WKE FEBRUARY 2020

PROJECT ID: 2782-03-76

WITH: N/A

COUNTY: WAUKESHA

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 = 532



16

N

DESIGN DESIGNATION

			CTH O	CTH I
A.A.D.T.	(2020)	=	33,900	12,800
A.A.D.T.	(2040)	=	41,100	15,500
D.H.V.		=	4,200	1,710
D.D.		=	59/41	59/41
T.		=	15.1%	6.8%
DESIGN SPEED		=	45 MPH	40 MPH WEST/45 MPH EAST
ESALS		=	9,259,600	N/A

CONVENTIONAL SYMBOLS

COUNTY LINE
CORPORATE LIMITS
PROPERTY LINE
LIMITED EASEMENT
EXISTING RIGHT OF WAY
PROPOSED OR NEW R/W LINE
FENCE
GUARD RAIL
SLOPE INTERCEPT
ORIGINAL GROUND
MARSH OR ROCK PROFILE (To be noted as such) — ROCK
MARSH AREA
WOODED OR SHRUB AREA
STREAM OR WATER EDGE
BUSH
PINE TREE (SIZE)
TREE (SIZE)
TRAFFIC SIGNAL CONTROL CABINET
TRAFFIC SIGNAL
TRAFFIC SIGNAL MAST-ARM
TRAFFIC SIGNAL WITH LIGHT
EXISTING PULL BOX
BOLLARD

COMBUSTIBLE FLUIDS — CAUTION
UNDERGROUND UTILITIES
GAS (SIZE) G
SANITARY SEWER (SIZE) SAN
STORM SEWER (SIZE) SS
WATER (SIZE) W
ELECTRIC E
TELEPHONE T
FIBER OPTIC FO
CABLE TELEVISION TV
FORCE MAIN FM
MANHOLE MH
UTILITY PEDESTAL
FIBER OPTIC HAND HOLE HH
POWER POLE
TELEPHONE POLE
RAILROAD
HYDRANT
LIGHT POLE
RAILROAD SIGNAL
SIGN
TRANSMISSION TOWER
VALVE (TYPE)
CURB STOP CS
EXISTING CULVERT (SIZE, TYPE)
PROPOSED CULVERT (Box or Pipe)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CTH O

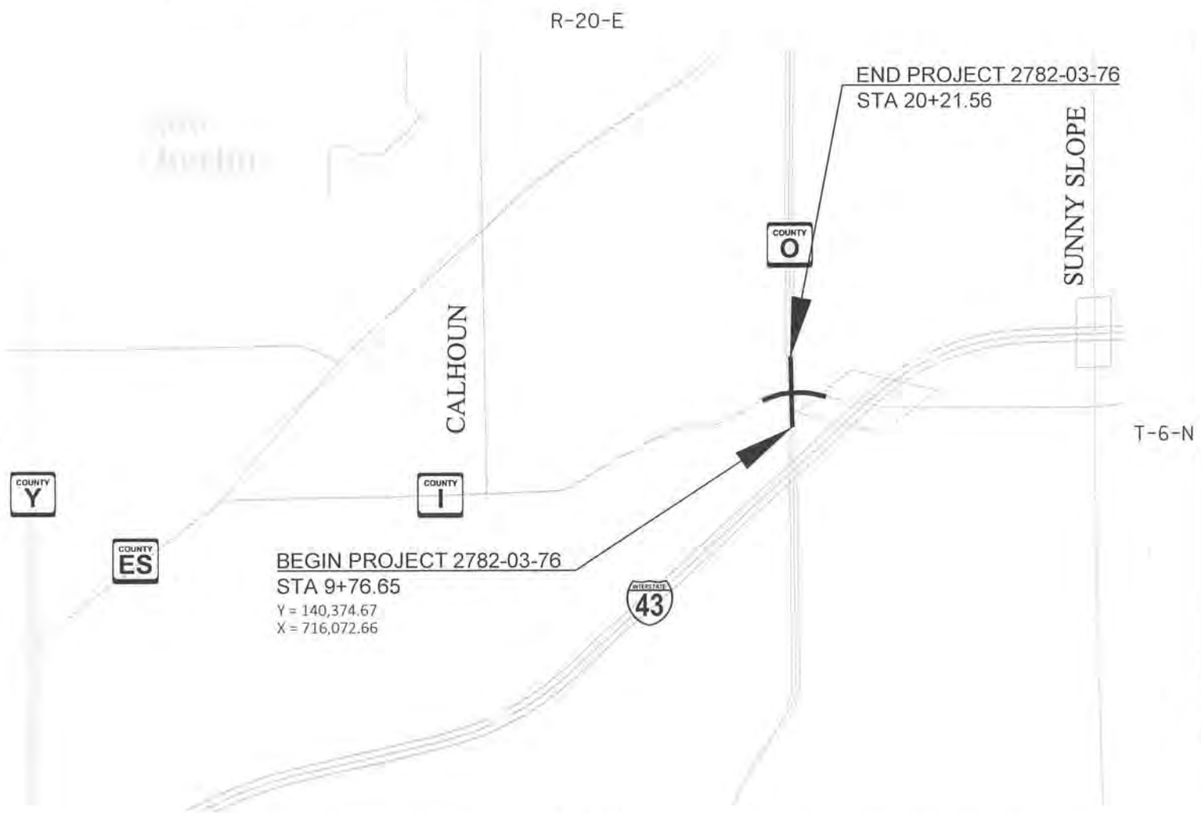
IH-43 WB RAMP TO BELOIT ROAD

CTH O

WAUKESHA COUNTY

STATE PROJECT NUMBER
2782-03-76

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2782-03-76	WISC 2020044	1



LAYOUT

SCALE 0 1/2 MI

TOTAL NET LENGTH OF CENTERLINE = 0.198 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), WAUKESHA COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES. GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ACCEPTED FOR

COUNTY of WAUKESHA

7-29-19 (Date) Allison Bussler DIRECTOR OF PUBLIC WORKS

7/29/19 (Date) Carol M Ayl ENGINEERING SERVICES MANAGER

ORIGINAL PLANS PREPARED BY

raSmith

CREATIVITY BEYOND ENGINEERING

rasmith.com

WISCONSIN PROFESSIONAL ENGINEER
RACHEL A. DeSOMBRE
E-36868
WAUKESHA, WI

7/29/2019 (Date) Rachel A. DeSombre (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	raSmith
Designer	raSmith
Regional Examiner	STEVE CHOINACKI
Regional Supervisor	JEFF BOHEN

APPROVED FOR THE DEPARTMENT

DATE: 7/29/19 K. Kramer (SIGNATURE)

E

FILE NAME: T:\1172707\CIVIL3D\27820306\SHEETSPLAN\010101-TI.DWG PLOT DATE: 7/26/2019 9:41 AM PLOT BY: BLACKWOOD, JIM PLOT NAME:

STANDARD ABBREVIATIONS

AC	ACRE	MPH	MILES PER HOUR
AC	ASPHALT CEMENT	N	NORTH
ACP	ASPHALTIC CONCRETE PAVEMENT	NB	NORTHBOUND
ADJ	ADJUST	NC	NORMAL CROWN
AADT	AVERAGE ANNUAL DAILY TRAFFIC	NO	NUMBER
AECPRC	APRON ENDWALLS FOR CULVERT	NOM	NOMINAL
	PIPE REINFORCED CONCRETE	OD	OUTSIDE DIAMETER
	HORIZONTAL ELLIPTICAL	OH	OVERHEAD
AH	AHEAD	OPT	OPTIONAL
AP	ACCESS POINT	PACS	PIPE ARCH CORRUGATED STEEL
ASPH	ASPHALTIC	PAVT	PAVEMENT
AVG	AVERAGE	PC	POINT OF CURVATURE
BAD	BASE AGGREGATE DENSE	PCC	POINT OF COMPOUND CURVATURE
BK	BACK	PCC	PORTLAND CEMENT CONCRETE
BM	BENCHMARK	PE	PRIVATE ENTRANCE
C & G	CURB AND GUTTER	PGL	PROFILE GRADE LINE
C/L	CENTER LINE	PI	POINT OF INTERSECTION
C/L CONST	CENTER LINE CONSTRUCTION	PL	PROPERTY LINE
CABC	CRUSHED AGGREGATE BASE COURSE	PLE	PERMANENT LIMITED EASEMENT
CB	CATCH BASIN	PSF	POUNDS PER SQUARE FOOT
CFS	CUBIC FEET PER SECOND	PSI	POUNDS PER SQUARE INCH
CL	CLASS	PT	POINT
CMCP	CORRUGATED METAL CULVERT PIPE	PT	POINT OF TANGENCY
CMP	CORRUGATED METAL PIPE	PVC	POLYVINYL CHLORIDE
CONC	CONCRETE	Q100	100-YEAR FLOW RATE
CONC	CONCRETE	R	RADIUS
CONST	CONSTRUCTION	R	RANGE
CP	CONTROL POINT	R/L	REFERENCE LINE
CPCS	CULVERT PIPE CORRUGATED STEEL	R/W	RIGHT-OF-WAY
CPRC	CULVERT PIPE REINFORCED CONCRETE	RD	ROAD
CPRCHE	CULVERT PIPE REINFORCED CONCRETE	RDWY	ROADWAY
	HORIZONTAL ELLIPTICAL	REINF	REINFORCING OR REINFORCEMENT
CTH	COUNTY TRUNK HIGHWAY	REQD	REQUIRED
CWT	HUNDRED WEIGHT	RR	RAILROAD
CY	CUBIC YARD	RT	RIGHT
D	DEGREE OF CURVE	S	SOUTH
DD	DIRECTIONAL DISTRIBUTION	SB	SOUTHBOUND
DHV	DESIGN HOUR VOLUME	SDD	STANDARD DETAIL DRAWINGS
DIA	DIAMETER	SEC	SECTION
DWY	DRIVEWAY	SE	SUPERELEVATION
E	EAST	SF	SQUARE FEET
EB	EASTBOUND	SHLDR	SHOULDER
EBS	EXCAVATION BELOW SUBGRADE	SQ	SQUARE
EL	ELEVATION	SS	STORM SEWER
ESALS	EQUIVALENT SINGLE AXLE LOADS	SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
EXC	EXCAVATION	ST	STREET
EXIST	EXISTING	STA	STATION
FE	FIELD ENTRANCE	STH	STATE TRUNK HIGHWAYS
FERT	FERTILIZE	STR	STRUCTURE OR STRUCTURAL
FL	FLOW LINE	SW	SIDEWALK
FPS	FEET PER SECOND	SY	SQUARE YARD
FT	FOOT	T	TANGENT
GN	GRID NORTH	T	TOWN
HES	HIGH EARLY STRENGTH	T	TRUCKS (PERCENT OF)
HMA	HOT MIX ASPHALT	TEMP	TEMPORARY
HP	HIGH POINT	TI	TEMPORARY INTEREST
HW	HIGH WATER	TLE	TEMPORARY LIMITED EASEMENT
HWD	HYDRANT	TYP	TYPICAL
I	INTERSECTION ANGLE	UG	UNDERGROUND
ID	INSIDE DIAMETER	USH	UNITED STATES HIGHWAY
INL	INLET	VAR	VARIABLE
INV	INVERT	VC	VERTICAL CURVE
IP	IRON PIPE OR PIN	VCL	VERTICAL CURVE LENGTH
JT	JOINT	VERT	VERTICAL
LB	POUND	VOL	VOLUME
LF	LINEAR FOOT	VPC	VERTICAL POINT OF CURVATURE
LP	LOW POINT	VPI	VERTICAL POINT OF INTERSECTION
LS	LUMP SUM	VPT	VERTICAL POINT OF TANGENCY
LT	LEFT	W	WEST
L	LENGTH OF CURVE	WB	WESTBOUND
MAX	MAXIMUM	WM	WATERMAIN
MGAL	MEGAGALLON	WV	WATER VALVE
MH	MANHOLE	X	EAST GRID COORDINATE
MIN	MINIMUM	Y	NORTH GRID COORDINATE
MON	MONUMENT	YD	YARD
MGAL	MEGAGALLON	Δ	CENTRAL ANGLE OR DELTA

GENERAL NOTES

1 NO SHRUBS OR TREES ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
2 EROSION CONTROL DEVICES ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER REQUIRED.
3 EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
4 RE-TOPSOIL GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. SOD AND FERTILIZE TOPSOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE TO BE LEFT EXPOSED FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED AND MULCH.
5 STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS, AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS TO BE LEFT FOR MORE THAN FOURTEEN (14) DAYS, RESTORE THE STOCKPILE WITH TEMPORARY SEED AND MULCH.
6 RESHAPE, RESTORE, AND FINISH ALL PREVIOUSLY GRASSED AREAS DISTURBED OUTSIDE THE NORMAL CONSTRUCTION LIMITS AT NO EXPENSE TO THE DEPARTMENT.
7 PLACE TOPSOIL TO 1 INCH BELOW TOP OF ADJACENT CONCRETE CURBS OR SIDEWALKS IN SOD AREAS.
8 THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS IN THE AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK.
9 SEE SUBSURFACE EXPLORATION REPORTS FOR SOIL BORING INFORMATION. REPORTS ARE AVAILABLE FROM WAUKESHA COUNTY BY CONTACTING BRUCE BARNES, WAUKESHA COUNTY PROJECT MANAGER, 262-548-7748.
10 VOLUMES FOR EXCAVATION COMMON INCLUDE REMOVAL OF EXISTING CONCRETE PAVEMENT, ASPHALT, AND BASE COURSE TO THE PROPOSED SUBGRADE.
11 CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL REQUIRED. TOPSOIL SHALL BE REPLACED WITH 6-INCH TYPICAL DEPTH.
12 HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS:

THICKNESS	LAYERS
2-INCH OVERLAY	2" UPPER LAYER 4-MT 58-28-S
6-INCH	2" UPPER LAYER 4 MT 58-28-S 4" LOWER LAYER 3 MT 58-28-S
6 1/2-INCH	2" UPPER LAYER 4 MT 58-28-S 2 1/4" LOWER LAYER 3 MT 58-28-S 2 1/4" LOWER LAYER 3 MT 58-28-S
7 1/2-INCH	2" UPPER LAYER 4 MT 58-28-S 2 3/4" LOWER LAYER 3 MT 58-28-S 2 3/4" LOWER LAYER 3 MT 58-28-S

13 WHEN THE QUANTITY OF ITEMS OF BASE AGGREGATE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, THE THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.
14 STATIONING, DISTANCES AND OFFSETS FOR SIGNS SHOWN ON THE PLANS ARE APPROXIMATE AND THE LOCATIONS OF SIGNS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
15 ALL CURB AND GUTTER RADII ARE MEASURED TO THE FLANGE LINE UNLESS OTHERWISE NOTED.
16 CURB AND GUTTER GRADES ARE TO THE FLANGE LINE UNLESS OTHERWISE NOTED.
17 PAVEMENT REMOVAL WILL BE TO THE NEAREST JOINT, OR AS DIRECTED BY THE ENGINEER.
18 VERIFY EXISTING PAVEMENT ELEVATIONS AT ALL TIE-INS TO EXISTING PAVEMENT PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IF A DISCREPANCY IS FOUND BETWEEN PROPOSED PLAN ELEVATIONS AND EXISTING PAVEMENT ELEVATIONS.
19 THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, BIKE, OR PARKING LANE.
20 SAWCUT EXISTING ASPHALT AND CONCRETE PAVEMENT AT THE MATCHLINE INDICATED ON THE PLANS UNLESS OTHERWISE IDENTIFIED IN THE THE PLAN OR AS DIRECTED BY THE ENGINEER.
21 CONSTRUCT INSIDE EDGE OF SIDEWALK 1/2-INCH HIGHER THAN TOP OF CURB WHEN THEY ARE ADJACENT TO EACH OTHER.
22 ALL OPENINGS OF HOLES BELOW SUBGRADE RESULTING FROM REMOVALS OR ABANDONMENTS SHALL BE BACKFILLED IN ACCORDANCE WITH SECTION 204 OF THE STANDARD SPECS. ALL BACKFILL MATERIAL IS INCIDENTAL TO THE REMOVAL ITEM.
23 PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL FIELD VERIFY RELATED DRAINAGE INFORMATION IN THE PLANS AND PROVIDE DOCUMENTATION TO THE ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS.
24 SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AS DIRECTED BY THE ENGINEER AND PAID FOR AS COVERING SIGNS TYPE I OR TYPE II. IN LIEU OF COVERING WOOD POST MOUNTED SIGNS, THE CONTRACTOR MAY CHOOSE TO REMOVE AND REINSTALL THEM.
25 ALL SIGN LOCATIONS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO INSTALLATION.
26 CONTRACTOR MUST CONTACT THE ENGINEER AND SEWRPC AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

2

DESIGNER CONTACT

MR. JIM BLACKWOOD, P.E.
raSmith
16745 W BLUEMOUND ROAD, SUITE 200
BROOKFIELD, WI 53005
(262) 317-3302
jim.blackwood@rasmith.com

DNR LIAISON

MR. CRAIG WEBSTER
141 NW BARSTOW STREET
WAUKESHA, WI 53188
(262) 574-2141
craig.webster@wisconsin.gov

PROJECT CONTACTS

MR. BRUCE BARNES, P.E.
WAUKESHA COUNTY PROJECT MANAGER
515 W MORELAND BLVD ROOM 220
WAUKESHA, WI 53188
(262) 548-7748
bgbarnes@waukeshacounty.gov

MR. JOHN WASHBURN
SEWRPC
W239N1812 ROCKWOOD DRIVE
PEWAUKEE, WI 53072
(262) 953-4295
jwashburn@sewrpc.com

MS. TAMMY SIMONSON, P.E.
NEW BERLIN CITY ENGINEER
3805 S CASPER DRIVE
NEW BERLIN, WI 53151
(262) 786-8610
tsimonson@newberlin.org

MS. CAROLYNN GELLINGS, P.E.
WAUKESHA COUNTY DEPT OF PUBLIC WORKS
515 W MORELAND BLVD ROOM 220
WAUKESHA, WI 53188
(262) 548-7740
cgellings@waukeshacounty.gov

MR. ERIC PEREA
WISDOT LIGHTING
141 NW BARSTOW STREET, PO BOX 0798
WAUKESHA, WI 53187-0798
(262) 574-5422
eric.perea@dot.wi.gov

UTILITY CONTACTS

MR. GARY SCHMUTZER
WE ENERGIES - GAS OPERATIONS
500 S 116TH STREET
WEST ALLIS, WI 53214
(414) 751-7236
gary.schmutzer@we-energies.com

MR. BRYAN STOEHR
WE ENERGIES - ELECTRIC
500 S 116TH STREET
WEST ALLIS, WI 53214
(414) 944-5516
bryan.stoehr@we-energies.com

MR. TOM CROWLEY
AT&T WISCONSIN - TELECOMMUNICATIONS
2005 PEWAUKEE ROAD
WAUKESHA, WI 53188
(262) 896-7427
tc1657@att.com

MR. PETE KRUEZELA
CHARTER COMMUNICATIONS
1320 N MARTIN LUTHER KING JR DR
MILWAUKEE, WI 53212
(414) 908-1339
pete.kruezela@charter.com

MR. SHAD GARCIA
LEVEL 3 COMMUNICATIONS
3235 INTERTECH DRIVE SUITE 600
BROOKFIELD, WI 53045
(414) 908-1009
shad.garcia@centurylink.com

MR. JIM HART
NEW BERLIN UTILITIES SANITARY SEWER
3805 S CASPER DRIVE
NEW BERLIN, WI 53151
(262) 786-7086
nbutilities@newberlin.org

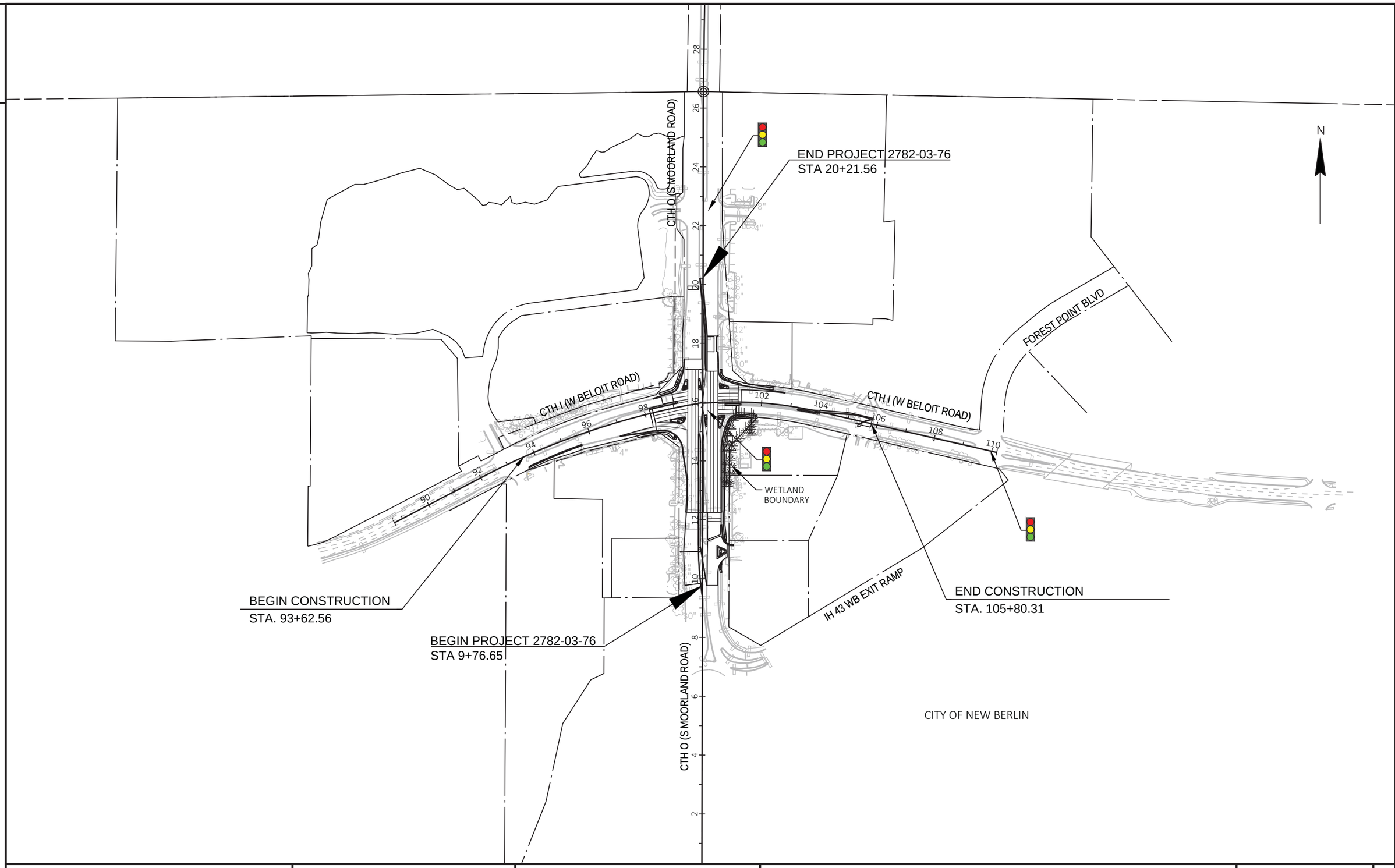
MR. JIM HART
NEW BERLIN UTILITIES WATER
3805 S CASPER DRIVE
NEW BERLIN, WI 53151
(262) 786-7086
nbutilities@newberlin.org

ORDER OF SECTION 2 SHEETS

Project Overview
Typical Sections
Construction Details
Removal Plan
Paving Details
Paving Grades
Curb Ramp Details
Jointing Plan
Erosion Control
Storm Sewer
Utility Plan
Existing Sign Removals
Permanent Signing
Temporary Traffic Signals
Traffic Signal Removal Plan
Traffic Signals
Lighting Plan
Pavement Marking
Traffic Control and Construction Staging
Detours
Alignment
Control Point Ties

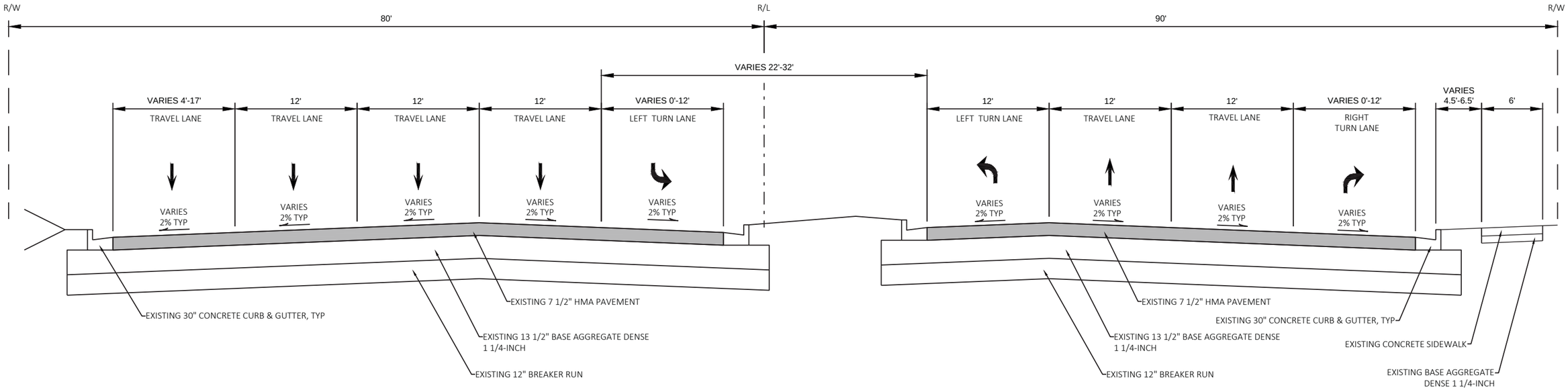
DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

2



PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PROJECT OVERVIEW	SHEET 4	E

2



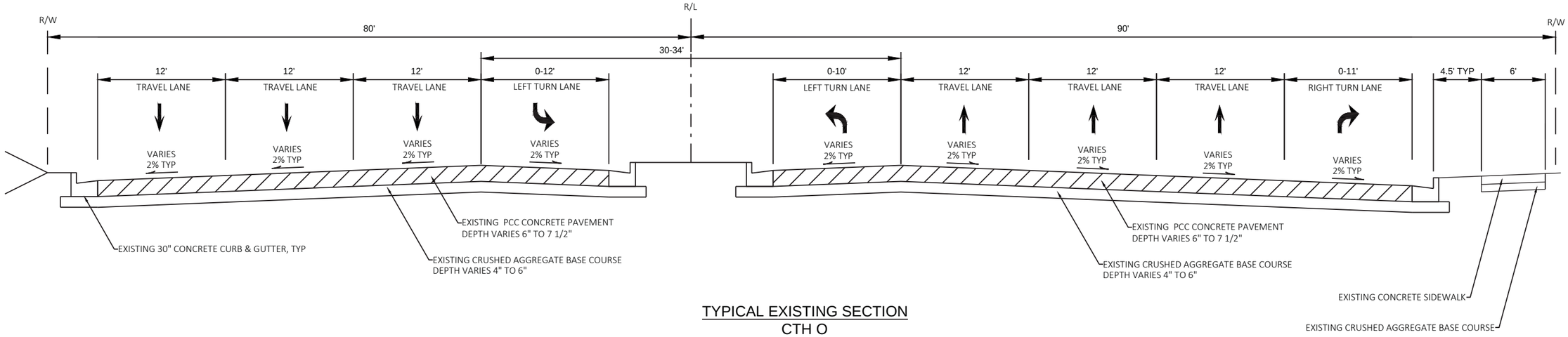
TYPICAL EXISTING SECTION
CTH O

STA 9+76 TO STA 12+25

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TYPICAL SECTIONS	SHEET 5	E

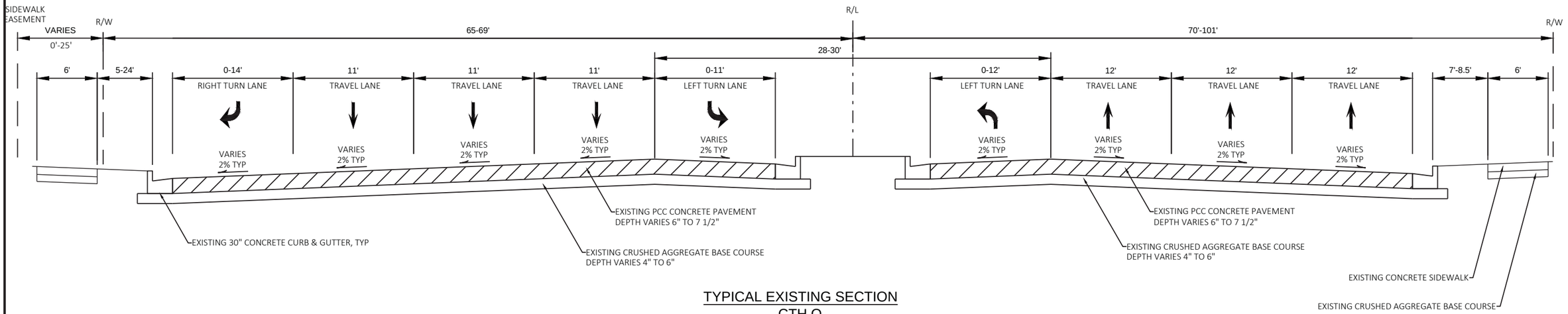
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 03

PLOT DATE : 7/28/2019 8:19 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:10 FT



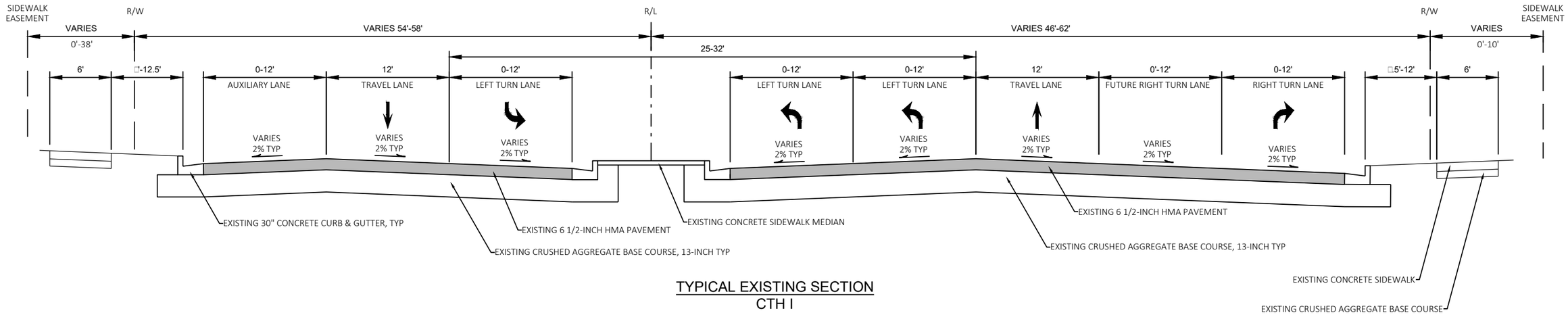
TYPICAL EXISTING SECTION
CTH O

STA 12+25 TO STA 16+00



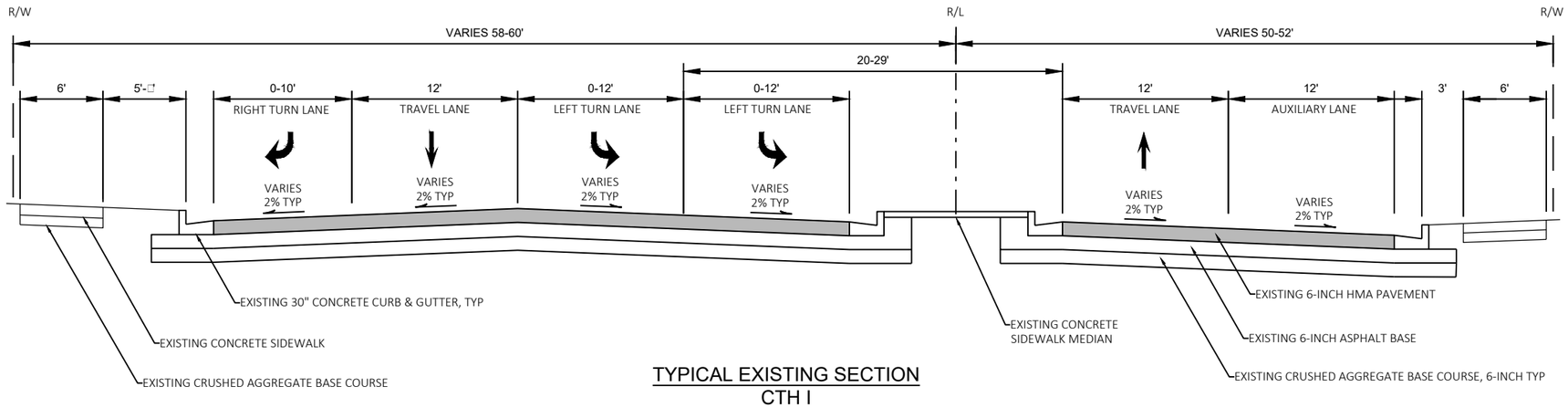
TYPICAL EXISTING SECTION
CTH O

STA 16+00 TO STA 17+47 SOUTHBOUND
STA 16+00 TO STA 17+71 NORTHBOUND



TYPICAL EXISTING SECTION
CTH I

STA 93+63 TO STA 100+00



TYPICAL EXISTING SECTION
CTH I

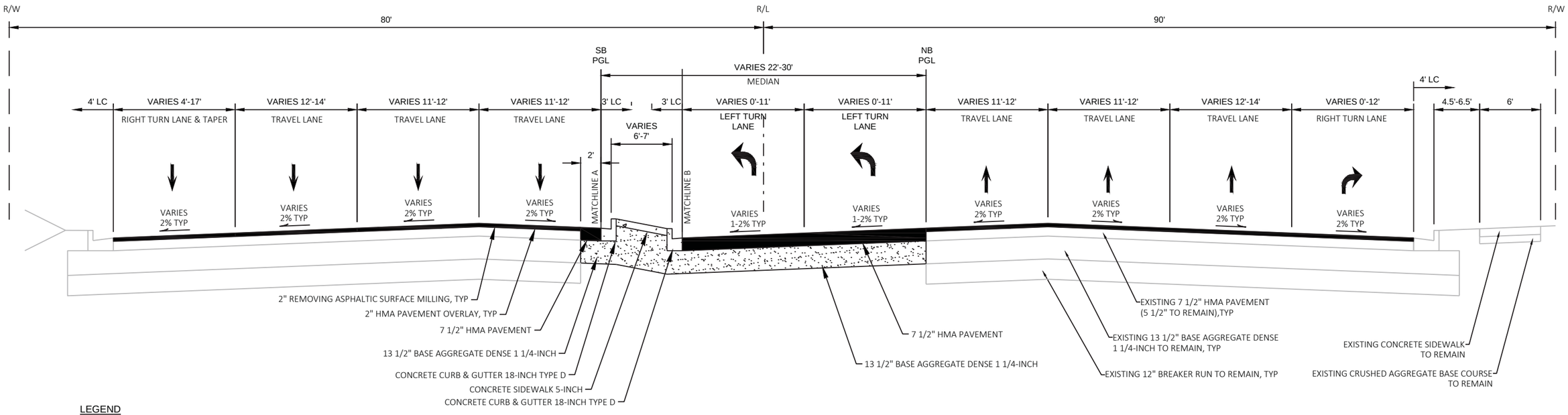
STA 100+00 TO STA 105+80

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TYPICAL SECTIONS	SHEET 7	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 02

PLOT DATE : 8/1/2019 9:36 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:10 FT

2

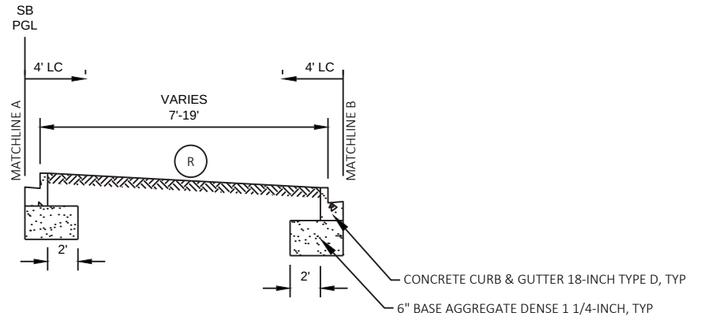


TYPICAL FINISHED SECTION
CTH O
STA 9+76 TO STA 12+25

LEGEND

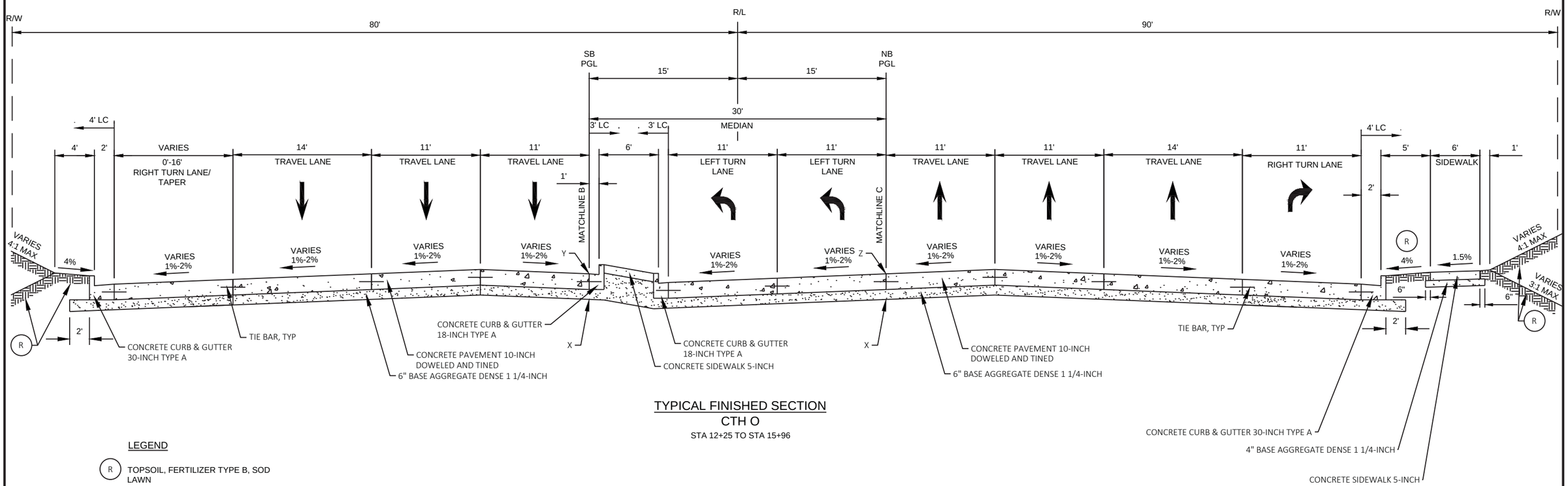
LC = LATERAL CLEARANCE

(R) TOPSOIL, FERTILIZER TYPE B, SOD LAWN



TYPICAL FINISHED HALF SECTION
GRASS MEDIAN
STA 9+76 TO STA 11+05

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TYPICAL SECTIONS	SHEET 8	E



TYPICAL FINISHED SECTION
CTH O
STA 12+25 TO STA 15+96

LEGEND

(R) TOPSOIL, FERTILIZER TYPE B, SOD LAWN

X = POINT REFERRED TO ON CROSS SECTIONS

Y = POINT REFERRED TO ON SB PGL PROFILE

Z = POINT REFERRED TO ON NB PGL PROFILE

LC = LATERAL CLEARANCE

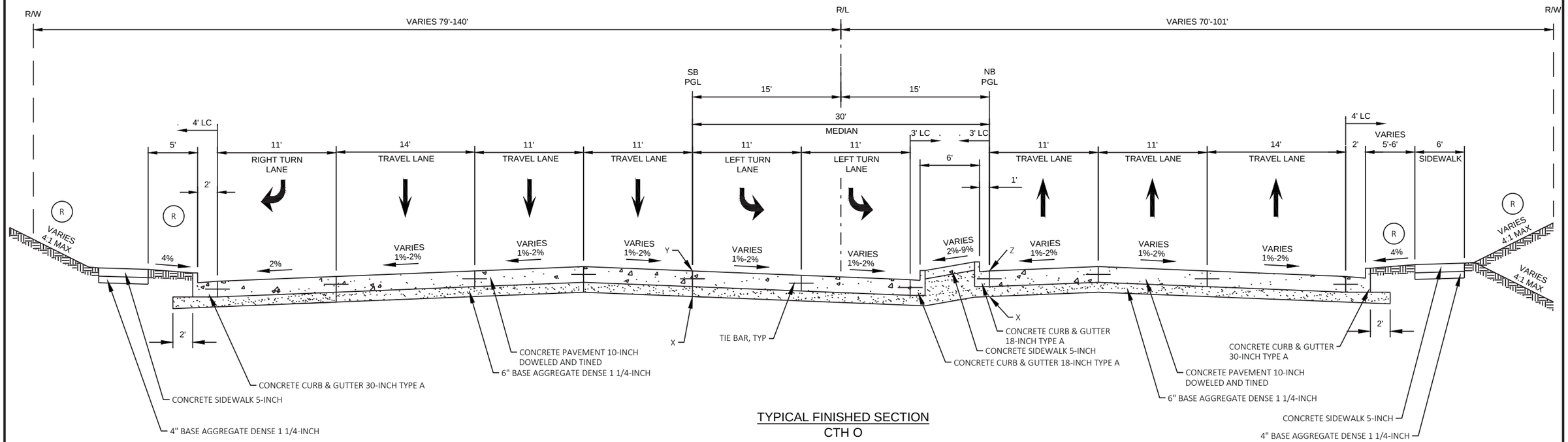
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TYPICAL SECTIONS	SHEET 9	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\020302-TS.DWG
LAYOUT NAME - 01

PLOT DATE : 7/28/2019 8:20 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

2



TYPICAL FINISHED SECTION
CTH O

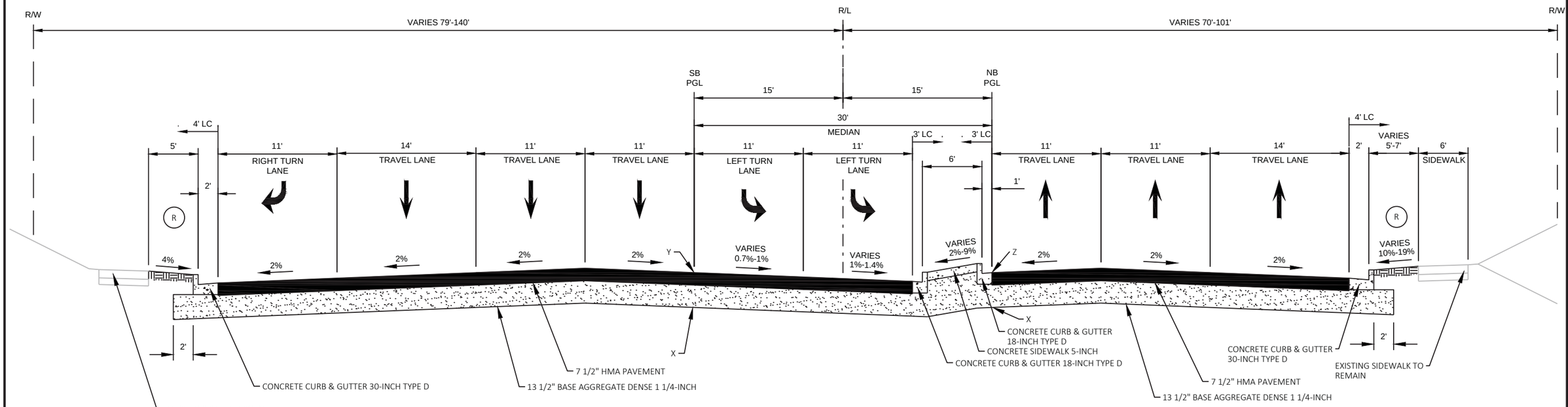
STA 15+96 TO STA 17+05 NORTHBOUND
STA 15+96 TO STA 17+11 SOUTHBOUND

LEGEND

(R) TOPSOIL, FERTILIZER TYPE B, SOD LAWN
X = POINT REFERRED TO ON CROSS SECTIONS
Y = POINT REFERRED TO ON SB PGL PROFILE
Z = POINT REFERRED TO ON NB PGL PROFILE
LC = LATERAL CLEARANCE

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TYPICAL SECTIONS	SHEET 10	E

2



TYPICAL FINISHED SECTION
CTH O

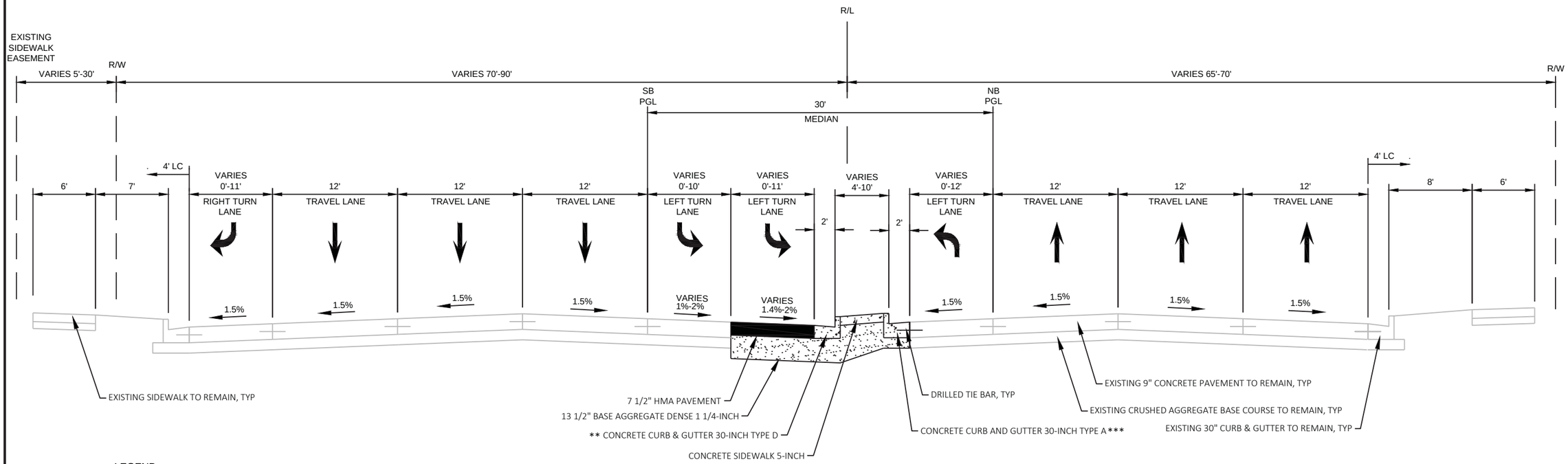
STA 17+05 TO STA 17+71 NORTHBOUND
STA 17+11 TO STA 17+47 SOUTHBOUND

LEGEND

(R) TOPSOIL, FERTILIZER TYPE B, SOD LAWN
X = POINT REFERRED TO ON CROSS SECTIONS
Y = POINT REFERRED TO ON SB PGL PROFILE
Z = POINT REFERRED TO ON NB PGL PROFILE
LC = LATERAL CLEARANCE

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TYPICAL SECTIONS	SHEET 11	E

2



LEGEND

LC = LATERAL CLEARANCE

NOTES:

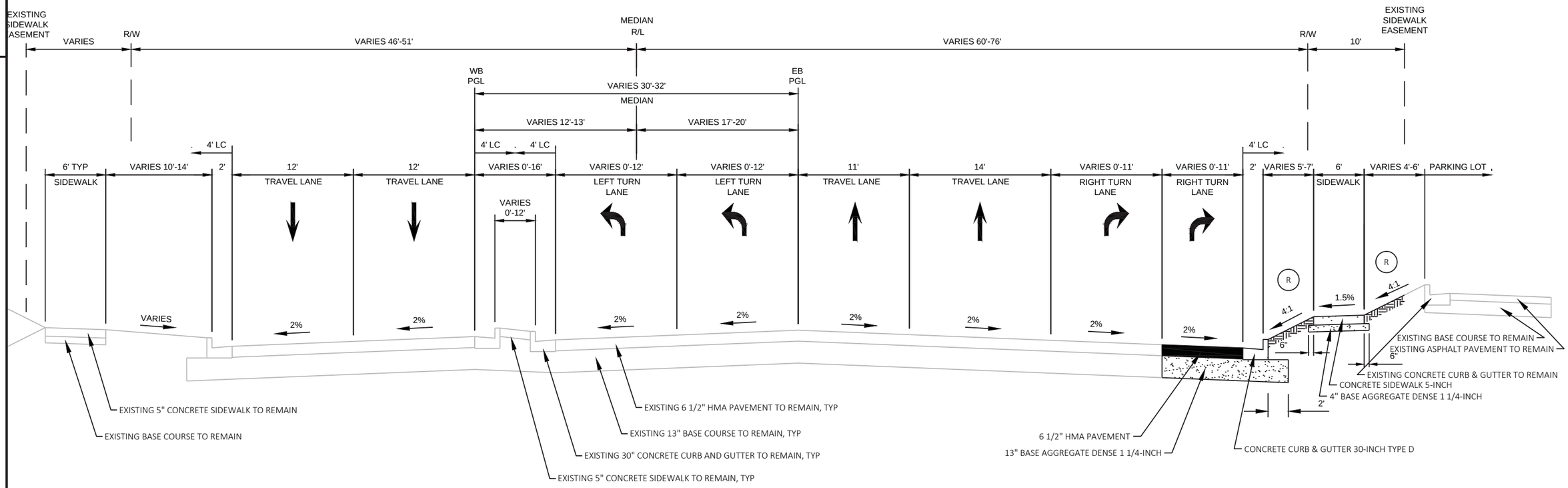
** CONCRETE CURB & GUTTER 18-INCH TYPE D FROM STA 17+47 TO STA 18+32
CONCRETE CURB & GUTTER 30-INCH TYPE A FROM STA 19+44 TO STA 20+21

*** CONCRETE CURB & GUTTER 18-INCH TYPE A FROM STA 17+71 TO STA 18+39

TYPICAL FINISHED SECTION
CTH O

STA 17+71 TO STA 19+82 NORTHBOUND
STA 17+47 TO STA 20+21 SOUTHBOUND

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TYPICAL SECTIONS	SHEET 12	E



TYPICAL FINISHED SECTION

CTH I

STA 96+97 TO STA 98+18

LEGEND

(R) TOPSOIL, FERTILIZER TYPE B, SOD LAWN

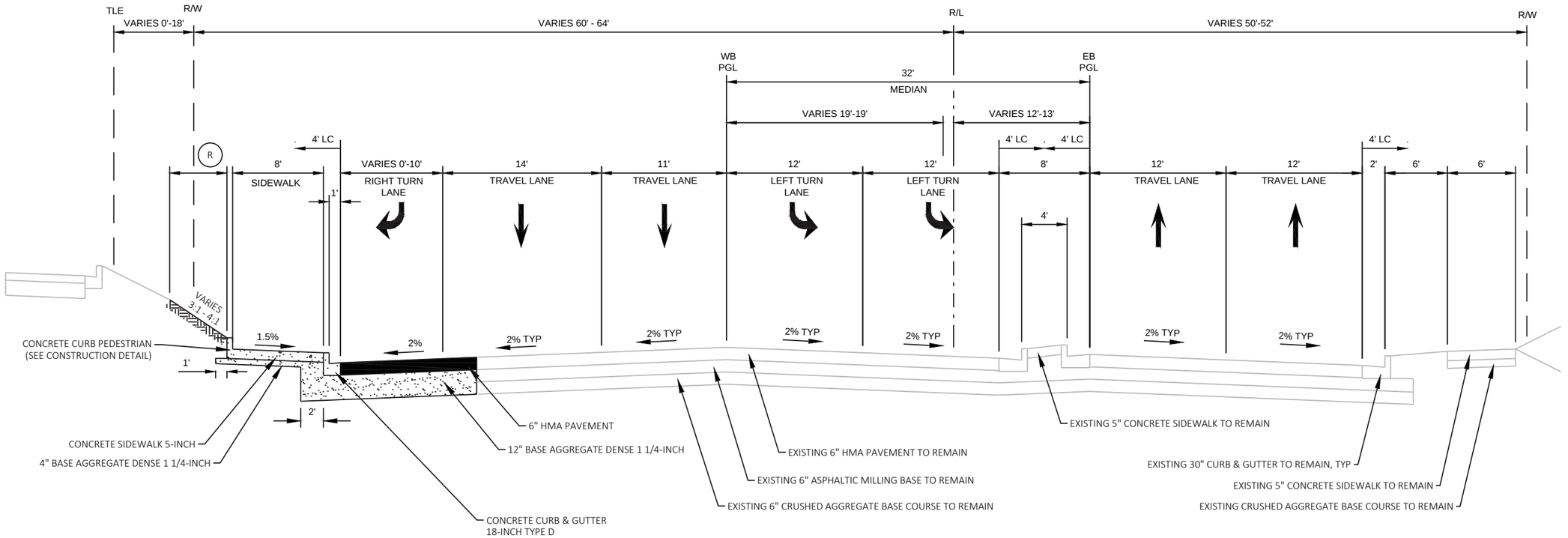
LC = LATERAL CLEARANCE

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TYPICAL SECTIONS	SHEET 13	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\020302-TS.DWG
LAYOUT NAME - 05

PLOT DATE : 7/28/2019 8:20 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42



TYPICAL FINISHED SECTION

CTH I

STA 101+30 TO STA 102+75

LEGEND

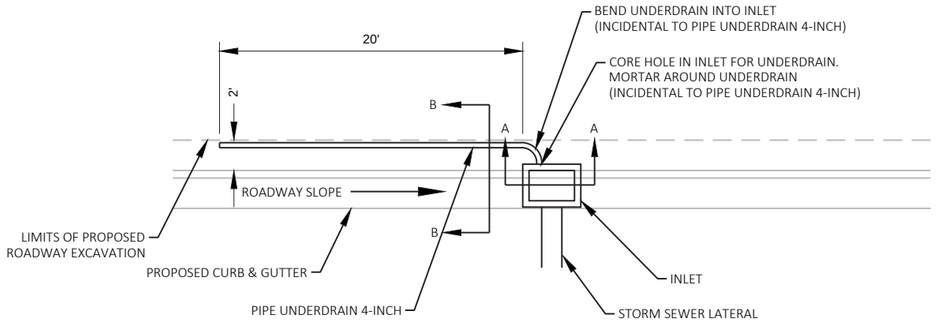
(R) TOPSOIL, FERTILIZER TYPE B, SOD LAWN

LC = LATERAL CLEARANCE

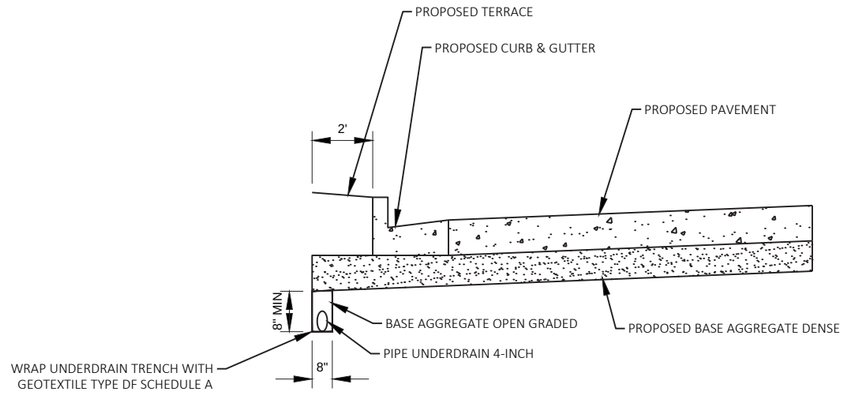
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TYPICAL SECTIONS	SHEET 14	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\020302-TS.DWG
LAYOUT NAME - 07

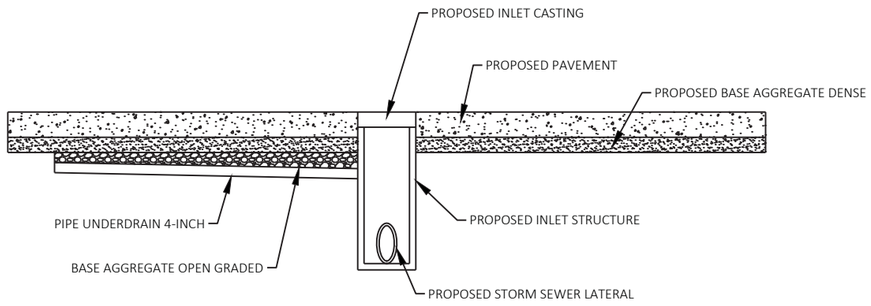
PLOT DATE : 7/28/2019 8:20 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:10 FT



PLAN VIEW



SECTION VIEW
SECTION B-B

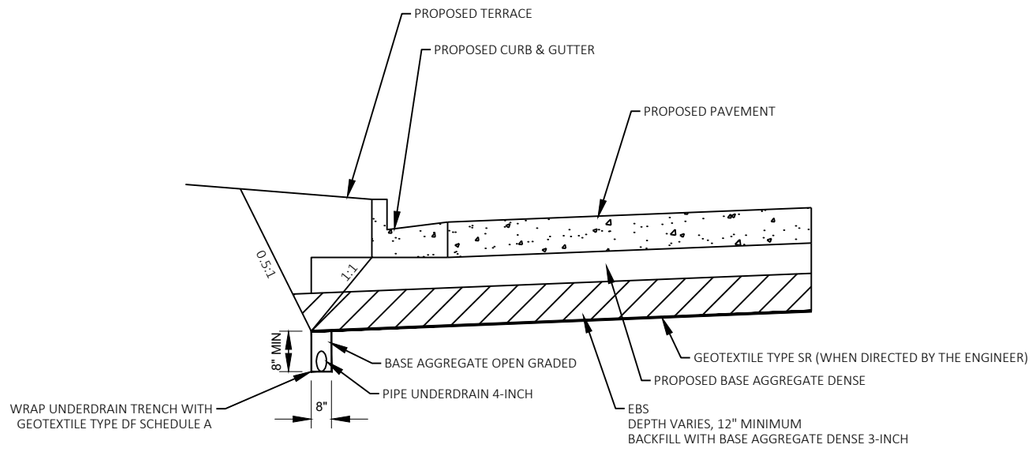


PROFILE VIEW
SECTION A-A

NOTES:

1. PROVIDE 20 FEET OF PIPE UNDERDRAIN UPSTREAM OF EACH INLET. AT LOW POINTS UNDERDRAIN SHALL EXTEND PARALLEL TO THE CURB AND GUTTER IN BOTH DIRECTIONS FROM THE INLET.
2. WRAP THE UNDERDRAIN TRENCH WITH GEOTEXTILE TYPE DF SCHEDULE A. OVERLAP THE FABRIC BY 8" AT THE TOP OF THE TRENCH. TOTAL FABRIC WIDTH IS 3'-6" FOR PAYMENT.
3. SLOPE THE UNDERDRAIN PIPE AT 0.5% MINIMUM , 1.0% DESIRABLE.
4. CONNECT THE UNDERDRAIN TO THE INLET BY CORING A HOLE IN THE INLET STRUCTURE. MORTAR THE UNDERDRAIN TO THE INLET STRUCTURE. CORING A HOLE IN THE INLET STRUCTURE AND MORTARING THE UNDERDRAIN INTO THE INLET IS INCIDENTAL TO PIPE UNDERDRAIN 4-INCH.
5. THE BOTTOM OF THE PIPE UNDERDRAIN SHALL ENTER THE INLET STRUCTURE HIGHER THAN THE CROWN OF ANY STORM SEWER PIPES IN THE INLET STRUCTURE UNLESS OTHERWISE APPROVED BY THE ENGINEER.

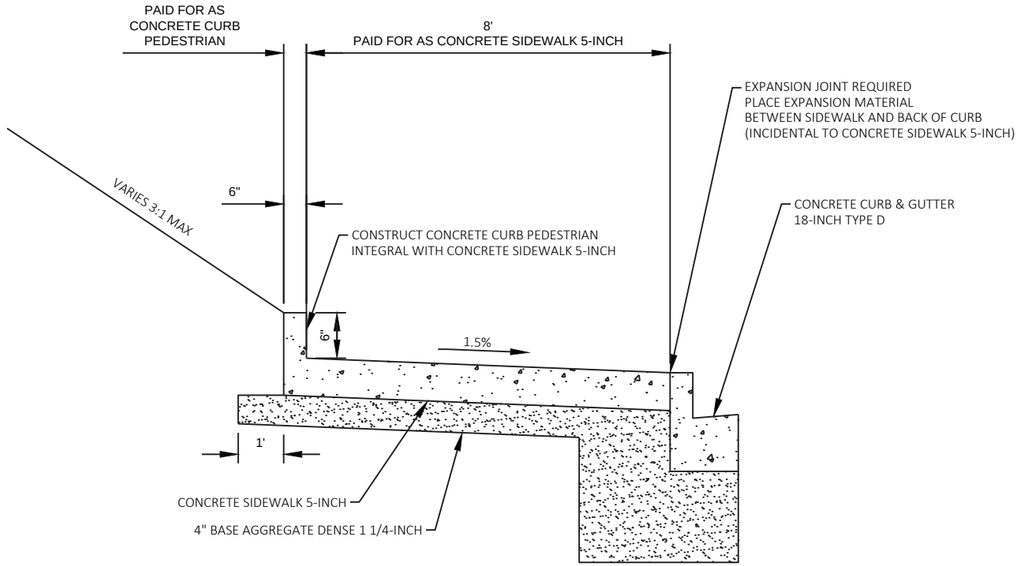
UNDERDRAIN PLACEMENT AT INLETS



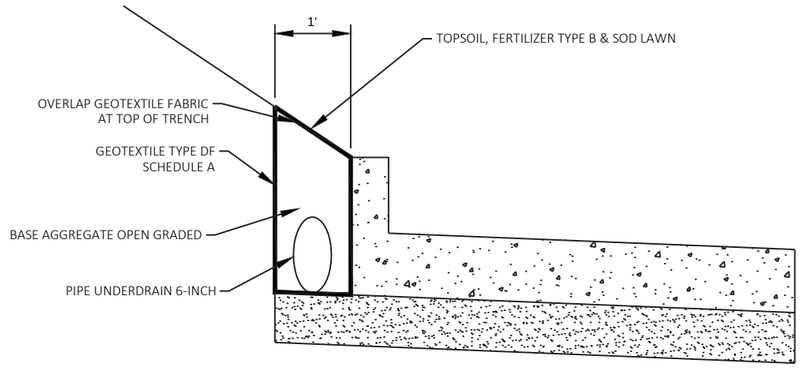
EXCAVATION BELOW SUBGRADE (EBS)

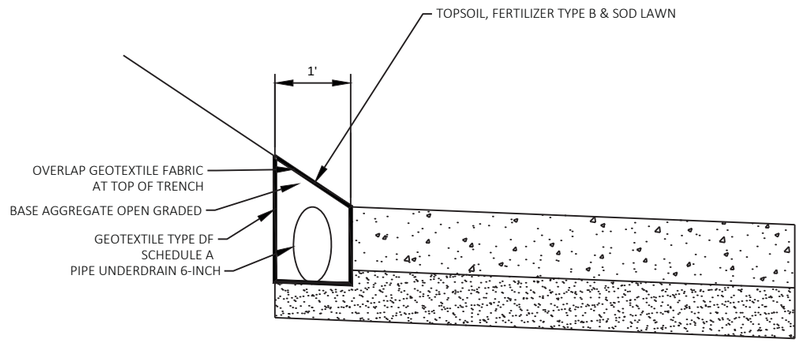
NOTES:

1. USE AS DIRECTED BY THE ENGINEER FOR AREAS OF UNSTABLE SUBGRADE.
2. NO EBS WILL BE ALLOWED WITHOUT A FAILED PROOF ROLL.
3. EBS SHALL BE PAID FOR AS COMMON EXCAVATION.
4. GEOTEXTILE TYPE SR SHALL BE USED AT THE DISCRETION OF THE ENGINEER WHEN THE EBS DEPTH EXCEEDS 18 INCHES TO LIMIT THE DEPTH OF THE REQUIRED EBS. GEOTEXTILE TYPE SR PLACED WITHOUT THE AUTHORIZATION OF THE ENGINEER SHALL NOT BE PAID FOR.
5. PROVIDE 20 FEET OF PIPE UNDERDRAIN UPSTREAM OF EACH INLET IN EBS AREAS. SEE UNDERDRAIN PLACEMENT AT INLET CONSTRUCTION DETAIL. AT LOW POINTS IN EBS AREAS UNDERDRAIN SHALL EXTEND PARALLEL TO THE CURB AND GUTTER IN BOTH DIRECTIONS FROM THE INLET.
6. WRAP THE UNDERDRAIN TRENCH WITH GEOTEXTILE TYPE DF SCHEDULE A. OVERLAP THE FABRIC BY 8" AT THE TOP OF THE TRENCH. TOTAL FABRIC WIDTH IS 3'-6" FOR PAYMENT.
7. SLOPE THE UNDERDRAIN PIPE AT 0.5% MINIMUM , 1.0% DESIRABLE.
8. CONNECT THE UNDERDRAIN TO THE INLET BY CORING A HOLE IN THE INLET STRUCTURE. MORTAR THE UNDERDRAIN TO THE INLET STRUCTURE. CORING A HOLE IN THE INLET STRUCTURE AND MORTARING THE UNDERDRAIN INTO THE INLET IS INCIDENTAL TO PIPE UNDERDRAIN 4-INCH.
9. THE BOTTOM OF THE PIPE UNDERDRAIN SHALL ENTER THE INLET STRUCTURE HIGHER THAN THE CROWN OF ANY STORM SEWER PIPES IN THE INLET STRUCTURE UNLESS OTHERWISE APPROVED BY THE ENGINEER.



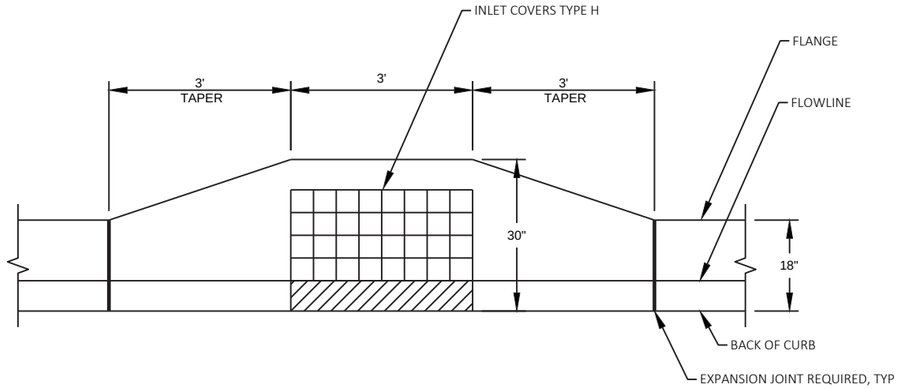
PEDESTRIAN CURB DETAIL





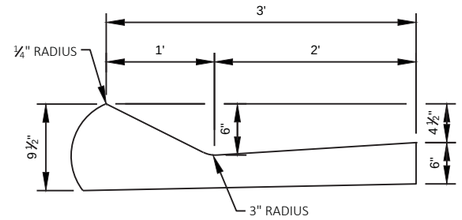
FRENCH DRAIN DETAIL

NOTE:
1. INSTALL FRENCH DRAIN BEHIND PEDESTRIAN CURB TO COLLECT SEEPAGE FROM UW CREDIT UNION PROPERTY
2. CONNECT PIPE UNDERDRAIN 6-INCH TO INLET 3D USING PIPE UNDERDRAIN UNPERFORATED 6-INCH
3. CONNECTION TO INLET IS INCIDENTAL TO PIPE UNDERDRAIN UNPERFORATED 6-INCH

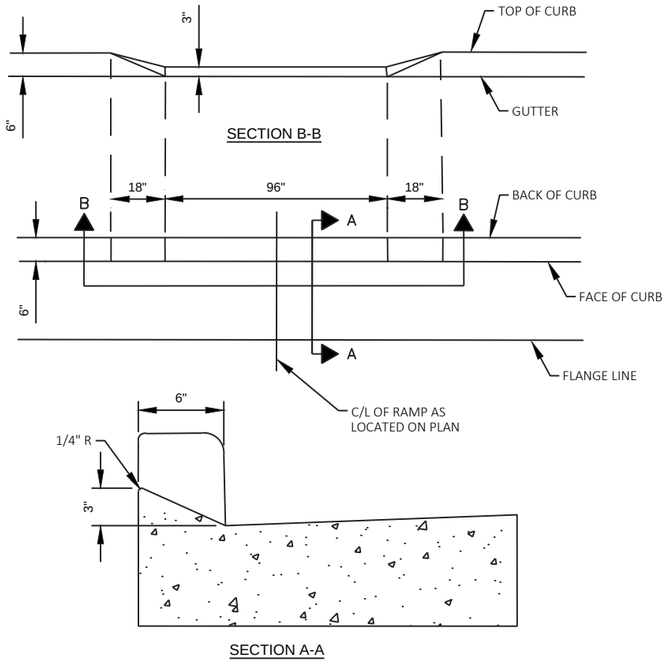


NOTE:
ALL CURB & GUTTER TO BE PAID FOR AS CONCRETE CURB & GUTTER 18-INCH TYPE A OR D

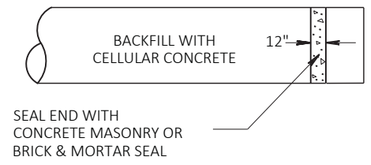
CONCRETE CURB & GUTTER 18-INCH AT INLET COVERS TYPE H



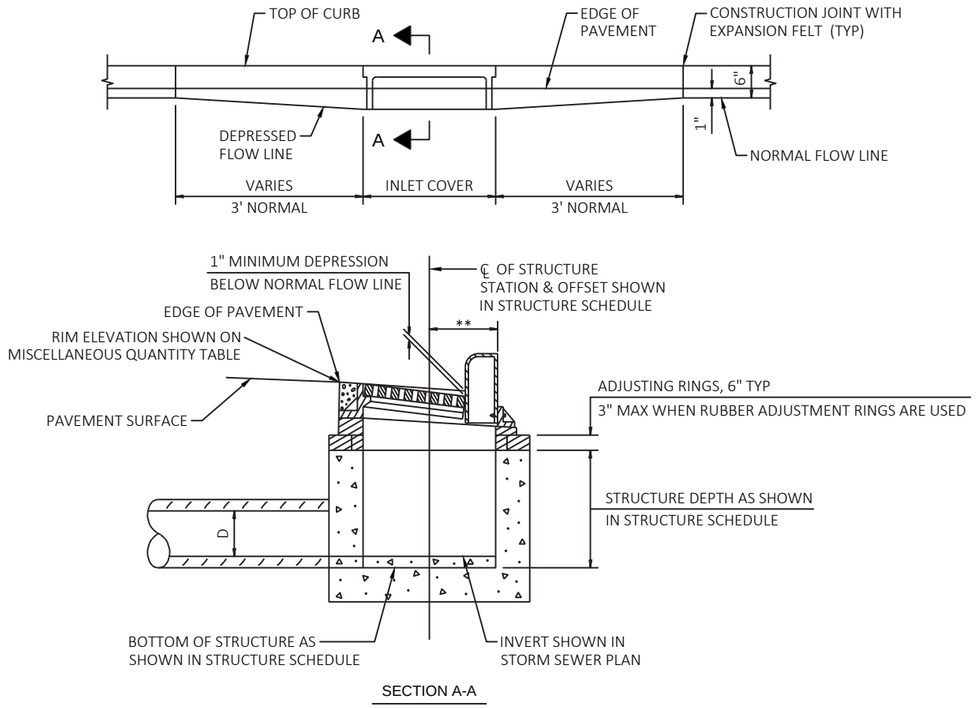
ASPHALTIC CURB



MAINTENANCE OPENING



ABANDONING SEWER DETAIL



SECTION A-A

DETAIL OF CURB AND GUTTER AT INLETS

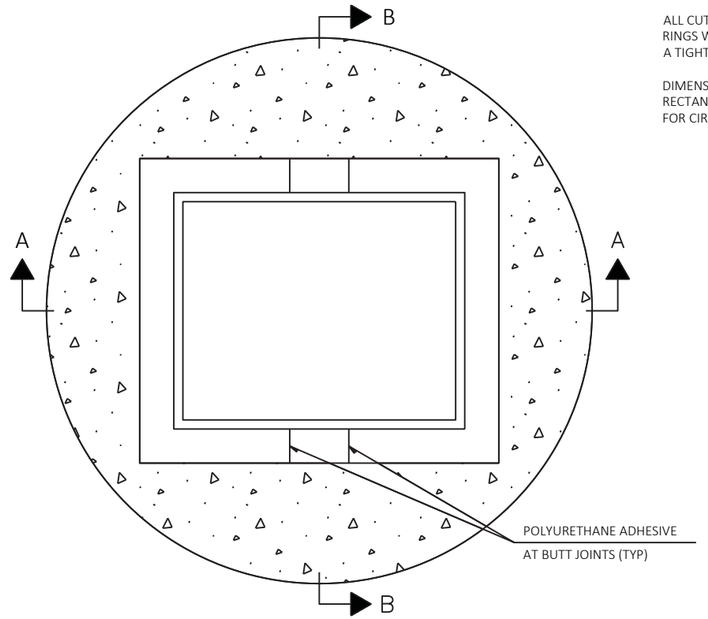
** OFFSET TO CENTER OF STRUCTURE TO BACK OF CURB:

CASTING TYPE	OFFSET
S	18"
H	12"
Z	9"

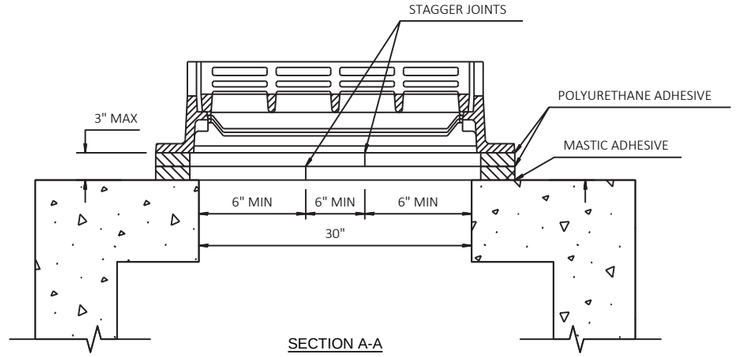
NOTES:

ALL CUTS MADE TO RUBBER ADJUSTMENT RINGS WILL BE PERPENDICULAR AND PROVIDE A TIGHT JOINT.

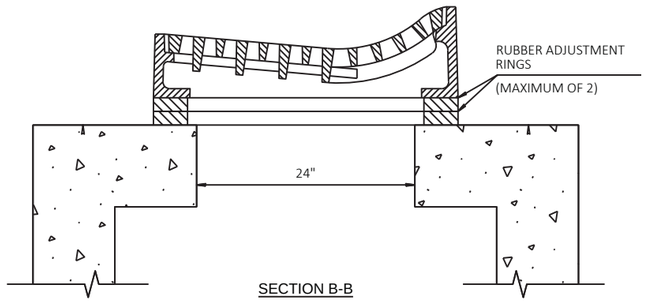
DIMENSIONS OF RUBBER ADJUSTMENT RINGS FOR RECTANGULAR INLETS SHALL MATCH DIMENSIONS FOR CIRCULAR INLETS.



PLAN VIEW



SECTION A-A



SECTION B-B

RUBBER RING CUTTING DETAIL FOR INLET CASTINGS

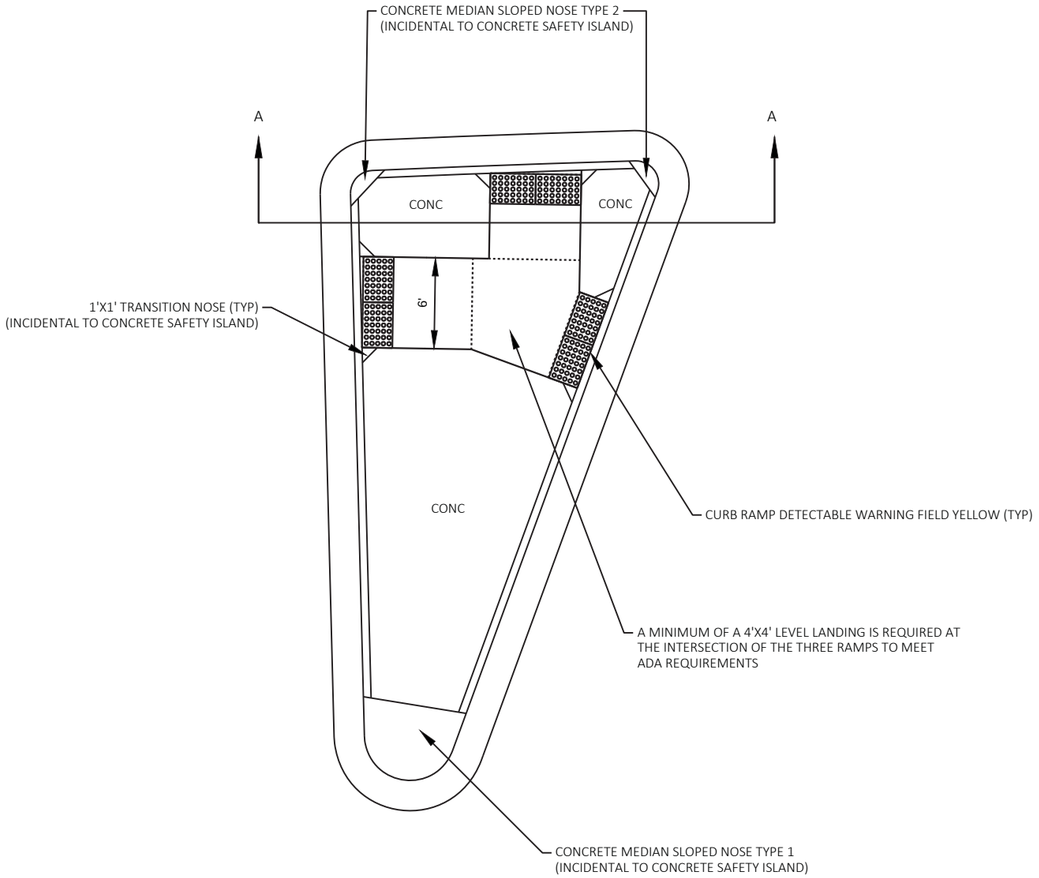
TO BE USED ON ALL CASTINGS ADJACENT TO 18-INCH CURB & GUTTER

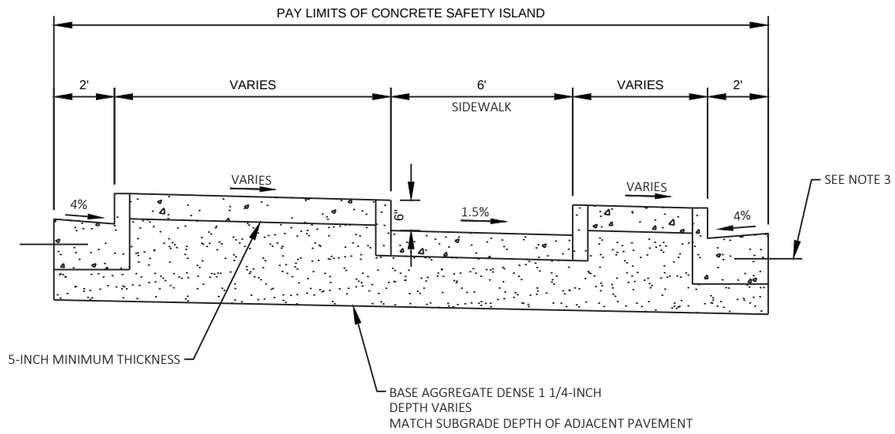
2

RUNOFF COEFFICIENT TABLE

	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 = 7.08 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 3.29 ACRES





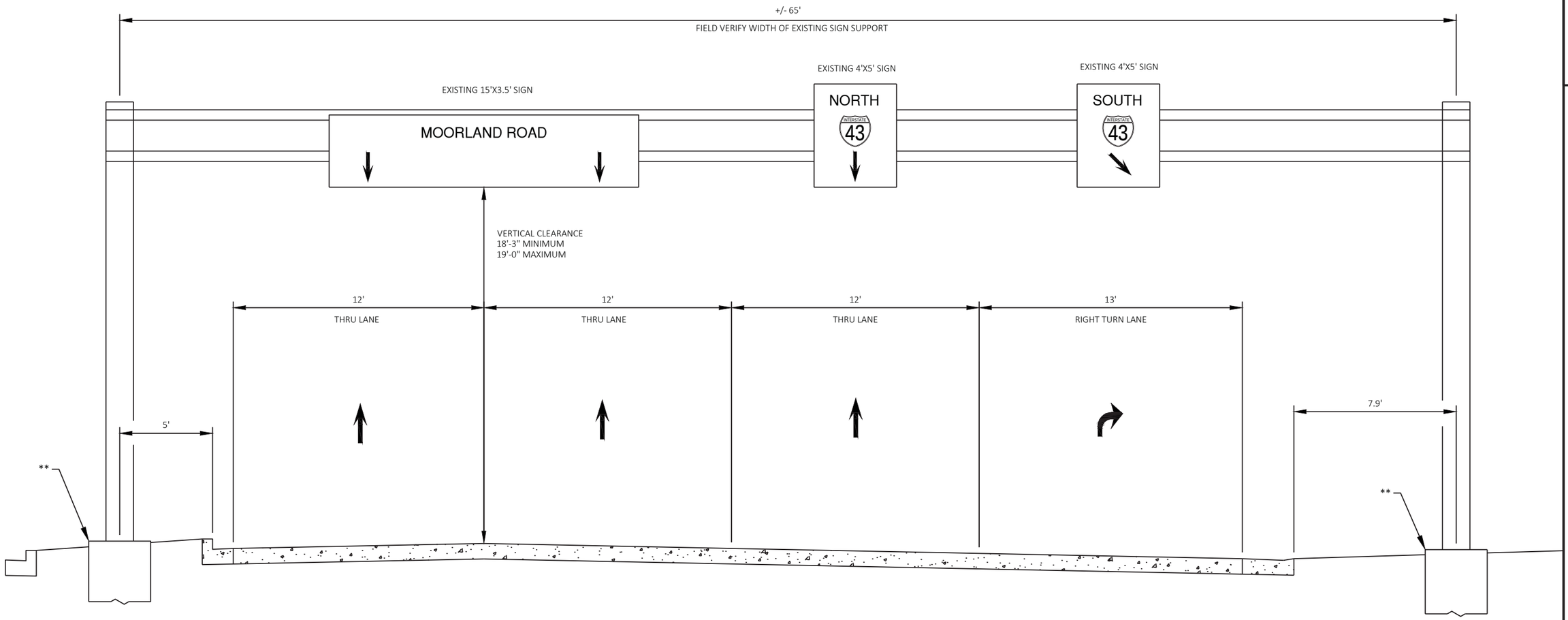
SECTION A-A

CONCRETE SAFETY ISLAND DETAIL

SEE PLAN FOR LOCATIONS

NOTES:

1. ENTIRE ISLAND INCLUDING WALKING PATH IS PAID FOR AS CONCRETE SAFETY ISLAND.
2. SIZE AND SHAPE OF INDIVIDUAL ISLANDS VARIES, SEE PLAN FOR DIMENSIONS OF EACH ISLAND.
3. #4X2' TIE BARS SPACE AT 3' CENTER TO CENTER. TIE BARS INCIDENTAL TO CONCRETE SAFETY ISLAND.
4. CONCRETE SAFETY ISLAND MAY BE CONSTRUCTED AS ONE MONOLITHIC SLAB OR INDIVIDUAL SECTIONS OF CURB & GUTTER, SIDEWALK, AND PEDESTRIAN CURB. PAYMENT SHALL BE THE SAME FOR BOTH METHODS OF CONSTRUCTION.
5. WALKING PATH SHALL MEET ADA REQUIREMENTS



OVERHEAD SIGN SUPPORT DETAIL

S-67-271
SOUTHBOUND CTH O
LOOKING SOUTH

REMOVE AND REINSTALL EXISTING SIGN SUPPORT AND SIGNS

GENERAL NOTES:

1. DRAWINGS NOT TO SCALE.
2. BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 3" CLEAR UNLESS OTHERWISE DETAILED.

NOTE, CONTRACTOR SHALL:

1. FIELD MEASURE AND DOCUMENT THE ELEVATION OF THE TOP OF THE EXISTING FOOTINGS TO ESTABLISH THE EXISTING ELEVATION DIFFERENCE BETWEEN THE TOP OF THE TWO FOOTINGS.
2. SUBMIT SHOP DRAWINGS OF OVERHEAD SIGN SUPPORT TO TOM HEYDEL, WISDOT SE REGION AND BUREAU OF STRUCTURES. THE SHOP DRAWINGS SHALL SHOW THE FIELD MEASURED DIMENSIONS OF THE OVERHEAD SIGN SUPPORT WIDTH, POLE HEIGHTS, VERTICAL CLEARANCE, OFFSET TO FACE OF CURB, AND ELEVATION DIFFERENCE BETWEEN THE TOP OF BOTH FOOTINGS.
3. SHOW SIGNS ON SHOP DRAWINGS.
4. MAINTAIN EXISTING ID PLAQUE. REPLACEMENT OF DAMAGED ID PLAQUE IS INCIDENTAL TO CONSTRUCTION.
5. 6 ANCHOR RODS MINIMUM PER STANDARD DETAIL DRAWING. DESIGN STRUCTURE BASE PLATE CONNECTION TO ACCOMODATE.
6. REFER TO SIGN PLATE A4-7 FOR ATTACHMENT OF SIGNS TO OVERHEAD SIGN SUPPORT.
7. INSTALL EXISTING SIGNS AT TIME OF ERECTION.

CONSTRUCTION INSTRUCTIONS:

1. REMOVE AND SALVAGE EXISTING OVERHEAD SIGN SUPPORT, SIGNS, AND SIGN CONNECTION HARDWARE.
2. STORE EXISTING OVERHEAD SIGN SUPPORT AND SIGNS DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO OVERHEAD SIGN SUPPORT AND SIGNS.
3. REINSTALL SIGN SUPPORT DURING STAGE 5. EXACT LOCATION AND ELEVATION OF BASES TO BE DETERMINED BY CONTRACTOR DURING CONSTRUCTION BASED ON FIELD MEASURED DIMENSIONS OF OVERHEAD SIGN SUPPORT.
4. OUTSIDE EDGE OF OVERHEAD SIGN SUPPORT BASE SHALL BE A MINIMUM OF TWO FEET FROM FACE OF MEDIAN CURB.

** CONCRETE BASE TO BE 36" DIAMETER BASE IN ACCORDANCE WITH SDD 36-INCH DIAMETER FULL SPAN OVERHEAD SIGN SUPPORT BASE. ELEVATION OF TOP OF BASE TO BE DETERMINED BY CONTRACTOR BASED ON FIELD MEASURED ELEVATIONS OF EXISTING CONCRETE BASES.

LEGEND

- REMOVING CURB & GUTTER
- REMOVING STORM SEWER
- REMOVING SMALL PIPE CULVERT
- SLOPE INTERCEPT
- REMOVING PAVEMENT
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING CONCRETE SIDEWALK
- RI — REMOVING INLETS
- RM — REMOVING MANHOLES
- X — CLEARING & GRUBBING

N

REMOVAL OF ASPHALT PAVEMENT IN RECONSTRUCTION AREAS TO BE PAID FOR AS PART OF EXCAVATION COMMON.

ABANDON SEWER UNDER PAVEMENT TO REMAIN

REMOVAL OF ASPHALT PAVEMENT IN RECONSTRUCTION AREAS TO BE PAID FOR AS PART OF EXCAVATION COMMON.

CTH O (S MOORLAND ROAD)

MATCHLINE STA 13+00

SHEET 1 OF 5

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	REMOVAL PLAN	SHEET 23	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 01

PLOT DATE : 12/9/2019 10:00 PM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

N

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

CTH O (S MOORLAND ROAD)

MATCHLINE STA 101+75

MATCHLINE STA 13+00

MATCHLINE STA 19+00

LEGEND

- REMOVING CURB & GUTTER
- REMOVING STORM SEWER
- REMOVING SMALL PIPE CULVERT
- SLOPE INTERCEPT
- REMOVING PAVEMENT
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING CONCRETE SIDEWALK
- RI — REMOVING INLETS
- RM — REMOVING MANHOLES
- X — CLEARING & GROUBBING

+37.7 47.1'LT

+66.4 -19.3'LT

+66.5 45.3'LT

+81.6 47.8'LT

+81.3 15.7'LT

+81.3 -18.6'LT

+79.6 49.5'RT

99+00

101+00

+46.7 -64.3'LT

+46.7 -1.3'LT

+71.2 11.4'RT

+71.2 52.2'RT

+91.1 44.2'LT

+00.5 9.9'RT

+00.4 38.7'RT

+90.7 7.3'RT

+23.5 10.5'RT

+23.7 36.3'RT

+30.3 6.4'RT

ABANDON SEWER

SANITARY CLEANOUT

SHEET 2 OF 5

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	REMOVAL PLAN	SHEET 24	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 02

PLOT DATE : 12/9/2019 10:00 PM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

N

MATCHLINE STA 19+00

CTH O (S MOORLAND ROAD)

+21.5
-9.9'LT

+81.8
0.3'RT

20+00 21+00 22+00 23+00 24+00 25+00

TRAFFIC CONTROL BOX

LEGEND

- REMOVING CURB & GUTTER
- REMOVING STORM SEWER
- REMOVING SMALL PIPE CULVERT
- SLOPE INTERCEPT
- REMOVING PAVEMENT
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING CONCRETE SIDEWALK
- RI — REMOVING INLETS
- RM — REMOVING MANHOLES
- X — CLEARING & GRUBBING

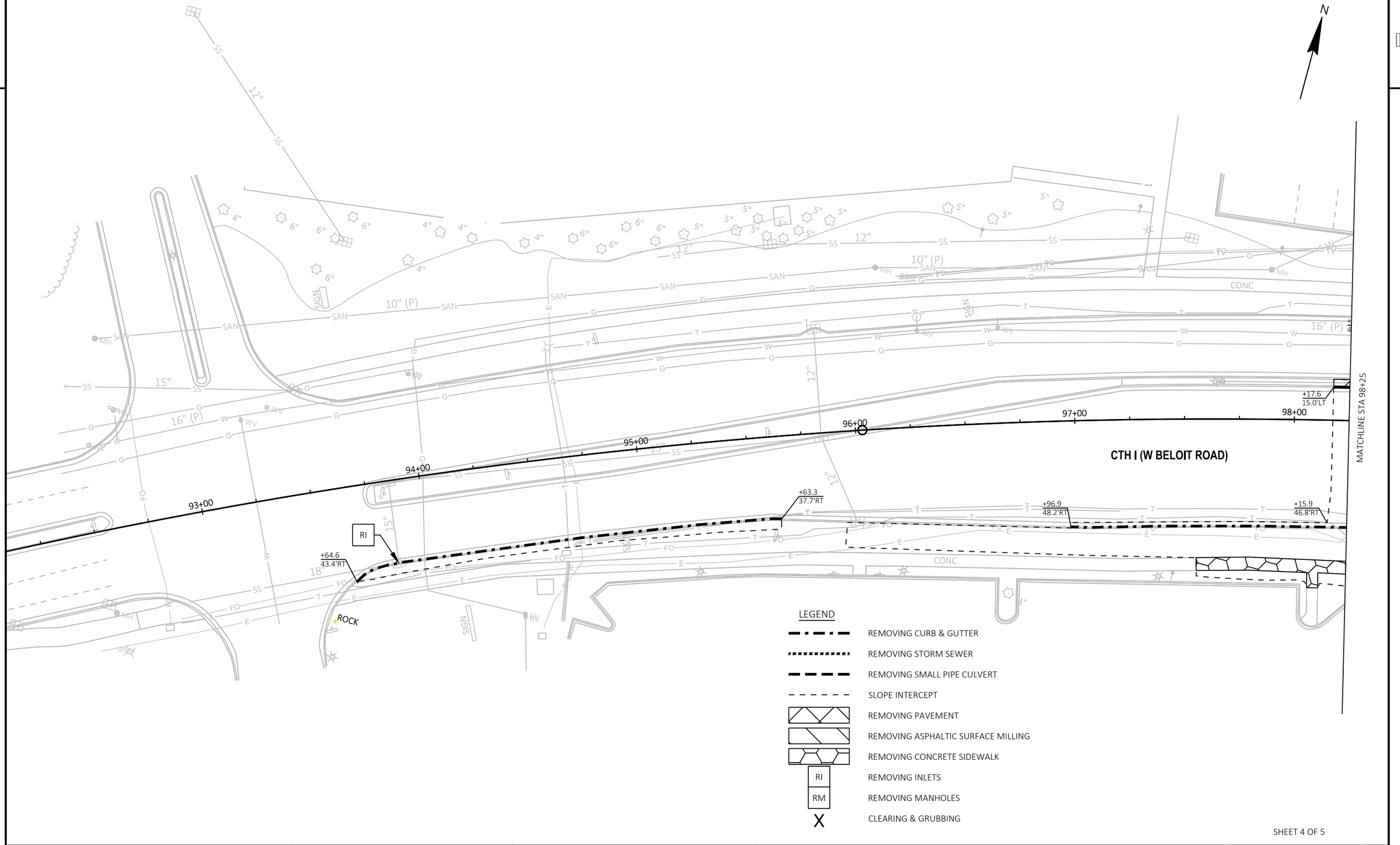
SHEET 3 OF 5

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	REMOVAL PLAN	SHEET 25	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 03

PLOT DATE : 12/9/2019 10:00 PM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



SHEET 4 OF 5

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	REMOVAL PLAN	SHEET 26	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 04

PLOT DATE : 12/9/2019 10:00 PM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- REMOVING CURB & GUTTER
- REMOVING STORM SEWER
- REMOVING SMALL PIPE CULVERT
- SLOPE INTERCEPT
- REMOVING PAVEMENT
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING CONCRETE SIDEWALK
- RI — REMOVING INLETS
- RM — REMOVING MANHOLES
- X — CLEARING & GRUBBING

N

MATCHLINE STA 101+75

CTH I (W BELOIT ROAD)

102+00 103+00 104+00 105+00 106+00 107+00

+74.7 -43.5'LT

+23.8 6.2'RT

+28.1 10.3'RT

+80.3 -20.0'LT

+80.3 12.0'RT

RI

16" (P) 12" 18" 10" (P) 8" (P) 9" 8" 10" 12" 18" 8" 10" 8"

SS SAN TV E T G W CONC SIGN MH

GAS VENTS

GAS MANHOLES

SHEET 5 OF 5

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	REMOVAL PLAN	SHEET 27	E

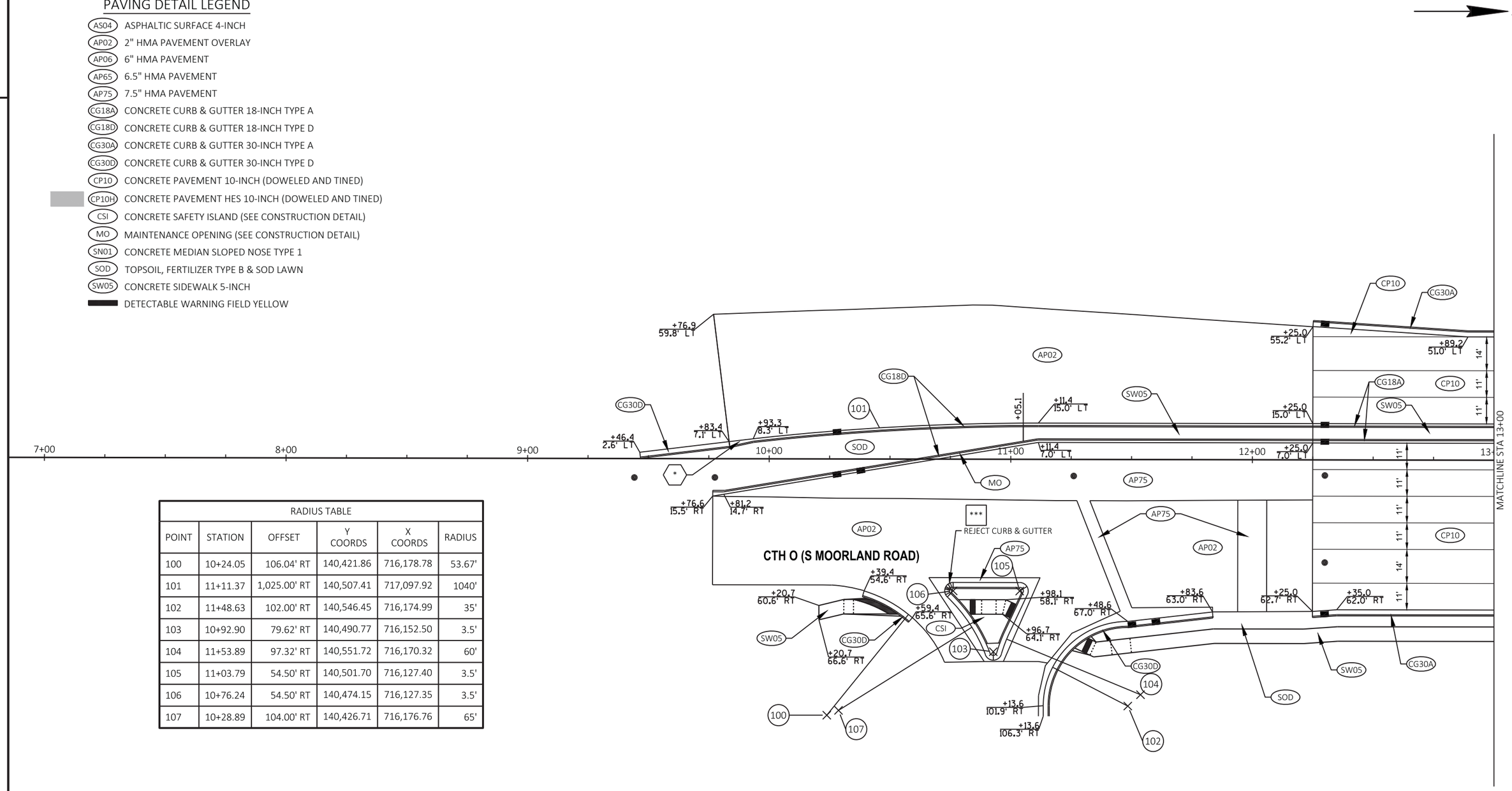
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 05

PLOT DATE : 12/9/2019 10:00 PM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

PAVING DETAIL LEGEND

- AS04 ASPHALTIC SURFACE 4-INCH
- AP02 2" HMA PAVEMENT OVERLAY
- AP06 6" HMA PAVEMENT
- AP65 6.5" HMA PAVEMENT
- AP75 7.5" HMA PAVEMENT
- CG18A CONCRETE CURB & GUTTER 18-INCH TYPE A
- CG18D CONCRETE CURB & GUTTER 18-INCH TYPE D
- CG30A CONCRETE CURB & GUTTER 30-INCH TYPE A
- CG30D CONCRETE CURB & GUTTER 30-INCH TYPE D
- CP10 CONCRETE PAVEMENT 10-INCH (DOWELED AND TINED)
- CP10H CONCRETE PAVEMENT HES 10-INCH (DOWELED AND TINED)
- CSI CONCRETE SAFETY ISLAND (SEE CONSTRUCTION DETAIL)
- MO MAINTENANCE OPENING (SEE CONSTRUCTION DETAIL)
- SN01 CONCRETE MEDIAN SLOPED NOSE TYPE 1
- SOD TOPSOIL, FERTILIZER TYPE B & SOD LAWN
- SW05 CONCRETE SIDEWALK 5-INCH
- DETECTABLE WARNING FIELD YELLOW



RADIUS TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
100	10+24.05	106.04' RT	140,421.86	716,178.78	53.67'
101	11+11.37	1,025.00' RT	140,507.41	717,097.92	1040'
102	11+48.63	102.00' RT	140,546.45	716,174.99	35'
103	10+92.90	79.62' RT	140,490.77	716,152.50	3.5'
104	11+53.89	97.32' RT	140,551.72	716,170.32	60'
105	11+03.79	54.50' RT	140,501.70	716,127.40	3.5'
106	10+76.24	54.50' RT	140,474.15	716,127.35	3.5'
107	10+28.89	104.00' RT	140,426.71	716,176.76	65'

* TRANSITION CURB AND GUTTER FROM CONC C&G 30-INCH TYPE D TO CONC C&G 18-INCH TYPE D OVER 10 FEET (PAID FOR AS CONC C&G 30-INCH TYPE D)

*** TRANSITION GUTTER FROM CATCHING CURB TO REJECT CURB OVER ENOUGH DISTANCE TO ALLOW WATER TO FLOW OUT OF CURB AND NOT TRAP WATER

* TRANSITION CURB AND GUTTER FROM CONC C&G 30-INCH TYPE A TO CONC C&G 18-INCH TYPE A OVER 10 FEET (PAID FOR AS CONC C&G 30-INCH TYPE A)

** TRANSITION CURB AND GUTTER FROM CONC C&G 30-INCH TYPE D TO CONC C&G 18-INCH TYPE D OVER 10 FEET (PAID FOR AS CONC C&G 30-INCH TYPE D)

*** TRANSITION CURB AND GUTTER FROM CONC C&G 30-INCH TYPE D TO CONC C&G 18-INCH TYPE A OVER 10 FEET (PAID FOR AS CONC C&G 30-INCH TYPE D)

N

PAVING DETAIL LEGEND

- AS04 ASPHALTIC SURFACE 4-INCH
- AP02 2" HMA PAVEMENT OVERLAY
- AP06 6" HMA PAVEMENT
- AP65 6.5" HMA PAVEMENT
- AP75 7.5" HMA PAVEMENT
- CG18A CONCRETE CURB & GUTTER 18-INCH TYPE A
- CG18D CONCRETE CURB & GUTTER 18-INCH TYPE D
- CG30A CONCRETE CURB & GUTTER 30-INCH TYPE A
- CG30D CONCRETE CURB & GUTTER 30-INCH TYPE D
- CP10 CONCRETE PAVEMENT 10-INCH (DOWELED AND TINED)
- CP10H CONCRETE PAVEMENT HES 10-INCH (DOWELED AND TINED)
- CSI CONCRETE SAFETY ISLAND (SEE CONSTRUCTION DETAIL)
- MO MAINTENANCE OPENING (SEE CONSTRUCTION DETAIL)
- SN01 CONCRETE MEDIAN SLOPED NOSE TYPE 1
- SOD TOPSOIL, FERTILIZER TYPE B & SOD LAWN
- SW05 CONCRETE SIDEWALK 5-INCH
- DETECTABLE WARNING FIELD YELLOW

MATCHLINE STA 98+25

CTH I (N BELOIT ROAD)

CTH O (S MOORLAND ROAD)

MATCHLINE STA 101+75

MATCHLINE STA 13+00

MATCHLINE STA 19+00

REJECT CURB & GUTTER ***

REJECT CURB & GUTTER ***

NOTES:

1. JOINTING PLAN TO BE DETERMINED BY CONTRACTOR. USE A MINIMUM PANEL WIDTH OF 18".
2. THE LIMITS OF HIGH EARLY STRENGTH CONCRETE SHOWN IN THE PLANS ARE APPROXIMATE. THE ENGINEER SHALL DETERMINE THE EXACT LIMITS OF HIGH EARLY STRENGTH PAVEMENT BASED ON THE CONTRACTOR'S JOINTING PLAN AND ANY MODIFICATIONS MADE TO THE TRAFFIC CONTROL PLANS SHOWN IN THE PLANS.

SHEET 2 OF 5

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVING DETAILS - CTH O	SHEET 29	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 02

PLOT DATE : 12/9/2019 10:31 PM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

RADIUS TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
200	14+34.58	137.00' LT	140,832.87	715,936.55	70'
201	14+38.47	262.00' RT	140,835.98	716,335.55	200'
202	14+89.07	12.00' LT	140,887.12	716,061.65	2' **
203	15+26.27	113.05' RT	140,924.07	716,186.77	30'
204	15+98.62	89.29' LT	140,996.81	715,984.57	3.5'
205	15+91.99	78.95' RT	140,989.86	716,152.80	3.5'
206	16+60.64	112.43' LT	141,058.88	715,961.55	30'
207	17+05.92	86.00' RT	141,103.77	716,160.07	34'
208	18+54.32	163.62' RT	141,252.03	716,237.97	200'
209	17+46.74	262.00' LT	141,145.27	715,812.15	200'
210	17+08.18	12.00' RT	141,106.18	716,086.07	2' **
211	14+59.14	235.00' LT	140,857.61	715,838.59	228'
212	17+38.11	235.00' RT	141,135.68	716,309.13	228'
213	15+32.22	85.55' LT	140,930.41	715,988.18	70'
214	5+80.06	99.59' RT	139,977.89	716,171.48	1040'
215	14+91.10	90.00' RT	140,888.94	716,163.65	105'
216	16+58.06	86.51' RT	141,055.92	716,160.49	70'
222	15+45.87	78.00' LT	140,944.04	715,995.76	19'
223	15+46.20	62.50' LT	140,944.35	716,011.26	3.5'
224	15+35.94	107.28' LT	140,934.17	715,966.46	5'

RADIUS TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
225	16+46.41	54.50' LT	141,044.54	716,019.46	3.5'
226	16+72.41	56.00' LT	141,070.54	716,018.01	5'
227	16+77.13	12.00' LT	141,075.18	716,062.01	2' **
228	16+45.89	8.21' LT	141,043.93	716,065.74	2.5' **
229	16+45.89	11.50' LT	141,043.94	716,062.45	2.5' **
230	16+60.95	58.99' RT	141,058.85	716,132.97	3.5'
231	16+47.90	60.18' RT	141,045.80	716,134.14	3.5'
232	15+52.18	71.93' RT	140,950.06	716,145.70	3.5'
233	15+15.77	57.08' RT	140,913.68	716,130.78	5'
234	15+51.52	54.59' RT	140,949.43	716,128.36	3.5'
235	15+52.80	11.50' RT	140,950.80	716,085.27	2.5' **
236	15+52.52	8.06' RT	140,950.52	716,081.83	2.5' **
237	15+20.13	12.00' RT	140,918.13	716,085.71	2' **
238	15+04.36	91.65' LT	140,902.56	715,982.03	25'
239	14+71.86	129.65' LT	140,870.14	715,943.97	25'

** RADIUS GIVEN TO FACE OF CURB

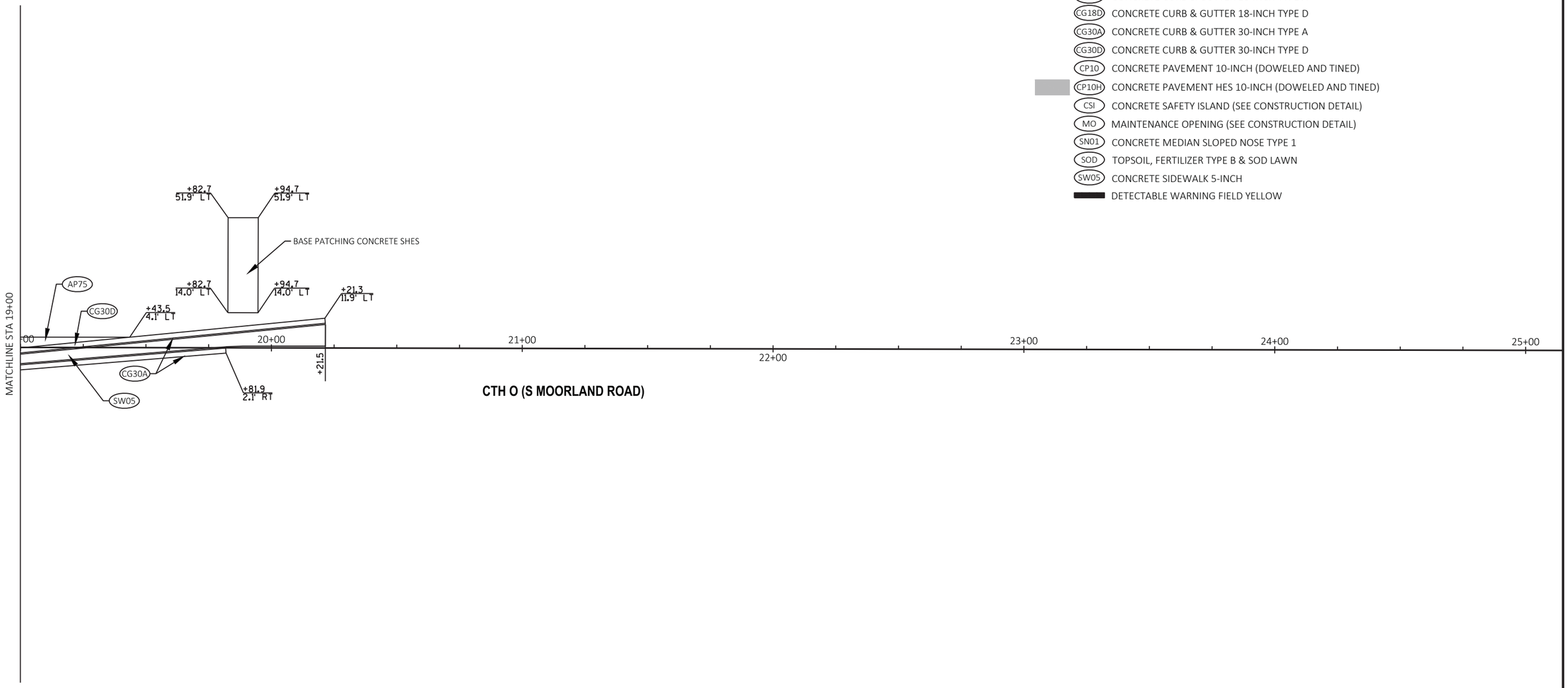
2

2

PAVING DETAIL LEGEND

N

- AS04 ASPHALTIC SURFACE 4-INCH
- AP02 2" HMA PAVEMENT OVERLAY
- AP06 6" HMA PAVEMENT
- AP65 6.5" HMA PAVEMENT
- AP75 7.5" HMA PAVEMENT
- CG18A CONCRETE CURB & GUTTER 18-INCH TYPE A
- CG18D CONCRETE CURB & GUTTER 18-INCH TYPE D
- CG30A CONCRETE CURB & GUTTER 30-INCH TYPE A
- CG30D CONCRETE CURB & GUTTER 30-INCH TYPE D
- CP10 CONCRETE PAVEMENT 10-INCH (DOWELED AND TINED)
- CP10H CONCRETE PAVEMENT HES 10-INCH (DOWELED AND TINED)
- CSI CONCRETE SAFETY ISLAND (SEE CONSTRUCTION DETAIL)
- MO MAINTENANCE OPENING (SEE CONSTRUCTION DETAIL)
- SN01 CONCRETE MEDIAN SLOPED NOSE TYPE 1
- SOD TOPSOIL, FERTILIZER TYPE B & SOD LAWN
- SW05 CONCRETE SIDEWALK 5-INCH
- DETECTABLE WARNING FIELD YELLOW



SHEET 3 OF 5

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVING DETAILS - CTH O	SHEET 31	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 03

PLOT DATE : 7/28/2019 8:22 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

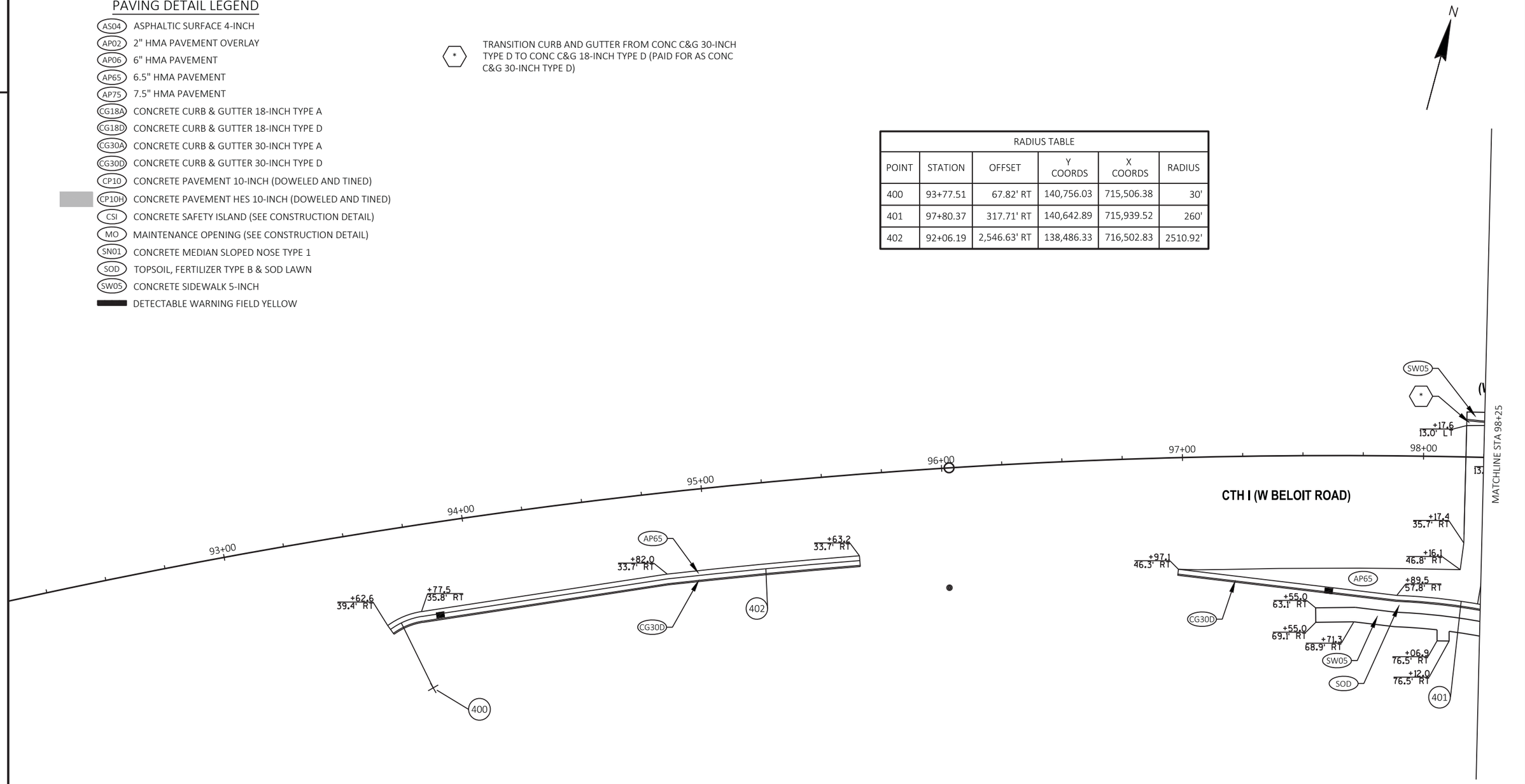
2

PAVING DETAIL LEGEND

- AS04 — ASPHALTIC SURFACE 4-INCH
- AP02 — 2" HMA PAVEMENT OVERLAY
- AP06 — 6" HMA PAVEMENT
- AP65 — 6.5" HMA PAVEMENT
- AP75 — 7.5" HMA PAVEMENT
- CG18A — CONCRETE CURB & GUTTER 18-INCH TYPE A
- CG18D — CONCRETE CURB & GUTTER 18-INCH TYPE D
- CG30A — CONCRETE CURB & GUTTER 30-INCH TYPE A
- CG30D — CONCRETE CURB & GUTTER 30-INCH TYPE D
- CP10 — CONCRETE PAVEMENT 10-INCH (DOWELED AND TINED)
- CP10H — CONCRETE PAVEMENT HES 10-INCH (DOWELED AND TINED)
- CSI — CONCRETE SAFETY ISLAND (SEE CONSTRUCTION DETAIL)
- MO — MAINTENANCE OPENING (SEE CONSTRUCTION DETAIL)
- SN01 — CONCRETE MEDIAN SLOPED NOSE TYPE 1
- SOD — TOPSOIL, FERTILIZER TYPE B & SOD LAWN
- SW05 — CONCRETE SIDEWALK 5-INCH
- DETECTABLE WARNING FIELD YELLOW

* — TRANSITION CURB AND GUTTER FROM CONC C&G 30-INCH TYPE D TO CONC C&G 18-INCH TYPE D (PAID FOR AS CONC C&G 30-INCH TYPE D)

RADIUS TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
400	93+77.51	67.82' RT	140,756.03	715,506.38	30'
401	97+80.37	317.71' RT	140,642.89	715,939.52	260'
402	92+06.19	2,546.63' RT	138,486.33	716,502.83	2510.92'



SHEET 4 OF 5

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVING DETAILS - CTH I	SHEET 32	E

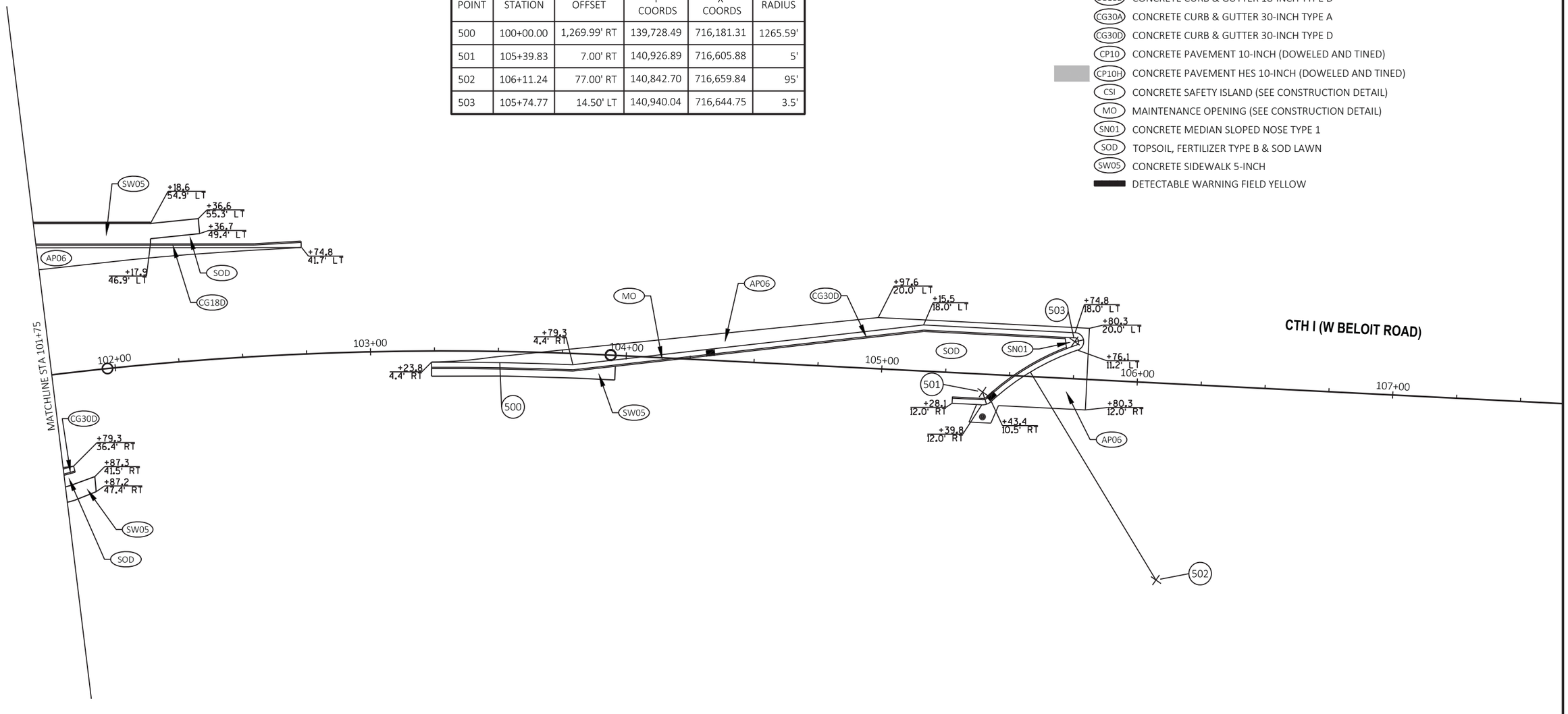
2

PAVING DETAIL LEGEND

- AS04 ASPHALTIC SURFACE 4-INCH
- AP02 2" HMA PAVEMENT OVERLAY
- AP06 6" HMA PAVEMENT
- AP65 6.5" HMA PAVEMENT
- AP75 7.5" HMA PAVEMENT
- CG18A CONCRETE CURB & GUTTER 18-INCH TYPE A
- CG18D CONCRETE CURB & GUTTER 18-INCH TYPE D
- CG30A CONCRETE CURB & GUTTER 30-INCH TYPE A
- CG30D CONCRETE CURB & GUTTER 30-INCH TYPE D
- CP10 CONCRETE PAVEMENT 10-INCH (DOWELED AND TINED)
- CP10H CONCRETE PAVEMENT HES 10-INCH (DOWELED AND TINED)
- CSI CONCRETE SAFETY ISLAND (SEE CONSTRUCTION DETAIL)
- MO MAINTENANCE OPENING (SEE CONSTRUCTION DETAIL)
- SN01 CONCRETE MEDIAN SLOPED NOSE TYPE 1
- SOD TOPSOIL, FERTILIZER TYPE B & SOD LAWN
- SW05 CONCRETE SIDEWALK 5-INCH
- DETECTABLE WARNING FIELD YELLOW

N

RADIUS TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
500	100+00.00	1,269.99' RT	139,728.49	716,181.31	1265.59'
501	105+39.83	7.00' RT	140,926.89	716,605.88	5'
502	106+11.24	77.00' RT	140,842.70	716,659.84	95'
503	105+74.77	14.50' LT	140,940.04	716,644.75	3.5'



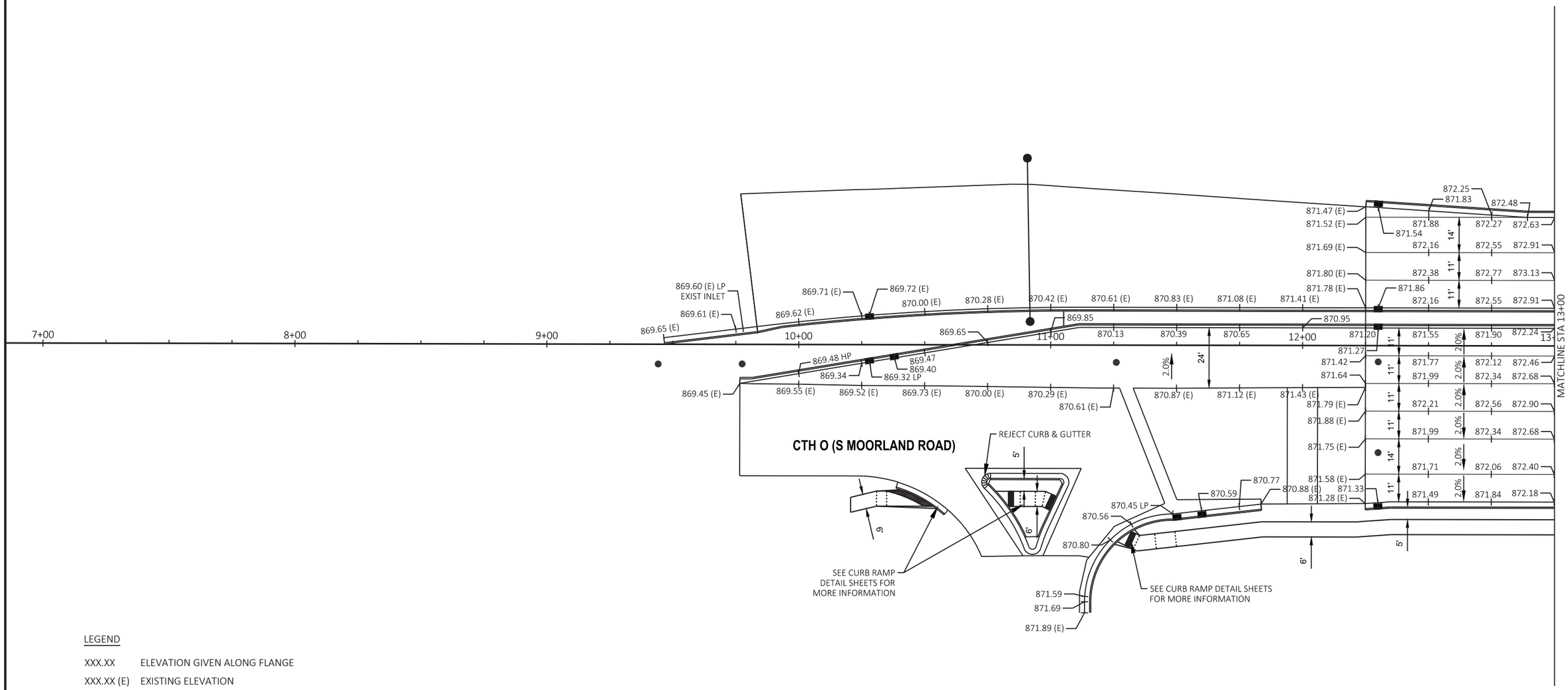
SHEET 5 OF 5

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVING DETAILS - CTH I	SHEET 33	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 05

PLOT DATE : 7/28/2019 8:22 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



LEGEND

XXX.XX	ELEVATION GIVEN ALONG FLANGE
XXX.XX (E)	EXISTING ELEVATION
XXX.XX HP	ELEVATION AT HIGH POINT
XXX.XX LP	ELEVATION AT LOW POINT

SHEET 1 OF 5

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVING GRADES - CTH O	SHEET 34	E

N

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

LEGEND

XXX.XX ELEVATION GIVEN ALONG FLANGE

XXX.XX (E) EXISTING ELEVATION

XXX.XX HP ELEVATION AT HIGH POINT

XXX.XX LP ELEVATION AT LOW POINT

HIGH EARLY STRENGTH CONCRETE PAVEMENT

SEE CURB RAMP DETAIL SHEETS FOR MORE INFORMATION

SEE CURB RAMP DETAIL SHEETS FOR MORE INFORMATION

SEE CURB RAMP DETAIL SHEETS FOR MORE INFORMATION

SEE CURB RAMP DETAIL SHEETS FOR MORE INFORMATION

REJECT GUTTER

REJECT CURB & GUTTER

CTH O (S MOORLAND ROAD)

MATCHLINE STA 101+75

MATCHLINE STA 13+00

MATCHLINE STA 19+00

NOTES:

1. LIMITS OF HIGH EARLY STRENGTH CONCRETE PAVEMENT ARE APPROXIMATE. EXACT LIMITS TO BE DETERMINED BY ENGINEER BASED ON CONTRACTOR'S JOINTING PLAN.

SHEET 2 OF 5

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVING GRADES - CTH O	SHEET 35	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\021202-PD.DWG
LAYOUT NAME - 02

PLOT DATE : 12/9/2019 10:36 PM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

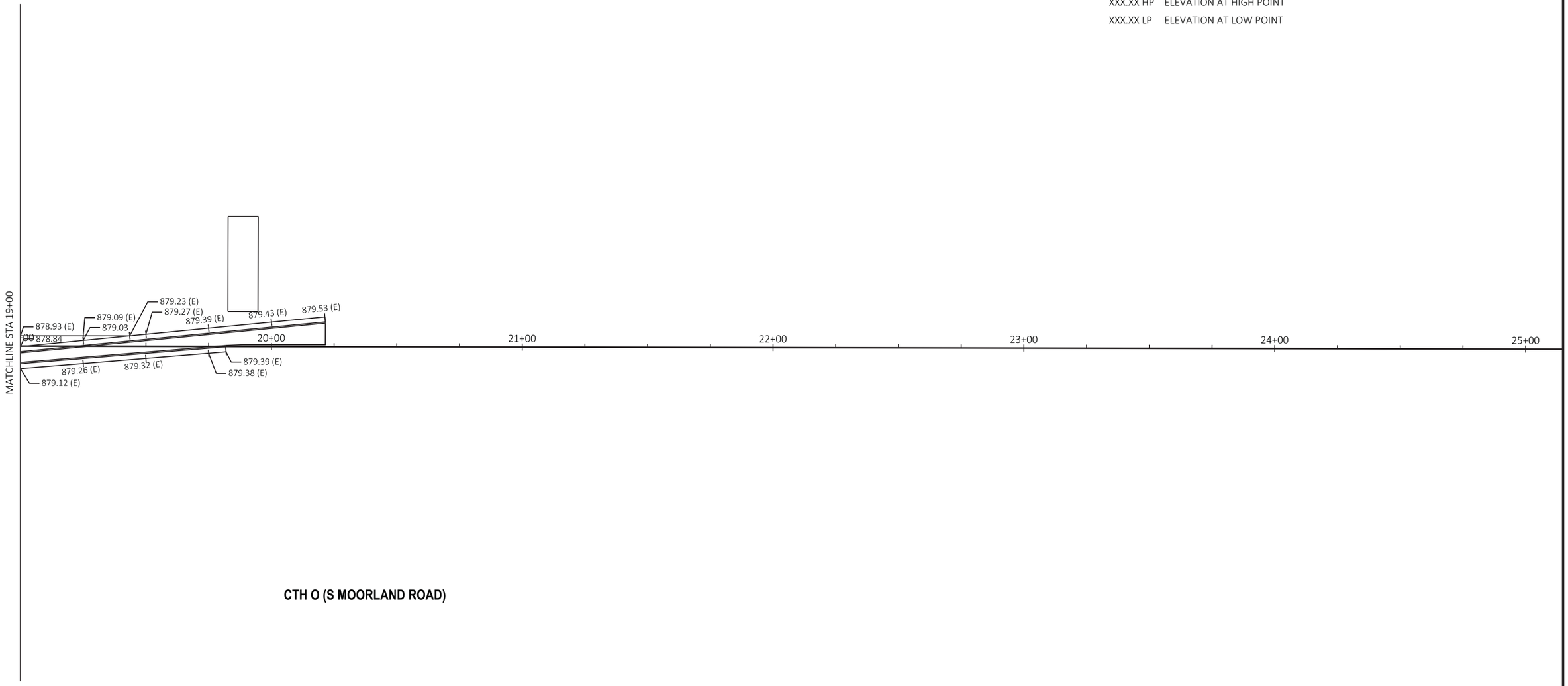
WISDOT/CADDS SHEET 42

2

N

LEGEND

XXX.XX	ELEVATION GIVEN ALONG FLANGE
XXX.XX (E)	EXISTING ELEVATION
XXX.XX HP	ELEVATION AT HIGH POINT
XXX.XX LP	ELEVATION AT LOW POINT

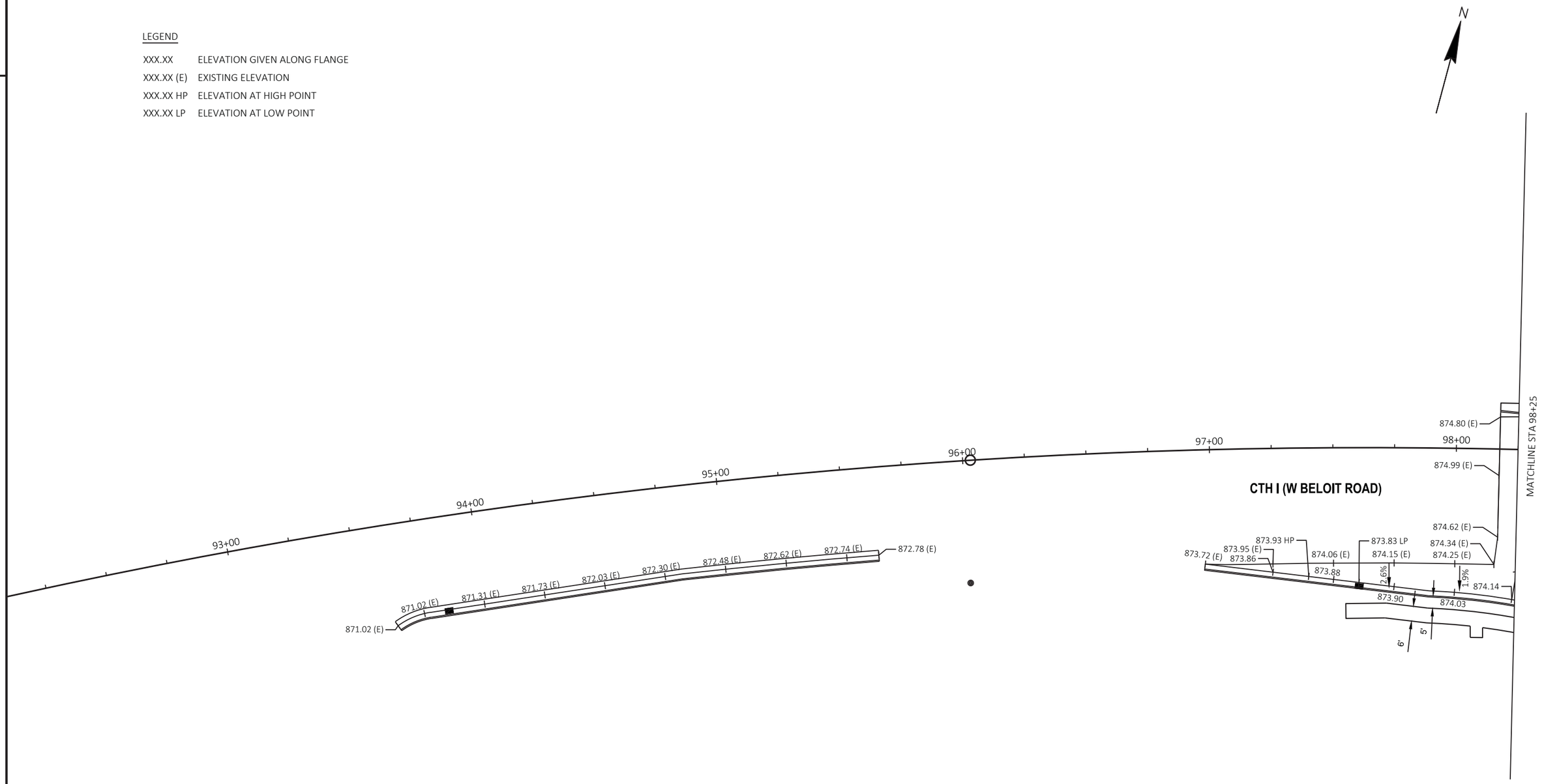


PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVING GRADES - CTH O	SHEET 36	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\021202-PD.DWG
LAYOUT NAME - 03
PLOT DATE : 7/28/2019 8:22 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

XXX.XX	ELEVATION GIVEN ALONG FLANGE
XXX.XX (E)	EXISTING ELEVATION
XXX.XX HP	ELEVATION AT HIGH POINT
XXX.XX LP	ELEVATION AT LOW POINT



SHEET 4 OF 5

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVING GRADES - CTH I	SHEET 37	E

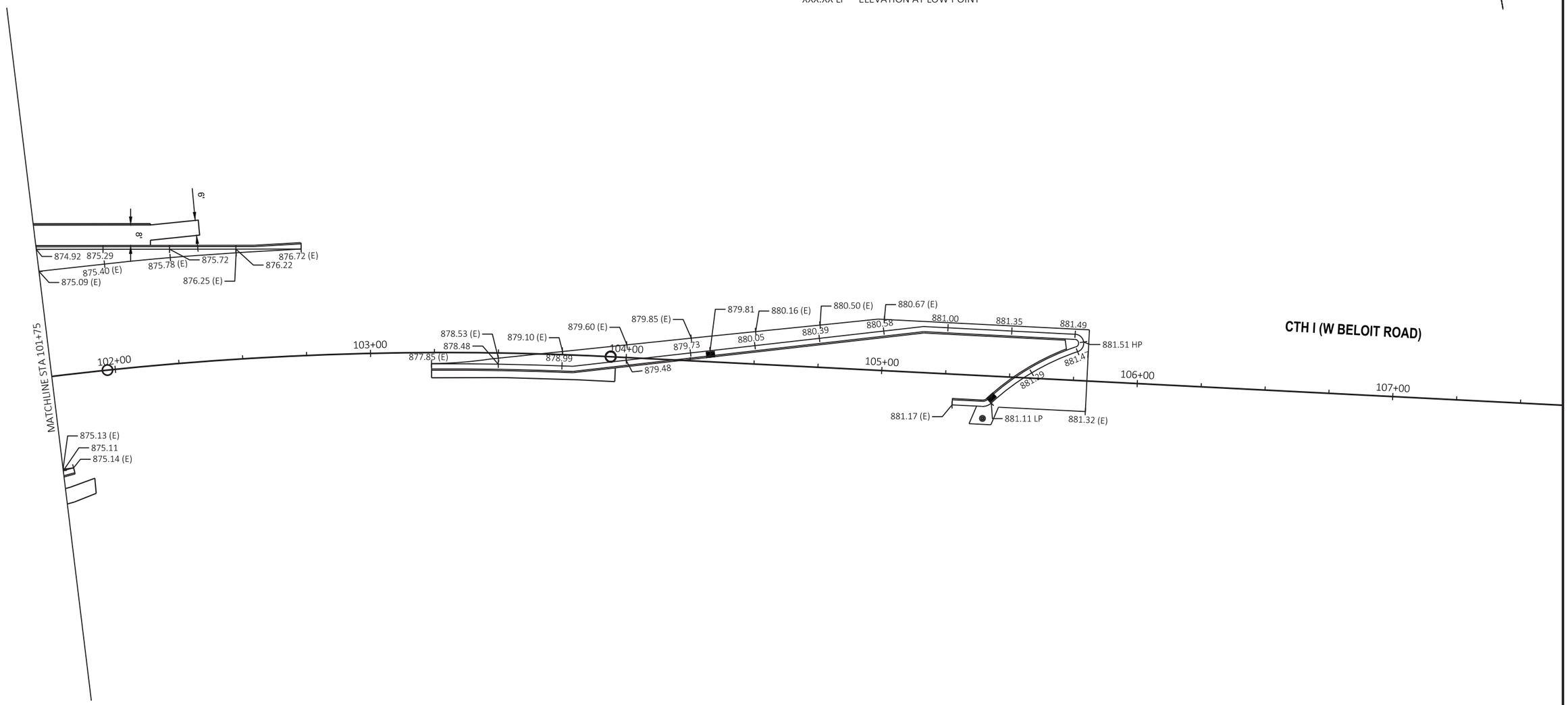
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\021202-PD.DWG
LAYOUT NAME - 04

PLOT DATE : 7/28/2019 8:22 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

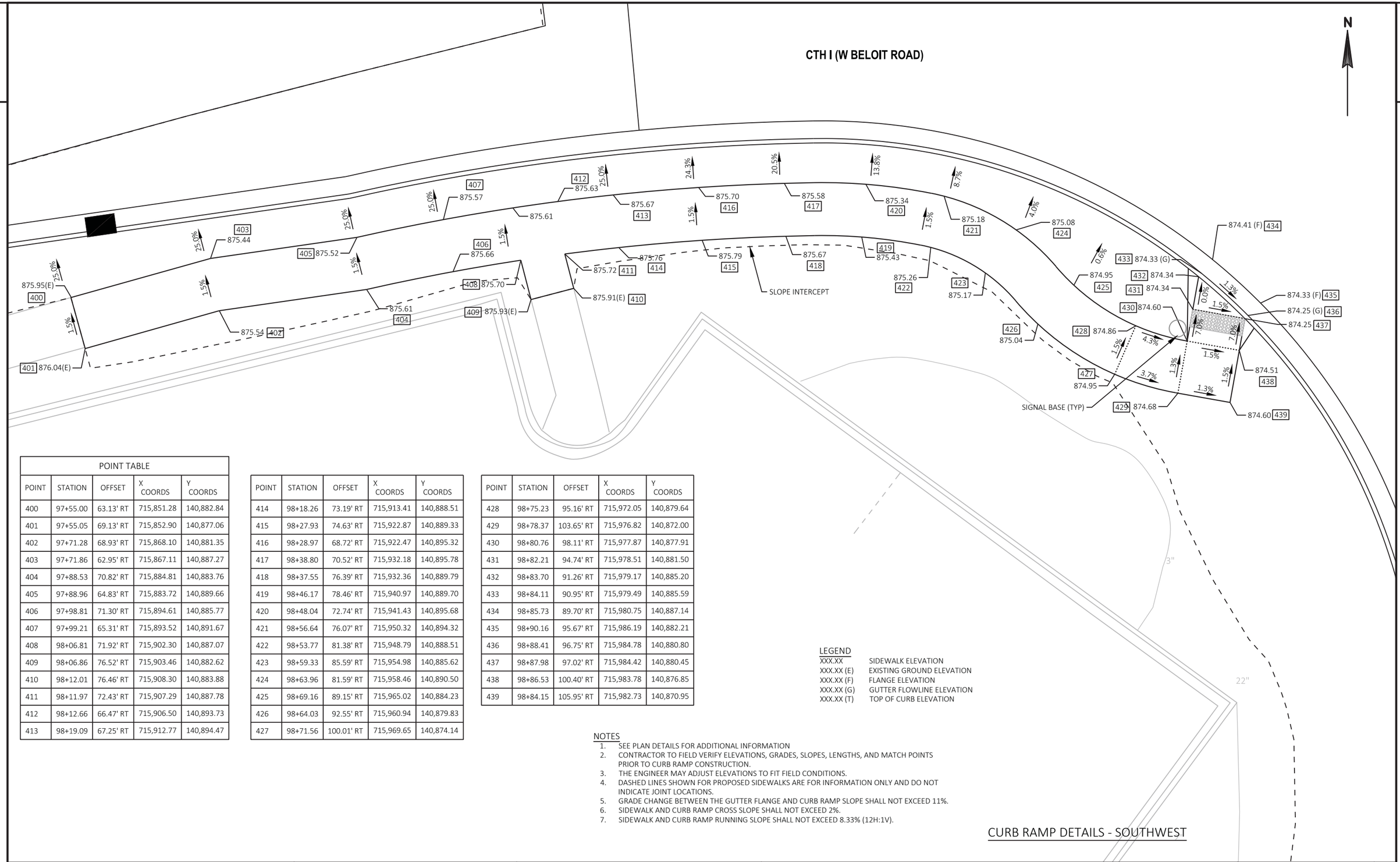
LEGEND

XXX.XX	ELEVATION GIVEN ALONG FLANGE
XXX.XX (E)	EXISTING ELEVATION
XXX.XX HP	ELEVATION AT HIGH POINT
XXX.XX LP	ELEVATION AT LOW POINT



SHEET 5 OF 5

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVING GRADES - CTH I	SHEET 38	E



POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
400	97+55.00	63.13' RT	715,851.28	140,882.84
401	97+55.05	69.13' RT	715,852.90	140,877.06
402	97+71.28	68.93' RT	715,868.10	140,881.35
403	97+71.86	62.95' RT	715,867.11	140,887.27
404	97+88.53	70.82' RT	715,884.81	140,883.76
405	97+88.96	64.83' RT	715,883.72	140,889.66
406	97+98.81	71.30' RT	715,894.61	140,885.77
407	97+99.21	65.31' RT	715,893.52	140,891.67
408	98+06.81	71.92' RT	715,902.30	140,887.07
409	98+06.86	76.52' RT	715,903.46	140,882.62
410	98+12.01	76.46' RT	715,908.30	140,883.88
411	98+11.97	72.43' RT	715,907.29	140,887.78
412	98+12.66	66.47' RT	715,906.50	140,893.73
413	98+19.09	67.25' RT	715,912.77	140,894.47

POINT	STATION	OFFSET	X COORDS	Y COORDS
414	98+18.26	73.19' RT	715,913.41	140,888.51
415	98+27.93	74.63' RT	715,922.87	140,889.33
416	98+28.97	68.72' RT	715,922.47	140,895.32
417	98+38.80	70.52' RT	715,932.18	140,895.78
418	98+37.55	76.39' RT	715,932.36	140,889.79
419	98+46.17	78.46' RT	715,940.97	140,889.70
420	98+48.04	72.74' RT	715,941.43	140,895.68
421	98+56.64	76.07' RT	715,950.32	140,894.32
422	98+53.77	81.38' RT	715,948.79	140,888.51
423	98+59.33	85.59' RT	715,954.98	140,885.62
424	98+63.96	81.59' RT	715,958.46	140,890.50
425	98+69.16	89.15' RT	715,965.02	140,884.23
426	98+64.03	92.55' RT	715,960.94	140,879.83
427	98+71.56	100.01' RT	715,969.65	140,874.14

POINT	STATION	OFFSET	X COORDS	Y COORDS
428	98+75.23	95.16' RT	715,972.05	140,879.64
429	98+78.37	103.65' RT	715,976.82	140,872.00
430	98+80.76	98.11' RT	715,977.87	140,877.91
431	98+82.21	94.74' RT	715,978.51	140,881.50
432	98+83.70	91.26' RT	715,979.17	140,885.20
433	98+84.11	90.95' RT	715,979.49	140,885.59
434	98+85.73	89.70' RT	715,980.75	140,887.14
435	98+90.16	95.67' RT	715,986.19	140,882.21
436	98+88.41	96.75' RT	715,984.78	140,880.80
437	98+87.98	97.02' RT	715,984.42	140,880.45
438	98+86.53	100.40' RT	715,983.78	140,876.85
439	98+84.15	105.95' RT	715,982.73	140,870.95

LEGEND

XXX.XX	SIDEWALK ELEVATION
XXX.XX (E)	EXISTING GROUND ELEVATION
XXX.XX (F)	FLANGE ELEVATION
XXX.XX (G)	GUTTER FLOWLINE ELEVATION
XXX.XX (T)	TOP OF CURB ELEVATION

NOTES

1. SEE PLAN DETAILS FOR ADDITIONAL INFORMATION
2. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP CONSTRUCTION.
3. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS.
4. DASHED LINES SHOWN FOR PROPOSED SIDEWALKS ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
5. GRADE CHANGE BETWEEN THE GUTTER FLANGE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%.
6. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
7. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).

CURB RAMP DETAILS - SOUTHWEST

NOTES
1. SEE PLAN DETAILS FOR ADDITIONAL INFORMATION
2. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP CONSTRUCTION.
3. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS.
4. DASHED LINES SHOWN FOR PROPOSED SIDEWALKS ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
5. GRADE CHANGE BETWEEN THE GUTTER FLANGE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%.
6. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
7. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).

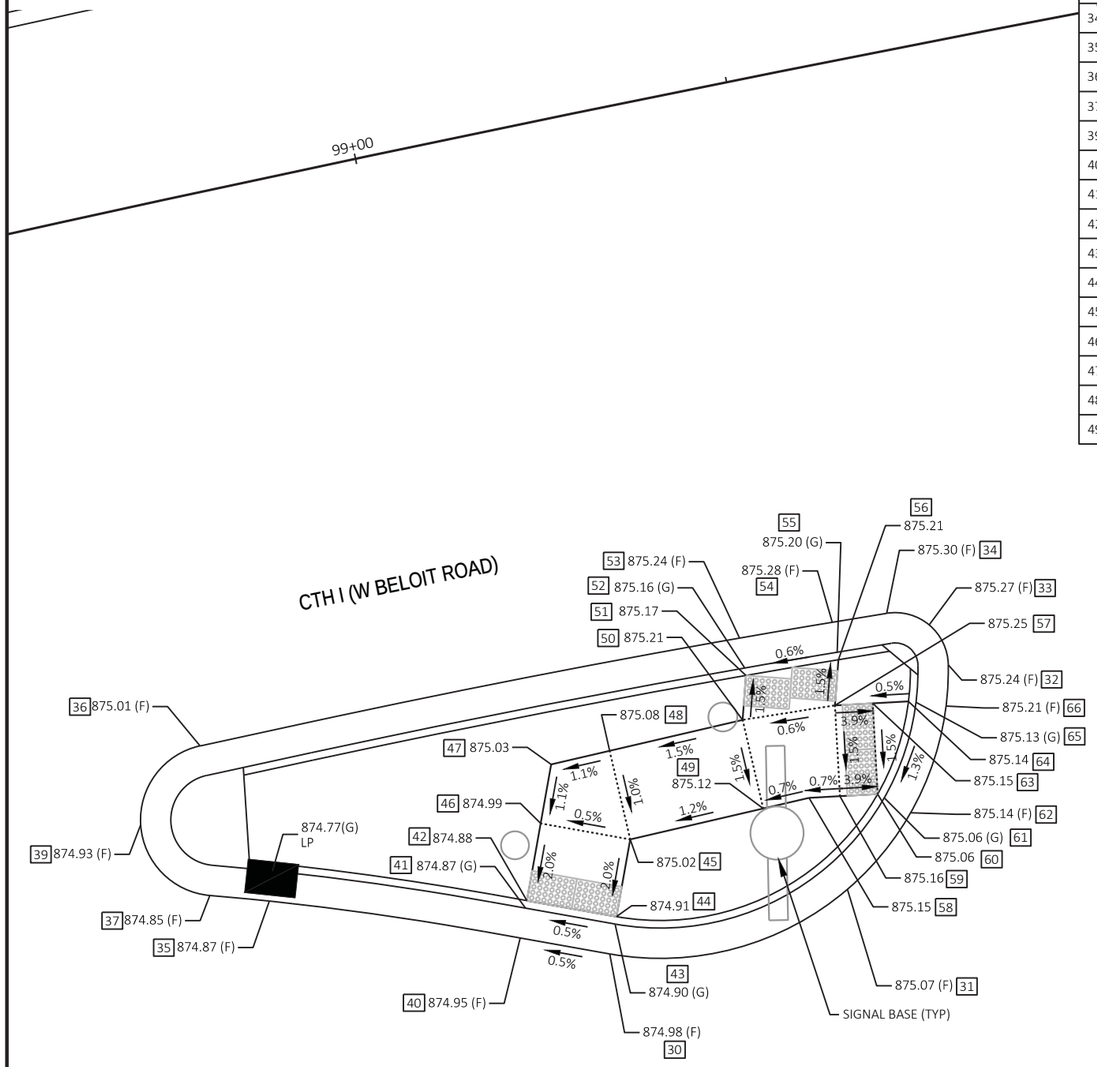
LEGEND

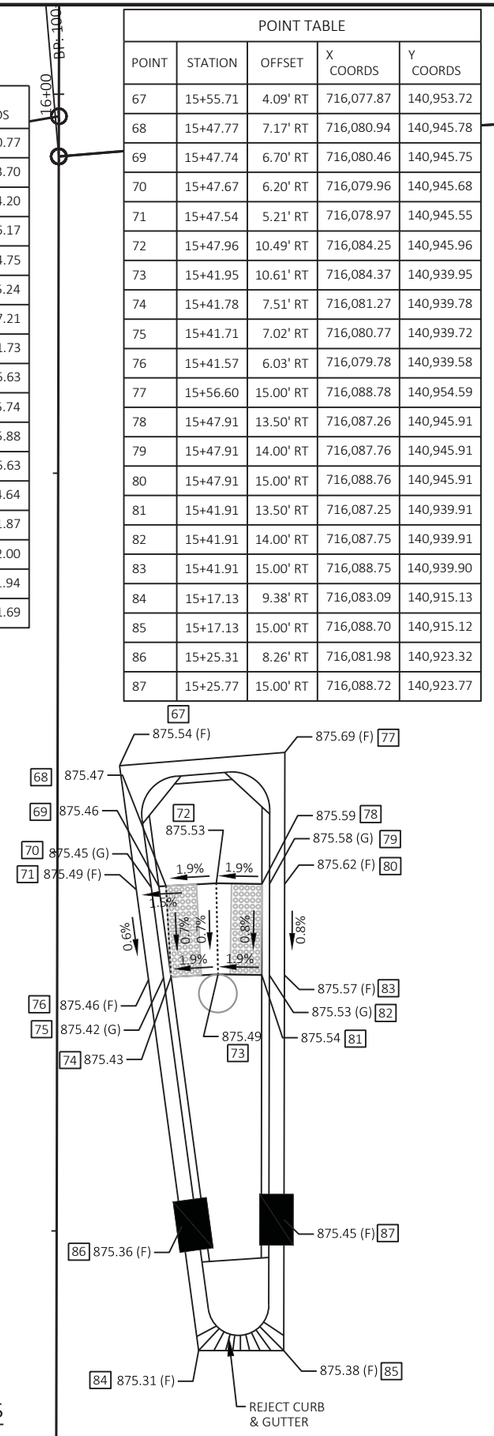
XXX.XX	SIDEWALK ELEVATION
XXX.XX (F)	FLANGE ELEVATION
XXX.XX (G)	GUTTER FLOWLINE ELEVATION
XXX.XX (T)	TOP OF CURB ELEVATION

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
30	99+05.68	54.79' RT	715,992.42	140,925.33
31	99+22.25	53.78' RT	716,008.10	140,929.59
32	99+31.86	40.55' RT	716,014.76	140,944.41
33	99+31.13	37.74' RT	716,013.50	140,947.03
34	99+28.49	36.44' RT	716,010.70	140,947.80
35	98+84.00	46.69' RT	715,969.96	140,928.82
36	98+81.69	35.71' RT	715,965.39	140,939.05
37	98+80.18	45.48' RT	716,966.04	140,929.19
39	98+76.67	39.95' RT	715,961.47	140,933.84
40	98+99.99	52.54' RT	715,986.52	140,926.38
41	99+00.76	50.69' RT	715,986.87	140,928.35
42	99+00.95	50.23' RT	715,986.96	140,928.85
43	99+05.68	54.79' RT	715,992.42	140,925.33
44	99+06.63	52.47' RT	715,992.86	140,927.79
45	99+08.60	47.67' RT	715,993.77	140,932.89
46	99+02.93	45.43' RT	715,987.87	140,933.94
47	99+04.44	41.76' RT	715,988.56	140,937.84
48	99+08.46	41.67' RT	715,992.41	140,938.73
49	99+17.78	47.44' RT	716,002.55	140,934.93

POINT	STATION	OFFSET	X COORDS	Y COORDS
50	99+17.62	41.45' RT	716,001.19	140,940.77
51	99+18.44	38.62' RT	716,001.42	140,943.70
52	99+18.45	38.12' RT	716,001.33	140,944.20
53	99+18.51	36.12' RT	716,000.99	140,946.17
54	99+24.71	38.81' RT	716,007.52	140,944.75
55	99+24.73	38.31' RT	716,007.43	140,945.24
56	99+24.80	36.31' RT	716,007.10	140,947.21
57	99+23.88	41.72' RT	716,007.28	140,941.73
58	99+20.94	47.36' RT	716,005.57	140,935.63
59	99+23.00	47.65' RT	716,007.61	140,935.74
60	99+25.51	48.01' RT	716,010.10	140,935.88
61	99+25.90	48.34' RT	716,010.54	140,935.63
62	99+27.44	49.65' RT	716,012.28	140,934.64
63	99+26.39	42.07' RT	716,009.77	140,941.87
64	99+28.77	42.41' RT	716,012.13	140,942.00
65	99+29.25	42.57' RT	716,012.63	140,941.94
66	99+31.18	43.20' RT	716,014.61	140,941.69

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
67	15+55.71	4.09' RT	716,077.87	140,953.72
68	15+47.77	7.17' RT	716,080.94	140,945.78
69	15+47.74	6.70' RT	716,080.46	140,945.75
70	15+47.67	6.20' RT	716,079.96	140,945.68
71	15+47.54	5.21' RT	716,078.97	140,945.55
72	15+47.96	10.49' RT	716,084.25	140,945.96
73	15+41.95	10.61' RT	716,084.37	140,939.95
74	15+41.78	7.51' RT	716,081.27	140,939.78
75	15+41.71	7.02' RT	716,080.77	140,939.72
76	15+41.57	6.03' RT	716,079.78	140,939.58
77	15+56.60	15.00' RT	716,088.78	140,954.59
78	15+47.91	13.50' RT	716,087.26	140,945.91
79	15+47.91	14.00' RT	716,087.76	140,945.91
80	15+47.91	15.00' RT	716,088.76	140,945.91
81	15+41.91	13.50' RT	716,087.25	140,939.91
82	15+41.91	14.00' RT	716,087.75	140,939.91
83	15+41.91	15.00' RT	716,088.75	140,939.90
84	15+17.13	9.38' RT	716,083.09	140,915.13
85	15+17.13	15.00' RT	716,088.70	140,915.12
86	15+25.31	8.26' RT	716,081.98	140,923.32
87	15+25.77	15.00' RT	716,088.72	140,923.77





CURB RAMP DETAILS - SOUTHWEST ISLANDS

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CURB RAMP DETAILS	SHEET 40	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\021203-PD.DWG
LAYOUT NAME - 02
PLOT DATE : 7/28/2019 8:23 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

NOTES

1. SEE PLAN DETAILS FOR ADDITIONAL INFORMATION
2. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP CONSTRUCTION.
3. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS.
4. DASHED LINES SHOWN FOR PROPOSED SIDEWALKS ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
5. GRADE CHANGE BETWEEN THE GUTTER FLANGE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%.
6. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
7. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).

LEGEND

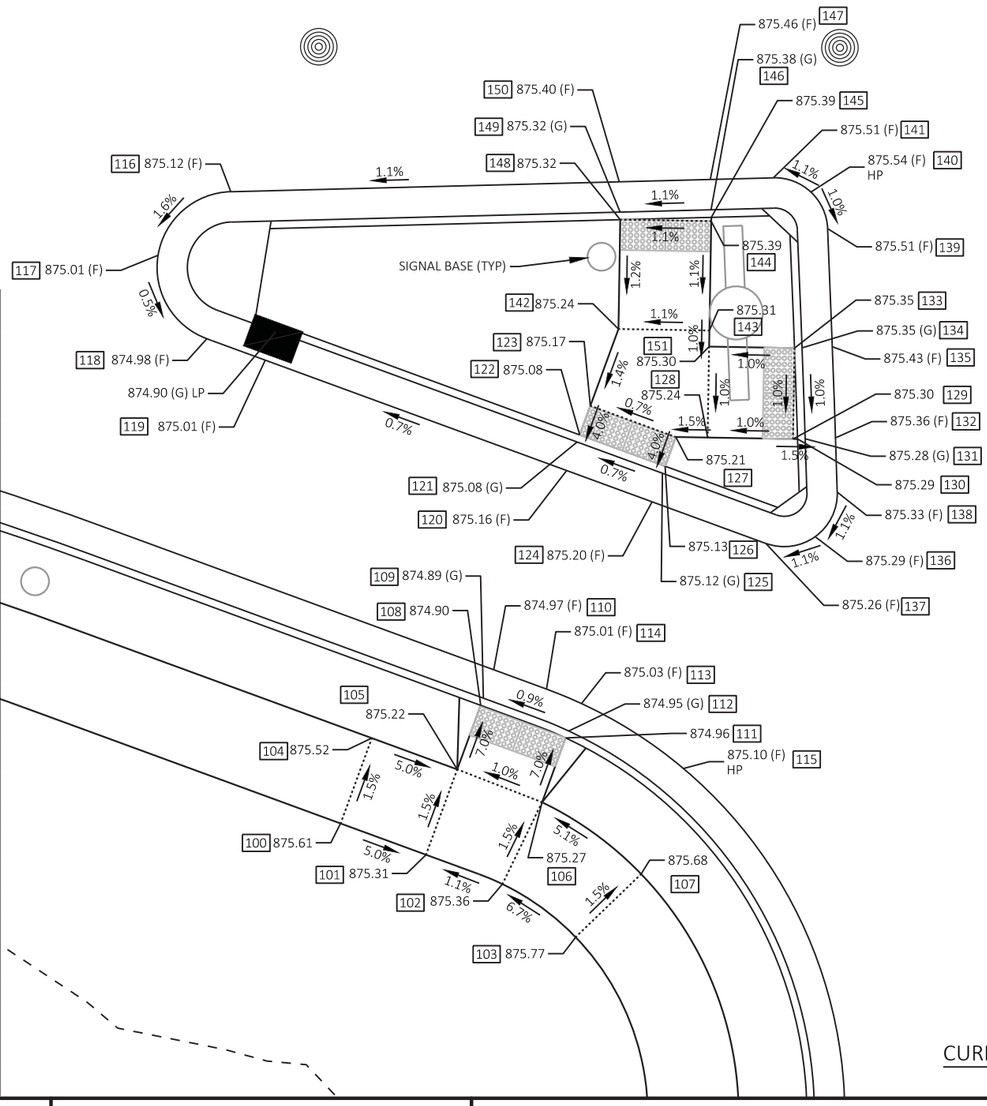
XXX.XX	SIDEWALK ELEVATION
XXX.XX (F)	FLANGE ELEVATION
XXX.XX (G)	GUTTER FLOWLINE ELEVATION
XXX.XX (T)	TOP OF CURB ELEVATION

N

POINT TABLE

POINT	STATION	OFFSET	X COORDS	Y COORDS
100	100+92.83	77.60' RT	716,167.46	140,920.79
101	100+95.09	71.99' RT	716,169.53	140,926.43
102	100+97.19	66.96' RT	716,171.46	140,931.47
103	101+00.91	62.15' RT	716,174.97	140,936.30
104	100+86.87	75.46' RT	716,161.83	140,922.86
105	100+89.15	69.86' RT	716,163.89	140,928.49
106	100+91.52	64.29' RT	716,166.06	140,934.08
107	100+96.57	57.80' RT	716,170.80	140,940.62
108	100+84.71	68.24' RT	716,159.67	140,930.04
109	100+84.22	68.06' RT	716,159.20	140,930.21
110	100+82.25	67.34' RT	716,157.32	140,930.90
111	100+87.08	62.68' RT	716,161.82	140,935.64
112	100+86.61	62.46' RT	716,161.37	140,935.85
113	100+84.71	61.59' RT	716,159.55	140,936.69
114	100+83.66	63.88' RT	716,158.60	140,934.38
115	100+89.32	54.93' RT	716,163.84	140,943.42
116	100+48.12	83.62' RT	716,125.78	140,913.55
117	100+52.38	88.61' RT	716,129.98	140,908.74
118	100+58.43	85.62' RT	716,135.48	140,911.97
119	100+60.09	81.82' RT	716,136.89	140,915.83
120	100+68.53	62.19' RT	716,144.17	140,935.71
121	100+66.58	61.44' RT	716,142.30	140,936.40
122	100+66.09	61.26' RT	716,141.83	140,936.57
123	100+64.14	60.51' RT	716,139.95	140,937.26
124	100+70.87	56.62' RT	716,146.24	140,941.34
125	100+68.92	55.88' RT	716,144.36	140,942.03

POINT	STATION	OFFSET	X COORDS	Y COORDS
126	100+68.44	55.69' RT	716,143.89	140,942.20
127	100+66.50	54.95' RT	716,142.01	140,942.89
128	100+66.56	52.83' RT	716,142.00	140,945.01
129	100+66.85	47.20' RT	716,142.10	140,950.64
130	100+66.86	46.89' RT	716,142.10	140,950.95
131	100+66.86	46.39' RT	716,142.09	140,951.45
132	100+66.86	44.39' RT	716,142.02	140,953.45
133	100+60.62	46.89' RT	716,136.10	140,950.74
134	100+60.62	46.39' RT	716,136.08	140,951.24
135	100+60.62	44.39' RT	716,136.01	140,953.24
136	100+73.58	45.93' RT	716,148.54	140,952.11
137	100+73.95	49.19' RT	716,148.99	140,948.86
138	100+70.57	44.39' RT	716,145.60	140,953.56
139	100+52.54	44.39' RT	716,128.21	140,952.93
140	100+50.00	45.39' RT	716,125.81	140,951.82
141	100+48.91	47.83' RT	716,124.87	140,949.34
142	100+58.86	58.45' RT	716,134.84	140,939.13
143	100+59.20	52.46' RT	716,134.94	140,945.13
144	100+51.69	52.05' RT	716,127.72	140,945.25
145	100+51.42	52.03' RT	716,127.47	140,945.25
146	100+50.90	52.02' RT	716,126.97	140,945.24
147	100+48.82	51.98' RT	716,124.97	140,945.19
148	100+51.31	58.04' RT	716,127.63	140,939.25
149	100+50.78	58.03' RT	716,127.13	140,939.23
150	100+48.69	57.99' RT	716,125.13	140,939.18
151	100+60.31	52.52' RT	716,136.00	140,945.11



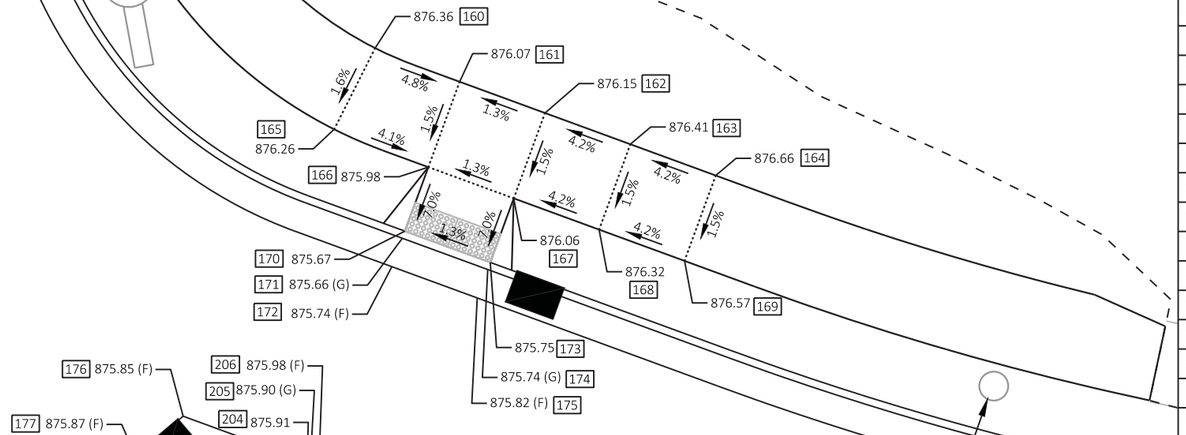
CURB RAMP DETAILS - SOUTHEAST

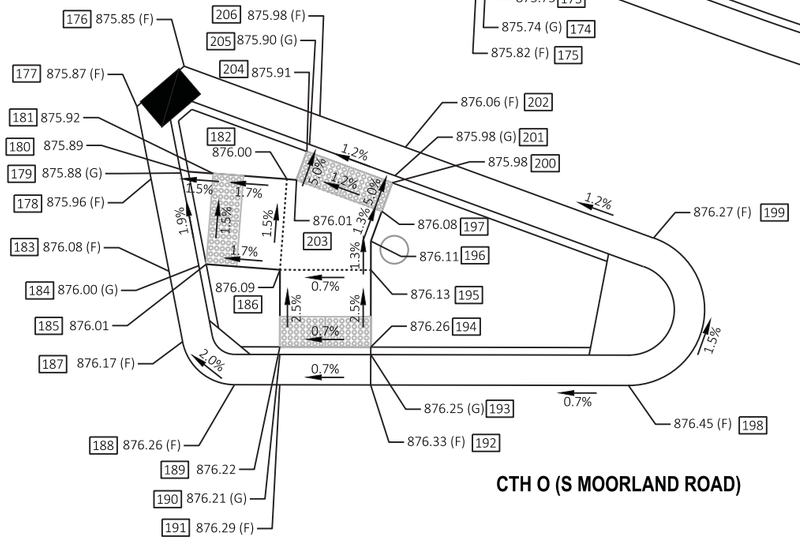
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CURB RAMP DETAILS	SHEET 41	E

CTH I (W BELOIT ROAD)

NOTES
1. SEE PLAN DETAILS FOR ADDITIONAL INFORMATION
2. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP CONSTRUCTION.
3. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS.
4. DASHED LINES SHOWN FOR PROPOSED SIDEWALKS ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
5. GRADE CHANGE BETWEEN THE GUTTER FLANGE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%.
6. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
7. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).

LEGEND
XXX.XX SIDEWALK ELEVATION
XXX.XX (F) FLANGE ELEVATION
XXX.XX (G) GUTTER FLOWLINE ELEVATION
XXX.XX (T) TOP OF CURB ELEVATION





SIGNAL BASE (TYP)

N

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
160	16+55.66	96.32' LT	715,977.65	141,053.87
161	16+61.25	94.12' LT	715,979.87	141,059.45
162	16+66.88	92.06' LT	715,981.93	141,065.08
163	16+72.52	90.01' LT	715,983.99	141,070.71
164	16+78.16	87.96' LT	715,986.05	141,076.35
165	16+52.97	90.96' LT	715,983.01	141,051.17
166	16+59.19	88.48' LT	715,985.50	141,057.38
167	16+64.83	86.43' LT	715,987.56	141,063.02
168	16+70.47	84.37' LT	715,989.63	141,068.65
169	16+76.11	82.32' LT	715,991.69	141,074.29
170	16+57.65	84.25' LT	715,989.73	141,055.84
171	16+57.48	83.78' LT	715,990.20	141,055.67
172	16+56.80	81.90' LT	715,992.07	141,054.98
173	16+63.29	82.20' LT	715,991.79	141,061.47
174	16+63.12	81.73' LT	715,992.26	141,061.30
175	16+62.44	79.85' LT	715,994.14	141,060.61
176	16+43.04	72.01' LT	716,001.94	141,041.20
177	16+39.93	69.35' LT	716,004.60	141,038.09
178	16+40.88	64.57' LT	716,009.37	141,039.03
179	16+42.84	64.96' LT	716,008.99	141,040.99
180	16+43.33	65.06' LT	716,008.89	141,041.48
181	16+44.98	64.93' LT	716,009.02	141,043.12
182	16+49.84	64.57' LT	716,009.39	141,047.98
183	16+42.08	58.47' LT	716,015.47	141,040.21

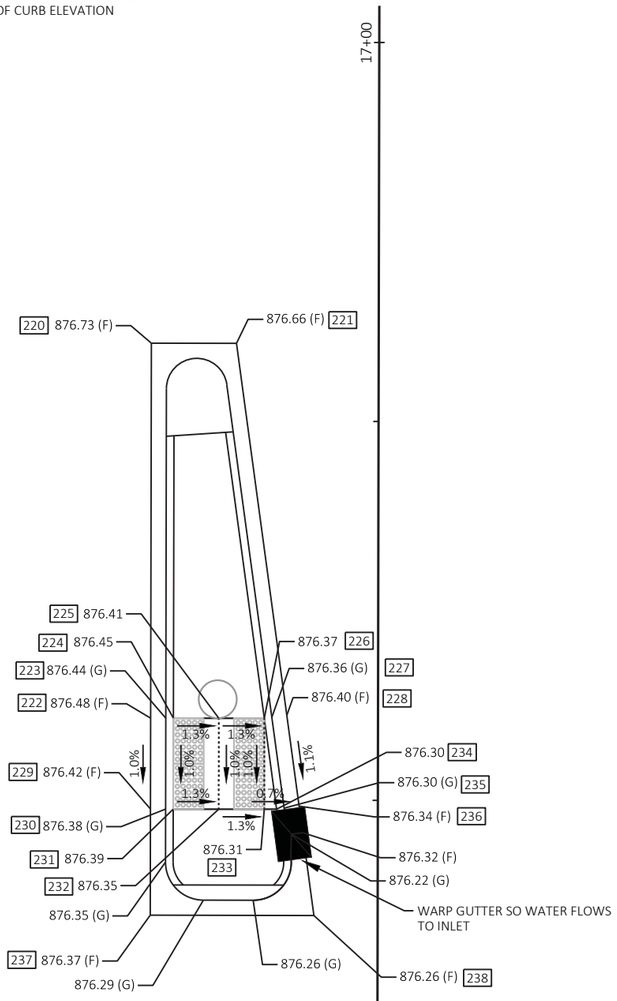
184	16+44.04	58.86' LT	716,015.09	141,042.17
185	16+44.53	58.95' LT	716,015.00	141,042.66
186	16+49.39	58.59' LT	716,015.37	141,047.53
187	16+42.98	53.84' LT	716,020.11	141,041.10
188	16+46.41	51.00' LT	716,022.96	141,044.53
189	16+49.39	53.50' LT	716,020.46	141,047.52
190	16+49.39	53.00' LT	716,020.96	141,047.52
191	16+49.39	51.00' LT	716,022.96	141,047.51
192	16+55.39	51.00' LT	716,022.97	141,053.51
193	16+55.39	53.00' LT	716,020.97	141,053.52
194	16+55.39	53.50' LT	716,020.47	141,053.52
195	16+55.39	58.59' LT	716,015.38	141,053.53
196	16+55.39	60.49' LT	716,013.48	141,053.53
197	16+56.11	62.46' LT	716,011.51	141,054.25
198	16+72.41	51.00' LT	716,023.01	141,070.53
199	16+74.03	60.73' LT	716,013.28	141,072.17
200	16+56.79	64.34' LT	716,009.63	141,054.94
201	16+56.97	64.81' LT	716,009.16	141,055.11
202	16+57.65	66.69' LT	716,007.28	141,055.80
203	16+50.48	64.53' LT	716,009.44	141,048.62
204	16+51.16	66.40' LT	716,007.57	141,049.30
205	16+51.33	66.87' LT	716,007.10	141,049.48
206	16+52.01	68.74' LT	716,005.22	141,050.16

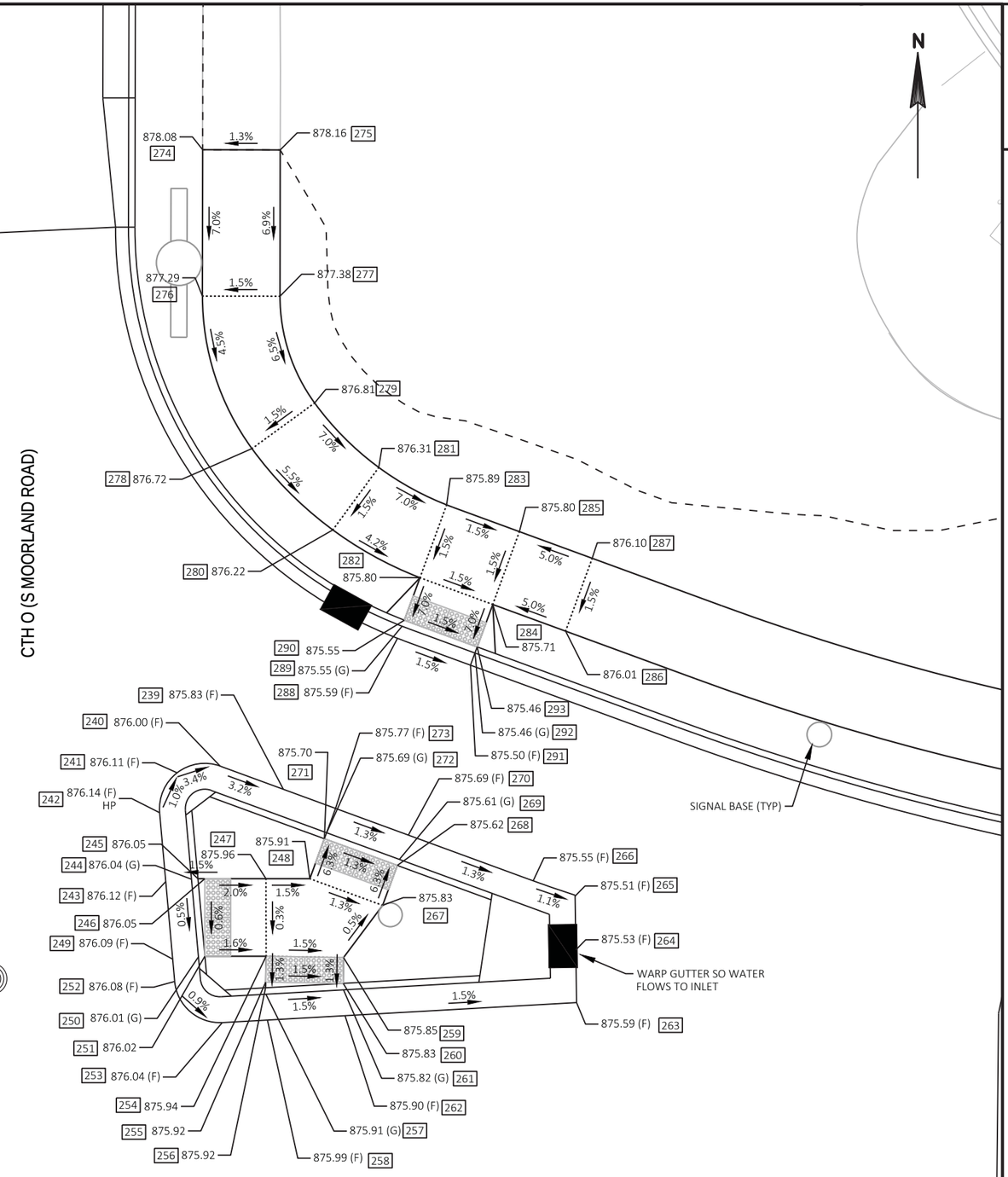
CURB RAMP DETAILS - NORTHWEST

NOTES
1. SEE PLAN DETAILS FOR ADDITIONAL INFORMATION
2. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP CONSTRUCTION.
3. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS.
4. DASHED LINES SHOWN FOR PROPOSED SIDEWALKS ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
5. GRADE CHANGE BETWEEN THE GUTTER FLANGE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%.
6. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
7. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).

LEGEND

XXX.XX	SIDEWALK ELEVATION
XXX.XX (F)	FLANGE ELEVATION
XXX.XX (G)	GUTTER FLOWLINE ELEVATION
XXX.XX (T)	TOP OF CURB ELEVATION





CURB RAMP DETAILS - NORTHEAST

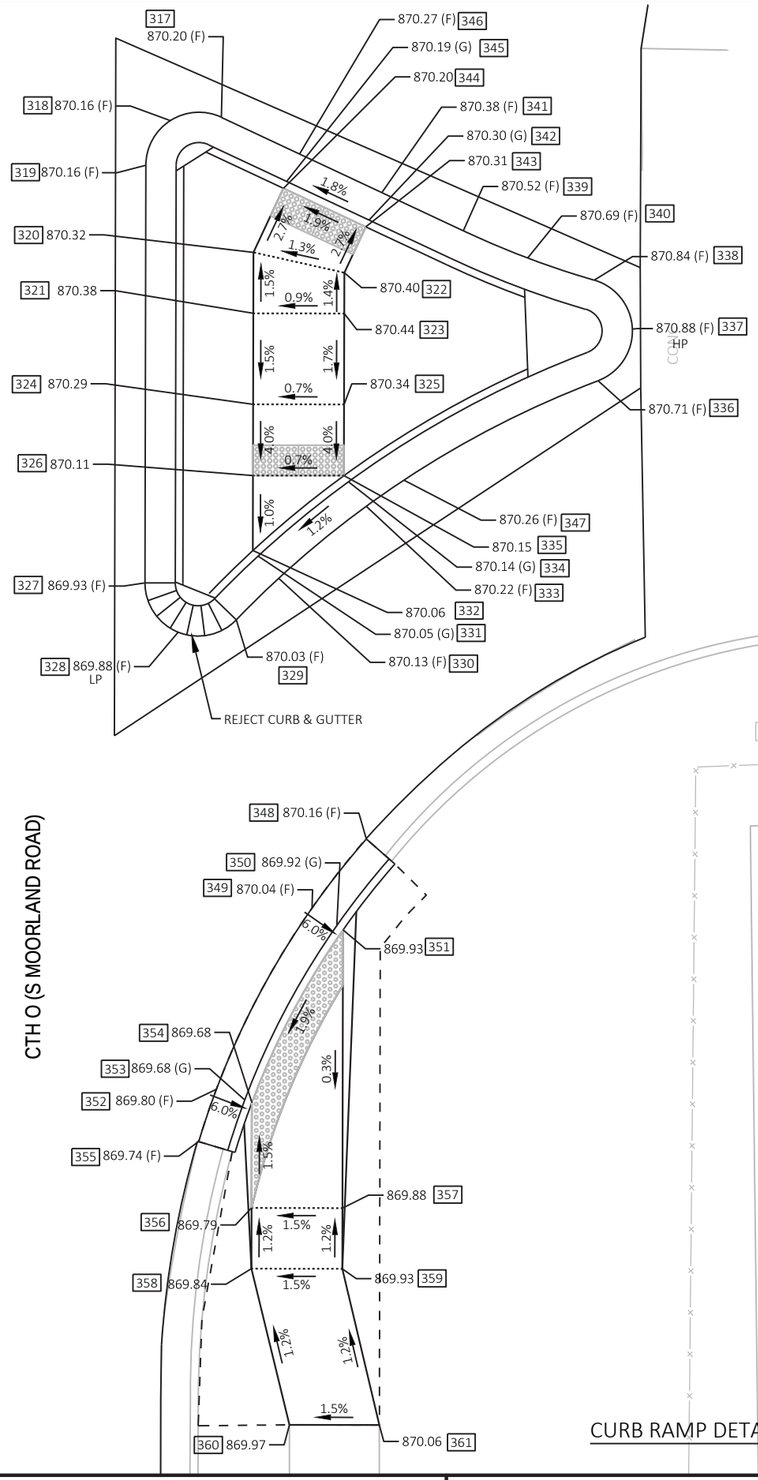
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CURB RAMP DETAILS	SHEET 43	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\021203-PD.DWG
LAYOUT NAME - 05
PLOT DATE : 7/28/2019 8:23 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : ##########

2

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
220	16+80.13	15.00' LT	716,059.02	141,078.18
221	16+80.13	9.38' LT	716,064.64	141,078.17
222	16+55.39	15.00' LT	716,058.97	141,053.44
223	16+55.39	14.00' LT	716,059.97	141,053.44
224	16+55.39	13.50' LT	716,060.47	141,053.44
225	16+55.39	10.50' LT	716,063.47	141,053.43
226	16+55.40	7.50' LT	716,066.47	141,053.43
227	16+55.47	7.01' LT	716,066.97	141,053.50
228	16+55.60	6.01' LT	716,067.96	141,053.63
229	16+49.39	15.00' LT	716,058.96	141,047.44
230	16+49.39	14.00' LT	716,059.96	141,047.44
231	16+49.39	13.50' LT	716,060.46	141,047.44
232	16+49.39	10.50' LT	716,063.46	141,047.43
233	16+49.40	7.49' LT	716,066.47	141,047.43
234	16+49.40	6.68' LT	716,067.28	141,047.43
235	16+49.47	6.18' LT	716,067.78	141,047.50
236	16+49.60	5.19' LT	716,068.77	141,047.63
237	16+42.39	15.00' LT	716,058.95	141,040.44
238	16+42.39	4.20' LT	716,069.75	141,040.42
239	16+62.45	65.08' RT	716,139.07	141,060.35
240	16+64.24	60.18' RT	716,134.17	141,062.14
241	16+63.72	56.85' RT	716,130.84	141,061.63
242	16+60.63	55.50' RT	716,129.48	141,058.54
243	16+55.30	55.99' RT	716,129.96	141,053.21
244	16+55.48	57.98' RT	716,131.95	141,053.39
245	16+55.53	58.48' RT	716,132.45	141,053.44
246	16+55.53	59.01' RT	716,132.99	141,053.44
247	16+55.54	63.75' RT	716,137.72	141,053.44
248	16+55.55	67.13' RT	716,141.10	141,053.44
249	16+49.30	56.53' RT	716,130.50	141,047.21
250	16+49.49	58.53' RT	716,132.49	141,047.39
251	16+49.53	59.02' RT	716,132.99	141,047.44
252	16+47.58	56.69' RT	716,130.65	141,045.49
253	16+44.40	60.38' RT	716,134.33	141,042.30
254	16+49.54	63.76' RT	716,137.72	141,047.44
255	16+47.54	63.73' RT	716,137.69	141,045.44
256	16+47.10	63.72' RT	716,137.68	141,045.00
257	16+46.60	63.75' RT	716,137.71	141,044.50
258	16+44.61	63.87' RT	716,137.82	141,042.50
259	16+49.45	69.76' RT	716,143.72	141,047.34
260	16+47.45	69.73' RT	716,143.69	141,045.34
261	16+46.95	69.76' RT	716,143.72	141,044.84
262	16+44.96	69.88' RT	716,143.83	141,042.84
263	16+46.00	87.80' RT	716,161.75	141,043.85
264	16+50.16	87.73' RT	716,161.69	141,048.01
265	16+54.31	87.66' RT	716,161.63	141,052.16
266	16+55.41	84.42' RT	716,158.39	141,053.27
267	16+53.49	72.77' RT	716,146.74	141,051.37
268	16+56.58	73.89' RT	716,147.87	141,054.46
269	16+57.05	74.07' RT	716,148.04	141,054.93
270	16+58.93	74.75' RT	716,148.73	141,056.81
271	16+58.64	68.26' RT	716,142.23	141,056.52
272	16+59.11	68.43' RT	716,142.41	141,056.99
273	16+60.99	69.11' RT	716,143.09	141,058.87
274	17+11.92	58.73' RT	716,132.81	141,109.83
275	17+11.92	64.73' RT	716,138.81	141,109.82
276	17+00.60	58.73' RT	716,132.79	141,098.51
277	17+00.61	64.73' RT	716,138.79	141,098.50
278	16+88.81	62.59' RT	716,136.63	141,086.70
279	16+92.35	67.43' RT	716,141.48	141,090.24
280	16+82.53	68.86' RT	716,142.88	141,080.42
281	16+87.37	72.40' RT	716,146.44	141,085.25
282	16+78.84	75.61' RT	716,149.63	141,076.72
283	16+84.48	77.66' RT	716,151.69	141,082.35
284	16+76.79	81.25' RT	716,155.26	141,074.65
285	16+82.43	83.30' RT	716,157.32	141,080.28
286	16+74.74	86.89' RT	716,160.90	141,072.59
287	16+80.37	88.94' RT	716,162.96	141,078.22
288	16+74.15	73.88' RT	716,147.89	141,072.03
289	16+75.09	74.24' RT	716,148.25	141,072.96
290	16+75.56	74.41' RT	716,148.43	141,073.43
291	16+72.09	79.54' RT	716,153.54	141,069.96
292	16+73.03	79.88' RT	716,153.89	141,070.89
293	16+73.50	80.05' RT	716,154.06	141,071.36

CURB RAMP DETAILS - NORTHEAST

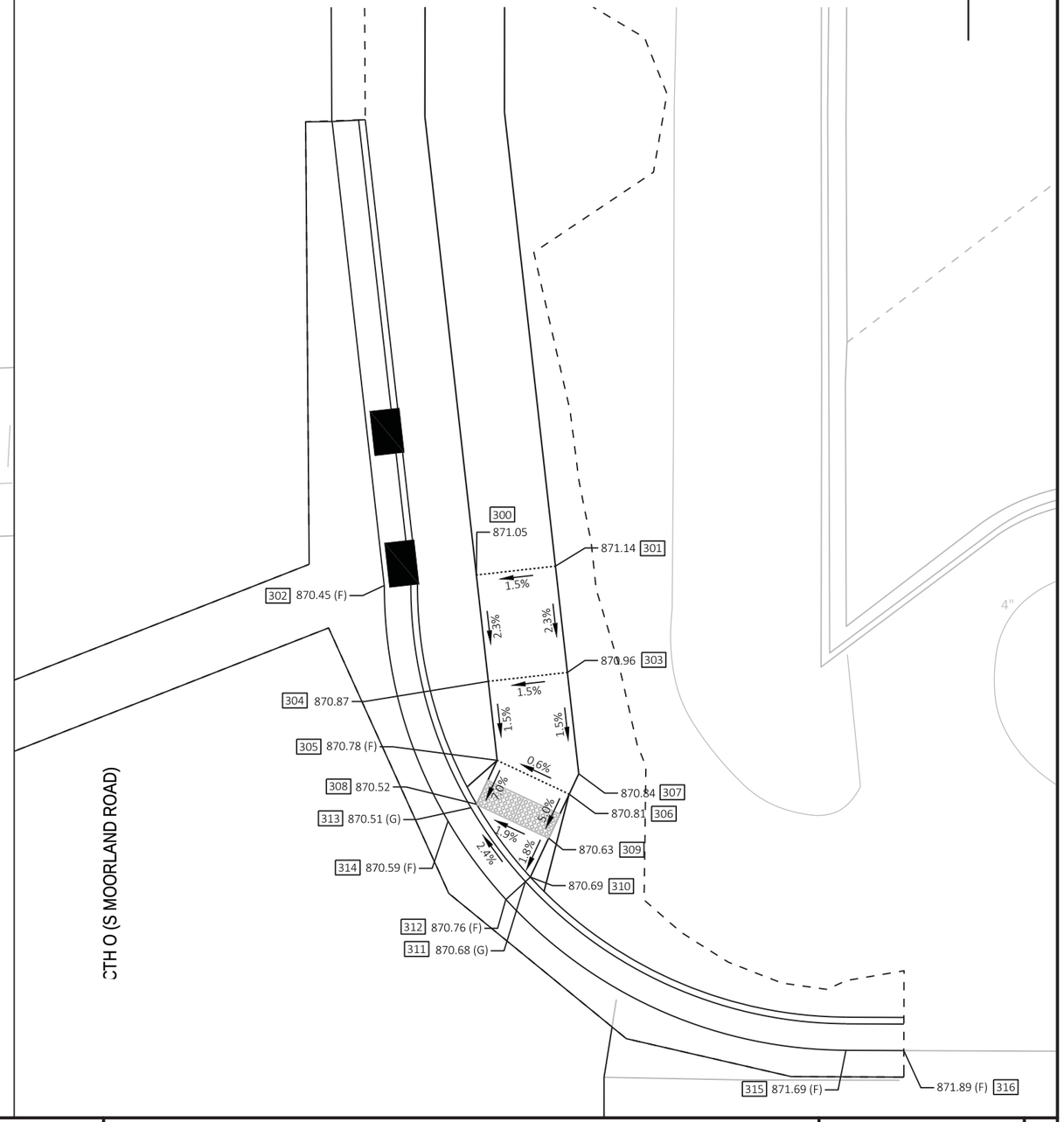


NOTES

1. SEE PLAN DETAILS FOR ADDITIONAL INFORMATION
2. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP CONSTRUCTION.
3. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS.
4. DASHED LINES SHOWN FOR PROPOSED SIDEWALKS ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
5. GRADE CHANGE BETWEEN THE GUTTER FLANGE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%.
6. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
7. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).

LEGEND

XXX.XX	SIDEWALK ELEVATION
XXX.XX (F)	FLANGE ELEVATION
XXX.XX (G)	GUTTER FLOWLINE ELEVATION
XXX.XX (T)	TOP OF CURB ELEVATION



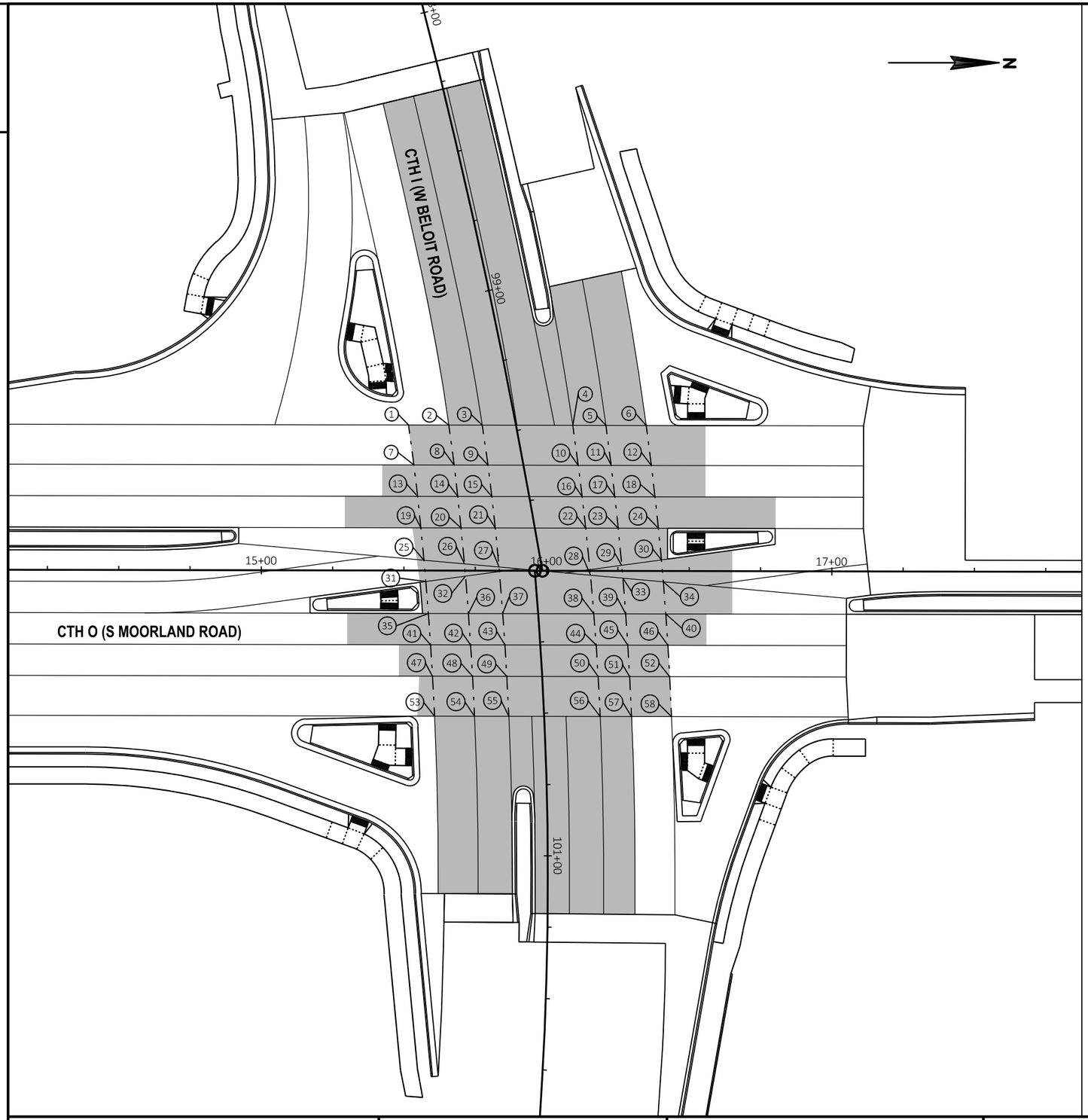
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CURB RAMP DETAILS	SHEET 45	E

2

POINT TABLE				
POINT	STATION	OFFSET	X COORDS	Y COORDS
300	11+49.44	73.95' RT	716,146.95	140,547.32
301	11+50.12	79.91' RT	716,152.91	140,547.99
302	11+48.63	67.00' RT	716,139.99	140,546.52
303	11+42.10	80.83' RT	716,153.81	140,539.96
304	11+41.42	74.87' RT	716,147.85	140,539.29
305	11+35.46	75.55' RT	716,148.52	140,533.33
306	11+32.92	80.99' RT	716,153.95	140,530.79
307	11+34.46	81.70' RT	716,154.67	140,532.32
308	11+32.13	74.00' RT	716,146.96	140,530.01
309	11+29.60	79.44' RT	716,152.39	140,527.46
310	11+26.65	78.06' RT	716,151.01	140,524.52
311	11+26.31	77.70' RT	716,150.64	140,524.18
312	11+24.96	76.22' RT	716,149.17	140,522.83
313	11+31.88	73.57' RT	716,146.53	140,529.76
314	11+30.86	71.85' RT	716,144.80	140,528.74
315	11+13.63	101.92' RT	716,174.84	140,511.45
316	11+13.62	106.28' RT	716,179.21	140,511.44
317	11+06.96	55.98' RT	716,128.89	140,504.87
318	11+06.74	52.62' RT	716,125.53	140,504.66
319	11+03.79	51.00' RT	716,123.90	140,501.71
320	10+98.06	58.11' RT	716,131.00	140,495.97
321	10+94.03	58.11' RT	716,131.00	140,491.94
322	10+96.73	64.11' RT	716,137.00	140,494.63
323	10+94.03	64.11' RT	716,137.00	140,491.93
324	10+88.03	58.11' RT	716,130.99	140,485.94
325	10+88.03	64.11' RT	716,136.99	140,485.93
326	10+83.33	58.11' RT	716,130.98	140,481.24
327	10+76.24	51.00' RT	716,123.85	140,474.16
328	10+72.99	53.20' RT	716,126.04	140,470.91
329	10+73.82	57.03' RT	716,129.87	140,471.73
330	10+76.56	59.81' RT	716,132.66	140,474.46

POINT	STATION	OFFSET	X COORDS	Y COORDS
331	10+78.02	58.45' RT	716,131.31	140,475.93
332	10+78.39	58.11' RT	716,130.97	140,476.30
333	10+81.32	65.59' RT	716,138.45	140,479.22
334	10+82.94	64.41' RT	716,137.27	140,480.83
335	10+83.34	64.11' RT	716,136.98	140,481.24
336	10+89.63	80.87' RT	716,153.74	140,487.49
337	10+93.04	83.12' RT	716,156.00	140,490.90
338	10+96.26	80.60' RT	716,153.49	140,494.13
339	10+99.51	71.96' RT	716,144.85	140,497.39
340	10+97.72	76.21' RT	716,149.11	140,495.59
341	11+02.02	66.58' RT	716,139.48	140,499.91
342	11+00.20	65.73' RT	716,138.63	140,498.10
343	10+99.75	65.52' RT	716,138.42	140,497.65
344	11+02.29	60.08' RT	716,132.98	140,500.19
345	11+02.74	60.29' RT	716,133.20	140,500.64
346	11+04.55	61.14' RT	716,134.05	140,502.46
347	10+83.05	68.07' RT	716,140.93	140,480.94
348	10+59.37	65.64' RT	716,138.46	140,457.26
349	10+54.80	62.06' RT	716,134.87	140,452.70
350	10+53.66	63.70' RT	716,136.51	140,451.55
351	10+53.37	64.11' RT	716,136.92	140,451.27
352	10+42.83	55.77' RT	716,128.56	140,440.74
353	10+42.13	57.64' RT	716,130.43	140,440.04
354	10+41.96	58.11' RT	716,130.90	140,439.87
355	10+39.38	54.61' RT	716,127.39	140,437.29
356	10+35.01	58.11' RT	716,130.88	140,432.92
357	10+35.01	64.11' RT	716,136.88	140,432.90
358	10+31.00	58.11' RT	716,130.87	140,428.91
359	10+31.00	64.11' RT	716,136.87	140,428.90
360	10+20.70	60.64' RT	716,133.38	140,418.61
361	10+20.70	66.57' RT	716,139.32	140,418.59

CURB RAMP DETAILS - PARK & RIDE DRIVEWAY



STATION & OFFSET TABLE				
POINT	STATION	OFFSET	Y COORDS	X COORDS
1	15+51.53	51.00' LT	140,949.64	716,022.77
2	15+65.67	51.00' LT	140,963.79	716,022.80
3	15+77.38	51.00' LT	140,975.50	716,022.82
4	16+09.10	51.00' LT	141,007.21	716,022.88
5	16+20.74	51.00' LT	141,018.86	716,022.91
6	16+34.87	51.00' LT	141,032.99	716,022.93
7	15+53.44	37.00' LT	140,951.53	716,036.78
8	15+67.55	37.00' LT	140,965.64	716,036.80
9	15+79.40	37.00' LT	140,977.49	716,036.83
10	16+11.05	37.00' LT	141,009.14	716,036.89
11	16+22.59	37.00' LT	141,020.68	716,036.91
12	16+36.69	37.00' LT	141,034.79	716,036.94
13	15+54.75	26.00' LT	140,952.82	716,047.78
14	15+68.83	26.00' LT	140,966.90	716,047.80
15	15+80.79	26.00' LT	140,978.86	716,047.83
16	16+12.44	26.00' LT	141,010.52	716,047.89
17	16+23.91	26.00' LT	141,021.98	716,047.91
18	16+38.00	26.00' LT	141,036.07	716,047.94
19	15+55.92	15.00' LT	140,953.97	716,058.78
20	15+69.99	15.00' LT	140,968.04	716,058.81
21	15+82.03	15.00' LT	140,980.08	716,058.83
22	16+13.72	15.00' LT	141,011.77	716,058.89
23	16+25.11	15.00' LT	141,023.16	716,058.91
24	16+39.18	15.00' LT	141,037.23	716,058.94
25	15+57.02	3.67' LT	140,955.05	716,070.12
26	15+71.19	2.42' LT	140,969.22	716,071.39
27	15+83.34	1.35' LT	140,981.36	716,072.49
28	16+15.42	1.48' RT	141,013.43	716,075.37
29	16+26.38	2.00' LT	141,024.40	716,071.92

STATION & OFFSET TABLE				
POINT	STATION	OFFSET	Y COORDS	X COORDS
30	16+40.26	3.91' LT	141,038.29	716,070.04
31	15+57.69	3.82' RT	140,955.70	716,077.60
32	15+71.58	1.91' RT	140,969.59	716,075.72
33	16+26.78	2.48' RT	141,024.79	716,076.40
34	16+40.94	3.73' RT	141,038.95	716,077.67
35	15+58.61	15.00' RT	140,956.60	716,088.79
36	15+72.65	15.00' RT	140,970.64	716,088.81
37	15+84.68	15.00' RT	140,982.67	716,088.84
38	16+16.61	15.00' RT	141,014.60	716,088.90
39	16+27.79	15.00' RT	141,025.78	716,088.92
40	16+41.83	15.00' RT	141,039.82	716,088.95
41	15+59.41	26.00' RT	140,957.38	716,099.79
42	15+73.44	26.00' RT	140,971.41	716,099.81
43	15+85.47	26.00' RT	140,983.44	716,099.84
44	16+17.45	26.00' RT	141,015.42	716,099.90
45	16+28.56	26.00' RT	141,026.53	716,099.92
46	16+42.59	26.00' RT	141,040.56	716,099.95
47	15+60.11	37.00' RT	140,958.06	716,110.79
48	15+74.13	37.00' RT	140,972.08	716,110.82
49	15+86.15	37.00' RT	140,984.10	716,110.84
50	16+18.17	37.00' RT	141,016.12	716,110.90
51	16+29.22	37.00' RT	141,027.17	716,110.92
52	16+43.25	37.00' RT	141,041.19	716,110.95
53	15+60.86	51.00' RT	140,958.78	716,124.79
54	15+74.88	51.00' RT	140,972.80	716,124.82
55	15+86.89	51.00' RT	140,984.81	716,124.84
56	16+18.92	51.00' RT	141,016.84	716,124.90
57	16+29.93	51.00' RT	141,027.86	716,124.92
58	16+43.95	51.00' RT	141,041.87	716,124.95

= HIGH EARLY STRENGTH CONCRETE PAVEMENT

NOTES:
1. PLACE JOINTS AT LOCATIONS INDICATED ON THE PLAN TO GUIDE CTH I THROUGH TRAFFIC THROUGH INTERSECTION.
2. CONTRACTOR TO PROVIDE JOINTING PLAN FOR ALL JOINTS NOT SHOWN ON THE PLAN IN ACCORDANCE WITH STANDARD SPECIFICATIONS. A MINIMUM PANEL WIDTH OF 18" SHALL BE USED WHEN PREPARING THE JOINTING PLAN.
3. OBTAIN APPROVAL FROM ENGINEER PRIOR TO MODIFYING JOINTS SHOWN ON THIS PLAN.
4. LIMITS OF HIGH EARLY STRENGTH CONCRETE PAVEMENT ARE APPROXIMATE. EXACT LIMITS TO BE DETERMINED BY ENGINEER BASED ON CONTRACTOR'S JOINTING PLAN.

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	JOINTING PLAN	SHEET 47	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\021401-JD.DWG
LAYOUT NAME - 01
PLOT DATE : 12/9/2019 10:39 PM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE
- (C) INLET PROTECTION TYPE
- CULVERT PIPE CHECK

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

N

8+00 9+00 10+00 11+00 12+00 13+

MATCHLINE STA 13+00

CTH O (S MOORLAND ROAD)

SLOPE INTERCEPT

NO INLET PROTECTION NEEDED. INLETS BURIED UNDER TEMPORARY PAVEMENT

BLOCK WALL

CONC WALL

WALL

SIGN

POST

SS

SPLIT RAIL FENCE

ASPH

CONC

CHAIN LINK FENCE

SHEET 1 OF 24

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 1	SHEET 48	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022001-EC-S1.DWG
LAYOUT NAME - 01

PLOT DATE : 12/6/2019 10:21 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE
- INLET PROTECTION TYPE C
- CULVERT PIPE CHECK

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

N

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

99+00

ASPH

CONC

SIGN

SS

MATCHLINE STA 13+00

14+00

15+00

16+00

17+00

18+00

MATCHLINE STA 19+00

SLOPE INTERCEPT

SLOPE INTERCEPT

CTH O (S MOORLAND ROAD)

WETLAND BOUNDARY

CONC WALL

BRICK WALL

GATE

101+00

CTH I (W BELOIT ROAD)

POST

SHEET 2 OF 24

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 1	SHEET 49	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022001-EC-S1.DWG
LAYOUT NAME - 02

PLOT DATE : 12/6/2019 10:21 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

SILT FENCE

INLET PROTECTION TYPE

INLET PROTECTION TYPE

CULVERT PIPE CHECK

N

FROEDERT DRIVEWAY

ASPH

ROCK WALL

CONC

4"

8"

4"

5"

D

SS

MH

MATCHLINE STA 19+00

00

20+00

21+00

22+00

23+00

24+00

25+00

CTH O (S MOORLAND ROAD)

SIGN

6"

6"

9"

TARGET DRIVEWAY

CONC

3"

4"

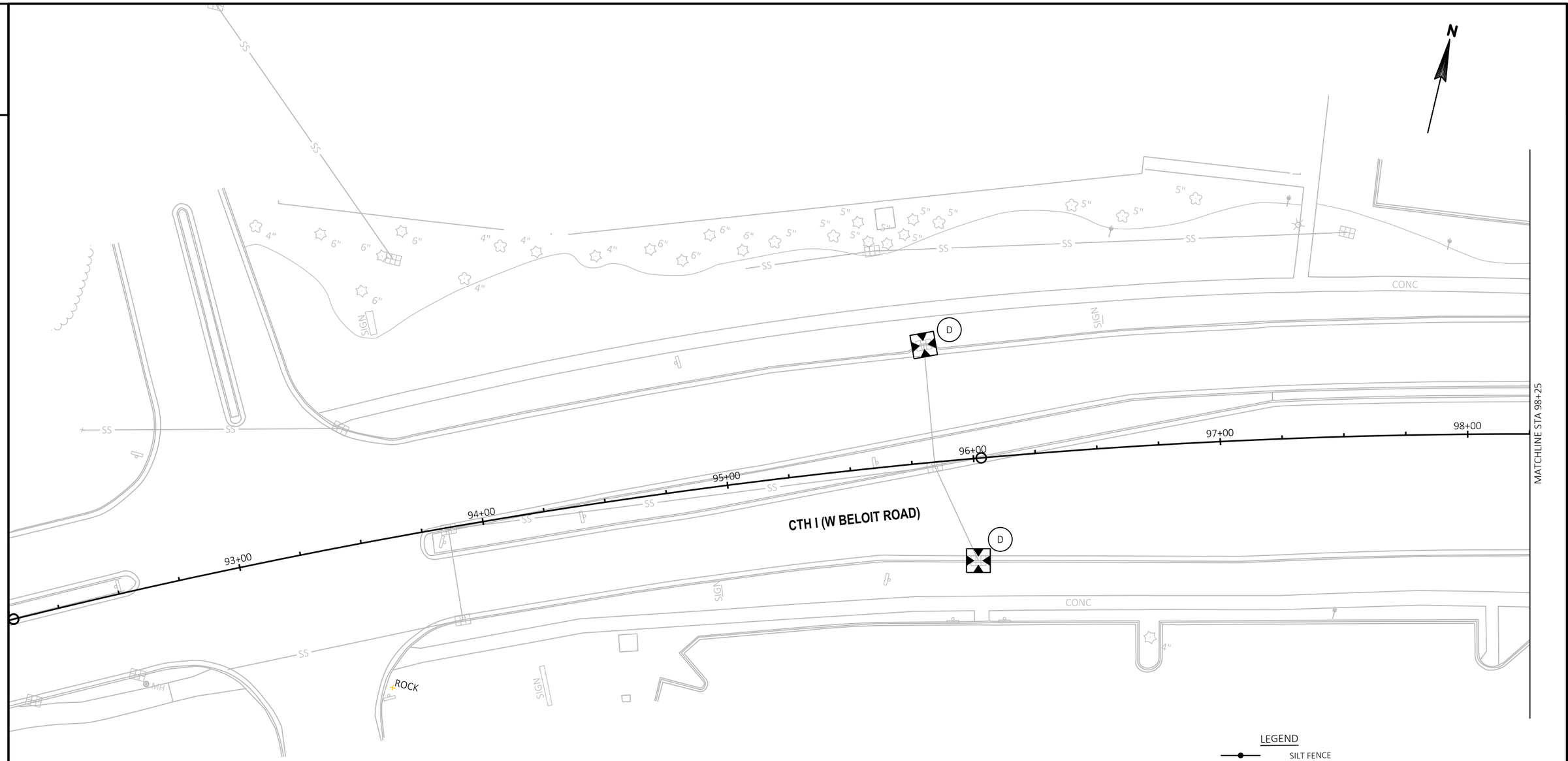
8"

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 1	SHEET 50	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022001-EC-S1.DWG
LAYOUT NAME - 03
PLOT DATE : 12/6/2019 10:21 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE
- C — INLET PROTECTION TYPE
- CULVERT PIPE CHECK

SHEET 4 OF 24

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 1	SHEET 51	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022001-EC-S1.DWG
LAYOUT NAME - 04

PLOT DATE : 12/6/2019 10:21 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

SILT FENCE

INLET PROTECTION TYPE

(C) INLET PROTECTION TYPE

CULVERT PIPE CHECK

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

N

CTH O (S MOORLAND ROAD)

NO INLET PROTECTION NEEDED. INLETS BURIED UNDER TEMPORARY PAVEMENT

SLOPE INTERCEPT

MATCHLINE STA 13+00

8+00 9+00 10+00 11+00 12+00 13+

BLOCK WALL

CONC WALL

SPLIT RAIL FENCE

CHAIN LINK FENCE

ASPH

CONC

SIGN

SS

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 2	SHEET E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022002-EC-S2.DWG
LAYOUT NAME - 01

PLOT DATE : 12/6/2019 10:21 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE
- (C) INLET PROTECTION TYPE
- CULVERT PIPE CHECK

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

N

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

99+00

CTH O (S MOORLAND ROAD)

MATCHLINE STA 13+00

14+00

15+00

16+00

17+00

18+00

19+00

MATCHLINE STA 19+00

INLET CASTINGS NOT INSTALLED IN STAGE 2

INLET CASTINGS NOT INSTALLED IN STAGE 2

PLACE SILT FENCE HALF POST SPACING 1 FOOT OUTSIDE GRADING LIMITS IN WETLAND

SLOPE INTERCEPT

SLOPE INTERCEPT

WETLAND BOUNDARY

+37 87' RT

+37 90' RT

+53 90' RT

+96 103' RT

+25 88' RT

+13 99' RT

+82 89' RT

+18 74' RT

+38 70' RT

+63 66' RT

101+00

CTH I (W BELOIT ROAD)

MATCHLINE STA 101+75

ASPH

CONC

SIGN

BRICK WALL

GATE

SHEET 6 OF 24

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 2	SHEET 53	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022002-EC-S2.DWG
LAYOUT NAME - 02

PLOT DATE : 12/6/2019 10:21 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

SILT FENCE

INLET PROTECTION TYPE

INLET PROTECTION TYPE

CULVERT PIPE CHECK

N

FROEDERT DRIVEWAY

ASPH

ROCK WALL

CONC

SS

MH

MATCHLINE STA 19+00

20+00

21+00

22+00

23+00

24+00

25+00

CTH O (S MOORLAND ROAD)

SIGN

TARGET DRIVEWAY

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 2	SHEET 54	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022002-EC-S2.DWG
LAYOUT NAME - 03
PLOT DATE : 12/6/2019 10:21 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE
- INLET PROTECTION TYPE C
- CULVERT PIPE CHECK

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

N

CTH I (W BELOIT ROAD)

MATCHLINE STA 98+25

93+00 94+00 95+00 96+00 97+00 98+00

SHEET 8 OF 24

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 2	SHEET 55	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022002-EC-S2.DWG
LAYOUT NAME - 04

PLOT DATE : 12/6/2019 10:21 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

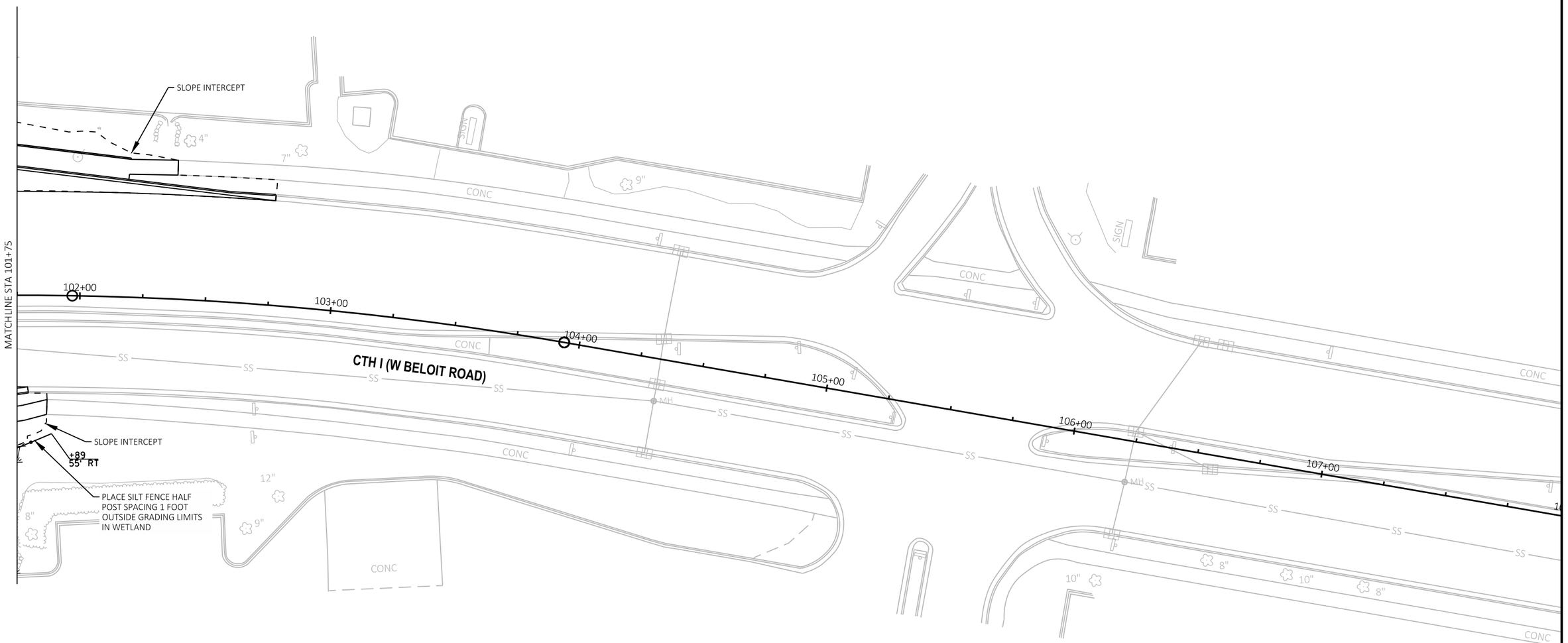
WISDOT/CADDS SHEET 42

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE
- INLET PROTECTION TYPE C
- CULVERT PIPE CHECK

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.



SHEET 9 OF 24

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 2	SHEET 56	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022002-EC-S2.DWG
LAYOUT NAME - 05

PLOT DATE : 12/6/2019 10:21 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

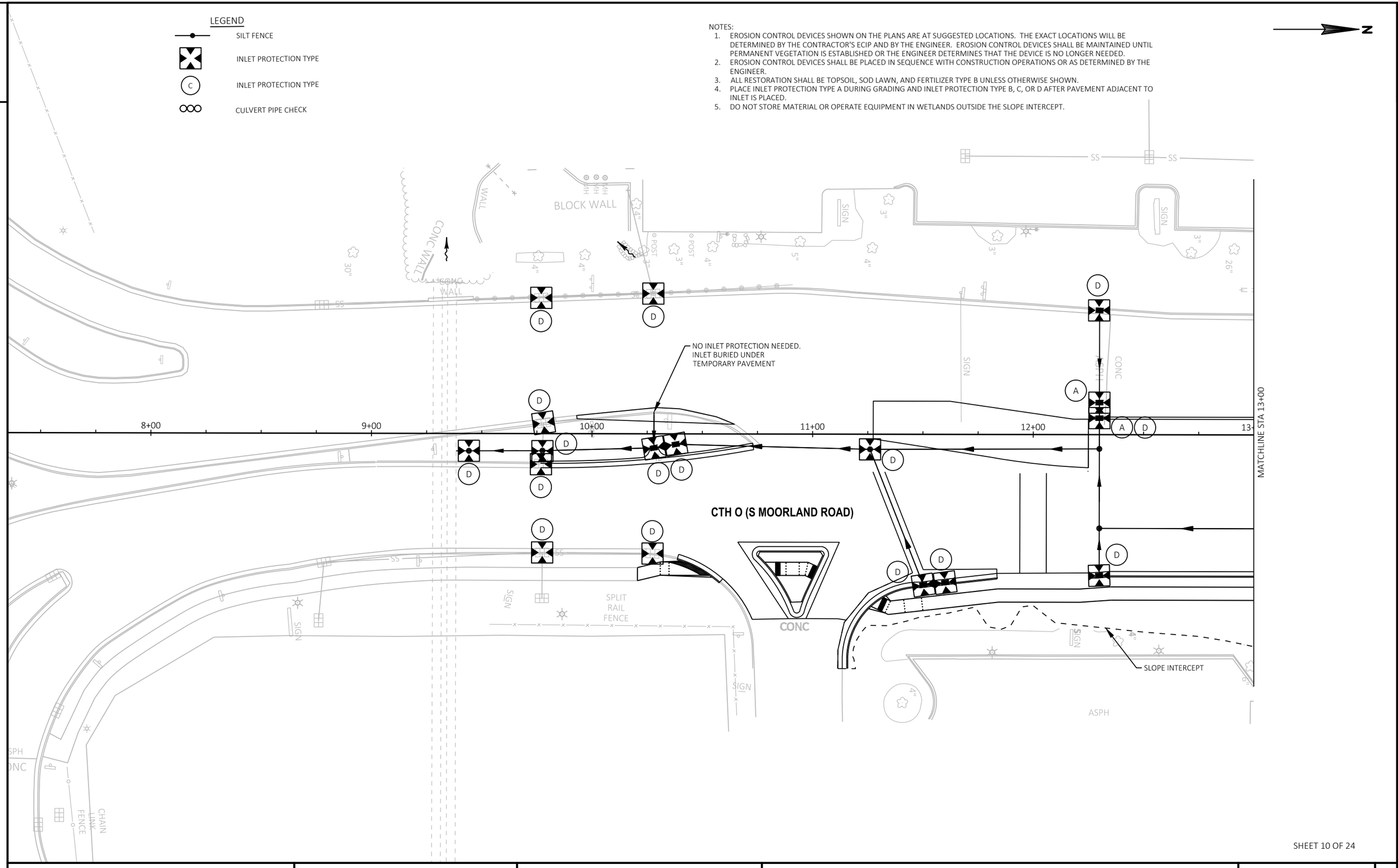
WISDOT/CADDS SHEET 42

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE
- (C) INLET PROTECTION TYPE
- CULVERT PIPE CHECK

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.



SHEET 10 OF 24

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 3	SHEET 57	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022003-EC-S3.DWG
LAYOUT NAME - 01

PLOT DATE : 12/6/2019 10:21 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

SILT FENCE

INLET PROTECTION TYPE

INLET PROTECTION TYPE

CULVERT PIPE CHECK

N

NOTES:
1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

99+00

ASPH

CONC

SIGN

CONC

NO INLET PROTECTION NEEDED.
INLETS BURIED UNDER
TEMPORARY PAVEMENT

MATCHLINE STA 13+00

14+00

15+00

16+00

17+00

18+00

MATCHLINE STA 19+00

CTH O (S MOORLAND ROAD)

NO INLET PROTECTION NEEDED.
INLETS BURIED UNDER
TEMPORARY PAVEMENT

SLOPE INTERCEPT

CONC WALL

CONC

CULVERT PIPE CHECKS
INSTALLED IN STAGE 2.
REMOVE ONCE VEGETATION
IS ESTABLISHED

SILT FENCE INSTALLED IN STAGE 2.
REMOVE ONCE VEGETATION IS
ESTABLISHED

BRICK WALL

SIGN

GATE

CONC

WETLAND BOUNDARY

101+00

CTH I (W BELOIT ROAD)

SLOPE INTERCEPT

SIGN

POST

MATCHLINE STA 101+75

SHEET 11 OF 24

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 3	SHEET 58	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022003-EC-S3.DWG
LAYOUT NAME - 02

PLOT DATE : 12/6/2019 10:21 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

SILT FENCE

INLET PROTECTION TYPE

C INLET PROTECTION TYPE

CULVERT PIPE CHECK

N

MATCHLINE STA 19+00

20+00 21+00 22+00 23+00 24+00 25+00

CTH O (S MOORLAND ROAD)

ASPH

ROCK WALL

CONC

SS

MH

D

SIGN

4" 8" 4" 5" 6" 6" 9" 4" 3" 8"

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 3	SHEET 59	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022003-EC-S3.DWG
LAYOUT NAME - 03
PLOT DATE : 12/6/2019 10:22 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE
- C — INLET PROTECTION TYPE
- CULVERT PIPE CHECK

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

N

93+00 94+00 95+00 96+00 97+00 98+00

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

D D D

SS SS SS

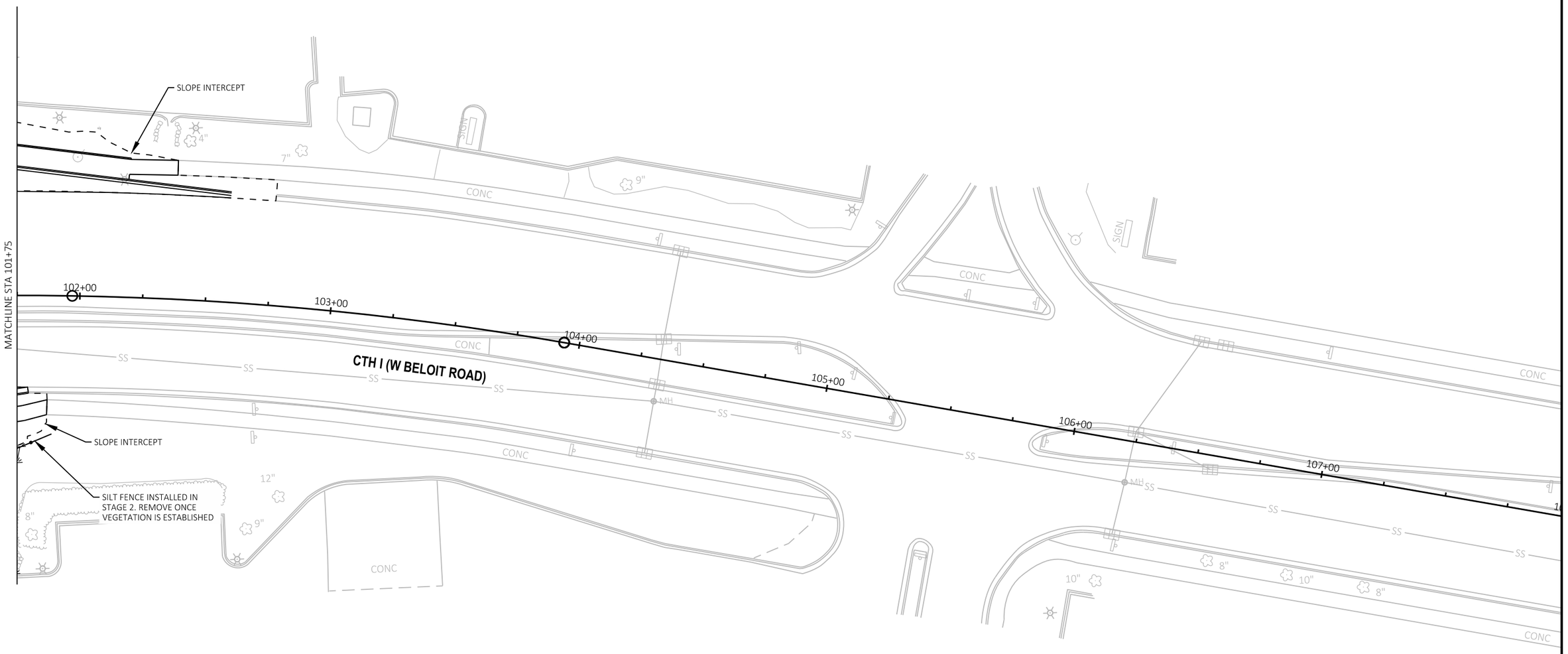
LEGEND

- SILT FENCE
- INLET PROTECTION TYPE
- INLET PROTECTION TYPE (C)
- CULVERT PIPE CHECK

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

N



SHEET 14 OF 24

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 3	SHEET 61	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022003-EC-S3.DWG
LAYOUT NAME - 05

PLOT DATE : 12/6/2019 10:22 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE
- (C) INLET PROTECTION TYPE
- CULVERT PIPE CHECK

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

N

8+00 9+00 10+00 11+00 12+00 13+

MATCHLINE STA 13+00

CTH O (S MOORLAND ROAD)

NO INLET PROTECTION NEEDED.
INLET BURIED UNDER
TEMPORARY PAVEMENT

SLOPE INTERCEPT

SLOPE INTERCEPT

BLOCK WALL

CONC WALL

WALL

SPLIT RAIL FENCE

CHAIN LINK FENCE

CONC

ASPH

SS

SIGN

POST

SHEET 15 OF 24

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 4	SHEET 62	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022004-EC-S4.DWG
LAYOUT NAME - 01

PLOT DATE : 12/6/2019 10:22 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

SILT FENCE

INLET PROTECTION TYPE

C INLET PROTECTION TYPE

CULVERT PIPE CHECK

N

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

99+00

ASPH

CONC

SIGN

SLOPE INTERCEPT

A D

NO INLET PROTECTION NEEDED.
INLETS BURIED UNDER
TEMPORARY PAVEMENT

MATCHLINE STA 13+00

14+00

15+00

16+00

17+00

18+00

19+

MATCHLINE STA 19+00

CTH O (S MOORLAND ROAD)

NO INLET PROTECTION NEEDED.
INLETS BURIED UNDER
TEMPORARY PAVEMENT

D

SLOPE INTERCEPT

WETLAND BOUNDARY

CONC WALL

CONC

BRICK WALL

GATE

CONC

SIGN

101+00

CTH I (W BELOIT ROAD)

SS

SLOPE INTERCEPT

SIGN

POST

MATCHLINE STA 101+75

SHEET 16 OF 24

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 4	SHEET 63	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022004-EC-S4.DWG
LAYOUT NAME - 02

PLOT DATE : 12/6/2019 10:22 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

SILT FENCE

INLET PROTECTION TYPE

C INLET PROTECTION TYPE

CULVERT PIPE CHECK

N

MATCHLINE STA 19+00

20+00 21+00 22+00 23+00 24+00 25+00

CTH O (S MOORLAND ROAD)

ASPH

ROCK WALL

CONC

SS

MH

SIGN

D

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 4	SHEET 64	E

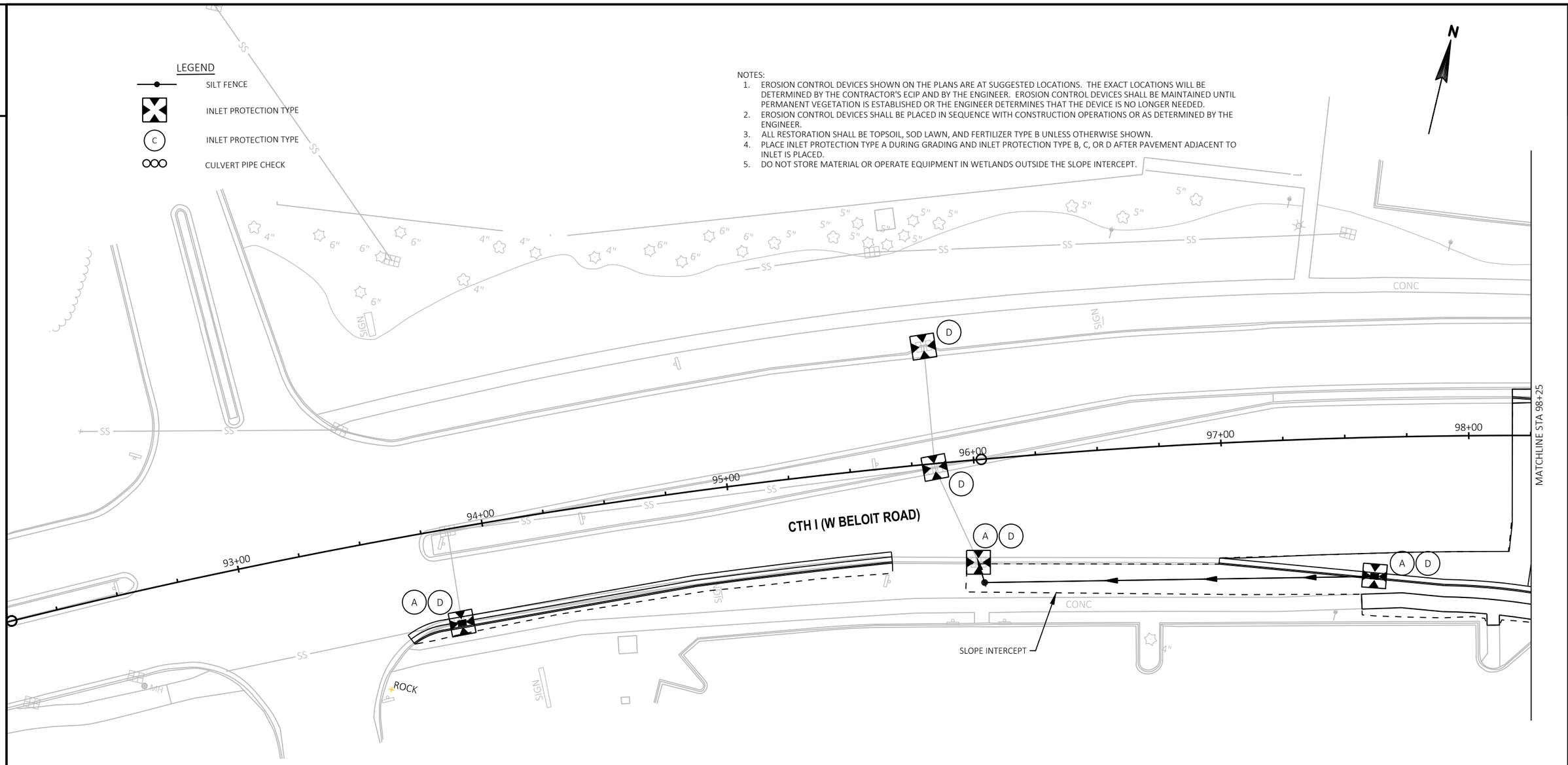
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022004-EC-S4.DWG
LAYOUT NAME - 03
PLOT DATE : 12/6/2019 10:22 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE
- (C) INLET PROTECTION TYPE
- CULVERT PIPE CHECK

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.



SHEET 18 OF 24

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 4	SHEET 65	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022004-EC-S4.DWG
LAYOUT NAME - 04

PLOT DATE : 12/6/2019 10:22 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

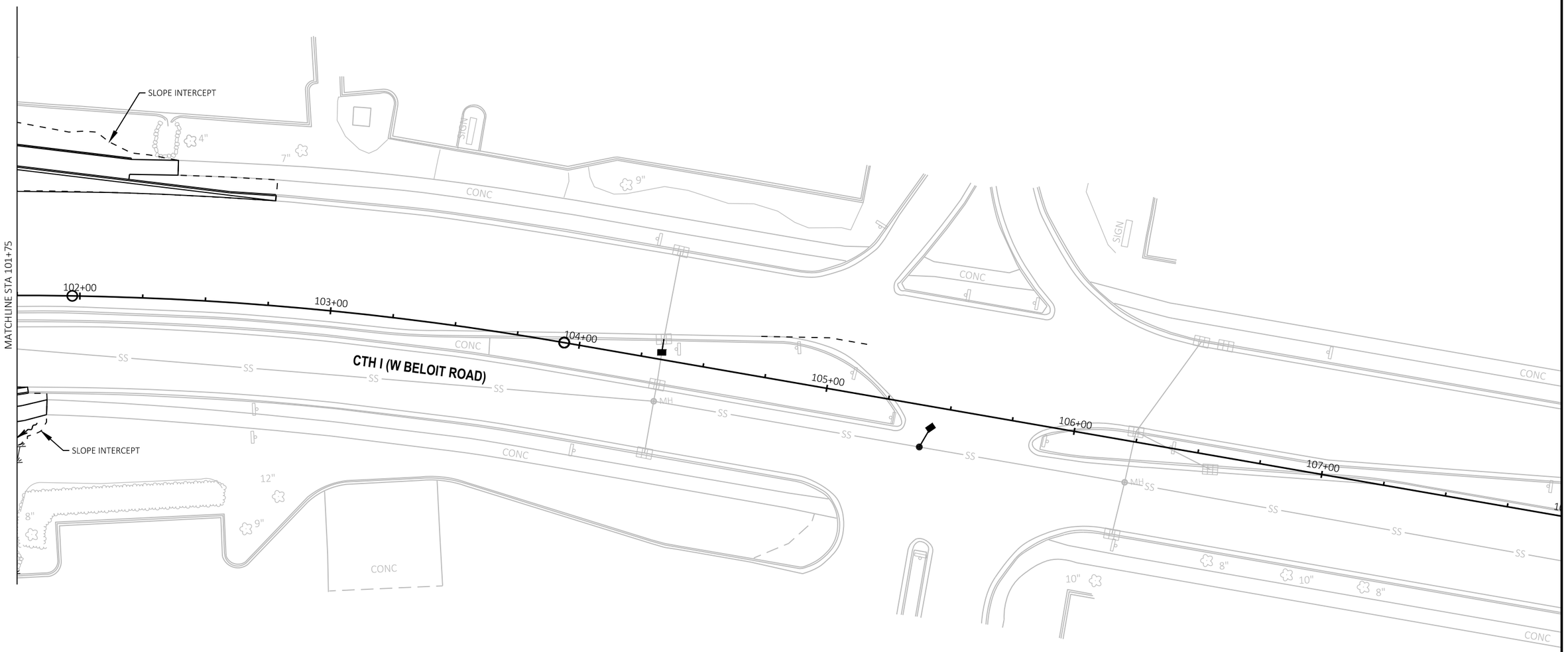
LEGEND

- SILT FENCE
- INLET PROTECTION TYPE
- C — INLET PROTECTION TYPE
- CULVERT PIPE CHECK

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

N



SHEET 19 OF 24

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 4	SHEET 66	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022004-EC-S4.DWG
LAYOUT NAME - 05

PLOT DATE : 12/6/2019 10:22 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE
- (C) INLET PROTECTION TYPE
- CULVERT PIPE CHECK

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

N

SILT FENCE PLACED IN STAGE 4. REMOVE ONCE VEGETATION HAS BEEN ESTABLISHED

SLOPE INTERCEPT

CTH O (S MOORLAND ROAD)

8+00 9+00 10+00 11+00 12+00 13+

MATCHLINE STA 13+00

BLOCK WALL

CONC WALL

SPLIT RAIL FENCE

CHAIN LINK FENCE

ASPH

CONC

SHEET 20 OF 24

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 5	SHEET 67	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022005-EC-S5.DWG
LAYOUT NAME - 01

PLOT DATE : 12/6/2019 10:22 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

SILT FENCE

INLET PROTECTION TYPE

C INLET PROTECTION TYPE

CULVERT PIPE CHECK

N

NOTES:
1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

99+00

SLOPE INTERCEPT

SLOPE INTERCEPT

MATCHLINE STA 13+00

14+00

15+00

16+00

17+00

18+00

MATCHLINE STA 19+00

CTH O (S MOORLAND ROAD)

SLOPE INTERCEPT

WETLAND BOUNDARY

SLOPE INTERCEPT

101+00

CTH I (W BELOIT ROAD)

MATCHLINE STA 101+75

SHEET 21 OF 24

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 5	SHEET 68	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022005-EC-S5.DWG
LAYOUT NAME - 02

PLOT DATE : 12/6/2019 10:22 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

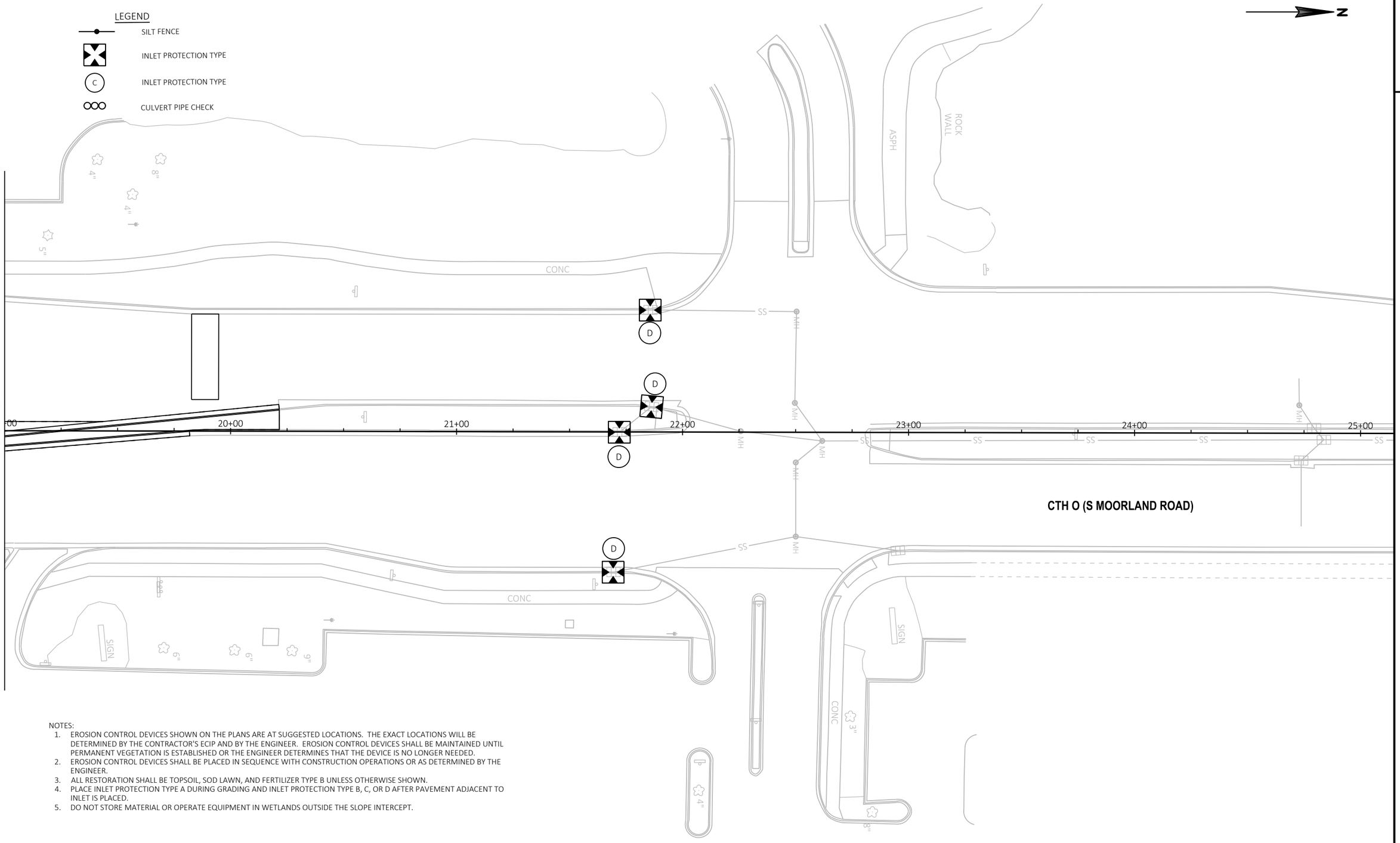
SILT FENCE

INLET PROTECTION TYPE

C INLET PROTECTION TYPE

CULVERT PIPE CHECK

N



NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

SHEET 22 OF 24

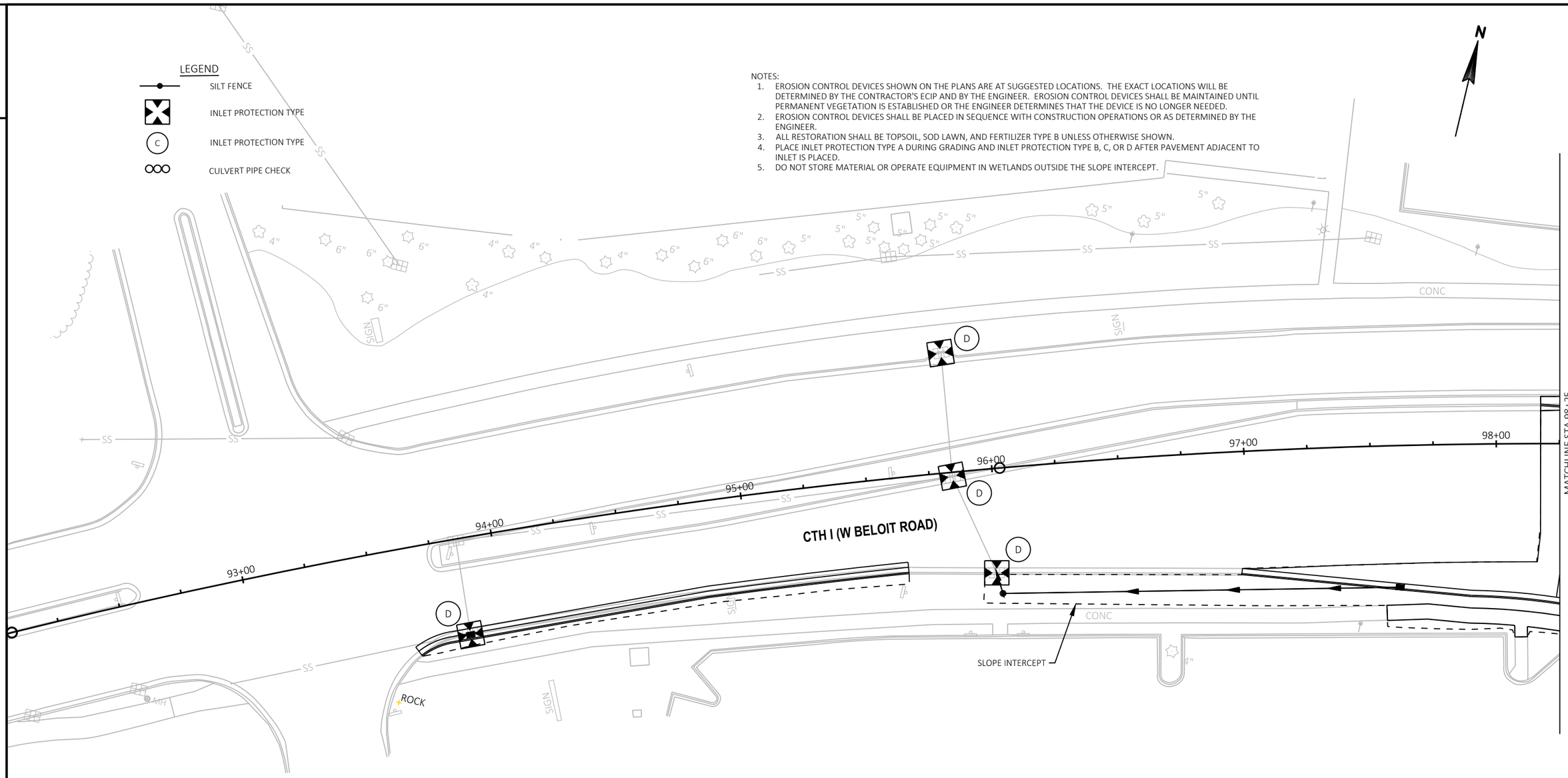
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 5	SHEET 69	E

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE
- INLET PROTECTION TYPE (C)
- CULVERT PIPE CHECK

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.



SHEET 23 OF 24

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 5	SHEET 70	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022005-EC-S5.DWG
LAYOUT NAME - 04

PLOT DATE : 12/6/2019 10:22 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

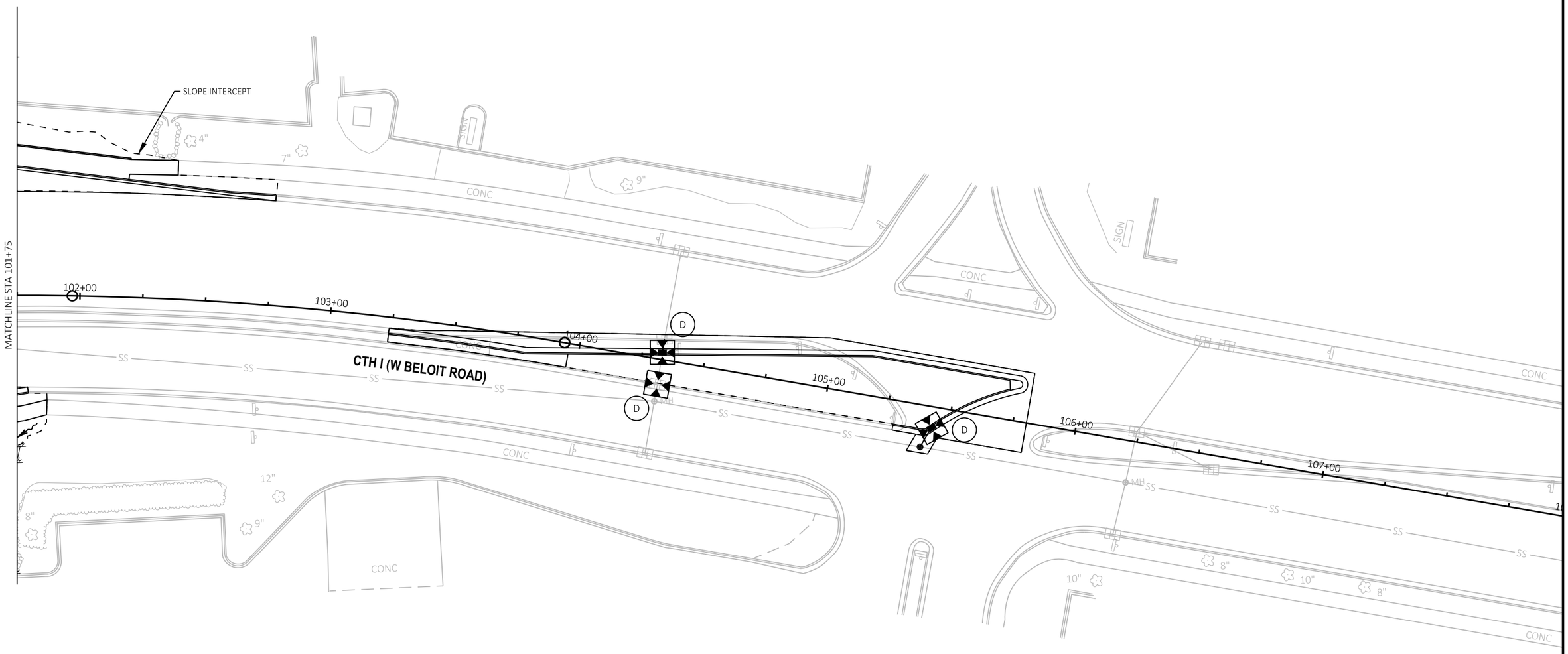
LEGEND

- SILT FENCE
- INLET PROTECTION TYPE
- C — INLET PROTECTION TYPE
- CULVERT PIPE CHECK

NOTES:

1. EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER NEEDED.
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
3. ALL RESTORATION SHALL BE TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B UNLESS OTHERWISE SHOWN.
4. PLACE INLET PROTECTION TYPE A DURING GRADING AND INLET PROTECTION TYPE B, C, OR D AFTER PAVEMENT ADJACENT TO INLET IS PLACED.
5. DO NOT STORE MATERIAL OR OPERATE EQUIPMENT IN WETLANDS OUTSIDE THE SLOPE INTERCEPT.

