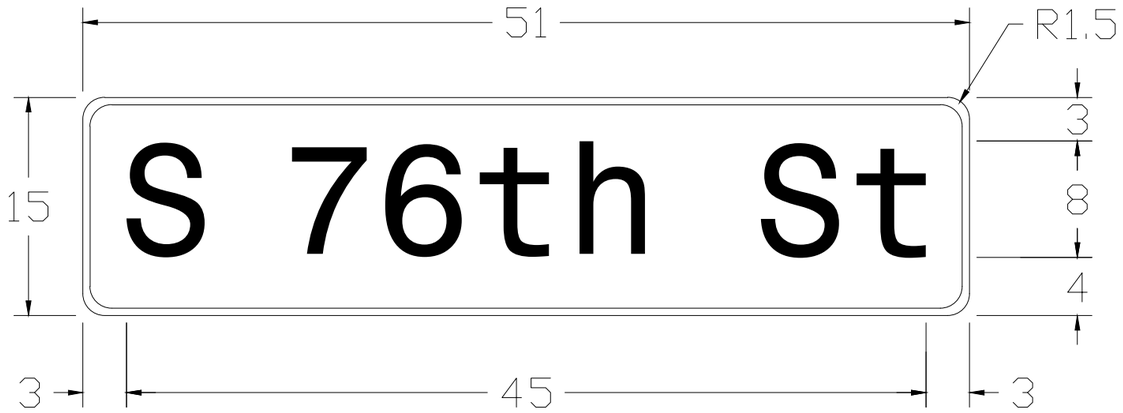
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PROJECT NO: 2160-10-70	HWY: S. 76th ST (CTH U)	COUNTY: MILWAUKEE	SIGN DETAIL	NOT TO SCALE	SHEET 453	E

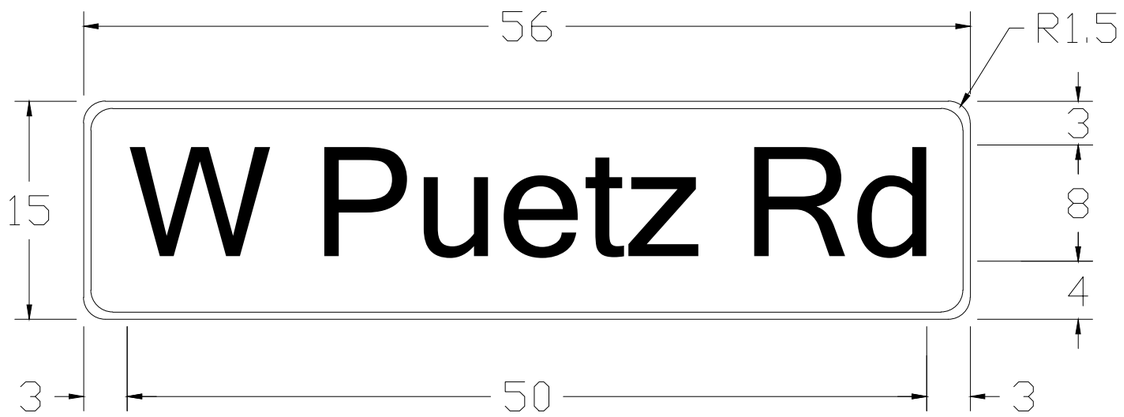
FILE NAME : STREET NAME SIGN DETAIL.dwg PLOT DATE : 3/17/11 PLOT BY : DMM PLOT NAME : --------- PLOT SCALE : NTS

STREET NAME SIGN DETAILS
MAST ARM MOUNTED





STREET NAME SIGN DETAILS
ADVANCED MOUNTED



CONSTRUCTION NOTES:

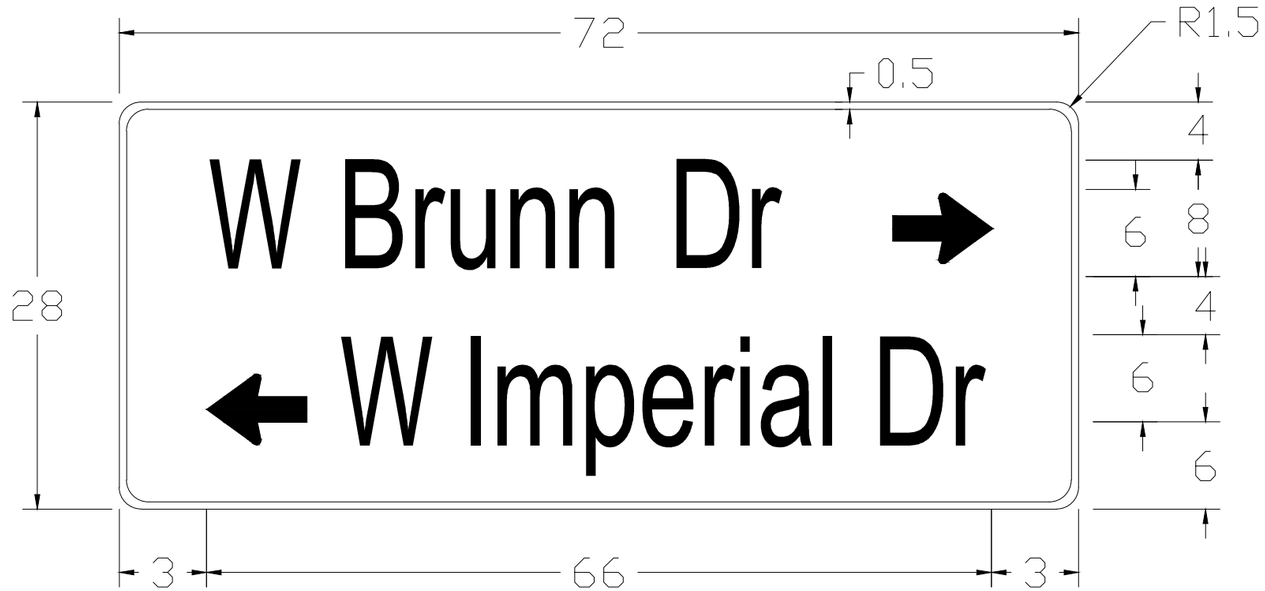
1. All Signs are Type II - Type SH Sheeting - reference WisDOT Standard Specifications for Highway and Structure Construction, latest edition.
2. Color: Background - Green; Message and Border - White
3. Letters are Series C (spaced to fit); 8" Upper Case; 6" Lower Case
4. Signs shall be sheet aluminum. The corners and borders shall be rounded.
5. Sign message texts shown are typical. See Sign Quantities for message and quantity of each sign type.
6. All dimensions are in inches.

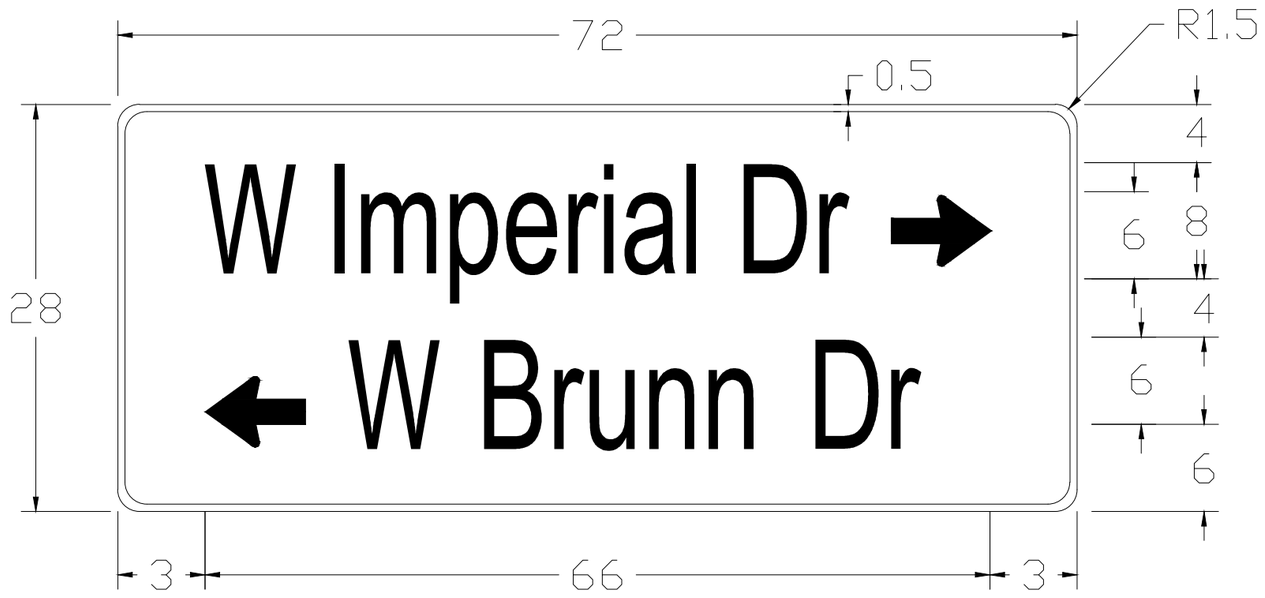
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7

PROJECT NO: 2160-10-70	HWY: S. 76th ST (CTH U)	COUNTY: MILWAUKEE	SIGN DETAIL	NOT TO SCALE	SHEET 454	E

FILE NAME : STREET NAME SIGN DETAIL.dwg PLOT DATE : 3/14/11 PLOT BY : DMM PLOT NAME : --------- PLOT SCALE : NTS





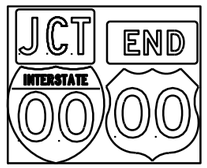
CONSTRUCTION NOTES:

1. All Signs are Type II - High Intensity Prismatic - reference WisDOT Standard Specifications for Highway and Structure Construction, latest edition.
2. Color: Background - Green; Message and Border - White
3. Letters are Series C (spaced to fit); 8" Upper Case; 6" Lower Case
4. Signs mounted on mast arms shall be metal. The corners and borders shall be rounded.
5. Sign message texts shown are typical. See Sign Quantities for message and quantity of each sign type.
6. All dimensions are in inches.

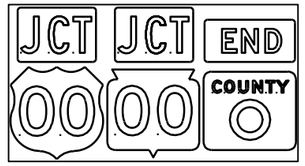
TYPICAL ASSEMBLIES



J1-1



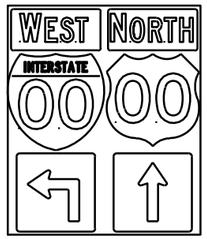
J1-2



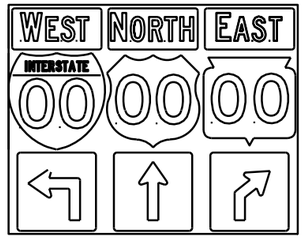
J1-3



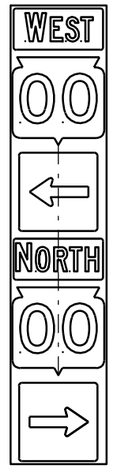
J2-1



J2-2

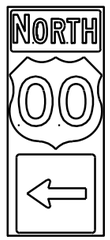


J2-3

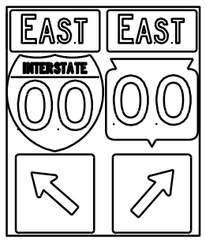


JV

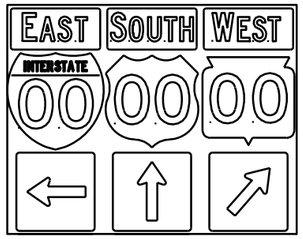
(Typical Vertical J-Assembly
See Note 10 and 11)



J3-1



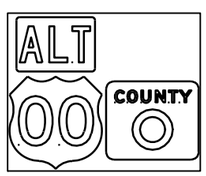
J3-2



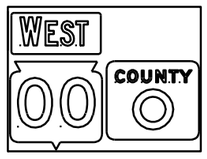
J3-3



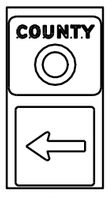
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



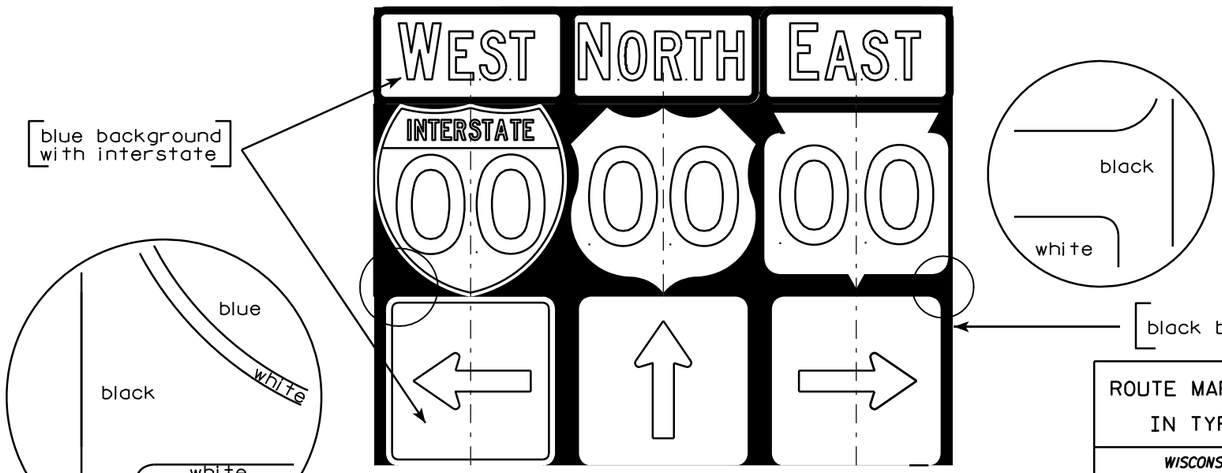
J23-1



J22-1

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of interstate and non interstate shields, arrows and cardinals shall be white on blue.



ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/13 PLATE NO. A2-1S.7

PROJECT NO:

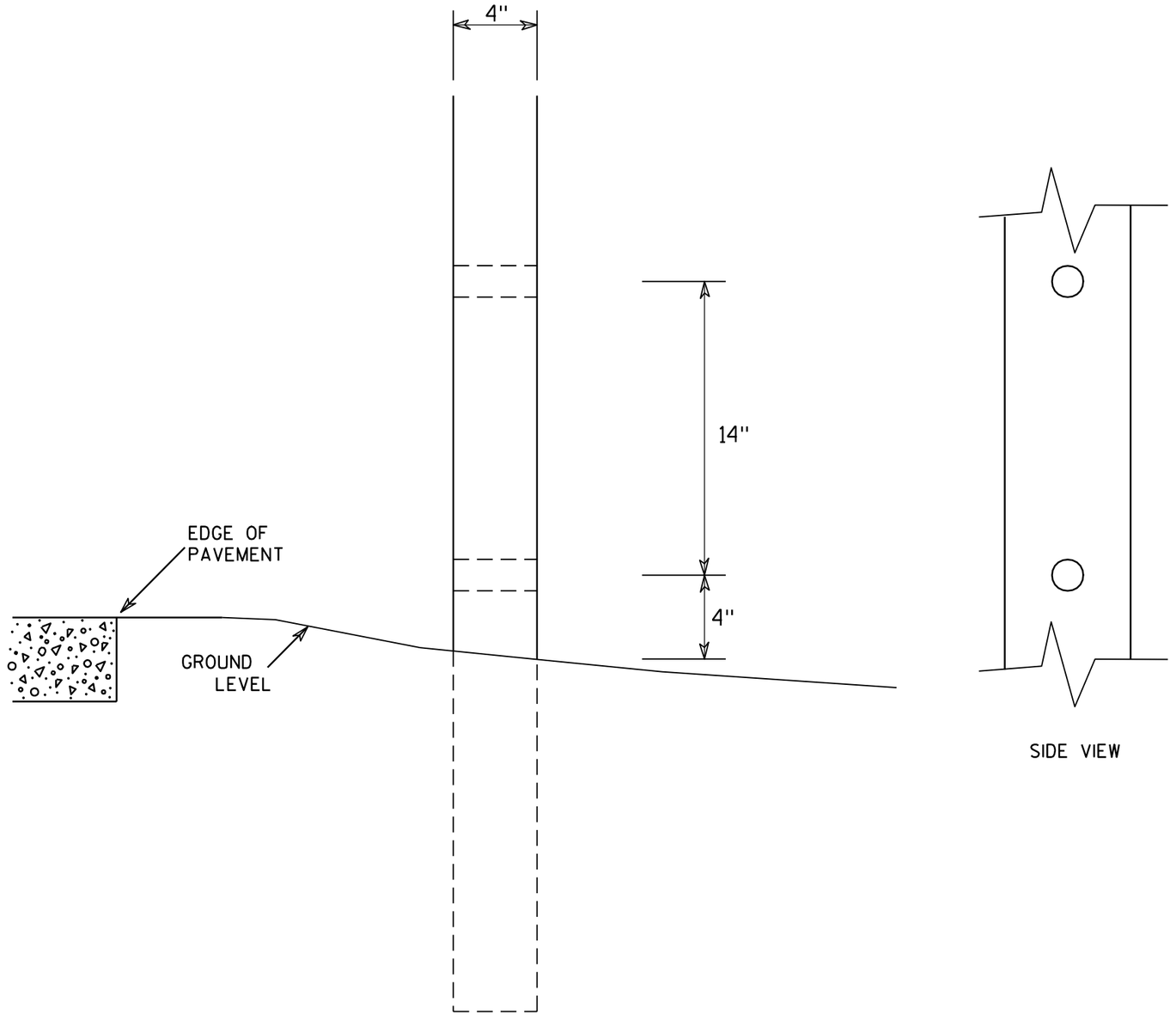
SHEET NO: 456 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 25-MAR-2013 11:33 PLOT BY : mscsja PLOT NAME :

WISDOT/CADDS SHEET 42

7

7



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

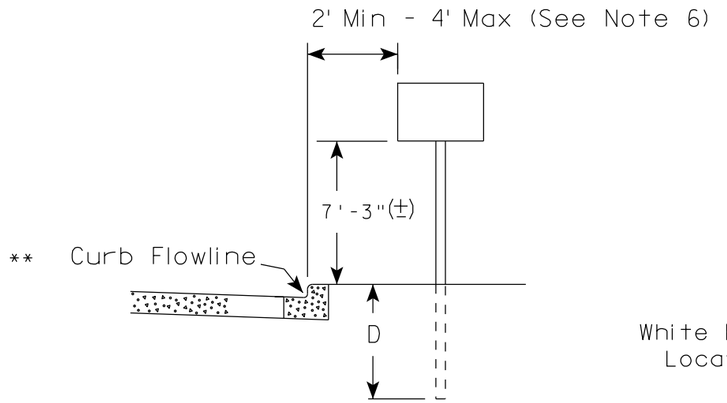
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

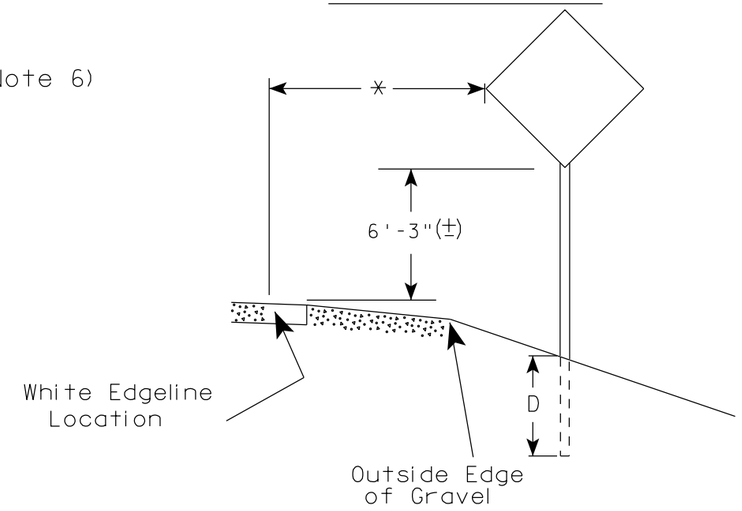
DATE 3/27/97 PLATE NO. A4-11.2

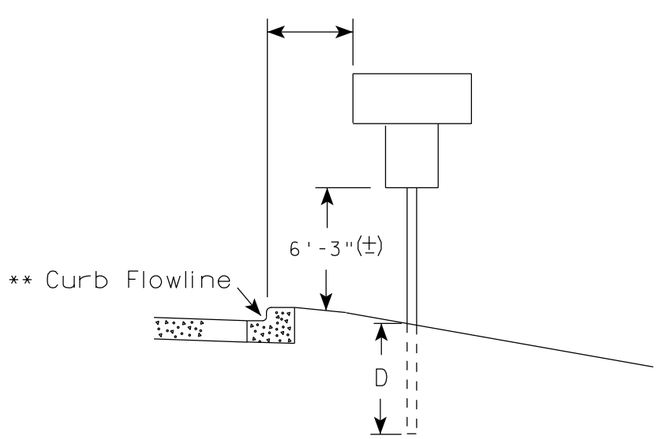
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 457	E

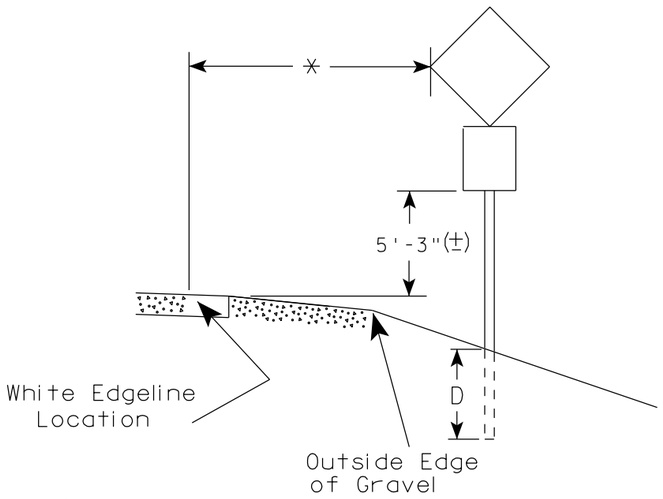
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

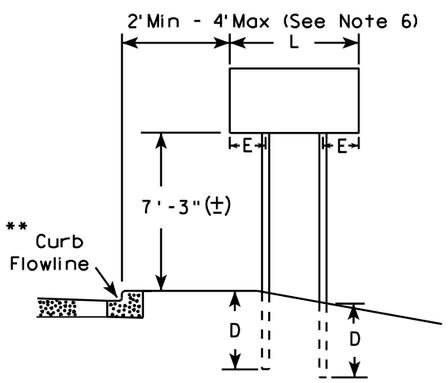
APPROVED Matthew R Rauch
for State Traffic Engineer

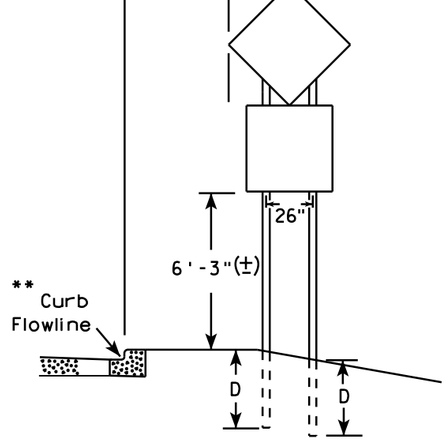
DATE 9/30/13 PLATE NO. A4-3.18

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

7

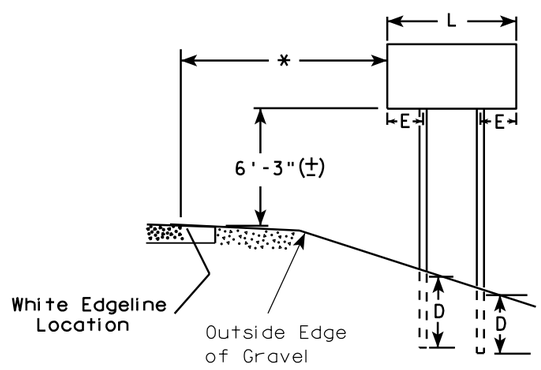
URBAN AREA

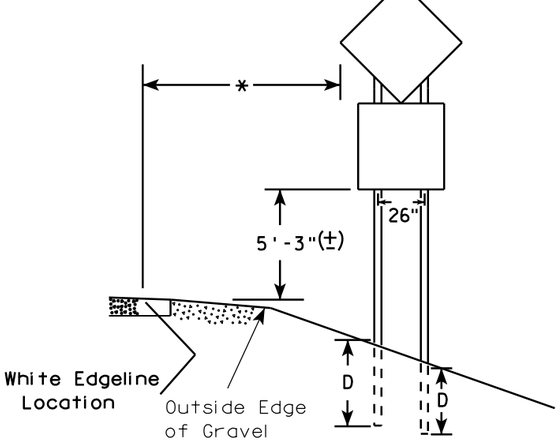




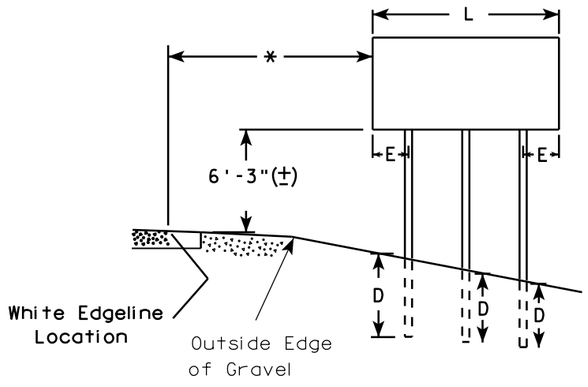
48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)





48" DIAMOND WARNING SIGN



GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width or 20 S.F. or less in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

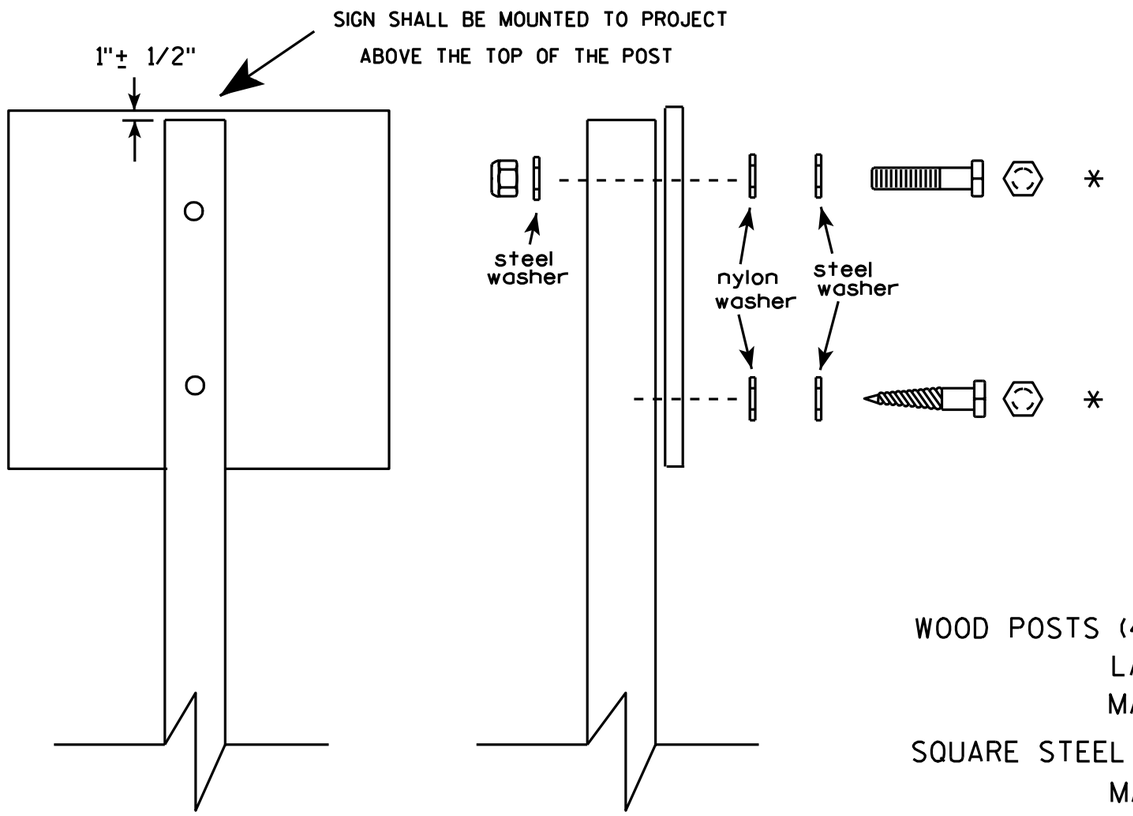
DATE 9/30/13 PLATE NO. A4-4 12
459

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 30-SEP-2013 13:27 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000

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Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

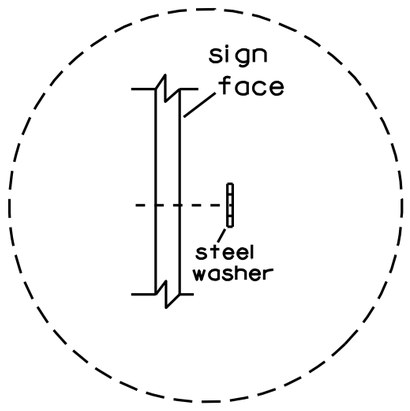
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

7

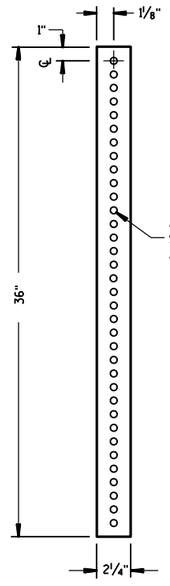
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PROJECT NO:

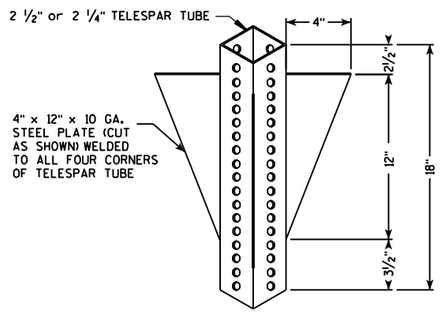
SHEET NO: 460 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

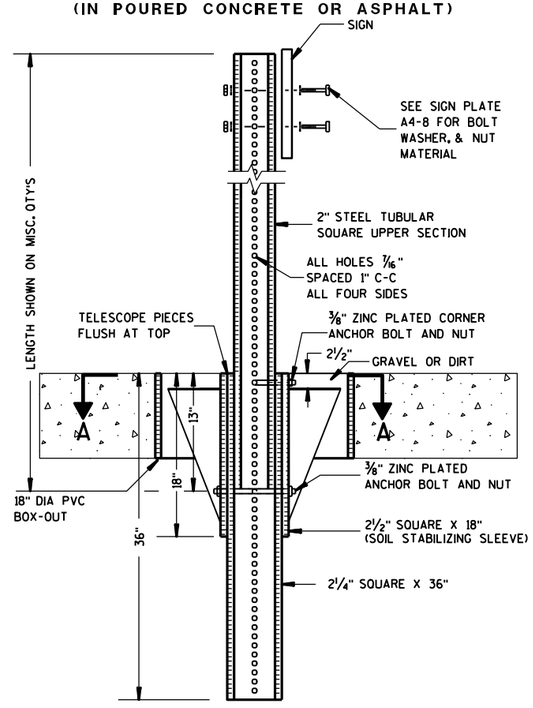
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



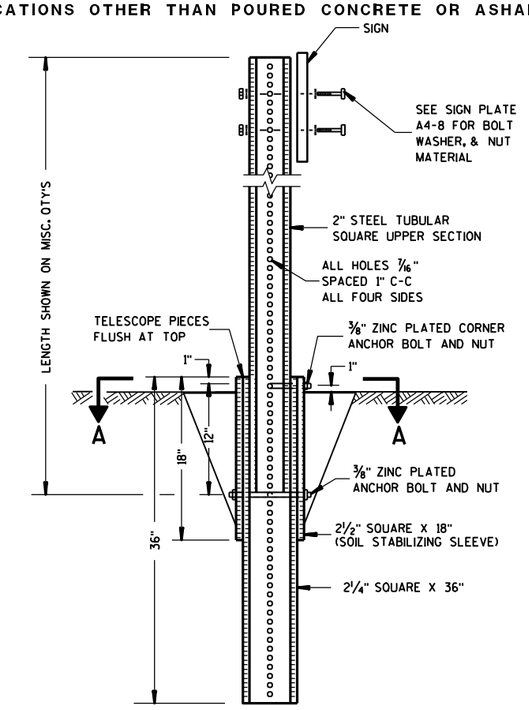
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

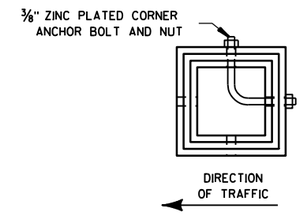


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

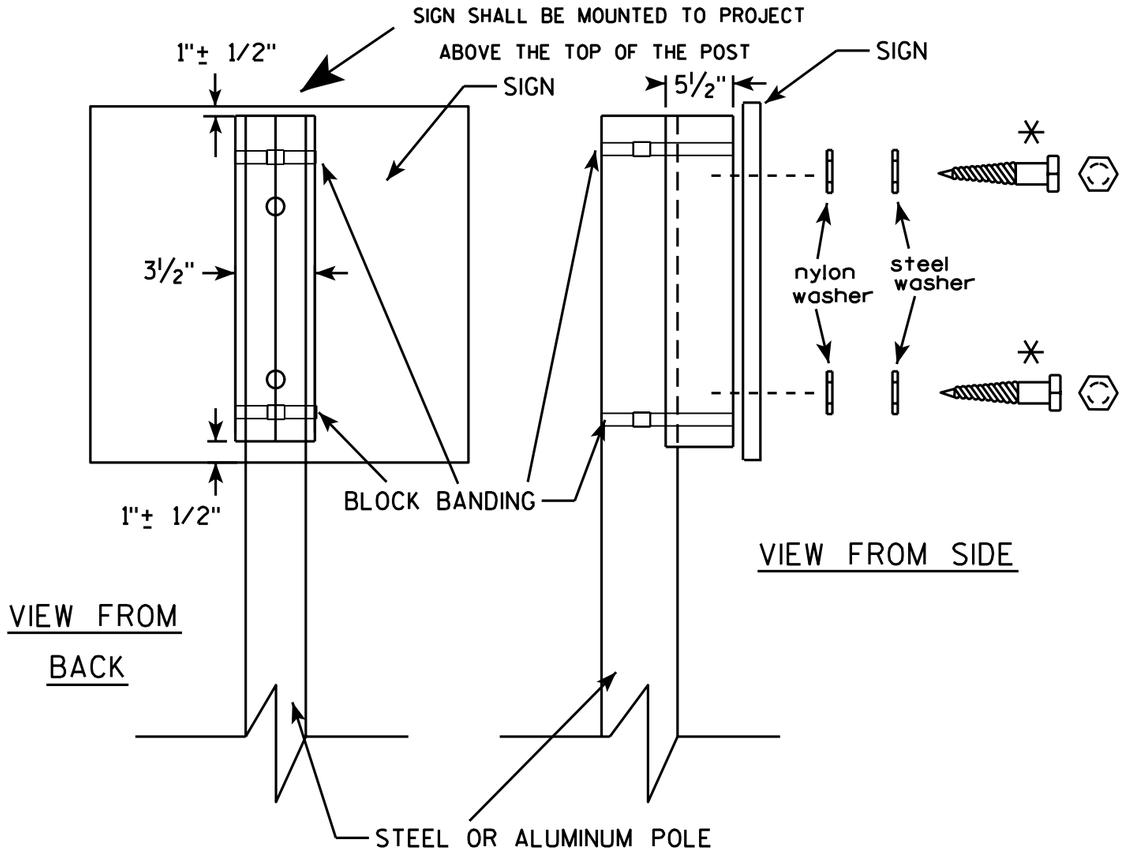
TUBULAR STEEL SIGN POST A4-9

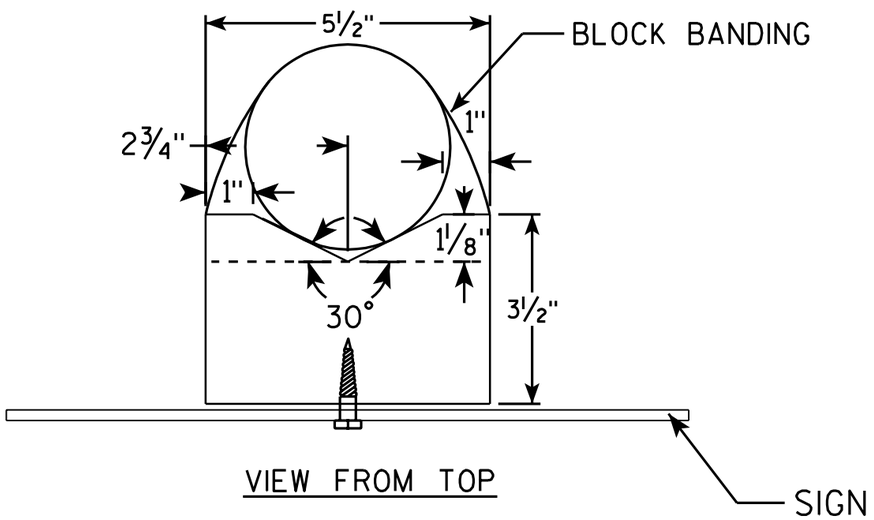
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/30/12 PLATE NO. A4-9.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 461	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

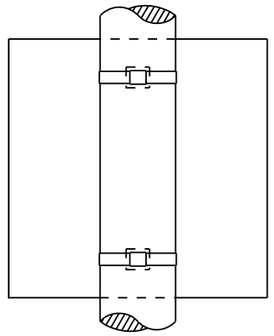
APPROVED Matthew R Rauch
for State Traffic Engineer

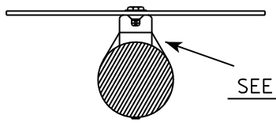
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:				SHEET NO: 462	E

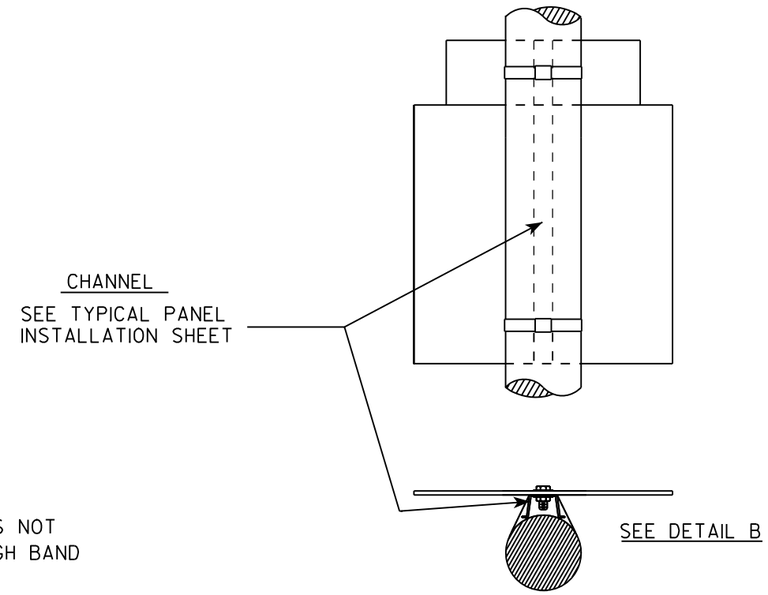
BANDING

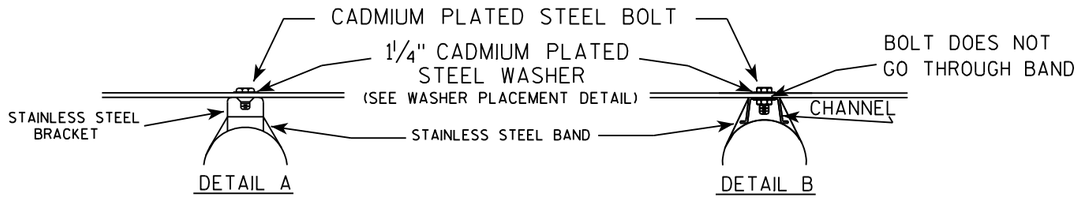
SINGLE SIGN



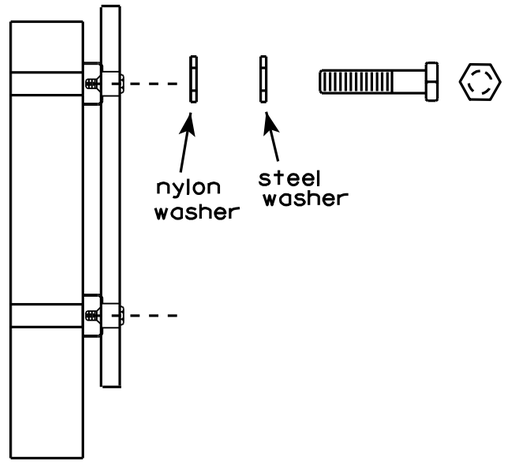


"J" ASSEMBLY





WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

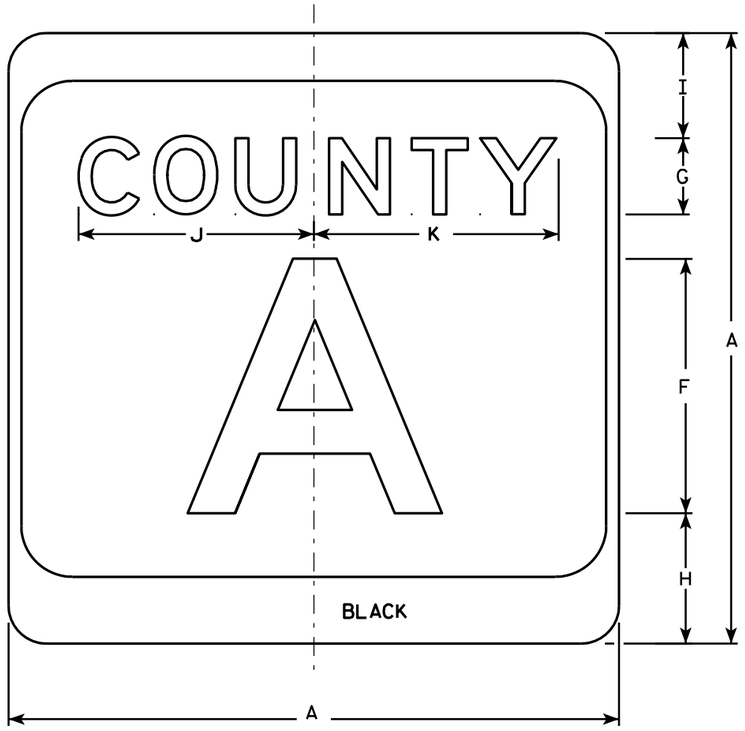
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

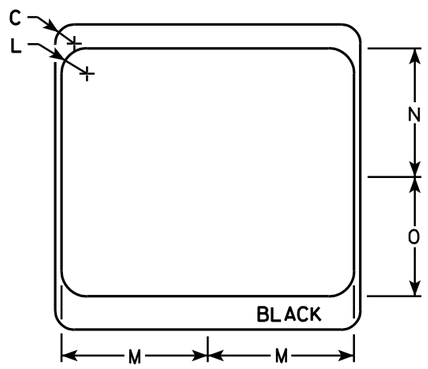
APPROVED Matthew R Rauch
for State Traffic Engineer

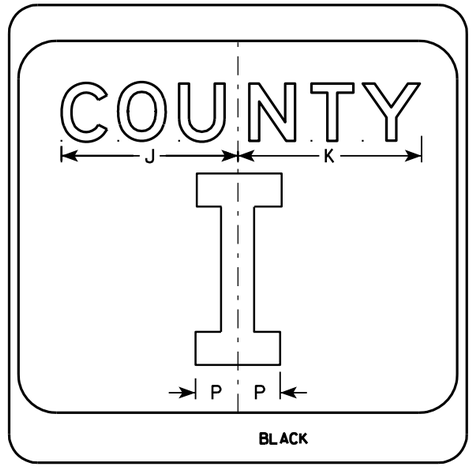
DATE 8/16/13 PLATE NO. A5-9.3

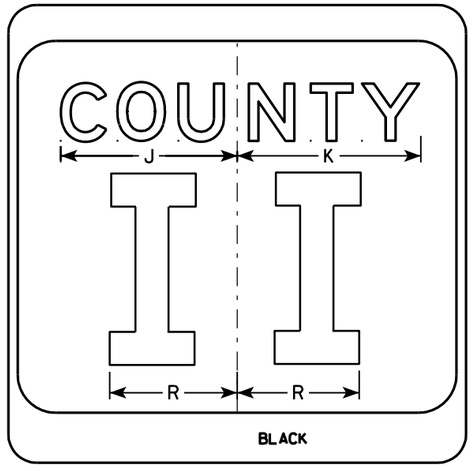
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 463	E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

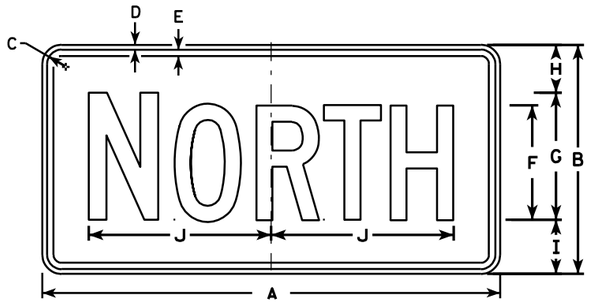
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

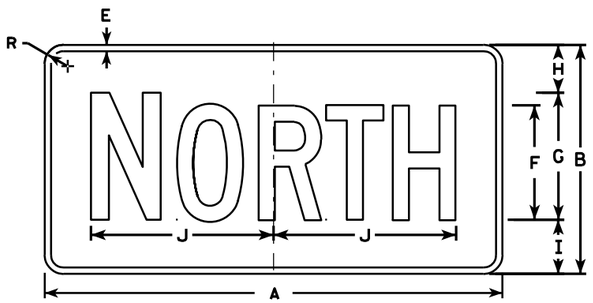
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

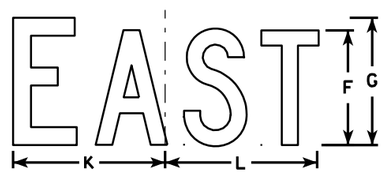
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 464 | E



M3-1
MK3-1
MO3-1



MB3-1
MG3-1
MM3-1
MN3-1



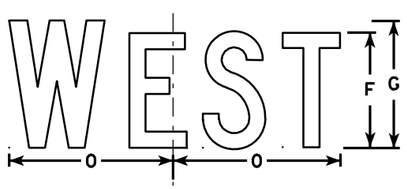
M3-2
MK3-2
MO3-2



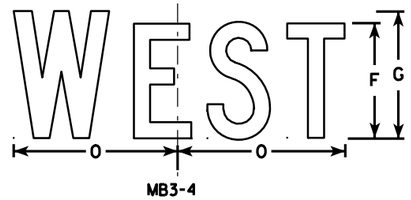
MB3-2
MG3-2
MM3-2
MN3-2

M3-3
MK3-3
MO3-3

MB3-3
MG3-3
MM3-3
MN3-3



M3-4
MK3-4
MO3-4



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   MG3-1 thru MG3-4 Background - Green
   Message - White - Type H Reflective
   MK3-1 thru MK3-4 Background - Green
   Message - White - Type H Reflective
   MM3-1 thru MM3-4 Background - White - Type H Reflective
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White - Type H Reflective
   M03-1 thru M03-4 Background - Orange - Reflective
   Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

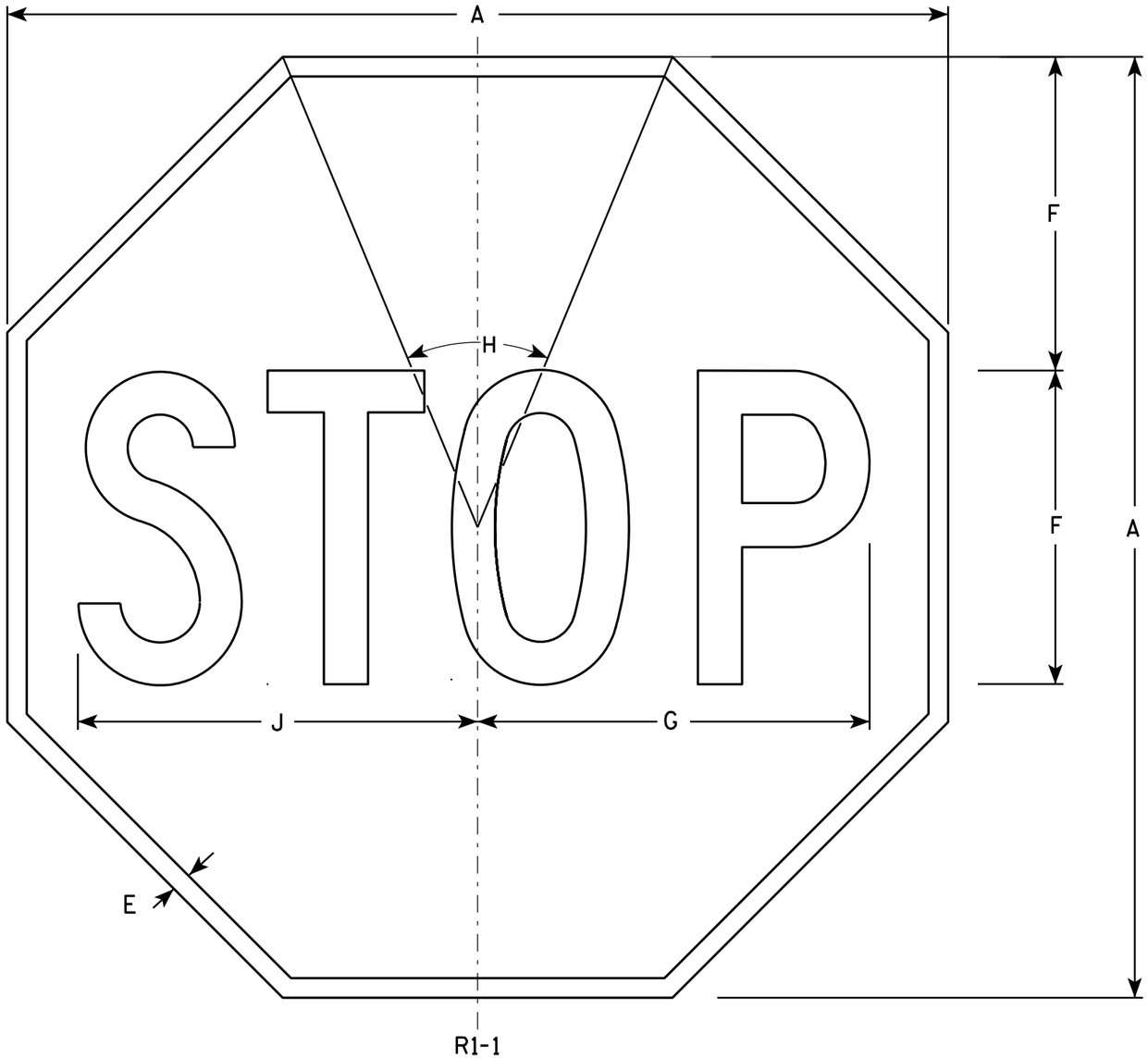
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 465	E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

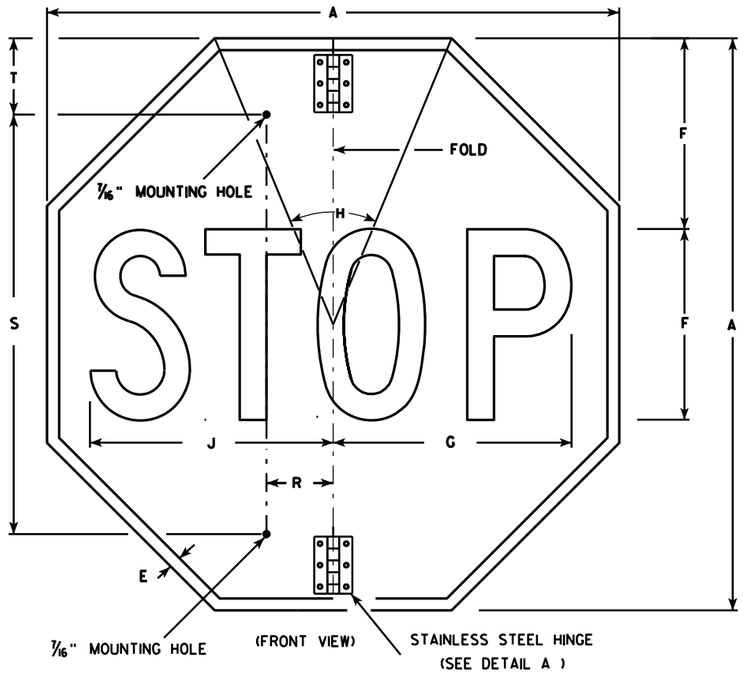
STANDARD SIGN
R1-1

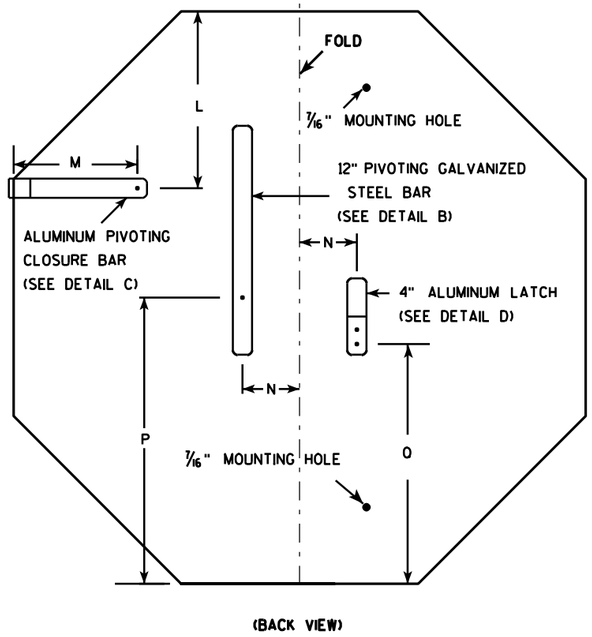
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

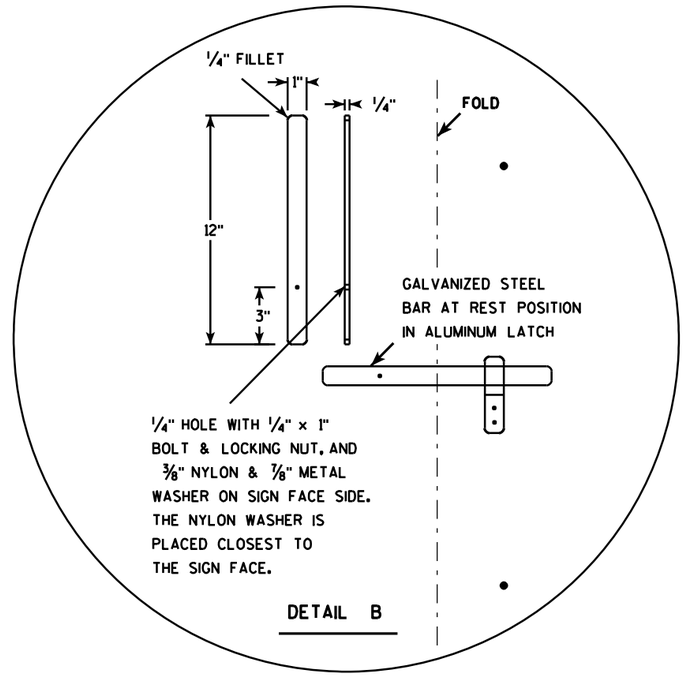
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 466	E



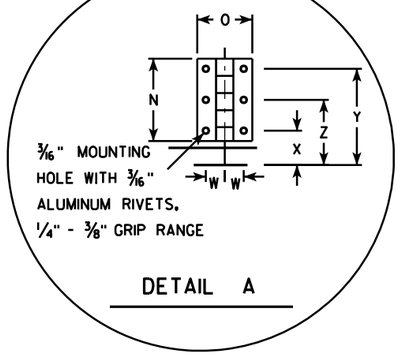


NOTES

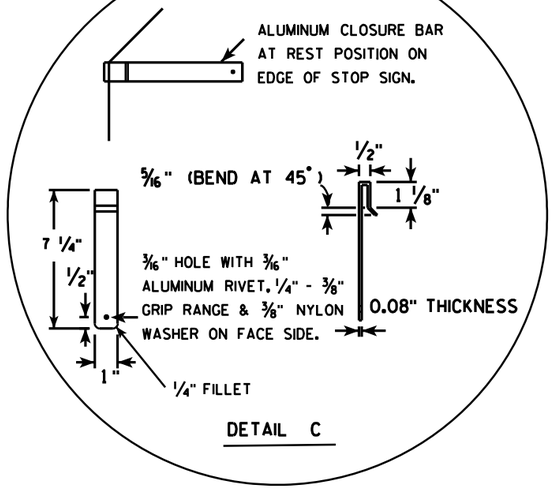
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



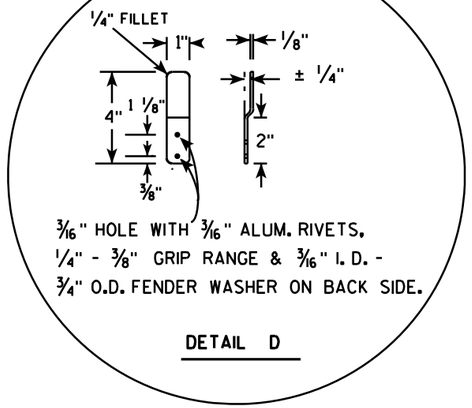
DETAIL B



DETAIL A



DETAIL C



DETAIL D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

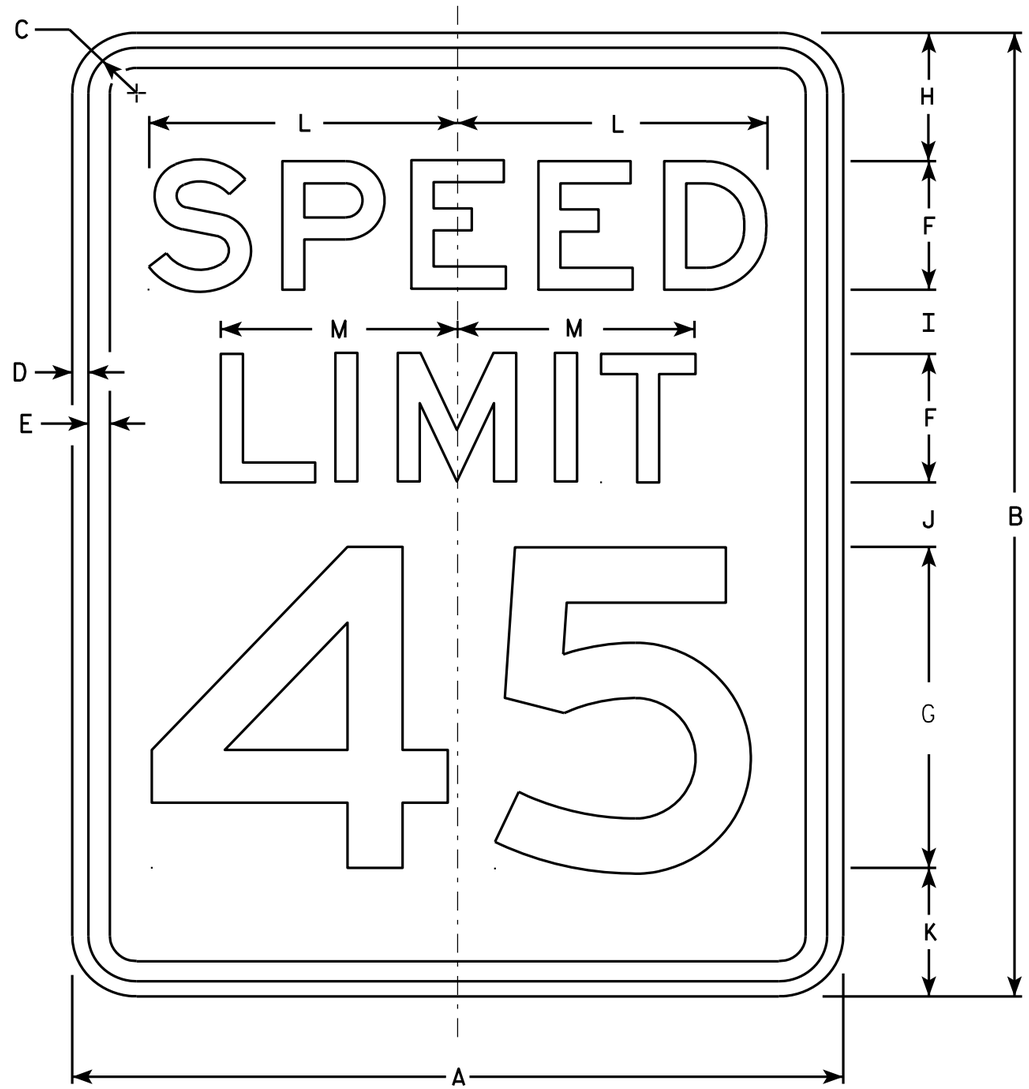
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 467 | E



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN
R2-1

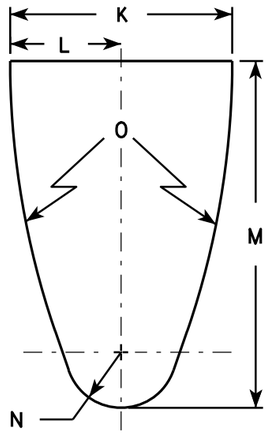
WISCONSIN DEPT OF TRANSPORTATION

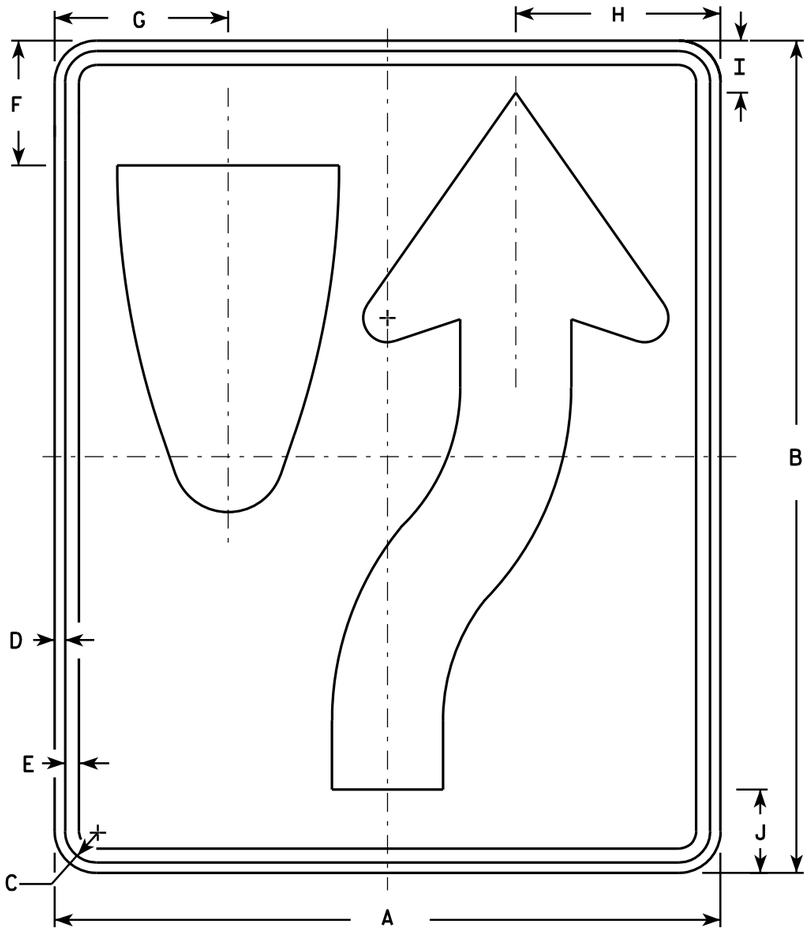
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 468 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000
WISDOT/CADDS SHEET 42

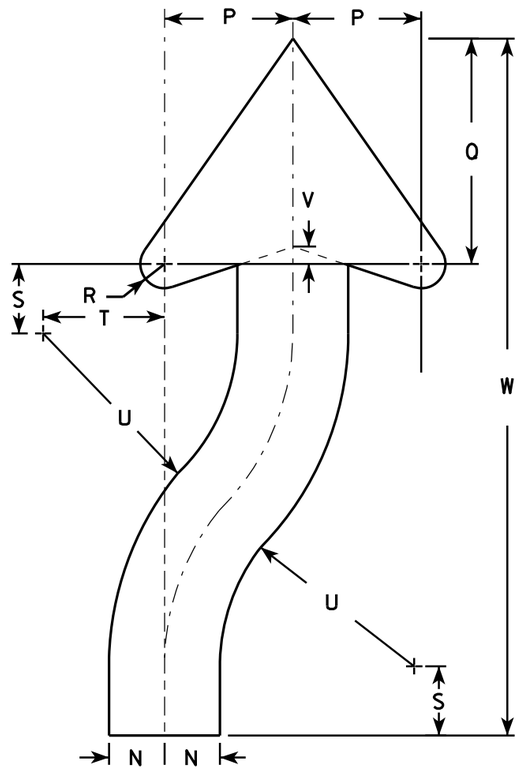




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

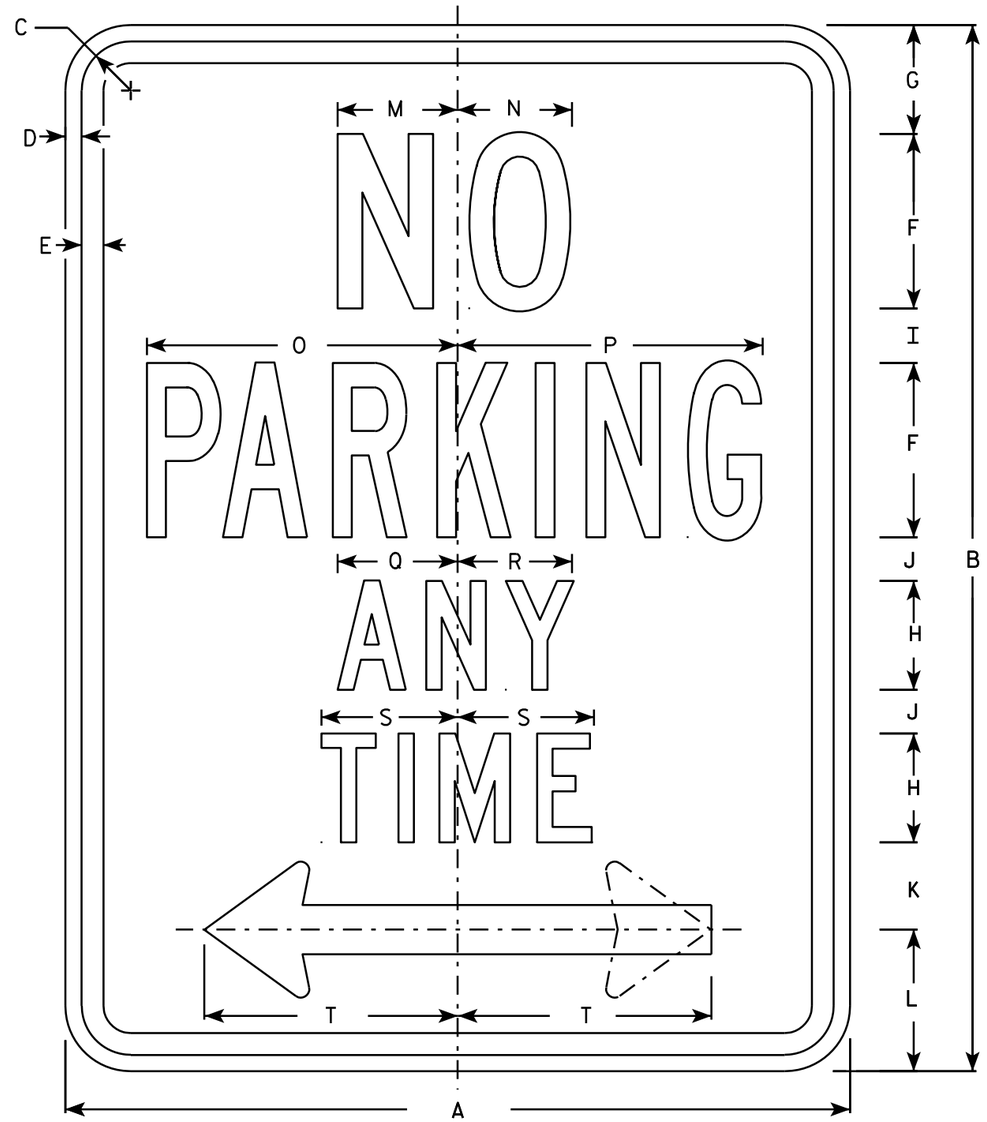
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

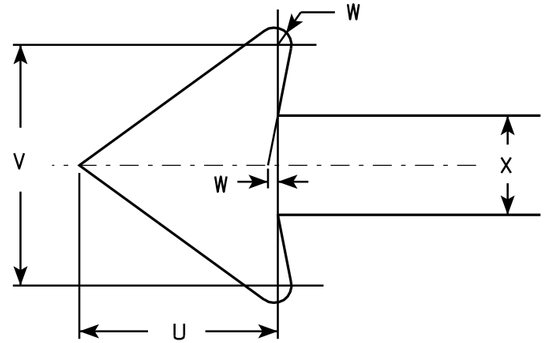
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 469	E



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

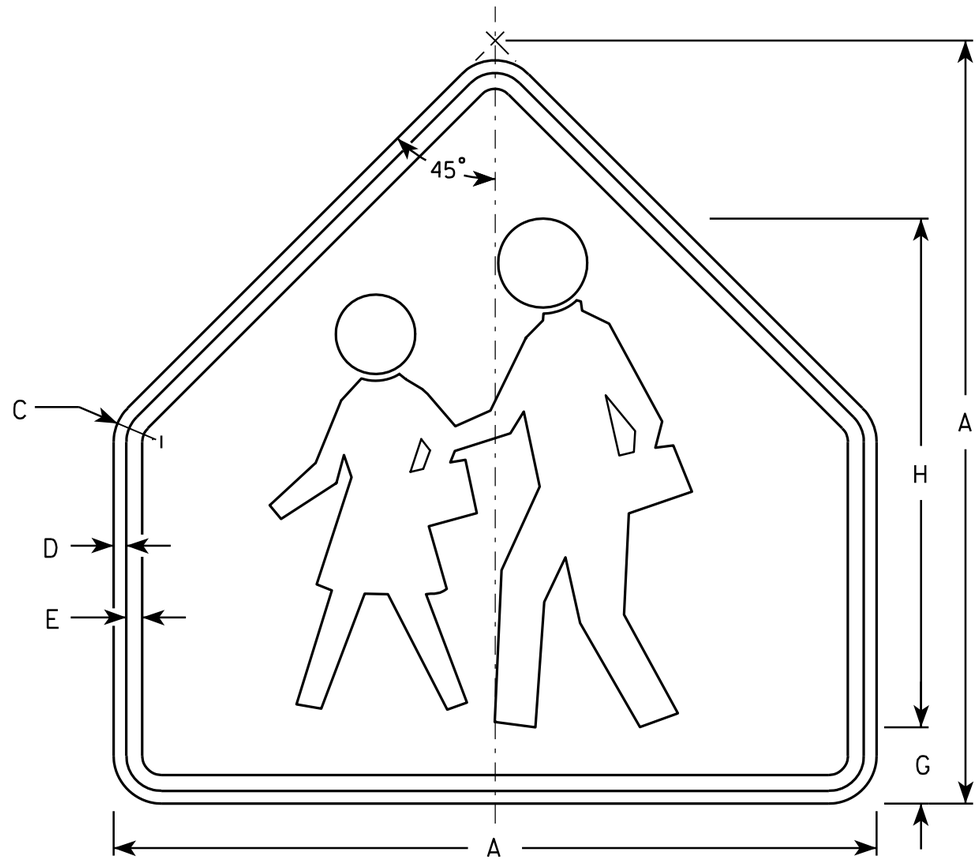
STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 470	E



S1-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3	20																			4.69
2	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

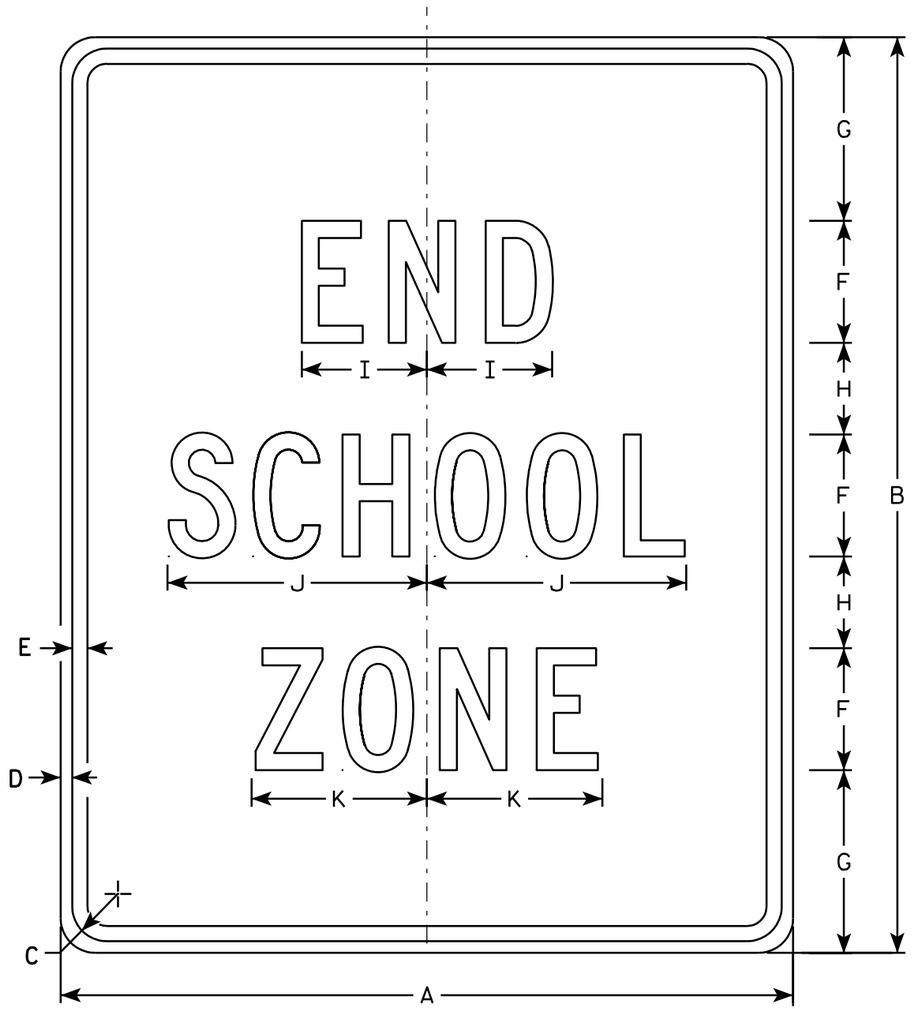
STANDARD SIGN
S1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 471	E



S5-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	30	1 1/8	3/8	1/2	4	6	3	4 1/8	8 1/2	5 3/4																5.0
3	36	42	1 5/8	5/8	3/4	6	7	5	6 1/8	12 5/8	8 5/8																10.5
4																											
5																											

STANDARD SIGN
S5-2

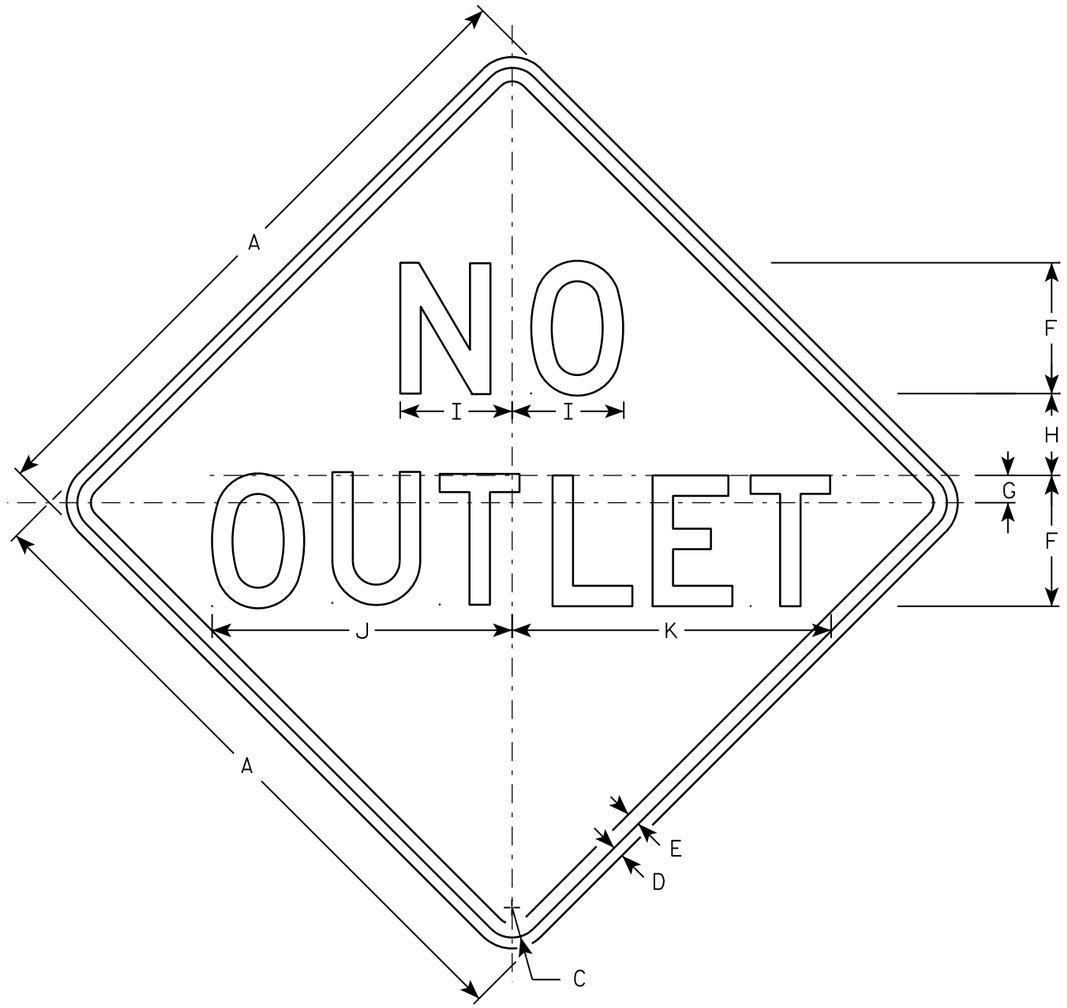
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/8/11 PLATE NO. S5-2.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 472 | E

7



W14-2

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	5	1	2 3/4	4 1/8	11 3/4	12 3/8																4.0
2S	30		1 3/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
2M	30		1 3/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
3	36		1 5/8	5/8	3/4	7	1 3/8	4 5/8	6	16 1/8	17 1/8																9.0
4																											
5																											

STANDARD SIGN
W14-2

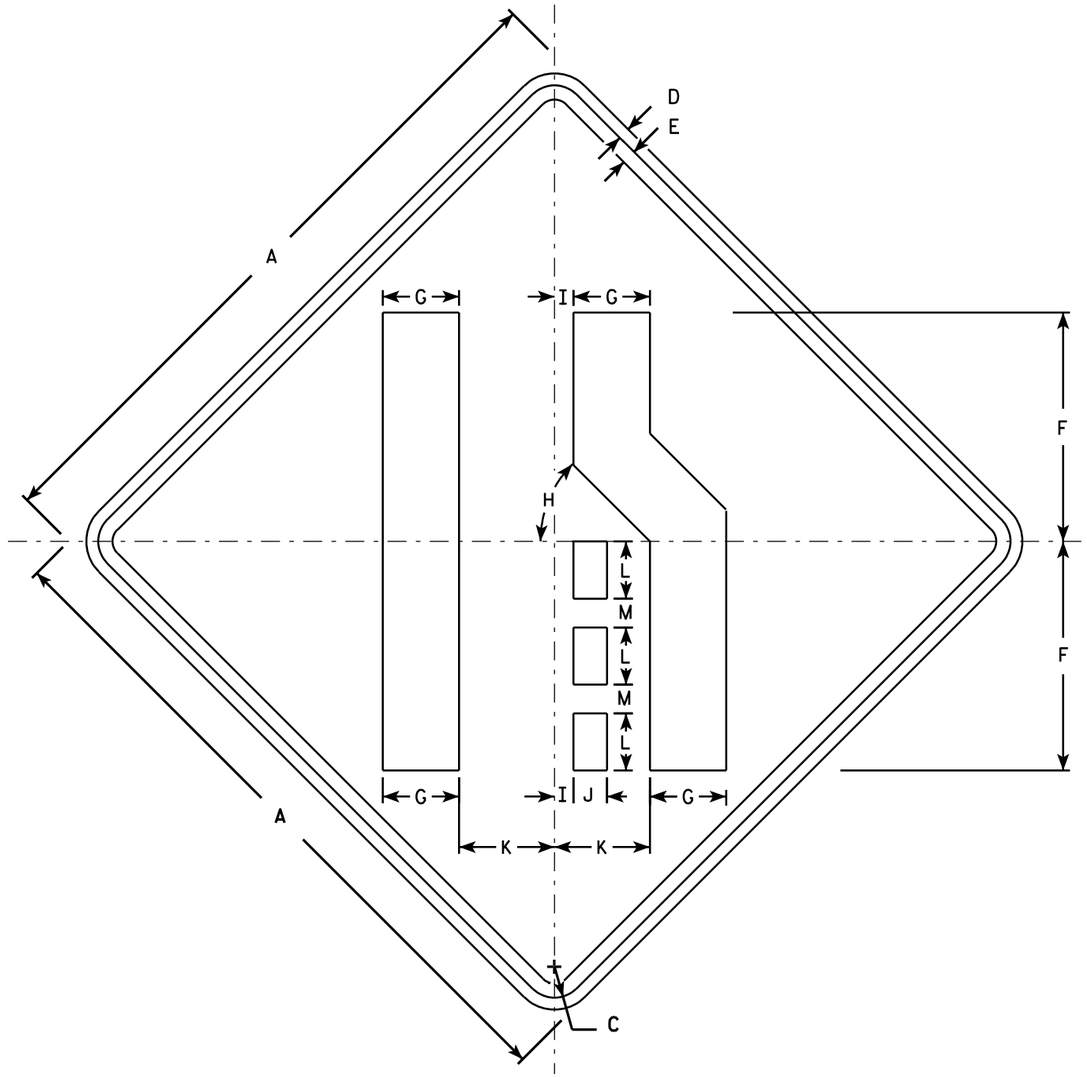
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W14-2.3

PROJECT NO:

SHEET NO: 473 E



W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

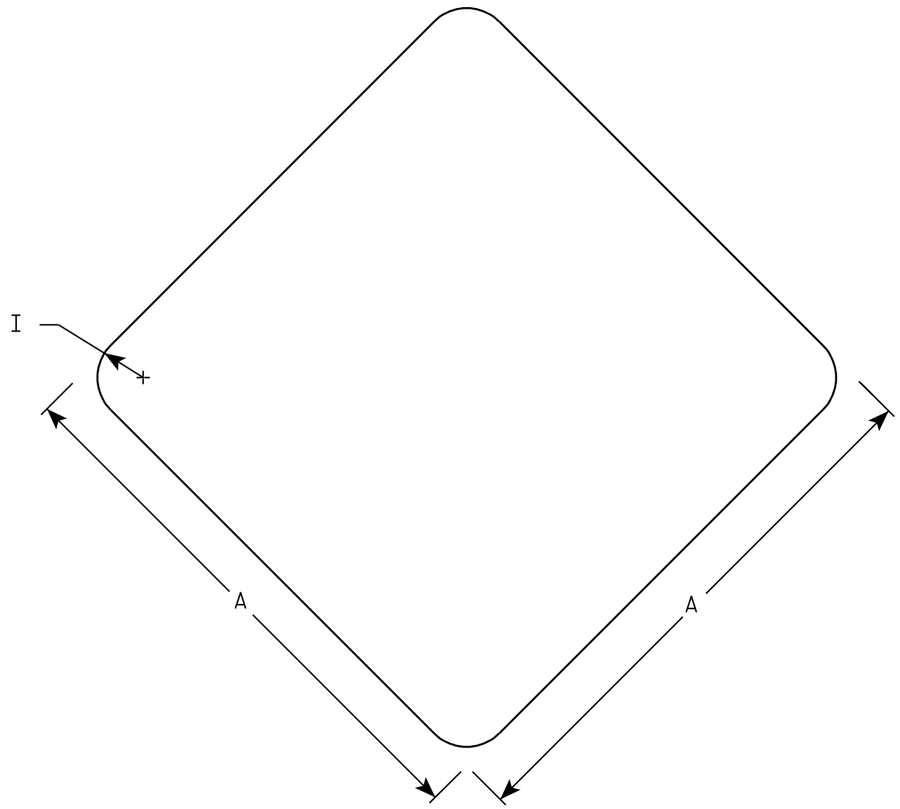
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 474 E



W5-54

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12								1																		1.0
2S	18								1 ½																		2.25
2M	18								1 ½																		2.25
3																											
4																											
5																											

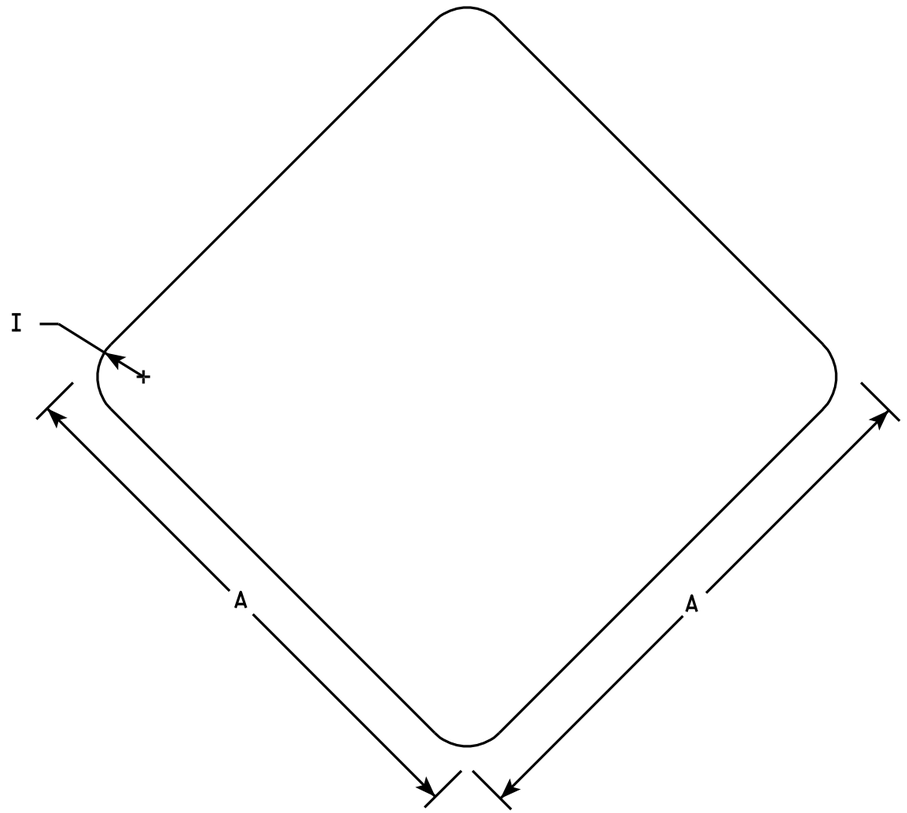
STANDARD SIGN
W5-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/3/10 PLATE NO. W5-54.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 475 | E



W5-56

NOTES

1. Sign is Type II - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12								1																		1.0
2S	18								1 ½																		2.25
2M	18								1 ½																		2.25
3																											
4																											
5																											

STANDARD SIGN
W5-56

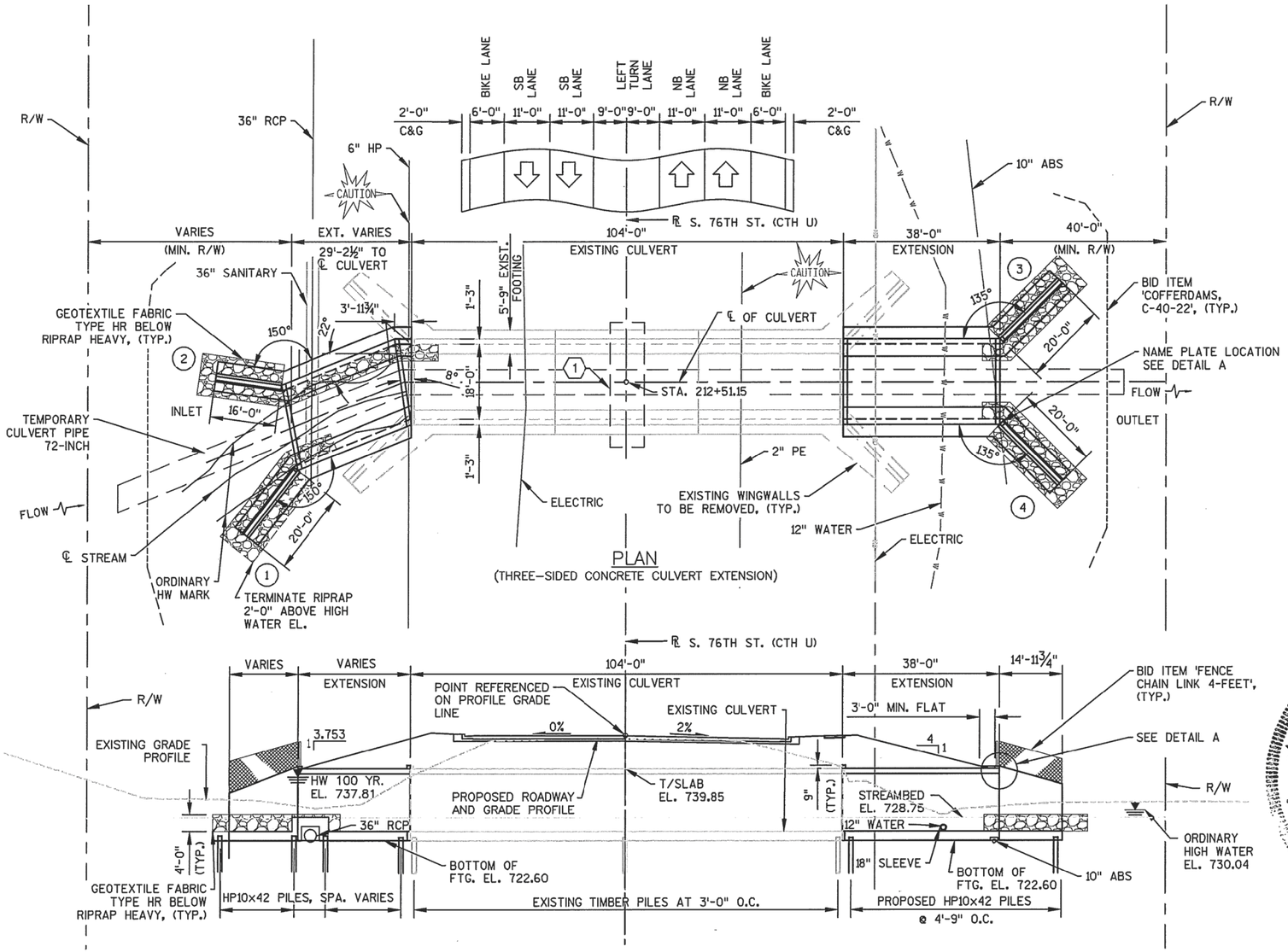
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. W5-56.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 476	E

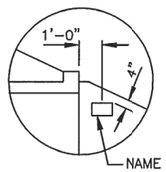
STATE PROJECT NUMBER
2160-10-70



ELEVATION

KEYED NOTES:

(1) FIELD LOCATE TRANSVERSE CRACK LOCATED ON BOTTOM OF TOP SLAB NEAR CENTER OF CULVERT. EXCAVATE SOIL TO TOP SLAB AND REPAIR CONCRETE SURFACE PER BID ITEM "CONCRETE SURFACE REPAIR."



DETAIL A

LEGEND

(X) WINGWALL NUMBER

LIST OF DRAWINGS:

1. GENERAL PLAN AND SECTION
2. GENERAL NOTES AND QUANTITIES
3. SUBSURFACE EXPLORATION
4. CROSS SECTION
5. WINGWALL DETAILS
6. CULVERT DETAILS
7. CULVERT DETAILS 2
8. CULVERT DETAILS 3
9. CULVERT DETAILS 4
10. CULVERT DETAILS 5
11. CHAIN LINK FENCE DETAILS

DESIGN DATA:

LIVE LOAD:

DESIGN LIVE LOAD: HL-93
INVENTORY RATING = 1.05
OPERATING RATING = 1.35
WIS. STD. PERMIT VEHICLE (WIS-SPV) = 255 KIPS
EARTH LOAD: 8 FEET OF FILL

ULTIMATE DESIGN STRESSES:
CONCRETE MASONRY, -------f'c = 3,500 psi
BAR STEEL REINFORCEMENT
HIGH STRENGTH, GRADE 60----fy = 60,000 psi

HYDRAULIC DATA:

Q100----------	945.0 C.F.S.
Q100(THRU CULVERT)----------	945.0 C.F.S.
Q50----------	815.0 C.F.S.
DRAINAGE AREA----------	3.2 SQ. MI.
WATERWAY AREA----------	135 SQ. FT.
VELOCITY----------	7.03 F.P.S.
HW 100 YR EL.----------	737.81
HW 50 YR EL.----------	737.23
SCOUR CRITICAL CODE----------	8
Q2----------	280.0 C.F.S.
Q2 EL.----------	734.51

FOUNDATION DATA:
ABUTMENTS TO BE SUPPORTED ON HP10x42 PILING WITH A REQUIRED DRIVING RESISTANCE OF 110 TONS * PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATE 40 FEET LONG AT WEST EXTENSION AND 35 FEET LONG AT EAST EXTENSION. SEE PILE RE-DRIVING PROVISIONS.

* THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA

S. 76th ST.:

A.A.D.T. (2033) ----------	21,900
ROADWAY DESIGN SPEED ----------	45 M.P.H.
FUNCTIONAL CLASS ----------	URBAN ARTERIAL

STRUCTURES DESIGN CONTACTS

BUREAU OF STRUCTURES CONTACT:
WILLIAM DREHER (608) 266-8489

MILWAUKEE COUNTY CONTACT:
AZIZ ALEIOW (414) 278-4911

CONSULTANT CONTACT:
MAHMOUD MALAS (262) 821-1171

WISCONSIN
MAHMOUD N. MALAS
E-27922
MILWAUKEE, WI
PROFESSIONAL ENGINEER
12/9/2013

NO.	DATE	REVISION	BY

K. SINGH & ASSOCIATES, INC.
Engineers, Scientists and Environmental Consultants

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher 12/10/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE C-40-22

CULVERT EXTENSION OVER LEGEND CREEK
SOUTH 76TH STREET (CTH U)

COUNTY	MILWAUKEE	~~TOWN/CITY/VILLAGE~~	FRANKLIN
DESIGN SPEC.	AASHTO LRFD DESIGN SPEC.		
DESIGNED BY	DRJ	DESIGN CK'D.	MNM
DRAWN BY	GBJ	PLANS CK'D.	MNM

GENERAL PLAN AND SECTION

SHEET 1 OF 11

8

8

STATE PROJECT NUMBER
2160-10-70

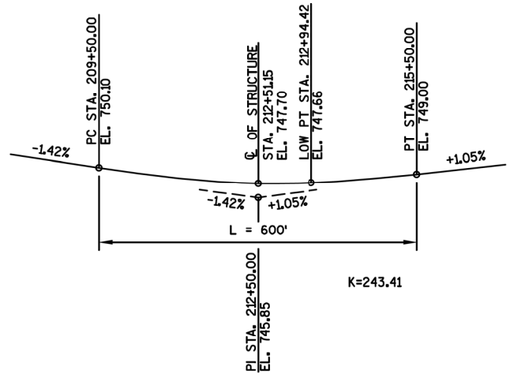
TOTAL ESTIMATED QUANTITES

ITEM NO.	BID ITEM	UNIT	ESTIMATED QUANTITIES
203.0200	REMOVING OLD STRUCTURE, STA. 212+51.15	LS	1
206.5000	COFFERDAMS C-40-22	LS	1
210.0100	BACKFILL STRUCTURE	CY	1,310
502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	EACH	128
504.0100	CONCRETE MASONRY CULVERTS	CY	346
505.0410	BAR STEEL REINFORCEMENT HS CULVERTS	LB	18,110
505.0610	BAR STEEL REINFORCEMENT HS COATED CULVERTS	LB	35,830
509.1500	CONCRETE SURFACE REPAIR	SF	45
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	55
520.4072	CULVERT PIPE TEMPORARY 72-INCH	LF	250
550.0010	PRE-BORING UNCONSOLIDATED MATERIALS	LF	160
550.0600	PILE REDRIVING	EACH	15
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	3,745
606.0300	RIPRAP HEAVY	CY	153
616.0204	FENCE CHAIN LINK 4-FT	LF	117
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	105
SPV.0105.10	EXCAVATION FOR STRUCTURES CULVERTS. C-40-22. SPECIAL	LS	1
	NON BID ITEMS		
-	FILLER	SIZE	¾"
-	4" DIA. SCHEDULE 40 PVC WEEPHOLES		

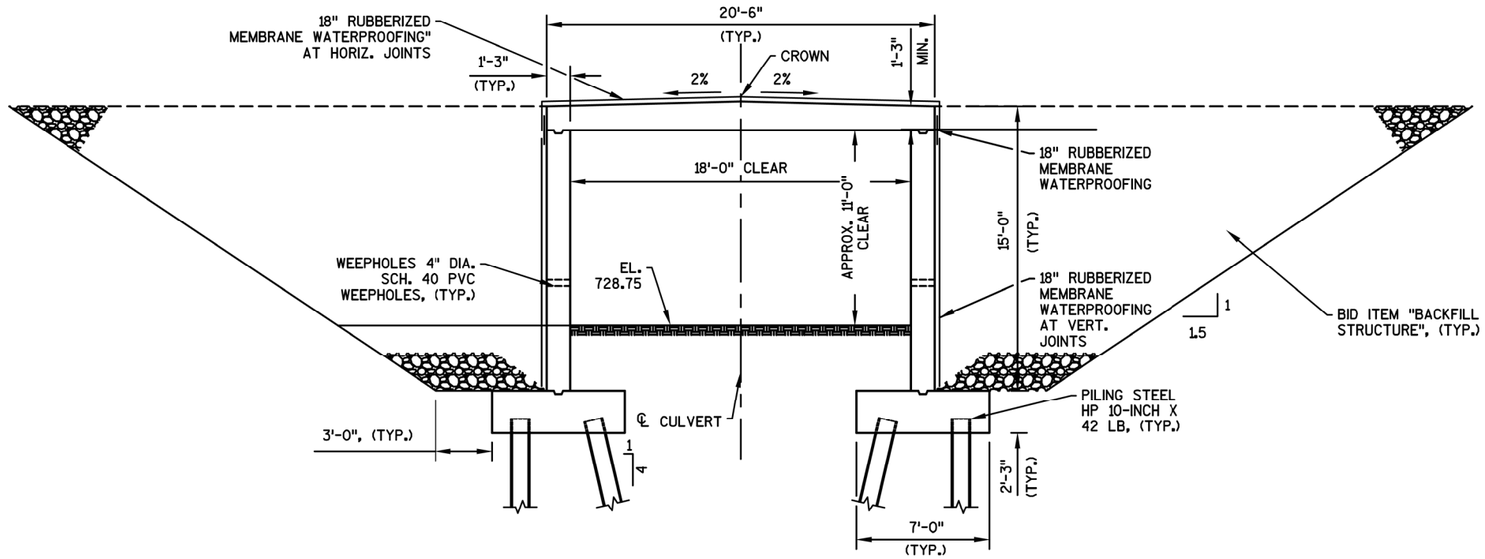
NOTE: EACH COFFERDAM IS MEASURED AND PAID AS ½ LUMP SUM.

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEVATION
12	212+41.13, 52.39 RT.	BRASS PLUG, SE CORNER OF BOX CULVERT	740.47



PROFILE GRADE LINE S. 76TH STREET
(CTH. U)



CROSS-SECTION THRU CULVERT
(NORMAL TO CULVERT ℄)

GENERAL NOTES:

ALL ELEVATIONS ARE PER NORTH AMERICAN VERTICAL DATUM OF 1988(91) (NAVD 88(91)).

DRAWINGS SHALL NOT BE SCALED.

ALL DIMENSIONS ARE IN FEET AND INCHES, UNLESS OTHERWISE NOTED.

TRANSVERSE DIMENSIONS ARE RADIAL OR NORMAL TO THE CENTERLINE UNLESS OTHERWISE NOTED.

PLACE BAR STEEL REINFORCEMENT WITH 2" OF CLEAR CONCRETE COVER, UNLESS OTHERWISE NOTED.

PLACE BOTTOM BAR STEEL REINFORCEMENT IN PILE CAPS WITH 3" CLEAR CONCRETE COVER.

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS OTHERWISE NOTED.

THE FIRST ONE OR TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR DIAMETER.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE TOP OF THE STRUCTURE WITHIN THE LENGTH OF THE BOX.

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ¾" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION: M153 TYPE 1, 2, OR 3 OR AASHTO DESIGNATION: M213.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR.

BROKEN CONCRETE CONTAINING REBAR SHALL NOT BE USED AS RIPRAP OR RIPRAP HEAVY.

SEE ROADWAY PLAN FOR TRAFFIC CONTROL STAGING DURING CONSTRUCTION. BOX CULVERT CONSTRUCTION STAGING SHOULD BE COORDINATED WITH ROADWAY PLAN STAGING. THE TEMPORARY CMP PIPE SHALL MAINTAIN FLOW THROUGH THE COFFERDAMS ON BOTH SIDES OF CONSTRUCTION. REMOVE TEMPORARY PIPE AND COFFERDAMS ONCE CONSTRUCTION IS COMPLETE.

STEP FOOTINGS FOR 36" SANITARY AND 10" SANITARY AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.

POTHOLE UTILITIES AND PRE-BORE 10'-0" BELOW EXISTING UTILITIES FOR PILES IMMEDIATELY ADJACENT TO EXISTING UTILITIES PRIOR TO PILE DRIVING AND PLACEMENT OF CONCRETE. RE-LOCATE CONFLICTING PILING ADJACENT TO SPECIFIED LOCATION AS APPROVED BY ENGINEER. SEE SPECIAL PROVISIONS FOR DETAILS. WORK EXCEPT FOR POTHOLING AND PRE-BORING WILL BE PAID FOR UNDER BID ITEM "EXCAVATION FOR STRUCTURES CULVERTS, C-40-22". PRE-BORING WILL BE PAID FOR UNDER BID ITEM "PRE-BORING ROCK OR CONSOLIDATED MATERIALS".

18" DIA. SPLIT SLEEVE SHALL BE PLACED AROUND 12" EXISTING WATER MAIN. FELT PACK SPLIT SLEEVE AND PLACE 4" POLYSTYRENE BOARDS (3'-0" WIDE) OVER THE SLEEVE WITH A MINIMUM OF 1'-0" COVER FROM STREAMBED. MATERIALS AND WORK SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY CULVERTS."

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NO.	DATE	REVISION	BY

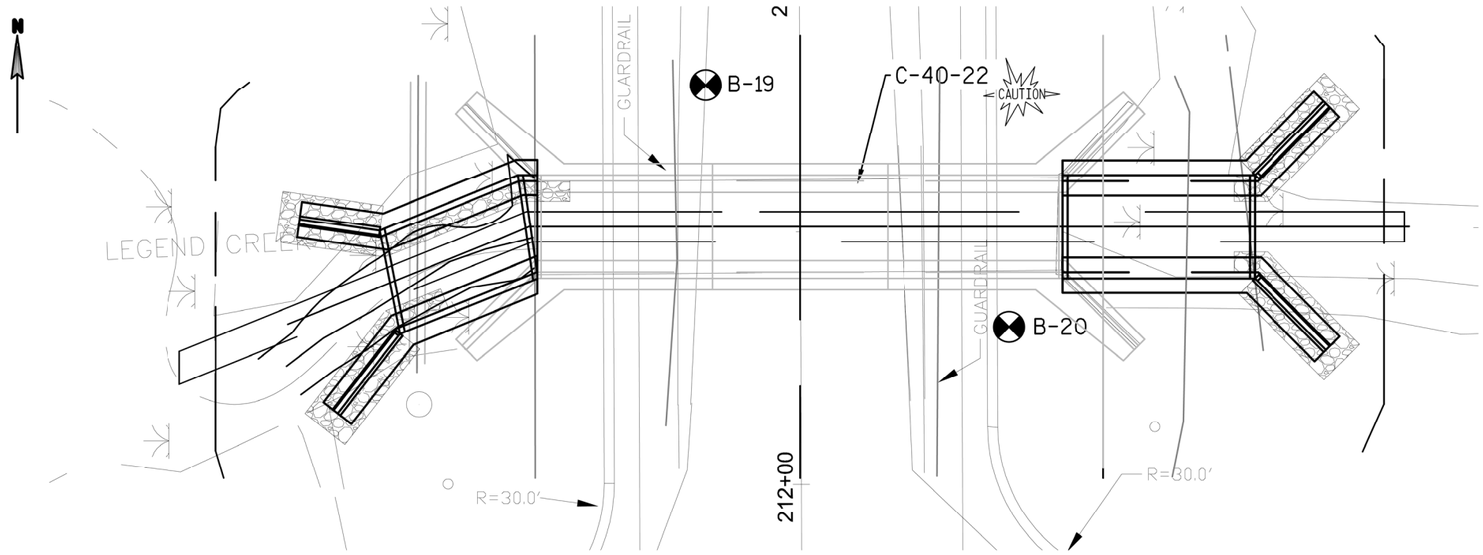
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-40-22

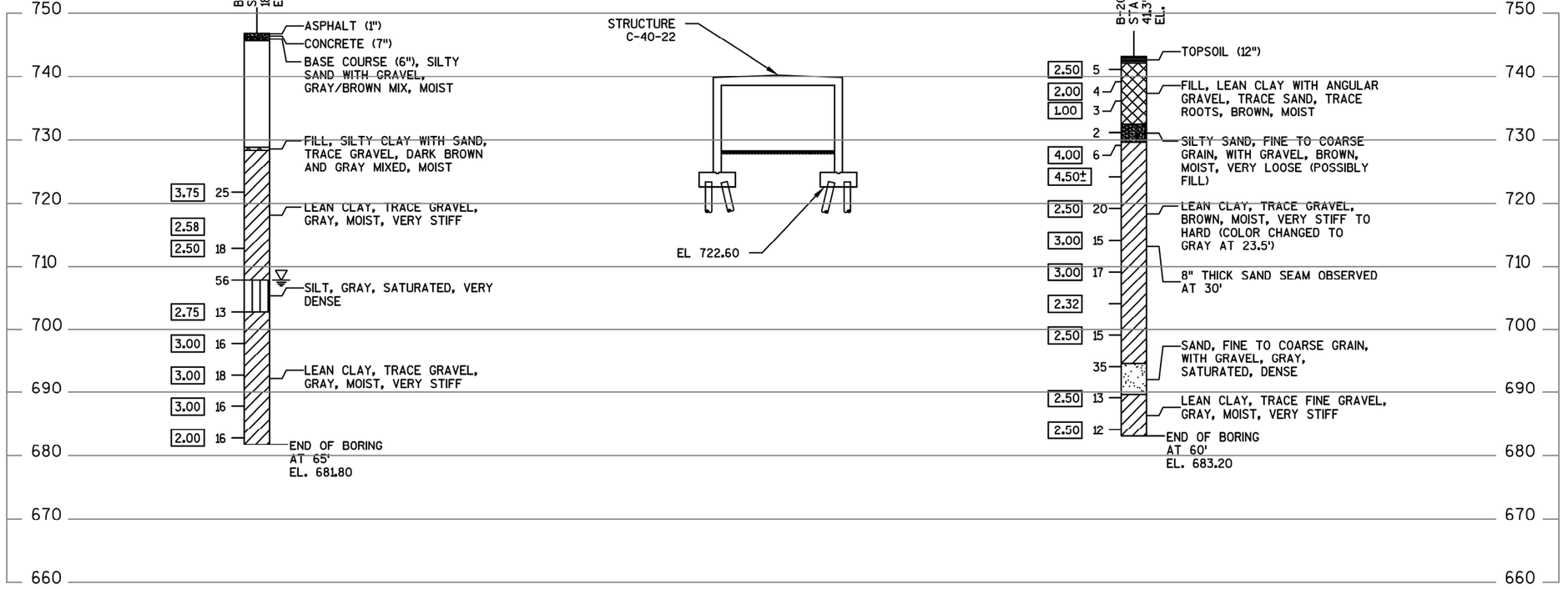
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GENERAL NOTES AND QUANTITIES

SHEET 2 OF 11



NOTE:
THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL REPORT #09107-10 PREPARED BY GESTRA ENGINEERING, DATED 2-4-2010. REVIEW THE GEOTECHNICAL REPORT AND SOIL BORING LOCS FOR ADDITIONAL INFORMATION.



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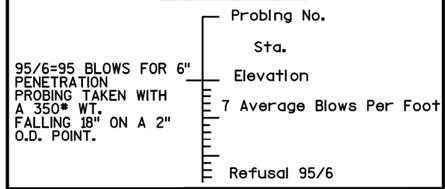
ABBREVIATIONS

F— Fine M—Medium C— Coarse
Ws— Weathered So — Sound

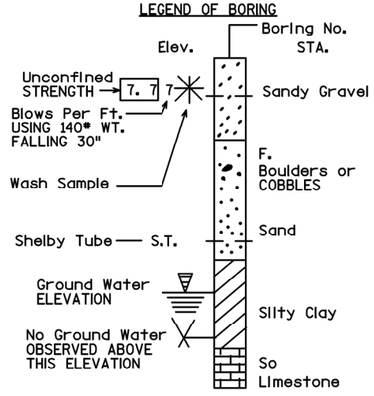
MATERIAL SYMBOLS

Topsoil, Silt, Sandstone, Sand, Peat, Limestone, Gravel, Clay, Igneous Rock

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE C-40-22

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SUBSURFACE EXPLORATION

SHEET 3 OF 11

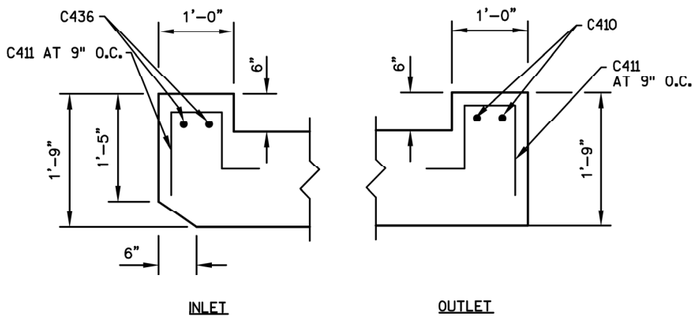
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SCALE =

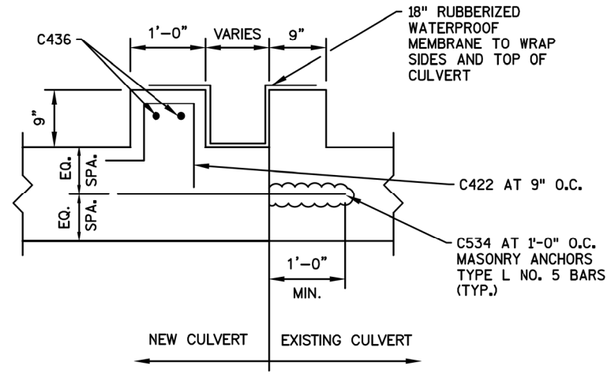
FILE NAME :P:\8312 CTH U (76th St) Legend Creek\CAD\8312_C-40-0022_SHT_3.dwg PLOT DATE :9/26/2013 8:41 AM PLOT BY : RL PLOT SCALE :

STATE PROJECT NUMBER
2160–10–70

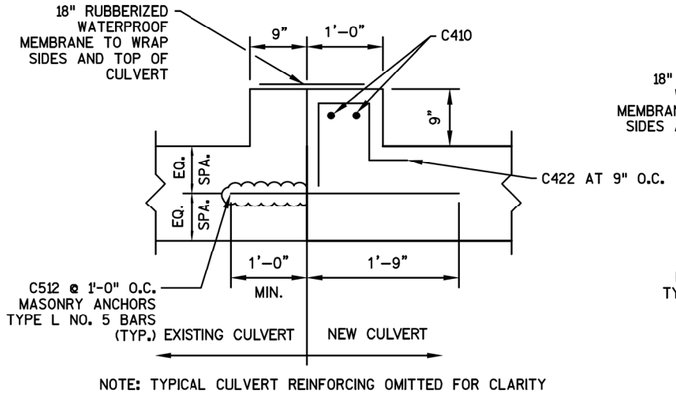


NOTE: TYPICAL CULVERT REINFORCING OMITTED FOR CLARITY

SECTION AT INLET/OUTLET HEADERS
(NORMAL TO CULVERT ℄)

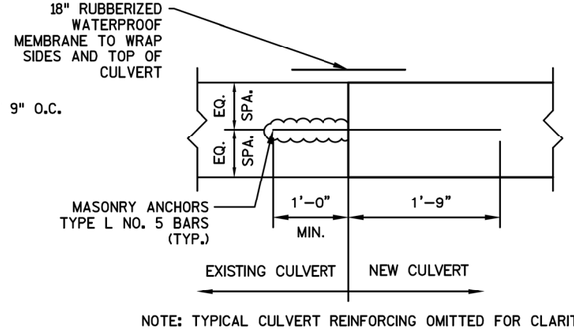


SECTION AT EXISTING WEST HEADER



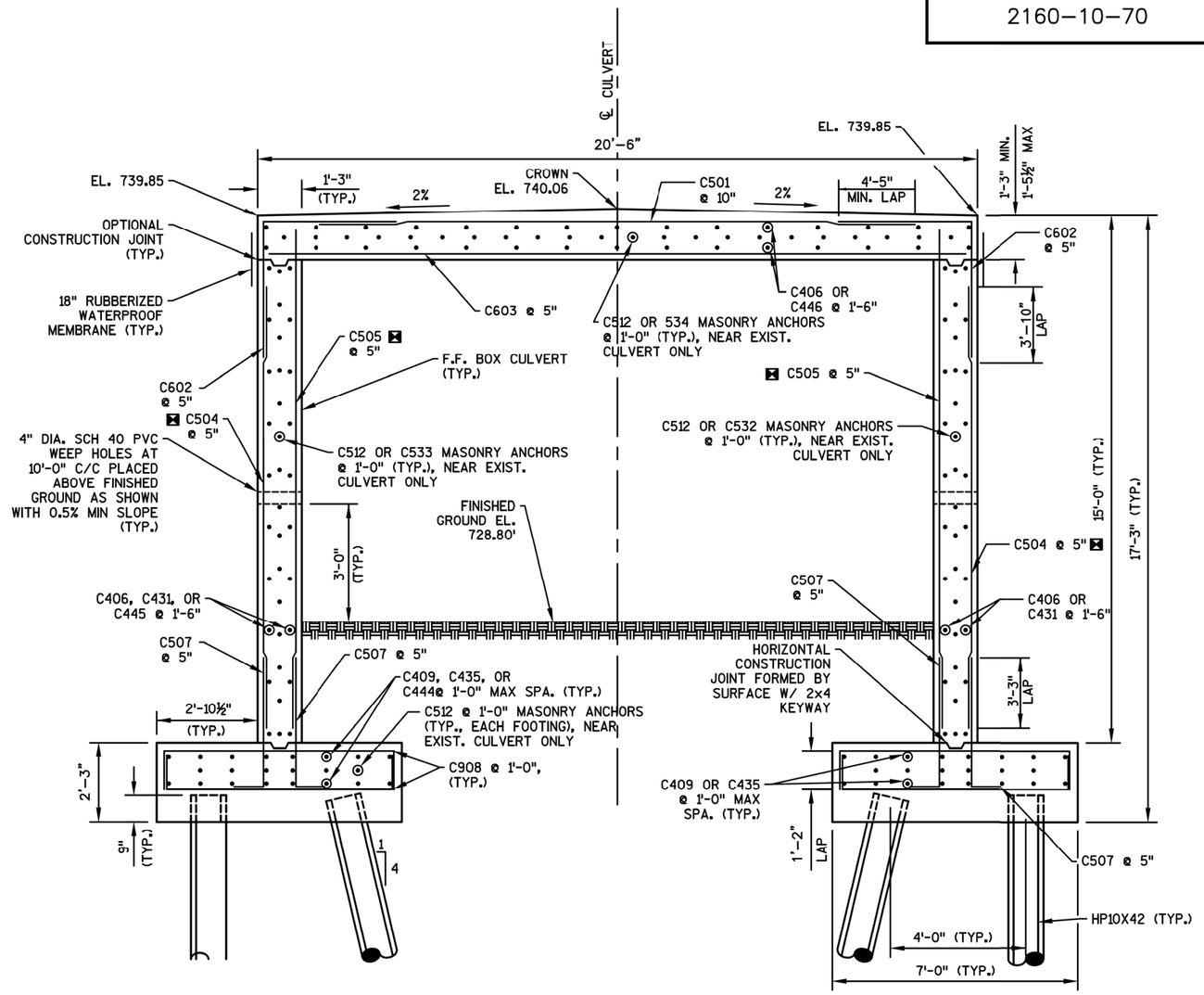
NOTE: TYPICAL CULVERT REINFORCING OMITTED FOR CLARITY

SECTION AT EXISTING EAST HEADER
(NORMAL TO CULVERT ℄)



NOTE: TYPICAL CULVERT REINFORCING OMITTED FOR CLARITY

PLAN SECTION AT NEW/EXISTING WALL INTERFACE



CROSS SECTION
(NORMAL TO CULVERT ℄, LOOKING EAST)

BARS ARE DIFFERENT AT STEPPED FOOTING AT 36" SANITARY PIPE. SEE SHEET 6 FOR DETAILS.