N



SHEET 24 OF 24

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EROSION CONTROL - STAGE 5	SHEET 71	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022005-EC-S5.DWG
LAYOUT NAME - 05

PLOT DATE : 12/6/2019 10:22 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

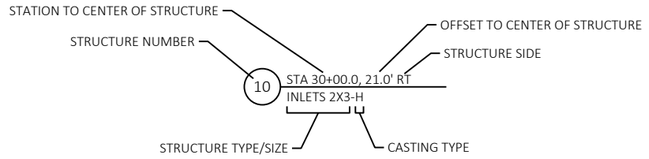
GENERAL DRAINAGE NOTES

1. STATION AND OFFSET OF MANHOLES, INLETS, AND FIELD INLETS ARE GIVEN TO THE CENTER OF STRUCTURE.
2. STATION AND OFFSET OF ENDWALLS ARE GIVEN TO THE END OF PIPE.
3. PIPE LENGTHS ARE DIMENSIONED CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
4. RIM ELEVATIONS ARE GIVEN AT FLANGE LINE OF CURB AND GUTTER FOR CURB INLETS, TO THE CENTER OF COVER FOR MANHOLES, AND TO CENTER OF THE COVER FOR FIELD INLETS.
5. STRUCTURE DEPTH CALCULATIONS FOR MANHOLES AND CATCH BASINS USE A 6-INCH ADJUSTMENT. NO ADJUSTMENT IS USED IN CALCULATING STRUCTURE DEPTH OF INLETS MEDIAN 1 GRATE.
6. 6" OF ADJUSTMENT RINGS SHALL BE USED ON ALL MANHOLES AND INLETS (EXCEPT INLETS MEDIAN 1 GRATE).
7. UTILITY INFORMATION SHOWN ON THE PLAN IS APPROXIMATE. DIGGERS HOTLINE SHALL BE CONTACTED PRIOR TO ANY EXCAVATION. ANY UTILITY FACILITIES DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE COMPLETE SATISFACTION OF THE UTILITY FACILITY OWNER.
8. VERIFY THE LOCATION, SIZE, AND ELEVATION OF ALL CONNECTIONS TO EXISTING DRAINAGE FACILITIES PRIOR TO ORDERING DRAINAGE STRUCTURES AND PIPES. NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE INFORMATION SHOWN ON THE PLANS PRIOR TO INSTALLING ANY DRAINAGE PIPES OR STRUCTURES.
9. PROVIDE TEMPORARY POSITIVE DRAINAGE THROUGHOUT THE PROJECT DURING ALL STAGES. PROVIDING TEMPORARY DRAINAGE IS INCIDENTAL TO CONSTRUCTION UNLESS OTHERWISE SHOWN IN THE TRAFFIC CONTROL/STAGING PLANS.
10. SUPPORTING UTILITIES DURING STORM SEWER CONSTRUCTION IS INCIDENTAL TO STORM SEWER PIPE AND/OR STORM SEWER STRUCTURE CONSTRUCTION.
11. PLAN VIEW HIGHLIGHTING ALONG STORM SEWER PIPES REPRESENTS THE STORM SEWER PROFILE SHOWN IN THE PROFILE VIEW BELOW ON THE SAME STORM SEWER SHEET.
12. CONCRETE COLLARS FOR PIPE SHALL ONLY BE PAID FOR WHEN SHOWN IN THE PLANS. ALL OTHER CONNECTIONS BETWEEN PIPES AND STORM SEWER STRUCTURES SHALL BE INCIDENTAL TO THE STORM SEWER PIPE OR STORM SEWER STRUCTURE.

STORM SEWER LEGEND

XX XXX.XX	STORM SEWER STRUCTURE NUMBER IN PROFILE VIEW WITH RIM ELEVATION
PXX	STORM SEWER PIPE NUMBER
CC	CONCRETE COLLARS FOR PIPE
	PIPE RUN SHOWN IN PROFILE VIEW ON CURRENT SHEET

STORM SEWER STRUCTURE ANNOTATION LEGEND



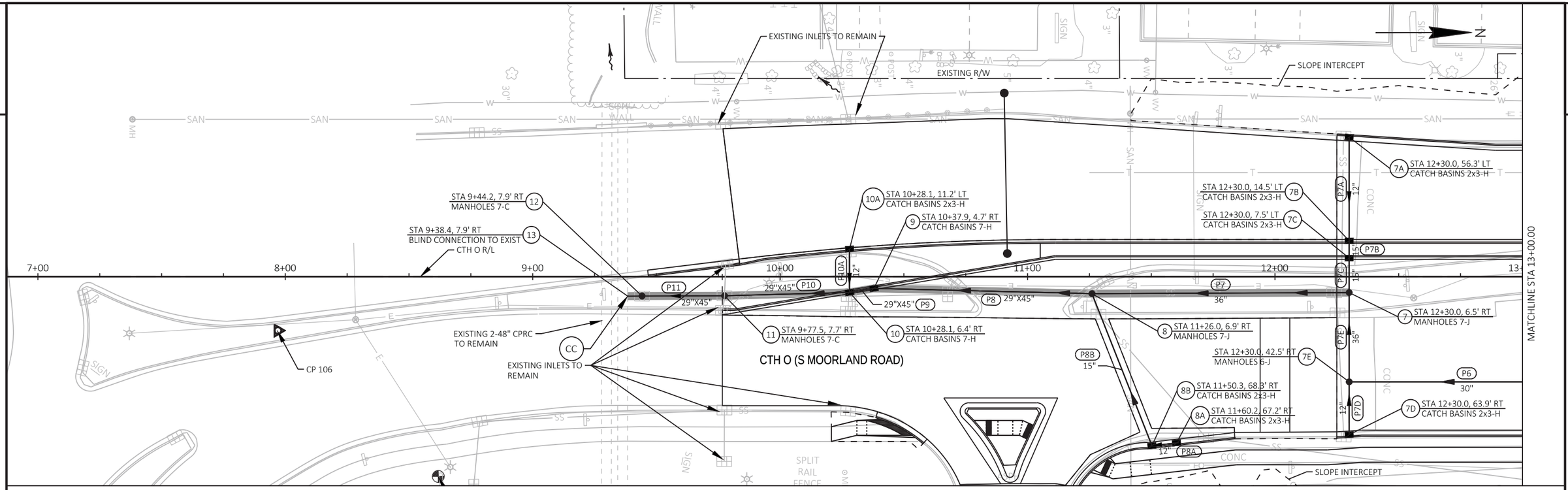
STRUCTURE TYPES

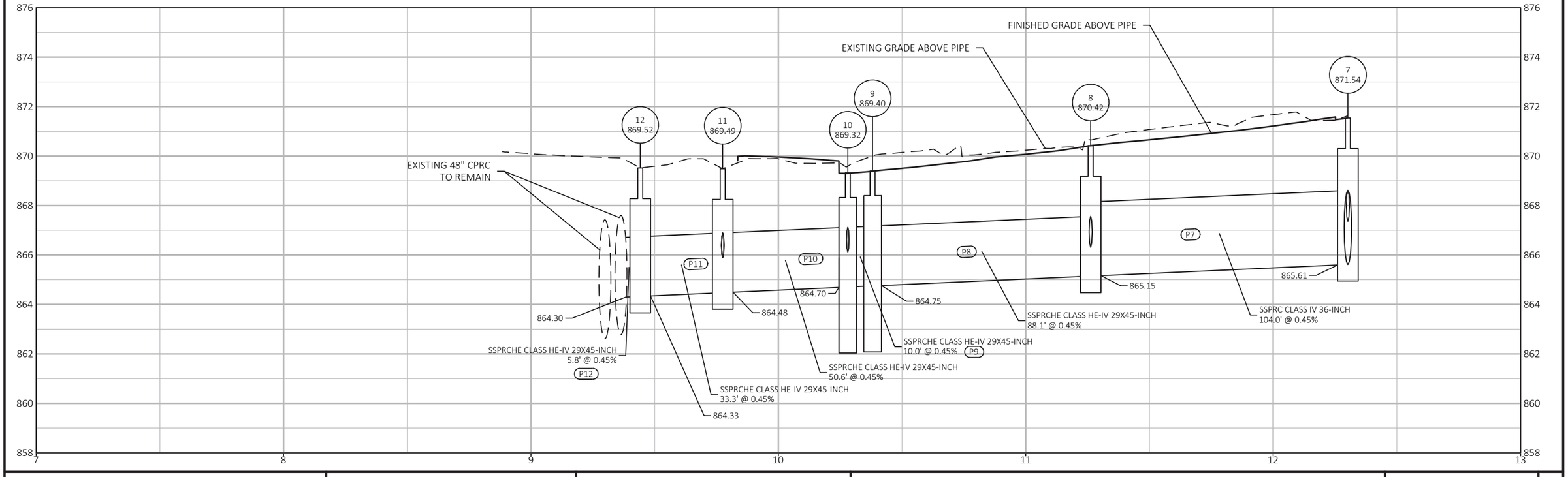
AEWCPRC	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE
AEWCPRCHE	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CATCH BASINS 3	CATCH BASINS 3-FT DIAMETER
CATCH BASINS 4	CATCH BASINS 4-FT DIAMETER
CATCH BASINS 6	CATCH BASINS 6-FT DIAMETER
CATCH BASINS 2X3	CATCH BASINS 2X3-FT
CATCH BASINS 4X4	CATCH BASINS 4X4-FT
MANHOLE 4	MANHOLE 4-FT DIAMETER
MANHOLE 5	MANHOLE 5-FT DIAMETER
MANHOLE 6	MANHOLE 6-FT DIAMETER
MANHOLE 7	MANHOLE 7-FT DIAMETER

CASTING TYPES

C	INLET COVERS TYPE C
H	INLET COVERS TYPE H
J	MANHOLE COVERS TYPE J
S	INLET COVERS TYPE S
Z	INLET COVERS TYPE Z

2





PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	STORM SEWER - CTH O	SHEET 73	E

2

EXISTING INLETS TO REMAIN

EXISTING R/W

SLOPE INTERCEPT

N

STA 9+44.2, 7.9' RT
MANHOLES 7-C
12

STA 9+38.4, 7.9' RT
BLIND CONNECTION TO EXIST
CTH O R/L
13

10A STA 10+28.1, 11.2' LT
CATCH BASINS 2x3-H

9 STA 10+37.9, 4.7' RT
CATCH BASINS 7-H

7A STA 12+30.0, 56.3' LT
CATCH BASINS 2x3-H

STA 12+30.0, 14.5' LT
CATCH BASINS 2x3-H
7B

STA 12+30.0, 7.5' LT
CATCH BASINS 2x3-H
7C

7+00 8+00 9+00 10+00 11+00 12+00 13+

P11 29"X45"

P10 29"X45"

P9 29"X45"

P8 29"X45"

P7 36"

P10A 12"

P7A 12"

P7B 15"

P7C 15"

P7E 36"

P8B 15"

P6 30"

P7D 12"

P8A 12"

EXISTING 2-48" CPRC
TO REMAIN

CC

EXISTING INLETS TO
REMAIN

CP 106

11 STA 9+77.5, 7.7' RT
MANHOLES 7-C

10 STA 10+28.1, 6.4' RT
CATCH BASINS 7-H

CTH O (S MOORLAND ROAD)

8 STA 11+26.0, 6.9' RT
MANHOLES 7-J

STA 12+30.0, 42.5' RT
MANHOLES 6-J
7E

8B STA 11+50.3, 68.3' RT
CATCH BASINS 2x3-H

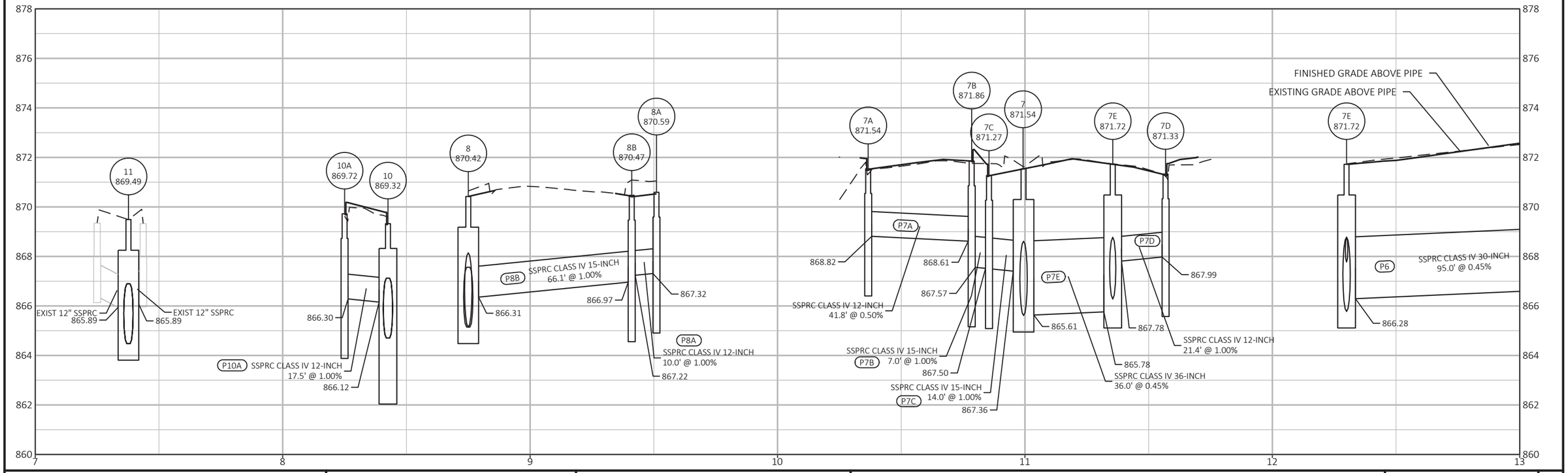
8A STA 11+60.2, 67.2' RT
CATCH BASINS 2x3-H

7 STA 12+30.0, 6.5' RT
MANHOLES 7-J

7D STA 12+30.0, 63.9' RT
CATCH BASINS 2x3-H

SLOPE INTERCEPT

MATCHLINE STA 13+00.00

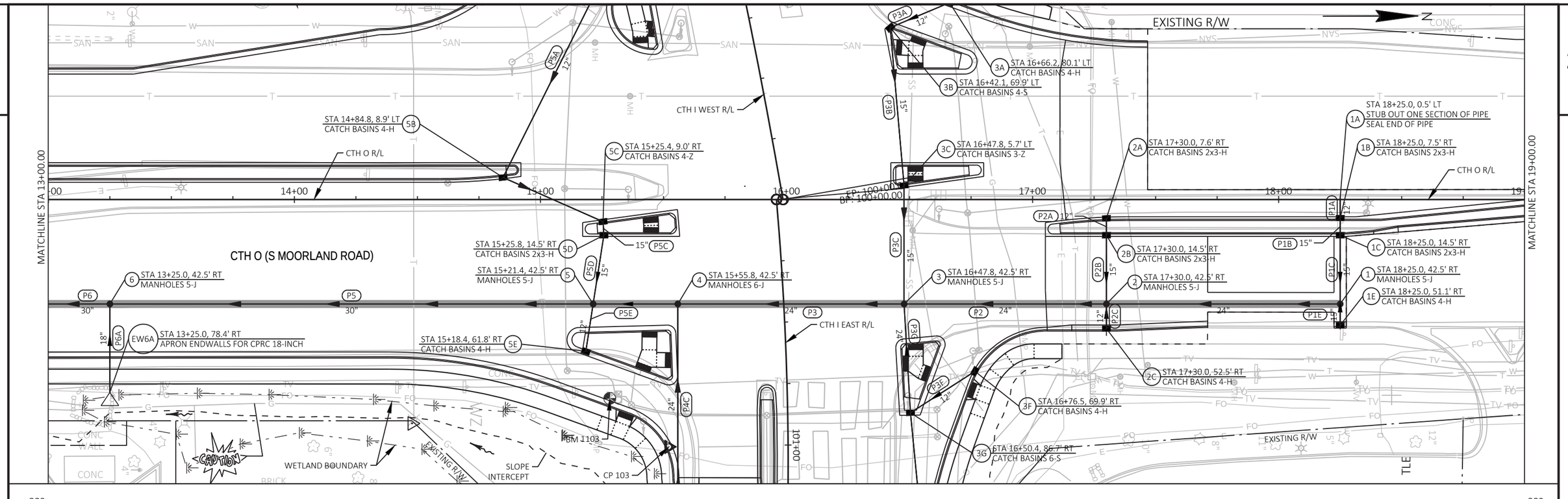


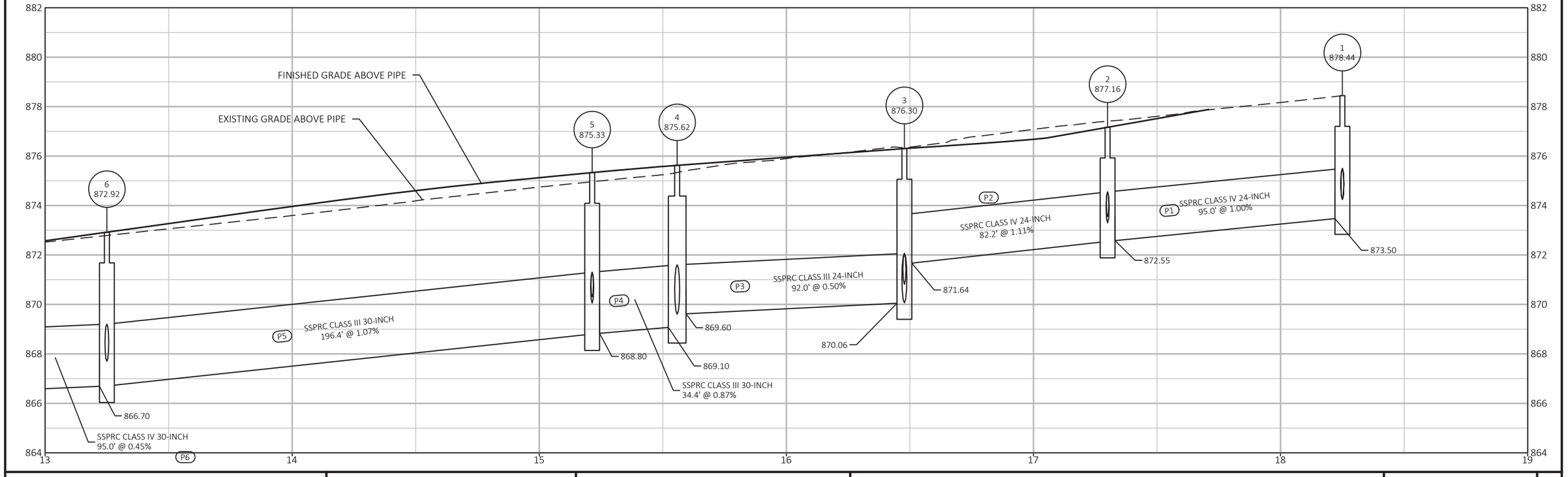
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	STORM SEWER - CTH O	SHEET 74	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 1B

PLOT DATE : 7/28/2019 8:28 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2





PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	STORM SEWER - CTH O	SHEET 75	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 2A

PLOT DATE : 7/28/2019 8:28 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

MATCHLINE STA 13+00.00

MATCHLINE STA 19+00.00

EXISTING R/W

CTH O (S MOORLAND ROAD)

CTH I WEST R/L

CTH I EAST R/L

CTH O R/L

STA 14+84.8, 8.9' LT
CATCH BASINS 4-H (5B)

STA 15+25.4, 9.0' RT
CATCH BASINS 4-Z (5C)

STA 15+25.8, 14.5' RT
CATCH BASINS 2x3-H (5D)

STA 15+21.4, 42.5' RT
MANHOLES 5-J (5)

STA 15+18.4, 61.8' RT
CATCH BASINS 4-H (5E)

STA 15+55.8, 42.5' RT
MANHOLES 6-J (4)

STA 16+66.2, 80.1' LT
CATCH BASINS 4-H (3A)

STA 16+42.1, 69.9' LT
CATCH BASINS 4-S (3B)

STA 16+47.8, 5.7' LT
CATCH BASINS 3-Z (3C)

STA 16+47.8, 42.5' RT
MANHOLES 5-J (3)

STA 16+76.5, 69.9' RT
CATCH BASINS 4-H (3F)

STA 16+50.4, 86.7' RT
CATCH BASINS 6-S (3G)

STA 17+30.0, 7.6' RT
CATCH BASINS 2x3-H (2A)

STA 17+30.0, 14.5' RT
CATCH BASINS 2x3-H (2B)

STA 17+30.0, 42.5' RT
MANHOLES 5-J (2)

STA 17+30.0, 52.5' RT
CATCH BASINS 4-H (2C)

STA 18+25.0, 0.5' LT
STUB OUT ONE SECTION OF PIPE
SEAL END OF PIPE (1A)

STA 18+25.0, 7.5' RT
CATCH BASINS 2x3-H (1B)

STA 18+25.0, 14.5' RT
CATCH BASINS 2x3-H (1C)

STA 18+25.0, 42.5' RT
MANHOLES 5-J (1)

STA 18+25.0, 51.1' RT
CATCH BASINS 4-H (1E)

STA 13+25.0, 42.5' RT
MANHOLES 5-J (6)

STA 13+25.0, 78.4' RT
APRON ENDWALLS FOR CPRC 18-INCH (EW6A)

P6 30" P5 30" P3 24" P2 24" P1B 15" P1E 24"

P6A 18" P5E 12" P4C 24" P3E 24" P3C 15" P2A 12" P2B 15" P2C 12" P1A 12" P1C 15"

WETLAND BOUNDARY

SLOPE INTERCEPT

BM 1103

CP 103

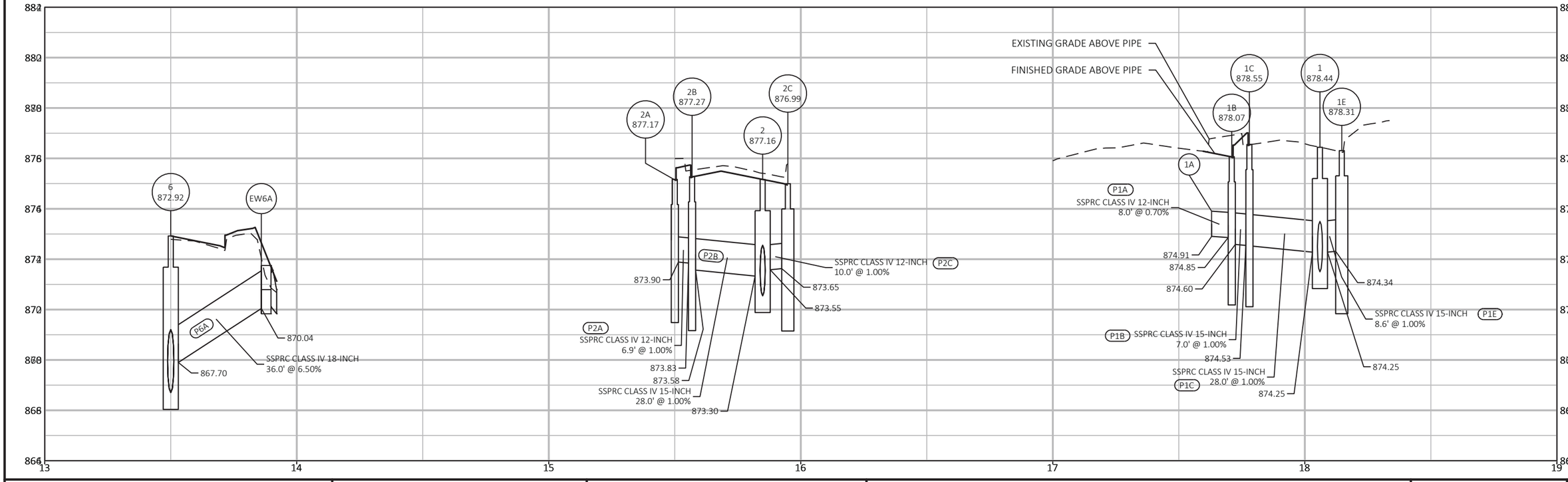
EXISTING R/W

CAUTION

101+00

EP: 100+00.00
BP: 100+00.00

TLE



PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	STORM SEWER - CTH O	SHEET 76	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 2B

PLOT DATE : 7/28/2019 8:29 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

EXISTING SIDEWALK EASEMENT

PROPERTY LINE

CP 107

EXISTING R/W

CTH I (W BELOIT ROAD)

PC 92+06.19

CTH I WEST R/L

92+00

93+00

94+00

95+00

96+00

97+

MATCHLINE STA 97+00.00

PROVIDE FLAT TOP SLAB WITH 2'X3' RECTANGULAR OPENING THAT PROPERLY ALIGNS INLET COVER WITH CURB AND GUTTER

35 STA 93+85.2, 38.3' RT
CATCH BASIN 4x4-H

CONNECT EXISTING PIPES TO CATCH BASIN
FIELD VERIFY LOCATION AND ELEVATION OF EXISTING PIPES PRIOR TO ORDERING STRUCTURE

EXISTING R/W

EXISTING R/W

15845 W BELOIT ROAD
LUTERBACH

CAROL ANN WILSON ET AL

BM 1107

EXISTING SIDEWALK EASEMENT

SLOPE INTERCEPT

CC

EXISTING INLET TO REMAIN

32 STA 95+98.3, 41.2' RT
CONNECT TO EXISTING

P31

12"

ASPH

HMA

12"

P30

CONC

31 STA 96+00.0, 49.6' RT
MANHOLES 4-J

880
878
876
874
872
870
868
866
864
862

91
92
93
94
95
96
97

EXISTING GRADE ABOVE PIPE

32
872.47

31
874.06

SSPRC CLASS IV 12-INCH
157.3' @ 1.00%

P30

868.62

868.62

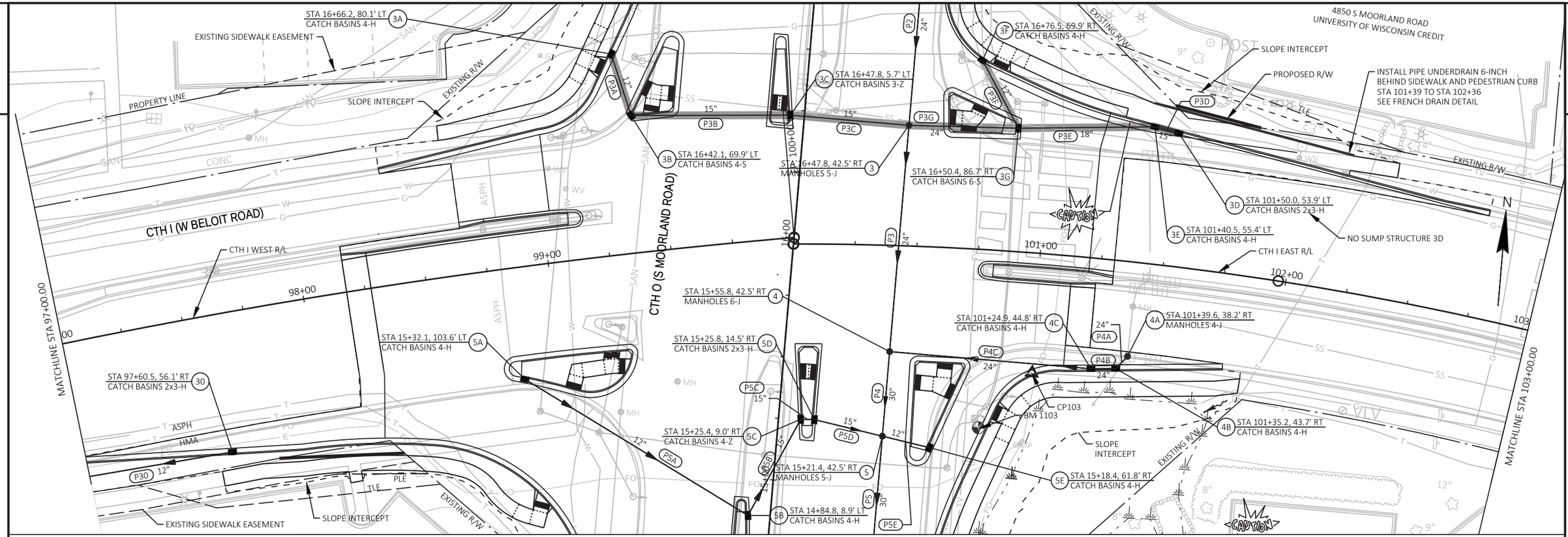
SSPRC CLASS III 12-INCH
8.5' @ 1.00%

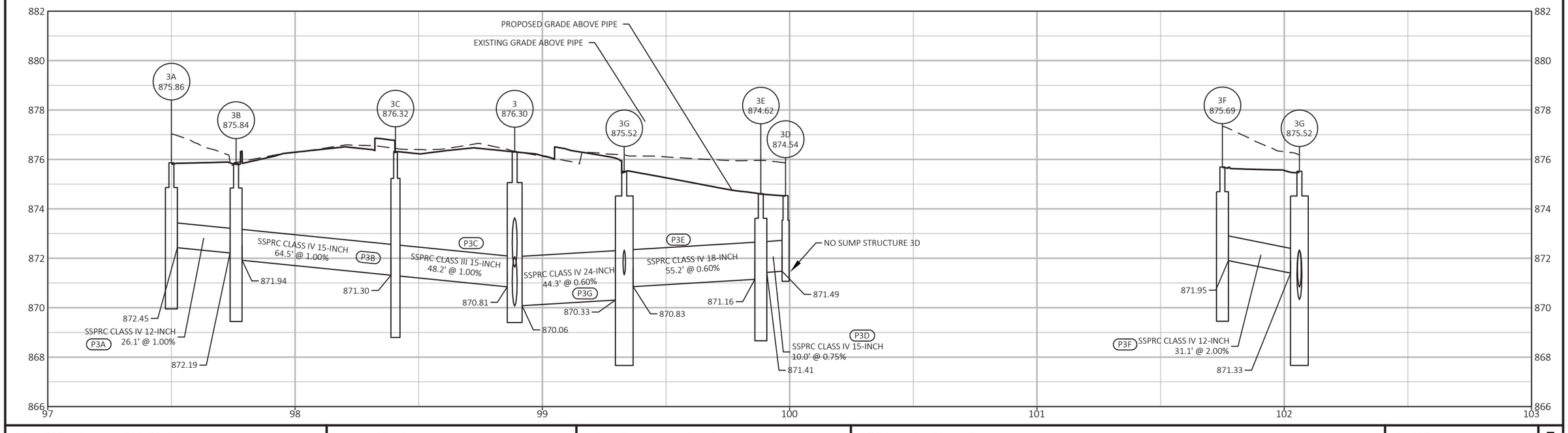
P31

868.53

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	STORM SEWER - CTH I	SHEET 77	E

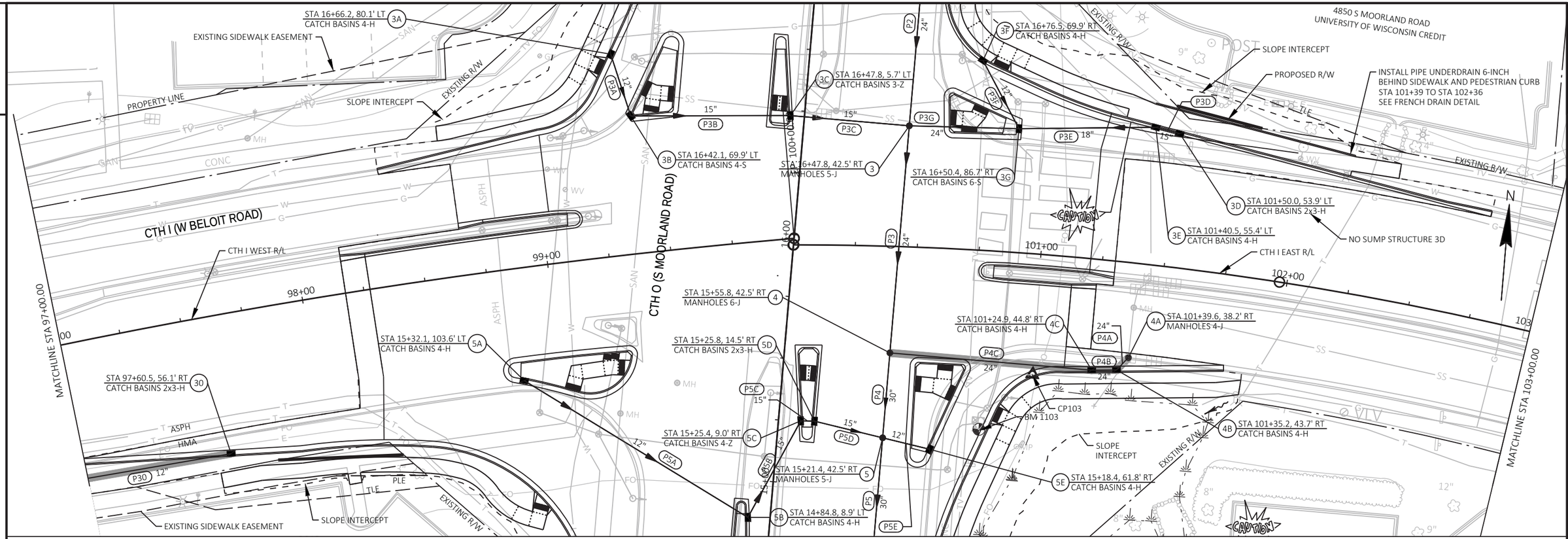
2

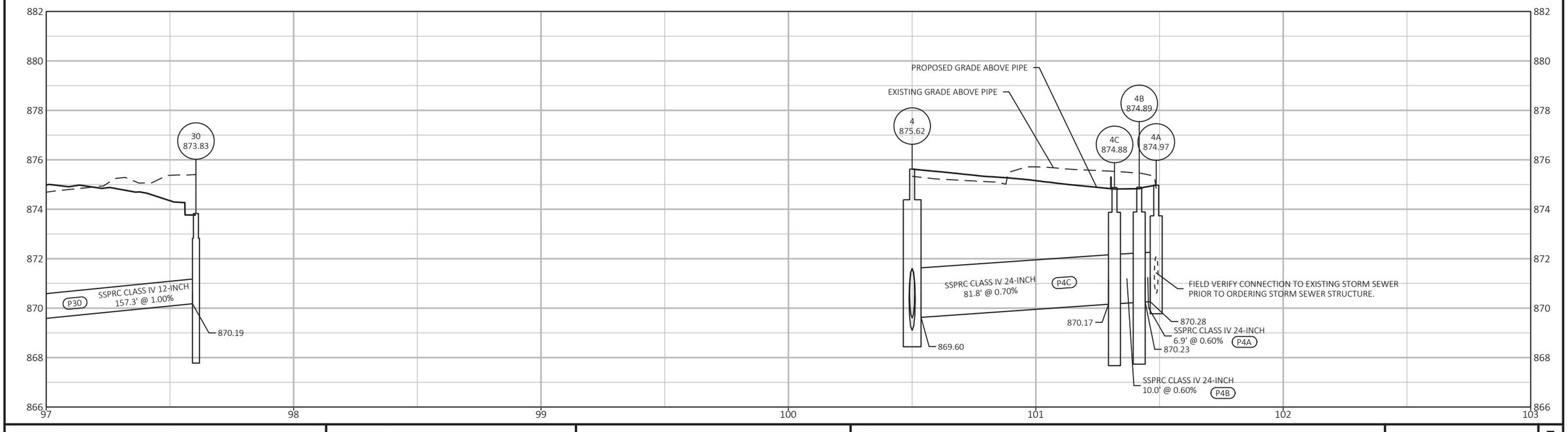




PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	STORM SEWER - CTH I	SHEET 78	E

2

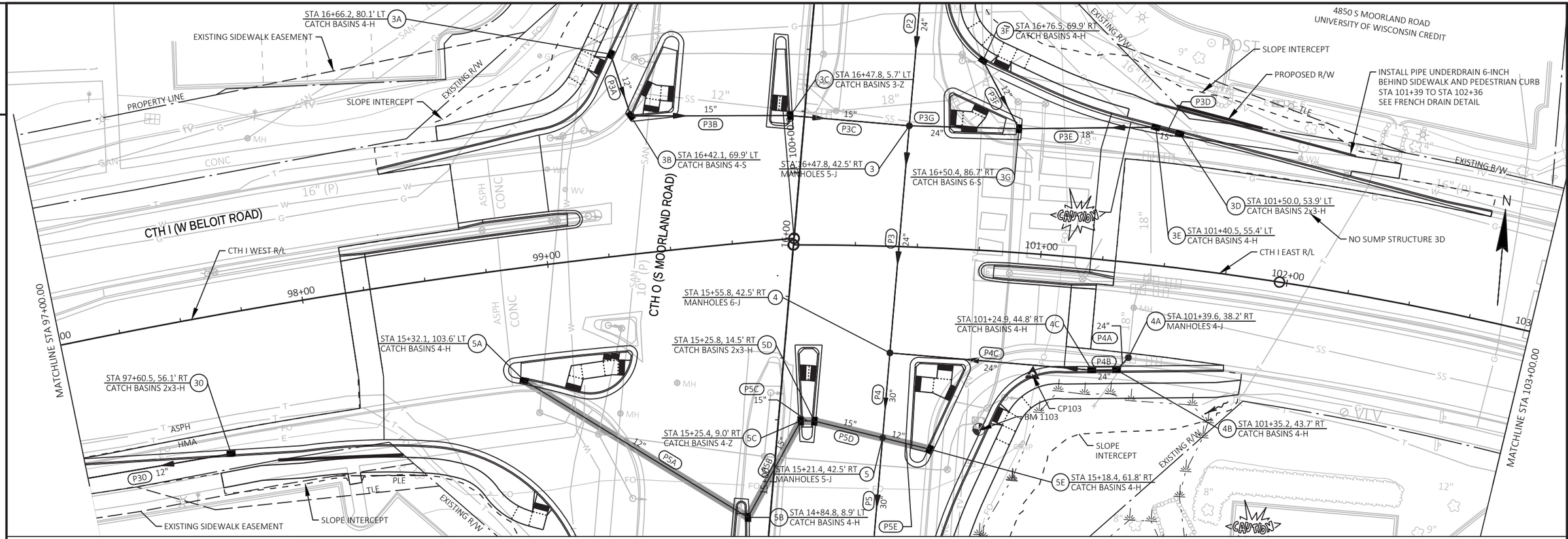


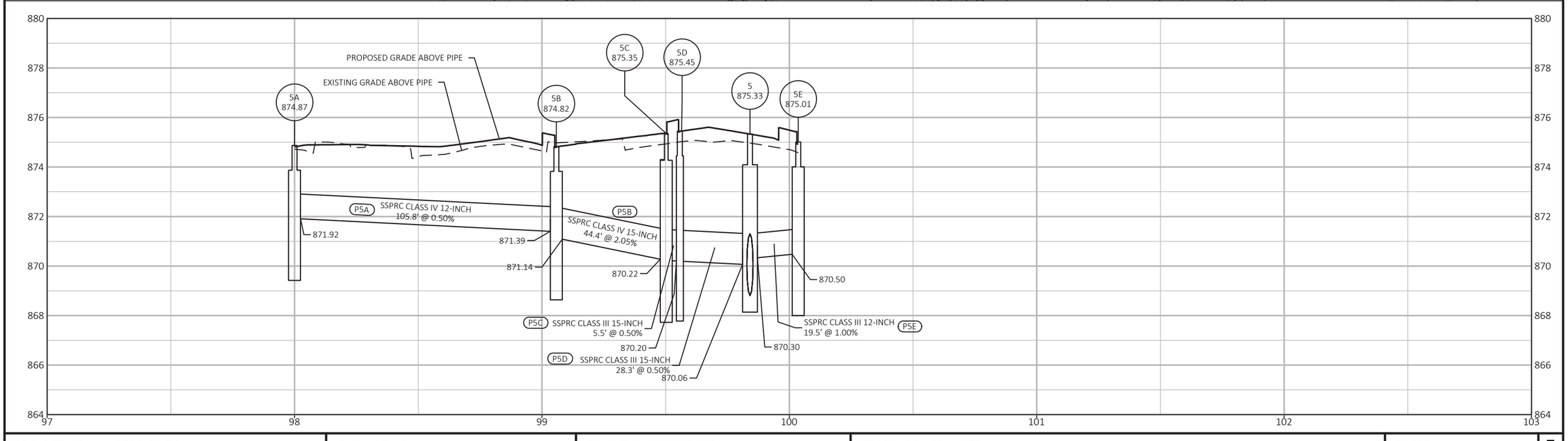


PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	STORM SEWER - CTH I	SHEET 79	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022502-SS.DWG
LAYOUT NAME - 5B
PLOT DATE : 7/28/2019 8:29 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41

2





PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	STORM SEWER - CTH I	SHEET 80	E

2

CAUTION

EXISTING R/W

CONC

MATCHLINE STA 103+00.00

+00

104+00

105+00

106+00

107+00

108+00

109+00

CC

59 STA 104+32.7, 8.2' LT
CONNECT TO EXIST

P59

60 STA 104+32.8, 2.8' LT
CATCH BASINS 2x3-H

50A STA 105+43.4, 8.4' RT
CATCH BASINS 4-H

P50A

50 STA 105+40.3, 16.7' RT
MANHOLES 4-J

CTH I EAST R/L

CTH I (W BELOIT ROAD)

CP 104

N

EXISTING R/W

CONC

18"

12"

10" (P)

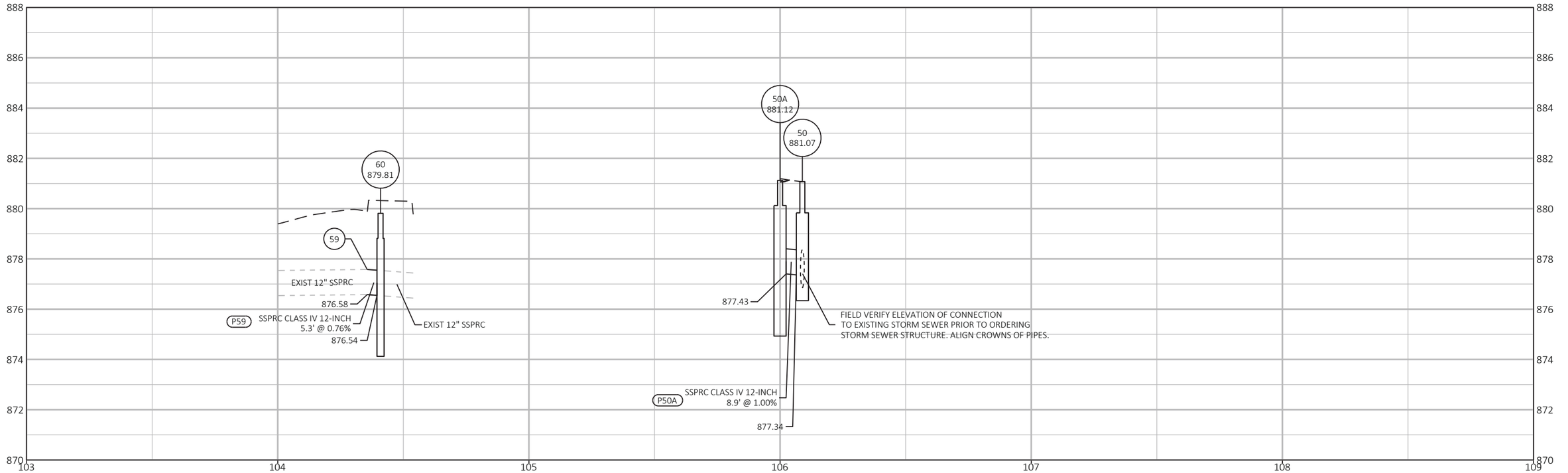
8"

10"

SAN

MH

SIGN

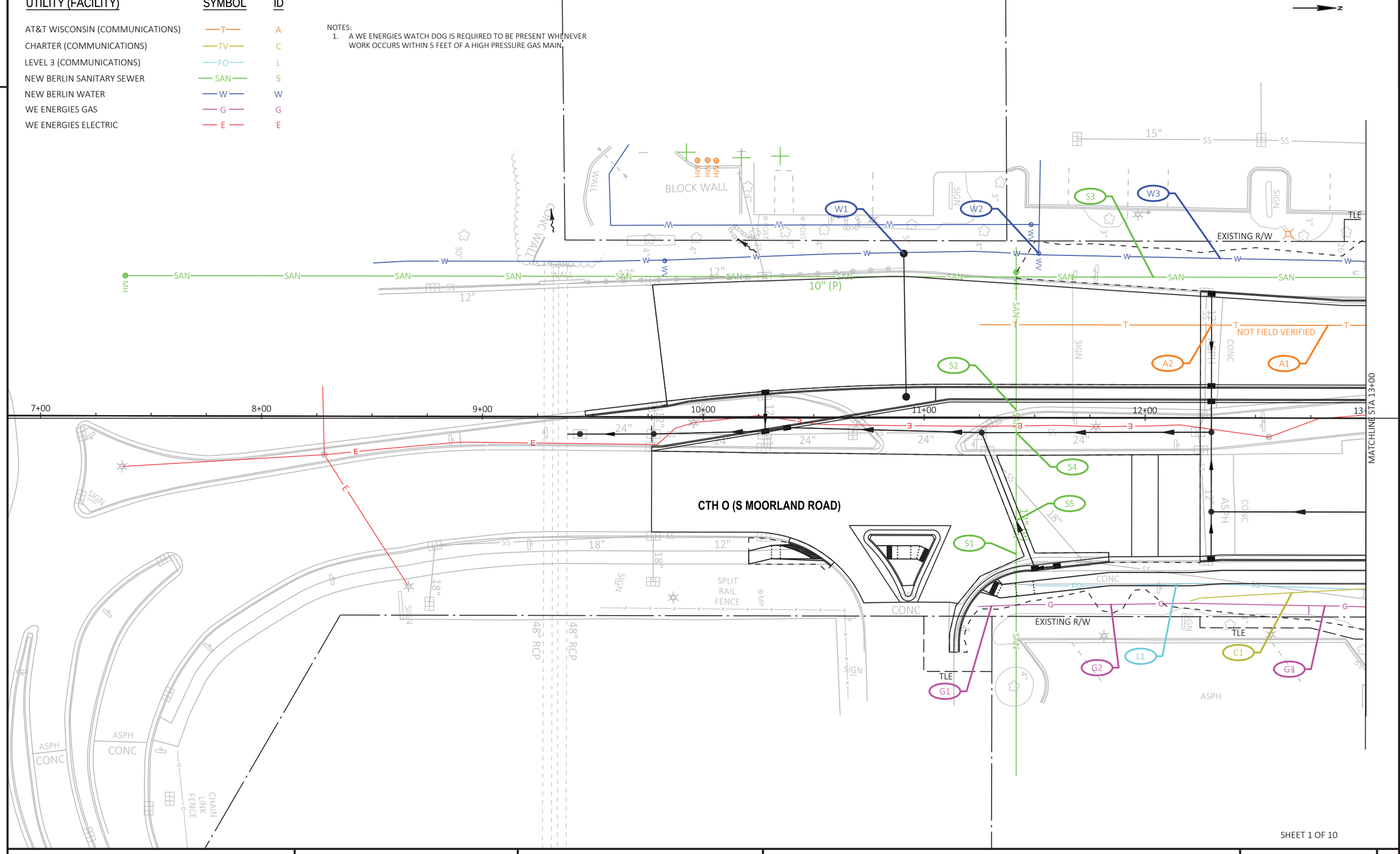


PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	STORM SEWER - CTH I	SHEET 81	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\022502-SS.DWG
LAYOUT NAME - 6
PLOT DATE : 7/28/2019 8:30 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41

UTILITY (FACILITY)	SYMBOL	ID
AT&T WISCONSIN (COMMUNICATIONS)	T	A
CHARTER (COMMUNICATIONS)	TV	C
LEVEL 3 (COMMUNICATIONS)	FO	L
NEW BERLIN SANITARY SEWER	SAN	S
NEW BERLIN WATER	W	W
WE ENERGIES GAS	G	G
WE ENERGIES ELECTRIC	E	E

NOTES:
1. A WE ENERGIES WATCH DOG IS REQUIRED TO BE PRESENT WHENEVER WORK OCCURS WITHIN 5 FEET OF A HIGH PRESSURE GAS MAIN.



SHEET 1 OF 10

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	UTILITY PLAN - CTH O	SHEET 82	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\023001-UP.DWG
LAYOUT NAME - 01
PLOT DATE : 7/28/2019 8:30 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

EXISTING UTILITY FACILITIES							RESOLUTION							
UTILITY DETAIL SHEET	POTENTIAL UTILITY CONFLICTS						CONFLICT ANTICIPATED (YES/NO)	RELOCATION		DISCONTINUTED		COORDINATE WITH OTHER UTILITIES (YES/NO)	WORKING DAYS TO PERFORM	ADDITIONAL INFORMATION
	CONFLICT ID	FACILITY TYPE	LOCATION	EXISTING FACILITIES (STA)	OFFSET (LT/RT)	IN CONFLICT WITH:		PRIOR TO CONSTRUCTION (STA/OFFSET/LOCATION)	DURING CONSTRUCTION (STA/OFFSET)	IN-PLACE (YES/NO)	HAZ MAT (YES/NO)			
1	A1	COMMUNICATIONS LINE	UG	12+25 - 17+11	42' LT	GRADING	NO	---	---	---	---	---	---	NOT MARKED BY DIGGER'S HOTLINE
1	A2	COMMUNICATIONS LINE	UG	12+30	42' LT	STORM SEWER	NO	---	---	---	---	---	---	NOT MARKED BY DIGGER'S HOTLINE
1	C1	COMMUNICATIONS LINE	UG	12+21 - 17+06	68' RT - 83' RT	GRADING	YES	14+51 - 17+21, 71' - 93' RT	---	YES	YES	NO	60	---
1	L1	COMMUNICATIONS LINE	UG	11+47 - 16+83	76' RT - 110' RT	GRADING	NO	---	---	---	---	---	---	---
1	S1	SANITARY SEWER	UG	11+42	40' RT - 84' RT	GRADING	NO	---	---	---	---	---	---	---
1	S2	SANITARY SEWER	UG	11+42	15' LT - 17' RT	GRADING	NO	---	---	---	---	---	---	---
1	S3	SANITARY SEWER	UG	11+42 - 17+47	62' LT - 64' LT	GRADING	NO	---	---	---	---	---	---	---
1	S4	SANITARY SEWER	UG	11+42	7' RT	STORM SEWER	NO	---	---	---	---	---	---	---
1	S5	SANITARY SEWER	UG	11+42	47' RT	STORM SEWER	NO	---	---	---	---	---	---	---
1	W1	WATER MAIN	UG	10+91	74' LT	SIGN STRUCTURE	YES	WEST ONTO PRIVATE PROPERTY	---	NO	NO	NO	---	---
1	W2	VALVE	UG	11+52	74' LT	GRADING	YES	---	11+52, 74' LT	NO	NO	NO	1	ADJUST VALVE BOX WITH PROJECT
1	W3	WATER MAIN	UG	11+46 - 17+05	70' LT - 94' LT	GRADING	NO	---	---	---	---	---	---	---
1	G1	GAS LINE	UG	11+25 - 11+37	85' RT - 86' RT	GRADING	NO	---	---	---	---	---	---	---
1	G2	GAS LINE	UG	11+78 - 11+91	84' RT - 85' RT	GRADING	NO	---	---	---	---	---	---	---
1	G3	GAS LINE	UG	12+09 - 14+50	84' RT - 89' RT	GRADING	NO	---	---	---	---	---	---	---

FOR INFORMATION ONLY
CONTACT DIGGER'S HOTLINE FOR ACTUAL UTILITY LOCATIONS

2

UTILITY (FACILITY)	SYMBOL	ID
AT&T WISCONSIN (COMMUNICATIONS)	T	A
CHARTER (COMMUNICATIONS)	TV	C
LEVEL 3 (COMMUNICATIONS)	FO	L
NEW BERLIN SANITARY SEWER	SAN	S
NEW BERLIN WATER	W	W
WE ENERGIES GAS	G	G
WE ENERGIES ELECTRIC	E	E

MATCHLINE STA 98+25

MATCHLINE STA 101+75

MATCHLINE STA 13+00

MATCHLINE STA 19+00

CTH O (S MOORLAND ROAD)

CTH I (W BELOIT ROAD)

PROPOSED R/W

EXISTING R/W

EXISTING SIDEWALK EASEMENT

PROPERTY LINE

TLE

NOT FIELD VERIFIED

TO BE INSTALLED BY CHARTER PRIOR TO CONSTRUCTION. EXACT LOCATION NOT KNOWN.

NOTES:
1. A WE ENERGIES WATCH DOG IS REQUIRED TO BE PRESENT WHENEVER WORK OCCURS WITHIN 5 FEET OF A HIGH PRESSURE GAS MAIN.

SHEET 3 OF 10

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	UTILITY PLAN - CTH O	SHEET	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\023001-UP.DWG
LAYOUT NAME - 02

PLOT DATE : 7/28/2019 8:30 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

EXISTING UTILITY FACILITIES							RESOLUTION								
UTILITY DETAIL SHEET	POTENTIAL UTILITY CONFLICTS						CONFLICT ANTICIPATED (YES/NO)	RELOCATION		DISCONTINUTED		COORDINATE WITH OTHER UTILITIES (YES/NO)	WORKING DAYS TO PERFORM	ADDITIONAL INFORMATION
	CONFLICT ID	FACILITY TYPE	LOCATION	EXISTING FACILITIES (STA)	OFFSET (LT/RT)	IN CONFLICT WITH:		PRIOR TO CONSTRUCTION (STA/OFFSET/LOCATION)	DURING CONSTRUCTION (STA/OFFSET)	IN-PLACE (YES/NO)	HAZ MAT (YES/NO)			
3	A1	COMMUNICATIONS LINE	UG	12+25 - 17+11	42' LT	GRADING	NO	---	---	---	---	---	---	NOT MARKED BY DIGGER'S HOTLINE
3	A3	COMMUNICATIONS LINE	UG	15+01	42' LT	STORM SEWER	YES	---	14+85-15+15, 42' LT	NO	NO	YES	1	LOWER 12" DURING CONSTRUCTION
3	A4	MANHOLE	UG	15+36	42' LT	GRADING	YES	---	15+36, 42' LT	NO	NO	NO	1	ADJUST MH DURING CONSTRUCTION
3	A5	COMMUNICATIONS LINE	UG	15+19	78' LT	STORM SEWER	YES	14+46 - 15+26, 72' LT	---	YES	NO	NO	100	---
3	A6	COMMUNICATIONS LINE	UG	14+46 - 15+20	78' LT - 169' LT	GRADING	YES	14+46 - 15+26, 72' LT	---	YES	NO	NO	100	---
3	A7	COMMUNICATIONS LINE	UG	14+46 - 14+64 14+89 - 15+15	78' LT - 98' LT 128' LT - 169' LT	GRADING	YES	14+46 - 15+26, 72' LT 94+63 - 99+14, 35' RT - 61' RT	---	YES	NO	NO	100	---
3	A8	COMMUNICATIONS LINE	UG	14+46 - 15+32	78' LT - 81' LT	GRADING	YES	14+46 - 15+26, 72' LT	---	YES	NO	NO	100	---
3	A9	COMMUNICATIONS LINE	UG	14+46 - 14+49	42' LT - 78' LT	GRADING	YES	14+46, 78' LT - 101+87, 50' RT	---	YES	NO	NO	100	---
3	A10	PEDESTAL	UG	14+46	78' LT	GRADING	YES	---	14+46, 78' LT	NO	NO	NO	1	ADJUST DURING CONSTRUCTION
3	A11	COMMUNICATIONS LINE	UG	16+45	42' LT	STORM SEWER	YES	---	16+05 - 16+85, 42' LT	NO	NO	NO	1	LOWER 32" DURING CONSTRUCTION
3	A12	COMMUNICATIONS LINE	UG	16+16 - 17+19	171' LT - 66' RT	GRADING	YES	16+53 - 17+58, 102' LT - 93' RT	---	YES	NO	NO	100	---
3	A14	COMMUNICATIONS LINE	UG	17+17	42' RT	STORM SEWER	YES	16+53 - 17+58, 102' LT - 93' RT	---	YES	NO	NO	100	---
3	A16	COMMUNICATIONS LINE	UG	16+93 (CTH O) - 102+15 (CTH I)	72' RT (CTH O) - 59' LT (CTH I)	GRADING	YES	100+96 - 102+26, 60' LT - 108' LT	---	YES	NO	NO	100	---
3	A26	HANDHOLE	UG	14+54	78' LT	GRADING	YES	14+54, 78' LT	---	NO	NO	NO	1	---
3	A27	PEDESTAL	UG	16+87	72' LT	GRADING	YES	16+52, 102' LT	---	NO	NO	NO	100	ADJUST DURING CONSTRUCTION
3	C1	COMMUNICATIONS LINE	UG	12+21 - 17+06	68' RT - 83' RT	GRADING	YES	14+51 - 17+21, 71' - 93' RT	---	YES	NO	NO	60	---
3	C2	COMMUNICATIONS LINE	UG	13+25	76' RT	STORM SEWER	YES	---	13+25, 76' RT	NO	NO	NO	1	LOWER DURING CONSTRUCTION
3	C3	COMMUNICATIONS LINE	UG	15+56	75' RT	STORM SEWER	YES	14+51 - 17+21, 71' - 93' RT	---	YES	YES	NO	60	---
3	C4	COMMUNICATIONS LINE	UG	16+49	72' RT	STORM SEWER	YES	14+51 - 17+21, 71' - 93' RT	---	YES	YES	NO	60	---
3	C5	COMMUNICATIONS LINE	UG	16+75	71' RT	STORM SEWER	YES	14+51 - 17+21, 71' - 93' RT	---	YES	YES	NO	60	---
3	C6	COMMUNICATIONS LINE	UG	17+22 - 17+24	69' LT - 67' RT	GRADING	YES	17+16-17+21, 90' LT-72' RT	---	YES	NO	NO	60	---
3	C7	COMMUNICATIONS LINE	UG	17+22	42' RT	STORM SEWER	YES	17+16-17+21, 90' LT-72' RT	---	YES	NO	NO	60	---
3	C11	COMMUNICATIONS LINE	UG	101+65 - 102+11	58' LT - 71' LT	GRADING	NO	---	---	---	---	---	---	---
3	C13	COMMUNICATIONS LINE	UG	16+53	73' RT	TRAFFIC SIGNALS	NO	14+51 - 17+21, 71' - 93' RT	---	YES	YES	NO	60	---
3														
3	L1	COMMUNICATIONS LINE	UG	11+47 - 16+83	76' RT - 110' RT	GRADING	NO	---	---	---	---	---	---	---
3	L2	COMMUNICATIONS LINE	UG	13+25	79' RT	STORM SEWER	NO	---	---	---	---	---	---	---
3	L3	COMMUNICATIONS LINE	UG	15+56	104' RT	STORM SEWER	YES	---	15+56, 104' RT	NO	NO	NO	1	LOWER DURING CONSTRUCTION
3	L4	COMMUNICATIONS LINE	UG	16+52	105' RT	STORM SEWER	YES	---	16+52, 105' RT	NO	NO	NO	1	LOWER DURING CONSTRUCTION
3	L5	COMMUNICATIONS LINE	UG	14+85 - 15+24	117' LT - 99' RT	GRADING	NO	---	---	---	---	---	---	---
3	L6	COMMUNICATIONS LINE	UG	14+98	3' LT	STORM SEWER	NO	---	---	---	---	---	---	LEVEL 3 TO BE PRESENT DURING STORM SEWER INSTALLATION
3	L7	COMMUNICATIONS LINE	UG	15+01	42' RT	STORM SEWER	YES	---	15+01, 42' RT	NO	NO	NO	1	RAISE DURING CONSTRUCTION
3	L8	COMMUNICATIONS LINE	UG	17+23 - 17+25	70' LT - 59' RT	GRADING	YES	17+16-17+21, 90' LT-72' RT	---	YES	NO	NO	60	---
3	L9	COMMUNICATIONS LINE	UG	17+23	42' RT	STORM SEWER	YES	17+16-17+21, 90' LT-72' RT	---	YES	NO	NO	60	---
3	L14	COMMUNICATIONS LINE	UG	95+93 - 98+46	45' RT - 80' RT	GRADING	NO	---	---	---	---	---	---	---
3	L16	HANDHOLE	UG	15+24	99' RT	GRADING	YES	15+24, 99' RT	---	NO	NO	NO	1	RAISE 12" PRIOR TO CONSTRUCTION
3	L17	COMMUNICATIONS LINE	UG	14+97	33' LT	STORM SEWER	NO	---	---	---	---	---	---	LEVEL 3 TO BE PRESENT DURING STORM SEWER INSTALLATION

FOR INFORMATION ONLY
CONTACT DIGGER'S HOTLINE FOR ACTUAL UTILITY LOCATIONS

2

EXISTING UTILITY FACILITIES							RESOLUTION							
UTILITY DETAIL SHEET	POTENTIAL UTILITY CONFLICTS						CONFLICT ANTICIPATED (YES/NO)	RELOCATION		DISCONTINUTED		COORDINATE WITH OTHER UTILITIES (YES/NO)	WORKING DAYS TO PERFORM	ADDITIONAL INFORMATION
	CONFLICT ID	FACILITY TYPE	LOCATION	EXISTING FACILITIES (STA)	OFFSET (LT/RT)	IN CONFLICT WITH:		PRIOR TO CONSTRUCTION (STA/OFFSET/LOCATION)	DURING CONSTRUCTION (STA/OFFSET)	IN-PLACE (YES/NO)	HAZ MAT (YES/NO)			
3	S3	SANITARY SEWER	UG	11+42 - 17+47	62' LT - 64' LT	GRADING	NO	---	---	---	---	---	---	---
3	S6	MANHOLE	UG	15+22	64' LT	GRADING	YES	---	15+22, 64' LT	NO	NO	NO	1	ADJUST MANHOLE COVER WITH PROJECT
3	S7	SANITARY SEWER	UG	16+43	63' LT	STORM SEWER	NO	---	---	---	---	---	---	---
3	S8	MANHOLE	UG	16+99	62' LT	GRADING	YES	---	16+99, 62' LT	NO	NO	NO	1	ADJUST MANHOLE COVER WITH PROJECT
3	S10	SANITARY SEWER	UG	15+12	64' LT	STORM SEWER	NO	---	---	---	---	---	---	---
3	W3	WATER MAIN	UG	11+46 - 17+05	70' LT - 94' LT	GRADING	NO	---	---	---	---	---	---	---
3	W4	HYDRANT	UG	13+34	76' LT	GRADING	YES	13+34, 76' LT	---	NO	NO	NO	7	WORK AROUND HYDRANT
3	W5	VALVE	UG	13+34	71' LT	GRADING	YES	---	13+34, 76' LT	NO	NO	NO	1	ADJUST VALVE BOX WITH PROJECT
3	W6	WATER MAIN	UG	15+21	82' LT	STORM SEWER	NO	---	---	---	---	---	---	---
3	W7	VALVE	UG	16+10	94' LT	GRADING	YES	---	16+10, 94' LT	NO	NO	NO	1	ADJUST VALVE BOX WITH PROJECT
3	W8	VALVE	UG	16+18	102' LT	GRADING	YES	---	16+18, 102' LT	NO	NO	NO	1	ADJUST VALVE BOX WITH PROJECT
3	W9	WATER MAIN	UG	17+32 - 17+45	69' LT - 59' RT	GRADING	NO	---	---	---	---	---	---	---
3	W10	WATER MAIN	UG	17+43	42' RT	STORM SEWER	NO	---	---	---	---	---	---	---
3	W12	WATER MAIN	UG	101+18 - 102+75	46' LT - 81' LT	GRADING	NO	---	---	---	---	---	---	---
3	W13	WATER MAIN	UG	101+55	55' LT	STORM SEWER	NO	---	---	---	---	---	---	---
3	W19	WATER MAIN	UG	16+10 - 16+19	93' LT - 140' LT	GRADING	NO	---	---	---	---	---	---	---
3	G3	GAS LINE	UG	12+09 - 14+50	84' RT - 89' RT	GRADING	NO	---	---	---	---	---	---	---
3	G4	GAS LINE	UG	16+15 - 16+51 16+62 - 16+96	141' LT - 70' RT	GRADING	NO	---	---	---	---	---	---	---
3	G6	GAS LINE	UG	16+93	42' RT	STORM SEWER	NO	---	---	---	---	---	---	---
3	G7	GAS LINE	UG	16+41 - 16+83	100' RT - 156' RT	GRADING	NO	---	---	---	---	---	---	---
3	G8	GAS LINE	UG	16+55	135' RT	STORM SEWER	NO	---	---	---	---	---	---	---
3	G9	GAS LINE	UG	101+64 - 101+87	47' RT - 64' RT	GRADING	NO	---	---	---	---	---	---	---
3	E1	ELECTRIC LINE	UG	15+29 - 16+91	86' LT - 91' LT	GRADING	NO	---	---	---	---	---	---	---
3	E2	ELECTRIC LINE	UG	17+11 - 17+12	91' LT - 66' RT	GRADING	NO	---	---	---	---	---	---	---
3	E3	ELECTRIC LINE	UG	17+12	42' RT	STORM SEWER	NO	---	---	---	---	---	---	WATCH DOG TO BE PRESENT DURING SEWER INSTALLATION
3	E4	ELECTRIC LINE	UG	15+27	93' LT	STORM SEWER	NO	---	---	---	---	---	---	WATCH DOG TO BE PRESENT DURING SEWER INSTALLATION
3	E5	ELECTRIC LINE	UG	95+99 - 99+01	50' RT - 55' RT	GRADING	YES	95+90 - 98+21, 55' - 71' RT	---	---	---	---	20	---
3	E8	ELECTRIC LINE	UG	101+27 - 101+43	75' LT - 83' LT	GRADING	NO	---	---	---	---	---	---	---
3	E12	ELECTRIC LINE	UG	15+34	86' LT	TRAFFIC SIGNALS	NO	---	---	---	---	---	---	WATCH DOG TO BE PRESENT DURING EXCAVATION FOR SIGNAL BASE

FOR INFORMATION ONLY
CONTACT DIGGER'S HOTLINE FOR ACTUAL UTILITY LOCATIONS

2

2

PROPERTY LINE

EXISTING R/W

EXISTING SIDEWALK EASEMENT

MATCHLINE STA 19+00

NOT FIELD VERIFIED

20+00

21+00

22+00

23+00

24+00

25+00

10" (P)

10" (P)

16" (P)

12" SS

CONC

ASPH

ROCK WALL

SIGN

EXISTING R/W

CTH O (S MOORLAND ROAD)

NOTES:
1. A WE ENERGIES WATCH DOG IS REQUIRED TO BE PRESENT WHENEVER WORK OCCURS WITHIN 5 FEET OF A HIGH PRESSURE GAS MAIN.

UTILITY (FACILITY)	SYMBOL	ID
AT&T WISCONSIN (COMMUNICATIONS)	T	A
CHARTER (COMMUNICATIONS)	TV	C
LEVEL 3 (COMMUNICATIONS)	FO	L
NEW BERLIN SANITARY SEWER	SAN	S
NEW BERLIN WATER	W	W
WE ENERGIES GAS	G	G
WE ENERGIES ELECTRIC	E	E

SHEET 6 OF 10

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	UTILITY PLAN - CTH O	SHEET	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\023001-UP.DWG
LAYOUT NAME - 03

PLOT DATE : 7/28/2019 8:30 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

UTILITY (FACILITY)	SYMBOL	ID
AT&T WISCONSIN (COMMUNICATIONS)	T	A
CHARTER (COMMUNICATIONS)	TV	C
LEVEL 3 (COMMUNICATIONS)	FO	L
NEW BERLIN SANITARY SEWER	SAN	S
NEW BERLIN WATER	W	W
WE ENERGIES GAS	G	G
WE ENERGIES ELECTRIC	E	E

NOTES:
1. A WE ENERGIES WATCH DOG IS REQUIRED TO BE PRESENT WHENEVER WORK OCCURS WITHIN 5 FEET OF A HIGH PRESSURE GAS MAIN.

N

PROPERTY LINE
EXISTING R/W
EXISTING SIDEWALK EASEMENT
CTH I (W BELOIT ROAD)
MATCHLINE STA 98+25
PROPOSED R/W LINE
TLE
EXISTING SIDEWALK EASEMENT
EXISTING R/W
ROCK
CONC
A6
A7
A20
A21
A22
E5
E6
G10
L13
L14
L15

SHEET 7 OF 10

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	UTILITY PLAN - CTH I	SHEET 88	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\023001-UP.DWG
LAYOUT NAME - 04
PLOT DATE : 7/28/2019 8:30 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

EXISTING UTILITY FACILITIES							RESOLUTION							
UTILITY DETAIL SHEET	POTENTIAL UTILITY CONFLICTS						CONFLICT ANTICIPATED (YES/NO)	RELOCATION		DISCONTINUTED		COORDINATE WITH OTHER UTILITIES (YES/NO)	WORKING DAYS TO PERFORM	ADDITIONAL INFORMATION
	CONFLICT ID	FACILITY TYPE	LOCATION	EXISTING FACILITIES (STA)	OFFSET (LT/RT)	IN CONFLICT WITH:		PRIOR TO CONSTRUCTION (STA/OFFSET/LOCATION)	DURING CONSTRUCTION (STA/OFFSET)	IN-PLACE (YES/NO)	HAZ MAT (YES/NO)			
7	A6	COMMUNICATIONS LINE	UG	14+46 - 15+20	78' LT - 169' LT	GRADING	YES	14+46 - 15+26, 72' LT	---	YES	NO	NO	100	---
7	A7	COMMUNICATIONS LINE	UG	14+46 - 14+64 14+89 - 15+15	78' LT - 98' LT 128' LT - 169' LT	GRADING	YES	14+46 - 15+26, 72' LT 94+63 - 99+14, 35' RT - 61' RT	---	YES	NO	NO	100	---
7	A20	COMMUNICATIONS LINE	UG	94+64	34' RT - 41' RT	GRADING	NO	---	---	NO	NO	---	---	---
7	A21	COMMUNICATIONS LINE	UG	95+93 - 96+08	43' RT - 44' RT	GRADING	YES	94+63 - 99+14, 35' RT - 61' RT	---	YES	NO	NO	100	---
7	A22	COMMUNICATIONS LINE	UG	95+99	44' RT	STORM SEWER	YES	94+63 - 99+14, 35' RT - 61' RT	---	YES	NO	NO	100	---
7	L13	COMMUNICATIONS LINE	UG	93+64 - 93+82	43' RT	GRADING	NO	---	---	---	---	---	---	---
7	L14	COMMUNICATIONS LINE	UG	95+93 - 98+46	45' RT - 80' RT	GRADING	NO	---	---	---	---	---	---	---
7	L15	COMMUNICATIONS LINE	UG	95+99	45' RT	STORM SEWER	NO	---	---	---	---	---	---	LEVEL 3 TO BE PRESENT DURING STORM SEWER INSTALLATION
7	G10	GAS LINE	UG	93+97	36' RT - 42' RT	GRADING	NO	---	---	---	---	---	---	---
7	E5	ELECTRIC LINE	UG	95+99 - 99+01	50' RT - 55' RT	GRADING	YES	95+90 - 98+21, 55' - 71' RT	---	---	---	---	20	---
7	E6	ELECTRIC LINE	UG	96+24	51' RT	STORM SEWER	YES	95+90 - 98+21, 55' - 71' RT	---	---	---	---	20	---

FOR INFORMATION ONLY
CONTACT DIGGER'S HOTLINE FOR ACTUAL UTILITY LOCATIONS

NOTES:
1. A WE ENERGIES WATCH DOG IS REQUIRED TO BE PRESENT WHENEVER WORK OCCURS WITHIN 5 FEET OF A HIGH PRESSURE GAS MAIN.

PROPOSED R/W LINE

EXISTING R/W LINE

MATCHLINE STA 101+75

CTH I (W BELOIT ROAD)

EXISTING R/W

UTILITY (FACILITY)	SYMBOL	ID
AT&T WISCONSIN (COMMUNICATIONS)	T	A
CHARTER (COMMUNICATIONS)	TV	C
LEVEL 3 (COMMUNICATIONS)	FO	L
NEW BERLIN SANITARY SEWER	SAN	S
NEW BERLIN WATER	W	W
WE ENERGIES GAS	G	G
WE ENERGIES ELECTRIC	E	E

SHEET 9 OF 10

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	UTILITY PLAN - CTH I	SHEET 90	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\023001-UP.DWG
LAYOUT NAME - 05

PLOT DATE : 7/28/2019 8:30 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

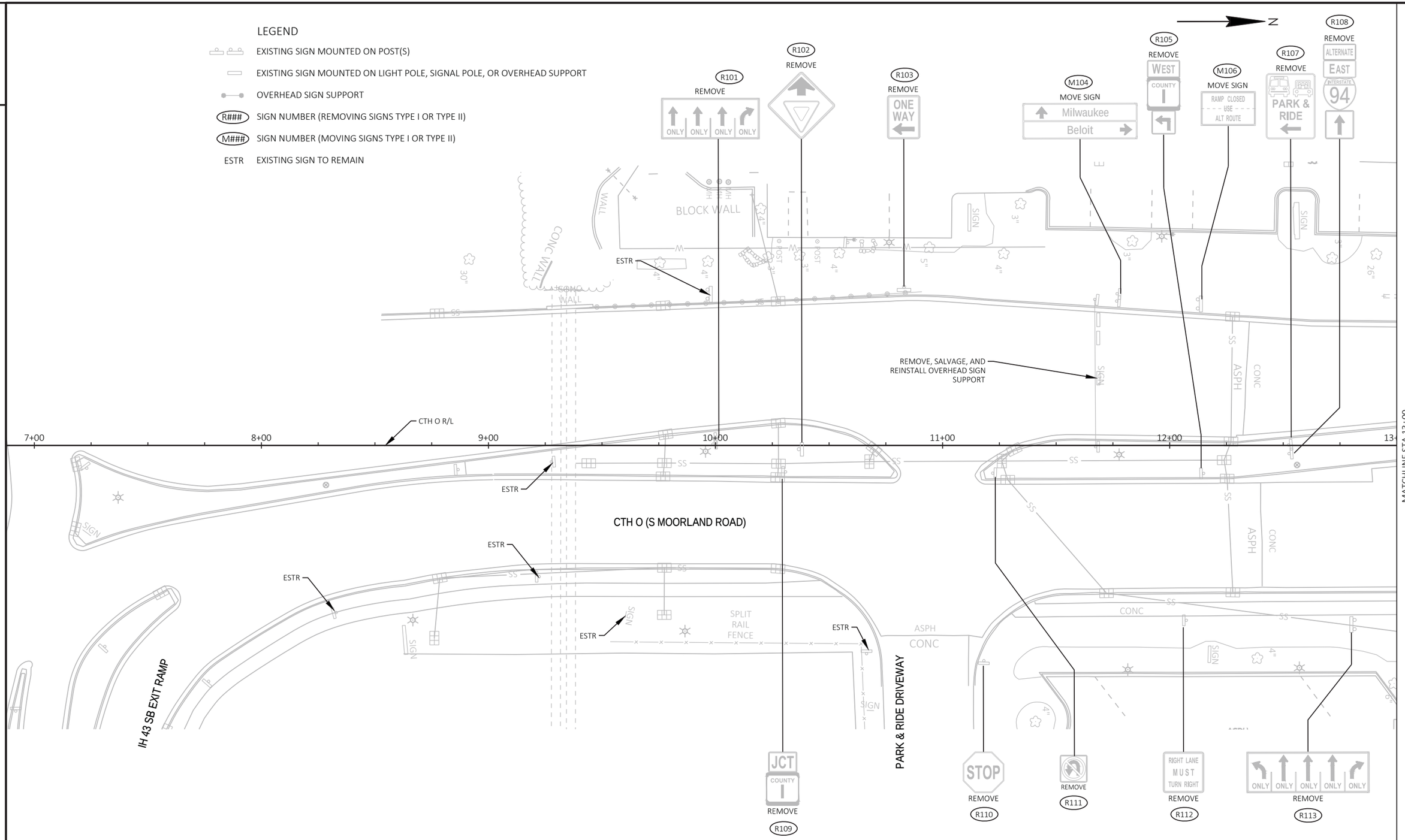
EXISTING UTILITY FACILITIES							RESOLUTION							
UTILITY DETAIL SHEET	POTENTIAL UTILITY CONFLICTS						CONFLICT ANTICIPATED (YES/NO)	RELOCATION		DISCONTINUTED		COORDINATE WITH OTHER UTILITIES (YES/NO)	WORKING DAYS TO PERFORM	ADDITIONAL INFORMATION
	CONFLICT ID	FACILITY TYPE	LOCATION	EXISTING FACILITIES (STA)	OFFSET (LT/RT)	IN CONFLICT WITH:		PRIOR TO CONSTRUCTION (STA/OFFSET/LOCATION)	DURING CONSTRUCTION (STA/OFFSET)	IN-PLACE (YES/NO)	HAZ MAT (YES/NO)			
9	A16	COMMUNICATIONS LINE	UG	16+93 (CTH O) - 102+15 (CTH I)	72' RT (CTH O) - 59' LT (CTH I)	GRADING	YES	100+96 - 102+26, 60' LT - 108' LT	---	YES	NO	NO	100	---
9	A23	COMMUNICATIONS LINE	UG	102+25 - 102+26	42' LT - 60' LT	GRADING	NO	---	---	NO	NO	---	---	---
9	C11	COMMUNICATIONS LINE	UG	101+65 - 102+11	58' LT - 71' LT	GRADING	NO	---	---	---	---	---	---	---
9	S9	SANITARY SEWER	UG	105+48	20' LT - 12' RT	GRADING	NO	---	---	---	---	---	---	---
9	W12	WATER MAIN	UG	101+18 - 102+75	46' LT - 81' LT	GRADING	NO	---	---	---	---	---	---	---
9	W17	VALVE	UG	101+98	51' LT	GRADING	YES	101+98, 51' LT	---	NO	NO	NO	---	REMOVE VALVE
9	W18	HYDRANT	UG	101+98	55' LT	GRADING/SIDEWALK	YES	101+98, 55' LT	---	NO	NO	NO	---	REMOVE HYDRANT
9	E11	ELECTRIC LINE	UG	105+66 - 105+71	20' LT - 12' RT	GRADING	NO	---	---	---	---	---	---	---

FOR INFORMATION ONLY
CONTACT DIGGER'S HOTLINE FOR ACTUAL UTILITY LOCATIONS

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON LIGHT POLE, SIGNAL POLE, OR OVERHEAD SUPPORT
- OVERHEAD SIGN SUPPORT
- R### SIGN NUMBER (REMOVING SIGNS TYPE I OR TYPE II)
- M### SIGN NUMBER (MOVING SIGNS TYPE I OR TYPE II)
- ESTR EXISTING SIGN TO REMAIN



SHEET 1 OF 6

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EXISTING SIGN REMOVALS	SHEET 92	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\023201-ES.DWG
LAYOUT NAME - 1

PLOT DATE : 7/28/2019 8:31 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

N

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON LIGHT POLE, SIGNAL POLE, OR OVERHEAD SUPPORT

OVERHEAD SIGN SUPPORT

R### SIGN NUMBER (REMOVING SIGNS TYPE I OR TYPE II)

M### SIGN NUMBER (MOVING SIGNS TYPE I OR TYPE II)

ESTR EXISTING SIGN TO REMAIN

MATCHLINE STA 101+75

MATCHLINE STA 13+00

MATCHLINE STA 19+00

CTH O (S MOORLAND ROAD)

CTH I (W BELOIT ROAD)

CTH O R/L

CTH I WEST R/L

CTH I EAST R/L

99+00

101+00

13+00

14+00

15+00

16+00

17+00

18+00

19+00

REMOVE R200 R201 — AHEAD 15 MPH

REMOVE R202 R203 — JCT INTERSTATE 43

REMOVE R204 — COUNTY O

REMOVE R205 — YIELD

REMOVE R206 — STOP

REMOVE R207

REMOVE R208 — STOP

REMOVE R209

MOVE M210 — EMERGENCY MEDICAL CARE

REMOVE R211

REMOVE R212 — STOP

REMOVE R214 — ALTERNATE EAST INTERSTATE 94

M213 MOVE — EMERGENCY MEDICAL CARE

R230

REMOVE R215 — STOP

REMOVE R216

REMOVE R217

REMOVE R218

REMOVE R219 — STOP

ESTR

R225

REMOVE R231 — STOP

REMOVE R220 — WRONG WAY

REMOVE R221 — RIGHT LANE MUST TURN RIGHT

REMOVE R222 — ALTERNATE WEST INTERSTATE 94

REMOVE R223 — STOP

MOVE M224 — EMERGENCY MEDICAL CARE

REMOVE R226 — STOP

REMOVE R227 — RIGHT LANE MUST TURN RIGHT

REMOVE R228 — EAST COUNTY I

REMOVE R229 — SPEED LIMIT 40

MATCHLINE STA 101+75

SHEET 2 OF 6

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EXISTING SIGN REMOVALS	SHEET	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\023201-ES.DWG
LAYOUT NAME - 2

PLOT DATE : 7/28/2019 8:31 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : ##%##.###

2

2

LEGEND

N

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON LIGHT POLE, SIGNAL POLE, OR OVERHEAD SUPPORT

OVERHEAD SIGN SUPPORT

R### SIGN NUMBER (REMOVING SIGNS TYPE I OR TYPE II)

M### SIGN NUMBER (MOVING SIGNS TYPE I OR TYPE II)

ESTR EXISTING SIGN TO REMAIN

FROEDERT DRIVEWAY

MATCHLINE STA 19+00

CONC

SS

MH

ESTR

CTH O R/L

00

20+00

21+00

22+00

23+00

24+00

25+00

CTH O (S MOORLAND ROAD)

ESTR

CONC

SIGN

TARGET DRIVEWAY

ONE WAY

REMOVE

R301

SHEET 3 OF 6

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EXISTING SIGN REMOVALS	SHEET 94	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\023201-ES.DWG
LAYOUT NAME - 3

PLOT DATE : 7/28/2019 8:31 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

M400
MOVE SIGN

ESTR

ESTR

ESTR

ESTR

ESTR

CTH I (W BELOIT ROAD)

89+00

90+00

91+00

92+00

MATCHLINE STA 92+50

SHEET 4 OF 6

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EXISTING SIGN REMOVALS	SHEET 95	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\023202-ES.DWG
LAYOUT NAME - 1

PLOT DATE : 7/28/2019 8:31 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

R500
REMOVE
RIGHT LANE
MUST
TURN RIGHT

N

ESTR

CTH I WEST R/L

CTH I (W BELOIT ROAD)

MATCHLINE STA 92+50

93+00

94+00

95+00

96+00

97+00

98+00

MATCHLINE STA 98+25

ESTR

ESTR

ESTR

ESTR

SIGN

SIGN

SIGN

CONC

CONC

ROCK

ONLY ONLY ONLY ONLY

REMOVE
R501

LEGEND

	EXISTING SIGN MOUNTED ON POST(S)
	EXISTING SIGN MOUNTED ON LIGHT POLE, SIGNAL POLE, OR OVERHEAD SUPPORT
	OVERHEAD SIGN SUPPORT
R###	SIGN NUMBER (REMOVING SIGNS TYPE II)
M###	SIGN NUMBER (MOVING SIGNS TYPE II)
ESTR	EXISTING SIGN TO REMAIN

SHEET 5 OF 6

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EXISTING SIGN REMOVALS	SHEET 96 E

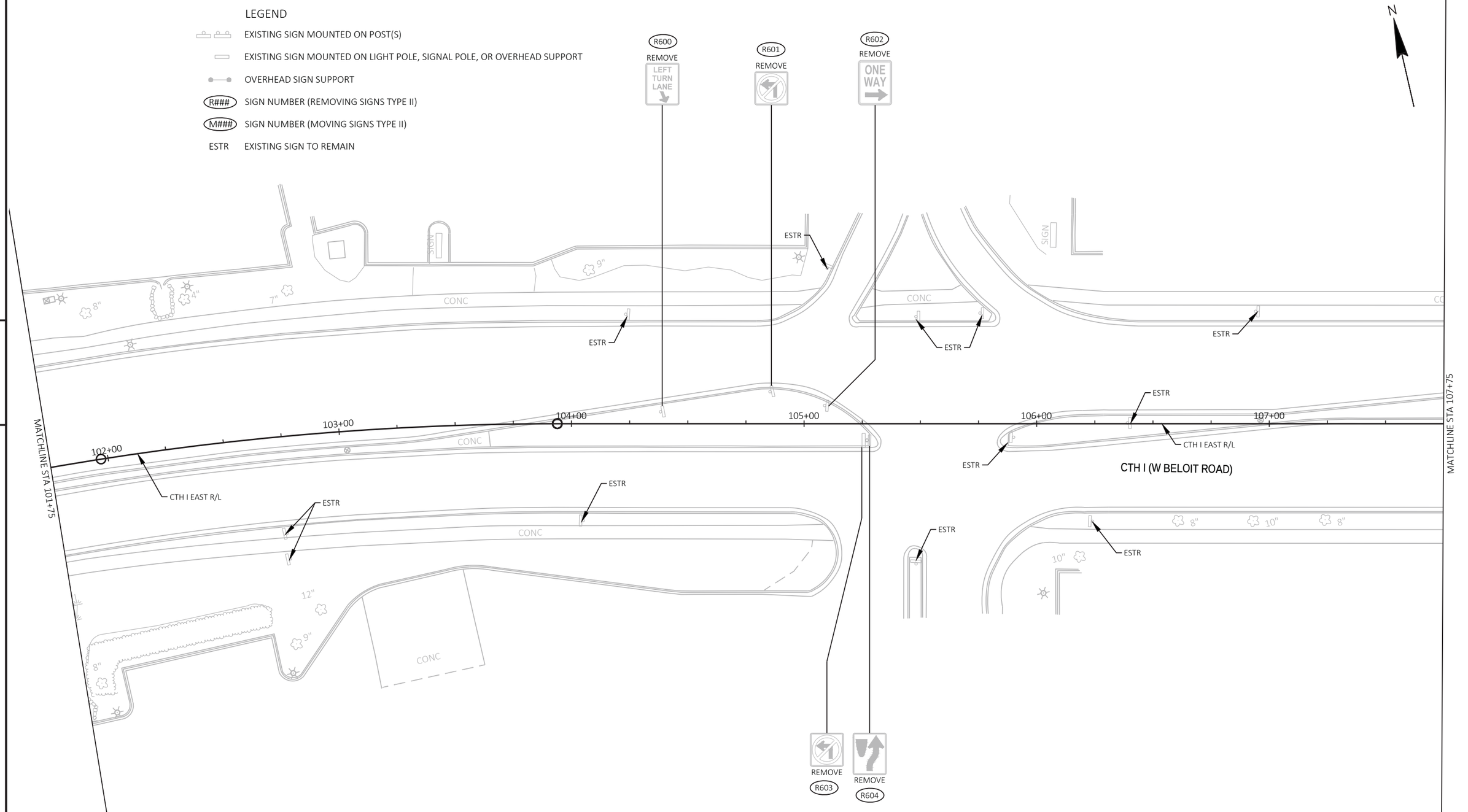
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\023202-ES.DWG
LAYOUT NAME - 2

PLOT DATE : 7/28/2019 8:31 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON LIGHT POLE, SIGNAL POLE, OR OVERHEAD SUPPORT
- OVERHEAD SIGN SUPPORT
- R### SIGN NUMBER (REMOVING SIGNS TYPE II)
- M#### SIGN NUMBER (MOVING SIGNS TYPE II)
- ESTR EXISTING SIGN TO REMAIN



SHEET 6 OF 6

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	EXISTING SIGN REMOVALS	SHEET 97	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\023202-ES.DWG
LAYOUT NAME - 3

PLOT DATE : 7/28/2019 8:31 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2

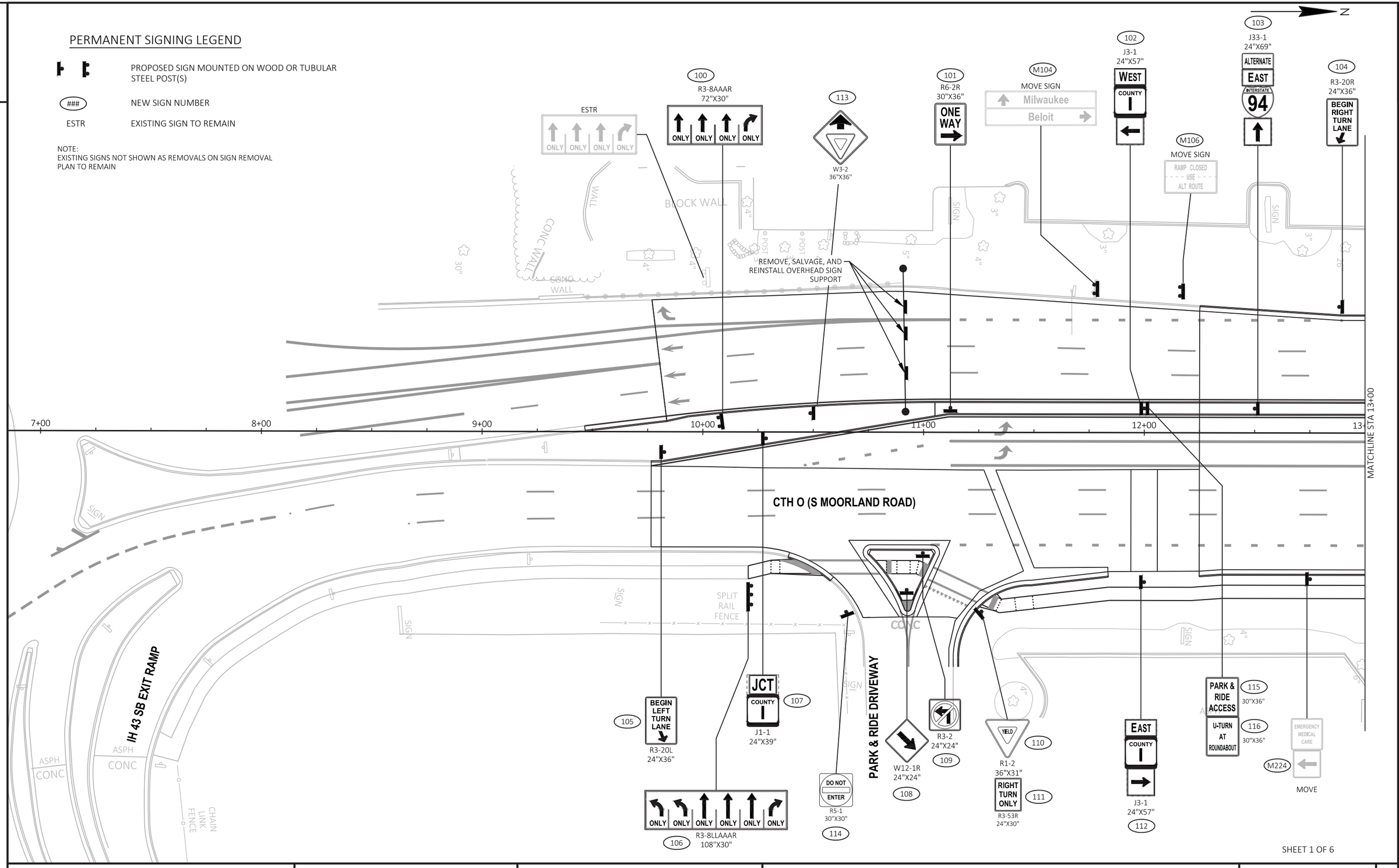
PERMANENT SIGNING LEGEND

PROPOSED SIGN MOUNTED ON WOOD OR TUBULAR STEEL POST(S)

(###) NEW SIGN NUMBER

ESTR EXISTING SIGN TO REMAIN

NOTE:
EXISTING SIGNS NOT SHOWN AS REMOVALS ON SIGN REMOVAL PLAN TO REMAIN



SHEET 1 OF 6

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PERMANENT SIGNING - CTH O	SHEET 98	E

2

N

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

W2-6 30"X30"
200
202
W13-1 18"X18"
201
203
15 MPH

209
210
211
STOP
R1-1F 30"X30"

204
M1-5A 24"X24"
COUNTY O

205
206
J1-1 24"X39"
JCT INTERSTATE 43

208
R4-7 24"X30"

207
R1-1F 36"X36"
STOP

W12-1D 24"X24"
212

216
R3-4 24"X24"

217
STOP
R1-1F 30"X30"

O S MOORLAND RD

250
M1-94S 96"X18"
ON MONOTUBE ARM

YIELD
R1-2 48"X42"
220

223
224
R1-1F 36"X36"
STOP

M213
MOVE
EMERGENCY MEDICAL CARE

226
R3-7R 30"X30"
RIGHT LANE MUST TURN RIGHT

227
J3-1 24"X57"
EAST COUNTY I

228
J3-1 24"X57"
WEST COUNTY I

99+00

1218
219
R10-3ER 9"X15"

R10-2 9"X12"
257
258
256
RIGHT TURN ON RED MUST YIELD TO U-TURN
R10-30 30"X36"

255
RIGHT TURN ON RED MUST YIELD TO U-TURN
R10-30 30"X36"

R10-3ER 9"X15"
214
R10-3EL 9"X15"
213
215
R4-7 24"X30"

249
I W BELOIT RD
M1-94S 90"X18" ON MONOTUBE ARM

259
R3-50U 30"X36"

260
ONLY
R3-50L 30"X36"

W12-1D 24"X24"
221
222

251
R1-1F 36"X36"
STOP

261
R3-4 24"X24"

13+00
14+00
15+00
16+00
17+00
18+00
19+00

MATCHLINE STA 13+00

MATCHLINE STA 19+00

CTH O (S MOORLAND ROAD)

254
R3-8UL 36"X30"
ONLY

R10-3ED 9"X15"
253

261
R10-3ED 9"X15"

R10-3EL 9"X15"
236

238
R4-7 24"X30"

242
R10-3ER 9"X15"

246
R4-7 24"X30"

237
R10-3ER 9"X15"

239
R3-4 24"X24"

101+00

233
234
STOP
R1-1F 36"X36"

YIELD
R1-2 48"X42"
235

231
232
W12-1D 24"X24"

STOP
R1-1F 36"X36"
241

STOP
R1-1F 36"X36"
240

252
M1-94S 96"X18" ON MONOTUBE ARM
Q S MOORLAND RD

MATCHLINE STA 101+75

248
I W BELOIT RD
M1-94S 90"X18" ON MONOTUBE ARM

243
R10-3ER 9"X15"

YIELD
R1-2 48"X42"
245

244
W12-1D 24"X24"

247
SPEED LIMIT 40
R2-1 30"X36"

ESTR
SPEED LIMIT 40

ESTR
ONE WAY

ESTR

RIGHT LANE MUST TURN RIGHT
R3-7R 30"X30"
229

WRONG WAY
R5-1A 42"X30"
230

CONC WALL
CONC
CONC
BRICK WALL
GATE
CONC
SIGN
CONC
SIGN

NOTE:
EXISTING SIGNS NOT SHOWN AS REMOVALS ON SIGN REMOVAL PLAN TO REMAIN

PERMANENT SIGNING LEGEND

	PROPOSED SIGN MOUNTED ON WOOD OR TUBULAR STEEL POST(S)
###	NEW SIGN NUMBER
ESTR	EXISTING SIGN TO REMAIN

SHEET 2 OF 6

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PERMANENT SIGNING - CTH O	SHEET	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\023203-PS.DWG
LAYOUT NAME - 02

PLOT DATE : 7/28/2019 8:32 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

PERMANENT SIGNING LEGEND

	PROPOSED SIGN MOUNTED ON WOOD OR TUBULAR STEEL POST(S)
###	NEW SIGN NUMBER
ESTR	EXISTING SIGN TO REMAIN

NOTE:
EXISTING SIGNS NOT SHOWN AS REMOVALS ON SIGN REMOVAL PLAN TO REMAIN

300
R3-8LLAAAR
108"X30"
ONLY ONLY ONLY ONLY ONLY ONLY

302
J33-1
24"X69"
ALTERNATE
EAST
INTERSTATE
94

301
BEGIN LEFT TURN LANE
R3-20L
24"X36"

ESTR
JCT
COUNTY
I

FROEDERT DRIVEWAY

ASPH

ROCK WALL

CONC

MATCHLINE STA 19+00

20+00 21+00 22+00 23+00 24+00 25+00

ONE WAY
R6-2R
30"X36"

303

CTH O (S MOORLAND ROAD)

ESTR
ONLY ONLY ONLY ONLY ONLY

SIGN

ESTR
WRONG WAY

ESTR
DO NOT ENTER

TARGET DRIVEWAY

SIGN

CONC

SHEET 3 OF 6

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PERMANENT SIGNING - CTH O	SHEET 100	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\023203-PS.DWG
LAYOUT NAME - 03

PLOT DATE : 7/28/2019 8:32 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

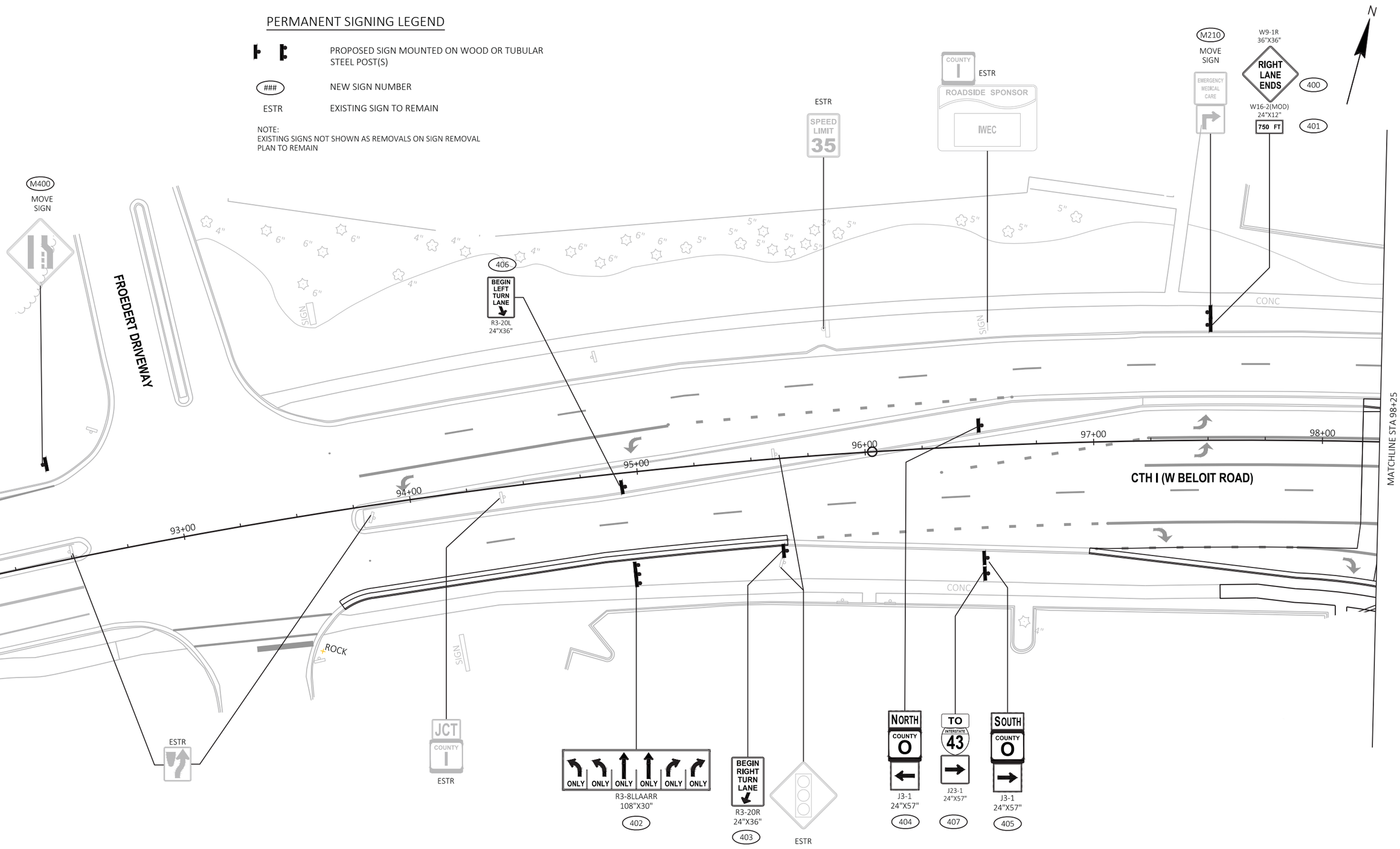
PERMANENT SIGNING LEGEND

PROPOSED SIGN MOUNTED ON WOOD OR TUBULAR STEEL POST(S)

(###) NEW SIGN NUMBER

ESTR EXISTING SIGN TO REMAIN

NOTE:
EXISTING SIGNS NOT SHOWN AS REMOVALS ON SIGN REMOVAL PLAN TO REMAIN



SHEET 4 OF 6

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PERMANENT SIGNING - CTH I	SHEET 101	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\023203-PS.DWG
LAYOUT NAME - 04

PLOT DATE : 7/28/2019 8:32 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

PERMANENT SIGNING LEGEND

PROPOSED SIGN MOUNTED ON WOOD OR TUBULAR STEEL POST(S)

NEW SIGN NUMBER

ESTR EXISTING SIGN TO REMAIN

NOTE:
EXISTING SIGNS NOT SHOWN AS REMOVALS ON SIGN REMOVAL PLAN TO REMAIN

N

500 BEGIN RIGHT TURN LANE R3-20R 24"X36"

501 J3-1 24"X57" NORTH COUNTY O

ESTR ALTERNATE SOUTH INTERSTATE 43

502 R6-2R 30"X36" ONE WAY

503 R3-2 36"X36"

ESTR STOP

ESTR

504 R4-7 24"X30"

ESTR

505 DO NOT ENTER R5-1 36"X36"

ESTR RIGHT LANE MUST TURN RIGHT

CTH I (W BELOIT ROAD)

MATCHLINE STA 101+75

MATCHLINE STA 107+50

102+00 103+00 104+00 105+00 106+00 107+00

CONC

ESTR COUNTY I

ESTR

ESTR SPEED LIMIT 40

513 J23-1 24"X57" TO INTERSTATE 43

506 J3-1 24"X57" SOUTH COUNTY O

507 W9-1R 36"X36" RIGHT LANE ENDS

508 W16-2(MOD) 24"X12" 750 FT

509 R3-2 36"X36"

510 R3-8LLAF 72"X30" ONLY ONLY ONLY

511 R5-1 36"X36" DO NOT ENTER

ESTR STOP

512 R6-2R 30"X36" ONE WAY

ESTR

ESTR ALTERNATE NORTH INTERSTATE 43

ESTR

SHEET 5 OF 6

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PERMANENT SIGNING - CTH I	SHEET 102	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\023203-PS.DWG
LAYOUT NAME - 05

PLOT DATE : 7/30/2019 5:16 PM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

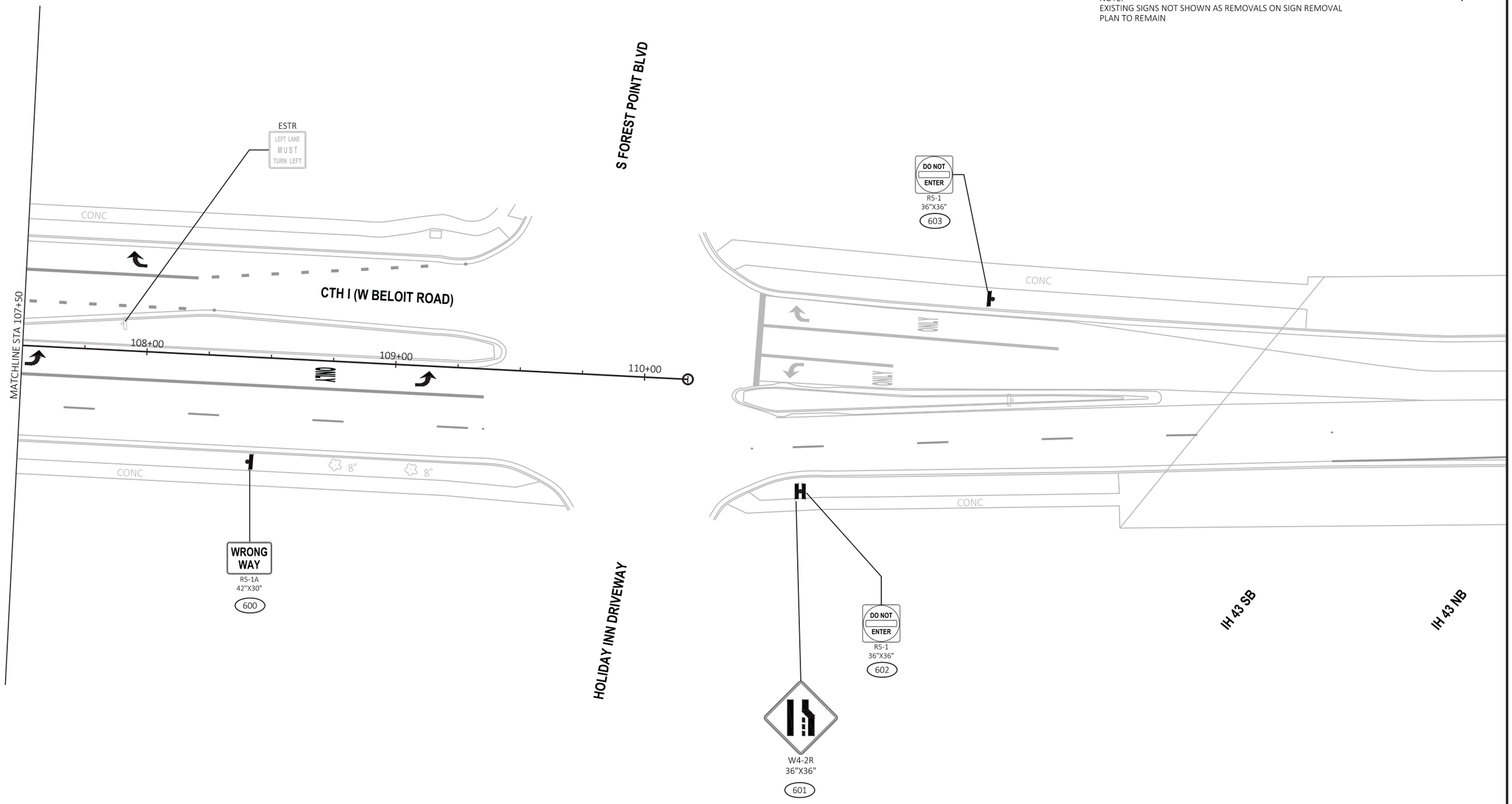
2

PERMANENT SIGNING LEGEND

	PROPOSED SIGN MOUNTED ON WOOD OR TUBULAR STEEL POST(S)
###	NEW SIGN NUMBER
ESTR	EXISTING SIGN TO REMAIN

NOTE:
EXISTING SIGNS NOT SHOWN AS REMOVALS ON SIGN REMOVAL PLAN TO REMAIN

N



SHEET 6 OF 6

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PERMANENT SIGNING - CTH I	SHEET 103	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\023203-PS.DWG
LAYOUT NAME - 06
PLOT DATE : 7/28/2019 8:32 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

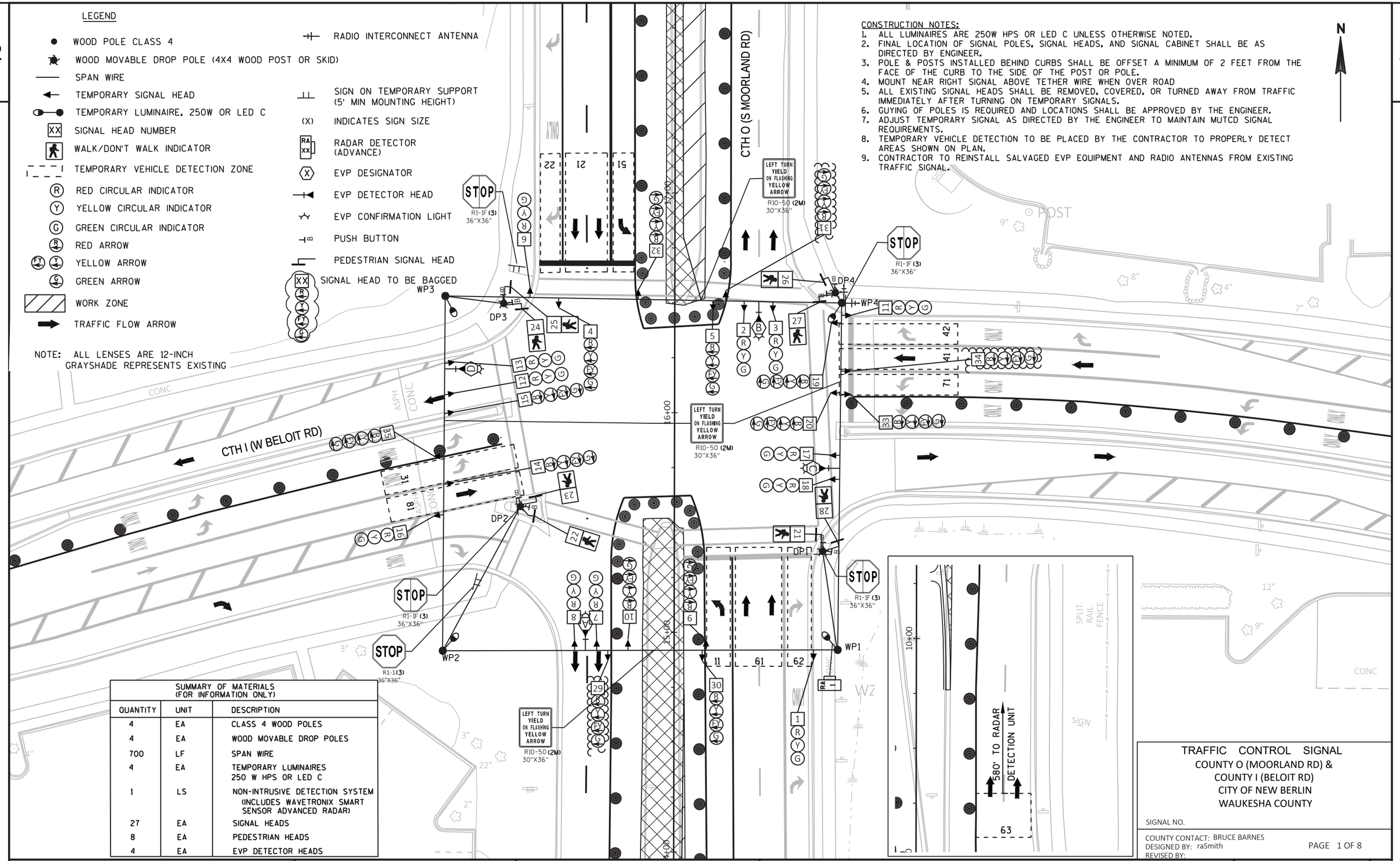
LEGEND

- WOOD POLE CLASS 4
- WOOD MOVABLE DROP POLE (4X4 WOOD POST OR SKID)
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W OR LED C
- XX SIGNAL HEAD NUMBER
- WALK/DON'T WALK INDICATOR
- TEMPORARY VEHICLE DETECTION ZONE
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WORK ZONE
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

- RADIO INTERCONNECT ANTENNA
- SIGN ON TEMPORARY SUPPORT (5' MIN MOUNTING HEIGHT)
- (X) INDICATES SIGN SIZE
- RA XX RADAR DETECTOR (ADVANCE)
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIRMATION LIGHT
- PUSH BUTTON
- PEDESTRIAN SIGNAL HEAD
- XX SIGNAL HEAD TO BE BAGGED

CONSTRUCTION NOTES:
1. ALL LUMINAIRES ARE 250W HPS OR LED C UNLESS OTHERWISE NOTED.
2. FINAL LOCATION OF SIGNAL POLES, SIGNAL HEADS, AND SIGNAL CABINET SHALL BE AS DIRECTED BY ENGINEER.
3. POLE & POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF THE CURB TO THE SIDE OF THE POST OR POLE.
4. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD
5. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
6. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
7. ADJUST TEMPORARY SIGNAL AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
8. TEMPORARY VEHICLE DETECTION TO BE PLACED BY THE CONTRACTOR TO PROPERLY DETECT AREAS SHOWN ON PLAN.
9. CONTRACTOR TO REINSTALL SALVAGED EVP EQUIPMENT AND RADIO ANTENNAS FROM EXISTING TRAFFIC SIGNAL.



SUMMARY OF MATERIALS
(FOR INFORMATION ONLY)

QUANTITY	UNIT	DESCRIPTION
4	EA	CLASS 4 WOOD POLES
4	EA	WOOD MOVABLE DROP POLES
700	LF	SPAN WIRE
4	EA	TEMPORARY LUMINAIRES 250 W HPS OR LED C
1	LS	NON-INTRUSIVE DETECTION SYSTEM (INCLUDES WAVETRONIX SMART SENSOR ADVANCED RADAR)
27	EA	SIGNAL HEADS
8	EA	PEDESTRIAN HEADS
4	EA	EVP DETECTOR HEADS

TRAFFIC CONTROL SIGNAL
COUNTY O (MOORLAND RD) &
COUNTY I (BELOIT RD)
CITY OF NEW BERLIN
WAUKESHA COUNTY

SIGNAL NO.

COUNTY CONTACT: BRUCE BARNES
DESIGNED BY: raSmith
REVISED BY:

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1/3	SHEET 104	E

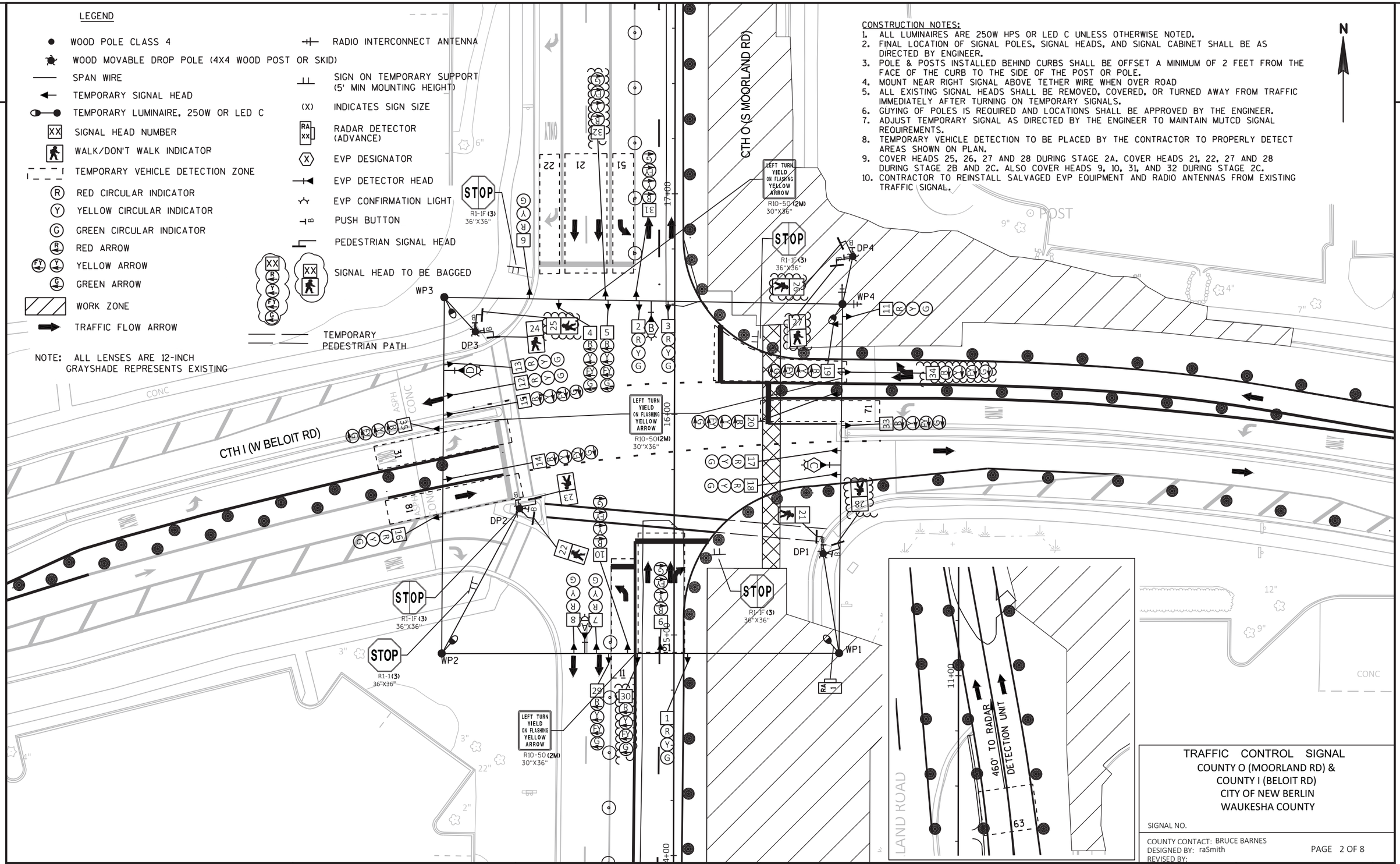
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024101-ST-1-3.DWG
LAYOUT NAME - Plan 1 IN 40 FT
PLOT DATE : 7/29/2019 3:00 PM
PLOT BY : GUILLAMA, TINA
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

LEGEND

- WOOD POLE CLASS 4
- WOOD MOVABLE DROP POLE (4X4 WOOD POST OR SKID)
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W OR LED C
- XX SIGNAL HEAD NUMBER
- WALK/DON'T WALK INDICATOR
- TEMPORARY VEHICLE DETECTION ZONE
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (FY) (Y) YELLOW ARROW
- (G) GREEN ARROW
- WORK ZONE
- TRAFFIC FLOW ARROW
- RADIO INTERCONNECT ANTENNA
- SIGN ON TEMPORARY SUPPORT (5' MIN MOUNTING HEIGHT)
- (X) INDICATES SIGN SIZE
- RA XX RADAR DETECTOR (ADVANCE)
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIRMATION LIGHT
- B PUSH BUTTON
- PEDESTRIAN SIGNAL HEAD
- SIGNAL HEAD TO BE BAGGED
- TEMPORARY PEDESTRIAN PATH

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:
1. ALL LUMINAIRES ARE 250W HPS OR LED C UNLESS OTHERWISE NOTED.
2. FINAL LOCATION OF SIGNAL POLES, SIGNAL HEADS, AND SIGNAL CABINET SHALL BE AS DIRECTED BY ENGINEER.
3. POLE & POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF THE CURB TO THE SIDE OF THE POST OR POLE.
4. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD
5. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
6. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
7. ADJUST TEMPORARY SIGNAL AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
8. TEMPORARY VEHICLE DETECTION TO BE PLACED BY THE CONTRACTOR TO PROPERLY DETECT AREAS SHOWN ON PLAN.
9. COVER HEADS 25, 26, 27 AND 28 DURING STAGE 2A. COVER HEADS 21, 22, 27 AND 28 DURING STAGE 2B AND 2C. ALSO COVER HEADS 9, 10, 31, AND 32 DURING STAGE 2C.
10. CONTRACTOR TO REINSTALL SALVAGED EVP EQUIPMENT AND RADIO ANTENNAS FROM EXISTING TRAFFIC SIGNAL.



N

TRAFFIC CONTROL SIGNAL
COUNTY O (MOORLAND RD) &
COUNTY I (BELOIT RD)
CITY OF NEW BERLIN
WAUKESHA COUNTY

SIGNAL NO.

COUNTY CONTACT: BRUCE BARNES
DESIGNED BY: raSmith
REVISED BY:

PAGE 2 OF 8

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A/2B/2C	SHEET 105	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024102-ST-2A-2C.DWG
LAYOUT NAME - Plan 1 IN 40 FT

PLOT DATE : 7/29/2019 3:06 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- WOOD POLE CLASS 4
- WOOD MOVABLE DROP POLE (4X4 WOOD POST OR SKID)
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W OR LED C
- XX SIGNAL HEAD NUMBER
- WALK/DON'T WALK INDICATOR
- TEMPORARY VEHICLE DETECTION ZONE
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (FY) (Y) YELLOW ARROW
- (G) GREEN ARROW
- WORK ZONE
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

- RADIO INTERCONNECT ANTENNA
- SIGN ON TEMPORARY SUPPORT (5' MIN MOUNTING HEIGHT)
- (X) INDICATES SIGN SIZE
- RA XX RADAR DETECTOR (ADVANCE)
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIRMATION LIGHT
- PUSH BUTTON
- PEDESTRIAN SIGNAL HEAD
- SIGNAL HEAD TO BE BAGGED
- TEMPORARY PEDESTRIAN PATH

CONSTRUCTION NOTES:

1. ALL LUMINAIRES ARE 250W HPS OR LED C UNLESS OTHERWISE NOTED.
2. FINAL LOCATION OF SIGNAL POLES, SIGNAL HEADS, AND SIGNAL CABINET SHALL BE AS DIRECTED BY ENGINEER.
3. POLE & POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF THE CURB TO THE SIDE OF THE POST OR POLE.
4. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD
5. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
6. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
7. ADJUST TEMPORARY SIGNAL AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
8. TEMPORARY VEHICLE DETECTION TO BE PLACED BY THE CONTRACTOR TO PROPERLY DETECT AREAS SHOWN ON PLAN.
9. CONTRACTOR TO REINSTALL SALVAGED EVP EQUIPMENT AND RADIO ANTENNAS FROM EXISTING TRAFFIC SIGNAL.

CTH O (S MOORLAND RD)
CTH I (W BELOIT RD)
STOP R1-1F (3) 36"X36"
STOP R1-1 (3) 36"X36"
LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50 (2M) 30"X36"
LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-80 (2M) 30"X36"
DP1
DP2
DP3
DP4
WP1
WP2
WP3
WP4
17+00
16+00
15+00
11+00
4+00
460' TO RADAR DETECTION UNIT
63
61
41
POST
CONC
ASPHALT
N

TRAFFIC CONTROL SIGNAL
COUNTY O (MOORLAND RD) &
COUNTY I (BELOIT RD)
CITY OF NEW BERLIN
WAUKESHA COUNTY

SIGNAL NO.

COUNTY CONTACT: BRUCE BARNES
DESIGNED BY: raSmith
REVISED BY:

PAGE 3 OF 8

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2D	SHEET 106	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024103-ST-2D.DWG
LAYOUT NAME - Plan 1 IN 40 FT
PLOT DATE : 7/29/2019 3:09 PM
PLOT BY : GUILLAMA, TINA
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- WOOD POLE CLASS 4
- WOOD MOVABLE DROP POLE (4X4 WOOD POST OR SKID)
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W OR LED C
- SIGNAL HEAD NUMBER
- WALK/DON'T WALK INDICATOR
- TEMPORARY VEHICLE DETECTION ZONE
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WORK ZONE
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

- RADIO INTERCONNECT ANTENNA
- SIGN ON TEMPORARY SUPPORT (5' MIN MOUNTING HEIGHT)
- (X) INDICATES SIGN SIZE
- RADAR DETECTOR (ADVANCE)
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIRMATION LIGHT
- PUSH BUTTON
- PEDESTRIAN SIGNAL HEAD
- SIGNAL HEAD TO BE BAGGED
- TEMPORARY PEDESTRIAN PATH

CONSTRUCTION NOTES:

1. ALL LUMINAIRES ARE 250W HPS OR LED C UNLESS OTHERWISE NOTED.
2. FINAL LOCATION OF SIGNAL POLES, SIGNAL HEADS, AND SIGNAL CABINET SHALL BE AS DIRECTED BY ENGINEER.
3. POLE & POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF THE CURB TO THE SIDE OF THE POST OR POLE.
4. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD
5. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
6. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
7. ADJUST TEMPORARY SIGNAL AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
8. TEMPORARY VEHICLE DETECTION TO BE PLACED BY THE CONTRACTOR TO PROPERLY DETECT AREAS SHOWN ON PLAN.
9. BAG HEADS 4, 5, 29, & 30 DURING STAGE 4C.
10. MOVE DP3 ADJACENT TO TEMPORARY PEDESTRIAN SURFACE PLYWOOD DURING STAGE 4B AND STAGE 4C.
11. CONTRACTOR TO REINSTALL SALVAGED EVP EQUIPMENT AND RADIO ANTENNAS FROM EXISTING TRAFFIC SIGNAL.

N

CTH I (W BELOIT RD)

CTH O (S MOORLAND RD)

STOP R1-1F (3) 36"X36"

STOP R1-1 (3) 36"X36"

LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50 (2M) 30"X36"

DP1 DP2 DP3 DP4

WP1 WP2 WP3 WP4

580' TO RADAR DETECTION UNIT

SPLIT RAIL FENCE

SIGN

POST

CONC

ASPH

TRAFFIC CONTROL SIGNAL
COUNTY O (MOORLAND RD) &
COUNTY I (BELOIT RD)
CITY OF NEW BERLIN
WAUKESHA COUNTY

SIGNAL NO.

COUNTY CONTACT: BRUCE BARNES
DESIGNED BY: raSmith
REVISED BY:

PAGE 4 OF 8

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 4A/4B/4C	SHEET 107	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024104-ST-4A4B4C.DWG
LAYOUT NAME - Plan 1 IN 40 FT

PLOT DATE : 7/29/2019 3:10 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- WOOD POLE CLASS 4
- WOOD MOVABLE DROP POLE (4X4 WOOD POST OR SKID)
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W OR LED C
- XX SIGNAL HEAD NUMBER
- WALK/DON'T WALK INDICATOR
- TEMPORARY VEHICLE DETECTION ZONE
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (FY) (Y) YELLOW ARROW
- (G) GREEN ARROW
- WORK ZONE
- TRAFFIC FLOW ARROW
- RADIO INTERCONNECT ANTENNA
- SIGN ON TEMPORARY SUPPORT (5' MIN MOUNTING HEIGHT)
- (X) INDICATES SIGN SIZE
- RA XX RADAR DETECTOR (ADVANCE)
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIRMATION LIGHT
- PUSH BUTTON
- PEDESTRIAN SIGNAL HEAD
- SIGNAL HEAD TO BE BAGGED

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:
1. ALL LUMINAIRES ARE 250W HPS OR LED C UNLESS OTHERWISE NOTED.
2. FINAL LOCATION OF SIGNAL POLES, SIGNAL HEADS, AND SIGNAL CABINET SHALL BE AS DIRECTED BY ENGINEER.
3. POLE & POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF THE CURB TO THE SIDE OF THE POST OR POLE.
4. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD
5. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
6. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
7. ADJUST TEMPORARY SIGNAL AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
8. TEMPORARY VEHICLE DETECTION TO BE PLACED BY THE CONTRACTOR TO PROPERLY DETECT AREAS SHOWN ON PLAN.
9. CONTRACTOR TO REINSTALL SALVAGED EVP EQUIPMENT AND RADIO ANTENNAS FROM EXISTING TRAFFIC SIGNAL.

N

CTH O (S MOORLAND RD)

CTH I (W BELOIT RD)

STOP R1-1F (3) 36"X36"

STOP R1-1 (3) 36"X36"

LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50 (2M) 30"X36"

580' TO RADAR DETECTION UNIT

SPLIT RAIL FENCE

CONC

POST

WP1 WP2 WP3 WP4

DP1 DP2 DP3 DP4

TRAFFIC CONTROL SIGNAL
COUNTY O (MOORLAND RD) &
COUNTY I (BELOIT RD)
CITY OF NEW BERLIN
WAUKESHA COUNTY

SIGNAL NO.

COUNTY CONTACT: BRUCE BARNES
DESIGNED BY: raSmith
REVISED BY:

PAGE 5 OF 8

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 4D	SHEET 108	E

LEGEND

- WOOD POLE CLASS 4
- WOOD MOVABLE DROP POLE (4X4 WOOD POST OR SKID)
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W OR LED C
- XX SIGNAL HEAD NUMBER
- WALK/DON'T WALK INDICATOR
- TEMPORARY VEHICLE DETECTION ZONE
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- FY Y YELLOW ARROW
- G GREEN ARROW
- WORK ZONE
- TRAFFIC FLOW ARROW
- RADIO INTERCONNECT ANTENNA
- SIGN ON TEMPORARY SUPPORT (5' MIN MOUNTING HEIGHT)
- (X) INDICATES SIGN SIZE
- RA XX RADAR DETECTOR (ADVANCE)
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIRMATION LIGHT
- PUSH BUTTON
- PEDESTRIAN SIGNAL HEAD
- XX SIGNAL HEAD TO BE BAGGED

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:
1. ALL LUMINAIRES ARE 250W HPS OR LED C UNLESS OTHERWISE NOTED.
2. FINAL LOCATION OF SIGNAL POLES, SIGNAL HEADS, AND SIGNAL CABINET SHALL BE AS DIRECTED BY ENGINEER.
3. POLE & POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF THE CURB TO THE SIDE OF THE POST OR POLE.
4. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD
5. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
6. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
7. ADJUST TEMPORARY SIGNAL AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
8. TEMPORARY VEHICLE DETECTION TO BE PLACED BY THE CONTRACTOR TO PROPERLY DETECT AREAS SHOWN ON PLAN.
9. CONTRACTOR TO REINSTALL SALVAGED EVP EQUIPMENT AND RADIO ANTENNAS FROM EXISTING TRAFFIC SIGNAL.

N

CTH O (S MOORLAND RD)

CTH I (W BELOIT RD)

STOP R1-1F (3) 36"X36"

STOP R1-1 (3) 36"X36"

LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50 (2M) 30"X36"

WP1 WP2 WP3 WP4

DP1 DP2

16+00 15+00 14+00 10+00

580' TO RADAR DETECTION UNIT

SPLIT RAIL FENCE

SIGN

POST

CONC

TRAFFIC CONTROL SIGNAL
COUNTY O (MOORLAND RD) & COUNTY I (BELOIT RD)
CITY OF NEW BERLIN
WAUKESHA COUNTY

SIGNAL NO.

COUNTY CONTACT: BRUCE BARNES
DESIGNED BY: raSmith
REVISED BY:

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 5A	SHEET 109	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024106-ST-5A.DWG
LAYOUT NAME - Plan 1 IN 40 FT

PLOT DATE : 7/29/2019 3:13 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- WOOD POLE CLASS 4
- WOOD MOVABLE DROP POLE (4X4 WOOD POST OR SKID)
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W OR LED C
- SIGNAL HEAD NUMBER
- WALK/DON'T WALK INDICATOR
- TEMPORARY VEHICLE DETECTION ZONE
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WORK ZONE
- TRAFFIC FLOW ARROW
- RADIO INTERCONNECT ANTENNA
- SIGN ON TEMPORARY SUPPORT (5' MIN MOUNTING HEIGHT)
- (X) INDICATES SIGN SIZE
- RADAR DETECTOR (ADVANCE)
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIRMATION LIGHT
- PUSH BUTTON
- PEDESTRIAN SIGNAL HEAD
- SIGNAL HEAD TO BE BAGGED

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:
1. ALL LUMINAIRES ARE 250W HPS OR LED C UNLESS OTHERWISE NOTED.
2. FINAL LOCATION OF SIGNAL POLES, SIGNAL HEADS, AND SIGNAL CABINET SHALL BE AS DIRECTED BY ENGINEER.
3. POLE & POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF THE CURB TO THE SIDE OF THE POST OR POLE.
4. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD
5. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
6. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
7. ADJUST TEMPORARY SIGNAL AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
8. TEMPORARY VEHICLE DETECTION TO BE PLACED BY THE CONTRACTOR TO PROPERLY DETECT AREAS SHOWN ON PLAN.
9. CONTRACTOR TO REINSTALL SALVAGED EVP EQUIPMENT AND RADIO ANTENNAS FROM EXISTING TRAFFIC SIGNAL.

CTH I (W BELOIT RD)

CTH O (S MOORLAND RD)

STOP R1-1F (3) 36"X36"

STOP R1-1 (3) 36"X36"

LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50 (2M) 30"X36"

WP1 WP2 WP3 WP4

DP1 DP2 DP3 DP4

17+00 16+00 15+00 14+00 10+00

580' TO RADAR DETECTION UNIT

SPLIT RAIL FENCE

POST

CONC ASPH

TRAFFIC CONTROL SIGNAL
COUNTY O (MOORLAND RD) &
COUNTY I (BELOIT RD)
CITY OF NEW BERLIN
WAUKESHA COUNTY

SIGNAL NO.

COUNTY CONTACT: BRUCE BARNES
DESIGNED BY: raSmith
REVISED BY:

PAGE 7 OF 8

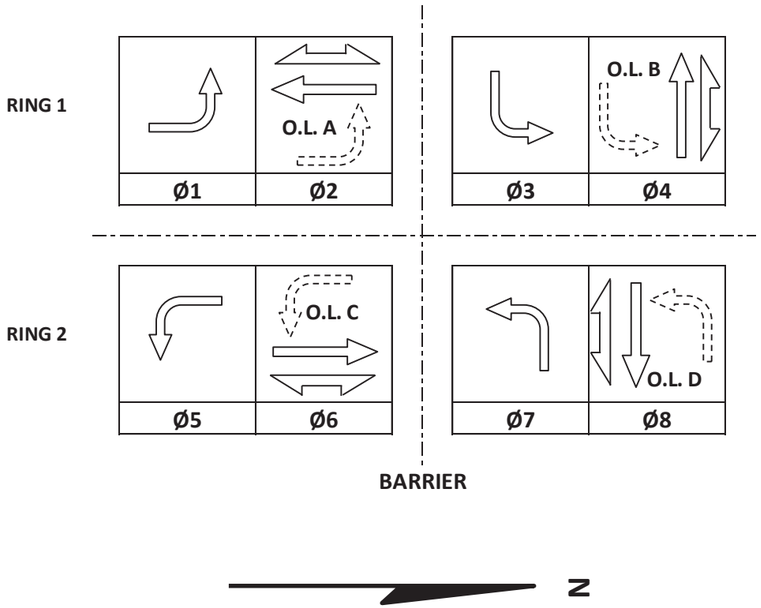
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 5B	SHEET 110	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024107-ST-5B.DWG
LAYOUT NAME - Plan 1 IN 40 FT

PLOT DATE : 7/29/2019 3:16 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	4,5,29,30	R ←
Ø2	6,7,8	R
Ø3	19,20,35	R ←
Ø4	11,12,13	R
Ø5	9,10,31,32	R ←
Ø6	1,2,3	R
Ø7	14,15,33,34	R ←
Ø8	16,17,18	R
Ø2P	23,24	
Ø4P	25,26	
Ø6P	27,28	
Ø8P	21,22	
OLA	4,5,29,30	-
OLB	19,20,35	-
OLC	9,10,31,32	-
OLD	14,15,33,34	-



N

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. OMIT ANY PHASES DURING STAGES WHERE VEHICULAR AND PEDESTRIAN MOVEMENTS ARE RESTRICTED. SEE TEMPORARY SIGNAL PLANS FOR MORE DETAILS.
3. RADAR DETECTION ZONE 63 IS FOR QUEUE DETECTION TO ACTIVATE OR EXTEND PHASE 6.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	X
CELL MODEM	

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	X

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29
PLAN LOOP DETECTOR*(S)	11	21	31	41	51	61	63	71	81							
ASSIGNED PHASE	1	2	3	4	5	6	6	7	8							
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
SWITCH	2		4		6			8								
EXTEND	X	X	X	X	X	X	X	X	X							
DELAY																

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30
PLAN LOOP DETECTOR*(S)		22		42		62										
ASSIGNED PHASE		2		4		6										
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
SWITCH																
EXTEND		X		X		X										
DELAY		X		X		X										

DUE TO PATH OVERLAP DURING SOME CONSTRUCTION STAGES, LEAD/LAG PROTECTED ONLY LEFT-TURN PHASING WILL BE REQUIRED AT TIMES. PLEASE REFER TO THE FOLLOWING CHART AND THE TIMING PLAN FOR DETAILS:

	LEFT-TURN PHASE TYPE	
STAGE*	CTH O	CTH I
1	PROTECTED ONLY	PROT/PERM
2	PROT/PERM	PROT/PERM
3	PROTECTED ONLY	PROT/PERM
4	PROT/PERM	PROT/PERM
5A	PROTECTED ONLY	PROTECTED ONLY
5B	(NO LEFT TURNS)	(NO LEFT TURNS)

*NOTE: SOME LEFT-TURN MOVEMENTS MAY BE RESTRICTED AND BAGGED DURING CERTAIN SUBSTAGES.

CTH O (S. MOORLAND ROAD) & CTH I (BELOIT ROAD)
CITY OF NEW BERLIN
WAUKESHA COUNTY

SIGNAL NO: CABINET TYPE: TEMP
CONTROLLER TYPE: TEMP
DATE: 6/2019 PAGE NO. 8 OF 8

LEGEND

- CONTROL CABINET
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- SIGNAL HEAD, DUAL MOUNT TRAFFIC SIGNAL POLE, 20-FOOT, TRANSFORMER BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- (XX) MONOTUBE BASE, POLE, XX' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING UTILITY LOCATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP WIRE AND LOOP DETECTOR LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. EXISTING CONDUIT RUNS TO REMAIN IN PLACE. CONTRACTOR TO REMOVE CONDUCTORS REMAINING IN CONDUIT.
4. ALL SALVAGED EQUIPMENT SHALL BE STOCKPILED ON SITE, AND RETURNED TO WAUKESHA COUNTY DPW - ENGINEERING SERVICES. CONTACT BRUCE BARNES AT (262) 548-7748.
5. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.

CTH I (W BELOIT RD)

CTH O (S MOORLAND RD)

CTH O (S MOORLAND RD)

CTH I (W BELOIT RD)

PB1 PB2 PB3 PB4 PB5 PB6 PB7 PB8 PB9 PB10 PB11 PB12 PB13 PB14 PB15 PB16 PB17 PB18 PB19 PB20 PB22

SB1 SB2 SB3 SB4 SB6 SB7 SB8 SB9 SB10 SB11 SB12 SB13 SB14

CB1

ABANDON

- EVP DESIGNATOR
- EVP DETECTOR HEAD
- VX VIDEO DETECTION CAMERA
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 12" / WALK INDICATOR 12"
- RADIO ANTENNA (5.8 GHZ)

TRAFFIC CONTROL SIGNAL
CTH O (MOORLAND RD) & CTH I (BELOIT RD)
CITY OF NEW BERLIN
WAUKESHA COUNTY

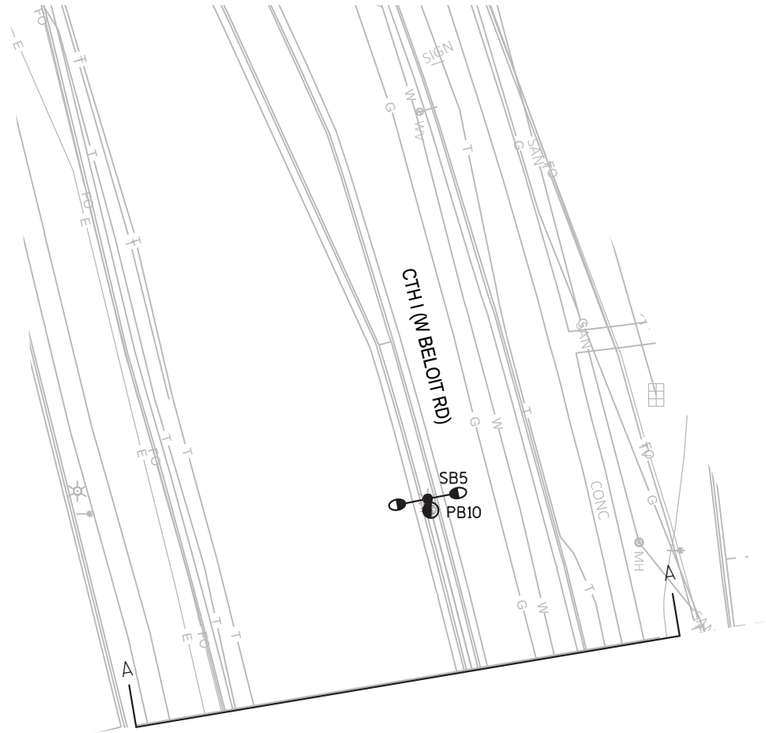
COUNTY CONTACT: BRUCE BARNES
DESIGNED BY: rdSmith
REVISED BY:

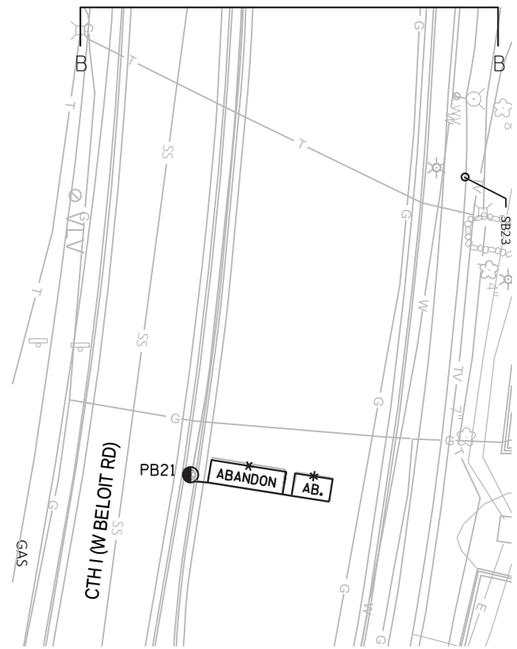
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 112	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024203-SR.DWG
LAYOUT NAME - Plan 1 IN 40 FT
PLOT DATE : 5/28/2019 3:33 PM
PLOT BY : GUILLAMA, TINA
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N





TRAFFIC CONTROL SIGNAL
CTH O (MOORLAND RD) & CTH I (BELOIT RD)
CITY OF NEW BERLIN
WAUKESHA COUNTY

COUNTY CONTACT: BRUCE BARNES
DESIGNED BY: raSmith
REVISED BY:

PAGE 2 OF 2

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 113	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024203-SR.DWG
LAYOUT NAME - Plan 1 IN 40 FT (2)

PLOT DATE : 5/28/2019 3:33 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (xx) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- (xx) MONOTUBE BASE, POLE, 15'-30' ARM
- (xx) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- VIDEO DETECTION AREA
- VX VIDEO DETECTION CAMERA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- RADIO INTERCONNECT ANTENNA
- OVERHEAD STREET NAME SIGN
- Y YIELD SIGN
- EVP CONFIRMATION LIGHT

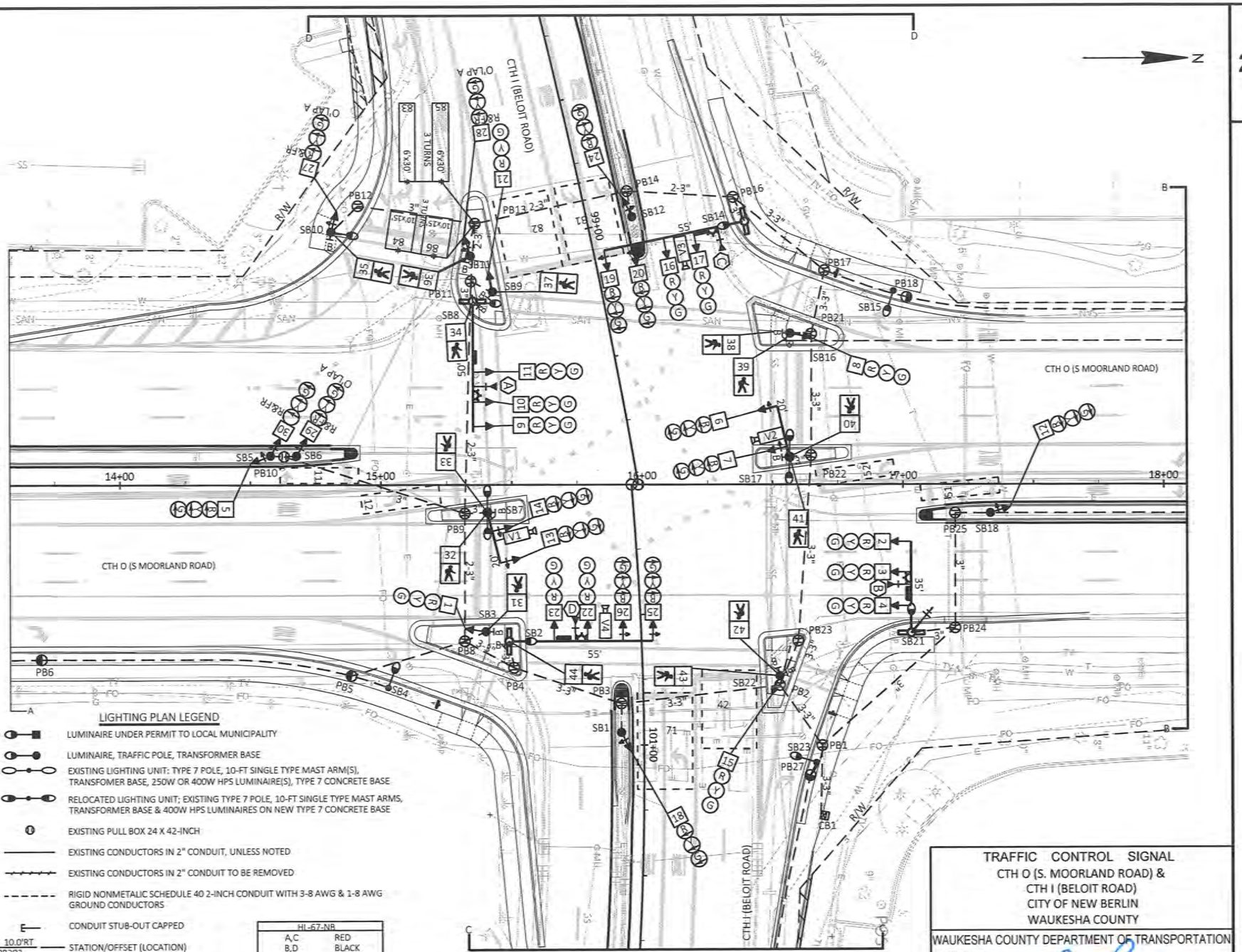
NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
2. TRAFFIC SIGNAL/HIGHWAY LIGHTING BASE INCLUDES HYDRO EXCAVATING INSTALLATION BY CONTRACTOR FOR AVOIDING EXISTING UTILITIES.
3. ALL SIGNAL EQUIPMENT SHALL BE INSTALLED WITH A 2-FOOT MINIMUM, 3-FOOT DESIRABLE CLEARANCE TO THE FACE OF THE CURB UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
4. THE CONDUIT EMBEDDED IN A TYPE 10 OR TYPE 13 CONCRETE BASE SHALL BE 3" CONDUIT.
5. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED BEFORE PLACING SIGNAL CABLE INTO THE SYSTEM.
6. BOND ALL METAL PULL BOXES AND ASSOCIATED COVERS THAT CONTAIN CONDUCTORS CARRYING 50 VOLTS OR MORE.
7. TERMINATION OF BONDING JUMPERS IN PULL BOXES TO BE LUG AND BOLT CONNECTIONS AND ARE TO BE CAULKED (SILICONE) AFTER INSTALLATION.
8. ALL CONDUIT RUNS SHALL HAVE EXTRA PULL WIRE INSTALLED TO PULL FUTURE CABLE. THE COST SHALL BE INCIDENTAL TO TRAFFIC SIGNAL CABLE NO. 14.
9. ALL LUMINAIRES SHOWN ARE LED C, MOUNTED ON 10-FOOT LUMINARE ARMS.
10. SEE SIGNING PLAN FOR ADDITIONAL SIGNING DETAILS AND REQUIREMENTS.
11. VIDEO ZONES SHOWN ARE APPROXIMATE.
12. RE-INSTALL EVP DETECTOR HEADS FROM TEMPORARY SIGNAL.

LIGHTING NOTES:

1. EXISTING LIGHTING UNIT TO BE REMOVED, STORED AND PROTECTED FOR RE-INSTALLATION. EXISTING CONCRETE BASE TO BE REMOVED.
2. EXISTING LIGHTING UNIT TO BE REINSTALLED AT ORIGINAL LOCATION WITH NEW CONCRETE BASE.
3. EXISTING CONDUCTORS FROM PILE DNB1 TO LPB202 TO POLE CNB6/DNB6 TO BE REMOVED, INTERCEPT AND CONNECT EXISTING CONDUIT TO REMAIN TO NEW CONDUIT AND PROVIDE NEW 3-8 AWG & 1 - 8 AWG GROUND CONDUCTORS FROM POLE DN81 TO LPB8202 TO POLE CNB6/DNB6. EXISTING CONDUCTORS FROM DNB1 TO LPB202 TO CNB2 AND FROM DNB1 TO LPB202 TO LPB203 TO CNB5 TO REMAIN. NO SPLICES ALLOWED IN PULL BOX.
4. RELOCATED LIGHTING UNIT ON NEW CONCRETE BASE.



LIGHTING PLAN LEGEND

- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- EXISTING LIGHTING UNIT: TYPE 7 POLE, 10-FT SINGLE TYPE MAST ARM(S), TRANSFOMER BASE, 250W OR 400W HPS LUMINAIRE(S), TYPE 7 CONCRETE BASE
- RELOCATED LIGHTING UNIT; EXISTING TYPE 7 POLE, 10-FT SINGLE TYPE MAST ARMS, TRANSFORMER BASE & 400W HPS LUMINAIRES ON NEW TYPE 7 CONCRETE BASE
- EXISTING PULL BOX 24 X 42-INCH
- EXISTING CONDUCTORS IN 2" CONDUIT, UNLESS NOTED
- EXISTING CONDUCTORS IN 2" CONDUIT TO BE REMOVED
- RIGID NONMETALIC SCHEDULE 40 2-INCH CONDUIT WITH 3-8 AWG & 1-8 AWG GROUND CONDUCTORS
- E CONDUIT STUB-OUT CAPPED
- STA 12+00, 10.0'RT — STATION/OFFSET (LOCATION)
- CNB7 OR LPB202 — POLE BOX NUMBER
- POLE NUMBER
- CONTROL CABINET (SOURCE)
- CIRCUIT

HI-67-NB	
A,C	RED
B,D	BLACK
N	WHITE
GND	GREEN
240/480. 3-WIRE ISOLATED NEUTRAL	

TRAFFIC CONTROL SIGNAL
CTH O (S. MOORLAND ROAD) &
CTH I (BELOIT ROAD)
CITY OF NEW BERLIN
WAUKESHA COUNTY

WAUKESHA COUNTY DEPARTMENT OF TRANSPORTATION

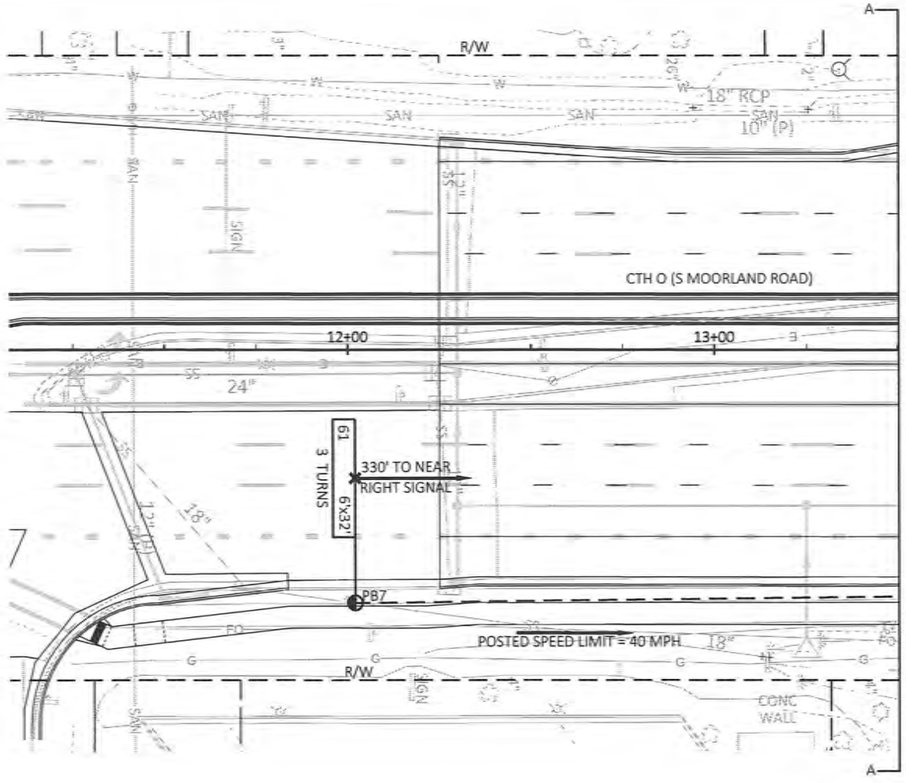
APPROVED
DATE 12/8/19 Bruce Barnes
TRAFFIC ENGINEER

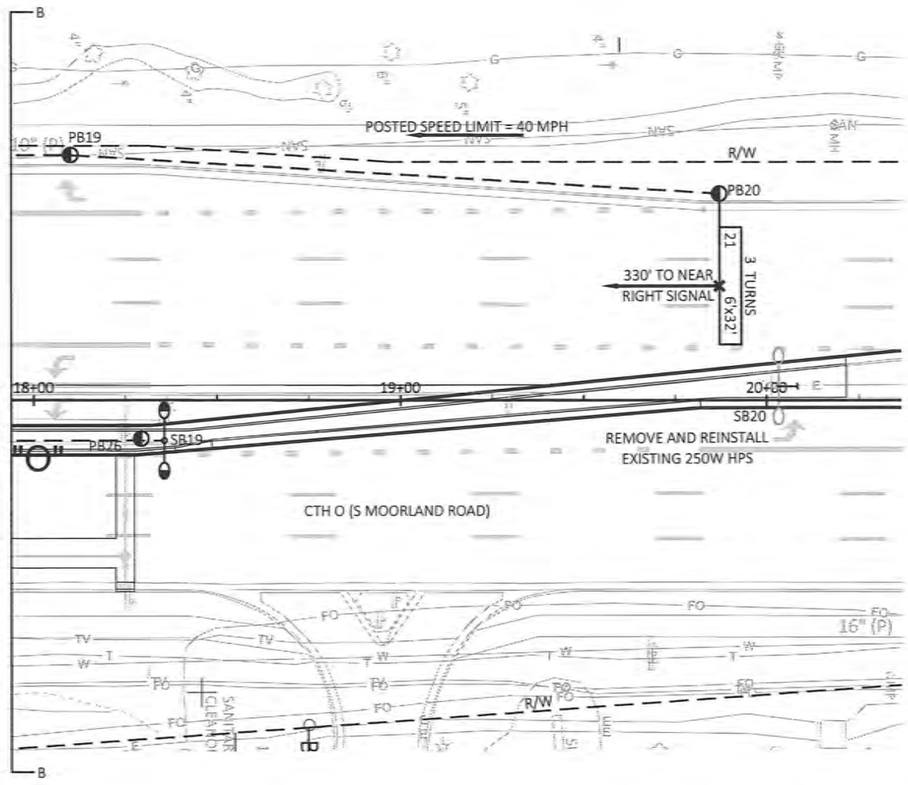
COUNTY CONTACT: BRUCE BARNES
DESIGNED BY: WAUKESHA COUNTY
REVISED BY:

PAGE 1 OF 5

PROJECT NO: 2782-03-76	HWY: CTH O	WAUKESHA	TRAFFIC SIGNAL PLAN	SHEET E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\O AT IH-43 WB RAMP TO BELOIT RD 2782-03-06\ACAD\024201-SP.DWG
LAYOUT NAME - 024201-sp
PLOT DATE : 7/30/2019 12:50 PM PLOT BY : MAYER, JASON PLOT NAME : PLOT SCALE : 1 IN:40 FT





N

TRAFFIC CONTROL SIGNAL
CTH O (S. MOORLAND ROAD) &
CTH I (BELOIT ROAD)
CITY OF NEW BERLIN
WAUKESHA COUNTY

WAUKESHA COUNTY DEPARTMENT OF TRANSPORTATION
APPROVED
DATE 12/8/19 Bruce Barnes
TRAFFIC ENGINEER

COUNTY CONTACT: BRUCE BARNES
DESIGNED BY: WAUKESHA COUNTY
REVISED BY:

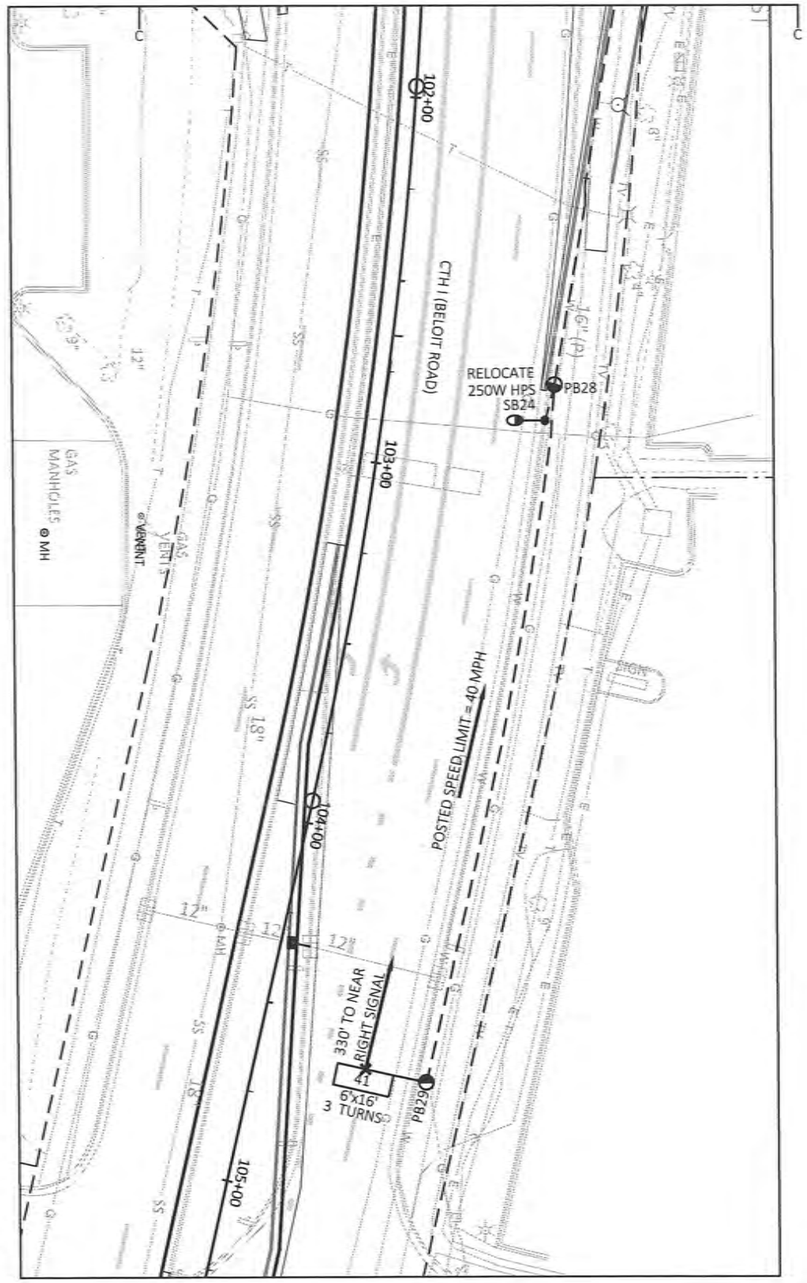
PAGE 2 OF 5

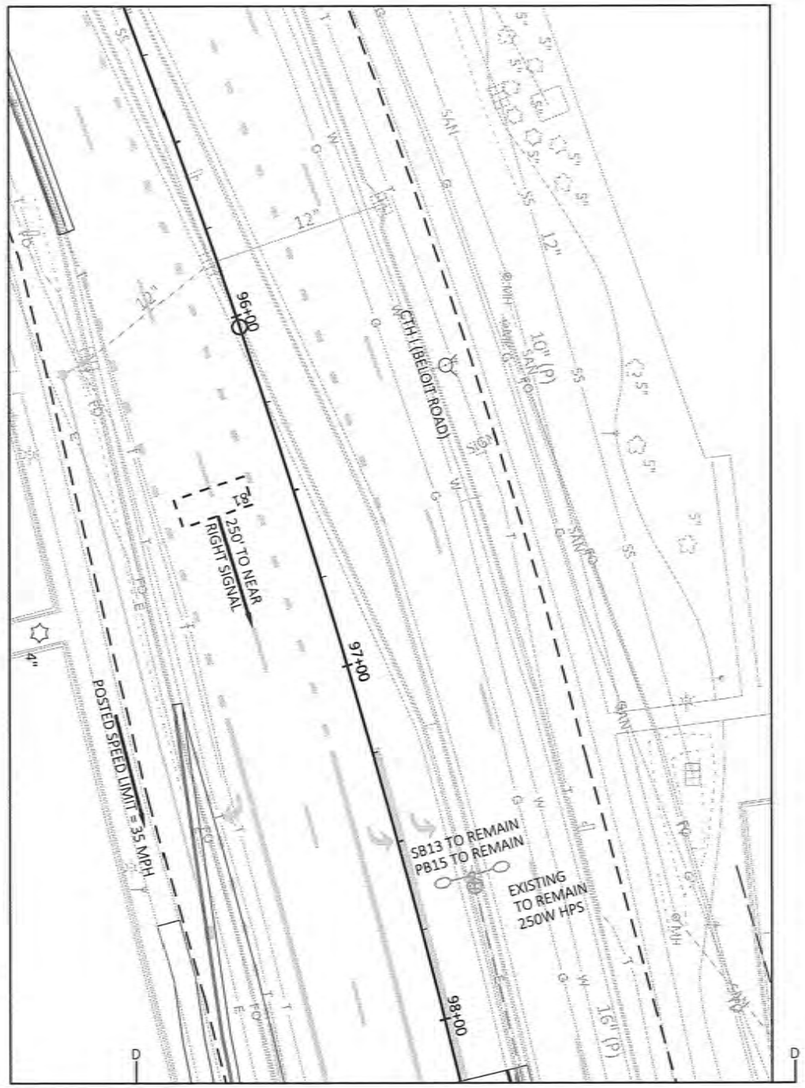
PROJECT NO: 2782-03-76	HWY: WAUKESHA	TRAFFIC SIGNAL PLAN		SHEET 115

FILE NAME : N:\DPW\ENGINEER\PROJECTS\O AT IH-43 WB RAMP TO BELOIT RD 2782-03-06\ACAD\024201-SP.DWG
LAYOUT NAME - 024202-sp

PLOT DATE : 7/30/2019 12:52 PM PLOT BY : MAYER, JASON PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42





TRAFFIC CONTROL SIGNAL
CTH O (S. MOORLAND ROAD) &
CTH I (BELOIT ROAD)
CITY OF NEW BERLIN
WAUKESHA COUNTY

WAUKESHA COUNTY DEPARTMENT OF TRANSPORTATION
APPROVED
DATE 12/9/19 Bruce Barnes
TRAFFIC ENGINEER

COUNTY CONTACT: BRUCE BARNES
DESIGNED BY: WAUKESHA COUNTY
REVISED BY:
PAGE 3 OF 5

PROJECT NO: 2782-03-76	HWY: CTH O	WAUKESHA	TRAFFIC SIGNAL PLAN	SHEET 116

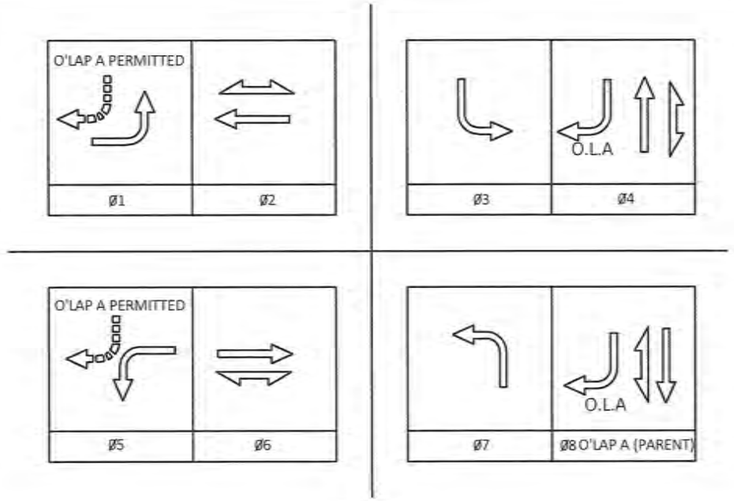
FILE NAME : N:\DPW\ENGINEER\PROJECTS\O AT IH-43 WB RAMP TO BELOIT RD 2782-03-06\ACAD\024201-SP.DWG
LAYOUT NAME - 024203-sp
PLOT DATE : 7/30/2019 12:54 PM PLOT BY : MAYER, JASON PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

	HEAD NUMBERS	FLASH
Ø1	5,6,7	R ←
Ø2	8,9,10,11	R
Ø3	24,25,26	R ←
Ø4	15,16,17	R
Ø5	12,13,14	R ←
Ø6	1,2,3,4	R
Ø7	18,19,20	R ←
Ø8	21,22,23	R
Ø2 PED	35,36,37,38	
Ø4 PED	39,40,41,42	
Ø6 PED	43,44	
Ø8 PED	31,32,33,34	
O.L"A"	27,28,29,30	

RING 1

RING 2



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W /Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	X

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTION	A	B	C	D
MOVEMENT	⇐	⇑⇒	⇐⇑	⇓⇓
PHASE	2 + 5	6 +1	4 + 7	8 +O'LAP A + 3

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 4+7 OR 8 + O'LAP A +3 CONTROLLER SHALL RETURN TO PHASES 4+8

TYPE OF LIGHTING	
BY OTHER AGENCY	
* IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

* WISDOT OWNS AND OPERATES THE LIGHTING UNITS ON THE SIGNAL MAST ARMS

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

(INDUCTANCE LOOP SENSORS)

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	21	41	61	83	85			
PHASE CALLED	2	-	6	8	8			
PHASE EXTENDED	2	4	6	8	8			
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH	-	x	-	-	-			
LOOP FUNCTION								

(VIDEO SENSORS)

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)	11	31	42	51	71	81		
PHASE CALLED	1	3	4	5	7	-		
PHASE EXTENDED	1	3	4	5	7	8		
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH	-	-	-	-	-	x		
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)				84	86			
PHASE CALLED				8	8			
PHASE EXTENDED				8	8			
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH				-	-			
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)	12			52		82		
PHASE CALLED	1			5		8		
PHASE EXTENDED	1			5		8		
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH	-			-		-		
LOOP FUNCTION								

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED

TRAFFIC CONTROL SIGNAL
CTH O (S. MOORLAND ROAD) &
CTH I (BELIOT ROAD)
CITY OF NEW BERLIN
WAUKEHSA COUNTY

SIGNAL NO.

DATE: 12/8/19 PAGE 4 OF 5

PROJECT ID:	2782-03-76
INTERSECTION:	CTH O & CTH I

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	NUMBER OF 14AWG CONDUCTORS	SIGNAL INDICATION WIRE COLOR											
		HEAD NO	PHASE	RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	FLASHING <YELLOW>	D/WALK	WALK	PED BUTTON
SB1	12	18	7				RED/BLK	ORG/BLK	GRN/BLK				
SB2	15	22	8	RED	ORG	GRN							
		23	8	RED	ORG	GRN							
		25	3				RED/BLK	ORG/BLK	GRN/BLK				
		26	3				RED/BLK	ORG/BLK	GRN/BLK				
		44	6								BLK	BLU	
		BUTTON	6										WHT/BLK
SB3	12	1	6	RED	ORG	GRN							
		31	8								BLK	BLU	
		BUTTON	8										WHT/BLK
SB5	12	5	1				RED/BLK	ORG/BLK	GRN/BLK				
		30	OL A				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT			
SB6	12	29	OL A				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT			
SB7	15	13	5				RED/BLK	ORG/BLK	GRN/BLK				
		14	5				RED/BLK	ORG/BLK	GRN/BLK				
		32	8								BLK	BLU	
		33	8								RED/WHT	GRN/WHT	
		BUTTON	8										WHT/BLK
SB8	15	9	2	RED	ORG	GRN							
		10	2	RED	ORG	GRN							
		11	2	RED	ORG	GRN							
		34	8								BLK	BLU	
		BUTTON	8										WHT/BLK
SB9	12	21	8	RED	ORG	GRN							
		37	2								BLK	BLU	
		BUTTON	2										WHT/BLK
SB10	12	27	OL A				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT			
		35	2								BLK	BLU	
		BUTTON	2										WHT/BLK
SB11	12	28	OL A				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT			
		36	2								BLK	BLU	
		BUTTON	2										WHT/BLK
SB12	12	24	3				RED/BLK	ORG/BLK	GRN/BLK				
SB14	12	16	4	RED	ORG	GRN							
		17	4	RED	ORG	GRN							
		19	7				RED/BLK	ORG/BLK	GRN/BLK				
		20	7				RED/BLK	ORG/BLK	GRN/BLK				
SB16	15	8	2	RED	ORG	GRN							
		38	2								BLK	BLU	
		39	4								RED/WHT	GRN/WHT	
		BUTTON	2										WHT/BLK
		BUTTON	4										BLU/BLK
SB17	15	6	1				RED/BLK	ORG/BLK	GRN/BLK				
		7	1				RED/BLK	ORG/BLK	GRN/BLK				
		40	4								BLK	BLU	
		41	4								RED/WHT	GRN/WHT	
		BUTTON	4										WHT/BLK
SB18	12	12	5				RED/BLK	ORG/BLK	GRN/BLK				
SB21	12	2	6	RED	ORG	GRN							
		3	6	RED	ORG	GRN							
		4	6	RED	ORG	GRN							
SB22	15	15	4	RED	ORG	GRN							
		42	4								BLK	BLU	
		43	6								RED/WHT	GRN/WHT	
		BUTTON	4										BLU/BLK
		BUTTON	6										WHT/BLK

NOTES: *USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
*ENSURE THE GROUNDED CONDUCTOR IN THE FEEDING CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
*RECONNECT THE GROUNDED CONDUCTORS WHERE EVER THE CIRCUIT HAS BEEN INTERRUPTED TO ENSURE THE GROUNDED CIRCUIT IS COMPLETE.

PULL BOX BONDING JUMPER

10 AWG GRN XLP	
FROM	TO
PB1	CB1
PB3	SB1
PB4	SB2
PB8	SB3
PB5	SB4
PB10	SB5
PB10	SB6
PB9	SB7
PB11	SB8
PB11	SB9
PB12	SB10
PB13	SB11
PB14	SB12
-	-
PB16	SB14
PB18	SB15
PB21	SB16
PB22	SB17
PB25	SB18
PB26	SB19
-	-
PB24	SB21
PB2	SB22
PB1	SB23
PB28	SB24

EQUIPMENT GROUNDING CONDUCTOR

10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	SB14
SB14	SB15
SB15	SB16
SB16	SB17
SB17	SB22
SB22	SB23
SB23	SB21
SB21	SB18
SB18	SB19
SB19	SB24
SB24	CB1

LIGHTING UF 10 AWG W/GROUND	
FROM	TO
CB1	SB2
SB2	SB8
CB1	SB21
CB1	SB14

VIDEO DETECTION CABLE	
FROM	TO
CB1	V1 (SB7)
CB1	V2 (SB17)
CB1	V3 (SB2)
CB1	V4 (SB14)

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB1	HEAD A (SB8)
CB1	HEAD B (SB21)
CB1	HEAD C (SB14)
CB1	HEAD D (SB2)

TRAFFIC CONTROL SIGNAL
CTH O (S. MOORLAND RD) &
CTH I (BELOIT RD)
CITY OF NEW BERLIN
WAUKESHA COUNTY

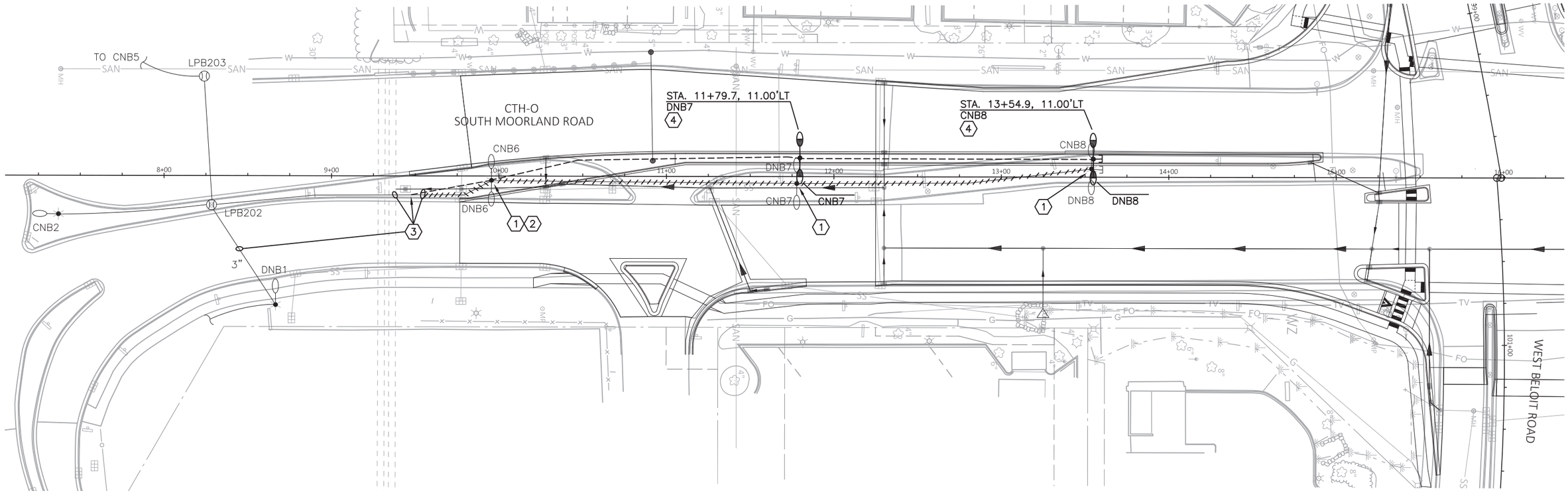
SIGNAL NO:

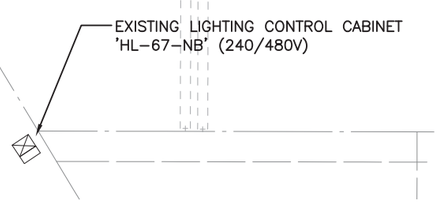
COUNTY CONTACT: BRUCE BARNES
DESIGNED BY: WAUKESHA COUNTY
REVISED BY:

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CABLE ROUTING	SHEET	E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\O AT IH-43 WB RAMP TO BELOIT RD 2782-03-06\ACAD\024401-CR.DWG
LAYOUT NAME - SignalPhasing
PLOT DATE : 7/30/2019 12:57 PM PLOT BY : MAYER, JASON PLOT NAME : PLOT SCALE :
WISDO 118 ET 42

2





ROADWAY LIGHTING
PLANS PREPARED BY



LIGHTING PLAN LEGEND:

- EXISTING LIGHTING UNIT: TYPE 7 POLE, 10-FT SINGLE TYPE MAST ARM(S), TRANSFORMER BASE, 250W OR 400W HPS LUMINAIRE(S), TYPE 7 CONCRETE BASE
- RELOCATED LIGHTING UNIT: EXISTING TYPE 7 POLE, 10-FT SINGLE TYPE MAST ARMS, TRANSFORMER BASE & 400W HPS LUMINAIRES ON NEW TYPE 7 CONCRETE BASE
- EXISTING PULL BOX STEEL 24X42-INCH
- EXISTING CONDUCTORS IN 2" CONDUIT, UNLESS NOTED
- EXISTING CONDUCTORS IN CONDUIT TO BE REMOVED
- RIGID NONMETALLIC SCHEDULE 40 2-INCH CONDUIT WITH 3-8 AWG & 1-8 AWG GROUND CONDUCTORS
- CONDUIT STUB-OUT CAPPED
- STA. 12+00, 10.0'RT / CNB7 OR LPB202 — STATION/OFFSET (LOCATION)
  - PULL BOX NUMBER
  - POLE NUMBER
  - CONTROL CABINET (SOURCE)
  - CIRCUIT

KEYED NOTES:

1. EXISTING LIGHTING UNIT TO BE REMOVED, STORED AND PROTECTED FOR RE-INSTALLATION. EXISTING CONCRETE BASE TO BE REMOVED.
2. EXISTING LIGHTING UNIT TO BE REINSTALLED AT ORIGINAL LOCATION WITH NEW CONCRETE BASE.
3. EXISTING CONDUCTORS FROM POLE DNB1 TO LPB202 TO POLE CNB6/DNB6 TO BE REMOVED, INTERCEPT AND CONNECT EXISTING CONDUIT TO REMAIN TO NEW CONDUIT AND PROVIDE NEW 3-8 AWG & 1-8 AWG GROUND CONDUCTORS FROM POLE DNB1 TO LPB202 TO POLE CNB6/DNB6. EXISTING CONDUCTORS FROM DNB1 TO LPB202 TO CNB2 AND FROM DNB1 TO LPB202 TO LPB203 TO CNB5 TO REMAIN. NO SPLICES ALLOWED IN PULL BOX.
4. RELOCATED LIGHTING UNIT ON NEW CONCRETE BASE.

HL-67-NB	
A,C	RED
B,D	BLACK
N	WHITE
GND	GREEN
240/480V, 3-WIRE ISOLATED NEUTRAL	

DESIGNED BY: POWRTEK ENGINEERING, INC. SHEET 1 OF 1

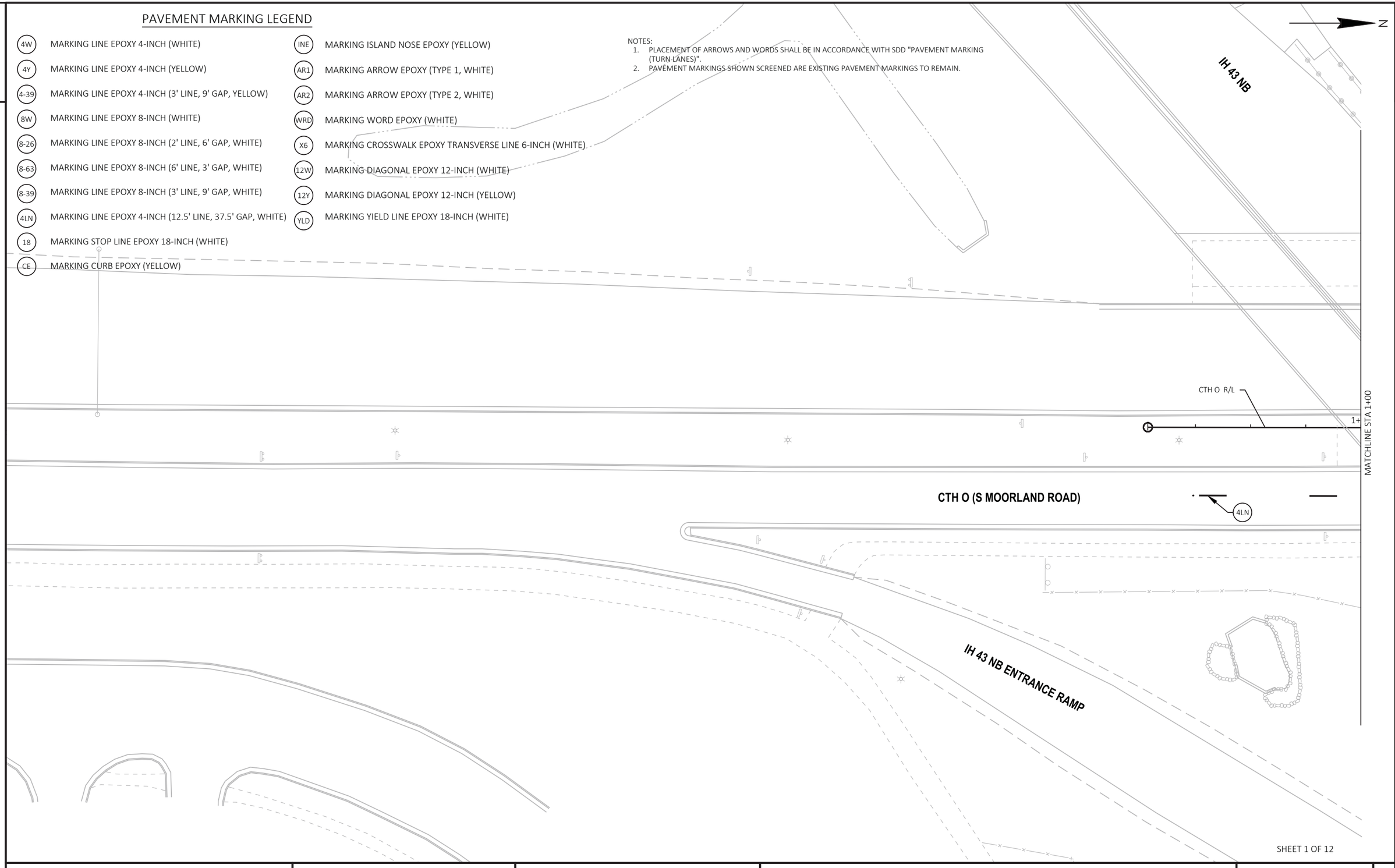
PROJECT NO: 2782-03-06	HWY: CTH O	COUNTY: WAUKESHA	LIGHTING PLAN	SHEET NO: 119	E

2

PAVEMENT MARKING LEGEND

- (4W) MARKING LINE EPOXY 4-INCH (WHITE)
- (4Y) MARKING LINE EPOXY 4-INCH (YELLOW)
- (4-39) MARKING LINE EPOXY 4-INCH (3' LINE, 9' GAP, YELLOW)
- (8W) MARKING LINE EPOXY 8-INCH (WHITE)
- (8-26) MARKING LINE EPOXY 8-INCH (2' LINE, 6' GAP, WHITE)
- (8-63) MARKING LINE EPOXY 8-INCH (6' LINE, 3' GAP, WHITE)
- (8-39) MARKING LINE EPOXY 8-INCH (3' LINE, 9' GAP, WHITE)
- (4LN) MARKING LINE EPOXY 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
- (18) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (CE) MARKING CURB EPOXY (YELLOW)
- (INE) MARKING ISLAND NOSE EPOXY (YELLOW)
- (AR1) MARKING ARROW EPOXY (TYPE 1, WHITE)
- (AR2) MARKING ARROW EPOXY (TYPE 2, WHITE)
- (WRD) MARKING WORD EPOXY (WHITE)
- (X6) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (12W) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (12Y) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (YLD) MARKING YIELD LINE EPOXY 18-INCH (WHITE)

NOTES:
1. PLACEMENT OF ARROWS AND WORDS SHALL BE IN ACCORDANCE WITH SDD "PAVEMENT MARKING (TURN LANES)".
2. PAVEMENT MARKINGS SHOWN SCREENED ARE EXISTING PAVEMENT MARKINGS TO REMAIN.



2

SHEET 1 OF 12

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVEMENT MARKING - CTH O	SHEET 120	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 01

PLOT DATE : 7/28/2019 8:32 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

PAVEMENT MARKING LEGEND

- (4W) MARKING LINE EPOXY 4-INCH (WHITE)
- (4Y) MARKING LINE EPOXY 4-INCH (YELLOW)
- (4-39) MARKING LINE EPOXY 4-INCH (3' LINE, 9' GAP, YELLOW)
- (8W) MARKING LINE EPOXY 8-INCH (WHITE)
- (8-26) MARKING LINE EPOXY 8-INCH (2' LINE, 6' GAP, WHITE)
- (8-63) MARKING LINE EPOXY 8-INCH (6' LINE, 3' GAP, WHITE)
- (8-39) MARKING LINE EPOXY 8-INCH (3' LINE, 9' GAP, WHITE)
- (4LN) MARKING LINE EPOXY 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
- (18) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (CE) MARKING CURB EPOXY (YELLOW)
- (INE) MARKING ISLAND NOSE EPOXY (YELLOW)
- (AR1) MARKING ARROW EPOXY (TYPE 1, WHITE)
- (AR2) MARKING ARROW EPOXY (TYPE 2, WHITE)
- (WRD) MARKING WORD EPOXY (WHITE)
- (X6) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (12W) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (12Y) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (YLD) MARKING YIELD LINE EPOXY 18-INCH (WHITE)

NOTES:
1. PLACEMENT OF ARROWS AND WORDS SHALL BE IN ACCORDANCE WITH SDD "PAVEMENT MARKING (TURN LANES)".
2. PAVEMENT MARKINGS SHOWN SCREENED ARE EXISTING PAVEMENT MARKINGS TO REMAIN.

N

CTH O (S MOORLAND ROAD)

MATCHLINE STA 1+00

2+00 3+00 4+00 5+00 6+00 7+

MATCHLINE STA 7+00

4LN

RESTRIPE AT EXISTING RADIUS

4W

4Y

12Y

RESTRIPE AT EXISTING LOCATIONS

RESTRIPE AT EXISTING LOCATION

8-63

SHEET 2 OF 12

2

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVEMENT MARKING - CTH O	SHEET 121	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 02

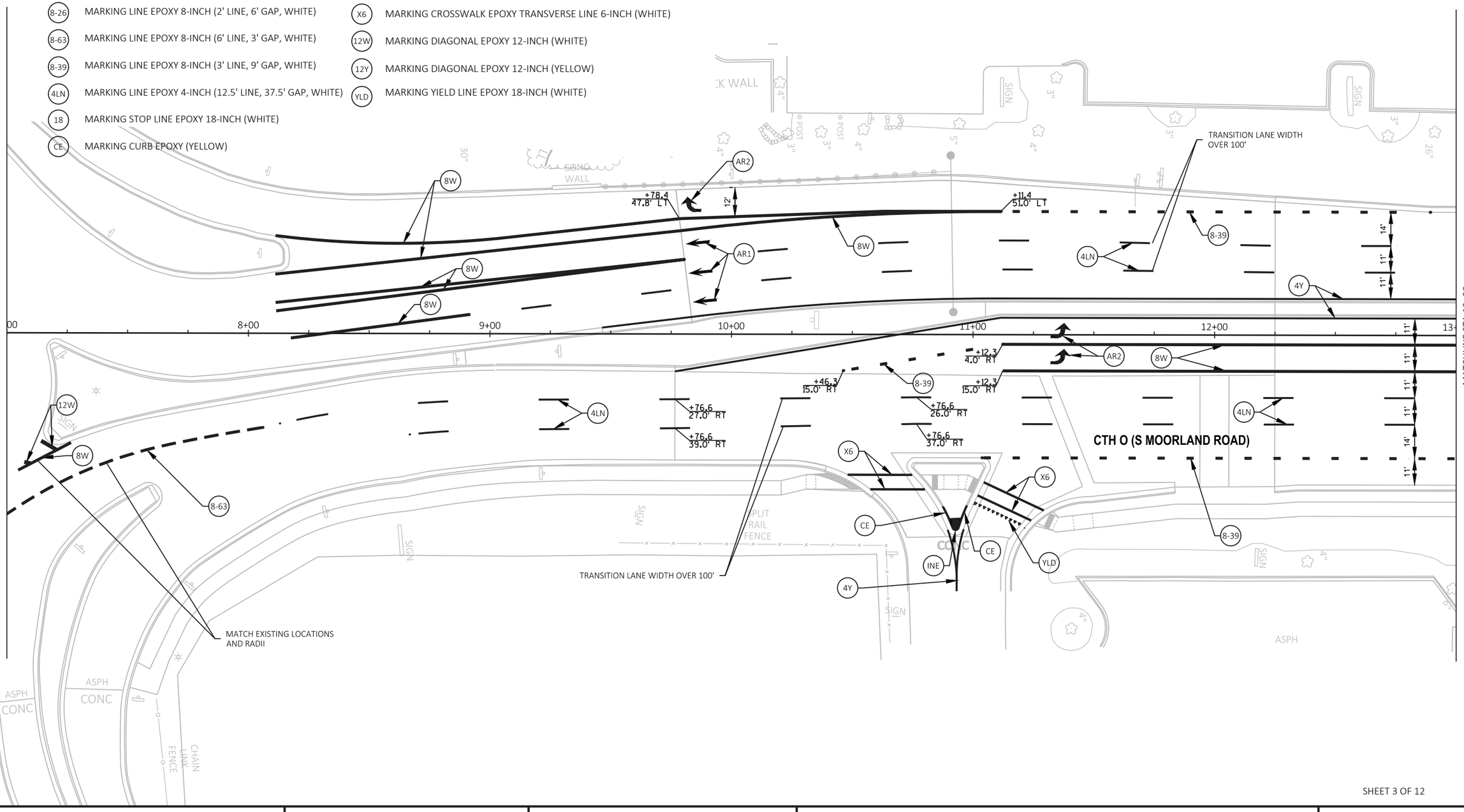
PLOT DATE : 7/28/2019 8:32 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

PAVEMENT MARKING LEGEND

- 4W — MARKING LINE EPOXY 4-INCH (WHITE)
- 4Y — MARKING LINE EPOXY 4-INCH (YELLOW)
- 4-39 — MARKING LINE EPOXY 4-INCH (3' LINE, 9' GAP, YELLOW)
- 8W — MARKING LINE EPOXY 8-INCH (WHITE)
- 8-26 — MARKING LINE EPOXY 8-INCH (2' LINE, 6' GAP, WHITE)
- 8-63 — MARKING LINE EPOXY 8-INCH (6' LINE, 3' GAP, WHITE)
- 8-39 — MARKING LINE EPOXY 8-INCH (3' LINE, 9' GAP, WHITE)
- 4LN — MARKING LINE EPOXY 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
- 18 — MARKING STOP LINE EPOXY 18-INCH (WHITE)
- CE — MARKING CURB EPOXY (YELLOW)
- INE — MARKING ISLAND NOSE EPOXY (YELLOW)
- AR1 — MARKING ARROW EPOXY (TYPE 1, WHITE)
- AR2 — MARKING ARROW EPOXY (TYPE 2, WHITE)
- WRD — MARKING WORD EPOXY (WHITE)
- X6 — MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- 12W — MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- 12Y — MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- YLD — MARKING YIELD LINE EPOXY 18-INCH (WHITE)

NOTES:
1. PLACEMENT OF ARROWS AND WORDS SHALL BE IN ACCORDANCE WITH SDD "PAVEMENT MARKING (TURN LANES)".
2. PAVEMENT MARKINGS SHOWN SCREENED ARE EXISTING PAVEMENT MARKINGS TO REMAIN.

N



SHEET 3 OF 12

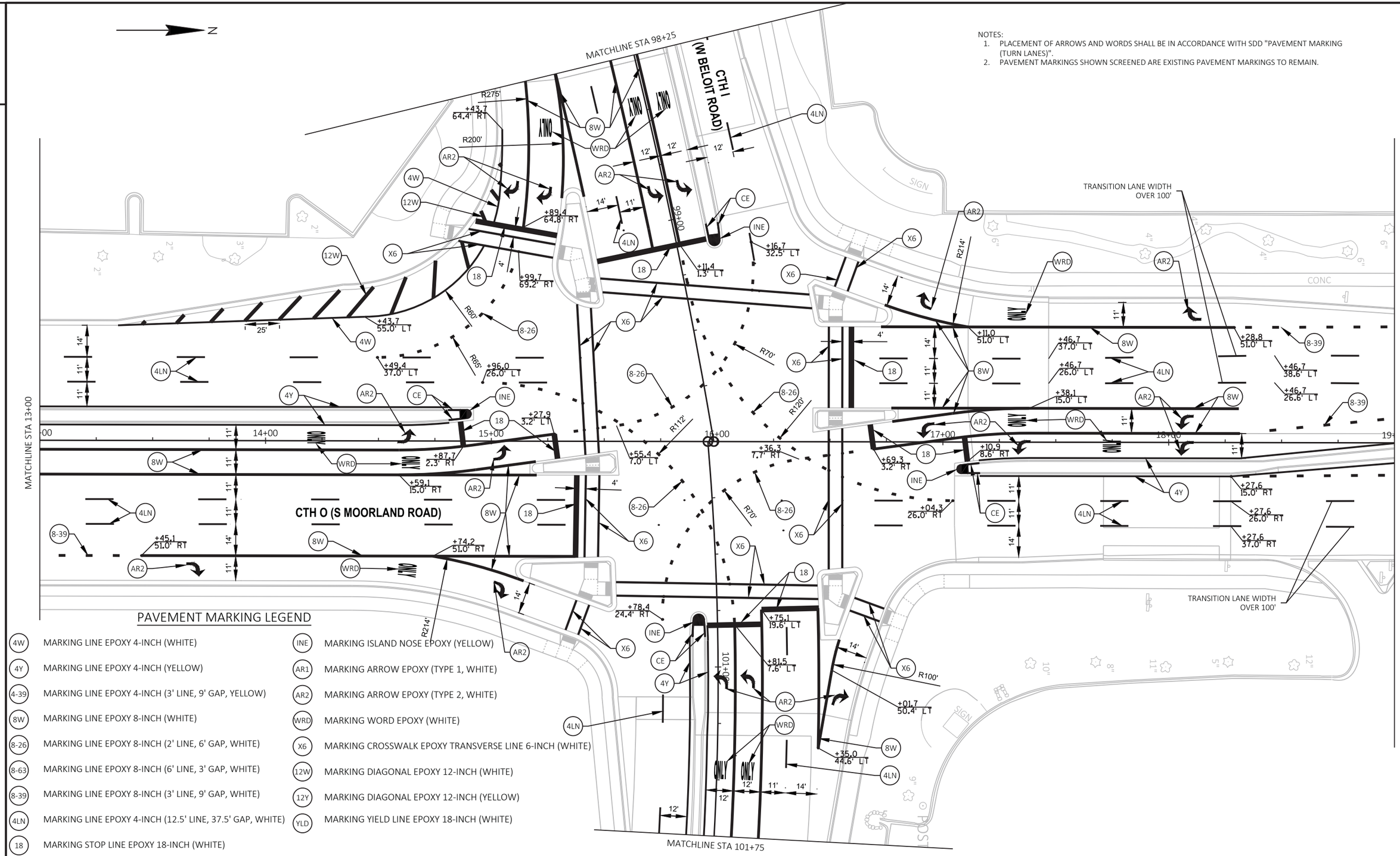
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVEMENT MARKING - CTH O	SHEET 122	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 03

PLOT DATE : 7/28/2019 8:32 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

NOTES:
1. PLACEMENT OF ARROWS AND WORDS SHALL BE IN ACCORDANCE WITH SDD "PAVEMENT MARKING (TURN LANES)".
2. PAVEMENT MARKINGS SHOWN SCREENED ARE EXISTING PAVEMENT MARKINGS TO REMAIN.



PAVEMENT MARKING LEGEND

4W	MARKING LINE EPOXY 4-INCH (WHITE)	INE	MARKING ISLAND NOSE EPOXY (YELLOW)
4Y	MARKING LINE EPOXY 4-INCH (YELLOW)	AR1	MARKING ARROW EPOXY (TYPE 1, WHITE)
4-39	MARKING LINE EPOXY 4-INCH (3' LINE, 9' GAP, YELLOW)	AR2	MARKING ARROW EPOXY (TYPE 2, WHITE)
8W	MARKING LINE EPOXY 8-INCH (WHITE)	WRD	MARKING WORD EPOXY (WHITE)
8-26	MARKING LINE EPOXY 8-INCH (2' LINE, 6' GAP, WHITE)	X6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
8-63	MARKING LINE EPOXY 8-INCH (6' LINE, 3' GAP, WHITE)	12W	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
8-39	MARKING LINE EPOXY 8-INCH (3' LINE, 9' GAP, WHITE)	12Y	MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
4LN	MARKING LINE EPOXY 4-INCH (12.5' LINE, 37.5' GAP, WHITE)	YLD	MARKING YIELD LINE EPOXY 18-INCH (WHITE)
18	MARKING STOP LINE EPOXY 18-INCH (WHITE)		
CE	MARKING CURB EPOXY (YELLOW)		

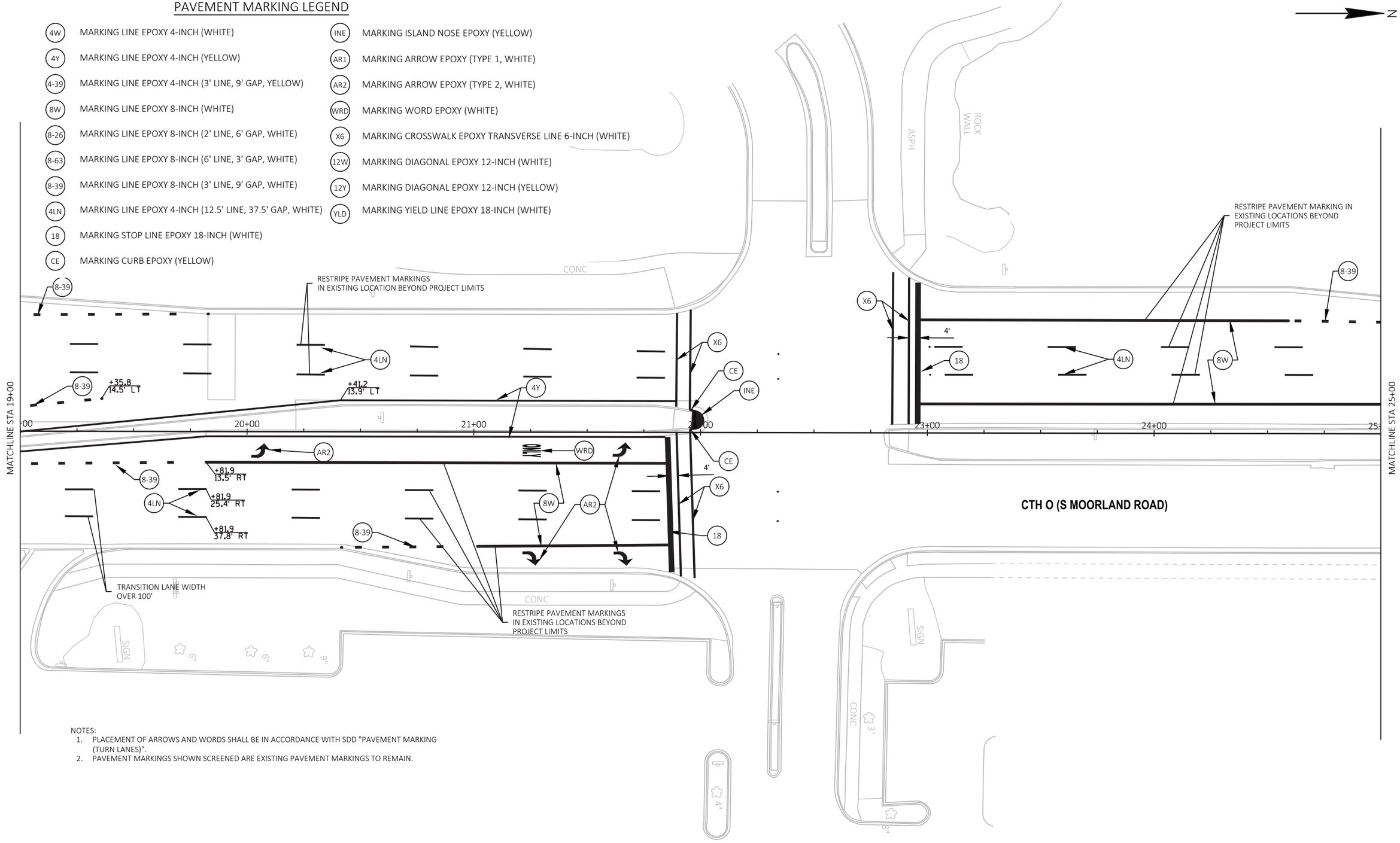
SHEET 4 OF 12

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVEMENT MARKING - CTH O	SHEET	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 04
PLOT DATE : 7/28/2019 8:32 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

PAVEMENT MARKING LEGEND

- (4W) MARKING LINE EPOXY 4-INCH (WHITE)
- (4Y) MARKING LINE EPOXY 4-INCH (YELLOW)
- (4-39) MARKING LINE EPOXY 4-INCH (3' LINE, 9' GAP, YELLOW)
- (8W) MARKING LINE EPOXY 8-INCH (WHITE)
- (8-26) MARKING LINE EPOXY 8-INCH (2' LINE, 6' GAP, WHITE)
- (8-63) MARKING LINE EPOXY 8-INCH (6' LINE, 3' GAP, WHITE)
- (8-39) MARKING LINE EPOXY 8-INCH (3' LINE, 9' GAP, WHITE)
- (4LN) MARKING LINE EPOXY 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
- (18) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (CE) MARKING CURB EPOXY (YELLOW)
- (INE) MARKING ISLAND NOSE EPOXY (YELLOW)
- (AR1) MARKING ARROW EPOXY (TYPE 1, WHITE)
- (AR2) MARKING ARROW EPOXY (TYPE 2, WHITE)
- (WRD) MARKING WORD EPOXY (WHITE)
- (X6) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (12W) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (12Y) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (YLD) MARKING YIELD LINE EPOXY 18-INCH (WHITE)



NOTES:
1. PLACEMENT OF ARROWS AND WORDS SHALL BE IN ACCORDANCE WITH SDD "PAVEMENT MARKING (TURN LANES)".
2. PAVEMENT MARKINGS SHOWN SCREENED ARE EXISTING PAVEMENT MARKINGS TO REMAIN.

SHEET 5 OF 12

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVEMENT MARKING - CTH O	SHEET 124	E

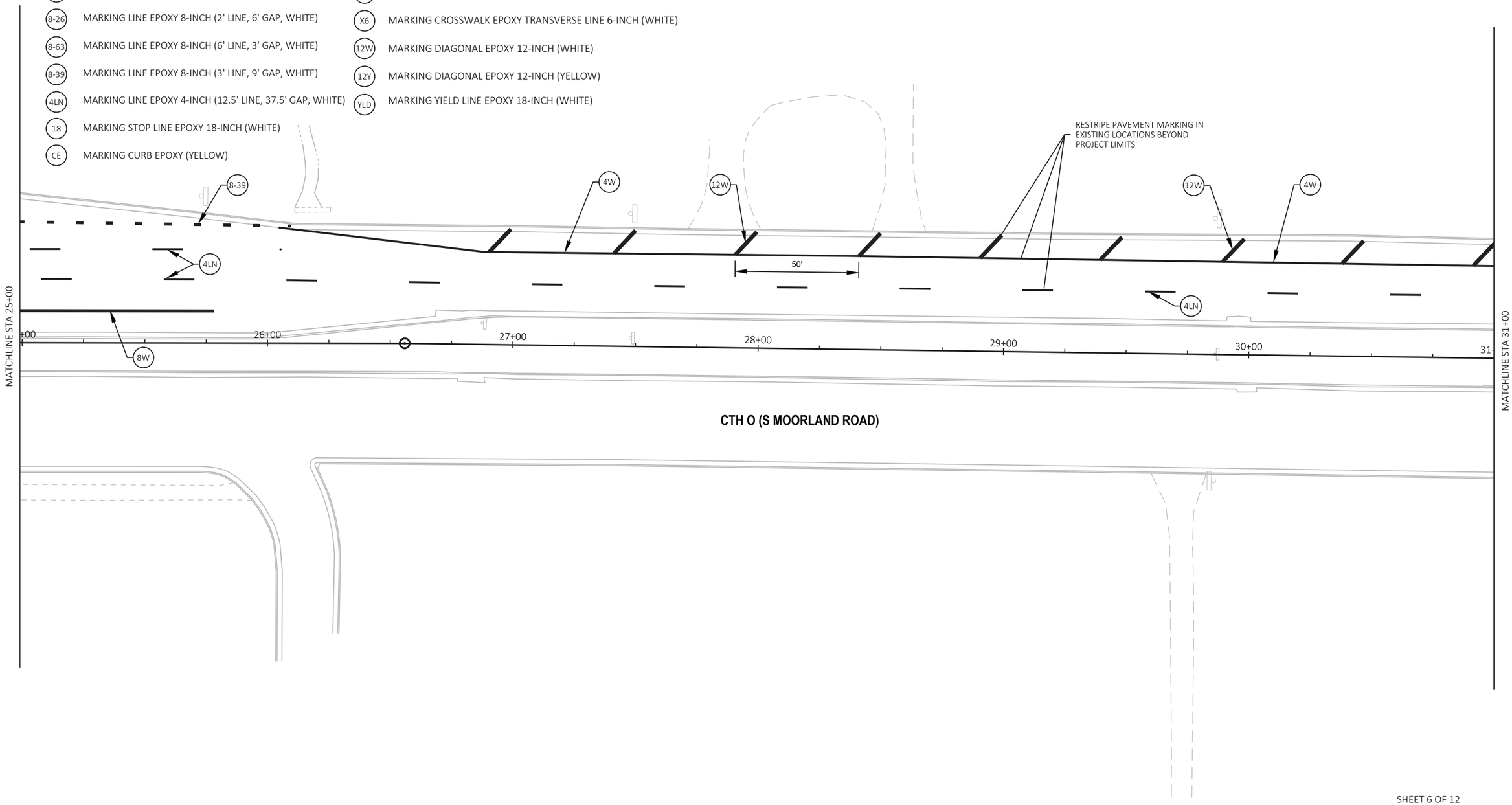
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 05
PLOT DATE : 7/28/2019 8:32 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

PAVEMENT MARKING LEGEND

- (4W) MARKING LINE EPOXY 4-INCH (WHITE)
- (4Y) MARKING LINE EPOXY 4-INCH (YELLOW)
- (4-39) MARKING LINE EPOXY 4-INCH (3' LINE, 9' GAP, YELLOW)
- (8W) MARKING LINE EPOXY 8-INCH (WHITE)
- (8-26) MARKING LINE EPOXY 8-INCH (2' LINE, 6' GAP, WHITE)
- (8-63) MARKING LINE EPOXY 8-INCH (6' LINE, 3' GAP, WHITE)
- (8-39) MARKING LINE EPOXY 8-INCH (3' LINE, 9' GAP, WHITE)
- (4LN) MARKING LINE EPOXY 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
- (18) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (CE) MARKING CURB EPOXY (YELLOW)
- (INE) MARKING ISLAND NOSE EPOXY (YELLOW)
- (AR1) MARKING ARROW EPOXY (TYPE 1, WHITE)
- (AR2) MARKING ARROW EPOXY (TYPE 2, WHITE)
- (WRD) MARKING WORD EPOXY (WHITE)
- (X6) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (12W) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (12Y) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (YLD) MARKING YIELD LINE EPOXY 18-INCH (WHITE)

NOTES:
1. PLACEMENT OF ARROWS AND WORDS SHALL BE IN ACCORDANCE WITH SDD "PAVEMENT MARKING (TURN LANES)".
2. PAVEMENT MARKINGS SHOWN SCREENED ARE EXISTING PAVEMENT MARKINGS TO REMAIN.

N



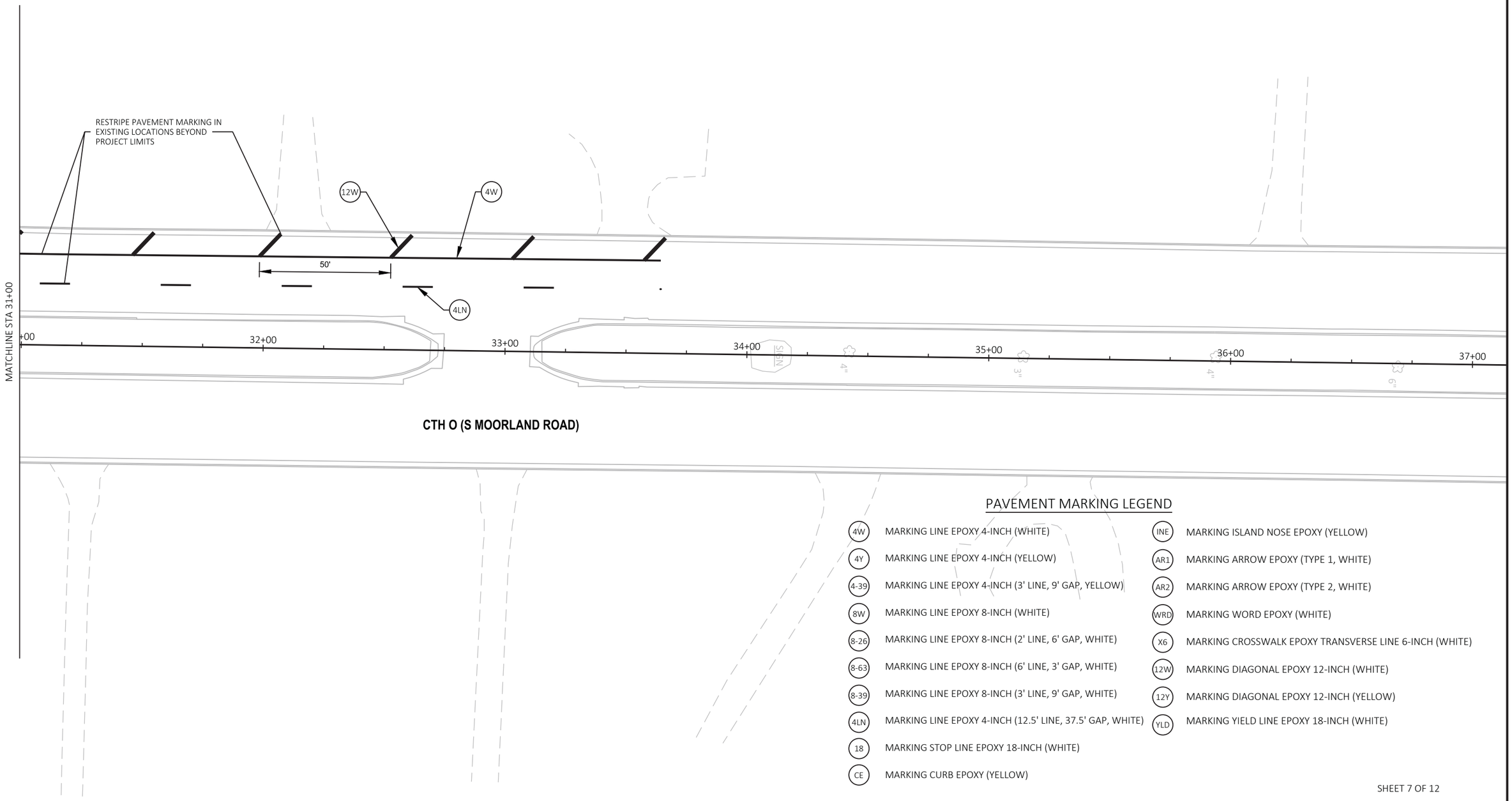
SHEET 6 OF 12

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVEMENT MARKING - CTH O	SHEET	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 06
PLOT DATE : 7/28/2019 8:33 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

NOTES:
1. PLACEMENT OF ARROWS AND WORDS SHALL BE IN ACCORDANCE WITH SDD "PAVEMENT MARKING (TURN LANES)".
2. PAVEMENT MARKINGS SHOWN SCREENED ARE EXISTING PAVEMENT MARKINGS TO REMAIN.

N



PAVEMENT MARKING LEGEND

4W	MARKING LINE EPOXY 4-INCH (WHITE)
4Y	MARKING LINE EPOXY 4-INCH (YELLOW)
4-39	MARKING LINE EPOXY 4-INCH (3' LINE, 9' GAP, YELLOW)
8W	MARKING LINE EPOXY 8-INCH (WHITE)
8-26	MARKING LINE EPOXY 8-INCH (2' LINE, 6' GAP, WHITE)
8-63	MARKING LINE EPOXY 8-INCH (6' LINE, 3' GAP, WHITE)
8-39	MARKING LINE EPOXY 8-INCH (3' LINE, 9' GAP, WHITE)
4LN	MARKING LINE EPOXY 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
CE	MARKING CURB EPOXY (YELLOW)
INE	MARKING ISLAND NOSE EPOXY (YELLOW)
AR1	MARKING ARROW EPOXY (TYPE 1, WHITE)
AR2	MARKING ARROW EPOXY (TYPE 2, WHITE)
WRD	MARKING WORD EPOXY (WHITE)
X6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
12W	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
12Y	MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
YLD	MARKING YIELD LINE EPOXY 18-INCH (WHITE)

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVEMENT MARKING - CTH O	SHEET 126	E

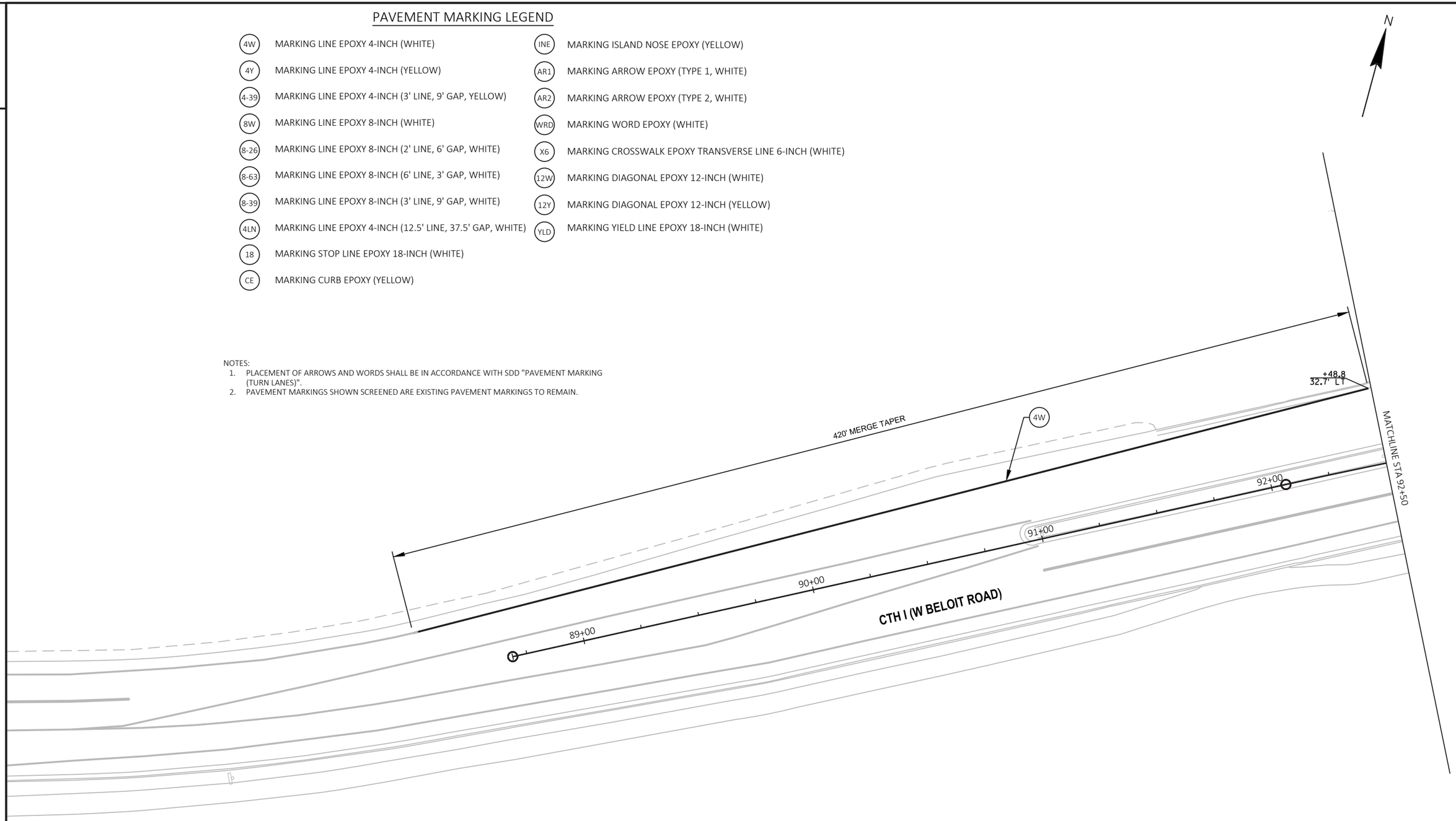
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 07
PLOT DATE : 7/28/2019 8:33 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

PAVEMENT MARKING LEGEND

4W	MARKING LINE EPOXY 4-INCH (WHITE)	INE	MARKING ISLAND NOSE EPOXY (YELLOW)
4Y	MARKING LINE EPOXY 4-INCH (YELLOW)	AR1	MARKING ARROW EPOXY (TYPE 1, WHITE)
4-39	MARKING LINE EPOXY 4-INCH (3' LINE, 9' GAP, YELLOW)	AR2	MARKING ARROW EPOXY (TYPE 2, WHITE)
8W	MARKING LINE EPOXY 8-INCH (WHITE)	WRD	MARKING WORD EPOXY (WHITE)
8-26	MARKING LINE EPOXY 8-INCH (2' LINE, 6' GAP, WHITE)	X6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
8-63	MARKING LINE EPOXY 8-INCH (6' LINE, 3' GAP, WHITE)	12W	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
8-39	MARKING LINE EPOXY 8-INCH (3' LINE, 9' GAP, WHITE)	12Y	MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
4LN	MARKING LINE EPOXY 4-INCH (12.5' LINE, 37.5' GAP, WHITE)	YLD	MARKING YIELD LINE EPOXY 18-INCH (WHITE)
18	MARKING STOP LINE EPOXY 18-INCH (WHITE)		
CE	MARKING CURB EPOXY (YELLOW)		

NOTES:
1. PLACEMENT OF ARROWS AND WORDS SHALL BE IN ACCORDANCE WITH SDD "PAVEMENT MARKING (TURN LANES)".
2. PAVEMENT MARKINGS SHOWN SCREENED ARE EXISTING PAVEMENT MARKINGS TO REMAIN.



SHEET 8 OF 12

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVEMENT MARKING - CTH I	SHEET 127	E

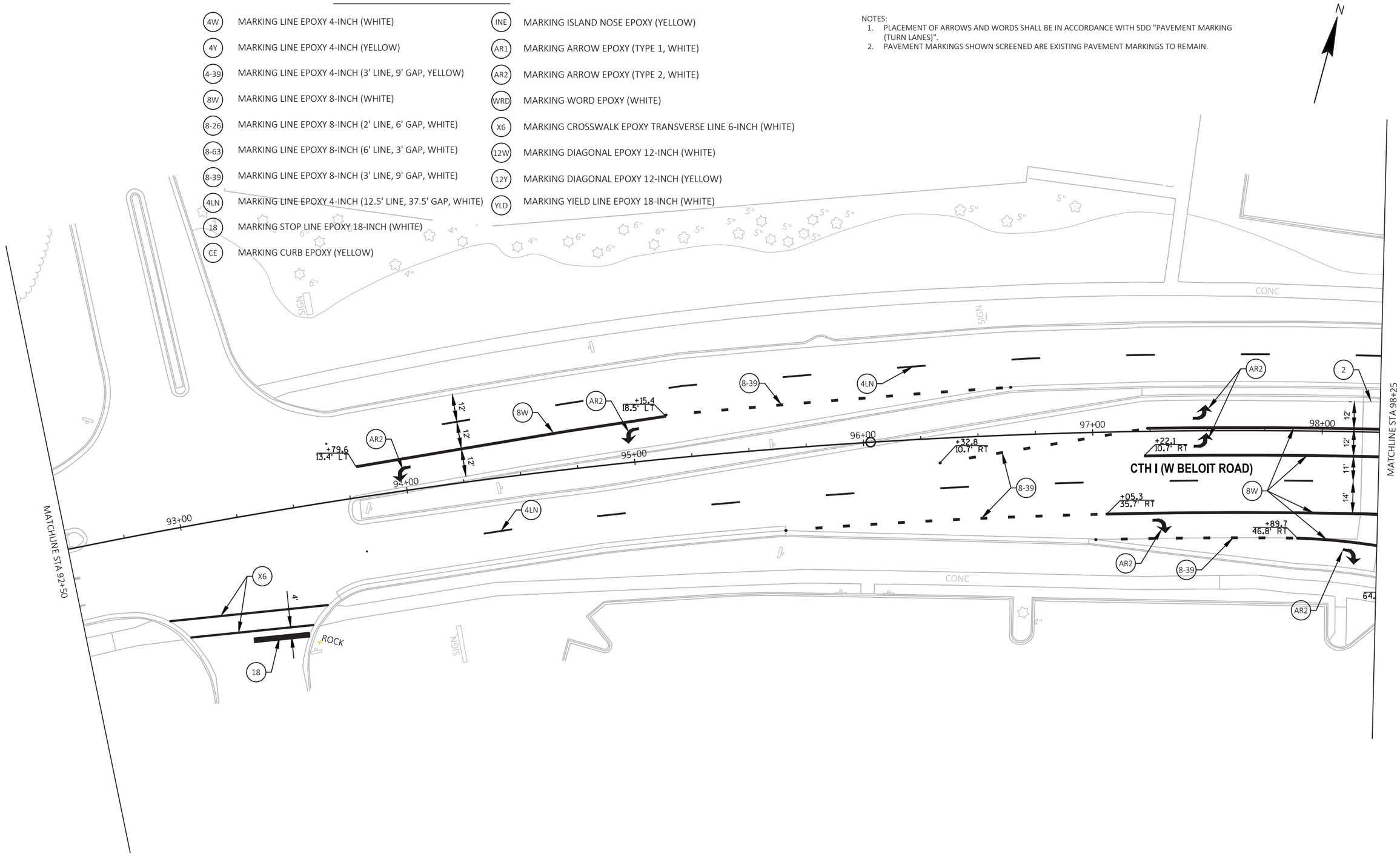
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 08

PLOT DATE : 7/28/2019 8:33 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

PAVEMENT MARKING LEGEND

4W	MARKING LINE EPOXY 4-INCH (WHITE)
4Y	MARKING LINE EPOXY 4-INCH (YELLOW)
4-39	MARKING LINE EPOXY 4-INCH (3' LINE, 9' GAP, YELLOW)
8W	MARKING LINE EPOXY 8-INCH (WHITE)
8-26	MARKING LINE EPOXY 8-INCH (2' LINE, 6' GAP, WHITE)
8-63	MARKING LINE EPOXY 8-INCH (6' LINE, 3' GAP, WHITE)
8-39	MARKING LINE EPOXY 8-INCH (3' LINE, 9' GAP, WHITE)
4LN	MARKING LINE EPOXY 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
CE	MARKING CURB EPOXY (YELLOW)
INE	MARKING ISLAND NOSE EPOXY (YELLOW)
AR1	MARKING ARROW EPOXY (TYPE 1, WHITE)
AR2	MARKING ARROW EPOXY (TYPE 2, WHITE)
WRD	MARKING WORD EPOXY (WHITE)
X6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
12W	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
12Y	MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
YLD	MARKING YIELD LINE EPOXY 18-INCH (WHITE)

NOTES:
1. PLACEMENT OF ARROWS AND WORDS SHALL BE IN ACCORDANCE WITH SDD "PAVEMENT MARKING (TURN LANES)".
2. PAVEMENT MARKINGS SHOWN SCREENED ARE EXISTING PAVEMENT MARKINGS TO REMAIN.



SHEET 9 OF 12

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVEMENT MARKING - CTH I	SHEET 128	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 09
PLOT DATE : 7/28/2019 8:33 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

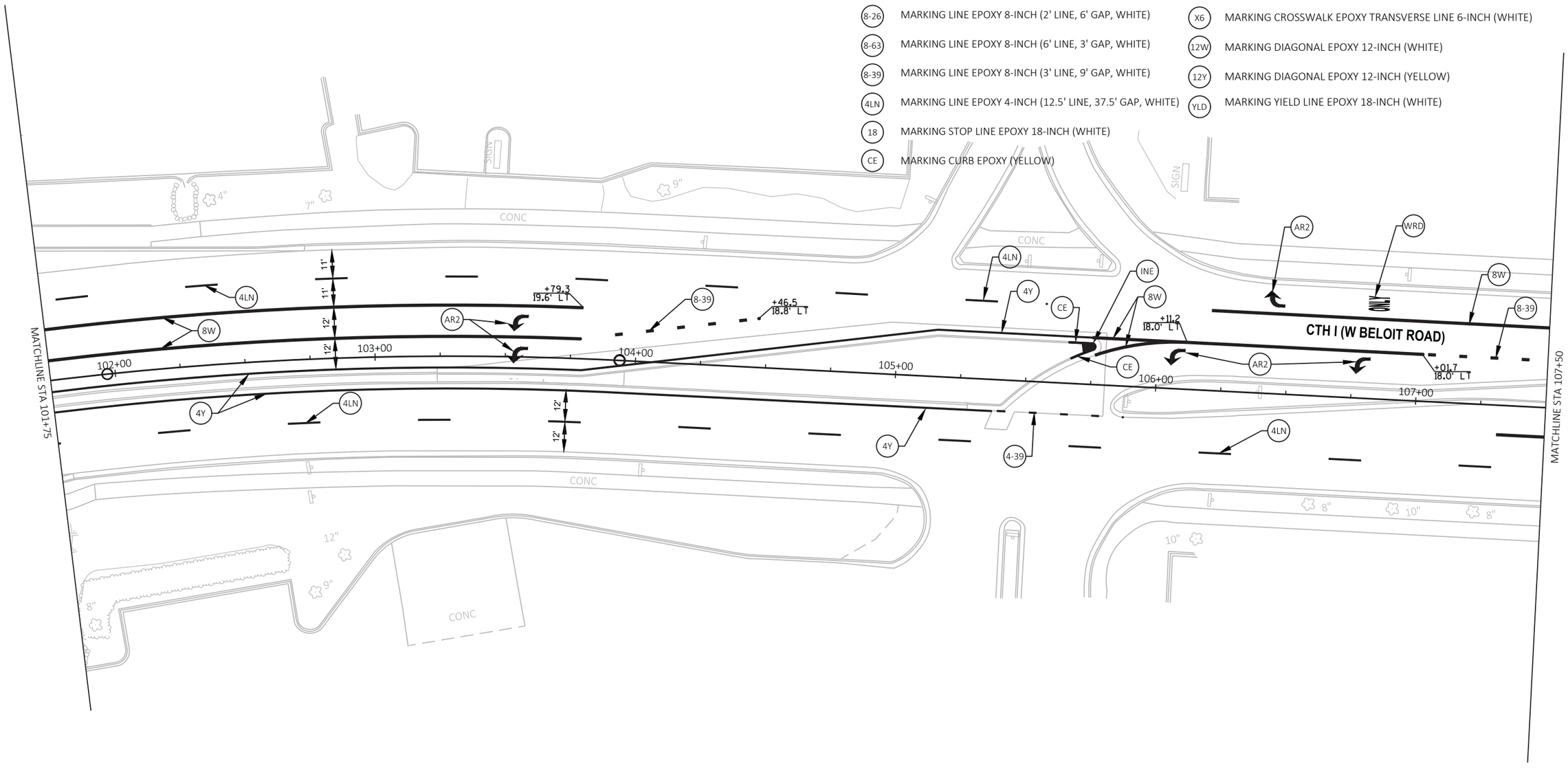
2

NOTES:
1. PLACEMENT OF ARROWS AND WORDS SHALL BE IN ACCORDANCE WITH SDD "PAVEMENT MARKING (TURN LANES)".
2. PAVEMENT MARKINGS SHOWN SCREENED ARE EXISTING PAVEMENT MARKINGS TO REMAIN.

PAVEMENT MARKING LEGEND

4W	MARKING LINE EPOXY 4-INCH (WHITE)	INE	MARKING ISLAND NOSE EPOXY (YELLOW)
4Y	MARKING LINE EPOXY 4-INCH (YELLOW)	AR1	MARKING ARROW EPOXY (TYPE 1, WHITE)
4-39	MARKING LINE EPOXY 4-INCH (3' LINE, 9' GAP, YELLOW)	AR2	MARKING ARROW EPOXY (TYPE 2, WHITE)
8W	MARKING LINE EPOXY 8-INCH (WHITE)	WRD	MARKING WORD EPOXY (WHITE)
8-26	MARKING LINE EPOXY 8-INCH (2' LINE, 6' GAP, WHITE)	X6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
8-63	MARKING LINE EPOXY 8-INCH (6' LINE, 3' GAP, WHITE)	12W	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
8-39	MARKING LINE EPOXY 8-INCH (3' LINE, 9' GAP, WHITE)	12Y	MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
4LN	MARKING LINE EPOXY 4-INCH (12.5' LINE, 37.5' GAP, WHITE)	YLD	MARKING YIELD LINE EPOXY 18-INCH (WHITE)
18	MARKING STOP LINE EPOXY 18-INCH (WHITE)		
CE	MARKING CURB EPOXY (YELLOW)		

N



SHEET 10 OF 12

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVEMENT MARKING - CTH I	SHEET 129	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 10

PLOT DATE : 7/28/2019 8:33 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

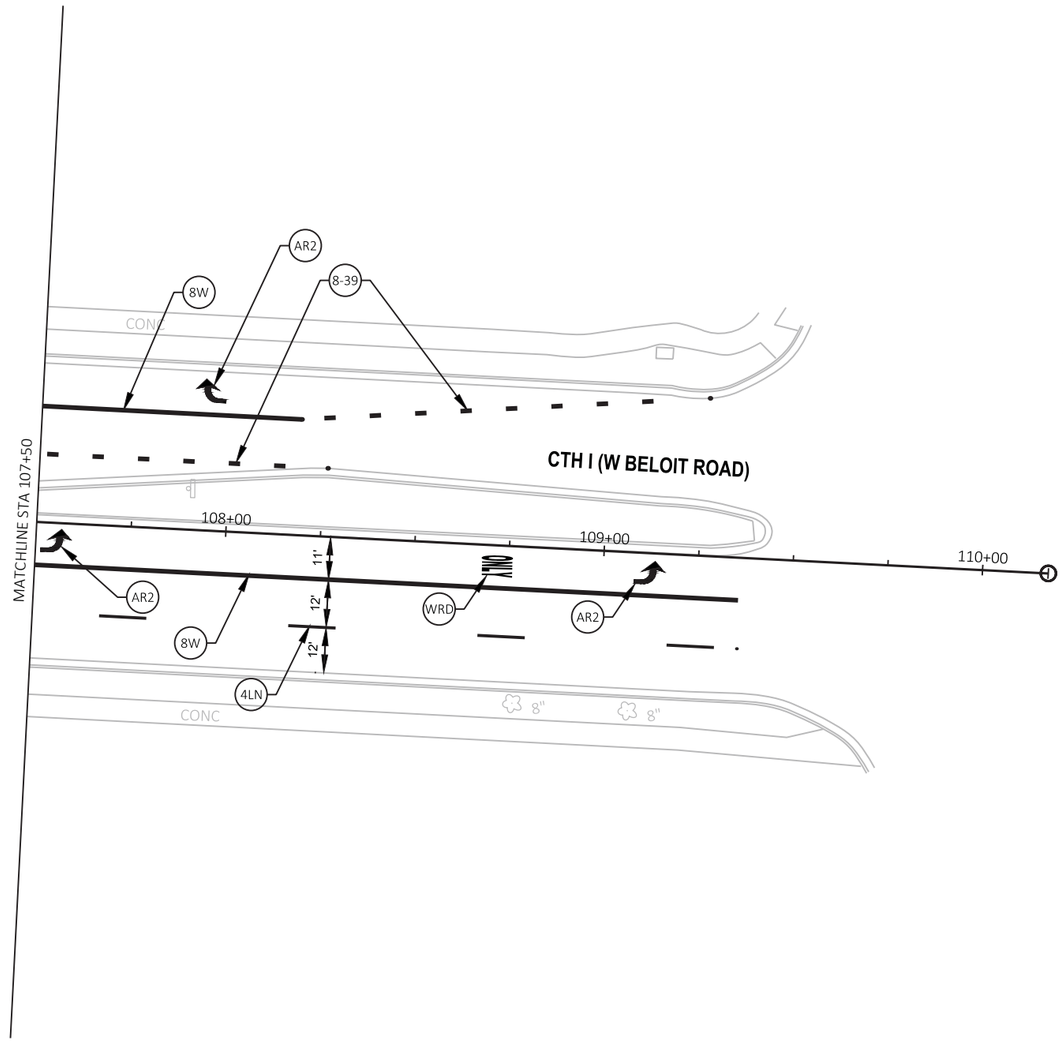
2

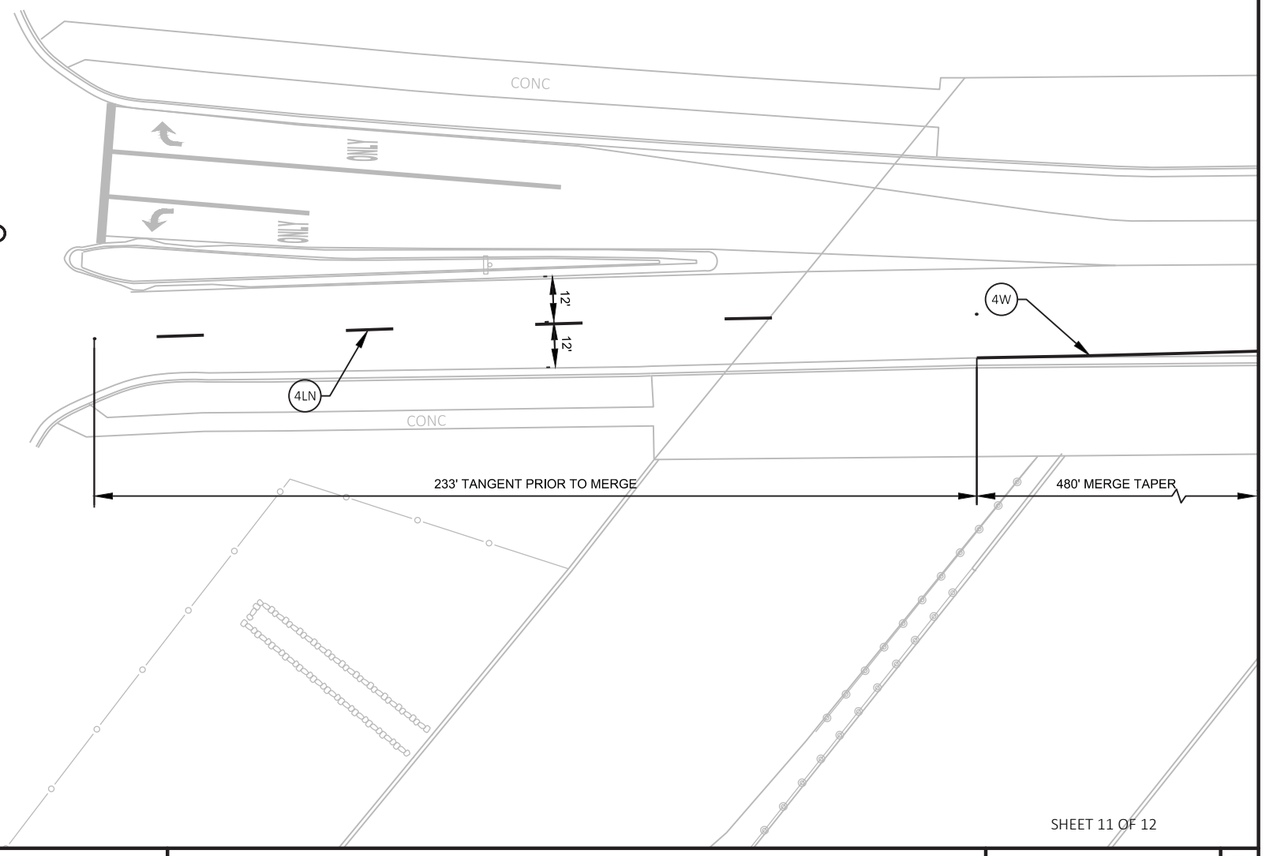
NOTES:
1. PLACEMENT OF ARROWS AND WORDS SHALL BE IN ACCORDANCE WITH SDD "PAVEMENT MARKING (TURN LANES)".
2. PAVEMENT MARKINGS SHOWN SCREENED ARE EXISTING PAVEMENT MARKINGS TO REMAIN.

PAVEMENT MARKING LEGEND

- (4W) MARKING LINE EPOXY 4-INCH (WHITE)
- (4Y) MARKING LINE EPOXY 4-INCH (YELLOW)
- (4-39) MARKING LINE EPOXY 4-INCH (3' LINE, 9' GAP, YELLOW)
- (8W) MARKING LINE EPOXY 8-INCH (WHITE)
- (8-26) MARKING LINE EPOXY 8-INCH (2' LINE, 6' GAP, WHITE)
- (8-63) MARKING LINE EPOXY 8-INCH (6' LINE, 3' GAP, WHITE)
- (8-39) MARKING LINE EPOXY 8-INCH (3' LINE, 9' GAP, WHITE)
- (4LN) MARKING LINE EPOXY 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
- (18) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (CE) MARKING CURB EPOXY (YELLOW)
- (INE) MARKING ISLAND NOSE EPOXY (YELLOW)
- (AR1) MARKING ARROW EPOXY (TYPE 1, WHITE)
- (AR2) MARKING ARROW EPOXY (TYPE 2, WHITE)
- (WRD) MARKING WORD EPOXY (WHITE)
- (X6) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (12W) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (12Y) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (YLD) MARKING YIELD LINE EPOXY 18-INCH (WHITE)

N





SHEET 11 OF 12

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVEMENT MARKING - CTH I	SHEET 130	E

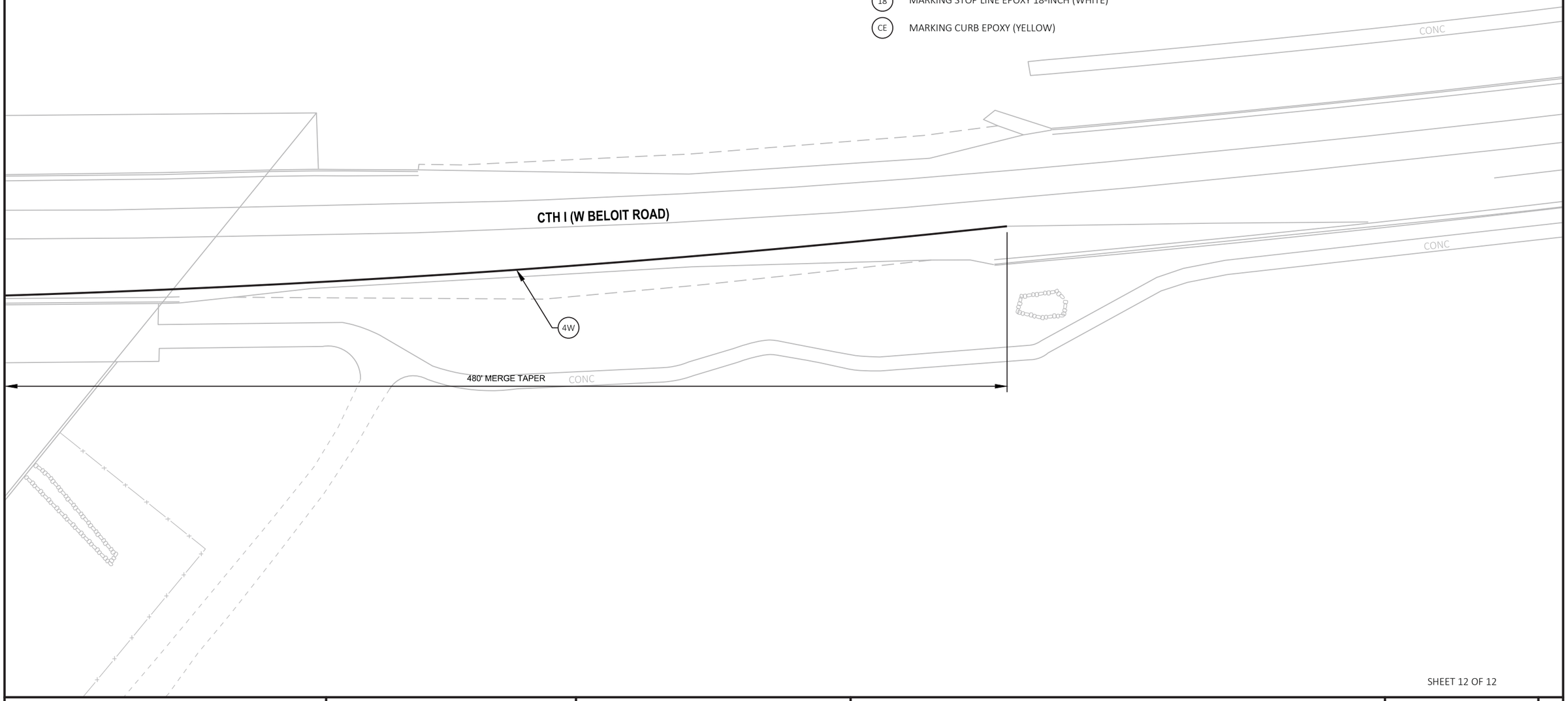
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 11
PLOT DATE : 7/28/2019 8:33 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

NOTES:
1. PLACEMENT OF ARROWS AND WORDS SHALL BE IN ACCORDANCE WITH SDD "PAVEMENT MARKING (TURN LANES)".
2. PAVEMENT MARKINGS SHOWN SCREENED ARE EXISTING PAVEMENT MARKINGS TO REMAIN.

PAVEMENT MARKING LEGEND

4W	MARKING LINE EPOXY 4-INCH (WHITE)
4Y	MARKING LINE EPOXY 4-INCH (YELLOW)
4-39	MARKING LINE EPOXY 4-INCH (3' LINE, 9' GAP, YELLOW)
8W	MARKING LINE EPOXY 8-INCH (WHITE)
8-26	MARKING LINE EPOXY 8-INCH (2' LINE, 6' GAP, WHITE)
8-63	MARKING LINE EPOXY 8-INCH (6' LINE, 3' GAP, WHITE)
8-39	MARKING LINE EPOXY 8-INCH (3' LINE, 9' GAP, WHITE)
4LN	MARKING LINE EPOXY 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
CE	MARKING CURB EPOXY (YELLOW)
INE	MARKING ISLAND NOSE EPOXY (YELLOW)
AR1	MARKING ARROW EPOXY (TYPE 1, WHITE)
AR2	MARKING ARROW EPOXY (TYPE 2, WHITE)
WRD	MARKING WORD EPOXY (WHITE)
X6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
12W	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
12Y	MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
YLD	MARKING YIELD LINE EPOXY 18-INCH (WHITE)

N



SHEET 12 OF 12

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PAVEMENT MARKING - CTH I	SHEET 131	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 12

PLOT DATE : 7/28/2019 8:33 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

GENERAL NOTES FOR CONSTRUCTION STAGING AND TRAFFIC CONTROL:

1. TRAFFIC CONTROL DRUMS IN TAPERS SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE "C", ONE WAY LIGHTS, UNLESS OTHERWISE SHOWN.
2. SIGN LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATION AND SPACING MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER TO MEET FIELD CONDITIONS.
3. SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED. THE COVERING OF TYPE II SIGNS IS INCLUDED UNDER THE BID ITEM TRAFFIC CONTROL COVERING SIGNS TYPE II. IN LIEU OF COVERING TYPE II SIGNS, THE CONTRACTOR MAY ELECT TO REMOVE AND REINSTALL THEM. THE COVERING OF ALL OR A PART OF A TYPE I SIGN MESSAGE SHALL BE PAID FOR UNDER THE BID ITEM TRAFFIC CONTROL COVERING SIGNS TYPE I.
4. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
5. ALL TRAFFIC CONTROL SIGNS SHALL BE 48"X48" UNLESS OTHERWISE NOTED IN THE PLANS.
6. A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OF LEAVE "WORK/CLOSED" AREAS IF WARRANTED BY CONDITIONS AND/OR AS DIRECTED BY THE ENGINEER.
7. CONTRACTOR SHALL INSTALL PERMANENT SIGNS AND PERMANENT PAVEMENT MARKING WHEN APPROPRIATE DURING CONSTRUCTION STAGING AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
8. ADEQUATE TURNING PROVISIONS SHALL BE MAINTAINED FOR ALL VEHICLES, INCLUDING TRUCKS, EXCEPT FOR TURNING MOVEMENTS HAVING A TRUCK DETOUR AS SHOWN IN THE PLANS. DO NOT USE TRUCK DETOURS FOR TURNING MOVEMENTS NOT SHOWN IN THE PLAN WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
9. ALL EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED.
10. EXISTING PAVEMENT MARKINGS TO BE REMOVED THAT WILL NOT BE REPLACED IN THE SAME LOCATION AFTER CONSTRUCTION SHALL BE REMOVED USING WATER BLASTING. DO NOT GRIND EXISTING PAVEMENT MARKINGS THAT WILL NOT BE REPLACED AFTER CONSTRUCTION.
11. BARRICADE STRIPES SHALL POINT DOWNWARD IN THE DIRECTION OF TRAFFIC FLOW.
12. THE CONTRACTOR SHALL ENSURE ADEQUATE DRAINAGE AND AVOID ANY PONDING OR STANDING WATER DURING THE STAGED CONSTRUCTION.
13. TEMPORARY MARKINGS SHALL BE TEMPORARY TAPE WHEN PLACED ON NEW OR EXISTING PAVEMENT SURFACES THAT ARE TO REMAIN IN PLACE FOLLOWING CONSTRUCTION. PAINT MAY BE USED ON EXISTING PAVEMENT OR BINDER HMA LAYERS THAT ARE TO BE REMOVED OR OVERLAID IN SUBSEQUENT STAGES.

DISTANCE FROM EDGE OF TRAVELED WAY	DROP OFF AND HAZARD PROTECTION REQUIREMENTS
0 TO 8 FEET	DELINEATE VERTICAL DROP OFFS 2 INCHES OR GREATER OR SLOPES STEEPER THAN 3:1 WITH DRUMS OR BARRICADES BY END OF WORK DAY. ELIMINATE VERTICAL DROP OFFS 2 INCHES OR GREATER OR SLOPES STEEPER THAN 3:1 WITHIN 72 HOURS OR BEFORE HOLIDAY WEEKEND DO NOT STORE MATERIALS, CONSTRUCTION EQUIPMENT, AND OTHER CONSTRUCTION HAZARDS WITHIN 8 FEET OF TRAVELED WAY
8 TO 15 FEET	DELINEATE VERTICAL DROP OFFS 4 INCHES OR GREATER OR SLOPES STEEPER THAN 3:1 WITH DRUMS, BARRICADES, OR BARRIER BY END OF WORK DAY.

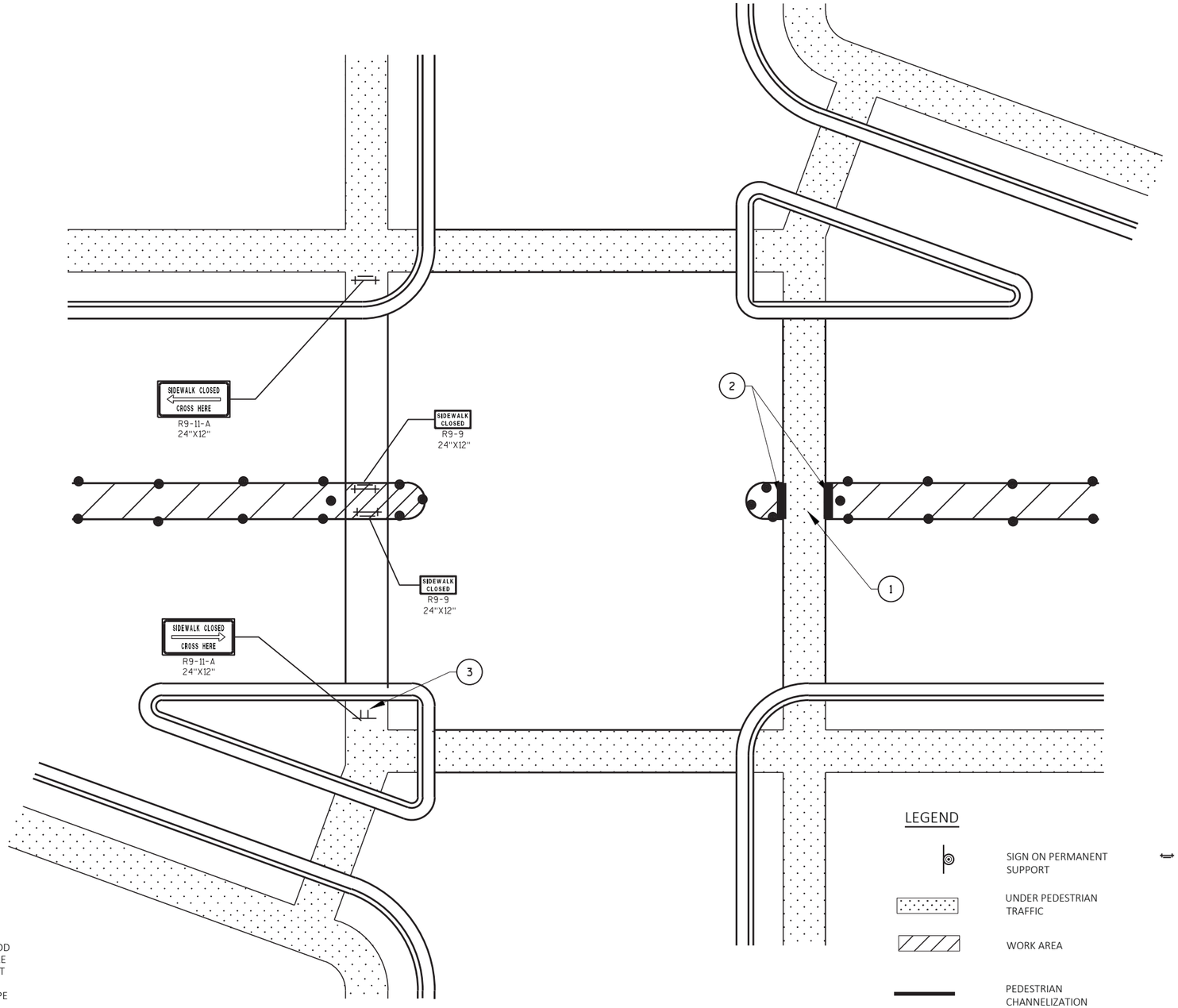
LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- TRAFFIC CONTROL ARROW BOARD
- TRAFFIC CONTROL FLEXIBLE TUBULAR MAKER POST AND BASE
- POST MOUNTED TRAFFIC CONTROL SIGNS
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TYPE A WARNING LIGHTS WITH/WITHOUT SIGN
- ETSR — EXISTING SIGN TO REMAIN
- PCMS — TRAFFIC CONTROL SIGNS PCMS
- PAVEMENT MARKING INSTALLED THIS STAGE
- PAVEMENT MARKING INSTALLED IN PREVIOUS STAGE
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY 16"X16" FLAGS (INCIDENTAL TO TRAFFIC CONTROL SIGNS)

TEMPORARY PAVEMENT MARKING LEGEND

- P — PERMANENT PAVEMENT MARKINGS (SEE PAVEMENT MARKING PLAN)
- TW4 — TEMPORARY MARKING LINE REMOVABLE TABLE 4-INCH (WHITE)
- TWL — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) 12.5' LINE, 37.5' GAP)
- TWS — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) (3' SKIP, 9' GAP)
- TY4 — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- TYS — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW) (2' SKIP, 6' GAP)
- TW8 — TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- TSB — TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

2



1. PROVIDE ACCESSIBLE FACILITY THROUGH WORK ZONE USING EXISTING PAVEMENT, PROPOSED SIDEWALK, OR TEMPORARY PEDESTRIAN SURFACE.
2. TEMPORARY PEDESTRIAN BARRICADES ARE REQUIRED WHEN CONSTRUCTION ACTIVITIES OR DROP OFFS OCCUR WITHIN 4 FEET OF THE EDGE OF THE PEDESTRIAN ACCESS ROUTE. SEE SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION FOR MORE DETAILS. CONCRETE BARRIER TEMPORARY PRECAST SHALL NOT BE USED.
3. USE TYPE III BARRICADES FOR SIGNS WHEN POSSIBLE. USE TYPE II BARRICADES WHEN TYPE III BARRICADE WOULD CREATE A SIGHT DISTANCE HAZARD FOR DRIVERS.

LEGEND

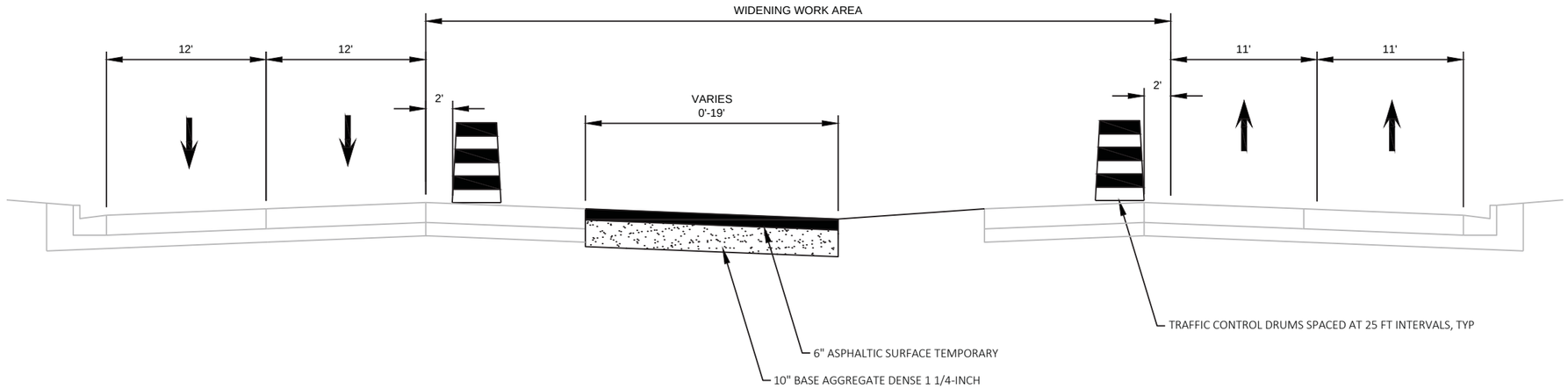
- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TRAFFIC CONTOL DRUM
- TYPE II BARRICADE WITH SIGN

MEDIAN SIDEWALK CLOSURE DETAIL

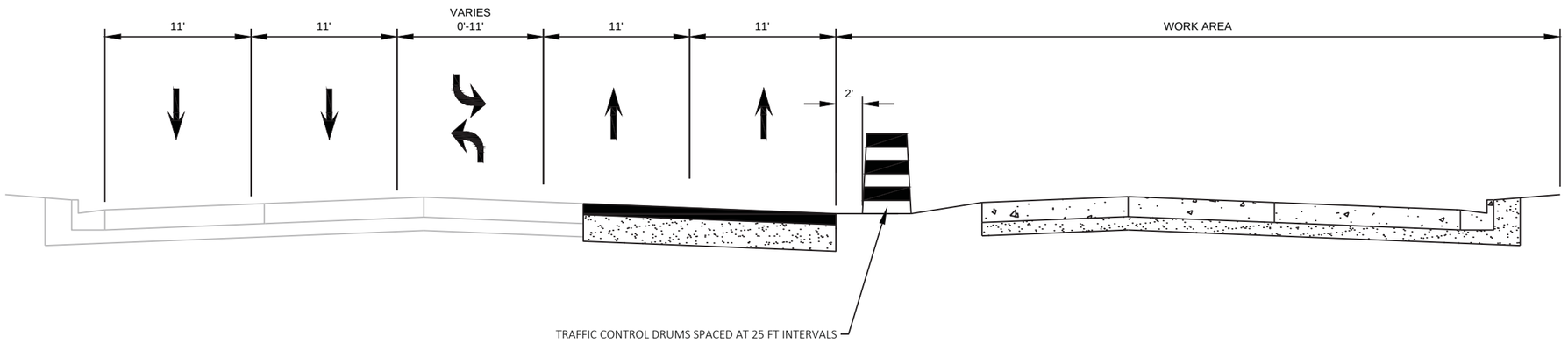
FOR USE ON ALL DIVIDED HIGHWAY CROSSINGS

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - CONSTRUCTION DETAILS	SHEET 133	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025000B-TC CD.DWG
LAYOUT NAME - 01
PLOT DATE : 7/29/2019 11:41 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:0.5 FT
WISDOT/CADDS SHEET 42



STAGE 1
CTH O

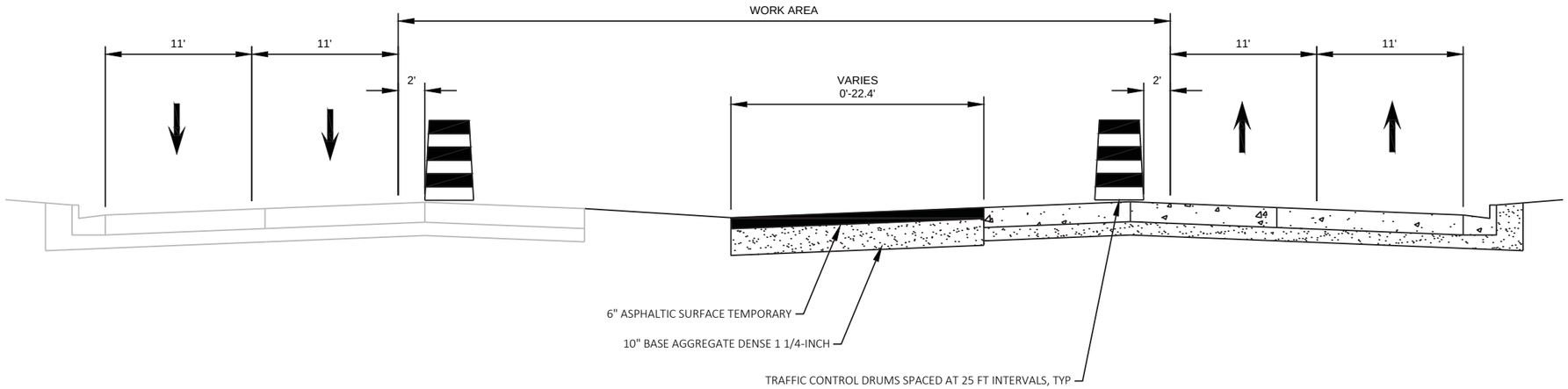


STAGE 2
CTH O

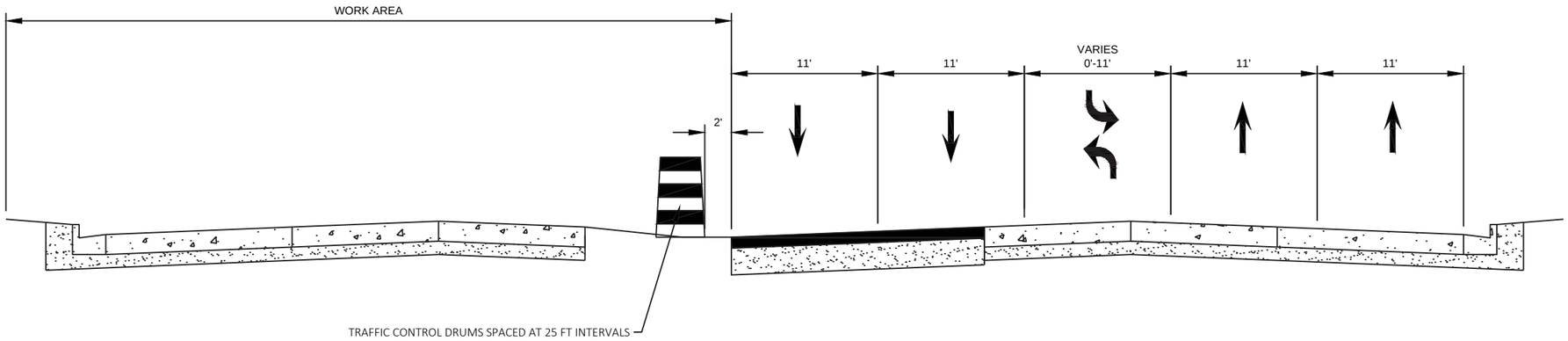
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PLAN: TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET 134	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025000A-TC TYP.DWG
LAYOUT NAME - S1-S2
PLOT DATE : 7/28/2019 8:35 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

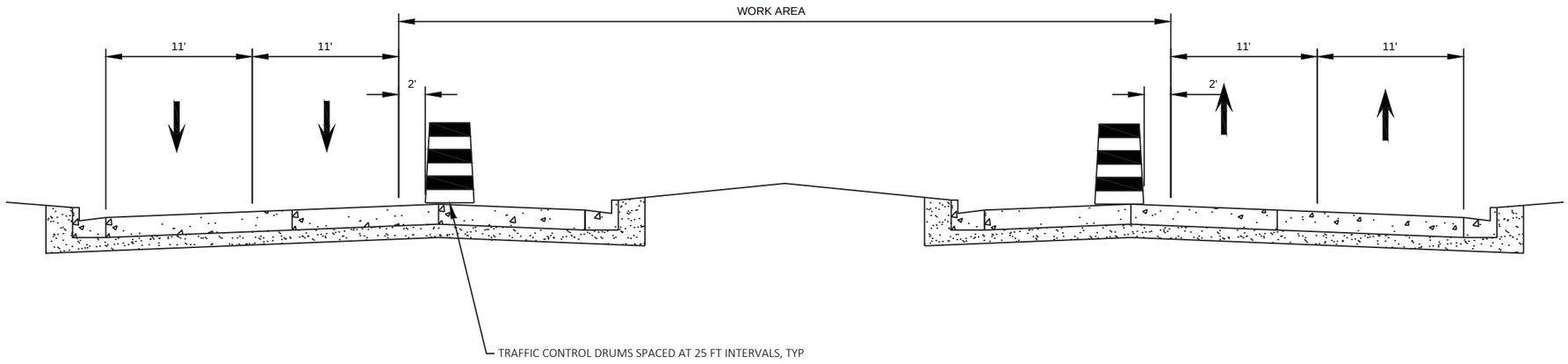


STAGE 3
CTH O



STAGE 4
CTH O

2



STAGE 5
CTH O

2

TRAFFIC CONTROL NOTES - STAGE 1

CONSTRUCTION:

- TEMPORARY TRAFFIC SIGNALS (PRIOR TO OTHER STAGE 1 WORK)
- CTH O TEMPORARY PAVEMENT AND CROSSOVERS IN CTH O MEDIAN

TRAFFIC:

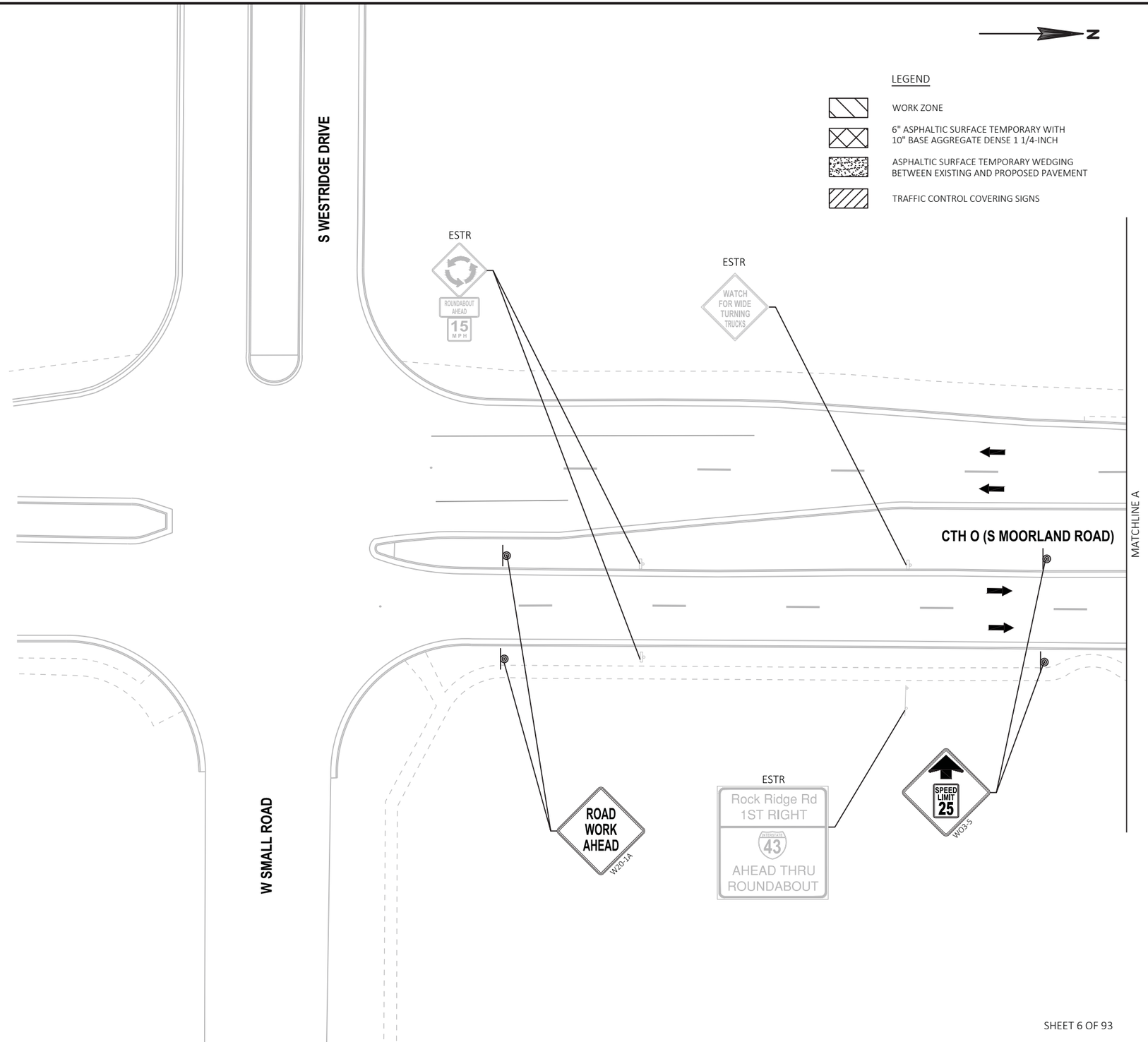
- CTH O - 2 THRU LANES IN EACH DIRECTION
- CTH I - 1 THRU LANE IN EACH DIRECTION
- IH 43 SB EXIT RAMP FREE FLOW LANE TO NB CTH O TO REMAIN OPEN

PEDESTRIANS:

- SIDEWALKS AND CROSSWALKS PARALLEL TO CTH O OPEN AT ALL TIMES
- SIDEWALKS PARALLEL TO CTH I OPEN AT ALL TIMES
- ALTERNATE CLOSURE OF CROSSWALKS ACROSS CTH O SO THAT ONE CROSSWALK IS OPEN AT ALL TIMES

NOTES:

1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE



SHEET 6 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 1	SHEET 137	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025001-TC-S1.DWG
LAYOUT NAME - 01

PLOT DATE : 7/28/2019 8:36 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

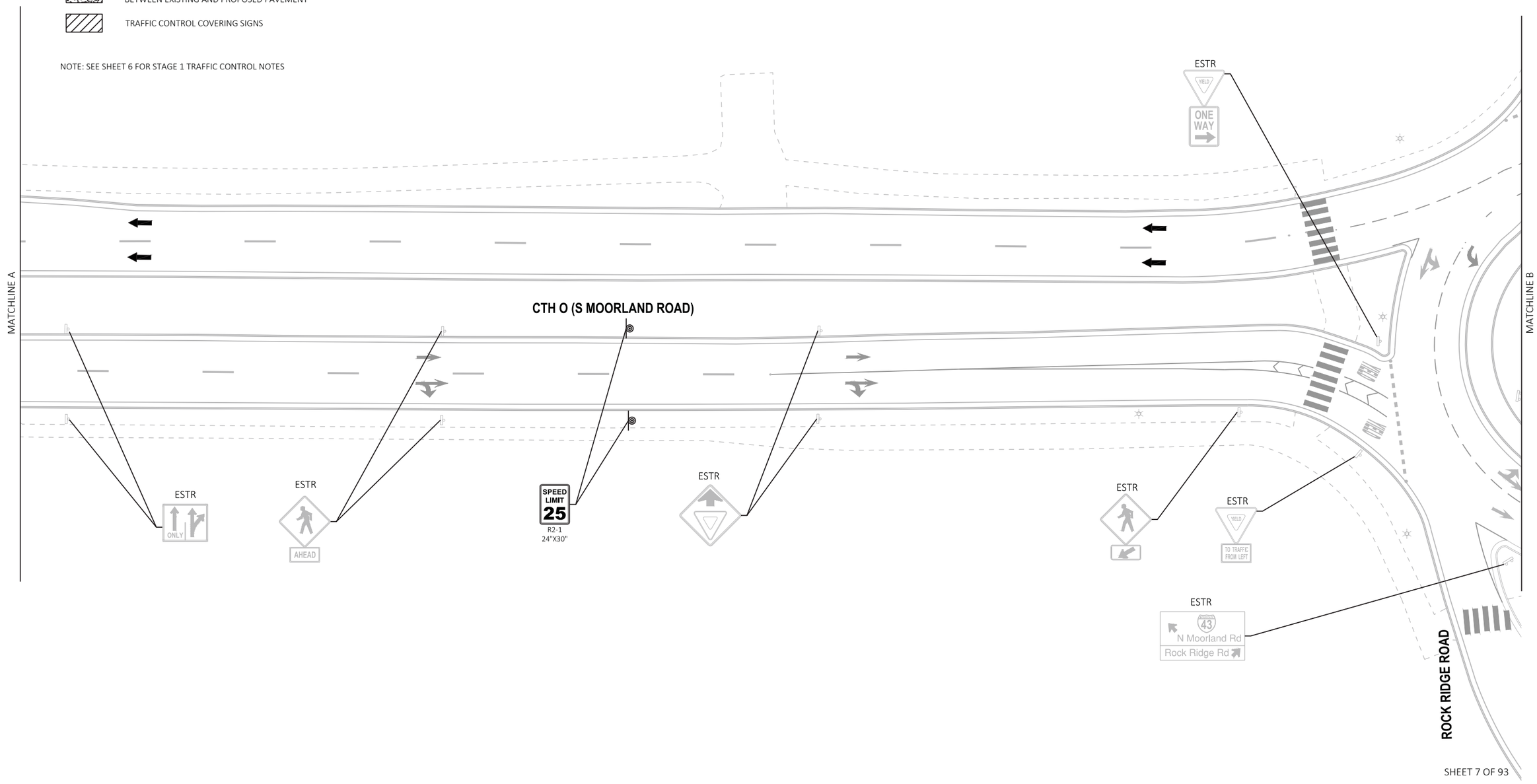
WISDOT/CADDS SHEET 42

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 6 FOR STAGE 1 TRAFFIC CONTROL NOTES



SHEET 7 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 1	SHEET 138	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025001-TC-S1.DWG
LAYOUT NAME - 02
PLOT DATE : 7/28/2019 8:36 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

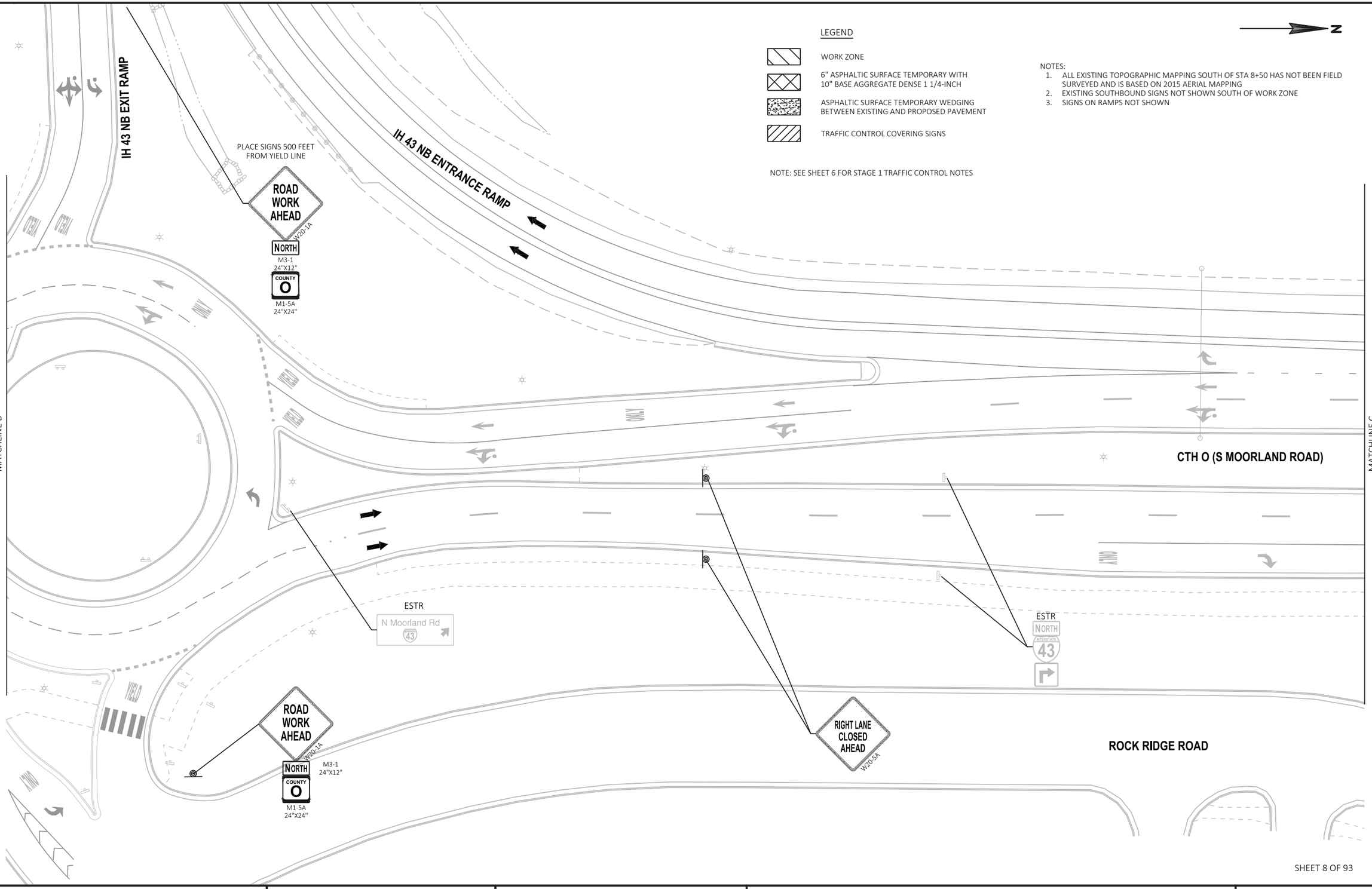
2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE
3. SIGNS ON RAMPS NOT SHOWN

NOTE: SEE SHEET 6 FOR STAGE 1 TRAFFIC CONTROL NOTES



SHEET 8 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 1	SHEET 139	E

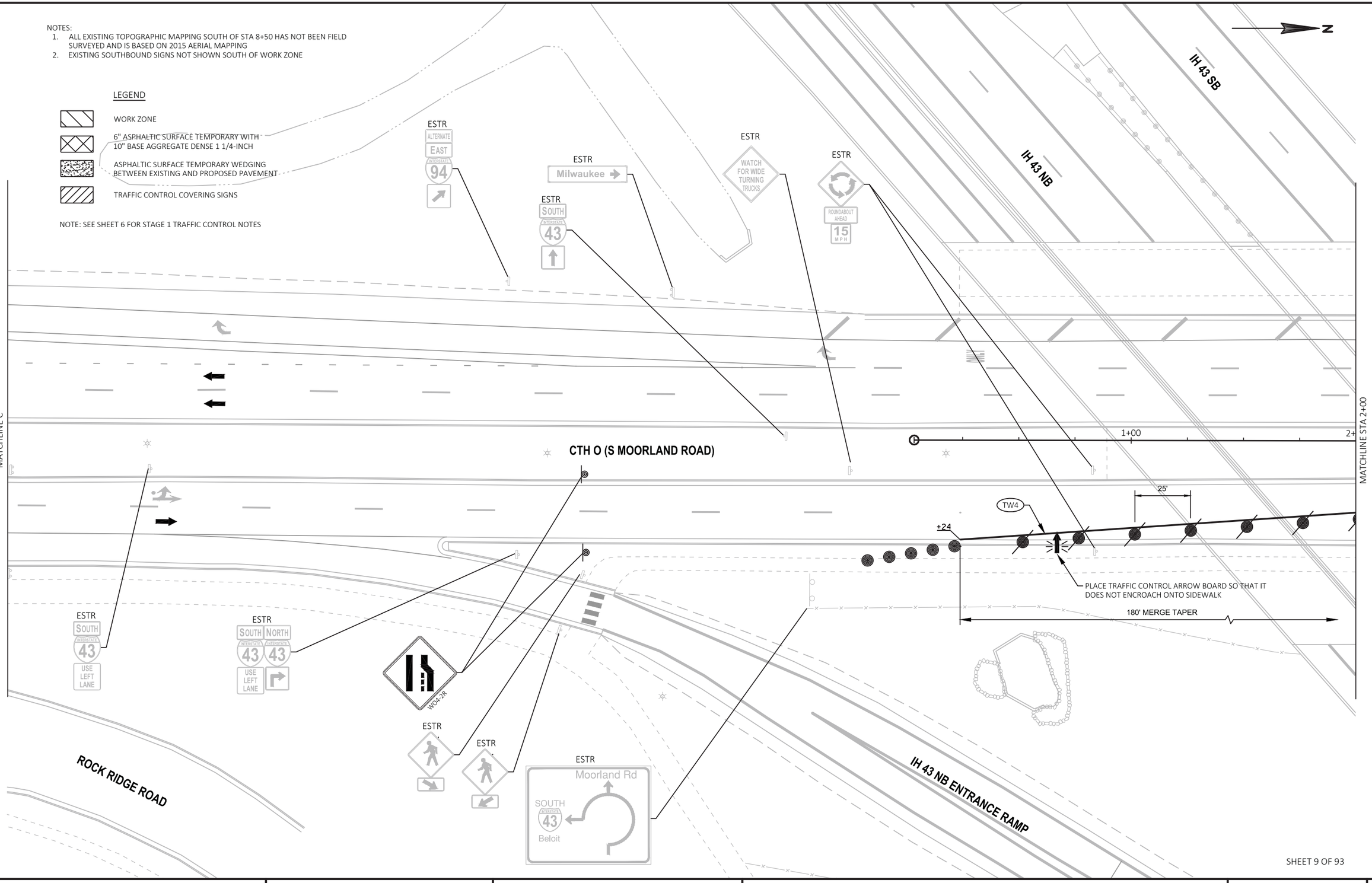
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025001-TC-S1.DWG
LAYOUT NAME - 03
PLOT DATE : 7/28/2019 8:36 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 6 FOR STAGE 1 TRAFFIC CONTROL NOTES



SHEET 9 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 1	SHEET 140	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025001-TC-S1.DWG
LAYOUT NAME - 04
PLOT DATE : 7/28/2019 8:36 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

N

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 6 FOR STAGE 1 TRAFFIC CONTROL NOTES

PLACE SIGN 500 FEET DOWN RAMP

END ROAD WORK
G20-2A
48"X24"

IH 43 SB ENTRANCE RAMP

ESTR NORTH INTERSTATE 43

ESTR 43 SOUTH

ESTR ROUNDABOUT AHEAD 15 MPH

ESTR S Moorland Rd TO 43 NORTH

END ROAD WORK
G20-2A
48"X24"

ESTR YIELD TO TRAFFIC FROM LEFT

END OF 180' MERGE TAPER

LANE CLOSED
R11-2L
48"X30"

MATCHLINE STA 2+00

3+00 4+00 5+00 6+00 7+00 8+

MATCHLINE STA 8+00

CTH O (S MOORLAND ROAD)

+92
32' LT

18'

ESTR ONE WAY

ESTR YIELD ONE WAY

ESTR 43 SOUTH N Moorland Rd

ESTR ONE WAY

+95
16' RT

TY4

SIGN

15'

12'

+33
57' RT

+01
70' RT

TW8

+04

12'

25'

TW4

+74

R150'

+65

+84
53' RT

TW4

ESTR YIELD ONE WAY

ESTR YIELD TO TRAFFIC FROM LEFT

PROVIDE SUFFICIENT WIDTH FOR TRUCKS TO MANEUVER THROUGH ROUNDABOUT ENTRY

IH 43 SB

IH 43 NB

TW4

18'

YIELD

YIELD

ASPH CONC

ASPH CONC

ESTR RIGHT TURN NO STOP

ESTR

CHAIN LINK FENCE

LANE CLOSED
R11-2L
48"X30"

ESTR YIELD ONE WAY

ROAD WORK AHEAD
W20-1A

PLACE SIGN 500 FEET FROM YIELD LINE ON RIGHT SIDE OF RAMP

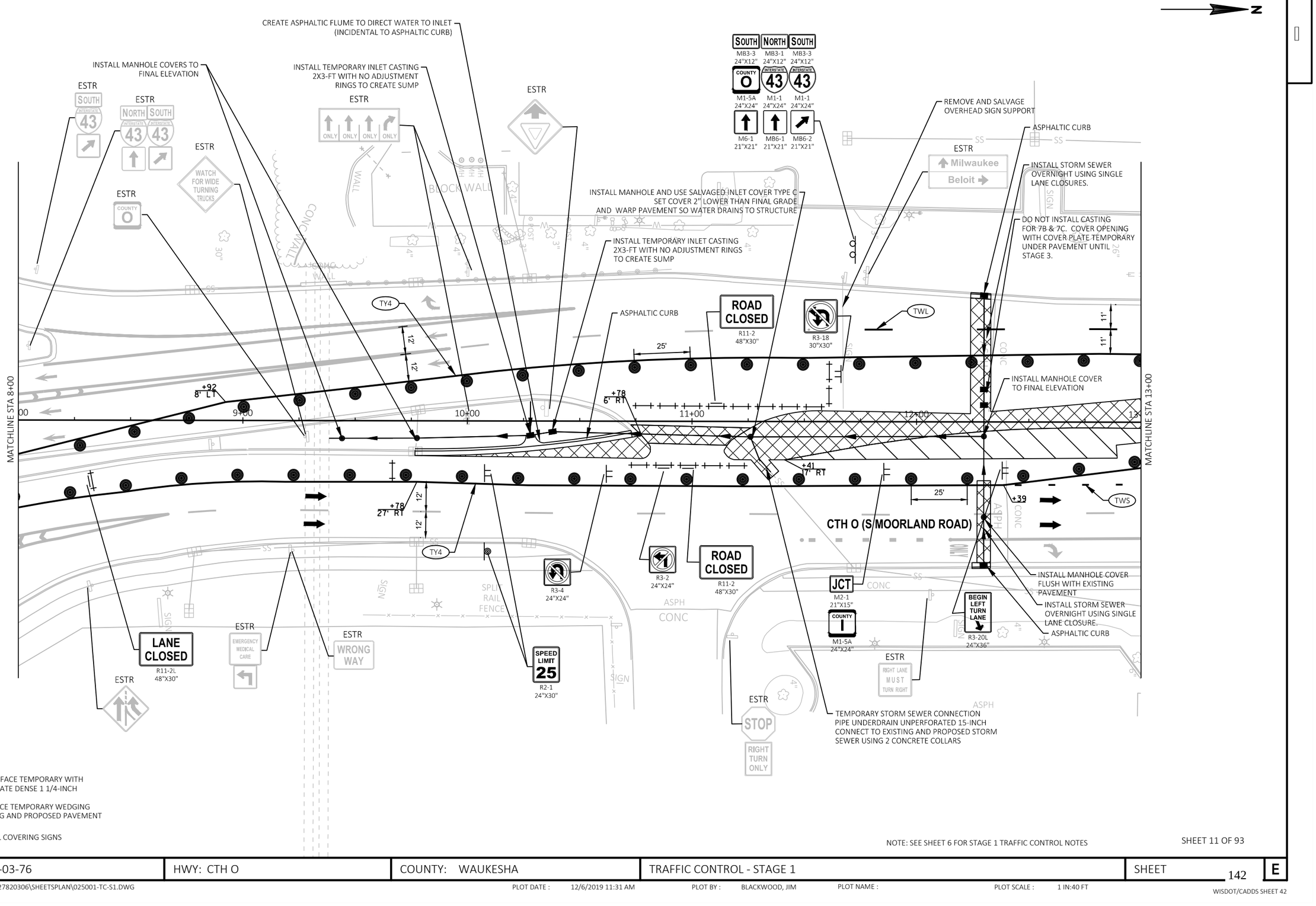
ESTR YIELD

SHEET 10 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 1	SHEET 141	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025001-TC-S1.DWG
LAYOUT NAME - 05

PLOT DATE : 7/28/2019 8:36 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT



NOTE: SEE SHEET 6 FOR STAGE 1 TRAFFIC CONTROL NOTES

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 1	SHEET 142	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025001-TC-S1.DWG
LAYOUT NAME - 06
PLOT DATE : 12/6/2019 11:31 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

12' 12' 12'

25'

TY4

98+00

LANE CLOSED
R11-2L
48"X30"

ESTR
ROUNDABOUT AHEAD
15 MPH

W2-6
30"X30"
ROUNDABOUT AHEAD
W2-6P
30"X16"
15 MPH
W13-1
18"X18"

SPEED LIMIT 25
R2-1
24"X30"

ESTR
COUNTY O
JCT
INTERSTATE 43

JCT
M2-1
21"X15"
INTERSTATE 43
M1-1
24"X24"

WO1-6
48"X24"

MAINTAIN ONE CROSSING OF CTH O AT ALL TIMES
SEE MEDIAN SIDEWALK CLOSURE DETAIL

ESTR
EMERGENCY MEDICAL CARE

ESTR
ALTERNATE EAST
INTERSTATE 94

TSB
TWS
TWL
TW8

10' 11' 11' 11'

25'

+32
+61
23' LT
+62
8' RT
+38
14' LT
+62
+52
12' RT
+40
20' RT
+33
+39
+69
+80
4' RT
+84
4' RT
+75
11' RT
+88

12' 12' 12' 11'

CTH O (S MOORLAND ROAD)

ONLY

CONC

ESTR
WRONG WAY
R3-8V
72"X30"
BRICK WALL
GATE

ESTR
RIGHT LANE MUST TURN RIGHT

ESTR
ALTERNATE WEST
INTERSTATE 94

ESTR
EMERGENCY MEDICAL CARE

LANE CLOSED
R11-2L
48"X30"

101+00

11' 12' 11'

CTH I (W BELOIT ROAD)

MATCHLINE STA 101+75

WARP PAVEMENT TO DIRECT WATER TO EXISTING INLET

SPEED LIMIT 25
R2-1
24"X30"

BEGIN LEFT TURN LANE
R3-20L
24"X36"

ESTR
NO SEMI ACCESS

ESTR
SPEED LIMIT 40
COVER SIGN
UNTIL END OF PROJECT

ESTR
ONE WAY

POST

MATCHLINE STA 13+00

MATCHLINE STA 19+00

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 6 FOR STAGE 1 TRAFFIC CONTROL NOTES

SHEET 12 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 1	SHEET 143	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025001-TC-S1.DWG
LAYOUT NAME - 07
PLOT DATE : 7/28/2019 8:36 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

MATCHLINE STA 19+00

MATCHLINE STA 25+00

ESTR JCT COUNTY I

BEGIN LEFT TURN LANE
R3-20L
24"X36"

SPEED LIMIT 25
R2-1
24"X30"

WO1-6
48"X24"

ESTR DO NOT ENTER

TWS

TWL

TW8

TW4

TY4

11'

12'

25'

+24

+81

+82

+90

+91

+63

+03
18' LT

+59
28' LT

20+00

21+00

22+00

23+00

24+00

ONLY

ASPH

ROCK WALL

CONC

SS

MH

ESTR LEFT LANE MUST TURN LEFT

CTH O (S MOORLAND ROAD)

ONE WAY
R6-2R
24"X30"

ESTR STOP

ESTR ONLY ONLY ONLY ONLY ONLY

ESTR WRONG WAY

ESTR DO NOT ENTER

SIGN

6"

3"

4"

8"

NOTE: SEE SHEET 6 FOR STAGE 1 TRAFFIC CONTROL NOTES

NOTES:
1. EXISTING TOPOGRAPHIC MAPPING NORTH OF OF STA 23+25 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING NORTHBOUND SIGNS NOT SHOWN NORTH OF TARGET DRIVEWAY

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

SHEET 13 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 1	SHEET 144	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025001-TC-S1.DWG
LAYOUT NAME - 08

PLOT DATE : 7/28/2019 8:36 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

MATCHLINE STA 25+00

MATCHLINE STA 31+00

ESTR
RIGHT LANE MUST TURN RIGHT

TW4

TWL

WO12-1D
24"X24"

TW4

+11
35' LT

25'

+74
24' LT

TW8

+69
13' LT

ESTR
LEFT LANE MUST TURN LEFT

TWS

ESTR

+84
24' LT

BEGIN LEFT TURN LANE
R3-20L
24"X36"

25'

11'

11'

+54
25' LT

COVER SIGN
ESTR
SPEED LIMIT 40

+90
36' LT

TW4

+25
47' LT

12'

12'

TY4

-00

26+00

27+00

28+00

29+00

30+00

31-

SS

LANE CLOSED
R11-2L
48"X30"

CTH O (S MOORLAND ROAD)

END ROAD WORK
G20-2A
48"X24"

LANE CLOSED
R11-2L
48"X30"

ESTR
SPEED LIMIT 40

NOTES:
1. EXISTING TOPOGRAPHIC MAPPING NORTH OF OF STA 23+25 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING NORTHBOUND SIGNS NOT SHOWN NORTH OF TARGET DRIVEWAY

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 6 FOR STAGE 1 TRAFFIC CONTROL NOTES

SHEET 14 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 1	SHEET 145	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025001-TC-S1.DWG
LAYOUT NAME - 09

PLOT DATE : 7/28/2019 8:36 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

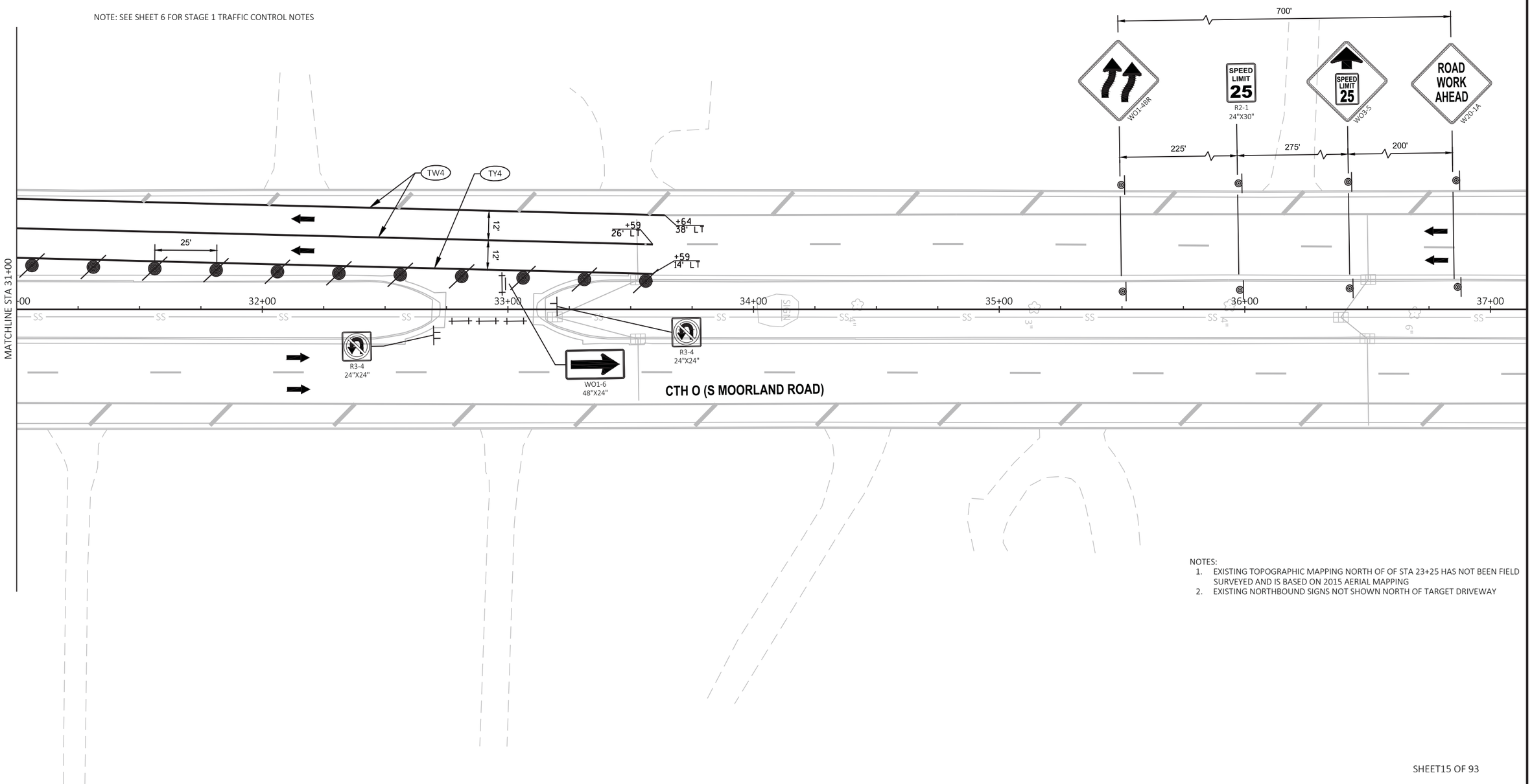
WORK ZONE

6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH

ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT

TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 6 FOR STAGE 1 TRAFFIC CONTROL NOTES



NOTES:

1. EXISTING TOPOGRAPHIC MAPPING NORTH OF OF STA 23+25 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING NORTHBOUND SIGNS NOT SHOWN NORTH OF TARGET DRIVEWAY

SHEET15 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 1	SHEET 146	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025001-TC-S1.DWG
LAYOUT NAME - 10

PLOT DATE : 7/28/2019 8:36 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

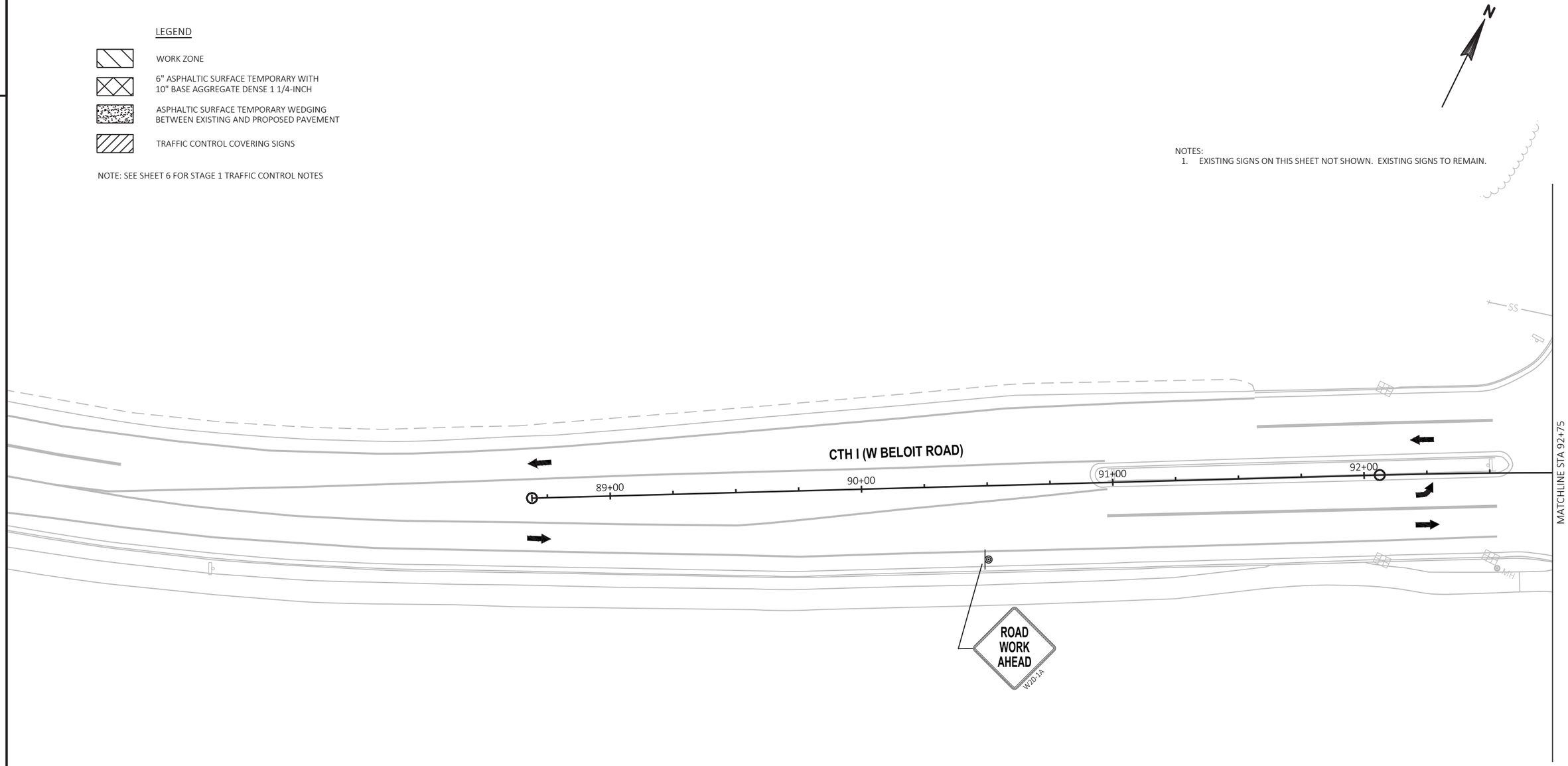
WISDOT/CADDS SHEET 42

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 6 FOR STAGE 1 TRAFFIC CONTROL NOTES

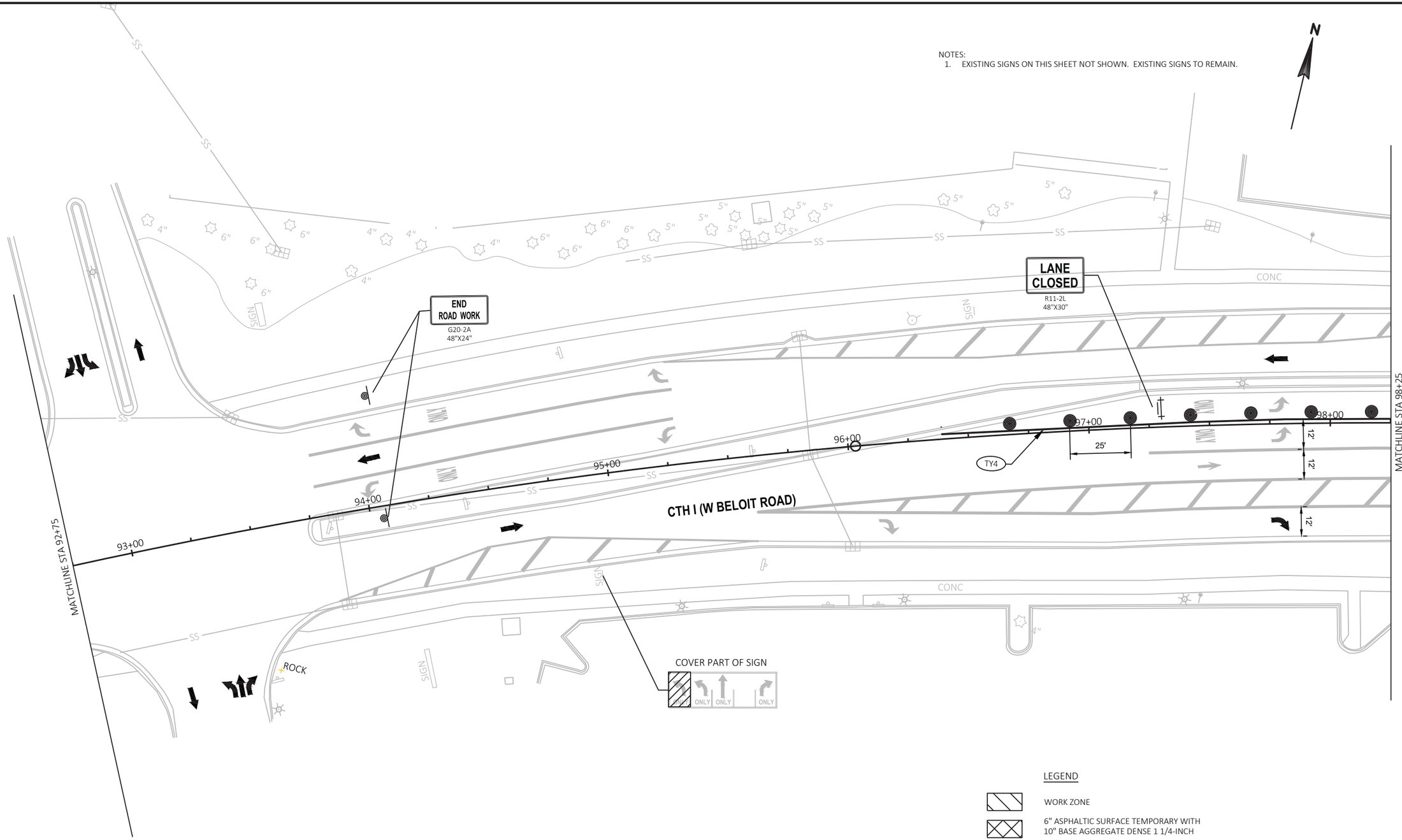
NOTES:
1. EXISTING SIGNS ON THIS SHEET NOT SHOWN. EXISTING SIGNS TO REMAIN.



PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 1	SHEET 147	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025001-TC-S1.DWG
LAYOUT NAME - 11
PLOT DATE : 7/28/2019 8:36 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

NOTES:
1. EXISTING SIGNS ON THIS SHEET NOT SHOWN. EXISTING SIGNS TO REMAIN.



LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 6 FOR STAGE 1 TRAFFIC CONTROL NOTES

SHEET 17 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 1	SHEET 148	E

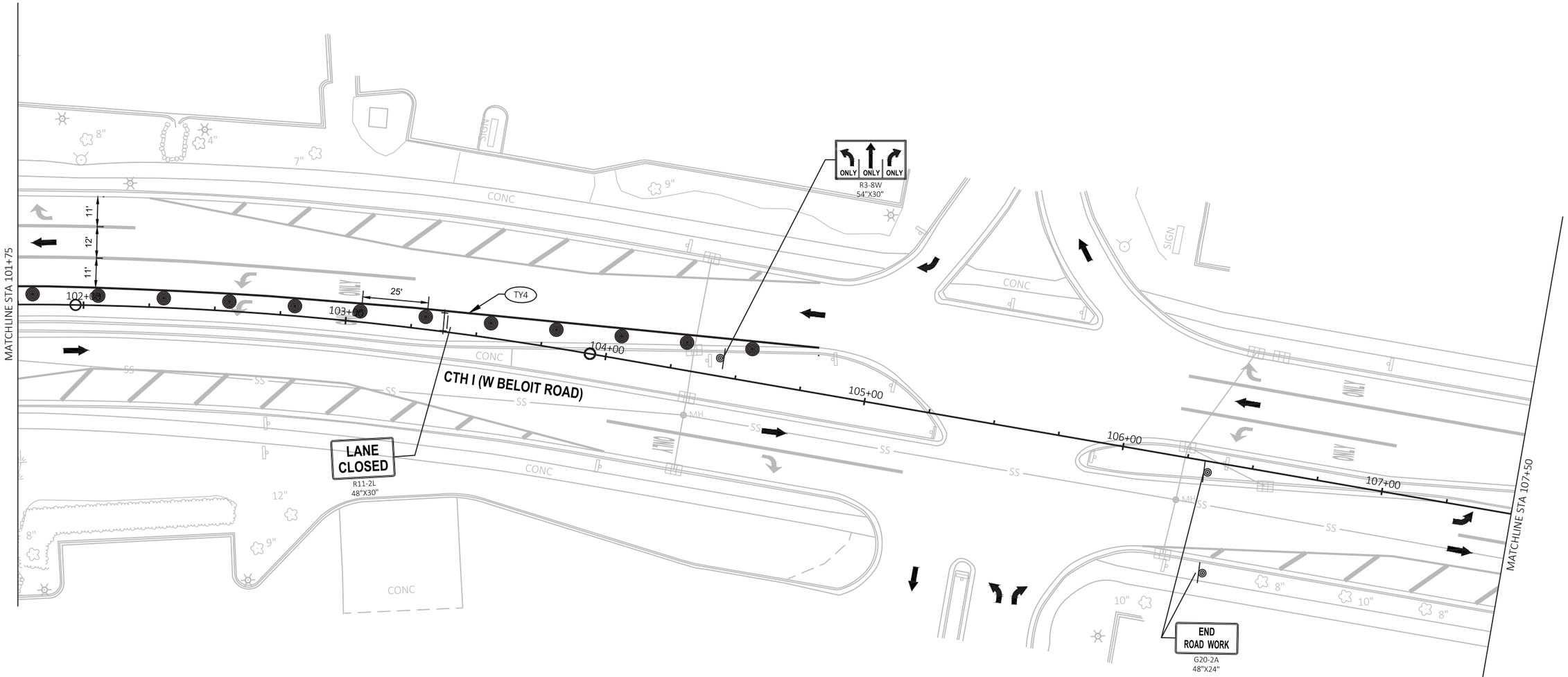
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025001-TC-S1.DWG
LAYOUT NAME - 12
PLOT DATE : 7/28/2019 8:37 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 6 FOR STAGE 1 TRAFFIC CONTROL NOTES

NOTES:
1. EXISTING SIGNS ON THIS SHEET NOT SHOWN. EXISTING SIGNS TO REMAIN.



PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 1	SHEET 149	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025001-TC-S1.DWG
LAYOUT NAME - 13
PLOT DATE : 7/28/2019 8:37 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

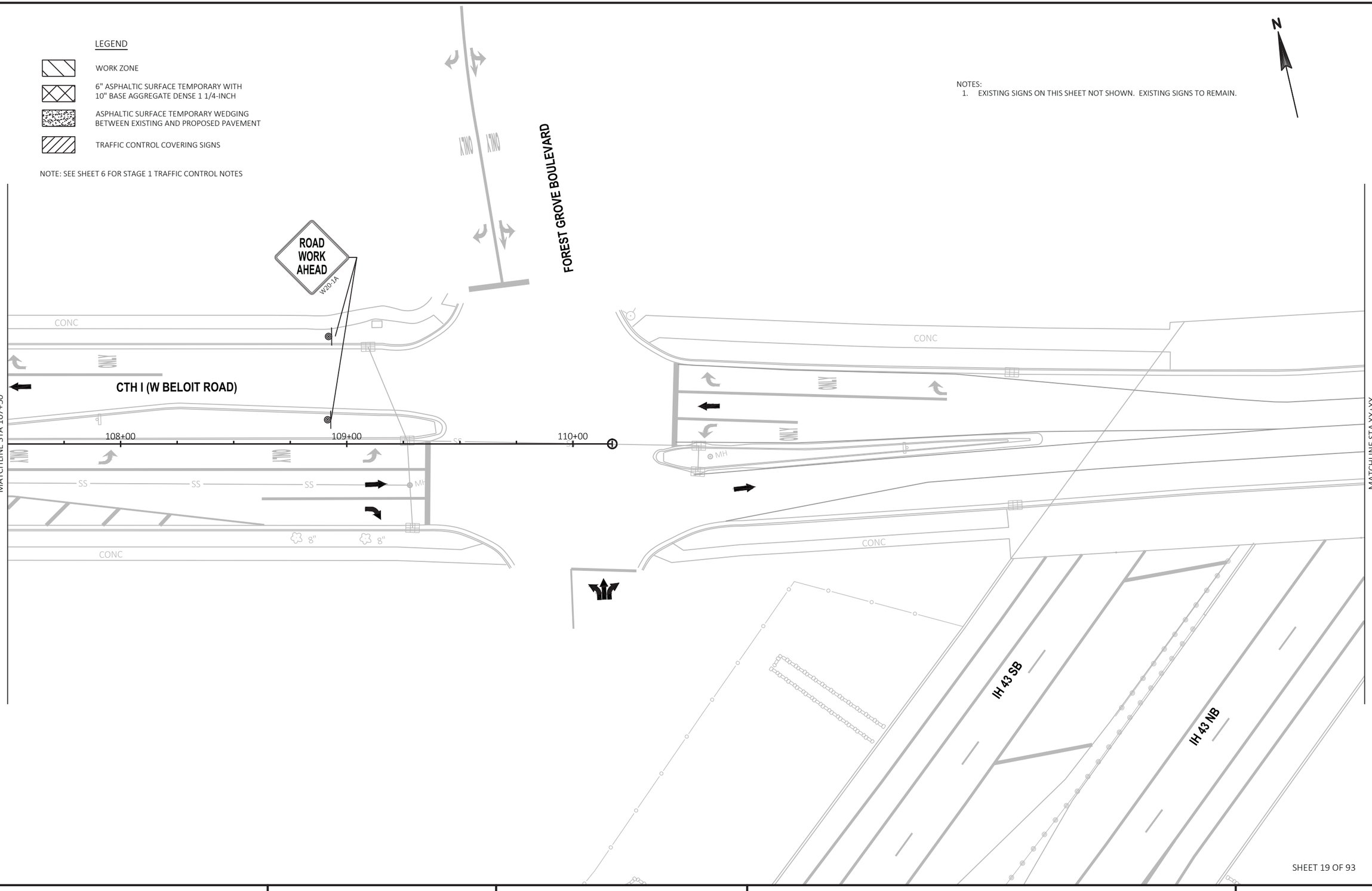
2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 6 FOR STAGE 1 TRAFFIC CONTROL NOTES

NOTES:
1. EXISTING SIGNS ON THIS SHEET NOT SHOWN. EXISTING SIGNS TO REMAIN.



SHEET 19 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 1	SHEET 150	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025001-TC-S1.DWG
LAYOUT NAME - 14

PLOT DATE : 7/28/2019 8:37 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

TRAFFIC CONTROL NOTES - STAGE 2A

CONSTRUCTION:
- CTH O NB, GAP AT CTH I INTERSECTION
- NORTH HALF OF CTH I WB EAST OF CTH O
- INSTALL STORM SEWER TRUNK LINE ACROSS CTH I DURING OFF PEAK OR OVERNIGHT HOURS USING FLAGGING.

TRAFFIC:
- CTH O - 2 THRU LANES IN EACH DIRECTION
- CTH I - 1 THRU LANE IN EACH DIRECTION
- IH 43 SB EXIT RAMP FREE FLOW LANE TO NB CTH O TO REMAIN OPEN
- WISDOT PARK & RIDE LOT CLOSED

PEDESTRIANS:
- SIDEWALK ALONG EAST SIDE OF CTH O CLOSED. PEDESTRIANS TO USE STAGE 2A PEDESTRIAN DETOUR.
- CROSSWALKS ACROSS SOUTH AND WEST APPROACHES TO CTH O/CTH I INTERSECTION OPEN AT ALL TIMES
- CROSSWALKS ACROSS NORTH AND EAST APPROACHES TO CTH O/CTH I INTERSECTION CLOSED

TRAFFIC CONTROL NOTES - STAGE 2B

CONSTRUCTION:
- CTH O NB, GAP AT CTH I INTERSECTION
- SOUTH HALF OF CTH I EB EAST OF CTH O

TRAFFIC:
- CTH O - 2 THRU LANES IN EACH DIRECTION
- CTH I - 1 THRU LANE IN EACH DIRECTION
- IH 43 SB EXIT RAMP FREE FLOW LANE TO NB CTH O TO REMAIN OPEN
- WISDOT PARK & RIDE LOT CLOSED

PEDESTRIANS:
- SIDEWALK ALONG EAST SIDE OF CTH O CLOSED. PEDESTRIANS TO USE STAGE 2B PEDESTRIAN DETOUR.
- CROSSWALKS ACROSS NORTH AND WEST APPROACHES TO CTH O/CTH I INTERSECTION OPEN AT ALL TIMES
- CROSSWALKS ACROSS SOUTH AND EAST APPROACHES TO CTH O/CTH I INTERSECTION CLOSED

TRAFFIC CONTROL NOTES - STAGE 2C

CONSTRUCTION:
- REMAINING CONCRETE SLABS OF OUTSIDE LANES OF CTH I IN CTH O NB LANES

TRAFFIC:
- CTH O - 2 THRU LANES IN EACH DIRECTION
- NO LEFT TURN FROM SB CTH O TO EB CTH I. DETOUR POSTED.
- TRUCKS NO RIGHT TURN FROM NB CTH O TO EB CTH I. TRUCK DETOUR POSTED.
- CTH I - 1 THRU LANE IN EACH DIRECTION
- TRUCKS NO RIGHT TURN FROM WB CTH I TO NB CTH O. TRUCK DETOUR POSTED.
- IH 43 SB EXIT RAMP FREE FLOW LANE TO NB CTH O TO REMAIN OPEN
- WISDOT PARK & RIDE LOT CLOSED

PEDESTRIANS:
- SIDEWALK ALONG EAST SIDE OF CTH O CLOSED. PEDESTRIANS TO USE STAGE 2C PEDESTRIAN DETOUR.
- CROSSWALKS ACROSS NORTH AND WEST APPROACHES TO CTH O/CTH I INTERSECTION OPEN AT ALL TIMES
- CROSSWALKS ACROSS SOUTH AND EAST APPROACHES TO CTH O/CTH I INTERSECTION CLOSED

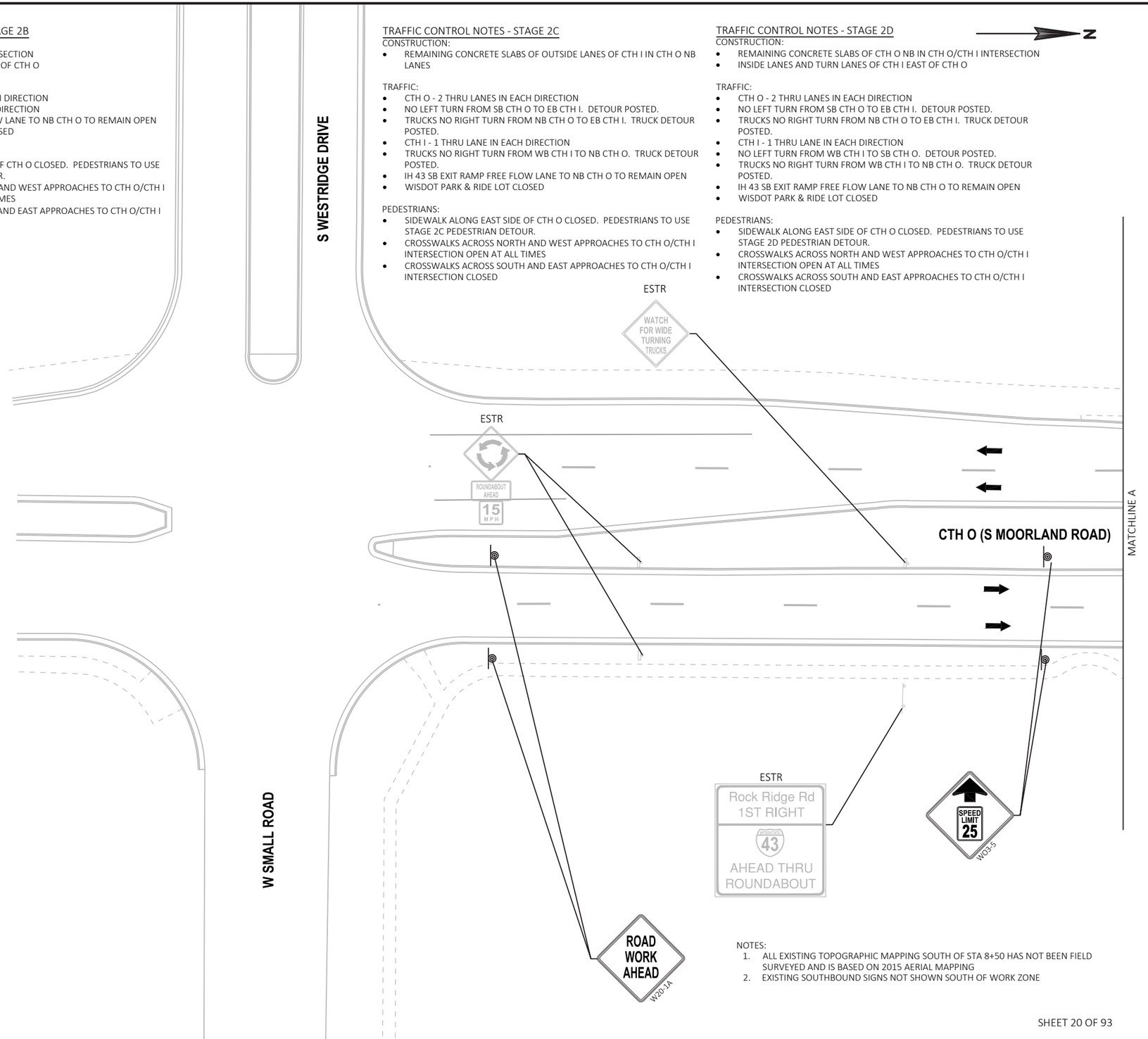
TRAFFIC CONTROL NOTES - STAGE 2D

CONSTRUCTION:
- REMAINING CONCRETE SLABS OF CTH O NB IN CTH O/CTH I INTERSECTION
- INSIDE LANES AND TURN LANES OF CTH I EAST OF CTH O

TRAFFIC:
- CTH O - 2 THRU LANES IN EACH DIRECTION
- NO LEFT TURN FROM SB CTH O TO EB CTH I. DETOUR POSTED.
- TRUCKS NO RIGHT TURN FROM NB CTH O TO EB CTH I. TRUCK DETOUR POSTED.
- CTH I - 1 THRU LANE IN EACH DIRECTION
- NO LEFT TURN FROM WB CTH I TO SB CTH O. DETOUR POSTED.
- TRUCKS NO RIGHT TURN FROM WB CTH I TO NB CTH O. TRUCK DETOUR POSTED.
- IH 43 SB EXIT RAMP FREE FLOW LANE TO NB CTH O TO REMAIN OPEN
- WISDOT PARK & RIDE LOT CLOSED

PEDESTRIANS:
- SIDEWALK ALONG EAST SIDE OF CTH O CLOSED. PEDESTRIANS TO USE STAGE 2D PEDESTRIAN DETOUR.
- CROSSWALKS ACROSS NORTH AND WEST APPROACHES TO CTH O/CTH I INTERSECTION OPEN AT ALL TIMES
- CROSSWALKS ACROSS SOUTH AND EAST APPROACHES TO CTH O/CTH I INTERSECTION CLOSED

N



LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE

SHEET 20 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2A - 2B - 2C- 2D	SHEET 151	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025002-TC-S2A.DWG
LAYOUT NAME - 01
PLOT DATE : 7/28/2019 8:37 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

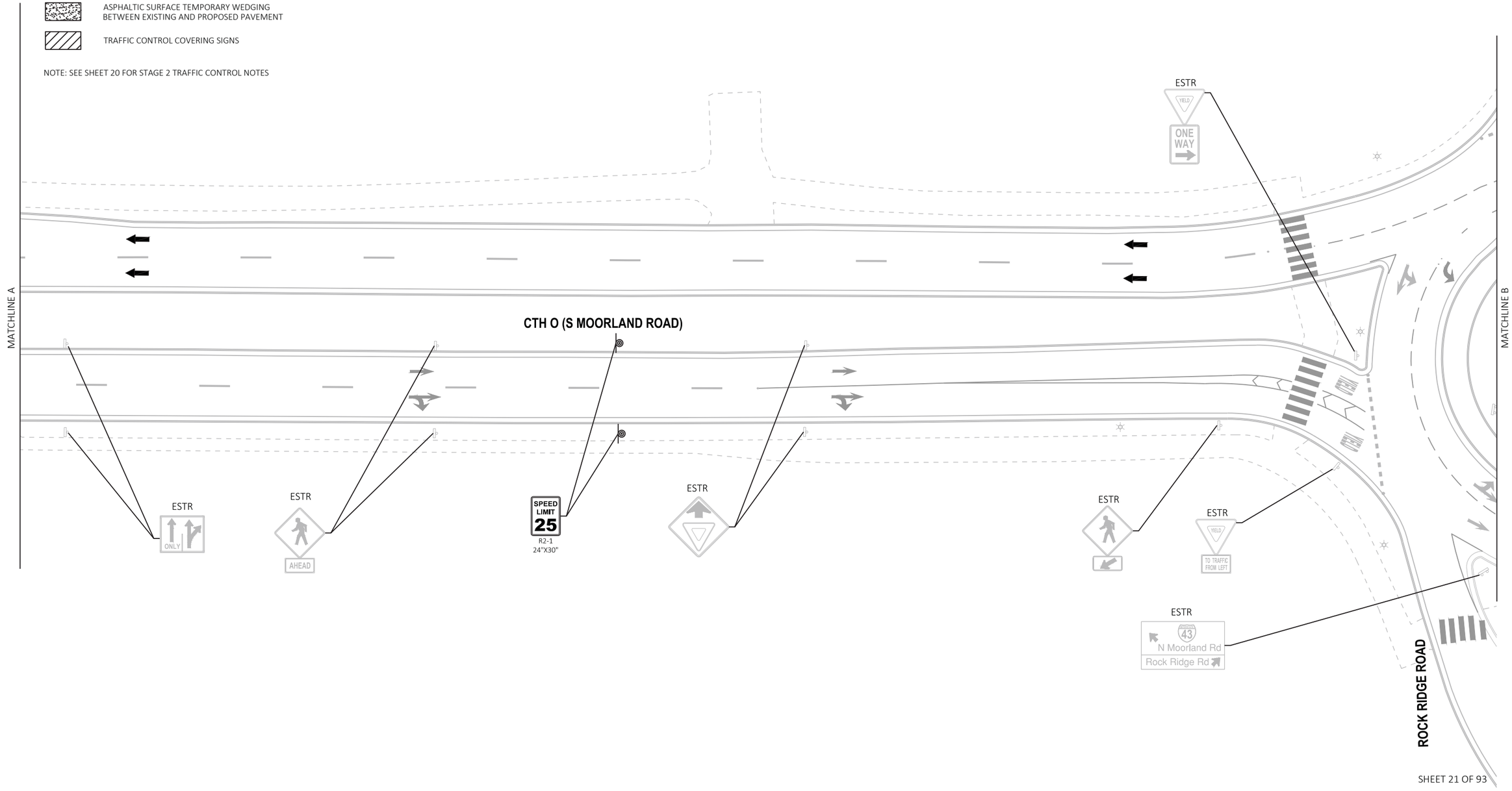
WISDOT/CADDS SHEET 42

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES



PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2A - 2B - 2C- 2D	SHEET 152	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025002-TC-S2A.DWG
LAYOUT NAME - 02
PLOT DATE : 7/28/2019 8:37 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE
3. SIGNS ON RAMPS NOT SHOWN

N

IH 43 NB EXIT RAMP

IH 43 NB ENTRANCE RAMP

PLACE SIGNS 500 FEET FROM YIELD LINE

ROAD WORK AHEAD W20-1A

NORTH M3-1 24"X12"

COUNTY O M1-5A 24"X24"

MATCHLINE B

MATCHLINE C

CTH O (S MOORLAND ROAD)

ESTR N Moorland Rd 43

ESTR NORTH INTERSTATE 43

RIGHT LANE CLOSED AHEAD W20-5A

ROCK RIDGE ROAD

SHEET 22 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2A - 2B - 2C- 2D	SHEET 153	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025002-TC-S2A.DWG
LAYOUT NAME - 03

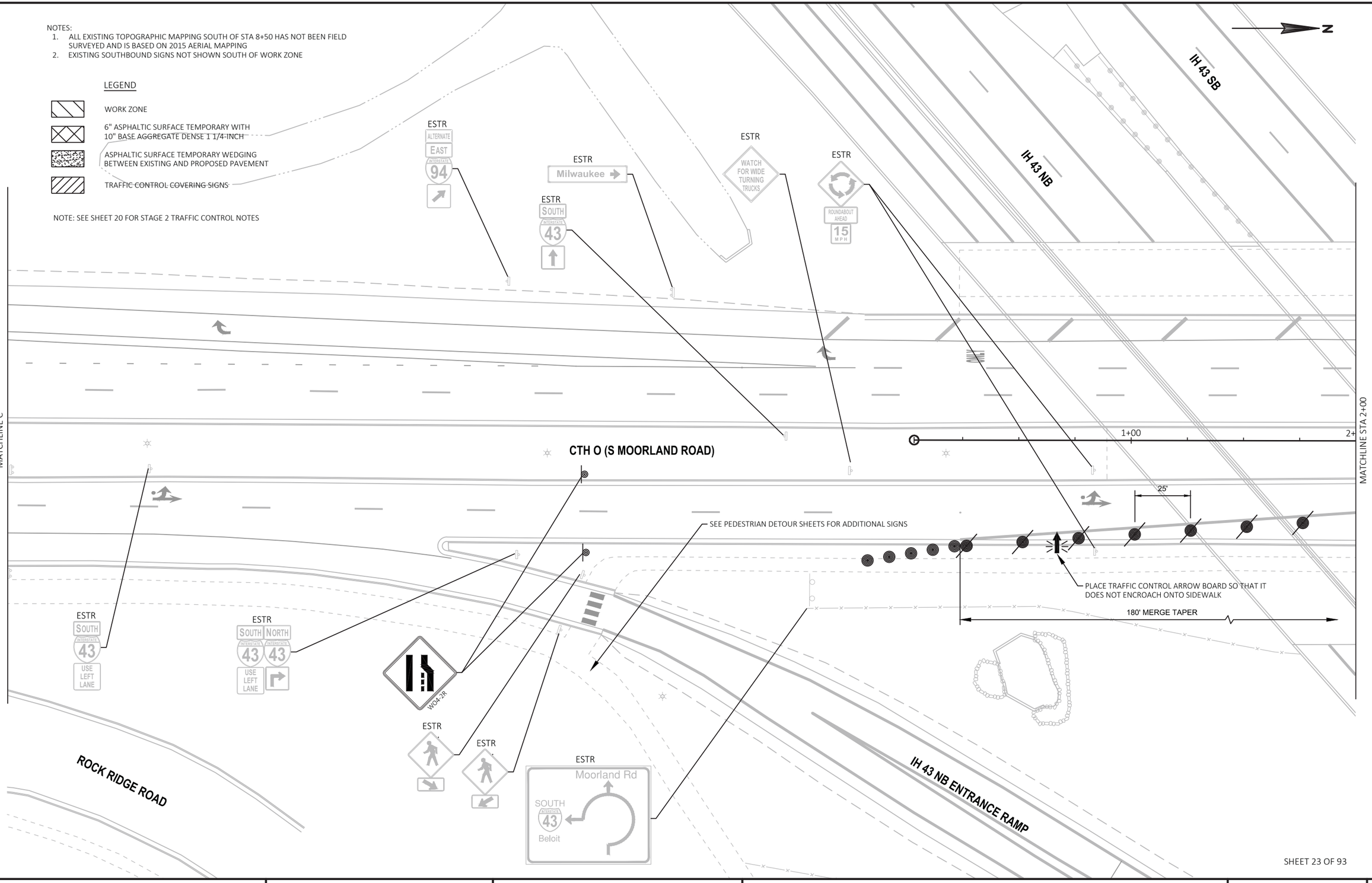
PLOT DATE : 7/28/2019 8:37 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES



SHEET 23 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2A - 2B - 2C- 2D	SHEET 154	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025002-TC-S2A.DWG
LAYOUT NAME - 04
PLOT DATE : 7/28/2019 8:37 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

N

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES

MATCHLINE STA 2+00

MATCHLINE STA 8+00

CTH O (S MOORLAND ROAD)

IH 43 SB ENTRANCE RAMP

IH 43 NB

IH 43 SB

ESTR
ROUNDABOUT AHEAD
15 MPH

ESTR
S Moorland Rd
TO 43 NORTH

END ROAD WORK
G20-2A
48"X24"

ESTR
NORTH
INTERSTATE
43

PLACE SIGN 500 FEET DOWN RAMP

END ROAD WORK
G20-2A
48"X24"

ESTR
43 SOUTH

ESTR
YIELD
TO TRAFFIC FROM LEFT

WO1-4R

END OF 180' MERGE TAPER

LANE CLOSED
R11-2L
48"X30"

25'

18'

ESTR
ONE WAY

ESTR
YIELD
ONE WAY

ESTR
43 SOUTH
N Moorland Rd

ESTR
ONE WAY

PROVIDE SUFFICIENT WIDTH FOR TRUCKS TO MANEUVER THROUGH ROUNDABOUT ENTRY

ESTR
YIELD
ONE WAY

ESTR
YIELD
TO TRAFFIC FROM LEFT

LANE CLOSED
R11-2L
48"X30"

ESTR
YIELD
ONE WAY

ROAD WORK AHEAD
W20-1A

PLACE SIGN 500 FEET FROM YIELD LINE ON RIGHT SIDE OF RAMP

ESTR
YIELD

TW4
+85
45' RT

TW4
+04
79' RT

TW4
+97
84' RT

TY4
+77
96' RT

TW4

YIELD

YIELD

YIELD SIGN

ASPH
CONC

ASPH
CONC

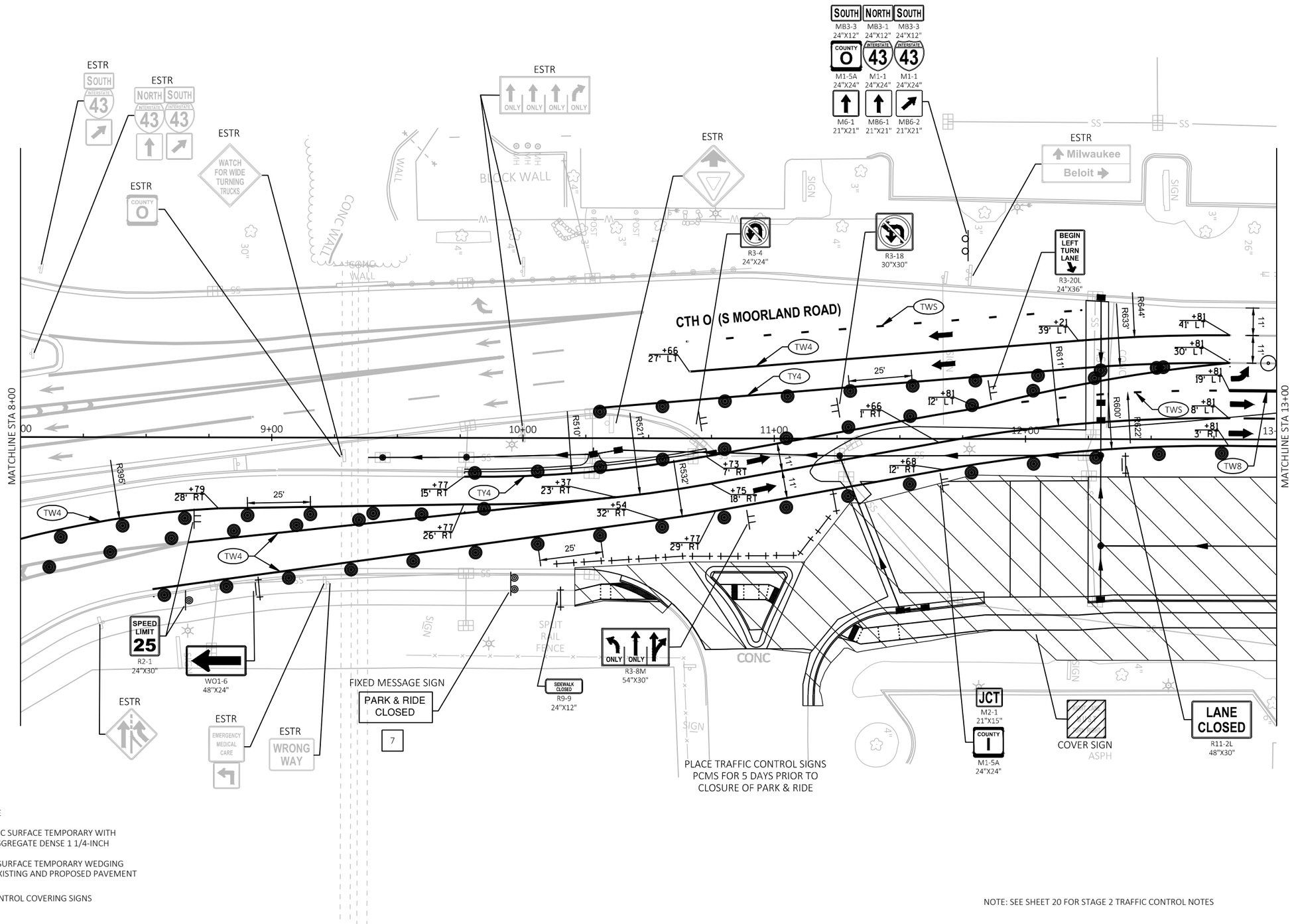
ESTR
RIGHT TURN
NO STOP

ESTR

CHAIN LINK FENCE

SHEET 24 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2A - 2B - 2C- 2D	SHEET 155	E



LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2A - 2B - 2C- 2D	SHEET 156	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025002-TC-S2A.DWG
LAYOUT NAME - 06
PLOT DATE : 12/6/2019 11:39 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES

N

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

CTH O (S MOORLAND ROAD)

ESTR ROUNDABOUT AHEAD 15 MPH

ESTR JCT INTERSTATE 43 COUNTY O

SPEED LIMIT 25 R2-1 24"X30"

MOUNT TO MARKER POST CLOSET TO INTERSECTION W6-4 12"X18"

SIDEWALK CLOSED CROSS HERE R9-11A 24"X12"

PROVIDE TEMPORARY CONNECTION FROM EXISTING MH TO PROPOSED STORM SEWER USING PIPE UNDERDRAIN UNPERFORATED 15-INCH

ESTR EMERGENCY MEDICAL CARE

WO1-6 48"X24"

ESTR ALTERNATE EAST INTERSTATE 94

CONSTRUCT STORM SEWER ACROSS CTH I DURING OVER NIGHT HOURS USING SINGLE LANE CLOSURES.

MATCHLINE STA 13+00

MATCHLINE STA 19+00

MATCHLINE STA 101+75

TEMPORARY PEDESTRIAN ACCESS ROUTE

ALT M4-1A 24"X12"

WEST M3-4 24"X12"

INTERSTATE 94 M1-1 24"X24"

M6-1 21"X21"

WO1-4BR

SIDEWALK CLOSED R9-9 24"X12"

R3-1 24"X24"

ROAD CLOSED R11-2 48"X30"

ESTR NO SEMI ACCESS

ESTR ONE WAY

LANE CLOSED R11-2L 48"X30"

SHEET 26 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2A	SHEET 157	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025002-TC-S2A.DWG
LAYOUT NAME - 07

PLOT DATE : 7/28/2019 8:38 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

MATCHLINE STA 19+00

MATCHLINE STA 25+00

BEGIN LEFT TURN LANE
R3-20L
24"X36"

ESTR
JCT
COUNTY I

SPEED LIMIT 25
R2-1
24"X30"

ESTR
DO NOT ENTER

ONLY

ASPH

ROCK WALL

WO1-6
48"X24"

25'

11'

11'

12'

12'

11'

TWS

TW4

TW8

R540'

R552'

R564'

+66
3' RT

+86
7' RT

+89
18' RT

+97
31' RT

+81
38' RT

+72

+78

+97

+97

20+00

21+00

22+00

23+00

24+00

25+00

SS

MH

CONC

ESTR

CTH O (S MOORLAND ROAD)

ESTR
LEFT LANE MUST TURN LEFT

ONLY ONLY ONLY ONLY ONLY
R3-8V
72"X30"

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

ESTR
WRONG WAY

LANE CLOSED
R11-2L
48"X30"

ESTR
DO NOT ENTER

ROAD CLOSED
R11-2
48"X30"

ESTR
STOP

ESTR

COVER SIGN

SIDEWALK CLOSED AHEAD
CROSS HERE
R9-11
48"X30"

SIGN

CONC

ONLY

NOTES:
1. EXISTING TOPOGRAPHIC MAPPING NORTH OF OF STA 23+25 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING NORTHBOUND SIGNS NOT SHOWN NORTH OF TARGET DRIVEWAY

LEGEND

WORK ZONE

6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH

ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT

TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES

SHEET 27 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2A - 2B	SHEET 158	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025002-TC-S2A.DWG
LAYOUT NAME - 08

PLOT DATE : 7/28/2019 8:38 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

MATCHLINE STA 25+00

MATCHLINE STA 31+00

ESTR
RIGHT LANE MUST TURN RIGHT

WO12-1D
24"X24"

ESTR
LEFT LANE MUST TURN LEFT

ESTR

BEGIN LEFT TURN LANE
R3-20L
24"X36"

LANE CLOSED
R11-2L
48"X30"

COVERED IN STAGE 1
ESTR
SPEED LIMIT 40

25'

25'

11'
11'

12'
12'

-00
26+00
27+00
28+00
29+00
30+00
31-

SS

CTH O (S MOORLAND ROAD)

LANE CLOSED
R11-2L
48"X30"

END ROAD WORK
G20-2A
48"X24"

ESTR
SPEED LIMIT 40

NOTES:
1. EXISTING TOPOGRAPHIC MAPPING NORTH OF OF STA 23+25 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING NORTHBOUND SIGNS NOT SHOWN NORTH OF TARGET DRIVEWAY

LEGEND

WORK ZONE

6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH

ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT

TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES

SHEET 28 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2A-2B-2C-2D	SHEET 159	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025002-TC-S2A.DWG
LAYOUT NAME - 09

PLOT DATE : 7/28/2019 8:38 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

700'

WO1-4BR

SPEED LIMIT 25
R2-1
24"X30"

SPEED LIMIT 25
WO3-5

ROAD WORK AHEAD
W20-1A

225'

275'

200'

MATCHLINE STA 31+00

25'

12'

12'

32+00

33+00

34+00

35+00

36+00

37+00

SS

NWS

R3-4
24"X24"

WO1-6
48"X24"

R3-4
24"X24"

CTH O (S MOORLAND ROAD)

NOTES:
1. EXISTING TOPOGRAPHIC MAPPING NORTH OF OF STA 23+25 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING NORTHBOUND SIGNS NOT SHOWN NORTH OF TARGET DRIVEWAY

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES

SHEET 29 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2A-2B-2C-2D	SHEET 160	E

2

2

LEGEND

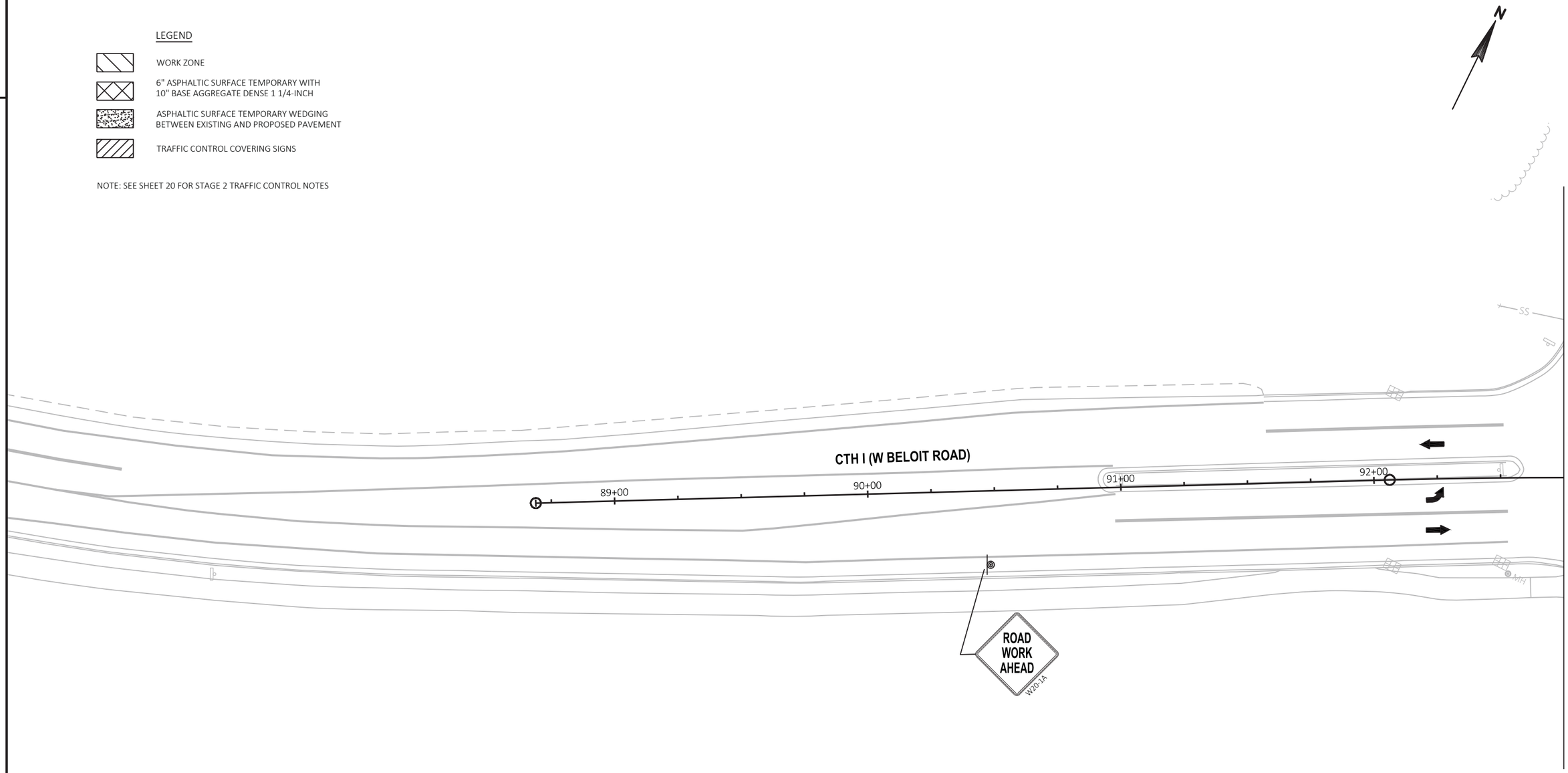
WORK ZONE

6" ASPHALTIC SURFACE TEMPORARY WITH
10" BASE AGGREGATE DENSE 1 1/4-INCH

ASPHALTIC SURFACE TEMPORARY WEDGING
BETWEEN EXISTING AND PROPOSED PAVEMENT

TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES



SHEET 30 OF 93

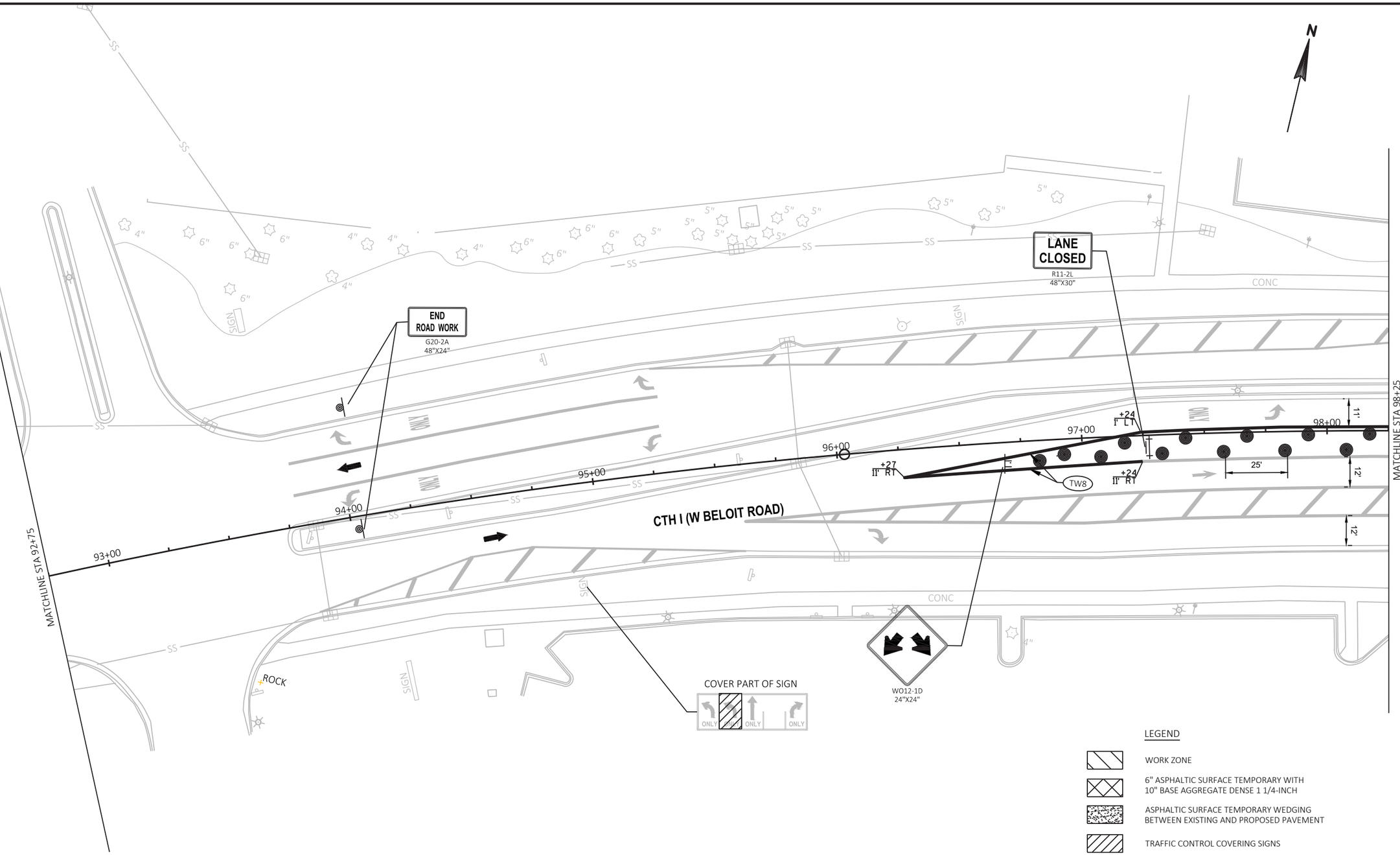
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2A-2B-2C-2D	SHEET 161	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025002-TC-S2A.DWG
LAYOUT NAME - 11

PLOT DATE : 7/28/2019 8:38 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2A-2B-2C	SHEET 162	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025002-TC-S2A.DWG
LAYOUT NAME - 12
PLOT DATE : 7/28/2019 8:38 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

WORK ZONE

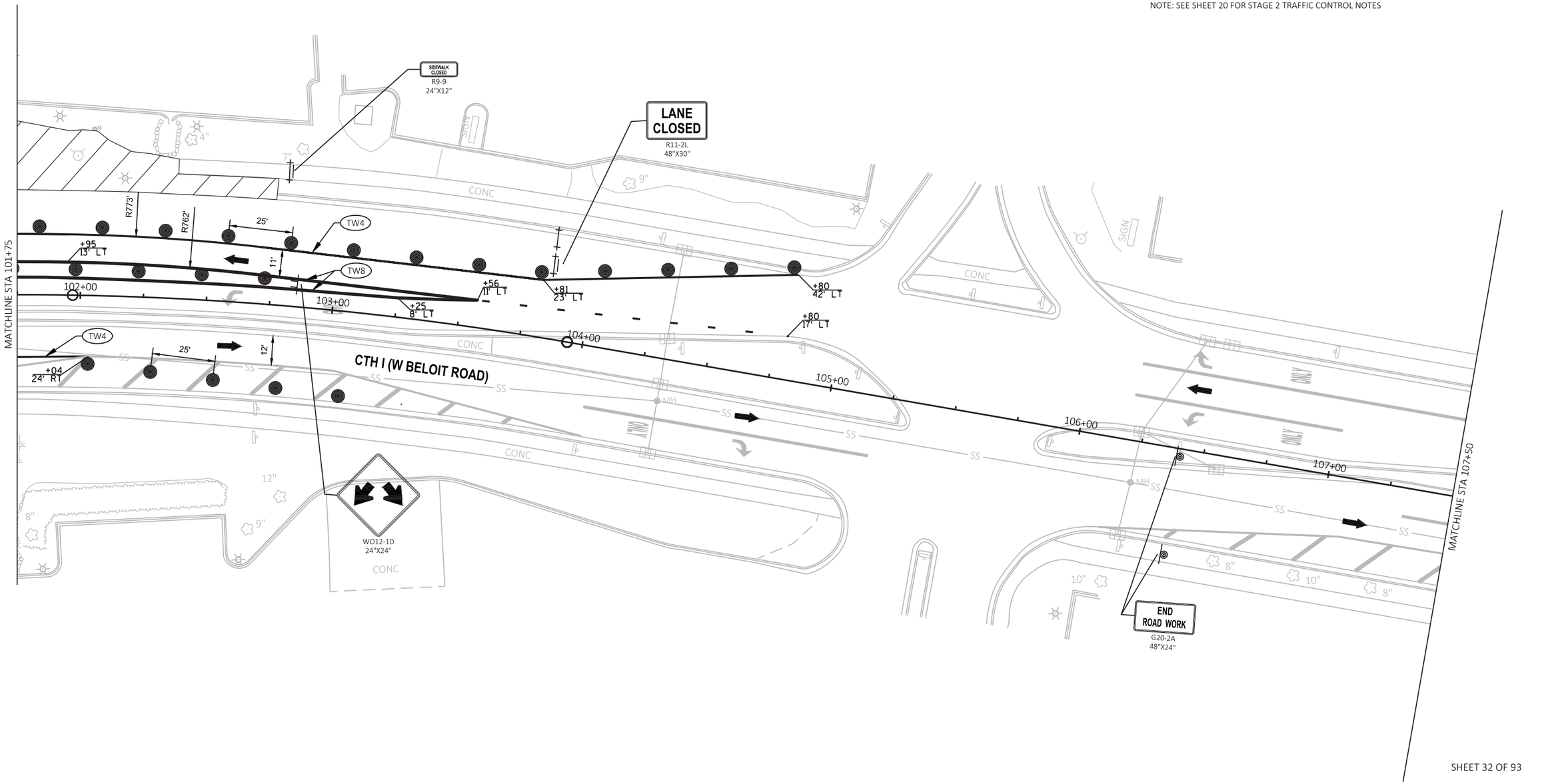
6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH

ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT

TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES

N



SHEET 32 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2A-2B-2C	SHEET 163	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025002-TC-S2A.DWG
LAYOUT NAME - 13

PLOT DATE : 7/28/2019 8:38 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES

N

FOREST GROVE BOULEVARD

ONLY

ONLY

ROAD WORK AHEAD

W20-1A

CONC

CTH I (W BELOIT ROAD)

MATCHLINE STA 107+50

108+00

109+00

110+00

SS

SS

SS

MH

8"

8"

CONC

MH

CONC

CONC

SEE PEDESTRIAN DETOUR FOR ADDITIONAL SIGNS

IH 43 SB

IH 43 NB

SHEET 33 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2A-2B-2C-2D	SHEET 164	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025002-TC-S2A.DWG
LAYOUT NAME - 14

PLOT DATE : 7/28/2019 8:38 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

ESTR
ROUNDABOUT AHEAD
15 MPH

SPEED LIMIT 25
R2-1
24"X30"

ESTR
COUNTY O
JCT INTERSTATE 43

SIDEWALK CLOSED CROSS HERE
R9-11A
24"X12"

MOUNT TO MARKER POST CLOSET TO INTERSECTION
W6-4
12"X18"

CTH O (S MOORLAND ROAD)

MATCHLINE STA 13+00

14+00 15+00 16+00 17+00 18+00 19+00

MATCHLINE STA 19+00

ESTR
EMERGENCY MEDICAL CARE

WO1-6
48"X24"

ESTR
ALTERNATE EAST INTERSTATE 94

MOUNT TO MARKER POST CLOSET TO INTERSECTION
W6-4
12"X18"

TW4

ALT
M4-1A
24"X12"
WEST
M3-4
24"X12"
INTERSTATE 94
M1-1
24"X24"
M6-1
21"X21"

CONC WALL
CONC
BRICK WALL
CONC
GATE
SIGN

CTH I (W BELOIT ROAD)

MATCHLINE STA 101+75

WO1-4BR

INSTALL WITH TEMPORARY INLET CASTING 2X3-FT

R3-1
24"X24"

ROAD CLOSED
R11-2
48"X30"

ESTR
NO SEMI ACCESS

ESTR
ONE WAY

TEMPORARY PEDESTRIAN ACCESS ROUTE

LANE CLOSED
R11-2L
48"X30"

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES

SHEET 34 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2B	SHEET 165	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025003-TC-S2B.DWG
LAYOUT NAME - 07

PLOT DATE : 7/28/2019 8:39 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

N

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

ASPHALTIC CURB
WARP ASPHALTIC CURB
SO THAT WATER FLOWS
TO INLET

INSTALL STORM SEWER DURING OVERNIGHT HOURS USING SINGLE LANE CLOSURES. REMOVE EXISTING STORM SEWER DURING STAGE 3 AND STAGE 4.

INSTALL TEMPORARY INLET CASTING THAT FITS A 2'X3' RECTANGULAR OPENING AND DOES NOT HAVE A CURB BOX. WARP TEMPORARY PAVEMENT SO WATER FLOWS TO INLET.

ESTR
ROUNDABOUT AHEAD
15 MPH

SIDEWALK CLOSED
CROSS HERE
R9-11A
24"X12"

MOUNT TO MARKER POST CLOSET TO INTERSECTION
W6-4
12"X18"

SPEED LIMIT 25
R2-1
24"X30"

ESTR
COUNTY O
JCT INTERSTATE 43

CTH O (S MOORLAND ROAD)

MATCHLINE STA 13+00

14+00 15+00 16+00 17+00 18+00 19+00

+59.7
4.2' RT

+16
23' RT

+20.9
28.1' LT

+41
4' RT

TW4
TSB
TY4

ESTR
EMERGENCY MEDICAL CARE

WO1-6
48"X24"

ESTR
ALTERNATE EAST INTERSTATE 94

MOUNT TO MARKER POST CLOSET TO INTERSECTION
W6-4
12"X18"

R3-2
24"X24"

CONC
ASPH
CONC WALL
BRICK WALL
GATE
SIGN

ALT
M4-1A
24"X12"

WEST
M3-4
24"X12"

INTERSTATE 94
M1-1
24"X24"

M6-1
21"X21"

TRUCK
M4-4
24"X12"

R3-1
24"X24"

SIDEWALK CLOSED
CROSS HERE
R9-11A
24"X12"

CTH I (W BELOIT ROAD)

MATCHLINE STA 101+75

WO1-46R

TEMPORARY PEDESTRIAN ACCESS ROUTE

SPEED LIMIT 25
R2-1
24"X30"

R3-1
24"X24"

ROAD CLOSED
R11-2
48"X30"

ESTR
NO SEMI ACCESS

ESTR
ONE WAY

LANE CLOSED
R11-2L
48"X30"

TRUCK
M4-4
24"X12"

R3-1
24"X24"

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES

SHEET 35 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2C	SHEET 166	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025004-TC-S2C.DWG
LAYOUT NAME - 07

PLOT DATE : 7/28/2019 8:39 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

MATCHLINE STA 19+00

MATCHLINE STA 25+00

LANE CLOSED
R11-2L
48"X30"

BEGIN LEFT TURN LANE
R3-20L
24"X36"

SPEED LIMIT 25
R2-1
24"X30"

ESTR
JCT
COUNTY
I

ONLY

ASPH

ROCK WALL

ESTR
DO NOT ENTER

SS

MH

TY4

25'

11'

WO1-6
48"X24"

20+00

21+00

22+00

23+00

24+00

25

12'

CONC

CTH O (S MOORLAND ROAD)

LEFT LANE MUST TURN LEFT

ONLY ONLY ONLY ONLY
R3-8V
72"X30"

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

SIGN

ESTR
WRONG WAY

LANE CLOSED
R11-2L
48"X30"

ESTR
DO NOT ENTER

ROAD CLOSED
R11-2
48"X30"

ESTR
STOP

ESTR

SIGN COVERED IN STAGE 2A

NOTES:
1. EXISTING TOPOGRAPHIC MAPPING NORTH OF OF STA 23+25 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING NORTHBOUND SIGNS NOT SHOWN NORTH OF TARGET DRIVEWAY

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES

SHEET 36 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2C-2D	SHEET 167	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025004-TC-S2C.DWG
LAYOUT NAME - 08

PLOT DATE : 7/29/2019 12:13 PM

PLOT BY : BLACKWOOD, JIM

PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES

NOTE:
INSTALL TRAFFIC CONTROL SIGNS PCMS TO NOTIFY DRIVERS OF THE FOLLOWING TURNING MOVEMENT CLOUSRES AT LEAST 3 DAYS PRIOR TO CLOSURE:

SB CTH O LEFT TURN TO EB CTH I
NB CTH O RIGHT TURN TO EB CTH I
WB CTH O RIGHT TURN TO NB CTH I

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

CTH O (S MOORLAND ROAD)

MATCHLINE STA 101+75

MATCHLINE STA 13+00

MATCHLINE STA 19+00

ESTR
ROUNDABOUT AHEAD
15 MPH

SPEED LIMIT 25
R2-1
24"X30"

ESTR
COUNTY O
JCT INTERSTATE 43

SIDEWALK CLOSED CROSS HERE
R9-11A
24"X12"

TW8

MOUNT TO MARKER POST CLOSET TO INTERSECTION
W6-4
12"X18"

WO1-6
48"X24"

TEMPORARY INLET CASTING INSTALLED IN STAGE 2C

MOUNT TO MARKER POST CLOSET TO INTERSECTION
W6-4
12"X18"

R3-2
24"X24"

DO NOT INSTALL INLET CASTING UNTIL STAGE 5. COVER STRUCTURE WITH COVER PLATE TEMPORARY.

ESTR
EMERGENCY MEDICAL CARE

WO1-6
48"X24"

ESTR
ALTERNATE EAST INTERSTATE 94

TRUCK
M4-4
24"X12"

R3-1
24"X24"

ALT
M4-1A
24"X12"
WEST
M3-4
24"X12"
INTERSTATE 94
M1-1
24"X24"
M6-1
21"X21"

SIDEWALK CLOSED CROSS HERE
R9-11A
24"X12"

LANE CLOSED
R11-2L
48"X30"

TSB

TY4

TW4

WO1-6
48"X24"

R3-2
24"X24"

SPEED LIMIT 25
R2-1
24"X30"

R3-1
24"X24"

ROAD CLOSED
R11-2
48"X30"

ESTR
NO SEMI ACCESS

ESTR
ONE WAY

INSTALL TEMPORARY INLET CASTING 2X3-FT PRIOR TO STAGE 4

WO1-4BR

TEMPORARY PEDESTRIAN ACCESS ROUTE

SHEET 37 OF 93

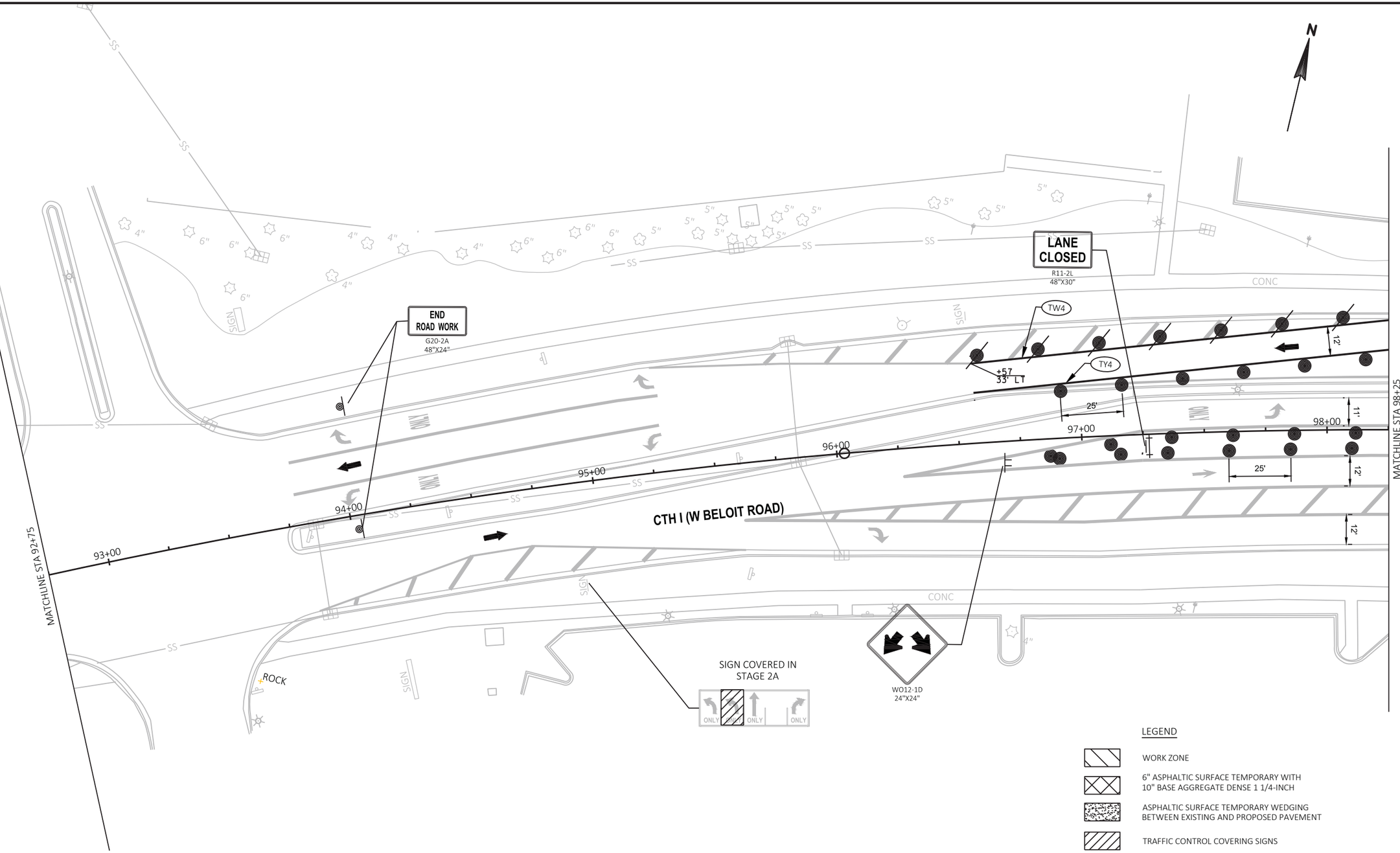
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2D	SHEET 168	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025005-TC-S2D.DWG
LAYOUT NAME - 07

PLOT DATE : 7/28/2019 8:40 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2D	SHEET 169	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025005-TC-S2D.DWG
LAYOUT NAME - 12
PLOT DATE : 7/28/2019 8:40 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

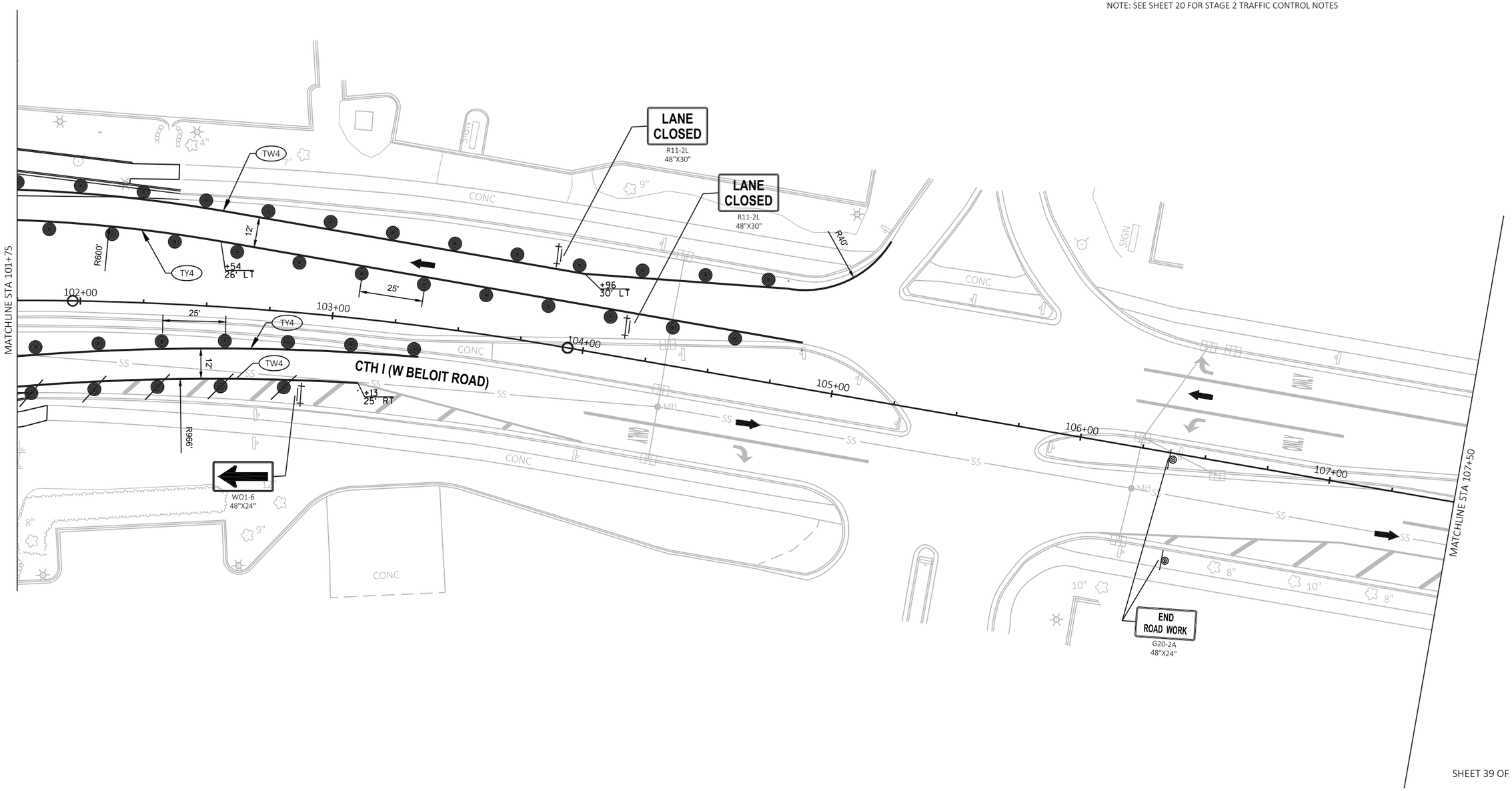
2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 20 FOR STAGE 2 TRAFFIC CONTROL NOTES

N



SHEET 39 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 2D	SHEET 170	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025005-TC-S2D.DWG
LAYOUT NAME - 13

PLOT DATE : 7/28/2019 8:40 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

TRAFFIC CONTROL NOTES - STAGE 3

CONSTRUCTION:

- REMOVE STAGE 2 CROSSOVERS
- CONSTRUCT STAGE 4 CROSSOVERS
- CONSTRUCT STAGE 4 TEMPORARY WIDENING
- CONSTRUCT NB LEFT TURN LANES AT CTH O/CTH I INTERSECTION

TRAFFIC:

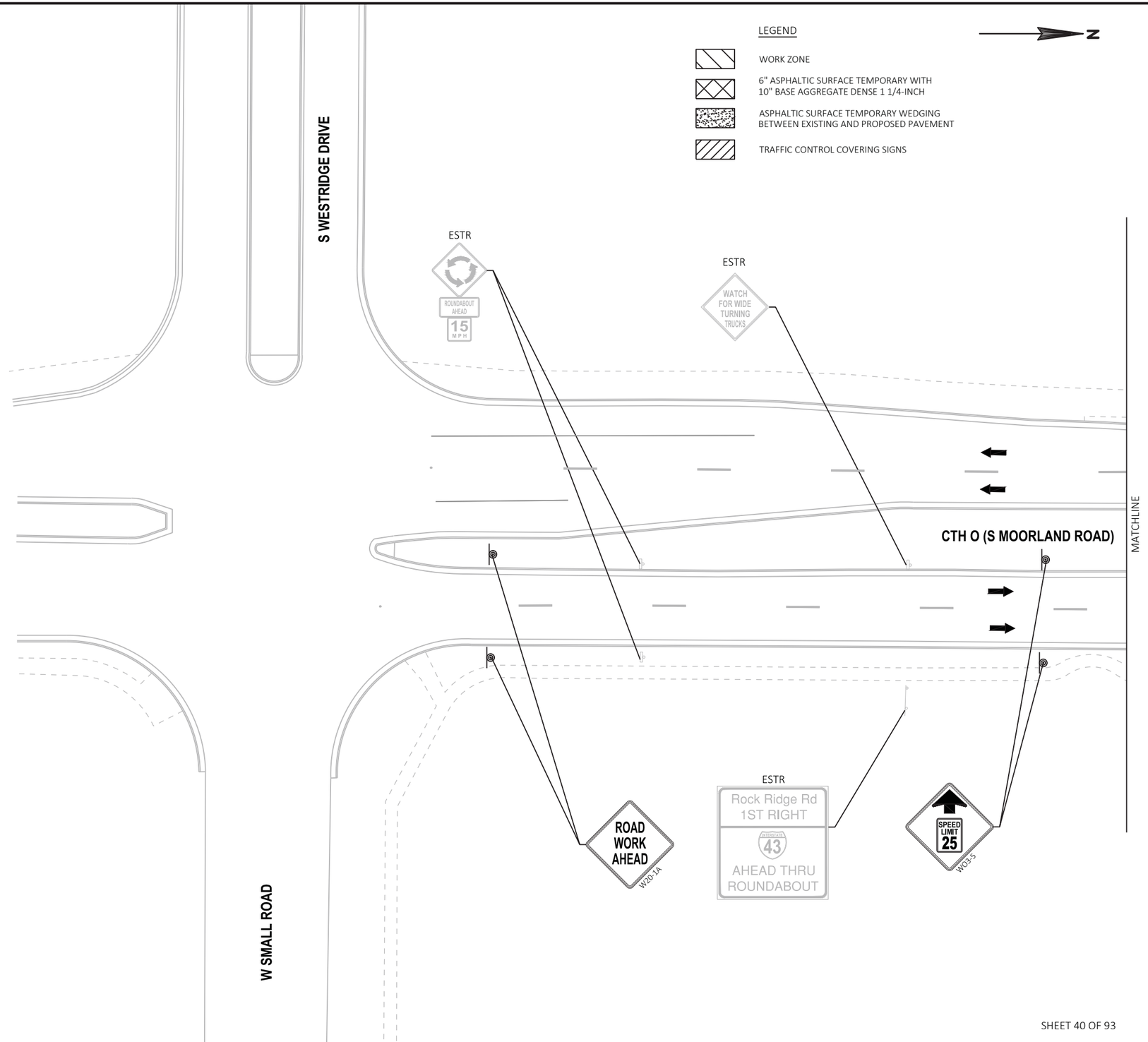
- CTH O - 2 THRU LANES IN EACH DIRECTION
- CTH I - 1 THRU LANE IN EACH DIRECTION
- IH 43 SB EXIT RAMP FREE FLOW LANE TO NB CTH O TO REMAIN OPEN

PEDESTRIANS:

- SIDEWALKS AND CROSSWALKS PARALLEL TO CTH O OPEN AT ALL TIMES
- SIDEWALKS PARALLEL TO CTH I OPEN AT ALL TIMES
- ALTERNATE CLOSURE OF CROSSWALKS ACROSS CTH O SO THAT ONE CROSSWALK IS OPEN AT ALL TIMES

NOTES:

1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE



SHEET 40 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 3	SHEET 171	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025006-TC-S3.DWG
LAYOUT NAME - 01

PLOT DATE : 7/28/2019 8:40 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

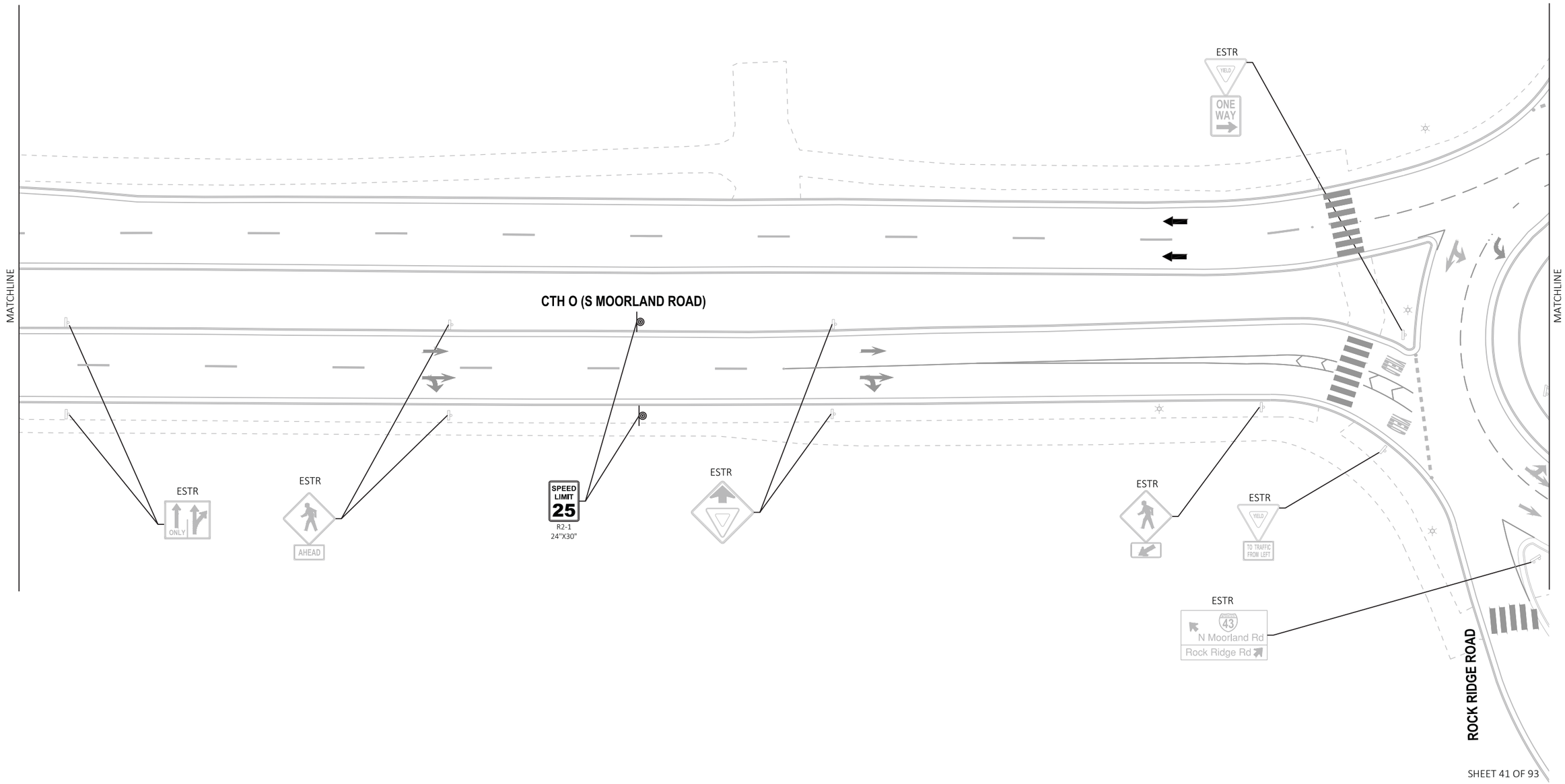
WISDOT/CADDS SHEET 42

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 40 FOR STAGE 3 TRAFFIC CONTROL NOTES



SHEET 41 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 3	SHEET 172	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025006-TC-S3.DWG
LAYOUT NAME - 02
PLOT DATE : 7/28/2019 8:40 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 40 FOR STAGE 3 TRAFFIC CONTROL NOTES

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE
3. SIGNS ON RAMPS NOT SHOWN

N

IH 43 NB EXIT RAMP

IH 43 NB ENTRANCE RAMP

PLACE SIGNS 500 FEET FROM YIELD LINE

ROAD WORK AHEAD W20-1A

NORTH M3-1 24"X12"

COUNTY O M1-5A 24"X24"

MATCHLINE

CTH O (S MOORLAND ROAD)

ESTR N Moorland Rd 43

ESTR NORTH INTERSTATE 43

RIGHT LANE CLOSED AHEAD W20-5A

ROCK RIDGE ROAD

ROAD WORK AHEAD W20-1A

NORTH M3-1 24"X12"

COUNTY O M1-5A 24"X24"

SHEET 42 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 3	SHEET 173	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025006-TC-S3.DWG
LAYOUT NAME - 03

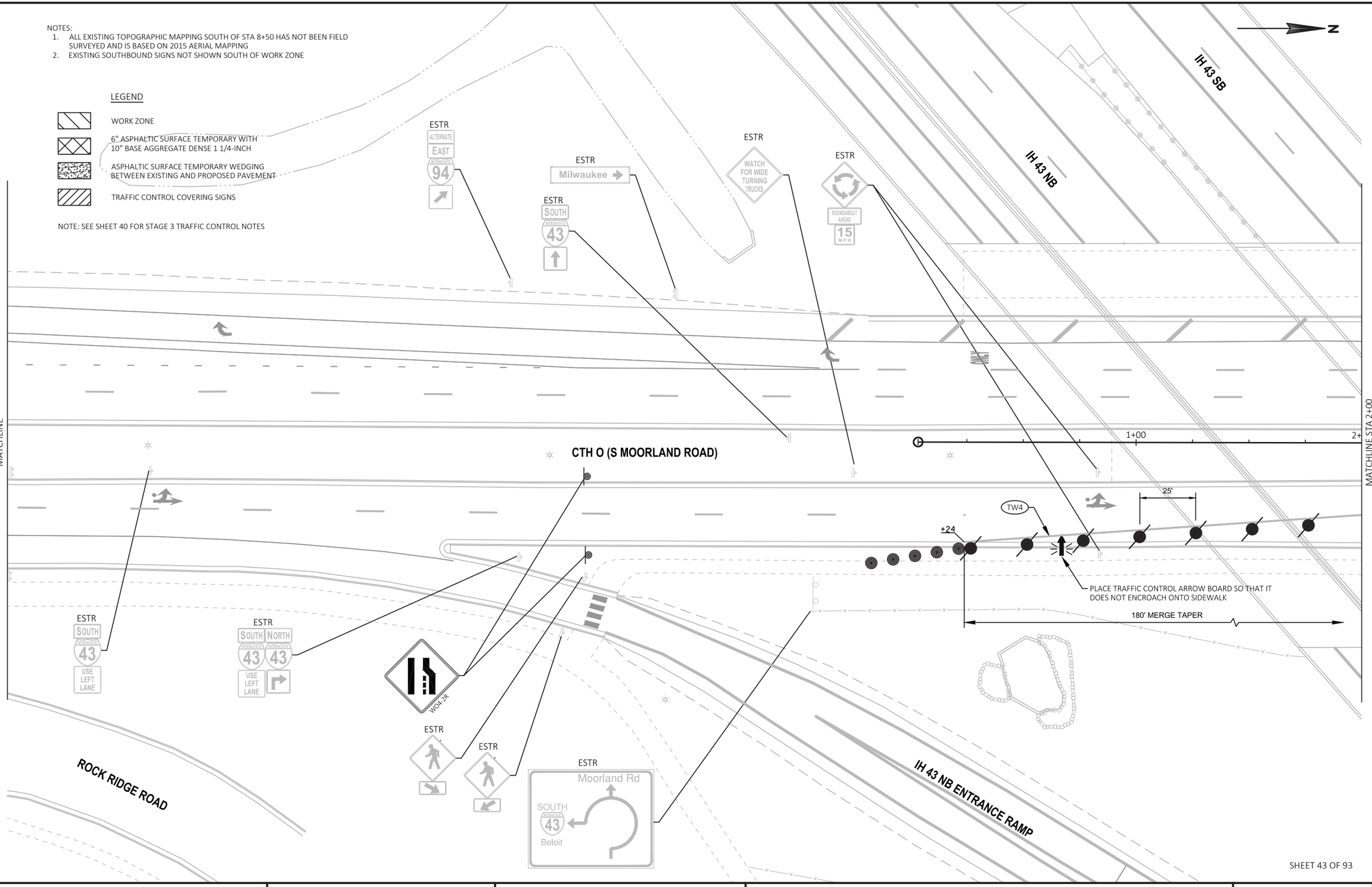
PLOT DATE : 7/28/2019 8:41 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 40 FOR STAGE 3 TRAFFIC CONTROL NOTES



SHEET 43 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 3	SHEET 174	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025006-TC-S3.DWG
LAYOUT NAME - 04
PLOT DATE : 7/28/2019 8:41 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

N

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 40 FOR STAGE 3 TRAFFIC CONTROL NOTES

PLACE SIGN 500 FEET DOWN RAMP

END ROAD WORK
G20-2A
48"X24"

IH 43 SB ENTRANCE RAMP

ESTR NORTH INTERSTATE 43

ESTR 43 SOUTH

ESTR S Moorland Rd TO 43 NORTH

ESTR ROUNDABOUT AHEAD 15 MPH

END ROAD WORK
G20-2A
48"X24"

ESTR YIELD TO TRAFFIC FROM LEFT

END OF 180' MERGE TAPER

LANE CLOSED
R11-2L
48"X30"

MATCHLINE STA 2+00

00 3+00 4+00 5+00 6+00 7+00 8+

MATCHLINE STA 8+00

18'

CTH O (S MOORLAND ROAD)

ESTR ONE WAY

ESTR YIELD ONE WAY

ESTR 43 SOUTH N Moorland Rd

+04

25'

TW4

R150'

ESTR

PROVIDE SUFFICIENT WIDTH FOR TRUCKS TO MANEUVER THROUGH ROUNDABOUT ENTRY

ESTR YIELD ONE WAY

ESTR YIELD TO TRAFFIC FROM LEFT

IH 43 SB

IH 43 NB

TW4

18'

+95 16' RT

R400

SIGN

TY4

+05 57' RT

+33 57' RT

+01 70' RT

TW8

+77 100' RT

+45 118' RT

TW4

YIELD

ASPH CONC

ESTR RIGHT TURN NO STOP

ESTR

CHAIN LINK FENCE

LANE CLOSED
R11-2L
48"X30"

ESTR YIELD ONE WAY

ESTR YIELD

ROAD WORK AHEAD
W20-1A

PLACE SIGN 500 FEET FROM YIELD LINE ON RIGHT SIDE OF RAMP

SHEET 44 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 3	SHEET 175	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025006-TC-S3.DWG
LAYOUT NAME - 05

PLOT DATE : 7/28/2019 8:41 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 40 FOR STAGE 3 TRAFFIC CONTROL NOTES

N

ESTR SOUTH 43 INTERSTATE

ESTR NORTH SOUTH 43 43 INTERSTATE INTERSTATE

ESTR COUNTY O

ESTR WATCH FOR WIDE TURNING TRUCKS

SOUTH MB3-3 24"X12" | NORTH MB3-1 24"X12" | SOUTH MB3-3 24"X12"

COUNTY O M1-5A 24"X24" | INTERSTATE 43 M1-1 24"X24" | INTERSTATE 43 M1-1 24"X24"

M6-1 21"X21" | MB6-1 21"X21" | MB6-2 21"X21"

REMOVE INLET
DO NOT INSTALL NEW CATCH BASIN
UNTIL STAGE 5

ONLY ONLY ONLY ONLY
R3-8TT
72"X30"

W3-2
36"X36"

ESTR Milwaukee Beloit

DO NOT INSTALL INLET COVER UNTIL STAGE 4

LANE CLOSED
R11-2L
48"X30"

ONE WAY
R6-2R
24"X30"

R3-18
30"X30"

MATCHLINE STA 8+00

MATCHLINE STA 13+00

TWL

TY4

TWS

TW8

+92 8' LT

+93 8' LT

+65 4' LT

+91 4' LT

+64 18' RT

+77 29' RT

+64 29' RT

+27 15' LT

+27 2' RT

+62 15' LT

+25 7' LT

+18 7' LT

+81 41' LT

+80 10' RT

+25 15' RT

25'

9+00

10+00

11+00

12+00

13

11'

CTH O (S MOORLAND ROAD)

SPEED LIMIT 25
R2-1
24"X30"

BEGIN LEFT TURN LANE
R3-20L
24"X36"

ONLY ONLY ONLY ONLY
R3-8V
72"X30"

R3-4
24"X24"

R3-2
24"X24"
PERMANENT SIGN

W12-1R
24"X24"
PERMANENT SIGN

YIELD
R1-2
36"X31"
PERMANENT SIGN

JCT
M2-1
21"X15"

COUNTY I
M1-5A
24"X24"

MOVE SIGN

INSTALL CATCH BASIN TO FINAL ELEVATION

ADJUST MANHOLE COVER ELEVATION TO MAINTAIN POSITIVE DRAINAGE

LANE CLOSED
R11-2L
48"X30"

ESTR

ESTR EMERGENCY MEDICAL CARE

ESTR WRONG WAY

EMERGENCY MEDICAL CARE

ASPH

BLOCK WALL

CONC WALL

CONC

SIGN

SS

P

SHEET 45 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 3	SHEET 176	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025006-TC-S3.DWG
LAYOUT NAME - 06

PLOT DATE : 12/6/2019 11:50 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

ADJUST SIZE OF ASPHALT WEDGING TO MAINTAIN POSITIVE DRAINAGE

ONE CROSSWALK ACROSS CTH O TO REMAIN OPEN AT ALL TIMES. SEE MEDIAN SIDEWALK CLOSURE DETAIL FOR ADDITIONAL DETAILS.

ADJUST INLET COVER ELEVATION AS NEEDED TO MAINTAIN POSITIVE DRAINAGE

ESTR — ROUNDABOUT AHEAD 15 MPH

ESTR — SPEED LIMIT 25 — R2-1 24"X30"

ESTR — JCT INTERSTATE 43 — COUNTY O

ESTR — EMERGENCY MEDICAL CARE

ESTR — ALTERNATE EAST INTERSTATE 94

WO1-6 48"X24"

CTH O (S MOORLAND ROAD)

MATCHLINE STA 13+00

MATCHLINE STA 19+00

MATCHLINE STA 101+75

R1040' — R762' — R85'

TW4 — TW6 — TW8 — TWL — TWS — TY4 — TYS

+11 29' LT — +66 9' LT — +67 17' RT — +39 14' RT — +19 45' RT — +75 20' LT — +39 18' LT — +88 29' RT — +35 29' RT

25' — 11' — 12' — 14'

101+00

RIGHT LANE MUST TURN RIGHT — R3-7R 30"X30" PERMANENT SIGN

WRONG WAY — R5-1A 36"X24" PERMANENT SIGN

WO12-1D 24"X24" PERMANENT SIGN

R1-2 36"X31" PERMANENT SIGN

R4-7 24"X30" PERMANENT SIGN

WO1-4BL

NO SEMI ACCESS

ONE WAY

BRICK WALL — GATE — CONC WALL — SIGN — SS — STM — CONC — ASPH — SIGN

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 40 FOR STAGE 3 TRAFFIC CONTROL NOTES

SHEET 46 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 3	SHEET 177	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025006-TC-S3.DWG
LAYOUT NAME - 07

PLOT DATE : 7/28/2019 8:41 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

MATCHLINE STA 19+00

MATCHLINE STA 25+00

R3-8V
72"X30"

ESTR
JCT
COUNTY I

BEGIN LEFT TURN LANE
R3-20L
24"X36"

SPEED LIMIT 25
R2-1
24"X30"

WO1-6
48"X24"

ESTR
DO NOT ENTER

CONC

ASPH

ROCK WALL

ONLY

SS

MH

TW8

TY4

TW4

TWS

+24
30' LT

+24
19' LT

+90
30' LT

+62
30' LT

R75'

+45
2' RT

+45
13' RT

+45
25' RT

+45
21' RT

+45
38' RT

25'

11'

12'

10'

9'

20+00

21+00

22+00

23+00

24+00

CTH O (S MOORLAND ROAD)

BEGIN LEFT TURN LANE
R3-20L
24"X36"

SIGN

ESTR
WRONG WAY

ESTR
DO NOT ENTER

ESTR
STOP

ESTR
ONLY ONLY ONLY ONLY ONLY
UNCOVER SIGN

ESTR
LEFT LANE MUST TURN LEFT

NOTES:
1. EXISTING TOPOGRAPHIC MAPPING NORTH OF OF STA 23+25 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING NORTHBOUND SIGNS NOT SHOWN NORTH OF TARGET DRIVEWAY

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 40 FOR STAGE 3 TRAFFIC CONTROL NOTES

SHEET 47 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 3	SHEET 178	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025006-TC-S3.DWG
LAYOUT NAME - 08

PLOT DATE : 7/28/2019 8:41 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

MATCHLINE STA 25+00

MATCHLINE STA 31+00

ESTR
RIGHT LANE
MUST
TURN RIGHT

WO12-1D
24"X24"

ESTR
LEFT LANE
MUST
TURN LEFT

ESTR

BEGIN
LEFT
TURN
LANE

R3-20L
24"X36"

ONLY ONLY ONLY ONLY

R3-8V
72"X30"

ESTR
SPEED
LIMIT
40

COVERED IN
STAGE 1

25'

11'
11'

12'
12'

25'

26+00

27+00

28+00

29+00

30+00

31-

SS

LANE
CLOSED

R11-2L
48"X30"

CTH O (S MOORLAND ROAD)

END
ROAD WORK

G20-2A
48"X24"

LANE
CLOSED

R11-2L
48"X30"

ESTR
SPEED
LIMIT
40

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 40 FOR STAGE 3 TRAFFIC CONTROL NOTES

NOTES:
1. EXISTING TOPOGRAPHIC MAPPING NORTH OF OF STA 23+25 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING NORTHBOUND SIGNS NOT SHOWN NORTH OF TARGET DRIVEWAY

SHEET 48 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 3	SHEET 179	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025006-TC-S3.DWG
LAYOUT NAME - 09

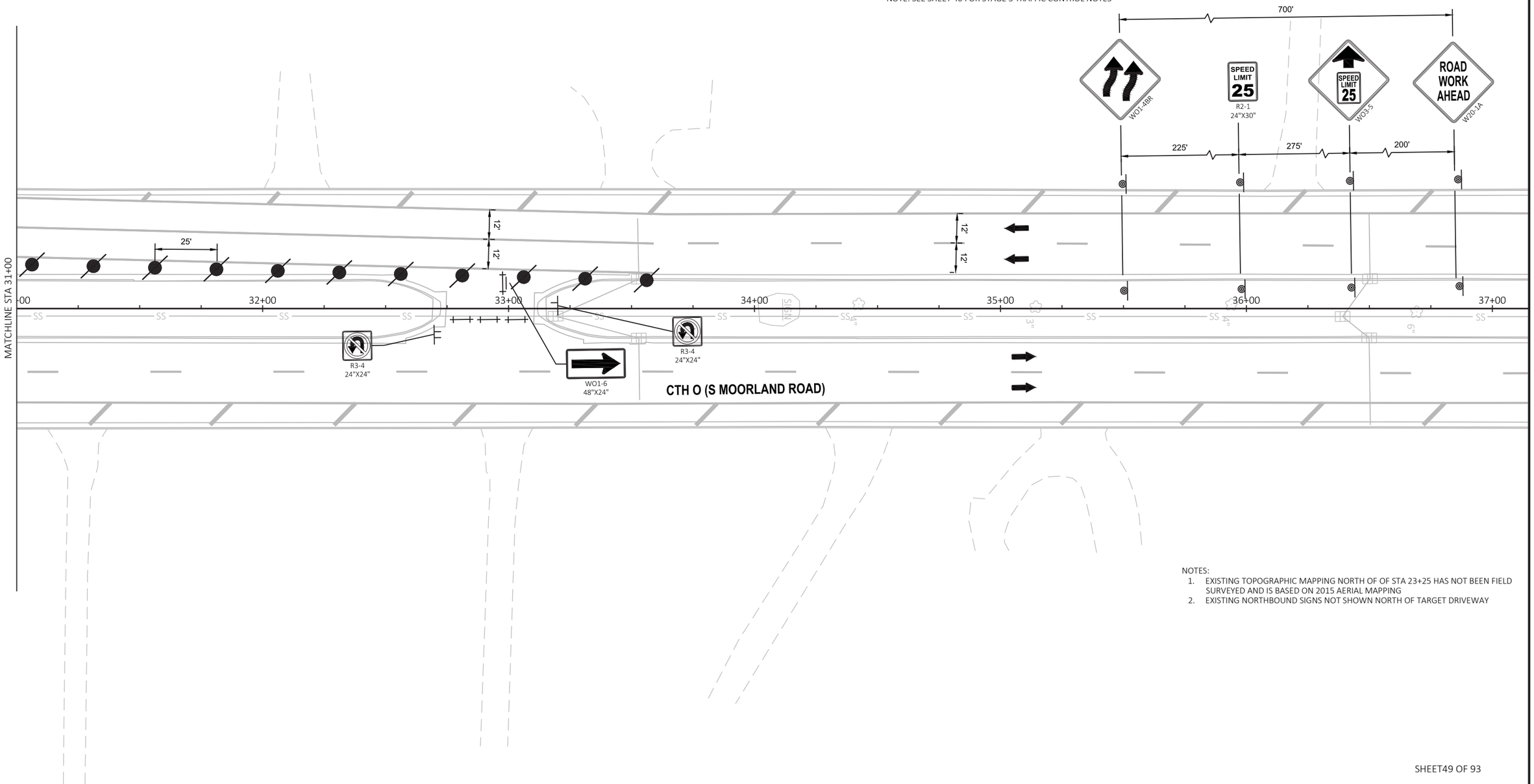
PLOT DATE : 7/28/2019 8:41 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 40 FOR STAGE 3 TRAFFIC CONTROL NOTES



NOTES:
1. EXISTING TOPOGRAPHIC MAPPING NORTH OF OF STA 23+25 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING NORTHBOUND SIGNS NOT SHOWN NORTH OF TARGET DRIVEWAY

SHEET49 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 3	SHEET 180	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025006-TC-S3.DWG
LAYOUT NAME - 10

PLOT DATE : 7/28/2019 8:41 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

LEGEND

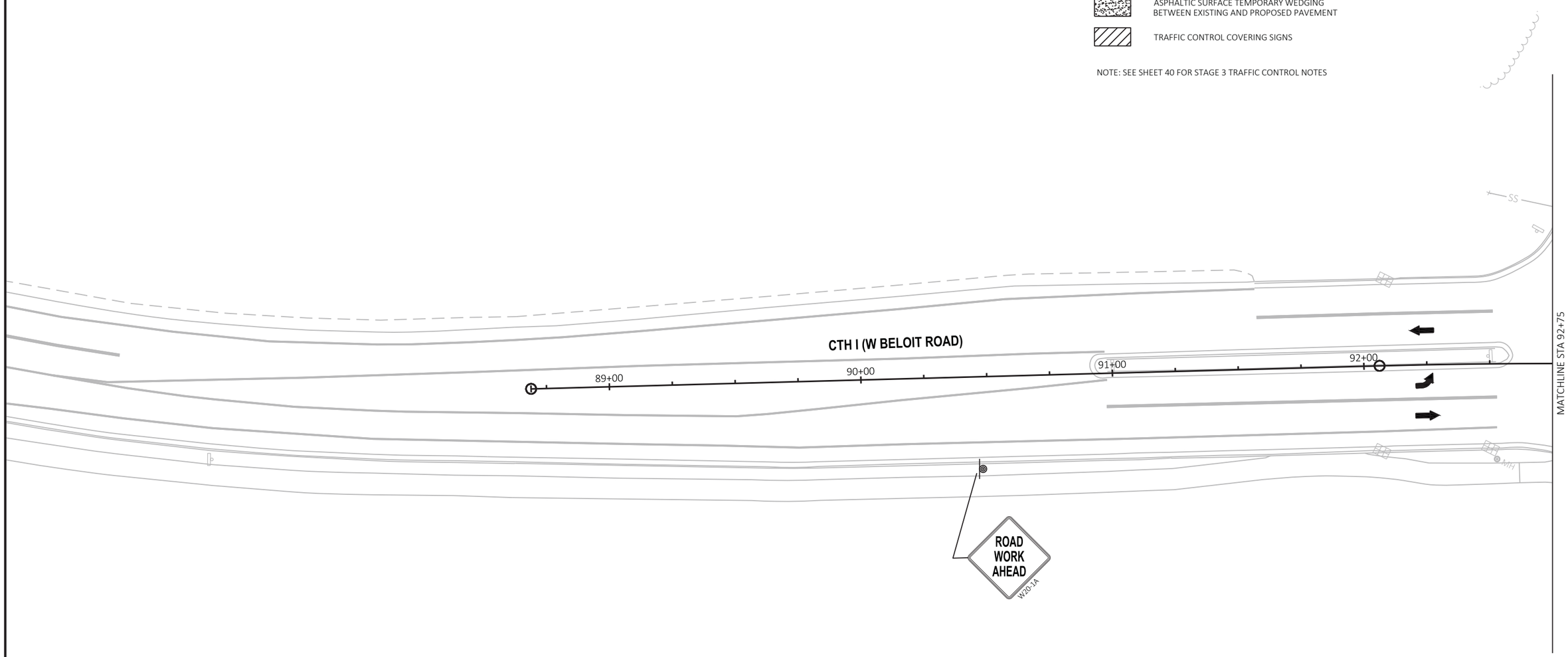
WORK ZONE

6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH

ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT

TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 40 FOR STAGE 3 TRAFFIC CONTROL NOTES



SHEET 50 OF 93

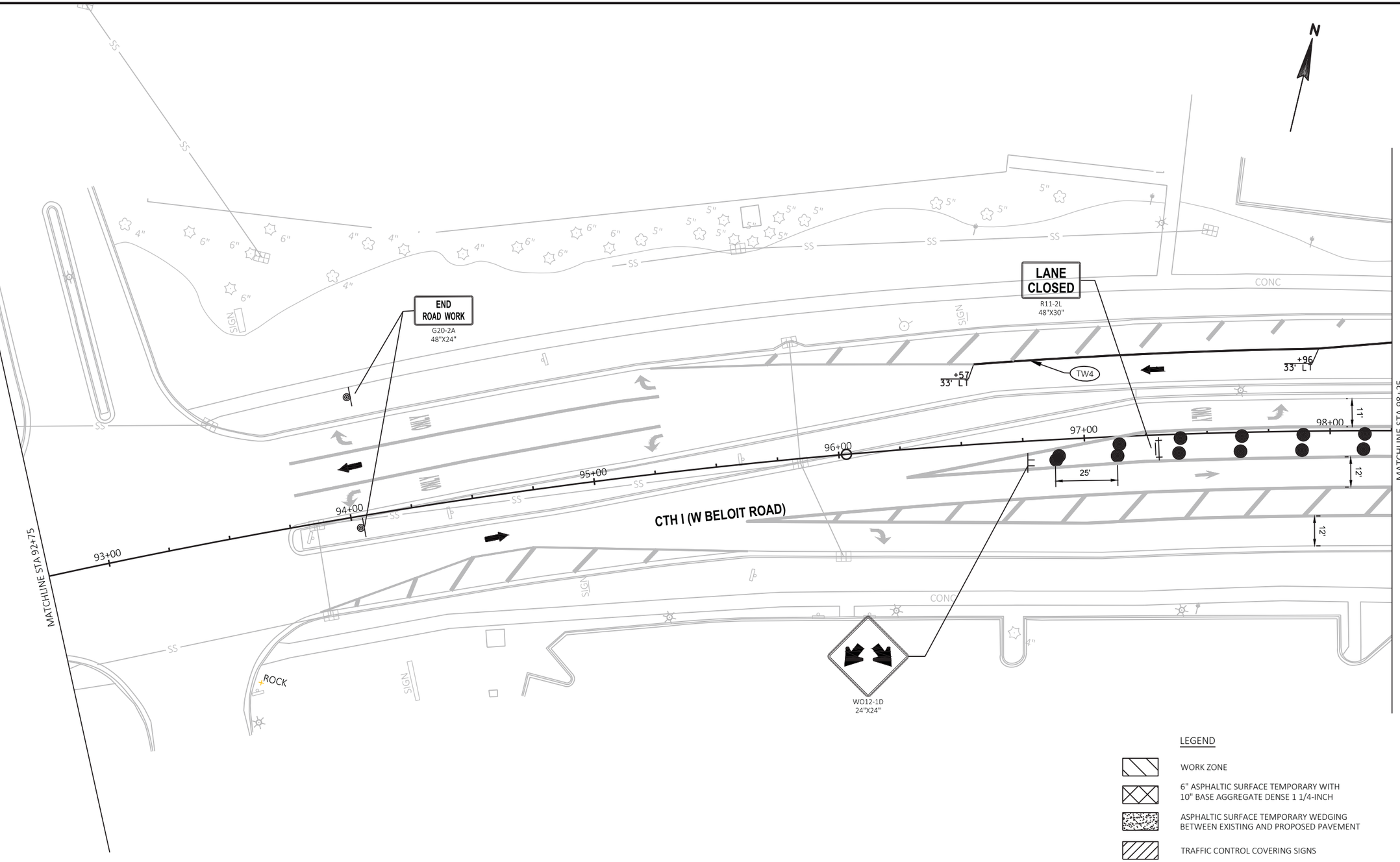
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 3	SHEET 181	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025006-TC-S3.DWG
LAYOUT NAME - 11

PLOT DATE : 7/28/2019 8:41 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 40 FOR STAGE 3 TRAFFIC CONTROL NOTES

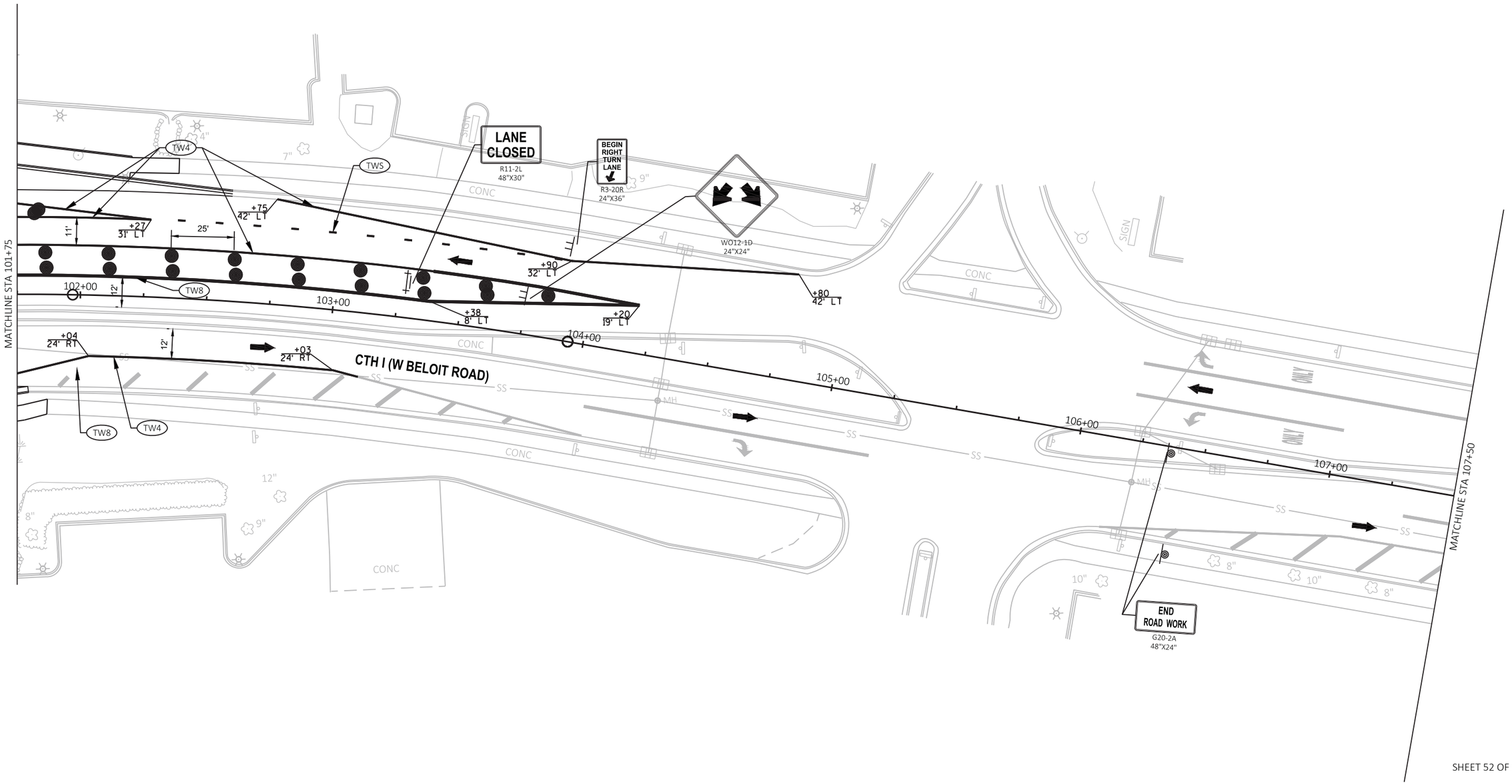
2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 40 FOR STAGE 3 TRAFFIC CONTROL NOTES

N



SHEET 52 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 3	SHEET 183	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025006-TC-S3.DWG
LAYOUT NAME - 13

PLOT DATE : 7/28/2019 8:41 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

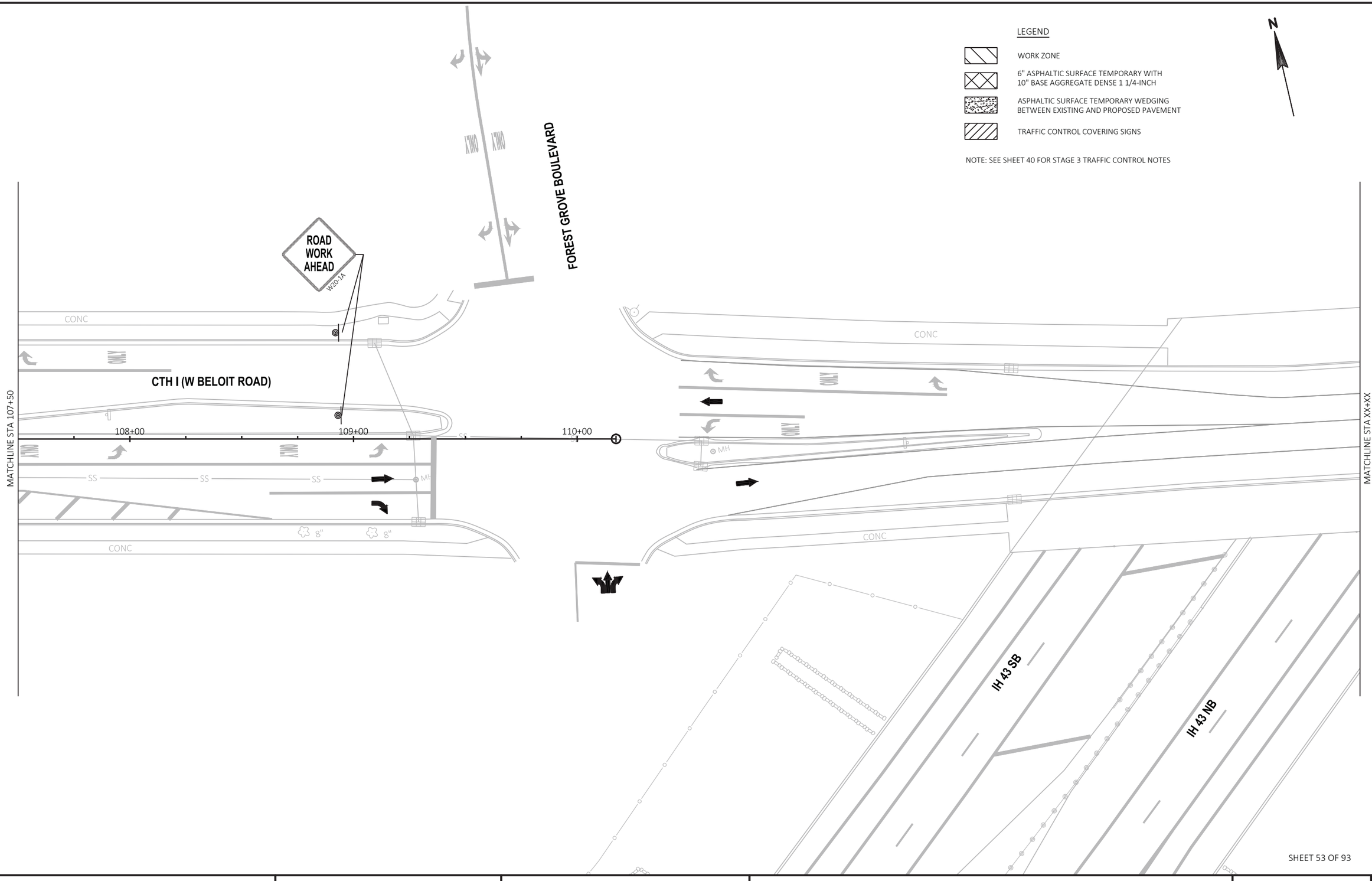
2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 40 FOR STAGE 3 TRAFFIC CONTROL NOTES

N



SHEET 53 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 3	SHEET 184	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025006-TC-S3.DWG
LAYOUT NAME - 14

PLOT DATE : 7/28/2019 8:41 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

TRAFFIC CONTROL NOTES - STAGE 4A

CONSTRUCTION:
- SOUTHBOUND CTH O, GAP AT CTH I INTERSECTION
- SOUTH HALF OF EB CTH I WEST OF CTH O

TRAFFIC:
- CTH O - 2 THRU LANES IN EACH DIRECTION
- CTH I - 1 THRU LANE IN EACH DIRECTION
- IH 43 SB EXIT RAMP FREE FLOW LANE TO NB CTH O TO REMAIN OPEN

PEDESTRIANS:
- SIDEWALKS AND CROSSWALKS PARALLEL TO CTH O OPEN AT ALL TIMES
- SIDEWALKS PARALLEL TO CTH I OPEN AT ALL TIMES. SIDEWALK ON SOUTH SIDE OF CTH I WEST OF CTH O CLOSED WITH PEDESTRIAN ACCESS ROUTE IN ROADWAY USING TEMPORARY PEDESTRIAN BARRICADES.
- CROSSWALKS ACROSS SOUTH AND EAST APPROACHES TO THE CTH O/CTH I INTERSECTION OPEN AT ALL TIMES.
- CROSSWALKS ACROSS NORTH AND WEST APPROACHES TO THE CTH O/CTH I INTERSECTION CLOSED AT ALL TIMES.

TRAFFIC CONTROL NOTES - STAGE 4B

CONSTRUCTION:
- SOUTHBOUND CTH O, GAP AT CTH I INTERSECTION
- SOUTH HALF OF EB CTH I WEST OF CTH O
- NORTH HALF OF WB CTH I WEST OF CTH O

TRAFFIC:
- CTH O - 2 THRU LANES IN EACH DIRECTION
- CTH I - 1 THRU LANE IN EACH DIRECTION
- IH 43 SB EXIT RAMP FREE FLOW LANE TO NB CTH O TO REMAIN OPEN

PEDESTRIANS:
- SIDEWALKS AND CROSSWALKS PARALLEL TO CTH O OPEN AT ALL TIMES
- SIDEWALKS PARALLEL TO CTH I OPEN AT ALL TIMES. SIDEWALK ON SOUTH SIDE OF CTH I WEST OF CTH O CLOSED WITH PEDESTRIAN ACCESS ROUTE IN ROADWAY USING TEMPORARY PEDESTRIAN BARRICADES.
- CROSSWALKS ACROSS NORTH, SOUTH AND EAST APPROACHES TO THE CTH O/CTH I INTERSECTION OPEN AT ALL TIMES.
- CROSSWALKS ACROSS WEST APPROACH TO THE CTH O/CTH I INTERSECTION CLOSED AT ALL TIMES.

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE

TRAFFIC CONTROL NOTES - STAGE 4C

CONSTRUCTION:
- REMAINING CONCRETE SLABS ON OUTSIDE LANES OF EB AND WB CTH I IN CTH O INTERSECTION

TRAFFIC:
- CTH O - 2 THRU LANES IN EACH DIRECTION
- NO LEFT TURN FROM NB CTH I TO WB CTH O. DETOUR POSTED.
- TRUCKS NO RIGHT TURN FROM SB CTH I TO WB CTH O. TRUCK DETOUR POSTED.
- CTH I - 1 THRU LANE IN EACH DIRECTION
- TRUCKS NO RIGHT TURN FROM EB CTH I SB CTH O. TRUCK DETOUR POSTED.
- IH 43 SB EXIT RAMP FREE FLOW LANE TO NB CTH O TO REMAIN OPEN

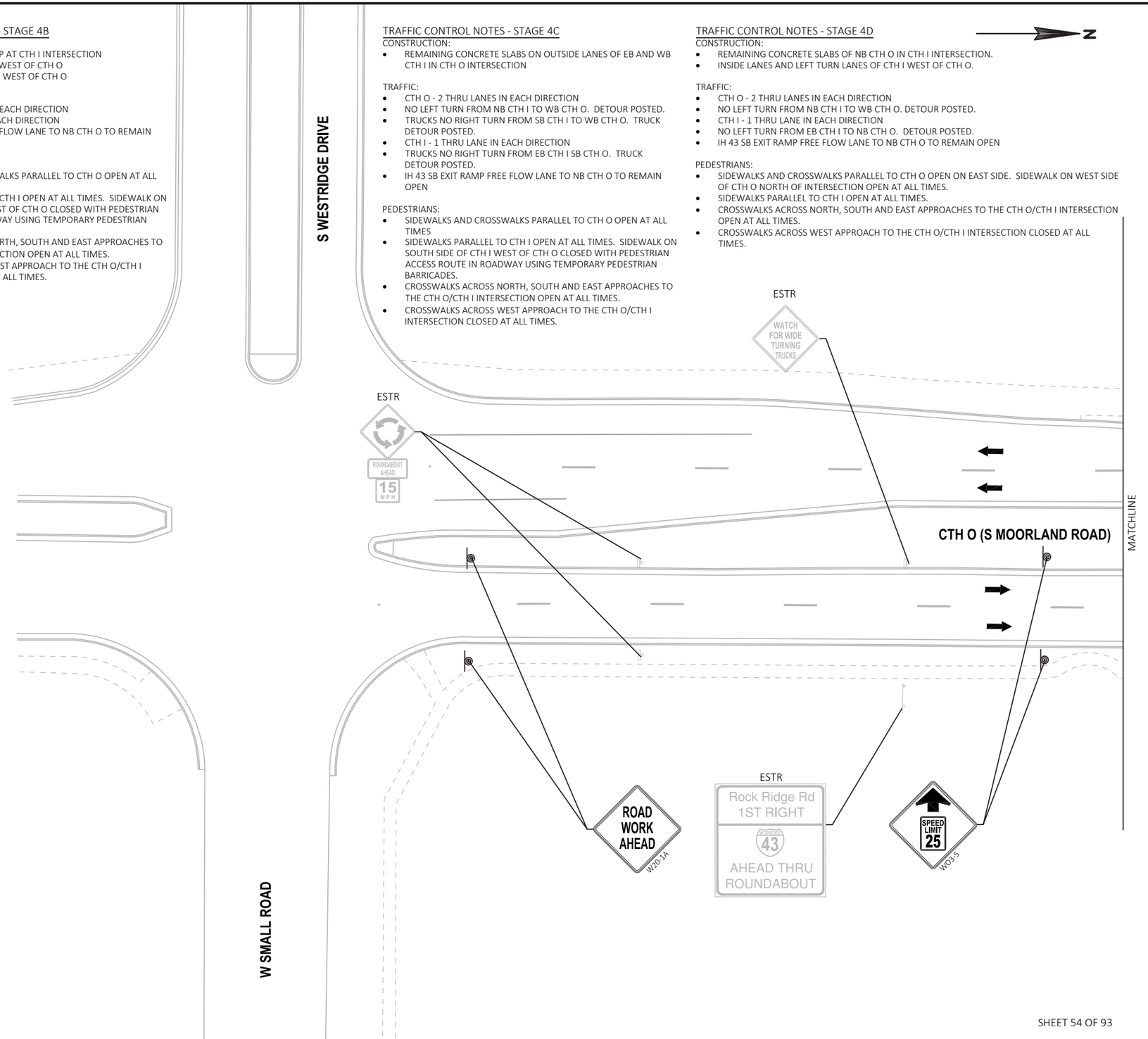
PEDESTRIANS:
- SIDEWALKS AND CROSSWALKS PARALLEL TO CTH O OPEN AT ALL TIMES
- SIDEWALKS PARALLEL TO CTH I OPEN AT ALL TIMES. SIDEWALK ON SOUTH SIDE OF CTH I WEST OF CTH O CLOSED WITH PEDESTRIAN ACCESS ROUTE IN ROADWAY USING TEMPORARY PEDESTRIAN BARRICADES.
- CROSSWALKS ACROSS NORTH, SOUTH AND EAST APPROACHES TO THE CTH O/CTH I INTERSECTION OPEN AT ALL TIMES.
- CROSSWALKS ACROSS WEST APPROACH TO THE CTH O/CTH I INTERSECTION CLOSED AT ALL TIMES.

TRAFFIC CONTROL NOTES - STAGE 4D

CONSTRUCTION:
- REMAINING CONCRETE SLABS OF NB CTH O IN CTH I INTERSECTION.
- INSIDE LANES AND LEFT TURN LANES OF CTH I WEST OF CTH O.

TRAFFIC:
- CTH O - 2 THRU LANES IN EACH DIRECTION
- NO LEFT TURN FROM NB CTH I TO WB CTH O. DETOUR POSTED.
- CTH I - 1 THRU LANE IN EACH DIRECTION
- NO LEFT TURN FROM EB CTH I TO NB CTH O. DETOUR POSTED.
- IH 43 SB EXIT RAMP FREE FLOW LANE TO NB CTH O TO REMAIN OPEN

PEDESTRIANS:
- SIDEWALKS AND CROSSWALKS PARALLEL TO CTH O OPEN ON EAST SIDE. SIDEWALK ON WEST SIDE OF CTH O NORTH OF INTERSECTION OPEN AT ALL TIMES.
- SIDEWALKS PARALLEL TO CTH I OPEN AT ALL TIMES.
- CROSSWALKS ACROSS NORTH, SOUTH AND EAST APPROACHES TO THE CTH O/CTH I INTERSECTION OPEN AT ALL TIMES.
- CROSSWALKS ACROSS WEST APPROACH TO THE CTH O/CTH I INTERSECTION CLOSED AT ALL TIMES.



LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

SHEET 54 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4A-4B-4C-4D	SHEET 185	E

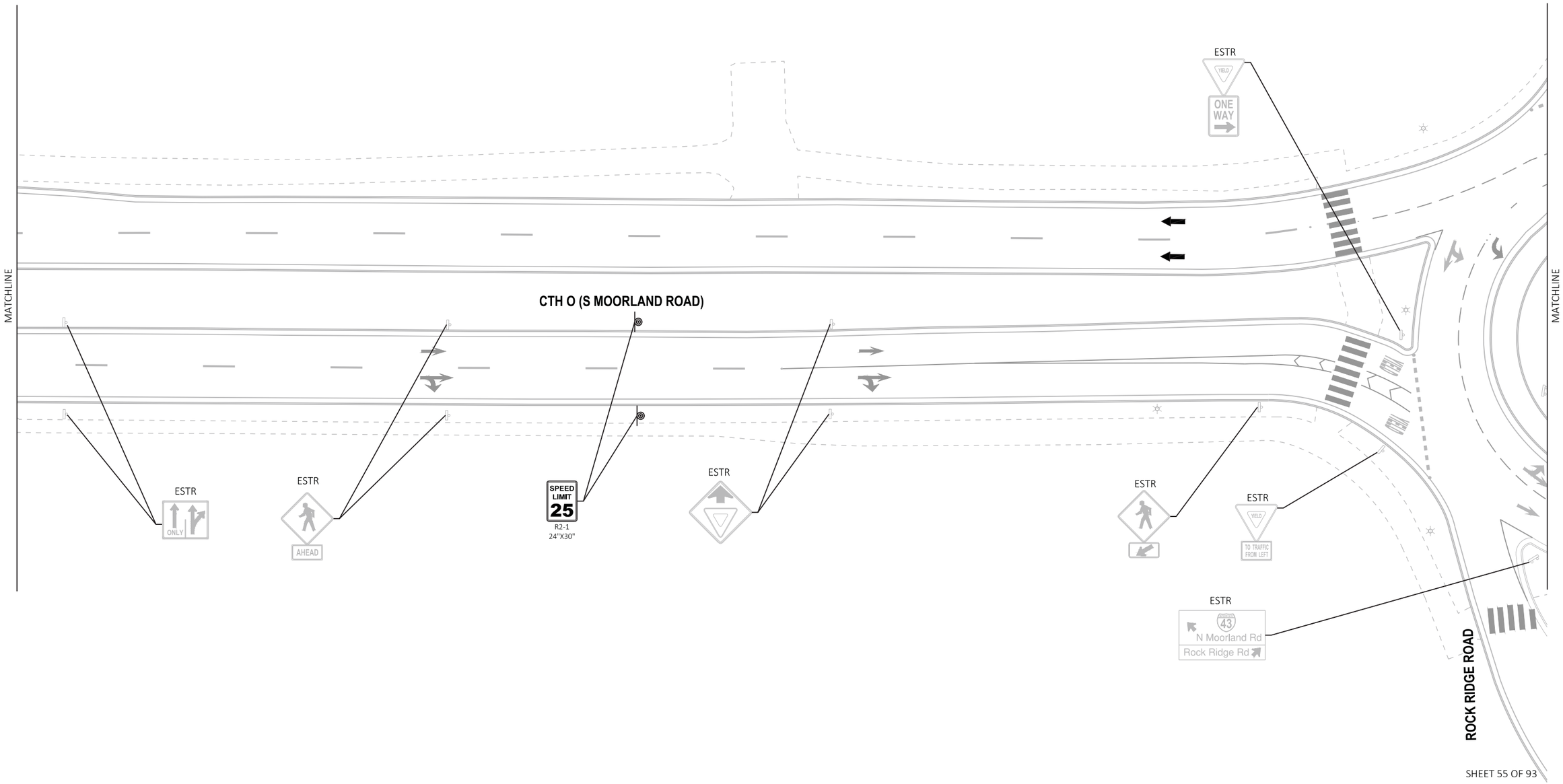
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025007-TC-S4A.DWG
LAYOUT NAME - 01
PLOT DATE : 7/28/2019 8:42 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES



SHEET 55 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4A-4B-4C-4D	SHEET 186	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025007-TC-S4A.DWG
LAYOUT NAME - 02
PLOT DATE : 7/28/2019 8:42 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

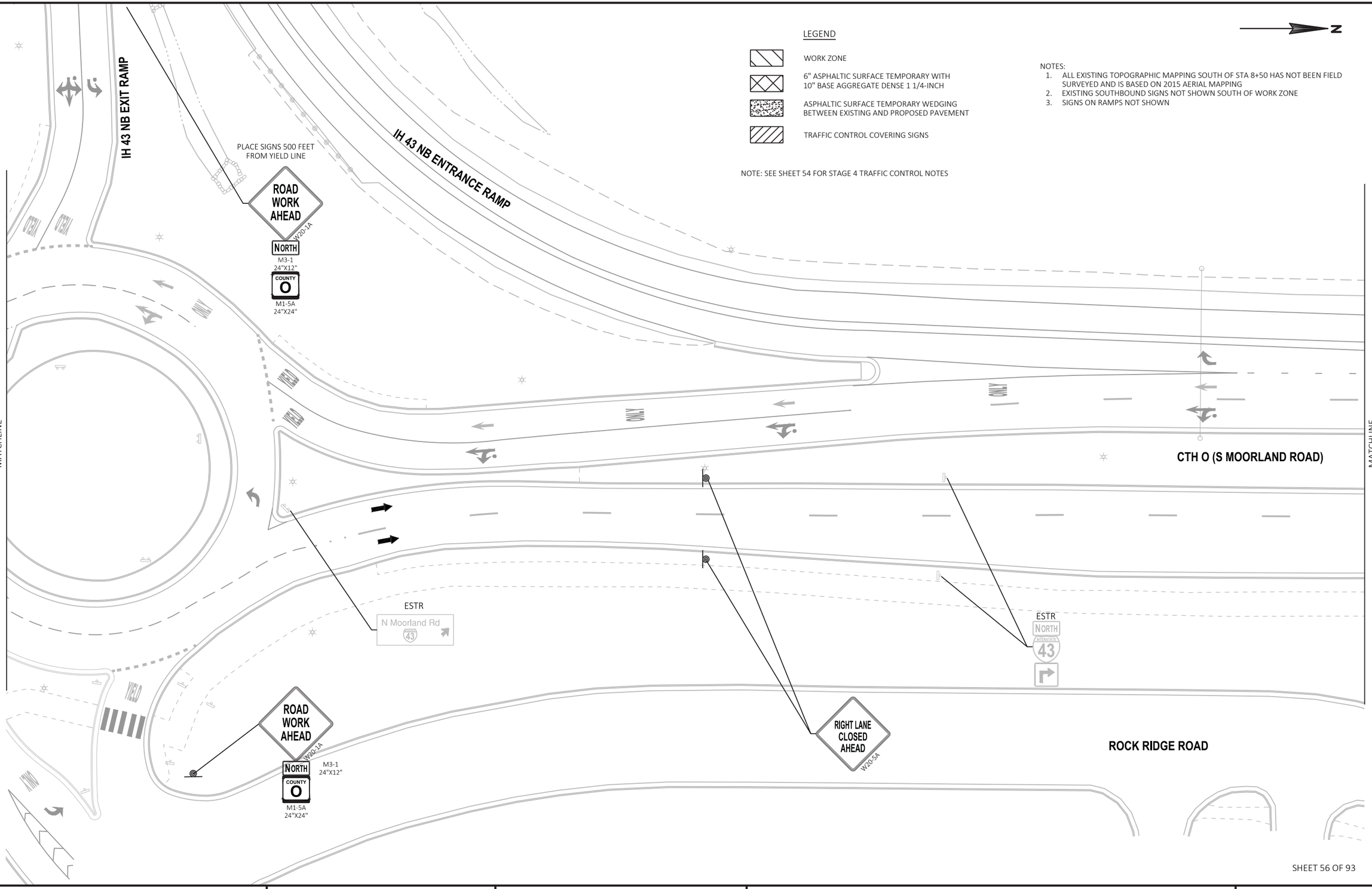
2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE
3. SIGNS ON RAMPS NOT SHOWN

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES



SHEET 56 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4A-4B-4C-4D	SHEET 187	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025007-TC-S4A.DWG
LAYOUT NAME - 03

PLOT DATE : 7/28/2019 8:42 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES

FIXED MESSAGE SIGN STAGE 4D ONLY
10
HWY O NORTH DETOUR AT ROUNDABOUT

ESTR ALTERNATE EAST 94

ESTR Milwaukee

ESTR SOUTH 43

ESTR WATCH FOR WIDE TURNING TRUCKS

STAGE 4D ONLY
DETOUR M4-8 24"X12"
TO M4-5 24"X12"
NORTH M3-1 24"X12"
COUNTY O M1-5A 24"X24"
M6-1 21"X21"

IH 43 SB
IH 43 NB

N

MATCHLINE

CTH O (S MOORLAND ROAD)

1+00
2+

MATCHLINE STA 2+00

25'

PLACE TRAFFIC CONTROL ARROW BOARD SO THAT IT DOES NOT ENCROACH ONTO SIDEWALK

180' MERGE TAPER

ESTR SOUTH 43 USE LEFT LANE

ESTR SOUTH 43 NORTH 43 USE LEFT LANE

W04-2R

ESTR

ESTR

ESTR Moorland Rd SOUTH 43 Beloit

ESTR ROUNDABOUT AHEAD 15 MPH

ROCK RIDGE ROAD

IH 43 NB ENTRANCE RAMP

SHEET 57 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4A-4B-4C-4D	SHEET 188	E

2

N

LEGEND

WORK ZONE

6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH

ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT

TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES

MATCHLINE STA 2+00

MATCHLINE STA 8+00

00 3+00 4+00 5+00 6+00 7+00 8+

CTH O (S MOORLAND ROAD)

IH 43 SB ENTRANCE RAMP

IH 43 NB

IH 43 SB

ESTR ROUNDABOUT AHEAD 15 MPH

ESTR S Moorland Rd TO 43 NORTH

ESTR NORTH INTERSTATE 43

ESTR 43 SOUTH

ESTR YIELD TO TRAFFIC FROM LEFT

ESTR ONE WAY

ESTR YIELD ONE WAY

ESTR 43 SOUTH N Moorland Rd

ESTR ONE WAY

ESTR YIELD ONE WAY

ESTR YIELD TO TRAFFIC FROM LEFT

ESTR YIELD

ESTR RIGHT TURN NO STOP

ESTR

LANE CLOSED R11-2L 48"X30"

END ROAD WORK G20-2A 48"X24"

PLACE SIGN 500 FEET DOWN RAMP

END ROAD WORK G20-2A 48"X24"

LANE CLOSED R11-2L 48"X30"

LANE CLOSED R11-2L 48"X30"

END OF 180' MERGE TAPER

25'

STAGE 4D ONLY

18'

TW4

18'

PROVIDE SUFFICIENT WIDTH FOR TRUCKS TO MANEUVER THROUGH ROUNDABOUT ENTRY

ROAD WORK AHEAD W20-1A

PLACE SIGN 500 FEET FROM YIELD LINE ON RIGHT SIDE OF RAMP

ASPH CONC

ASPH CONC

CHAIN LINK FENCE

SIGN

SHEET 58 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4A-4B-4C-4D	SHEET 189	E

LEGEND

WORK ZONE

6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH

ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT

TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES

N

ESTR

SOUTH INTERSTATE 43 — M3-3 24"X12"

NORTH SOUTH INTERSTATE 43 43 — M3-1 24"X12" M3-3 24"X12"

COUNTY O — M1-5A 24"X24"

INTERSTATE 43 — M1-1 24"X24"

INTERSTATE 43 — M1-1 24"X24"

M6-1 21"X21" M6-1 21"X21" M6-2 21"X21"

WATCH FOR WIDE TURNING TRUCKS

ONLY ONLY ONLY ONLY — R3-8TT 72"X30"

Milwaukee / Beloit

ONE WAY — R6-2R 24"X30"

R3-18 30"X30"

MATCHLINE STA 8+00

MATCHLINE STA 13+00

9+00 10+00 11+00 12+00

+77 60' LT

25'

TW4

TY4

R612'

+49 15' LT

+46 3' LT

+18 22' LT

+18 11' LT

+17 0' RT

+81 12' LT

+80 1' LT

R600'

+78 4' LT

+78 7' RT

+80 10' RT

+78 18' RT

R611'

R622'

11'

TWL

CTH O (S MOORLAND ROAD)

WO1-6 48"X24"

SPEED LIMIT 25 — R2-1 24"X30"

BEGIN LEFT TURN LANE — R3-20L 24"X36"

ONLY ONLY — R3-8M 54"X30"

R3-4 24"X24"

R3-2 24"X24" PERMANENT SIGN

W12-1R 24"X24" PERMANENT SIGN

YIELD — R1-2 36"X31" PERMANENT SIGN

JCT — M2-1 21"X15"

COUNTY I — M1-5A 24"X24"

EMERGENCY MEDICAL CARE

SIGN MOVED IN STAGE 3

LANE CLOSED — R11-2L 48"X30"

WRONG WAY

CONC WALL

CONC

ASPH

SS

SIGN

SHEET 59 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4A-4B	SHEET 190	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025007-TC-S4A.DWG
LAYOUT NAME - 06

PLOT DATE : 12/6/2019 12:47 PM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES

N

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

TEMPORARY PEDESTRIAN ACCESS ROUTE

SPEED LIMIT 25 R2-1 24"X30"

WO1-4BR

TW4 TW8 TYS TSB TWL TY4

SIDEWALK CLOSED CROSS HERE R9-11A 48"X24"

MOUNT TO MARKER POST CLOSET TO INTERSECTION W6-4 12"X18"

WO1-6 48"X24"

LANE CLOSED R11-2L 48"X30"

ESTR ALTERNATE EAST INTERSTATE 94

CTH O (S MOORLAND ROAD)

MATCHLINE STA 13+00

MATCHLINE STA 19+00

MATCHLINE STA 101+75

RIGHT LANE MUST TURN RIGHT R3-7R 30"X30" PERMANENT SIGN

WRONG WAY R5-1A 36"X24" PERMANENT SIGN

MOUNT TO MARKER POST CLOSET TO INTERSECTION W6-4 12"X18"

WO12-1D 24"X24" PERMANENT SIGN

YIELD R1-2 36"X31" PERMANENT SIGN

R4-7 24"X30"

WO1-4BL

SPEED LIMIT 25 R2-1 24"X30"

YIELD R1-2 36"X31" PERMANENT SIGN

ESTR NO SEMI ACCESS

ESTR ONE WAY

SHEET 60 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4A	SHEET 191	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025007-TC-S4A.DWG
LAYOUT NAME - 07

PLOT DATE : 7/28/2019 8:42 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

CONSTRUCT BASE PATCHING CONCRETE SHES ACROSS OPEN TRAVEL LANES DURING OVERNIGHT HOURS USING SINGLE LANE CLOSURES

ESTR
R3-8M
54"X30"

ESTR
JCT
COUNTY I

SPEED LIMIT 25
R2-1
24"X30"

WO1-48L

WO1-6
48"X24"

ESTR
DO NOT ENTER

LANE CLOSED
R11-2L
48"X30"

TW4
TW8
TWS
TWL
TW8
TY4

MATCHLINE STA 19+00

MATCHLINE STA 25+00

20+00
21+00
22+00
23+00
24+00

R562'
R551'
R540'
R40'

+78 28' LT
+70 36' LT
+71 25' LT
+80 17' LT
+21 12' LT
+71 14' LT
+81 7' LT
+82 36' LT
+21 70' LT
+23 3' RT
+25 14' RT

25'
11'
12'

ONLY
CONC
ASPH
ROCK WALL
SS
MH
SIGN

BEGIN LEFT TURN LANE
R3-20L
24"X36"

ESTR
STOP

ESTR
ONLY ONLY ONLY ONLY ONLY

ESTR
WRONG WAY

ESTR
DO NOT ENTER

ESTR
LEFT LANE MUST TURN LEFT

CTH O (S MOORLAND ROAD)

NOTES:
1. EXISTING TOPOGRAPHIC MAPPING NORTH OF OF STA 23+25 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING NORTHBOUND SIGNS NOT SHOWN NORTH OF TARGET DRIVEWAY

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES

SHEET 61 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4A-4B-4C-4D	SHEET	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025007-TC-S4A.DWG
LAYOUT NAME - 08

PLOT DATE : 7/28/2019 8:42 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

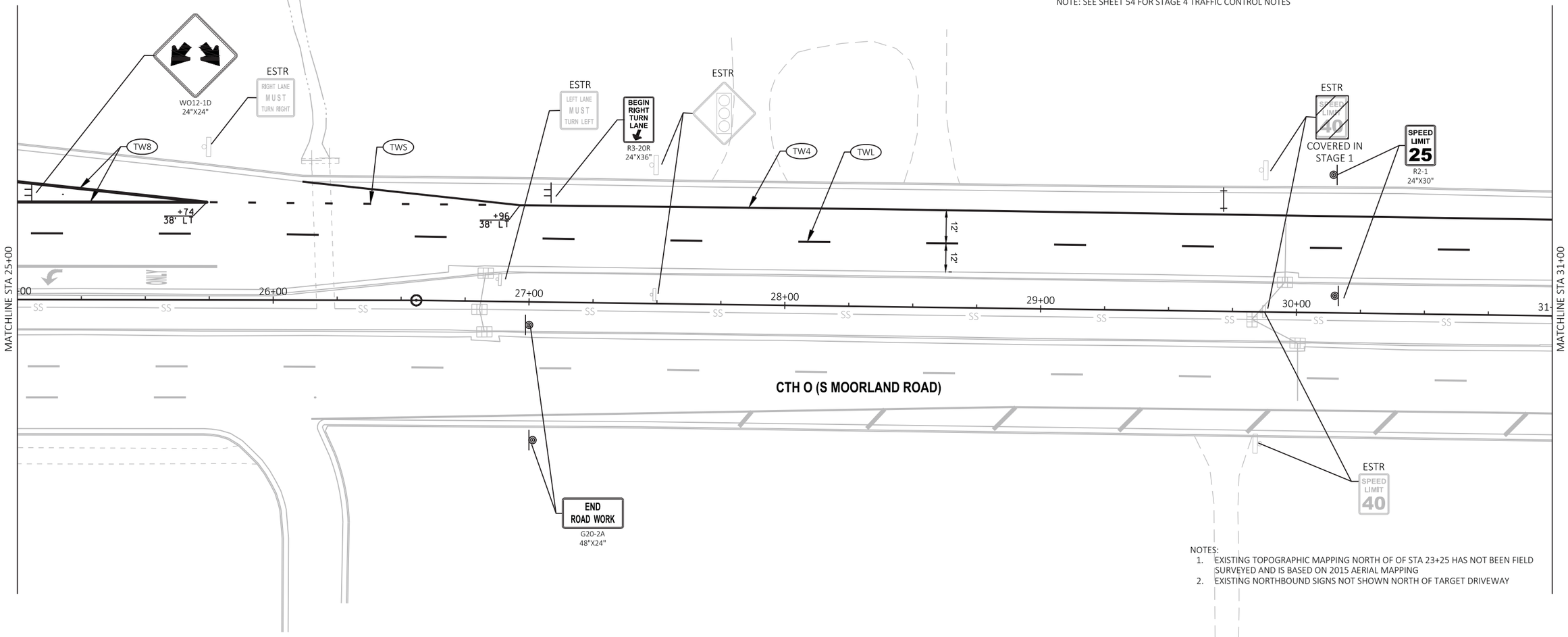
2

N

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES



NOTES:
1. EXISTING TOPOGRAPHIC MAPPING NORTH OF OF STA 23+25 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING NORTHBOUND SIGNS NOT SHOWN NORTH OF TARGET DRIVEWAY

SHEET 62 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4A-4B-4C-4D	SHEET 193	E

2

2

LEGEND

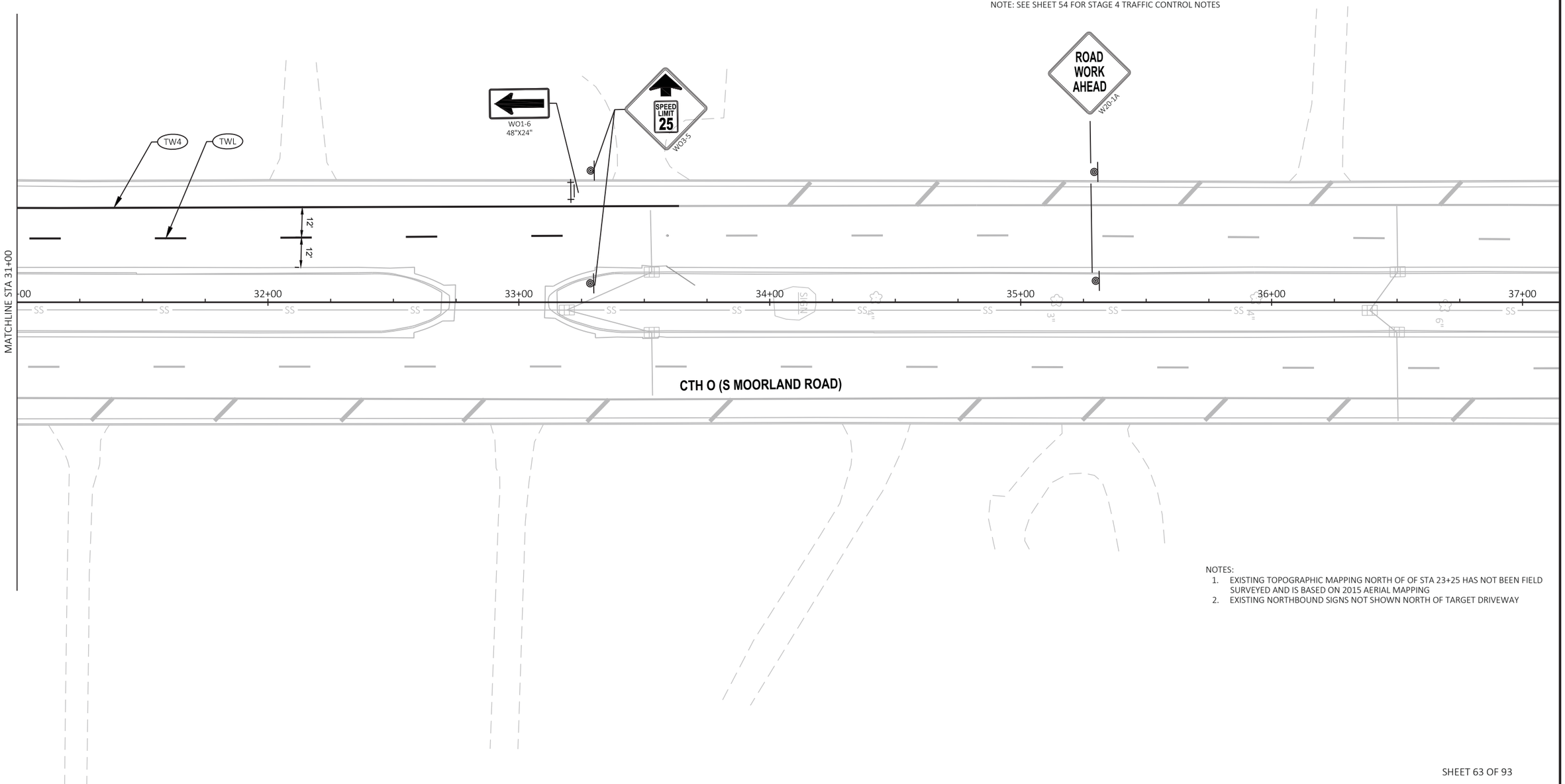
WORK ZONE

6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH

ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT

TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES



NOTES:
1. EXISTING TOPOGRAPHIC MAPPING NORTH OF OF STA 23+25 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING NORTHBOUND SIGNS NOT SHOWN NORTH OF TARGET DRIVEWAY

SHEET 63 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4A-4B-4C-4D	SHEET 194	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025007-TC-S4A.DWG
LAYOUT NAME - 10

PLOT DATE : 7/28/2019 8:43 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

WORK ZONE

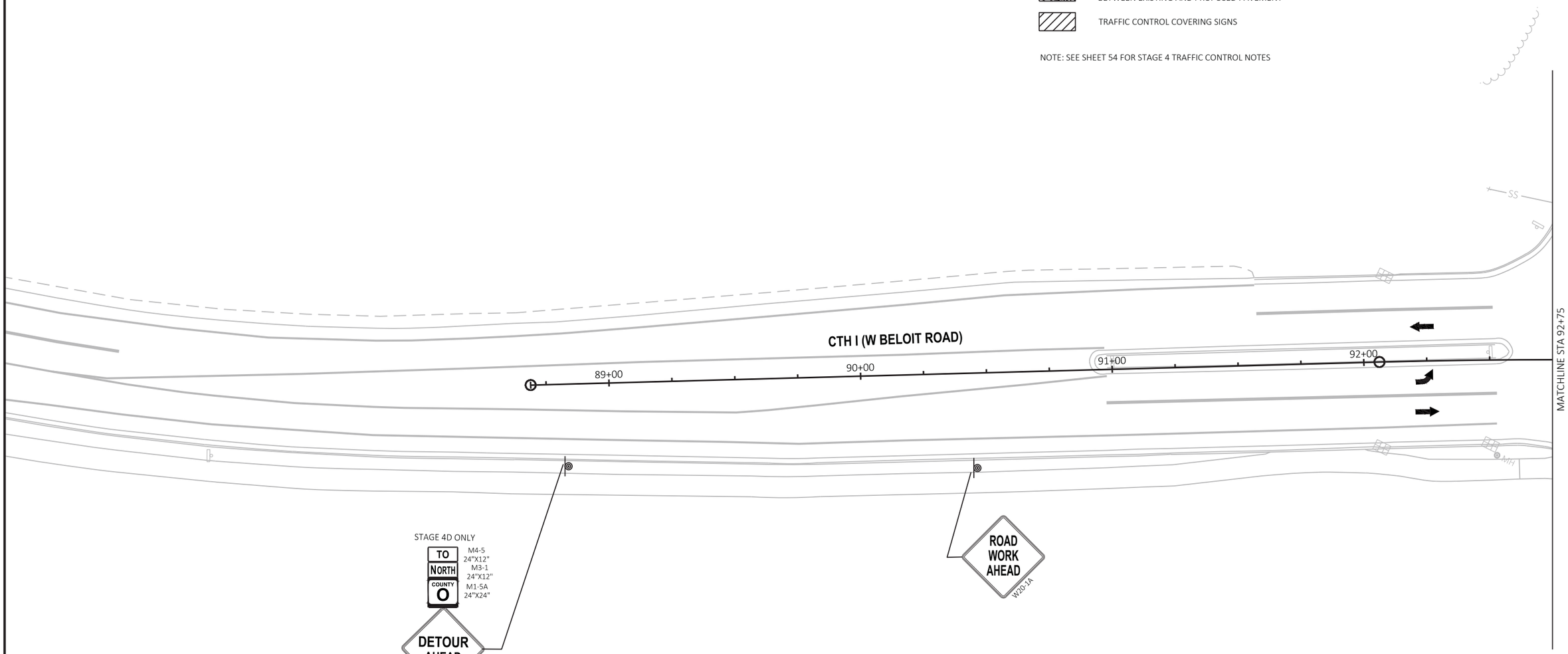
6" ASPHALTIC SURFACE TEMPORARY WITH
10" BASE AGGREGATE DENSE 1 1/4-INCH

ASPHALTIC SURFACE TEMPORARY WEDGING
BETWEEN EXISTING AND PROPOSED PAVEMENT

TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES

N



SHEET 64 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4A-4B-4C-4D	SHEET 195	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025007-TC-S4A.DWG
LAYOUT NAME - 11

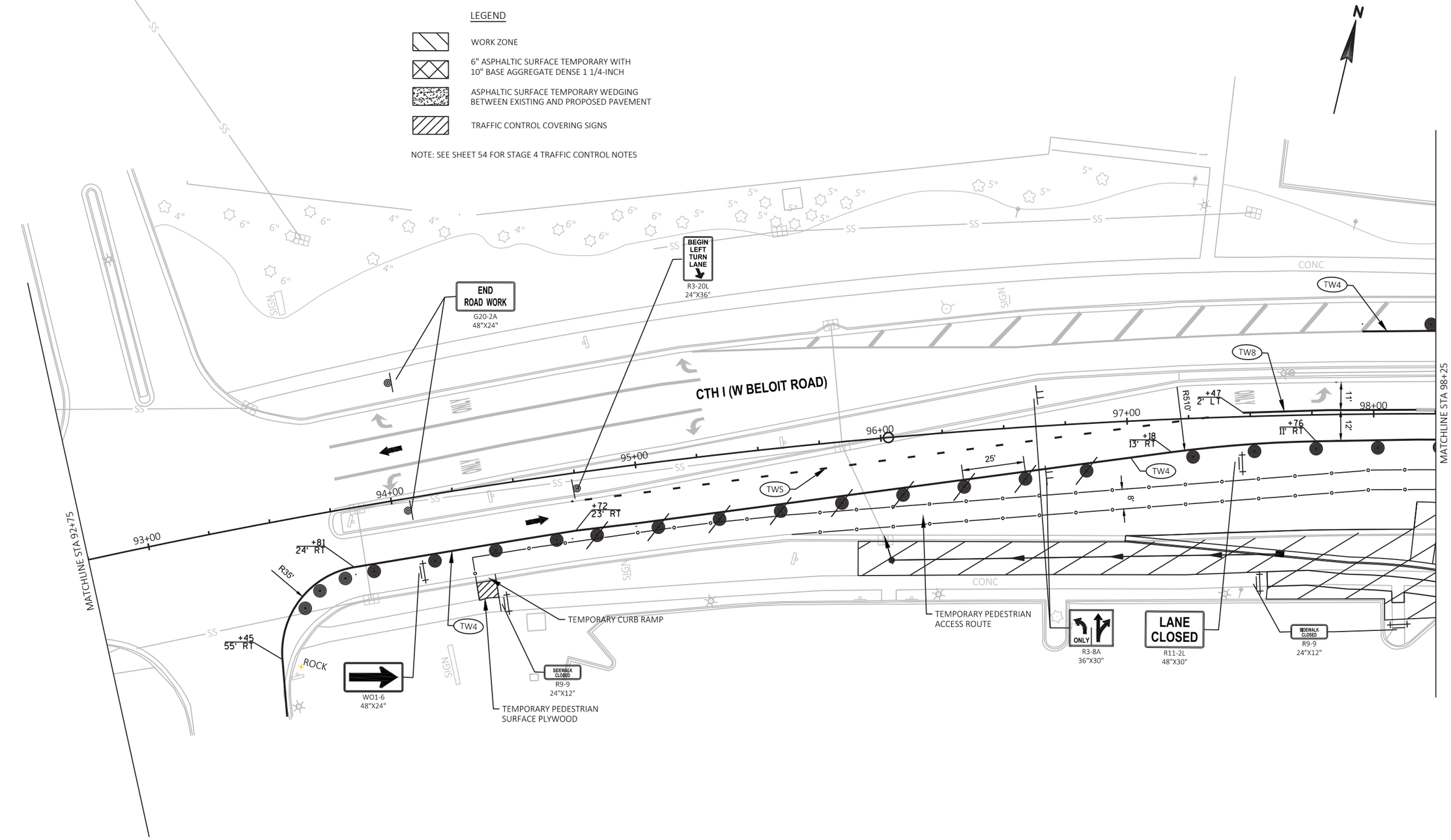
PLOT DATE : 7/28/2019 8:43 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES



SHEET 65 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4A	SHEET 196	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025007-TC-S4A.DWG
LAYOUT NAME - 12

PLOT DATE : 7/28/2019 8:43 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

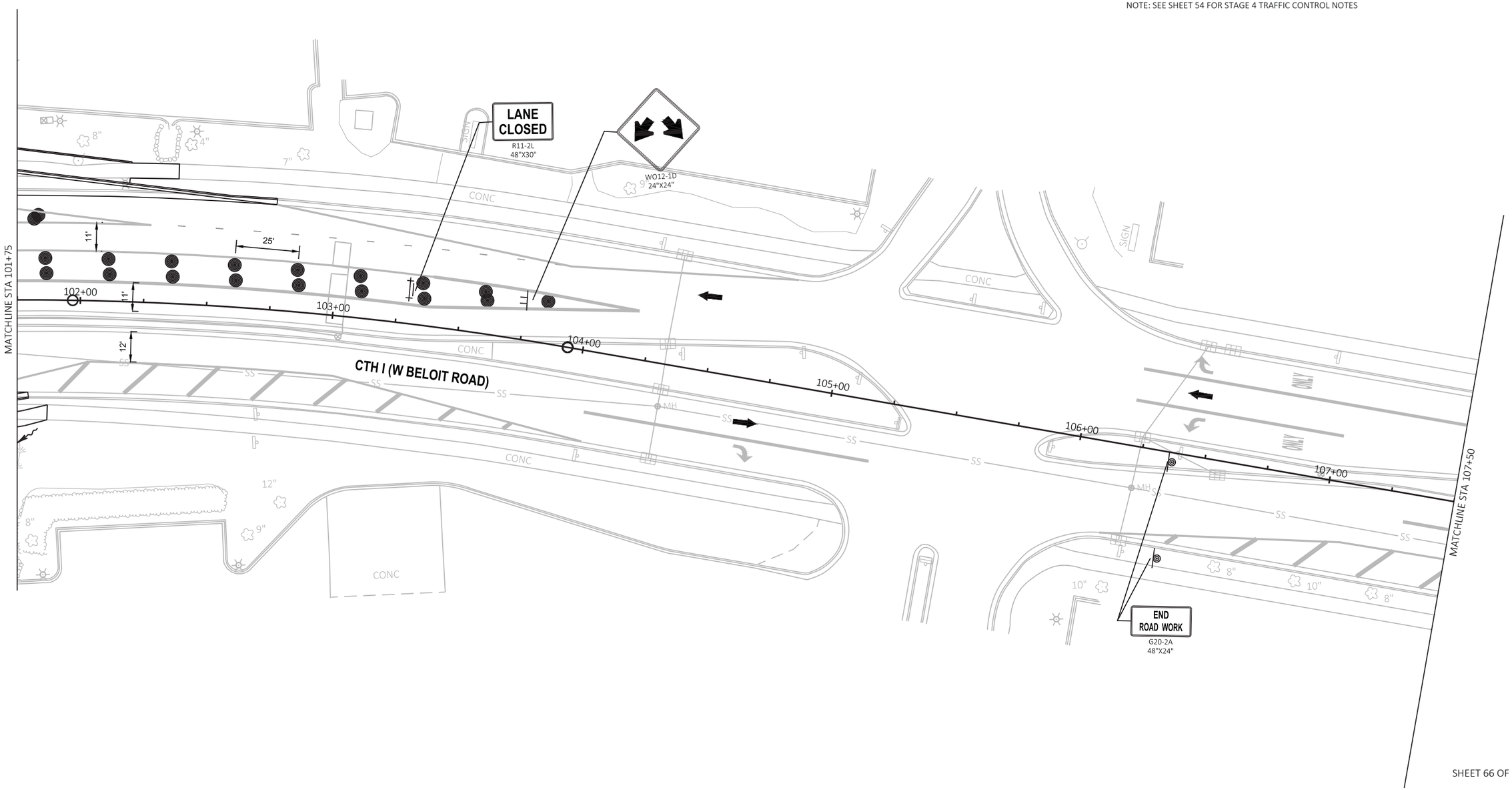
2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES

N



SHEET 66 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4A-4B-4C	SHEET 197	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025007-TC-S4A.DWG
LAYOUT NAME - 13

PLOT DATE : 7/28/2019 8:43 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES

N

FOREST GROVE BOULEVARD

ONLY

ONLY

ROAD WORK AHEAD

W20-1A

CONC

CTH I (W BELOIT ROAD)

MATCHLINE STA 107+50

108+00

109+00

110+00

SS

SS

SS

MH

8"

8"

CONC

CONC

MH

CONC

IH 43 SB

IH 43 NB

MATCHLINE STA XX+XX

SHEET 67 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4A-4B-4C-4D	SHEET 198	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025007-TC-S4A.DWG
LAYOUT NAME - 14

PLOT DATE : 7/28/2019 8:43 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES

N

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

SIDEWALK CLOSED R9-9 24"X12"

INSTALL STORM SEWER ACROSS INTERSECTION RADIUS DURING OVERNIGHT HOURS USING SINGLE LANE CLOSURE

ESTR ALTERNATE EAST INTERSTATE 94

TEMPORARY PEDESTRIAN ACCESS ROUTE

SPEED LIMIT 25 R2-1 24"X30"

WO1-4BR

SIDEWALK CLOSED CROSS HERE R9-11A 24"X12"

SIDEWALK CLOSED R9-9 24"X12"

TEMPORARY PEDESTRIAN SURFACE PLYWOOD

TEMPORARY CURB RAMP

LANE CLOSED R11-2L 48"X30"

WO1-6 48"X24"

SIDEWALK CLOSED CROSS HERE R9-11A 48"X24"

MATCHLINE STA 13+00

MATCHLINE STA 19+00

13+00 14+00 15+00 16+00 17+00 18+00 19+00

99+00 101+00

TWL

CTH O (S MOORLAND ROAD)

CTH I (W BELOIT ROAD)

RIGHT LANE MUST TURN RIGHT R3-7R 30"X30" PERMANENT SIGN

WRONG WAY R5-1A 36"X24" PERMANENT SIGN

W6-4 12"X18" MOUNT TO MARKER POST CLOSET TO INTERSECTION

WO12-1D 24"X24" PERMANENT SIGN

YIELD R1-2 36"X31" PERMANENT SIGN

R4-7 24"X30"

W6-4 12"X18" MOUNT TO MARKER POST CLOSET TO INTERSECTION

WO1-4BL

SPEED LIMIT 25 R2-1 24"X30"

ESTR NO SEMI ACCESS

ESTR ONE WAY

YIELD R1-2 36"X31" PERMANENT SIGN

MATCHLINE STA 101+75

SHEET 68 OF 93

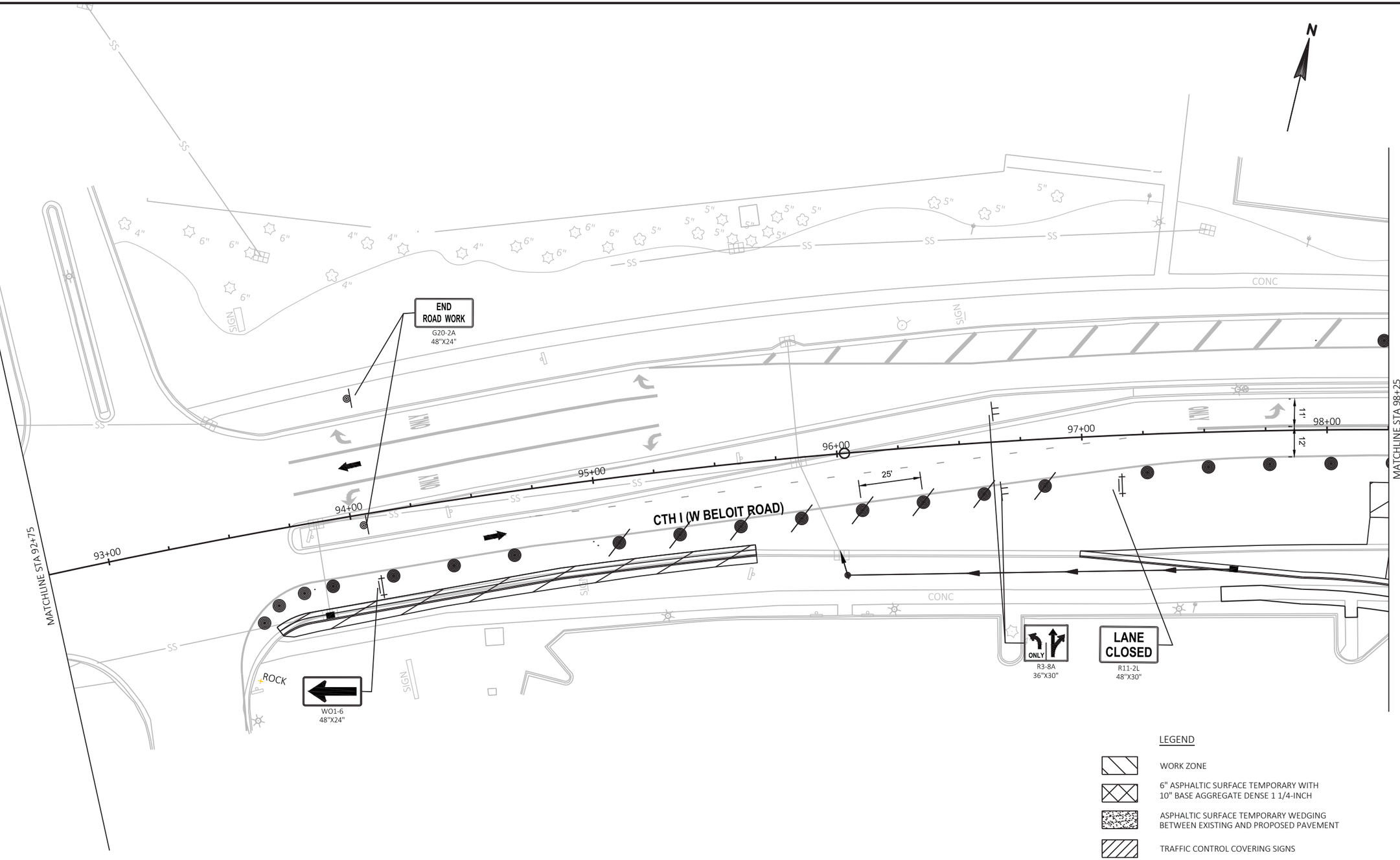
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4B	SHEET 199	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025008-TC-S4B.DWG
LAYOUT NAME - 07

PLOT DATE : 7/28/2019 8:43 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4B-4C	SHEET 200	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025008-TC-S4B.DWG
LAYOUT NAME - 12
PLOT DATE : 7/28/2019 8:44 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

WORK ZONE

6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH

ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT

TRAFFIC CONTROL COVERING SIGNS

N

ESTR

ESTR

ESTR

ESTR

WATCH FOR WIDE TURNING TRUCKS

ESTR

ESTR

R3-8TT 72"X30"

STAGE 4D ONLY

DETOUR TO NORTH COUNTY O

M4-8 24"X12"
M4-5 24"X12"
M3-1 24"X12"
M1-5A 24"X24"
M6-1 21"X21"

SOUTH NORTH SOUTH

MB3-3 24"X12"
MB3-1 24"X12"
MB3-3 24"X12"

COUNTY O
INTERSTATE 43
INTERSTATE 43

M1-5A 24"X24"
M1-1 24"X24"
M1-1 24"X24"

M6-1 21"X21"
MB6-1 21"X21"
MB6-2 21"X21"

ESTR

Milwaukee
Beloit

ONE WAY

R6-2R 24"X30"

R3-18 30"X30"

MATCHLINE STA 8+00

MATCHLINE STA 13+00

9+00

10+00

11+00

12+00

25'

25'

25'

TY4

CTH O (S MOORLAND ROAD)

WO1-6 48"X24"

SPEED LIMIT 25

R2-1 24"X30"

LANE CLOSED

R11-2L 48"X30"

R11-2L 48"X30"

ESTR

ESTR

ESTR

WRONG WAY

SPLIT RAIL FENCE

R3-8M 54"X30"

R3-2 24"X24"
PERMANENT SIGN

W12-1R 24"X24"
PERMANENT SIGN

YIELD

R1-2 36"X31"
PERMANENT SIGN

JCT

M2-1 21"X15"

COUNTY I

M1-5A 24"X24"

EMERGENCY MEDICAL CARE

SIGN MOVED IN STAGE 3

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4C-4D	SHEET 201	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025009-TC-S4C.DWG
LAYOUT NAME - 06

PLOT DATE : 12/6/2019 12:50 PM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES

NOTE:
PLACE TRAFFIC CONTROL SIGNS PCMS AT LEAST 3 DAYS PRIOR TO THE FOLLOWING TURNING MOVEMENT RESTRICTIONS:

NB CTH O LEFT TURN TO WB CTH I
SB CTH O RIGHT TURN TO WB CTH I
EB CTH I RIGHT TURN TO SB CTH O

N

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

WO1-6 48"X24"

TRUCK M4-4 24"X12"

R3-1 24"X24"

WO12-1D 24"X24"

TEMPORARY PEDESTRIAN ACCESS ROUTE

PROVIDE TEMPORARY PEDESTRIAN SURFACE PLYWOOD BRIDGE OVER WORK AREA DURING EXCAVATION AND UNTIL CONCRETE HAS CURED

SPEED LIMIT 25 R2-1 24"X30"

WO1-4BR

SIDEWALK CLOSED AHEAD CROSS HERE R9-11 24"X12"

TEMPORARY PEDESTRIAN SURFACE PLYWOOD

TEMPORARY PEDESTRIAN CURB RAMP

PROVIDE TEMPORARY PEDESTRIAN SURFACE PLYWOOD BRIDGE OVER WORK AREA DURING EXCAVATION AND UNTIL CONCRETE HAS CURED

ESTR ALTERNATE EAST INTERSTATE 94

SIDEWALK CLOSED CROSS HERE R9-11A 24"X12"

LANE CLOSED R11-2L 48"X30"

TRUCK M4-4 24"X12"

R3-1 24"X24"

MATCHLINE STA 13+00

MATCHLINE STA 19+00

CTH O (S MOORLAND ROAD)

SIDEWALK CLOSED CROSS HERE R9-11A 48"X24"

WO1-6 48"X24"

R4-7 24"X30"

W6-4 12"X18"

MOUNT TO MARKER POST CLOSET TO INTERSECTION

WO1-4BL

SPEED LIMIT 25 R2-1 24"X30"

SPEED LIMIT 30 COVERED IN STAGE 1

ESTR NO SEMI ACCESS

ESTR ONE WAY

RIGHT LANE MUST TURN RIGHT R3-7R 30"X30" PERMANENT SIGN

WRONG WAY R5-1A 36"X24" PERMANENT SIGN

R3-2 24"X24"

WO12-1D 24"X24" PERMANENT SIGN

R1-2 36"X31" PERMANENT SIGN

R1-2 36"X31" PERMANENT SIGN

CTH I (W BELOIT ROAD)

MATCHLINE STA 101+75

SHEET 71 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4C	SHEET 202	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025009-TC-S4C.DWG
LAYOUT NAME - 07

PLOT DATE : 12/6/2019 12:53 PM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

WORK ZONE

6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH

ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT

TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES

NOTE:
PLACE TRAFFIC CONTROL SIGNS PCMS AT LEAST 3 DAYS PRIOR TO THE FOLLOWING TURNING MOVEMENT RESTRICTIONS:

EB CTH I LEFT TURN TO NB CTH O

N

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

CTH O (S MOORLAND ROAD)

MATCHLINE STA 13+00

MATCHLINE STA 19+00

MATCHLINE STA 101+75

SPEED LIMIT 25 R2-1 24"X30"

WO1-46R

WO1-6 48"X24"

SIDEWALK CLOSED CROSS HERE R9-11A 24"X12"

R3-2 24"X24"

TSB

TY4

TW4

TYS

TW8

R50'

R762'

R75'

LANE CLOSED R11-2L 48"X30"

RIGHT LANE MUST TURN RIGHT R3-7R 30"X30" PERMANENT SIGN

WRONG WAY R5-1A 36"X24" PERMANENT SIGN

WO12-1D 24"X24" PERMANENT SIGN

R1-2 36"X31" PERMANENT SIGN

R4-7 24"X30"

W6-4 12"X18" MOUNT TO MARKER POST CLOSET TO INTERSECTION

COVERED IN STAGE 1

ESTR NO SEMI ACCESS

ESTR ONE WAY

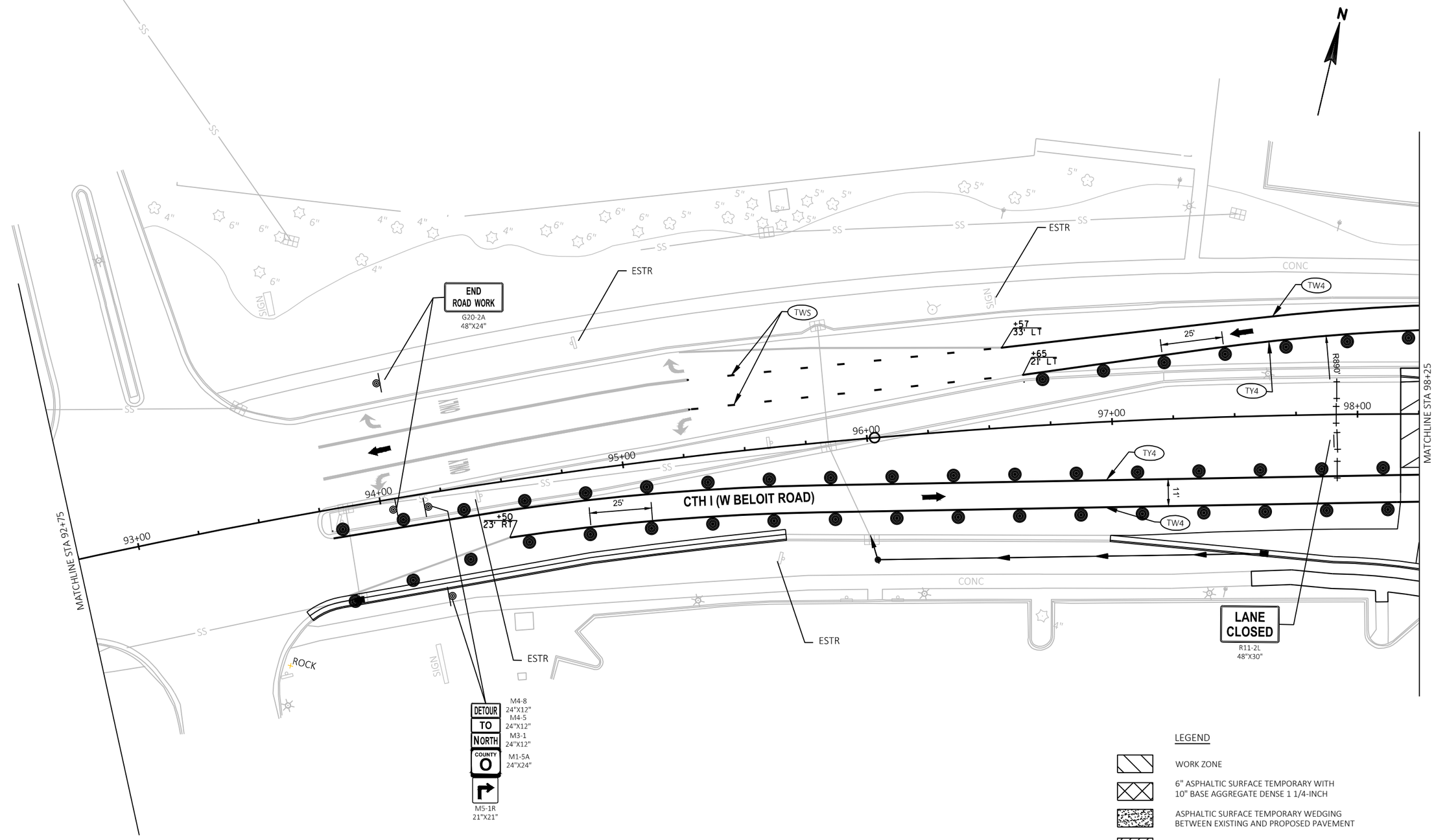
SHEET 72 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4D	SHEET 203	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025010-TC-S4D.DWG
LAYOUT NAME - 07

PLOT DATE : 7/28/2019 8:45 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4D	SHEET 204	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025010-TC-S4D.DWG
LAYOUT NAME - 12
PLOT DATE : 12/6/2019 12:56 PM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

WORK ZONE

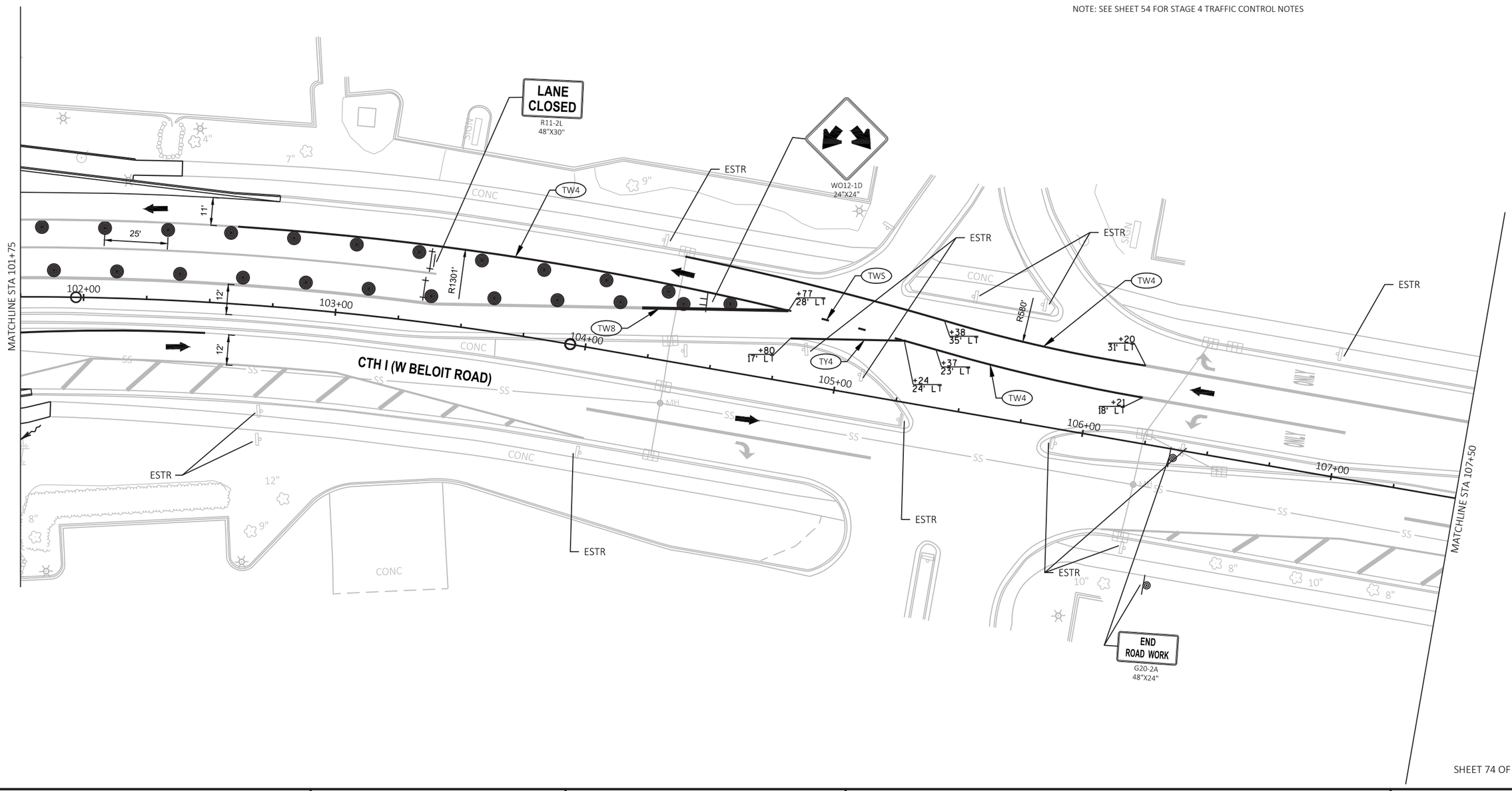
6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH

ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT

TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 54 FOR STAGE 4 TRAFFIC CONTROL NOTES

N



SHEET 74 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 4D	SHEET 205	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025010-TC-S4D.DWG
LAYOUT NAME - 13

PLOT DATE : 7/28/2019 8:45 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

TRAFFIC CONTROL NOTES - STAGE 5A

CONSTRUCTION:
- REMAINING SECTIONS OF CTH O MEDIAN EXCEPT CENTER OF CTH I INTERSECTION.