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DEPARTMENT OF TRANSPORTATION

STRUCTURE C-40-22

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SHEET 4 OF 11

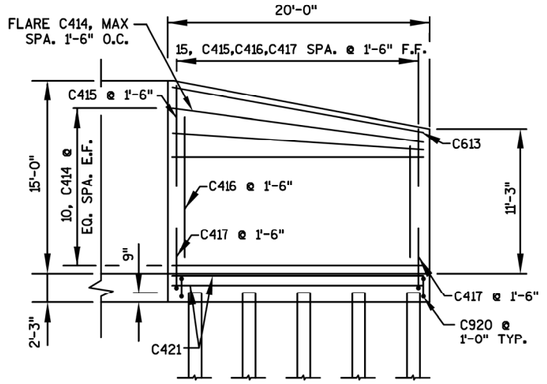
CROSS SECTION

8

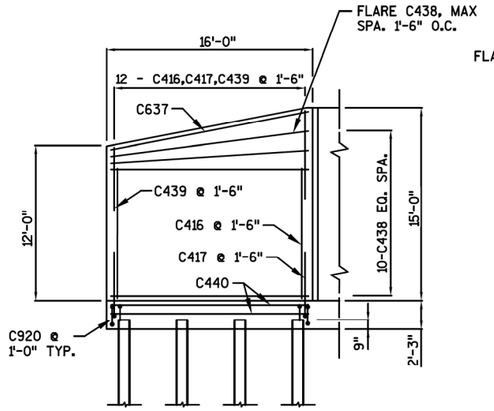
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FILE NAME : PLOT DATE : PLOT BY : RL PLOT SCALE :

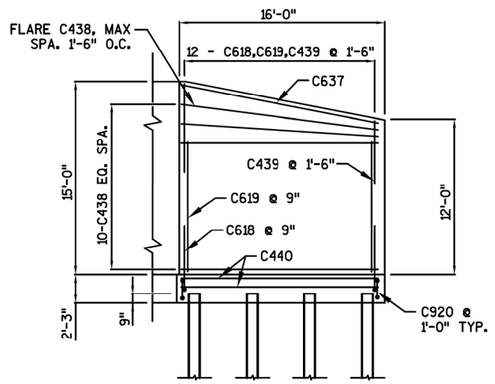
STATE PROJECT NUMBER
2160-10-70



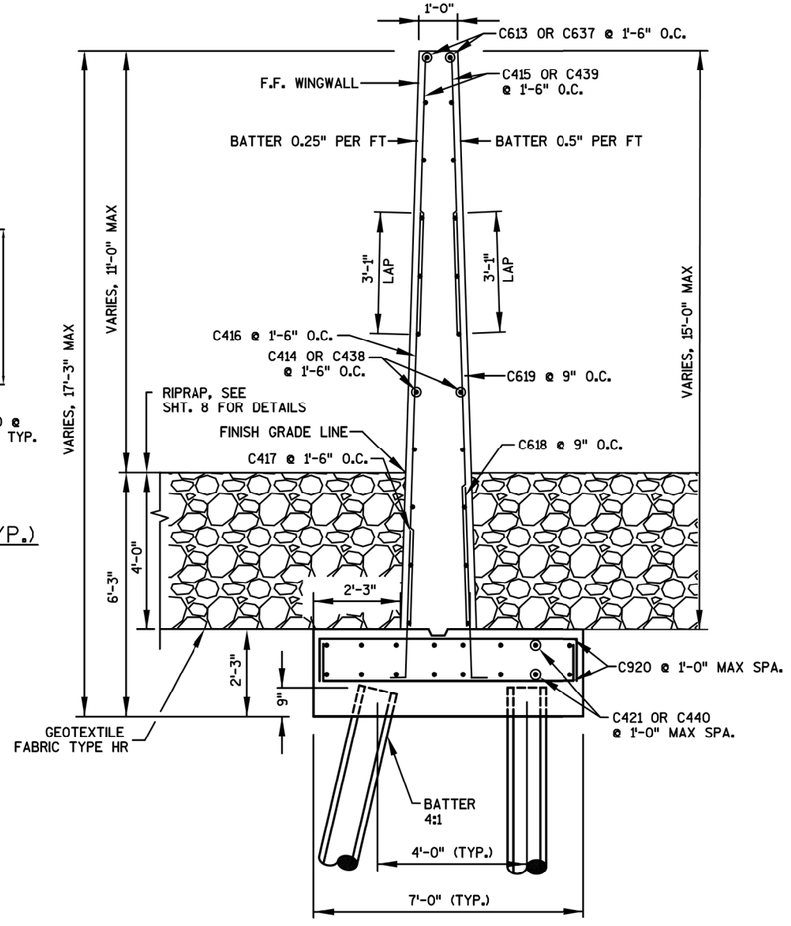
WINGWALL 1,3,4 ELEVATION (F.F. TYP.)



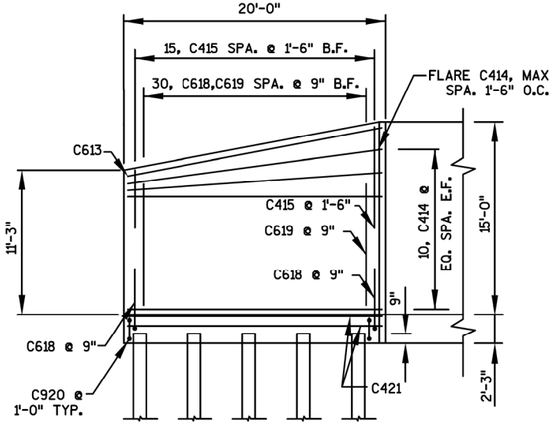
WINGWALL 2 ELEVATION (F.F. TYP.)



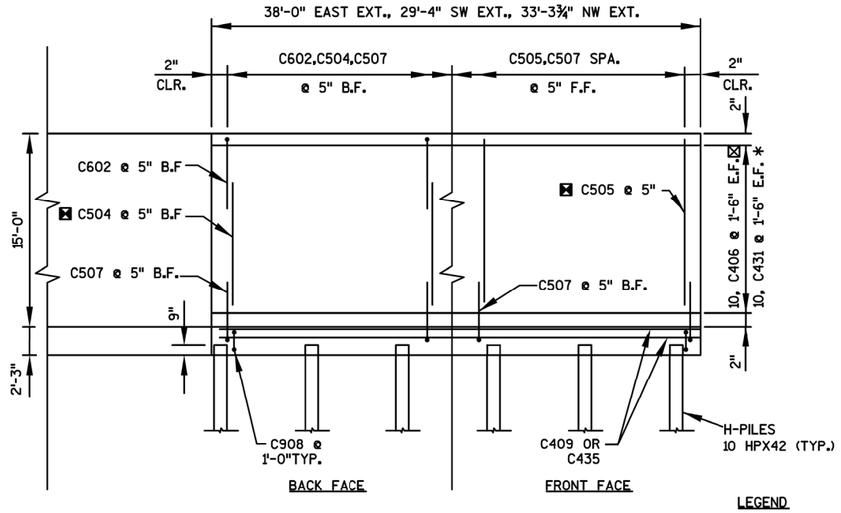
WINGWALL 2 ELEVATION (B.F. TYP.)



CROSS SECTION THROUGH WINGWALLS (TYP.)



WINGWALL 1,3,4 ELEVATION (B.F. TYP.)



CULVERT WALL ELEVATION

SOUTH EAST EXTENSION SHOWN, OTHER BARREL WALLS SIMILAR

LEGEND

* WEST EXTENSION

⊠ EAST EXTENSION

■ BARS ARE DIFFERENT AT STEPPED FOOTING AT 36" SANITARY PIPE. SEE SHT. 6 FOR DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-40-22

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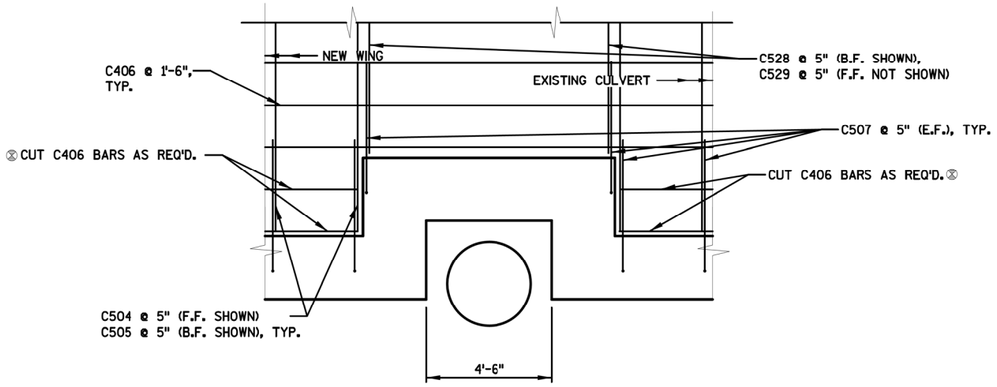
WINGWALL DETAILS

SHEET 5 OF 11

8

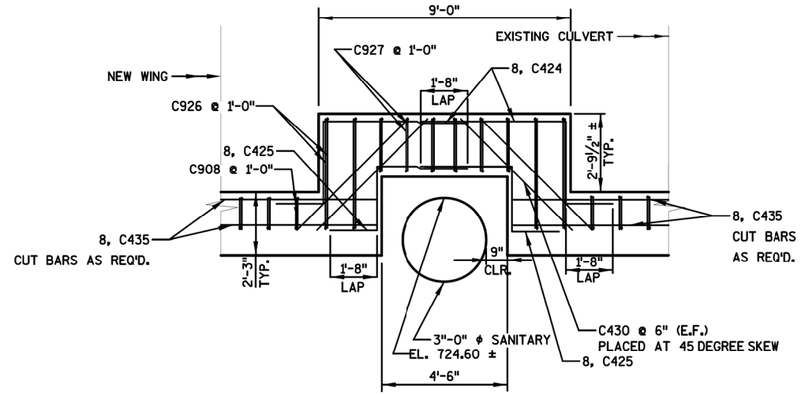
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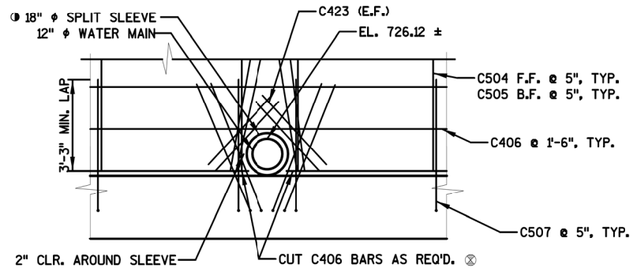
ELEVATION @ 36" SANITARY
F.F. BARREL WALL

NORMAL TO BARREL, LOOKING NORTH
(PILING NOT SHOWN FOR CLARITY)



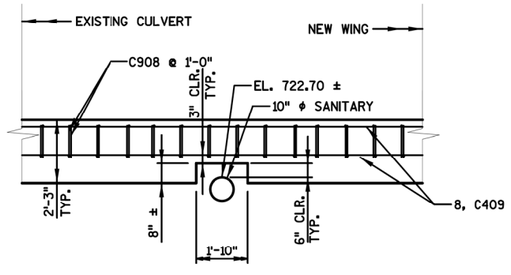
ELEVATION @ 36" SANITARY
F.F. FOOTING

NORMAL TO BARREL, LOOKING NORTH
(PILING NOT SHOWN FOR CLARITY)



ELEVATION @ 12" WATER MAIN

NORMAL TO BARREL, LOOKING NORTH
(PILING AND FOOTING REINFORCING NOT SHOWN FOR CLARITY)



ELEVATION @ 10" SANITARY
F.F. FOOTING

NORMAL TO BARREL, LOOKING NORTH
(PILING NOT SHOWN FOR CLARITY)

LEGEND

⊗ COAT EXPOSED BAR STEEL WITH EPOXY IN ACCORDANCE WITH SUBSECTION 505.2.4.2 OF THE STANDARD SPECIFICATIONS.

◑ CENTER OF SPLIT SLEEVE TO BE LOCATED AT EL. 725.57 APPROX. SLEEVE TO BE INCIDENTAL TO BID ITEM "CONCRETE MASONRY CULVERTS". FELT PACK SLEEVE AS NECESSARY TO ELIMINATE ANY GAPS BETWEEN SLEEVE AND WATER MAIN. COORDINATE WITH CITY OF FRANKLIN PRIOR TO CONSTRUCTION.

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE C-40-22

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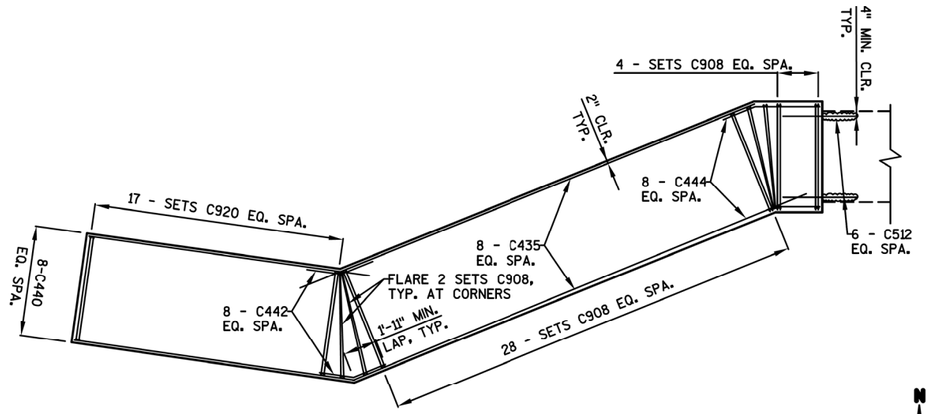
CULVERT DETAILS

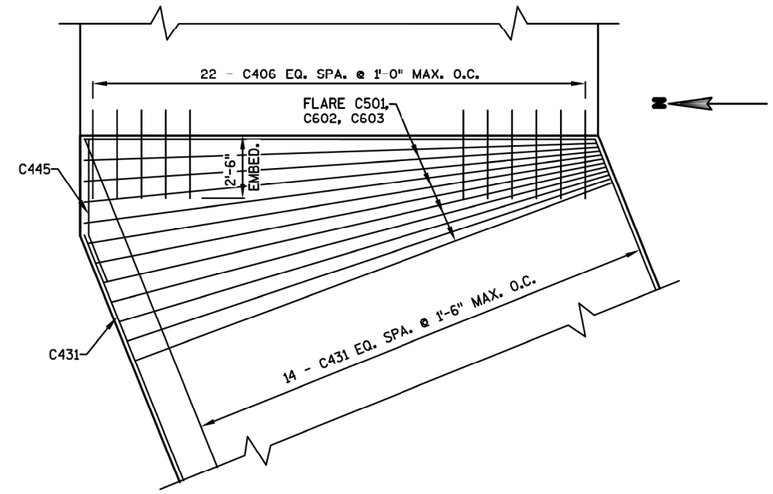
SHEET 6 OF 11

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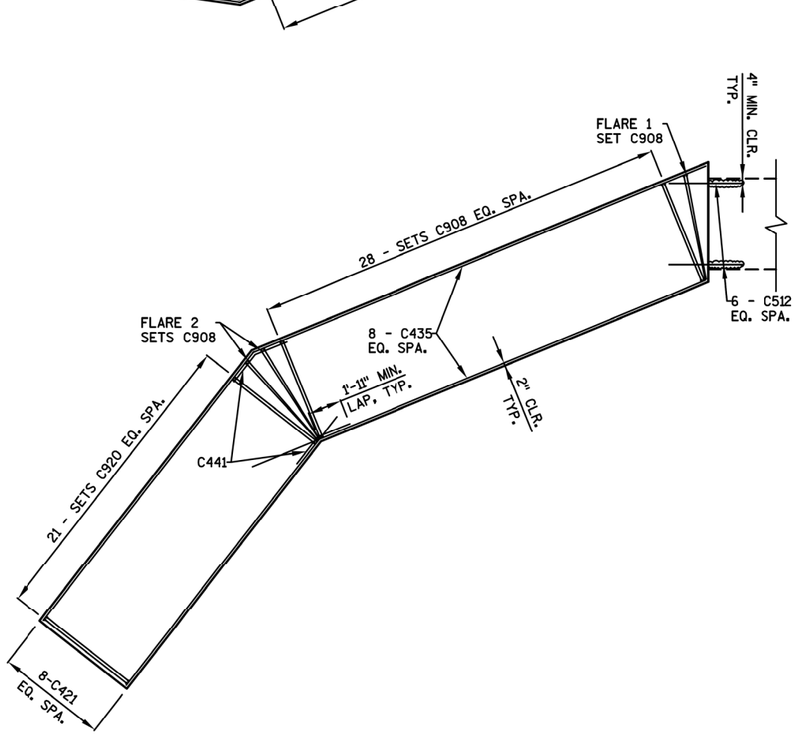
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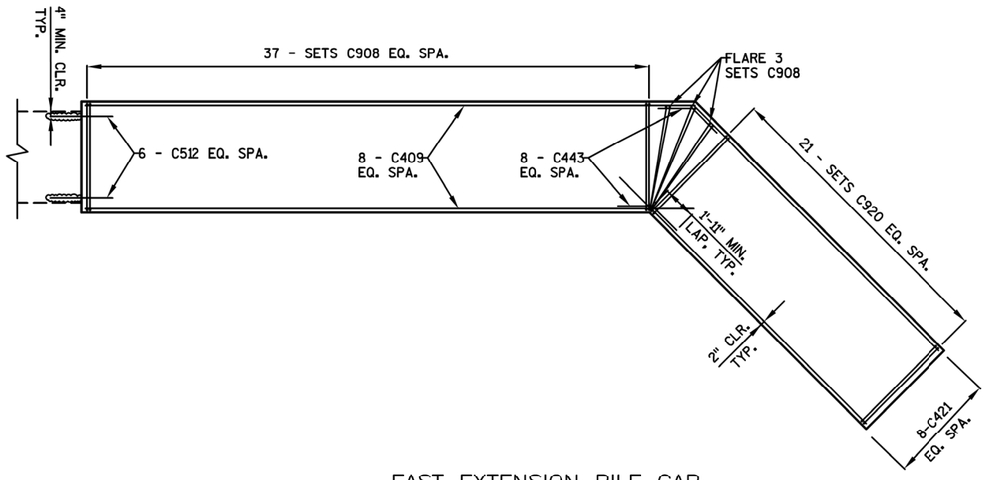




PARTIAL TOP SLAB
REINFORCEMENT PLAN
AT WEST EXTENSION



WEST EXTENSION PILE CAP
REINFORCING PLAN



EAST EXTENSION PILE CAP
REINFORCING PLAN
SOUTH EXTENSION SHOWN, NORTH EXTENSION SIMILAR

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STRUCTURE C-40-22

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CULVERT DETAILS 2

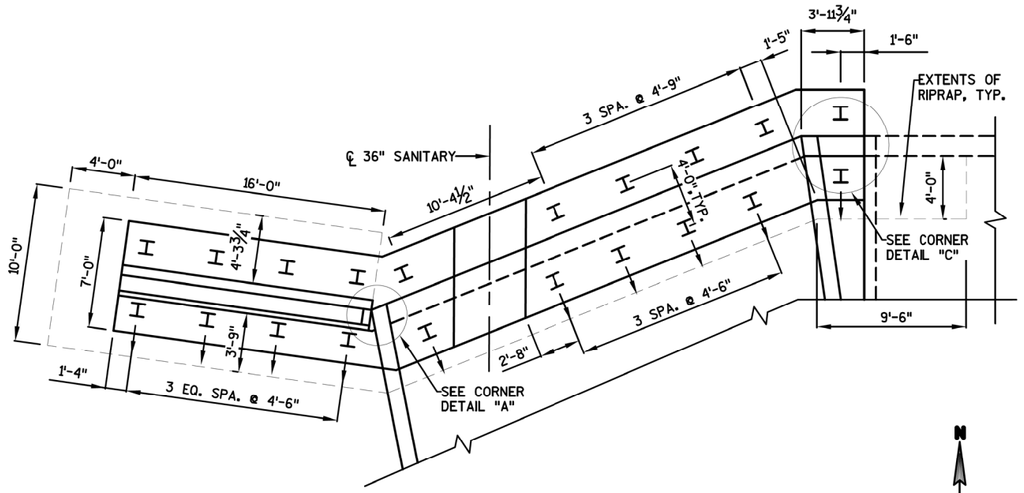
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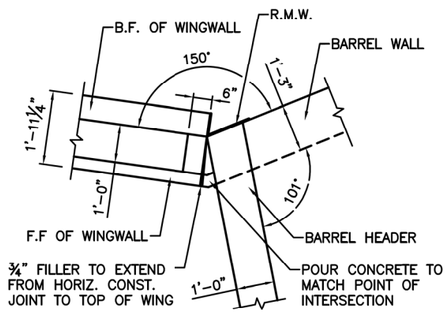
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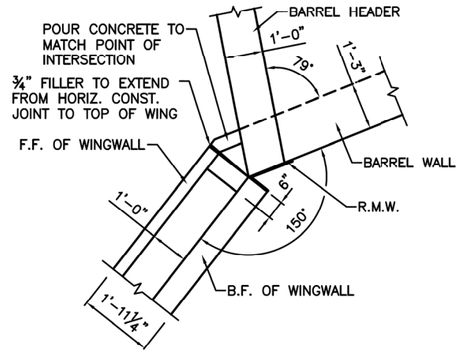
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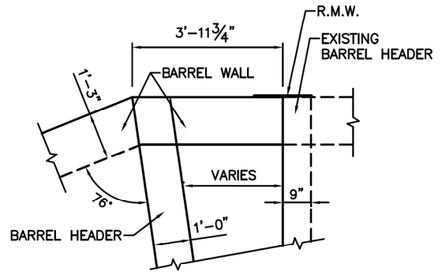




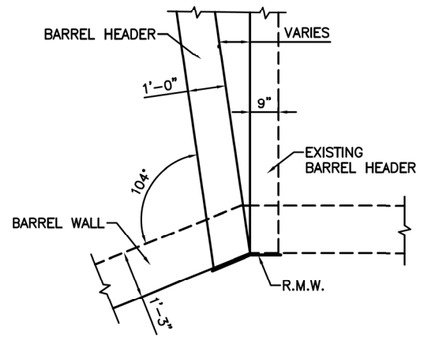
CORNER DETAIL "A"



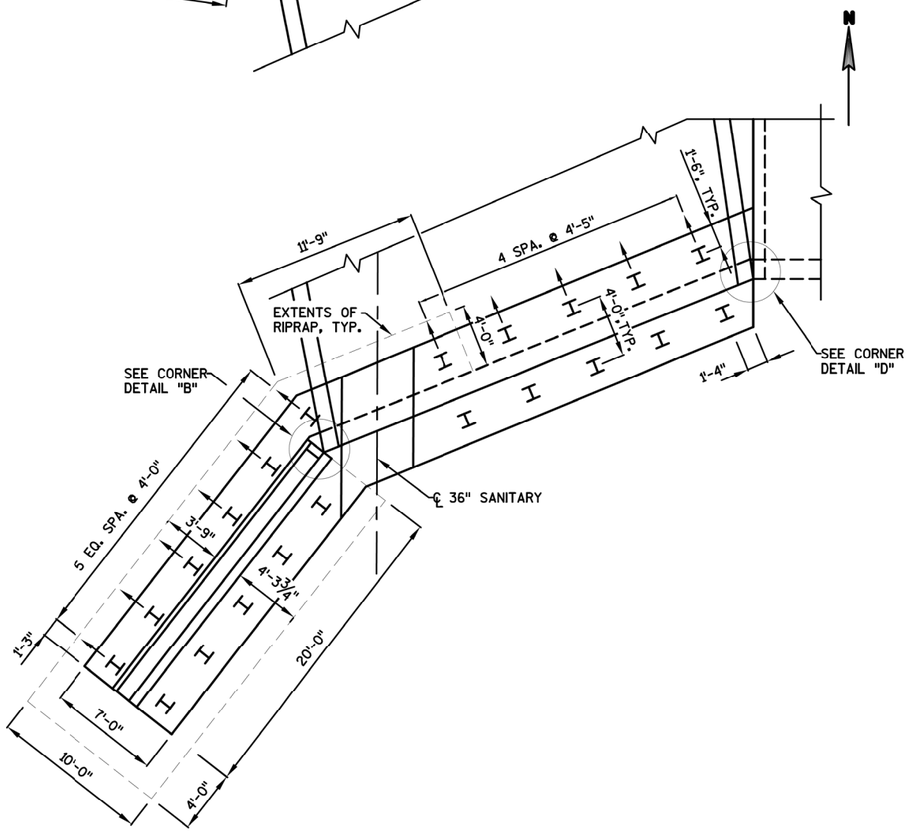
CORNER DETAIL "B"



CORNER DETAIL "C"



CORNER DETAIL "D"



PILE PLAN WEST EXTENSION

LEGEND

→ INDICATES PILE BATTER DIRECTION

NOTES

PRE-BORE PILES ADJACENT TO EXISTING 36" SANITARY PIPE AND 10" ABS WATER PIPE. PRE-BORE 10'-0" BELOW EXISTING UTILITIES.

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STRUCTURE C-40-22

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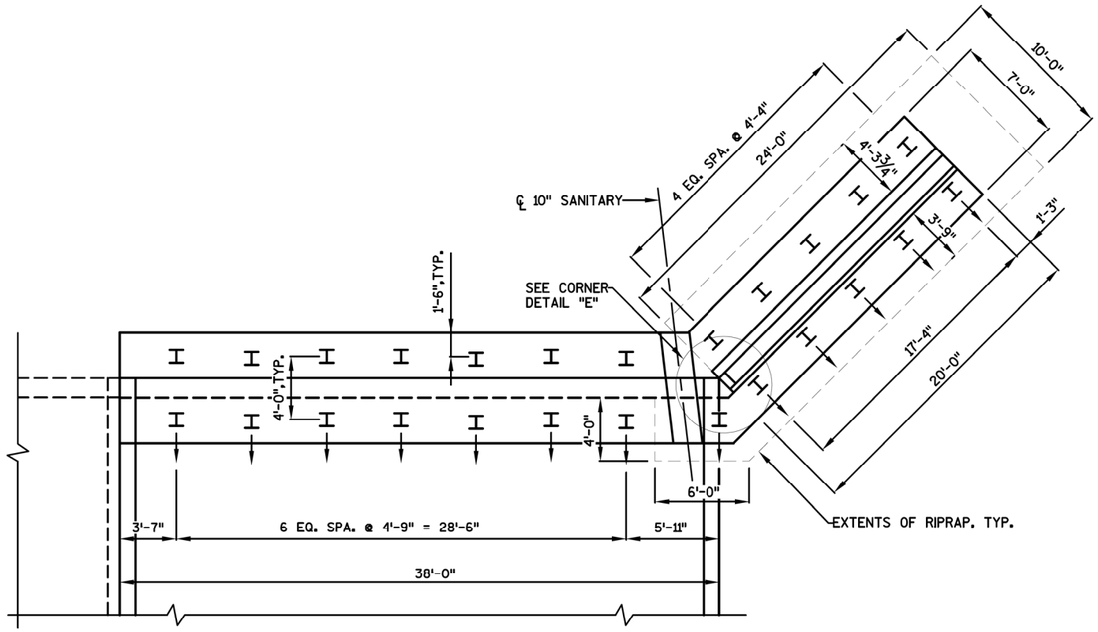
CULVERT DETAILS 3

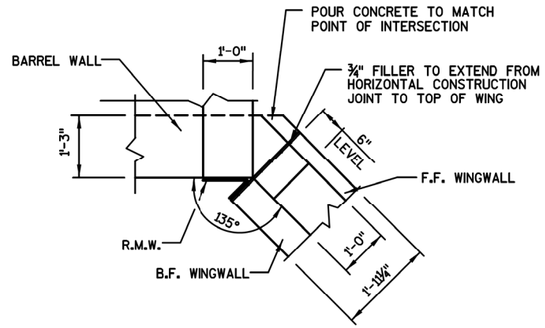
SHEET 8 OF 11

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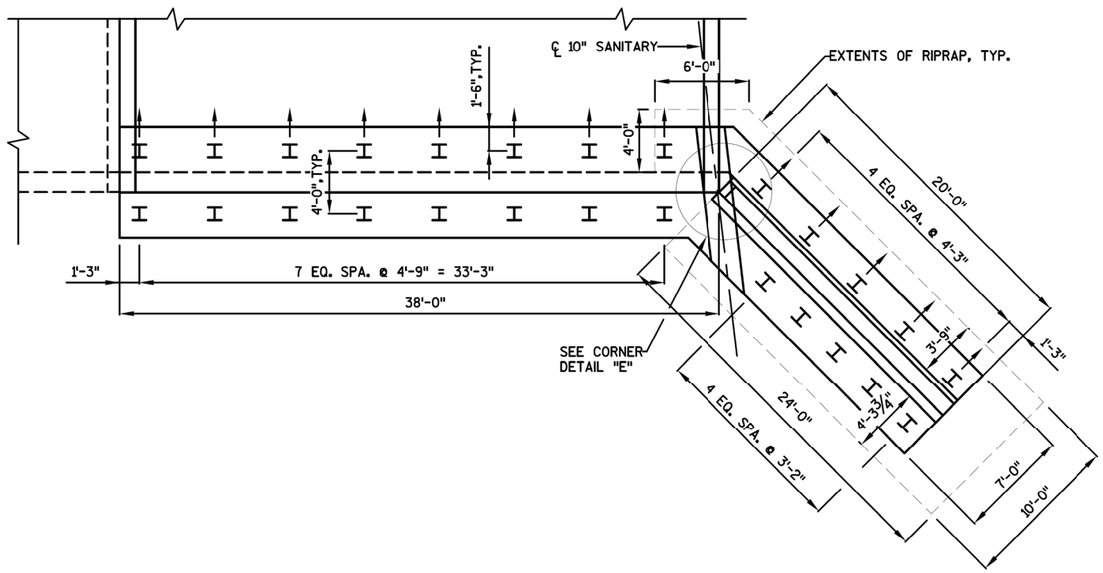
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CORNER DETAIL E

WING WALLS 4 SHOWN, WING WALL 3 SIMILAR



PILE PLAN EAST EXTENSION

LEGEND

→ INDICATES PILE BATTER DIRECTION

NOTES

PRE-BORE PILES ADJACENT TO EXISTING 36" SANITARY PIPE AND 10" ABS WATER PIPE. PRE-BORE 10'-0" BELOW EXISTING UTILITIES.

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CULVERT DETAILS 4

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BILL OF BARS

MARK	COATED	NO REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
C501	X	88	20'-2"			TOP TRANSVERSE SLAB
C602	X	352	11'-4"		X	TOP TRANSVERSE CORNER
C603	X	176	20'-2"			BOTTOM TRANSVERSE SLAB
C504	X	308	13'-7"			BARREL VERT. B.F.
C505	X	308	14'-8"			BARREL VERT. F.F.
C406	X	70	37'-8"			BARREL LONGIT. EAST
C507	X	704	5'-5"		X	BARREL-PILE CAP DOWEL VERT.
C908		286	8'-6"		X	BARREL PILE CAP VERT.
C409		32	38'-8"			BARREL PILE CAP LONG. EAST
C410	X	4	20'-2"			HEADER LONGIT. EAST
C411	X	57	2'-6"		X	HEADER VERT. NEW
⚠ C512		76	3'-11"			MASONRY ANCHOR HORIZ.
C613	X	6	20'-0"			WING 1,3,4 LONGIT.
C414	X	60	19'-8"			WING 1,3,4 LONGIT.
C415	X	90	6'-0"	Δ		WING 1,3,4 VERT.
C416	X	57	9'-11"			WING 1,3,4 VERT. F.F.
C417	X	57	4'-9"		X	WING VERT. DOWEL F.F.
C618	X	114	6'-1"		X	WING VERT. DOWEL B.F.
C619	X	114	9'-11"			WING VERT. B.F.
C920		160	8'-6"		X	WING PILE CAP VERT.
C421		48	22'-0"			WING 1,3,4 PILE CAP LONGIT.
C422	X	57	2'-3"		X	HEADER VERT. NEAR EXIST.
C423	X	16	3'-4"			DIAGONAL, WATER MAIN
C424		32	9'-7"		X	STEP PILE CAP TOP
C425		32	6'-11"		X	STEP PILE CAP BOT.
C926		16	14'-2"		X	STEP PILE CAP VERT.
C927		24	10'-0"		X	STEP PILE CAP VERT.
C528	X	44	10'-9"			STEP BARREL VERT. B.F.
C529	X	44	11'-10"			STEP BARREL VERT. F.F.
C430		16	5'-8"			DIAGONAL STEP PILE CAP
C431	X	42	29'-0"			BARREL LONGIT. WEST
⚠ C532		15	4'-1"		X	MASONRY ANCHOR HORIZ. WEST, SOUTH WALL
⚠ C533		15	8'-1"		X	MASONRY ANCHOR HORIZ. WEST, NORTH WALL
⚠ C534		22	3'-6"			MASONRY ANCHOR HORIZ. WEST, SLAB
C435		32	31'-2"			BARREL PILE CAP LONG. WEST
C436	X	4	20'-7"			HEADER LONGIT. WEST
C637	X	2	15'-11"			WING 2 LONGIT.
C438	X	20	15'-8"			WING 2 LONGIT.
C439	X	24	6'-4"	Δ		WING 2 VERT.
C440		18	18'-0"			WING 2 PILE CAP LONGIT.
C441		16	4'-2"		X	WING 1 PILE CAP LONGIT.
C442		16	4'-2"		X	WING 2 PILE CAP LONGIT.
C443		32	4'-2"		X	WING 3&4 PILE CAP LONGIT.
C444		16	3'-6"	Δ	X	WEST PILE CAP LONGIT. NEAR EXIST.
C445	X	22	5'-9"		X	BARREL BENT LONGIT. WEST
C446	X	28	31'-0"	Δ		LONGIT. WEST TOP SLAB

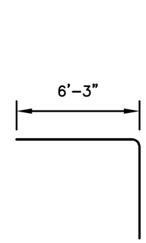
BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH	LOCATION
C415	6 SERIES OF 15	4'-1" TO 6'-10"	WING 1,3,4 VERT.
C439	2 SERIES OF 12	4'-10" TO 6'-10"	WING 2 VERT.
C444	2 SERIES OF 8	2'-9" TO 4'-1"	WEST PILE CAP LONGIT. NEAR EXIST.
C446	2 SERIES OF 14	29'-0" TO 32'-11"	LONGIT. WEST TOP SLAB

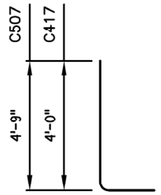
Δ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

⚠ PROVIDE MASONRY TYPE L NO. 5 BARS @ 1'-0" CTRS. EMBED A MINIMUM OF 1'-0" IN CONCRETE.

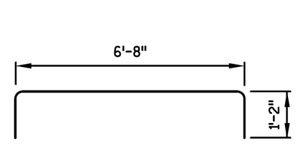
BENDING DIAGRAMS



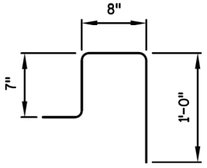
C602



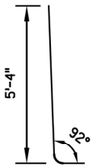
C507, C417



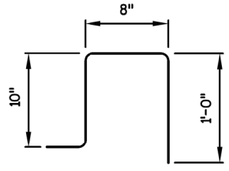
C908, C920



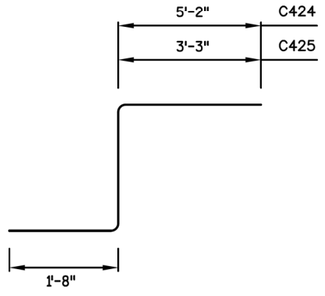
C411



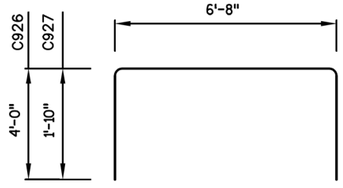
C618



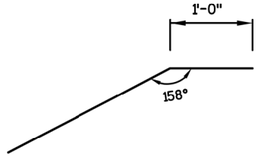
C422



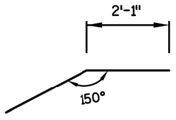
C424, C425



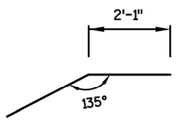
C926, C927



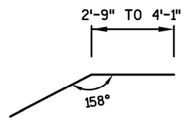
C532, C533



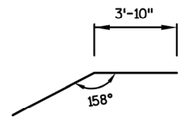
C441, C442



C443



C444



C445

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-40-22

DRAWN BY GBJ | PLANS CK'D. MNM

CULVERT DETAILS 5

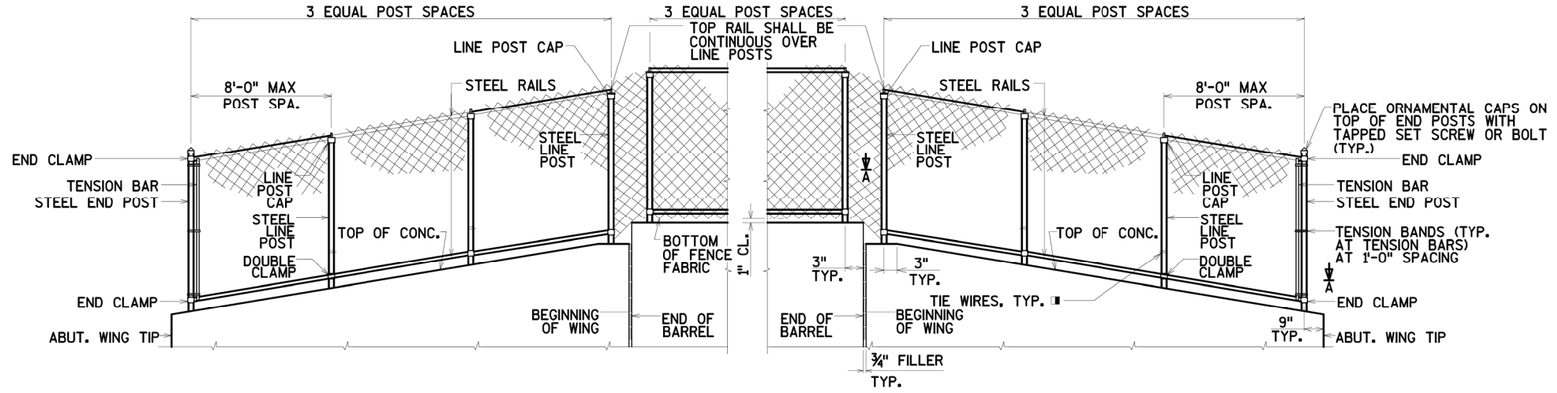
SHEET 10 OF 11

STATE PROJECT NUMBER

2160-10-70

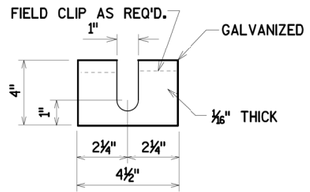
FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



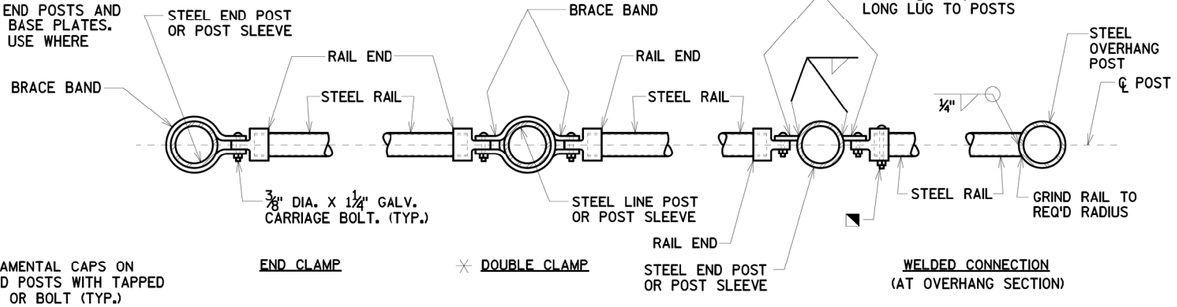
FENCE PART ELEVATION

UNFOLDED ELEVATION VIEWING FABRIC SIDE
LOOKING WEST, OTHER SIDE SIMILAR



POST SHIM DETAILS

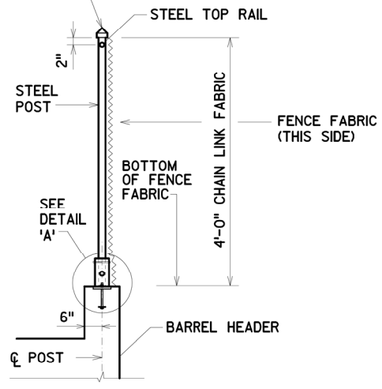
SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



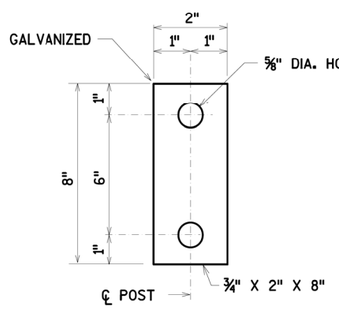
END CLAMP DOUBLE CLAMP WELDED CONNECTION (AT OVERHANG SECTION)

SECTION A-A

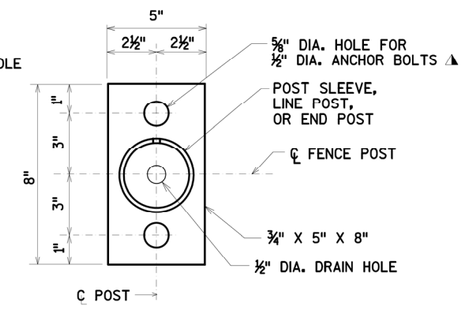
NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS



SECTION THRU FENCE



ANCHOR PLATE

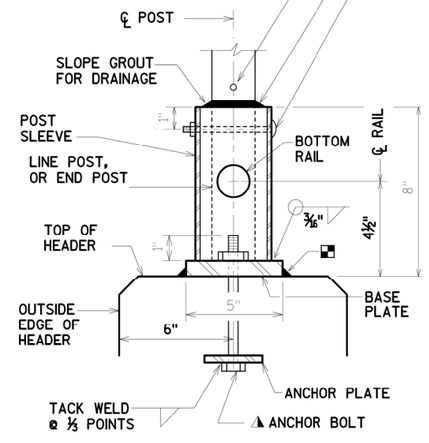


BASE PLATE

⅜" DIA. GALV. CARRIAGE BOLT WITH LOCKING NUT. (TO BE SUPPLIED WITH ASSEMBLY)

FILL SLEEVE AND BEVEL AWAY FROM POST WITH NON-SHRINK GROUT AFTER SETTING POST. (LEAVE NO VOIDS)

DRILL ⅜" DIA. DRAIN HOLE PARALLEL TO ROADWAY IMMEDIATELY ABOVE GROUT IN POST. SLEEVE LOCATIONS ONLY.



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

GENERAL NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH MAY BE ALUMINUM-COATED STEEL OR GALVANIZED STEEL.

FABRIC SHALL CONFORM TO ASTM A491 OR A392, CLASS 2. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626.

THE BID ITEM SHALL BE "FENCE CHAIN LINK 4-FT.", LF.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

■ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

✳ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

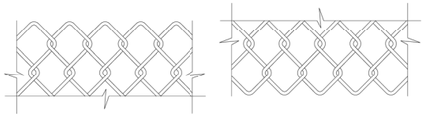
◭ ½" DIA. X 6⅞" LONG GALVANIZED HEX BOLT WITH NUT & WASHER. TYPE "S", ½" DIA. CONCRETE MASONRY ANCHORS MAY BE SUBSTITUTED FOR ½" DIA. BOLTS. ANCHOR PLATE NOT REQUIRED WHEN TYPE "S" ANCHORS ARE USED. SEE ☆

☆ MASONRY ANCHOR TYPE S ½-INCH. EMBED 6" IN CONCRETE. ANCHOR, WASHER, AND NUT SHALL BE GALVANIZED.

◨ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

◥ BOLT RAIL TO RAIL END TO SECURE OVERHANG SECTION. ALTERNATE IS TO WELD RAIL DIRECTLY TO END POST.

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR 1/4 POINT OF POST SPACING.



TOP DETAIL BOTTOM DETAIL

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-40-22

DRAWN BY GBJ | PLANS CK'D. MNM

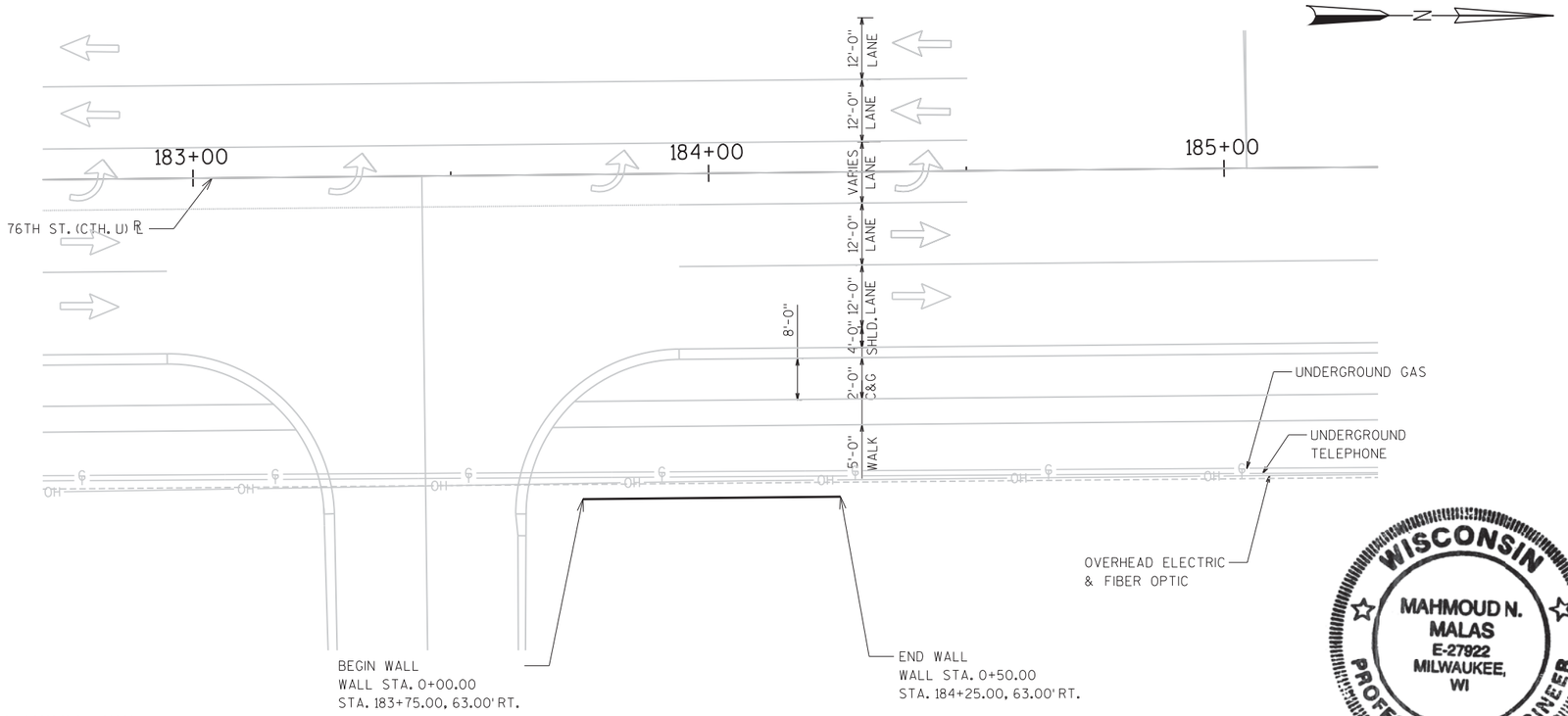
FENCING DETAILS

SHEET 11 OF 11

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STATE PROJECT NUMBER
2160-10-70



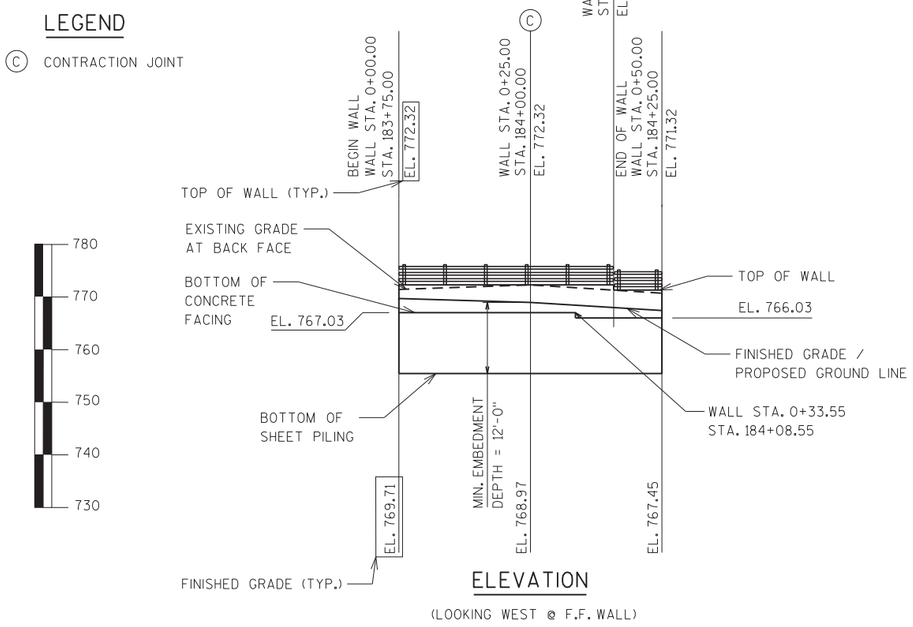
PLAN

BENCHMARKS

NO.	STA/OFFSET	DESCRIPTION	ELEV.
BM 7	185+26.90, 67.82' LT.	NOZZLE; HYDRANT NW CORNER FOREST HILL AVE.	769.49

LEGEND

Ⓒ CONTRACTION JOINT



ELEVATION

(LOOKING WEST @ F.F. WALL)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

ALL STATIONS AND OFFSETS GIVEN ARE FROM THE FRONT FACE OF WALL UNLESS SHOWN OTHERWISE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

SEE SPECIAL PROVISIONS FOR AESTHETIC TREATMENT FOR RETAINING WALL. WORK SHALL BE PAID FOR UNDER BID ITEM "STONE FASCIA, RETAINING WALL".

THE TOP OF WALL ELEVATIONS WERE DERIVED FROM THE CROSS SECTIONS AND SHOULD BE FIELD VERIFIED.

MINIMUM EFFECTIVE PLASTIC SECTION MODULUS OF STEEL SHEET PILING SHALL BE 4.5 INCHES CUBED PER FOOT OF WALL.

CONTRACTOR SHALL BACKFILL ALONG THE FRONT FACE OF THE RETAINING WALL TO THE PROPOSED GROUND LINE PRIOR TO BACKFILLING ALONG THE BACK FACE OF WALL.

EXCAVATE AND BACKFILL AS REQUIRED TO PLACE CONCRETE AND STONE FASCIA WILL BE PAID FOR UNDER BID ITEM "STONE FASCIA, RETAINING WALL". SEE SPECIAL PROVISIONS FOR DETAILS.

DESIGN DATA

LIVE LOAD SURCHARGE (ROADWAY) = 100 P.S.F.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY ----------f'c = 3,000 P.S.I.
HIGH STRENGTH BAR STEEL REINFORCEMENT -------fy = 60,000 P.S.I.
STEEL SHEET PILING ----------fy = 50,000 P.S.I.

FOUNDATION DATA:

UNIT WEIGHT OF SOIL ---------- 130 P.C.F.
UNCONFINED COMPRESSIVE STRENGTH ---------- 1600 P.S.F.
COHESION ---------- 800 P.S.F.
ANGLE OF INTERNAL FRICTION (UNDRAINED)------- 18°

WISCONSIN
MAHMOUD N. MALAS
E-27922
MILWAUKEE, WI
PROFESSIONAL ENGINEER

10/10/2013

TOTAL ESTIMATED QUANTITIES

NO.	BID ITEMS	UNIT	TOTAL
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	17
505.0415	BAR STEEL REINFORCEMENT HS RETAINING WALLS	LB	550
506.3008	WELDED STUD SHEAR CONNECTORS 5/8 X 5-INCH	EACH	144
512.0500	PILING STEEL SHEET PERMANENT DELIVERED	SF	855
512.0600	PILING STEEL SHEET PERMANENT DRIVEN	SF	855
SPV.0090.08	TIMBER FENCE	LF	50
SPV.0165.01	STONE FASCIA, RETAINING WALL	SF	190

GEOMETRY TABLE

WALL STATION	ROADWAY STATION	OFFSET TO F.F. WALL	TOP OF WALL	EXIST. GRADE @ B.F. WALL	FINISHED GRADE	BOT. CONC. FACING	BOT. SHEET PILING
0+00.00	183+75.00	63.00' RT	772.32	771.44	769.71	767.03	755.03
0+25.00	184+00.00	63.00' RT	772.32	772.32	768.97	767.03	755.03
0+50.00	184+25.00	63.00' RT	771.32	770.74	767.45	766.03	755.03

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. SUBSURFACE EXPLORATION
3. CROSS SECTIONS & DETAILS
4. FRONT FACE & BACK FACE DETAILS
5. TIMBER FENCE DETAILS

MILWAUKEE COUNTY CONTACT:
AZIZ ALEIOW (414) 278-4911
BUREAU OF STRUCTURES CONTACT:
WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT:
MAHMOUD MALAS (262) 821-1171

NO.	DATE	REVISION	BY

KSA K. Singh & Associates, Inc.
Engineers, Scientists and Environmental Management Consultants

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher KAR 10/11/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-592

SHEET PILING RETAINING WALL ALONG 76TH ST.

COUNTY MILWAUKEE | ~~TOWN/CITY/VILLAGE~~ FRANKLIN

DESIGN SPEC. AASHTO LRFD DESIGN SPECIFICATIONS

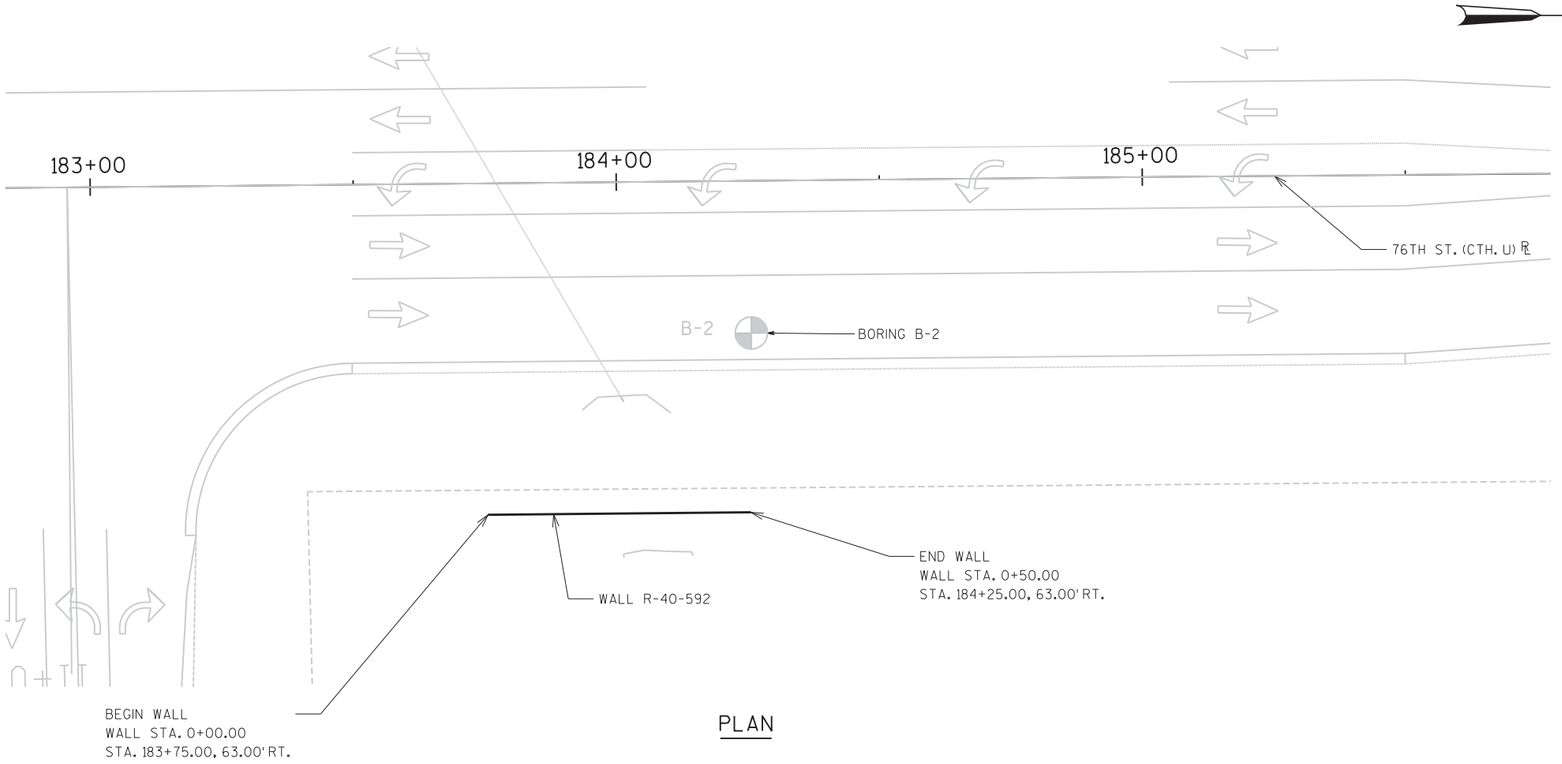
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
DRJ	MNM	DRJ	MNM

GENERAL PLAN & ELEVATION

SHEET 1 OF 5
488

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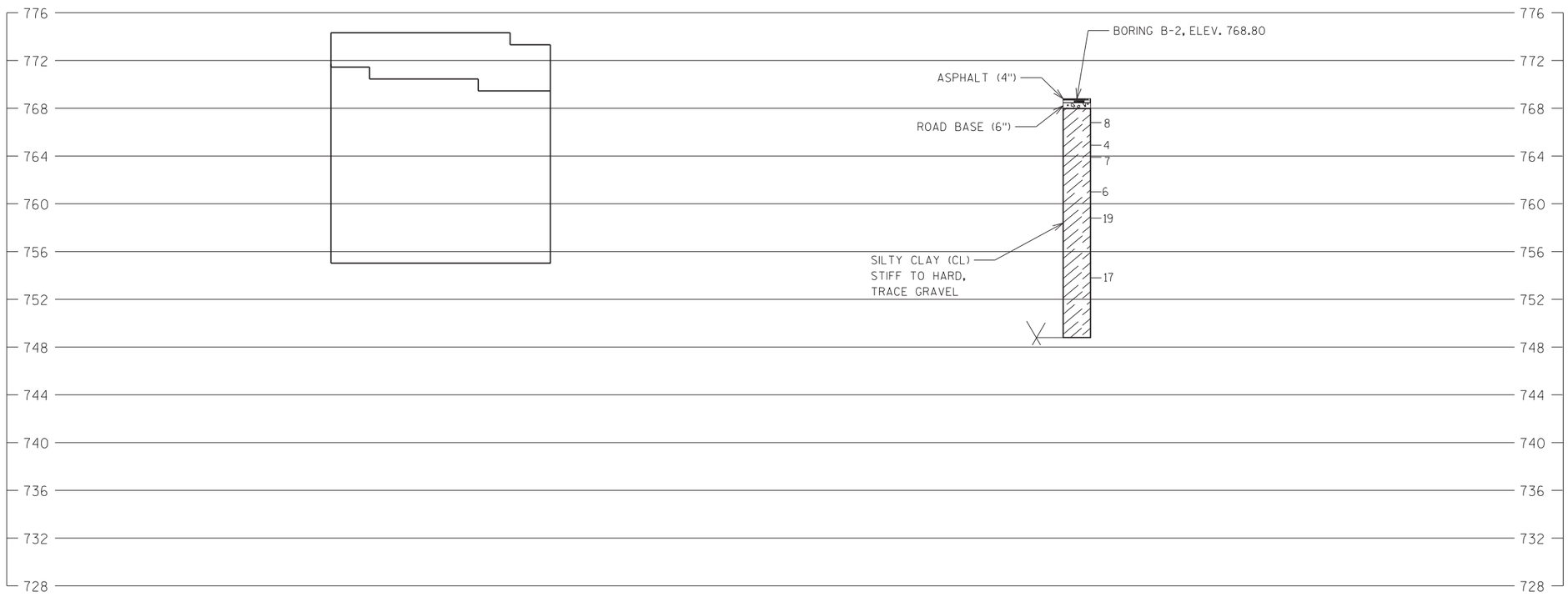
8



PLAN

SOIL BORINGS
BY: K. SINGH AND ASSOCIATES INC.
ON: OCTOBER 5, 2012

SUBSURFACE INVESTIGATION REPORT
BY: K.SINGH AND ASSOCIATES INC.
ON: NOVEMBER 1, 2012



STATE PROJECT NUMBER

2160-10-70

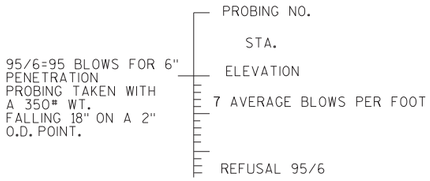
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

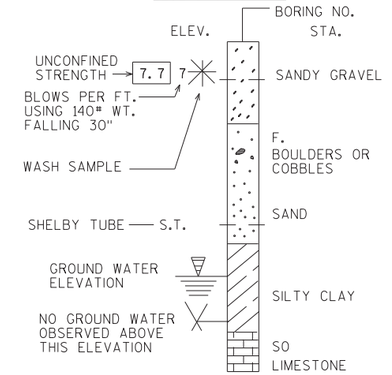
MATERIAL SYMBOLS

TOPSOIL SILT SANDSTONE
SAND PEAT LIMESTONE
GRAVEL CLAY IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-592

DRAWN BY DRJ | PLANS CK'D. MNM

SUBSURFACE EXPLORATION

SHEET 2 OF 5

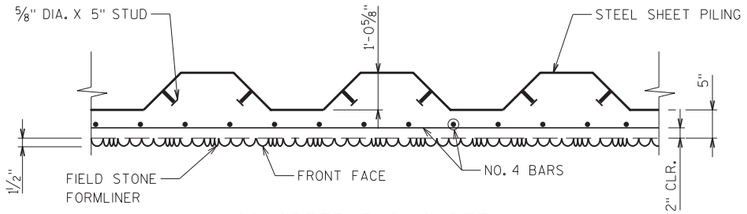
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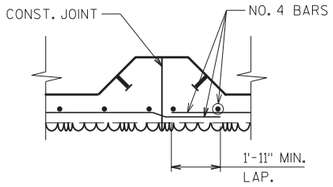
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STATE PROJECT NUMBER

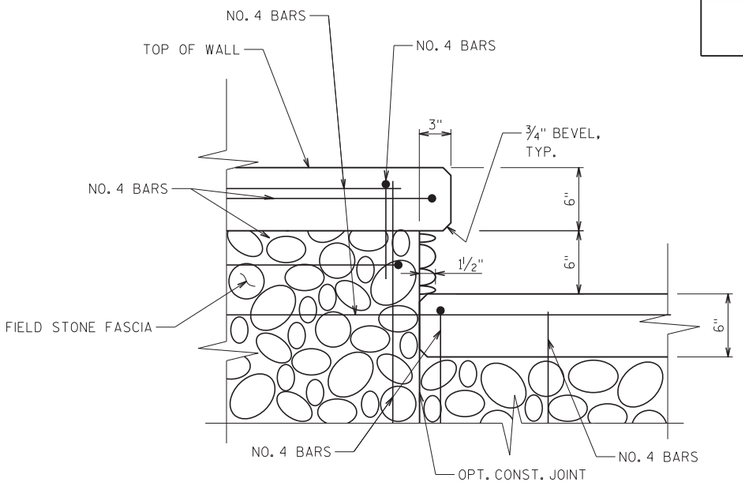
2160-10-70

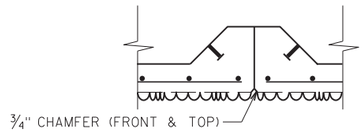


CONCRETE FACING DETAIL



SECTION @ OPTIONAL CONST. JOINT



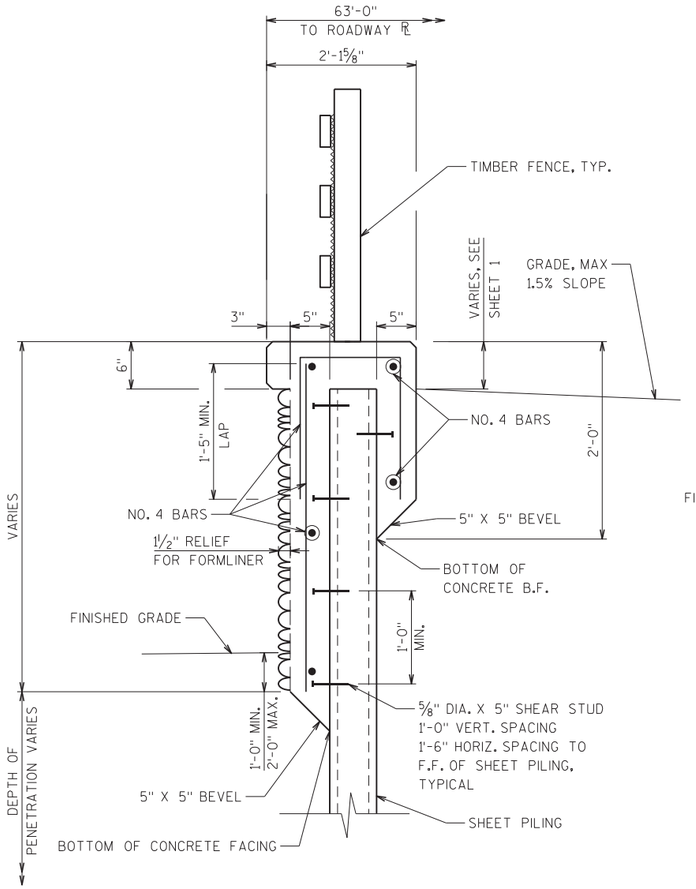


CONTRACTION JOINT DETAIL

DO NOT RUN BAR STEEL THRU JOINT

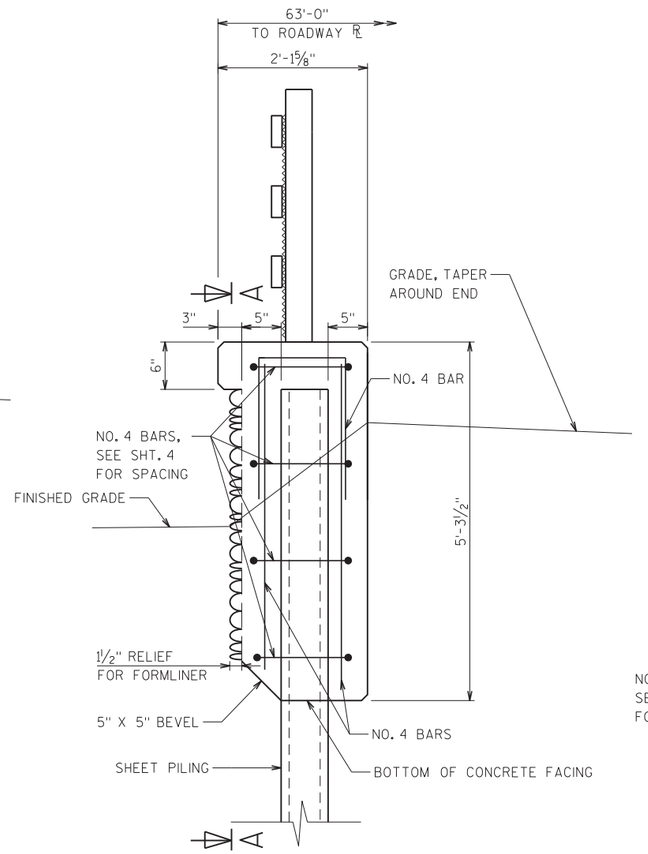
WALL STEP DETAIL

(LOOKING WEST AT F.F. OF WALL)
SEE SHT. 4 FOR DETAILS
TIMBER FENCE NOT SHOWN FOR CLARITY



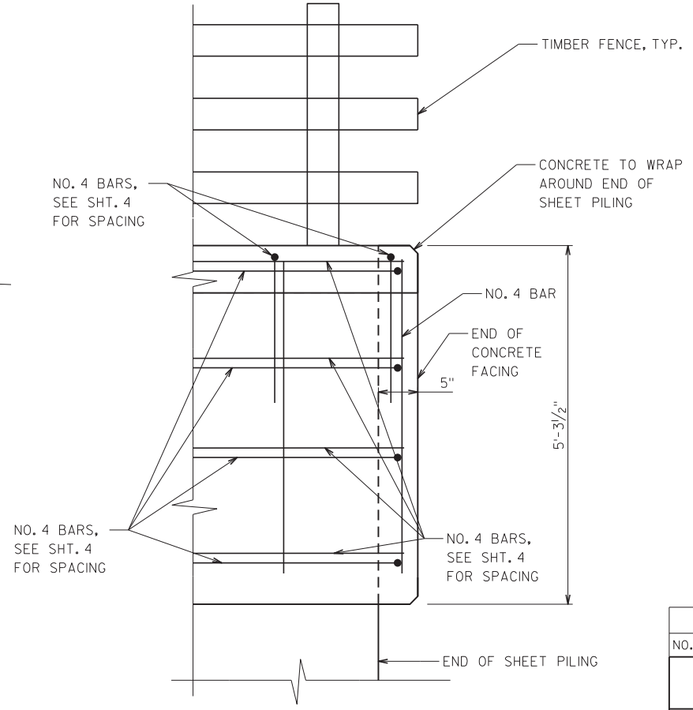
TYPICAL WALL SECTION

(LOOKING SOUTH)
SEE SHT. 4 FOR DETAILS



END OF WALL SECTION

(LOOKING SOUTH AT END OF WALL)
BEGINNING OF WALL SIMILAR
SEE SHT. 4 FOR DETAILS



SECTION A-A

(LOOKING WEST AT F.F.)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-592

DRAWN BY DRJ | PLANS CK'D. MNM

CROSS SECTIONS & DETAILS

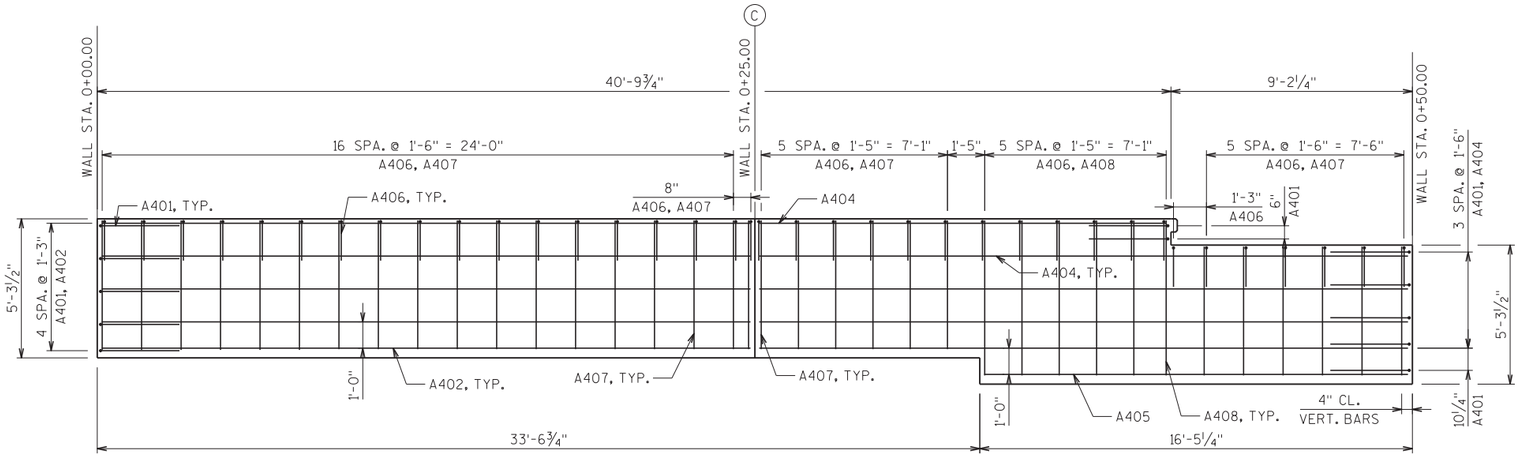
SHEET 3 OF 5

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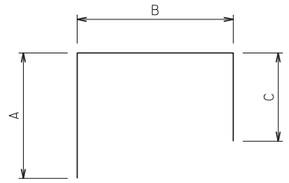


FRONT FACE ELEVATION

(LOOKING WEST)

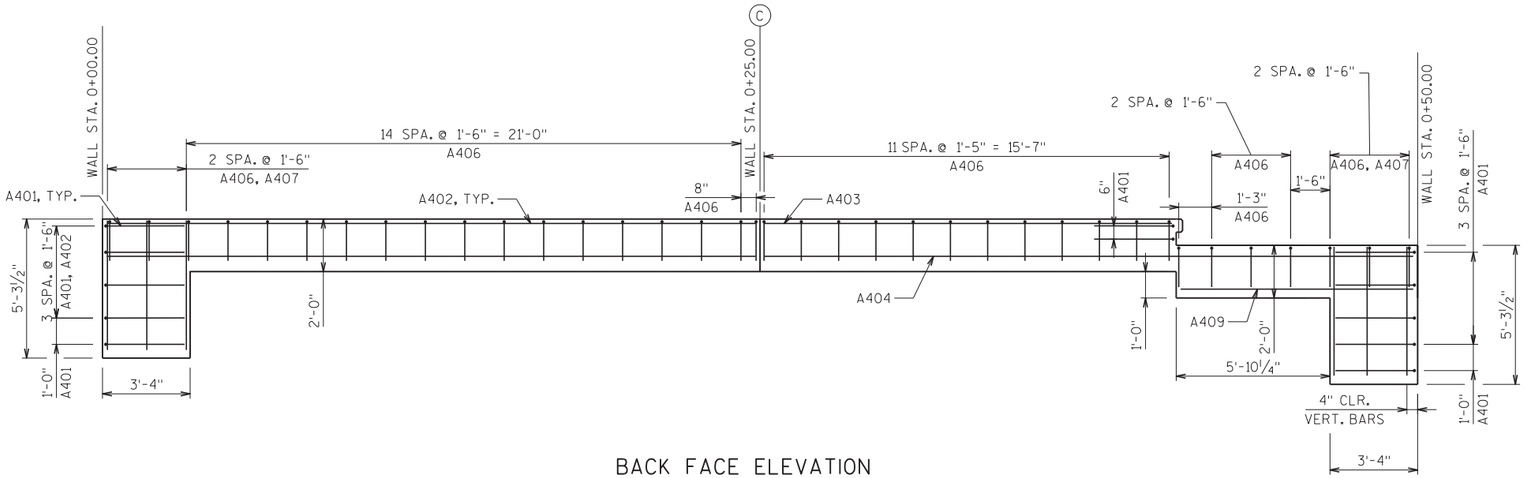
BILL OF BARS 550 LBS.

MARK	COATED	NO REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
A401		12	7'-4"		X	HORIZ. TIE @ END
A402		7	24'-8"			HORIZ. @ F.F. & B.F.
A403		2	15'-5"			HORIZ. @ F.F. & B.F.
A404		5	24'-8"			HORIZ. @ F.F. & B.F.
A405		1	16'-1"			HORIZ. @ F.F.
A406		37	4'-4"		X	VERT. TIE.
A407		36	4'-10"			VERT. @ F.F. & B.F.
A408		6	5'-10"			VERT. @ F.F.
A409		1	8'-10"			HORIZ. @ B.F.



BAR MARK	A	B	C
A401	3'-0"	1'-6"	3'-0"
A406	1'-6"	1'-6"	1'-6"

BENDING DIAGRAMS



BACK FACE ELEVATION

(LOOKING WEST)

LEGEND

Ⓒ CONTRACTION JOINT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-592

DRAWN BY DRJ | PLANS CK'D. MNM

FRONT FACE & BACK FACE DETAILS

SHEET 4 OF 5

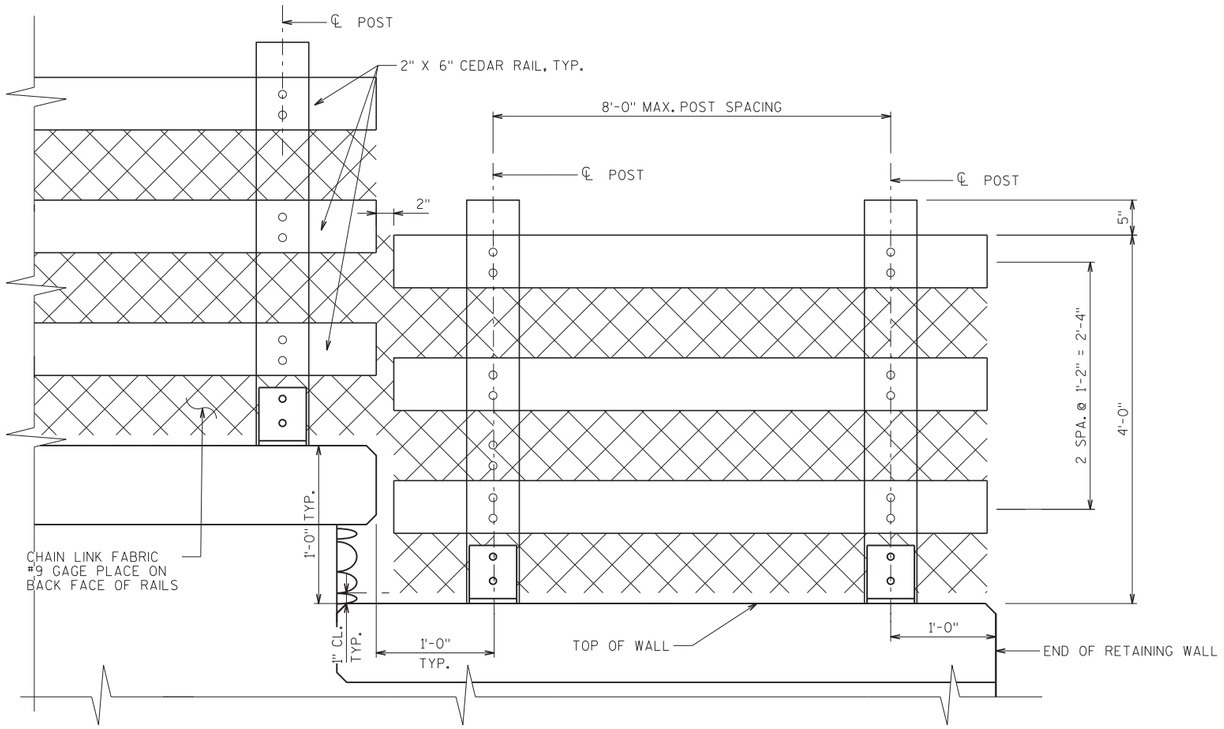
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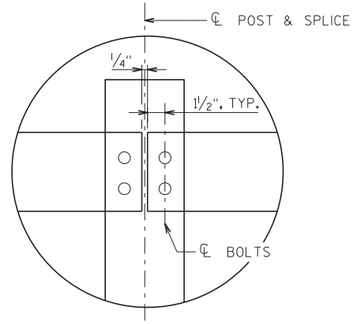
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STATE PROJECT NUMBER

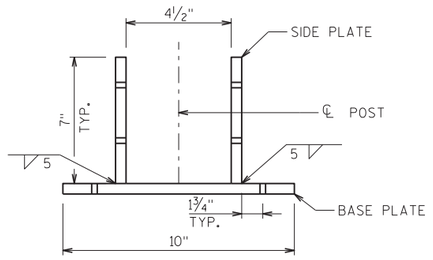
2160-10-70



TIMBER FENCE DETAIL



SPLICE DETAIL



POST BRACKET ASSEMBLY

GENERAL NOTES

FENCING LAYOUT TO BE FINALIZED BY ENGINEER IN THE FIELD.

ALL CEDAR SHALL BE ROUGH SAWN.

HARDWARE, POST BRACKETS, AND ANCHOR PLATE DETAIL INCIDENTAL TO BID ITEM "TIMBER FENCE."

POSTS ARE TO BE SET VERTICAL. RAILS ARE TO BE SET PARALLEL TO TOP OF WALL.

ALL STEEL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH MAY BE ALUMINUM-COATED STEEL OR GALVANIZED STEEL.

FABRIC SHALL CONFORM TO ASTM A491 OR A392, CLASS 2.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

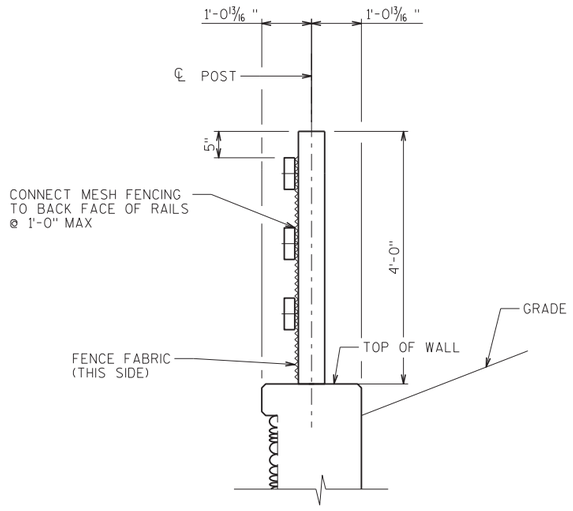
BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE ℄ OF THE POST.

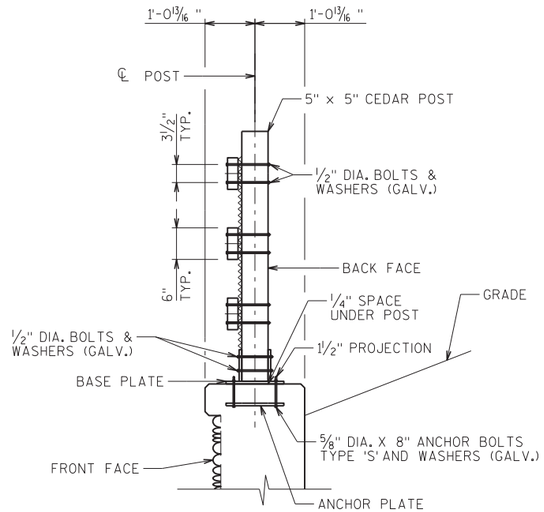
MIN. BOLT EDGE DISTANCE IS 1 1/4" UNLESS OTHERWISE NOTED.

HOLES FOR BOLTS SHALL NOT BE MORE THAN 1/16" GREATER THAN NOMINAL DIAMETER OF BOLT.

ANCHOR PLATE IS NOT REQUIRED IF TYPE 'S' MASONRY ANCHOR BOLTS ARE USED.

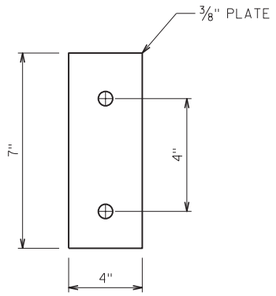


MESH FENCING CONNECTION

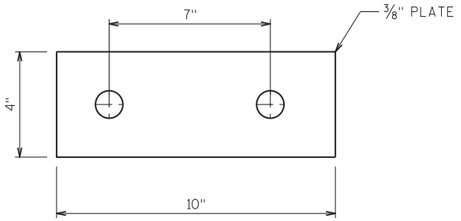


POST CONNECTION

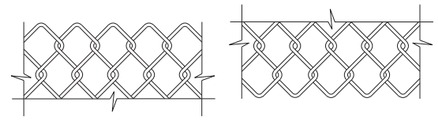
SECTION THRU FENCE



SIDE PLATE DETAIL



ANCHOR PLATE &
BASE PLATE DETAIL



TOP DETAIL BOTTOM DETAIL

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-592

DRAWN BY	PLANS CK'D.
DRJ	MNM

TIMBER FENCE DETAILS

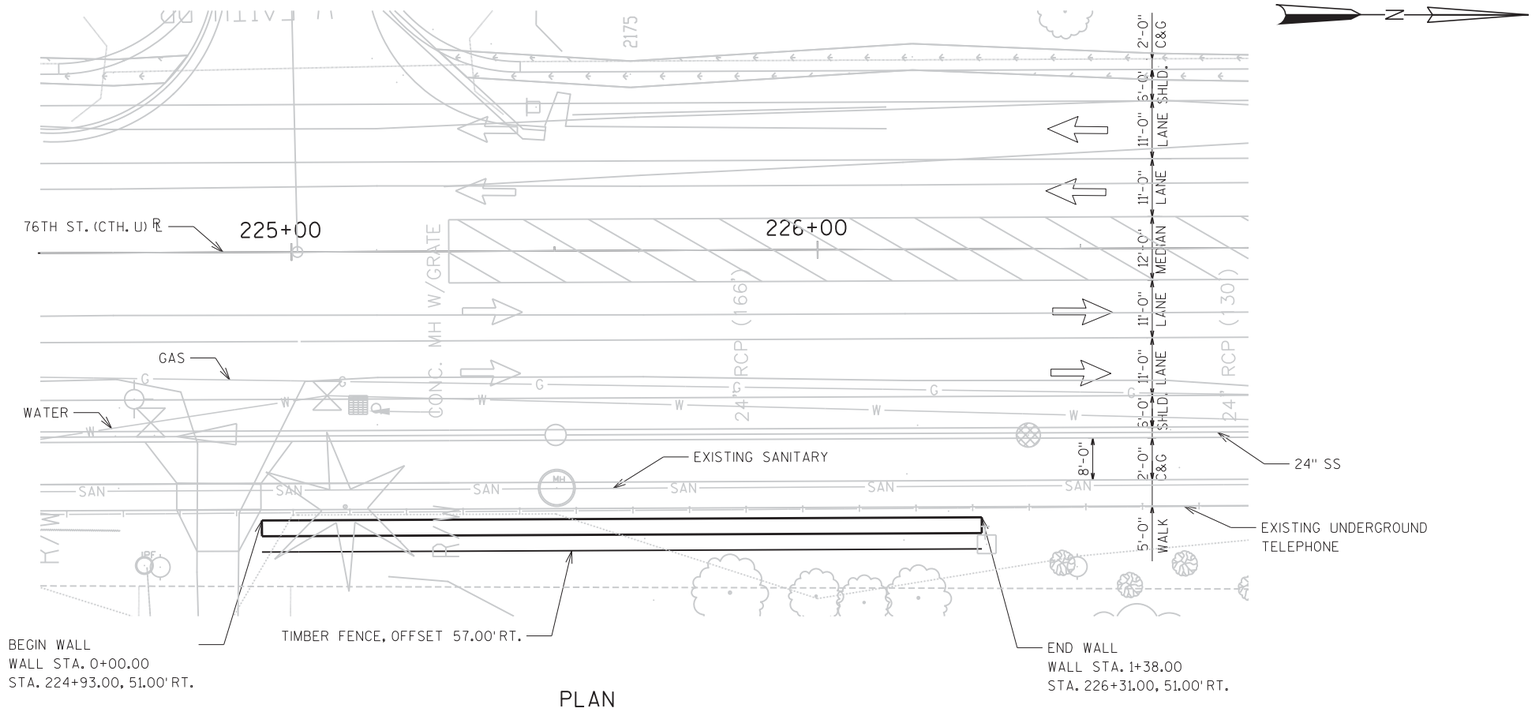
SHEET 5 OF 5

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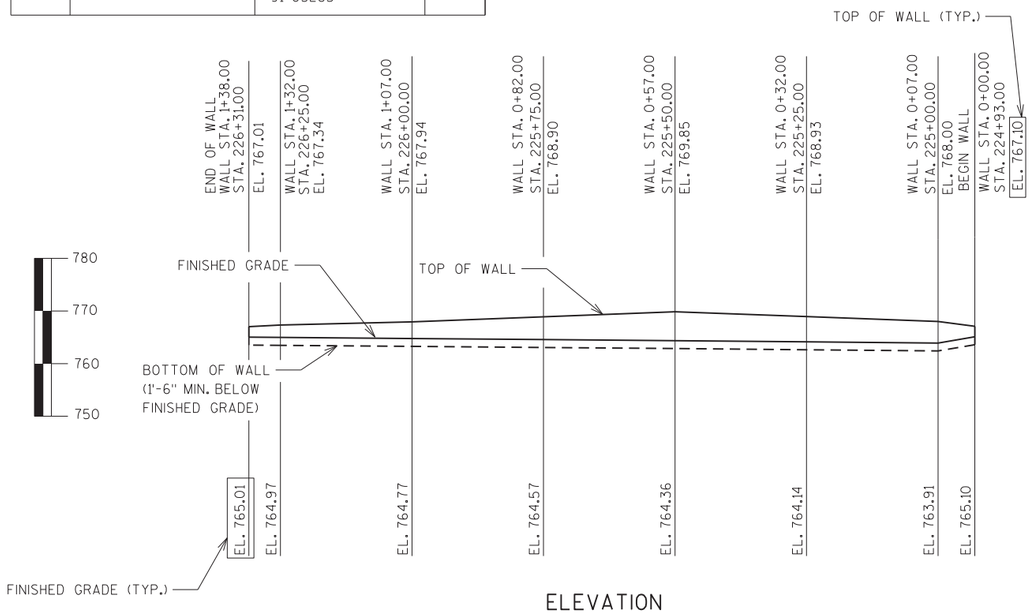
STATE PROJECT NUMBER
2160-10-70



PLAN

BENCHMARKS

NO.	STA/OFFSET	DESCRIPTION	ELEV.
BM 16	231+95.33, 61.26' RT.	SPIKE; POWER POLE #91-03285	767.47



ELEVATION

(LOOKING EAST @ F.F. WALL)

DESIGN DATA

LIVE LOAD SURCHARGE (ROADWAY) = 100 P.S.F.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY ----------f'c = 3,000 P.S.I.
CONCRETE MODULAR BLOCK----------f'c = 5,000 P.S.I.

FOUNDATION DATA:

ULTIMATE SOIL BEARING CAPACITY -
MODULAR BLOCK WALL---------- SEE TABLE ON SHEET 3.

DESIGN THE RETAINING WALL FOR A SLOPED FINISHED GRADE BEHIND THE WALL, AND A LIVE LOAD SURCHARGE OF 100 PSF, UNLESS NOTED OTHERWISE.

TOTAL ESTIMATED QUANTITIES

NO.	BID ITEMS	UNIT	TOTAL
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	160
532.0200.S	WALL MODULAR BLOCK GRAVITY	SF	765
SPV.0090.08	TIMBER FENCE	LF	140

GEOMETRY TABLE

WALL STATION	ROADWAY STATION	OFFSET TO F.F. WALL	TOP OF WALL	FINISHED GRADE
0+00.00	224+93.00	51.00' RT	767.10	765.10
0+07.00	225+00.00	51.00' RT	768.00	763.91
0+32.00	225+25.00	51.00' RT	768.93	764.14
0+57.00	225+50.00	51.00' RT	769.85	764.36
0+82.00	225+75.00	51.00' RT	768.90	764.57
1+07.00	226+00.00	51.00' RT	767.94	764.77
1+32.00	226+25.00	51.00' RT	767.34	764.97
1+38.00	226+31.00	51.00' RT	767.01	765.01

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. SUBSURFACE EXPLORATION
3. CROSS SECTION & DETAILS
4. TIMBER FENCE DETAILS

MILWAUKEE COUNTY CONTACT:
AZIZ ALEIOW (414) 278-4911
BUREAU OF STRUCTURES CONTACT:
WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT:
MAHMOUD MALAS (262) 821-1171

WISCONSIN
MAHMOUD N. MALAS
E-27922
MILWAUKEE, WI
PROFESSIONAL ENGINEER

10/10/2013

NO.	DATE	REVISION	BY

KSA K. Singh & Associates, Inc.
Engineers, Scientists and Environmental Management Consultants

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher for 10/11/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-593

MODULAR BLOCK RETAINING WALL ALONG 76TH ST.

COUNTY MILWAUKEE
~~TOWN~~/CITY/~~VILLAGE~~ FRANKLIN

DESIGN SPEC. AASHTO LRFD DESIGN SPECIFICATIONS

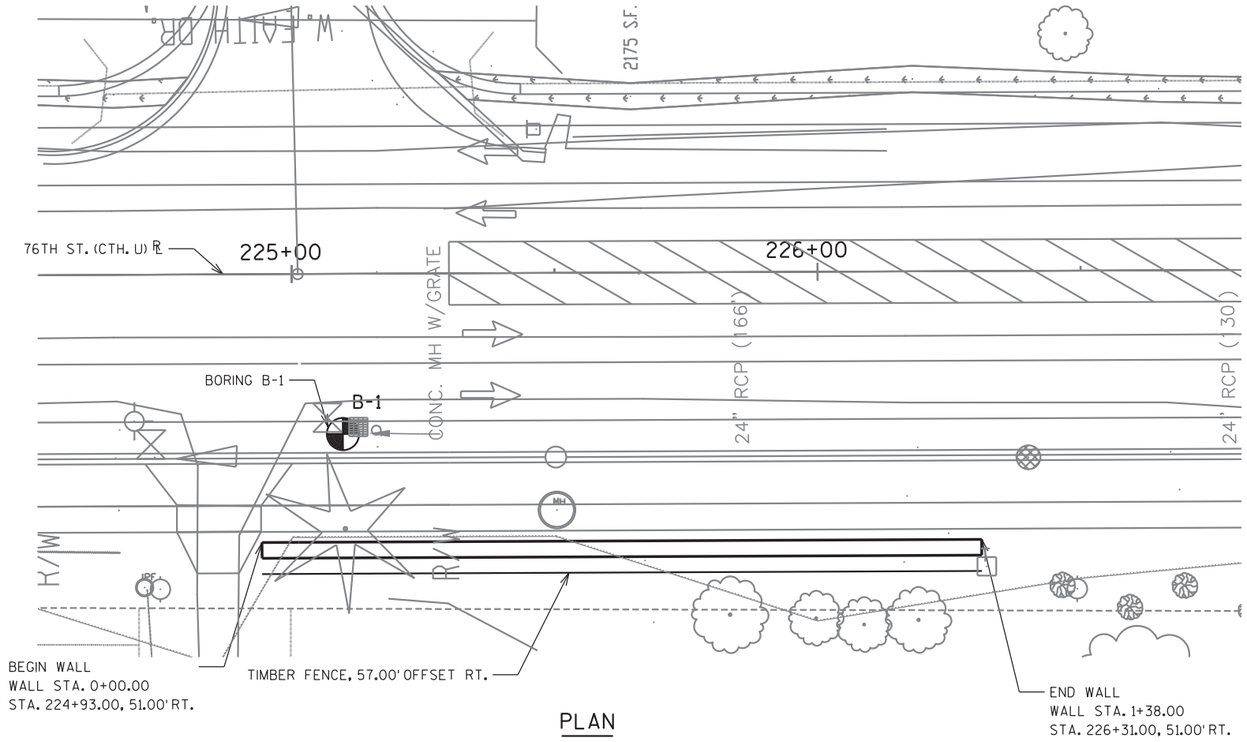
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
DRJ	MNM	DRJ	MNM

GENERAL PLAN & ELEVATION

SHEET 1 OF 4
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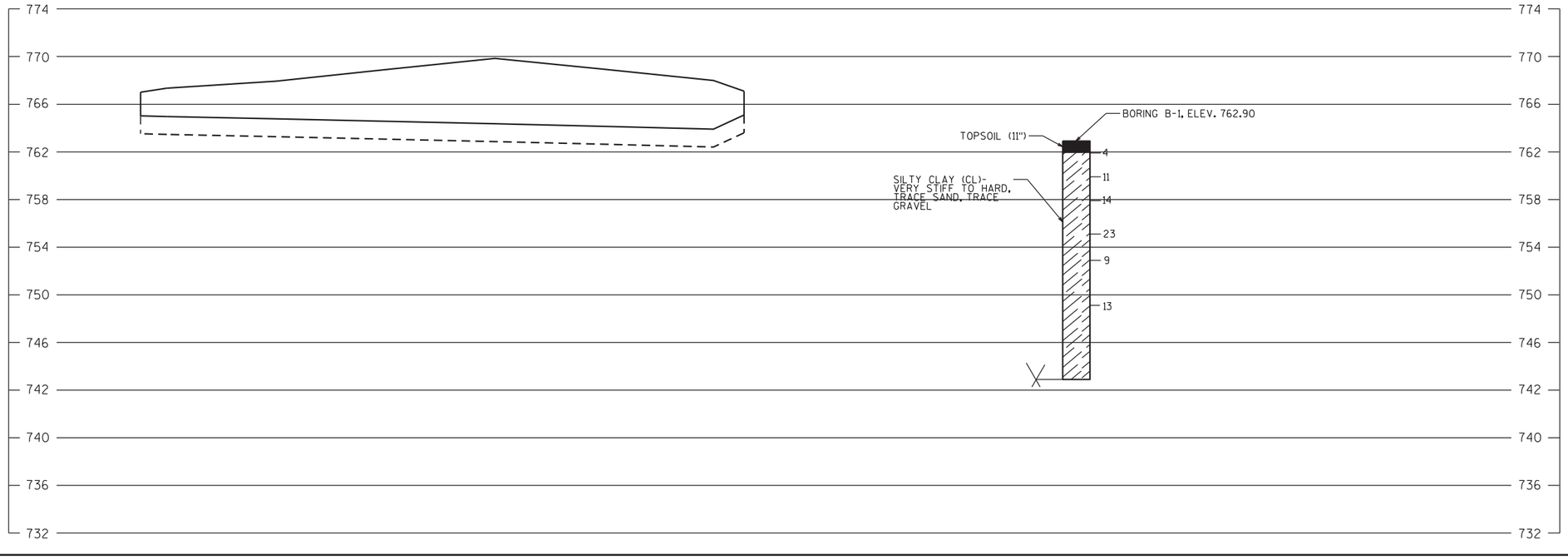
8



PLAN

SOIL BORINGS
BY: K. SINGH AND ASSOCIATES INC.
ON: OCTOBER 5, 2012

SUBSURFACE INVESTIGATION REPORT
BY: K.SINGH AND ASSOCIATES INC.
ON: NOVEMBER 1, 2012



STATE PROJECT NUMBER

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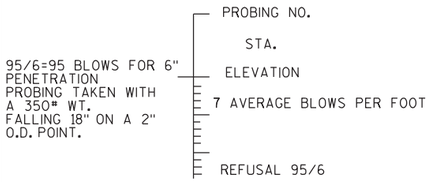
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

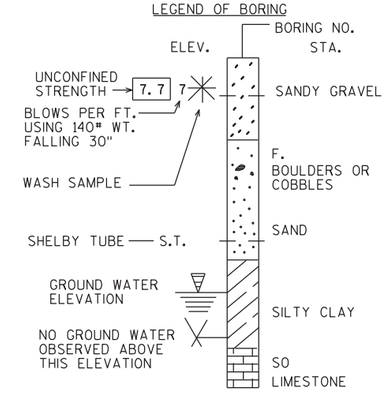
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-593

DRAWN BY DRJ | PLANS CK'D. MNM

SUBSURFACE EXPLORATION

SHEET 2 OF 4
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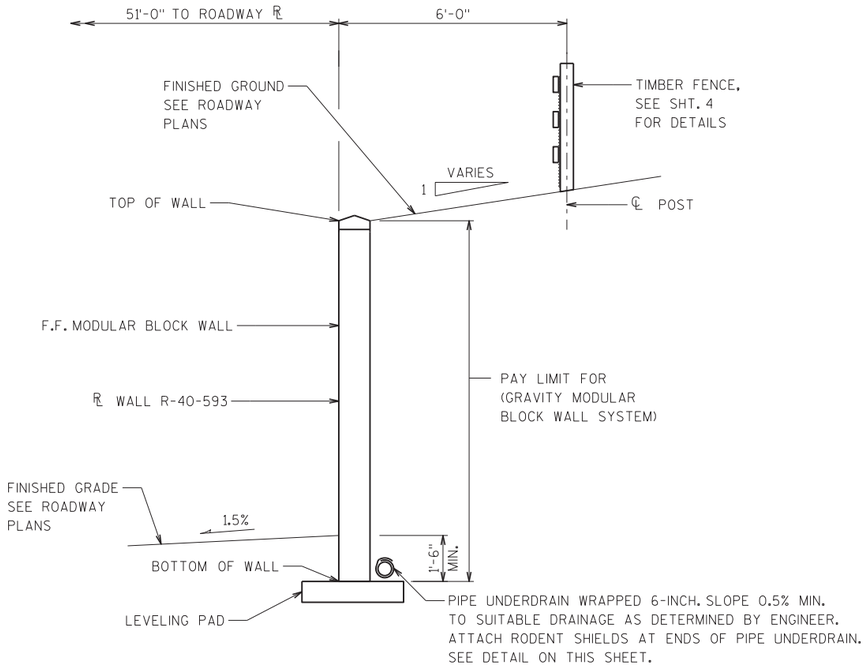
8

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STATE PROJECT NUMBER
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SOIL PARAMETERS

			UNDRAINED		DRAINED	
SOIL UNIT	BOTTOM ELEVATION (FEET)	SOIL UNIT WEIGHT (PSF)	COHESION (PSF)	FRICTION ANGLE (DEGREE)	COHESION (PSF)	FRICTION ANGLE (DEGREE)
TOPSOIL	762.0	121	0	30	0	30
SILTY CLAY	742.0	130	800	18	800	28



TYPICAL WALL SECTION

(LOOKING NORTH)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR OTHERWISE NOTED.

THE PLAN QUANTITY FOR THE BID ITEM "WALL MODULAR BLOCK GRAVITY" IS BASED ON A WALL HEIGHT FROM THE TOP OF THE WALL TO 1'-6" BELOW FINISHED GRADE.

BLOCK WIDTHS GREATER THAN 24" REQUIRED AT BASE OF WALL ALONG HIGHEST HEIGHTS OF WALL.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL MODULAR BLOCK GRAVITY."

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN ON SHEET 1.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

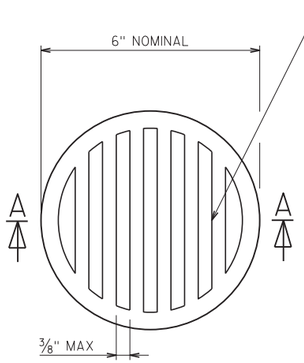
THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30 DEGREES WITHOUT CERTIFIED TEST VALUES.

DESIGN THE RETAINING WALL FOR SLOPED FINISHED GRADE BEHIND THE WALL AND A LIVE LOAD SURCHARGE OF 100 PSF.

MODULAR BLOCK WALL TO BE SPLIT FACE BUFF COLOR TO BE APPROVED BY THE ENGINEER.

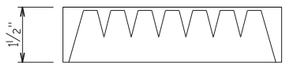
ALL STATIONS AND OFFSETS GIVEN ARE FROM THE FRONT FACE OF WALL UNLESS SHOWN OTHERWISE.

THE TOP OF WALL ELEVATIONS WERE DERIVED FROM THE CROSS SECTIONS AND SHOULD BE FIELD VERIFIED.



RODENT SHIELD

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS. COST OF RODENT SHIELD AND ALL FITTINGS TO BE INCLUDED IN BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".



SECTION A-A

NOTE: ORIENT RODENT SHIELD SO SLOTS ARE VERTICAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-593

DRAWN BY DRJ | PLANS CK'D. MNM

CROSS SECTION & DETAILS

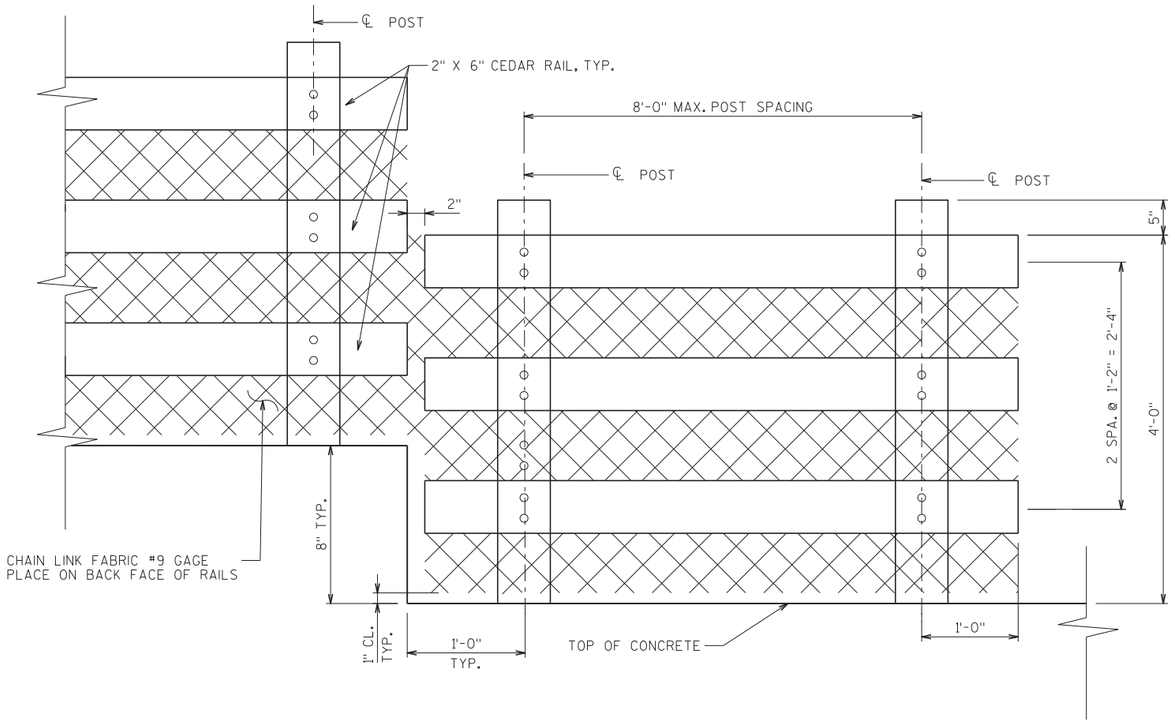
SHEET 3 OF 4

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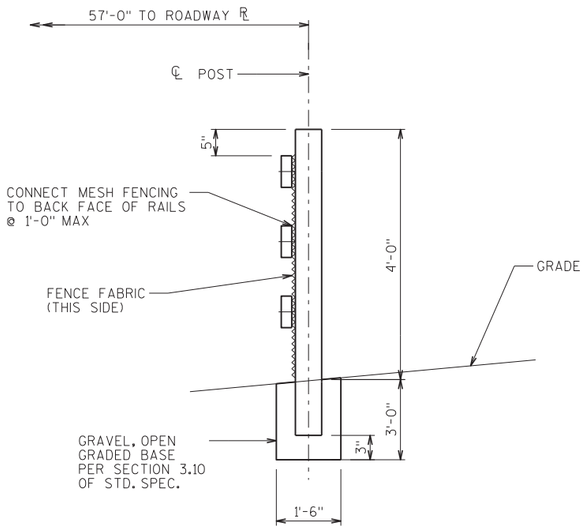
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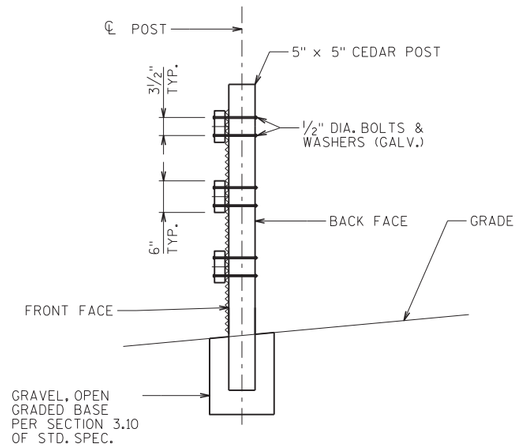


TIMBER FENCE DETAIL

PLACED BEHIND MODULAR BLOCK WALL



MESH FENCING CONNECTION



POST CONNECTION

TYP. SECTION THRU FENCE

GENERAL NOTES

FENCING LAYOUT TO BE FINALIZED BY ENGINEER IN THE FIELD.

ALL CEDAR SHALL BE ROUGH SAWN.

HARDWARE AND DESIGN FOR ANCHORING OF POSTS SHALL BE INCIDENTAL TO BID ITEM "TIMBER FENCE."

CONCRETE AND POST HOLE EXCAVATION SHALL BE INCIDENTAL TO BID ITEM "TIMBER FENCE."

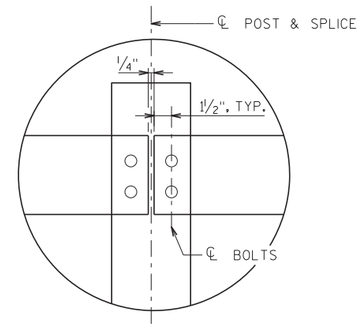
POSTS ARE TO BE SET VERTICAL. RAILS ARE TO BE SET PARALLEL TO TOP OF WALL.

ALL STEEL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH MAY BE ALUMINUM-COATED STEEL OR GALVANIZED STEEL.

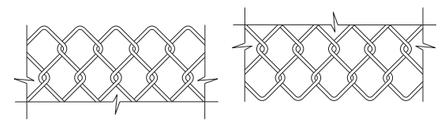
FABRIC SHALL CONFORM TO ASTM A491 OR A392, CLASS 2.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE ℄ OF THE POST.



SPLICE DETAIL



TOP DETAIL BOTTOM DETAIL

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-593

DRAWN BY	PLANS CK'D.
DRJ	MNM

TIMBER FENCE DETAILS

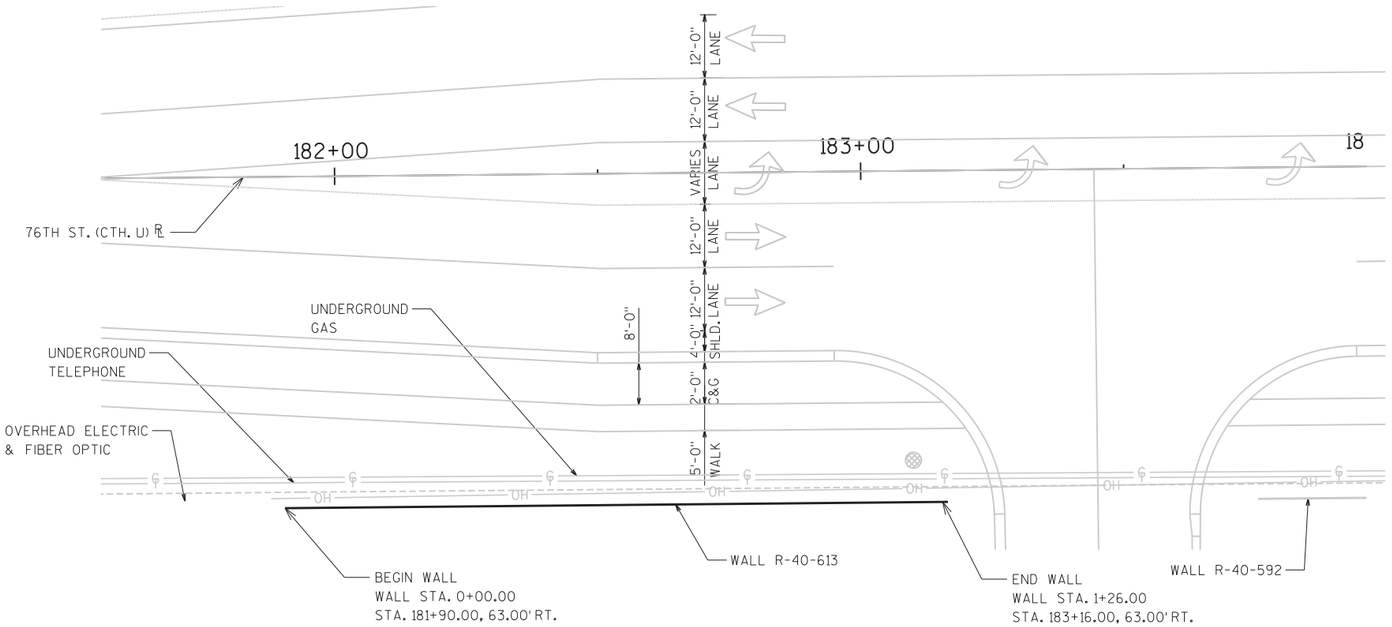
SHEET 4 OF 4

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8

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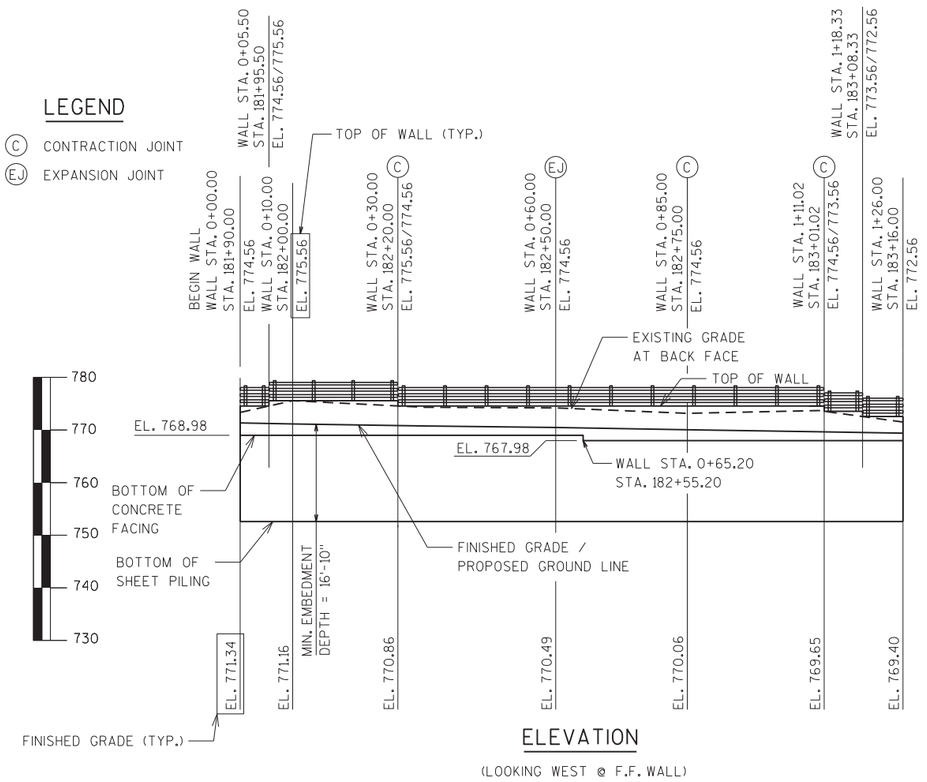
STATE PROJECT NUMBER
2160-10-70



PLAN

BENCHMARKS

NO.	STA/OFFSET	DESCRIPTION	ELEV.
BM 7	185+26.90, 67.82' LT.	NOZZLE; HYDRANT NW CORNER FOREST HILL AVE.	769.49



ELEVATION

(LOOKING WEST @ F.F. WALL)

TOTAL ESTIMATED QUANTITIES

NO.	BID ITEMS	UNIT	TOTAL
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	46
505.0415	BAR STEEL REINFORCEMENT HS RETAINING WALLS	LB	1,320
506.3008	WELDED STUD SHEAR CONNECTORS 5/8 X 5-INCH	EACH	368
512.0500	PILING STEEL SHEET PERMANENT DELIVERED	SF	2,770
512.0600	PILING STEEL SHEET PERMANENT DRIVEN	SF	2,770
SPV.0090.08	TIMBER FENCE	LF	126
SPV.0165.01	STONE FASCIA, RETAINING WALL	SF	610
	NON-BID ITEMS		
PREFORMED FILLER		SIZE	¾"

GEOMETRY TABLE

WALL STATION	ROADWAY STATION	OFFSET TO F.F. WALL	TOP OF WALL	EXIST. GRADE @ B.F. WALL	FINISHED GRADE	BOT. CONC. FACING	BOT. SHEET PILING
0+00.00	181+90.00	63.00' RT	774.56	773.34	771.34	768.98	752.60
0+10.00	182+00.00	63.00' RT	775.56	775.56	771.16	768.98	752.60
0+30.00	182+20.00	63.00' RT	775.56	774.56	770.86	768.98	752.60
0+35.00	182+25.00	63.00' RT	774.56	774.31	770.78	768.98	752.60
0+60.00	182+50.00	63.00' RT	774.56	774.20	770.49	768.98	752.60
0+85.00	182+75.00	63.00' RT	774.56	773.17	770.06	767.98	752.60
1+10.00	183+00.00	63.00' RT	774.56	773.70	769.67	767.98	752.60
1+11.02	183+01.02	63.00' RT	773.56	773.56	769.65	767.98	752.60
1+26.00	183+16.00	63.00' RT	772.56	771.51	769.40	767.98	752.60

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. SUBSURFACE EXPLORATION
3. CROSS SECTIONS & DETAILS
4. FRONT FACE DETAILS
5. BACK FACE DETAILS
6. TIMBER FENCE DETAILS

MILWAUKEE COUNTY CONTACT:
AZIZ ALEIOW (414) 278-4911
BUREAU OF STRUCTURES CONTACT:
WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT:
MAHMOUD MALAS (262) 821-1171

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

ALL STATIONS AND OFFSETS GIVEN ARE FROM THE FRONT FACE OF WALL UNLESS SHOWN OTHERWISE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

SEE SPECIAL PROVISIONS FOR AESTHETIC TREATMENT FOR RETAINING WALL. WORK SHALL BE PAID FOR UNDER BID ITEM "STONE FASCIA, RETAINING WALL".

THE TOP OF WALL ELEVATIONS WERE DERIVED FROM THE CROSS SECTIONS AND SHOULD BE FIELD VERIFIED.

MINIMUM EFFECTIVE PLASTIC SECTION MODULUS OF STEEL SHEET PILING SHALL BE 7.3 INCHES CUBED PER FOOT OF WALL.

CONTRACTOR SHALL BACKFILL ALONG THE FRONT FACE OF THE RETAINING WALL TO THE PROPOSED GROUND LINE PRIOR TO BACKFILLING ALONG THE BACK FACE OF WALL.

EXCAVATE AND BACKFILL AS REQUIRED TO PLACE CONCRETE AND STONE FASCIA WILL BE PAID FOR UNDER BID ITEM "STONE FASCIA, RETAINING WALL". SEE SPECIAL PROVISIONS FOR DETAILS.

WISCONSIN
MAHMOUD N. MALAS
E-27922
MILWAUKEE, WI
PROFESSIONAL ENGINEER

10/10/2013

DESIGN DATA

LIVE LOAD SURCHARGE (ROADWAY) = 100 P.S.F.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY ----------f'c = 3,000 P.S.I.
HIGH STRENGTH BAR STEEL REINFORCEMENT -------fy = 60,000 P.S.I.
STEEL SHEET PILING ----------fy = 50,000 P.S.I.