TRAFFIC:
- CTH O - 2 THRU LANES IN EACH DIRECTION
- CTH I - 1 THRU LANE IN EACH DIRECTION
- IH 43 SB EXIT RAMP FREE FLOW LANE TO NB CTH O TO REMAIN OPEN

PEDESTRIANS:
- SIDEWALKS AND CROSSWALKS PARALLEL TO CTH O OPEN AT ALL TIMES
- SIDEWALKS PARALLEL TO CTH I OPEN AT ALL TIMES
- CROSSWALK ACROSS SOUTH APPROACH OF INTERSECTION CLOSED

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE

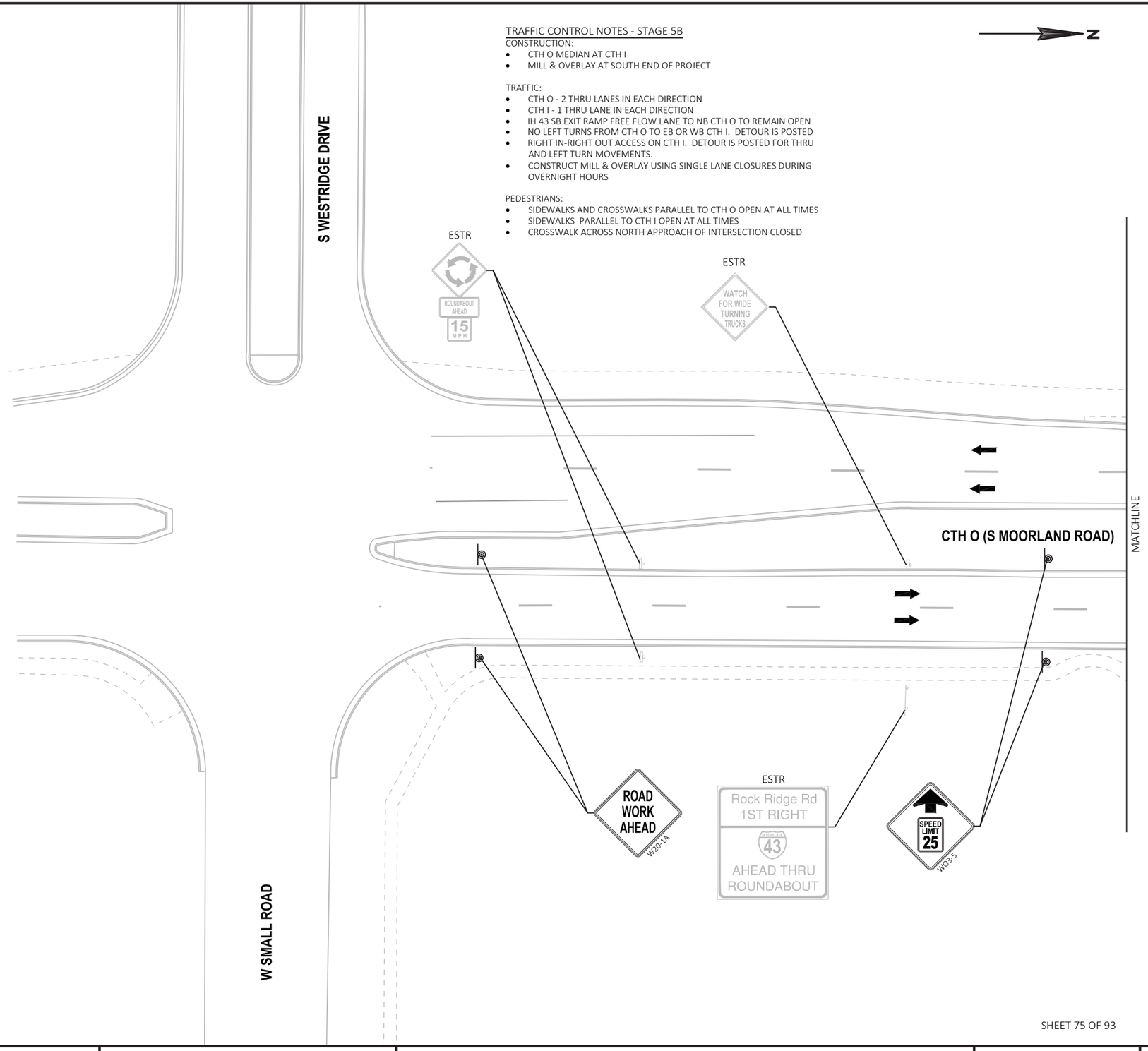
TRAFFIC CONTROL NOTES - STAGE 5B

CONSTRUCTION:
- CTH O MEDIAN AT CTH I
- MILL & OVERLAY AT SOUTH END OF PROJECT

TRAFFIC:
- CTH O - 2 THRU LANES IN EACH DIRECTION
- CTH I - 1 THRU LANE IN EACH DIRECTION
- IH 43 SB EXIT RAMP FREE FLOW LANE TO NB CTH O TO REMAIN OPEN
- NO LEFT TURNS FROM CTH O TO EB OR WB CTH I. DETOUR IS POSTED
- RIGHT IN-RIGHT OUT ACCESS ON CTH I. DETOUR IS POSTED FOR THRU AND LEFT TURN MOVEMENTS.
- CONSTRUCT MILL & OVERLAY USING SINGLE LANE CLOSURES DURING OVERNIGHT HOURS

PEDESTRIANS:
- SIDEWALKS AND CROSSWALKS PARALLEL TO CTH O OPEN AT ALL TIMES
- SIDEWALKS PARALLEL TO CTH I OPEN AT ALL TIMES
- CROSSWALK ACROSS NORTH APPROACH OF INTERSECTION CLOSED

N



LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

SHEET 75 OF 93

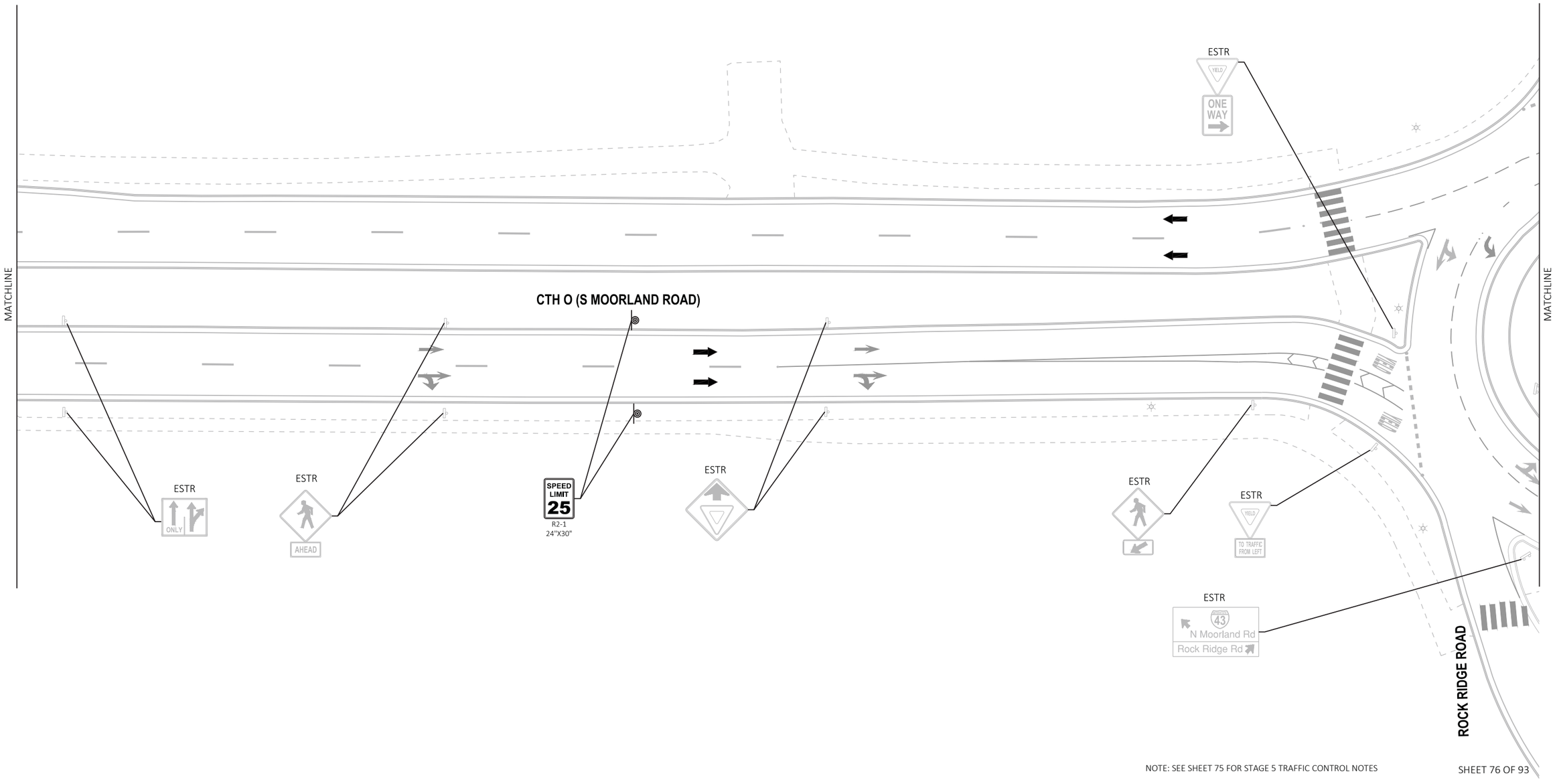
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5A - 5B	SHEET 206	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025011-TC-S5A.DWG
LAYOUT NAME - 01
PLOT DATE : 7/28/2019 8:45 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS



NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES

SHEET 76 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5A - 5B	SHEET 207	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025011-TC-S5A.DWG
LAYOUT NAME - 02

PLOT DATE : 7/28/2019 8:45 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE
3. SIGNS ON RAMPS NOT SHOWN

IH 43 NB EXIT RAMP

IH 43 NB ENTRANCE RAMP

PLACE SIGNS 500 FEET FROM YIELD LINE

ROAD WORK AHEAD W20-1A

NORTH M3-1 24"X12"

COUNTY O M1-5A 24"X24"

MATCHLINE

MATCHLINE

CTH O (S MOORLAND ROAD)

ESTR N Moorland Rd 43

ESTR NORTH INTERSTATE 43

STAGE 5B ONLY

DETOUR TO EAST COUNTY I M4-5 24"X12" M3-2 24"X12" M1-5A 24"X24" M4-8 24"X12" M6-1 21"X21"

ROCK RIDGE ROAD

ROAD WORK AHEAD W20-1A

NORTH M3-1 24"X12"

COUNTY O M1-5A 24"X24"

RIGHT LANE CLOSED AHEAD W20-5A

SHEET 77 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5A - 5B	SHEET 208	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025011-TC-S5A.DWG
LAYOUT NAME - 03

PLOT DATE : 7/28/2019 8:45 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

NOTES:
1. ALL EXISTING TOPOGRAPHIC MAPPING SOUTH OF STA 8+50 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING SOUTHBOUND SIGNS NOT SHOWN SOUTH OF WORK ZONE

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES

FIXED MESSAGE SIGN STAGE 5B ONLY
8
HWY O SOUTH
HWY I EAST
DETOUR AT
ROUNDABOUT

ESTR ALTERNATE EAST INTERSTATE 94

ESTR Milwaukee

ESTR SOUTH INTERSTATE 43

ESTR WATCH FOR WIDE TURNING TRUCKS

STAGE 5B ONLY
M4-8 24"X12"
M4-5 24"X12"
M3-2 24"X12"
M1-5A 24"X24"
DETOUR TO EAST COUNTY I
DETOUR TO NORTH COUNTY O
M6-1 21"X21"
M6-1 21"X21"
M4-8 24"X12"
M4-5 24"X12"
M3-1 24"X12"
M1-5A 24"X24"

IH 43 SB
IH 43 NB

BR- 0+03.40

1+00
2+

MATCHLINE
MATCHLINE STA 2+00

CTH O (S MOORLAND ROAD)

25'

PLACE TRAFFIC CONTROL ARROW BOARD SO THAT IT DOES NOT ENCROACH ONTO SIDEWALK

180' MERGE TAPER

ESTR SOUTH INTERSTATE 43 USE LEFT LANE

ESTR SOUTH INTERSTATE 43 NORTH INTERSTATE 43 USE LEFT LANE

W04-2R

ESTR

ESTR

ESTR Moorland Rd SOUTH INTERSTATE 43 Beloit

ESTR ROUNDABOUT AHEAD 15 MPH

ROCK RIDGE ROAD

IH 43 NB ENTRANCE RAMP

SHEET 78 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5A - 5B	SHEET 209	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025011-TC-S5A.DWG
LAYOUT NAME - 04
PLOT DATE : 12/6/2019 1:01 PM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

N

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES

MATCHLINE STA 2+00

3+00 4+00 5+00 6+00 7+00 8+

MATCHLINE STA 8+00

CTH O (S MOORLAND ROAD)

IH 43 SB ENTRANCE RAMP

PLACE SIGN 500 FEET DOWN RAMP

END ROAD WORK
G20-2A
48"X24"

ESTR NORTH INTERSTATE 43

ESTR 43 SOUTH

LANE CLOSED
R11-2L
48"X30"

ESTR S Moorland Rd TO 43 NORTH

END ROAD WORK
G20-2A
48"X24"

ESTR ROUNDABOUT AHEAD 15 MPH

END OF 180' MERGE TAPER

LANE CLOSED
R11-2L
48"X30"

STAGE 5B ONLY

18'

ESTR ONE WAY

ESTR YIELD TO TRAFFIC FROM LEFT

25'

ESTR

PROVIDE SUFFICIENT WIDTH FOR TRUCKS TO MANEUVER THROUGH ROUNDABOUT ENTRY

ESTR YIELD ONE WAY

ESTR YIELD TO TRAFFIC FROM LEFT

STAGE 5B ONLY

M4-8
24"X12"
M3-2
24"X12"
M4-5
24"X12"
M1-5A
24"X24"

DETOUR EAST TO COUNTY I

M6-1
24"X21"

IH 43 NB

IH 43 SB

18'

ESTR ONE WAY

ESTR 43 SOUTH N Moorland Rd

ESTR YIELD ONE WAY

ESTR YIELD

YIELD

YIELD

ASPH CONC

ASPH CONC

SIGN

CHAIN LINK FENCE

ESTR RIGHT TURN NO STOP

LANE CLOSED
R11-2L
48"X30"

ESTR YIELD ONE WAY

ROAD WORK AHEAD
W20-1A

PLACE SIGN 500 FEET FROM YIELD LINE ON RIGHT SIDE OF RAMP

ESTR YIELD

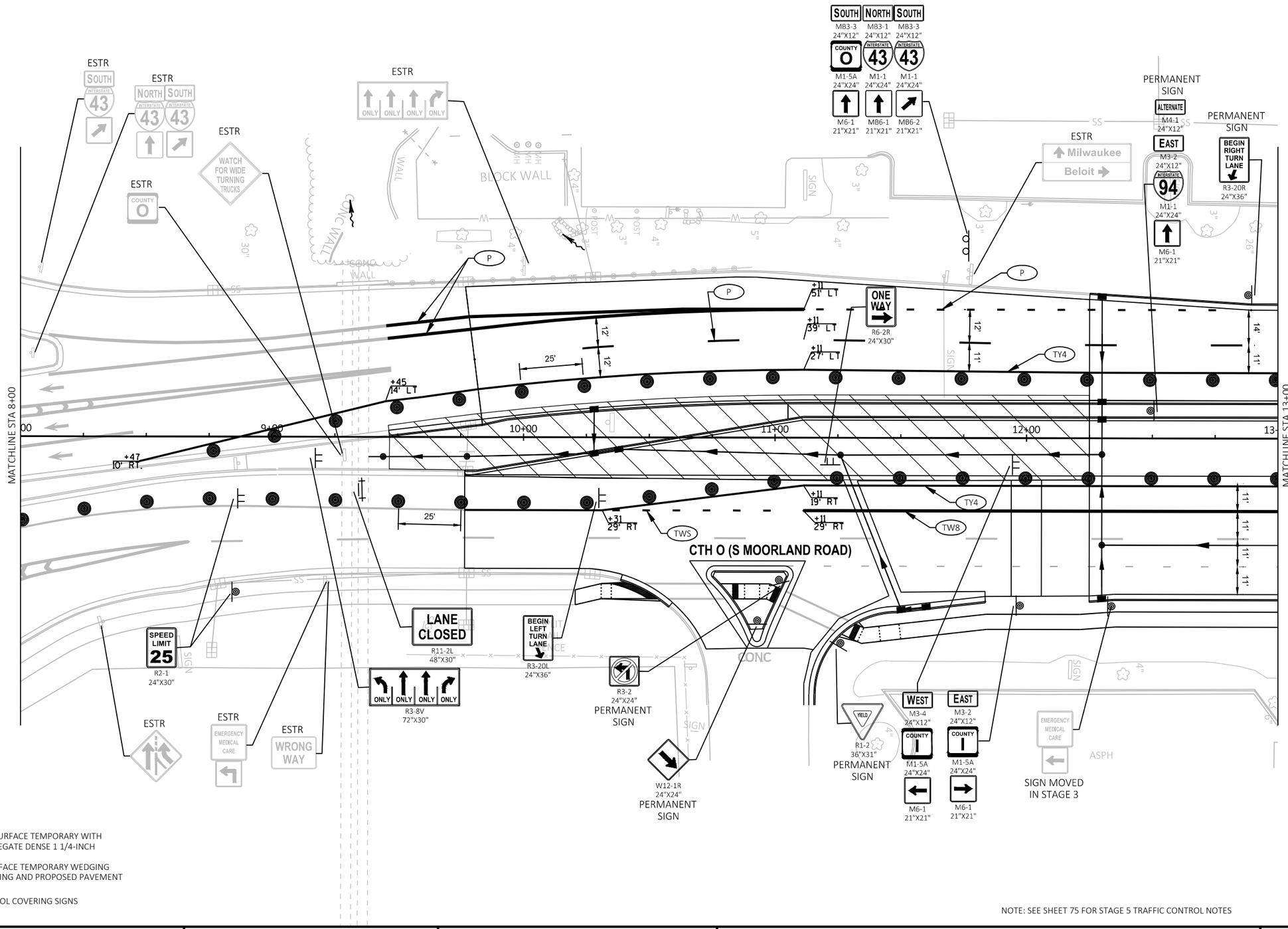
SHEET 79 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5A - 5B	SHEET 210	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025011-TC-S5A.DWG
LAYOUT NAME - 05

PLOT DATE : 12/6/2019 12:58 PM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5A	SHEET 211	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025011-TC-S5A.DWG
LAYOUT NAME - 06
PLOT DATE : 12/6/2019 1:03 PM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES

N

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

CTH O (S MOORLAND ROAD)

CTH I (W BELOIT ROAD)

MATCHLINE STA 101+75

MATCHLINE STA 13+00

MATCHLINE STA 19+00

MOVE EMERGENCY MEDICAL CARE

W2-6 30"X30"
W13-1 18"X18"
PERMANENT SIGN

PERMANENT SIGN JCT M2-1 21"X15" INTERSTATE 43 M1-1 24"X24"

PERMANENT SIGN COUNTY O M1-5A 24"X24"

WO12-1D 24"X24"

STOP R1-1 30"X30"

WO1-6 48"X24"

R4-7 24"X30"

PERMANENT SIGN YIELD R1-2 36"X31"

WO12-1D 24"X24" PERMANENT SIGN

LANE CLOSED R11-2L 48"X30"

PERMANENT SIGN RIGHT LANE MUST TURN RIGHT R3-7R 30"X30"

PERMANENT SIGN WEST M3-4 24"X12"

PERMANENT SIGN COUNTY I M1-5A 24"X24"

M6-1 21"X21"

SIDEWALK CLOSED CROSS HERE R9-11A 24"X12"

WO1-6 48"X24"

TW8 TW4 TY4 TYS TWL

25' 14' 11' 99+00 101+00

+11 33' RT +11 11' RT +11 22' RT +96 33' LT +38 29' LT +23 37' LT +57 26' LT +69 27' LT +50 18' LT +37 17' LT +37 19' RT +61 19' RT +41 25' RT +68 29' RT +68 20' RT +73 20' LT +02 24' RT

CONC BRICK WALL GATE SIGN SS

RIGHT LANE MUST TURN RIGHT R3-7R 30"X30" PERMANENT SIGN

WRONG WAY R5-1A 36"X24" PERMANENT SIGN

WO12-1D 24"X24" PERMANENT SIGN

SIDEWALK CLOSED CROSS HERE R9-11A 24"X12"

YIELD R1-2 36"X31" PERMANENT SIGN

WO1-6 48"X24"

WO1-6 48"X24"

SPEED LIMIT 25 R2-1 24"X30"

ESTR SPEED LIMIT 40 COVERED IN STAGE 1

EAST M3-2 24"X12" COUNTY I M1-5A 24"X24"

M6-1 21"X21"

ESTR NO SEMI ACCESS

ESTR ONE WAY

YIELD R1-2 36"X31" PERMANENT SIGN

WO12-1D 24"X24"

SHEET 81 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5A	SHEET 212	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025011-TC-S5A.DWG
LAYOUT NAME - 07

PLOT DATE : 7/28/2019 8:46 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

PERMANENT SIGN
ALTERNATE
M4-1
24"X12"
EAST
MB3-2
24"X12"
INTERSTATE 94
M1-1
24"X24"
M6-1
21"X21"

WO1-6
48"X24"

ONLY ONLY ONLY ONLY
R3-8V
72"X30"

BEGIN LEFT TURN LANE
R3-20L
24"X36"

ESTR
JCT
COUNTY I

ESTR
DO NOT ENTER

LANE CLOSED
R11-2L
48"X30"

ESTR
LEFT LANE MUST TURN LEFT

ESTR
WRONG WAY

ESTR
DO NOT ENTER

ESTR
STOP

ESTR
ONLY ONLY ONLY ONLY ONLY

TW8
P
TWL
TY4
TW4

+09 30' LT
+09 19' LT
+89 30' LT
+78 30' LT
+05 24' LT
+59 38' LT
+59 26' LT

25'
11'
12'
10'

MATCHLINE STA 19+00
MATCHLINE STA 25+00

20+00
21+00
22+00
23+00
24+00

ASPH
ROCK WALL
CONC
SIGN
ONLY
SS
MH

CTH O (S MOORLAND ROAD)

NOTES:
1. EXISTING TOPOGRAPHIC MAPPING NORTH OF OF STA 23+25 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING NORTHBOUND SIGNS NOT SHOWN NORTH OF TARGET DRIVEWAY

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES

SHEET 82 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5A	SHEET 213	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025011-TC-S5A.DWG
LAYOUT NAME - 08

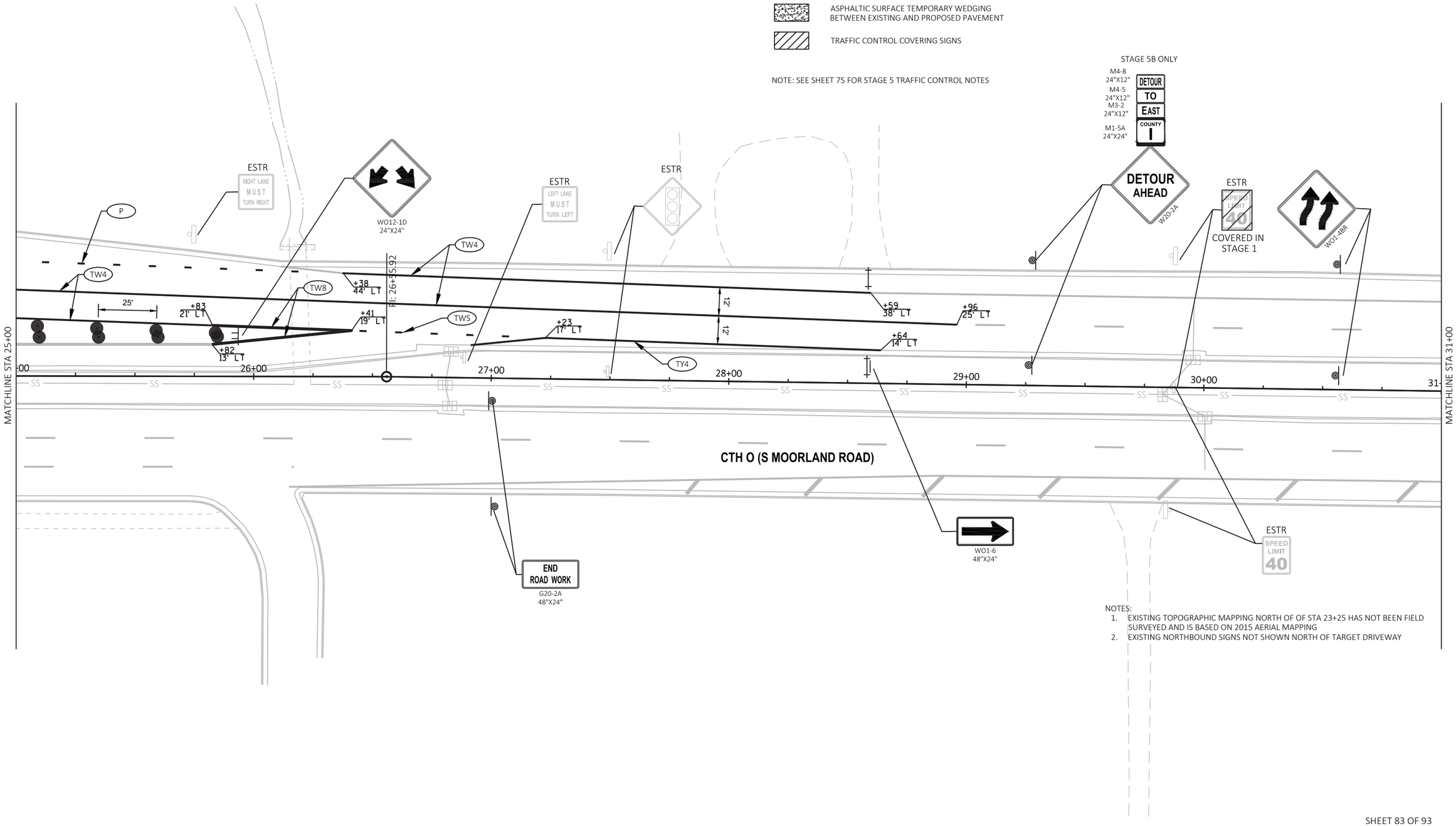
PLOT DATE : 7/28/2019 8:46 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

N

NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES



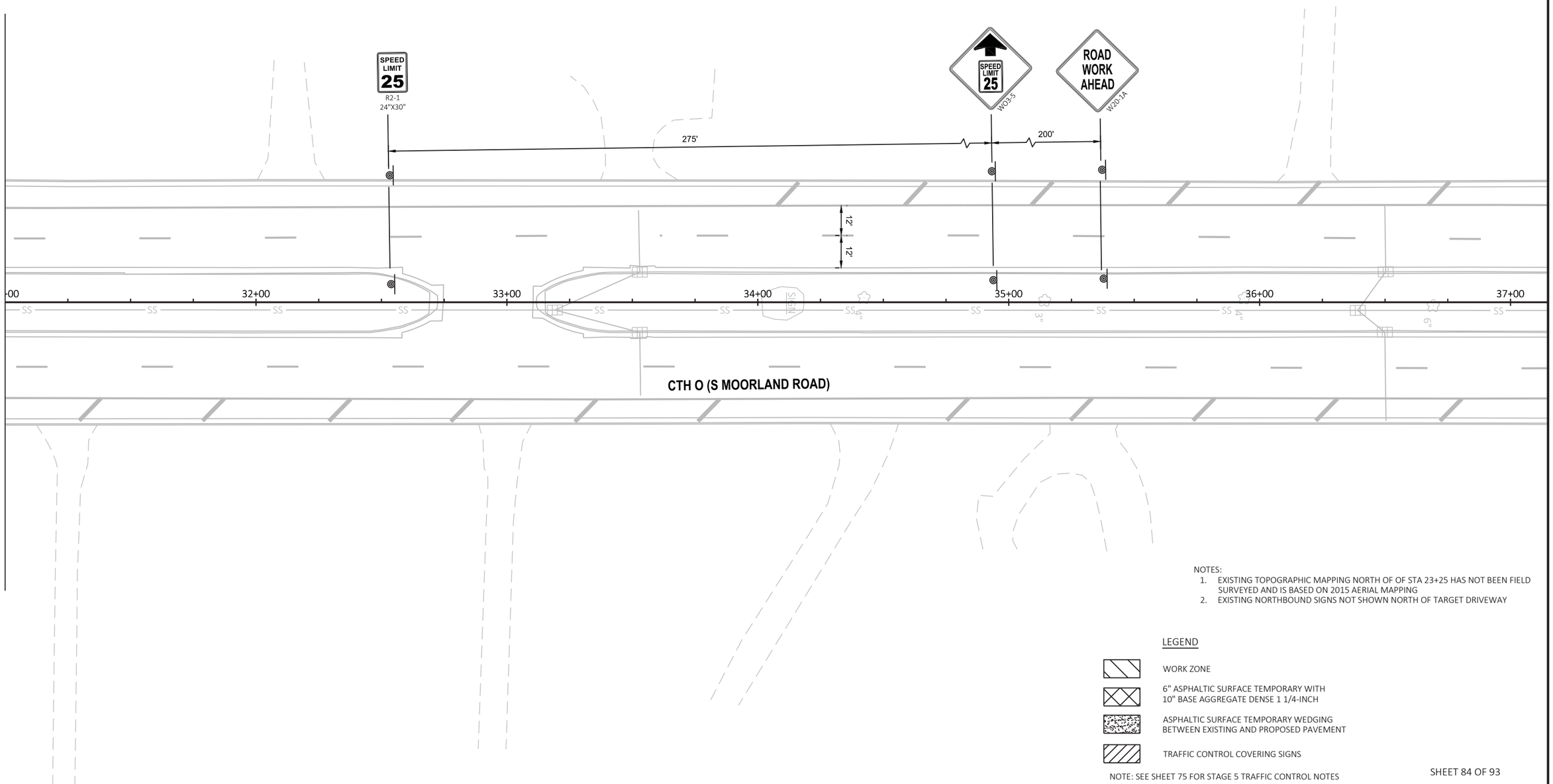
NOTES:
1. EXISTING TOPOGRAPHIC MAPPING NORTH OF OF STA 23+25 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING NORTHBOUND SIGNS NOT SHOWN NORTH OF TARGET DRIVEWAY

SHEET 83 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5A - 5B	SHEET 214	E

2

N



NOTES:
1. EXISTING TOPOGRAPHIC MAPPING NORTH OF OF STA 23+25 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING NORTHBOUND SIGNS NOT SHOWN NORTH OF TARGET DRIVEWAY

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES

SHEET 84 OF 93

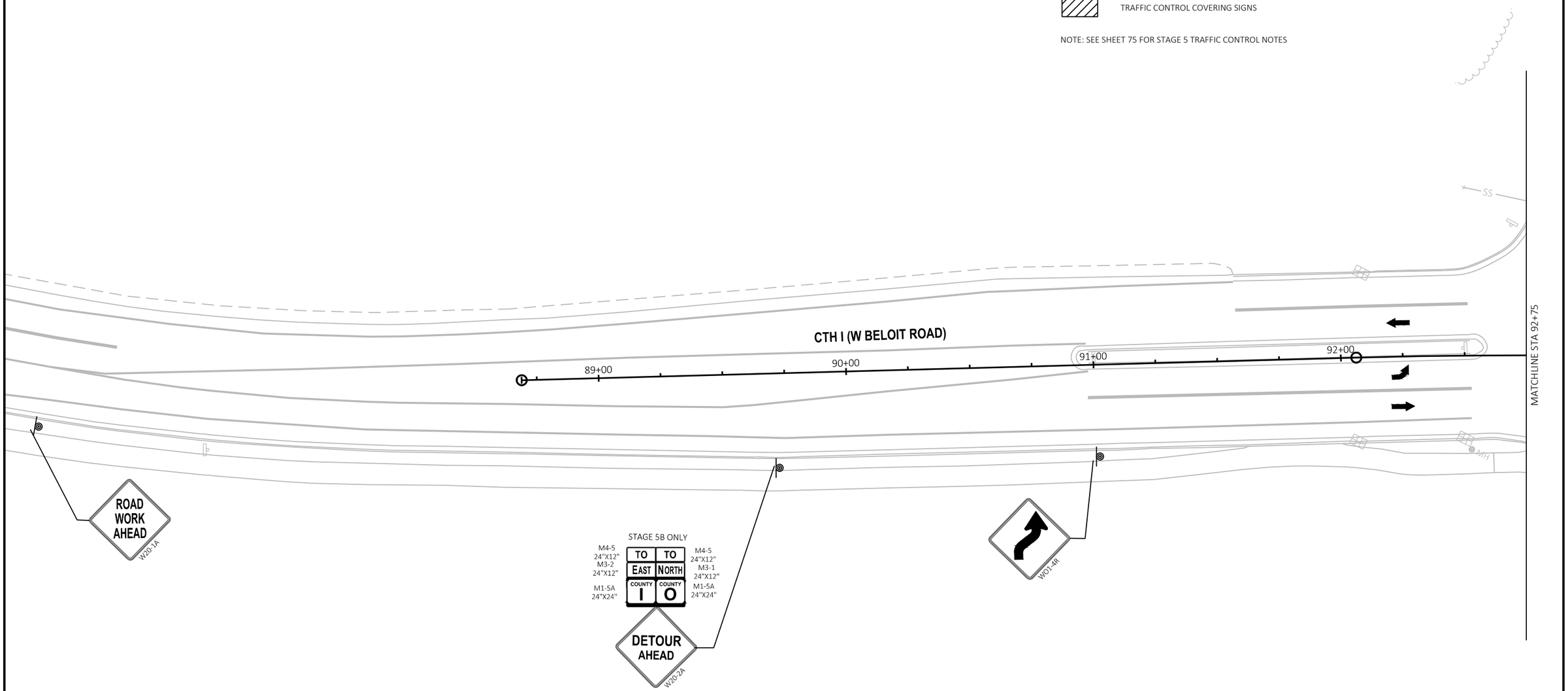
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5A - 5B	SHEET 215	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025011-TC-S5A.DWG
LAYOUT NAME - 10
PLOT DATE : 7/28/2019 8:46 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

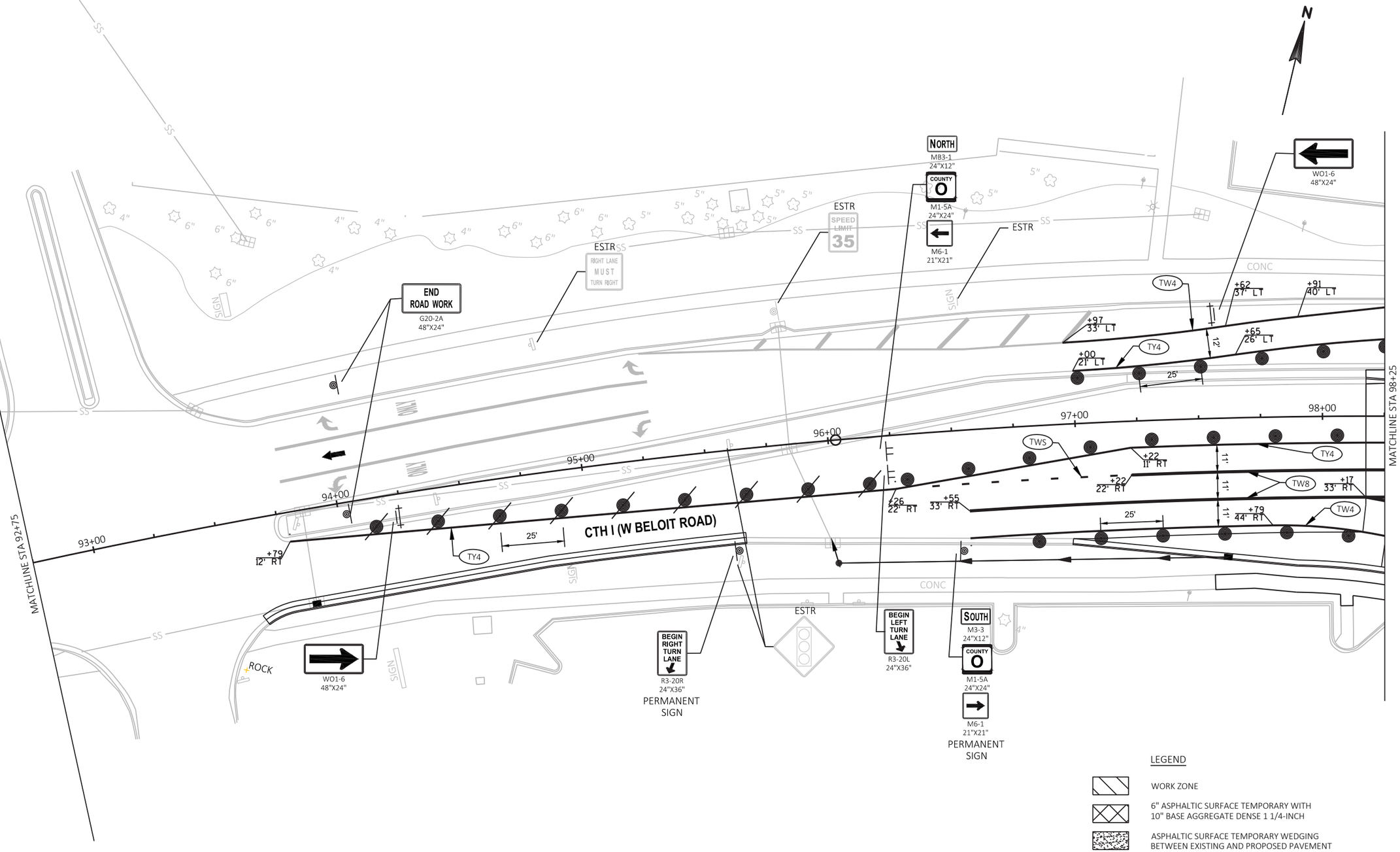
NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES



PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5A - 5B	SHEET 216	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025011-TC-S5A.DWG
LAYOUT NAME - 11
PLOT DATE : 12/6/2019 1:06 PM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5A	SHEET 217	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025011-TC-S5A.DWG
LAYOUT NAME - 12
PLOT DATE : 7/28/2019 8:46 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES

N

MATCHLINE STA 101+75

102+00

103+00

104+00

105+00

106+00

107+00

MATCHLINE STA 107+50

CTH I (W BELOIT ROAD)

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

PERMANENT SIGN

PERMANENT SIGN
NORTH
MB3-1
24"X12"

COUNTY O
M1-5A
24"X24"

M6-1
21"X21"

ALTERNATE SOUTH INTERSTATE 43

ESTR
STOP

BEGIN LEFT TURN LANE
R3-20L
24"X36"

ESTR

LANE CLOSED
R11-2L
48"X30"

ESTR
RIGHT LANE MUST TURN RIGHT

COVER SIGN

LANE CLOSED
R11-2L
48"X30"

ESTR
COUNTY I

ESTR

SPEED LIMIT 40

R3-2
24"X24"

DO NOT ENTER
R5-1
30"X30"

ONE WAY
R6-2R
24"X30"

ESTR
STOP

ESTR
ALTERNATE NORTH INTERSTATE 43

BEGIN LEFT TURN LANE
R3-20L
24"X36"

TW8
TY4
TW4
TWS

25'
11'
12'
+19 30' LT
+20 19' LT
+91 30' LT
+20 31' LT
+88 24' RT
+39 21' RT
+27 6' RT
+27 17' RT

CONC
SS
MH
SIGN
STORM
4"
7"
9"
8"
10"
12"

SHEET 87 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5A	SHEET 218	E

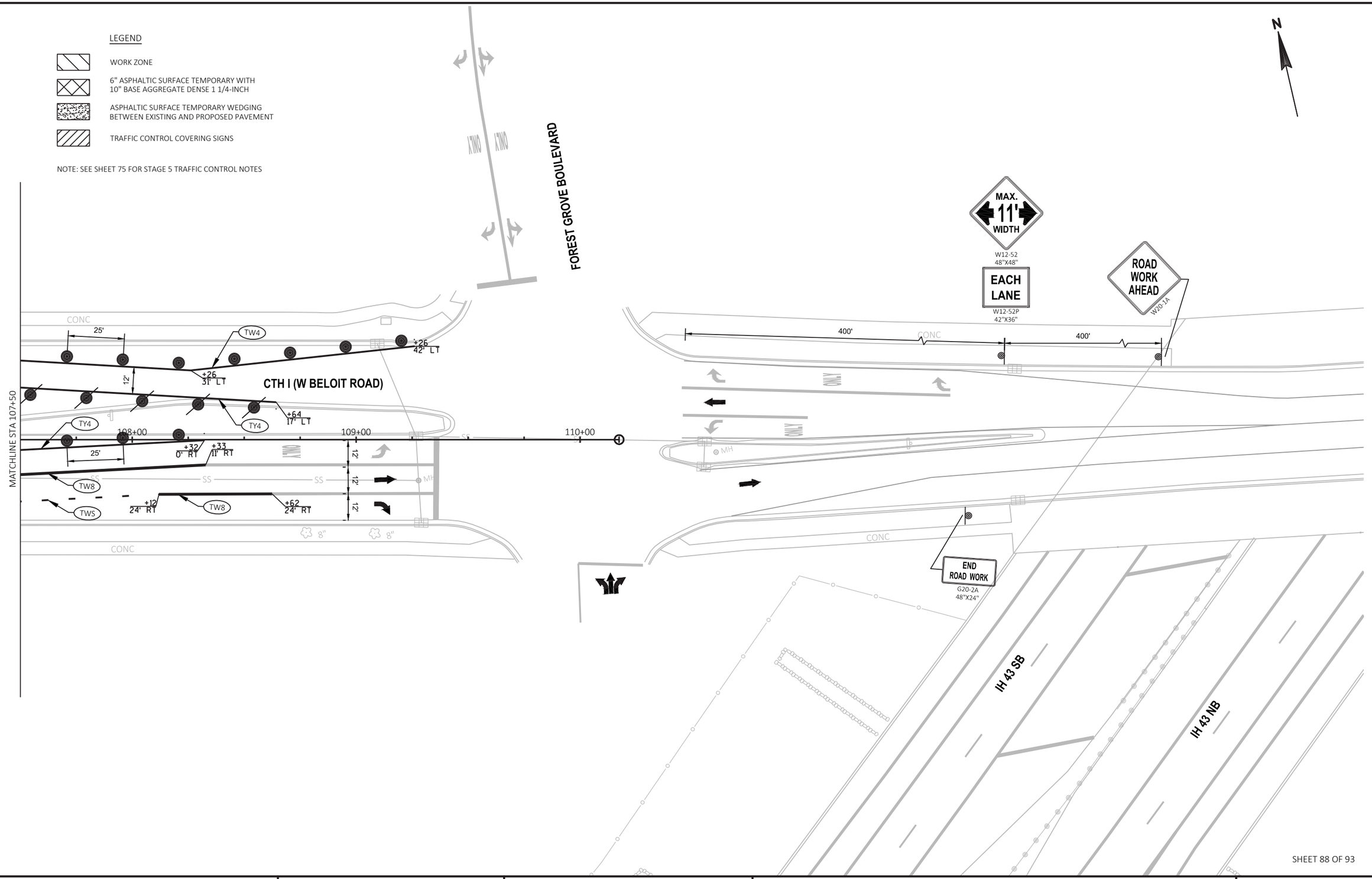
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025011-TC-S5A.DWG
LAYOUT NAME - 13

PLOT DATE : 7/28/2019 8:46 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

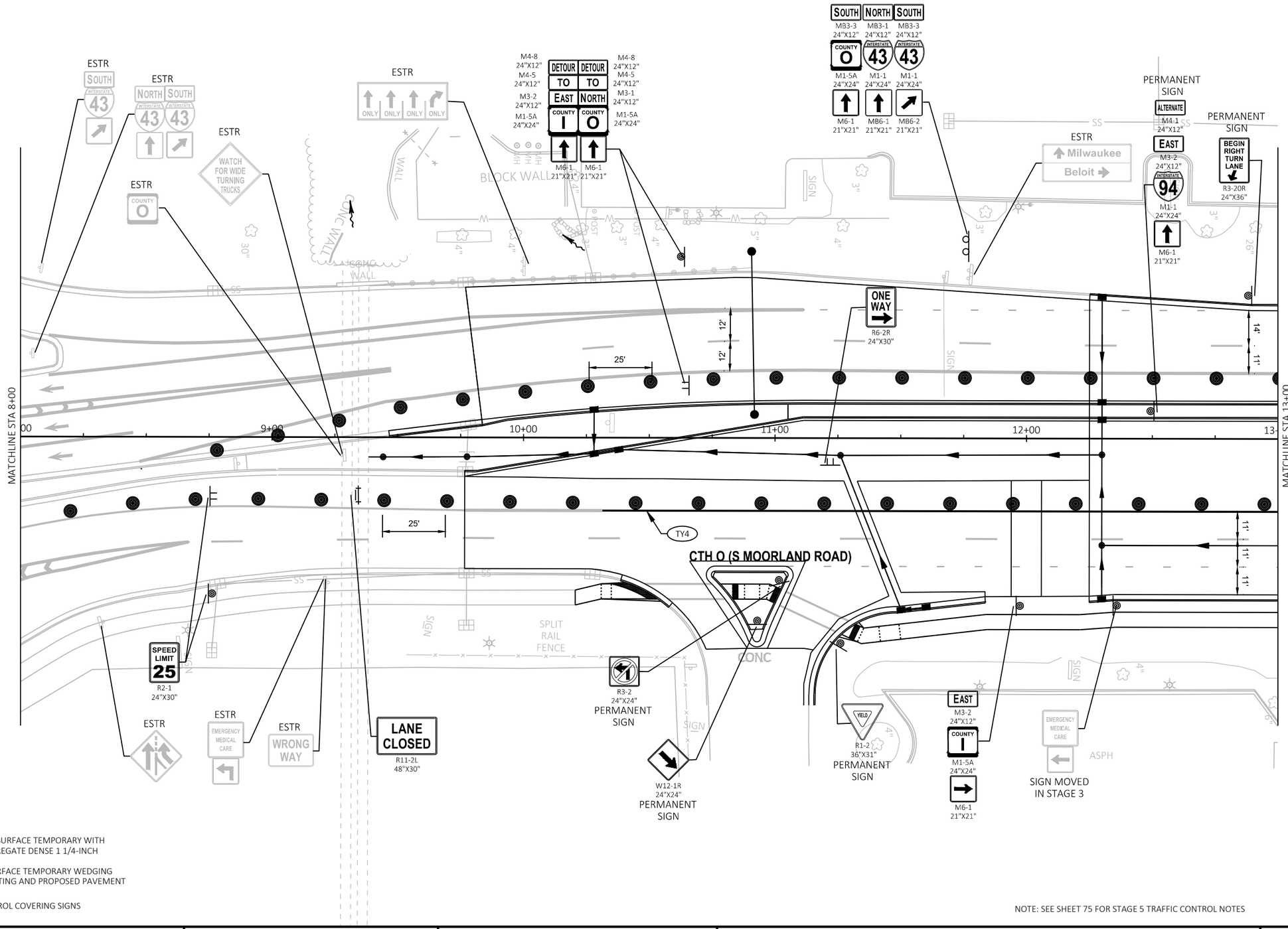
- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES



SHEET 88 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5A - 5B	SHEET 219	E



NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5B	SHEET 220	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025012-TC-S5B.DWG
LAYOUT NAME - 06
PLOT DATE : 12/6/2019 1:09 PM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

WORK ZONE

6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH

ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT

TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES

MATCHLINE STA 98+25

CTH I (W BELOIT ROAD)

PERMANENT SIGN COUNTY O M1-5A 24"X24"

STOP R1-1 30"X30"

PERMANENT SIGN JCT M2-1 21"X15" INTERSTATE 43 M1-1 24"X24"

W2-6 30"X30" 15 MPH W13-1 18"X18" PERMANENT SIGN

WO1-6 48"X24"

M4-8 24"X12" M4-5 24"X12" M3-2 24"X12" M1-5A 24"X24" DETOUR TO EAST COUNTY I | DETOUR TO NORTH COUNTY O M4-8 24"X12" M4-5 24"X12" M3-1 24"X12" M1-5A 24"X24"

M6-1 21"X21" M6-1 21"X21"

MOVE EMERGENCY MEDICAL CARE

PERMANENT SIGN YIELD R1-2 36"X31"

WO12-1D 24"X24" PERMANENT SIGN

R4-7 24"X30"

R3-2 24"X24"

PERMANENT SIGN RIGHT LANE MUST TURN RIGHT R3-7R 30"X30"

PERMANENT SIGN WEST M3-4 24"X12" COUNTY I M1-5A 24"X24" M6-1 21"X21"

SIDEWALK CLOSED CROSS HERE R9-11A 24"X12"

LANE CLOSED R11-2L 48"X30"

P

TY4

25'

14'

11'

99+00

14+00 15+00 16+00 17+00 18+00 19+

MATCHLINE STA 13+00

MATCHLINE STA 19+00

CTH O (S MOORLAND ROAD)

CONC WALL BRICK WALL CONC

RIGHT LANE MUST TURN RIGHT R3-7R 30"X30" PERMANENT SIGN

WRONG WAY R5-1A 36"X24" PERMANENT SIGN

END DETOUR TO EAST COUNTY I M4-8A 24"X18" M4-5 24"X12" M3-2 24"X12" M1-5A 24"X24"

R3-2 24"X24"

WO12-1D 24"X24" PERMANENT SIGN

R1-2 36"X31" PERMANENT SIGN

WO1-6 48"X24"

R4-7 24"X30"

LANE CLOSED R11-2L 48"X30"

101+00

12'

CTH I (W BELOIT ROAD)

MATCHLINE STA 101+75

WO1-6 48"X24"

WO1-46L

SPEED LIMIT 25 R2-1 24"X30"

ESTR SPEED LIMIT 40 COVERED IN STAGE 1

ESTR NO SEMI ACCESS

ESTR ONE WAY

SIDEWALK CLOSED CROSS HERE R9-11A 24"X12"

R1-2 36"X31" PERMANENT SIGN

SHEET 90 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5B	SHEET 221	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025012-TC-S5B.DWG
LAYOUT NAME - 07

PLOT DATE : 7/28/2019 8:47 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

M4-8
24"X12"
M4-5
24"X12"
M3-2
24"X12"
M1-5A
24"X24"
DETOUR
TO
EAST
COUNTY
I

M6-1
21"X21"

PERMANENT
SIGN
ALTERNATE
M4-1
24"X12"
EAST
MB3-2
24"X12"
INTERSTATE
94
M1-1
24"X24"

M6-1
21"X21"

WO1-6
48"X24"

LANE
CLOSED
R11-2L
48"X30"

ESTR
JCT
COUNTY
I

ESTR
DO NOT
ENTER

LANE
CLOSED
R11-2L
48"X30"

ONLY

ASPH

ROCK
WALL

TY4

11'
11'

25'

12'
12'
12'

MATCHLINE STA 19+00

20+00

21+00

22+00

23+00

24+00

MATCHLINE STA 25+00

SS

MH

25'

11'
12'
12'
12'
10'

ONLY

CONC

ESTR
LEFT LANE
MUST
TURN LEFT

CTH O (S MOORLAND ROAD)

ESTR
WRONG
WAY

ESTR
DO NOT
ENTER

ESTR
STOP

ESTR
ONLY ONLY ONLY ONLY ONLY

SIGN

6"
6"
9"
4"
3"
8"

NOTES:
1. EXISTING TOPOGRAPHIC MAPPING NORTH OF OF STA 23+25 HAS NOT BEEN FIELD SURVEYED AND IS BASED ON 2015 AERIAL MAPPING
2. EXISTING NORTHBOUND SIGNS NOT SHOWN NORTH OF TARGET DRIVEWAY

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES

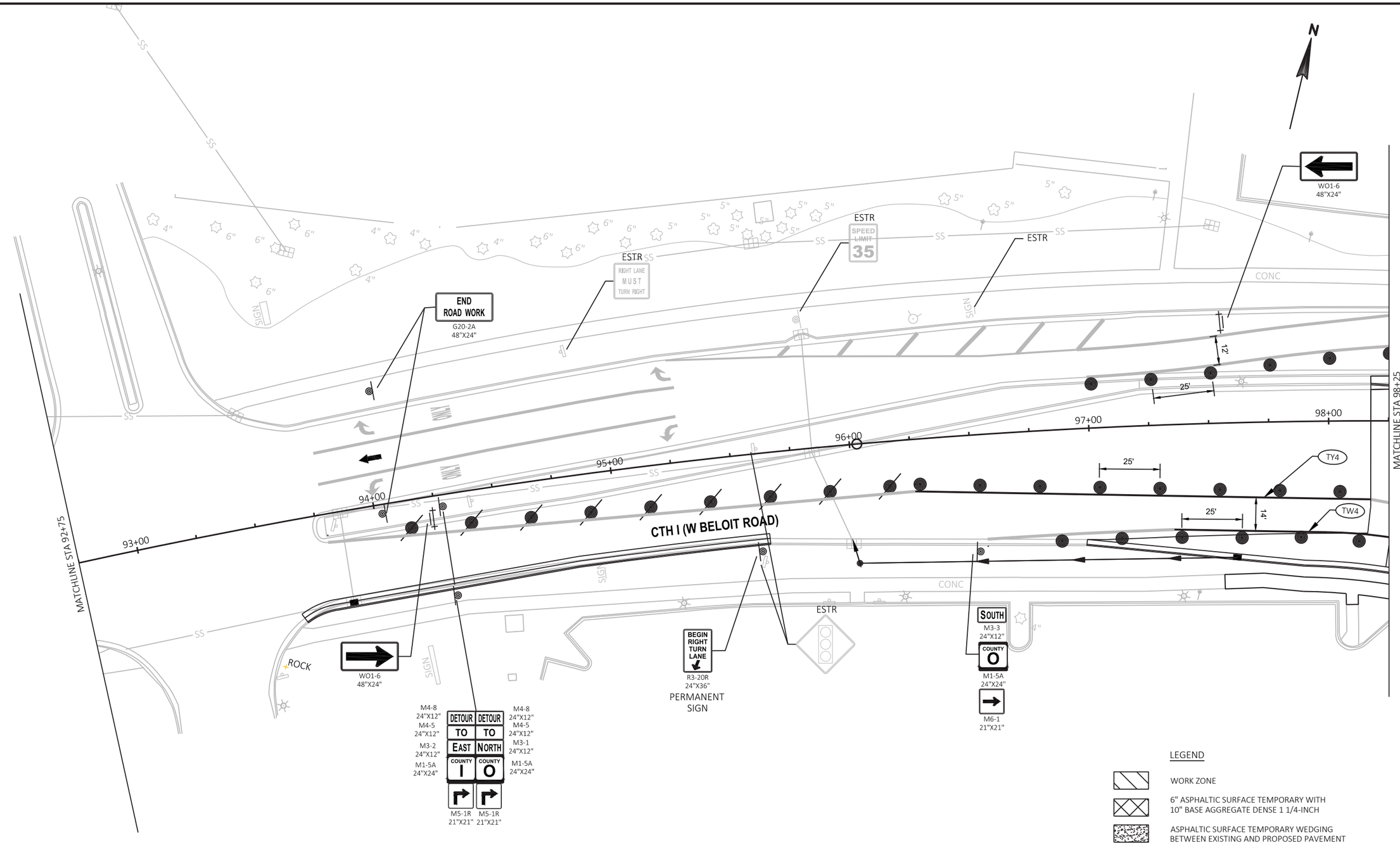
SHEET 91 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5B	SHEET 222	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025012-TC-S5B.DWG
LAYOUT NAME - 08

PLOT DATE : 7/28/2019 8:47 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5B	SHEET 223	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025012-TC-S5B.DWG
LAYOUT NAME - 12
PLOT DATE : 7/28/2019 8:47 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

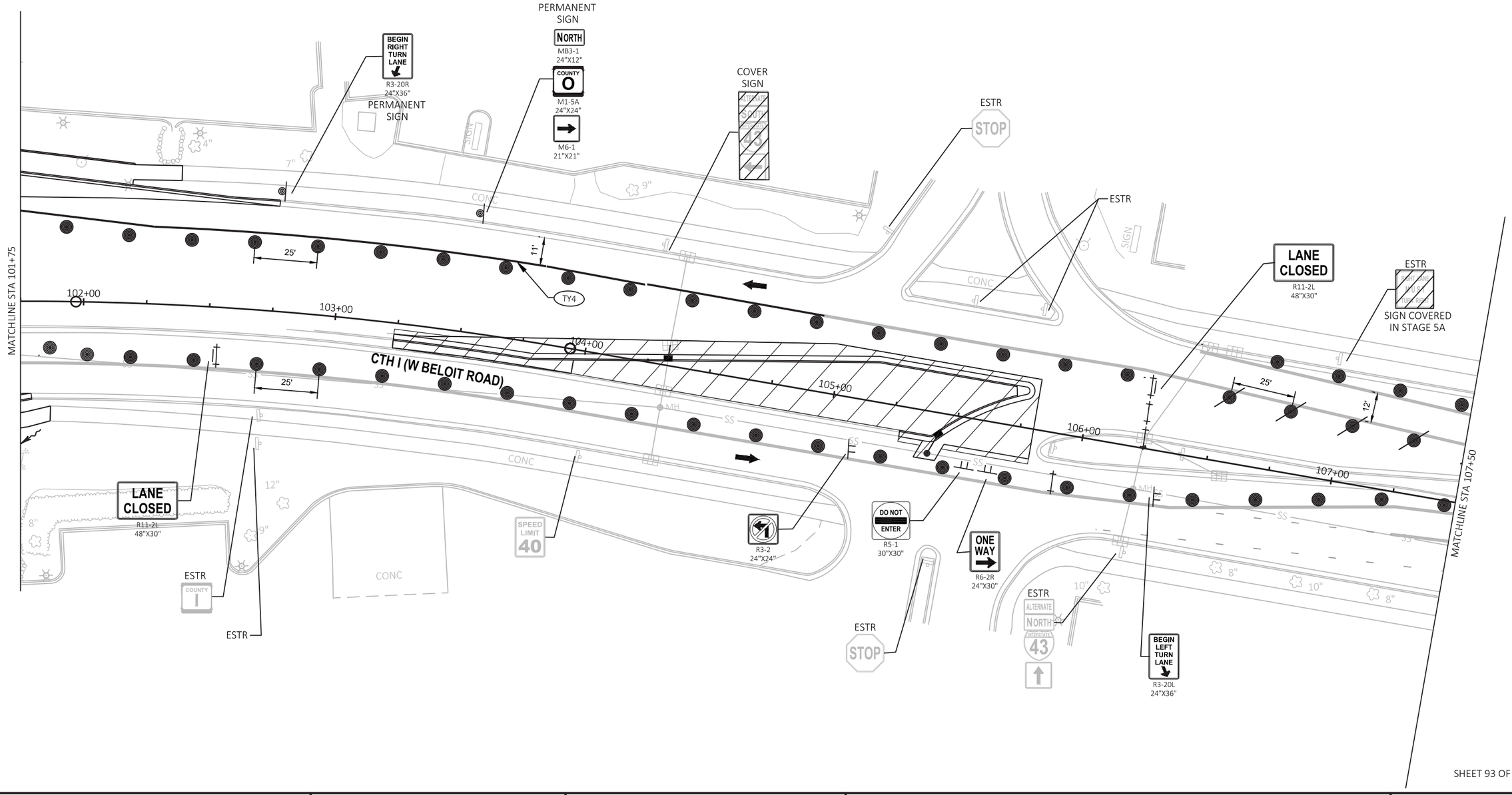
2

LEGEND

- WORK ZONE
- 6" ASPHALTIC SURFACE TEMPORARY WITH 10" BASE AGGREGATE DENSE 1 1/4-INCH
- ASPHALTIC SURFACE TEMPORARY WEDGING BETWEEN EXISTING AND PROPOSED PAVEMENT
- TRAFFIC CONTROL COVERING SIGNS

N

NOTE: SEE SHEET 75 FOR STAGE 5 TRAFFIC CONTROL NOTES



SHEET 93 OF 93

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	TRAFFIC CONTROL - STAGE 5B	SHEET 224	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\025012-TC-S5B.DWG
LAYOUT NAME - 13

PLOT DATE : 7/28/2019 8:47 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

N

W NATIONAL A E

COUNTY D

FIXED MESSAGE SIGN
HW O SO TH
ROAD WORK AHEAD
SE ALT RO TE

COUNTY O

3

W CO EE ROAD

COUNTY ES

COUNTY NN

S CALHO N ROAD

S S NN SLOPE ROAD

S TH STREET

WA KESHA CO NT

MILWA KEE CO NT

COUNTY U

COUNTY Y

COUNTY T

INTERSTATE 894

COUNTY I

2

COUNTY I

COUNTY I

100

W RAN E ROAD

24

S ND STREET

COUNTY L

4

INTERSTATE

COUNTY ES

FIXED MESSAGE SIGN
HW O NORTH
ROAD WORK AHEAD
SE ALT RO TE

W SMALL ROAD

COUNTY O

COUNTY HH

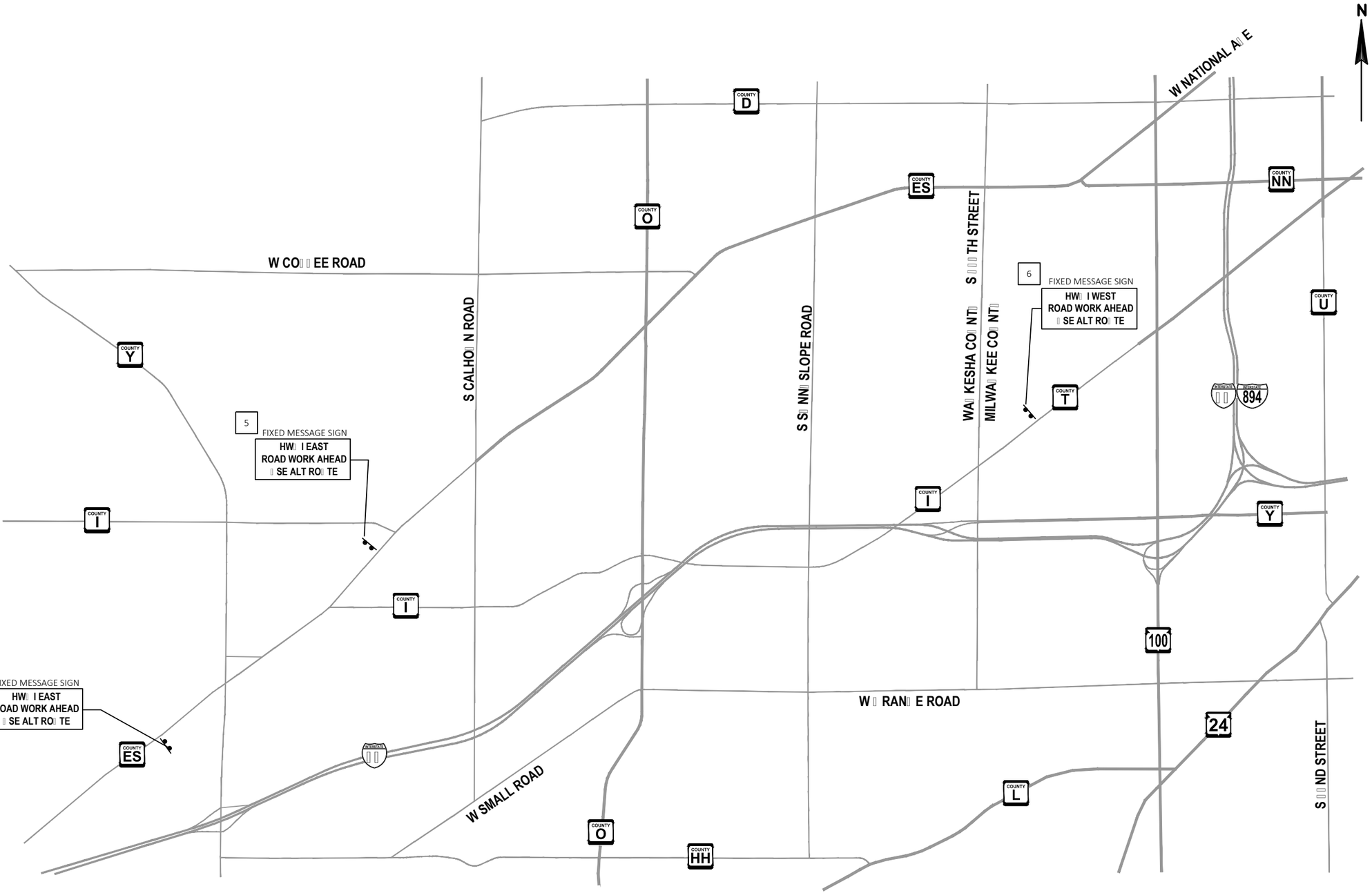
1

FIXED MESSAGE SIGN
HW O NORTH
ROAD WORK AHEAD
SE ALT RO TE

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CTH O ALTERNATE ROUTE	SHEET 225	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\027001-DT.DWG PLOT DATE : 12/6/2019 11:05 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 42



PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CTH I ALTERNATE ROUTE	SHEET 226	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\027002-DT.DWG PLOT DATE : 12/6/2019 11:11 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

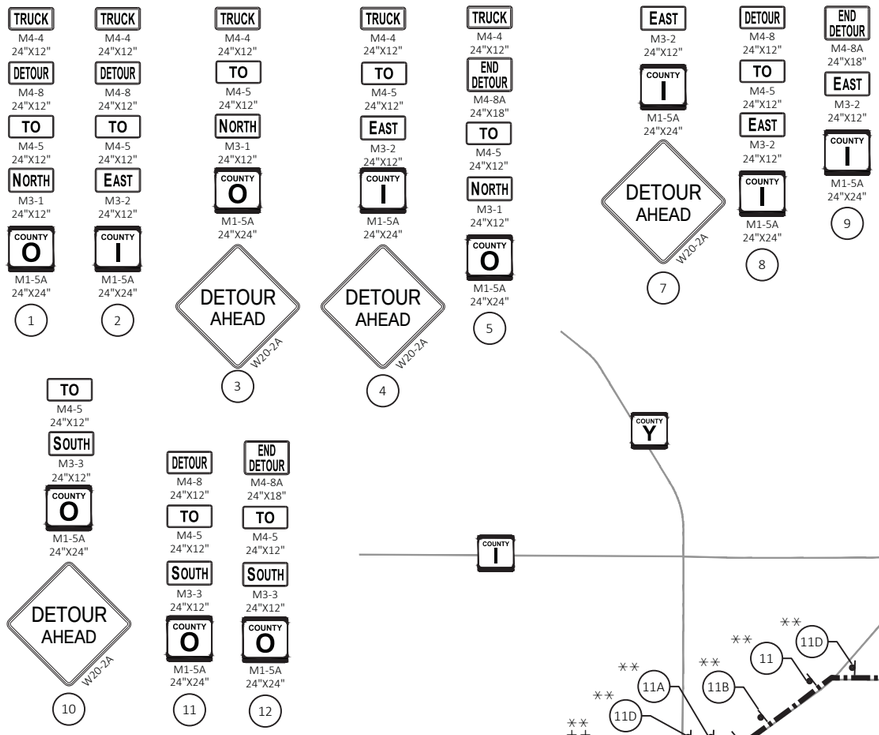
WISDOT/CADDS SHEET 42

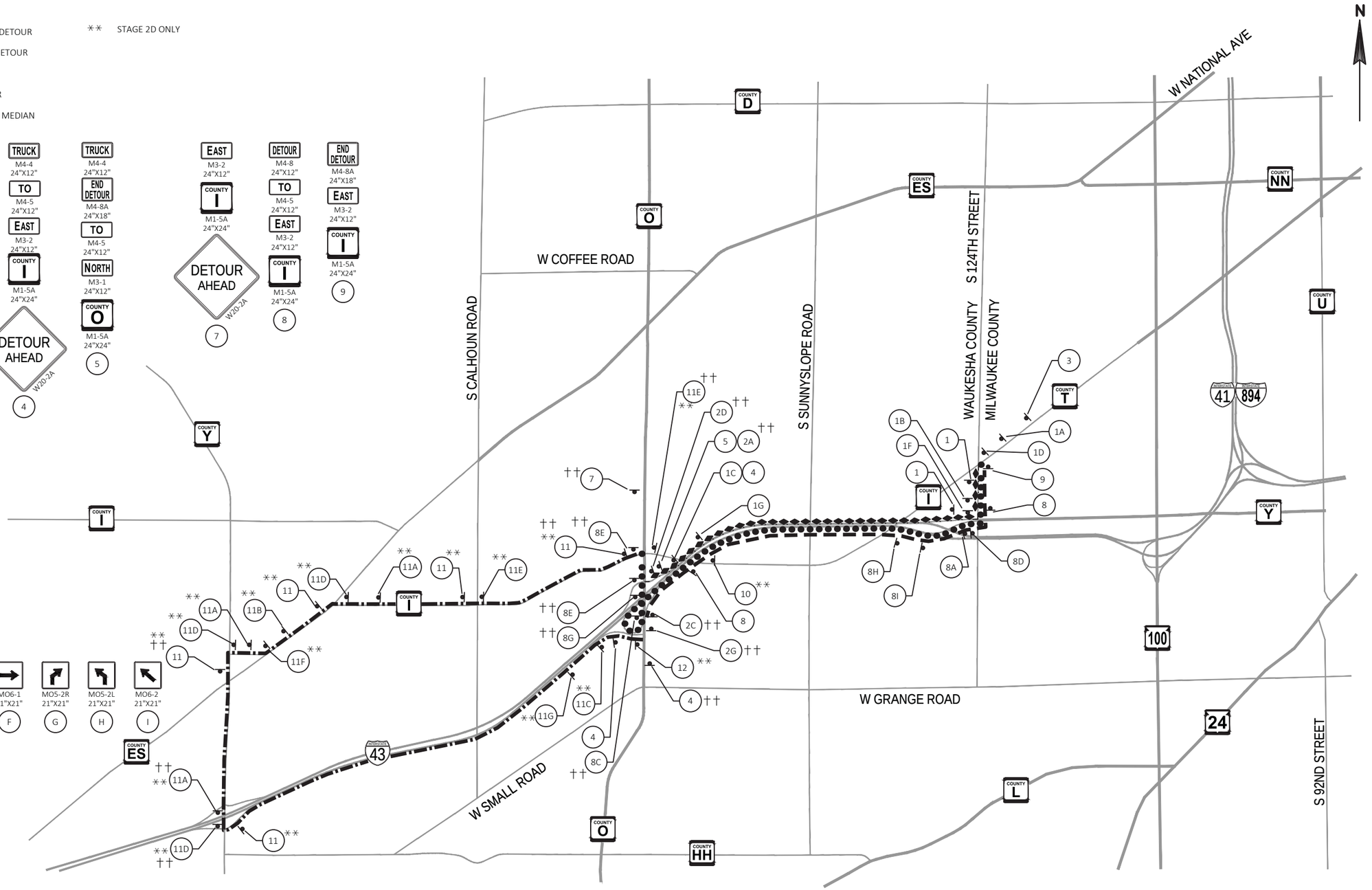
LEGEND

- WB CTH I TO NB CTH O TRUCK DETOUR
- NB CTH O TO EB CTH I TRUCK DETOUR
- SB CTH O TO EB CTH I DETOUR
- WB CTH I TO SB CTH O DETOUR

†† PLACE SIGNS ON OUTSIDE AND MEDIAN OF DIVIDED ROADWAY

** STAGE 2D ONLY



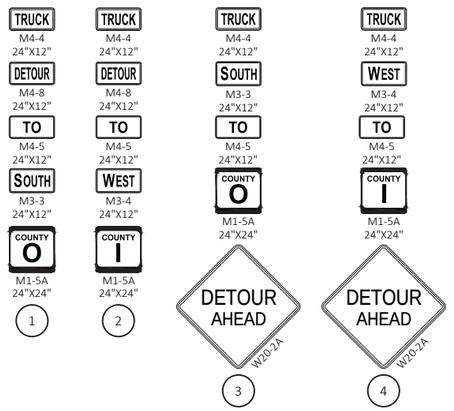


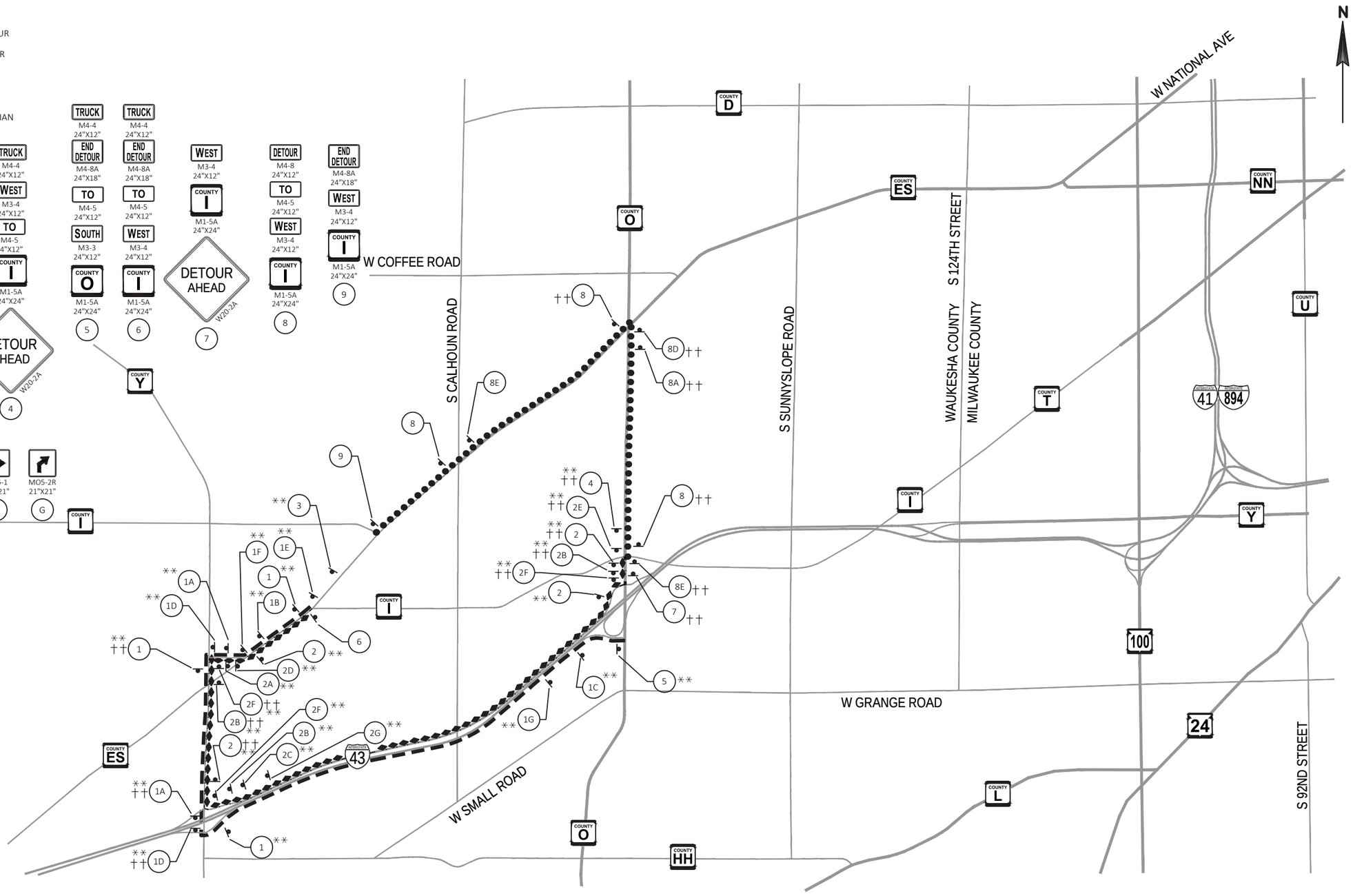
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	STAGE 2C/2D DETOUR	SHEET 227	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\027003-DT.DWG PLOT DATE : 7/28/2019 8:47 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

LEGEND

- SB CTH O TO WB CTH I TRUCK DETOUR
- EB CTH I TO SB CTH O TRUCK DETOUR
- NB CTH O TO WB CTH I DETOUR
- ** STAGE 4C ONLY
- †† PLACE SIGNS ON OUTSIDE AND MEDIAN OF DIVIDED ROADWAY



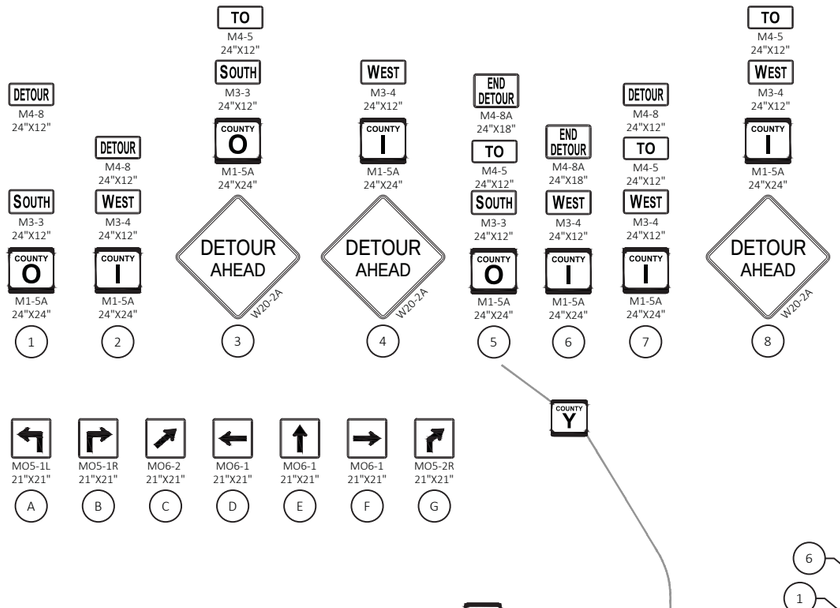


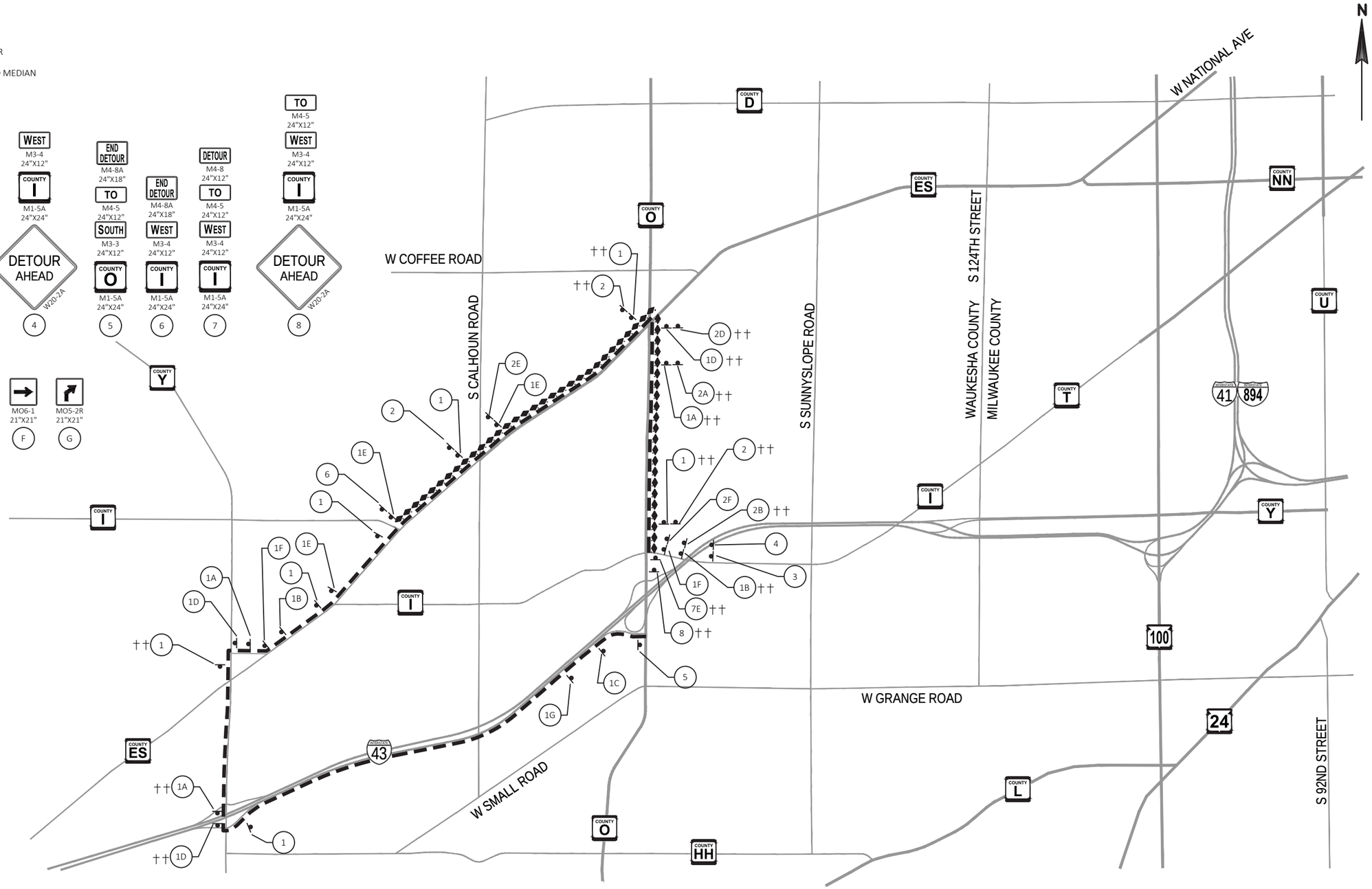
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	STAGE 4C/4D DETOUR	SHEET	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\027004-DT.DWG PLOT DATE : 7/28/2019 8:48 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

LEGEND

- WB CTH I DETOUR
- WB CTH I TO SB CTH O DETOUR
- †† PLACE SIGNS ON OUTSIDE AND MEDIAN OF DIVIDED ROADWAY





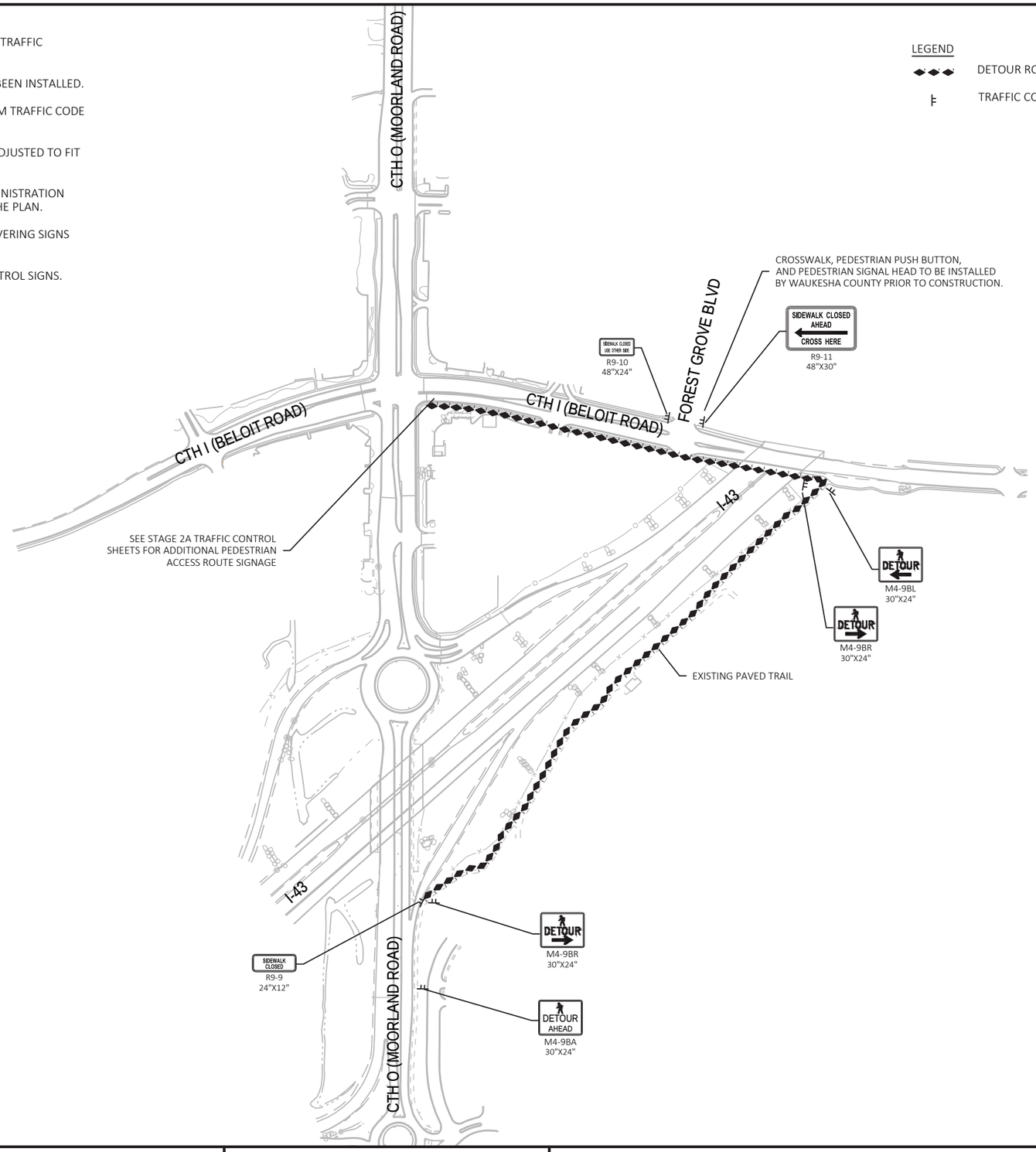
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	STAGE 5B DETOUR	SHEET	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\027005-DT.DWG PLOT DATE : 7/28/2019 8:48 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

2

NOTES:

1. SEE TRAFFIC CONTROL PLANS FOR ADDITIONAL TRAFFIC CONTROL SIGNS AND TRAFFIC CONTROL DEVICES.
2. DO NOT CLOSE EXISTING SIDEWALK UNTIL PEDESTRIAN DETOUR SIGNS HAVE BEEN INSTALLED.
3. ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CODE DEVICES.
4. EXACT NUMBER, LOCATIONS, AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
5. SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS UNLESS OTHERWISE PROVIDED IN THE PLAN.
6. SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED. COVERING SIGNS PAID FOR USING ITEM TRAFFIC CONTROL SIGNS TYPE II.
7. COVER OR REMOVE DETOUR SIGNS NOT IN USE. INCIDENTAL TO TRAFFIC CONTROL SIGNS.

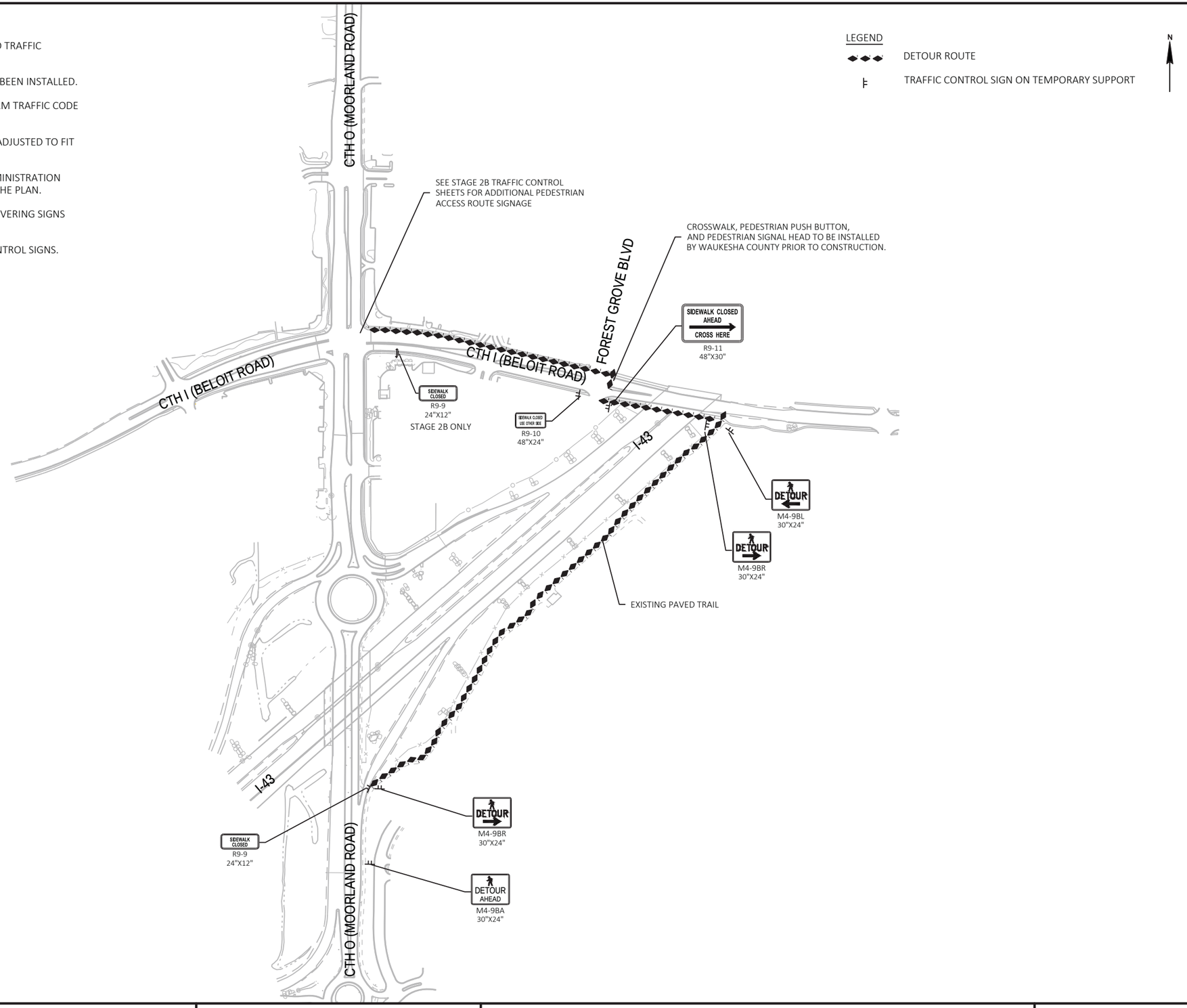


PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PEDESTRIAN DETOUR - STAGE 2A	SHEET 230	E

2

NOTES:

1. SEE TRAFFIC CONTROL PLANS FOR ADDITIONAL TRAFFIC CONTROL SIGNS AND TRAFFIC CONTROL DEVICES.
2. DO NOT CLOSE EXISTING SIDEWALK UNTIL PEDESTRIAN DETOUR SIGNS HAVE BEEN INSTALLED.
3. ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CODE DEVICES.
4. EXACT NUMBER, LOCATIONS, AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
5. SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS UNLESS OTHERWISE PROVIDED IN THE PLAN.
6. SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED. COVERING SIGNS PAID FOR USING ITEM TRAFFIC CONTROL SIGNS TYPE II.
7. COVER OR REMOVE DETOUR SIGNS NOT IN USE. INCIDENTAL TO TRAFFIC CONTROL SIGNS.



PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PEDESTRIAN DETOUR - STAGE 2B - STAGE 2C - STAGE 2D	SHEET 231	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\027004-DT-PEDESTRIAN-2B.DWG
LAYOUT NAME - 01
PLOT DATE : 7/28/2019 8:48 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:400 FT

2

N

CONC MOUMENT W/BRASS CAP
Y = 139,369.56
X = 713,386.60

T 27 6 N
R 34 27 E
20 34

CONC MOUMENT W/BRASS CAP
Y = 139,401.42
X = 716,070.77

T 27 6 N
R 34 26 E
20 35

BP: 0+03.40

N89° 19' 12"E

BEGIN CTH I-WEST R/L
88+68.86
Y = 140587.983
X = 715025.621

BP: 88+68.86

95

N62° 26' 34"E
337.33'

PC: 92+06.19

CTH I

CTH O WEST R/L

CP 107

55

CTH O WEST CURVE 1

END CTH I-WEST R/L
100+00.00
Y = 140996.566
X = 716073.862

CTH O WEST CURVE 1
PI STA = 96+06.34
Y = 140929.163
X = 715679.430
DELTA = 17°51'35"
D = 2°15'00"
T = 400.15'
L = 793.81'
R = 2546.63'
PC STA = 92+06.19
PT STA = 100+00.00

CONC MOUMENT W/BRASS CAP
Y = 142,024.44
X = 713,420.66

T 27 6 N
R 27 27 E
20

N89° 21' 48"E

PI: 26+55.92

CONC MOUMENT W/BRASS CAP
Y = 141,868.89
X = 716,059.14

T 27 6 N
R 27 26 E
20

CONC MOUMENT W/BRASS CAP
Y = 144,691.97
X = 716,112.00

T 22 6 N
R 27 23 E
20 26

EP: 52+94.20

CTH O R/L = SECTION LINE

CP 101

CP 102

BP: 100+00.00

EP: 100+00.00

CP 106

N0° 06' 40"E
2652.52'

CP 103

BEGIN CTH I-EAST R/L
100+00.00
Y = 140993.918
X = 716073.857

CTH O EAST CURVE 2

PT: 103+93.87

105

623.49'

S77° 05' 02"E

CTH I

CTH O R/L

CP 104

110

EP: 110+17.36

END CTH I-EAST R/L
110+17.36
Y = 140826.977
X = 717072.895

PI 1
Y = 142053.938
X = 716075.911

N0° 47' 01"E
2638.28'

CTH O

BEGIN CTH O R/L
0+03.40
Y = 139401.423
X = 716070.772

END CTH O R/L
52+94.20
Y = 144691.972
X = 716111.998

S88° 59' 39"E

N88° 53' 57"W

CONC MOUMENT W/BRASS CAP
Y = 139,354.94
X = 718,718.63

T 26 6 N
R 26 26 E
20 26

CONC MOUMENT W/BRASS CAP
Y = 142,003.03
X = 718,725.37

T 26 6 N
R 26 26 E
20 26

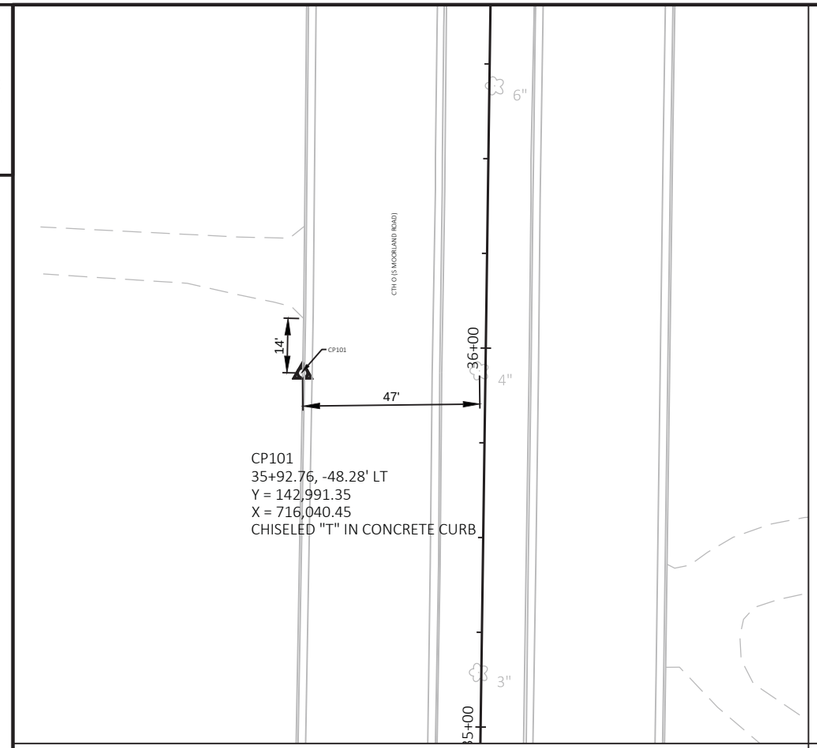
CTH O EAST CURVE 2
PI STA = 101+98.53
Y = 141010.717
X = 716271.676
DELTA = 17°46'11"
D = 4°30'41"
T = 198.53'
L = 393.87'
R = 1269.99'
PC STA = 100+00.00
PT STA = 103+93.87

CONTROL POINT TABLE

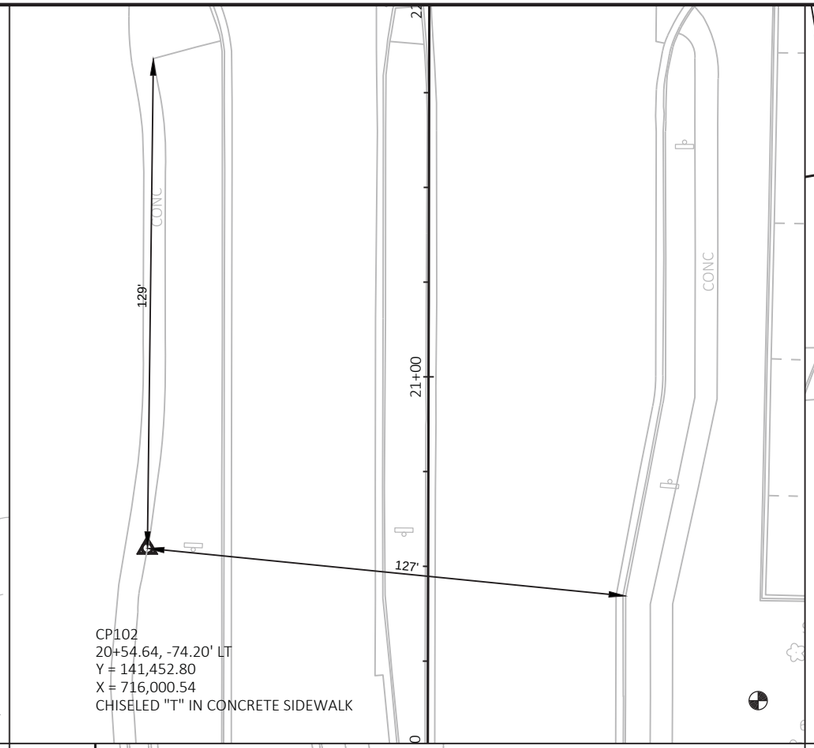
POINT	STATION	OFFSET	Y COORDS	X COORDS	DESCRIPTION
CP 101	35+92.76	48.28 LT	142,991.35	716,040.45	CHISELED "T" IN CONCRETE CURB
CP 102	20+54.64	74.20 LT	141,452.80	716,000.54	CHISELED "T" IN CONCRETE SIDEWALK
CP 103	15+52.12	100.58 RT	140,949.95	716,174.35	CHISELED "T" IN CONCRETE SIDEWALK
CP 104	108+91.38	2.37 LT	140,857.44	716,950.64	CHISELED "T" IN CONCRETE CURB
CP 106	7+97.00	21.79 RT	140,194.98	716,094.10	CHISELED "T" IN CTH O MEDIAN
CP 107	94+56.38	60.86 LT	140,905.18	715,529.08	CHISELED "T" IN CONCRETE SIDEWALK

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	ALIGNMENT PLAN	SHEET 232	E

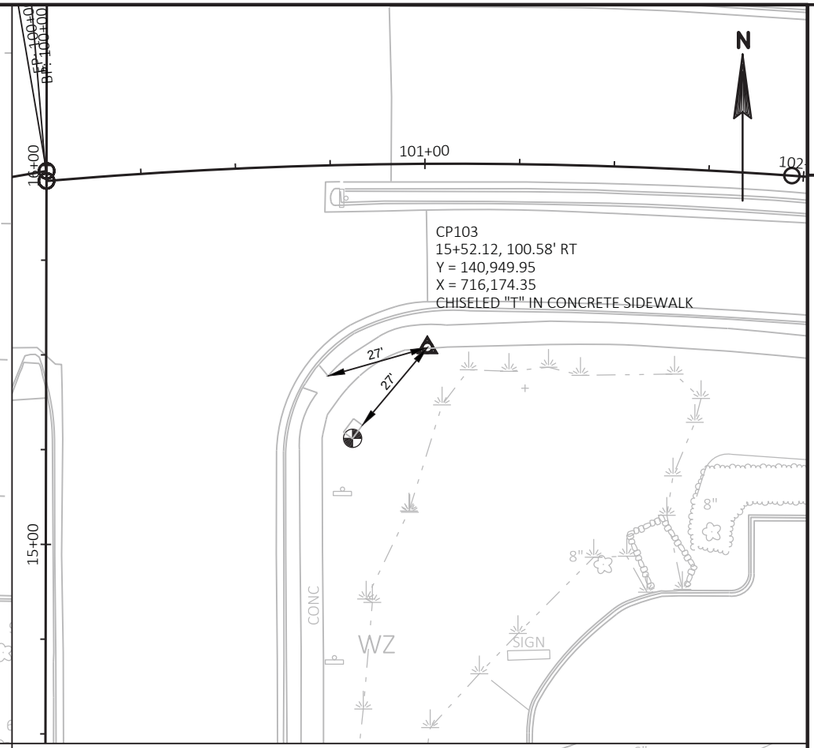
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 01
PLOT DATE : 7/28/2019 8:48 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:400 FT
WISDOT/CADDS SHEET 42



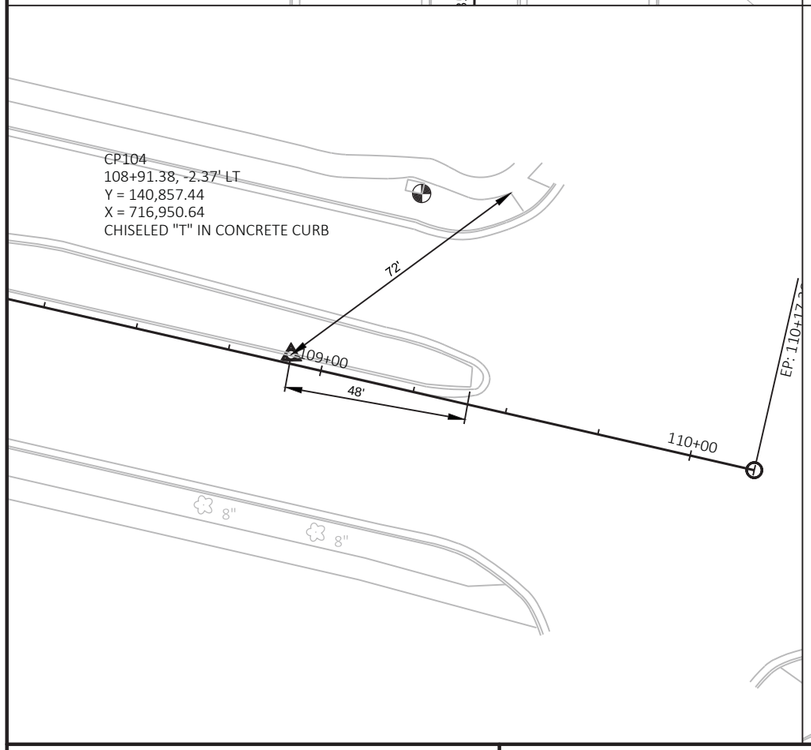
CP101
35+92.76, -48.28' LT
Y = 142,991.35
X = 716,040.45
CHISELED "T" IN CONCRETE CURB



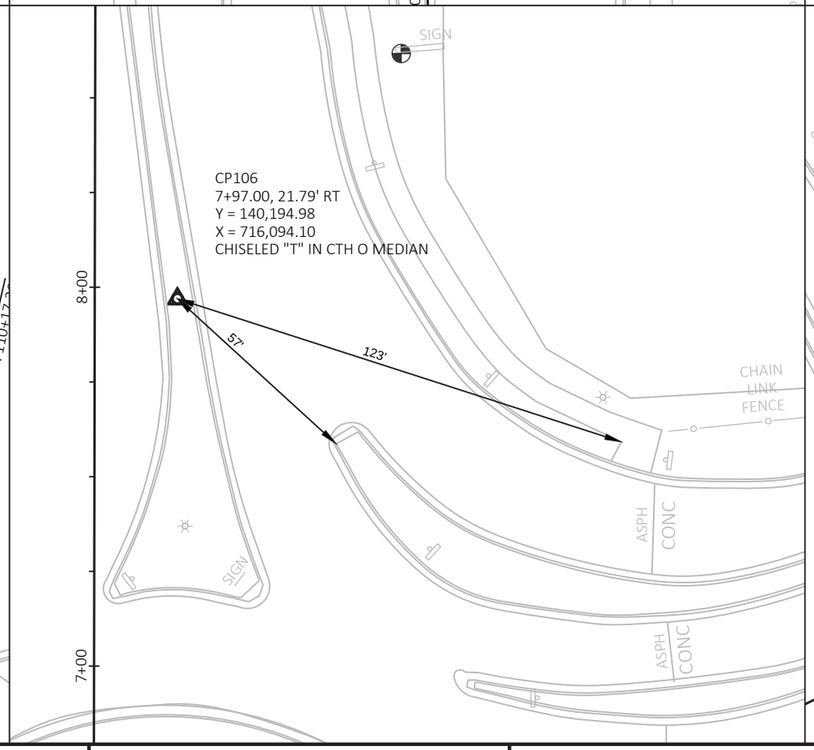
CP102
20+54.64, -74.20' LT
Y = 141,452.80
X = 716,000.54
CHISELED "T" IN CONCRETE SIDEWALK



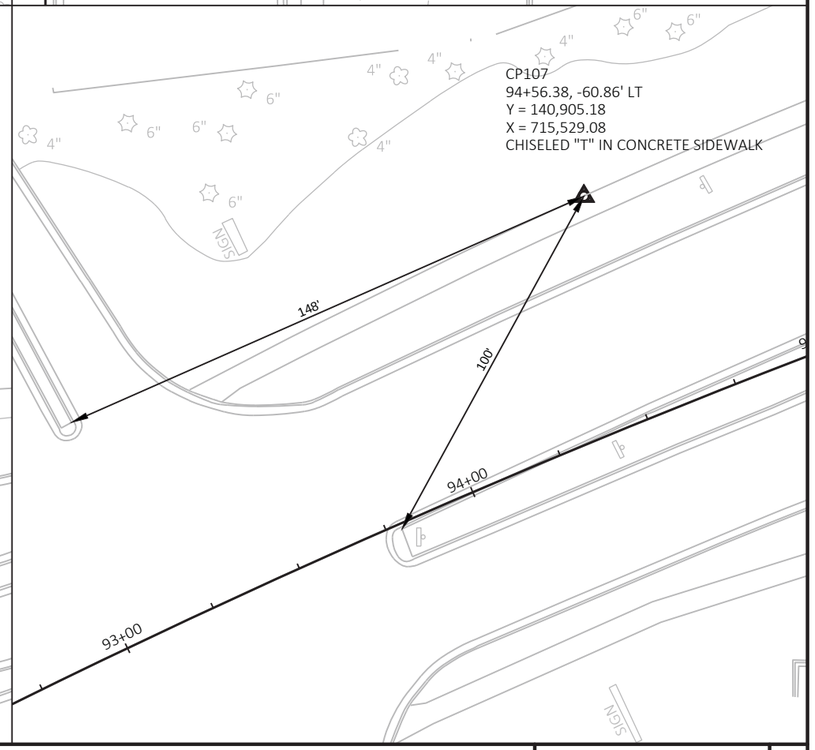
CP103
15+52.12, 100.58' RT
Y = 140,949.95
X = 716,174.35
CHISELED "T" IN CONCRETE SIDEWALK



CP104
108+91.38, -2.37' LT
Y = 140,857.44
X = 716,950.64
CHISELED "T" IN CONCRETE CURB



CP106
7+97.00, 21.79' RT
Y = 140,194.98
X = 716,094.10
CHISELED "T" IN CTH O MEDIAN



CP107
94+56.38, -60.86' LT
Y = 140,905.18
X = 715,529.08
CHISELED "T" IN CONCRETE SIDEWALK

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CONTROL POINT TIES	SHEET 233	E

2782-03-76

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	1.000	1.000
0004	201.0120	Clearing	ID	17.000	17.000
0006	201.0205	Grubbing	STA	1.000	1.000
0008	201.0220	Grubbing	ID	17.000	17.000
0010	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0012	204.0100	Removing Pavement	SY	7,365.000	7,365.000
0014	204.0120	Removing Asphaltic Surface Milling	SY	2,575.000	2,575.000
0016	204.0150	Removing Curb & Gutter	LF	2,205.000	2,205.000
0018	204.0155	Removing Concrete Sidewalk	SY	840.000	840.000
0020	204.0195	Removing Concrete Bases	EACH	18.000	18.000
0022	204.0210	Removing Manholes	EACH	1.000	1.000
0024	204.0220	Removing Inlets	EACH	26.000	26.000
0026	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	310.000	310.000
0028	204.0245	Removing Storm Sewer (size) 02. 18-Inch	LF	425.000	425.000
0030	204.0245	Removing Storm Sewer (size) 03. 24-Inch	LF	290.000	290.000
0032	204.0280	Sealing Pipes	EACH	1.000	1.000
0034	204.0291.S	Abandoning Sewer	CY	9.000	9.000
0036	204.9105.S	Removing (item description) 01. Traffic Signals CTH O & CTH I	LS	1.000	1.000
0038	204.9105.S	Removing (item description) 02. Loop Detector Wire and Lead-In Cable CTH O & CTH I	LS	1.000	1.000
0040	205.0100	Excavation Common	CY	9,787.000	9,787.000
0042	213.0100	Finishing Roadway (project) 01. 2782-03-76	EACH	1.000	1.000
0044	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	7,540.000	7,540.000
0046	305.0130	Base Aggregate Dense 3-Inch	TON	6,210.000	6,210.000
0048	310.0110	Base Aggregate Open-Graded	TON	40.000	40.000
0050	390.0403	Base Patching Concrete Shes	SY	55.000	55.000
0052	415.0100	Concrete Pavement 10-Inch	SY	5,810.000	5,810.000
0054	415.0210	Concrete Pavement Gaps	EACH	2.000	2.000
0056	415.1100	Concrete Pavement HES 10-Inch	SY	2,350.000	2,350.000
0058	415.5110.S	Concrete Pavement Joint Layout	LS	1.000	1.000
0060	416.0610	Drilled Tie Bars	EACH	56.000	56.000
0062	416.0620	Drilled Dowel Bars	EACH	48.000	48.000
0064	450.4000	HMA Cold Weather Paving	TON	150.000	150.000
0066	455.0605	Tack Coat	GAL	400.000	400.000
0068	460.2000	Incentive Density HMA Pavement	DOL	770.000	770.000
0070	460.6223	HMA Pavement 3 MT 58-28 S	TON	640.000	640.000
0072	460.6224	HMA Pavement 4 MT 58-28 S	TON	555.000	555.000
0074	465.0125	Asphaltic Surface Temporary	TON	810.000	810.000
0076	465.0310	Asphaltic Curb	LF	115.000	115.000

2782-03-76

Line	Item	Item Description	Unit	Total	Qty
0078	520.8000	Concrete Collars for Pipe	EACH	5.000	5.000
0080	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	1.000	1.000
0082	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	845.000	845.000
0084	601.0407	Concrete Curb & Gutter 18-Inch Type D	LF	855.000	855.000
0086	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	1,005.000	1,005.000
0088	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	1,185.000	1,185.000
0090	601.0600	Concrete Curb Pedestrian	LF	85.000	85.000
0092	602.0410	Concrete Sidewalk 5-Inch	SF	10,540.000	10,540.000
0094	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	276.000	276.000
0096	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	30.000	30.000
0098	602.2400	Concrete Safety Islands	SF	3,840.000	3,840.000
0100	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	29.000	29.000
0102	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	83.000	83.000
0104	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	92.000	92.000
0106	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	LF	231.000	231.000
0108	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	451.000	451.000
0110	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	278.000	278.000
0112	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	92.000	92.000
0114	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	321.000	321.000
0116	608.0430	Storm Sewer Pipe Reinforced Concrete Class IV 30-Inch	LF	95.000	95.000
0118	608.0436	Storm Sewer Pipe Reinforced Concrete Class IV 36-Inch	LF	140.000	140.000
0120	608.2429	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	LF	188.000	188.000
0122	611.0530	Manhole Covers Type J	EACH	12.000	12.000
0124	611.0612	Inlet Covers Type C	EACH	2.000	2.000
0126	611.0624	Inlet Covers Type H	EACH	29.000	29.000
0128	611.0651	Inlet Covers Type S	EACH	2.000	2.000
0130	611.0666	Inlet Covers Type Z	EACH	2.000	2.000
0132	611.1003	Catch Basins 3-FT Diameter	EACH	1.000	1.000
0134	611.1004	Catch Basins 4-FT Diameter	EACH	13.000	13.000
0136	611.1006	Catch Basins 6-FT Diameter	EACH	1.000	1.000

2782-03-76

Line	Item	Item Description	Unit	Total	Qty
0138	611.1230	Catch Basins 2x3-FT	EACH	15.000	15.000
0140	611.2004	Manholes 4-FT Diameter	EACH	3.000	3.000
0142	611.2005	Manholes 5-FT Diameter	EACH	5.000	5.000
0144	611.2006	Manholes 6-FT Diameter	EACH	2.000	2.000
0146	611.2007	Manholes 7-FT Diameter	EACH	4.000	4.000
0148	611.8105	Adjusting Catch Basin Covers	EACH	5.000	5.000
0150	611.8110	Adjusting Manhole Covers	EACH	4.000	4.000
0152	611.8120.S	Cover Plates Temporary	EACH	5.000	5.000
0154	611.9710	Salvaged Inlet Covers	EACH	1.000	1.000
0156	612.0104	Pipe Underdrain 4-Inch	LF	640.000	640.000
0158	612.0106	Pipe Underdrain 6-Inch	LF	102.000	102.000
0160	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	10.000	10.000
0162	612.0215	Pipe Underdrain Unperforated 15-Inch	LF	15.000	15.000
0164	612.0902.S	Insulation Board Polystyrene (inch) 01. 2-Inch	SY	15.000	15.000
0166	618.0100	Maintenance And Repair of Haul Roads (project) 01. 2782-03-76	EACH	1.000	1.000
0168	619.1000	Mobilization	EACH	1.000	1.000
0170	620.0300	Concrete Median Sloped Nose	SF	205.000	205.000
0172	624.0100	Water	MGAL	170.000	170.000
0174	625.0100	Topsoil	SY	5,305.000	5,305.000
0176	627.0200	Mulching	SY	3,620.000	3,620.000
0178	628.1104	Erosion Bales	EACH	50.000	50.000
0180	628.1504	Silt Fence	LF	585.000	585.000
0182	628.1520	Silt Fence Maintenance	LF	485.000	485.000
0184	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0186	628.1910	Mobilizations Emergency Erosion Control	EACH	7.000	7.000
0188	628.6510	Soil Stabilizer Type B	ACRE	0.500	0.500
0190	628.7005	Inlet Protection Type A	EACH	64.000	64.000
0192	628.7020	Inlet Protection Type D	EACH	255.000	255.000
0194	628.7504	Temporary Ditch Checks	LF	100.000	100.000
0196	628.7555	Culvert Pipe Checks	EACH	4.000	4.000
0198	628.7560	Tracking Pads	EACH	2.000	2.000
0200	628.7570	Rock Bags	EACH	50.000	50.000
0202	629.0210	Fertilizer Type B	CWT	4.500	4.500
0204	630.0200	Seeding Temporary	LB	70.000	70.000
0206	630.0300	Seeding Borrow Pit	LB	26.000	26.000
0208	630.0500	Seed Water	MGAL	43.000	43.000
0210	631.0300	Sod Water	MGAL	77.000	77.000
0212	631.1000	Sod Lawn	SY	3,385.000	3,385.000
0214	633.5200	Markers Culvert End	EACH	1.000	1.000

2782-03-76

Line	Item	Item Description	Unit	Total	Qty
0216	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	2.000	2.000
0218	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	10.000	10.000
0220	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	3.000	3.000
0222	637.2210	Signs Type II Reflective H	SF	602.090	602.090
0224	637.2215	Signs Type II Reflective H Folding	SF	89.520	89.520
0226	637.2230	Signs Type II Reflective F	SF	85.000	85.000
0228	638.2102	Moving Signs Type II	EACH	6.000	6.000
0230	638.2602	Removing Signs Type II	EACH	48.000	48.000
0232	638.3000	Removing Small Sign Supports	EACH	43.000	43.000
0234	642.5201	Field Office Type C	EACH	1.000	1.000
0236	643.0300	Traffic Control Drums	DAY	39,309.000	39,309.000
0238	643.0420	Traffic Control Barricades Type III	DAY	5,439.000	5,439.000
0240	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	110.000	110.000
0242	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	110.000	110.000
0244	643.0705	Traffic Control Warning Lights Type A	DAY	10,878.000	10,878.000
0246	643.0715	Traffic Control Warning Lights Type C	DAY	4,331.000	4,331.000
0248	643.0800	Traffic Control Arrow Boards	DAY	153.000	153.000
0250	643.0900	Traffic Control Signs	DAY	28,147.000	28,147.000
0252	643.0920	Traffic Control Covering Signs Type II	EACH	9.000	9.000
0254	643.1000	Traffic Control Signs Fixed Message	SF	235.000	235.000
0256	643.1050	Traffic Control Signs PCMS	DAY	224.000	224.000
0258	643.5000	Traffic Control	EACH	1.000	1.000
0260	644.1420	Temporary Pedestrian Surface Plywood	SF	90.000	90.000
0262	644.1601	Temporary Pedestrian Curb Ramp	DAY	32.000	32.000
0264	644.1810	Temporary Pedestrian Barricade	LF	1,985.000	1,985.000
0266	645.0111	Geotextile Type DF Schedule A	SY	340.000	340.000
0268	645.0220	Geogrid Type SR	SY	2,400.000	2,400.000
0270	646.1020	Marking Line Epoxy 4-Inch	LF	6,745.000	6,745.000
0272	646.3020	Marking Line Epoxy 8-Inch	LF	6,100.000	6,100.000
0274	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	745.000	745.000
0276	646.4620	Marking Line Same Day Epoxy 8-Inch	LF	345.000	345.000
0278	646.5020	Marking Arrow Epoxy	EACH	41.000	41.000
0280	646.5120	Marking Word Epoxy	EACH	14.000	14.000
0282	646.6120	Marking Stop Line Epoxy 18-Inch	LF	405.000	405.000
0284	646.6220	Marking Yield Line Epoxy 18-Inch	EACH	15.000	15.000
0286	646.7120	Marking Diagonal Epoxy 12-Inch	LF	405.000	405.000
0288	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	1,515.000	1,515.000
0290	646.8120	Marking Curb Epoxy	LF	65.000	65.000
0292	646.8220	Marking Island Nose Epoxy	EACH	7.000	7.000
0294	646.9000	Marking Removal Line 4-Inch	LF	1,395.000	1,395.000

2782-03-76

Line	Item	Item Description	Unit	Total	Qty
0296	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	4,920.000	4,920.000
0298	646.9100	Marking Removal Line 8-Inch	LF	570.000	570.000
0300	646.9110	Marking Removal Line Water Blasting 8-Inch	LF	4,805.000	4,805.000
0302	646.9210	Marking Removal Line Water Blasting Wide	LF	1,110.000	1,110.000
0304	646.9300	Marking Removal Special Marking	EACH	8.000	8.000
0306	646.9310	Marking Removal Special Marking Water Blasting	EACH	40.000	40.000
0308	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	37,095.000	37,095.000
0310	649.0250	Temporary Marking Line Removable Tape 8-Inch	LF	6,030.000	6,030.000
0312	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	265.000	265.000
0314	650.4000	Construction Staking Storm Sewer	EACH	52.000	52.000
0316	650.4500	Construction Staking Subgrade	LF	3,235.000	3,235.000
0318	650.5000	Construction Staking Base	LF	1,370.000	1,370.000
0320	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	2,310.000	2,310.000
0322	650.7000	Construction Staking Concrete Pavement	LF	1,275.000	1,275.000
0324	650.8500	Construction Staking Electrical Installations (project) 01. 2782-03-76	LS	1.000	1.000
0326	650.9000	Construction Staking Curb Ramps	EACH	24.000	24.000
0328	650.9910	Construction Staking Supplemental Control (project) 01. 2782-03-76	LS	1.000	1.000
0330	650.9920	Construction Staking Slope Stakes	LF	1,915.000	1,915.000
0332	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	2,300.000	2,300.000
0334	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	3,551.000	3,551.000
0336	652.0800	Conduit Loop Detector	LF	708.000	708.000
0338	653.0135	Pull Boxes Steel 24x36-Inch	EACH	10.000	10.000
0340	653.0140	Pull Boxes Steel 24x42-Inch	EACH	18.000	18.000
0342	653.0905	Removing Pull Boxes	EACH	22.000	22.000
0344	654.0101	Concrete Bases Type 1	EACH	10.000	10.000
0346	654.0102	Concrete Bases Type 2	EACH	1.000	1.000
0348	654.0105	Concrete Bases Type 5	EACH	6.000	6.000
0350	654.0107	Concrete Bases Type 7	EACH	3.000	3.000
0352	654.0110	Concrete Bases Type 10	EACH	2.000	2.000
0354	654.0113	Concrete Bases Type 13	EACH	4.000	4.000
0356	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	1.000	1.000
0358	655.0210	Cable Traffic Signal 3-14 AWG	LF	1,467.000	1,467.000
0360	655.0260	Cable Traffic Signal 12-14 AWG	LF	3,690.000	3,690.000
0362	655.0270	Cable Traffic Signal 15-14 AWG	LF	1,649.000	1,649.000
0364	655.0320	Cable Type UF 2-10 AWG Grounded	LF	2,032.000	2,032.000
0366	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	2,087.000	2,087.000
0368	655.0610	Electrical Wire Lighting 12 AWG	LF	1,831.000	1,831.000
0370	655.0620	Electrical Wire Lighting 8 AWG	LF	2,556.000	2,556.000

2782-03-76

Line	Item	Item Description	Unit	Total	Qty
0372	655.0700	Loop Detector Lead In Cable	LF	2,917.000	2,917.000
0374	655.0800	Loop Detector Wire	LF	1,672.000	1,672.000
0376	655.0900	Traffic Signal EVP Detector Cable	LF	1,467.000	1,467.000
0378	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. CTH O & CTH I	LS	1.000	1.000
0380	657.0100	Pedestal Bases	EACH	11.000	11.000
0382	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	5.000	5.000
0384	657.0315	Poles Type 4	EACH	1.000	1.000
0386	657.0322	Poles Type 5-Aluminum	EACH	4.000	4.000
0388	657.0350	Poles Type 10	EACH	2.000	2.000
0390	657.0360	Poles Type 13	EACH	4.000	4.000
0392	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	7.000	7.000
0394	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	4.000	4.000
0396	657.0520	Monotube Arms 20-FT	EACH	2.000	2.000
0398	657.0535	Monotube Arms 35-FT	EACH	1.000	1.000
0400	657.0550	Monotube Arms 50-FT	EACH	1.000	1.000
0402	657.0555	Monotube Arms 55-FT	EACH	2.000	2.000
0404	657.0810	Luminaire Arms Steel 10-FT	EACH	13.000	13.000
0406	658.0173	Traffic Signal Face 3S 12-Inch	EACH	26.000	26.000
0408	658.0174	Traffic Signal Face 4S 12-Inch	EACH	4.000	4.000
0410	658.0416	Pedestrian Signal Face 16-Inch	EACH	14.000	14.000
0412	658.0500	Pedestrian Push Buttons	EACH	12.000	12.000
0414	658.5069	Signal Mounting Hardware (location) 01. CTH O & CTH I	LS	1.000	1.000
0416	659.1125	Luminaires Utility LED C	EACH	13.000	13.000
0418	661.0200	Temporary Traffic Signals for Intersections (location) 01. CTH O & CTH I	LS	1.000	1.000
0420	690.0150	Sawing Asphalt	LF	1,370.000	1,370.000
0422	690.0250	Sawing Concrete	LF	1,845.000	1,845.000
0424	715.0415	Incentive Strength Concrete Pavement	DOL	1,750.000	1,750.000
0426	715.0710	Optimized Aggregate Gradation Incentive	DOL	12,465.000	12,465.000
0428	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	500.000	500.000
0430	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0432	SPV.0060	Special 01. Removing and Storing Lighting Units	EACH	5.000	5.000
0434	SPV.0060	Special 02. Reinstalling Lighting Units	EACH	5.000	5.000
0436	SPV.0060	Special 03. Utility Line Opening	EACH	10.000	10.000
0438	SPV.0060	Special 04. Catch Basins 4X4-FT	EACH	1.000	1.000
0440	SPV.0060	Special 05. Catch Basins 7-FT Diameter	EACH	2.000	2.000
0442	SPV.0060	Special 06. Temporary Inlet Casting 2X3-FT	EACH	3.000	3.000
0444	SPV.0060	Special 07. Traffic Signal Controller & Cabinet (CTH O & CTH I)	EACH	1.000	1.000

2782-03-76

Line	Item	Item Description	Unit	Total	Qty
0446	SPV.0060	Special 08. Posts Tubular Steel 1.75 X 1.75-Inch X 8-Foot	EACH	6.000	6.000
0448	SPV.0060	Special 09. Posts Tubular Steel 1.75 X 1.75-Inch X 11-Foot	EACH	21.000	21.000
0450	SPV.0060	Special 10. Posts Tubular Steel 1.75 X 1.75-Inch X 12-Foot	EACH	23.000	23.000
0452	SPV.0060	Special 11. Posts Tubular Steel 1.75 X 1.75-Inch X 14-Foot	EACH	10.000	10.000
0454	SPV.0060	Special 12. Adjusting Sanitary Manholes	EACH	2.000	2.000
0456	SPV.0060	Special 13. Adjusting Water Valve Boxes	EACH	4.000	4.000
0458	SPV.0090	Special 01. Silt Fence Half Post Spacing	LF	370.000	370.000
0460	SPV.0105	Special 01. Video Vehicle Detection System (CTH O & CTH I)	LS	1.000	1.000
0462	SPV.0105	Special 02. Temporary Vehicle Detection	LS	1.000	1.000
0464	SPV.0105	Special 03. Reinstall Cty-Furnished Temporary EVP Equipment CTH O & CTH I	LS	1.000	1.000
0466	SPV.0105	Special 04. Rmv & Reinstall Cty-Furnished EVP Equipment CTH O & CTH I	LS	1.000	1.000
0468	SPV.0105	Special 05. Reinstall Cty-Furnished Temporary Wireless Communication Equipment CTH O & I	LS	1.000	1.000
0470	SPV.0105	Special 06. Rmv & Reinstall Cty-Furnished Wireless Communication Equipment CTH O & CTH I	LS	1.000	1.000
0472	SPV.0105	Special 07. Remove and Reinstall Overhead Sign Support	LS	1.000	1.000
0474	SPV.0165	Special 01. Construction Staking Sidewalk	SF	6,325.000	6,325.000
0476	SPV.0170	Special 01. Proof Rolling	STA	23.000	23.000

CLEARING & GRUBBING

ROADWAY	LOCATION	SIDE	201.0105 CLEARING STA	201.0120 CLEARING ID	201.0205 GRUBBING STA	201.0220 GRUBBING ID
CTH O	13+28	LT	---	3	---	3
	13+53	LT	---	3	---	3
	13+86	LT	---	3	---	3
	14+00 -15+00	LT	1	---	1	---
	CTH O TOTAL		1	9	1	9
CTH I	102+00	LT	---	8	---	8
	CTH I TOTAL		0	8	0	8
	PROJECT TOTALS		1	17	1	17

REMOVING CURB & GUTTER

ROADWAY	STATION	-	STATION	SIDE	204.0150 LF
CTH O	9+47	-	10+80	MEDIAN	245
	10+39	-	10+58	RT	25
	11+14	-	11+84	RT	95
	11+17	-	12+40	MEDIAN	250
	12+25	-	12+35	LT	15
	12+25	-	12+40	RT	20
	17+47	-	20+21	MEDIAN	275
	17+71	-	19+82	MEDIAN	215
	CTH O SUBTOTAL				1,140
CTH I	93+65	-	95+63	RT	200
	96+97	-	98+80	RT	180
	98+18	-	98+82	LT	65
	98+66	-	98+81	LT	15
	98+38	-	98+82	LT	45
	100+91	-	101+30	MEDIAN	40
	100+91	-	102+75	LT	190
	101+00	-	101+80	RT	80
	101+01	-	101+23	MEDIAN	25
	103+24	-	105+32	MEDIAN	225
	CTH I SUBTOTAL				1,065
	PROJECT TOTALS				2,205

REMOVING SMALL PIPE CULVERTS

ROADWAY	STATION	OFFSET		* DESCRIPTION	203.0100 EACH
CTH O	13+10	66'	LT	18" CPCS	1
	PROJECT TOTAL				1

* FOR INFORMATION ONLY

REMOVING PAVEMENT

ROADWAY	STATION	-	STATION	204.0100 REMOVING PAVEMENT SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
CTH O	9+46	-	13+00	745	2,575
	13+00	-	19+00	6,620	---
	CTH O TOTAL			7,365	2,575
	PROJECT TOTALS			7,365	2,575

REMOVING CONCRETE SIDEWALK

ROADWAY	STATION	-	STATION	204.0155 SY
CTH O	9+46	-	13+00	140
	13+00	-	19+00	575
	19+00	-	20+21	---
	CTH O SUBTOTAL			715
CTH I	93+63	-	98+25	55
	101+75	-	106+80	70
	CTH I SUBTOTAL			125
	PROJECT TOTALS			840

TRAFFIC SIGNAL REMOVALS

CATEGORY 0030

LOCATION	ITEM NO.	** 204.0195 REMOVING CONCRETE BASES EACH	653.0905 REMOVING PULL BOXES EACH
CTH O & CTH I	SB1	1	--
	SB2	1	--
	SB3	1	--
	SB4	1	--
	SB5	1	--
	SB6	1	--
	SB7	1	--
	SB8	1	--
	SB9	1	--
	SB10	1	--
	SB11	1	--
	SB12	1	--
	SB13	1	--
	SB14	1	--
	PB1	--	1
	PB2	--	1
	PB3	--	1
	PB4	--	1
	PB5	--	1
	PB6	--	1
	PB7	--	1
	PB8	--	1
	PB9	--	1
	PB10	--	1
	PB11	--	1
	PB12	--	1
	PB13	--	1
	PB14	--	1
	PB15	--	1
	PB16	--	1
	PB17	--	1
	PB18	--	1
	PB19	--	1
	PB20	--	1
	PB21	--	1
	PB22	--	1
	CB1	1	--
INTERSECTION TOTAL		15	22

**-ADDITIONAL QUANTITIES FOUND ELSEWHERE - LIGHTING UNITS

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

REMOVING INLETS & MANHOLES

ROADWAY	STATION	OFFSET	SIDE	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH
CTH O	9+44	8'	RT	---	1
	9+78	8'	RT	---	1
	10+27	14'	RT	---	1
	10+28	8'	RT	---	1
	10+28	10'	LT	---	1
	10+68	7'	RT	---	1
	10+70	2'	RT	---	1
	11+26	7'	RT	---	1
	11+29	15'	RT	---	1
	11+32	2'	RT	---	1
	11+73	65'	RT	---	1
	12+24	6'	RT	---	1
	12+25	15'	RT	---	1
	12+27	2'	LT	---	1
	12+28	65'	RT	---	1
	12+28	57'	LT	---	1
	16+50	8'	RT	---	1
	16+51	13'	RT	1	---
	16+52	67'	LT	---	1
	16+60	59'	RT	---	1
	16+62	2'	LT	---	1
	CTH O SUBTOTAL			1	20
CTH I	93+85	38'	RT	---	1
	101+40	38'	RT	---	1
	101+40	43'	LT	---	1
	101+46	44'	LT	---	1
	101+50	38'	RT	---	1
	104+33	8'	LT	---	1
	CTH I SUBTOTAL			0	6
	PROJECT TOTAL			1	26

REMOVING STORM SEWER

ROADWAY	STATION		STATION	SIDE	204.0245.01 12-INCH LF	204.0245.02 18-INCH LF	204.0245.03 24-INCH LF
CTH O	9+38	-	12+24	MEDIAN	---	---	290
	9+77	-	9+78	MEDIAN	20	---	---
	10+27	-	10+28	MEDIAN	25	---	---
	10+68	-	10+70	MEDAIN	10	---	---
	11+26	-	11+32	MEDIAN	10	---	---
	11+26	-	11+35	RT	---	20	---
	11+69	-	13+13	RT	---	150	---
	12+24	-	12+28	LT	65	---	---
	12+24	-	12+28	RT	60	---	---
	16+44	-	16+51	RT	---	135	---
	16+51	-	16+52	LT	80	---	---
	16+51	-	16+62	MEDIAN	20	---	---
	16+51	-	16+80	RT	---	85	---
	CTH O SUBTOTAL				290	390	290
CTH I	101+27		101+50	RT	20	---	---
	104+33	-	104+33	MEDIAN	---	35	---
	CTH I SUBTOTAL				20	35	0
	PROJECT TOTAL				310	425	290

ABANDONING SEWER

ROADWAY	STATION	-	STATION	SIDE	204.0291.S ABANDONING SEWER CY
CTH O	11+29	-	11+72	RT	5
	CTH O SUBTOTAL				5
CTH I	101+40	-	104+45	LT	4
	CTH I SUBTOTAL				4
	PROJECT TOTALS				9

REMOVING TRAFFIC SIGNALS

CATEGORY 0030

LOCATION	204.9105.S.01 REMOVING TRAFFIC SIGNALS (CTH O & CTH I) LS
CTH O & CTH I	1
TOTAL	1

REMOVING LOOP DETECTOR WIRE AND LEAD-IN CABLE

CATEGORY 0030

LOCATION	204.9105.S.02 REMOVING LOOP DETECTOR WIRE AND LEAD-IN CABLE (CTH O & CTH I) LS
CTH O & CTH I	1
TOTAL	1

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

Earthwork Summary			A	B	C	D	E	F	G	H	I	J
			Item #205.0100		*	*	Item #305.0130	*	*	*	*	Item #208.0100
Division	From/To Station	Location	Excavation Common (1) (CY)		Salvaged/Unusable Pavement Material (6) (CY)	Available Material (7) (CY)	Expanded EBS Backfill (3) (TON) Factor 1.20	Unexpanded Fill (CY)	Expanded Fill (8) (CY) Factor 1.15	Mass Ordinate +/- (5)(9) (CY)	Waste (CY)	Borrow (14) (CY)
			Cut (2) (CY)	EBS Excavation (3)(4)(5) (CY)								
1	9+76 - 19+66	CTH O	693	0	130	563	0	6	7	556		
Division 1 Subtotal			693	0	130	563	0	6	7	556	556	
2	12+25 - 17+71	NB CTH O	1,691	0	860	831	0	88	101	730		
	---	PARK & RIDE DRIVEWAY	130	0	40	90	0	0	0	90		
	101+00 - 102+75	CTH I EAST	468	0	90	378	0	46	53	325		
Division 2 Subtotal			2,289	0	990	1,299	0	134	154	1,146	1,146	
3	9+84-20+21	CTH O	794	0	390	404	0	15	17	387		
Division 3 Subtotal			794	0	390	404	0	15	17	387	387	
4	11+42 - 17+47	SB CTH O	1,564	0	770	794	0	230	264	530		
	93+63 - 95+63	CTH I CURB REPLACEMENT	54	0	13	41	0	0	0	41		
	96+97 - 99+00	CTH I WEST	780	0	180	600	0	1	2	598		
Division 4 Subtotal			2,398	0	963	1,435	0	231	266	1,168	1,168	
5	9+77 - 20+21	CTH O MEDIAN	1,075	0	390	685	0	22	25	660		
	103+25 - 105+80	CTH I EAST	188	0	60	128	0	0	0	128		
Division 5 Subtotal			1,263	0	450	813	0	22	25	787	787	
Undistributed (13)				2,350			6,210				2,350	
Grand Total			7,437	2,350	2,923	4,514	6,210	408	469	4,045	6,395	0
Total Common Exc				9,787								

1) Common Excavation is the sum of the Cut (A) and EBS Excavation (B) columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material (C) and excavation for Select Subgrade Improvement are included in Cut (A).
3) EBS Excavation (B) to be backfilled with Base Aggregate Dense 3-Inch (E).
4) EBS Excavation (B) volume is based on an 18-Inch excavation of 40% of the roadway reconstruction area. Actual EBS areas to be determined by the engineer using a proof roll.
5) EBS Excavation Material (B) shall be removed from the site and shall not be used as fill material. EBS Excavation material (B) is not included in the Mass Ordinate (H) but is included in waste volume (I).
6) Salvaged/Unusable Pavement Material (C) is included in the Cut (A). This assumes the existing pavement structure is salvaged or wasted by the contractor. The existing pavement structure is not shown on the cross sections.
7) Available Material (D) = Cut (A) - Salvaged/Unusable Pavement Material (C)
8) Expanded Fill (G) = (Unexpanded Fill (F)) * Expanded Fill Factor (1.15)
9) The Mass Ordinate (H) + or - Qty calculated for the Division. Plus quantity indicates a waste volume of material within the Division. Minus indicates a borrow volume of material within the Division.

ALL ITEMS CATEGORY 0010 UNLESS NOTED

BASE AGGREGATE DENSE

ROADWAY	STATION		STATION	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	305.0130 BASE AGGREGATE DENSE 3-INCH TON
CTH O	9+46	-	13+00	1,160	---
	13+00	-	19+00	3,970	---
	19+00	-	20+21	150	---
	CTH O TOTAL			5,280	0
CTH I	93+63	-	98+25	400	---
	101+75	-	106+80	540	---
	CTH I TOTAL			940	0
TEMPORARY PAVEMENT				1,320	0
EBS BACKFILL				0	6,210
	PROJECT TOTALS			7,540	6,210

DRILLED TIE BARS AND DOWEL BARS

LOCATION	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH
BASE PATCHING	6	48
CURB & GUTTER CONNECTIONS	50	---
PROJECT TOTALS	56	48

BASE PATCHING CONCRETE SHES

LOCATION	390.0403 SY
STA 19+89 LT	55
PROJECT TOTALS	55

HMA PAVEMENT ITEMS

ROADWAY	STATION		STATION	455.0605 TACK COAT GAL	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	450.4000 HMA COLD WEATHER PAVING TON
CTH O	9+46	-	13+00	230	205	370	150
	13+00	-	19+00	95	245	90	---
	19+00	-	20+21	5	5	5	---
	CTH O TOTAL			330	455	465	150
CTH I	93+63	-	98+25	25	55	25	---
	98+25	-	101+75	30	75	35	---
	101+75	-	106+80	15	55	30	---
	CTH I TOTAL			70	185	90	0
	PROJECT TOTALS			400	640	555	150

CONCRETE PAVEMENT ITEMS

ROADWAY	STATION		STATION	415.0100 CONCRETE PAVEMENT 10-INCH SY	415.1100 CONCRETE PAVEMENT HES 10-INCH SY	415.0210 CONCRETE PAVEMENT GAPS EACH
CTH O	9+46	-	13+00	900	---	---
	13+00	-	19+00	4910	2350	2
	19+00	-	20+21	---	---	---
	CTH O TOTAL			5,810	2,350	2
	PROJECT TOTALS			5,810	2,350	2

TEMPORARY ASPHALT ITEMS

STAGE	465.0125 ASPHALTIC SURFACE TEMPORARY TON	465.0310 ASPHALTIC CURB LF
STAGE 1	455	115
STAGE 2	15	---
STAGE 3	330	---
STAGE 4	10	---
PROJECT TOTALS	810	115

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

CONCRETE ITEMS

ROADWAY	STATION		STATION	601.0405 CONCRETE CURB & GUTTER 18-INCH TYPE A LF	601.0407 CONCRETE CURB & GUTTER 18-INCH TYPE D LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0600 CONCRETE CURB PEDESTRIAN LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	602.0605 CURB RAMP DETECTABLE WARNING FIELD RADIAL YELLOW SF	602.2400 CONCRETE SAFETY ISLANDS SF	620.0300 CONCRETE MEDIAN SLOPED NOSE TYPE 1 SF
CTH O	9+46	-	13+00	150	485	150	160	---	2,200	36	30	650	---
	13+00	-	19+00	440	185	695	180	---	4,450	240	---	3,190	75
	19+00	-	20+21	---	---	160	45	---	640	---	---	---	---
	CTH O TOTAL			590	670	1,005	385	0	7,290	276	30	3,840	75
CTH I	93+63	-	98+25	---	---	---	335	---	450	---	---	---	---
	98+25	-	101+75	255	80	---	165	35	2,030	---	---	---	80
	101+75	-	106+80	---	105	---	300	50	770	---	---	---	50
	CTH I TOTAL			255	185	0	800	85	3,250	0	0	0	130
	PROJECT TOTALS			845	855	1,005	1,185	85	10,540	276	30	3,840	205

ALL ITEMS CATEGORY 0010 UNLESS NOTED

STORM SEWER STRUCTURES

STRUCTURE NUMBER	STATION	OFFSET	RIM ELEV	LOWEST PIPE INVERT ELEV	TOP OF STRUCTURE ELEV	BOTTOM OF STRUCTURE ELEV	STR DEPTH FEET	611.1003 CATCH BASINS 3-FT DIAMETER EACH	611.1004 CATCH BASINS 4-FT DIAMETER EACH	611.1006 CATCH BASINS 6-FT DIAMETER EACH	SPV.0060.05 CATCH BASINS 7-FT DIAMETER EACH	611.1230 CATCH BASINS 2X3-FT EACH	SPV.0060.04 CATCH BASINS 4X4-FT EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2007 MANHOLES 7-FT DIAMETER EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0612 INLET COVERS TYPE C EACH	611.0624 INLET COVERS TYPE H EACH	611.0651 INLET COVERS TYPE S EACH	611.0666 INLET COVERS TYPE Z EACH	204.0280 SEALING PIPES EACH	*** 520.8000 CONCRETE COLLARS FOR PIPE EACH	** RUBBER ADJUSTMENT RINGS	650.4000 STAKING STORM SEWER EACH	COMMENTS
1A	18+25.0	0.5' LT	---	874.91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	1	
1B	18+25.0	7.5' RT	878.07	874.60	877.07	872.60	4.72	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	---	X	1	
1C	18+25.0	14.5' RT	878.55	874.53	877.55	872.53	5.27	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	---	X	1	
1E	18+25.0	51.1' RT	878.31	874.34	877.31	872.34	4.97	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	1	
1	18+25.0	42.5' RT	878.44	873.50	877.21	873.25	3.96	---	---	---	---	---	---	---	1	---	---	1	---	---	---	---	---	---	---	---	1	
2A	17+30.0	7.6' RT	877.17	873.90	876.17	871.90	4.52	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	---	X	1	
2B	17+30.0	14.5' RT	877.27	873.58	876.27	871.58	4.94	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	---	X	1	
2C	17+30.0	52.5' RT	876.99	873.65	875.99	871.65	4.34	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	1	
2	17+30.0	42.5' RT	877.16	872.55	875.94	872.30	3.64	---	---	---	---	---	---	---	1	---	---	1	---	---	---	---	---	---	---	---	1	
3A	16+66.2	80.1' LT	875.86	872.45	874.86	870.45	4.41	---	1	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	1	
3B	16+42.1	69.9' LT	875.84	871.94	874.84	869.94	4.90	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	1	
3C	16+47.8	5.7' LT	876.32	871.30	875.23	869.30	6.19	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	1	
3D	101+50.0	53.9' LT	874.54	871.49	873.54	871.49	2.30	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	X	1	NO SUMP
3E	101+40.5	55.4' LT	874.62	871.16	873.62	869.16	4.71	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	X	1	
3F	16+76.5	69.9' RT	875.69	871.95	874.69	869.95	4.99	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	X	1	
3G	16+50.4	86.7' RT	875.52	870.33	874.52	868.33	6.19	---	---	1	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	1	
3	16+47.8	42.5' RT	876.30	870.06	875.07	869.81	5.26	---	---	---	---	---	---	---	1	---	---	1	---	---	---	---	---	---	---	---	1	
4A	101+39.6	38.2' RT	874.97	870.28	873.75	870.03	3.72	---	---	---	---	---	---	1	---	---	---	1	---	---	---	---	---	---	---	---	1	
4B	101+35.2	43.7' RT	874.89	870.23	873.89	868.23	5.66	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	1	
4C	101+24.9	44.8' RT	874.88	870.17	873.88	868.17	5.70	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	1	
4	15+55.8	42.5' RT	875.62	869.10	874.39	868.81	5.58	---	---	---	---	---	---	---	---	1	---	1	---	---	---	---	---	---	---	---	1	
5A	15+32.1	103.6' LT	874.87	871.92	873.87	869.92	3.95	---	1	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	1	
5B	14+84.8	8.9' LT	874.82	871.14	873.82	869.14	4.94	---	1	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	X	1	
5C	15+25.4	9.0' LT	875.35	870.22	874.27	868.22	6.05	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	1	
5D	15+25.8	14.5' RT	875.45	870.20	874.45	868.20	6.50	---	---	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---	---	---	1	
5E	15+18.4	61.8' RT	875.01	870.50	874.01	868.50	5.51	---	1	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	1	
5	15+21.4	42.5' RT	875.33	868.80	874.10	868.51	5.59	---	---	---	---	---	---	---	1	---	---	1	---	---	---	---	---	---	---	---	1	
EW6A	13+25.0	78.4' RT	---	870.04	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	
6	13+25.0	42.5' RT	872.92	866.70	871.69	866.41	5.28	---	---	---	---	---	---	---	1	---	---	1	---	---	---	---	---	---	---	---	1	
7A	12+30.0	56.3' LT	871.54	868.82	870.54	866.82	3.72	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	---	---	1	
7B	12+30.0	14.5' LT	871.86	867.57	870.86	865.57	5.53	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	---	X	1	
7C	12+30.0	7.5' LT	871.27	867.50	870.27	865.50	5.02	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	---	X	1	
7D	12+30.0	63.9' RT	871.33	867.99	870.33	865.99	4.34	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	---	---	1	
7E	12+30.0	42.5' RT	871.72	865.78	870.49	865.44	5.05	---	---	---	---	---	---	---	---	1	---	1	---	---	---	---	---	---	---	---	1	
7	12+30.0	6.5' RT	871.54	865.61	870.31	865.28	5.03	---	---	---	---	---	---	---	---	---	1	1	---	---	---	---	---	---	---	---	1	
8A	11+60.2	67.2' RT	870.59	867.32	869.59	865.32	4.27	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	---	---	1	
8B	11+50.3	68.3' RT	870.47	866.97	869.47	864.97	4.49	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	---	---	1	
8	11+26.0	6.9' RT	870.42	865.15	869.19	864.81	4.38	---	---	---	---	---	---	---	---	---	1	1	---	---	---	---	---	---	---	---	1	
9	10+37.9	4.7' RT	869.40	864.75	868.40	862.75	5.90	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---	---	---	---	X	1	
10A	10+28.1	11.2' LT	869.72	866.30	868.72	864.30	4.68	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	---	X	1	
10	10+28.1	6.4' RT	869.32	864.70	868.32	862.70	5.87	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---	---	---	---	X	1	
11	9+77.5	7.7' RT	869.49	864.48	868.25	864.14	4.11	---	---	---	---	---	---	---	---	---	---	1	---	1	---	---	---	---	---	---	1	
12	9+44.2	7.9' RT	869.52	864.33	868.28	863.99	4.29	---	---	---	---	---	---	---	---	---	---	1	---	1	---	---	---	---	---	---	1	
13	9+38.4	7.9' RT	---	864.30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	1	
30	97+60.5	56.1' RT	873.83	870.19	872.83	868.19	4.63	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	---	---	1	
31	96+00.0	49.6' RT	874.06	868.62	872.83	868.45	4.38	---	---	---	---	---	---	1	---	---	---	1	---	---	---	---	---	---	---	---	1	
32	95+98.3	41.2' RT	872.47	868.53	870.97	868.53	2.43	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	1	
35	93+85.2	38.3' RT	870.94	865.60	869.94	863.60	6.34	---	---	---	---	---	1	---	---	---	---	---	---	1	---	---	---	---	---	---	1	
50A	105+43.4	8.4' RT	881.12	877.43	880.12	875.43	4.69	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	1	
50	105+40.3	16.7' RT	881.07	877.34	879.84	877.17	2.67	---	---	---	---	---	---	1	---	---	---	1	---	---	---	---	---	---	---	---	1	
59	104+32.7	8.2' LT	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	1	
60	104+32.8	2.8' LT	879.81	876.54	878.81	874.54	4.27	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	---	---	1	
TOTALS								**1**	**13**	**1**	**2**	**15**	**1**	**3**	**5**	**2**	**4**	**12**	**2**	**29**	**2**	**2**	**1**	**3**		**52**	

1. RIM ELEVATIONS ARE GIVEN AT THE FLANGE FOR INLET GRATES, AND AT THE CENTER OF THE MANHOLE STRUCTURE FOR MANHOLES.
2. STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES.
3. STRUCTURE DEPTH:
   MANHOLES: RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT
   CATH BASINS: RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT + 2 FOOT DEEP SUMP
4. CASTING HEIGHT = 8 7/8" FOR TYPE C AND TYPE J COVERS, 6" FOR TYPE H AND TYPE S COVERS, AND 7" FOR TYPE Z COVERS
5. A 6-INCH ADJUSTMENT IS ASSUMED FOR ALL STRUCTURES EXCEPT THOSE WITH RUBBER RINGS WHICH ARE ASSUMED TO BE 3".
6. PROVIDE A RECTANGULAR OPENING ON FLAT TOP SLABS FOR WHEN ROUND CATCH BASINS ARE USED.

** FOR INFORMATION ONLY - NOT A BID ITEM

*** - ADDITIONAL QUANTITY LOCATED ELSEWHERE - TEMPORARY DRAINAGE

ALL ITEMS CATEGORY 0010 UNLESS NOTED

STORM SEWER PIPES

PIPE NUMBER	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE (%)	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 15-INCH LF	608.0324 24-INCH LF	608.0330 30-INCH LF	608.0412 CLASS IV 12-INCH LF	608.0415 15-INCH LF	608.0418 18-INCH LF	608.0424 24-INCH LF	608.0430 30-INCH LF	608.0436 36-INCH LF	608.2429 HORIZ. ELL. CLASS HE-IV 29X45-INCH LF	522.1018 AEW FOR CULV PIPE REIN CONC 18" EACH	633.5200 MARKERS CULVERT END EACH
P1A	1A	1B	874.91	874.85	0.70%	---	---	---	---	8.0	---	---	---	---	---	---	---	---
P1B	1B	1C	874.60	874.53	1.00%	---	---	---	---	---	7.0	---	---	---	---	---	---	---
P1C	1C	1	874.53	874.25	1.00%	---	---	---	---	---	28.0	---	---	---	---	---	---	---
P1E	1E	1	874.34	874.25	1.00%	---	---	---	---	---	8.6	---	---	---	---	---	---	---
P1	1	2	873.50	872.55	1.00%	---	---	---	---	---	---	---	95.0	---	---	---	---	---
P2A	2A	2B	873.90	873.83	1.00%	---	---	---	---	6.9	---	---	---	---	---	---	---	---
P2B	2B	2	873.58	873.30	1.00%	---	---	---	---	---	28.0	---	---	---	---	---	---	---
P2C	2C	2	873.65	873.55	1.00%	---	---	---	---	10.0	---	---	---	---	---	---	---	---
P2	2	3	872.55	871.64	1.11%	---	---	---	---	---	---	---	82.2	---	---	---	---	---
P3A	3A	3B	872.45	872.19	1.00%	---	---	---	---	26.1	---	---	---	---	---	---	---	---
P3B	3B	3C	871.94	871.30	1.00%	---	---	---	---	---	64.5	---	---	---	---	---	---	---
P3C	3C	3	871.30	870.81	1.00%	---	48.2	---	---	---	---	---	---	---	---	---	---	---
P3D	3D	3E	871.49	871.41	0.75%	---	---	---	---	---	10.0	---	---	---	---	---	---	---
P3E	3E	3G	871.16	870.83	0.60%	---	---	---	---	---	---	55.2	---	---	---	---	---	---
P3F	3F	3G	871.95	871.33	2.00%	---	---	---	---	31.1	---	---	---	---	---	---	---	---
P3G	3G	3	870.33	870.06	0.60%	---	---	---	---	---	---	---	44.3	---	---	---	---	---
P3	3	4	870.06	869.60	0.50%	---	---	92.0	---	---	---	---	---	---	---	---	---	---
P4A	4A	4B	870.28	870.23	0.60%	---	---	---	---	---	---	---	6.9	---	---	---	---	---
P4B	4B	4C	870.23	870.17	0.60%	---	---	---	---	---	---	---	10.0	---	---	---	---	---
P4C	4C	4	870.17	869.60	0.70%	---	---	---	---	---	---	---	81.8	---	---	---	---	---
P4	4	5	869.10	868.80	0.87%	---	---	---	34.4	---	---	---	---	---	---	---	---	---
P5A	5A	5B	871.92	871.39	0.50%	---	---	---	---	105.8	---	---	---	---	---	---	---	---
P5B	5B	5C	871.14	870.22	2.05%	---	---	---	---	---	44.4	---	---	---	---	---	---	---
P5C	5C	5D	870.22	870.20	0.50%	---	5.5	---	---	---	---	---	---	---	---	---	---	---
P5D	5D	5	870.20	870.06	0.50%	---	28.3	---	---	---	---	---	---	---	---	---	---	---
P5E	5E	5	870.50	870.30	1.00%	19.5	---	---	---	---	---	---	---	---	---	---	---	---
P5	5	6	868.80	866.70	1.07%	---	---	---	196.4	---	---	---	---	---	---	---	---	---
P6A	EW6A	6	870.04	867.70	6.50%	---	---	---	---	---	---	36.0	---	---	---	---	1	1
P6A	6	7E	866.70	866.28	0.45%	---	---	---	---	---	---	---	---	95.0	---	---	---	---
P7A	7A	7B	868.82	868.61	0.50%	---	---	---	---	41.8	---	---	---	---	---	---	---	---
P7B	7B	7C	867.57	867.50	1.00%	---	---	---	---	---	7.0	---	---	---	---	---	---	---
P7C	7C	7	867.50	867.36	1.00%	---	---	---	---	---	14.0	---	---	---	---	---	---	---
P7D	7D	7E	867.99	867.78	1.00%	---	---	---	---	21.4	---	---	---	---	---	---	---	---
P7E	7E	7	865.78	865.61	0.45%	---	---	---	---	---	---	---	---	---	36.0	---	---	---
P7	7	8	865.61	865.15	0.45%	---	---	---	---	---	---	---	---	---	104.0	---	---	---
P8A	8A	8B	867.32	867.22	1.00%	---	---	---	---	10.0	---	---	---	---	---	---	---	---
P8B	8B	8	866.97	866.31	1.00%	---	---	---	---	---	66.1	---	---	---	---	---	---	---
P8	8	9	865.15	864.75	0.45%	---	---	---	---	---	---	---	---	---	---	88.1	---	---
P9	9	10	864.75	864.70	0.45%	---	---	---	---	---	---	---	---	---	---	10.0	---	---
P10A	10A	10	866.30	866.12	1.00%	---	---	---	---	17.5	---	---	---	---	---	---	---	---
P10A	10	11	864.70	864.48	0.45%	---	---	---	---	---	---	---	---	---	---	50.6	---	---
P11	11	12	864.48	864.33	0.45%	---	---	---	---	---	---	---	---	---	---	33.3	---	---
P12	12	13	864.33	864.30	0.45%	---	---	---	---	---	---	---	---	---	---	5.8	---	---
---	13	EXIST SS	864.30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P30	30	31	870.19	868.62	1.00%	---	---	---	---	157.3	---	---	---	---	---	---	---	---
P31	31	32	868.62	868.53	1.00%	8.5	---	---	---	---	---	---	---	---	---	---	---	---
---	32	EXIST SS	868.53	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
---	35	EXIST SS	865.60	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P50A	50A	50	877.43	877.34	1.00%	---	---	---	---	8.9	---	---	---	---	---	---	---	---
---	50	EXIST SS	877.34	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P59	59	60	876.58	876.54	0.76%	---	---	---	---	5.3	---	---	---	---	---	---	---	---
---	60	EXIST SS	876.54	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	TOTALS					**29**	**83**	**92**	**231**	**451**	**278**	**92**	**321**	**95**	**140**	**188**	**1**	**1**

1. PIPE LENGTHS ARE FROM CENTER TO CENTER OF STRUCTURES.
** FOR INFORMATION ONLY - NOT A BID ITEM

ALL ITEMS CATEGORY 0010 UNLESS NOTED

TEMPORARY DRAINAGE

LOCATION	** 520.8000 CONCRETE COLLARS FOR PIPE EACH	611.8105 ADJUSTING CATCH BASIN COVERS EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8120.S COVER PLATES TEMPORARY EACH	611.9710 SALVAGED INLET COVERS EACH	612.0215 PIPE UNDERDRAIN UNPERFORATED 15-INCH LF	SPV.0060.06 TEMPORARY INLET CASTING 2X3-FT EACH
UNDISTRIBUTED	2	5	4	5	1	15	3
PROJECT TOTAL	2	5	4	5	1	15	3

** ADDITIONAL QUANTITY LOCATED ELSEWHERE - STORM SEWER STRUCTURES
NOTE: ITEMS TO BE USED TO MAINTAIN DRAINAGE DURING CONSTRUCTION

PIPE UNDERDRAIN ITEMS

ROADWAY	STATION		STATION	310.0110 BASE AGGREGATE OPEN-GRADED TON	612.0104 PIPE UNDERDRAIN 4-INCH LF	612.0106 PIPE UNDERDRAIN 6-INCH LF	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	645.0111 GEOTEXTILE TYPE DF SCHEDULE A SY
CTH O	9+46	-	13+00	10	200	0	0	89
	13+00	-	19+00	14	280	0	0	124
	19+00	-	20+21	0	0	0	0	0
	CTH O TOTAL			24	480	0	0	213
CTH I	93+63	-	97+00	1	20	0	0	9
	97+00	-	103+00	13	100	102	10	100
	103+00	-	106+80	2	40	0	0	18
	CTH I TOTAL			16	160	102	10	127
	PROJECT TOTALS			40	640	102	10	340

WATER

LOCATION	624.0100 MGAL
BASE AGGREGATE PLACEMENT	140
DUST CONTROL	30
	170

RESTORATION ITEMS

ROADWAY	STATION		STATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0200 SEEDING TEMPORARY LB	630.0300 SEEDING BORROW PIT LB	630.0500 SEED WATER MGAL	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
CTH O	9+46	-	13+00	825	415	0.8	15	---	---	19	825
	13+00	-	19+00	1,545	775	1.5	25	---	---	35	1,545
	19+00	-	20+21	---	---	---	---	---	---	---	---
	CTH O TOTAL			2,370	1,190	2.3	40	0	0	54	2,370
CTH I	93+63	-	98+25	305	155	0.3	5	---	---	7	305
	101+75	-	106+80	400	200	0.4	10	---	---	9	400
	CTH I TOTAL			705	355	0.7	15	0	0	16	705
	WASTE SITE			1,920	1,920	1.2	---	26	43	---	---
	UNDISTRIBUTED			310	155	0.3	15	---	---	7	310
	PROJECT TOTALS			5,305	3,620	4.5	70	26	43	77	3,385

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

EROSION CONTROL ITEMS

STAGE	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	SPV.0090.01 SILT FENCE HALF POST SPACING LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.6510 SOIL STABILIZER TYPE B ACRE	628.7005 INLET PROTECTION TYPE A EACH	628.7020 INLET PROTECTION TYPE D EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7560 TRACKING PADS EACH	628.7570 ROCK BAGS EACH
STAGE 1	---	---	---	---	1	---	---	8	30	---	---	---	---
STAGE 2	---	---	295	150	1	---	---	18	36	---	2	---	---
STAGE 3	---	---	---	---	1	---	---	6	38	---	---	---	---
STAGE 4	---	25	---	15	1	---	---	8	46	---	---	---	---
STAGE 5	---	---	---	---	1	---	---	11	54	---	---	---	---
SUBTOTAL	0	25	295	165	5	0	0	51	204	0	2	0	0
WASTE SITE	---	550	---	275	1	---	---	---	---	---	---	---	---
UNDISTRIBUTED	50	10	75	45	0	7	0.5	13	51	100	2	2	50
PROJECT TOTALS	50	585	370	485	6	7	0.5	64	255	100	4	2	50

NOTE: UNDISTRIBUTED EROSION CONTROL ITEMS TO BE USED AT THE DISCRETION OF THE ENGINEER

ALL ITEMS CATEGORY 0010 UNLESS NOTED

REMOVING SIGNS

SIGN #	SHEET #	SIGN CODE	SIGN MOUNTED ON SAME POST AS #	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	DESCRIPTION
R101	1 OF 6	R3-8AAAR	---	---	1	2	AHEAD ONLY / AHEAD ONLY / AHEAD ONLY / RIGHT ONLY
R102	1 OF 6	W3-2	---	---	1	1	YIELD AHEAD
R103	1 OF 6	R6-2L	---	---	1	1	ONE WAY LEFT ARROW
M104	1 OF 6	D1-2	---	1	---	2	TWO DESTINATIONS (ARROWS)
R105	1 OF 6	M3-3	---	---	1	1	SOUTH CARDINAL ROUTE MARKER
	1 OF 6	M1-5A	R105	---	---	---	COUNTY MARKER
	1 OF 6	M5-1L	R105	---	---	---	ADVANCE ARROW LEFT TURN
M106	1 OF 6	R11-54F	---	1	---	1	RAMP CLOSED USE ALT ROUTE (FOLDING)
R107	1 OF 6	D4-2L	---	---	1	1	PARK & RIDE SYMBOLS LEFT ARROW
R108	1 OF 6	M4-1	---	---	1	1	ALTERNATE MARKER
	1 OF 6	M3-2	R108	---	---	---	EAST CARDINAL ROUTE MARKER
	1 OF 6	M1-1	R108	---	---	---	INTERSTATE SHIELD
	1 OF 6	M6-1	R108	---	---	---	ARROW - RIGHT, LEFT, OR AHEAD
R109	1 OF 6	M2-1	---	---	1	1	JCT
	1 OF 6	M1-5A	R109	---	---	---	COUNTY MARKER
R110	1 OF 6	R1-1	---	---	1	1	STOP
R111	1 OF 6	R3-4	---	---	1	1	NO U-TURN SYMBOL
R112	1 OF 6	R3-7R	---	---	1	1	RIGHT LANE MUST TURN RIGHT
R113	1 OF 6	R3-8LAAAR	---	---	1	3	LEFT ONLY / AHEAD ONLY / AHEAD ONLY / AHEAD ONLY / RIGHT ONLY
R200	2 OF 6	W2-6	---	---	1	1	CIRCULAR INTERSECTION SIGN
	2 OF 6	W16-9P	R200	---	---	---	AHEAD PLAQUE (YELLOW)
	2 OF 6	W13-1	R200	---	---	---	ADVISORY SPEED PLATE (YELLOW BACK)
R201	2 OF 6	W2-6	---	---	1	1	CIRCULAR INTERSECTION SIGN
	2 OF 6	W16-9P	R201	---	---	---	AHEAD PLAQUE (YELLOW)
	2 OF 6	W13-1	R201	---	---	---	ADVISORY SPEED PLATE (YELLOW BACK)
R202	2 OF 6	M2-1	---	---	1	1	JCT
	2 OF 6	M1-1	R202	---	---	---	INTERSTATE SHIELD
R203	2 OF 6	M2-1	---	---	1	1	JCT
	2 OF 6	M1-1	R203	---	---	---	INTERSTATE SHIELD
R204	2 OF 6	M1-5A	---	---	1	1	COUNTY MARKER
R205	2 OF 6	R1-2	SIGNAL POLE	---	1	---	YIELD
R206	2 OF 6	R1-1F	SIGNAL POLE	---	1	---	STOP (FOLDING)
R207	2 OF 6	R10-3BD	SIGNAL POLE	---	1	---	TO CROSS PUSH BUTTON [DOUBLE ARROW]
R208	2 OF 6	R3-4	SIGNAL POLE	---	1	---	NO U-TURN SYMBOL
R209	2 OF 6	R4-7	SIGNAL POLE	---	1	---	KEEP RIGHT
M210	2 OF 6	D9-13C	---	1	---	1	EMERGENCY MEDICAL CARE
	2 OF 6	M5-1R	M210	---	---	---	ADVANCE ARROW RIGHT TURN
R211	2 OF 6	R10-3BL	SIGNAL POLE	---	1	---	TO CROSS PUSH BUTTON [LEFT ARROW]
R212	2 OF 6	R1-1F	SIGNAL POLE	---	1	---	STOP (FOLDING)
M213	2 OF 6	D9-13C	---	1	---	1	EMERGENCY MEDICAL CARE
	2 OF 6	M5-1R	M213	---	---	---	ADVANCE ARROW RIGHT TURN
R214	2 OF 6	M4-1	---	---	1	1	ALTERNATE MARKER
	2 OF 6	M3-2	R214	---	---	---	EAST CARDINAL ROUTE MARKER
	2 OF 6	M1-1	R214	---	---	---	INTERSTATE SHIELD
	2 OF 6	M6-1	R214	---	---	---	ARROW - RIGHT, LEFT, OR AHEAD
R215	2 OF 6	R1-1F	SIGNAL POLE	---	1	---	STOP (FOLDING)
R216	2 OF 6	R4-7	SIGNAL POLE	---	1	---	KEEP RIGHT
R217	2 OF 6	R4-7	R225 (BACK)	---	1	---	KEEP RIGHT
R218	2 OF 6	R4-7	SIGNAL POLE	---	1	---	KEEP RIGHT
R219	2 OF 6	R1-1F	SIGNAL POLE	---	1	---	STOP (FOLDING)
SUBTOTAL				**4**	**29**	**25**	

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

REMOVING SIGNS (CONT.)

SIGN #	SHEET #	SIGN CODE	SIGN MOUNTED ON SAME POST AS #	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	DESCRIPTION
R220	2 OF 6	R5-1A	---	---	1	1	WRONG WAY
R221	2 OF 6	R3-7R	---	---	1	1	RIGHT LANE MUST TURN RIGHT
R222	2 OF 6	M4-1	---	---	1	1	ALTERNATE MARKER
	2 OF 6	M3-4	R222	---	---	---	WEST CARDINAL ROUTE MARKER
	2 OF 6	M1-1	R222	---	---	---	INTERSTATE SHIELD
	2 OF 6	M6-1	R222	---	---	---	ARROW - RIGHT, LEFT, OR AHEAD
R223	2 OF 6	R1-1F	SIGNAL POLE	---	1	---	STOP (FOLDING)
M224	2 OF 6	D9-13C	---	1	---	1	EMERGENCY MEDICAL CARE
	2 OF 6	M6-1	M224	---	---	---	ARROW - RIGHT, LEFT, OR AHEAD
R225	2 OF 6	R3-4	---	---	1	1	NO U-TURN SYMBOL
R226	2 OF 6	R1-1F	SIGNAL POLE	---	1	---	STOP (FOLDING)
R227	2 OF 6	R3-7R	---	---	1	1	RIGHT LANE MUST TURN RIGHT
R228	2 OF 6	M3-2	---	---	1	1	EAST CARDINAL ROUTE MARKER
	2 OF 6	M1-5A	R228	---	---	---	COUNTY MARKER
	2 OF 6	M6-1	R228	---	---	---	ARROW - RIGHT, LEFT, OR AHEAD
R229	2 OF 6	R2-1	---	---	1	1	SPEED LIMIT ___ MPH
R230	2 OF 6	R1-1F	SIGNAL POLE	---	1	---	STOP (FOLDING)
R231	2 OF 6	R1-1F	R225	---	1	---	STOP (FOLDING)
R301	3 OF 6	R6-2R	---	---	1	1	ONE WAY RIGHT ARROW
M400	4 OF 6	W4-2R	---	1	---	1	LANE REDUCTION TRANSITION SYMBOL - [RIGHT LANE]
R500	5 OF 6	R3-7R	---	---	1	1	RIGHT LANE MUST TURN RIGHT
R501	5 OF 6	R3-8LLAR	---	---	1	3	LEFT ONLY / LEFT ONLY / AHEAD ONLY / RIGHT ONLY
R600	6 OF 6	R3-20L	---	---	1	1	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW
R601	6 OF 6	R3-2	---	---	1	1	NO LEFT TURN SYMBOL
R602	6 OF 6	R6-2R	---	---	1	1	ONE WAY RIGHT ARROW
R603	6 OF 6	R3-2	---	---	1	1	NO LEFT TURN SYMBOL
R604	6 OF 6	R4-7	R603 (BACK)	---	1	---	KEEP RIGHT
SUBTOTAL				**2**	**19**	**18**	
PROJECT TOTAL				**6**	**48**	**43**	

ALL ITEMS CATEGORY 0010 UNLESS NOTED

PERMANENT SIGNING

SIGN #	SIGN CODE	SHEET #	SIGN SIZE	SIGN SIZE W X H IN.	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	634.0618 POSTS WOOD 4X6-INCH X 18-FT EACH	SPV.0060.08 POSTS TUBULAR STEEL 1.75X1.75-INCH X 8-FT EACH	SPV.0060.10 POSTS TUBULAR STEEL 1.75X1.75-INCH X 11-FT EACH	SPV.0060.11 POSTS TUBULAR STEEL 1.75X1.75-INCH X 12-FT EACH	SPV.0060.12 POSTS TUBULAR STEEL 1.75X1.75-INCH X 14-FT EACH	SIGN MOUNTED ON SAME POST AS #	DESCRIPTION	NOTES
100	R3-8AAAR	1 OF 6	2M	72 X 30	15	---	---	---	---	---	---	2	---	---	---	AHEAD ONLY / AHEAD ONLY / AHEAD ONLY / RIGHT ONLY	---
101	R6-2R	1 OF 6	2M	30 X 36	7.5	---	---	---	---	---	---	---	1	---	---	ONE WAY RIGHT ARROW	---
102	J3-1	1 OF 6	2M	24 X 57	9.5	---	---	---	---	1	---	---	---	---	---	DIRECTIONAL ASSEMBLY (1 HEADED ROUTE PANEL)	---
	M3-4	1 OF 6	2M	24 X 12	---	---	---	---	---	---	---	---	---	---	---	WEST CARDINAL ROUTE MARKER	---
	M1-5A	1 OF 6	2M	24 X 24	---	---	---	---	---	---	---	---	---	---	---	COUNTY MARKER	CTH I
	M6-1	1 OF 6	2M	21 X 21	---	---	---	---	---	---	---	---	---	---	---	ARROW - RIGHT, LEFT, OR AHEAD	---
103	J33-1	1 OF 6	2M	24 X 69	11.5	---	---	---	---	1	---	---	---	---	---	TRAILBLAZER DIRECTIONAL WITH CARDINAL	---
	MB4-1	1 OF 6	2M	24 X 12	---	---	---	---	---	---	---	---	---	---	---	ALTERNATE - BLUE	---
	MB3-2	1 OF 6	2M	24 X 12	---	---	---	---	---	---	---	---	---	---	---	EAST CARDINAL ROUTE MARKER	---
	M1-1	1 OF 6	2M	24 X 24	---	---	---	---	---	---	---	---	---	---	---	INTERSTATE SHIELD	IH 94
	MB6-1	1 OF 6	2M	21 X 21	---	---	---	---	---	---	---	---	---	---	---	ARROW - RIGHT, LEFT, OR AHEAD	---
M104	D1-2	1 OF 6	2M	72 X 24	---	---	---	2	---	---	---	---	---	---	---	TWO DESTINATIONS (ARROWS)	---
104	R3-20R	1 OF 6	2M	24 X 36	6	---	---	---	---	---	---	---	1	---	---	BEGIN RIGHT TURN LANE WITH DOWN LEFT ARROW	---
105	R3-20L	1 OF 6	2M	24 X 36	6	---	---	---	---	---	---	---	1	---	---	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	---
106	R3-8LLAAAR	1 OF 6	2M	108 X 30	22.5	---	---	---	---	---	---	3	---	---	---	LT ONLY / LT ONLY / AHD ONLY / AHD ONLY / AHD ONLY / RT ONLY	---
M106	R11-54F	1 OF 6	2M	48 X 30	---	---	---	---	---	---	---	2	---	---	---	RAMP CLOSED USE ALT ROUTE (FOLDING)	---
107	J1-1	1 OF 6	2M	24 X 39	6.5	---	---	---	---	---	---	---	1	---	---	JUNCTION OR END ASSEMBLY	---
	M2-1	1 OF 6	2M	21 X 15	---	---	---	---	---	---	---	---	---	---	---	JCT	---
	M1-5A	1 OF 6	2M	24 X 24	---	---	---	---	---	---	---	---	---	---	---	COUNTY MARKER	CTH I
108	W12-1R	1 OF 6	2S	24 X 24	---	---	4	---	---	---	---	---	1	---	---	DOWN ARROW [RIGHT]	---
109	R3-2	1 OF 6	2S	24 X 24	4	---	---	---	---	---	---	1	---	---	---	NO LEFT TURN SYMBOL	---
110	R1-2	1 OF 6	2S	36 X 31	3.88	---	---	---	---	---	---	---	---	1	---	YIELD	---
111	R3-53R	1 OF 6	2S	24 X 30	5	---	---	---	---	---	---	---	---	---	110	RIGHT TURN ONLY	---
112	J3-1	1 OF 6	2M	24 X 57	9.5	---	---	---	---	---	---	---	---	2	---	DIRECTIONAL ASSEMBLY (1 HEADED ROUTE PANEL)	---
	M3-2	1 OF 6	2M	24 X 12	---	---	---	---	---	---	---	---	---	---	---	EAST CARDINAL ROUTE MARKER	---
	M1-5A	1 OF 6	2M	24 X 24	---	---	---	---	---	---	---	---	---	---	---	COUNTY MARKER	CTH I
	M6-1	1 OF 6	2M	21 X 21	---	---	---	---	---	---	---	---	---	---	---	ARROW - RIGHT, LEFT, OR AHEAD	---
113	W3-2	1 OF 6	2M	36 X 36	---	---	9	---	---	---	---	---	---	1	---	YIELD AHEAD	---
114	R5-1	1 OF 6	2S	30 X 30	6.25	---	---	---	---	---	---	1	---	---	---	DO NOT ENTER	---
115	CUSTOM	1 OF 6	2M	30 X 36	7.5	---	---	---	---	---	---	---	---	---	102 (BACK)	PARK & RIDE ACCESS	---
116	CUSTOM	1 OF 6	2M	30 X 36	7.5	---	---	---	---	---	---	---	---	---	102 (BACK)	U-TURN AT ROUNDABOUT	---
M224	D9-13C	1 OF 6	2M	24 X 24	---	---	---	---	---	---	---	---	---	1	---	EMERGENCY MEDICAL CARE	---
	M6-1	1 OF 6	2M	21 X 21	---	---	---	---	---	---	---	---	---	---	M224	ARROW - RIGHT, LEFT, OR AHEAD	---
200	W2-6	2 OF 6	2M	30 X 30	---	---	6.25	---	---	---	---	---	---	1	---	CIRCULAR INTERSECTION SIGN	---
201	W13-1	2 OF 6	2M	18 X 18	---	---	2.25	---	---	---	---	---	---	---	200	ADVISORY SPEED PLATE (YELLOW BACK)	---
202	W2-6	2 OF 6	2M	30 X 30	---	---	6.25	---	---	---	---	---	---	1	---	CIRCULAR INTERSECTION SIGN	---
203	W13-1	2 OF 6	2M	18 X 18	---	---	2.25	---	---	---	---	---	---	---	202	ADVISORY SPEED PLATE (YELLOW BACK)	---
204	M1-5A	2 OF 6	2M	24 X 24	4	---	---	---	---	---	---	1	---	---	---	COUNTY MARKER	CTH O
205	J1-1	2 OF 6	2M	24 X 39	6.5	---	---	---	1	---	---	---	---	---	---	JUNCTION OR END ASSEMBLY	---
	MB2-1	2 OF 6	2M	21 X 15	---	---	---	---	---	---	---	---	---	---	---	JCT - BLUE	---
	M1-1	2 OF 6	2M	24 X 24	---	---	---	---	---	---	---	---	---	---	---	INTERSTATE SHIELD	IH 43
206	J1-1	2 OF 6	2M	24 X 39	6.5	---	---	---	1	---	---	---	---	---	---	JUNCTION OR END ASSEMBLY	---
	MB2-1	2 OF 6	2M	21 X 15	---	---	---	---	---	---	---	---	---	---	---	JCT - BLUE	---
	M1-1	2 OF 6	2M	24 X 24	---	---	---	---	---	---	---	---	---	---	---	INTERSTATE SHIELD	---
207	R1-1F	2 OF 6	2M	36 X 36	---	7.46	---	---	---	---	---	---	---	---	SIGNAL POLE	STOP (FOLDING)	---
208	R4-7	2 OF 6	2M	24 X 30	5	---	---	---	---	---	---	---	---	---	SIGNAL POLE	KEEP RIGHT	---
209	R1-1F	2 OF 6	2M	36 X 36	---	7.46	---	---	---	---	---	---	---	---	SIGNAL POLE	STOP (FOLDING)	---
210	R1-1F	2 OF 6	2M	36 X 36	---	7.46	---	---	---	---	---	---	---	---	SIGNAL POLE	STOP (FOLDING)	---
211	R1-1F	2 OF 6	2M	36 X 36	---	7.46	---	---	---	---	---	---	---	---	SIGNAL POLE	STOP (FOLDING)	---
212	W12-1D	2 OF 6	2S	24 X 24	---	---	4	---	---	---	1	---	---	---	---	DOUBLE DOWN ARROWS	---
SUBTOTAL					**150.13**	**29.84**	**34**	**2**	**2**	**2**	**1**	**10**	**5**	**7**			

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

PERMANENT SIGNING (CONT.)

SIGN #	SIGN CODE		SIGN SIZE	SIGN SIZE W IN. X H IN.	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	634.0618 POSTS WOOD 4X6-INCH X 18-FT EACH	SPV.0060.08 POSTS TUBULAR STEEL 1.75X1.75-INCH X 8-FT EACH	SPV.0060.10 POSTS TUBULAR STEEL 1.75X1.75-INCH X 11-FT EACH	SPV.0060.11 POSTS TUBULAR STEEL 1.75X1.75-INCH X 12-FT EACH	SPV.0060.12 POSTS TUBULAR STEEL 1.75X1.75-INCH X 14-FT EACH	SIGN MOUNTED ON SAME POST AS #	DESCRIPTION	NOTES
213	R10-3EL	2 OF 6	2M	9 X 15	0.94	---	---	---	---	---	---	---	---	---	SIGNAL POLE	TO CROSS PUSH BUTTON [LEFT ARROW]	---
214	R10-3ER	2 OF 6	2M	9 X 15	0.94	---	---	---	---	---	---	---	---	---	SIGNAL POLE	TO CROSS PUSH BUTTON [RIGHT ARROW]	---
215	R4-7	2 OF 6	2M	24 X 30	5	---	---	---	---	---	---	---	---	---	SIGNAL POLE	KEEP RIGHT	---
216	R3-4	2 OF 6	2S	24 X 24	4	---	---	---	---	---	---	---	---	---	SIGNAL POLE	NO U-TURN SYMBOL	---
217	R1-1F	2 OF 6	2S	30 X 30	---	7.46	---	---	---	---	---	---	---	---	SIGNAL POLE	STOP (FOLDING)	---
218	R10-3ER	2 OF 6	2M	9 X 15	0.94	---	---	---	---	---	---	---	---	---	SIGNAL POLE	TO CROSS PUSH BUTTON [RIGHT ARROW]	---
219	R10-3ER	2 OF 6	2M	9 X 15	0.94	---	---	---	---	---	---	---	---	---	SIGNAL POLE	TO CROSS PUSH BUTTON [RIGHT ARROW]	---
220	R1-2	2 OF 6	2M	48 X 42	7	---	---	---	---	---	---	---	1	---	---	YIELD	---
221	W12-1D	2 OF 6	2M	24 X 24	---	---	4	---	---	---	1	---	---	---	---	DOUBLE DOWN ARROWS	---
222	W12-1D	2 OF 6	2M	24 X 24	---	---	4	---	---	---	1	---	---	---	---	DOUBLE DOWN ARROWS	---
223	R1-1F	2 OF 6	2M	36 X 36	---	7.46	---	---	---	---	---	---	---	---	SIGNAL POLE	STOP (FOLDING)	---
224	R1-1F	2 OF 6	2M	36 X 36	---	7.46	---	---	---	---	---	---	---	---	SIGNAL POLE	STOP (FOLDING)	---
M213	D9-13C	2 OF 6	2M	24 X 24	---	---	---	---	---	---	---	---	---	1	---	EMERGENCY MEDICAL CARE	---
	M5-1R	2 OF 6	2M	21 X 21	---	---	---	---	---	---	---	---	---	---	M213	ADVANCE ARROW RIGHT TURN	---
226	R3-7R	2 OF 6	2M	30 X 30	6.25	---	---	---	---	---	---	1	---	---	---	RIGHT LANE MUST TURN RIGHT	---
227	J3-1	2 OF 6	2M	24 X 57	9.5	---	---	---	1	---	---	---	---	---	---	DIRECTIONAL ASSEMBLY (1 HEADED ROUTE PANEL)	---
	M3-2	2 OF 6	2M	24 X 12	---	---	---	---	---	---	---	---	---	---	---	EAST CARDINAL ROUTE MARKER	---
	M1-5A	2 OF 6	2M	24 X 24	---	---	---	---	---	---	---	---	---	---	---	COUNTY MARKER	CTH I
	M6-1	2 OF 6	2M	21 X 21	---	---	---	---	---	---	---	---	---	---	---	ARROW - RIGHT, LEFT, OR AHEAD	---
228	J3-1	2 OF 6	2M	24 X 57	9.5	---	---	---	1	---	---	---	---	---	---	DIRECTIONAL ASSEMBLY (1 HEADED ROUTE PANEL)	---
	M3-4	2 OF 6	2M	24 X 12	---	---	---	---	---	---	---	---	---	---	---	WEST CARDINAL ROUTE MARKER	---
	M1-5A	2 OF 6	2M	24 X 24	---	---	---	---	---	---	---	---	---	---	---	COUNTY MARKER	CTH I
	M6-1	2 OF 6	2M	21 X 21	---	---	---	---	---	---	---	---	---	---	---	ARROW - RIGHT, LEFT, OR AHEAD	---
229	R3-7R	2 OF 6	2M	30 X 30	6.25	---	---	---	---	---	---	---	---	1	---	RIGHT LANE MUST TURN RIGHT	---
230	R5-1A	2 OF 6	2M	42 X 30	8.75	---	---	---	---	---	---	---	---	---	229	WRONG WAY	---
231	W12-1D	2 OF 6	2M	24 X 24	---	---	4	---	---	---	1	---	---	---	---	DOUBLE DOWN ARROWS	---
232	W12-1D	2 OF 6	2M	24 X 24	---	---	4	---	---	---	1	---	---	---	---	DOUBLE DOWN ARROWS	---
233	R1-1F	2 OF 6	2M	36 X 36	---	7.46	---	---	---	---	---	---	---	---	SIGNAL POLE	STOP (FOLDING)	---
234	R1-1F	2 OF 6	2M	36 X 36	---	7.46	---	---	---	---	---	---	---	---	SIGNAL POLE	STOP (FOLDING)	---
235	R1-2	2 OF 6	2M	48 X 42	7	---	---	---	---	---	---	---	1	---	---	YIELD	---
236	R10-3EL	2 OF 6	2M	9 X 15	0.94	---	---	---	---	---	---	---	---	---	SIGNAL POLE	TO CROSS PUSH BUTTON [LEFT ARROW]	---
237	R10-3ER	2 OF 6	2M	9 X 15	0.94	---	---	---	---	---	---	---	---	---	SIGNAL POLE	TO CROSS PUSH BUTTON [RIGHT ARROW]	---
238	R4-7	2 OF 6	2M	24 X 30	5	---	---	---	---	---	---	---	---	---	SIGNAL POLE	KEEP RIGHT	---
239	R3-4	2 OF 6	2S	24 X 24	4	---	---	---	---	---	---	---	---	---	SIGNAL POLE	NO U-TURN SYMBOL	---
240	R1-1F	2 OF 6	2M	36 X 36	---	7.46	---	---	---	---	---	---	---	---	SIGNAL POLE	STOP (FOLDING)	---
241	R1-1F	2 OF 6	2M	36 X 36	---	7.46	---	---	---	---	---	---	---	---	SIGNAL POLE	STOP (FOLDING)	---
242	R10-3ER	2 OF 6	2M	9 X 15	0.94	---	---	---	---	---	---	---	---	---	SIGNAL POLE	TO CROSS PUSH BUTTON [RIGHT ARROW]	---
243	R10-3ER	2 OF 6	2M	9 X 15	0.94	---	---	---	---	---	---	---	---	---	SIGNAL POLE	TO CROSS PUSH BUTTON [RIGHT ARROW]	---
244	W12-1D	2 OF 6	2M	24 X 24	---	---	4	---	---	---	1	---	---	---	---	DOUBLE DOWN ARROWS	---
245	R1-2	2 OF 6	2M	48 X 42	7	---	---	---	---	---	---	---	1	---	---	YIELD	---
246	R4-7	2 OF 6	2M	24 X 30	5	---	---	---	---	---	---	---	---	---	SIGNAL POLE	KEEP RIGHT	---
247	R2-1	2 OF 6	2M	30 X 36	7.5	---	---	---	---	---	---	---	---	---	SIGNAL POLE	SPEED LIMIT ___ MPH	40 MPH
248	M1-94S	2 OF 6	2M	90 X 18	15	---	---	---	---	---	---	---	---	---	MONOTUBE ARM	OVERHEAD STREET NAME SIGN (WITH ROUTE SHIELD)	W BELOIT RD
249	M1-94S	2 OF 6	2M	90 X 18	15	---	---	---	---	---	---	---	---	---	MONOTUBE ARM	OVERHEAD STREET NAME SIGN (WITH ROUTE SHIELD)	W BELOIT RD
250	M1-94S	2 OF 6	2M	96 X 18	15	---	---	---	---	---	---	---	---	---	MONOTUBE ARM	OVERHEAD STREET NAME SIGN (WITH ROUTE SHIELD)	S MOORLAND RD
251	R1-1F	2 OF 6	2M	36 X 36	---	7.46	---	---	---	---	---	---	---	---	SIGNAL POLE	STOP (FOLDING)	---
252	M1-94S	2 OF 6	2M	96 X 18	15	---	---	---	---	---	---	---	---	---	MONOTUBE ARM	OVERHEAD STREET NAME SIGN (WITH ROUTE SHIELD)	S MOORLAND RD
253	R10-3ED	2 OF 6	2M	9 X 15	0.94	---	---	---	---	---	---	---	---	---	SIGNAL POLE	TO CROSS PUSH BUTTON [DOUBLE ARROW]	---
254	R3-8UL	2 OF 6	2M	36 X 30	7.5	---	---	---	---	---	---	---	---	---	SIGNAL POLE	U-TURN / LEFT / LEFT ONLY	---
255	R10-30	2 OF 6	2S	30 X 36	7.5	---	---	---	---	---	---	---	---	---	SIGNAL POLE	RIGHT TURN ON RED MUST YIELD TO U-TURN	---
SUBTOTAL					**175.21**	**59.68**	**20**	**0**	**2**	**0**	**5**	**1**	**3**	**2**			

ALL ITEMS CATEGORY 0010 UNLESS NOTED

PERMANENT SIGNING (CONT.)

SIGN #	SIGN CODE		SIGN SIZE	SIGN SIZE W IN.	X	H IN.	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	634.0618 POSTS WOOD 4X6-INCH X 18-FT EACH	SPV.0060.08 POSTS TUBULAR STEEL 1.75X1.75-INCH X 8-FT EACH	SPV.0060.10 POSTS TUBULAR STEEL 1.75X1.75-INCH X 11-FT EACH	SPV.0060.11 POSTS TUBULAR STEEL 1.75X1.75-INCH X 12-FT EACH	SPV.0060.12 POSTS TUBULAR STEEL 1.75X1.75-INCH X 14-FT EACH	SIGN MOUNTED ON SAME POST AS #	DESCRIPTION	NOTES
256	R10-30	2 OF 6	2S	30	X	36	7.5	---	---	---	---	---	---	---	---	---	SIGNAL POLE	RIGHT TURN ON RED MUST YIELD TO U-TURN	---
257	R10-2	2 OF 6	2M	9	X	12	0.75	---	---	---	---	---	---	---	---	---	SIGNAL POLE	CROSS ON WALK SIGNAL ONLY	---
258	R10-2	2 OF 6	2M	9	X	12	0.75	---	---	---	---	---	---	---	---	---	SIGNAL POLE	CROSS ON WALK SIGNAL ONLY	---
259	R3-50U	2 OF 6	2M	30	X	36	7.5	---	---	---	---	---	---	---	---	---	MONOTUBE ARM	LANE CONTROL SYMBOL - LEFT / U-TURN	---
260	R3-50L	2 OF 6	2M	30	X	36	7.5	---	---	---	---	---	---	---	---	---	MONOTUBE ARM	LANE CONTROL SYMBOL - LEFT ONLY	---
261	R10-3ED	2 OF 6	2M	9	X	15	0.94	---	---	---	---	---	---	---	---	---	SIGNAL POLE	TO CROSS PUSH BUTTON [DOUBLE ARROW]	---
300	R3-8LLAAAR	3 OF 6	2M	108	X	30	22.5	---	---	---	---	---	---	3	---	---	---	LT ONLY / LT ONLY / AHD ONLY / AHD ONLY / AHD ONLY / RT ONLY	---
301	R3-20L	3 OF 6	2M	24	X	36	6	---	---	---	---	---	---	---	1	---	---	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	---
302	J33-1	3 OF 6	2M	24	X	69	11.5	---	---	---	---	---	1	---	---	---	---	TRAILBLAZER DIRECTIONAL WITH CARDINAL	---
	MB4-1	3 OF 6	2M	24	X	12	---	---	---	---	---	---	---	---	---	---	---	ALTERNATE - BLUE	---
	MB3-2	3 OF 6	2M	24	X	12	---	---	---	---	---	---	---	---	---	---	---	EAST CARDINAL ROUTE MARKER	---
	M1-1	3 OF 6	2M	24	X	24	---	---	---	---	---	---	---	---	---	---	---	INTERSTATE SHIELD	IH 94
	MB6-1	3 OF 6	2M	21	X	21	---	---	---	---	---	---	---	---	---	---	---	ARROW - RIGHT, LEFT, OR AHEAD	---
303	R6-2R	3 OF 6	2M	30	X	36	7.5	---	---	---	---	---	---	---	1	---	---	ONE WAY RIGHT ARROW	---
400	W9-1R	4 OF 6	2S	36	X	36	---	---	9	---	---	---	---	---	1	---	---	RIGHT LANE ENDS	---
401	W16-2(MOD)	4 OF 6	2S	24	X	12	---	---	2	---	---	---	---	---	---	---	400	750 FT	---
M400	W4-2R	4 OF 6	2S	36	X	36	---	---	---	---	---	---	---	---	1	---	---	LANE REDUCTION TRANSITION SYMBOL - [RIGHT LANE]	---
M210	D9-13C	4 OF 6	2S	24	X	24	---	---	---	---	---	---	---	---	---	1	---	EMERGENCY MEDICAL CARE	---
	M5-1R	4 OF 6	2S	21	X	21	---	---	---	---	---	---	---	---	---	---	M210	ADVANCE ARROW RIGHT TURN	---
402	R3-8LLAARR	4 OF 6	2S	108	X	30	22.5	---	---	---	---	---	---	2	---	---	---	LT ONLY / LT ONLY / AHD ONLY / AHD ONLY / RT ONLY / RT ONLY	---
403	R3-20R	4 OF 6	2S	24	X	36	6	---	---	---	---	---	---	---	1	---	---	BEGIN RIGHT TURN LANE WITH DOWN LEFT ARROW	---
404	J3-1	4 OF 6	2S	24	X	57	9.5	---	---	---	1	---	---	---	---	---	---	DIRECTIONAL ASSEMBLY (1 HEADED ROUTE PANEL)	---
	M3-1	4 OF 6	2S	24	X	12	---	---	---	---	---	---	---	---	---	---	---	NORTH CARDINAL ROUTE MARKER	---
	M1-5A	4 OF 6	2S	24	X	24	---	---	---	---	---	---	---	---	---	---	---	COUNTY MARKER	CTH O
	M6-1	4 OF 6	2S	21	X	21	---	---	---	---	---	---	---	---	---	---	---	ARROW - RIGHT, LEFT, OR AHEAD	---
405	J3-1	4 OF 6	2S	24	X	57	9.5	---	---	---	1	---	---	---	---	---	---	DIRECTIONAL ASSEMBLY (1 HEADED ROUTE PANEL)	---
	M3-3	4 OF 6	2S	24	X	12	---	---	---	---	---	---	---	---	---	---	---	SOUTH CARDINAL ROUTE MARKER	---
	M1-5A	4 OF 6	2S	24	X	24	---	---	---	---	---	---	---	---	---	---	---	COUNTY MARKER	CTH O
	M6-1	4 OF 6	2S	21	X	21	---	---	---	---	---	---	---	---	---	---	---	ARROW - RIGHT, LEFT, OR AHEAD	---
406	R3-20L	4 OF 6	2S	24	X	36	6	---	---	---	---	---	---	---	1	---	---	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	---
407	J23-1	4 OF 6	2M	24	X	57	9.5	---	---	---	1	---	---	---	---	---	---	TRAILBLAZER (DIRECTIONAL)	---
	MB4-5	4 OF 6	2M	24	X	12	---	---	---	---	---	---	---	---	---	---	---	TO - BLUE	---
	M1-1	4 OF 6	2M	24	X	24	---	---	---	---	---	---	---	---	---	---	---	INTERSTATE SHIELD	IH 43
	MB6-1	4 OF 6	2M	21	X	21	---	---	---	---	---	---	---	---	---	---	---	ARROW - RIGHT, LEFT, OR AHEAD	---
500	R3-20L	5 OF 6	2M	24	X	36	6	---	---	---	---	---	---	---	1	---	---	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	---
501	J3-1	5 OF 6	2M	24	X	57	9.5	---	---	---	1	---	---	---	---	---	---	DIRECTIONAL ASSEMBLY (1 HEADED ROUTE PANEL)	---
	M3-1	5 OF 6	2M	24	X	12	---	---	---	---	---	---	---	---	---	---	---	NORTH CARDINAL ROUTE MARKER	---
	M1-5A	5 OF 6	2M	24	X	24	---	---	---	---	---	---	---	---	---	---	---	COUNTY MARKER	CTH O
	M6-1	5 OF 6	2M	21	X	21	---	---	---	---	---	---	---	---	---	---	---	ARROW - RIGHT, LEFT, OR AHEAD	---
502	R6-2R	5 OF 6	2M	30	X	36	7.5	---	---	---	---	---	---	---	1	---	---	ONE WAY RIGHT ARROW	---
503	R3-2	5 OF 6	2M	36	X	36	9	---	---	---	---	---	---	---	1	---	---	NO LEFT TURN SYMBOL	---
504	R4-7	5 OF 6	2M	24	X	30	5	---	---	---	---	---	---	1	---	---	---	KEEP RIGHT	---
505	R5-1	5 OF 6	2M	36	X	36	9	---	---	---	---	---	---	---	---	---	EXIST POST	DO NOT ENTER	---
506	J3-1	5 OF 6	2M	24	X	57	9.5	---	---	---	1	---	---	---	---	---	---	DIRECTIONAL ASSEMBLY (1 HEADED ROUTE PANEL)	---
	M3-3	5 OF 6	2M	24	X	12	2	---	---	---	---	---	---	---	---	---	---	SOUTH CARDINAL ROUTE MARKER	---
	M1-5A	5 OF 6	2M	24	X	24	4	---	---	---	---	---	---	---	---	---	---	COUNTY MARKER	CTH O
	M6-1	5 OF 6	2M	21	X	21	3.06	---	---	---	---	---	---	---	---	---	---	ARROW - RIGHT, LEFT, OR AHEAD	---
507	W9-1R	5 OF 6	2M	36	X	36	---	---	9	---	---	---	---	---	1	---	---	RIGHT LANE ENDS	---
508	W16-2(MOD)	5 OF 6	2M	24	X	12	---	---	2	---	---	---	---	---	---	---	507	750 FT	---
509	R3-2	5 OF 6	2M	36	X	36	9	---	---	---	---	---	---	---	1	---	---	NO LEFT TURN SYMBOL	---
SUBTOTAL							**209**	**0**	**22**	**0**	**5**	**1**	**0**	**6**	**11**	**1**			

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

PERMANENT SIGNING (CONT.)

SIGN #	SIGN CODE		SIGN SIZE	SIGN SIZE W IN. X H IN.	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	634.0618 POSTS WOOD 4X6-INCH X 18-FT EACH	SPV.0060.08 POSTS TUBULAR STEEL 1.75X1.75-INCH X 8-FT EACH	SPV.0060.10 POSTS TUBULAR STEEL 1.75X1.75-INCH X 11-FT EACH	SPV.0060.11 POSTS TUBULAR STEEL 1.75X1.75-INCH X 12-FT EACH	SPV.0060.12 POSTS TUBULAR STEEL 1.75X1.75-INCH X 14-FT EACH	SIGN MOUNTED ON SAME POST AS #	DESCRIPTION	NOTES
510	R3-8LLAF	5 OF 6	2M	72 X 30	15	---	---	---	---	---	---	2	---	---	---	LT ONLY / LT ONLY / AHEAD ONLY / AHEAD / RIGHT	---
511	R5-1	5 OF 6	2M	36 X 36	9	---	---	---	---	---	---	---	1	---	---	DO NOT ENTER	---
512	R6-2R	5 OF 6	2M	30 X 36	7.5	---	---	---	---	---	---	---	1	---	---	ONE WAY RIGHT ARROW	---
513	J23-1	5 OF 6	2M	24 X 57	9.5	---	---	---	1	---	---	---	---	---	---	TRAILBLAZER (DIRECTIONAL)	---
	MB4-5	5 OF 6	2M	24 X 12	---	---	---	---	---	---	---	---	---	---	---	TO - BLUE	---
	M1-1	5 OF 6	2M	24 X 24	---	---	---	---	---	---	---	---	---	---	---	INTERSTATE SHIELD	IH 43
	MB6-1	5 OF 6	2M	21 X 21	---	---	---	---	---	---	---	---	---	---	---	ARROW - RIGHT, LEFT, OR AHEAD	---
600	R5-1A	6 OF 6	2M	42 X 30	8.75	---	---	---	---	---	---	2	---	---	---	WRONG WAY	---
601	W4-2R	6 OF 6	2M	36 X 36	---	---	9	---	---	---	---	---	1	---	---	LANE REDUCTION TRANSITION SYMBOL - [RIGHT LANE]	---
602	R5-1	6 OF 6	2M	36 X 36	9	---	---	---	---	---	---	---	---	---	601 (BACK)	DO NOT ENTER	---
603	R5-1	6 OF 6	2M	36 X 36	9	---	---	---	---	---	---	---	1	---	---	DO NOT ENTER	---
SUBTOTAL					**67.75**	**0**	**9**	**0**	**1**	**0**	**0**	**4**	**4**	**0**			
PROJECT TOTAL					**602.09**	**89.52**	**85**	**2**	**10**	**3**	**6**	**21**	**23**	**10**			

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

TRAFFIC CONTROL

STAGE	* DURATION DAYS	643.5000 TRAFFIC CONTROL ID 2782-03-76 EACH	643.0300 TRAFFIC CONTROL DRUMS * DRUMS	DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III * BARRICADES	DAYS	643.0500 FLEXIBLE TUBULAR MARKERS POSTS EACH	643.0600 BASES EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A * LIGHTS	DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C * LIGHTS	DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS * BOARDS	DAYS	643.0900 TRAFFIC CONTROL SIGNS * SIGNS	DAYS	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II * CYCLES	EACH	** 643.1050 TRAFFIC CONTROL SIGNS PCMS * SIGNS	DAYS
STAGE 1	23	---	231	5,313	42	966	---	---	84	1,932	24	552	1	23	105	2,415	1	4	4***	28
STAGE 2A	14	---	253	3,542	39	546	24	24	78	1,092	28	392	1	14	114	1,596	1	3	4***	28
STAGE 2B	14	---	256	3,584	38	532	---	---	76	1,064	28	392	1	14	111	1,554	---	---	---	---
STAGE 2C	7	---	268	1,876	40	280	0	0	80	560	28	196	1	7	119	833	---	---	4***	28
STAGE 2D	7	---	312	2,184	43	301	0	0	86	602	42	294	1	7	124	868	---	---		
STAGE 3	14	---	253	3,542	41	574	---	---	82	1,148	23	322	1	14	97	1,358	---	---	4***	28
STAGE 4A	10	---	218	2,180	26	260	23	23	52	520	35	350	1	10	100	1,000	---	---	4***	28
STAGE 4B	15	---	218	3,270	27	405	---	---	54	810	34	510	1	15	99	1,485	---	---	---	---
STAGE 4C	7	---	242	1,694	28	196	---	---	56	392	36	252	1	7	105	735	---	---	4***	28
STAGE 4D	7	---	275	1,925	30	210	---	---	60	420	28	196	1	7	109	763	---	---		
STAGE 5A	28	---	293	8,204	26	728	---	---	52	1,456	25	700	1	28	106	2,968	1	1	4***	28
STAGE 5B	7	---	285	1,995	63	441	63	63	126	882	25	175	1	7	175	1,225	1	1	4***	28
CTH O ALTERNATE ROUTE	153	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0	---	---	---	---
CTH I ALTERNATE ROUTE	153	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0	---	---	---	---
STAGE 2C DETOUR	14	---	---	---	---	---	---	---	---	---	---	---	---	---	196	2,744	---	---	---	---
STAGE 2D DETOUR	7	---	---	---	---	---	---	---	---	---	---	---	---	---	307	2,149	---	---	---	---
STAGE 4C DETOUR	14	---	---	---	---	---	---	---	---	---	---	---	---	---	312	4,368	---	---	---	---
STAGE 4D DETOUR	7	---	---	---	---	---	---	---	---	---	---	---	---	---	64	448	---	---	---	---
STAGE 5B DETOUR	7	---	---	---	---	---	---	---	---	---	---	---	---	---	191	1,337	---	---	---	---
STAGE 2A PEDESTRIAN DETOUR	14	---	---	---	---	---	---	---	---	---	---	---	---	---	7	98	---	---	---	---
STAGE 2B PEDESTRIAN DETOUR	7	---	---	---	---	---	---	---	---	---	---	---	---	---	8	56	---	---	---	---
STAGE 2C PEDESTRIAN DETOUR	14	---	---	---	---	---	---	---	---	---	---	---	---	---	7	98	---	---	---	---
STAGE 2D PEDESTRIAN DETOUR	7	---	---	---	---	---	---	---	---	---	---	---	---	---	7	49	---	---	---	---
PROJECT TOTALS		1	---	39,309	---	5,439	110	110	---	10,878	---	4,331	---	153	---	28,147		9		224

*FOR INFORMATION ONLY

*** ONE PCMS SIGN ON EACH LEG OF CTH O/CTH I INTERSECTION FOR 7 DAYS PRIOR TO TRAFFIC SHIFTS

TRAFFIC CONTROL FIXED MESSAGE SIGNS

SIGN NUMBER	SIGN SIZE			643.1000 SF
1	10'-6"	X	4'-6"	48
2	10'-6"	X	4'-6"	48
3	6'-6"	X	3'-0"	20
4	6'-6"	X	3'-0"	20
5	6'-6"	X	3'-0"	20
6	6'-6"	X	3'-0"	20
7	4'-6"	X	2'-0"	9
8	4'-6"	X	3'-6"	16
9	6'-6"	X	3'-0"	20
10	4'-6"	X	3'-0"	14
PROJECT TOTAL				235

ALL ITEMS CATEGORY 0010 UNLESS NOTED

TEMPORARY PEDESTRIAN ACCOMODATIONS

STAGE	644.1420 TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF	644.1601 TEMPORARY CURB RAMP * EACH	DAYS	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF
STAGE 1	---	---	---	---
STAGE 2A	---	---	---	95
STAGE 2B	---	---	---	160
STAGE 2C	---	---	---	---
STAGE 2D	---	---	---	---
STAGE 3	---	---	---	---
STAGE 4A	60	1	10	995
STAGE 4B	30	1	15	445
STAGE 4C	---	1	7	290
STAGE 4D	---	---	---	---
STAGE 5A	---	---	---	---
STAGE 5B	---	---	---	---
PROJECT TOTALS	90		32	1,985

* FOR INFORMATION ONLY

GEOGRID TYPE SR

LOCATION	645.0220 SY
EBS AREAS	2,400
PROJECT TOTALS	2,400

TO BE PLACED AT DIRECTION OF ENGINEER
IN EBS AREAS TO LIMIT EBS DEPTH

PAVEMENT MARKING ITEMS

ROADWAY	STATION		STATION	646.1020 MARKING LINE EPOXY 4-INCH WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF	646.3020 MARKING LINE EPOXY 8-INCH WHITE LF	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH WHITE LF	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH YELLOW LF	646.4620 MARKING LINE SAME DAY EPOXY 8-INCH WHITE LF	646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.6220 MARKING YIELD LINE EPOXY 18-INCH EACH	646.7120 MARKING DIAGONAL EPOXY 12-INCH WHITE LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH YELLOW LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.8120 MARKING CURB EPOXY LF	646.8220 MARKING ISLAND NOSE EPOXY EACH
CTH O	0+00	-	1+00	20	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1+00	-	7+00	210	195	145	---	---	---	---	---	---	---	---	60	---	---	---
	7+00	-	13+00	180	240	1,225	250	495	345	6	---	---	15	15	---	105	10	1
	13+00	-	19+00	660	730	1,535	---	---	---	10	6	120	---	130	---	460	20	2
	19+00	-	25+00	390	575	735	---	---	---	4	1	125	---	---	---	350	5	1
	25+00	-	31+00	675	---	110	---	---	---	---	---	---	---	120	---	---	---	---
	31+00	-	37+00	330	---	---	---	---	---	---	---	---	---	65	---	---	---	---
	CTH O TOTAL			2,465	1,740	3,750	250	495	345	20	7	245	15	330	60	915	35	4
CTH I	88+00	-	92+50	420	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	92+50	-	98+25	230	---	610	---	---	---	6	---	25	---	---	---	125	---	---
	98+25	-	101+75	105	185	685	---	---	---	7	5	135	---	15	---	475	20	2
	101+75	-	107+50	240	775	755	---	---	---	5	1	---	---	---	---	---	10	1
	107+50	-	EAST LIMITS	585	---	300	---	---	---	3	1	---	---	---	---	---	---	---
	CTH I TOTAL			1,580	960	2,350	0	0	0	21	7	160	0	15	0	600	30	3
	PROJECT TOTAL			6,745		6,100	745		345	41	14	405	15	405		1,515	65	7

ALL ITEMS CATEGORY 0010 UNLESS NOTED

PAVEMENT MARKING REMOVALS

ROADWAY	STATION		STATION	646.9000 LINE 4-INCH LF	646.9010 LINE WATER BLASTING 4-INCH LF	646.9100 LINE 8-INCH LF	646.9110 MARKING REMOVAL LINE WATER BLASTING 8-INCH LF	646.9210 LINE WATER BLASTING WIDE LF	646.9300 SPECIAL MARKING EACH	646.9310 SPECIAL MARKING WATER BLASTING EACH
CTH O	0+00	-	1+00	---	20	---	---	---	---	---
	1+00	-	7+00	---	250	---	255	60	---	---
	7+00	-	13+00	705	135	250	835	15	8	--
	13+00	-	19+00	690	295	320	120	---	---	---
	19+00	-	25+00	---	965	---	785	---	---	7
	25+00	-	31+00	---	660	---	---	120	---	---
	31+00	-	37+00	---	335	---	---	65	---	---
	CTH O TOTAL			1,395	2,660	570	1,995	260	8	7
CTH I	88+00	-	92+50	---	---	---	95	---	---	---
	92+50	-	98+25	---	485	---	1035	355	---	6
	98+25	-	101+75	---	170	---	1055	160	---	12
	101+75	-	107+50	---	795	---	550	300	---	9
	107+50	-	EAST LIMITS	---	810	---	75	35	---	6
	CTH I TOTAL			0	2,260	0	2,810	850	0	33
	PROJECT TOTAL			1,395	4,920	570	4,805	1,110	8	40

TEMPORARY PAVEMENT MARKINGS

STAGE	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH YELLOW LF	649.0250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH WHITE LF	649.0850 TEMPORARY MARKING LINE REMOVABLE TAPE STOP LINE 18-INCH WHITE LF
STAGE 1	2150	4400	895	45
STAGE 2A	3510	750	1450	90
STAGE 2B	140	---	---	---
STAGE 2C	350	425	---	15
STAGE 2D	1070	1150	---	15
STAGE 3	2370	2460	1420	---
STAGE 4A	4330	680	560	40
STAGE 4B	---	---	---	---
STAGE 4C	560	680	45	25
STAGE 4D	2060	1240	---	35
STAGE 5A	2430	4540	1660	---
STAGE 5B	100	1700	---	---
PROJECT TOTALS	19,070	18,025	6,030	265
	37,095			

CONSTRUCTION STAKING ITEMS*

LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.5500 CURB & GUTTER LF	650.7000 CONCRETE PAVEMENT LF	650.8500.01 ** ELECTRICAL INSTALLATIONS LS	650.9000 CURB RAMPS EACH	650.9910.01 SUPPLEMENTAL CONTROL LS	650.9920 SLOPE STAKES LF	SPV.0165.01 SIDEWALK SF
ID 2782-03-76	---	---	---	---	1	---	1	---	---
CTH O	2,080	550	1,330	970	---	24	---	1,050	3,505
CTH I	1,155	820	980	305	---	---	---	865	2,820
PROJECT TOTALS	3,235	1,370	2,310	1,275	1	24	1	1,915	6,325

*ADDITIONAL STAKING ITEMS SHOWN ELSEWHERE
**CATEGORY 0030. ALL OTHER ITEMS CATEGORY 0010

ALL ITEMS CATEGORY 0010 UNLESS NOTED

CATEGORY 0020
LIGHTING UNIT QUANTITIES

204.0195 REMOVING CONCRETE BASES
654.0107 CONCRETE BASES TYPE 7
SPV.0060.01 REMOVING AND STORING LIGHTING UNITS
SPV.0060.02 REINSTALLING LIGHTING UNITS

SYSTEM	LABEL	LUMINAIRE VOLTAGE	204.0195 REMOVING CONCRETE BASES EACH	654.0107 CONCRETE BASES TYPE 7 EACH	SPV.0060.01 REMOVING AND STORING LIGHTING UNITS EACH	SPV.0060.02 REINSTALLING LIGHTING UNITS EACH
NB	CNB6/DNB6	240 VAC	1	1	1	1
NB	CNB7/DNB7	240 VAC	1	1	1	1
NB	CNB8/DNB8	240 VAC	1	1	1	1
		TOTALS	3	3	3	3

CATEGORY 0020
LIGHTING BRANCH CIRCUIT CONDUIT

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH

SYSTEM	LOCATION TO LOCATION	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF
NB	LPB202 TO CNB6/DNB6	50
NB	CNB6/DNB6 TO CNB7/DNB7	188
NB	CNB7/DNB7 TO CNB8/DNB8	175
	TOTAL	413

CATEGORY 0020
LIGHTING BRANCH CIRCUIT WIRE QUANTITIES

655.0620 ELECTRICAL WIRING LIGHTING 8 AWG

SYSTEM	NETWORK	LOCATION TO LOCATION	DISTANCE	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF
NB	C/N/D/GND	DNB1 TO LPB202 TO CNB6/DNB6	240	1,024
NB	C/N/D/GND	CNB6/DNB6 TO CNB7/DNB7	188	792
NB	C/N/D/GND	CNB7/DNB7 TO CNB8/DNB8	175	740
		TOTAL		2,556

3

TRAFFIC SIGNAL CONDUIT

CATEGORY 0030

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF
CB1	PB1	-	75
PB1	PB2	-	84
PB2	PB23	-	54
PB2	SB22	4	-
PB2	PB3	-	180
PB3	SB1	12	-
PB3	PB4	-	129
PB4	SB2	-	10
PB4	PB8	-	66
PB8	PB5	45	-
PB5	SB4	15	-
PB5	PB6	118	-
PB6	PB7	166	-
PB8	SB3	8	-
PB8	PB9	-	96
PB9	SB7	-	9
PB9	PB10	-	71
PB10	SB5	5	-
PB10	SB6	5	-
PB9	PB11	-	176
PB11	SB8	-	7
PB11	SB9	9	-
PB11	PB13	-	44
PB13	SB11	12	-
PB13	PB12	-	45
PB12	SB10	15	-
PB13	PB14	-	120
PB14	SB12	10	-
PB14	PB15	Existing Remains	-
PB15	SB13	Existing Remains	-
PB14	PB16	-	82
PB16	SB14	-	10
PB16	PB17	-	132
PB17	PB18	33	-
PB18	SB15	5	-
PB18	PB19	116	-
PB19	PB20	177	-
PB17	PB21	-	72
PB21	SB16	8	-
PB21	PB22	-	141
SUBTOTALS		763	1,603

TRAFFIC SIGNAL CONDUIT, CONTINUED

CATEGORY 0030

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF
PB22	SB17	-	8
PB22	PB23	-	210
PB1	PB24	-	67
PB24	SB21	-	17
PB24	PB25	-	43
PB25	SB18	11	-
PB25	PB26	127	-
PB26	SB19	3	-
PB1	PB27	18	-
PB27	SB23	6	-
PB27	PB28	188	-
PB28	SB24	8	-
	TOTALS	1,887	3,551

PULL BOXES

CATEGORY 0030

PULLBOX NO.	STATION	LOCATION	653.0135 PULL BOXES STEEL 24X36-INCH EACH	653.0140 PULL BOXES STEEL 24X42-INCH EACH
PB1	16+69	100' RT	-	1
PB2	16+50	75' RT	-	1
PB3	15+90	84' RT	-	1
PB4	15+50	69' RT	-	1
PB5	14+85	73' RT	1	-
PB6	13+70	67' RT	1	-
PB7	12+03	67' RT	1	-
PB8	15+32	58.5' RT	-	1
PB9	15+32	10.6' RT	-	1
PB10	14+65	11' LT	-	1
PB11	15+32	77' LT	-	1
PB12	14+94	109' LT	-	1
PB13	15+36	100' LT	-	1
PB14	15+98	113' LT	-	1
PB15	97+68	16' LT	REMAIN	-
PB16	16+35	110' LT	-	1
PB17	16+70	82' LT	-	1
PB18	17+02	69' LT	1	-
PB19	18+10	67' LT	1	-
PB20	19+87	67' LT	1	-
PB21	16+49	56' LT	-	1
PB22	16+64	10.6' LT	-	1
PB23	16+60	59' RT	-	1
PB24	17+20	55' RT	-	1
PB25	17+20	11' RT	-	1
PB26	18+30	11' RT	1	-
PB27	101+10	63' LT	1	-
PB28	102+72	46' LT	1	-
PB29	104+62	43' LT	1	-
	TOTALS		10	18

3

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

TRAFFIC SIGNAL BASES

CATEGORY 0030

BASE NO.	STATION	LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0105 CONCRETE BASES TYPE 5 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0113 CONCRETE BASES TYPE 13 EACH	654.0217 CONCRETE CONTROL CABINET BASE TYPE 9 SPECIAL EACH
CB1	101+26.11	68.8' LT	-	-	-	-	-	1
SB1	100+95.04	8.6' RT	1	-	-	-	-	-
SB2	15+48.99	60.02' RT	-	-	-	-	1	-
SB3	15+40.10	56.33' RT	1	-	-	-	-	-
SB4	15+02.75	77.81' RT	-	-	1	-	-	-
SB5	14+57.77	11.1' LT	1	-	-	-	-	-
SB6	14+67.77	11.1' LT	1	-	-	-	-	-
SB7	15+40.69	10.6' RT	-	-	-	1	-	-
SB8	99+18.35	49.21' RT	-	-	-	-	1	-
SB9	99+16.35	41.00' RT	1	-	-	-	-	-
SB10	98.79.98	96.5' RT	-	1	-	-	-	-
SB11	99+00.93	46.49' RT	1	-	-	-	-	-
SB12	98+99.28	17.2' LT	1	-	-	-	-	-
SB13	97+64.04	17.1' LT	-	-	-	REMAIN	-	-
SB14	99+09.78	59.0' LT	-	-	-	-	1	-
SB15	16+96.53	74.1' LT	-	-	1	-	-	-
SB16	99+50.00	66.0' LT	1	-	-	-	-	-
SB17	16+56.60	10.6' LT	-	-	-	1	-	-
SB18	17+33.50	11.0' RT	1	-	-	-	-	-
SB19	18+35.76	11.0' RT	-	-	1	-	-	-
SB20	20+03.00	3.0' LT	-	-	1	-	-	-
SB21	17+03.17	56.9' RT	-	-	-	-	1	-
SB22	100+74.95	52.6' RT	1	-	-	-	-	-
SB23	101+06.84	66.1' RT	-	-	1	-	-	-
SB24	102+82.00	49.0' LT	-	-	1	-	-	-
	TOTALS		10	1	6	2	4	1

3

TRAFFIC SIGNAL CABLE

CATEGORY 0030

FROM	TO	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG LF
CB1	SB1	142	-
CB1	SB2	-	259
CB1	SB3	233	-
CB1	SB4	-	-
CB1	SB5	382	-
CB1	SB6	382	-
CB1	SB7	-	318
CB1	SB8	-	454
CB1	SB9	400	-
CB1	SB10	506	-
CB1	SB11	443	-
CB1	SB12	366	-
CB1	SB13	-	-
CB1	SB14	386	-
CB1	SB15	-	-
CB1	SB16	-	255
CB1	SB17	-	229
CB1	SB18	223	-
CB1	SB19	-	-
CB1	SB20	-	-
CB1	SB21	227	-
CB1	SB22	-	134
CB1	SB23	-	-
CB1	SB24	-	-
	TOTALS	3,690	1,649

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

SIGNAL WIRE

CATEGORY 0030

FROM	TO	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
CB1	SB1	178
SB1	SB2	95
SB2	SB3	70
SB3	SB4	-
SB3	SB5	177
SB5	SB6	25
SB6	SB7	115
SB7	SB8	134
SB8	SB9	31
SB9	SB10	136
SB10	SB11	102
SB11	SB12	110
SB12	SB13	-
SB12	SB14	87
SB14	SB15	-
SB14	SB16	175
SB16	SB17	46
SB17	SB22	145
SB22	SB23	-
SB22	SB18	213
SB18	SB19	-
SB18	SB21	101
SB21	SB23	-
SB21	CB1	147
	TOTALS	2,087

WIRING

CATEGORY 0030

FROM	TO	655.0320 CABLE TYPE UF 2-10 AWG GROUNDED LF	655.0610 ELECTRICAL WIRE LIGHTING 12-AWG LF
CB1	SB2	325	-
SB2	LUMINAIRE	-	145
SB2	SB4	123	-
SB4	LUMINAIRE	-	123
SB2	SB7	117	-
SB7	LUMINAIRE	-	253
SB7	SB8	99	-
SB8	LUMINAIRE	-	145
CB1	SB17	189	-
SB17	LUMINAIRE	-	253
SB17	SB14	194	-
SB14	LUMINAIRE	-	145
SB14	SB13	219	-
SB13	LUMINAIRE	-	Existing to Remain
SB14	SB15	138	-
SB15	LUMINAIRE	-	123
CB1	SB21	152	-
SB21	LUMINAIRE	-	145
SB21	SB19	247	-
SB19	LUMINAIRE	-	253
CB1	SB23	60	-
SB23	LUMINAIRE	-	123
SB23	SB24	169	-
SB24	LUMINAIRE	-	123
	TOTALS	2,032	1,831

LOOP DETECTORS

CATEGORY 0030

LOOP NO.	HOME RUN PB	STATION *	OFFSET *	SIZE	NO. OF TURNS	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR LF	655.0700 LOOP DETECTOR LEAD IN CABLE LF	655.0800 LOOP DETECTOR WIRE LF
21	PB20	19+87	30' LT	6' X 32'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL BOX OFF ROADWAY (OPTION 2)	96	546	260
41	PB29	104+62	30' LT	6' X 16'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL BOX OFF ROADWAY (OPTION 2)	64	404	164
61	PB7	12+02	35' RT	6' X 32'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL BOX OFF ROADWAY (OPTION 2)	112	515	276
83	PB13	98+68	63' RT	6' X 30'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL BOX OFF ROADWAY (OPTION 2)	140	363	296
84	PB13	98+93	72' RT	10' X 15'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL BOX OFF ROADWAY (OPTION 2)	102	363	214
85	PB13	98+71	50' RT	6' X 30'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL BOX OFF ROADWAY (OPTION 2)	118	363	274
86	PB13	98+98	58' RT	10' X 15'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL BOX OFF ROADWAY (OPTION 2)	76	363	188
						TOTALS	708	2,917	1,672

* AT DETECTOR LOOP'S FRONT-CENTER LOCATION

ALL ITEMS CATEGORY 0010 UNLESS NOTED

CATEGORY 0030

SIGNAL BASE NO.	657.0100 PEDESTAL BASES EA	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EA	657.0315 POLES TYPE 4 EA	657.0322 POLES TYPE 5 ALUMINUM EA	657.0350 POLES TYPE 10 EA	657.0360 POLES TYPE 13 EA	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EA	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EA	658.0500 PEDESTRIAN PUSH BUTTON EA	657.0520 MONOTUBE ARMS 20-FT EA	657.0535 MONOTUBE ARMS 35-FT EA	657.0550 MONOTUBE ARMS 50-FT EA	657.0555 MONOTUBE ARMS 55-FT EA	657.0810 LUMINAIRE ARM STEEL 10-FT EA	659.1125 LUMINAIRES UTILITY LED C EA	SPV.0060.01 REMOVING AND STORING LIGHTING UNITS EA	SPV.0060.02 REINSTALLING LIGHTING UNITS EA
SB1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
SB2	-	-	-	-	-	1	-	-	1	-	-	-	1	1	1	-	-
SB3	1	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
SB4	-	1	-	1	-	-	-	-	-	-	-	-	-	1	1	-	-
SB5	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
SB6	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
SB7	-	-	-	-	1	-	-	-	1	1	-	-	-	2	2	-	-
SB8	-	-	-	-	-	1	-	-	1	-	-	1	-	1	1	-	-
SB9	1	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
SB10	1	1	1	-	-	-	-	1	1	-	-	-	-	1	1	-	-
SB11	1	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-
SB12	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
SB13	-	EXISTING TO REMAIN	EXISTING TO REMAIN	-	-	-	-	-	-	-	-	-	-	EXISTING TO REMAIN	EXISTING TO REMAIN	-	-
SB14	-	-	-	-	-	1	-	-	-	-	-	-	1	1	1	-	-
SB15	-	1	-	1	-	-	-	-	-	-	-	-	-	1	1	-	-
SB16	1	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-
SB17	-	-	-	-	1	-	-	-	1	1	-	-	-	2	2	-	-
SB18	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
SB19	-	1	-	1	-	-	-	-	-	-	-	-	-	2	2	-	-
SB20	-	REINSTALL EXISTING	REINSTALL EXISTING	-	-	-	-	-	-	-	-	-	-	REINSTALL EXISTING	REINSTALL EXISTING	1	1
SB21	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-
SB22	1	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-
SB23	-	1	-	1	-	-	-	-	-	-	-	-	-	1	1	-	-
SB24	-	RELOCATE EXISTING	RELOCATE EXISTING	-	-	-	-	-	-	-	-	-	-	RELOCATE EXISTING	RELOCATE EXISTING	1	1
TOTALS	11	5	1	4	2	4	7	4	12	2	1	1	2	13	13	2	2

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

TRAFFIC SIGNAL FACES

CATEGORY 0030

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EA	658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EA	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EA
1	SB3	1	-	-
2	SB21	1	-	-
3	SB21	1	-	-
4	SB21	1	-	-
5	SB5	1	-	-
6	SB17	1	-	-
7	SB17	1	-	-
8	SB16	1	-	-
9	SB8	1	-	-
10	SB8	1	-	-
11	SB8	1	-	-
12	SB18	1	-	-
13	SB7	1	-	-
14	SB7	1	-	-
15	SB22	1	-	-
16	SB14	1	-	-
17	SB14	1	-	-
18	SB1	1	-	-
19	SB14	1	-	-
20	SB14	1	-	-
21	SB9	1	-	-
22	SB2	1	-	-
23	SB2	1	-	-
24	SB12	1	-	-
25	SB2	1	-	-
26	SB2	1	-	-
27	SB10	-	1	-
28	SB11	-	1	-
29	SB6	-	1	-
30	SB5	-	1	-
31	SB3	-	-	1
32	SB7	-	-	1
33	SB7	-	-	1
34	SB8	-	-	1
35	SB10	-	-	1
36	SB11	-	-	1
37	SB9	-	-	1
38	SB16	-	-	1
39	SB16	-	-	1
40	SB17	-	-	1
41	SB17	-	-	1
42	SB22	-	-	1
43	SB22	-	-	1
44	SB2	-	-	1
	TOTALS	26	4	14

ELECTRICAL SERVICE METER BREAKER PEDESTAL (CTH O & CTH I)

CATEOGRY 0030

LOCATION	656.0200.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL (CTH O & CTH I) LS
CTH O & CTH I	1
TOTAL	1

SIGNAL MOUNTING HARDWARE INTERSECTION OF CTH O & CTH I

CATEGORY 003

LOCATION	658.5069.01 SIGNAL MOUNTING HARDWARE LS
CTH O & CTH I	1
TOTAL	1

TRAFFIC SIGNAL CONTROLLER AND CABINET (CTH O & CTH I)

CATEGORY 0030

LOCATION	SPV.0060.07 TRAFFIC SIGNAL CONTROLLER AND CABINET (CTH O & CTH I) EACH
CB1	1
TOTAL	1

ALL ITEMS CATEGORY 0010 UNLESS NOTED

EVP DETECTOR CABLE

CATEGORY 0030

FROM	TO	655.0210 CABLE TRAFFIC SIGNAL 3-14 AWG LF	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE LF
CB1	SB8 (HEAD A)	501	501
CB1	SB21 (HEAD B)	227	227
CB1	SB14 (HEAD C)	440	440
CB1	SB2 (HEAD D)	299	299
TOTALS		1,467	1,467

TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS

CATEGORY 0030

LOCATION	661.0200.01 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (CTH O & CTH I) LS
CTH O & CTH I	1
TOTAL	1

SAWING

STAGE	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
STAGE 1	---	1365
STAGE 2	485	285
STAGE 3	120	---
STAGE 4	335	185
STAGE 5	430	10
PROJECT TOTALS	1,370	1,845

UTILITY LINE OPENING

LOCATION	SPV.0060.03 EACH
UNDISTRIBUTED	10
PROJECT TOTALS	10

TO BE USED AT DIRECTION OF ENGINEER

VEHICLE VIDEO DETECTION SYSTEM

CATEGORY 0030

LOCATION	SPV.0105.01 VIDEO DETECTION SYSTEM (CTH O & CTH I) LS
CTH O-CTH I	1
TOTAL	1

VIDEO CAMERA NUMBER	SIGNAL BASE NO.
V1	SB7
V2	SB17
V3	SB14
V4	SB2

TEMPORARY VEHICLE DETECTION

CATEGORY 0030

LOCATION	SPV.0105.02 TEMPORARY VEHICLE DETECTION (CTH O & CTH I) LS
CTH O & CTH I	1
TOTAL	1

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

ADJUSTING SANITARY MANHOLES

CATEGORY 0040

ROADWAY	STATION	OFFSET	SPV.0060.13 EACH
CTH O	15+22	64' LT	1
	16+99	62' LT	1
	CTH O TOTAL		2
	PROJECT TOTALS		2

WATER MAIN ADJUSTMENTS

CATEGORY 0040

ROADWAY	STATION	OFFSET	612.0902.S.01 INSULATION BOARD POLYSTYRENE 2-INCH SY	SPV.0060.14 ADJUSTING WATER VALVE BOXES EACH
CTH O	11+52	74' LT	---	1
	13+34	72' LT	---	1
	16+10	94' LT	---	1
	16+18	102' LT	---	1
	CTH O TOTAL		---	4
	UNDISTRIBUTED		15	---
	PROJECT TOTALS		15	4

REINSTALL COUNTY-FURNISHED TEMPORARY EVP EQUIPMENT

CATEGORY 0030

LOCATION	SPV.0105.03 REINSTALL COUNTY-FURNISHED TEMPORARY EVP EQUIPMENT (CTH O & CTH I) LS
CTH O & CTH I	1
TOTAL	1

3

REMOVE & REINSTALL COUNTY-FURNISHED EVP EQUIPMENT

CATEGORY 0030

LOCATION	SPV.0105.04 REMOVE & REINSTALL COUNTY-FURNISHED EVP EQUIPMENT (CTH O & CTH I) LS
CTH O & CTH I	1
TOTAL	1

REINSTALL COUNTY-FURNISHED TEMPORARY WIRELESS COMMUNICATION EQUIPMENT

CATEGORY 0030

LOCATION	SPV.0105.05 REINSTALL COUNTY-FURNISHED TEMPORARY WIRELESS COMMUNICATION EQUIPMENT (CTH O & CTH I) LS
CTH O & CTH I	1
TOTAL	1

REMOVE & REINSTALL COUNTY-FURNISHED WIRELESS COMMUNICATION EQUIPMENT

CATEGORY 0030

LOCATION	SPV.0105.06 REMOVE & REINSTALL COUNTY-FURNISHED WIRELESS COMMUNICATION EQUIPMENT (CTH O & CTH I) LS
CTH O & CTH I	1
TOTAL	1

REMOVE AND REINSTALL OVERHEAD SIGN SUPPORT

LOCATION	SPV.0105.01 LS
10+92 CTH O	1
PROJECT TOTALS	1

PROOF ROLLING

LOCATION	SPV.0170.01 STA
CTH O	14
CTH I	9
PROJECT TOTALS	23

ALL ITEMS CATEGORY 0010 UNLESS NOTED

R/W PROJECT NUMBER 2782-03-06	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT NUMBER	4.1	

PLAT OF RIGHT OF WAY REQUIRED FOR

IH-43 WB RAMP TO BELOIT ROAD

C.T.H "O" — WAUKESHA CO.

CONSTRUCTION PROJECT NUMBER 2782-03-76

4

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE
LOT, TIE, AND OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)
TEMP. LIMITED EASEMENT AREA
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
BUILDING (TO BE REMOVED)
BRIDGE

PARCEL NUMBER (25)
UTILITY NUMBER (40)
SECTION CORNER
NOTATION FOR COMBUSTABLE FLUIDS
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES
R/W MONUMENT
NON-MONUMENTED R/W POINT
FOUND IRON PIN
VALVE (GAS, WATER, ETC.)
SIGN
OFF-PREMISE SIGN
PARALLEL OFFSETS

ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT

CONVENTIONAL ABBREVIATIONS

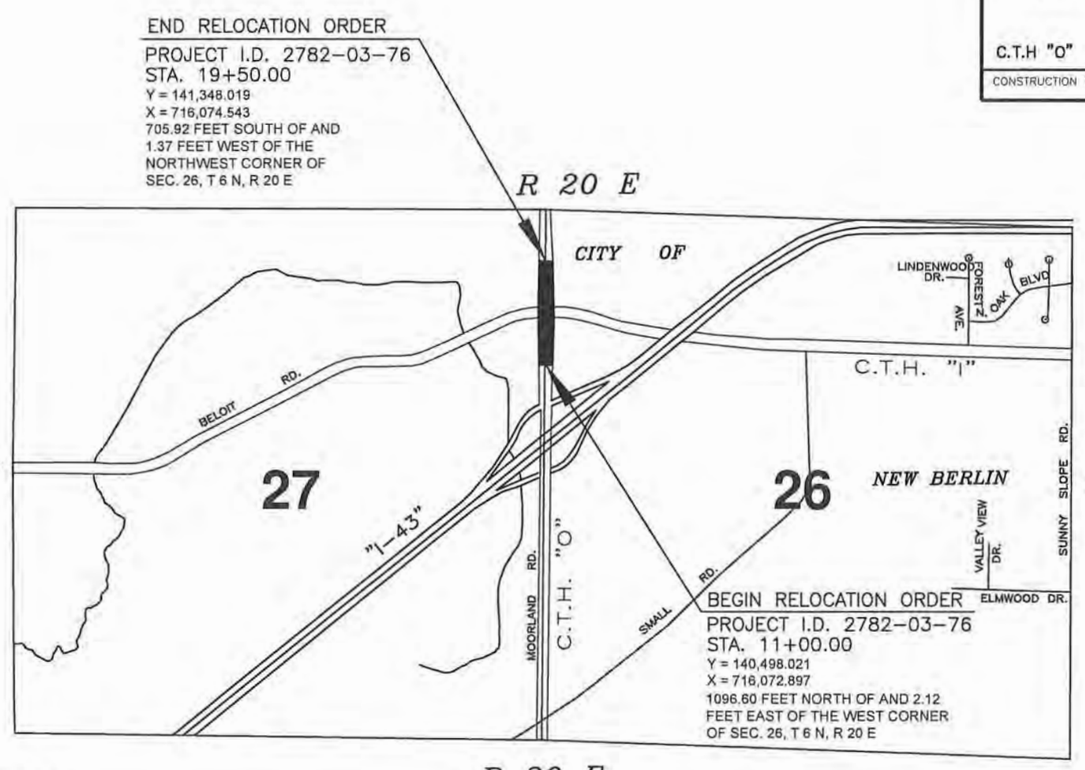
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RIGHT	RT
CENTERLINE	C/L	RIGHT OF WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC
CONCRETE	CONC	SEPTIC VENT	SEPV
COUNTY	CO	SQUARE FEET	SF
COUNTY TRUNK HIGHWAY	CTH	STATE TRUNK HIGHWAY	STH
DISTANCE	DIST	STATION	STA
CORNER	COR	SUBDIVISION	SUBD
DOCUMENT NUMBER	DOC	TANGENT	TAN
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	GV	TRANSPORTATION PROJECT PLAT	TPP
GRID NORTH	GN	UNITED STATES HIGHWAY	USH
HIGHWAY EASEMENT	HE	VOLUME	V
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

CURVE DATA

LONG CHORD	LC
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	Δ
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

WATER	W
GAS	G
TELEPHONE	T
OVERHEAD TRANSMISSION LINES	OH
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SAN
STORM SEWER	SS



Layout

0 — 0.25 — 0.50 MI.

Scale

TOTAL NET LENGTH OF CENTERLINE = 0.3693 MI. (URBAN)

ORIGINAL PLAT PREPARED BY
WAUKESHA COUNTY D.P.W.
515 W. MORELAND BLVD. RM 220
WAUKESHA, WI 53188

WISCONSIN
JASON T. MAYER
S-2844
Menomonee Falls WI
LAND SURVEYOR

DATE: 12-18-18 (Signature)

APPROVED FOR
WAUKESHA COUNTY
DEPARTMENT OF PUBLIC WORKS

DATE: 12-18-18 DIRECTOR

DATE: 12/18/18 ENGINEERING SERVICES MANAGER

REVISION DATE
05/02/2019

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED FOR THE DEPARTMENT

DATE: N/A (Signatu

NOTES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, WAUKESHA COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. FIELD SURVEY AND COORDINATE DATA HAS BEEN PREPARED BY RA SMITH.

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

THE EXISTING HIGHWAY RIGHT OF WAY SHOWN HEREON IS BASED ON THE RIGHT OF WAY PLAT FOR C.T.H. "O" PROJECT 2722-03-71, EXISTING CERTIFIED SURVEY MAPS, SUBDIVISION PLATS, AND OTHER SURVEYS OF PUBLIC RECORD.

DIMENSIONING TO THE NEW RIGHT OF WAY IS MEASURED ALONG AND PERPENDICULAR TO THE CENTERLINE OF CONSTRUCTION.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN. INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE. INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLE'S EXPIRES AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN. INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE. INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNERS RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSED ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO WAUKESHA COUNTY.

* DENOTES AREAS COMPUTED

AREAS SHOWN IN THE TOTAL AREA MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

PARCEL NO.	SHEET NO.	OWNERS	INTEREST REQ'D.	TOTAL AREA ACRES	EASEMENT ACRES REQUIRED		R/W ACRES REQUIRED			TOTAL ACRES REM.
					T.L.E.	P.L.E.	NEW	EXIST.	TOTAL	
1	4.3	ELIMINATED								
2	4.3	UNIVERSITY OF WISCONSIN CREDIT UNION	FEE, T.L.E.	1.00	0.023	–	0.002	–	0.002	0.998
3	4.3	ELIMINATED								
4	4.3	PROSPECT CREEK DEVELOPERS LLC	FEE, P.L.E., T.L.E.	2.81	0.073	0.002	0.003	–	–	2.81
5	4.3	NEW BERLIN REALTY LLC	T.L.E.	1.62	0.018	–	–	–	–	1.62
UTILITY NUMBER										
101	4.3	WE–ENERGIES (ELECTRIC)	CONVEYANCE OF RIGHTS							
102	4.3	AMERITECH/WISCONSIN BELL	CONVEYANCE OF RIGHTS							
103	4.3	CITY OF NEW BERLIN SEWER AND WATER	CONVEYANCE OF RIGHTS							

4

4

REVISION DATE 5/2/2019	DATE: 4/19/2019		HWY: CTH O & CTH I	CONSTRUCTION PROJECT NO.: 2782-03-76	
			COUNTY: WAUKESHA	R/W PROJECT NO.: 2782-03-06	PLAT SHEET NO.: 4.2

FILE NAME : N:\DPW\ENGINEER\PROJECTS\O AT IH-43 WB RAMP TO BELOIT RD 2782-03-06\ACAD\RW\EXRW-CTH O_REVISED.DWG PLOT DATE : 12/18/2018 PLOT BY : MAYER, JASON

CITY

4

NOTE:
END OF RELOCATION ORDER IS S 00°06'40" W, 705.79 FEET FROM THE NW 1/4 CORNER OF SEC. 26, T 6 N, R 20 E.

NOTE:
ACCESS RESTRICTIONS APPLY FOR C.S.M. NO.'S:
6647
8282
8957
10852

END RELOCATION ORDER
PROJECT I.D. 2782-03-76
STA. 19+50.00
Y = 141,348.019
X = 716,074.543
705.92 FEET SOUTH OF AND 1.37 FEET WEST OF THE NW 1/4 CORNER OF SEC. 26, T 6 N, R 20 E.

FMLH MCW REAL ESTATE VENTURES
TAX KEY NO. NBC.1257.999.007

(103) 30' SAN. SEWER EASEMENT CITY OF NEW BERLIN
(102) 10' WIS. BELL EASEMENT DOC. NO 1641161
WATER MAIN EASEMENT CITY OF NEW BERLIN
SAN SEWER EASEMENT CITY OF NEW BERLIN

15' WEPCO & WIS. BELL EASEMENT DOC. NO 2600177
31' ACCESS EASEMENT
10' WEPCO EASEMENT DOC. NO 2171244 & 2163640

TARGET CORPORATION T-1311
DOC NO. 2552330
TAX KEY NO. NBC.1254.995.003
PARCEL 1, C.S.M. NO. 8957

ACCESS EASEMENT
20' WEPCO , WIS. BELL INC, & TIME WARNER EASEMENT DOC. NO 2522205

PARCEL 1, C.S.M. NO. 6647
(2) UNIVERSITY OF WISCONSIN CREDIT
DOC NO. 1701195
TAX KEY NO. NBC.1254.995.001

NON DESCRIPT WEPCO BLANKET EASEMENT DOC NO. 437132, V. 702, P. 554-AFFECTS THE NW¼ OF SECTION 26

(102) 12' WEPCO, WIS. BELL & AMERITECH EASEMENT DOC. NO. 2600170
(101) 10' WEPCO EASEMENT DOC. NO. 2171242

LINE TABLE
L-7 = N 48°47'31" W 7.14'
L-8 = S 80°04'28" E 35.70'

CURVE TABLE (C-1)
ARC LEN. = 29.84'
CH. LEN. = 29.84'
CH. BR. = N 87°12'36" W
RADIUS = 1205.92'

OF

10' WIDE SNOW STORAGE & SIDEWALK EASEMENT GRANTED JOINTLY TO WAUK. CO. & THE CITY OF N.B.
13.04'
L-1 L-2 L-3 L-4 L-5 L-6
R/W
10'
P.L.E.
T.L.E.

DETAIL "A"
1" = 50'

LINE TABLE
L-1 = N 76°07'16" E 45.39'
L-2 = S 53°47'27" E 7.69'
L-3 = S 82°48'24" W 50.67'
L-4 = N 76°07'16" E 31.75'
L-5 = S 53°47'27" E 7.36'
L-6 = N 84°55'30" E 36.91'

C.T.H. "I"
C.T.H. "O"
STA. 100+00.00' C.T.H. "I"
STA. 15+95.90' C.T.H. "O"
2.65'
SEE DETAIL "A"
10' WIDE SNOW STORAGE & SIDEWALK EASEMENT GRANTED JOINTLY TO WAUK. CO. & THE CITY OF N.B.

(4) PROSPECT CREEK DEVELOPERS LLC
DOC NO. 3823254
TAX KEY NO. NBC.1257.989.008

(102) 10' WIS. BELL EASEMENT DOC. NO 1641161
16' WIDE ACCESS EASEMENT
LOT 2, C.S.M. NO. 10852
SLOPE INTERCEPT
10' WIDE YARD BUFFER EASEMENT PER C.S.M.

EAST LINE OF THE NE 1/4 OF SEC. 1-5-18
N 00°06'40" E
R/L = SECTION LINE

PARCEL 1, C.S.M. NO. 8282
WESTRIDGE HOTEL PROPERTY LLC
TAX KEY NO. NBC.1254.996.006

10' WEPCO EASEMENT
NON DESCRIPT MILW. ELEC. RAILWAY & LIGHT VOL. 274, P. 80

PARCEL 2, C.S.M. NO. 8282
(5) NEW BERLIN REALTY LLC
DOC NO. 2218125
TAX KEY NO. NBC.1254.996.007

BEGIN RELOCATION ORDER
PROJECT I.D. 2782-03-76
STA. 11+00.00
Y = 140,498.021
X = 716,072.897
1096.60 FEET NORTH OF AND 2.12 FEET EAST OF THE WEST 1/4 CORNER OF SEC. 26, T 6 N, R 20 E.

40' UTILITY EASEMENT

STATE OF WISCONSIN
R. 512, I. 991
TAX KEY NO. NBC.1254.982

NOTE:
BEGIN OF RELOCATION ORDER IS N 00°06'40" E, 1096.60 FEET FROM THE WEST 1/4 CORNER OF SEC. 26, T 6 N, R 20 E.

NEW BERLIN

4

REVISION DATE 5/2/2019	DATE: 4/19/2019		HWY: CTH O & CTH I	CONSTRUCTION PROJECT NO.: 2782-03-76	SCALE: 1"=100'
			COUNTY: WAUKESHA	R/W PROJECT NO.: 2782-03-06	PLAT SHEET NO.: 4.3 E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\O AT IH-43 WB RAMP TO BELOIT RD 2782-03-06\ACAD\RW\EXRW-CTH O_REVISED.DWG PLOT DATE : 12/18/2018 PLOT BY : MAYER, JASON

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM 1106	8+62, 81' RT	869.97	TOP MOST SW BOLT OF WEST LEG OF VALLEY VIEW PARK AND RIDE SIGN

LEGEND

xxxx xxxx SAWING ASPHALT OR CONCRETE

X CLEARING & GRUBBING

N

4951 S MOORLAND ROAD
WAUKESHA COUNTY

2935 S MOORLAND ROAD
900 ATLANTIC LLC

15705 W BELOIT ROAD
CARISCH BROTHERS LP ET AL

SLOPE INTERCEPT

EXISTING INLETS TO REMAIN

RELOCATE EXISTING FULL SPAN OVERHEAD SIGN SUPPORT

EXISTING R/W

ADJUST WATER VALVE BOX

BEGIN PROJECT 2782-03-76
STA 9+76.65
Y = 140,374.67
X = 716,072.66

CTH O R/L

7+00 8+00 N0° 06' 40"E 9+00 10+00 11+00 12+00 13+

6:1 TAPER

SB CTH O PGL

NB CTH O PGL

MATCHLINE STA 13+00.00

EXISTING 2-48" CPRC TO REMAIN

EXISTING INLETS TO REMAIN

CP 106

CTH O (S MOORLAND ROAD)

RIGHT TURN LANE

BM 1106

CLOSE MEDIAN OPENING

FULL DEPTH HMA PATCH FOR LOOP DETECTOR

SLOPE INTERCEPT

IH 43 WB EXIT RAMP

4950 S MOORLAND ROAD
STATE OF WISCONSIN

4900 S MOORLAND ROAD
NEW BERLIN REALTY LLC

VALLEY VIEW PARK AND RIDE
PARKING LOT

MILL & OVERLAY RECONSTRUCTION

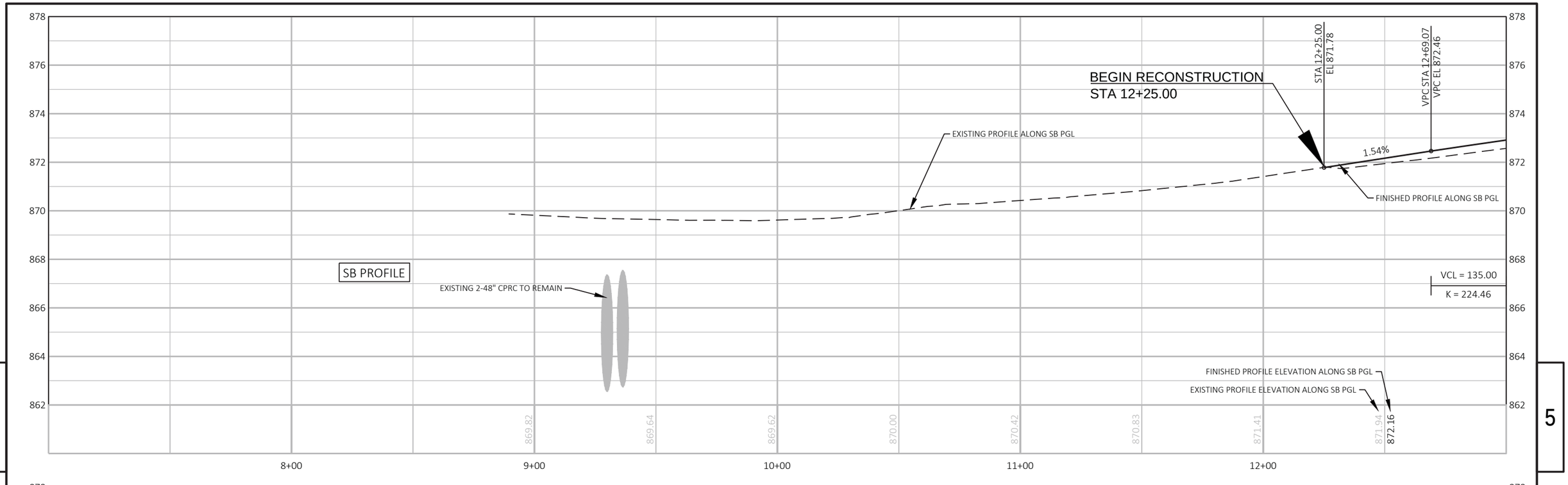
STA 12+25

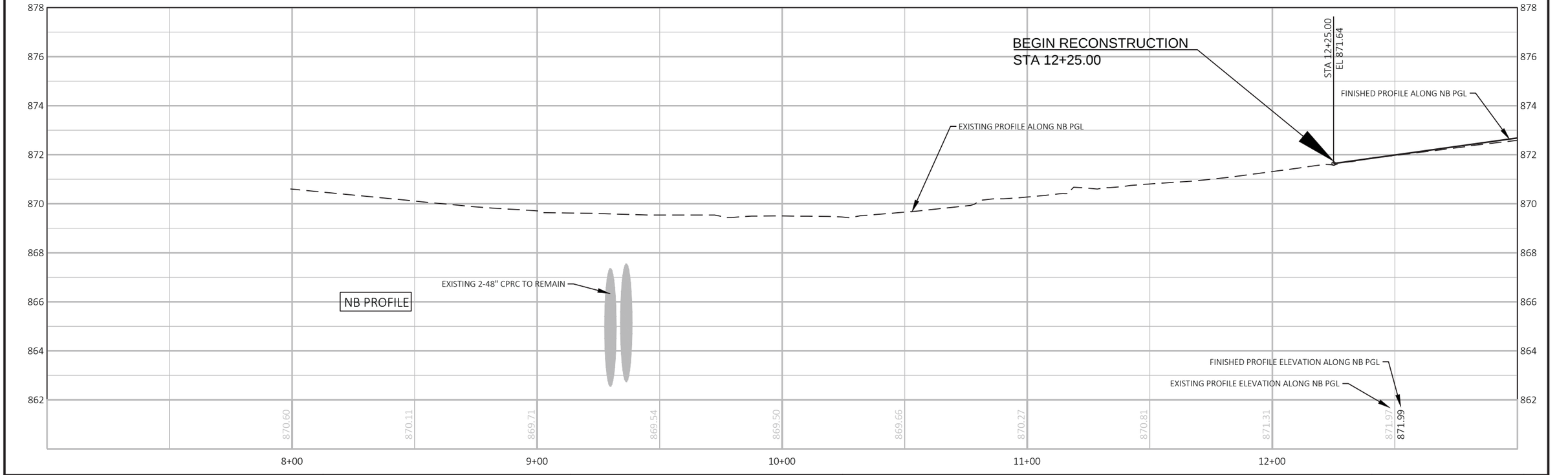
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PLAN-PROFILES - CTH O	SHEET 270 E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 1

PLOT DATE : 7/28/2019 8:49 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44





PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PLAN-PROFILES - CTH O	SHEET 271	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\050101-PR.DWG
LAYOUT NAME - Plan 1 IN 40 FT

PLOT DATE : 7/28/2019 8:49 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM 1103	15+28, 81' RT	876.64	SE CORNER OF SIGNAL CONTROL CABINET BASE

N

LEGEND

XXXX XXXX SAWING ASPHALT OR CONCRETE

X CLEARING & GRUBBING

MATCHLINE STA 13+00.00

MATCHLINE STA 19+00.00

5

5

CTH O (S MOORLAND ROAD)

CTH I (W BELOIT ROAD)

PROPOSED R/W

ADJUST HYDRANT AND VALVE BOX

15705 W BELOIT ROAD
CARISCH BROTHERS LP ET AL

SLOPE INTERCEPT

EXISTING R/W

ADJUST SANITARY MANHOLE

CTH I WEST R/L

STA 15+98.55 CTH O=
STA 100+00.00 CTH I WEST

SB CTH O PGL

CTH O R/L

NB CTH O PGL

STA 15+95.90 CTH O=
STA 100+00.00 CTH I EAST

CTH I EAST R/L

RIGHT TURN LANE

BM 1103

CP 103

WETLAND BOUNDARY

4900 S MOORLAND ROAD
NEW BERLIN REALTY LLC

15555 W BELOIT ROAD
WESTRIDGE HOTEL PROPERTY LLC

ADJUST WATER VALVE BOXES

EXISTING SIDEWALK EASEMENT

EXISTING R/W

4855 S MOORLAND ROAD
OAK MOOR DEVELOPMENT PARTNERS ET AL

SLOPE INTERCEPT

EXISTING SIDEWALK EASEMENT

EXISTING SIDEWALK TO REMAIN

PROPERTY LINE

4850 S MOORLAND ROAD
UNIVERSITY OF WISCONSIN CREDIT

PROPOSED R/W

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PLAN-PROFILES - CTH O	SHEET 272	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 2

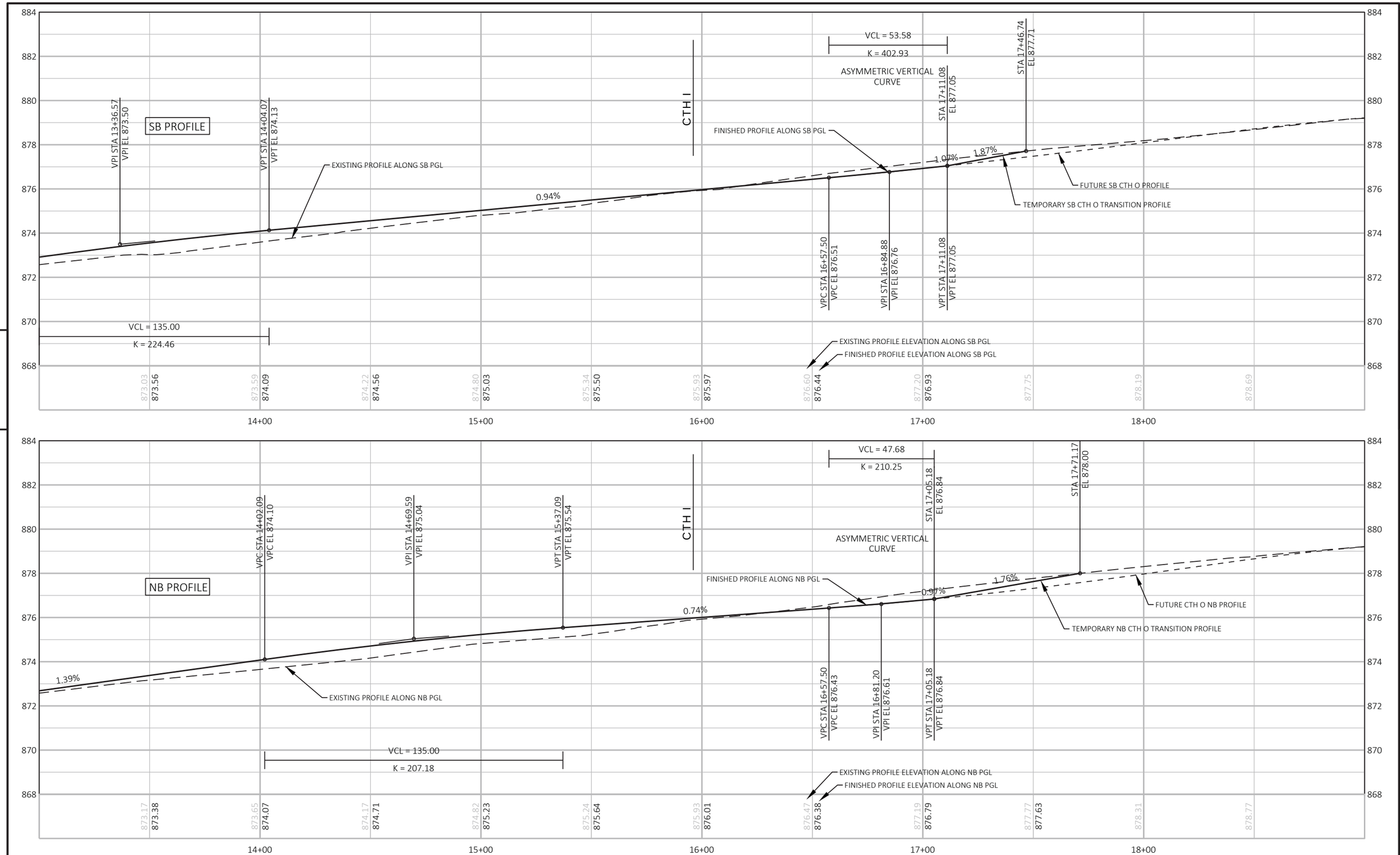
PLOT DATE : 7/29/2019 1:23 PM

PLOT BY : BLACKWOOD, JIM

PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

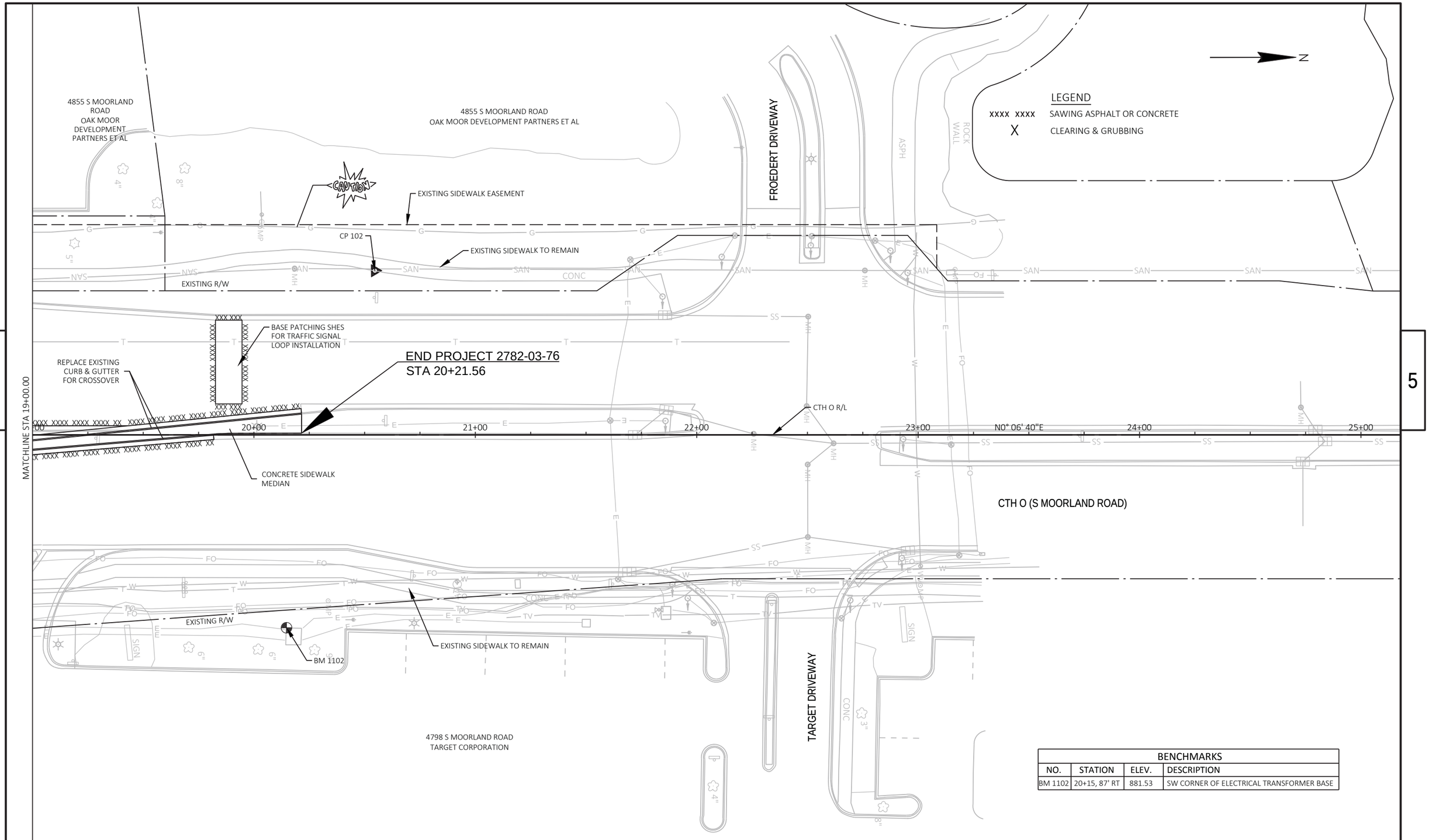


PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PLAN-PROFILES - CTH O	SHEET 273 E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\050101-PR.DWG
LAYOUT NAME - Plan 1 IN 40 FT (2)

PLOT DATE : 7/28/2019 8:50 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM 1102	20+15, 87' RT	881.53	SW CORNER OF ELECTRICAL TRANSFORMER BASE

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PLAN-PROFILES - CTH O	SHEET 274	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 3
PLOT DATE : 7/28/2019 8:51 AM
PLOT BY : BLACKWOOD, JIM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

LEGEND

XXXX XXXX SAWING ASPHALT OR CONCRETE

4855 S MOORLAND ROAD
OAK MOOR DEVELOPMENT PARTNERS ET AL

EXISTING SIDEWALK EASEMENT

EXISTING SIDEWALK TO REMAIN

PROPERTY LINE

CP 107

EXISTING R/W

CTH I (W BELOIT ROAD)

CTH I WEST R/L

PC 92+06.19

92+00 93+00 94+00 95+00 96+00 97+00

MATCHLINE STA 97+00.00

EXISTING INLET TO REMAIN

ASPH

HMA

CONC

BM 1107

SLOPE INTERCEPT

EXISTING R/W

15845 W BELOIT ROAD
LUTERBACH

BEGIN CONSTRUCTION
STA. 93+62.56

CAROL ANN WILSON ET AL

EXISTING SIDEWALK TO REMAIN

15705 W BELOIT ROAD
CARISCH BROTHERS LP ET AL

EXISTING SIDEWALK EASEMENT

SLOPE INTERCEPT

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM 1107	95+21, 64' RT	877.64	CHISELED BOX IN TOP OF CONCRETE LIGHT POLE BASE

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PLAN-PROFILES - CTH I	SHEET 275	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\050102-PP.DWG
LAYOUT NAME - 1

PLOT DATE : 7/28/2019 8:51 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM 1103	100+79, 73' RT	876.64	SE CORNER OF SIGNAL CONTROL CABINET BASE

LEGEND

XXXX XXXX SAWING ASPHALT OR CONCRETE

EXISTING SIDEWALK EASEMENT

EXISTING R/W

SLOPE INTERCEPT

4855 S MOORLAND ROAD
OAK MOOR DEVELOPMENT PARTNERS ET AL

EXISTING SIDEWALK TO REMAIN

EXISTING SIDEWALK EASEMENT

CAUTION

CTH O (S MOORLAND ROAD)

4850 S MOORLAND ROAD
UNIVERSITY OF WISCONSIN CREDIT

PROPOSED R/W

CONCRETE CURB PEDESTRIAN

N

CTH I (W BELOIT ROAD)

CTH I WEST R/L

MATCHLINE STA 97+00.00

98+00

99+00

100+00

BP1 100+00.00

17+00

101+00

102+00

CTH I EAST R/L

MATCHLINE STA 103+00.00

WB CTH I PGL

EB CTH I PGL

11' 14' 11' 11'

11' 11' 14'

14' 11' 11'

11' 11' 11' 11' 14' 11'

12' 11' 14'

14' 11' 12'

6' 5'

6' 4'

8'

14+00

CP103

BM 1103

EXISTING SIDEWALK TO REMAIN

15705 W BELOIT ROAD
CARISCH BROTHER LP ET AL

EXISTING SIDEWALK TO REMAIN

EXISTING SIDEWALK EASEMENT

PROPOSED R/W

SLOPE INTERCEPT

WETLAND BOUNDARY

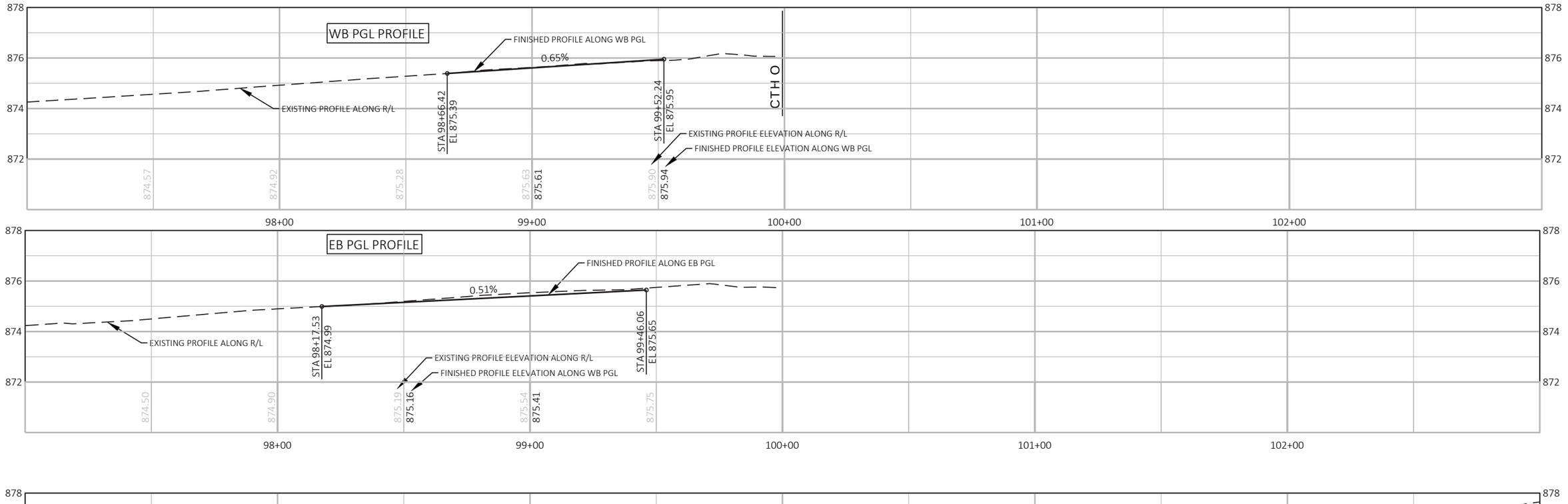
15555 W BELOIT ROAD
WESTRIDGE HOTEL PROPERTY LLC

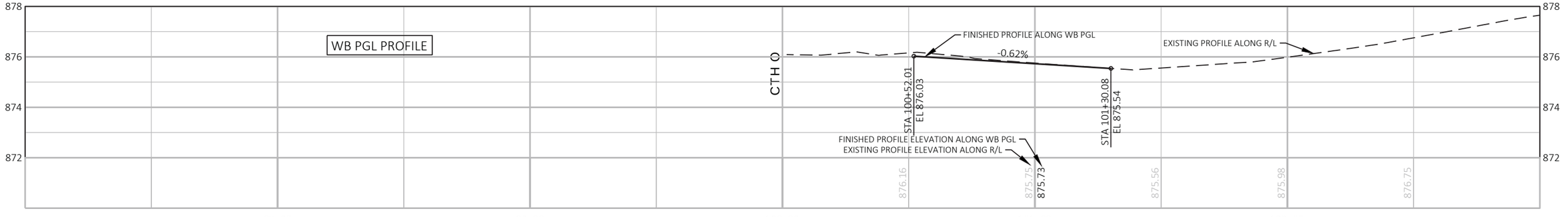
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PLAN-PROFILES - CTH I	SHEET 276	E

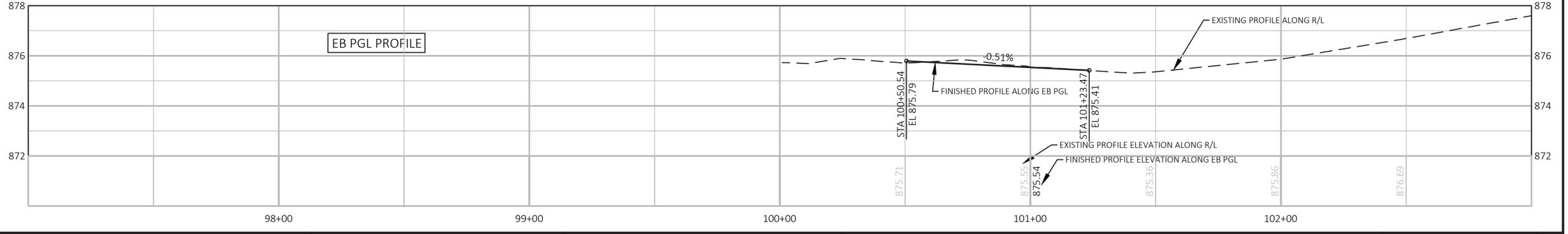
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\050102-PP.DWG
LAYOUT NAME - 2

PLOT DATE : 7/28/2019 8:51 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44







PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PLAN-PROFILES - CTH I	SHEET 277	E

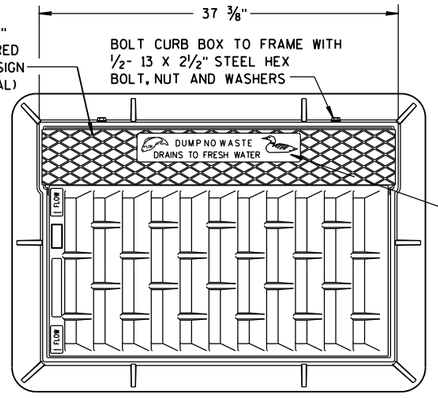
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08A08-02	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08A09-02	CATCH BASINS 2X3-FT AND 2.5X3-FT
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08B10-02	MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
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
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B04-11	PULL BOX
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C08-05	CONCRETE BASE, TYPE 7
09C11-10	CONCRETE BASE TYPE 10
09C12-09A	CONCRETE BASE TYPE 13
09C12-09B	CONCRETE BASE TYPE 13
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
09E01-15A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-15C	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E08-08B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-08D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-08E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F15-04A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09H16-01	INSTALL WIRELESS ANTENNA
11B02-02	CONCRETE MEDIAN NOSE
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-09	URBAN DOWELED CONCRETE PAVEMENT
13C14-07A	BASE PATCHING CONCRETE
13C14-07B	BASE PATCHING CONCRETE
13C14-07C	BASE PATCHING CONCRETE
13C18-07A	CONCRETE PAVEMENT JOINTING
13C18-07B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-07C	CONCRETE PAVEMENT JOINT TYPES
13C18-07D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
13C18-07F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-07C	DETOUR SIGNING FOR MAINLINE CLOSURES

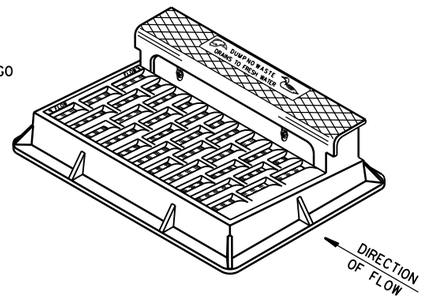
6

Standard Detail Drawing List

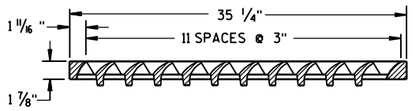
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C08-19C	PAVEMENT MARKING (TURN LANES)
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C20-02	YIELD MARKING
15C27-03A	DOUBLE ARROW WARNING SIGN PLACEMENT
15C27-03B	PAVEMENT MARKING (ISLANDS)
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D30-05A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-05B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-05C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

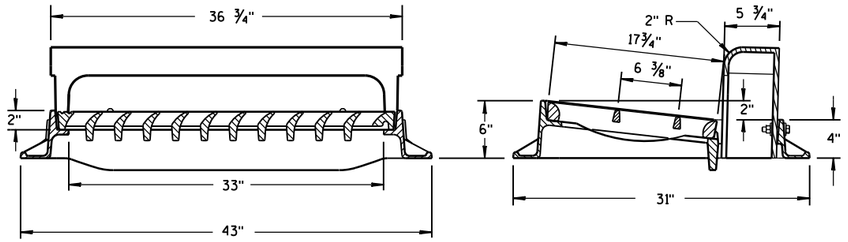


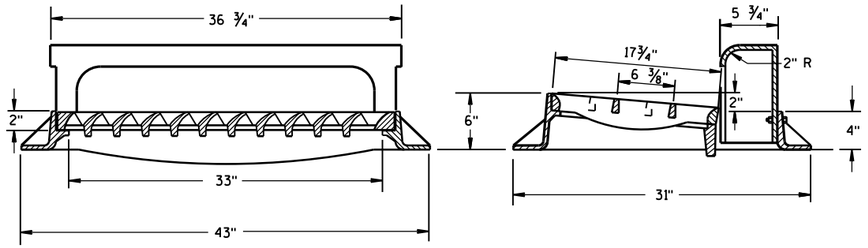
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

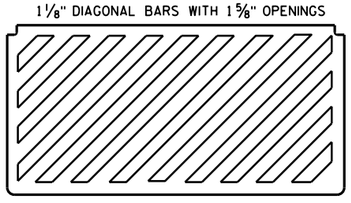






TYPE "H"

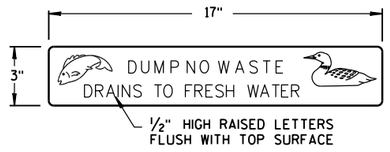
NOTE: EITHER CASTING IS ACCEPTABLE



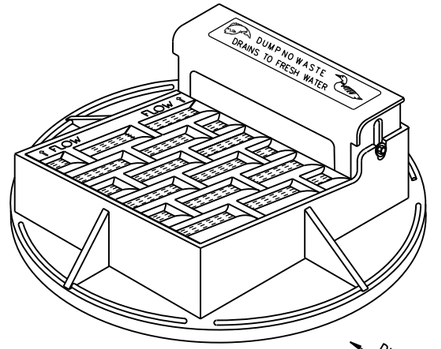
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

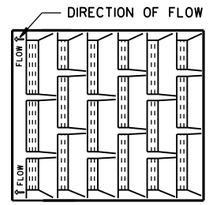
NOTE:
GRATE IS REVERSIBLE.

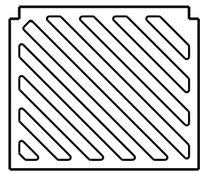
GENERAL NOTES

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.

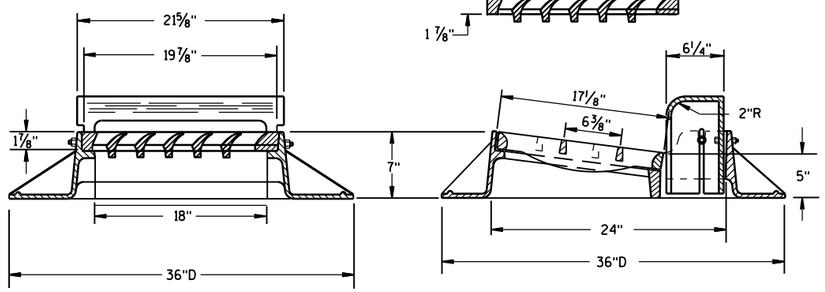




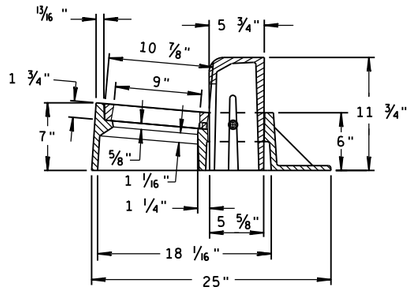
SPECIAL GRATE FOR TYPE "A" COVER

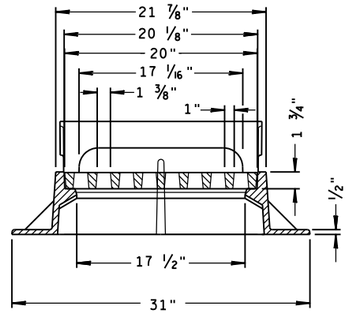
(MEASURES 19 3/4" X 17" X 1 7/8")

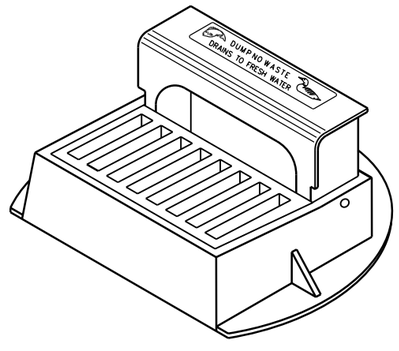
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"







TYPE "Z"

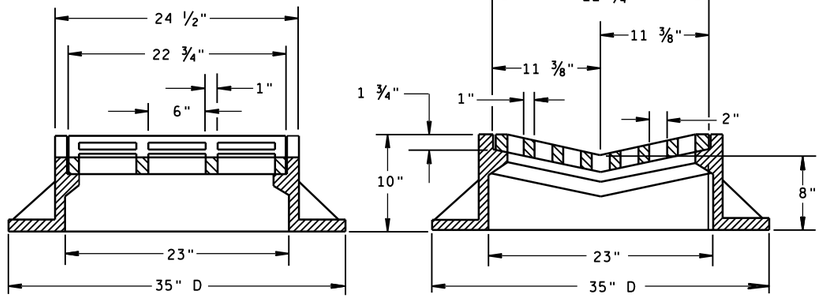
INLET COVERS
TYPE A, H, A-S, H-S & Z

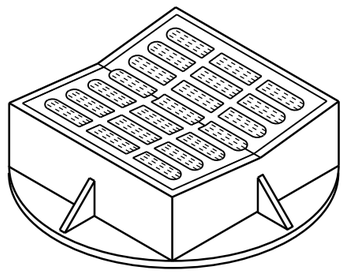
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

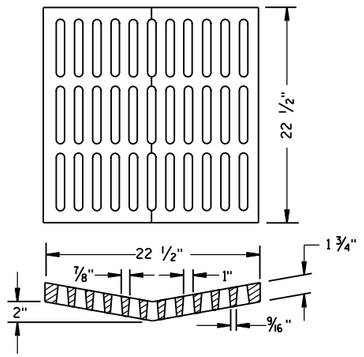
6

S.D.D. 8 A 5-19a



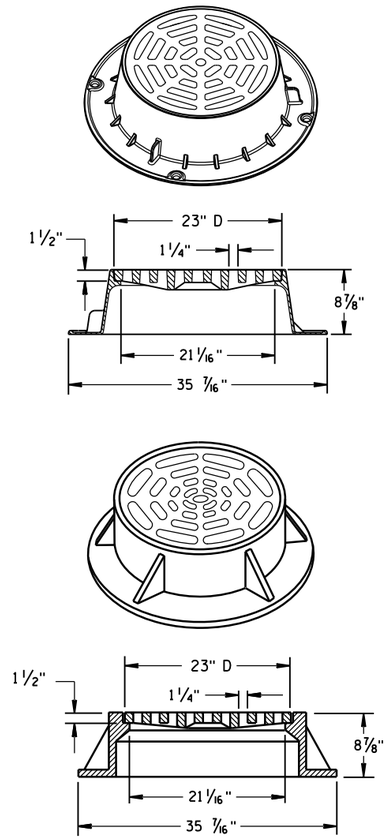


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

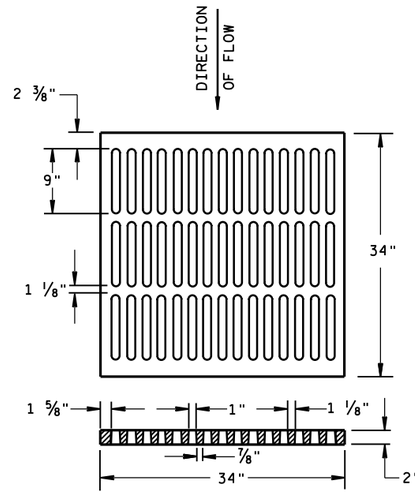
NOTE: EITHER CASTING IS ACCEPTABLE

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.

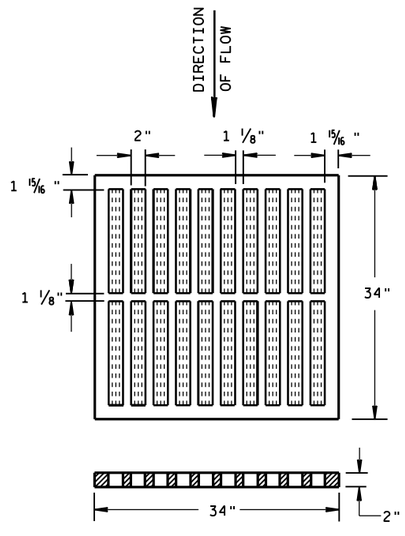
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



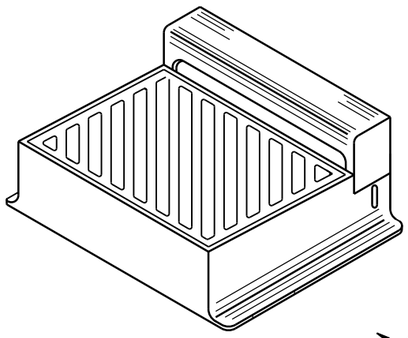
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

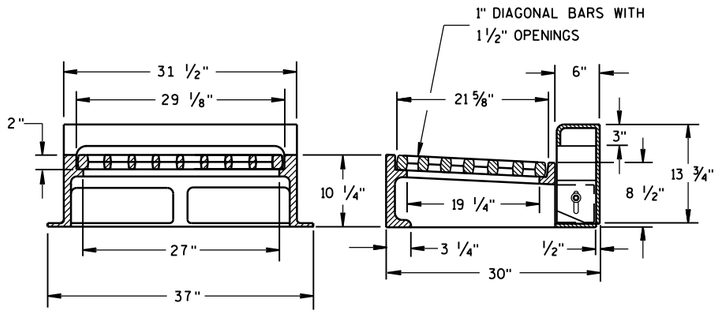


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



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"

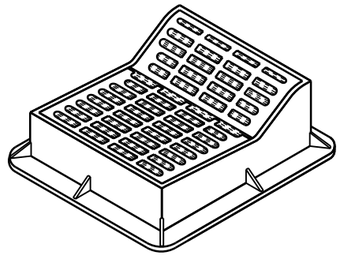
INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

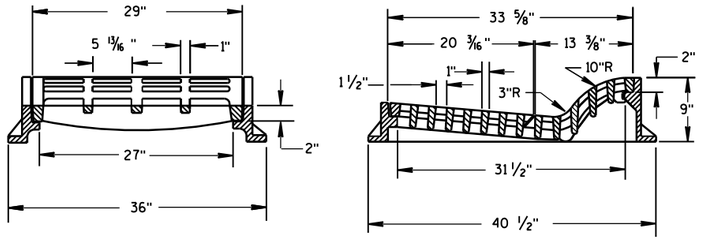
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

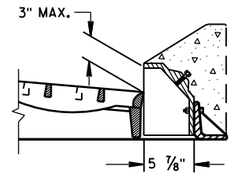
S.D.D. 8 A 5-19b





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

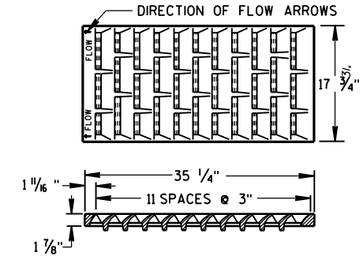
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

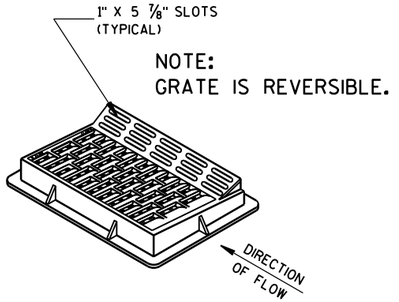
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

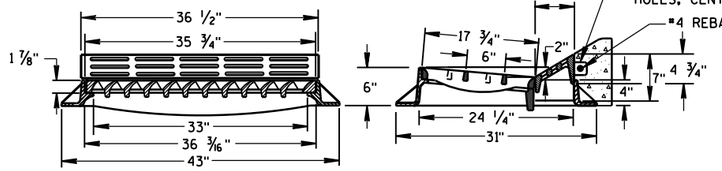
GENERAL NOTES

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 INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



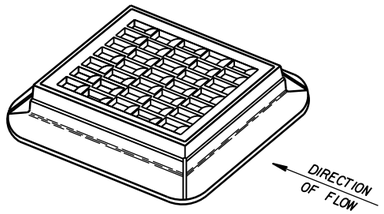


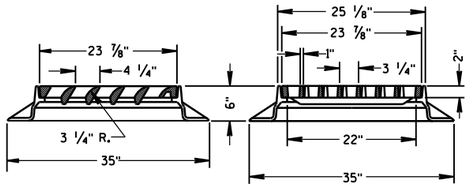


TYPE "HM"

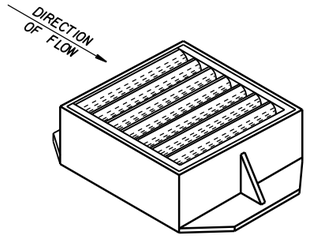
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

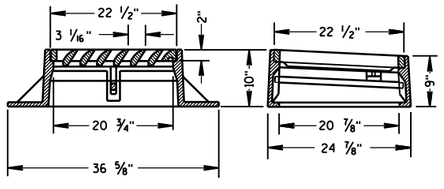
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



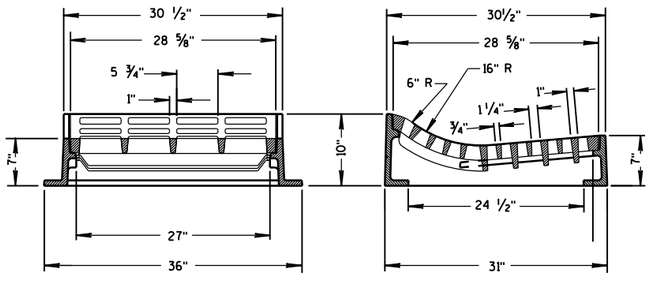


TYPE "S"



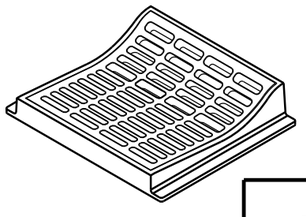


TYPE "V"



TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

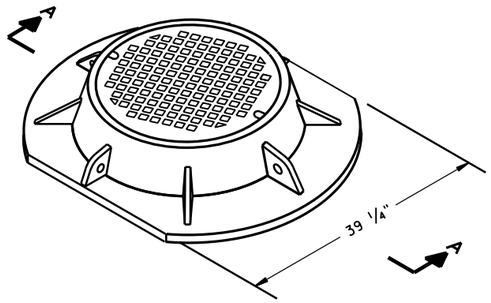
APPROVED
11/27/2013
DATE

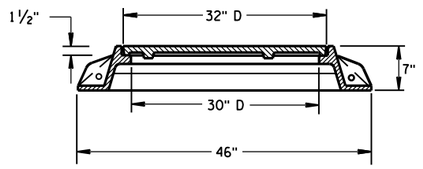
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

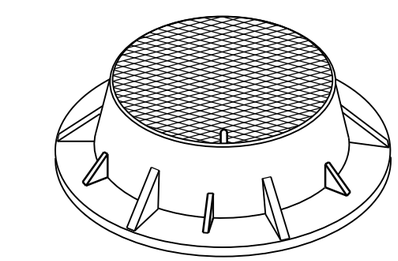
6

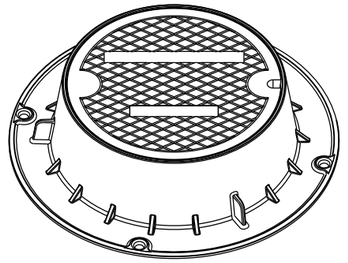
S.D.D. 8 A 5-19c

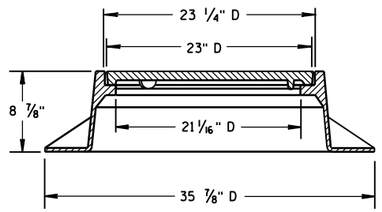


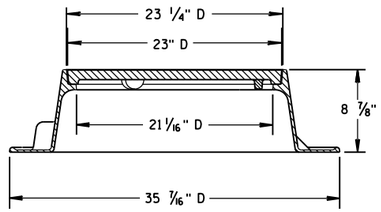


SECTION A-A
TYPE "K"









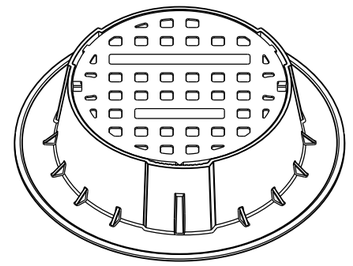
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

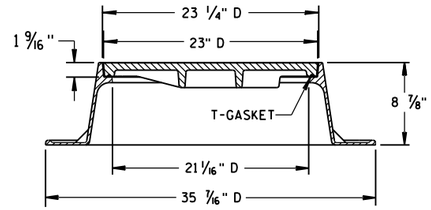
GENERAL NOTES

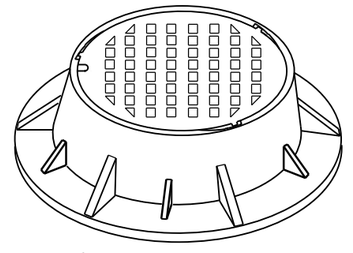
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

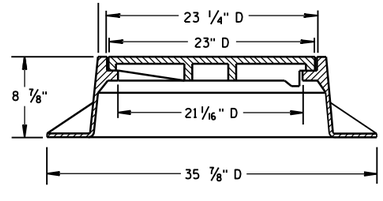
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

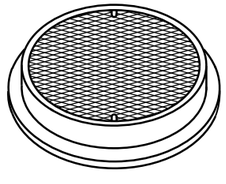


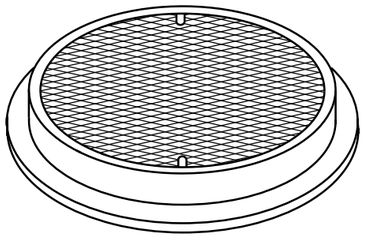


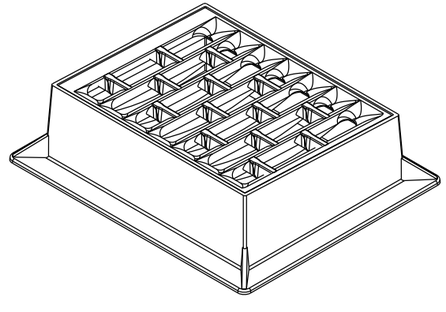


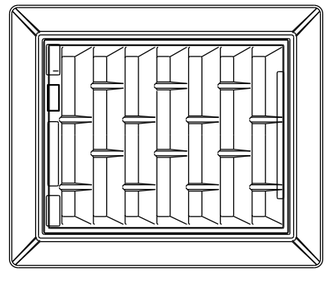


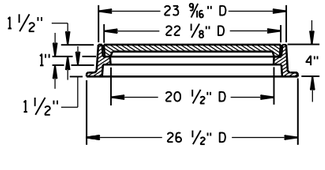
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



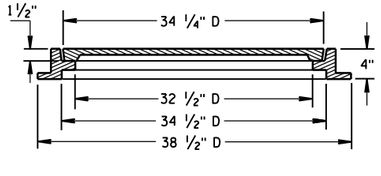




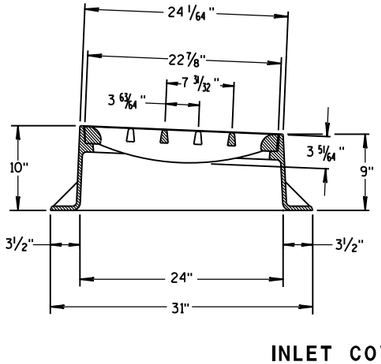


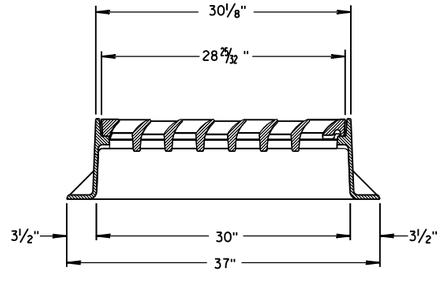


TYPE "L"



TYPE "M"





INLET COVER TYPE "BW"

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

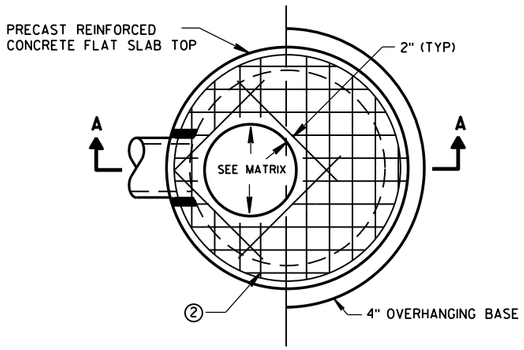
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

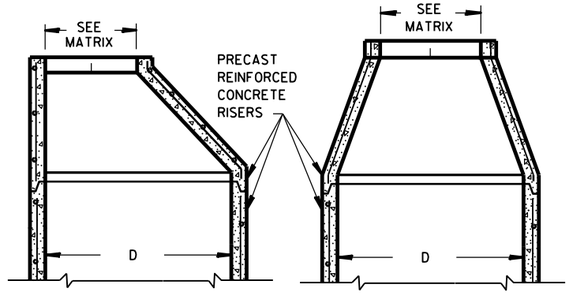
S.D.D. 8 A 5-19d

6

S.D.D. 8 A 5-19d

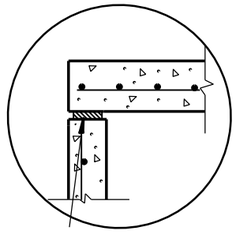


PLAN VIEW CIRCULAR OPENING

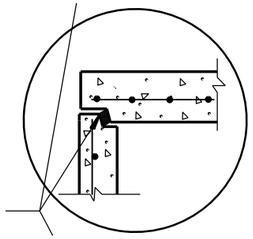


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

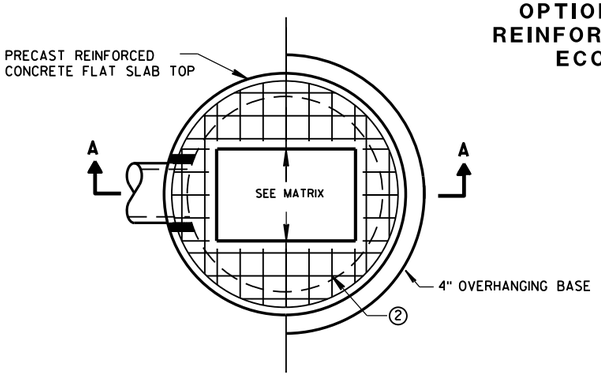
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



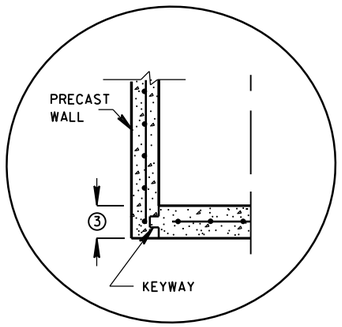
TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT

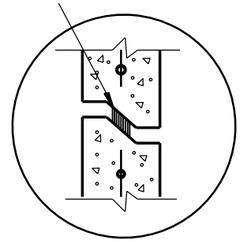


PLAN VIEW RECTANGULAR OPENING



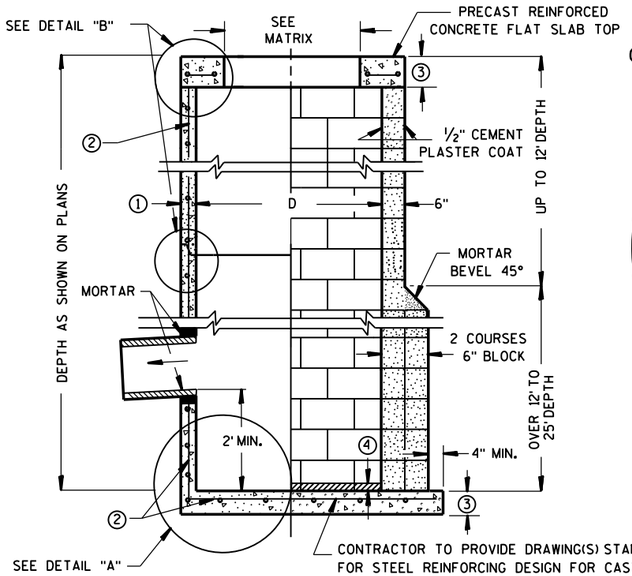
PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



RISER WITH TONGUE AND GROOVE JOINT

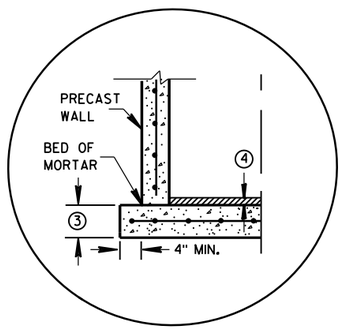
DETAIL "B"



SECTION A-A

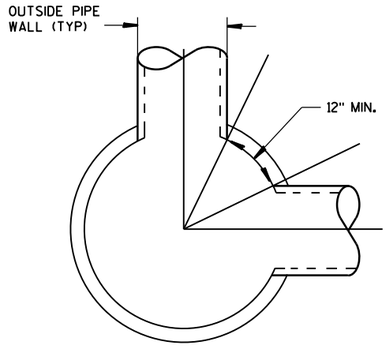
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

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 FOUNDATION 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.

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 SEPARATE 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
Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

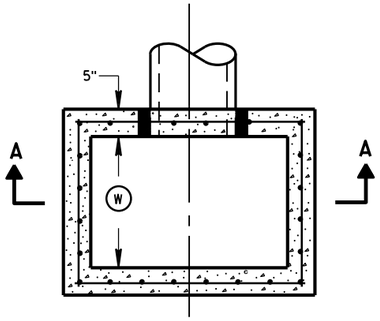
CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

6

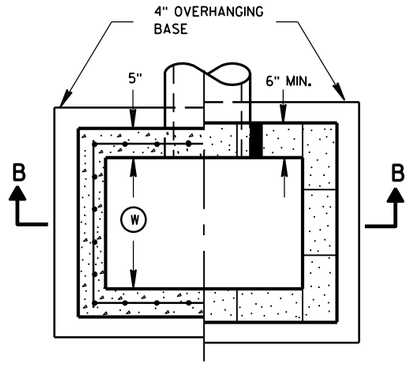
S.D.D. 8 A 8-2

6

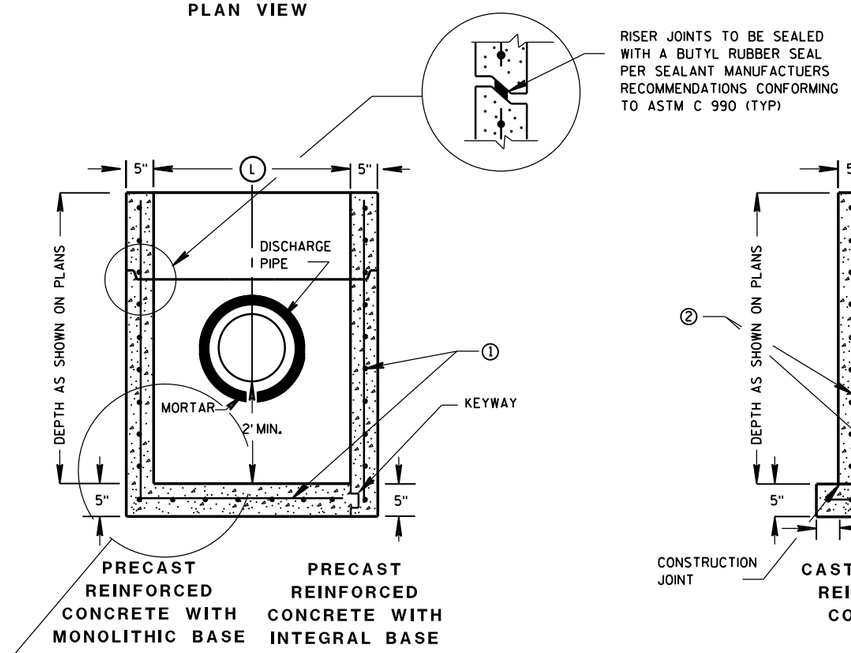
S.D.D. 8 A 8-2



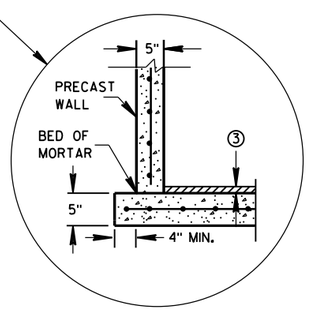
PLAN VIEW



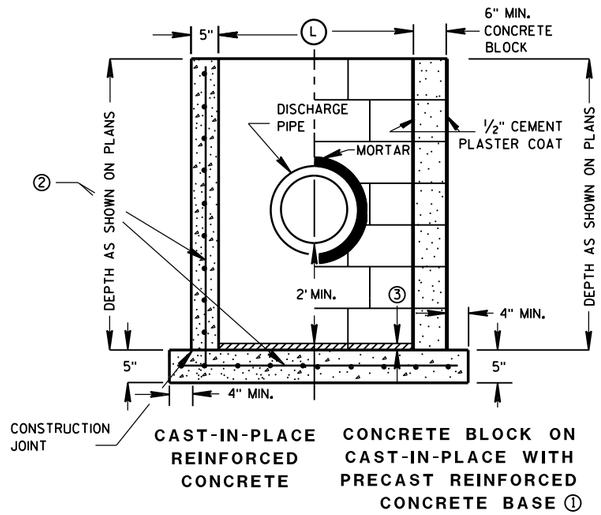
PLAN VIEW



SECTION A-A



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION



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.

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 PRECAST CATCH BASIN 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 FOUNDATION 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 SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST CATCH BASINS 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.

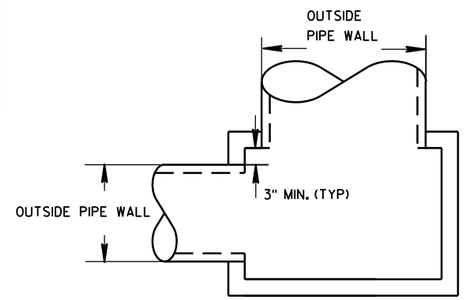
③ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE		INLET COVER TYPE	F	ALL H'S
	WIDTH (W) (FT)	LENGTH (L) (FT)		
2X3-FT	2	3		X
2.5X3-FT	2.5	3	X	

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

CATCH BASINS 2X3-FT AND 2.5X3-FT

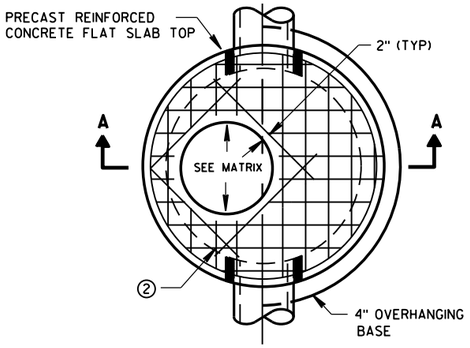
CATCH BASINS 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

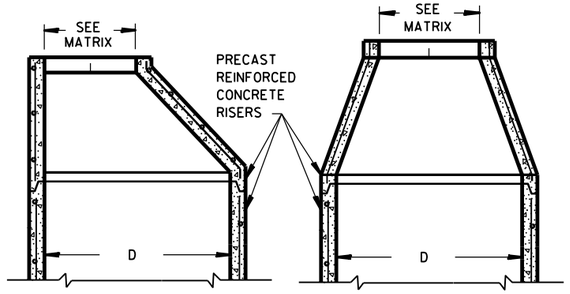
APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

6

S.D.D. 8 A 9-2

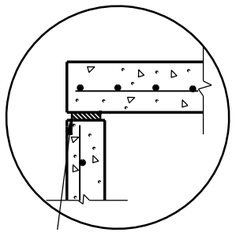


PLAN VIEW CIRCULAR OPENING

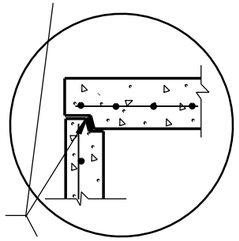


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

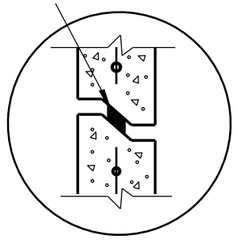


TOP WITH PLAIN END JOINT



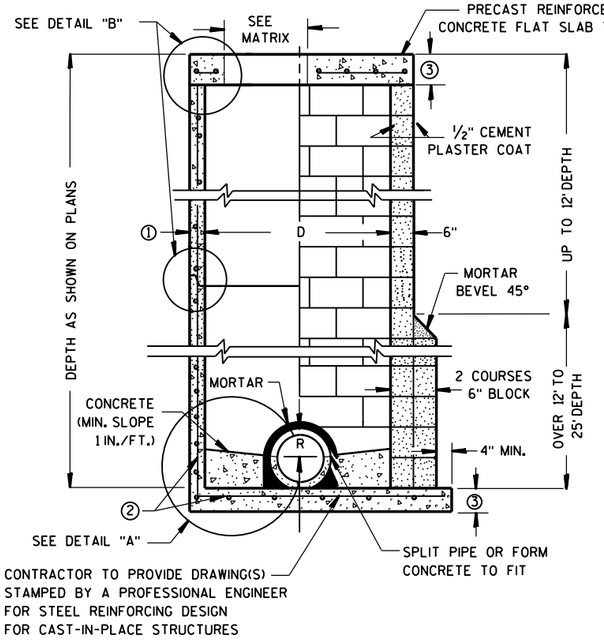
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



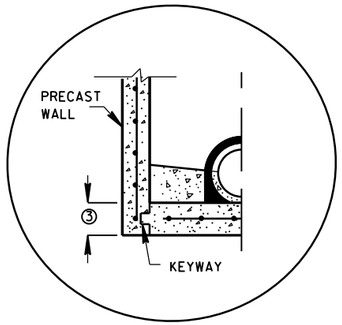
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

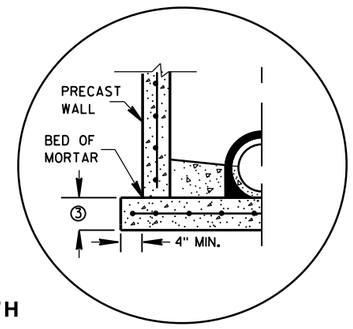


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

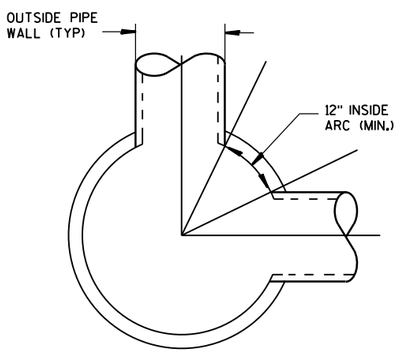


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

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 MANHOLE 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 FOUNDATION 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.

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" 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 SEPARATE 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

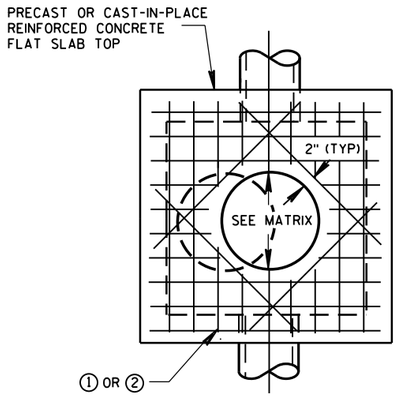
APPROVED

Sept., 2016
DATE

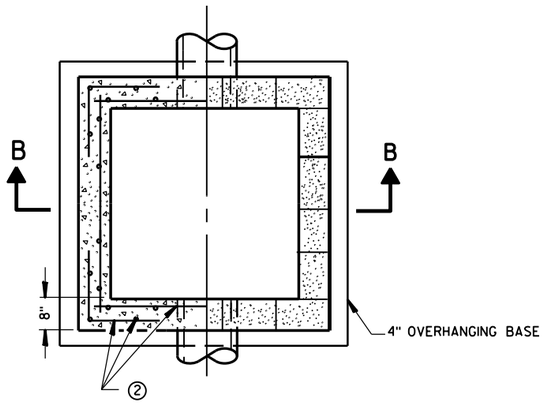
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV

FHWA

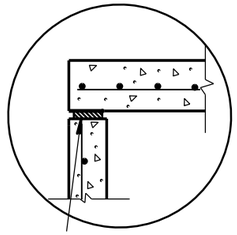
6
S.D.D. 8 B 9-2



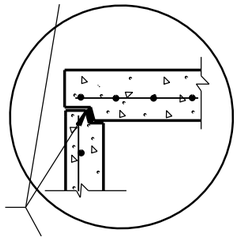
PLAN VIEW
CIRCULAR OPENING



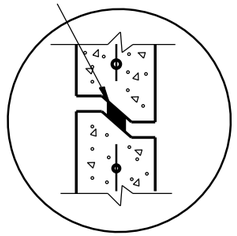
SECTION A-A
PLAN VIEW



TOP WITH PLAIN END JOINT

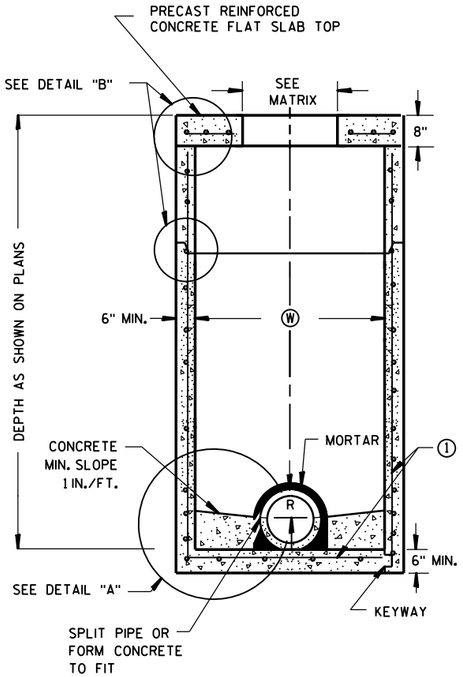


TOP WITH TONGUE AND GROOVE JOINT

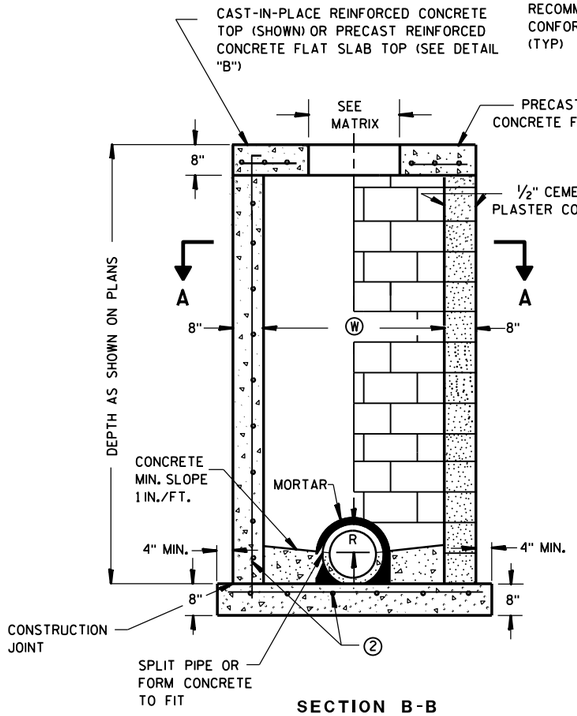


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

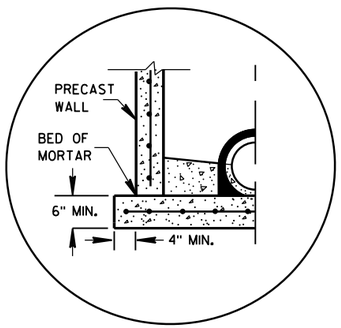


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

CAST-IN-PLACE REINFORCED CONCRETE

SECTION B-B

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE 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 FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

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.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN WIDTH.

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 ASTM C 913.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "C". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

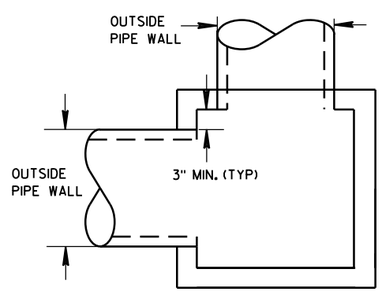
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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	
	WIDTH (W) (IN)	LENGTH (L) (IN)
3X3-FT	24	24
4X4-FT	30	30
5X5-FT	42	42
6X6-FT	54	54



DETAIL "C"

SQUARE MANHOLES W/ FLAT TOP

MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT

MANHOLES 3X3-FT, 4X4-FT
5X5-FT AND 6X6-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

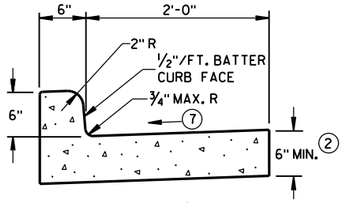
APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

6

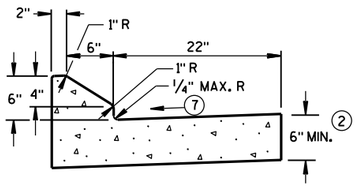
S.D.D. 8 B 10-2

6

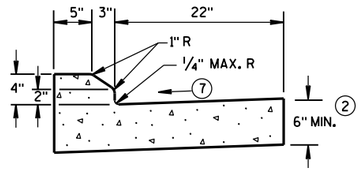
S.D.D. 8 B 10-2



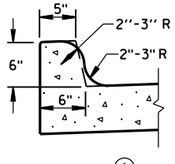
TYPES A (1) & D



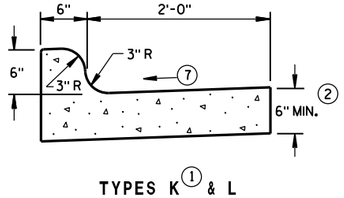
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

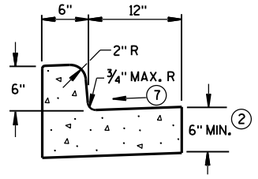


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



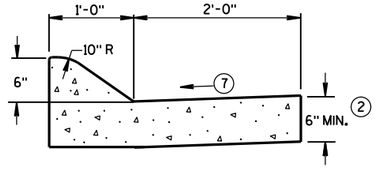
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

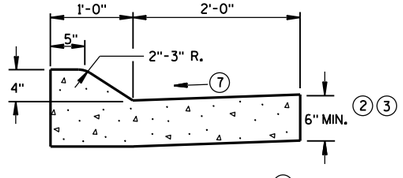


TYPES A (1) & D

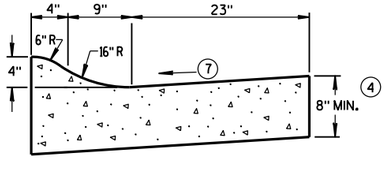
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

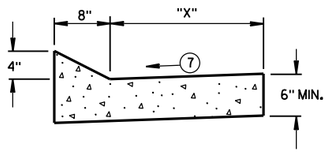


4" SLOPED CURB TYPES A (1) & D



4" SLOPED CURB TYPES R (1) & T (5)

CONCRETE CURB & GUTTER 36"



TYPES TBT & TBTT (1)

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"

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.

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 AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

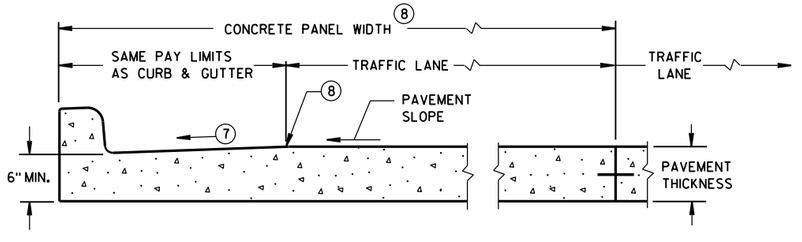
(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

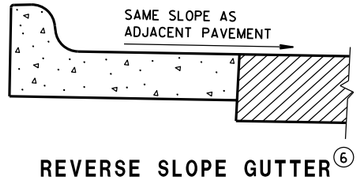
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB & GUTTER

* BIKE LANE IS NOT SHOWN.

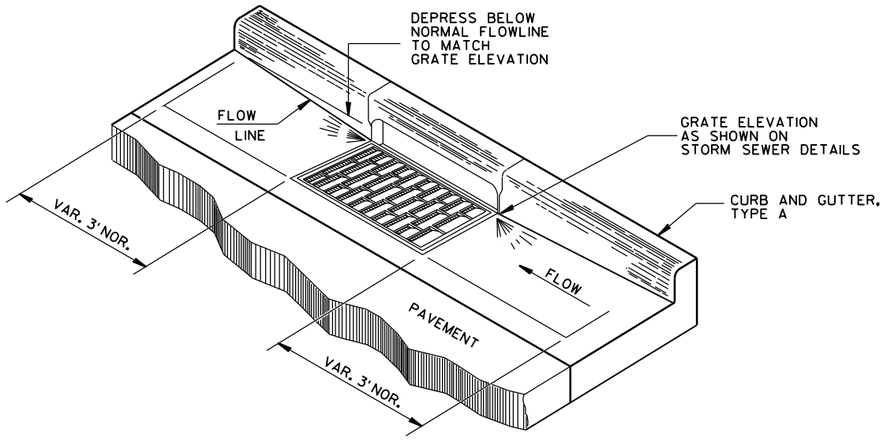


REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

CONCRETE CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 8 D 1-20a



DETAIL OF CURB AND GUTTER AT INLETS

(TYPE H INLET COVER SHOWN)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

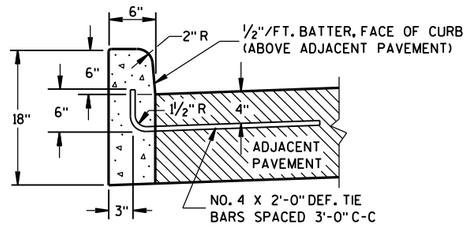
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

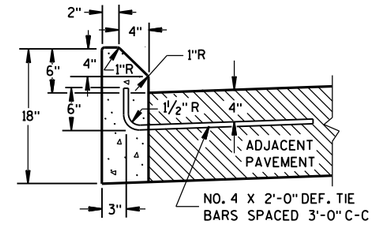
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(9) REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

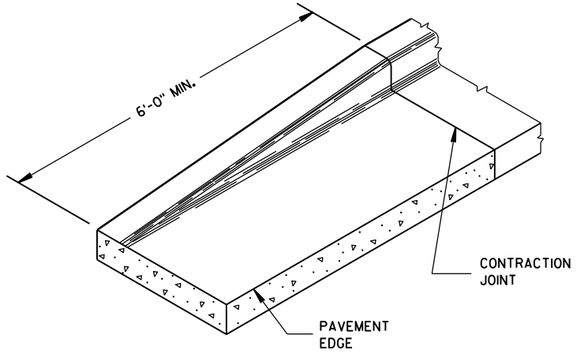


TYPES A(1) & D

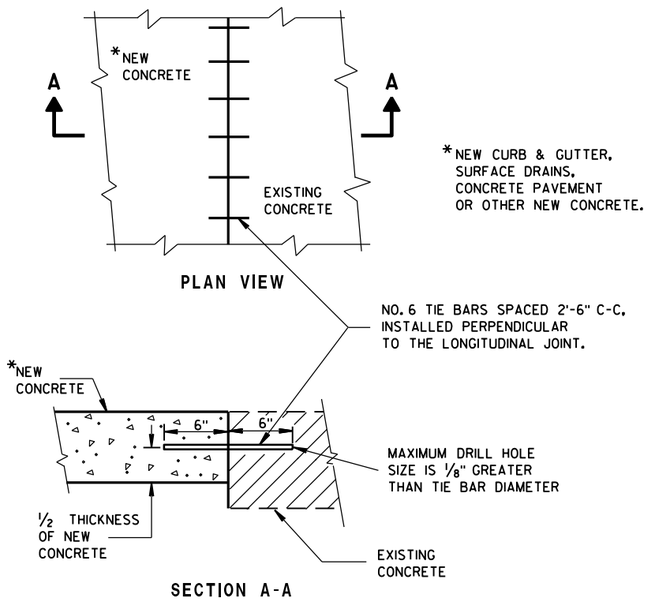


TYPES G(1) & J

CONCRETE CURB



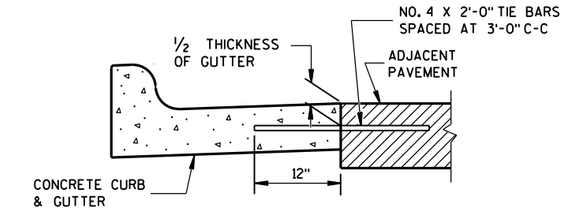
END SECTION CURB & GUTTER



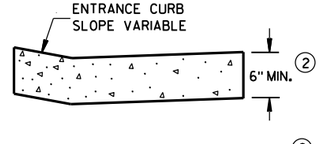
PLAN VIEW

SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

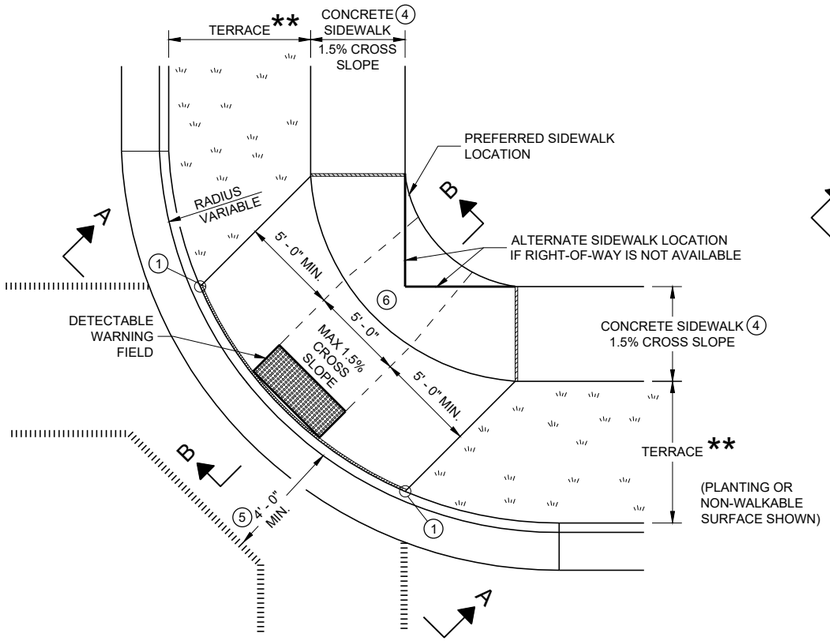
APPROVED
June, 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
289
ENT
FHWA

6

S.D.D. 8 D 1-20b

6

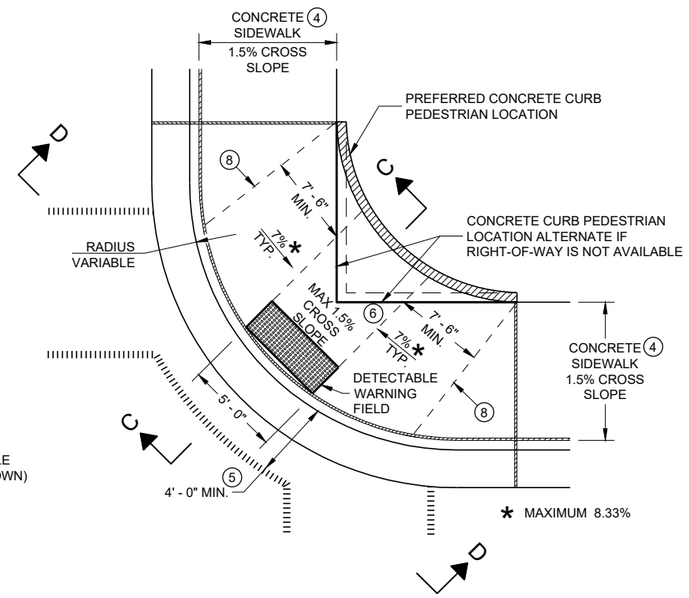
S.D.D. 8 D 1-20b



PLAN VIEW

CURB RAMP TYPE 1

(CENTER OF CORNER RADIUS)



PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FILED 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 LINEAR 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. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

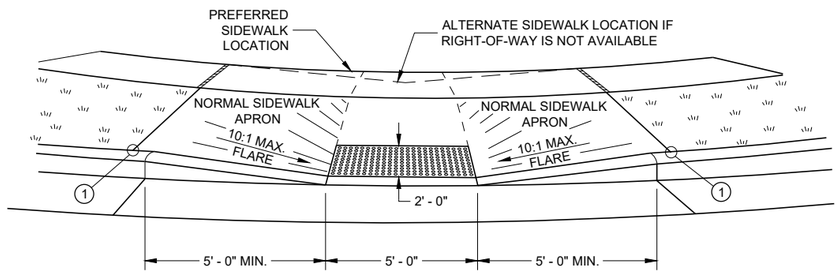
(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

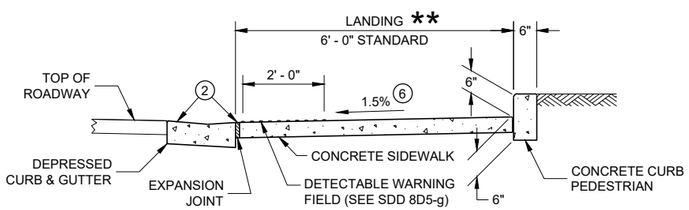
(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.



VIEW A - A FOR TYPE 1

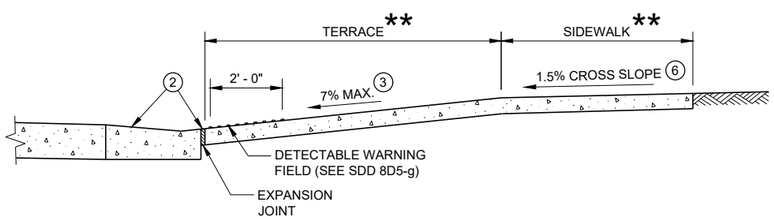


SECTION C - C FOR TYPE 1 - A

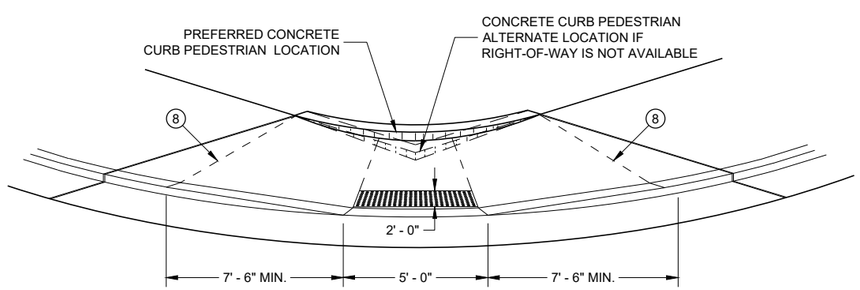
LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



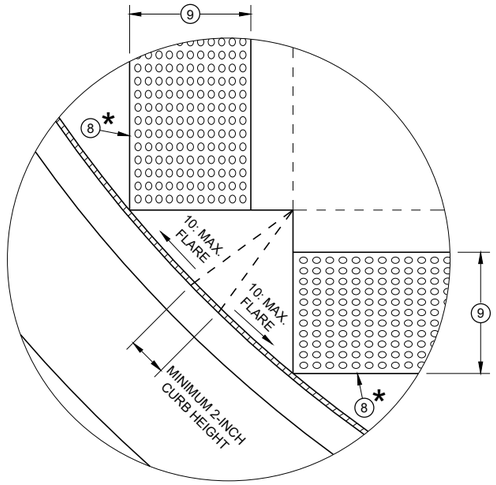
VIEW D - D FOR TYPE 1 - A

CURB RAMPS
TYPE 1 AND 1-A

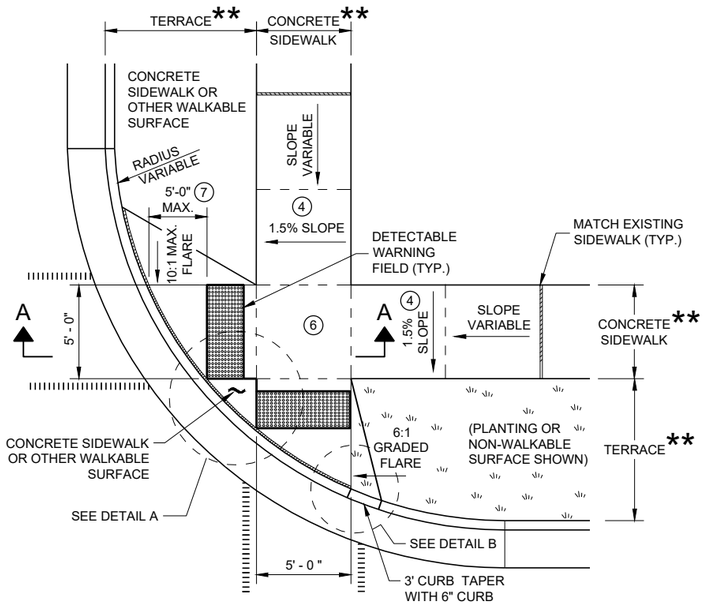
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20a



DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

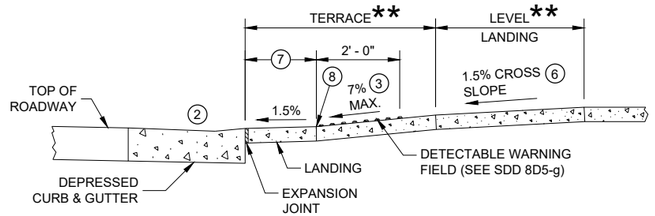
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

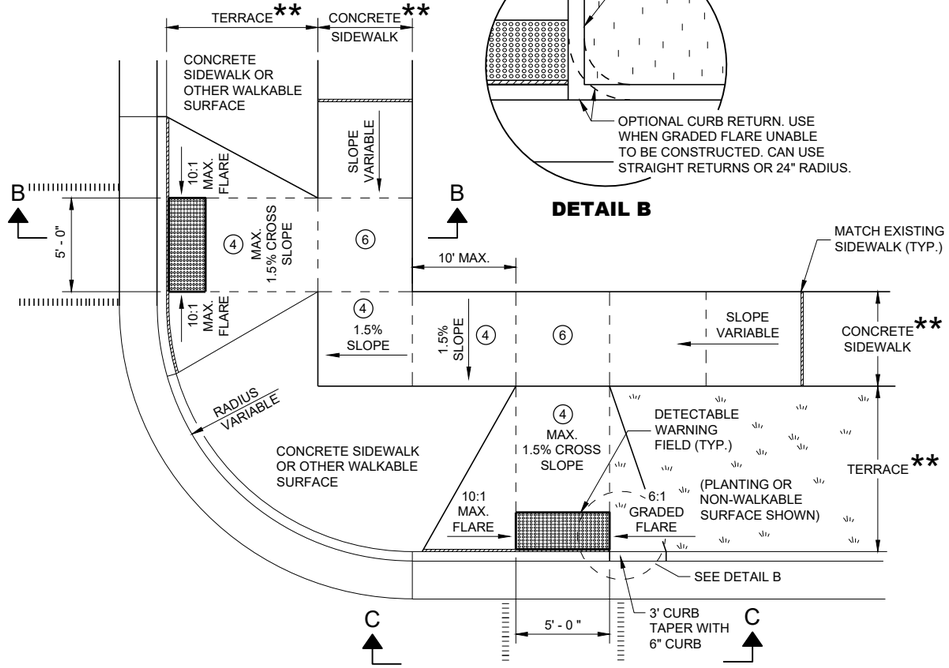
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



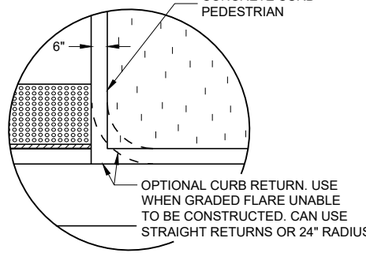
SECTION A - A FOR TYPE 2

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS



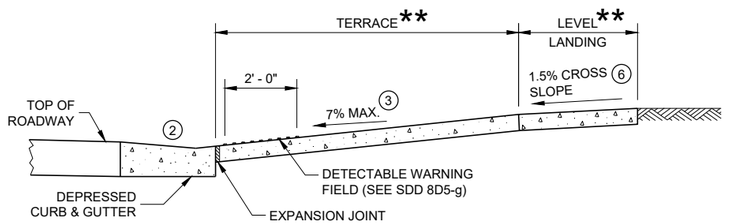
PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



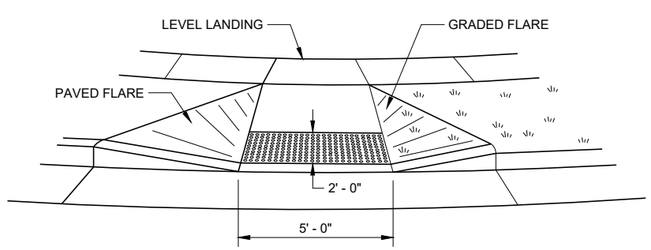
DETAIL B

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

CURB RAMPS TYPE 2 AND 3

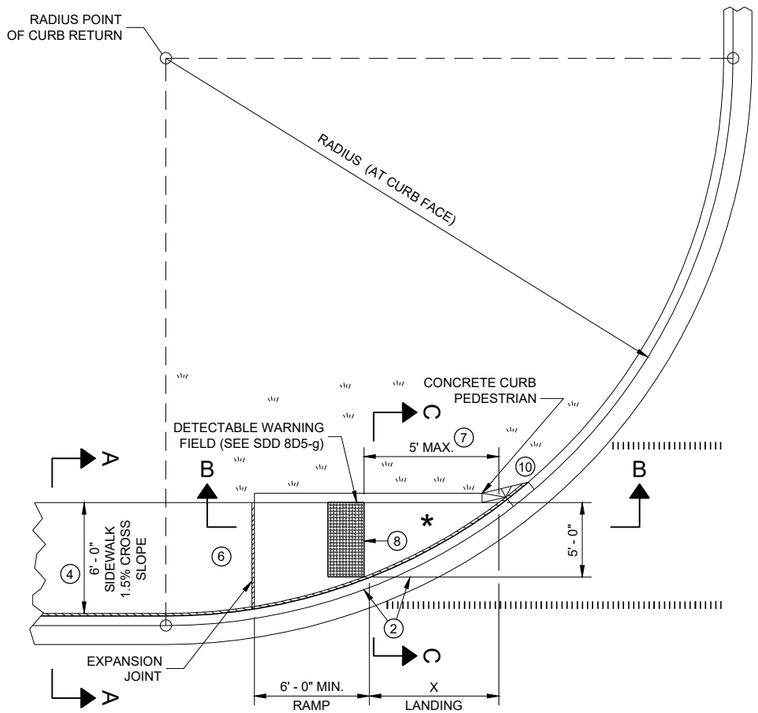
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20b

6

SDD 08D05 - 20b

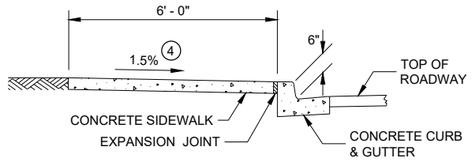


PLAN VIEW

CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5½"

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.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

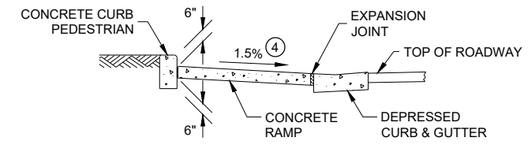
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

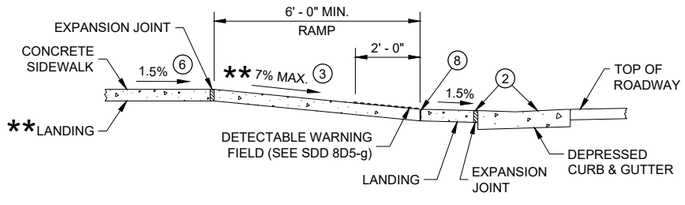
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)

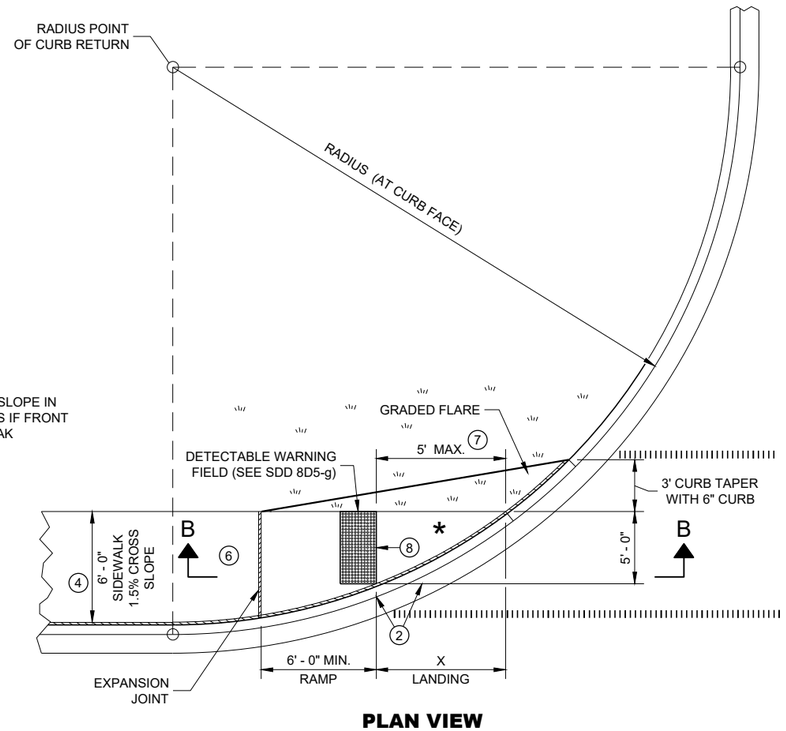


SECTION C - C FOR TYPE 4A



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

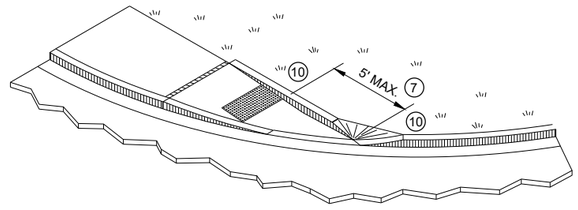
SECTION B - B FOR TYPE 4A AND TYPE 4A1



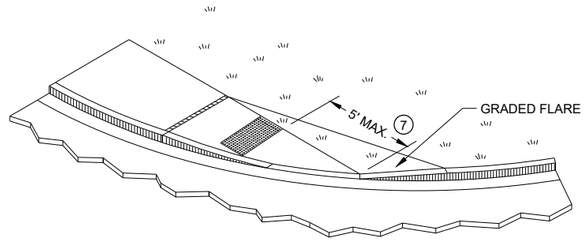
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



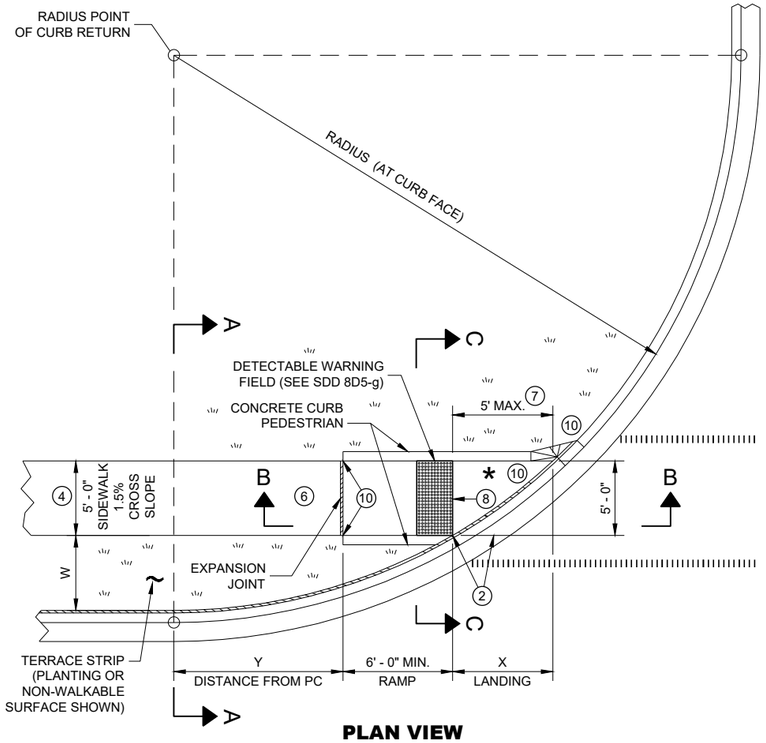
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20c

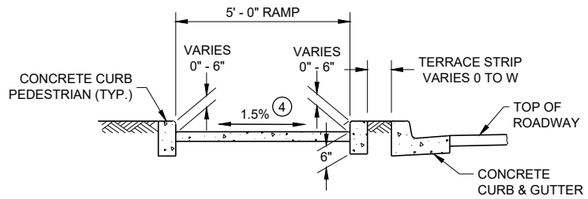


PLAN VIEW

CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET	5' - 9 ¾"	3' - 6 ½"	4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET			6' - 9 ¼"	7' - 11 ¼"	6' - 0 ¼"	9' - 8"	5' - 5"	11' - 1 ¾"	4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET									6' - 1 ¾"	15' - 8 ½"	5' - 8"	17' - 2"	5' - 3"	18' - 5 ¾"	4' - 10 ¾"	19' - 8 ¼"
50 FEET															5' - 10 ¼"	23' - 2"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



SECTION C - C FOR TYPE 4B

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

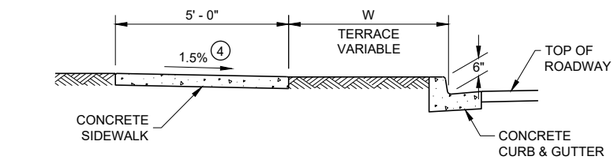
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

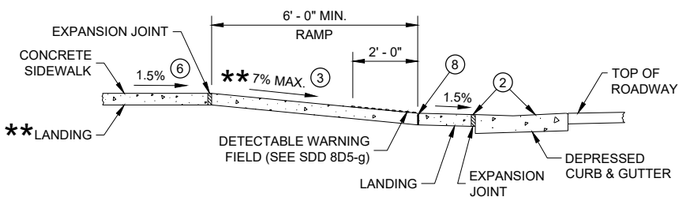
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



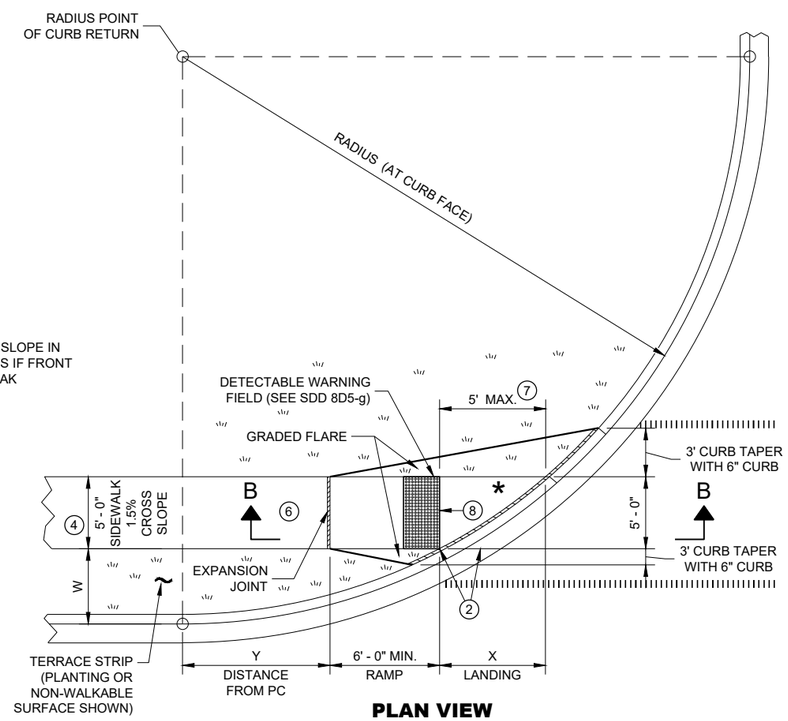
SECTION A - A FOR TYPE 4B



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

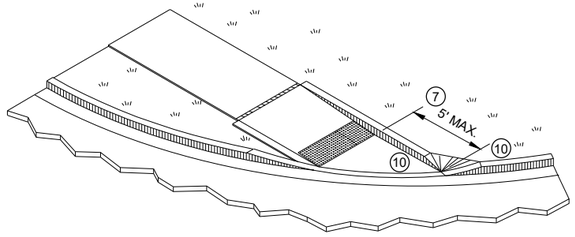
SECTION B - B FOR TYPE 4B AND TYPE 4B1

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

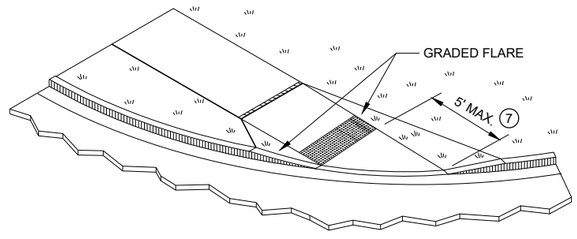


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



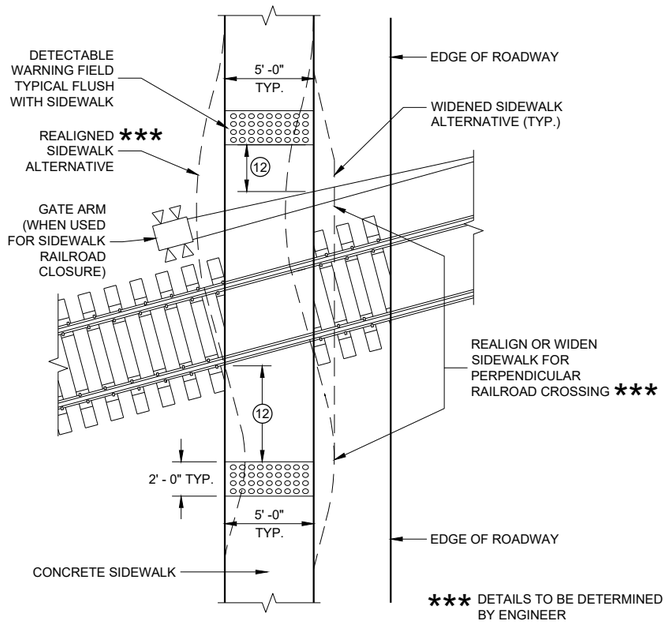
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

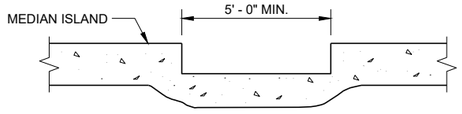
6

SDD 08D05 - 20d

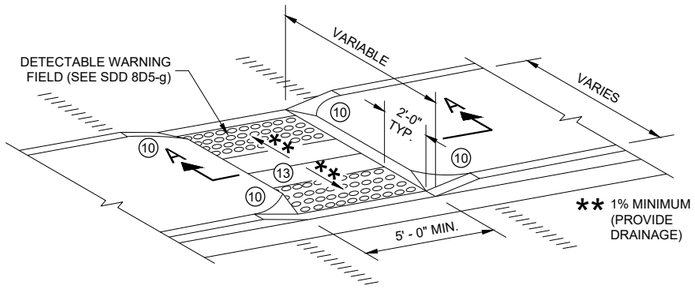


CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

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.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ½ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

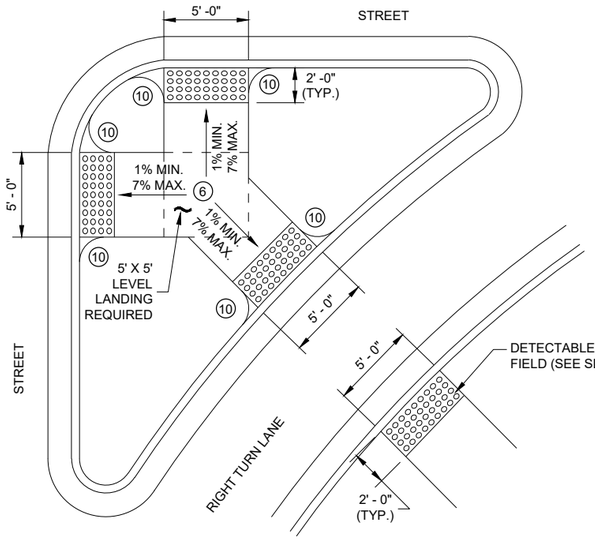
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) 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.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

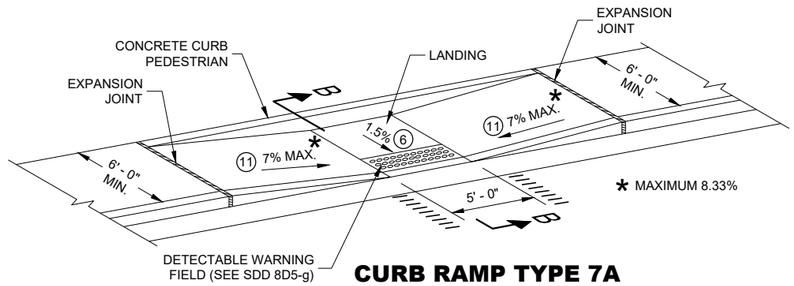
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

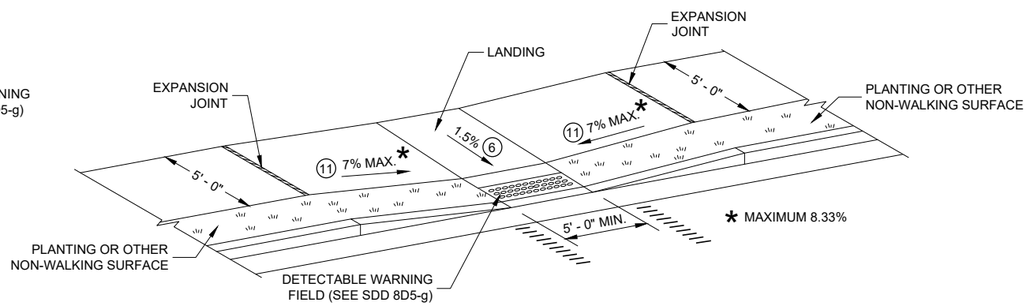
DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



CURB RAMP TYPE 7A

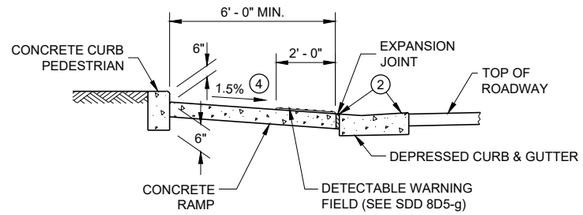
MID BLOCK CROSSING



CURB RAMP TYPE 7B

MID BLOCK CROSSING

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.



SECTION B - B FOR TYPE 7A

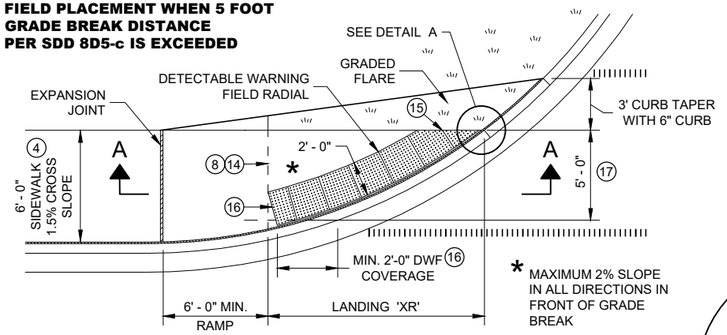
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20e

SDD 08D05 - 20e

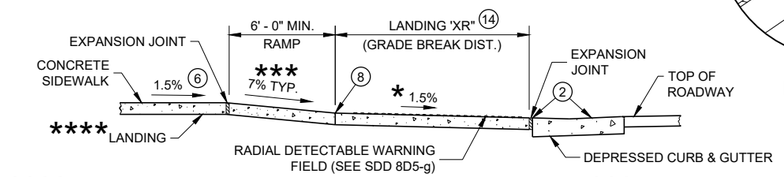
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



PLAN VIEW

CURB RAMP TYPE 4A1

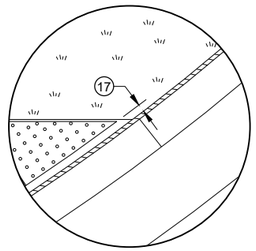
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1



DETAIL A

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

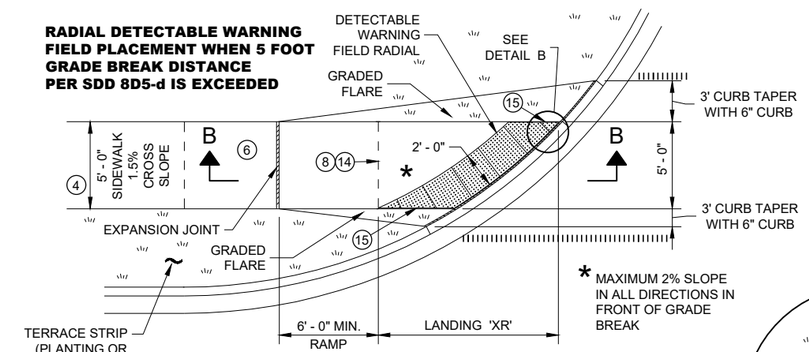
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

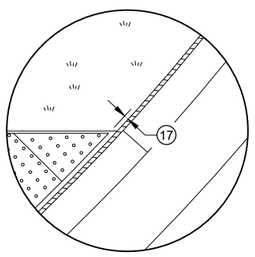
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



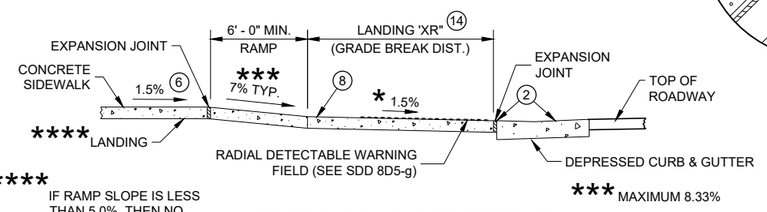
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B

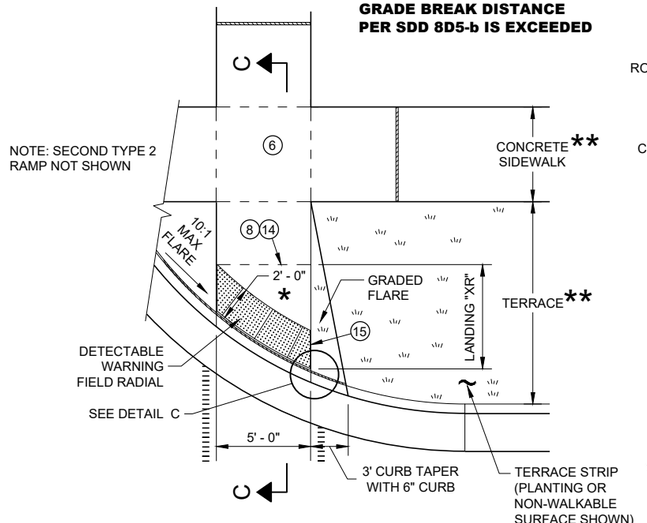


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION B - B FOR TYPE 4B1

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED

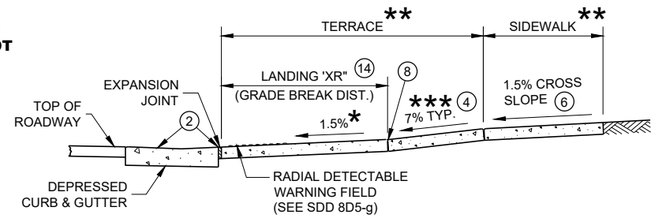


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

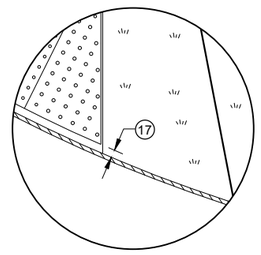


SECTION C - C FOR TYPE 2

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



DETAIL C

CURB RAMPS
RADIAL DETECTABLE WARNING FIELD APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

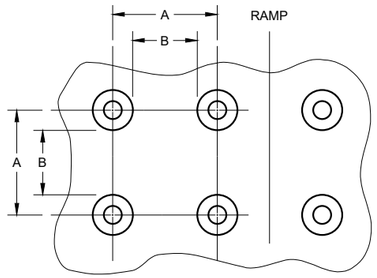
SDD 08D05 - 20f

6

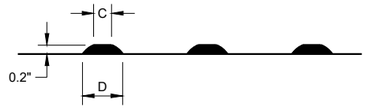
SDD 08D05 - 20f

	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.

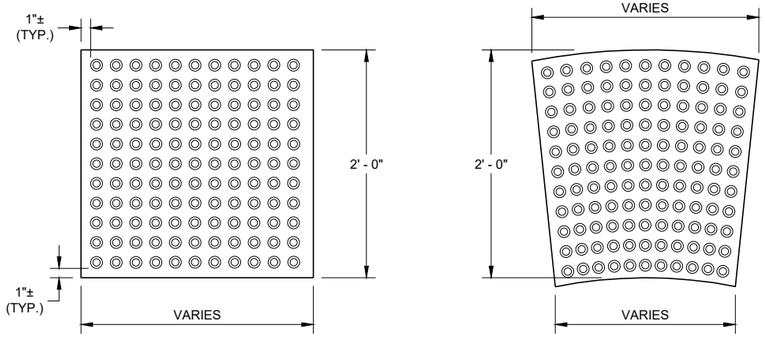


PLAN VIEW



ELEVATION VIEW

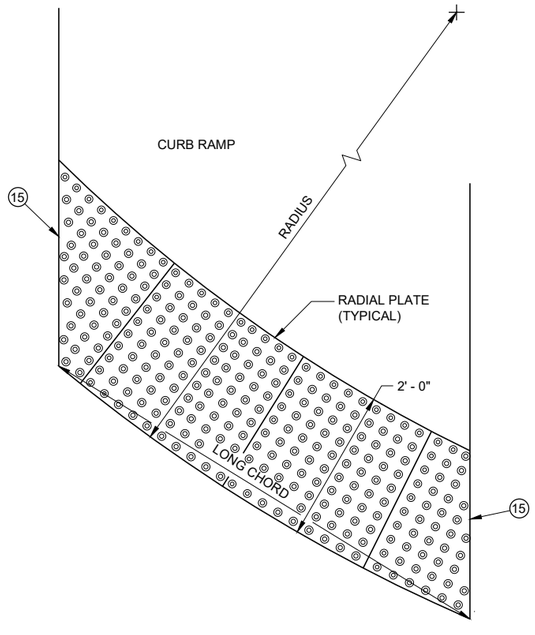
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

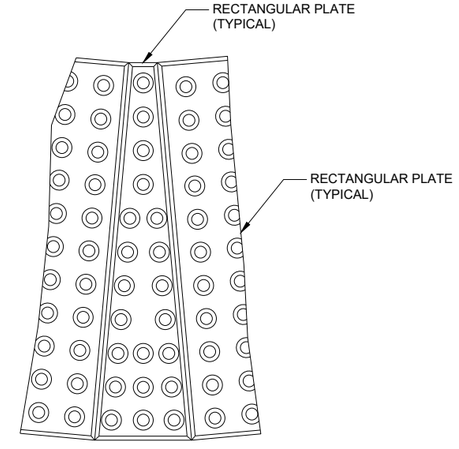
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

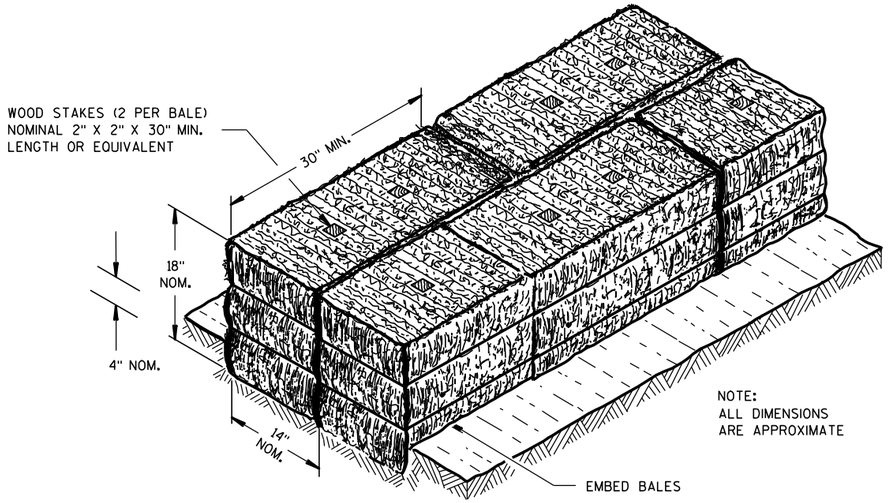
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

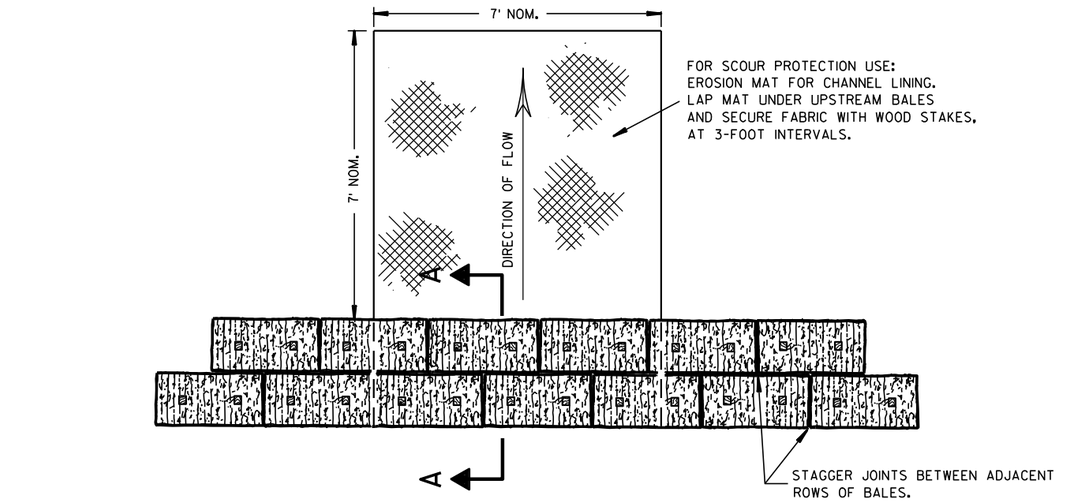
FHWA

6

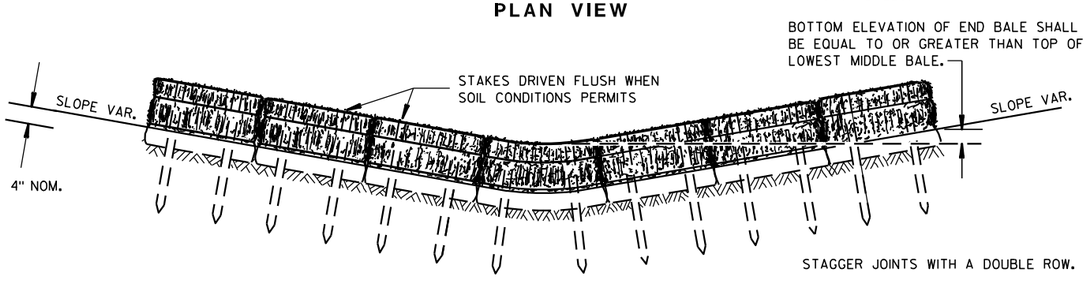
SDD 08D05 - 20g



SECTION A-A



PLAN VIEW



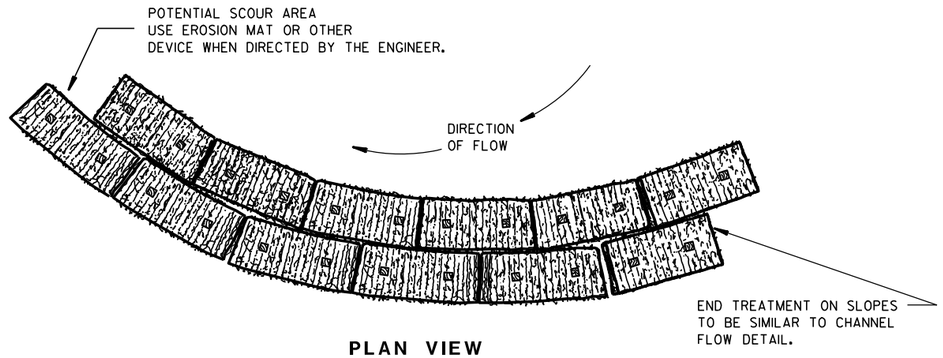
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

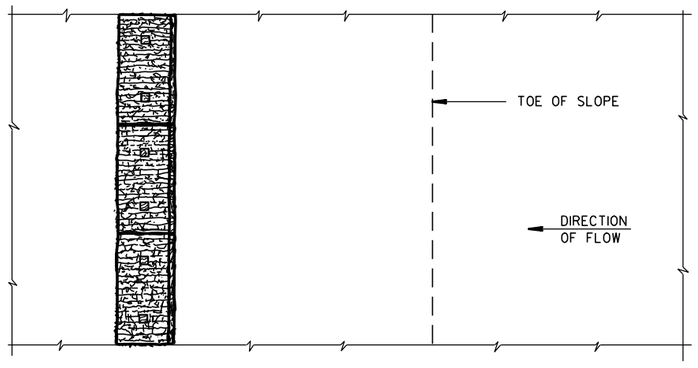
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

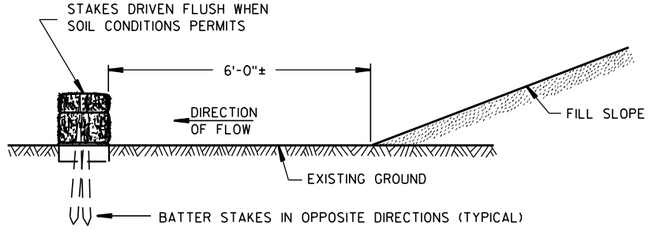


PLAN VIEW

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

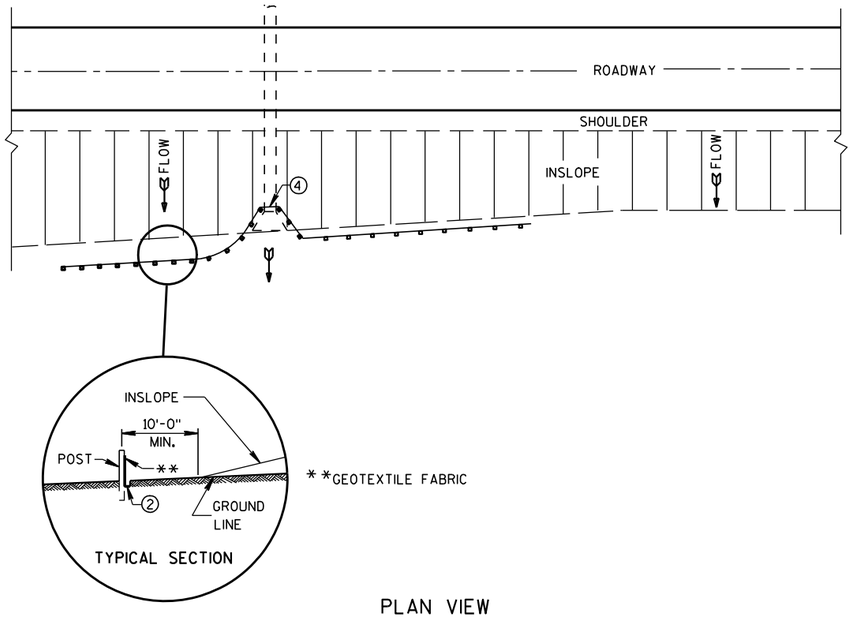
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

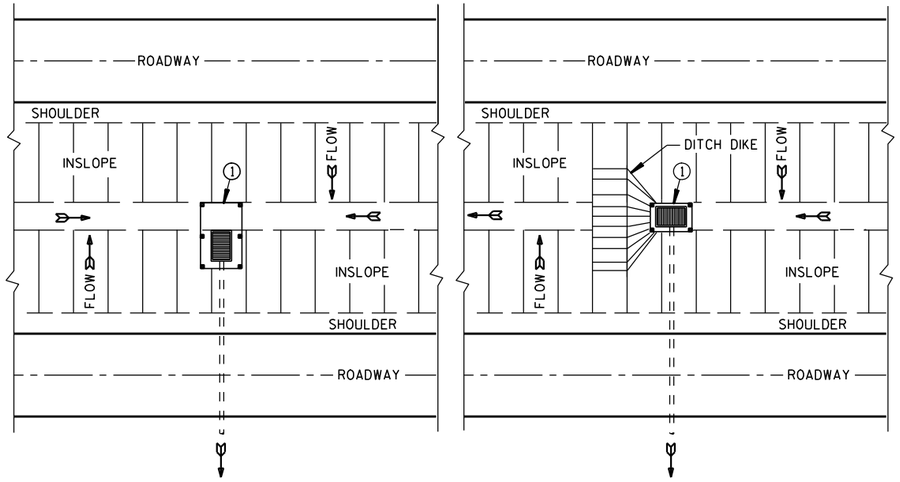
6

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.

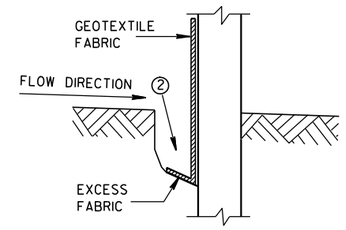
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

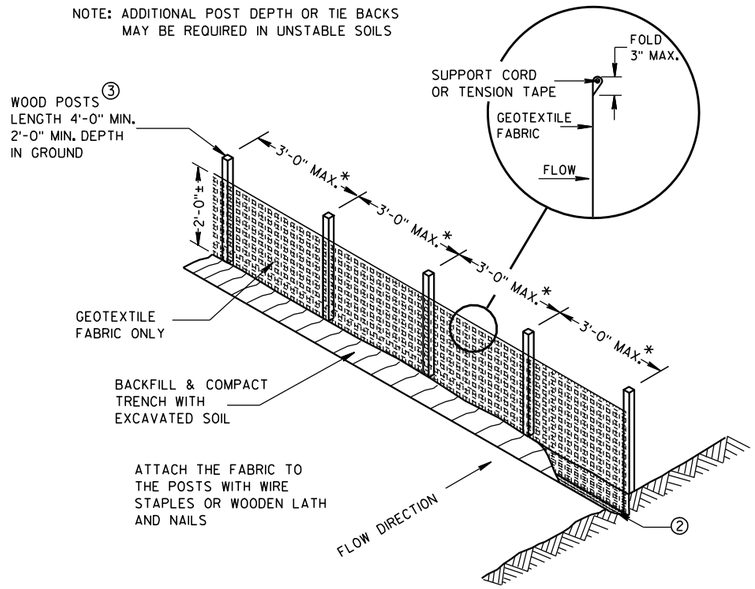
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

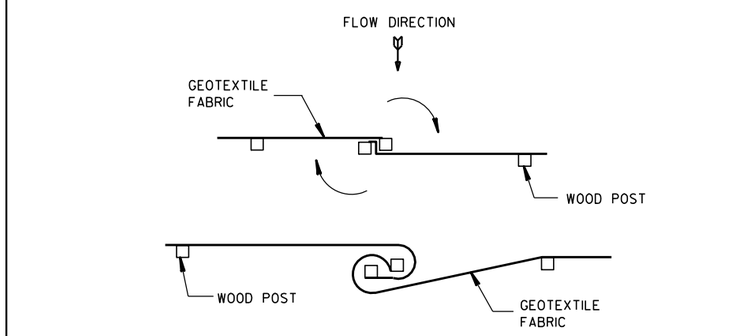
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



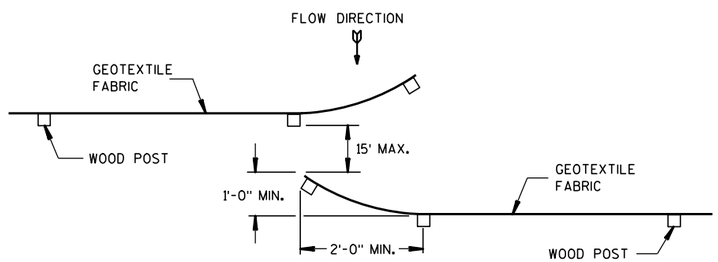
TRENCH DETAIL



SILT FENCE

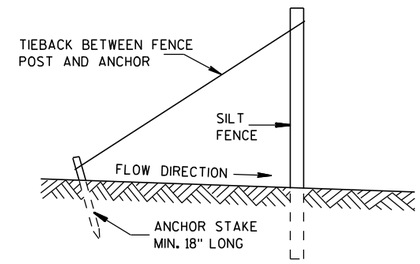


TWIST METHOD



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

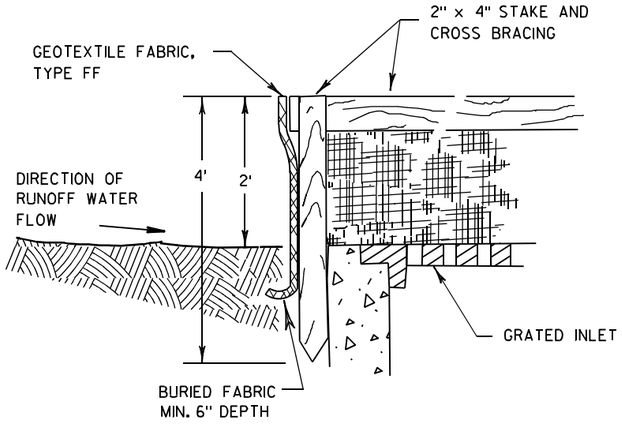
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

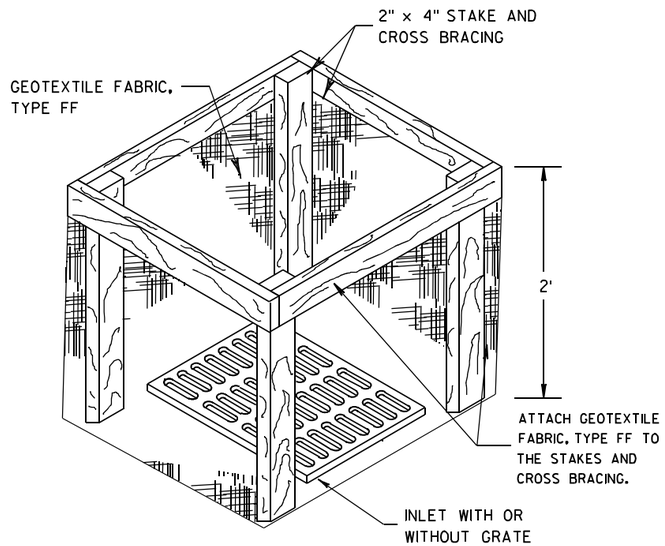
6

S.D.D. 8 E 9-6

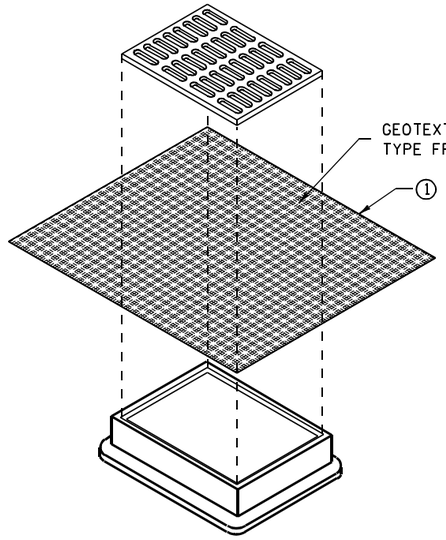
6

S.D.D. 8 E 9-6



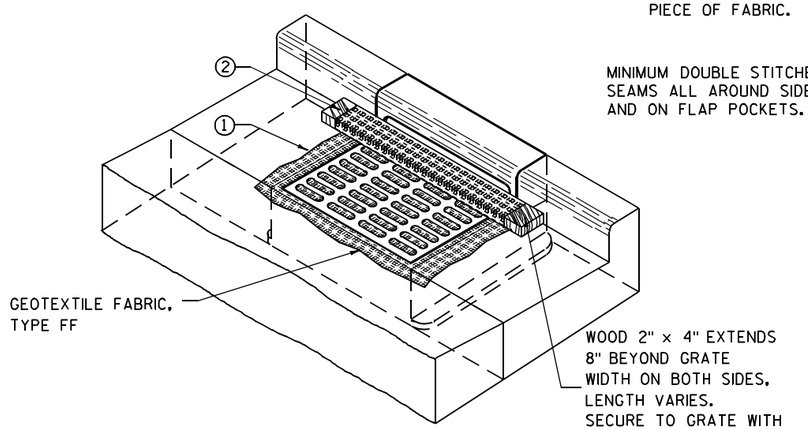


INLET PROTECTION, TYPE A

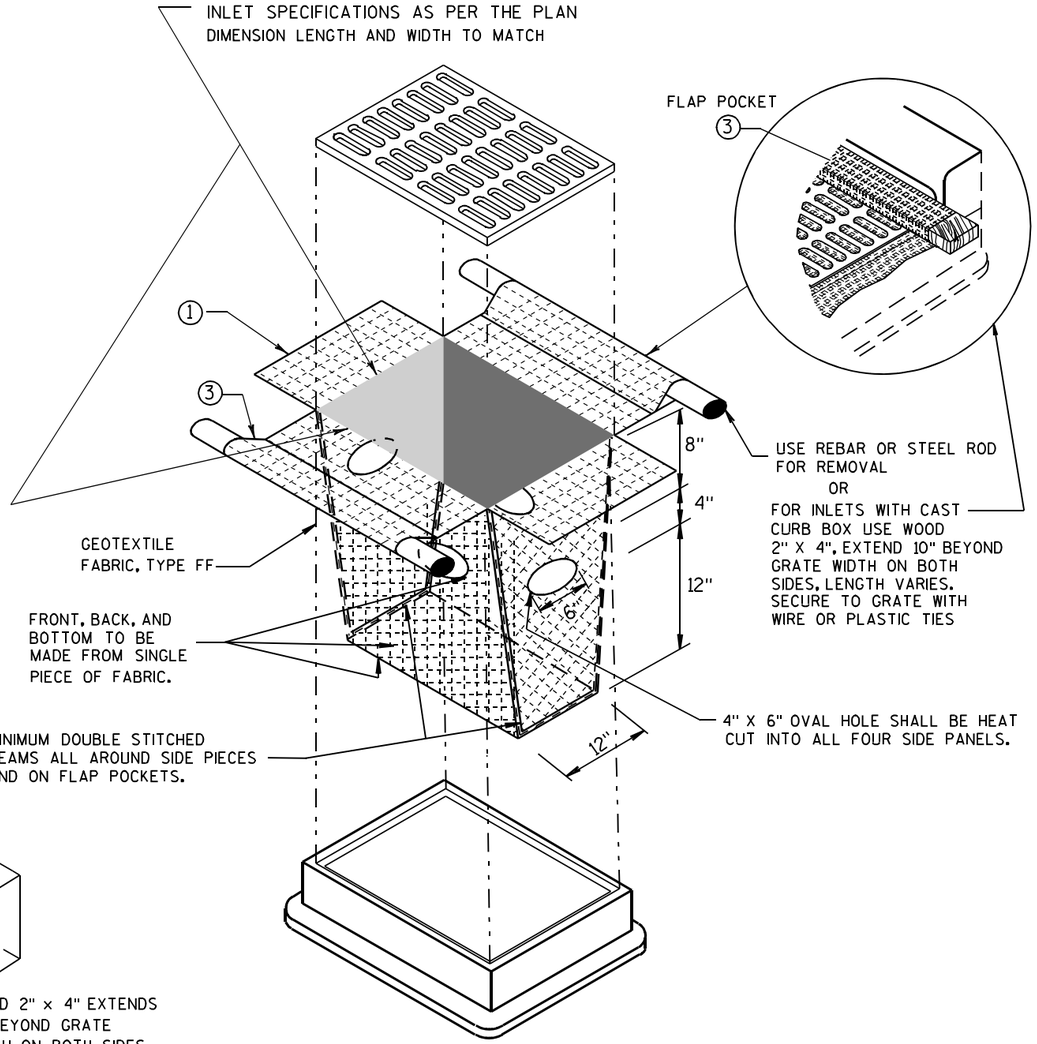


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

6

S.D.D. 8 E 10-2

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

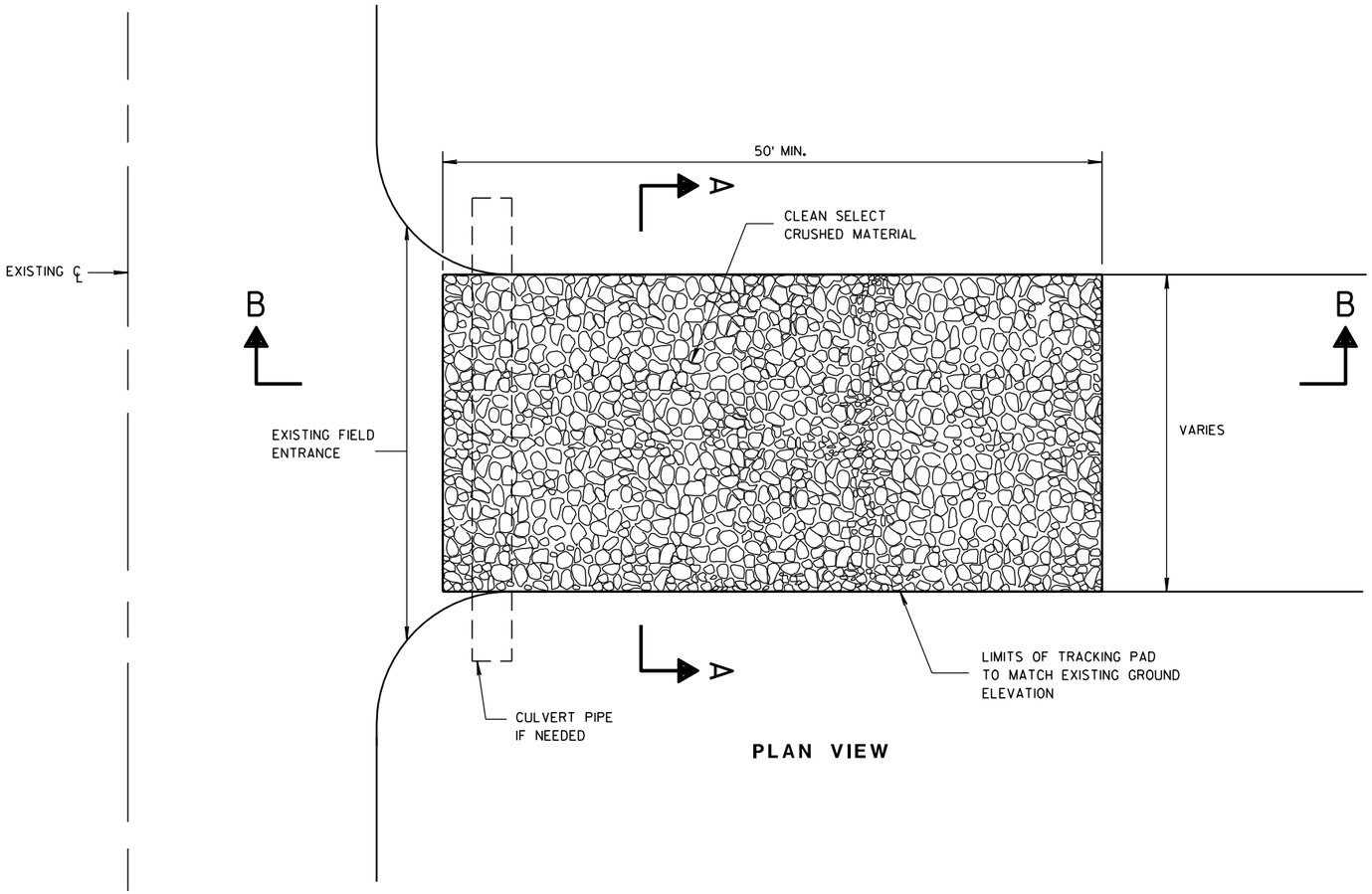
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

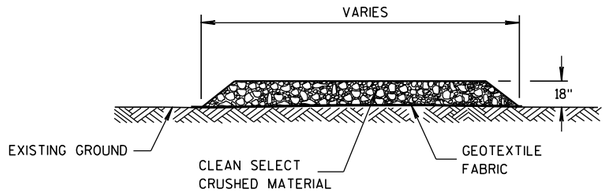
SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

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.

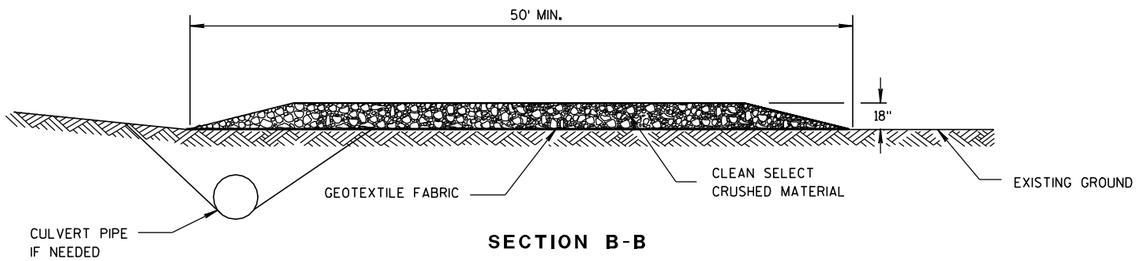
THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



PLAN VIEW



SECTION A-A



SECTION B-B

TRACKING PAD

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

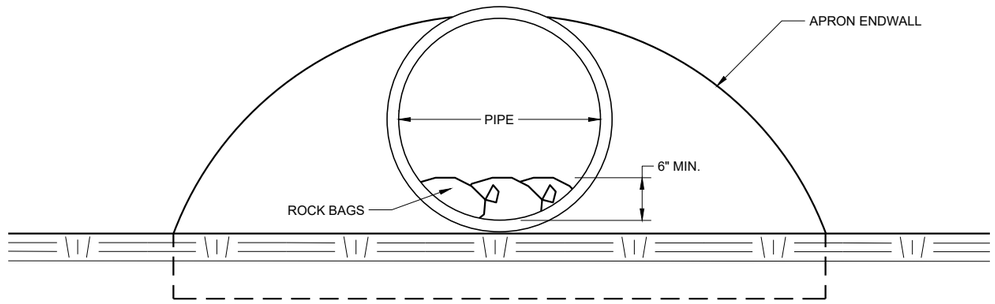
3/24/2011	/S/ Jerry H. Zoda	
DATE	ROADWAY STANDARDS ENGINEER	ENT

FHWA

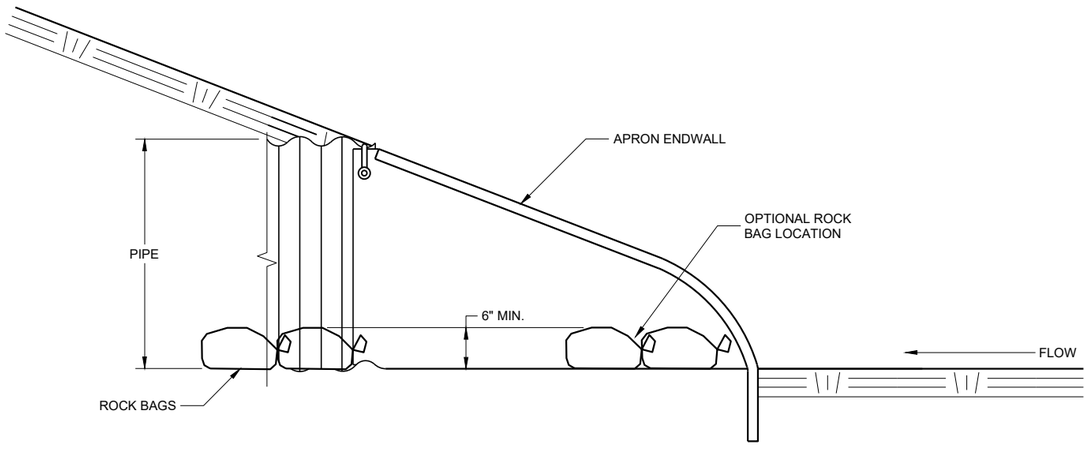
300

6

S.D.D. 8 E 14-1



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Daniel Schave
EROSION CONTROL ENGI

FHWA

6

SDD 08E15 - 01

6

SDD 08E15 - 01

METAL APRON ENDWALLS

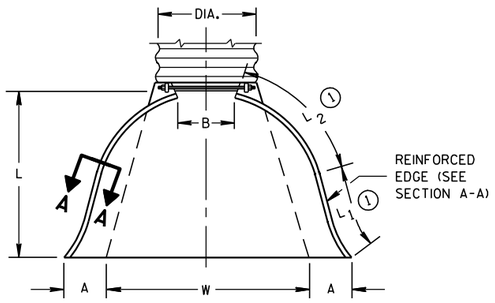
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

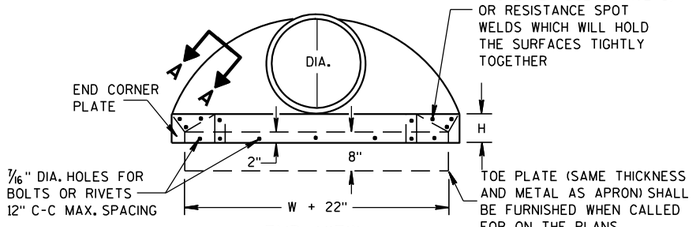
REINFORCED CONCRETE APRON ENDWALLS

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

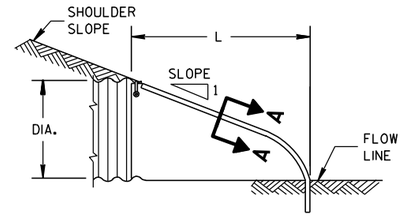
*MINIMUM
**MAXIMUM



PLAN VIEW

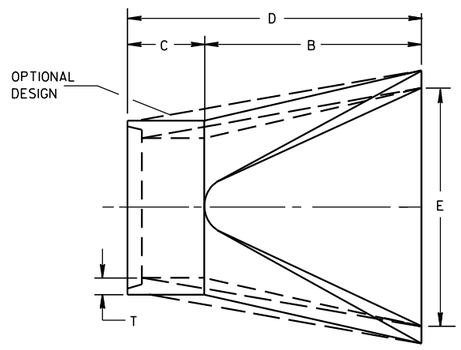


END VIEW

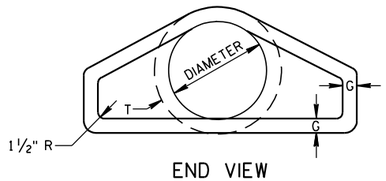


SIDE ELEVATION

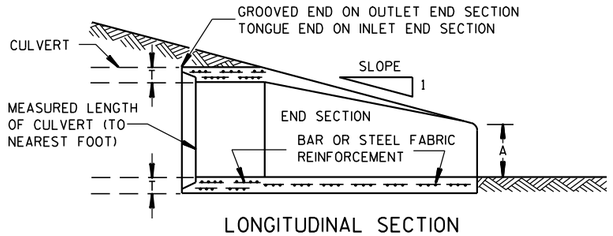
METAL ENDWALLS



PLAN

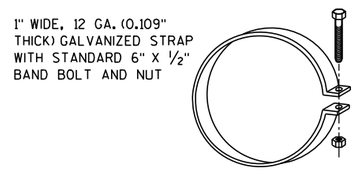


END VIEW



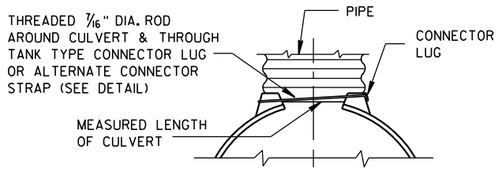
LONGITUDINAL SECTION

CONCRETE ENDWALLS

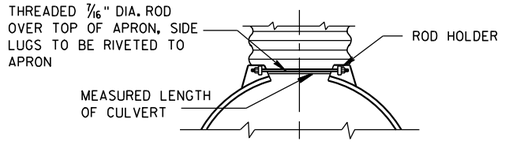


ALTERNATE FOR TYPE 1 CONNECTION

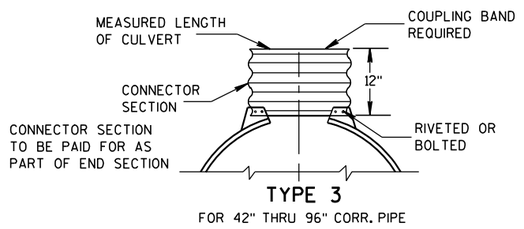
END SECTION CONNECTOR STRAP



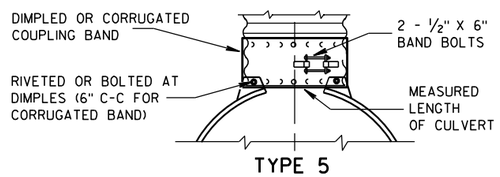
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

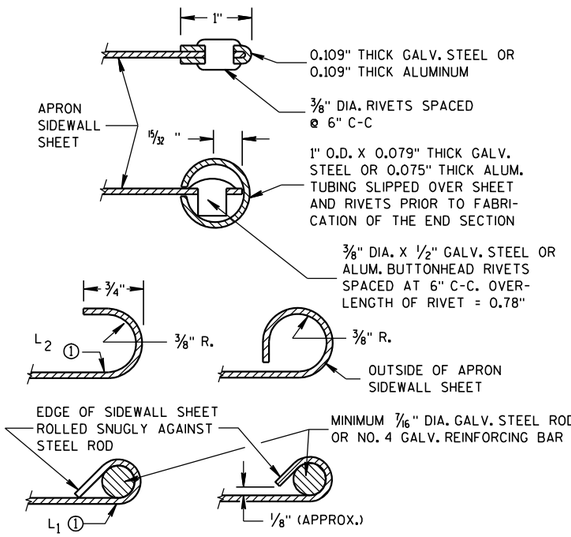
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

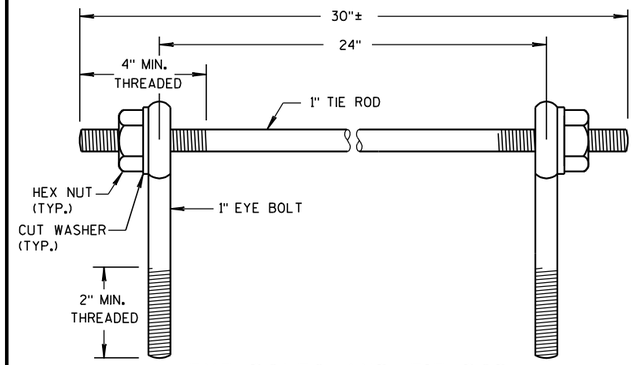
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

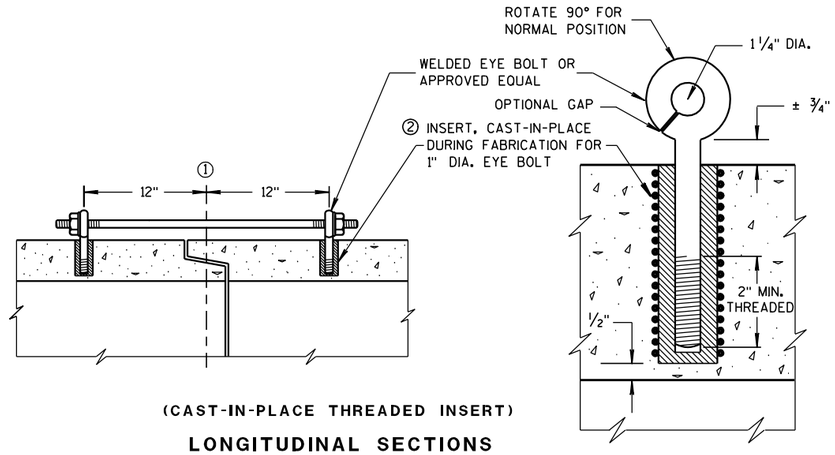
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOP 302 NEER
FHWA



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.

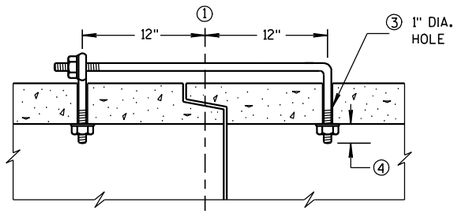
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

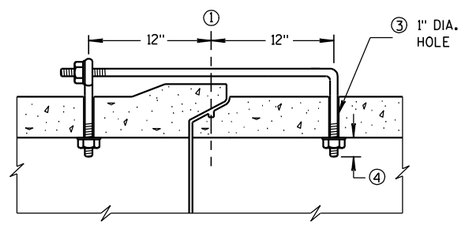
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

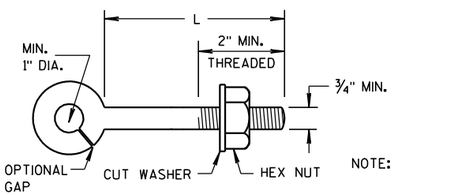


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

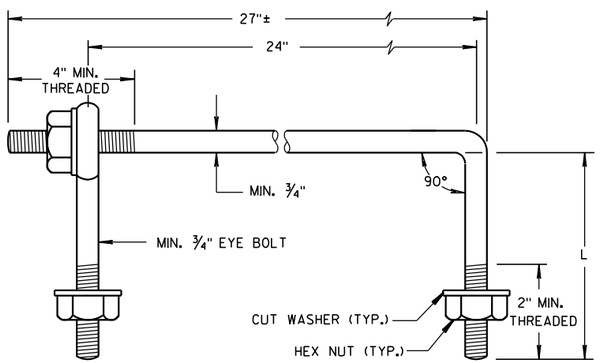
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

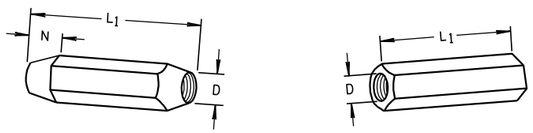
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

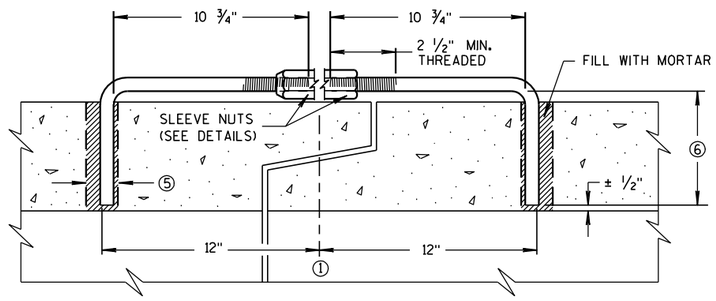
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

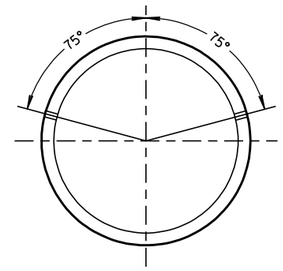
SLEEVE NUTS



LONGITUDINAL SECTION

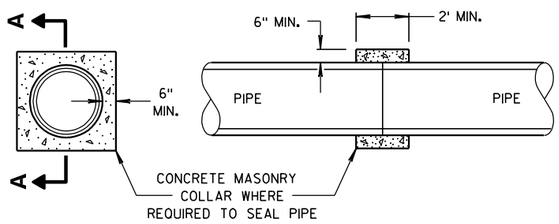
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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

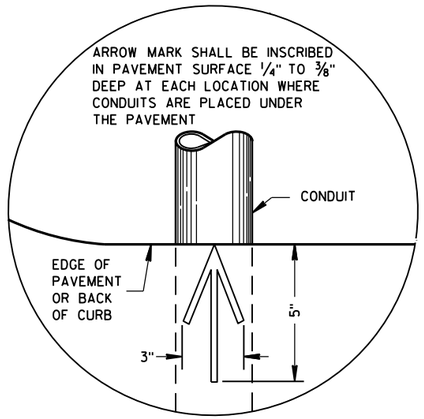
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
303
FHWA

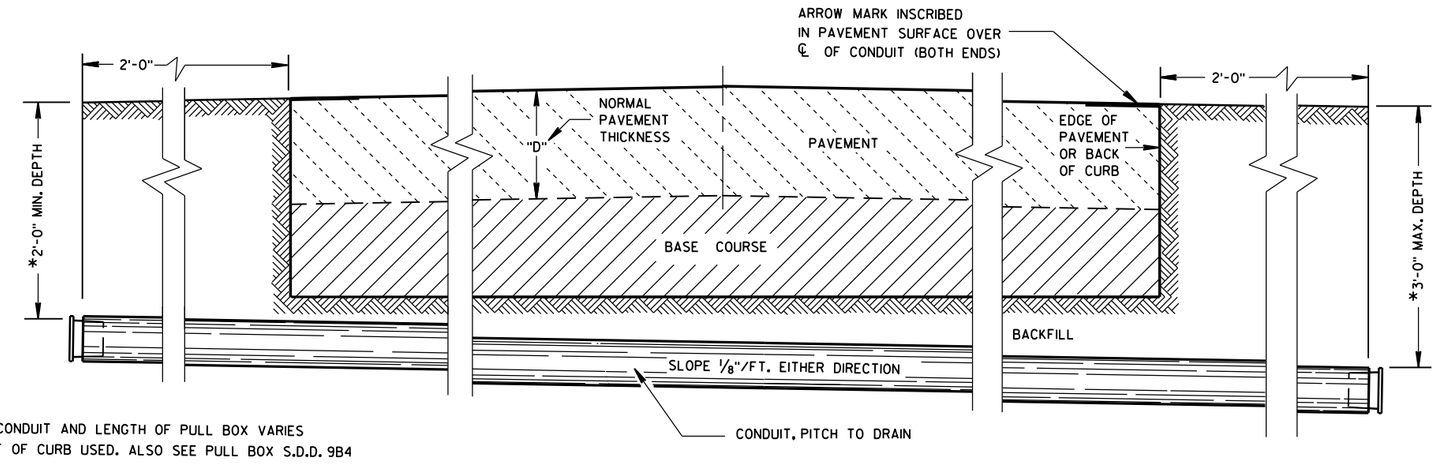
6

S.D.D. 8 F 4-7



PLAN VIEW

ARROW MARK



*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

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.).

TRACER 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.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

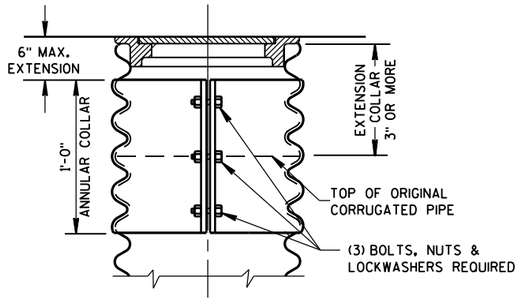
S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

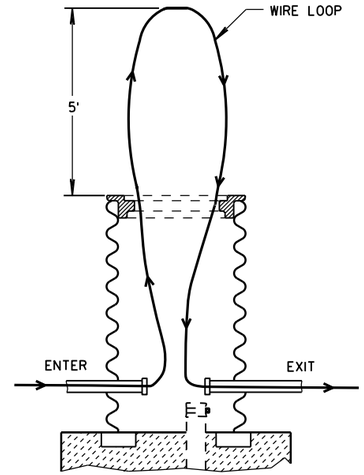
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	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.

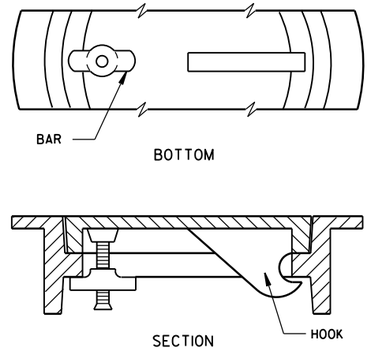
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

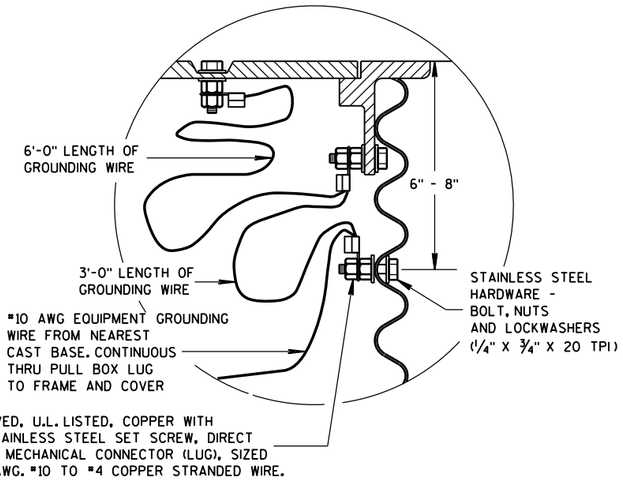


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

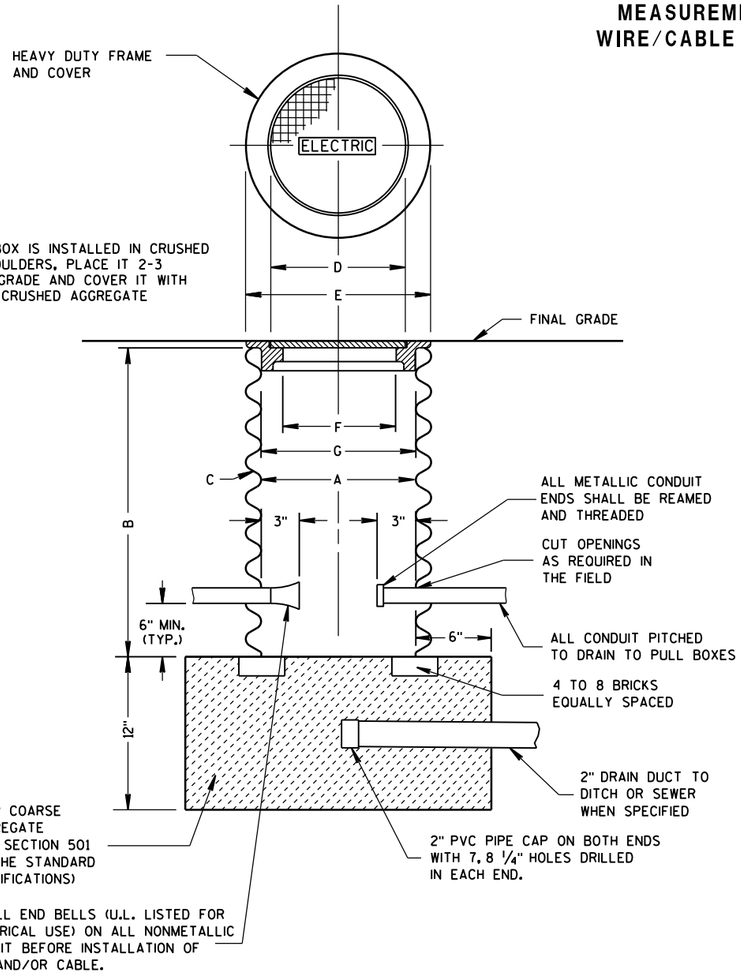


ALTERNATE COVER (LOCKING)

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.

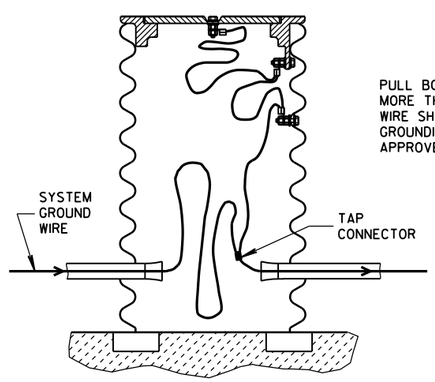
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

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.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

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

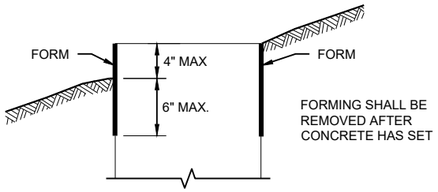
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 4-11

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
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 DRAWINGSHALL 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 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 A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X 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 NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL BENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC 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, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES 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 OF THE STANDARD SPECIFICATIONS.

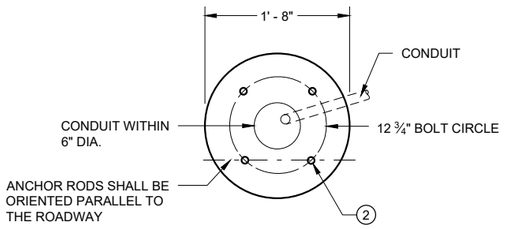
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

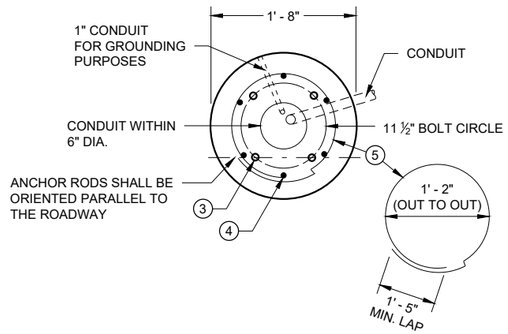
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

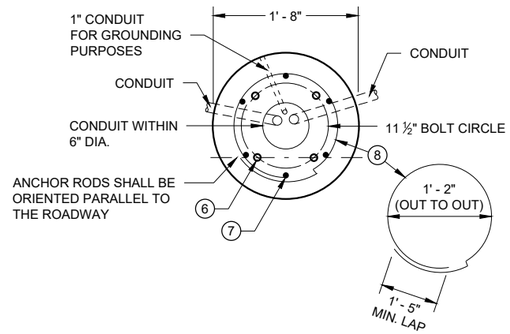
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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 OF 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 STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

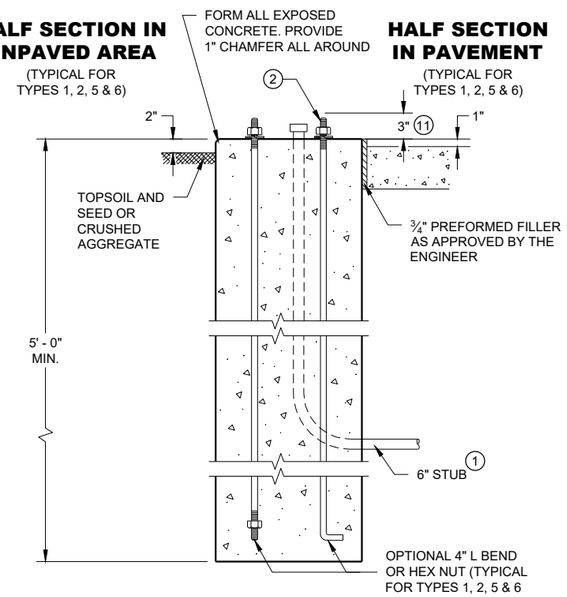
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

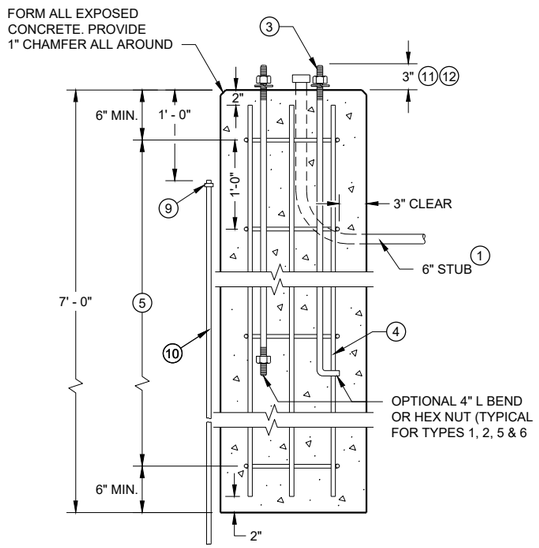
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

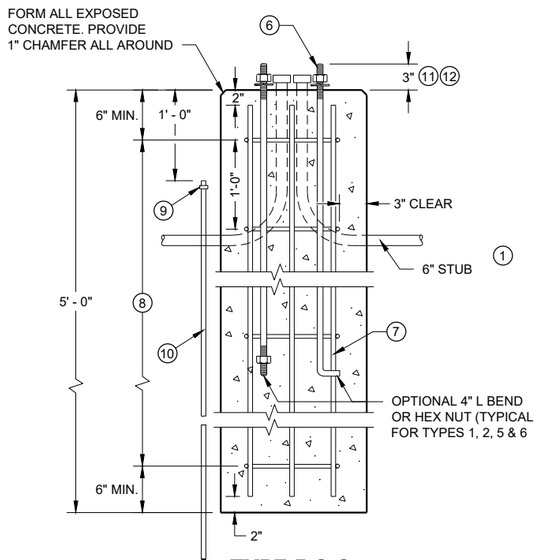
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 306
FHWA

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.

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, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

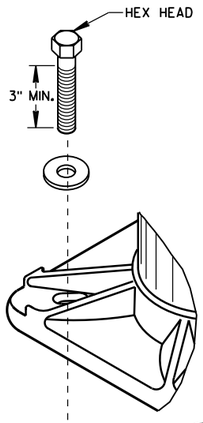
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

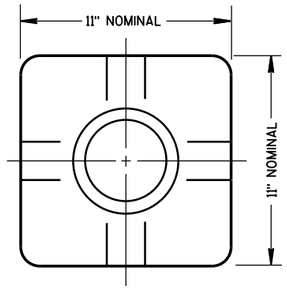
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

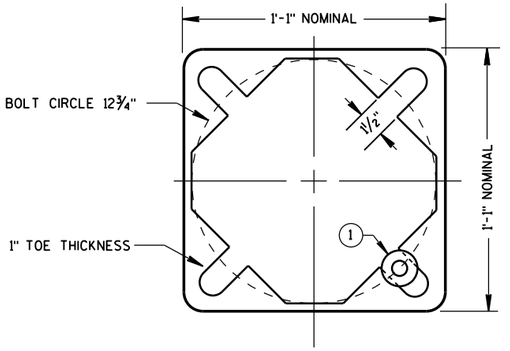
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

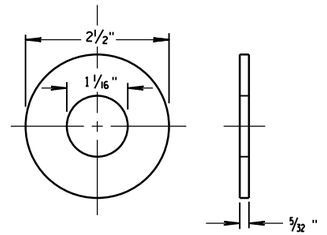




TOP VIEW
(PEDESTAL BASE)

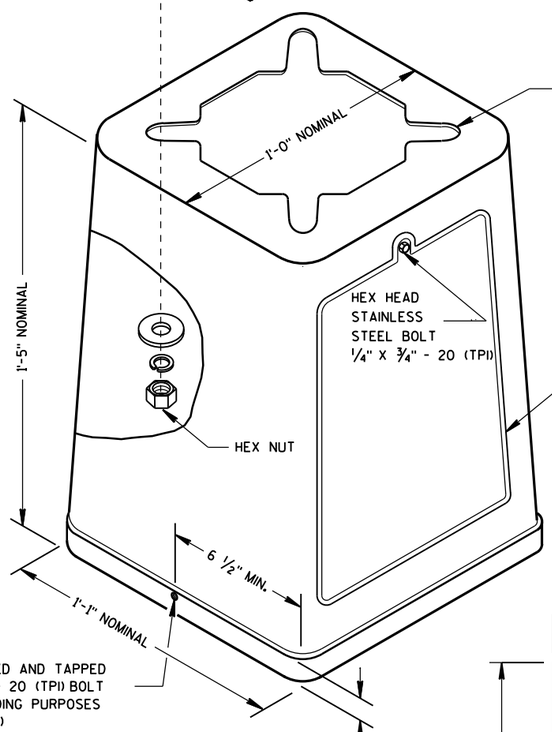


BOTTOM VIEW
(PEDESTAL BASE)

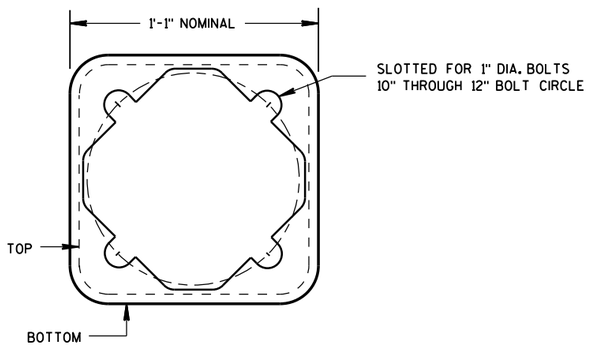


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

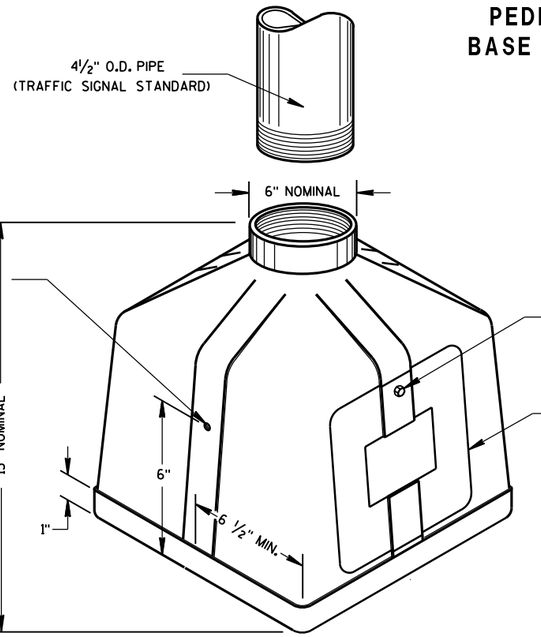
PEDESTAL BASE WASHER (1)



ISOMETRIC VIEW

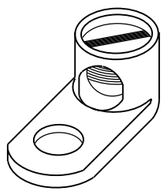


BOTTOM VIEW
(TRANSFORMER BASE)



ISOMETRIC VIEW

PEDESTAL BASE

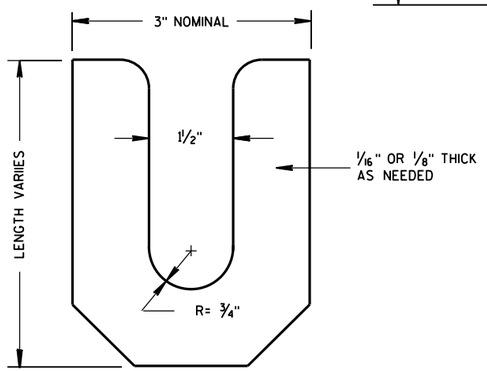


TYPICAL MECHANICAL CONNECTOR LUG

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

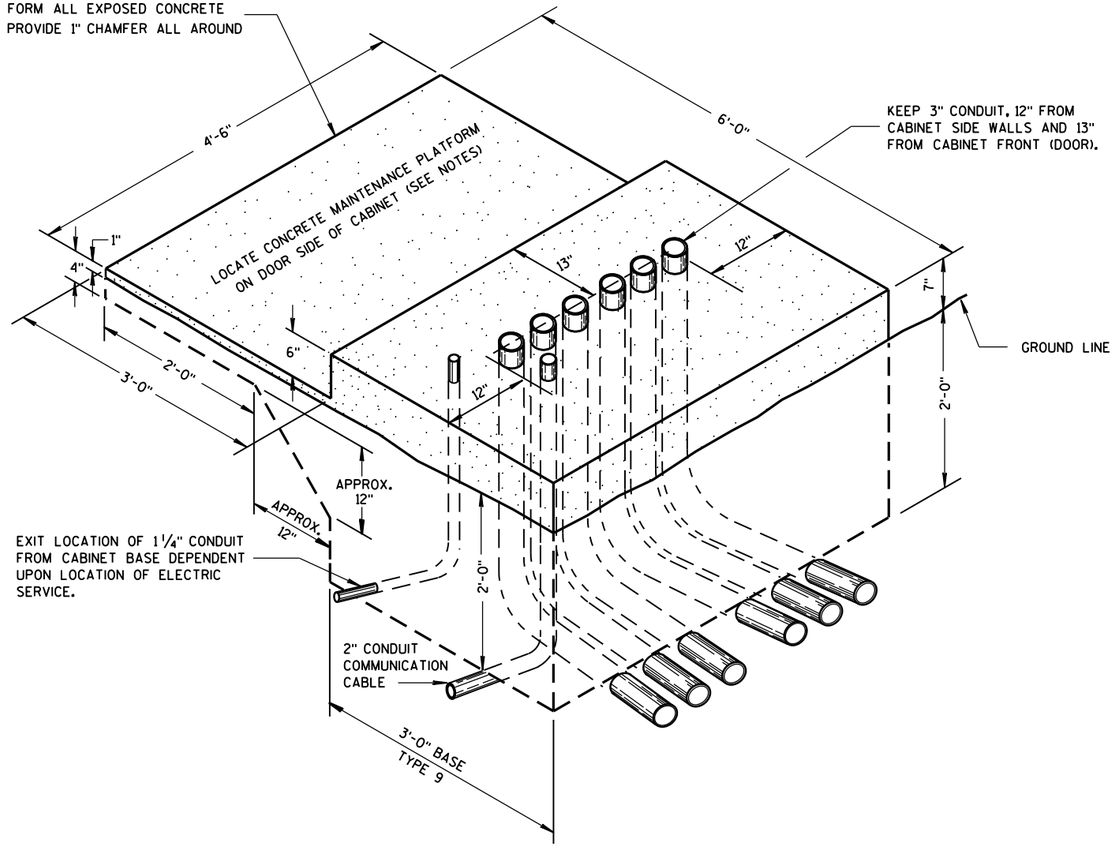
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 C 3-4

6

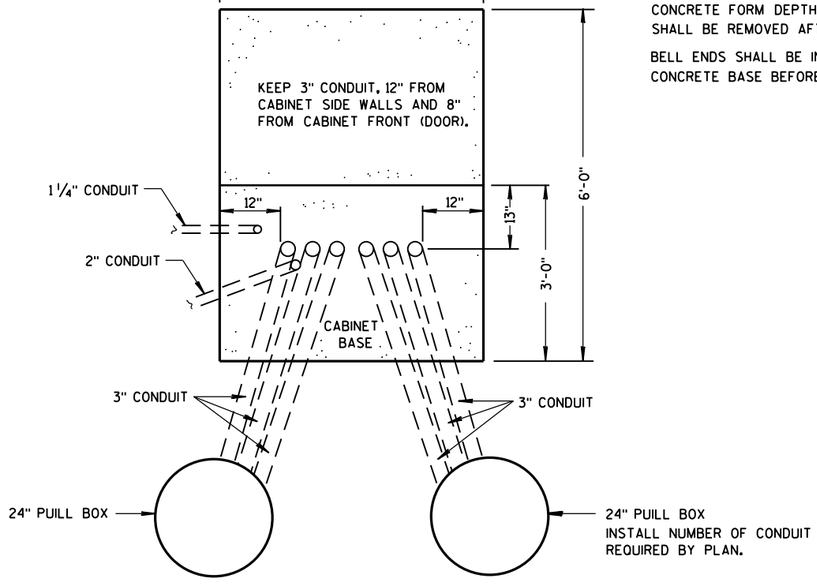
S.D.D. 9 C 3-4



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 WITH A PULLOUT STRENGTH OF 9,000 LBS. 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
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 308
FHWA

6
S.D.D. 9 C 6-7

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.

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.

ANCHOR RODS SHALL BE 1" X 60".

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 OF THE STANDARD SPECIFICATIONS.

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.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

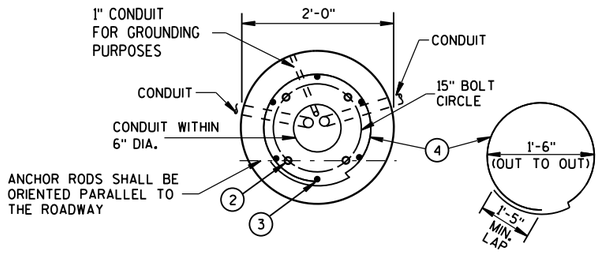
BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

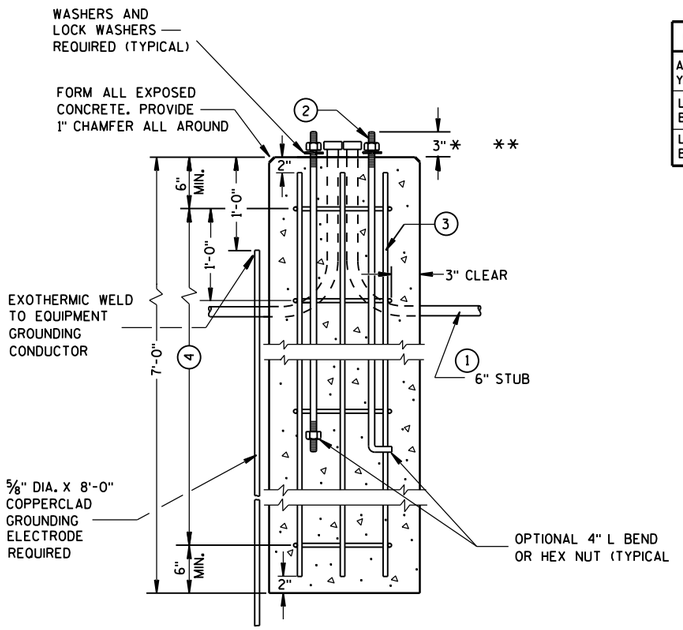
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 5'-0" ANCHOR RODS.

(3) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

(4) (7) NO. 4 X 6'-2" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

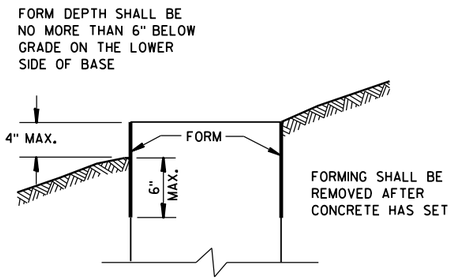




CONCRETE BASE, TYPE 7 (FOR 40' LIGHT POLES)

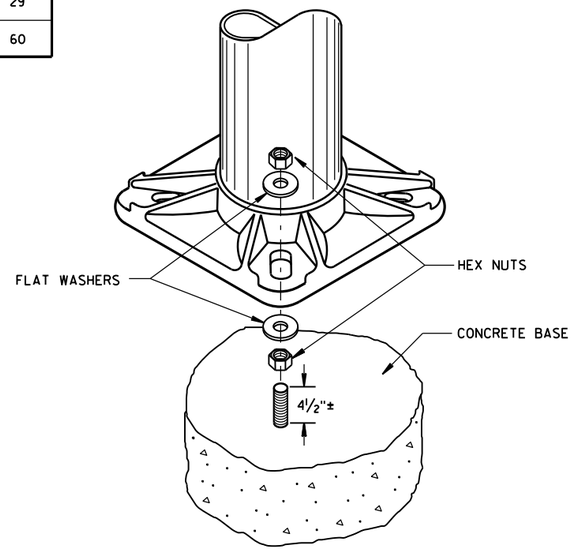
* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.



FORMING DETAIL

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	0.8
LBS. OF HOOP BAR STEEL	29
LBS. OF VERTICAL BAR STEEL	60



NON-BREAKAWAY INSTALLATION (LEVELING NUT)

CONCRETE BASE, TYPE 7

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6
S.D.D. 9 C 8-5

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).

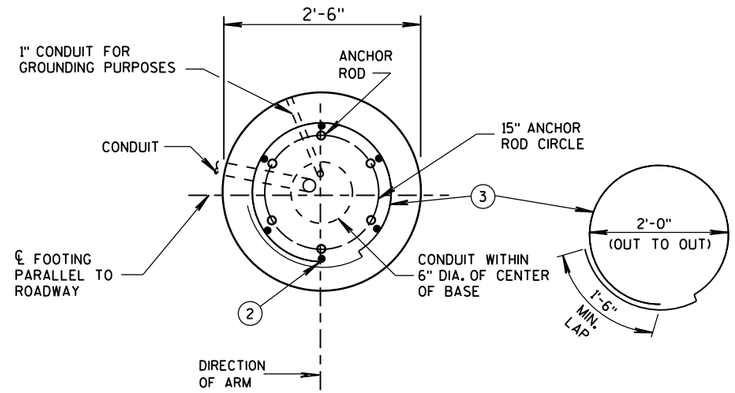
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

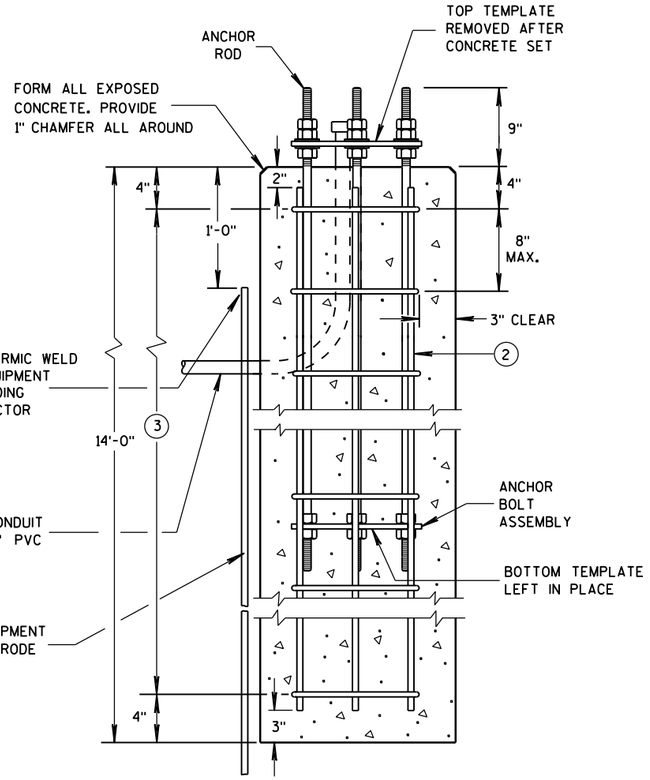
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES. (GREATER THAN 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) (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. 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, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.

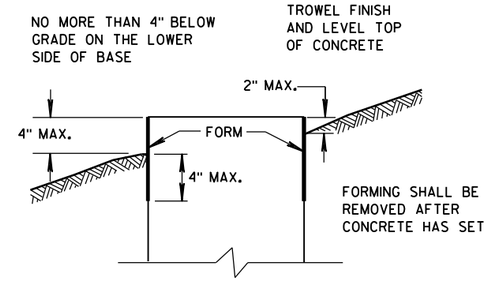




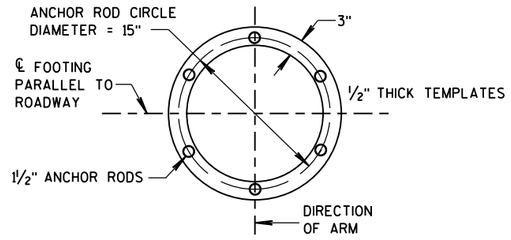
CONCRETE BASE TYPE 10

(FOR TYPE 9 & 10 & OVER HEIGHT (OH) POLES)

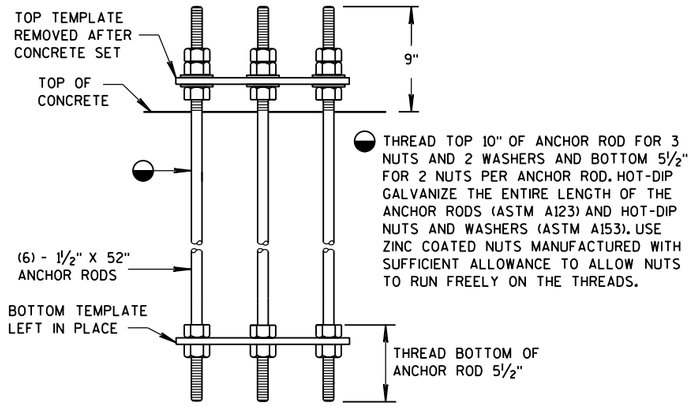
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



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	172
LBS. OF VERTICAL BAR STEEL	122

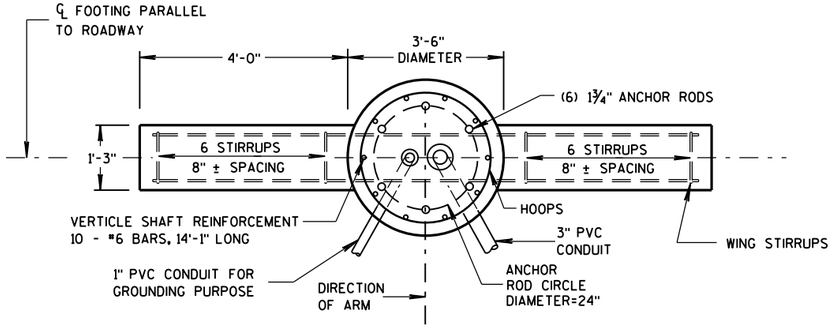
CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

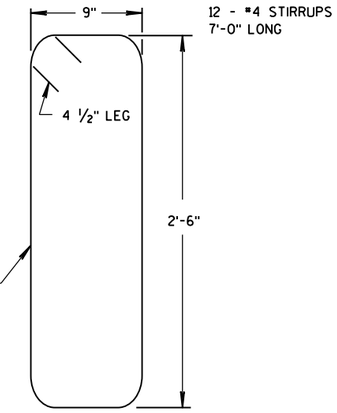
APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

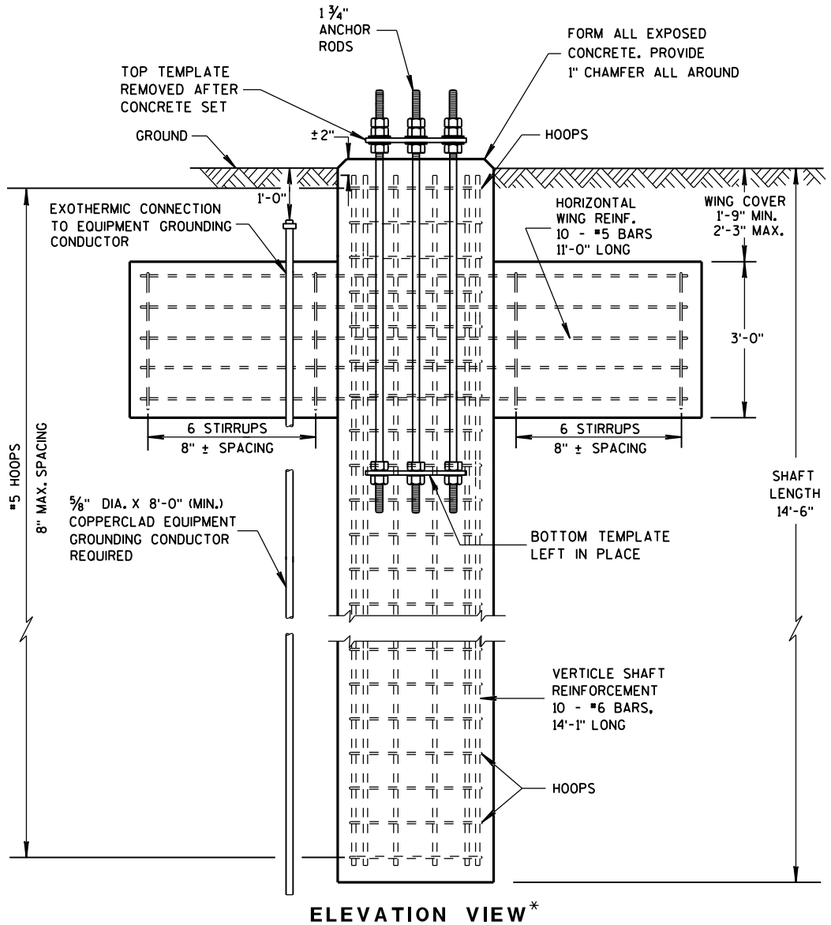
S.D.D. 9 C 11-10



PLAN VIEW

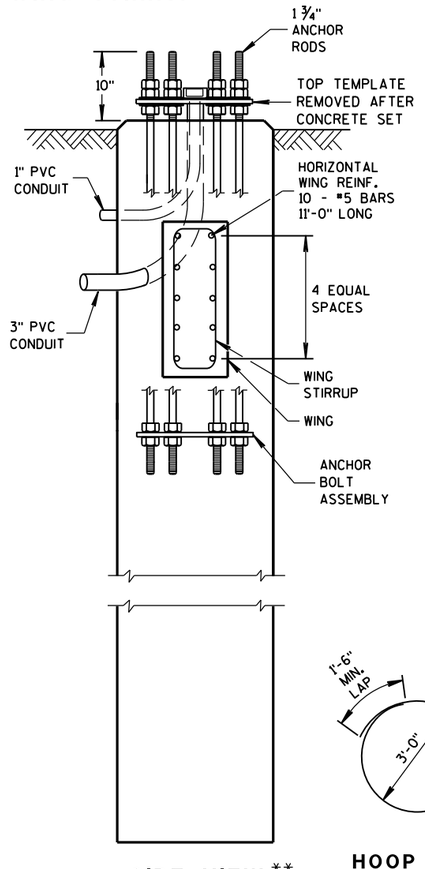


WING STIRRUP



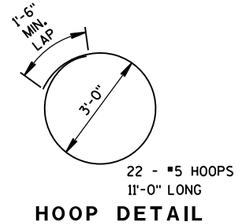
ELEVATION VIEW*

* CONDUITS ARE NOT SHOWN ON THIS VIEW FOR CLARITY



SIDE VIEW**

** HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY



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, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATIONS	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 & OVER HEIGHT (OH) POLES)

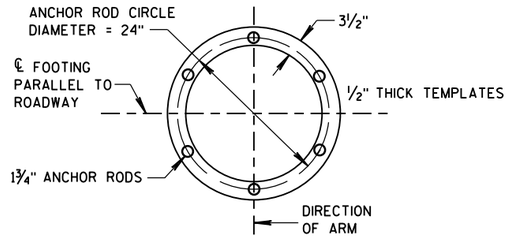
CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 635 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

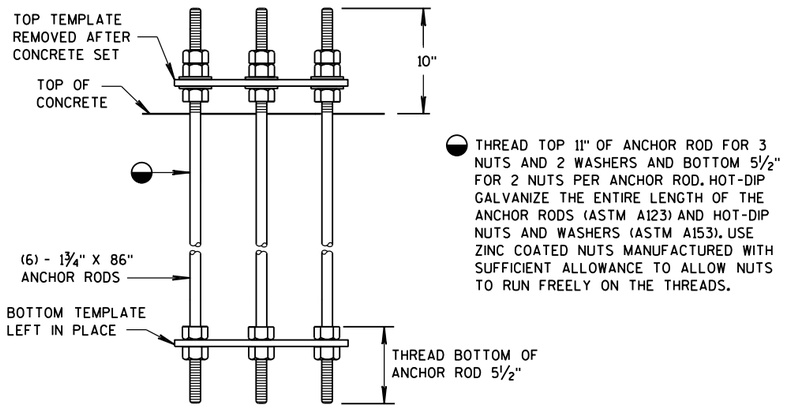
CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 9 C 12-9a

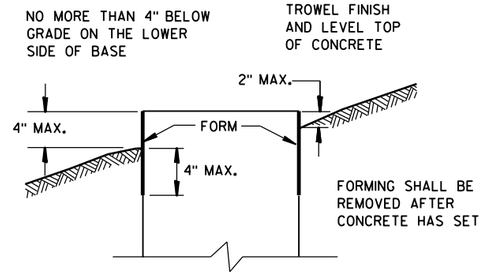


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

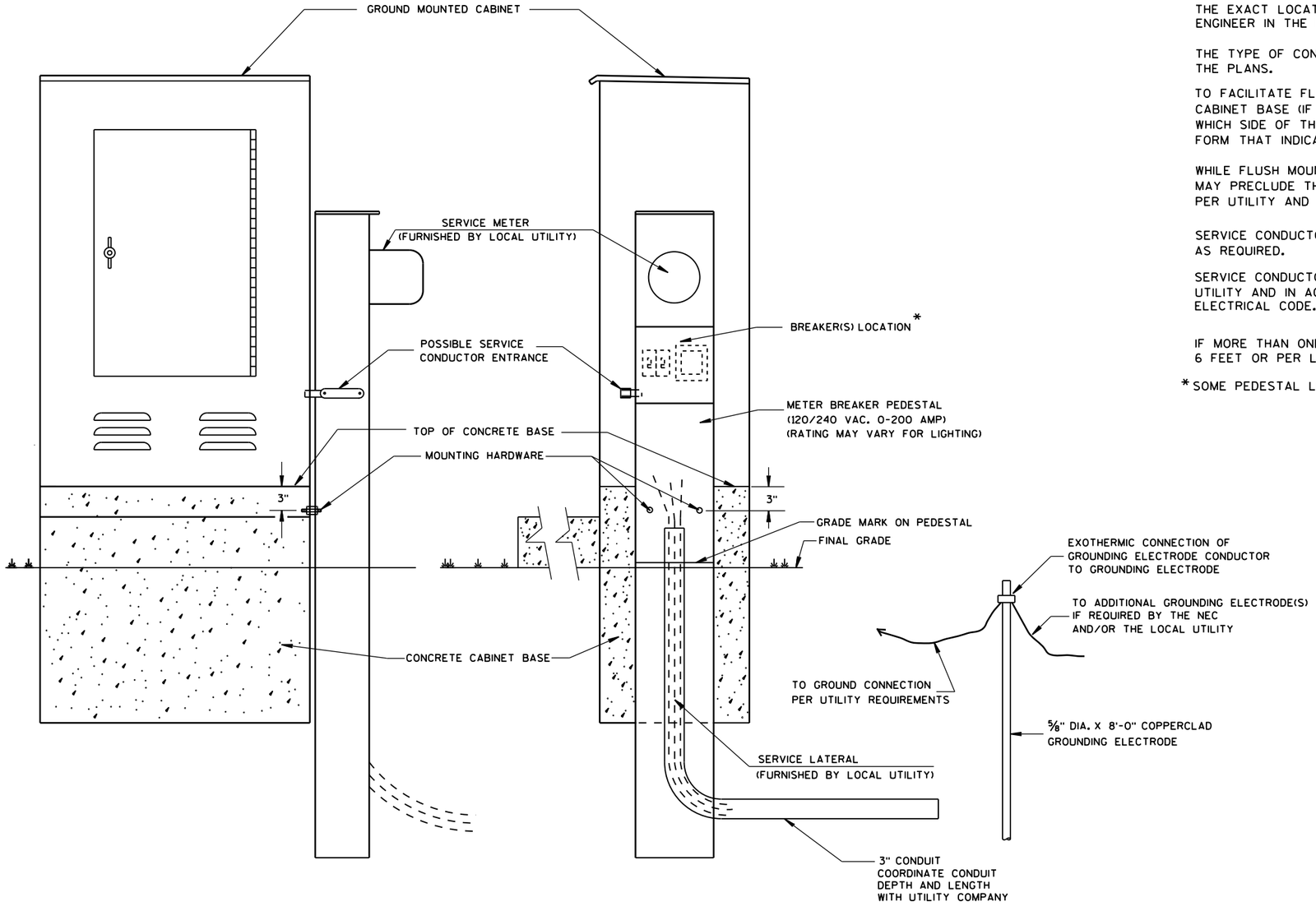
CONCRETE BASE TYPE 13	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2017 DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL

6

S.D.D. 9 C 12-9b

6

S.D.D. 9 C 12-9b



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.

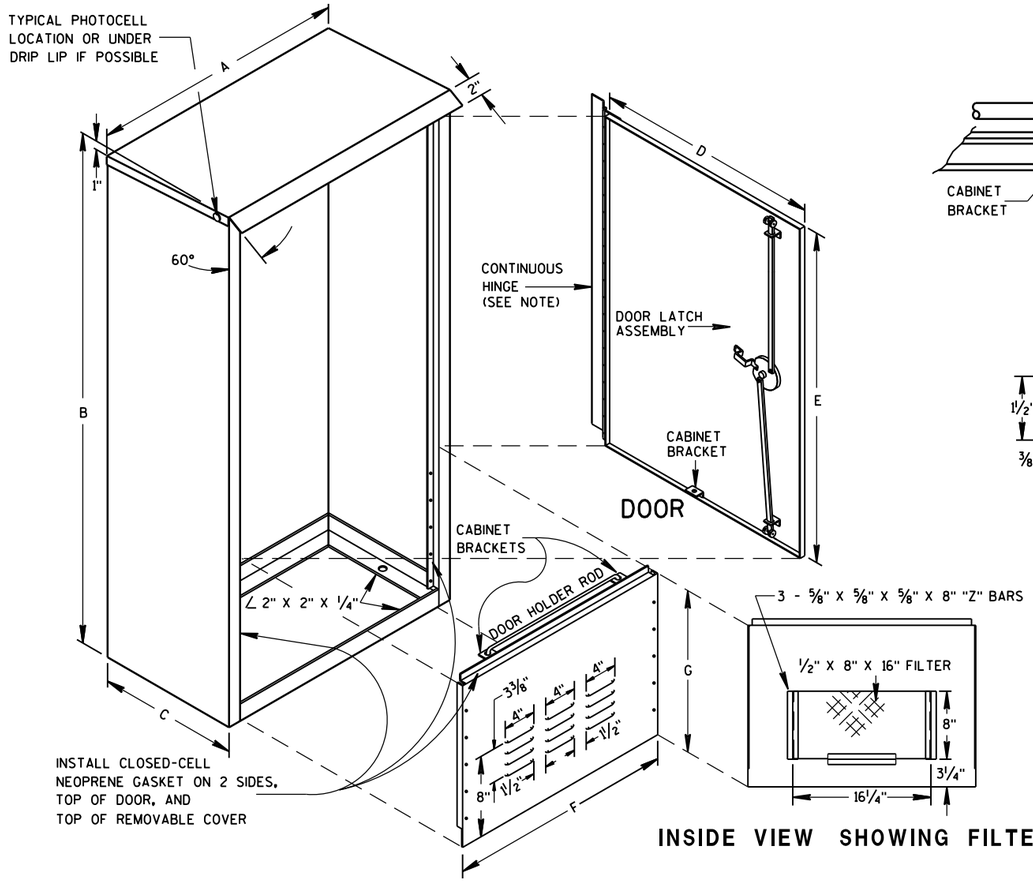
* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

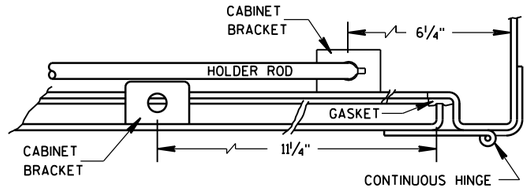
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6
S.D.D. 9 D 1-5

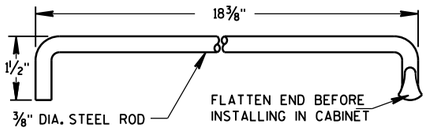


REMOVABLE COVER

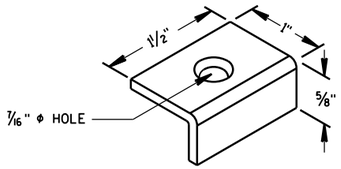
INSIDE VIEW SHOWING FILTER



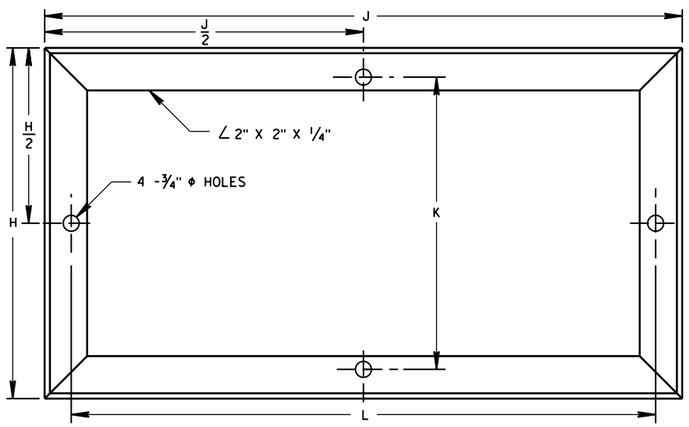
HINGE & DOOR HOLDER



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

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.

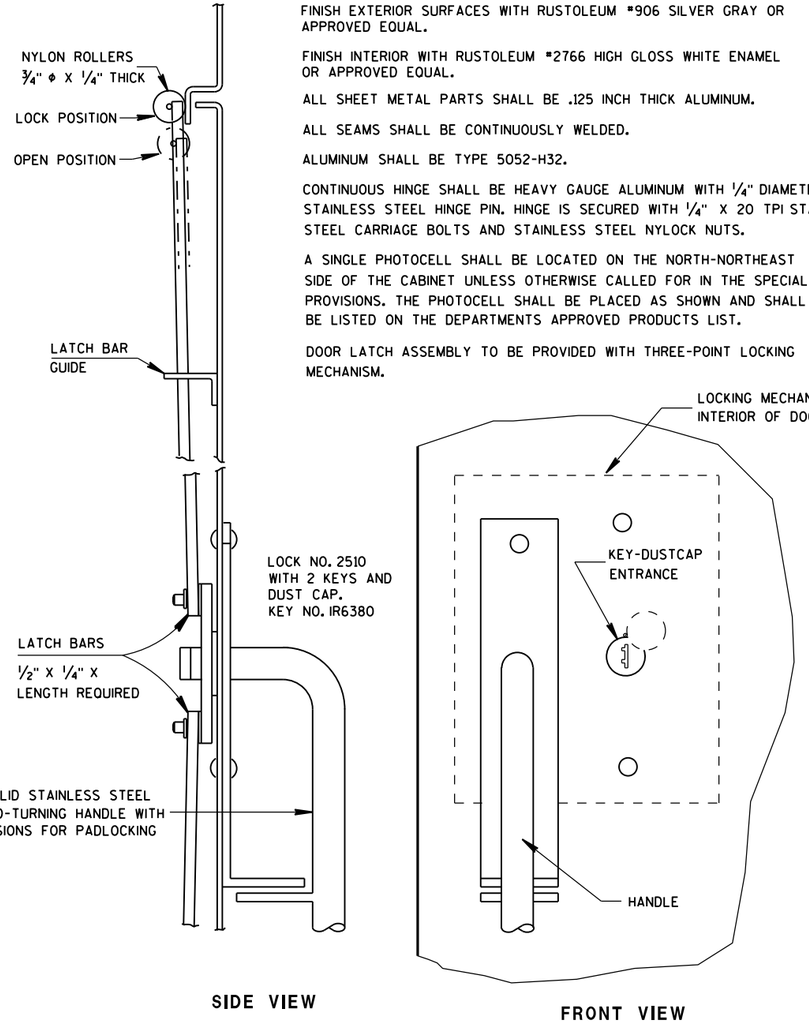
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

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 LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.

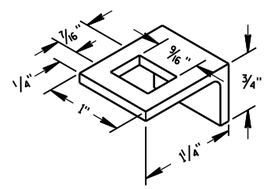
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.



SIDE VIEW

FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

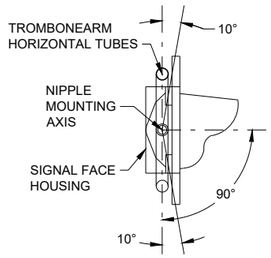
APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL 314
FHWA

6

S.D.D. 9 D 2-3

6

S.D.D. 9 D 2-3

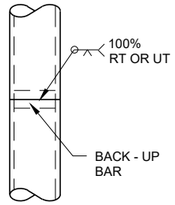


SECTION A-A

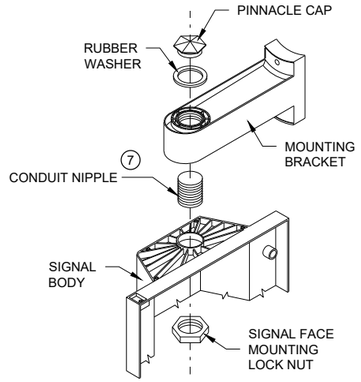
(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)

FOR MANUFACTURERS USE ONLY

WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.



POLE SPLICE DETAIL



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THEPERTINENT REQUIREMENTS OF THE CONTRACT.

POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING,PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) ASREQUIRED, TO PLUMB THE SIGNAL FACES.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

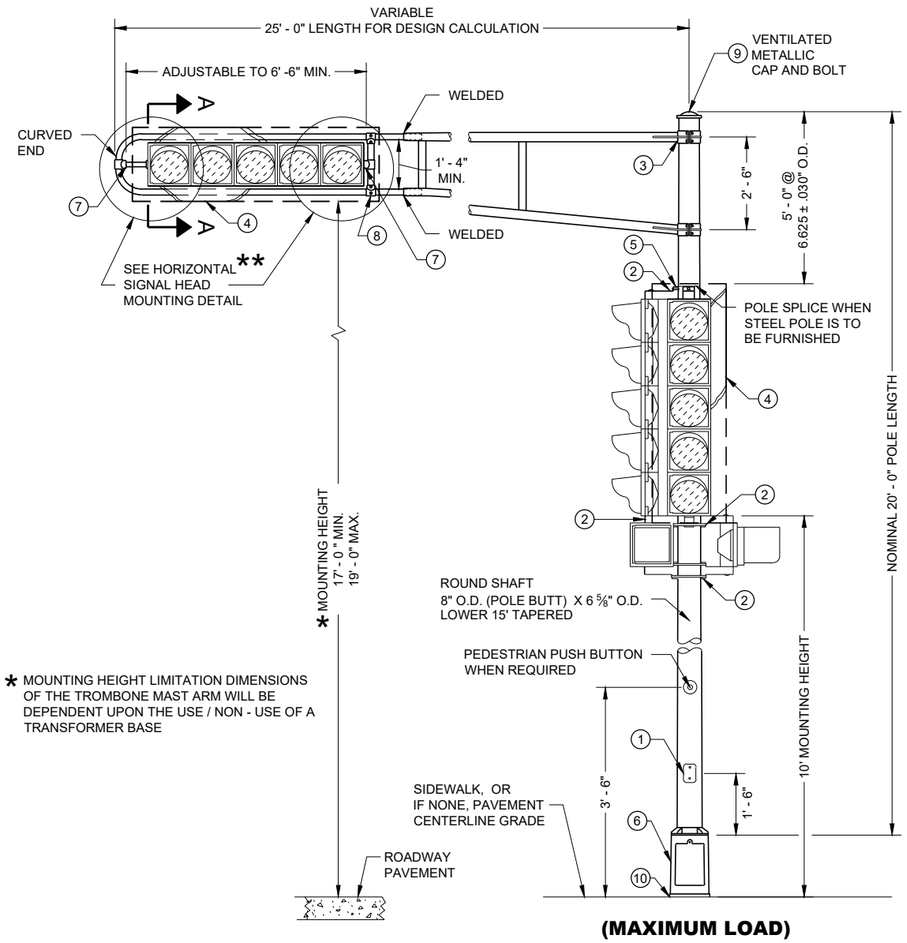
(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOTINTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUTIS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

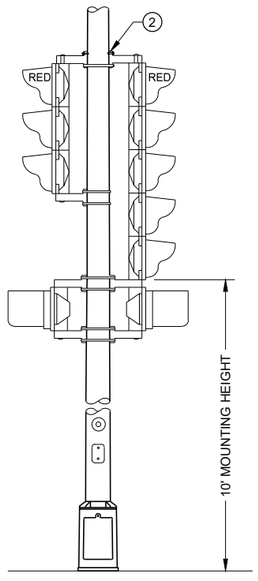
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

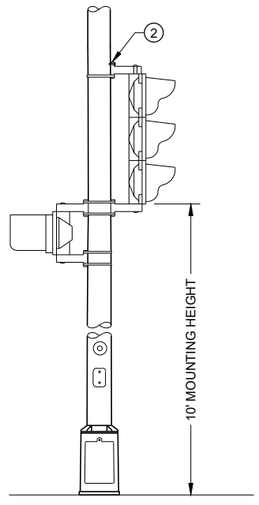


* MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE / NON - USE OF A TRANSFORMER BASE

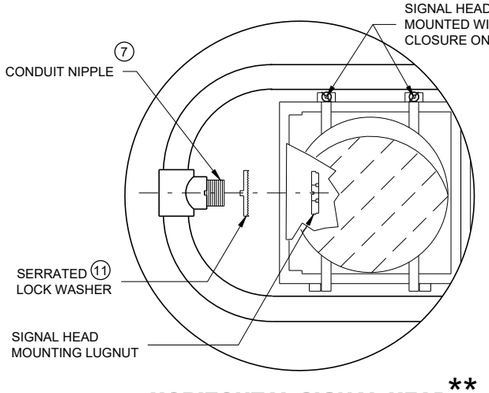
(MAXIMUM LOAD)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

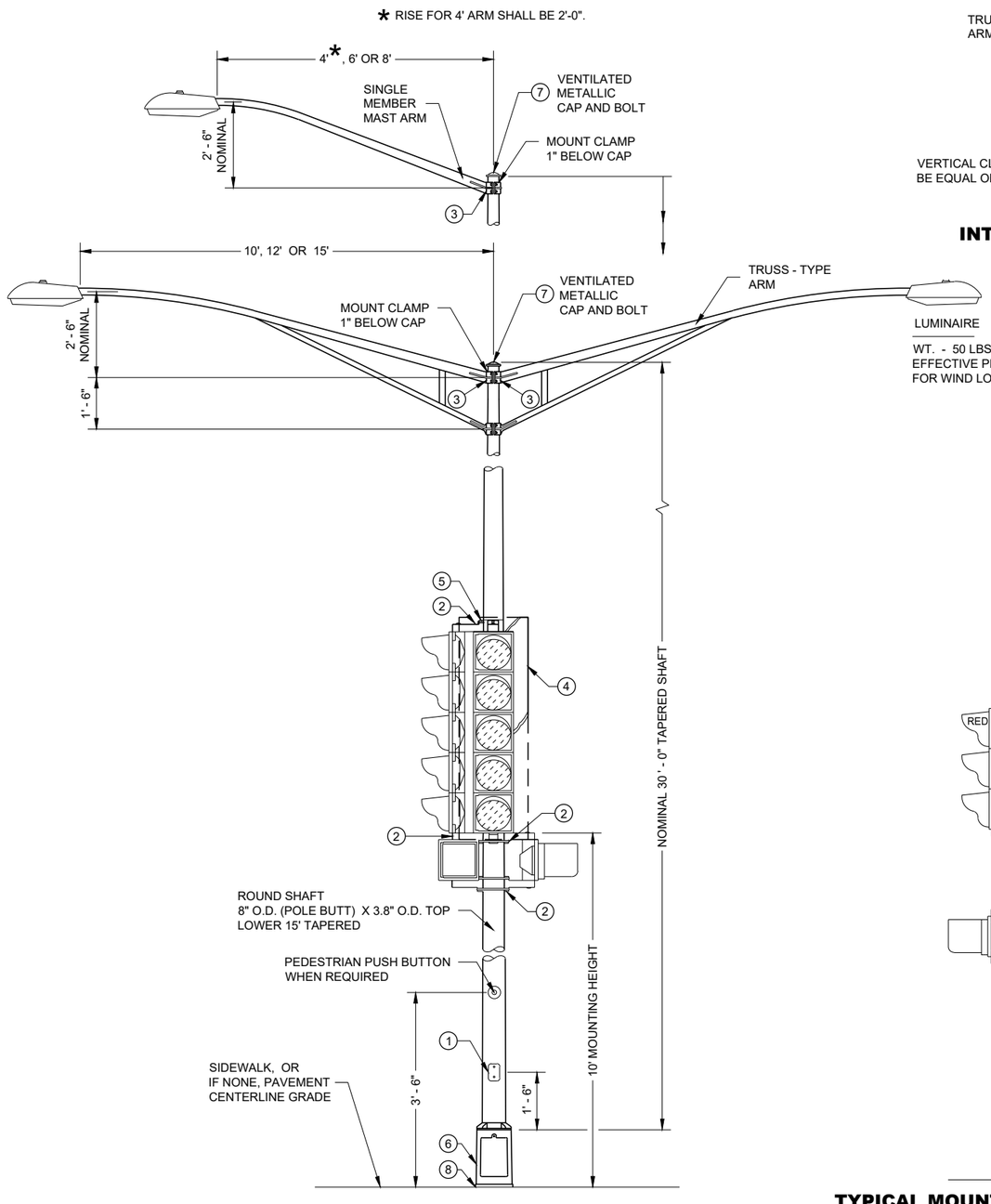
** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

TYPE 2 POLE MOUNTING CONFIGURATION

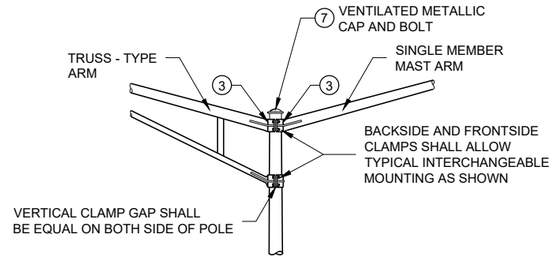
POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 09E01 - 15a



(MAXIMUM LOAD)



INTERCHANGEABLE MOUNTING DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 4 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL WITH A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

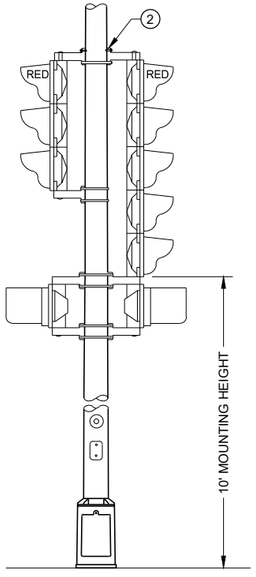
(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

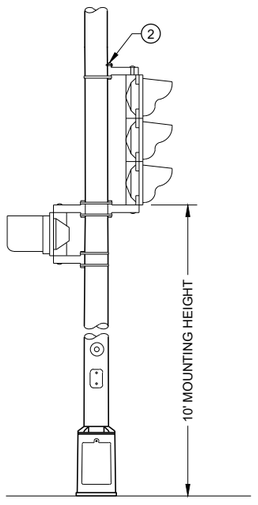
(7) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(8) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

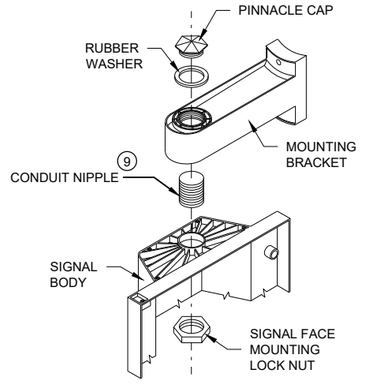
(9) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



SIGNAL FACE MOUNTING DETAIL
(BANDED)

TYPE 4 POLE MOUNTING CONFIGURATION

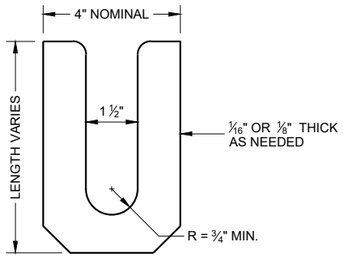
POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

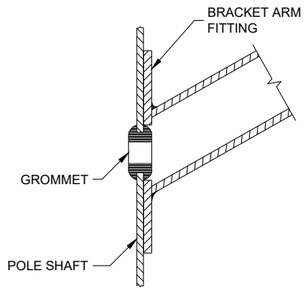
6

SDD 09E01 - 15c

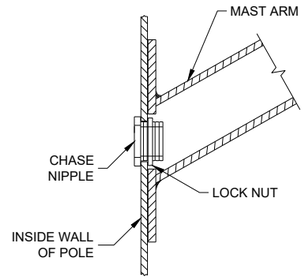
SDD 09E01 - 15c



LEVELING SHIM (1)
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.

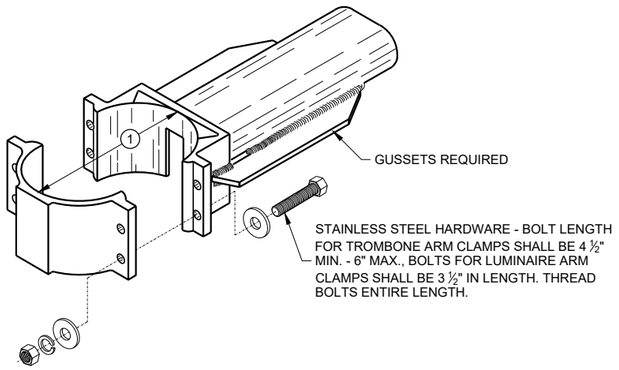
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

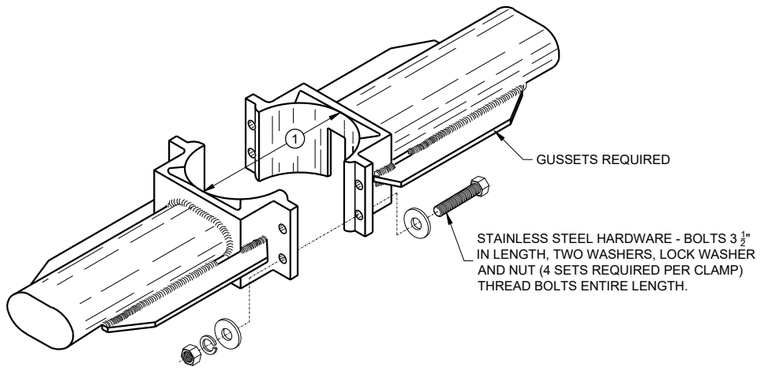
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) 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.

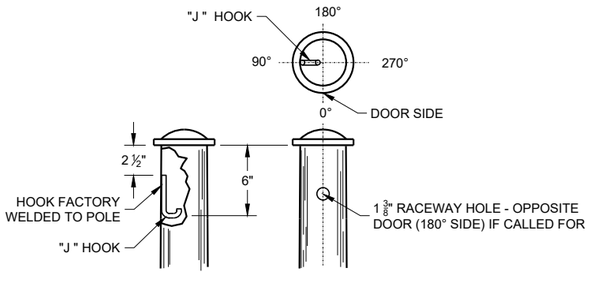
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



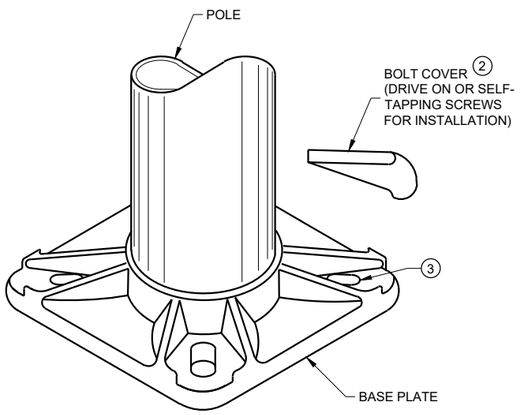
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



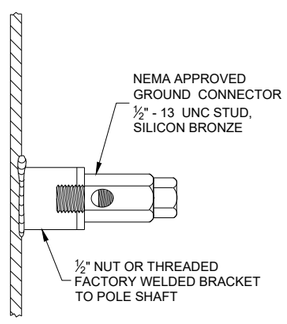
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

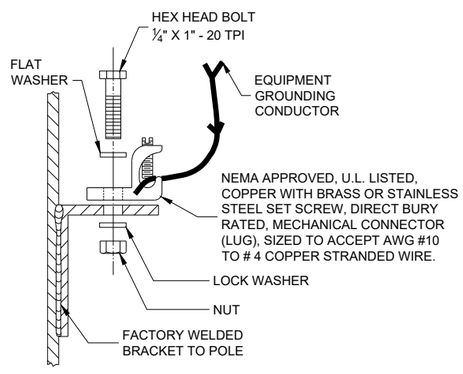


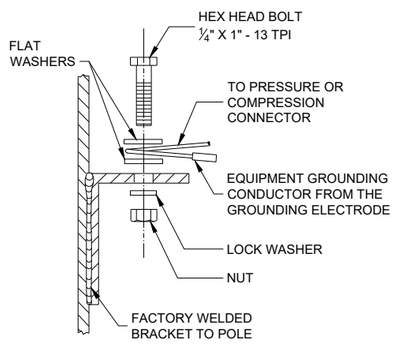
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

317

FHWA

6

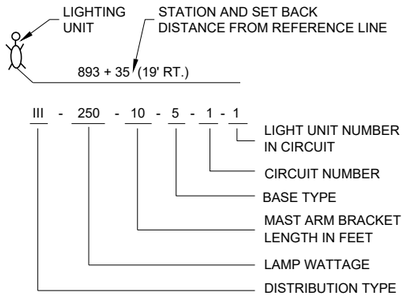
SDD 09A01 - 15g

GENERAL NOTES

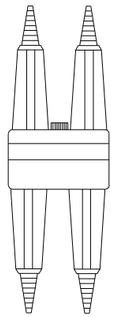
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

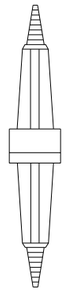
WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



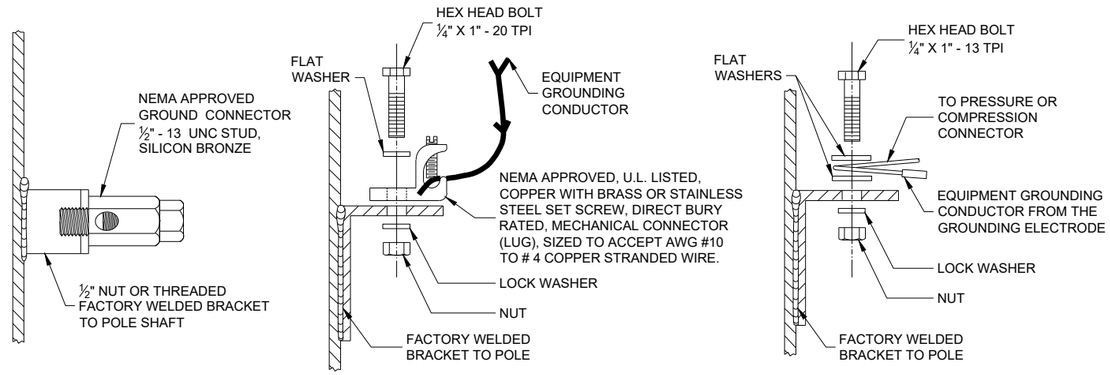
LIGHTING UNIT CODE
(TYPICAL)



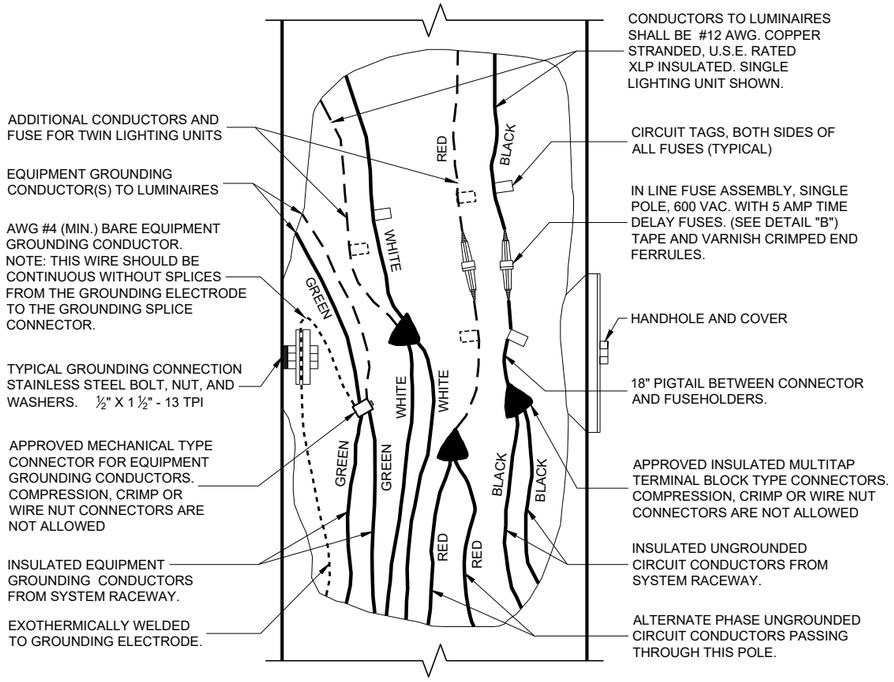
DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



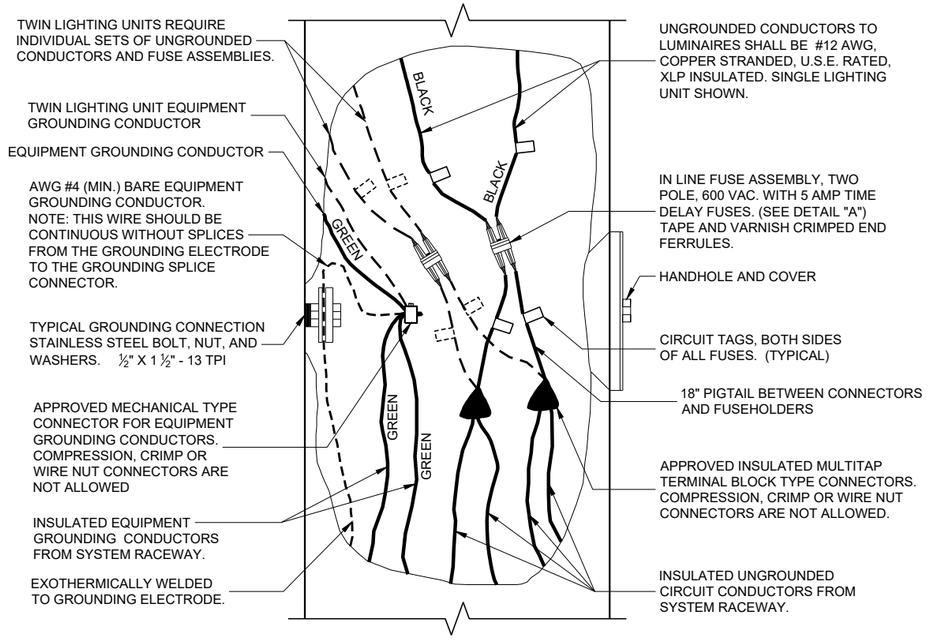
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR



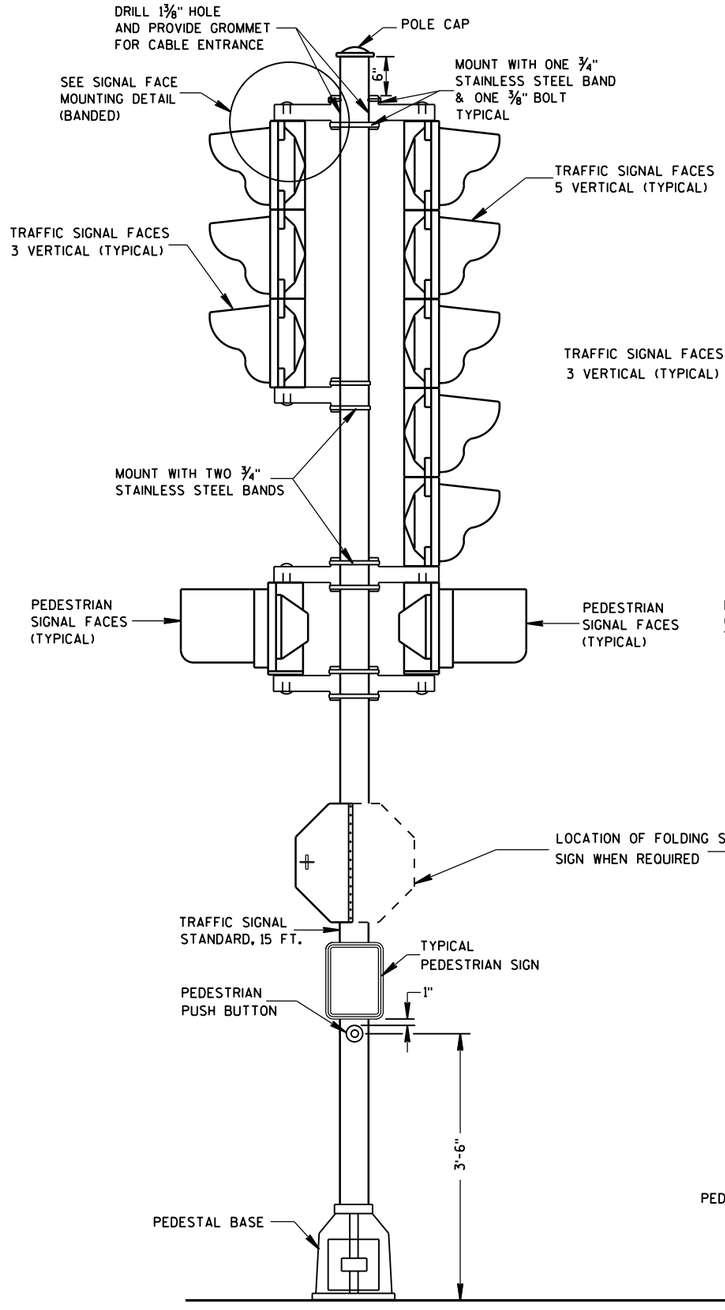
2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

NON - FREEWAY LIGHTING UNIT POLE WIRING

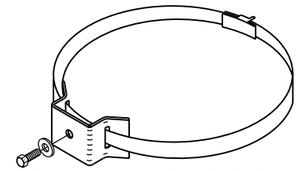
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 318

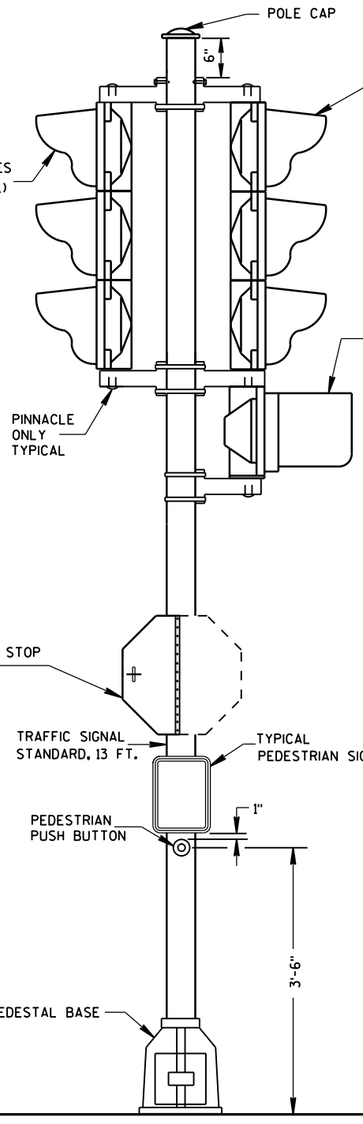
FHWA



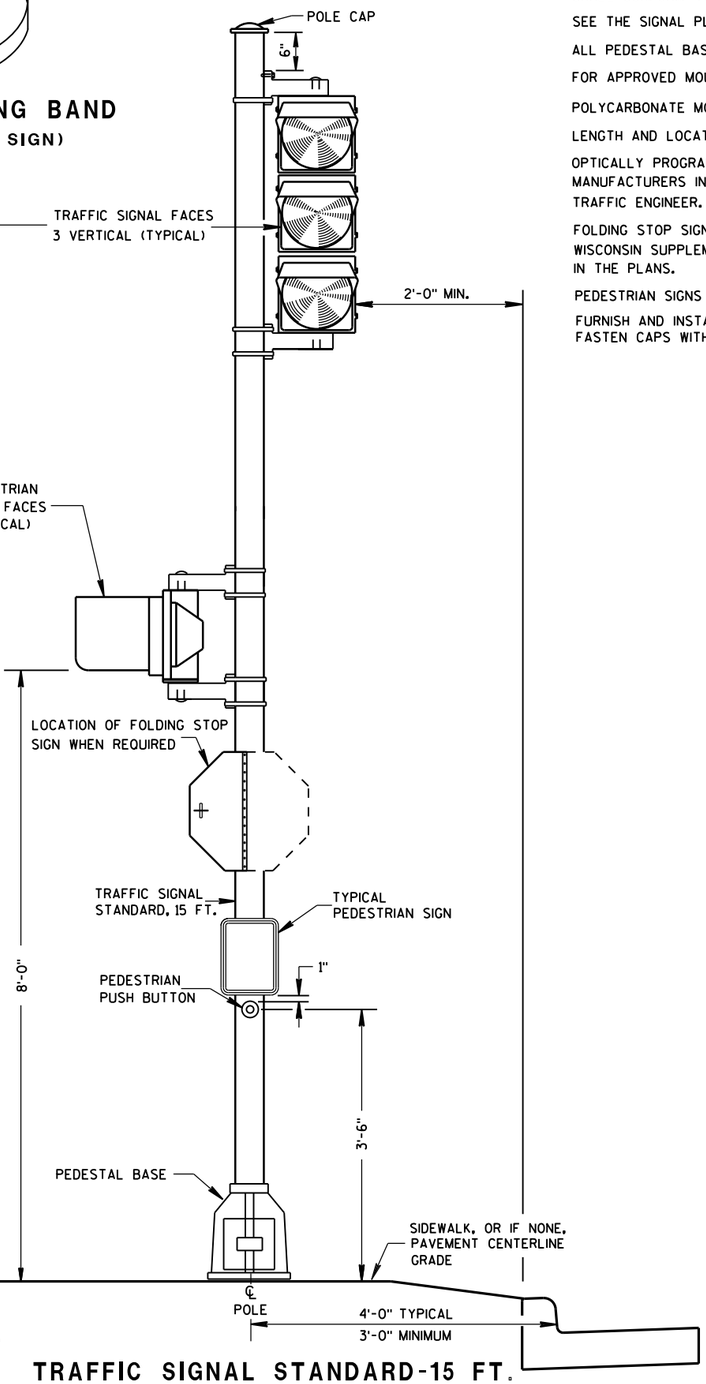
TRAFFIC SIGNAL STANDARD-15 FT.



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-13 FT.



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.

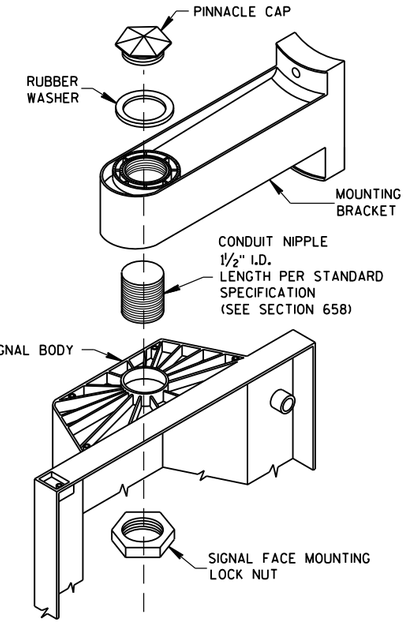
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

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)

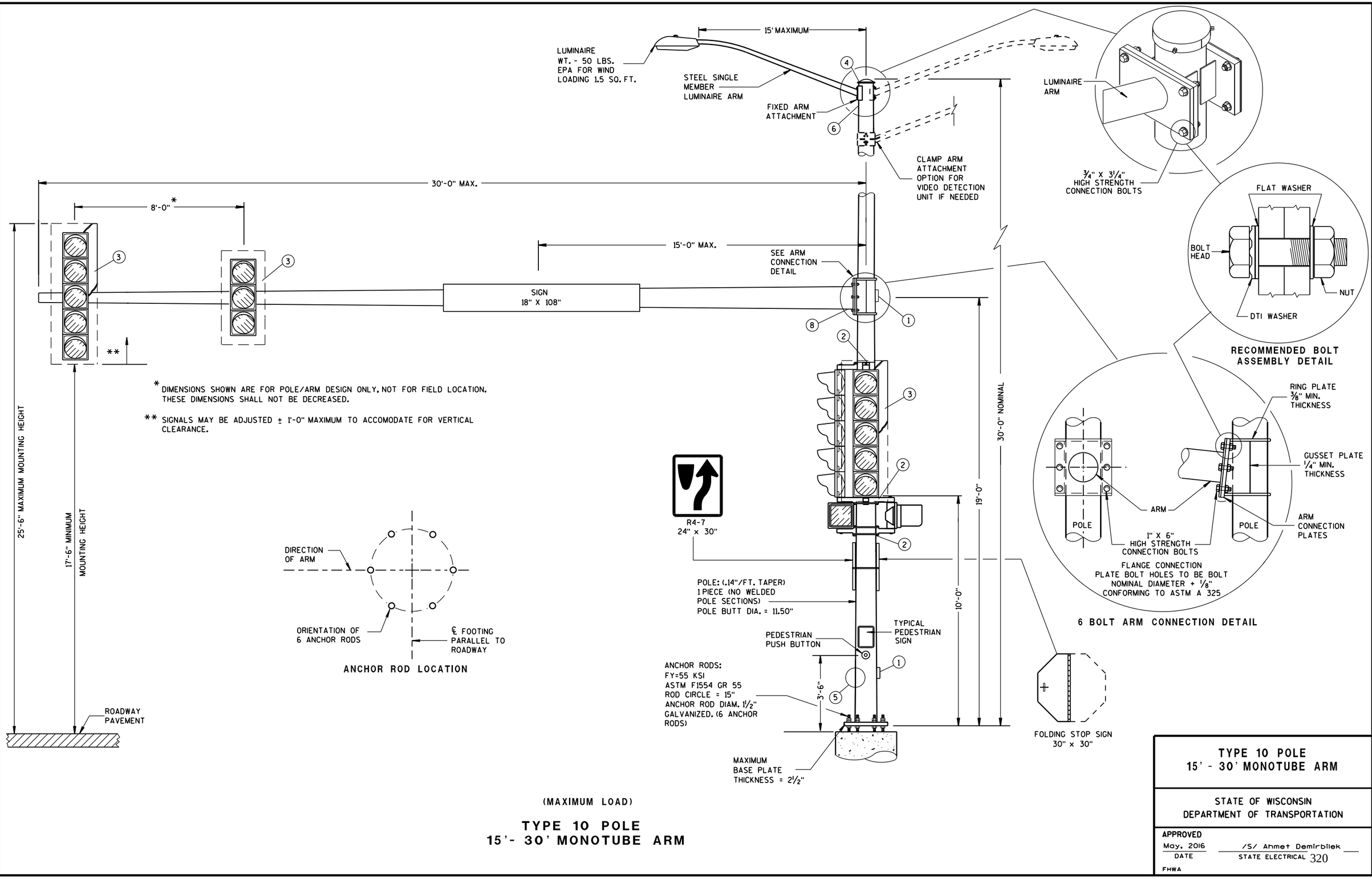
TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
FHWA

6

S.D.D. 9 E 6-5



(MAXIMUM LOAD)

TYPE 10 POLE
15'- 30' MONOTUBE ARM

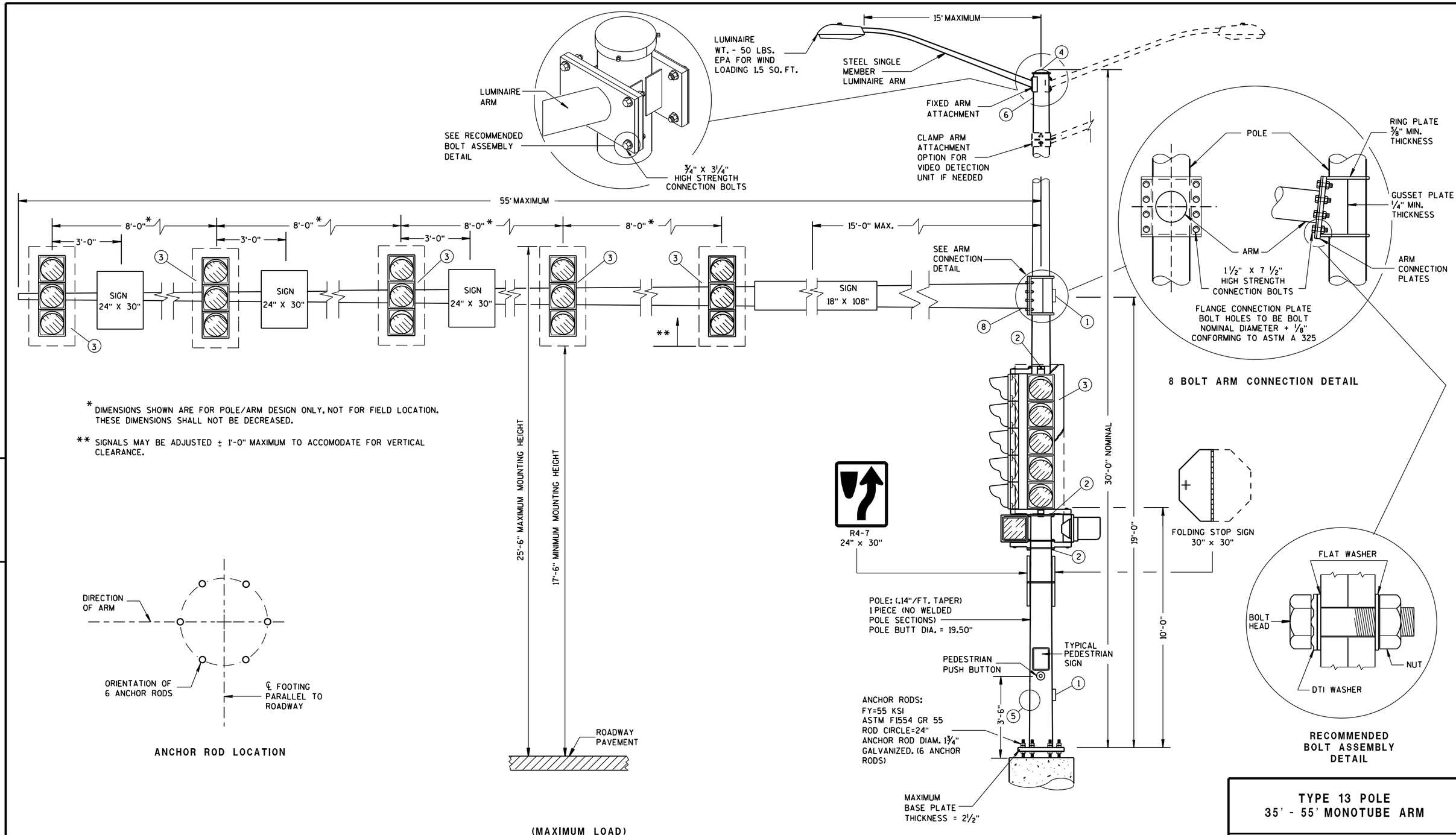
TYPE 10 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May, 2016 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL 320
FHWA	

6

S.D.D. 9 E 8-8b

6

S.D.D. 9 E 8-8b



* 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

RECOMMENDED BOLT ASSEMBLY 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 May 2016 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	321

6

S.D.D. 9 E 8-8d

6

S.D.D. 9 E 8-8d

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 AASHTO 2013 6TH EDITION 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.

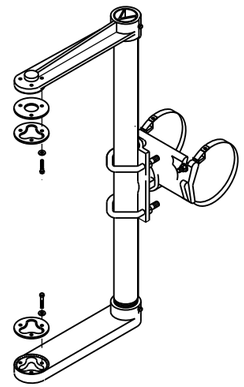
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

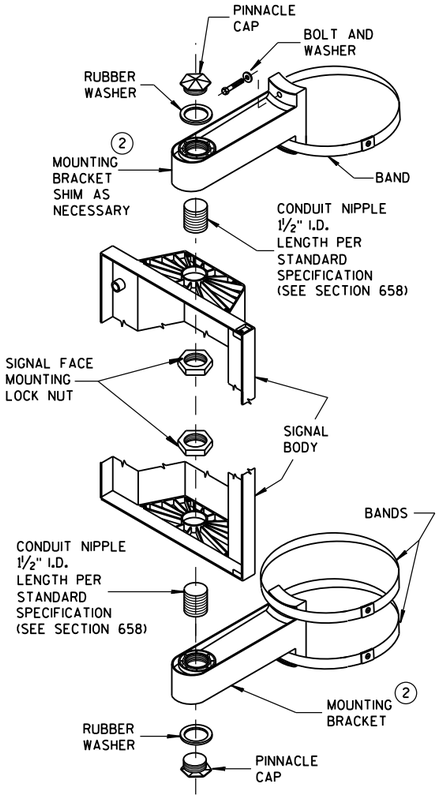
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

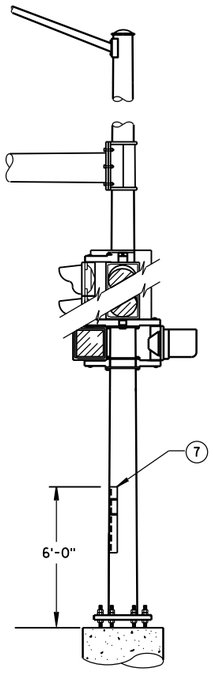


SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

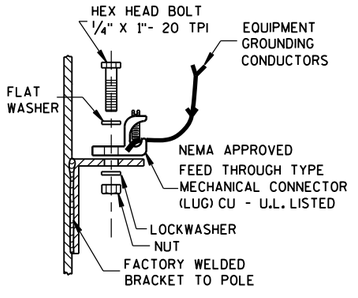
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE VERTICAL MOUNTING DETAIL

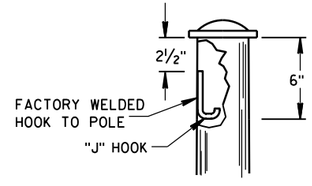


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



"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

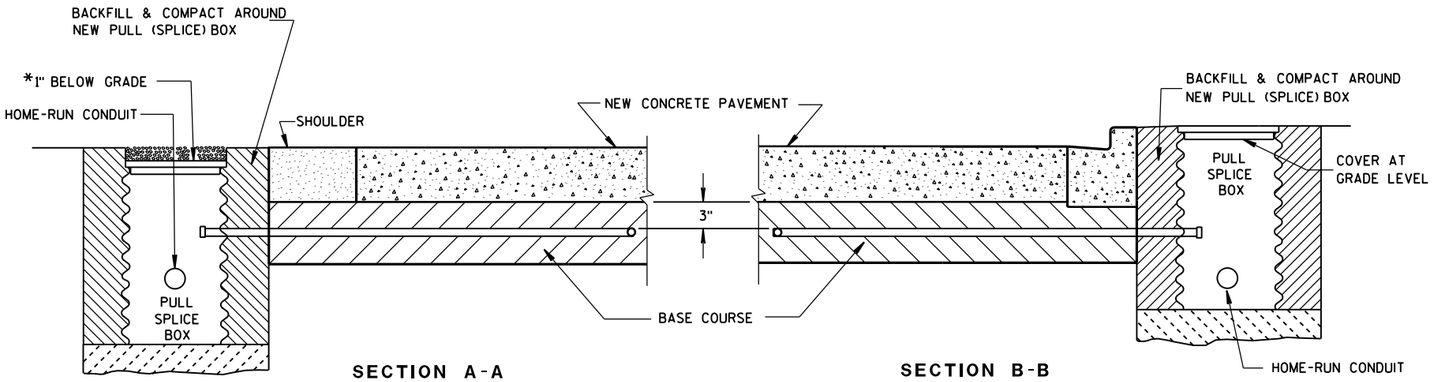
APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 322
FHWA

6

S.D.D. 9 E 8-8e

6

S.D.D. 9 E 8-8e



SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

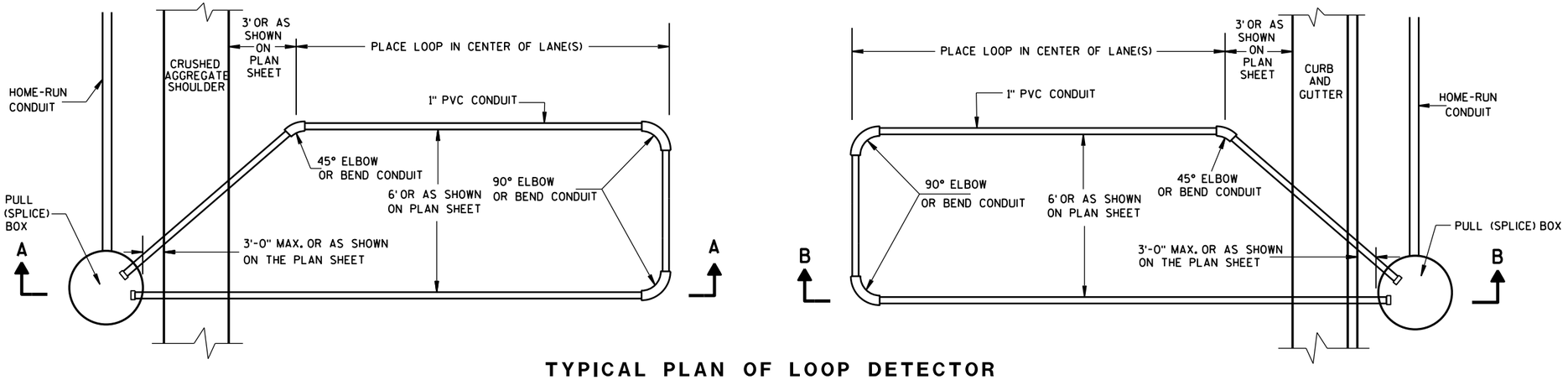
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICE CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE, SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE
FHWA

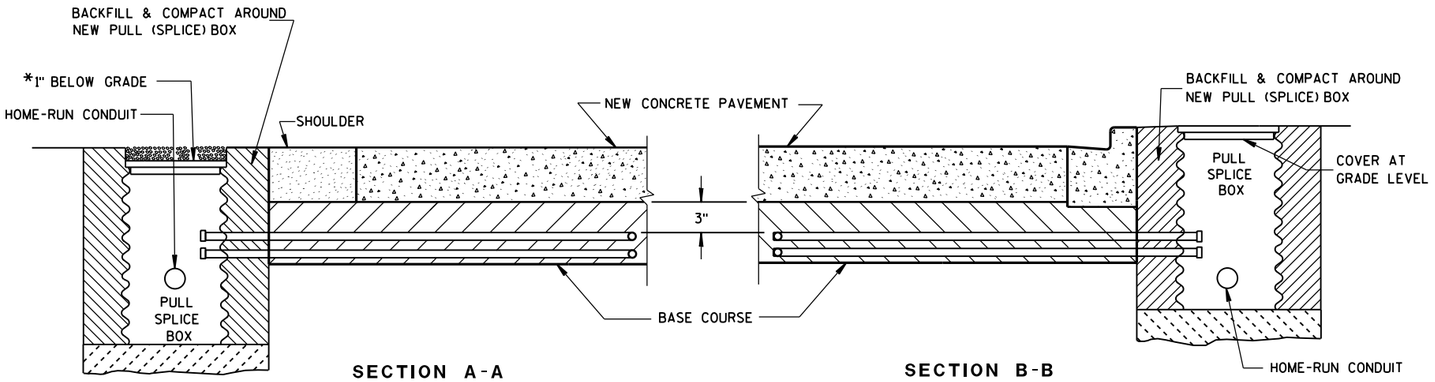
/S/ Ahmet Demirbilek
STATE ELECTRICAL

6

S.D.D. 9 F 15-4a

6

S.D.D. 9 F 15-4a



SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

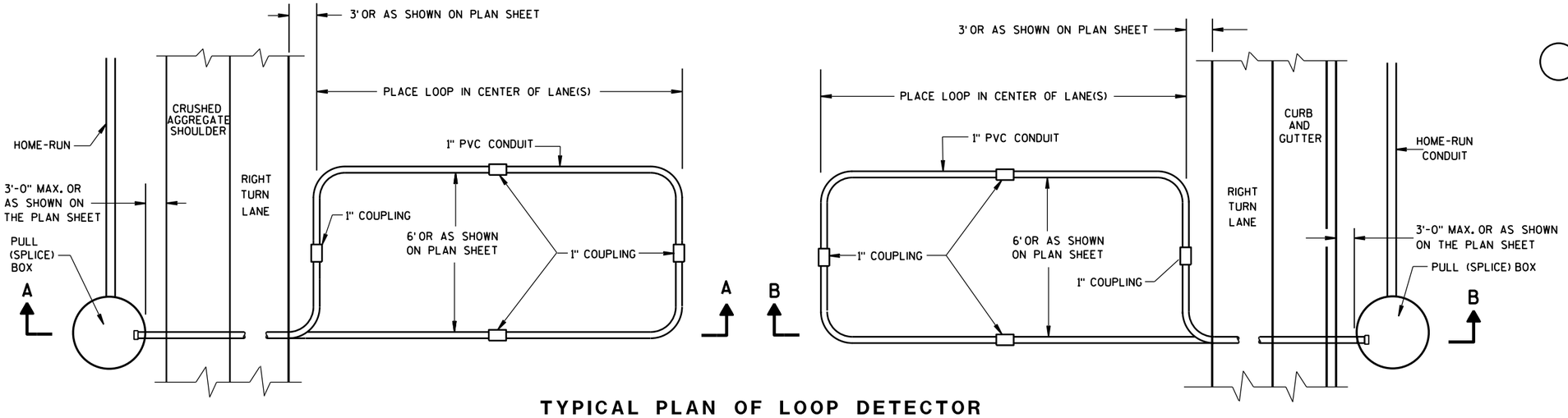
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

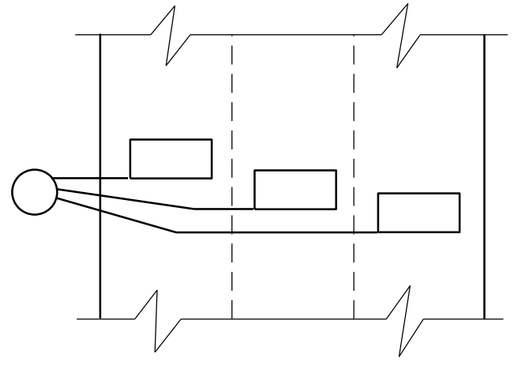
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



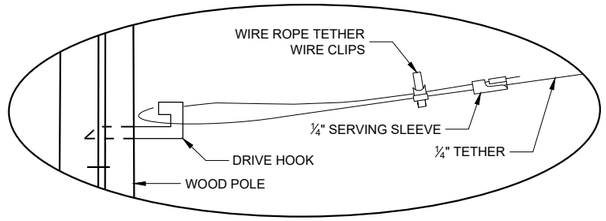
MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
FHWA

MINIMUM POLE LENGTHS	POLE BURIAL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

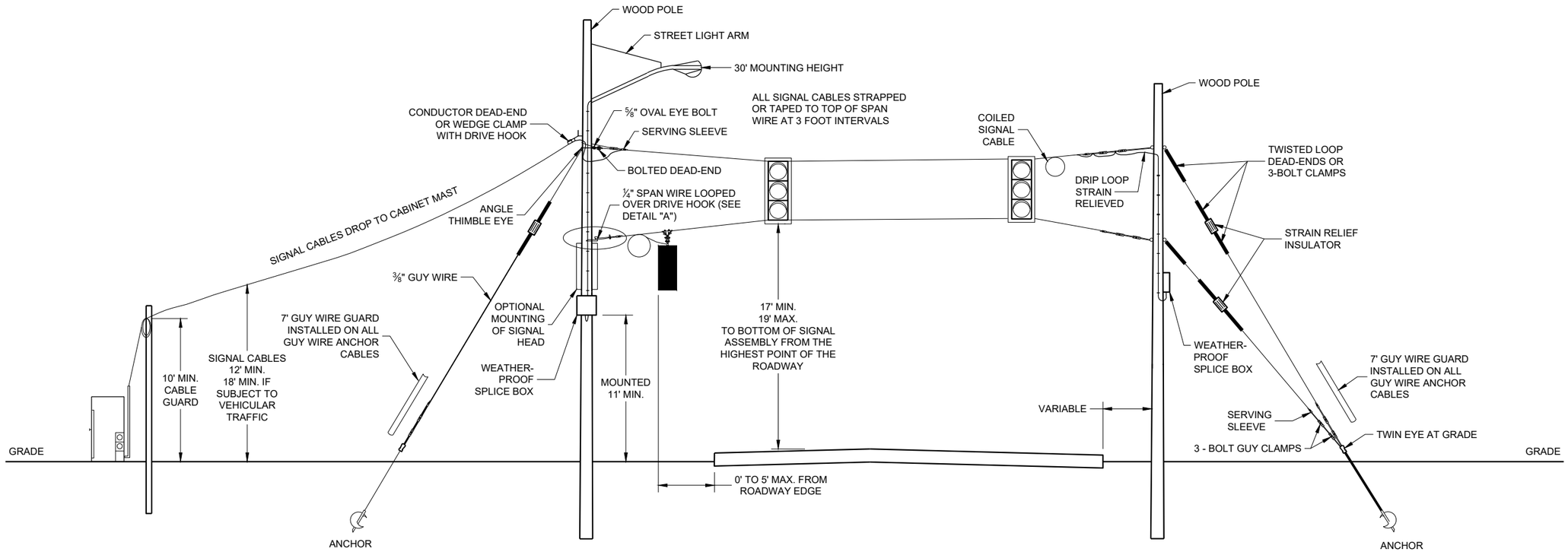


DETAIL "A"

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 ASSEMBLY 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

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE
/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI

FHWA

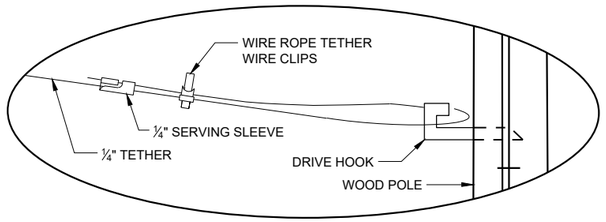
6

SDD09G01 - 04a

6

SDD09G01 - 04a

MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

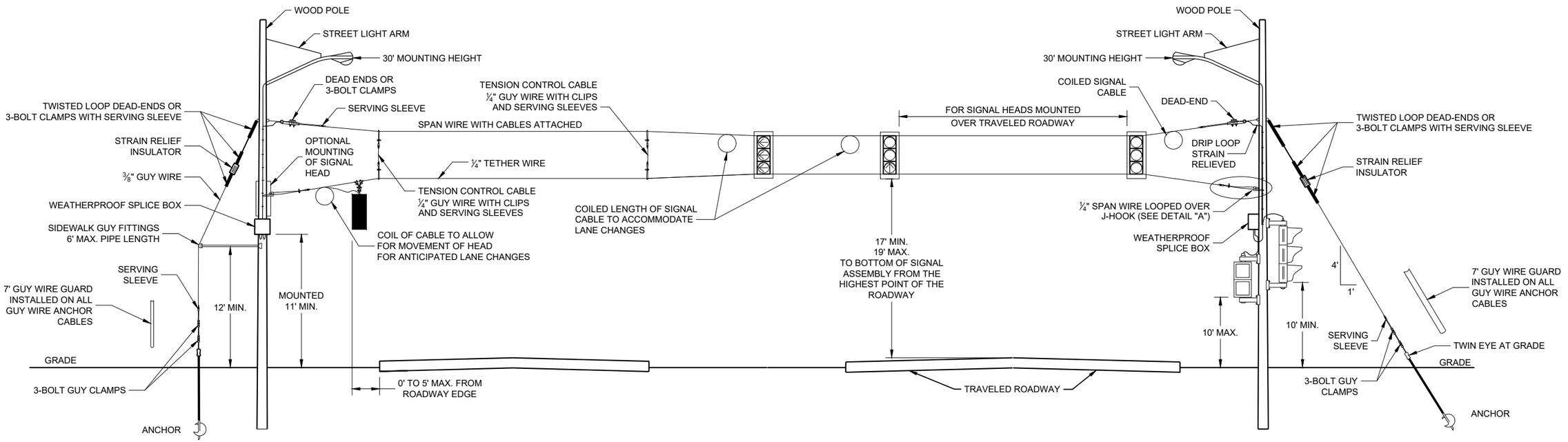


DETAIL "A"

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 ASSEMBLY 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

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE
/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI 326
FHWA

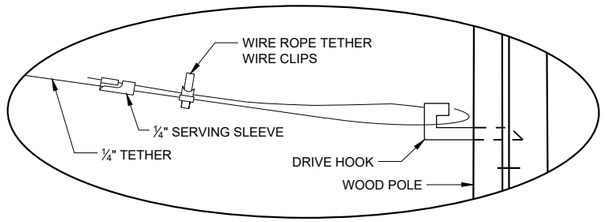
6

SDD09G01 - 04b

6

SDD09G01 - 04b

MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

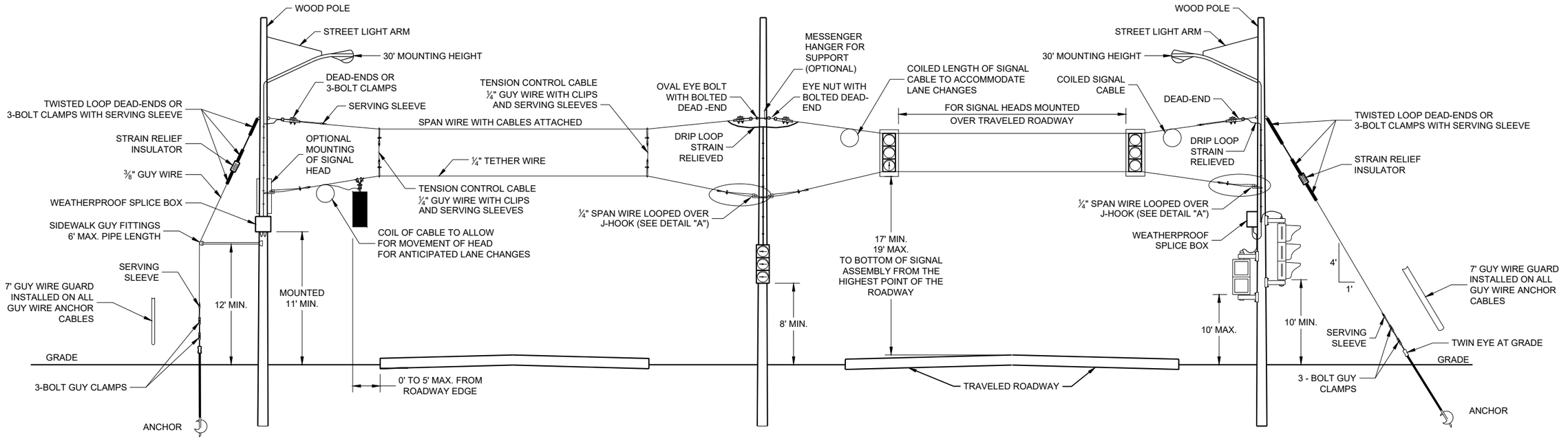


DETAIL "A"

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 ASSEMBLY 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

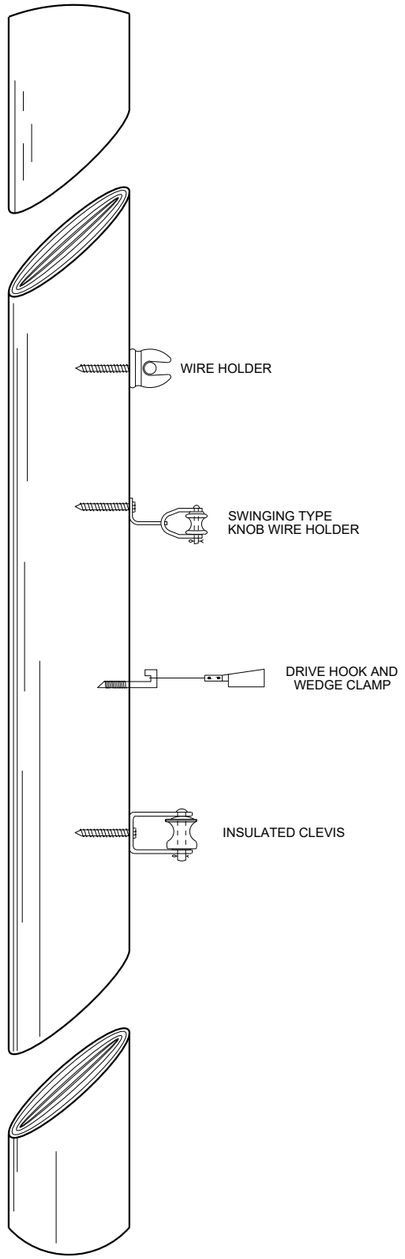
SPAN WIRE TEMPORARY TRAFFIC SIGNAL

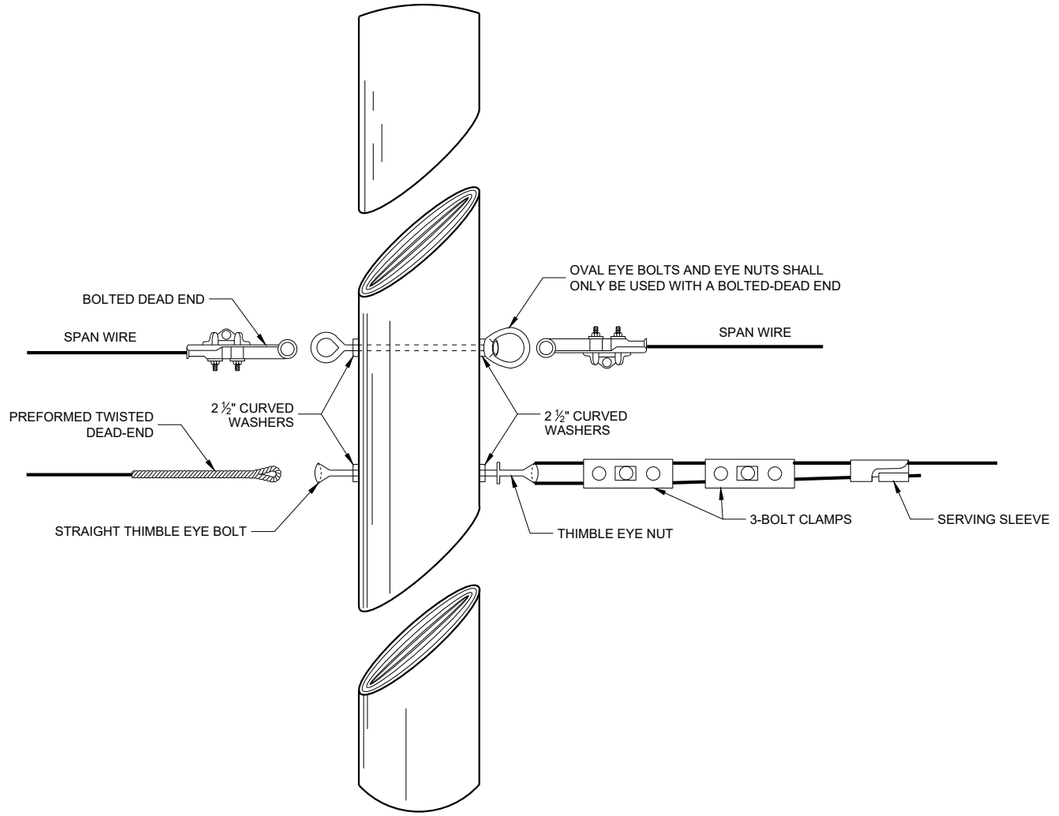
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE
/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI

FHWA

SDD09G01 - 04c





SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

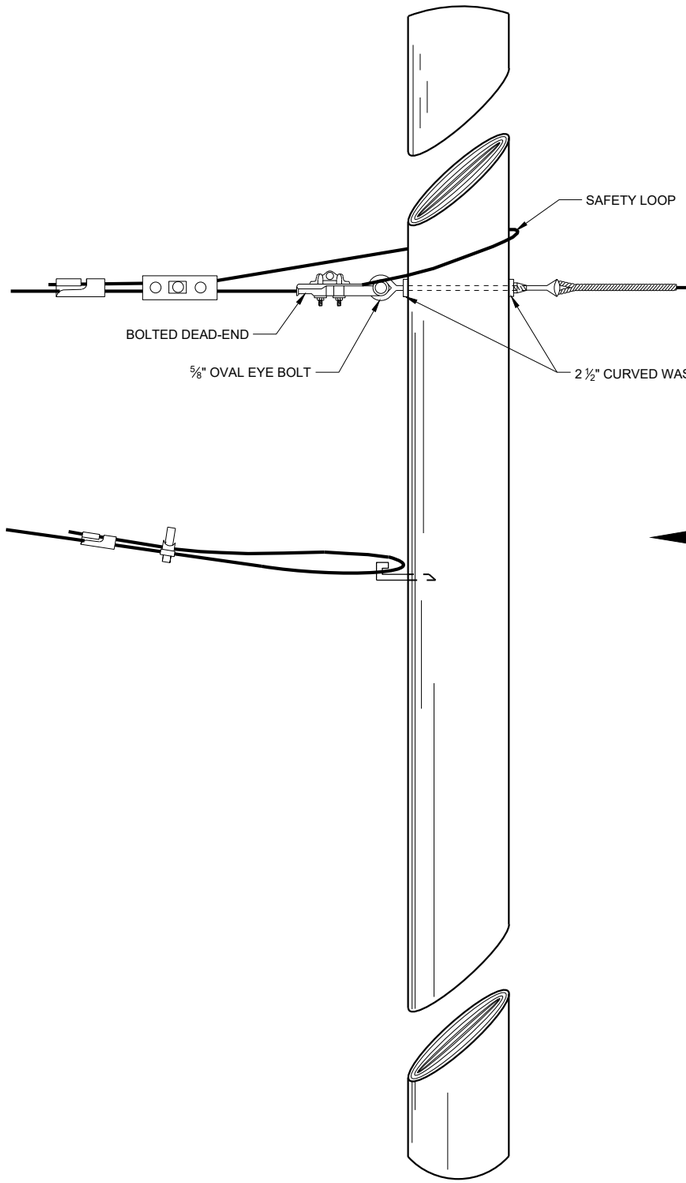
FHWA

6

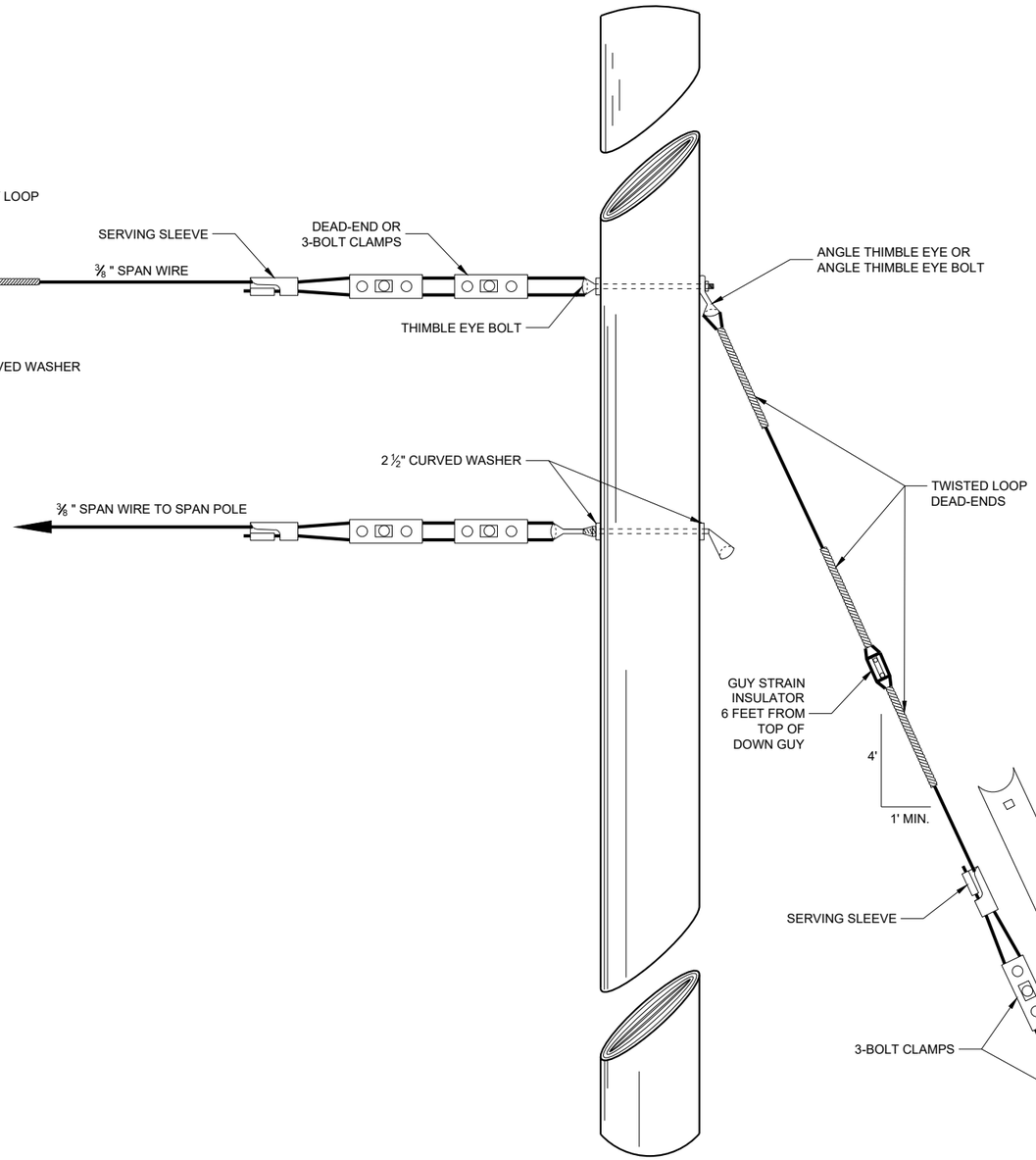
SDD 09G01 - 4d

GENERAL NOTES

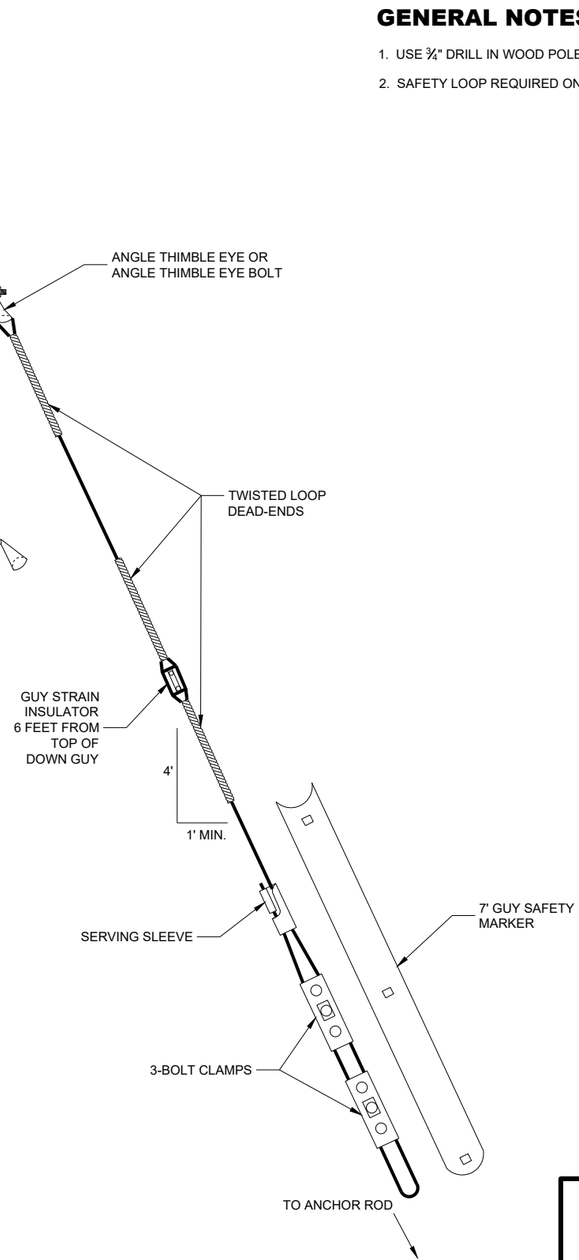
1. USE ¾" DRILL IN WOOD POLE TO PROVIDE FOR ⅝" BOLTS.
2. SAFETY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



GUY POLE



TYPICAL DEAD-ENDINGS OR GUYING

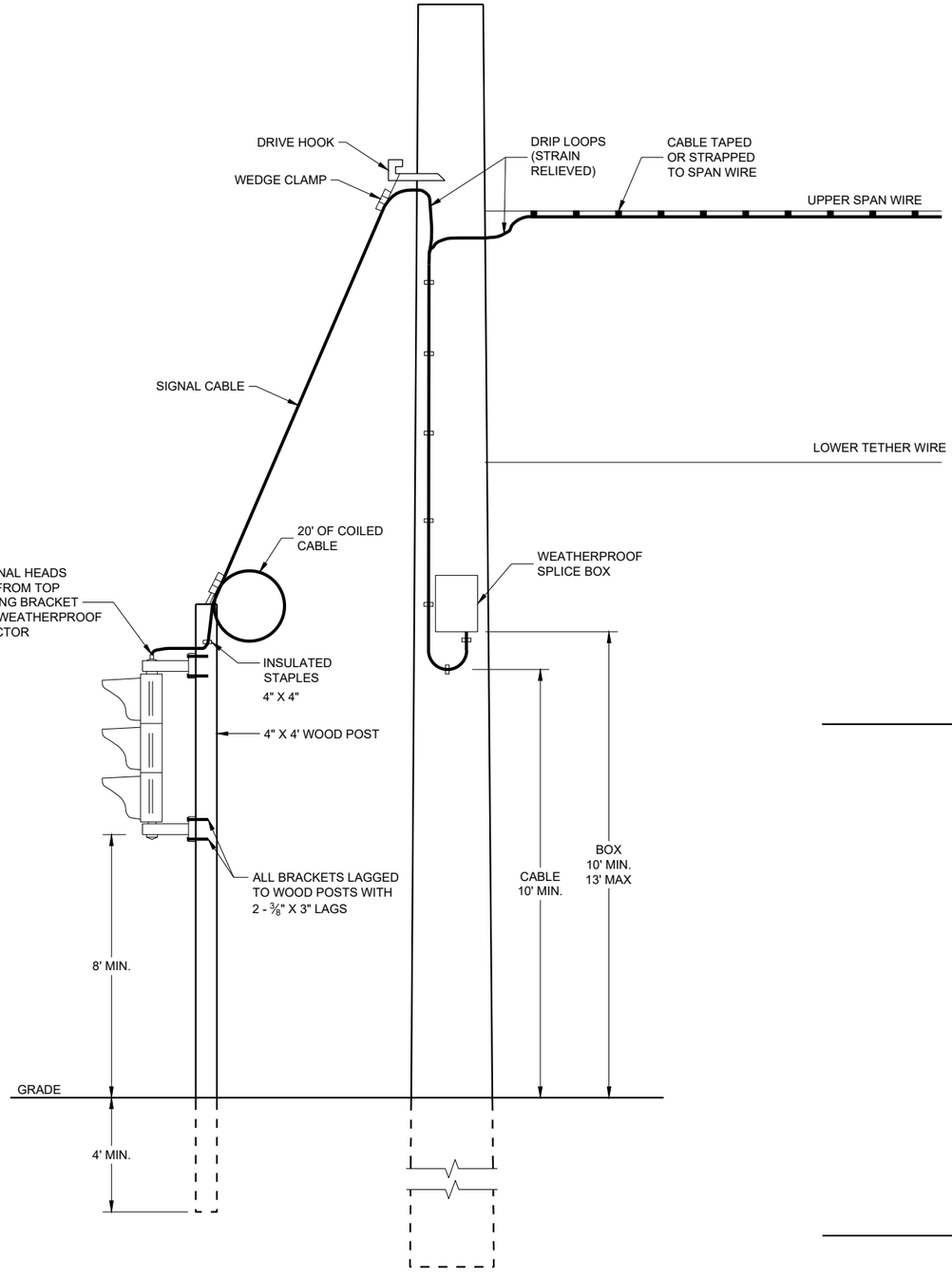
SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

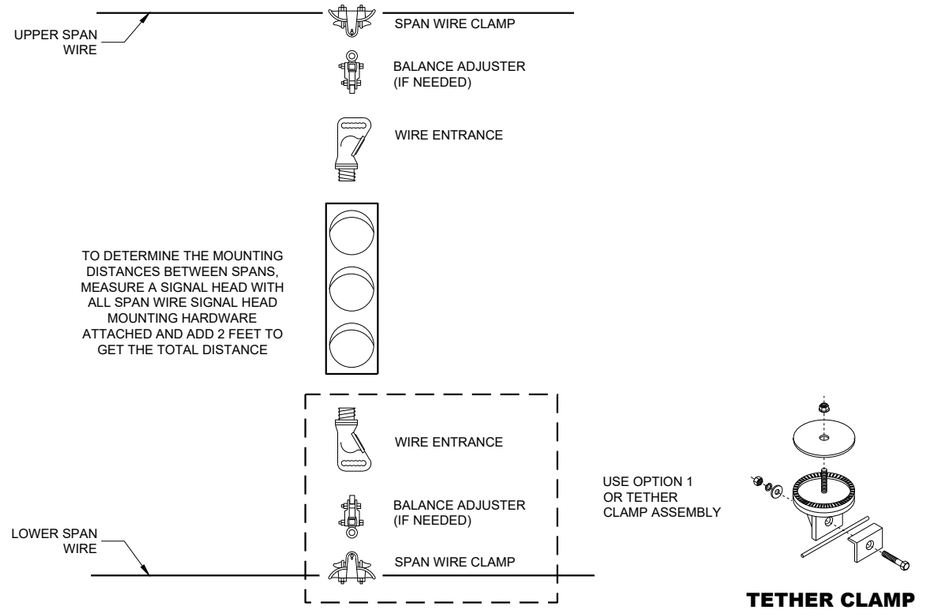
APPROVED
June 2015 — DATE
/S/ Ahmet Demerbilek — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

SDD 09G01 - 4e



TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL

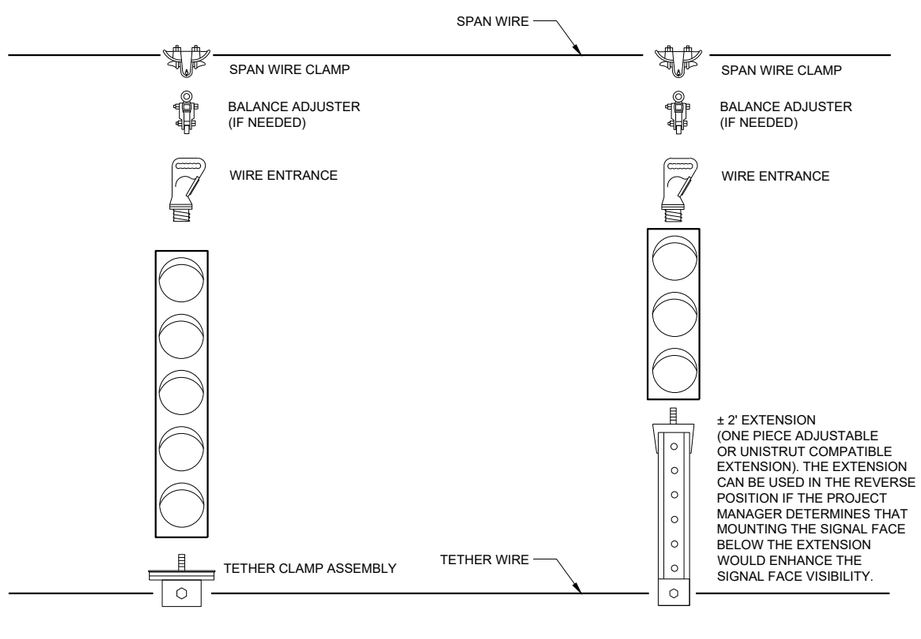


OPTION 1

USE OPTION 1 OR TETHER CLAMP ASSEMBLY

TETHER CLAMP ASSEMBLY OPTION

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

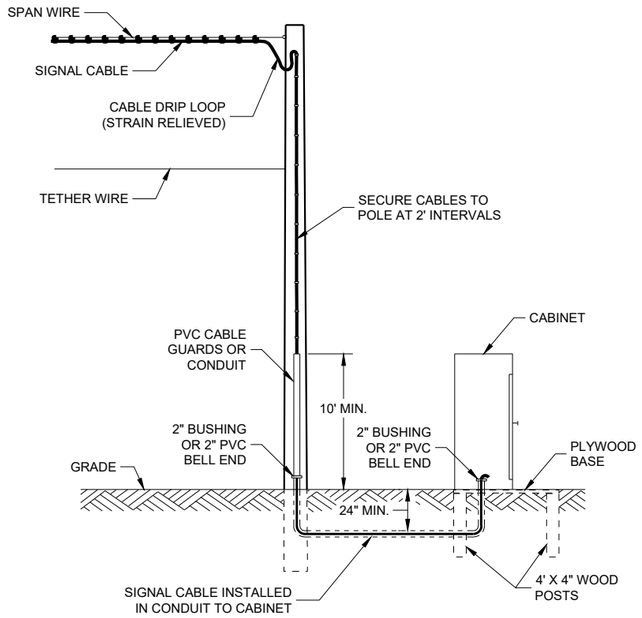
APPROVED
June 2015
DATE

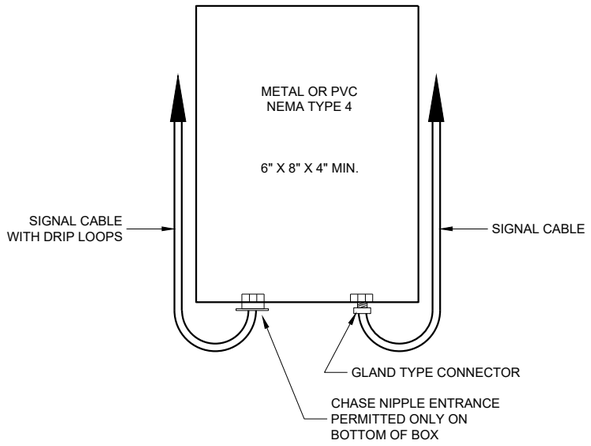
/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

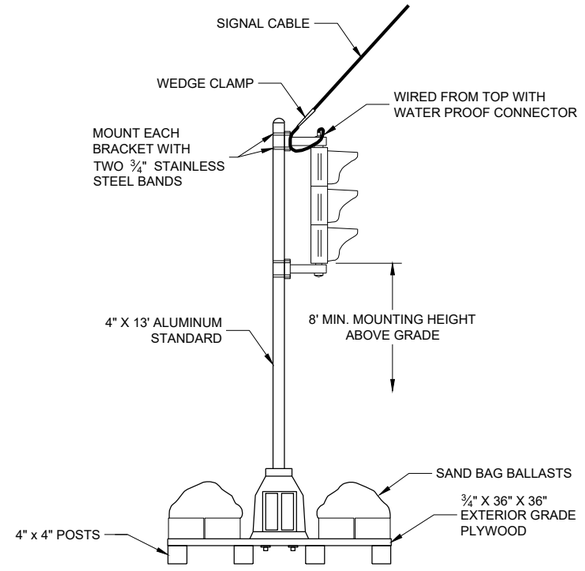
6

SDD 09G01 - 4f

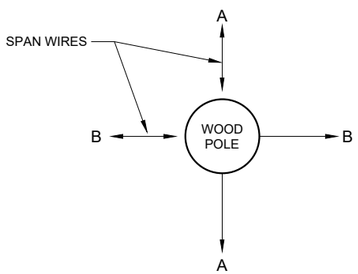




SPLICE BOX

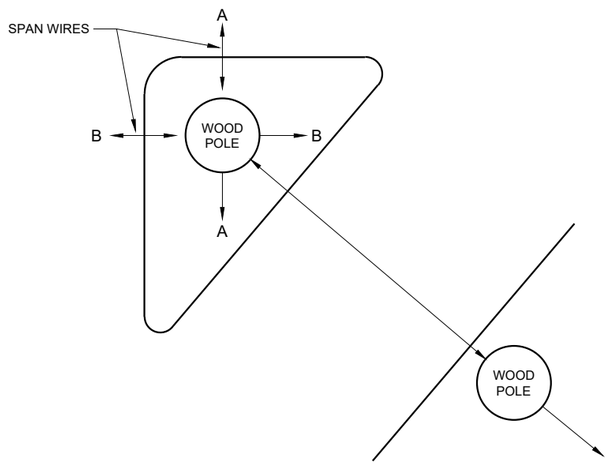


TYPICAL SKID TYPE TEMPORARY

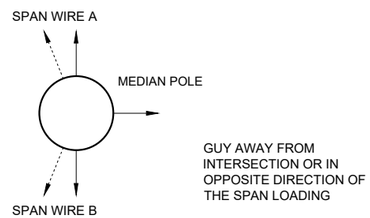


ALL DOWN OR SIDEWALK GUYS SHALL BE INSTALLED IN THE OPOSITE DIRECTION OF THE STRAIN OF THE SPAN WIRE

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
June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

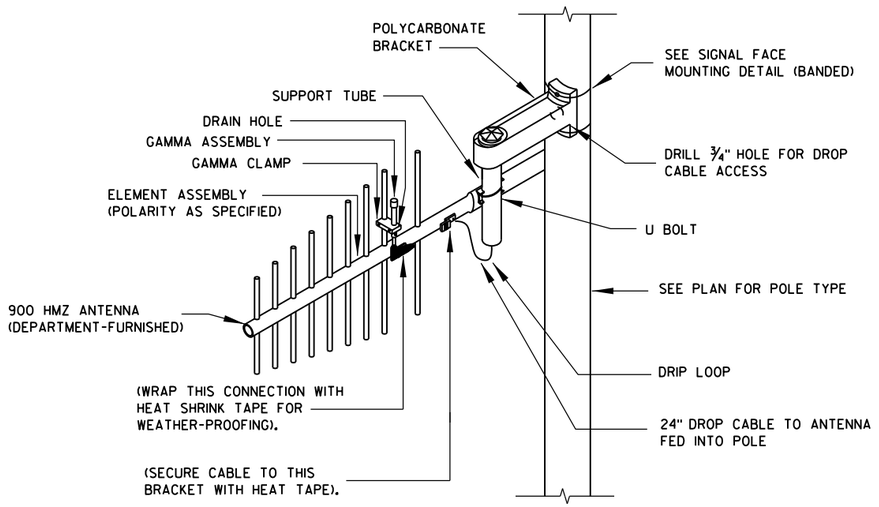
6

SDD 09G01 - 4g

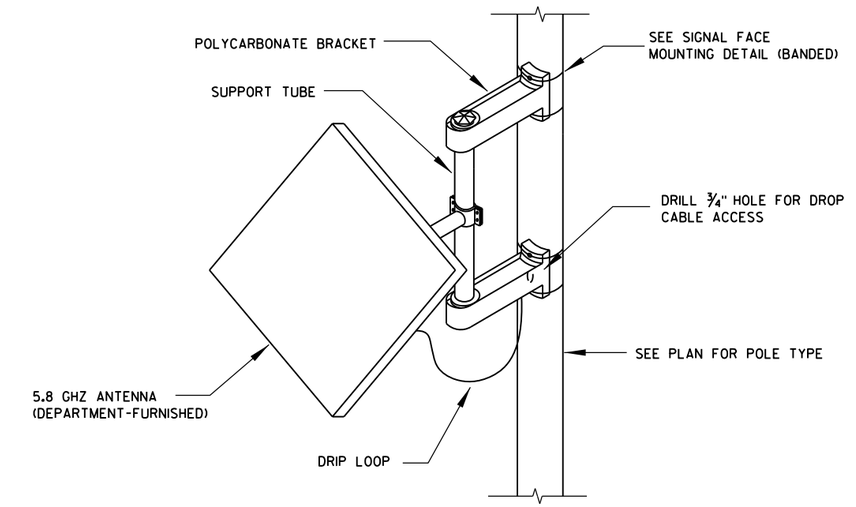
GENERAL NOTES

INSTALL DRIP LOOPS ON LOOSE CABLES TO PREVENT
WATER FROM FLOWING ON CABLE AND ENTERING POLES/ENCLOSURES.