FOUNDATION DATA:

UNIT WEIGHT OF SOIL ---------- 130 P.C.F.
UNCONFINED COMPRESSIVE STRENGTH ---------- 1600 P.S.F.
COHESION ---------- 800 P.S.F.
ANGLE OF INTERNAL FRICTION (UNDRAINED)------- 18°

NO.	DATE	REVISION	BY

KSA K. Singh & Associates, Inc.
Engineers, Scientists and Environmental Management Consultants

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher KAR — 10/11/13
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE R-40-613

SHEET PILING RETAINING WALL ALONG 76TH ST.

COUNTY	MILWAUKEE	~~TOWN~~/CITY/~~VILLAGE~~	FRANKLIN
DESIGN SPEC.	AASHTO LRFD DESIGN SPECIFICATIONS		

DESIGNED BY	DRJ	DESIGN CK'D.	MNM	DRAWN BY	DRJ	PLANS CK'D.	MNM

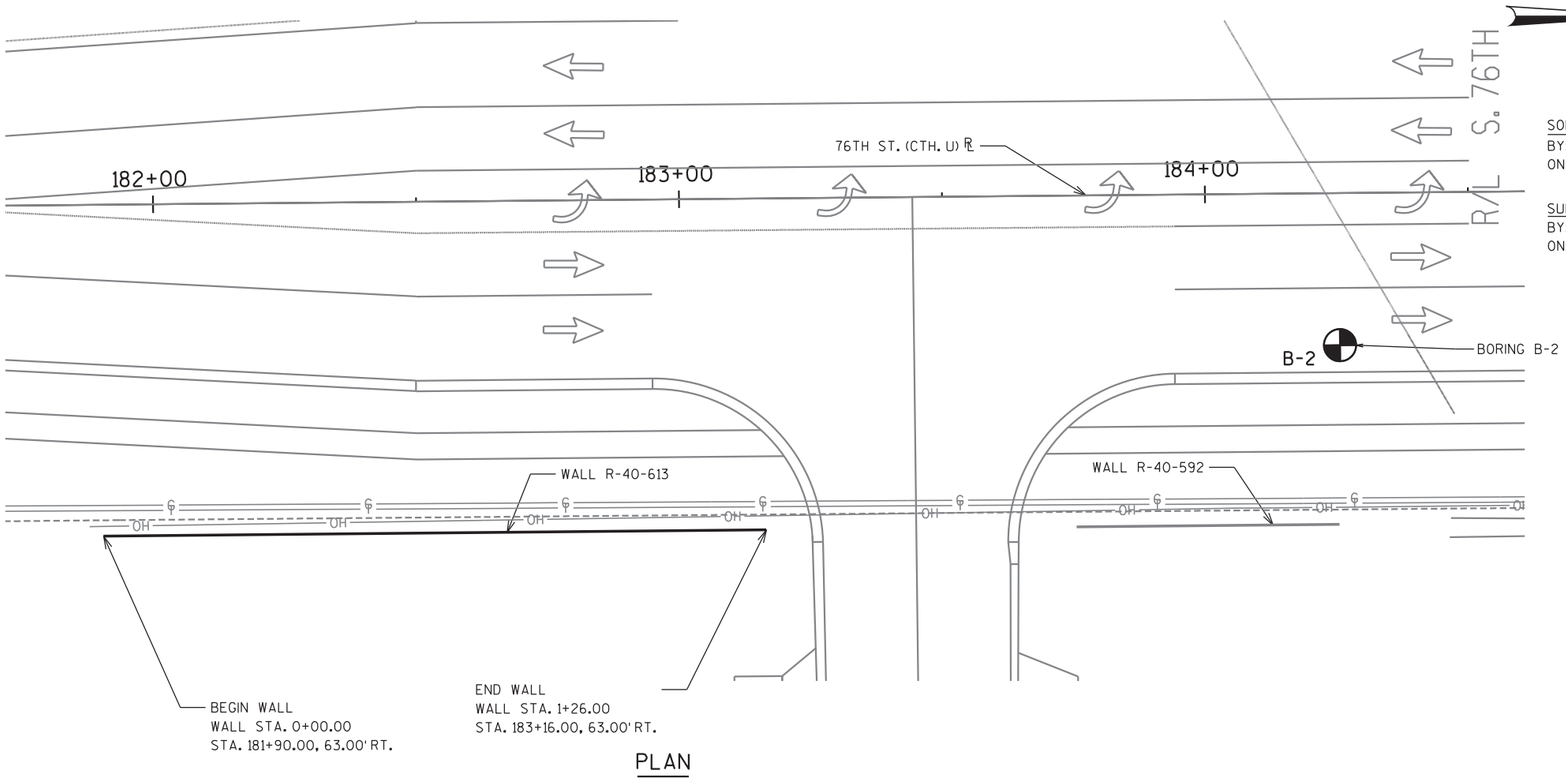
GENERAL PLAN & ELEVATION

SHEET 1 OF 6
497

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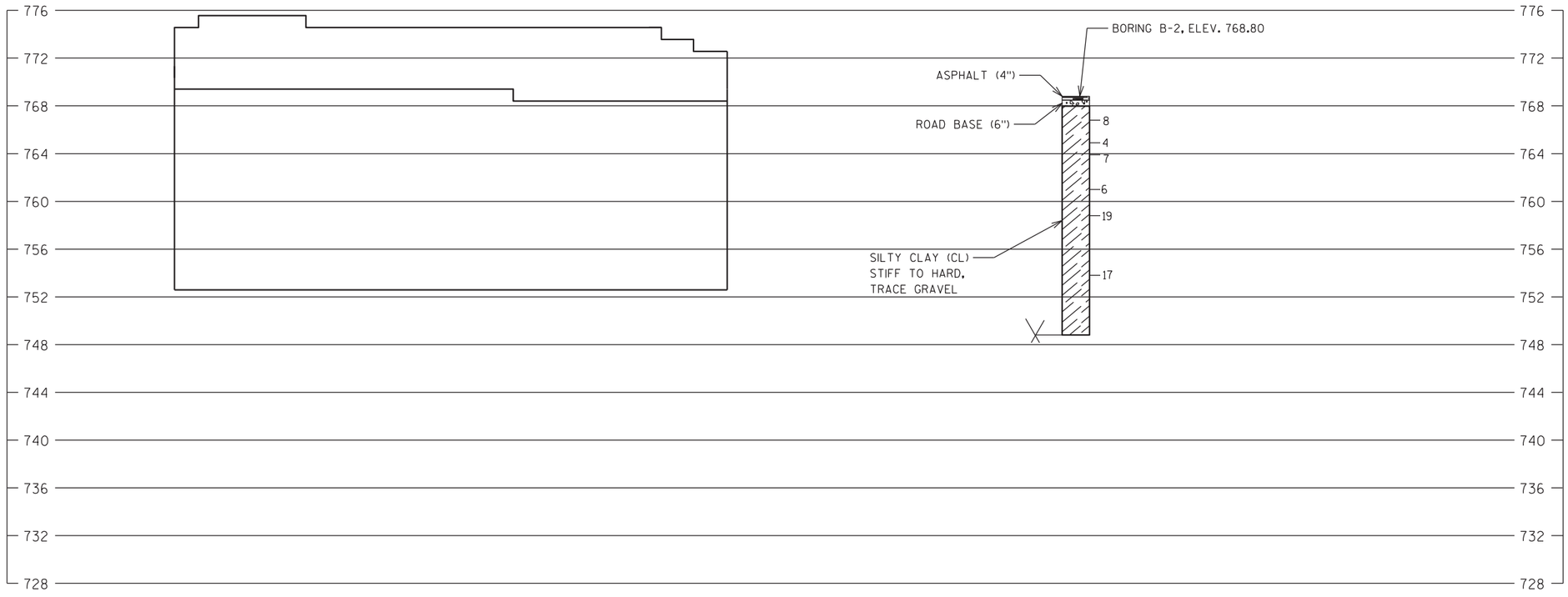
FILE NAME : P:\8312 CTH U (76th St) Legend Creek\CAD\R-40-613\R-40-613_01.dgn
PLOT DATE : 10/10/2013
PLOT SCALE : 28.8003 sf / in.



PLAN

SOIL BORINGS
BY: K. SINGH AND ASSOCIATES INC.
ON: OCTOBER 5, 2012

SUBSURFACE INVESTIGATION REPORT
BY: K.SINGH AND ASSOCIATES INC.
ON: NOVEMBER 1, 2012



STATE PROJECT NUMBER

2160-10-70

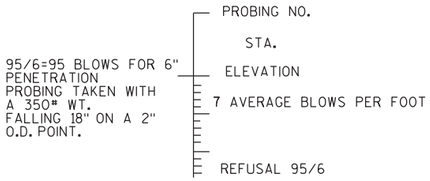
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

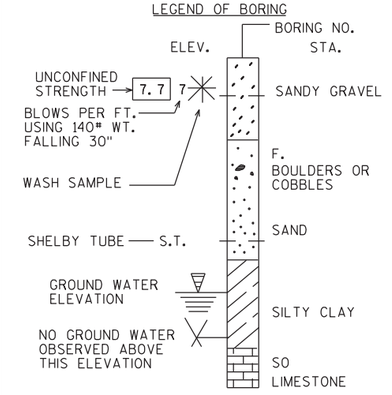
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-613

DRAWN BY DRJ | PLANS CK'D. MNM

SUBSURFACE EXPLORATION

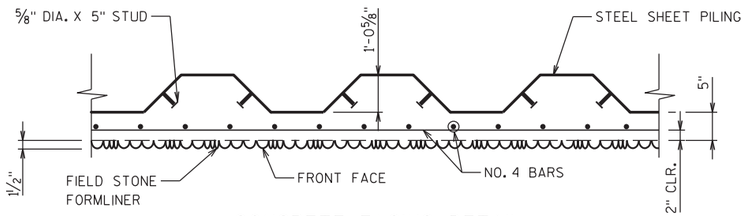
SHEET 2 OF 6
498

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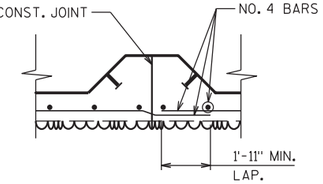
8

STATE PROJECT NUMBER

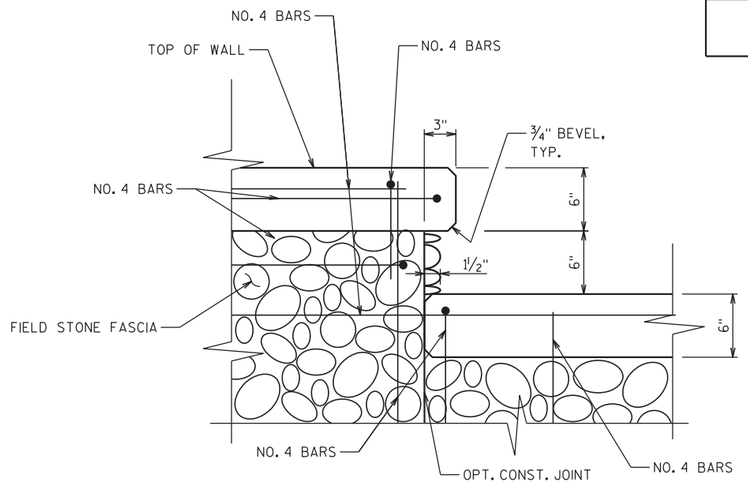
2160-10-70



CONCRETE FACING DETAIL

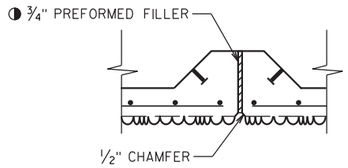


SECTION @ OPTIONAL CONST. JOINT



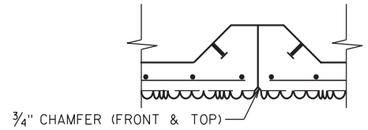
WALL STEP DETAIL

(LOOKING WEST AT F.F. OF WALL)
SEE SHT. 4 AND 5 FOR DETAILS
TIMBER FENCE NOT SHOWN FOR CLARITY



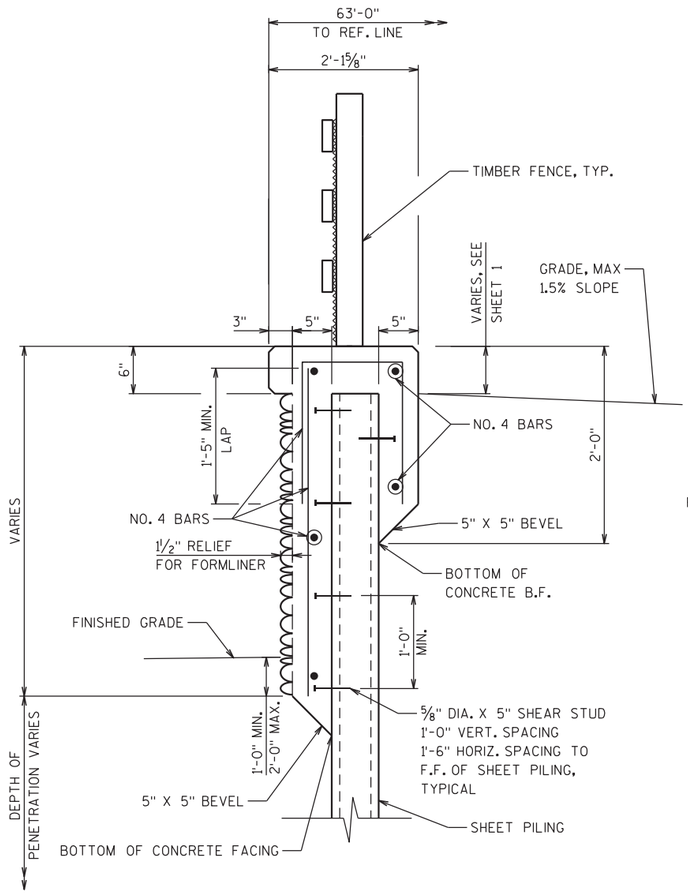
EXPANSION JOINT DETAIL

DO NOT RUN BAR STEEL THRU JOINT



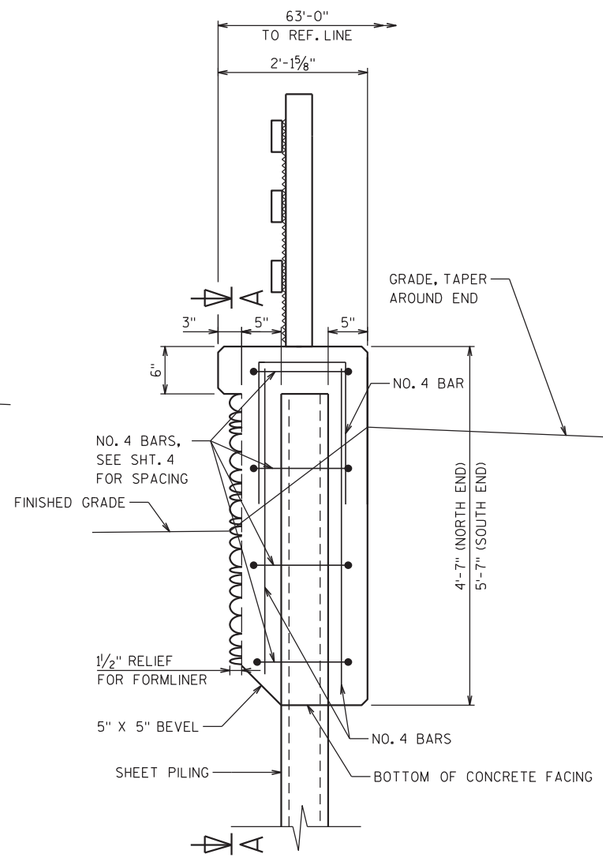
CONTRACTION JOINT DETAIL

DO NOT RUN BAR STEEL THRU JOINT



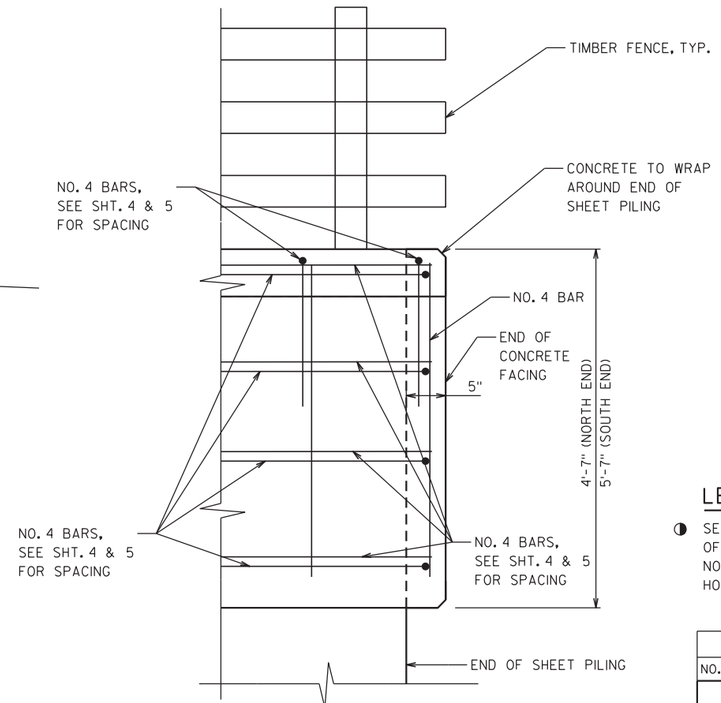
TYPICAL WALL SECTION

(LOOKING SOUTH)
SEE SHT. 4 AND 5 FOR DETAILS



END OF WALL SECTION

(LOOKING SOUTH AT END OF WALL)
BEGINNING OF WALL SIMILAR
SEE SHT. 4 AND 5 FOR DETAILS



SECTION A-A

(LOOKING WEST AT F.F.)

LEGEND

◑ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-613

DRAWN BY	DRJ	PLANS CK'D.	MNM

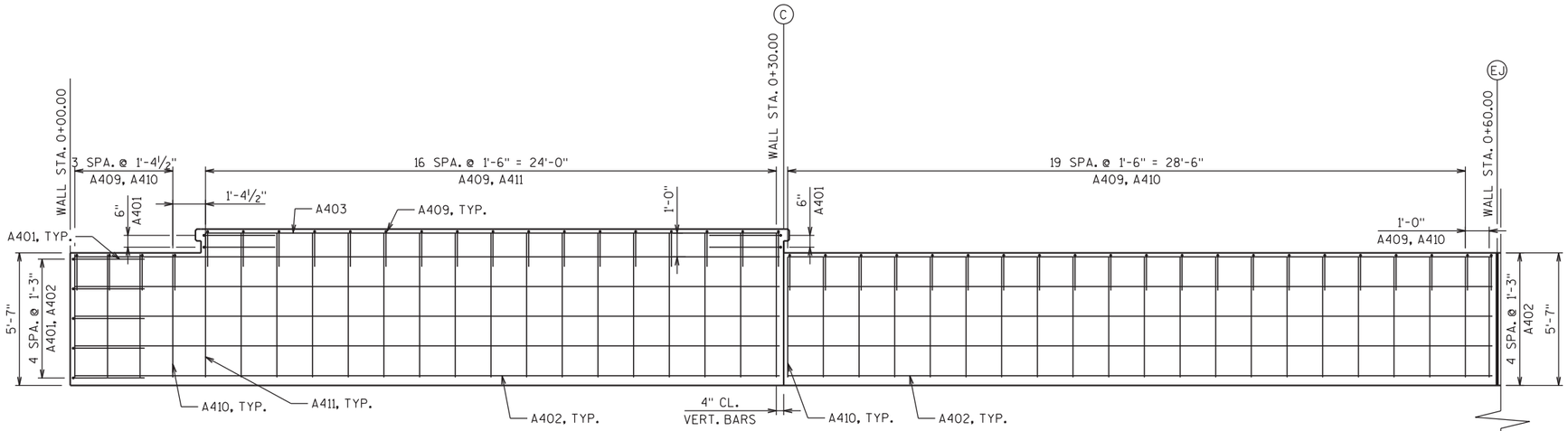
CROSS SECTIONS & DETAILS

SHEET 3 OF 6
499

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STATE PROJECT NUMBER
2160-10-70



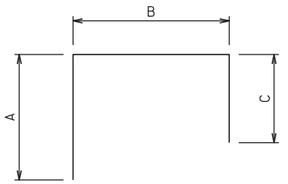
FRONT FACE ELEVATION

(LOOKING WEST)

BILL OF BARS

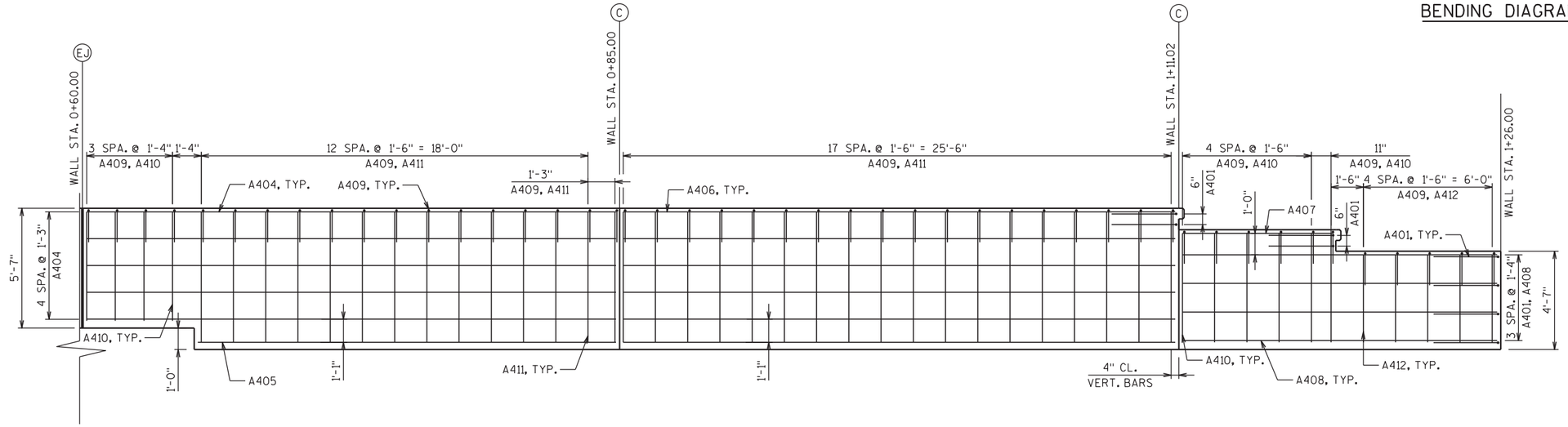
1320 LBS.

MARK	COATED	NO REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
A401		17	7'-4"		X	HORIZ. TIE @ END
A402		13	29'-7"			HORIZ. @ F.F. & B.F.
A403		2	24'-2"			HORIZ. @ F.F.& B.F.
A404		7	24'-7"			HORIZ. @ F.F. & B.F.
A405		1	19'-5"			HORIZ. @ F.F.
A406		8	25'-8"			HORIZ. @ F.F. & B.F.
A407		2	6'-11"			HORIZ. @ F.F. & B.F.
A408		5	14'-8"			HORIZ. @ F.F. & B.F.
A409		89	4'-5"		X	VERT. TIE
A410		35	5'-1"			VERT. @ F.F. & B.F.
A411		49	6'-1"			VERT. @ F.F. & B.F.
A412		8	4'-1"			VERT. @ F.F.
A413		1	5'-2"			HORIZ. @ B.F.
A414		1	7'-4"			HORIZ. @ B.F.



BAR MARK	A	B	C
A401	3'-0"	1'-6"	3'-0"
A409	1'-6"	1'-6"	1'-6"

BENDING DIAGRAMS



FRONT FACE ELEVATION

(LOOKING WEST)

LEGEND

- (C) CONTRACTION JOINT
- (EJ) EXPANSION JOINT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-613

DRAWN BY DRJ | PLANS CK'D. MNM

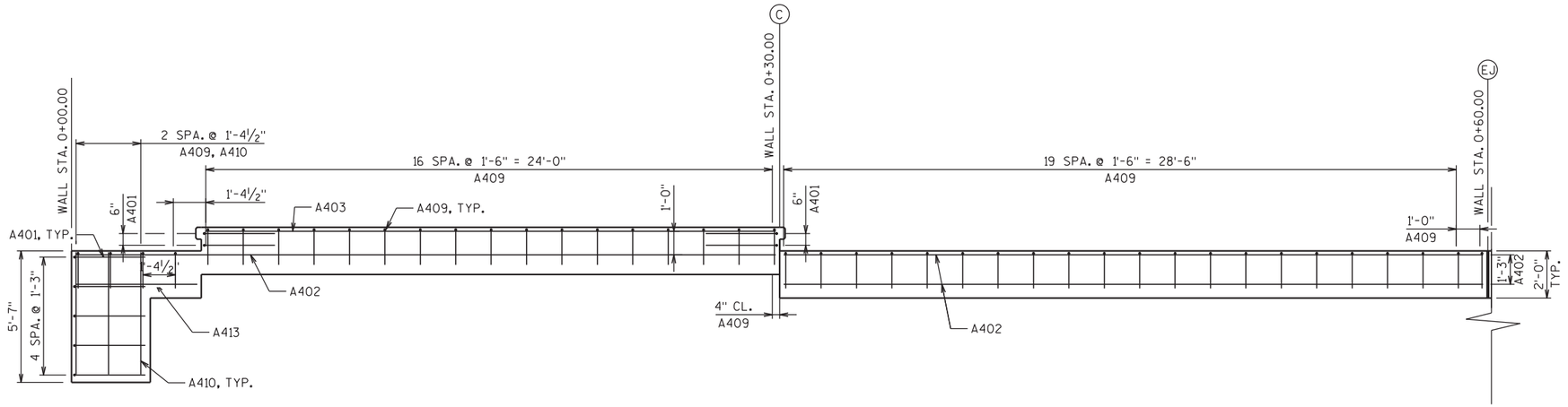
FRONT FACE DETAILS

SHEET 4 OF 6
500

8

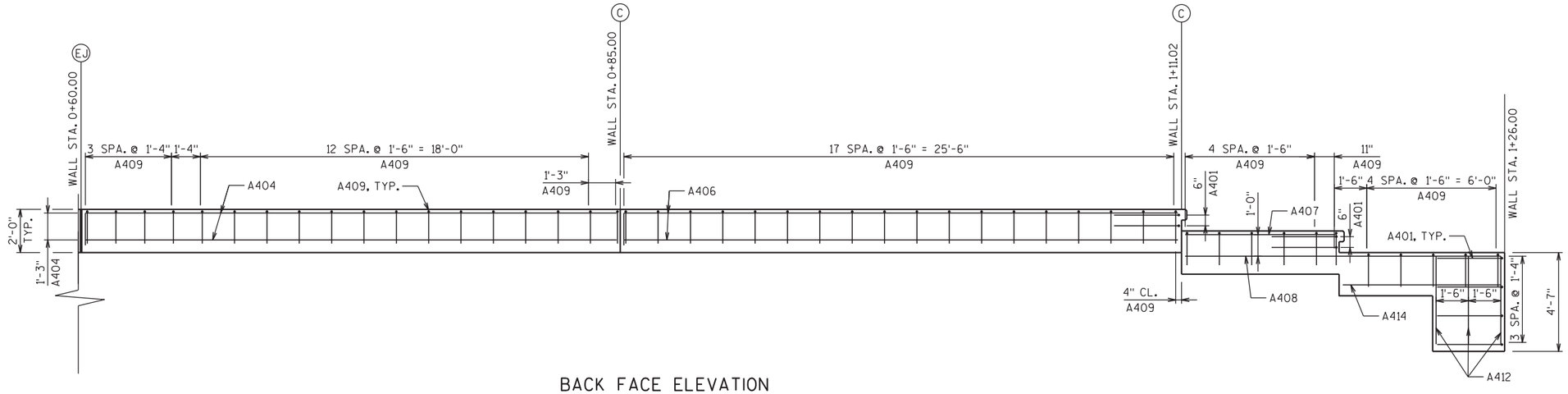
8

STATE PROJECT NUMBER
2160-10-70



BACK FACE ELEVATION

(LOOKING WEST)



BACK FACE ELEVATION

(LOOKING WEST)

8

8

LEGEND

- (C) CONTRACTION JOINT
- (EJ) EXPANSION JOINT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-613

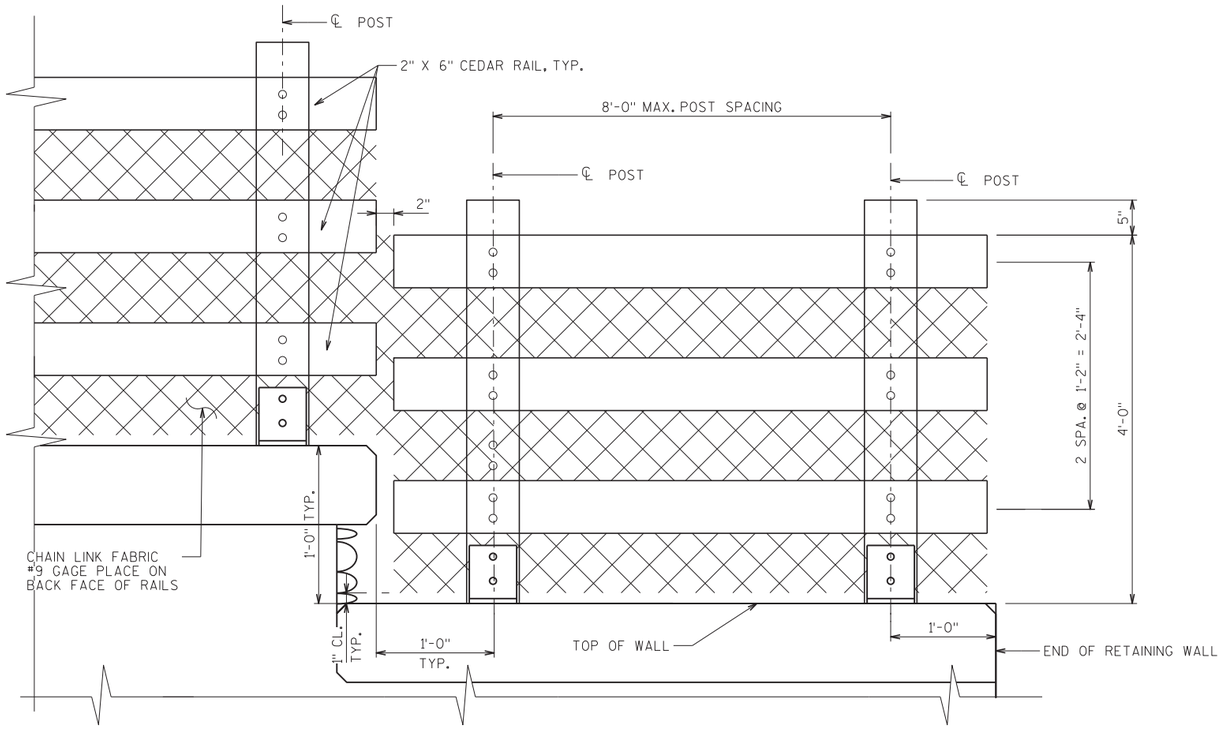
DRAWN BY	DRJ	PLANS CK'D.	MNM

BACK FACE DETAILS

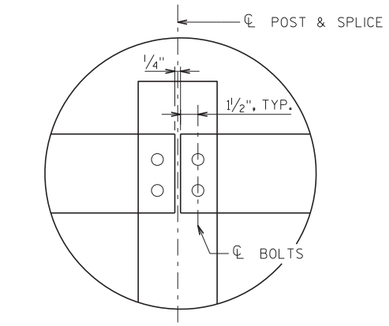
SHEET 5 OF 6

501

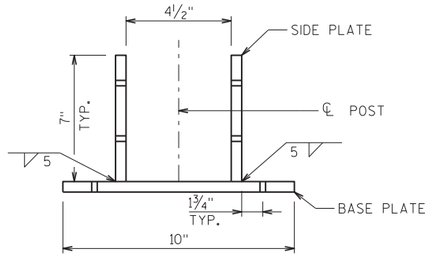
STATE PROJECT NUMBER
2160-10-70



TIMBER FENCE DETAIL



SPLICE DETAIL



POST BRACKET ASSEMBLY

GENERAL NOTES

FENCING LAYOUT TO BE FINALIZED BY ENGINEER IN THE FIELD.

ALL CEDAR SHALL BE ROUGH SAWN.

HARDWARE, POST BRACKETS, AND ANCHOR PLATE DETAIL INCIDENTAL TO BID ITEM "TIMBER FENCE."

POSTS ARE TO BE SET VERTICAL. RAILS ARE TO BE SET PARALLEL TO TOP OF WALL.

ALL STEEL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH MAY BE ALUMINUM-COATED STEEL OR GALVANIZED STEEL.

FABRIC SHALL CONFORM TO ASTM A491 OR A392, CLASS 2.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

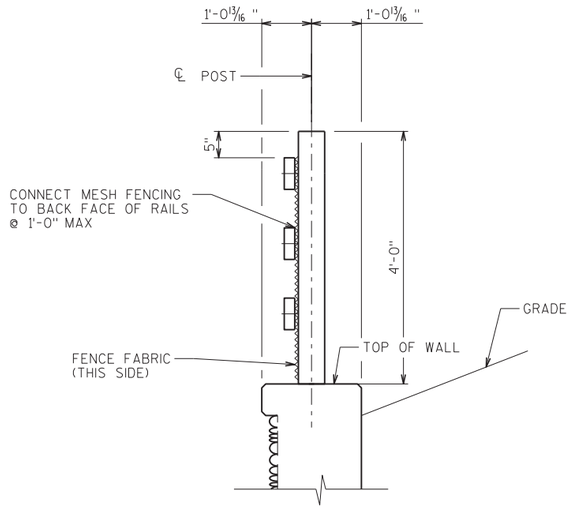
BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE ℄ OF THE POST.

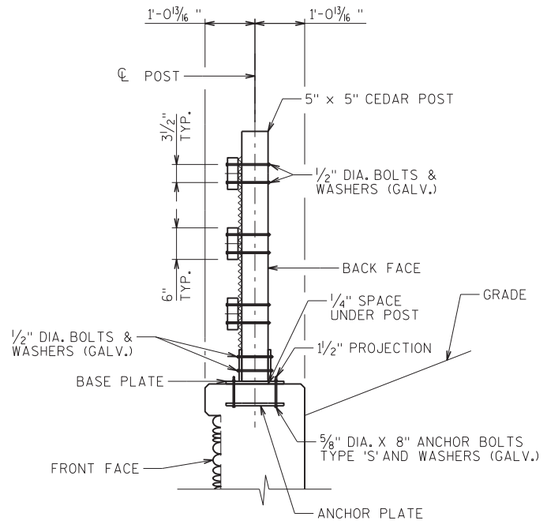
MIN. BOLT EDGE DISTANCE IS 1¼" UNLESS OTHERWISE NOTED.

HOLES FOR BOLTS SHALL NOT BE MORE THAN 1/16" GREATER THAN NOMINAL DIAMETER OF BOLT.

ANCHOR PLATE IS NOT REQUIRED IF TYPE 'S' MASONRY ANCHOR BOLTS ARE USED.

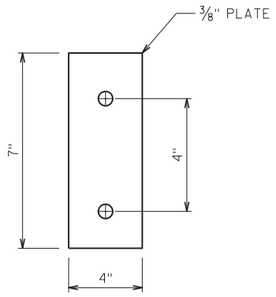


MESH FENCING CONNECTION

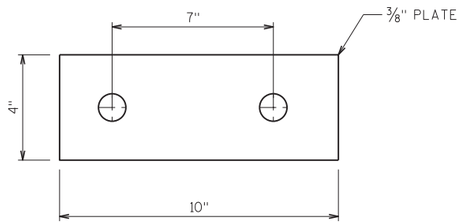


POST CONNECTION

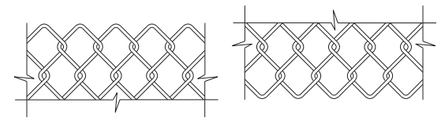
SECTION THRU FENCE



SIDE PLATE DETAIL



ANCHOR PLATE &
BASE PLATE DETAIL



TOP DETAIL BOTTOM DETAIL

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-613

DRAWN BY	PLANS CK'D.
DRJ	MNM

TIMBER FENCE DETAILS

SHEET 6 OF 6
502

8

8

SOIL BORING LOCATION AND INFORMATION

Boring Number	Boring Location Station	Offset from Centerline Feet	Termination Depth Feet	Surface Elevation Feet
B-1	145+00	6.3 RT	7.5	751.41
B-2	151+10	27.9 RT	7.5	748.57
B-3	156+92	5.6 LT	7.5	757.39
B-4	163+44	31.4 RT	7.5	773.07
B-5	168+53	20.7 RT	7.5	781.60
B-6	174+90	23.1 LT	7.5	782.42
B-7	181+26	25.2 RT	7.5	772.75
B-8	187+68	22.5 LT	7.5	767.26
B-9	192+94	6.7 RT	7.5	766.44
B-10	199+26	18.5 RT	7.5	761.53
B-11	205+07	27.9 LT	7.5	753.70
B-12	210+02	6.7 LT	7.5	748.94
B-13	216+77	28.4 RT	7.5	748.24
B-14	222+93	21.3 LT	7.5	759.90
B-15	229+53	7.1 RT	7.5	765.81
B-16	235+37	28.0 LT	7.5	763.77
B-17	239+89	18.3 RT	7.5	760.36
B-18	246+98	31.3 LT	7.5	759.43
B-19	212+79	18.6 LT	65	746.84
B-20	212+31	41.3 RT	60	743.16

NOTE: LOCATION OF SOIL BORINGS ARE SHOWN ON THE PLAN & PROFILE SHEETS LABELED BY BORING NUMBER.

B-1

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/28/2009
DATE DRILLING ENDED	12/28/2009
BORING NUMBER	B-1
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
SURFACE ELEVATION	751.41 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						CONCRETE (9")								Frost to 21" below ground surface (bgs)
						BASE COURSE (8"), silty sand, with gravel, trace clay pockets, brown, wet								
SS - 1	16	4/6/9	15			LEAN CLAY, trace gravel, brownish gray, moist, very stiff to hard Trace sand observed in sample 1				3.00	27	9	24	
SS - 2	18	3/5/7	12	5	746.4	Color changed to brown at 3.5'	CL		A-6	4.00			27	
SS - 3	18	4/6/9	15	10	741.4					4.00			26	
				15	736.4	End of boring at 7.5'								

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: N/A ft.	CAVE DEPTH AT COMPLETION: N/A ft.	WET ☐ DRY ☐
▽	WATER LEVEL AT COMPLETION: N/A ft.	CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: N/A ft.		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

B-2

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/21/2009
DATE DRILLING ENDED	12/21/2009
BORING NUMBER	B-2
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
SURFACE ELEVATION	748.57 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						BASE COURSE (12") on shoulder, silty gravel, with sand, gray, wet Color changed to brown at 6"								
SS - 1	14	7/9/11	20			LEAN CLAY, trace gravel, brown, moist, hard				4.5+			17	
SS - 2	16	9/15/20	35	5	743.6		CL		A-6	4.5+			17	
SS - 3	18	10/16/19	35	10	738.6					4.5+			17	
				15	733.6	End of boring at 7.5'								

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: N/A ft.	CAVE DEPTH AT COMPLETION: N/A ft.	WET ☐ DRY ☐
▽	WATER LEVEL AT COMPLETION: N/A ft.	CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: N/A ft.		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

REVISION DATE: 03/26/2010

B-3

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/29/2009
DATE DRILLING ENDED	12/29/2009
BORING NUMBER	B-3
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
SURFACE ELEVATION	757.39 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						CONCRETE (9")								Frost to 27" bgs
						BASE COURSE (9"), silty sand, fine to coarse grain, with gravel, brown, moist								
SS - 1	16	3/5/8	13			FILL, silty clay, trace sand, gravel and organic, dark brown and black mixed, moist			A-4				20	Organic content= 4.1%
SS - 2	12	5/5/5	10	5	752.4	FILL, lean clay, trace sand, gravel and organic, occasional silt lens, olive, moist, very stiff			A-6	2.50			28	Organic content= 1.4%
SS - 3	18	4/6/11	17			LEAN CLAY, trace gravel, brown, moist, very stiff	CL		A-6	3.00			16	
						End of boring at 7.5'								
				10	747.4									
				15	742.4									

WATER & CAVE-IN OBSERVATION DATA

WATER ENCOUNTERED DURING DRILLING:	N/A ft.	CAVE DEPTH AT COMPLETION:	N/A ft.
WATER LEVEL AT COMPLETION:	N/A ft.	CAVE DEPTH AFTER HOURS:	N/A ft., 0 hrs.
WATER LEVEL AFTER 0 HOURS:	N/A ft.		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

B-4

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/21/2009
DATE DRILLING ENDED	12/21/2009
BORING NUMBER	B-4
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
SURFACE ELEVATION	773.07 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (12"), fine to coarse sand, with gravel, trace organic, dark brown, moist							22	Organic content= 3.9%
SS - 1	16	5/9/11	20			LEAN CLAY, trace gravel, brown, moist, hard				4.50			15	
SS - 2	16	7/10/15	25	5	768.1		CL		A-6	4.5+			15	
SS - 3	16	8/9/17	26							4.5+			15	
						End of boring at 7.5'								
				10	763.1									
				15	758.1									

WATER & CAVE-IN OBSERVATION DATA

WATER ENCOUNTERED DURING DRILLING:	N/A ft.	CAVE DEPTH AT COMPLETION:	N/A ft.
WATER LEVEL AT COMPLETION:	N/A ft.	CAVE DEPTH AFTER HOURS:	N/A ft., 0 hrs.
WATER LEVEL AFTER 0 HOURS:	N/A ft.		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

REVISION DATE: 03/26/2010

B-5

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/21/2009
DATE DRILLING ENDED	12/21/2009
BORING NUMBER	B-5
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
SURFACE ELEVATION	781.6 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						BASE COURSE (12") on shoulder, silty sand, with gravel, brown, moist								
SS - 1	16	5/7/9	16			LEAN CLAY, trace sand and gravel, brown, moist, hard				4.50	31	13	16	
SS - 2	15	5/9/13	22	5	776.6		CL		A-6	4.50			16	
SS - 3	16	6/11/12	23							4.50			16	
				10	771.6	End of boring at 7.5'								
				15	766.6									

WATER & CAVE-IN OBSERVATION DATA

WATER ENCOUNTERED DURING DRILLING: N/A ft.		CAVE DEPTH AT COMPLETION: N/A ft.	WET / DRY
WATER LEVEL AT COMPLETION: N/A ft.		CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET / DRY
WATER LEVEL AFTER 0 HOURS: N/A ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

B-6

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/22/2009
DATE DRILLING ENDED	12/22/2009
BORING NUMBER	B-6
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
SURFACE ELEVATION	782.42 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (2"), sand, trace roots and organics, dark brown, moist								
						BASE COURSE (22") on shoulder, fine to coarse sand, with gravel, brown, moist								
SS - 1	12	6/4/6	10			LEAN CLAY, trace angular gravel, brown, moist, very stiff (Possible Fill)	CL		A-6	2.50			14	
SS - 2	16	6/12/18	30	5	777.4	LEAN CLAY, with gravel, brown, moist, hard	CL		A-6	4.5+			17	
SS - 3	14	6/10/21	31			Large gravel piece observed in Sample 3				4.5+			17	
				10	772.4	End of boring at 7.5'								
				15	767.4									

WATER & CAVE-IN OBSERVATION DATA

WATER ENCOUNTERED DURING DRILLING: N/A ft.		CAVE DEPTH AT COMPLETION: N/A ft.	WET / DRY
WATER LEVEL AT COMPLETION: N/A ft.		CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET / DRY
WATER LEVEL AFTER 0 HOURS: N/A ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

REVISION DATE: 03/26/2010

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	SOIL BORING LOGS	SCALE: NOT TO SCALE	SHEET NO: 506	E

B-7

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/21/2009
DATE DRILLING ENDED	12/21/2009
BORING NUMBER	B-7
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
SURFACE ELEVATION	772.75 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						BASE COURSE (12") on shoulder, fine to coarse sand, with gravel, brown, moist								
SS - 1	16	5/7/10	17			FILL, lean clay, with sand and gravel, trace organic, dark gray, moist			A-6	2.50			20	Organic content= 3.4%
SS - 2	16	2/6/8	14	5	767.8	LEAN CLAY, trace sand and gravel, brown, moist, hard	CL		A-6	4.50			17	
SS - 3	16	3/6/9	15	10	762.8	End of boring at 7.5'				4.50			17	
				15	757.8									

WATER & CAVE-IN OBSERVATION DATA

WATER ENCOUNTERED DURING DRILLING: N/A ft.		CAVE DEPTH AT COMPLETION: N/A ft.	WET / DRY
WATER LEVEL AT COMPLETION: N/A ft.		CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET / DRY
WATER LEVEL AFTER 0 HOURS: N/A ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

B-8

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/22/2009
DATE DRILLING ENDED	12/22/2009
BORING NUMBER	B-8
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
SURFACE ELEVATION	767.26 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						BASE COURSE (12") on shoulder, silty sand, fine to coarse grain, with gravel, trace clay, brown, moist								
SS - 1	16	3/4/6	10			LEAN CLAY, trace gravel, gray brown mottled, moist, stiff to very stiff				2.00			15	
SS - 2	16	2/3/6	9	5	762.3	Color changed to gray at 4.5'	CL		A-6	1.50			18	
SS - 3	14	3/4/6	10	10	757.3	End of boring at 7.5'				1.50			20	
				15	752.3									

WATER & CAVE-IN OBSERVATION DATA

WATER ENCOUNTERED DURING DRILLING: N/A ft.		CAVE DEPTH AT COMPLETION: N/A ft.	WET / DRY
WATER LEVEL AT COMPLETION: N/A ft.		CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET / DRY
WATER LEVEL AFTER 0 HOURS: N/A ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

REVISION DATE: 03/26/2010

B-9

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/29/2009
DATE DRILLING ENDED	12/29/2009
BORING NUMBER	B-9
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
SURFACE ELEVATION	766.44 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						CONCRETE (9")								Frost to 25" bgs
						BASE COURSE (6"), silty sand, with gravel, gray brown mix, moist								
						LEAN CLAY, with organics, dark brown, moist	CL							
SS - 1	12	4/6/7	13			LEAN CLAY, trace gravel, occasional sand seams, brown, moist, hard	CL		A-6	4.5+			17	Organic content= 2.6%
SS - 2	18	3/4/6	10	5	761.4	LEAN CLAY, trace gravel, gray brown mottled, moist, very stiff	CL		A-6	3.00			21	
SS - 3	18	4/5/8	13							3.00			19	
				10	756.4	End of boring at 7.5'								
				15	751.4									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: N/A ft.	CAVE DEPTH AT COMPLETION: N/A ft.	WET ☐ DRY ☐
▽	WATER LEVEL AT COMPLETION: N/A ft.	CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: N/A ft.		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

B-10

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/21/2009
DATE DRILLING ENDED	12/21/2009
BORING NUMBER	B-10
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
SURFACE ELEVATION	761.53 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						BASE COURSE (18") on shoulder, fine to coarse sand, with gravel, brown, moist								
SS - 1	14	4/6/8	14			FILL, lean clay, trace angular gravel, gray brown mixed, moist, hard			A-6	4.50			15	
SS - 2	16	3/5/7	12	5	756.5	FILL, lean clay, trace gravel and organic, dark gray, moist, hard			A-6	4.50	44	19	22	Organic content= 1.7%
SS - 3	16	4/5/8	13			Color changed to olive at 6.5'				4.50			19	Organic content= 0.8%
				10	751.5	End of boring at 7.5'								
				15	746.5									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: N/A ft.	CAVE DEPTH AT COMPLETION: N/A ft.	WET ☐ DRY ☐
▽	WATER LEVEL AT COMPLETION: N/A ft.	CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: N/A ft.		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

REVISION DATE: 03/26/2010

9

9

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	SOIL BORING LOGS	SCALE: NOT TO SCALE	SHEET NO: 508	E

B-11

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/22/2009
DATE DRILLING ENDED	12/22/2009
BORING NUMBER	B-11
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
SURFACE ELEVATION	753.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						BASE COURSE (12") on shoulder, silty sand, fine to coarse grain, with gravel, trace clay, brown, moist								
SS - 1	12	3/6/8	14			LEAN CLAY, trace gravel, brown, moist, hard				3.00			20	
SS - 2	16	6/9/13	22	5	748.7		CL		A-6	2.25			21	
SS - 3	16	5/10/15	25							4.5+			27	
						End of boring at 7.5'								
				10	743.7									
				15	738.7									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: N/A ft.	CAVE DEPTH AT COMPLETION: N/A ft.	WET ☐ DRY ☐
▽	WATER LEVEL AT COMPLETION: N/A ft.	CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: N/A ft.		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

B-12

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/29/2009
DATE DRILLING ENDED	12/29/2009
BORING NUMBER	B-12
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
NORTHING	
EASTING	
SURFACE ELEVATION	748.94 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						ASPHALT (2")								Frost to 27" bgs
						CONCRETE (9")								
						BASE COURSE (7"), silty sand, with gravel, brown, moist								
SS - 1	12	3/3/5	8			LEAN CLAY, trace sand and gravel, brown, moist, hard							17	
SS - 2	18	9/15/17	32	5	743.9		CL		A-6	4.5+			20	
SS - 3	18	5/9/14	23							4.5+			20	
						End of boring at 7.5'								
				10	738.9									
				15	733.9									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: N/A ft.	CAVE DEPTH AT COMPLETION: N/A ft.	WET ☐ DRY ☐
▽	WATER LEVEL AT COMPLETION: N/A ft.	CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: N/A ft.		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

REVISION DATE: 03/26/2010

9

9

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	SOIL BORING LOGS	SCALE: NOT TO SCALE	SHEET NO: 509	E

B-13

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/21/2009
DATE DRILLING ENDED	12/21/2009
BORING NUMBER	B-13
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
SURFACE ELEVATION	748.24 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						BASE COURSE (12") on shoulder, fine to coarse sand, with gravel, brown, moist								
SS - 1	16	5/6/8	14			FILL, silty clay, with sand, trace angular gravel and organic, gray brown mixed, moist, hard				4.5+			16	
SS - 2	16	6/8/12	20	5	743.2				A-4	4.50			23	Organic content= 1.8%
SS - 3	16	5/8/13	21							4.50			20	
						End of boring at 7.5'								
				10	738.2									
				15	733.2									

WATER & CAVE-IN OBSERVATION DATA

WATER ENCOUNTERED DURING DRILLING: N/A ft.		CAVE DEPTH AT COMPLETION: N/A ft.	WET / DRY
WATER LEVEL AT COMPLETION: N/A ft.		CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET / DRY
WATER LEVEL AFTER 0 HOURS: N/A ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

B-14

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/22/2009
DATE DRILLING ENDED	12/22/2009
BORING NUMBER	B-14
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
SURFACE ELEVATION	759.9 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						BASE COURSE (12") on shoulder, silty sand, with gravel, brown, moist								
SS - 1	10	10/28/19	47			FILL, silty sand, with gravel and granite pieces, trace clay pockets, brown, moist			A-2-4					
SS - 2	16	8/11/19	30	5	754.9	LEAN CLAY, trace sand, brown, moist, very stiff to hard	CL		A-6	4.5+			20	
SS - 3	16	9/12/21	33							3.50			17	
						End of boring at 7.5'								
				10	749.9									
				15	744.9									

WATER & CAVE-IN OBSERVATION DATA

WATER ENCOUNTERED DURING DRILLING: N/A ft.		CAVE DEPTH AT COMPLETION: N/A ft.	WET / DRY
WATER LEVEL AT COMPLETION: N/A ft.		CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET / DRY
WATER LEVEL AFTER 0 HOURS: N/A ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

REVISION DATE: 03/26/2010

B-15

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/29/2009
DATE DRILLING ENDED	12/29/2009
BORING NUMBER	B-15
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
SURFACE ELEVATION	765.81 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						CONCRETE (9")								Frost to 24" bgs
SS - 1	6	3/6/8	14			BASE COURSE (6"), silty sand, with gravel, gray brown mixed, moist FILL, lean clay, with sand, trace gravel, gray and dark brown mixed, moist, stiff			A-6				14	
SS - 2	18	9/9/9	18	5	760.8	LEAN CLAY, trace gravel, brown, moist, hard	CL		A-6	4.5+			16	
SS - 3	18	6/8/12	20							4.5+			19	
				10	755.8	End of boring at 7.5								
				15	750.8									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: N/A ft.	CAVE DEPTH AT COMPLETION: N/A ft.	WET ☐ DRY ☐
▽	WATER LEVEL AT COMPLETION: N/A ft.	CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: N/A ft.		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

B-16

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/22/2009
DATE DRILLING ENDED	12/22/2009
BORING NUMBER	B-16
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
SURFACE ELEVATION	763.77 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						BASE COURSE (12") on shoulder, silty sand, with gravel, brown, moist								
SS - 1	16	7/11/12	23			SILT, trace sand, brown, moist, medium dense	ML		A-4					
SS - 2	16	8/14/22	36	5	758.8	SILTY CLAY, trace sand and angular gravel, brown, moist, hard	CL-ML		A-6	4.5+			12	
SS - 3	16	9/15/23	38							4.5+			10	
				10	753.8	End of boring at 7.5'								
				15	748.8									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: N/A ft.	CAVE DEPTH AT COMPLETION: N/A ft.	WET ☐ DRY ☐
▽	WATER LEVEL AT COMPLETION: N/A ft.	CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: N/A ft.		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

REVISION DATE: 03/26/2010

B-17

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/21/2009
DATE DRILLING ENDED	12/21/2009
BORING NUMBER	B-17
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
SURFACE ELEVATION	760.36 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						BASE COURSE (18") on shoulder, fine to coarse sand, with gravel, gray, moist								
SS - 1	16	14/5/8	13			FILL, silty clay, trace sand, dark gray, moist			A-4	2.50			16	Organic content =2.4 %
SS - 2	16	3/4/5	9	5	755.4	FAT CLAY, trace gravel, olive, moist, stiff to very stiff	CH		A-7-6	2.00	53	32	23	Organic content =2.5 %
SS - 3	16	2/4/6	10							1.75			24	Organic content =1.9%
						End of boring at 7.5'								
				10	750.4									
				15	745.4									

WATER & CAVE-IN OBSERVATION DATA

WATER ENCOUNTERED DURING DRILLING: N/A ft.		CAVE DEPTH AT COMPLETION: N/A ft.	WET / DRY
WATER LEVEL AT COMPLETION: N/A ft.		CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET / DRY
WATER LEVEL AFTER 0 HOURS: N/A ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

B-18

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/29/2009
DATE DRILLING ENDED	12/29/2009
BORING NUMBER	B-18
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	4" SOLID
SURFACE ELEVATION	759.43 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						CONCRETE (9")								Frost to 23" bgs
						BASE COURSE (9"), silty sand, fine to coarse grain, with gravel, light white and gray mix, moist								
SS - 1	18	4/32/28	60			FILL, silty sand, with gravel and concrete rubble, dark brown, moist			A-2-4					
SS - 2	18	4/8/8	16	5	754.4	SILTY SAND, trace angular gravel, brown, very moist, medium dense (Possible Fill)	SM		A-2-4					
SS - 3	18	3/8/9	17											
						End of boring at 7.5'								
				10	749.4									
				15	744.4									

WATER & CAVE-IN OBSERVATION DATA

WATER ENCOUNTERED DURING DRILLING: N/A ft.		CAVE DEPTH AT COMPLETION: N/A ft.	WET / DRY
WATER LEVEL AT COMPLETION: N/A ft.		CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET / DRY
WATER LEVEL AFTER 0 HOURS: N/A ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

REVISION DATE: 03/26/2010

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PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	SOIL BORING LOGS	SCALE: NOT TO SCALE	SHEET NO: 512	E

B-19 (1 of 3)

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/23/2009
DATE DRILLING ENDED	12/23/2009
BORING NUMBER	B-19
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	3¼" HSA
SURFACE ELEVATION	746.84 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						ASPHALT (1")								
						CONCRETE (7")								
						BASE COURSE (6"), silty sand, with gravel, gray brown mix, moist								
						Blind Drill to 18'								
				5	741.8									
				10	736.8									
				15	731.8									
SH - 1	10					FILL, silty clay, with sand, trace gravel, dark brown and gray mixed, moist							24	
				20	726.8	LEAN CLAY, trace gravel, gray, moist, very stiff							16	1st attempt- No recovery 2nd attempt- Poor recovery
SS - 2	18	4/9/16	25				CL			3.75	32	16	17	
				25	721.8									
SH - 3	24									2.58			18	Wet density= 137 pcf Dry density= 116 pcf
				30	716.8									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 39 ft.	▨	CAVE DEPTH AT COMPLETION: N/A ft.	WET ☐ DRY ☐
▽	WATER LEVEL AT COMPLETION: N/A ft.	■	CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: N/A ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/23/2009
DATE DRILLING ENDED	12/23/2009
BORING NUMBER	B-19
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	3¼" HSA
SURFACE ELEVATION	746.84 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 4	18	5/8/10	18	35	711.8	LEAN CLAY, trace gravel, gray, moist, very stiff	CL			2.50			19	
SS - 5	18	9/32/24	56	40	706.8	SILT, gray, saturated, very dense	ML							
SS - 6	18	3/5/8	13	45	701.8	LEAN CLAY, trace gravel, gray, moist, very stiff	CL			2.75			17	
SS - 7	18	5/7/9	16	50	696.8					3.00			25	
SS - 8	18	6/8/10	18	55	691.8					3.00			22	
SS - 9	18	4/7/9	16	60	686.8	With sand and gravel observed in Sample 9				3.00			15	

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 39 ft.	▨	CAVE DEPTH AT COMPLETION: N/A ft.	WET ☐ DRY ☐
▽	WATER LEVEL AT COMPLETION: N/A ft.	■	CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: N/A ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

REVISION DATE: 03/26/2010

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9

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	SOIL BORING LOGS	SCALE: NOT TO SCALE	SHEET NO: 513	E

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(3 of 3)

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/23/2009
DATE DRILLING ENDED	12/23/2009
BORING NUMBER	B-19
PROJECT NUMBER	09107-10
DRILLING RIG	CME 75
DRILLING METHOD	3¼" HSA
SURFACE ELEVATION	746.84 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 10	18	5/7/9	16	65	681.8	LEAN CLAY, trace gravel, gray, moist, very stiff	CL			2.00			12	
						End of boring at 65'								
				70	676.8									
				75	671.8									
				80	666.8									
				85	661.8									
				90	656.8									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 39 ft.	CAVE DEPTH AT COMPLETION: N/A ft.	WET ☐ DRY ☐
▽	WATER LEVEL AT COMPLETION: N/A ft.	CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: N/A ft.		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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(1 of 2)

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/14/2009
DATE DRILLING ENDED	12/14/2009
BORING NUMBER	B-20
PROJECT NUMBER	09107-10
DRILLING RIG	Diedrich D50
DRILLING METHOD	3¼" HSA
SURFACE ELEVATION	743.16 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (12")								
SS - 1	12	1/2/3	5			FILL, lean clay, with angular gravel, trace sand, trace roots, brown, moist				2.50			21	
SS - 2	14	1/2/2	4	5	738.2					2.00			19	
SS - 3	16	2/1/2	3							1.00			19	
SH - 4	18			10	733.2					0.50			16	
SS - 5	10	2/1/1	2			SILTY SAND, fine to coarse grain, with gravel, brown, moist, very loose (Possible Fill)	SM							
SS - 6	14	1/3/3	6	15	728.2	LEAN CLAY, trace gravel, brown, moist, very stiff to hard	CL			4.00			19	
SH - 7	12									4.5+			15	Pushed 1' only
SS - 8	18	3/10/10	20	20	723.2	Color changed to gray at 23.5'				2.50	33	16	19	
				25	718.2									
SS - 9	18	3/6/9	15	30	713.2	8" thick sand seam observed at 30'				3.00			19	

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: N/A ft.	CAVE DEPTH AT COMPLETION: N/A ft.	WET ☐ DRY ☐
▽	WATER LEVEL AT COMPLETION: N/A ft.	CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: N/A ft.		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

REVISION DATE: 03/26/2010

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9

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	SOIL BORING LOGS	SCALE: NOT TO SCALE	SHEET NO: 514 E

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(2 of 2)

SOIL BORING LOG

PROJECT NAME	S. 76th Street Reconstruction (WISDOT I.D. 2160-10-70)
PROJECT LOCATION	Franklin, Wisconsin
DATE DRILLING STARTED	12/14/2009
DATE DRILLING ENDED	12/14/2009
BORING NUMBER	B-20
PROJECT NUMBER	09107-10
DRILLING RIG	Diedrich D50
DRILLING METHOD	3¼" HSA
SURFACE ELEVATION	743.16 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	AASHTO Classification	Unconfined Comp. Strength (Qu or Qp) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						LEAN CLAY, trace gravel, brown, moist, very stiff to hard								
SS - 10	18	4/7/10	17	35	708.2					3.00			20	
SH - 11	24			40	703.2		CL			2.32			18	Wet density= 138 pcf Dry density= 117 pcf
SS - 12	18	4/7/8	15	45	698.2					2.50			22	
SS - 13	18	8/17/18	35	50	693.2	SAND, fine to coarse grain, with gravel, gray, saturated, dense	SP							
SS - 14	18	3/5/8	13	55	688.2	LEAN CLAY, trace fine gravel, gray, moist, very stiff	CL			2.50			21	
SS - 15	18	3/7/5	12	60	683.2	End of boring at 60'				2.50			28	

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: N/A ft.	▨	CAVE DEPTH AT COMPLETION: N/A ft.	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: N/A ft.	▨	CAVE DEPTH AFTER HOURS: N/A ft., 0 hrs.	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: N/A ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

REVISION DATE: 03/26/2010

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9

PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	SOIL BORING LOGS	SCALE: NOT TO SCALE	SHEET NO: 515

EARTHWORK STAGE 1A

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged/ Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged/ Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
							Note 1	Note 2	Note 3			1.00 Note 1	1.25	1.50 Note 4	1.30 Note 5	0.60 Note 6	0.80 Note 7	Note 8
144+00		5	0	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0
144+50	50	4	0	0	33	0	8	0	0	59	0	8	-44	88	0	35	0	52
145+00	50	4	0	0	46	0	7	0	0	73	0	15	-99	197	0	79	0	113
145+50	50	6	0	0	24	0	9	0	0	65	0	24	-147	294	0	118	0	171
146+00	50	5	0	0	36	0	10	0	0	55	0	33	-189	377	0	151	0	222
146+50	50	4	0	0	34	0	7	0	0	64	0	41	-237	474	0	190	0	278
147+00	50	3	0	0	28	0	6	0	0	57	0	47	-280	560	0	224	0	327
147+50	50	4	0	0	23	0	6	0	0	47	0	53	-315	631	0	252	0	369
148+00	50	5	0	0	29	0	8	0	0	48	0	61	-352	703	0	281	0	413
148+50	50	7	0	0	28	0	10	0	0	52	0	71	-391	782	0	313	0	462
149+00	50	3	0	0	31	0	9	0	0	54	0	80	-431	863	0	345	0	511
149+50	50	5	0	0	29	0	7	0	0	55	0	87	-473	945	0	378	0	560
150+00	50	7	0	0	28	0	11	0	0	52	0	98	-512	1024	0	410	0	610
150+50	50	4	0	0	32	0	10	0	0	56	0	108	-554	1107	0	443	0	661
151+00	50	5	0	0	33	0	8	0	0	60	0	116	-598	1197	0	479	0	715
151+50	50	10	0	1	35	0	14	0	1	63	0	130	-644	1291	0	516	0	774
152+00	50	6	0	0	30	0	14	0	1	60	0	144	-688	1380	0	552	0	832
152+50	50	4	0	0	30	0	9	0	0	55	0	153	-729	1463	0	585	0	882
153+00	50	13	0	0	142	0	16	0	0	159	0	169	-849	1702	0	681	0	1018
153+46.45	46	4	0	0	0	0	15	0	0	122	0	184	-940	1885	0	754	0	1124
153+50	4	8	0	0	0	0	1	0	0	0	0	184	-940	1885	0	754	0	1125
154+00	50	0	0	0	0	0	7	0	0	0	0	191	-940	1885	0	754	0	1132
154+50	50	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
155+00	50	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
155+50	50	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
156+00	50	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
156+50	50	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
157+00	50	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
157+50	50	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
158+00	50	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
158+50	50	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
158+60.15	10	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
158+68.73	9	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
159+00	31	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
159+50	50	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
160+00	50	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
160+05	5	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
160+29	24	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
160+50	21	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
161+00	50	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
161+50	50	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
161+86	36	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
162+00	14	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
162+50	50	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
163+00	50	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
163+50	50	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
163+58	8	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132
164+00	42	0	0	0	0	0	0	0	0	0	0	191	-940	1885	0	754	0	1132

NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT - (FILL * FILL FACTOR)

REVISION DATE: 03/20/13

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STATE PROJECT NUMBER: 2160-10-70 | HWY: S. 76TH AVE (CTH U) | COUNTY: MILWAUKEE | EARTHWORK | SHEET NO: E

WISDOT/CADDS SH

EARTHWORK STAGE 1A

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
							Note 1	Note 2	Note 3			1.00 Note 1	1.25	1.50 Note 4	1.30 Note 5	0.60 Note 6	0.80 Note 7	Note 8
164+50	50	9	0	1	0	0	8	0	1	0	0	200	-939	1885	0	754	0	1139
165+00	50	8	0	0	0	0	15	0	1	0	0	215	-938	1885	0	754	0	1153
165+50	50	6	0	0	0	0	13	0	0	0	0	227	-938	1885	0	754	0	1165
166+00	50	4	0	0	27	0	9	0	0	25	0	237	-956	1922	0	769	0	1193
166+20	20	4	0	0	24	0	3	0	0	19	0	240	-956	1949	0	780	0	1210
166+50	30	4	0	0	24	0	4	0	0	26	0	244	-976	1989	0	796	0	1234
167+00	50	4	0	0	26	0	7	0	0	46	0	251	-1011	2058	0	823	0	1275
167+50	50	6	0	0	24	0	9	0	0	45	0	260	-1045	2126	0	850	0	1318
168+00	50	5	0	0	23	0	10	0	0	43	0	269	-1045	2190	0	876	0	1360
168+34	34	4	0	0	25	0	5	0	0	30	0	275	-1067	2236	0	894	0	1388
168+50	16	3	0	0	23	0	2	0	0	14	0	277	-1078	2257	0	903	0	1400
169+00	50	0	0	0	0	0	3	0	0	21	0	279	-1093	2288	0	915	0	1419
169+43.74	44	0	0	0	0	0	0	0	0	0	0	279	-1093	2288	0	915	0	1419
169+50	6	0	0	0	0	0	0	0	0	0	0	279	-1093	2288	0	915	0	1419
170+00	50	0	0	0	0	0	0	0	0	0	0	279	-1093	2288	0	915	0	1419
170+50	50	0	0	0	0	0	0	0	0	0	0	279	-1093	2288	0	915	0	1419
171+00	50	26	0	0	0	36	24	0	0	0	33	303	-1127	2288	44	915	27	1476
171+50	50	35	0	0	0	42	56	0	0	0	72	360	-1199	2288	137	915	85	1605
172+00	50	0	0	1	0	0	32	0	1	0	39	392	-1237	2288	188	915	116	1675
172+07	7	0	0	0	0	0	0	0	0	0	0	392	-1237	2288	188	915	116	1675
172+50	43	0	0	0	0	0	0	0	0	0	0	392	-1237	2288	188	915	116	1675
173+00	50	0	0	0	0	0	0	0	0	0	0	392	-1237	2288	188	915	116	1675
173+50	50	0	0	0	0	0	0	0	0	0	0	392	-1237	2288	188	915	116	1675
173+69.70	20	0	0	0	0	0	0	0	0	0	0	392	-1237	2288	188	915	116	1675
174+00	30	0	0	0	0	0	0	0	0	0	0	392	-1237	2288	188	915	116	1675
174+50	50	0	0	0	0	0	0	0	0	0	0	392	-1237	2288	188	915	116	1675
175+00	50	0	0	0	0	0	0	0	0	0	0	392	-1237	2288	188	915	116	1675
175+50	50	2	0	0	0	36	2	0	0	0	33	394	-1270	2288	231	915	142	1710
176+00	50	2	0	2	0	33	4	0	1	0	63	398	-1331	2288	313	915	192	1775
176+50	50	2	0	0	0	32	3	0	1	0	60	401	-1389	2288	390	915	240	1836
177+00	50	0	0	0	0	0	1	0	0	0	30	402	-1418	2288	429	915	264	1867
177+50	50	0	0	0	0	0	0	0	0	0	0	402	-1418	2288	429	915	264	1867
177+73.77	24	0	0	0	0	0	0	0	0	0	0	402	-1418	2288	429	915	264	1867
178+00	26	0	0	0	0	0	0	0	0	0	0	402	-1418	2288	429	915	264	1867
178+50	50	0	0	0	0	0	0	0	0	0	0	402	-1418	2288	429	915	264	1867
179+00	50	0	0	0	0	0	0	0	0	0	0	402	-1418	2288	429	915	264	1867
179+50	50	5	0	0	0	38	5	0	0	0	35	407	-1454	2288	475	915	292	1907
180+00	50	6	0	3	0	34	10	0	2	0	67	417	-1517	2288	561	915	345	1980
180+29	29	7	0	4	0	41	6	0	3	0	40	423	-1554	2288	614	915	378	2023
180+50	21	7	0	3	0	40	5	0	3	0	31	429	-1582	2288	654	915	403	2056
180+82	32	20	0	0	0	0	16	0	2	0	23	445	-1603	2288	685	915	421	2094
181+00	18	6	0	0	0	39	9	0	0	0	13	453	-1616	2288	701	915	432	2115
181+50	50	4	0	6	0	28	9	0	5	0	61	462	-1670	2288	781	915	481	2179
182+00	50	3	0	2	0	27	6	0	7	0	50	468	-1712	2288	846	915	521	2227
182+50	50	6	0	0	0	24	8	0	2	0	47	476	-1757	2288	907	915	558	2279
183+00	50	0	0	0	0	0	6	0	0	0	22	482	-1778	2288	936	915	576	2307
183+44.37	44	0	0	0	0	0	0	0	0	0	0	482	-1778	2288	936	915	576	2307

REVISION DATE: 03/20/13

NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT - (FILL * FILL FACTOR)

EARTHWORK STAGE 1A

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
							Note 1	Note 2	Note 3			1.00 Note 1	1.25	1.50 Note 4	1.30 Note 5	0.60 Note 6	0.80 Note 7	Note 8
183+50	6	0	0	0	0	0	0	0	0	0	0	482	-1778	2288	936	915	576	2307
184+00	50	0	0	0	0	0	0	0	0	0	0	482	-1778	2288	936	915	576	2307
184+50	50	0	0	0	0	0	0	0	0	0	0	482	-1778	2288	936	915	576	2307
185+00	50	0	0	0	0	0	0	0	0	0	0	482	-1778	2288	936	915	576	2307
185+04.39	4	0	0	1	0	0	0	0	0	0	0	482	-1778	2288	936	915	576	2306
185+50	46	0	0	0	0	0	0	0	1	0	0	482	-1777	2288	936	915	576	2305
186+00	50	0	0	0	0	0	0	0	0	0	0	482	-1777	2288	936	915	576	2305
186+50	50	0	0	0	0	0	0	0	0	0	0	482	-1777	2288	936	915	576	2305
186+58.73	9	0	0	0	0	0	0	0	0	0	0	482	-1777	2288	936	915	576	2305
187+00	41	0	0	0	0	0	0	0	0	0	0	482	-1777	2288	936	915	576	2305
187+50	50	0	0	0	0	0	0	0	0	0	0	482	-1777	2288	936	915	576	2305
188+00	50	2	0	0	0	25	1	0	0	0	23	483	-1800	2288	966	915	594	2330
188+50	50	5	0	0	0	31	6	0	0	0	52	489	-1852	2288	1033	915	636	2387
189+00	50	3	0	0	0	0	7	0	0	0	29	496	-1881	2288	1070	915	659	2423
189+50	50	3	0	2	0	19	6	0	2	0	17	501	-1896	2288	1093	915	672	2443
190+00	50	3	0	2	0	0	6	0	4	0	17	507	-1908	2288	1115	915	686	2461
190+50	50	4	0	2	0	0	6	0	4	0	0	513	-1904	2288	1115	915	686	2463
191+00	50	4	0	0	0	26	7	0	2	0	24	521	-1925	2288	1146	915	705	2492
191+50	50	5	0	0	0	25	8	0	0	0	47	529	-1973	2288	1208	915	743	2547
192+00	50	6	0	0	0	22	10	0	0	0	43	538	-2016	2288	1264	915	778	2600
192+50	50	4	0	0	0	35	9	0	0	0	52	547	-2068	2288	1331	915	819	2661
192+72	22	7	0	0	0	36	4	0	0	0	29	551	-2096	2288	1368	915	842	2694
193+00	28	8	0	0	0	31	8	0	0	0	35	559	-2131	2288	1413	915	870	2736
193+50	50	7	0	0	0	26	13	0	0	0	52	572	-2183	2288	1481	915	912	2802
193+61	11	8	0	0	0	28	3	0	0	0	11	575	-2194	2288	1496	915	920	2816
194+00	39	0	0	0	0	29	5	0	0	0	41	581	-2235	2288	1549	915	953	2862
194+50	50	0	0	0	0	0	0	0	0	0	27	581	-2262	2288	1583	915	974	2889
195+00	50	0	0	0	0	0	0	0	0	0	0	581	-2262	2288	1583	915	974	2889
195+50	50	0	0	0	0	0	0	0	0	0	0	581	-2262	2288	1583	915	974	2889
196+00	50	0	0	0	0	0	0	0	0	0	0	581	-2262	2288	1583	915	974	2889
196+50	50	7	0	0	0	0	6	0	0	0	0	587	-2262	2288	1583	915	974	2895
197+00	50	5	0	0	0	0	11	0	0	0	0	597	-2262	2288	1583	915	974	2905
197+50	50	5	0	0	0	0	9	0	0	0	0	606	-2262	2288	1583	915	974	2914
198+00	50	5	0	0	0	0	8	0	0	0	0	615	-2262	2288	1583	915	974	2923
198+50	50	6	0	0	0	0	9	0	0	0	0	624	-2262	2288	1583	915	974	2932
198+79	29	6	0	0	0	0	6	0	0	0	0	630	-2262	2288	1583	915	974	2938
199+00	21	5	0	0	0	0	4	0	0	0	0	634	-2262	2288	1583	915	974	2942
199+50	50	7	0	0	0	0	11	0	0	0	0	644	-2262	2288	1583	915	974	2952
200+00	50	0	0	0	0	0	6	0	0	0	0	650	-2262	2288	1583	915	974	2958
200+50	50	0	0	0	0	0	0	0	0	0	0	650	-2262	2288	1583	915	974	2958
201+00	50	0	0	0	0	0	0	0	0	0	0	650	-2262	2288	1583	915	974	2958
201+28.11	28	0	0	0	0	0	0	0	0	0	0	650	-2262	2288	1583	915	974	2958
201+50	22	0	0	0	0	0	0	0	0	0	0	650	-2262	2288	1583	915	974	2958
202+00	50	6	0	0	0	0	6	0	0	0	0	656	-2262	2288	1583	915	974	2964
202+50	50	5	0	0	0	0	10	0	0	0	0	666	-2262	2288	1583	915	974	2974
202+90	40	0	0	0	0	0	3	0	0	0	0	669	-2262	2288	1583	915	974	2977
203+00	10	5	0	0	0	0	1	0	0	0	0	670	-2262	2288	1583	915	974	2978

NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL
NOTE 8: MASS ORDINATE = CUT - (FILL * FILL FACTOR)

REVISION DATE: 03/20/13

EARTHWORK STAGE 1A

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
							Note 1	Note 2	Note 3			1.00 Note 1	1.25	1.50 Note 4	1.30 Note 5	0.60 Note 6	0.80 Note 7	Note 8
203+48	48	6	0	0	0	0	9	0	0	0	0	679	-2262	2288	1583	915	974	2987
203+50	2	5	0	0	0	0	0	0	0	0	0	679	-2262	2288	1583	915	974	2987
204+00	50	7	0	0	0	0	11	0	0	0	0	690	-2262	2288	1583	915	974	2998
204+50	50	6	0	0	0	0	12	0	0	0	0	701	-2262	2288	1583	915	974	3009
205+00	50	5	0	0	0	0	10	0	0	0	0	712	-2262	2288	1583	915	974	3020
205+50	50	5	0	0	0	0	9	0	0	0	0	721	-2262	2288	1583	915	974	3029
206+00	50	4	0	0	0	0	8	0	0	0	0	729	-2262	2288	1583	915	974	3037
206+50	50	6	0	0	0	0	9	0	0	0	0	738	-2262	2288	1583	915	974	3046
206+61	11	6	0	0	0	0	2	0	0	0	0	740	-2262	2288	1583	915	974	3048
206+80	19	5	0	0	0	0	4	0	0	0	0	744	-2262	2288	1583	915	974	3052
207+00	20	4	0	0	0	20	3	0	0	0	7	747	-2269	2288	1593	915	980	3063
207+50	50	4	0	0	0	29	7	0	0	0	45	755	-2314	2288	1651	915	1016	3115
208+00	50	4	0	0	0	31	7	0	0	0	55	762	-2369	2288	1722	915	1060	3177
208+50	50	5	0	0	0	29	8	0	0	0	55	770	-2423	2288	1794	915	1104	3240
209+00	50	0	0	0	0	0	4	0	0	0	26	774	-2450	2288	1828	915	1125	3270
209+50	50	0	0	0	0	0	0	0	0	0	0	774	-2450	2288	1828	915	1125	3270
210+00	50	0	0	0	0	0	0	0	0	0	0	774	-2450	2288	1828	915	1125	3270
210+50	50	0	0	0	0	0	0	0	0	0	0	774	-2450	2288	1828	915	1125	3270
211+00	50	0	0	0	0	0	0	0	0	0	0	774	-2450	2288	1828	915	1125	3270
211+48.80	49	0	0	0	0	0	0	0	0	0	0	774	-2450	2288	1828	915	1125	3270
211+50	1	0	0	0	0	0	0	0	0	0	0	774	-2450	2288	1828	915	1125	3270
212+00	50	0	0	0	0	0	0	0	0	0	0	774	-2450	2288	1828	915	1125	3270
212+50	50	0	0	0	0	0	0	0	0	0	0	774	-2450	2288	1828	915	1125	3270
213+00	50	2	0	0	0	0	2	0	0	0	0	776	-2450	2288	1828	915	1125	3272
213+50	50	4	0	0	0	0	5	0	0	0	0	781	-2450	2288	1828	915	1125	3277
214+00	50	4	0	0	0	0	7	0	0	0	0	788	-2450	2288	1828	915	1125	3284
214+50	50	4	0	1	0	0	7	0	1	0	0	795	-2449	2288	1828	915	1125	3290
215+00	50	3	0	3	0	0	6	0	4	0	0	802	-2444	2288	1828	915	1125	3292
215+50	50	3	0	2	0	0	5	0	4	0	0	807	-2439	2288	1828	915	1125	3292
216+00	50	4	0	1	0	0	6	0	2	0	0	813	-2436	2288	1828	915	1125	3295
216+50	50	7	0	0	0	0	9	0	0	0	0	822	-2436	2288	1828	915	1125	3304
217+00	50	5	0	0	0	0	10	0	0	0	0	832	-2436	2288	1828	915	1125	3314
217+15	15	13	0	0	0	0	5	0	0	0	0	837	-2436	2288	1828	915	1125	3319
217+50	35	6	0	0	0	0	12	0	0	0	0	849	-2436	2288	1828	915	1125	3331
217+71	21	3	0	2	0	0	3	0	1	0	0	852	-2435	2288	1828	915	1125	3333
218+00	29	3	0	1	0	0	3	0	1	0	0	855	-2434	2288	1828	915	1125	3335
218+40	40	2	0	10	0	0	4	0	7	0	0	859	-2425	2288	1828	915	1125	3330
218+41	1	6	0	0	0	0	0	0	0	0	0	859	-2424	2288	1828	915	1125	3330
218+50	9	6	0	0	0	0	2	0	0	0	0	861	-2424	2288	1828	915	1125	3332
219+00	50	13	0	0	0	0	17	0	0	0	0	878	-2424	2288	1828	915	1125	3348
219+50	50	0	0	0	0	0	12	0	0	0	0	889	-2424	2288	1828	915	1125	3360
219+84.73	35	0	0	0	0	0	0	0	0	0	0	889	-2424	2288	1828	915	1125	3360
220+00	15	0	0	0	0	0	0	0	0	0	0	889	-2424	2288	1828	915	1125	3360
220+38	38	0	0	0	0	0	0	0	0	0	0	889	-2424	2288	1828	915	1125	3360
220+50	12	0	0	0	0	0	0	0	0	0	0	889	-2424	2288	1828	915	1125	3360
221+00	50	0	0	0	0	0	0	0	0	0	0	889	-2424	2288	1828	915	1125	3360
221+50	50	5	0	0	0	0	5	0	0	0	0	894	-2424	2288	1828	915	1125	3365

NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL
NOTE 8: MASS ORDINATE = CUT - (FILL * FILL FACTOR)

REVISION DATE: 03/20/13

EARTHWORK STAGE 1A

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
												1.00	1.25	1.50	1.30	0.60	0.80	
							Note 1	Note 2	Note 3			Note 1		Note 4	Note 5	Note 6	Note 7	Note 8
221+95	45	5	0	0	0	0	8	0	0	0	0	902	-2424	2288	1828	915	1125	3372
222+00	5	4	0	0	0	0	1	0	0	0	0	903	-2424	2288	1828	915	1125	3373
222+50	50	4	0	1	0	0	7	0	0	0	0	910	-2424	2288	1828	915	1125	3380
223+00	50	3	0	1	0	0	6	0	1	0	0	916	-2422	2288	1828	915	1125	3384
223+37	37	5	0	0	0	0	5	0	1	0	0	921	-2421	2288	1828	915	1125	3388
223+50	13	0	0	0	0	0	1	0	0	0	0	922	-2421	2288	1828	915	1125	3390
223+88	38	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
223+90	2	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
224+00	10	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
224+50	50	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
224+86	36	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
225+00	14	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
225+01.13	1	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
225+50	49	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
226+00	50	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
226+50	50	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
227+00	50	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
227+22	22	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
227+25	3	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
227+50	25	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
228+00	50	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
228+43.86	44	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
228+50	6	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
229+00	50	0	0	0	0	0	0	0	0	0	0	922	-2421	2288	1828	915	1125	3390
229+50	50	5	0	1	0	0	5	0	0	0	0	927	-2421	2288	1828	915	1125	3394
230+00	50	3	0	1	0	0	7	0	1	0	0	934	-2419	2288	1828	915	1125	3399
230+50	50	3	0	1	0	29	6	0	2	0	27	940	-2443	2288	1863	915	1146	3430
231+00	50	4	0	1	0	24	6	0	1	0	49	946	-2490	2288	1926	915	1185	3482
231+50	50	4	0	1	0	43	6	0	1	0	61	952	-2550	2288	2005	915	1234	3549
232+00	50	4	0	1	0	24	6	0	1	0	61	959	-2610	2288	2085	915	1283	3615
232+50	50	4	0	1	0	25	7	0	1	0	44	966	-2653	2288	2143	915	1319	3665
233+00	50	4	0	0	0	29	7	0	0	0	49	973	-2702	2288	2206	915	1358	3721
233+50	50	4	0	1	0	39	6	0	0	0	63	979	-2764	2288	2288	915	1408	3789
234+00	50	4	0	1	0	29	7	0	1	0	63	986	-2825	2288	2369	915	1458	3858
234+50	50	4	0	1	0	30	7	0	1	0	54	994	-2878	2288	2439	915	1501	3918
235+00	50	4	0	0	0	26	7	0	0	0	51	1001	-2929	2288	2506	915	1542	3976
235+50	50	5	0	0	0	25	8	0	0	0	46	1009	-2975	2288	2566	915	1579	4030
236+00	50	4	0	0	0	33	7	0	0	0	53	1016	-3029	2288	2635	915	1622	4091
236+50	50	19	0	0	0	21	20	0	0	0	50	1037	-3079	2288	2700	915	1662	4161
237+00	50	4	0	0	0	27	20	0	0	0	44	1057	-3123	2288	2758	915	1697	4226
237+50	50	4	0	0	0	31	7	0	0	0	54	1064	-3177	2288	2828	915	1740	4287
237+92.94	43	6	0	0	0	0	8	0	0	0	25	1072	-3201	2288	2860	915	1760	4319
238+00	7	11	0	0	0	0	2	0	0	0	0	1074	-3201	2288	2860	915	1760	4321
238+05	5	15	0	0	0	0	2	0	0	0	0	1076	-3201	2288	2860	915	1760	4324
238+50	45	6	0	0	0	34	18	0	0	0	28	1094	-3230	2288	2897	915	1783	4370
239+00	50	4	0	1	0	32	9	0	0	0	61	1103	-3290	2288	2976	915	1831	4439
239+50	50	6	0	0	0	34	9	0	0	0	61	1112	-3350	2288	3055	915	1880	4508

NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT - (FILL * FILL FACTOR)

REVISION DATE: 03/20/13

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EARTHWORK STAGE 1B

STATION	Distance	AREA (SF) Cut	Salvaged/ Unusable Pavement Material	Fill	Marsh Exc	EBS	Incremental Vol (CY) (Unadjusted) Cut	Salvaged/ Unusable Pavement Material	Fill	Marsh Exc	EBS	Cumulative Vol (CY) Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
							Note 1	Note 2	Note 3			1.00 Note 1	1.25	1.50 Note 4	1.30 Note 5	0.60 Note 6	0.80 Note 7	Note 8
144+00		7	0	25	72	0	0	0	0	0	0	0	0	0	0	0	0	0
144+50	50	8	0	26	75	0	13	0	47	136	0	13	-44	204	0	82	0	57
145+00	50	6	0	27	76	0	13	0	49	139	0	25	-87	413	0	165	0	112
145+50	50	4	0	27	80	0	9	0	50	144	0	34	-132	629	0	252	0	167
146+00	50	7	0	27	79	0	9	0	50	147	0	44	-180	850	0	340	0	224
146+50	50	5	0	31	83	0	10	0	53	150	0	54	-226	1075	0	430	0	280
147+00	50	4	0	35	89	0	7	0	60	159	0	61	-270	1313	0	525	0	331
147+50	50	0	0	87	85	0	3	0	113	160	0	64	-250	1553	0	621	0	314
148+00	50	0	0	90	92	0	0	0	163	163	0	64	-168	1799	0	719	0	232
148+50	50	4	0	39	92	0	3	0	119	170	0	68	-147	2054	0	822	0	215
149+00	50	5	0	29	77	0	8	0	62	156	0	75	-187	2289	0	916	0	263
149+50	50	5	0	24	67	0	9	0	49	133	0	85	-227	2489	0	996	0	311
150+00	50	5	0	34	67	0	9	0	53	124	0	94	-253	2674	0	1070	0	347
150+50	50	4	0	38	67	0	8	0	66	124	0	102	-263	2860	0	1144	0	365
151+00	50	7	0	37	78	0	9	0	69	134	0	111	-278	3061	0	1224	0	389
151+50	50	6	0	34	70	0	12	0	65	137	0	123	-300	3267	0	1307	0	423
152+00	50	8	0	36	55	0	13	0	64	115	0	135	-306	3440	0	1376	0	441
152+50	50	10	0	29	48	0	16	0	60	95	0	151	-303	3582	0	1433	0	453
153+00	50	9	0	12	145	0	17	0	38	179	0	168	-390	3850	0	1540	0	557
153+46.45	46	0	0	0	0	0	7	0	10	125	0	175	-470	4037	0	1615	0	645
153+50	4	0	0	0	0	0	0	0	0	0	0	175	-470	4037	0	1615	0	645
154+00	50	3	0	19	41	0	2	0	17	38	0	177	-477	4093	0	1637	0	654
154+50	50	3	0	7	42	0	5	0	23	76	0	182	-505	4207	0	1683	0	687
155+00	50	3	0	6	44	0	5	0	12	79	0	187	-550	4326	0	1730	0	737
155+50	50	3	0	7	30	0	6	0	12	69	0	192	-586	4429	0	1772	0	779
156+00	50	3	0	7	23	0	6	0	13	49	0	198	-607	4502	0	1801	0	806
156+50	50	3	0	6	26	0	6	0	11	45	0	204	-628	4570	0	1828	0	831
157+00	50	4	0	2	34	0	6	0	7	56	0	210	-661	4654	0	1862	0	870
157+50	50	4	0	1	31	0	7	0	3	60	0	217	-702	4743	0	1897	0	919
158+00	50	9	0	0	39	0	12	0	1	64	0	228	-749	4839	0	1936	0	977
158+50	50	0	0	0	0	0	8	0	0	36	0	236	-775	4893	0	1957	0	1011
158+60.15	10	0	0	0	0	0	0	0	0	0	0	236	-775	4893	0	1957	0	1011
158+68.73	9	0	0	0	0	0	0	0	0	0	0	236	-775	4893	0	1957	0	1011
159+00	31	0	0	0	0	0	0	0	0	0	0	236	-775	4893	0	1957	0	1011
159+50	50	5	0	5	0	21	4	0	4	0	19	240	-790	4893	25	1957	16	1030
160+00	50	10	0	0	0	0	13	0	4	0	19	254	-804	4893	51	1957	31	1058
160+05	5	10	0	0	0	0	2	0	0	0	0	255	-804	4893	51	1957	31	1059
160+29	24	8	0	2	0	20	8	0	1	0	9	263	-812	4893	62	1957	38	1075
160+50	21	0	0	0	0	0	3	0	1	0	8	266	-819	4893	72	1957	44	1085
161+00	50	2	0	7	0	35	2	0	6	0	32	268	-844	4893	114	1957	70	1112
161+50	50	2	0	10	0	30	4	0	15	0	60	271	-885	4893	193	1957	119	1156
161+86	36	23	0	0	0	0	16	0	7	0	20	288	-897	4893	219	1957	135	1184
162+00	14	4	0	12	0	36	7	0	3	0	9	295	-902	4893	231	1957	142	1197
162+50	50	2	0	11	0	34	5	0	21	0	64	300	-941	4893	314	1957	193	1240
163+00	50	2	0	14	0	32	4	0	23	0	60	303	-972	4893	393	1957	242	1275
163+50	50	6	0	13	0	41	7	0	25	0	67	311	-1008	4893	480	1957	295	1319
163+58	8	5	0	13	0	41	2	0	4	0	12	312	-1016	4893	496	1957	305	1328
164+00	42	19	0	0	0	0	18	0	10	0	32	331	-1035	4893	537	1957	330	1366

REVISION DATE: 03/19/13

NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT - (FILL * FILL FACTOR)

EARTHWORK STAGE 1B

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged/ Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged/ Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
							Note 1	Note 2	Note 3			1.00 Note 1	1.25	1.50 Note 4	1.30 Note 5	0.60 Note 6	0.80 Note 7	Note 8
164+50	50	31	0	0	0	0	45	0	0	0	0	376	-1035	4893	537	1957	330	1411
165+00	50	9	0	10	0	33	37	0	9	0	30	413	-1054	4893	576	1957	354	1467
165+50	50	7	0	9	0	30	15	0	17	0	58	427	-1091	4893	651	1957	401	1519
166+00	50	13	0	6	0	35	18	0	13	0	60	445	-1135	4893	729	1957	449	1581
166+20	20	40	0	0	0	0	19	0	2	0	13	465	-1135	4893	746	1957	459	1610
166+50	30	8	0	7	0	35	27	0	4	0	19	492	-1149	4893	771	1957	474	1651
167+00	50	7	0	7	0	29	14	0	13	0	58	505	-1192	4893	847	1957	521	1708
167+50	50	6	0	9	0	33	12	0	14	0	56	517	-1231	4893	920	1957	566	1759
168+00	50	8	0	9	0	30	12	0	16	0	57	529	-1231	4893	995	1957	612	1808
168+34	34	48	0	0	0	0	35	0	6	0	19	564	-1243	4893	1019	1957	627	1854
168+50	16	14	0	6	0	40	18	0	2	0	12	582	-1252	4893	1034	1957	637	1882
169+00	50	12	0	6	0	35	24	0	11	0	69	605	-1308	4893	1124	1957	692	1961
169+43.74	44	0	0	0	0	0	10	0	4	0	28	615	-1330	4893	1160	1957	714	1993
169+50	6	0	0	0	0	0	0	0	0	0	0	615	-1330	4893	1160	1957	714	1993
170+00	50	10	0	5	0	29	9	0	4	0	27	624	-1352	4893	1195	1957	736	2024
170+50	50	9	0	4	0	28	17	0	8	0	52	641	-1395	4893	1263	1957	777	2084
171+00	50	8	0	2	0	31	15	0	6	0	54	657	-1441	4893	1333	1957	820	2146
171+50	50	10	0	1	0	29	17	0	3	0	55	673	-1493	4893	1405	1957	864	2214
172+00	50	0	0	0	0	0	9	0	1	0	27	683	-1519	4893	1440	1957	886	2249
172+07	7	0	0	0	0	0	0	0	0	0	0	683	-1519	4893	1440	1957	886	2249
172+50	43	5	0	1	0	37	4	0	1	0	29	687	-1547	4893	1477	1957	909	2281
173+00	50	3	0	2	0	29	7	0	2	0	61	694	-1605	4893	1556	1957	958	2346
173+50	50	0	0	0	0	0	3	0	1	0	27	697	-1630	4893	1591	1957	979	2374
173+69.70	20	0	0	0	0	0	0	0	0	0	0	697	-1630	4893	1591	1957	979	2374
174+00	30	0	0	0	0	0	0	0	0	0	0	697	-1630	4893	1591	1957	979	2374
174+50	50	10	0	1	0	25	9	0	0	0	23	706	-1652	4893	1621	1957	997	2405
175+00	50	10	0	2	0	26	19	0	2	0	47	725	-1696	4893	1681	1957	1035	2468
175+50	50	4	0	2	0	26	13	0	3	0	48	738	-1741	4893	1744	1957	1073	2526
176+00	50	5	0	3	0	24	8	0	4	0	46	746	-1781	4893	1804	1957	1110	2575
176+50	50	6	0	6	0	25	10	0	8	0	45	756	-1817	4893	1862	1957	1146	2620
177+00	50	7	0	7	0	27	11	0	12	0	48	767	-1850	4893	1925	1957	1184	2665
177+50	50	7	0	9	0	28	13	0	14	0	51	779	-1883	4893	1991	1957	1225	2710
177+73.77	24	8	0	10	0	32	6	0	8	0	26	786	-1900	4893	2025	1957	1246	2733
178+00	26	7	0	11	0	32	7	0	10	0	31	792	-1918	4893	2066	1957	1271	2758
178+50	50	5	0	14	0	28	11	0	23	0	56	803	-1946	4893	2138	1957	1316	2796
179+00	50	0	0	18	0	33	5	0	29	0	56	808	-1966	4893	2211	1957	1360	2821
179+50	50	7	0	14	0	25	6	0	29	0	53	814	-1983	4893	2279	1957	1403	2844
180+00	50	15	0	10	0	38	20	0	22	0	57	835	-2013	4893	2354	1957	1448	2895
180+29	29	0	0	0	0	0	8	0	5	0	20	843	-2026	4893	2380	1957	1465	2916
180+50	21	0	0	0	0	0	0	0	0	0	0	843	-2026	4893	2380	1957	1465	2916
180+82	32	9	0	10	0	31	5	0	6	0	18	848	-2038	4893	2404	1957	1479	2933
181+00	18	9	0	9	0	32	6	0	6	0	21	854	-2051	4893	2431	1957	1496	2952
181+50	50	1	0	14	0	33	9	0	21	0	60	863	-2084	4893	2509	1957	1544	2995
182+00	50	2	0	7	0	29	3	0	19	0	57	866	-2118	4893	2583	1957	1589	3031
182+50	50	2	0	9	0	25	3	0	14	0	49	869	-2149	4893	2646	1957	1629	3066
183+00	50	3	0	1	0	0	4	0	9	0	23	873	-2160	4893	2676	1957	1647	3081
183+44.37	44	2	0	10	0	0	4	0	9	0	0	877	-2149	4893	2676	1957	1647	3073

REVISION DATE: 03/19/13

NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT - (FILL * FILL FACTOR)

EARTHWORK STAGE 1B

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
							Note 1	Note 2	Note 3			1.00 Note 1	1.25	1.50 Note 4	1.30 Note 5	0.60 Note 6	0.80 Note 7	Note 8
183+50	6	2	0	7	0	0	0	0	2	0	0	877	-2147	4893	2676	1957	1647	3072
184+00	50	6	0	28	133	0	7	0	32	123	0	884	-2198	5077	2676	2031	1647	3130
184+50	50	2	0	4	47	0	7	0	29	166	0	891	-2286	5325	2676	2130	1647	3225
185+00	50	0	0	0	0	0	1	0	3	43	0	893	-2314	5390	2676	2156	1647	3255
185+04.39	4	0	0	0	0	0	0	0	0	0	0	893	-2314	5390	2676	2156	1647	3255
185+50	46	10	0	0	43	0	8	0	0	36	0	901	-2342	5444	2676	2178	1647	3291
186+00	50	4	0	2	41	0	13	0	1	78	0	914	-2398	5561	2676	2224	1647	3360
186+50	50	2	0	1	45	0	5	0	2	79	0	919	-2455	5680	2676	2272	1647	3421
186+58.73	9	2	0	2	38	0	1	0	0	13	0	919	-2464	5700	2676	2280	1647	3431
187+00	41	2	0	3	45	0	3	0	3	63	0	923	-2508	5794	2676	2318	1647	3478
187+50	50	3	0	4	43	0	4	0	6	81	0	927	-2561	5915	2676	2366	1647	3536
188+00	50	8	0	8	47	0	10	0	11	83	0	936	-2610	6039	2676	2416	1647	3594
188+50	50	7	0	6	57	0	13	0	13	96	0	950	-2666	6184	2676	2474	1647	3664
189+00	50	7	0	6	67	0	12	0	11	115	0	962	-2739	6356	2676	2542	1647	3748
189+50	50	6	0	4	55	0	12	0	9	113	0	973	-2812	6525	2676	2610	1647	3833
190+00	50	7	0	3	29	0	12	0	6	77	0	985	-2863	6641	2676	2656	1647	3895
190+50	50	9	0	0	0	17	14	0	2	27	16	999	-2896	6681	2696	2672	1659	3943
191+00	50	10	0	0	0	29	17	0	0	0	43	1017	-2938	6681	2752	2672	1693	4002
191+50	50	10	0	1	0	25	18	0	0	0	50	1035	-2988	6681	2817	2672	1733	4070
192+00	50	10	0	2	0	27	19	0	2	0	48	1053	-3033	6681	2879	2672	1772	4134
192+50	50	10	0	3	0	23	19	0	4	0	46	1072	-3074	6681	2938	2672	1808	4193
192+72	22	15	0	0	0	0	10	0	1	0	9	1082	-3082	6681	2950	2672	1816	4211
193+00	28	11	0	5	0	24	13	0	3	0	12	1095	-3091	6681	2967	2672	1826	4233
193+50	50	14	0	5	0	84	22	0	9	0	100	1117	-3180	6681	3097	2672	1906	4345
193+61	11	0	0	0	0	0	3	0	1	0	17	1120	-3196	6681	3119	2672	1919	4363
194+00	39	8	0	14	0	30	6	0	10	0	21	1126	-3204	6681	3147	2672	1936	4378
194+50	50	9	0	5	0	41	16	0	18	0	65	1142	-3248	6681	3231	2672	1989	4437
194+59.25	9	10	0	7	0	41	3	0	2	0	14	1145	-3259	6681	3250	2672	2000	4451
195+00	50	12	0	0	0	41	19	0	7	0	75	1160	-3314	6681	3329	2672	2049	4522
195+50	50	0	0	0	0	0	11	0	0	0	38	1171	-3351	6681	3378	2672	2079	4570
196+00	50	34	0	0	0	0	31	0	0	0	0	1202	-3351	6681	3378	2672	2079	4601
196+50	50	24	0	0	0	0	53	0	0	0	0	1255	-3351	6681	3378	2672	2079	4654
197+00	50	20	0	0	0	0	40	0	0	0	0	1295	-3351	6681	3378	2672	2079	4694
197+50	50	19	0	0	0	0	36	0	0	0	0	1331	-3351	6681	3378	2672	2079	4730
198+00	50	13	0	0	0	0	29	0	0	0	0	1359	-3351	6681	3378	2672	2079	4758
198+50	50	8	0	1	0	24	19	0	1	0	22	1378	-3372	6681	3406	2672	2096	4797
198+79	29	13	0	0	0	0	11	0	1	0	13	1389	-3384	6681	3423	2672	2106	4820
199+00	21	6	0	5	0	27	7	0	2	0	11	1396	-3392	6681	3436	2672	2115	4836
199+50	50	8	0	3	0	22	13	0	7	0	45	1409	-3428	6681	3495	2672	2151	4885
200+00	50	9	0	5	0	25	15	0	7	0	43	1424	-3462	6681	3550	2672	2185	4933
200+50	50	11	0	0	0	0	18	0	5	0	23	1441	-3479	6681	3580	2672	2203	4967
201+00	50	0	0	0	0	0	10	0	0	0	0	1451	-3479	6681	3580	2672	2203	4977
201+28.11	28	0	0	0	0	0	0	0	0	0	0	1451	-3479	6681	3580	2672	2203	4977
201+50	22	0	0	0	0	0	0	0	0	0	0	1451	-3479	6681	3580	2672	2203	4977
202+00	50	7	0	31	0	34	6	0	28	0	31	1457	-3475	6681	3621	2672	2228	4980
202+50	50	4	0	13	0	31	10	0	40	0	60	1468	-3485	6681	3699	2672	2276	5000
202+90	40	7	0	4	0	28	8	0	12	0	43	1476	-3513	6681	3755	2672	2311	5036
203+00	10	9	0	2	0	24	3	0	1	0	9	1479	-3521	6681	3767	2672	2318	5047

REVISION DATE: 03/19/13

NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT – (FILL * FILL FACTOR)

EARTHWORK STAGE 1B

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged/ Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged/ Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
							Note 1	Note 2	Note 3			1.00 Note 1	1.25	1.50 Note 4	1.30 Note 5	0.60 Note 6	0.80 Note 7	Note 8
203+48	48	39	0	0	0	0	42	0	2	0	21	1521	-3539	6681	3795	2672	2335	5108
203+50	2	43	0	0	0	0	3	0	0	0	0	1524	-3539	6681	3795	2672	2335	5111
204+00	50	9	0	6	0	23	47	0	6	0	21	1571	-3554	6681	3822	2672	2352	5173
204+50	50	8	0	8	0	23	15	0	13	0	42	1586	-3580	6681	3877	2672	2386	5214
205+00	50	8	0	8	0	27	14	0	15	0	46	1601	-3607	6681	3937	2672	2423	5255
205+50	50	7	0	7	0	34	13	0	13	0	56	1614	-3647	6681	4010	2672	2468	5308
206+00	50	6	0	6	0	36	11	0	11	0	65	1625	-3698	6681	4094	2672	2520	5370
206+50	50	9	0	5	0	31	13	0	9	0	62	1638	-3748	6681	4175	2672	2569	5434
206+61	11	35	0	0	0	0	9	0	1	0	6	1647	-3753	6681	4183	2672	2574	5448
206+80	19	13	0	0	0	0	17	0	0	0	0	1664	-3753	6681	4183	2672	2574	5465
207+00	20	7	0	4	0	35	7	0	1	0	13	1671	-3764	6681	4200	2672	2585	5483
207+50	50	7	0	4	0	34	13	0	7	0	63	1684	-3818	6681	4282	2672	2635	5550
208+00	50	5	0	5	0	33	11	0	8	0	62	1695	-3870	6681	4362	2672	2685	5613
208+50	50	3	0	8	0	33	6	0	11	0	60	1701	-3916	6681	4441	2672	2733	5665
209+00	50	2	0	8	0	33	4	0	14	0	61	1705	-3960	6681	4519	2672	2781	5713
209+50	50	9	0	9	0	46	10	0	15	0	73	1715	-4014	6681	4614	2672	2839	5777
210+00	50	11	0	6	0	43	18	0	13	0	81	1733	-4079	6681	4720	2672	2905	5859
210+50	50	4	0	0	0	26	13	0	6	0	63	1746	-4135	6681	4802	2672	2955	5929
211+00	50	8	0	0	0	0	11	0	0	0	24	1757	-4159	6681	4834	2672	2975	5964
211+48.80	49	0	0	0	0	0	7	0	0	0	0	1764	-4159	6681	4834	2672	2975	5970
211+50	1	0	0	0	0	0	0	0	0	0	0	1764	-4159	6681	4834	2672	2975	5970
212+00	50	8	0	0	0	0	7	0	0	0	0	1771	-4159	6681	4834	2672	2975	5978
212+50	50	5	0	8	0	0	12	0	7	0	0	1783	-4150	6681	4834	2672	2975	5981
213+00	50	6	0	78	23	0	10	0	79	21	0	1793	-4068	6713	4834	2685	2975	5908
213+50	50	8	0	46	21	0	13	0	115	41	0	1806	-3955	6774	4834	2710	2975	5808
214+00	50	8	0	41	20	0	14	0	81	38	0	1821	-3882	6831	4834	2732	2975	5750
214+50	50	8	0	41	25	0	14	0	76	41	0	1834	-3818	6893	4834	2757	2975	5700
215+00	50	7	0	37	25	0	13	0	72	46	0	1847	-3763	6962	4834	2785	2975	5658
215+50	50	6	0	33	24	0	11	0	64	45	0	1859	-3716	7029	4834	2812	2975	5622
216+00	50	6	0	45	38	0	10	0	72	57	0	1869	-3669	7114	4834	2846	2975	5586
216+50	50	6	0	7	0	0	10	0	48	35	0	1879	-3636	7167	4834	2867	2975	5563
217+00	50	8	0	23	35	0	12	0	27	32	0	1891	-3626	7215	4834	2886	2975	5564
217+15	15	7	0	23	29	0	4	0	13	18	0	1895	-3623	7242	4834	2897	2975	5566
217+50	35	8	0	13	28	0	9	0	23	37	0	1904	-3622	7297	4834	2919	2975	5574
217+71	21	8	0	0	0	0	6	0	5	11	0	1910	-3624	7313	4834	2925	2975	5582
218+00	29	6	0	24	34	0	7	0	13	18	0	1917	-3622	7340	4834	2936	2975	5586
218+40	40	18	0	0	0	0	17	0	18	25	0	1935	-3618	7378	4834	2951	2975	5600
218+41	1	15	0	0	0	0	1	0	0	0	0	1935	-3618	7378	4834	2951	2975	5601
218+50	9	11	0	3	0	0	4	0	1	0	0	1940	-3617	7378	4834	2951	2975	5605
219+00	50	8	0	10	24	0	17	0	12	22	0	1957	-3620	7411	4834	2964	2975	5624
219+50	50	21	0	1	29	0	26	0	10	49	0	1983	-3644	7484	4834	2994	2975	5674
219+84.73	35	23	0	0	24	0	28	0	1	33	0	2011	-3668	7534	4834	3014	2975	5726
220+00	15	22	0	0	20	0	13	0	0	12	0	2023	-3677	7552	4834	3021	2975	5748
220+38	38	32	0	0	0	0	38	0	0	14	0	2061	-3688	7574	4834	3029	2975	5796
220+50	12	15	0	3	31	0	10	0	1	7	0	2071	-3692	7584	4834	3034	2975	5811
221+00	50	9	0	7	20	0	22	0	9	47	0	2093	-3716	7655	4834	3062	2975	5857
221+50	50	8	0	9	21	0	16	0	15	38	0	2109	-3726	7712	4834	3085	2975	5882

REVISION DATE: 03/19/13

NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT - (FILL * FILL FACTOR)

EARTHWORK STAGE 1B

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
							Note 1	Note 2	Note 3			1.00 Note 1	1.25	1.50 Note 4	1.30 Note 5	0.60 Note 6	0.80 Note 7	Note 8
221+95	45	35	0	0	0	0	36	0	8	18	0	2144	-3730	7738	4834	3095	2975	5922
222+00	5	29	0	0	0	0	6	0	0	0	0	2150	-3730	7738	4834	3095	2975	5928
222+50	50	8	0	14	20	0	34	0	13	19	0	2184	-3728	7766	4834	3106	2975	5960
223+00	50	6	0	23	17	0	13	0	34	34	0	2197	-3711	7816	4834	3127	2975	5955
223+37	37	7	0	17	20	0	9	0	27	25	0	2205	-3696	7853	4834	3141	2975	5949
223+50	13	7	0	18	20	0	3	0	8	9	0	2209	-3693	7867	4834	3147	2975	5949
223+88	38	28	0	0	0	0	24	0	13	14	0	2233	-3687	7888	4834	3155	2975	5967
223+90	2	27	0	0	0	0	2	0	0	0	0	2235	-3687	7888	4834	3155	2975	5970
224+00	10	0	0	0	0	0	5	0	0	0	0	2240	-3687	7888	4834	3155	2975	5975
224+50	50	11	0	8	21	0	10	0	7	19	0	2250	-3693	7917	4834	3167	2975	5990
224+86	36	0	0	0	0	0	7	0	5	14	0	2257	-3697	7937	4834	3175	2975	6001
225+00	14	0	0	0	0	0	0	0	0	0	0	2257	-3697	7937	4834	3175	2975	6001
225+01.13	1	0	0	0	0	0	0	0	0	0	0	2257	-3697	7937	4834	3175	2975	6001
225+50	49	8	0	9	24	0	7	0	8	22	0	2264	-3703	7970	4834	3188	2975	6015
226+00	50	5	0	11	23	0	12	0	18	43	0	2276	-3714	8034	4834	3214	2975	6037
226+50	50	3	0	12	18	0	7	0	21	38	0	2283	-3716	8090	4834	3236	2975	6046
227+00	50	2	0	10	21	0	4	0	20	36	0	2287	-3717	8144	4834	3258	2975	6052
227+22	22	3	0	10	19	0	2	0	8	16	0	2289	-3719	8168	4834	3267	2975	6056
227+25	3	3	0	9	22	0	0	0	1	2	0	2289	-3719	8171	4834	3268	2975	6056
227+50	25	2	0	10	20	0	2	0	9	19	0	2292	-3723	8200	4834	3280	2975	6062
228+00	50	2	0	9	20	0	3	0	18	36	0	2295	-3728	8254	4834	3302	2975	6070
228+43.86	44	2	0	6	18	0	2	0	12	30	0	2297	-3735	8299	4834	3320	2975	6080
228+50	6	2	0	6	18	0	0	0	1	4	0	2298	-3736	8305	4834	3322	2975	6082
229+00	50	3	0	0	18	0	4	0	6	33	0	2301	-3754	8354	4834	3342	2975	6103
229+50	50	2	0	6	17	0	4	0	5	32	0	2305	-3772	8403	4834	3361	2975	6125
230+00	50	3	0	0	0	0	4	0	5	16	0	2309	-3778	8427	4834	3371	2975	6134
230+50	50	11	0	0	0	40	13	0	0	0	37	2322	-3815	8427	4882	3371	3004	6184
231+00	50	8	0	2	0	24	18	0	1	0	59	2340	-3872	8427	4959	3371	3052	6259
231+50	50	13	0	0	0	0	19	0	1	0	22	2359	-3893	8427	4988	3371	3069	6299
232+00	50	8	0	0	0	0	19	0	0	0	0	2378	-3893	8427	4988	3371	3069	6318
232+50	50	6	0	5	0	30	13	0	4	0	28	2391	-3915	8427	5024	3371	3092	6353
233+00	50	5	0	5	0	27	10	0	9	0	53	2400	-3957	8427	5092	3371	3134	6405
233+50	50	5	0	5	0	28	8	0	9	0	51	2409	-3996	8427	5159	3371	3175	6453
234+00	50	6	0	0	0	0	9	0	5	0	26	2418	-4016	8427	5192	3371	3195	6482
234+50	50	4	0	2	0	37	8	0	2	0	34	2426	-4048	8427	5236	3371	3222	6522
235+00	50	5	0	2	0	37	8	0	4	0	68	2434	-4111	8427	5325	3371	3277	6593
235+50	50	6	0	4	0	31	10	0	5	0	63	2444	-4167	8427	5406	3371	3327	6659
236+00	50	8	0	1	0	33	13	0	4	0	58	2457	-4221	8427	5482	3371	3373	6726
236+50	50	14	0	0	0	0	20	0	0	0	30	2478	-4251	8427	5521	3371	3397	6776
237+00	50	9	0	0	0	31	21	0	0	0	29	2499	-4279	8427	5558	3371	3420	6826
237+50	50	9	0	3	0	32	17	0	2	0	58	2516	-4335	8427	5634	3371	3467	6898
237+92.94	43	3	0	1	0	35	9	0	2	0	53	2525	-4385	8427	5703	3371	3509	6957
238+00	7	3	0	1	0	32	1	0	0	0	9	2526	-4393	8427	5714	3371	3516	6966
238+05	5	3	0	1	0	32	1	0	0	0	6	2526	-4399	8427	5722	3371	3521	6973
238+50	45	0	0	0	0	0	3	0	0	0	27	2529	-4425	8427	5756	3371	3542	7001
239+00	50	0	0	0	0	0	0	0	0	0	0	2529	-4425	8427	5756	3371	3542	7001
239+50	50	0	0	0	0	0	0	0	0	0	0	2529	-4425	8427	5756	3371	3542	7001

REVISION DATE: 03/19/13

NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT – (FILL * FILL FACTOR)

EARTHWORK STAGE 2

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
							Note 1	Note 2	Note 3			1.00 Note 1	1.25	1.50 Note 4	1.30 Note 5	0.60 Note 6	0.80 Note 7	Note 8
144+00		39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144+50	50	46	0	0	0	0	79	0	0	0	0	79	0	0	0	0	0	79
145+00	50	47	0	0	0	0	86	0	0	0	0	165	0	0	0	0	0	165
145+50	50	103	0	0	0	0	139	0	0	0	0	304	0	0	0	0	0	304
146+00	50	51	0	0	0	0	143	0	0	0	0	446	0	0	0	0	0	446
146+50	50	57	0	0	0	0	100	0	0	0	0	546	0	0	0	0	0	546
147+00	50	61	0	0	0	0	109	0	0	0	0	656	0	0	0	0	0	656
147+50	50	66	0	0	0	0	118	0	0	0	0	773	0	0	0	0	0	773
148+00	50	87	0	0	0	0	142	0	0	0	0	915	0	0	0	0	0	915
148+50	50	97	0	0	0	0	170	0	0	0	0	1085	0	0	0	0	0	1085
149+00	50	127	0	0	0	0	207	0	0	0	0	1293	0	0	0	0	0	1293
149+50	50	128	0	0	0	0	236	0	0	0	0	1529	0	0	0	0	0	1529
150+00	50	120	0	0	0	0	230	0	0	0	0	1758	0	0	0	0	0	1758
150+50	50	141	0	0	0	0	242	0	0	0	0	2000	0	0	0	0	0	2000
151+00	50	140	0	0	0	0	260	0	0	0	0	2260	0	0	0	0	0	2260
151+50	50	153	0	0	0	0	271	0	0	0	0	2531	0	0	0	0	0	2531
152+00	50	147	0	0	0	0	278	0	0	0	0	2809	0	0	0	0	0	2809
152+50	50	148	0	0	0	0	273	0	0	0	0	3082	0	0	0	0	0	3082
153+00	50	132	0	0	0	0	259	0	0	0	0	3342	0	0	0	0	0	3342
153+46.45	46	177	0	0	0	0	266	0	0	0	0	3607	0	0	0	0	0	3607
153+50	4	178	0	0	0	0	23	0	0	0	0	3631	0	0	0	0	0	3631
154+00	50	134	0	0	0	0	289	0	0	0	0	3920	0	0	0	0	0	3920
154+50	50	138	0	0	0	0	252	0	0	0	0	4172	0	0	0	0	0	4172
155+00	50	124	0	0	0	0	243	0	0	0	0	4414	0	0	0	0	0	4414
155+50	50	136	0	0	0	0	241	0	0	0	0	4655	0	0	0	0	0	4655
156+00	50	91	0	20	0	0	210	0	19	0	0	4865	23	0	0	0	0	4842
156+50	50	82	0	16	0	0	160	0	33	0	0	5025	65	0	0	0	0	4960
157+00	50	80	0	10	0	0	150	0	24	0	0	5175	95	0	0	0	0	5080
157+50	50	65	0	14	0	0	134	0	22	0	0	5310	123	0	0	0	0	5187
158+00	50	70	0	0	0	0	125	0	13	0	0	5435	139	0	0	0	0	5296
158+50	50	111	0	0	0	0	168	0	0	0	0	5602	139	0	0	0	0	5463
158+60.15	10	134	0	0	0	0	46	0	0	0	0	5648	139	0	0	0	0	5509
158+66.73	7	131	0	0	0	0	32	0	0	0	0	5680	139	0	0	0	0	5541
159+00	33	64	0	9	0	0	120	0	6	0	0	5801	147	0	0	0	0	5654
159+50	50	54	0	22	0	0	109	0	29	0	0	5910	183	0	0	0	0	5727
160+00	50	55	0	21	0	0	101	0	40	0	0	6011	232	0	0	0	0	5778
160+05	5	53	0	23	0	0	10	0	4	0	0	6021	237	0	0	0	0	5783
160+29	24	50	0	20	0	0	46	0	19	0	0	6067	261	0	0	0	0	5805
160+50	21	60	0	15	0	0	43	0	14	0	0	6109	278	0	0	0	0	5831
161+00	50	49	0	10	0	0	101	0	23	0	0	6210	308	0	0	0	0	5903
161+50	50	51	0	6	0	0	93	0	15	0	0	6303	326	0	0	0	0	5977
161+86	36	150	0	15	0	0	134	0	14	0	0	6437	344	0	0	0	0	6093
162+00	14	56	0	10	0	0	53	0	6	0	0	6490	352	0	0	0	0	6138
162+50	50	48	0	36	0	0	96	0	43	0	0	6587	405	0	0	0	0	6181
163+00	50	40	0	35	0	0	81	0	66	0	0	6668	487	0	0	0	0	6181
163+50	50	44	0	23	0	0	78	0	54	0	0	6746	554	0	0	0	0	6191
163+58	8	40	0	28	0	0	12	0	8	0	0	6758	564	0	0	0	0	6194
164+00	42	54	0	30	0	0	73	0	45	0	0	6831	620	0	0	0	0	6211
164+50	50	44	0	34	0	0	91	0	60	0	0	6922	695	0	0	0	0	6227
165+00	50	36	0	36	0	0	74	0	65	0	0	6996	776	0	0	0	0	6220
165+50	50	38	0	28	0	0	69	0	59	0	0	7065	850	0	0	0	0	6215
166+00	50	74	0	33	0	0	104	0	56	0	0	7168	921	0	0	0	0	6248

NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT - (FILL * FILL FACTOR)

REVISION DATE: 03/19/13

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STATE PROJECT NUMBER: 2160-10-70 | HWY: S. 76TH ST. (CTH U) | COUNTY: MILWAUKEE | EARTHWORK | SHEET NO: 526 E

EARTHWORK STAGE 2

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
							Note 1	Note 2	Note 3			1.00 Note 1	1.25	1.50 Note 4	1.30 Note 5	0.60 Note 6	0.80 Note 7	Note 8
166+20	20	38	0	22	0	0	41	0	20	0	0	7210	921	0	0	0	0	6264
166+50	30	35	0	30	0	0	41	0	29	0	0	7250	957	0	0	0	0	6268
167+00	50	34	0	22	0	0	64	0	48	0	0	7314	1017	0	0	0	0	6272
167+50	50	51	0	1	0	0	79	0	21	0	0	7393	1044	0	0	0	0	6324
168+00	50	37	0	13	0	0	81	0	13	0	0	7475	1044	0	0	0	0	6389
168+34	34	44	0	9	0	0	51	0	14	0	0	7526	1061	0	0	0	0	6423
168+50	16	34	0	10	0	0	23	0	6	0	0	7549	1068	0	0	0	0	6439
169+00	50	39	0	13	0	0	68	0	21	0	0	7616	1094	0	0	0	0	6480
169+43.74	44	60	0	0	0	0	80	0	11	0	0	7696	1107	0	0	0	0	6547
169+50	6	54	0	0	0	0	13	0	0	0	0	7710	1107	0	0	0	0	6561
170+00	50	29	0	11	0	0	77	0	10	0	0	7786	1120	0	0	0	0	6625
170+50	50	87	0	0	0	0	107	0	10	0	0	7894	1133	0	0	0	0	6719
171+00	50	73	0	3	0	0	148	0	3	0	0	8042	1136	0	0	0	0	6864
171+50	50	51	0	4	0	0	115	0	6	0	0	8157	1144	0	0	0	0	6971
172+00	50	65	0	7	0	0	107	0	10	0	0	8264	1157	0	0	0	0	7065
172+07	7	90	0	6	0	0	20	0	2	0	0	8284	1159	0	0	0	0	7083
172+50	43	47	0	10	0	0	109	0	13	0	0	8393	1175	0	0	0	0	7177
173+00	50	29	0	16	0	0	70	0	24	0	0	8464	1205	0	0	0	0	7217
173+50	50	50	0	14	0	0	73	0	28	0	0	8537	1240	0	0	0	0	7255
173+69.70	20	90	0	0	0	0	51	0	5	0	0	8588	1246	0	0	0	0	7300
174+00	30	28	0	4	0	0	66	0	2	0	0	8654	1249	0	0	0	0	7363
174+50	50	56	0	16	0	0	78	0	19	0	0	8732	1272	0	0	0	0	7418
175+00	50	40	0	23	0	0	89	0	36	0	0	8821	1317	0	0	0	0	7462
175+50	50	24	0	10	0	0	59	0	31	0	0	8880	1356	0	0	0	0	7483
176+00	50	12	0	23	0	0	33	0	31	0	0	8913	1394	0	0	0	0	7478
176+50	50	8	0	33	0	0	19	0	52	0	0	8932	1459	0	0	0	0	7432
177+00	50	10	0	36	0	0	17	0	64	0	0	8949	1539	0	0	0	0	7368
177+50	50	4	0	28	0	0	13	0	59	0	0	8962	1613	0	0	0	0	7307
177+73.77	24	30	0	0	0	0	15	0	12	0	0	8977	1628	0	0	0	0	7307
178+00	26	3	0	20	0	0	16	0	10	0	0	8993	1640	0	0	0	0	7311
178+50	50	1	0	44	0	0	4	0	59	0	0	8996	1714	0	0	0	0	7241
179+00	50	0	0	68	0	0	1	0	104	0	0	8998	1844	0	0	0	0	7112
179+50	50	0	0	55	0	0	0	0	114	0	0	8998	1986	0	0	0	0	6970
180+00	50	0	0	88	0	0	0	0	132	0	0	8998	2152	0	0	0	0	6805
180+29	29	2	0	106	0	0	1	0	104	0	0	8999	2282	0	0	0	0	6676
180+50	21	2	0	111	0	0	2	0	84	0	0	9001	2387	0	0	0	0	6572
180+82	32	7	0	40	0	0	5	0	89	0	0	9006	2499	0	0	0	0	6465
181+00	18	0	0	120	0	0	2	0	53	0	0	9009	2566	0	0	0	0	6401
181+50	50	0	0	154	0	0	0	0	254	0	0	9009	2883	0	0	0	0	6084
182+00	50	0	0	200	0	0	0	0	328	0	0	9009	3293	0	0	0	0	5674
182+50	50	0	0	218	0	0	0	0	387	0	0	9009	3777	0	0	0	0	5190
183+00	50	0	0	192	0	0	0	0	380	0	0	9009	4251	0	0	0	0	4716
183+44.37	44	81	0	28	0	0	67	0	181	0	0	9075	4477	0	0	0	0	4556
183+50	6	33	0	36	0	0	12	0	7	0	0	9087	4485	0	0	0	0	4560
184+00	50	0	0	213	0	0	31	0	231	0	0	9118	4774	0	0	0	0	4302
184+50	50	0	0	302	0	0	0	0	477	0	0	9118	5370	0	0	0	0	3706
185+00	50	1	0	175	0	0	1	0	442	0	0	9118	5922	0	0	0	0	3155
185+04.39	4	1	0	206	0	0	0	0	31	0	0	9118	5961	0	0	0	0	3116
185+50	46	0	0	168	0	0	1	0	316	0	0	9119	6355	0	0	0	0	2722
186+00	50	0	0	147	0	0	0	0	292	0	0	9119	6720	0	0	0	0	2358
186+50	50	24	0	5	0	0	22	0	141	0	0	9141	6896	0	0	0	0	2204
186+58.73	9	30	0	2	0	0	9	0	1	0	0	9150	6897	0	0	0	0	2211

NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT – (FILL * FILL FACTOR)

REVISION DATE: 03/19/13

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EARTHWORK STAGE 2

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
												1.00	1.25	1.50	1.30	0.60	0.80	
							Note 1	Note 2	Note 3			Note 1		Note 4	Note 5	Note 6	Note 7	Note 8
187+00	41	1	0	81	0	0	24	0	63	0	0	9174	6977	0	0	0	0	2156
187+50	50	3	0	72	0	0	4	0	142	0	0	9178	7154	0	0	0	0	1982
188+00	50	10	0	75	0	0	12	0	136	0	0	9190	7324	0	0	0	0	1824
188+50	50	18	0	74	0	0	26	0	138	0	0	9216	7496	0	0	0	0	1678
189+00	50	23	0	47	0	0	38	0	112	0	0	9254	7636	0	0	0	0	1576
189+50	50	24	0	40	0	0	44	0	81	0	0	9297	7737	0	0	0	0	1518
190+00	50	30	0	22	0	0	50	0	57	0	0	9347	7809	0	0	0	0	1497
190+50	50	28	0	19	0	0	54	0	38	0	0	9401	7856	0	0	0	0	1503
191+00	50	48	0	5	0	0	70	0	22	0	0	9471	7884	0	0	0	0	1545
191+50	50	47	0	5	0	0	88	0	9	0	0	9559	7896	0	0	0	0	1622
192+00	50	47	0	7	0	0	87	0	11	0	0	9646	7909	0	0	0	0	1695
192+50	50	60	0	10	0	0	99	0	16	0	0	9745	7929	0	0	0	0	1774
192+72	22	71	0	17	0	0	53	0	11	0	0	9799	7943	0	0	0	0	1814
193+00	28	60	0	3	0	0	68	0	10	0	0	9866	7956	0	0	0	0	1869
193+50	50	51	0	20	0	0	103	0	21	0	0	9969	7982	0	0	0	0	1945
193+61	11	57	0	37	0	0	22	0	12	0	0	9991	7997	0	0	0	0	1953
194+00	39	63	0	40	0	0	87	0	56	0	0	10078	8067	0	0	0	0	1970
194+50	50	194	0	0	0	0	238	0	37	0	0	10316	8113	0	0	0	0	2161
194+59.25	9	200	0	0	0	0	67	0	0	0	0	10383	8113	0	0	0	0	2229
195+00	50	70	0	48	0	0	286	0	30	0	0	10602	8150	0	0	0	0	2411
195+50	50	68	0	13	0	0	128	0	56	0	0	10730	8220	0	0	0	0	2468
196+00	50	40	0	88	0	0	100	0	94	0	0	10830	8337	0	0	0	0	2451
196+50	50	46	0	33	0	0	80	0	112	0	0	10910	8477	0	0	0	0	2391
197+00	50	52	0	47	0	0	91	0	74	0	0	11000	8569	0	0	0	0	2389
197+50	50	106	0	46	0	0	146	0	86	0	0	11147	8677	0	0	0	0	2428
198+00	50	62	0	34	0	0	156	0	74	0	0	11302	8770	0	0	0	0	2491
198+50	50	51	0	42	0	0	105	0	70	0	0	11407	8858	0	0	0	0	2508
198+79	29	37	0	71	0	0	47	0	61	0	0	11454	8934	0	0	0	0	2479
199+00	21	45	0	82	0	0	32	0	60	0	0	11486	9008	0	0	0	0	2436
199+50	50	41	0	90	0	0	80	0	159	0	0	11566	9207	0	0	0	0	2317
200+00	50	30	0	100	0	0	66	0	176	0	0	11631	9427	0	0	0	0	2163
200+50	50	22	0	90	0	0	48	0	176	0	0	11680	9647	0	0	0	0	1991
201+00	50	15	0	35	0	0	34	0	116	0	0	11714	9792	0	0	0	0	1880
201+28.11	28	36	0	10	0	0	27	0	23	0	0	11740	9821	0	0	0	0	1878
201+50	22	6	0	14	0	0	17	0	10	0	0	11757	9833	0	0	0	0	1883
202+00	50	2	0	104	0	0	7	0	109	0	0	11765	9970	0	0	0	0	1753
202+50	50	2	0	243	0	0	4	0	321	0	0	11769	10371	0	0	0	0	1356
202+90	40	0	0	138	0	0	2	0	282	0	0	11770	10724	0	0	0	0	1004
203+00	10	1	0	76	0	0	0	0	40	0	0	11770	10774	0	0	0	0	955
203+48	48	6	0	126	0	0	6	0	180	0	0	11776	10998	0	0	0	0	736
203+50	2	0	0	114	0	0	0	0	9	0	0	11776	11009	0	0	0	0	725
204+00	50	0	0	80	0	0	0	0	180	0	0	11776	11234	0	0	0	0	501
204+50	50	0	0	43	0	0	0	0	114	0	0	11776	11376	0	0	0	0	358
205+00	50	1	0	21	0	0	1	0	59	0	0	11777	11450	0	0	0	0	285
205+50	50	10	0	30	0	0	10	0	47	0	0	11787	11509	0	0	0	0	236
206+00	50	45	0	0	0	0	51	0	28	0	0	11838	11544	0	0	0	0	253
206+50	50	47	0	7	0	0	85	0	6	0	0	11923	11552	0	0	0	0	330
206+61	11	40	0	0	0	0	18	0	1	0	0	11941	11554	0	0	0	0	346
206+80	19	10	0	3	0	0	18	0	1	0	0	11959	11555	0	0	0	0	362
207+00	20	41	0	2	0	0	19	0	2	0	0	11978	11558	0	0	0	0	378
207+50	50	35	0	8	0	0	70	0	9	0	0	12048	11569	0	0	0	0	437
208+00	50	79	0	5	0	0	106	0	12	0	0	12154	11584	0	0	0	0	528

NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT - (FILL * FILL FACTOR)

REVISION DATE: 03/19/13

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STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EARTHWORK	SHEET NO: E

WISDOT/CADDS SHEET 40

EARTHWORK STAGE 2

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
							Note 1	Note 2	Note 3			1.00 Note 1	1.25	1.50 Note 4	1.30 Note 5	0.60 Note 6	0.80 Note 7	Note 8
208+50	50	50	0	0	0	0	119	0	5	0	0	12273	11590	0	0	0	0	641
209+00	50	26	0	0	0	0	70	0	0	0	0	12343	11590	0	0	0	0	712
209+50	50	22	0	10	0	0	44	0	9	0	0	12388	11602	0	0	0	0	744
210+00	50	16	0	25	0	0	35	0	32	0	0	12423	11642	0	0	0	0	739
210+50	50	12	0	35	0	0	26	0	56	0	0	12449	11712	0	0	0	0	696
211+00	50	30	0	54	0	0	39	0	82	0	0	12488	11815	0	0	0	0	631
211+48.80	49	58	0	8	0	0	80	0	56	0	0	12567	11885	0	0	0	0	641
211+50	1	58	0	8	0	0	3	0	0	0	0	12570	11885	0	0	0	0	643
212+00	50	26	0	110	0	0	78	0	109	0	0	12648	12022	0	0	0	0	584
212+50	50	12	0	306	0	0	35	0	385	0	0	12683	12503	0	0	0	0	138
213+00	50	15	0	321	0	0	25	0	581	0	0	12708	13229	0	0	0	0	-563
213+50	50	16	0	366	0	0	29	0	636	0	0	12737	14024	0	0	0	0	-1329
214+00	50	13	0	336	0	0	27	0	650	0	0	12763	14837	0	0	0	0	-2115
214+50	50	13	0	303	0	0	24	0	592	0	0	12787	15576	0	0	0	0	-2830
215+00	50	11	0	226	0	0	22	0	490	0	0	12810	16188	0	0	0	0	-3420
215+50	50	9	0	292	0	0	19	0	480	0	0	12828	16788	0	0	0	0	-4001
216+00	50	0	0	226	0	0	8	0	480	0	0	12837	17387	0	0	0	0	-4593
216+50	50	0	0	226	0	0	0	0	419	0	0	12837	17911	0	0	0	0	-5116
217+00	50	0	0	195	0	0	0	0	390	0	0	12837	18398	0	0	0	0	-5603
217+15	15	0	0	121	0	0	0	0	88	0	0	12837	18508	0	0	0	0	-5713
217+50	35	0	0	121	0	0	0	0	157	0	0	12837	18704	0	0	0	0	-5909
217+71	21	6	0	113	0	0	2	0	91	0	0	12839	18817	0	0	0	0	-6020
218+00	29	0	0	126	0	0	3	0	128	0	0	12842	18978	0	0	0	0	-6177
218+40	40	0	0	85	0	0	0	0	156	0	0	12842	19173	0	0	0	0	-6373
218+41	1	0	0	118	0	0	0	0	4	0	0	12842	19178	0	0	0	0	-6377
218+50	9	0	0	106	0	0	0	0	37	0	0	12842	19225	0	0	0	0	-6424
219+00	50	1	0	85	0	0	1	0	177	0	0	12843	19446	0	0	0	0	-6644
219+50	50	15	0	0	0	0	15	0	79	0	0	12858	19544	0	0	0	0	-6728
219+84.73	35	87	0	0	0	0	66	0	0	0	0	12923	19544	0	0	0	0	-6662
220+00	15	5	0	25	0	0	26	0	7	0	0	12949	19553	0	0	0	0	-6645
220+38	38	0	0	66	0	0	4	0	64	0	0	12953	19633	0	0	0	0	-6722
220+50	12	6	0	60	0	0	1	0	28	0	0	12954	19668	0	0	0	0	-6755
221+00	50	15	0	30	0	0	19	0	83	0	0	12974	19772	0	0	0	0	-6840
221+50	50	2	0	40	0	0	16	0	65	0	0	12989	19853	0	0	0	0	-6905
221+95	45	0	0	28	0	0	2	0	57	0	0	12991	19924	0	0	0	0	-6974
222+00	5	0	0	26	0	0	0	0	5	0	0	12991	19930	0	0	0	0	-6981
222+50	50	2	0	30	0	0	2	0	52	0	0	12993	19995	0	0	0	0	-7044
223+00	50	9	0	50	0	0	10	0	74	0	0	13003	20088	0	0	0	0	-7126
223+37	37	12	0	15	0	0	14	0	45	0	0	13018	20143	0	0	0	0	-7167
223+50	13	15	0	34	0	0	7	0	12	0	0	13024	20158	0	0	0	0	-7176
223+88	38	17	0	16	0	0	23	0	35	0	0	13047	20202	0	0	0	0	-7197
223+90	2	17	0	16	0	0	1	0	1	0	0	13048	20203	0	0	0	0	-7197
224+00	10	28	0	10	0	0	8	0	5	0	0	13056	20209	0	0	0	0	-7195
224+50	50	30	0	12	0	0	54	0	20	0	0	13110	20235	0	0	0	0	-7167
224+86	36	87	0	1	0	0	78	0	9	0	0	13188	20246	0	0	0	0	-7099
225+00	14	76	0	5	0	0	42	0	1	0	0	13230	20247	0	0	0	0	-7059
225+01.13	1	76	0	5	0	0	3	0	0	0	0	13233	20248	0	0	0	0	-7056
225+50	49	110	0	12	0	0	168	0	16	0	0	13402	20267	0	0	0	0	-6907
226+00	50	88	0	0	0	0	183	0	11	0	0	13585	20281	0	0	0	0	-6738
226+50	50	24	0	2	0	0	104	0	2	0	0	13689	20284	0	0	0	0	-6637
227+00	50	26	0	0	0	0	46	0	2	0	0	13735	20286	0	0	0	0	-6593
227+22	22	91	0	0	0	0	48	0	0	0	0	13783	20286	0	0	0	0	-6545

REVISION DATE: 03/19/13

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NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT - (FILL * FILL FACTOR)

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EARTHWORK	SHEET NO: 529

WISDOT/CADDS SHEET 40

EARTHWORK STAGE 2

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
												1.00	1.25	1.50	1.30	0.60	0.80	
							Note 1	Note 2	Note 3			Note 1		Note 4	Note 5	Note 6	Note 7	Note 8
227+25	3	91	0	0	0	0	10	0	0	0	0	13793	20286	0	0	0	0	-6535
227+50	25	20	0	12	0	0	51	0	6	0	0	13844	20293	0	0	0	0	-6490
228+00	50	20	0	20	0	0	37	0	30	0	0	13881	20330	0	0	0	0	-6490
228+43.86	44	120	0	0	0	0	114	0	16	0	0	13995	20350	0	0	0	0	-6397
228+50	6	120	0	0	0	0	27	0	0	0	0	14022	20350	0	0	0	0	-6370
229+00	50	20	0	36	0	0	130	0	33	0	0	14152	20392	0	0	0	0	-6282
229+50	50	21	0	50	0	0	38	0	80	0	0	14190	20491	0	0	0	0	-6343
230+00	50	25	0	22	0	0	43	0	67	0	0	14232	20575	0	0	0	0	-6384
230+50	50	29	0	12	0	0	50	0	31	0	0	14282	20614	0	0	0	0	-6373
231+00	50	25	0	10	0	0	50	0	20	0	0	14332	20640	0	0	0	0	-6349
231+50	50	58	0	4	0	0	77	0	13	0	0	14409	20656	0	0	0	0	-6288
232+00	50	20	0	18	0	0	72	0	20	0	0	14481	20681	0	0	0	0	-6241
232+50	50	32	0	30	0	0	48	0	44	0	0	14530	20737	0	0	0	0	-6249
233+00	50	15	0	25	0	0	44	0	51	0	0	14573	20800	0	0	0	0	-6269
233+50	50	18	0	30	0	0	31	0	51	0	0	14604	20864	0	0	0	0	-6302
234+00	50	20	0	28	0	0	35	0	54	0	0	14639	20931	0	0	0	0	-6334
234+50	50	19	0	20	0	0	36	0	44	0	0	14675	20987	0	0	0	0	-6354
235+00	50	40	0	13	0	0	55	0	31	0	0	14730	21025	0	0	0	0	-6337
235+50	50	45	0	17	0	0	79	0	28	0	0	14808	21060	0	0	0	0	-6293
236+00	50	46	0	12	0	0	84	0	27	0	0	14893	21093	0	0	0	0	-6242
236+50	50	56	0	0	0	0	94	0	11	0	0	14987	21107	0	0	0	0	-6162
237+00	50	52	0	8	0	0	100	0	7	0	0	15087	21116	0	0	0	0	-6071
237+50	50	60	0	5	0	0	104	0	12	0	0	15191	21131	0	0	0	0	-5982
237+92.94	43	77	0	8	0	0	109	0	10	0	0	15300	21144	0	0	0	0	-5886
238+00	7	236	0	0	0	0	41	0	1	0	0	15341	21146	0	0	0	0	-5847
238+05	5	236	0	0	0	0	44	0	0	0	0	15384	21146	0	0	0	0	-5803
238+50	45	60	0	1	0	0	247	0	1	0	0	15631	21147	0	0	0	0	-5557
239+00	50	54	0	34	0	0	106	0	32	0	0	15736	21187	0	0	0	0	-5492
239+50	50	63	0	30	0	0	108	0	59	0	0	15845	21261	0	0	0	0	-5458
239+55	5	63	0	30	0	0	12	0	6	0	0	15856	21268	0	0	0	0	-5453
240+00	45	51	0	83	0	0	95	0	94	0	0	15951	21386	0	0	0	0	-5476
240+50	50	55	0	86	0	0	98	0	156	0	0	16050	21582	0	0	0	0	-5574
240+93.01	43	173	0	0	0	0	182	0	68	0	0	16231	21667	0	0	0	0	-5478
241+00	7	172	0	0	0	0	45	0	0	0	0	16276	21667	0	0	0	0	-5433
241+22.19	22	216	0	0	0	0	159	0	0	0	0	16435	21667	0	0	0	0	-5274
241+50	28	72	0	7	0	0	148	0	4	0	0	16584	21672	0	0	0	0	-5130
242+00	50	89	0	4	0	0	149	0	10	0	0	16733	21684	0	0	0	0	-4993
242+50	50	100	0	4	0	0	175	0	7	0	0	16908	21694	0	0	0	0	-4828
243+00	50	110	0	18	0	0	194	0	20	0	0	17102	21719	0	0	0	0	-4659
243+50	50	125	0	4	0	0	218	0	20	0	0	17320	21744	0	0	0	0	-4466
244+00	50	129	0	1	0	0	189	0	37	0	0	15820	21193	0	0	0	0	-5415
244+50	50	120	0	1	0	0	231	0	2	0	0	16051	21196	0	0	0	0	-5187
245+00	50	119	0	1	0	0	221	0	2	0	0	16272	21199	0	0	0	0	-4968
245+50	50	110	0	0	0	0	212	0	1	0	0	16484	21200	0	0	0	0	-4758
246+00	50	110	0	2	0	0	204	0	2	0	0	16688	21203	0	0	0	0	-4557
246+30	30	50	0	4	0	0	89	0	4	0	0	16777	21208	0	0	0	0	-4473
246+50	20	78	0	5	0	0	47	0	3	0	0	16824	21212	0	0	0	0	-4430
247+00	50	78	0	10	0	0	144	0	14	0	0	16968	21229	0	0	0	0	-4302
247+50	50	78	0	5	0	0	179	0	6	0	0	15999	21201	0	0	0	0	-5243

REVISION DATE: 03/19/13

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NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT - (FILL * FILL FACTOR)

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EARTHWORK	SHEET NO: 530

EARTHWORK STAGE 3

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
												1.00	1.25	1.50	1.30	0.60	0.80	
							Note 1	Note 2	Note 3			Note 1		Note 4	Note 5	Note 6	Note 7	Note 8
144+00		77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144+50	50	90	0	0	0	0	155	0	0	0	0	155	0	0	0	0	0	155
145+00	50	96	0	0	0	0	172	0	0	0	0	327	0	0	0	0	0	327
145+50	50	51	0	0	0	0	136	0	0	0	0	463	0	0	0	0	0	463
146+00	50	104	0	0	0	0	144	0	0	0	0	606	0	0	0	0	0	606
146+50	50	112	0	0	0	0	200	0	0	0	0	806	0	0	0	0	0	806
147+00	50	125	0	0	0	0	219	0	0	0	0	1026	0	0	0	0	0	1026
147+50	50	133	0	0	0	0	239	0	0	0	0	1265	0	0	0	0	0	1265
148+00	50	131	0	0	0	0	244	0	0	0	0	1509	0	0	0	0	0	1509
148+50	50	146	0	0	0	0	256	0	0	0	0	1766	0	0	0	0	0	1766
149+00	50	128	0	0	0	0	254	0	0	0	0	2019	0	0	0	0	0	2019
149+50	50	127	0	0	0	0	236	0	0	0	0	2256	0	0	0	0	0	2256
150+00	50	179	0	0	0	0	283	0	0	0	0	2539	0	0	0	0	0	2539
150+50	50	173	0	0	0	0	326	0	0	0	0	2865	0	0	0	0	0	2865
151+00	50	170	0	0	0	0	318	0	0	0	0	3182	0	0	0	0	0	3182
151+50	50	186	0	0	0	0	330	0	0	0	0	3512	0	0	0	0	0	3512
152+00	50	180	0	0	0	0	339	0	0	0	0	3851	0	0	0	0	0	3851
152+50	50	181	0	0	0	0	334	0	0	0	0	4185	0	0	0	0	0	4185
153+00	50	198	0	0	0	0	351	0	0	0	0	4536	0	0	0	0	0	4536
153+46.45	46	266	0	0	0	0	399	0	0	0	0	4935	0	0	0	0	0	4935
153+50	4	266	0	0	0	0	35	0	0	0	0	4970	0	0	0	0	0	4970
154+00	50	164	0	0	0	0	398	0	0	0	0	5368	0	0	0	0	0	5368
154+50	50	138	0	0	0	0	280	0	0	0	0	5648	0	0	0	0	0	5648
155+00	50	124	0	0	0	0	243	0	0	0	0	5891	0	0	0	0	0	5891
155+50	50	90	0	0	0	0	198	0	0	0	0	6089	0	0	0	0	0	6089
156+00	50	91	0	26	0	0	168	0	24	0	0	6256	30	0	0	0	0	6226
156+50	50	80	0	16	0	0	158	0	39	0	0	6415	79	0	0	0	0	6336
157+00	50	71	0	19	0	0	140	0	32	0	0	6554	119	0	0	0	0	6435
157+50	50	65	0	17	0	0	126	0	33	0	0	6680	161	0	0	0	0	6519
158+00	50	64	0	0	0	0	119	0	16	0	0	6800	181	0	0	0	0	6619
158+50	50	166	0	0	0	0	213	0	0	0	0	7013	181	0	0	0	0	6832
158+60.15	10	201	0	0	0	0	69	0	0	0	0	7082	181	0	0	0	0	6901
158+66.73	7	196	0	0	0	0	48	0	0	0	0	7130	181	0	0	0	0	6949
159+00	33	63	0	9	0	0	160	0	6	0	0	7290	188	0	0	0	0	7101
159+50	50	53	0	46	0	0	107	0	51	0	0	7397	252	0	0	0	0	7145
160+00	50	112	0	0	0	0	153	0	43	0	0	7550	305	0	0	0	0	7245
160+05	5	108	0	0	0	0	20	0	0	0	0	7570	305	0	0	0	0	7265
160+29	24	49	0	21	0	0	70	0	9	0	0	7640	317	0	0	0	0	7323
160+50	21	120	0	0	0	0	66	0	8	0	0	7706	327	0	0	0	0	7379
161+00	50	49	0	10	0	0	156	0	9	0	0	7862	339	0	0	0	0	7524
161+50	50	50	0	4	0	0	92	0	13	0	0	7954	355	0	0	0	0	7599
161+86	36	100	0	0	0	0	100	0	3	0	0	8054	358	0	0	0	0	7696
162+00	14	50	0	6	0	0	39	0	2	0	0	8093	360	0	0	0	0	7733
162+50	50	50	0	12	0	0	93	0	17	0	0	8185	381	0	0	0	0	7804
163+00	50	52	0	24	0	0	94	0	33	0	0	8280	423	0	0	0	0	7857
163+50	50	45	0	26	0	0	90	0	46	0	0	8370	480	0	0	0	0	7889
163+58	8	32	0	28	0	0	11	0	8	0	0	8381	490	0	0	0	0	7891
164+00	42	125	0	0	0	0	122	0	22	0	0	8503	518	0	0	0	0	7985
164+50	50	102	0	0	0	0	210	0	0	0	0	8713	518	0	0	0	0	8196
165+00	50	36	0	35	0	0	128	0	32	0	0	8841	558	0	0	0	0	8283
165+50	50	38	0	28	0	0	69	0	58	0	0	8910	631	0	0	0	0	8279
166+00	50	74	0	26	0	0	104	0	50	0	0	9013	694	0	0	0	0	8320

NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT - (FILL * FILL FACTOR)

REVISION DATE: 03/19/13

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STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EARTHWORK	SHEET NO: 531	E

EARTHWORK STAGE 3

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
												1.00	1.25	1.50	1.30	0.60	0.80	
							Note 1	Note 2	Note 3			Note 1		Note 4	Note 5	Note 6	Note 7	Note 8
166+20	20	88	0	0	0	0	60	0	10	0	0	9073	694	0	0	0	0	8368
166+50	30	35	0	34	0	0	68	0	19	0	0	9142	717	0	0	0	0	8412
167+00	50	35	0	23	0	0	65	0	53	0	0	9207	783	0	0	0	0	8411
167+50	50	34	0	10	0	0	64	0	31	0	0	9270	821	0	0	0	0	8437
168+00	50	36	0	9	0	0	65	0	18	0	0	9335	821	0	0	0	0	8480
168+34	34	176	0	0	0	0	133	0	6	0	0	9469	829	0	0	0	0	8606
168+50	16	35	0	5	0	0	63	0	1	0	0	9531	830	0	0	0	0	8667
169+00	50	29	0	11	0	0	59	0	15	0	0	9590	849	0	0	0	0	8708
169+43.74	44	91	0	0	0	0	97	0	9	0	0	9688	860	0	0	0	0	8794
169+50	6	82	0	0	0	0	20	0	0	0	0	9708	860	0	0	0	0	8814
170+00	50	30	0	8	0	0	104	0	7	0	0	9811	869	0	0	0	0	8908
170+50	50	37	0	8	0	0	62	0	14	0	0	9873	887	0	0	0	0	8952
171+00	50	49	0	0	0	0	80	0	7	0	0	9953	896	0	0	0	0	9023
171+50	50	42	0	0	0	0	84	0	0	0	0	10037	896	0	0	0	0	9107
172+00	50	28	0	2	0	0	65	0	2	0	0	10102	898	0	0	0	0	9170
172+07	7	22	0	0	0	0	6	0	0	0	0	10109	899	0	0	0	0	9176
172+50	43	32	0	0	0	0	43	0	0	0	0	10152	899	0	0	0	0	9219
173+00	50	19	0	2	0	0	47	0	2	0	0	10199	901	0	0	0	0	9264
173+50	50	50	0	0	0	0	64	0	2	0	0	10263	903	0	0	0	0	9326
173+69.70	20	60	0	0	0	0	40	0	0	0	0	10303	903	0	0	0	0	9366
174+00	30	29	0	1	0	0	50	0	1	0	0	10353	904	0	0	0	0	9415
174+50	50	19	0	1	0	0	44	0	2	0	0	10397	906	0	0	0	0	9457
175+00	50	17	0	10	0	0	33	0	10	0	0	10431	919	0	0	0	0	9478
175+50	50	12	0	35	0	0	27	0	42	0	0	10457	971	0	0	0	0	9452
176+00	50	15	0	24	0	0	25	0	55	0	0	10482	1039	0	0	0	0	9409
176+50	50	11	0	22	0	0	24	0	43	0	0	10507	1093	0	0	0	0	9380
177+00	50	13	0	24	0	0	22	0	43	0	0	10529	1146	0	0	0	0	9349
177+50	50	4	0	19	0	0	16	0	40	0	0	10545	1196	0	0	0	0	9315
177+73.77	24	6	0	31	0	0	4	0	22	0	0	10549	1223	0	0	0	0	9292
178+00	26	3	0	38	0	0	4	0	34	0	0	10553	1265	0	0	0	0	9254
178+50	50	1	0	35	0	0	4	0	68	0	0	10557	1349	0	0	0	0	9174
179+00	50	0	0	67	0	0	1	0	94	0	0	10558	1468	0	0	0	0	9057
179+50	50	0	0	55	0	0	0	0	113	0	0	10558	1609	0	0	0	0	8915
180+00	50	0	0	59	0	0	0	0	106	0	0	10559	1741	0	0	0	0	8784
180+29	29	24	0	0	0	0	13	0	32	0	0	10572	1780	0	0	0	0	8757
180+50	21	2	0	37	0	0	10	0	14	0	0	10582	1798	0	0	0	0	8750
180+82	32	7	0	67	0	0	5	0	62	0	0	10587	1875	0	0	0	0	8678
181+00	18	0	0	80	0	0	2	0	49	0	0	10590	1937	0	0	0	0	8619
181+50	50	0	0	83	0	0	0	0	151	0	0	10590	2125	0	0	0	0	8430
182+00	50	0	0	86	0	0	0	0	156	0	0	10590	2321	0	0	0	0	8235
182+50	50	0	0	93	0	0	0	0	166	0	0	10590	2528	0	0	0	0	8027
183+00	50	0	0	128	0	0	0	0	205	0	0	10590	2784	0	0	0	0	7772
183+44.37	44	0	0	170	0	0	0	0	245	0	0	10590	3090	0	0	0	0	7466
183+50	6	0	0	200	0	0	0	0	39	0	0	10590	3138	0	0	0	0	7417
184+00	50	0	0	142	0	0	0	0	317	0	0	10590	3534	0	0	0	0	7022
184+50	50	0	0	76	0	0	0	0	202	0	0	10590	3786	0	0	0	0	6769
185+00	50	1	0	116	0	0	1	0	178	0	0	10590	4008	0	0	0	0	6548
185+04.39	4	1	0	88	0	0	0	0	17	0	0	10590	4029	0	0	0	0	6527
185+50	46	0	0	19	0	0	1	0	90	0	0	10591	4142	0	0	0	0	6415
186+00	50	0	0	37	0	0	0	0	52	0	0	10591	4207	0	0	0	0	6350
186+50	50	0	0	50	0	0	0	0	81	0	0	10591	4308	0	0	0	0	6250
186+58.73	9	0	0	46	0	0	0	0	16	0	0	10591	4327	0	0	0	0	6230

REVISION DATE: 03/19/13

NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT - (FILL * FILL FACTOR)

EARTHWORK STAGE 3

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
							Note 1	Note 2	Note 3			1.00 Note 1	1.25	1.50 Note 4	1.30 Note 5	0.60 Note 6	0.80 Note 7	Note 8
187+00	41	1	0	40	0	0	1	0	66	0	0	10592	4409	0	0	0	0	6149
187+50	50	4	0	31	0	0	5	0	66	0	0	10597	4491	0	0	0	0	6071
188+00	50	11	0	15	0	0	14	0	43	0	0	10611	4545	0	0	0	0	6032
188+50	50	17	0	10	0	0	26	0	23	0	0	10636	4574	0	0	0	0	6029
189+00	50	23	0	10	0	0	37	0	19	0	0	10674	4597	0	0	0	0	6043
189+50	50	24	0	14	0	0	44	0	22	0	0	10717	4625	0	0	0	0	6059
190+00	50	50	0	7	0	0	69	0	19	0	0	10786	4649	0	0	0	0	6103
190+50	50	90	0	0	0	0	130	0	6	0	0	10915	4657	0	0	0	0	6224
191+00	50	100	0	5	0	0	176	0	5	0	0	11091	4663	0	0	0	0	6394
191+50	50	100	0	4	0	0	185	0	8	0	0	11276	4673	0	0	0	0	6569
192+00	50	100	0	4	0	0	185	0	7	0	0	11461	4682	0	0	0	0	6745
192+50	50	91	0	2	0	0	177	0	6	0	0	11638	4689	0	0	0	0	6915
192+72	22	110	0	0	0	0	82	0	1	0	0	11720	4690	0	0	0	0	6996
193+00	28	91	0	4	0	0	104	0	2	0	0	11824	4693	0	0	0	0	7097
193+50	50	100	0	7	0	0	177	0	10	0	0	12001	4706	0	0	0	0	7262
193+61	11	170	0	0	0	0	55	0	1	0	0	12056	4707	0	0	0	0	7315
194+00	39	78	0	8	0	0	179	0	6	0	0	12235	4715	0	0	0	0	7487
194+50	50	48	0	3	0	0	117	0	10	0	0	12352	4727	0	0	0	0	7591
194+59.25	9	50	0	5	0	0	17	0	1	0	0	12369	4729	0	0	0	0	7606
195+00	50	70	0	0	0	0	104	0	5	0	0	12456	4734	0	0	0	0	7688
195+50	50	272	0	0	0	0	317	0	0	0	0	12772	4734	0	0	0	0	8005
196+00	50	120	0	0	0	0	363	0	0	0	0	13135	4734	0	0	0	0	8368
196+50	50	106	0	0	0	0	209	0	0	0	0	13345	4734	0	0	0	0	8577
197+00	50	96	0	0	0	0	187	0	0	0	0	13532	4734	0	0	0	0	8764
197+50	50	46	0	0	0	0	131	0	0	0	0	13663	4734	0	0	0	0	8896
198+00	50	76	0	0	0	0	113	0	0	0	0	13776	4734	0	0	0	0	9009
198+50	50	63	0	0	0	0	129	0	0	0	0	13905	4734	0	0	0	0	9137
198+79	29	111	0	0	0	0	93	0	0	0	0	13998	4734	0	0	0	0	9231
199+00	21	47	0	15	0	0	61	0	6	0	0	14060	4741	0	0	0	0	9285
199+50	50	41	0	11	0	0	81	0	24	0	0	14141	4771	0	0	0	0	9336
200+00	50	35	0	19	0	0	70	0	28	0	0	14212	4806	0	0	0	0	9372
200+50	50	25	0	21	0	0	56	0	37	0	0	14267	4852	0	0	0	0	9381
201+00	50	15	0	10	0	0	37	0	29	0	0	14304	4888	0	0	0	0	9382
201+28.11	28	36	0	0	0	0	27	0	5	0	0	14331	4894	0	0	0	0	9402
201+50	22	5	0	18	0	0	17	0	7	0	0	14347	4903	0	0	0	0	9410
202+00	50	2	0	34	0	0	6	0	48	0	0	14354	4964	0	0	0	0	9356
202+50	50	2	0	27	0	0	4	0	56	0	0	14358	5034	0	0	0	0	9289
202+90	40	0	0	24	0	0	2	0	38	0	0	14359	5081	0	0	0	0	9244
203+00	10	1	0	32	0	0	0	0	10	0	0	14359	5094	0	0	0	0	9231
203+48	48	5	0	14	0	0	5	0	41	0	0	14364	5146	0	0	0	0	9185
203+50	2	10	0	28	0	0	1	0	2	0	0	14365	5148	0	0	0	0	9183
204+00	50	0	0	53	0	0	9	0	75	0	0	14374	5241	0	0	0	0	9099
204+50	50	0	0	44	0	0	0	0	90	0	0	14374	5354	0	0	0	0	8986
205+00	50	1	0	21	0	0	1	0	60	0	0	14375	5429	0	0	0	0	8912
205+50	50	2	0	7	0	0	3	0	26	0	0	14378	5461	0	0	0	0	8882
206+00	50	0	0	23	0	0	2	0	28	0	0	14380	5496	0	0	0	0	8850
206+50	50	10	0	7	0	0	9	0	28	0	0	14389	5530	0	0	0	0	8824
206+61	11	33	0	2	0	0	9	0	2	0	0	14398	5533	0	0	0	0	8831
206+80	19	51	0	0	0	0	30	0	1	0	0	14427	5534	0	0	0	0	8859
207+00	20	41	0	2	0	0	34	0	1	0	0	14461	5535	0	0	0	0	8892
207+50	50	53	0	8	0	0	87	0	9	0	0	14548	5546	0	0	0	0	8968
208+00	50	42	0	5	0	0	88	0	12	0	0	14636	5561	0	0	0	0	9041

REVISION DATE: 03/19/13

NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT - (FILL * FILL FACTOR)

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EARTHWORK	SHEET NO: E

EARTHWORK STAGE 3

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
							Note 1	Note 2	Note 3			1.00 Note 1	1.25	1.50 Note 4	1.30 Note 5	0.60 Note 6	0.80 Note 7	Note 8
208+50	50	33	0	3	0	0	69	0	7	0	0	14706	5571	0	0	0	0	9101
209+00	50	21	0	8	0	0	50	0	10	0	0	14756	5583	0	0	0	0	9138
209+50	50	21	0	10	0	0	39	0	17	0	0	14795	5604	0	0	0	0	9156
210+00	50	13	0	15	0	0	31	0	23	0	0	14826	5633	0	0	0	0	9159
210+50	50	13	0	35	0	0	24	0	46	0	0	14850	5691	0	0	0	0	9125
211+00	50	20	0	36	0	0	31	0	66	0	0	14881	5773	0	0	0	0	9073
211+48.80	49	58	0	8	0	0	70	0	40	0	0	14951	5823	0	0	0	0	9094
211+50	1	58	0	8	0	0	3	0	0	0	0	14954	5823	0	0	0	0	9096
212+00	50	25	0	94	0	0	77	0	94	0	0	15031	5941	0	0	0	0	9055
212+50	50	12	0	105	0	0	34	0	184	0	0	15065	6172	0	0	0	0	8859
213+00	50	15	0	161	0	0	25	0	246	0	0	15090	6480	0	0	0	0	8576
213+50	50	16	0	122	0	0	29	0	262	0	0	15119	6807	0	0	0	0	8277
214+00	50	12	0	112	0	0	26	0	217	0	0	15144	7078	0	0	0	0	8032
214+50	50	14	0	101	0	0	24	0	197	0	0	15169	7324	0	0	0	0	7810
215+00	50	12	0	76	0	0	24	0	164	0	0	15193	7529	0	0	0	0	7629
215+50	50	8	0	73	0	0	19	0	138	0	0	15211	7702	0	0	0	0	7475
216+00	50	0	0	151	0	0	7	0	207	0	0	15219	7961	0	0	0	0	7223
216+50	50	0	0	75	0	0	0	0	209	0	0	15219	8223	0	0	0	0	6962
217+00	50	0	0	65	0	0	0	0	130	0	0	15219	8385	0	0	0	0	6800
217+15	15	0	0	80	0	0	0	0	40	0	0	15219	8435	0	0	0	0	6750
217+50	35	0	0	99	0	0	0	0	116	0	0	15219	8580	0	0	0	0	6604
217+71	21	7	0	113	0	0	3	0	82	0	0	15221	8683	0	0	0	0	6504
218+00	29	0	0	104	0	0	4	0	117	0	0	15225	8829	0	0	0	0	6362
218+40	40	11	0	84	0	0	8	0	139	0	0	15233	9003	0	0	0	0	6196
218+41	1	23	0	21	0	0	1	0	2	0	0	15234	9005	0	0	0	0	6195
218+50	9	0	0	26	0	0	4	0	8	0	0	15238	9015	0	0	0	0	6189
219+00	50	1	0	37	0	0	1	0	58	0	0	15238	9088	0	0	0	0	6117
219+50	50	0	0	61	0	0	1	0	91	0	0	15239	9201	0	0	0	0	6004
219+84.73	35	5	0	30	0	0	3	0	59	0	0	15243	9275	0	0	0	0	5934
220+00	15	18	0	5	0	0	7	0	10	0	0	15249	9287	0	0	0	0	5928
220+38	38	13	0	0	0	0	22	0	4	0	0	15271	9291	0	0	0	0	5946
220+50	12	20	0	11	0	0	7	0	2	0	0	15278	9294	0	0	0	0	5950
221+00	50	35	0	13	0	0	51	0	22	0	0	15329	9322	0	0	0	0	5973
221+50	50	33	0	11	0	0	63	0	22	0	0	15392	9350	0	0	0	0	6008
221+95	45	14	0	0	0	0	39	0	9	0	0	15431	9361	0	0	0	0	6036
222+00	5	20	0	0	0	0	3	0	0	0	0	15434	9361	0	0	0	0	6039
222+50	50	30	0	11	0	0	46	0	10	0	0	15481	9374	0	0	0	0	6073
223+00	50	40	0	8	0	0	65	0	18	0	0	15546	9396	0	0	0	0	6115
223+37	37	24	0	15	0	0	44	0	16	0	0	15589	9416	0	0	0	0	6140
223+50	13	19	0	14	0	0	10	0	7	0	0	15600	9425	0	0	0	0	6141
223+88	38	40	0	0	0	0	42	0	10	0	0	15641	9437	0	0	0	0	6170
223+90	2	40	0	16	0	0	3	0	1	0	0	15644	9438	0	0	0	0	6173
224+00	10	29	0	2	0	0	13	0	3	0	0	15657	9442	0	0	0	0	6181
224+50	50	31	0	10	0	0	56	0	11	0	0	15713	9456	0	0	0	0	6223
224+86	36	87	0	1	0	0	79	0	7	0	0	15791	9465	0	0	0	0	6292
225+00	14	76	0	5	0	0	42	0	1	0	0	15833	9467	0	0	0	0	6333
225+01.13	1	76	0	5	0	0	3	0	0	0	0	15837	9467	0	0	0	0	6336
225+50	49	27	0	12	0	0	93	0	16	0	0	15930	9487	0	0	0	0	6409
226+00	50	10	0	12	0	0	34	0	22	0	0	15964	9514	0	0	0	0	6416
226+50	50	24	0	12	0	0	31	0	22	0	0	15996	9542	0	0	0	0	6419
227+00	50	30	0	11	0	0	50	0	21	0	0	16046	9569	0	0	0	0	6443
227+22	22	20	0	11	0	0	20	0	9	0	0	16066	9580	0	0	0	0	6452

NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT - (FILL * FILL FACTOR)

REVISION DATE: 03/19/13

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STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EARTHWORK	SHEET NO: 534

WISDOT/CADDS SHEET 40

EARTHWORK STAGE 3

		AREA (SF)					Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)						
STATION	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Expanded EBS Backfill	Reduced Marsh in Fill	Reduced EBS In Fill	Mass Ordinate
							Note 1	Note 2	Note 3			1.00 Note 1	1.25	1.50 Note 4	1.30 Note 5	0.60 Note 6	0.80 Note 7	Note 8
227+25	3	20	0	11	0	0	2	0	1	0	0	16068	9582	0	0	0	0	6453
227+50	25	18	0	13	0	0	18	0	11	0	0	16086	9595	0	0	0	0	6456
228+00	50	22	0	14	0	0	37	0	25	0	0	16123	9627	0	0	0	0	6462
228+43.86	44	6	0	15	0	0	23	0	24	0	0	16146	9656	0	0	0	0	6455
228+50	6	6	0	14	0	0	1	0	3	0	0	16147	9660	0	0	0	0	6453
229+00	50	24	0	5	0	0	28	0	18	0	0	16175	9682	0	0	0	0	6458
229+50	50	30	0	8	0	0	50	0	12	0	0	16225	9697	0	0	0	0	6493
230+00	50	38	0	4	0	0	63	0	11	0	0	16288	9711	0	0	0	0	6542
230+50	50	50	0	10	0	0	81	0	13	0	0	16369	9727	0	0	0	0	6608
231+00	50	50	0	25	0	0	93	0	32	0	0	16462	9768	0	0	0	0	6660
231+50	50	30	0	15	0	0	74	0	37	0	0	16536	9814	0	0	0	0	6688
232+00	50	64	0	5	0	0	87	0	19	0	0	16623	9837	0	0	0	0	6751
232+50	50	60	0	9	0	0	115	0	13	0	0	16738	9854	0	0	0	0	6850
233+00	50	90	0	8	0	0	139	0	16	0	0	16877	9873	0	0	0	0	6969
233+50	50	90	0	5	0	0	167	0	12	0	0	17043	9888	0	0	0	0	7121
234+00	50	90	0	0	0	0	167	0	5	0	0	17210	9894	0	0	0	0	7282
234+50	50	140	0	4	0	0	213	0	4	0	0	17423	9899	0	0	0	0	7490
235+00	50	40	0	14	0	0	167	0	17	0	0	17590	9920	0	0	0	0	7636
235+50	50	45	0	17	0	0	79	0	29	0	0	17668	9955	0	0	0	0	7679
236+00	50	47	0	13	0	0	85	0	28	0	0	17753	9990	0	0	0	0	7729
236+50	50	56	0	8	0	0	95	0	19	0	0	17849	10014	0	0	0	0	7800
237+00	50	55	0	10	0	0	103	0	17	0	0	17952	10035	0	0	0	0	7882
237+50	50	55	0	15	0	0	102	0	23	0	0	18053	10064	0	0	0	0	7955
237+92.94	43	65	0	10	0	0	95	0	20	0	0	18149	10089	0	0	0	0	8026
238+00	7	59	0	15	0	0	16	0	3	0	0	18165	10093	0	0	0	0	8038
238+05	5	59	0	14	0	0	11	0	3	0	0	18176	10097	0	0	0	0	8045
238+50	45	60	0	22	0	0	99	0	30	0	0	18275	10134	0	0	0	0	8107
239+00	50	55	0	40	0	0	106	0	57	0	0	18382	10206	0	0	0	0	8142
239+50	50	63	0	11	0	0	109	0	47	0	0	18491	10265	0	0	0	0	8192
239+55	5	63	0	11	0	0	12	0	2	0	0	18503	10267	0	0	0	0	8201
240+00	45	58	0	10	0	0	101	0	18	0	0	18603	10289	0	0	0	0	8280
240+50	50	55	0	0	0	0	105	0	9	0	0	18708	10301	0	0	0	0	8373
240+93.01	43	173	0	0	0	0	182	0	0	0	0	18890	10301	0	0	0	0	8555
241+00	7	173	0	0	0	0	45	0	0	0	0	18934	10301	0	0	0	0	8600
241+22.19	22	216	0	0	0	0	160	0	0	0	0	19094	10301	0	0	0	0	8759
241+50	28	73	0	6	0	0	149	0	3	0	0	19243	10305	0	0	0	0	8904
242+00	50	89	0	0	0	0	150	0	6	0	0	19393	10312	0	0	0	0	9047
242+50	50	105	0	0	0	0	180	0	0	0	0	19573	10312	0	0	0	0	9227
243+00	50	114	0	0	0	0	203	0	0	0	0	19776	10312	0	0	0	0	9430
243+50	50	129	0	0	0	0	225	0	0	0	0	20001	10312	0	0	0	0	9655
244+00	50	130	0	1	0	0	192	0	13	0	0	18467	10150	0	0	0	0	8284
244+50	50	125	0	1	0	0	236	0	2	0	0	18703	10152	0	0	0	0	8517
245+00	50	125	0	1	0	0	231	0	2	0	0	18935	10155	0	0	0	0	8746
245+50	50	122	0	0	0	0	229	0	1	0	0	19164	10157	0	0	0	0	8973
246+00	50	117	0	2	0	0	221	0	2	0	0	19385	10160	0	0	0	0	9191
246+30	30	150	0	4	0	0	148	0	4	0	0	19533	10164	0	0	0	0	9335
246+50	20	116	0	0	0	0	99	0	1	0	0	19632	10166	0	0	0	0	9432
247+00	50	116	0	0	0	0	215	0	0	0	0	19847	10166	0	0	0	0	9647
247+50	50	116	0	0	0	0	230	0	2	0	0	18697	10152	0	0	0	0	8511

REVISION DATE: 03/19/13

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NOTE 1: CUT INCLUDES SALVAGED/ UNUSABLE PAVEMENT MATERIAL

NOTE 8: MASS ORDINATE = CUT - (FILL * FILL FACTOR)

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	EARTHWORK	SHEET NO: 535

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

GAS
HP GAS
W
SAN
760
755
750
745
145 + 00
R/W
SERVICE DRIVE
EDGE OF WETLAND–50'
EDGE OF WETLAND–36'
–32.50 750.94
2%
11.00 751.37
11.00 750.70
–44.21 747.04
3:1
1:1
APPROX. LOCATION OF 6" HP GAS MAIN DO NOT DISTURB
ESTIMATED LIMITS OF EXCAVATION MARSH
24" TEMP. CULVERT

STA =145+00

STAGE 1A

R/W
EDGE OF WETLAND–32'
EDGE OF WETLAND–41'
12.00 751.34
2%
24.00 751.10
6:1
12.00 750.67
28.56 750.40
1:1
ESTIMATED LIMITS OF EXCAVATION MARSH
760
755
750
745
145 + 00

GAS
HP GAS
W
SAN
760
755
750
144 + 50
R/W
SERVICE DRIVE
EDGE OF WETLAND–50'
EDGE OF WETLAND–35'
–32.50 750.94
2%
11.00 751.37
11.00 750.70
–43.87 747.15
3:1
1:1
APPROX. LOCATION OF 6" HP GAS MAIN DO NOT DISTURB
ESTIMATED LIMITS OF EXCAVATION MARSH
24" TEMP. CULVERT

STA =144+50

EDGE OF WETLAND–33'
EDGE OF WETLAND–41'
12.00 751.41
2%
24.00 751.17
6:1
12.00 750.74
27.52 750.59
1:1
ESTIMATED LIMITS OF EXCAVATION MARSH
760
755
750
144 + 50

GAS
HP GAS
W
SAN
760
755
750
144 + 00
R/W
SERVICE DRIVE
EDGE OF WETLAND–50'
EDGE OF WETLAND–35'
–32.50 751.14
2%
11.00 751.57
11.00 750.90
–43.26 747.55
3:1
1:1
APPROX. LOCATION OF 6" HP GAS MAIN DO NOT DISTURB
ESTIMATED LIMITS OF EXCAVATION MARSH
24" TEMP. CULVERT

STA =144+00

EDGE OF WETLAND–33'
EDGE OF WETLAND–41'
12.00 751.50
2%
24.00 751.26
6:1
12.00 750.83
28.31 750.55
1:1
ESTIMATED LIMITS OF EXCAVATION MARSH
760
755
750
144 + 00

5'
10'

BEGIN PROJECT 2160–10–70
STA 144+00

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/13/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B	SCALE: NTS	SHEET NO: 536

STAGE 1B

STAGE 1A

GAS W SAN HP GAS

R/W

EDGE OF WETLAND–51'

EDGE OF WETLAND–35'

EDGE OF WETLAND–32'

EDGE OF WETLAND–40'

APPROX. LOCATION OF 6" HP GAS MAIN DO NOT DISTURB

24" TEMP. CULVERT

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =146+50
EXISTING EL =751.16
PROPOSED EL =750.19

STA =146+00
EXISTING EL =751.23
PROPOSED EL =750.48

STA =145+50
EXISTING EL =751.37
PROPOSED EL =750.77

REVISION DATE: 6/13/2013

STATE PROJECT NUMBER: 2160–10–70 | HWY: S. 76TH ST. (CTH U) | COUNTY: MILWAUKEE | CROSS SECTIONS STAGE 1A & 1B | SHEET NO: 537

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

760
755
750
745

147 + 50

GAS
W
SAN
GAS
R/W
EDGE OF WETLAND–50'
EDGE OF WETLAND–35'
EDGE OF WETLAND–33'
EDGE OF WETLAND–40'
TLE–77'
R/W

–32.50
750.42
2%
–11.00
750.85
–11.00
750.18
–44.82
746.31
3:1
1:1
1:1

12.00
750.78
2%
24.00
750.54
12.00
750.11
28.41
749.07
1:1
1:1

ESTIMATED LIMITS OF EXCAVATION MARSH

APPROX. LOCATION OF 6" HP GAS MAIN DO NOT DISTURB

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =147+50

24" TEMP. CULVERT

760
755
750
745

147 + 00

GAS
W
SAN
GAS
R/W
EDGE OF WETLAND–50'
EDGE OF WETLAND–35'
EDGE OF WETLAND–33'
EDGE OF WETLAND–40'
R/W

–32.50
750.47
2%
–11.00
750.90
–11.00
750.23
–44.51
746.46
3:1
1:1
1:1

12.00
750.88
2%
24.00
750.64
12.00
750.21
27.20
749.57
1:1
1:1

ESTIMATED LIMITS OF EXCAVATION MARSH

APPROX. LOCATION OF 6" HP GAS MAIN DO NOT DISTURB

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =147+00

24" TEMP. CULVERT

5'
10'

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/13/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 538

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

755 750 745

149 + 00

GAS W SAN R/W HP GAS

EDGE OF WETLAND–50'

EDGE OF WETLAND–35'

EDGE OF WETLAND–32'

EDGE OF WETLAND–40'

TLE–77'

R/W

–32.50
750.12

2%

–11.00
750.55

–11.00
749.88

–43.74
746.37

3:1

1:1

1:1

12.00
750.64

2%

24.00
750.40

12.00
749.97

3:1

27.91
749.10

1:1

1:1

ESTIMATED LIMITS OF EXCAVATION MARSH

APPROX. LOCATION OF 6" HP GAS MAIN DO NOT DISTURB

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =149+00

24" TEMP. CULVERT

760 755 750 745

148 + 50

GAS W SAN R/W HP GAS

EDGE OF WETLAND–50'

EDGE OF WETLAND–35'

EDGE OF WETLAND–32'

EDGE OF WETLAND–40'

TLE–77'

R/W

–32.50
750.45

2%

–11.00
750.88

–11.00
750.21

–45.43
746.14

3:1

1:1

1:1

12.00
750.93

2%

24.00
750.69

12.00
750.26

3:1

30.63
748.48

1:1

1:1

ESTIMATED LIMITS OF EXCAVATION MARSH

APPROX. LOCATION OF 6" HP GAS MAIN DO NOT DISTURB

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =148+50

24" TEMP. CULVERT

760 755 750 745

148 + 00

GAS W SAN R/W HP GAS

EDGE OF WETLAND–50'

EDGE OF WETLAND–35'

EDGE OF WETLAND–33'

EDGE OF WETLAND–40'

TLE–77'

R/W

–32.50
750.42

2%

–11.00
750.85

–11.00
750.18

–45.01
746.25

3:1

1:1

1:1

12.00
750.78

2%

24.00
750.54

12.00
750.11

3:1

28.41
749.07

1:1

1:1

ESTIMATED LIMITS OF EXCAVATION MARSH

APPROX. LOCATION OF 6" HP GAS MAIN DO NOT DISTURB

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =148+00

24" TEMP. CULVERT

5'

10'

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/13/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 539

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

GAS W SAN HP GAS

EDGE OF WETLAND–48'

EDGE OF WETLAND–35'

R/W

755

750

745

150 + 50

-32.50 749.97

2%

11.00 750.40

11.00 749.73

-46.12 745.43

3:1

1:1

1:1

APPROX. LOCATION OF 6" HP GAS MAIN DO NOT DISTURB

24" TEMP. CULVERT

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =150+50

EDGE OF WETLAND–35'

EDGE OF WETLAND–43'

R/W

TLE–77'

12.00 750.33

2%

24.00 750.09

3:1

12.00 749.66

28.28 748.66

1:1

1:1

ESTIMATED LIMITS OF EXCAVATION MARSH

GAS W SAN HP GAS

EDGE OF WETLAND–48'

EDGE OF WETLAND–35'

R/W

755

750

745

150 + 00

-32.50 750.08

2%

11.00 750.51

11.00 749.84

-45.70 745.68

3:1

1:1

1:1

APPROX. LOCATION OF 6" HP GAS MAIN DO NOT DISTURB

24" TEMP. CULVERT

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =150+00

EDGE OF WETLAND–34'

EDGE OF WETLAND–42'

R/W

TLE–77'

12.00 750.47

2%

24.00 750.23

3:1

12.00 749.80

30.15 748.18

1:1

1:1

ESTIMATED LIMITS OF EXCAVATION MARSH

GAS W SAN HP GAS

EDGE OF WETLAND–48'

EDGE OF WETLAND–35'

R/W

755

750

745

149 + 50

-32.50 750.09

2%

11.00 750.52

11.00 749.85

-43.59 746.39

3:1

1:1

1:1

APPROX. LOCATION OF 6" HP GAS MAIN DO NOT DISTURB

24" TEMP. CULVERT

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =149+50

EDGE OF WETLAND–34'

EDGE OF WETLAND–42'

R/W

TLE–77'

12.00 750.54

2%

24.00 750.30

3:1

12.00 749.87

27.74 749.05

1:1

1:1

ESTIMATED LIMITS OF EXCAVATION MARSH

5'

10'

REVISION DATE: 2/20/2013

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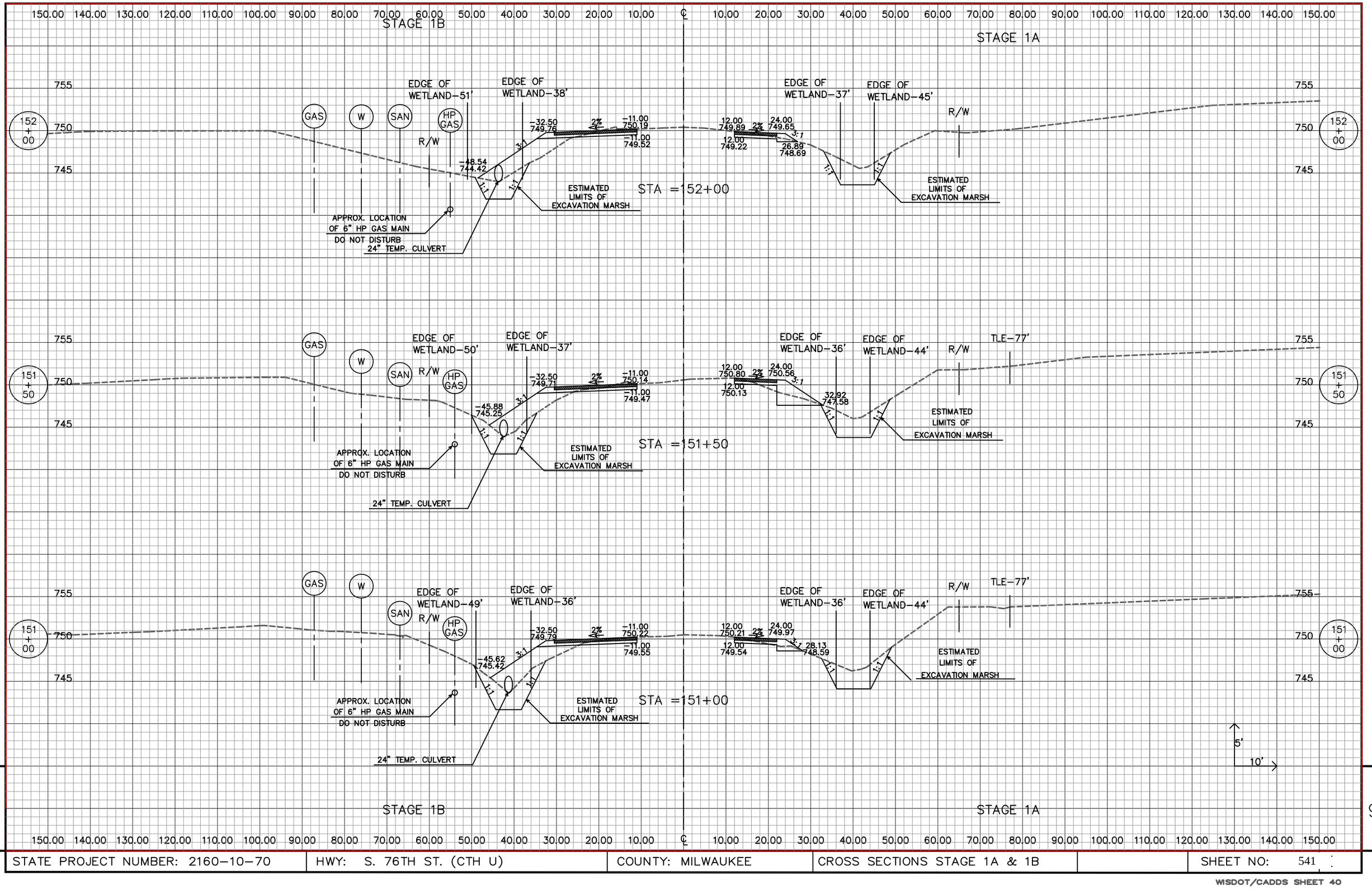
STAGE 1B

STAGE 1A

9

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B	SCALE: NTS	SHEET NO: 540



REVISION DATE: 6/13/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 541

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

755
750
745

153 + 46.45

MARGARET LANE

GAS W SAN GAS

12.00 750.93 2% 24.00 750.69 3:1 12.00 750.26 27.38 749.56

R/W

STA =153+46.45

153 + 46.45

GAS W SAN GAS

EDGE OF WETLAND–61' R/W

EDGE OF WETLAND–43'

EDGE OF WETLAND–38'

EDGE OF WETLAND–61' R/W

750
745
740

153 + 00

SERVICE DRIVE

-32.50 750.06 2% -11.00 750.49 -11.00 749.82

12.00 750.50 2% 24.00 750.26 12.00 749.83 31.34 747.81

3:1 1:1

-50.86 743.94

ESTIMATED LIMITS OF EXCAVATION MARSH

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =153+00

153 + 00

24" TEMP. CULVERT

GAS W SAN GAS

EDGE OF WETLAND–51' R/W

EDGE OF WETLAND–41'

EDGE OF WETLAND–40'

EDGE OF WETLAND–47' R/W

755
750
745

152 + 50

SERVICE DRIVE

-32.50 749.84 2% -11.00 750.27 -11.00 749.60

12.00 750.22 2% 24.00 749.98 12.00 749.55 27.65 748.77

3:1 1:1

-48.34 744.56

ESTIMATED LIMITS OF EXCAVATION MARSH

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =152+50

152 + 50

24" TEMP. CULVERT

5'
10'

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/20/2013

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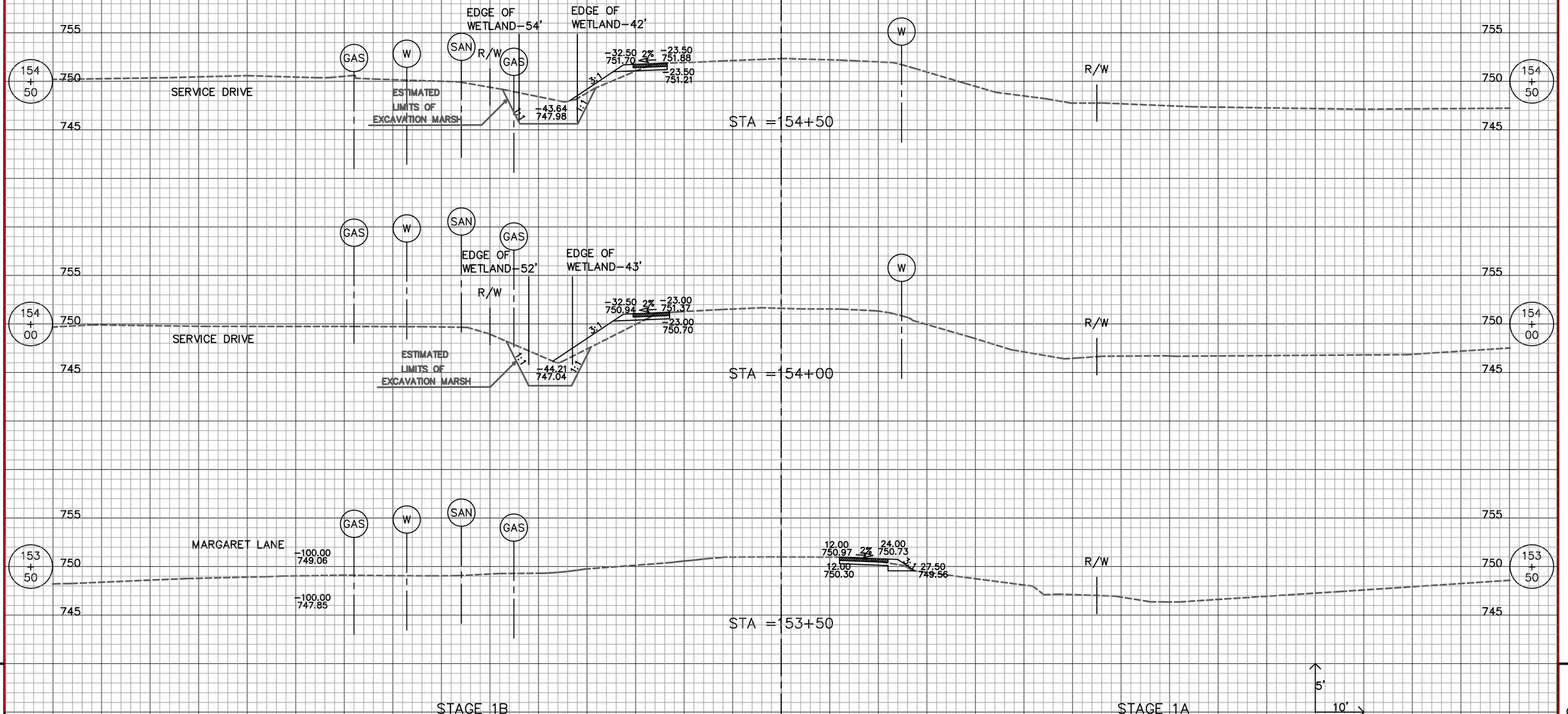
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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 542

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A



STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/20/2013

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9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 543

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

GAS W SAN GAS T W

EDGE OF WETLAND–51'

EDGE OF WETLAND–43'

760

755

750

156 + 00

R/W

SERVICE DRIVE

ESTIMATED LIMITS OF EXCAVATION MARSH

–41.93
751.55

3:1

1:1

–32.50 2% –23.00
754.69 744.88

–23.00
754.21

R/W

PLE

156 + 00

STA =156+00

GAS W SAN GAS W

EDGE OF WETLAND–51'

R/W

EDGE OF WETLAND–43'

–44.05
749.72

–32.50 2% –23.00
753.57 753.76

–23.00
753.09

R/W

155 + 50

STA =155+50

GAS W SAN GAS W

EDGE OF WETLAND–53'

R/W

EDGE OF WETLAND–43'

–42.05
749.39

–32.50 2% –23.00
752.57 752.76

–23.00
752.09

R/W

155 + 00

STA =155+00

5'

10'

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/20/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B	SHEET NO: 544

WISDOT/CADDS SHEET 40

STAGE 1B

EDGE OF WETLAND–51'

EDGE OF WETLAND–43'

R/W

GAS W W SAN GAS

SERVICE DRIVE

158 + 00

765 760 755

−32.96 754.56 2% −23.00 754.76

−37.41 753.81

−23.00 754.09

1:1 1:1

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =158+00

T W SS T E E R/W

STAGE 1A

PLE

158 + 00

765 760 755

EDGE OF WETLAND–51'

EDGE OF WETLAND–43'

GAS W W SAN GAS

R/W

SERVICE DRIVE

157 + 50

760 755 750

−32.50 753.35 2% −23.00 753.54

−38.88 751.22

−23.00 752.87

3:1 1:1 1:1

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =157+50

T W SS T E E R/W

PLE

157 + 50

760 755 750

EDGE OF WETLAND–51'

EDGE OF WETLAND–43'

GAS W SAN GAS

R/W

SERVICE DRIVE

157 + 00

760 755 750

−32.50 752.07 2% −23.00 752.26

−38.43 750.09

−23.00 751.59

3:1 1:1 1:1

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =157+00

T W SS T R/W

PLE

157 + 00

760 755 750

EDGE OF WETLAND–51'

EDGE OF WETLAND–43'

GAS W SAN GAS

R/W

SERVICE DRIVE

156 + 50

760 755 750

−32.50 755.80 2% −23.00 755.99

−41.42 752.83

−23.00 755.32

3:1 1:1 1:1

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =156+50

T W R/W

PLE

156 + 50

760 755 750

5'

10'

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 10/31/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 545

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

PUETZ RD

765

760

755

158 + 66.73

GAS W SAN GAS T W SS T

STA =158+66.73

PUETZ RD

765

760

755

158 + 66.73

PUETZ RD

765

760

755

158 + 60.15

GAS W SAN GAS T W SS T

STA =158+60.15

PUETZ RD

765

760

755

158 + 60.15

PUETZ RD

765

760

755

158 + 50

GAS W SAN GAS T W SS T

STA =158+50

PUETZ RD

765

760

755

158 + 50

5'

10'

NO WORK THIS SHEET STAGE 1A OR 1B

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 12/13/2012

9

9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 546

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

770
765
760

160 + 00

GAS
T
GAS
SAN

TLE–90'

R/W

RESIDENTIAL DRIVEWAY

5%
2%
–23.00
765.20
–36.73
764.69
–30.50
764.38
–23.00
764.53

STA = 160+00

T
T
T
T
R/W

770
765
760

160 + 00

159 + 50

GAS
T
GAS
SAN

TLE–67'R/W

R/W

–32.50
763.73
2%
–23.00
763.92
–41.05
760.88
3:1
1:1
1:1
–23.00
763.25

ESTIMATED LIMITS OF EBS

STA = 159+50

T
T
T
R/W

770
765
760

159 + 50

GAS
T
T
GAS
SAN

TLE–238.10'

R/W

STA = 159+00

T
W
SS
T
T
R/W

770
765
760

159 + 00

5'
10'

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/20/2013

9

9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 547

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

GAS
T
GAS
SAN
TLE–115'
R/W
770
765
760
160 + 50
RESIDENTIAL DRIVEWAY
STA =160+50

GAS
T
GAS
SAN
TLE–115'
R/W
770
765
760
160 + 29
–32.50 765.75 2% –23.00 765.96
–39.50 763.42
–23.00 750.28
3:1
1:1
1:1
ESTIMATED LIMITS OF EBS
STA =160+29

GAS
T
GAS
SAN
TLE–90'
R/W
770
765
760
160 + 05
5% 2% –23.00 765.34
–36.73 764.84
30.50 764.52
–23.00 764.67
RESIDENTIAL DRIVEWAY
STA =160+05

5'
10'

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/20/2013

9

9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B	SHEET NO: 548

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

GAS
GAS
SAN
T
R/W
TLE–115'
775
770
765
161 + 86
RESIDENTIAL DRIVEWAY
–32.50 2% –23.00
750.94 751.37
–23.00
750.70
STA =161+86
T
R/W
775
770
765
161 + 86

GAS
T
GAS
SAN
R/W
TLE–71'
775
770
765
161 + 50
–32.50 2% –23.00
769.06 769.25
–23.00
768.58
3:1
1:1
ESTIMATED LIMITS OF EBS
–38.93
766.92
STA =161+50
T
T
T
R/W
775
770
765
161 + 50

GAS
T
GAS
SAN
R/W
TLE–71'
775
770
765
161 + 00
–32.50 2% –23.00
767.11 767.90
–23.00
767.23
3:1
1:1
ESTIMATED LIMITS OF EBS
–39.93
765.24
STA =161+00
T
T
T
R/W
775
770
765
161 + 00

5'
10'

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

REVISION DATE: 2/20/2013

9

9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 549

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

GAS
GAS
SAN
T

TLE–70'
R/W

780
775
770

163 + 00

−38.62
770.68
−32.50
772.78
2%
−23.00
772.97
−23.00
772.31
3:1
1:1
1:1

ESTIMATED LIMITS OF EBS

STA =163+00
EXISTING EL =773.25
PROPOSED EL =772.99

R/W

780
775
770

163 + 00

GAS
GAS
SAN
T

R/W

780
775
770

162 + 50

−38.38
769.60
−32.50
771.55
2%
−23.00
771.74
−23.00
771.08
3:1
1:1
1:1

ESTIMATED LIMITS OF EBS

STA =162+50
EXISTING EL =772.11
PROPOSED EL =771.81

R/W

780
775
770

162 + 50

GAS
GAS
SAN
T

TLE–115'
R/W

775
770
765

162 + 00

−38.63
768.68
−32.50
770.32
2%
−23.00
770.51
−23.00
769.85
3:1
1:1
1:1

ESTIMATED LIMITS OF EBS

STA =162+00
EXISTING EL =770.90
PROPOSED EL =770.56

R/W

775
770
765

162 + 00

5'
10'

REVISION DATE: 2/20/2013

9

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 550

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

GAS
GAS
SAN
T
TLE–115'
R/W
780
775
770
164 + 00
-54.43
777.06
-54.43
776.39
9.5:1
-32.50
774.76
2%
-23.00
774.94
-32.50
774.08
-23.00
774.27
RESIDENTIAL DRIVEWAY
STA =164+00
R/W
780
775
770
164 + 00

GAS
GAS
SAN
T
TLE–115'
R/W
780
775
770
163 + 58
-32.50
773.89
2%
11.00
774.32
11.00
773.65
-36.36
772.60
ESTIMATED LIMITS OF EBS
STA =163+58
R/W
780
775
770
163 + 58

GAS
GAS
SAN
T
TLE–115'
R/W
780
775
770
163 + 50
-32.50
773.72
2%
11.00
774.15
11.00
773.48
-36.48
772.39
ESTIMATED LIMITS OF EBS
STA =163+50
R/W
780
775
770
163 + 50

5'
10'

STAGE 1B

STAGE 1A

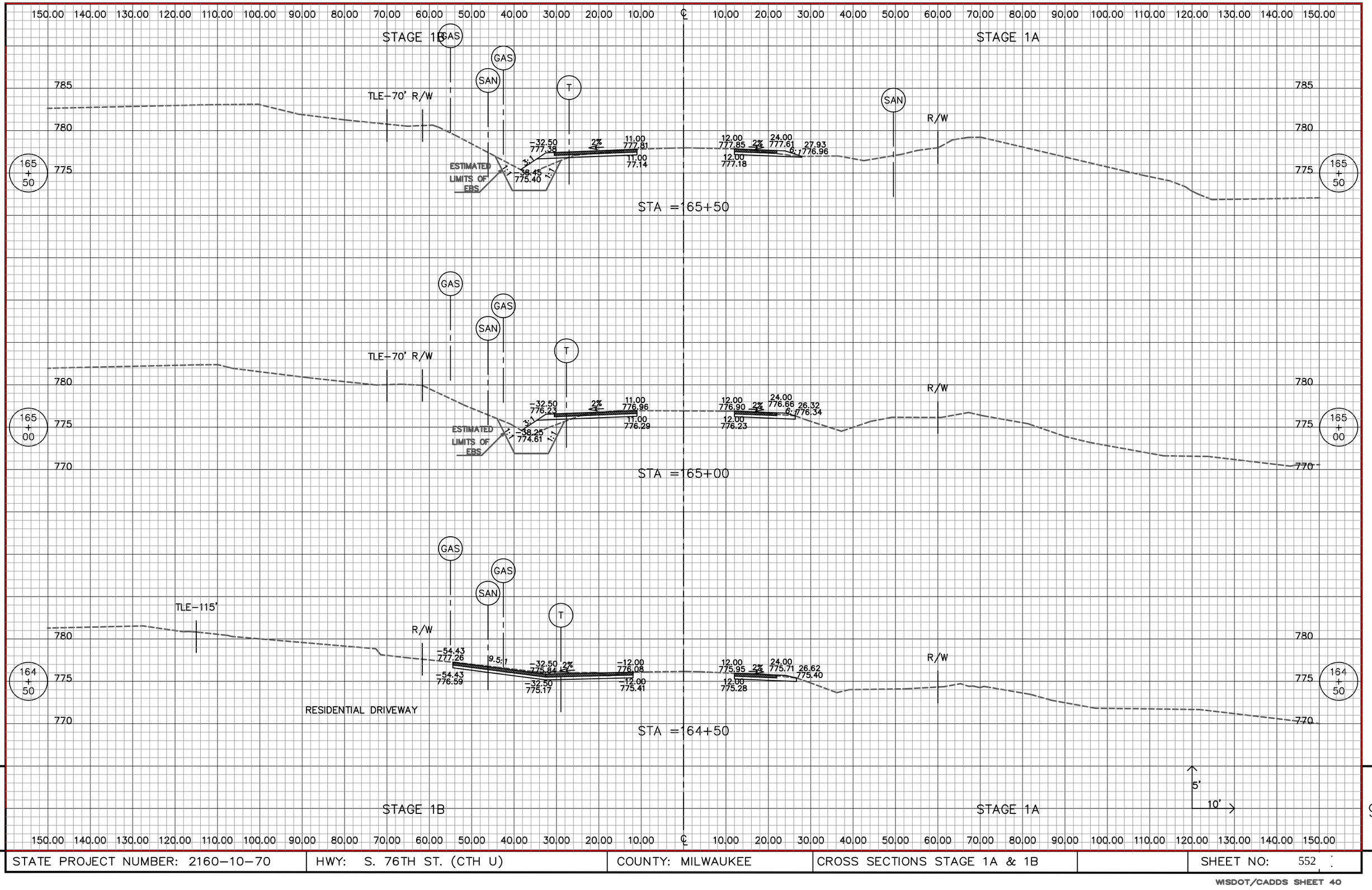
150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/20/2013

9

9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 551



REVISION DATE: 2/20/2013

9

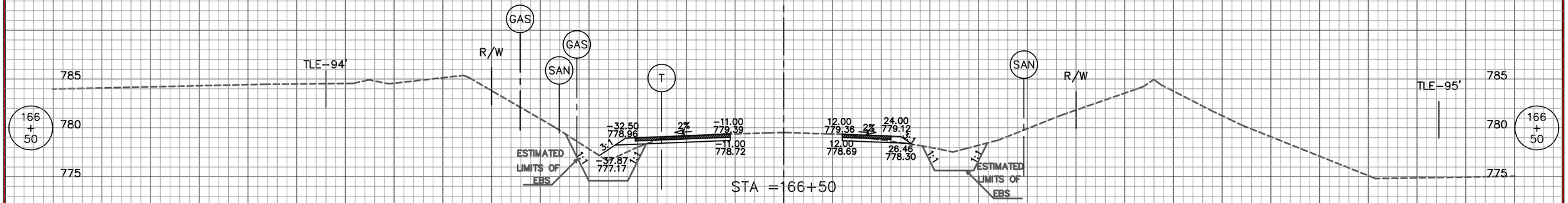
9

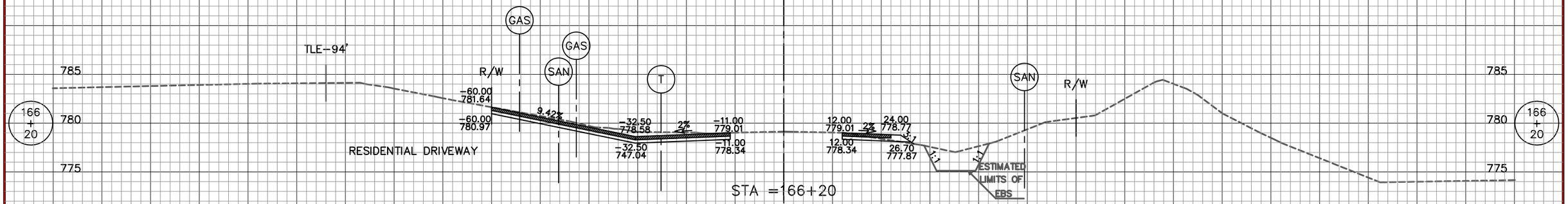
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 552

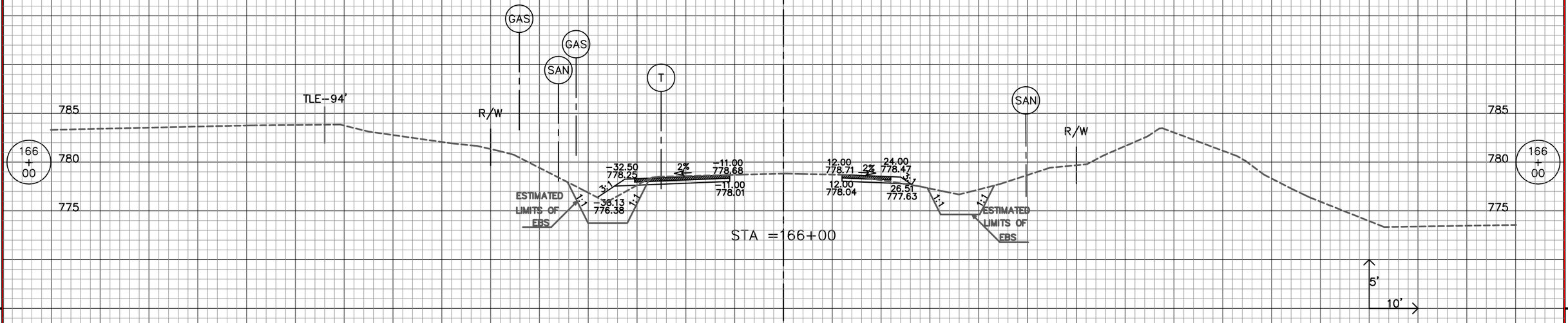
150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A







STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/21/2013

9

9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A &1B		SHEET NO: 553

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

GAS
GAS
SAN
R/W
TLE–99'
790
785
780
168 + 00
ESTIMATED LIMITS OF EBS
18" TEMP. CULVERT
–38.10 778.98
–32.50 780.85
2%
–11.00 781.28
–11.00 780.61
STA =168+00
12.00 781.40
2%
24.00 781.16
12.00 780.73
25.75 780.58
R/W
ESTIMATED LIMITS OF EBS
790
785
780
168 + 00

GAS
R/W
GAS
SAN
785
780
775
167 + 50
ESTIMATED LIMITS OF EBS
–37.31 778.68
–32.50 780.28
2%
–11.00 780.71
–11.00 780.04
STA =167+50
12.00 780.75
2%
24.00 780.51
12.00 780.08
26.13 779.80
R/W
ESTIMATED LIMITS OF EBS
785
780
775
167 + 50

18" TEMP. CULVERT
GAS
SAN
R/W
785
780
775
167 + 00
ESTIMATED LIMITS OF EBS
–37.67 777.89
–32.50 779.61
2%
–11.00 780.04
–11.00 779.37
STA =167+00
12.00 780.06
2%
24.00 779.82
12.00 779.39
26.31 779.05
SAN
R/W
ESTIMATED LIMITS OF EBS
785
780
775
167 + 00

5'
10'

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/21/2013

9

9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 554

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

GAS
GAS
SAN
W
R/W
790
785
780
169 + 00
-38.50 779.70
-32.50 781.70
2%
-11.00 782.13
-11.00 781.46
1:1
3:1
1:1
ESTIMATED LIMITS OF EBS
STA =169+00

GAS
GAS
SAN
R/W
TLE-125'
168 + 50
-32.50 781.31
2%
-11.00 781.74
-11.00 781.07
-37.78 779.55
18.44 781.77
24.00 781.66
18.44 781.10
25.41 781.19
ESTIMATED LIMITS OF EBS
STA =168+50

GAS
GAS
SAN
R/W
TLE-125'
168 + 34
-60.00 783.55
-60.00 782.88
8.65%
-32.50 781.17
2%
-11.00 781.60
-11.00 780.93
-32.50 780.50
16.66 781.69
24.00 781.54
16.66 781.02
25.64 780.84
ESTIMATED LIMITS OF EBS
STA =168+34
RESIDENTIAL DRIVEWAY

5'
10'

REVISION DATE: 2/21/2013

9

STAGE 1B

STAGE 1A

9

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A &1B		SHEET NO: 555

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

GAS
GAS
SAN
R/W
W
R/W
790
785
780
170 + 00
170 + 00
ESTIMATED LIMITS OF EBS
-32.50
782.40
2%
-11.00
782.83
1:1
-11.00
782.16
-37.05
780.89
STA =170+00

GAS
GAS
SAN
W
LAKE POINTE DR.
R/W
TWIN OAKS BLVD. (PRIVATE)
790
785
780
169 + 50
169 + 50
STA =169+50

GAS
GAS
SAN
W
LAKE POINTE DR.
R/W
TWIN OAKS BLVD. (PRIVATE)
790
785
780
169 + 43.74
169 + 43.74
STA =169+43.74

5'
10'

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

REVISION DATE: 2/21/2013

9

9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 556

STAGE 1B

STAGE 1A

STA =171+50

STA =171+00

STA =170+50

GAS

SAN

W

R/W

TLE-70'

TLE-82'

ESTIMATED LIMITS OF EBS

-32.50 782.54

-34.37 781.92

-11.00 783.21

-11.00 782.54

46.05 786.36

12.00 783.25

24.00 783.01

12.00 782.58

30.00 781.01

-51.39 787.07

-32.50 782.78

-36.50 781.71

-11.00 783.21

-11.00 782.54

42.65 785.27

12.00 783.29

24.00 783.05

12.00 782.62

30.00 781.05

-32.50 782.68

-36.04 781.50

-11.00 783.11

-11.00 782.44

COMMERCIAL DRIVEWAY

790

785

780

171 + 50

171 + 00

170 + 50

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

5'

10'

REVISION DATE: 2/21/2013

9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 557

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

GAS

GAS

R/W

W

W

R/W TLE=70'

790

785

780

172 + 50

-32.50 782.94

2%

-11.00 783.37

5'

-11.00 782.70

-34.94 782.13

1:1

1:1

ESTIMATED LIMITS OF EBS

STA =172+50

TLE=122'

RESIDENTIAL DRIVEWAY

172 + 07

STA =172+07

172 + 00

STA =172+00

5'

10'

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/21/2013

9

9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 558

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

GAS

GAS

TUCKAWAY SHORES DR.

790

785

780

173 + 69.70

LANDSCAPED MEDIAN

STA =173+69.70

W

W

R/W

TLE–78'

173 + 69.70

GAS

GAS

TUCKAWAY SHORES DR.

790

785

780

173 + 50

STA =173+50

W

W

R/W

TLE–78'

173 + 50

GAS

GAS

R/W

790

785

780

173 + 00

–32.50
782.84

2%

–18.00
783.13

ESTIMATED LIMITS OF EBS

–34.14
782.29

–18.00
782.46

STA =173+00

W

W

R/W

TLE–78'

173 + 00

5'

10'

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/21/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 559

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

E

GAS

R/W

W

W

R/W

TLE–78'

790

785

780

175 + 00

ESTIMATED LIMITS OF EXCAVATION MARSH

–32.50
782.11

3:1

2%

–11.00
782.54

–35.53
781.10

1:1

–11.00
781.87

STA =175+00

790

785

780

175 + 00

E

GAS

R/W

W

W

R/W

TLE–78'

790

785

780

174 + 50

ESTIMATED LIMITS OF EXCAVATION MARSH

–32.50
782.36

3:1

2%

–11.00
782.79

–33.65
781.98

1:1

–11.00
782.12

STA =174+50

790

785

780

174 + 50

GAS

R/W

W

W

R/W

TLE–78'

790

785

780

174 + 00

STA =174+00

5'

10'

790

785

780

174 + 00

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

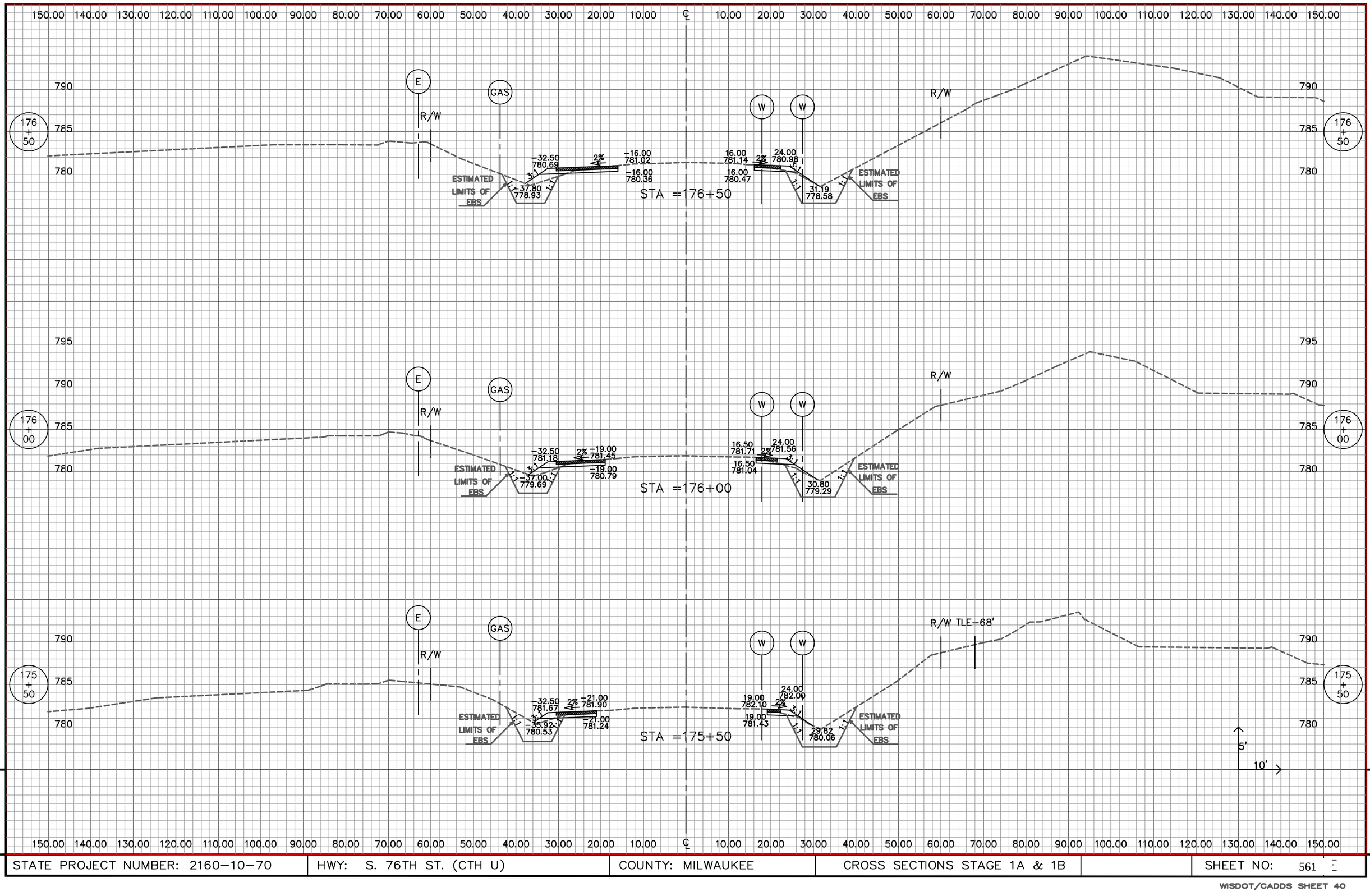
REVISION DATE: 2/21/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 560

WISDOT/CADDS SHEET 40



REVISION DATE: 2/22/2013

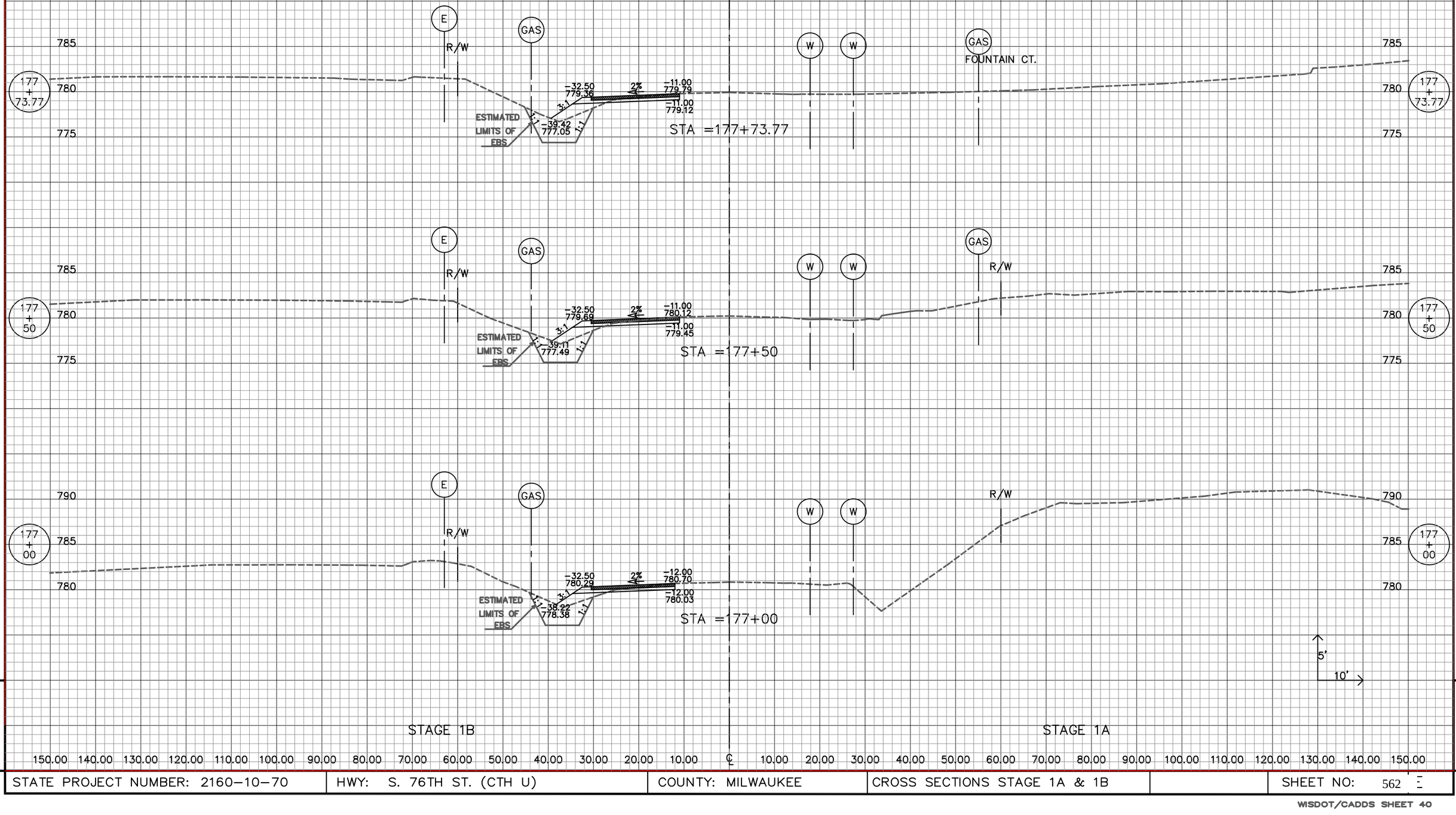
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 561

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A



STAGE 1B

STAGE 1A

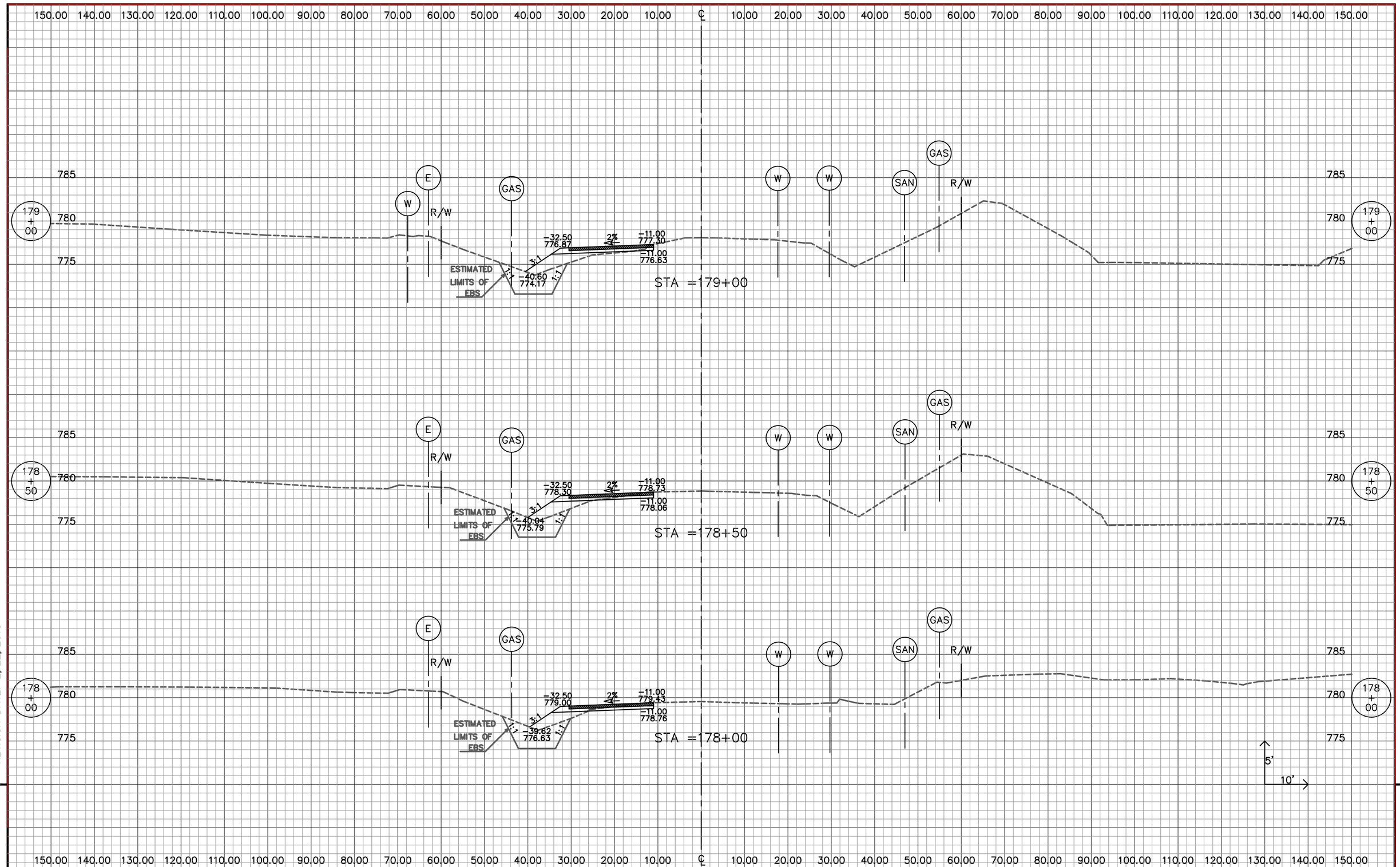
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REVISION DATE: 2/22/2013

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STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 562



REVISION DATE: 2/22/2013

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A &1B		SHEET NO: 563

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

780
775
770

180 + 29

W
TLE–75'
R/W
GAS
SERVICE DRIVE ENTRANCE

STA =180+29

W
W
SAN
GAS
R/W
12.00
775.59
2%
24.00
775.35
12.00
774.92
3:1
1:1
34.66
771.80
ESTIMATED LIMITS OF EBS

780
775
770

180 + 29

780
775
770

180 + 00

W
E
TLE–75'
R/W
GAS
ESTIMATED LIMITS OF EBS
42.32
772.48
1:1
3:1
32.50
775.75
2%
11.00
776.18
11.00
775.51

STA =180+00

W
W
SAN
GAS
R/W
12.00
776.14
2%
24.00
775.90
12.00
775.47
3:1
1:1
31.94
773.26
ESTIMATED LIMITS OF EBS

780
775
770

180 + 00

785
780
775

179 + 50

W
E
R/W
GAS
ESTIMATED LIMITS OF EBS
40.41
773.70
1:1
3:1
32.50
776.34
2%
11.00
776.77
11.00
776.10

STA =179+50

W
W
SAN
GAS
R/W
12.00
777.08
2%
24.00
776.84
12.00
776.41
3:1
1:1
27.87
775.55
ESTIMATED LIMITS OF EBS

785
780
775

179 + 50

5'
10'

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/22/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 564

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

780 775 770

181 + 00

W SAN GAS R/W

ESTIMATED LIMITS OF EBS

1:1 3:1 1:1

42.18 770.59

−32.50 773.82 2% −11.00 774.25 −11.00 773.58

STA =181+00

12.00 774.18 2% 24.00 773.94 27.11 772.91 12.00 773.51

W W SAN GAS R/W TLE−75'

780 775 770

181 + 00

780 775 770

180 + 82

W SAN GAS R/W

ESTIMATED LIMITS OF EBS

1:1 3:1 1:1

41.98 771.01

−32.50 774.17 2% −11.00 774.60 −11.00 773.93

STA =180+82

12.00 774.54 2% 24.00 774.30 4.6% 50.00 775.50 12.00 773.87

W W SAN GAS R/W TLE−75'

RESIDENTIAL DRIVEWAY

780 775 770

180 + 82

780 775 770

180 + 50

W SAN GAS TLE−75' R/W

1:1 3:1 1:1

35.41 771.13

ESTIMATED LIMITS OF EBS

STA =180+50

12.00 775.17 2% 24.00 774.93 12.00 774.50

W W SAN GAS R/W TLE−75'

5'

10'

780 775 770

180 + 50

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/22/2013

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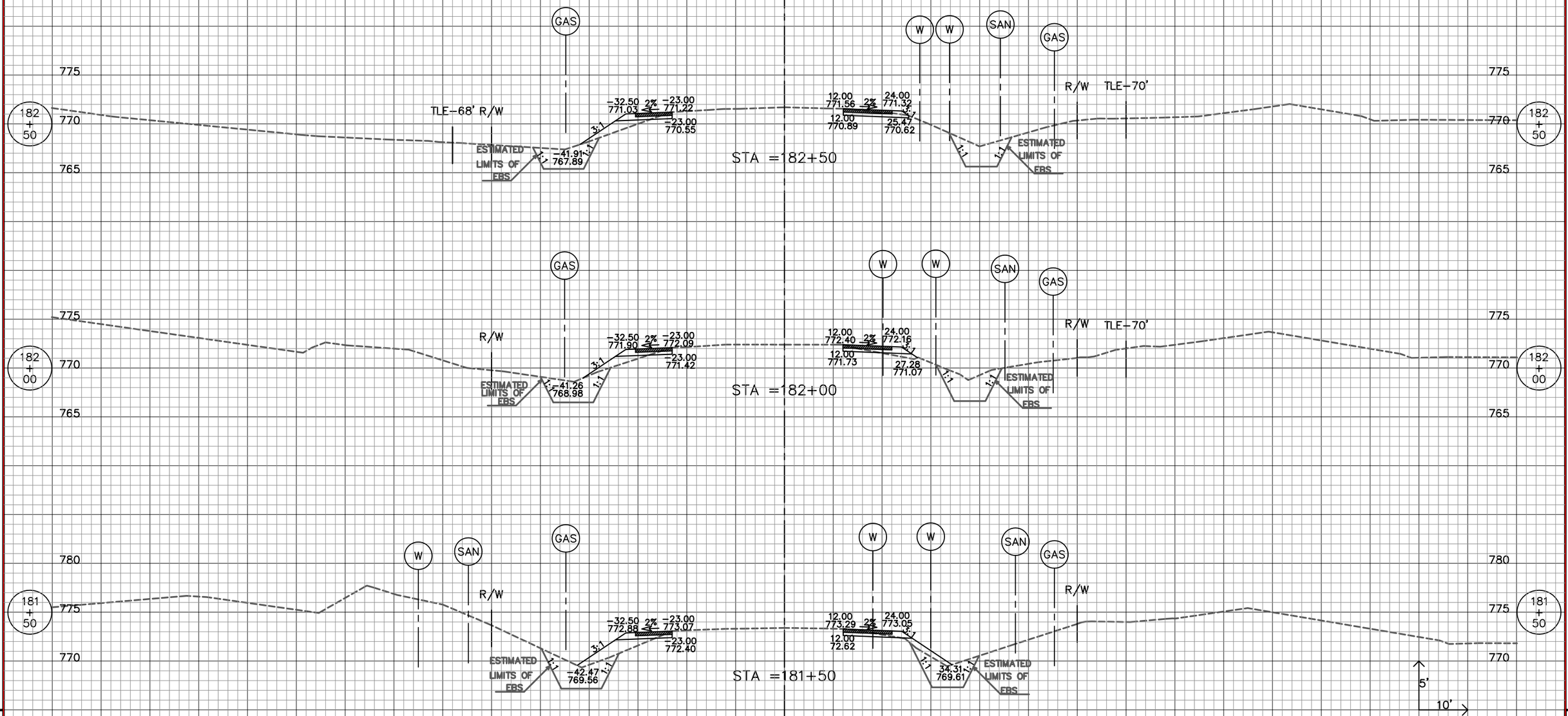
STATE PROJECT NUMBER: 2160−10−70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 565

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A



REVISION DATE: 2/22/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 566

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

GAS

W

SAN

W

GAS

TUCKAWAY CREEK DR.