ALL MOUNTING EQUIPMENT REQUIRED IS INCIDENTIAL TO BID ITEM
"INSTALL WIRELESS ANTENNA".



900 MHZ ANTENNA



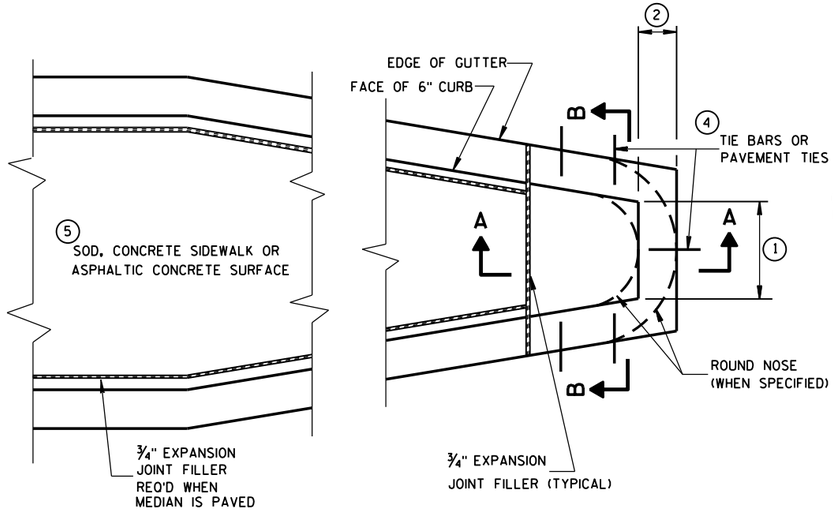
5.8 GHZ ANTENNA

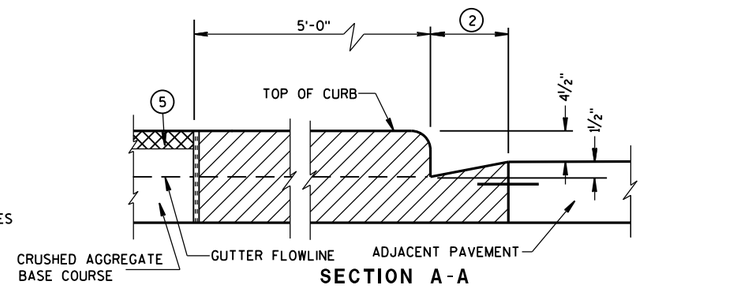
INSTALL WIRELESS ANTENNA

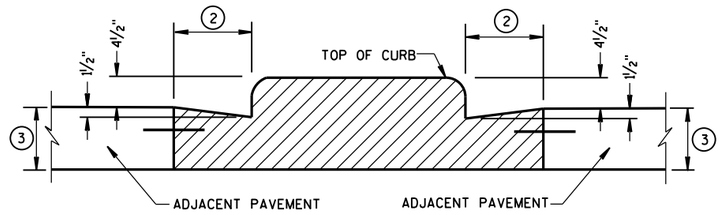
INSTALL WIRELESS ANTENNA	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2017 DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL

S.D.D. 9 H 16-1

S.D.D. 9 H 16-1







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.

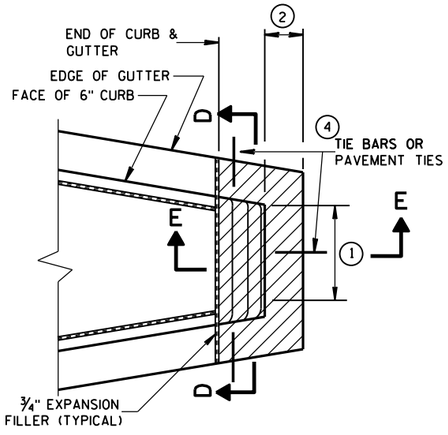
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

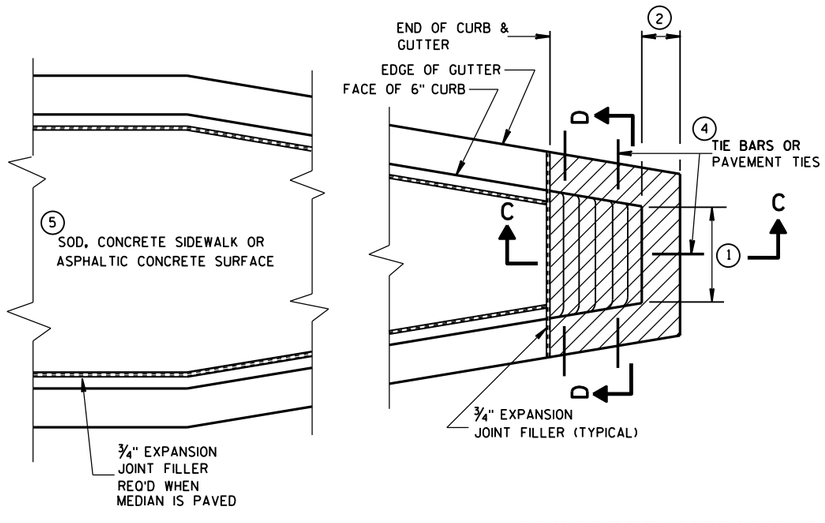
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

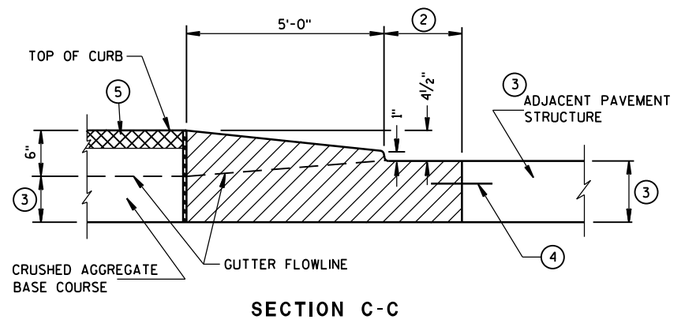
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

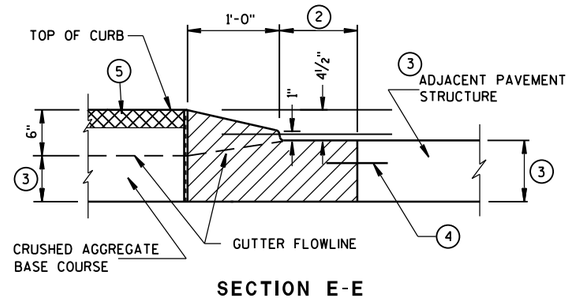
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



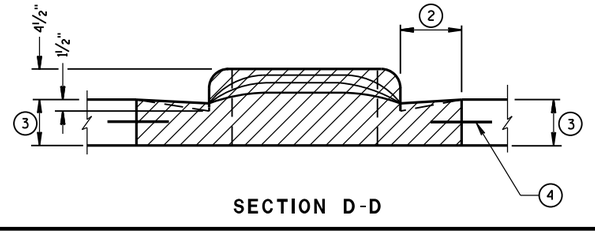






CONCRETE MEDIAN SLOPED NOSE TYPE 2

CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

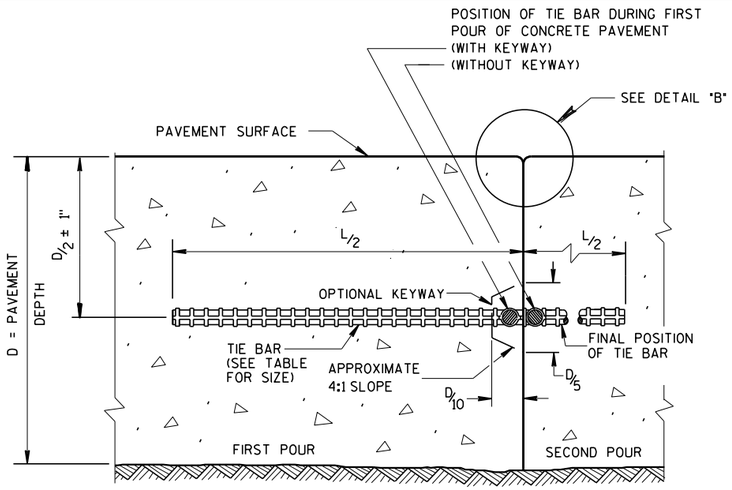
APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
333
FHWA

6

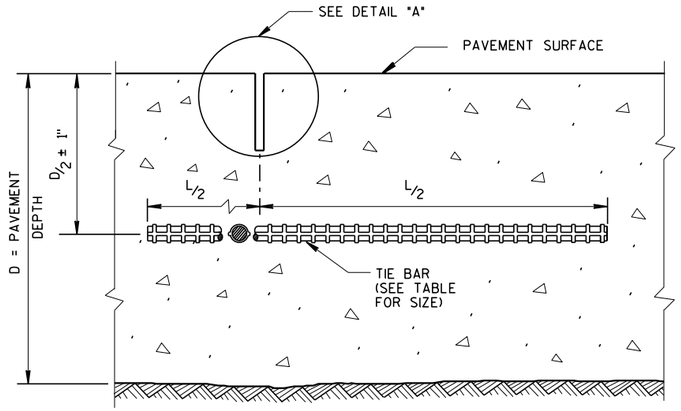
S.D.D. 11 B 2-2

6

S.D.D. 11 B 2-2



CONSTRUCTION JOINT



SAWED JOINT

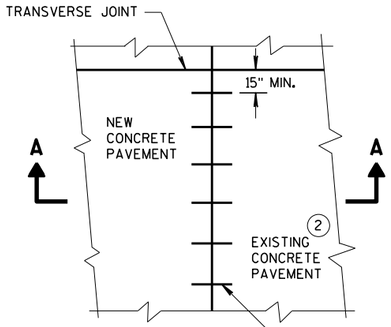
GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

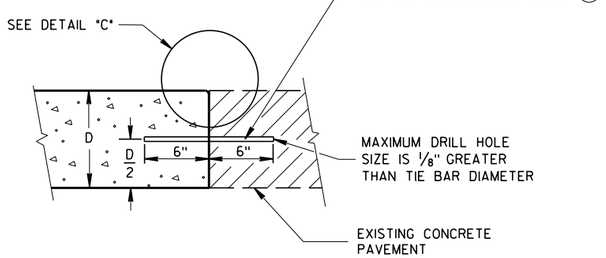
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

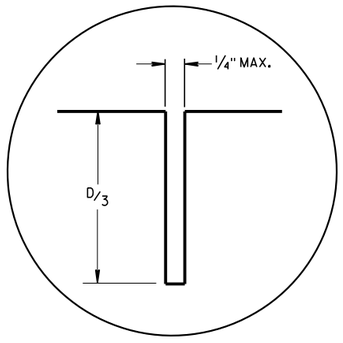


PLAN VIEW

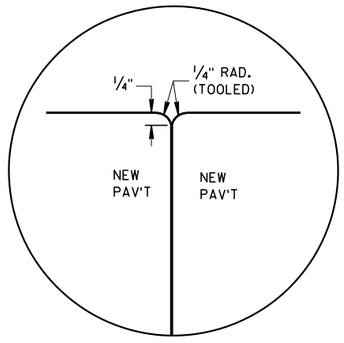


SECTION A-A

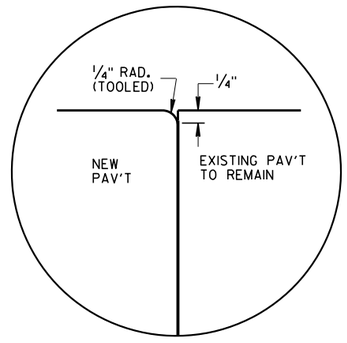
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



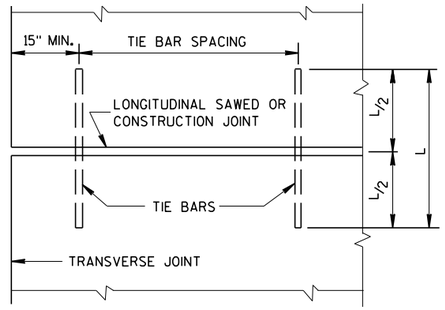
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

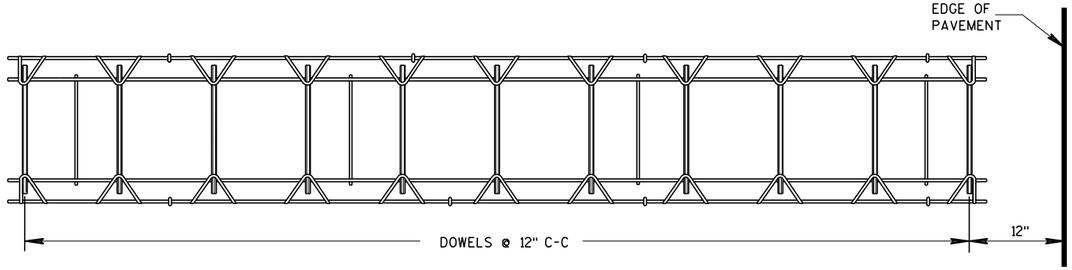
APPROVED
March 2018
DATE
/S/ Peter Kemp PE
PAVEMENT SUPE
FHWA

6

S.D.D. 13 C 1-19

6

S.D.D. 13 C 1-19

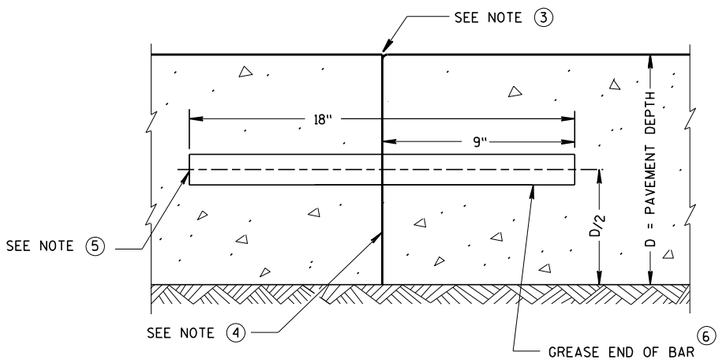


PLAN VIEW

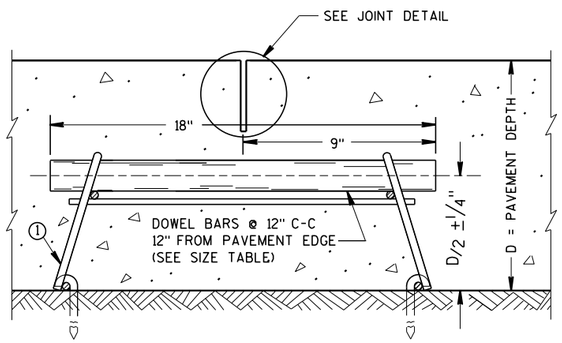


SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



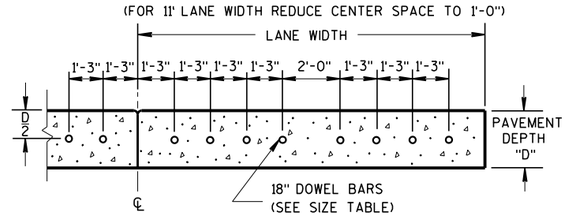
TRANSVERSE CONSTRUCTION JOINT



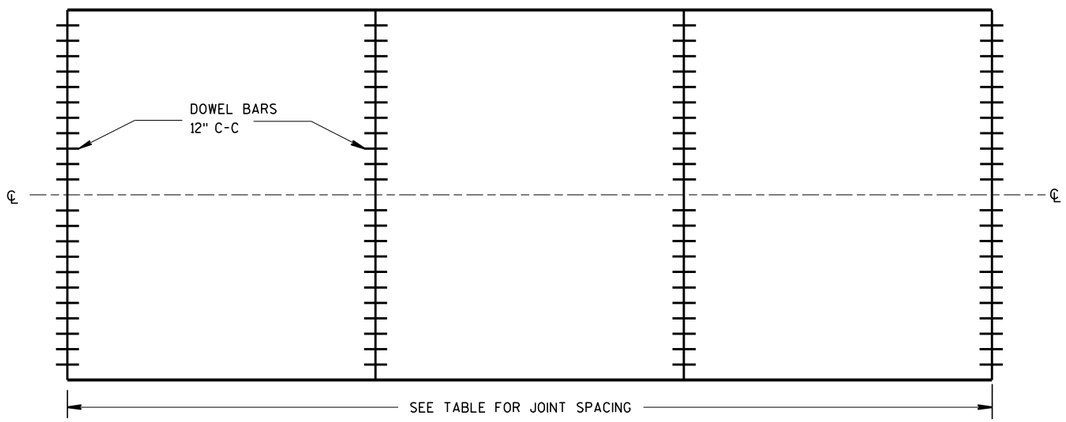
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

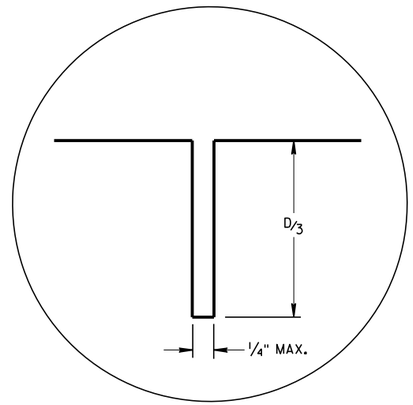
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUP 335

FHWA

6

S.D.D. 13 C 13-9

6

S.D.D. 13 C 13-9

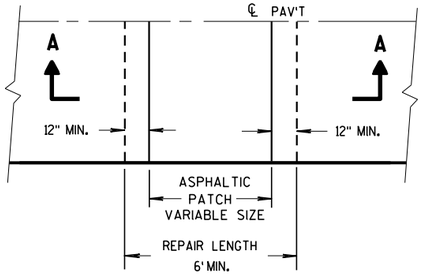
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

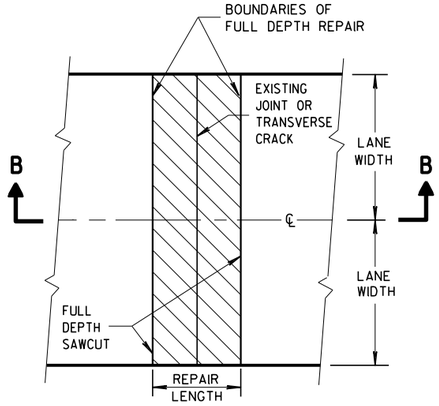
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

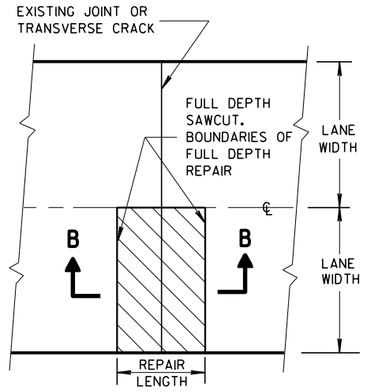
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

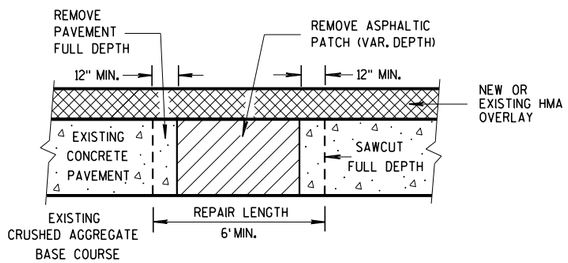


PLAN VIEW
(DOUBLE LANE REPAIR)



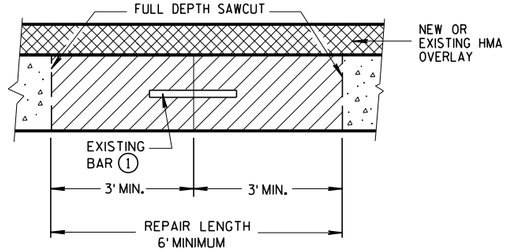
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

6

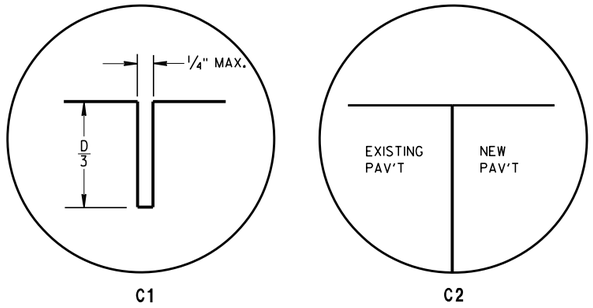
6

S.D.D. 13 C 14-7a

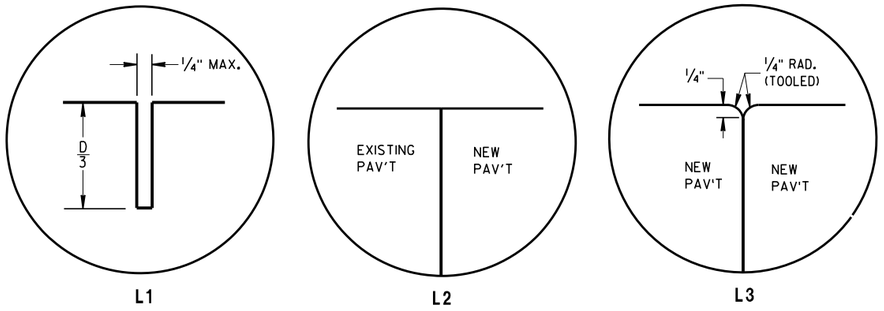
S.D.D. 13 C 14-7a

BASE PATCHING CONCRETE

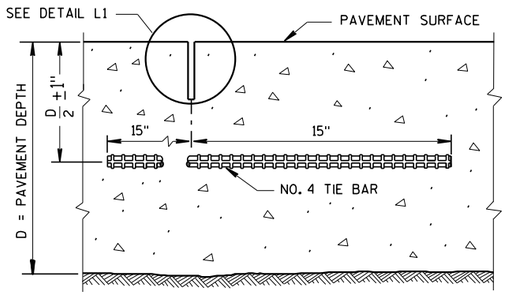
STATE OF WISCONSI
DEPARTMENT OF TRANSPORTATION



TRANSVERSE JOINTS

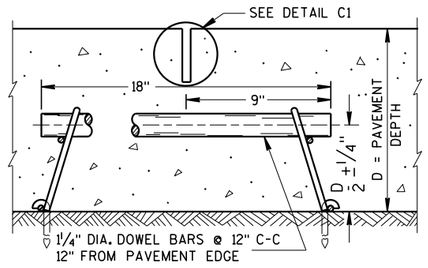


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

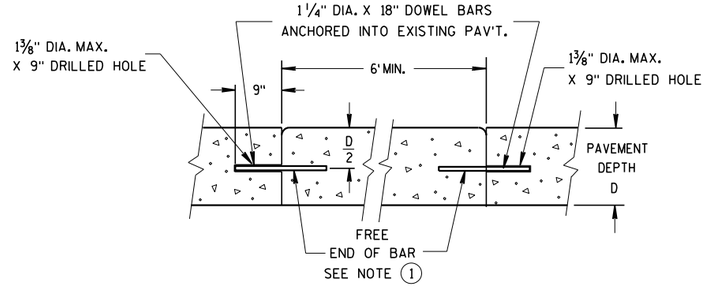
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

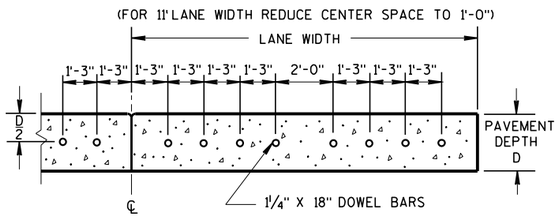
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

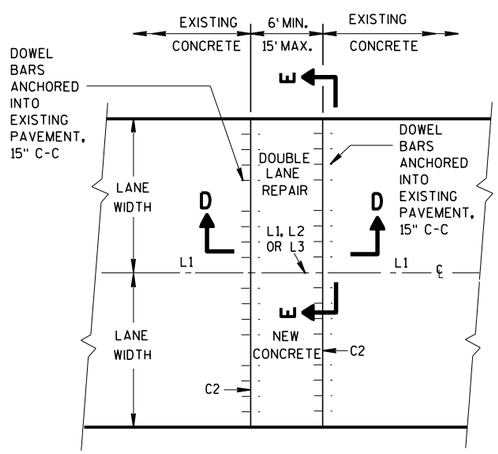


SECTION D-D



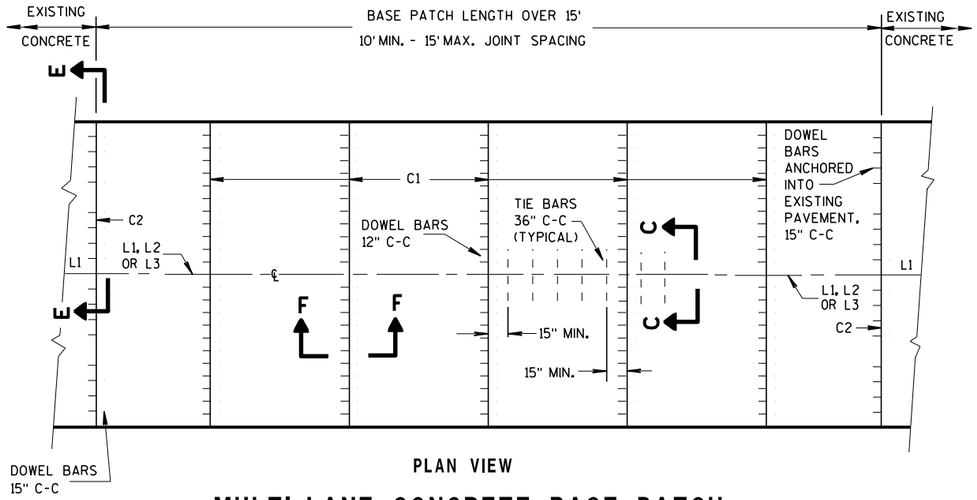
SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

BASE PATCHING CONCRETE

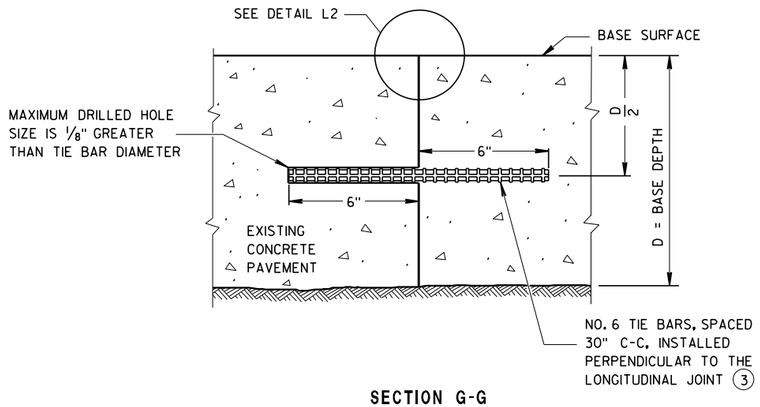
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 14-7b

6

S.D.D. 13 C 14-7b



SECTION G-G

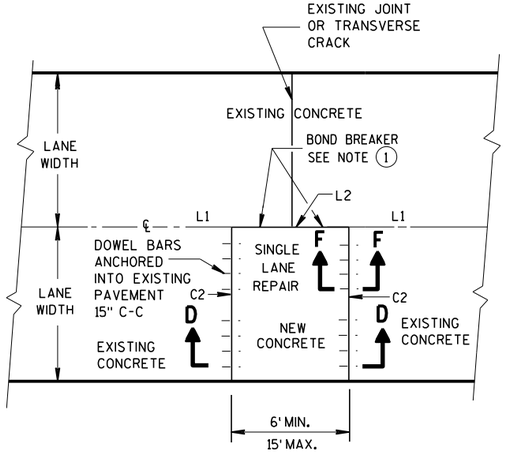
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.

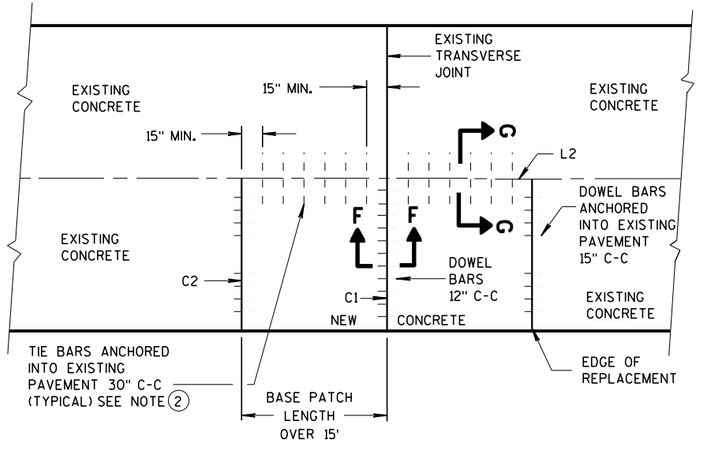
(2) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

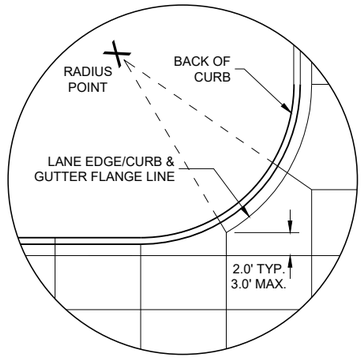
BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

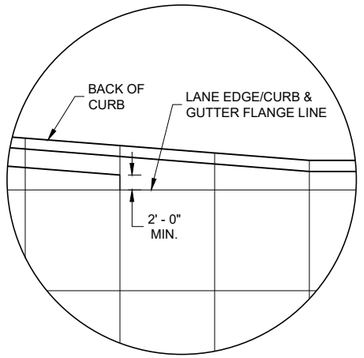
APPROVED
March 2018 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUPERVISOR
FHWA

6

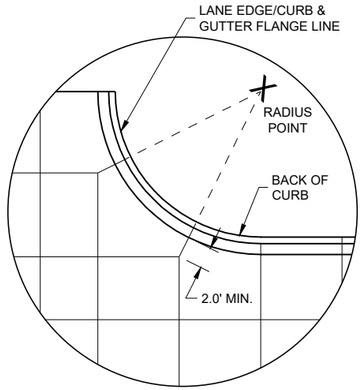
S.D.D. 13 C 14-7c



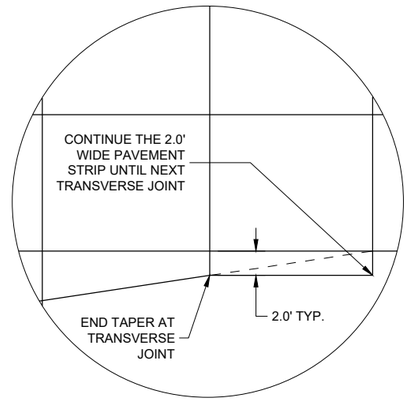
DETAIL "A"



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.

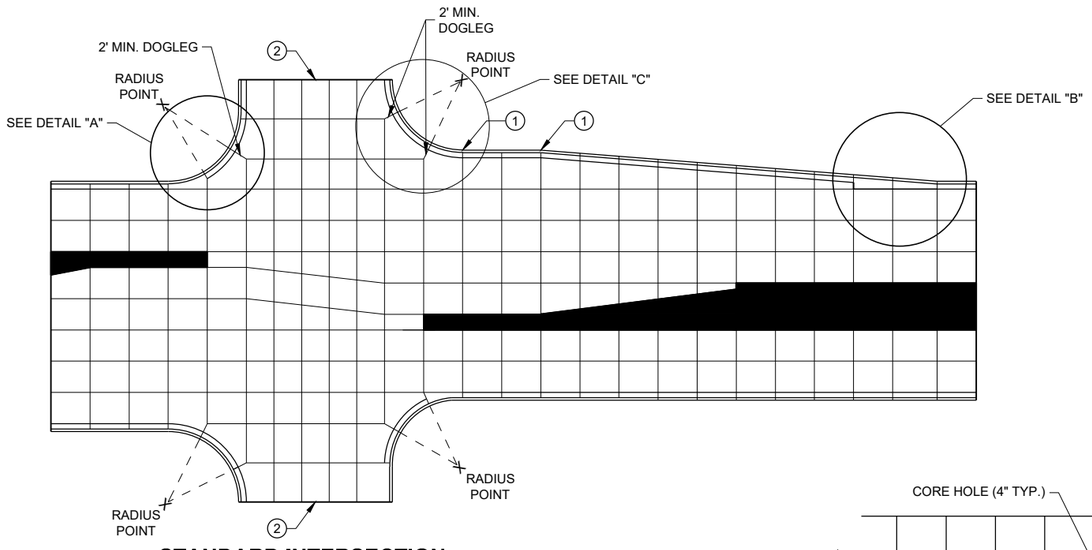
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

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 WITHEDGE OF RADIUS.

(3) THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.

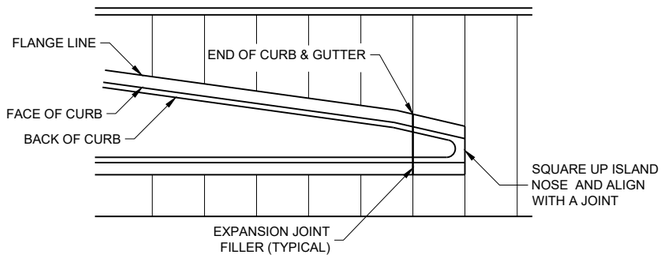


STANDARD INTERSECTION

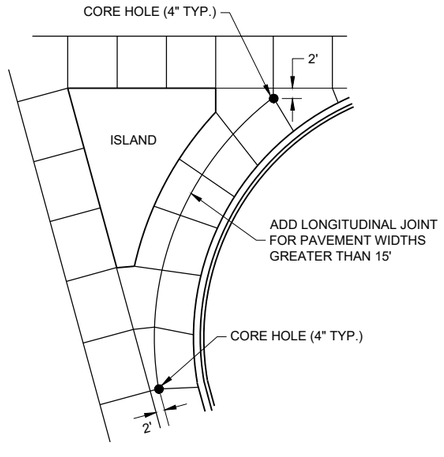
PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'

SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 07a

6

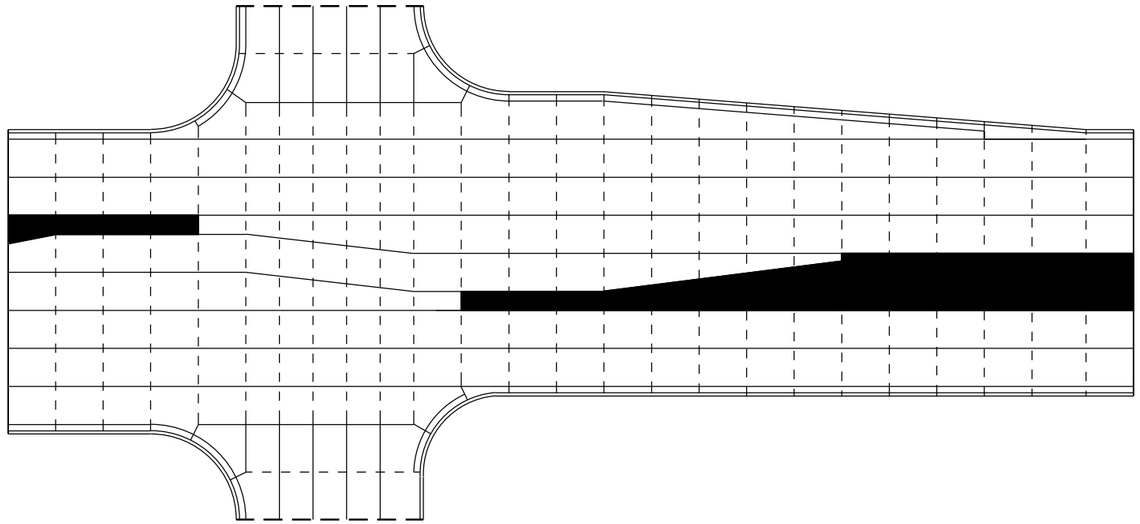
SDD 13C18 - 07a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

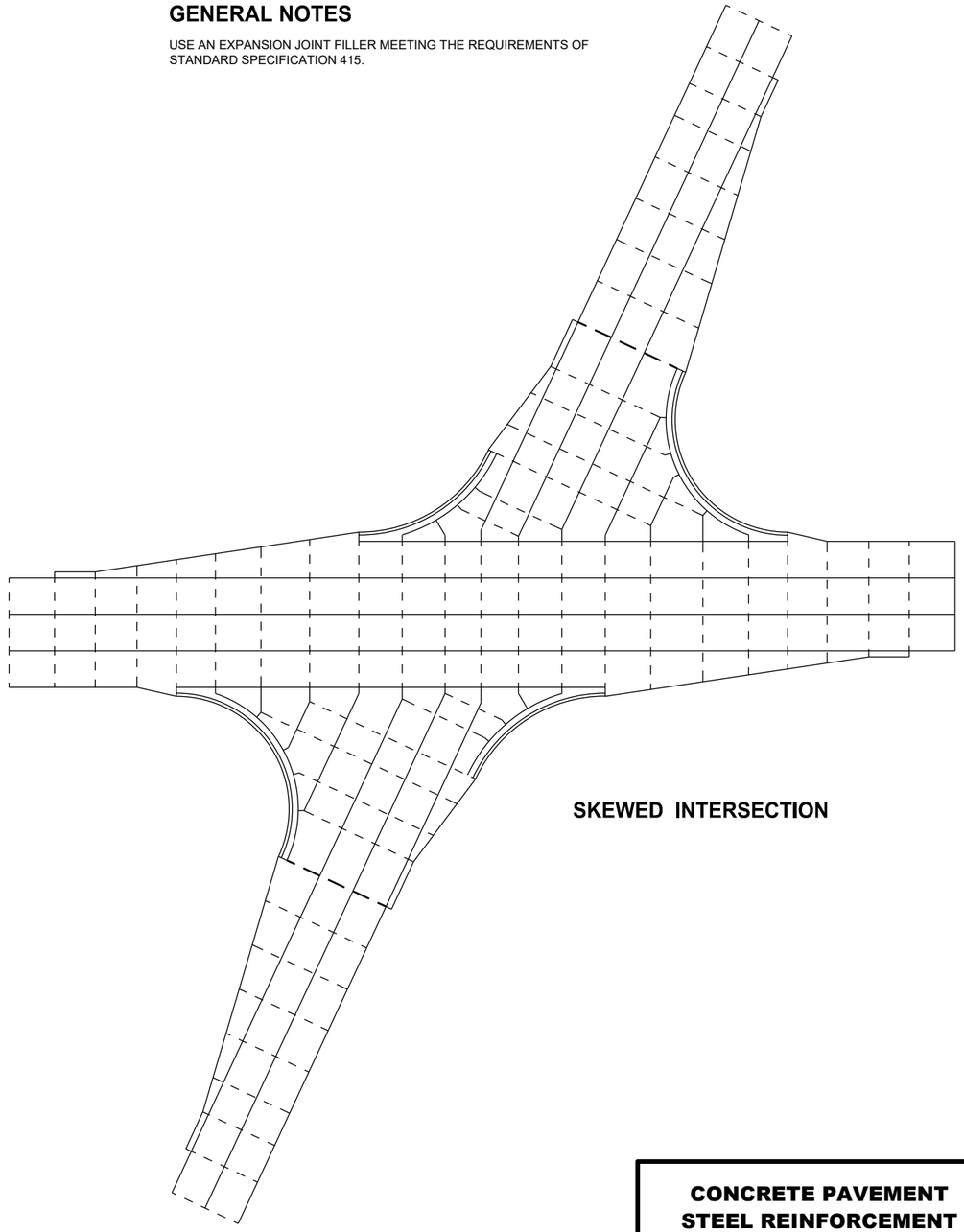
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

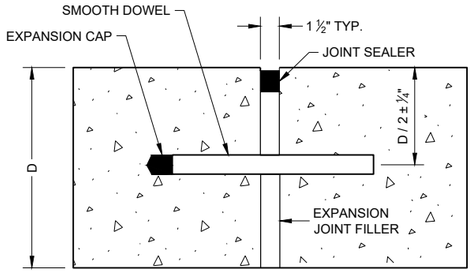
SDD 13C18 - 07b

CONCRETE PAVEMENT STEEL REINFORCEMENT

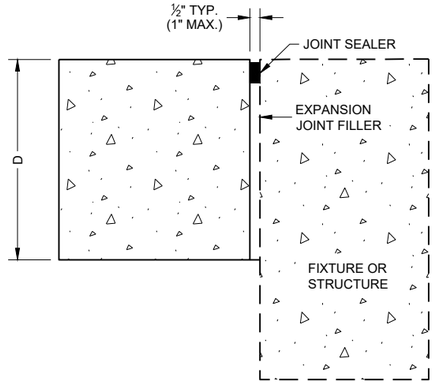
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 07b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

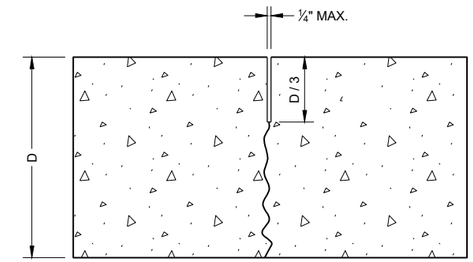
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

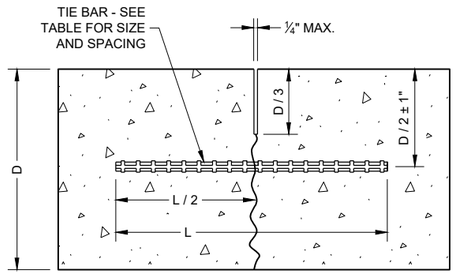
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

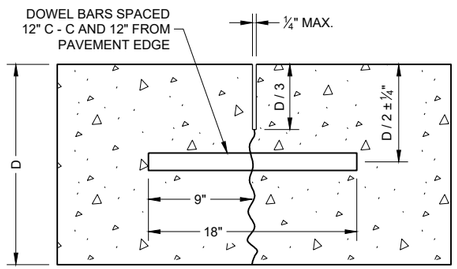
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

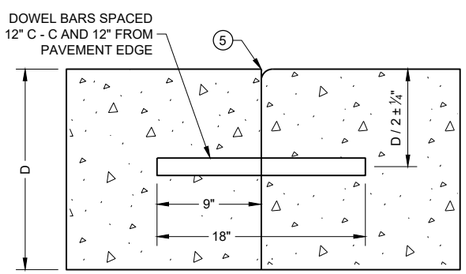


TIED LONGITUDINAL

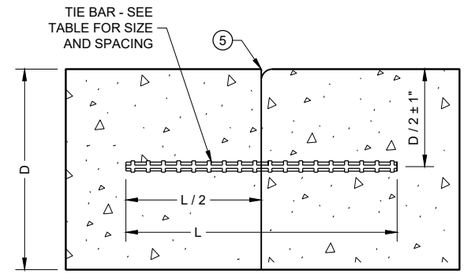


DOWELED TRANSVERSE

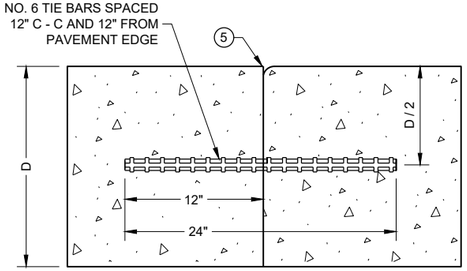
CONTRACTION JOINTS (2)



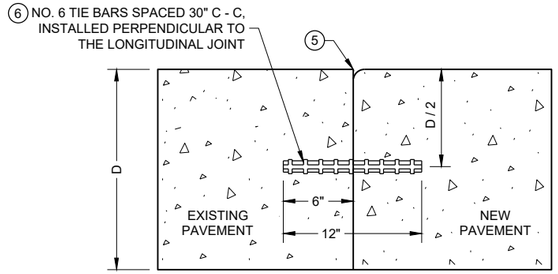
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS (4)

CONCRETE PAVEMENT JOINT TYPES

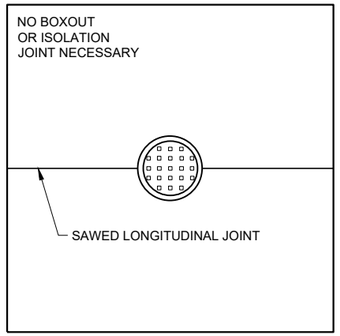
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

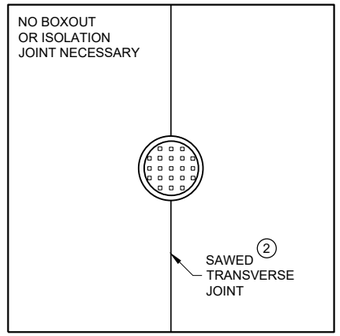
SDD 13C18 - 07c

6

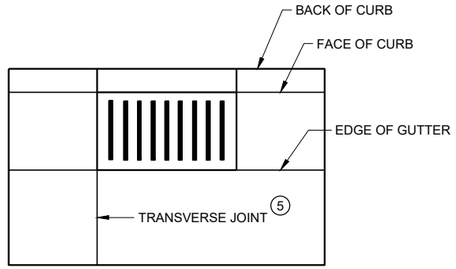
SDD 13C18 - 07c



MANHOLE WITH LONGITUDINAL JOINT



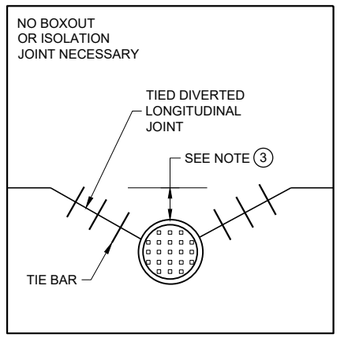
MANHOLE WITH TRANSVERSE JOINT



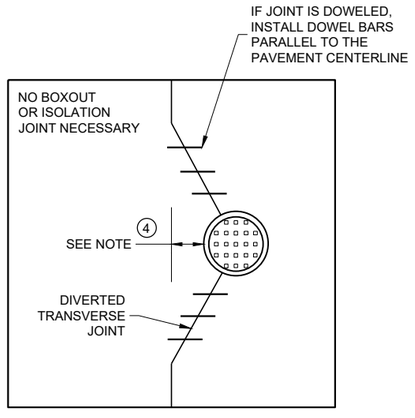
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

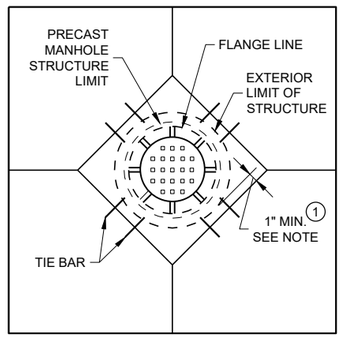
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL 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 REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 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 REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

6

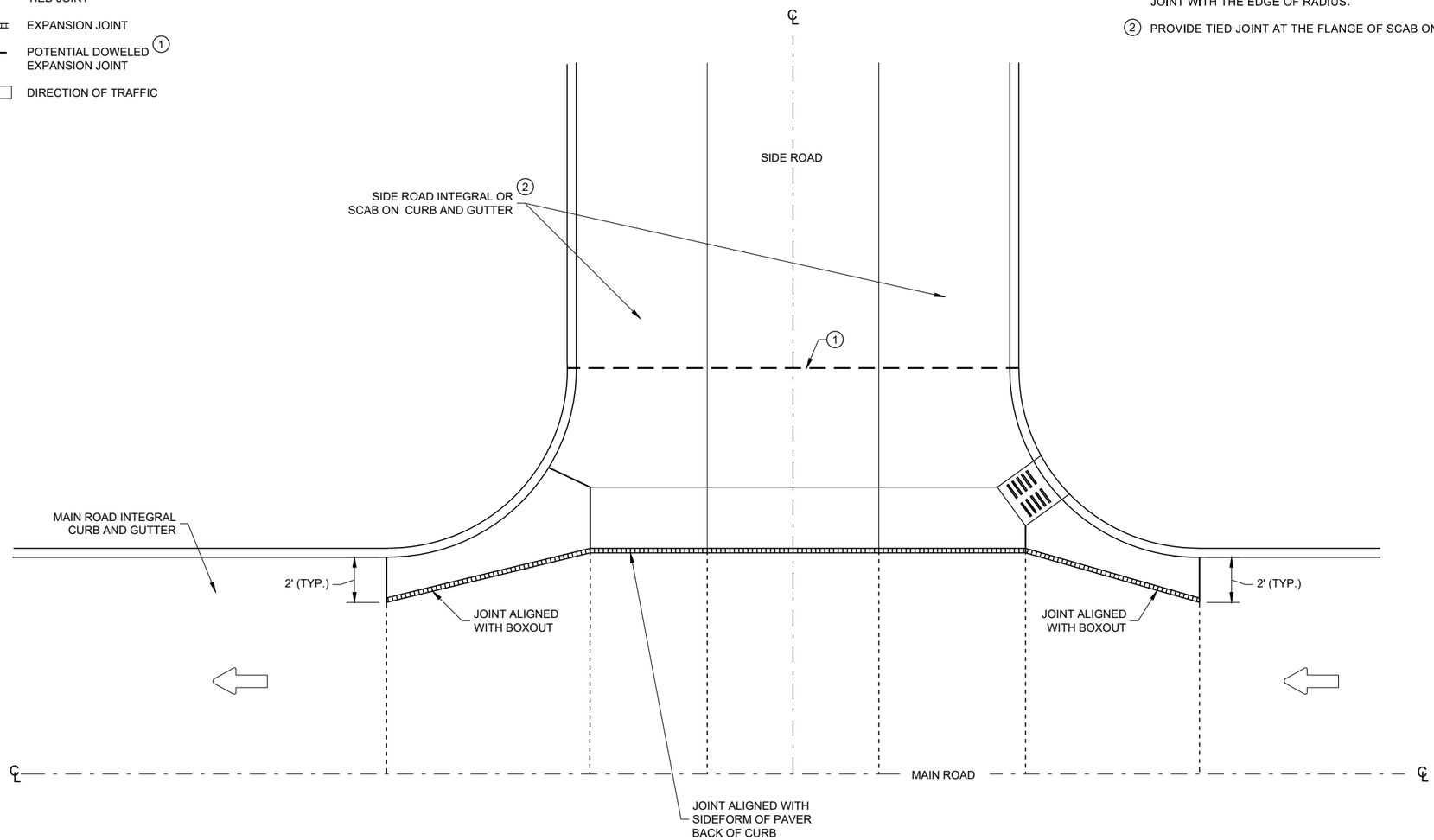
SDD13C18 - 07d

6

SDD13C18 - 07d

LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT (1)
- DIRECTION OF TRAFFIC



GENERAL NOTES

(1) 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 THE EDGE OF RADIUS.

(2) PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
ROADWAY STANDARDS DEVE ENGINEER

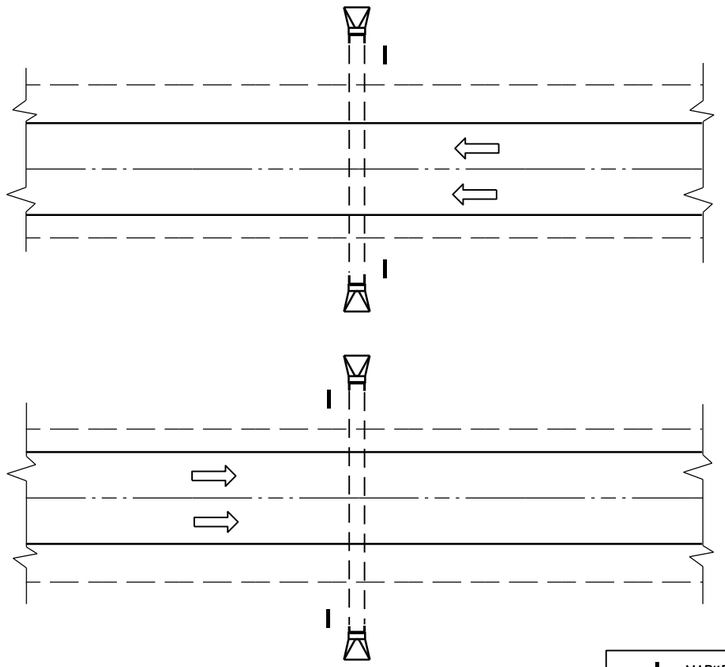
FHWA

6

SDD 13C18 - 07f

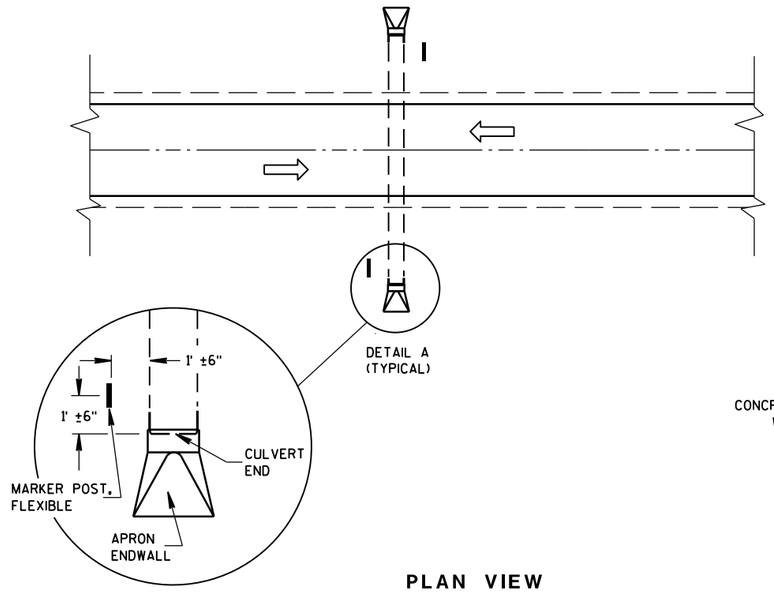
6

SDD 13C18 - 07f



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

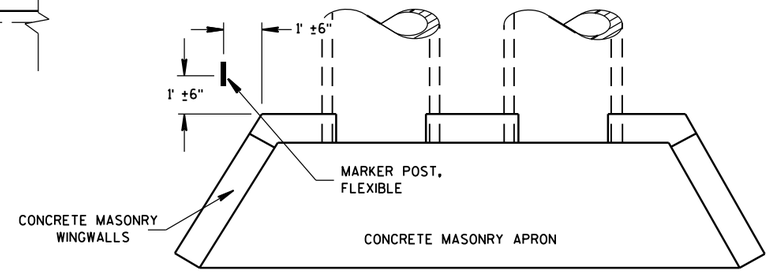
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

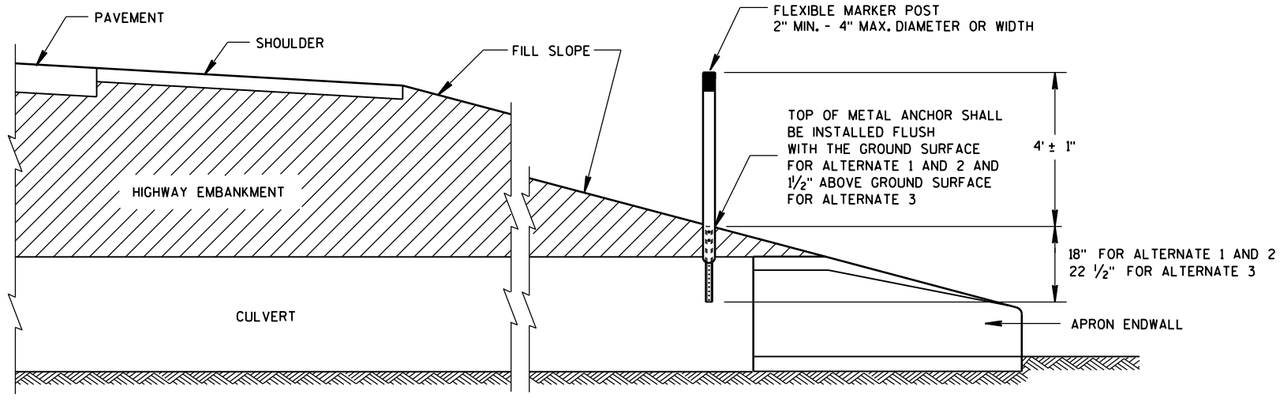
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

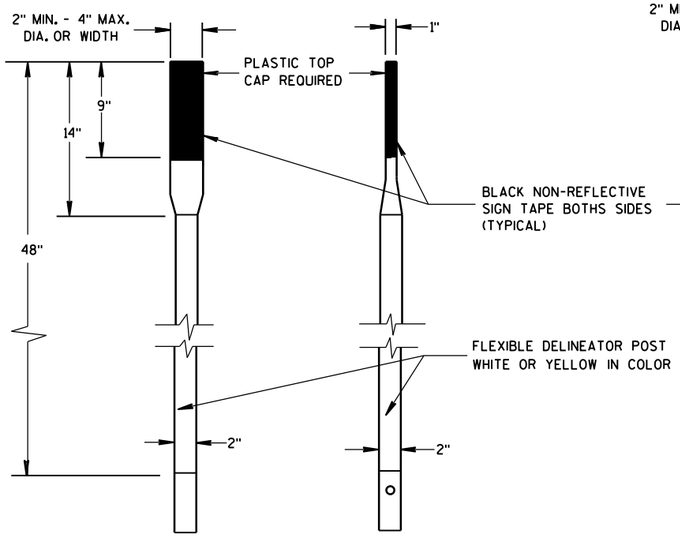
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

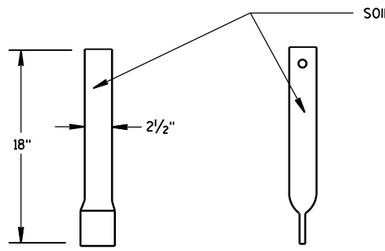
6

S.D.D. 15 A 3-2a

6

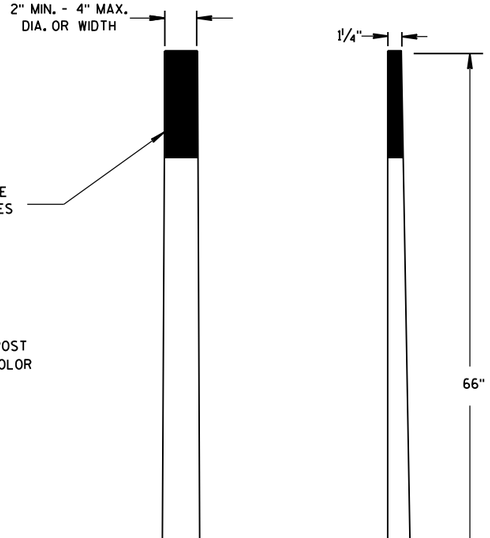
S.D.D. 15 A 3-2a





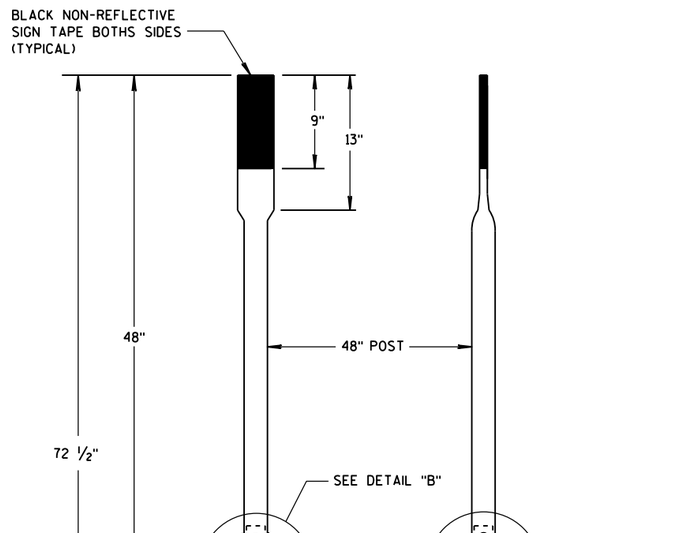
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

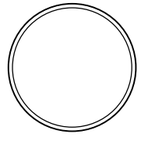
ALTERNATE 2



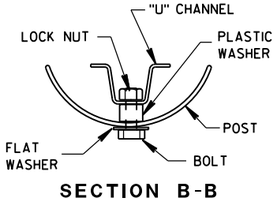
FRONT VIEW SIDE VIEW

ALTERNATE 3

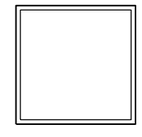
FLEXIBLE MARKER POSTS



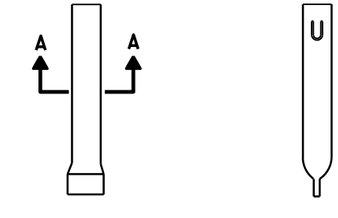
SECTION A-A



SECTION B-B

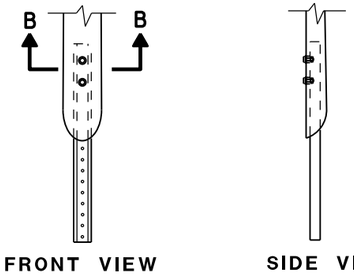


SECTION C-C



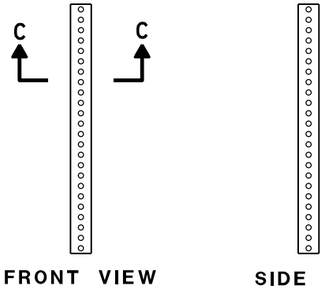
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

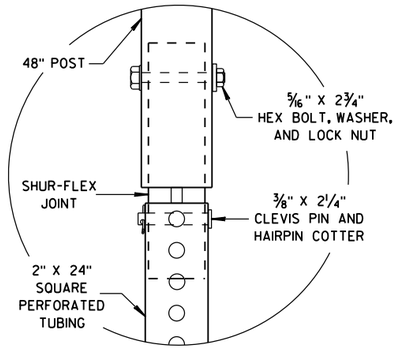
ALTERNATE 2



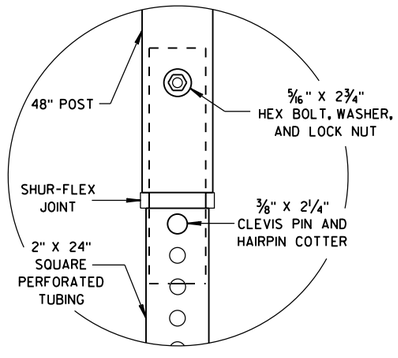
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6
S.D.D. 15 A 3-2b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

500' AT 25-40 MPH
1000' AT 45+ MPH

500'

DETOUR EAST XX *

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

M4-8a END DETOUR WEST XX *

DETOUR EAST XX / WEST XX

DETOUR ROUTE

WORK AREA

DETOUR EAST XX

WEST XX OR M4-9L DETOUR ** IF TOWN ROAD OR LOCAL STREET

500'

DETOUR NEXT X MILES * G20-51

DETOUR WEST XX * OR M4-59L DETOUR ** IF TOWN ROAD OR LOCAL STREET

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

MATCH POINT

* M4-59L DETOUR ** OR DETOUR EAST XX * IF TOWN ROAD OR LOCAL STREET

D1-X COMMUNITY NAME * (IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

500'

M4-9L DETOUR ** OR DETOUR EAST XX IF TOWN ROAD OR LOCAL STREET

DETOUR WEST XX

DETOUR WEST XX OR M4-9R DETOUR ** IF TOWN ROAD OR LOCAL STREET

DETOUR WEST XX * OR M4-59R * DETOUR ** IF TOWN ROAD OR LOCAL STREET

500'

DETOUR ROUTE

500' AT 25 - 40 MPH
1000' AT 45+ MPH

500'

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

DETOUR EAST XX *

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR EAST XX

500'

DETOUR EAST XX

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR EAST XX *

PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA)

500' AT 25 - 40 MPH
1000' AT 45+ MPH

DETOUR EAST XX *

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

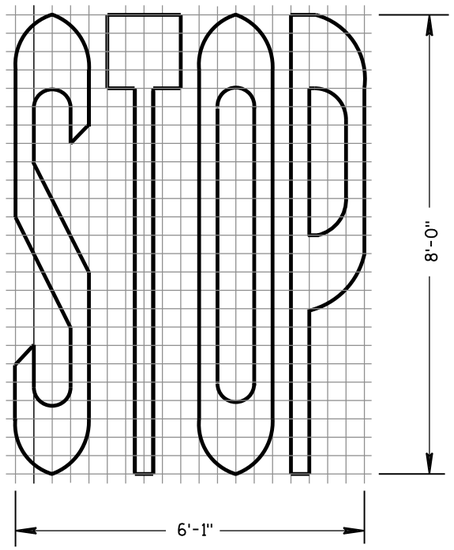
SDD 15C02 - 07c

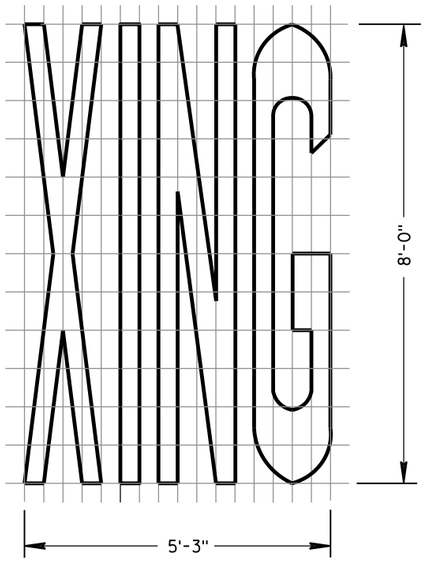
6

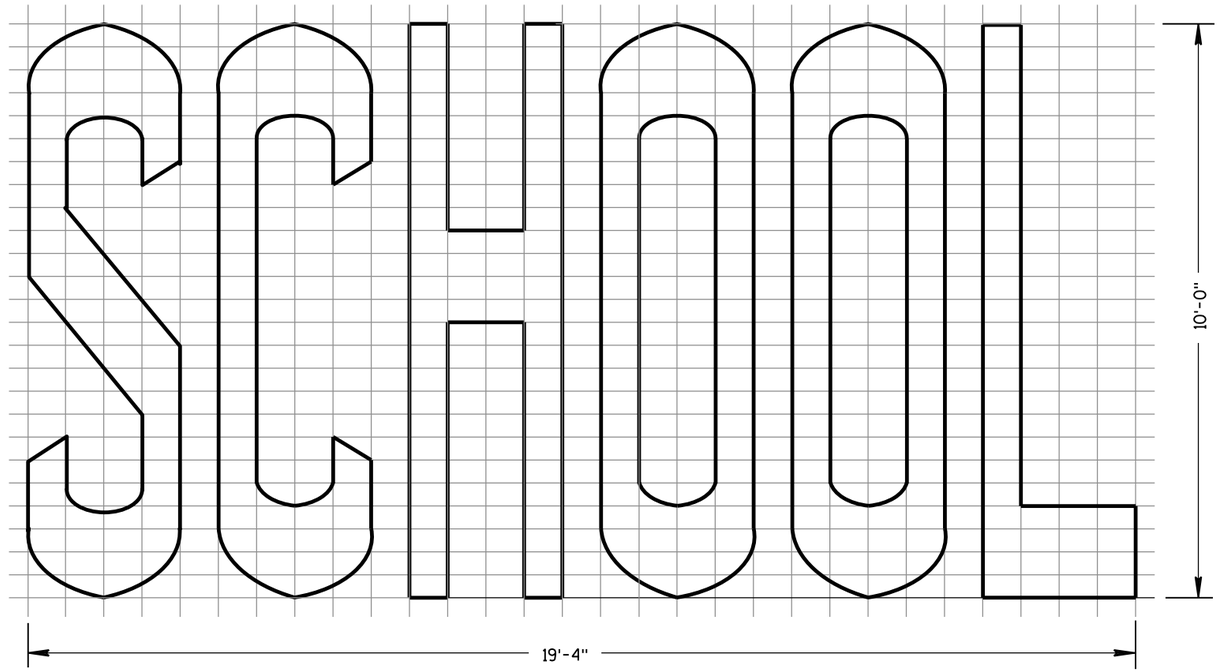
SDD 15C02 - 07c

GENERAL NOTES

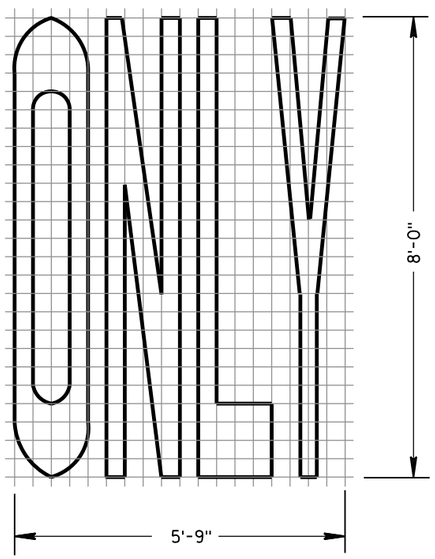
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

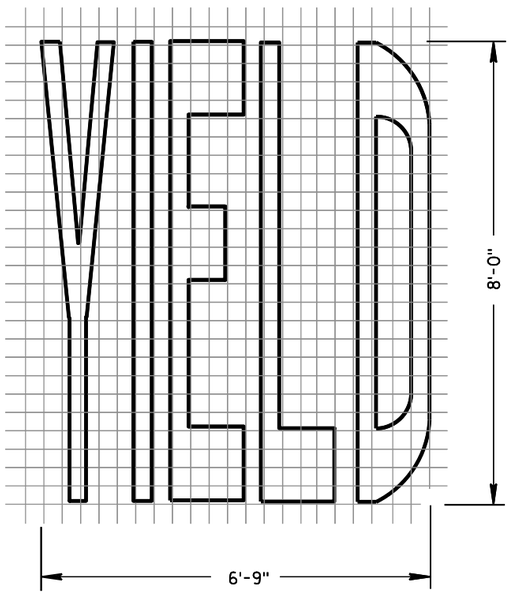


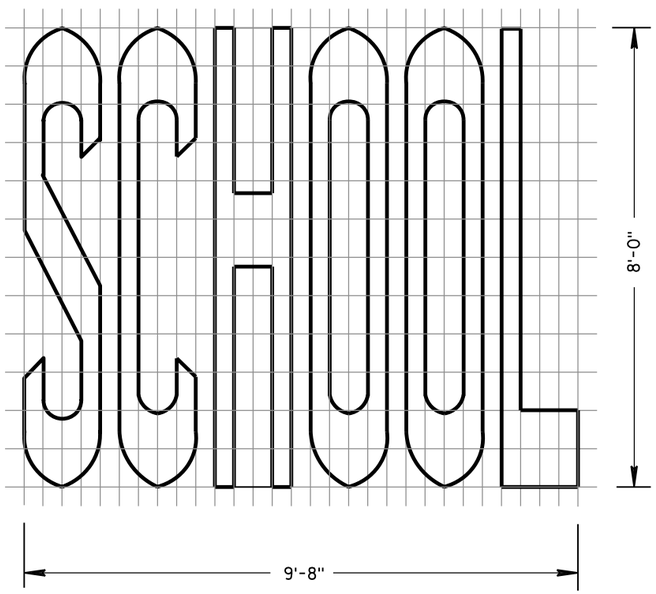




TWO-LANE







SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARK
347
EER
FHWA

6

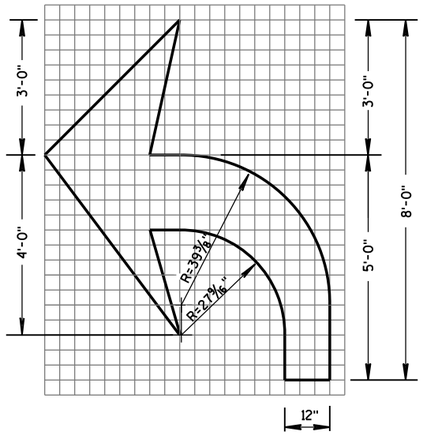
S.D.D. 15 C 7-14b

6

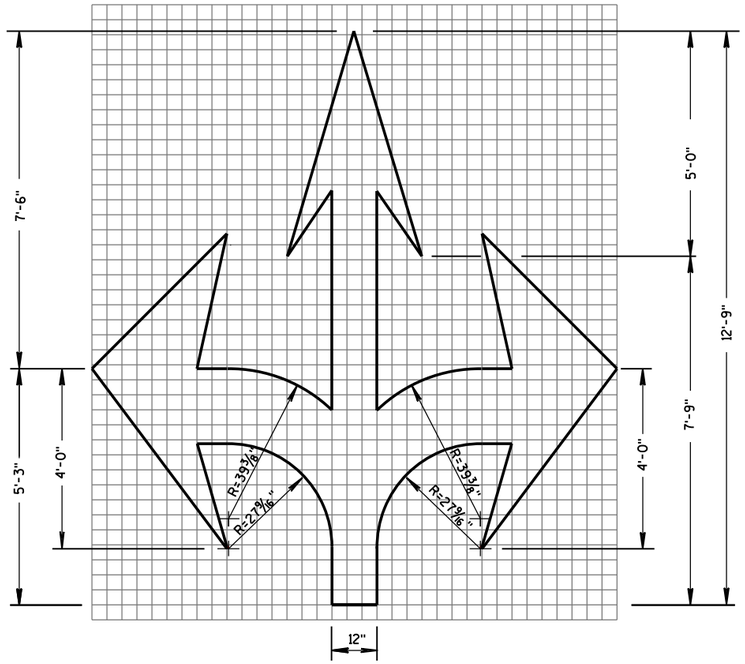
S.D.D. 15 C 7-14b

GENERAL NOTES

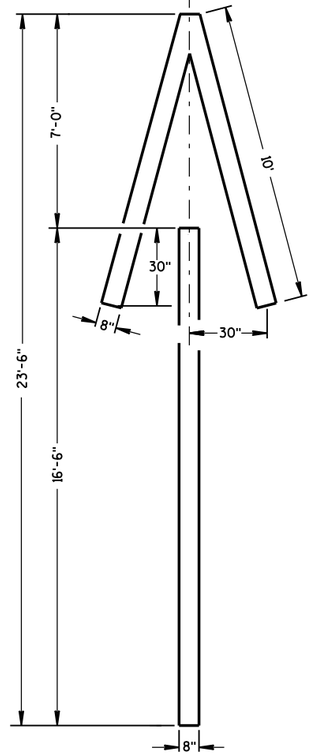
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



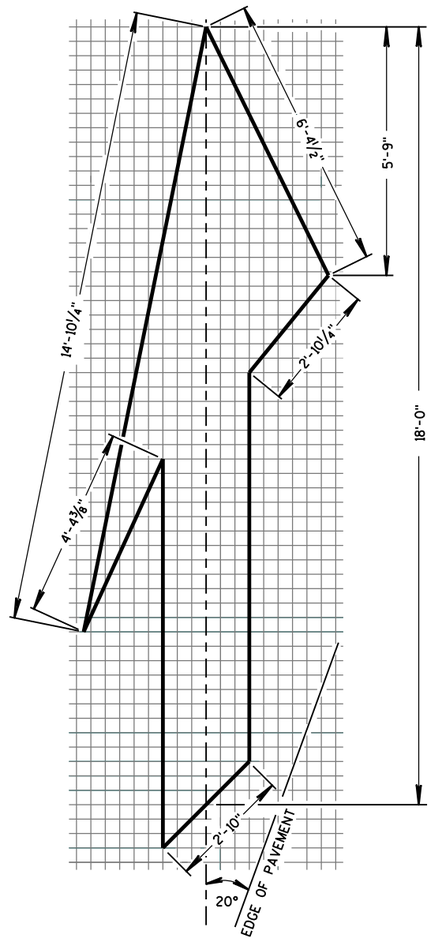
TYPE 2



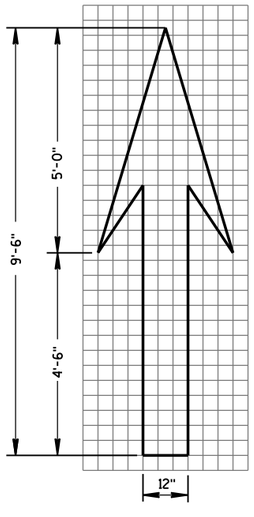
TYPE 6



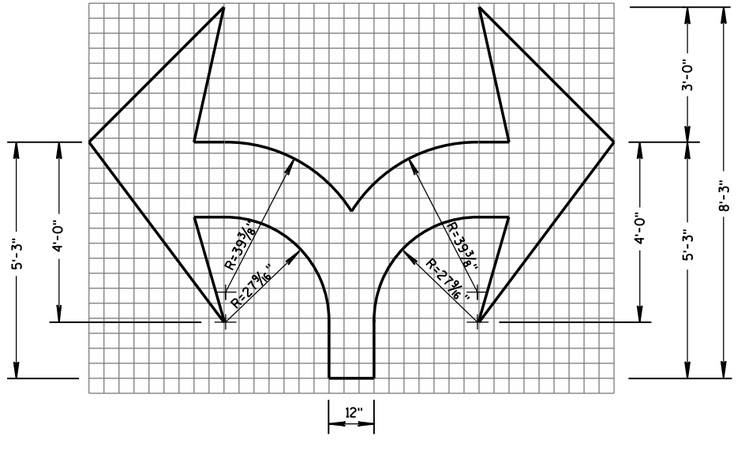
TYPE 4



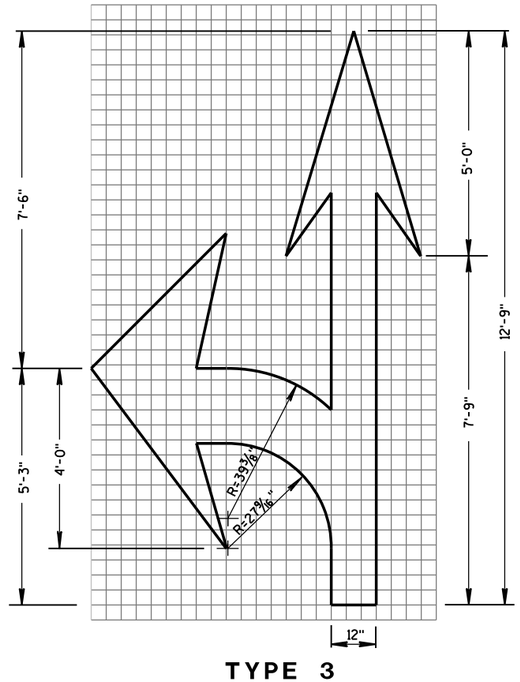
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

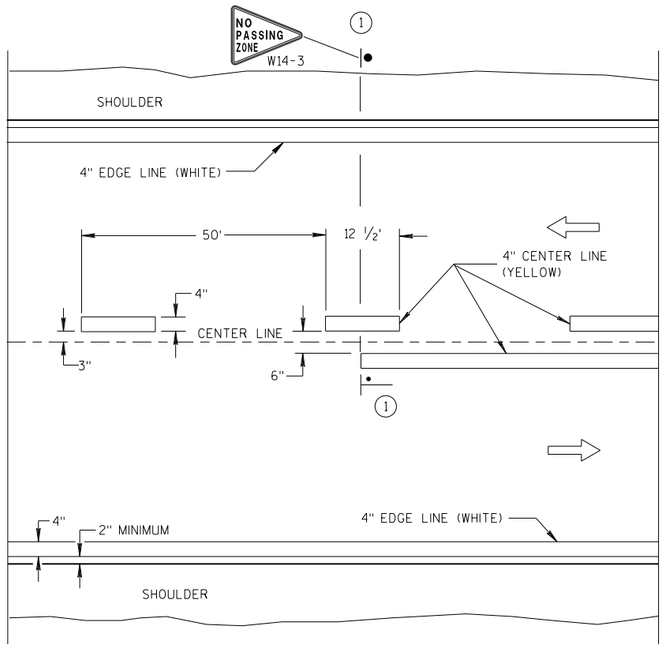
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]NEER
FHWA

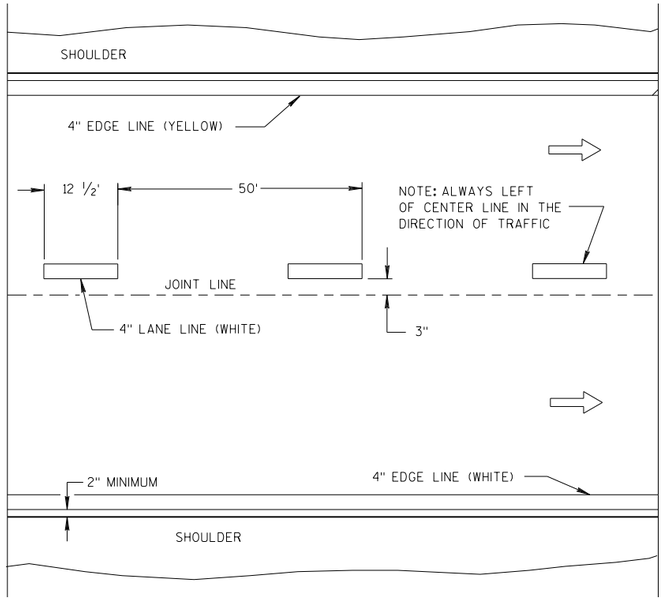
6

S.D.D. 15 C 7-14c

S.D.D. 15 C 7-14c



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

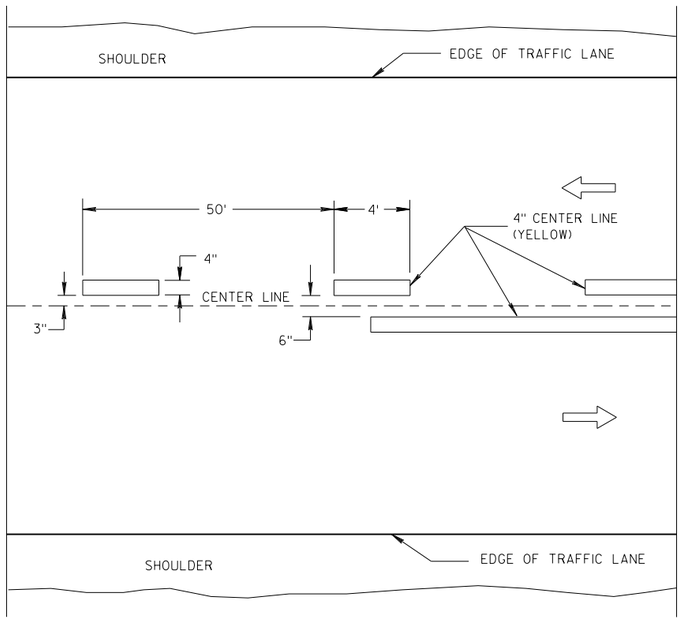
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

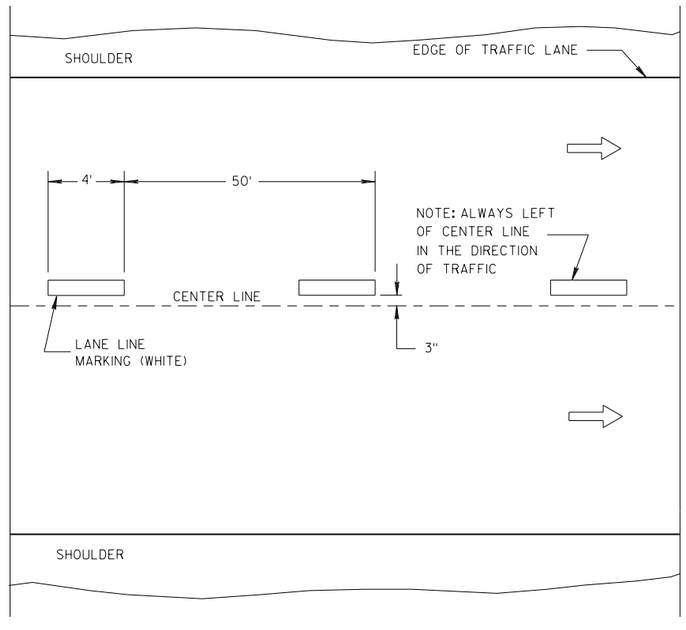
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

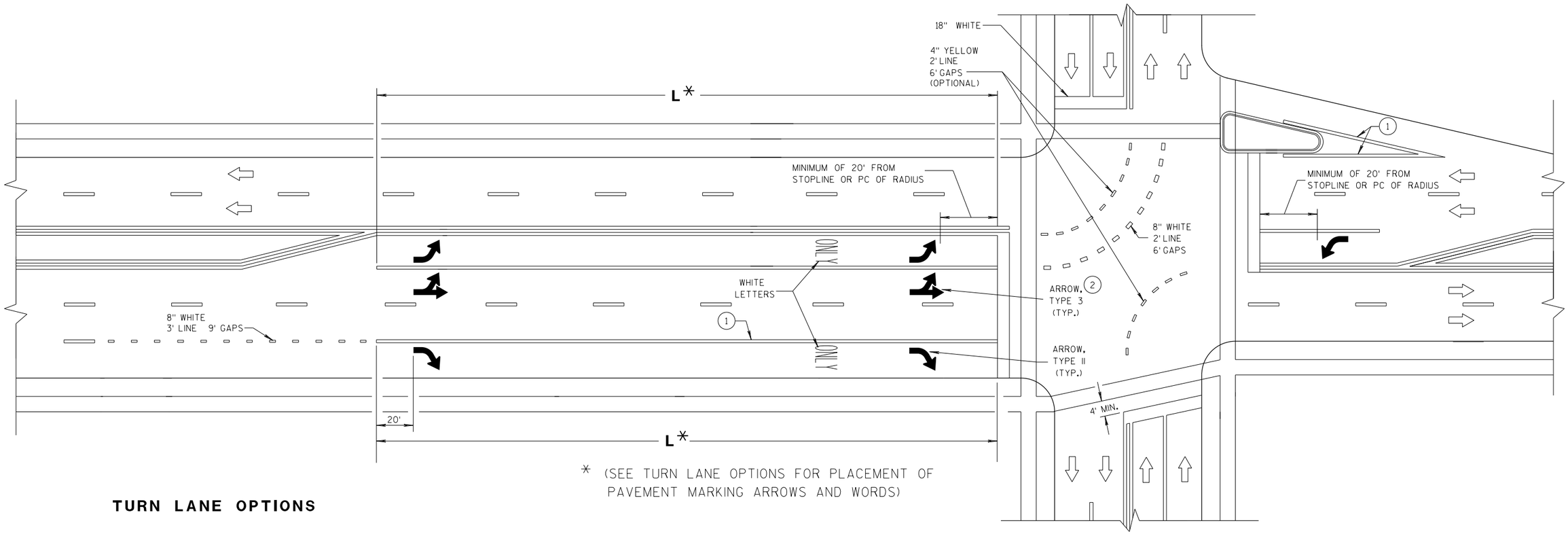
FHWA

6

S.D.D. 15 C 8-19a

6

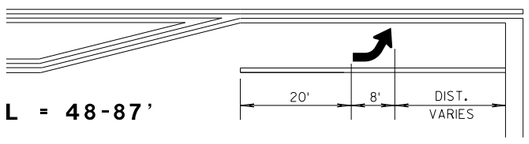
S.D.D. 15 C 8-19a



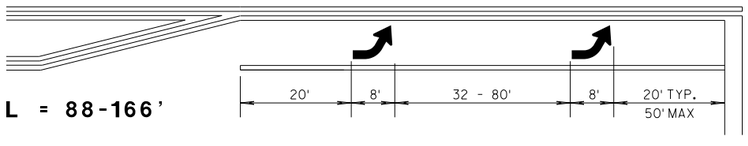
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

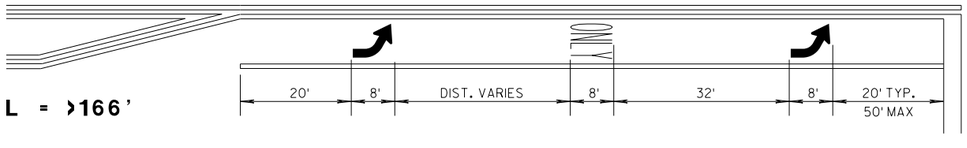
LENGTH OF TURN BAY (**L**) OF 0-47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48-87'



L = 88-166'



L = >166'

GENERAL NOTES

(1) 8" WHITE

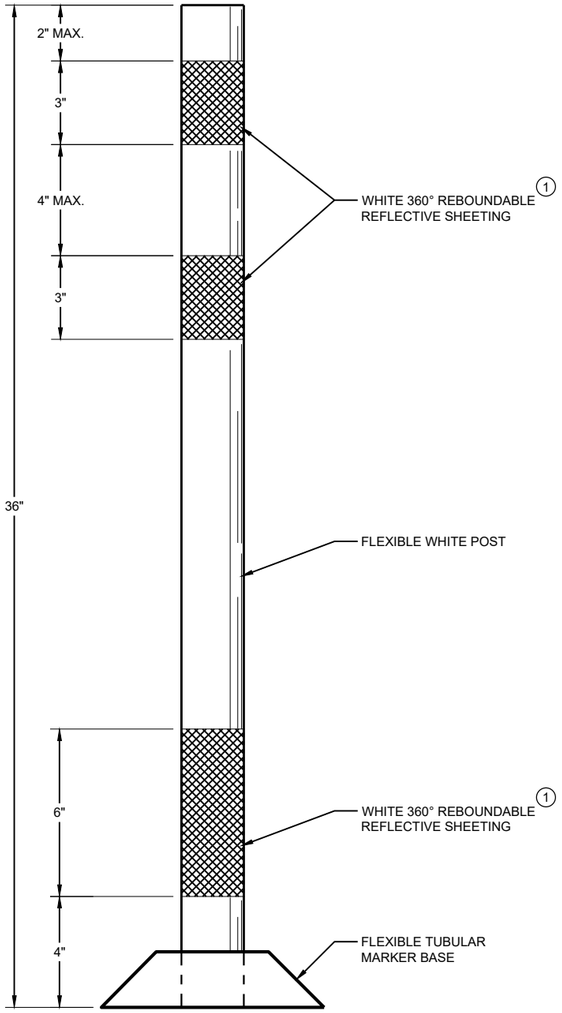
(2) QUANTITY AND LOCATION OF TYPE 3 ARROW ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION, THE ARROWS AND ONLY MARKING ARE ELIMINATED.

⇨ DIRECTION OF TRAFFIC

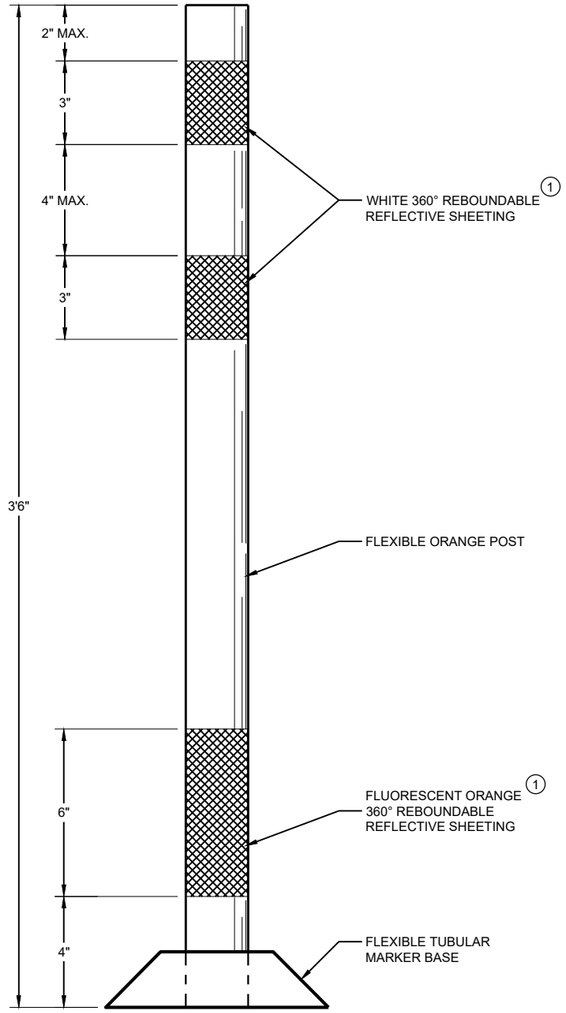
L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

6
S.D.D. 15 C 8-19c



FLEXIBLE TUBULAR MARKER POST PERMANENT CROSSOVER



FLEXIBLE TUBULAR MARKER POST WORK ZONE

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE 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.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

6

SDD 15C11 - 07a

CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

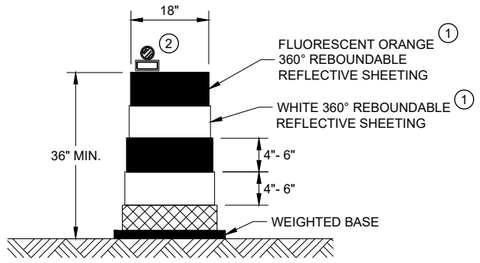
FHWA

6

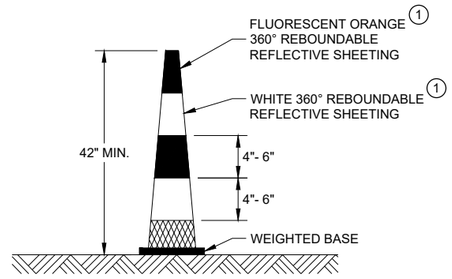
SDD 15C11 - 07a

GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

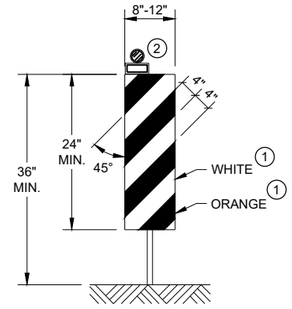


DRUM



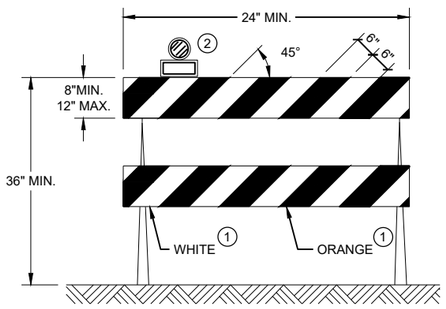
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



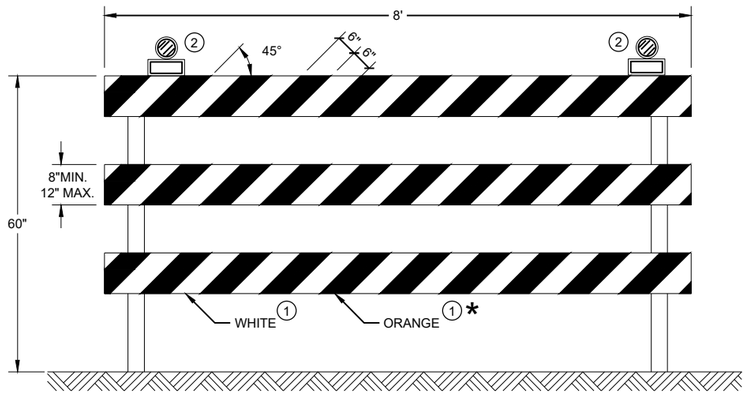
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C11 - 07b

6

SDD 15C11 - 07b

LEGEND

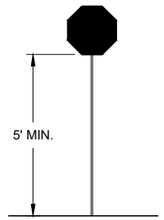
SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



STOP/SLOW PADDLE ON SUPPORT STAFF

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND LOCATION OF ALL FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

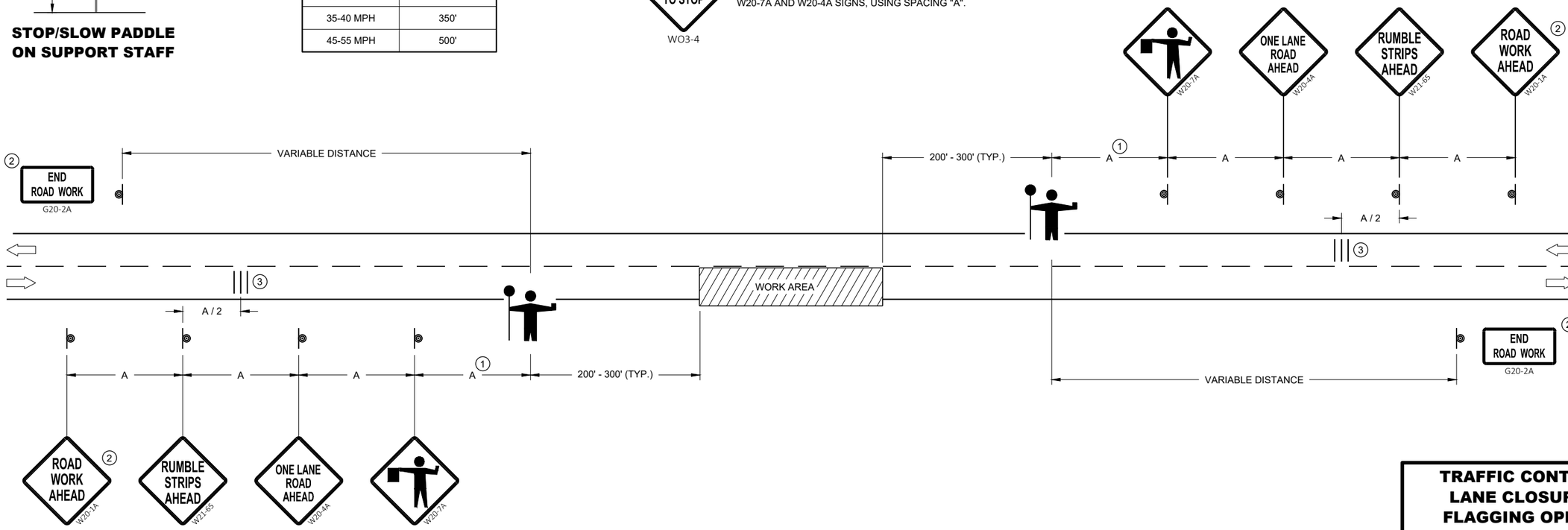
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

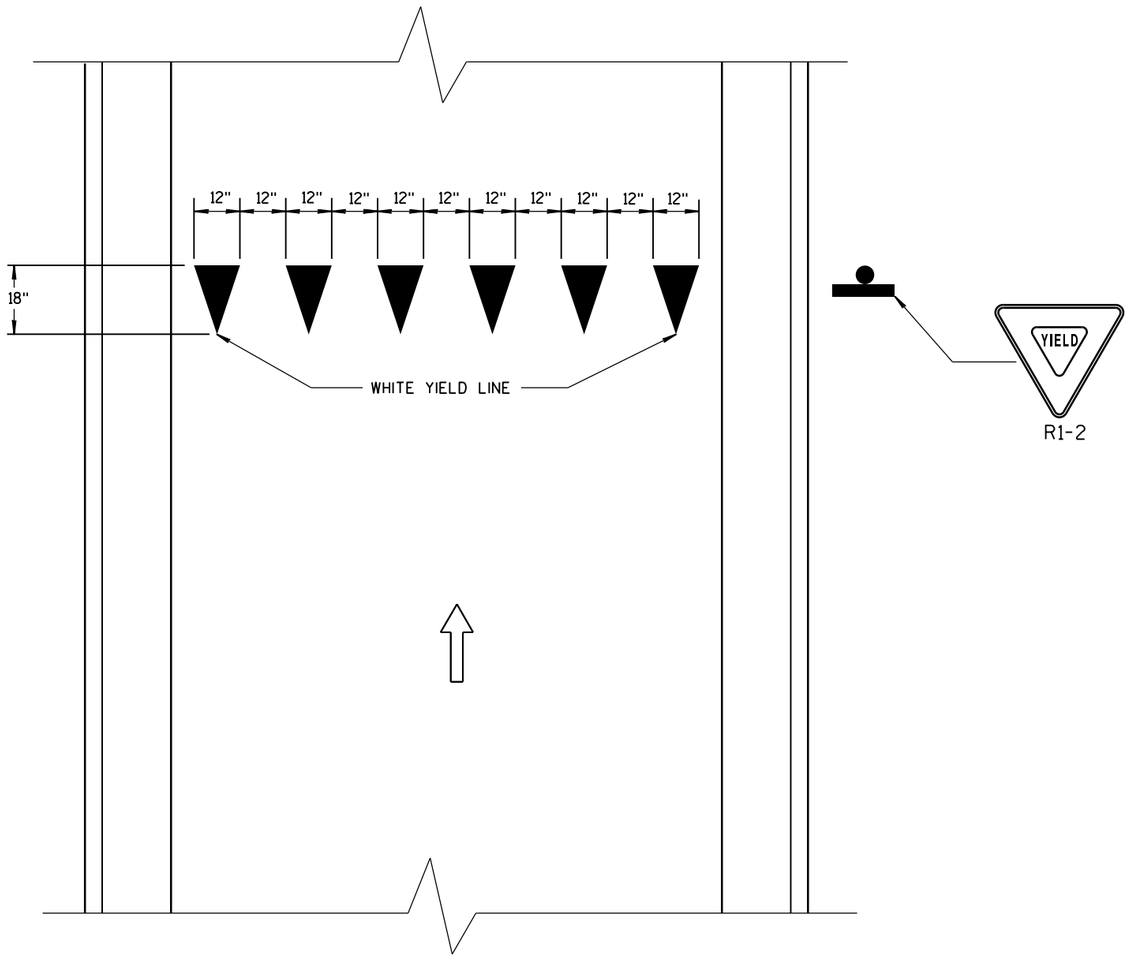
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

353

6

SDD 15C12 - 07



R1-2

DIRECTION OF TRAVEL

YIELD LINE

6

S.D.D. 15 C 20-2

YIELD MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-2016
DATE

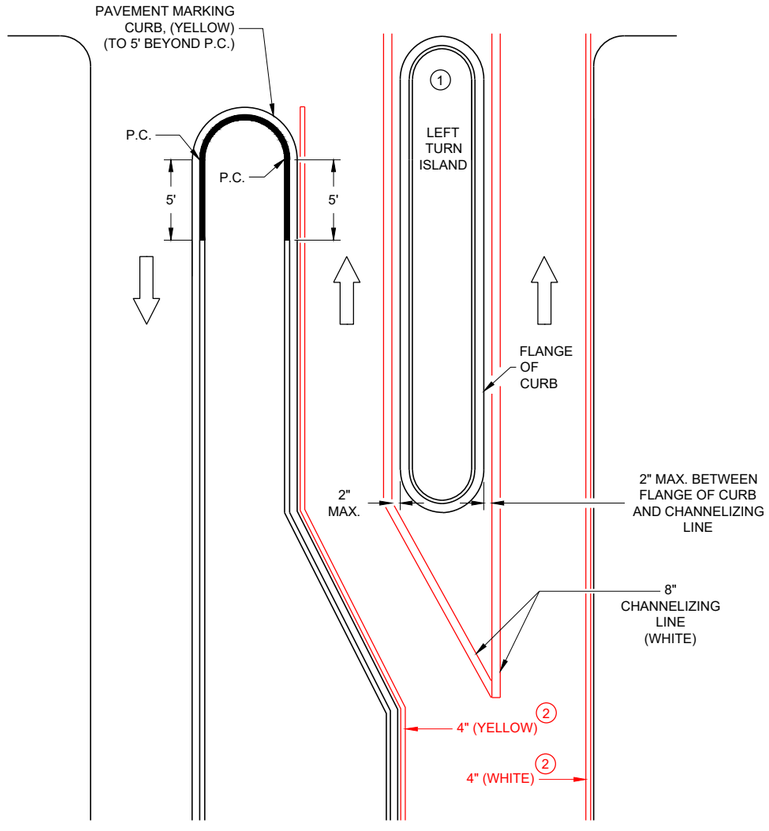
/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

FHWA

6

S.D.D. 15 C 20-2

REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



LEFT TURN & MEDIAN ISLAND

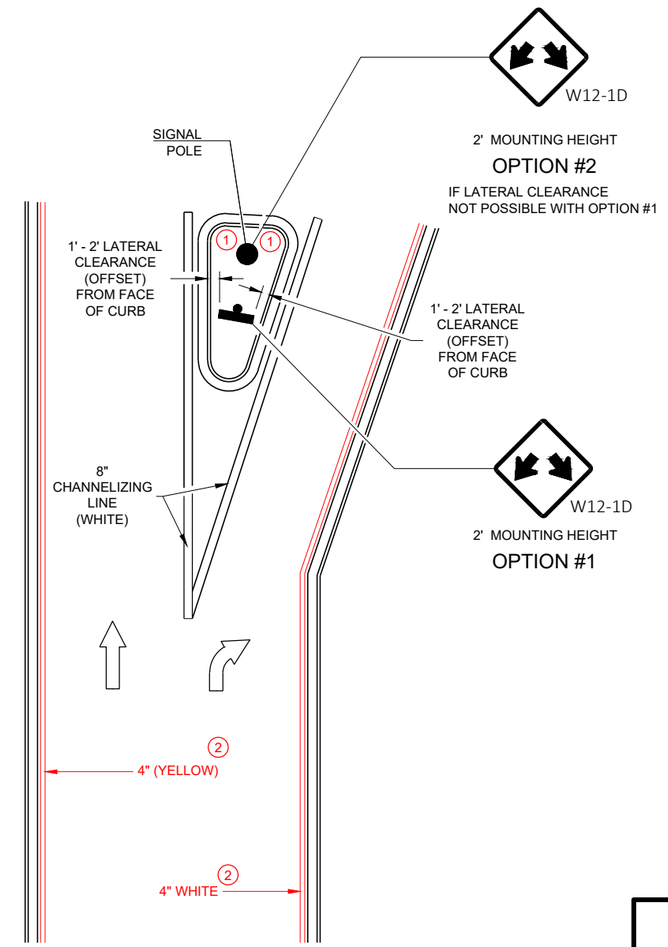
GENERAL NOTES

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

1. MARK CURB NOSES YELLOW.
2. MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

DOUBLE ARROW
WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAF ENGINEER

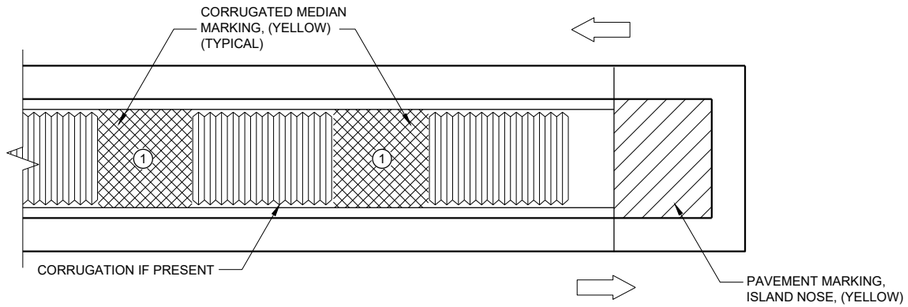
FHWA

6

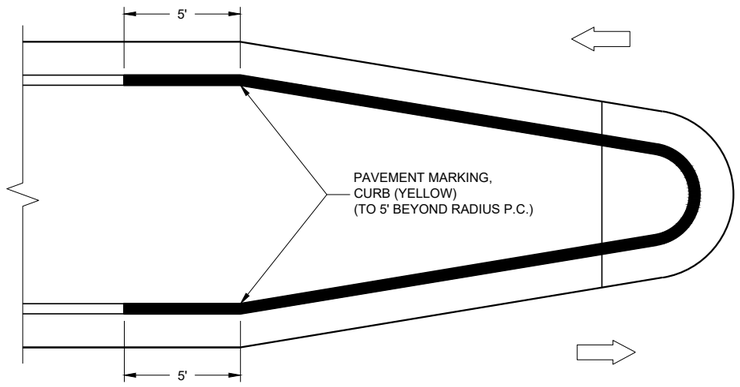
SDD 15C27 - 03a

6

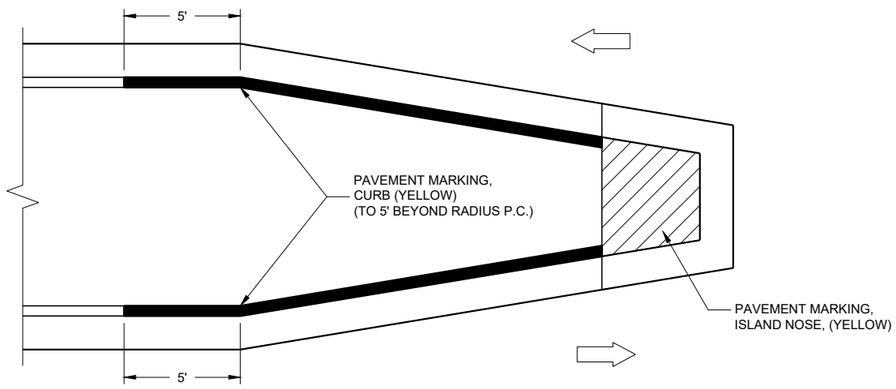
SDD 15C27 - 03a



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**

GENERAL NOTES

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 ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

**PAVEMENT MARKINGS
(ISLANDS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAF
ENGINEER

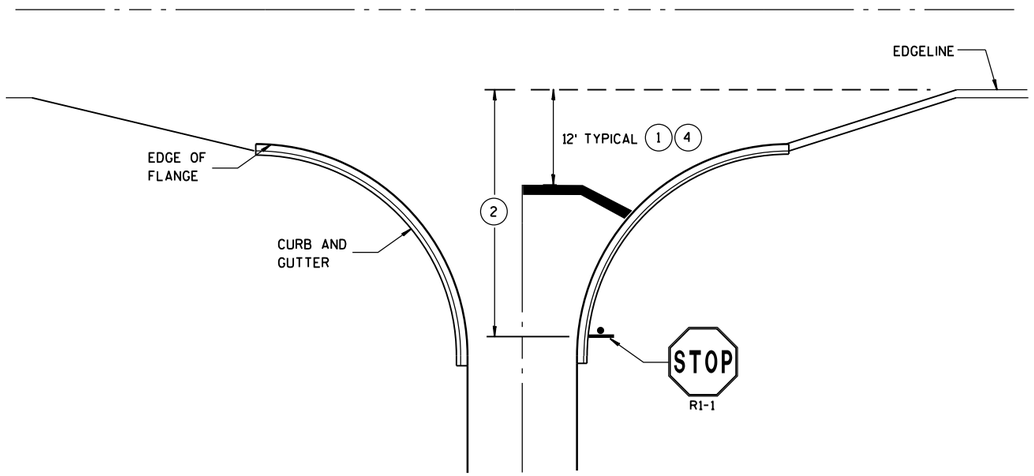
FHWA

6

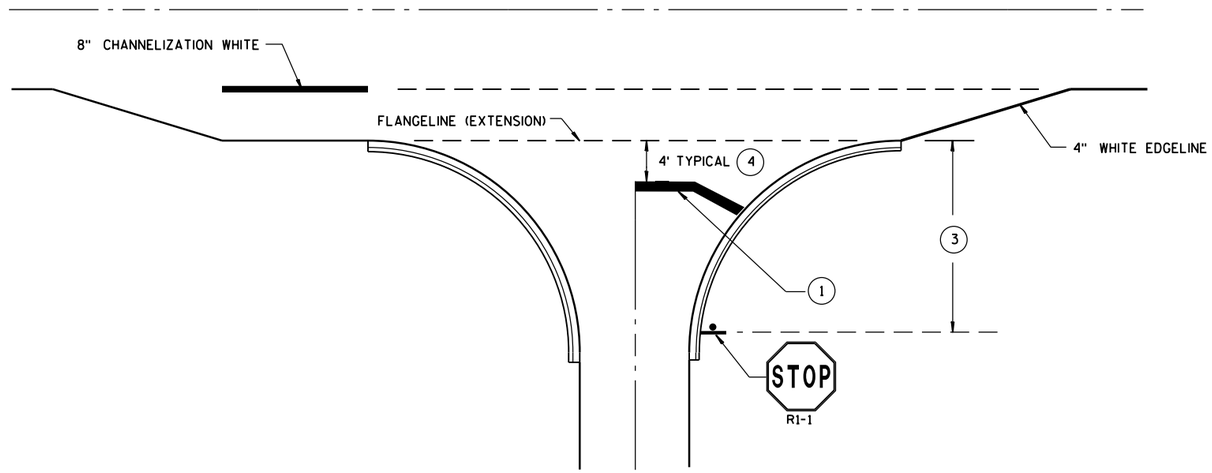
6

SDD 15C27 - 03b

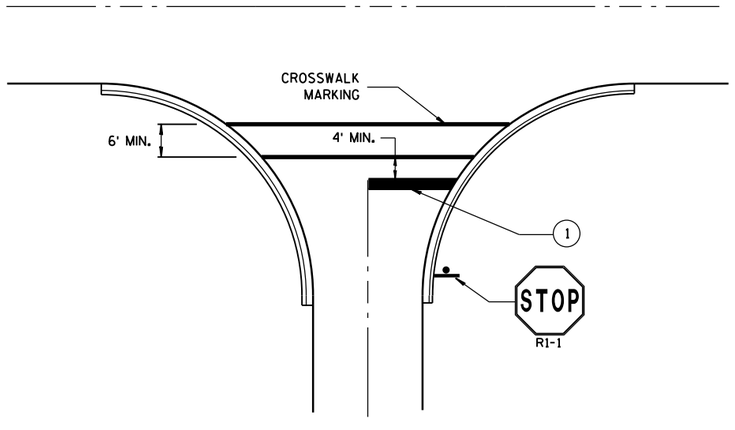
SDD15C27 - 03b



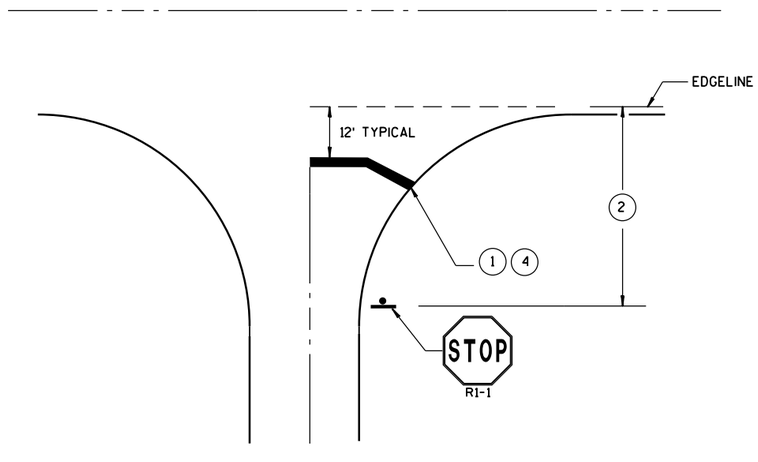
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



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

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

(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. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

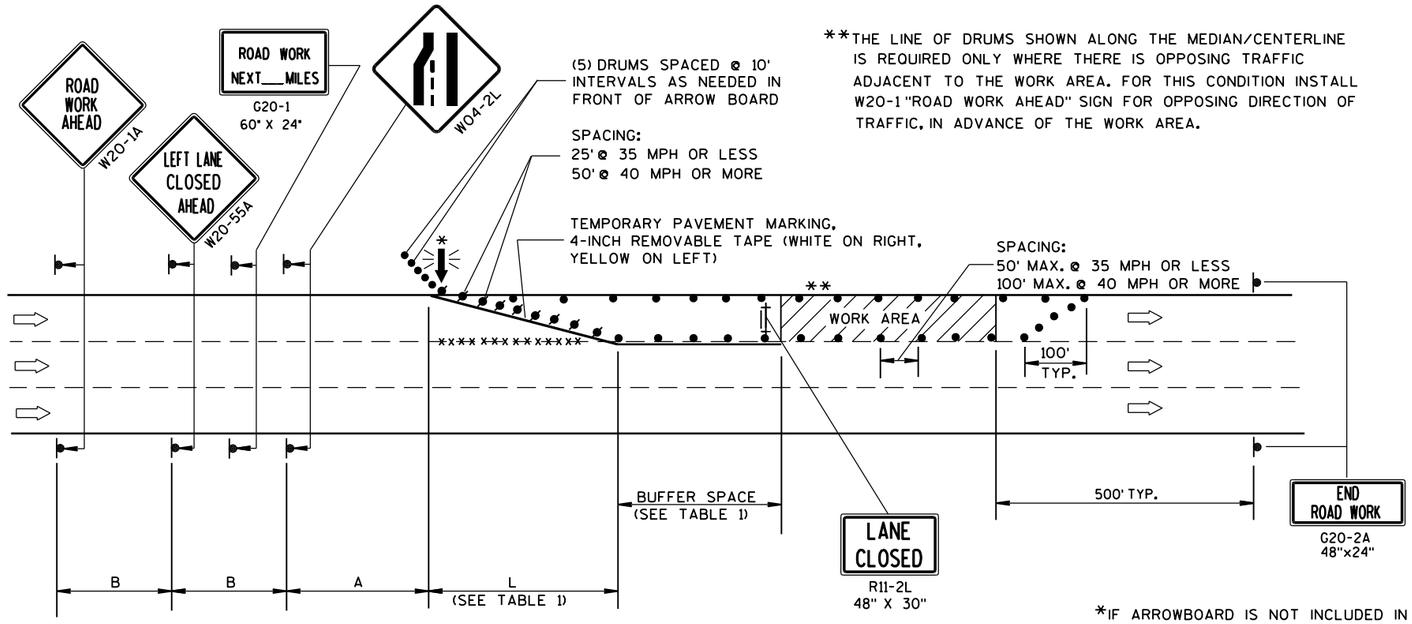
Sept., 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MAR 357 ...NEER

FHWA

6

S.D.D. 15 C 33-3



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

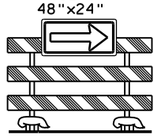


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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"x48" 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, OR THAT WILL BE PLACED IN A CLOSED LANE, 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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER

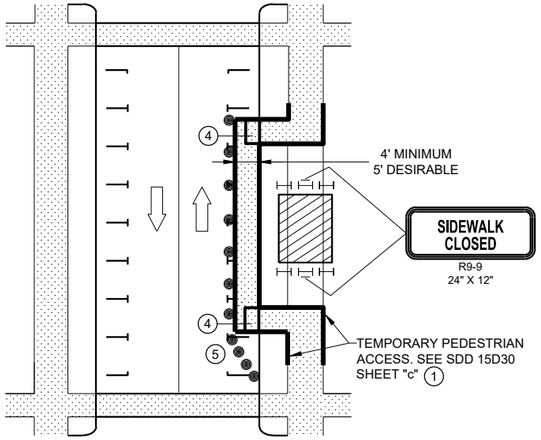
6

S.D.D. 15 D 20-4

6

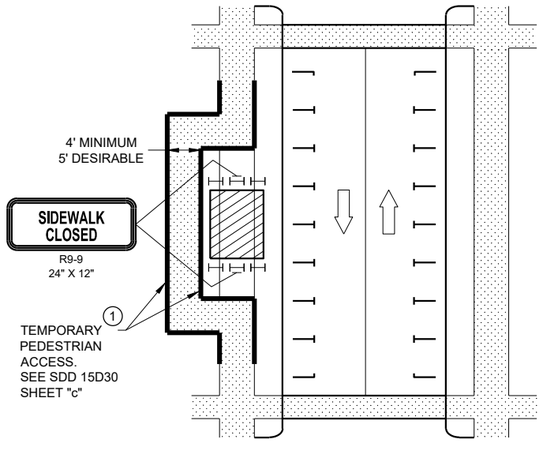
S.D.D. 15 D 20-4

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

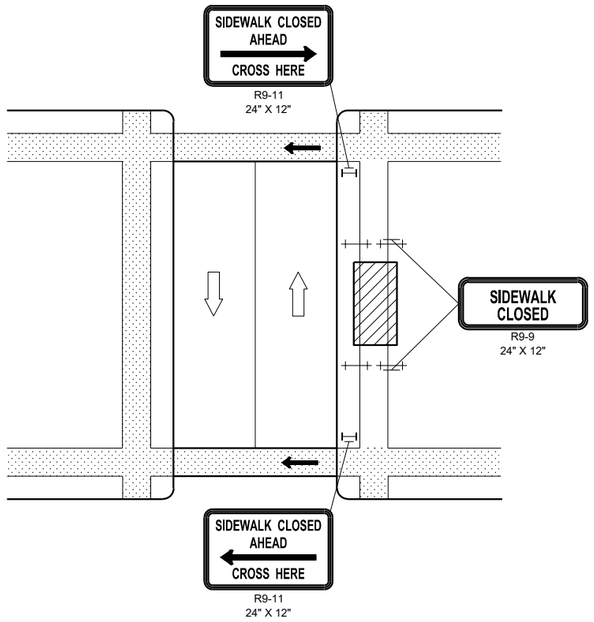


MID-BLOCK SIDEWALK SIDEWALK CLOSURE IN PARKING LANE

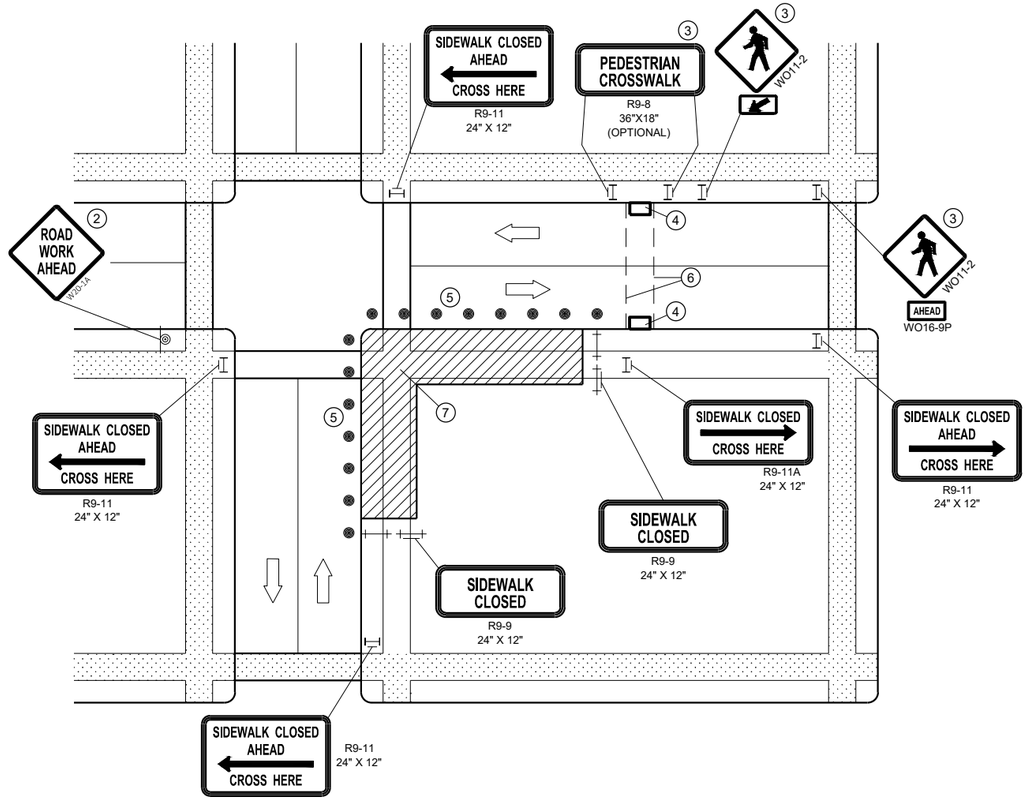
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"WO" SIGN IS THE SAME AS "W" SIGN, EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEK LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

1. IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
2. "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
3. IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
4. TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b'.
5. DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
6. TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
7. LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

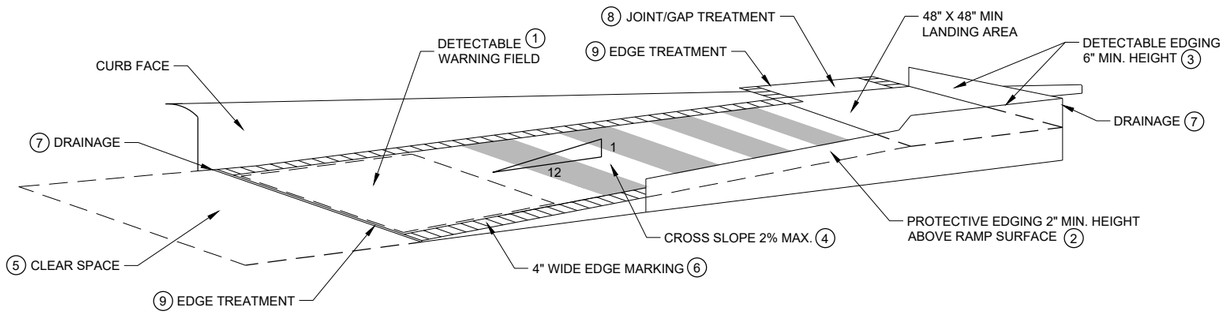
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

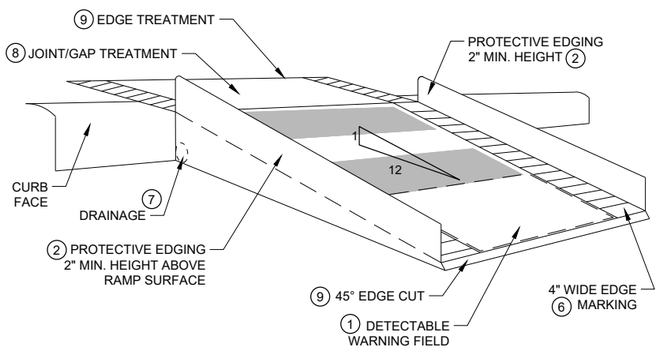
SDD 15D30 - 05a

6

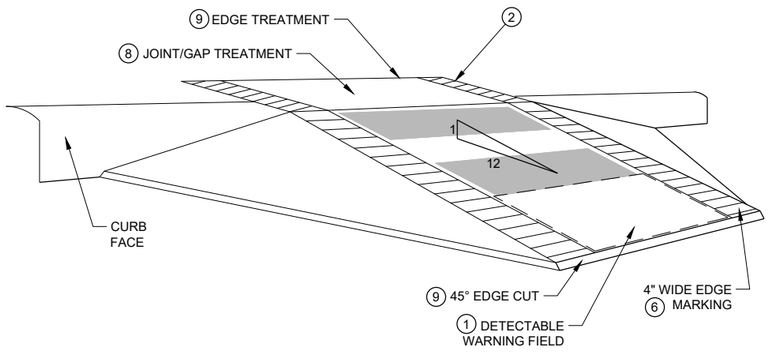
SDD 15D30 - 05a



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE EDGE



WITH SIDE APRON

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

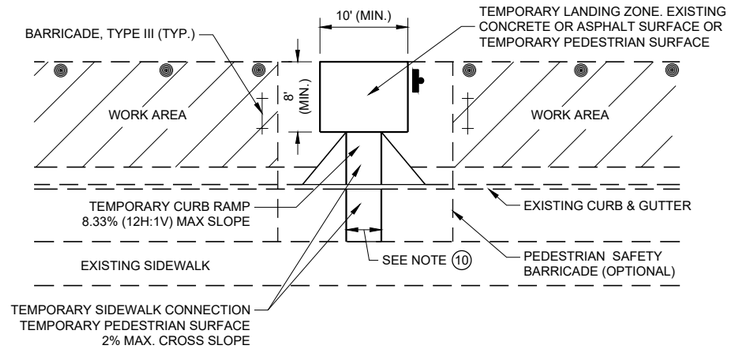
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- WORK AREA

GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

1. CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "e".
2. PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
5. CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
6. THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
7. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES SHALL BE VERTICAL UP TO ¼" HIGH AND BEVELED AT 1:2 BETWEEN ¼" AND ½".
10. 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.



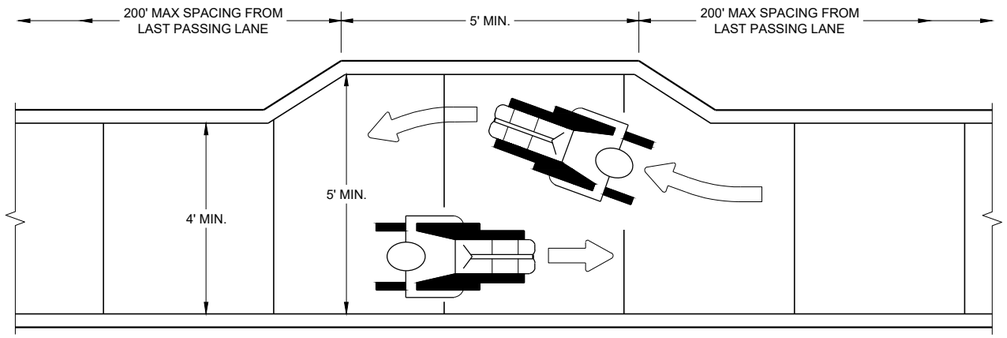
TEMPORARY BUS STOP PAD

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

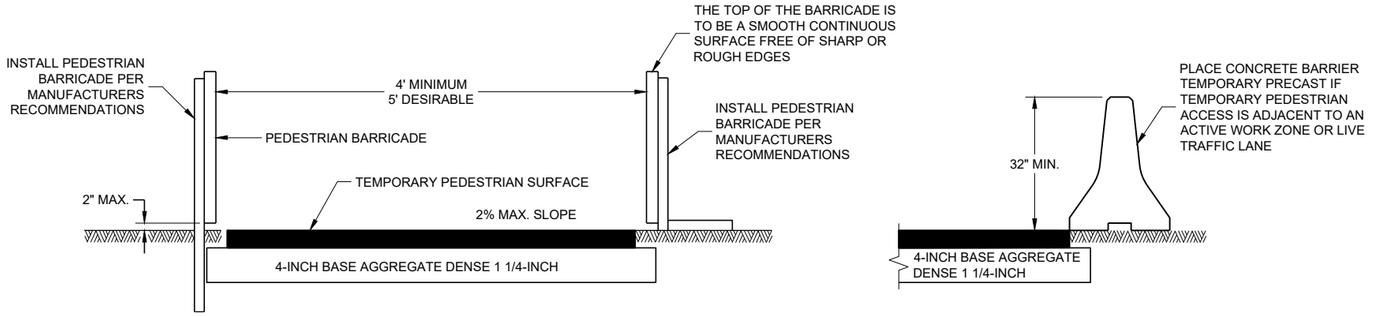
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

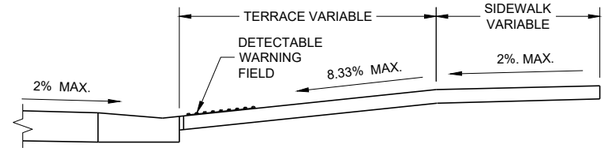
SDD 15D30 - 05b
SDD 15D30 - 05b



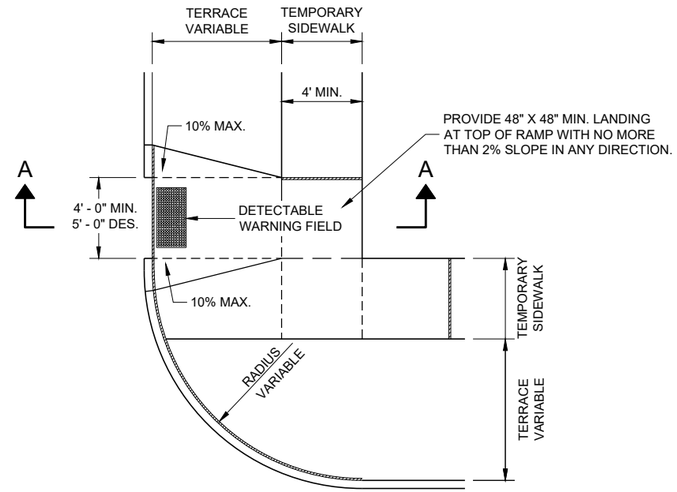
NARROW SIDEWALK PASSING DETAIL



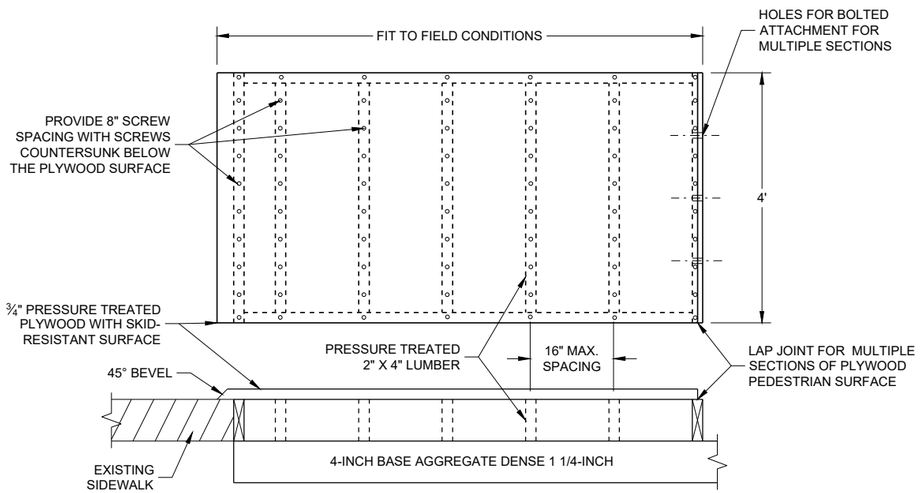
TEMPORARY PEDESTRIAN ACCESS



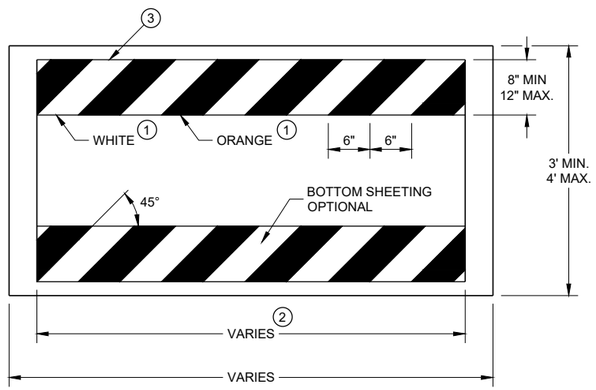
SECTION A - A



PLAN VIEW
TEMPORARY TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



TEMPORARY PEDESTRIAN BARRICADE *

GENERAL NOTES

BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

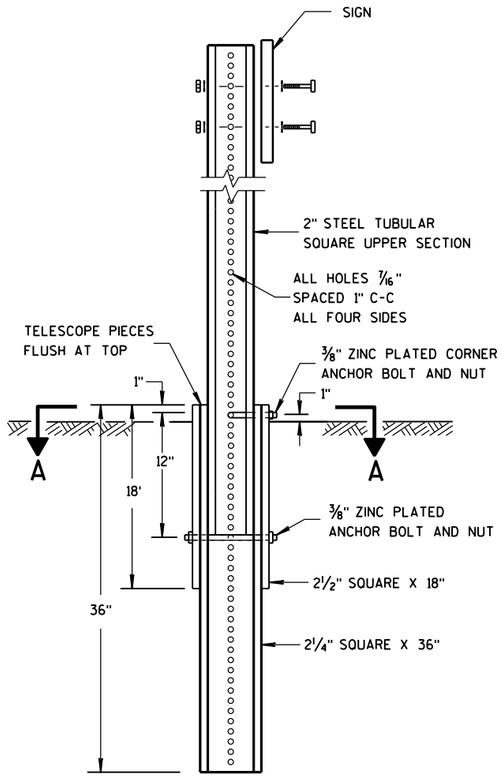
/S/ Andrew Heidtke
WORK ZONE ENGINEE 361

FHWA

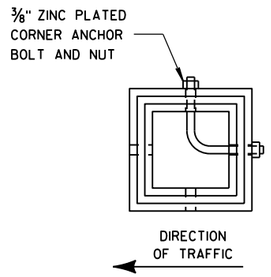
SDD 15D30 - 05c

6

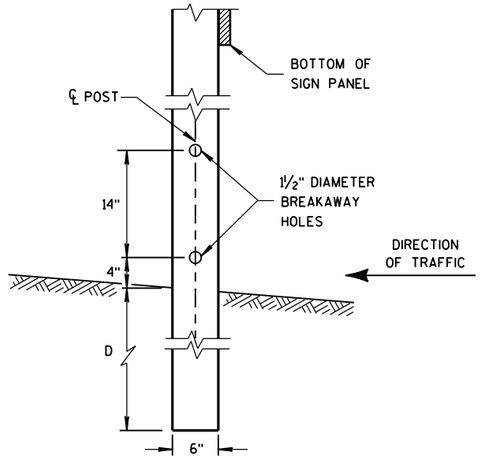
SDD 15D30 - 05c



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



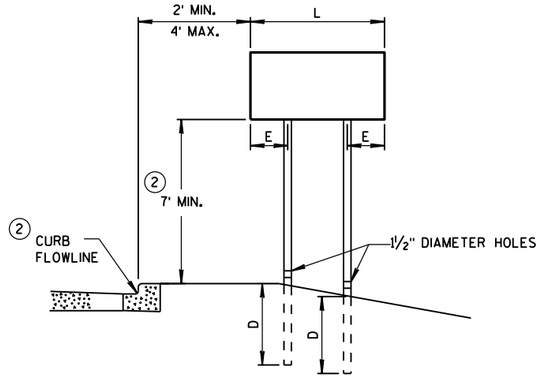
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

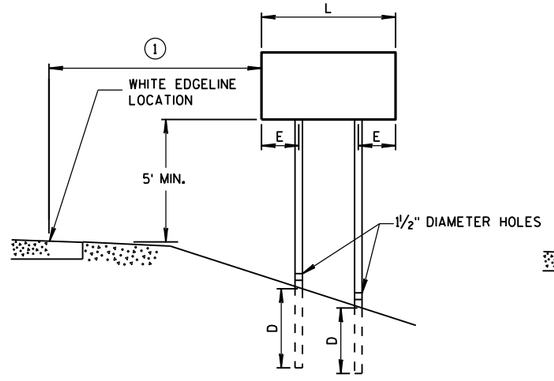
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

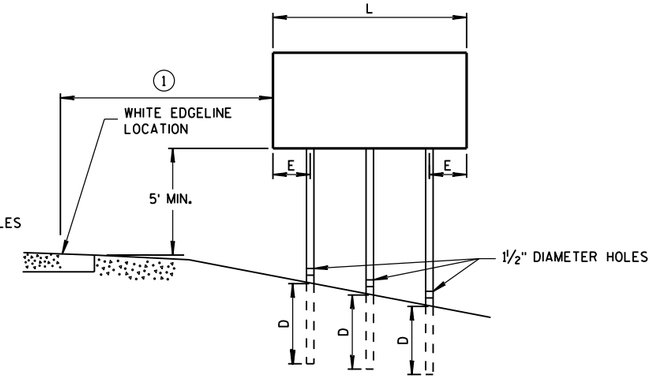
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

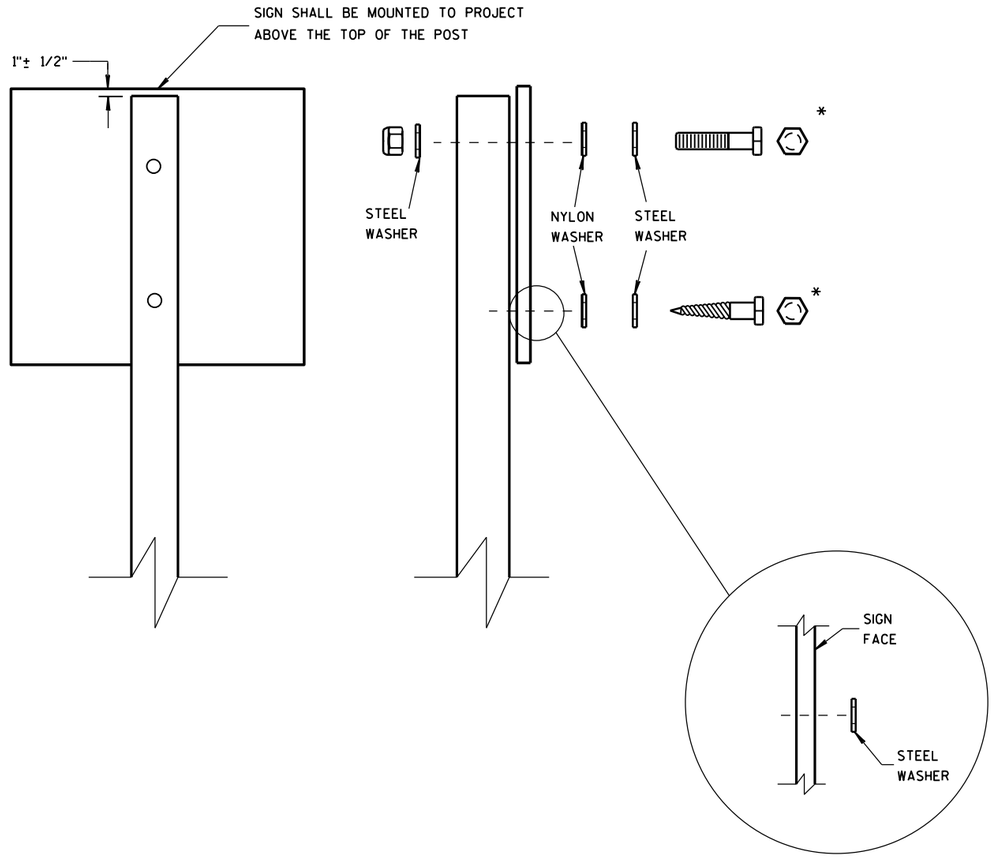
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

LEGEND

XXXX XXXX SAWING ASPHALT OR CONCRETE

15300-15500 W BELOIT ROAD
SUNDOWN CAPITAL LLC

EXISTING SIDEWALK TO REMAIN

CAUTION

RESTRICT MEDIAN OPENING TO LEFT IN ONLY

EXISTING R/W

PT: 103+93.87

MATCHLINE STA 103+00.00

ASPH

HMA

6:1 TAPER

104+00

105+00

106+00

107+00

108+00

109+00

EXISTING CONCRETE CURB AND GUTTER TO REMAIN

HMA

ASPH

12'

12'

CTH I EAST R/L

CP 104

CTH I (W BELOIT ROAD)

EXISTING CONCRETE CURB AND GUTTER TO REMAIN

EXISTING R/W

EXISTING SIDEWALK TO REMAIN

END CONSTRUCTION
STA. 105+80.31

15555 W BELOIT ROAD
WESTRIDGE HOTEL PROPERTY LLC

15451 W BELOIT ROAD
NEW BERLIN HOTEL GROUP LLC

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM 1103	100+79, 73' RT	876.64	SE CORNER OF SIGNAL CONTROL CABINET BASE

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	PLAN-PROFILES - CTH I	SHEET 364	E

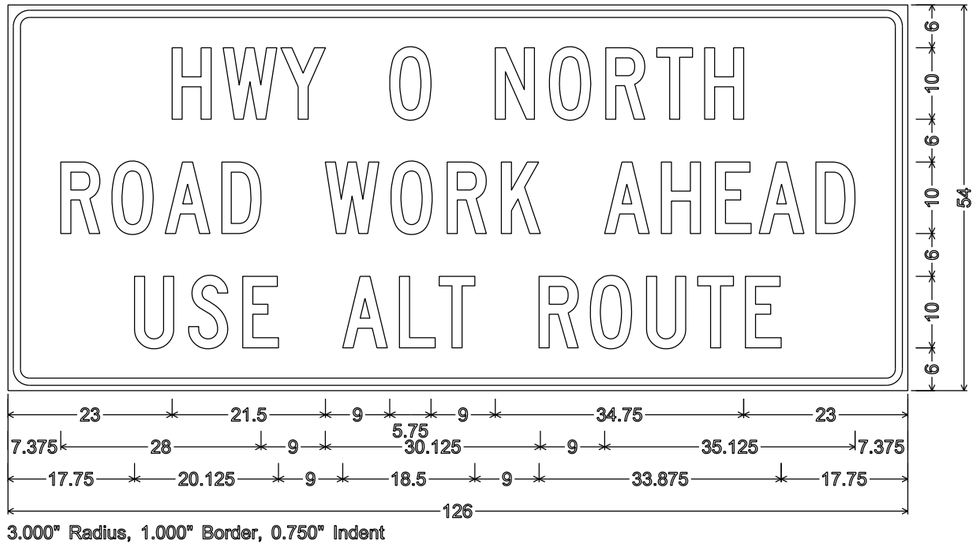
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\050102-PP.DWG
LAYOUT NAME - 3

PLOT DATE : 7/28/2019 8:52 AM PLOT BY : BLACKWOOD, JIM PLOT NAME : PLOT SCALE : 1 IN:40 FT

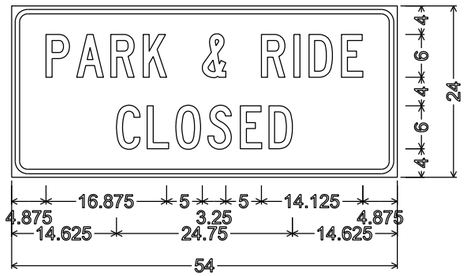
WISDOT/CADDS SHEET 44

NOTES

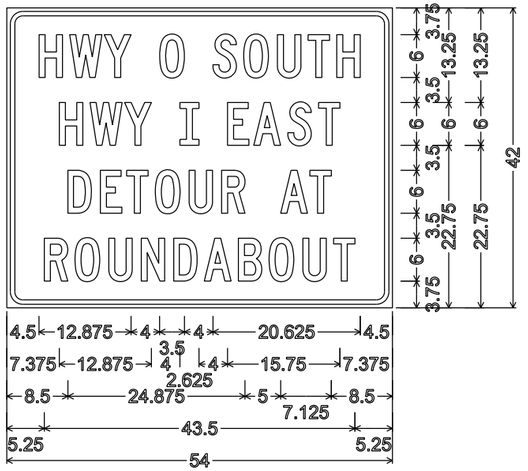
1. All Signs Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C



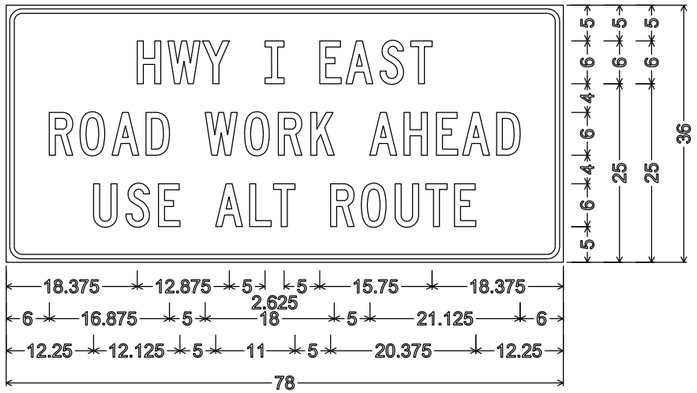
3.000" Radius, 1.000" Border, 0.750" Indent



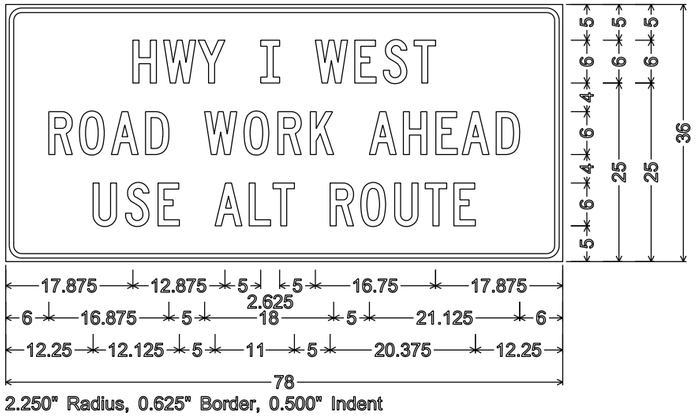
2.250" Radius, 0.625" Border, 0.500" Indent



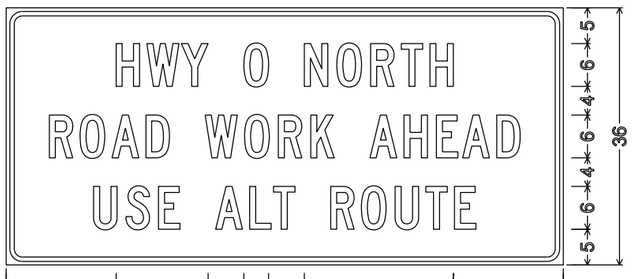
2.250" Radius, 0.625" Border, 0.500" Indent



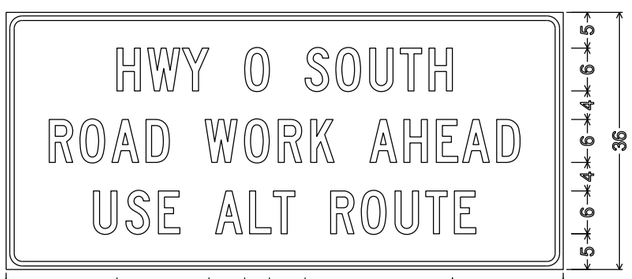
2.250" Radius, 0.625" Border, 0.500" Indent



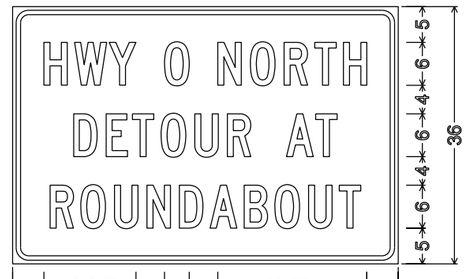
2.250" Radius, 0.625" Border, 0.500" Indent



2.250" Radius, 0.625" Border, 0.500" Indent



2.250" Radius, 0.625" Border, 0.500" Indent



2.250" Radius, 0.625" Border, 0.500" Indent

GENERAL NOTES:

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

2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE II".

3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.

4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.

5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.

6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"

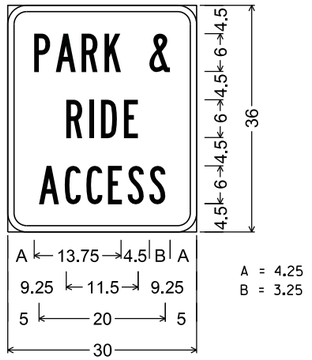
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.

8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.

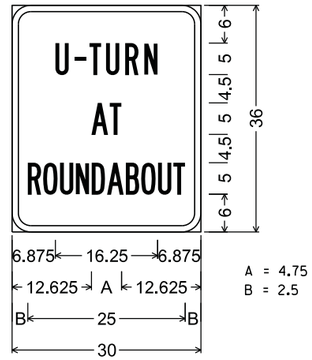
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.

10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10

11. DO NOT SCALE.



3.000" Radius, 1.000" Border, White on Green;
[PARK] B; [&] B;
[RIDE] B;
[ACCESS] B;



3.000" Radius, 1.000" Border, White on Green;
[U-TURN] B; [AT] B;
[ROUNDABOUT] B specified length;

7

7

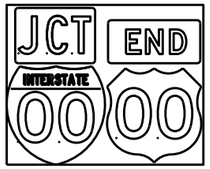
SHEET 1 OF 1

PROJECT NO: 2782-03-76	HWY: MOORLAND ROAD	COUNTY: WAUKESHA	SIGNING DETAIL - TYPE I & II SIGNS	SCALE: 0 ½" 1"	SHEET 366	E

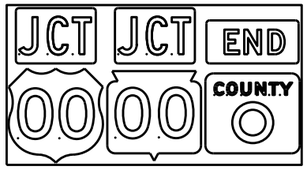
TYPICAL ASSEMBLIES



J1-1



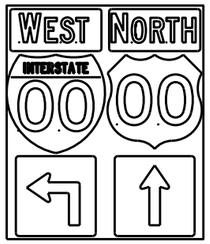
J1-2



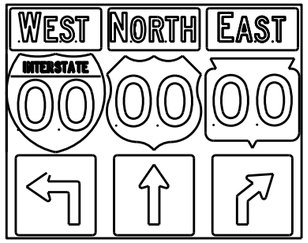
J1-3



J2-1



J2-2

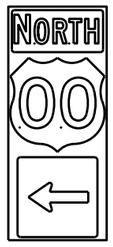


J2-3

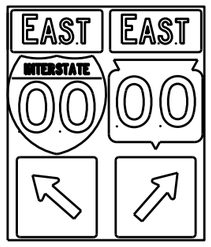


JV

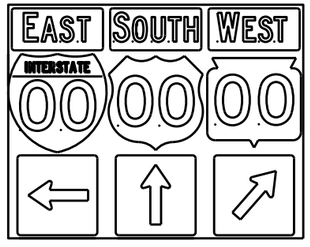
(Typical Vertical J-Assembly
See Note 10 and 11)



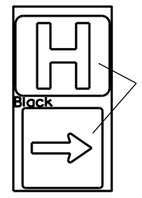
J3-1



J3-2



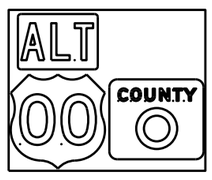
J3-3



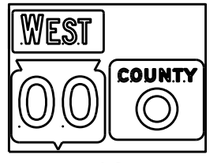
JH-1



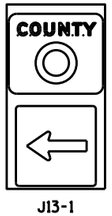
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

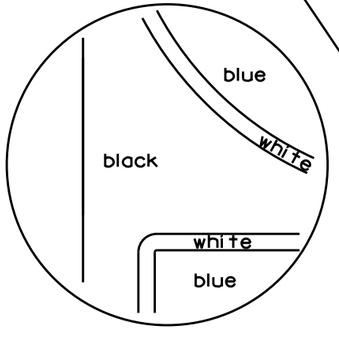


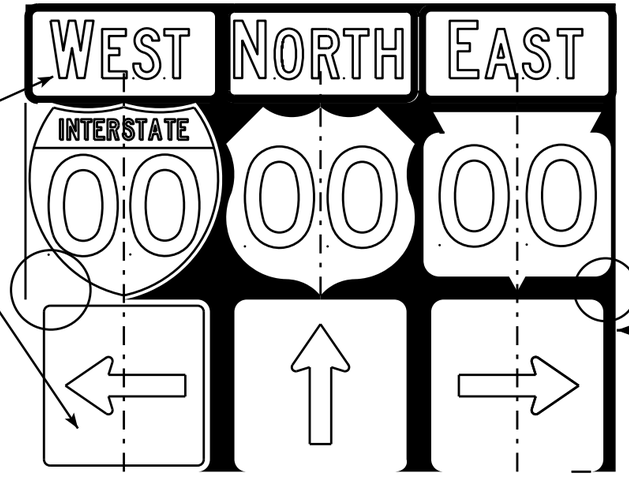
J23-1

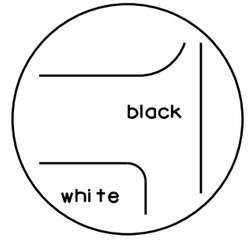


J22-1

blue background
with interstate







black background

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 2/06/14 PL... A2-1S.8

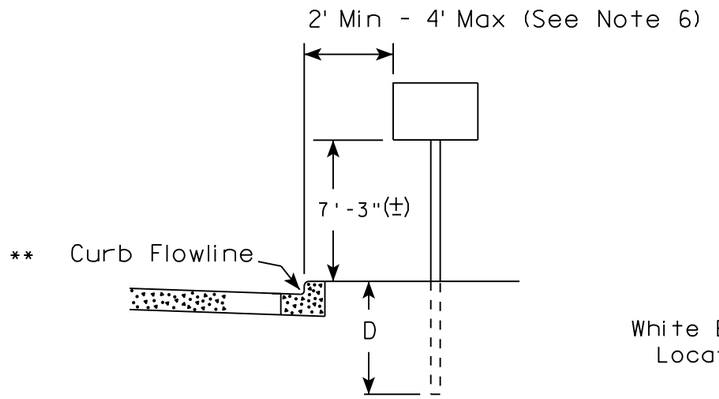
PROJECT NO:

SHEET NO: E

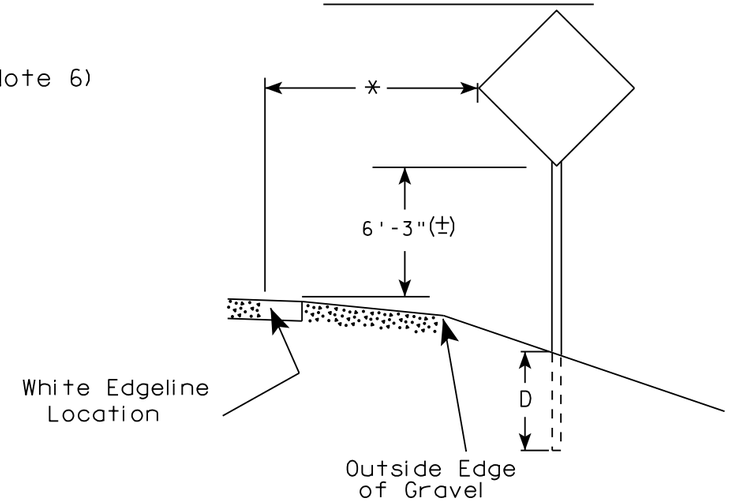
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

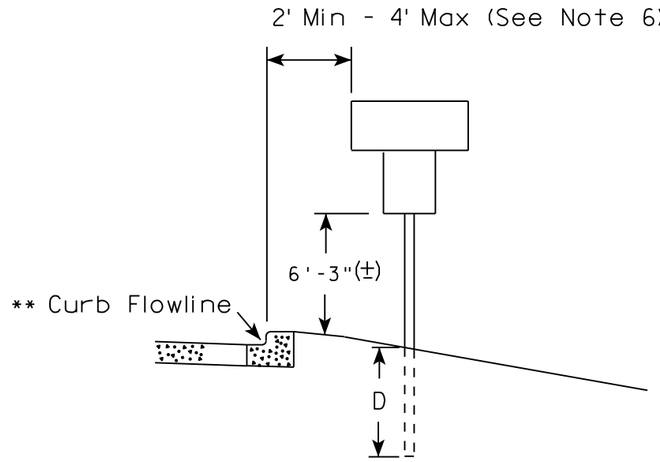
WISDOT/CADDS SHEET 42

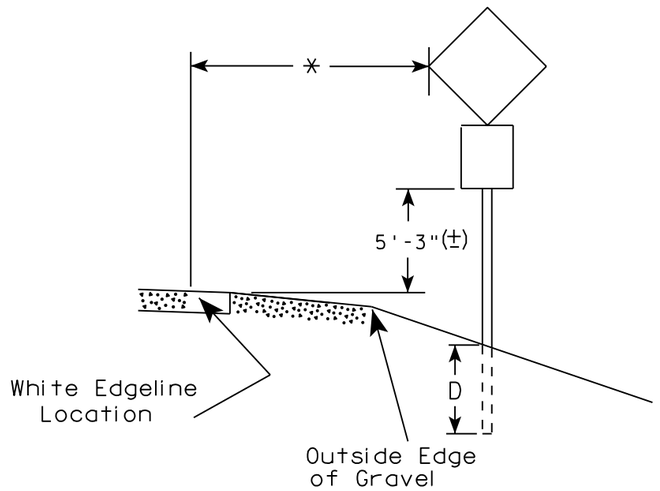
URBAN AREA



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.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

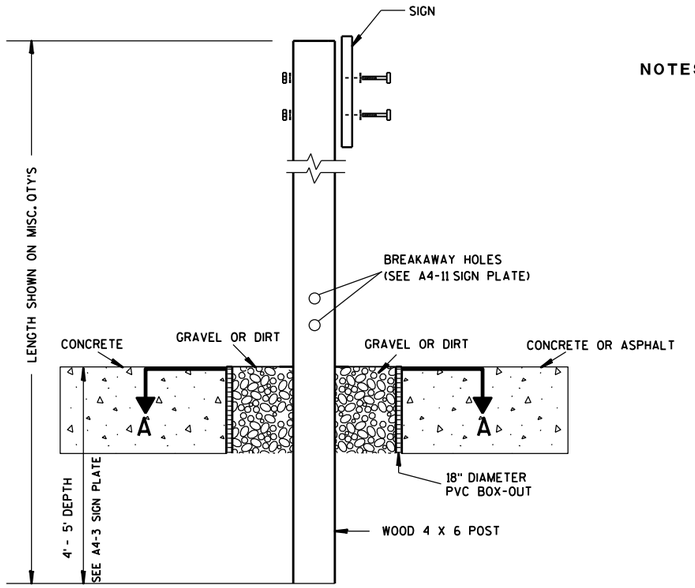
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
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 signs shall be mounted at a height of 5'-3" (±) or as directd 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), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

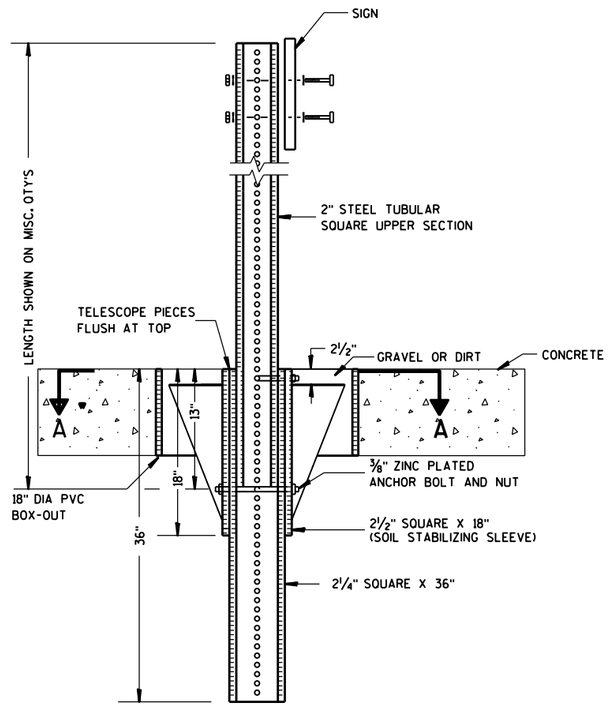
DATE 8/21/17 PLATE NO. A4-3.21



ELEVATION VIEW

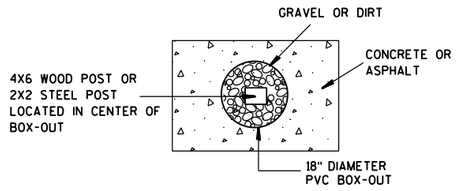
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

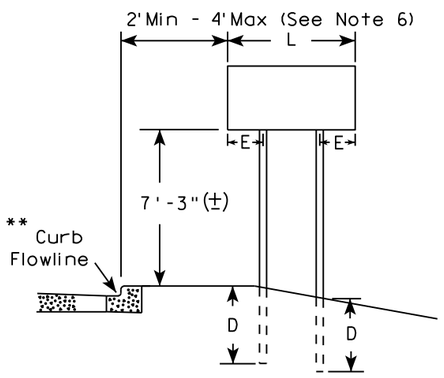
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

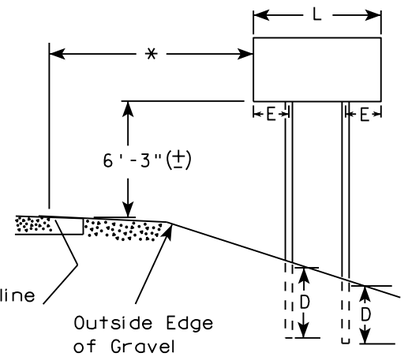
DATE 1/27/14 PLATE NO. A4-3B.1

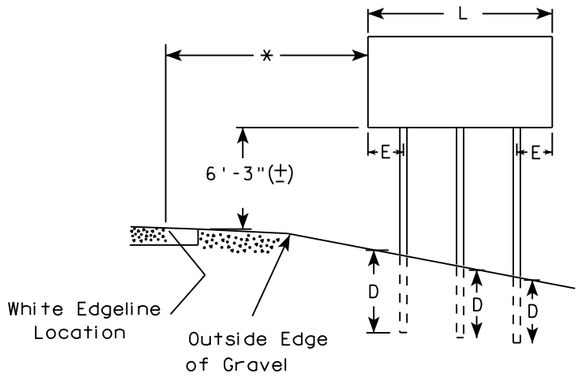
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

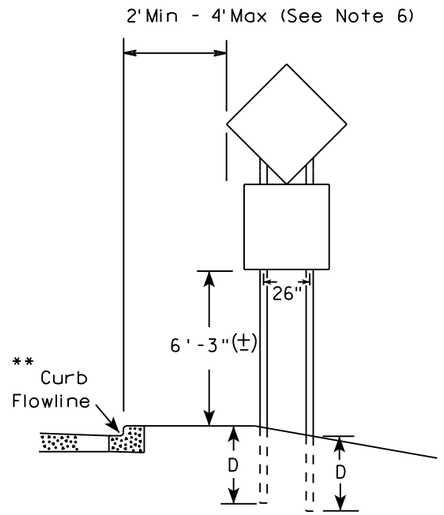
URBAN AREA



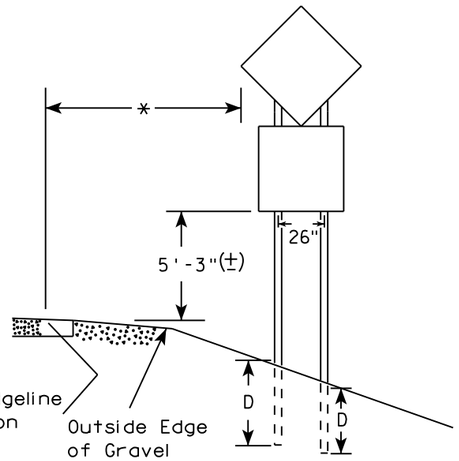
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

***	SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
	L	E
	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

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. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs 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), In Road Object Markers (W5-54) & End of Road Markers (W5-56) 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 and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

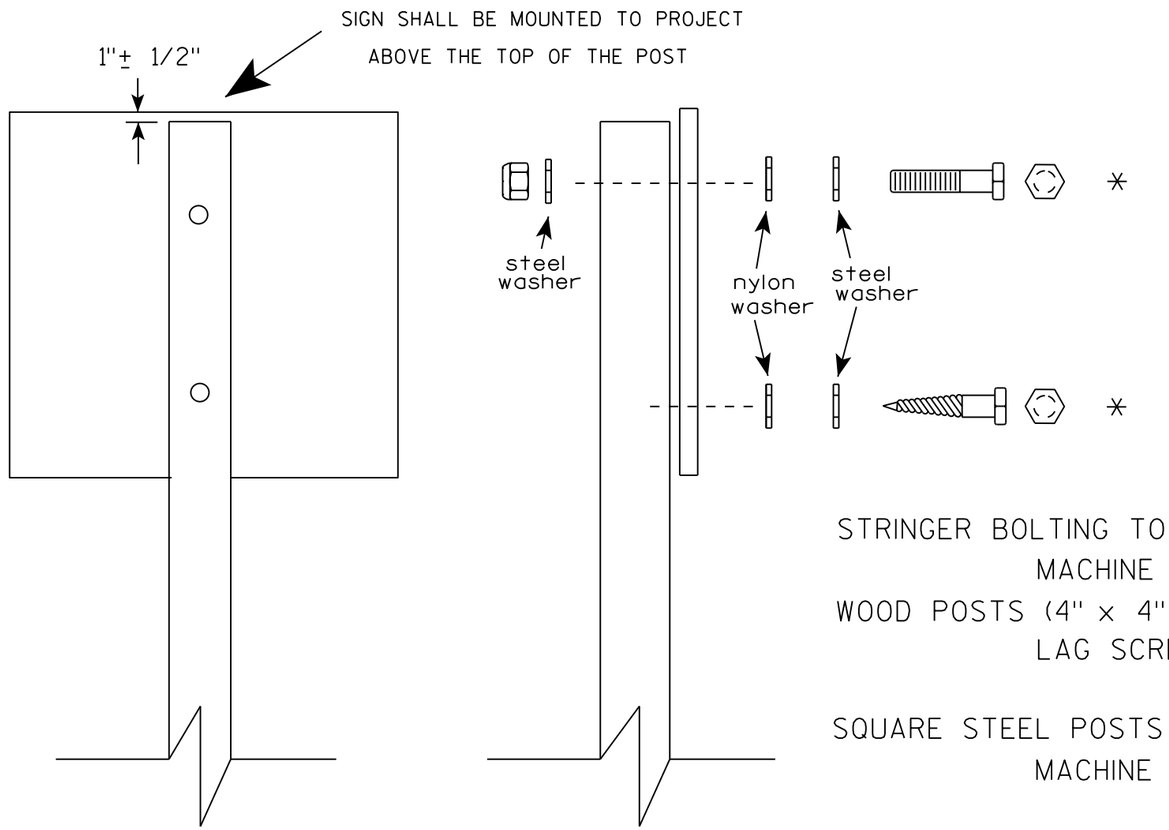
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 370	E



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.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

* 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 8/11/16 PLATE NO. A4-8.8

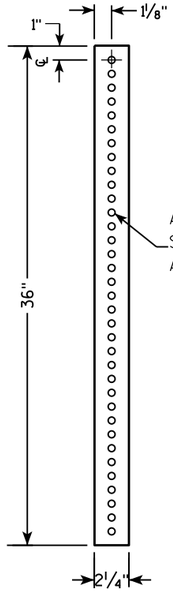
7

PROJECT NO: SHEET NO: E

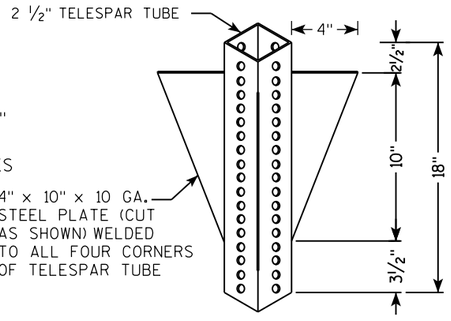
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

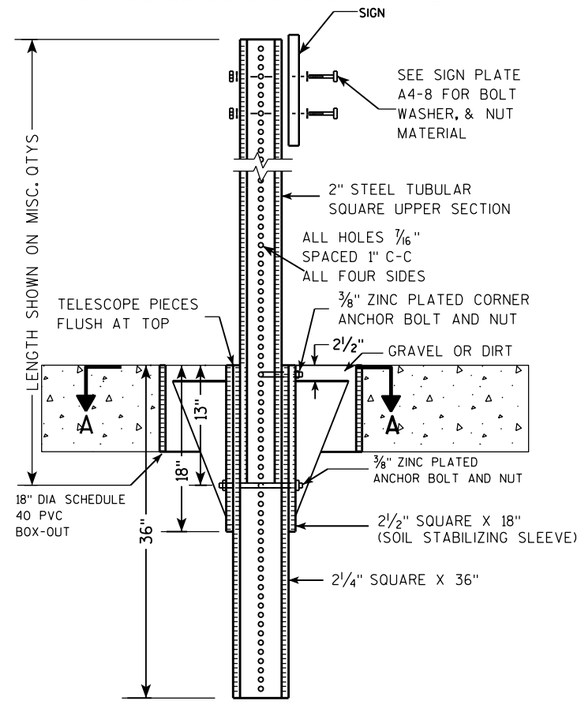
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



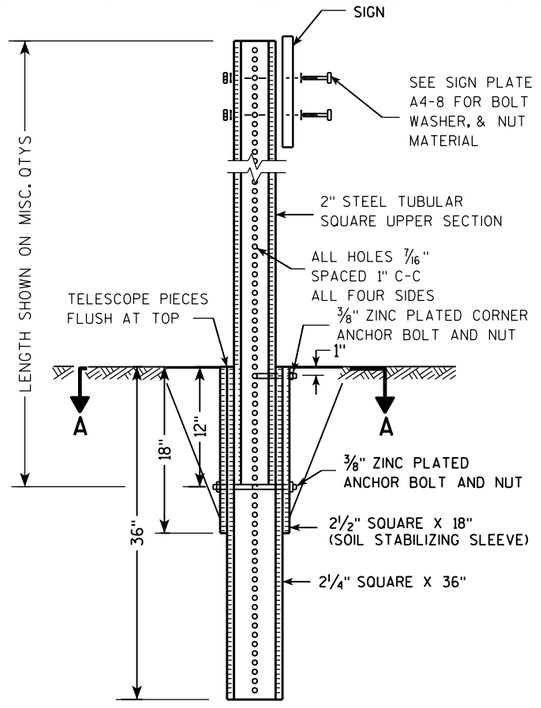
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

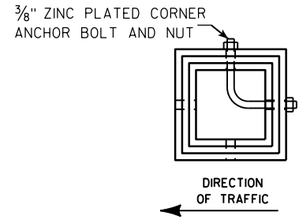


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





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

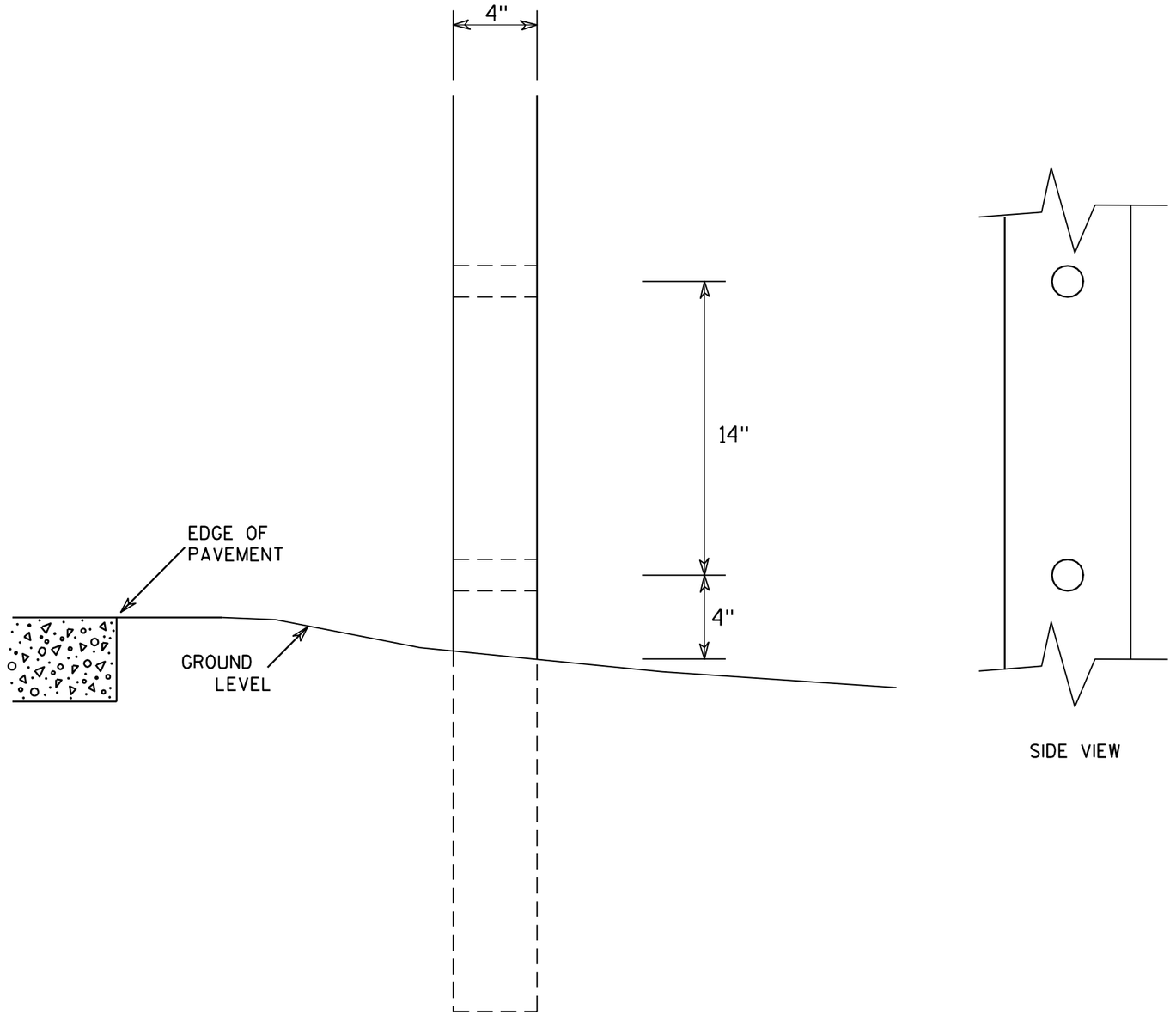
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 372 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42



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.

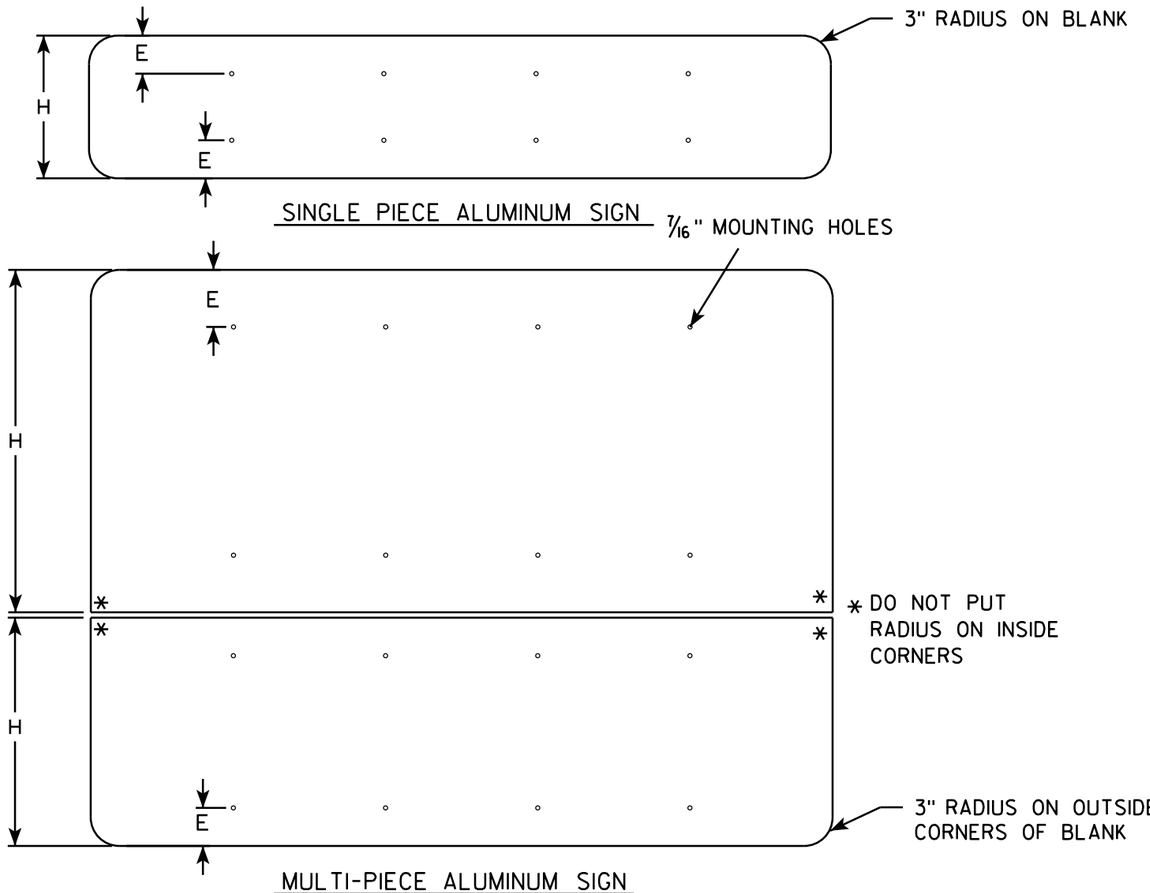
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

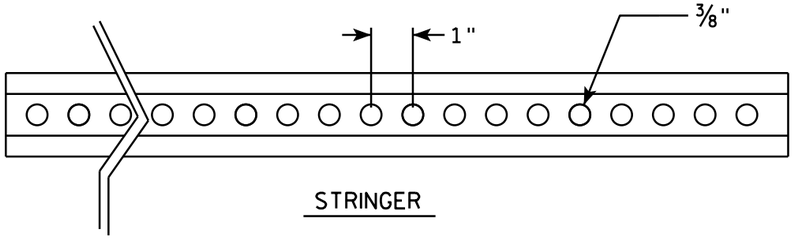
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 373	E



GENERAL NOTES

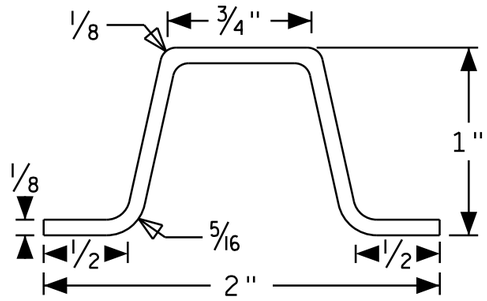
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

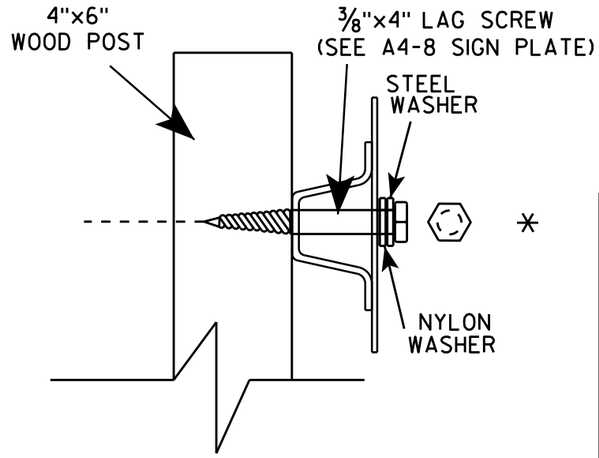


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

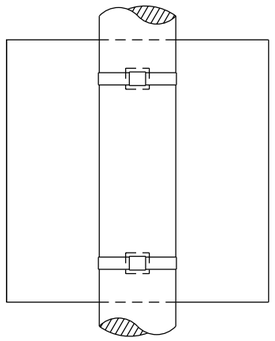
DATE 4/26/16 PLATE NO A4-18.1

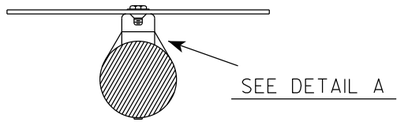
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

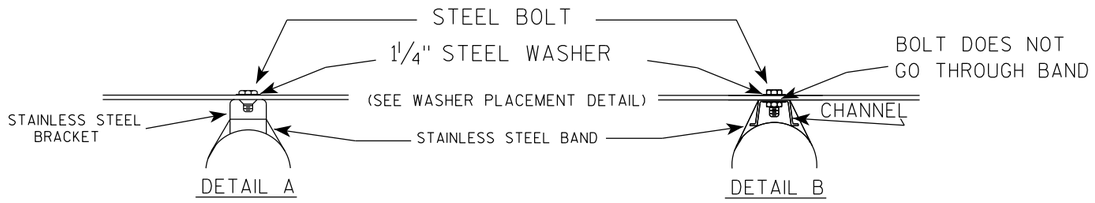
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

BANDING

SINGLE SIGN



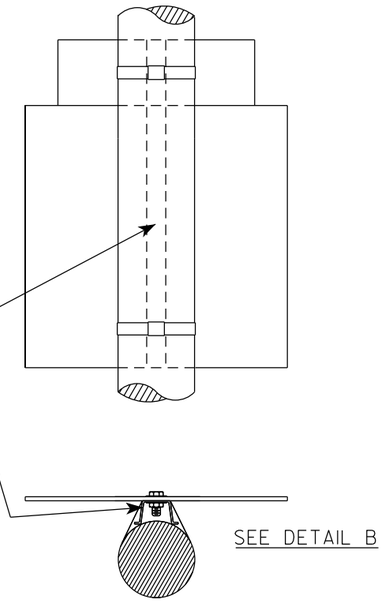




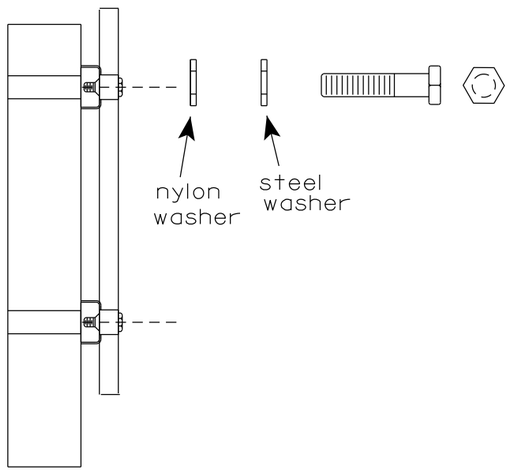
GENERAL NOTES

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 ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

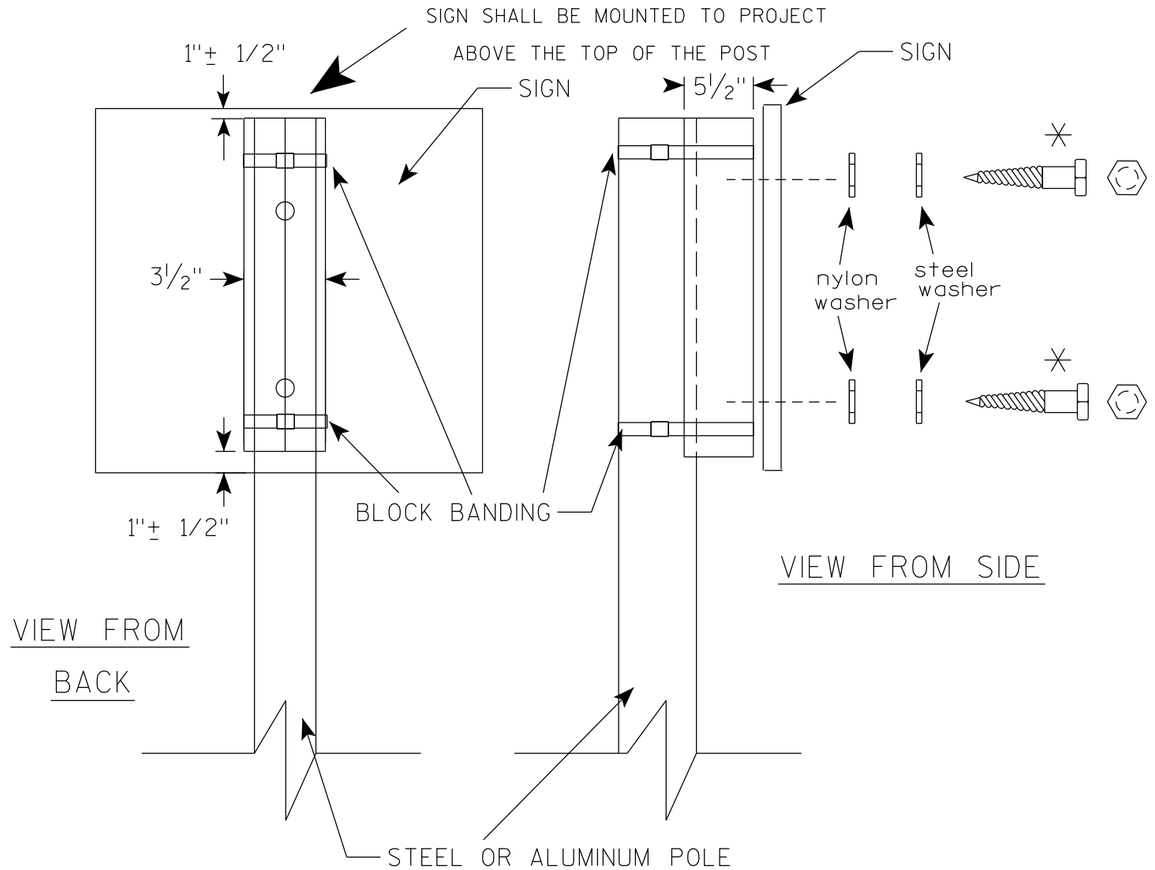
WISCONSIN DEPT OF TRANSPORTATION

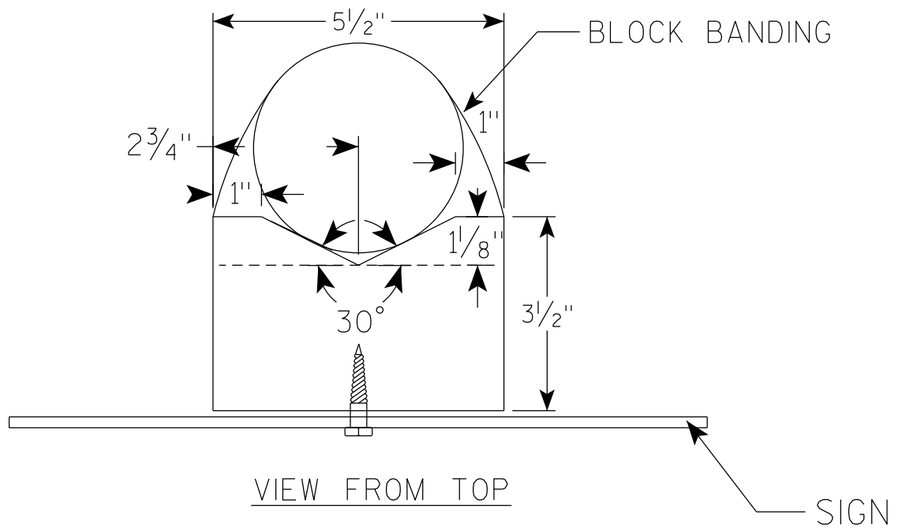
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 375	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$





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
   b. 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"

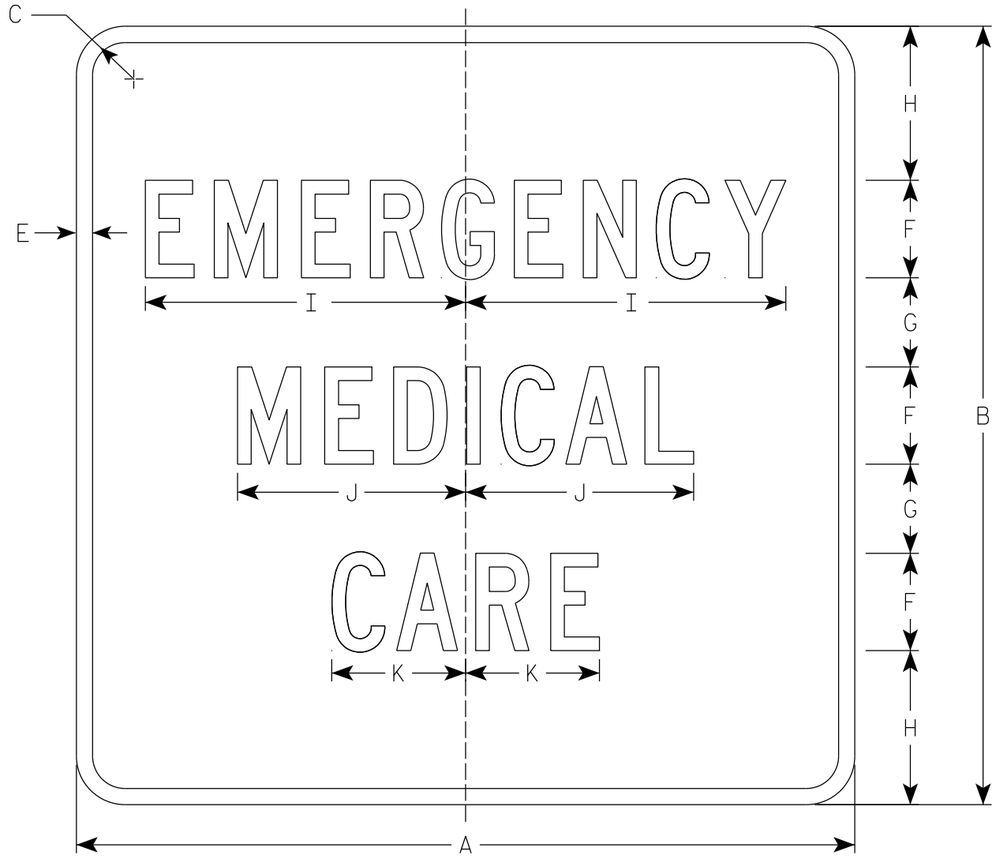
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO: | SHEET NO: 376 | E



D9-13C

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Blue
   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																											
2	24	24	1 1/8		1/2	3	2 3/4	4 3/4	9 7/8	7	4 1/8																4.0
3	36	36	1 5/8		3/4	5	4	6 1/2	16 1/2	11 3/4	6 7/8																9.0
4																											
5																											

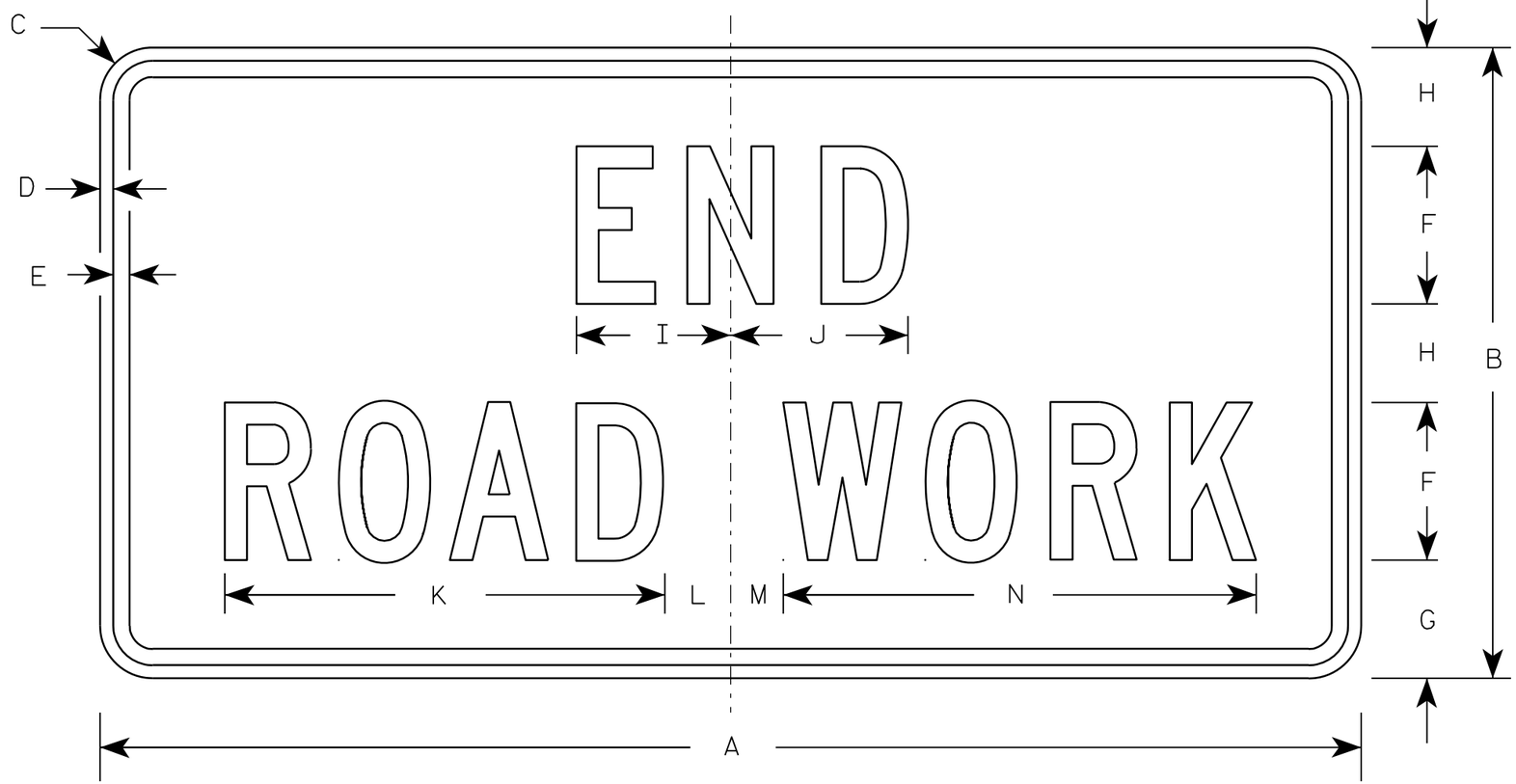
STANDARD SIGN
D9-13C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/19 PLATE NO. D9-13C.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 377 | E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

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.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

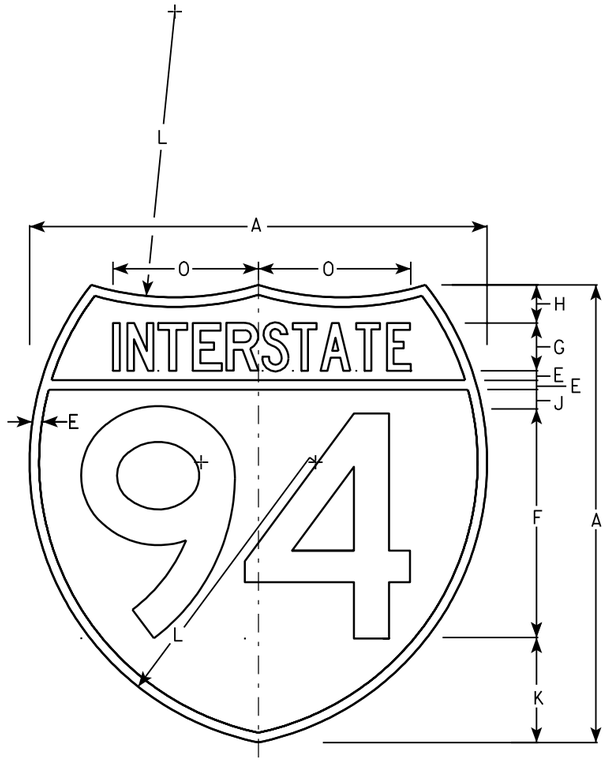
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

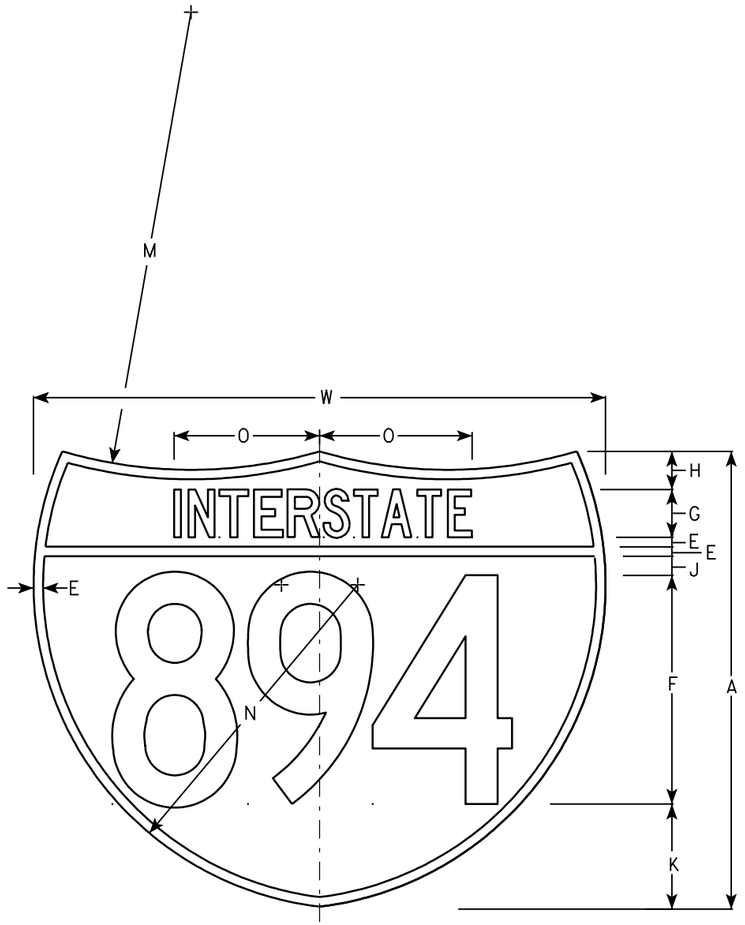
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 378	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

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	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

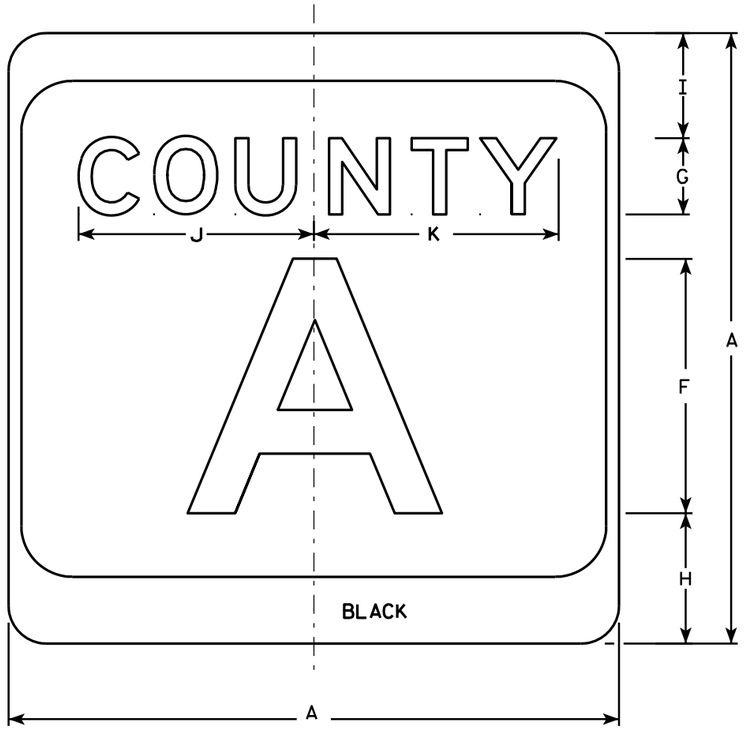
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

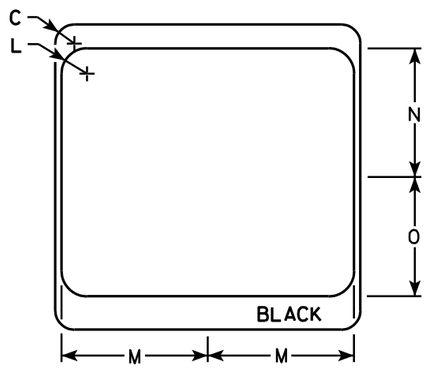
APPROVED Matthew R Rauch
for State Traffic Engineer

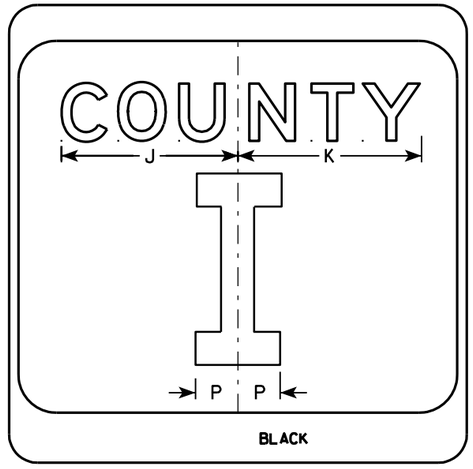
DATE 08/23/05 PLATE NO. M1-1.8

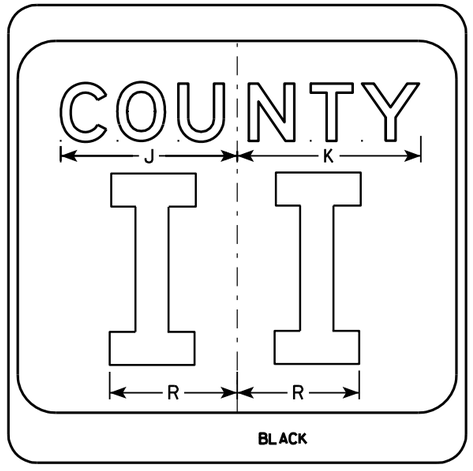
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 379	E



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

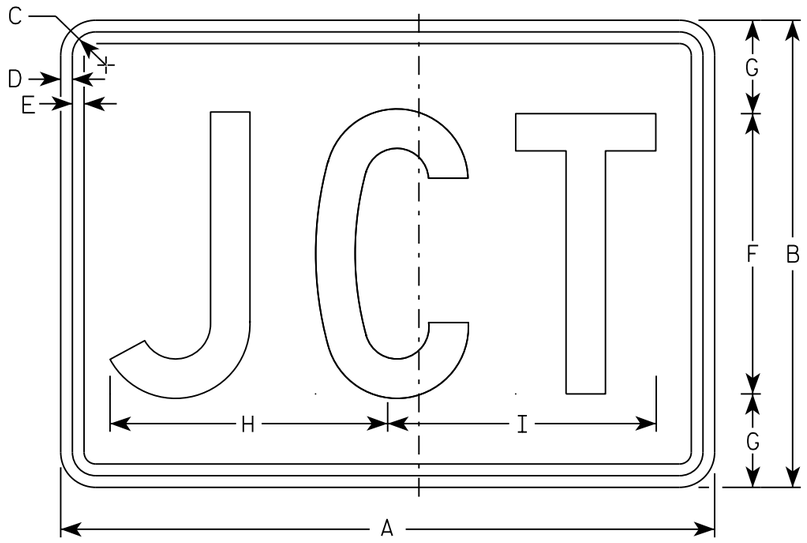
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

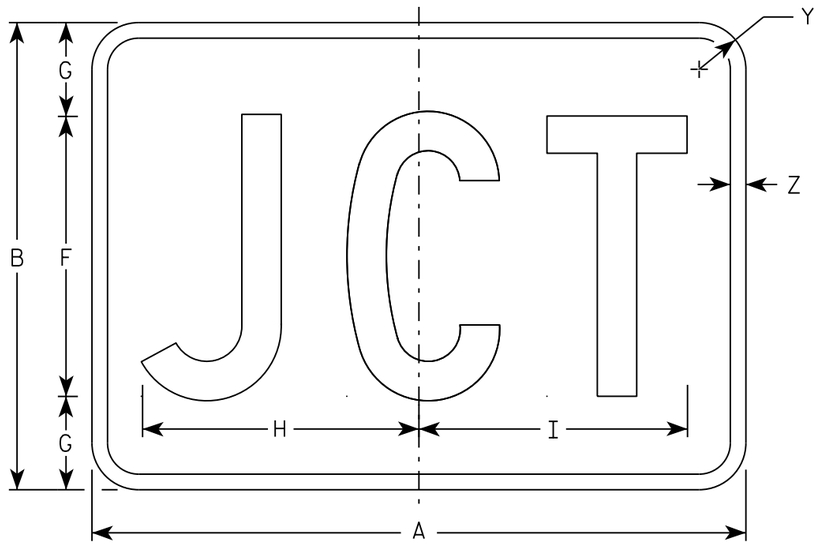
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 380	E



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

1. Sign is Type II - Type H
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. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MP2-1 Background - White
   Message - Blue
   MR2-1 Background - Brown
   Message - Yellow

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	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN
M2-1

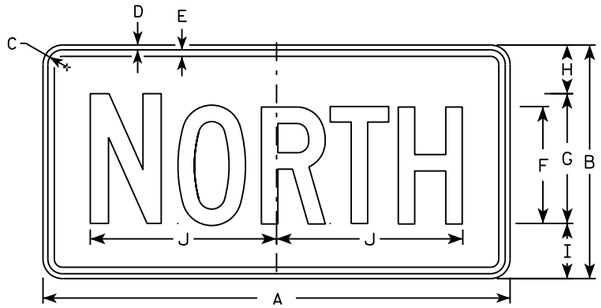
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

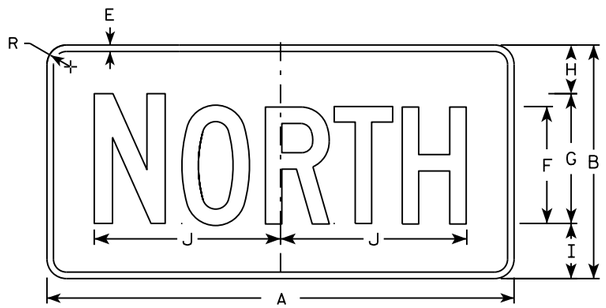
DATE 10/15/15 PLATE 381 12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M21.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.864603:1.000000



M3-1
MM3-1
MP3-1



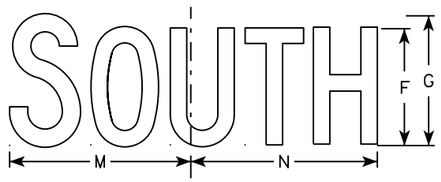
MB3-1
MK3-1
MN3-1



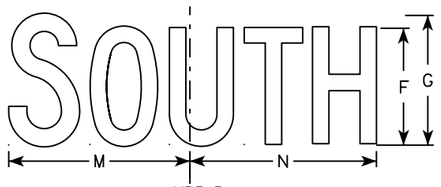
M3-2
MM3-2
MP3-2



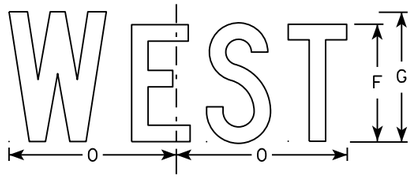
MB3-2
MK3-2
MN3-2



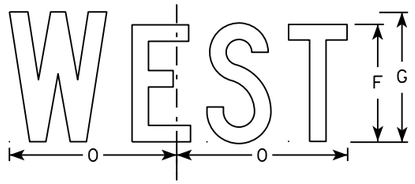
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
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
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
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

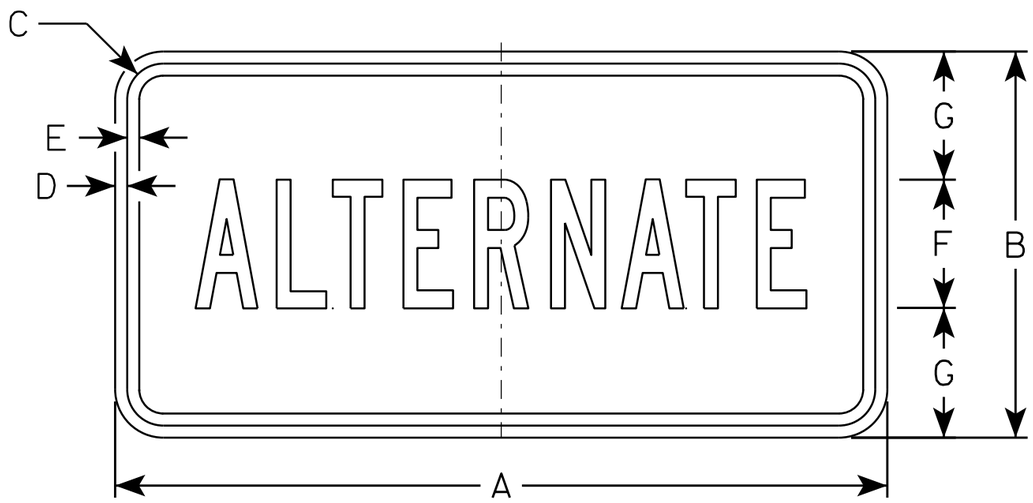
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

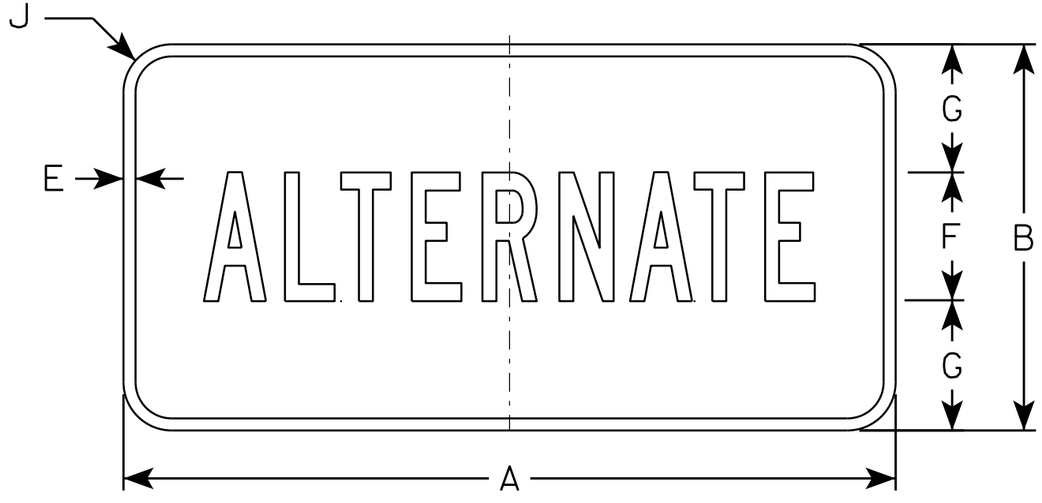
DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-1
MO4-1



MB4-1

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See Note 5
   Message - See note 5
3. Message Series - B
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. M4-1 Background - White
   Message - Black

   MB4-1 Background - Blue
   Message - White

   MO4-1 Background - Orange - Type F
   Message - Black

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	4	4	9 3/4	9 1/2	1 1/2																	2.00
3	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
4	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
5	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5

STANDARD SIGN
M4-1

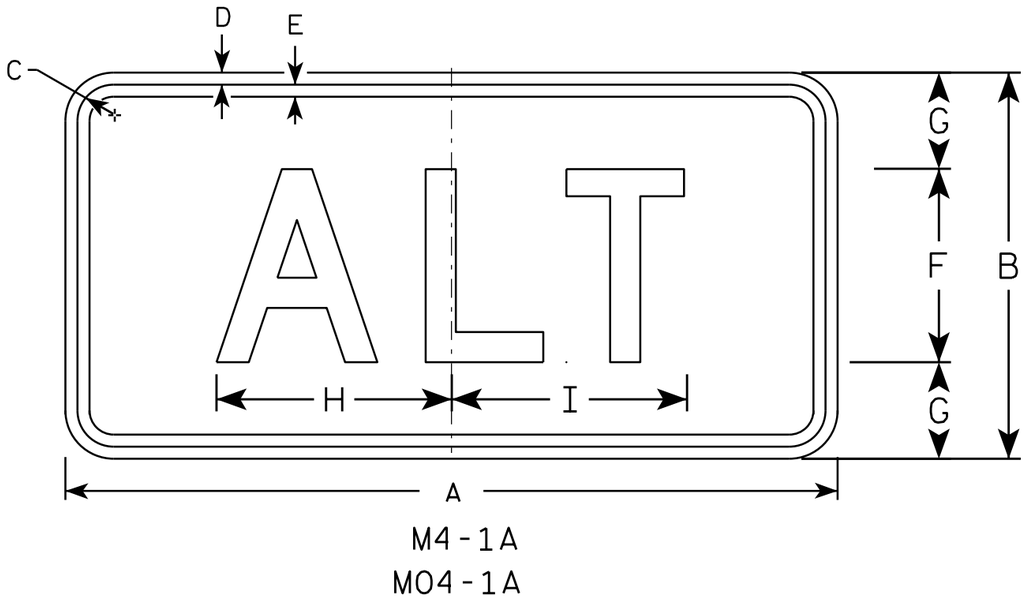
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/14 PLATE 14-1.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M41.DGN PLOT DATE : 30-JUN-2014 15:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.708937:1.000000 WISDOT/CADDS SHEET 42



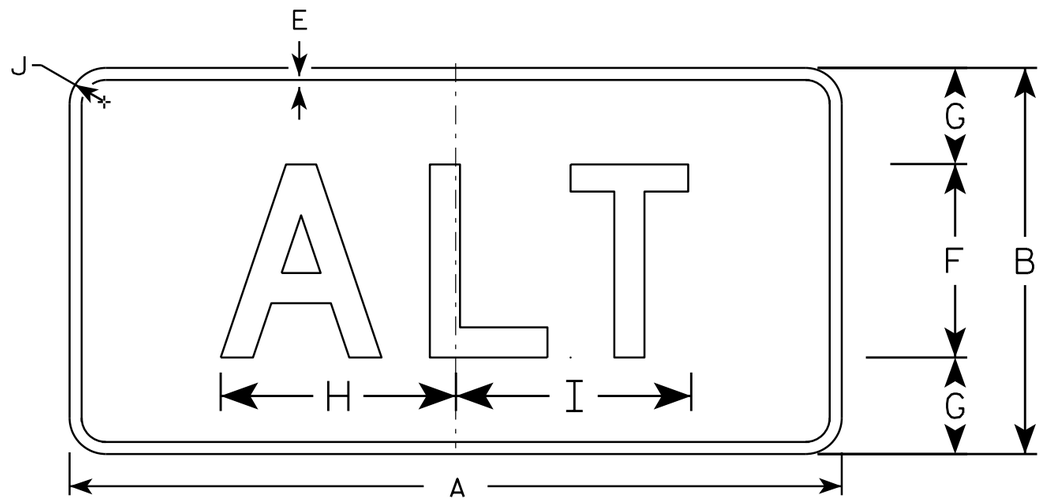
M4-1A
M04-1A

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See Note 5
   Message - See note 5
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.
5. M4-1A Background - White
   Message - Black

   MB4-1A Background - Blue
   Message - White

   M04-1A Background - Orange - Type F
   Message - Black



MB4-1A

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	3	7 1/4	7 3/8	1 1/8																	2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	11	11 1/8	1 1/8																	4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	11	11 1/8	1 1/8																	4.5
5	36	18	1 1/8	3/8	1/2	9	4 1/2	11	11 1/8	1 1/8																	4.5

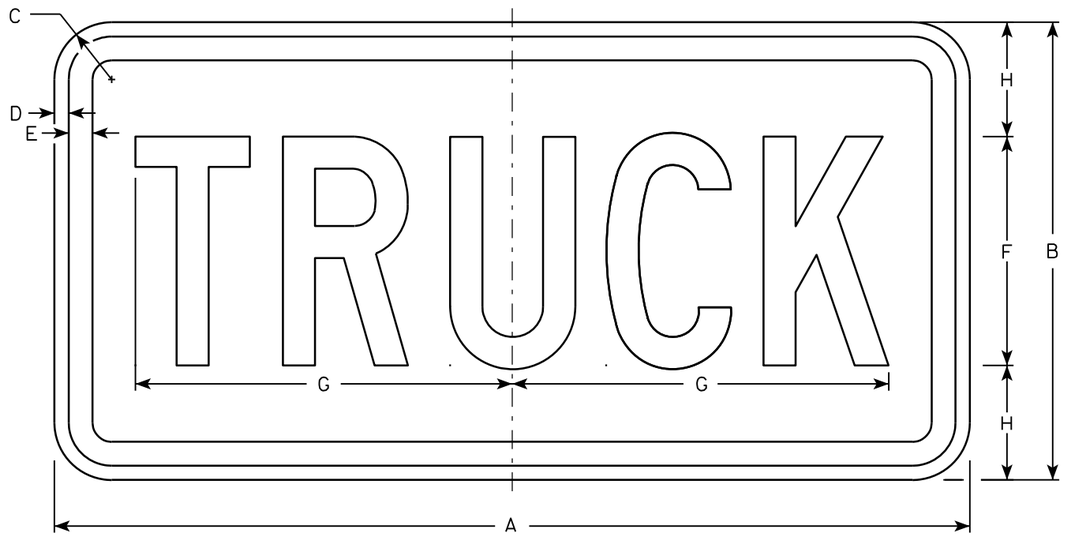
STANDARD SIGN
M4-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/30/14 PLATE 384 M4-1A.3

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E



M4-4

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White - See Note 5
   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.
5. Permanent Signs
   Background - Type H Reflective
   Temporary or other 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	12	1 1/2	3/8	3/8	6	9 7/8	3																			2.0
3	36	18	1 1/2	3/8	1/2	9	15 5/8	4 1/2																			4.5
4																											
5																											

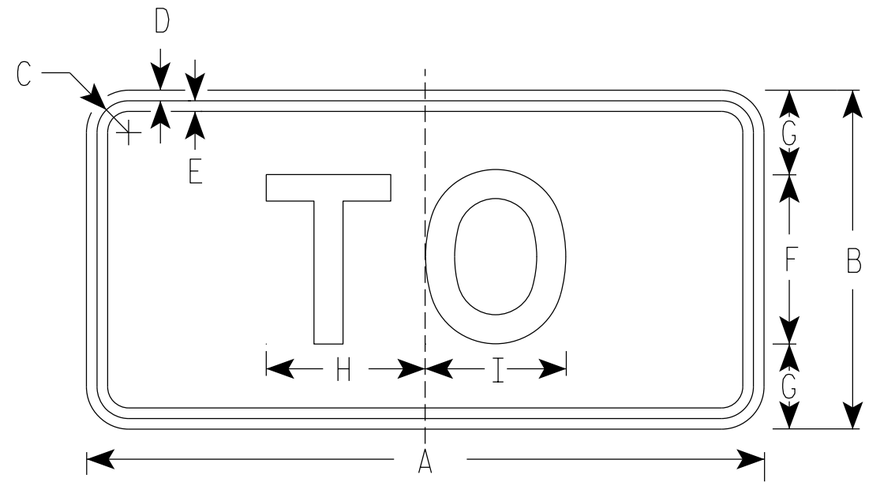
STANDARD SIGN
M4-4

WISCONSIN DEPT OF TRANSPORTATION

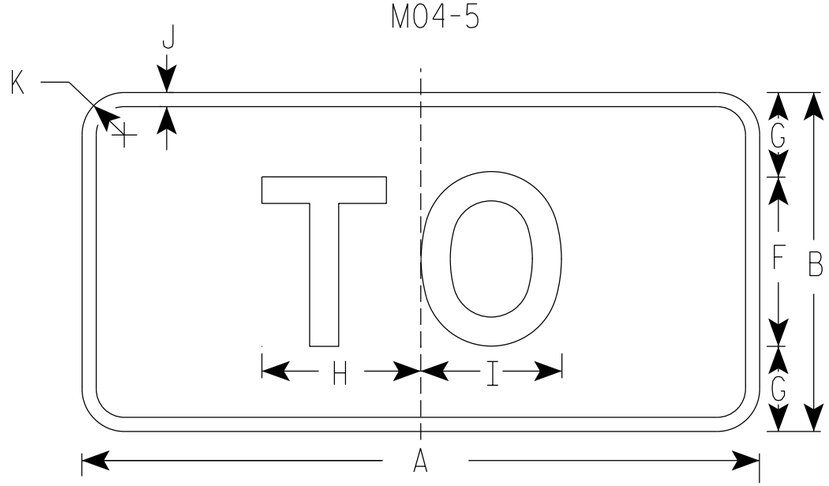
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-4.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 385 | E



M4-5
MM4-5
MP4-5
MO4-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
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. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

   MO4-5 Background - Orange Type F Reflective
   Message - Black

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	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

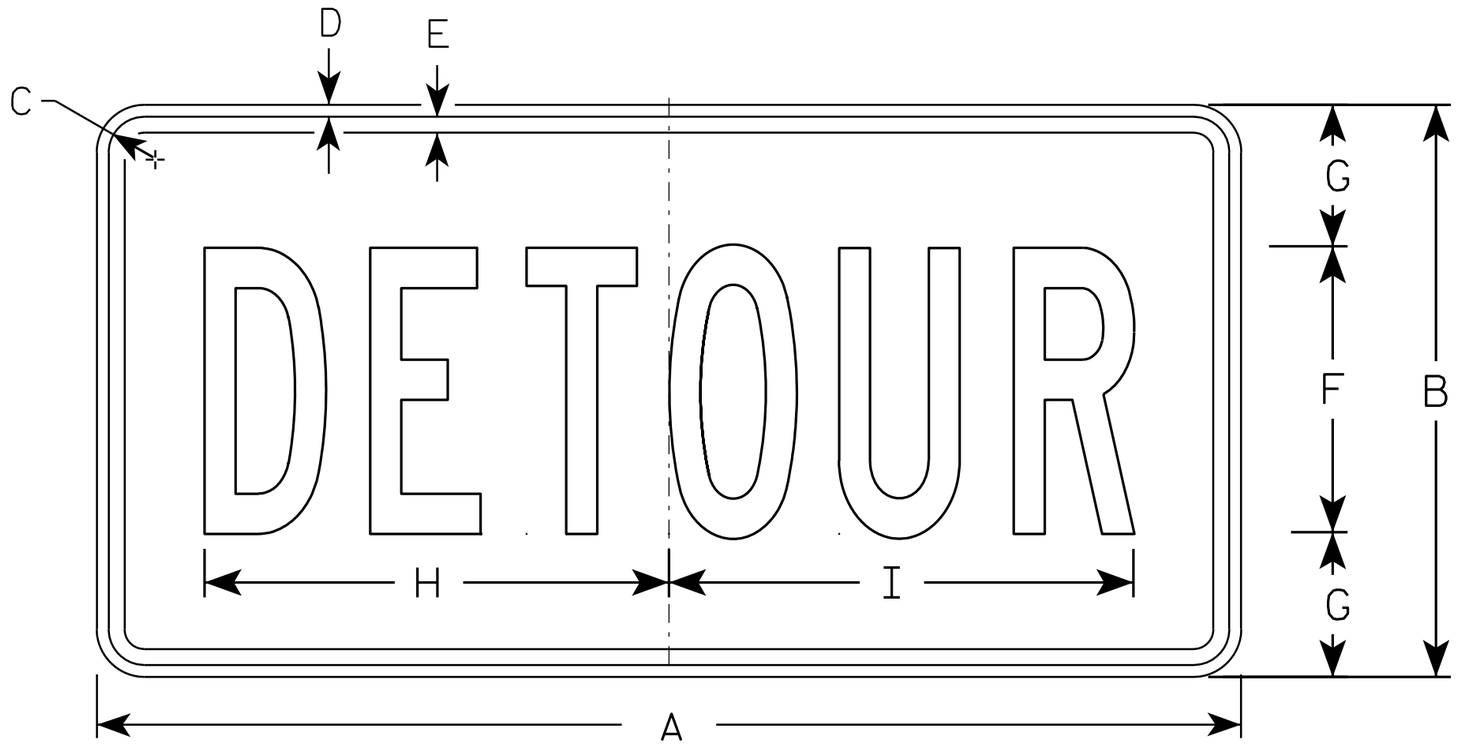
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/7/19 PLATE NO. M4-5.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 386 | E



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
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	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

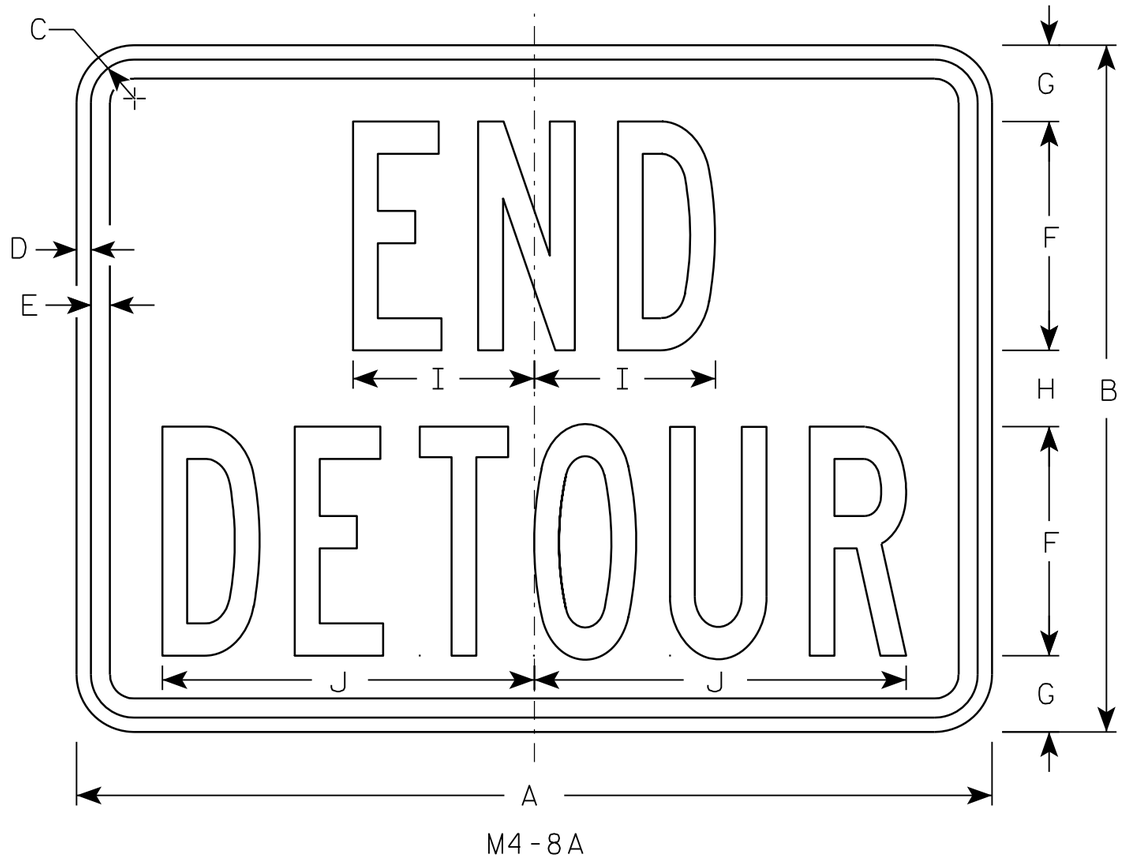
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 387	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
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	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

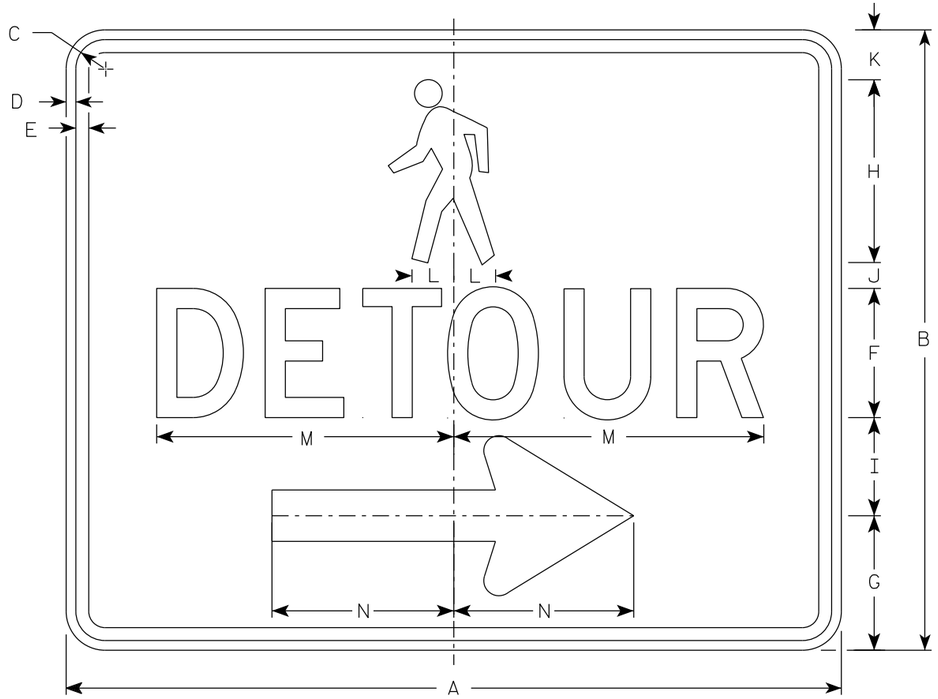
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

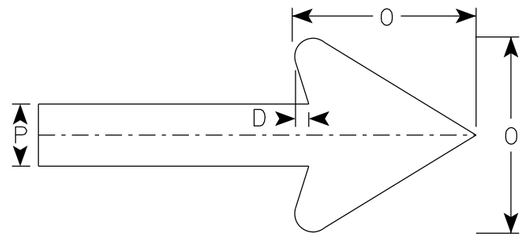
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 388	E



M4-9BR

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
   Background - Orange
   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.
5. M4-9BL is the same as M4-9BR except the arrow 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																											
2	30	24	1 1/8	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.00
3																											
4																											
5																											

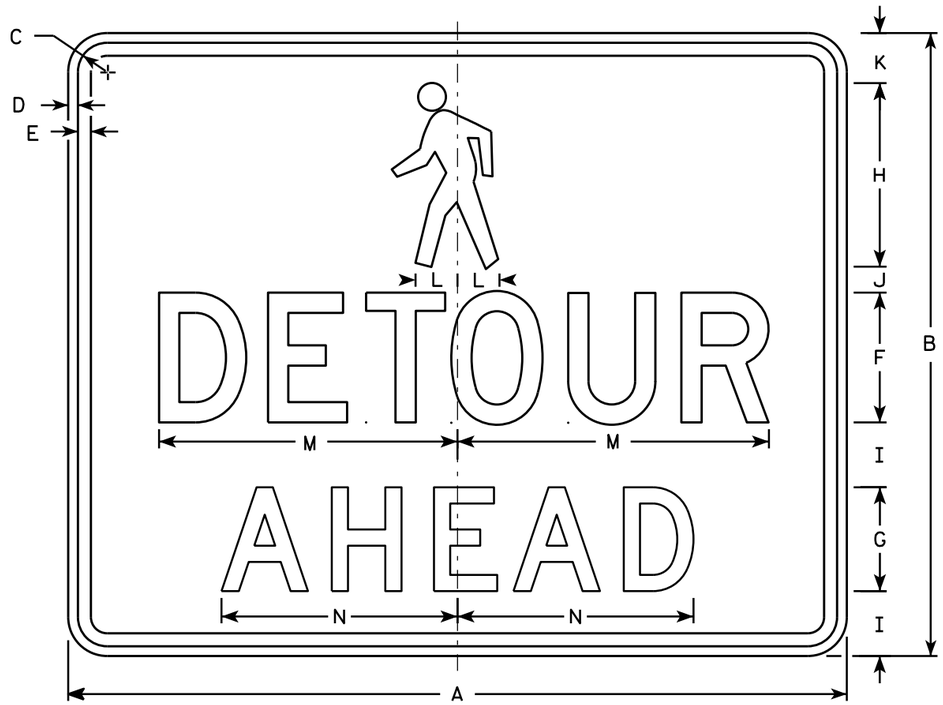
STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 7/1/19 PLATE NO. M4-9B.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 389 | E



M4-9BA

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   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																											
2	30	24	1 1/8	3/8	1/2	5	4	7 1/8	2 1/2	1	1 7/8	1 5/8	11 3/4	9 1/8													5.0
3																											
4																											
5																											

STANDARD SIGN
M4-9BA

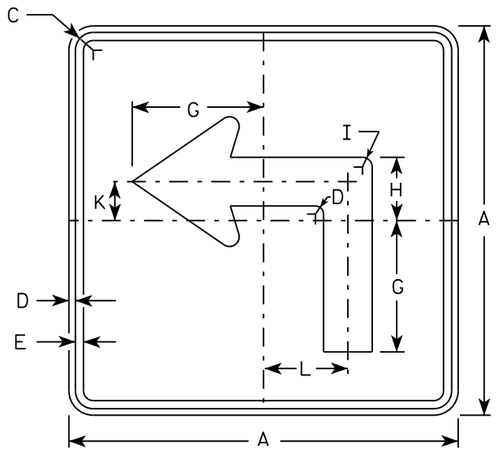
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

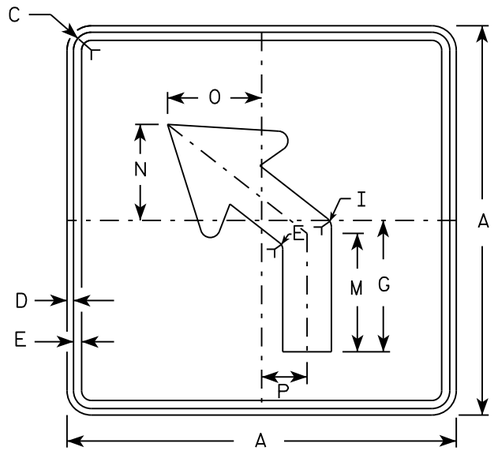
DATE 3/24/16 PLATE NO. M4-9BA.1

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E

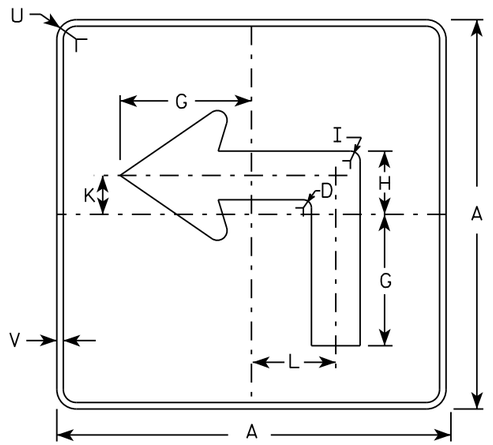
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M49BA.dgn PLOT DATE : 24-MAR-2016 14:57 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



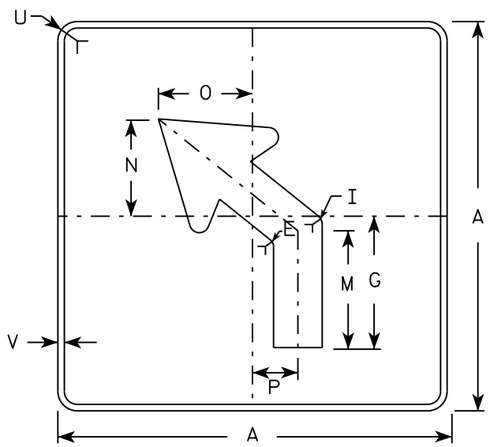
M5-1L
MM5-1L
MO5-1L
MP5-1L



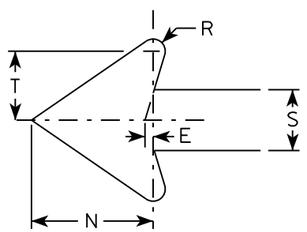
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
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. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

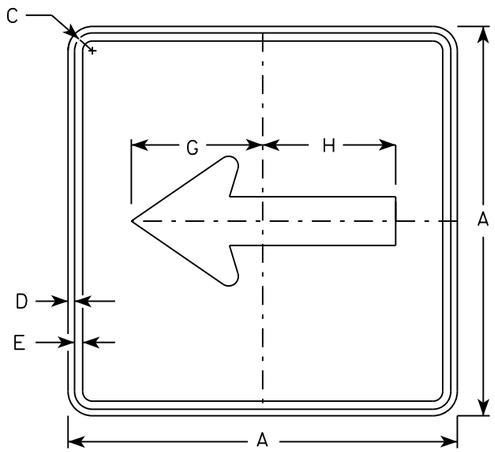
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

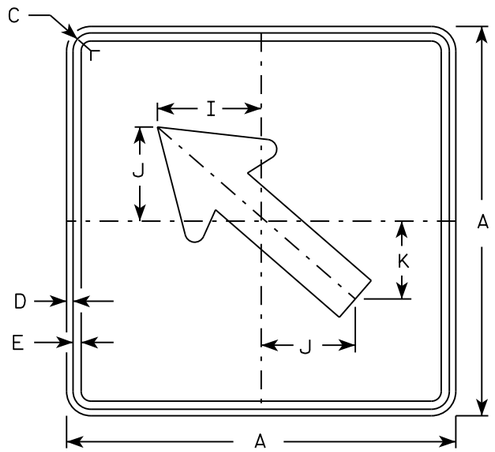
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



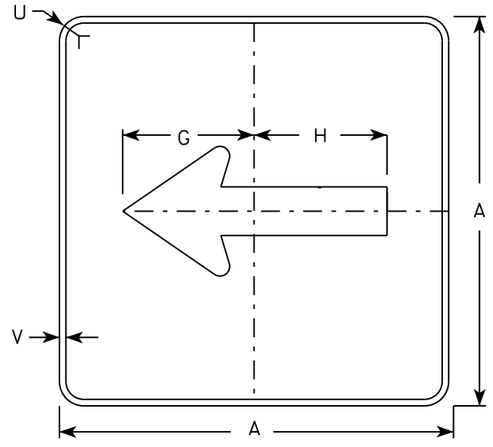
M6-1
MM6-1
MO6-1
MP6-1



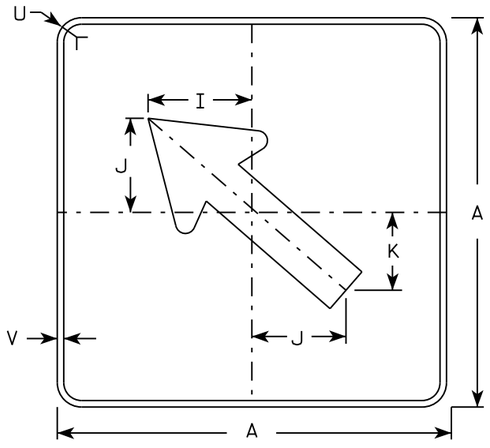
M6-2
MM6-2
MO6-2
MP6-2

NOTES

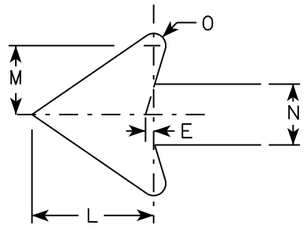
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



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	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

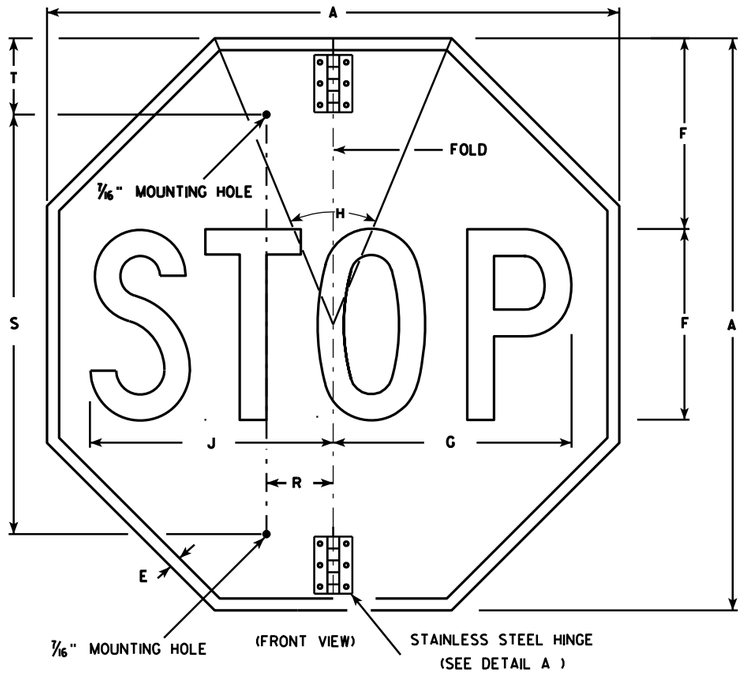
WISCONSIN DEPT OF TRANSPORTATION

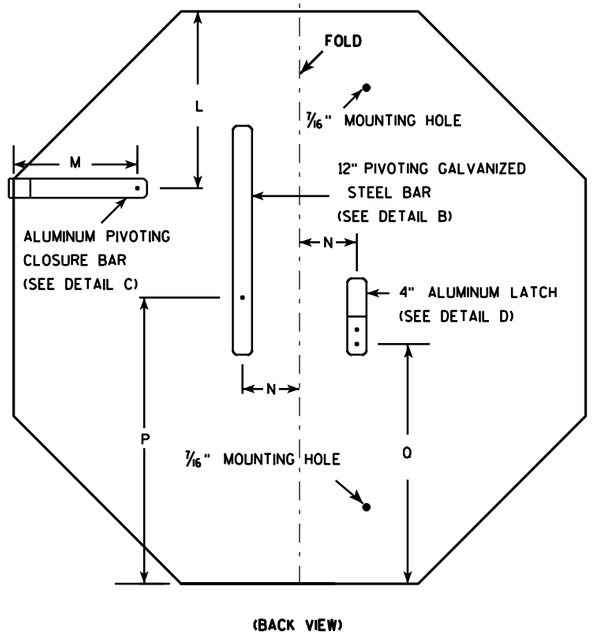
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 392 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

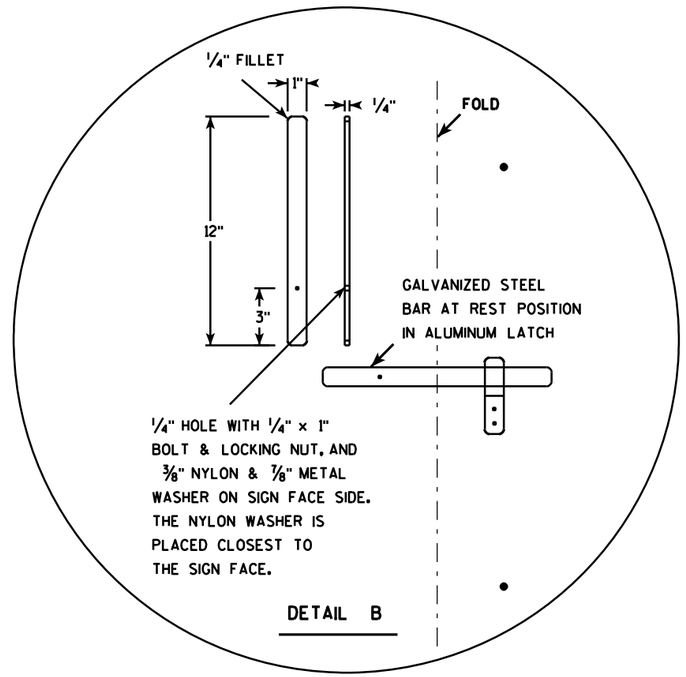
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



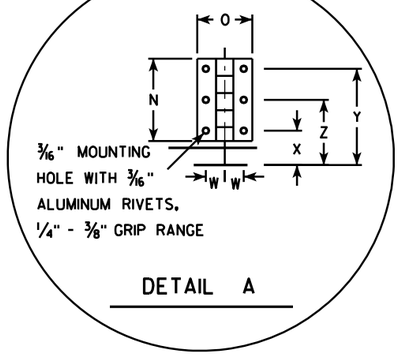


NOTES

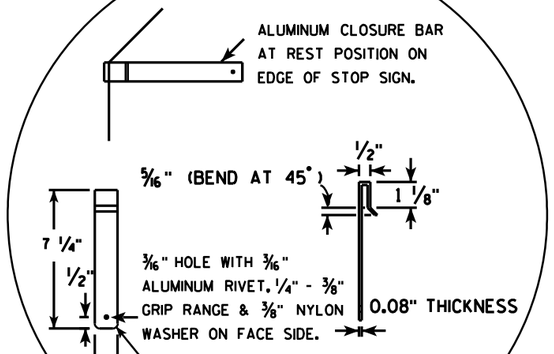
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



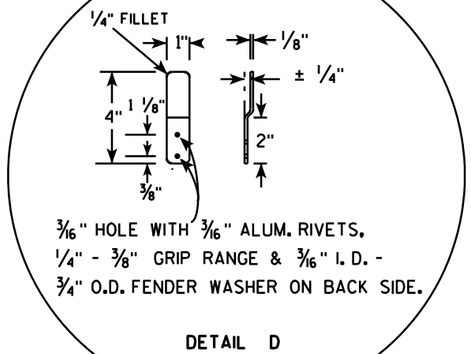
DETAIL B



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

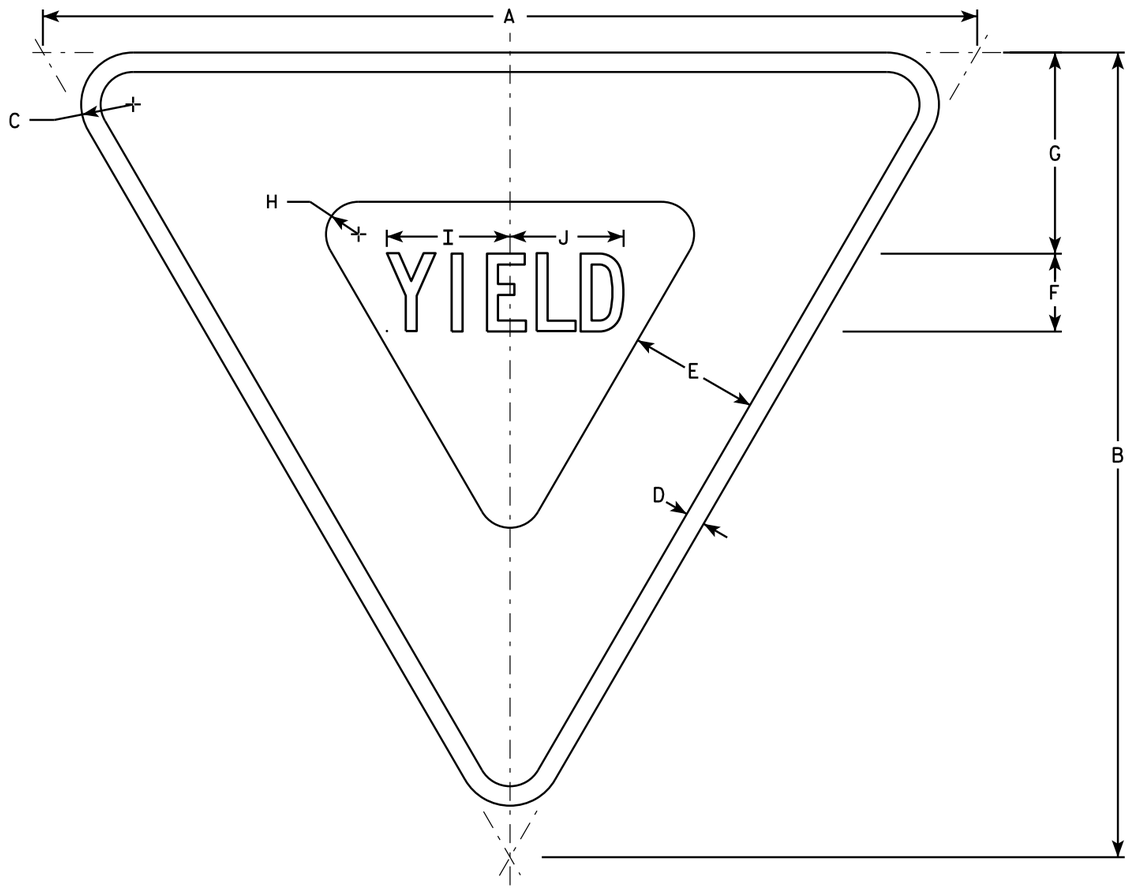
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 393 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R11F.DGN PLOT DATE : 02-DEC-2010 15:26 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 7.945391:1.000000

WISDOT/CADDS SHEET 42

7

7



R1-2

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 - 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. The border strip and word message are reflectorized red.