TLE–153'

TLE–68' R/W

775

770

765

183 + 50

−32.50 769.53 2% −23.00 769.72

3:1

−23.00 769.05

−44.31 765.59

STA =183+50

GAS

W

SAN

W

GAS

TUCKAWAY CREEK DR. (PRIVATE)

TLE–153'

TLE–68' R/W

775

770

765

183 + 44.37

−32.50 769.61 2% −23.00 769.80

3:1

−23.00 769.13

−44.78 765.52

STA =183+44.37

GAS

W

SAN

W

GAS

R/W

TLE–153'

TLE–68' R/W

775

770

765

183 + 00

−32.50 770.23 2% −23.00 770.42

3:1

−23.00 769.75

−36.35 768.95

STA =183+00

5'

10'

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/22/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 567

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

SEE FOREST HILL AVENUE SHEETS

-140.00
770.29

770
765
760

185 + 00

MATCH AT 275' LT

GAS

FOREST HILL AVENUE

STA =185+00

W
W
SAN
GAS
R/W
T
TLE-70'

184 + 50

TLE-73'

R/W

ESTIMATED LIMITS OF EXCAVATION MARSH

1:1

1:1

3:1

-32.50 2% -23.00
768.64 768.83
-23.00
768.16
-37.92
766.83

STA =184+50

184 + 00

EDGE OF WETLAND-70'

EDGE OF WETLAND-41'

-32.50 2% -23.00
769.07 769.26
-23.00
768.59

-50.33
763.13

STA =184+00

5'
10'

REVISION DATE: 2/22/2013

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STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 568

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

EDGE OF WETLAND–142'

EDGE OF WETLAND–42'

GAS

R/W

–32.50 767.52 2% –23.00 767.71

–37.02 766.01

3:1

1:1

–23.00 767.04

ESTIMATED LIMITS OF EXCAVATION MARSH

W SAN T GAS R/W

TLE–70'

770 765 760

186 + 00

STA =186+00

EDGE OF WETLAND–142'

EDGE OF WETLAND–50'

GAS

TLE–79.89'

R/W

–35.00 767.65 2% –23.00 767.89

–35.00 766.98

–23.00 767.22

ESTIMATED LIMITS OF EXCAVATION MARSH

W SAN T GAS R/W

TLE–70'

770 765 760

185 + 50

STA =185+50

SEE FOREST HILL AVENUE SHEETS

GAS

FOREST HILL AVENUE

W W SAN GAS T R/W

TLE–70'

770 765 760

185 + 04.39

MATCH AT 275' LT

STA =185+04.39

5'

10'

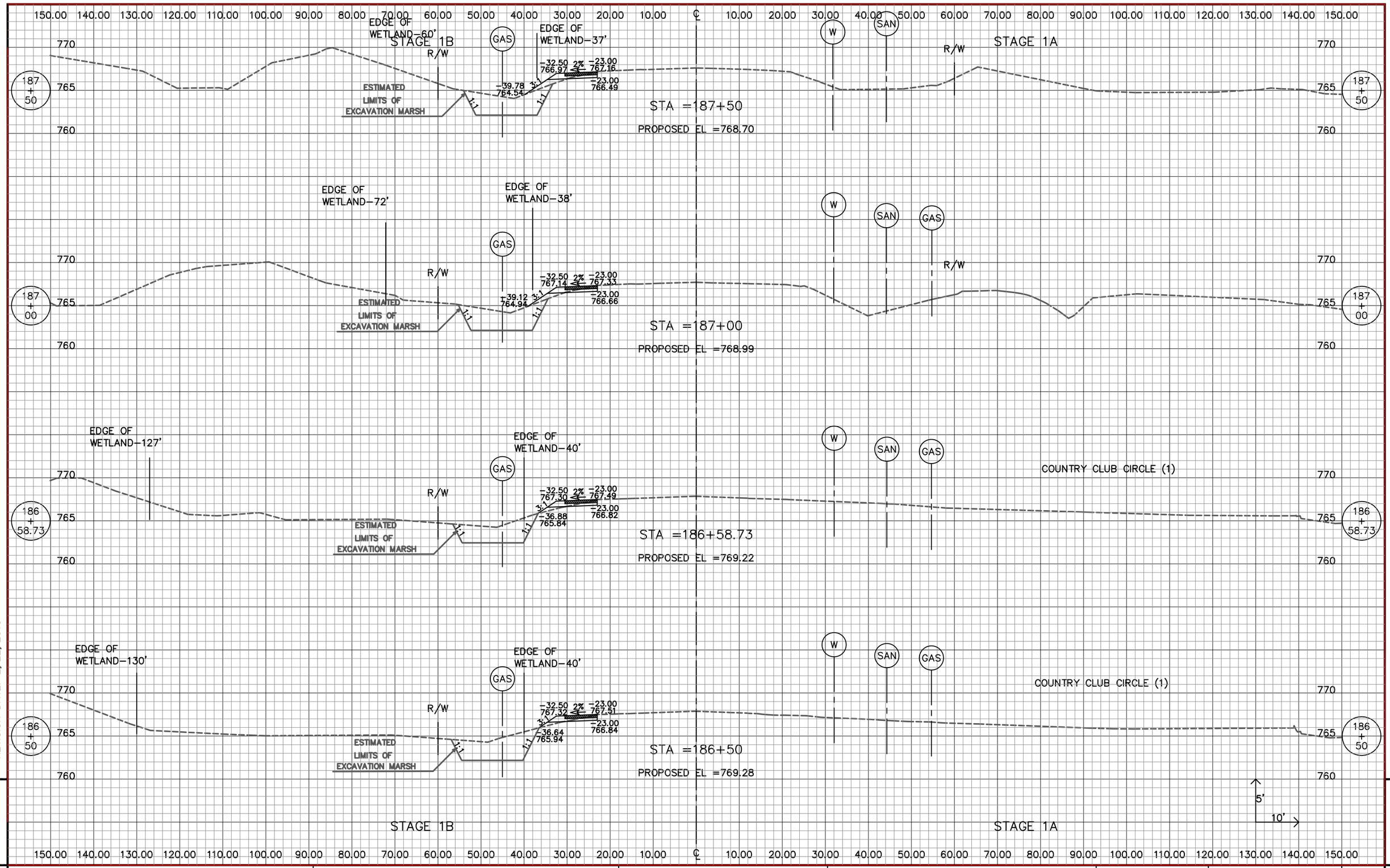
REVISION DATE: 2/22/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 569

WISDOT/CADDS SHEET 40



REVISION DATE: 2/22/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 570

STAGE 1B

STAGE 1A

EDGE OF WETLAND–51'
R/W
GAS
EDGE OF WETLAND–34'
ESTIMATED LIMITS OF EXCAVATION MARSH
STA =189+00
W
SAN
E
R/W

EDGE OF WETLAND–53'
R/W
GAS
EDGE OF WETLAND–34'
ESTIMATED LIMITS OF EXCAVATION MARSH
STA =188+50
W
SAN
E
R/W
ESTIMATED LIMITS OF EBS

EDGE OF WETLAND–56'
R/W
GAS
EDGE OF WETLAND–36'
ESTIMATED LIMITS OF EXCAVATION MARSH
STA =188+00
W
SAN
E
R/W
ESTIMATED LIMITS OF EBS

REVISION DATE: 2/22/2013

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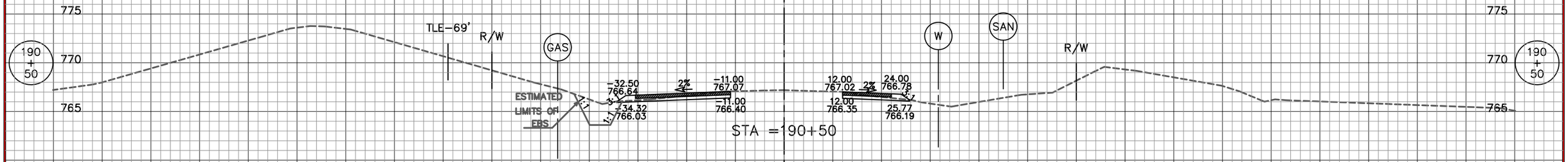
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 571

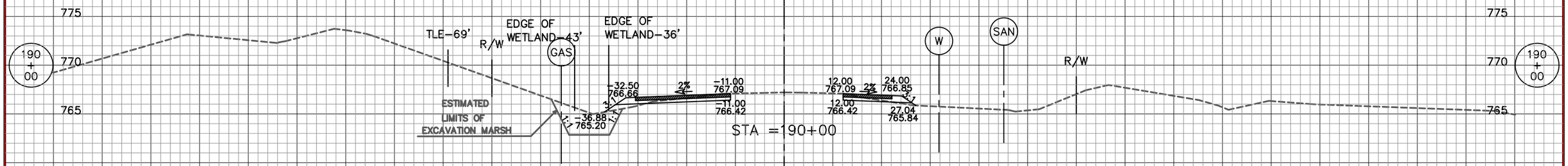
WISDOT/CADDS SHEET 40

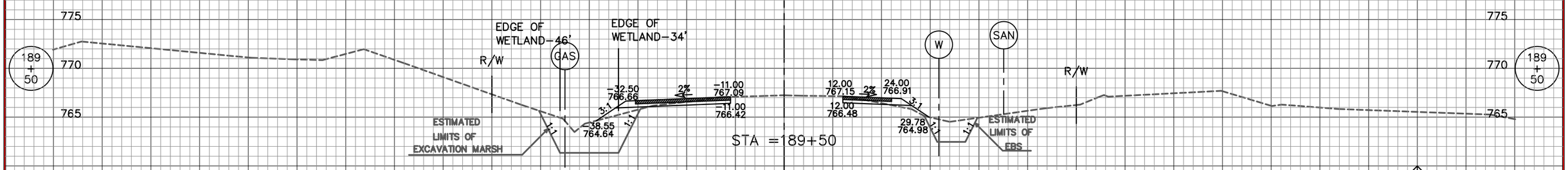
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STAGE 1B

STAGE 1A







REVISION DATE: 2/22/2013

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STAGE 1B

STAGE 1A

9

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

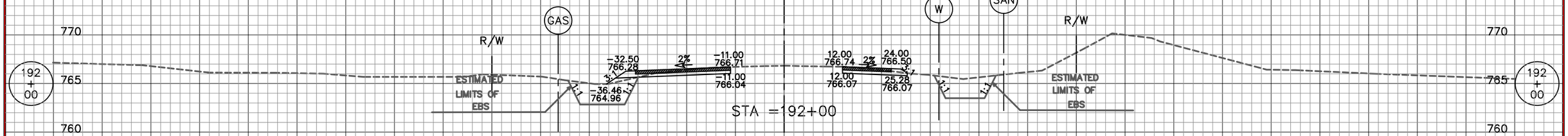
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 572

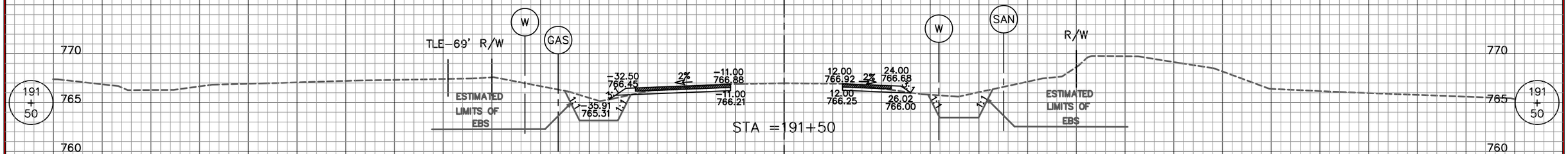
WISDOT/CADDS SHEET 40

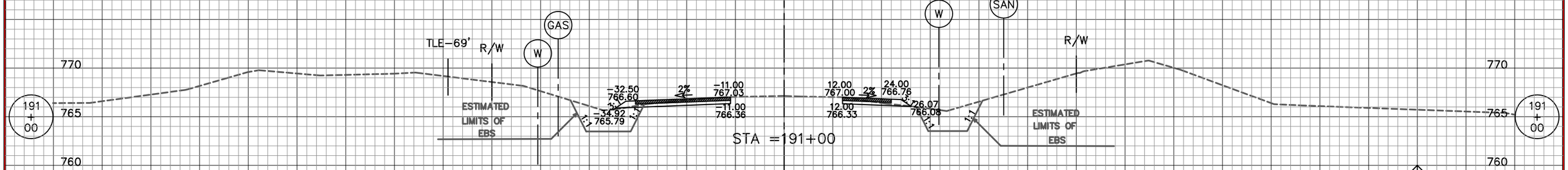
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STAGE 1B

STAGE 1A







STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

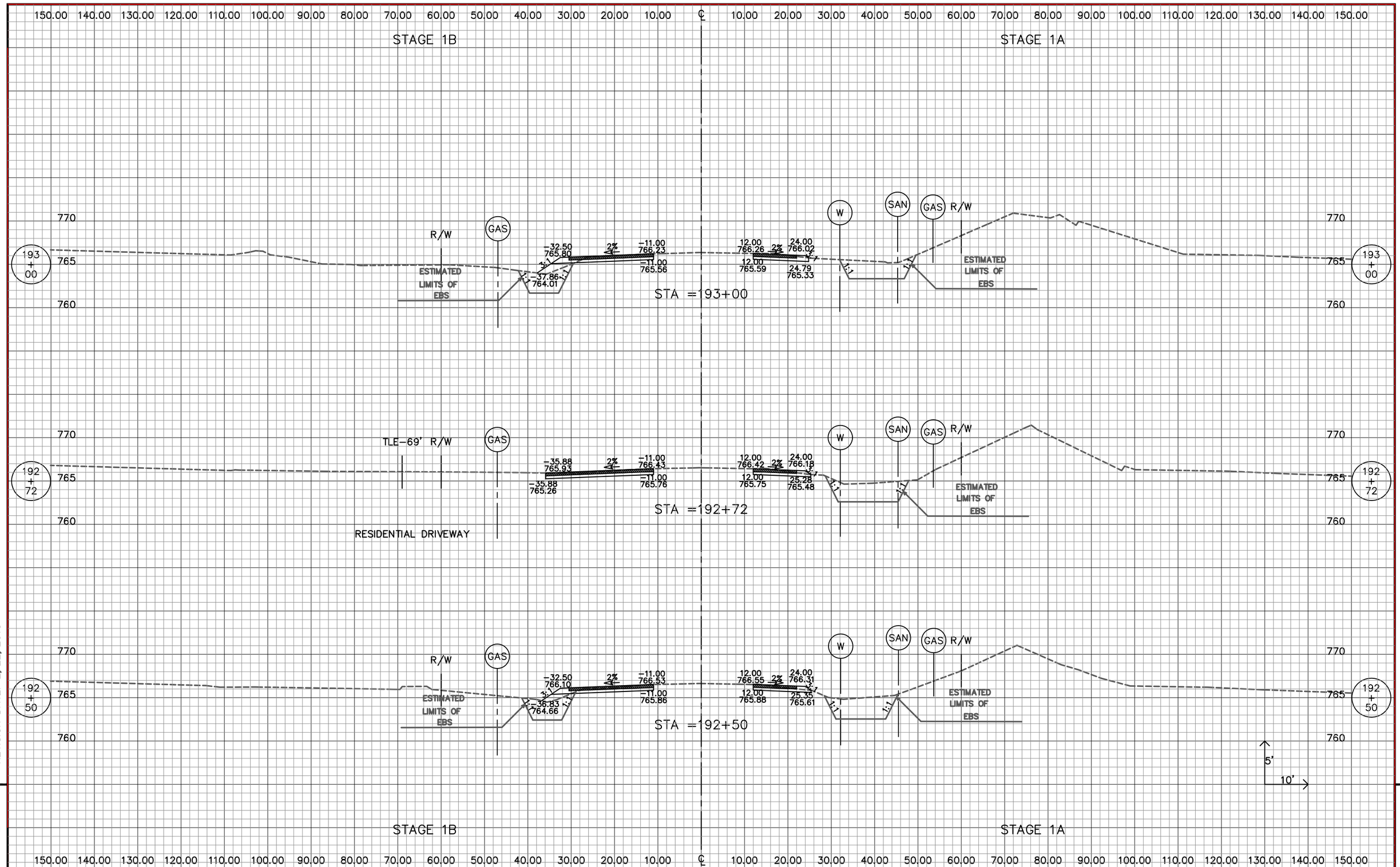
REVISION DATE: 2/22/2013

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STATE PROJECT NUMBER: 2160−10−70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 573

WISDOT/CADDS SHEET 40



REVISION DATE: 2/22/2013

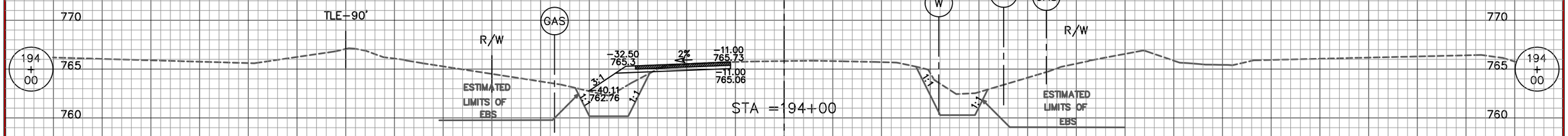
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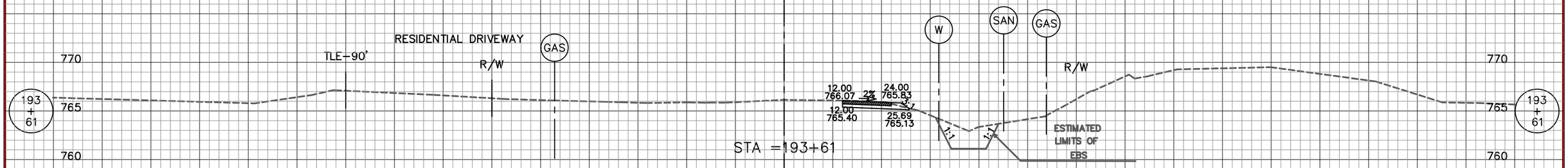
WISDOT/CADDS SHEET 40

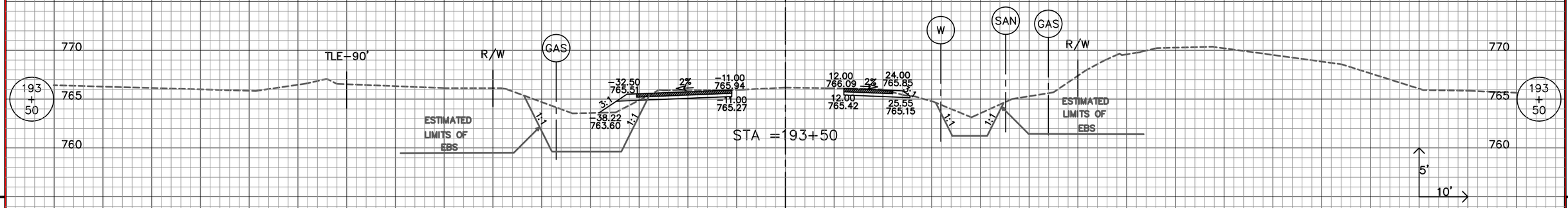
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STAGE 1B

STAGE 1A







STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/22/2013

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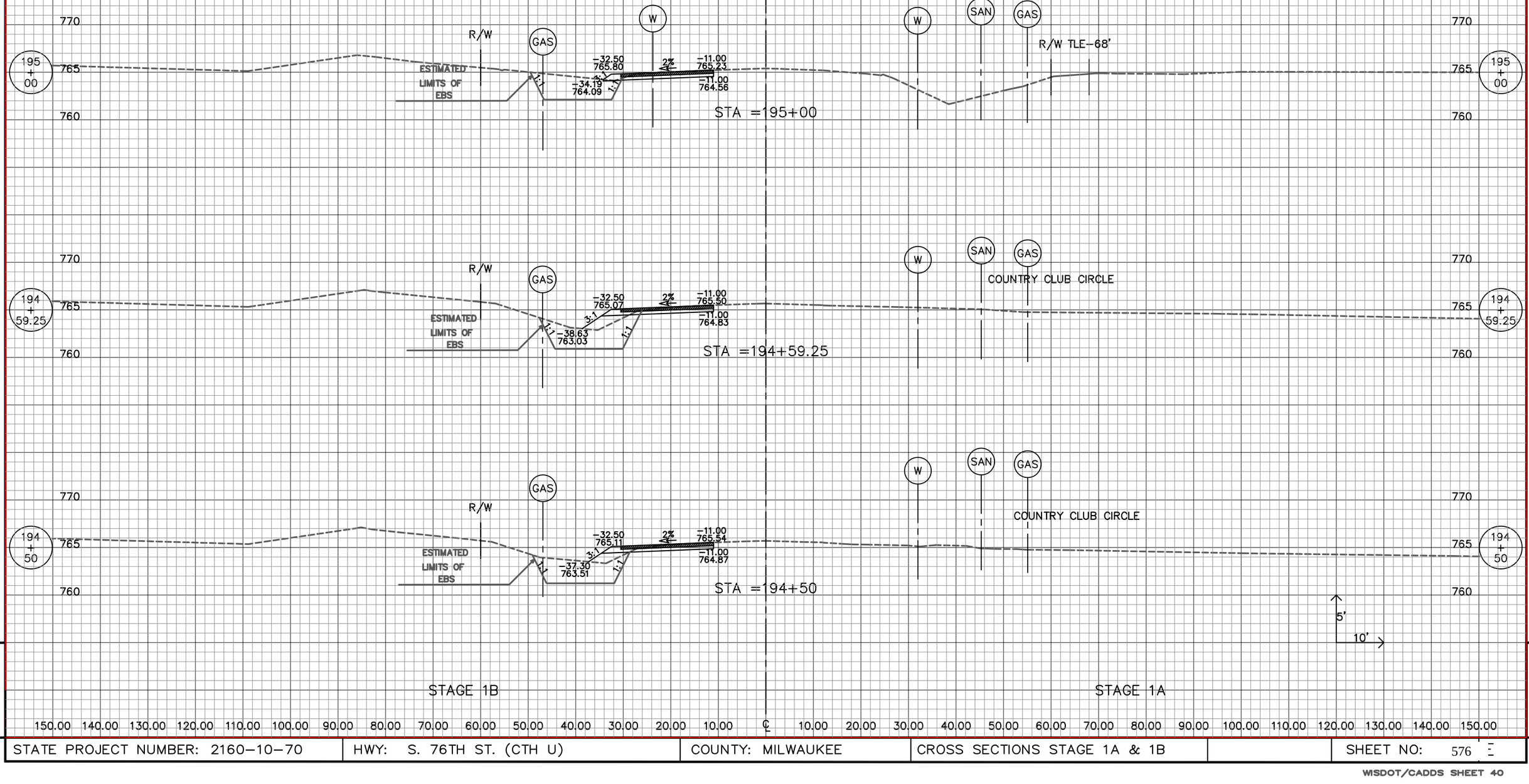
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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 575

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A



STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/22/2013

9

9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 576

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

770 765 760 755

196 + 50

R/W GAS SAN W

-39.35 766.18 3:1 2% -11.00 764.33 -32.50 7563.23 -11.00 763.66

12.00 764.31 2% 24.00 764.07 12.00 763.64 26.60 763.20

W SAN GAS SS R/W

196 + 50

STA =196+50

770 765 760

196 + 00

TLE–115'

R/W GAS SAN W

-41.98 767.45 3:1 2% -11.00 764.73 -32.50 763.63 -11.00 764.06

W SAN GAS R/W TLE–68'

196 + 00

STA =196+00

770 765 760

195 + 50

TLE–115'

R/W GAS SAN W

RESIDENTIAL DRIVEWAY

W SAN GAS R/W TLE–68'

195 + 50

STA =195+50

5' 10'

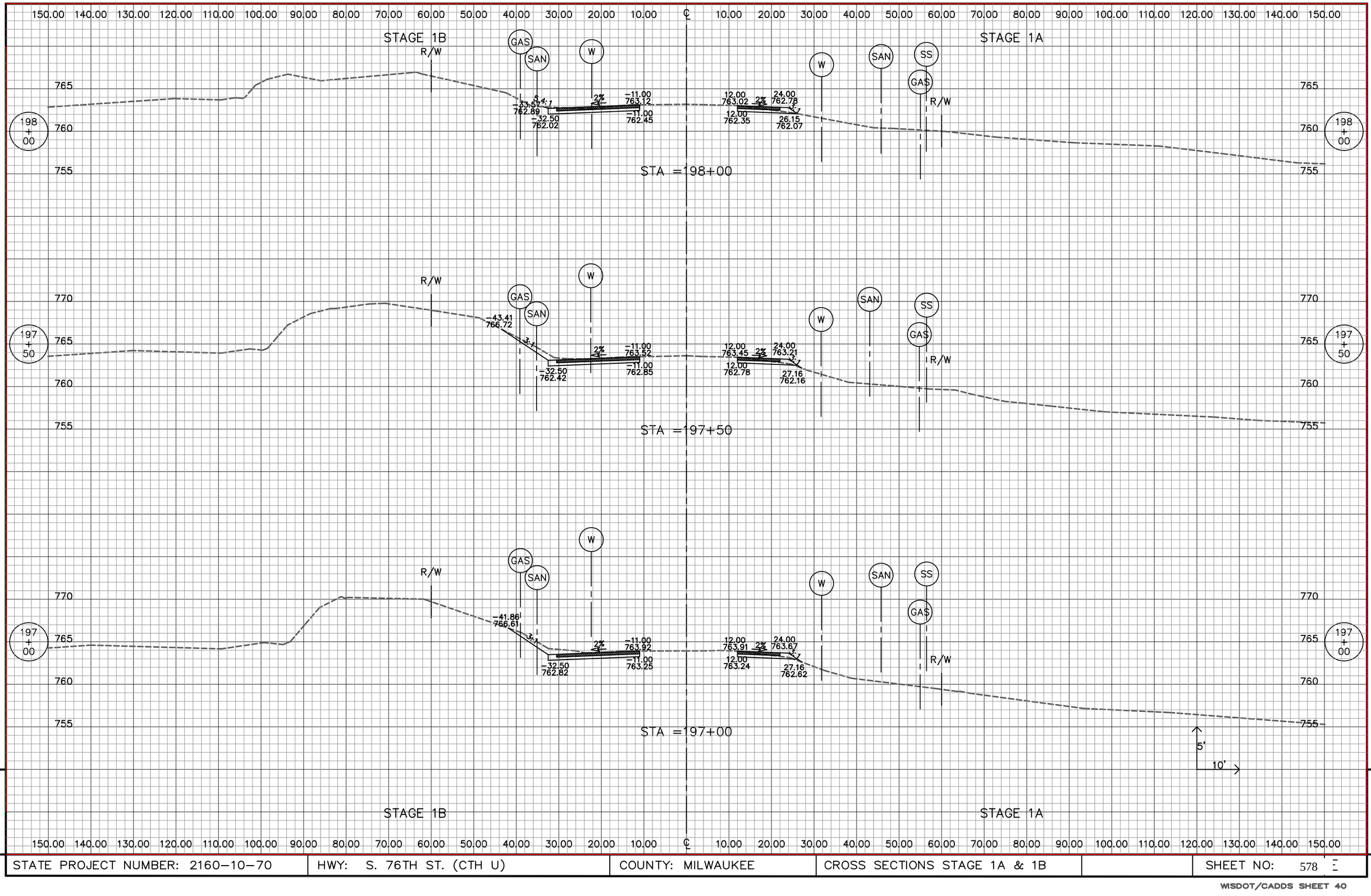
REVISION DATE: 2/22/2013

9

9

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 577



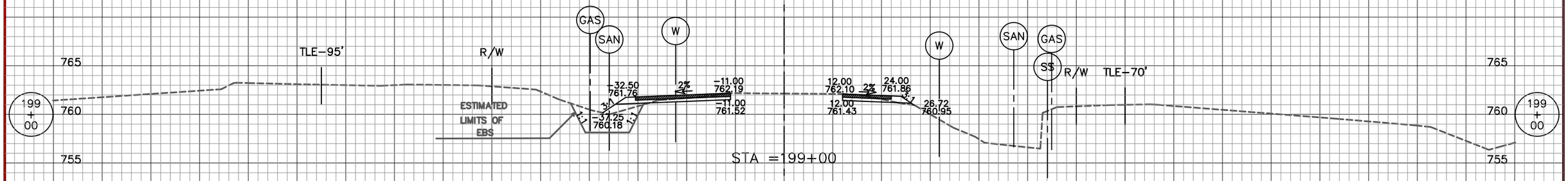
REVISION DATE: 1/10/2013

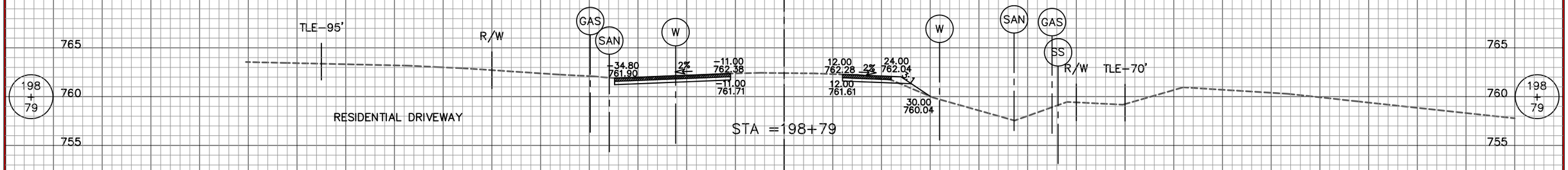
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 578

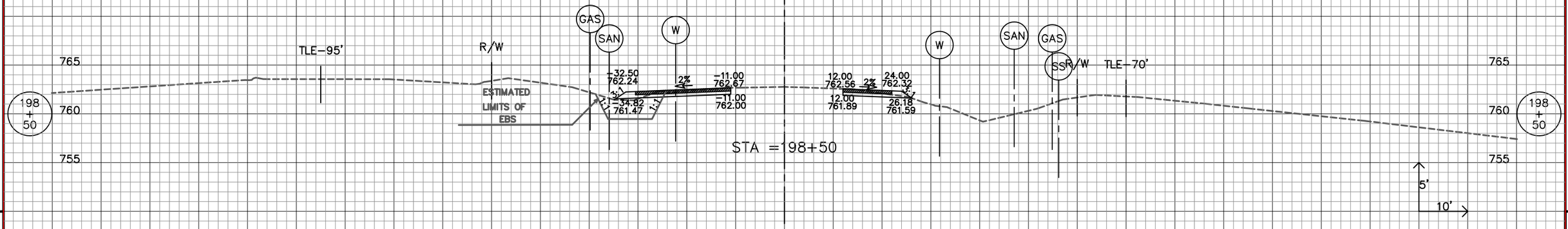
150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A







STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/22/2013

9

9

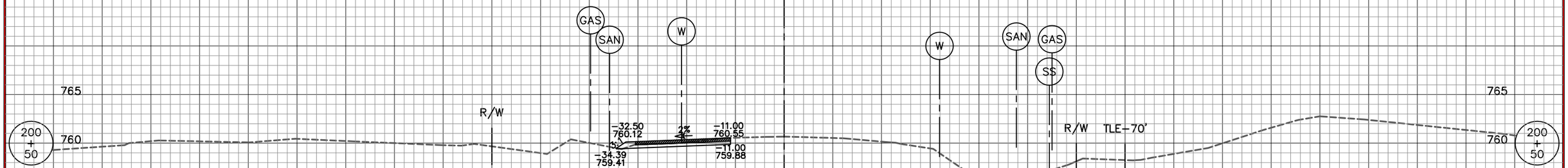
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 579

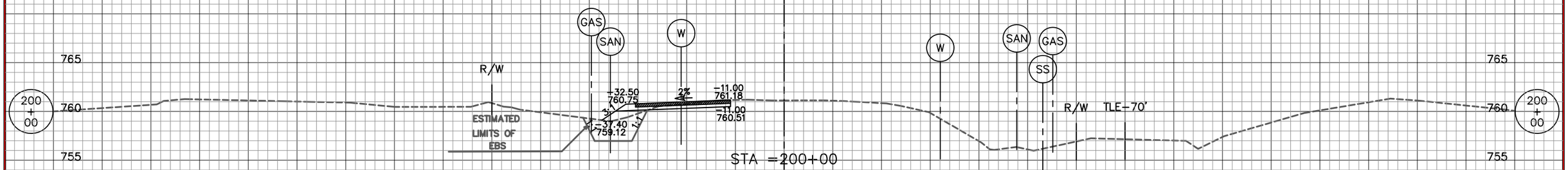
WISDOT/CADDS SHEET 40

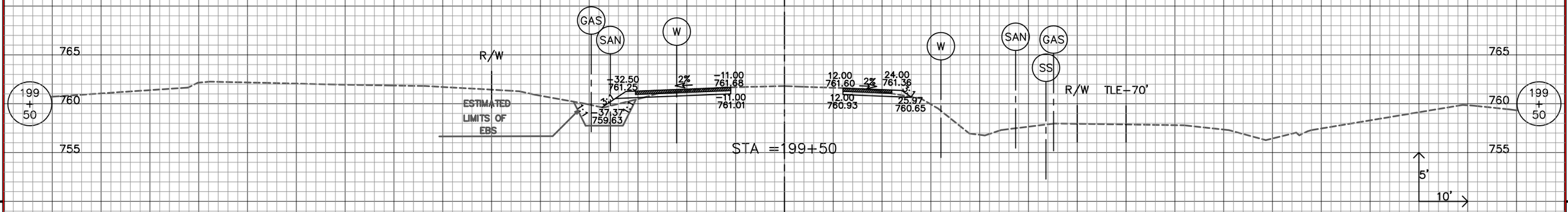
150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A







REVISION DATE: 2/22/2013

9

STAGE 1B

STAGE 1A

9

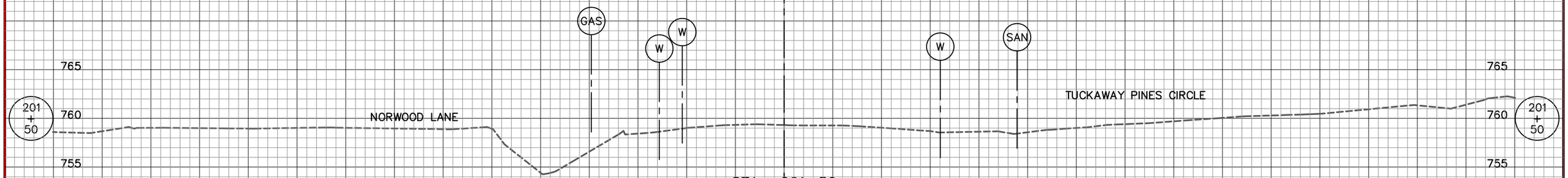
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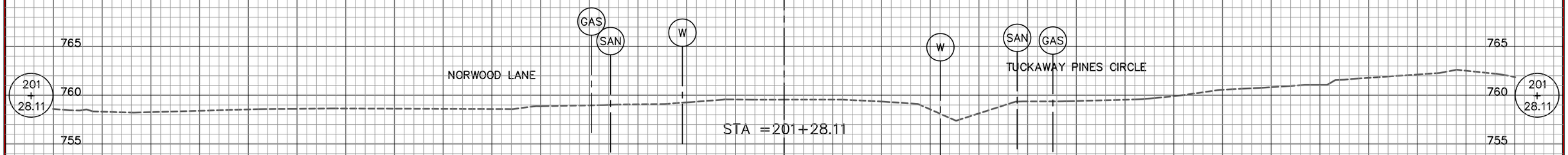
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 580

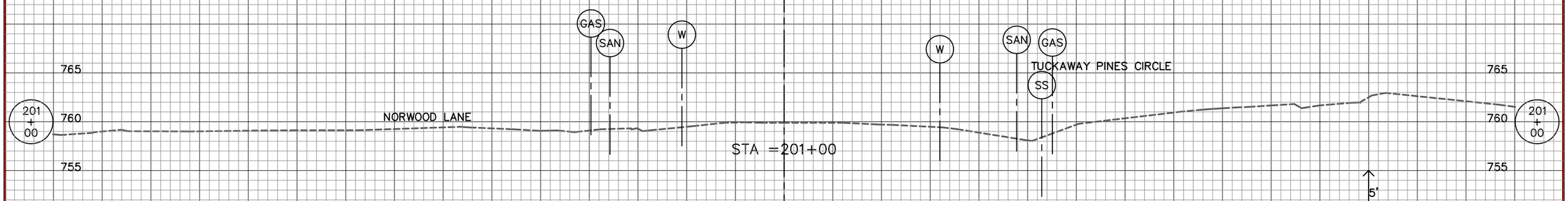
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STAGE 1B

STAGE 1A







NO WORK THIS SHEET

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 1/11/2013

9

9

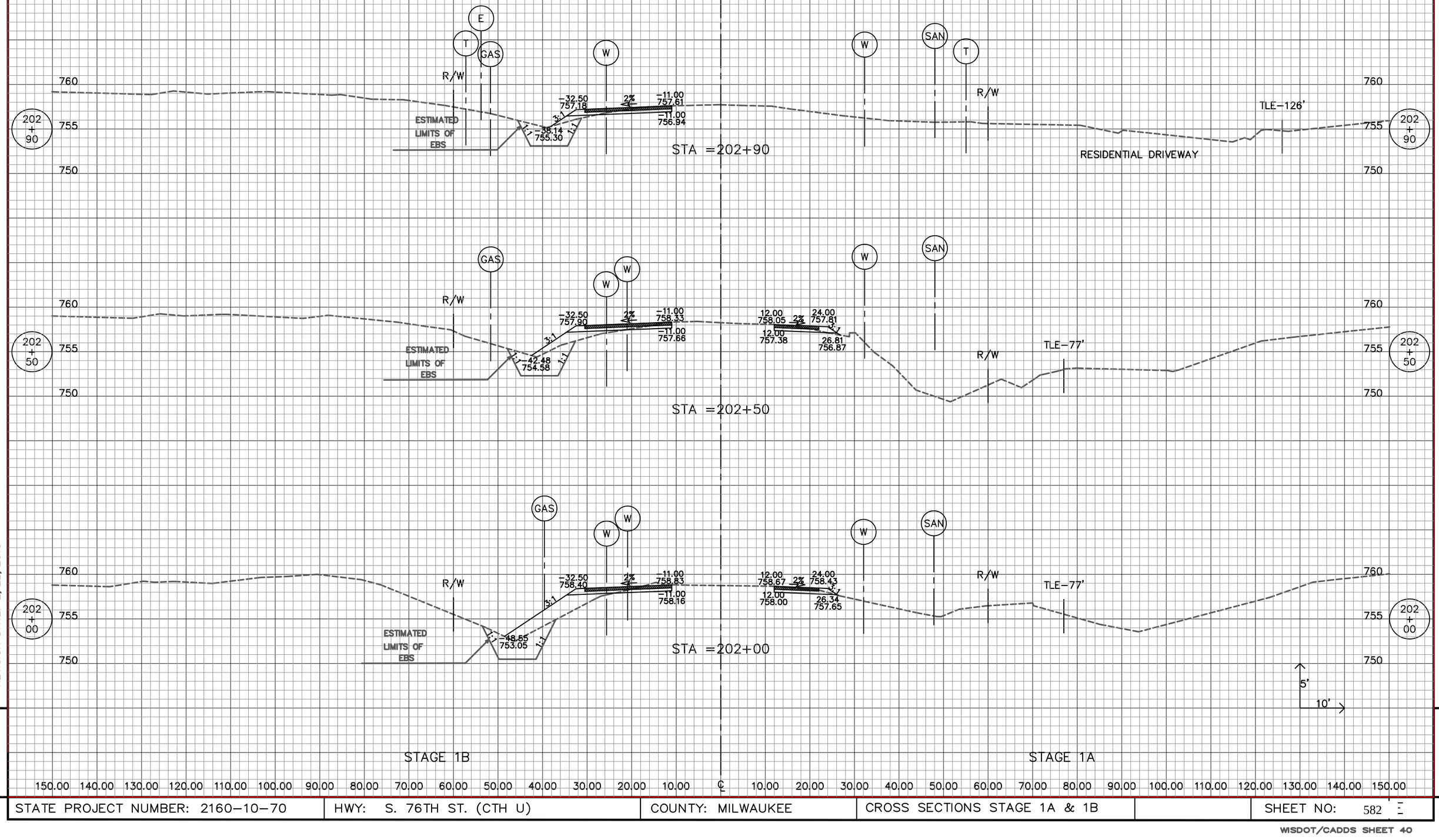
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 581

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A



STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/22/2013

9

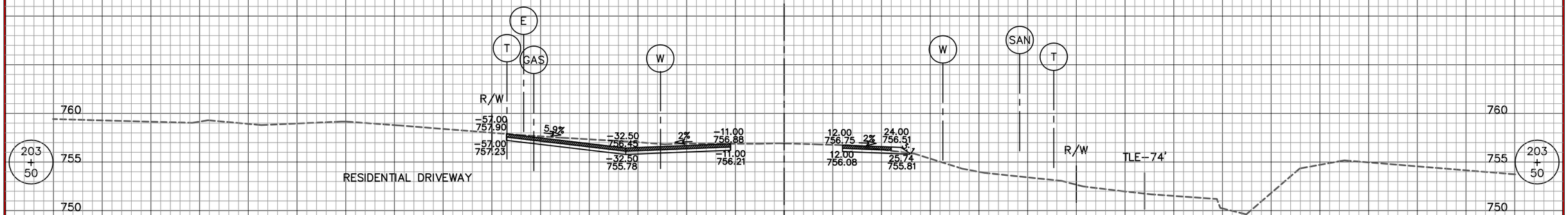
9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 582

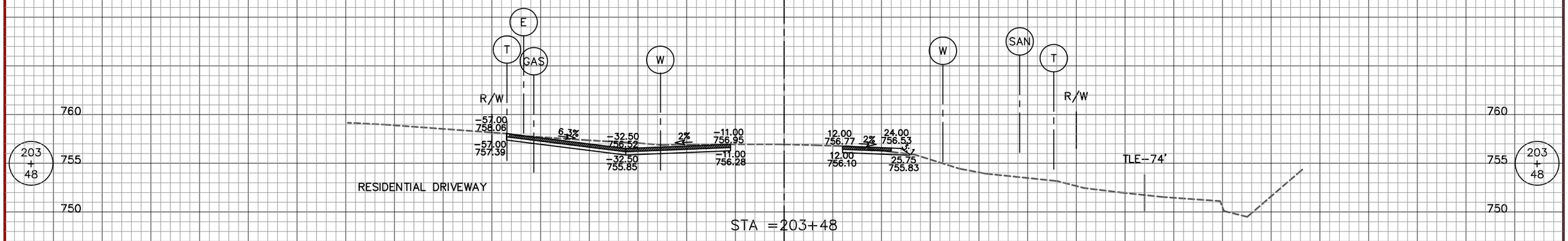
150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

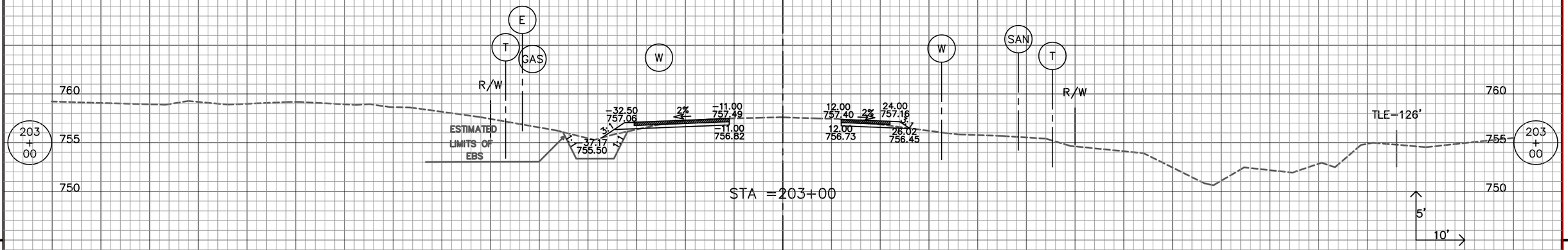
STAGE 1A



STA =203+50



STA =203+48



STA =203+00

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/22/2013

9

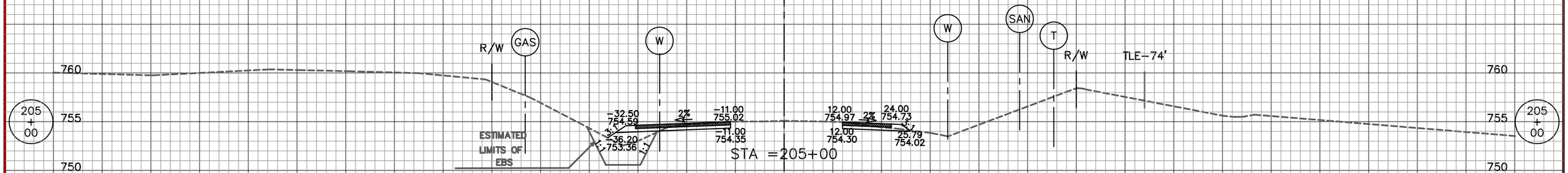
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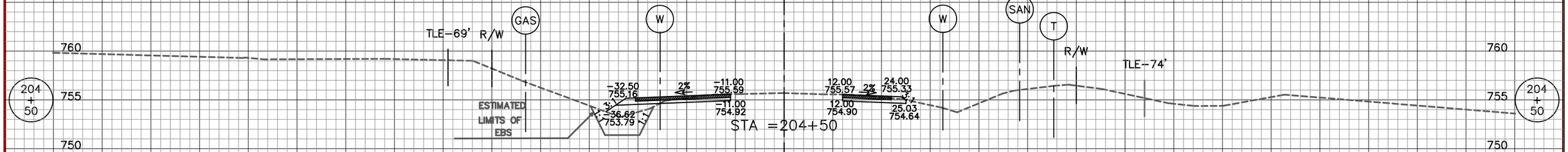
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 583

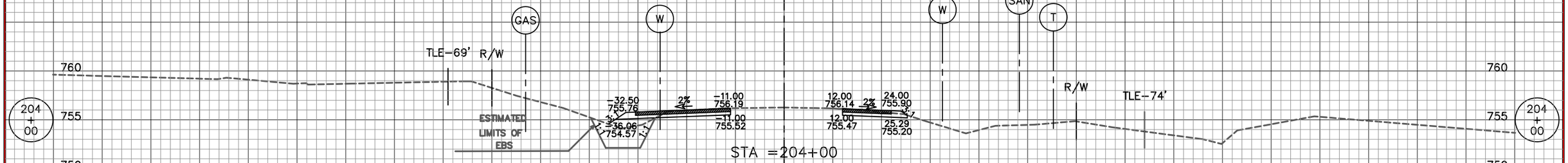
150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A







REVISION DATE: 2/22/2013

9

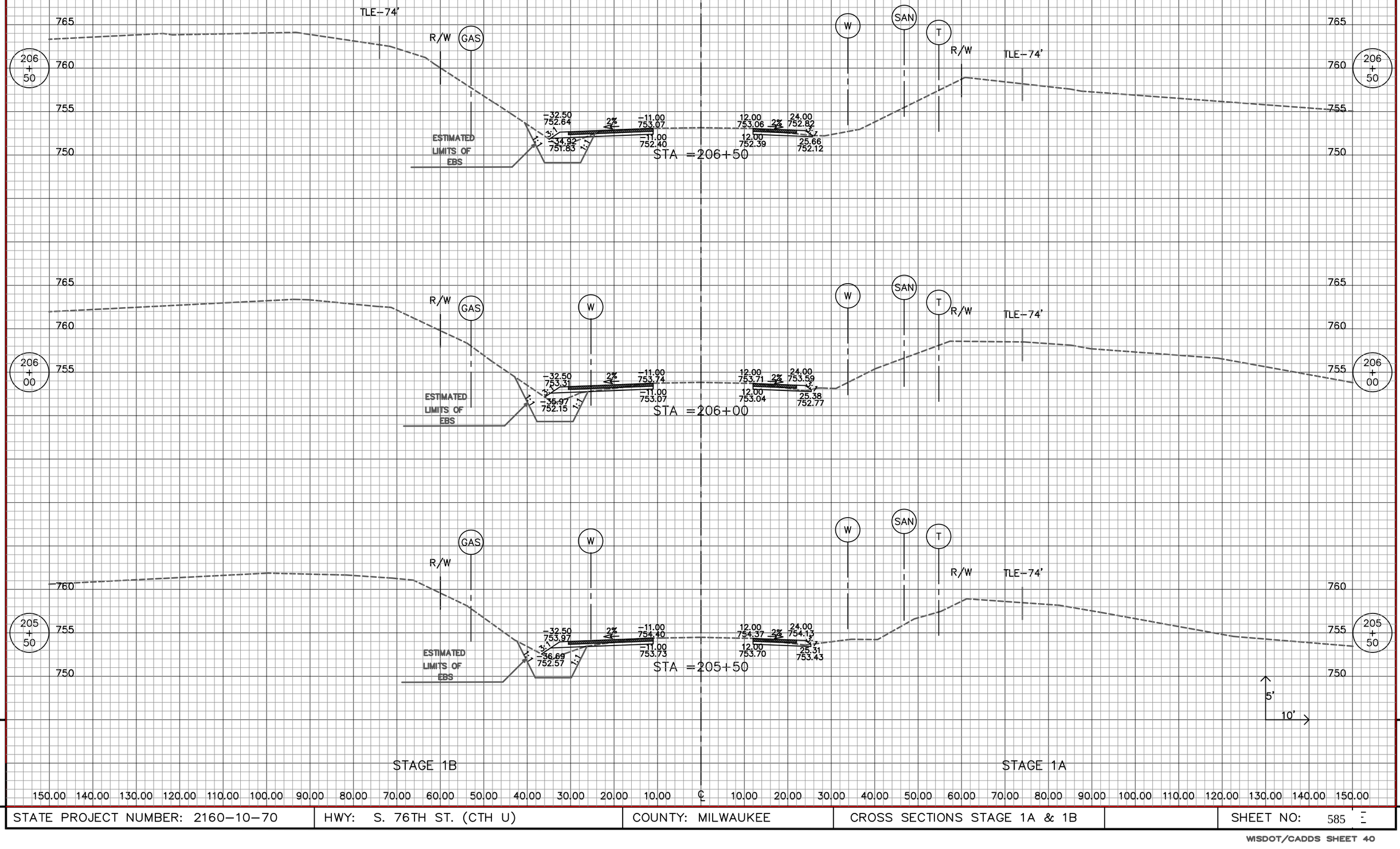
9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 584

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A



REVISION DATE: 2/22/2013

9

9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 585

STAGE 1B

STAGE 1A

765
760
755
750

207 + 00

TLE–99'
R/W
GAS
–32.50
752.02
2%
–11.00
752.45
–35.17
751.13
–11.00
751.78
ESTIMATED LIMITS OF EBS

STA =207+00
EXISTING EL =752.54
PROPOSED EL =753.63

12.00
752.41
2%
24.00
752.17
12.00
751.74
–26.02
751.46
W
SAN
T
R/W
TLE–74'
ESTIMATED LIMITS OF EBS

206 + 80

TLE–99'
R/W
GAS
–34.05
752.21
2%
–11.00
752.67
–34.05
751.54
–11.00
752.00

STA =206+80
EXISTING EL =752.67
PROPOSED EL =753.92

12.00
752.67
2%
24.00
752.43
12.00
752.00
25.60
751.73
W
SAN
T
R/W
TLE–74'

SEE DRIVEWAY DETAIL FOR SLOPE INFORMATION

206 + 61

TLE–74'
R/W
GAS
–47.75
755.79
18.8%
–30.50
752.54
2%
–11.00
752.93
–47.75
755.12
–30.50
751.87
–11.00
752.26
RESIDENTIAL DRIVEWAY

STA =206+61
EXISTING EL =753.00
PROPOSED EL =754.18

12.00
752.91
2%
24.00
752.67
12.00
752.24
25.43
751.97
W
SAN
T
R/W
TLE–74'

5'
10'

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/25/2013

9

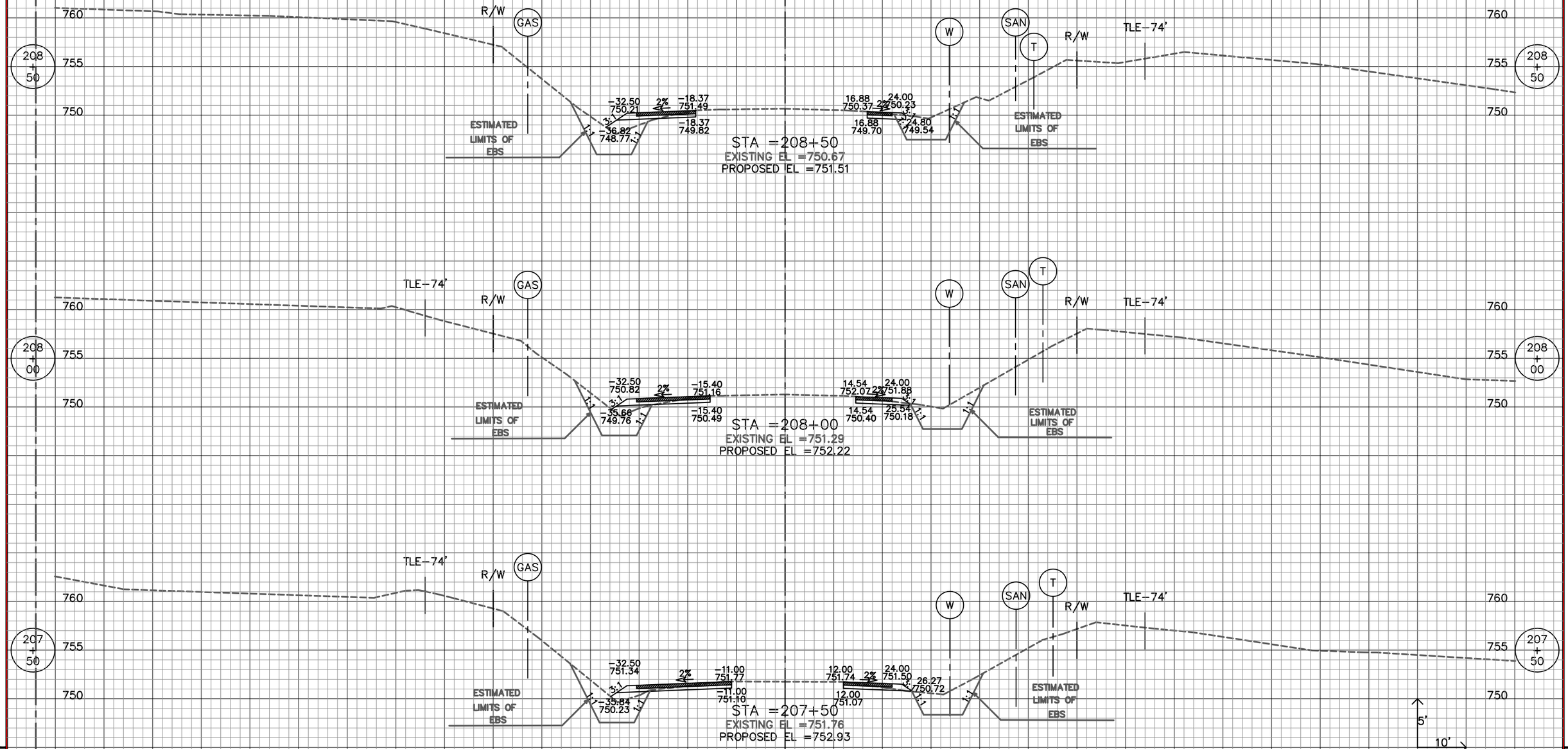
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 586

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A



REVISION DATE: 2/25/2013

9

STAGE 1B

STAGE 1A

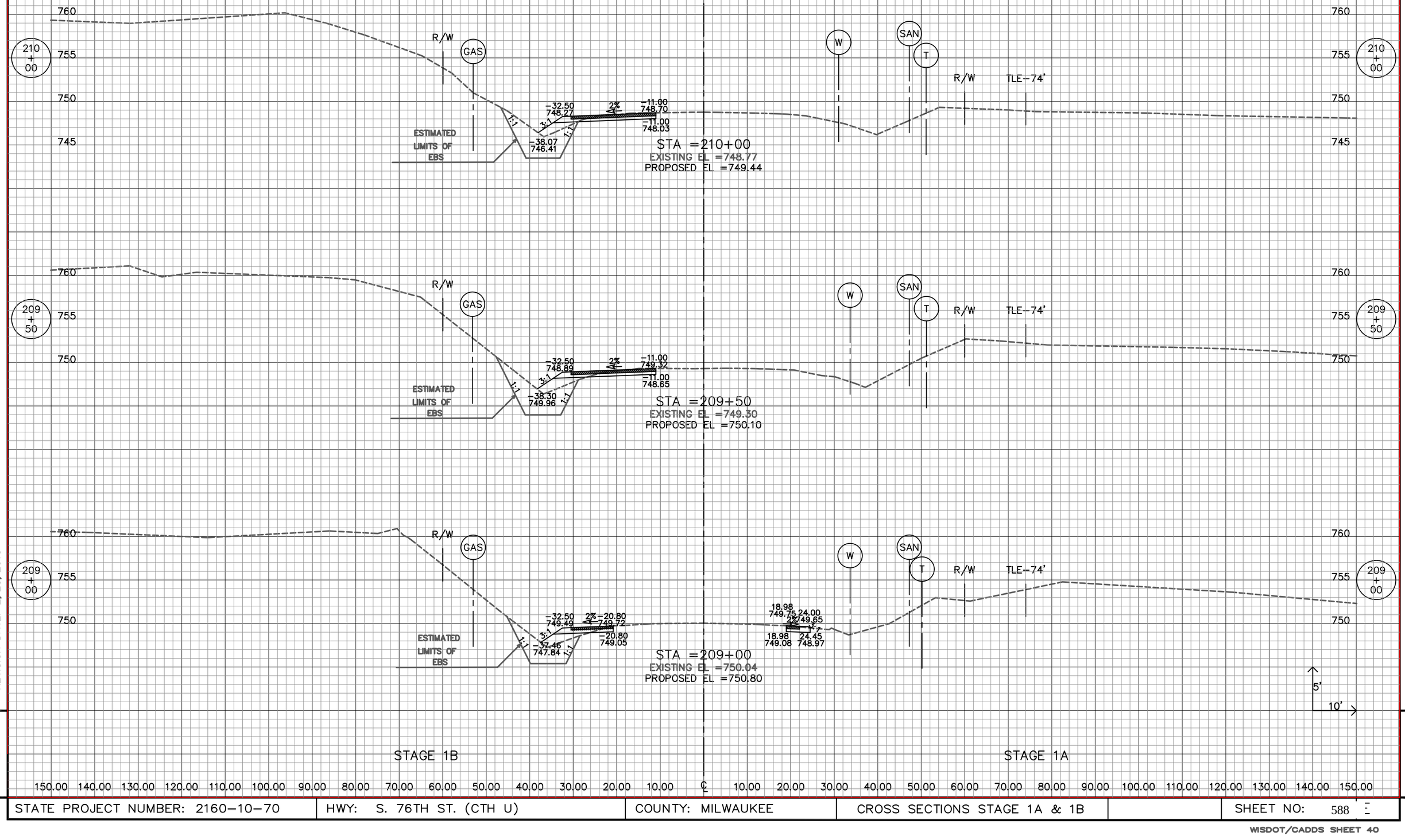
9

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 587

STAGE 1B

STAGE 1A



REVISION DATE: 2/25/2013

9

9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 588

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

DREXEL AVENUE

750
745
740

211 + 50

SAN GAS W SAN

STA =211+50
EXISTING EL =747.12
PROPOSED EL =748.09

211 + 48.80

SAN GAS W SAN

STA =211+48.80
EXISTING EL =747.11
PROPOSED EL =748.10

211 + 00

GAS W SAN

-33.42 747.75
2%
-24.59 747.61
-32.50 746.78
-24.59 746.94

STA =211+00
EXISTING EL =747.61
PROPOSED EL =748.43

755
750
745

210 + 50

GAS R/W
-32.50 747.71
2%
-24.59 747.87
-33.77 747.04
-24.59 747.20
ESTIMATED LIMITS OF EBS

W SAN T R/W TLE-74'

STA =210+50
EXISTING EL =748.15
PROPOSED EL =748.89

5'
10'

REVISION DATE: 2/25/2013

9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 589

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

TLE–180'

212 + 50

745
740
735
730
725
720

SAN
GAS
R/W
−32.50 745.50
2%
−19.83 745.75
−19.83 746.08
3:1
−41.79 742.51
GAS
W
SAN
MILWAUKEE COUNTY LANDS
R/W
745
740
735
730
725
720
212 + 50

STA =212+50
EXISTING EL =746.91
PROPOSED EL =747.70

DREXEL AVENUE

212 + 00

745
740
735

SAN
GAS
−32.00 750.94
2%
−23.41 751.37
−23.41 750.70
−32.00 747.04
GAS
W
SAN
DREXEL AVENUE
745
740
735
212 + 00

STA =212+00
EXISTING EL =747.19
PROPOSED EL =747.84

5'
10'

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/25/2013

9

9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 590

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

745 740 735

214 + 00

SAN GAS W

TLE–85'
R/W
EDGE OF WETLAND–71'
EDGE OF WETLAND–66'
3:1
1:1
–32.50 750.94
2%
–12.76 751.37
–12.76 750.70
–44.21 747.04
ESTIMATED LIMITS OF EXCAVATION MARSH

STA =214+00
EXISTING EL =747.03
PROPOSED EL =747.89

17.37 746.93
2%
24.00 746.80
3:1
17.37 746.26
27.14 745.75
EDGE OF WETLAND–56'
R/W
EDGE OF WETLAND–80'
MILWAUKEE COUNTY LANDS

213 + 50

SAN GAS W

R/W
EDGE OF WETLAND–75'
EDGE OF WETLAND–70'
3:1
1:1
–32.50 746.52
2%
–15.05 746.87
–15.05 746.20
–66.41 735.21
ESTIMATED LIMITS OF EXCAVATION MARSH

STA =213+50
EXISTING EL =747.00
PROPOSED EL =747.72

19.14 746.74
2%
24.00 746.64
19.14 746.07
24.00 745.97
EDGE OF WETLAND–62'
R/W
EDGE OF WETLAND–84'
MILWAUKEE COUNTY LANDS

213 + 00

SAN GAS W

TLE–180'
R/W
EDGE OF WETLAND–76'
EDGE OF WETLAND–69'
3:1
1:1
–32.50 746.57
2%
–17.46 746.87
–17.46 746.21
–75.58 732.19
ESTIMATED LIMITS OF EXCAVATION MARSH

STA =213+00
EXISTING EL =746.96
PROPOSED EL =747.66

20.90 746.68
2%
24.00 746.62
20.90 746.02
24.00 745.96
EDGE OF WETLAND–70'
EDGE OF WETLAND–84'
R/W
MILWAUKEE COUNTY LANDS

5'
10'

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/25/2013

9 9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 591

STAGE 1B

STAGE 1A

STA =215+50
EXISTING EL =747.98
PROPOSED EL =749.00

STA =215+00
EXISTING EL =747.57
PROPOSED EL =748.53

STA =214+50
EXISTING EL =747.32
PROPOSED EL =748.16

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

750 745 740 735

215 + 50 | 215 + 00 | 214 + 50

SAN GAS W

EDGE OF WETLAND–63' | EDGE OF WETLAND–58'

EDGE OF WETLAND–67' | EDGE OF WETLAND–62'

EDGE OF WETLAND–70' | EDGE OF WETLAND–65'

EDGE OF WETLAND–54' | EDGE OF WETLAND–74'

TLE–85' R/W

ESTIMATED LIMITS OF EXCAVATION MARSH

–60.85 738.01

–62.04 737.23

–63.40 736.47

–32.50 747.46 | 2% | –11.00 747.89 | –11.00 747.22

–32.50 747.08 | 2% | –11.00 747.51 | –11.00 746.84

–32.50 746.77 | 2% | –11.00 747.20 | –11.00 746.53

3:1 | 1:1

12.00 747.90 | 2% | 24.00 747.66 | 3:1 | 12.00 747.23 | 27.89 746.36

12.00 747.55 | 2% | 24.00 747.31 | 3:1 | 12.00 746.88 | 29.91 745.34

12.00 747.28 | 2% | 24.00 747.04 | 3:1 | 12.00 746.61 | 27.78 745.78

R/W

MILWAUKEE COUNTY LANDS

RESIDENTIAL DRIVEWAY

5'
10'

REVISION DATE: 2/25/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 592

WISDOT/CADDS SHEET 40

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

750
745
740

216 + 50

SAN
GAS
R/W
EDGE OF WETLAND–59'
EDGE OF WETLAND–54'
–32.50
748.60
2%
–11.00
749.03
–11.00
748.36
3:1
–39.98
746.11
12.00
749.02
2%
24.00
748.78
12.00
748.35
3:1
25.10
748.09
GAS
SAN
W
R/W
TLE–126'

STA =216+50
EXISTING EL =749.16
PROPOSED EL =750.75

750
745
740

216 + 50

216 + 00

SAN
GAS
EDGE OF WETLAND–61'
EDGE OF WETLAND–56'
R/W
TLE–85'
ESTIMATED LIMITS OF EXCAVATION MARSH
–32.50
748.00
2%
–11.00
748.43
–11.00
747.76
–61.32
738.40
3:1
1:1
12.00
751.34
2%
24.00
751.10
12.00
750.67
3:1
28.36
750.40
W
SAN
GAS
R/W
MILWAUKEE COUNTY LANDS

STA =216+00
EXISTING EL =748.52
PROPOSED EL =749.87

750
745
740

216 + 00

5'
10'

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/25/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 593

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

755 750 745

217 + 50

SAN GAS

EDGE OF WETLAND–52'

EDGE OF WETLAND–48'

R/W

TLE–125'

ESTIMATED LIMITS OF EXCAVATION MARSH

32.50 750.15

2%

3:1

1:1

–11.00 750.58

–11.00 749.91

–48.84 744.70

12.00 750.53 2% 24.00 750.29 3:1 12.00 749.86 26.00 749.58

GAS SAN W

R/W

TLE–120'

755 750 745

217 + 50

STA =217+50

EXISTING EL =750.74

PROPOSED EL =752.50

750 745 740

217 + 15

SAN GAS

EDGE OF WETLAND–54'

EDGE OF WETLAND–49'

R/W

32.50 749.62

2%

3:1

1:1

–11.00 750.05

–11.00 749.58

–52.49 742.96

12.00 749.94 2% 22.00 749.50 3% 34.24 749.17 12.00 749.27 22.00 748.83 34.24 748.50

GAS SAN W

R/W

TLE–120'

750 745 740

217 + 15

RESIDENTIAL DRIVEWAY

STA =217+15

EXISTING EL =750.15

PROPOSED EL =751.89

750 745 740

217 + 00

SAN GAS

EDGE OF WETLAND–55'

EDGE OF WETLAND–50'

R/W

32.50 749.38

2%

3:1

1:1

–11.00 749.81

–11.00 749.14

–53.32 742.44

12.00 749.73 2% 24.00 749.49 3% 12.00 749.06 25.70 748.79

GAS SAN W

R/W

TLE–120'

750 745 740

217 + 00

5'

10'

STA =217+00

EXISTING EL =749.92

PROPOSED EL =751.62

STAGE 1B

STAGE 1A

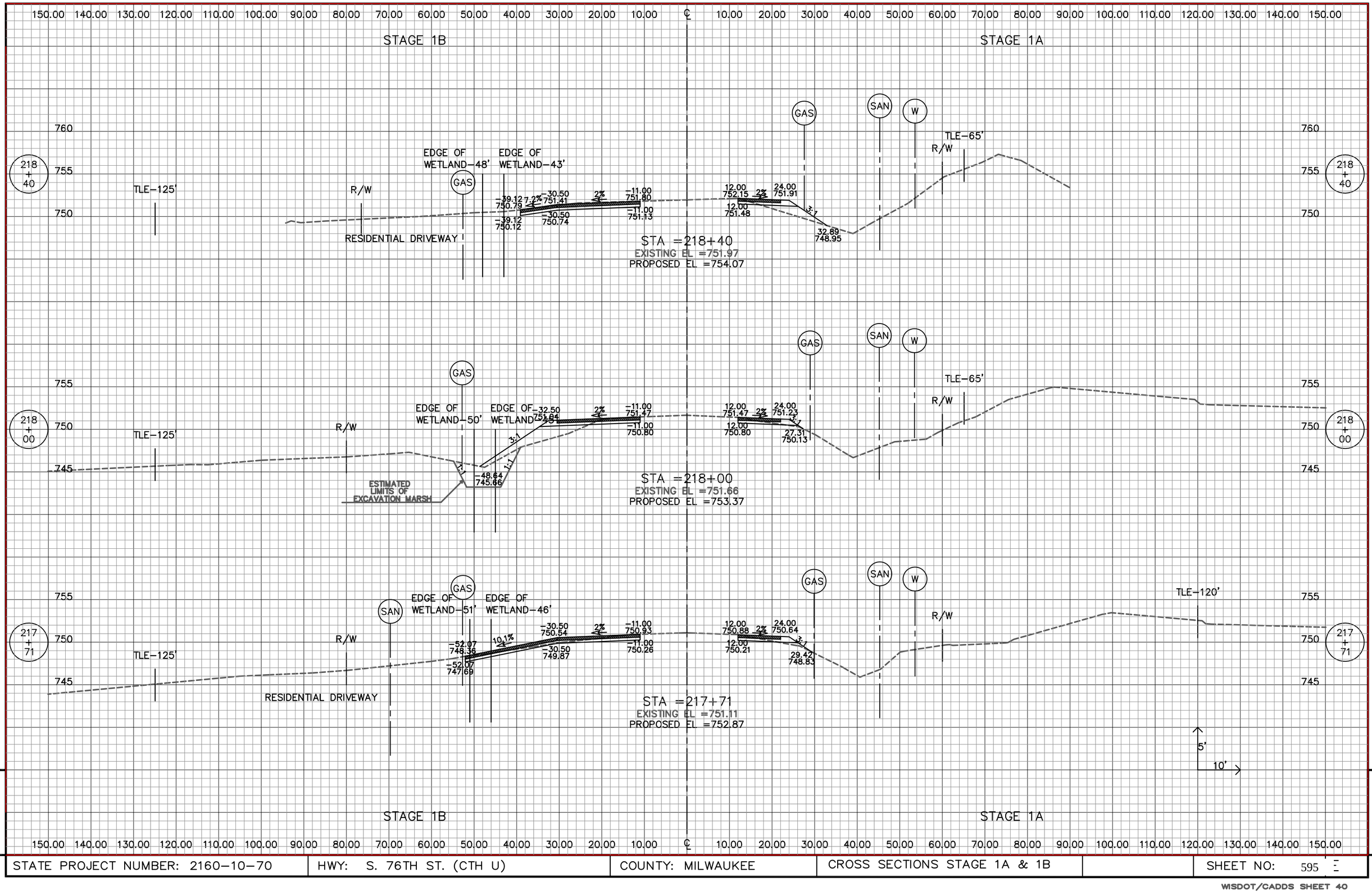
150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/25/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & AB		SHEET NO: 594



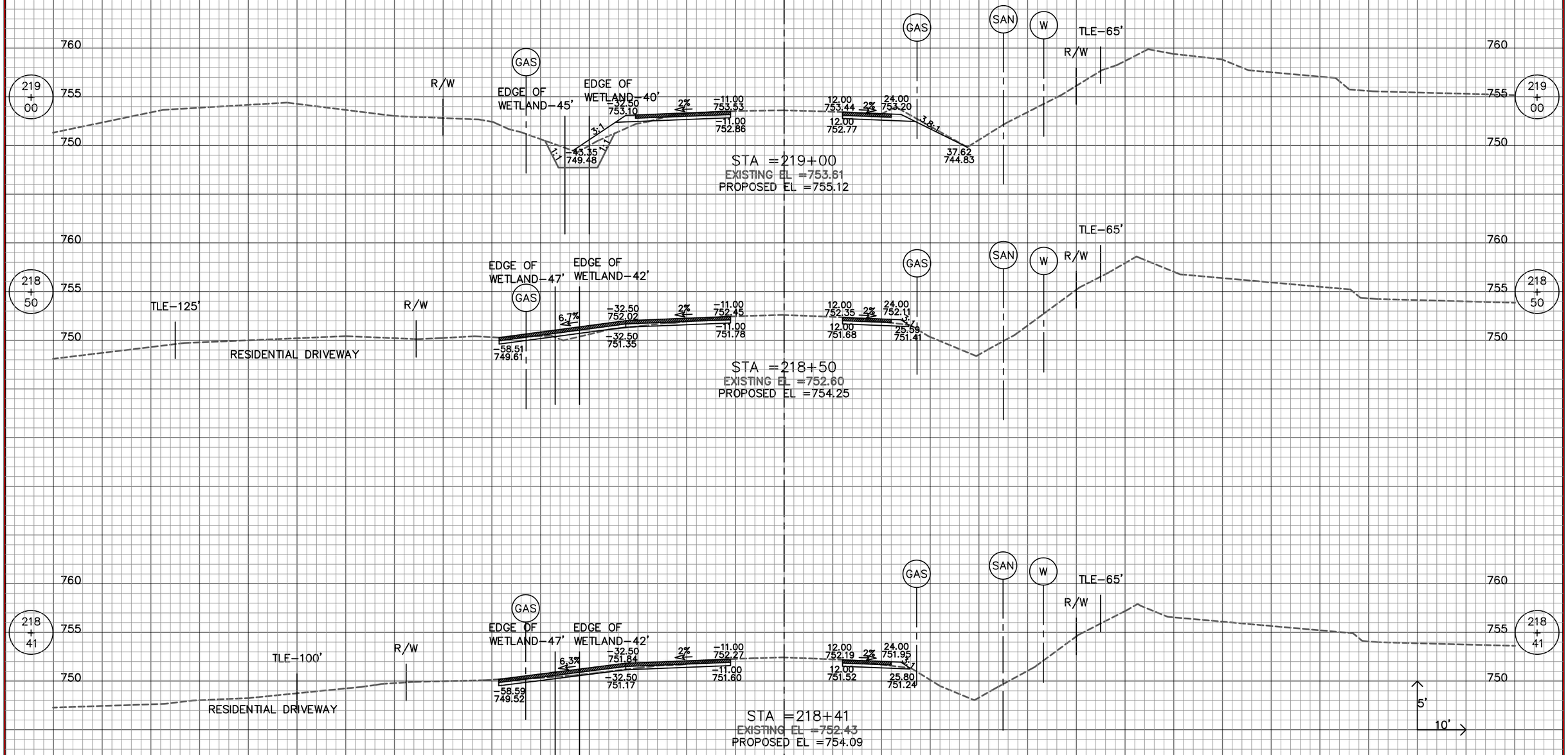
REVISION DATE: 2/25/2013

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 595

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A



150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

REVISION DATE: 2/25/2013

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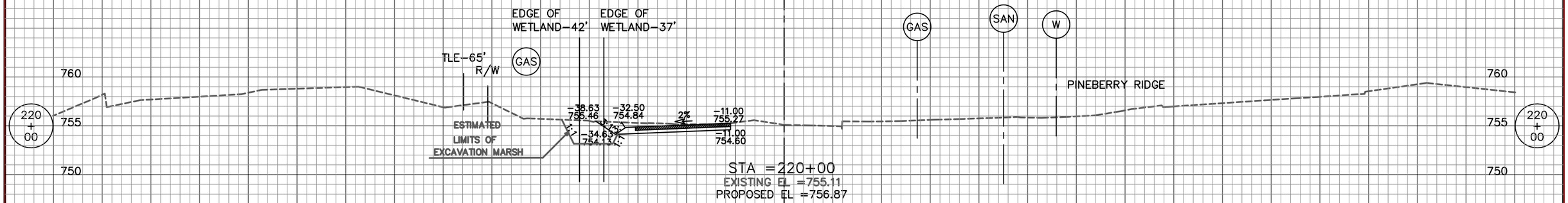
9

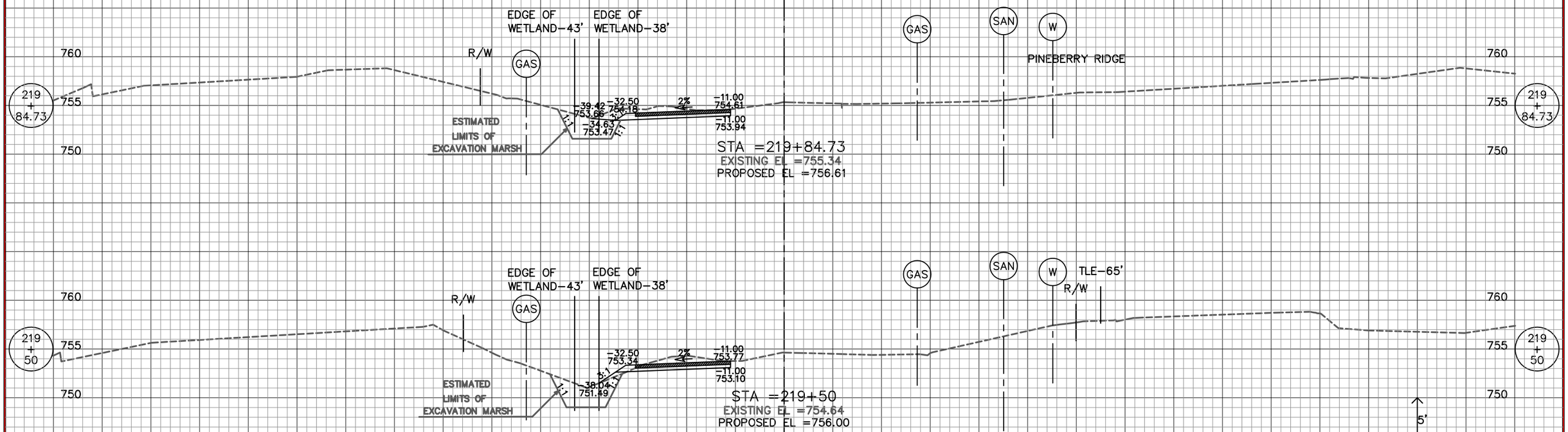
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 596

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A





150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

REVISION DATE: 2/25/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 597

WISDOT/CADDS SHEET 40

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

765
760
755
750

221 + 00

EDGE OF WETLAND–39'
EDGE OF WETLAND–34'
TLE–74'
R/W
GAS
ESTIMATED LIMITS OF EXCAVATION MARSH
–32.50 756.88
2%
–11.00 757.31
–11.00 756.64
3:1
1:1
1:1
–38.52 754.87
T
SAN
W
R/W
TLE–70'
GAS

STA =221+00
EXISTING EL =757.34
PROPOSED EL =758.62

220 + 50

EDGE OF WETLAND–41'
EDGE OF WETLAND–36'
TLE–74'
R/W
GAS
ESTIMATED LIMITS OF EXCAVATION MARSH
–32.50 755.86
2%
–11.00 756.29
–11.00 755.62
3:1
1:1
1:1
–39.00 753.69
T
SAN
W
R/W
TLE–70'
GAS

STA =220+50
EXISTING EL =756.14
PROPOSED EL =757.75

220 + 38

EDGE OF WETLAND–41'
EDGE OF WETLAND–36'
TLE–74'
R/W
GAS
6%
–53.00 756.22
–32.50 755.64
2%
–11.00 756.07
–11.00 755.40
–32.50 754.97
RESIDENTIAL DRIVEWAY
GAS
SAN
W
R/W
TLE–70'

STA =220+38
EXISTING EL =755.66
PROPOSED EL =757.54

5'
10'

REVISION DATE: 2/25/2013

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STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 598 E

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

770
765
760
222 + 00

GAS
RESIDENTIAL DRIVEWAY
TLE–74'
R/W
–57.41 759.99
–57.41 759.32
6%
–32.50 758.50
–32.50 757.83
2%
–11.00 758.93
–11.00 758.26
EDGE OF WETLAND–33'
EDGE OF WETLAND–38'
STA =222+00
EXISTING EL =759.06
PROPOSED EL =760.22
12.00 758.95
12.00 758.28
2%
24.00 758.71
26.29 757.95
GAS
T
SAN
W
R/W

770
765
760
221 + 95

GAS
TLE–74'
R/W
–57.41 760.02
–57.41 759.35
9.4%
–32.50 757.67
–32.50 757.00
2%
–11.00 751.37
–11.00 758.10
RESIDENTIAL DRIVEWAY
EDGE OF WETLAND–39'
EDGE OF WETLAND–34'
STA =221+95
EXISTING EL =758.99
PROPOSED EL =760.15
12.00 758.88
12.00 758.21
2%
24.00 758.64
26.26 757.89
GAS
T
SAN
W
R/W

765
760
755
221 + 50

TLE–74'
R/W
–65.75 762.53
GAS
ESTIMATED LIMITS OF EXCAVATION MARSH
3:1
1:1
–38.46 755.77
–32.50 757.76
2%
–11.00 758.19
–11.00 757.52
EDGE OF WETLAND–39'
EDGE OF WETLAND–34'
STA =221+50
EXISTING EL =758.28
PROPOSED EL =759.48
12.00 758.20
12.00 757.53
2%
24.00 757.96
25.98 757.25
GAS
T
SAN
W
R/W
5'
10'

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/25/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 599

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

770
765
760

223 + 37

TLE–74'
R/W
GAS
ESTIMATED LIMITS OF EXCAVATION MARSH
EDGE OF WETLAND–39'
EDGE OF WETLAND–34'
–32.50 760.52
2%
–11.00 760.95
–11.00 760.28
39.05 758.34
3:1
STA =223+37
EXISTING EL =761.08
PROPOSED EL =762.03
12.00 760.95 2%
24.00 760.71
12.00 760.28
26.02 759.76
GAS
SAN
T
W
R/W
TLE–67'

770
765
760

223 + 37

770
765
760

223 + 00

TLE–74'
R/W
GAS
ESTIMATED LIMITS OF EXCAVATION MARSH
EDGE OF WETLAND–39'
EDGE OF WETLAND–34'
–32.50 760.09
2%
–11.00 760.52
–11.00 759.85
38.60 758.05
3:1
STA =223+00
EXISTING EL =760.67
PROPOSED EL =761.57
12.00 760.53 2%
24.00 760.29
12.00 759.86
27.02 759.28
GAS
SAN
T
W
R/W

770
765
760

223 + 00

770
765
760

222 + 50

TLE–74'
R/W
GAS
ESTIMATED LIMITS OF EXCAVATION MARSH
EDGE OF WETLAND–37'
EDGE OF WETLAND–32'
–32.50 759.33
2%
–11.00 759.76
–11.00 759.09
38.73 757.25
3:1
STA =222+50
EXISTING EL =759.92
PROPOSED EL =760.91
12.00 759.80 2%
24.00 759.56
12.00 759.13
27.23 758.48
GAS
SAN
T
W
R/W

5'
10'

770
765
760

222 + 50

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/25/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 600

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

770
765
760

223 + 90

TLE–74'
R/W
GAS
–48.75
762.37
7.75%
–32.50
761.11
2%
–11.00
761.54
–11.00
760.87
RESIDENTIAL DRIVEWAY
EDGE OF WETLAND–39'
EDGE OF WETLAND–34'
STA =223+90
EXISTING EL =761.67
PROPOSED EL =762.65
GAS
SAN
T
W
R/W
TLE–67'

223 + 88

TLE–74'
R/W
GAS
–48.75
762.35
7.75%
–32.50
761.09
2%
–11.00
761.52
–11.00
760.85
RESIDENTIAL DRIVEWAY
EDGE OF WETLAND–39'
EDGE OF WETLAND–34'
STA =223+88
EXISTING EL =761.64
PROPOSED EL =762.62
GAS
SAN
T
W
R/W
TLE–67'

223 + 50

TLE–74'
R/W
GAS
–32.50
760.66
2%
–11.00
761.09
–11.00
760.42
3:1
–39.22
758.42
3:1
ESTIMATED LIMITS OF EXCAVATION MARSH
EDGE OF WETLAND–39'
EDGE OF WETLAND–34'
STA =223+50
EXISTING EL =761.21
PROPOSED EL =762.18
GAS
SAN
T
W
R/W
TLE–67'
5'
10'

REVISION DATE: 2/25/2013

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STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 601

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

EDGE OF WETLAND–37'

EDGE OF WETLAND–32'

FAITH DRIVE

GAS

W

T

SAN

R/W

TLE–83'

770

765

760

224 + 86

STA =224+86
EXISTING EL =762.76
PROPOSED EL =763.64

RESIDENTIAL DRIVEWAY

TLE–74'

TLE–67'

224 + 50

–32.50
761.81

2%

–11.00
762.24

–11.00
761.57

–37.44
760.16

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =224+50
EXISTING EL =762.36
PROPOSED EL =763.29

224 + 00

EDGE OF WETLAND–39'

EDGE OF WETLAND–34'

STA =224+00
EXISTING EL =761.80
PROPOSED EL =762.76

5'

10'

REVISION DATE: 2/25/2013

9

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 602

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

770
765
760

225 + 50

R/W

GAS

EDGE OF WETLAND–37'

EDGE OF WETLAND–32'

–32.50
762.86

2%

–11.00
763.29

–11.00
762.52

3:1

–38.48
760.87

1:1

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =225+50
EXISTING EL =763.29
PROPOSED EL =764.22

W

T

SAN

225 + 01.13

FAITH DRIVE

STA =225+01.13
EXISTING EL =762.93
PROPOSED EL =763.79

225 + 00

TLE–83'

STA =225+00
EXISTING EL =762.92
PROPOSED EL =763.78

5'

10'

REVISION DATE: 2/25/2013

9

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 603

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

770
765
760

227 + 00

R/W
GAS
EDGE OF WETLAND–37'
EDGE OF WETLAND–32'
ESTIMATED LIMITS OF EXCAVATION MARSH
–32.50 764.00
2%
–21.00 764.23
–21.00 763.56
37.97 762.18
3:1
1:1
1:1

STA =227+00
EXISTING EL =764.54
PROPOSED EL =765.31

W
GAS
SAN
T
W
R/W

770
765
760

227 + 00

226 + 50

R/W
GAS
EDGE OF WETLAND–38'
EDGE OF WETLAND–33'
ESTIMATED LIMITS OF EXCAVATION MARSH
–32.50 763.71
2%
–18.00 764.00
–18.00 763.33
38.83 761.60
3:1
1:1
1:1

STA =226+50
EXISTING EL =764.18
PROPOSED EL =764.99

W
GAS
SAN
T
W
R/W

770
765
760

226 + 50

226 + 00

R/W
GAS
EDGE OF WETLAND–39'
EDGE OF WETLAND–34'
ESTIMATED LIMITS OF EXCAVATION MARSH
–32.50 763.31
2%
–16.00 763.64
–16.00 762.97
38.53 761.30
3:1
1:1
1:1

STA =226+00
EXISTING EL =763.81
PROPOSED EL =764.63

W
GAS
SAN
T
W
R/W

5'
10'

770
765
760

226 + 00

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/25/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 604

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

770 765 760

227 + 50

R/W

GAS

EDGE OF WETLAND–37'

EDGE OF WETLAND–32'

–32.50 764.28

2% –23.20 764.46

–23.20 763.79

–38.97 762.12

3:1

1:1

ESTIMATED LIMITS OF EXCAVATION MARSH

STA =227+50
EXISTING EL =764.79
PROPOSED EL =765.59

W

T

SAN

TLE–110'

227 + 25

STA =227+25
EXISTING EL =764.56
PROPOSED EL =765.46

RESIDENTIAL DRIVEWAY

–32.50 764.16

2% –21.78 764.36

–21.78 763.71

–37.90 762.36

227 + 22

STA =227+22
EXISTING EL =764.68
PROPOSED EL =765.44

–32.50 764.15

2% –21.78 764.46

–21.78 763.69

–38.04 762.30

5'

10'

REVISION DATE: 2/25/2013

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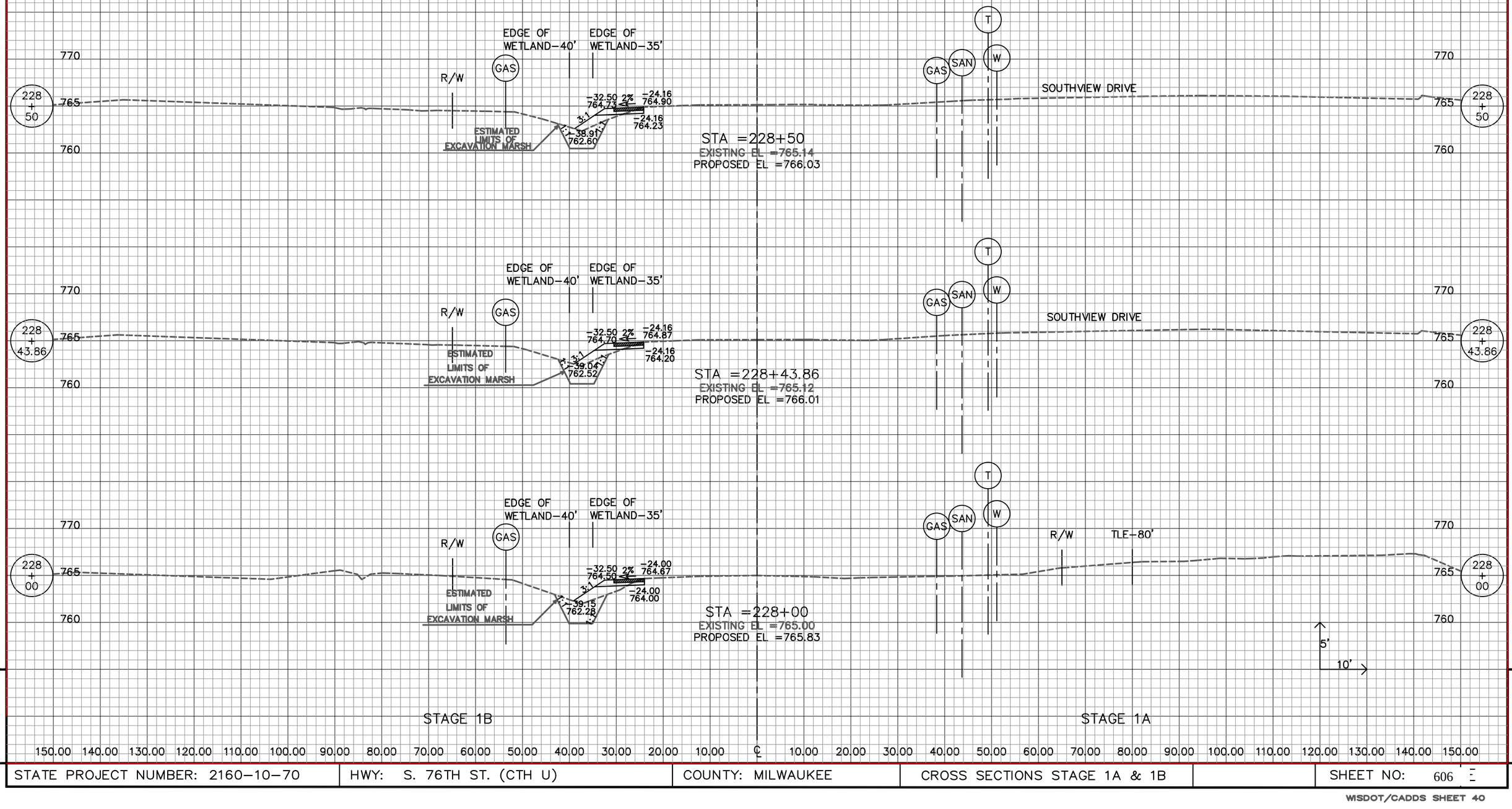
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A &1B		SHEET NO: 605

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A



REVISION DATE: 2/25/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 606

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A

770
765
760

230 + 00

E T GAS T R/W

-32.50 765.39 2% -22.61 765.59
-33.96 764.69 -22.61 764.92

STA =230+00
EXISTING EL =765.86
PROPOSED EL =766.37

12.00 765.75 2% 24.00 765.51
12.00 765.08 28.36 764.06

GAS T W R/W

770
765
760

230 + 00

229 + 50

E GAS T EDGE OF WETLAND–39' EDGE OF WETLAND–34' R/W

-32.50 765.14 2% -24.35 765.30
ESTIMATED LIMITS OF EXCAVATION MARSH
-38.23 763.23 -24.35 764.63

STA =229+50
EXISTING EL =765.71
PROPOSED EL =766.30

12.00 765.57 2% 24.00 765.33
12.00 764.90 28.36 763.88

GAS T W R/W

770
765
760

229 + 50

229 + 00

EDGE OF WETLAND–39' EDGE OF WETLAND–34' GAS R/W

-32.50 765.00 2% -24.35 765.16
ESTIMATED LIMITS OF EXCAVATION MARSH
-33.92 764.30 -24.35 764.49

STA =229+00
EXISTING EL =765.38
PROPOSED EL =766.18

GAS T W R/W

5'
10'

770
765
760

229 + 00

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 2/25/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 607

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

770
765
760

231 + 50

R/W GAS

-38.47 766.05
-32.50 765.49
-34.64 764.30
-11.00 765.92
-11.00 765.25
2%
3:1
1:1

STA =231+50
EXISTING EL =766.06
PROPOSED EL =766.33

12.00 765.96
12.00 765.29
24.00 765.72
27.00 764.72
2%
3:1
1:1
ESTIMATED LIMITS OF EBS

GAS T E E R/W

231 + 00

-32.50 765.54
-35.90 764.41
-11.00 765.97
-11.00 765.50
STA =231+00
EXISTING EL =766.08
PROPOSED EL =766.39

12.00 765.94
12.00 765.27
24.00 765.70
27.06 764.68
ESTIMATED LIMITS OF EBS

230 + 50

-32.50 765.49
-34.80 764.73
-11.00 765.92
-11.00 765.25
STA =230+50
EXISTING EL =766.00
PROPOSED EL =766.40

12.00 765.89
12.00 765.22
24.00 765.65
27.39 764.52
ESTIMATED LIMITS OF EBS

5'
10'

REVISION DATE: 2/25/2013

9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 608

WISDOT/CADDS SHEET 40

STAGE 1B

STAGE 1A

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

770
765
760

GAS
R/W
E
T
ESTIMATED LIMITS OF EBS

-32.50 765.26
-36.46 763.94
-11.00 765.69
-11.00 765.02
12.00 751.34
12.00 750.67
24.00 751.10
28.36 750.40

233 + 00

STA =233+00
EXISTING EL =765.82
PROPOSED EL =765.92

-32.50 765.36
-36.60 763.99
-11.00 765.79
-11.00 765.12
12.00 765.85
12.00 765.18
24.00 765.61
26.70 764.71

232 + 50

STA =232+50
EXISTING EL =765.95
PROPOSED EL =766.10

-32.50 765.45
-33.39 764.76
-11.00 765.88
-11.00 765.21
12.00 765.96
12.00 765.29
24.00 765.72
26.89 764.76

232 + 00

STA =232+00
EXISTING EL =766.02
PROPOSED EL =766.24

5'
10'

REVISION DATE: 2/25/2013

9

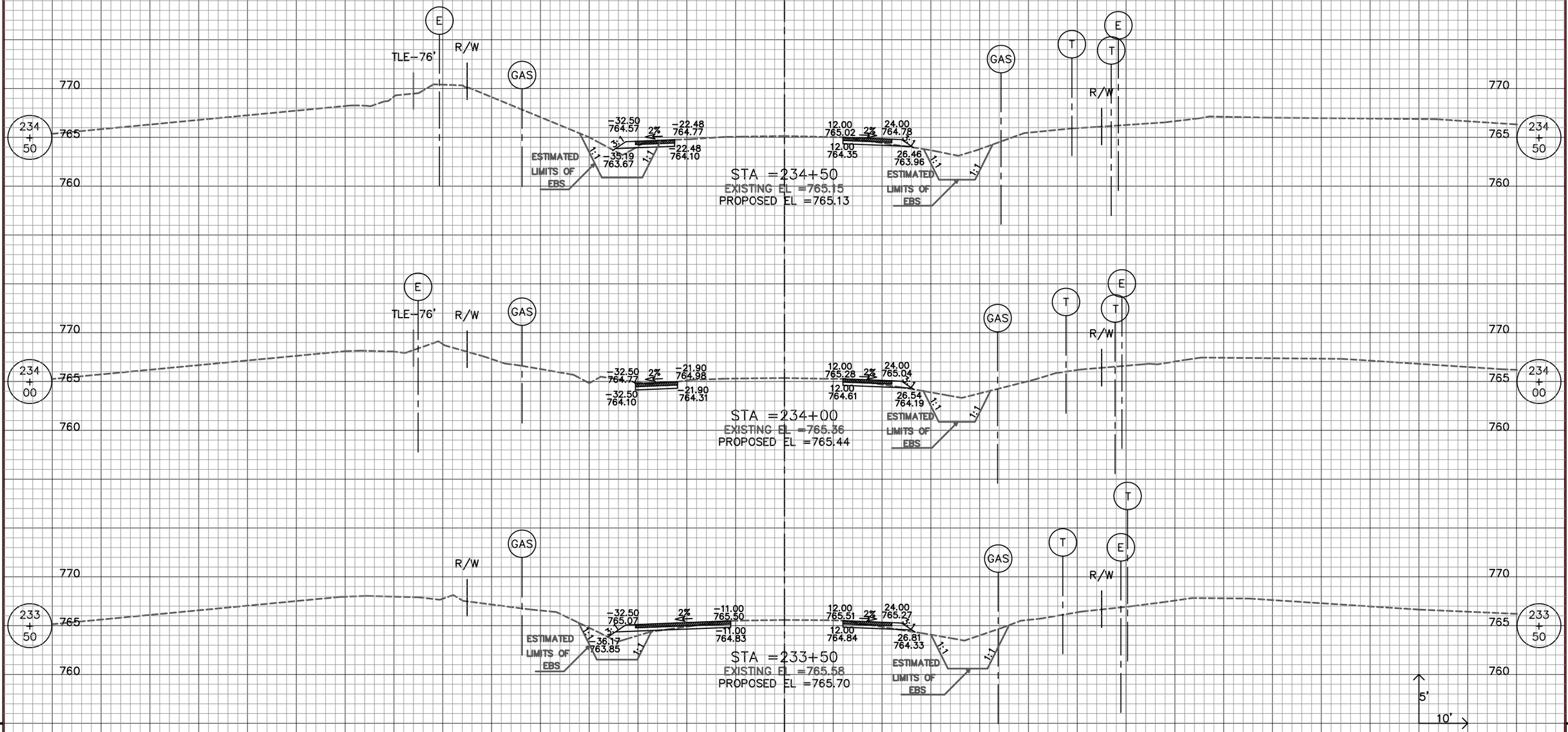
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 609

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A



REVISION DATE: 2/25/2013

9

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 610

WISDOT/CADDS SHEET 40

STAGE 1B

STAGE 1A

STA =236+00
EXISTING EL =764.18
PROPOSED EL =763.97

STA =235+50
EXISTING EL =764.58
PROPOSED EL =764.40

STA =235+00
EXISTING EL =764.89
PROPOSED EL =764.79

REVISION DATE: 2/25/2013

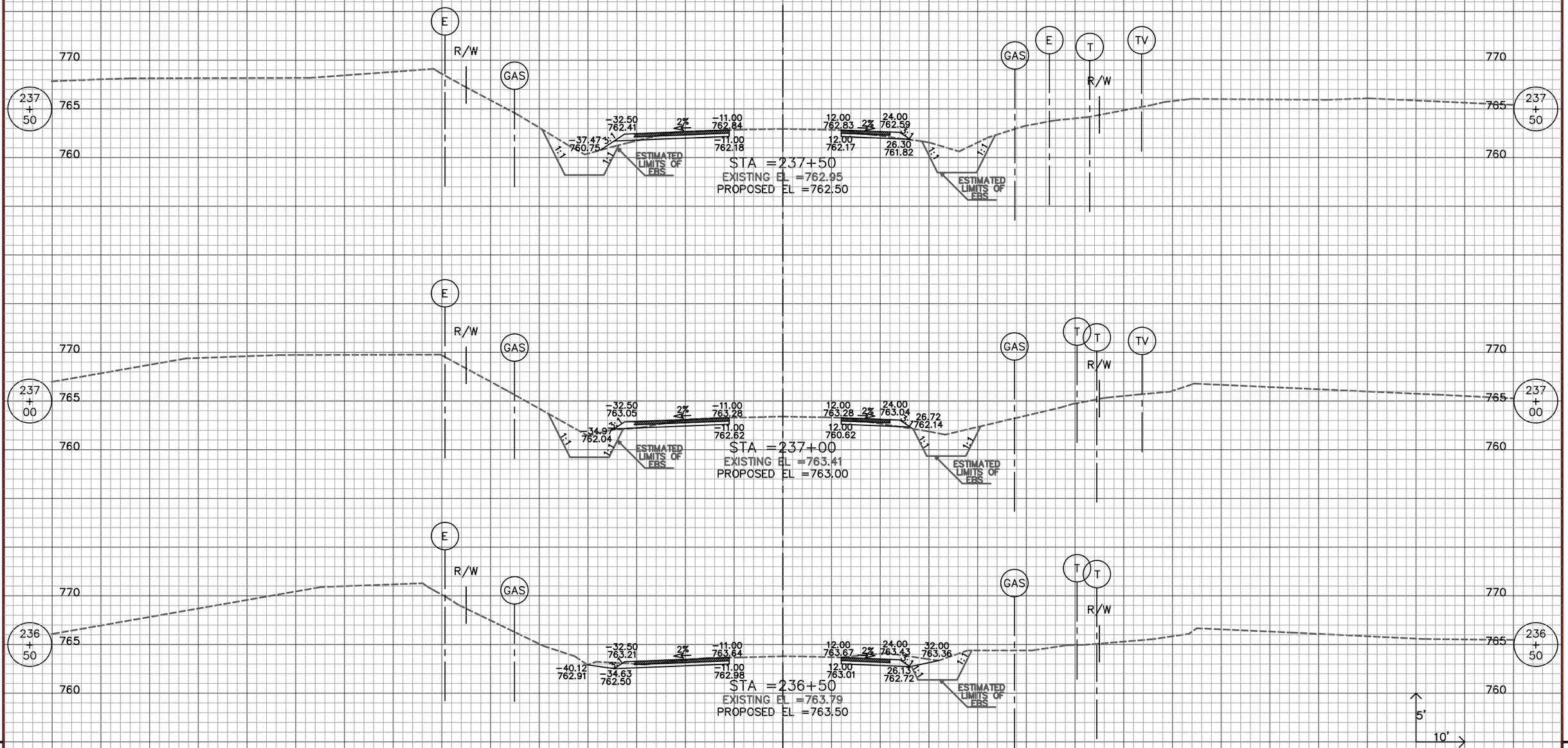
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 611

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A



REVISION DATE: 2/25/2013

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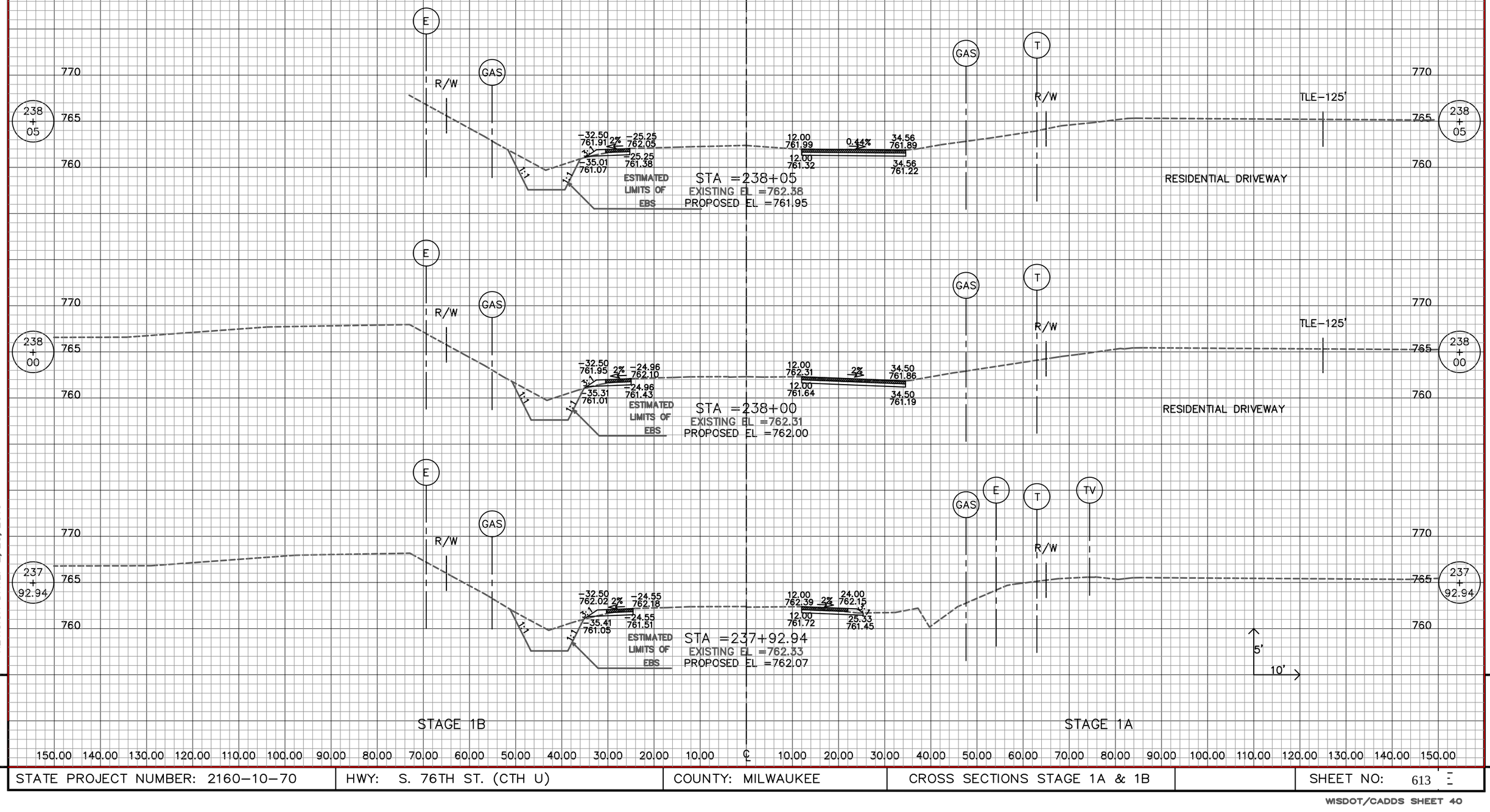
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STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 612

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 1B

STAGE 1A



REVISION DATE: 2/25/2013

9

9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 613

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

765
760
755
239 + 50
R/W
GAS
SS
12.00 760.74 2% 24.00 760.50
12.00 760.07
26.62 759.63
1:1
GAS
T
R/W
TLE–90°
ESTIMATED LIMITS OF EBS
RESIDENTIAL DRIVEWAY
STA =239+50
EXISTING EL =760.90
PROPOSED EL =760.50

765
760
755
239 + 00
E
R/W
GAS
SS
12.00 761.25 2% 24.00 761.01
12.00 760.58
27.23 759.93
1:1
GAS
T
R/W
ESTIMATED LIMITS OF EBS
STA =239+00
EXISTING EL =761.33
PROPOSED EL =761.00

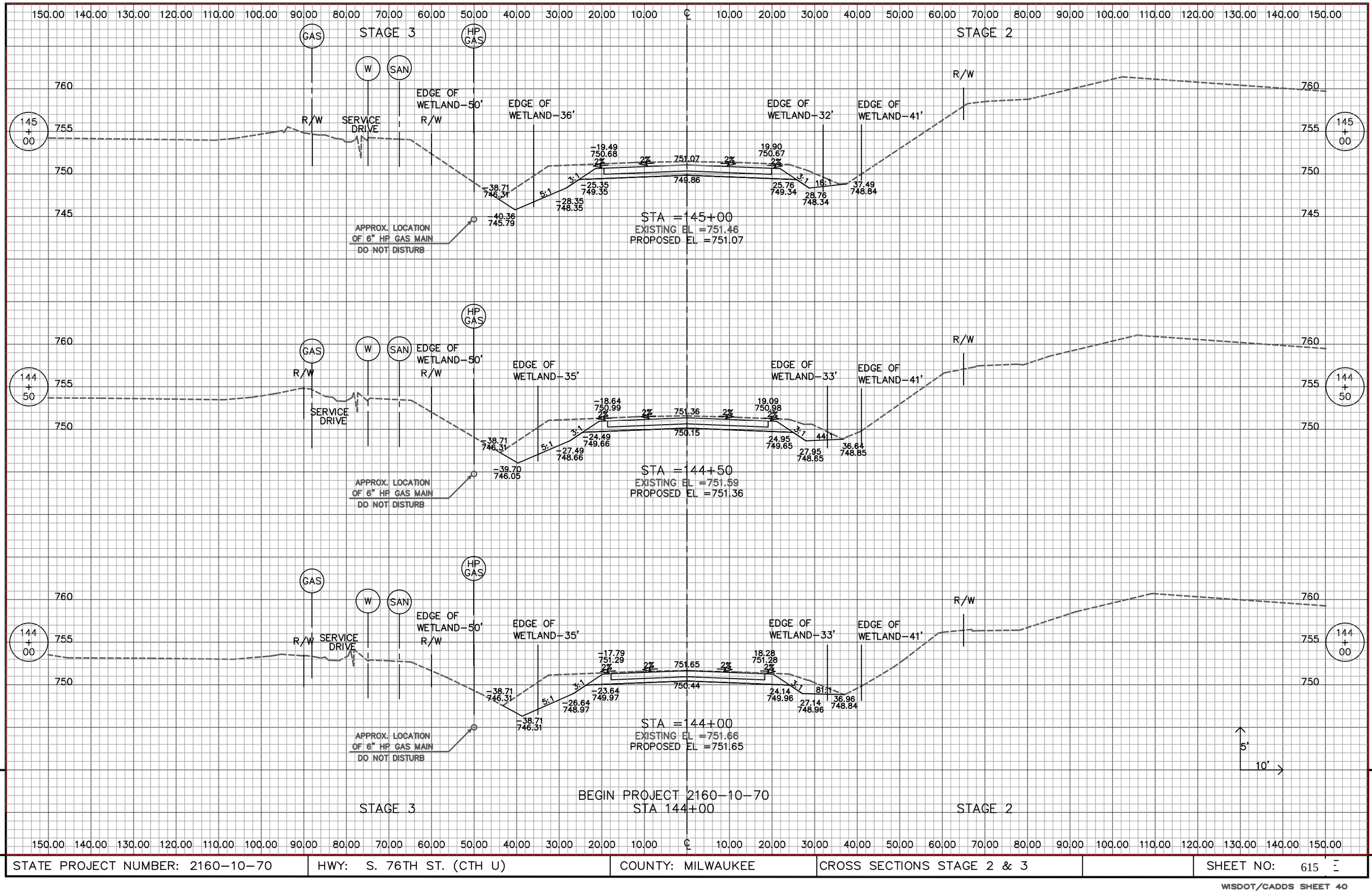
770
765
760
238 + 50
E
R/W
GAS
12.00 761.76 2% 24.00 761.52
12.00 761.09
25.87 760.81
1:1
GAS
T
R/W
ESTIMATED LIMITS OF EBS
STA =238+50
EXISTING EL =761.92
PROPOSED EL =761.50
5'
10'

REVISION DATE: 2/25/2013

9

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

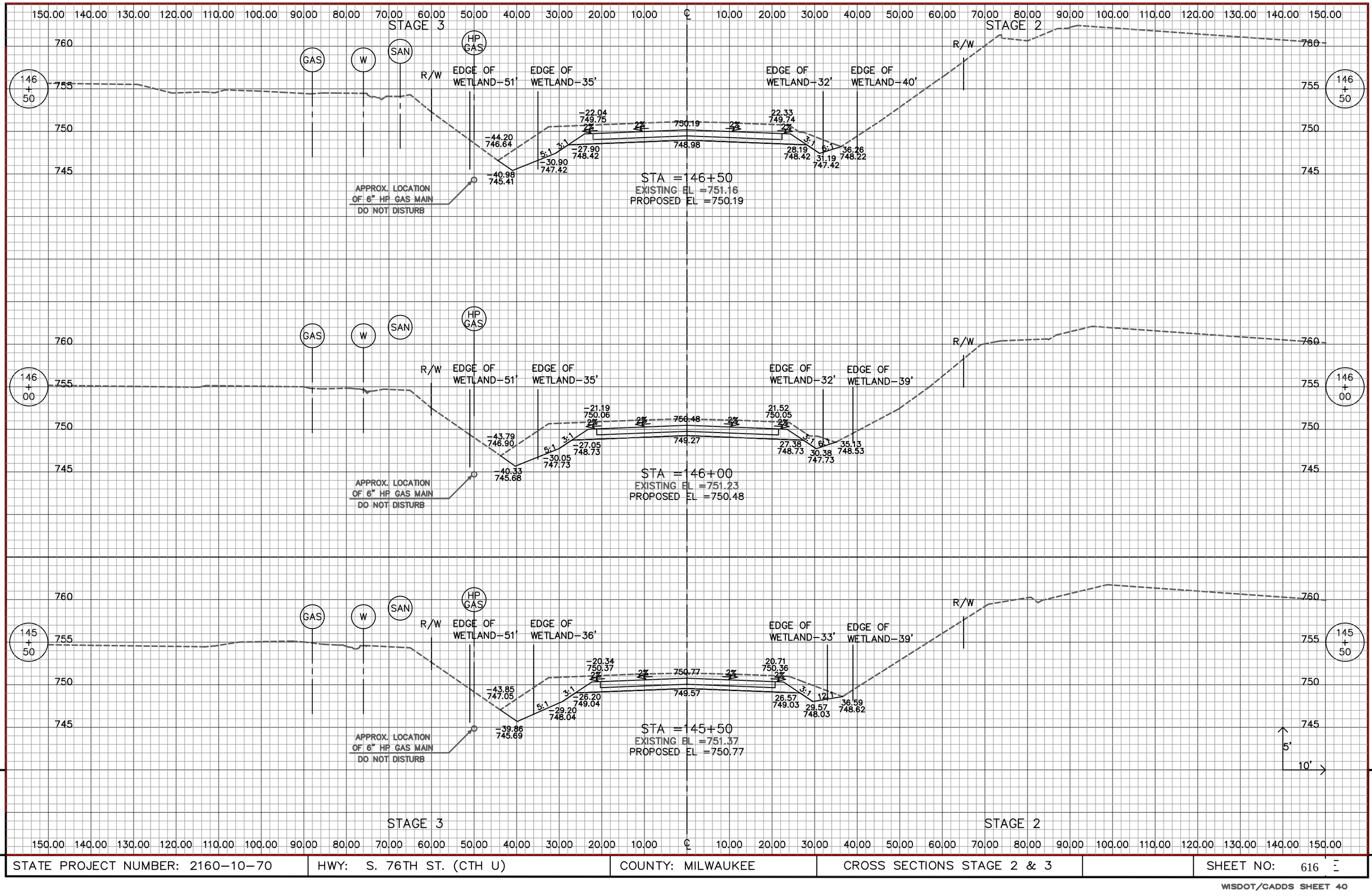
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 1A & 1B		SHEET NO: 614



REVISION DATE: 6/13/2013

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 615

WISDOT/CADDS SHEET 40



REVISION DATE: 6/13/2013

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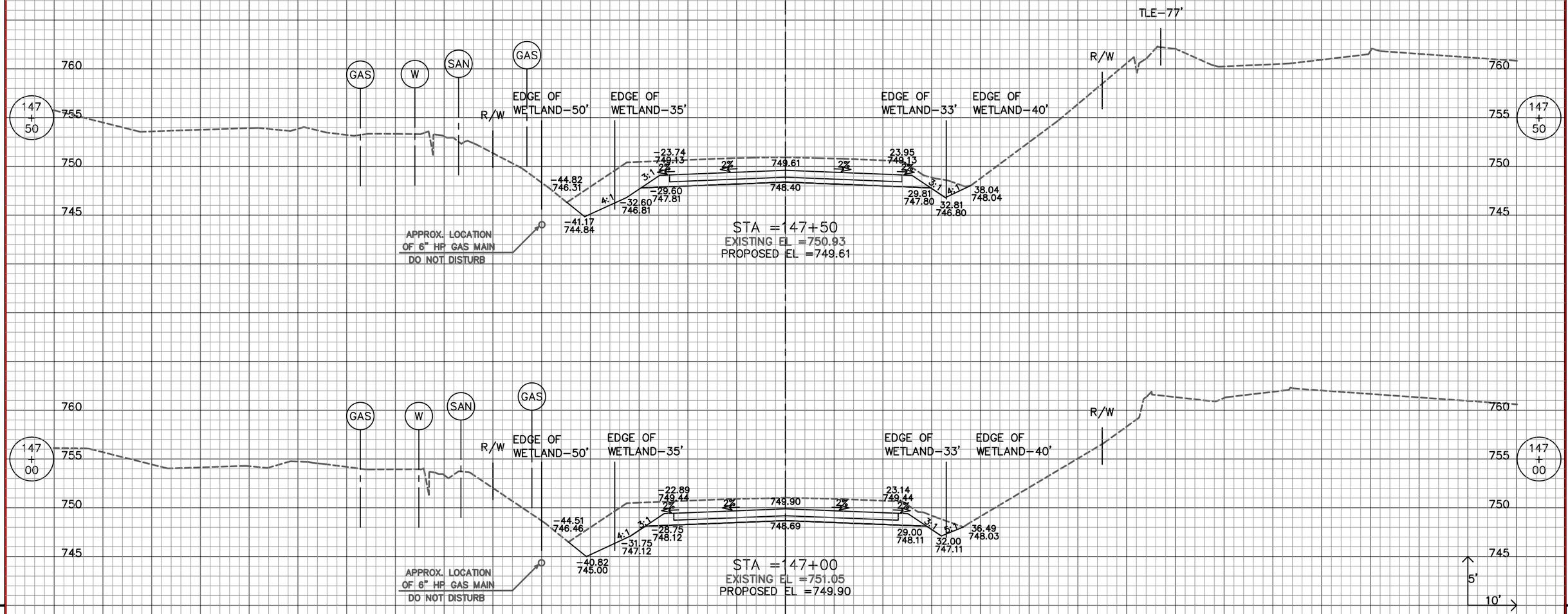
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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 616

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3

STAGE 2



STAGE 3

STAGE 2

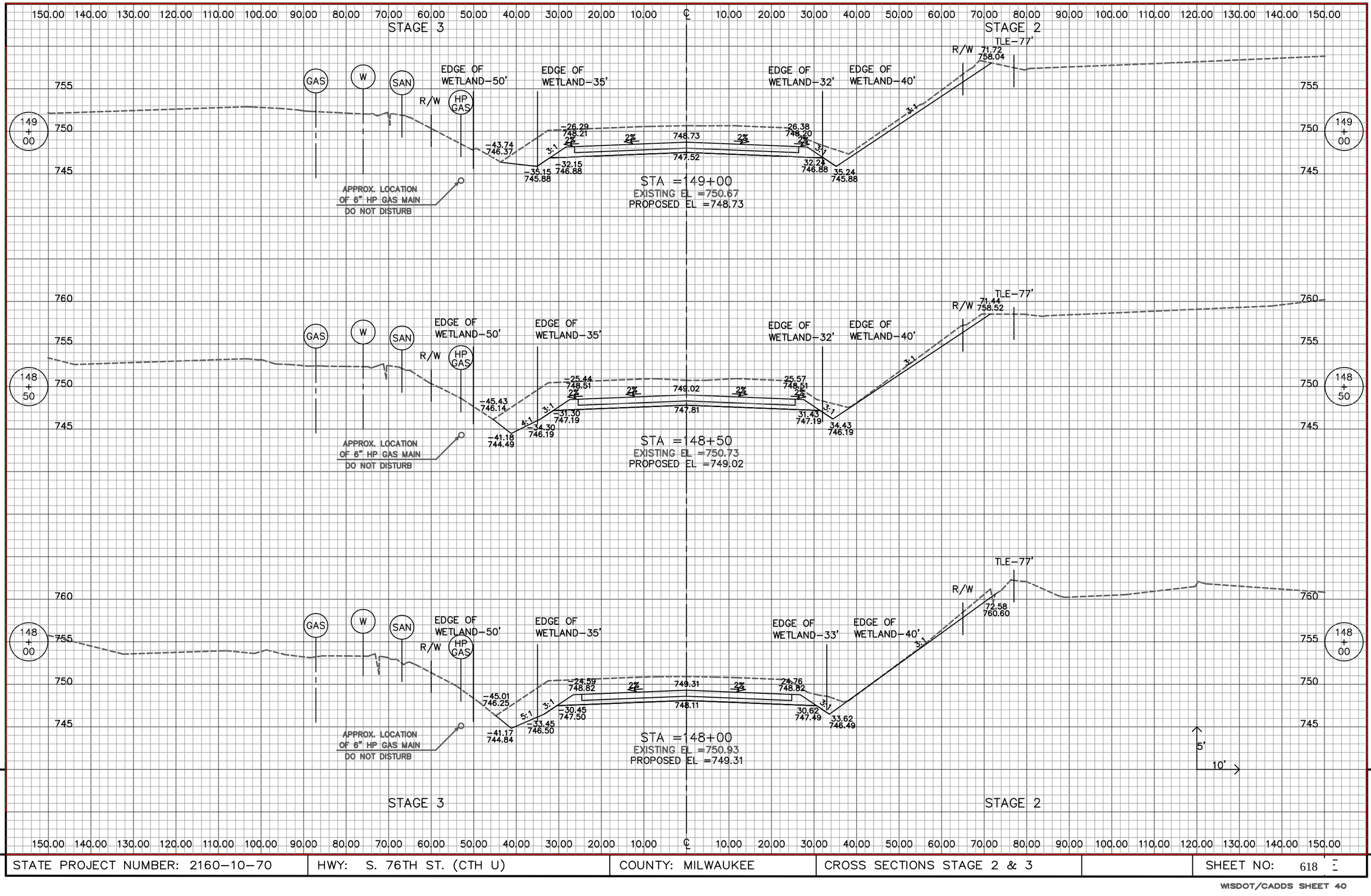
150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/13/2013

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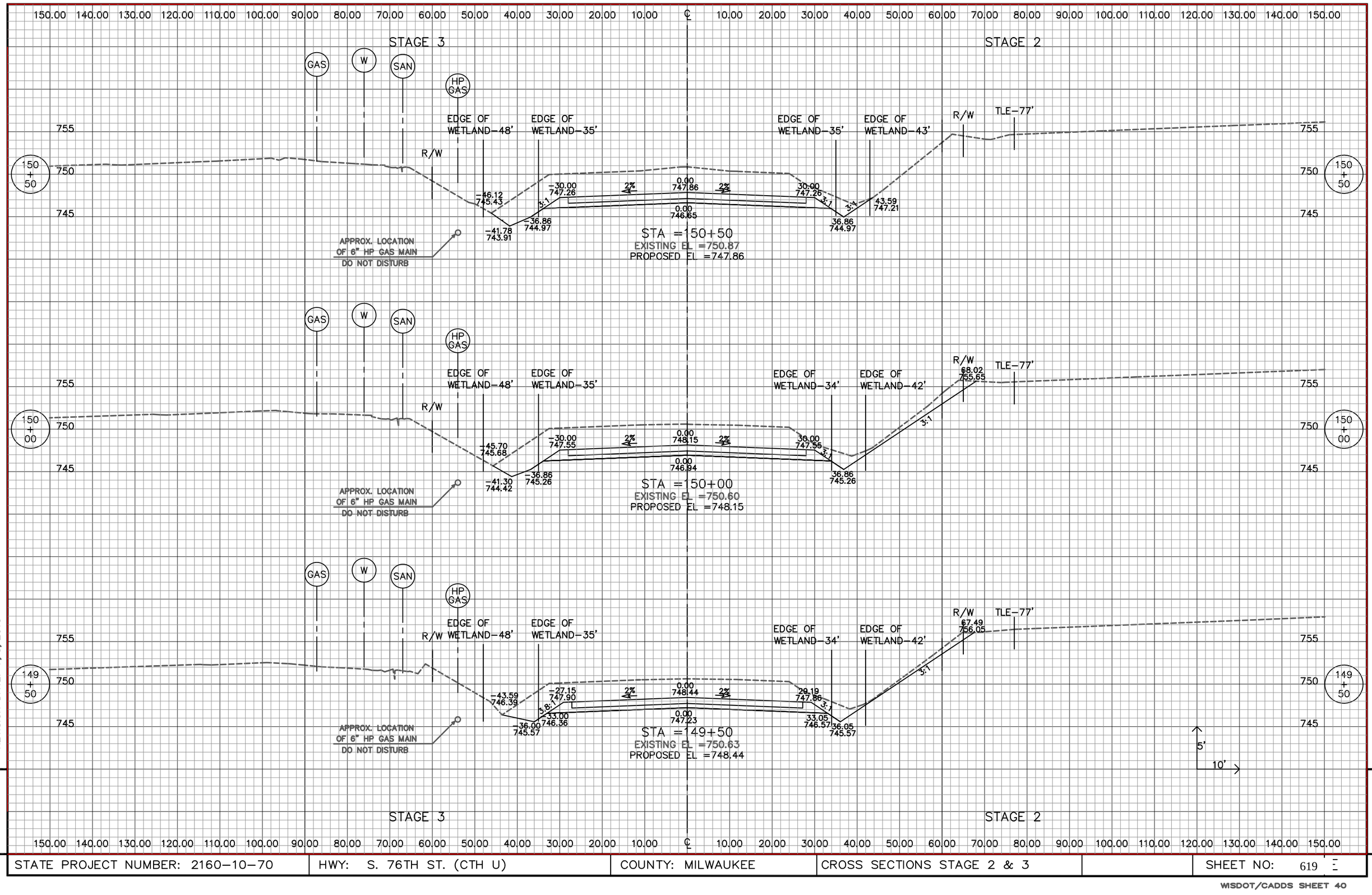
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 617



REVISION DATE: 7/2/2013

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 618

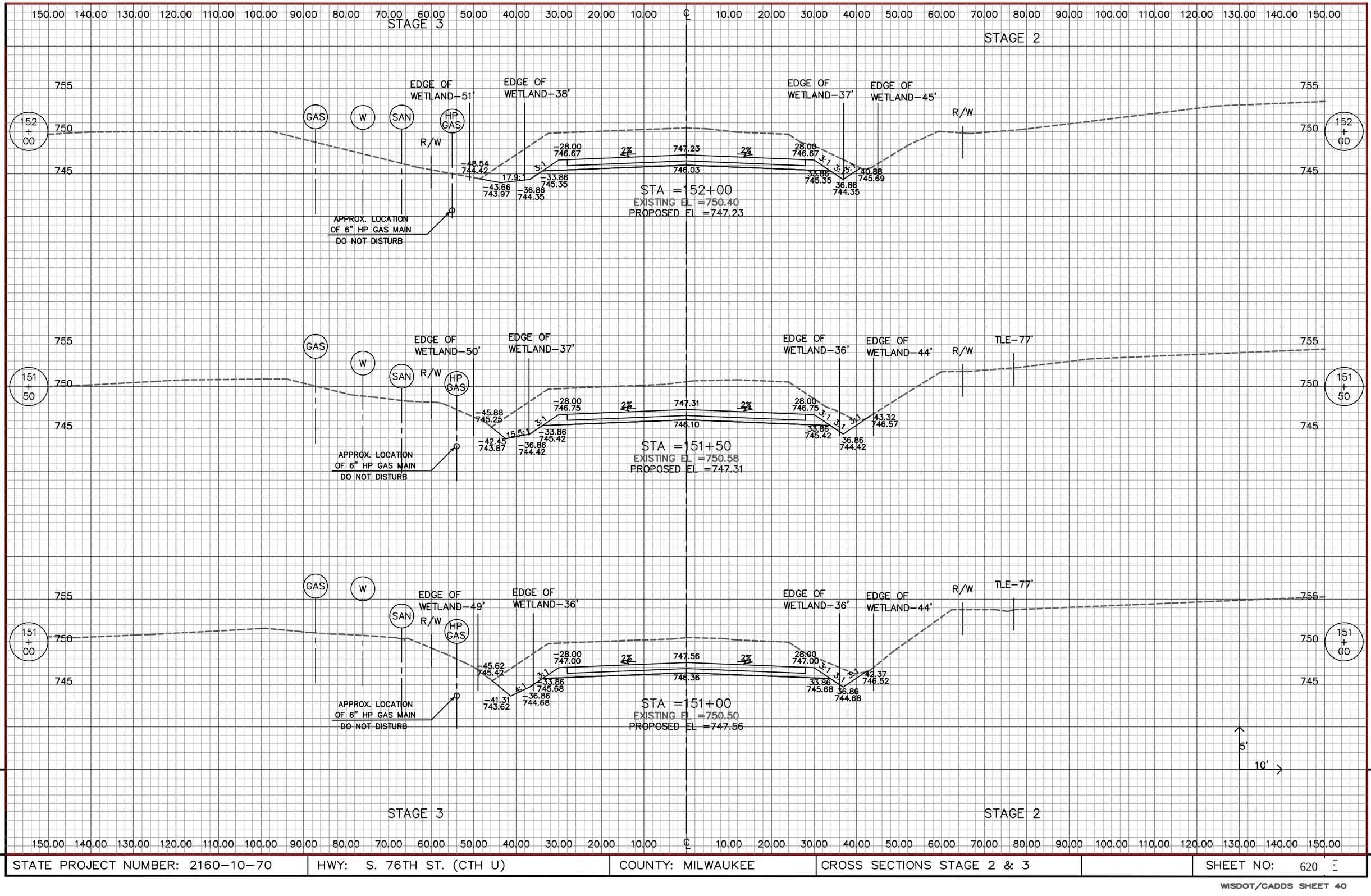
WISDOT/CADDS SHEET 40



REVISION DATE: 7/3/2013

9 9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 619



REVISION DATE: 6/13/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 620

WISDOT/CADDS SHEET 40

STAGE 3

STAGE 2

MARGARET LANE

GAS W SAN GAS

-100.00 749.01

-100.00 747.80

1.90%

-28.00 747.64

-28.00 746.43

2%

748.20

746.99

28.00 747.64

52.84 746.42

3:1

15:1

33.86 746.32

36.86 745.32

R/W

STA =153+46.45
EXISTING EL =750.95
PROPOSED EL =748.20

153 + 46.45

755 750 745

GAS W SAN GAS

EDGE OF WETLAND-61'

R/W

EDGE OF WETLAND-43'

EDGE OF WETLAND-38'

EDGE OF WETLAND-61'

R/W

SERVICE DRIVE

-28.00 747.14

28.00 747.14

747.70

746.50

2%

3:1

4:1

-33.86 745.82

-36.86 744.82

33.86 745.82

36.86 744.82

6:1

-47.26 742.27

48.05 743.06

PROPOSED TWIN 34" x 53" CULVERTS
SKEW 10.3° R.H.F.

STA =153+00
EXISTING EL =750.52
PROPOSED EL =747.70

153 + 00

750 745 740

GAS W SAN GAS

EDGE OF WETLAND-51'

EDGE OF WETLAND-41'

EDGE OF WETLAND-40'

EDGE OF WETLAND-47'

R/W

R/W

SERVICE DRIVE

-28.00 746.81

28.00 746.81

747.37

746.16

2%

3:1

10:1

-33.86 745.48

-36.86 744.48

33.86 745.48

36.86 744.48

43.83 744.84

-44.77 743.69

STA =152+50
EXISTING EL =750.44
PROPOSED EL =747.37

152 + 50

755 750 745

5'

10'

STAGE 3

STAGE 2

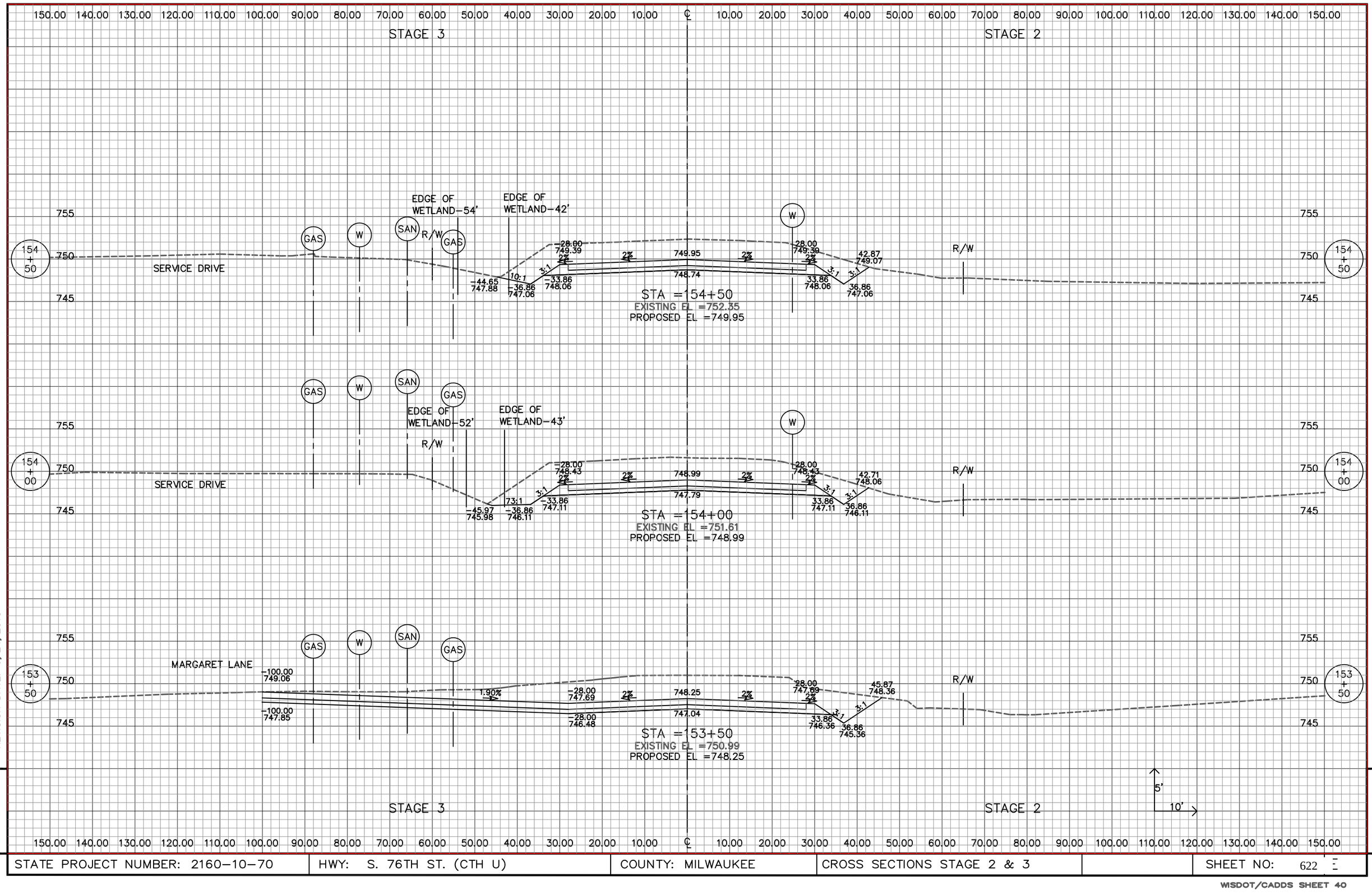
150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/24/2013

9

9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 621



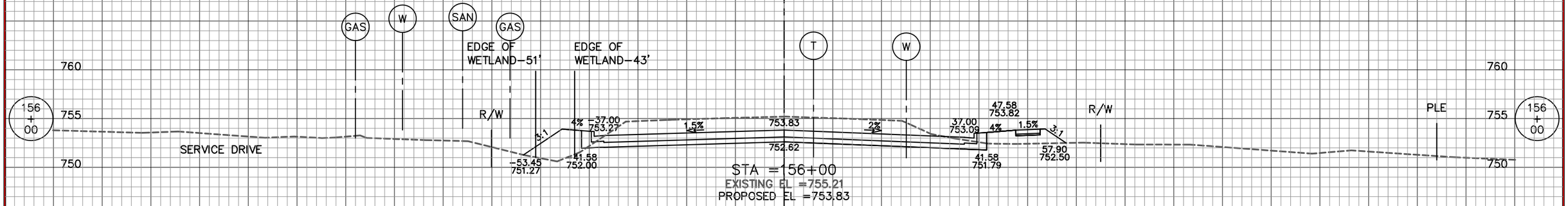
REVISION DATE: 6/24/2013

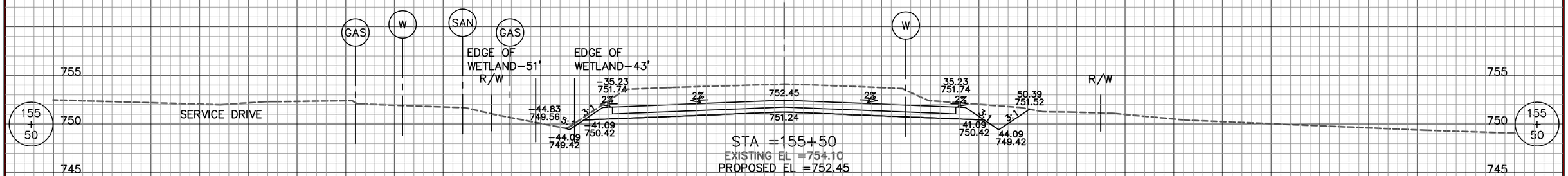
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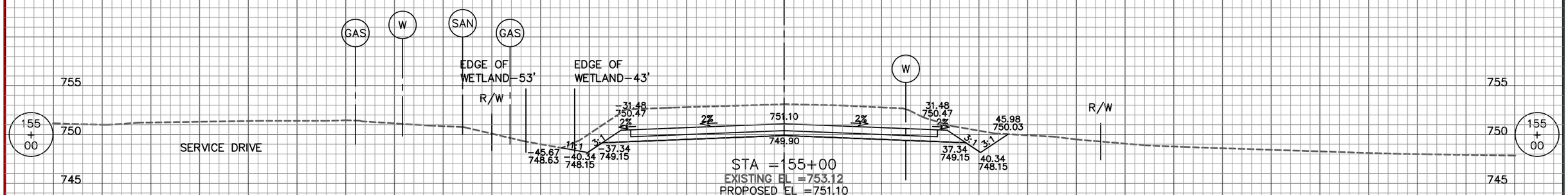
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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 622

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00







REVISION DATE: 10/31/2013

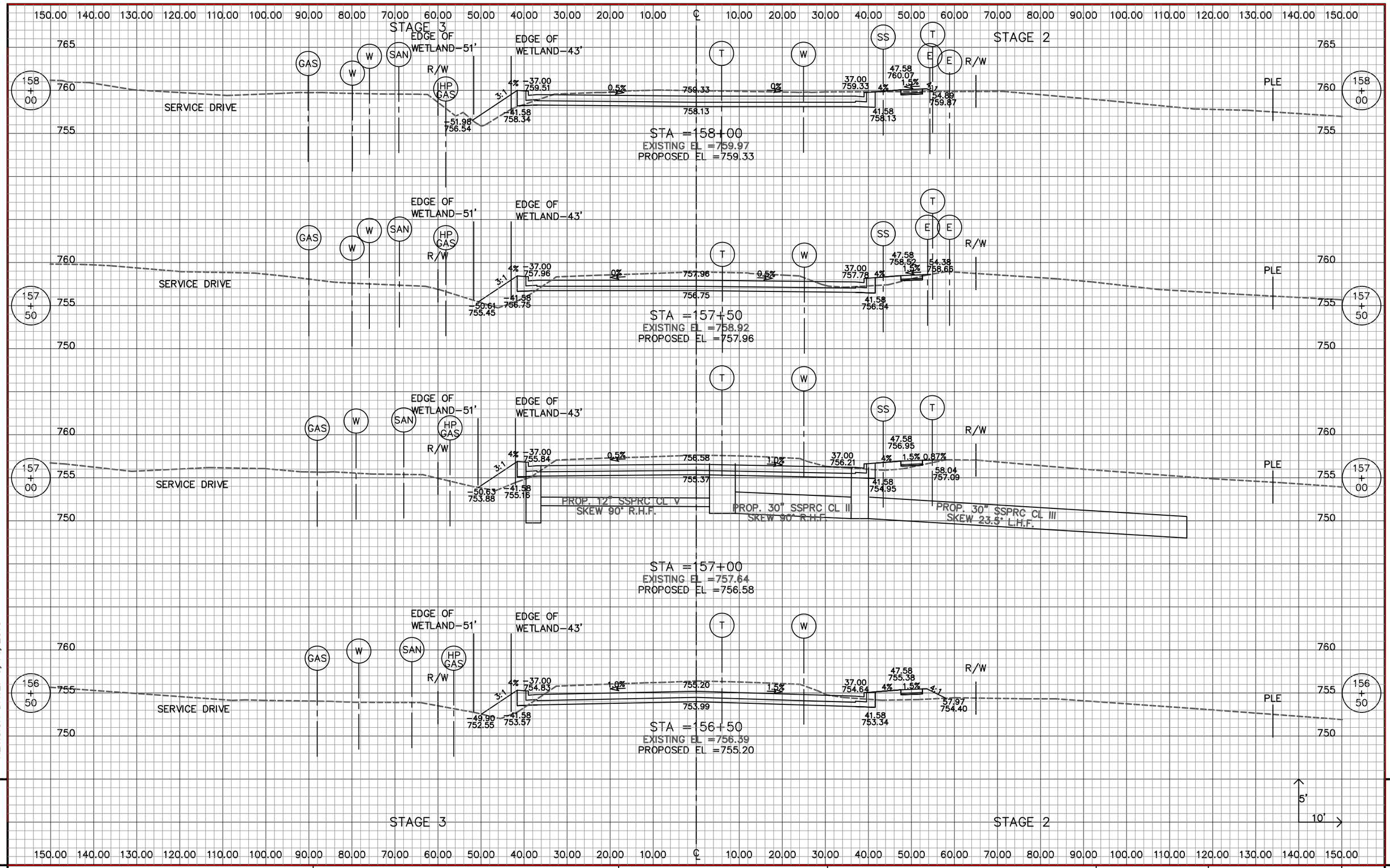
5'
10'

9

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 623

WISDOT/CADDS SHEET 40



REVISION DATE: 6/14/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 624

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2

PUETZ RD

765 760 755

158 + 66.73

GAS SAN GAS W T W SS T

−100.00 762.14 −100.00 760.93 1.14% 761.00 759.79 0.44% 100.00 760.56 100.00 759.35

STA =158+66.73
EXISTING EL =761.77
PROPOSED EL =761.00

PUETZ RD

765 760 755

158 + 66.73

PUETZ RD

765 760 755

158 + 60.15

GAS SAN GAS W T W SS T

−100.00 761.96 −100.00 760.75 1.14% 760.82 759.61 0.44% 100.00 760.38 100.00 759.17

STA =158+60.15
EXISTING EL =761.76
PROPOSED EL =760.82

PUETZ RD

765 760 755

158 + 50

GAS SAN GAS W T W SS T

−100.00 761.85 −100.00 760.64 1.14% 760.71 759.50 0.44% 70.00 760.40 70.00 759.19

STA =158+50
EXISTING EL =761.40
PROPOSED EL =760.71

PUETZ RD

765 760 755

158 + 50

5'
10'

STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/24/2013

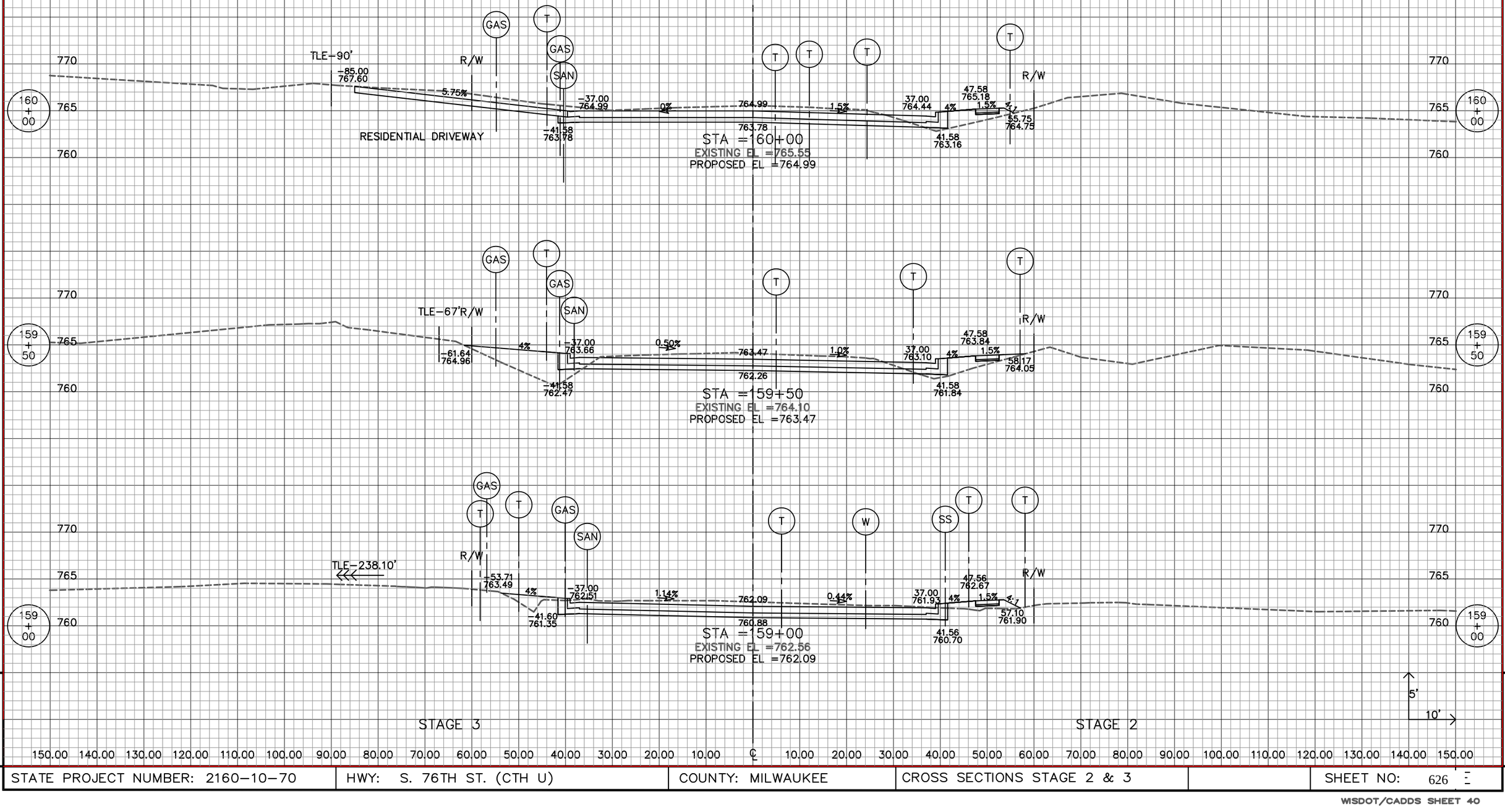
9 9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 625

STAGE 3

STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00



REVISION DATE: 6/14/2013

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 626

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2

GAS T GAS SAN T T T T R/W

TLE–115'

–110.00
770.37

770 765 760

160 + 50

5.8%

R/W

–37.00
766.28

0.5%

766.47

2%

37.00
765.73

47.58
766.47

4% 1.5%

55.58
766.09

–41.58
765.06

765.27

41.58
764.43

RESIDENTIAL DRIVEWAY

STA =160+50
EXISTING EL =766.80
PROPOSED EL =766.47

GAS T GAS SAN T T T T R/W

TLE–115'

770 765 760

160 + 29

R/W

–52.67
766.71

4%

–37.00
765.77

0.25%

765.86

1.75%

37.00
765.21

45.58
765.95

4% 1.5%

55.48
765.58

–41.58
764.55

764.65

41.58
763.92

STA =160+29
EXISTING EL =766.29
PROPOSED EL =765.86

GAS T GAS SAN T T T T R/W

TLE–90'

–85.00
767.64

770 765 760

160 + 05

4.55%

R/W

4%

–37.00
765.14

0%

765.14

1.5%

37.00
764.58

47.58
765.32

4% 1.5%

55.92
764.86

–41.58
763.93

763.93

41.58
763.31

RESIDENTIAL DRIVEWAY

STA =160+05
EXISTING EL =765.68
PROPOSED EL =765.14

5'
10'

STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

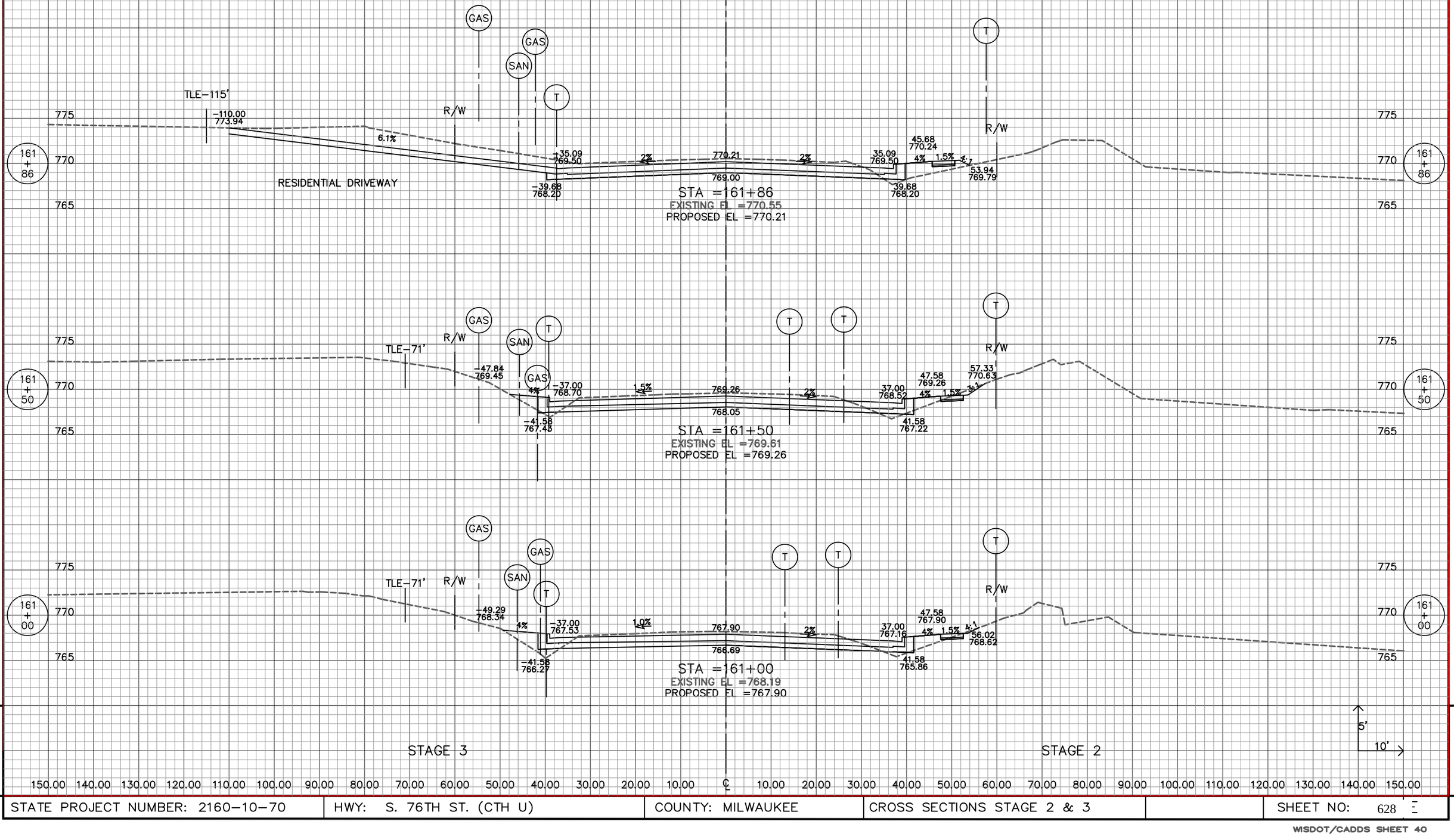
REVISION DATE: 6/14/2013

9 9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 627

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2



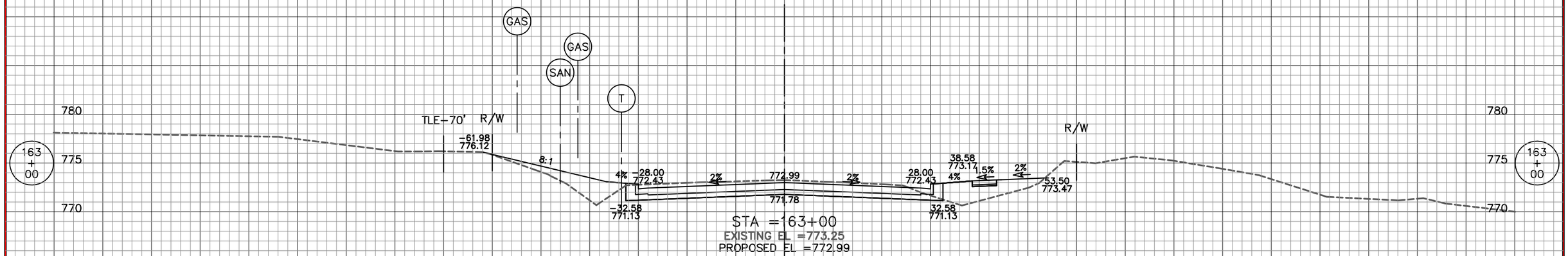
REVISION DATE: 6/14/2013

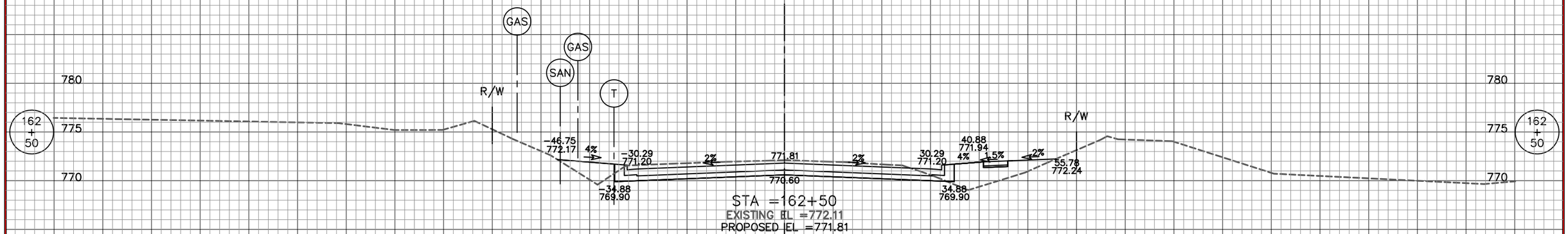
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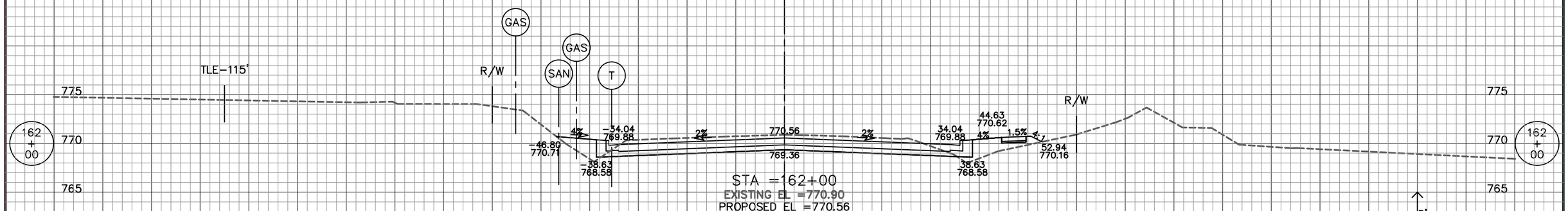
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 628

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2







9 STAGE 3 STAGE 2 9

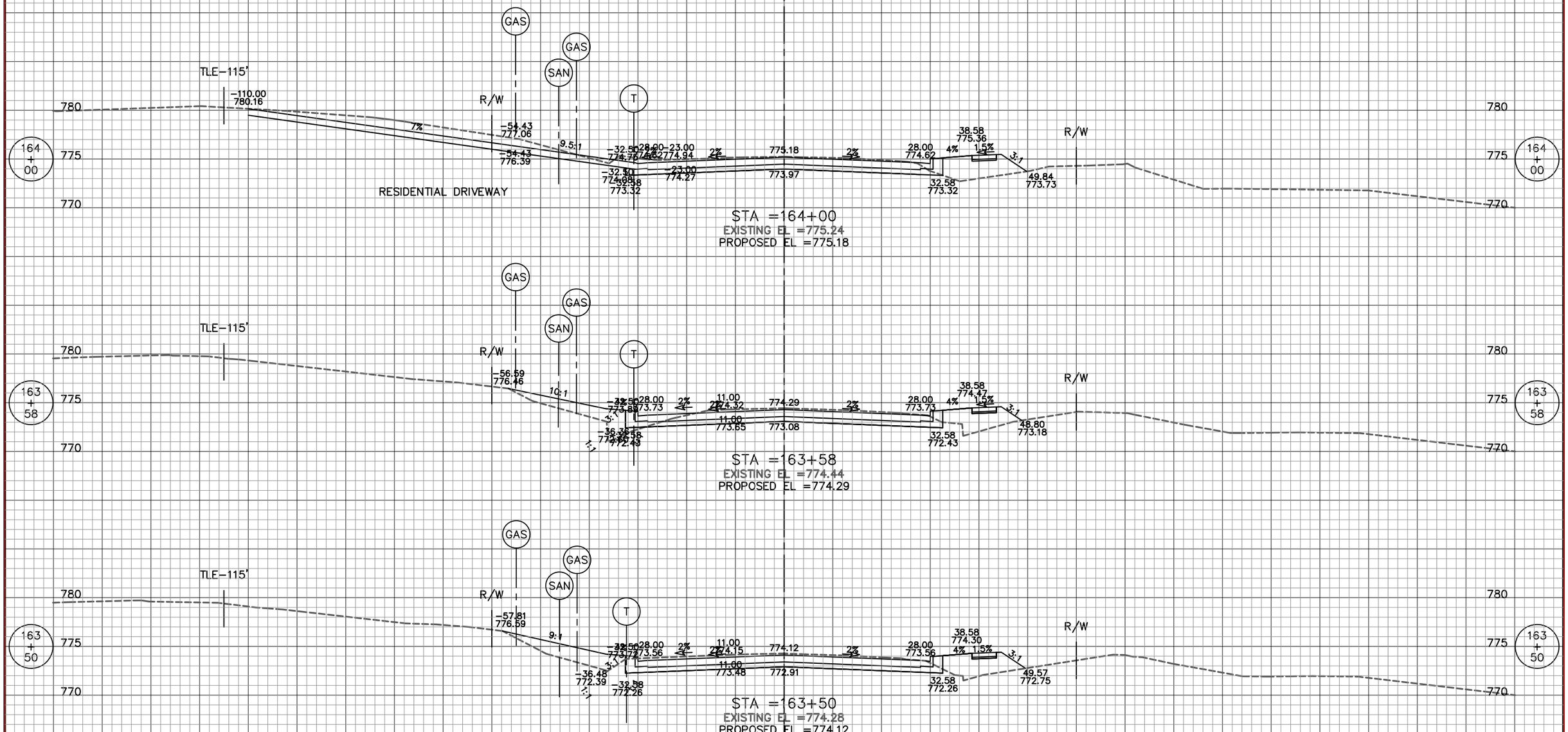
150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/14/2013

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 629

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2



STAGE 3 STAGE 2

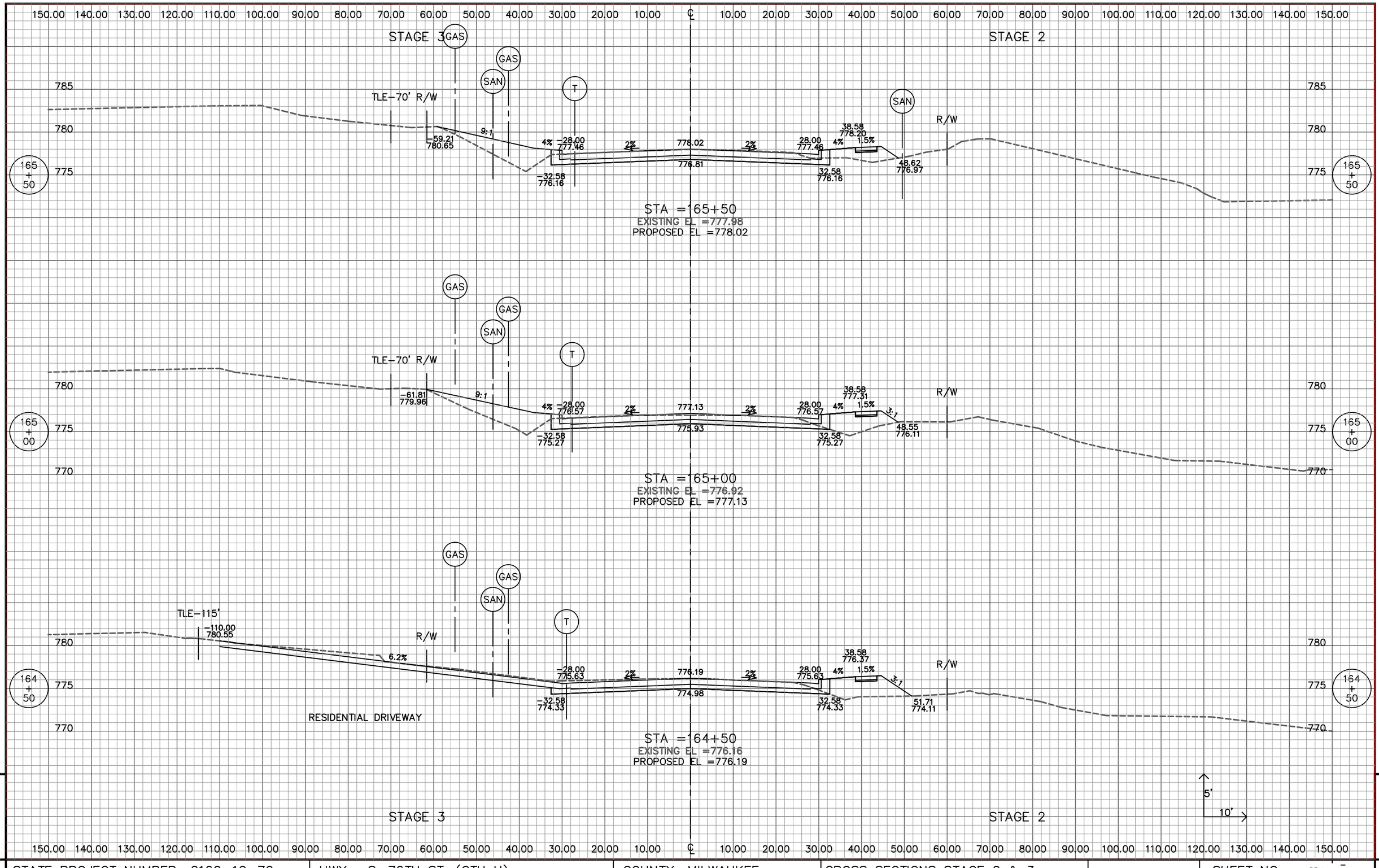
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REVISION DATE: 6/14/2013

9 9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STA 2 & 3		SHEET NO: 630

WISDOT/CADDS SHEET 40



REVISION DATE: 6/14/2013

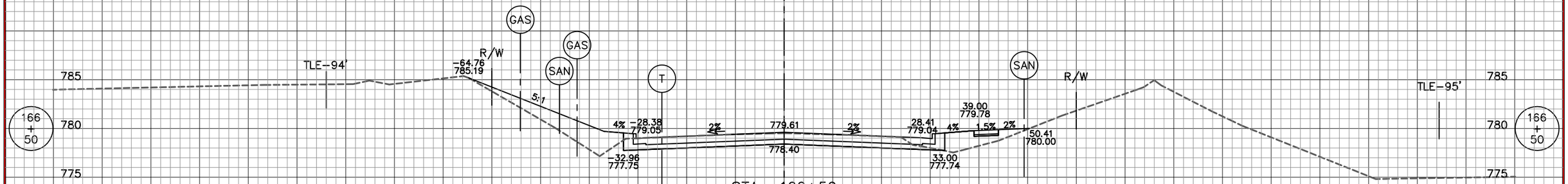
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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 631

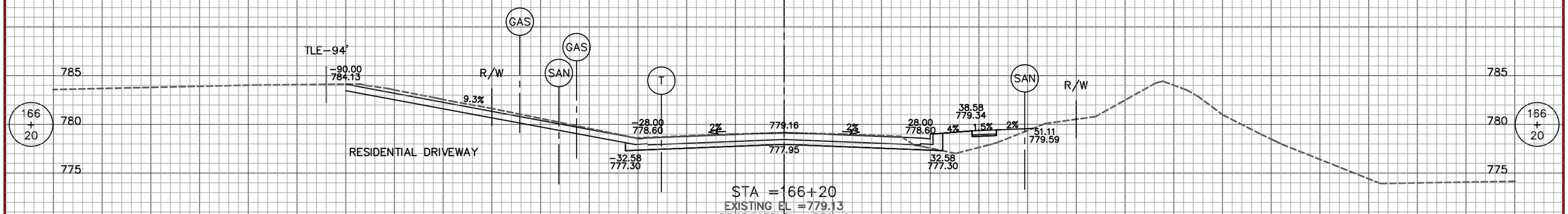
150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3

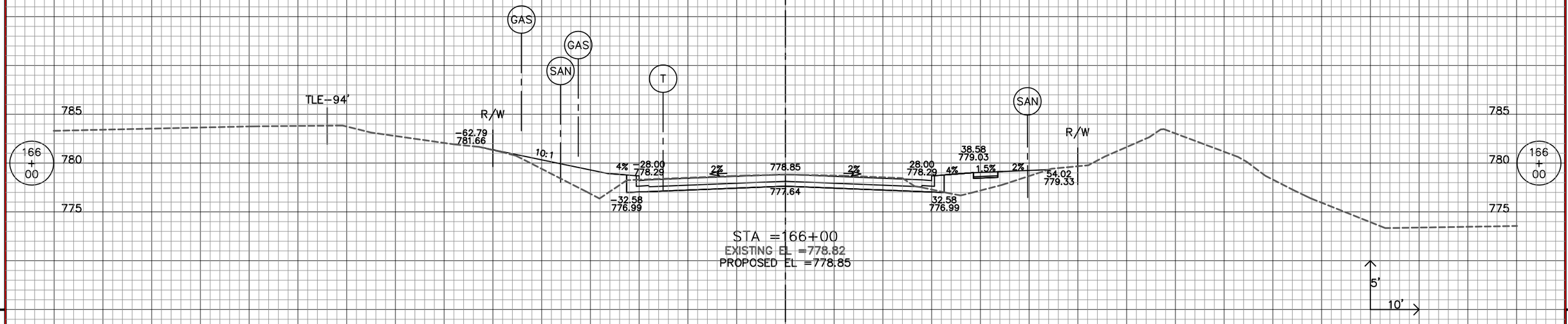
STAGE 2



STA =166+50
EXISTING EL =779.52
PROPOSED EL =779.61



STA =166+20
EXISTING EL =779.13
PROPOSED EL =779.16



STA =166+00
EXISTING EL =778.82
PROPOSED EL =778.85

STAGE 3

STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/14/2013

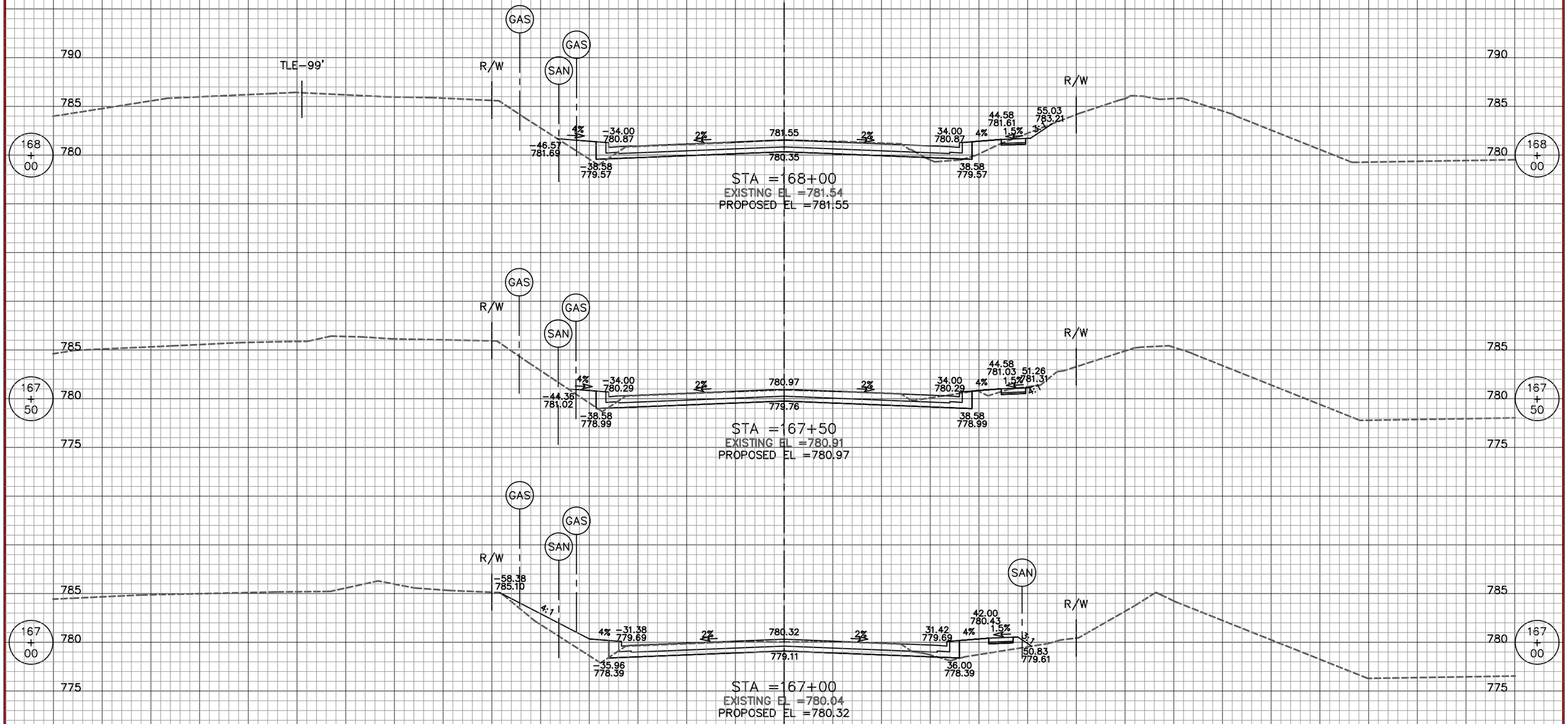
9

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STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 632

STAGE 3

STAGE 2



REVISION DATE: 6/14/2013

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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 633

WISDOT/CADDS SHEET 40

STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

790 785 780

GAS GAS SAN W R/W R/W

169 + 00

-54.01 785.51 12:1 4% -34.00 781.87 2% 782.55 2% 781.34 34.00 781.87 4% 44.58 782.61 1.5% 54.57 783.72 4:1

-38.58 780.57 38.58 780.57

STA =169+00
EXISTING EL =782.39
PROPOSED EL =782.55

GAS GAS SAN R/W R/W

168 + 50

TLE-125'

11:1 4% -34.00 781.40 2% 782.08 2% 780.87 34.00 781.40 4% 44.58 782.14 1.5% 54.54 783.58 4:1

-44.71 782.25 -38.58 780.10 38.58 780.10

STA =168+50
EXISTING EL =781.99
PROPOSED EL =782.08

GAS GAS SAN R/W R/W

168 + 34

TLE-125'
-120.00 785.93 5.62%

-34.00 781.24 2% 781.92 2% 780.71 34.00 781.24 4% 44.58 781.98 1.5% 57.66 783.87 4:1

-38.58 779.94 38.58 779.94

RESIDENTIAL DRIVEWAY

STA =168+34
EXISTING EL =781.87
PROPOSED EL =781.92

5' 10'

STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/14/2013

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STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 634

STAGE 3

STAGE 2

GAS GAS SAN W

R/W

790 785 780

170 + 00

-50.51 783.60 4% -34.00 782.63 2% 783.31 2% 34.00 782.63 4% 44.60 783.37 1.5% 51.05 783.60

-38.58 781.33 782.10 38.60 781.33

STA =170+00
EXISTING EL =782.99
PROPOSED EL =783.31

GAS GAS SAN W

LAKE POINTE DR.

TWIN OAKS BLVD. (PRIVATE)

169 + 50

-67.00 781.62 1.67% -34.00 782.28 2% 782.96 2% 34.00 782.28 0.00% 55.00 781.05

-34.00 781.07 781.75 34.00 781.07

STA =169+50
EXISTING EL =782.64
PROPOSED EL =782.96

GAS GAS SAN W

LAKE POINTE DR.

TWIN OAKS BLVD. (PRIVATE)

169 + 43.74

-67.00 782.95 2.18% -34.00 782.23 2% 782.91 2% 34.00 782.23 0.71% 55.00 782.38

-67.00 781.74 -34.00 781.02 781.70 34.00 781.02 55.00 781.17

STA =169+43.74
EXISTING EL =782.62
PROPOSED EL =782.91

5' 10'

STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/14/2013

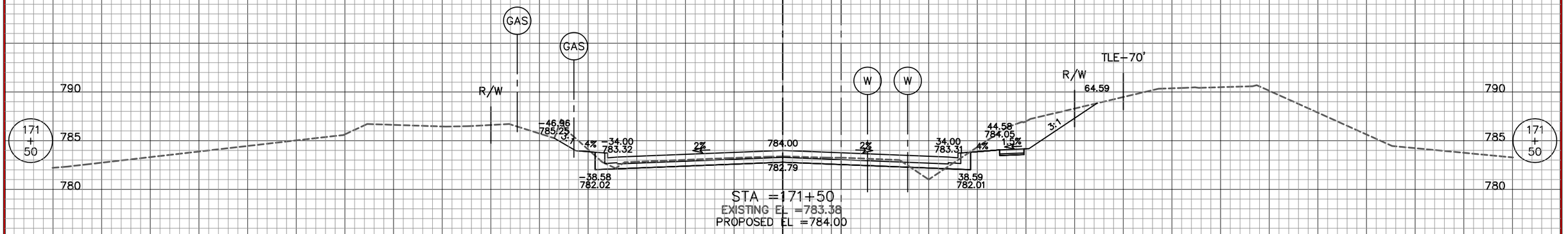
9 9

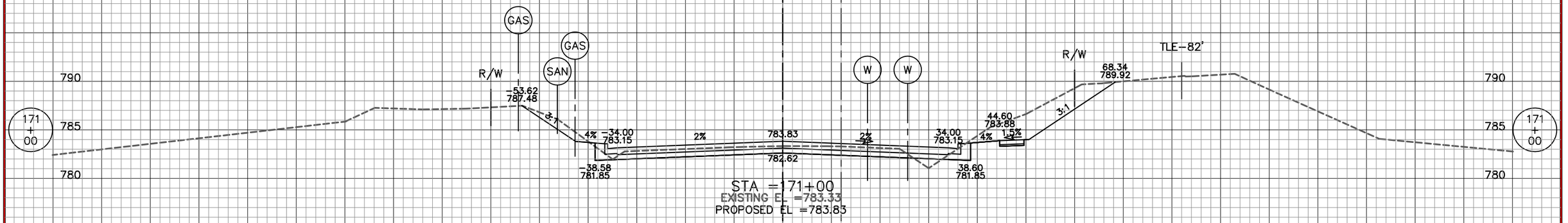
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3	SCALE:	SHEET NO: 635

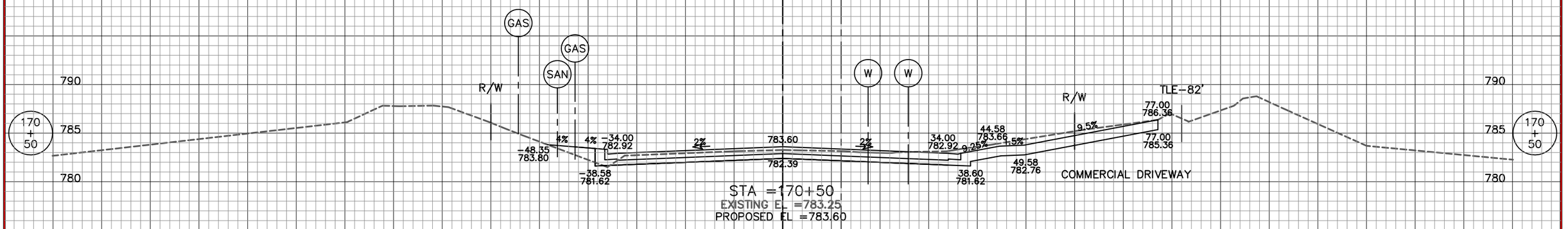
WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2







5'
10'

STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

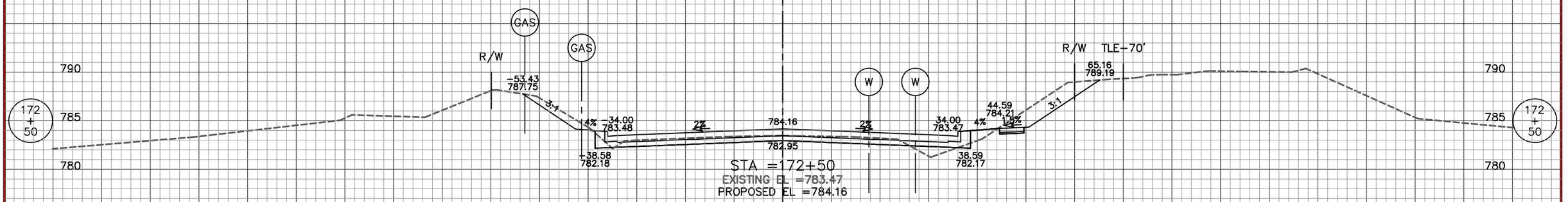
REVISION DATE: 6/14/2013

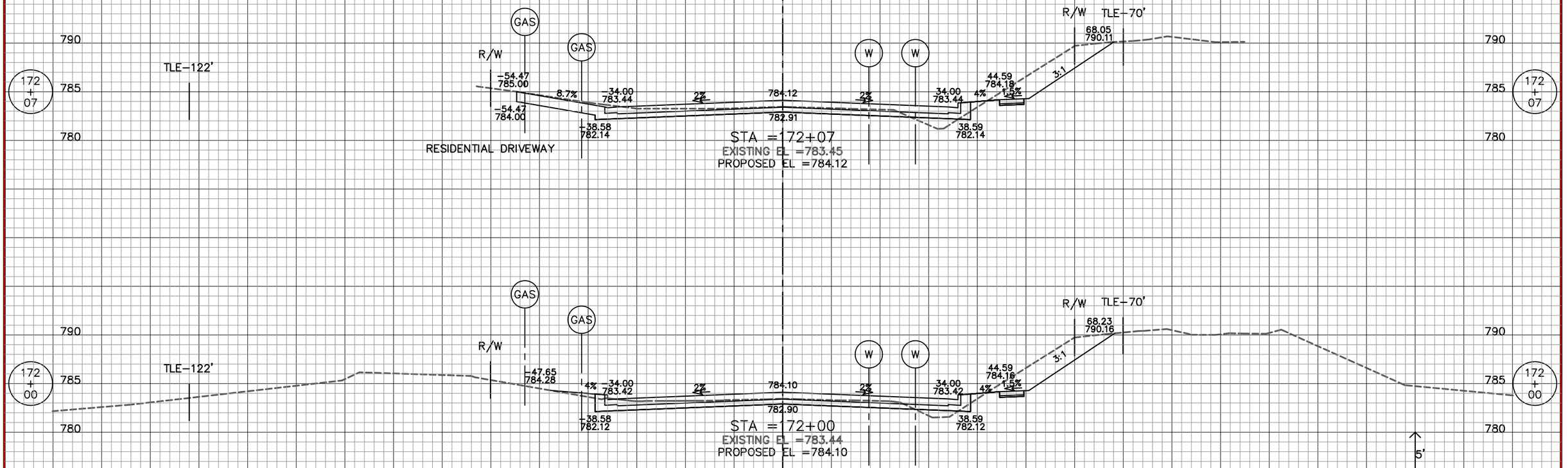
9 9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 636

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2





STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

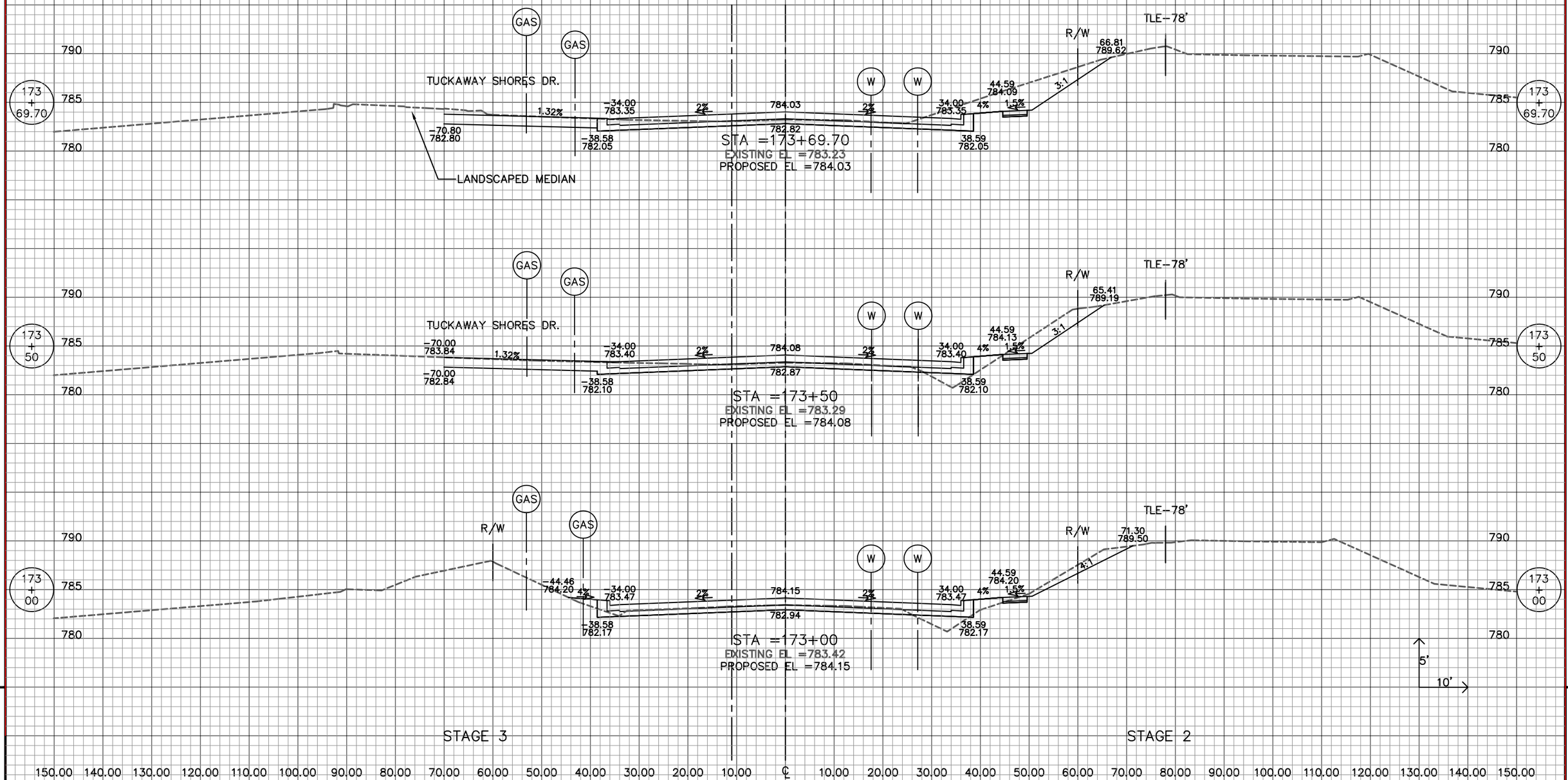
REVISION DATE: 6/14/2013

9 9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTION STAGE 2 & 3		SHEET NO: 637

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2



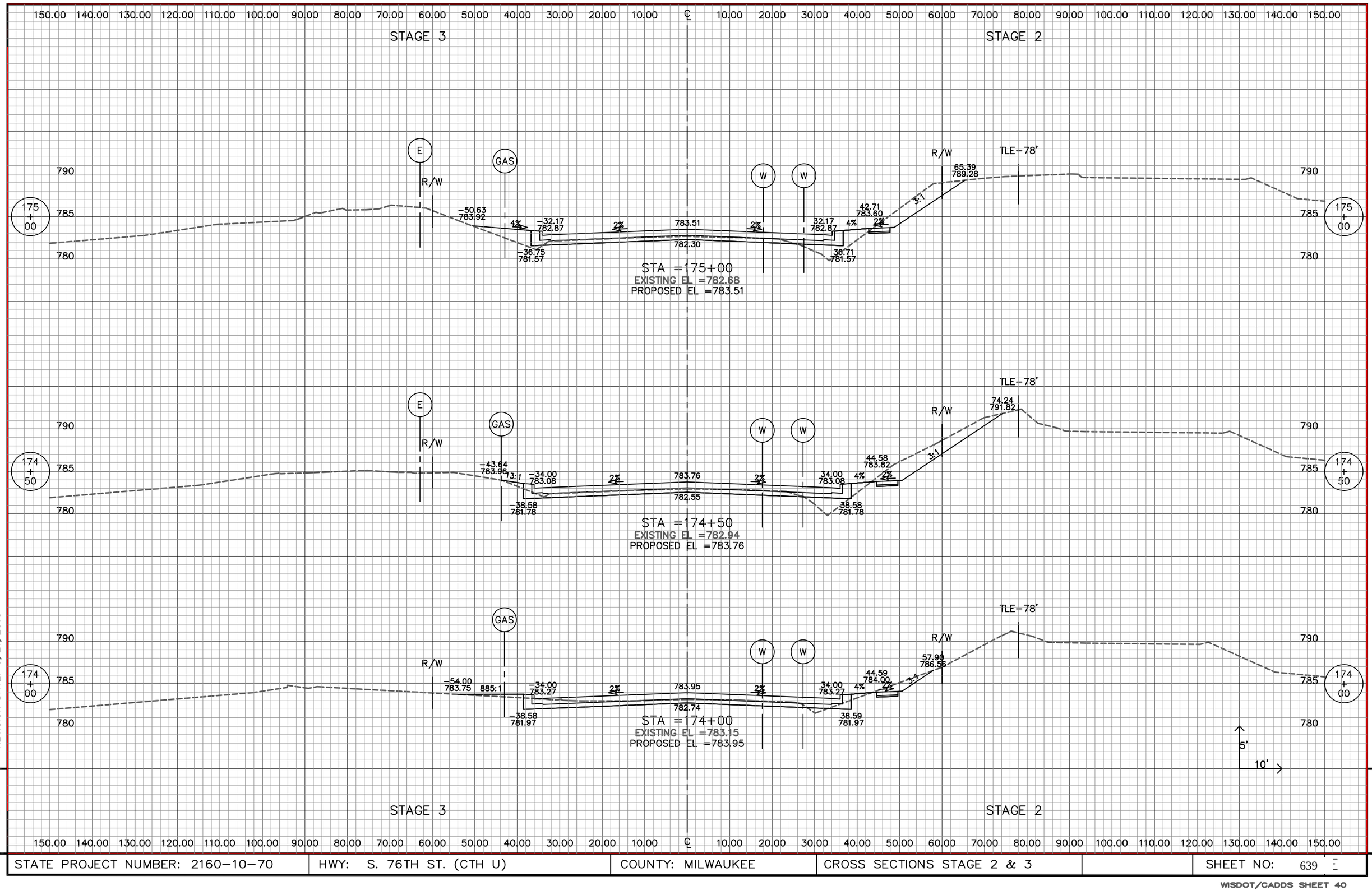
STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/21/2013

9 9

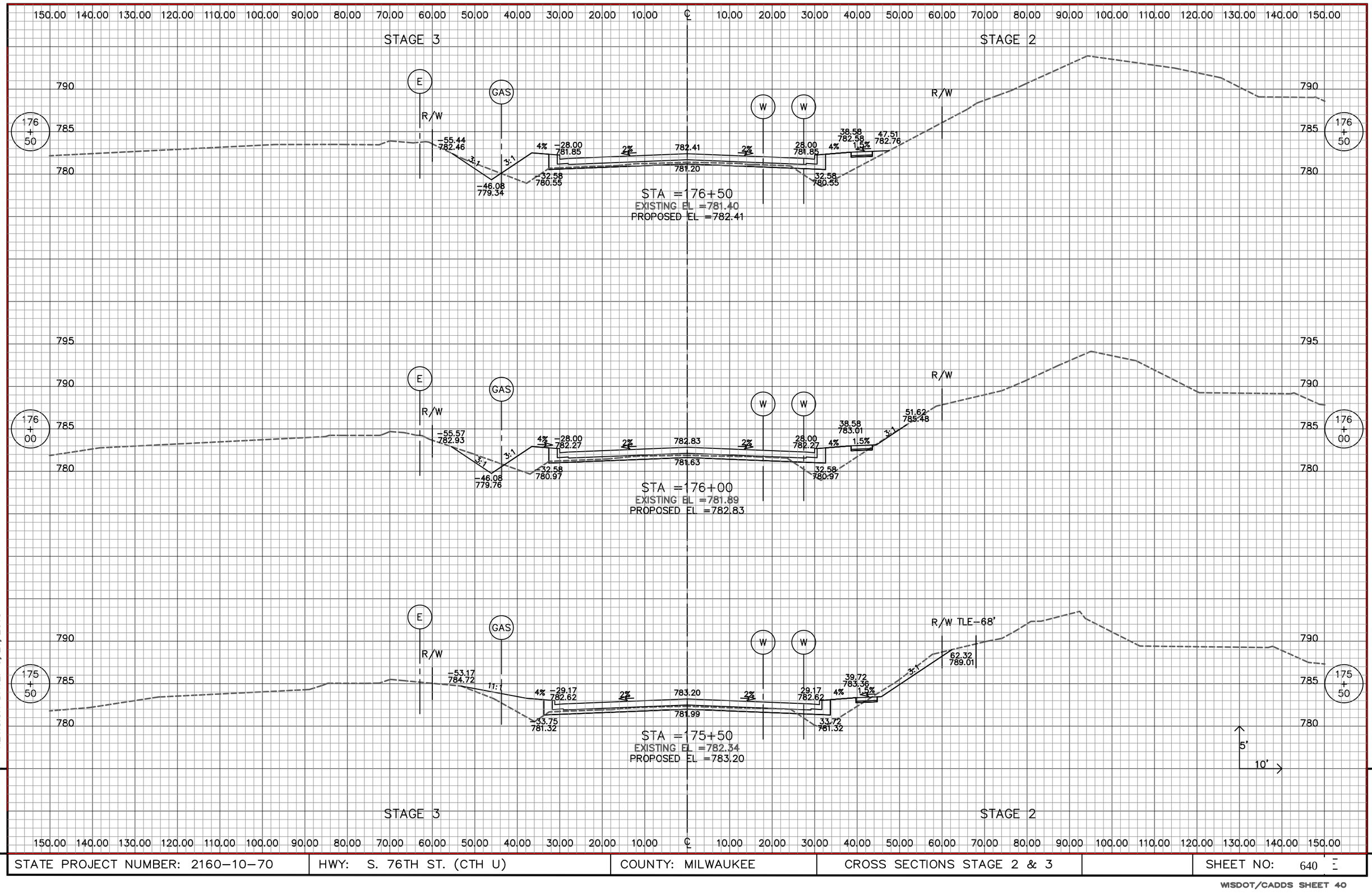
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 638



REVISION DATE: 6/21/2013

9 9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 639



REVISION DATE: 6/21/2013

9 9

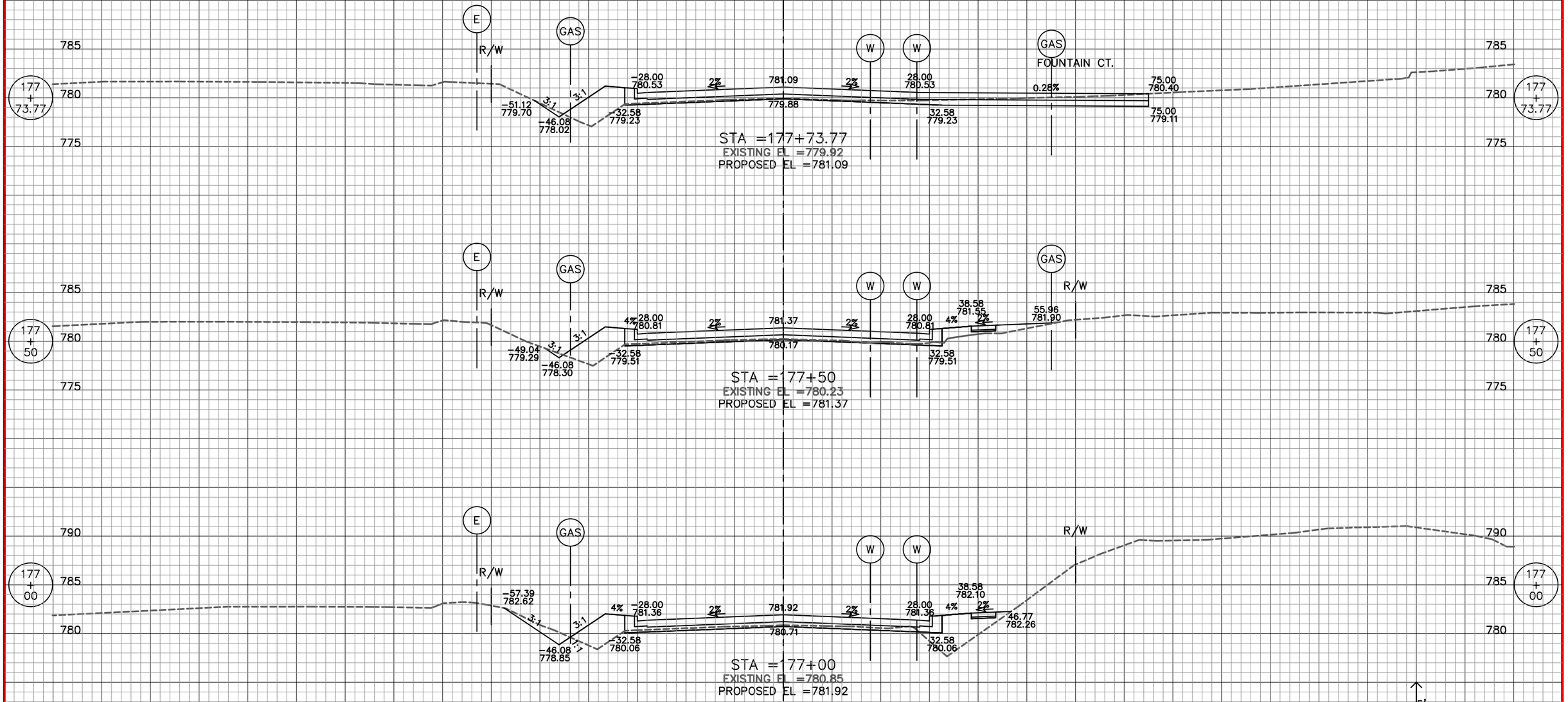
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 640

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3

STAGE 2



REVISION DATE: 2/22/2013

9

STAGE 3

STAGE 2

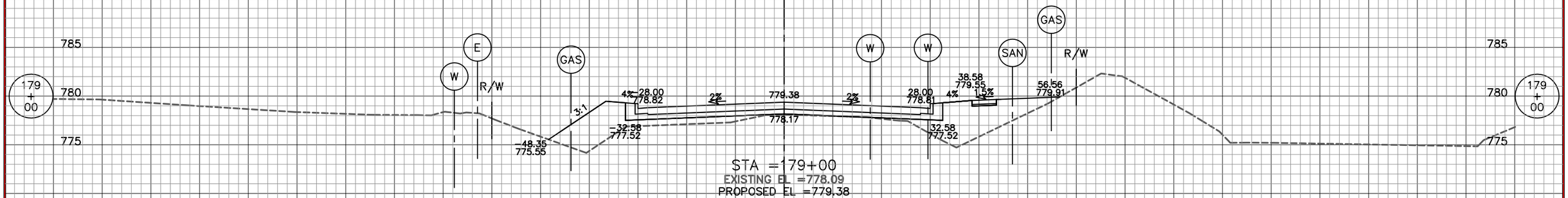
9

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

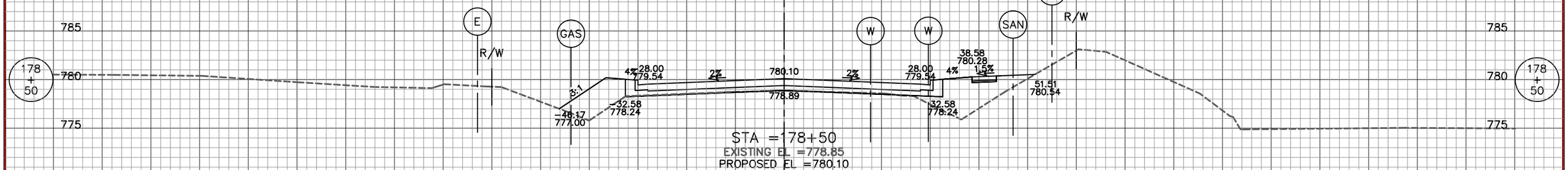
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 641

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

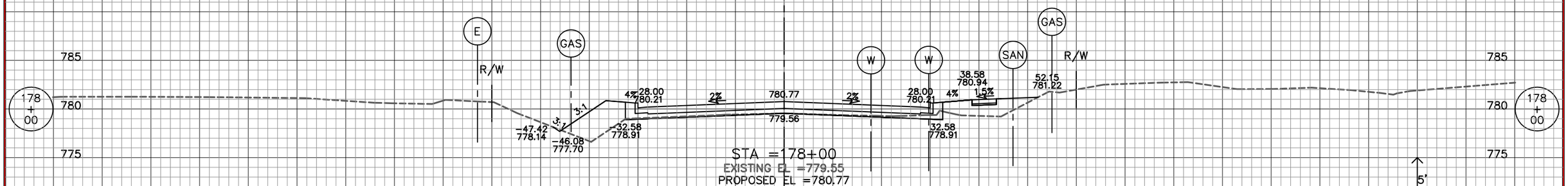
STAGE 3 STAGE 2



STA =179+00
EXISTING EL =778.09
PROPOSED EL =779.38



STA =178+50
EXISTING EL =778.85
PROPOSED EL =780.10



STA =178+00
EXISTING EL =779.55
PROPOSED EL =780.77

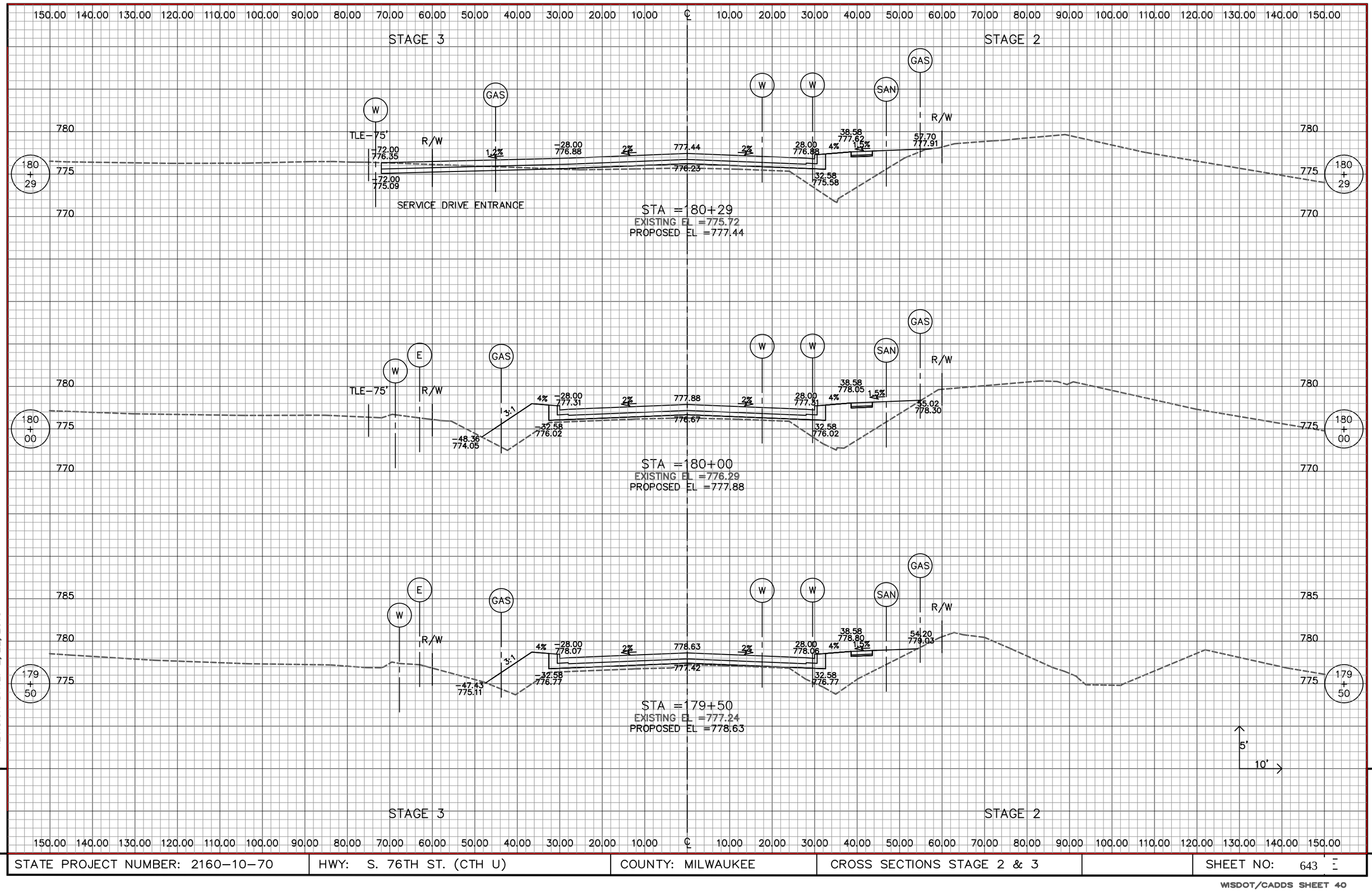
STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/21/2013

9 9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 642



REVISION DATE: 2/22/2013

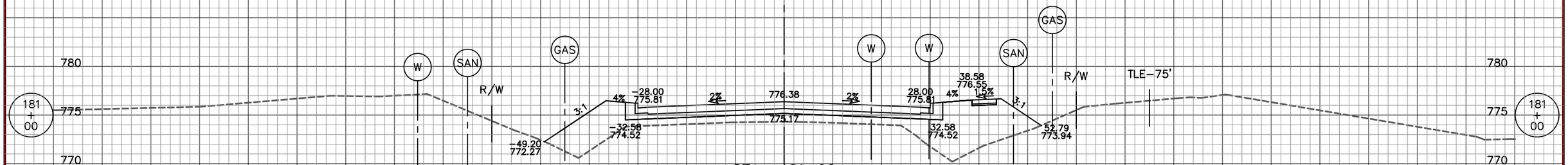
9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 643

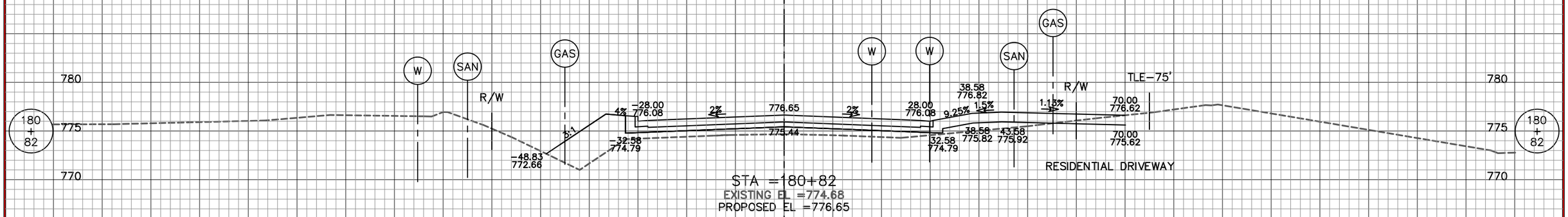
WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

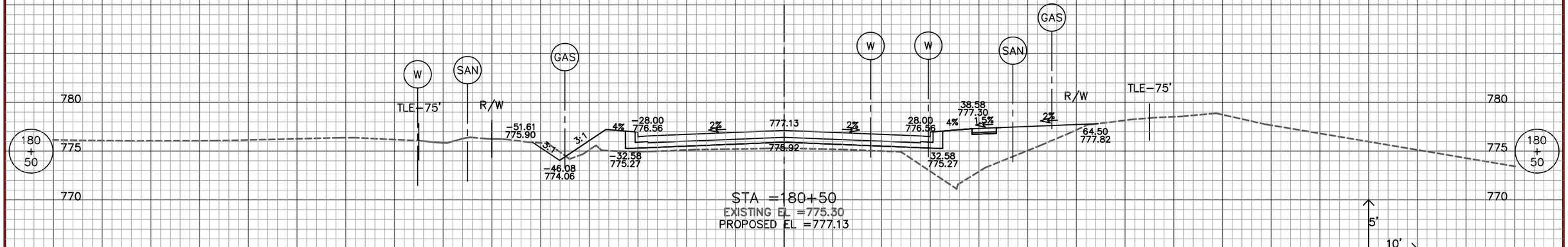
STAGE 3 STAGE 2



STA =181+00
EXISTING EL =774.33
PROPOSED EL =776.38



STA =180+82
EXISTING EL =774.68
PROPOSED EL =776.65
RESIDENTIAL DRIVEWAY



STA =180+50
EXISTING EL =775.30
PROPOSED EL =777.13

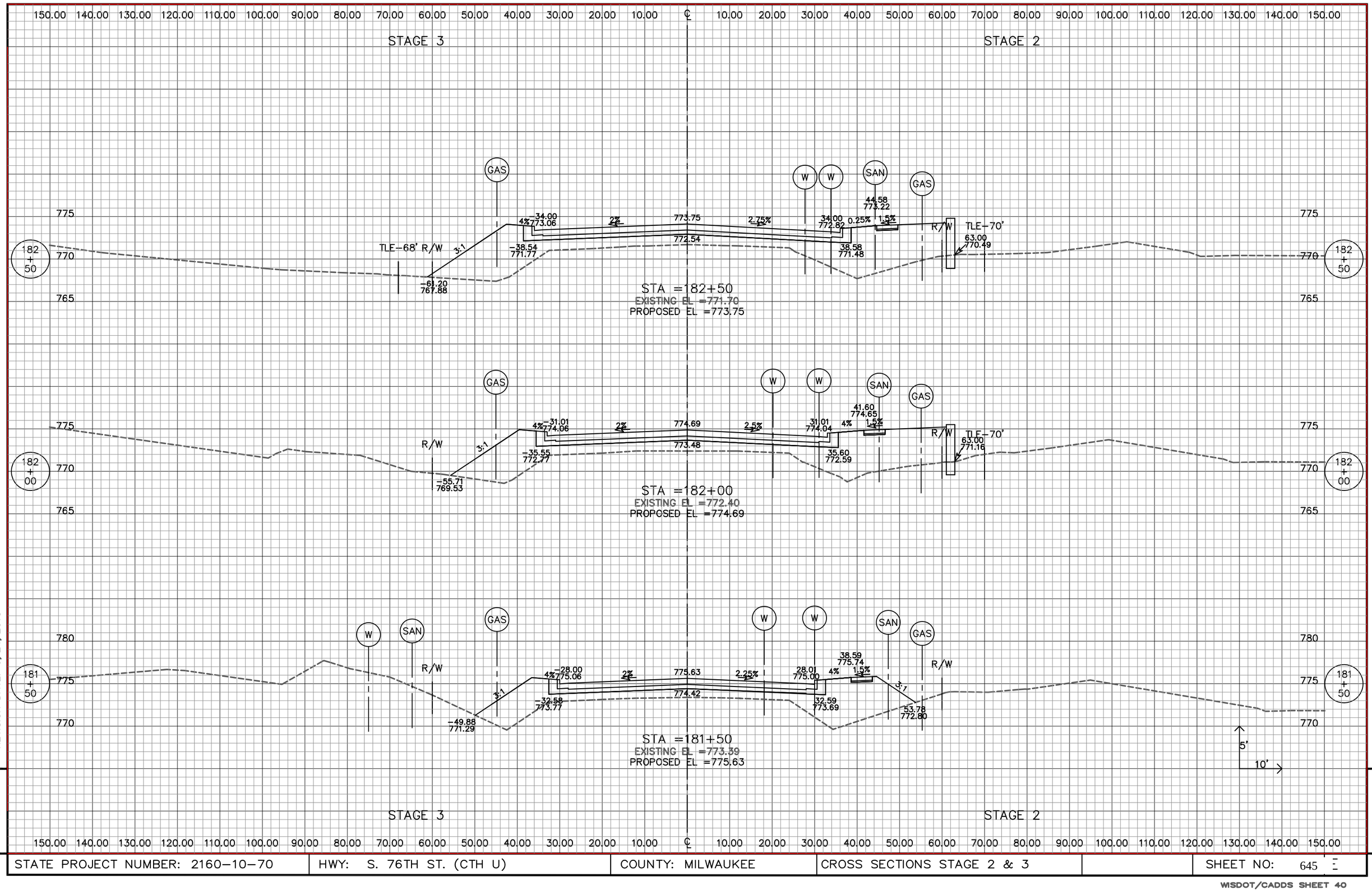
STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/21/2013

9 9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 644



REVISION DATE: 6/24/2013

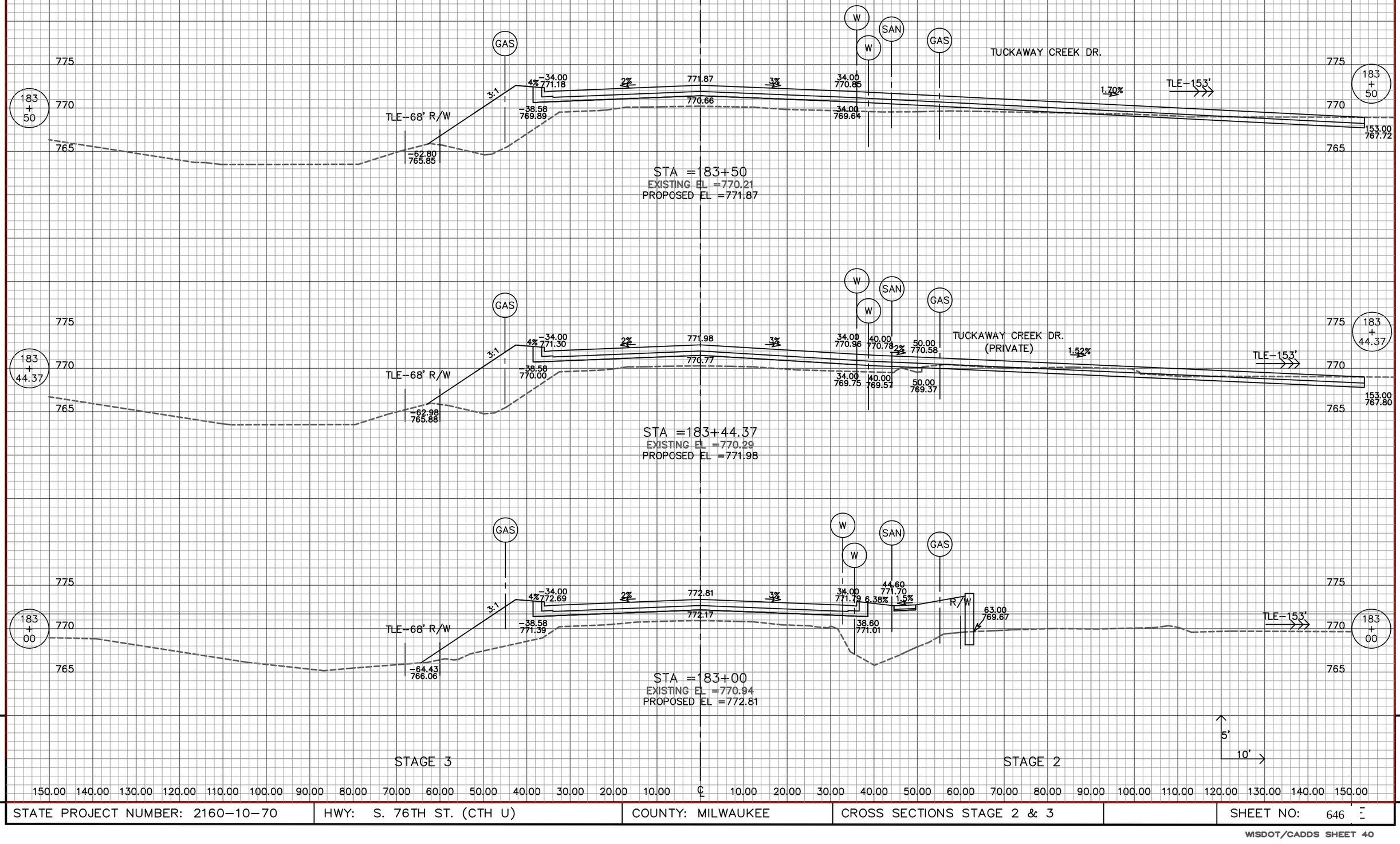
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 645

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3

STAGE 2



STAGE 3

STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/24/2013

9

9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 646

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3

STAGE 2

SEE FOREST HILL AVENUE SHEETS

-140.00
770.29

MATCH AT 275' LT

185 + 00

FOREST HILL AVENUE

1.08%

-34.00
769.14

-34.00
767.93

2%

769.82

768.61

2.25%

34.00
769.06

38.65
767.74

3.2%

1.5%

44.65
769.80

67.90
764.70

TLE-70'

GAS

W

SAN

T

R/W

STA =185+00
EXISTING EL =768.63
PROPOSED EL =769.82

184 + 50

TLE-73'

R/W

3:1

-56.83
764.84

4%

-34.00
769.59

-38.58
768.29

2%

770.27

769.06

2.50%

34.00
769.42

38.64
768.09

4%

1.5%

44.58
770.16

66.29
765.90

EXISTING 43" x 68" CULVERT
SKEW 30° R.H.F.

PROP 43" x 68" CULVERT
SKEW 30° R.H.F.

55' RT (STA 184+60)
761.00

STA =184+50
EXISTING EL =768.98
PROPOSED EL =770.27

184 + 00

EDGE OF WETLAND-70'

EDGE OF WETLAND-41'

TLE-73'

R/W

3:1

-64.57
764.51

761.9+/-

4%

-34.00
770.28

-38.58
768.99

2%

770.97

769.76

2.75%

34.00
770.28

38.62
768.98

5%

1.5%

44.62
770.78

61.00
772.32

63.00
768.97

TLE-70'

EXISTING 43" x 68" CULVERT
SKEW 30° R.H.F.

STA =184+00
EXISTING EL =769.56
PROPOSED EL =770.97

5'
10'

770
765
760

REVISION DATE: 6/24/2013

9

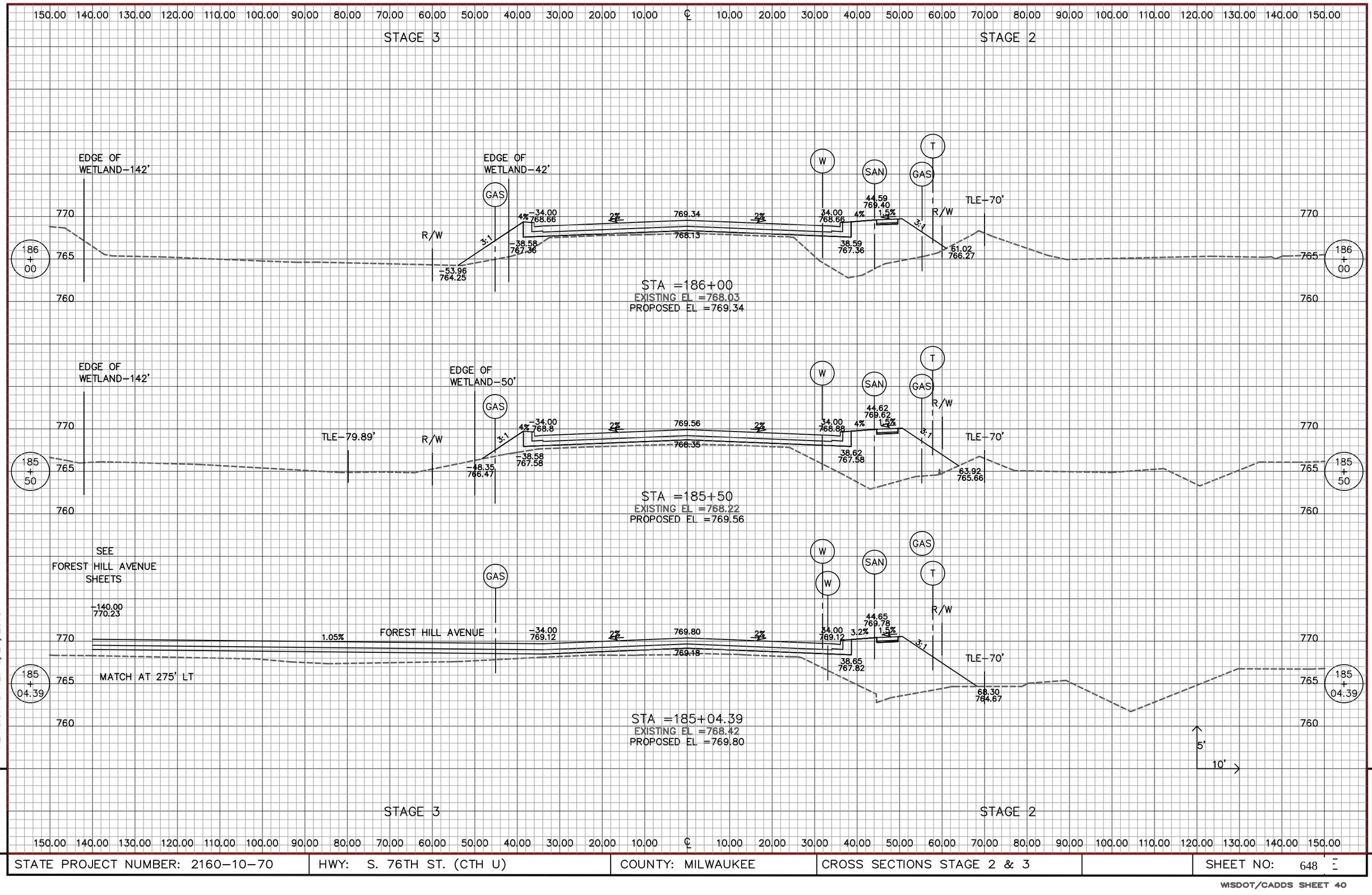
STAGE 3

STAGE 2

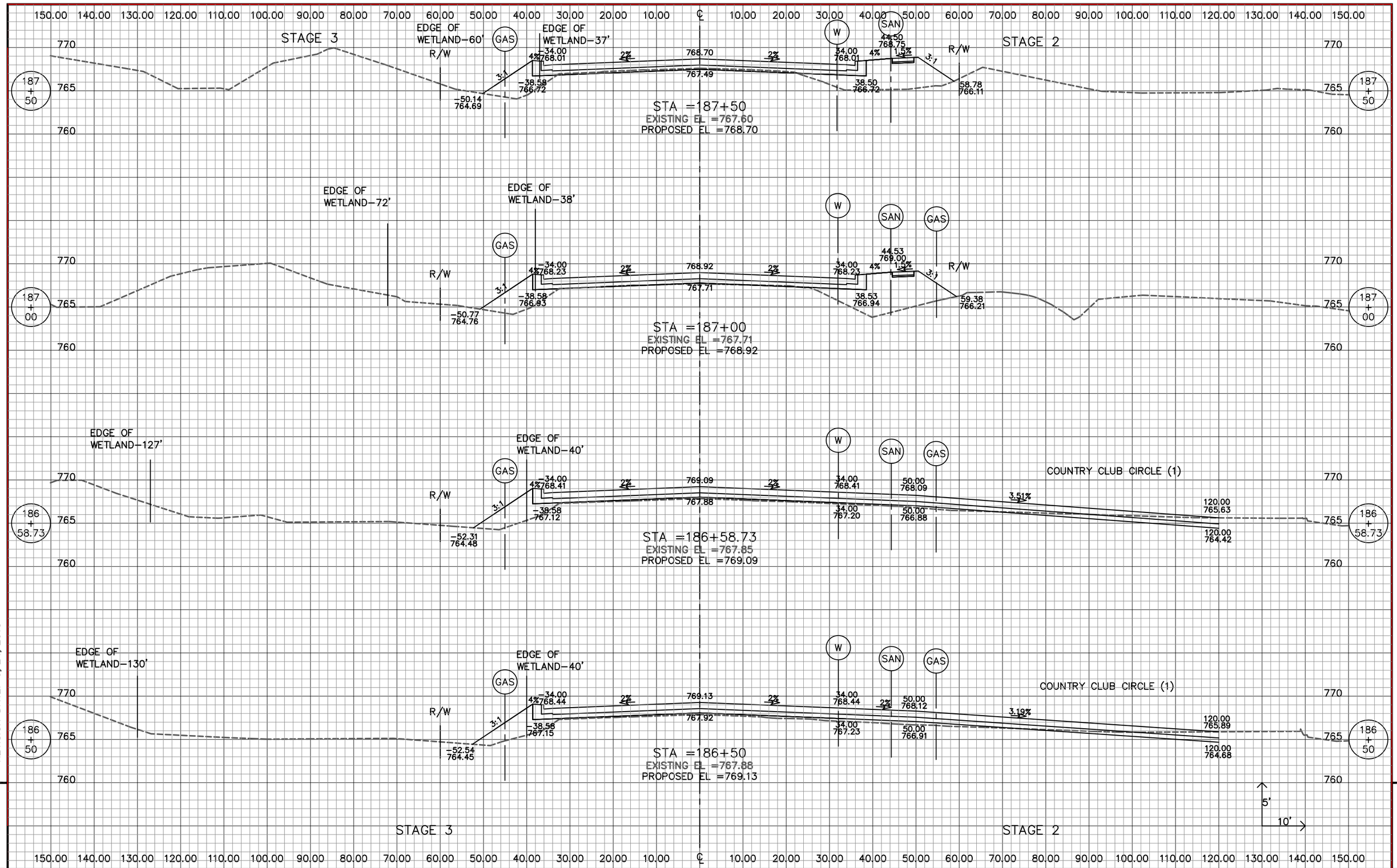
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150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 647



STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 648

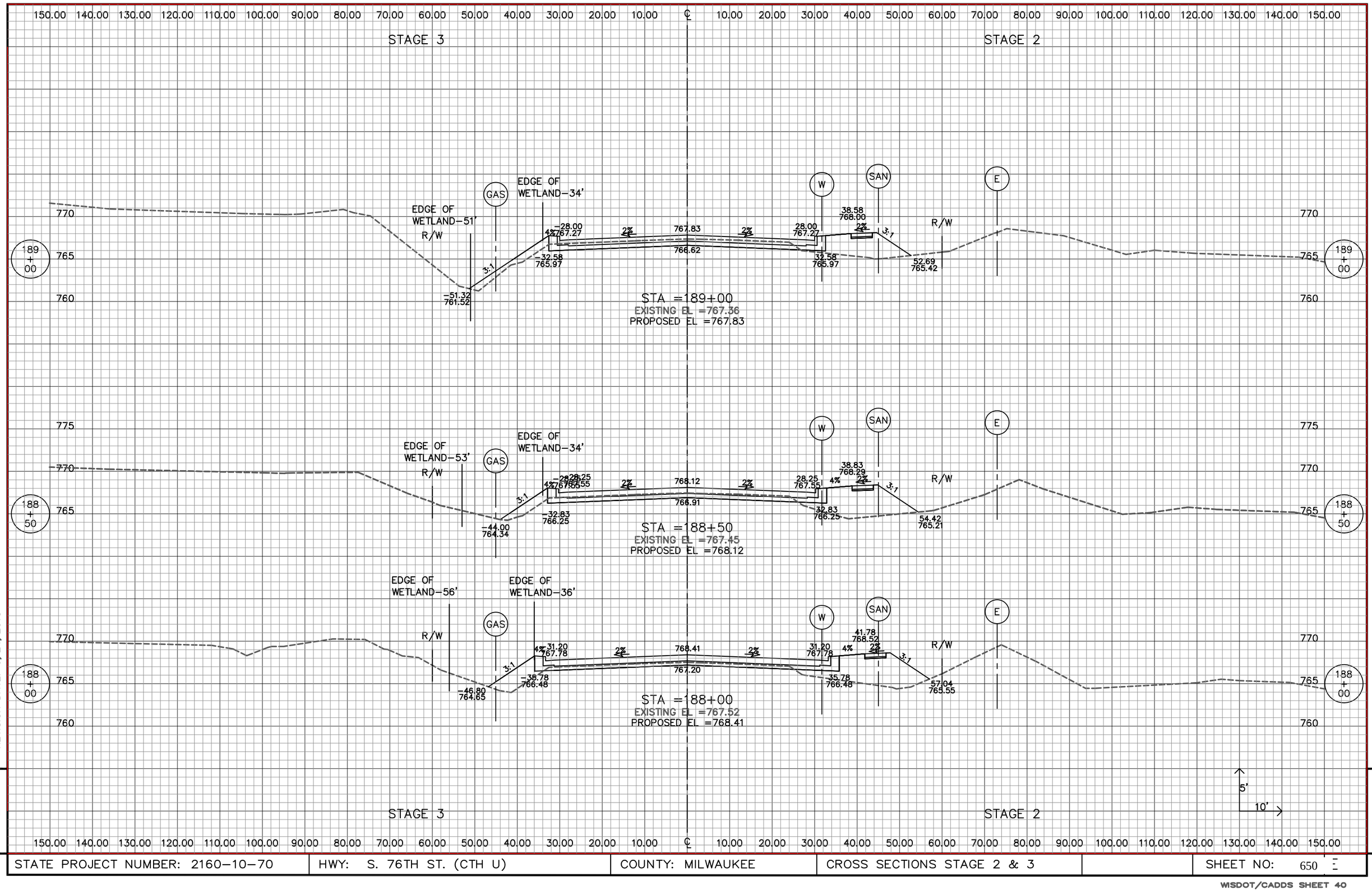


REVISION DATE: 6/24/2013

9 9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 649

WISDOT/CADDS SHEET 40



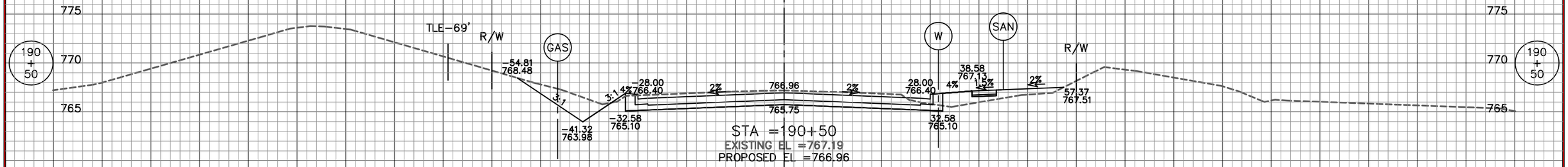
REVISION DATE: 6/24/2013

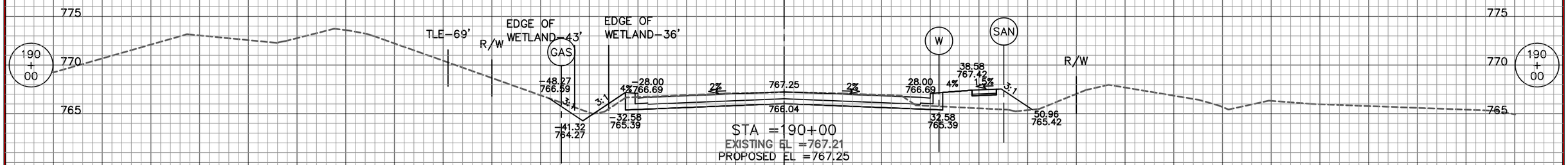
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 650

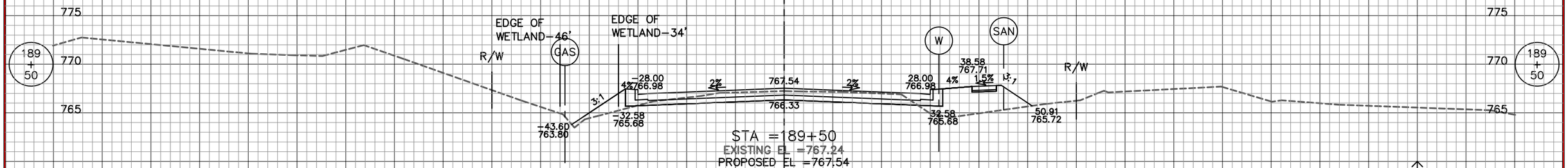
WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2







150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2

REVISION DATE: 6/24/2013

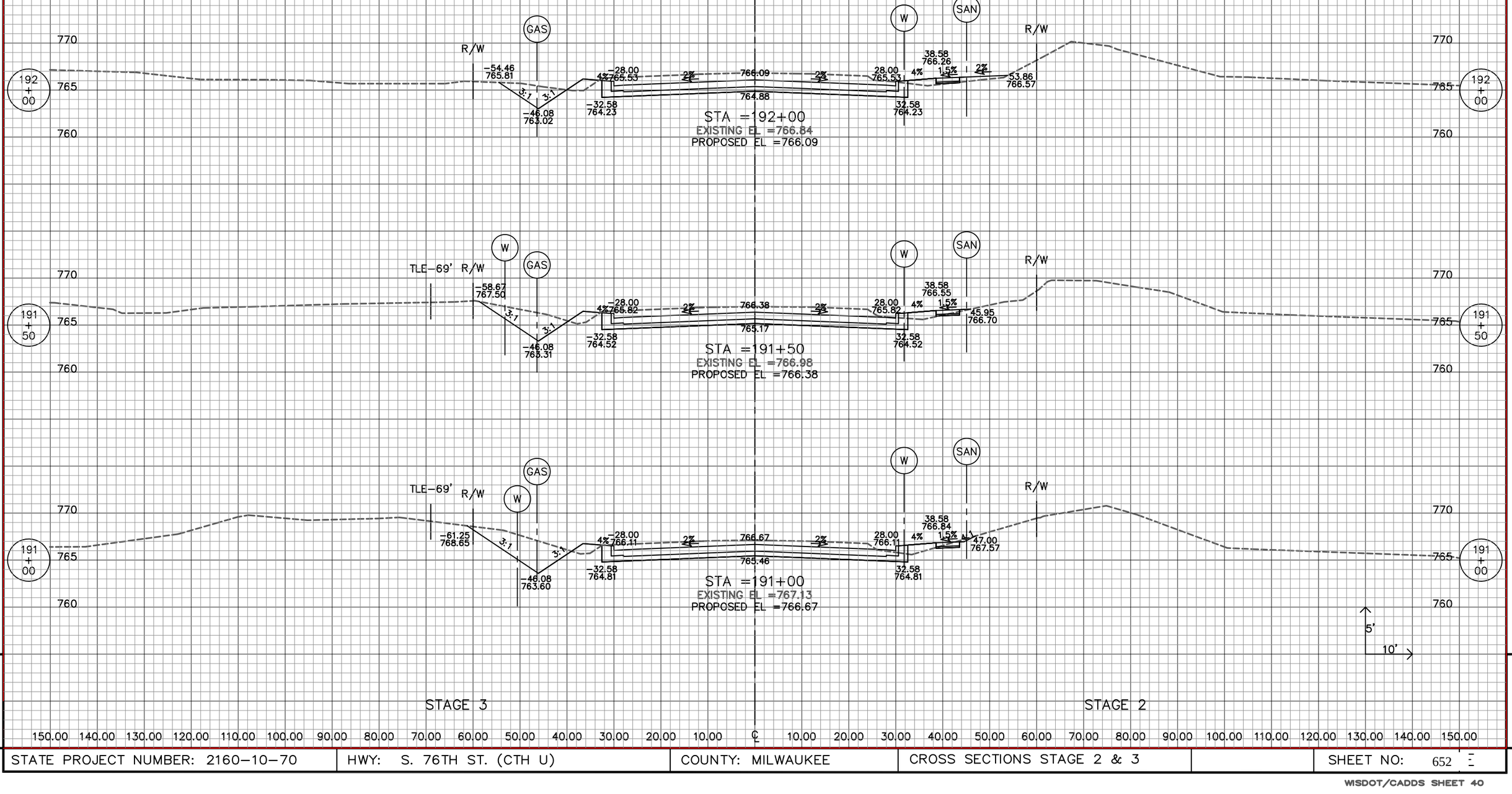
9 9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 651

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2



REVISION DATE: 6/24/2013

9 9

STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 652

STAGE 3

STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

770 765 760

193 + 00

R/W GAS −53.20 764.81 −46.08 762.44 3:1 3:1 −28.00 764.95 4% 2% 765.51 764.30 2% −32.58 763.65 W SAN GAS R/W 28.00 764.95 4% 38.58 765.68 1.5% 48.75 765.83

STA =193+00
EXISTING EL =766.36
PROPOSED EL =765.51

192 + 72

TLE−69' R/W −65.00 766.06 GAS 2.76% −28.00 765.11 2% 765.67 764.46 2% 28.00 765.11 4% W 38.58 765.85 1.5% SAN GAS R/W 53.43 766.07 32.58 765.81

RESIDENTIAL DRIVEWAY

STA =192+72
EXISTING EL =766.53
PROPOSED EL =765.67

192 + 50

R/W GAS −54.71 765.60 3:1 3:1 −46.08 762.73 −28.00 765.24 4% 2% 765.80 764.59 2% −32.58 763.94 W SAN GAS R/W 28.00 765.24 4% 38.58 765.97 1.5% 49.69 766.14 32.58 765.94

STA =192+50
EXISTING EL =766.64
PROPOSED EL =765.80

5' 10'

REVISION DATE: 6/25/2013

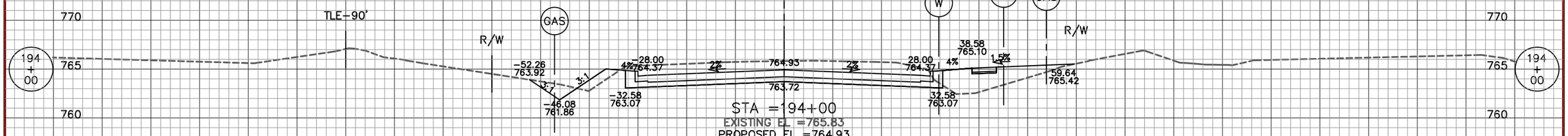
9 9

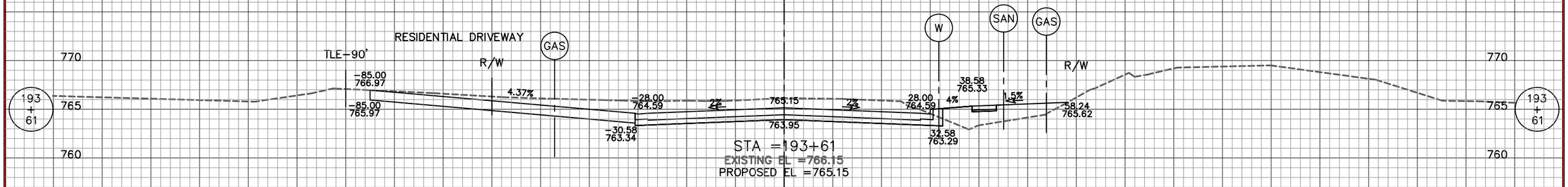
STATE PROJECT NUMBER: 2160−10−70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 653

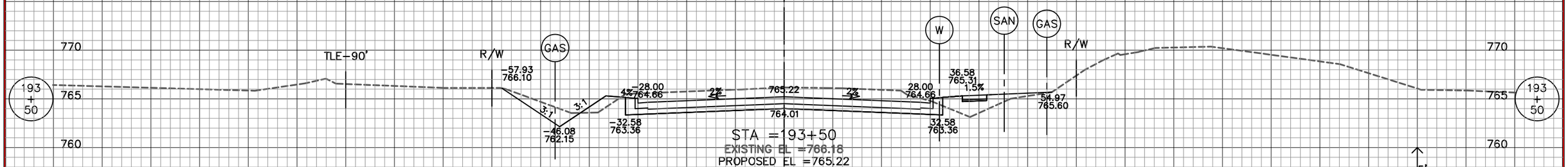
WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2







STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

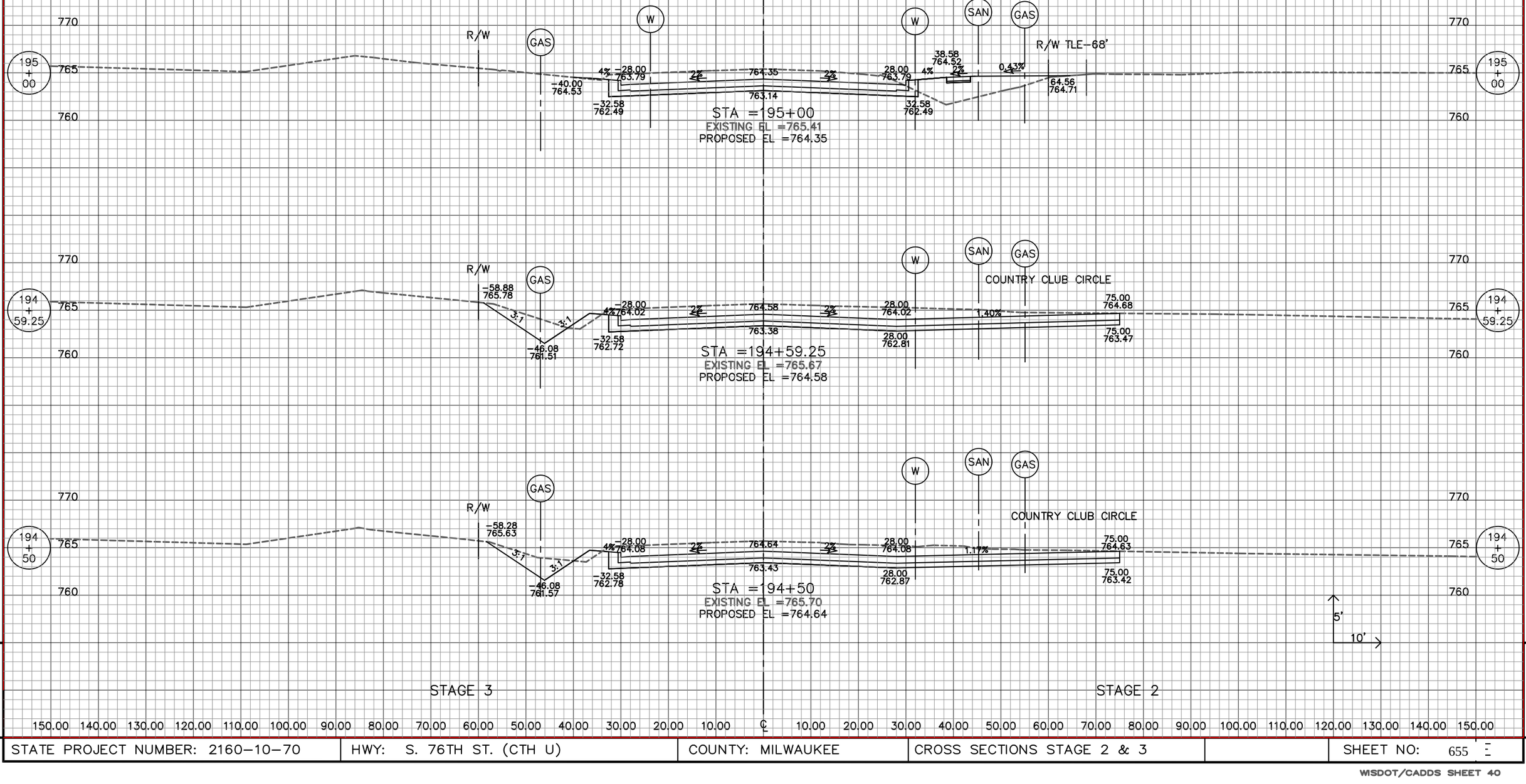
REVISION DATE: 6/24/2013

9 9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 654

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2



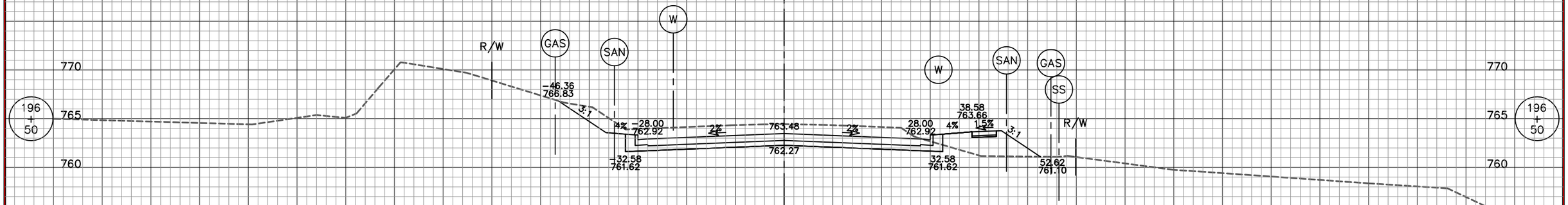
REVISION DATE: 2/22/2013

9 9

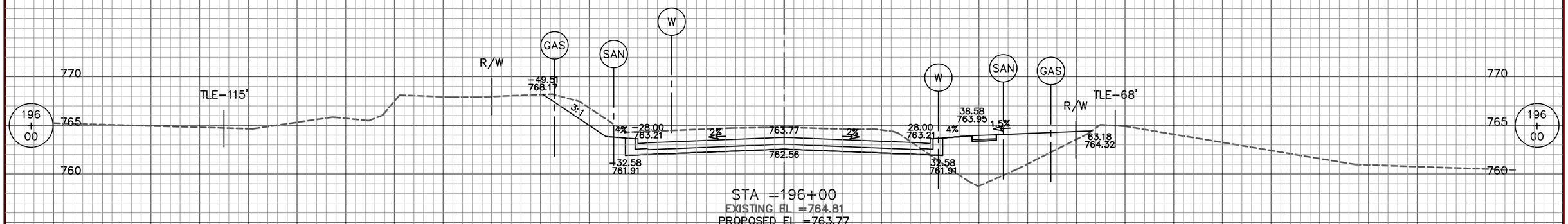
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 655

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

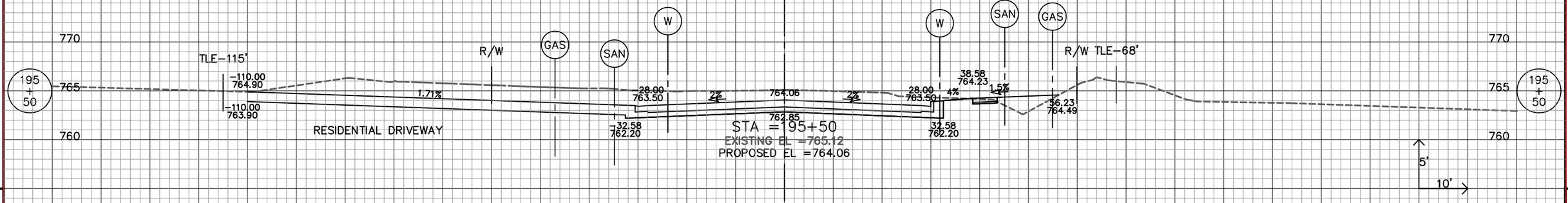
STAGE 3 STAGE 2



STA =196+50
EXISTING EL =764.45
PROPOSED EL =763.48



STA =196+00
EXISTING EL =764.81
PROPOSED EL =763.77



STA =195+50
EXISTING EL =765.12
PROPOSED EL =764.06

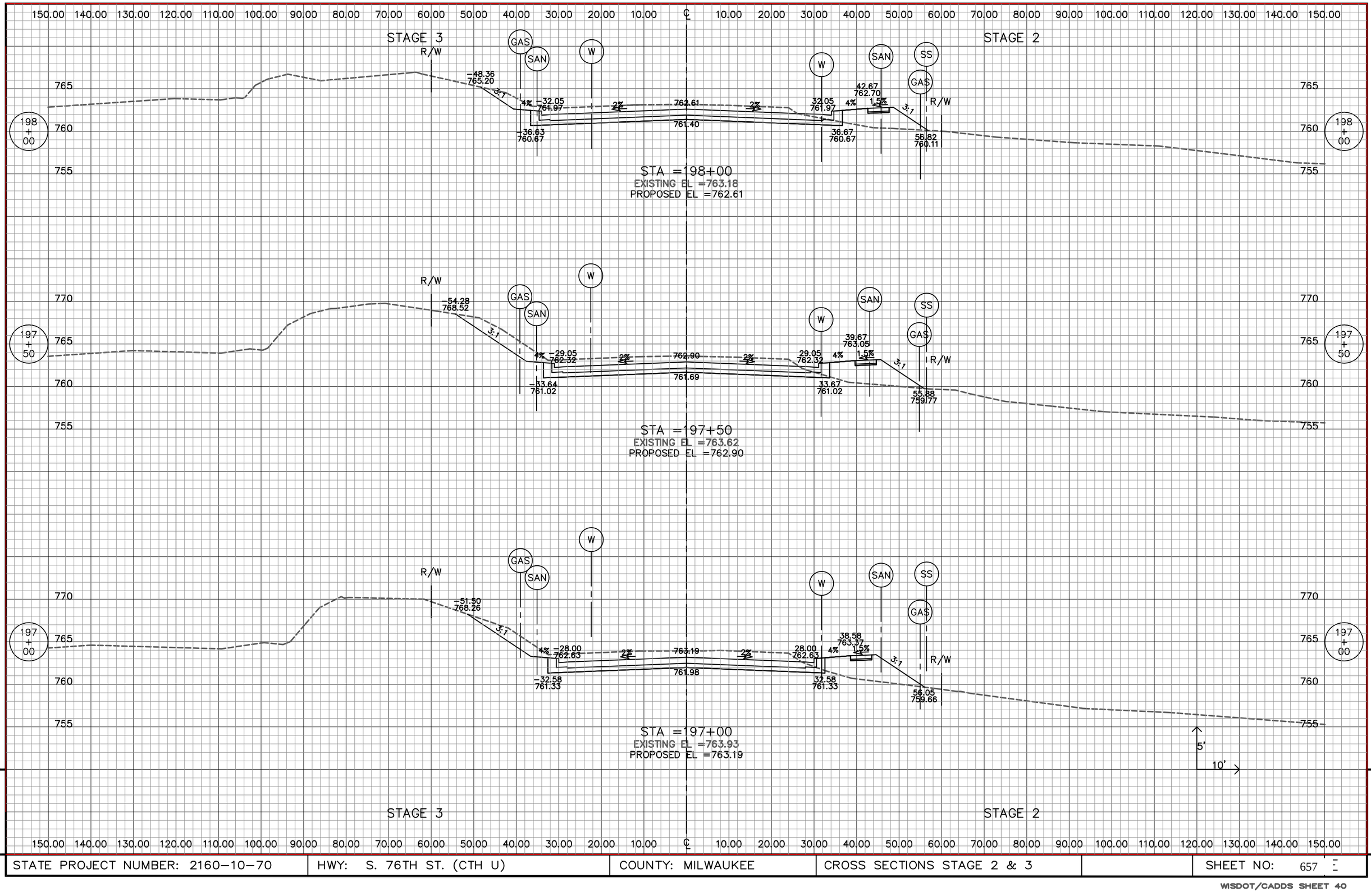
STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/24/2013

9 9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 656



REVISION DATE: 6/25/2013

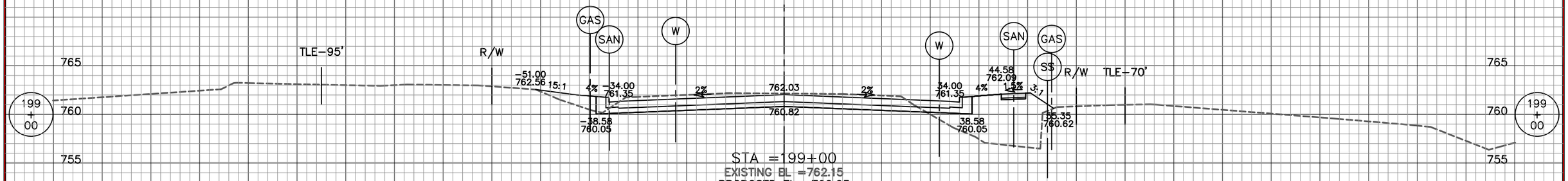
9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 657

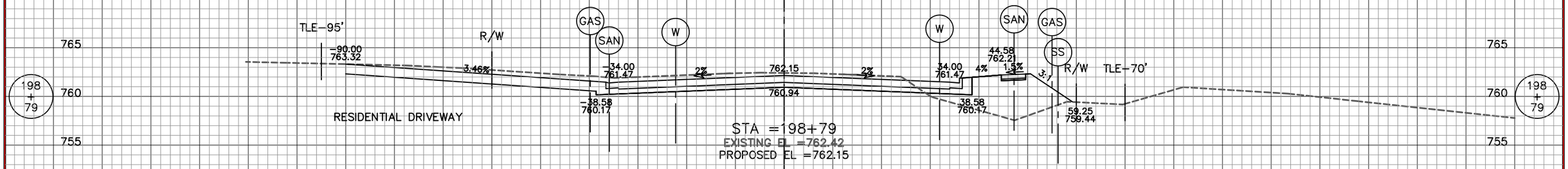
WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

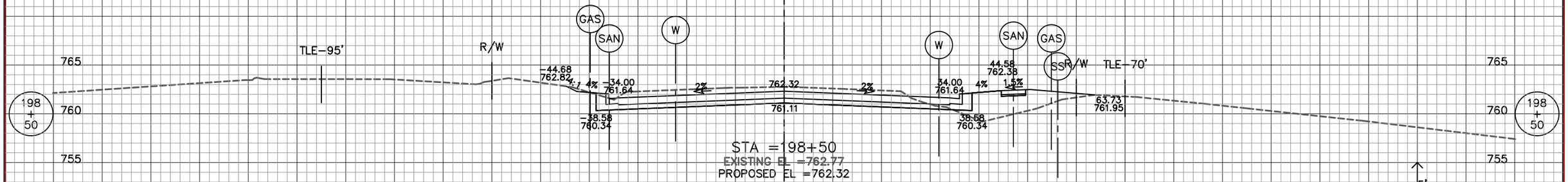
STAGE 3 STAGE 2



STA =199+00
EXISTING EL =762.15
PROPOSED EL =762.03



STA =198+79
EXISTING EL =762.42
PROPOSED EL =762.15



STA =198+50
EXISTING EL =762.77
PROPOSED EL =762.32

STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

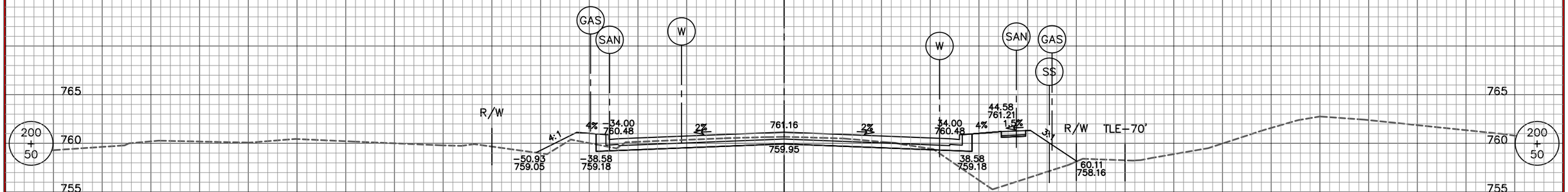
REVISION DATE: 6/25/2013

9 9

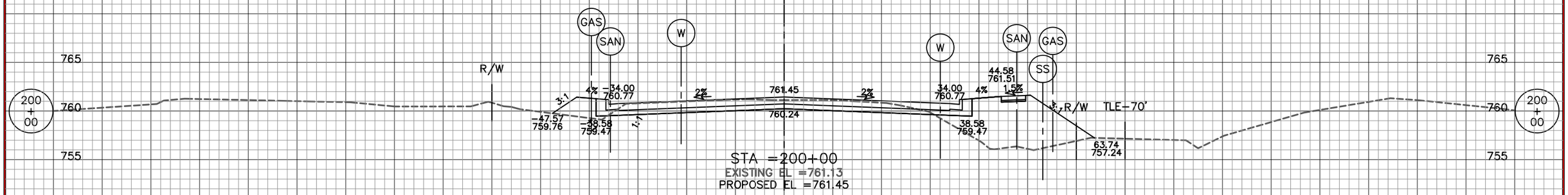
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 658

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

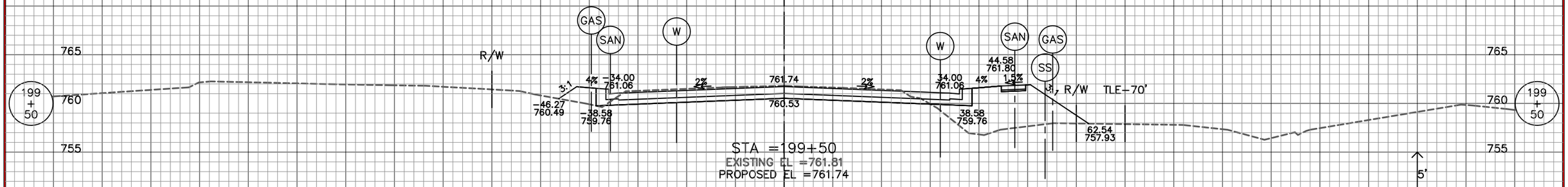
STAGE 3 STAGE 2



STA =200+50
EXISTING EL =760.67
PROPOSED EL =761.16



STA =200+00
EXISTING EL =761.13
PROPOSED EL =761.45



STA =199+50
EXISTING EL =761.81
PROPOSED EL =761.74

STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

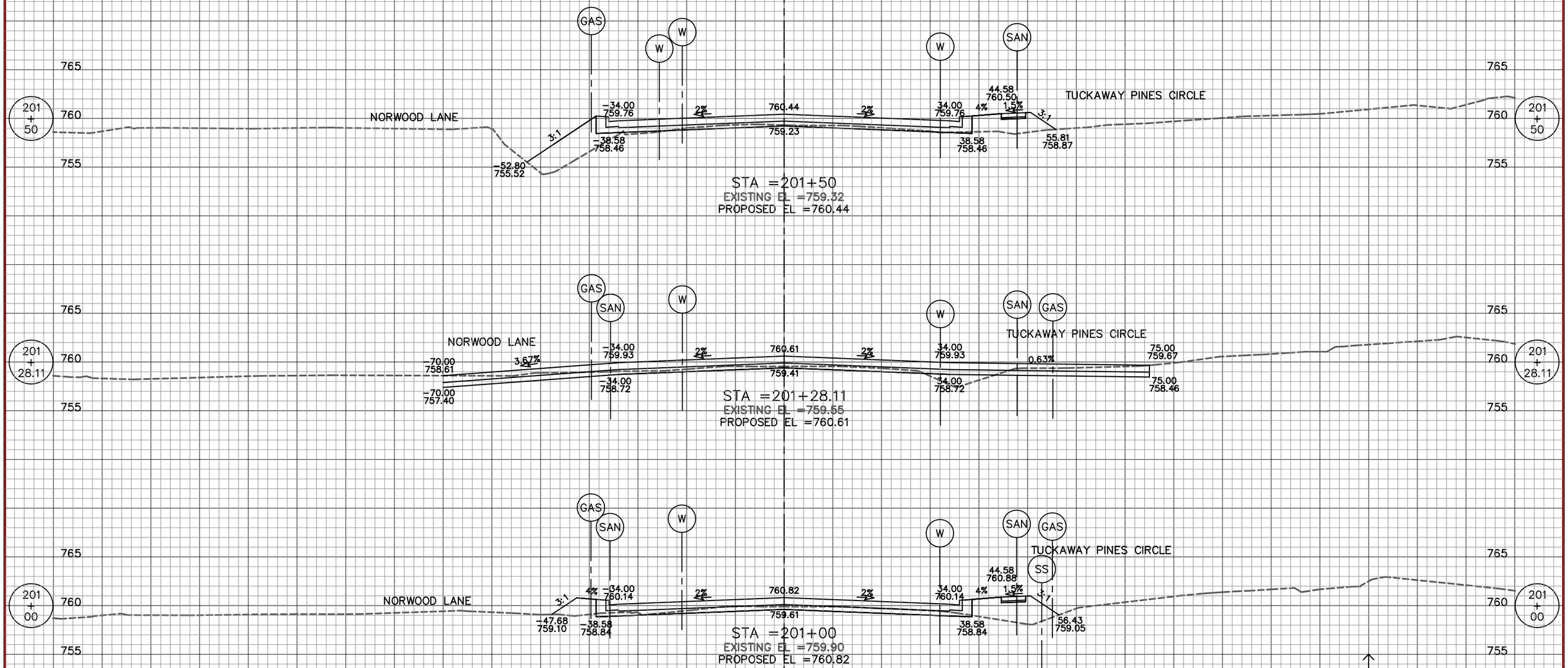
REVISION DATE: 6/25/2013

9 9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 659

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2



REVISION DATE: 6/25/2013

9 9

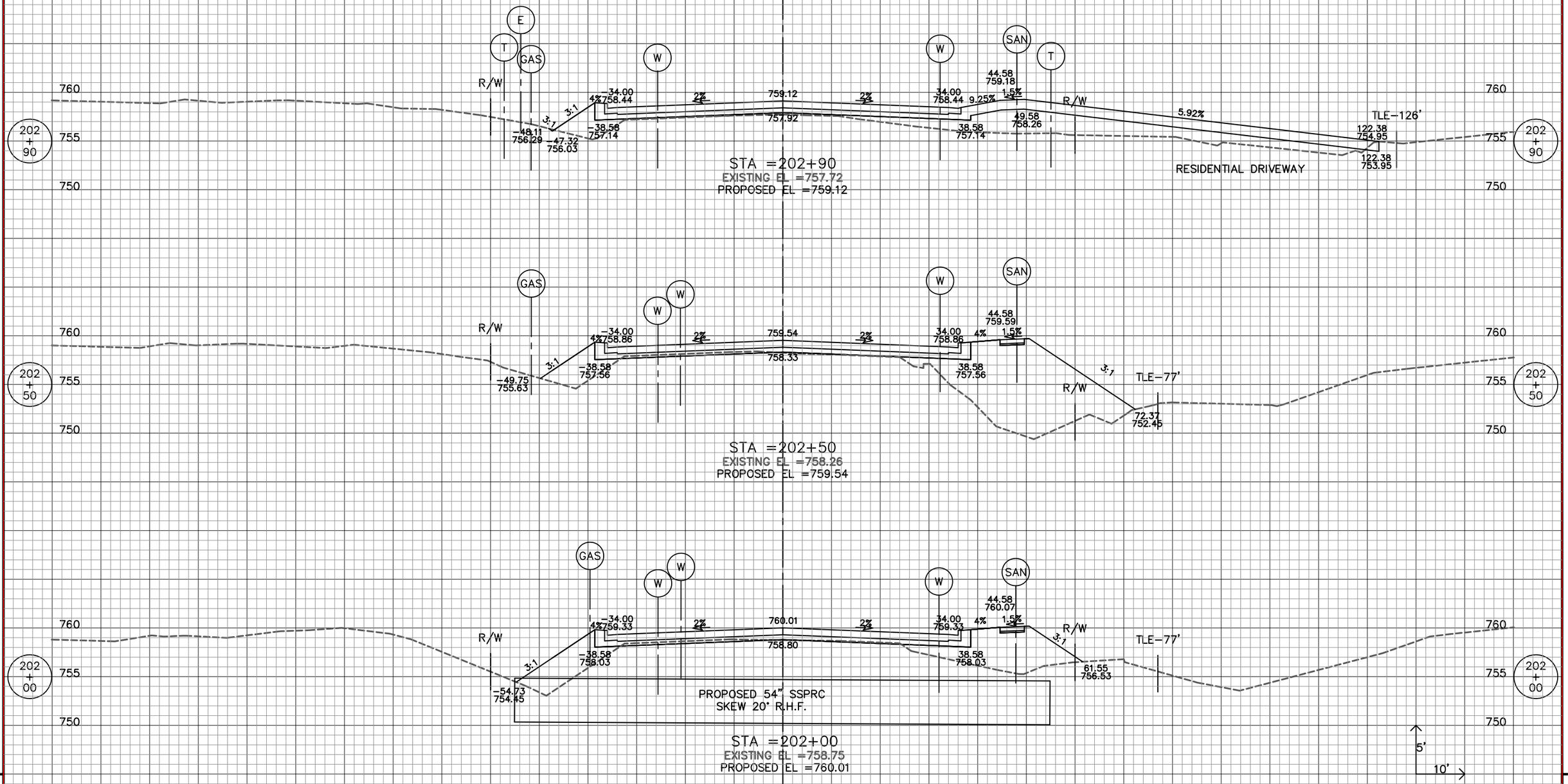
STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 660

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2



760 755 750

202 + 90

STA =202+90
EXISTING EL =757.72
PROPOSED EL =759.12

202 + 50

STA =202+50
EXISTING EL =758.26
PROPOSED EL =759.54

202 + 00

STA =202+00
EXISTING EL =758.75
PROPOSED EL =760.01

REVISION DATE: 6/25/2013

9

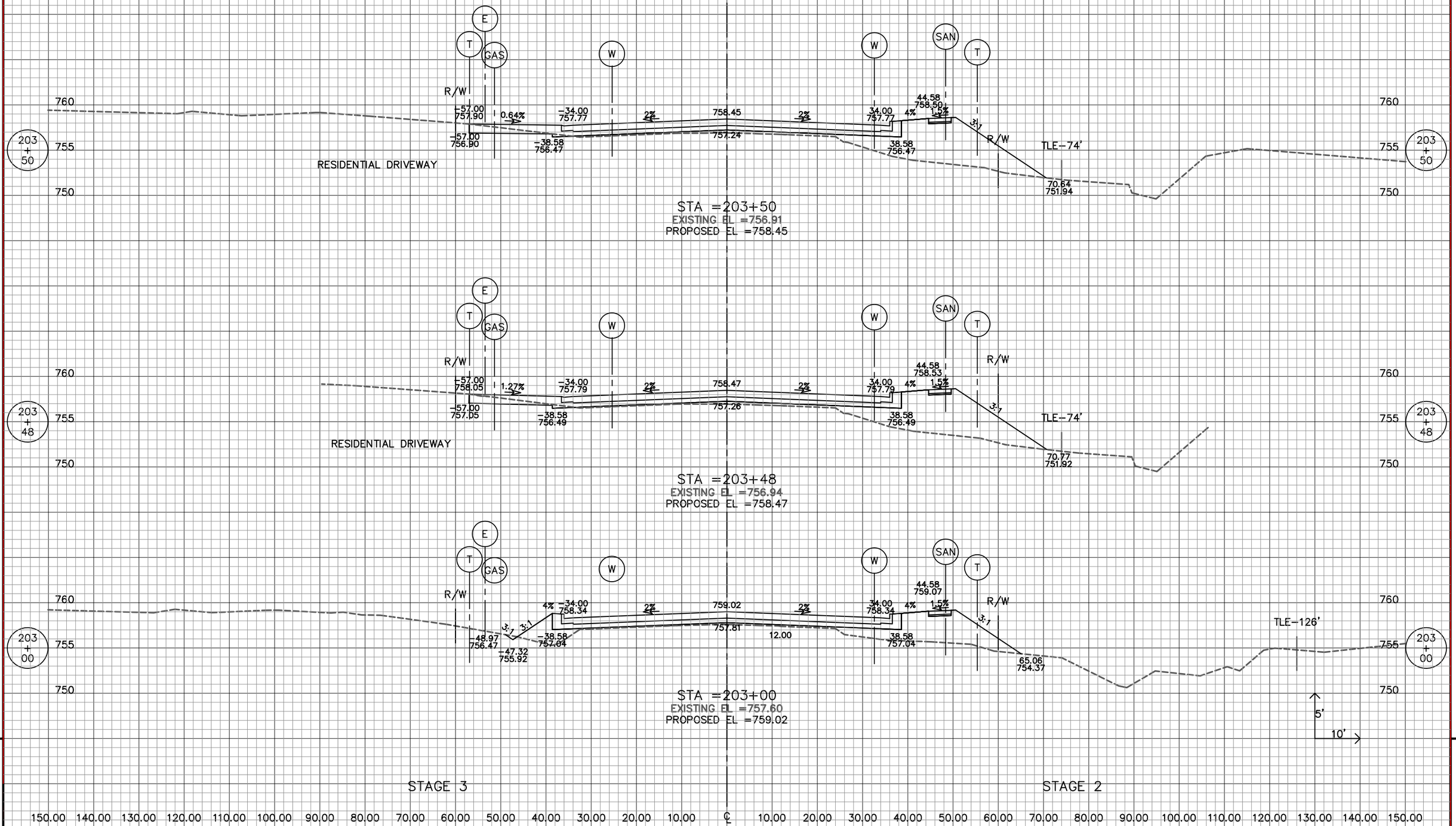
STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 661

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2



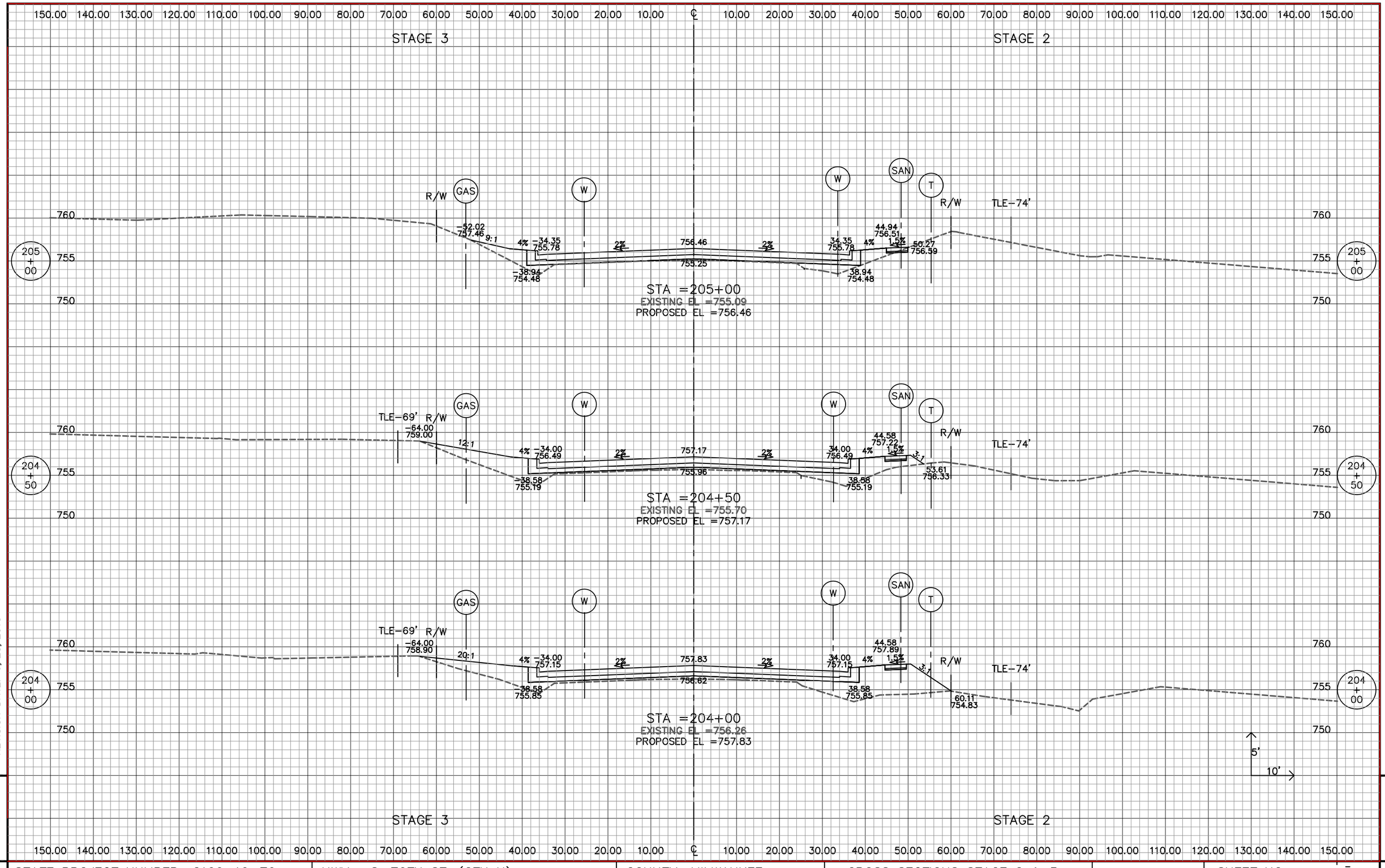
REVISION DATE: 6/25/2013

9 9

STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

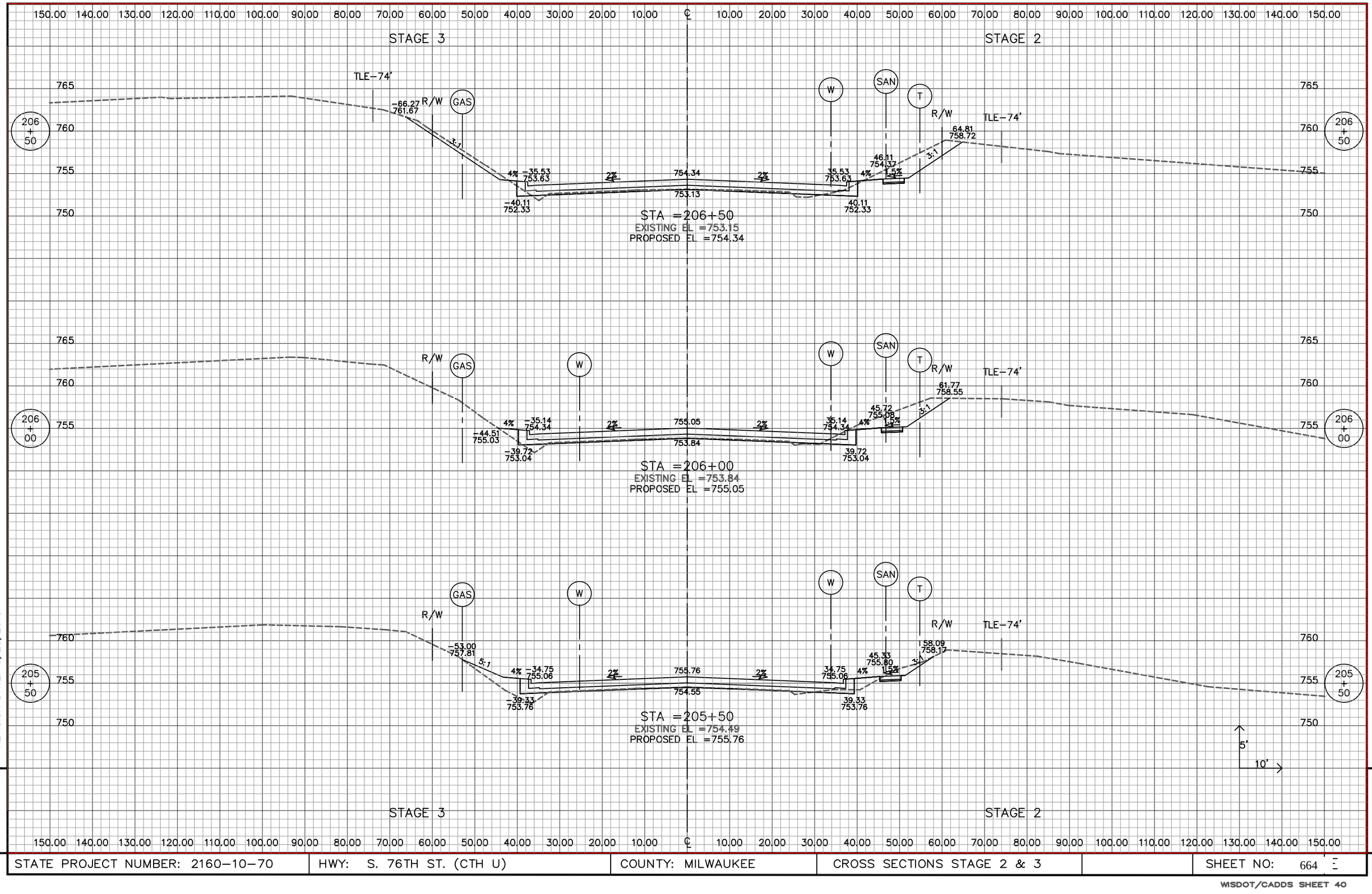
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 662



REVISION DATE: 6/25/2013

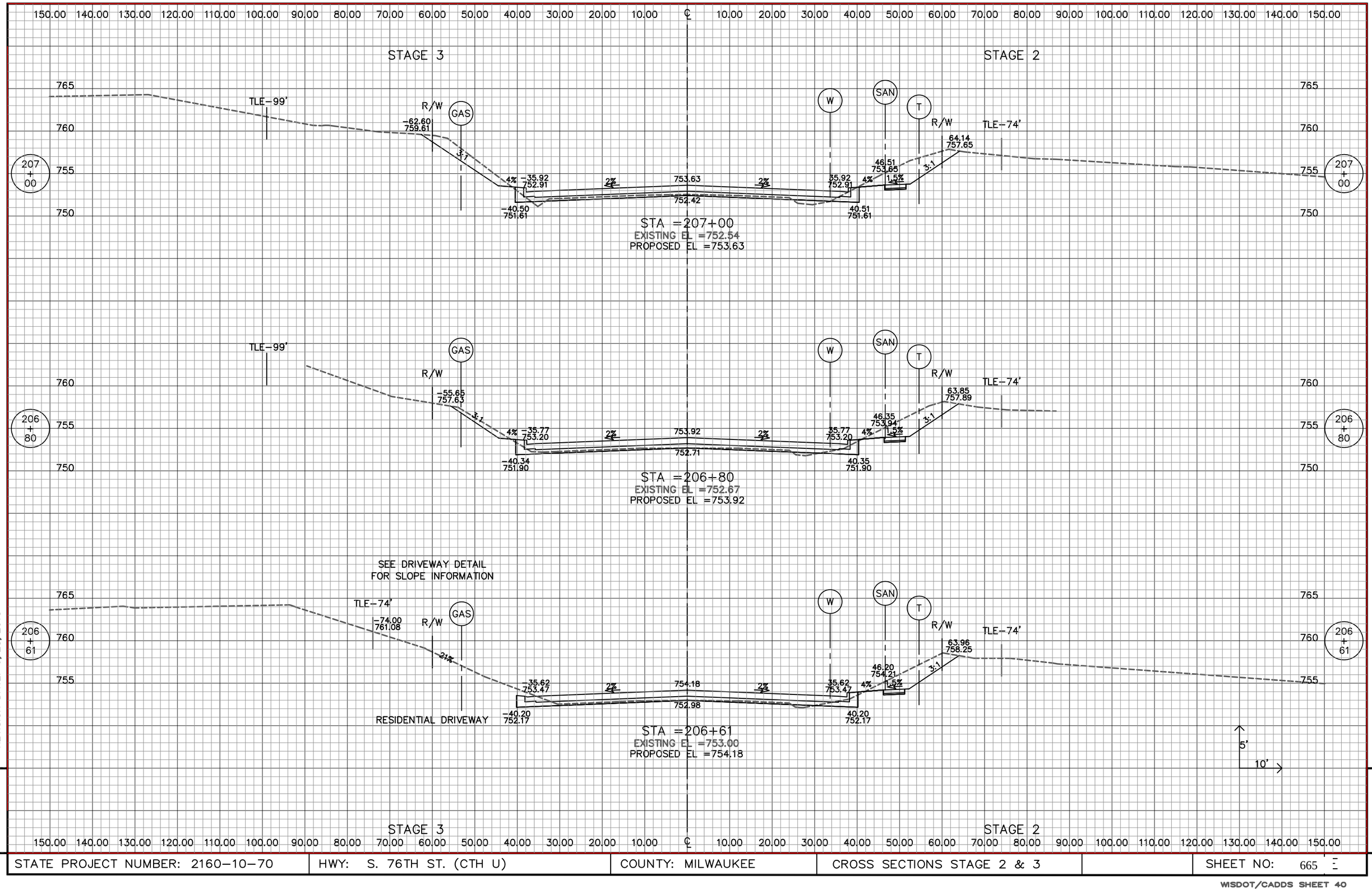
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 663

WISDOT/CADDS SHEET 40



REVISION DATE: 6/25/2013

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 664



REVISION DATE: 6/25/2013

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 665

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3

STAGE 2

760
755
750

208 + 50

R/W
GAS
W
SAN
T
TLE–74'

4% –37.00 750.77
–44.10 751.37
–41.58 749.47
2%
751.51
750.30
2%
37.00 750.77
41.58 749.47
4%
47.58 751.51
1.5%
3:1
65.07 755.46

STA =208+50
EXISTING EL =750.67
PROPOSED EL =751.51

208 + 00

TLE–74'
R/W
GAS
–62.42 757.85
3:1
4% –36.70 751.48
–41.28 750.18
2%
752.22
751.01
2%
36.70 751.48
41.29 750.18
4%
47.29 752.22
1.5%
3:1
69.45 757.73

STA =208+00
EXISTING EL =751.29
PROPOSED EL =752.22

207 + 50

TLE–74'
R/W
GAS
–66.86 760.18
3:1
4% –36.31 752.20
–40.89 750.90
2%
752.93
751.72
2%
36.31 752.20
40.90 750.90
4%
46.90 752.94
1.5%
3:1
66.84 757.70

STA =207+50
EXISTING EL =751.76
PROPOSED EL =752.93

5'
10'

REVISION DATE: 6/25/2013

9

STAGE 3

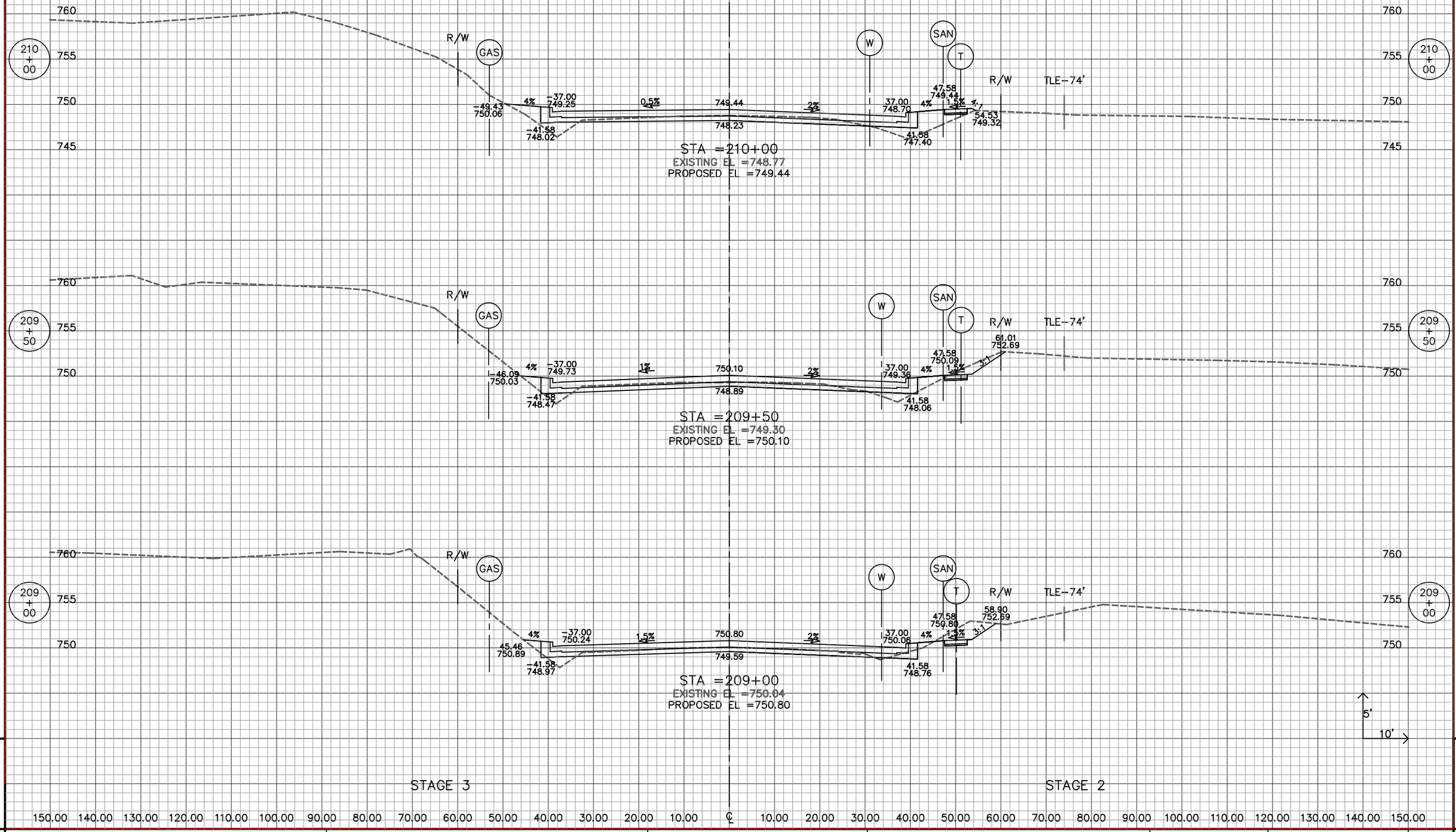
STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 666

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2



STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/25/2013

9 9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 667

STAGE 3

DREXEL AVENUE

SAN GAS

1.10% 0.83% 0.90% 1.00% 1.11% 1.30% 1.47% 1.60% 1.90% 1.90% 2.00% 2.20% 2.25%

-100.00 747.99 | -70.00 747.66 | -55.00 747.53 | -45.00 747.44 | -35.00 747.34 | -25.00 747.23 | -15.00 747.10 | 746.88 | 15.00 746.64 | 25.00 746.45 | 35.00 746.26 | 45.00 746.06 | 55.00 745.84 | 100.00 744.63

STA =211+50
EXISTING EL =747.12
PROPOSED EL =748.09

STAGE 2

DREXEL AVENUE

211 + 50

750 745 740

DREXEL AVENUE

SAN GAS

1.10% 0.83% 0.90% 1.00% 1.11% 1.30% 1.47% 1.60% 1.90% 1.90% 2.00% 2.20% 2.25%

W SAN

-100.00 748.00 | -70.00 747.67 | -55.00 747.54 | -45.00 747.45 | -35.00 747.35 | -25.00 747.24 | -15.00 747.11 | 746.89 | 15.00 746.65 | 25.00 746.46 | 35.00 746.27 | 45.00 746.07 | 55.00 745.85 | 100.00 744.64

STA =211+48.80
EXISTING EL =747.11
PROPOSED EL =748.10

DREXEL AVENUE

211 + 48.80

750 745 740

DREXEL AVENUE

GAS

3:1 4% -37.00 748.62 | -41.57 747.44 | -57.13 745.43

0.50% 748.43 | 747.23

2% 37.00 747.69 4% 1.5% 3:1 47.59 748.43 | 41.59 746.39 | 69.37 743.29

W SAN

STA =211+00
EXISTING EL =747.61
PROPOSED EL =748.43

DREXEL AVENUE

211 + 00

750 745 740

GAS

R/W -55.61 749.94 | -41.58 747.68

4% -37.00 748.89

0% 748.89 | 747.68

2% 37.00 748.15 4% 1.5% 3:1 47.58 748.88 | 41.58 746.85 | 61.46 746.38

W SAN T

R/W TLE-74'

STA =210+50
EXISTING EL =748.15
PROPOSED EL =748.89

210 + 50

755 750 745

5' 10'

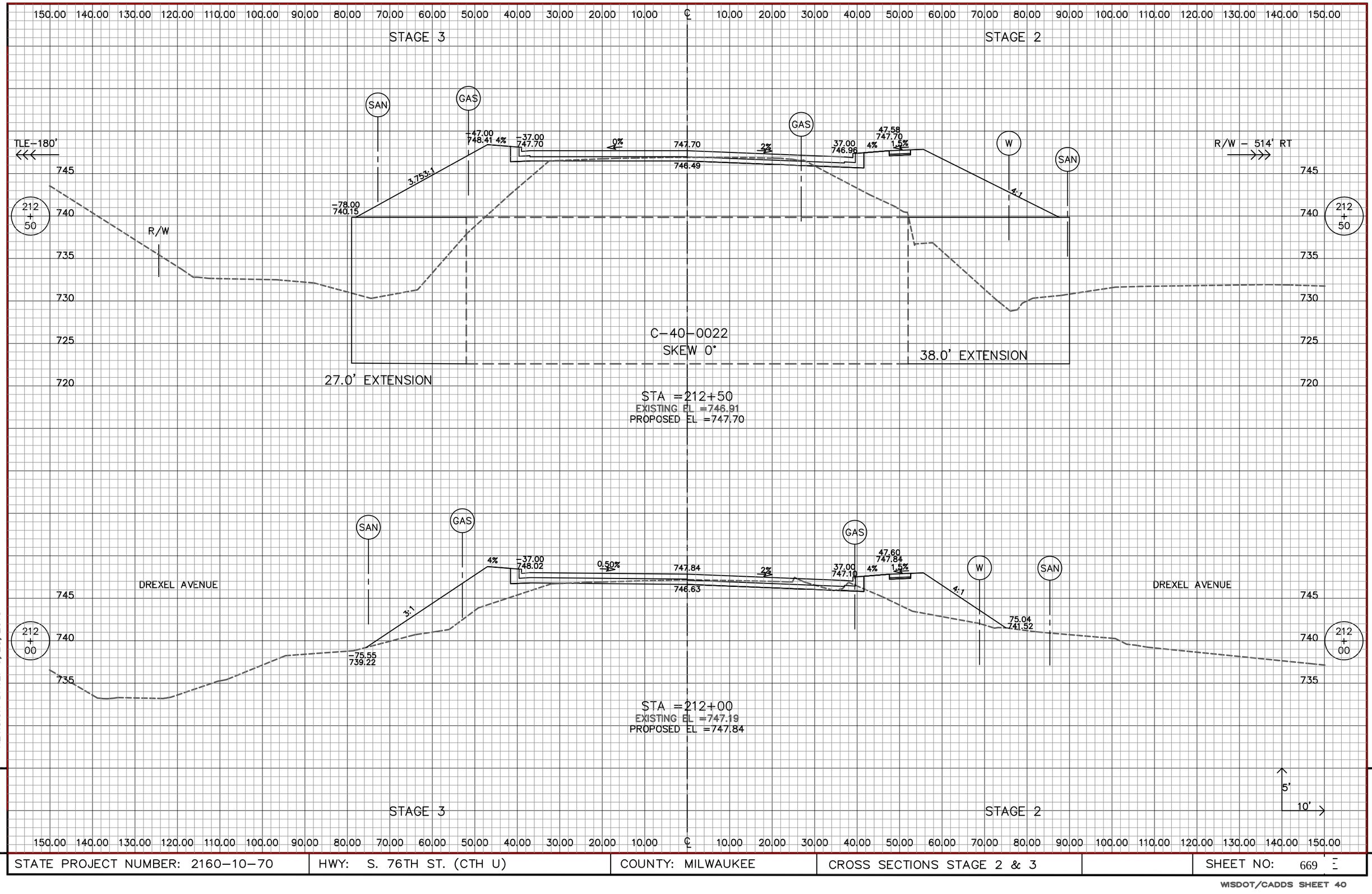
STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/25/2013

9 9

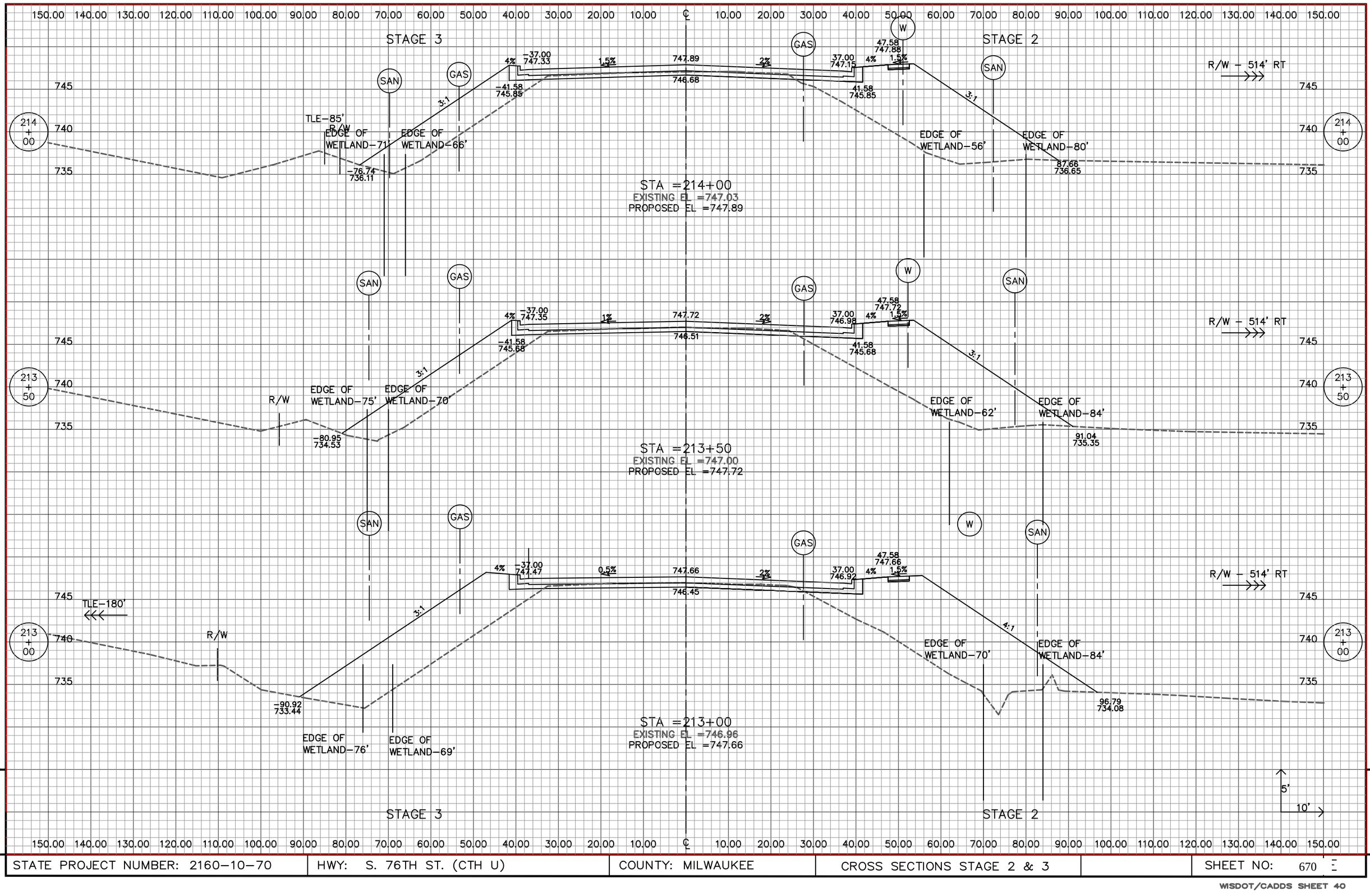
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 668



REVISION DATE: 6/25/2013

9 9

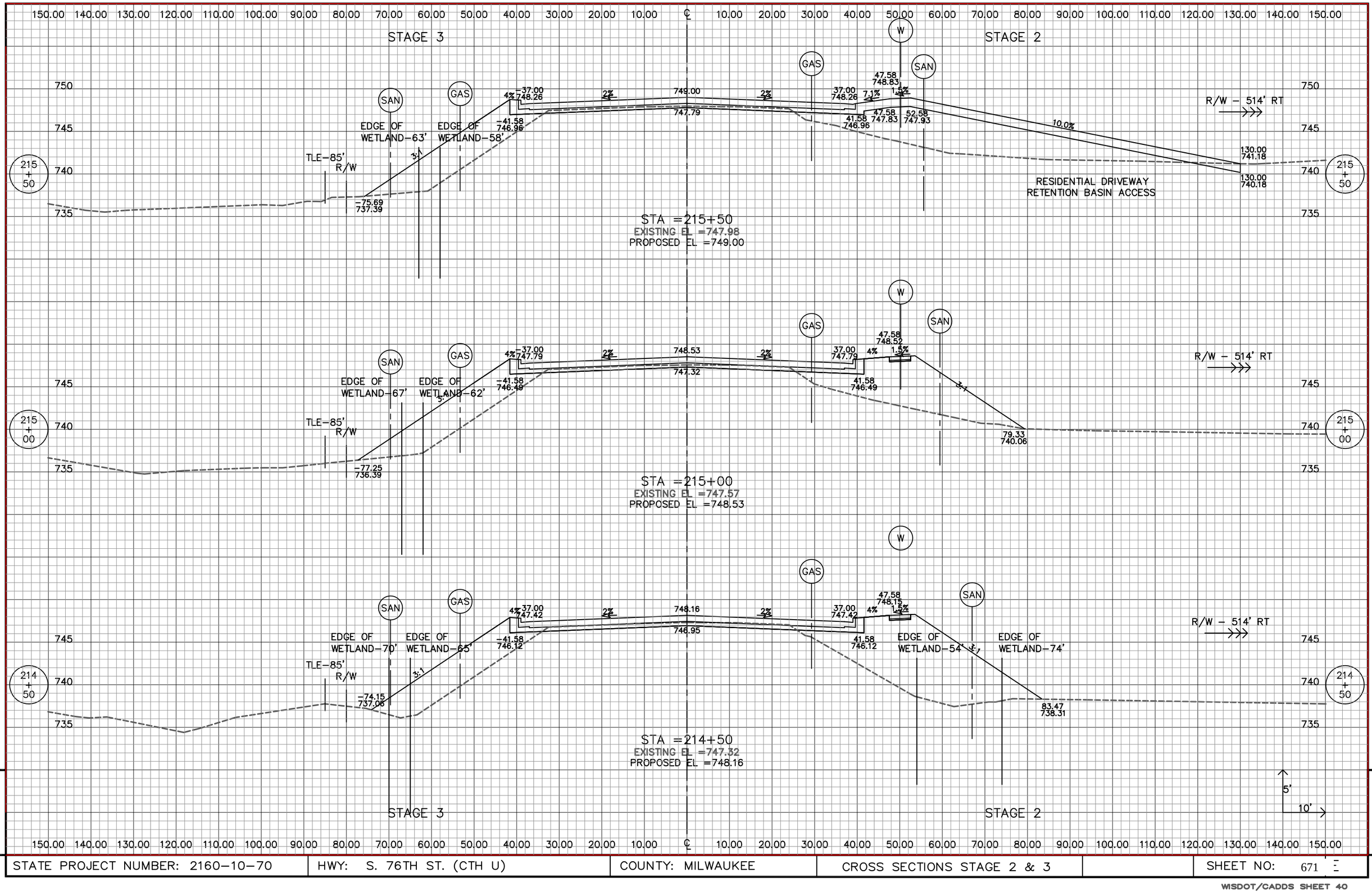
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 669



REVISION DATE: 6/25/2013

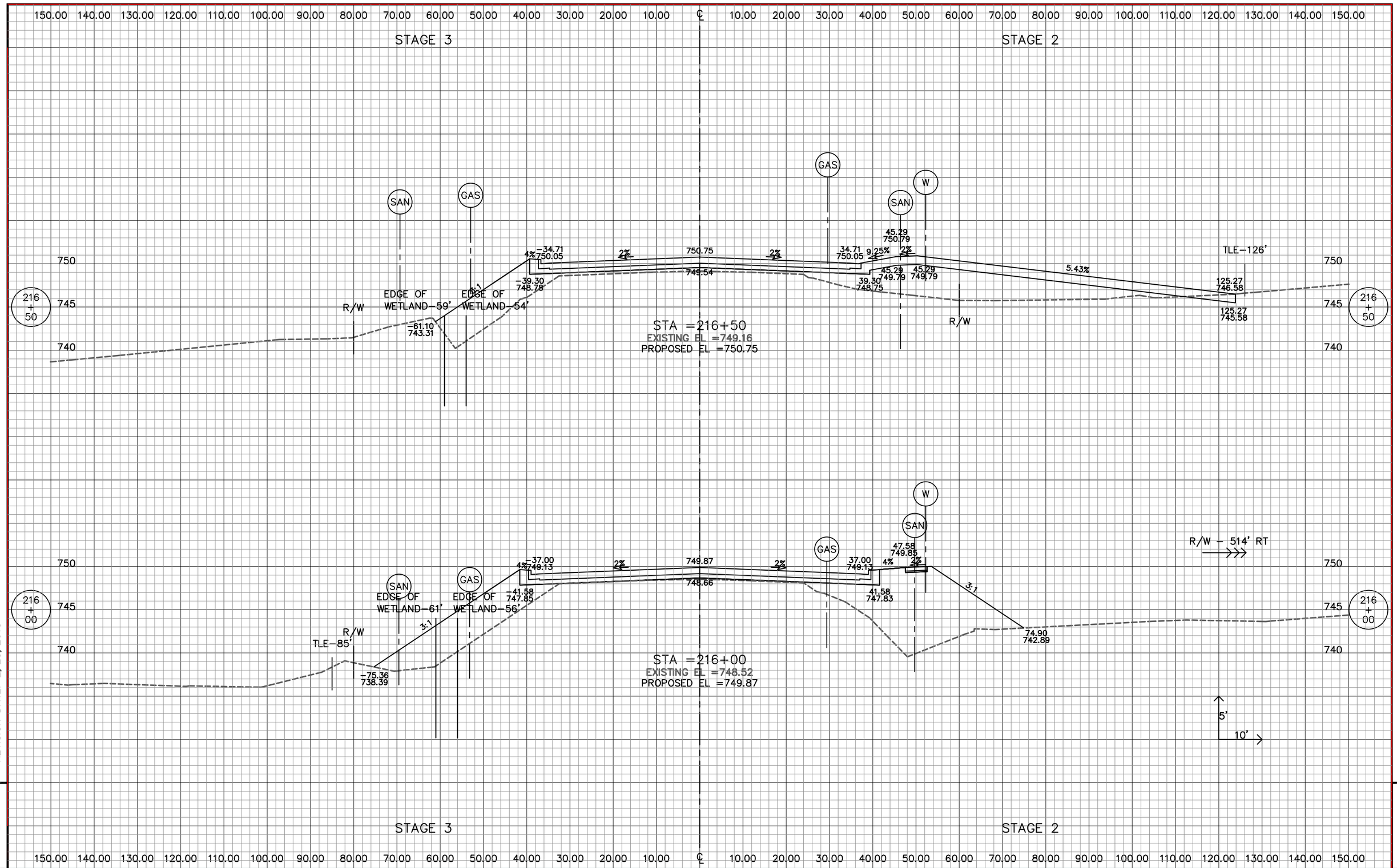
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 670

WISDOT/CADDS SHEET 40



REVISION DATE: 6/25/2013

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 671



REVISION DATE: 2/25/2013

9 9

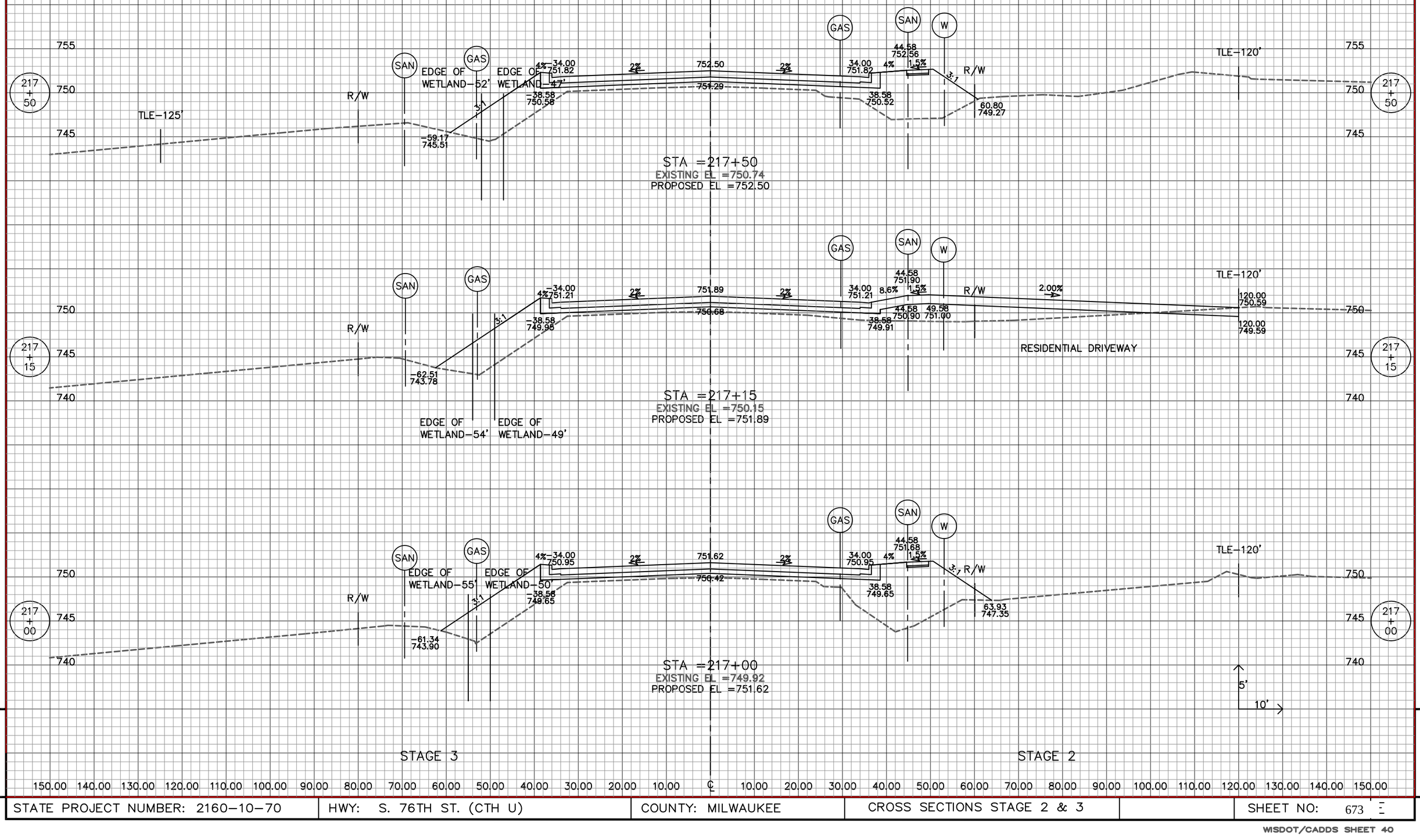
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3	SHEET NO: 672

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3

STAGE 2



REVISION DATE: 6/25/2013

9

9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 673

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3

STAGE 2

760
755
750
745

218 + 40

TLE–125'

R/W

EDGE OF WETLAND–48'

EDGE OF WETLAND–43'

GAS

SAN

W

TLE–65'

R/W

7.2%

2%

4%

1.5%

3:1

34.00
753.39

44.58
754.13

-94.25
749.24

-94.25
748.24

-41.24
752.03

754.07

752.86

38.58
752.09

55.12
752.74

RESIDENTIAL DRIVEWAY

STA =218+40
EXISTING EL =751.97
PROPOSED EL =754.07

218 + 40

760
755
750
745

218 + 00

TLE–125'

R/W

GAS

SAN

W

TLE–65'

R/W

EDGE OF WETLAND–50'

EDGE OF WETLAND–45'

4%

2%

1.5%

3:1

34.00
752.69

44.58
753.43

-58.58
751.40

753.37

752.17

38.58
751.40

-58.33
746.61

60.94
750.10

STA =218+00
EXISTING EL =751.66
PROPOSED EL =753.37

218 + 00

755
750
745

217 + 71

TLE–125'

R/W

8.25%

SAN

GAS

EDGE OF WETLAND–51'

EDGE OF WETLAND–46'

2%

34.00
752.19

44.58
752.93

-120.00
745.31

-120.00
744.31

-40.48
750.85

752.87

751.66

38.58
750.89

60.68
749.68

RESIDENTIAL DRIVEWAY

STA =217+71
EXISTING EL =751.11
PROPOSED EL =752.87

TLE–120'

5'

10'

217 + 71

755
750
745

STAGE 3

STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/25/2013

9

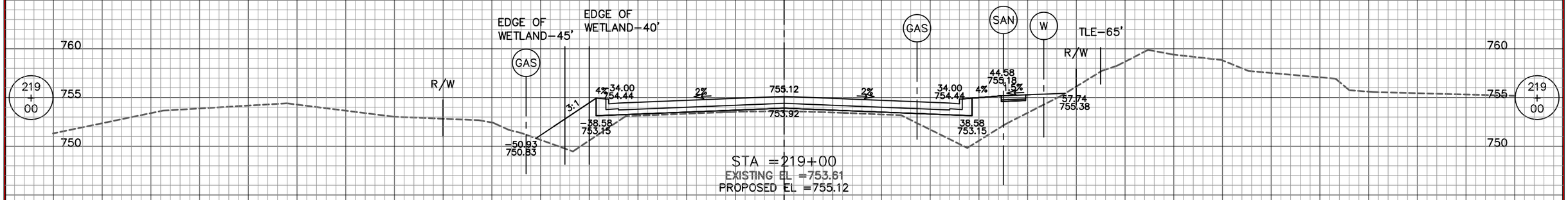
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STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 674

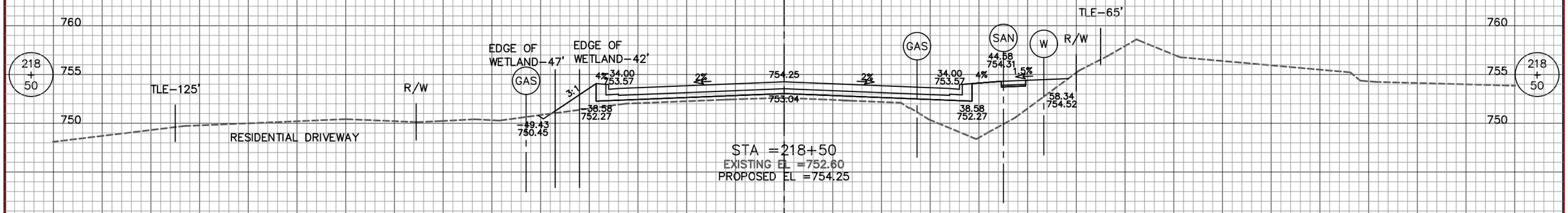
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STAGE 3

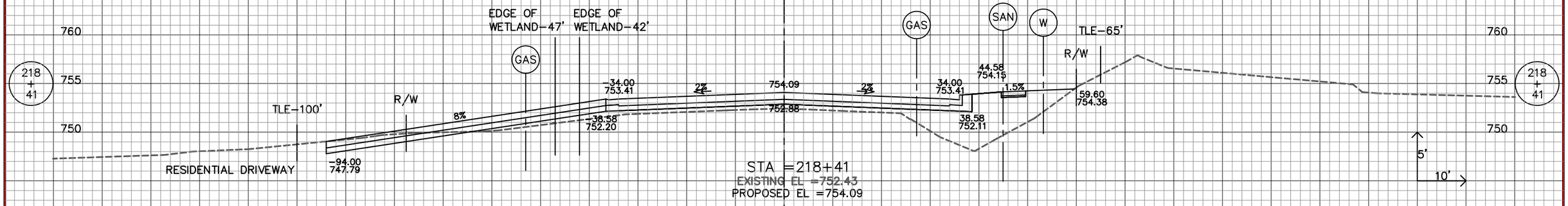
STAGE 2



STA =219+00
EXISTING EL =753.61
PROPOSED EL =755.12



STA =218+50
EXISTING EL =752.60
PROPOSED EL =754.25



STA =218+41
EXISTING EL =752.43
PROPOSED EL =754.09

STAGE 3

STAGE 2

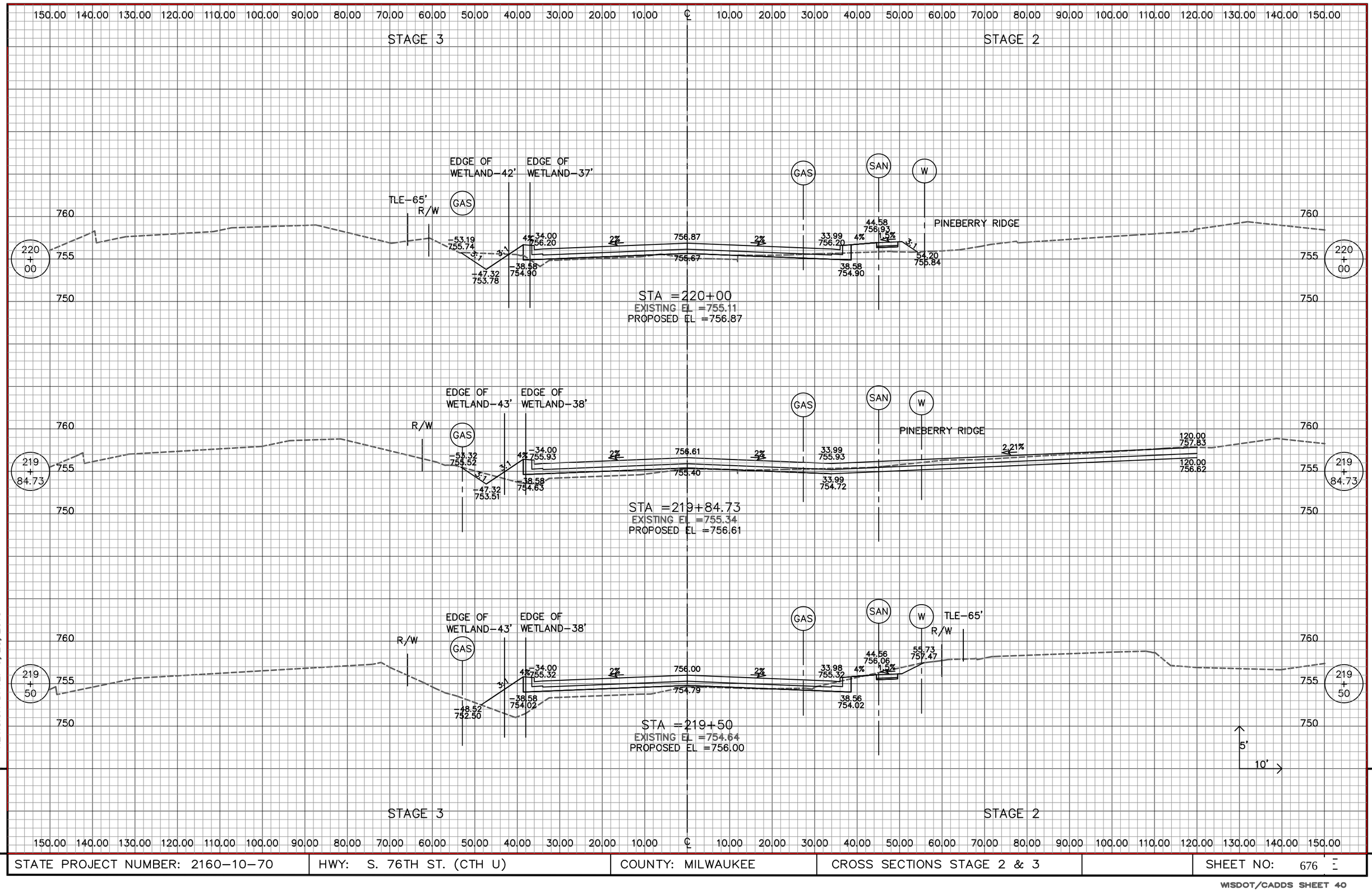
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REVISION DATE: 6/25/2013

9

9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3	SHEET NO: 675



REVISION DATE: 6/25/2013

9

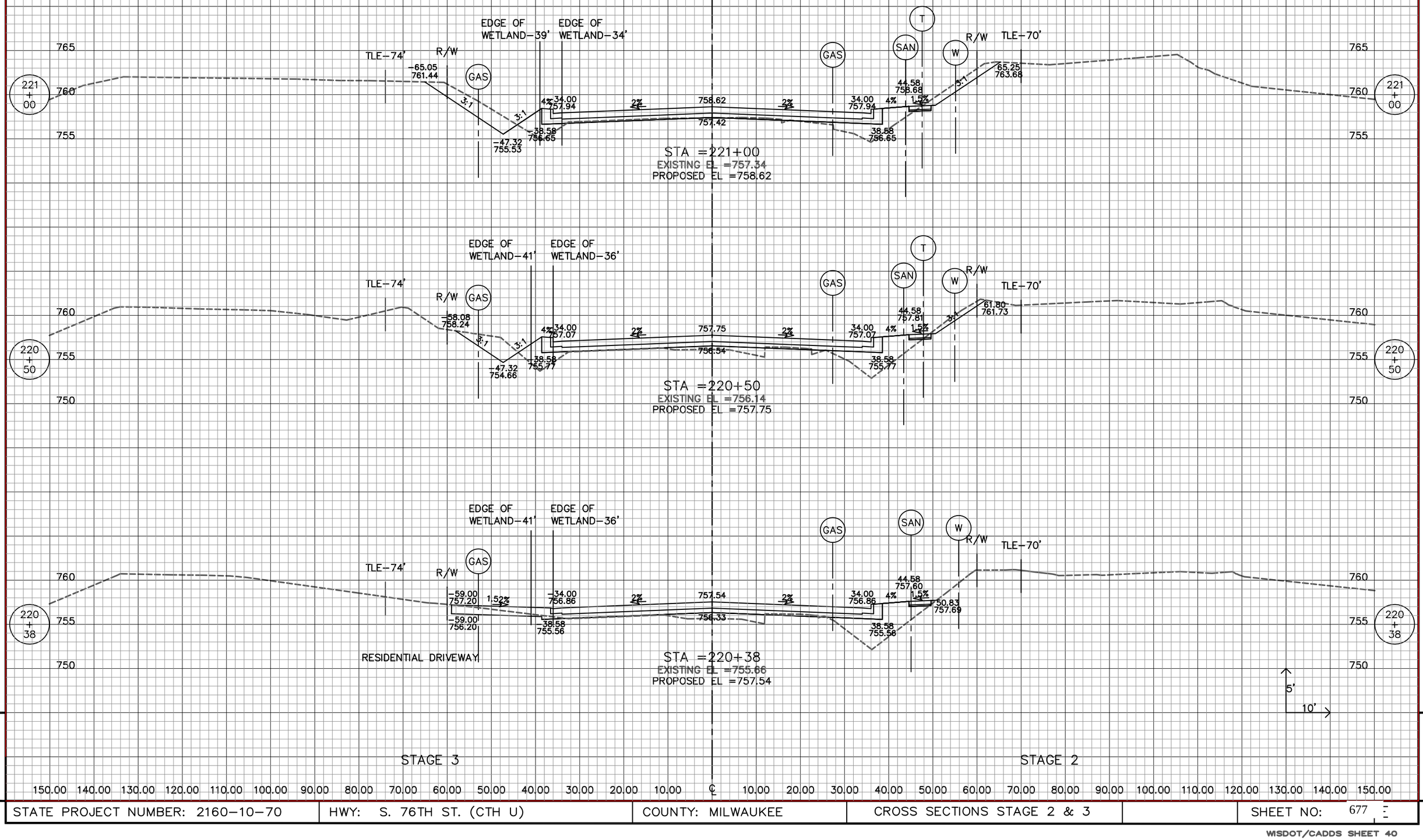
9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 676

WISDOT/CADDS SHEET 40

STAGE 3

STAGE 2



STAGE 3

STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/25/2013

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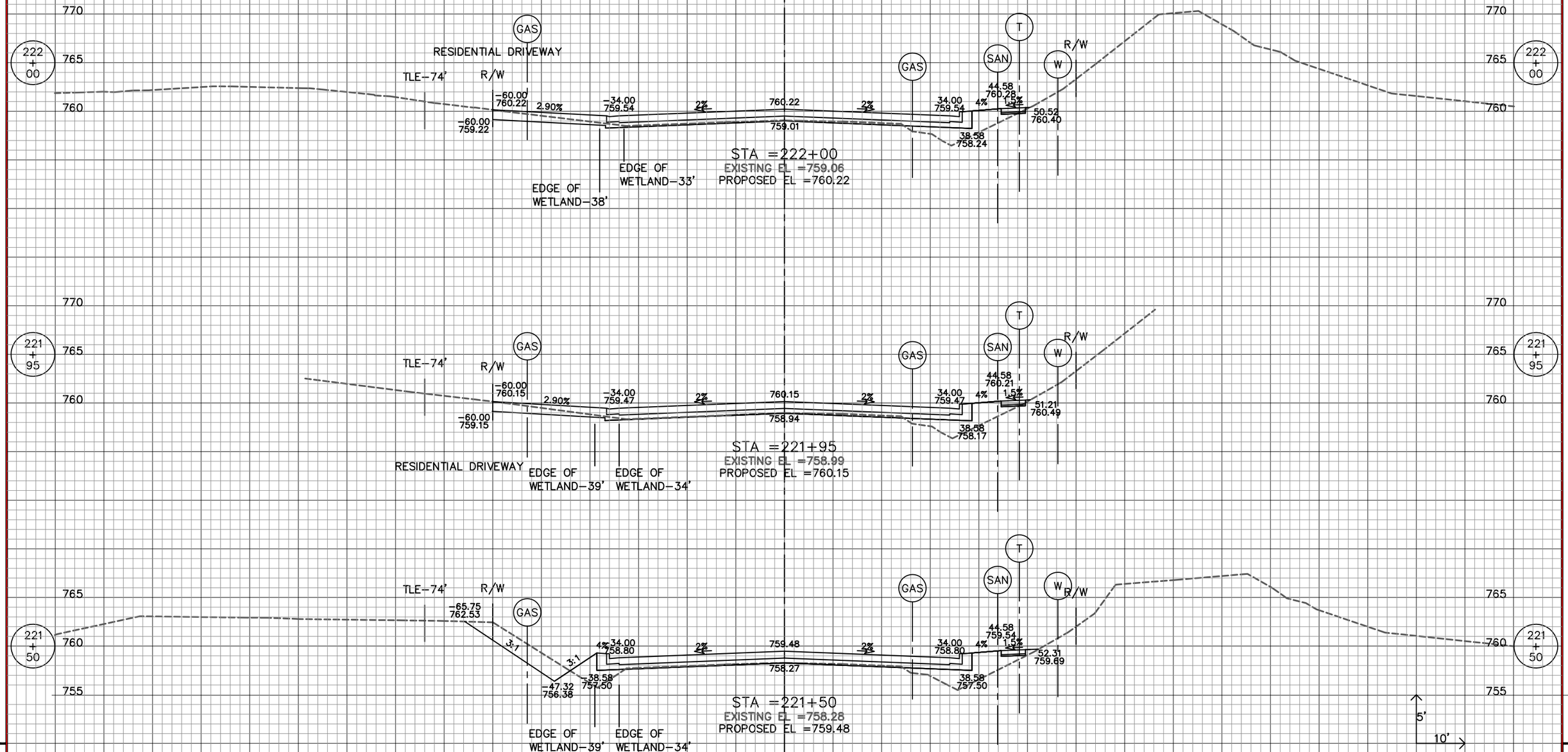
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 677

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3

STAGE 2



REVISION DATE: 6/25/2013

9

STAGE 3

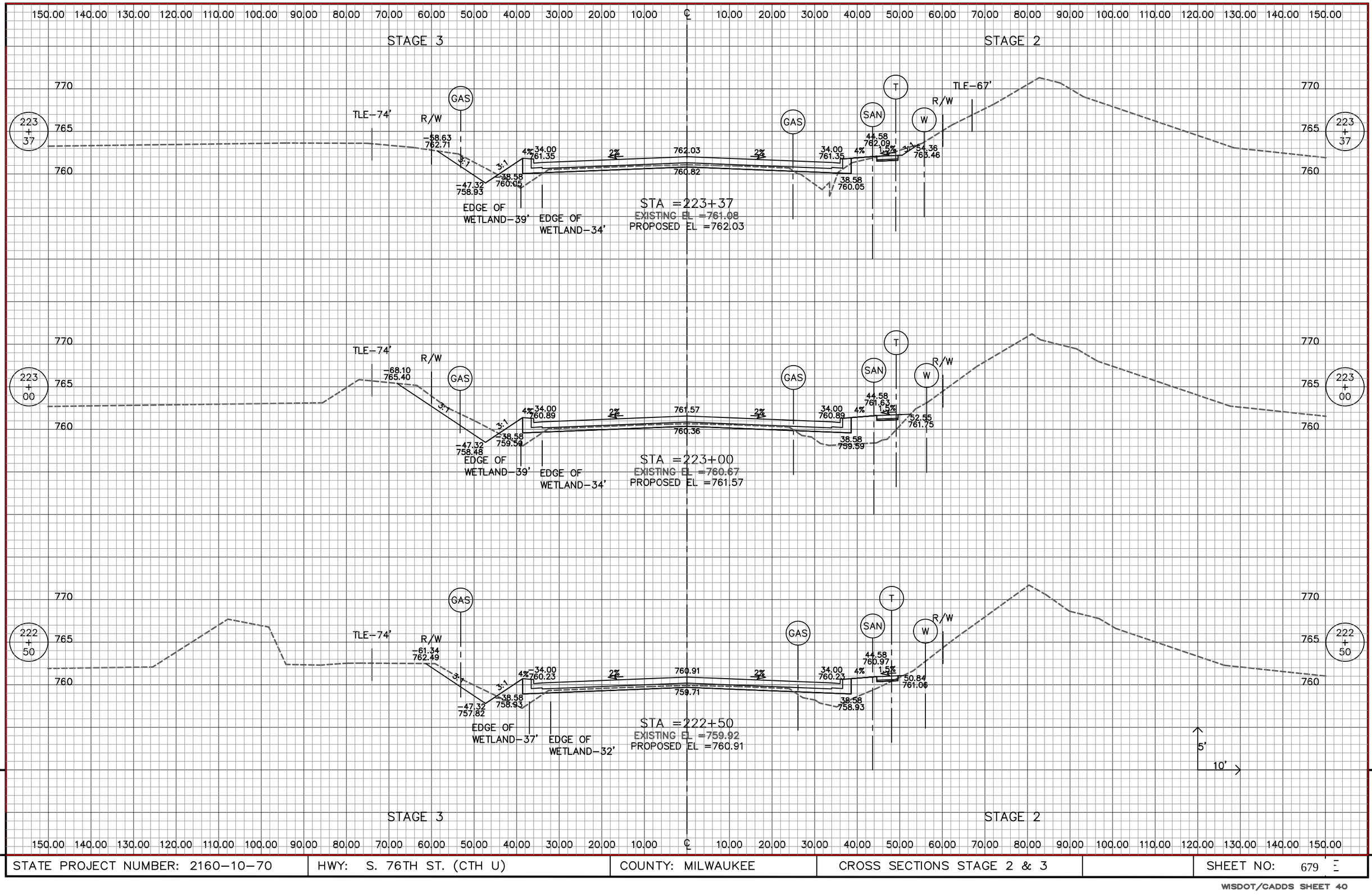
STAGE 2

9

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 678

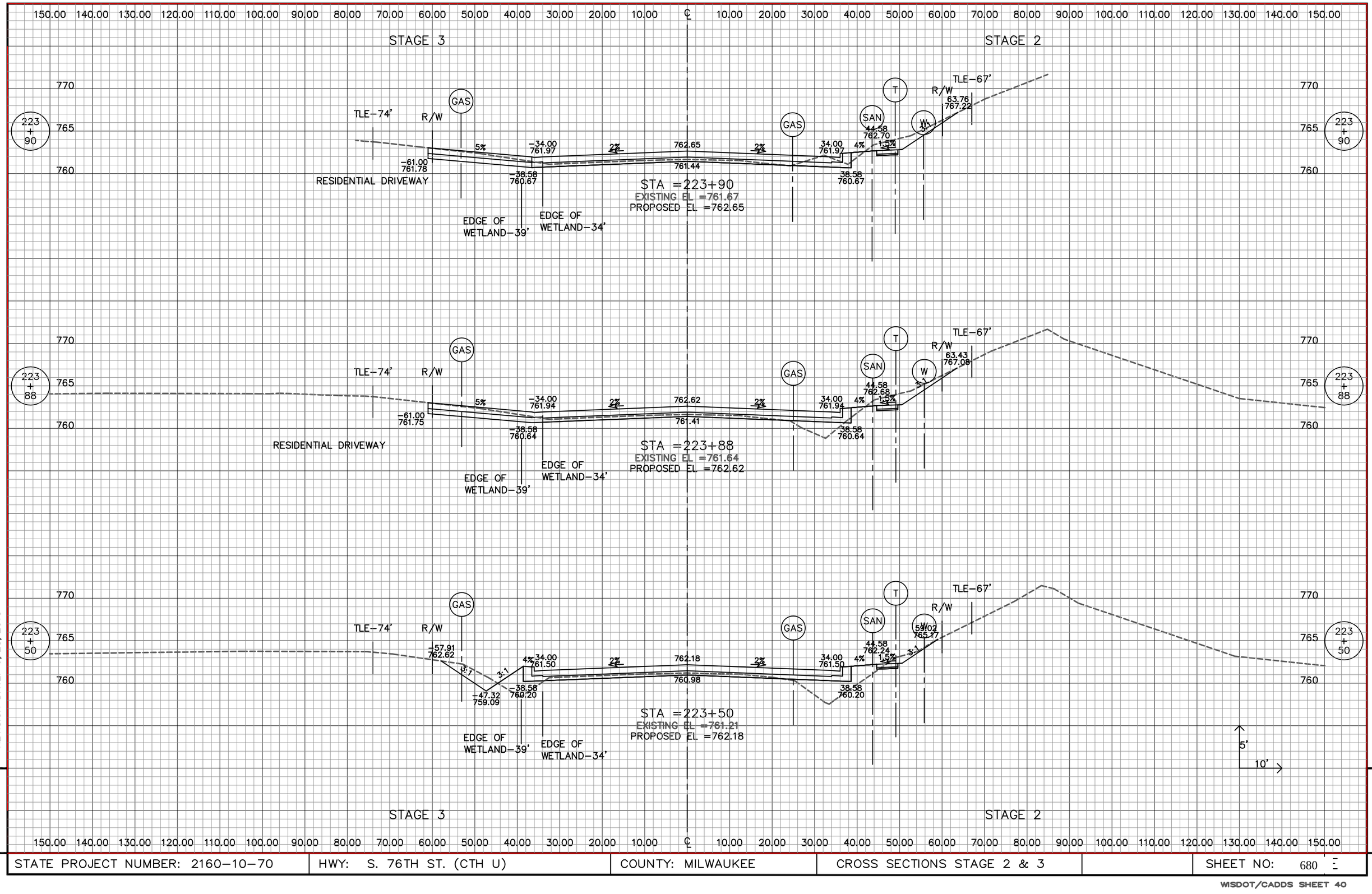
WISDOT/CADDS SHEET 40



REVISION DATE: 6/25/2013

9 9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 679



REVISION DATE: 6/25/2013

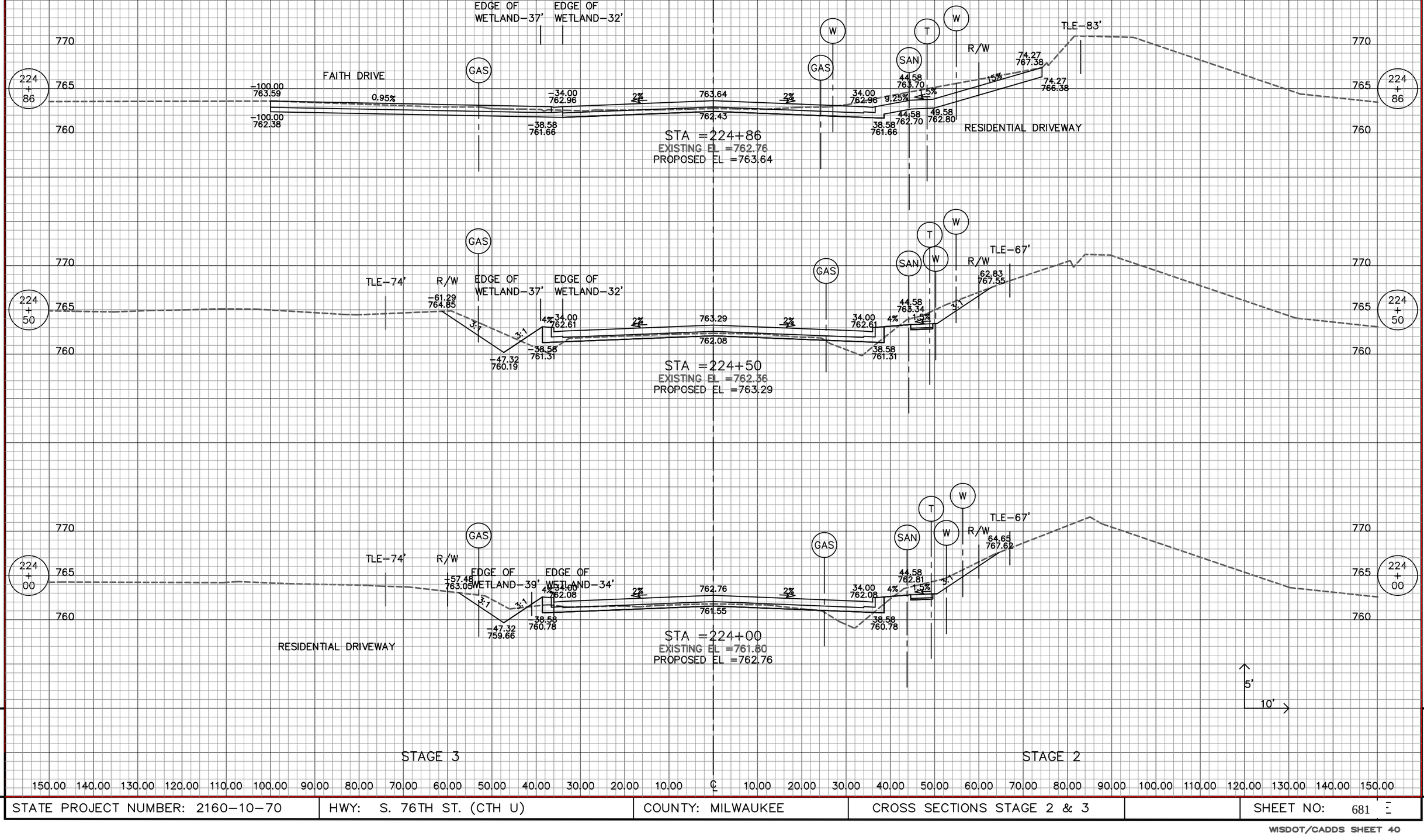
9

9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 680

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2



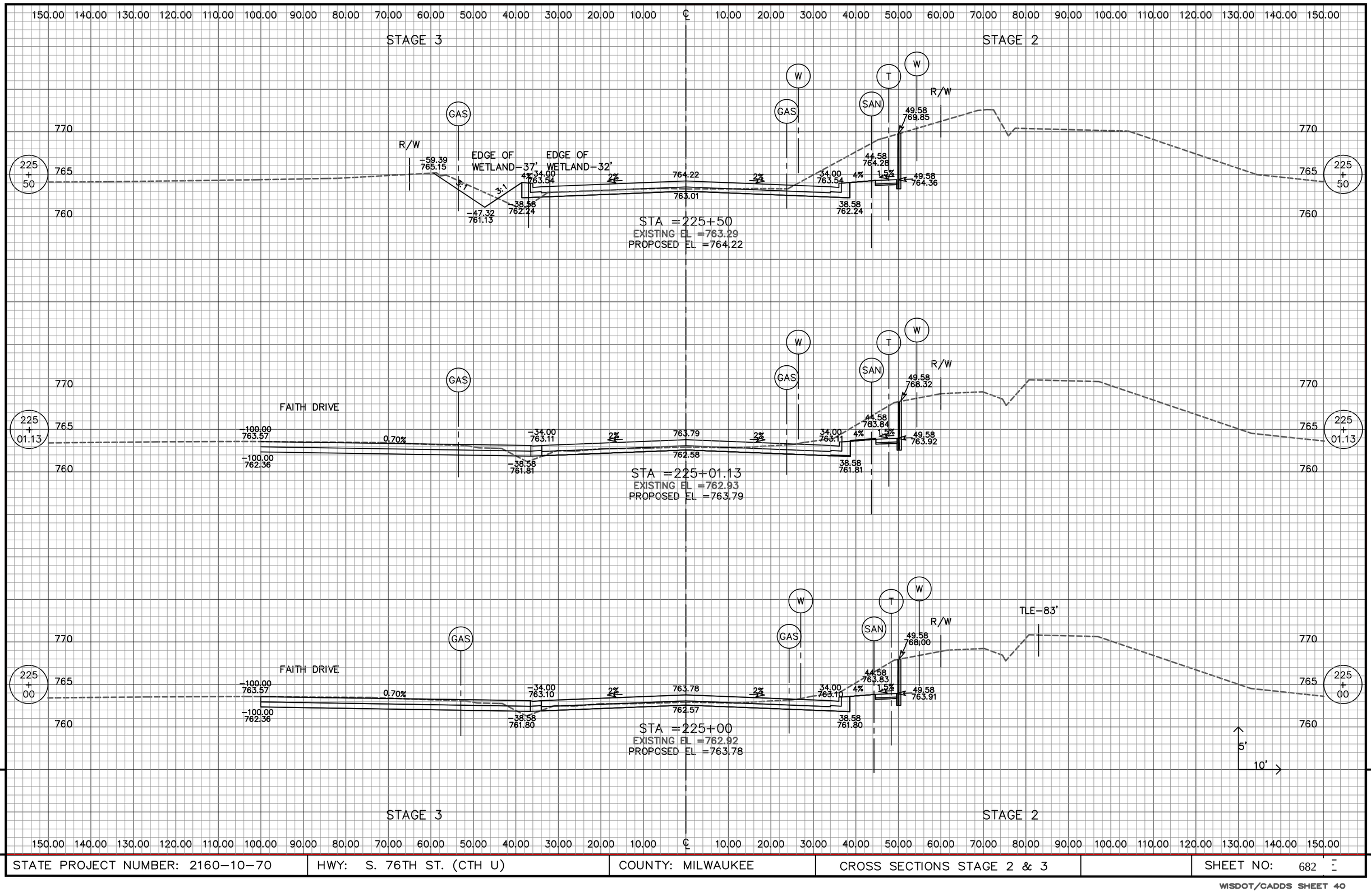
STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/25/2013

9 9

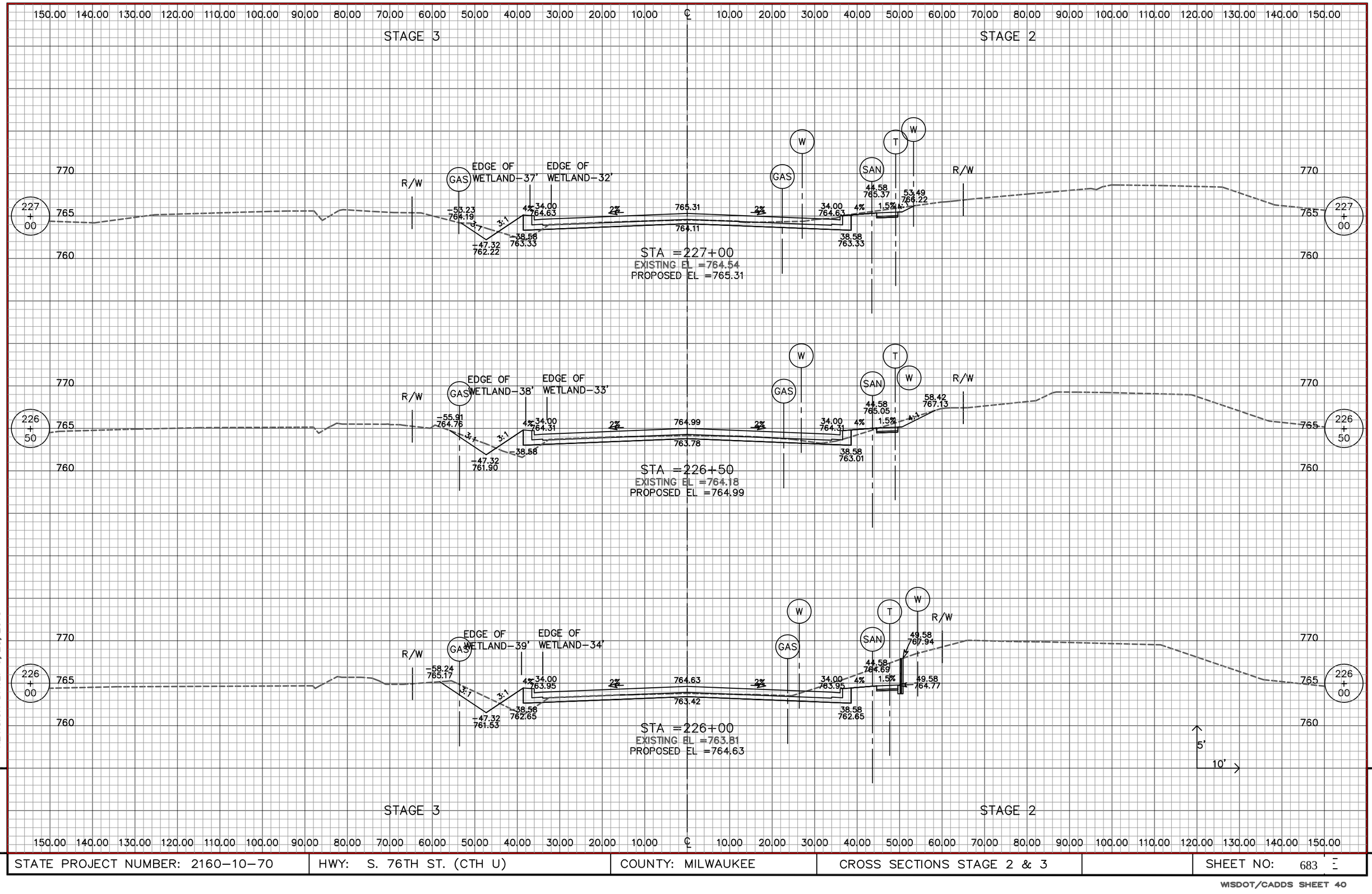
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 681



REVISION DATE: 6/25/2013

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 682

WISDOT/CADDS SHEET 40



REVISION DATE: 6/25/2013

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 683

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2

770 765 760

227 + 50

R/W

GAS

EDGE OF WETLAND–37'

EDGE OF WETLAND–32'

–52.58 764.25

4% 34.00 764.91

2%

765.59

764.39

2%

W

GAS

T

SAN

W

34.00 764.91 4%

44.58 765.65

1.5%

R/W

65.24 765.96

TLE–110'

–47.32 762.50

3:1

3:1

–38.58 763.61

38.58 763.61

STA =227+50

EXISTING EL =764.79

PROPOSED EL =765.59

770 765 760

227 + 25

R/W

GAS

EDGE OF WETLAND–37'

EDGE OF WETLAND–32'

–50.02 765.27

4% 34.00 764.78

2%

765.46

764.25

2%

W

GAS

T

SAN

W

34.00 764.78 9.25%

44.58 765.52

1.5%

R/W

4.73%

105.00 768.24

105.00 767.24

TLE–110'

RESIDENTIAL DRIVEWAY

–47.32 762.36

3:1

3:1

–38.58 763.48

38.58 763.48

44.58 764.52

49.58 764.62

STA =227+25

EXISTING EL =764.56

PROPOSED EL =765.46

770 765 760

227 + 22

R/W

GAS

EDGE OF WETLAND–37'

EDGE OF WETLAND–32'

–55.90 765.21

4% 34.00 764.76

2%

765.44

764.23

2%

W

GAS

T

SAN

W

34.00 764.76 9.25%

44.58 765.50

1.5%

R/W

4.91%

105.00 768.32

105.00 767.32

TLE–110'

RESIDENTIAL DRIVEWAY

–47.32 762.35

3:1

3:1

–38.58 763.46

38.58 763.46

44.58 764.50

49.58 764.60

STA =227+22

EXISTING EL =764.68

PROPOSED EL =765.44

5'

10'

STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

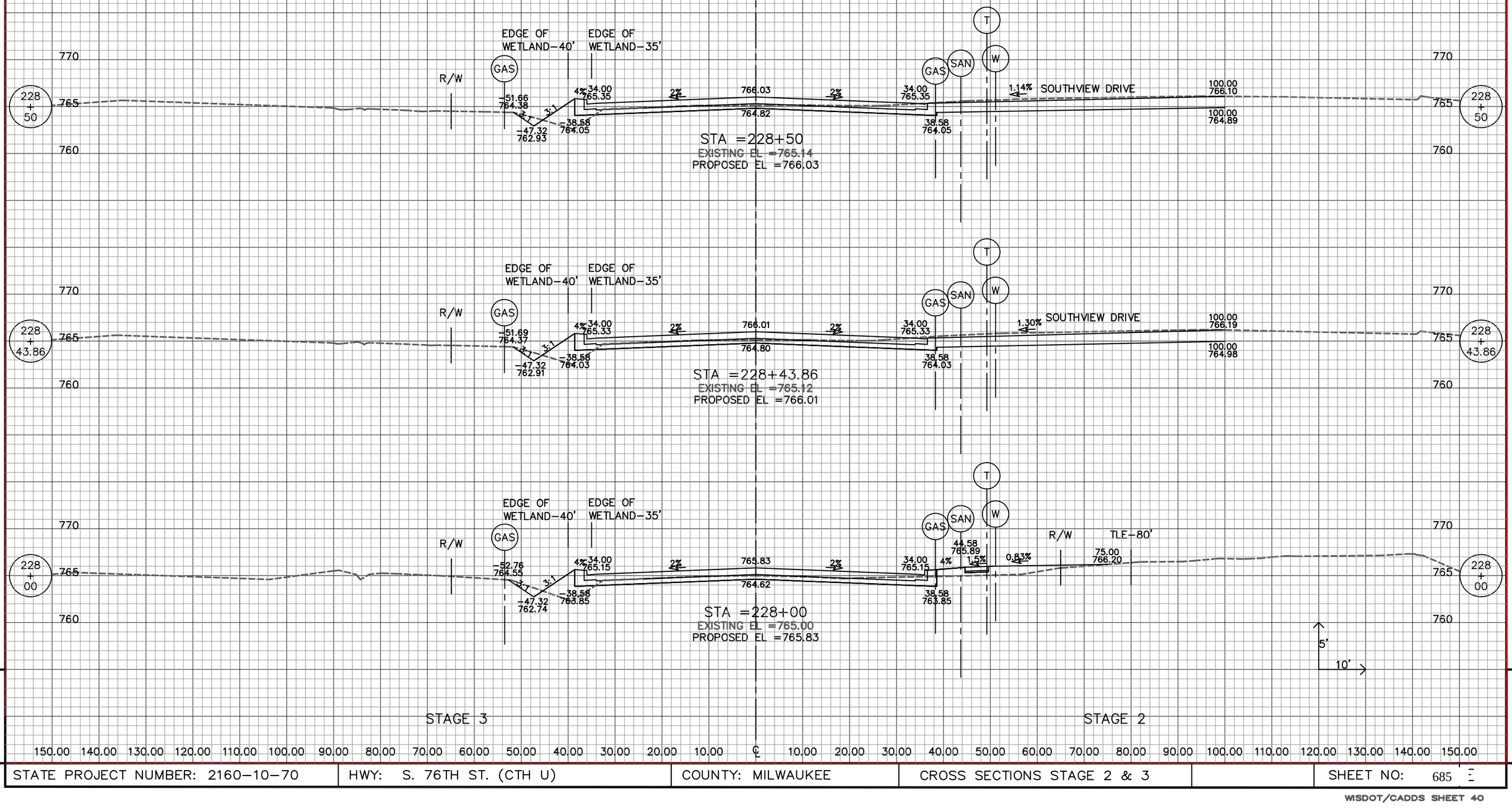
REVISION DATE: 6/25/2013

9 9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 684

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2



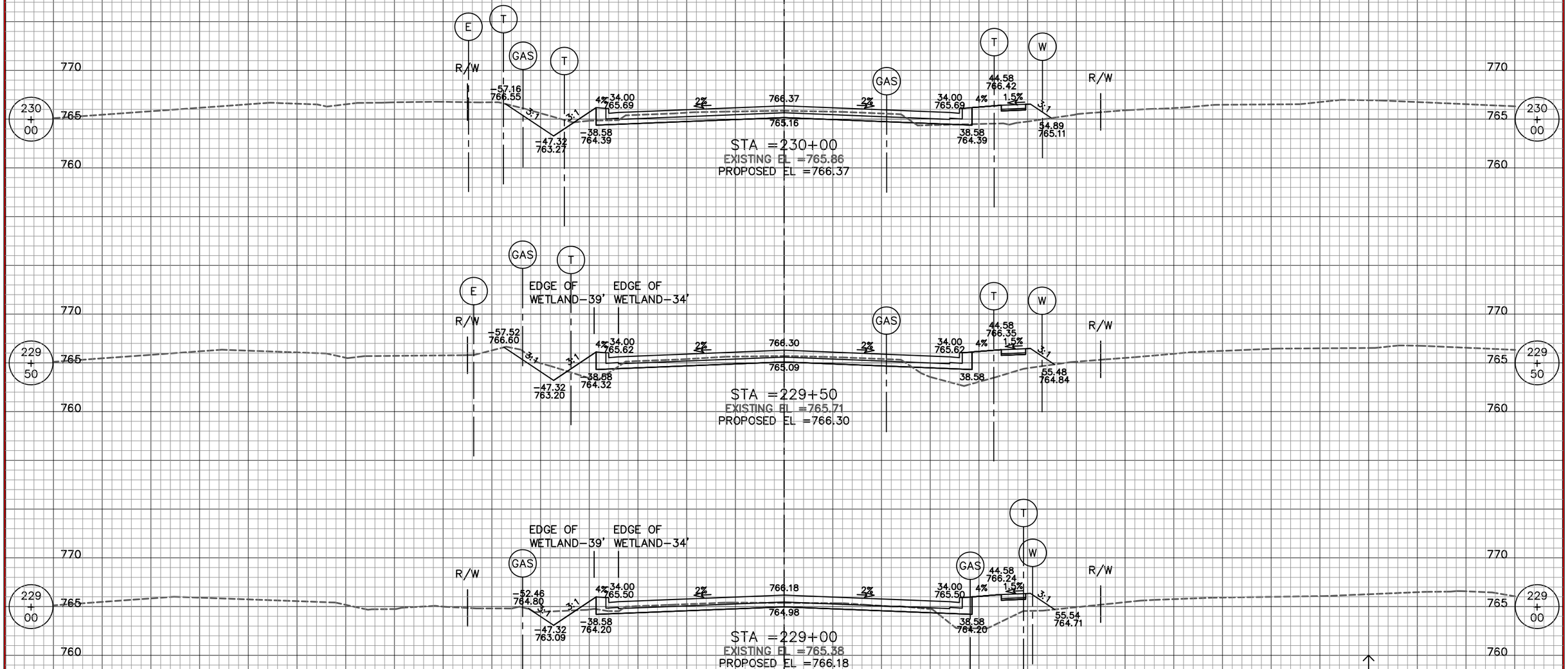
REVISION DATE: 6/25/2013

9 9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 685

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2



REVISION DATE: 6/25/2013

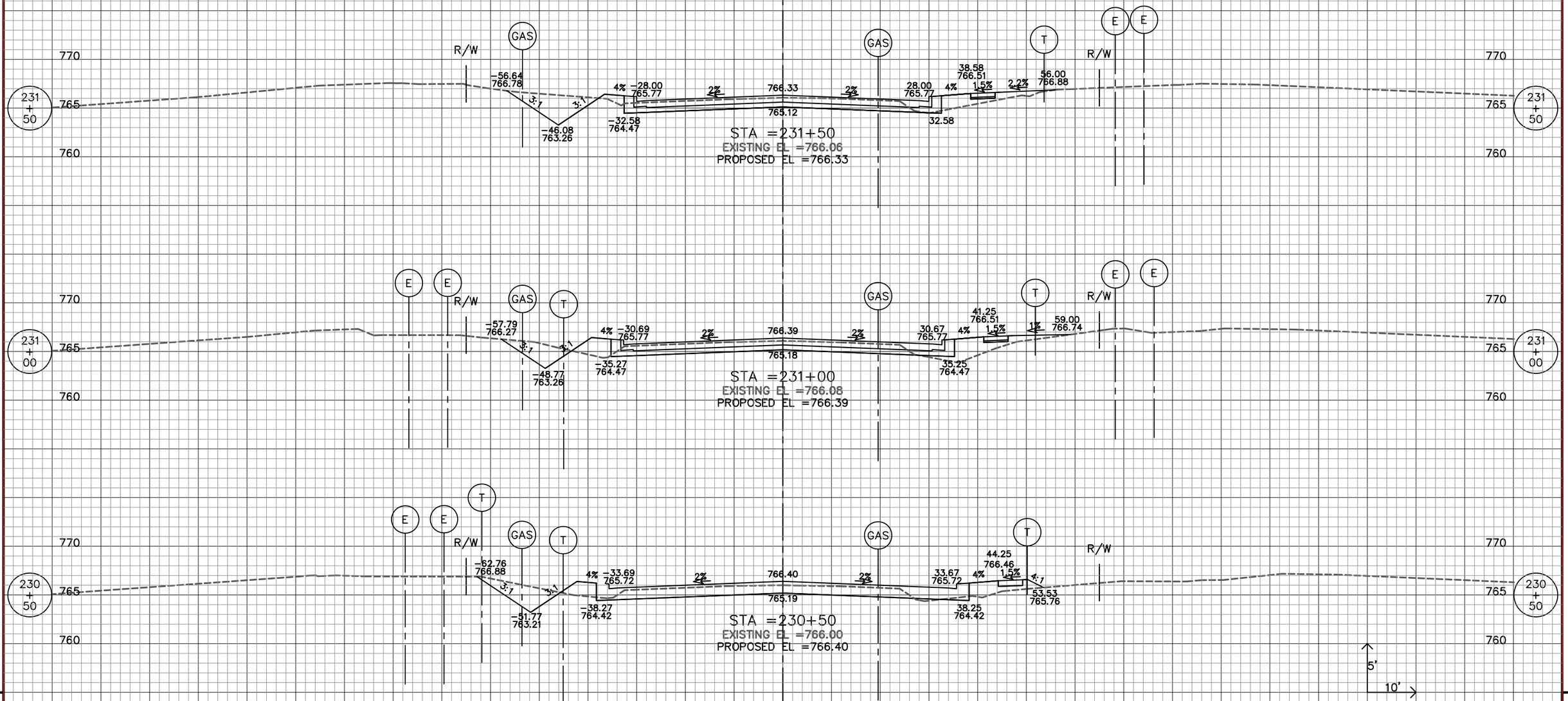
9 9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 686

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2



REVISION DATE: 6/25/2013

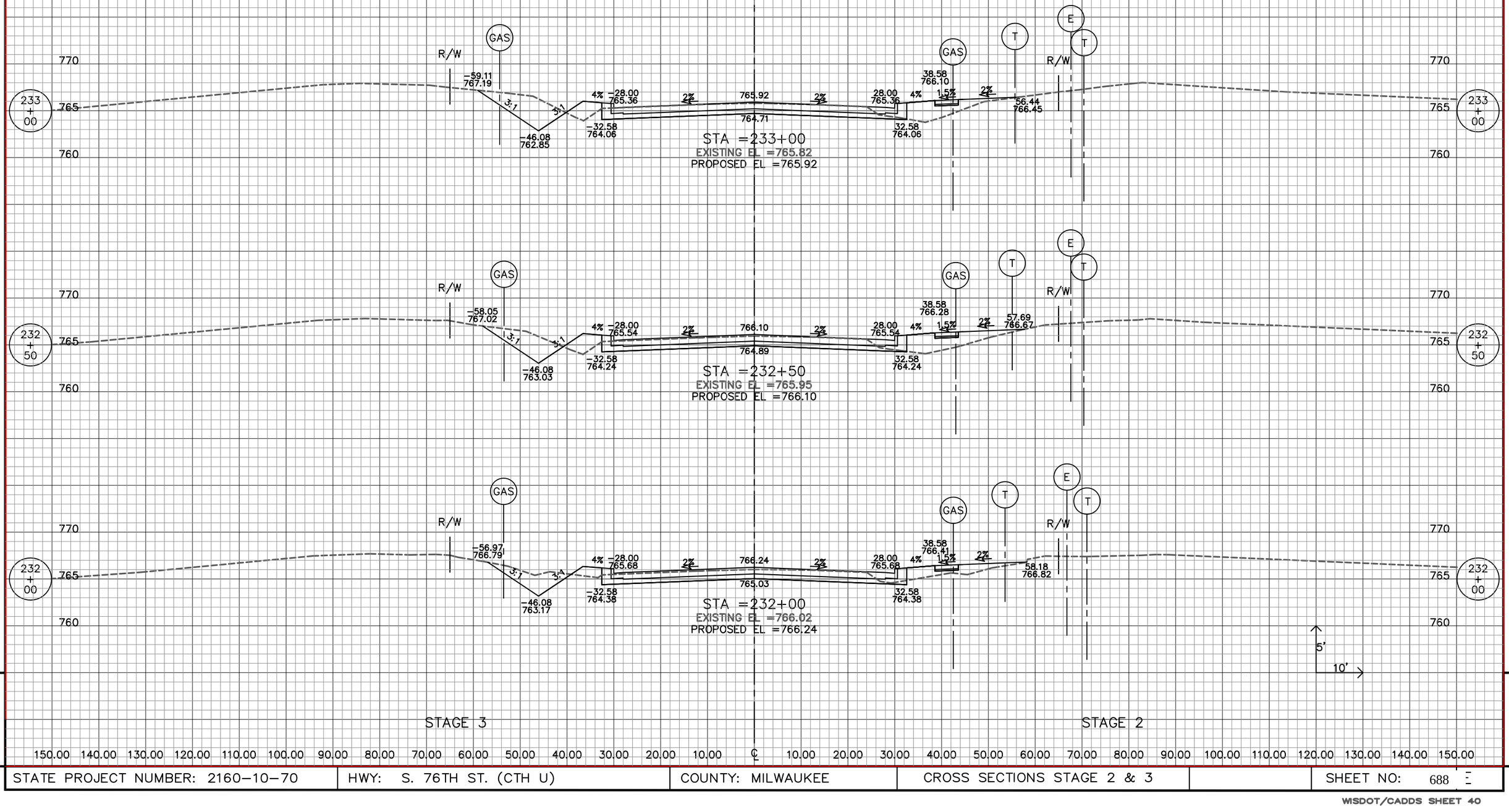
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STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 687

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2



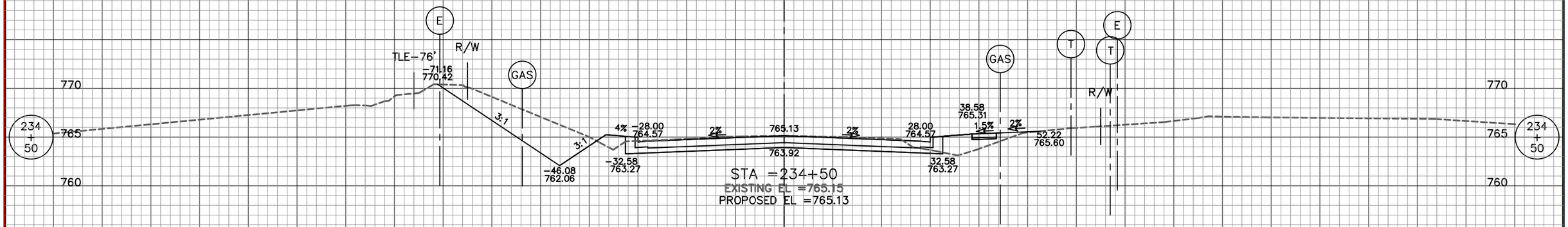
REVISION DATE: 6/25/2013

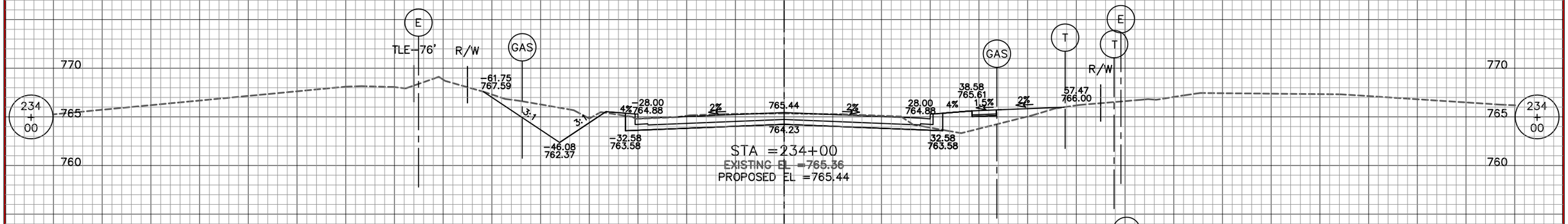
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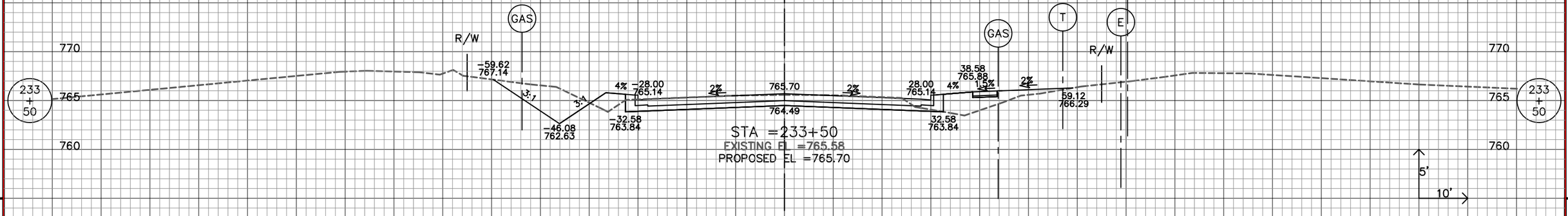
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 688

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2







STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

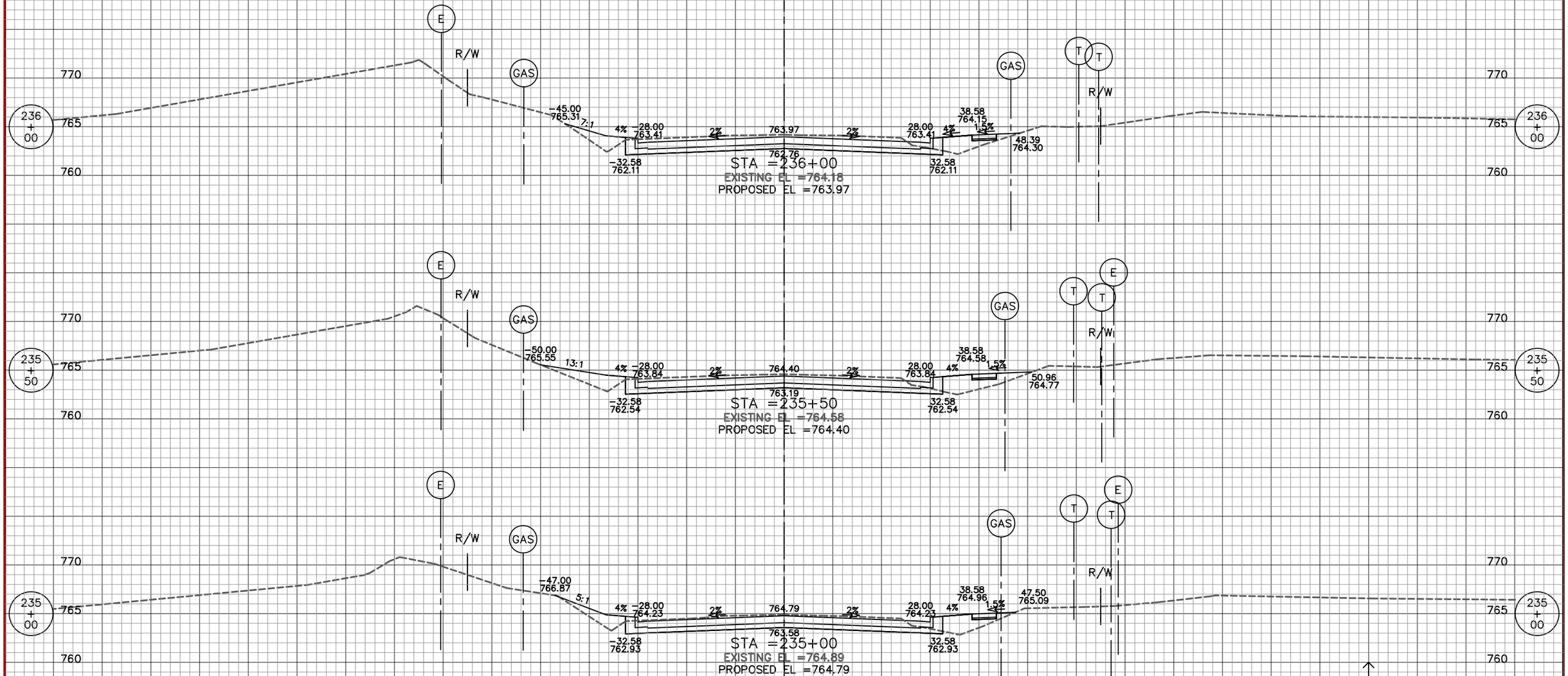
REVISION DATE: 6/25/2013

9 9

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 689

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2



REVISION DATE: 6/25/2013

9 9

STAGE 3 STAGE 2

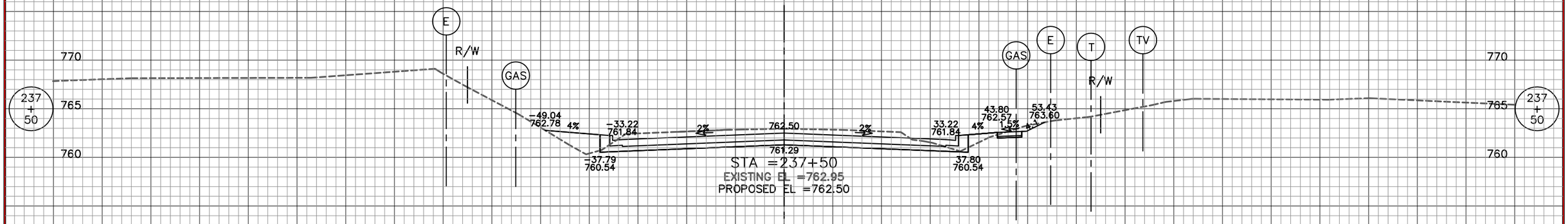
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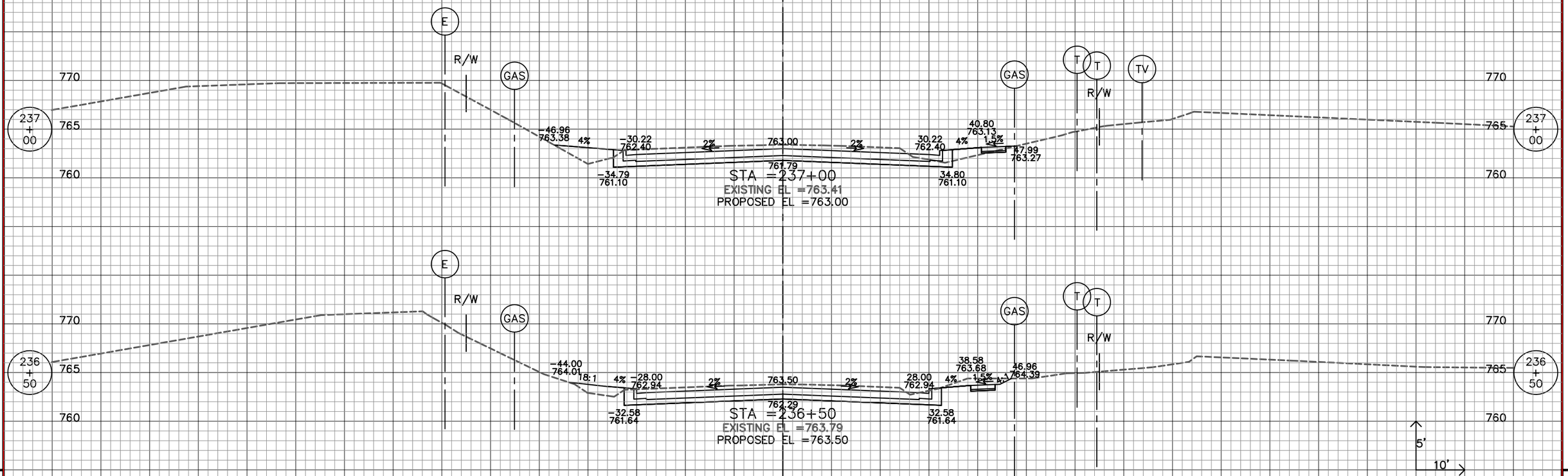
STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 690

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2





REVISION DATE: 6/25/2013

9 9

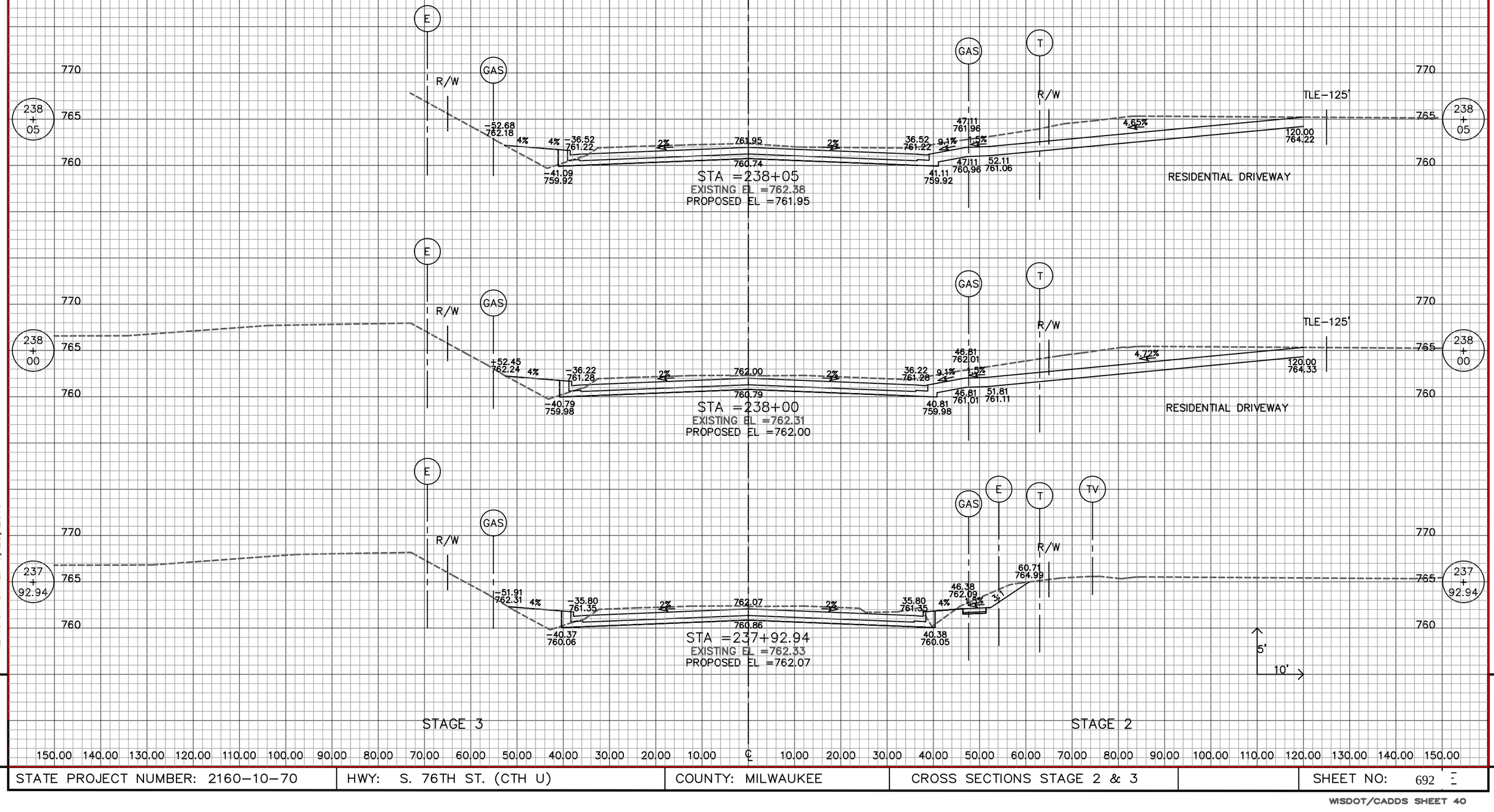
STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 691

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2



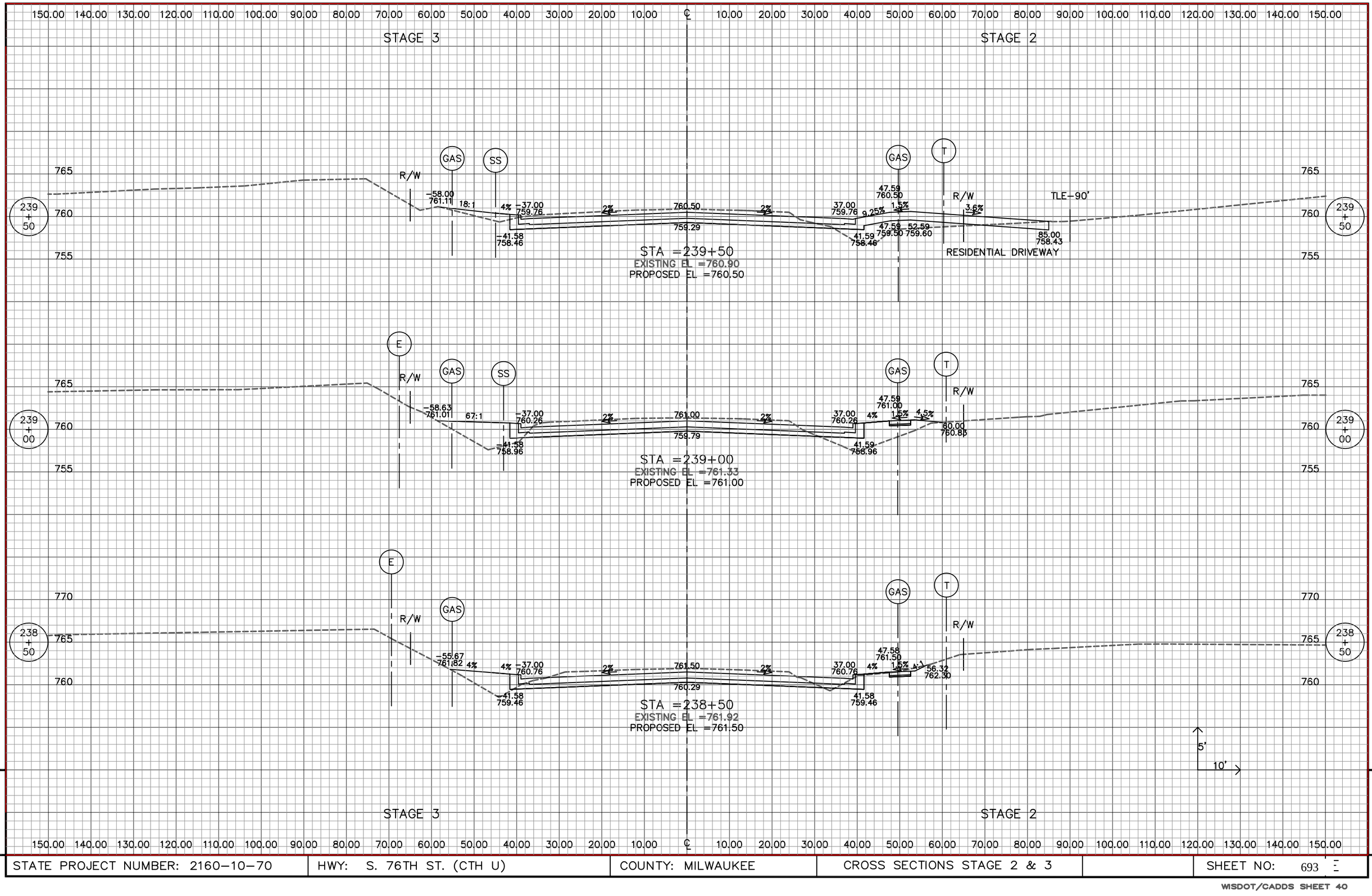
REVISION DATE: 6/25/2013

9 9

STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

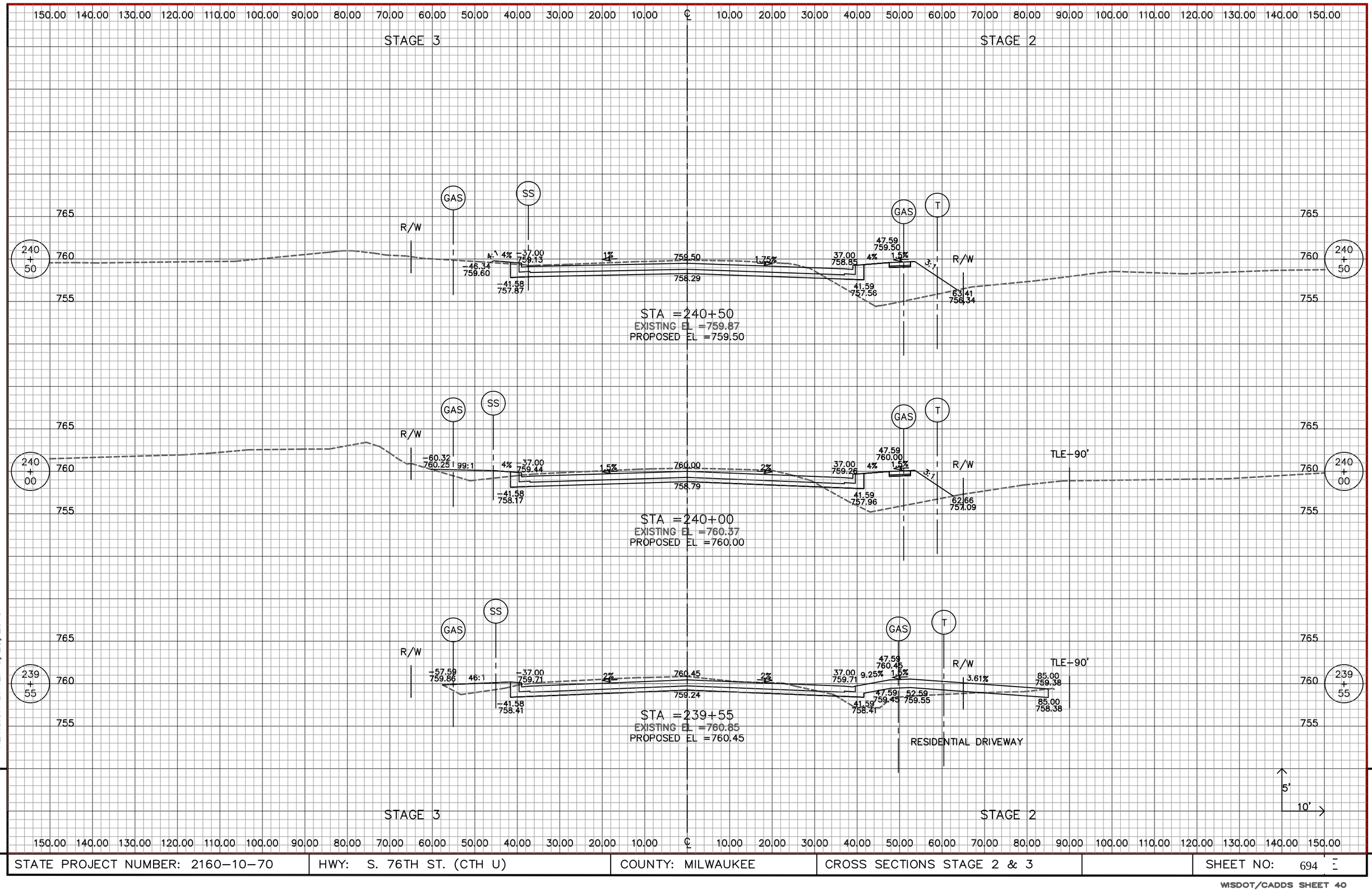
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 692



REVISION DATE: 6/25/2013

9 9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 693



REVISION DATE: 6/28/2013

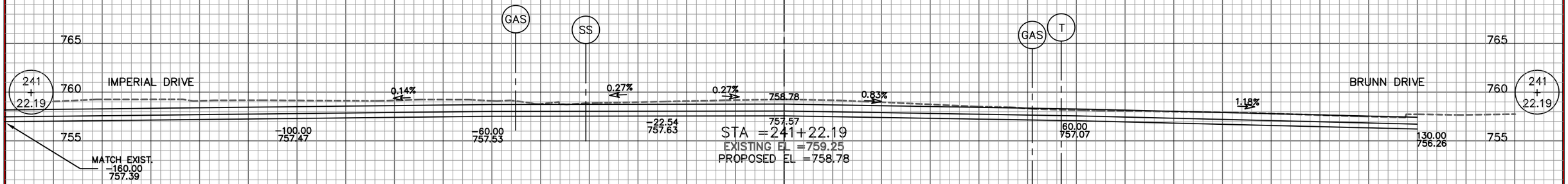
9

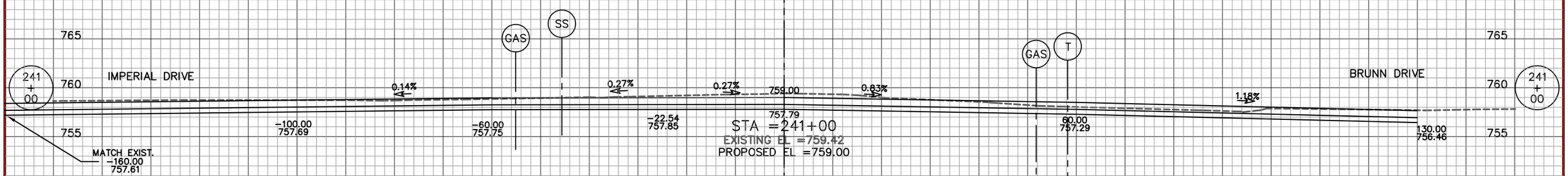
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 694

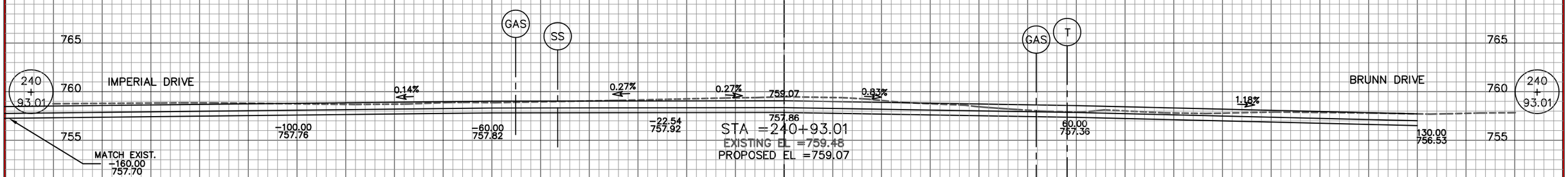
WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2







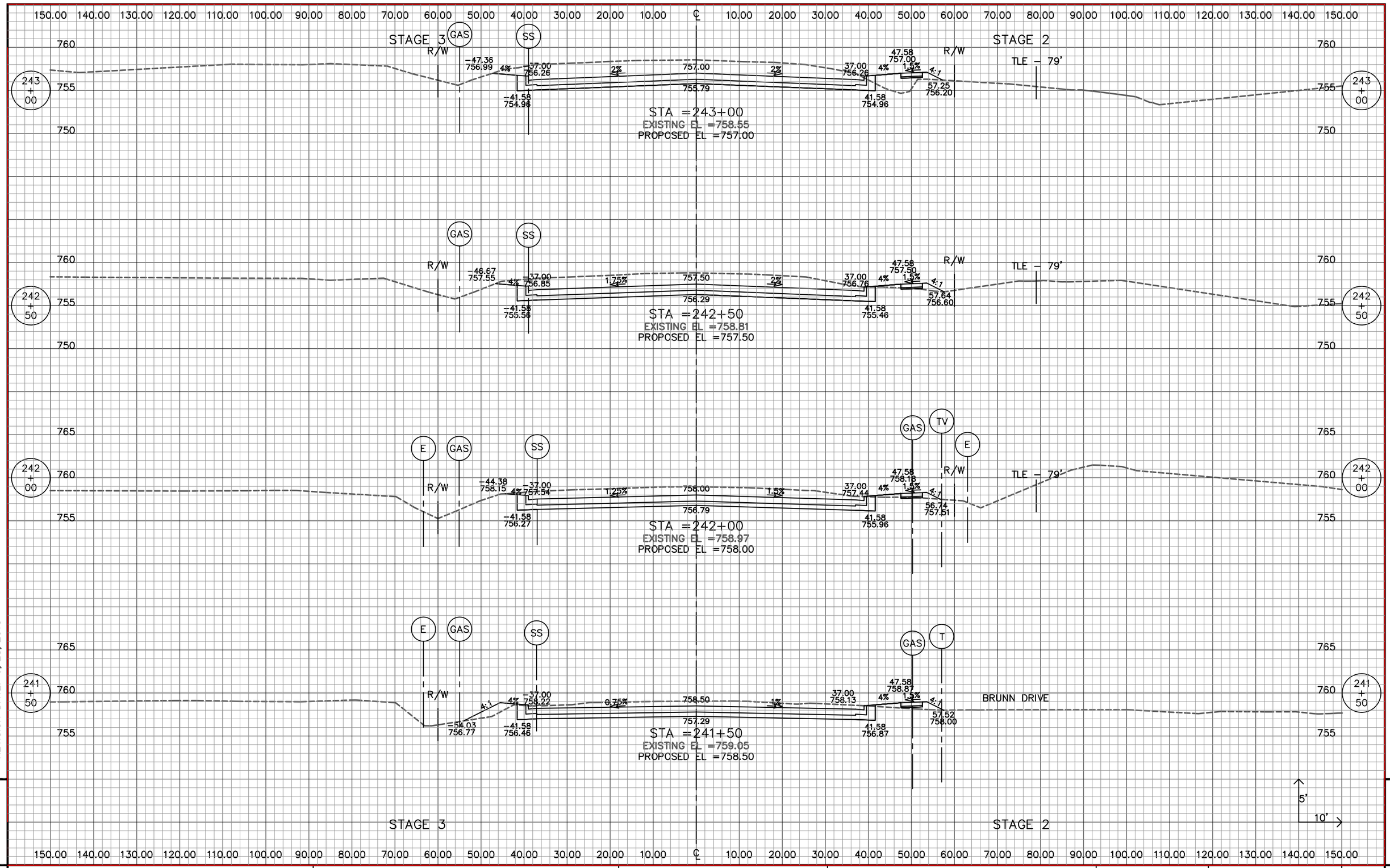
REVISION DATE: 6/28/2013

9 9

STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 695



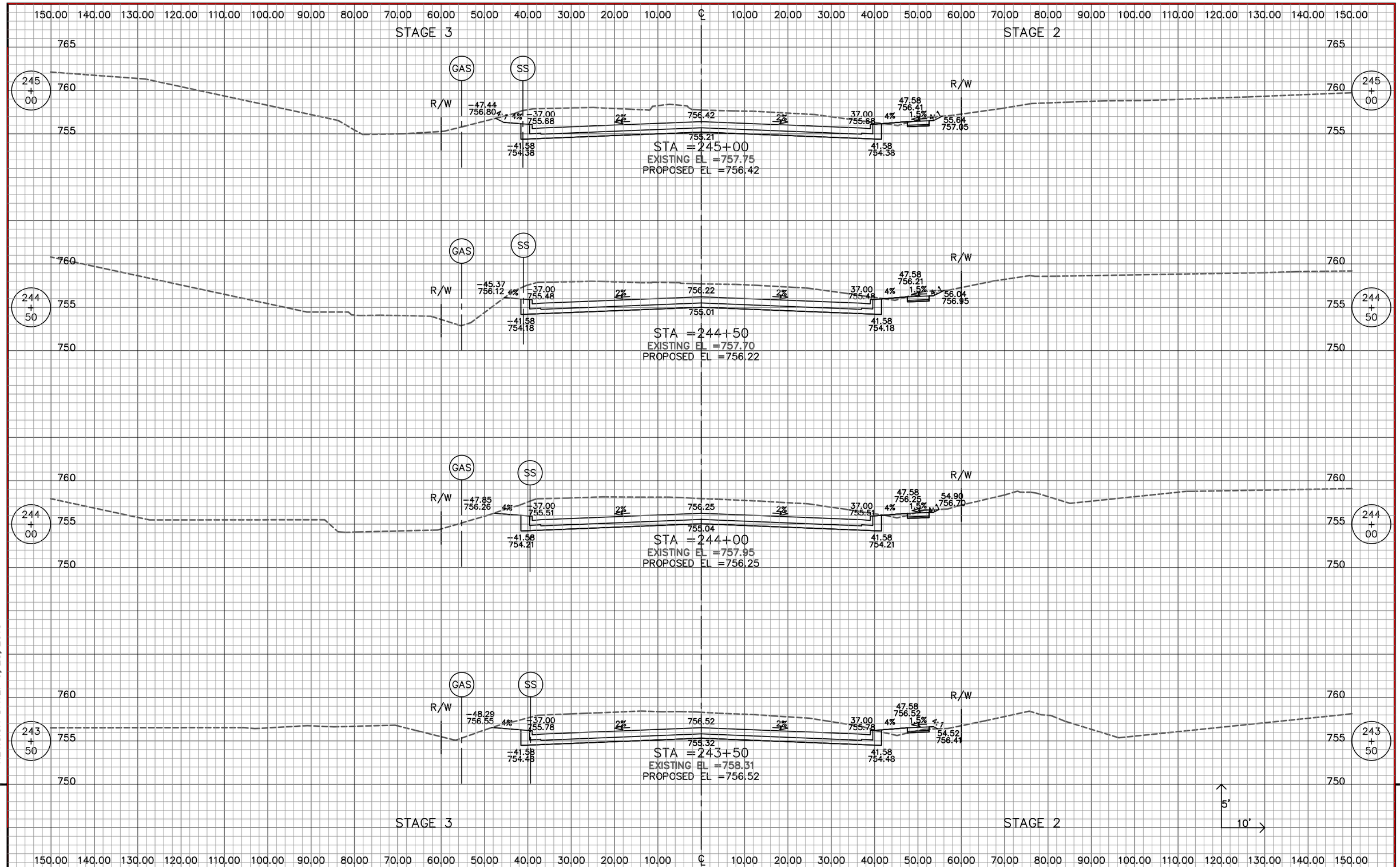
REVISION DATE: 6/28/2013

9

9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 696

WISDOT/CADDS SHEET 40



REVISION DATE: 6/28/2013

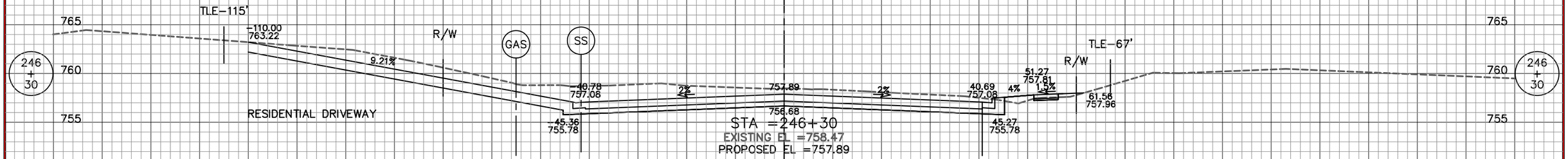
9 9

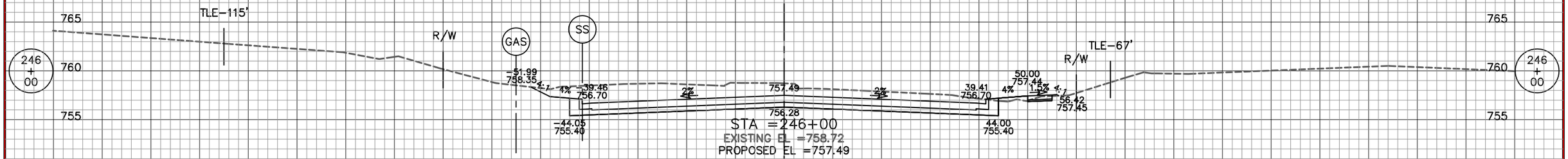
STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 697

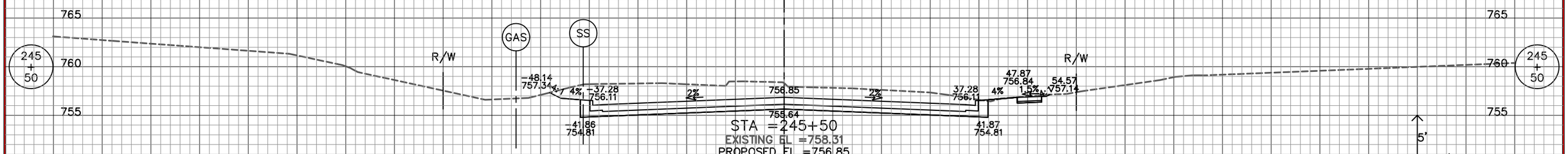
WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STAGE 3 STAGE 2







REVISION DATE: 6/28/2013

9 9

STAGE 3 STAGE 2

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

STATE PROJECT NUMBER: 2160–10–70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS STAGE 2 & 3		SHEET NO: 698

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

END PROJECT 2160-10-70
MATCH EXISTING
STA =247+80

TLE-75'
GAS
R/W
GAS
SAN
SS
765
760
755
247 + 50
-69.93
764.33
3:1
4%
-46.03
758.56
-50.61
757.26
2%
759.48
758.28
STA =247+50
EXISTING EL =760.09
PROPOSED EL =759.48
45.80
758.57
4%
56.39
759.31
1.5%
4:1
TLE-67'
R/W
63.93
759.04
50.39
757.27
247 + 50

TLE-72'
GAS
GAS
R/W
SAN
SS
765
760
755
247 + 00
-65.94
763.10
3:1
4%
-43.84
757.94
-48.42
756.64
2%
758.82
757.61
STA =247+00
EXISTING EL =759.52
PROPOSED EL =758.82
43.67
757.95
4%
54.26
758.68
1.5%
4:1
TLE-67'
R/W
63.01
758.11
48.26
756.65
247 + 00

TLE-115'
GAS
SS
R/W
765
760
755
246 + 50
-58.10
760.60
3:1
4%
-41.65
757.32
-46.24
756.02
2%
758.16
756.95
STA =246+50
EXISTING EL =758.57
PROPOSED EL =758.16
41.54
757.33
4%
52.13
758.06
1.5%
TLE-67'
R/W
63.74
758.23
46.13
756.03
246 + 50
5'
10'

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

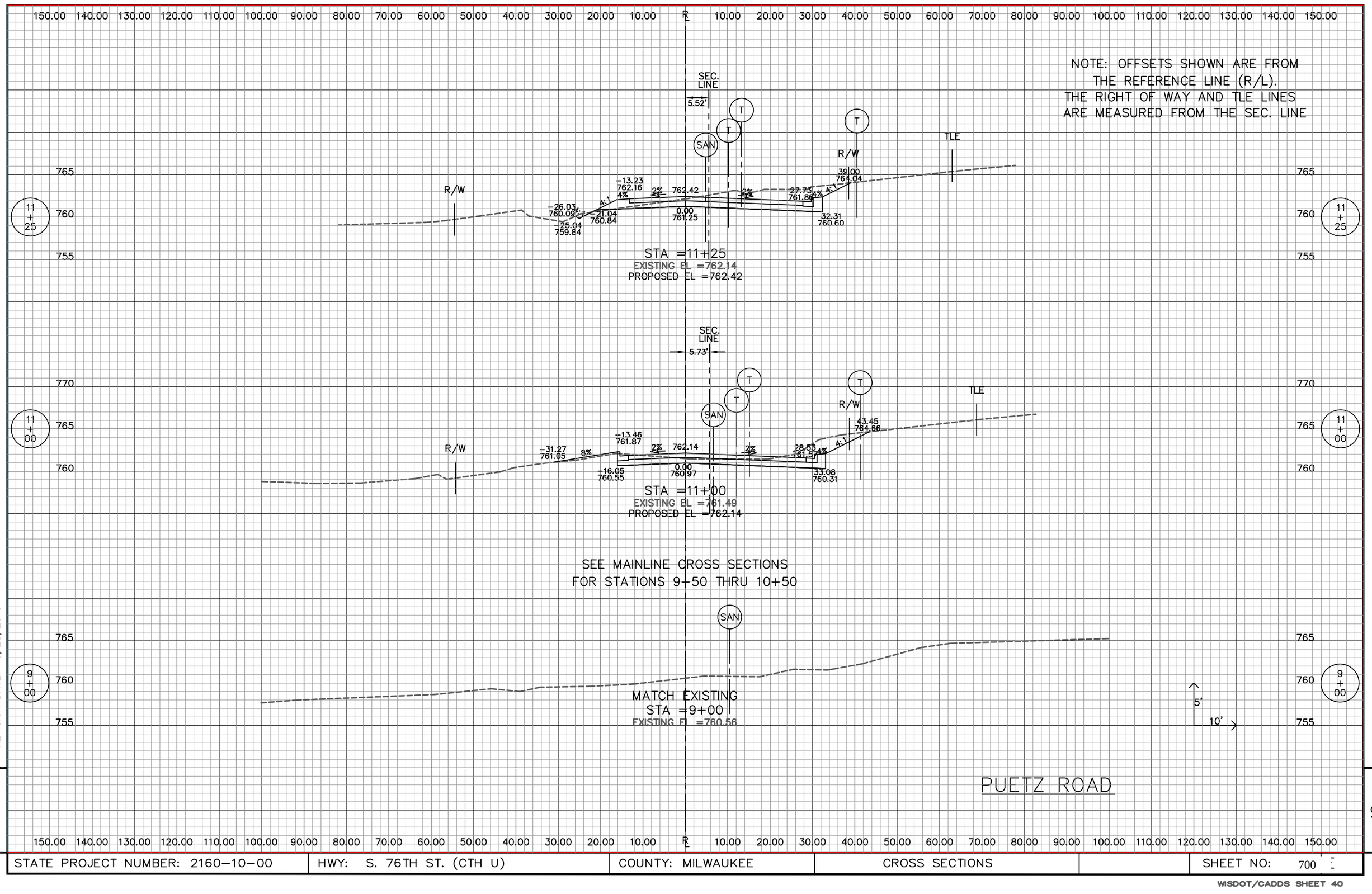
REVISION DATE: 6/28/2013

9

9

STATE PROJECT NUMBER: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTION STAGE 2 & 3		SHEET NO: 699

NOTE: OFFSETS SHOWN ARE FROM
THE REFERENCE LINE (R/L).
THE RIGHT OF WAY AND TLE LINES
ARE MEASURED FROM THE SEC. LINE

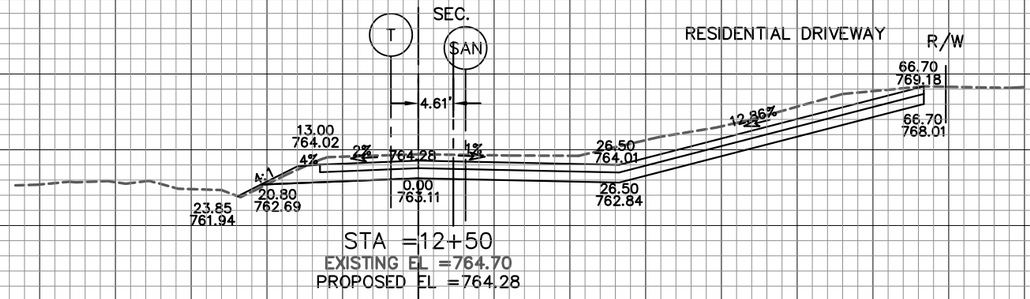


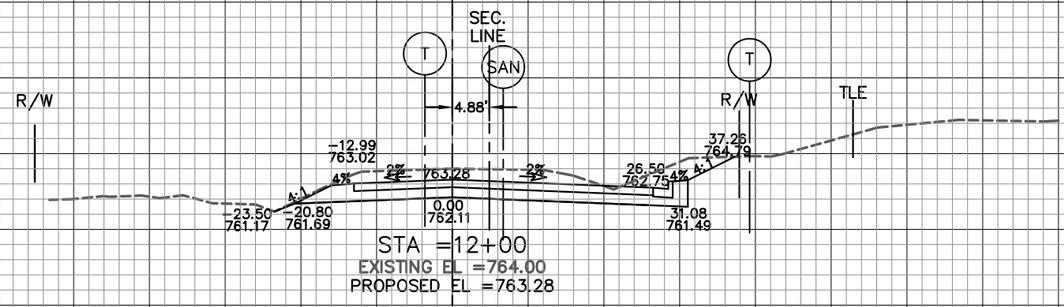
REVISION DATE: 10/28/2013

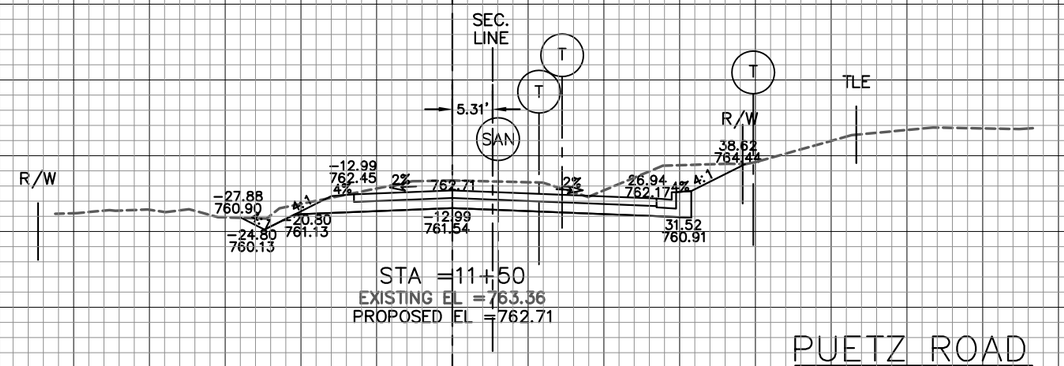
STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 700

WISDOT/CADDS SHEET 40

NOTE: OFFSETS SHOWN ARE FROM THE REFERENCE LINE (R/L). THE RIGHT OF WAY AND TLE LINES ARE MEASURED FROM THE SEC. LINE







PUETZ ROAD

REVISION DATE: 10/23/2013

STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 701

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

775 / 770 / 765

9 + 20

W SAN SS GAS

-33.49 769.91 | 3.5% | -17.64 768.93 | 2% | -6.00 769.97 | 6.00 769.17 | 2% | 17.71 768.93 | 2.3% | 34.20 769.68

REPLACE STONE WALK

REPLACE STONE WALK

STA =9+20
EXISTING EL =770.09
PROPOSED EL =770.64

9 + 10

E W SAN SS GAS

-20.14 769.78 | 1.70% | -17.56 769.40 | 2% | -6.00 770.35 | 6.00 769.63 | 2% | 17.62 769.40 | 4% | 22.20 769.85 | 1.84% | -34.85 770.09 | 30.90 769.75

STA =9+10
EXISTING EL =770.08
PROPOSED EL =770.61

9 + 00

E W SAN SS GAS

-35.00 770.05 | 5.22% | -17.48 768.87 | 2% | -6.00 769.82 | 6.00 769.10 | 2% | 17.53 768.87 | 6.09% | 30.00 769.63

RESIDENTIAL DRIVEWAY

RESIDENTIAL DRIVEWAY

STA =9+00
EXISTING EL =769.81
PROPOSED EL =769.82

5'
10'

MATCH EXISTING
STA 8+40

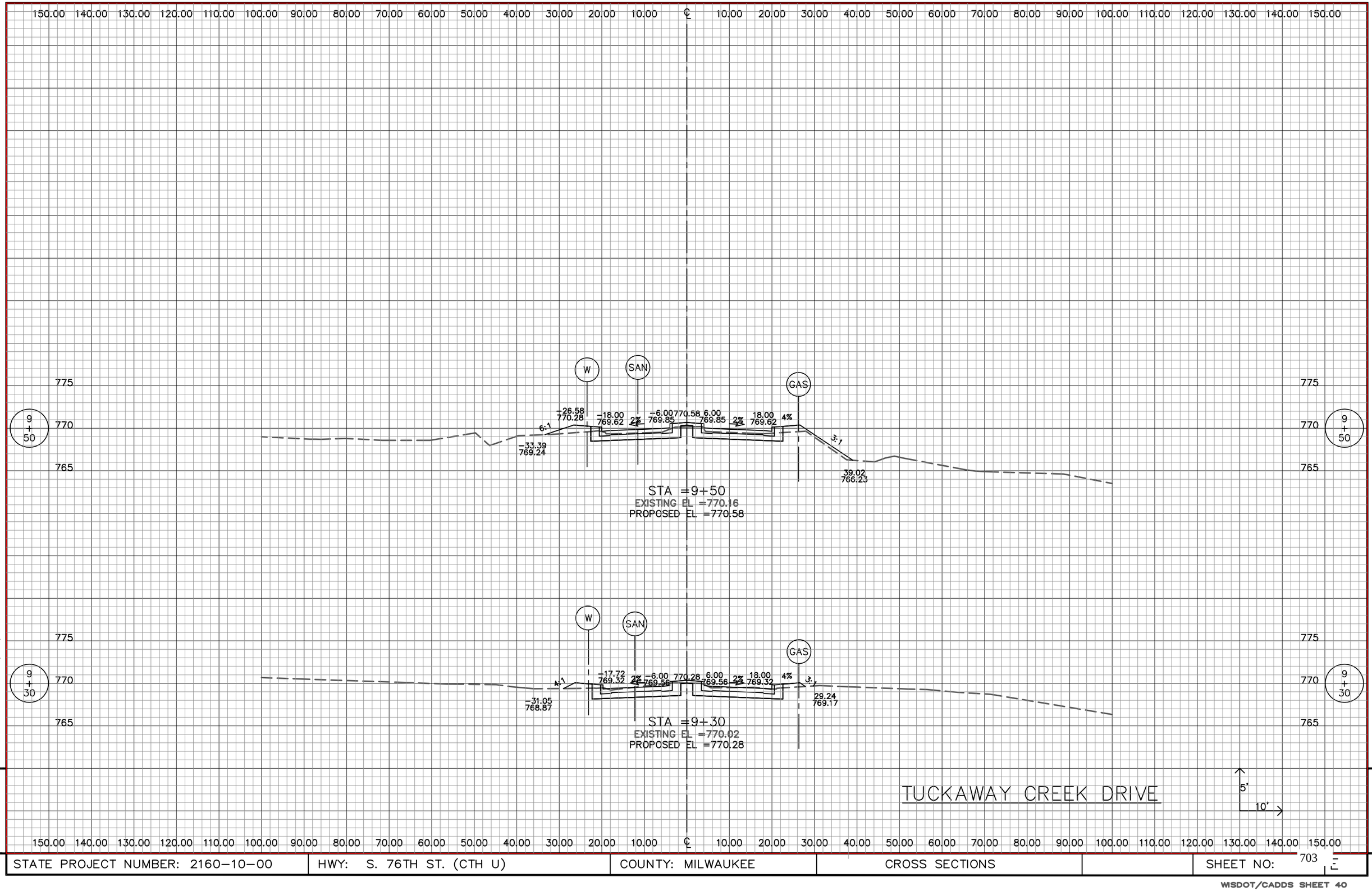
TUCKAWAY CREEK DRIVE

9

REVISION DATE: 4/20/2013

STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 702

WISDOT/CADDS SHEET 40



REVISION DATE: 4/20/2013

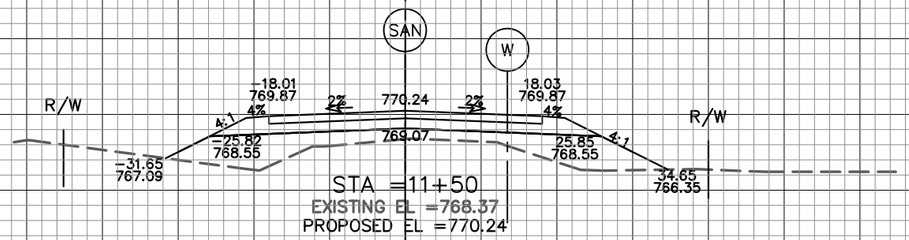
9

9

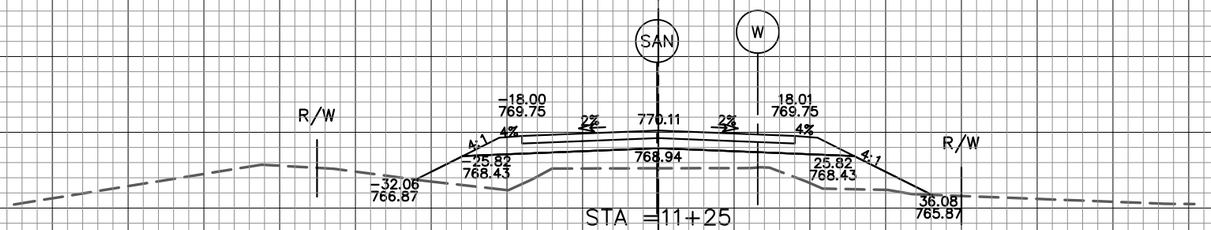
STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 703

WISDOT/CADDS SHEET 40

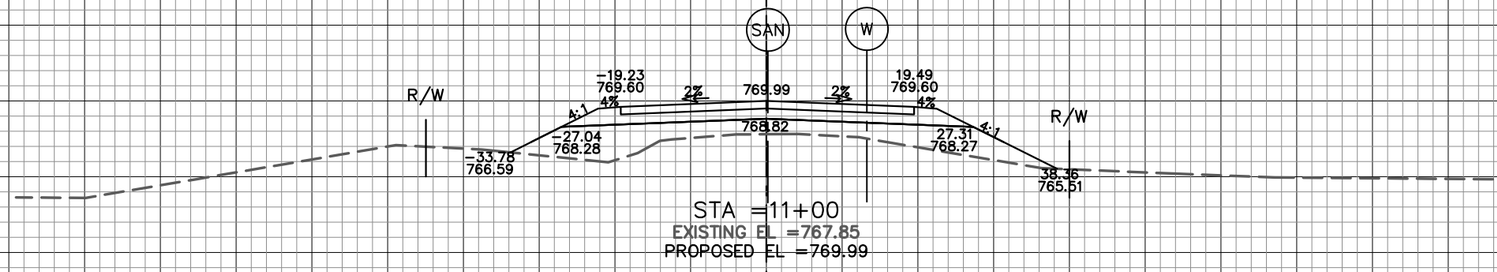
150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00



STA =11+50
EXISTING EL =768.37
PROPOSED EL =770.24



STA =11+25
EXISTING EL =767.62
PROPOSED EL =770.11



STA =11+00
EXISTING EL =767.85
PROPOSED EL =769.99

775 770 765 760

11 + 50 (STA =11+50)
11 + 25 (STA =11+25)
11 + 00 (STA =11+00)

5'
10'

FOREST HILL AVENUE

REVISION DATE: 6/27/2011

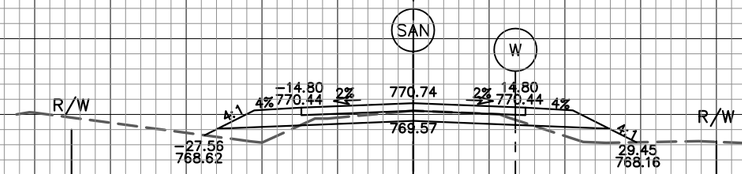
9

STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 704

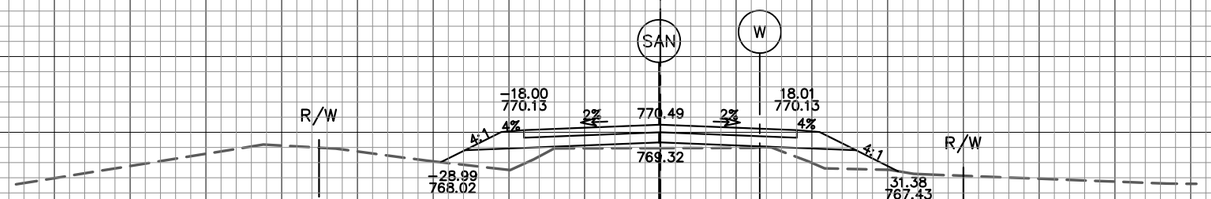
WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

MATCH EXISTING
STA 12+75



STA =12+50
EXISTING EL =770.26
PROPOSED EL =770.74



STA =12+00
EXISTING EL =768.94
PROPOSED EL =770.49

12 + 50

12 + 00

5'
10'

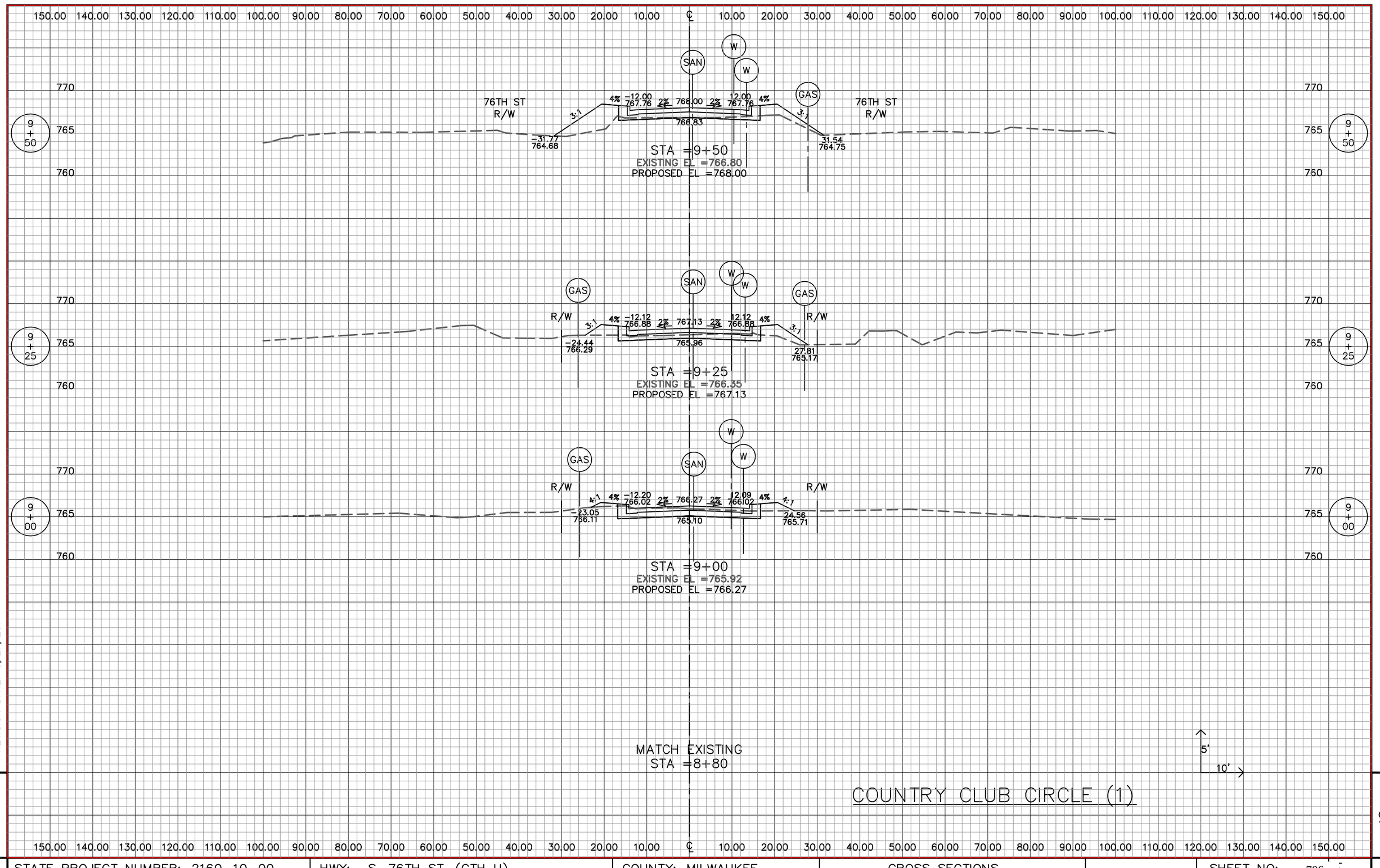
FOREST HILL AVENUE

REVISION DATE: 6/27/2011

9

STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 705

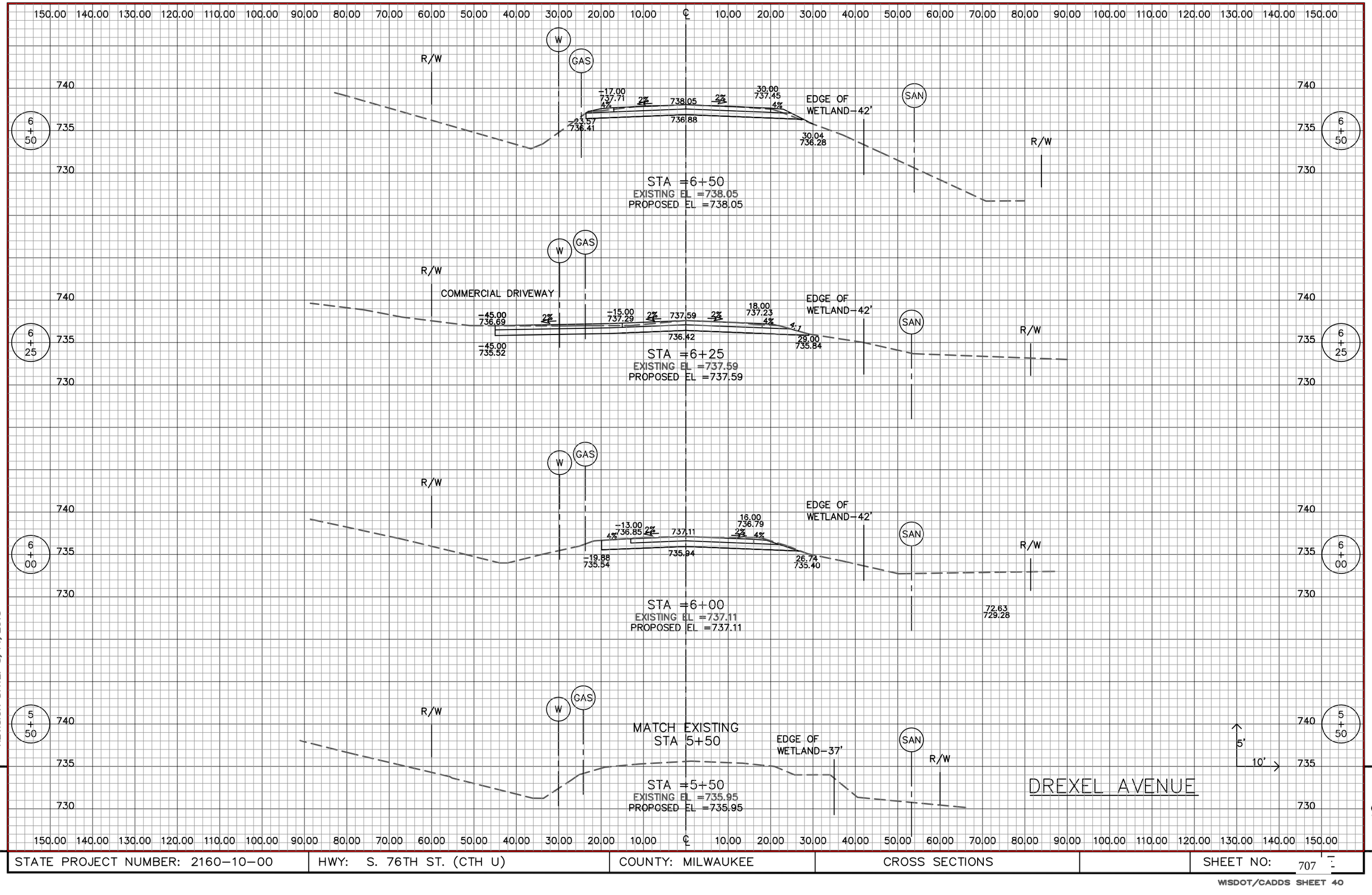
WISDOT/CADDS SHEET 40



REVISION DATE: 6/27/2011

STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 706

WISDOT/CADDS SHEET 40



REVISION DATE: 8/14/2013

9

9

STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 707

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

740 735 730

7 + 50

W GAS SAN

R/W

-18.00 740.84 4%

2% 741.20 2%

30.00 740.60 4%

4:1

-38.56 736.33

-29.81 738.52

-25.81 739.52

740.03

37.81 739.28

75.46 729.88

R/W

MILWAUKEE COUNTY LANDS

EDGE OF WETLAND–57'

STA =7+50
EXISTING EL =741.21
PROPOSED EL =741.20

740 735 730

7 + 25

W GAS SAN

R/W

-18.00 739.97 4%

2% 740.33 2%

28.17 739.76 4%

4:1

-35.72 739.12

-29.81 737.64

-25.81 738.64

739.16

35.98 738.44

72.63 729.28

R/W

MILWAUKEE COUNTY LANDS

EDGE OF WETLAND–57'

STA =7+25
EXISTING EL =740.33
PROPOSED EL =740.33

745 740 735

7 + 00

W GAS SAN

R/W

-17.14 739.11 4%

2% 739.45 2%

25.83 738.93 4%

4:1

-29.15 736.83

738.28

33.64 737.61

58.59 731.37

R/W

MILWAUKEE COUNTY LANDS

EDGE OF WETLAND–55'

STA =7+00
EXISTING EL =739.45
PROPOSED EL =739.45

5'
10'

DREXEL AVENUE

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/27/2011

9

9

STATE PROJECT NUMBER: 2160–10–00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 708

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

740 735 730

8 + 25

W GAS SAN

R/W

-18.00 743.35 4%

2% 743.71 2%

30.00 743.11 4%

-30.26 741.14

-25.81 742.03

742.54

37.81 741.79

4:1

81.97 730.75

EDGE OF WETLAND–62'

STA =8+25
EXISTING EL =743.81
PROPOSED EL =743.71

8 + 00

-18.00 742.59 4%

2% 742.95 2%

30.00 742.35 4%

-25.81 741.27

741.78

37.81 741.03

-39.12 737.94

79.89 730.51

EDGE OF WETLAND–57'

STA =8+00
EXISTING EL =742.95
PROPOSED EL =742.95

7 + 75

-18.00 741.72 4%

2% 742.08 2%

30.00 741.48 4%

-25.81 740.39

740.91

37.81 740.15

-38.83 737.14

77.68 730.18

EDGE OF WETLAND–57'

STA =7+75
EXISTING EL =741.94
PROPOSED EL =742.08

5' 10'

DREXEL AVENUE

REVISION DATE: 6/27/2011

9

STATE PROJECT NUMBER: 2160–10–00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 709

WISDOT/CADDS SHEET 40

NOTE:
SEE MAINLINE CROSS SECTIONS FOR STATIONS 9+25 THROUGH 10+75

STA =9+00
EXISTING EL =746.09
PROPOSED EL =745.99

STA =8+75
EXISTING EL =745.08
PROPOSED EL =745.23

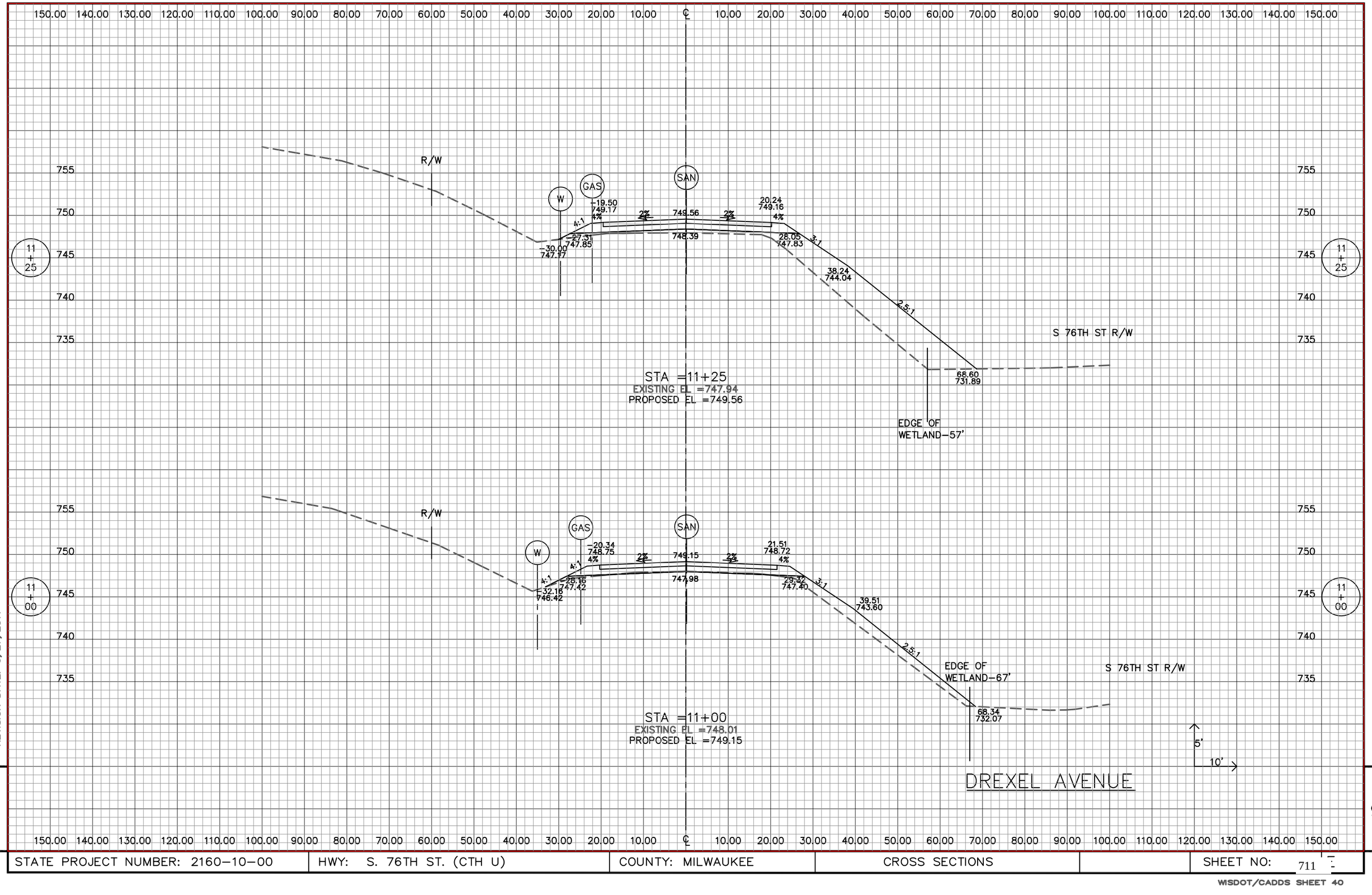
STA =8+50
EXISTING EL =744.66
PROPOSED EL =744.47

DREXEL AVENUE

REVISION DATE: 6/27/2011

STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 710

WISDOT/CADDS SHEET 40

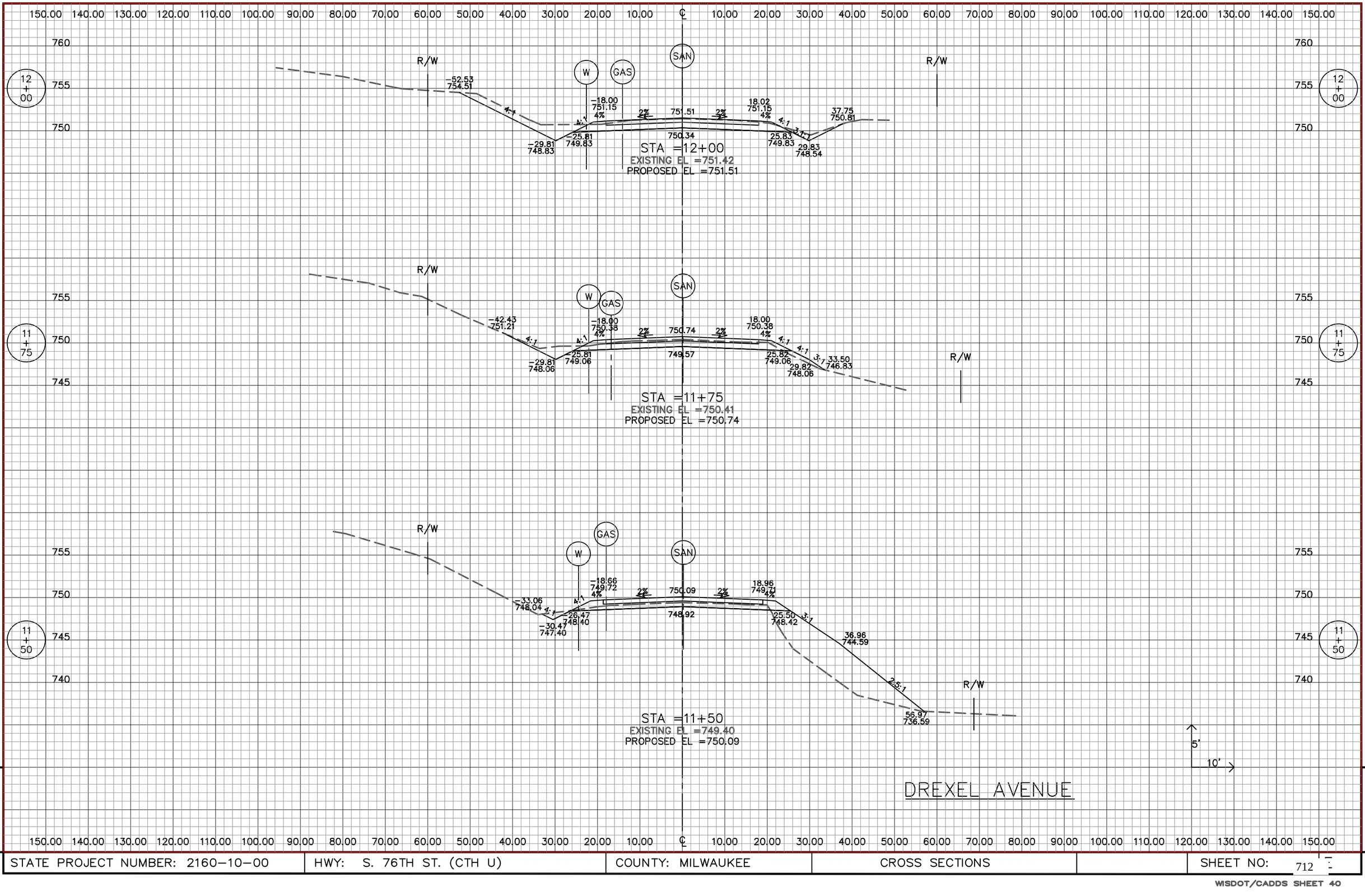


REVISION DATE: 6/27/2011

9

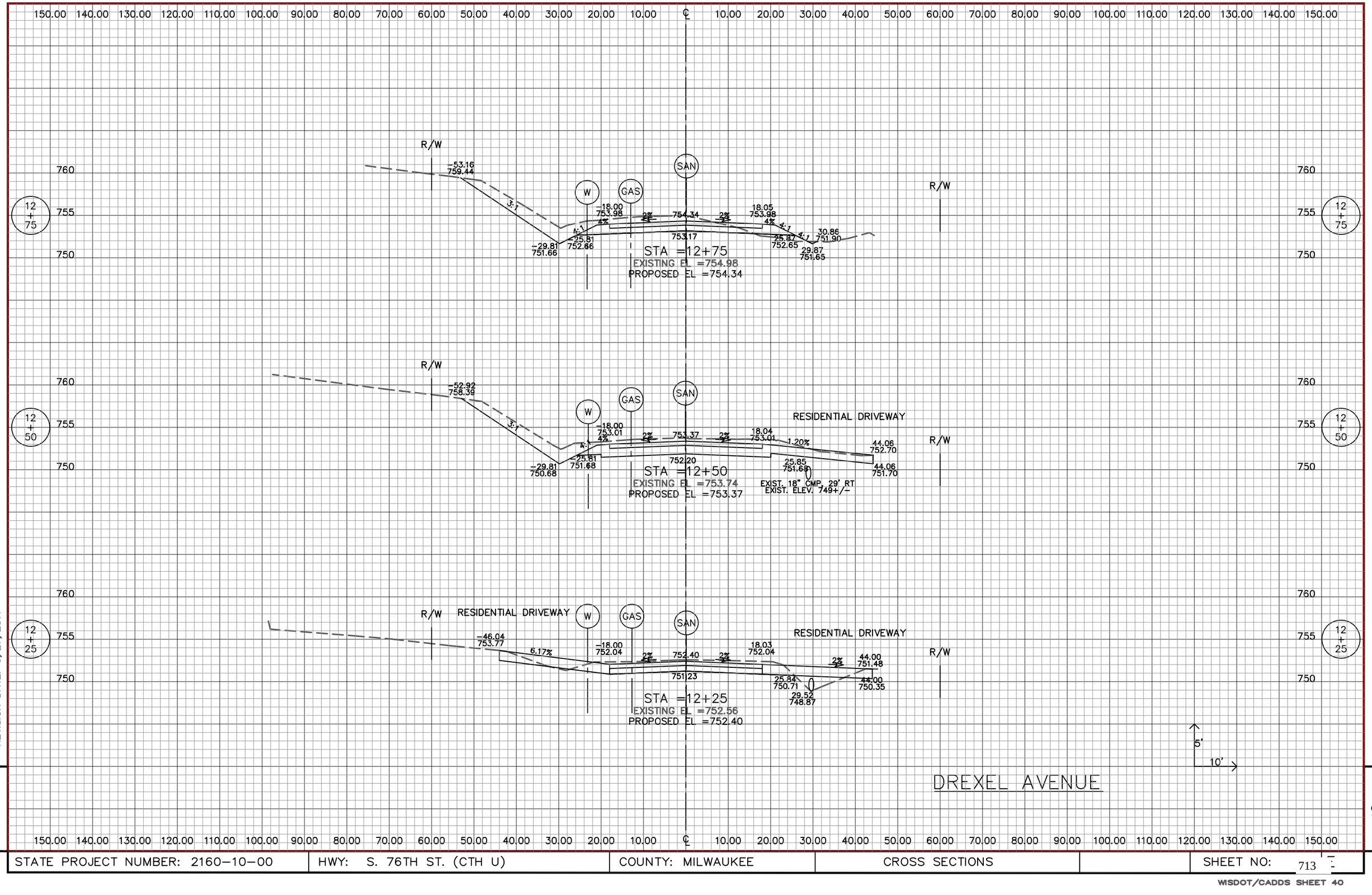
STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 711

WISDOT/CADDS SHEET 40



REVISION DATE: 6/8/2012

STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 712

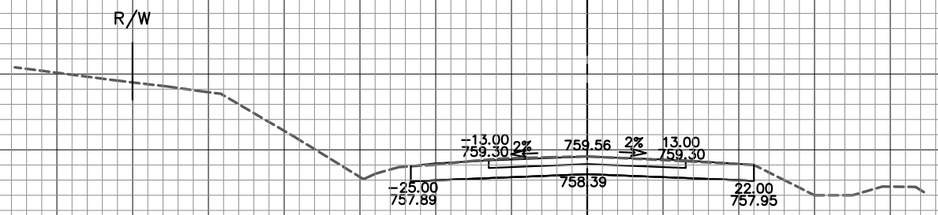


REVISION DATE: 6/27/2011

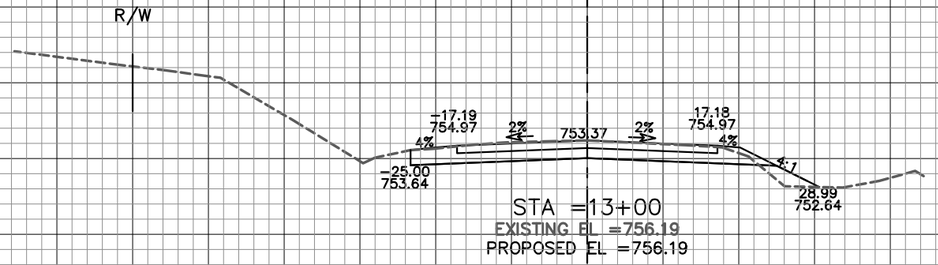
STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 713

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

MATCH EXISTING STA 14+00



STA =13+50
EXISTING EL =759.56
PROPOSED EL =759.56



STA =13+00
EXISTING EL =756.19
PROPOSED EL =756.19

DREXEL AVENUE

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

REVISION DATE: 6/27/2011

9

9

STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 714

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

760 755 750 765

9 + 50

GAS SAN R/W R/W

-20.58 756.80 -12.00 756.14 2% 756.38 2% -12.00 756.14 20.58 756.80 4:1 -21.67 756.53 23.36 756.11 755.21

STA =9+50
EXISTING EL =755.78
PROPOSED EL =756.38

760 755 765

9 + 33.31

GAS SAN R/W R/W

-22.23 757.19 4:1 -13.65 756.50 2% 756.77 2% 13.84 756.49 2% 26.00 757.70 -22.35 757.16 758.60

RESIDENTIAL DRIVEWAY

STA =9+33.31
EXISTING EL =756.37
PROPOSED EL =756.77

765 760 755

9 + 25

GAS SAN R/W R/W

-21.62 757.56 4:1 -12.29 756.71 2% 756.96 2% 12.91 756.70 21.50 757.36 4:1 -20.87 757.37 22.64 757.07 755.79

STA =9+25
EXISTING EL =756.87
PROPOSED EL =756.96

765 760 755

9 + 00

GAS SAN R/W R/W

2.5% -10.39 757.33 2% 757.54 2% 12.71 757.28 21.29 757.94 4:1 -19.25 757.92 21.59 757.86 756.58

STA =9+00
EXISTING EL =757.33
PROPOSED EL =757.54

MATCH EXISTING
STA =8+80

5' 10'

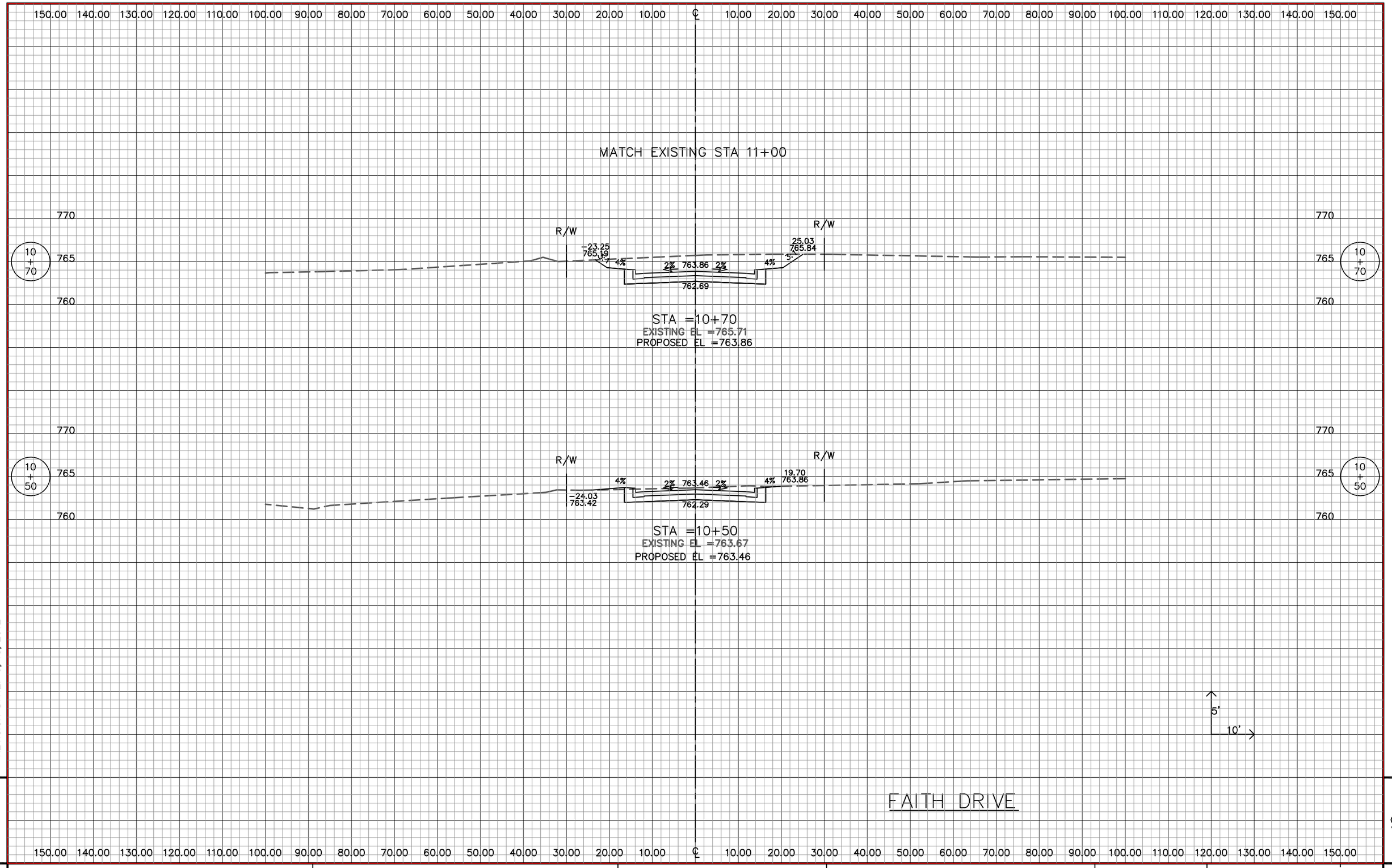
PINEBERRY RIDGE

REVISION DATE: 6/27/2011

9 9

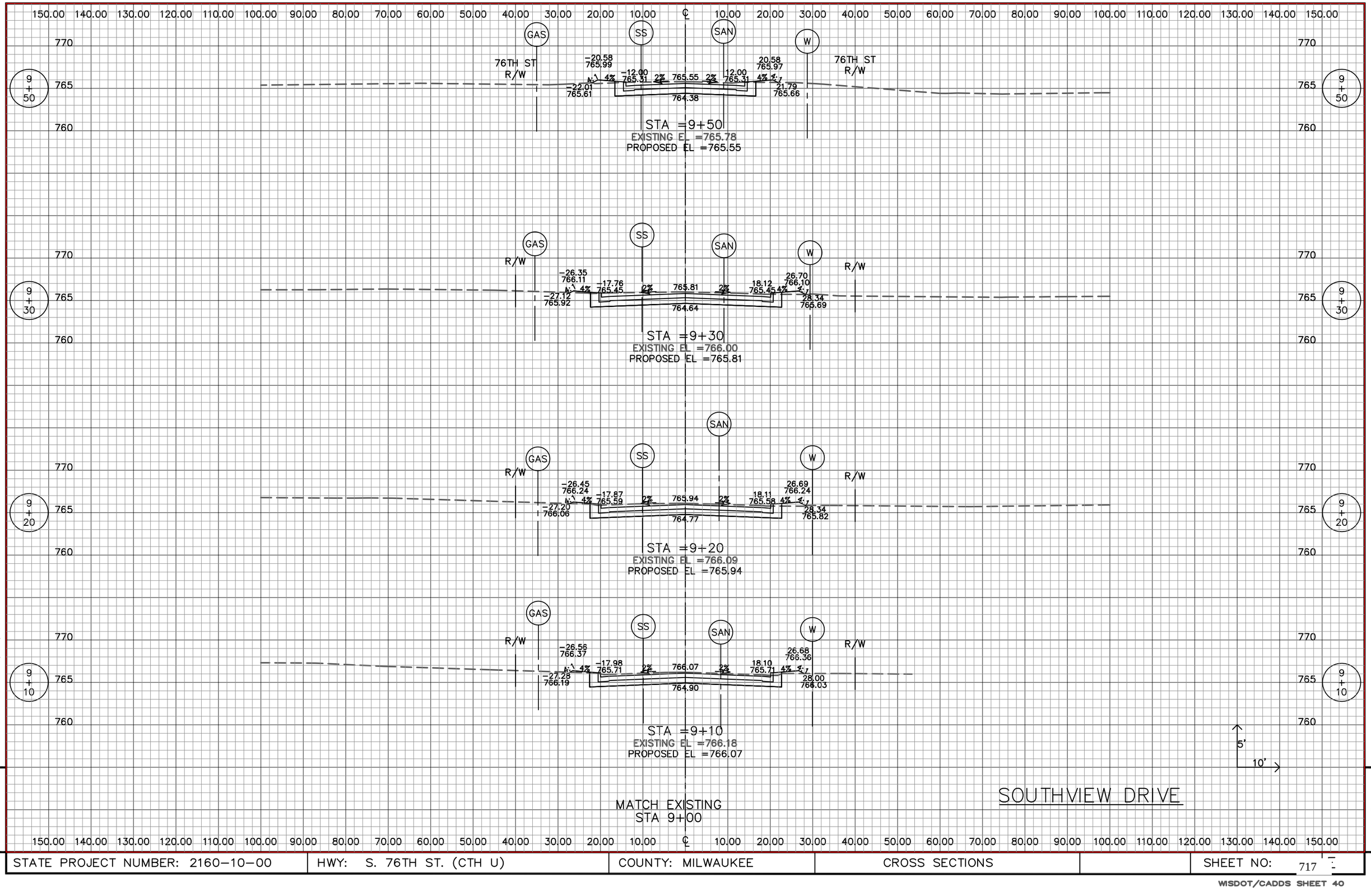
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STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 715



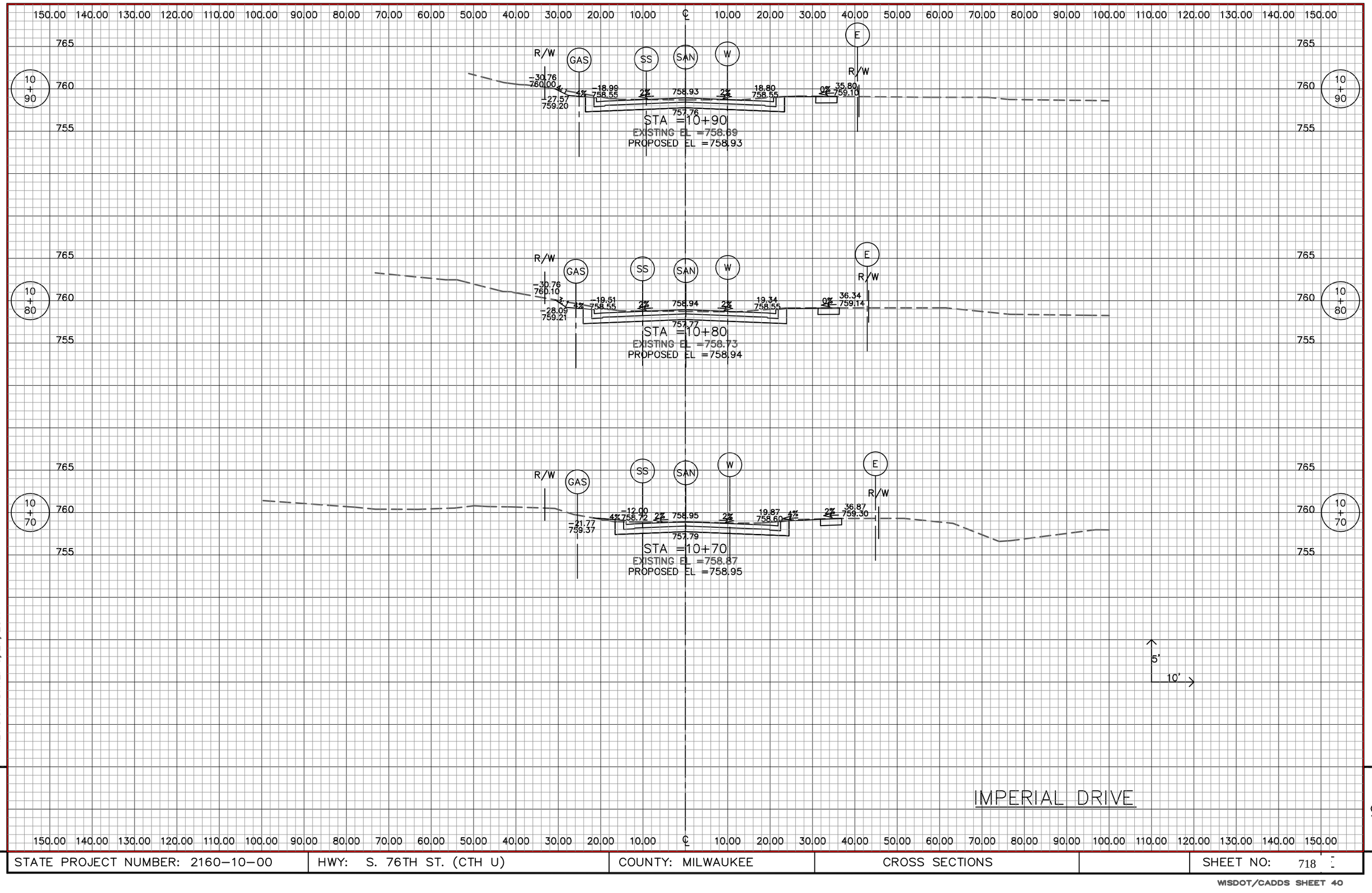
REVISION DATE: 9/13/2012

STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 716



REVISION DATE: 6/27/2011

STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 717



REVISION DATE: 6/27/2011

9

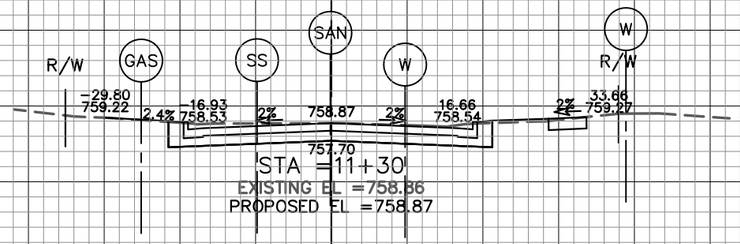
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STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 718

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

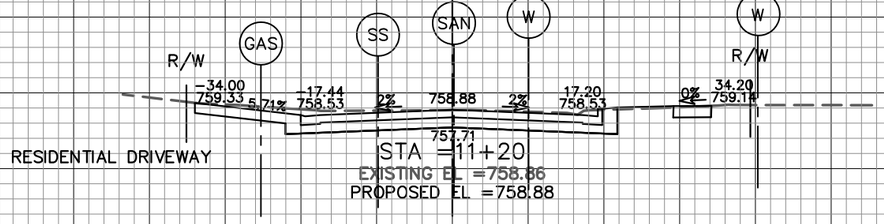
765 / 760 / 755

11 + 30



STA =11+30
EXISTING EL =758.86
PROPOSED EL =758.87

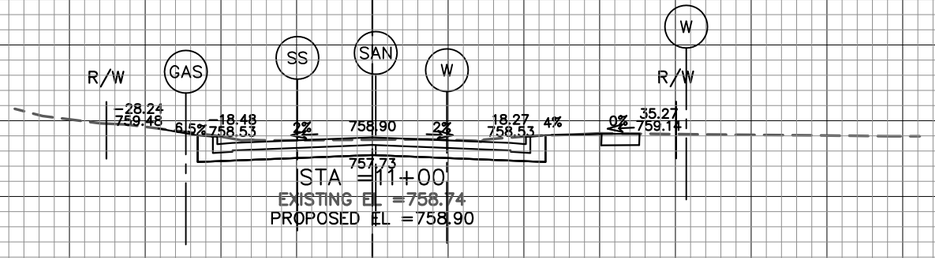
11 + 20



RESIDENTIAL DRIVEWAY

STA =11+20
EXISTING EL =758.86
PROPOSED EL =758.88

11 + 00



STA =11+00
EXISTING EL =758.74
PROPOSED EL =758.90

5'
10'

IMPERIAL DRIVE

REVISION DATE: 6/27/2011

9

STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 719

WISDOT/CADDS SHEET 40

150.00 140.00 130.00 120.00 110.00 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 ℄ 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00

MATCH EXISTING
STA 11+60

765
760
755

11 + 50

R/W GAS SS SAN W E R/W

-31.71 759.23 2.2% -15.90 758.52 2% 758.83 2% 15.59 758.52 0% 32.59 759.06

757.67

STA =11+50
EXISTING EL =758.81
PROPOSED EL =758.83

11 + 40

R/W GAS SS SAN W E R/W

-26.04 759.07 1.1% -16.41 758.53 2% 758.86 2% 16.13 758.54 1.3% 0% 33.13 759.16

757.69

STA =11+40
EXISTING EL =758.84
PROPOSED EL =758.86

5'
10'

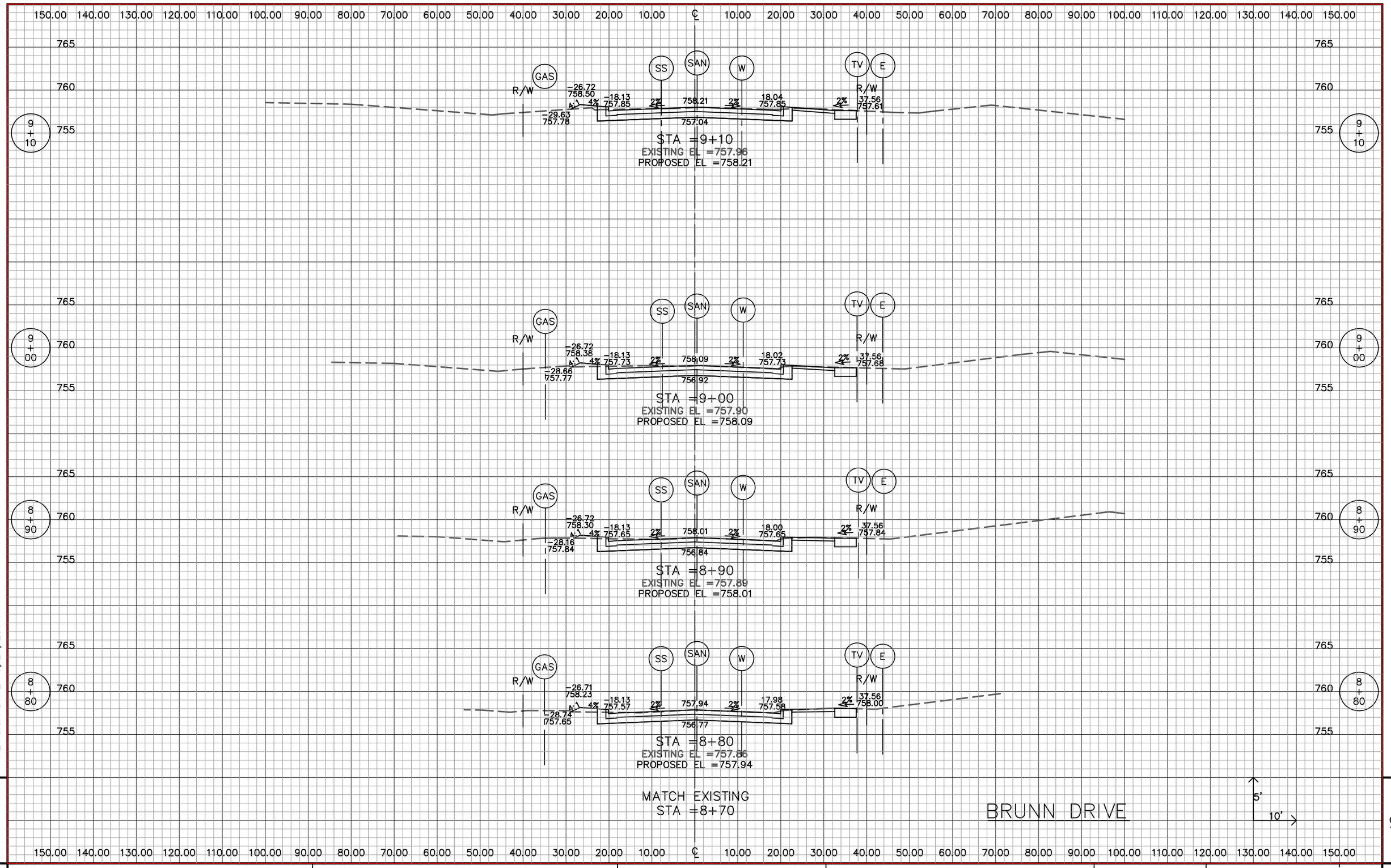
IMPERIAL DRIVE

REVISION DATE: 6/27/2011

9

STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 720

WISDOT/CADDS SHEET 40

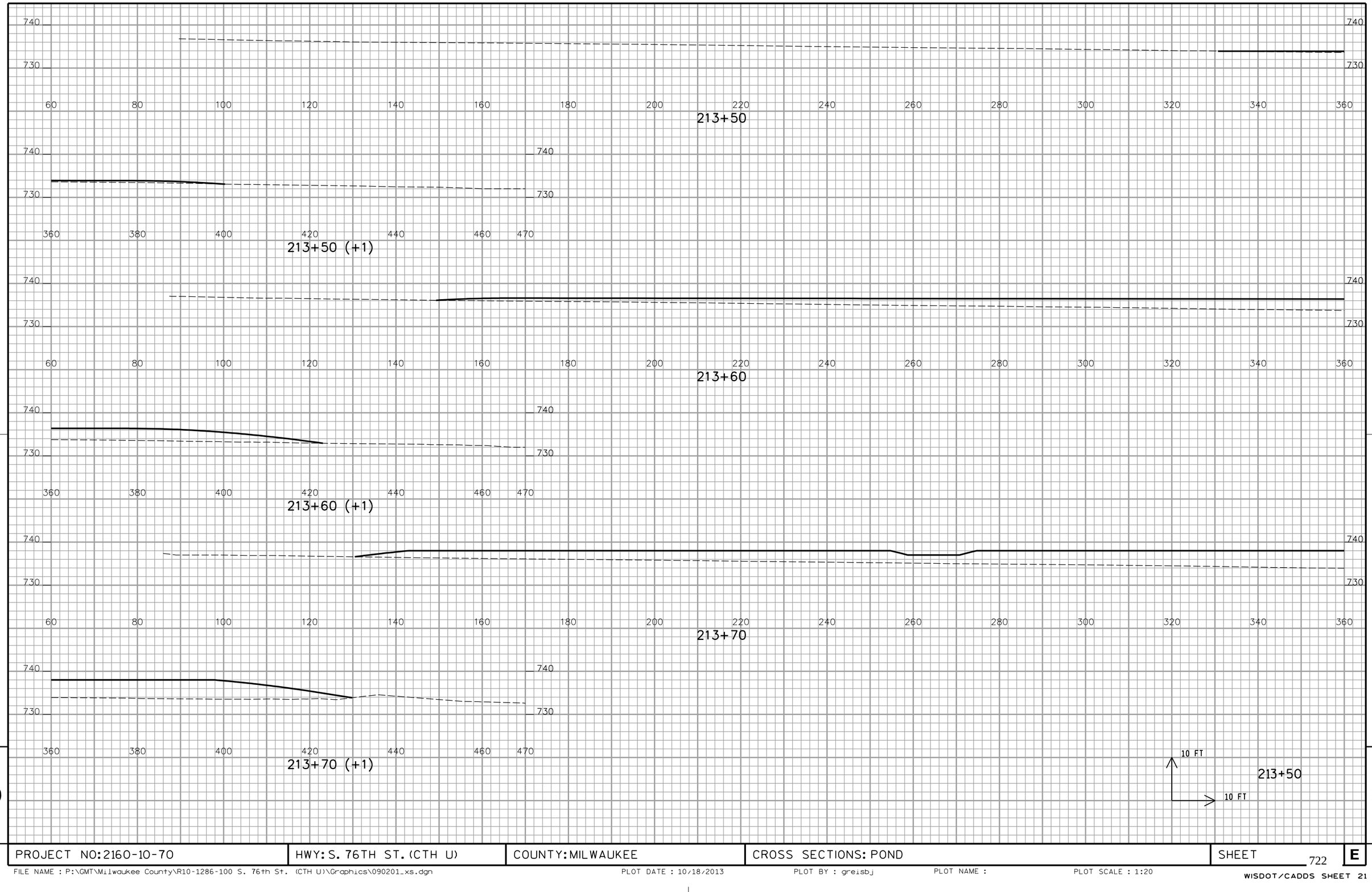


REVISION DATE: 6/27/2011

9

9

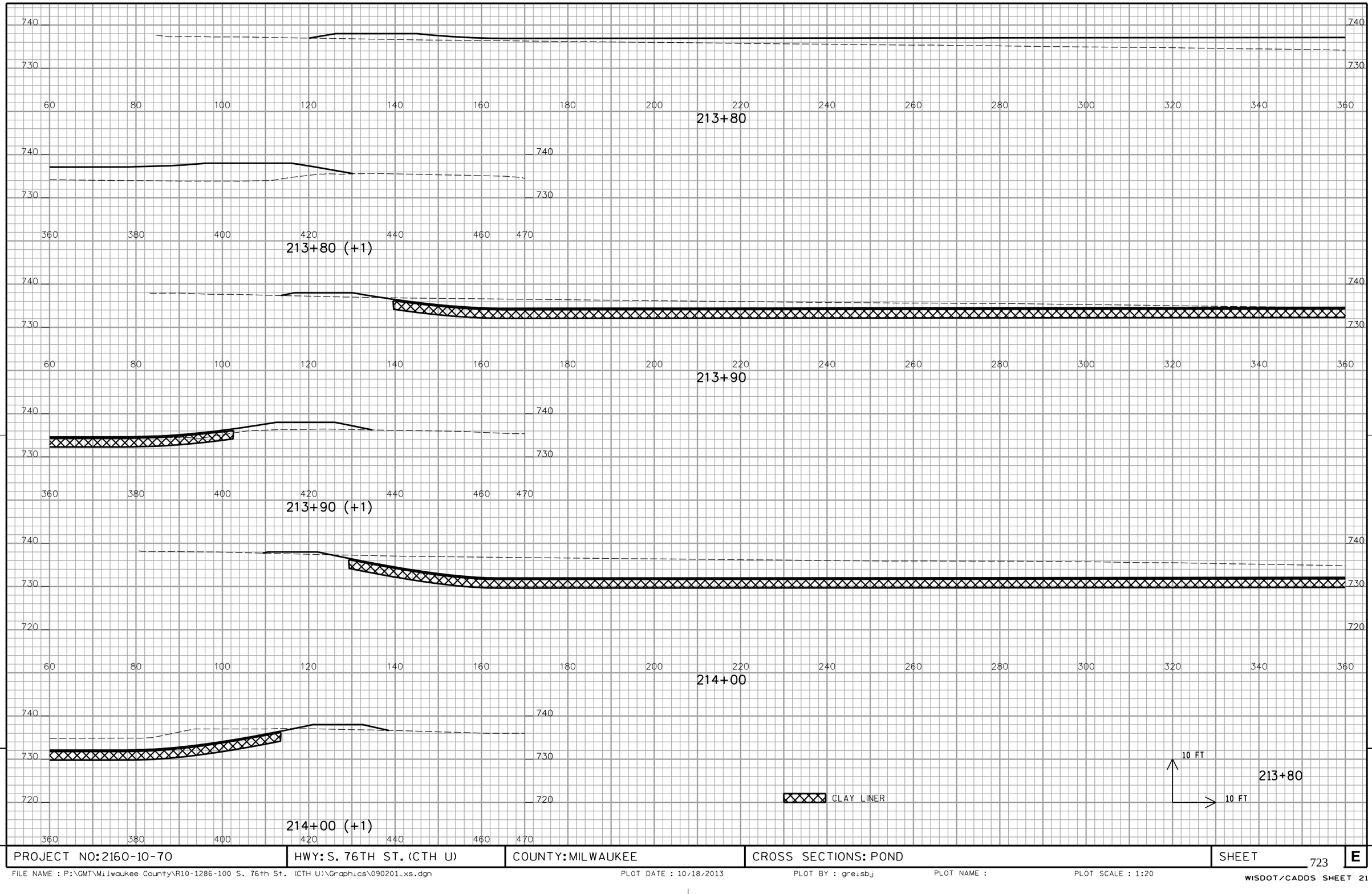
STATE PROJECT NUMBER: 2160-10-00	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS		SHEET NO: 721



9

9

PROJECT NO: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS: POND	SHEET 722	E

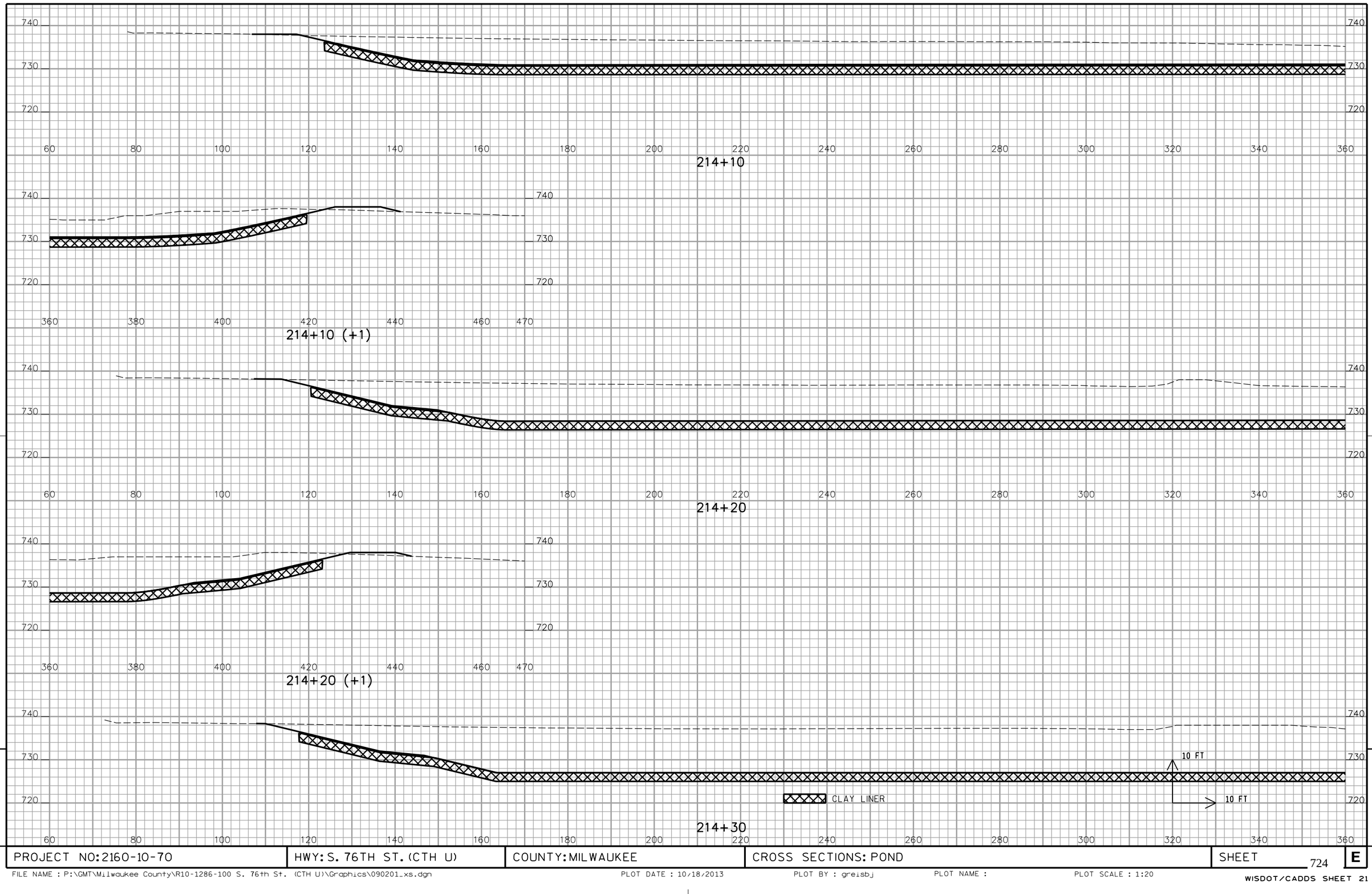


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PROJECT NO:2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS: POND	SHEET 723	E

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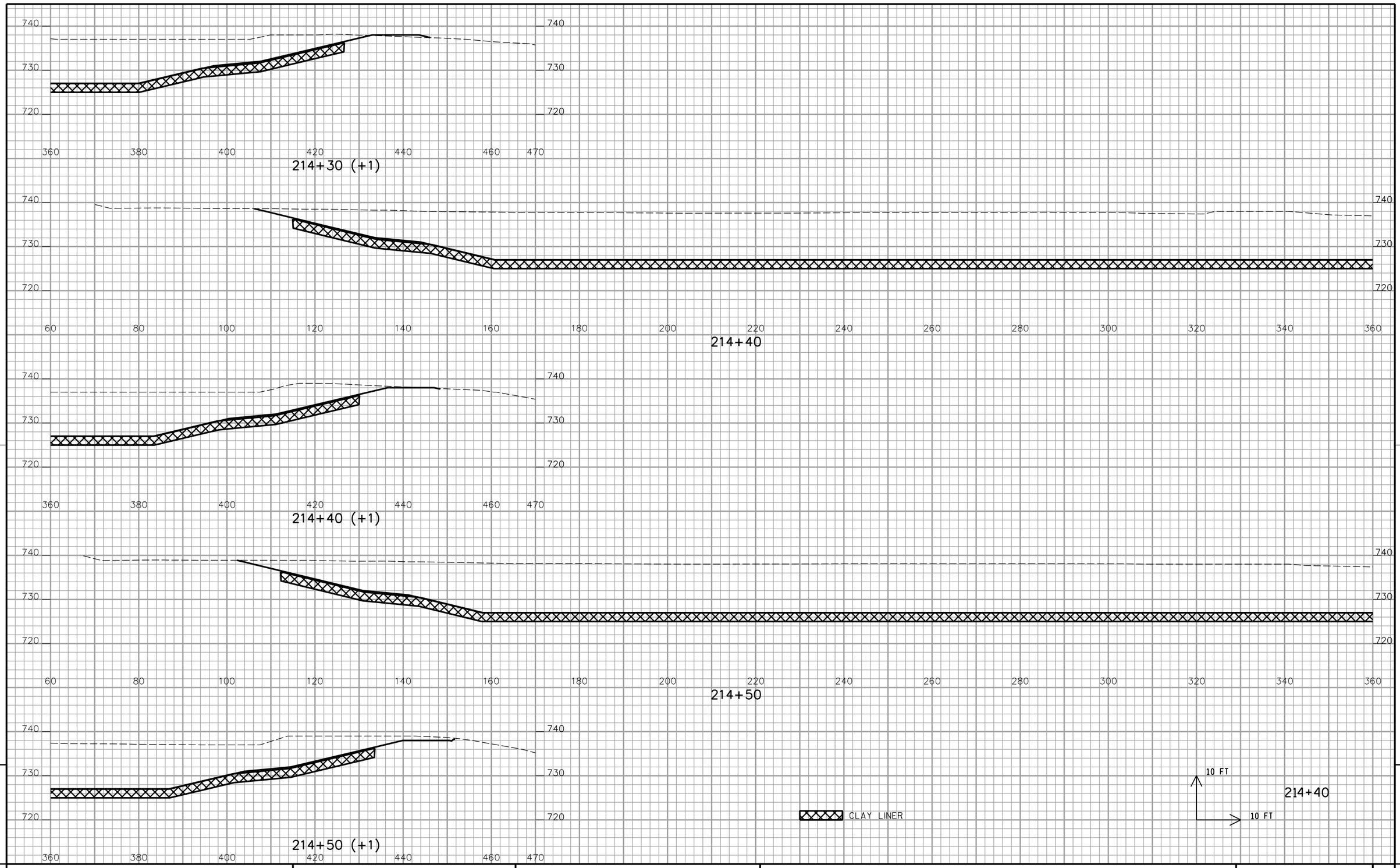
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9

PROJECT NO:2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS: POND	SHEET 724	E

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WISDOT/CADDS SHEET 21



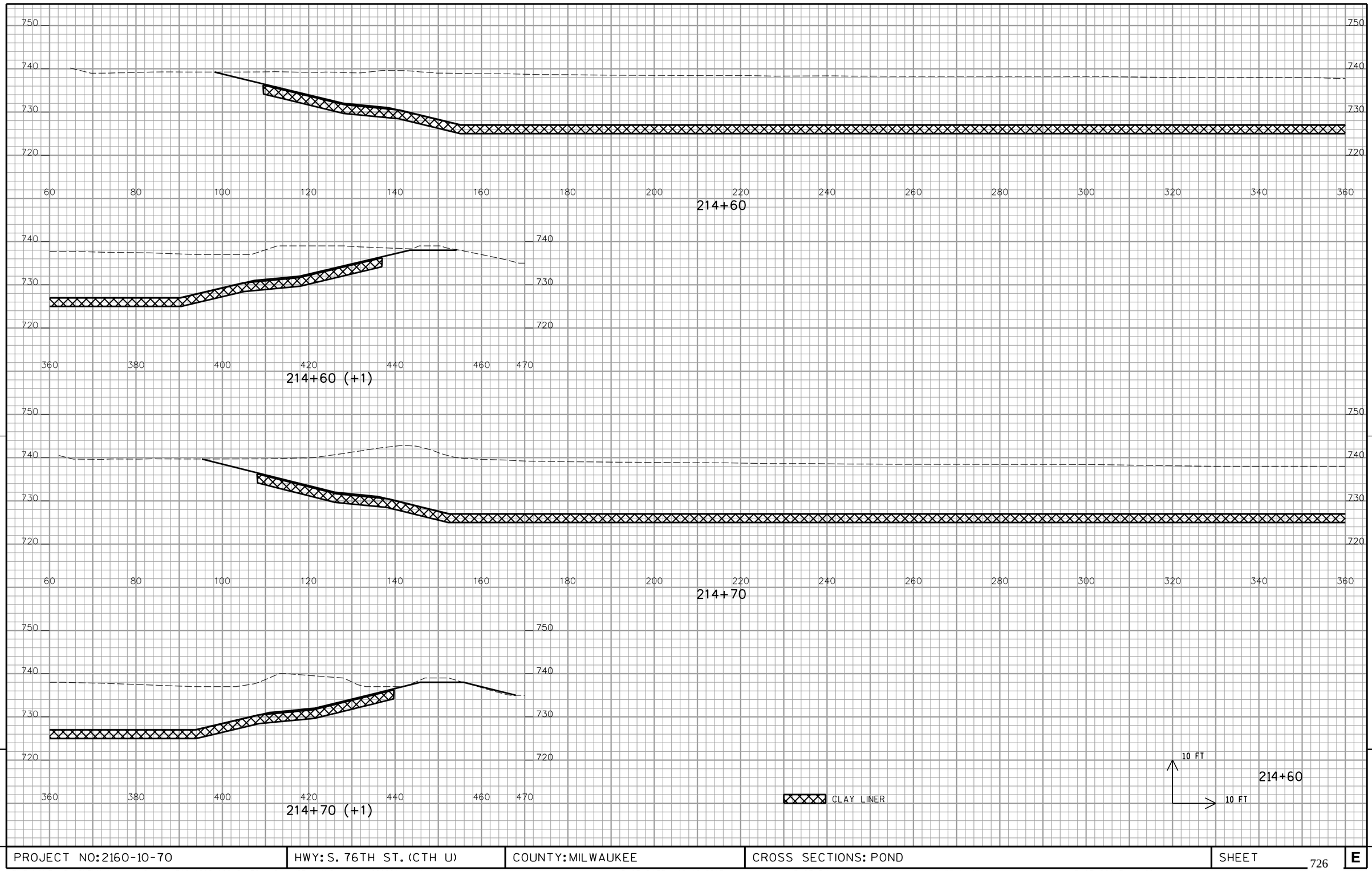
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PROJECT NO: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS: POND	SHEET 725	E

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WISDOT/CADDS SHEET 21



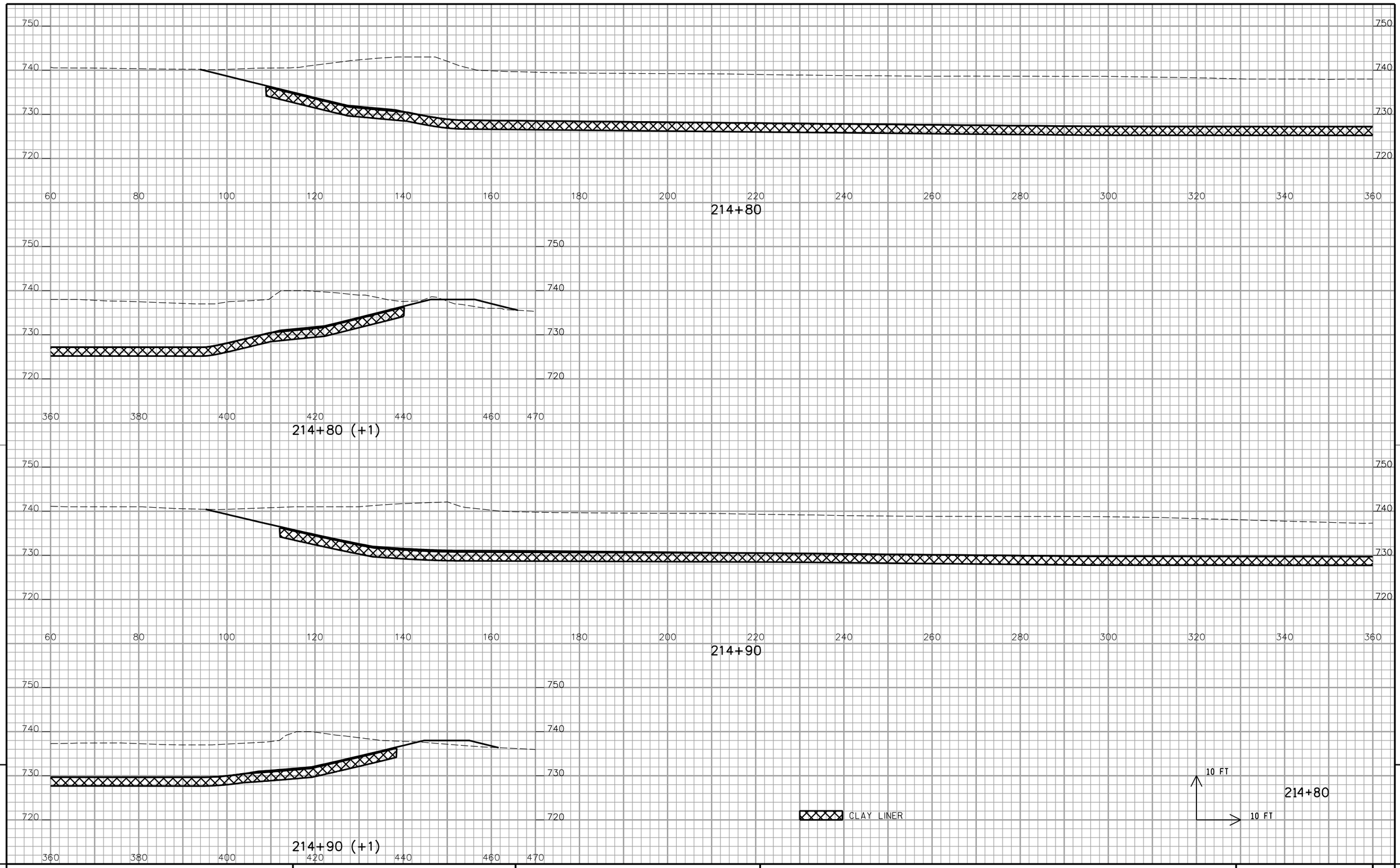
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9

PROJECT NO: 2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS: POND	SHEET 726	E

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WISDOT/CADDS SHEET 21



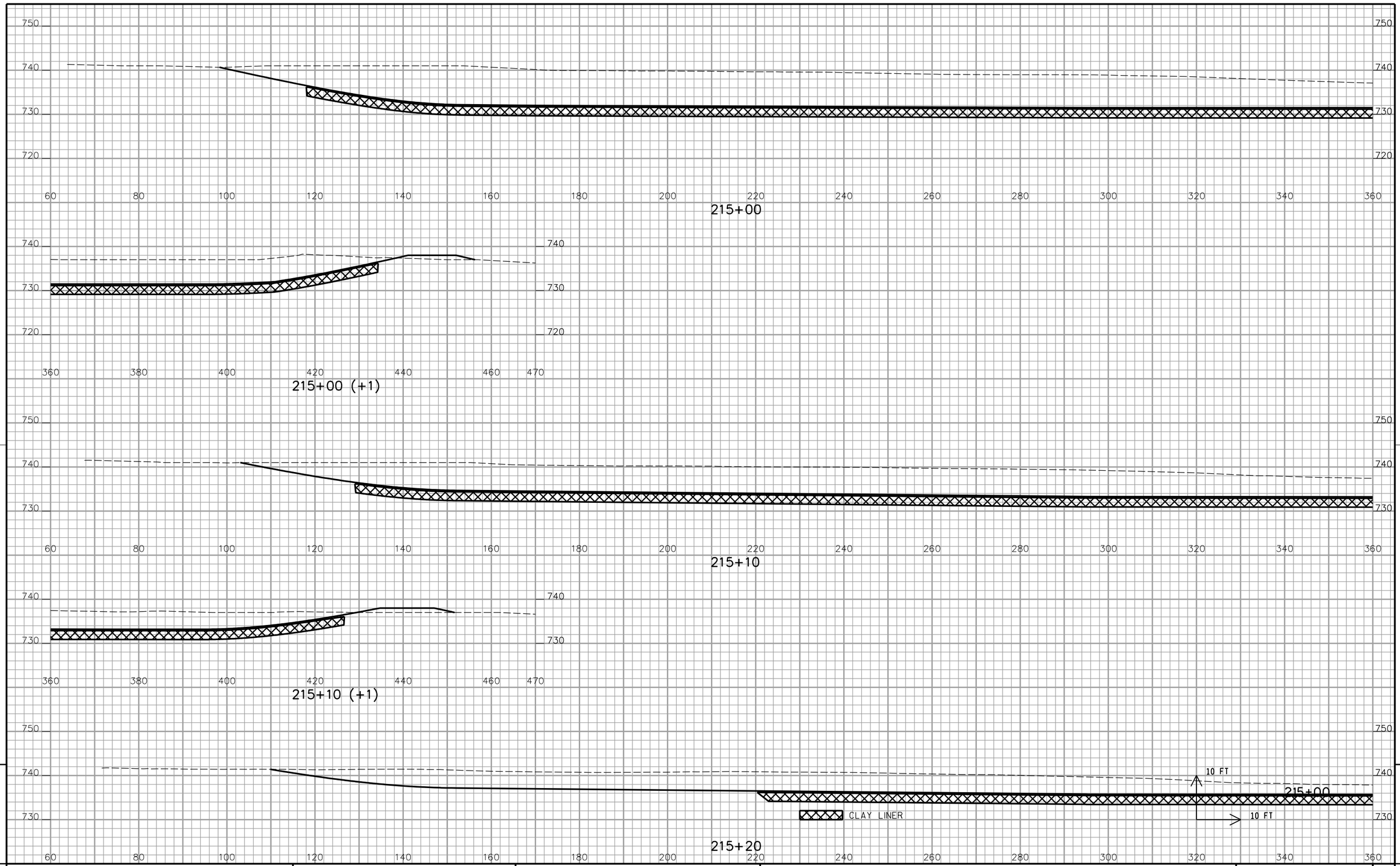
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PROJECT NO:2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS: POND	SHEET 727	E

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WISDOT/CADDS SHEET 21



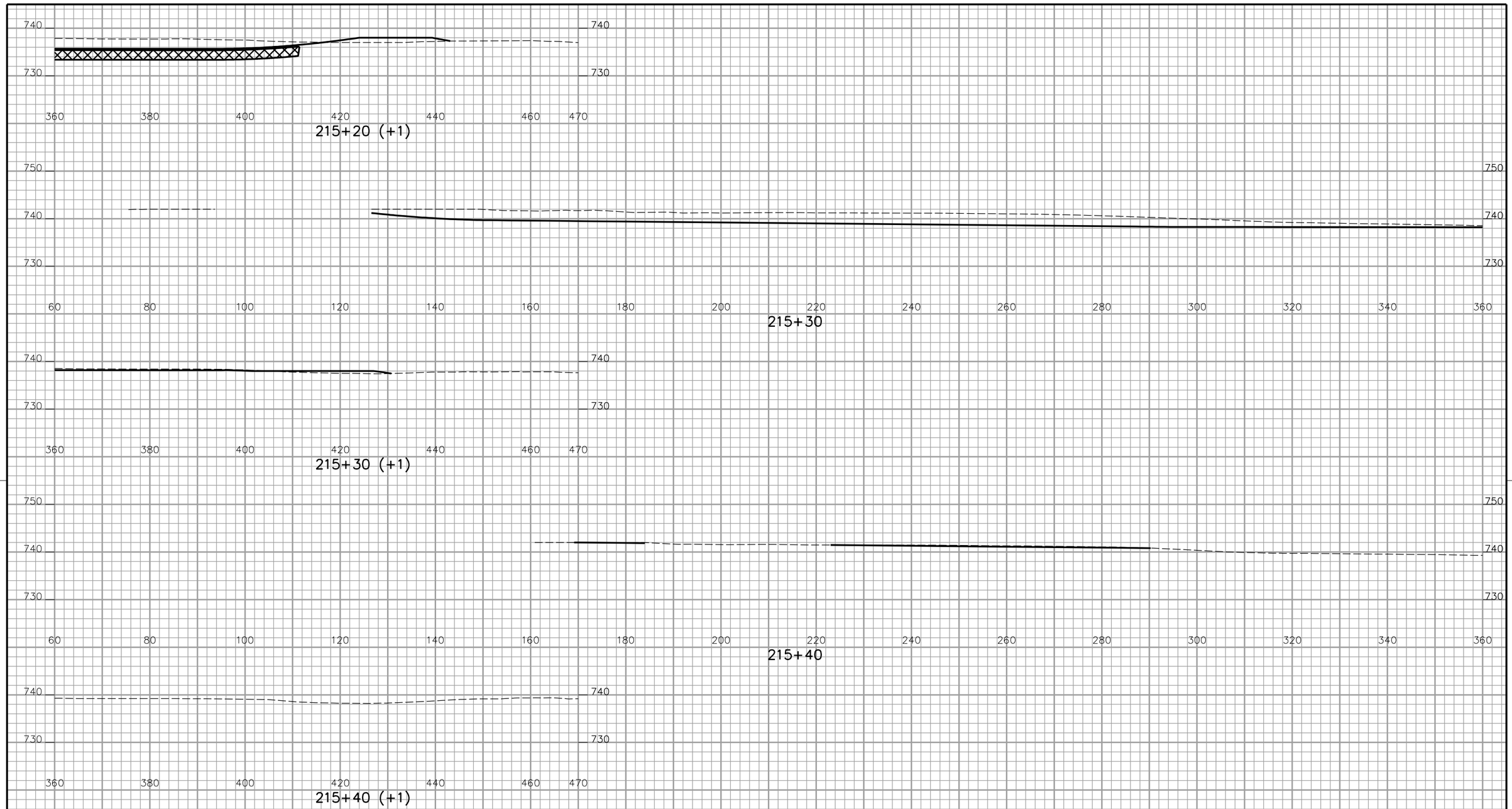
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PROJECT NO:2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS: POND	SHEET 728	E

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WISDOT/CADDS SHEET 21



9

9

PROJECT NO:2160-10-70	HWY: S. 76TH ST. (CTH U)	COUNTY: MILWAUKEE	CROSS SECTIONS: POND	SHEET 729	E

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WISDOT/CADDS SHEET 21

Wisconsin Department of Transportation

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