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	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

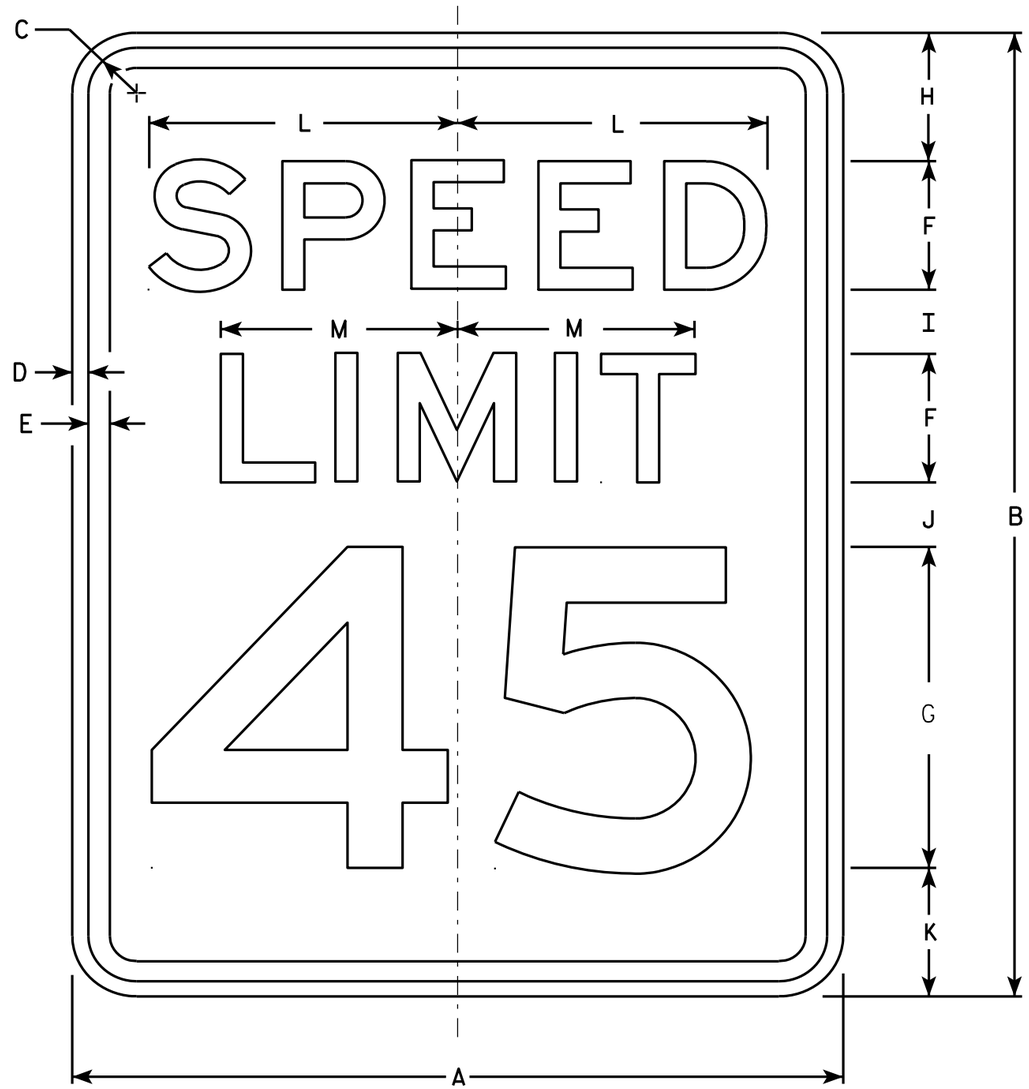
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000

WISDOT/CADDS SHEET 42



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

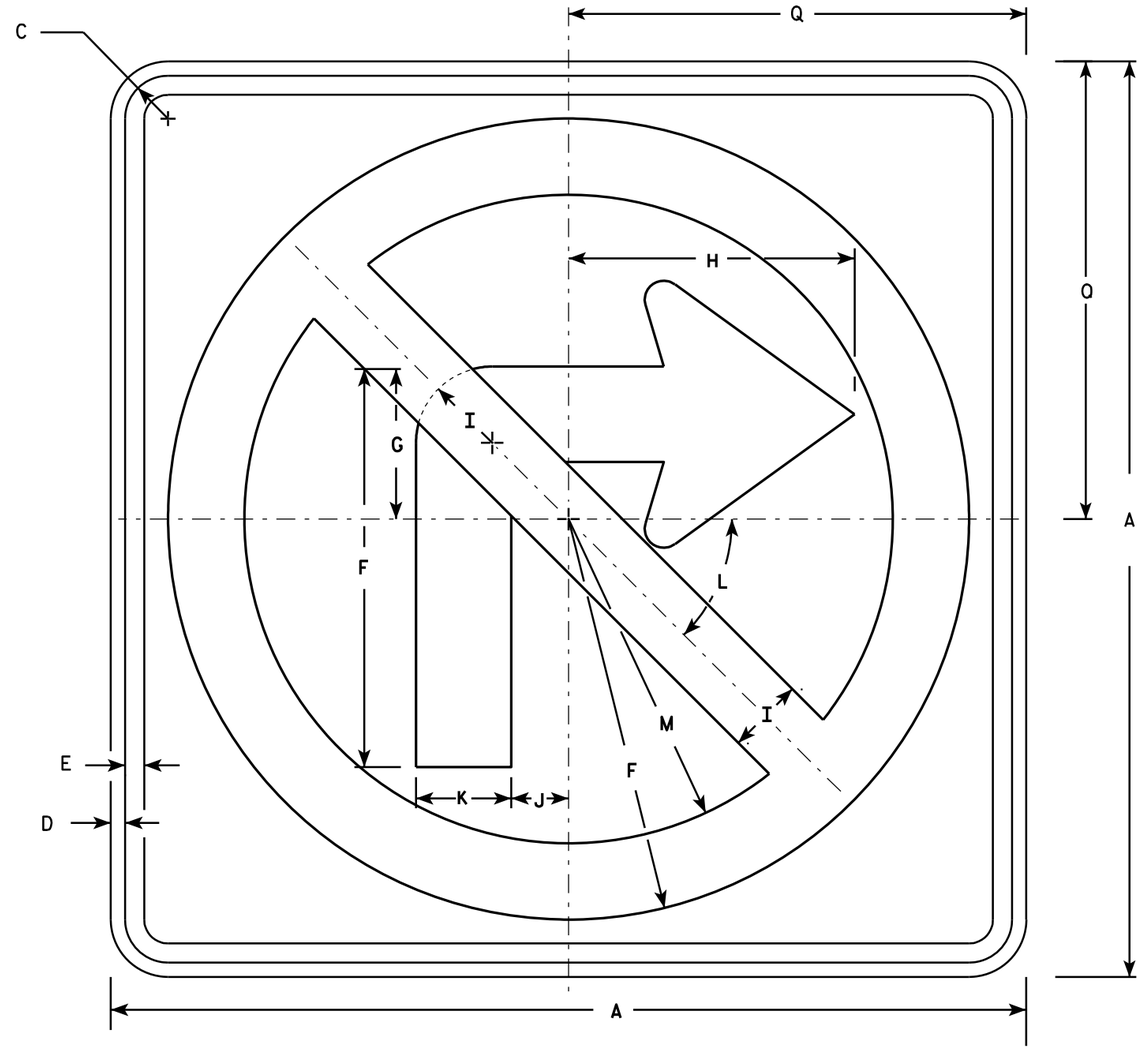
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

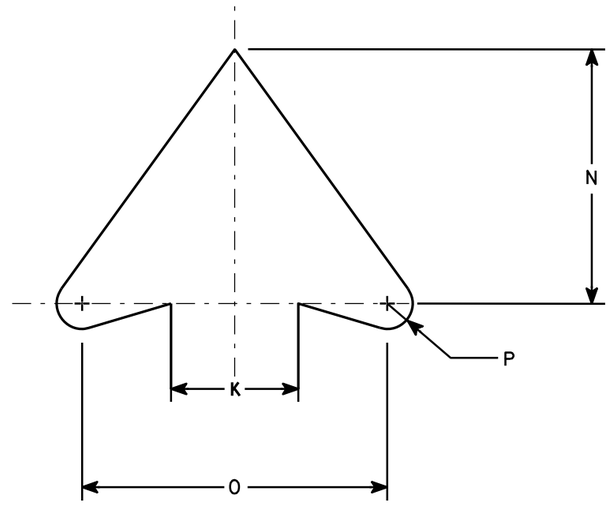
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 395 | E



R3-1

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 - See note 4
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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



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	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

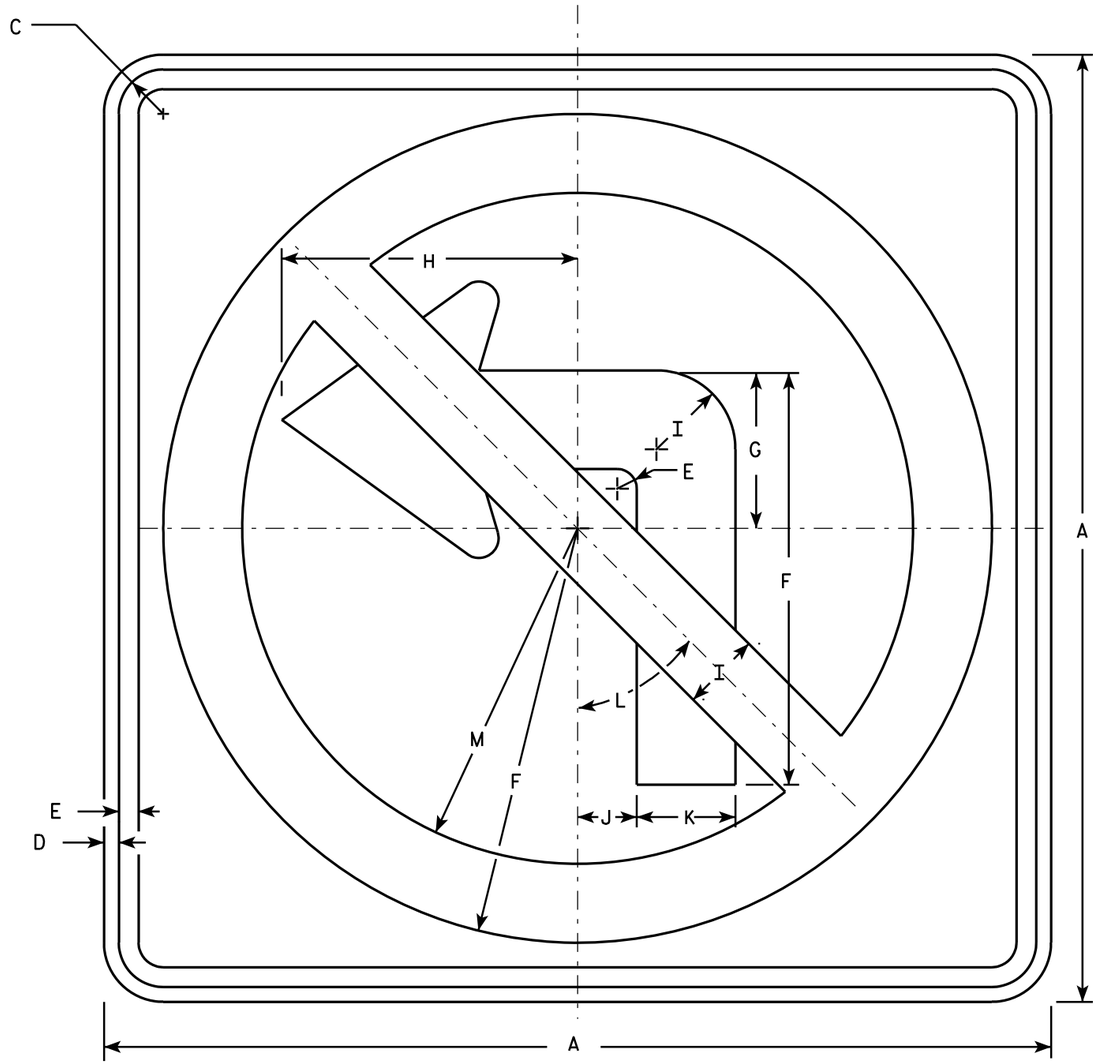
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

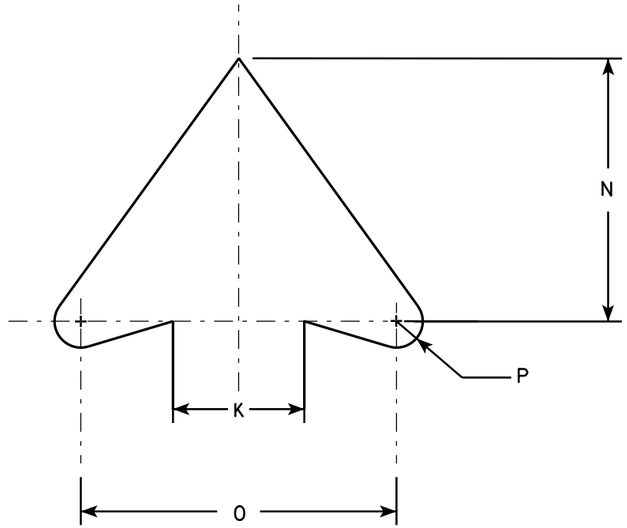
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 396	E



R3-2

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 - See note 4
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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



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	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

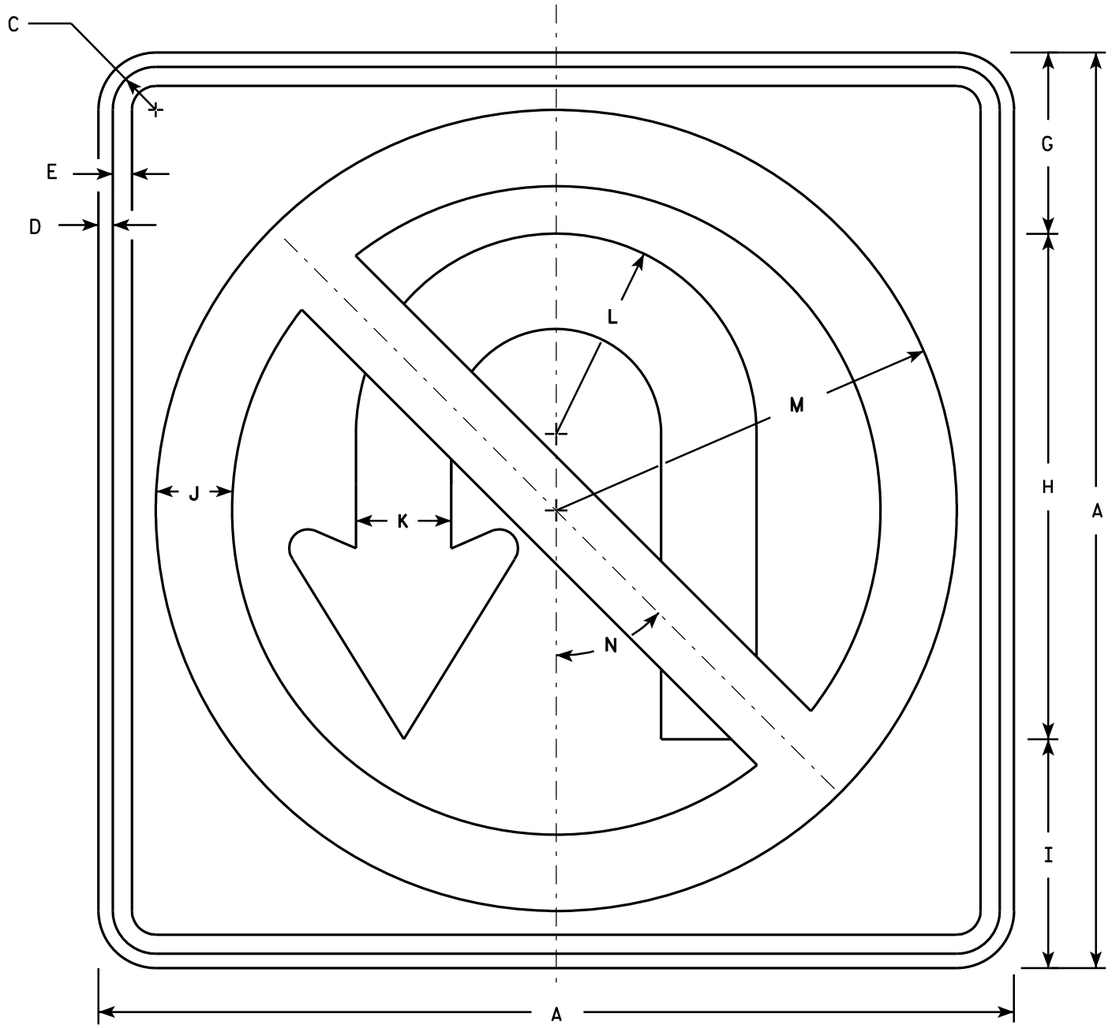
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

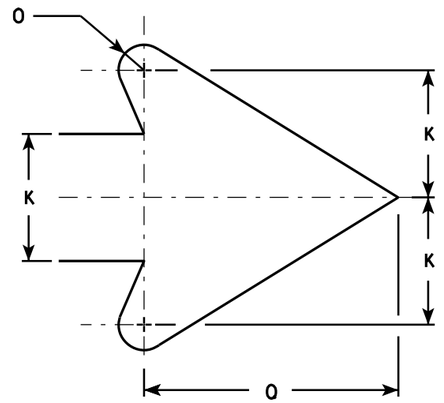
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 397	E



R3-4

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 - See note 4
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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

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	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

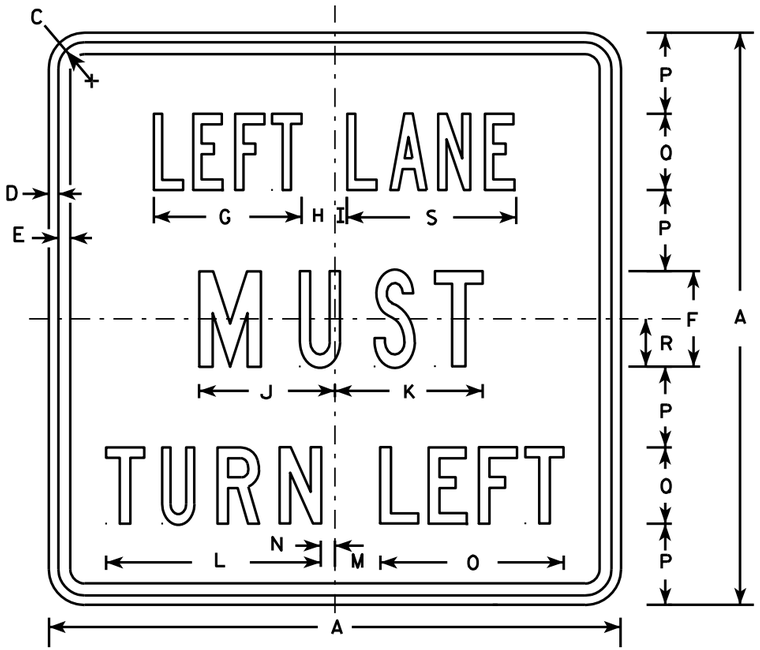
STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

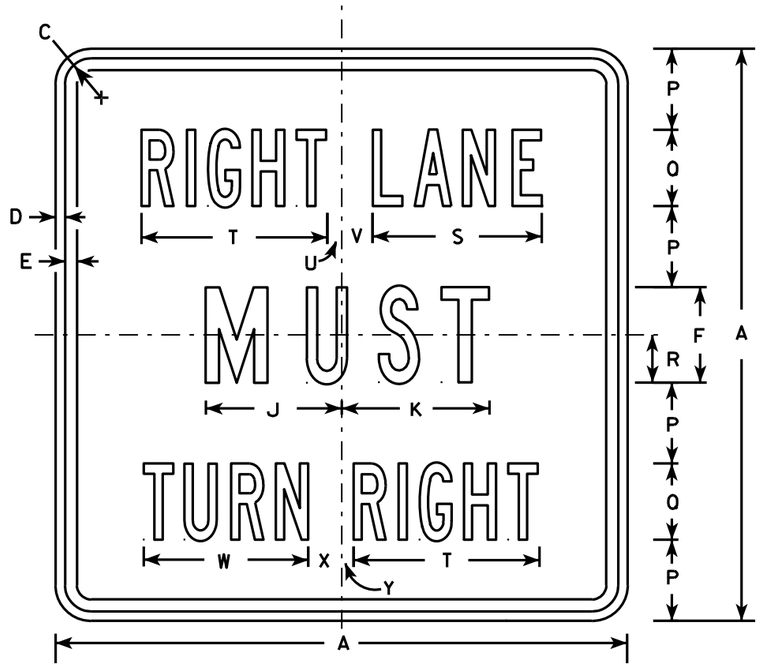
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 398	E



R3-7L



R3-7R

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 - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
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	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

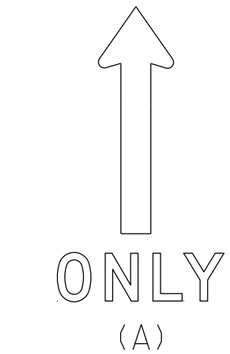
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

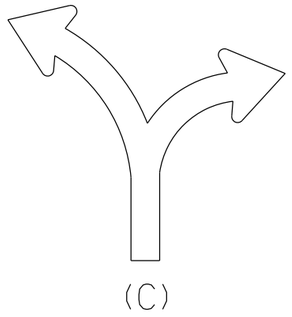
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 399 | E

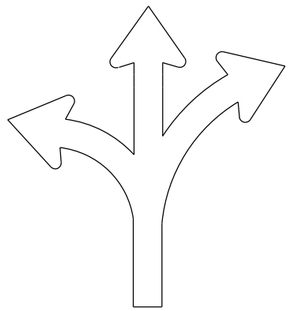


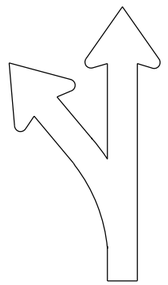
(A)

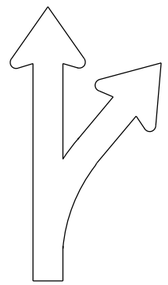


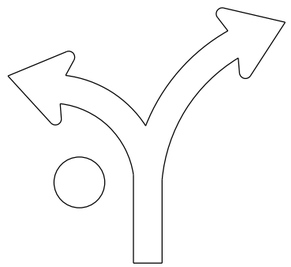
(B)

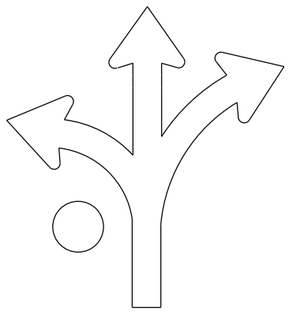

(C)


(D)


(E)


(F)

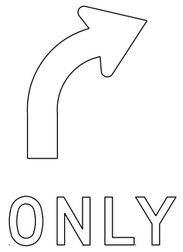

(G)


(H)

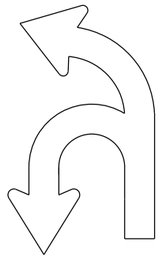

(I)



(L)



(R)


(U)

NOTES

1. Sigs are Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
   Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

1	Letter =	3.75 sq ft for Size 2
		6.0 sq ft for Size 3
		10.0 sq ft for Size 4 or 5
2	Letters =	7.5 sq ft for Size 2
		12.0 sq ft for Size 3
		20.0 sq ft for Size 4 or 5
3	Letters =	11.25 sq ft for Size 2
		18.0 sq ft for Size 3
		30.0 sq ft for Size 4 or 5
4	Letters =	15.0 sq ft for Size 2
		24.0 sq ft for Size 3
		40.0 sq ft for Size 4 or 5
5	Letters =	18.75 sq ft for Size 2
		30.0 sq ft for Size 3
		50.0 sq ft for Size 4 or 5
6	Letters =	22.5 sq ft for Size 2
		36.0 sq ft for Size 3
		60.0 sq ft for Size 4 or 5

6. When letters C,D,G,H are used on the Left or Right end of the sign the Sq. Ft. changes.
   Add the amounts when these letters are used:
   1.25 sq ft for Size 2
   1.5 sq ft for Size 3
   2.0 sq ft for Size 4 or 5

STANDARD SIGN
R3-8 Series

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

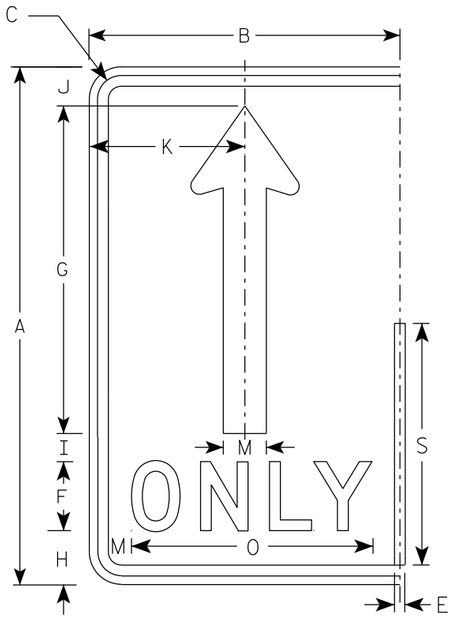
PROJECT NO:

SHEET NO: 400 E

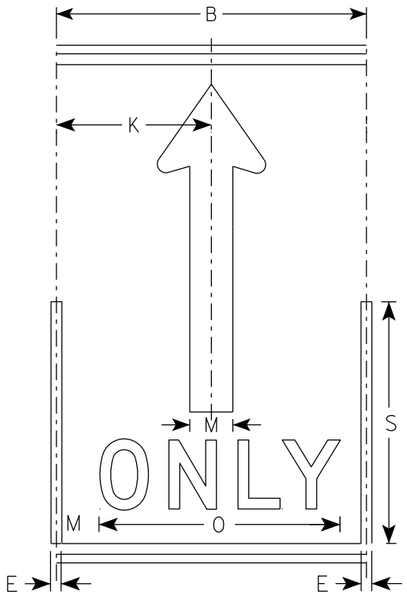
FILE NAME : C:\CAEfiles\Projects\stdplate_R38.dgn PLOT DATE : 21-MAY 2019 4:37 PLOT BY : mscj9h PLOT NAME :
WISDOT/CADDS SHEET 42

NOTES

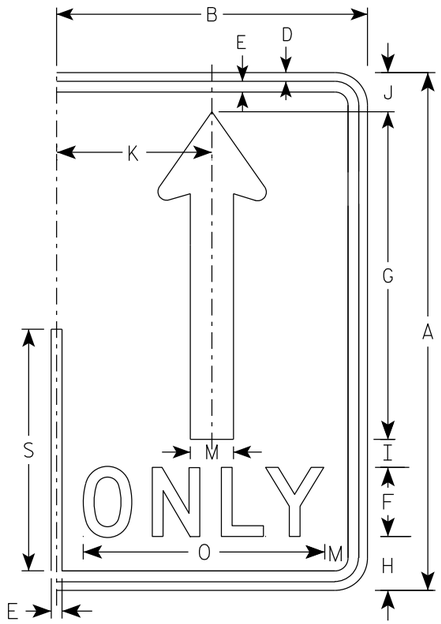
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



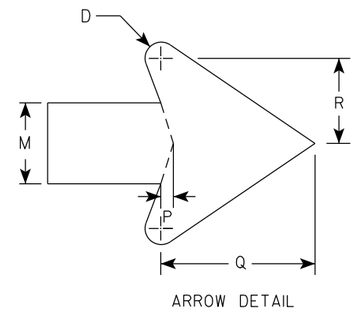
(A)



(A)



(A)



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																											
2S	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8	5	22 3/4	3 3/4	1 3/4	2 3/4	12		3		17 5/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

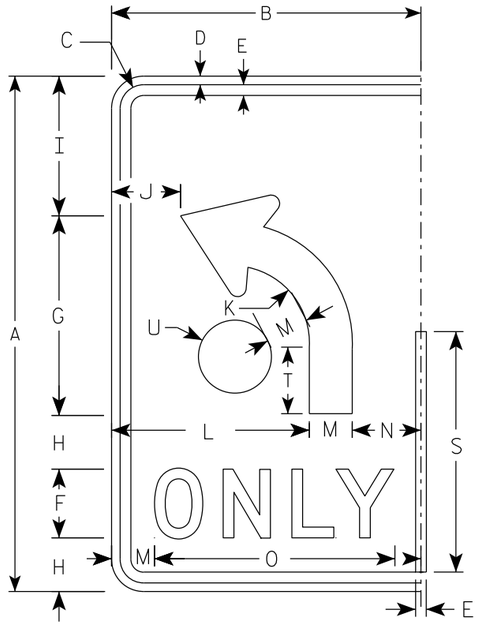
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

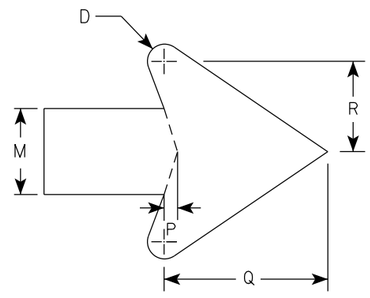
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 401 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
   Message Series - D



(B)



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																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8	2 1/2						6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0

STANDARD SIGN
R3-8 (B) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

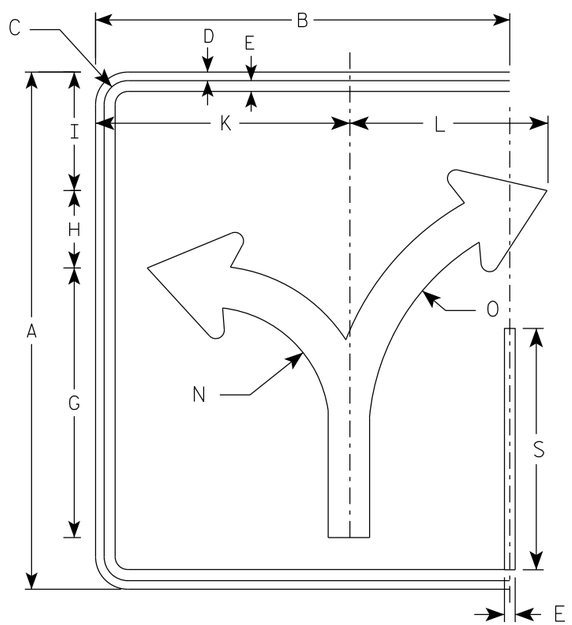
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

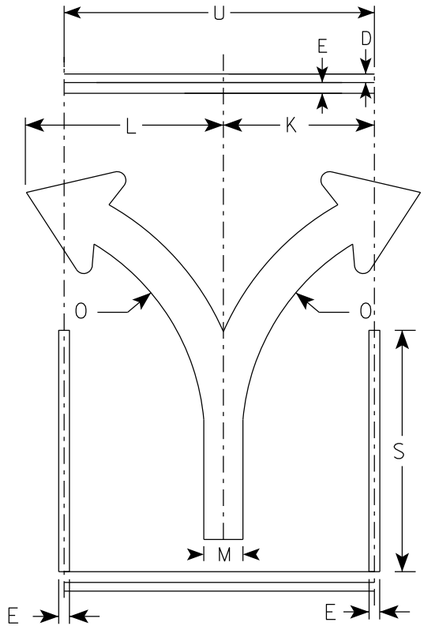
SHEET NO: 402 E

NOTES

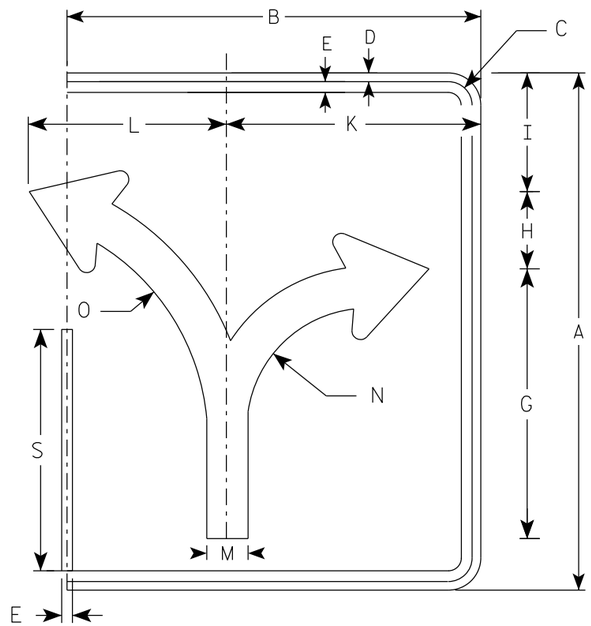
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



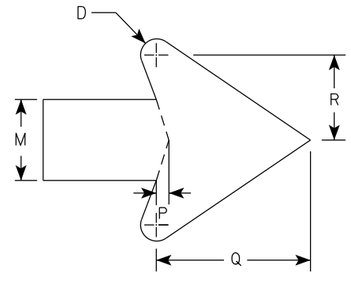
(C)



(C)



(C)



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	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (C) Arrow

WISCONSIN DEPT OF TRANSPORTATION

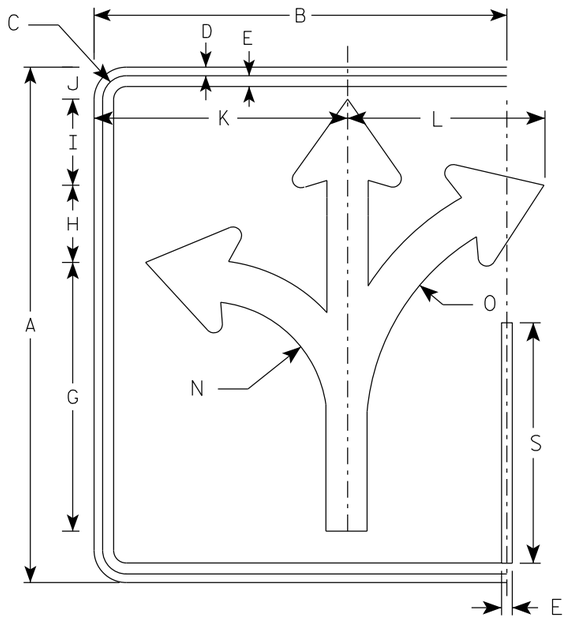
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

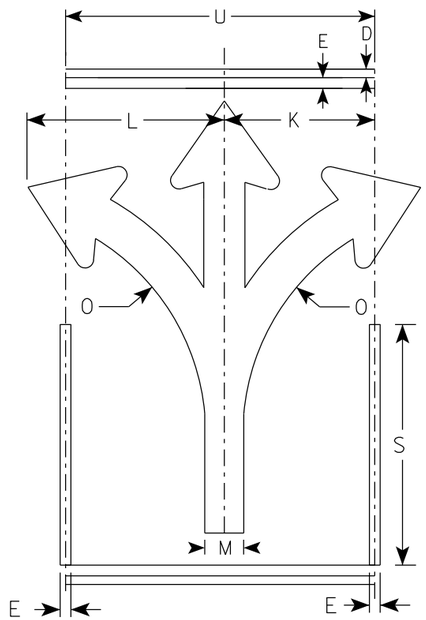
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 403 | E

NOTES

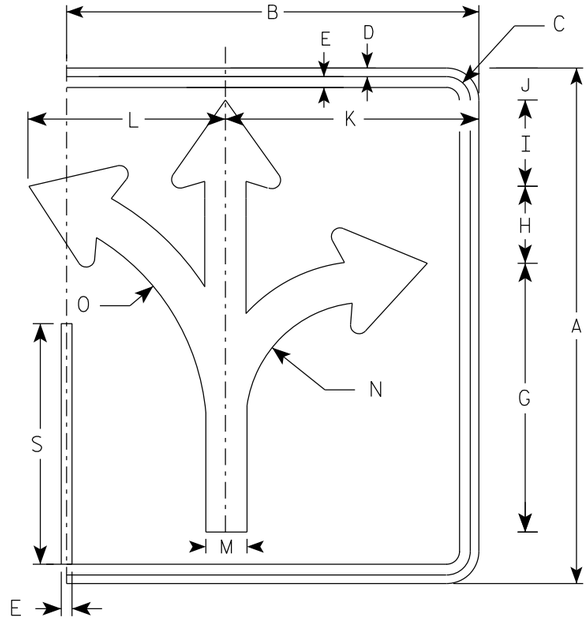
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



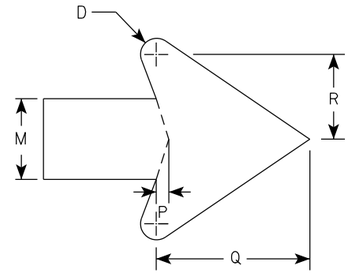
(D)



(D)



(D)



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	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	2 1/4	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (D) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

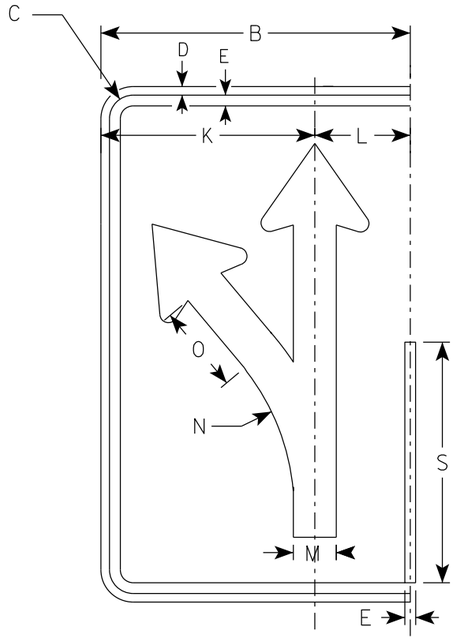
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 404 | E

7

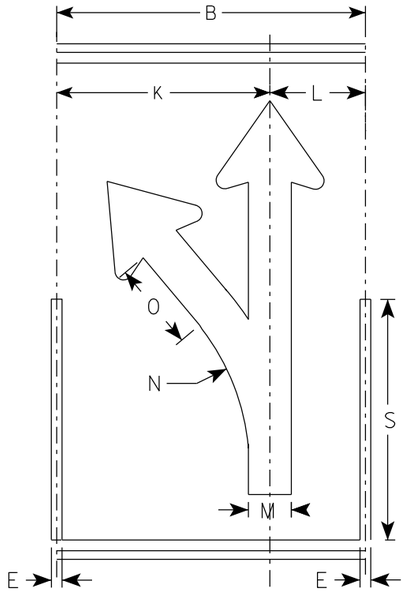
7

NOTES

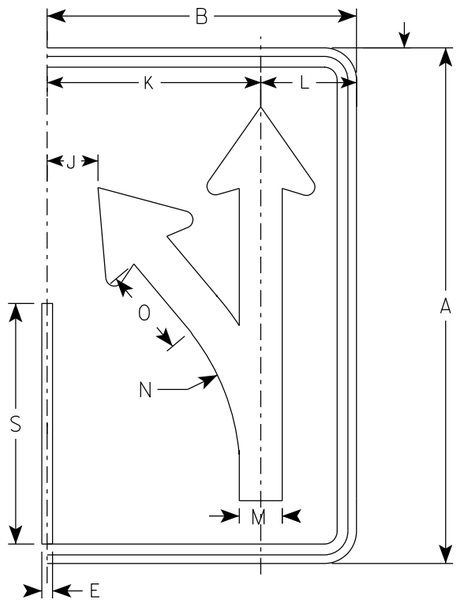
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



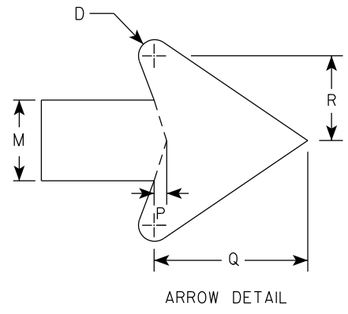
(E)



(E)



(E)



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																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

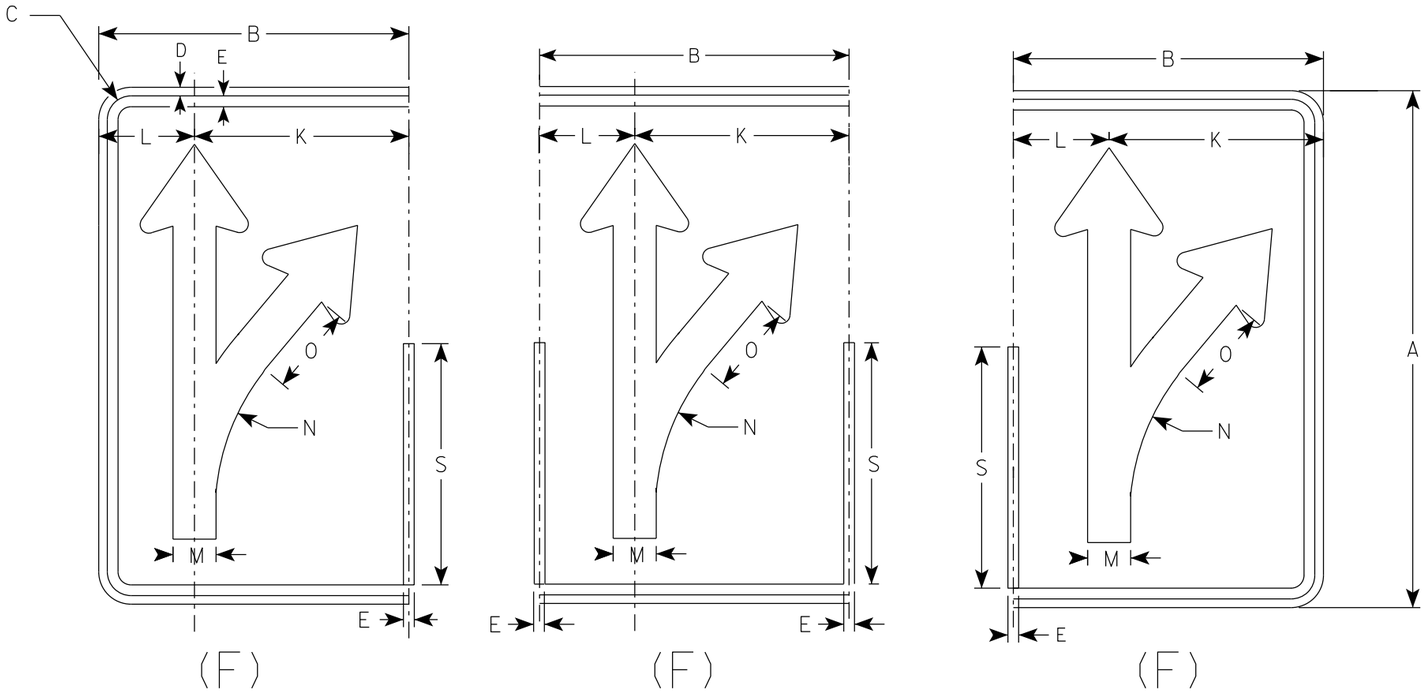
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

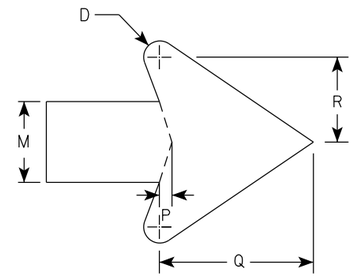
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 405 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(F) (F) (F)



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																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

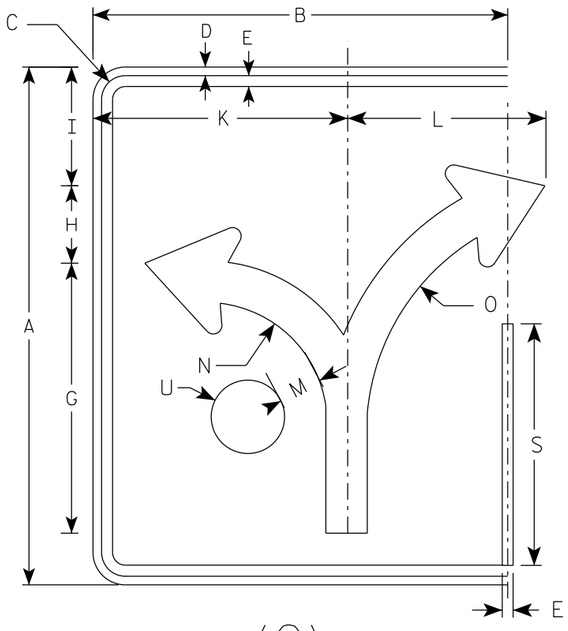
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

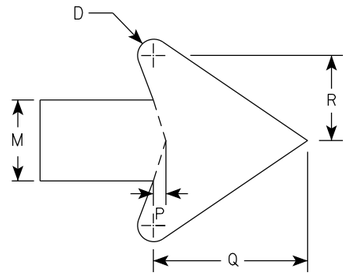
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 406 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(G)



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																											
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

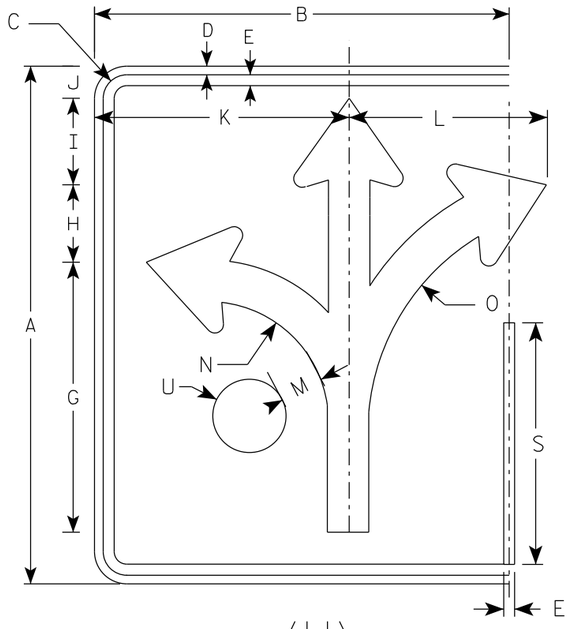
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

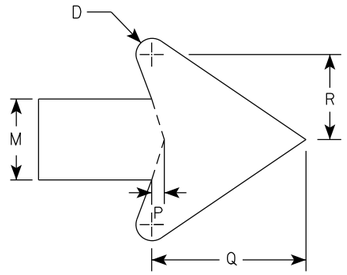
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 407	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(H)



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																											
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	3 1/8	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

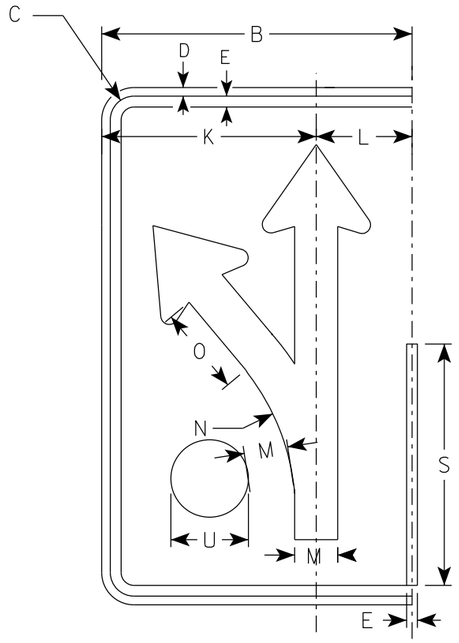
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

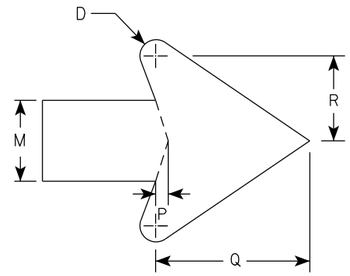
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 408	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(I)



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																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4		2 1/2						6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0

STANDARD SIGN
R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

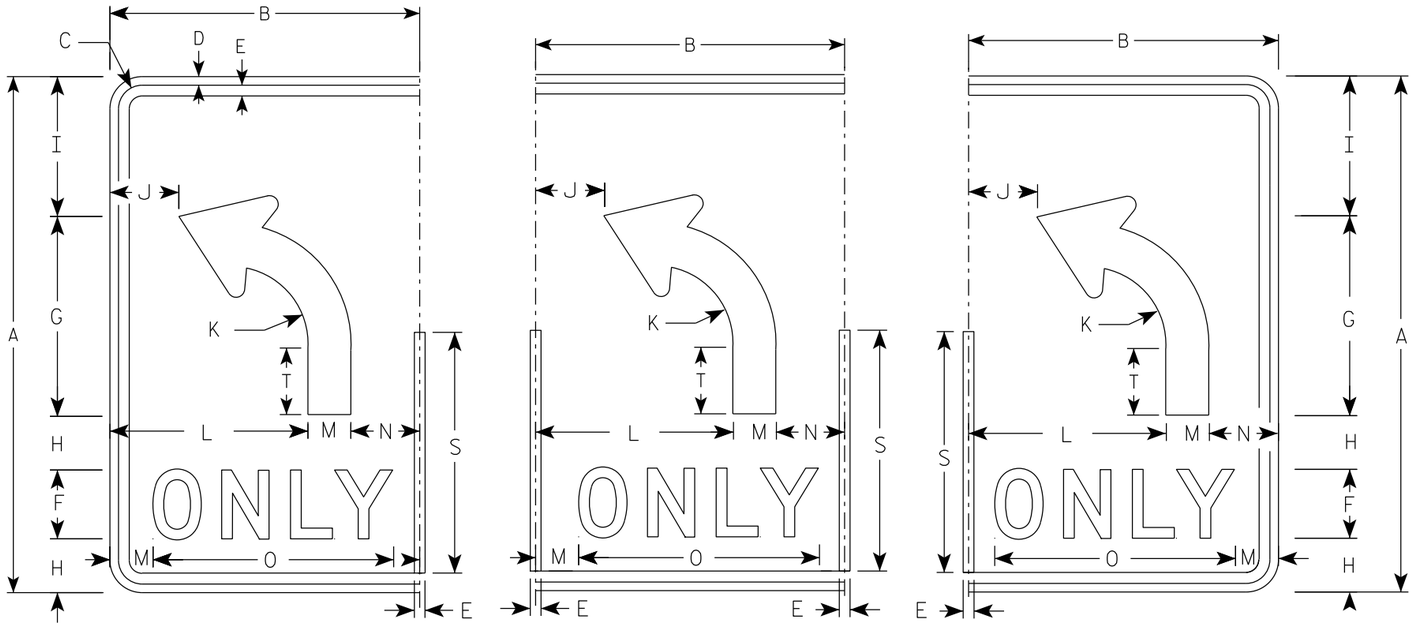
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

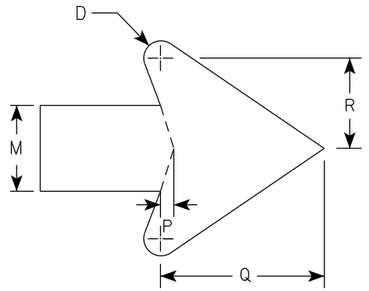
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 409 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



(L) (L) (L)



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																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4		5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

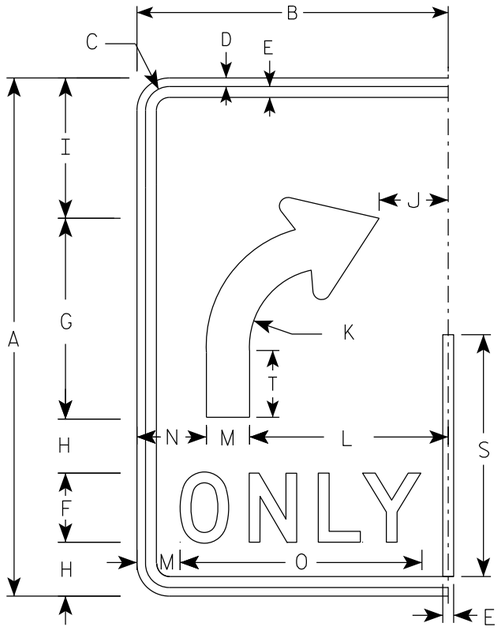
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

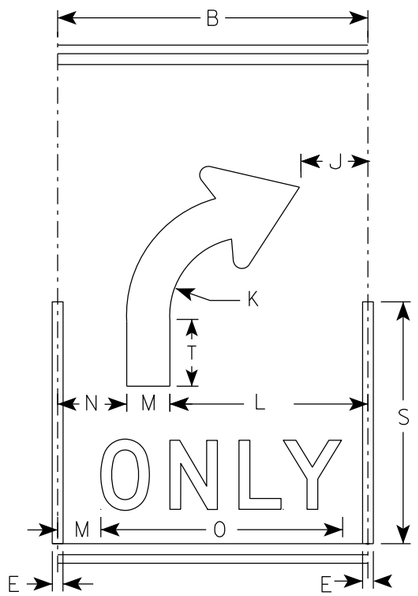
SHEET NO: 410 E

NOTES

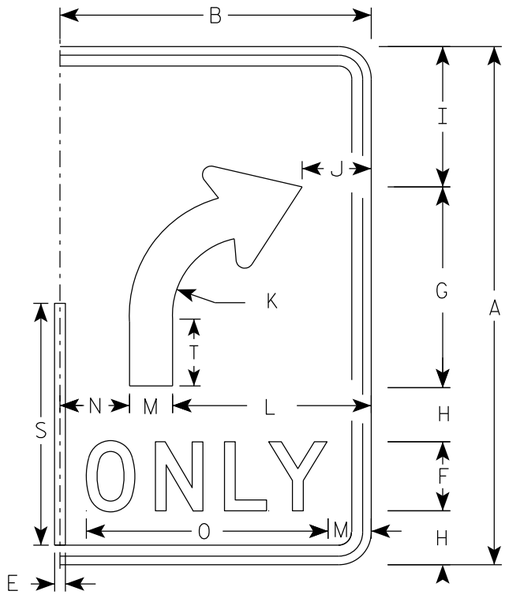
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



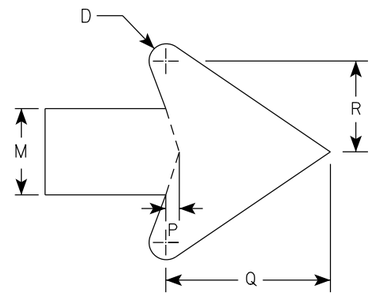
(R)



(R)



(R)



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																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (R) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

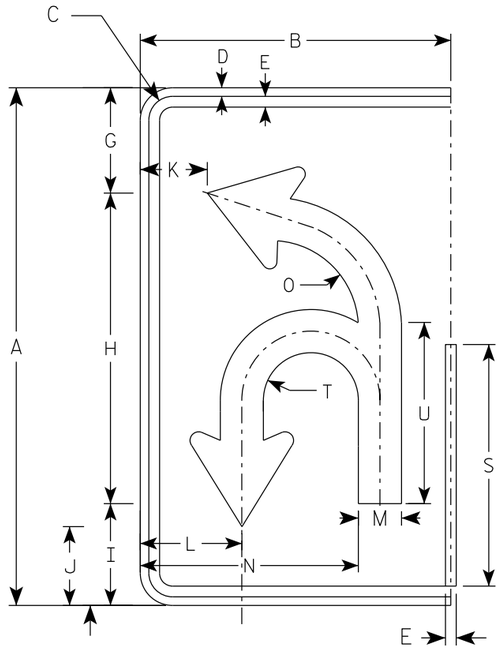
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

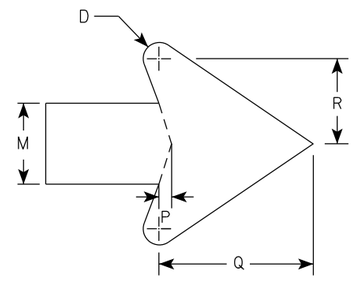
SHEET NO: 411 **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(U)



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																											
2S	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
2M	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	21 5/8	7 1/8	5 1/2	5 7/8	8 1/4	3	16 3/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4	3 1/4	12 5/8						6.0
4	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0
5	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0

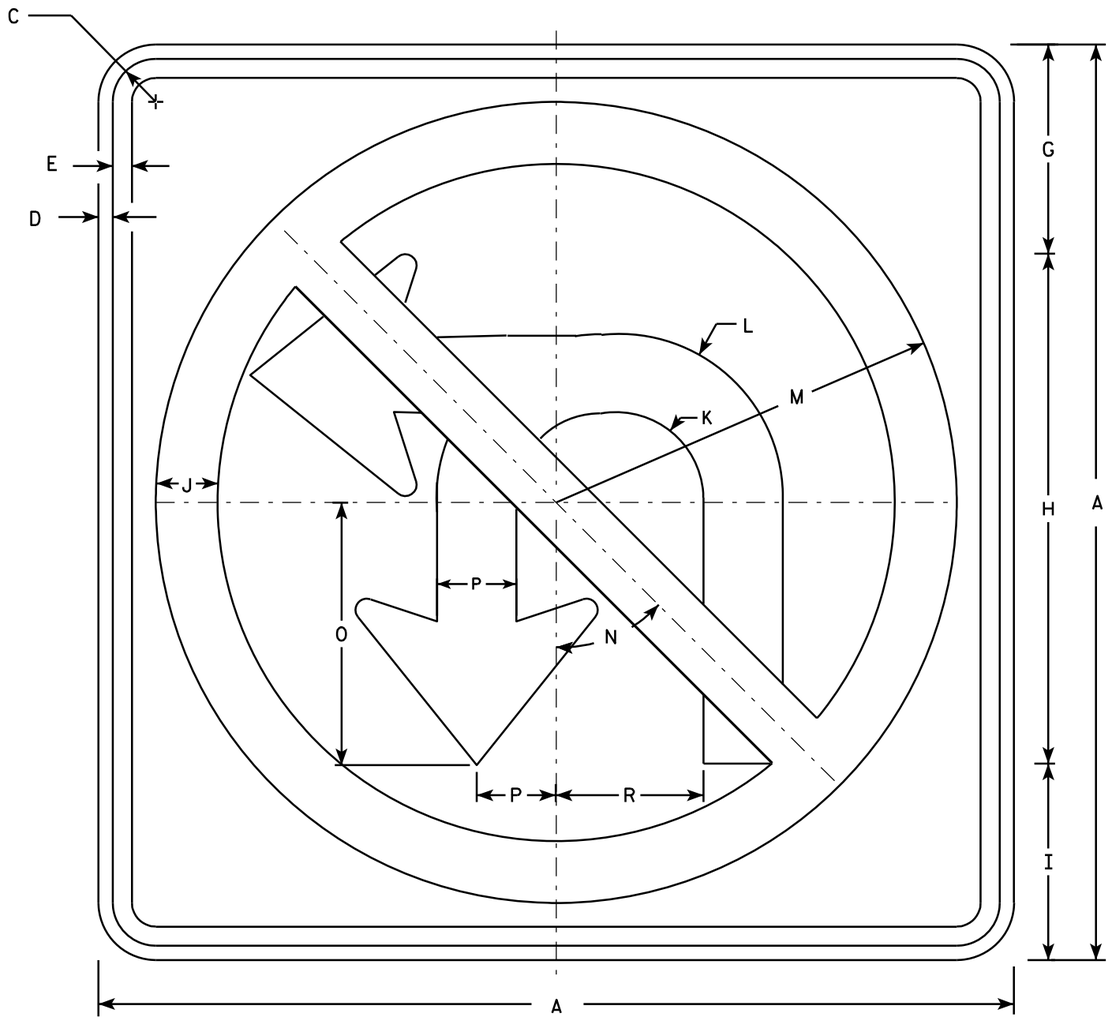
STANDARD SIGN
R3-8 (U) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 412 | E



R3-18

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 - See note 4
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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.

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																											
2S	24		1 1/8	3/8	1/2		5 1/2	13 3/8	5 1/8	1 5/8	2 1/4	4 1/4	10 1/2	45°	6 7/8	2 1/8		3 7/8									4.0
2M	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45°	10 3/8	3 1/8		5 3/4									9.0
3	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
4	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
5	48		2 1/4	3/4	1		11	26 3/4	10 1/4	3 1/4	4 5/8	8 5/8	21	45°	13 3/4	4 1/8		7 3/4									16.0

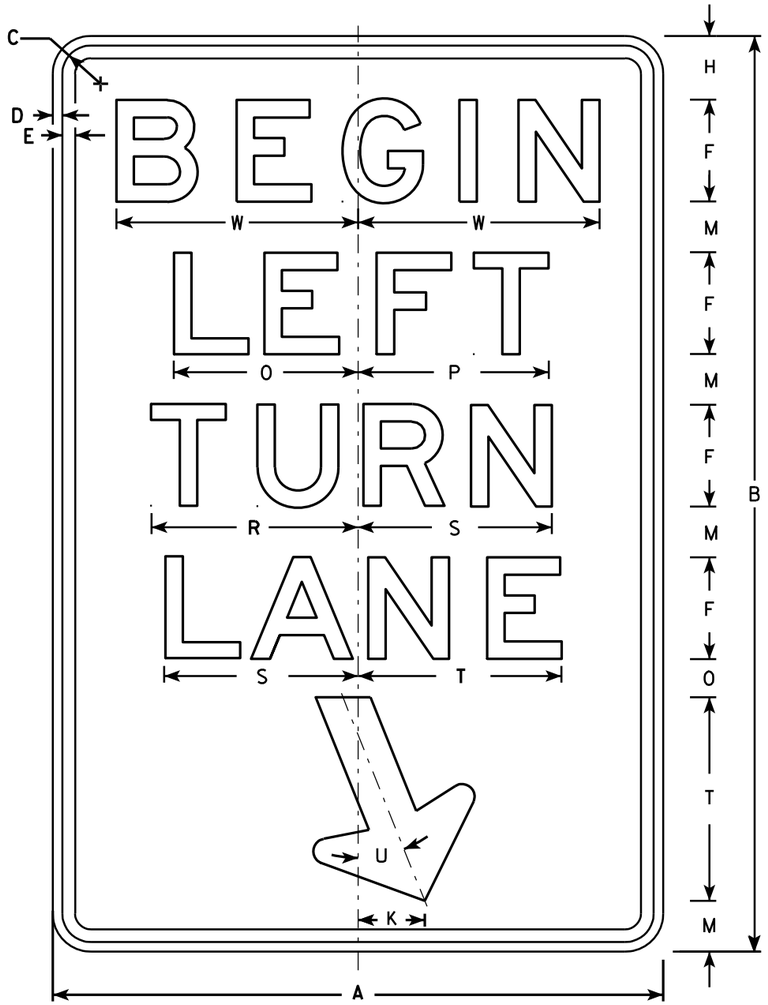
STANDARD SIGN
R3-18

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/10 PLATE NO. R3-18.2

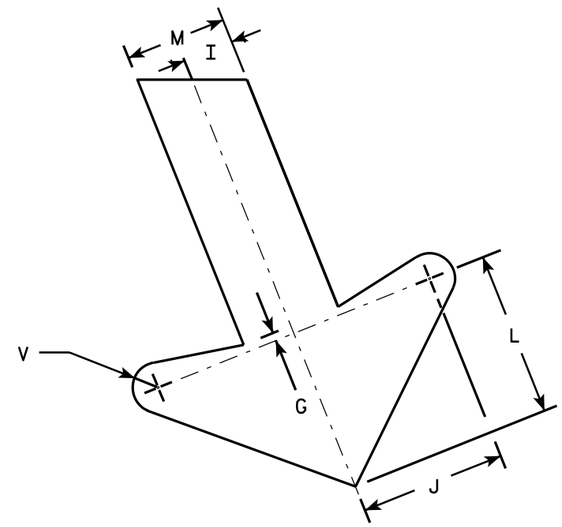
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 413	E



R3-20L

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.



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																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

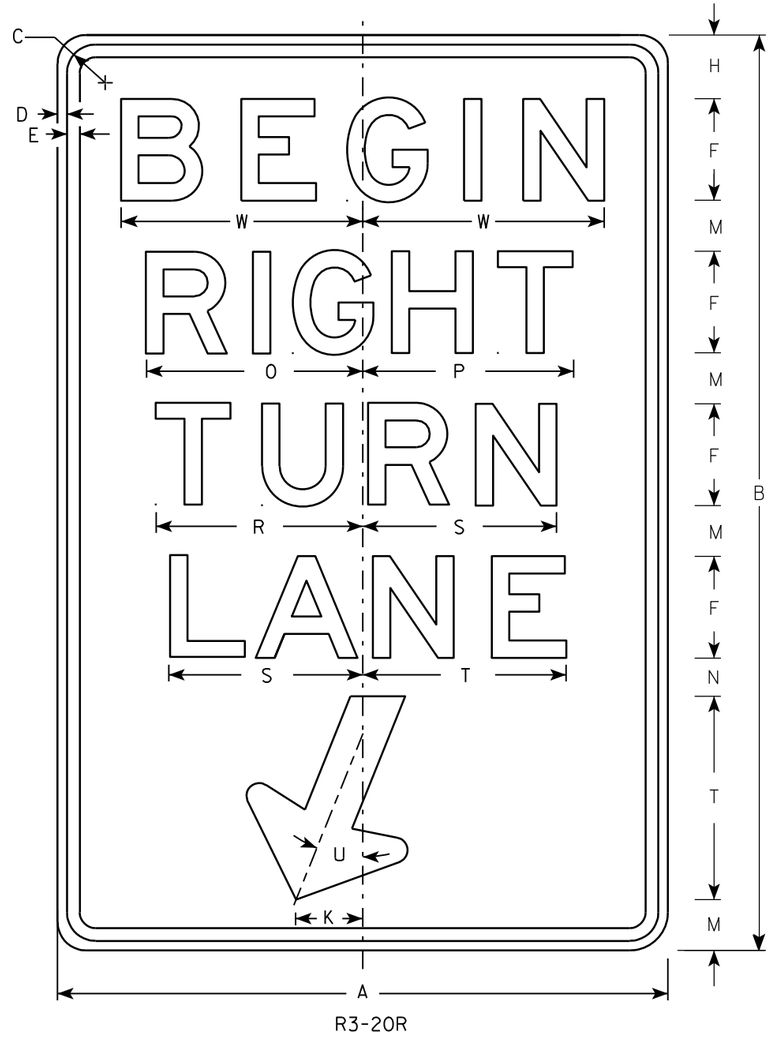
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

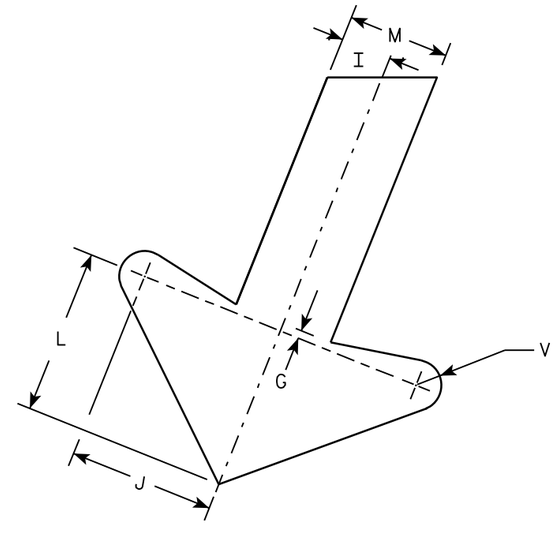
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 414 | E



R3-20R

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.



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																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

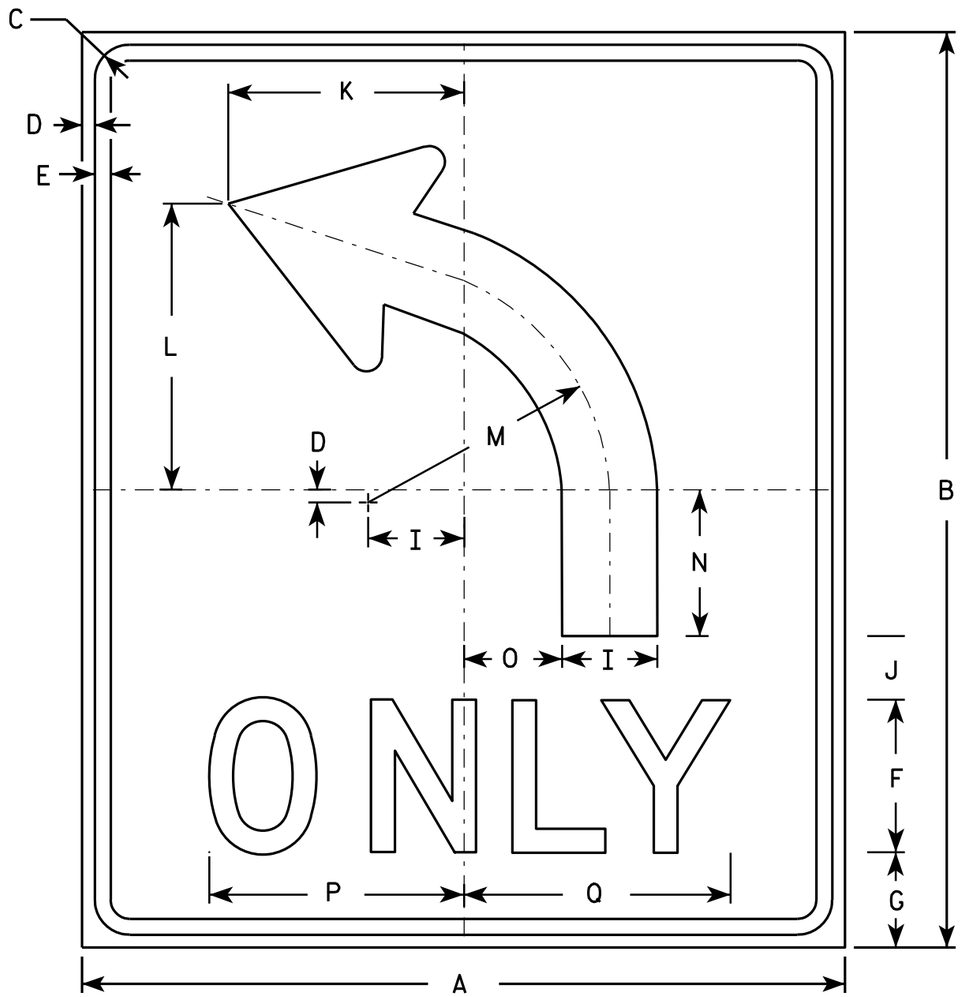
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

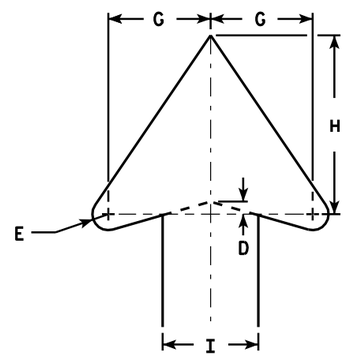
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 415 | E



R3-50L

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 - 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.
5. R3-50R is the same as R3-50L except curved portion of arrow points right.



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																											
2S	30	36	1 3/8	1/2	5/8	6	4	7	3 3/4	2 1/2	9 1/4	11 1/4	9 1/2	5 3/4	3 7/8	10	10 1/2										7.5
2M	30	36	1 3/8	1/2	5/8	6	4	7	3 3/4	2 1/2	9 1/4	11 1/4	9 1/2	5 3/4	3 7/8	10	10 1/2										7.5
3																											
4																											
5																											

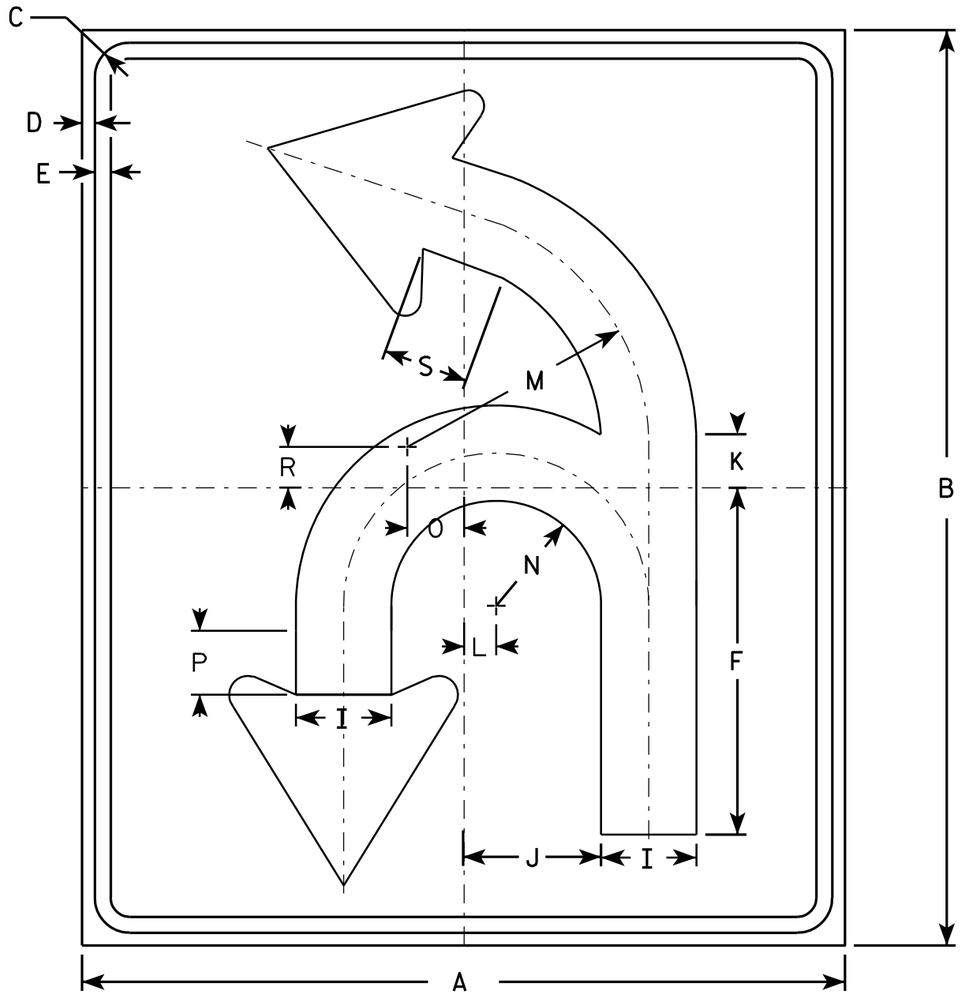
STANDARD SIGN
R3-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-50.2

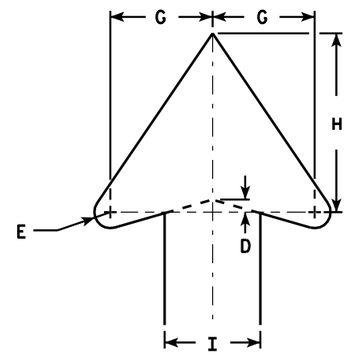
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 416	E



R3-50U

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. 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.



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																											
2S	30	36	1 3/8	1/2	5/8	13 5/8	4	7	3 3/4	5 3/8	2 1/8	1 1/4	9 1/2	4 1/8	2 1/4	2 1/2		1 5/8	3 3/8								7.5
2M	30	36	1 3/8	1/2	5/8	13 5/8	4	7	3 3/4	5 3/8	2 1/8	1 1/4	9 1/2	4 1/8	2 1/4	2 1/2		1 5/8	3 3/8								7.5
3																											
4																											
5																											

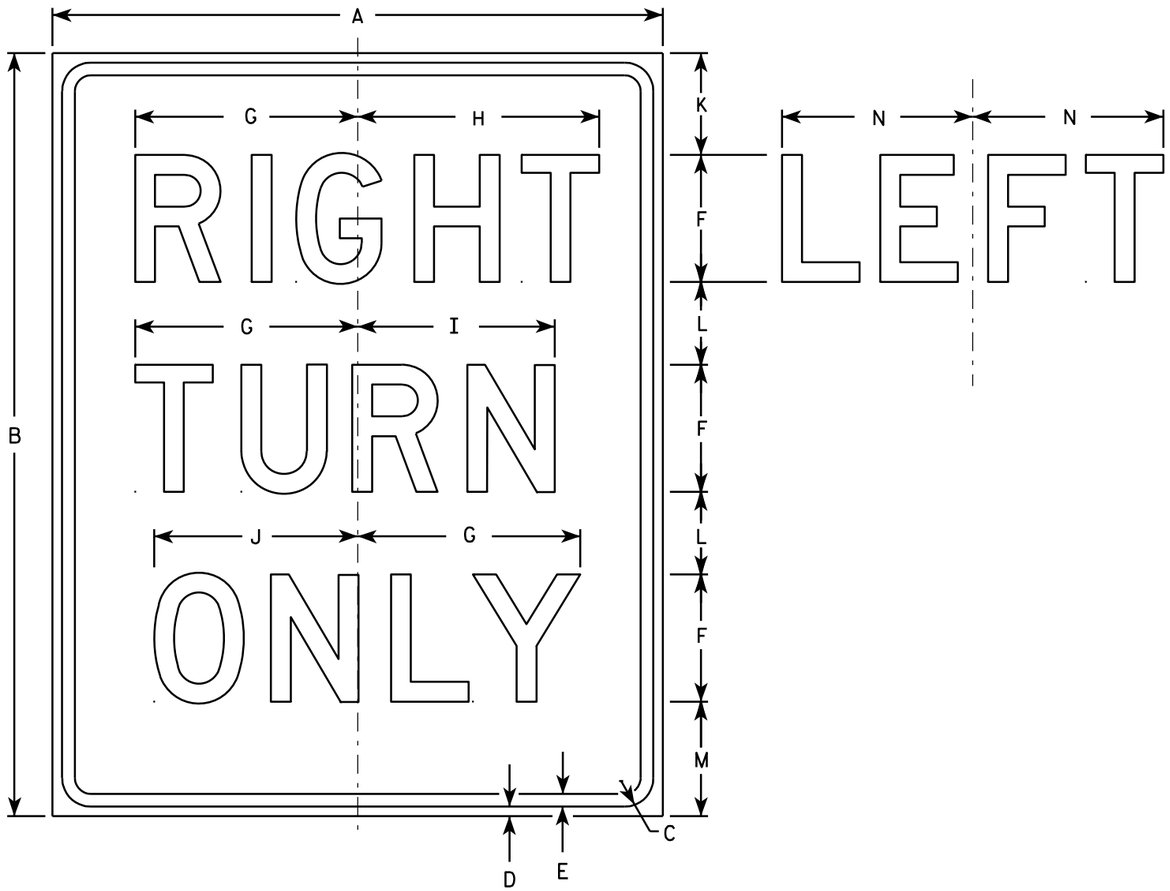
STANDARD SIGN
R3-50U

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/2/10 PLATE NO. R3-50U.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 417	E



R3-53R

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 - 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.
5. R3-53L same as R3-53R except LEFT is substituted for RIGHT.

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																											
2S	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
2M	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
3	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
4																											
5																											

STANDARD SIGN
R3-53

WISCONSIN DEPT OF TRANSPORTATION

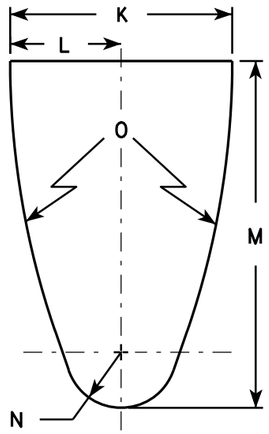
APPROVED Matthew R Rauch
for State Traffic Engineer

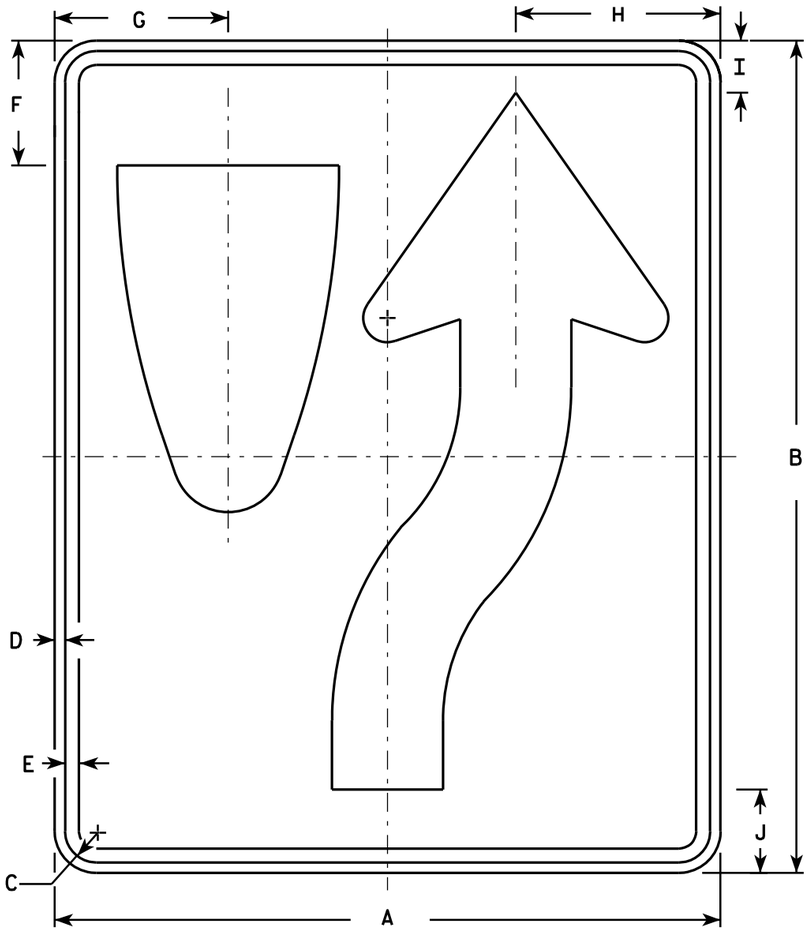
DATE 3/24/2011 PLATE NO. R3-53.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 418 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R353.DGN PLOT DATE : 24-MAR-2011 14:54 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.959043:1.000000
WISDOT/CADDS SHEET 42

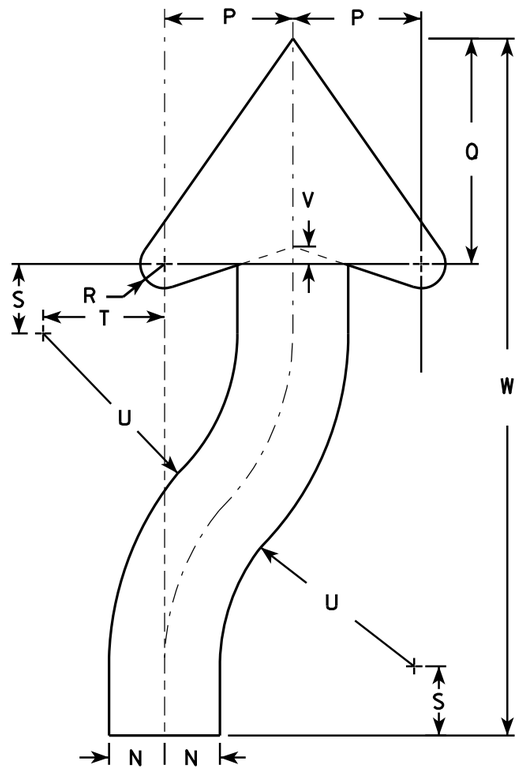




R4-7

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

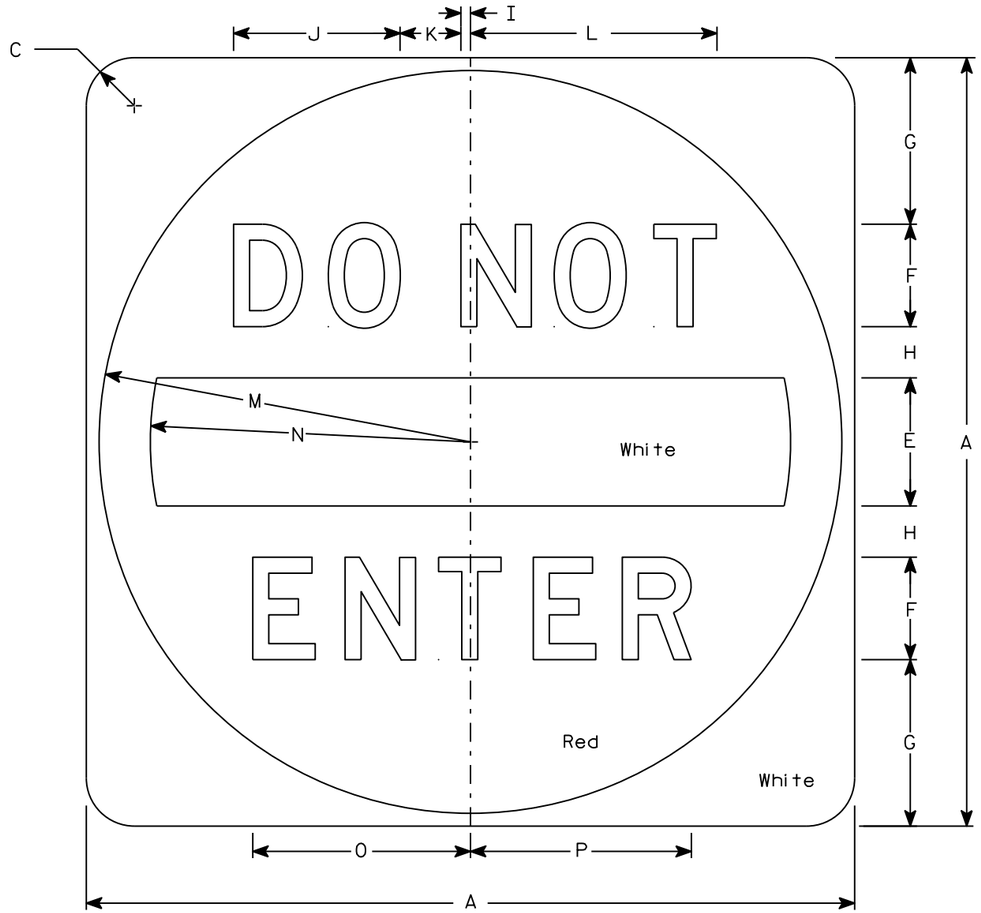
STANDARD SIGN
R4-7 & R4-8

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: 419	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
3. Message Series - D

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																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

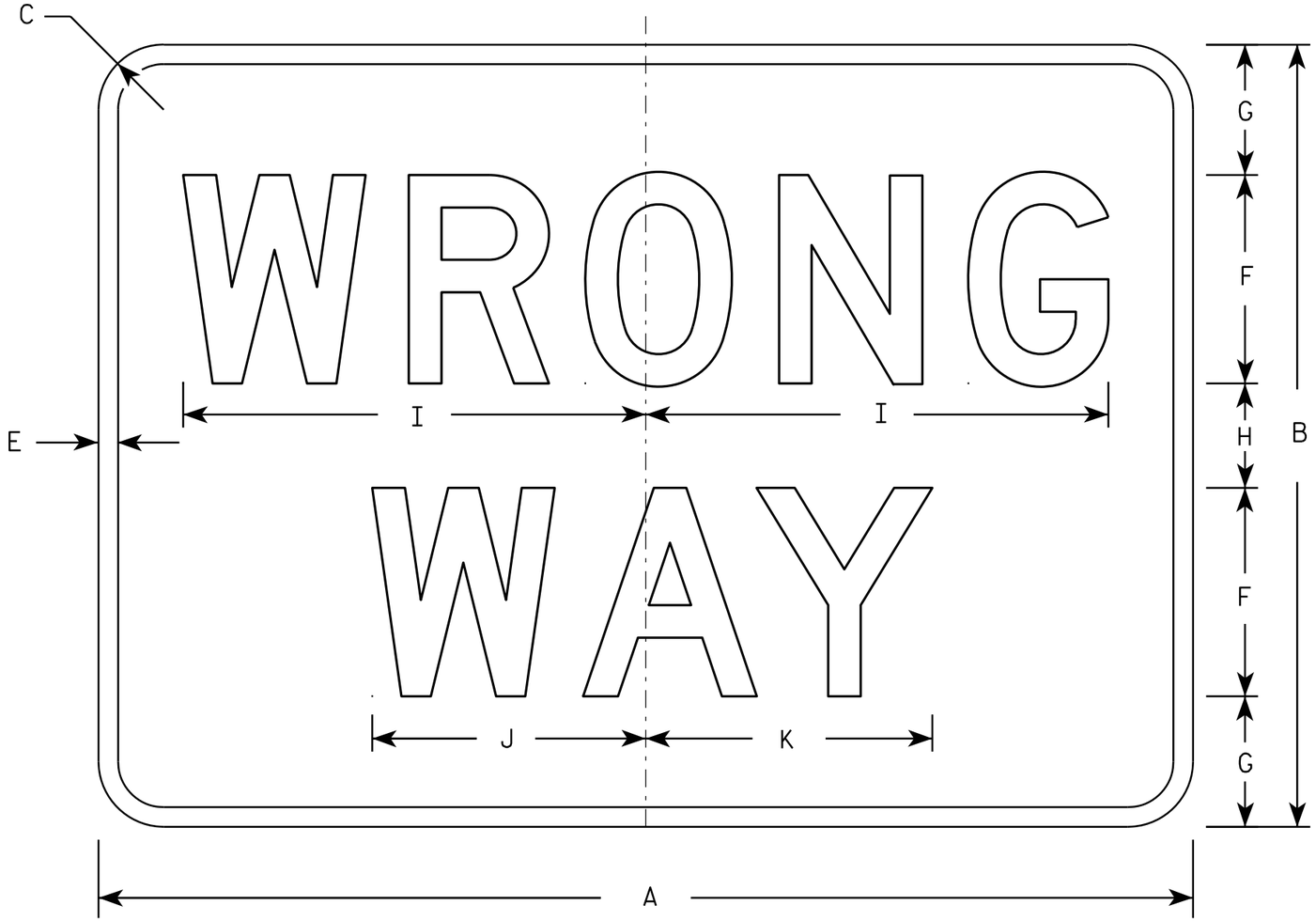
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 420 | E



R5-1A

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 - 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	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

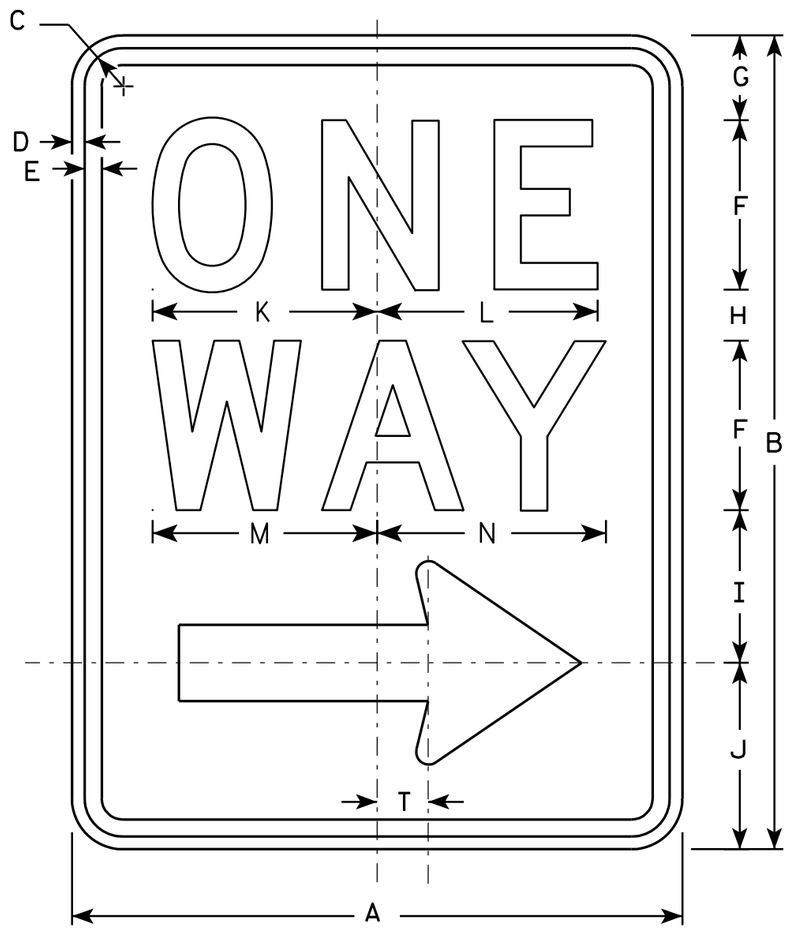
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

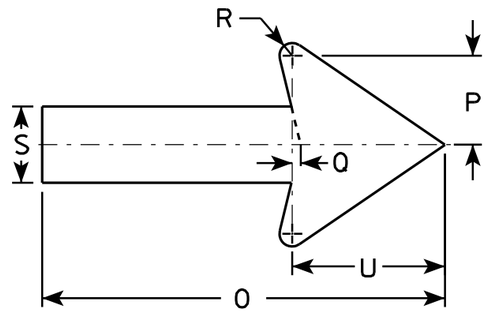
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 421 | E



R6-2R

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 - 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.
5. R6-2L same as R6-2R except arrow points to the left.



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
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

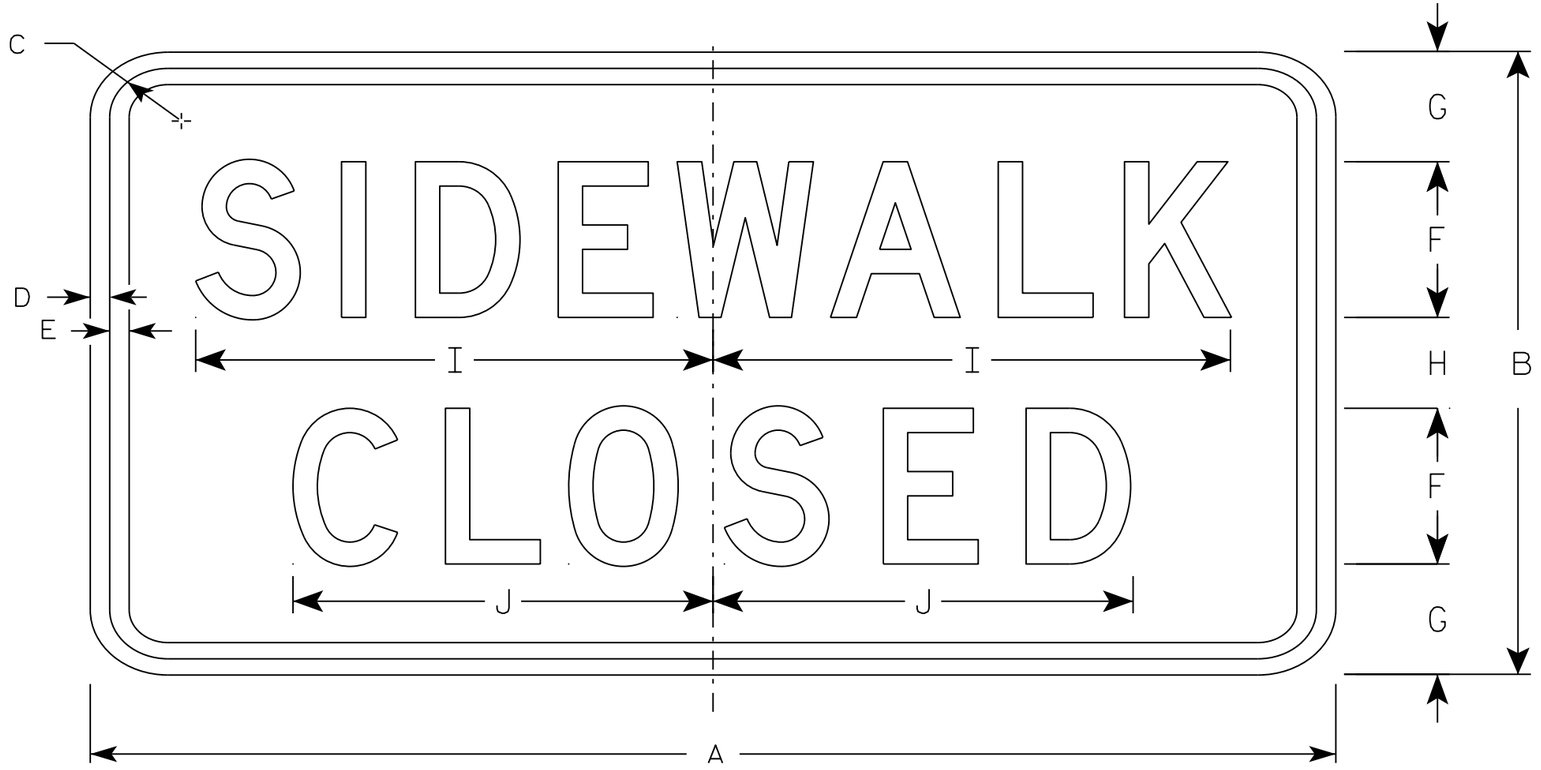
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 422	E



R9-9

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.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

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																											
2S	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

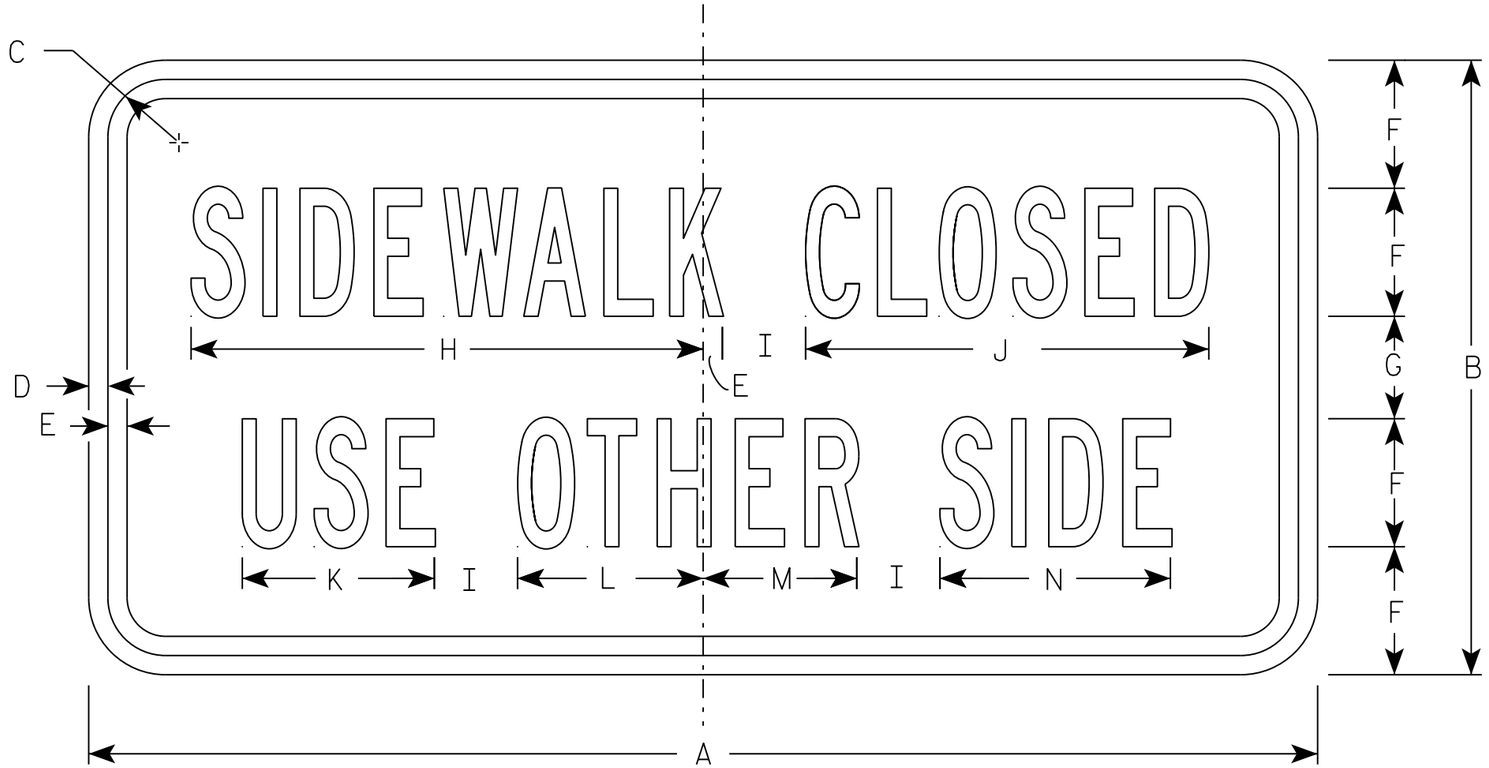
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 423 R9-9.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



R9-10

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - B
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. Use Size 2 for sidewalks. Use Size 3 for paths and trails.

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																											
2S	24	12	1 1/8	3/8	3/8	2 1/2	2	10	1 5/8	7 7/8	3 3/4	3 5/8	3	4 1/2													2.0
2M	24	12	1 1/8	3/8	3/8	2 1/2	2	10	1 5/8	7 7/8	3 3/4	3 5/8	3	4 1/2													2.0
3	30	15	1 1/8	3/8	1/2	3	2 3/4	12	2	9 1/2	4 1/2	4 3/8	3 5/8	5 3/8													3.125
4																											
5																											

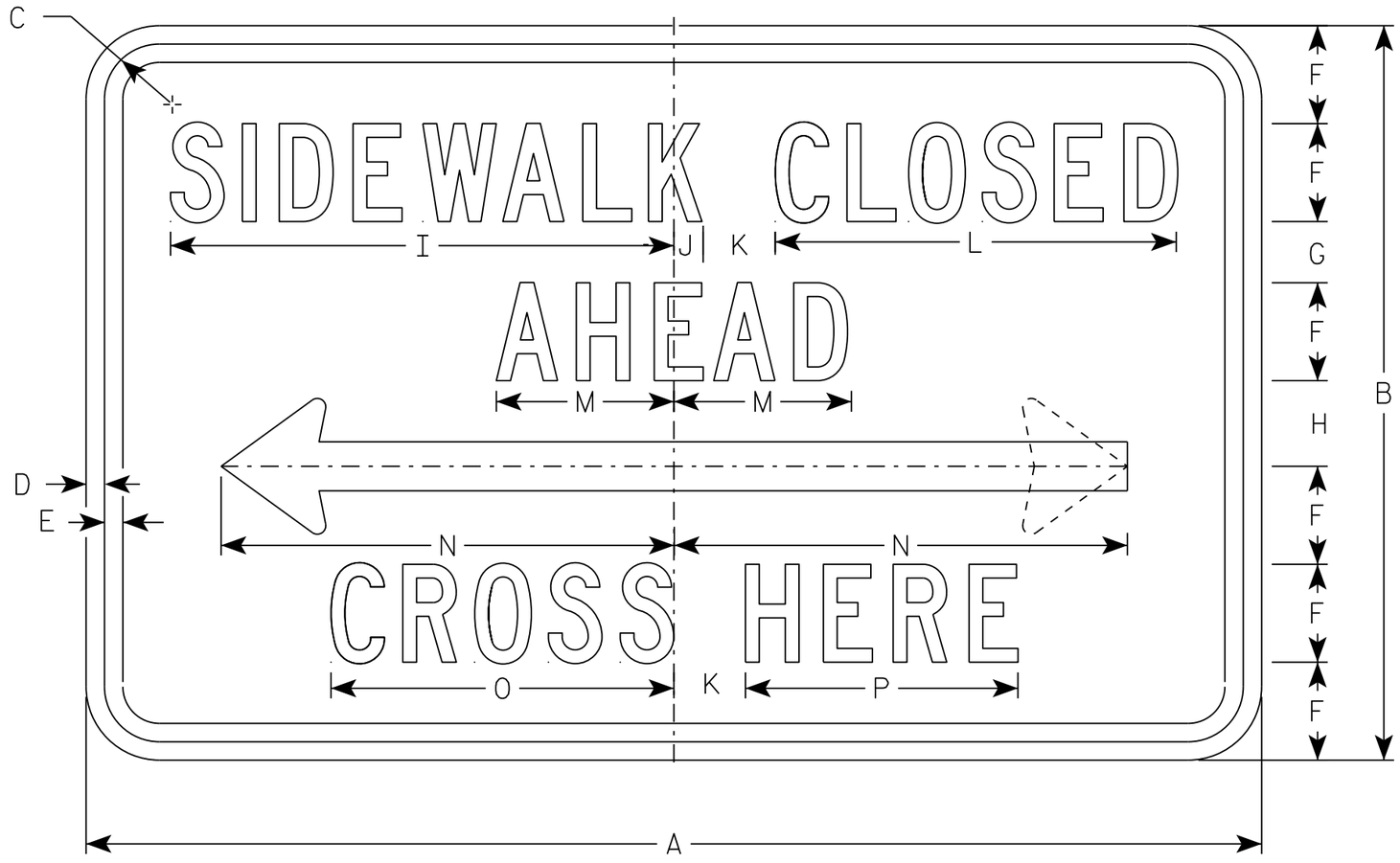
STANDARD SIGN
R9-10

WISCONSIN DEPT OF TRANSPORTATION

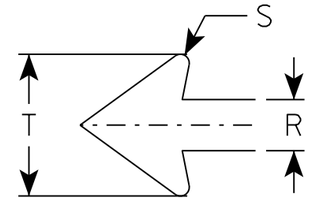
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/29/16 PLATE NO. R9-10.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 424 E



R9-11



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C except Size 1 is 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.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

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																											
2S	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/8	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 7/8	6 7/8		1 1/4	1/4	3 5/8							3.125
4																											
5																											

STANDARD SIGN
R9-11

WISCONSIN DEPT OF TRANSPORTATION

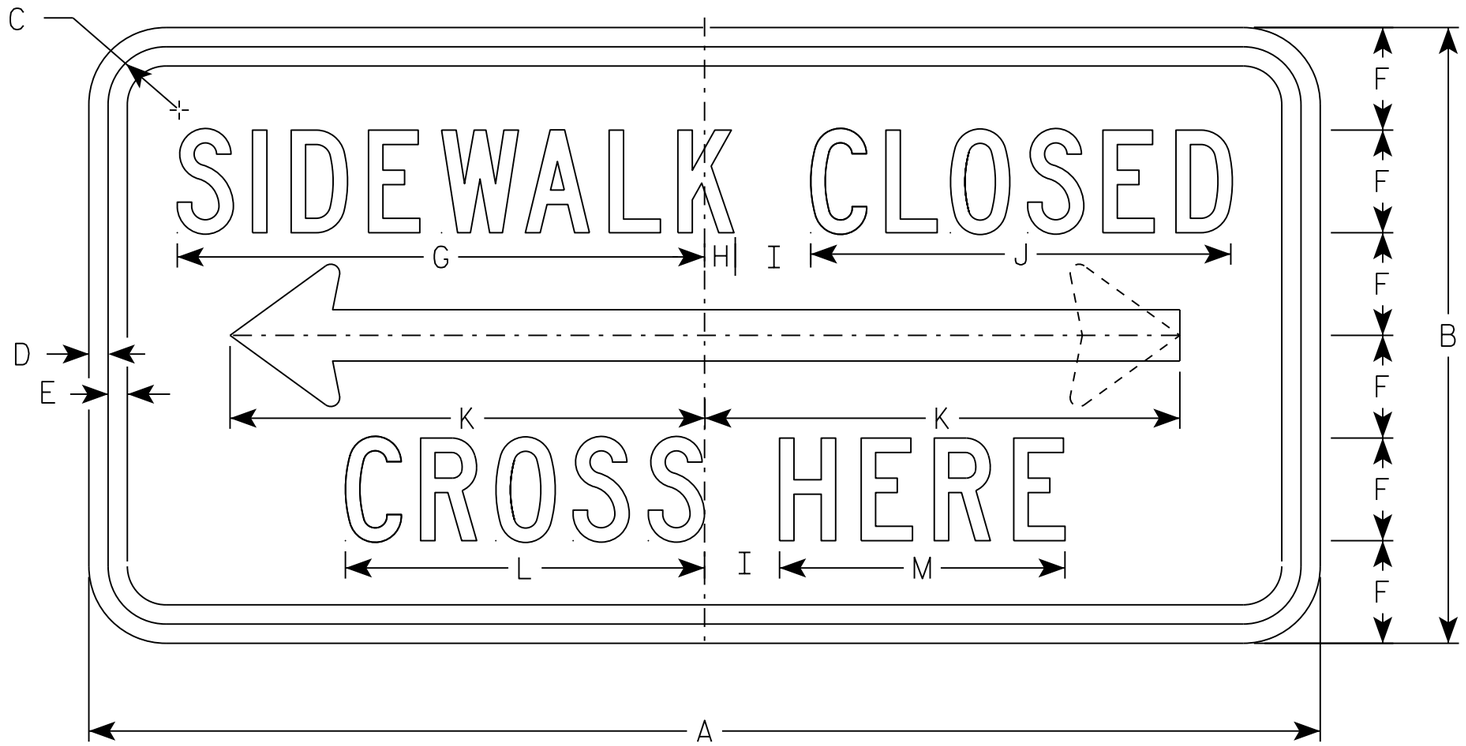
APPROVED Matthew R Rauch
for State Traffic Engineer

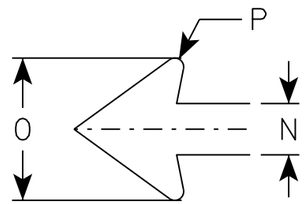
DATE 11/29/16 PLATE NO. R9-11.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 425	E

NOTES

1. Sign is Type II - Type H Reflective
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.
5. Use Size 2 for Sidewalks. Use Size 3 for paths and Trails.





R9-11A

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																											
2S	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
2M	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
3	30	15	1 1/8	3/8	1/2	2	13	3/4	2	10 1/4	12 3/8	8 7/8	6 7/8	1 1/4	3 5/8	1/4											3.125
4																											
5																											

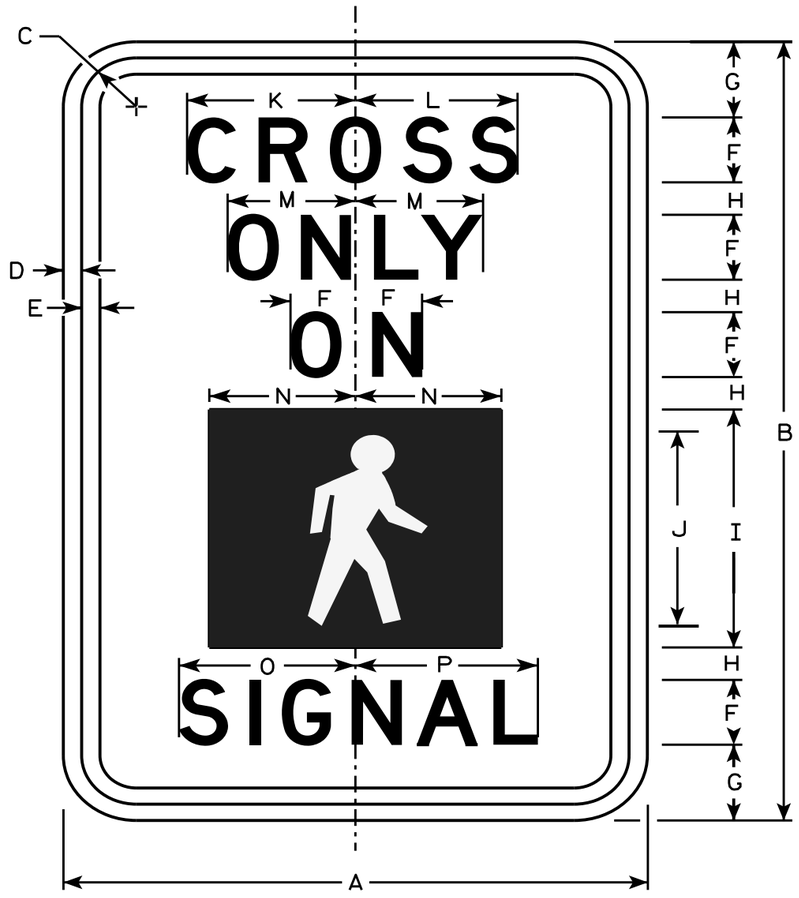
STANDARD SIGN
R9-11A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/29/16 PLATE NO. R9-11A.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 426 E



R10-2

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
   Symbol - White on 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																											
2S	9	12	¾	⅜	⅜	1	1 ⅛	½	3 ⅝	3	2 ⅝	2 ½	2	2 ¼	2 ¾	2 ⅞											.75
2M	9	12	¾	⅜	⅜	1	1 ⅛	½	3 ⅝	3	2 ⅝	2 ½	2	2 ¼	2 ¾	2 ⅞											.75
3																											
4																											
5																											

STANDARD SIGN
R10-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/7/2013 PLATE NO. R10-2.5

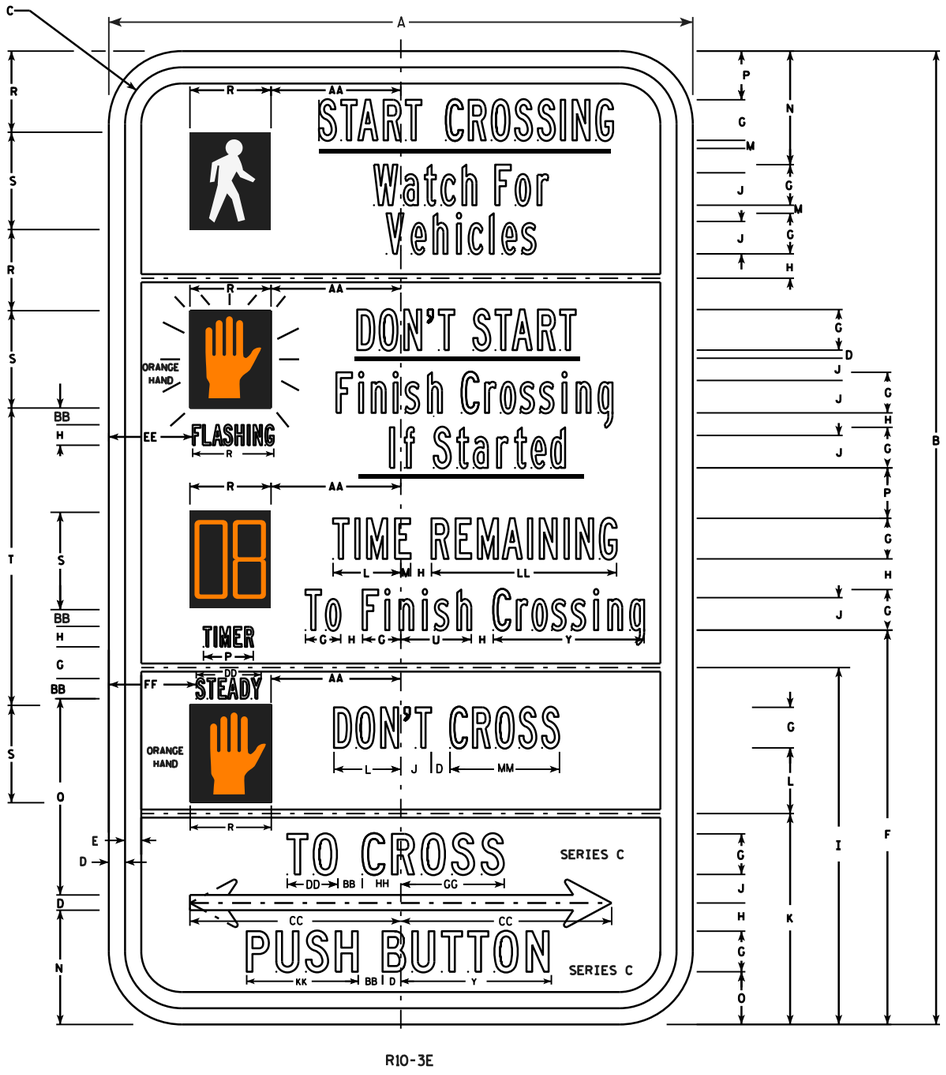
PROJECT NO: | SHEET NO. 427 | E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 42

7

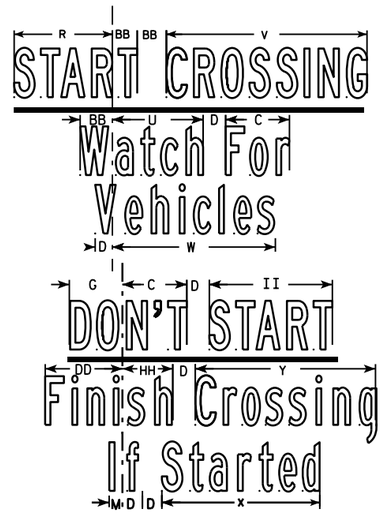
7



R10-3E

NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - BLACK except Hand Symbol which is Orange with black background.
3. Message Series - B or as noted on the sign.
4. R10-3ER (right arrow)
   R10-3EL (left arrow)
   R10-3ED (double 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	6	10	1/2	1/8	1/8	4	3/8	1/4	4 1/8	1/4	2 1/8	3/4	1/8	1 1/8	1/2	1/2	2 1/4	7/8	1	3	3/4	1 3/4	1 5/8	1 3/8	1 1/2	5/8	0.42
2S	9	15	7/8	1/4	1/4	6 1/8	5/8	3/8	5 1/2	1/2	3 1/4	1	1/8	1 3/4	7/8	3/4	3	1 1/4	1 1/2	4 5/8	1 1/8	2 5/8	2 1/8	2	2 3/8	1 3/8	0.94
2M	9	15	7/8	1/4	1/4	6 1/8	5/8	3/8	5 1/2	1/2	3 1/4	1	1/8	1 3/4	7/8	3/4	3	1 1/4	1 1/2	4 5/8	1 1/8	2 5/8	2 1/8	2	2 3/8	1 3/8	0.94
3																											
4																											

SIZE	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	OO	PP	QQ	RR	SS	TT	UU	VV	WW	XX	YY	ZZ	Area sq. ft.
1	1 3/8	1/4	2 1/4	1/2	7/8	7/8	1 1/8	3/8	1	1/2	1 1/8	1 7/8	1 1/8														
2S	2	3/8	3 1/4	1	1 1/4	1 3/8	1 5/8	5/8	1 5/8	3/4	1 3/4	2 7/8	1 5/8														
2M	2	3/8	3 1/4	1	1 1/4	1 3/8	1 5/8	5/8	1 5/8	3/4	1 3/4	2 7/8	1 5/8														
3																											
4																											

STANDARD SIGN
R10-3EL,R,D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

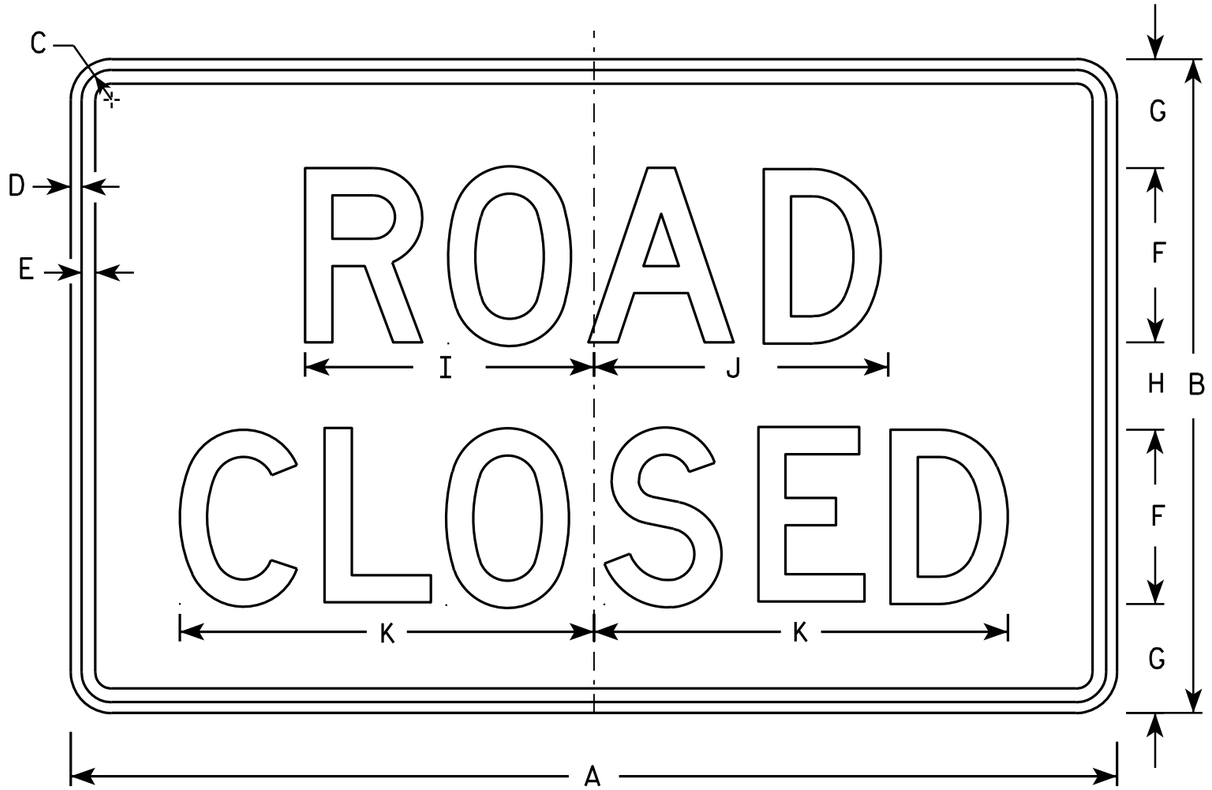
DATE 4/12/2011 PLATE R10-3E.2

PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R103E.DGN PLOT DATE : 09-APR-2014 11:22 PLOT BY : mscsja

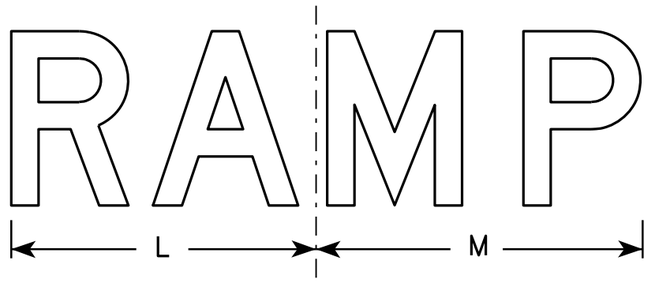
WISDOT/CADDS SHEET 42



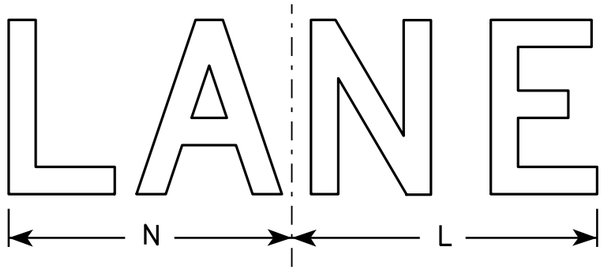
R11-2

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 - 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.
5. Modify the message as required.



R11-2R



R11-2L

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																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

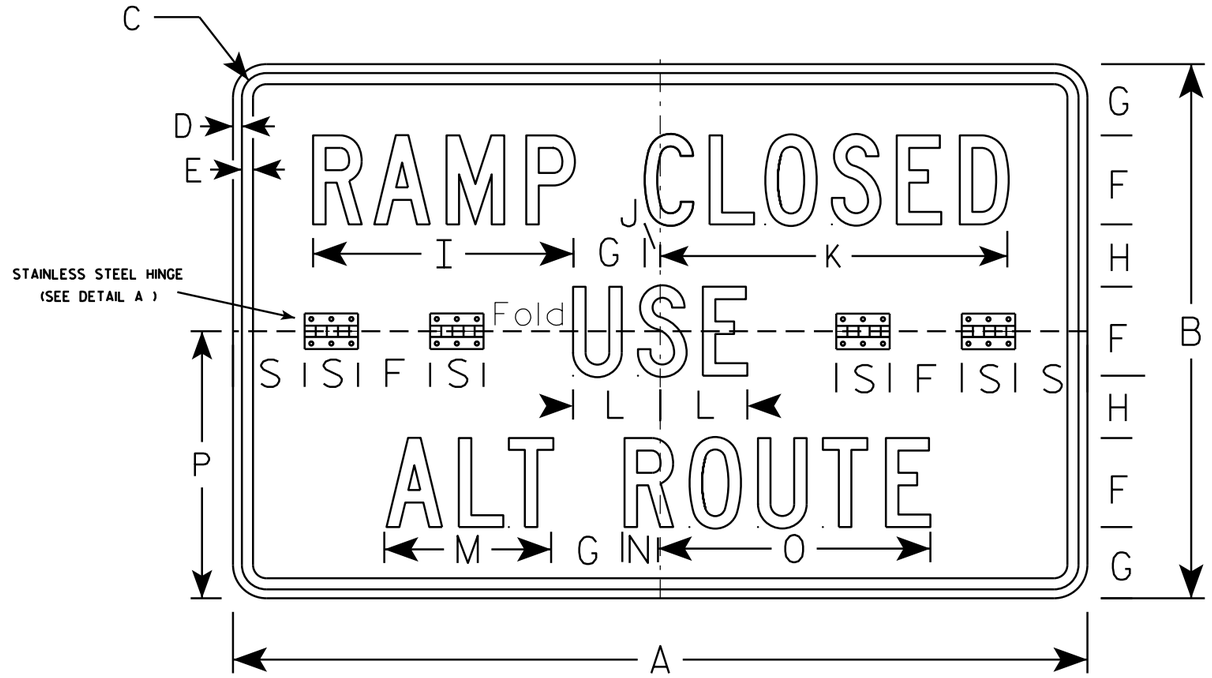
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

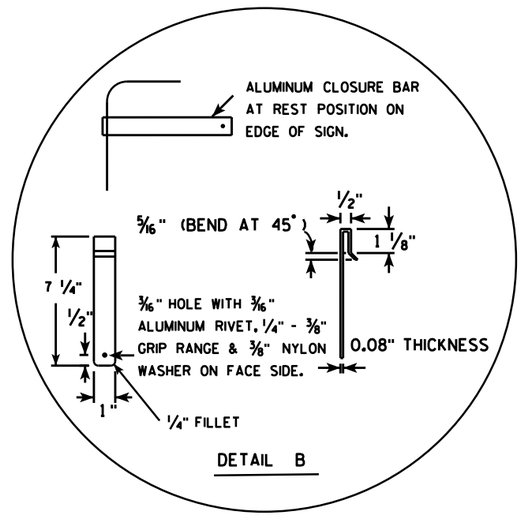
DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 429 | E



R11-54F

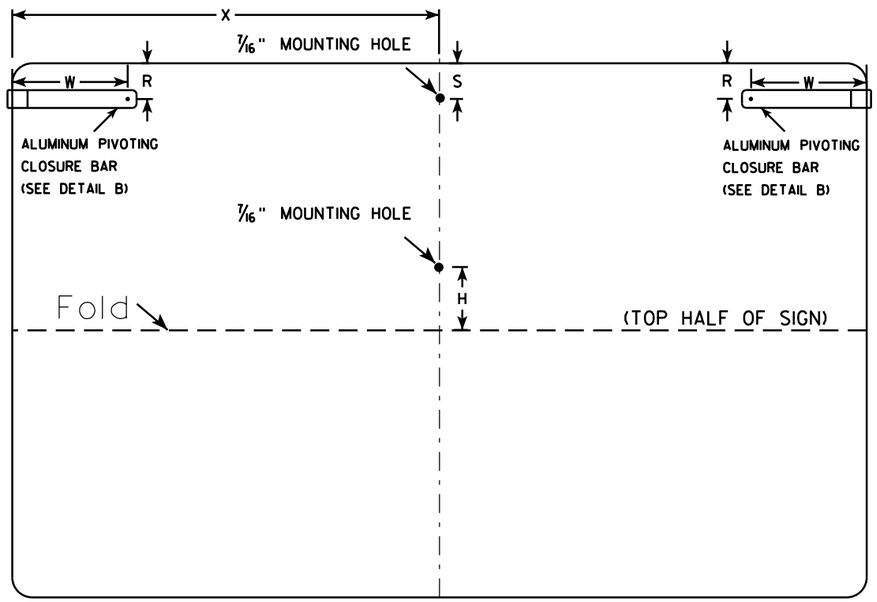
DETAIL A



DETAIL B

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - C
4. Sign Base Material shall be aluminum, corners and borders shall be rounded.
5. All hardware used on the folding sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.
6. Refer to plate A5-3A for sign blank layout.



(BACK VIEW)

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																											
2S	48	30	1 3/8	1/2	5/8	5	4	3 1/2	14 5/8	7/8	19 1/2	4 7/8	9 3/8	2	15 1/4	15		2	3	2 5/8	1 1/4	11/16	6 1/2	24			10.0
2M	48	30	1 3/8	1/2	5/8	5	4	3 1/2	14 5/8	7/8	19 1/2	4 7/8	9 3/8	2	15 1/4	15		2	3	2 5/8	1 1/4	11/16	6 1/2	24			10.0
3																											
4																											
5																											

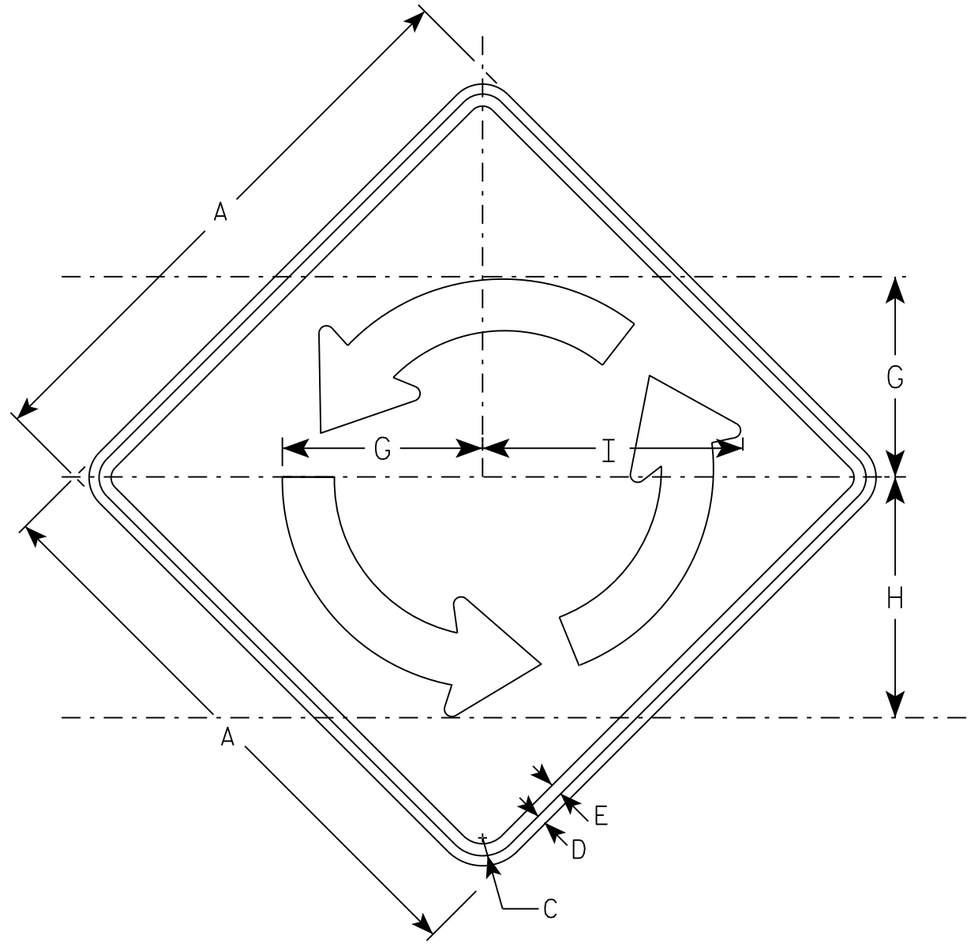
STANDARD SIGN
R11-54F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/28/14 PLATE R11-54F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W2-6

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - YELLOW
   Message - BLACK

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	Area sq. ft.
1																									
2S	30		1 3/8	1/2	5/8		10 3/8	12 1/2	13 1/2																6.25
2M	30		1 3/8	1/2	5/8		10 3/8	12 1/2	13 1/2																6.25
3	36		1 5/8	5/8	3/4		12 1/2	15	16 1/4																9.00
4	48		2 1/4	3/4	1		16 5/8	20	16 1/4																16.0
5																									

STANDARD SIGN
W2-6

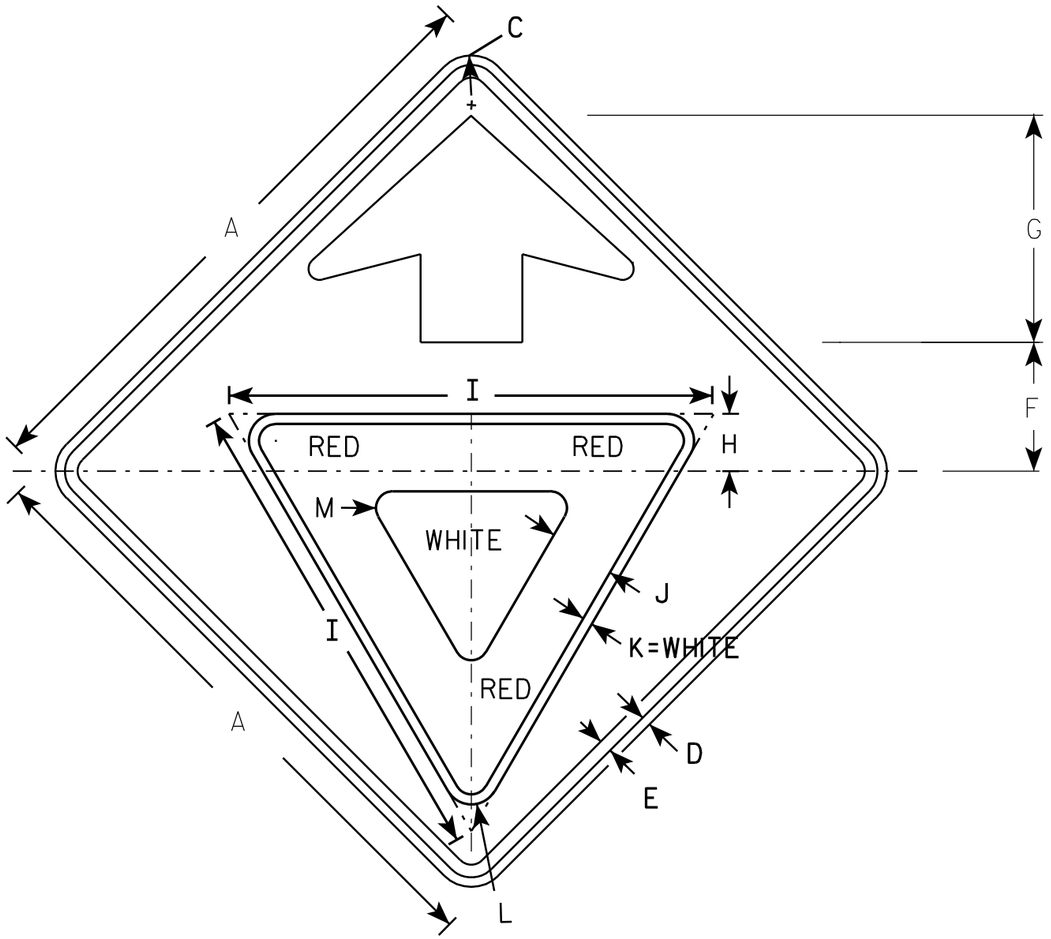
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. W2-6.6

PROJECT NO:

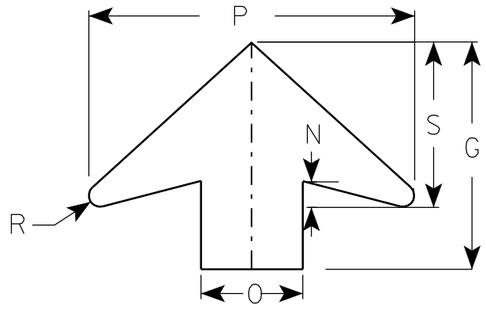
SHEET NO: 431 E



W3-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Yield Symbol - WHITE BORDER ON RED BACKGROUND



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	30		1 3/8	1/2	5/8	6 1/4	11 1/4	3	25	3 3/8	1/2	1 3/8	7/8	1 1/4	5	16		1/2	8								6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W3-2

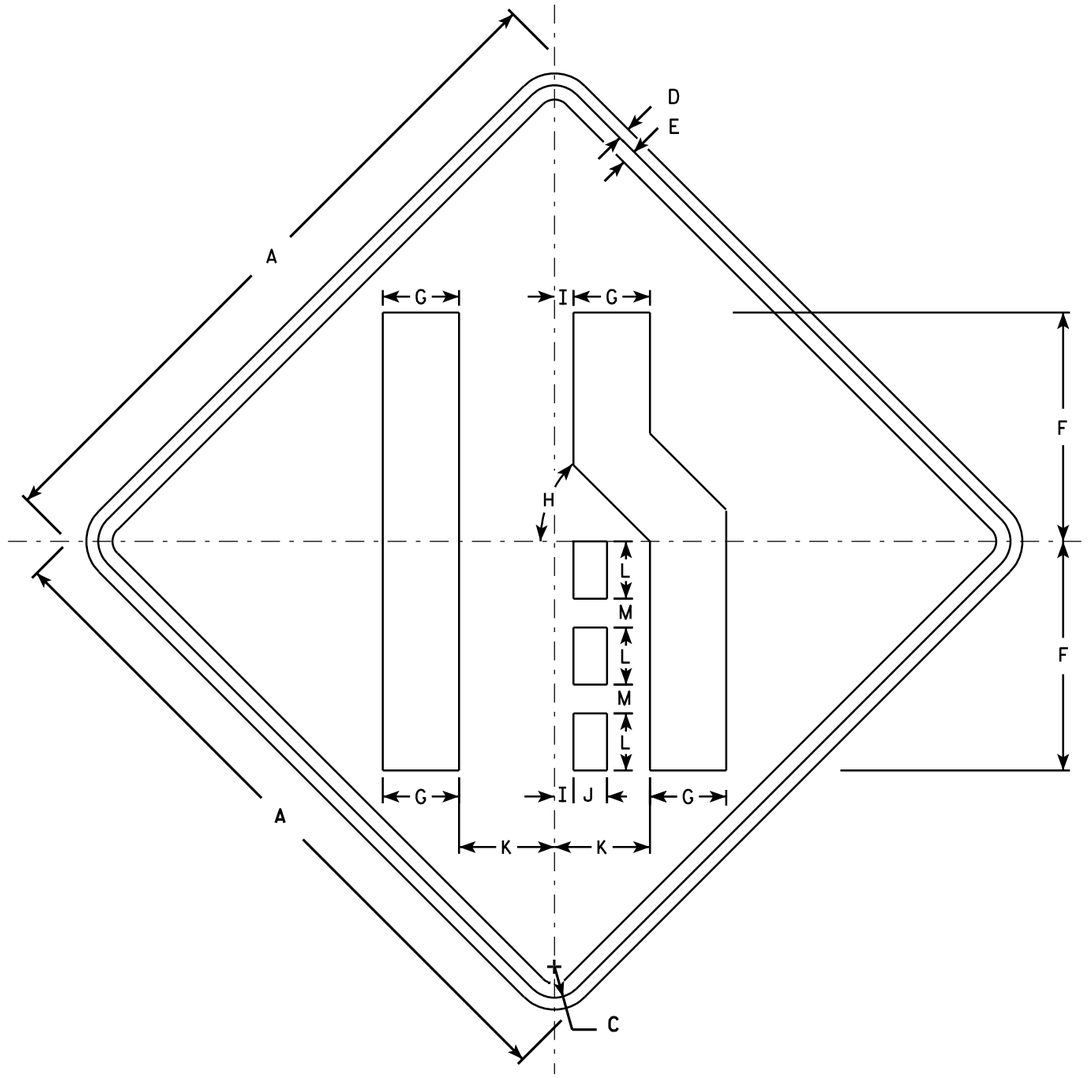
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-2..9

PROJECT NO:

SHEET NO: 432 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

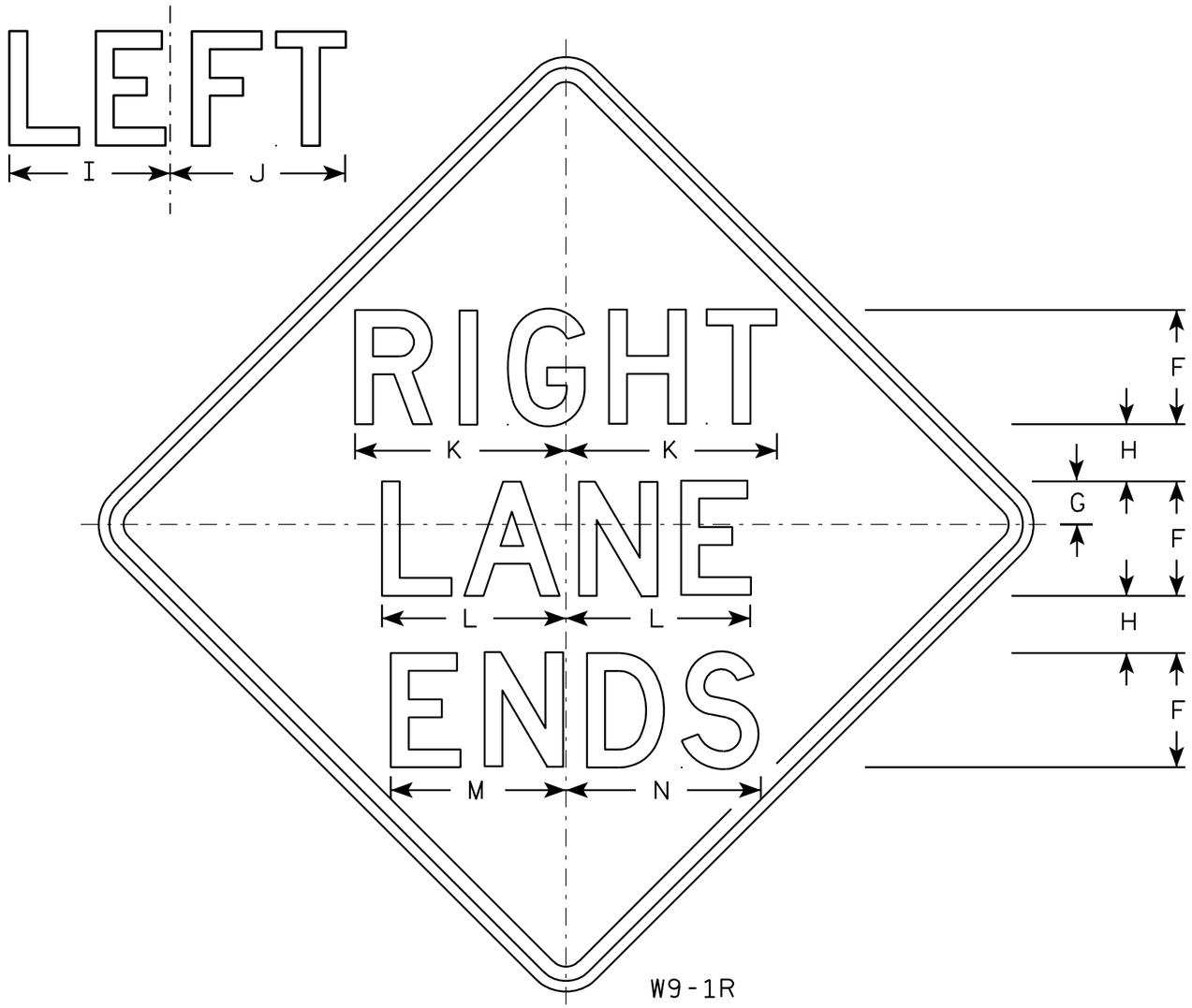
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 433 E



W9-1R

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.
5. W9-1L same as W9-1R except the word Left replaces Right.

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	5	1 1/2	2 1/2	7 1/8	7 5/8	9 1/4	8 1/8	7 5/8	8 5/8													6.25
2S	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
2M	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
3	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
4	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
5	48		2 1/4	3/4	1	8	3	4	11 1/4	12 1/4	14 3/4	12 7/8	12 1/4	13 5/8													16.0

STANDARD SIGN
W9-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

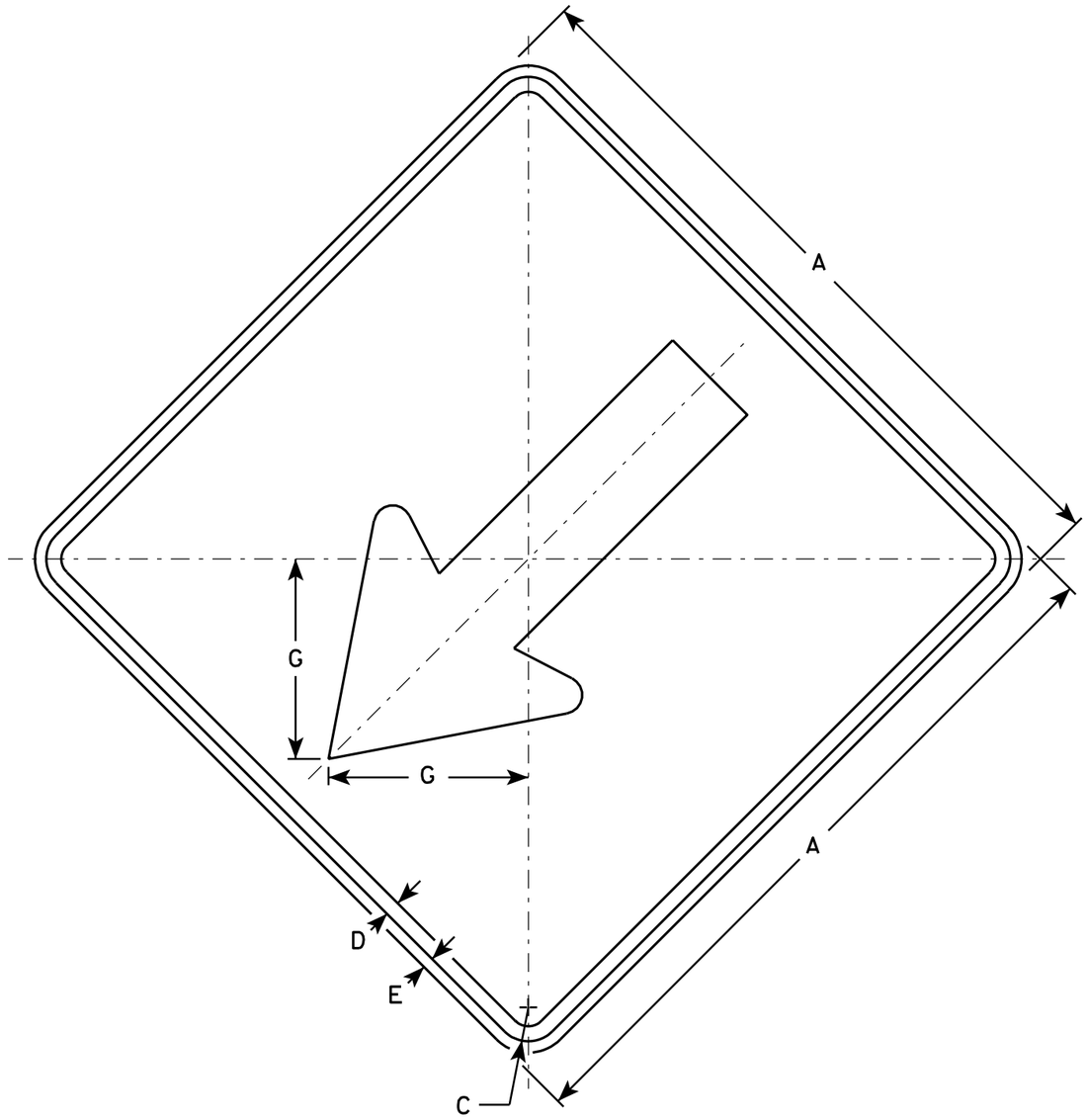
DATE 03/18/13 PLATE NO. W9-1.8

PROJECT NO:

SHEET NO: 434 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W91.DGN PLOT DATE : 18-MAR-2013 11:42 PLOT BY : mscsja

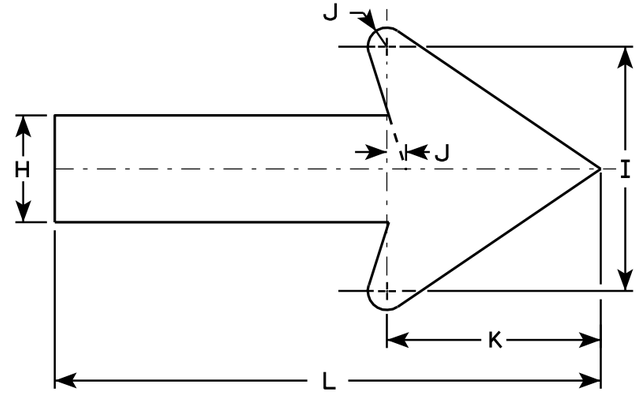
WISDOT/CADDS SHEET 42



W12-1

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
   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.



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																											
2S	24		1 1/8	1/2	3/8		6 5/8	3 1/2	8	5/8	7	18															4
2M	24		1 1/8	1/2	3/8		6 5/8	3 1/2	8	5/8	7	18															4
3	30		1 3/8	5/8	1/2		8 1/4	4 3/8	10	3/4	8 3/4	22 3/8															6.25
4	36		1 3/4	3/4	5/8		10 3/8	5 1/2	12 1/2	1	11	27 7/8															9.0
5	48		2 1/4	3/4	1		12 1/2	6 5/8	15	1 1/4	13 1/4	33 1/2															16

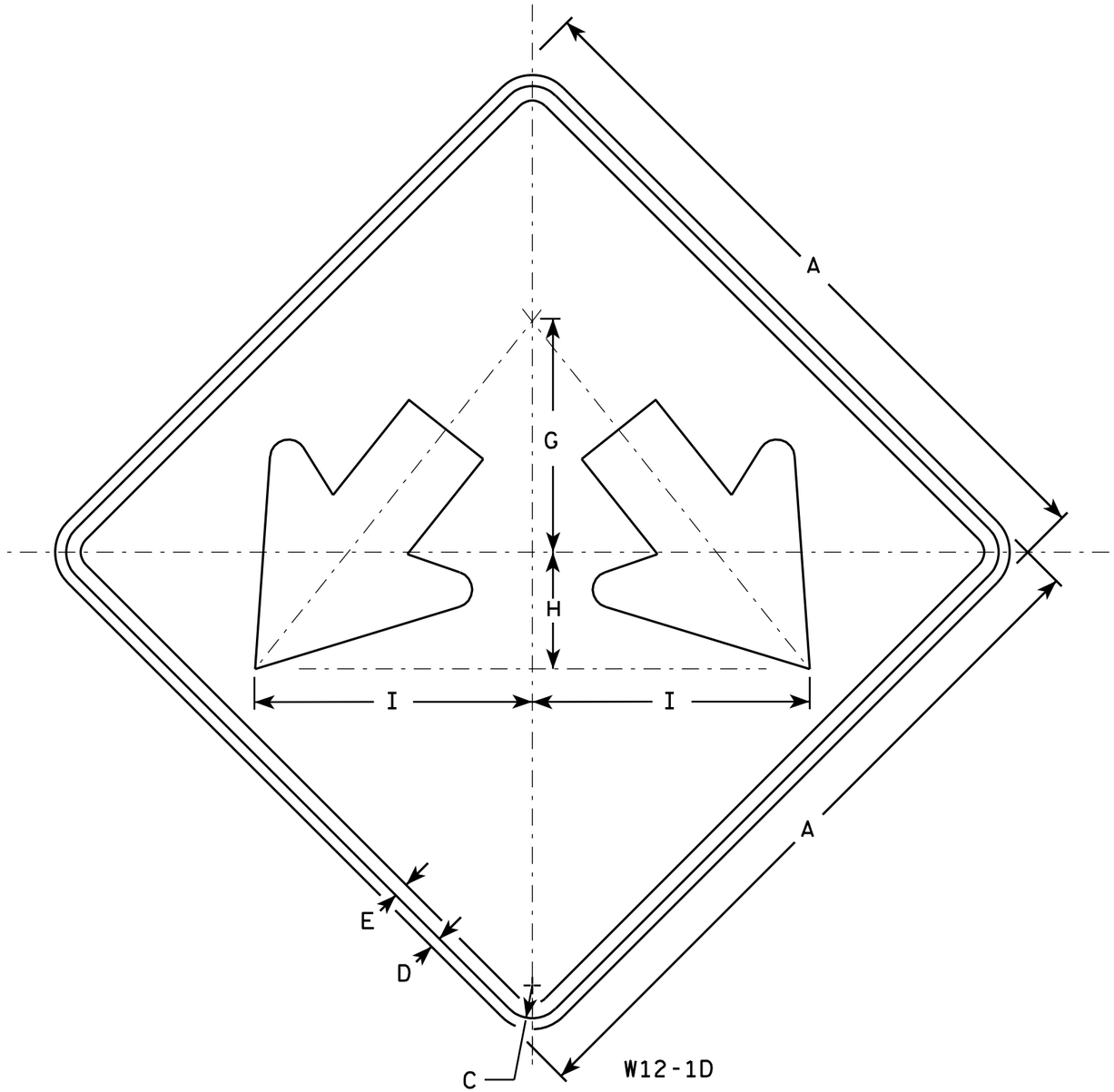
STANDARD SIGN
W12-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

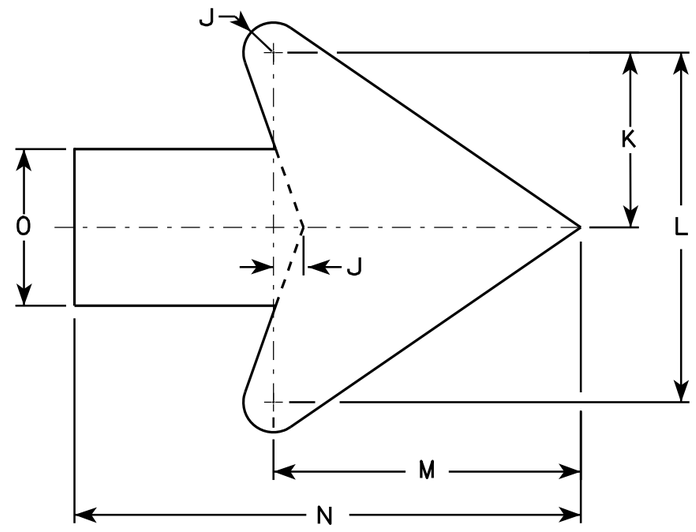
DATE 3/13/13 PLATE NO. W12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 435	E



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.



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																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

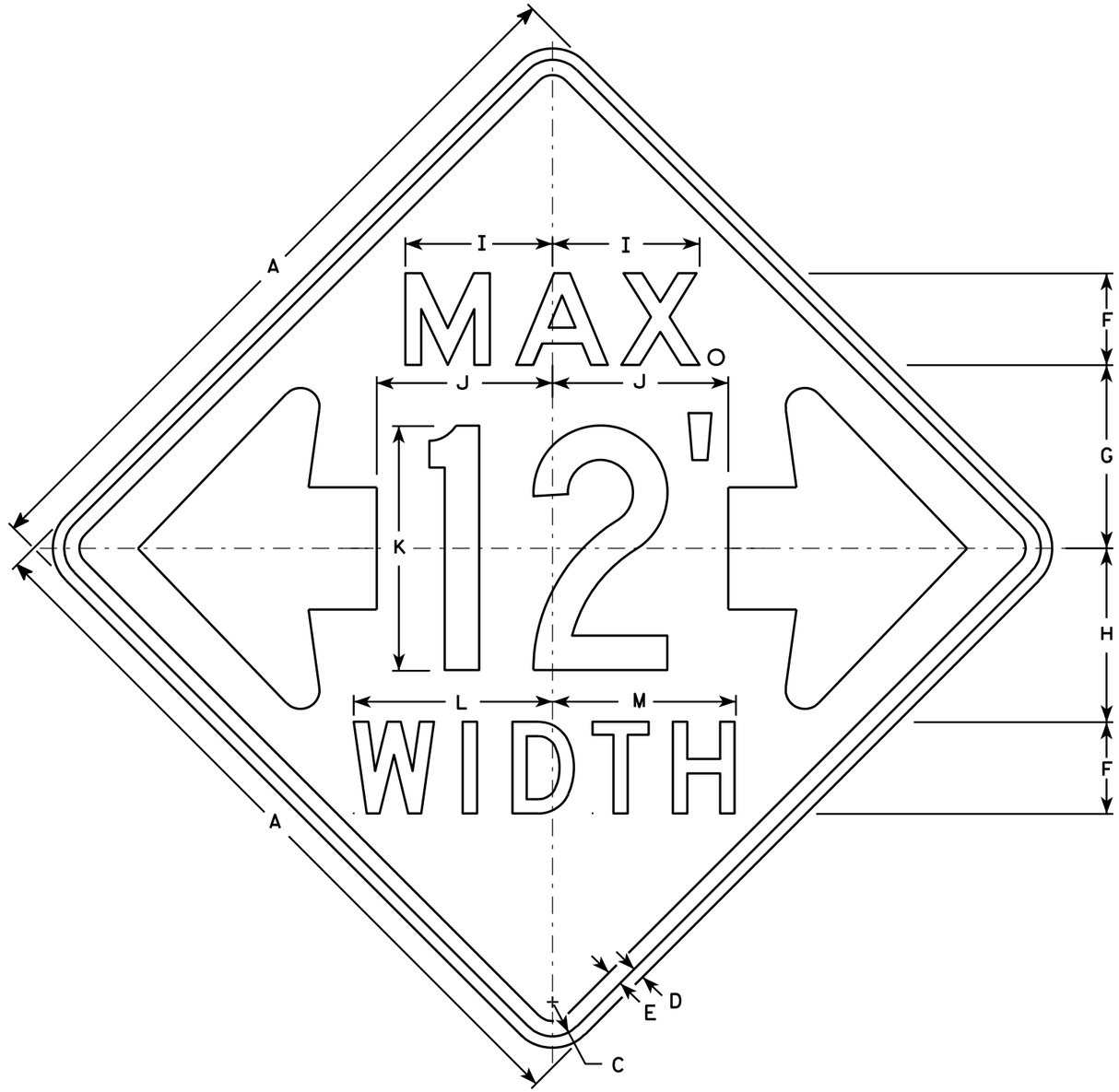
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 436	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W121D.DGN PLOT DATE : 13-MAR-2013 13:26 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.713802:1.000000

WISDOT/CADDS SHEET 42

7

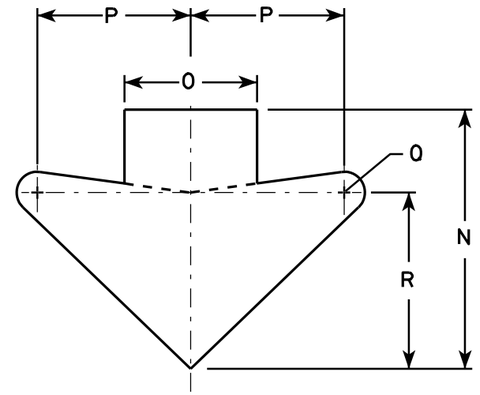
7



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



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																											
2S	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

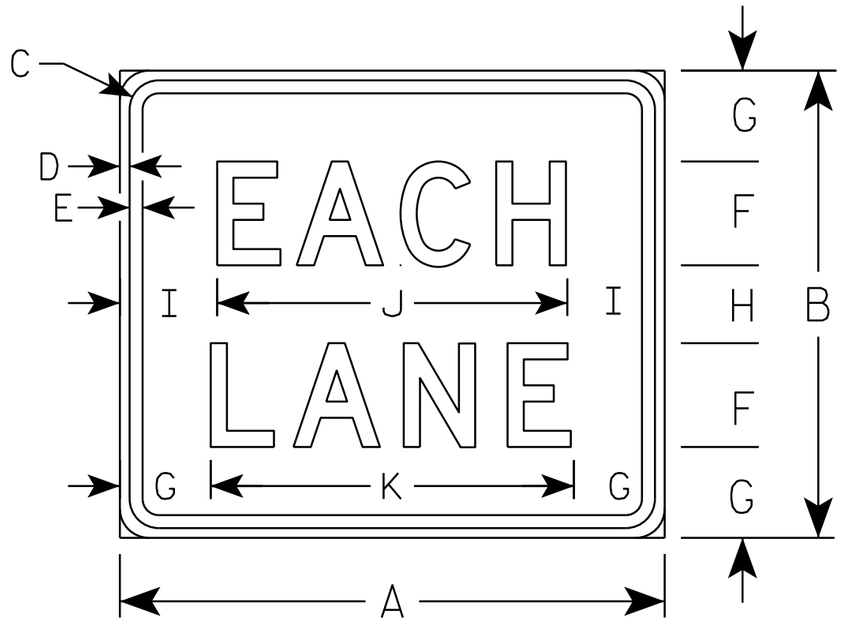
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 437 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000
WISDOT/CADDS SHEET 42



W12-52P

NOTES

1. Sign is Type II - Type F Reflective - reference
2. Color:
   Background - Orange
   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																											
2S	42	36	2 1/4	3/4	1	8	7	6	7 1/2	27	28																10.5
2M	42	36	2 1/4	3/4	1	8	7	6	7 1/2	27	28																10.5
3																											
4																											
5																											

STANDARD SIGN
W12-52P

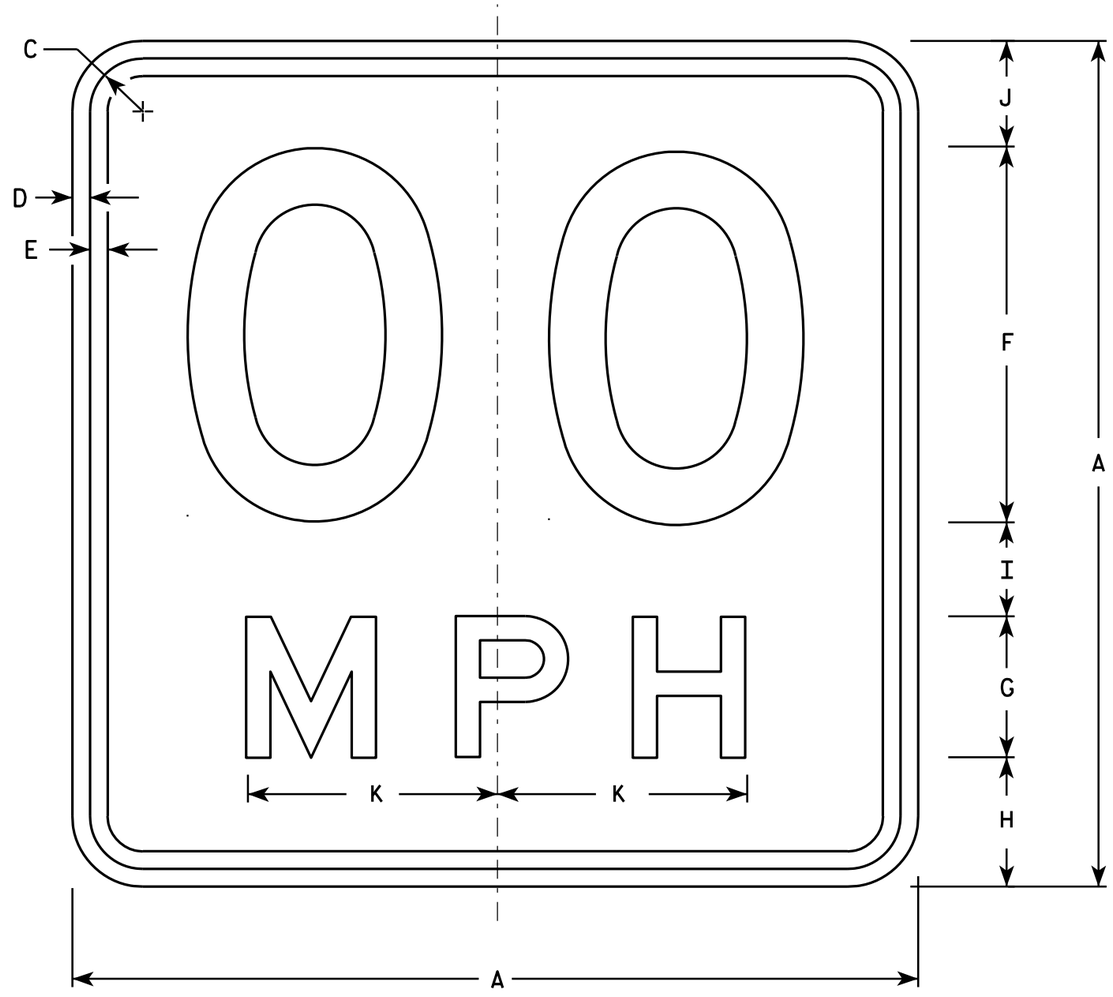
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/16/13 PLATE NO. W12-52P.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W1252P.dgn PLOT DATE : 16-DEC-2013 11:01 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 11.675051:1.000000
WISDOT/CADDS SHEET 42



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

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 - See Note 6
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 space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	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		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

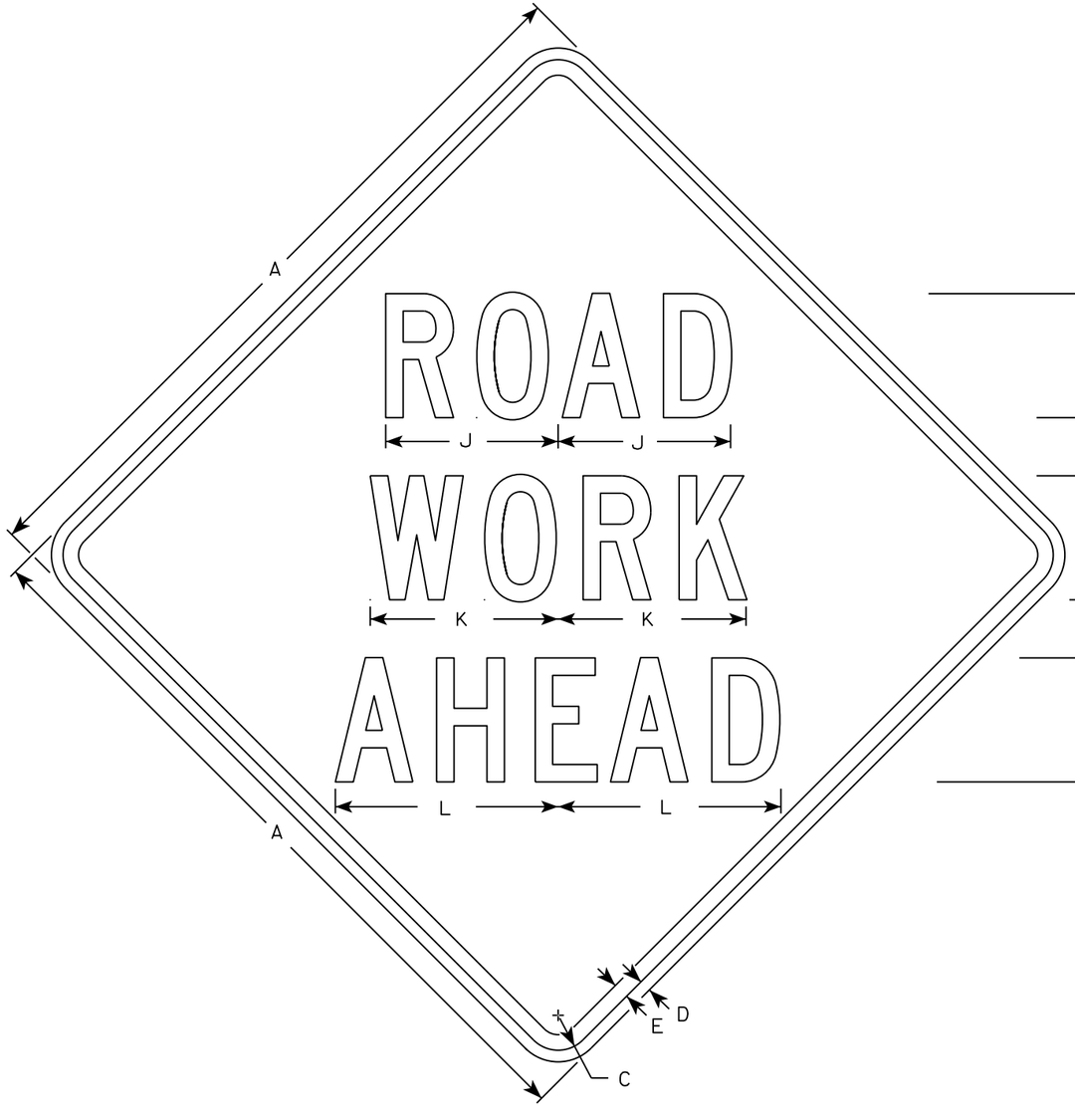
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

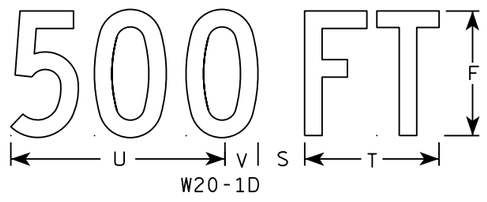
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

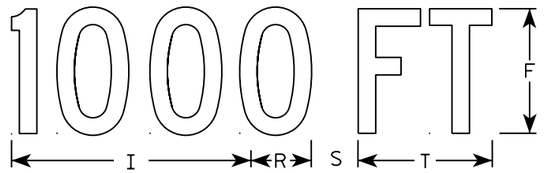
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 439 | E



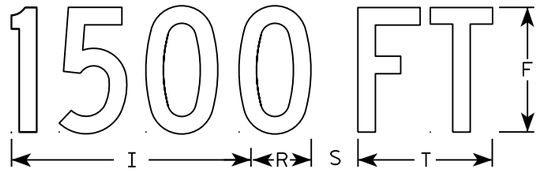
W20-1A



W20-1D



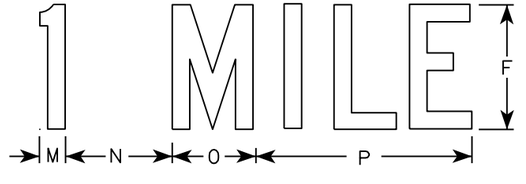
W20-1C



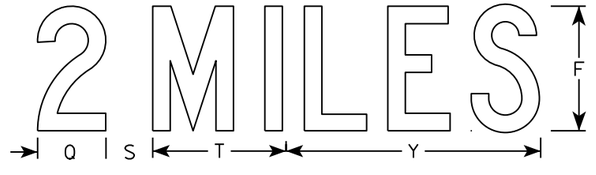
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   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	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

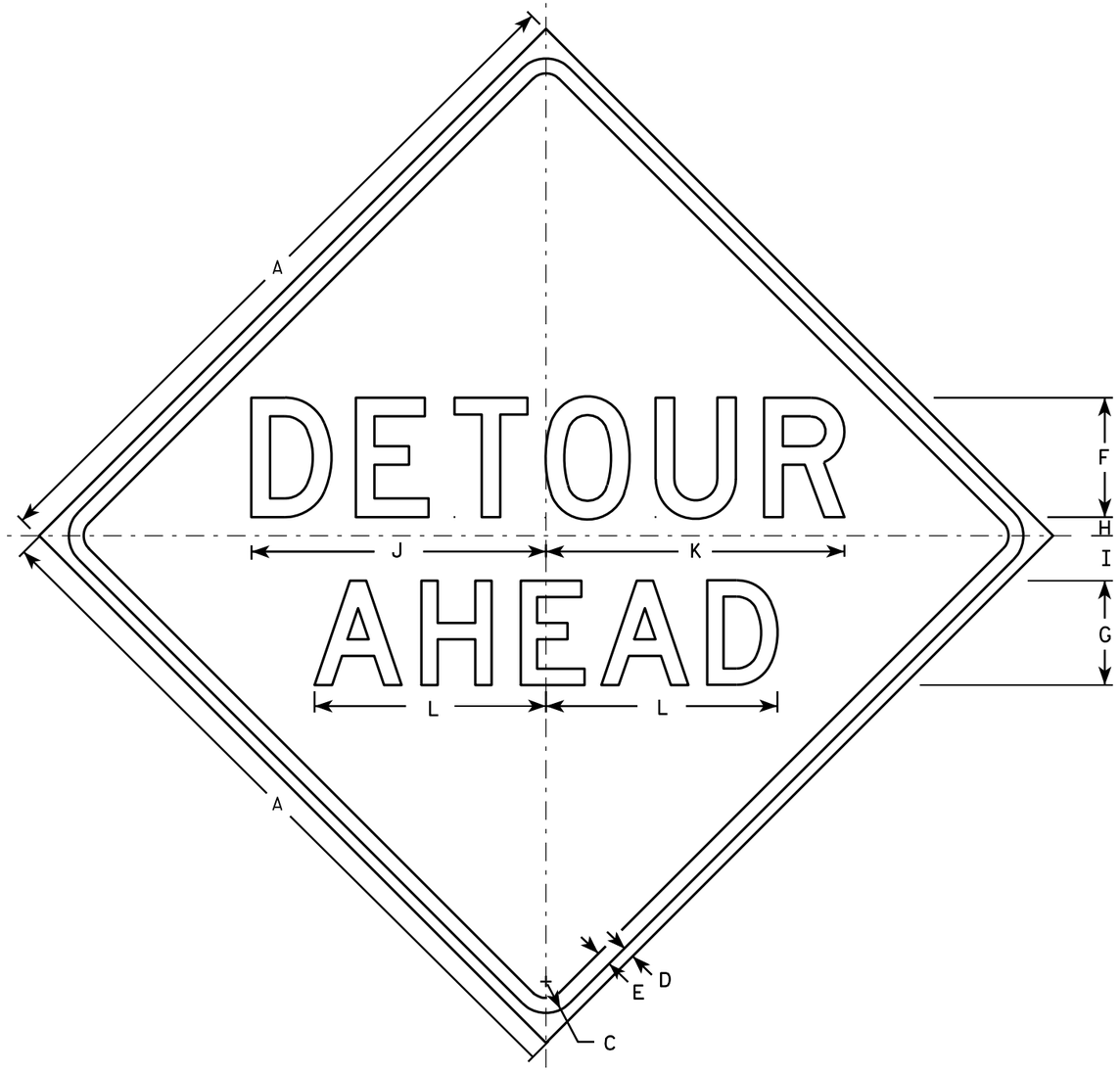
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

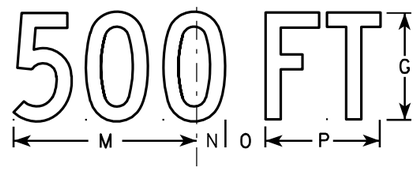
PROJECT NO:

SHEET NO: E

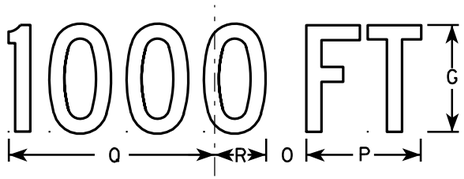
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



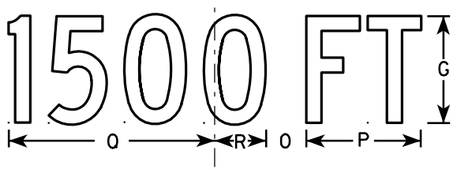
W20-2A



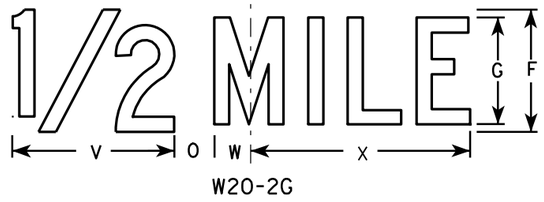
W20-2D



W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

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	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

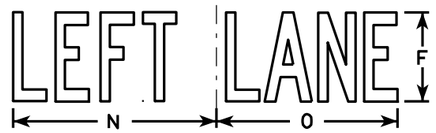
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

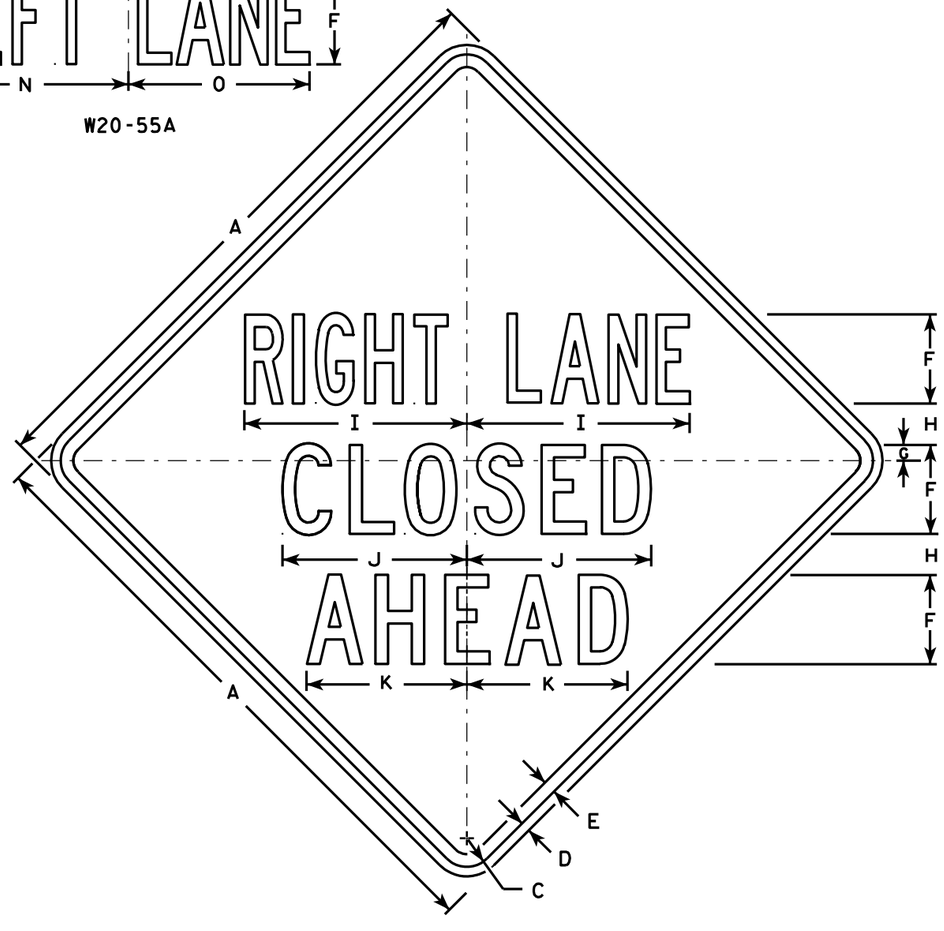
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 441 | E



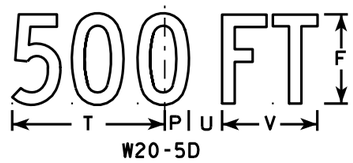
W20-56A



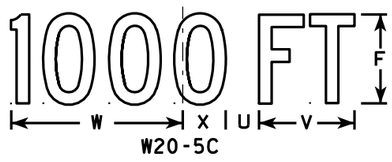
W20-55A



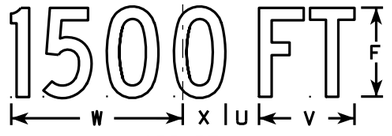
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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. " _____ LANE" is Series B.
   All other copy is 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	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

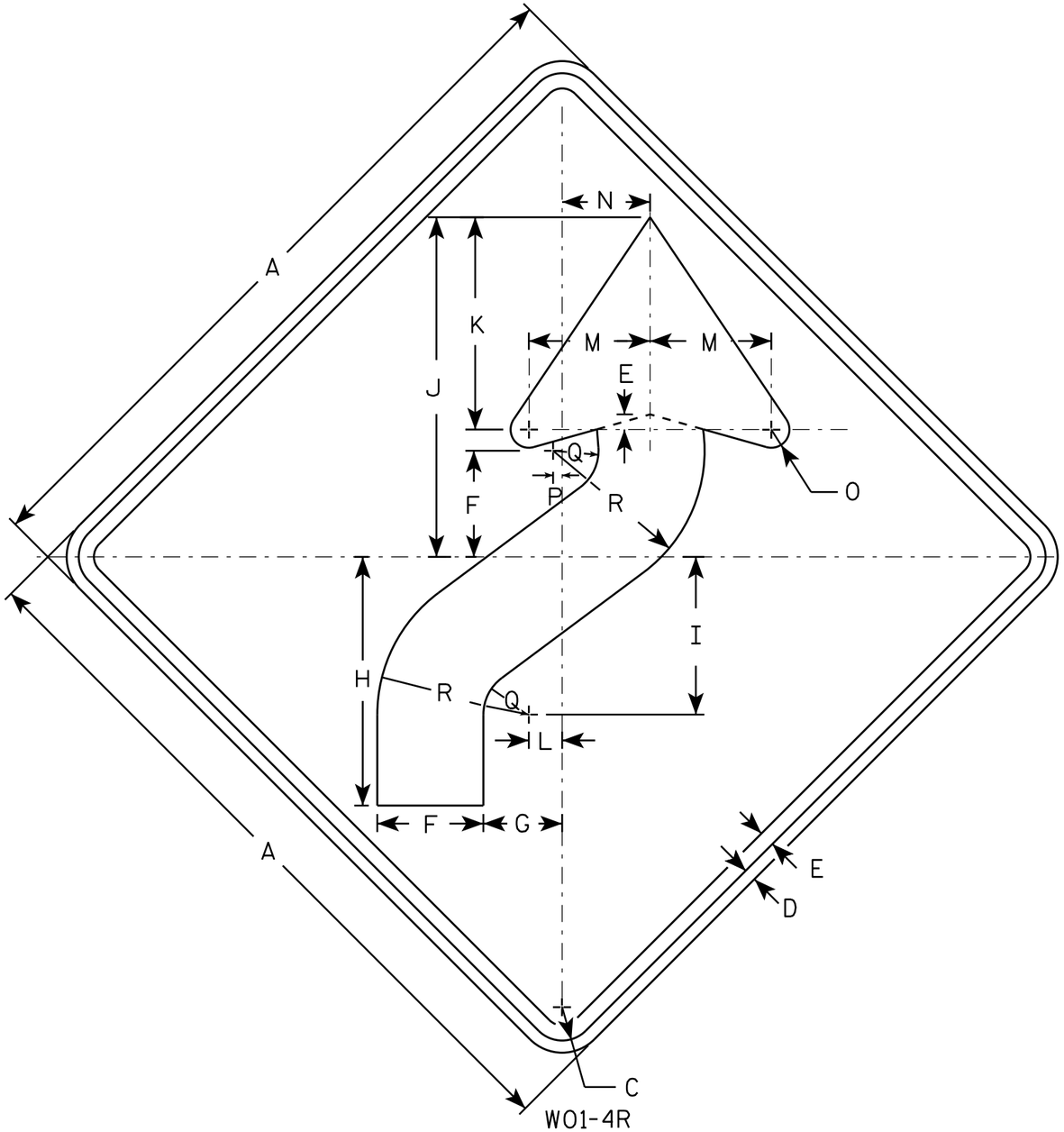
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 442 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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. W01-4L is the same as W01-4R except the arrow 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	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

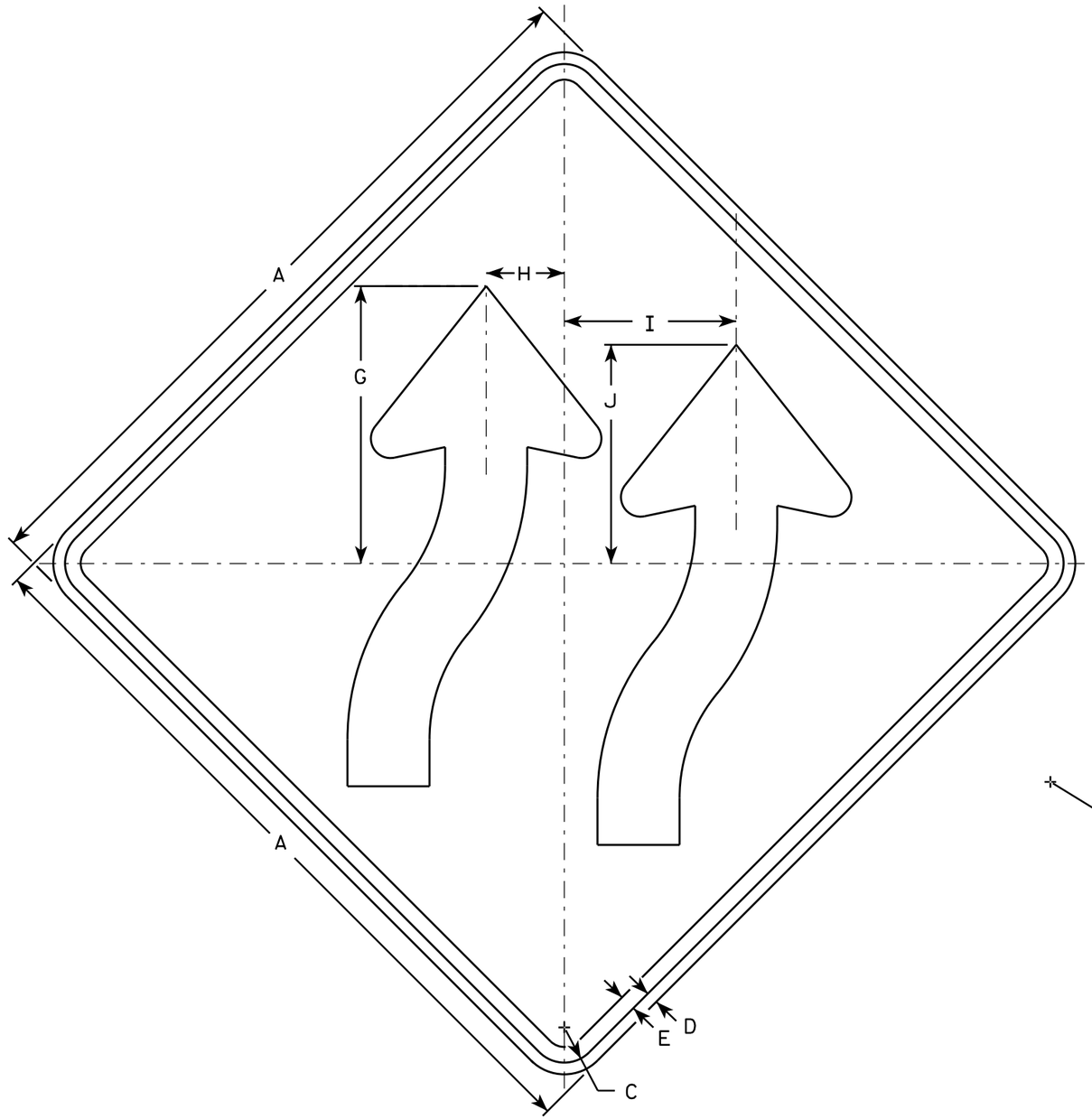
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

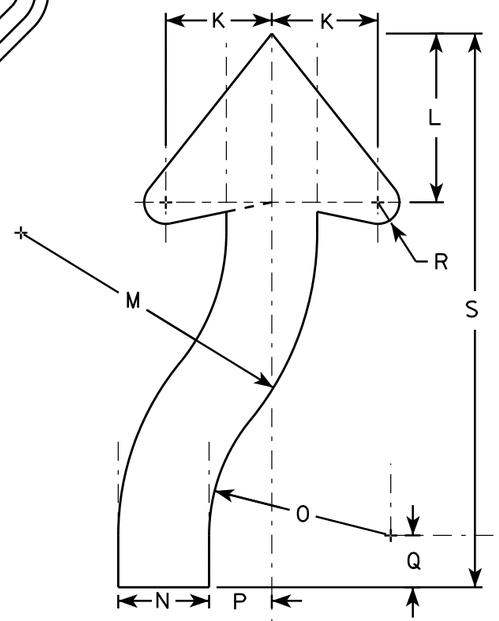
DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000 WISDOT/CADDS SHEET 42



W01-4bR



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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. W01-4bL is the same as W014-bR exept arrows are 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	36		1 5/8	5/8	3/4		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
2S	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
2M	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
3	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
4	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
5	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0

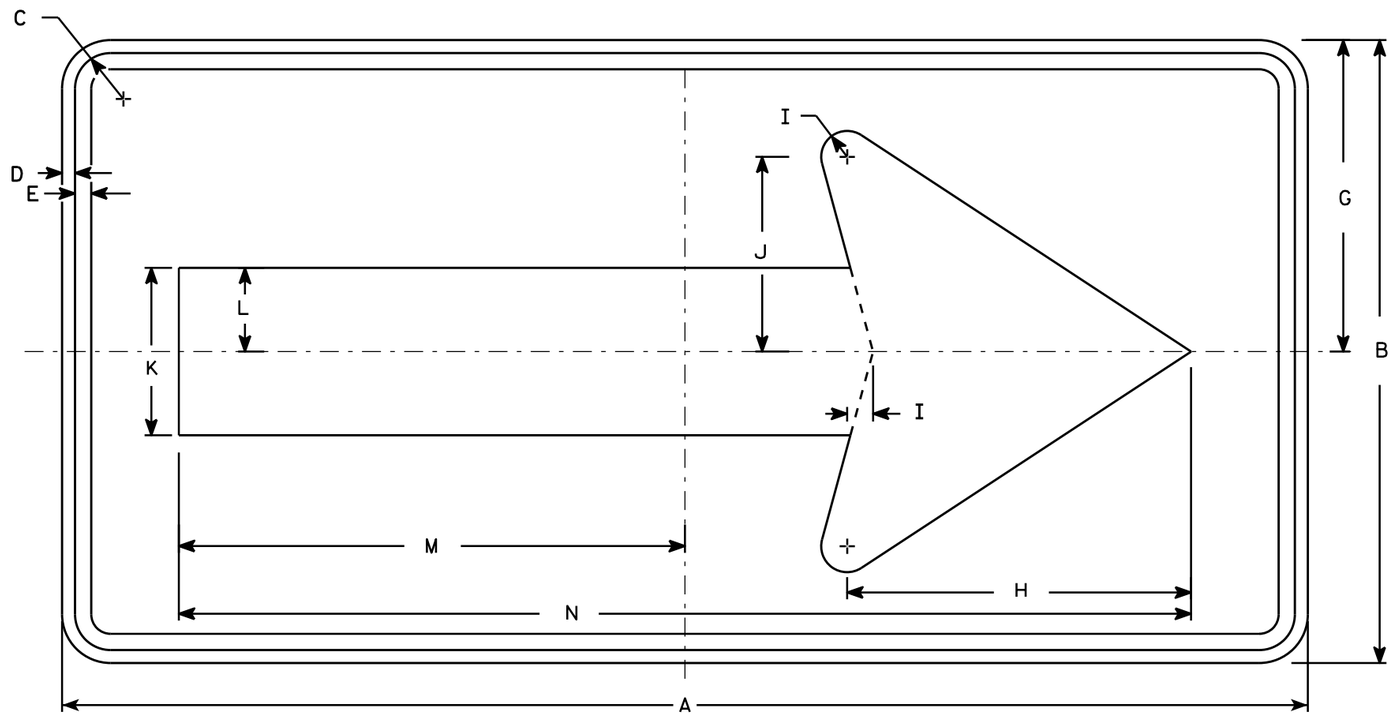
STANDARD SIGN
W01-4b

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-4b.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

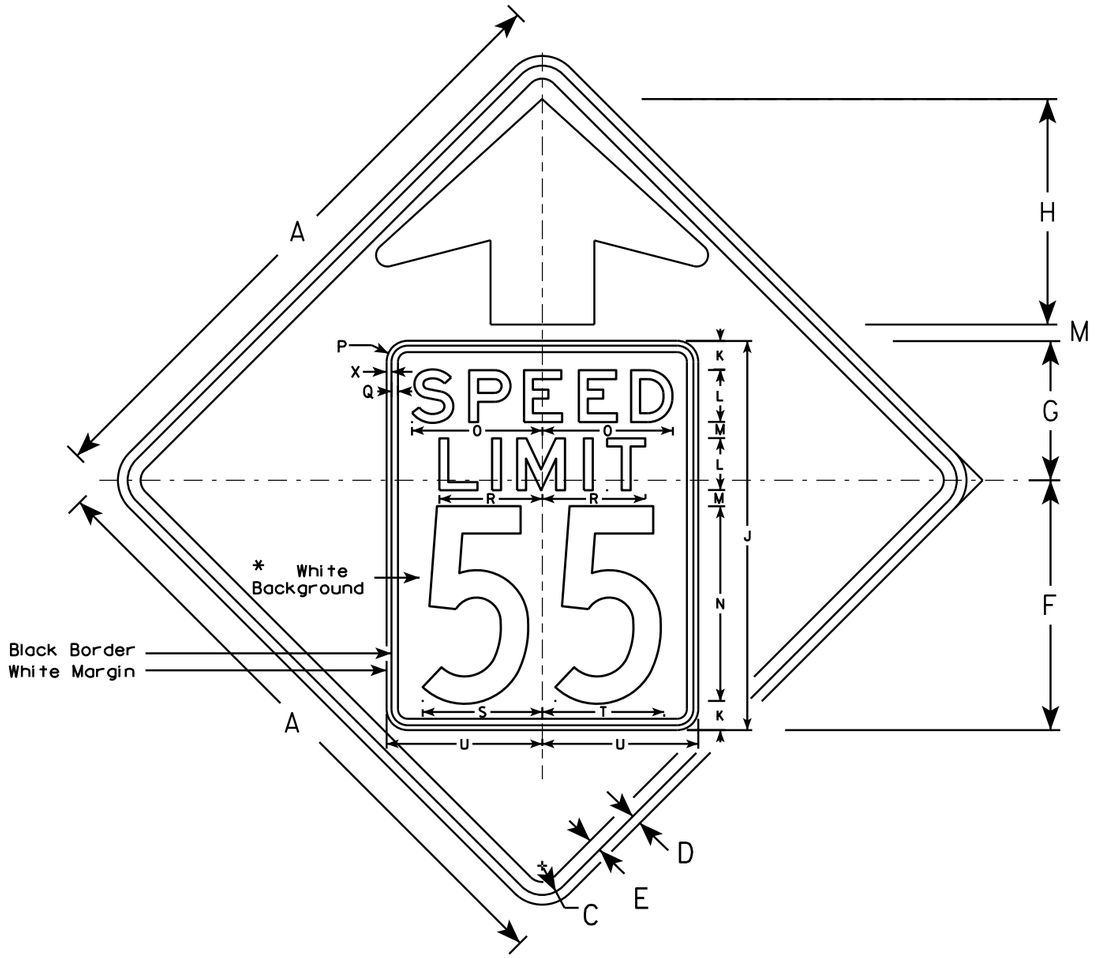
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42

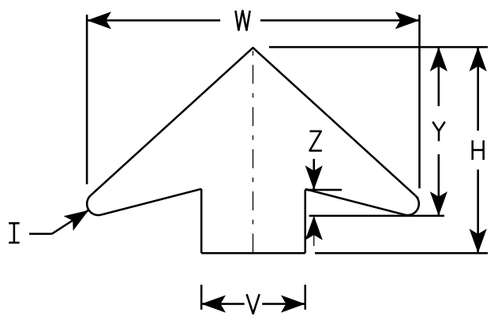


W03-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - ORANGE*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



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	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

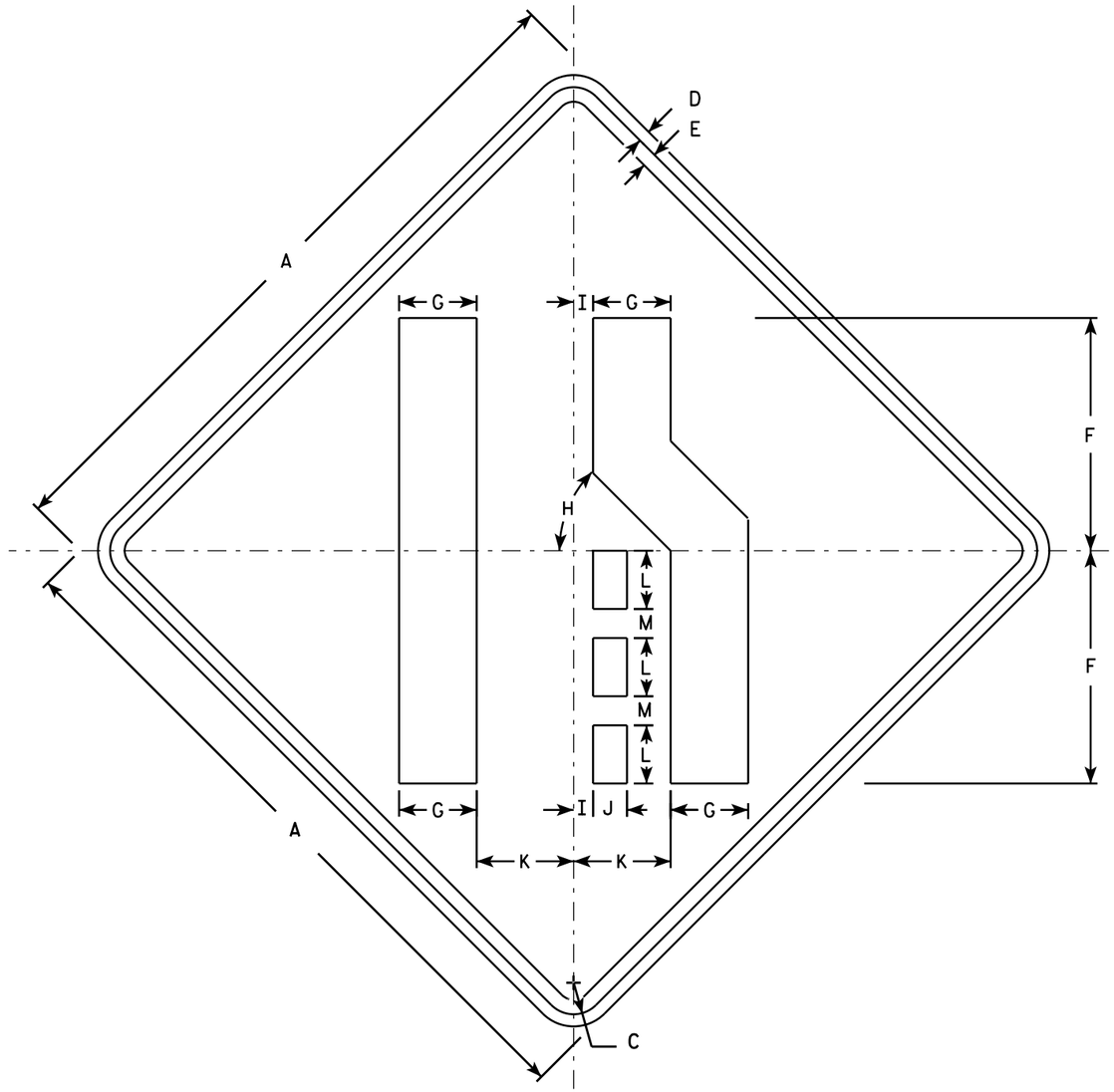
DATE 11/20/13 PLATE W03-5.1

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W035.DGN PLOT DATE : 20-NOV-2013 11:32 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7 7



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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. W04-2L is the same as W04-2R 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	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	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
2M	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
3	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
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

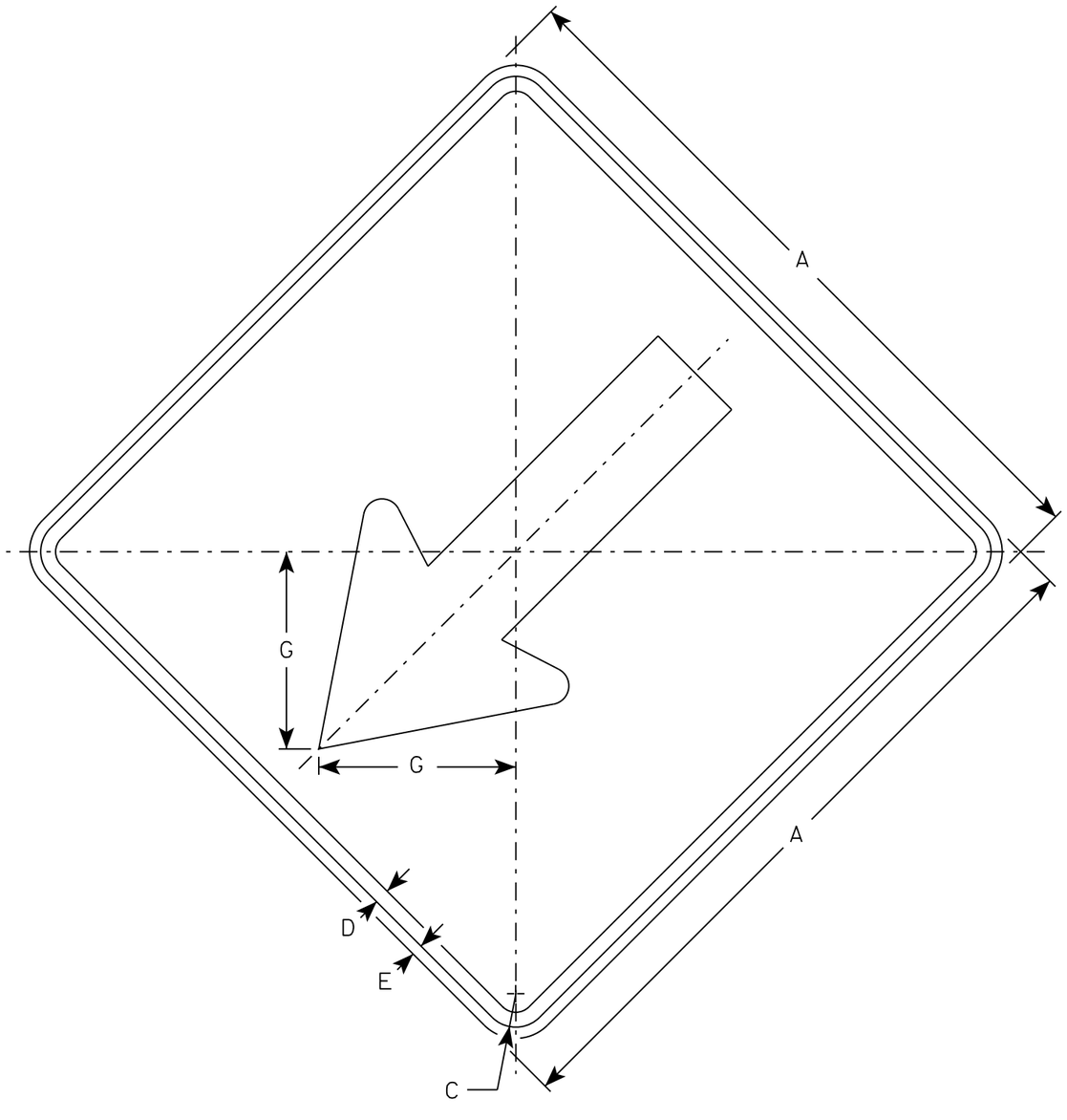
STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 447 W04-2.1

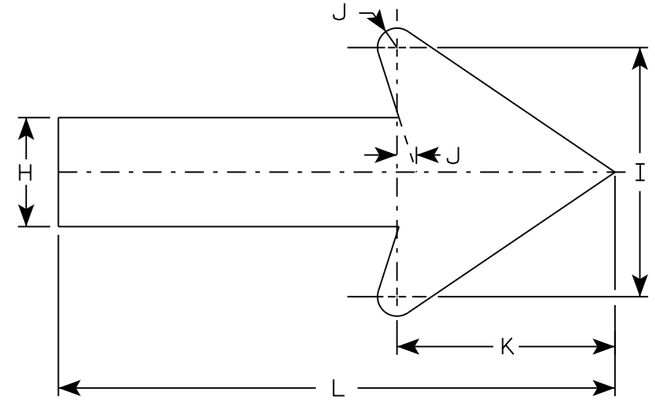
PROJECT NO: | SHEET NO: E



WO12-1

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   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.



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	24		1 1/8	1/2	3/8		6 5/8	3 1/2	8	5/8	7	18															4
2S	24		1 1/8	1/2	3/8		6 5/8	3 1/2	8	5/8	7	18															4
2M	24		1 1/8	1/2	3/8		6 5/8	3 1/2	8	5/8	7	18															4
3	30		1 3/8	5/8	1/2		8 1/4	4 3/8	10	3/4	8 3/4	22 3/8															6.25
4	36		1 3/4	3/4	5/8		10 3/8	5 1/2	12 1/2	1	11	27 7/8															9.0
5	36		1 3/4	3/4	5/8		10 3/8	5 1/2	12 1/2	1	11	27 7/8															9.0

STANDARD SIGN
WO12-1

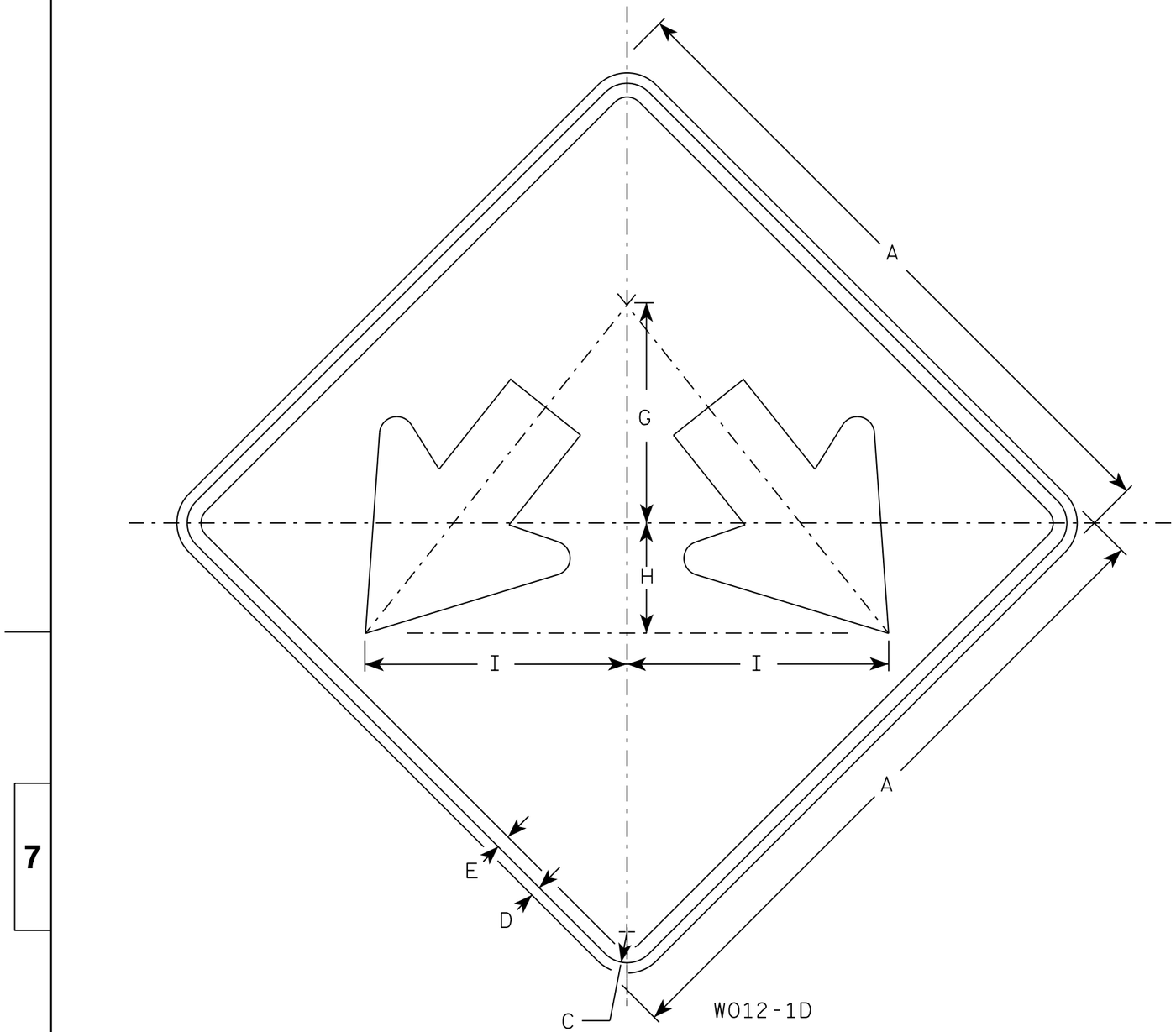
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/26/16 PLA 448 WO12-1.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

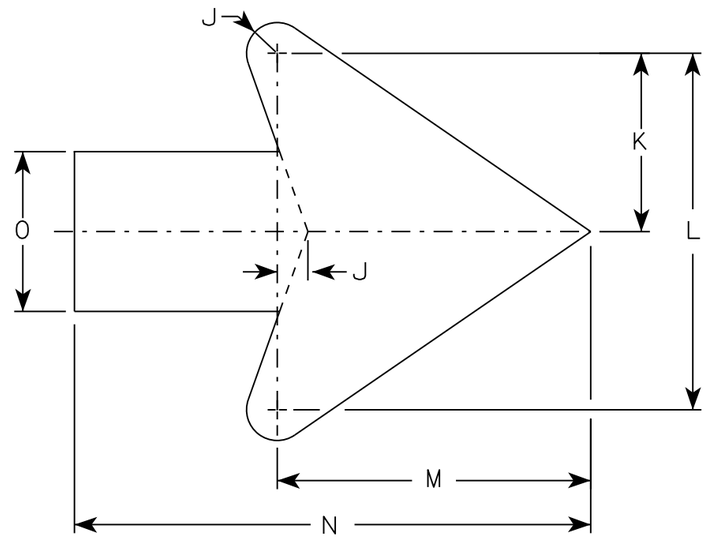
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\WO121.DGN PLOT DATE : 11-AUG-2016 11:29 PLOT BY : ** plotuser ** PLOT NAME : PLOT SCALE : 4.864607:1.000000



W012-1D

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   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.



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	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0

STANDARD SIGN
W012-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/28/16 PLATE NO W012-1D.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CADfiles\Projects\tr_stdplate\W0121D.DGN PLOT DATE : 11-AUG-2016 11:28 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.621375:1.000000

CTH O - Stage 1								
STATION	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.15	
9+77	0.00	4.30	3.17	0	0	0	0	0
10+00	23.35	5.20	0.87	4	2	4	2	2
10+25	25.00	8.66	2.52	6	2	11	4	7
10+50	25.00	13.91	0.00	10	1	21	5	16
10+81 BK	31.35	2.98	0.00	10	0	31	5	26
11+14 AH	0.00	1.45	0.00	0	0	31	5	26
11+25	10.54	20.35	0.00	4	0	35	5	30
11+50	25.00	33.69	0.00	25	0	60	5	55
11+75	25.00	25.13	0.13	27	0	87	5	82
12+00	25.00	20.25	0.12	21	0	108	5	103
12+25	25.00	12.62	0.95	15	0	124	6	118
12+50	25.00	17.56	0.04	14	0	137	6	131
12+75	25.00	19.62	0.03	17	0	155	6	148
13+00	25.00	22.79	0.06	20	0	174	7	168
13+25	25.00	28.04	0.05	24	0	198	7	191
13+50	25.00	35.87	0.00	30	0	227	7	221
13+75	25.00	35.39	0.00	33	0	260	7	254
14+00	25.00	34.69	0.00	32	0	293	7	286
14+25	25.00	35.00	0.00	32	0	325	7	319
14+50	25.00	33.66	0.00	32	0	357	7	350
14+75	25.00	33.81	0.00	31	0	388	7	382
15+00	25.00	31.91	0.00	30	0	419	7	412
15+25	25.00	32.35	0.00	30	0	448	7	442
15+47 BK	22.47	27.49	0.00	25	0	473	7	467
16+52 AH	0.00	23.08	0.00	0	0	473	7	467
16+75	23.08	17.37	0.05	17	0	491	7	484
17+00	25.00	17.36	0.00	16	0	507	7	500
17+25	25.00	17.87	0.00	16	0	523	7	516
17+50	25.00	17.98	0.01	17	0	540	7	533
17+75	25.00	18.35	0.00	17	0	556	7	550
18+00	25.00	18.63	0.00	17	0	573	7	567
18+25	25.00	19.73	0.00	18	0	591	7	585
18+50	25.00	20.66	0.04	19	0	610	7	603
18+75	25.00	24.26	0.00	21	0	631	7	624
19+00	25.00	20.59	0.00	21	0	651	7	645
19+25	25.00	17.16	0.00	17	0	669	7	662
19+50	25.00	14.71	0.00	15	0	684	7	677
19+66	15.96	15.20	0.00	9	0	693	7	686
		Totals		693	6			

CTH O - Stage 2								
STATION	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.15	
12+25	0.00	82.16	0.55	0	0	0	0	0
12+50	25.00	76.83	1.58	74	1	74	1	72
12+75	25.00	73.53	3.65	70	2	143	4	139
13+00	25.00	69.94	10.09	66	6	210	11	198
13+25	25.00	66.12	6.74	63	8	273	20	252
13+50	25.00	62.02	5.42	59	6	332	27	305
13+75	25.00	56.89	8.22	55	6	387	34	353
14+00	25.00	52.32	7.78	51	7	438	42	395
14+25	25.00	48.84	7.34	47	7	484	50	434
14+50	25.00	47.94	8.02	45	7	529	59	471
14+75	25.00	52.64	17.72	47	12	576	72	503
15+00	25.00	64.73	10.39	54	13	630	87	543
15+25	25.00	82.11	7.60	68	8	698	97	601
15+50	25.00	107.79	0.00	88	4	786	101	685
15+75	25.00	107.62	0.00	100	0	886	101	785
16+00	25.00	117.21	0.00	104	0	990	101	889
16+25	25.00	115.20	0.00	108	0	1,097	101	996
16+50	25.00	133.56	0.00	115	0	1,213	101	1,112
16+75	25.00	175.64	0.00	143	0	1,356	101	1,255
17+00	25.00	86.13	0.00	121	0	1,477	101	1,376
17+25	25.00	85.53	0.00	79	0	1,556	101	1,455
17+47	21.73	78.98	0.00	66	0	1,623	101	1,522
17+50	3.27	77.98	0.00	10	0	1,632	101	1,531
17+71	21.16	72.78	0.00	59	0	1,691	101	1,590
		Totals		1,691	88			

CTH I - Stage 2								
STATION	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.15	
101+00	0.00	216.90	11.23	0	0	0	0	0
101+23	23.47	211.11	21.16	186	14	186	16	170
101+30	6.53	156.02	20.94	44	5	230	22	208
101+50	20.00	80.78	18.28	88	15	318	39	279
101+75	25.00	58.24	4.00	64	10	382	51	332
101+79	4.27	48.57	3.27	8	1	391	51	340
102+00	20.73	33.72	0.00	32	1	423	53	370
102+25	25.00	20.07	0.00	25	0	447	53	395
102+50	25.00	9.36	0.00	14	0	461	53	408
102+75	24.64	6.35	0.11	7	0	468	53	415
		Totals		468	46			

CTH O - Stage 3								
STATION	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.15	
9+84	0.00	9.98	0.00	0	0	0	0	0
10+00	16.30	12.40	0.00	7	0	7	0	7
10+25	25.00	18.72	0.00	14	0	21	0	21
10+50	25.00	12.54	0.03	14	0	36	0	36
10+63 BK	13.12	4.01	0.15	4	0	40	0	40
11+30 AH	0.00	24.86	0.00	0	0	40	0	40
11+50	19.59	28.48	0.00	19	0	59	0	59
11+75	25.00	31.04	0.00	28	0	87	0	86
12+00	25.00	33.45	0.00	30	0	116	0	116
12+25	25.00	35.00	0.06	32	0	148	0	148
12+50	25.00	36.05	0.31	33	0	181	0	181
12+75	25.00	35.12	0.85	33	1	214	1	213
13+00	25.00	33.66	0.78	32	1	246	2	244
13+25	25.00	32.27	1.02	31	1	276	3	274
13+50	25.00	30.17	1.65	29	1	305	4	301
13+75	25.00	28.05	1.95	27	2	332	6	326
14+00	25.00	25.77	2.18	25	2	357	8	349
14+25	25.00	24.68	2.24	23	2	380	11	370
14+50	25.00	22.81	2.56	22	2	402	13	389
14+75	25.00	20.94	2.45	20	2	423	16	407
15+00	25.00	27.75	0.00	23	1	445	17	428
15+25	25.00	30.17	0.00	27	0	472	17	455
15+50	25.00	35.32	0.00	30	0	502	17	485
15+53 BK	3.06	35.68	0.00	4	0	506	17	489
16+44 AH	0.00	25.17	0.00	0	0	506	17	489
16+50	6.25	25.63	0.00	6	0	512	17	495
16+75	25.00	26.75	0.00	24	0	537	17	519
17+00	25.00	27.64	0.00	25	0	562	17	545
17+25	25.00	26.74	0.00	25	0	587	17	570
17+50	25.00	25.43	0.00	24	0	611	17	594
17+75	25.00	24.07	0.00	23	0	634	17	617
18+00	25.00	23.91	0.00	22	0	656	17	639
18+25	25.00	24.29	0.00	22	0	678	17	661
18+50	25.00	22.23	0.00	22	0	700	17	683
18+75	25.00	20.13	0.00	20	0	720	17	702
19+00	25.00	17.35	0.00	17	0	737	17	720
19+25	25.00	14.65	0.00	15	0	752	17	735
19+50	25.00	12.82	0.00	13	0	765	17	747
19+75	25.00	15.47	0.00	13	0	778	17	760
20+00	25.00	8.96	0.00	11	0	789	17	772
20+21	21.31	5.14	0.00	6	0	794	17	777
			Totals	794	15			

CTH O - Stage 4								
STATION	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.15	
11+42	0.00	0.00	0.00	0	0	0	0	0
11+50	8.19	0.00	5.15	0	1	0	1	-1
11+75	25.00	0.00	9.26	0	7	0	9	-9
12+00	25.00	0.00	11.04	0	9	0	19	-19
12+25	25.00	53.85	15.82	25	12	25	34	-9
12+50	25.00	49.65	21.09	48	17	73	53	20
12+75	25.00	43.08	25.65	43	22	116	78	38
13+00	25.00	38.16	15.85	38	19	153	100	53
13+25	25.00	36.71	34.19	35	23	188	127	61
13+50	25.00	38.00	35.58	35	32	223	164	59
13+75	25.00	42.17	31.82	37	31	260	200	60
14+00	25.00	47.08	21.57	41	25	301	228	73
14+25	25.00	48.97	8.91	44	14	346	245	101
14+50	25.00	65.96	14.07	53	11	399	257	142
14+75	25.00	106.41	0.06	80	7	479	264	214
15+00	25.00	88.79	0.00	90	0	569	264	304
15+25	25.00	75.16	0.00	76	0	645	264	380
15+50	25.00	93.76	0.00	78	0	723	264	459
15+75	25.00	114.74	0.00	97	0	820	264	555
16+00	25.00	113.45	0.00	106	0	925	264	661
16+25	25.00	114.63	0.00	106	0	1,031	264	766
16+50	25.00	139.66	0.00	118	0	1,149	264	884
16+75	25.00	140.88	0.00	130	0	1,278	264	1,014
17+00	25.00	105.07	0.00	114	0	1,392	264	1,128
17+25	25.00	100.96	0.00	95	0	1,488	264	1,223
17+47	21.73	89.05	0.03	76	0	1,564	264	1,300
			Totals	1,564	230			

CTH I - Stage 4								
STATION	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.15	
96+97	0.00	8.56	2.68	0	0	0	0	0
97+00	2.87	9.16	2.35	1	0	1	0	1
97+05	5.26	10.47	1.28	2	0	3	1	2
97+25	19.74	18.05	0.00	10	0	13	1	12
97+50	25.00	30.34	0.00	22	0	36	1	34
97+75	25.00	54.12	0.00	39	0	75	1	74
98+00	25.00	55.06	0.06	51	0	125	1	124
98+18	17.54	159.72	0.31	70	0	195	1	194
98+25	7.46	153.77	0.31	43	0	238	2	237
98+50	25.00	155.06	0.00	143	0	381	2	380
98+75	25.00	227.34	0.00	177	0	558	2	557
99+00	25.00	250.24	0.07	221	0	780	2	778
		Totals		780	1			

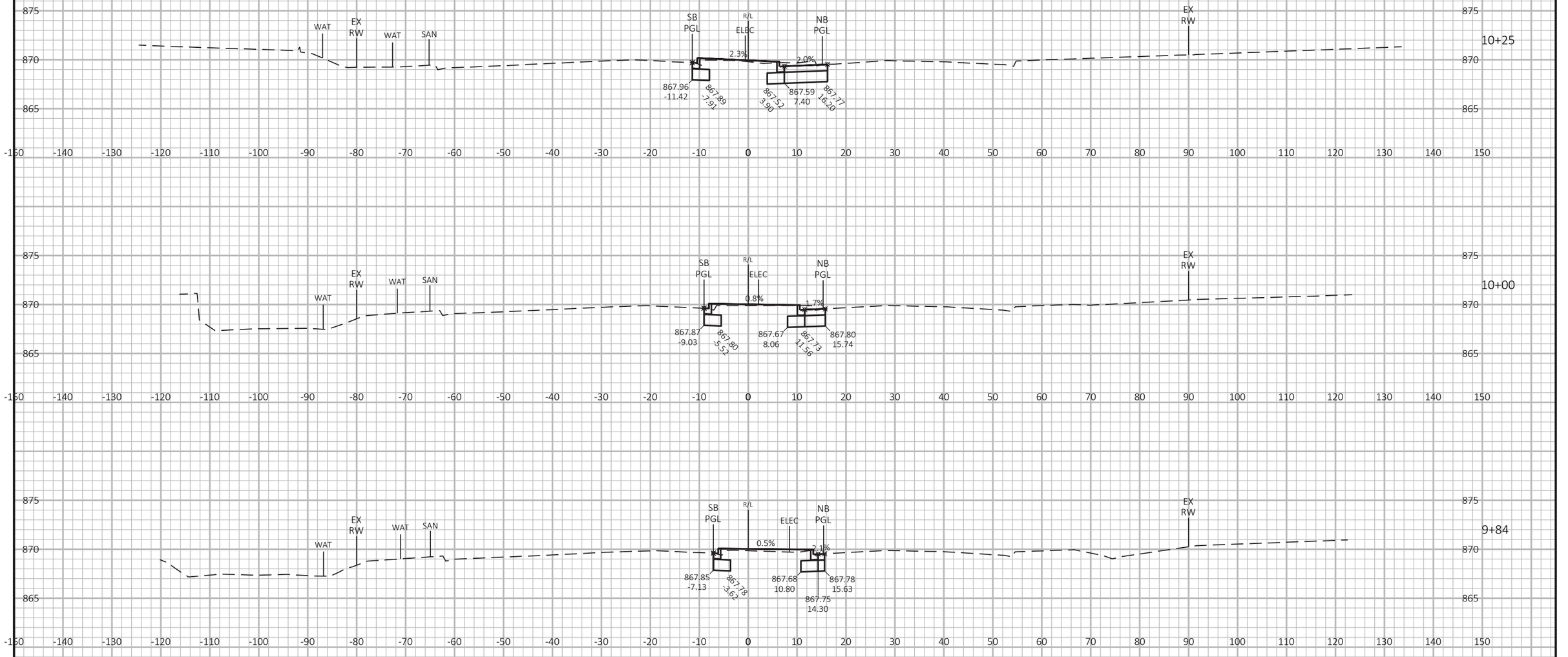
9

9

CTH O - Stage 5								
STATION	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.15	
9+77	0.00	0.00	0.00	0	0	0	0	0
9+84	6.93	15.44	7.45	2	1	2	1	1
10+00	16.42	20.86	8.87	11	5	13	7	6
10+25	25.00	27.40	7.07	22	7	35	15	20
10+50	25.00	37.29	3.48	30	5	65	21	44
10+75	25.00	47.79	1.50	39	2	105	24	81
11+00	25.00	55.94	0.75	48	1	153	25	128
11+25	25.00	58.97	0.00	53	0	206	25	181
11+50	25.00	59.58	0.00	55	0	261	25	236
11+75	25.00	60.26	0.00	55	0	316	25	291
12+00	25.00	57.25	0.00	54	0	371	25	346
12+25	25.00	9.90	0.00	31	0	402	25	377
12+50	25.00	9.87	0.00	9	0	411	25	386
12+75	25.00	9.84	0.00	9	0	420	25	395
13+00	25.00	9.83	0.00	9	0	429	25	404
13+25	25.00	9.84	0.00	9	0	438	25	413
13+50	25.00	9.87	0.00	9	0	447	25	422
13+75	25.00	9.92	0.00	9	0	457	25	431
14+00	25.00	9.99	0.00	9	0	466	25	441
14+25	25.00	8.68	0.00	9	0	474	25	449
14+50	25.00	9.02	0.00	8	0	483	25	457
14+75	25.00	8.47	0.00	8	0	491	25	466
14+92 BK	17.06	5.88	0.00	5	0	495	25	470
15+53 AH	0.00	39.98	0.00	0	0	495	25	470
15+75	21.91	38.87	0.00	32	0	527	25	502
16+00	25.00	41.07	0.00	37	0	564	25	539
16+25	25.00	41.76	0.00	38	0	603	25	577
16+50	25.00	43.70	0.00	40	0	642	25	617
16+75	25.00	45.15	0.00	41	0	683	25	658
17+00	25.00	46.22	0.00	42	0	726	25	700
17+25	25.00	57.30	0.00	48	0	774	25	748
17+47	21.73	53.70	0.00	45	0	818	25	793
17+50	3.27	34.77	0.00	5	0	824	25	798
17+75	25.00	36.43	0.00	33	0	856	25	831
18+00	25.00	36.88	0.00	34	0	890	25	865
18+25	25.00	37.05	0.00	34	0	925	25	900
18+50	25.00	30.98	0.00	31	0	956	25	931
18+75	25.00	26.37	0.00	27	0	983	25	958
19+00	25.00	21.91	0.00	22	0	1,005	25	980
19+25	25.00	17.62	0.00	18	0	1,023	25	998
19+50	25.00	14.68	0.00	15	0	1,038	25	1,013
19+75	25.00	15.31	0.00	14	0	1,052	25	1,027
20+00	25.00	11.78	0.00	13	0	1,065	25	1,040
20+21	21.31	14.36	0.00	10	0	1,075	25	1,050
		Totals		1,075	22			

CTH I - Stage 5								
STATION	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.15	
103+25	10325.00	8.41	0.00	0	0	0	0	0
103+37	11.91	9.55	0.00	4	0	4	0	4
103+50	13.09	12.63	0.00	5	0	9	0	9
103+75	25.00	18.88	0.00	15	0	24	0	24
104+00	25.00	19.63	0.00	18	0	42	0	42
104+25	25.00	19.51	0.00	18	0	60	0	60
104+50	25.00	19.10	0.00	18	0	78	0	78
104+75	25.00	18.73	0.00	18	0	95	0	95
105+00	25.00	15.39	0.00	16	0	111	0	111
105+25	25.00	10.17	0.00	12	0	123	0	123
105+50	25.00	30.21	0.00	19	0	142	0	142
105+75	25.00	48.90	0.00	37	0	178	0	178
105+80	5.27	47.01	0.00	9	0	188	0	188
		Totals		188	0			

FINAL CROSS SECTIONS FOR REFERENCE ONLY
SEE STAGED CROSS SECTIONS FOR EARTHWORK BY STAGE



BEGIN CONSTRUCTION

9

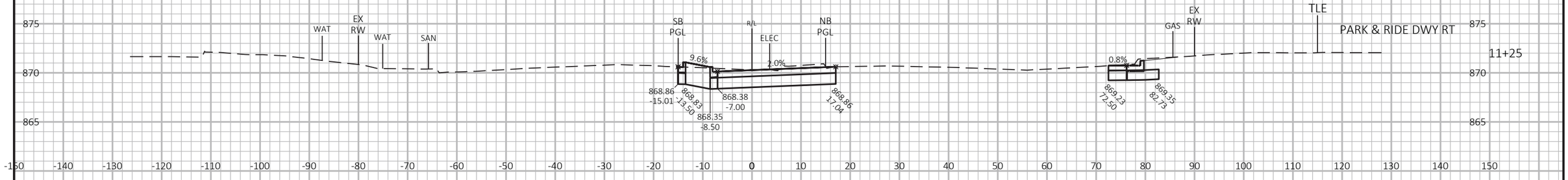
9

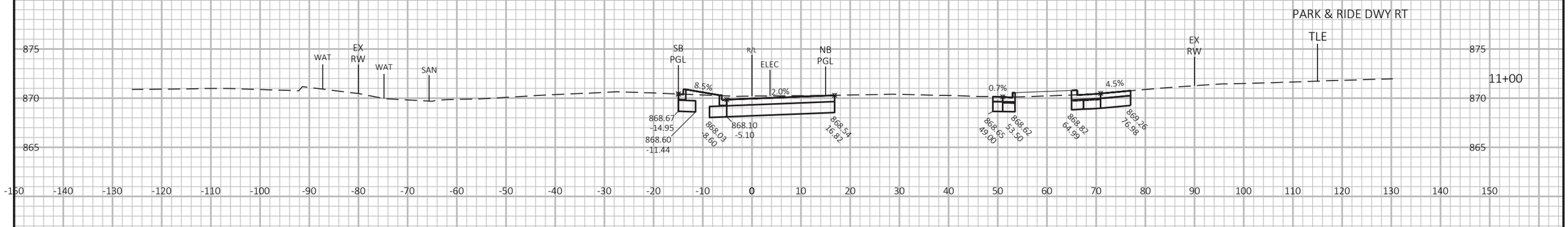
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O	SHEET 457	E

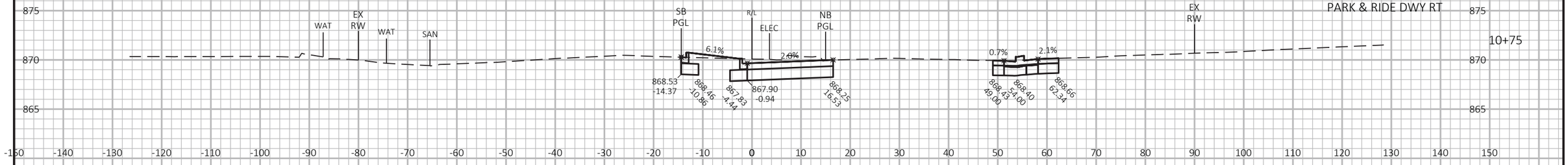
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:48 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

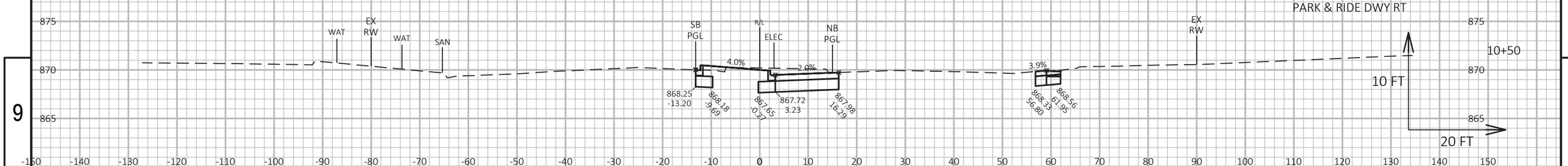
WISDOT/CADDS SHEET 49

FINAL CROSS SECTIONS FOR REFERENCE ONLY
SEE STAGED CROSS SECTIONS FOR EARTHWORK BY STAGE







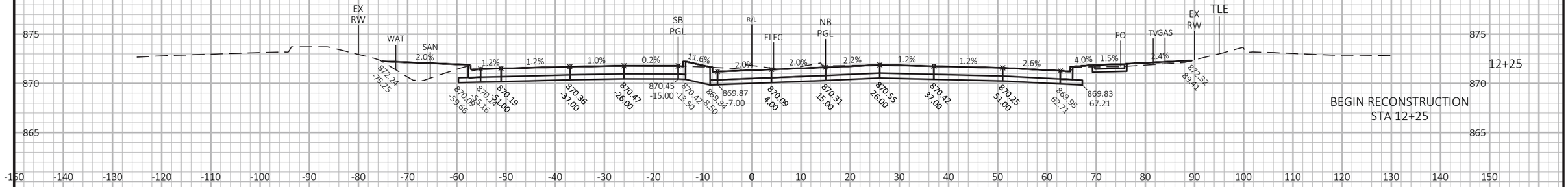


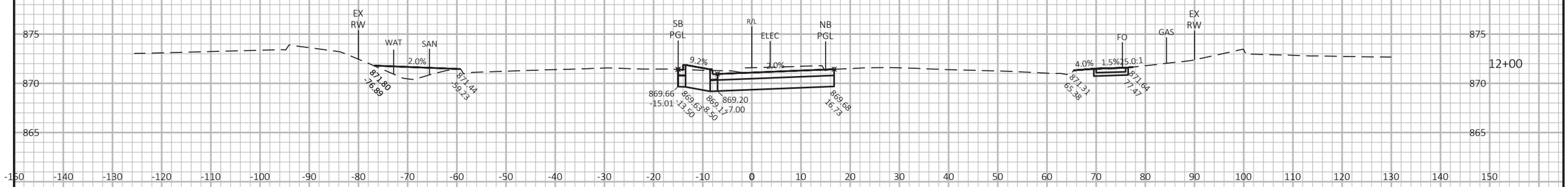
9

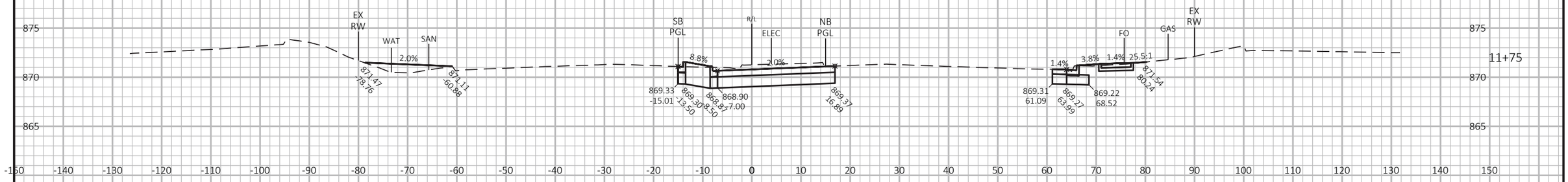
9

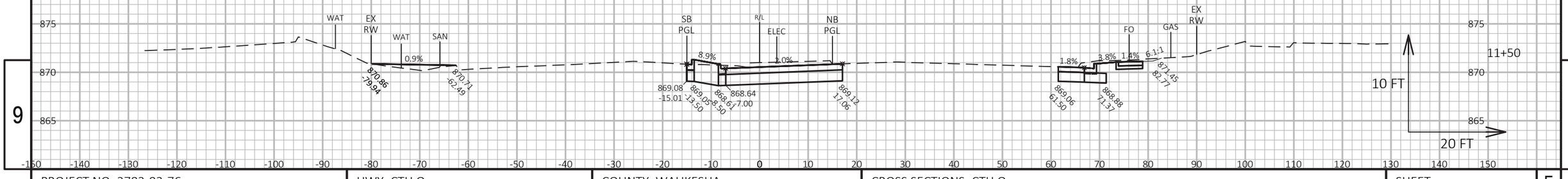
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O	SHEET 458	E

FINAL CROSS SECTIONS FOR REFERENCE ONLY
SEE STAGED CROSS SECTIONS FOR EARTHWORK BY STAGE







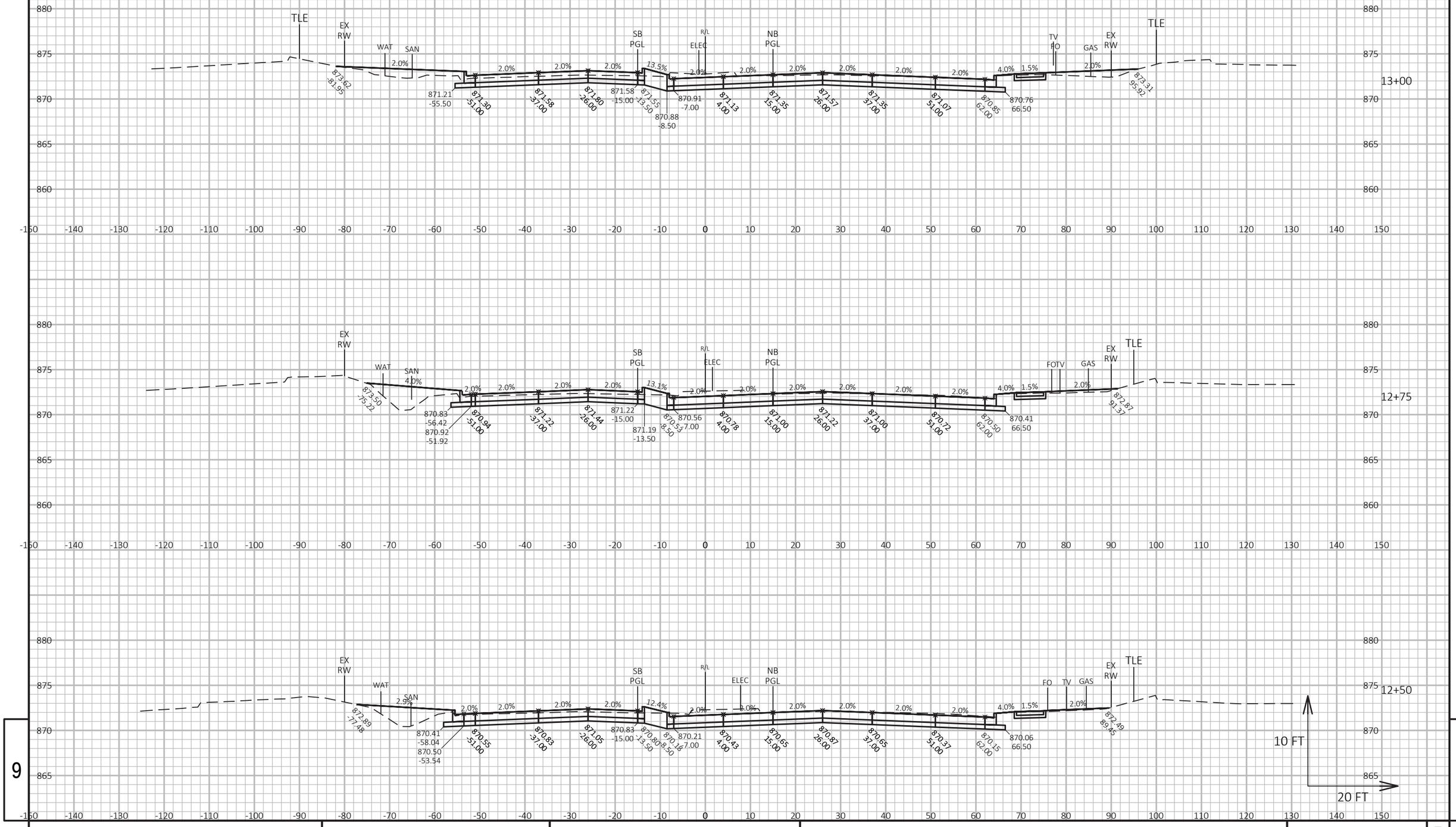


9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O	SHEET 459	E

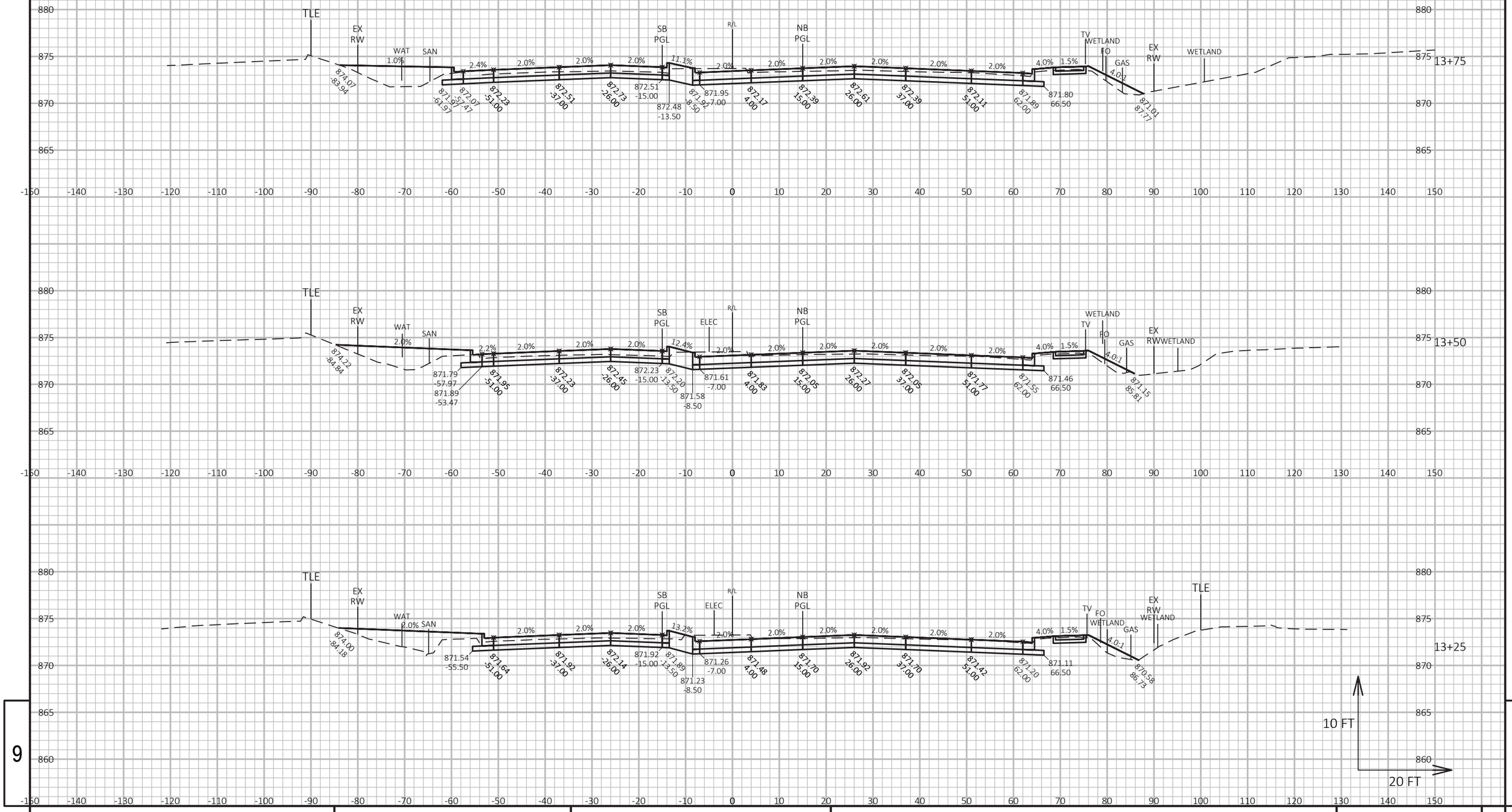
FINAL CROSS SECTIONS FOR REFERENCE ONLY
SEE STAGED CROSS SECTIONS FOR EARTHWORK BY STAGE



PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O	SHEET 460 E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:49 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

FINAL CROSS SECTIONS FOR REFERENCE ONLY
SEE STAGED CROSS SECTIONS FOR EARTHWORK BY STAGE



9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O	SHEET 461	E

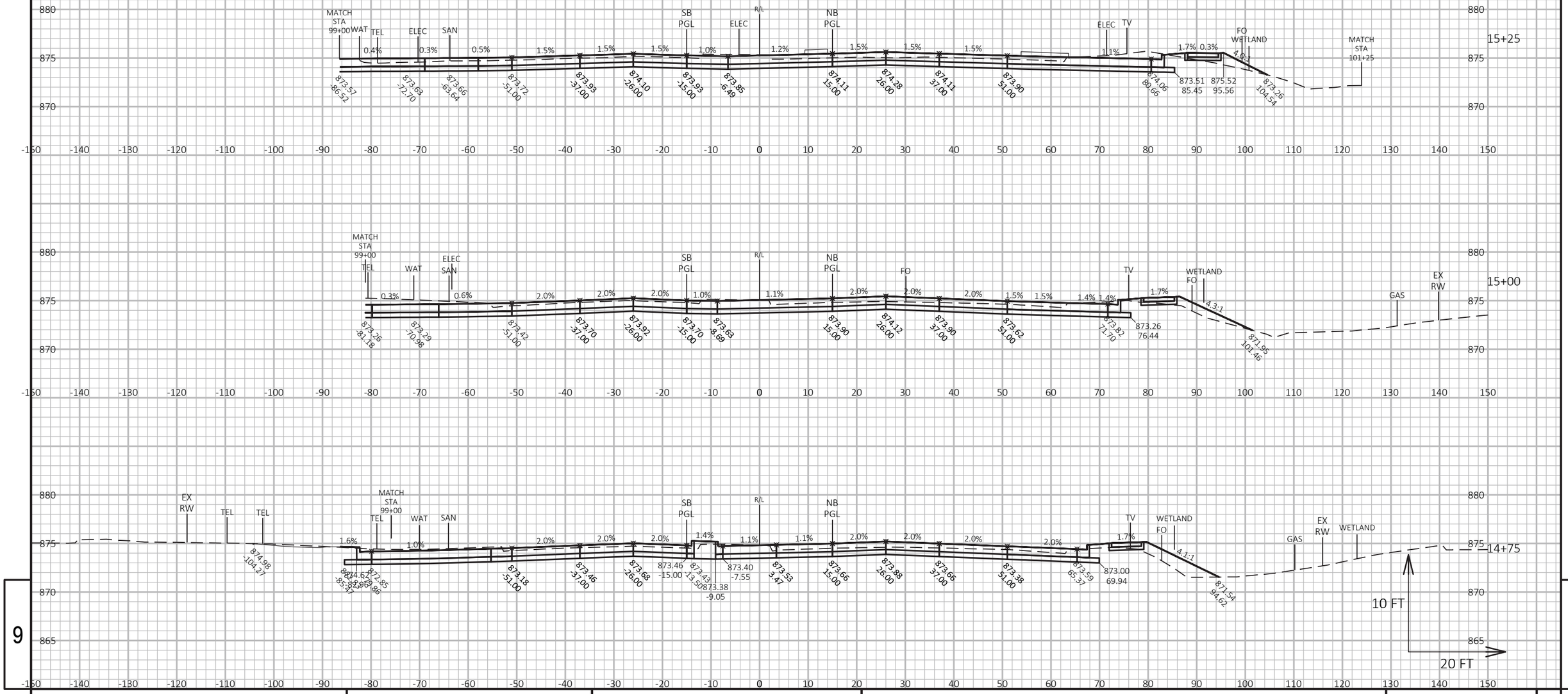
FINAL CROSS SECTIONS FOR REFERENCE ONLY
SEE STAGED CROSS SECTIONS FOR EARTHWORK BY STAGE

9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O	SHEET 462	E

FINAL CROSS SECTIONS FOR REFERENCE ONLY
SEE STAGED CROSS SECTIONS FOR EARTHWORK BY STAGE

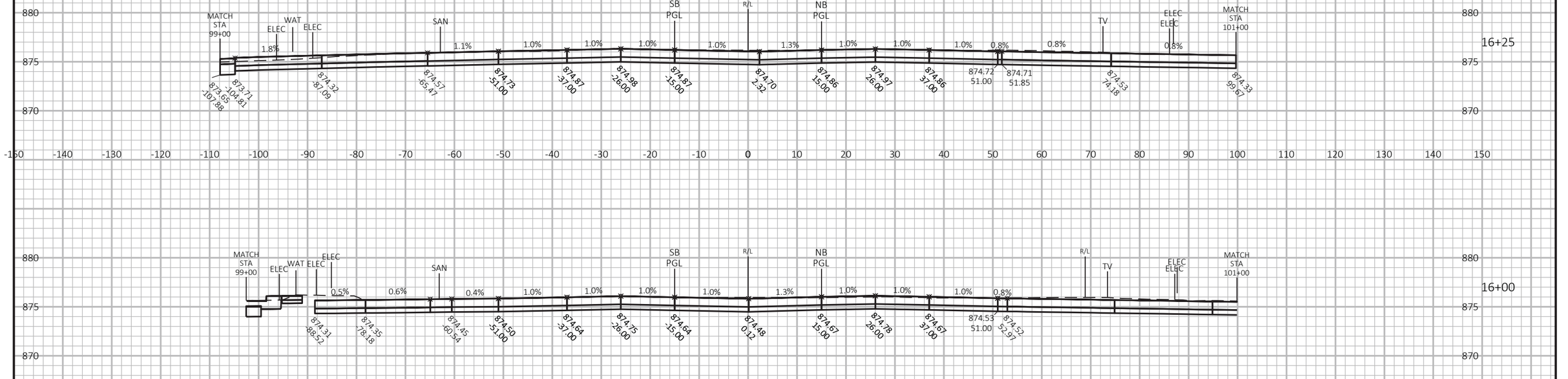


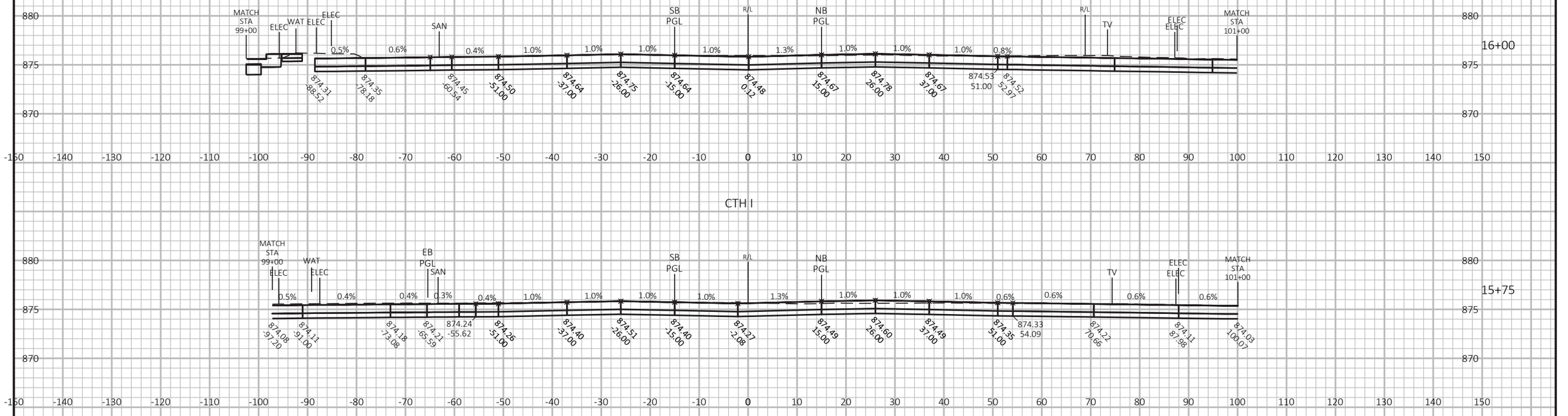
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O	SHEET 463	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:49 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

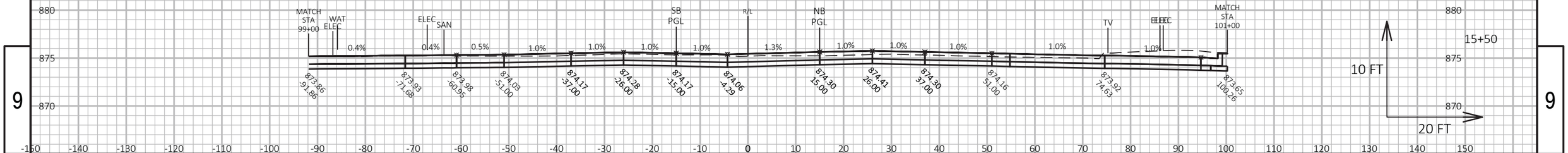
WISDOT/CADDS SHEET 49

FINAL CROSS SECTIONS FOR REFERENCE ONLY
SEE STAGED CROSS SECTIONS FOR EARTHWORK BY STAGE





CTH I



9

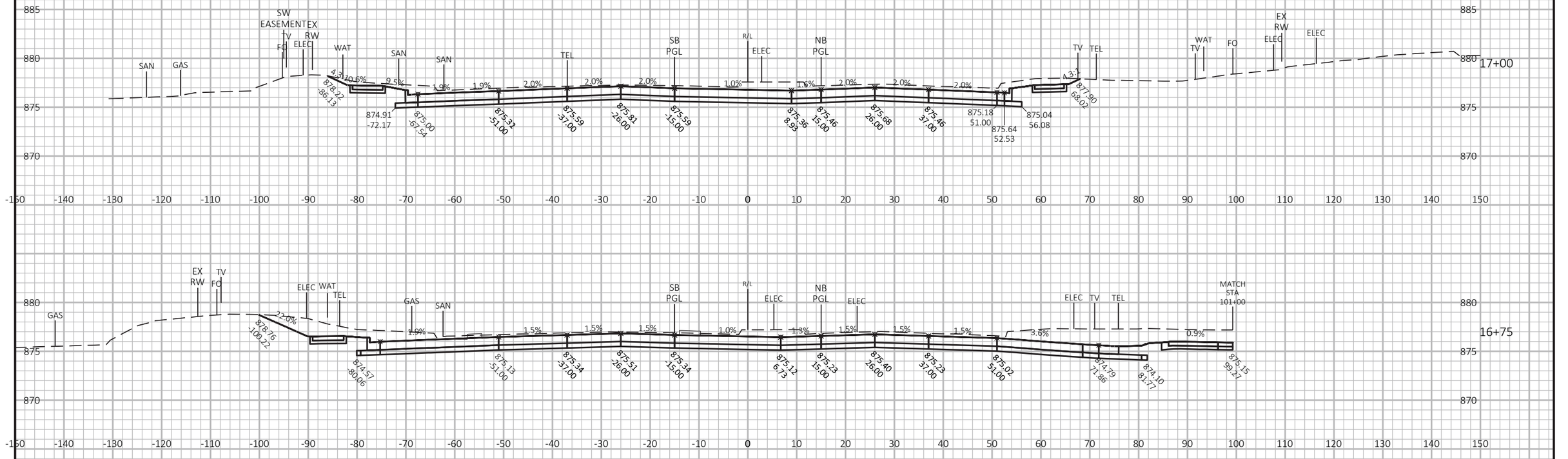
9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O	SHEET 464	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:49 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

FINAL CROSS SECTIONS FOR REFERENCE ONLY
SEE STAGED CROSS SECTIONS FOR EARTHWORK BY STAGE

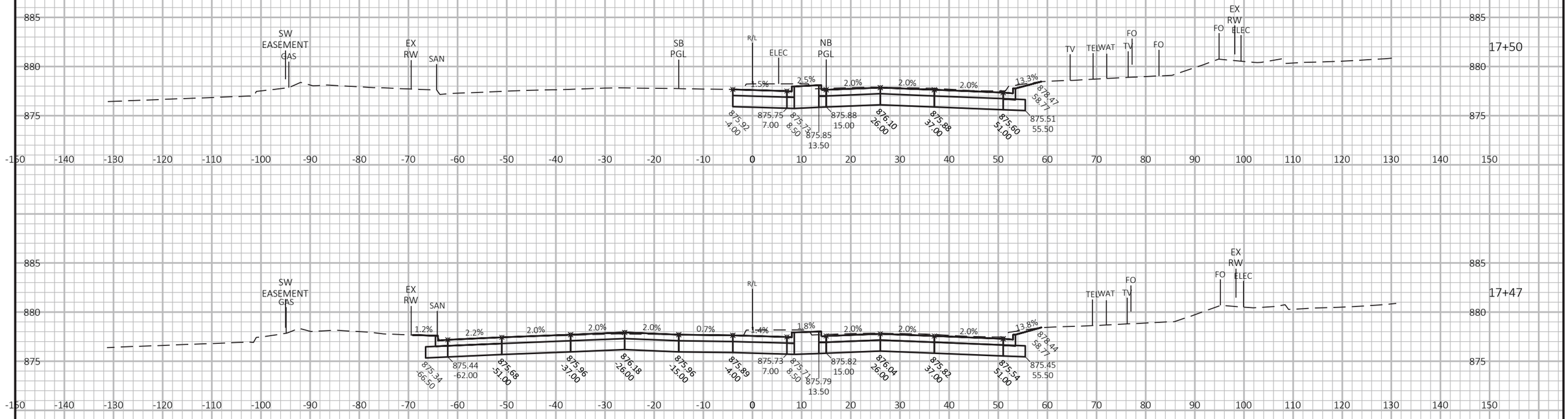


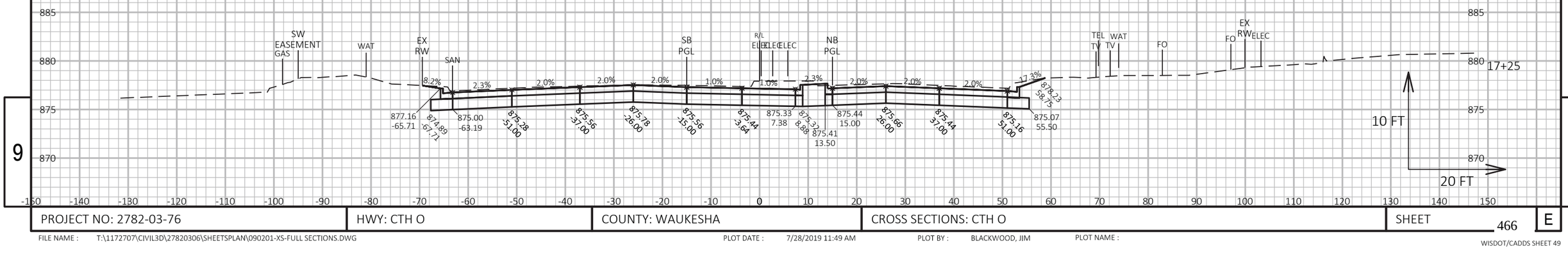
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O	SHEET 465 E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:49 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

FINAL CROSS SECTIONS FOR REFERENCE ONLY
SEE STAGED CROSS SECTIONS FOR EARTHWORK BY STAGE



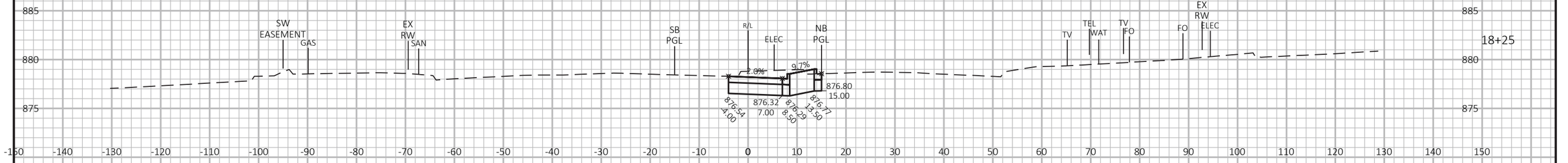


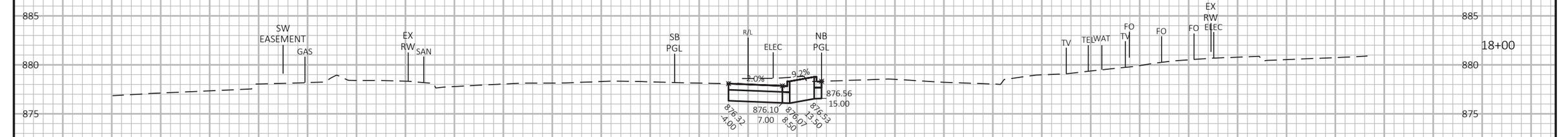
9

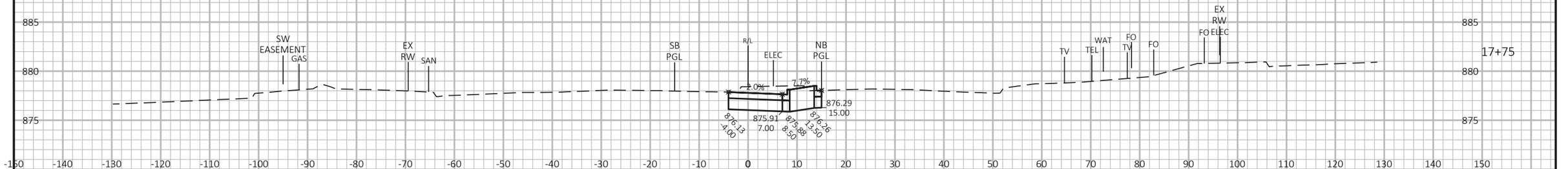
9

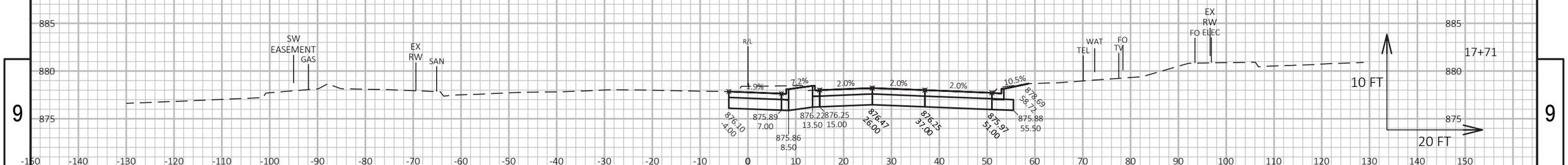
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O	SHEET 466	E

FINAL CROSS SECTIONS FOR REFERENCE ONLY
SEE STAGED CROSS SECTIONS FOR EARTHWORK BY STAGE









9

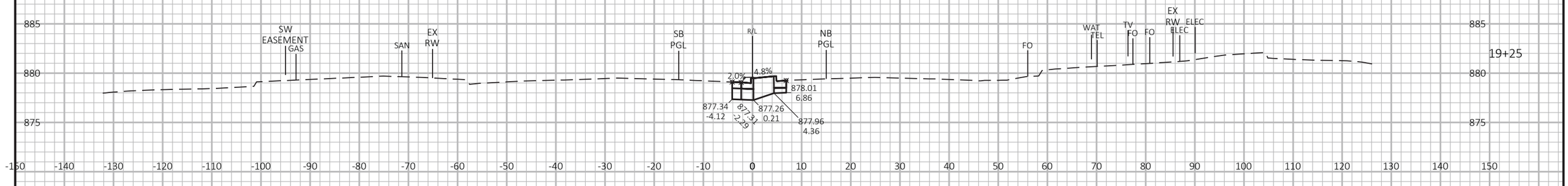
9

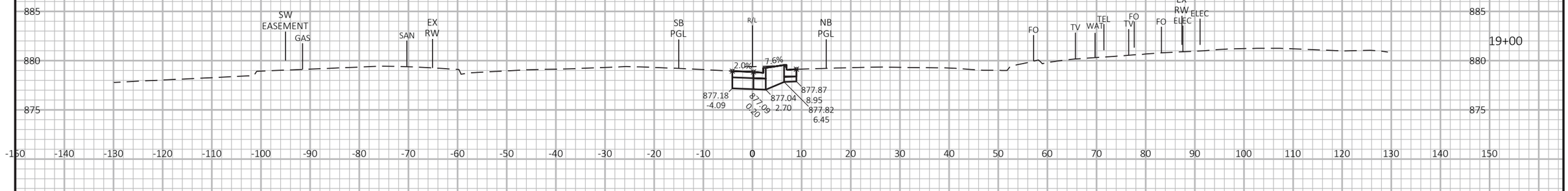
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O	SHEET 467	E

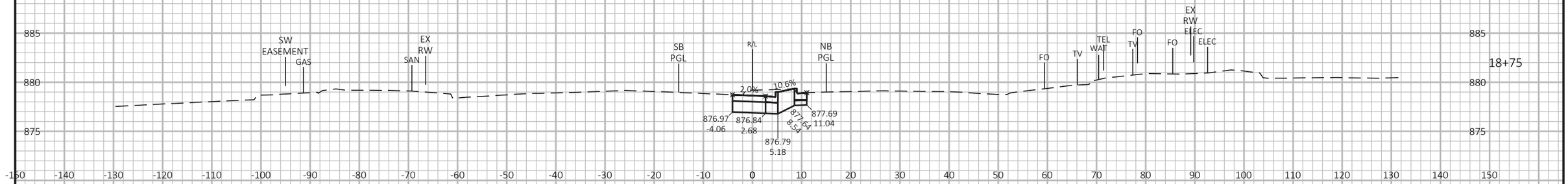
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:49 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

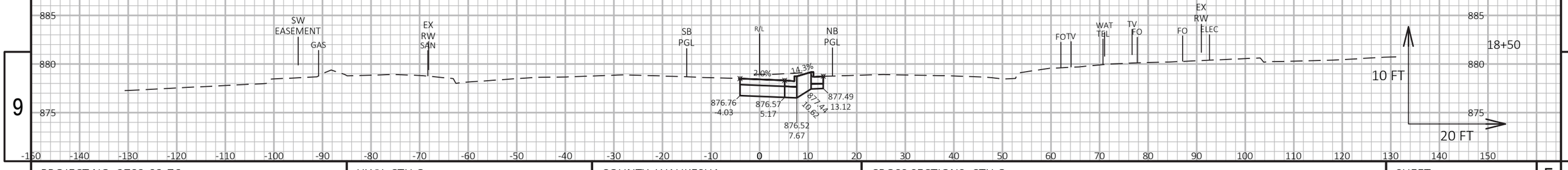
WISDOT/CADDS SHEET 49

FINAL CROSS SECTIONS FOR REFERENCE ONLY
SEE STAGED CROSS SECTIONS FOR EARTHWORK BY STAGE









9

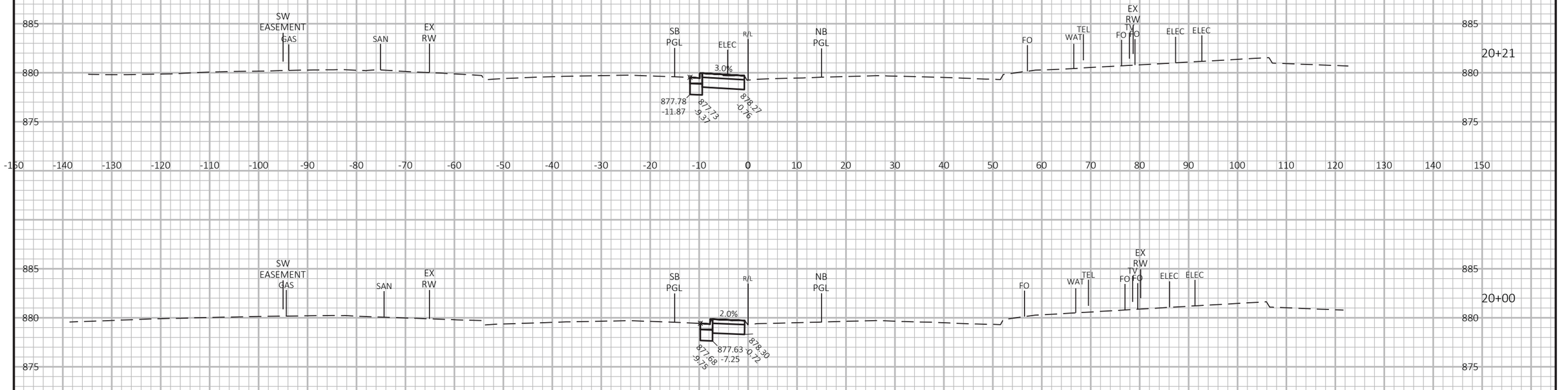
9

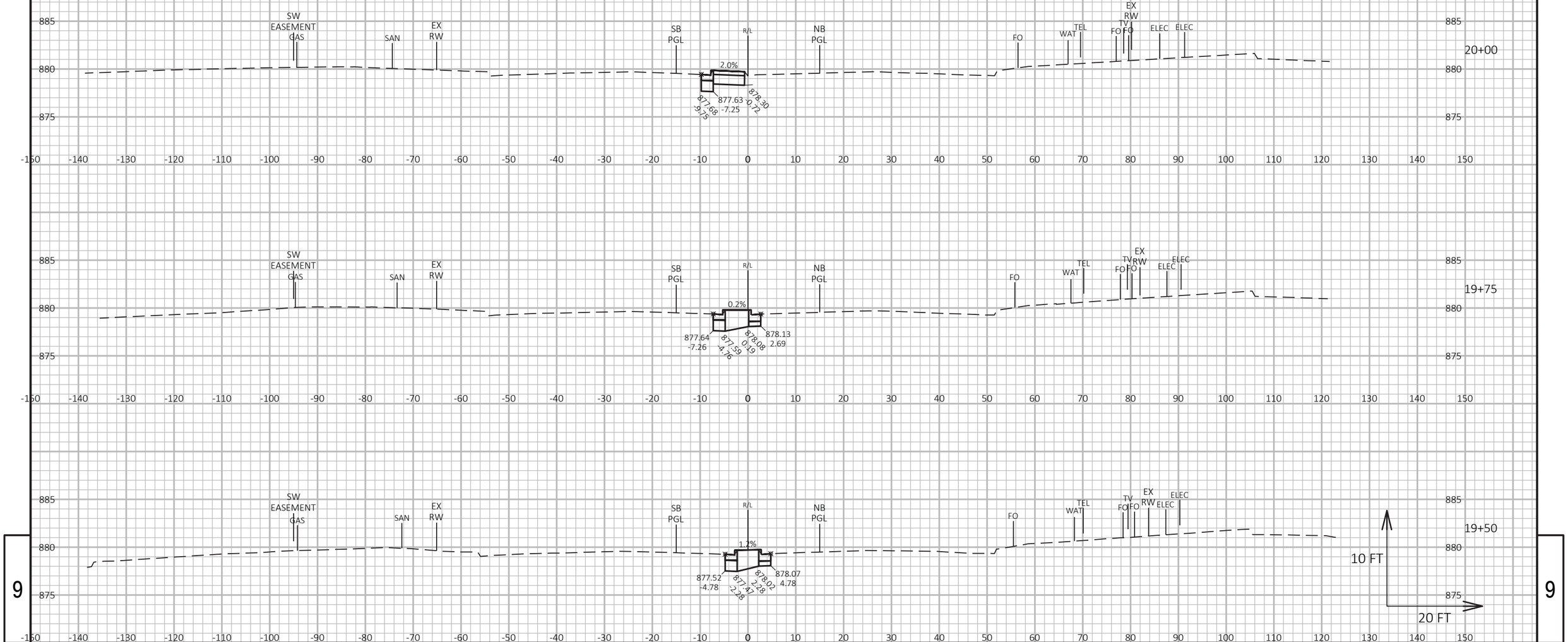
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O	SHEET 468	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:49 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

FINAL CROSS SECTIONS FOR REFERENCE ONLY
SEE STAGED CROSS SECTIONS FOR EARTHWORK BY STAGE





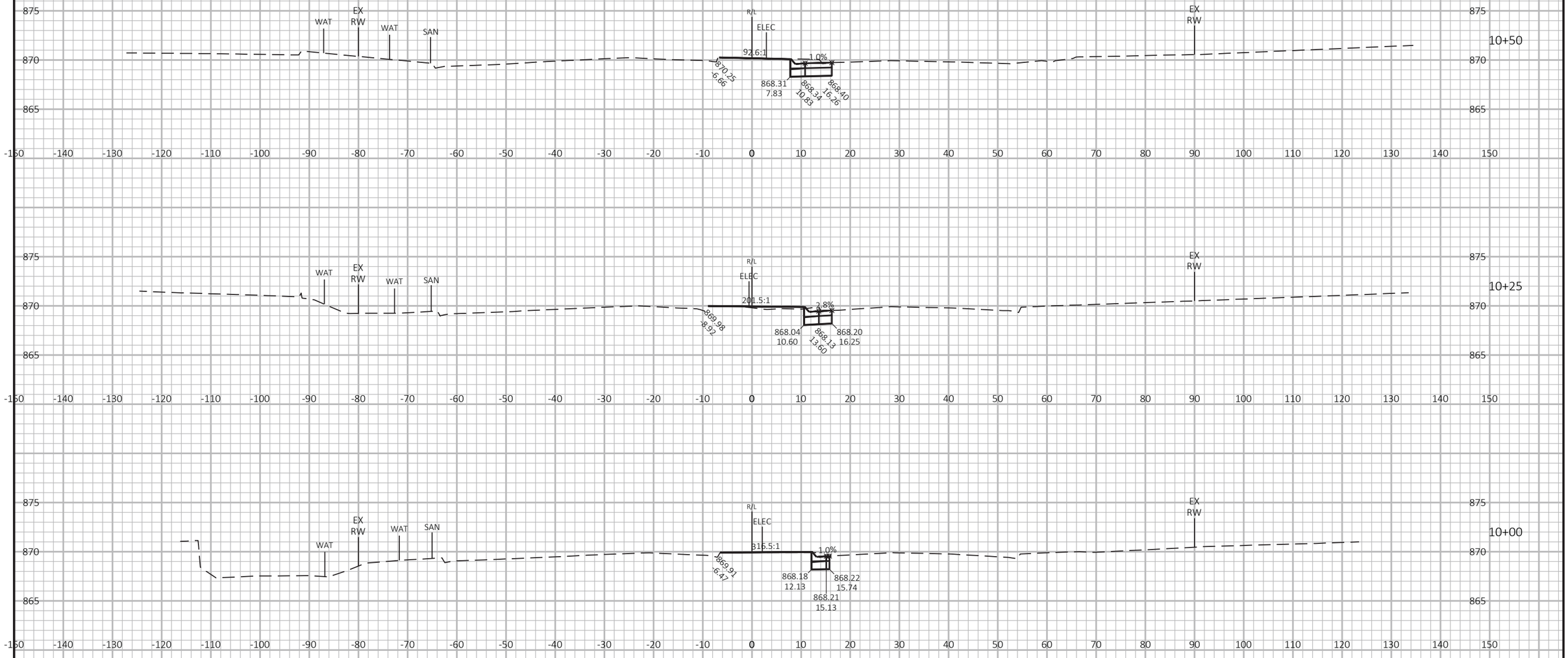
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O	SHEET 469	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:49 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



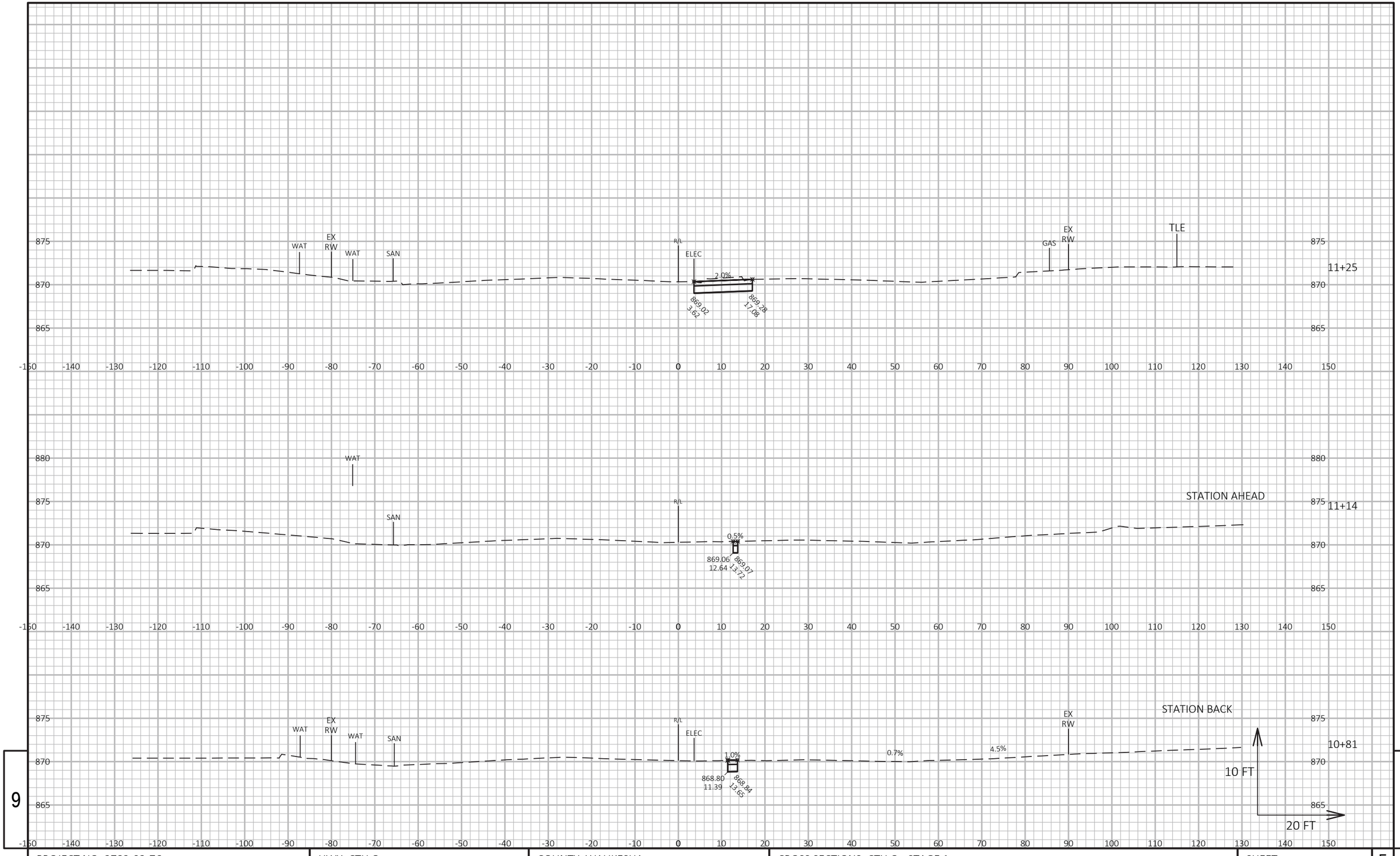
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 1	SHEET 470	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090202-CTH O STAGE 1.DWG PLOT DATE : 7/28/2019 11:55 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



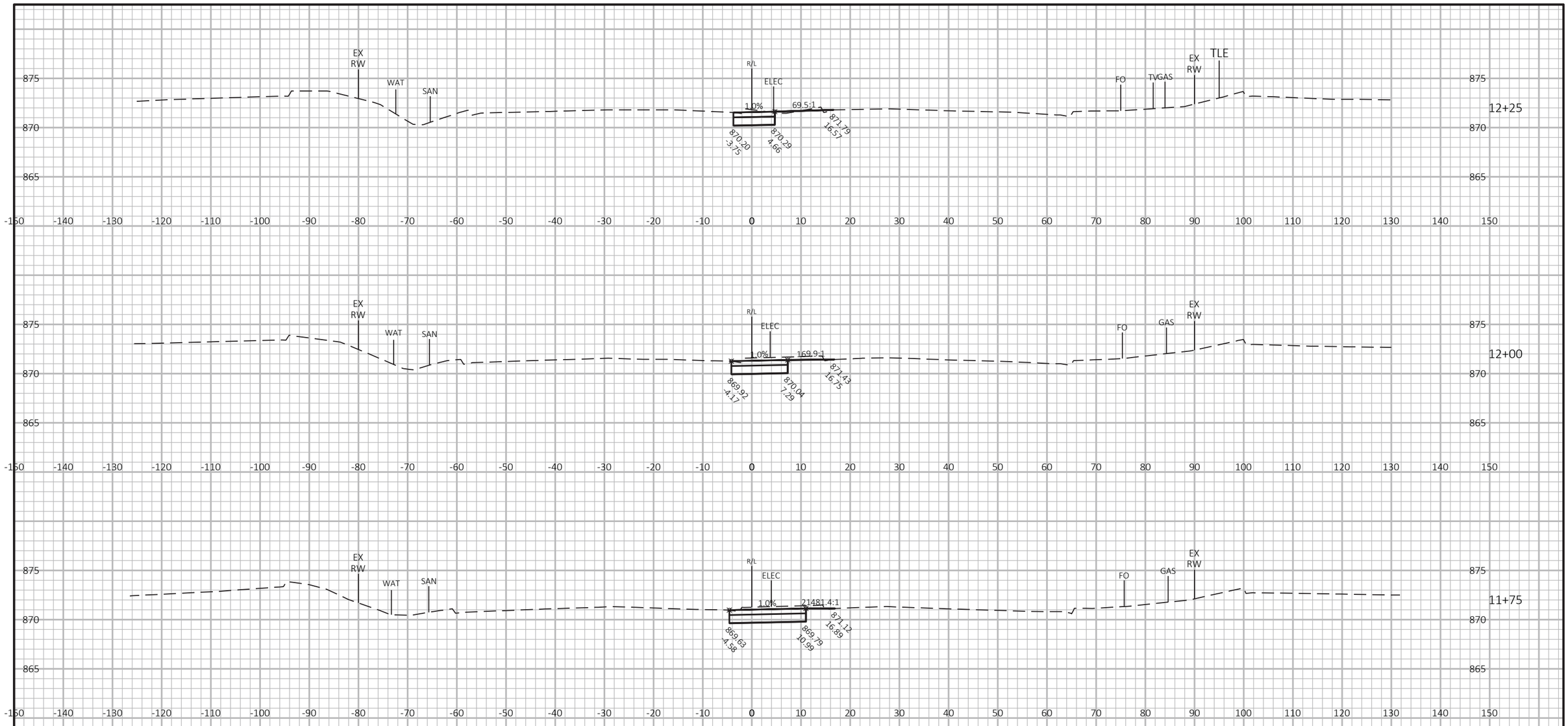
9

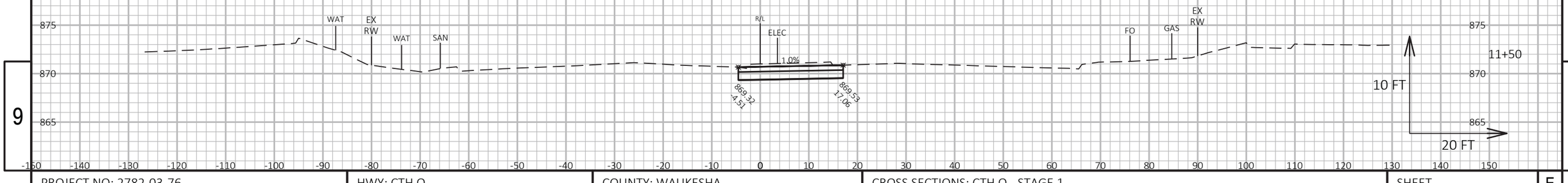
9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 1	SHEET 471	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090202-CTH O STAGE 1.DWG PLOT DATE : 7/28/2019 11:55 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

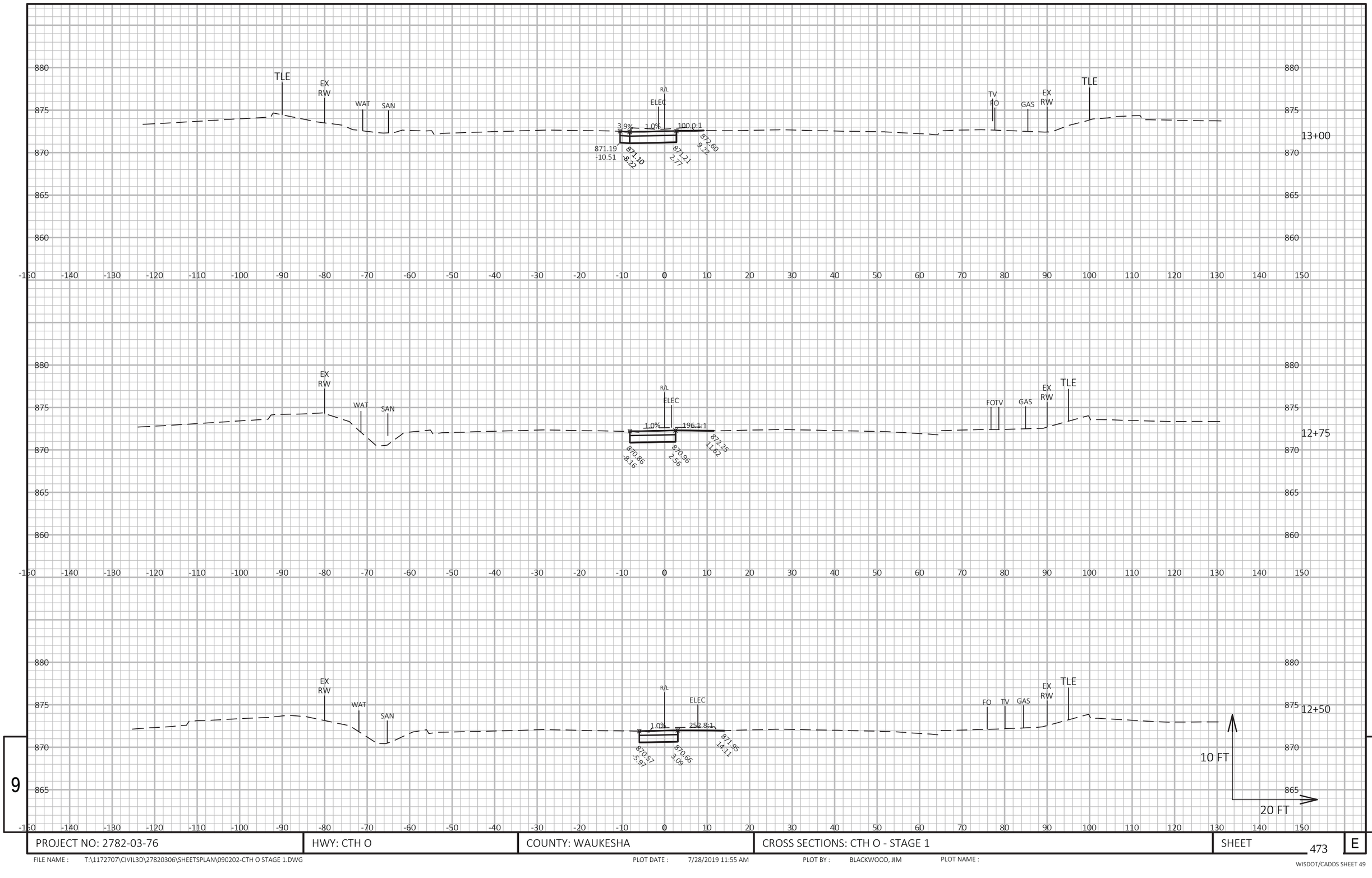




9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 1	SHEET 472	E



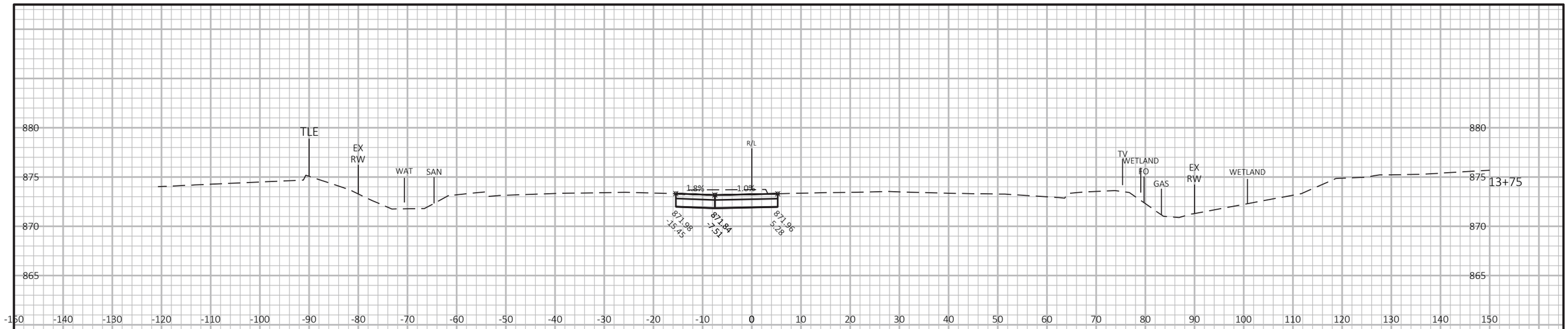
9

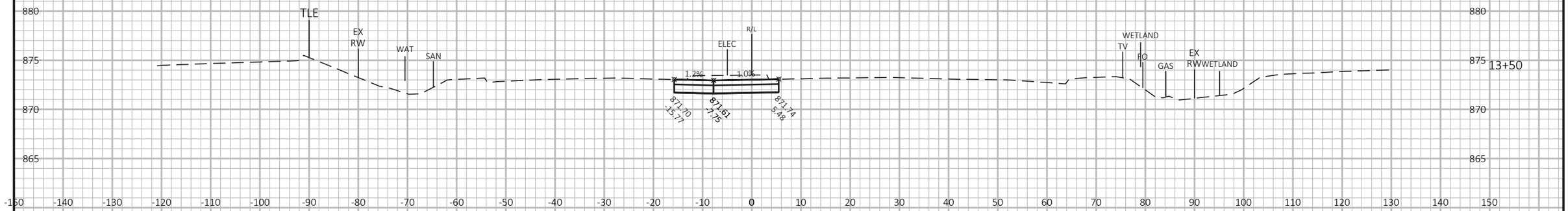
9

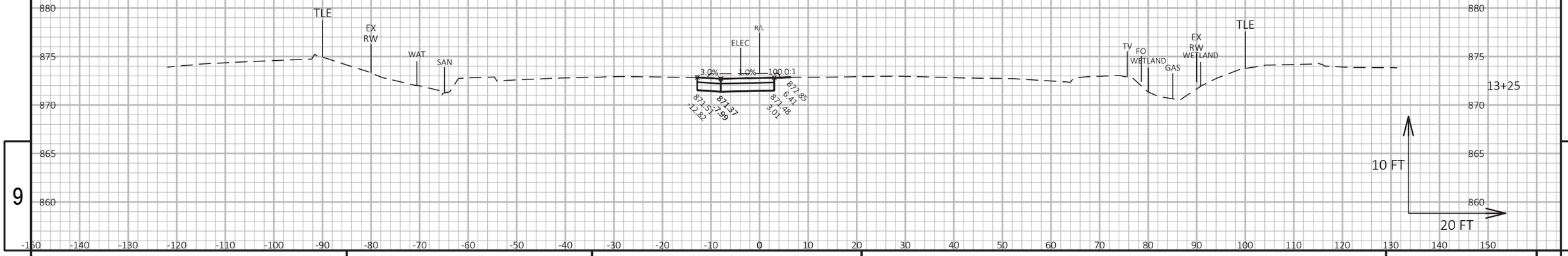
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 1	SHEET 473	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090202-CTH O STAGE 1.DWG PLOT DATE : 7/28/2019 11:55 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49







9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 1	SHEET 474	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090202-CTH O STAGE 1.DWG PLOT DATE : 7/28/2019 11:55 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

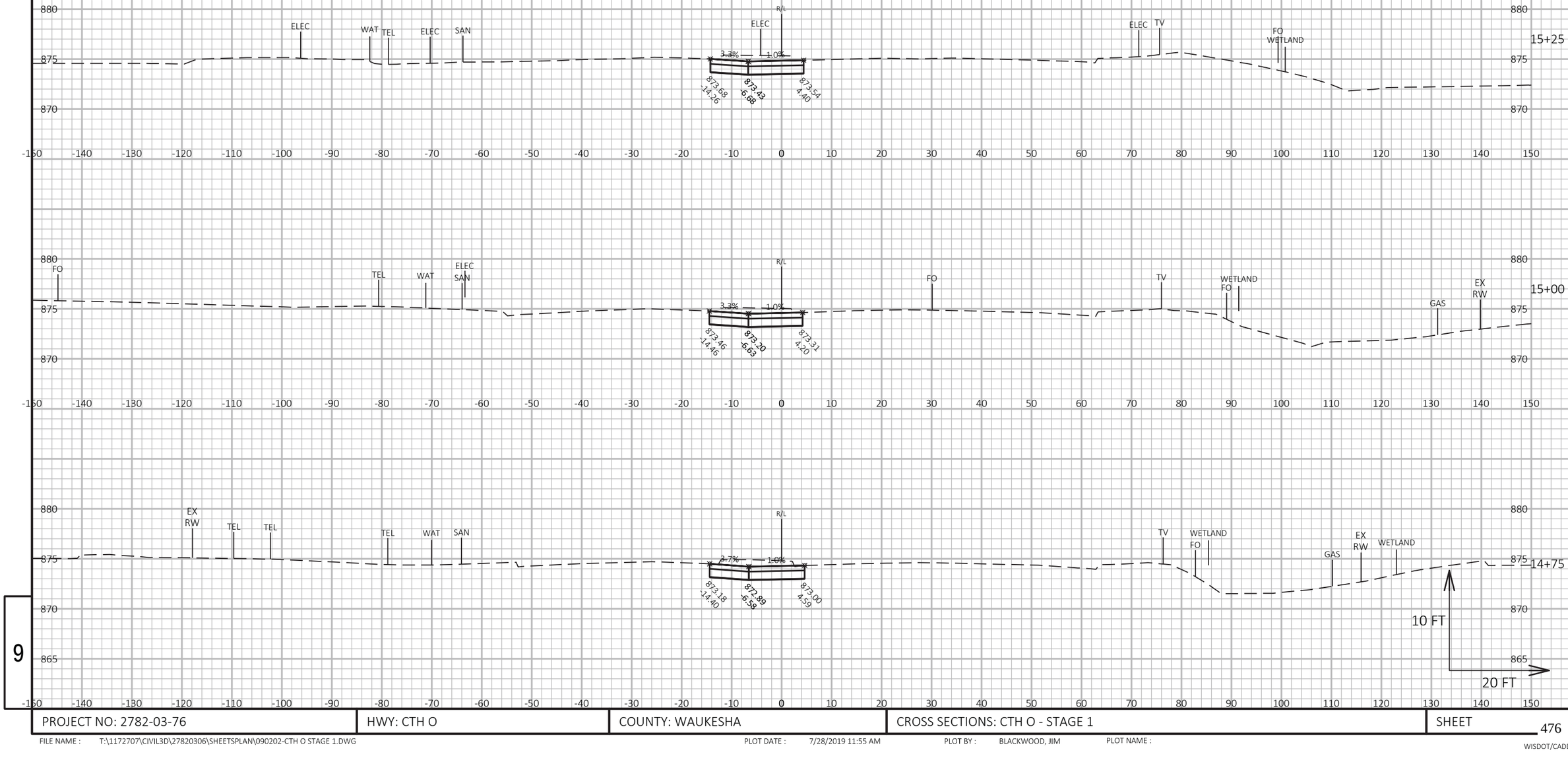
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 1	SHEET 475	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090202-CTH O STAGE 1.DWG PLOT DATE : 7/28/2019 11:55 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



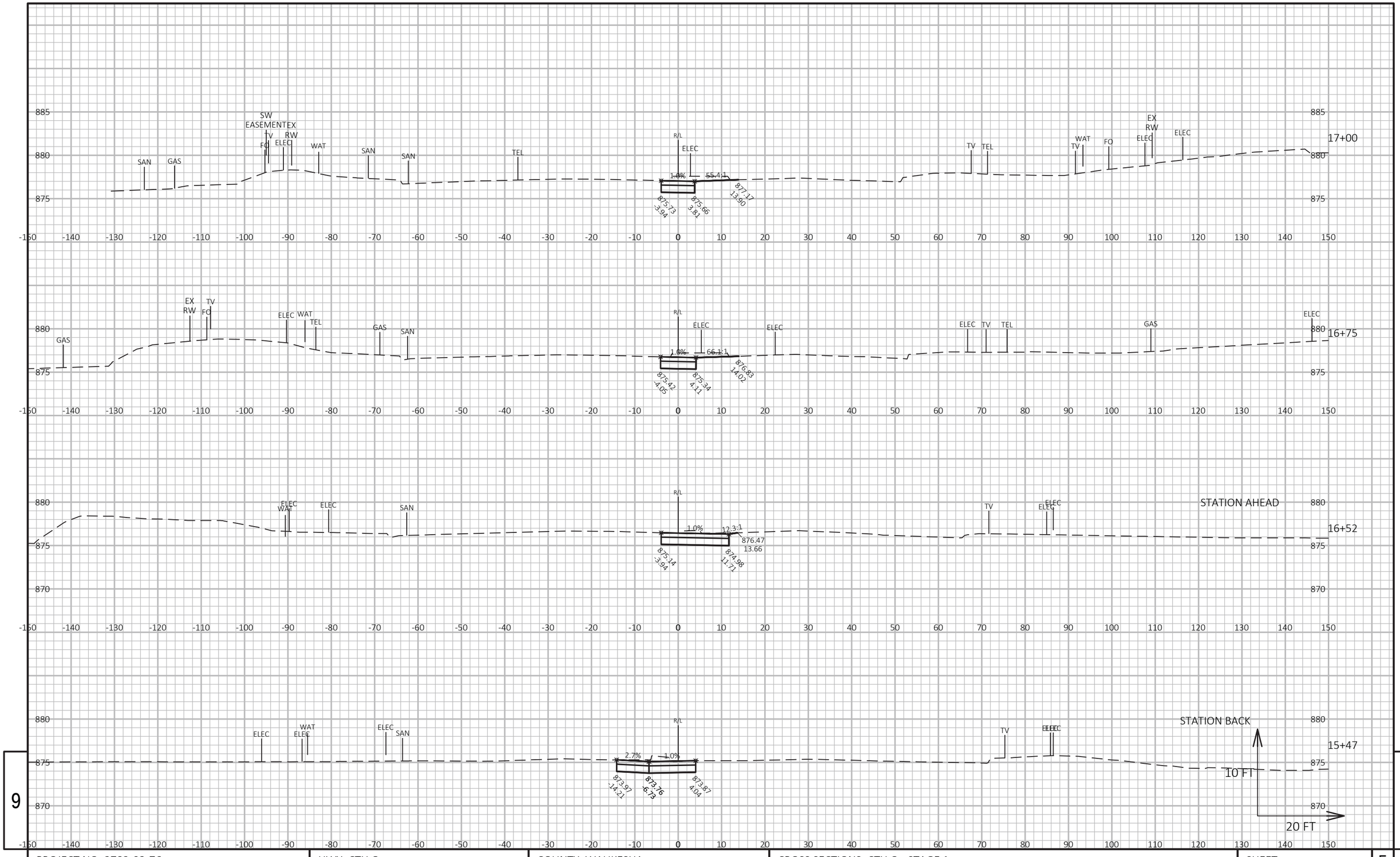
9

9

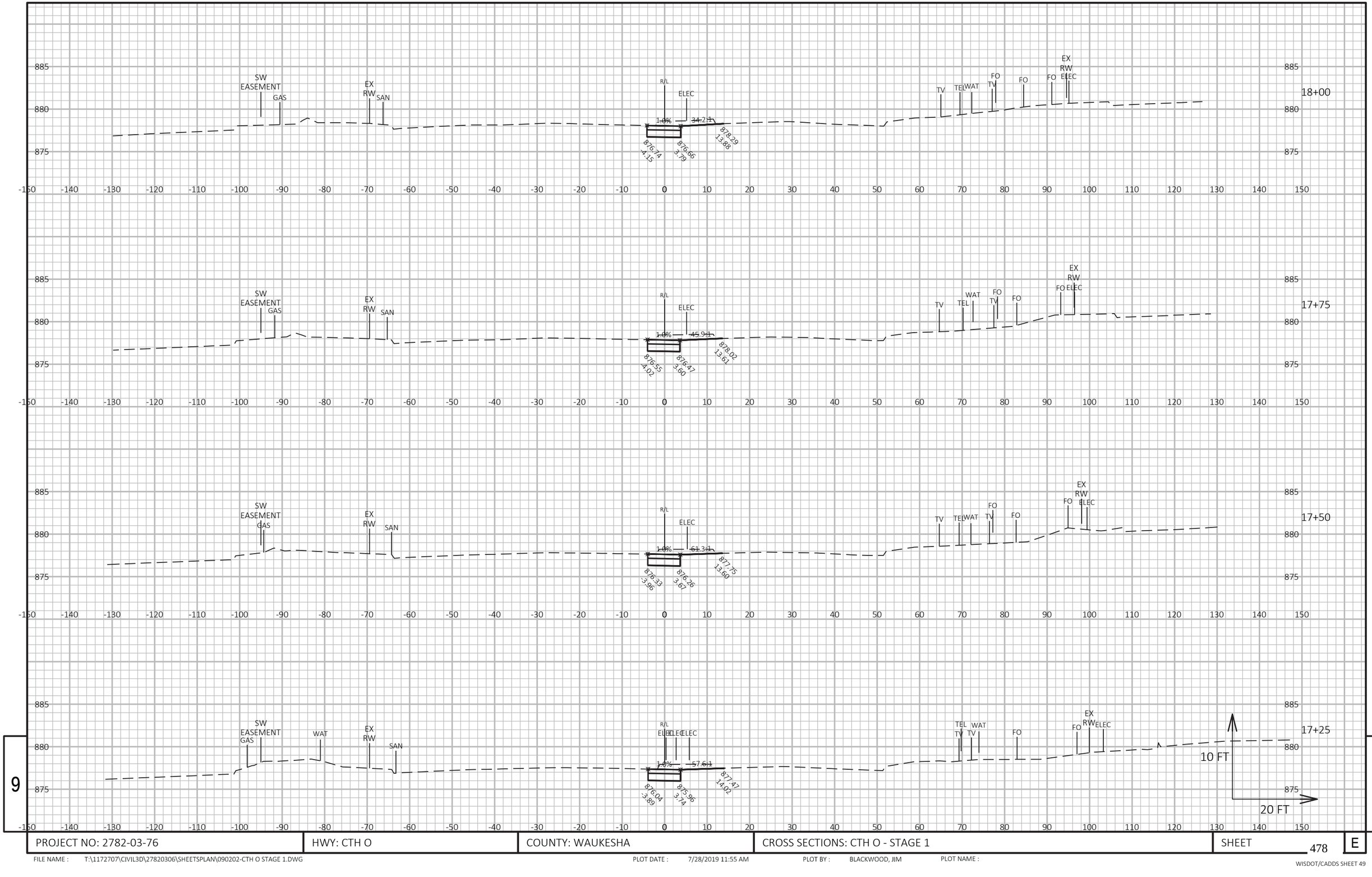
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 1	SHEET 476	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090202-CTH O STAGE 1.DWG PLOT DATE : 7/28/2019 11:55 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 1	SHEET 477	E



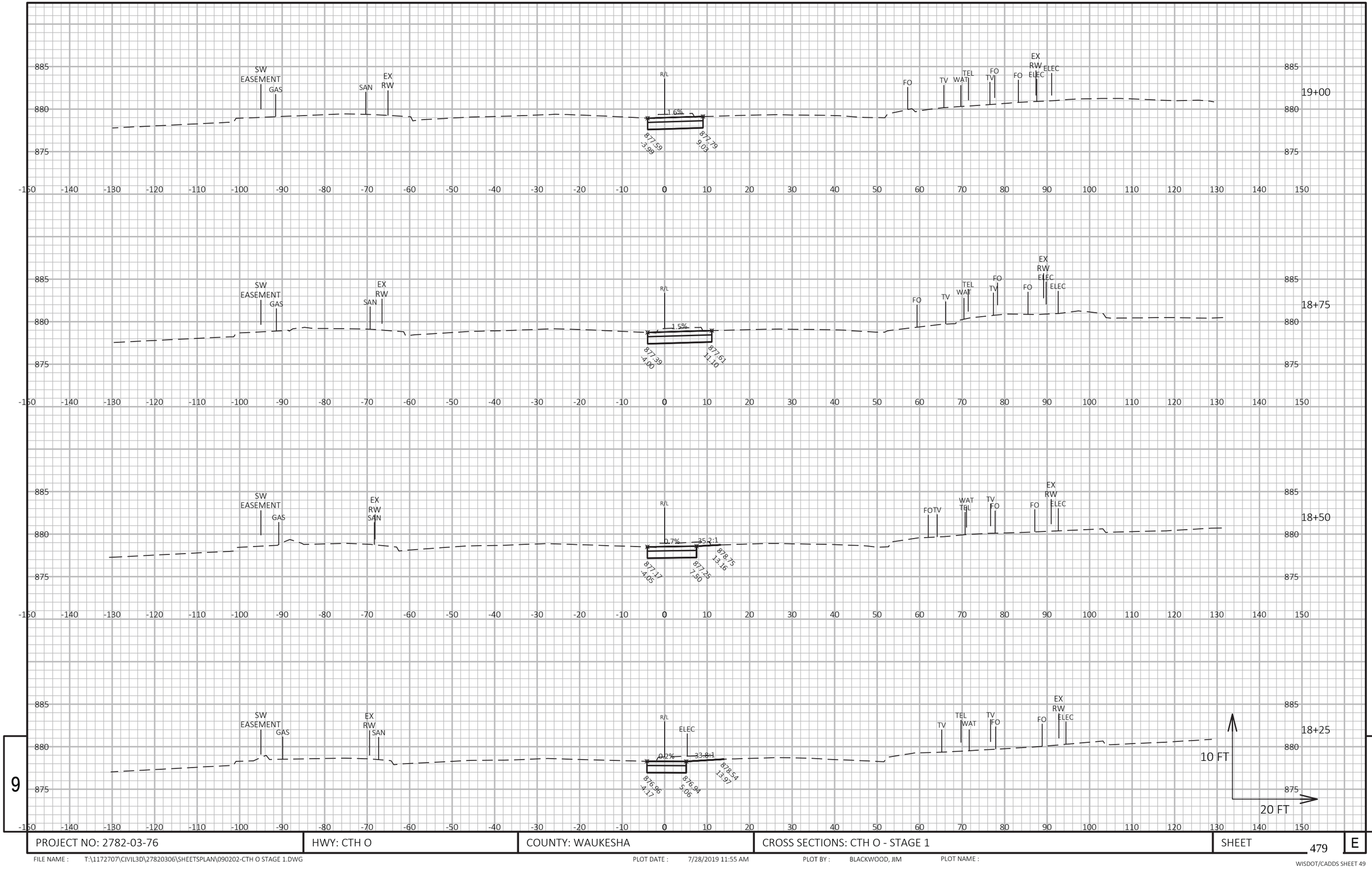
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 1	SHEET 478	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090202-CTH O STAGE 1.DWG PLOT DATE : 7/28/2019 11:55 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



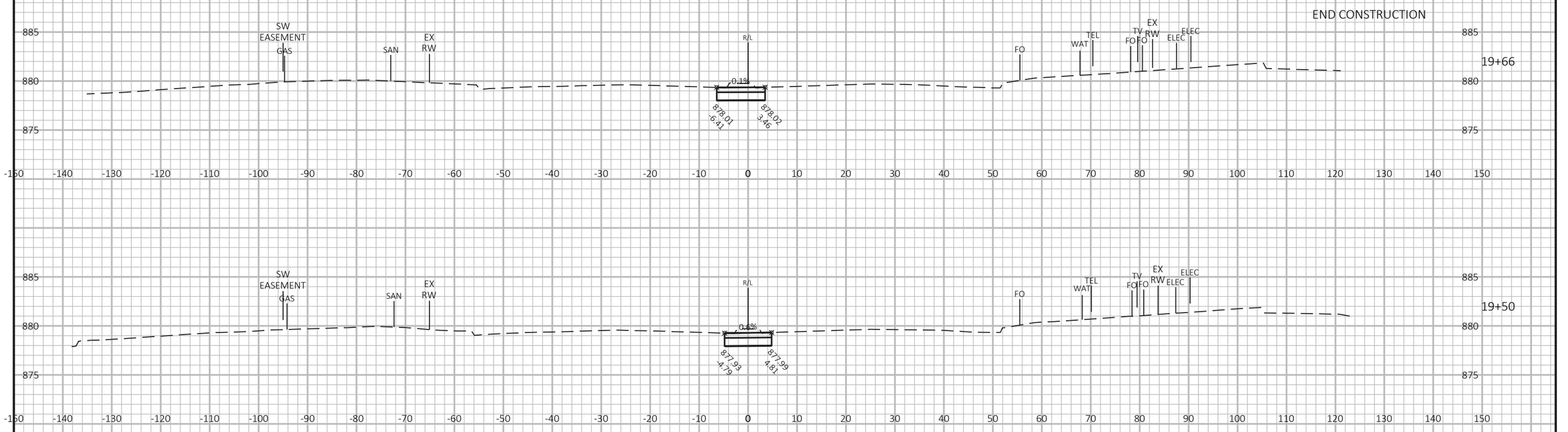
9

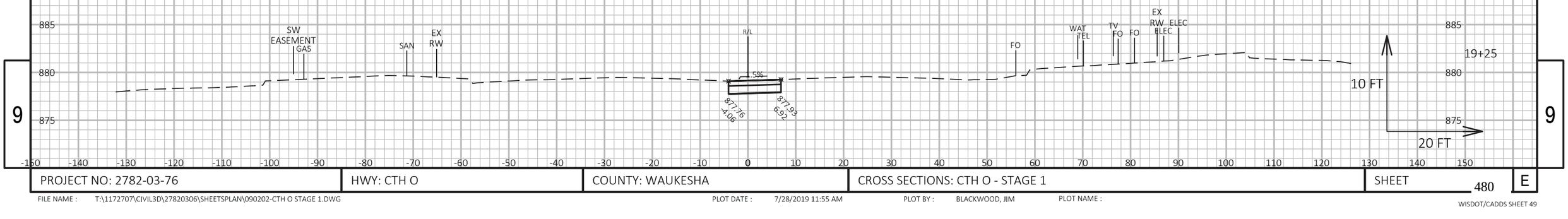
9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 1	SHEET 479	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090202-CTH O STAGE 1.DWG PLOT DATE : 7/28/2019 11:55 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49





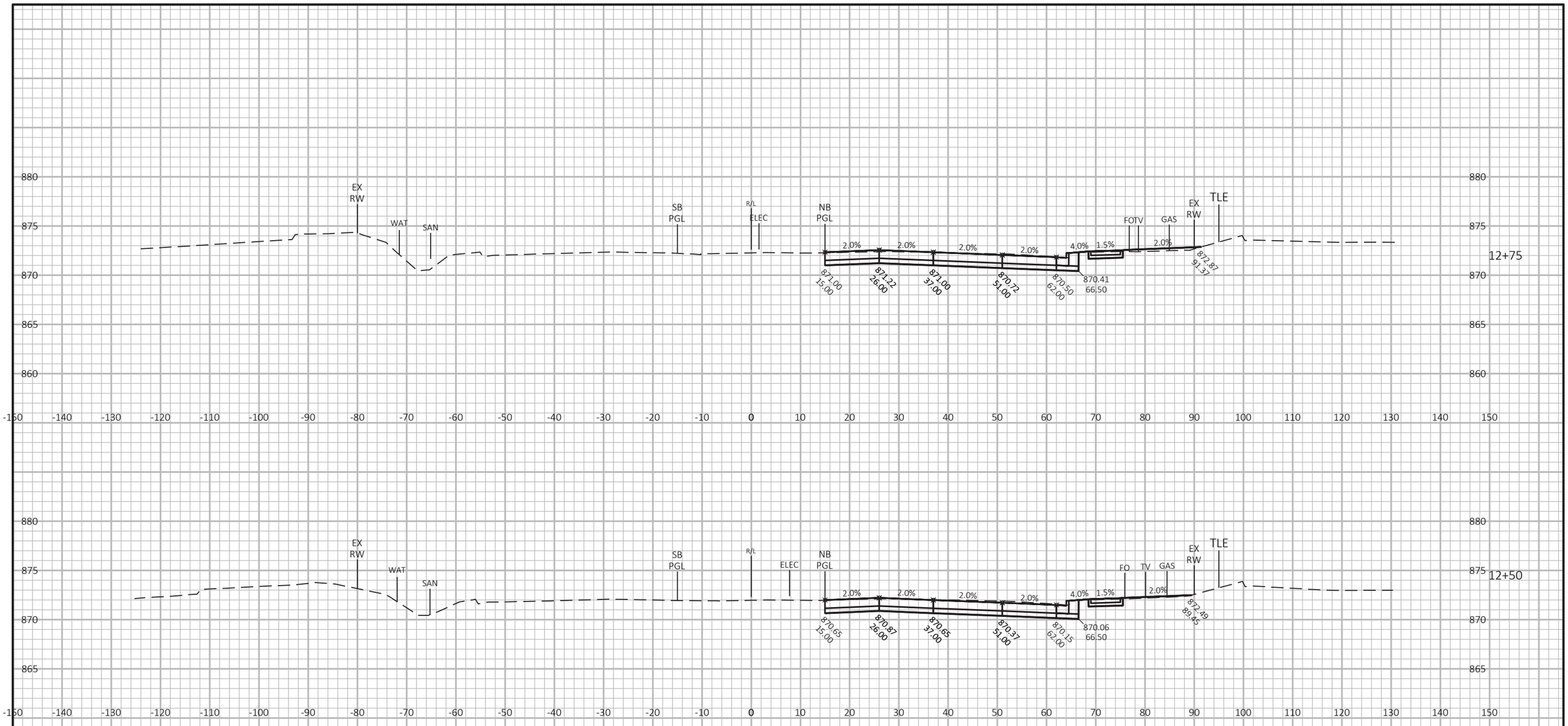
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 1	SHEET 480	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090202-CTH O STAGE 1.DWG PLOT DATE : 7/28/2019 11:55 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



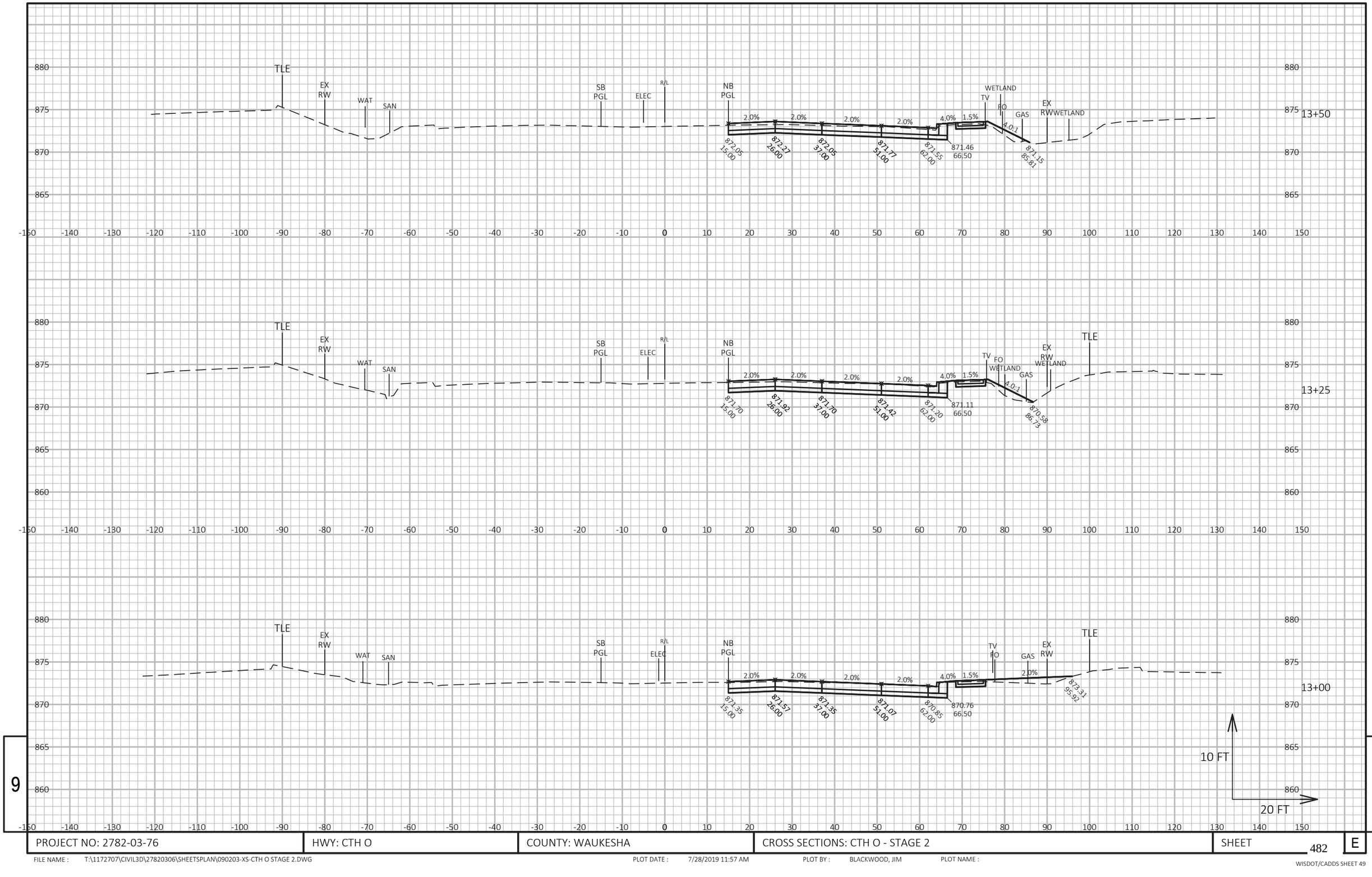
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 2	SHEET 481	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090203-XS-CTH O STAGE 2.DWG PLOT DATE : 7/28/2019 11:57 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 2	SHEET 482	E

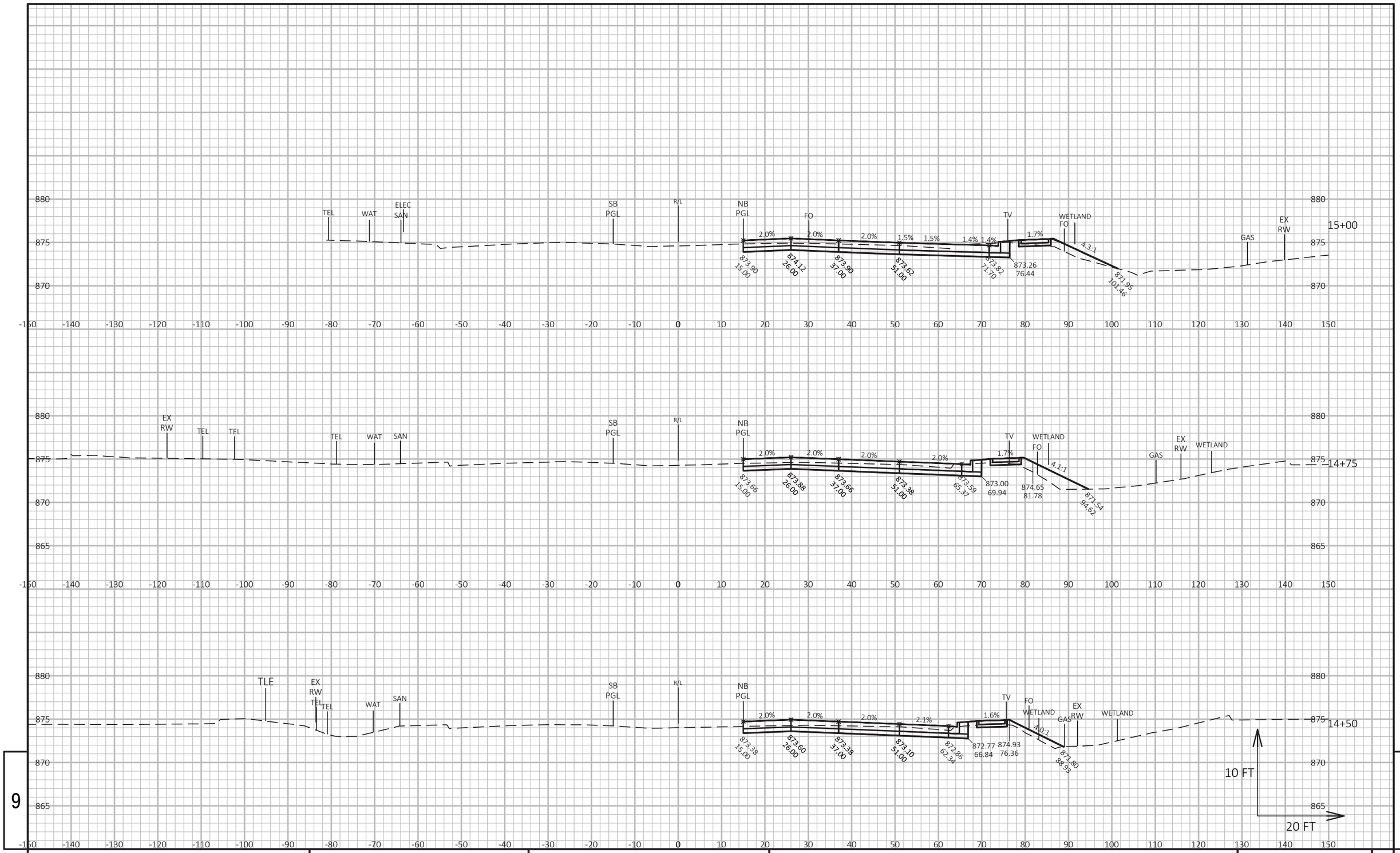
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090203-XS-CTH O STAGE 2.DWG PLOT DATE : 7/28/2019 11:57 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 2	SHEET 483 E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090203-XS-CTH O STAGE 2.DWG PLOT DATE : 7/28/2019 11:57 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



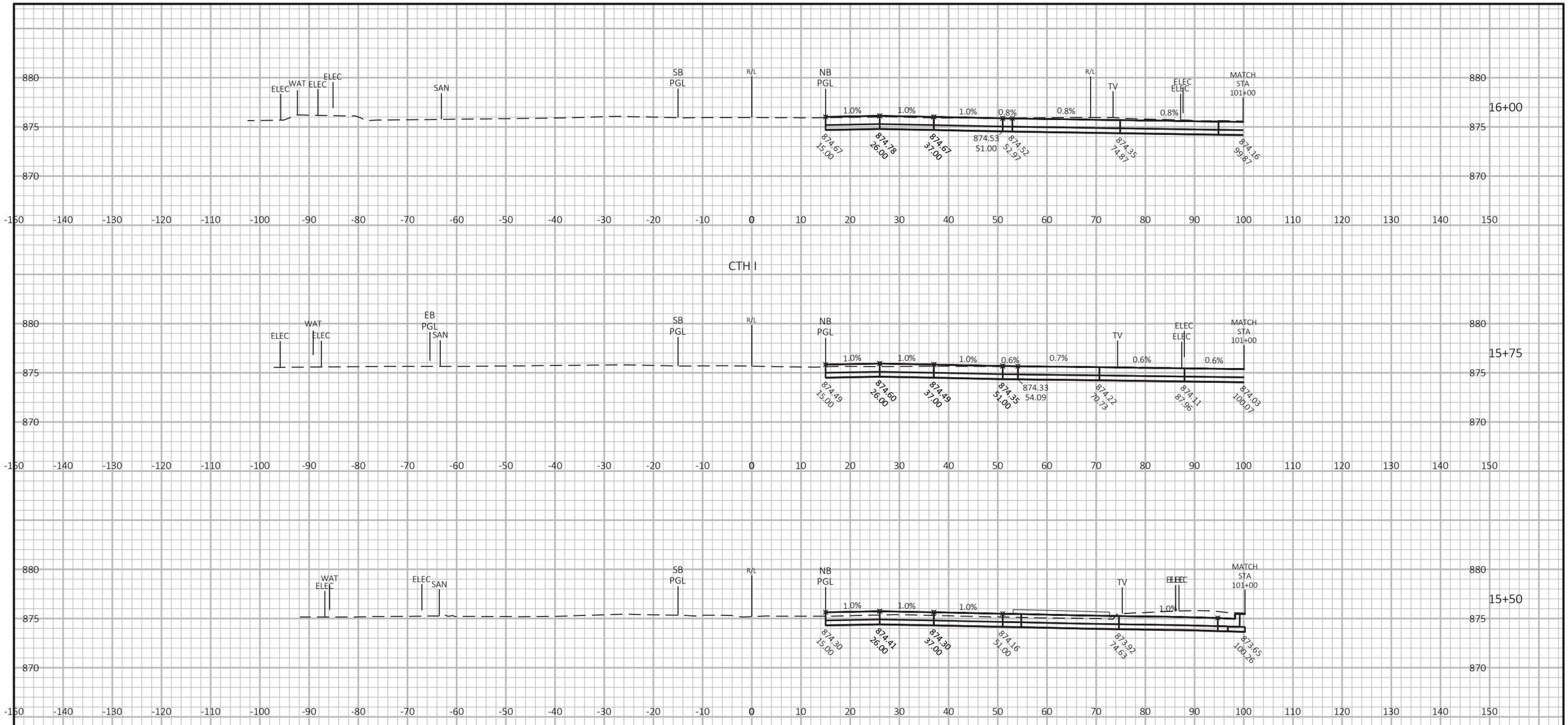
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 2	SHEET 484	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090203-XS-CTH O STAGE 2.DWG PLOT DATE : 7/28/2019 11:57 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



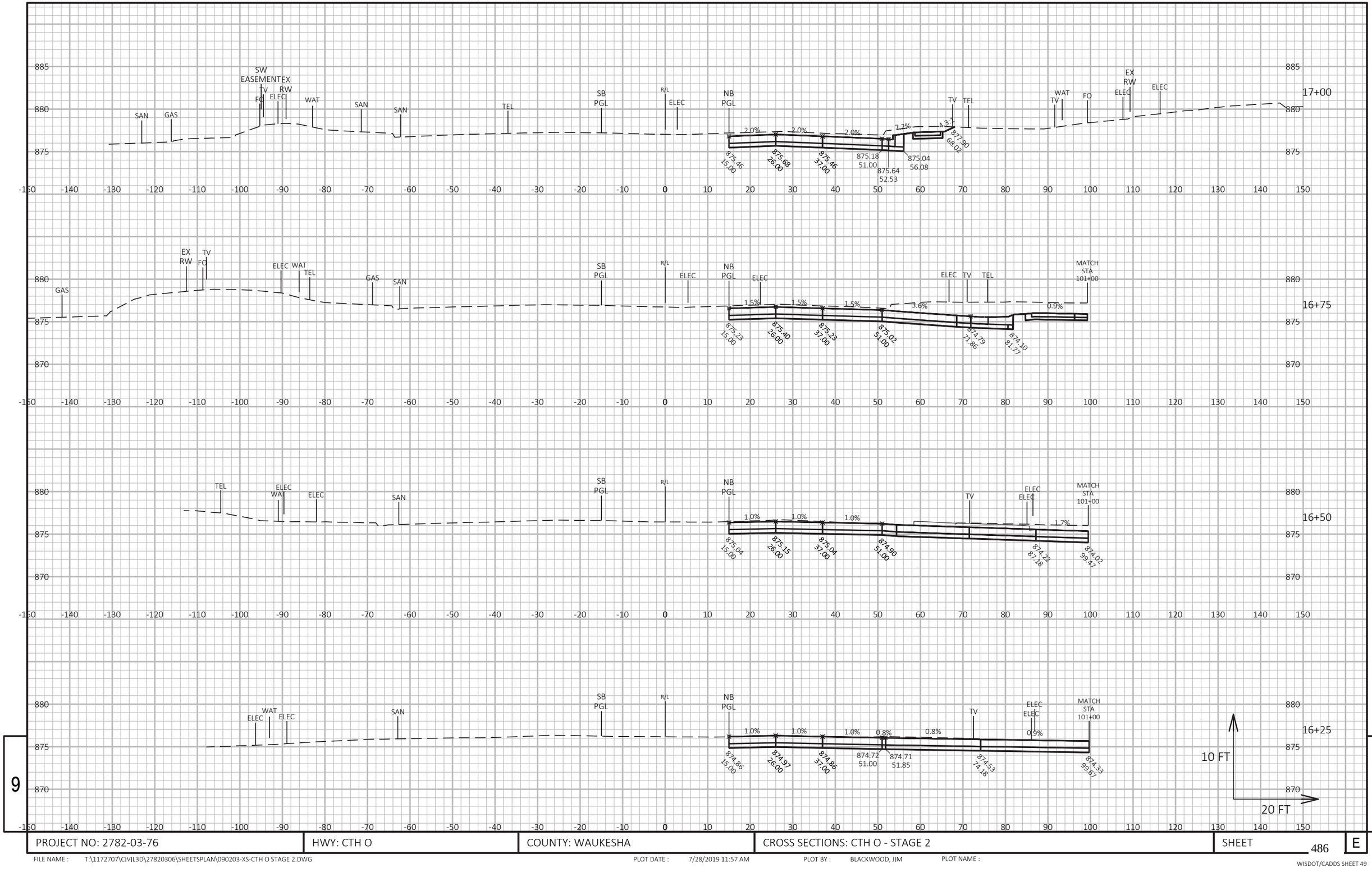
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 2	SHEET 485	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090203-XS-CTH O STAGE 2.DWG PLOT DATE : 7/28/2019 11:57 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



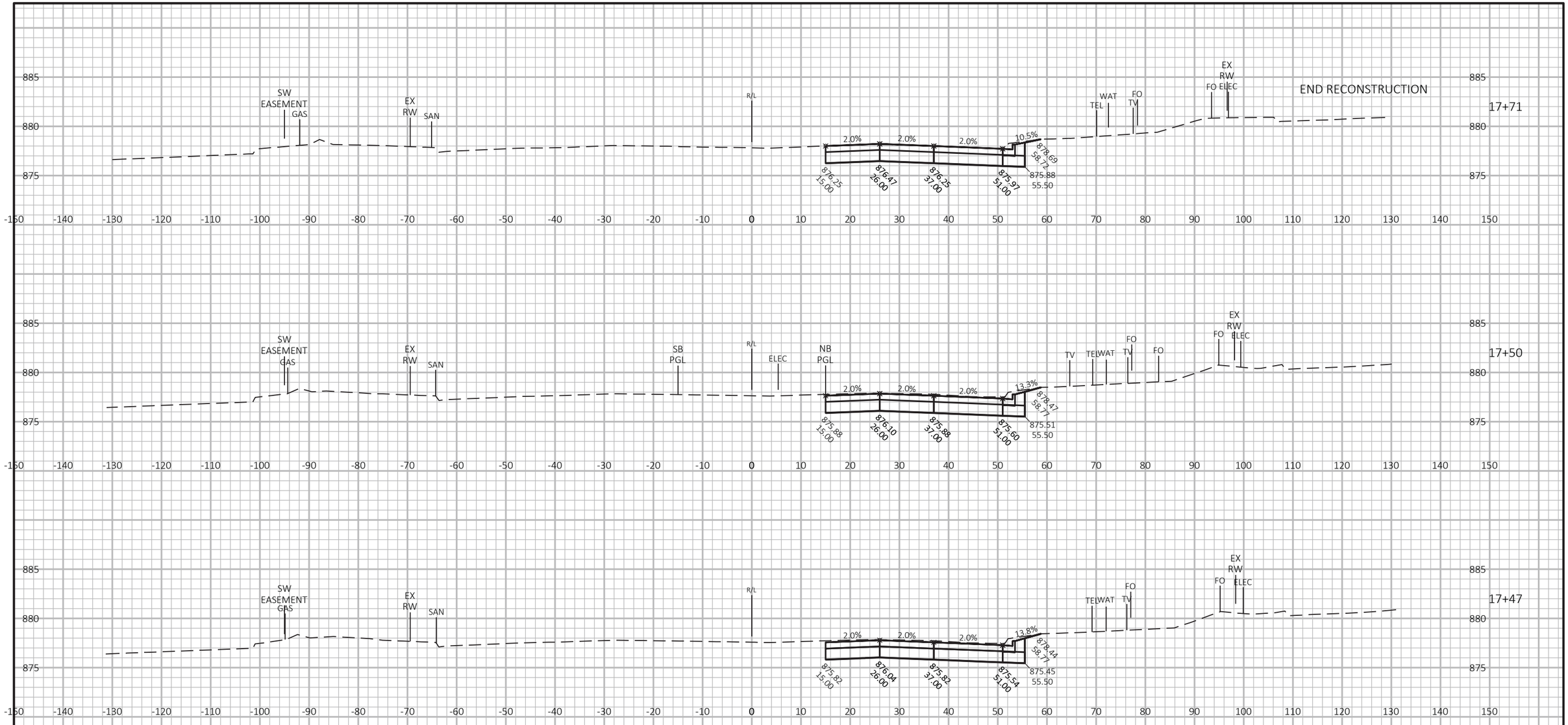
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 2	SHEET 486	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090203-XS-CTH O STAGE 2.DWG PLOT DATE : 7/28/2019 11:57 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



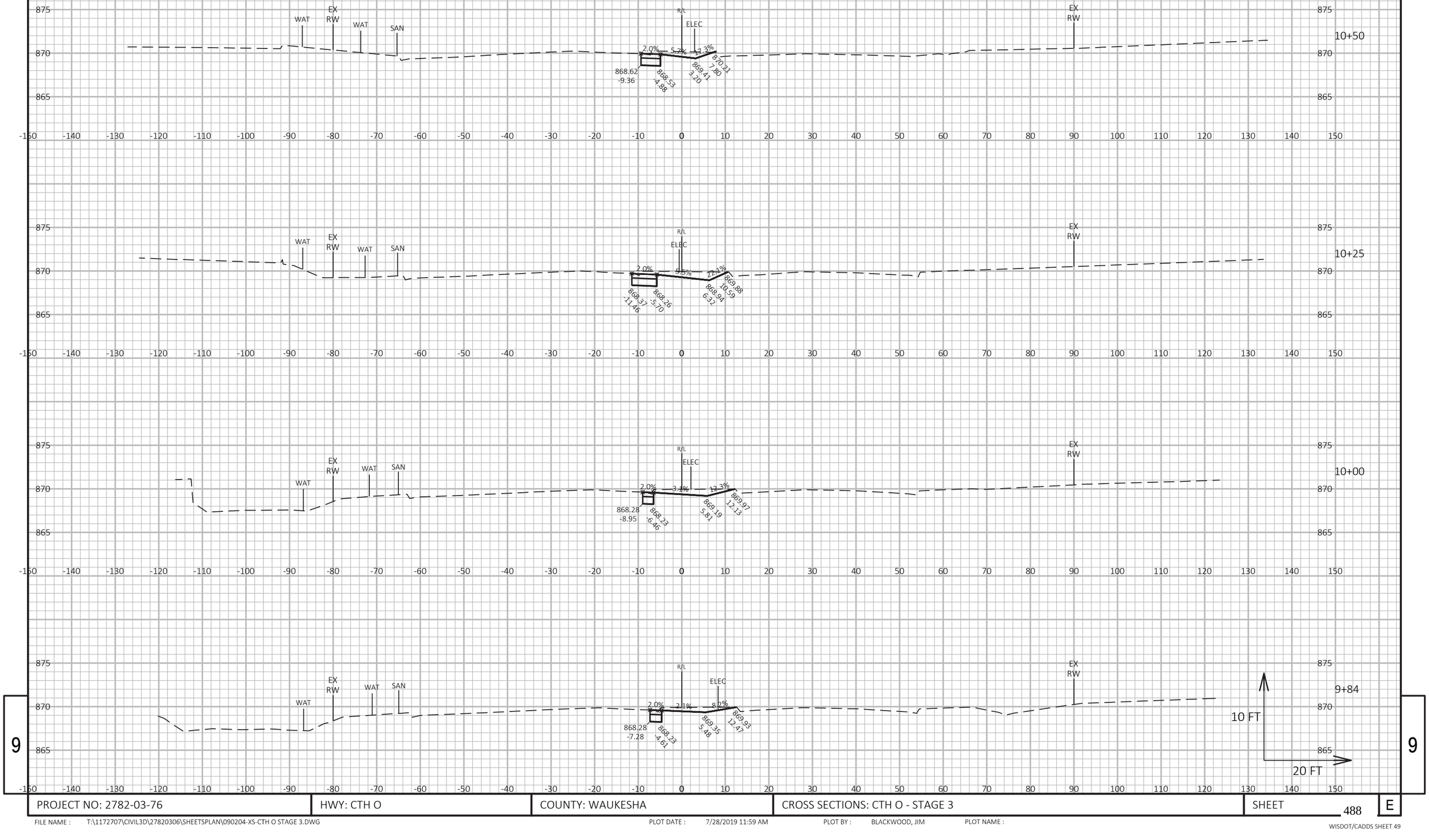
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 2	SHEET 487	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090203-XS-CTH O STAGE 2.DWG PLOT DATE : 7/28/2019 11:57 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



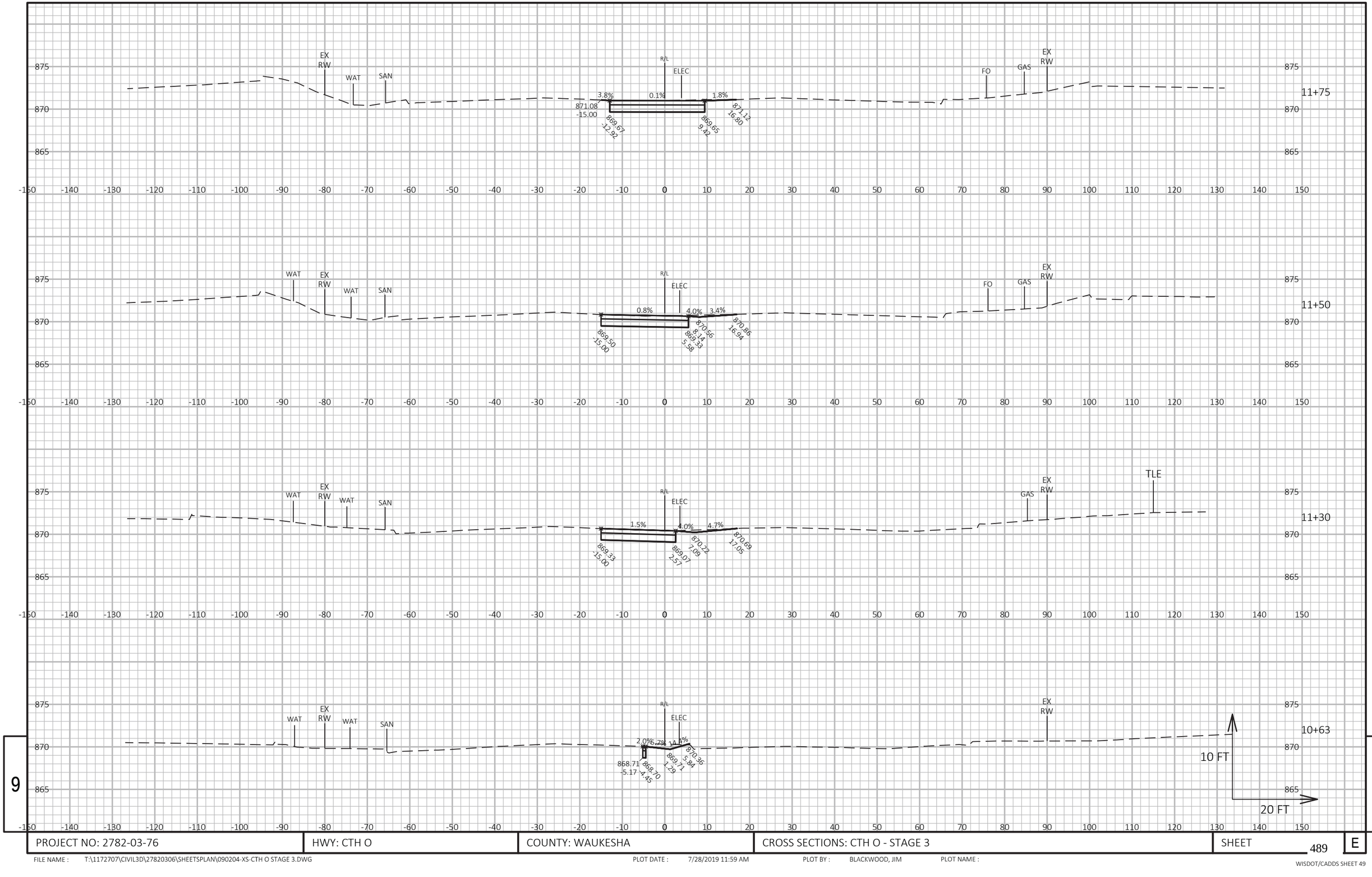
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 3	SHEET 488	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090204-XS-CTH O STAGE 3.DWG PLOT DATE : 7/28/2019 11:59 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



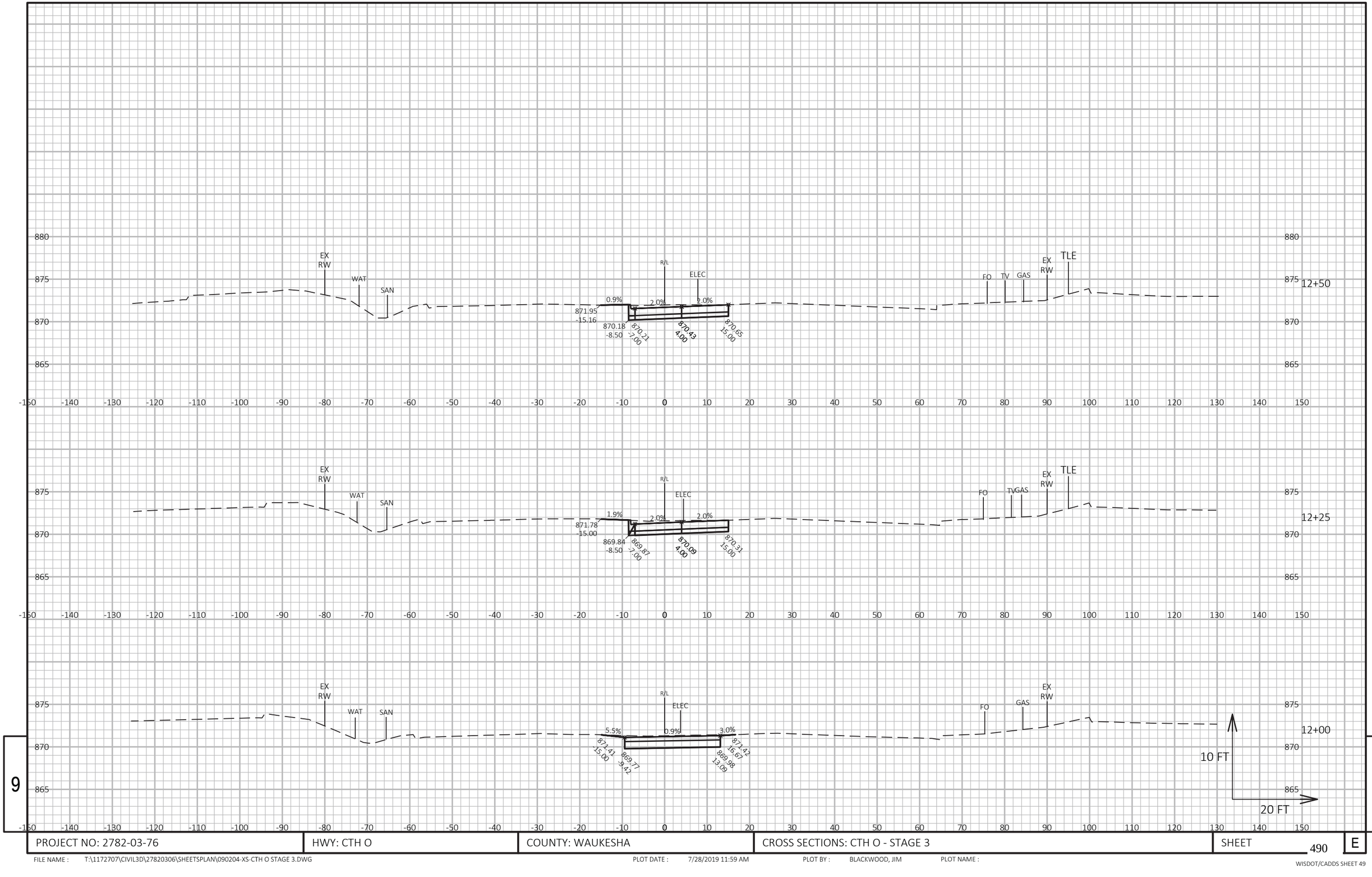
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 3	SHEET 489	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090204-XS-CTH O STAGE 3.DWG PLOT DATE : 7/28/2019 11:59 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



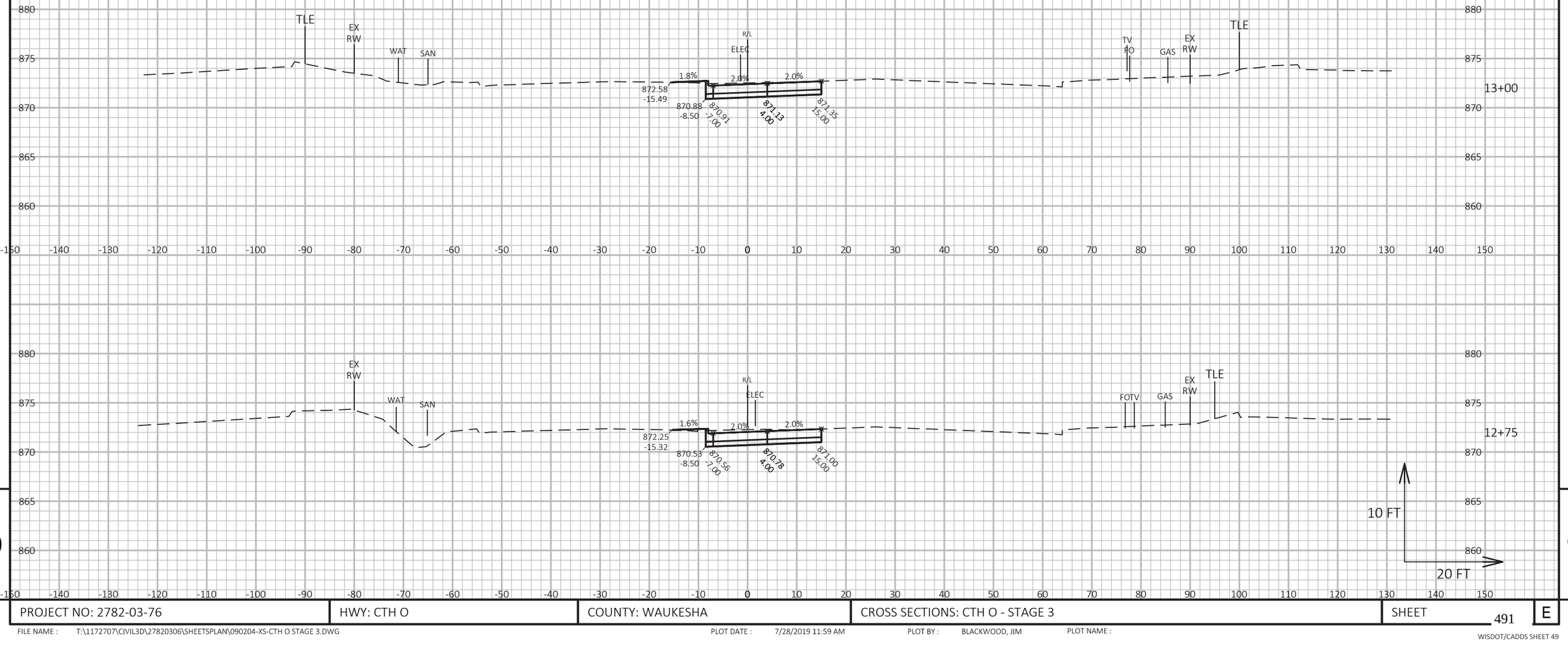
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 3	SHEET 490	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090204-XS-CTH O STAGE 3.DWG PLOT DATE : 7/28/2019 11:59 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



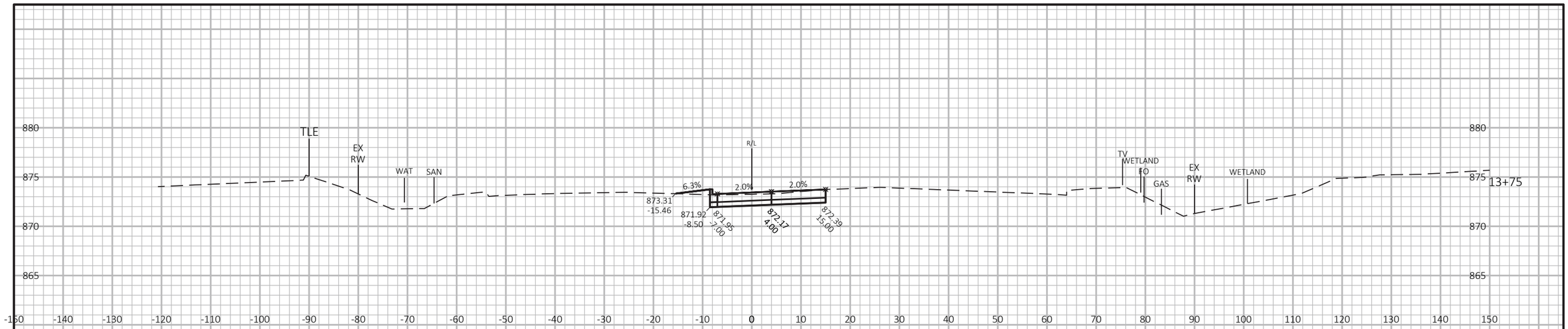
9

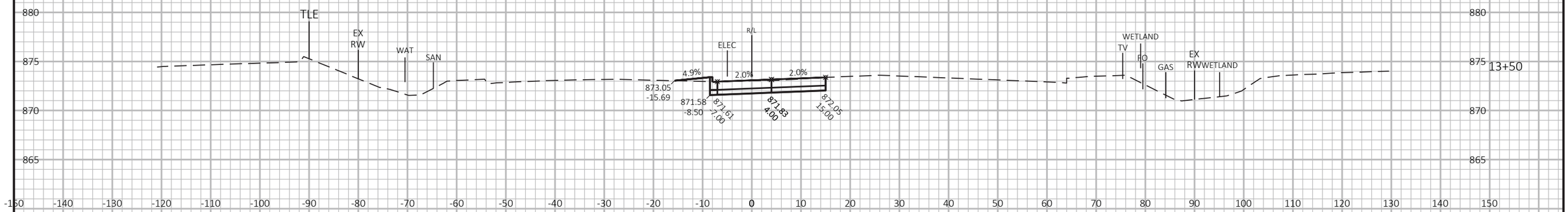
9

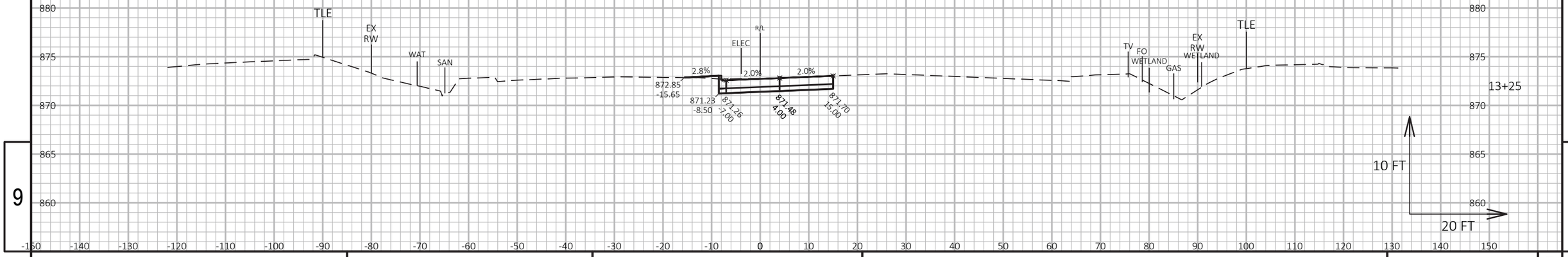
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 3	SHEET 491	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090204-XS-CTH O STAGE 3.DWG PLOT DATE : 7/28/2019 11:59 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49







9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 3	SHEET 492	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090204-XS-CTH O STAGE 3.DWG PLOT DATE : 7/28/2019 11:59 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 3	SHEET 493	E

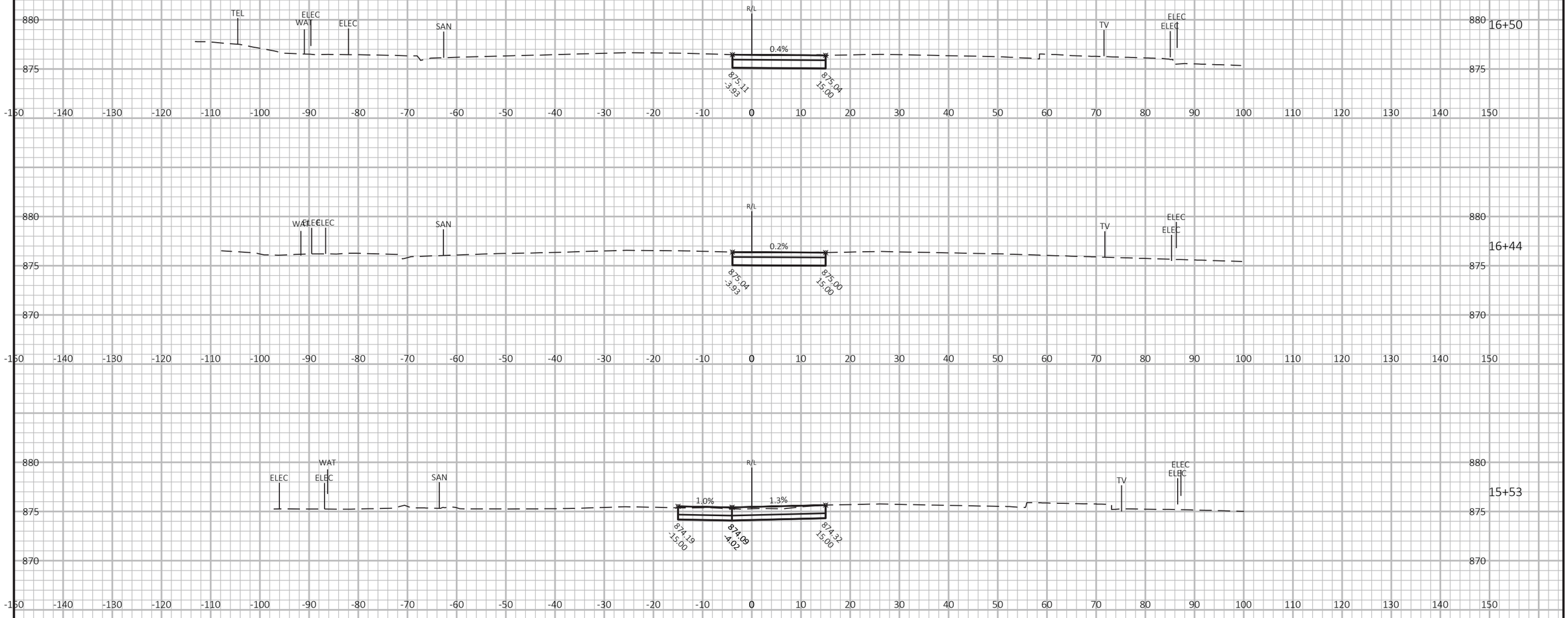
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090204-XS-CTH O STAGE 3.DWG PLOT DATE : 7/28/2019 11:59 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 3	SHEET 494	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090204-XS-CTH O STAGE 3.DWG PLOT DATE : 7/28/2019 11:59 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



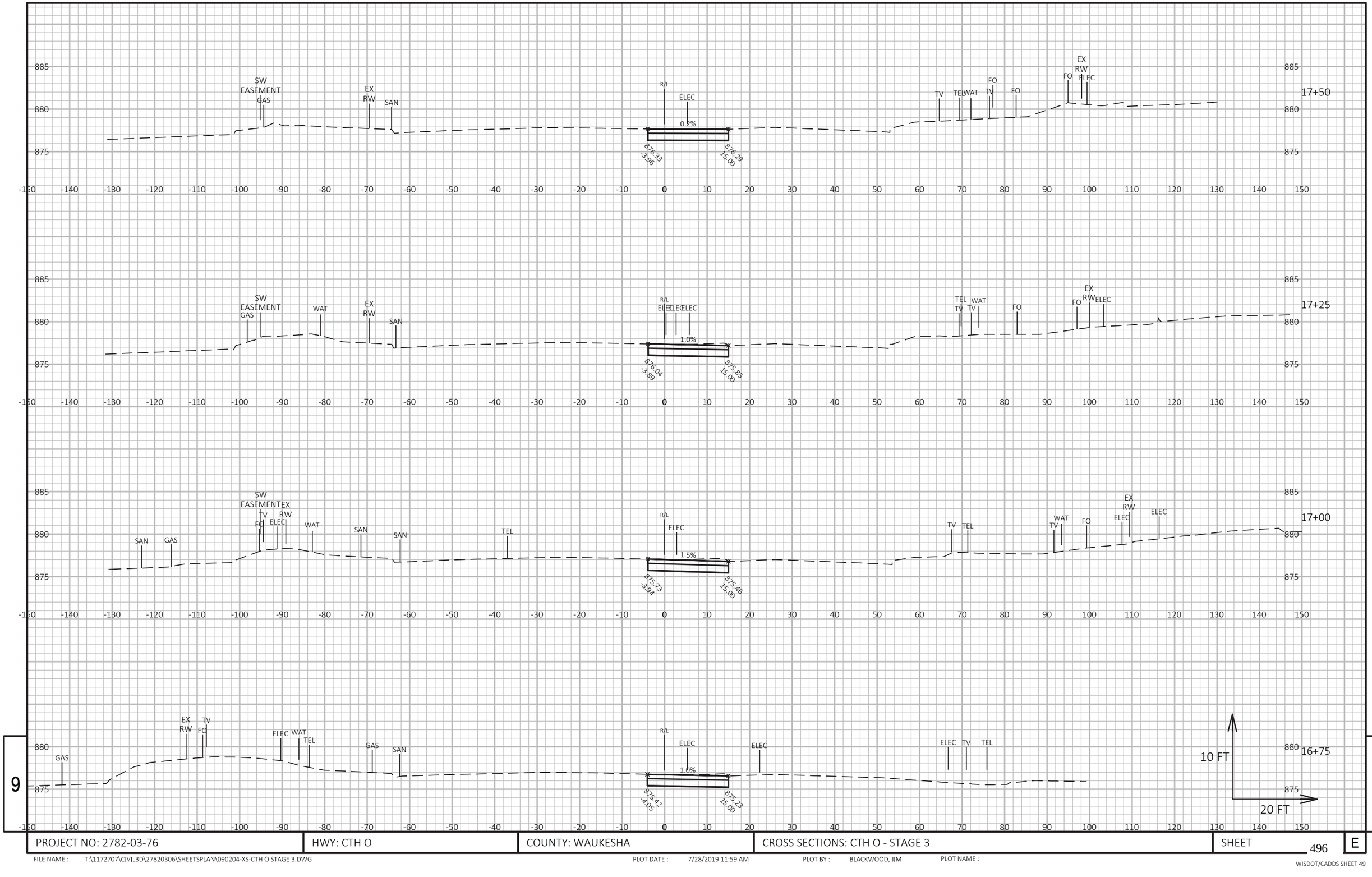
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 3	SHEET 495	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090204-XS-CTH O STAGE 3.DWG PLOT DATE : 7/28/2019 11:59 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



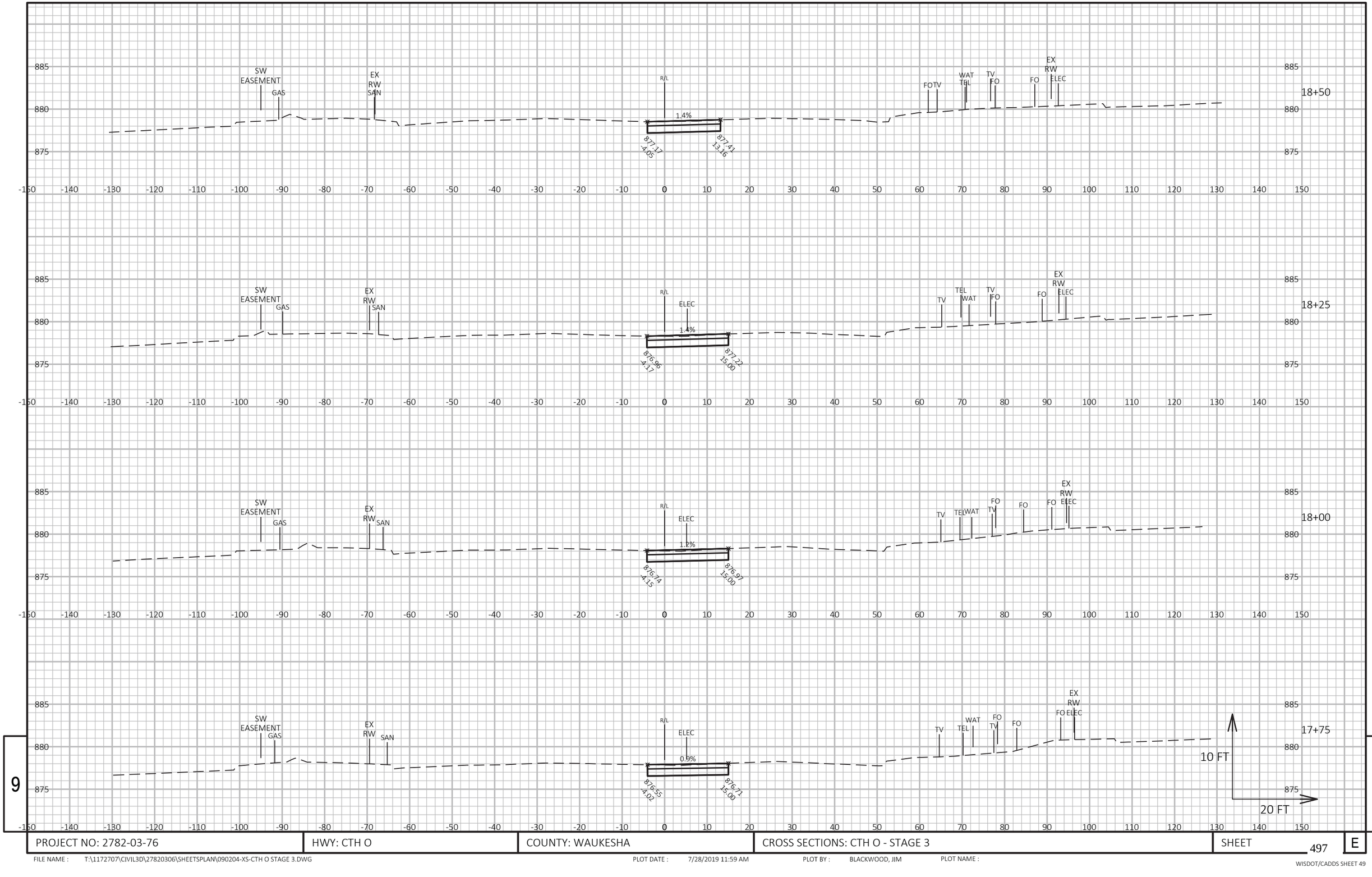
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 3	SHEET 496	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090204-XS-CTH O STAGE 3.DWG PLOT DATE : 7/28/2019 11:59 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



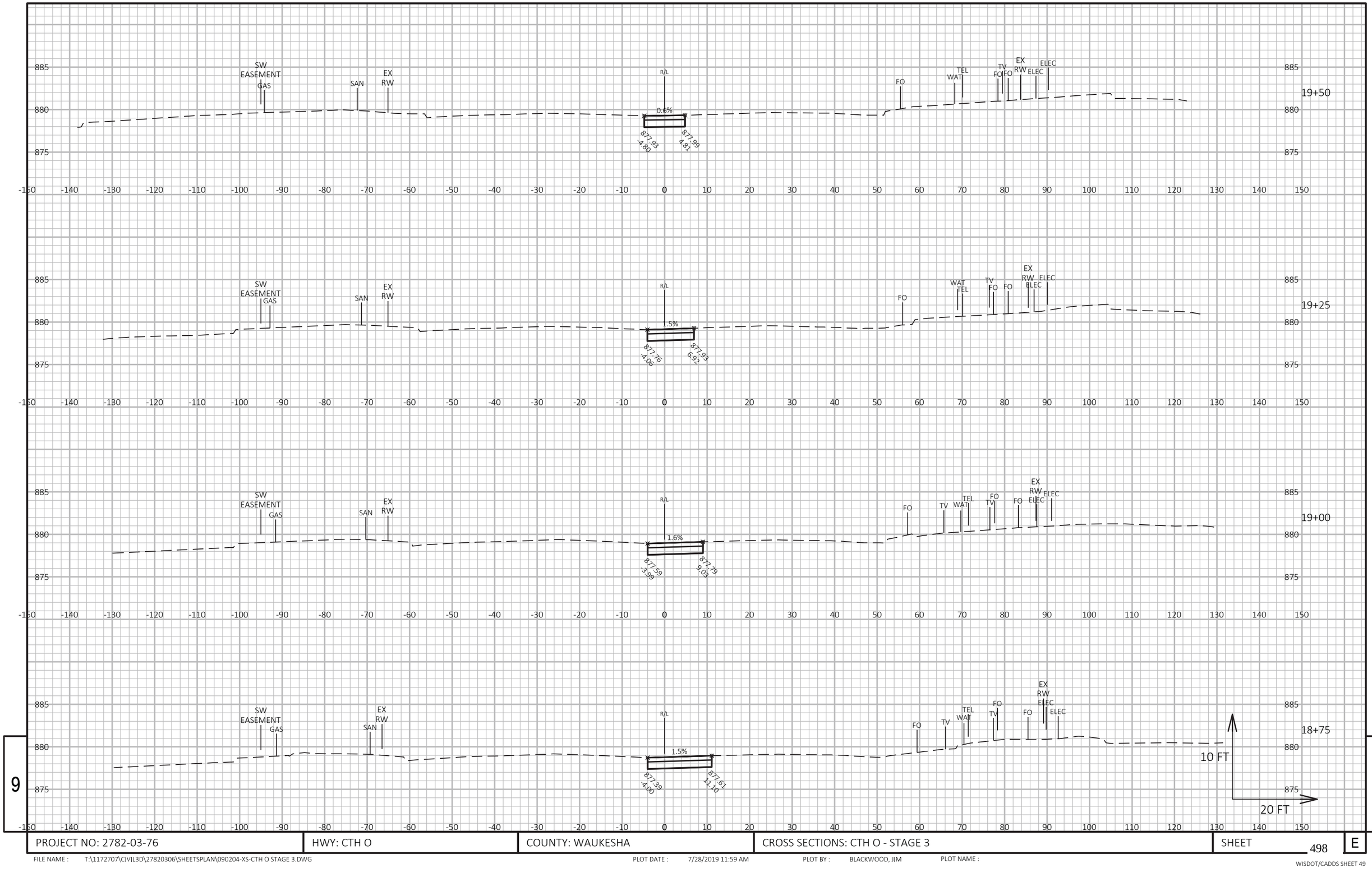
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 3	SHEET 497	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090204-XS-CTH O STAGE 3.DWG PLOT DATE : 7/28/2019 11:59 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



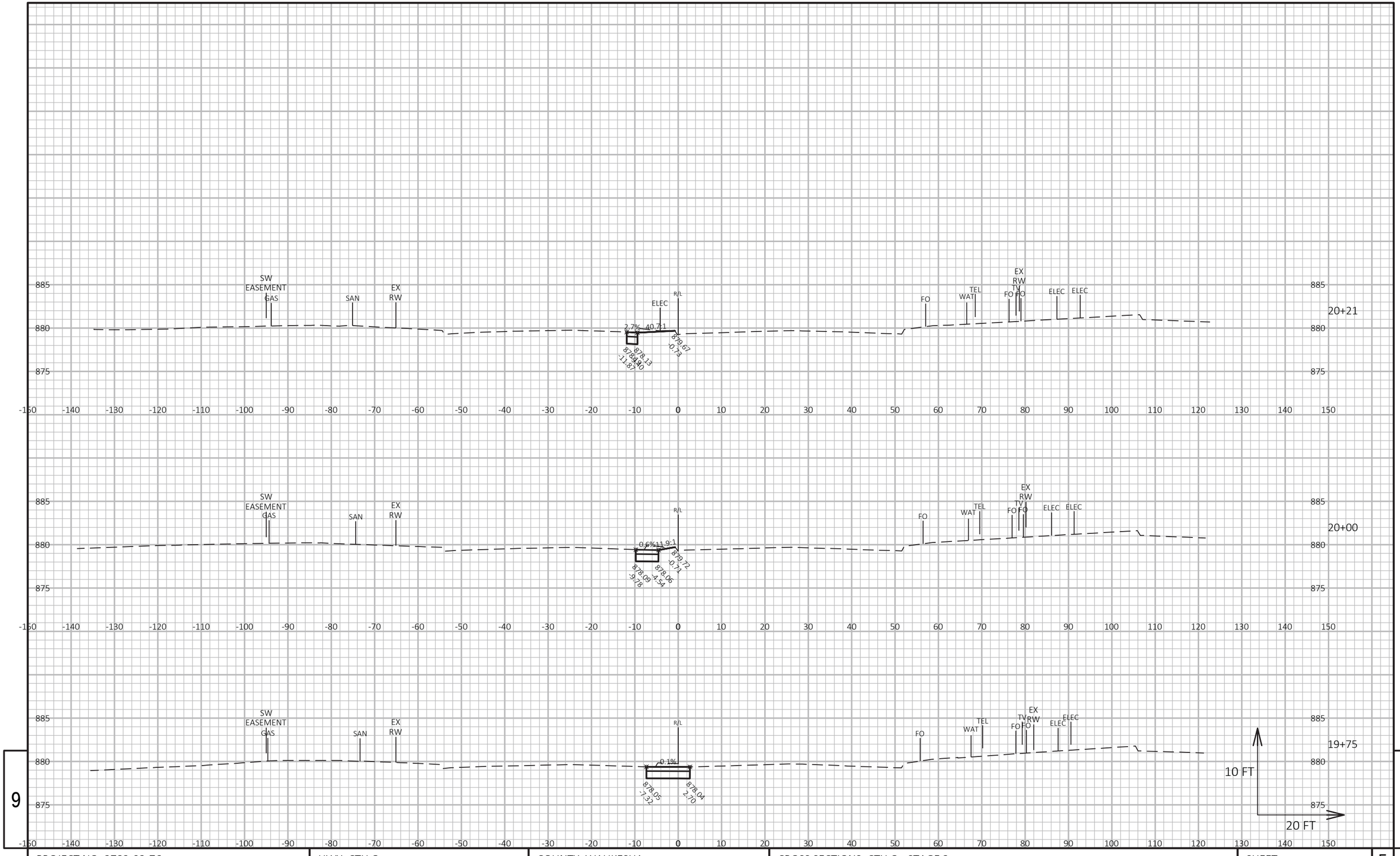
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 3	SHEET 498	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090204-XS-CTH O STAGE 3.DWG PLOT DATE : 7/28/2019 11:59 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



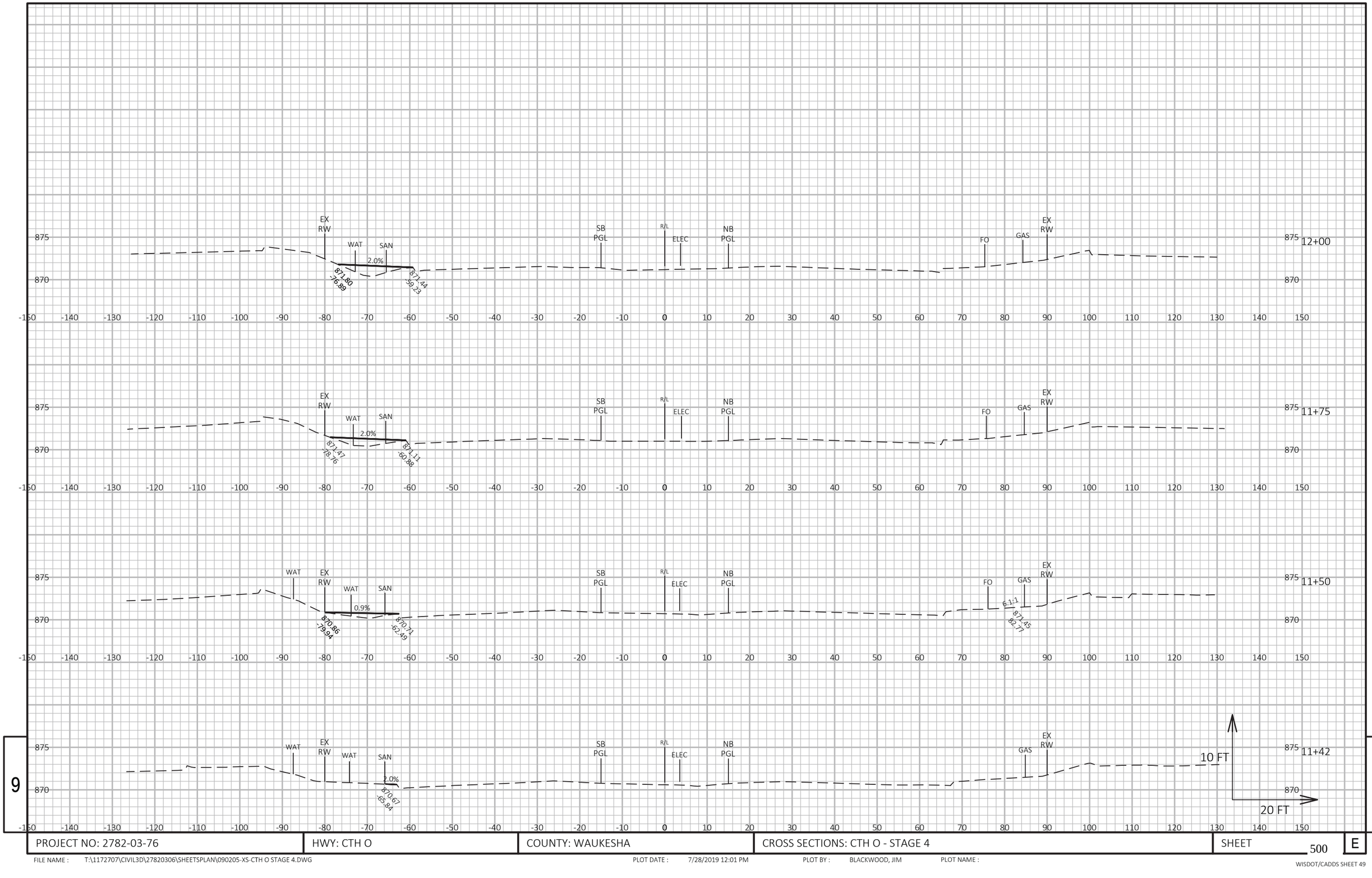
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 3	SHEET 499	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090204-XS-CTH O STAGE 3.DWG PLOT DATE : 7/28/2019 11:59 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



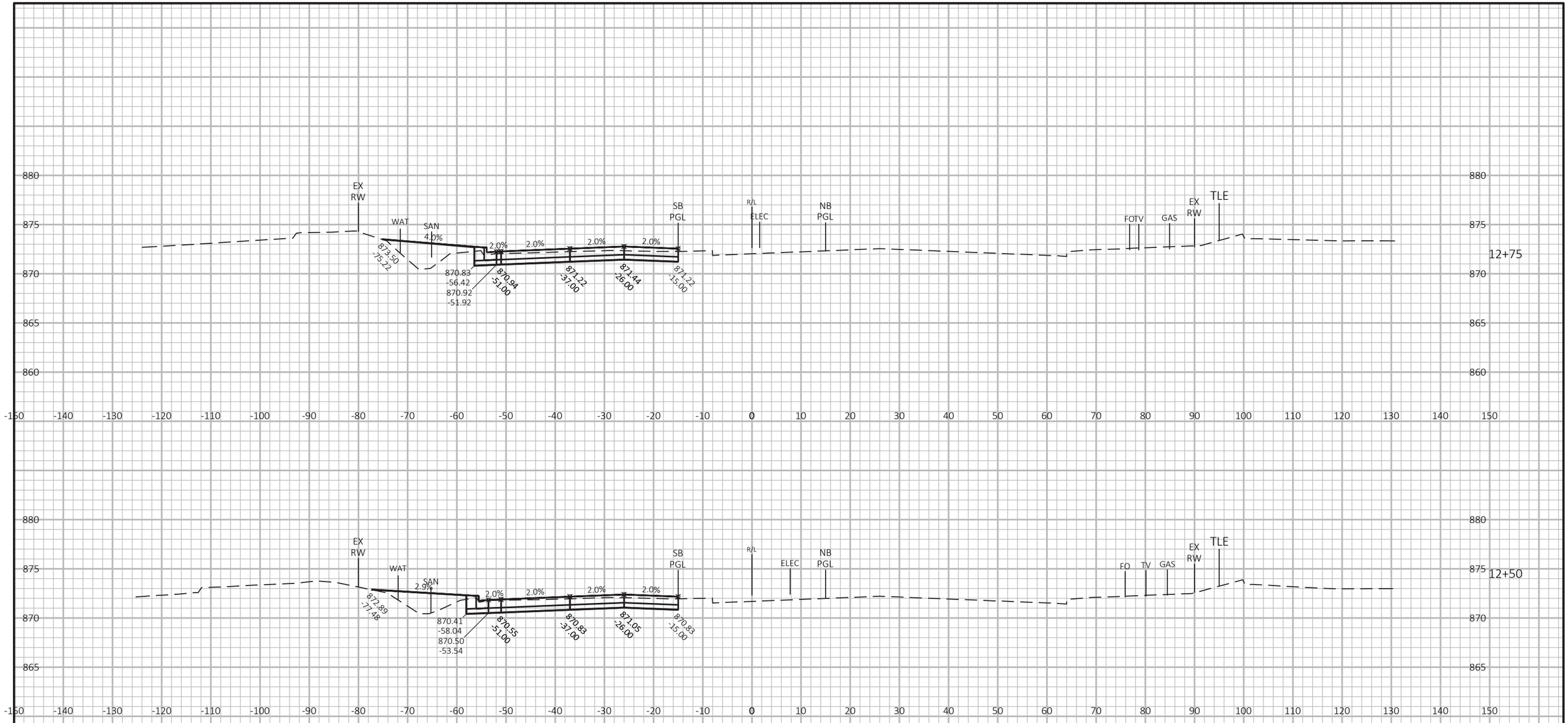
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 4	SHEET 500	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090205-XS-CTH O STAGE 4.DWG PLOT DATE : 7/28/2019 12:01 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



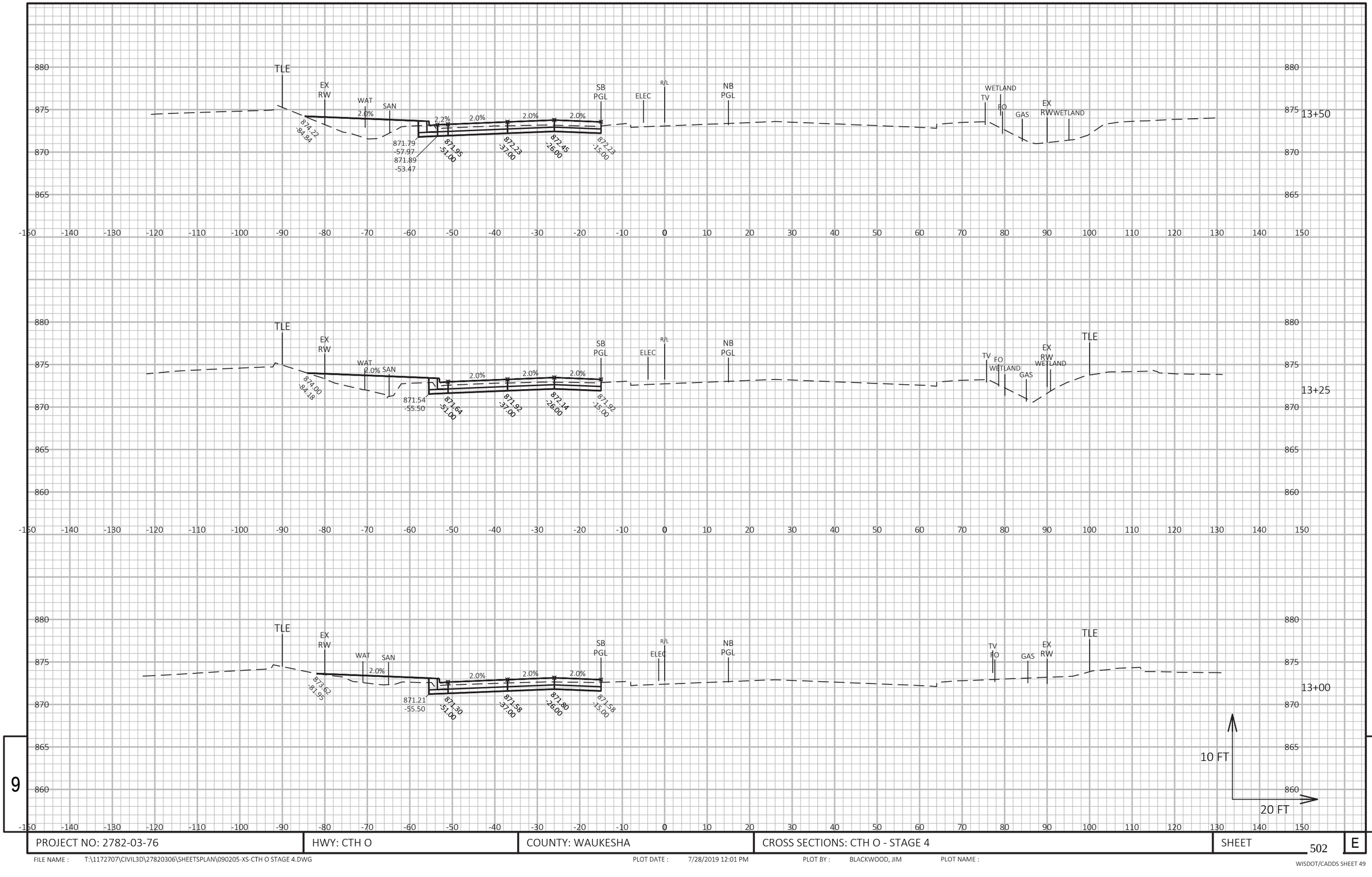
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 4	SHEET 501	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090205-XS-CTH O STAGE 4.DWG PLOT DATE : 7/28/2019 12:01 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



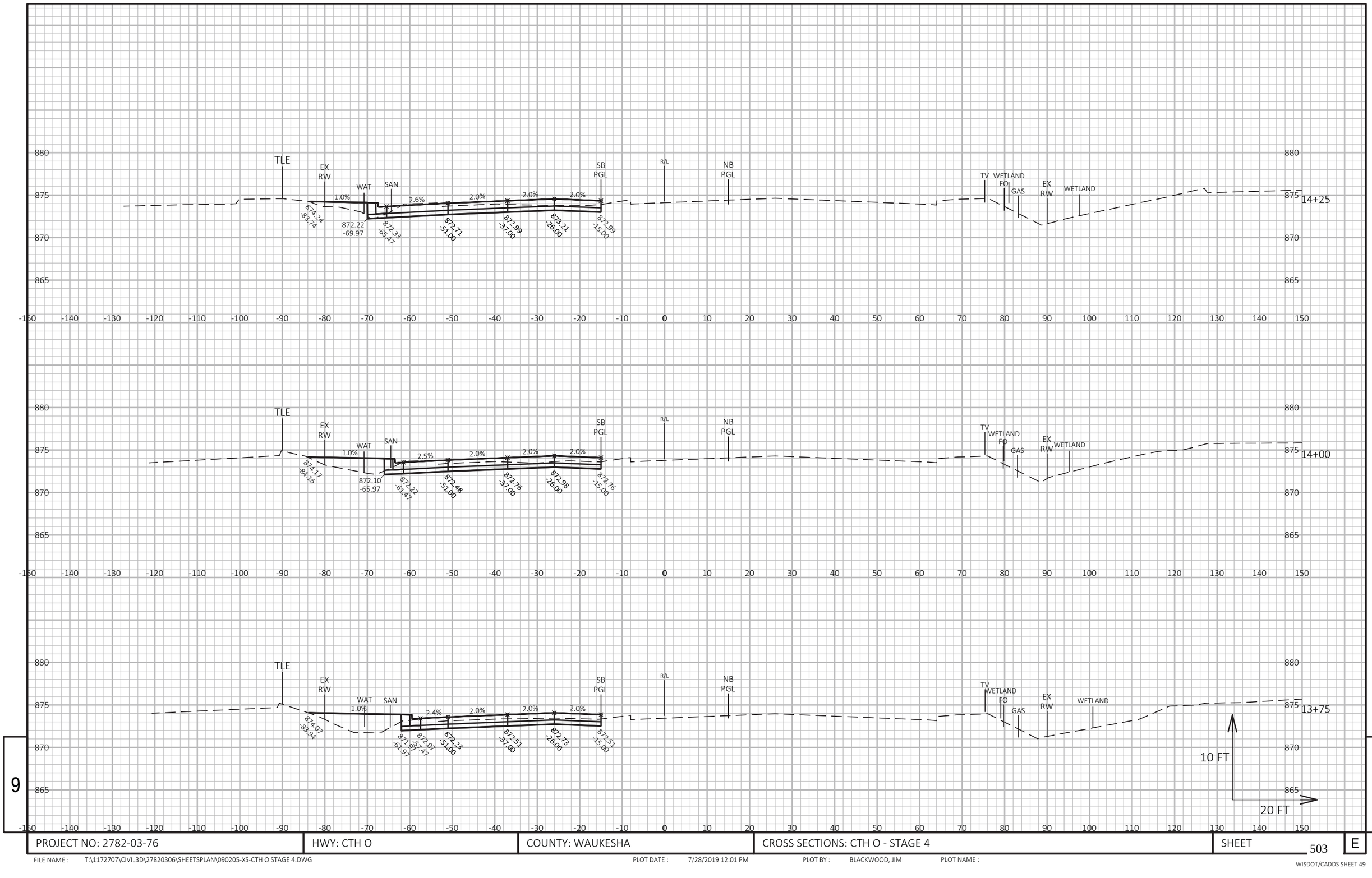
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 4	SHEET 502	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090205-XS-CTH O STAGE 4.DWG PLOT DATE : 7/28/2019 12:01 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



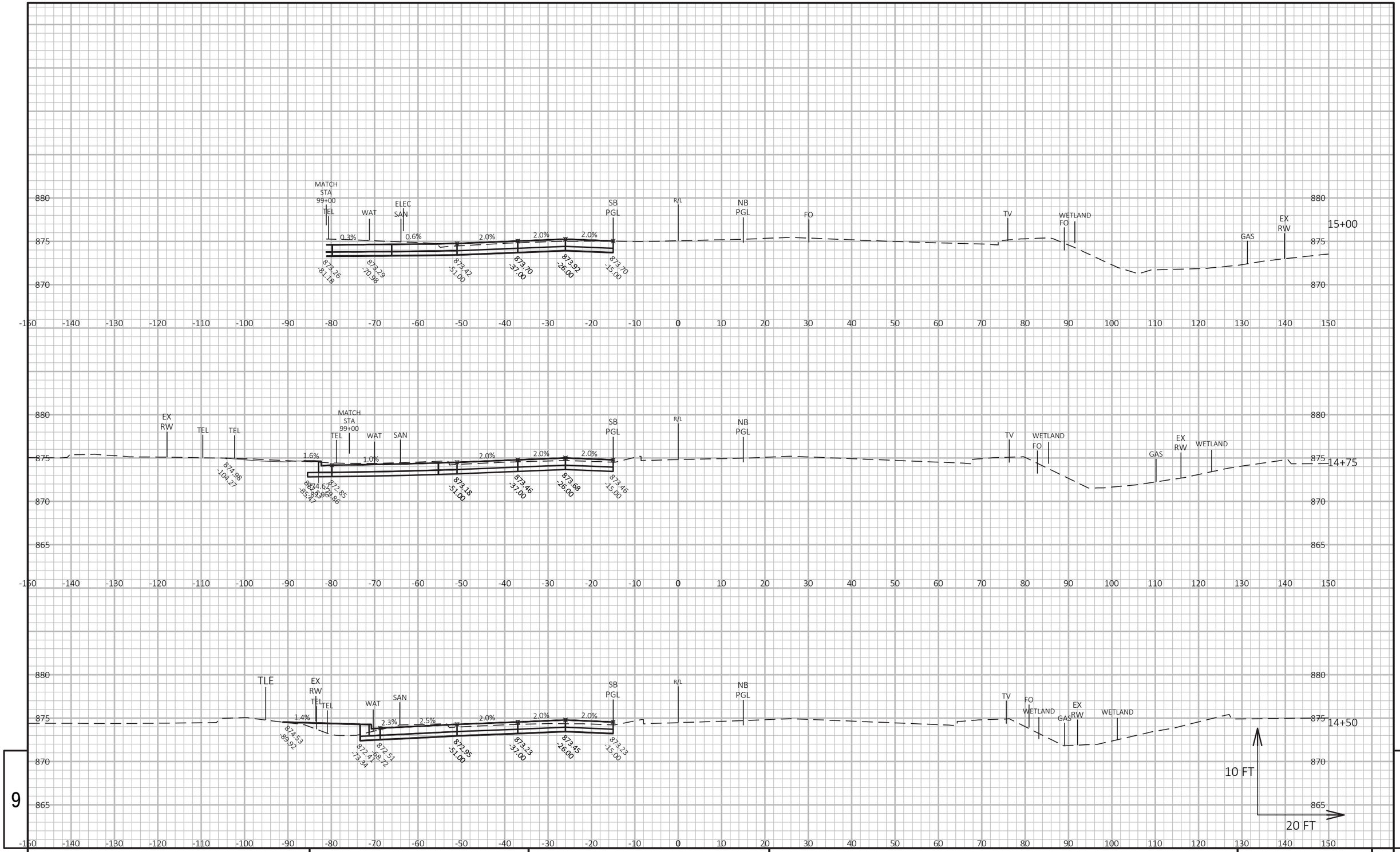
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 4	SHEET 503	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090205-XS-CTH O STAGE 4.DWG PLOT DATE : 7/28/2019 12:01 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



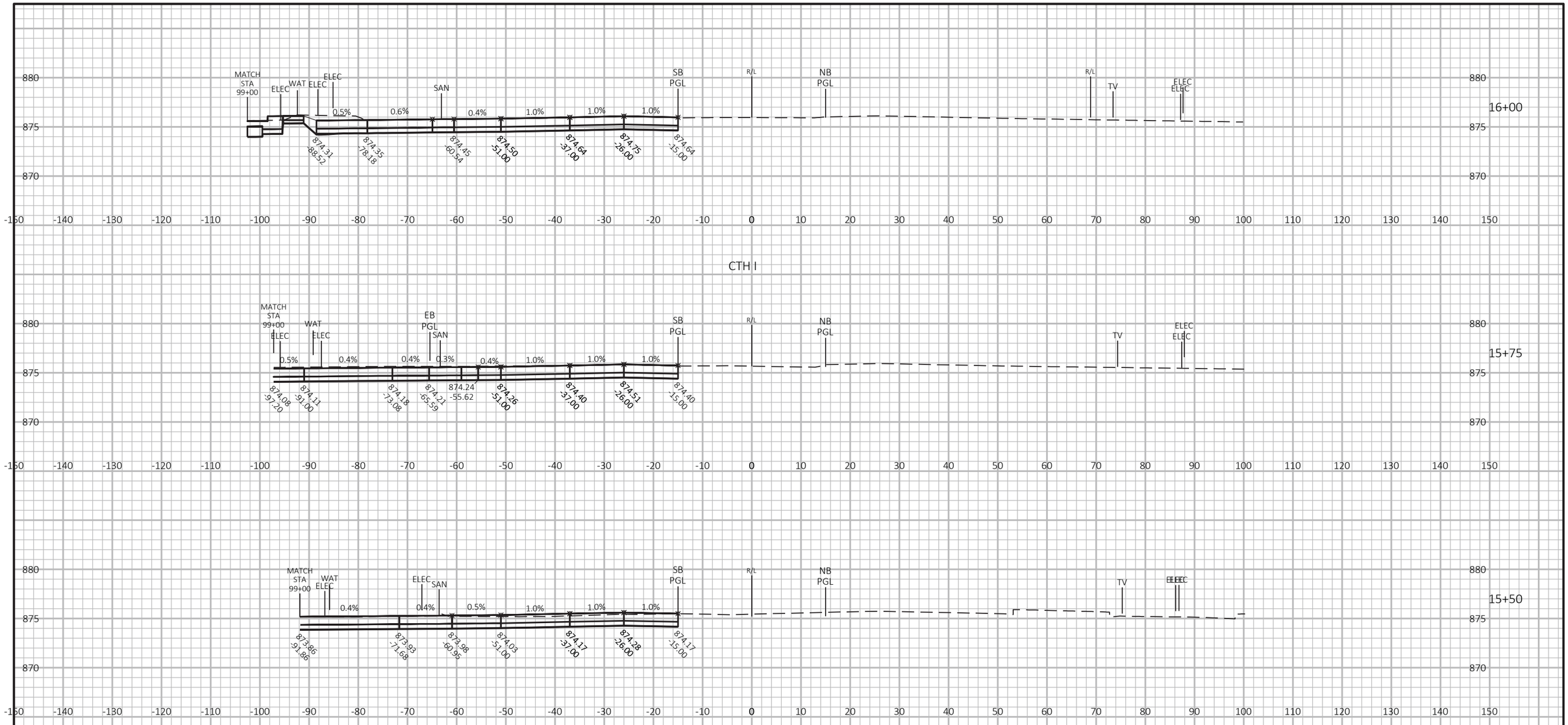
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 4	SHEET 504	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090205-XS-CTH O STAGE 4.DWG PLOT DATE : 7/28/2019 12:01 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



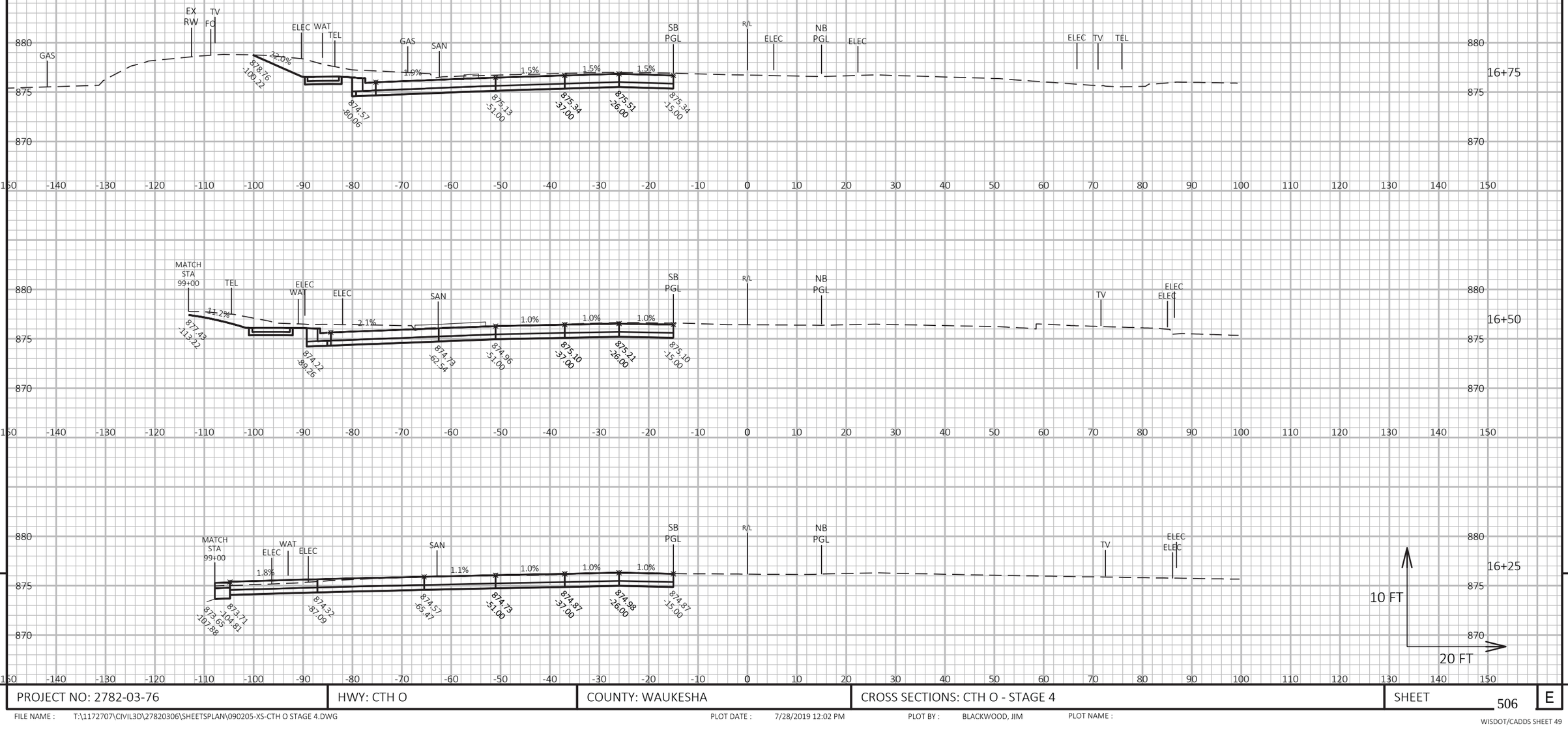
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 4	SHEET 505	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090205-XS-CTH O STAGE 4.DWG PLOT DATE : 7/28/2019 12:01 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



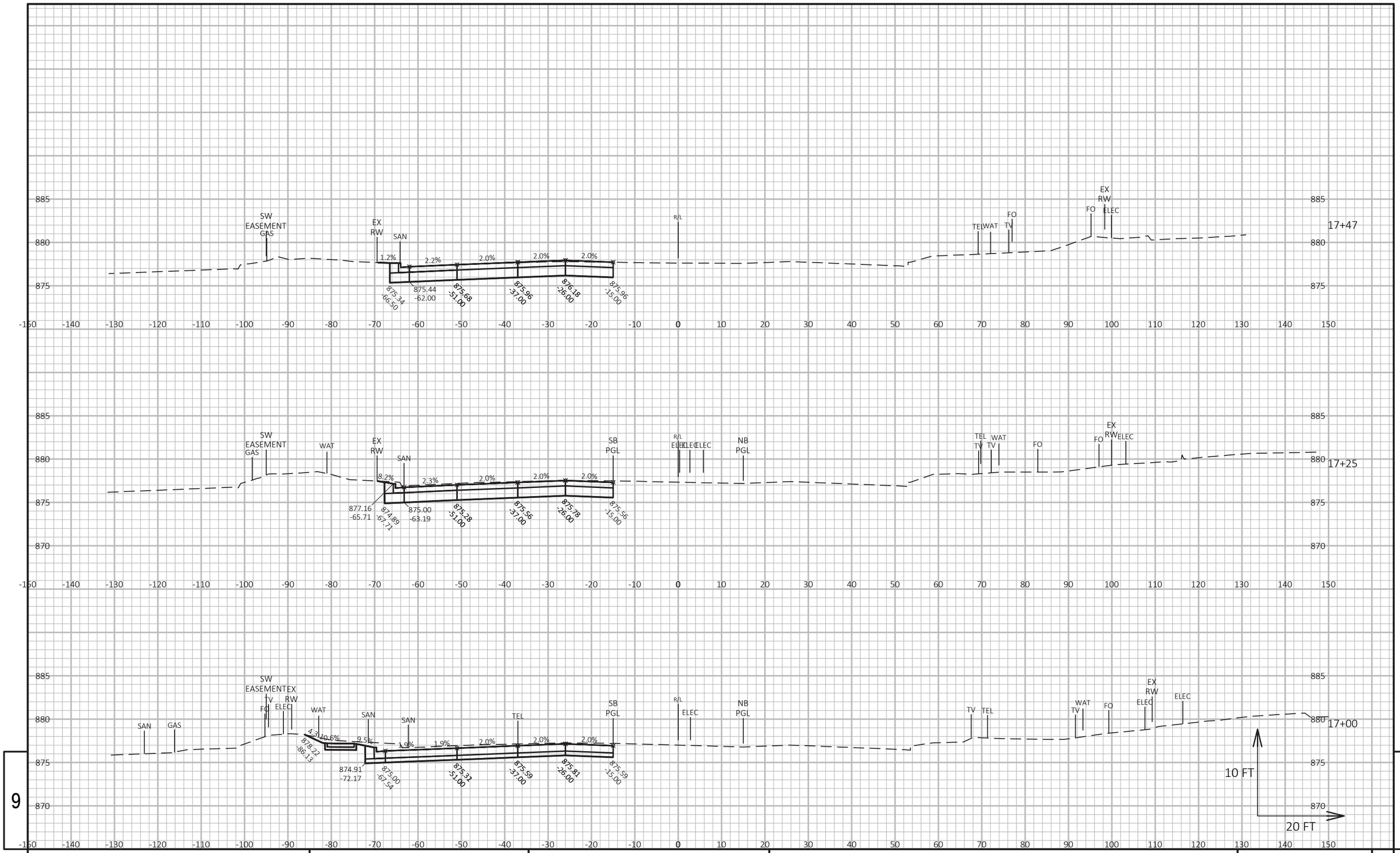
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 4	SHEET 506	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090205-XS-CTH O STAGE 4.DWG PLOT DATE : 7/28/2019 12:02 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



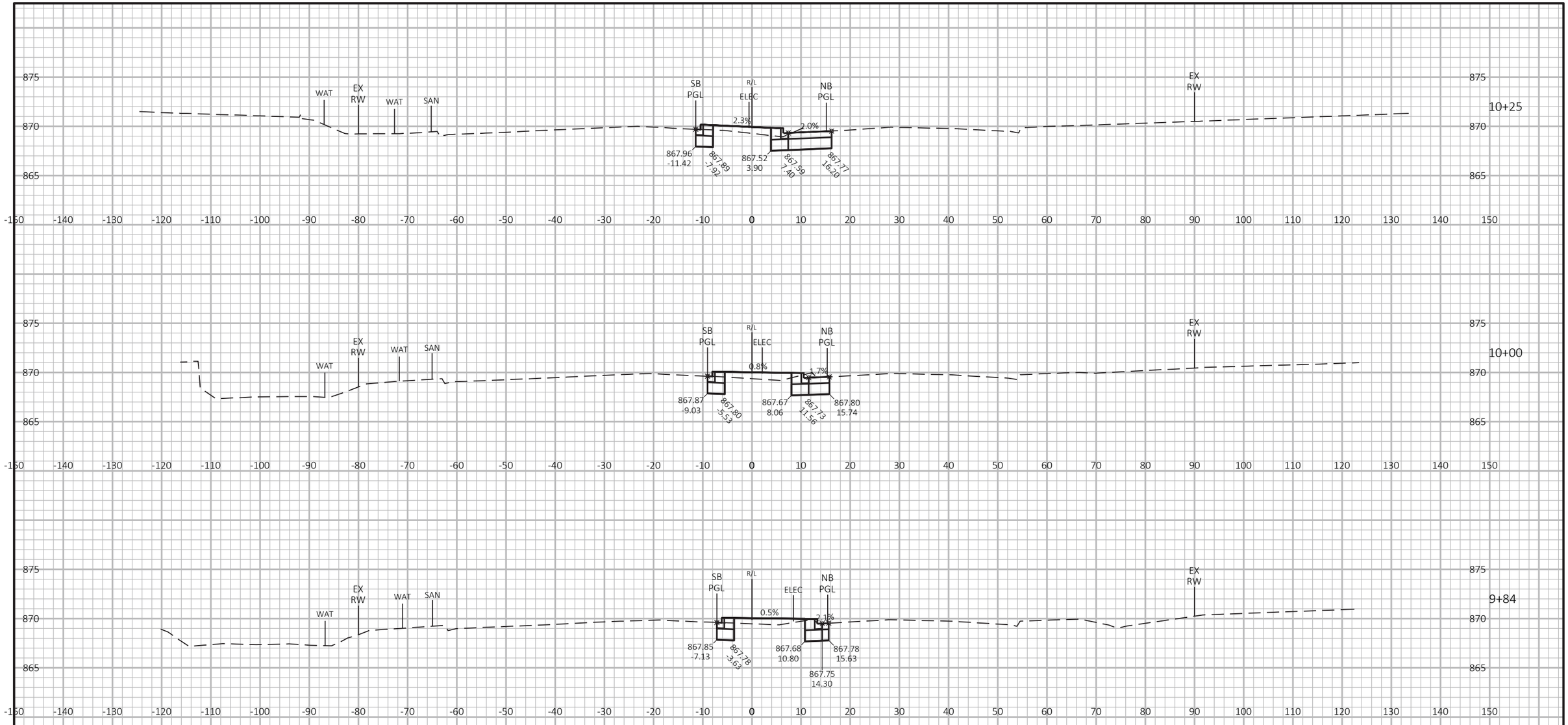
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 4	SHEET 507	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090205-XS-CTH O STAGE 4.DWG PLOT DATE : 7/28/2019 12:02 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



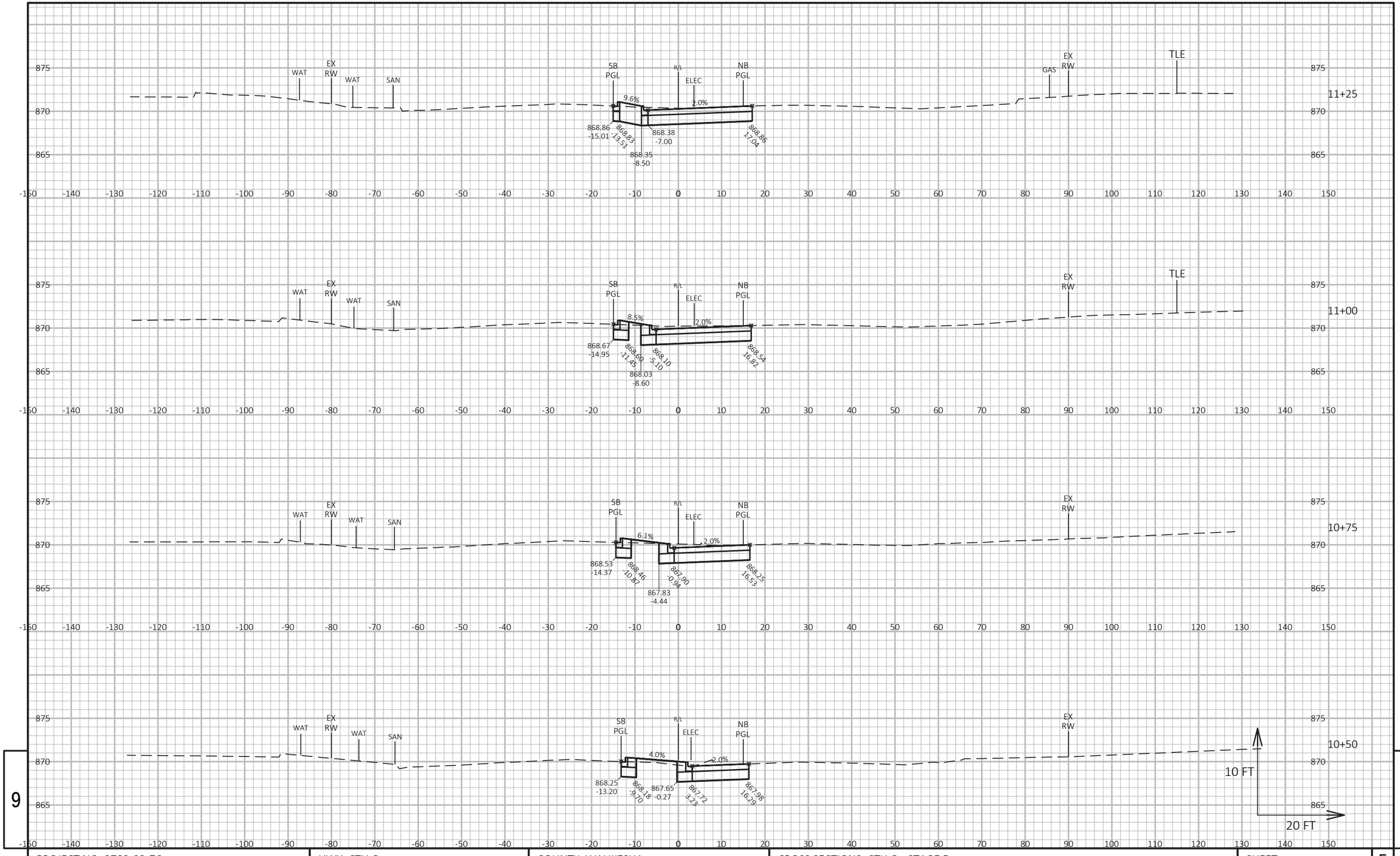
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 5	SHEET 508	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090206-XS-CTH O STAGE 5.DWG PLOT DATE : 7/28/2019 12:03 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



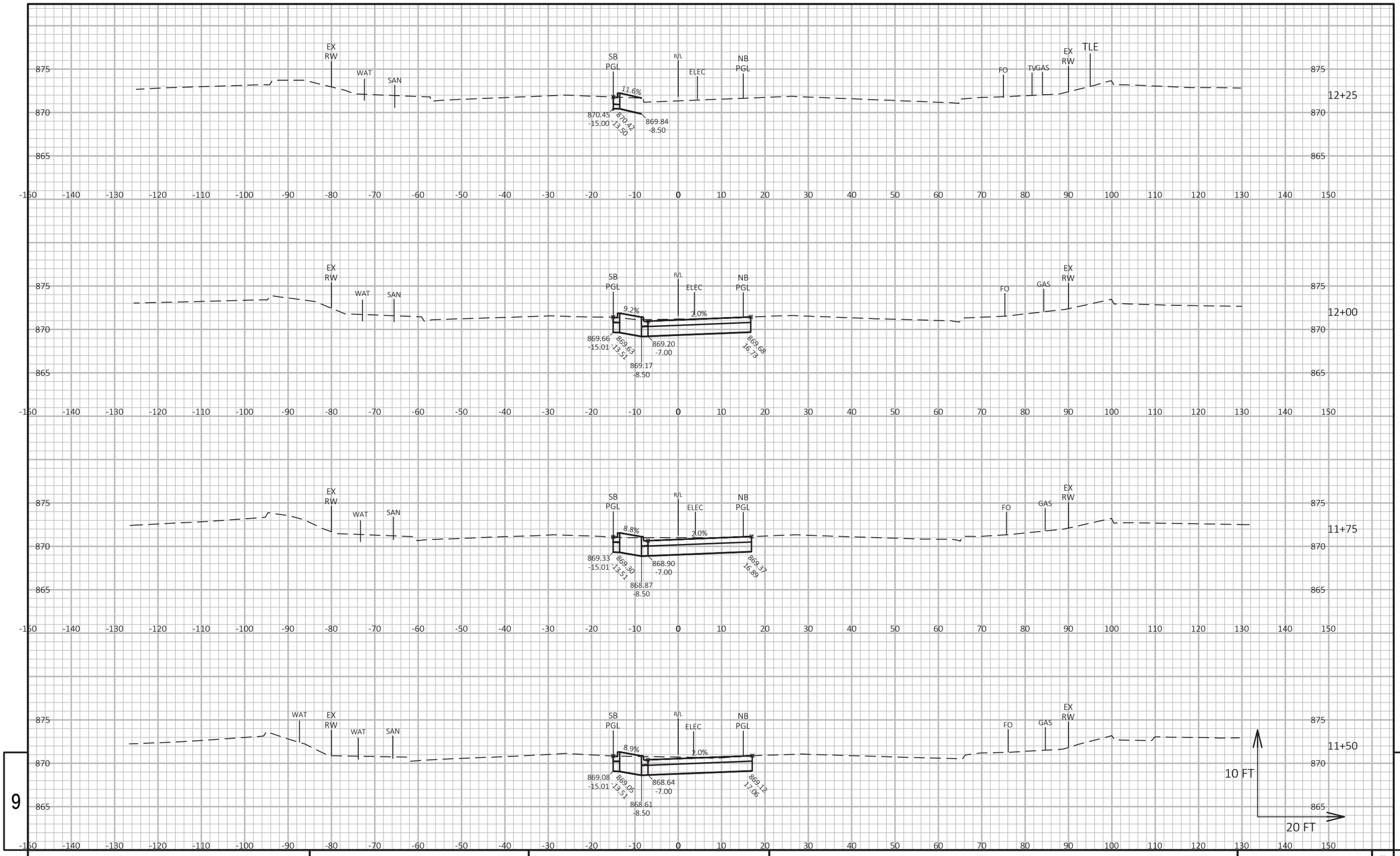
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 5	SHEET 509	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090206-XS-CTH O STAGE 5.DWG PLOT DATE : 7/28/2019 12:03 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



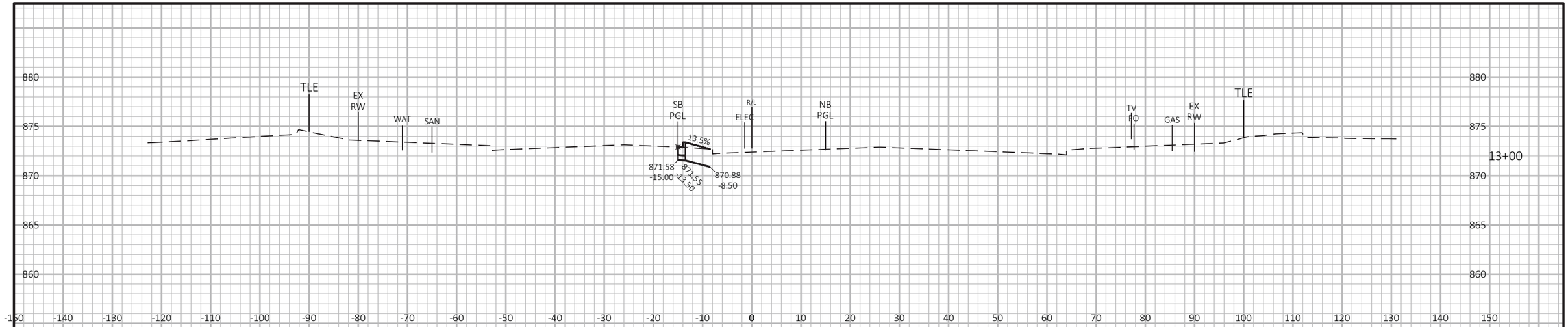
9

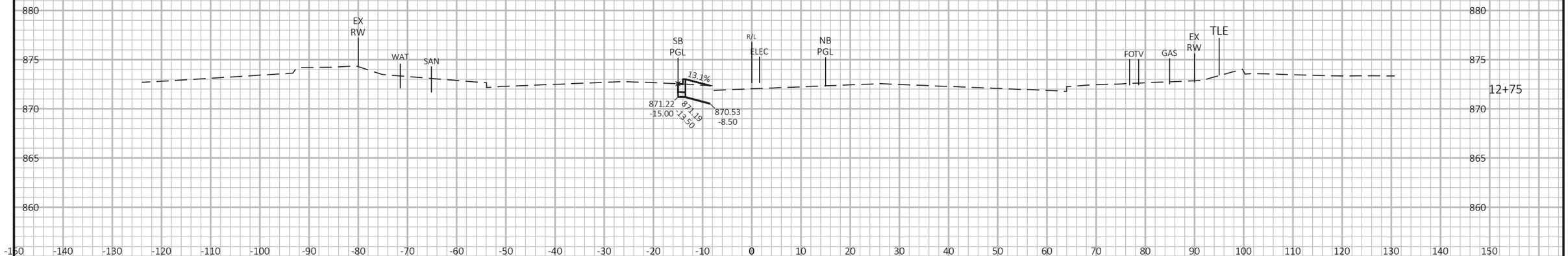
9

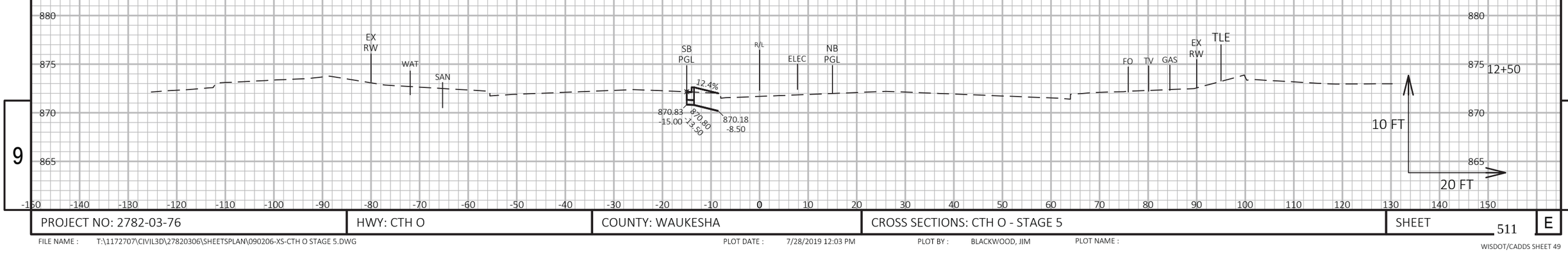
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 5	SHEET 510	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090206-XS-CTH O STAGE 5.DWG PLOT DATE : 7/28/2019 12:03 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49







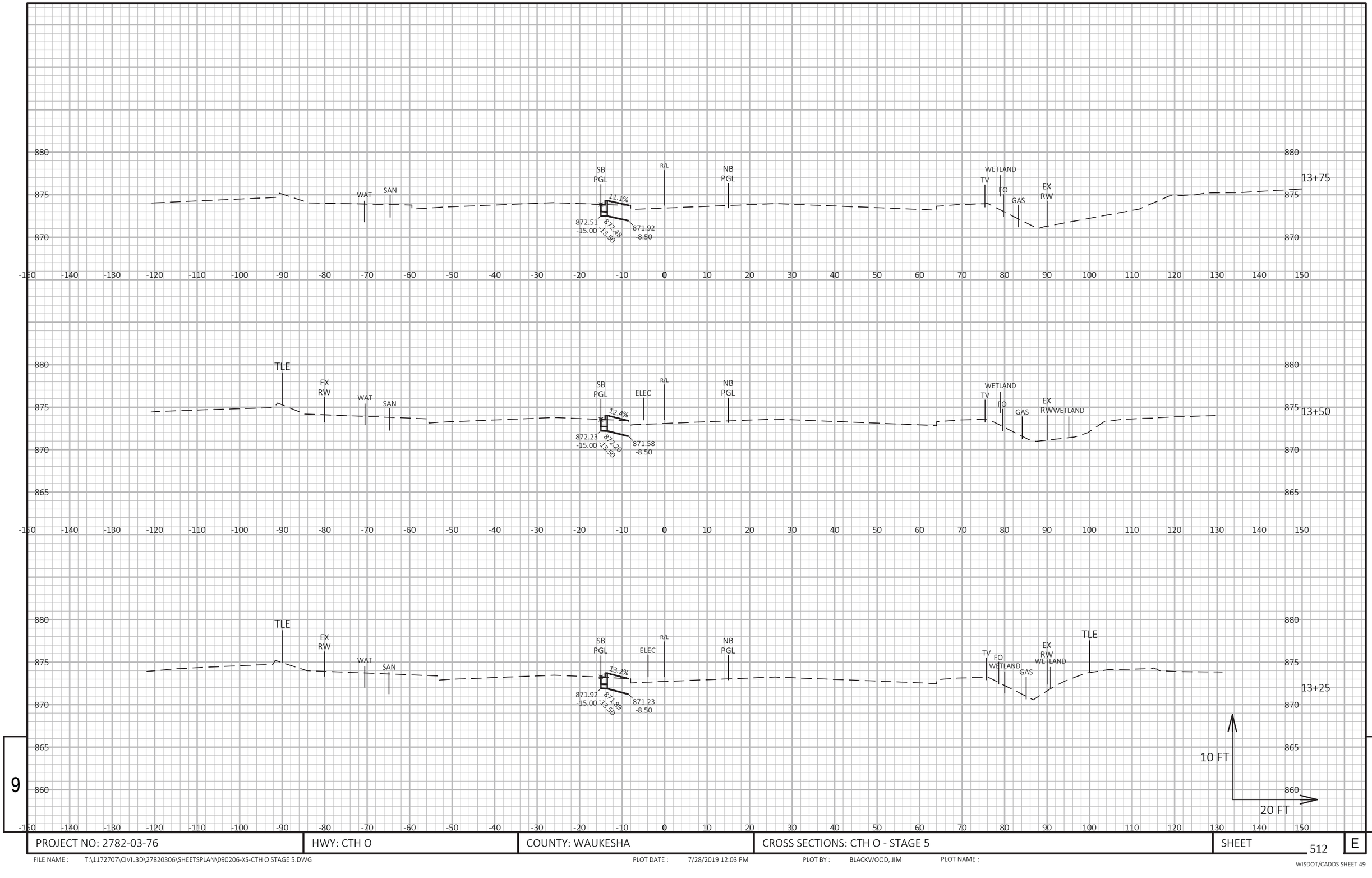
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 5	SHEET 511	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090206-XS-CTH O STAGE 5.DWG PLOT DATE : 7/28/2019 12:03 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



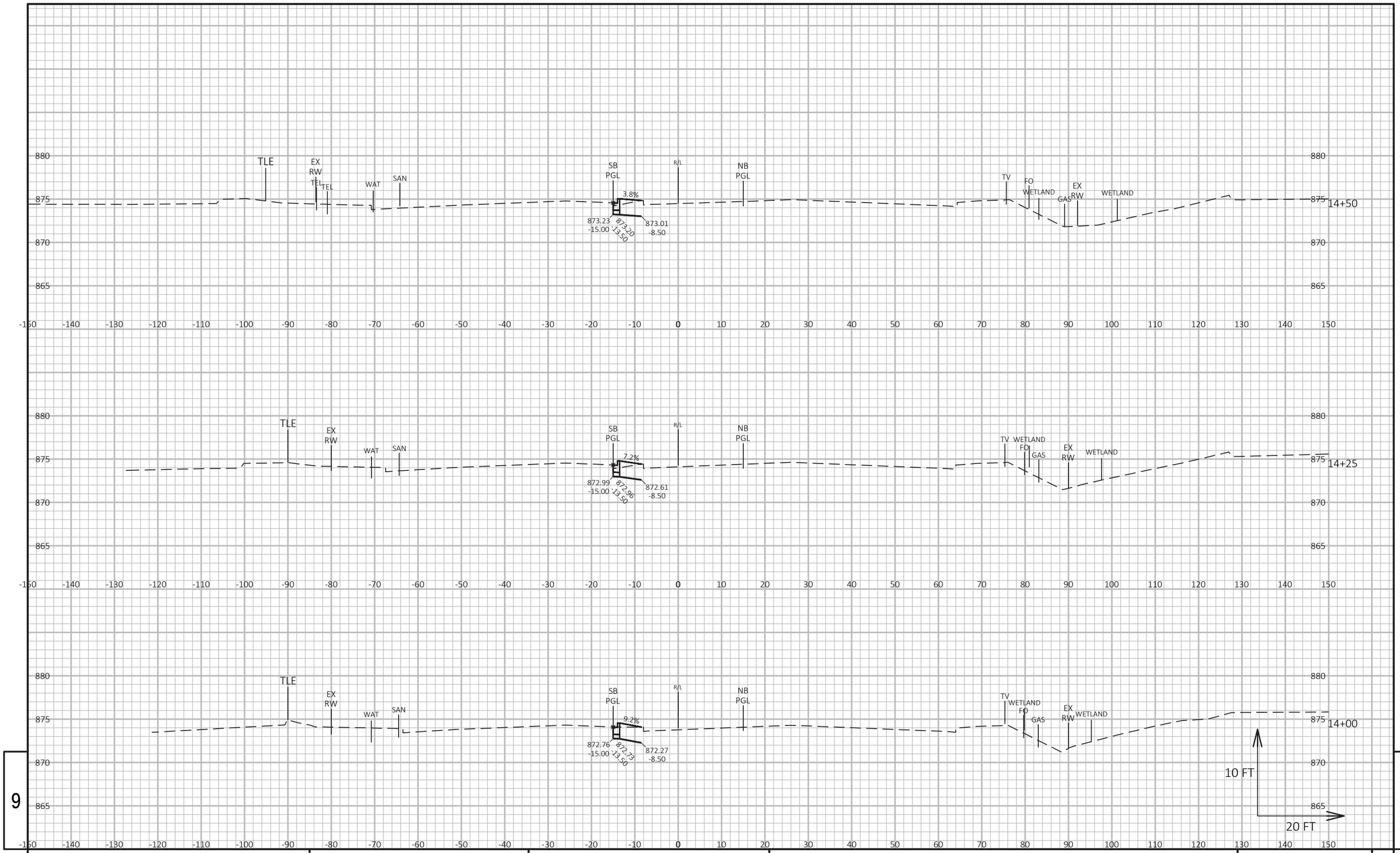
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 5	SHEET 512	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090206-XS-CTH O STAGE 5.DWG PLOT DATE : 7/28/2019 12:03 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



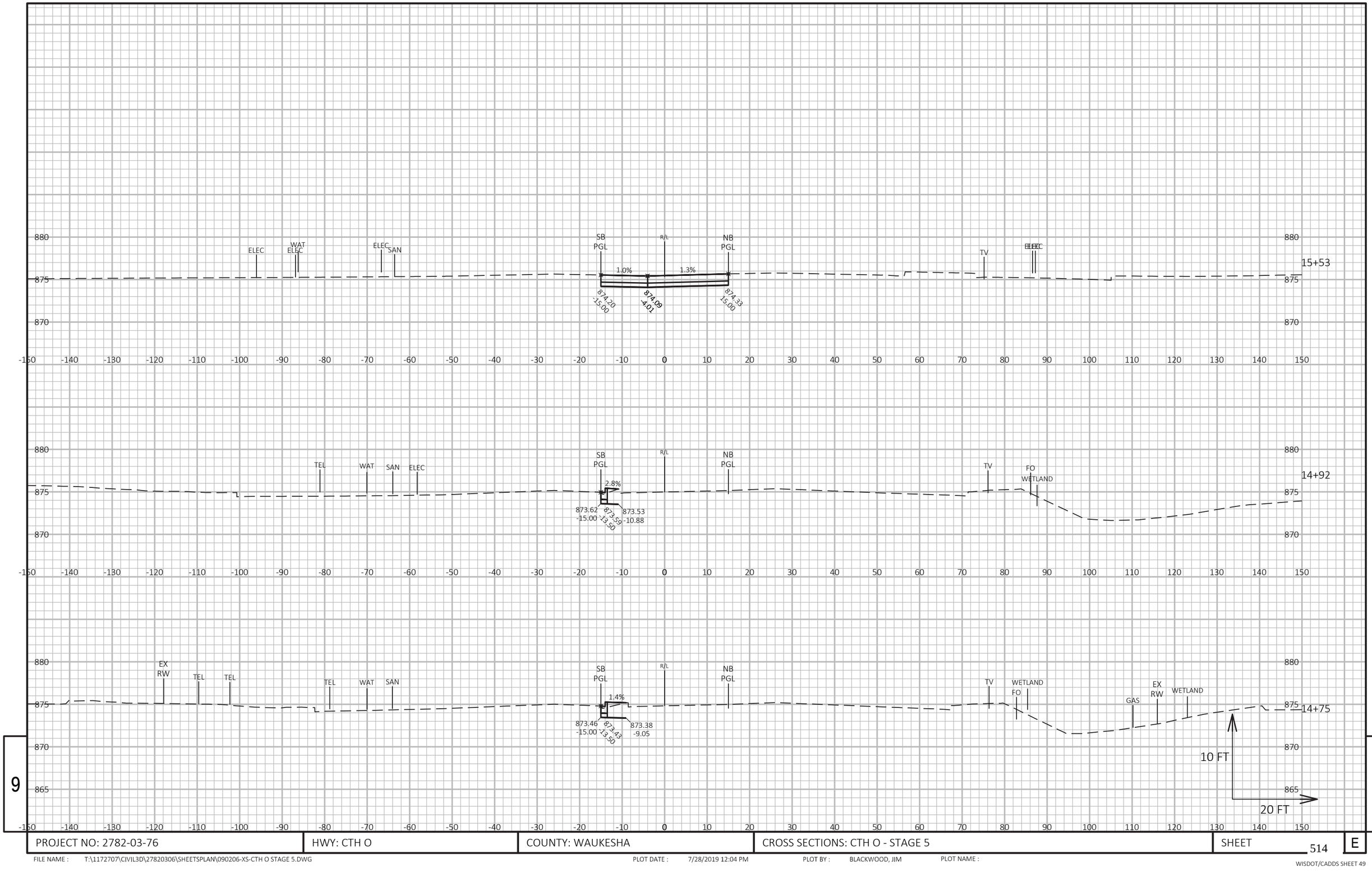
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 5	SHEET 513	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090206-XS-CTH O STAGE 5.DWG PLOT DATE : 7/28/2019 12:04 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

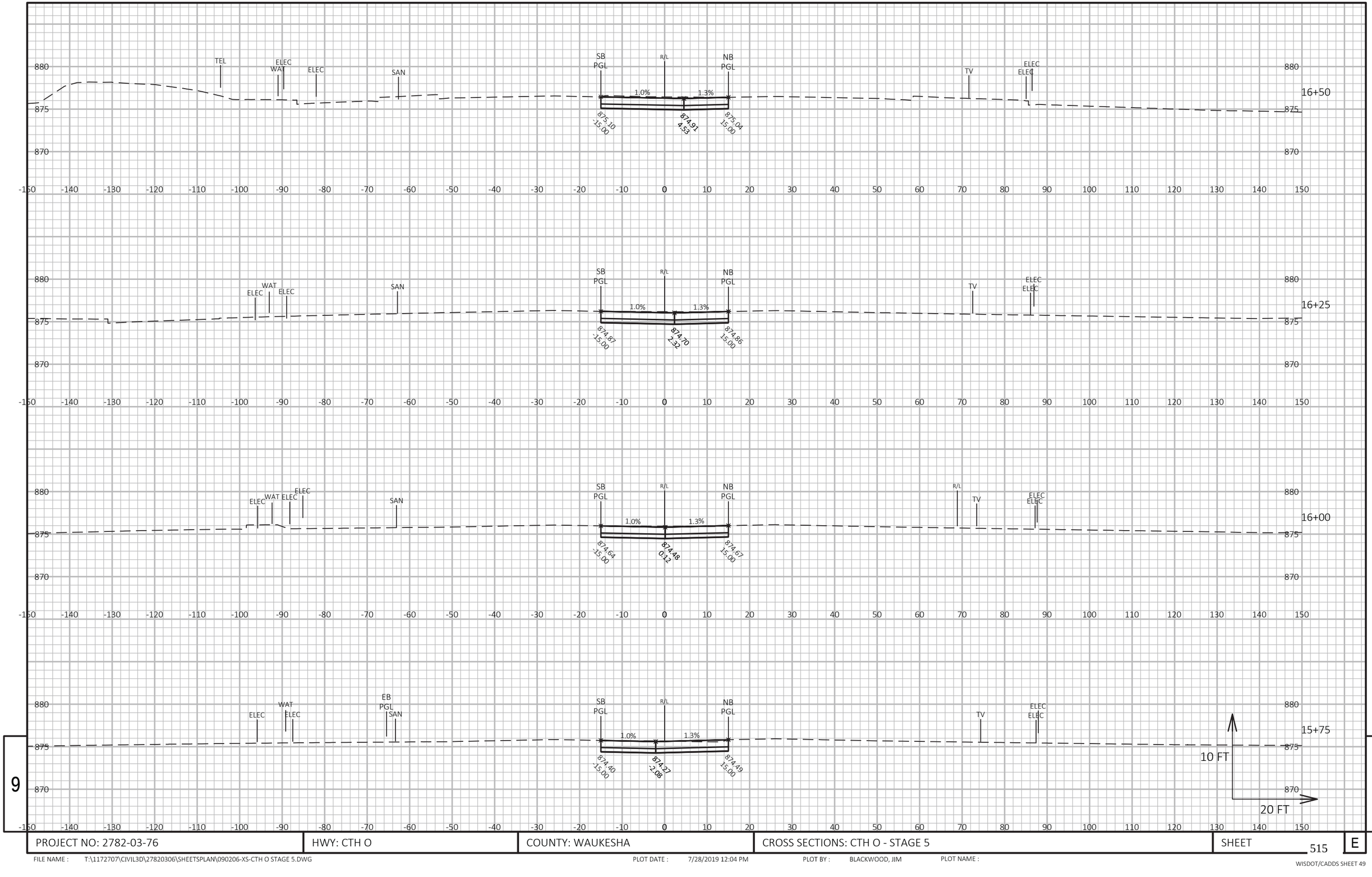
WISDOT/CADDS SHEET 49



PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 5	SHEET 514	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090206-XS-CTH O STAGE 5.DWG PLOT DATE : 7/28/2019 12:04 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



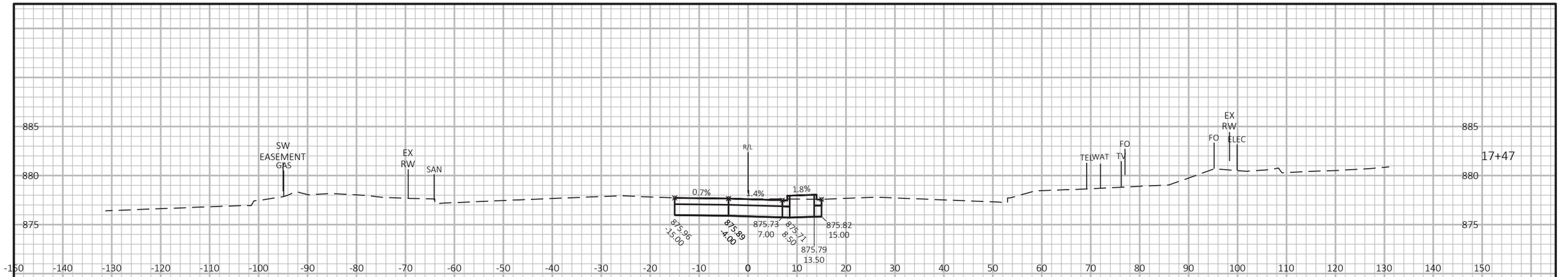
9

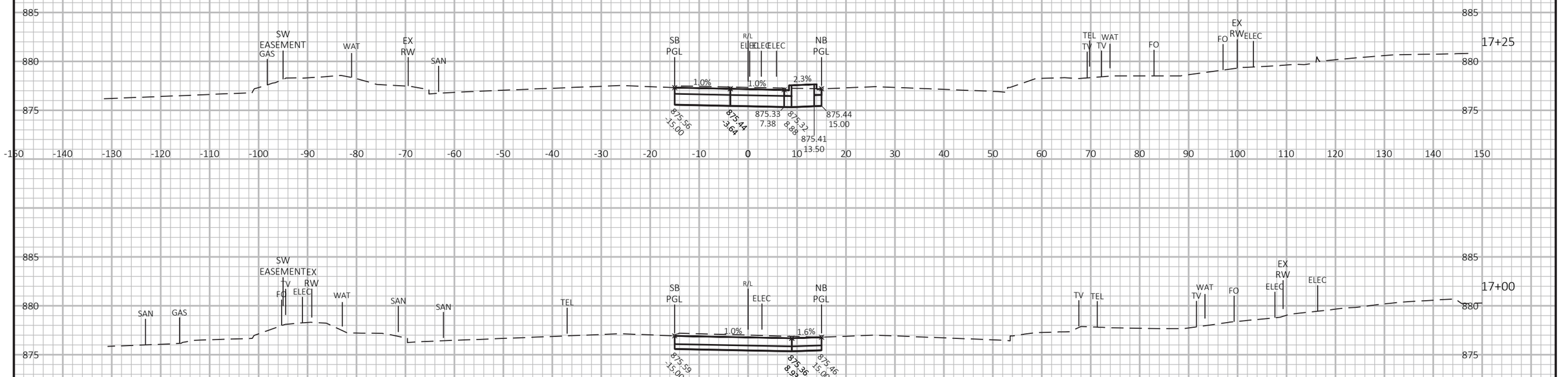
9

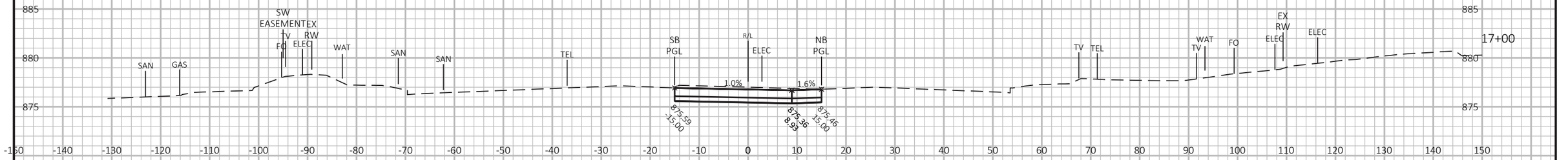
PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 5	SHEET 515	E

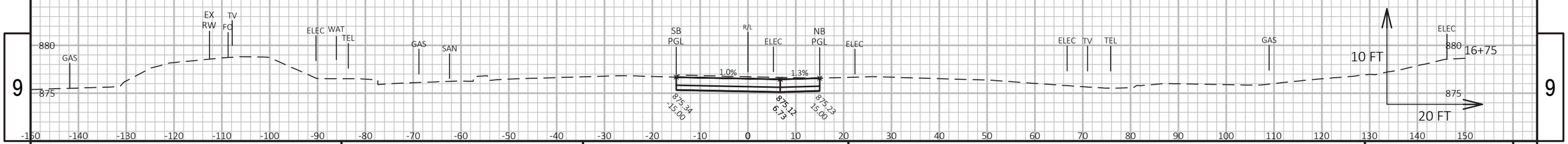
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090206-XS-CTH O STAGE 5.DWG PLOT DATE : 7/28/2019 12:04 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49









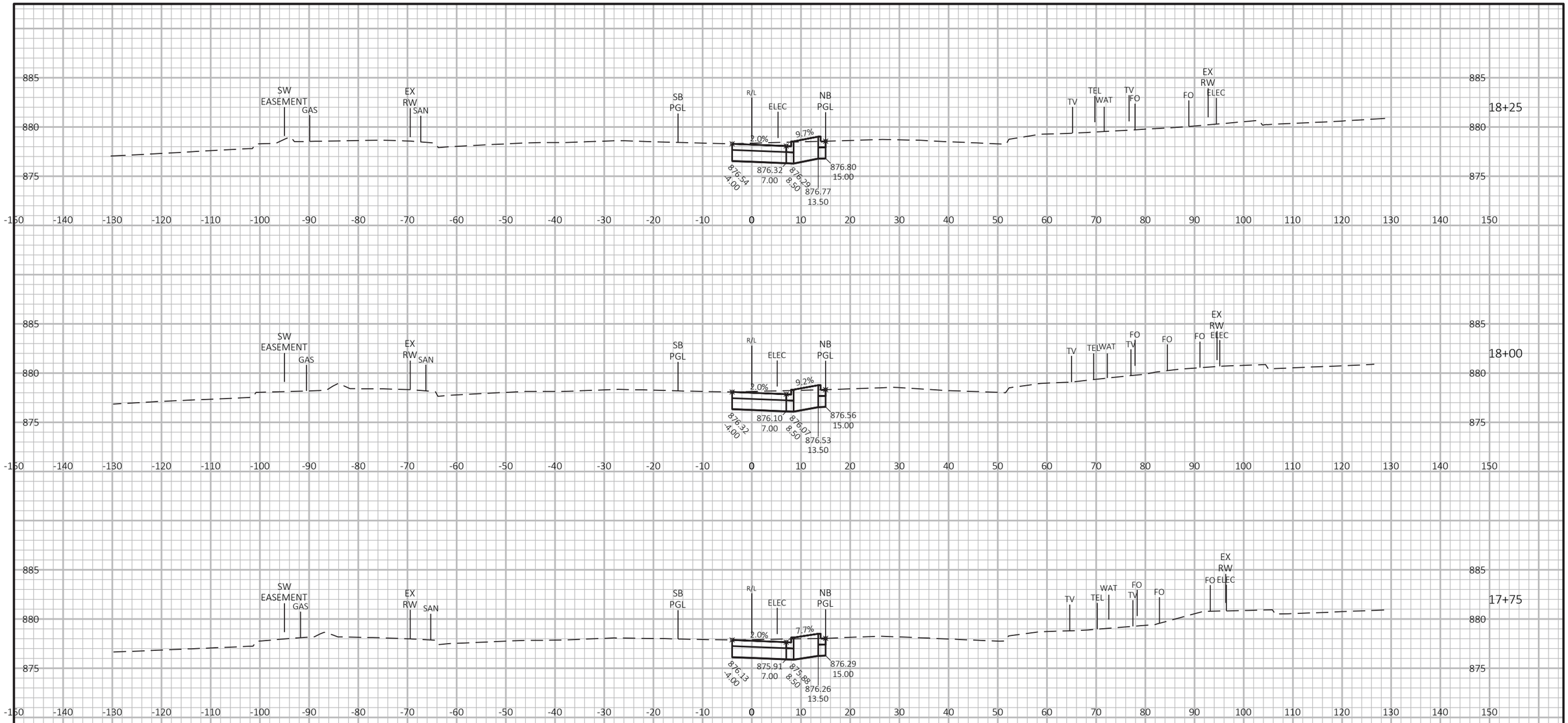
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 5	SHEET 516	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090206-XS-CTH O STAGE 5.DWG PLOT DATE : 7/28/2019 12:04 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



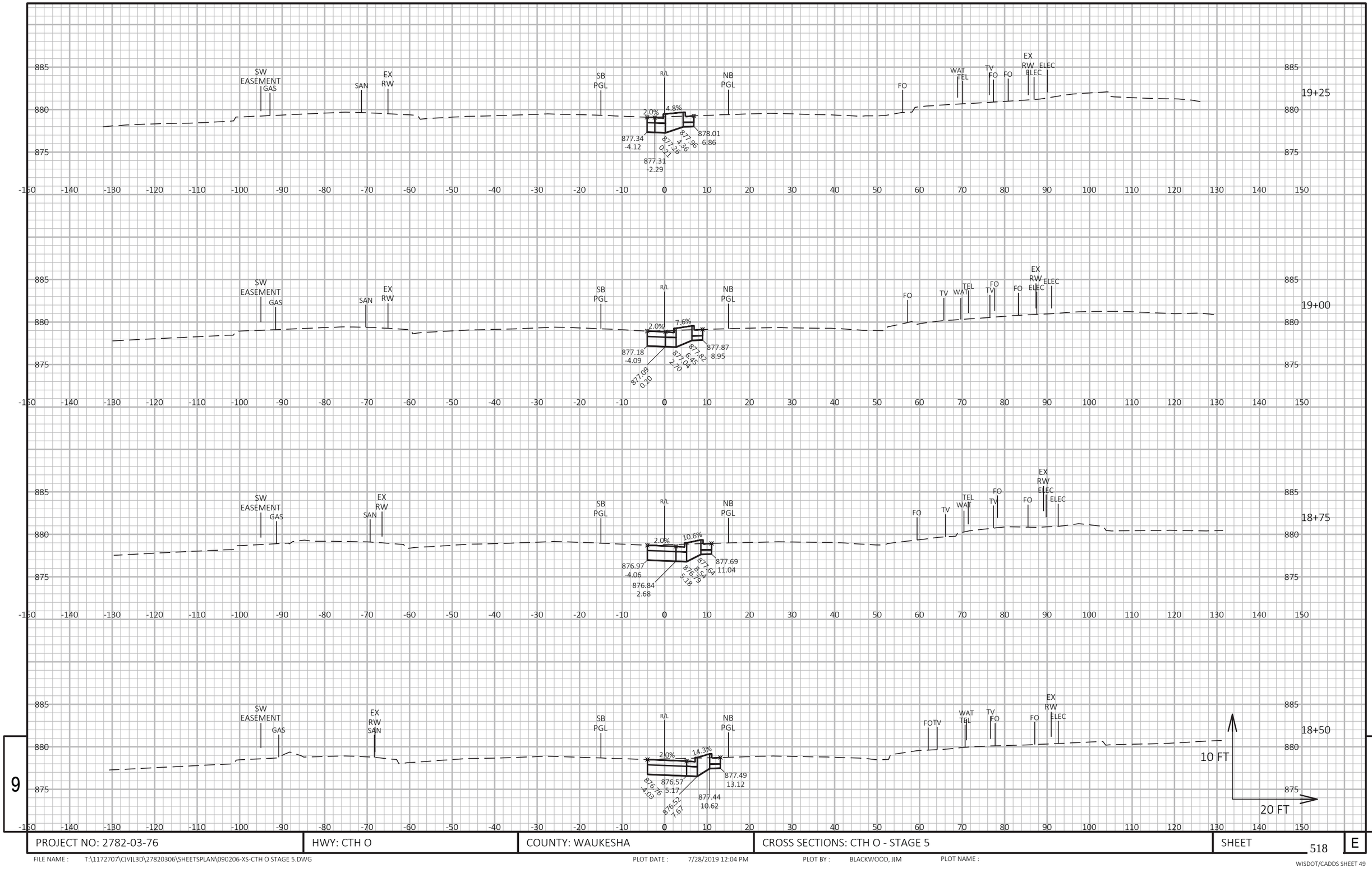
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 5	SHEET 517	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090206-XS-CTH O STAGE 5.DWG PLOT DATE : 7/28/2019 12:04 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



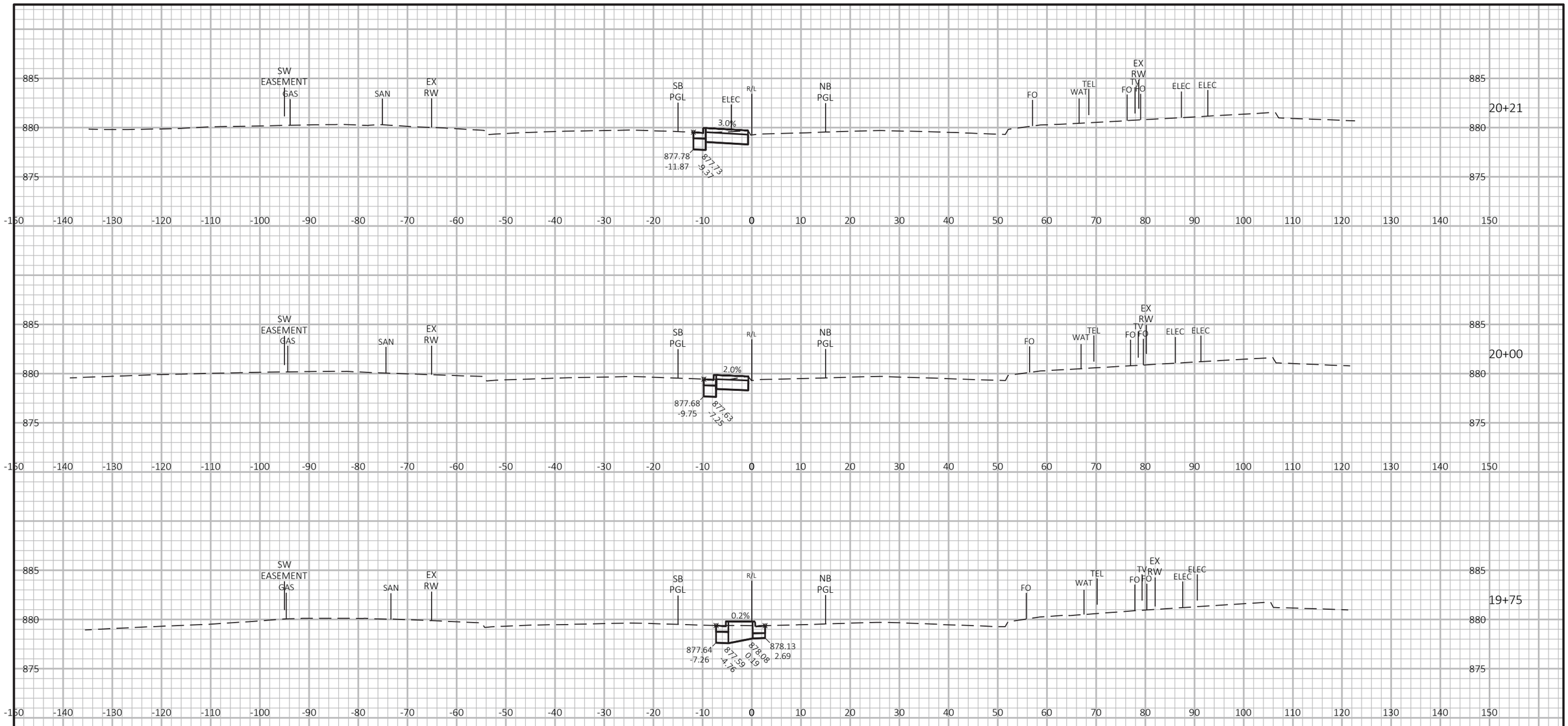
9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 5	SHEET 518	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090206-XS-CTH O STAGE 5.DWG PLOT DATE : 7/28/2019 12:04 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49



9

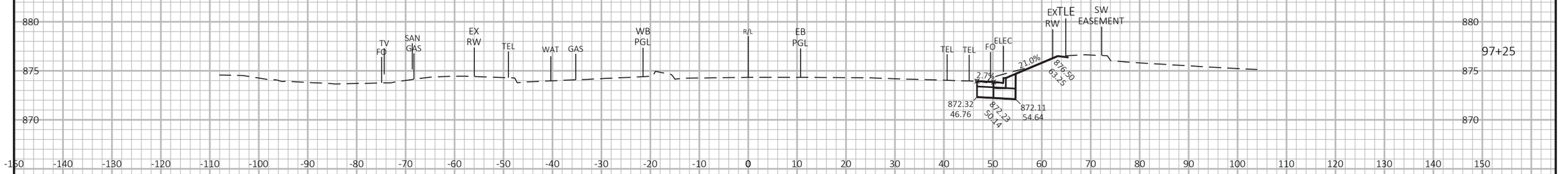
9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH O - STAGE 5	SHEET 519	E

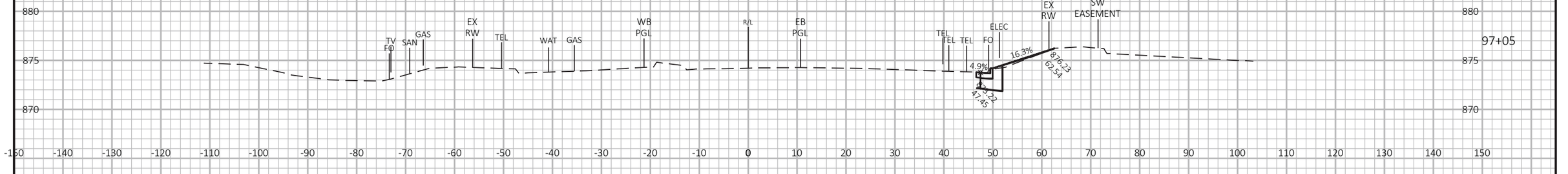
FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090206-XS-CTH O STAGE 5.DWG PLOT DATE : 7/28/2019 12:04 PM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

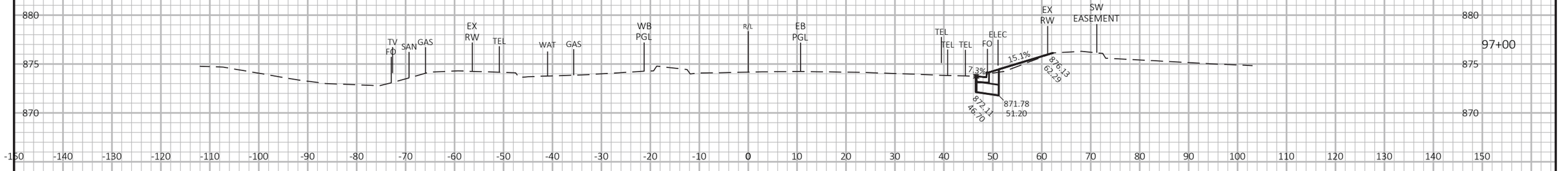
ALL WORK THIS SHEET STAGE 4



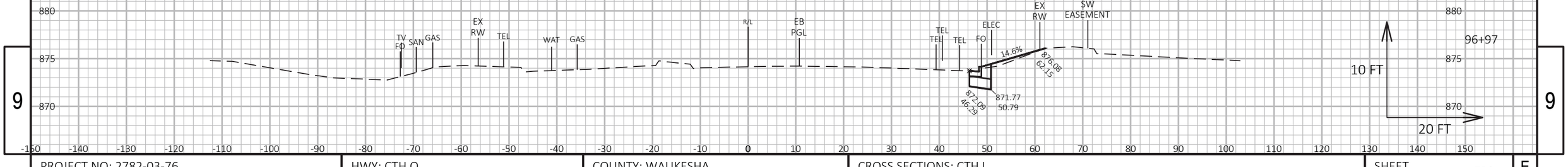
97+25



97+05



97+00



96+97

9

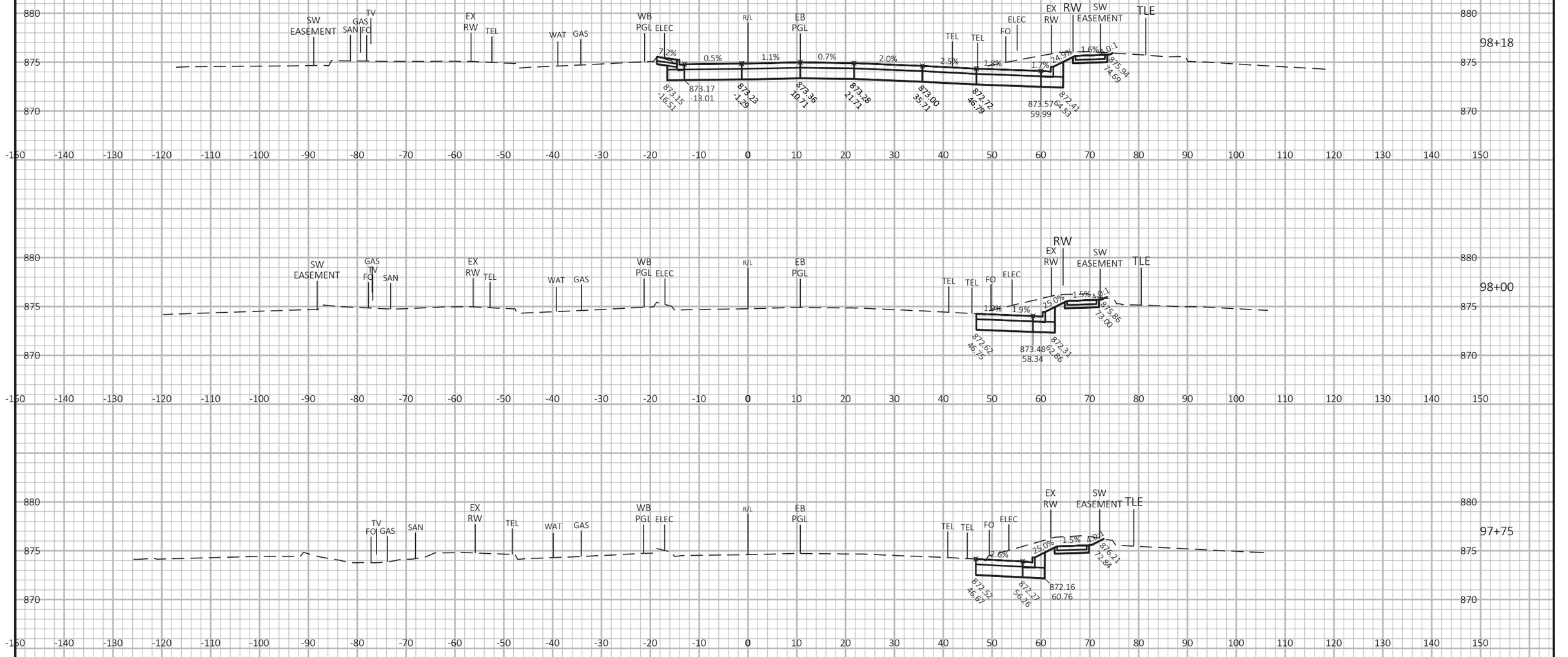
9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH I	SHEET 520	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:52 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

ALL WORK THIS SHEET STAGE 4



9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH I	SHEET 521	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:52 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

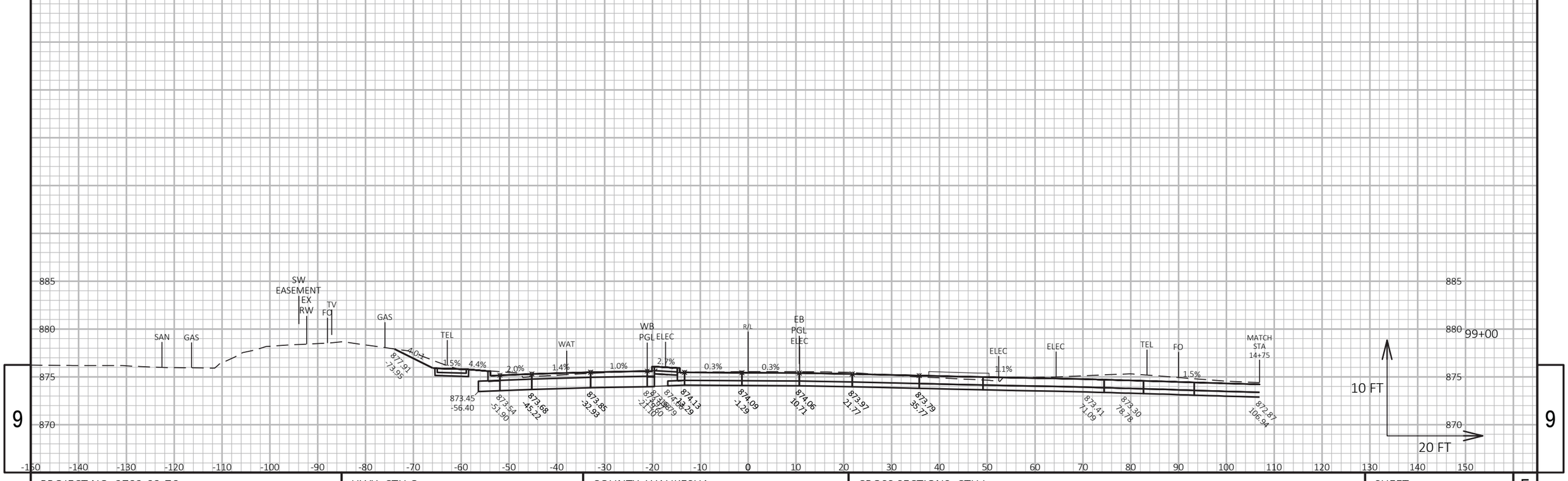
WISDOT/CADDS SHEET 49

ALL WORK THIS SHEET STAGE 4

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH I	SHEET 522	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/29/2019 11:50 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

ALL WORK THIS SHEET STAGE 4



9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH I	SHEET 523	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:52 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

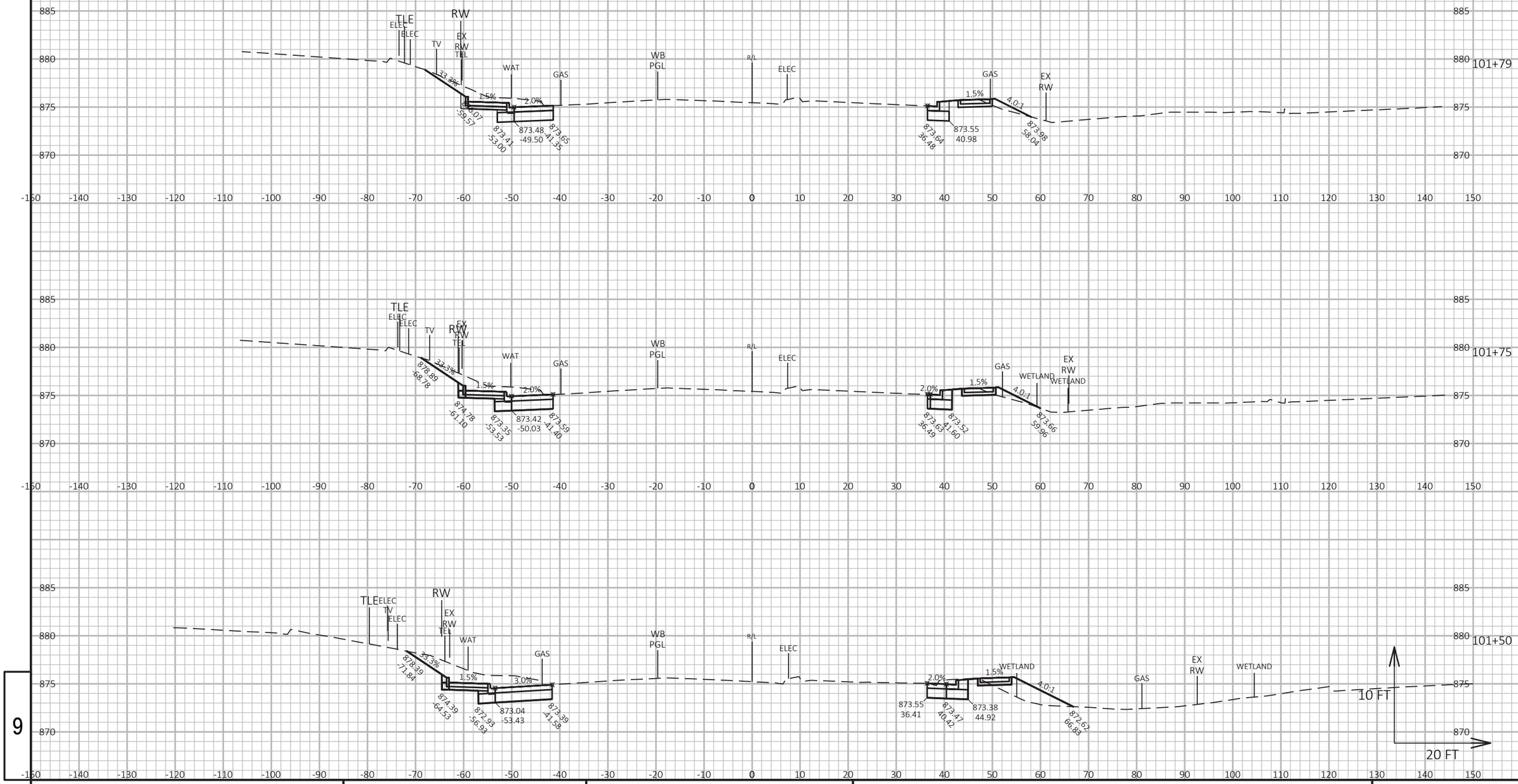
ALL WORK THIS SHEET STAGE 2

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH I	SHEET 524	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:53 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

ALL WORK THIS SHEET STAGE 2



9

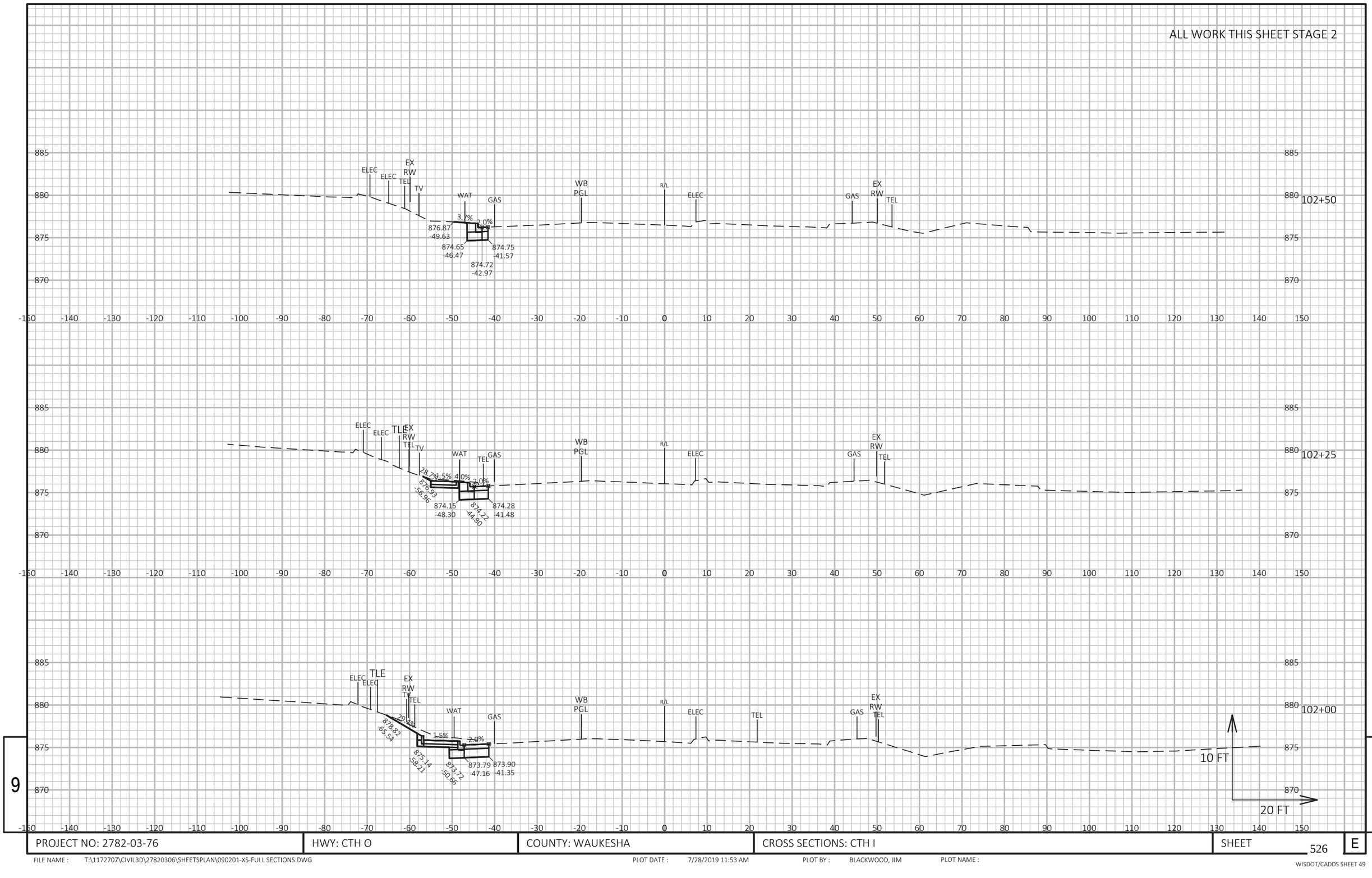
9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH I	SHEET 525	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:53 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

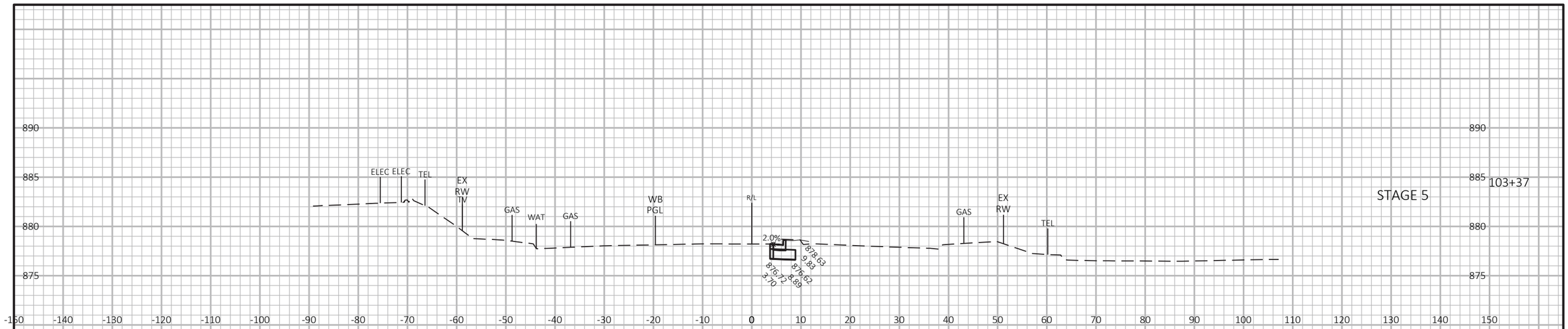
ALL WORK THIS SHEET STAGE 2

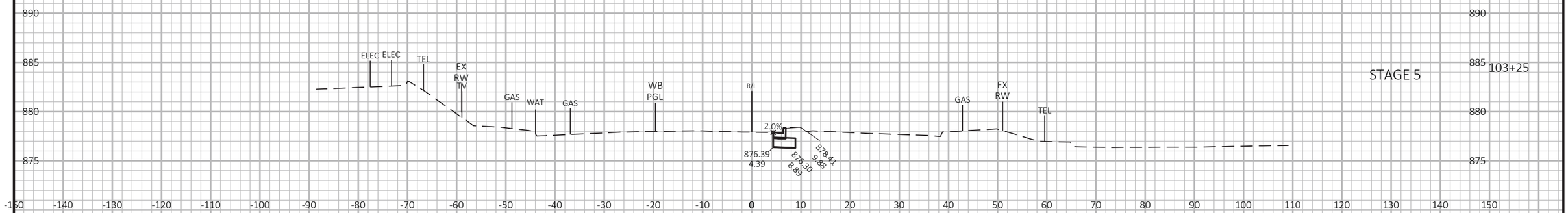


9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH I	SHEET 526	E







9

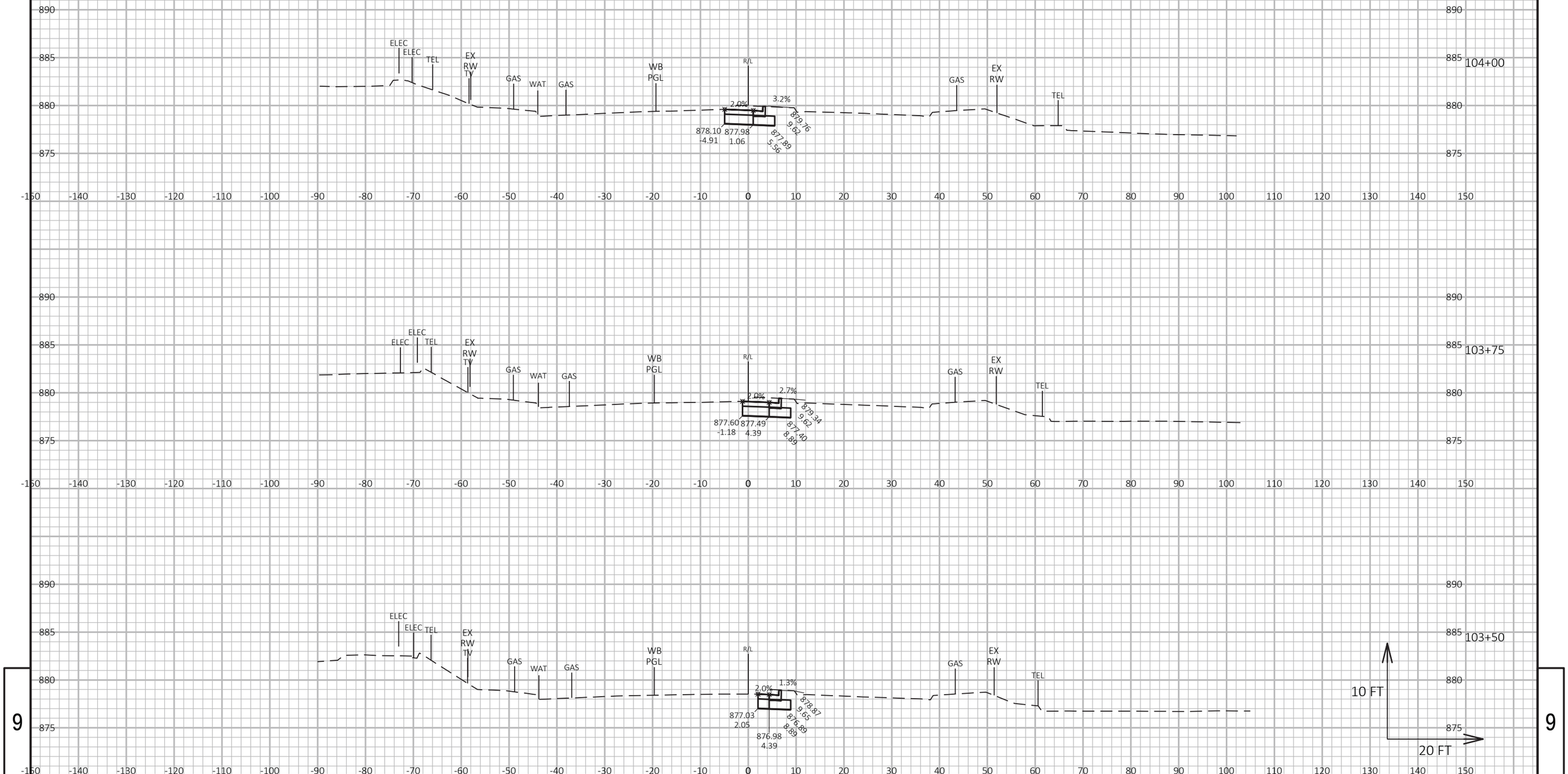
9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH I	SHEET 527	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:53 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

ALL WORK THIS SHEET STAGE 5



9

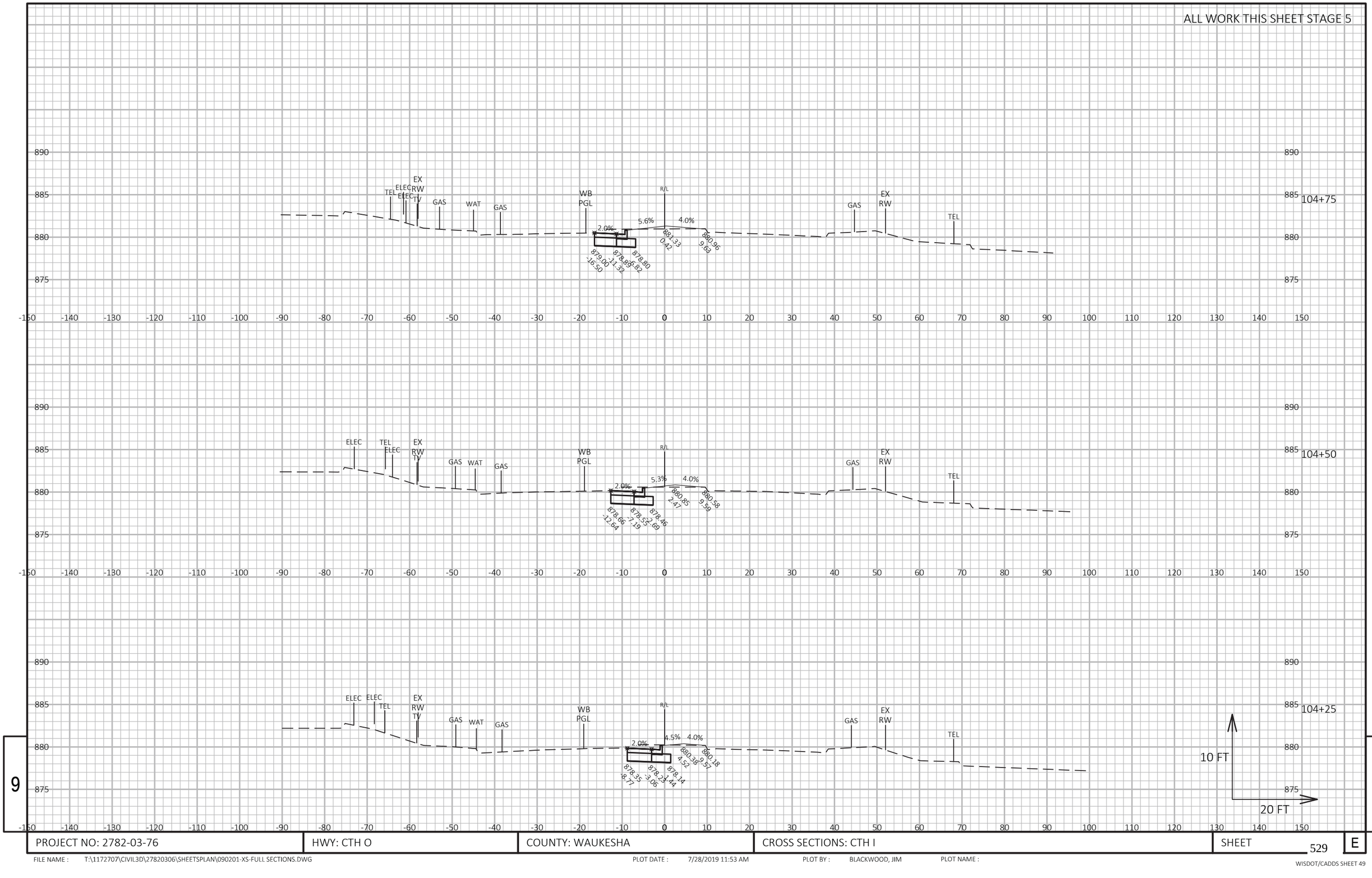
9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH I	SHEET 528	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:53 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

ALL WORK THIS SHEET STAGE 5



9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH I	SHEET 529	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:53 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

ALL WORK THIS SHEET STAGE 5



9

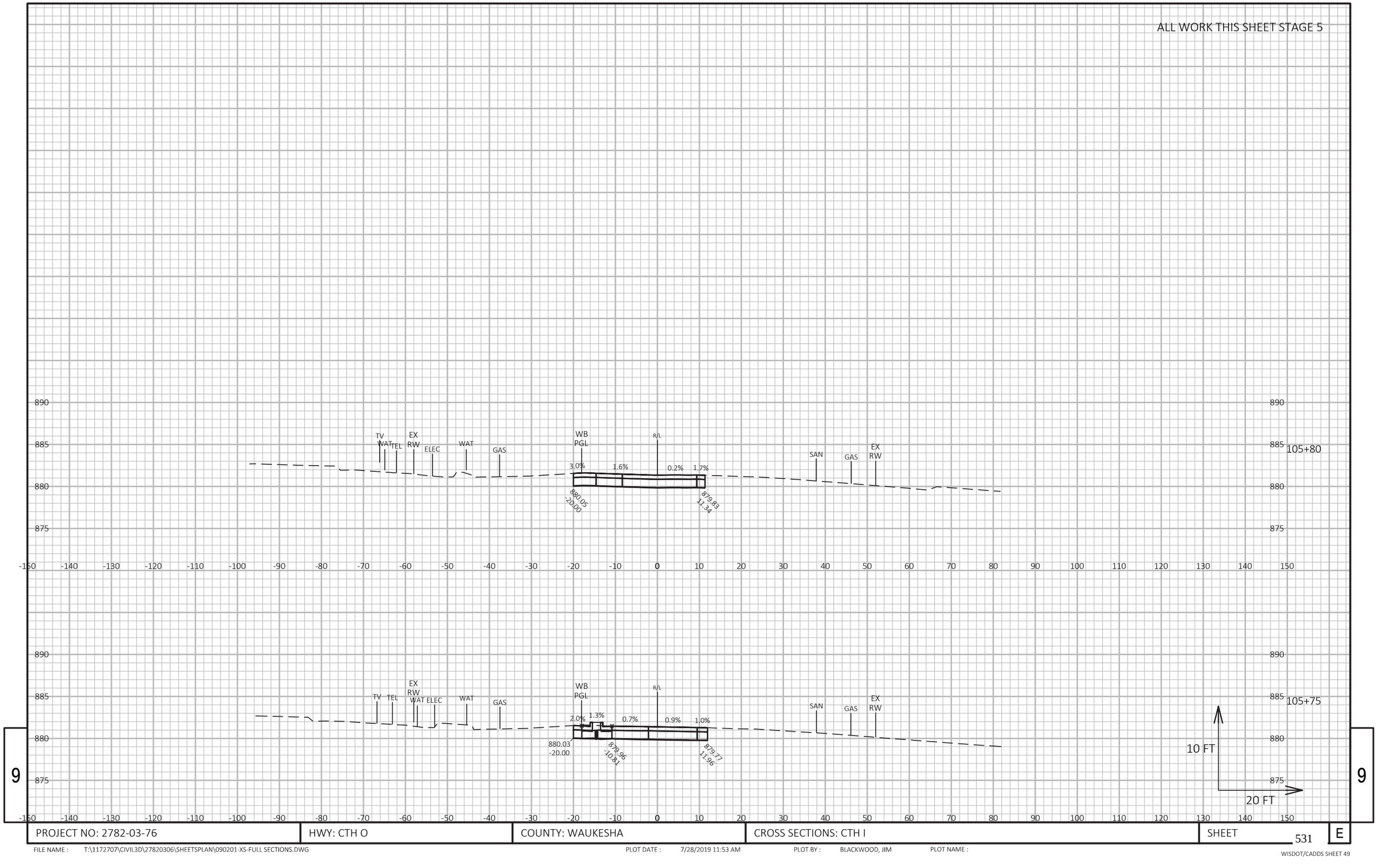
9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH I	SHEET 530	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:53 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

ALL WORK THIS SHEET STAGE 5



9

9

PROJECT NO: 2782-03-76	HWY: CTH O	COUNTY: WAUKESHA	CROSS SECTIONS: CTH I	SHEET 531	E

FILE NAME : T:\1172707\CIVIL3D\27820306\SHEETSPLAN\090201-XS-FULL SECTIONS.DWG PLOT DATE : 7/28/2019 11:53 AM PLOT BY : BLACKWOOD, JIM PLOT NAME :

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov