SEL

MAR 13

PROJECT I.D.: WITH: N/A 2753-06-71

COUNTY: WAUKESHA

ORDER OF SHEETS

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

TOTAL SHEETS = 346

14

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SILVER SPRING DRIVE

C.T.H. "Y" TO JACKSON DRIVE

C.T.H. "VV"

WAUKESHA COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2753-06-71	WISC 2013078	1

PROJECT NUMBER
2753-06-71

DESIGN DESIGNATION

A.A.D.T. 2013	=	12,500
A.A.D.T. 2033	=	27,000
D.H.V. 2023	=	1,940
D	=	58/42
T	=	9.6%
DESIGN SPEED	=	50 M.P.H.
ESALS	=	3,620,800

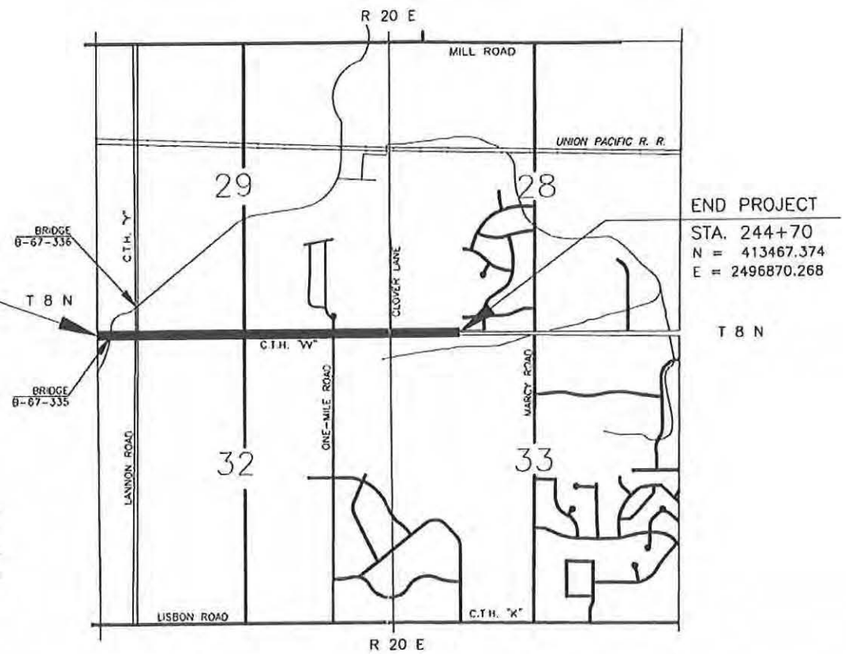
CONVENTIONAL SIGNS

COUNTY LINE
CORPORATE LIMITS
PROPERTY LINE
LOT LINE
EXISTING RIGHT OF WAY
NEW RIGHT OF WAY
TEMPORARY LIMITED EASEMENT
REFERENCE LINE
SLOPE INTERCEPT
ORIGINAL GROUND
MARSH OR ROCK PROFILE
CULVERT IN PLACE
CULVERT REQUIRED
CULVERT REQUIRED (Profile)

COMBUSTIBLE FLUIDS (UNDER PRESSURE)

UNDERGROUND UTILITIES
GAS — G
ELECTRIC — E
TELEPHONE — T
FIBER OPTIC — FO
CABLE TELEVISION — TV
SERVICE PEDESTAL
CABLE MARKER

POWER POLE
TELEPHONE POLE
RAILROADS
MARSH
WOODED AREA



LAYOUT
SCALE 0 1/4 MI.

TOTAL NET LENGTH OF CENTERLINE = 1.532 MI. (URBAN)

ALL COORDINATES SHOWN ON THIS PLAN ARE GROUND COORDINATES (N, E) AND ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE NAD-27 AND CAN BE CONVERTED TO GRID COORDINATES USING THE COMBINATION FACTOR OF 0.99990348

ALL ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NGVD-29

APPROVED FOR
WAUKESHA COUNTY
DEPARTMENT OF PUBLIC WORKS

10/23/12 Date — Allison Bussler, Director

10/23/12 Date — Greg S. Tyson, Engineering Services Manager

ORIGINAL PLANS PREPARED BY

WISCONSIN PROFESSIONAL ENGINEER
EDWARD A HENRICHS
E-32391
PLYMOUTH
WIS.

10/23/12 Date — Edward A. Henrichs, Signature

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor: GRAEF-USA

Designer: WAUK. CO. DEPT. OF PUBLIC WORKS

Management Consultant: D.A.A.R. CORP.

C.O. Examiner:

APPROVED FOR DISTRICT OFFICE

DATE: 10/29/12 — Management Consultant Signature

E

2

GENERAL NOTES

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS INICATED FOR REMOVAL BY THE ENGINEER.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS, AS SHOWN ON THE PLANS, ARE APPROXIMATE. THERE MAY BE OTHER UTILITIES AND UTILITY INSTALLATIONS WITHIN THE PROJECT LIMITS THAT ARE NOT SHOWN.

EXCAVATION BELOW SUBGRADE (EBS) SHALL NOT BE USED TO BALANCE YARDAGE. EBS IS NOT SHOWN ON THE CROSS SECTIONS, BUT WILL BE MEASURED AND PAID FOR AS EXCAVATION COMMON. THE PRECISE LOCATION OF THE EBS WILL BE DETERMINED BY THE ENGINEER.

PAVEMENTS ARE TO BE SAWCUT, AS INDICATED ON THE PLANS, TO PROVIDE A BUTT JOINT AT THE PROJECT LIMITS AND AT ALL ASPHALTIC DRIVEWAYS AND SIDE ROADS.

SILT FENCE SHALL BE INSTALLED AROUND ALL EXISTING CULVERT INLETS. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN PLACE UNTIL SUCH TIME AS THE ENGINEER DETERMINES THAT THEY ARE NO LONGER REQUIRED.

WHEN THE QUANTITY OF THE ITEMS OF BREAKER RUN, BASE AGGREGATE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE. THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

THE CRUSHED AGGREGATE FOR SHOULDERS ADJACENT TO THE HMA PAVEMENT SHALL NOT BE PLACED UNTIL AFTER THE SURFACE LAYER OF THE HMA PAVEMENT HAS BEEN LAID.

NEW 6-1/4-INCH HMA PAVEMENT, TYPE E-10, SHALL BE CONSTRUCTED WITH A 1-3/4 INCH UPPER LAYER LAYER AND ONE (1) MIDDLE LAYER OF 2-1/4-INCH AND ONE (1) LOWER LAYER OF 2-1/4-INCH.

NEW 6-1/4-INCH HMA PAVEMENT, TYPE E-10, SHALL BE CONSTRUCTED WITH A 1-3/4 INCH UPPER LAYER AND ONE (1) MIDDLE LAYER OF 2-1/4-INCH AND ONE (1) LOWER LAYER OF 2-1/4-INCH.

NEW 4 INCH HMA PAVEMENT, TYPE E-10, SHALL BE CONSTRUCTED WITH A 1-1/2 INCH SURFACE LAYER AND ONE (1) LOWER LAYER OF 2-1/2 INCHES.

ALL HMA PAVEMENT LOWER LAYERS SHALL HAVE A 19.0 mm GRADATION AND ALL HMA PAVEMENT SURFACE LAYERS SHALL HAVE A 12.5 mm GRADATION. ASPHALTIC MATERIAL PG64-22 SHALL BE USED FOR LOWER LAYERS AND ASPHALTIC MATERIAL PG64-28 SHALL BE USED FOR SURFACE LAYERS.

ALL CURB AND GUTTER RADII DIMENSIONS ARE MEASURED TO THE FLANGE.

CURB AND GUTTER JOINT SPACING SHALL BE 20 FEET IN TANGENT SECTIONS.

ALL DISTURBED AREAS WITHIN THE RIGHT OF WAY SHALL BE COVERED WITH SALVAGED TOPSOIL OR TOPSOIL, FERTILIZER, SEED, AND MULCH OR SODDED AS NOTED ON THE PLANS OR AS DETERMINED BY THE ENGINEER.

SEED QUANTITIES ARE BASED ON MIXTURE NO. 30.

SODDING SHALL CONSIST OF SOD EROSION CONTROL FOR ALL AREAS, EXCEPTING OCCUPIED RESIDENTIAL PROPERTIES AND ALL RIGHT OF WAY CONTIGUOUS TO SAID PROPERTIES, WHICH ARE TO USE SOD LAWN.

TWO JOINT TIES ARE REQUIRED FOR THE LAST THREE (3) JOINTS OF STORM SEWER PIPE REINFORCED CONCRETE AND CULVERT PIPE REINFORCED CONCRETE AT APRON ENDWALLS. THIS ITEM SHALL BE CONSIDERED INCIDENTAL TO THE OTHER ITEMS OF STORM SEWER CONSTRUCTION.

THE CONTRACTOR SHALL NOTIFY DIGGER'S HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK TO DETERMINE THE LATEST STATUS OF UTILITY RELOCATIONS. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF A ONE-CALL SYSTEM MUST BE CONTACTED SEPARATELY.

THE WISCONSIN STATE PLANE COORDINATE SYSTEM COORDINATES SHOWN ON THIS PLAN ARE GROUND COORDINATES AND THE COMBINATION FACTOR USED TO CONVERT TO GRID COORDINATES IS 0.99990348.

WDNR LIAISON

MR. CRAIG WEBSTER
ENVIRONMENTAL COORDINATOR - SOUTHEAST REGION
141 NW BARSTOW ROOM 180
WAUKESHA, WI 53188
(262) 574-2141

INDEX OF SECTION 2 DRAWINGS

GENERAL NOTES AND PROJECT CONTACTS
PROJECT OVERVIEW
TYPICAL EXISTING SECTIONS
TYPICAL FINISHED SECTIONS
CONSTRUCTION DETAILS
PEDESTRIAN CURB LANDING GRADING DETAILS
PAVING DETAILS
STORM SEWER PLANS
BIORETENTION PLAN AND PROFILE
EROSION CONTROL PLAN
TRAFFIC SIGNAL PLANS - (CTH Y)
CABLE ROUTING
SEQUENCE OF OPERATIONS
PAVEMENT MARKING PLANS
DETOUR PLAN
TRAFFIC CONTROL PLAN
ALIGNMENT DIAGRAM
SECTION CORNER AND CONTROL POINT TIES
VILLAGE OF MENOMONEE FALLS CONSTRUCTION DETAILS

STANDARD ABBREVIATIONS

A.D.T.	AVERAGE DAILY TRAFFIC
AC.	ACRE(S)
ASPH.	ASPHALT
BM	BENCH MARK
C & G	CURB & GUTTER
CB	CATCH BASIN
C.S.C.P.	CORRUGATED STEEL CULVERT PIPE
C.Y.	CUBIC YARDS
℄	CENTERLINE
CO.	COUNTY
C.T.H.	COUNTY TRUNK HIGHWAY
CWT.	HUNDREDWEIGHT
D	DEGREE OF CURVE
D.H.V.	DESIGN HOURLY VOLUME
DISCH.	DISCHARGE
E	EAST
EA.	EACH
E.B.	EASTBOUND
ESALS	EQUIVALENT SINGLE AXLE LOADS
ESMT.	EASEMENT
F.E.	FIELD ENTRANCE
FT.	FOOT (FEET)
G	GAS
I.P.	IRON PIPE
K	RATE OF VERTICAL CURVATURE
L	LENGTH
LB.	POUND(S)
L.F.	LINEAR FEET
LHF	LEFT HAND FORWARD
LS	LUMP SUM
LT.	LEFT
MH	MANHOLE
N	NORTH
N.B.	NORTHBOUND
NO.	NUMBER
P.C.	POINT OF CURVATURE
P.I.	POINT OF INTERSECTION
P.L.	PROPERTY LINE
P.R.C.	POINT OF REVERSE CURVATURE
P.T.	POINT OF TANGENCY
PAV'T.	PAVEMENT
R	RADIUS
C.P.R.C.	CULVERT PIPE REINFORCED CONCRETE
RHF	RIGHT HAND FORWARD
RT.	RIGHT
R/W	RIGHT OF WAY
S	SOUTH
SAN	SANITARY
S.B.	SOUTHBOUND
S.D.D.	STANDARD DETAIL DRAWING
S.F.	SQUARE FEET
S.S.P.R.C.	STORM SEWER PIPE REINFORCED CONCRETE
STA.	STATION
S.Y.	SQUARE YARDS
T	TANGENT
T	TELEPHONE
T.L.E.	TEMPORARY LIMITED EASEMENT
VAR.	VARIES
V.P.C.	VERTICAL POINT OF CURVATURE
V.P.I.	VERTICAL POINT OF INTERSECTION
V.P.T.	VERTICAL POINT OF TANGENCY
W	WATER MAIN
W	WEST
W.B.	WESTBOUND
WV	WATER VALVE
YD.	YARDS

MEMBER ONE CALL SYSTEMS INTERNATIONAL

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE
TELEFAX (414) 259-0947
TDD (FOR HEARING IMPAIRED) 1-800-542-2289
WIS. STATUTE 182.0175 (1974)
REQUIRES MIN. OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE

UTILITIES WITHIN THE PROJECT LIMITS

A.T. & T., INC.
MR. STEVE UBERT
OUTSIDE PLANT ENGINEER
7721 WEST FOND DU LAC AVENUE
MILWAUKEE, WI 53218
(414)-535-7420

AMERICAN TRANSMISSION COMPANY
KIM STRATTON
REAL ESTATE/RIGHT OF WAY REPRESENTATIVE
N19 W23993 RIDGEVIEW PARKWAY WEST
P.O. BOX 47
WAUKESHA, WI. 53187-0047
262-506-6876

WE-ENERGIES
MR. DAN SANDE
UTILITY ACCOMMODATIONS MANAGER
333 W. EVERETT ST. A279
MILWAUKEE, WI 53203
(414) 221-4578

WE-ENERGIES (ELECTRIC)
MS. RHONDA HELWER
500 S. 116TH STREET
WEST ALLIS, WI 53214
(414)-944-5547

WE-ENERGIES (GAS)
MR. TOM MINESAL
500 S. 116th ST.
WEST ALLIS, WI 53214
(414)-944-5755

TIME WARNER CABLE
MR. LUKE LACROSSE
1320 N. DR. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212
(414) 908-4766

MENOMONEE FALLS DEPARTMENT OF PUBLIC WORKS
WATER UTILITY
MR. RANDY HAGER
W156 N8480 PILGRIM ROAD
MENOMONEE FALLS, WI 53051
(262) 532-4807

VILLAGE OF MENOMONEE FALLS SEWER UTILITY
MR. RAYMOND CORTENBACH
W156 N8480 PILGRIM ROAD
MENOMONEE FALLS, WI 53051
(262) 424-0096

ANR PIPELINE, INC.
MR. JIM JUDSON
NORTH 5570 HWY 120
BURLINGTON, WI 53105
(920) 375-0483

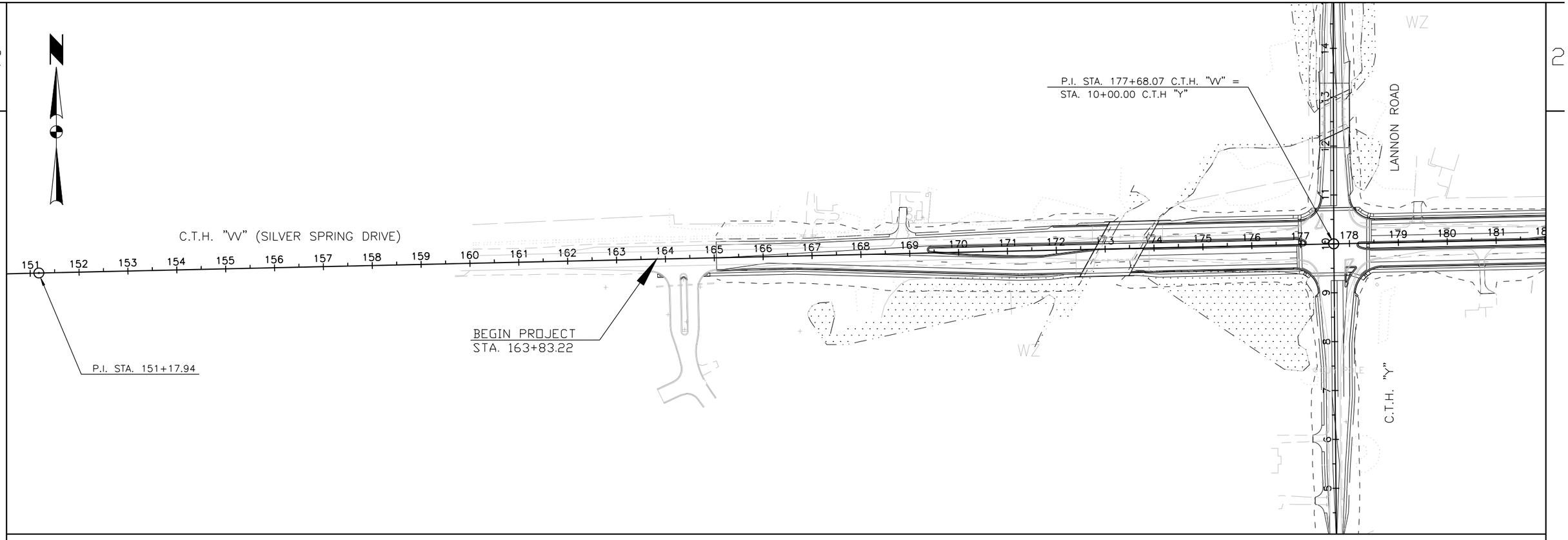
TCG - TELECORP GROUP
MR. BOB AKHTER
4513 WESTERN AVENUE
LISLE, IL 60532
(630) 719-1483

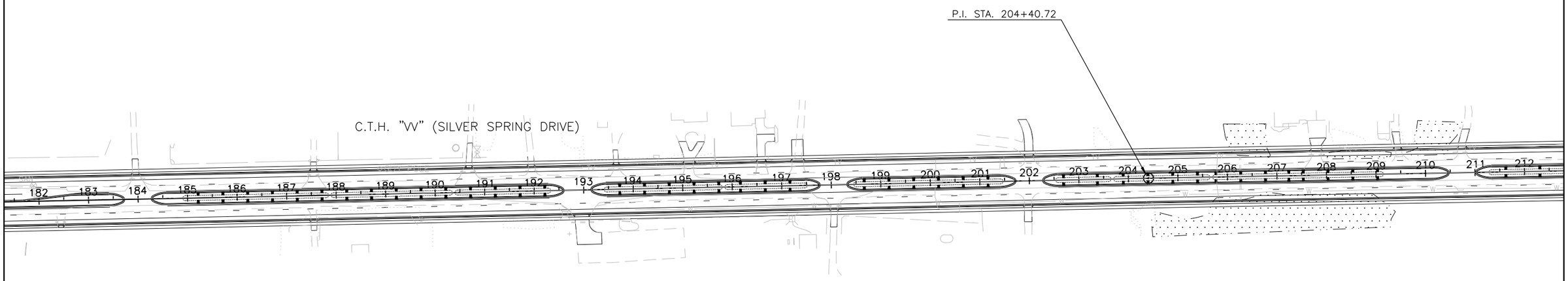
TIME WARNER TELECOM
MR. BRAHIM GADDOUR, OSP ENGINEERING DEPARTMENT
3235 INTERTECH DRIVE, SUITE 600
BROOKFIELD, WI 53045
(414)-908-1011
(414)-908-1027

WAUKESHA COUNTY
DEPARTMENT OF PUBLIC WORKS
MR. GARY EVANS
ENGINEERING SERVICES MANAGER
MR. ED HINRICHS
PROJECT MANAGER
515 W. MORELAND BLVD.
WAUKESHA, WI 53188
(262) 548-7740

2

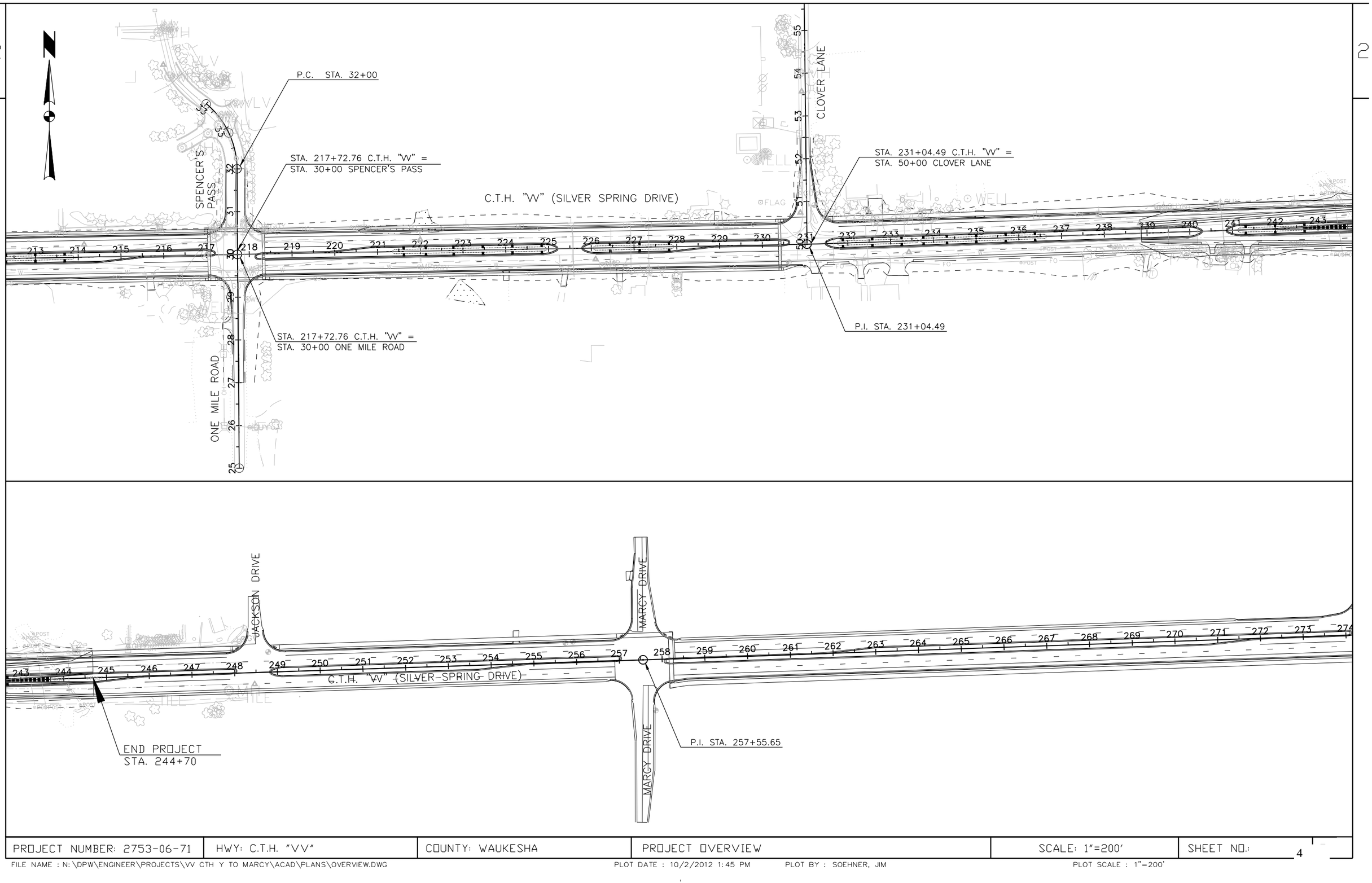
PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	GENERAL NOTES AND PROJECT CONTACTS	SHEET NO.: 2	E





PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PROJECT OVERVIEW	SCALE: 1"=200'	SHEET NO.: 3

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\OVERVIEW.DWG PLOT DATE : 10/2/2012 1:45 PM PLOT BY : SOEHNER, JIM PLOT SCALE : 1"=200'



PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PROJECT OVERVIEW	SCALE: 1"=200'	SHEET NO.: 4

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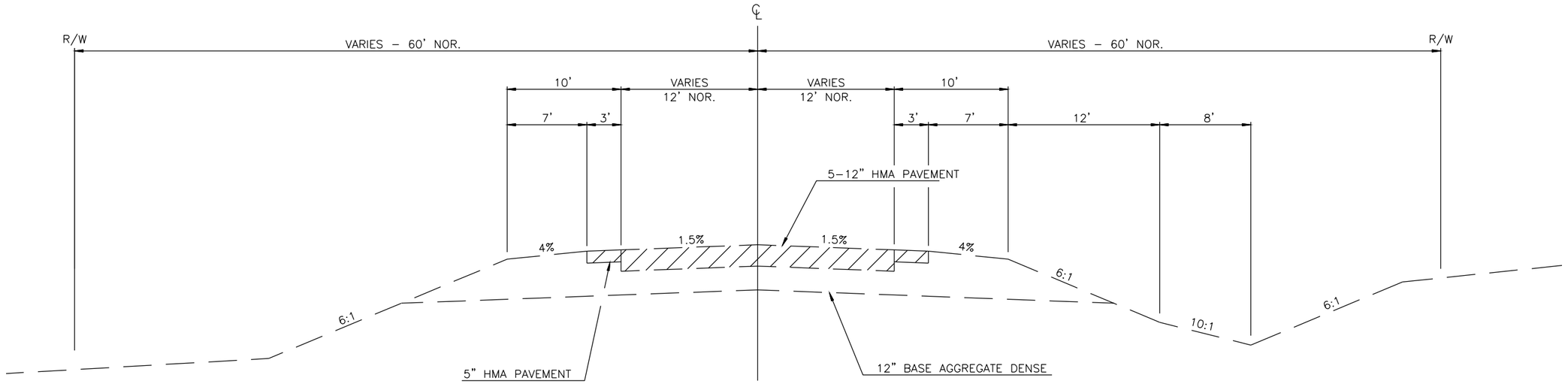
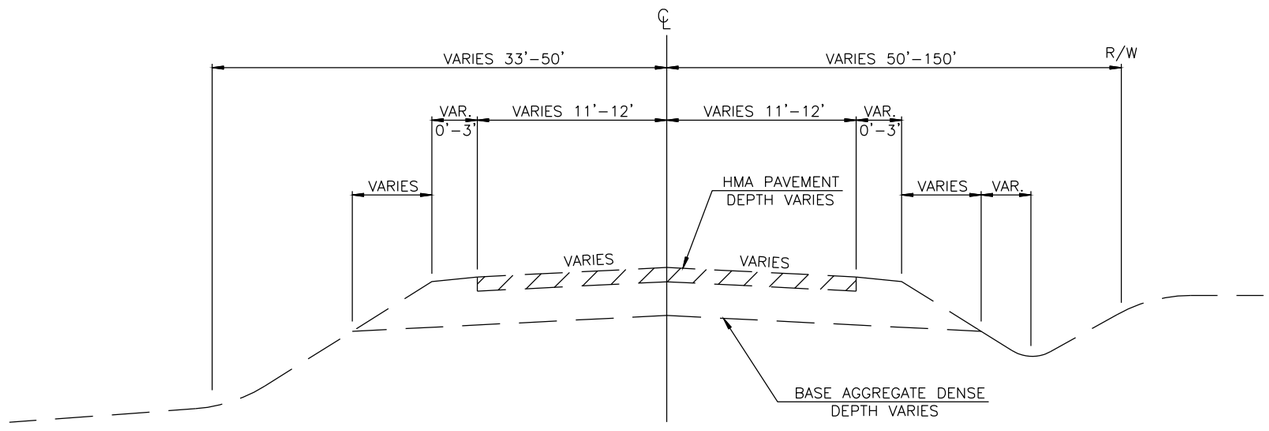


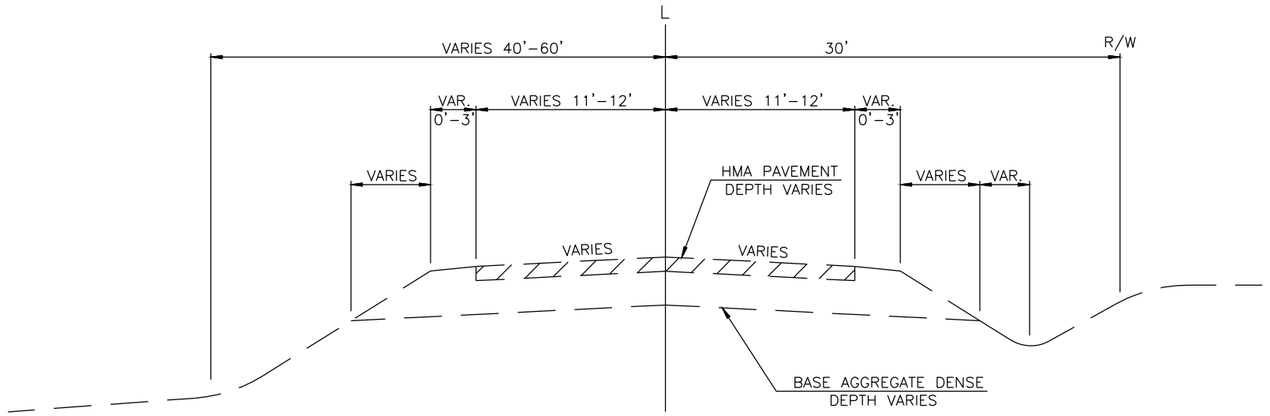
TYPICAL EXISTING SECTION
C.T.H. "VV"
STA. 165+00 – STA. 244+69



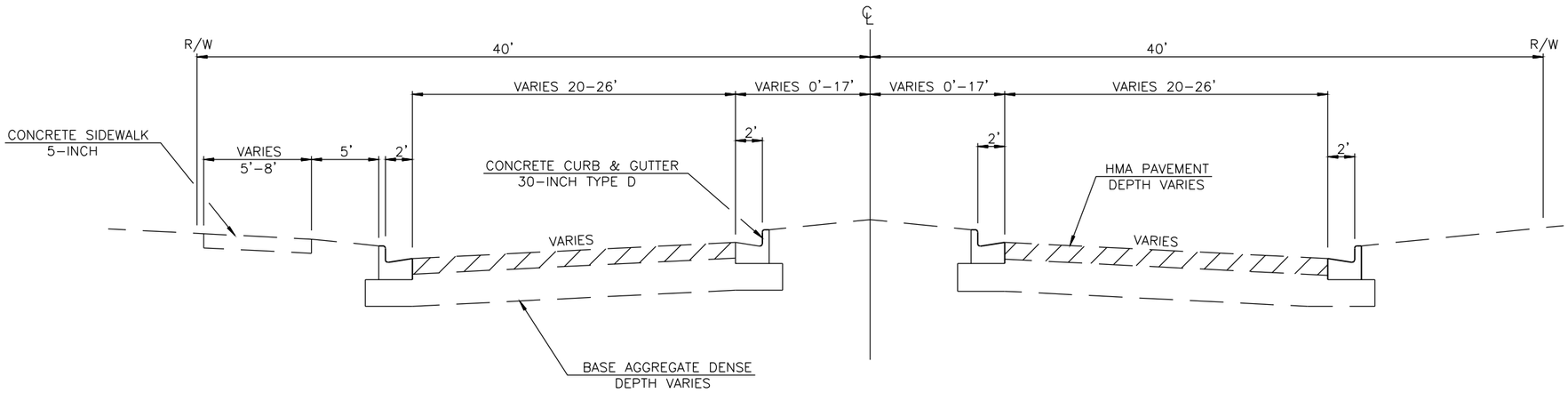
TYPICAL EXISTING SECTION
C.T.H. "Y" (LANNON ROAD)

PROJECT NO: 2753–06–70	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TYPICAL EXISTING SECTIONS	SHEET 5	E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\TYP–EXISTING.DWG PLOT DATE : 10/2/2012 1:48 PM PLOT BY : SOEHNER, JIM PLOT SCALE :



TYPICAL EXISTING SECTION
ONE MILE ROAD
CLOVER LANE



TYPICAL EXISTING SECTION
SPENCERS PASS

PROJECT NO: 2753–06–70	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TYPICAL EXISTING SECTIONS	SHEET 6	E

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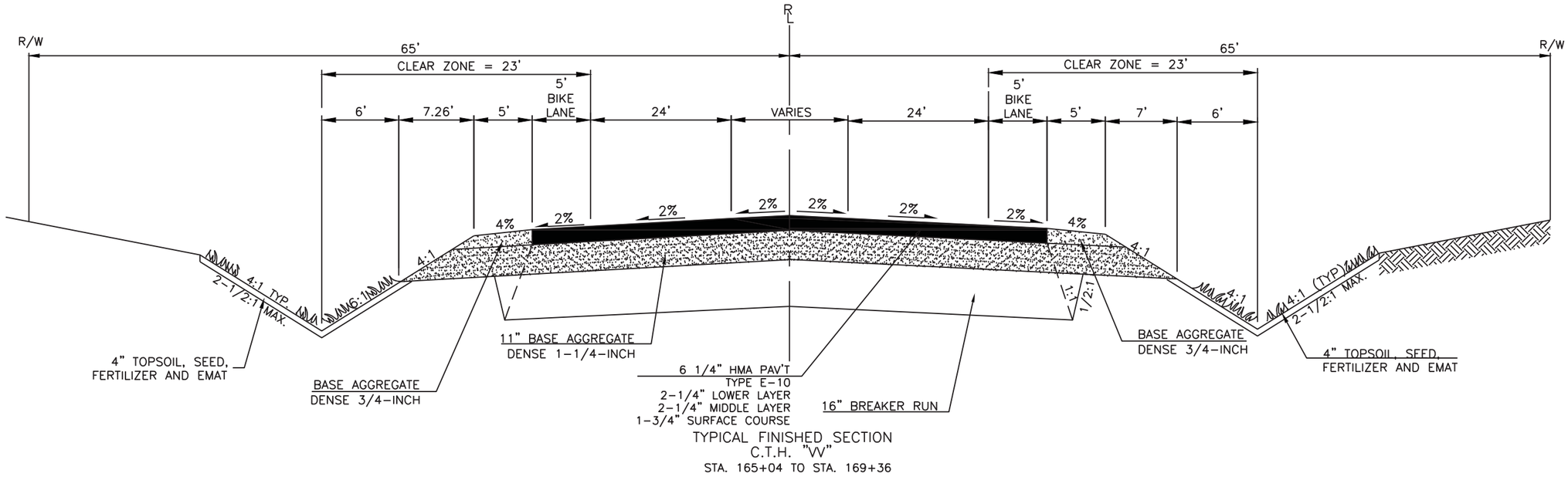
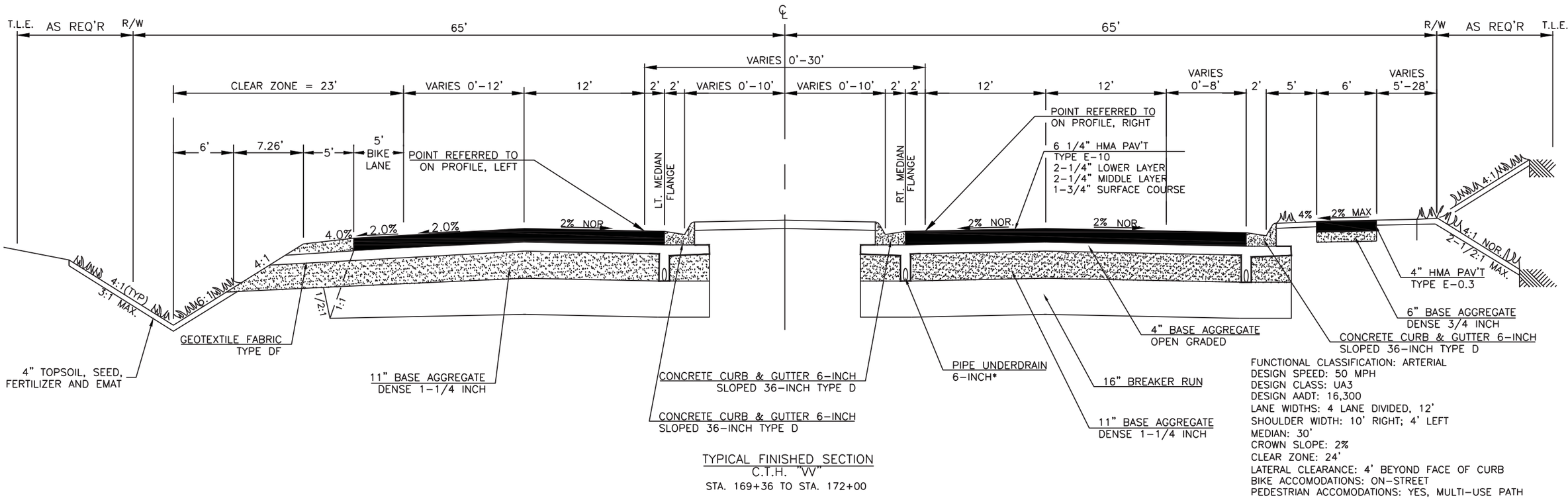


TYPICAL FINISHED SECTION
C.T.H. "VV"
STA. 165+04 TO STA. 169+36

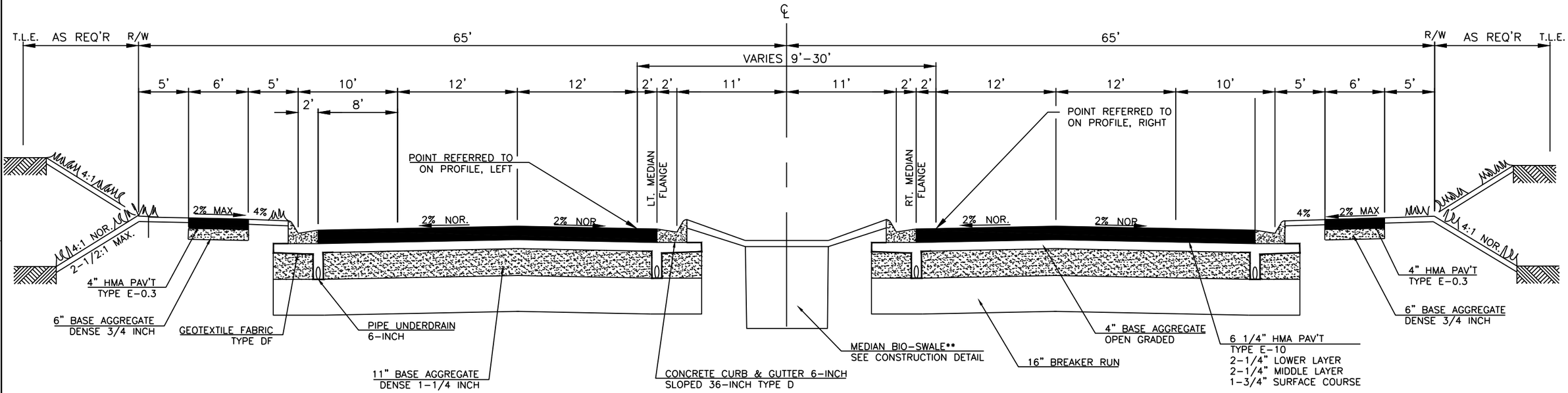


TYPICAL FINISHED SECTION
C.T.H. "VV"
STA. 169+36 TO STA. 172+00

FUNCTIONAL CLASSIFICATION: ARTERIAL
DESIGN SPEED: 50 MPH
DESIGN CLASS: UA3
DESIGN AADT: 16,300
LANE WIDTHS: 4 LANE DIVIDED, 12'
SHOULDER WIDTH: 10' RIGHT; 4' LEFT
MEDIAN: 30'
CROWN SLOPE: 2%
CLEAR ZONE: 24'
LATERAL CLEARANCE: 4' BEYOND FACE OF CURB
BIKE ACCOMODATIONS: ON-STREET
PEDESTRIAN ACCOMODATIONS: YES, MULTI-USE PATH

* UNDERDRAIN SAHLL BE CONTINUOUS THROUGH INTERSECTION

PROJECT NO: 2753-06-01	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TYPICAL FINISHED SECTIONS	SHEET 7	E



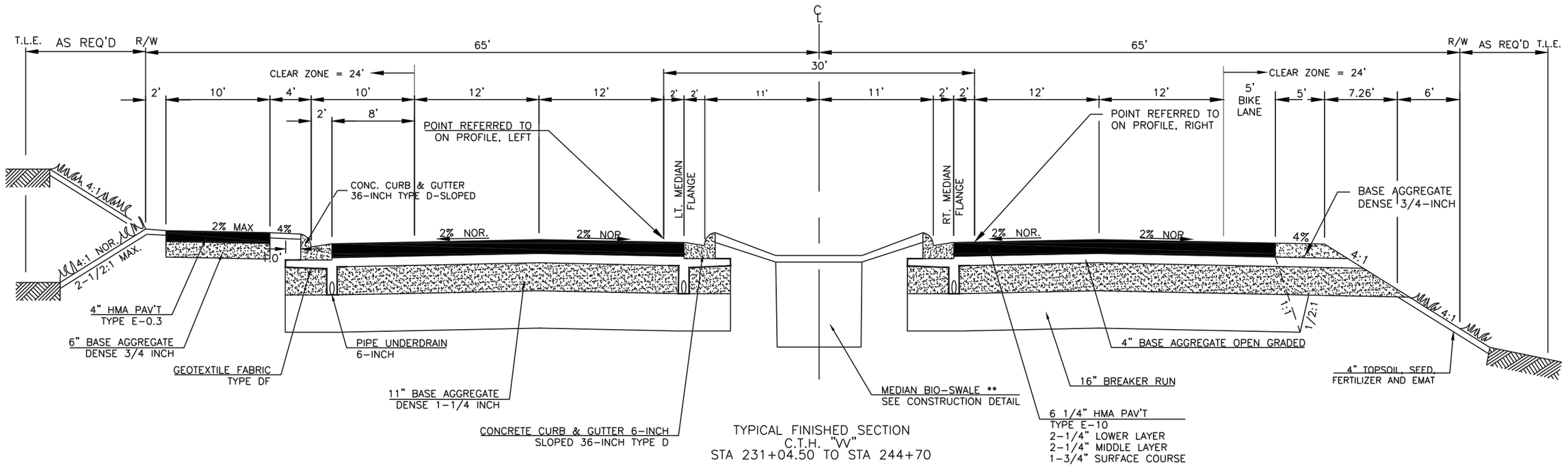
TYPICAL FINISHED SECTION
C.T.H. "VV"

STA. 172+00 TO STA. 231+04.50

** SEE BIORETENTION PLAN AND PROFILE SHEETS FOR SOD LIMITS

PROJECT NO: 2753-06-01	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TYPICAL FINISHED SECTIONS	SHEET 8	E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\TYPICAL FINISHED SECTIONS 2753-06-01.DWG PLOT DATE : 10/25/2012 6:38 AM PLOT BY : SOEHNER, JIM PLOT SCALE :

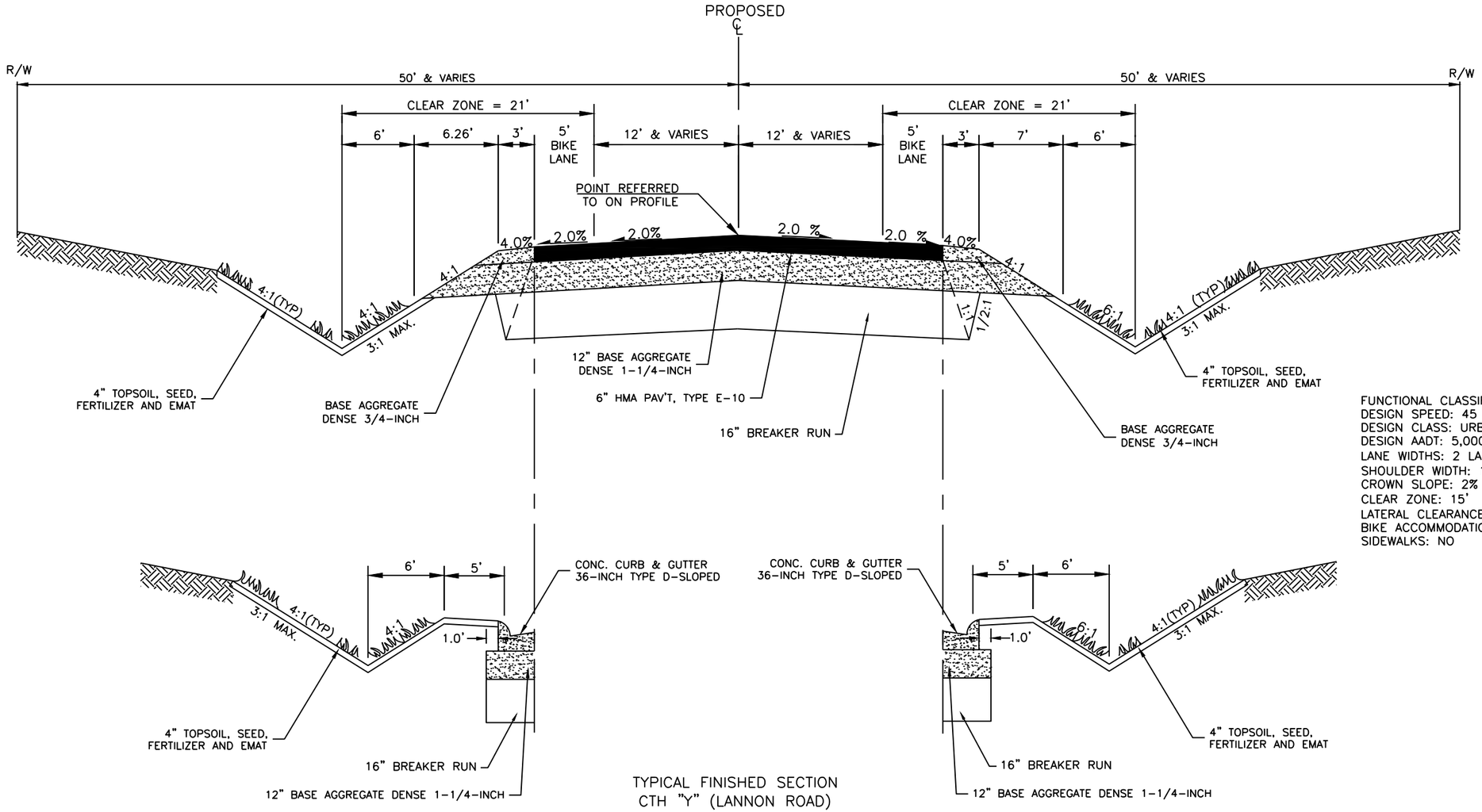


TYPICAL FINISHED SECTION
C.T.H. "VV"
STA 231+04.50 TO STA 244+70

** SEE BIORETENTION PLAN AND PROFILE SHEETS FOR SOD LIMITS

PROJECT NO: 2753-06-01	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TYPICAL FINISHED SECTIONS	SHEET 9	E

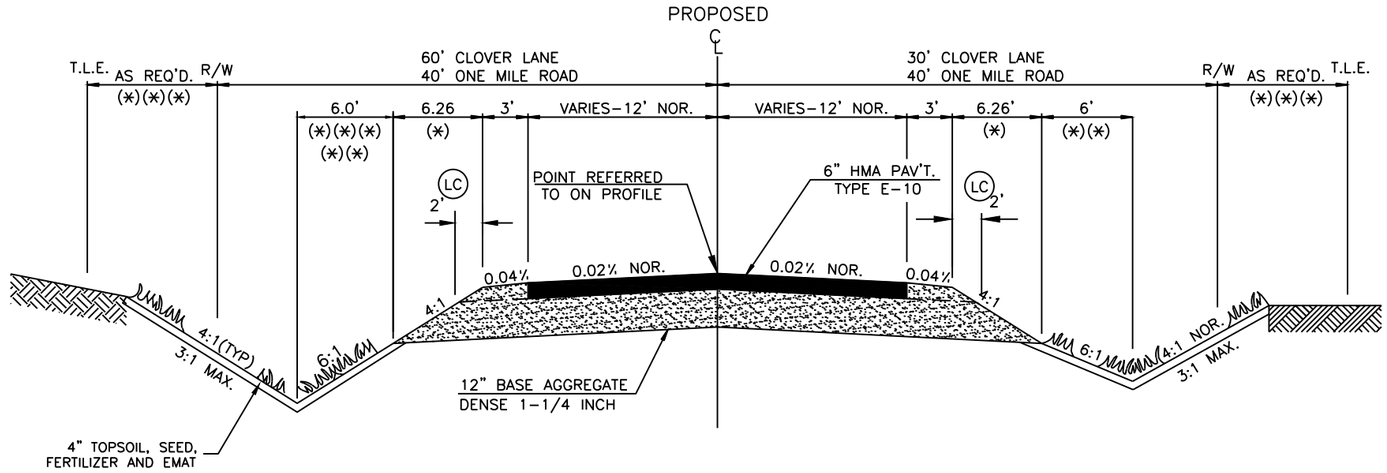
FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\TYPICAL FINISHED SECTIONS 2753-06-01.DWG PLOT DATE : 1/10/2013 7:34 AM PLOT BY : SOEHNER, JIM PLOT SCALE :



FUNCTIONAL CLASSIFICATION: ARTERIAL (SEWRPC)
DESIGN SPEED: 45 MPH
DESIGN CLASS: URBAN 2b
DESIGN AADT: 5,000
LANE WIDTHS: 2 LANE UNDIVIDED, 12'
SHOULDER WIDTH: 10' (5' PAVED)
CROWN SLOPE: 2%
CLEAR ZONE: 15'
LATERAL CLEARANCE: 4'
BIKE ACCOMMODATIONS: YES
SIDEWALKS: NO

TYPICAL FINISHED SECTION
CTH "Y" (LANNON ROAD)
STA. 3+50-18+50

PROJECT NO: 2753-06-01	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TYPICAL FINISHED SECTIONS	SHEET 10	E



NOTE: AT A MINIMUM, ALL INTERSECTIONS WILL REQUIRE CONCRETE CURB AND GUTTER AT THE RADII. SOME SIDEROADS WILL REQUIRE EXTENDING THE CURB TO MATCH EXISTING CURB AND GUTTER (SEE PAVING AND PLAN AND PROFILE SHEETS).

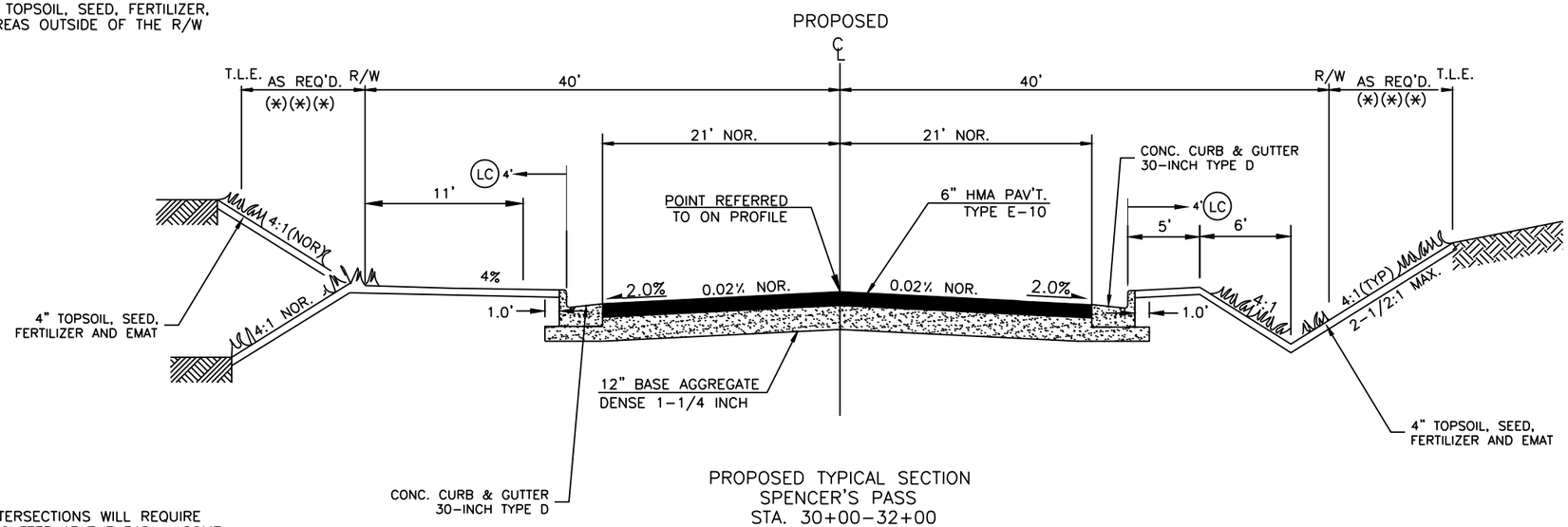
PROPOSED TYPICAL SECTION
CLOVER LANE
STA. 50+00-52+50
ONE MILE ROAD
STA. 27+00-30+00

(LC) LATERAL CLEARENCE

(*) LIMITS OF SEED, FERTILIZER, AND MULCH

(*)(*) 4" SALVAGED TOPSOIL OR TOPSOIL, FERTILIZER, AND LAWN SOD FOR AREAS W/IN THE R/W AND RESIDENTIAL YARDS OUTSIDE OF THE R/W ; SOD EROSION CONTROL FOR DITCHES

(*)(*)(*) 4" SALVAGED TOPSOIL OR TOPSOIL, SEED, FERTILIZER, AND MULCH FOR FIELD AREAS OUTSIDE OF THE R/W

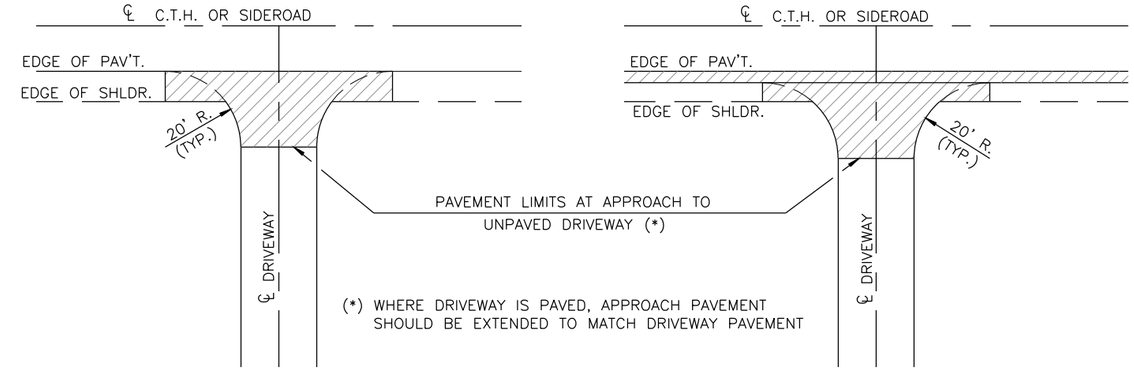


NOTE: AT A MINIMUM, ALL INTERSECTIONS WILL REQUIRE CONCRETE CURB AND GUTTER AT THE RADII. SOME SIDEROADS WILL REQUIRE EXTENDING THE CURB TO MATCH EXISTING CURB AND GUTTER (SEE PAVING AND PLAN AND PROFILE SHEETS).

PROPOSED TYPICAL SECTION
SPENCER'S PASS
STA. 30+00-32+00

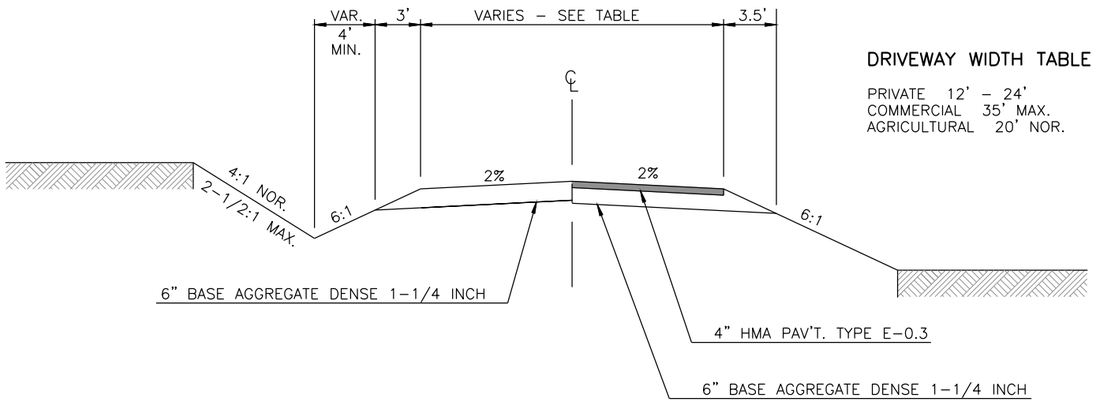
PROJECT NO: 2753-06-01	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TYPICAL FINISHED SECTIONS	SHEET 11	E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\TYPICAL FINISHED SECTIONS 2753-06-01.DWG PLOT DATE : 10/25/2012 6:38 AM PLOT BY : SOEHNER, JIM PLOT SCALE :



PLAN VIEW

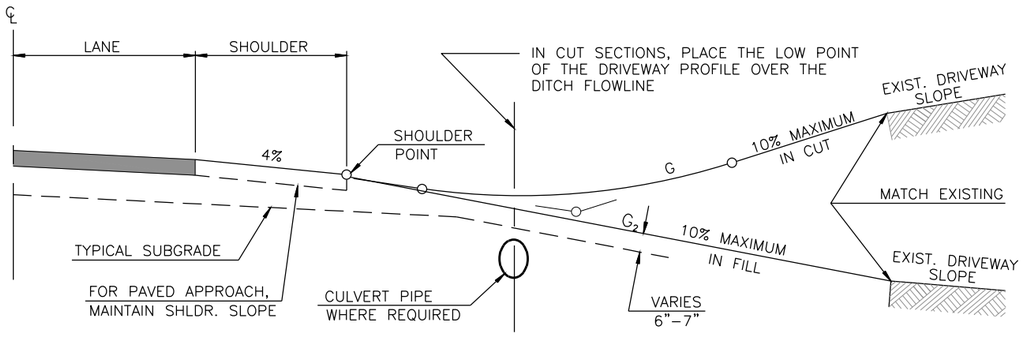
PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)



DRIVEWAY WIDTH TABLE

PRIVATE 12' – 24'
COMMERCIAL 35' MAX.
AGRICULTURAL 20' NOR.

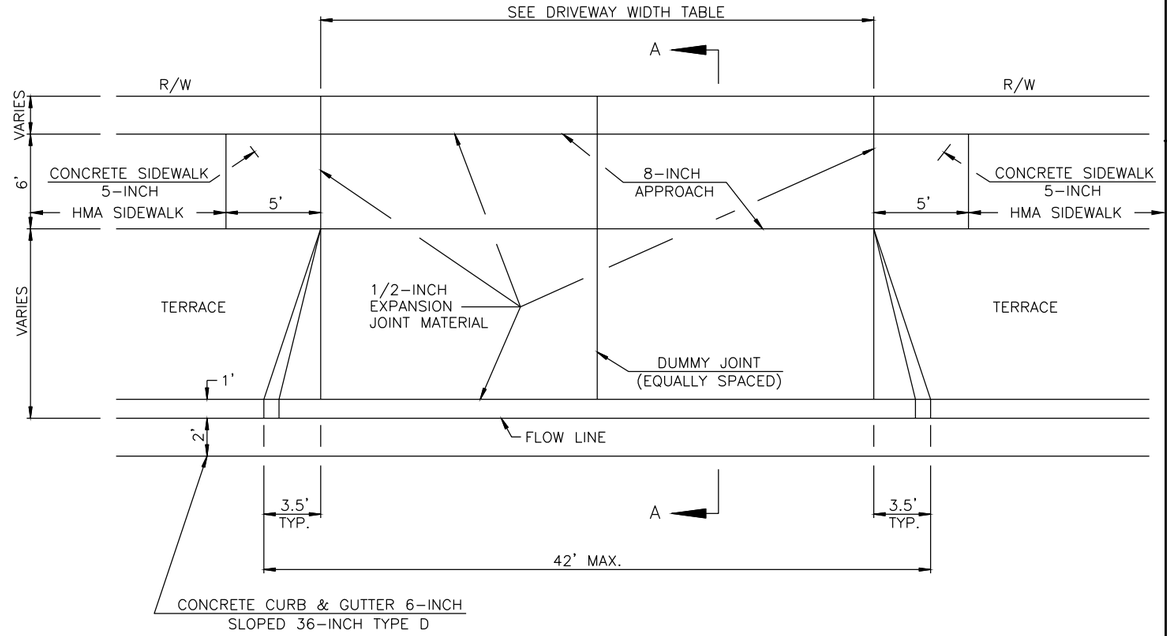
TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE



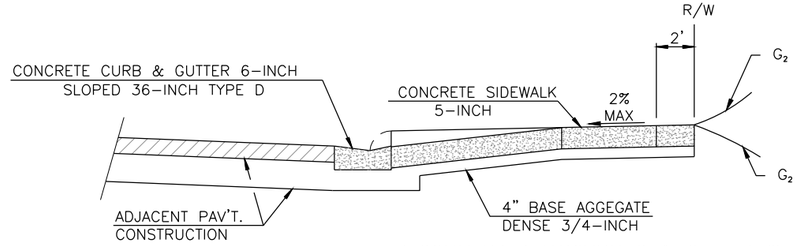
TYPICAL DRIVEWAY PROFILES

RECOMMENDED MAXIMUM G & G_2 = 15%
DESIRABLE MAXIMUM = 10%
MAXIMUM DIFFERENCE BEWEEEN G AND G_2 IN FILL = 14%

RURAL DRIVEWAY INTERSECTION DETAILS

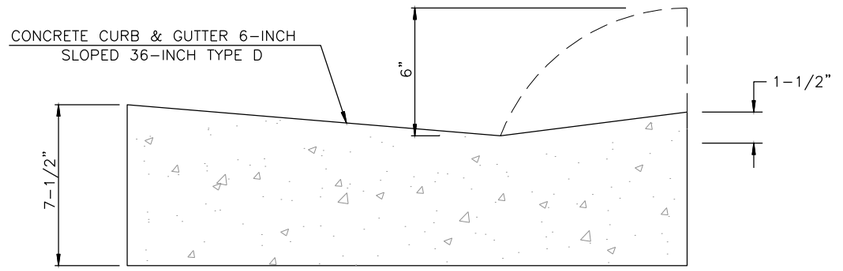


PLAN VIEW



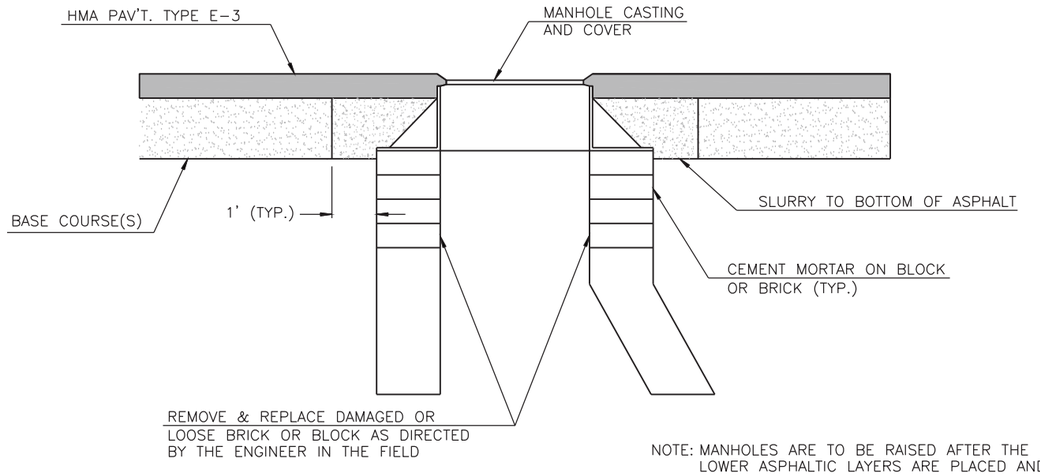
RECOMMENDED MAXIMUM G & G_2 = 15%
DESIRABLE MAXIMUM = 10%
MAXIMUM DIFFERENCE BEWEEEN G AND G_2 IN FILL = 14%

SECTION A–A
CROSS SECTION THRU DRIVEWAY
DRIVEWAY APPROACH – COMMERCIAL, INDUSTRIAL, MULTI-FAMILY



CURB AND GUTTER DETAIL AT DRIVEWAYS

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CONSTRUCTION DETAILS	SHEET NO.: 12	E



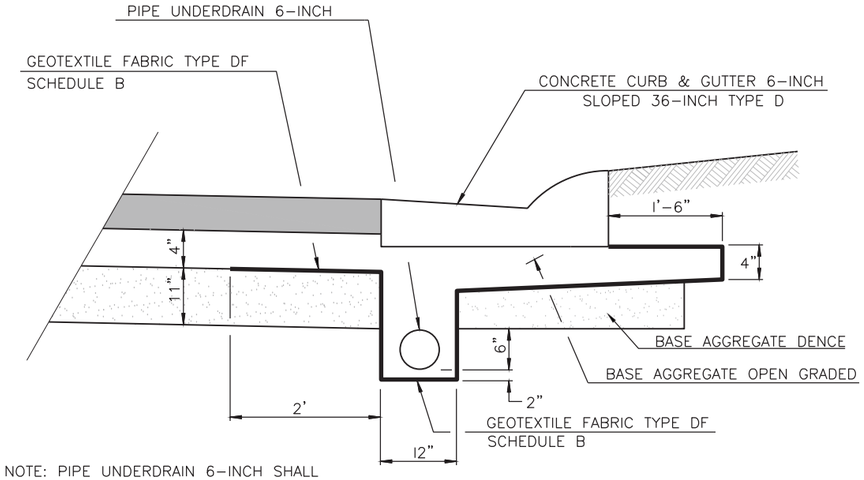
NOTE: 12 INCHES OR LESS OF ADJUSTMENT SHALL BE PAID FOR AS "ADJUSTING MANHOLE COVERS". GREATER THAN 12 INCHES OF ADJUSTMENT SHALL BE PAID FOR AS "RECONSTRUCTING MANHOLE".

NOTE: MANHOLES ARE TO BE RAISED AFTER THE LOWER ASPHALTIC LAYERS ARE PLACED AND BEFORE THE FINISHED SURFACE LAYER.

DISTURBED ASPHALTIC PAVEMENT SHALL BE REPLACED WITH SLURRY TO BOTTOM OF ASPHALT

SLURRY SHALL BE CONSIDERED INCIDENTAL TO THE ITEM OF ADJUSTING MANHOLE COVERS OR RECONSRTUCTING MANHOLE

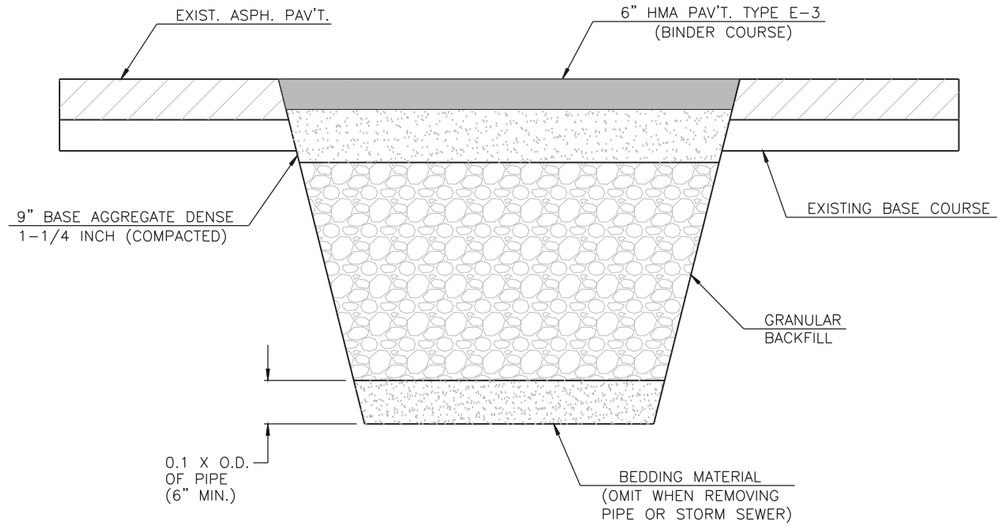
ADJUSTING MANHOLE COVERS



NOTE: PIPE UNDERDRAIN 6-INCH SHALL DISCHARGE INTO THE NEAREST DOWNSTREAM DRAINAGE STRUCTURE UNDER THE CURB AND GUTTER OR TO THE DITCH IN RURAL SECTIONS.

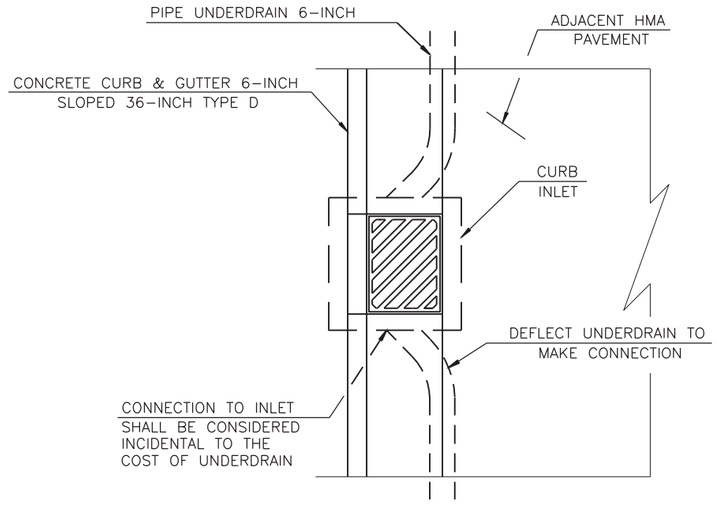
THE COST OF THESE CONNECTIONS SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR PIPE UNDERDRAIN 6-INCH.

UNDERDRAIN PLACEMENT DETAIL
PIPE UNDERDRAIN 6-INCH



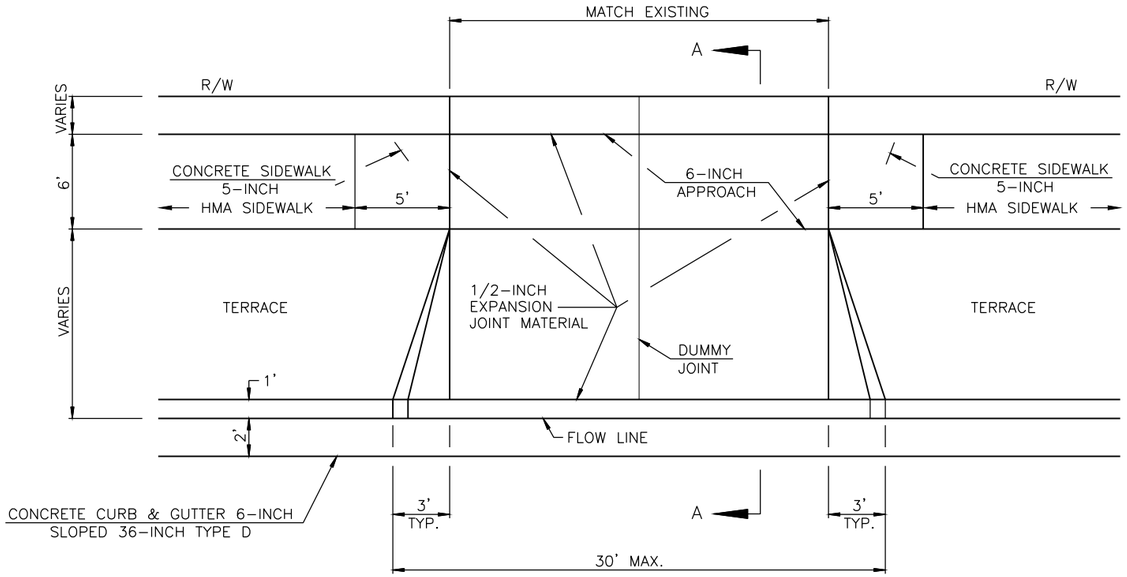
NOTE: ALL MATERIALS SHALL BE CONSIDERED INCIDENTAL TO THE ITEMS OF REMOVING SMALL PIPE CULVERTS OR REMOVING STORM SEWER PIPE (SIZE).

TRENCH RESTORATION DETAILS
STORM SEWER AND PIPE REMOVAL

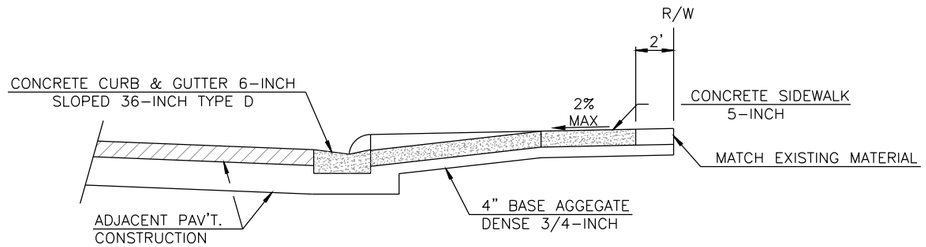


NOTE: CONNECT BOTH ENDS OF UNDERDRAIN TO INLETS

DETAILS FOR
UNDERDRAIN CONNECTION TO INLETS

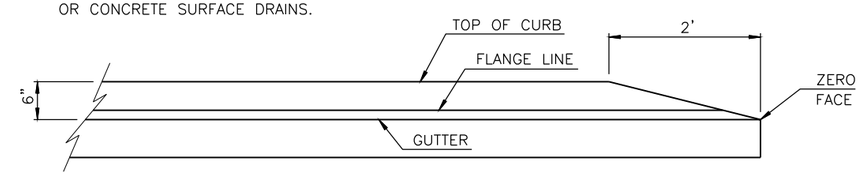


PLAN VIEW

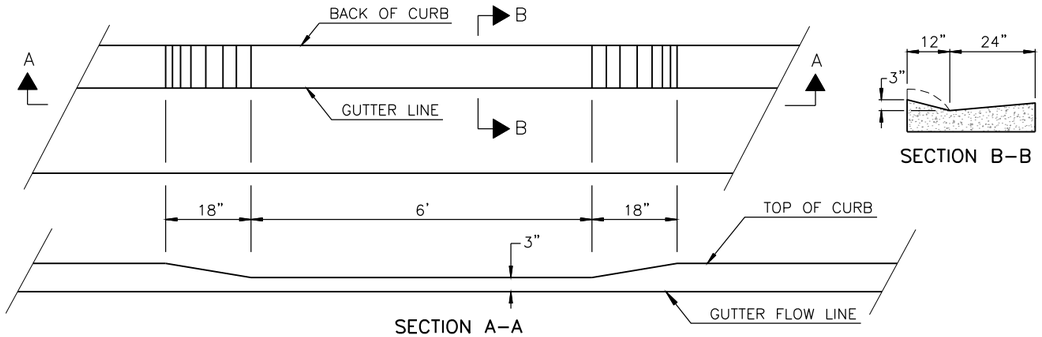


SECTION A-A
CROSS SECTION THRU DRIVEWAY
RESIDENTIAL DRIVEWAY APPROACH

NOTE: TO BE USED AT ALL TERMINI OF CURB AND GUTTER WHERE NOT ABUTTING EXISTING CURB AND GUTTER OR CONCRETE SURFACE DRAINS.

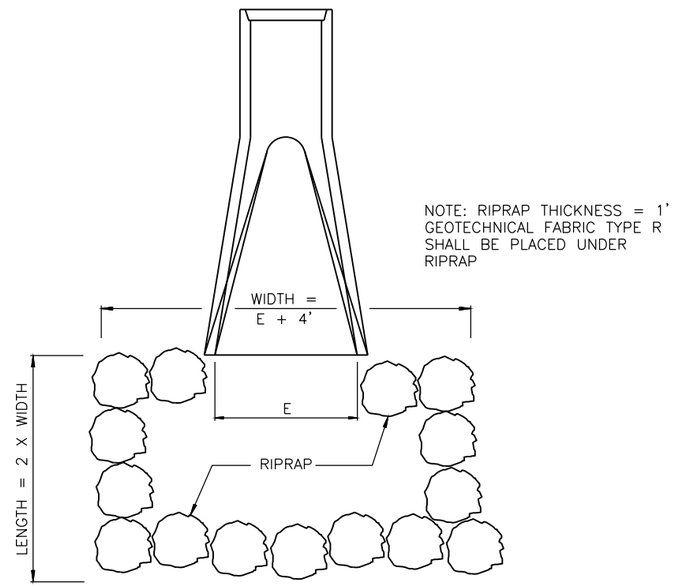


CURB AND GUTTER TERMINAL SECTION

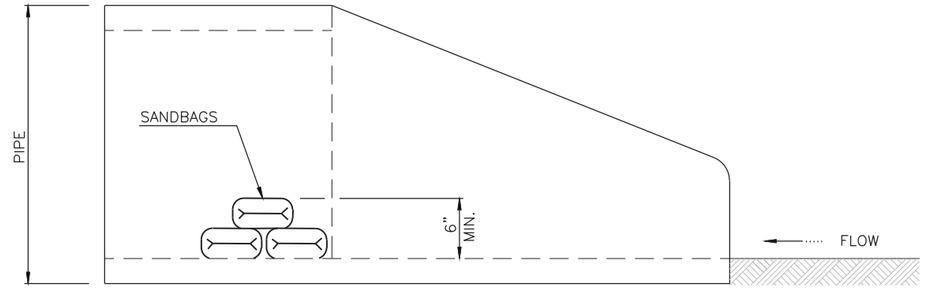


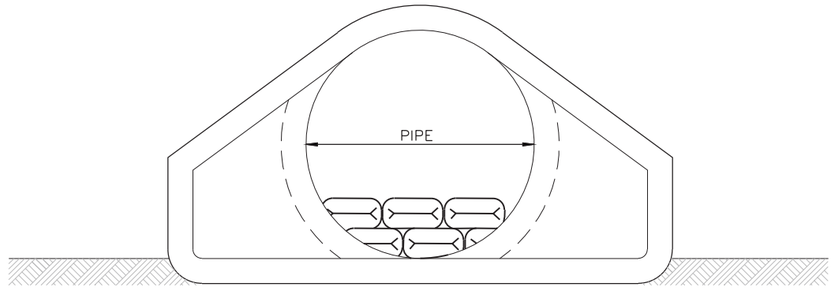
SECTION A-A

MEDIAN MAINTENANCE RAMP DETAILS

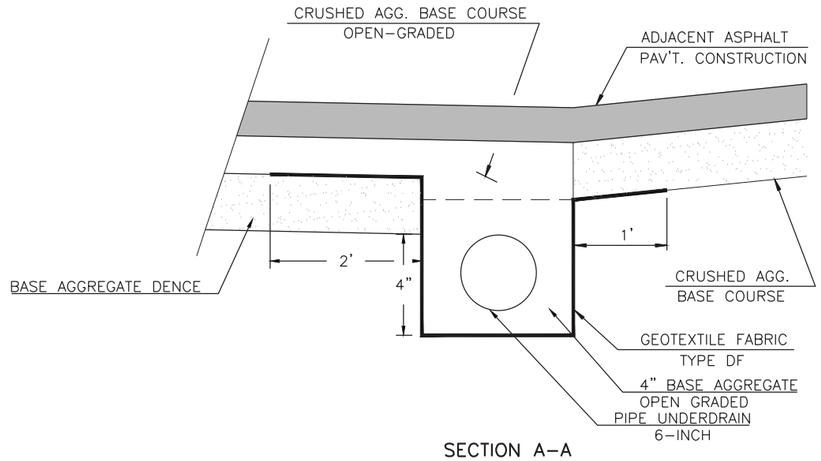


TYPICAL PLACEMENT OF RIPRAP AT PIPE DISCHARGE ENDS

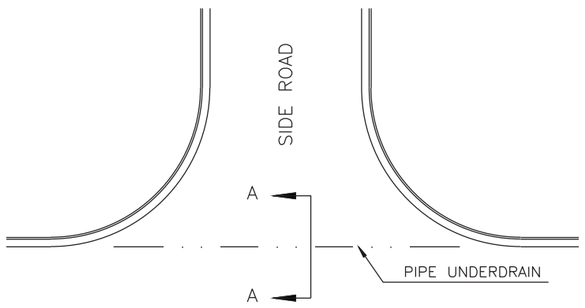




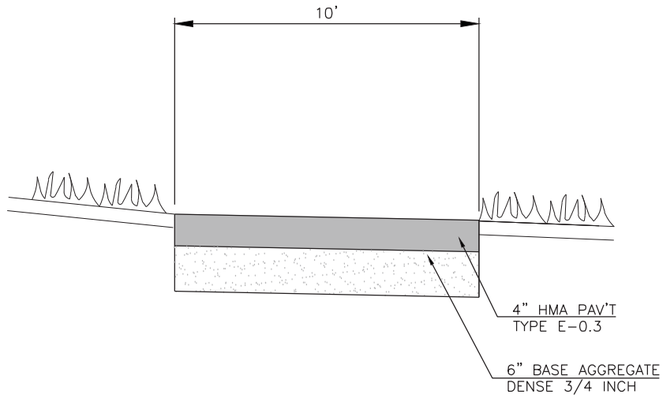
CULVERT PIPE CHECK DETAILS



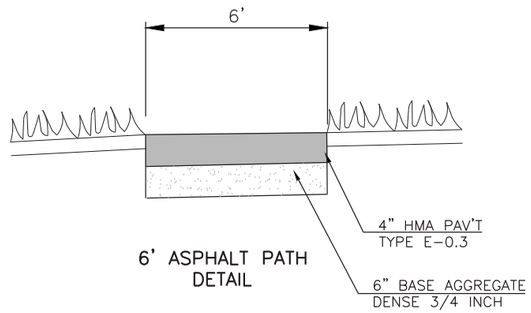
SECTION A-A



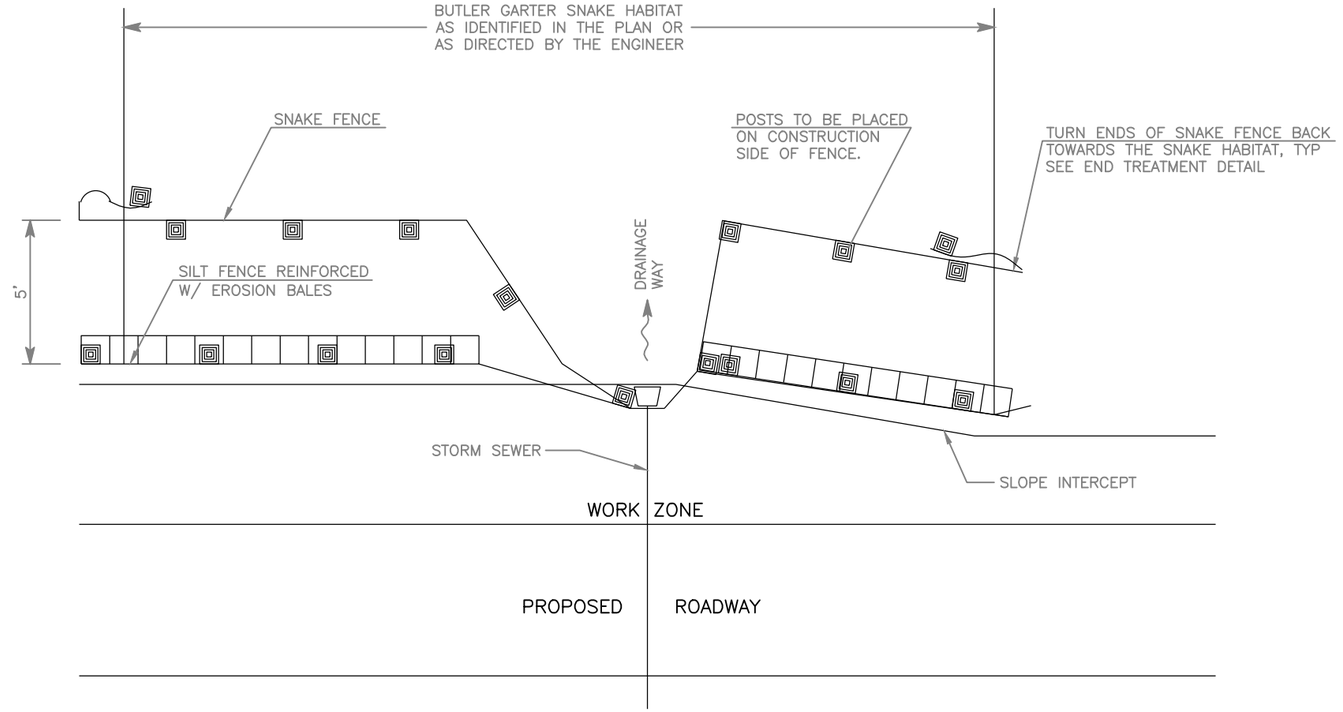
PIPE UNDERDRAIN, 6-INCH
AT SIDESTREETS AND TRANSVERSE LOCATIONS



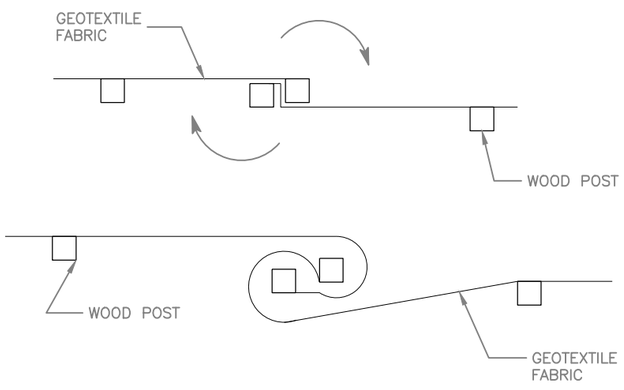
10' ASPHALT PATH
DETAIL



6' ASPHALT PATH
DETAIL



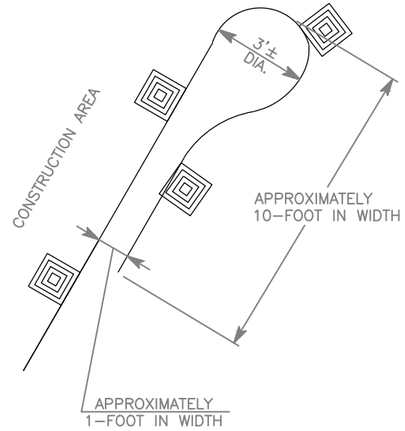
NOTE: IF LENGTH OF SNAKE FENCE IS LONGER THAN MANUFACTURED LENGTH OF INDIVIDUAL FENCING, JOIN END POSTS AS SHOWN IN CONTINUITY OF SNAKE FENCE DETAIL.



TWIST METHOD

JOINING TWO LENGTHS OF SNAKE FENCE

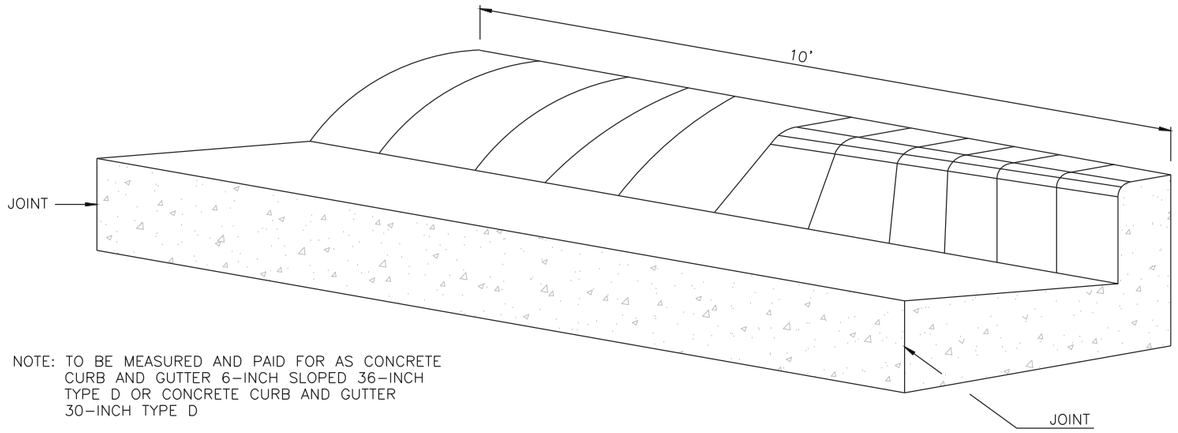
NOTE: SNAKE EXCLUSION BARRIER SHALL BE INSTALLED BY OTHERS AND MAINTAINED BY THE CONTRACTOR UNDER THE ITEM OF SILT FENCE MAINTENANCE.



END TREATMENT DETAIL

SNAKE EXCLUSION BARRIER DETAILS

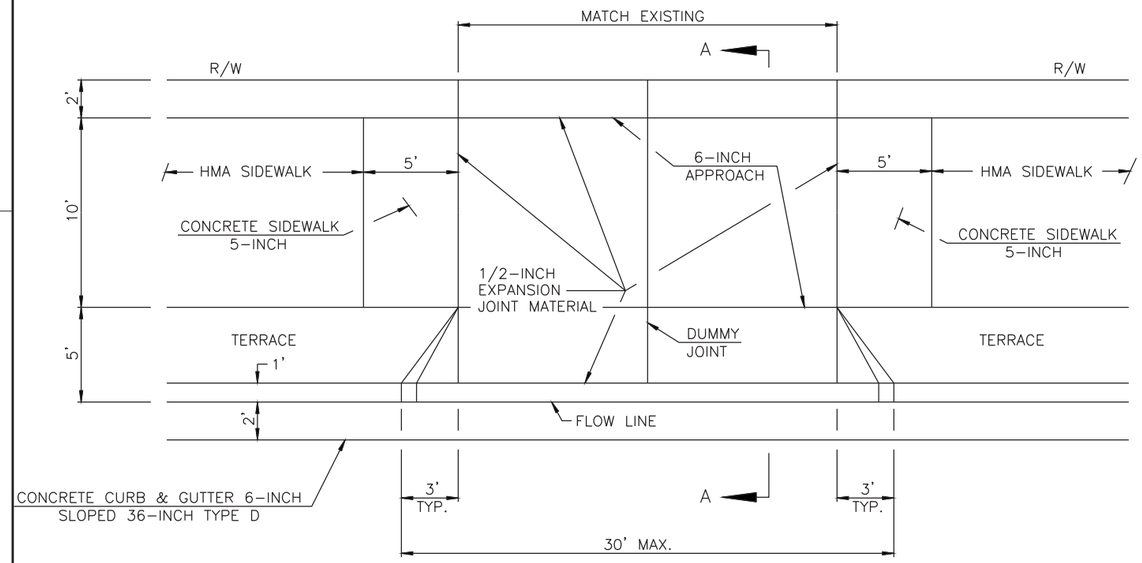
PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CONSTRUCTION DETAILS	SHEET NO.: 16	E



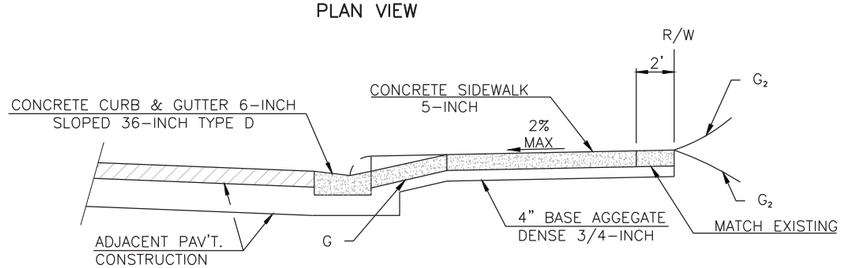
NOTE: TO BE MEASURED AND PAID FOR AS CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D OR CONCRETE CURB AND GUTTER 30-INCH TYPE D

TIE BARS REQUIRED WHEN TYING INTO EXISTING CURB AND GUTTER. COST FOR TIE BARS SHALL BE INCIDENTAL TO ITEMS OF CURB AND GUTTER.

CONCRETE CURB & GUTTER TRANSITION DETAIL

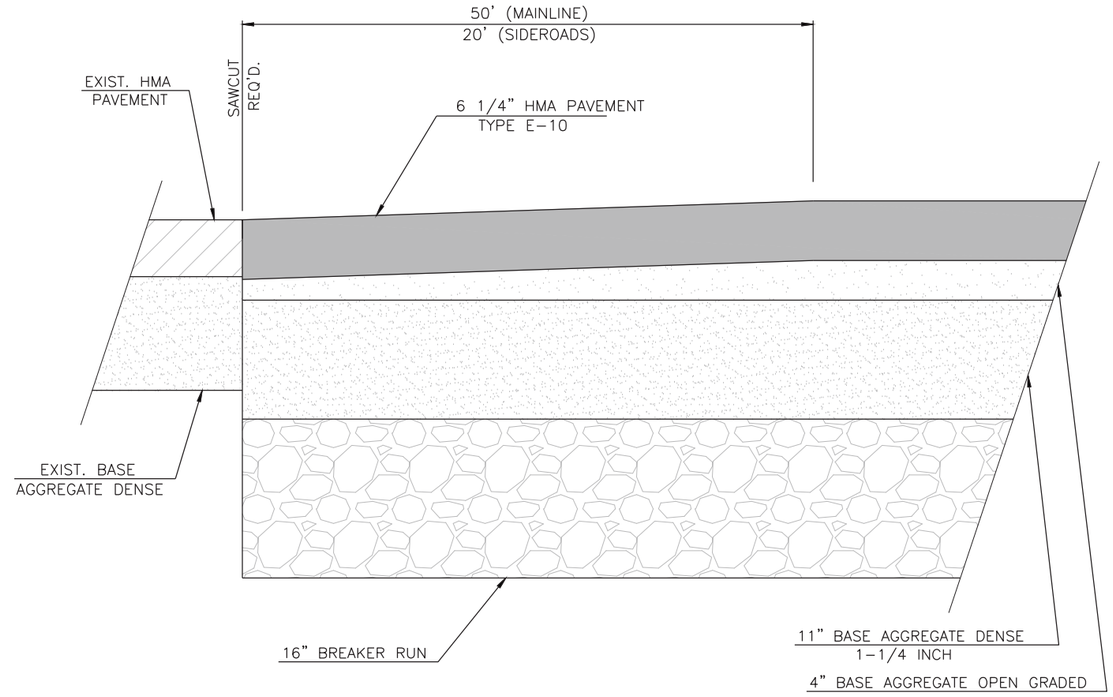


PLAN VIEW



SECTION A-A
CROSS SECTION THRU DRIVEWAY
DRIVEWAY APPROACH WITH 10-FOOT SIDEWALK

RECOMMENDED MAXIMUM G & G_2 = 15%
DESIRABLE MAXIMUM = 10%
MAXIMUM DIFFERENCE BEWEEEN G AND G_2 IN FILL = 14%



BUTT JOINT DETAIL

(SIZE TO BE DETERMINED IN FIELD AS INDICATED BELOW:)

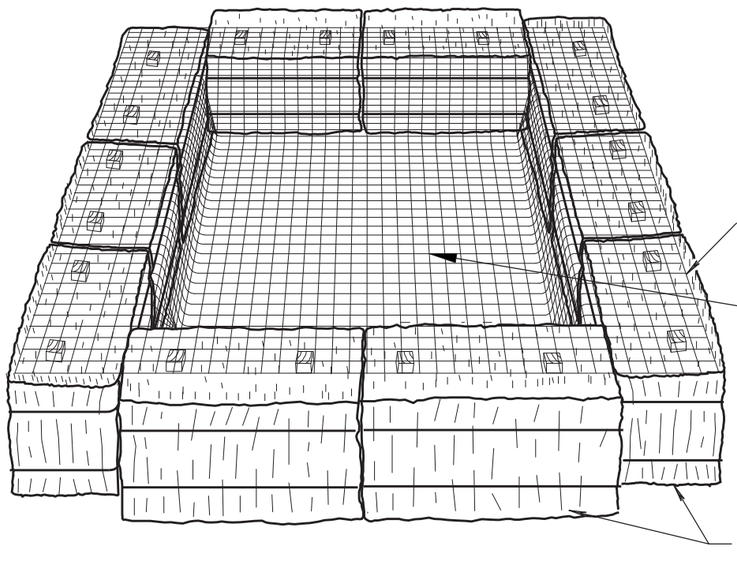
STORAGE VOLUME (C.F.) = 16 X GPM (PUMP RATE)

EXAMPLE:
CONTRACTOR INDICATES PUMP CAPABLE OF 50 GPM
HEIGHT OF BALES = 1.5 FT.

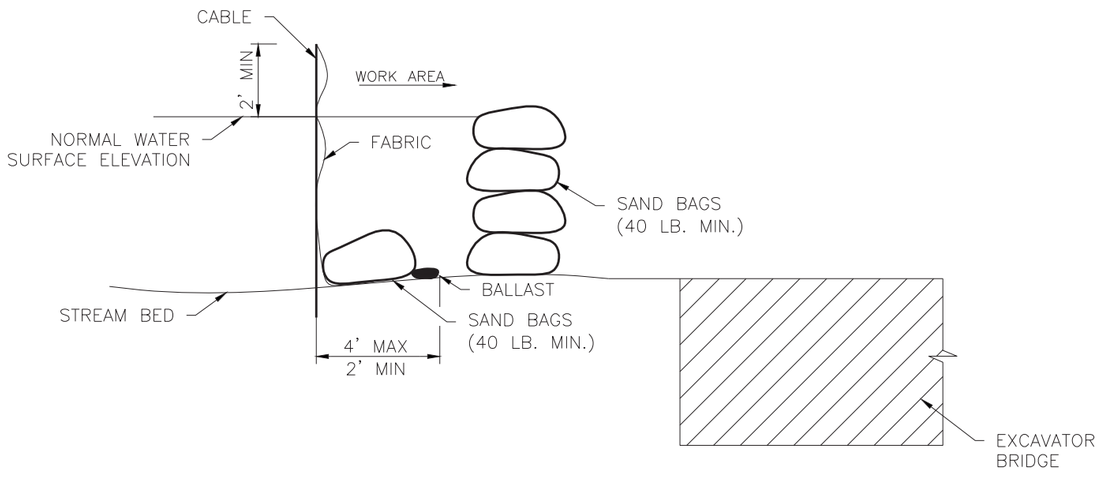
SOLUTION:
SV (C.F.) = 16 X 50
SV = 800 C.F.

$\frac{800 \text{ C.F.}}{1.5 \text{ FT.}}$ = 533 S.F.

USE A 20 FT. X 27 FT. BASIN

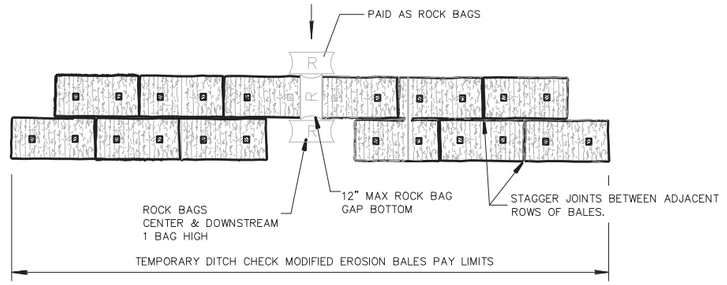


TEMPORARY SETTLING BASIN

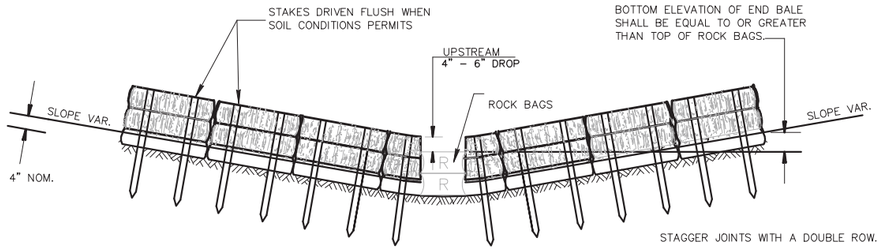


SAND BAG BARRIER DETAIL

SEE S.D.D. "TURBIDITY BARRIER"
FOR INSTALLATION OF TURBIDITY BARRIER



PLAN VIEW

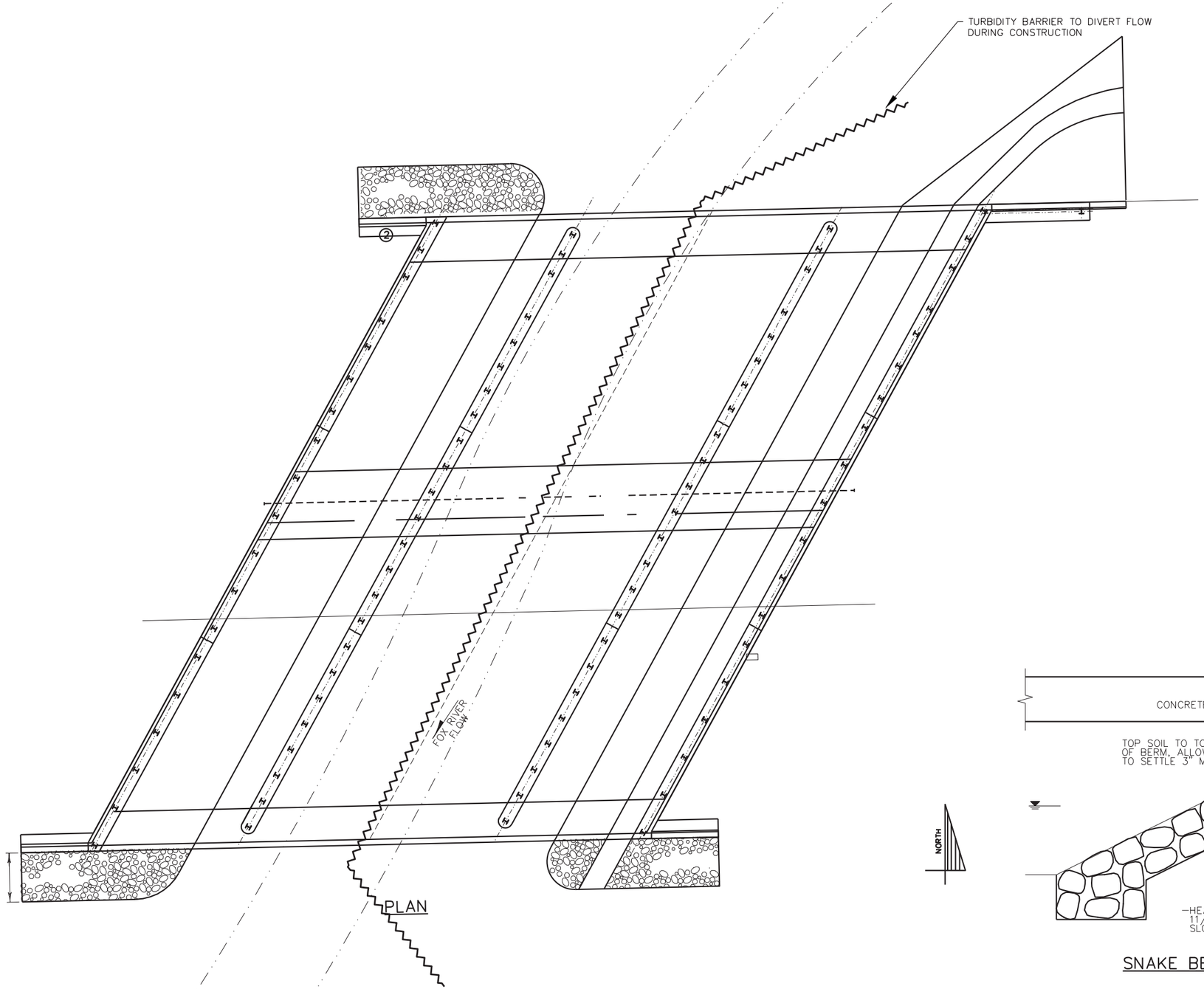


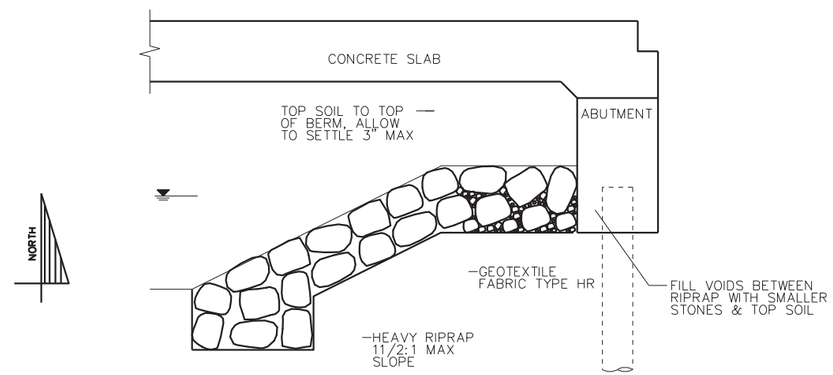
FRONT ELEVATION

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.

TEMPORARY DITCH CHECK, MODIFIED EROSION BALES

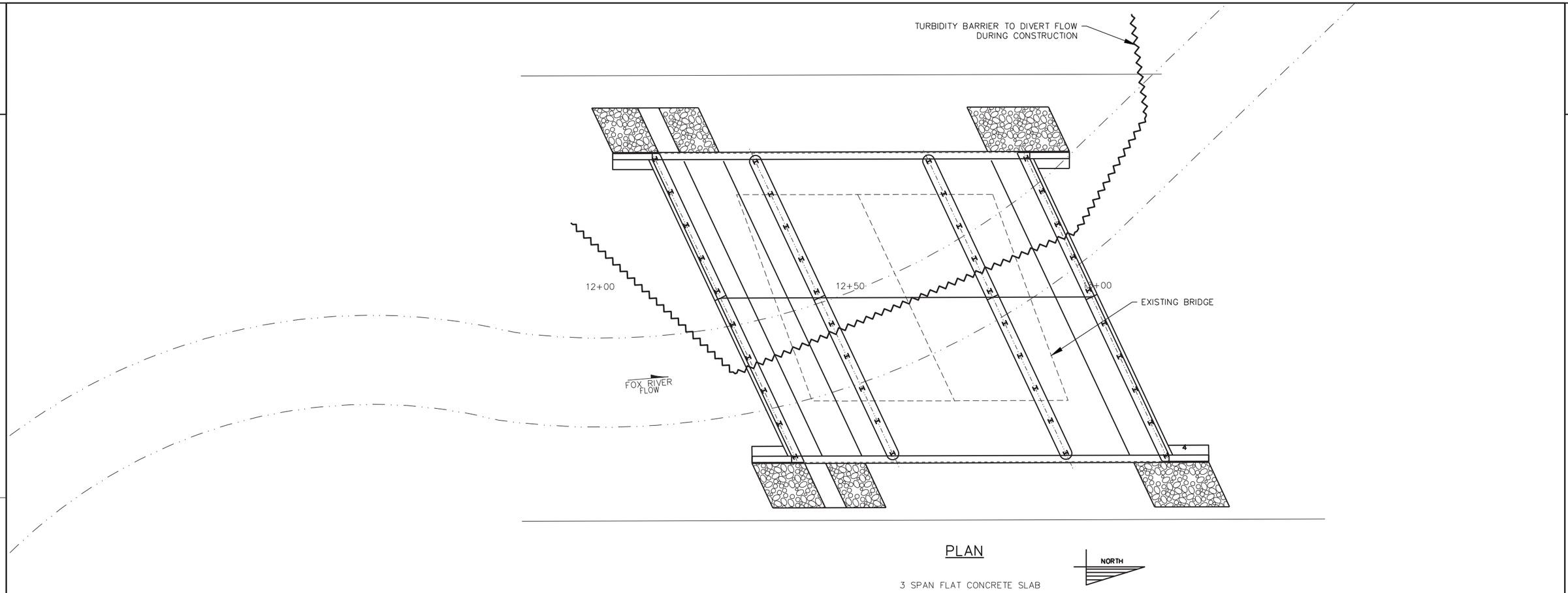




SNAKE BERM SECTION

PROJECT NO: 2753-06-71	HWY: CTH VV	COUNTY: WAUKESHA	CONSTRUCTION DETAIL – CTH VV B-67-335	SHEET 19	E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\TRIB BARRIERS BRIDGES DETAIL.DWG PLOT DATE : 1/8/2013 8:16 AM PLOT BY : SOEHNER, JIM PLOT SCALE : 1"=10'

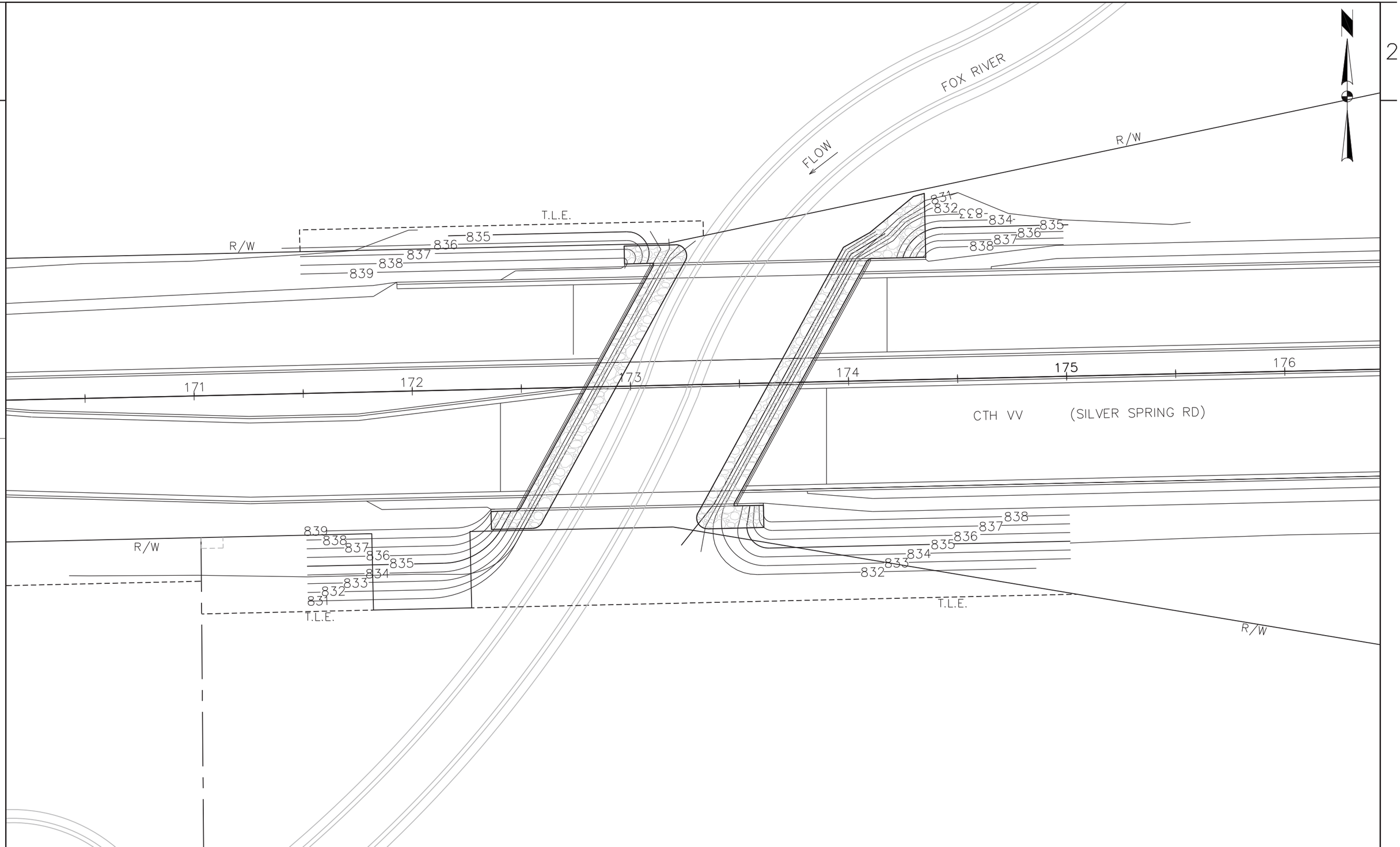


PLAN

3 SPAN FLAT CONCRETE SLAB

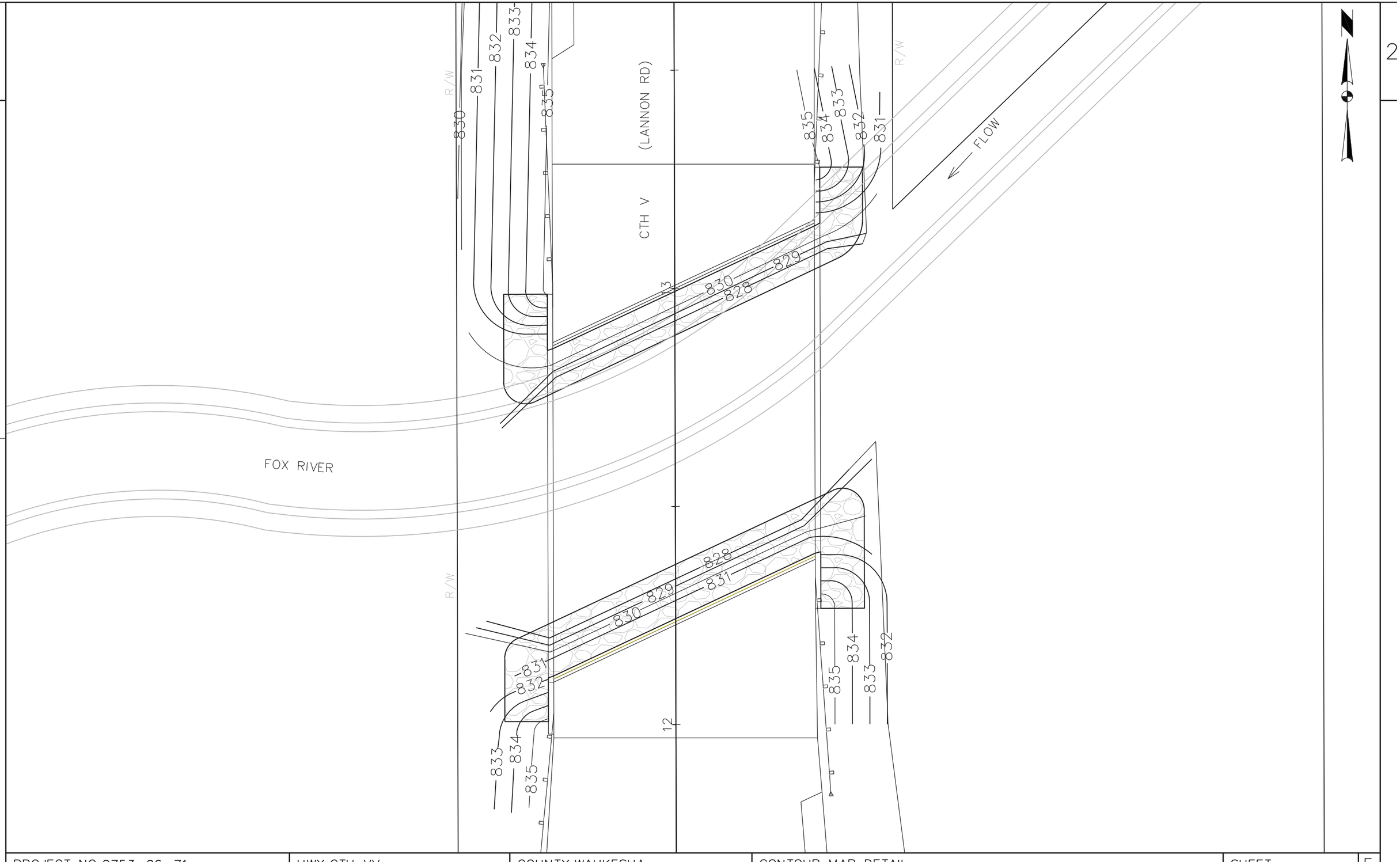
PROJECT NO: 2753-06-71	HWY: CTH VV	COUNTY: WAUKESHA	CONSTRUCTION DETAIL – CTH Y (Lannon Rd) B-67-336	SHEET 20	E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\TRIB BARRIERS BRIDGES DETAIL.DWG PLOT DATE : 1/8/2013 8:16 AM PLOT BY : SOEHNER, JIM PLOT SCALE : 1"=10'



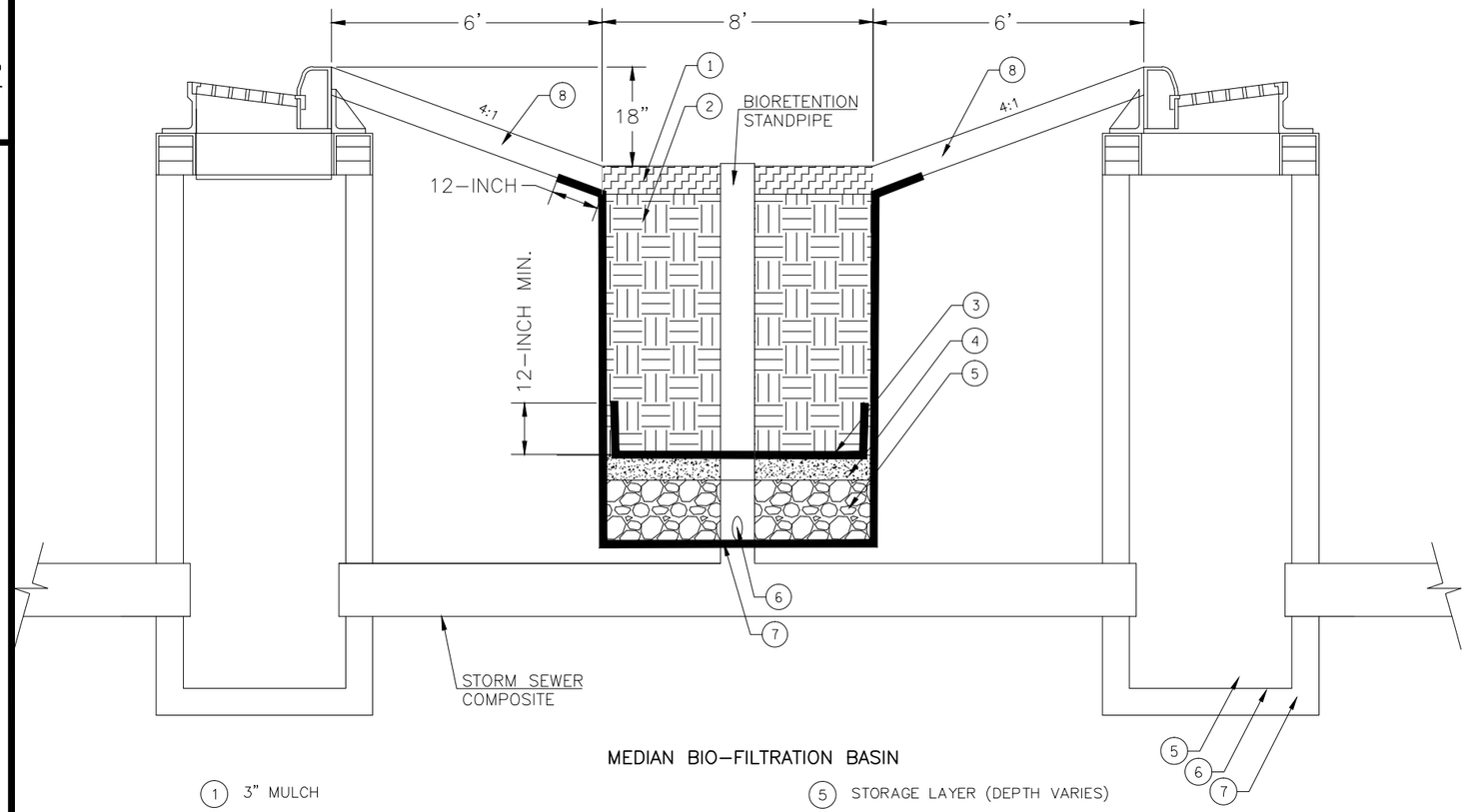
PROJECT NO: 2753-06-71	HWY: VV	COUNTY: WAUKESHA	CONTOUR MAP DETAIL	SHEET 21	E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\FINISHED CONTOURS PLAN.DWG PLOT DATE : 1/10/2013 10:59 AM PLOT BY : SOEHNER, JIM PLOT SCALE : 1"=40'



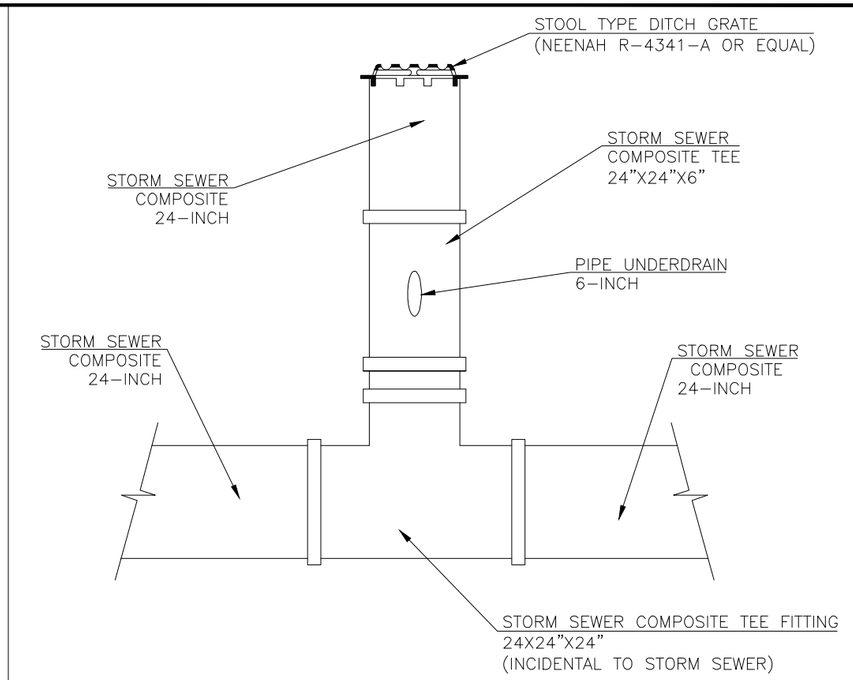
PROJECT NO: 2753-06-71	HWY: CTH VV	COUNTY: WAUKESHA	CONTOUR MAP DETAIL	SHEET 22	E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\FINISHED CONTOURS PLAN.DWG PLOT DATE : 1/10/2013 10:59 AM PLOT BY : SOEHNER, JIM PLOT SCALE : 1"=20'

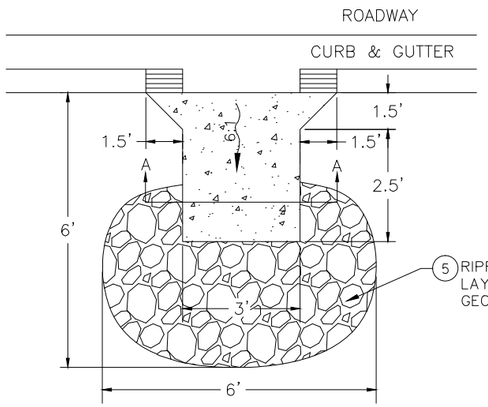


MEDIAN BIO-FILTRATION BASIN

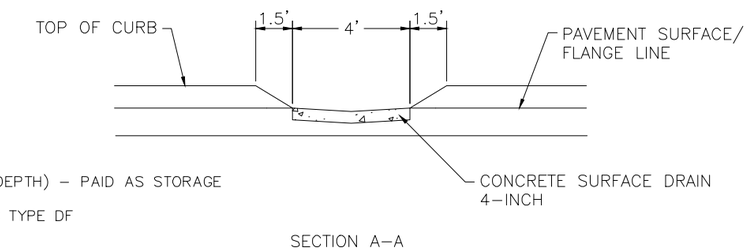
1. 3" MULCH
2. ENGINEERED SOIL LAYER (DEPTH VARIES SEE PROFILE)
3. GEOTEXTILE FABRIC, TYPE DF, SCHEDULE A
4. 3" FILTER AGGREGATE LAYER
5. STORAGE LAYER (DEPTH VARIES)
6. PIPE UNDERDRAIN, 6-INCH
7. GEOTEXTILE FABRIC, WOVEN SILT FILM
8. TOPSOIL & SOD



BIORETENTION STANDPIPE

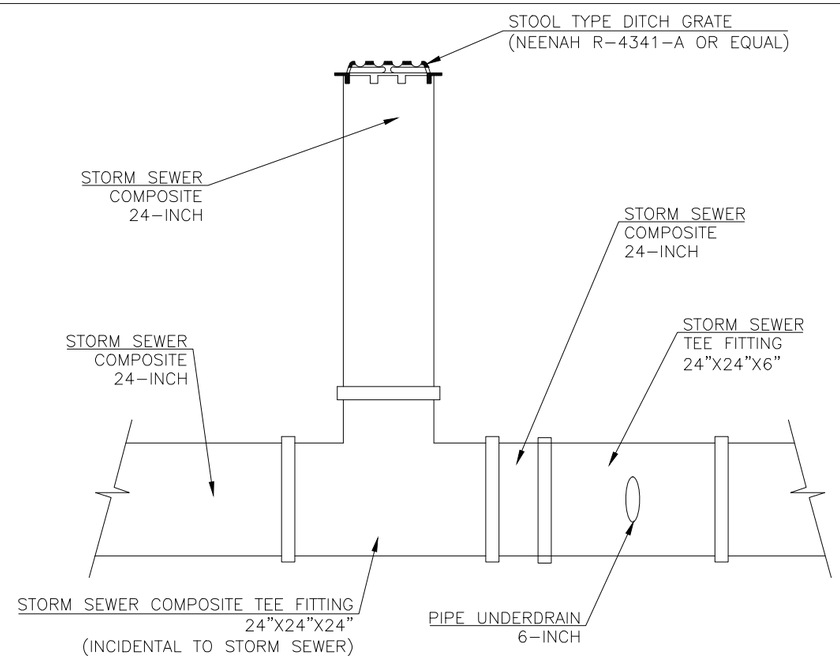


PLAN



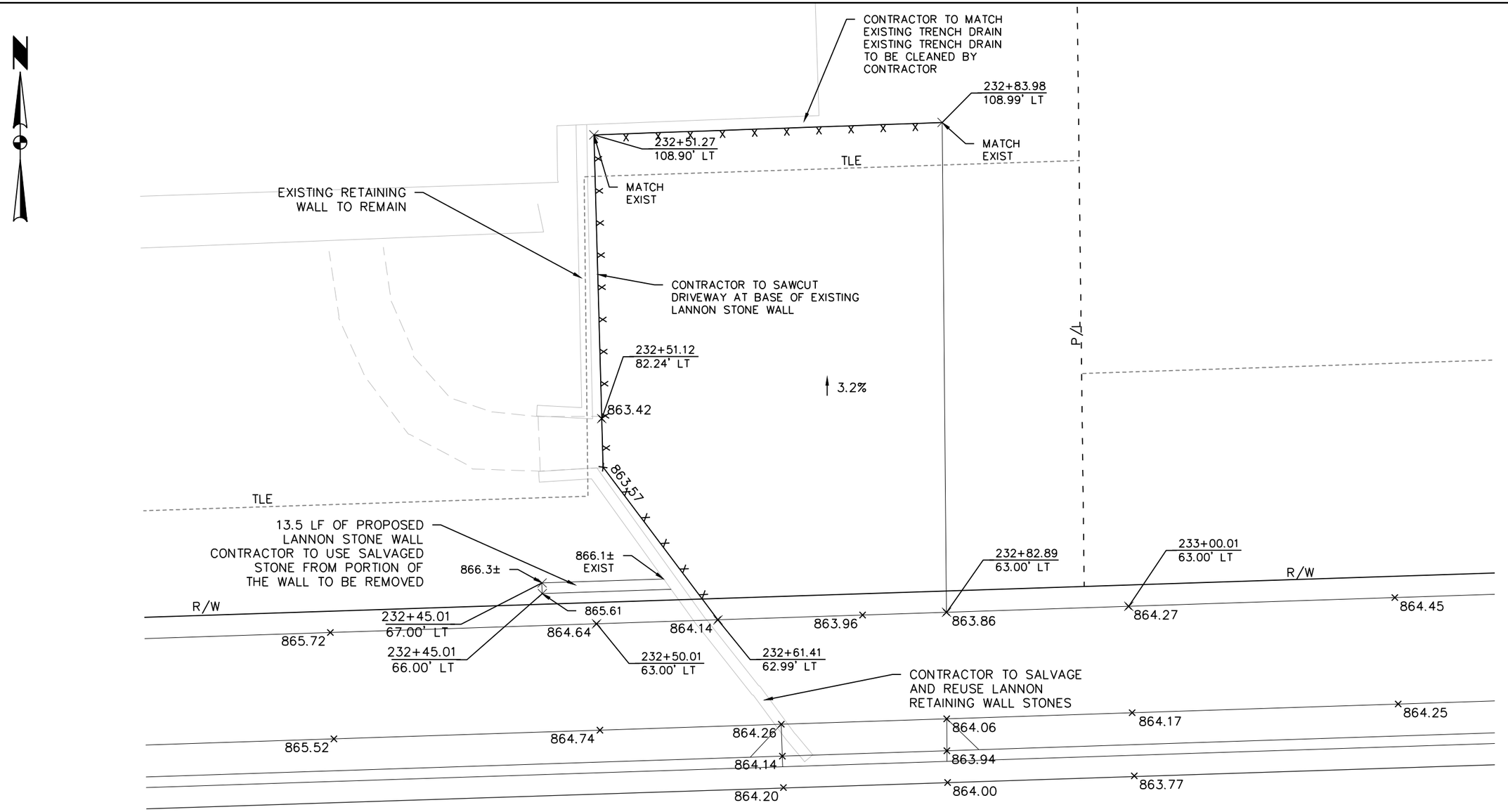
SECTION A-A

CONCRETE SURFACE DRAIN



BIORETENTION STANDPIPE (ALTERNATE)

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "W"	COUNTY: WAUKESHA	CONSTRUCTION DETAILS	SHEET NO.:	E



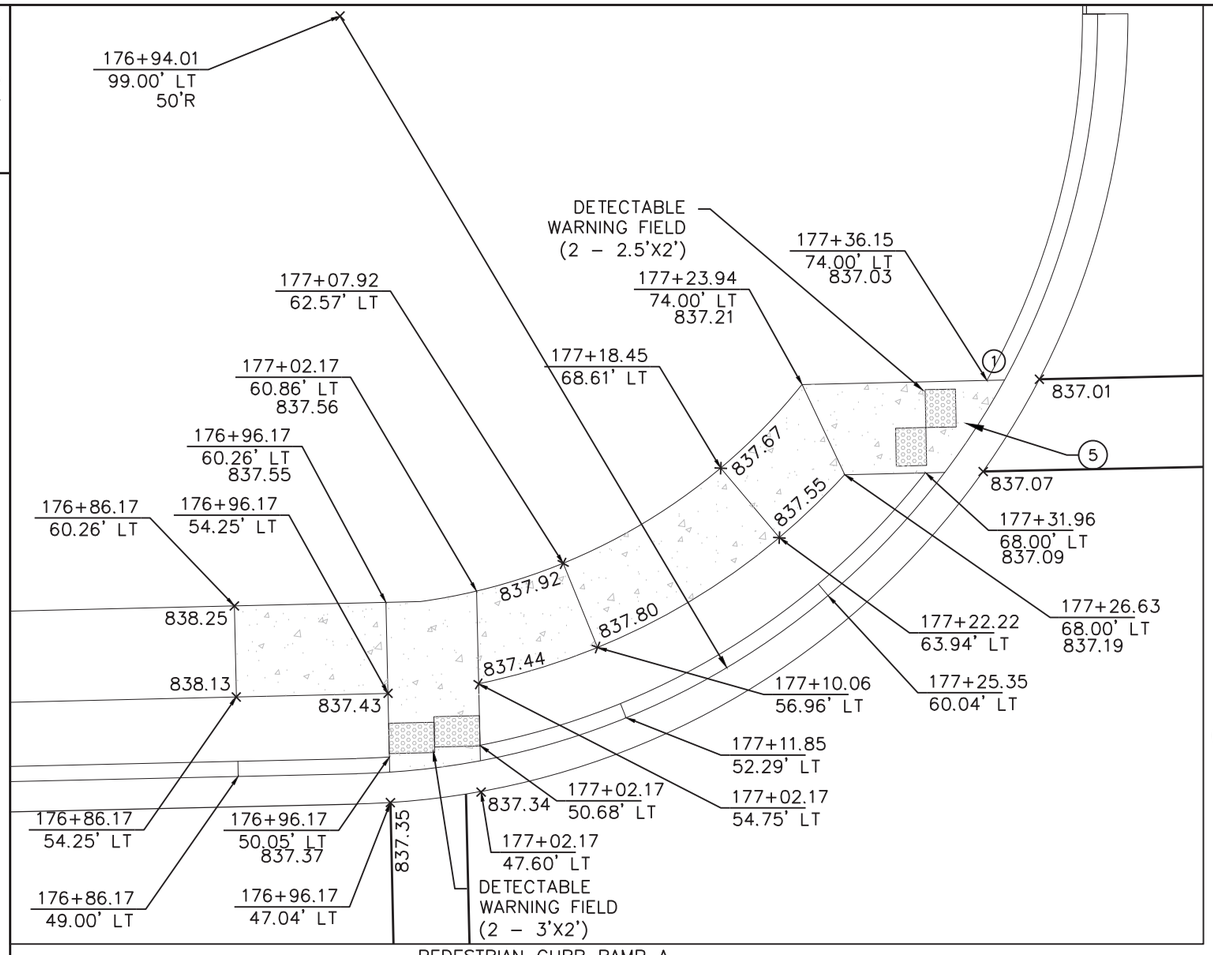
LANNON STONE WALL
DRIVEWAY STATION 232+75 LT
C.T.H. "VV" (SILVER SPRING DR.)

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CONSTRUCTION DETAIL	SHEET NO.: 24 E

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 = 35.1 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 28.9 ACRES

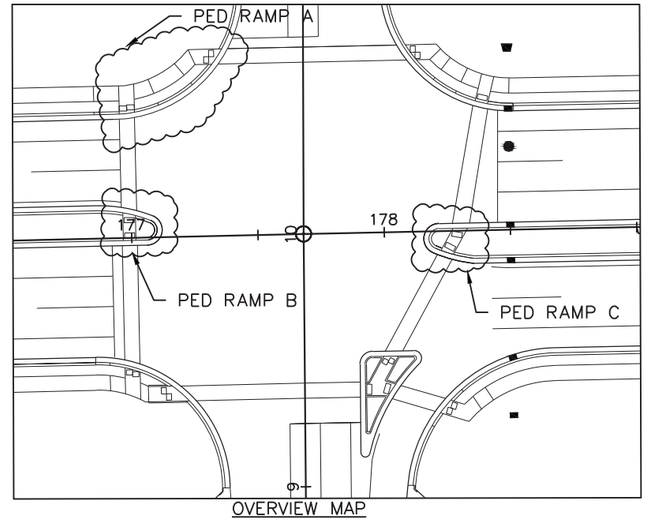


PEDESTRIAN CURB RAMP A
SCALE: 1"=10'

LEGEND

(5) CURB RAMP

CONCRETE PAVEMENT



OVERVIEW MAP
1"=50'

GENERAL NOTES:

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

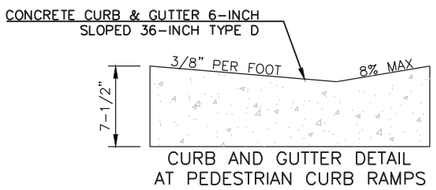
RAMP SLOPES SHALL NOT BE STREEPER THAN 12:1

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%

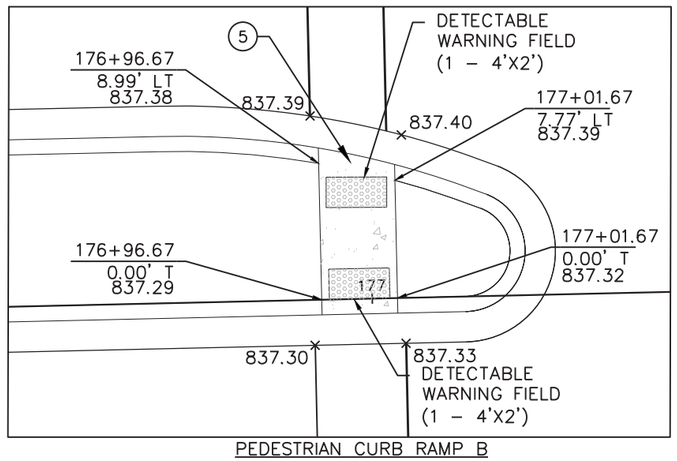
INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS) DO NOT MARK TRANSITION NOSE.

SLOPE SIDEWALK TOWARDS LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

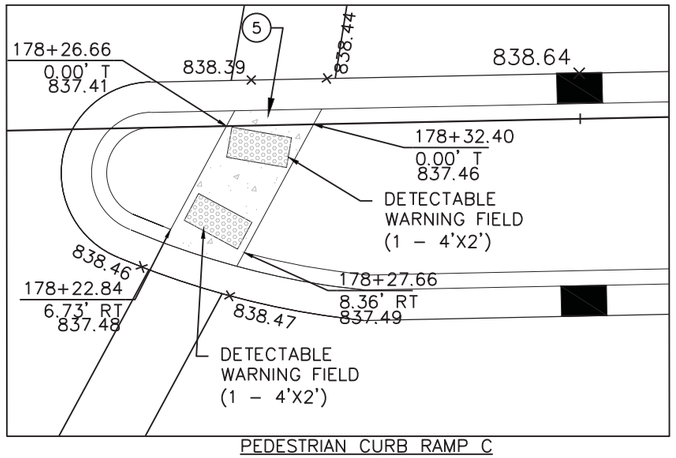
(2) REDUCE CURB HEIGHT IN TRIANGEL AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP, 2" MINIMUM CURB HEIGHT



CURB AND GUTTER DETAIL
AT PEDESTRIAN CURB RAMPS

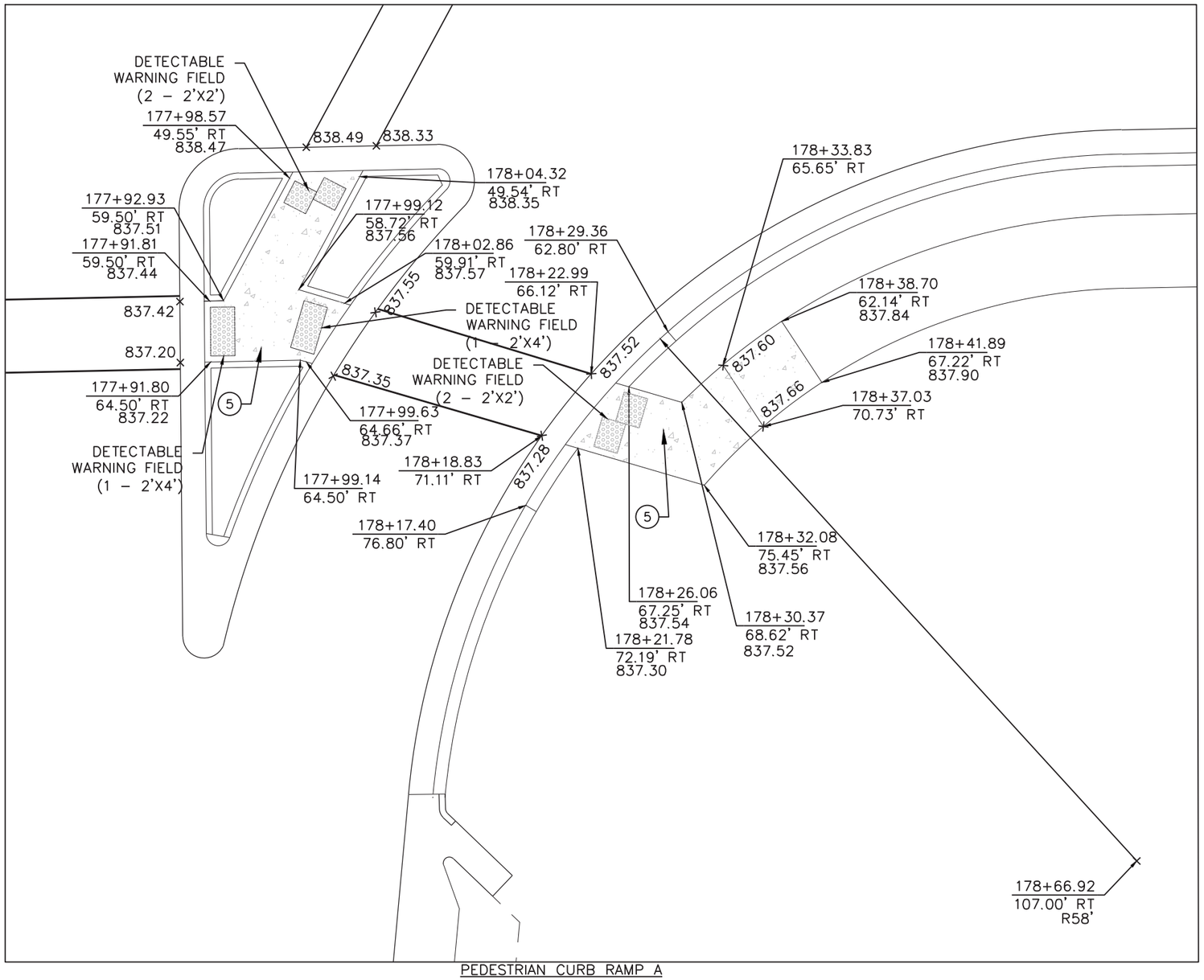


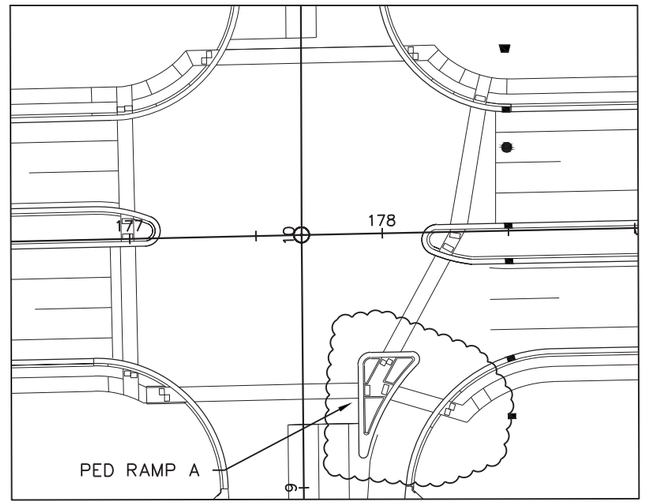
PEDESTRIAN CURB RAMP B
SCALE: 1"=10'



PEDESTRIAN CURB RAMP C
SCALE: 1"=10'

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PEDESTRIAN CURB LANDING GRADING DETAILS – CTH VV AND CTH Y	SHEET NO.: 26 E





OVERVIEW MAP
1"=60'

LEGEND

(5) CURB RAMP

CONCRETE PAVEMENT

GENERAL NOTES:

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

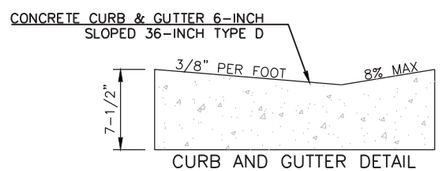
RAMP SLOPES SHALL NOT BE STREEPER THAN 12:1

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%

(1) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS) DO NOT MARK TRANSITION NOSE.

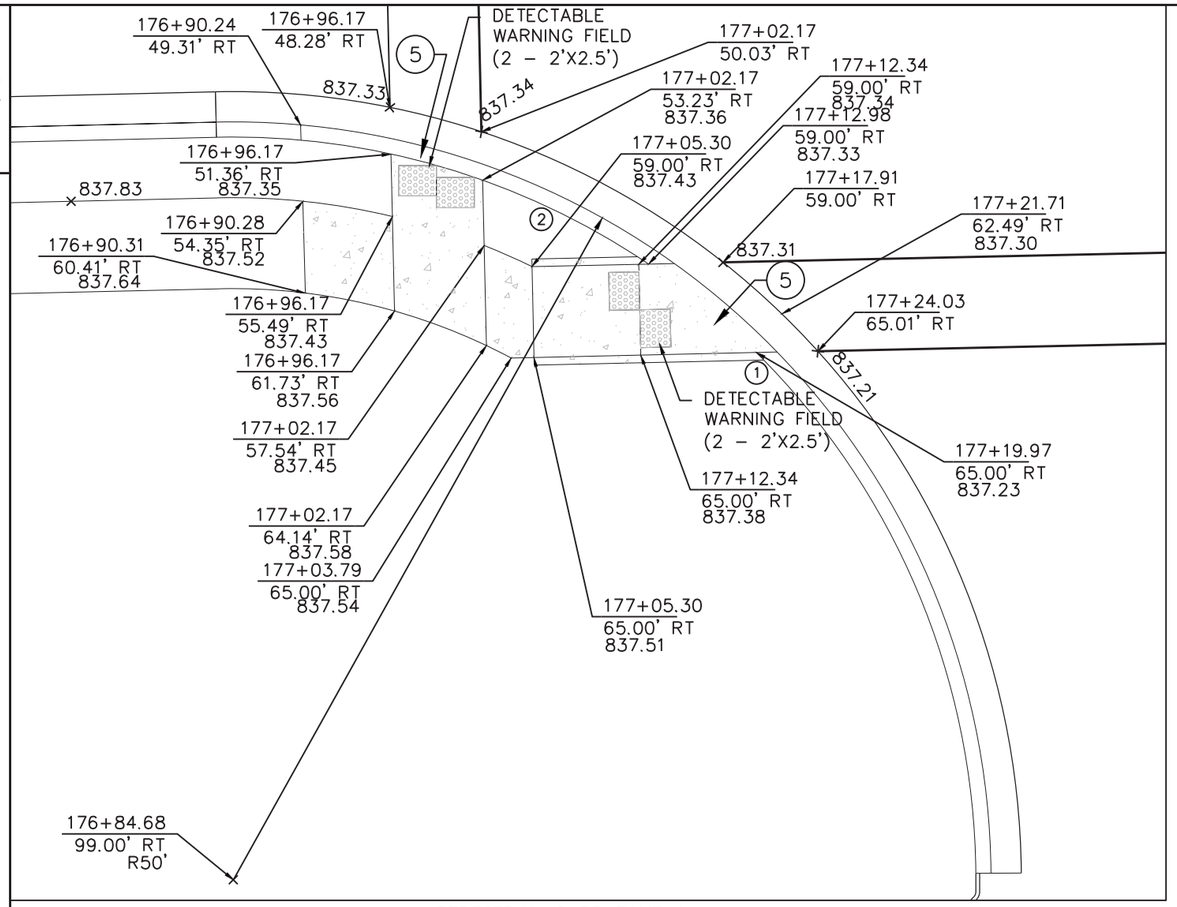
SLOPE SIDEWALK TOWARDS LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(2) REDUCE CURB HEIGHT IN TRIANGEL AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP, 2" MINIMUM CURB HEIGHT

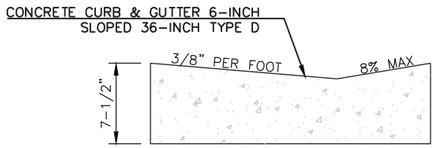


CURB AND GUTTER DETAIL
AT PEDESTRIAN CURB RAMPS

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PEDESTRIAN CURB LANDING GRADING DETAILS – CTH VV AND CTH Y	SHEET NO.: 27	E



PEDESTRIAN CURB RAMP A
SCALE: 1"=10'



CURB AND GUTTER DETAIL
AT PEDESTRIAN CURB RAMPS

GENERAL NOTES:

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STREEPER THAN 12:1

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%

(1) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS) DO NOT MARK TRANSITION NOSE.

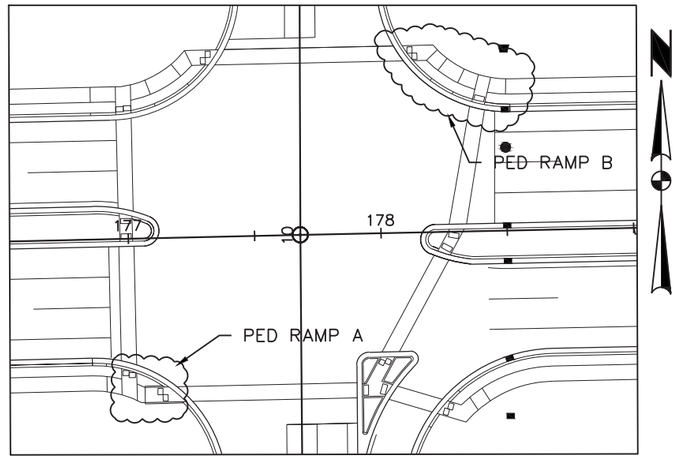
SLOPE SIDEWALK TOWARDS LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(2) REDUCE CURB HEIGHT IN TRIANGEL AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP, 2" MINIMUM CURB HEIGHT

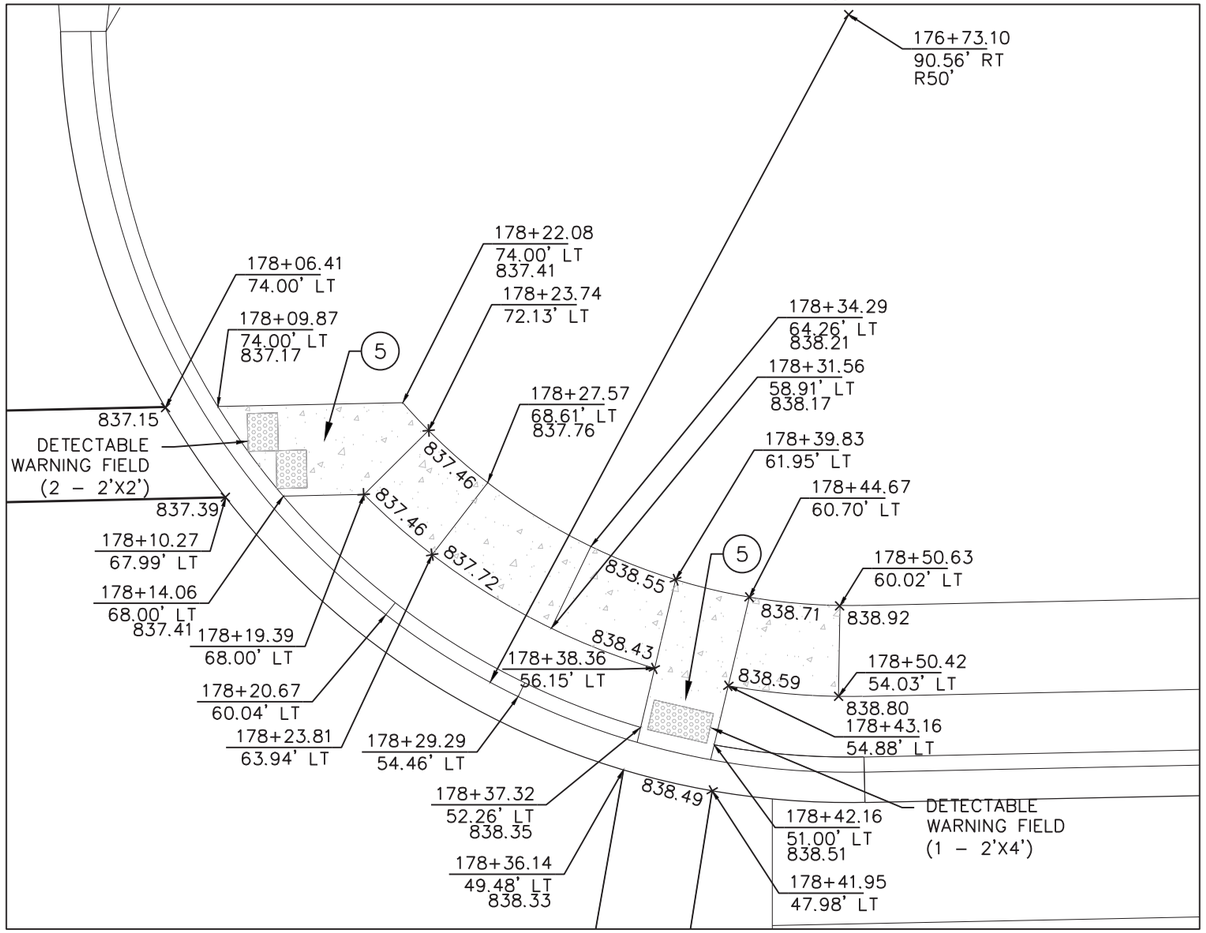
LEGEND

(5) CURB RAMP

CONCRETE PAVEMENT

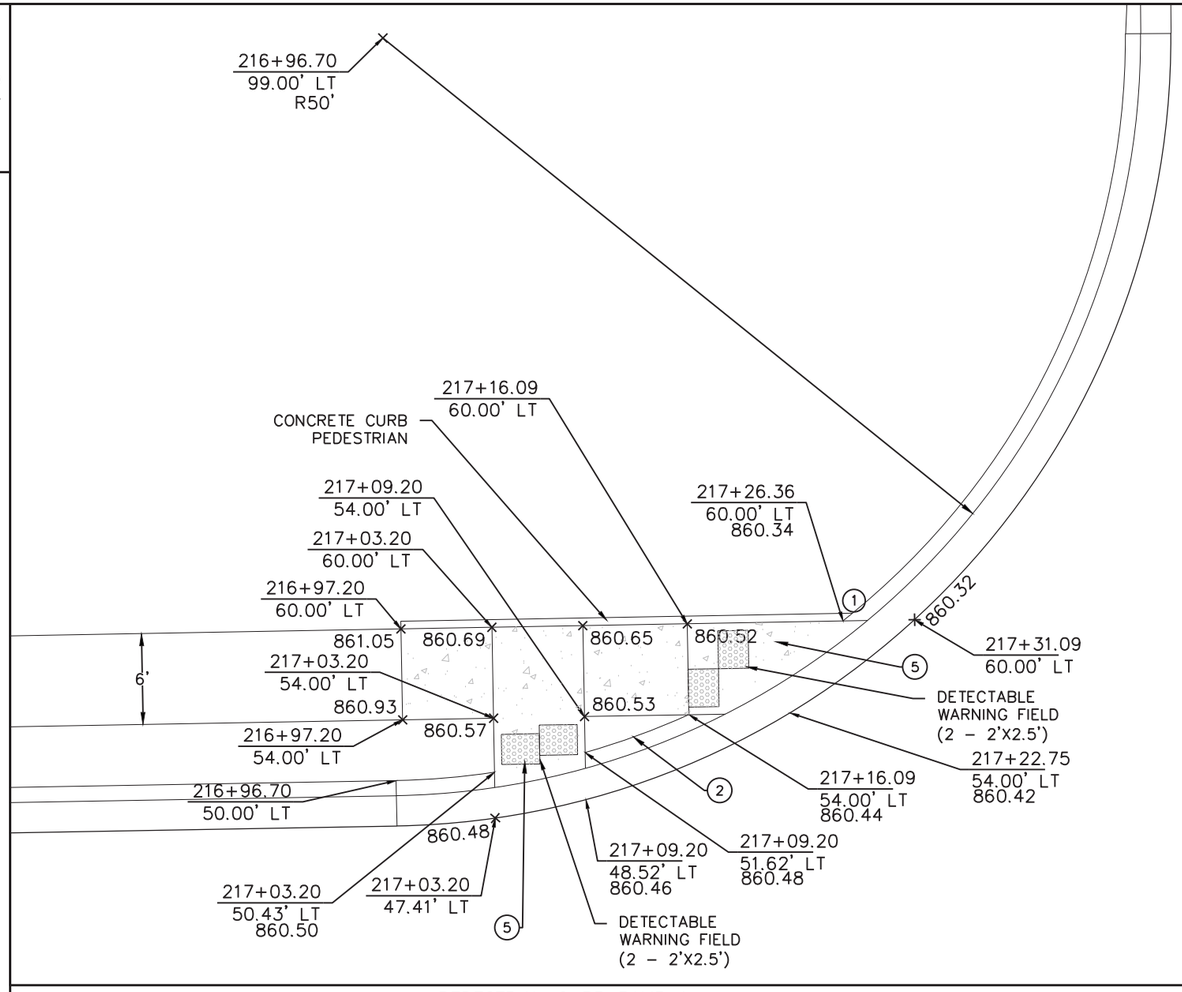


OVERVIEW MAP
1"=50'



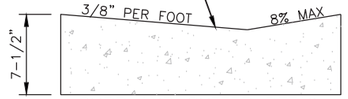
PEDESTRIAN CURB RAMP B
SCALE: 1"=10'

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PEDESTRIAN CURB LANDING GRADING DETAILS – CTH VV AND CTH Y	SHEET NO.: 28 E



PEDESTRIAN CURB RAMP A
SCALE: 1"=10'

CONCRETE CURB & GUTTER 6-INCH
SLOPED 36-INCH TYPE D



CURB AND GUTTER DETAIL
AT PEDESTRIAN CURB RAMPS

GENERAL NOTES:

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

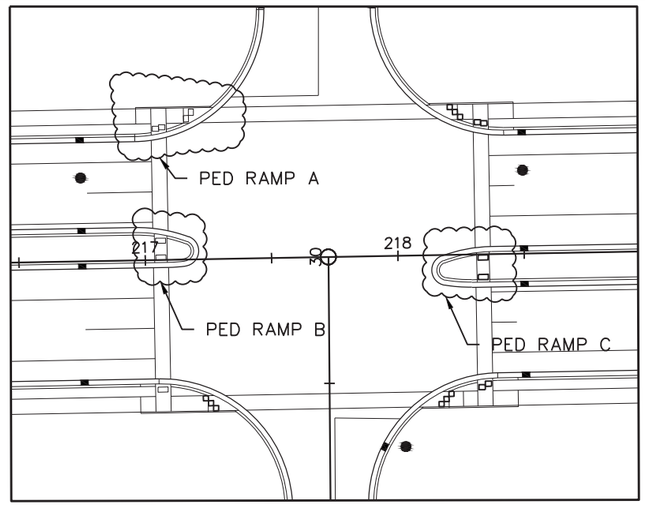
RAMP SLOPES SHALL NOT BE STREEPER THAN 12:1

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%

(1) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS) DO NOT MARK TRANSITION NOSE.

SLOPE SIDEWALK TOWARDS LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(2) REDUCE CURB HEIGHT IN TRIANGEL AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP, 2" MINIMUM CURB HEIGHT

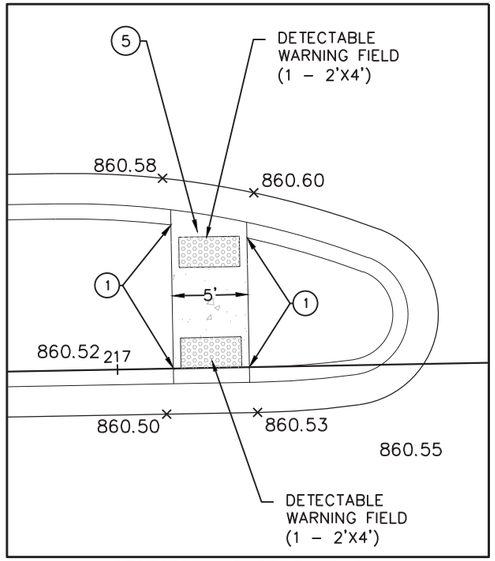


OVERVIEW MAP
1"=50'

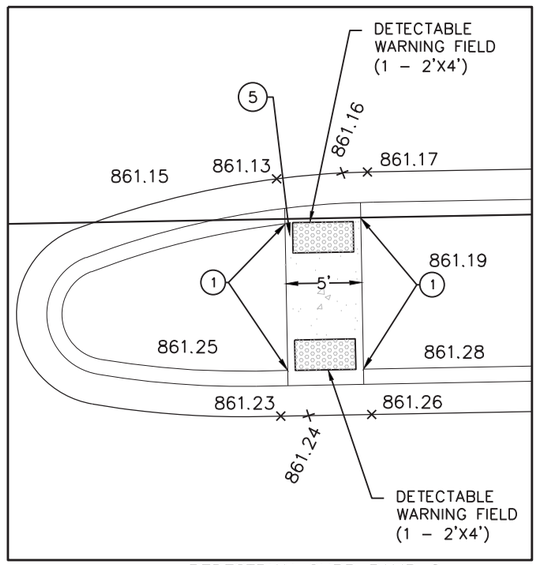
LEGEND

(5) CURB RAMP

CONCRETE PAVEMENT

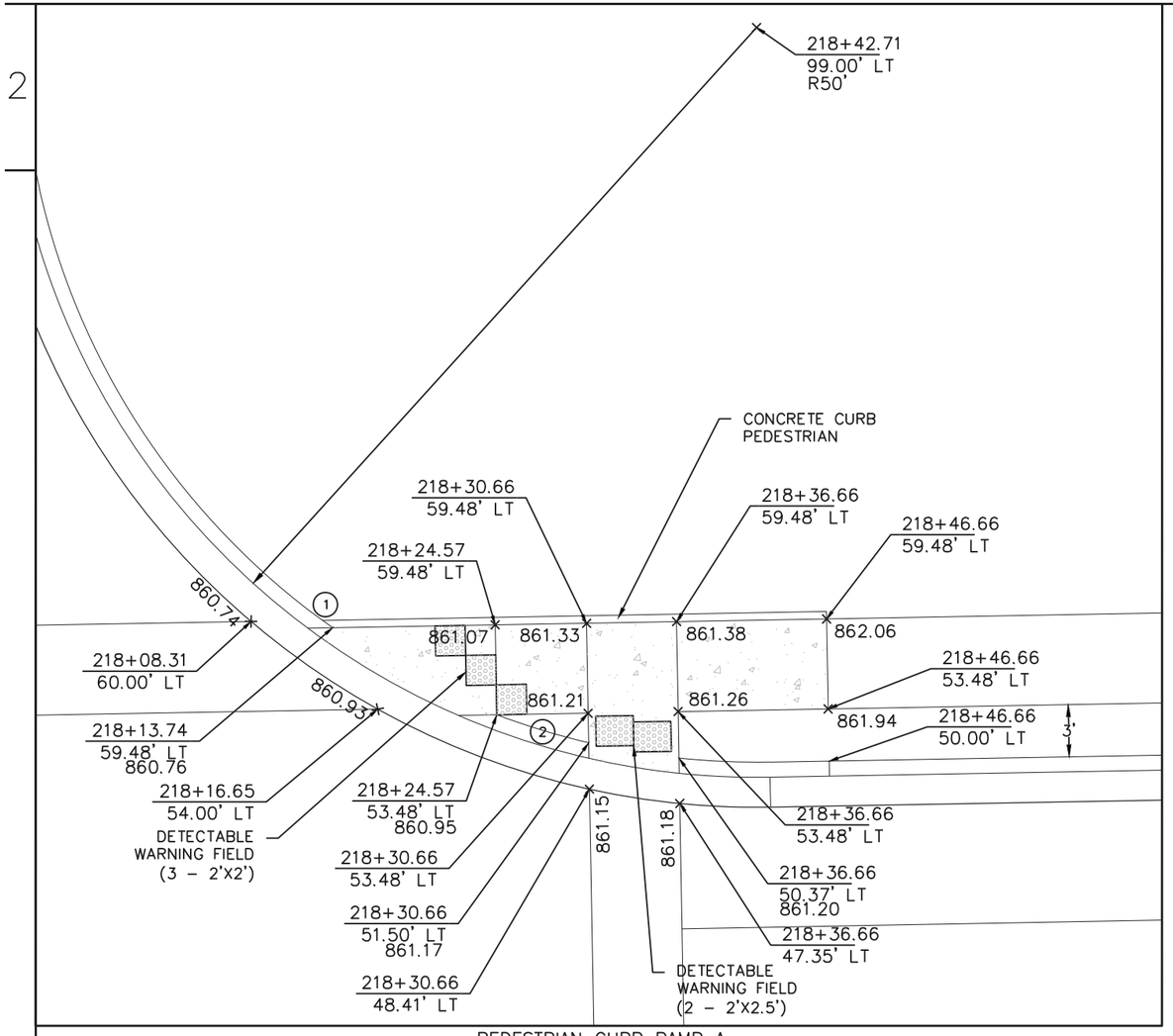


PEDESTRIAN CURB RAMP B
SCALE: 1"=10'



PEDESTRIAN CURB RAMP C
SCALE: 1"=10'

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PEDESTRIAN CURB LANDING GRADING DETAILS – CTH VV AND ONE MILE RD/SPENCERS PASS	SHEET NO.: 29	E



PEDESTRIAN CURB RAMP A

SCALE: 1"=10'

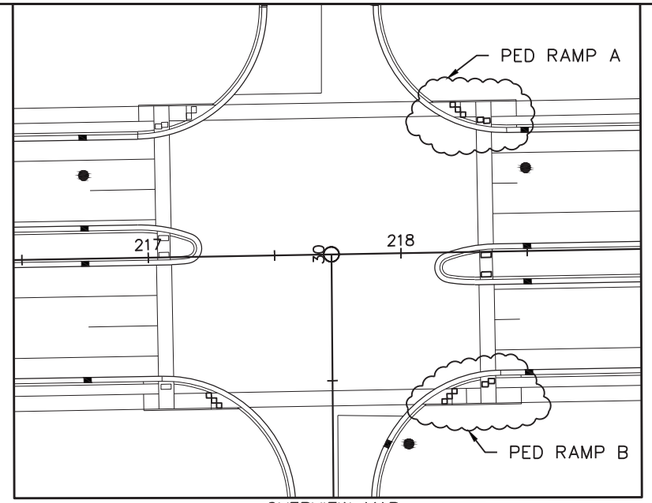
CONCRETE CURB & GUTTER 6-INCH
SLOPED 36-INCH TYPE D

CURB AND GUTTER DETAIL
AT PEDESTRIAN CURB RAMPS

LEGEND

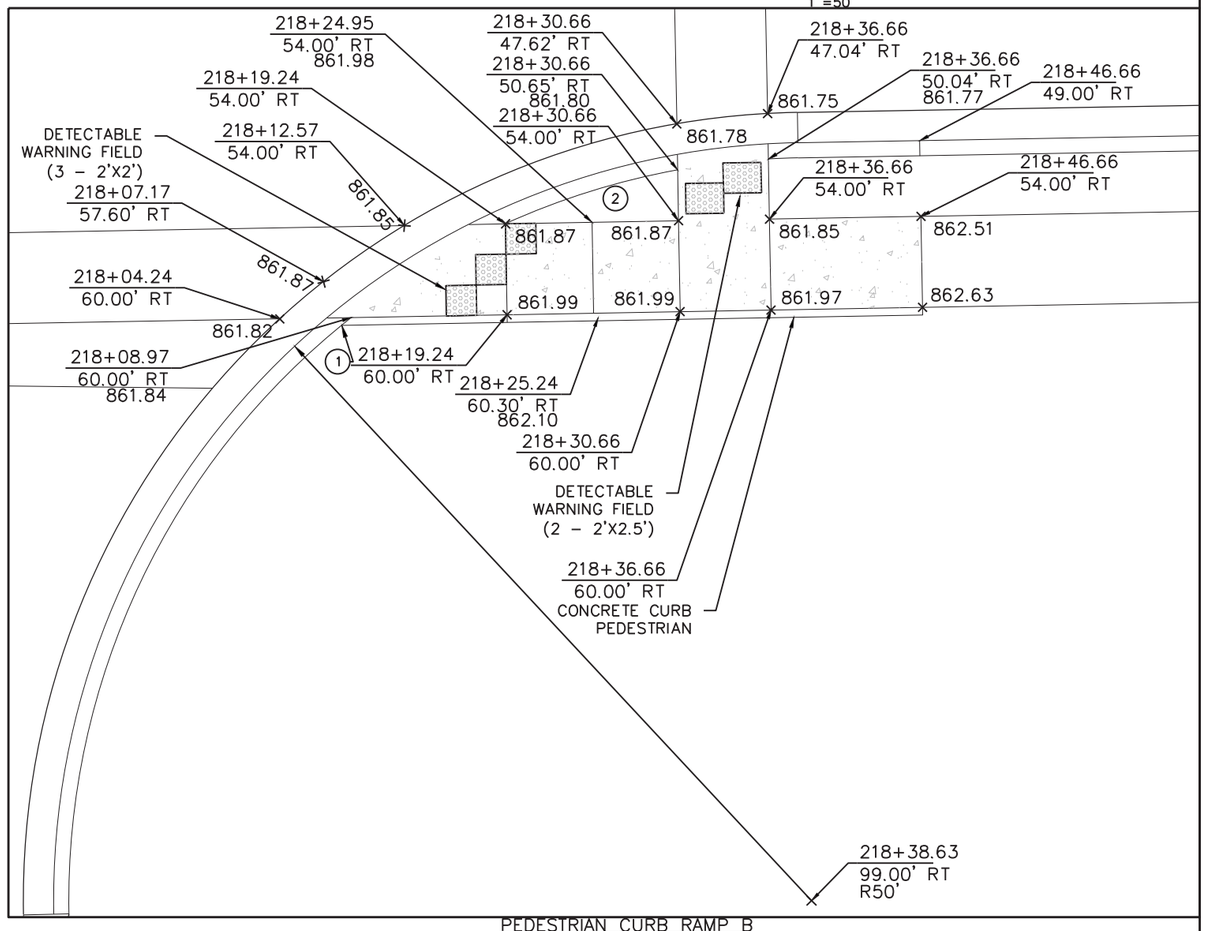
(5) CURB RAMP

CONCRETE PAVEMENT



OVERVIEW MAP

1"=50'



PEDESTRIAN CURB RAMP B

SCALE: 1"=10'

GENERAL NOTES:

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STREEPER THAN 12:1

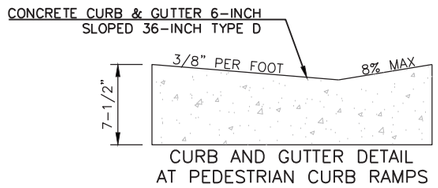
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%

(1) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS) DO NOT MARK TRANSITION NOSE.

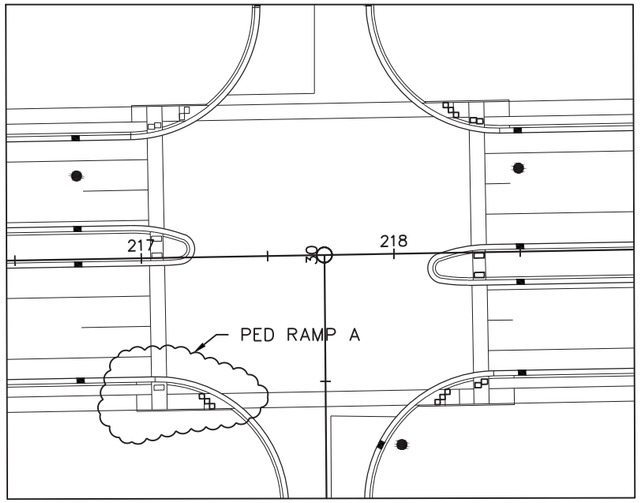
SLOPE SIDEWALK TOWARDS LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(2) REDUCE CURB HEIGHT IN TRIANGEL AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT

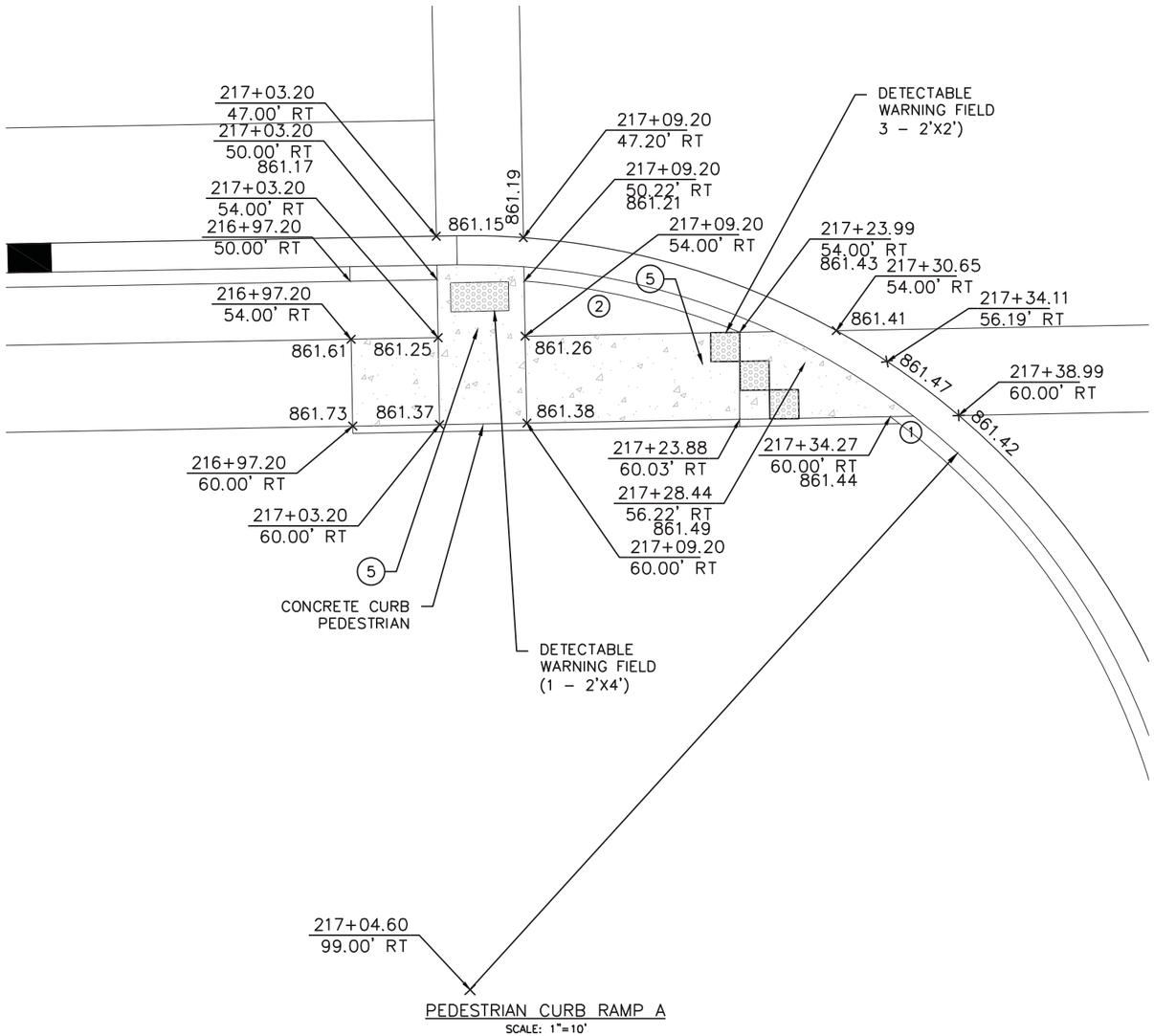
PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PEDESTRIAN CURB LANDING GRADING DETAILS – CTH VV AND ONE MILE RD/SPENCERS PASS	SHEET NO.: 30 E



CURB AND GUTTER DETAIL
AT PEDESTRIAN CURB RAMPS



OVERVIEW MAP
1"=60'



PEDESTRIAN CURB RAMP A
SCALE: 1"=10'

LEGEND

(5) CURB RAMP

CONCRETE PAVEMENT

GENERAL NOTES:

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STREEPER THAN 12:1

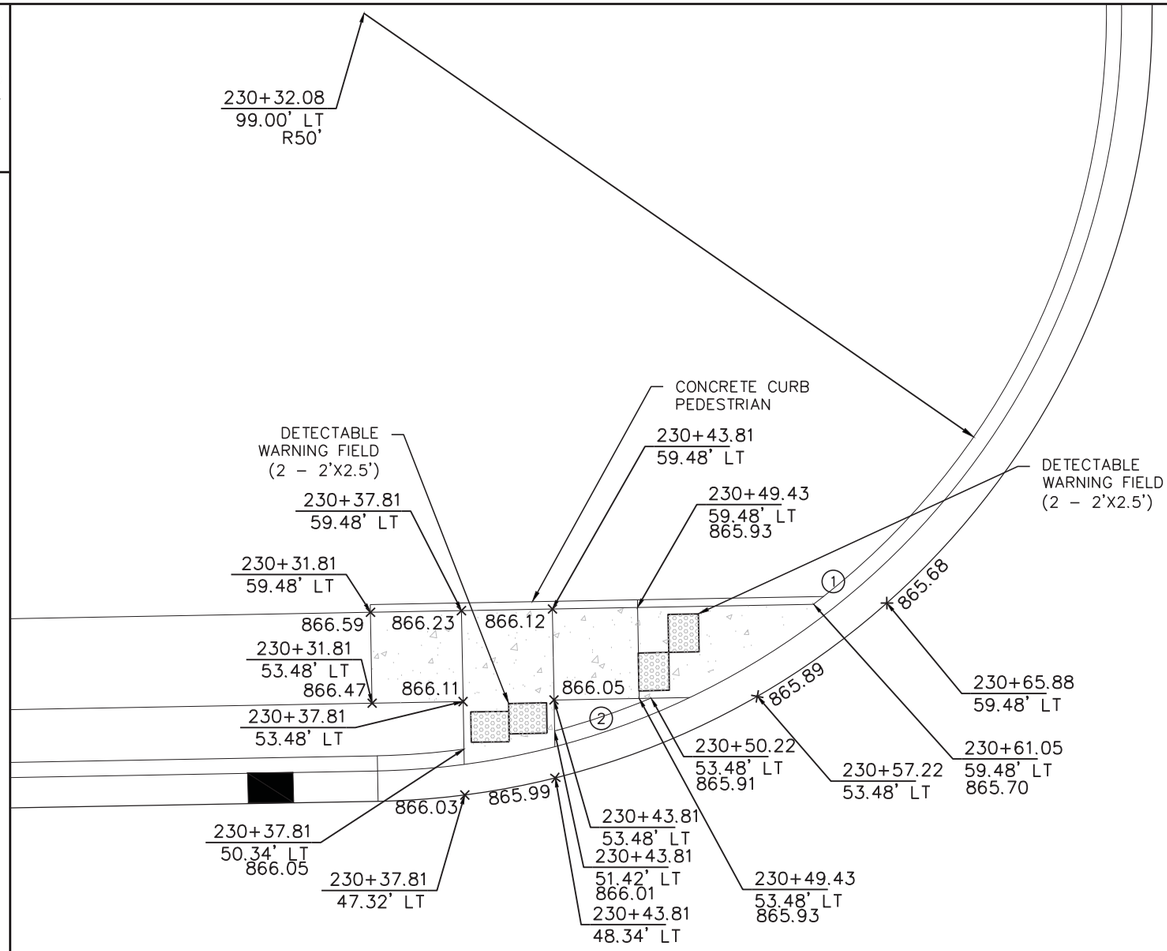
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%

(1) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS) DO NOT MARK TRANSITION NOSE.

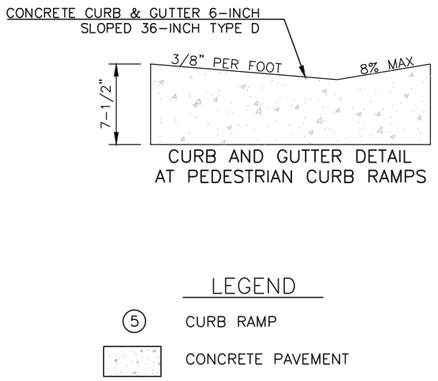
SLOPE SIDEWALK TOWARDS LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(2) REDUCE CURB HEIGHT IN TRIANGEL AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP, 2" MINIMUM CURB HEIGHT

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PEDESTRIAN CURB LANDING GRADING DETAILS – CTH VV AND ONE MILE RD/SPENCERS PASS	SHEET NO.: 31	E



PEDESTRIAN CURB RAMP A
SCALE: 1"=10'

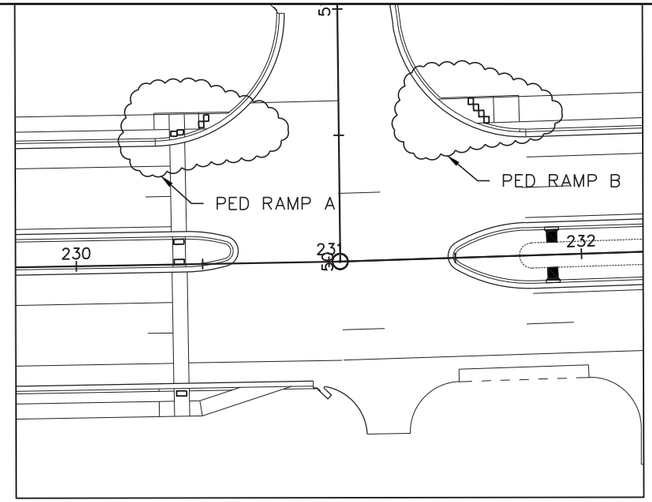


CURB AND GUTTER DETAIL
AT PEDESTRIAN CURB RAMPS

LEGEND

(5) CURB RAMP

CONCRETE PAVEMENT



OVERVIEW MAP
1"=60'

GENERAL NOTES:

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

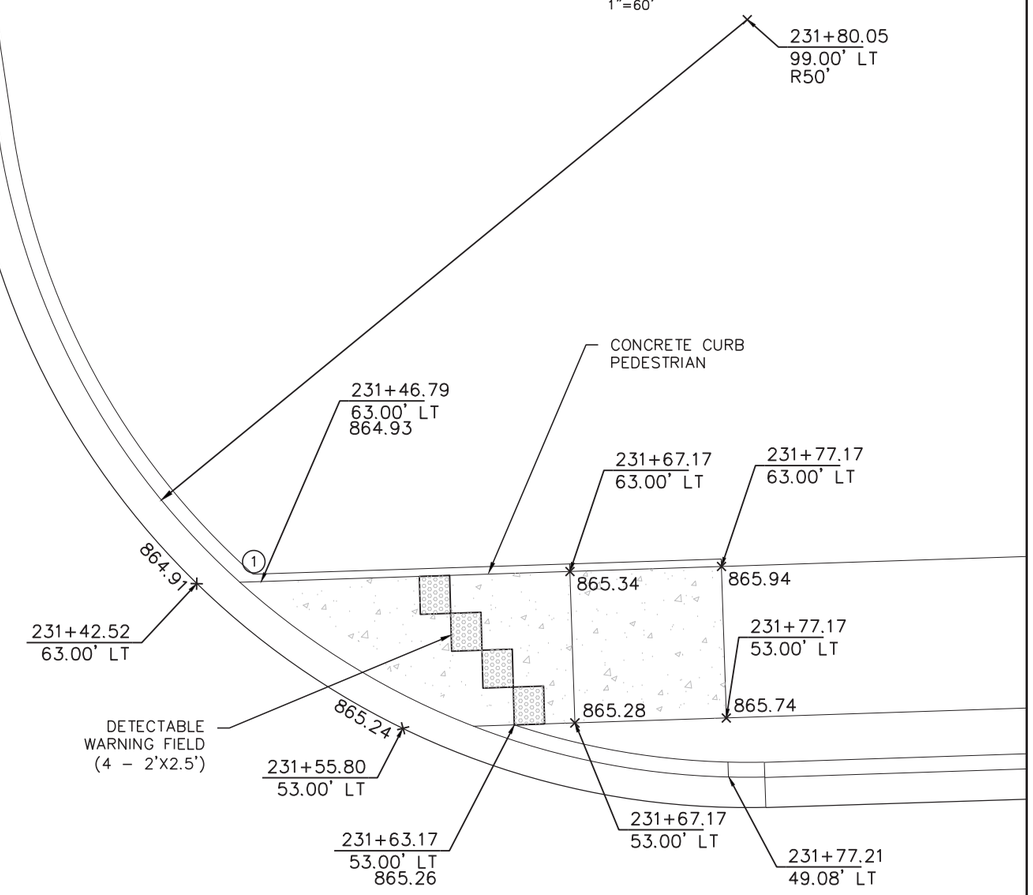
RAMP SLOPES SHALL NOT BE STREEPER THAN 12:1

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%

(1) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS) DO NOT MARK TRANSITION NOSE.

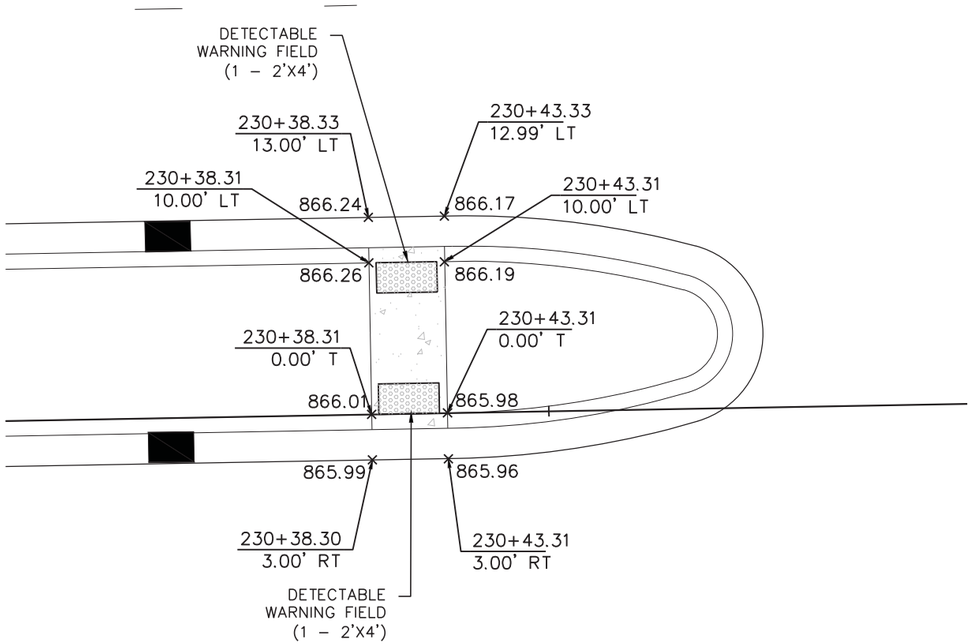
SLOPE SIDEWALK TOWARDS LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(2) REDUCE CURB HEIGHT IN TRIANGEL AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP, 2" MINIMUM CURB HEIGHT

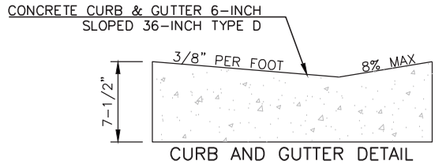


PEDESTRIAN CURB RAMP B
SCALE: 1"=10'

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PEDESTRIAN CURB LANDING GRADING DETAILS – CTH VV AND CLOVER LANE	SHEET NO.: 32 E



PEDESTRIAN CURB RAMP A
SCALE: 1"=10'

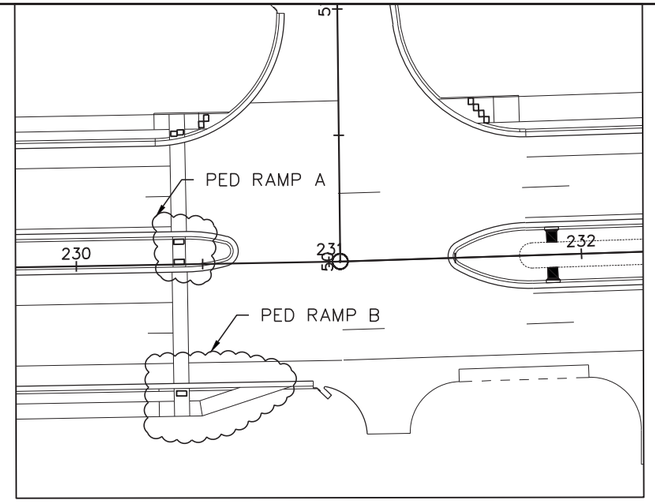


CURB AND GUTTER DETAIL
AT PEDESTRIAN CURB RAMPS

LEGEND

(5) CURB RAMP

CONCRETE PAVEMENT



OVERVIEW MAP
1"=60'

GENERAL NOTES:

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

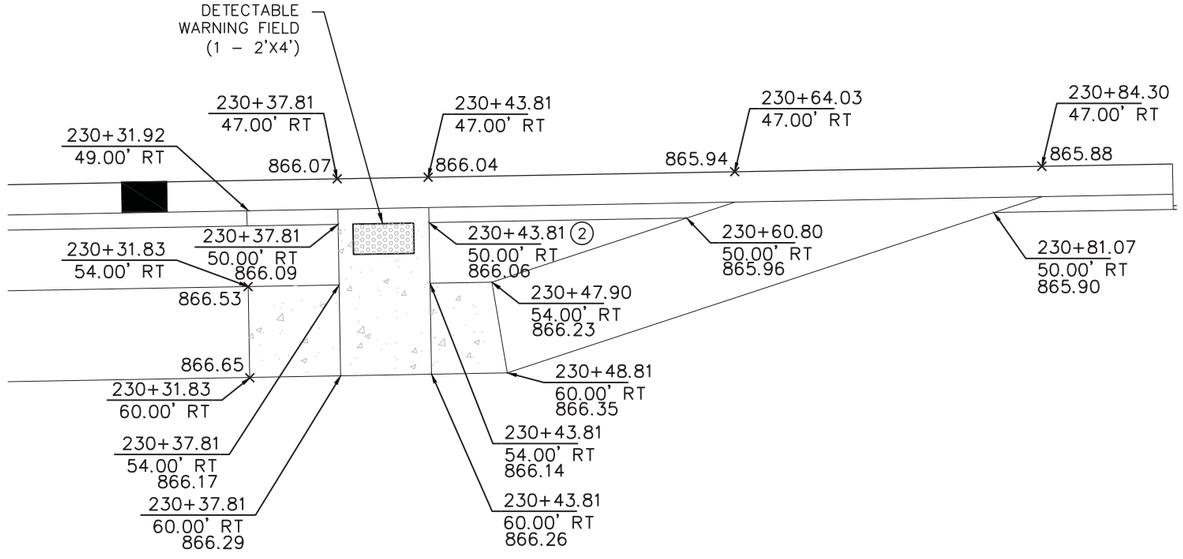
RAMP SLOPES SHALL NOT BE STREEPER THAN 12:1

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%

(1) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS) DO NOT MARK TRANSITION NOSE.

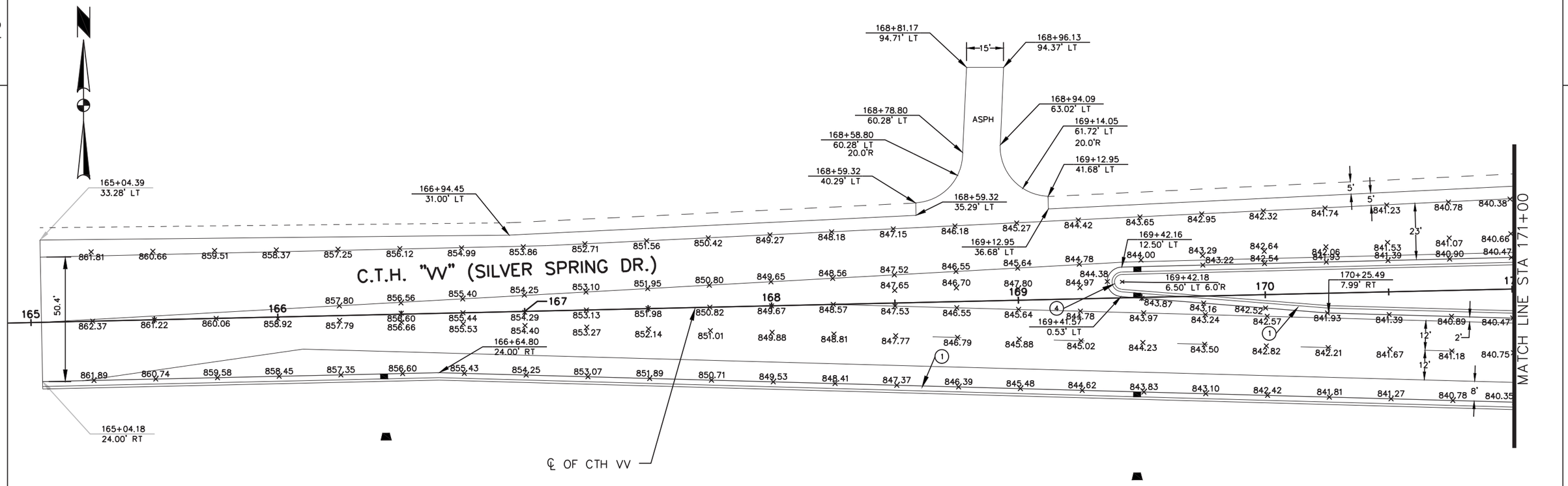
SLOPE SIDEWALK TOWARDS LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

REDUCE CURB HEIGHT IN TRIANGEL AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP, 2" MINIMUM CURB HEIGHT



PEDESTRIAN CURB RAMP B
SCALE: 1"=10'

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PEDESTRIAN CURB LANDING GRADING DETAILS – CTH VV AND CLOVER LANE	SHEET NO.: 33 E



GENERAL NOTES:

1. CURB DIMENSIONS ARE MEASURED TO FLANGE.

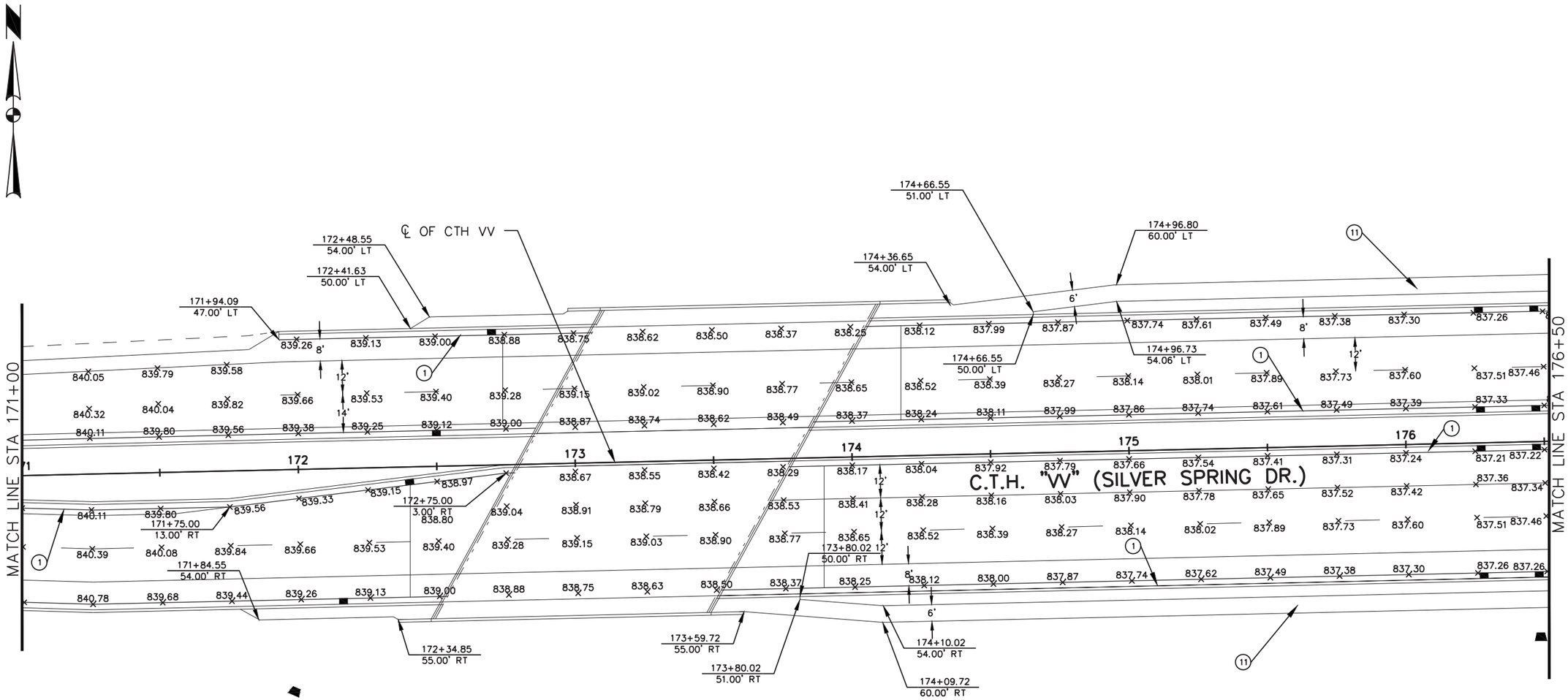
LEGEND

1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 165+00-171+00	SHEET NO.: 34	E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\PAVING DETAILS 2753-06-71.DWG PLOT DATE : 1/7/2013 8:51 AM PLOT BY : SOEHNER, JIM PLOT NAME : _____ PLOT SCALE : 1"=40'
WISDOT/CADDS SHEET 44

2



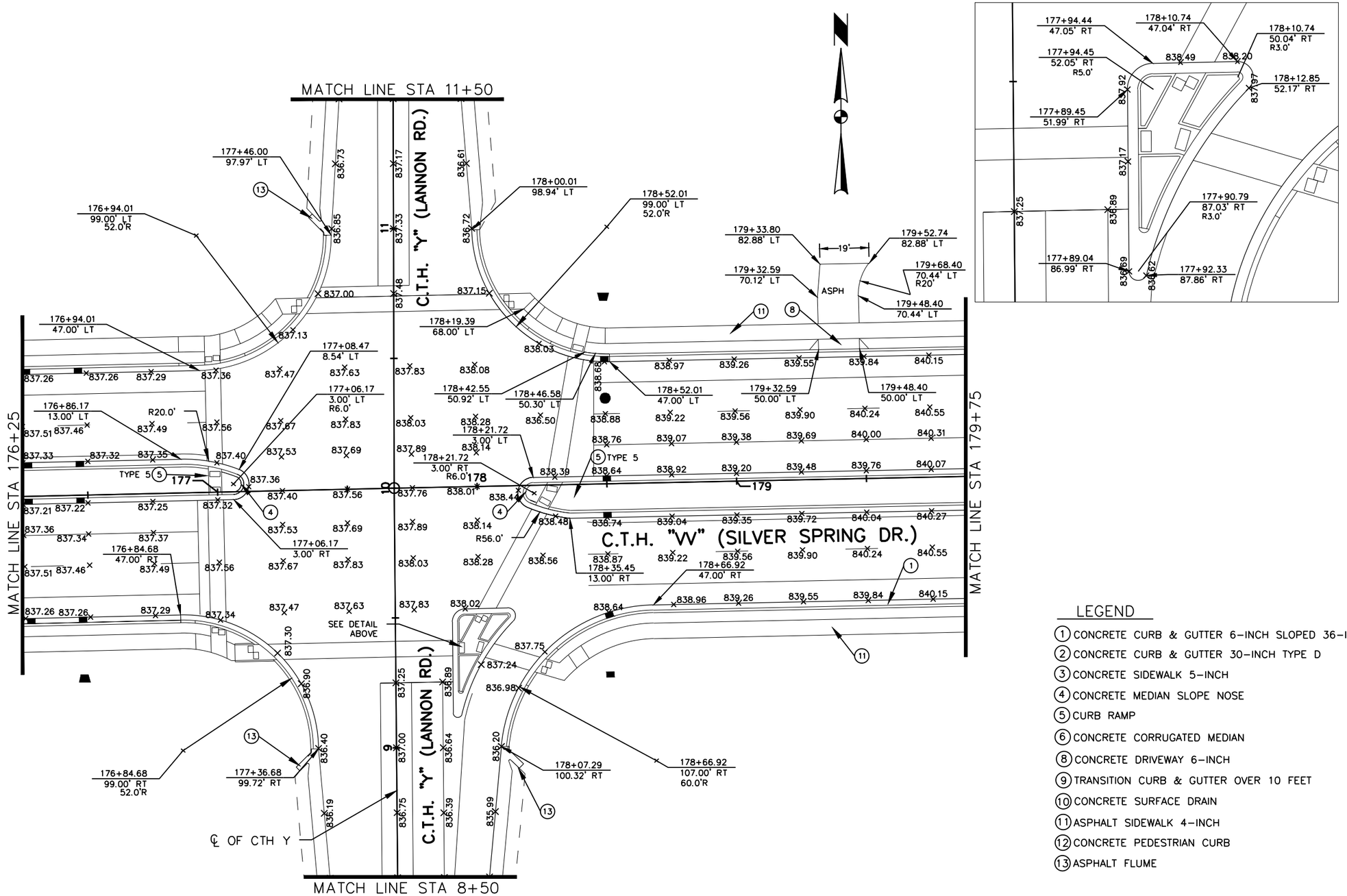
LEGEND

1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME

GENERAL NOTES:

1. CURB DIMENSIONS ARE MEASURED TO FLANGE.

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 171+00-176+75	SHEET NO.: 35 E



LEGEND

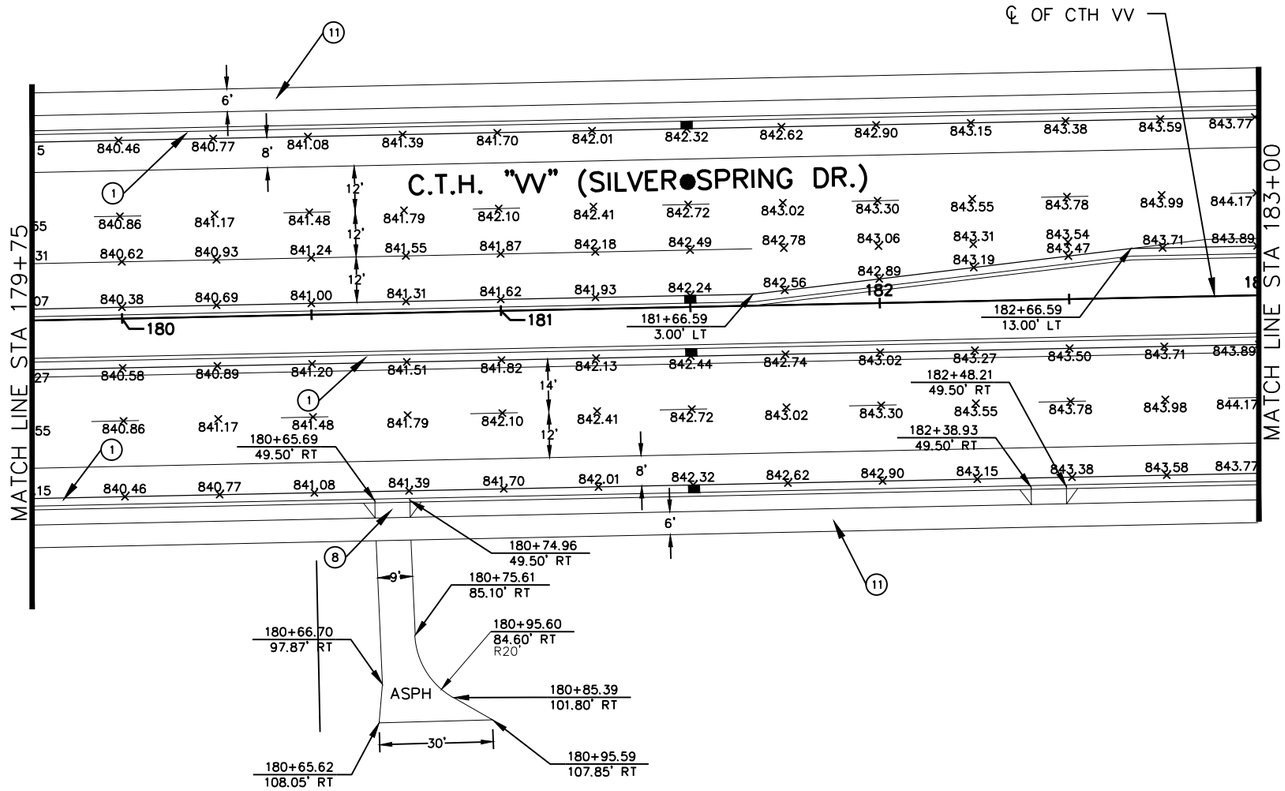
1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME

GENERAL NOTES:

1. CURB DIMENSIONS ARE MEASURED TO FLANGE.
2. FOR PEDESTRIAN RAMP DETAILS SEE PEDESTRIAN CURB LANDING GRADING DETAILS

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 177+00 – 183+00	SHEET NO.: 36	E

2



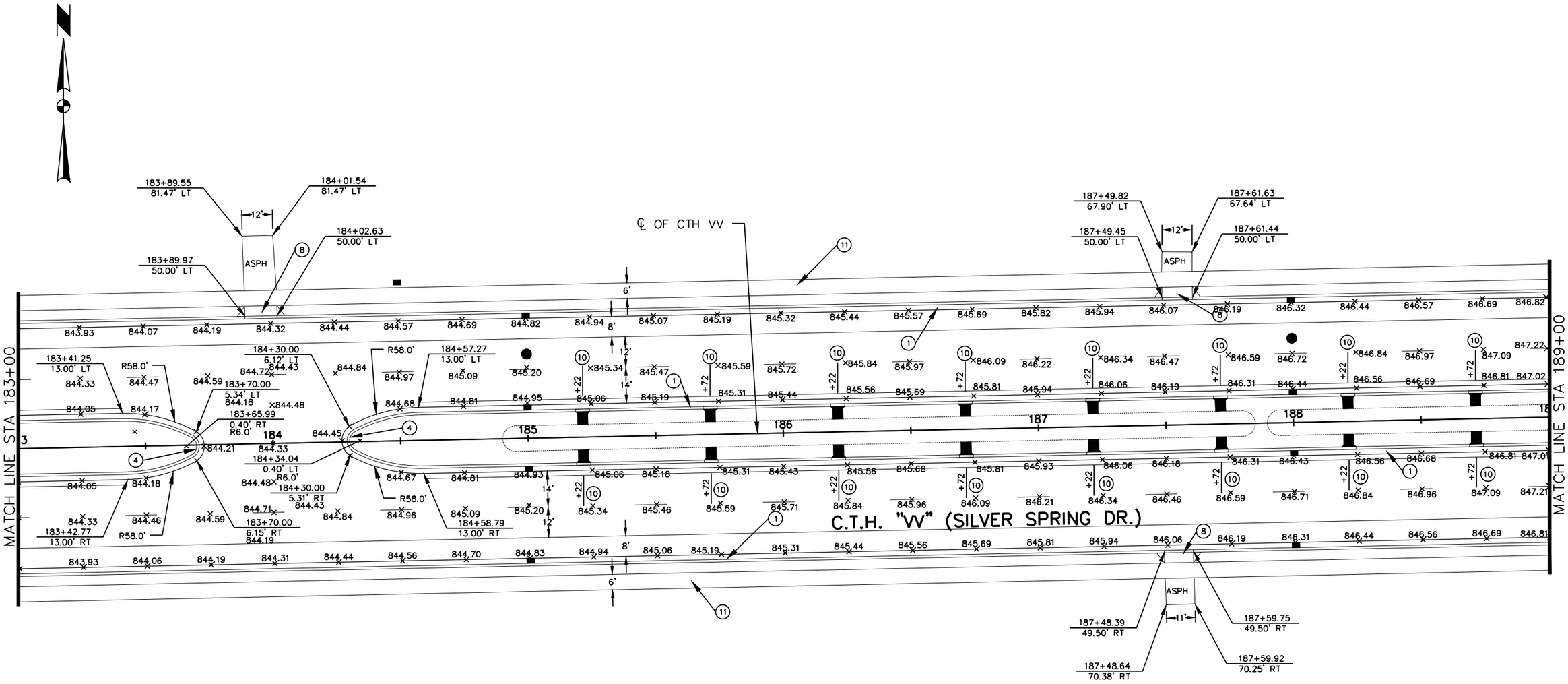
LEGEND

1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME

GENERAL NOTES:

1. CURB DIMENSIONS ARE MEASURED TO FLANGE.

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 179+75 – 183+00	SHEET NO.: 37 E



LEGEND

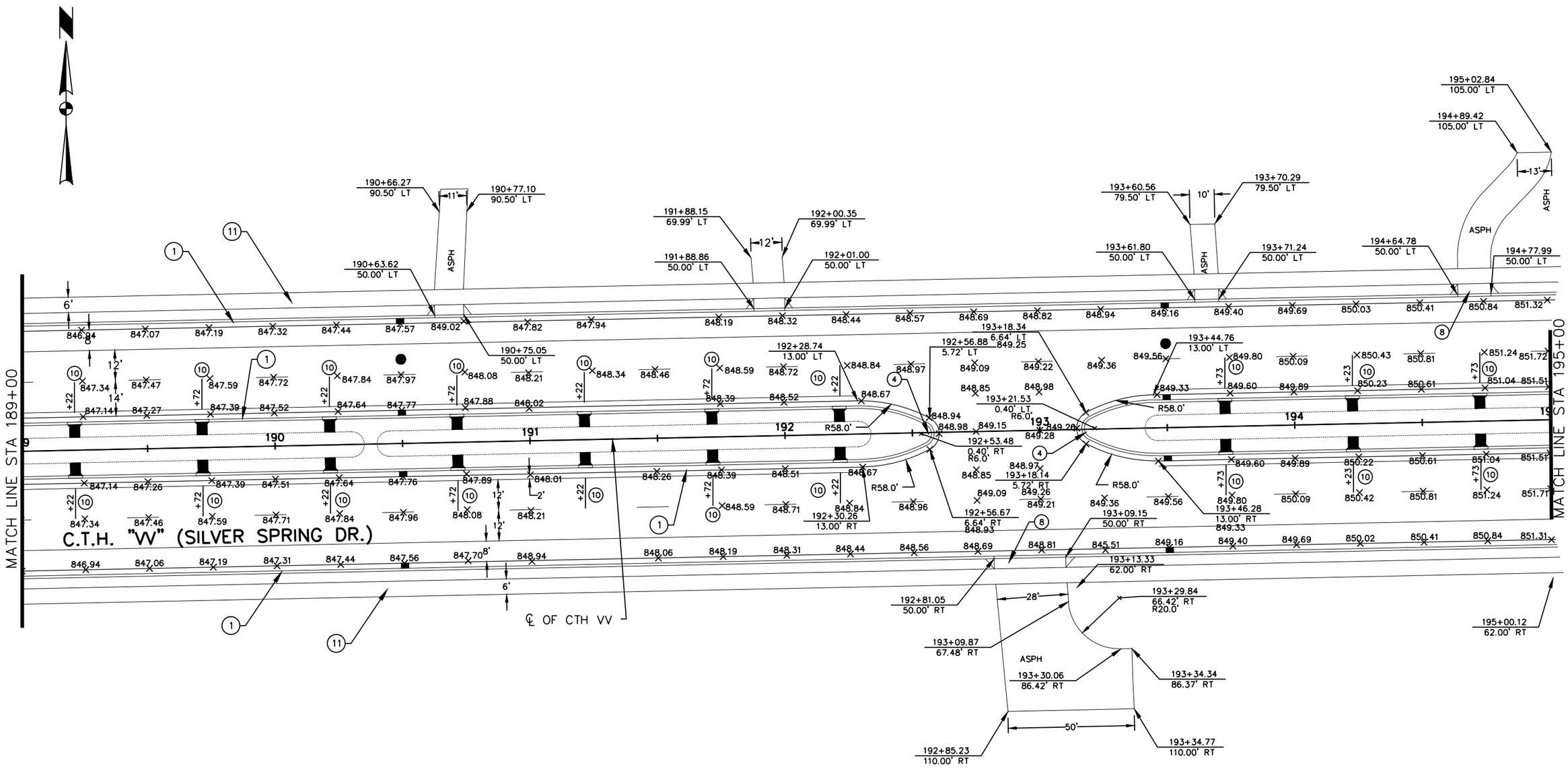
1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
7. CONCRETE DRIVEWAY 8-INCH
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME

GENERAL NOTES:

1. CURB DIMENSIONS ARE MEASURED TO FLANGE.

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 183+00 – 189+00	SHEET NO.: 38 E

2



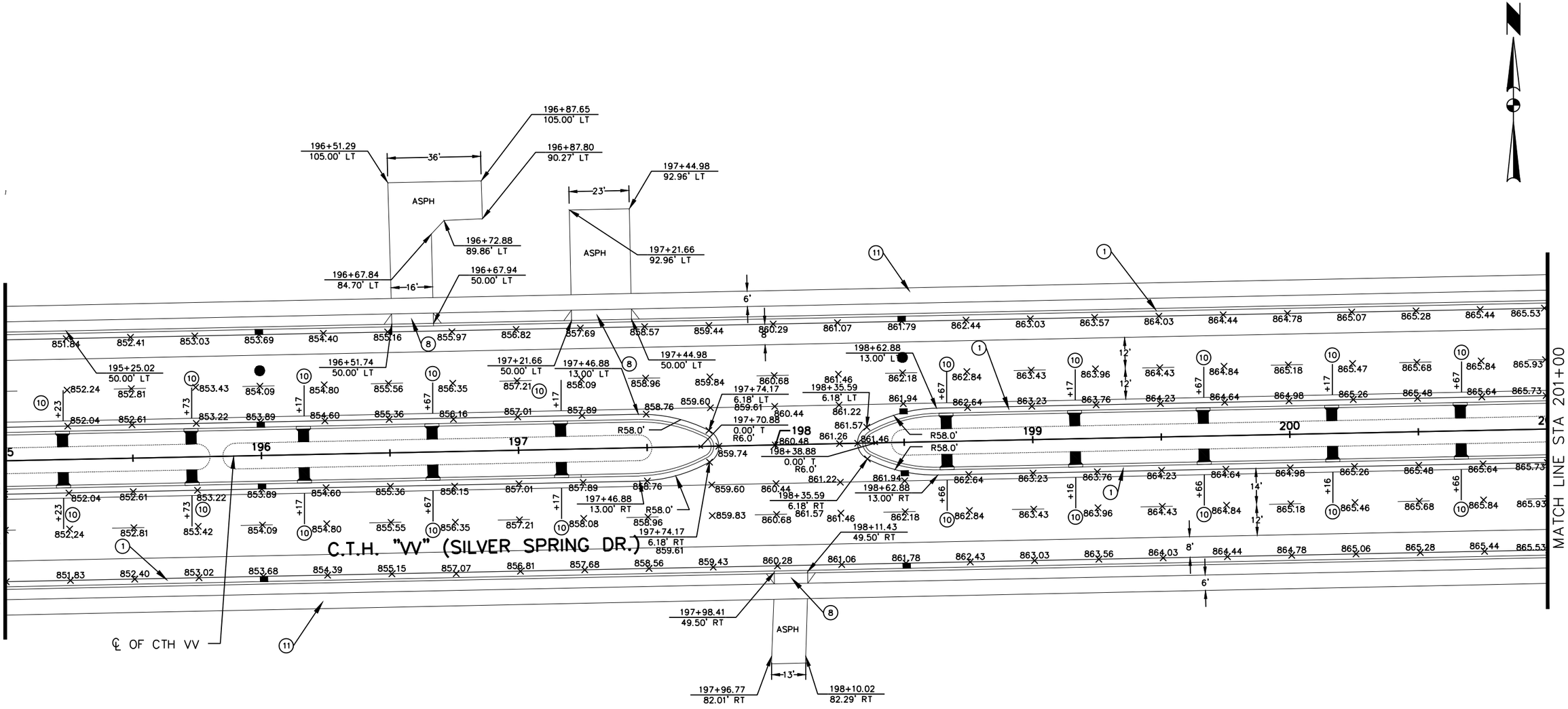
LEGEND

1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
7. CONCRETE DRIVEWAY 8-INCH
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME

GENERAL NOTES:

1. CURB DIMENSIONS ARE MEASURED TO FLANGE.

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 189+00 – 195+00	SHEET NO.: 39 E



LEGEND

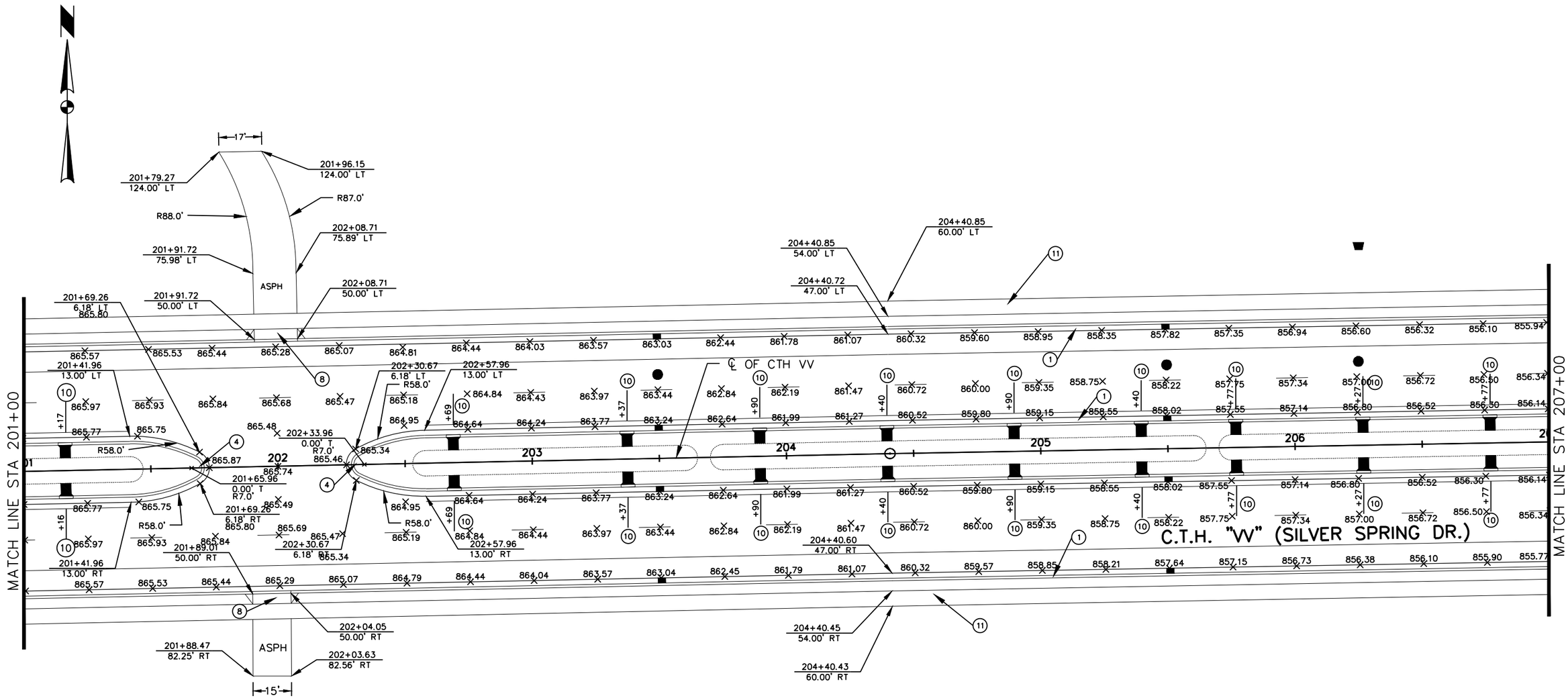
1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
7. CONCRETE DRIVEWAY 8-INCH
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME

GENERAL NOTES:

1. CURB DIMENSIONS ARE MEASURED TO FLANGE.

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 195+00 – 201+00	SHEET NO.: 40 E

2



LEGEND

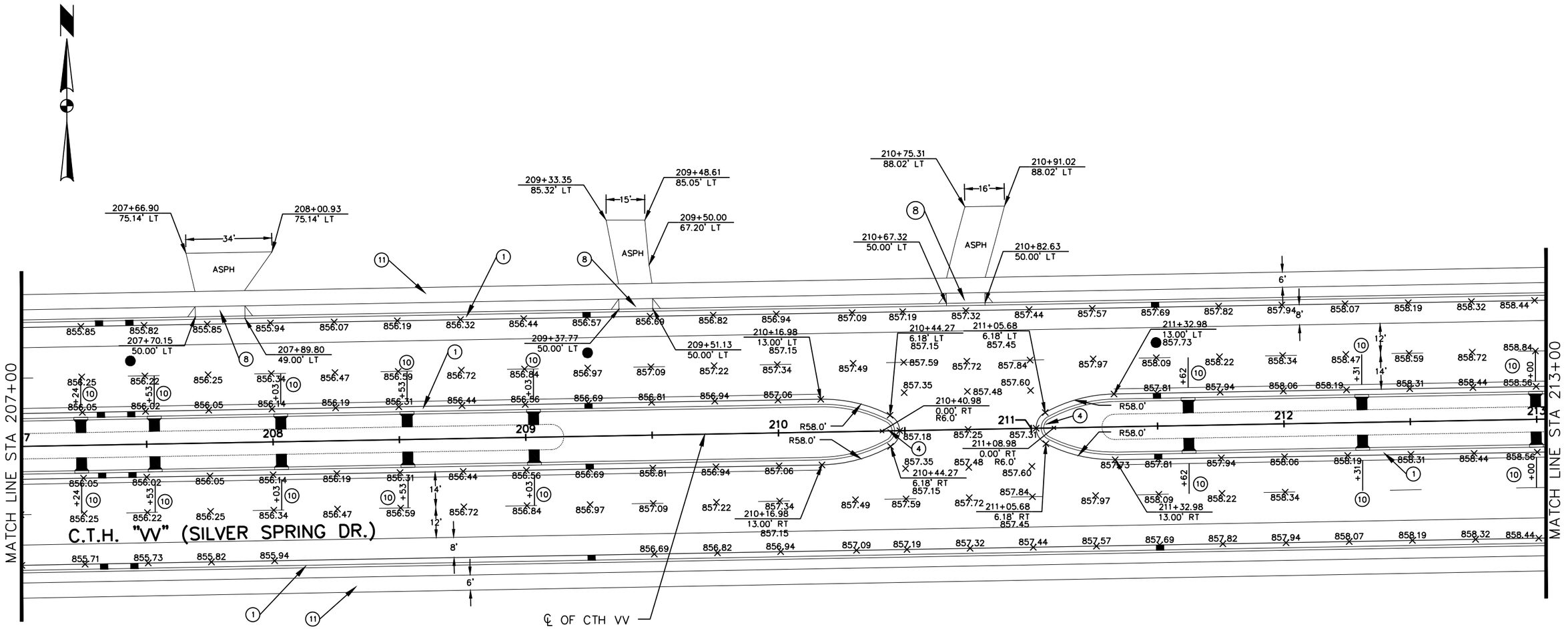
1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
7. CONCRETE DRIVEWAY 8-INCH
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME

GENERAL NOTES:

1. CURB DIMENSIONS ARE MEASURED TO FLANGE.

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 201+00 – 207+00	SHEET NO.: 41 E

2



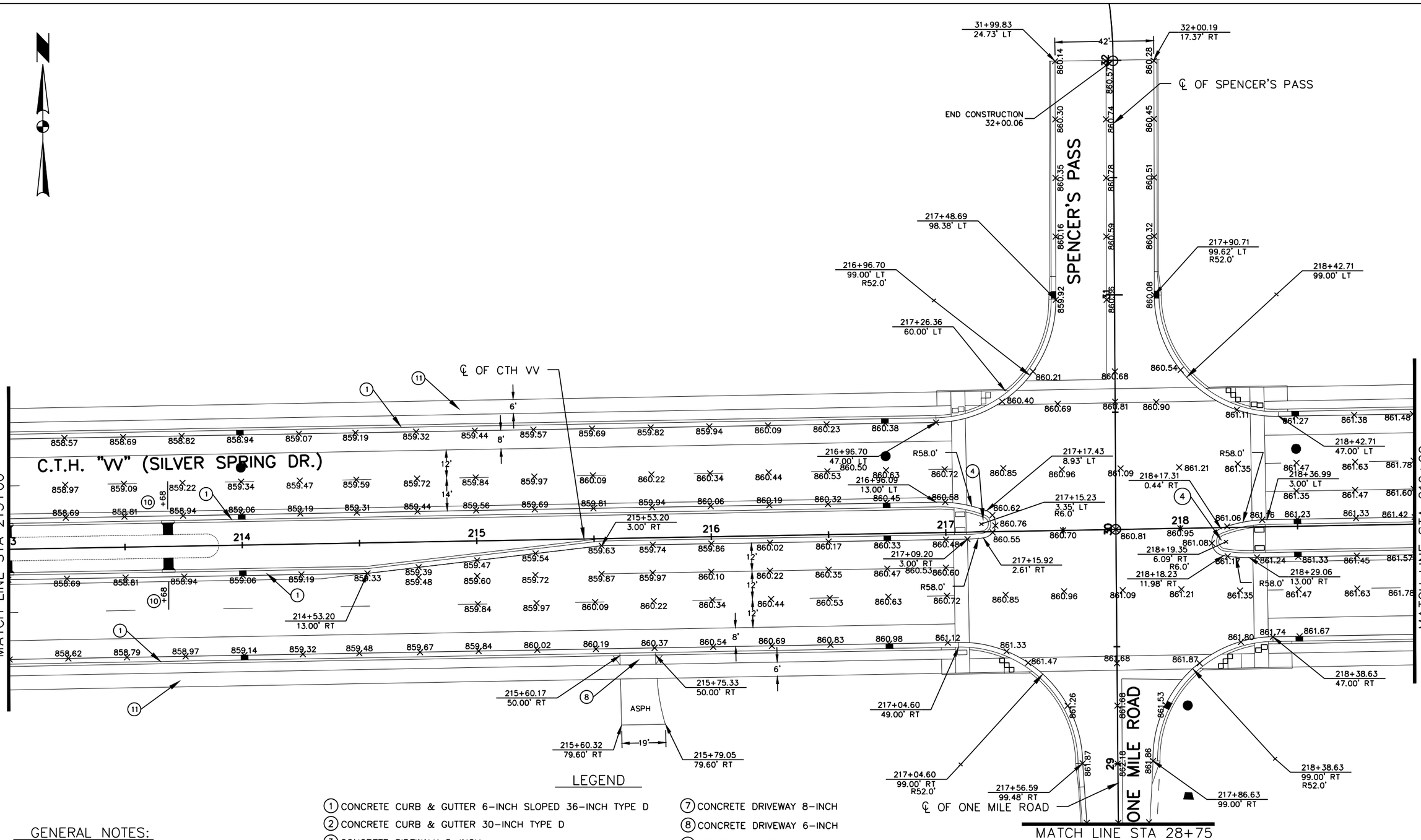
LEGEND

1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
7. CONCRETE DRIVEWAY 8-INCH
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME

GENERAL NOTES:

1. CURB DIMENSIONS ARE MEASURED TO FLANGE.

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 207+00 – 213+00	SHEET NO.: 42	E



LEGEND

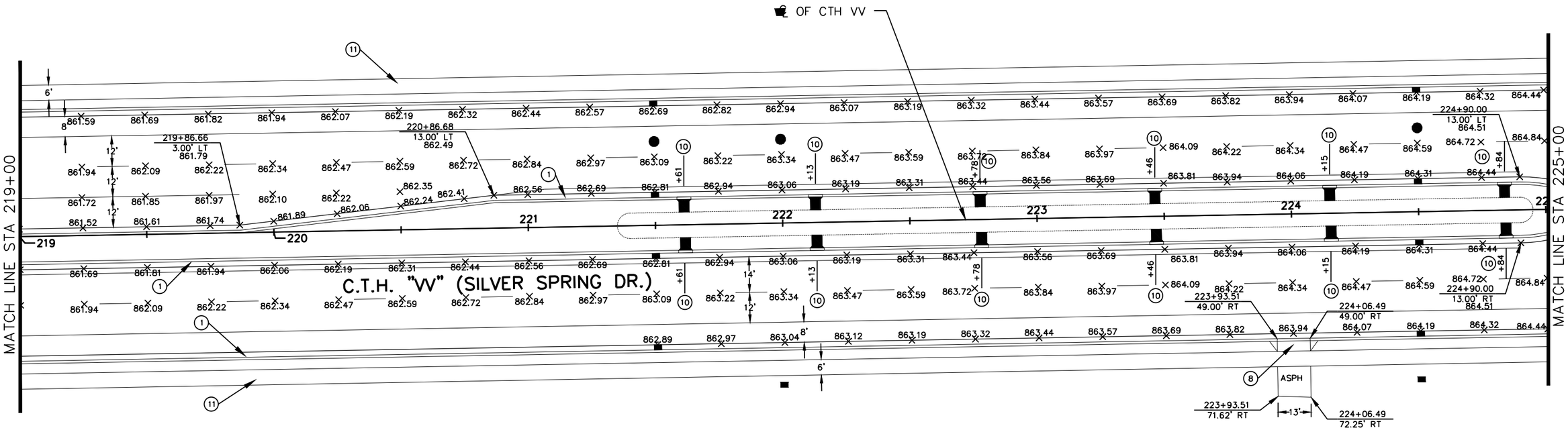
1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
7. CONCRETE DRIVEWAY 8-INCH
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME

GENERAL NOTES:

1. CURB DIMENSIONS ARE MEASURED TO FLANGE.
2. FOR PEDESTRIAN RAMP DETAILS SEE PEDESTRIAN CURB LANDING GRADING DETAILS

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 213+00 – 219+00	SHEET NO.: 43 E

2



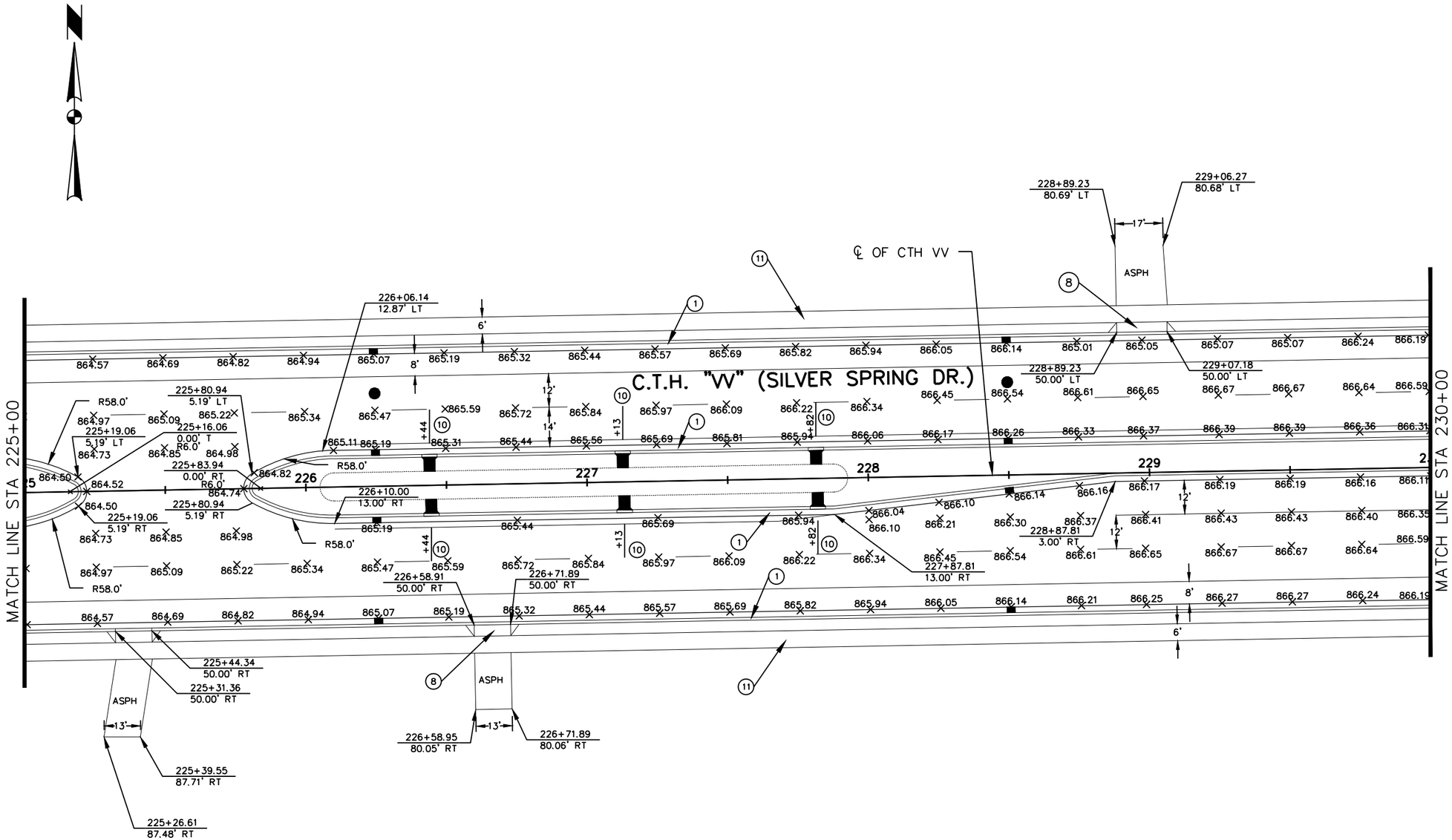
LEGEND

1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
7. CONCRETE DRIVEWAY 8-INCH
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME

GENERAL NOTES:

1. CURB DIMENSIONS ARE MEASURED TO FLANGE.

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 219+00 – 225+00	SHEET NO.: 44	E



LEGEND

1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
7. CONCRETE DRIVEWAY 8-INCH
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME

GENERAL NOTES:

1. CURB DIMENSIONS ARE MEASURED TO FLANGE.

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 225+00 – 231+00	SHEET NO.: 45 E

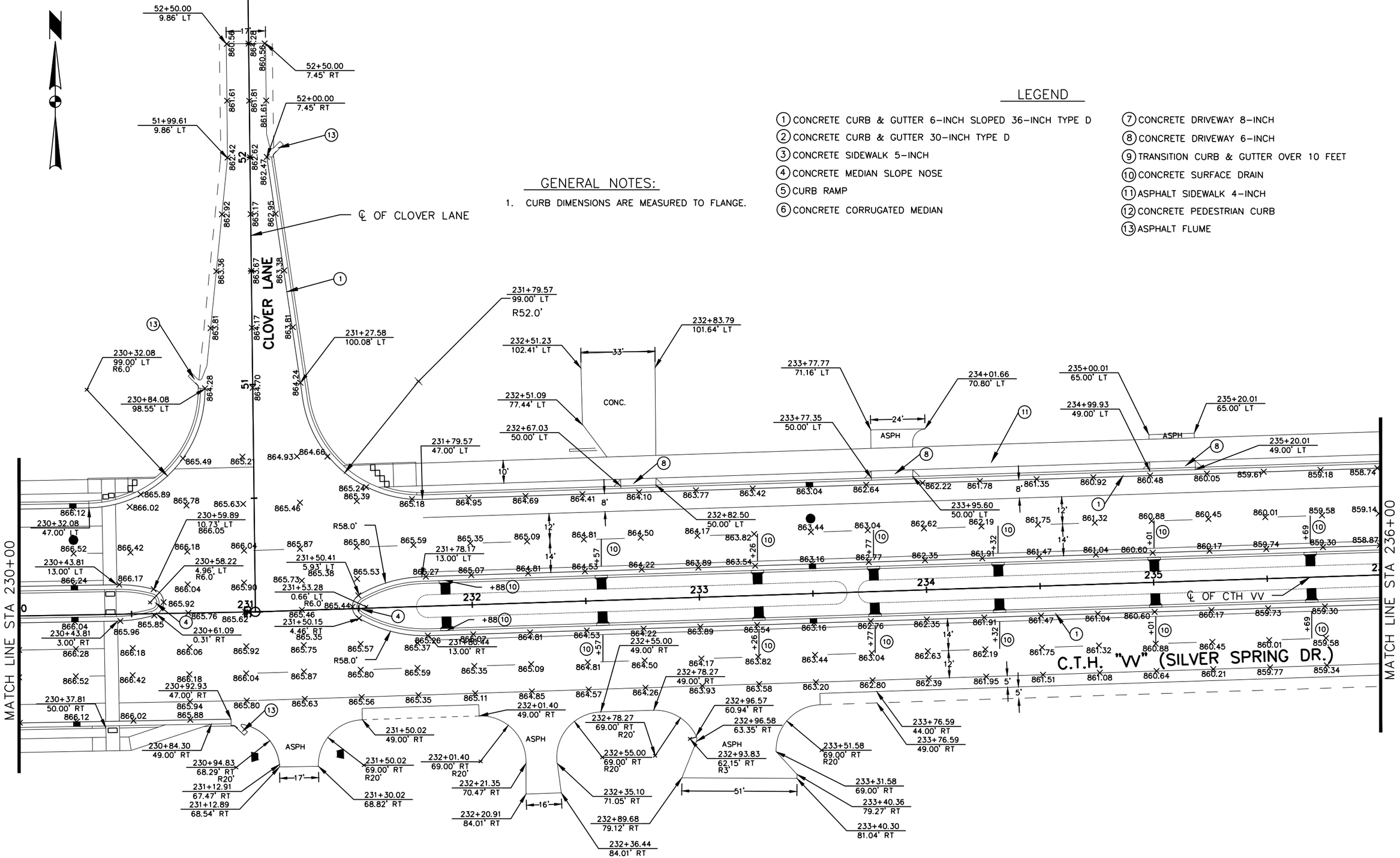
2

GENERAL NOTES:

1. CURB DIMENSIONS ARE MEASURED TO FLANGE.

LEGEND

1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
7. CONCRETE DRIVEWAY 8-INCH
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME



PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 230+00 – 236+00	SHEET NO.: 46 E

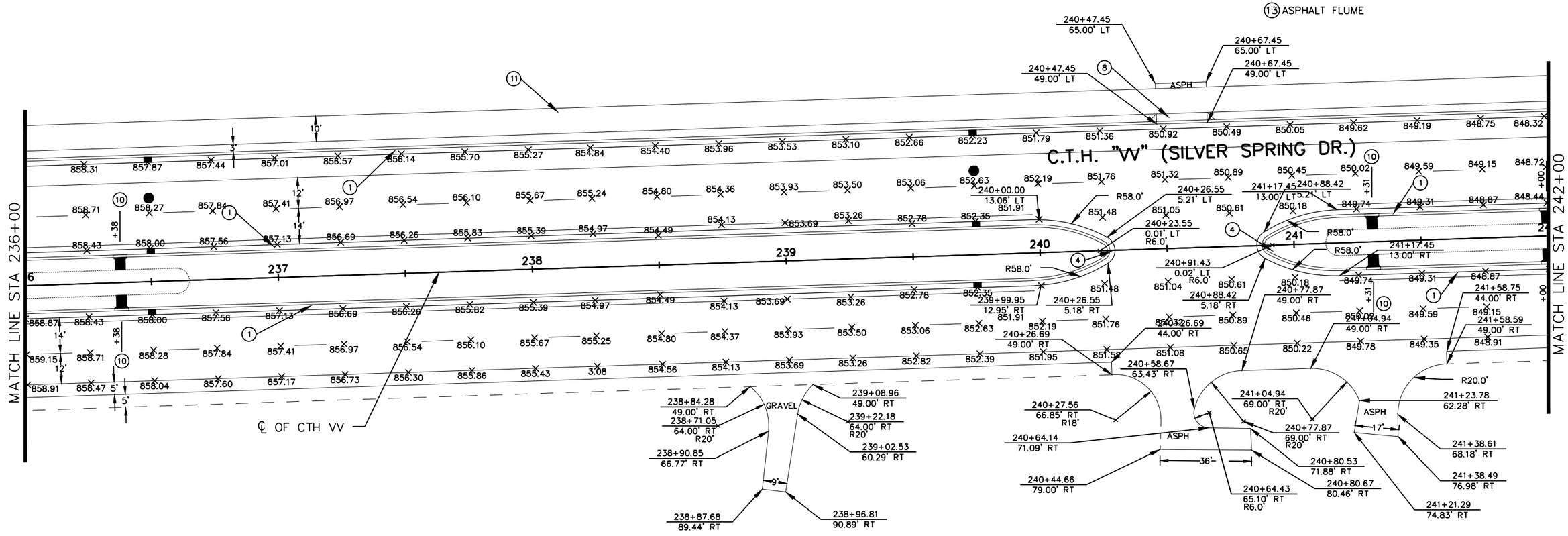
2

LEGEND

1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME

GENERAL NOTES:

1. CURB DIMENSIONS ARE MEASURED TO FLANGE.



PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 236+00 – 242+00	SHEET NO.: 47 E

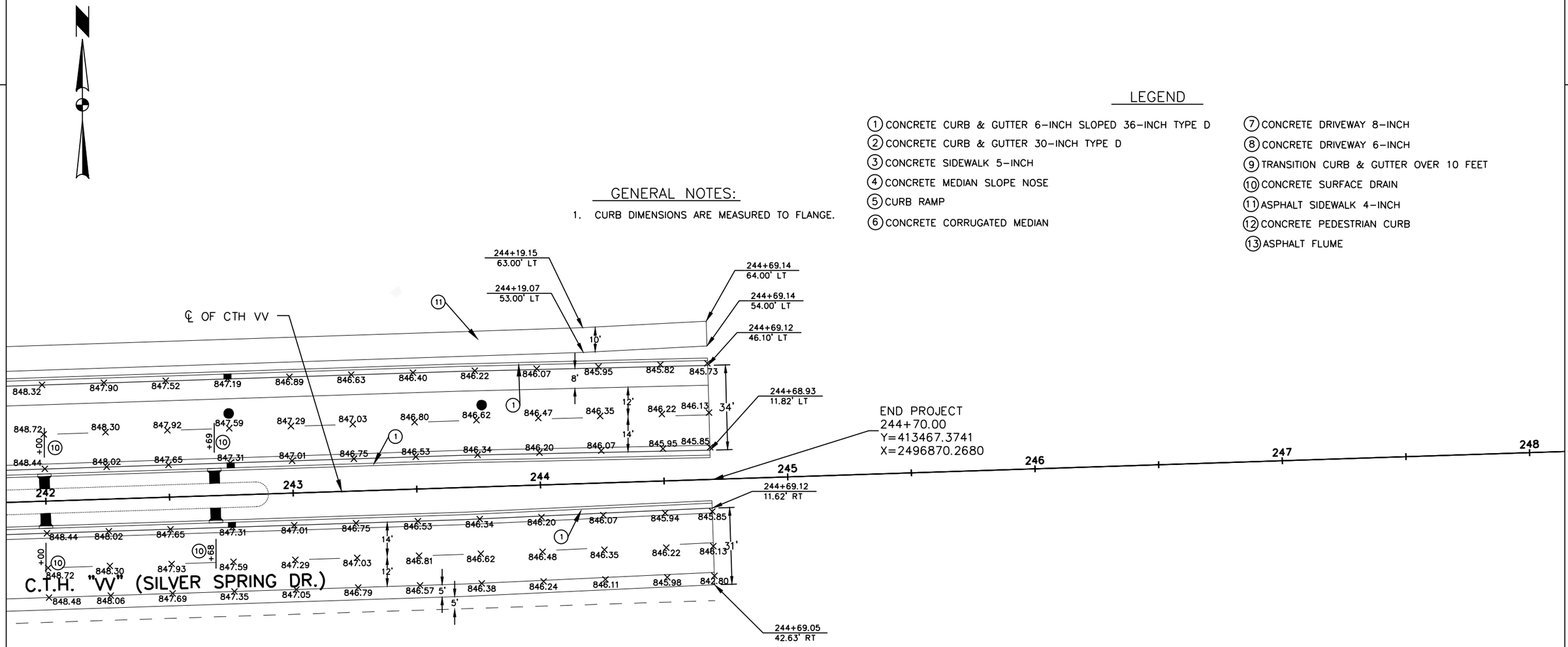
2

GENERAL NOTES:

1. CURB DIMENSIONS ARE MEASURED TO FLANGE.

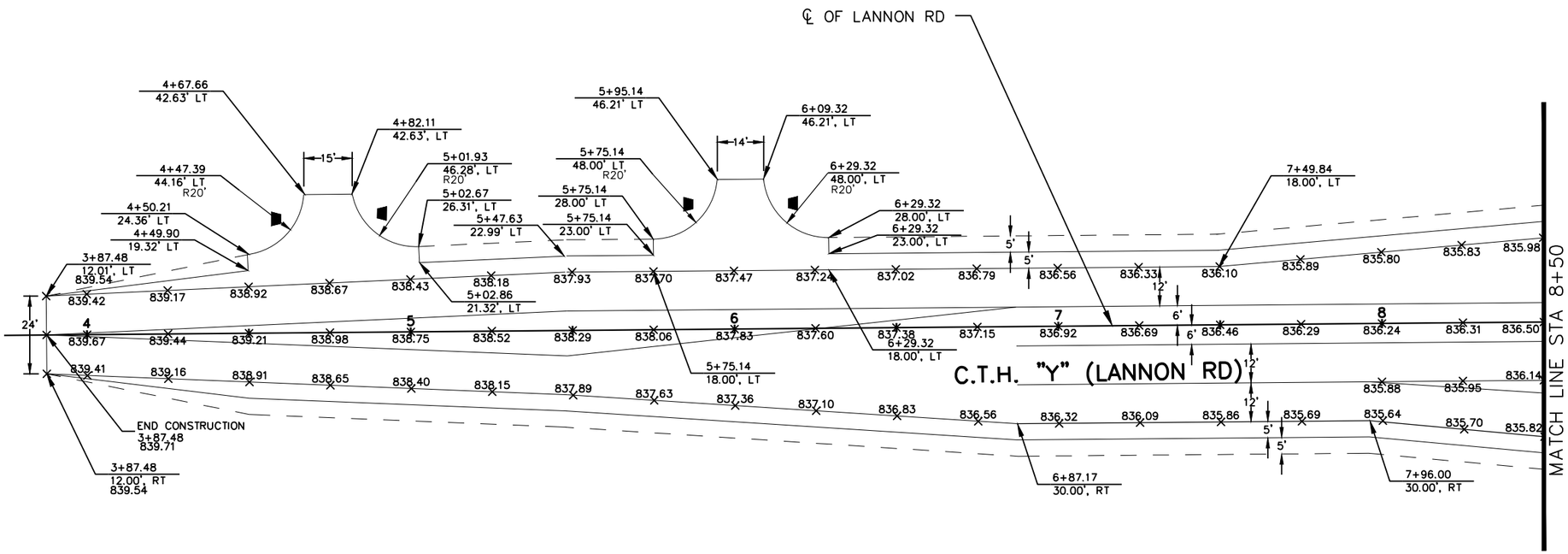
LEGEND

1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
7. CONCRETE DRIVEWAY 8-INCH
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME



PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 242+00 – 245+00	SHEET NO.: 48 E

2



GENERAL NOTES:

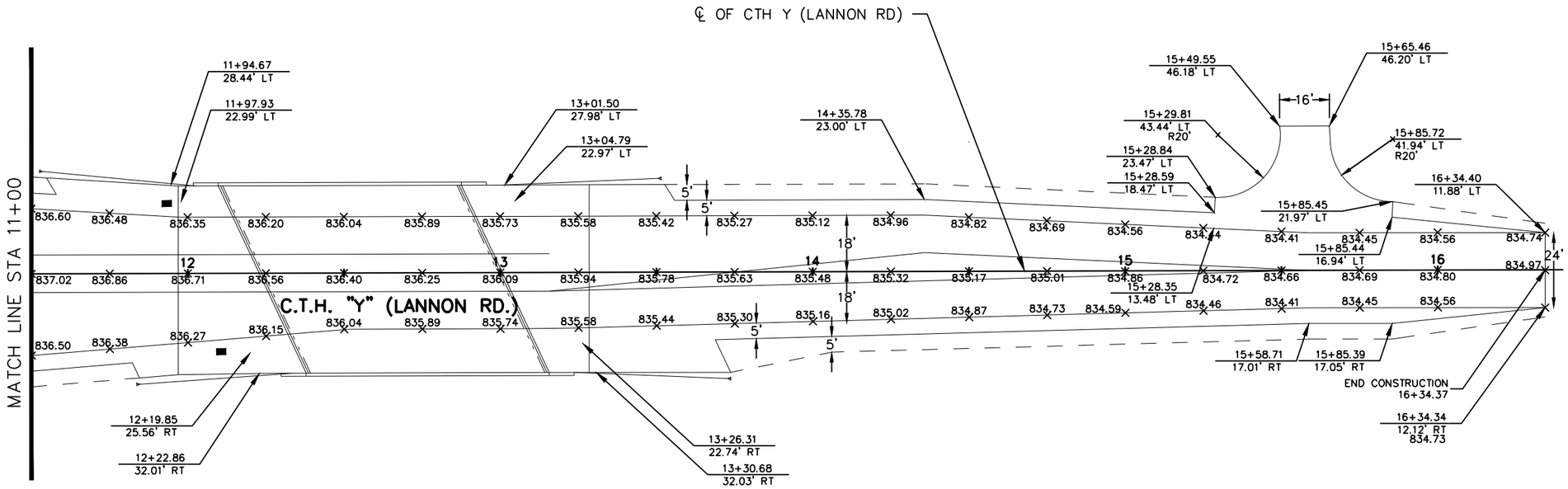
1. CURB DIMENSIONS ARE MEASURED TO FLANGE.

LEGEND

1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
7. CONCRETE DRIVEWAY 8-INCH
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 4+00 – 8+50	SHEET NO.: 49 E

2



GENERAL NOTES:

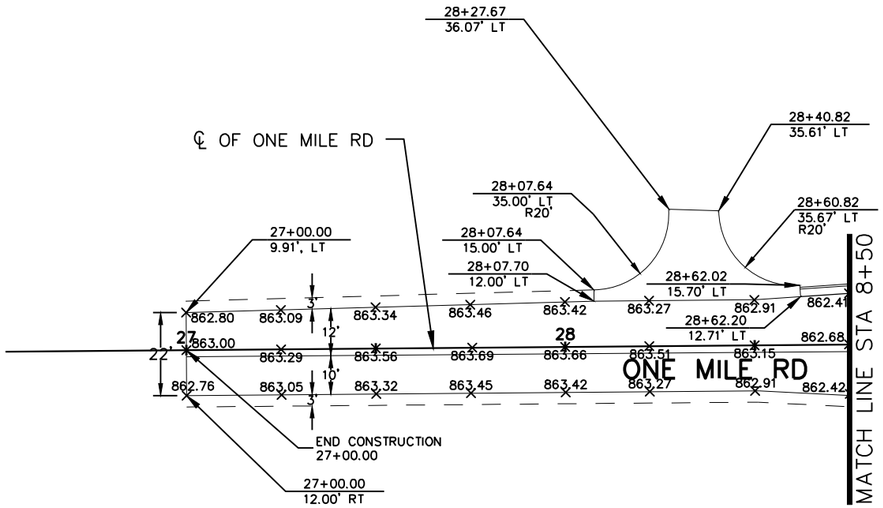
1. CURB DIMENSIONS ARE MEASURED TO FLANGE.

LEGEND

1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
7. CONCRETE DRIVEWAY 8-INCH
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 11+00 – 16+00	SHEET NO.: 50	E

2



GENERAL NOTES:

1. CURB DIMENSIONS ARE MEASURED TO FLANGE.

LEGEND

1. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
2. CONCRETE CURB & GUTTER 30-INCH TYPE D
3. CONCRETE SIDEWALK 5-INCH
4. CONCRETE MEDIAN SLOPE NOSE
5. CURB RAMP
6. CONCRETE CORRUGATED MEDIAN
7. CONCRETE DRIVEWAY 8-INCH
8. CONCRETE DRIVEWAY 6-INCH
9. TRANSITION CURB & GUTTER OVER 10 FEET
10. CONCRETE SURFACE DRAIN
11. ASPHALT SIDEWALK 4-INCH
12. CONCRETE PEDESTRIAN CURB
13. ASPHALT FLUME

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVING DETAIL STA: 27+00 – 32+00	SHEET NO.: 51	E

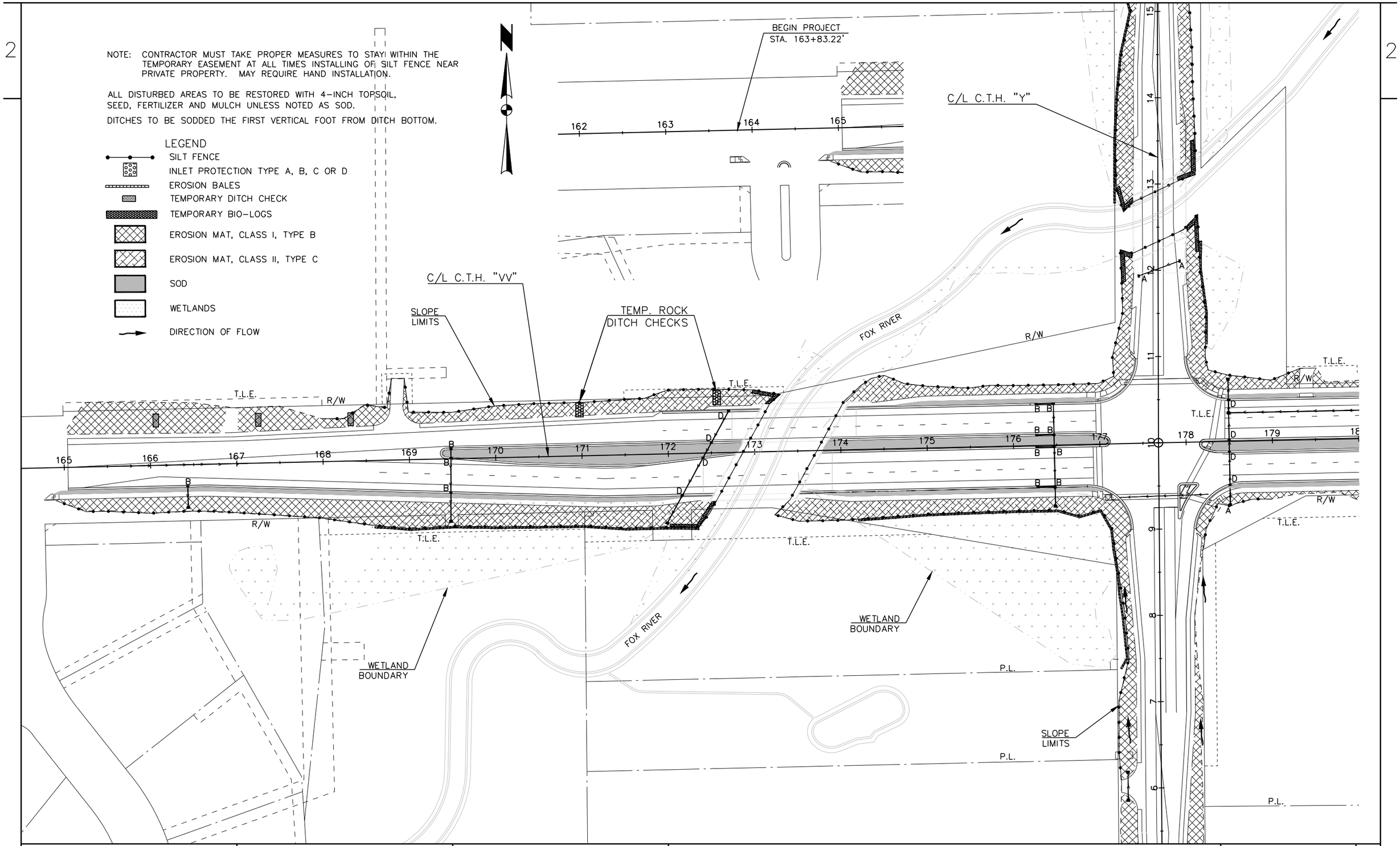
NOTE: CONTRACTOR MUST TAKE PROPER MEASURES TO STAY WITHIN THE TEMPORARY EASEMENT AT ALL TIMES INSTALLING OF SILT FENCE NEAR PRIVATE PROPERTY. MAY REQUIRE HAND INSTALLATION.

ALL DISTURBED AREAS TO BE RESTORED WITH 4-INCH TOPSOIL, SEED, FERTILIZER AND MULCH UNLESS NOTED AS SOD.

DITCHES TO BE SODDED THE FIRST VERTICAL FOOT FROM DITCH BOTTOM.

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE A, B, C OR D
- EROSION BALES
- TEMPORARY DITCH CHECK
- TEMPORARY BIO-LOGS
- EROSION MAT, CLASS I, TYPE B
- EROSION MAT, CLASS II, TYPE C
- SOD
- WETLANDS
- DIRECTION OF FLOW



PROJECT NUMBER: 2753-06-70	HWY: C.T.H. VV	COUNTY: WAUKESHA	EROSION CONTROL: STA. 165+00 – 180+00	SHEET NO.: 52 E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\EROSION CONTROL 2753-06-71.DWG PLOT DATE : 10-3-2012 PLOT BY : SOEHNER, JIM PLOT NAME : _____ PLOT SCALE : 1"=100'

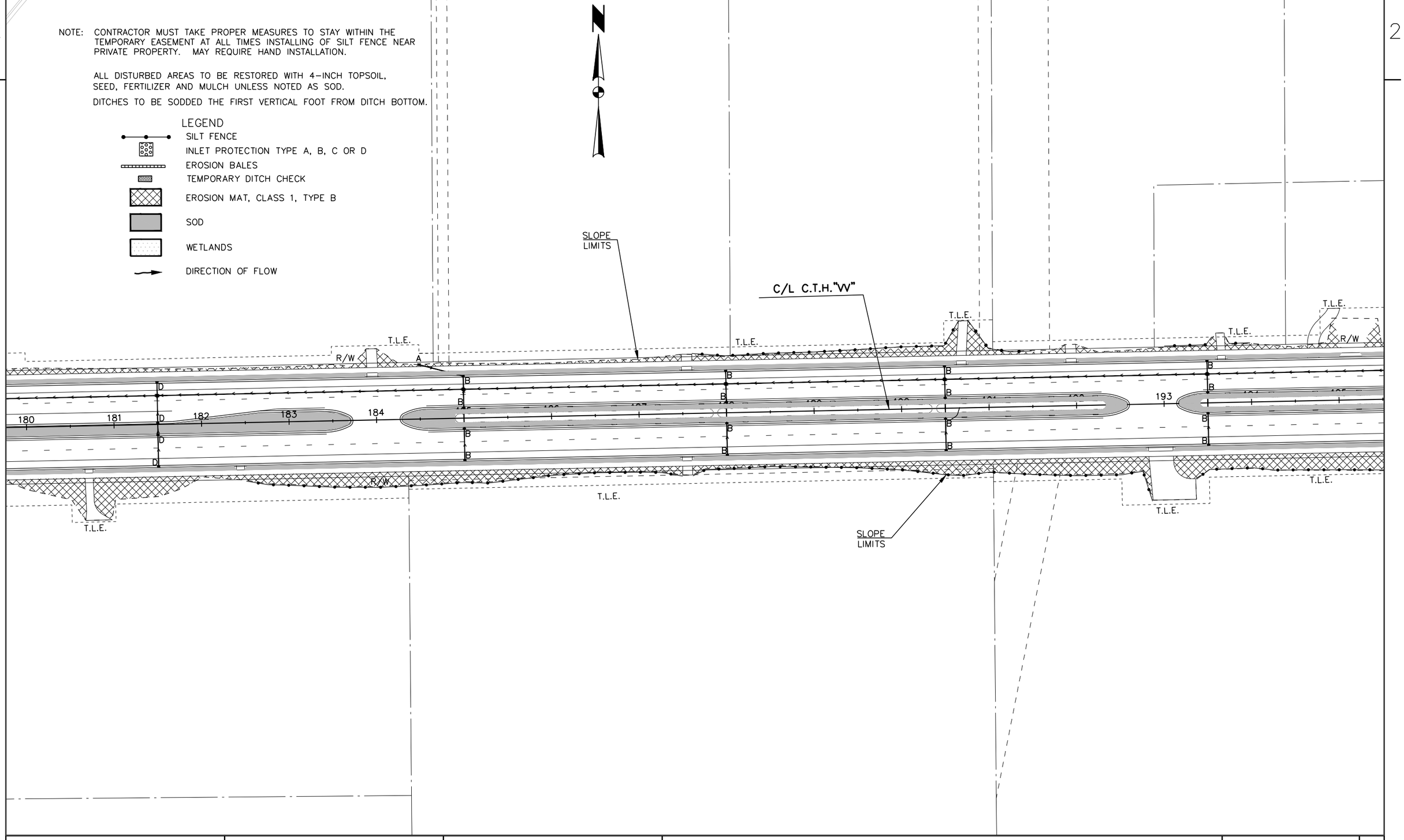
NOTE: CONTRACTOR MUST TAKE PROPER MEASURES TO STAY WITHIN THE TEMPORARY EASEMENT AT ALL TIMES INSTALLING OF SILT FENCE NEAR PRIVATE PROPERTY. MAY REQUIRE HAND INSTALLATION.

ALL DISTURBED AREAS TO BE RESTORED WITH 4–INCH TOPSOIL, SEED, FERTILIZER AND MULCH UNLESS NOTED AS SOD.

DITCHES TO BE SODDED THE FIRST VERTICAL FOOT FROM DITCH BOTTOM.

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE A, B, C OR D
- EROSION BALES
- TEMPORARY DITCH CHECK
- EROSION MAT, CLASS 1, TYPE B
- SOD
- WETLANDS
- DIRECTION OF FLOW



PROJECT NUMBER: 2753–06–71	HWY: C.T.H. VV	COUNTY: WAUKESHA	EROSION CONTROL: STA. 180+00 – 195+00	SHEET NO.: 53 E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\EROSION CONTROL 2753–06–71.DWG PLOT DATE : 10/25/2012 10:40 AM PLOT BY : SOEHNER, JIM PLOT NAME : _____ PLOT SCALE : 1"=100'

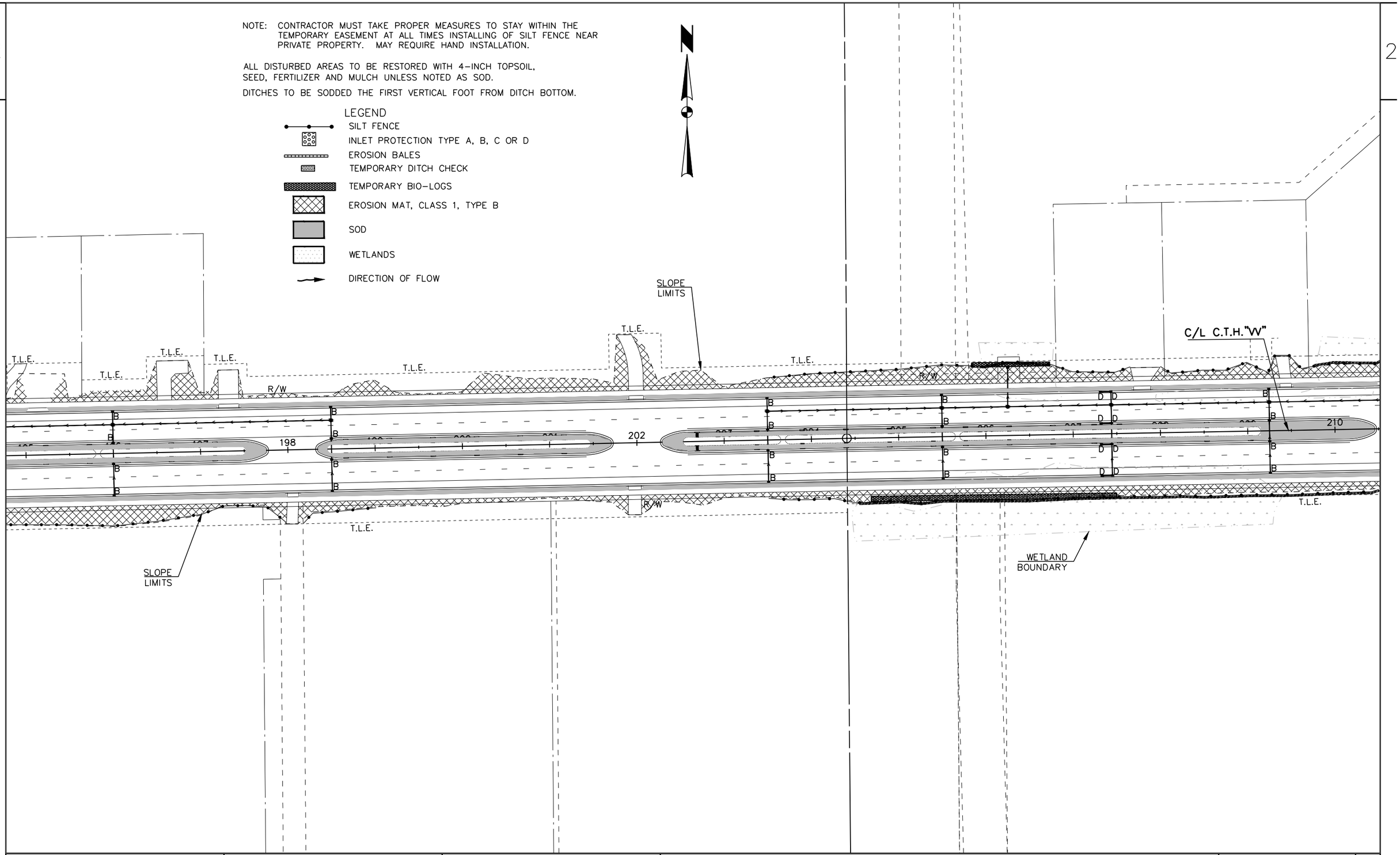
NOTE: CONTRACTOR MUST TAKE PROPER MEASURES TO STAY WITHIN THE TEMPORARY EASEMENT AT ALL TIMES INSTALLING OF SILT FENCE NEAR PRIVATE PROPERTY. MAY REQUIRE HAND INSTALLATION.

ALL DISTURBED AREAS TO BE RESTORED WITH 4-INCH TOPSOIL, SEED, FERTILIZER AND MULCH UNLESS NOTED AS SOD.

DITCHES TO BE SODDED THE FIRST VERTICAL FOOT FROM DITCH BOTTOM.

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE A, B, C OR D
- EROSION BALES
- TEMPORARY DITCH CHECK
- TEMPORARY BIO-LOGS
- EROSION MAT, CLASS 1, TYPE B
- SOD
- WETLANDS
- DIRECTION OF FLOW



PROJECT NUMBER: 2753-06-71	HWY: C.T.H. VV	COUNTY: WAUKESHA	EROSION CONTROL STA: 195+00 - 210+00	SHEET NO.: 54 E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\EROSION CONTROL 2753-06-71.DWG PLOT DATE : 10/25/2012 10:41 AM PLOT BY : SOEHNER, JIM PLOT NAME : _____ PLOT SCALE : 1"=100'

NOTE: CONTRACTOR MUST TAKE PROPER MEASURES TO STAY WITHIN THE TEMPORARY EASEMENT AT ALL TIMES INSTALLING OF SILT FENCE NEAR PRIVATE PROPERTY. MAY REQUIRE HAND INSTALLATION.

ALL DISTURBED AREAS TO BE RESTORED WITH 4-INCH TOPSOIL, SEED, FERTILIZER AND MULCH UNLESS NOTED AS SOD.

DITCHES TO BE SODDED THE FIRST VERTICAL FOOT FROM DITCH BOTTOM.

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE A, B, C OR D
- EROSION BALES
- TEMPORARY DITCH CHECK
- EROSION MAT, CLASS 1, TYPE B
- SOD
- WETLANDS
- DIRECTION OF FLOW

C/L SPENCERS PASS

C/L C.T.H."W"

SLOPE LIMITS

R/W

T.L.E.

SLOPE LIMITS

WETLAND BOUNDARY

C/L ONE MILE ROAD

PROJECT NUMBER: 2753-06-70	HWY: C.T.H. VV	COUNTY: WAUKESHA	EROSION CONTROL STA: 210+00-225+00	SHEET NO.: 55 E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\EROSION CONTROL 2753-06-71.DWG PLOT DATE : 10/25/2012 10:41 AM PLOT BY : SOEHNER, JIM PLOT NAME : _____ PLOT SCALE : 1"=100'

ALL DISTURBED AREAS TO BE RESTORED WITH 4–INCH TOPSOIL, SEED, FERTILIZER AND MULCH UNLESS NOTED AS SOD.

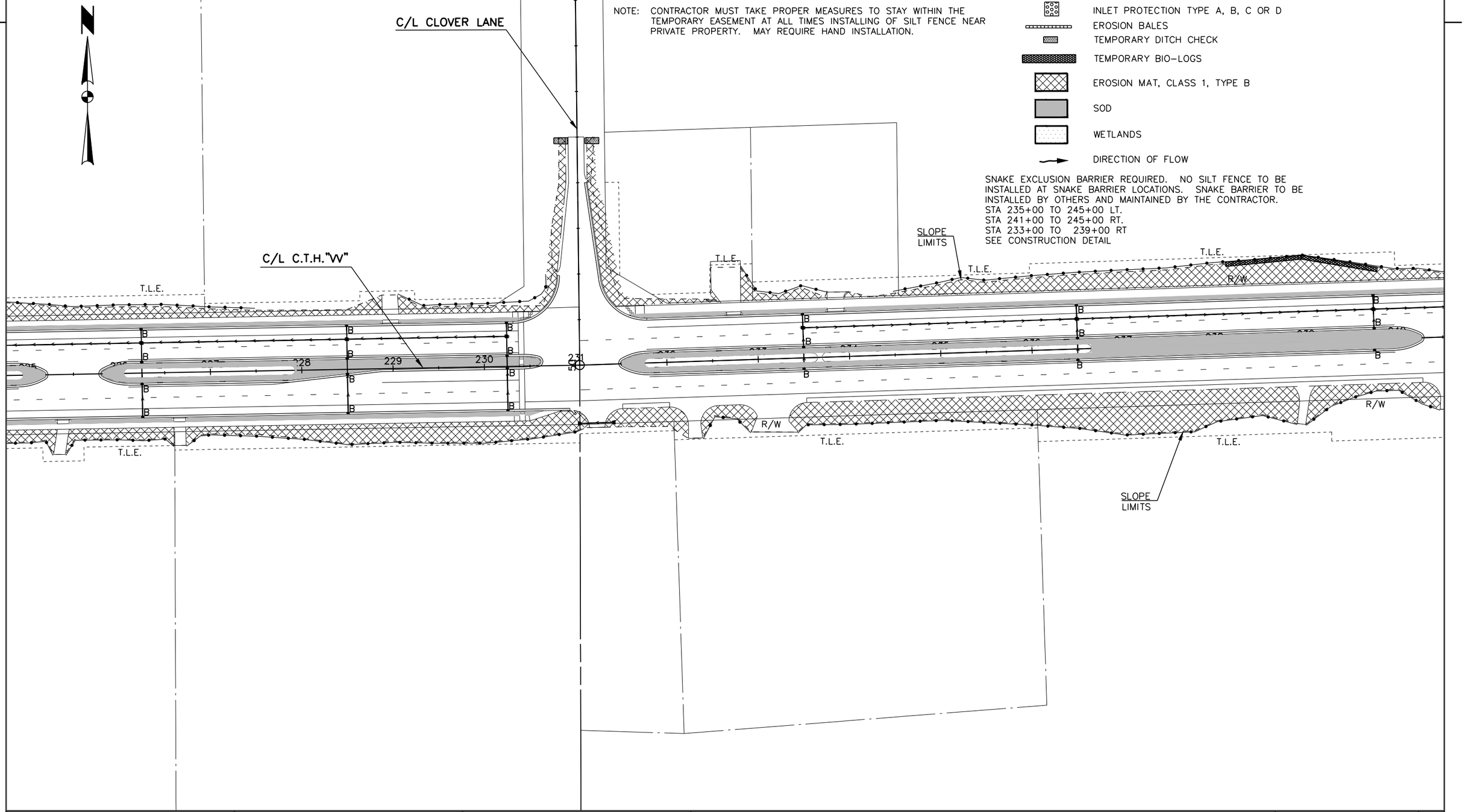
DITCHES TO BE SODDED THE FIRST VERTICAL FOOT FROM DITCH BOTTOM.

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE A, B, C OR D
- EROSION BALES
- TEMPORARY DITCH CHECK
- TEMPORARY BIO–LOGS
- EROSION MAT, CLASS 1, TYPE B
- SOD
- WETLANDS
- DIRECTION OF FLOW

NOTE: CONTRACTOR MUST TAKE PROPER MEASURES TO STAY WITHIN THE TEMPORARY EASEMENT AT ALL TIMES INSTALLING OF SILT FENCE NEAR PRIVATE PROPERTY. MAY REQUIRE HAND INSTALLATION.

SNAKE EXCLUSION BARRIER REQUIRED. NO SILT FENCE TO BE INSTALLED AT SNAKE BARRIER LOCATIONS. SNAKE BARRIER TO BE INSTALLED BY OTHERS AND MAINTAINED BY THE CONTRACTOR.
STA 235+00 TO 245+00 LT.
STA 241+00 TO 245+00 RT.
STA 233+00 TO 239+00 RT
SEE CONSTRUCTION DETAIL



PROJECT NUMBER: 2753–06–71	HWY: C.T.H. VV	COUNTY: WAUKESHA	EROSION CONTROL: STA. 225+00 – 240+00	SHEET NO.: 56 E

2

JACKSON DRIVE

SLOPE LIMITS

T.L.E.

T.L.E.

T.L.E.

R/W

R/W

B

B

B

B

B

243

244

245

246

247

248

249

250

251

252

253

254

R/W

255

T.L.E.

R/W

R/W

SLOPE LIMITS

T.L.E.

T.L.E.

END PROJECT
STA. 244+70.00'

C/L C.T.H."W"

NOTE: CONTRACTOR MUST TAKE PROPER MEASURES TO STAY WITHIN THE TEMPORARY EASEMENT AT ALL TIMES INSTALLING OF SILT FENCE NEAR PRIVATE PROPERTY. MAY REQUIRE HAND INSTALLATION.

ALL DISTURBED AREAS TO BE RESTORED WITH 4-INCH TOPSOIL, SEED, FERTILIZER AND MULCH UNLESS NOTED AS SOD.

DITCHES TO BE SODDED THE FIRST VERTICAL FOOT FROM DITCH BOTTOM.

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE A, B, C OR D
- EROSION BALES
- TEMPORARY DITCH CHECK
- TEMPORARY BIO-LOGS
- EROSION MAT, CLASS 1, TYPE B
- SOD
- WETLANDS
- DIRECTION OF FLOW

SNAKE EXCLUSION BARRIER REQUIRED. NO SILT FENCE TO BE INSTALLED AT SNAKE BARRIER LOCATIONS. SNAKE BARRIER TO BE INSTALLED BY OTHERS AND MAINTAINED BY THE CONTRACTOR.
STA 235+00 TO 245+00 LT.
STA 241+00 TO 245+00 RT.
STA 233+00 TO 239+00 RT
SEE CONSTRUCTION DETAIL

PROJECT NUMBER: 2753-06-70	HWY: C.T.H. VV	COUNTY: WAUKESHA	EROSION CONTROL: STA. 240+00 - 247+00	SHEET NO.: 57 E

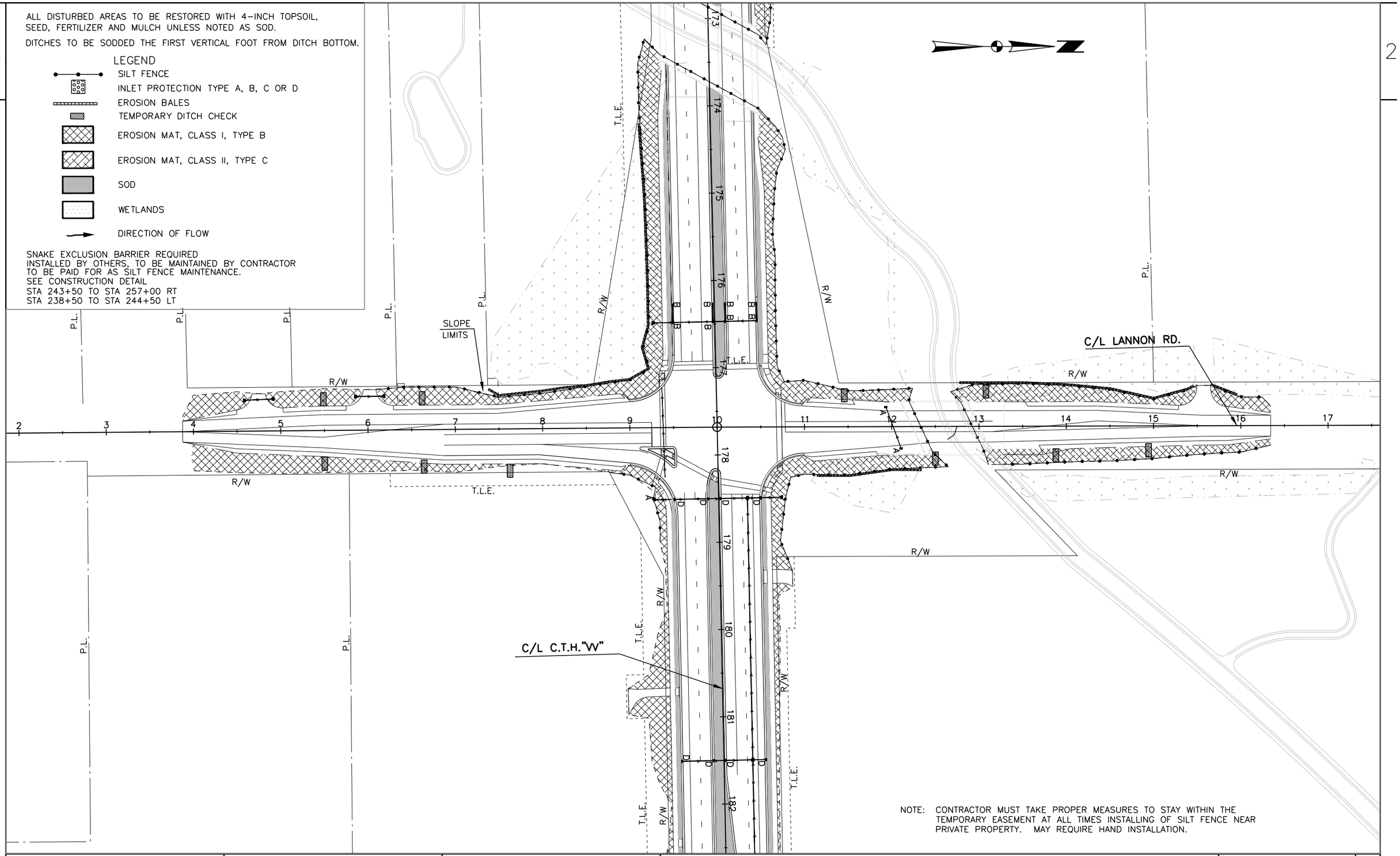
ALL DISTURBED AREAS TO BE RESTORED WITH 4-INCH TOPSOIL, SEED, FERTILIZER AND MULCH UNLESS NOTED AS SOD.

DITCHES TO BE SODDED THE FIRST VERTICAL FOOT FROM DITCH BOTTOM.

LEGEND

- SILT FENCE
- INLET PROTECTION TYPE A, B, C OR D
- EROSION BALES
- TEMPORARY DITCH CHECK
- EROSION MAT, CLASS I, TYPE B
- EROSION MAT, CLASS II, TYPE C
- SOD
- WETLANDS
- DIRECTION OF FLOW

SNAKE EXCLUSION BARRIER REQUIRED
INSTALLED BY OTHERS, TO BE MAINTAINED BY CONTRACTOR
TO BE PAID FOR AS SILT FENCE MAINTENANCE.
SEE CONSTRUCTION DETAIL
STA 243+50 TO STA 257+00 RT
STA 238+50 TO STA 244+50 LT

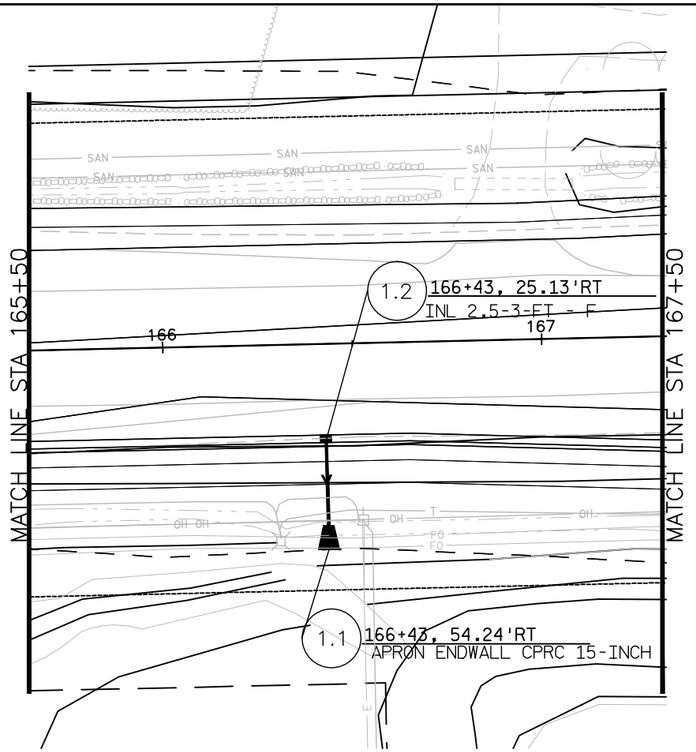


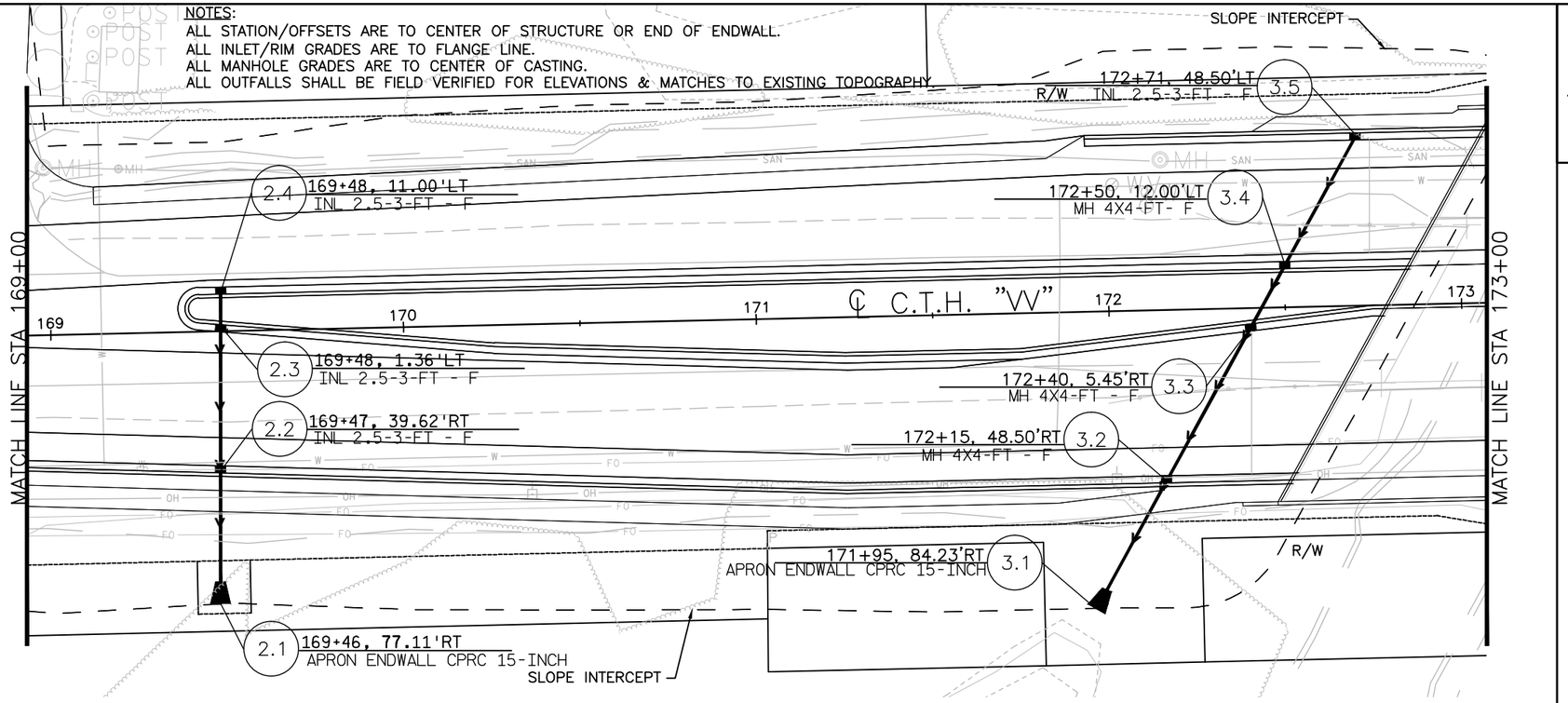
NOTE: CONTRACTOR MUST TAKE PROPER MEASURES TO STAY WITHIN THE TEMPORARY EASEMENT AT ALL TIMES INSTALLING OF SILT FENCE NEAR PRIVATE PROPERTY. MAY REQUIRE HAND INSTALLATION.

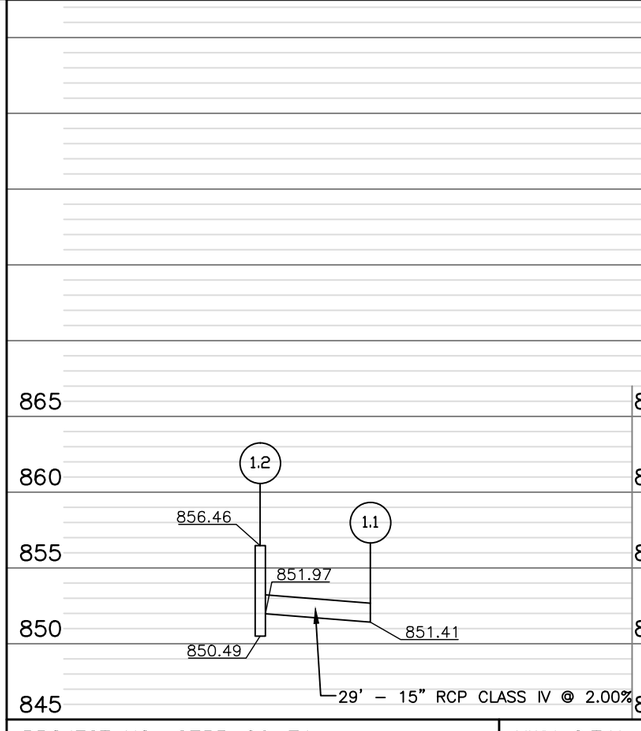
PROJECT NUMBER: 2753-06-70	HWY: C.T.H. VV	COUNTY: WAUKESHA	EROSION CONTROL: LANNON RD	SHEET NO.: 58 E

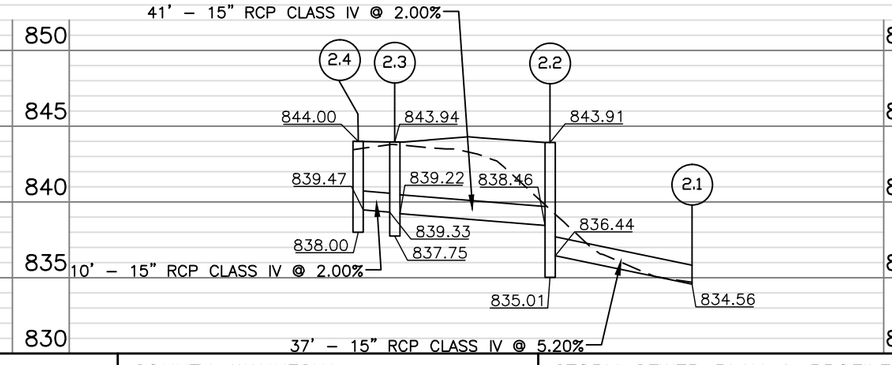
FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\EROSION CONTROL 2753-06-71.DWG PLOT DATE : 10/25/2012 10:41 AM PLOT BY : SOEHNER, JIM PLOT NAME : _____ PLOT SCALE : 1"=100'

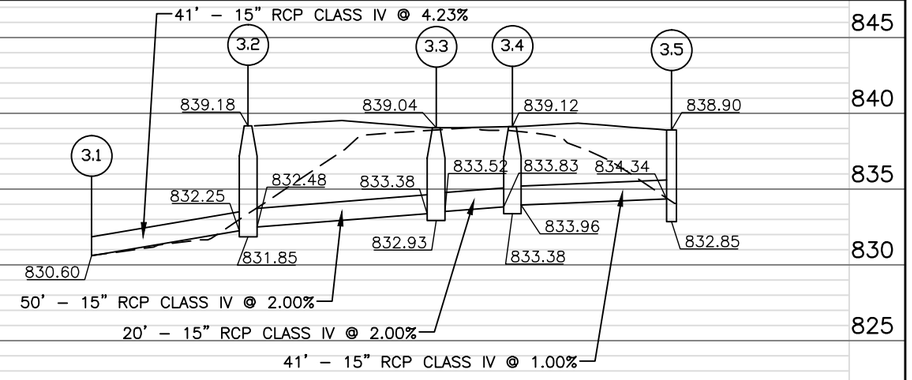
NOTES:
ALL STATION/OFFSETS ARE TO CENTER OF STRUCTURE OR END OF ENDWALL.
ALL INLET/RIM GRADES ARE TO FLANGE LINE.
ALL MANHOLE GRADES ARE TO CENTER OF CASTING.
ALL OUTFALLS SHALL BE FIELD VERIFIED FOR ELEVATIONS & MATCHES TO EXISTING TOPOGRAPHY.











PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	STORM SEWER PLAN & PROFILE	SHEET 59	E

NOTES:
ALL STATION/OFFSETS ARE TO CENTER OF STRUCTURE OR END OF ENDWALL.
ALL INLET/RIM GRADES ARE TO FLANGE LINE.
ALL MANHOLE GRADES ARE TO CENTER OF CASTING.
ALL OUTFALLS SHALL BE FIELD VERIFIED FOR ELEVATIONS & MATCHES TO EXISTING TOPOGRAPHY.

MATCH LINE STA 174+50

MATCH LINE STA 180+50

LANNON ROAD

C.T.H. "VV"

4.5A 176+27, 48.50'LT INL 2.5-3-FT - F

4.5 176+47, 48.50'LT INL 2.5-3-FT - F

4.4A 176+27, 11.50'LT INL 2.5-3-FT - F

4.4 176+47, 11.50'LT INL 2.5-3-FT - F

4.3A 176+27, 1.50'RT INL 2.5-3-FT - F

4.3 176+47, 1.50'RT INL 2.5-3-FT - F

4.2A 176+27, 48.50'RT INL 2.5-3-FT - F

4.1 176+47, 75.25'RT APRON ENDWALL CPRC 15-INCH

4.2 176+47, 48.50'RT INL 2.5-3-FT - F

5.1 178+50, 76.82'LT APRON ENDWALL CPRC 36-INCH

5.2 178+50, 48.50'LT MH 6X6 FT - F

5.3 178+50, 33.00'LT MH 6-FT DIA. - J

5.3A 178+50, 1.50'LT INL 2.5-3-FT - F

5.3B 178+50, 11.50'RT INL 2.5-3-FT - F

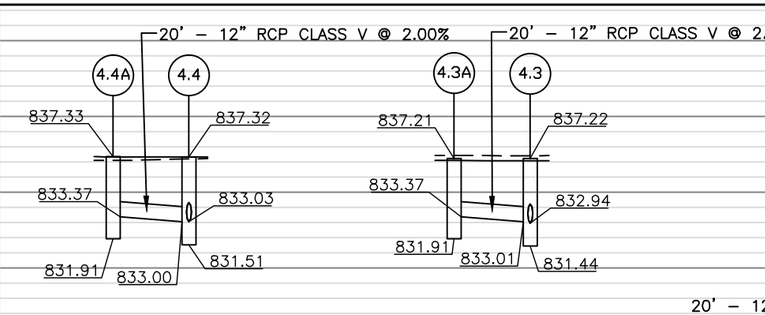
5.3C 178+50, 50.71'RT INL 2.5-3-FT - F

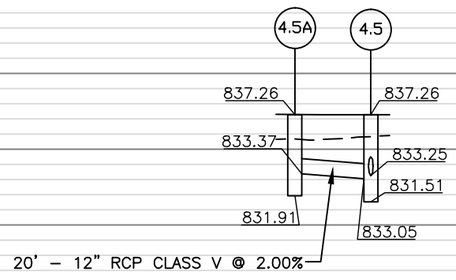
5.3D 178+50, 73.45'RT INL MEDIAN 1 GRATE - MS

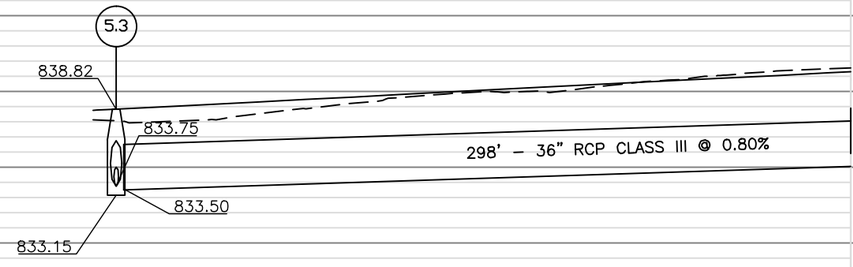
SLOPE INTERCEPT R/W

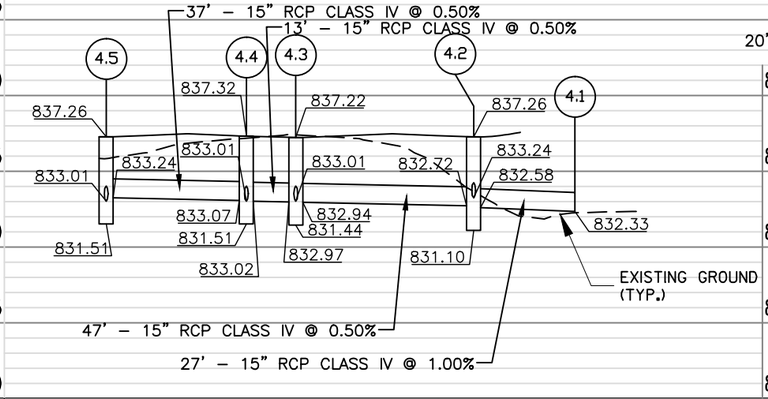
R/W

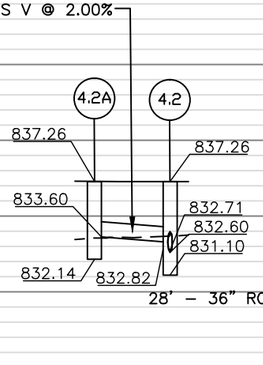
SLOPE INTERCEPT

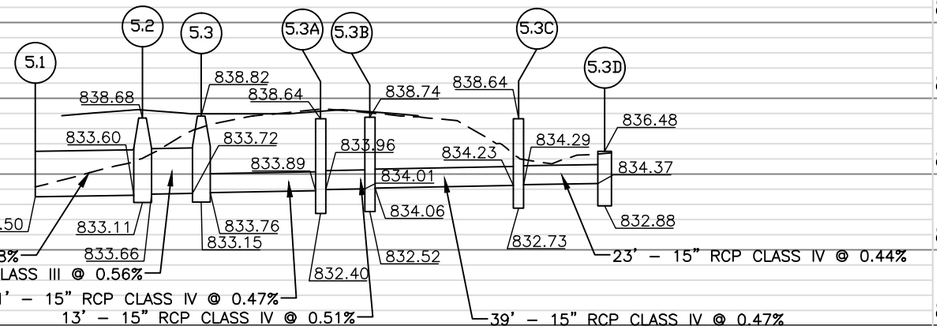












PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	STORM SEWER PLAN & PROFILE	SHEET 60 E

2

MATCH LINE STA 180+50

MATCH LINE STA 186+75

SLOPE INTERCEPT

R/W

181+50, 48.50'LT
INL 2.5-3-FT - F
5.4A

181+50, 33.00'LT
MH 4-FT DIA. - J
5.4

181+50, 1.50'LT
INL 2.5-3-FT - F
5.4B

181+50, 11.50'RT
INL 2.5-3-FT - F
5.4C

181+50, 48.50'RT
INL 2.5-3-FT - F
5.4D

181 182 183 184 185 186

℄ C.T.H. "VV"

184+50, 62.15'LT
INL MEDIAN 1 GRATE - MS
5.5A

185+00, 48.50'LT
INL 2.5-3-FT - E
5.5B

185+00, 33.00'LT
MH 4-FT DIA. - J
5.5

185+00, 11.50'LT
INL 2.5-3-FT - F
5.5C

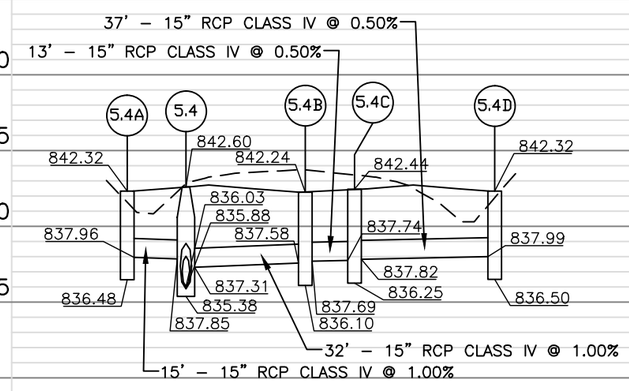
185+00, 11.50'RT
INL 2.5-3-FT - F
5.5D

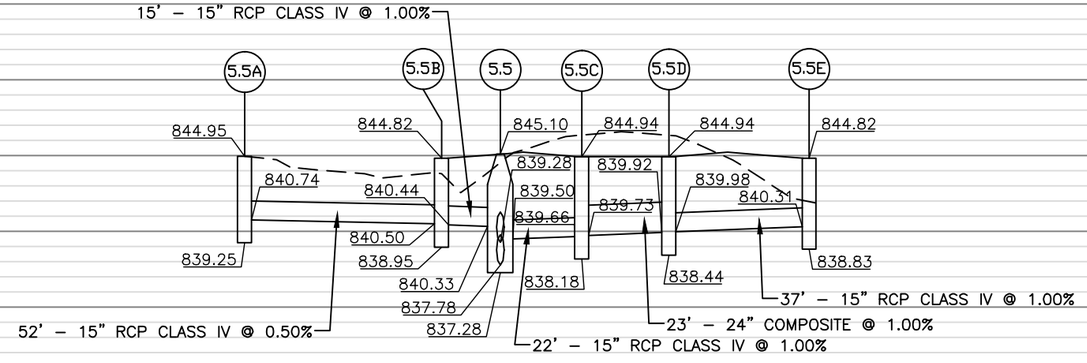
185+00, 48.50'RT
INL 2.5-3-FT - F
5.5E

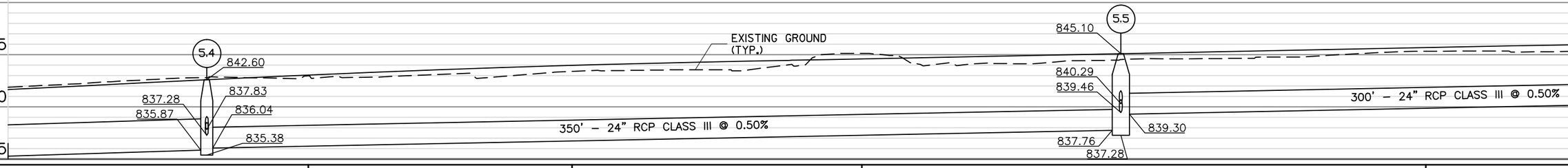
R/W

SLOPE INTERCEPT

NOTES:
~~ALL STATION~~/OFFSETS ARE TO CENTER OF STRUCTURE OR END OF ENDWALL.
~~ALL INLET/RIM GRADES ARE TO FLANGE LINE.~~
ALL MANHOLE GRADES ARE TO CENTER OF CASTING.
ALL OUTFALLS SHALL BE FIELD VERIFIED FOR ELEVATIONS & MATCHES TO EXISTING TOPOGRAPHY.



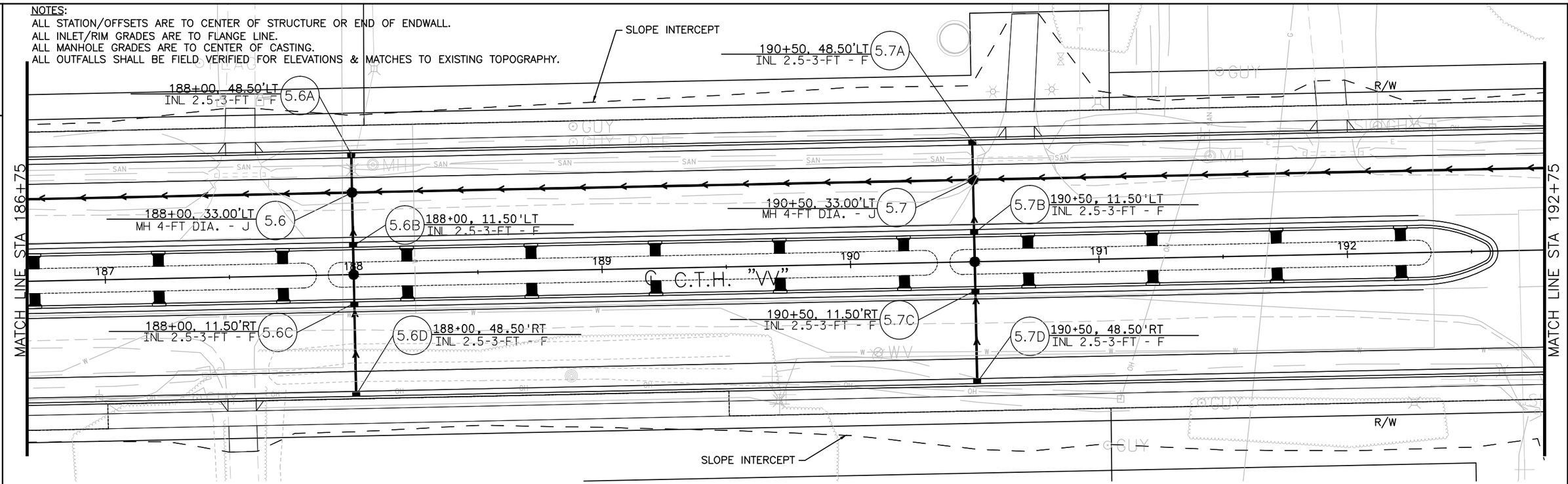


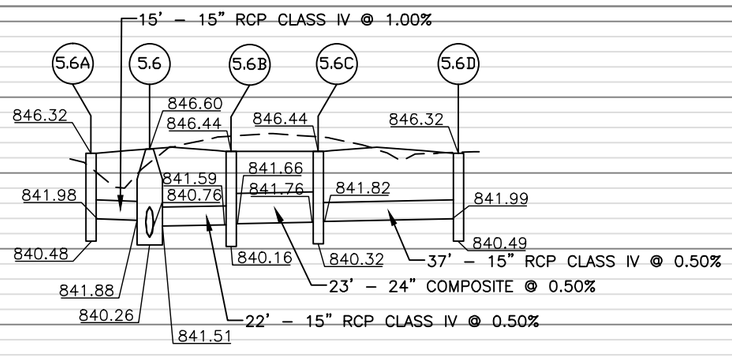


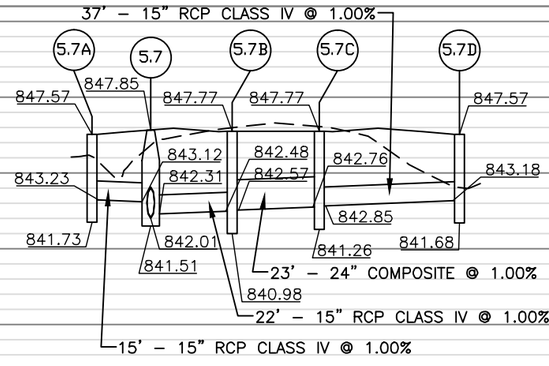
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	STORM SEWER PLAN & PROFILE	SHEET 61	E

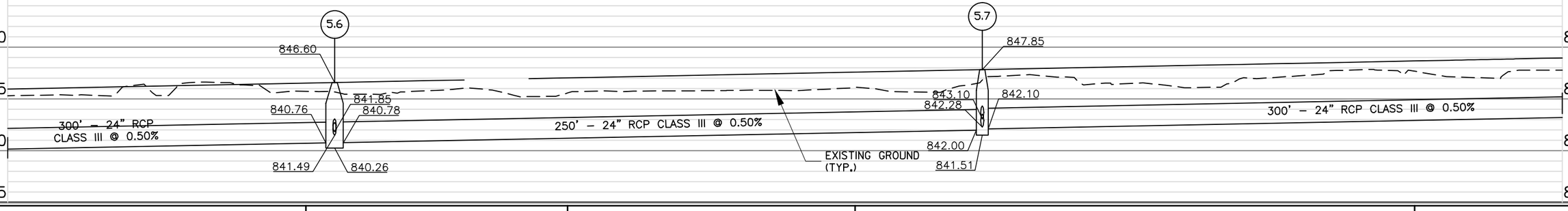
FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\STORM PP-VV07.DWG PLOT DATE : 9/28/2012 11:40 AM PLOT BY : IT1 PLOT NAME : PLOT SCALE : 1"=40'

NOTES:
ALL STATION/OFFSETS ARE TO CENTER OF STRUCTURE OR END OF ENDWALL.
ALL INLET/RIM GRADES ARE TO FLANGE LINE.
ALL MANHOLE GRADES ARE TO CENTER OF CASTING.
ALL OUTFALLS SHALL BE FIELD VERIFIED FOR ELEVATIONS & MATCHES TO EXISTING TOPOGRAPHY.



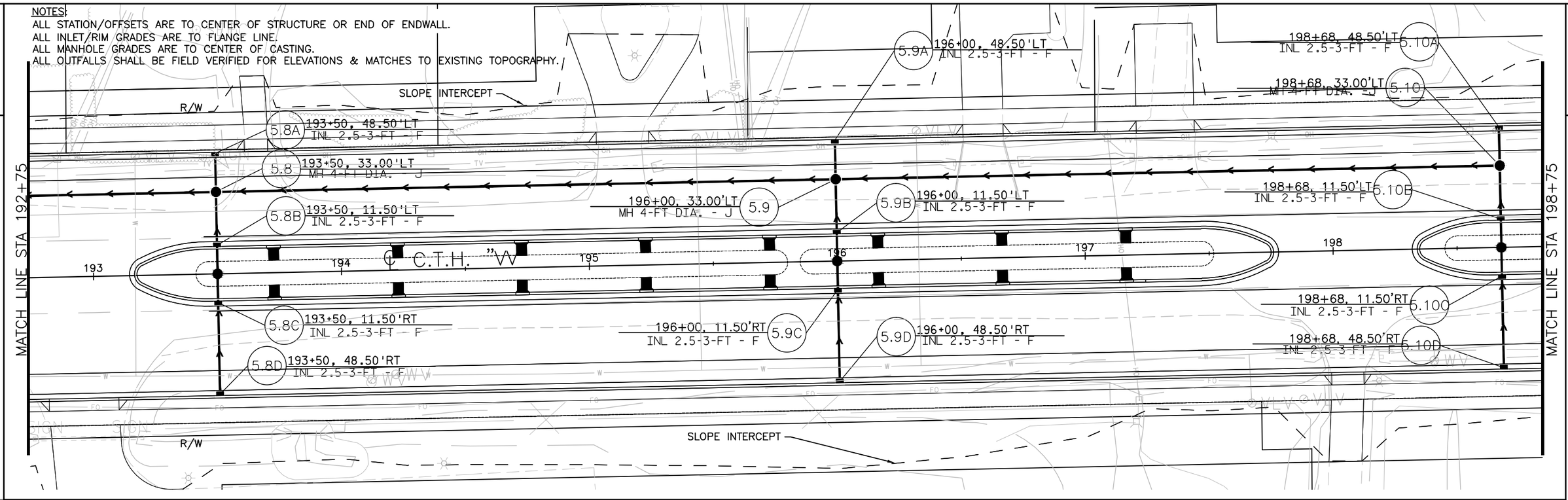


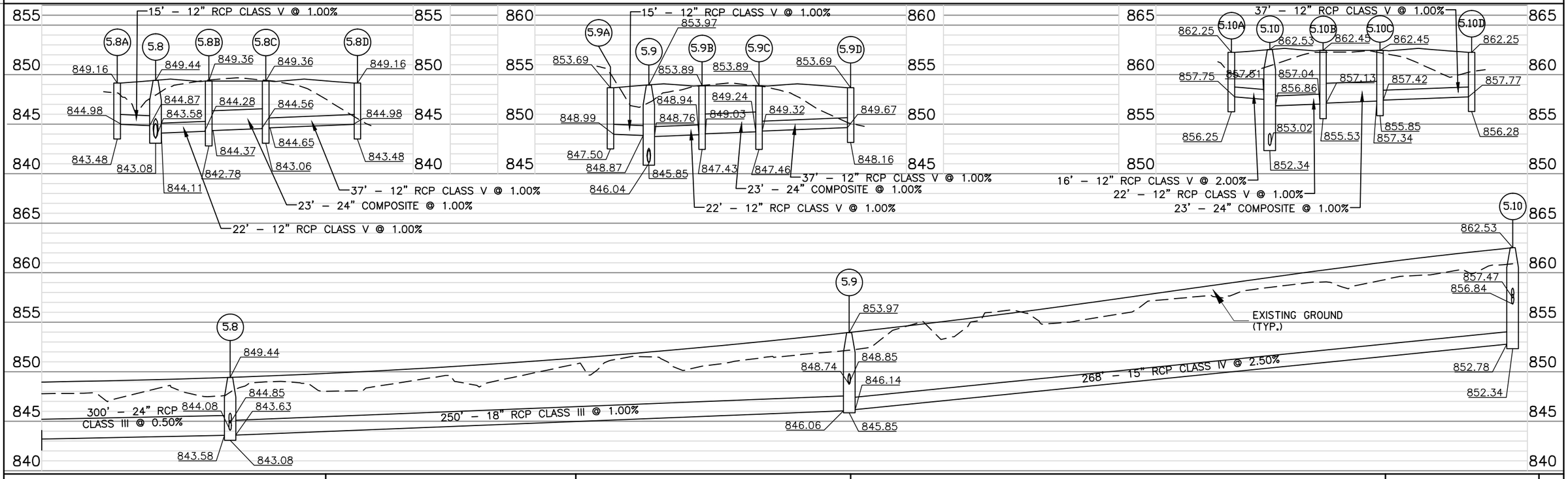




PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	STORM SEWER PLAN & PROFILE	SHEET 62	E

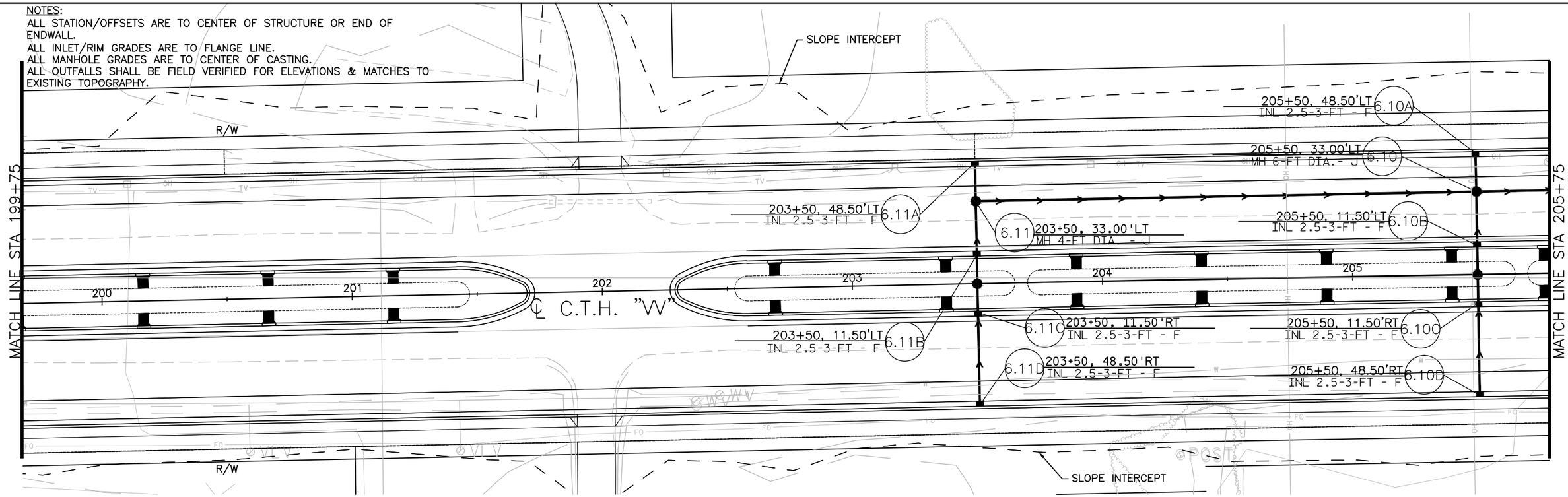
NOTES:
ALL STATION/OFFSETS ARE TO CENTER OF STRUCTURE OR END OF ENDWALL.
ALL INLET/RIM GRADES ARE TO FLANGE LINE.
ALL MANHOLE GRADES ARE TO CENTER OF CASTING.
ALL OUTFALLS SHALL BE FIELD VERIFIED FOR ELEVATIONS & MATCHES TO EXISTING TOPOGRAPHY.

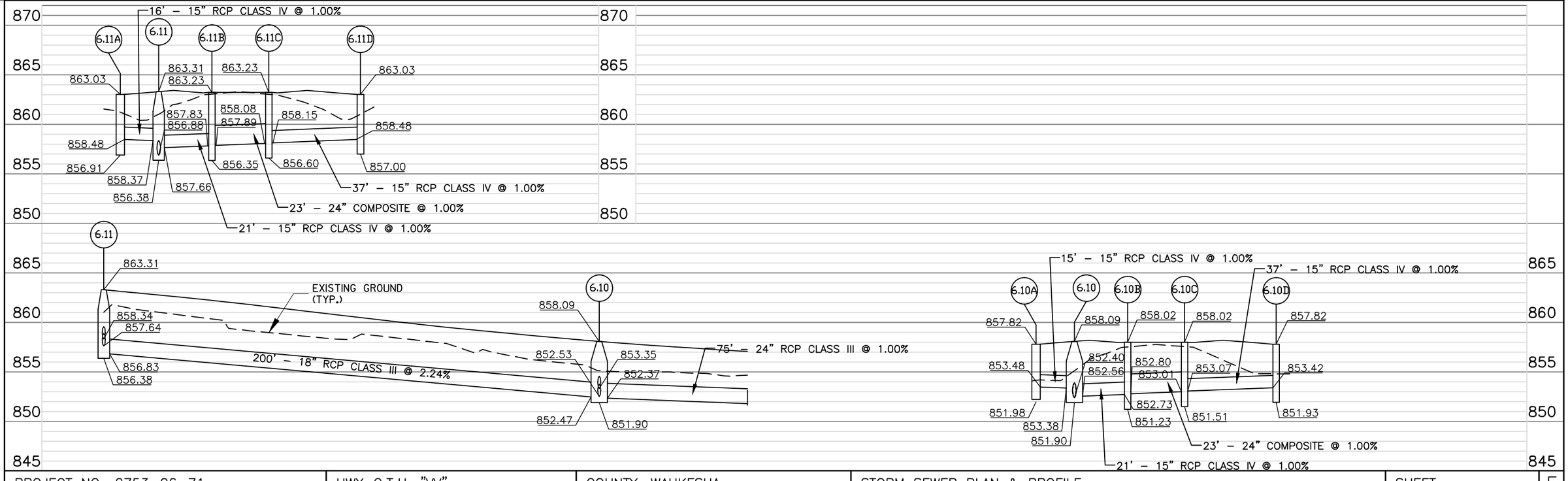




PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	STORM SEWER PLAN & PROFILE	SHEET 63	E

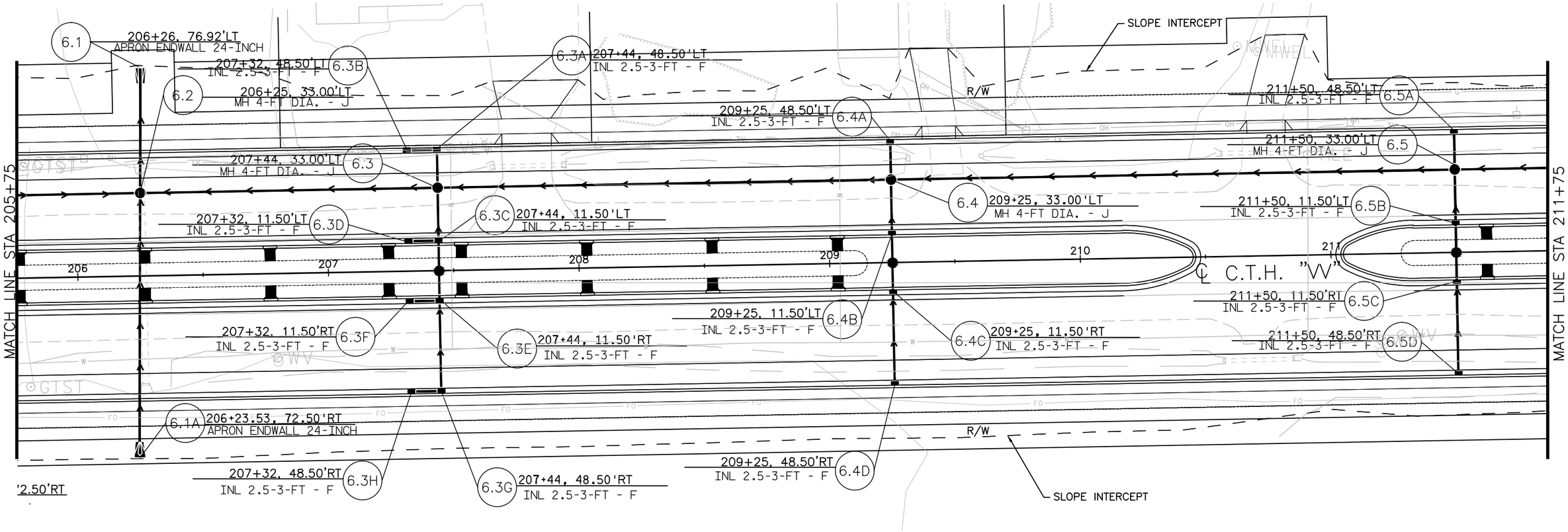
NOTES:
ALL STATION/OFFSETS ARE TO CENTER OF STRUCTURE OR END OF ENDWALL.
ALL INLET/RIM GRADES ARE TO FLANGE LINE.
ALL MANHOLE GRADES ARE TO CENTER OF CASTING.
ALL OUTFALLS SHALL BE FIELD VERIFIED FOR ELEVATIONS & MATCHES TO EXISTING TOPOGRAPHY.





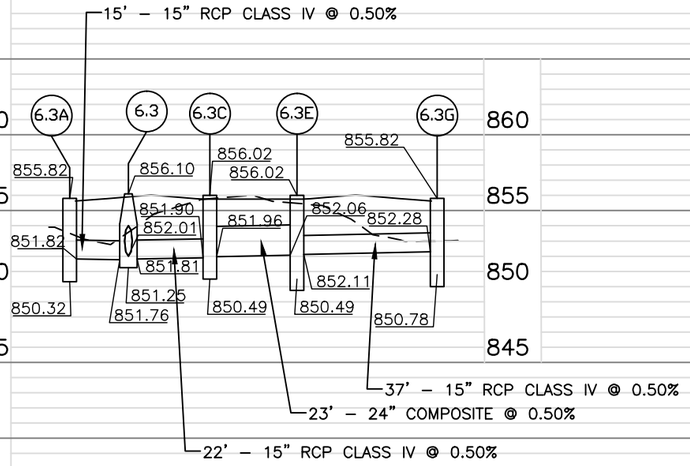
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	STORM SEWER PLAN & PROFILE	SHEET 64	E

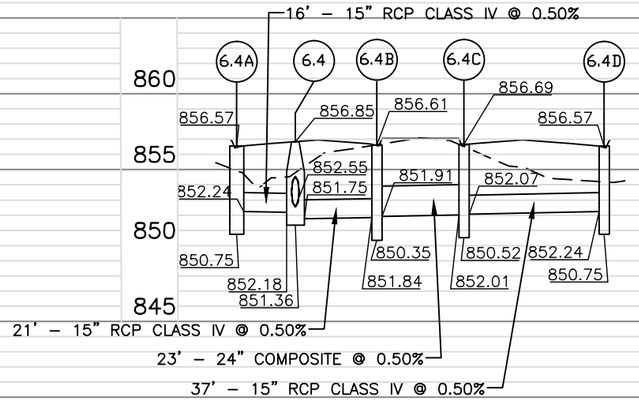
NOTES:
ALL STATION/OFFSETS ARE TO CENTER OF STRUCTURE OR END OF ENDWALL.
ALL INLET/RIM GRADES ARE TO FLANGE LINE.
ALL MANHOLE GRADES ARE TO CENTER OF CASTING.
ALL OUTFALLS SHALL BE FIELD VERIFIED FOR ELEVATIONS & MATCHES TO EXISTING TOPOGRAPHY.

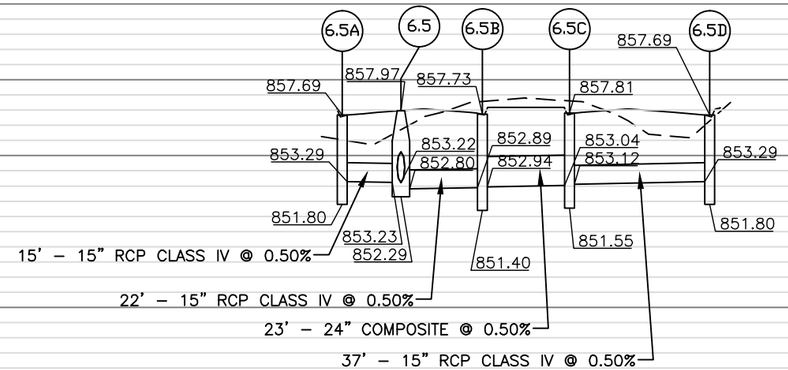


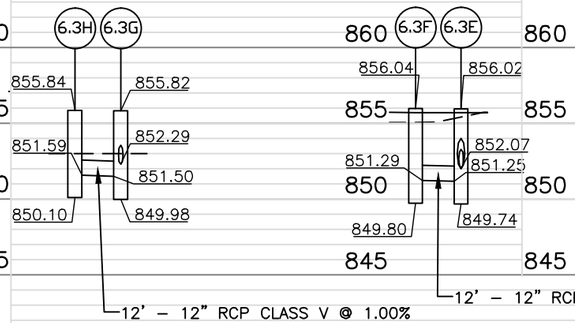
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	STORM SEWER PLAN	SHEET 65	E

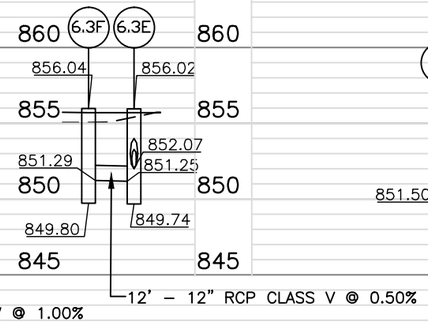
FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\STORM PP-VV07.DWG PLOT DATE : 9/28/2012 12:44 PM PLOT BY : LT1 PLOT NAME : PLOT SCALE : 1"=40'

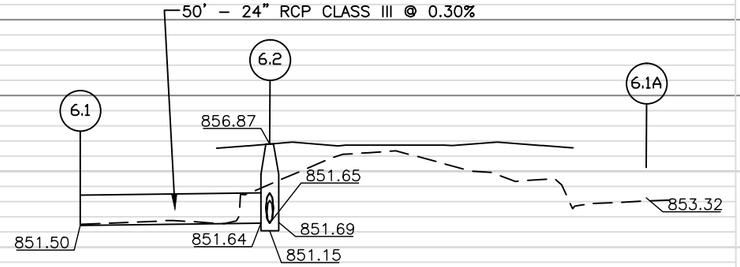


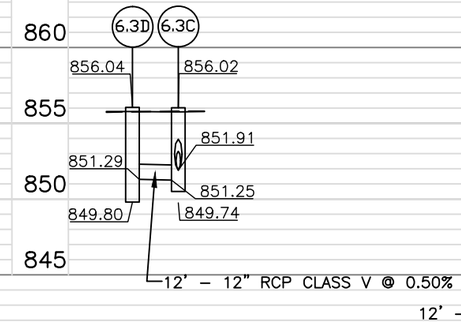


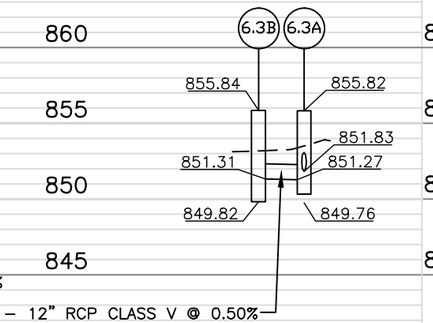


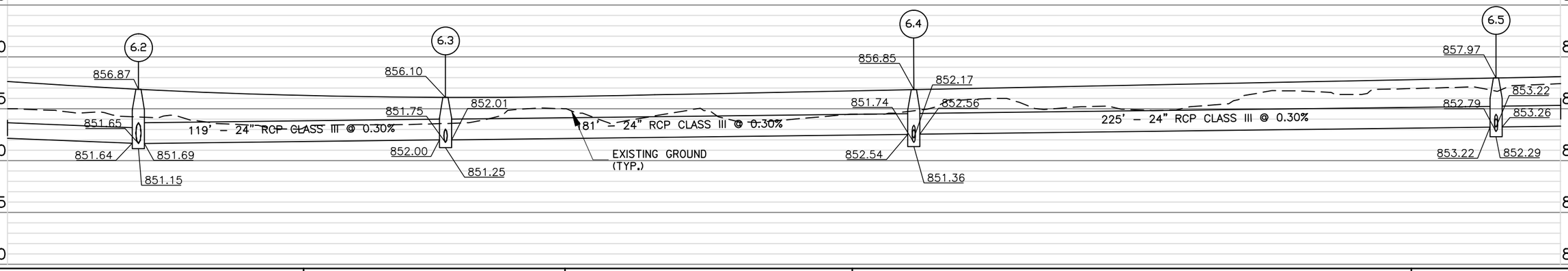












PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	STORM SEWER PROFILE	SHEET	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\STORM PP-VV07.DWG PLOT DATE : 9/28/2012 12:44 PM PLOT BY : IT1 PLOT NAME : PLOT SCALE : 1"=40'

NOTES:
ALL STATION/OFFSETS ARE TO CENTER OF STRUCTURE OR END OF ENDWALL.
ALL INLET/RIM GRADES ARE TO FLANGE LINE.
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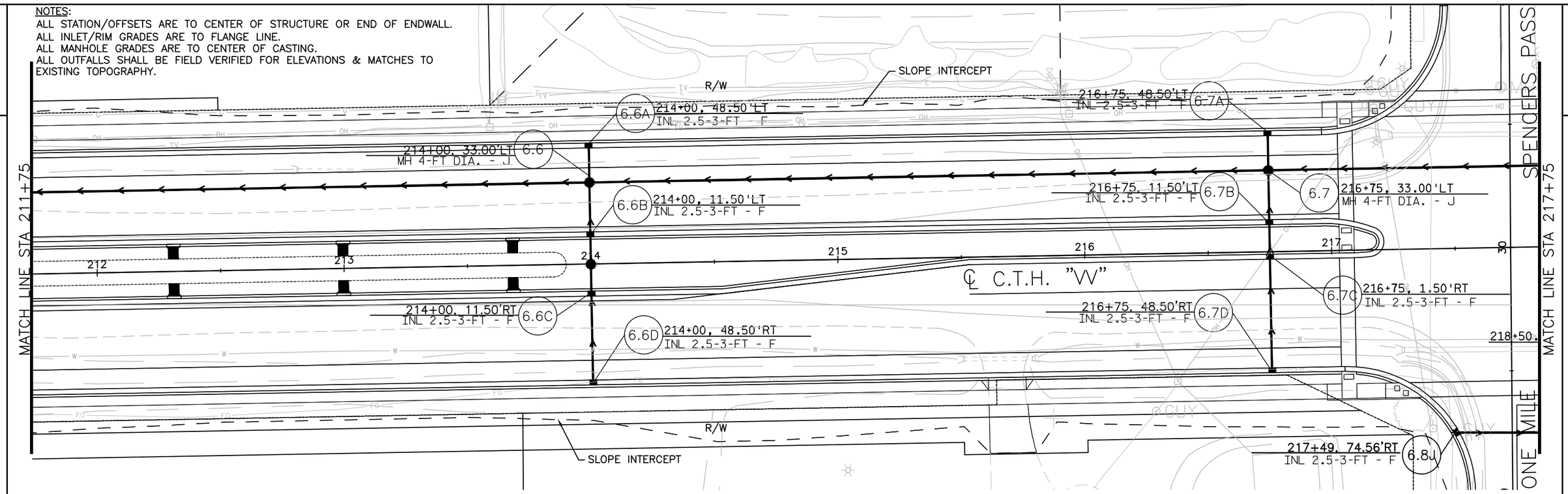
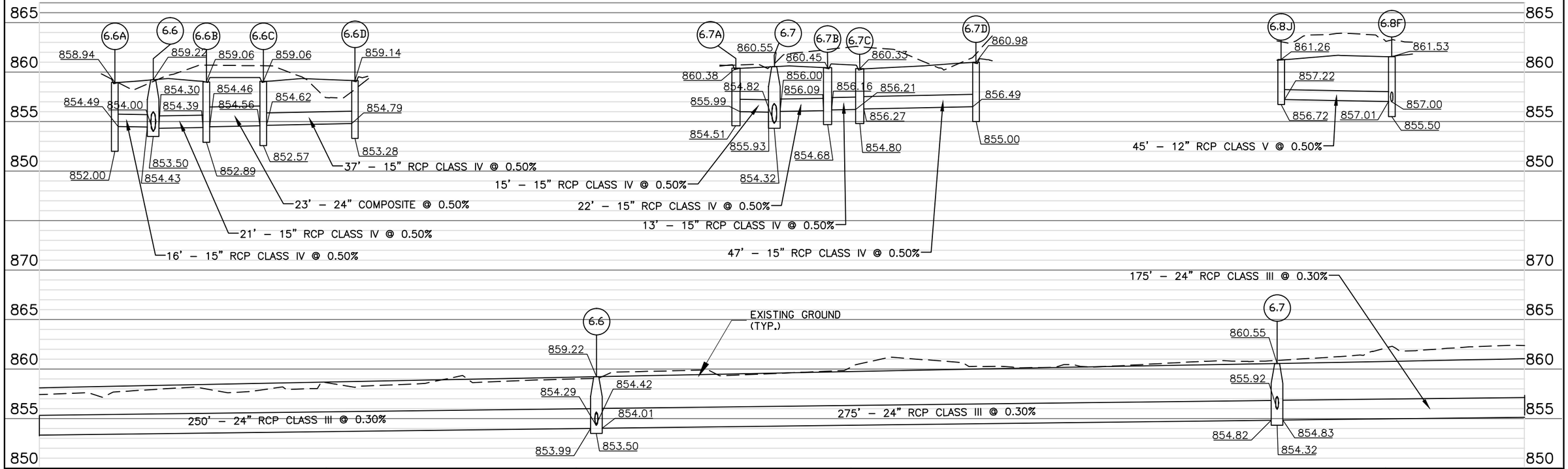
ALL OUTFALLS SHALL BE FIELD VERIFIED FOR ELEVATIONS & MATCHES TO EXISTING TOPOGRAPHY.





PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	STORM SEWER PLAN & PROFILE	SHEET 67	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\STORM PP-VV07.DWG PLOT DATE : 9/28/2012 12:22 PM PLOT BY : LT1 PLOT NAME : PLOT SCALE : 1"=40'

NOTES:
ALL STATION/OFFSETS ARE TO CENTER OF STRUCTURE OR END OF ENDWALL.
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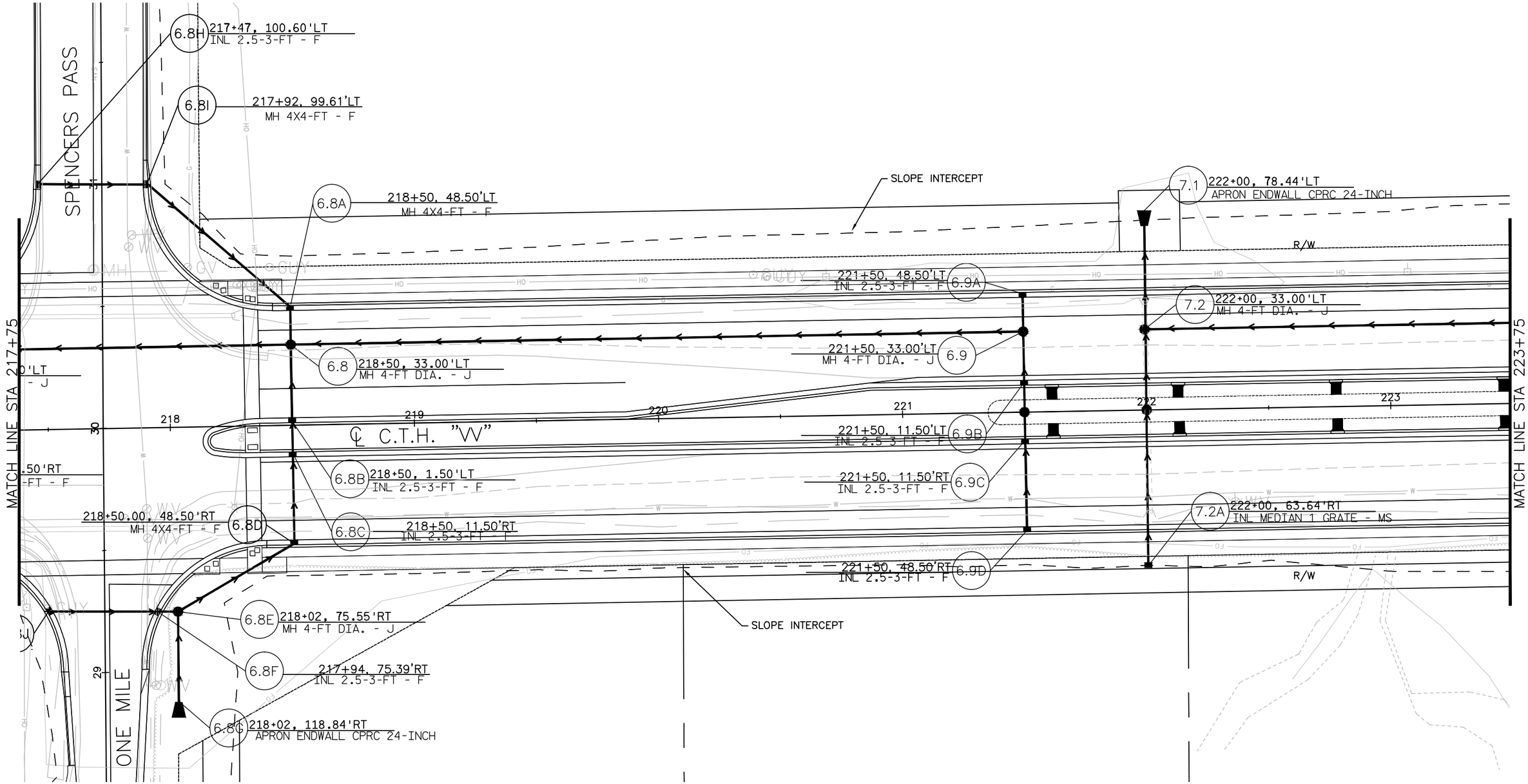
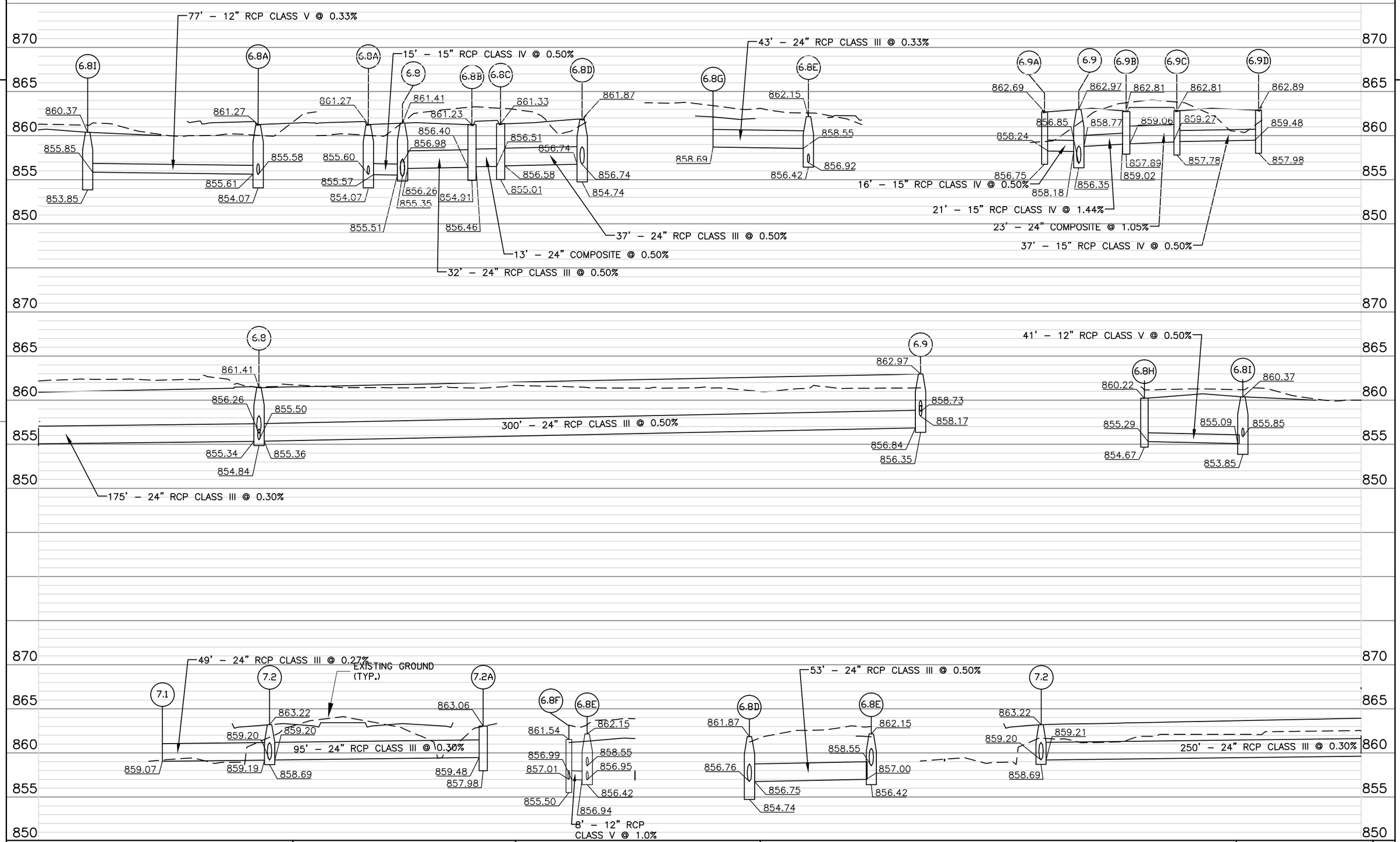
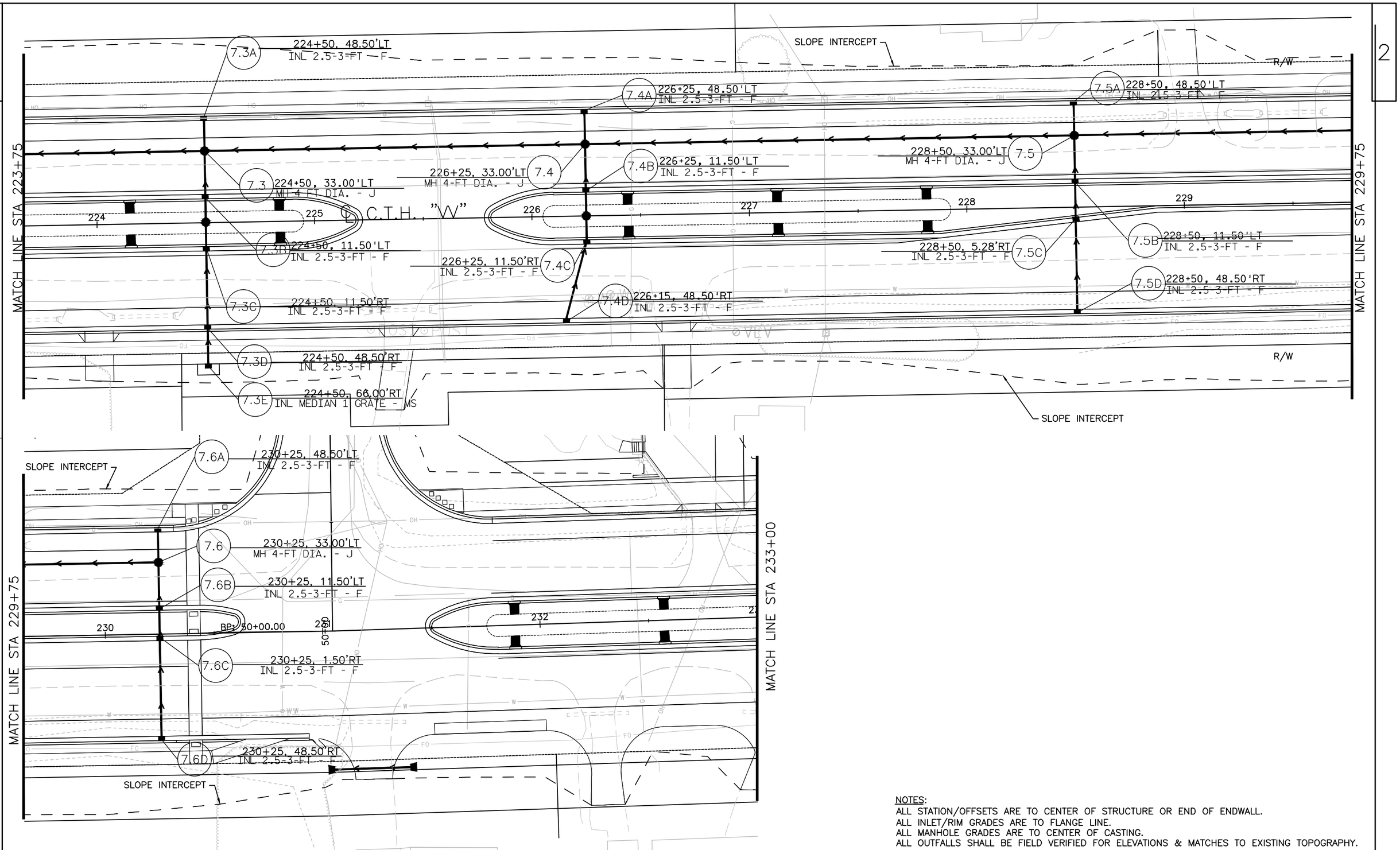


PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	STORM SEWER PLAN	SHEET 68	E



PROJECT NO: 2753–06–71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	STORM SEWER PROFILE	SHEET 69	E

FILE NAME : S:\CAD PROJECTS\255–10 CTH VV\STORM PP–VV07.DWG PLOT DATE : 9/28/2012 12:45 PM PLOT BY : LT1 PLOT NAME : PLOT SCALE : 1"=40'



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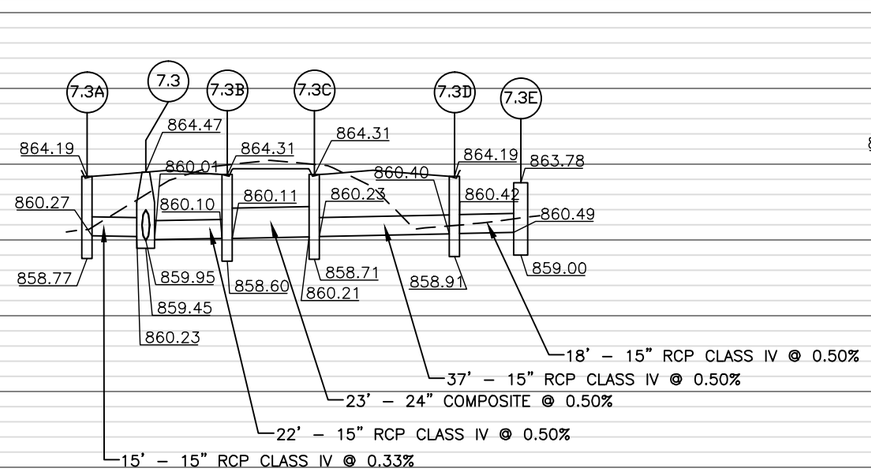
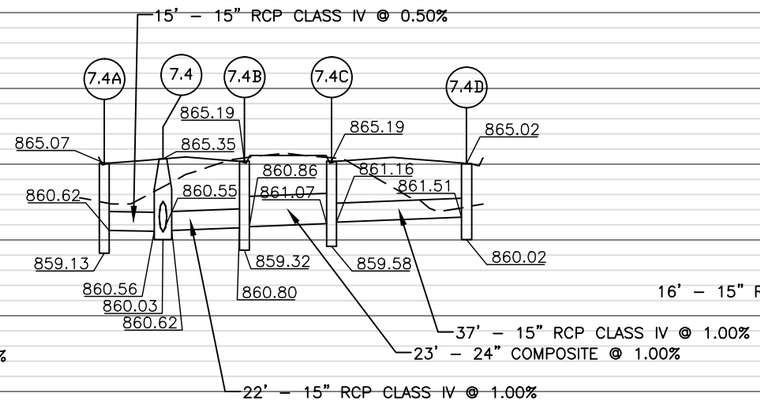
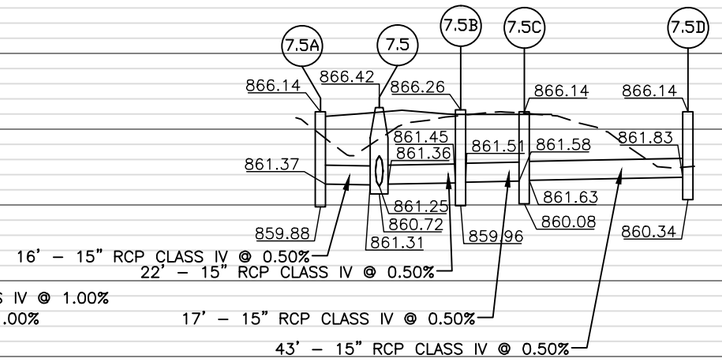
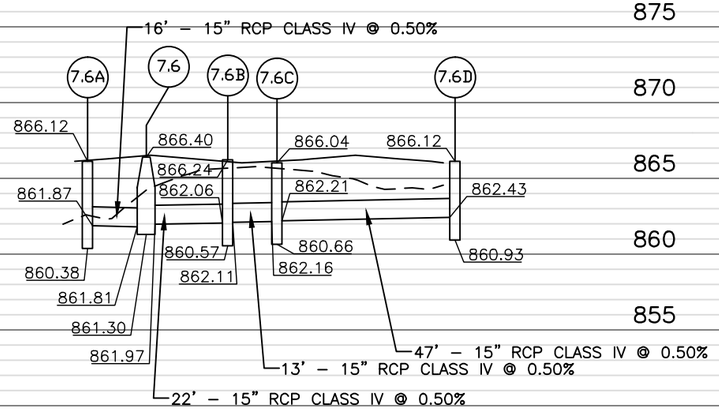
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	STORM SEWER PLAN	SHEET 70	E

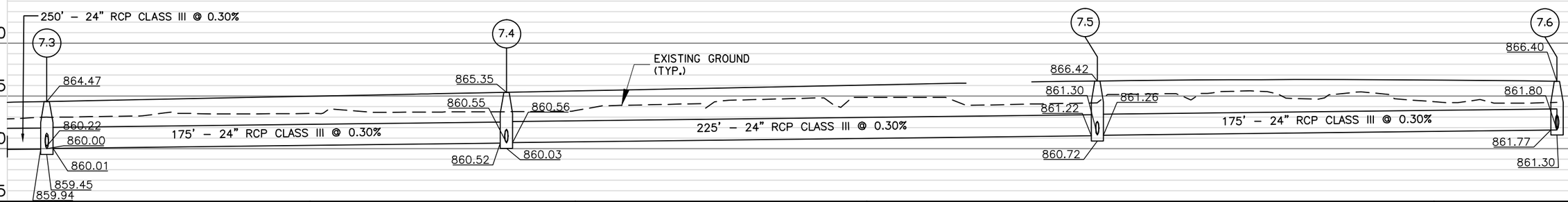
FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\STORM PP-VV07.DWG PLOT DATE : 9/28/2012 12:47 PM PLOT BY : LT1 PLOT NAME : PLOT SCALE : 1"=40'







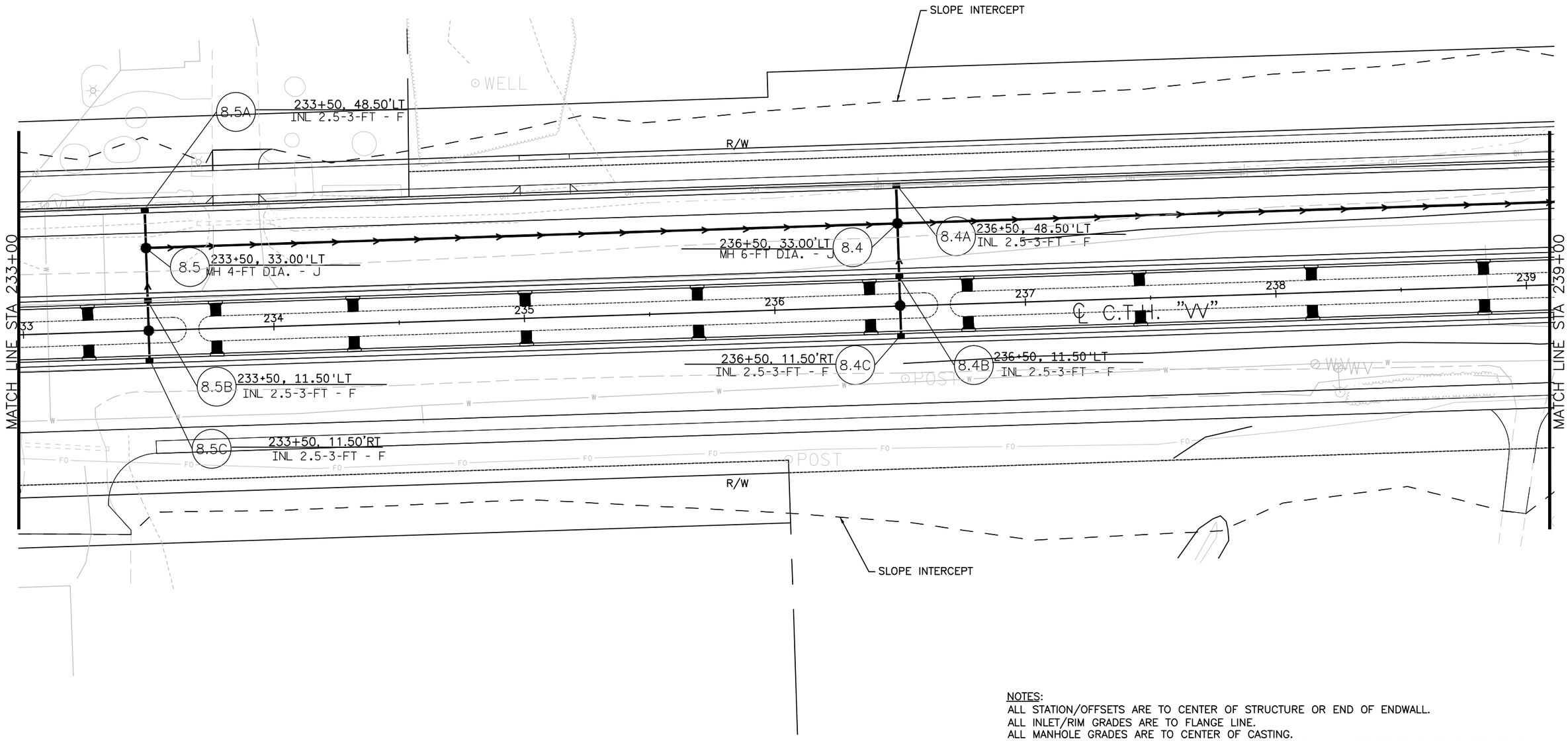




PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	STORM SEWER PROFILE	SHEET 71	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\STORM PP-VV07.DWG PLOT DATE : 9/28/2012 12:48 PM PLOT BY : LT1 PLOT NAME : PLOT SCALE : 1"=40'

2



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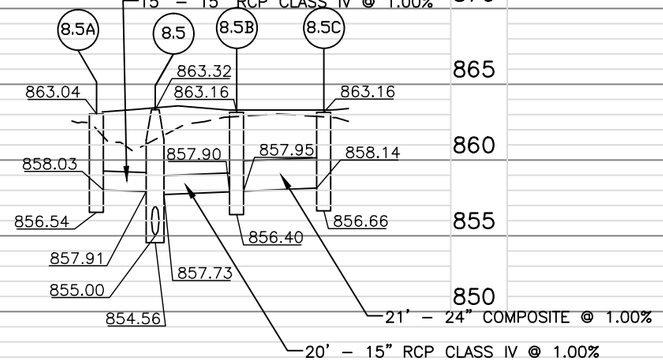
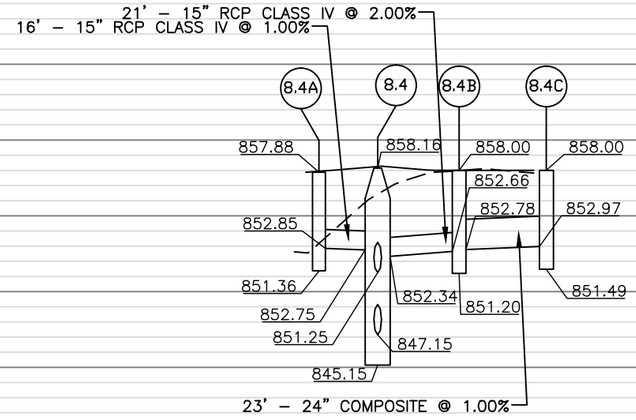
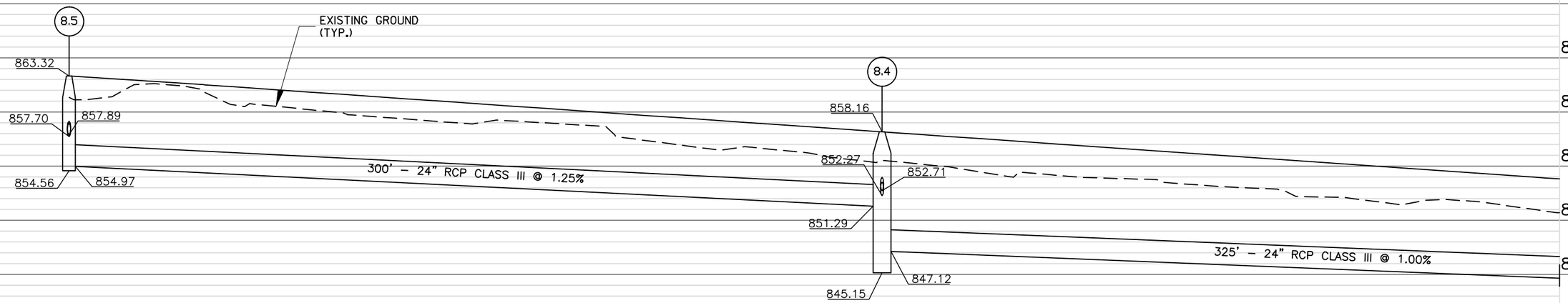
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	STORM SEWER PLAN	SHEET 72	E







PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	STORM SEWER PROFILE	SHEET 73	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\STORM PP-VV07.DWG PLOT DATE : 9/28/2012 12:51 PM PLOT BY : LT1 PLOT NAME : PLOT SCALE : 1"=40'

NOTES:
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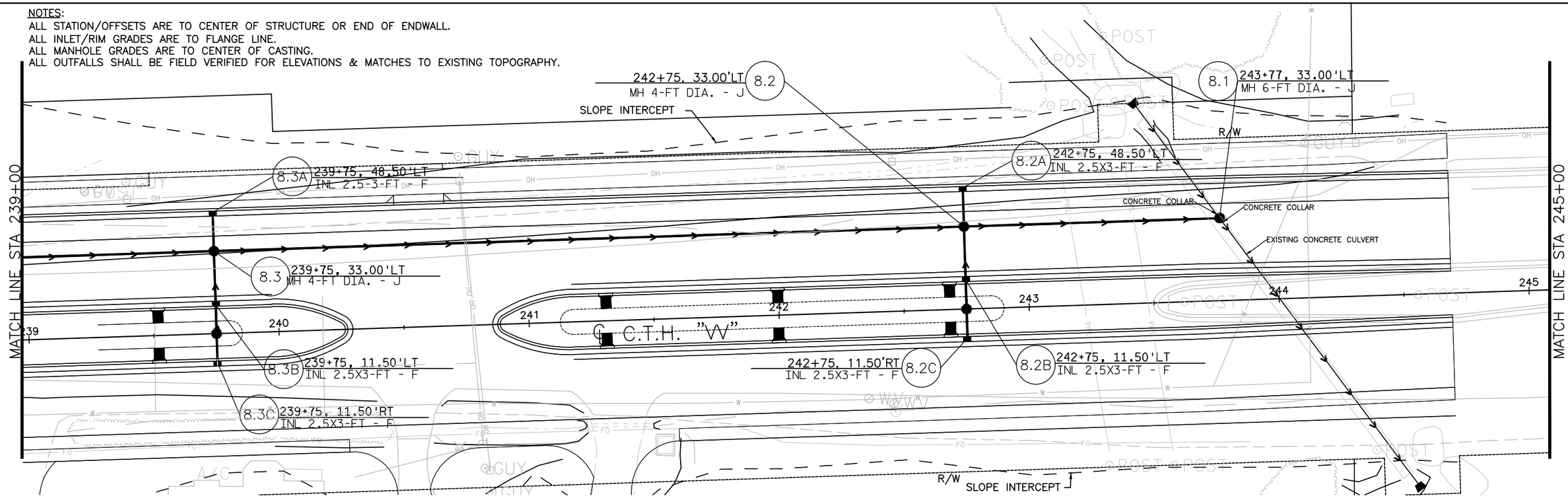
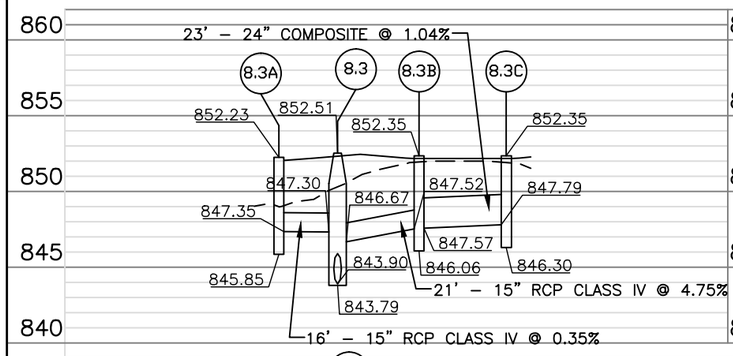
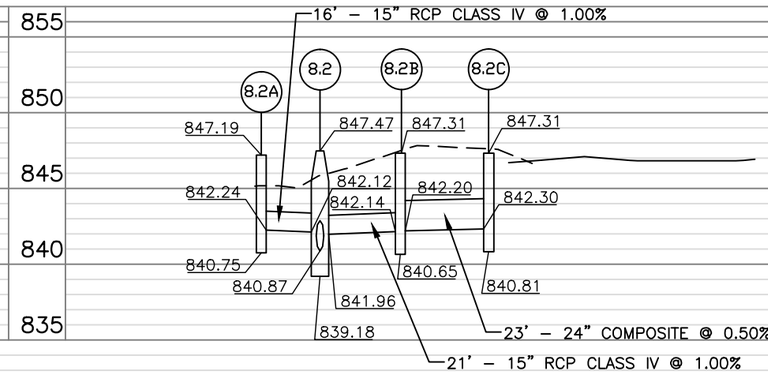
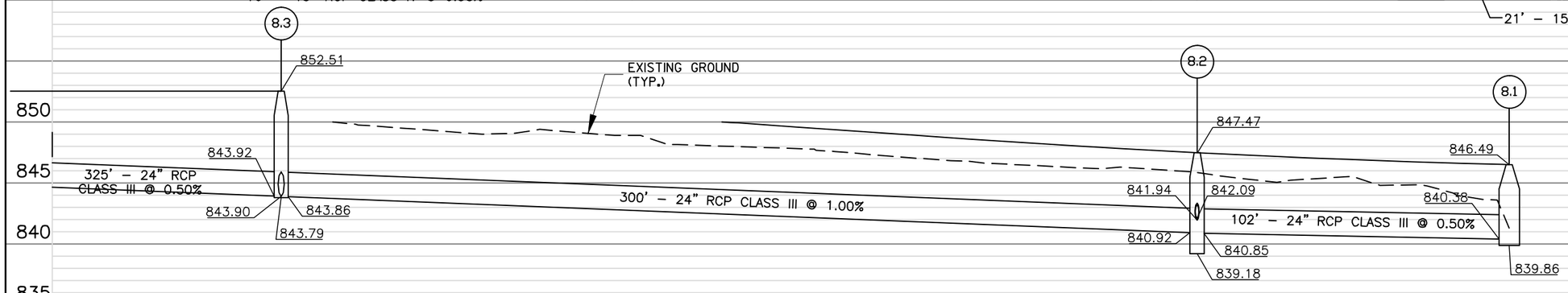








PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	STORM SEWER PLAN & PROFILE	SHEET 74 E

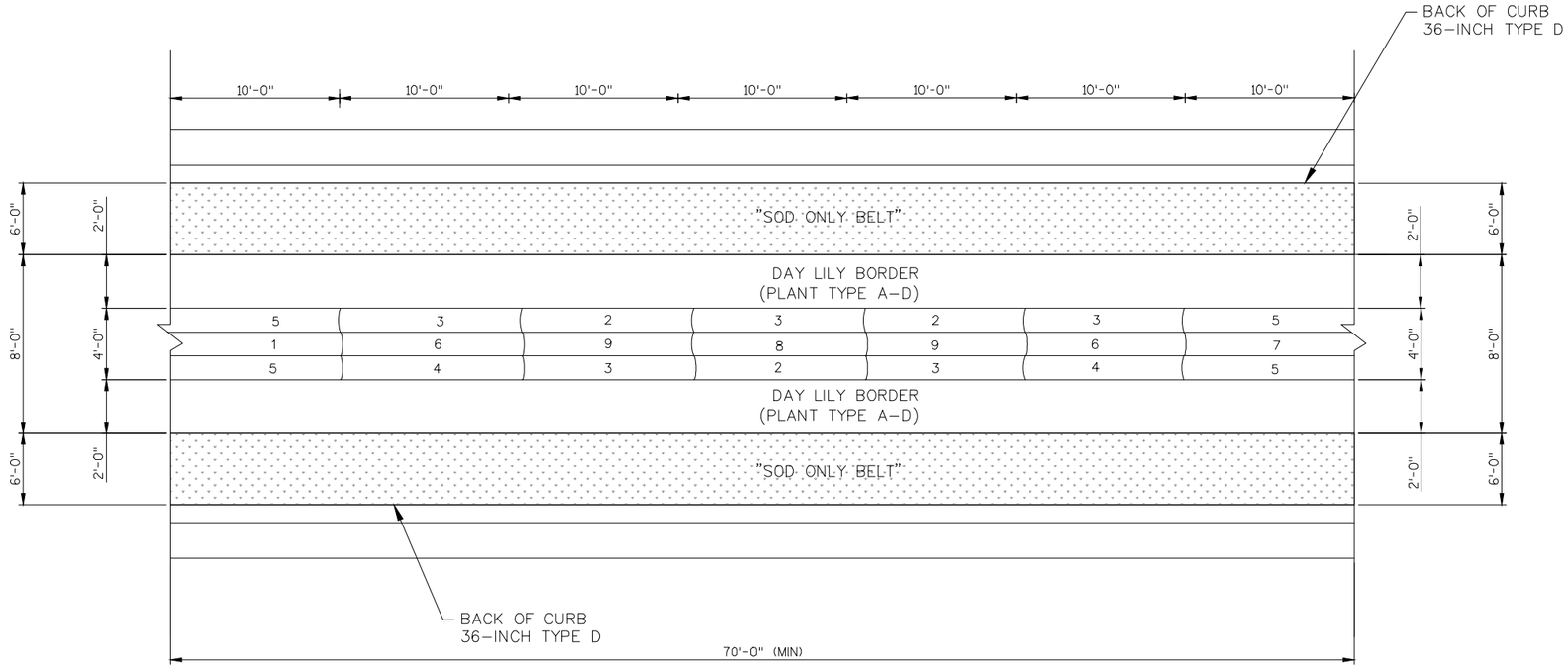
2

PLANT DATA CHART

PLANT TYPE	COMMON NAME	SCIENTIFIC NAME	SPACING	AVE MATURE HEIGHT	HEIGHT WHEN PLANTED	ROOT ZONE MODE	MINIMUM CONTAINER SIZE
1	BUTTERFLY MILKWEED	ASCLEPIAS TUBEROSA	18–IN	1–2 FT	4"	PLUG	1"
2	MOONSHINE YARROW	ACHILLEA "MOONSHINE"	18–IN	2–3 FT	4"	PLUG	1"
3	BLACKEYED SUSAN	RUDBECKIA HIRTA	18–IN	1–2 FT	4"	PLUG	1"
4	MARSH MILKWEED	ASCLEPIAS INCARNATA	18–IN	3–5 FT	4"	PLUG	1"
5	FIRE RING YARROW	ACHILLEA MILLEFOLIUM "FIRE KING"	18–IN	1–2 FT	4"	PLUG	1"
6	BLAZING STAR	LIATRIS SPICATA	18–IN	2–3 FT	4"	PLUG	1"
7	JOE PYE	EUPATORIUM MACULATUM	18–IN	4–5 FT	4"	PLUG	1"
8	BEE BALM; WILD BERGARMOT	MONARDA FISTULOSA	18–IN	2–3 FT	4"	PLUG	1"
9	NEW ENGLAND ASTER	ASTER NOVAE–ANGLIAE	18–IN	4–5 FT	4"	PLUG	1"
A	PARDON ME DAYLILY	HEMEROCALLIS 'PARDON ME'	4–FT	20–30 IN	4"	CONT	#1
B	STELLA DE ORO DAYLILY	HEMEROCALLIS 'STELLA DE ORO'	4–FT	15–18 IN	4"	CONT	#1
C	LITTLE WINE CUP DAYLILY	HEMEROCALLIS 'LITTLE WINE CUP'	4–FT	20–24 IN	4"	CONT	#1
D	STRAWBERRY CANDY DAYLILY	HERE ROCALLIS 'STRAWBERRY CANDY'	4–FT	24–36 IN	4"	CONT	#1

NOTE:

DAYLILIES SHALL BE PLANTED IN GROUPS OF FIVE (5) WITH 2–FT SPACING BETWEEN EACH PLANTING WITHIN EACH GROUP OF FIVE (5).

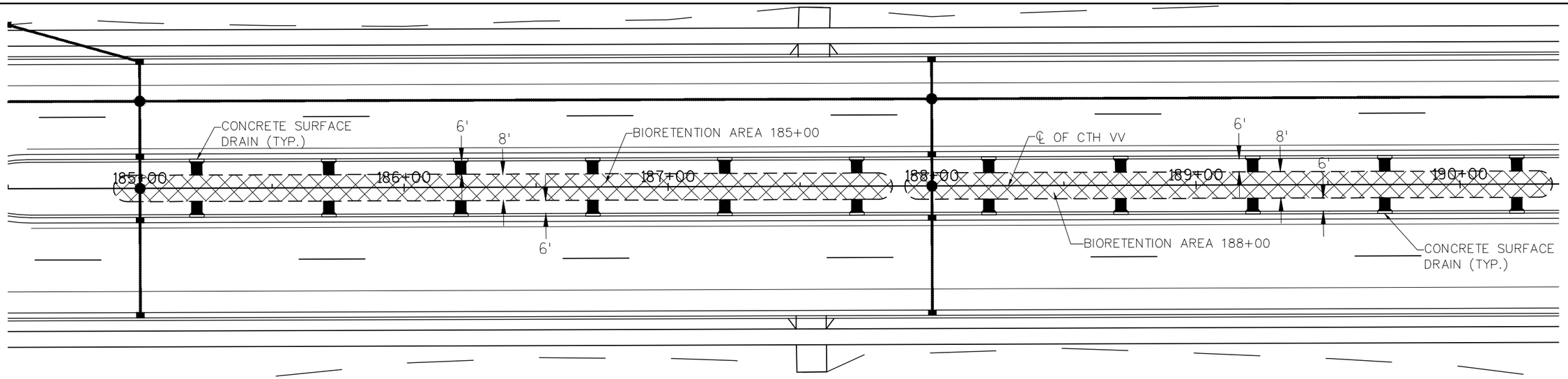


BIORETENTION AREA TYPICAL PLANING PLAN

N

PROJECT NO:2753-06-71	HWY: C.T.H "VV"	COUNTY:WAUKESHA	BIORETENTION PLANTING PLAN	SHEET E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\BIORET PLANTING-VV2.DWG PLOT DATE : 9/27/2012 5:10 PM PLOT BY : LT1 PLOT NAME : ---------- PLOT SCALE : 1"=40'



(1) 3" MULCH

(2) ENGINEERED SOIL LAYER (DEPTH VARIES SEE PROFILE)

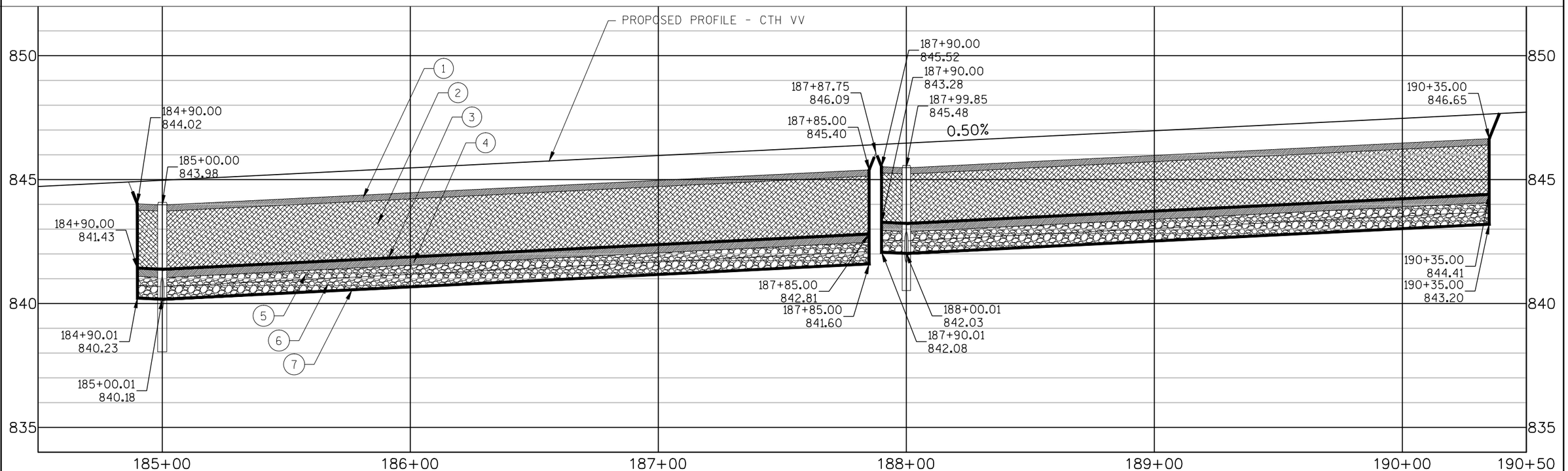
(3) GEOTEXTILE FABRIC, TYPE DF, SCHEDULE A

(4) 3" FILTER AGGREGATE LAYER

(5) STORAGE LAYER (DEPTH VARIES)

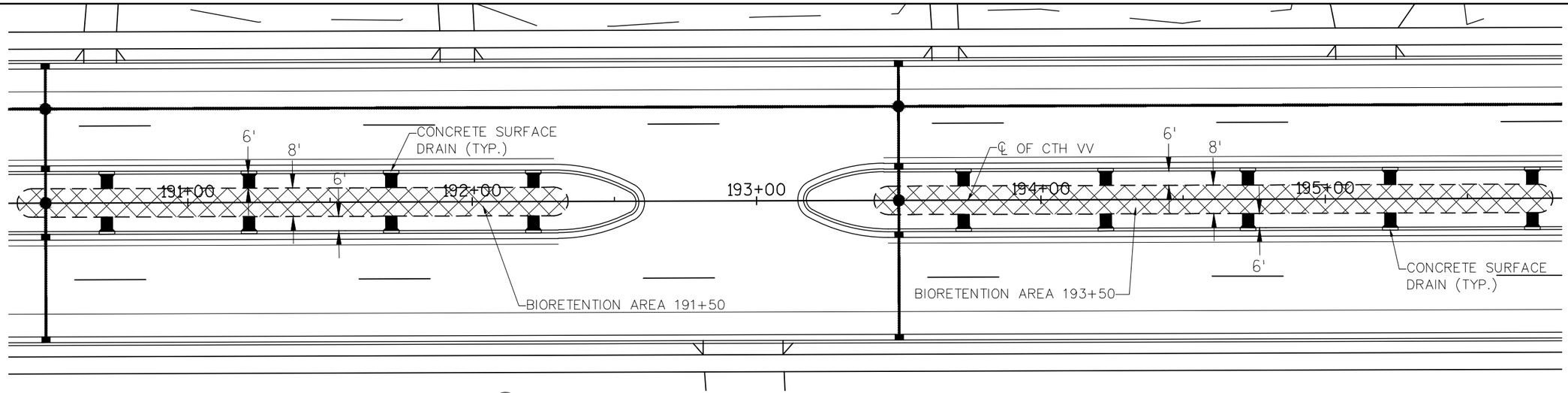
(6) PIPE UNDERDRAIN, 6-INCH

(7) GEOTEXTILE FABRIC, WOVEN SILT FILM



PROJECT NO: 2753-06-70	HWY: C.T.H. VV	COUNTY: WAUKESA	BIORETENTION PLAN AND PROFILE	SHEET 76	E

2



(1) 3" MULCH

(2) ENGINEERED SOIL LAYER (DEPTH VARIES SEE PROFILE)

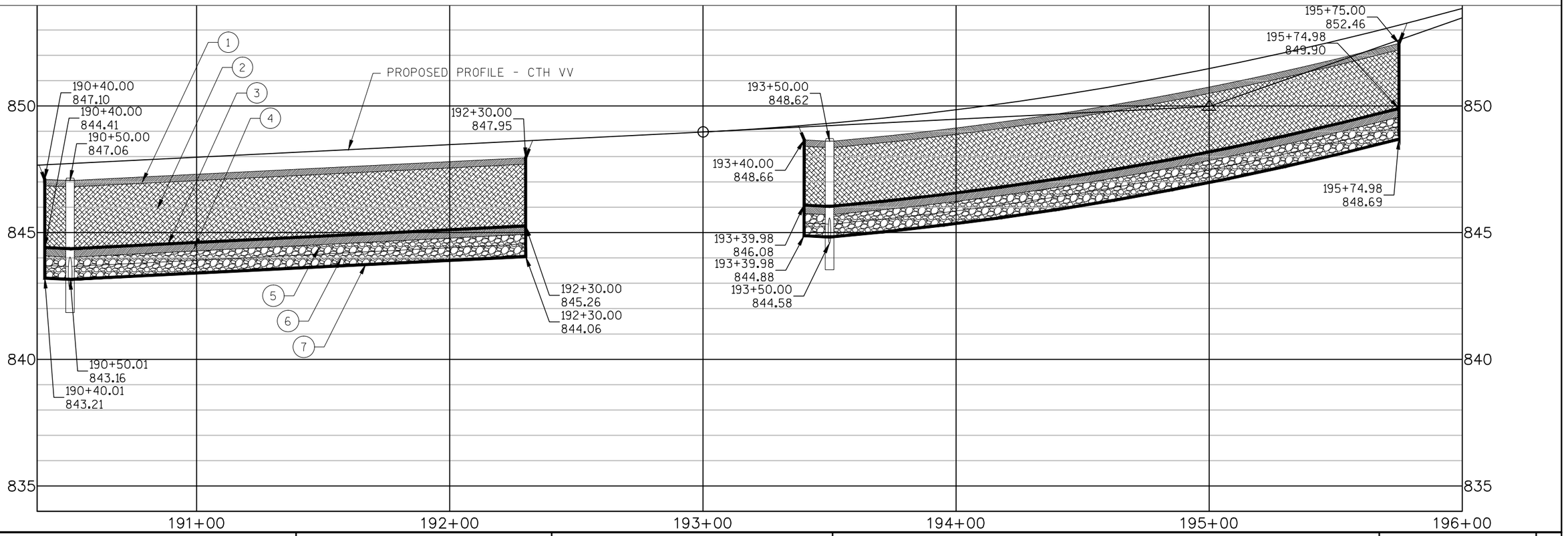
(3) GEOTEXTILE FABRIC, TYPE DF, SCHEDULE A

(4) 3" FILTER AGGREGATE LAYER

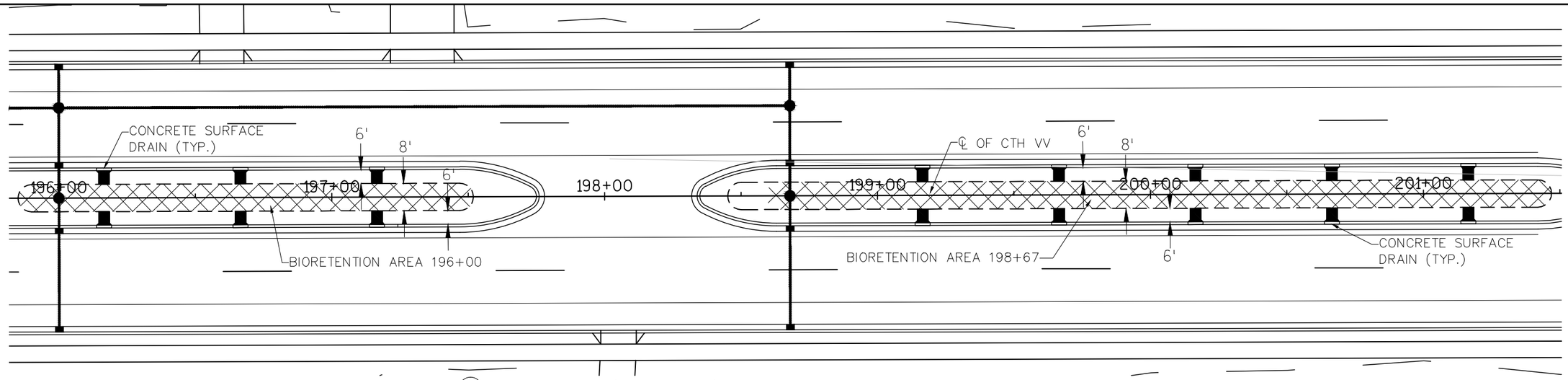
(5) STORAGE LAYER (DEPTH VARIES)

(6) PIPE UNDERDRAIN, 6-INCH

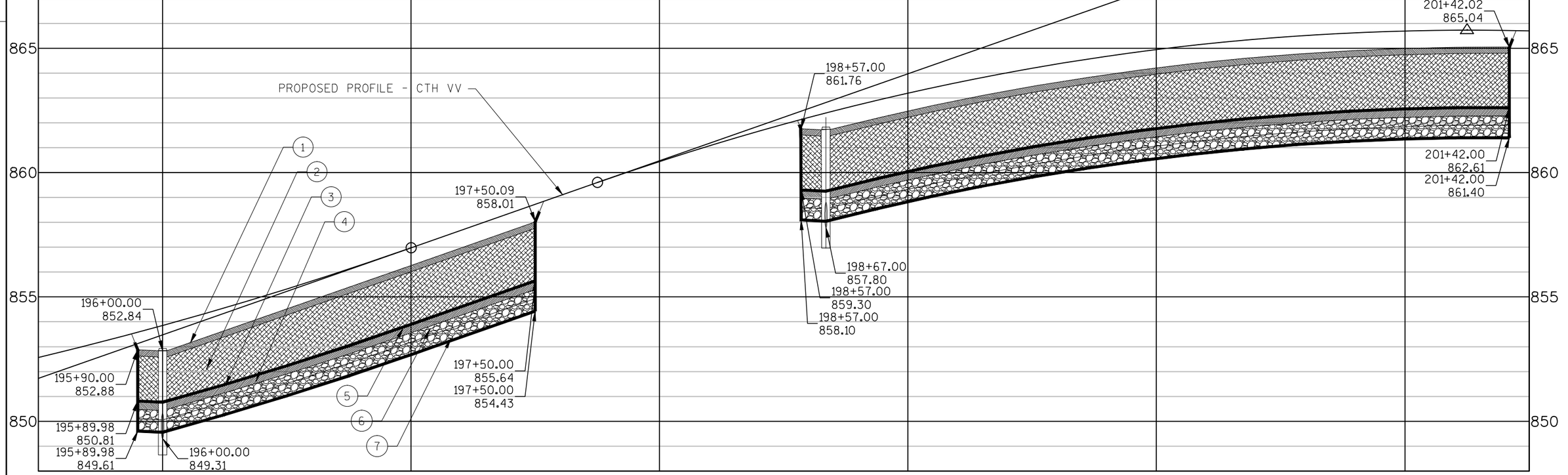
(7) GEOTEXTILE FABRIC, WOVEN SILT FILM



PROJECT NO: 2753-06-70	HWY: C.T.H. VV	COUNTY: WAUKESA	BIORETENTION PLAN AND PROFILE	SHEET 77	E



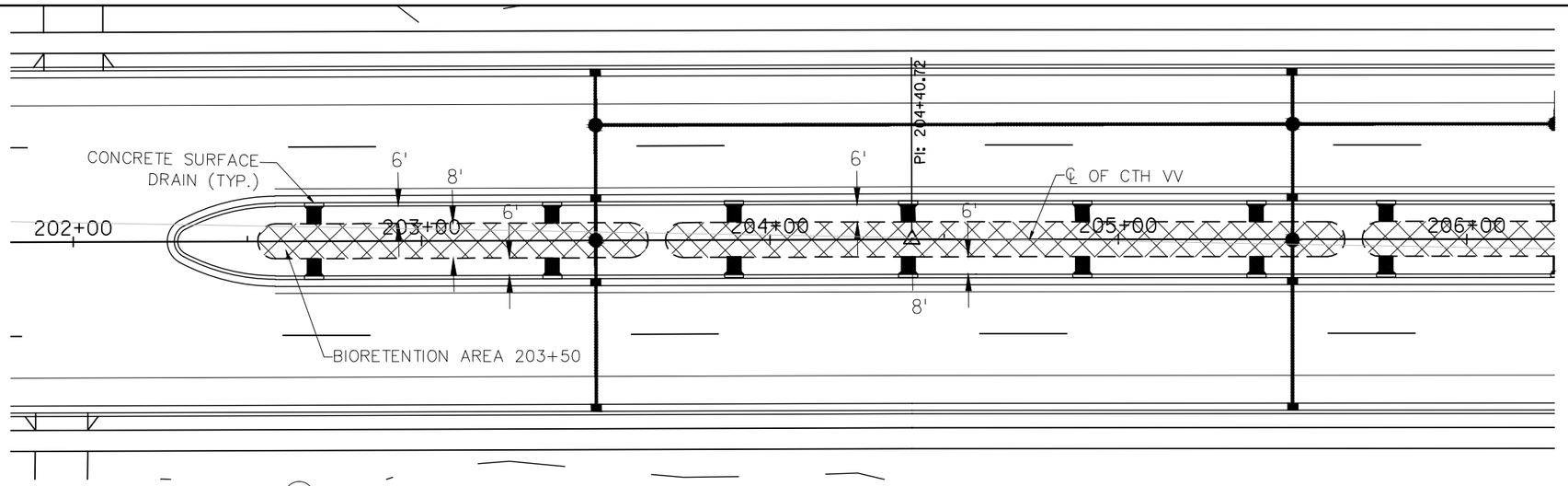
1. 3" MULCH
2. ENGINEERED SOIL LAYER (DEPTH VARIES SEE PROFILE)
3. GEOTEXTILE FABRIC, TYPE DF, SCHEDULE A
4. 3" FILTER AGGREGATE LAYER
5. STORAGE LAYER (DEPTH VARIES)
6. PIPE UNDERDRAIN, 6-INCH
7. GEOTEXTILE FABRIC, WOVEN SILT FILM



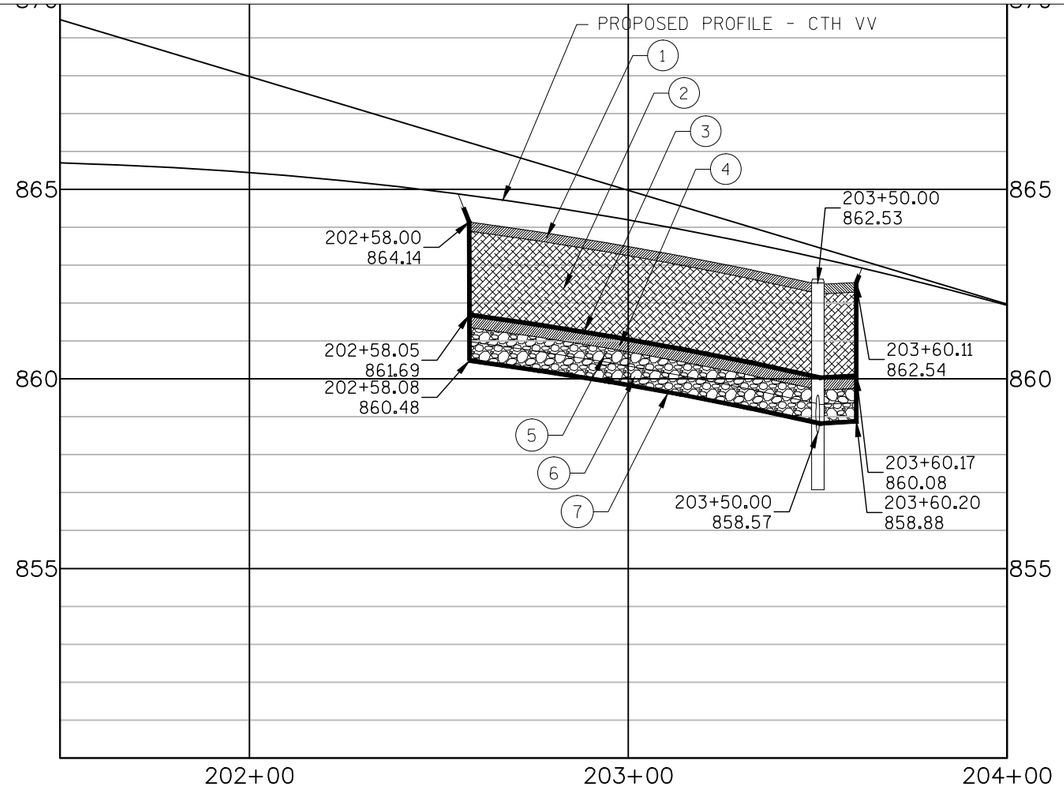
PROJECT NO: 2753-06-70	HWY: C.T.H. VV	COUNTY: WAUKESA	BIORETENTION PLAN AND PROFILE	SHEET 78	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\BIO PP-VV07.DWG PLOT DATE : 9/27/2012 4:55 PM PLOT BY : LT1 PLOT NAME : --------- PLOT SCALE : 1"=40'

WISDOT/CADDS SHEET 44



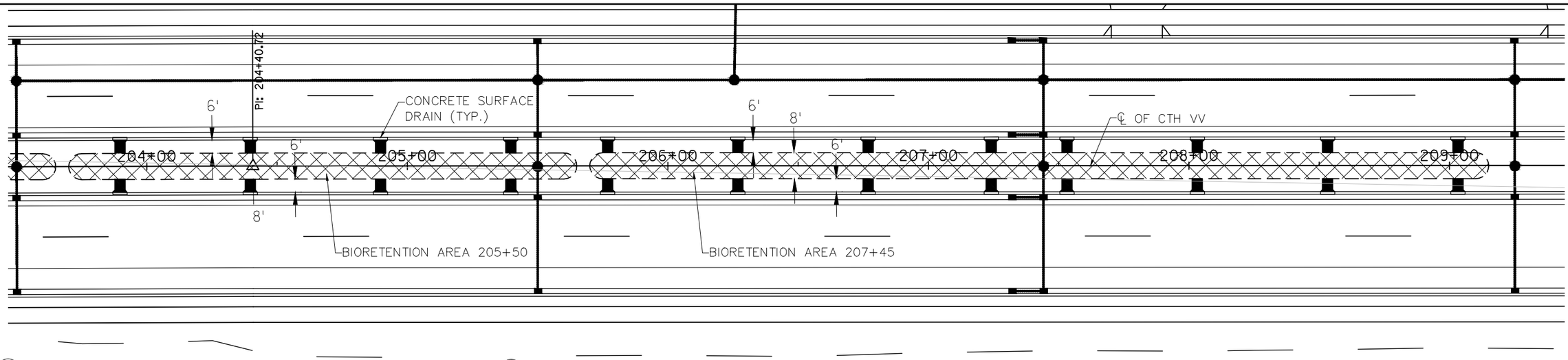
1. 3" MULCH
2. ENGINEERED SOIL LAYER (DEPTH VARIES SEE PROFILE)
3. GEOTEXTILE FABRIC, TYPE DF, SCHEDULE A
4. 3" FILTER AGGREGATE LAYER
5. STORAGE LAYER (DEPTH VARIES)
6. PIPE UNDERDRAIN, 6-INCH
7. GEOTEXTILE FABRIC, WOVEN SILT FILM



PROJECT NO: 2753-06-70	HWY: C.T.H. VV	COUNTY: WAUKESA	BIORETENTION PLAN AND PROFILE	SHEET 79	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\BIO PP-VV07.DWG PLOT DATE : 9/27/2012 4:55 PM PLOT BY : LT1 PLOT NAME : --------- PLOT SCALE : 1"=40'

WISDOT/CADDS SHEET 44



(1) 3" MULCH

(2) ENGINEERED SOIL LAYER (DEPTH VARIES SEE PROFILE)

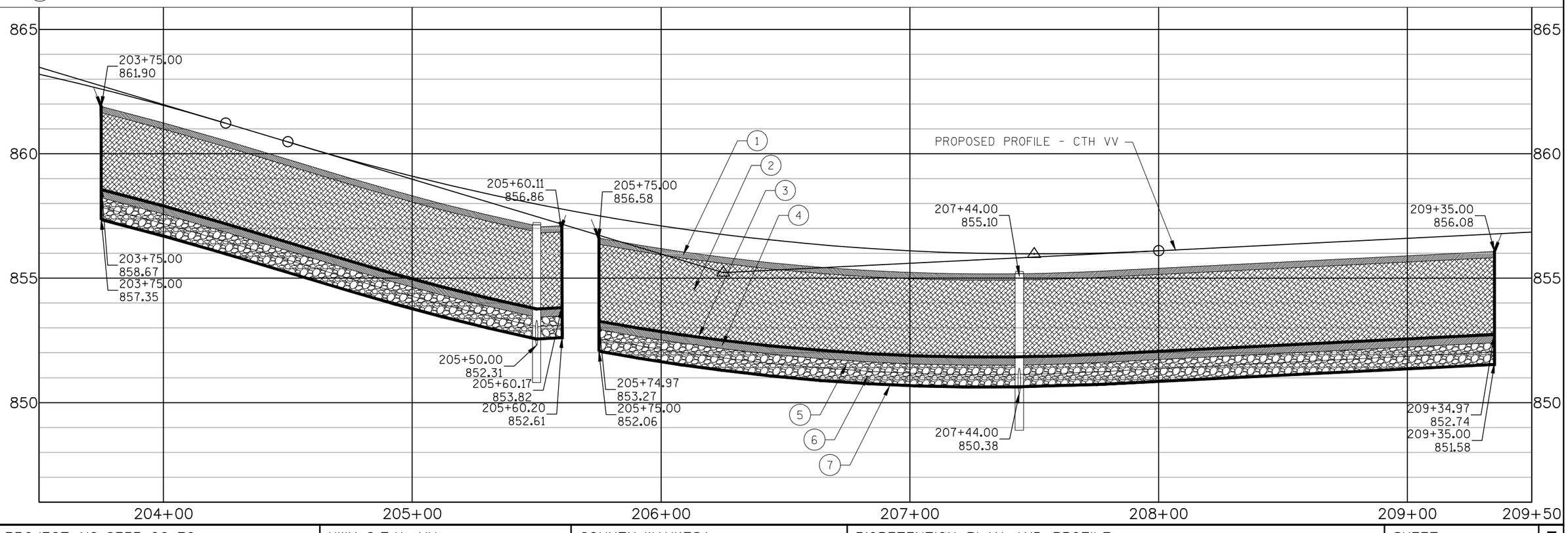
(3) GEOTEXTILE FABRIC, TYPE DF, SCHEDULE A

(4) 3" FILTER AGGREGATE LAYER

(5) STORAGE LAYER (DEPTH VARIES)

(6) PIPE UNDERDRAIN, 6-INCH

(7) GEOTEXTILE FABRIC, WOVEN SILT FILM

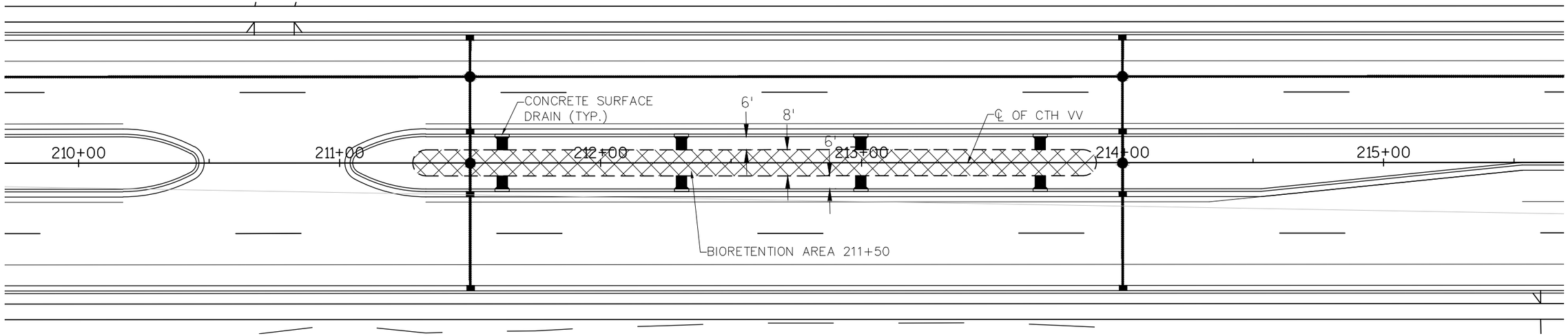


PROJECT NO: 2753-06-70	HWY: C.T.H. VV	COUNTY: WAUKESA	BIORETENTION PLAN AND PROFILE	SHEET 80	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\BIO PP-VV07.DWG PLOT DATE : 9/27/2012 4:56 PM PLOT BY : LT1 PLOT NAME : --------- PLOT SCALE : 1"=40'

WISDOT/CADDS SHEET 44

2



(1) 3" MULCH

(2) ENGINEERED SOIL LAYER (DEPTH VARIES SEE PROFILE)

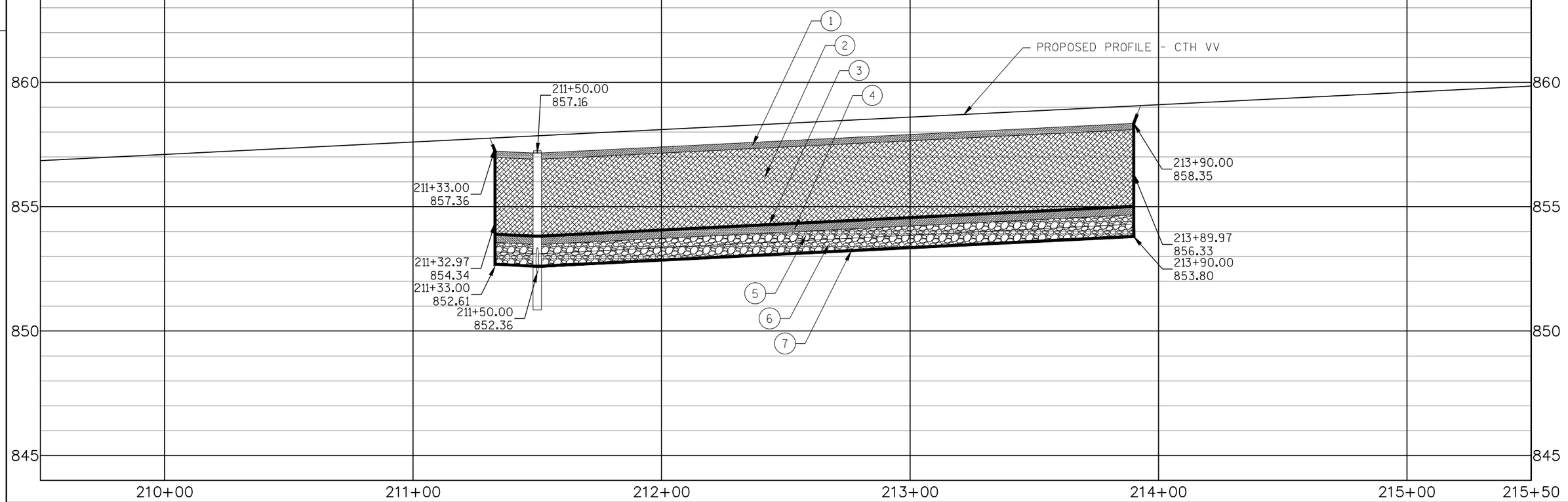
(3) GEOTEXTILE FABRIC, TYPE DF, SCHEDULE A

(4) 3" FILTER AGGREGATE LAYER

(5) STORAGE LAYER (DEPTH VARIES)

(6) PIPE UNDERDRAIN, 6-INCH

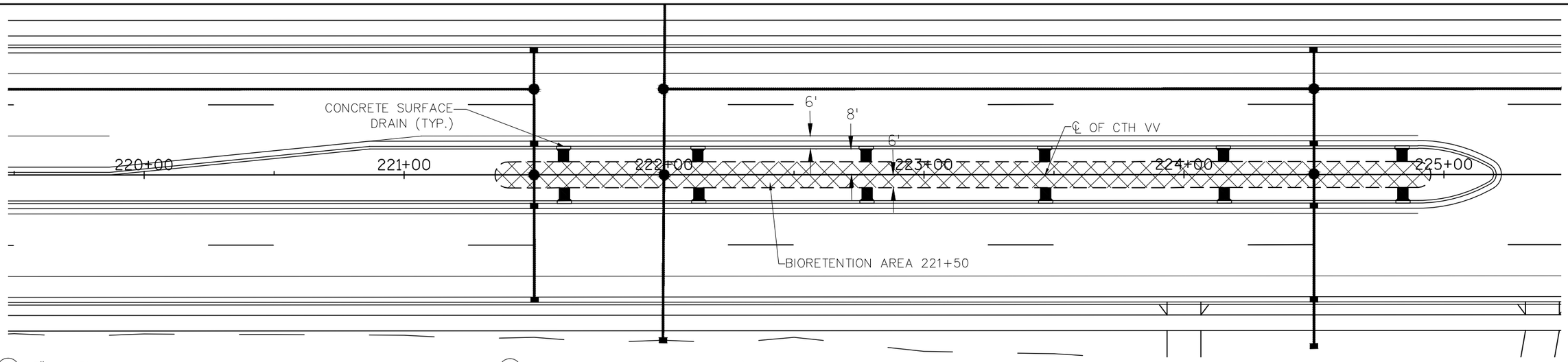
(7) GEOTEXTILE FABRIC, WOVEN SILT FILM



PROJECT NO: 2753-06-70	HWY: C.T.H. VV	COUNTY: WAUKESA	BIORETENTION PLAN AND PROFILE	SHEET 81	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\BIO PP-VV07.DWG PLOT DATE : 9/27/2012 4:56 PM PLOT BY : LT1 PLOT NAME : --------- PLOT SCALE : 1"=40'

WISDOT/CADDS SHEET 44



(1) 3" MULCH

(2) ENGINEERED SOIL LAYER (DEPTH VARIES SEE PROFILE)

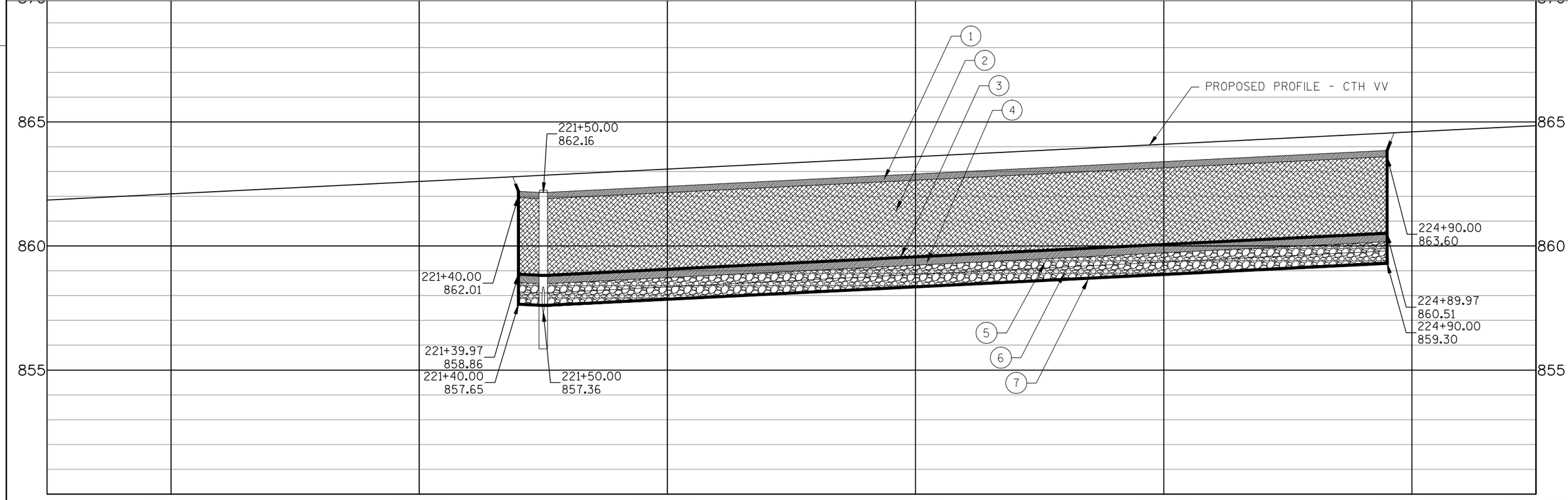
(3) GEOTEXTILE FABRIC, TYPE DF, SCHEDULE A

(4) 3" FILTER AGGREGATE LAYER

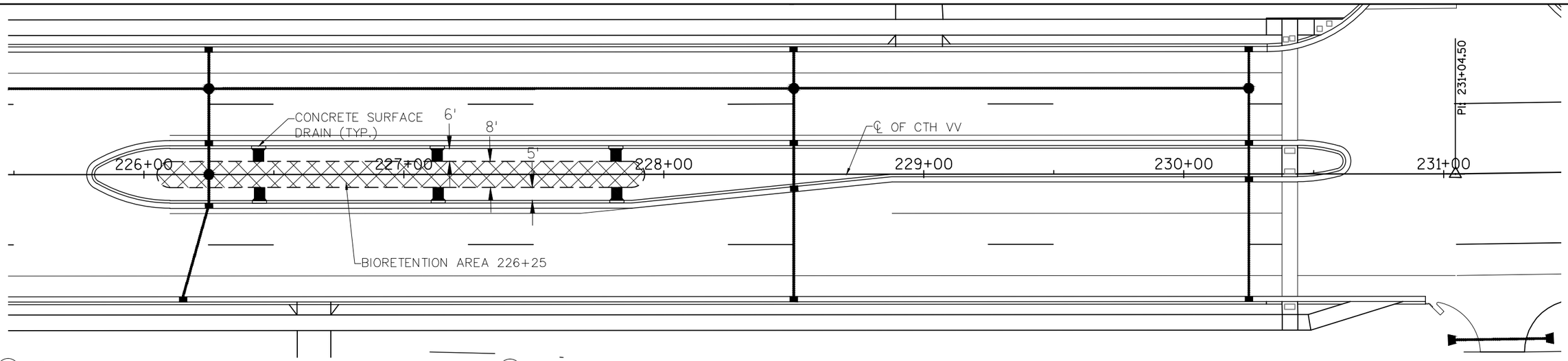
(5) STORAGE LAYER (DEPTH VARIES)

(6) PIPE UNDERDRAIN, 6-INCH

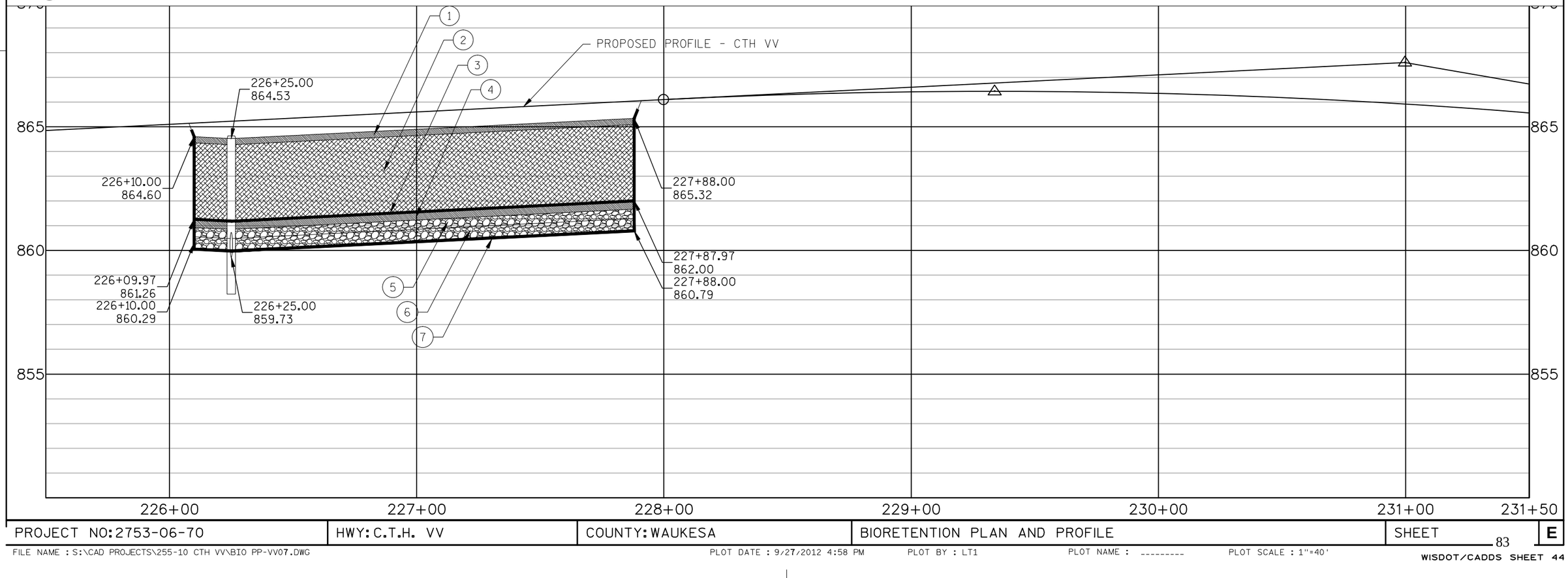
(7) GEOTEXTILE FABRIC, WOVEN SILT FILM



PROJECT NO: 2753-06-70	HWY: C.T.H. VV	COUNTY: WAUKESA	BIORETENTION PLAN AND PROFILE	SHEET 82	E



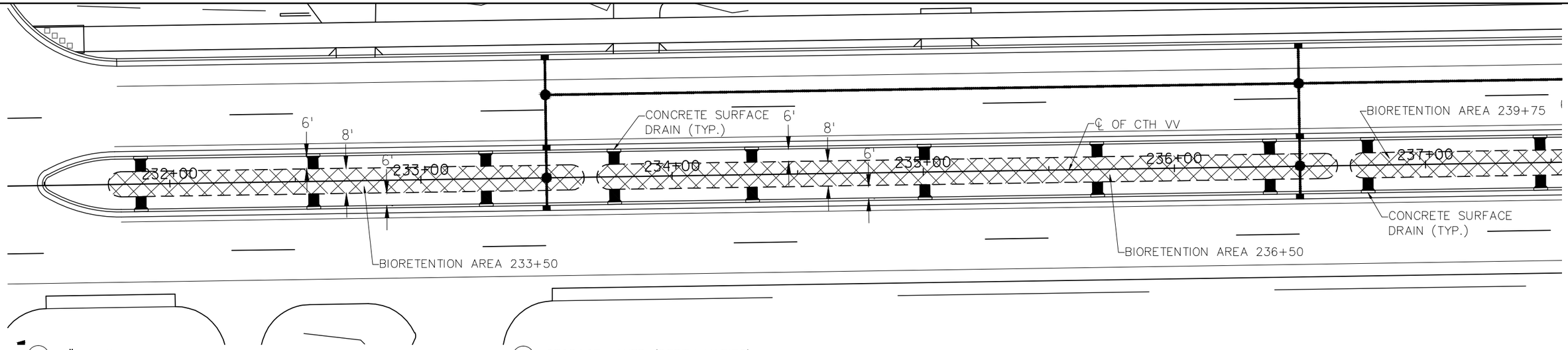
1. 3" MULCH
2. ENGINEERED SOIL LAYER (DEPTH VARIES SEE PROFILE)
3. GEOTEXTILE FABRIC, TYPE DF, SCHEDULE A
4. 3" FILTER AGGREGATE LAYER
5. STORAGE LAYER (DEPTH VARIES)
6. PIPE UNDERDRAIN, 6-INCH
7. GEOTEXTILE FABRIC, WOVEN SILT FILM



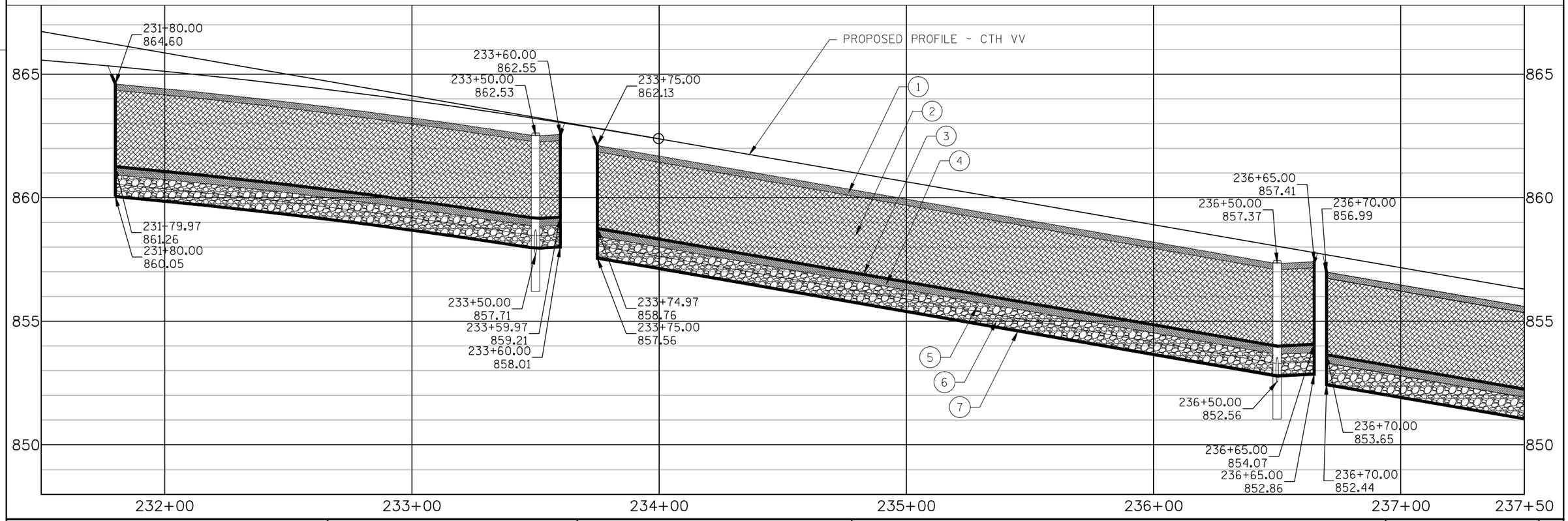
PROJECT NO: 2753-06-70	HWY: C.T.H. VV	COUNTY: WAUKESA	BIORETENTION PLAN AND PROFILE	SHEET 83	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\BIO PP-VV07.DWG PLOT DATE : 9/27/2012 4:58 PM PLOT BY : LT1 PLOT NAME : --------- PLOT SCALE : 1"=40'

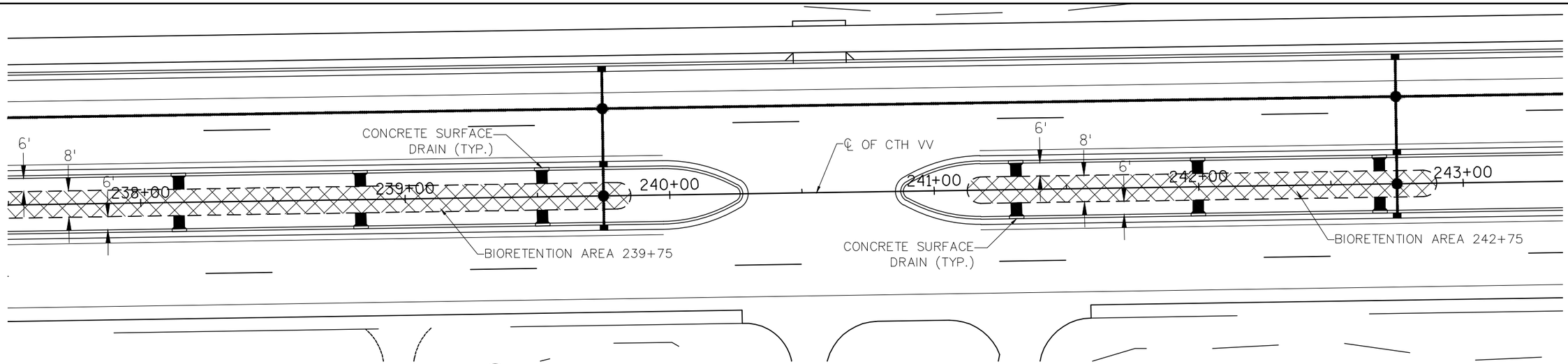
WISDOT/CADDS SHEET 44



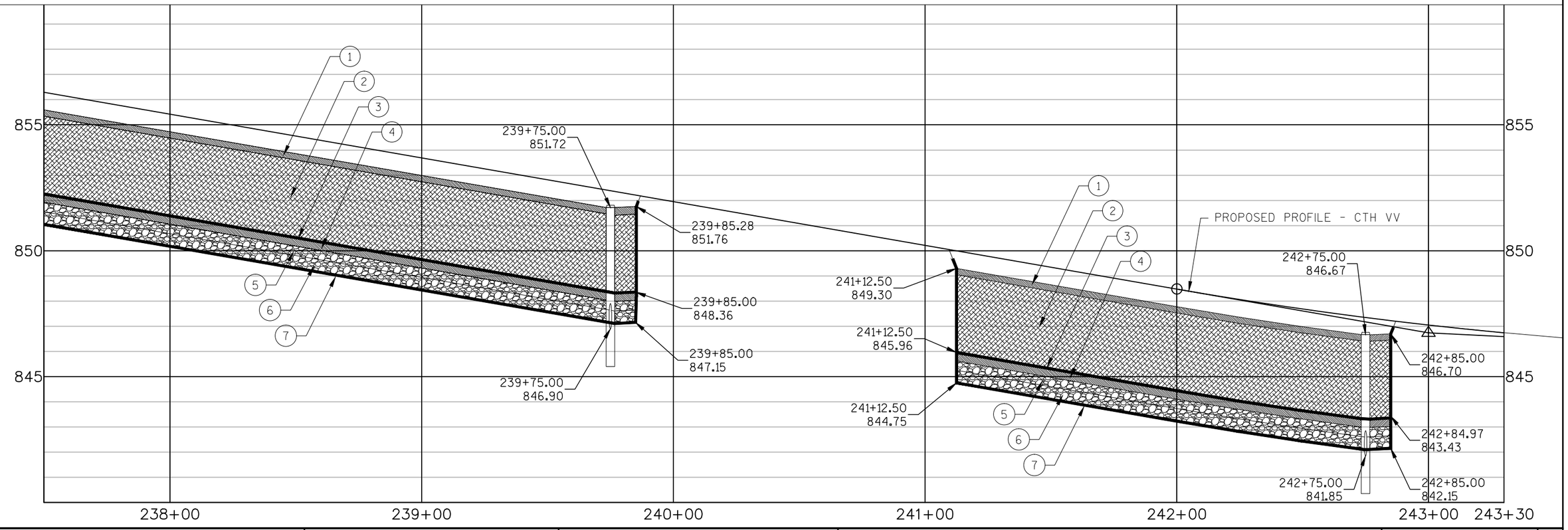
1. 3" MULCH
2. ENGINEERED SOIL LAYER (DEPTH VARIES SEE PROFILE)
3. GEOTEXTILE FABRIC, TYPE DF, SCHEDULE A
4. 3" FILTER AGGREGATE LAYER
5. STORAGE LAYER (DEPTH VARIES)
6. PIPE UNDERDRAIN, 6-INCH
7. GEOTEXTILE FABRIC, WOVEN SILT FILM



PROJECT NO: 2753-06-70	HWY: C.T.H. VV	COUNTY: WAUKESA	BIORETENTION PLAN AND PROFILE	SHEET 84	E



1. 3" MULCH
2. ENGINEERED SOIL LAYER (DEPTH VARIES SEE PROFILE)
3. GEOTEXTILE FABRIC, TYPE DF, SCHEDULE A
4. 3" FILTER AGGREGATE LAYER
5. STORAGE LAYER (DEPTH VARIES)
6. PIPE UNDERDRAIN, 6-INCH
7. GEOTEXTILE FABRIC, WOVEN SILT FILM



PROJECT NO: 2753-06-70	HWY: C.T.H. VV	COUNTY: WAUKESA	BIORETENTION PLAN AND PROFILE	SHEET 85	E

2

2

MATCH POINT

MANHOLE SN30S026
RECONSTRUCT MANHOLE
INSTALL EXTERNAL SEAL
STA.: 168+98.90
OFFSET: 47.45 L
EXISTING RIM ELEV.: 841.62
PROPOSED RIM ELEV.: 843.62

MANHOLE SN30S027
RECONSTRUCT MANHOLE
INSTALL EXTERNAL SEAL
STA.: 169+20.20
OFFSET: 46.65 L
EXISTING RIM ELEV.: 841.49
PROPOSED RIM ELEV.: 841.49

MANHOLE SN30S028
RECONSTRUCT MANHOLE
INSTALL EXTERNAL SEAL
STA.: 172+15.41
OFFSET: 42.57 L
EXISTING RIM ELEV.: 836.61
PROPOSED RIM ELEV.: 839.27

ADJUST VALVE
CASTING ELEVATION
STA.: 172+11.54
RAISE 2.0' TO 3.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 172+01.65
RAISE 2..0 TO 3.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 167+59.99
RAISE 4.0' TO 5.0'

RELOCATE HYDRANT 121-H-5
ADJUST HYDRANT ELEVATION
STA.: 167+59.78
OFFSET: 44.410 R
PROPOSED NOZZLE ELEV.: 853.40

RELOCATE HYDRANT 120-H-1
ADJUST HYDRANT ELEVATION
STA.: 171+89.79
OFFSET: 62.582 R
PROPOSED NOZZLE ELEV.: 841.4

24.85' of 6" C900 WM @ 2.1%

MATCH POINT

PROJECT NO: 2753-06-71	HWY: VV	COUNTY: WAUKESHA	VILLAGE OF MENOMONEE FALLS DETAIL DRAWINGS	SHEET 86	E

FILE NAME : U:\ENGINEERING\1 DEPARTMENT COMMON\0PROJECTS\SILVER SPRING RECONSTRUCTION-JACKSON DR TO LANNON RD\PLANS\CTH VV 2753-06-71 FILE FOR 08/01/2021 REL, ADDITIONS.DWG PLOTTED BY : BRETL, JONATHAN PLOT SCALE : 1"=40'

2

MATCH POINT

MANHOLE SN30S029
RECONSTRUCT MANHOLE
INSTALL EXTERNAL SEAL
STA.:174+75.53
OFFSET: 40.82 L
EXISTING RIM ELEV.: 834.70
PROPOSED RIM ELEV.: 837.99

ADJUST VALVE
CASTING ELEVATION
STA.:174+78.93
RAISE 3.0' TO 4.0'

176+47.21
LOW POINT

RELOCATE HYDRANT 115-H-1
ADJUST HYDRANT ELEVATION
STA.:178+26.57
OFFSET: 77.786 L
PROPOSED NOZZLE ELEV.: 837.18

MANHOLE SN29S016
RECONSTRUCT MANHOLE
INSTALL EXTERNAL SEAL
STA.:178+71.07
OFFSET: 40.37 L
EXISTING RIM ELEV.: 837.43
PROPOSED RIM ELEV.: 839.00

INSTALL 90°
STA.:178+26.68
OFFSET: 72.22 L

ADJUST CURB STOP
BOX ELEVATION
STA.: 179+25.40

ADJUST VALVE
CASTING ELEVATION
STA.:178+30.11
RAISE 2.0' TO 3.0'

ADJUST VALVE
CASTING ELEVATION
STA.:178+31.13
RAISE 2.0' TO 3.0'

ADJUST VALVE
CASTING ELEVATION
STA.:178+39.67
RAISE 2.0' TO 3.0'

ADJUST VALVE
CASTING ELEVATION
STA.:179+05.99
RAISE 2.0' TO 3.0'

ADJUST VALVE
CASTING ELEVATION
STA.:178+86.81
RAISE 2.0' TO 3.0'

174 175 176 177 178 179

MATCH POINT

PROJECT NO: 2753-06-71	HWY: VV	COUNTY: WAUKESHA	VILLAGE OF MENOMONEE FALLS DETAIL DRAWINGS	SHEET 87	E

FILE NAME : U:\ENGINEERING\1 DEPARTMENT COMMON\0PROJECTS\SILVER SPRING RECONSTRUCTION-JACKSON DR TO LANNON RD\PLANS\CTH VV 27506-06-71 FILE 06/2012 11 RD_00 ATIONS.DWG PLOTTED BY : BRETL, JONATHAN PLOT SCALE : 1"=40'

2

MATCH POINT

MANHOLE SN29S015
RECONSTRUCT MANHOLE
INSTALL EXTERNAL SEAL
STA.: 183+54.16
OFFSET: 45.64 L
EXISTING RIM ELEV.: 842.46
PROPOSED RIM ELEV.: 844.11

180 181 182 183 184 185 186

ADJUST VALVE
CASTING ELEVATION
STA.: 186+01.73
RAISE 2.0' TO 3.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 182+11.08
RAISE 2.0' TO 3.0'

RELOCATE HYDRANT 126-H-1
ADJUST HYDRANT ELEVATION
STA.: 182+11.07
OFFSET: 52.370 R
PROPOSED NOZZLE ELEV.: 845.00

RELOCATE HYDRANT 126-H-2
ADJUST HYDRANT ELEVATION
STA.: 186+01.92
OFFSET: 52.444 R
PROPOSED NOZZLE ELEV.: 847.30

MATCH POINT

2

PROJECT NO: 2753-06-71	HWY: VV	COUNTY: WAUKESHA	VILLAGE OF MENOMONEE FALLS DETAIL DRAWINGS	SHEET 88	E

FILE NAME : U:\ENGINEERING\1 DEPARTMENT COMMON\0PROJECTS\SILVER SPRING RECONSTRUCTION-JACKSON DR TO LANNON RD\PLANS\CTH VV 27506-0471 FILE.DGN 06/20/2017 11:21:44 AM PLOTTED BY : BRETL, JONATHAN PLOT SCALE : 1"=40'

2

MATCH POINT

MANHOLE SN29S014
RECONSTRUCT MANHOLE
INSTALL EXTERNAL SEAL
STA.: 188+08.56
OFFSET: 44.00 L
EXISTING RIM ELEV.: 844.62
PROPOSED RIM ELEV.: 846.42

ADJUST VALVE
CASTING ELEVATION
STA.: 188+24.86
RAISE 1.0' TO 2.0'

MANHOLE SN29S013
RECONSTRUCTION MANHOLE
INSTALL EXTERNAL SEAL
STA.: 191+45.50
OFFSET: 40.57 L
EXISTING RIM ELEV.: 846.07
PROPOSED RIM ELEV.: 847.69

ADJUST VALVE
CASTING ELEVATION
STA.: 186+11.94
RAISE 2.0' TO 3.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 188+24.62
LOWER 0 TO 1.0'

RELOCATE HYDRANT 126-H-3
ADJUST HYDRANT ELEVATION
STA.: 190+09.77
OFFSET: 52.453 R
PROPOSED NOZZLE ELEV.: 848.90

ADJUST VALVE
CASTING ELEVATION
STA.: 190+10.38
RAISE 2.0' TO 3.0'

FLAG
GUY
GUY POLE
MH
WV
SAN
TV
OH
W
E
187
188
189
190
191
192

MATCH POINT

PROJECT NO: 2753-06-71	HWY: VV	COUNTY: WAUKESHA	VILLAGE OF MENOMONEE FALLS DETAIL DRAWINGS	SHEET 89	E

FILE NAME : U:\ENGINEERING\1 DEPARTMENT COMMON\0PROJECTS\SILVER SPRING RECONSTRUCTION-JACKSON DR TO LANNON RD\PLANS\CTH VV 2753-06-71 FILE DATE: 10/08/2021 11:21:21, MODIFIED BY : BRETL, JONATHAN PLOT SCALE : 1"=40'

2

MATCH POINT

RELOCATE CURBSTOP
1 1/4" POLYETHYLENE LATERAL
RECONNECT TO EXISTING SERVICE
ADJUST BOX ELEVATION
STA.: 193+17.99 OFF.: 62.752L

RELOCATE CURBSTOP
1 1/4" POLYETHYLENE LATERAL
RECONNECT TO EXISTING SERVICE
ADJUST BOX ELEVATION
STA.: 195+44.60 OFF.: 62.812L

RELOCATE CURBSTOP
1 1/4" POLYETHYLENE LATERAL
RECONNECT TO EXISTING SERVICE
ADJUST BOX ELEVATION
STA.: 196+33.32 OFF.: 62.705L

MATCH POINT

2

193 194 195 196 197 198

ADJUST VALVE
CASTING ELEVATION
STA.: 194+11.34
RAISE 3.0' TO 4.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 194+21.04
RAISE 3.0' TO 4.0'

ADJUST CURB STOP
BOX ELEVATION
STA.: 197+86.87

ADJUST VALVE
CASTING ELEVATION
STA.: 198+39.81
RAISE 1.0' TO 2.0'

ADJUST CURB STOP
BOX ELEVATION
STA.: 197+65.92

RELOCATE HYDRANT 126-H-4
ADJUST HYDRANT ELEVATION
STA.: 194+11.06
OFFSET: 52.465 R
PROPOSED NOZZLE ELEV.: 851.33

RELOCATE HYDRANT 126-H-5
ADJUST HYDRANT ELEVATION
STA.: 198+39.60
OFFSET: 52.434 R
PROPOSED NOZZLE ELEV.: 862.98

MATCH POINT

PROJECT NO: 2753-06-71	HWY: VV	COUNTY: WAUKESHA	VILLAGE OF MENOMONEE FALLS DETAIL DRAWINGS	SHEET 90	E

FILE NAME : U:\ENGINEERING\1 DEPARTMENT COMMON\OPROJECTS\SILVER SPRING RECONSTRUCTION-JACKSON DR TO LANNON RD\PLANS\CTH VV 27810-06-71 PLOT DATE: 10/08/2012 TIME: 10:55:00 LAST MODIFIED BY : BRETL, JONATHAN

PLOT SCALE : 1"=40'

2

MATCH POINT

N

ADJUST VALVE
CASTING ELEVATION
STA.: 198+91.71
RAISE 0 TO 1.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 198+86.30
RAISE 2.0' TO 3.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 202+36.46
RAISE 1.0' TO 2.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 202+46.02
RAISE 1.0' TO 2.0'

ADJUST CURB STOP
BOX ELEVATION
STA.: 200+58.03

ADJUST CURB STOP
BOX ELEVATION
STA.: 201+42.02

RELOCATE HYDRANT 126-H-6
ADJUST HYDRANT ELEVATION
STA.: 202+36.14
OFFSET: 52.649 R
PROPOSED NOZZLE ELEV.: 866.45

199 200 201 202 203 204

MATCH POINT

2

PROJECT NO: 2753-06-71	HWY: VV	COUNTY: WAUKESHA	VILLAGE OF MENOMONEE FALLS DETAIL DRAWINGS	SHEET 91	E

FILE NAME : U:\ENGINEERING\1 DEPARTMENT COMMON\0PROJECTS\SILVER SPRING RECONSTRUCTION-JACKSON DR TO LANNON RD\PLANS\CTH VV 27530603.DWG LAST FILE UPDATE/SAVE: 7/06/2012 7:11:21 AM, 0.04 PLOTTED BY : BRETL, JONATHAN

PLOT SCALE : 1"=40'

2

MATCH POINT

N

RELOCATE CURBSTOP
1 1/4" POLYETHYLENE LATERAL
RECONNECT TO EXISTING SERVICE
ADJUST BOX ELEVATION
STA.: 207+49.86 OFF.: 62.754L

207+32.14
LOW POINT

RELOCATE CURBSTOP
1 1/4" POLYETHYLENE LATERAL
RECONNECT TO EXISTING SERVICE
ADJUST BOX ELEVATION
STA.: 209+04.91 OFF.: 62.940L

205 206 207 208 209 210

ADJUST VALVE
CASTING ELEVATION
STA.: 206+79.15
RAISE 2.0'TO 3.0'

RELOCATE HYDRANT 125-H-1
ADJUST HYDRANT ELEVATION
STA.: 206+78.94
OFFSET: 52.465 R
PROPOSED NOZZLE ELEV.: 857.37

MATCH POINT

MATCH POINT

2

PROJECT NO: 2753-06-71	HWY: VV	COUNTY: WAUKESHA	VILLAGE OF MENOMONEE FALLS DETAIL DRAWINGS	SHEET 92	E

FILE NAME : U:\ENGINEERING\1 DEPARTMENT COMMON\OPROJECTS\SILVER SPRING RECONSTRUCTION-JACKSON DR TO LANNON RD\PLANS\CTH VV 2753-06-71 FILE 05/08/2012 11:21:00 AM LAST SAVED BY : BRETL, JONATHAN PLOT SCALE : 1"=40'

2

MATCH POINT

ADJUST VALVE
CASTING ELEVATION
STA.: 211+19.80
RAISE 0 TO 1.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 211+27.70
RAISE 0 TO 1.0'

TILE

211 212 213 214 215 216

ADJUST VALVE
CASTING ELEVATION
STA.: 210+90.26
RAISE 0 to 1.0'

RELOCATE HYDRANT 125-H-2
ADJUST HYDRANT ELEVATION
STA.: 211+19.30
OFFSET: 53.030 R
PROPOSED NOZZLE ELEV.: 859.55

MATCH POINT

MATCH POINT

2

PROJECT NO: 2753-06-71	HWY: VV	COUNTY: WAUKESHA	VILLAGE OF MENOMONEE FALLS DETAIL DRAWINGS	SHEET 93	E

FILE NAME : U:\ENGINEERING\1 DEPARTMENT COMMON\0PROJECTS\SILVER SPRING RECONSTRUCTION-JACKSON DR TO LANNON RD\PLANS\CTH VV 27535DETAILS.DGN LAST MODIFIED BY : BRETL, JONATHAN PLOT SCALE : 1"=40'

2

MATCH POINT

ADJUST VALVE
CASTING ELEVATION
STA.: 217+84.10
LOWER 0 TO 1.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 217+85.44
LOWER 0 TO 1.0'

RELOCATE HYDRANT 116-H-2
ADJUST HYDRANT ELEVATION
STA.: 218+05.28
OFFSET: 79.368 L
PROPOSED NOZZLE ELEV.: 862.93

9.18' of 6" C900 WM

ADJUST VALVE
CASTING ELEVATION
STA.: 217+98.37
LOWER 1.0' TO 2.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 217+80.47
LOWER 1.0' TO 2.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 217+89.88
LOWER 1.0' TO 2.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 217+89.73
LOWER 1.0' TO 2.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 217+92.33
LOWER 0 TO 1.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 222+35.66
RAISE 1.0' TO 2.0'

RELOCATE HYDRANT 125-H-4
ADJUST HYDRANT ELEVATION
STA.: 222+35.50
OFFSET: 52.926 R
PROPOSED NOZZLE ELEV.: 865.14

MATCH POINT

MATCH POINT

2

PROJECT NO: 2753-06-71	HWY: VV	COUNTY: WAUKESHA	VILLAGE OF MENOMONEE FALLS DETAIL DRAWINGS	SHEET 94	E

FILE NAME : U:\ENGINEERING\1 DEPARTMENT COMMON\0PROJECTS\SILVER SPRING RECONSTRUCTION-JACKSON DR TO LANNON RD\PLANS\CTH VV 27530[illegible]

PLOT SCALE : 1"=40'

2

MATCH POINT

N

223 224 225 226 227 228

ADJUST VALVE
CASTING ELEVATION
~~STA.: 226+25.46~~
RAISE 3.0' TO 4.0'

ADJUST VALVE
CASTING ELEVATION
~~STA.: 226+35.29~~
RAISE 3.0' TO 4.0'

RELOCATE HYDRANT 125-H-5
ADJUST HYDRANT ELEVATION
STA.: 226+24.92
OFFSET: 52.941 R
PROPOSED NOZZLE ELEV.: 867.06

ADJUST CURB STOP
BOX ELEVATION
STA.: 226+35.50

ADJUST CURB STOP
BOX ELEVATION
STA.: 226+92.94

MATCH POINT

2

MATCH POINT

PROJECT NO: 2753-06-71	HWY: VV	COUNTY: WAUKESHA	VILLAGE OF MENOMONEE FALLS DETAIL DRAWINGS	SHEET 95	E

FILE NAME : U:\ENGINEERING\1 DEPARTMENT COMMON\OPROJECTS\SILVER SPRING RECONSTRUCTION-JACKSON DR TO LANNON RD\PLANS\CTH VV 2753060ATE FILE/06/2021 11:24:26 AM LAST SAVED BY : BRETL, JONATHAN PLOT SCALE : 1"=40'

2

MATCH POINT

RELOCATE HYDRANT 111-H-22
ADJUST HYDRANT ELEVATION
STA.: 231+34.31
OFFSET: 87.923 L
PROPOSED NOZZLE ELEV.: 865.76

ADJUST VALVE
CASTING ELEVATION
STA.: 231+21.01
LOWER 0 TO 1.0'

RELOCATE CURBSTOP
1 1/4" POLYETHYLENE LATERAL
RECONNECT TO EXISTING SERVICE
ADJUST BOX ELEVATION
STA.: 233+10.34 OFF.: 59.874L

ADJUST VALVE
CASTING ELEVATION
STA.: 230+72.68
RAISE 3.0' TO 4.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 230+80.60
RAISE 3.0' TO 4.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 230+61.32
RAISE 3.0' TO 4.0'

ADJUST VALVE
CASTING ELEVATION
STA.: 230+89.50
RAISE 3.0' TO 4.0'

RELOCATE HYDRANT 125-H-6
ADJUST HYDRANT ELEVATION
STA.: 230+60.89
OFFSET: 61.112 R
PROPOSED NOZZLE ELEV.: 868.10

ADJUST VALVE
CASTING ELEVATION
STA.: 234+57.97
RAISE 2.0' TO 3.0'

RELOCATE HYDRANT 130-H-1
ADJUST HYDRANT ELEVATION
STA.: 234+58.14
OFFSET: 53.962 R
PROPOSED NOZZLE ELEV.: 860.82

MATCH POINT

2

PROJECT NO: 2753-06-71	HWY: VV	COUNTY: WAUKESHA	VILLAGE OF MENOMONEE FALLS DETAIL DRAWINGS	SHEET 96	E

FILE NAME : U:\ENGINEERING\1 DEPARTMENT COMMON\0PROJECTS\SILVER SPRING RECONSTRUCTION-JACKSON DR TO LANNON RD\PLANS\CTH VV 27530[illegible]

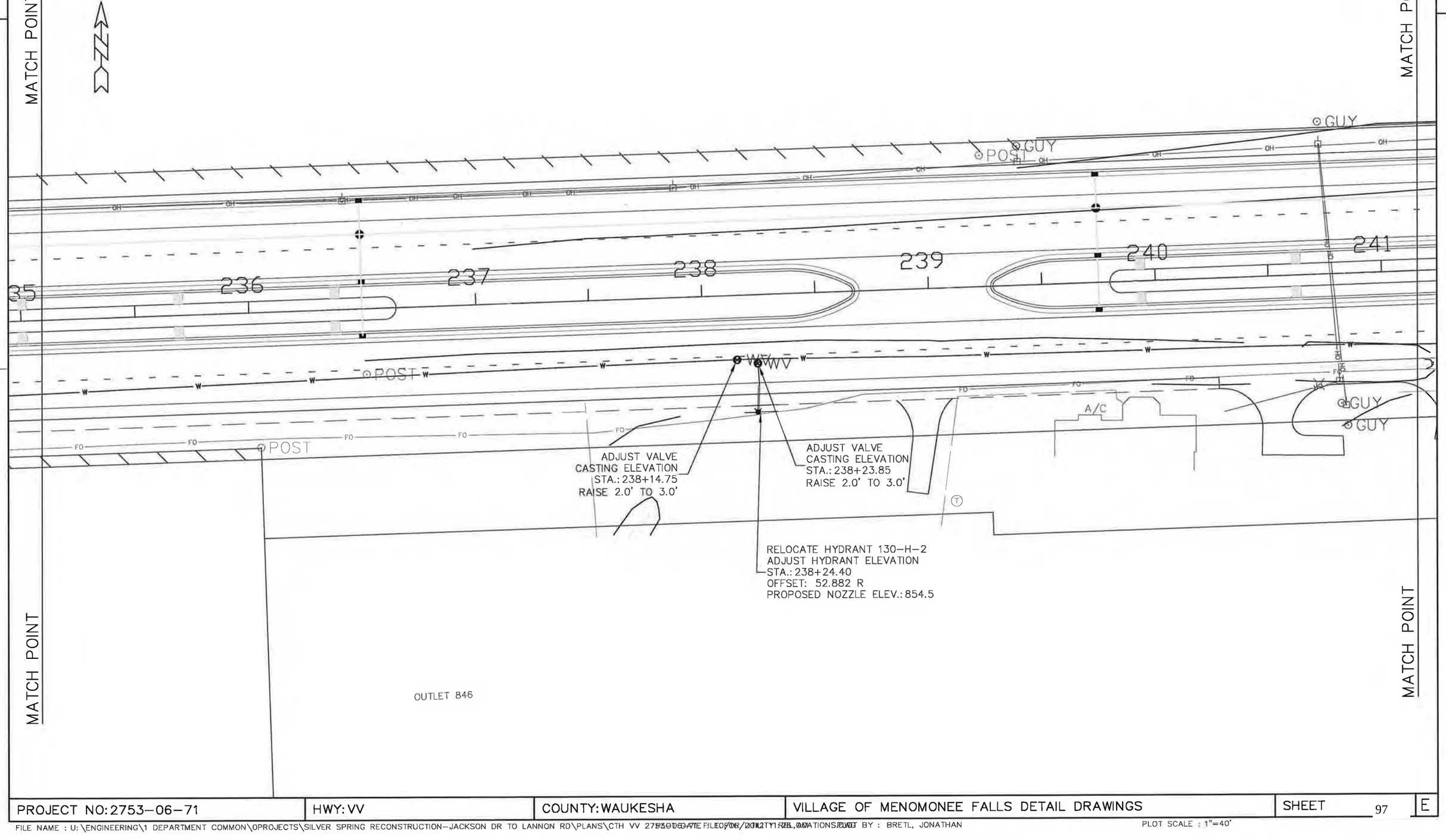
PLOT SCALE : 1"=40'

2

MATCH POINT

MATCH POINT

2



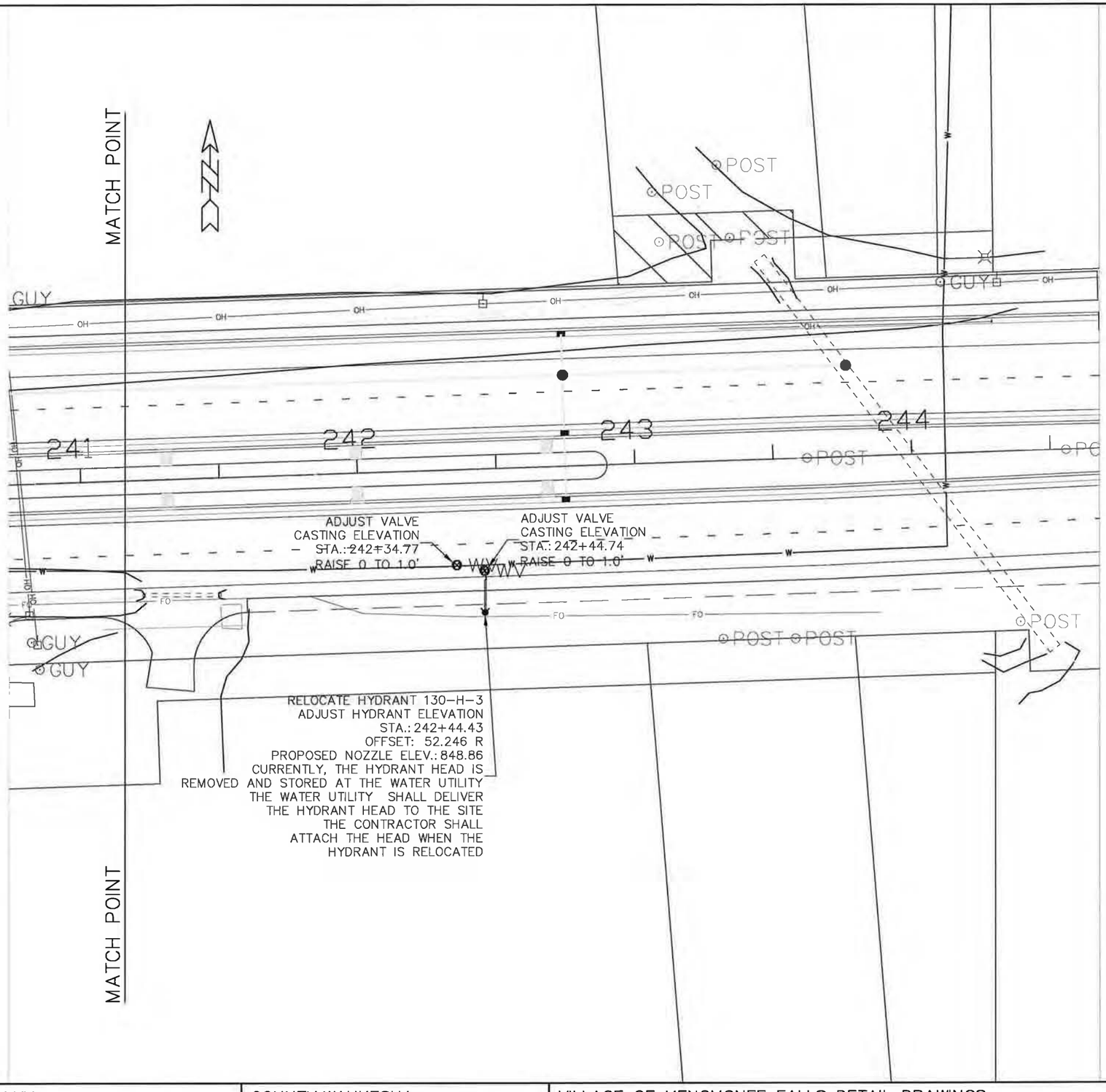
MATCH POINT

MATCH POINT

PROJECT NO: 2753-06-71	HWY: VV	COUNTY: WAUKESHA	VILLAGE OF MENOMONEE FALLS DETAIL DRAWINGS	SHEET 97	E

FILE NAME : U:\ENGINEERING\1 DEPARTMENT COMMON\0PROJECTS\SILVER SPRING RECONSTRUCTION-JACKSON DR TO LANNON RD\PLANS\CTH VV 2753-06-71 FILE LOCATION 2.DWG LAST REVISION DATE: 2/08/2021 PLOTTED BY : BRETL, JONATHAN PLOT SCALE : 1"=40'

2



PROJECT NO: 2753-06-71	HWY: VV	COUNTY: WAUKESHA	VILLAGE OF MENOMONEE FALLS DETAIL DRAWINGS	SHEET 98	E

FILE NAME : U:\ENGINEERING\1 DEPARTMENT COMMON\0PROJECTS\SILVER SPRING RECONSTRUCTION-JACKSON DR TO LANNON RD\PLANS\CTH VV 27500-DETAILS FOR CONTRACT LOCATIONS.DWG PLOTTED BY : BRETL, JONATHAN PLOT SCALE : 1"=40'

SPV0060.16 TO SPV0060.22 ADJUST VALVE BOX

	ADJUSTMENT HEIGHT	QUANTITY
SPV.0060.16	0 TO 1.0' DECREASE	5 EA
SPV.0060.17	1.0' TO 2.0' DECREASE	4 EA
SPV.0060.18	0 TO 1.0' INCREASE	6 EA
SPV.0060.19	1.0' TO 2.0' INCREASE	6 EA
SPV.0060.20	2.0' TO 3.0' INCREASE	15 EA
SPV.0060.21	3.0' TO 4.0' INCREASE	9 EA
SPV.0060.22	4.0' TO 5.0' INCREASE	1 EA

SPV0060.23 ADJUST CURB STOP

STATION	EACH
STA 197+65.87	1
STA 197+86.87	1
STA 200+58.03	1
STA 201+42.02	1
STA 226+24.92	1
STA 226+92.94	1
TOTAL	6

SPV0090.01 RELOCATE AND ADJUST HYDRANT ELEVATION

STATION	OFFSET	6" WATER MAIN	EXISTING NOZZLE ELEVATION	PROPOSED NOZZLE ELEVATION	NOTES
STA 167+59.78	44.10' R	5.0'	848.22	853.40	
STA 171+89.79	62.58' R	94.8'	839.38	841.40	
STA 178+26.57	77.79' L	10.3'	836.05	837.18	INSTALL 90 AS INDENTIFIED ON THE PLAN
STA 182+11.07	52.37' R	13.1'	842.37	845.00	
STA 186+01.92	52.44' R	11.8'	845.42	847.30	
STA 190+09.77	52.45' R	15.1'	847.11	848.90	
STA 194+11.06	52.47' R	8.7'	846.16	851.33	
STA 198+39.60	52.43' R	7.4'	861.32	862.98	
STA 202+36.14	52.65' R	8.0'	865.49	866.45	
STA 206+78.94	52.47' R	18.7'	855.51	857.37	
STA 211+19.30	53.03' R	18.1'	858.20	859.55	
STA 218+05.28	79.37' L	9.2'	863.07	862.93	
STA 222+35.50	52.93' R	14.7'	862.35	865.14	
STA 226+24.92	52.94' R	12.6'	863.83	867.06	
STA 230+60.89	61.11' R	21.5'	864.46	868.10	
STA 231+34.31	87.92' L	7.4'	868.11	865.76	
STA 234+58.14	53.96' R	15.3'	859.66	860.82	
STA 238+23.28	53.11' R	21.5'	852.11	854.50	
STA 242+44.43	52.25' R	15.1'	847.80	848.86	The hydrant head is currently removed— The Water department shall deliver the hydrant head for the contractor to install
		328.3'			

SPV0090.02 REMOVE AND RELOCATE CURB STOP

STATION	OFFSET	1 1/4" POLYETHYLENE	NOTES
STA 193+17.99	62.75' L	15.1'	
STA 195+44.60	62.81' L	12.1'	
STA 196+33.32	62.71' L	11.2'	
STA 207+49.86	62.75' L	14.1'	
STA 209+04.91	62.91' L	12.9'	
STA 233+10.34	59.87' L	13.9'	
TOTAL		79.3'	

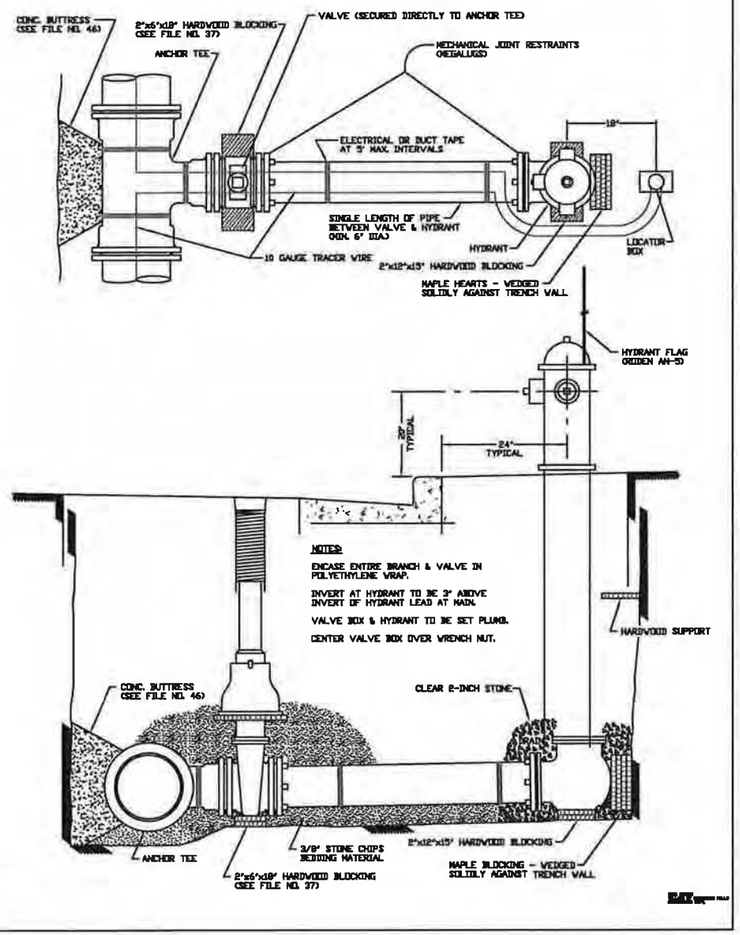
SPV 0060.24 RECONSTRUCT SANITARY SEWER MANHOLE

STATION	OFFSET	QUANTITY	NOTES
STA 168+98.90	47.45' L	1 EA	
STA 169+20.20	46.65' L	1 EA	
STA 172+15.41	42.57' L	1 EA	
STA 174+75.53	48.82' L	1 EA	
STA 178+71.07	40.37' L	1 EA	
STA 183+54.16	45.64' L	1 EA	
STA 188+08.56	44.0 ' L	1 EA	
STA 191+45.50	40.57' L	1 EA	
TOTAL		8 EA	

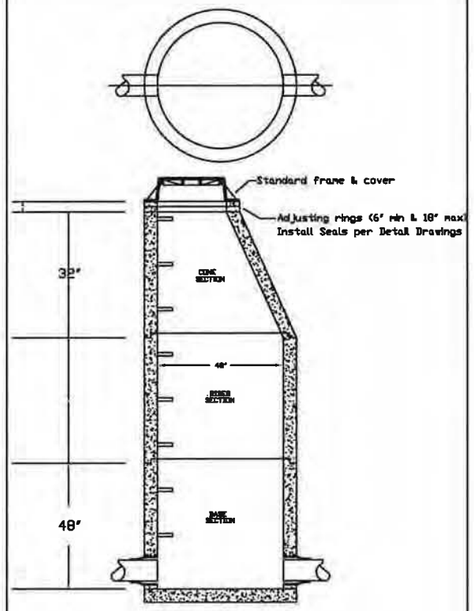
ALL ITEMS ARE CATEGORY 0040 UNLESS NOTED OTHERWISE.

2

STANDARD HYDRANT DETAIL

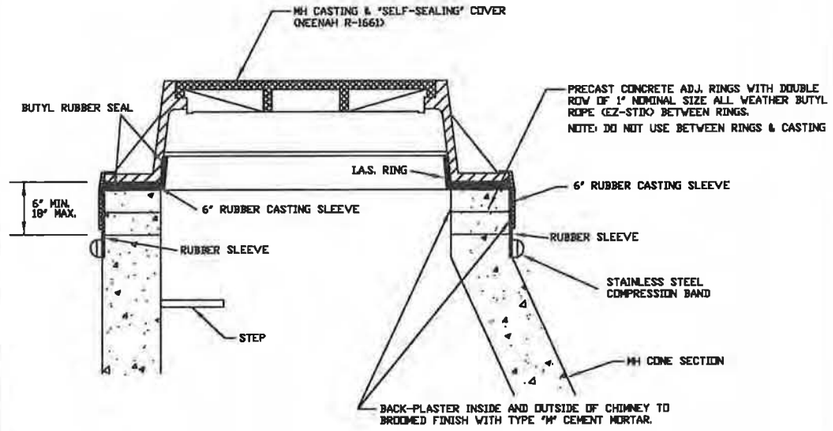


MANHOLE DETAIL



STANDARD 48" MANHOLE

ALL SANITARY MANHOLES SHALL BE PROVIDED WITH AN INTERNAL/EXTERNAL ADAPTOR SEAL WITH RUBBER SLEEVE TO SEAL THE OUTSIDE OF THE CHIMNEY FROM THE MANHOLE FRAME DOWN TO THE CORBEL. THE SEAL SHALL BE INSTALLED PER ADAPTOR INC. INSTALLATION INSTRUCTIONS.



SANITARY MANHOLE CHIMNEY DETAIL FOR MANHOLE RECONSTRUCTION

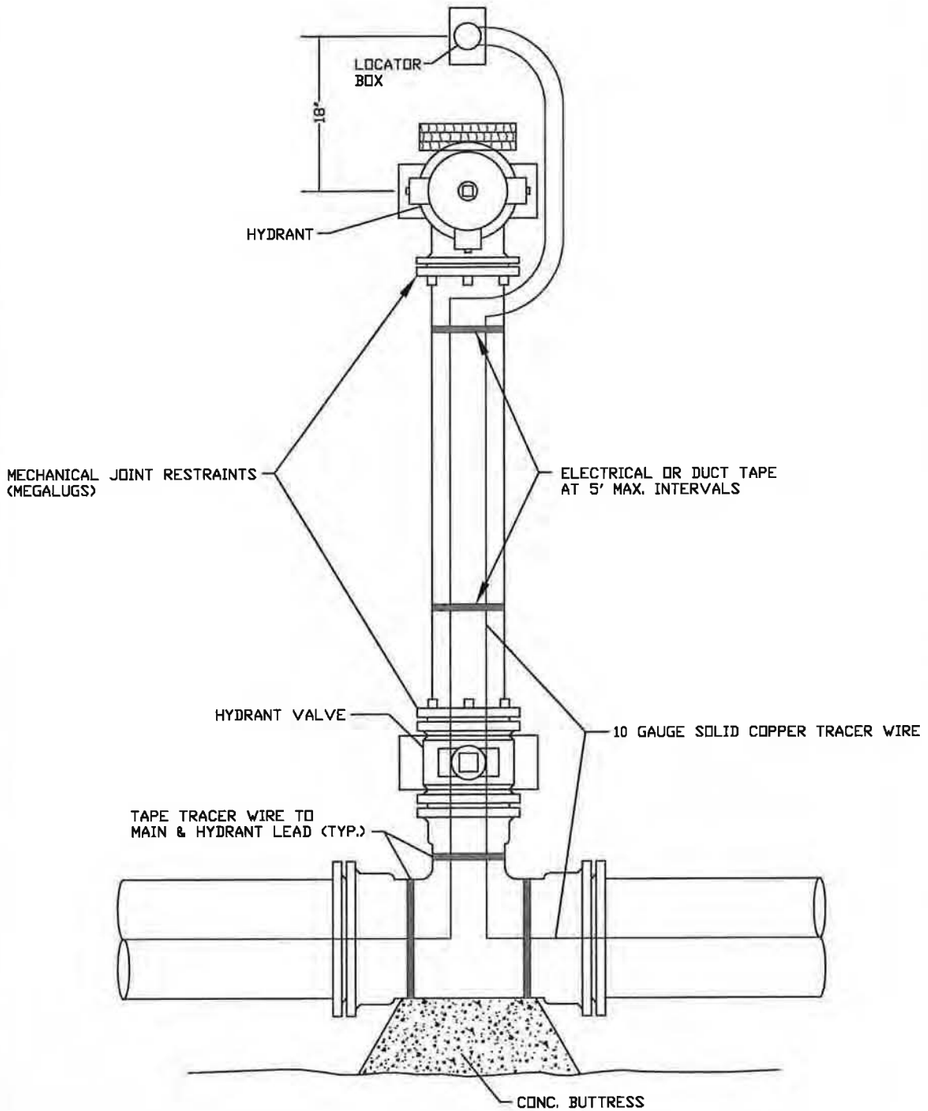
REV. 7/2007
VILLAGE OF MENOMONEE FALLS ENGINEERING DEPT.

PROJECT NO: 2753-06-71	HWY: VV	COUNTY: WAUKESHA	VILLAGE OF MENOMONEE FALLS DETAIL DRAWINGS	SHEET 100	E

FILE NAME : U:\ENGINEERING\1 DEPARTMENT COMMON\0PROJECTS\SILVER SPRING RECONSTRUCTION-JACKSON DR TO LANNON RD\PLANS\CTH VV 27571060-ATE FILE 06/2012 11:51:00 AM LAST REVISIONS.DWG BY : BRETL, JONATHAN

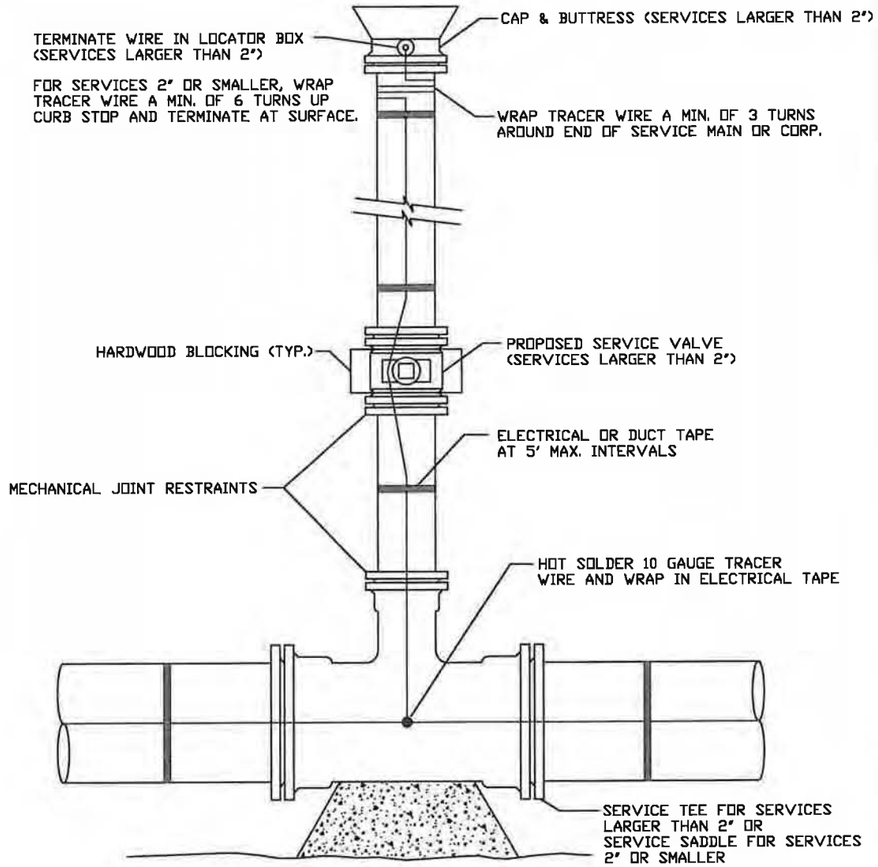
PLOT SCALE : NOT TO SCALE

TRACER WIRE DETAIL FOR HYDRANT LEAD



REV. 8/2008
VILLAGE OF MENOMONEE FALLS
ENGINEERING DEPT.

TRACER WIRE DETAIL FOR WATER SERVICES



NOTE: SPLICING OF TRACER WIRE SHALL BE MADE BY STRIPPING ENDS OF EACH WIRE, TWISTING THE WIRES TOGETHER A MINIMUM OF 10 TURNS, HOT SOLDERING THE TWISTED WIRES TOGETHER, AND WRAPPING THE CONNECTION IN ELECTRICAL TAPE, OR BY USING A SPLICE KIT APPROVED BY THE VILLAGE WATER UTILITY.

REV. 8/2008
VILLAGE OF MENOMONEE FALLS
ENGINEERING DEPT.

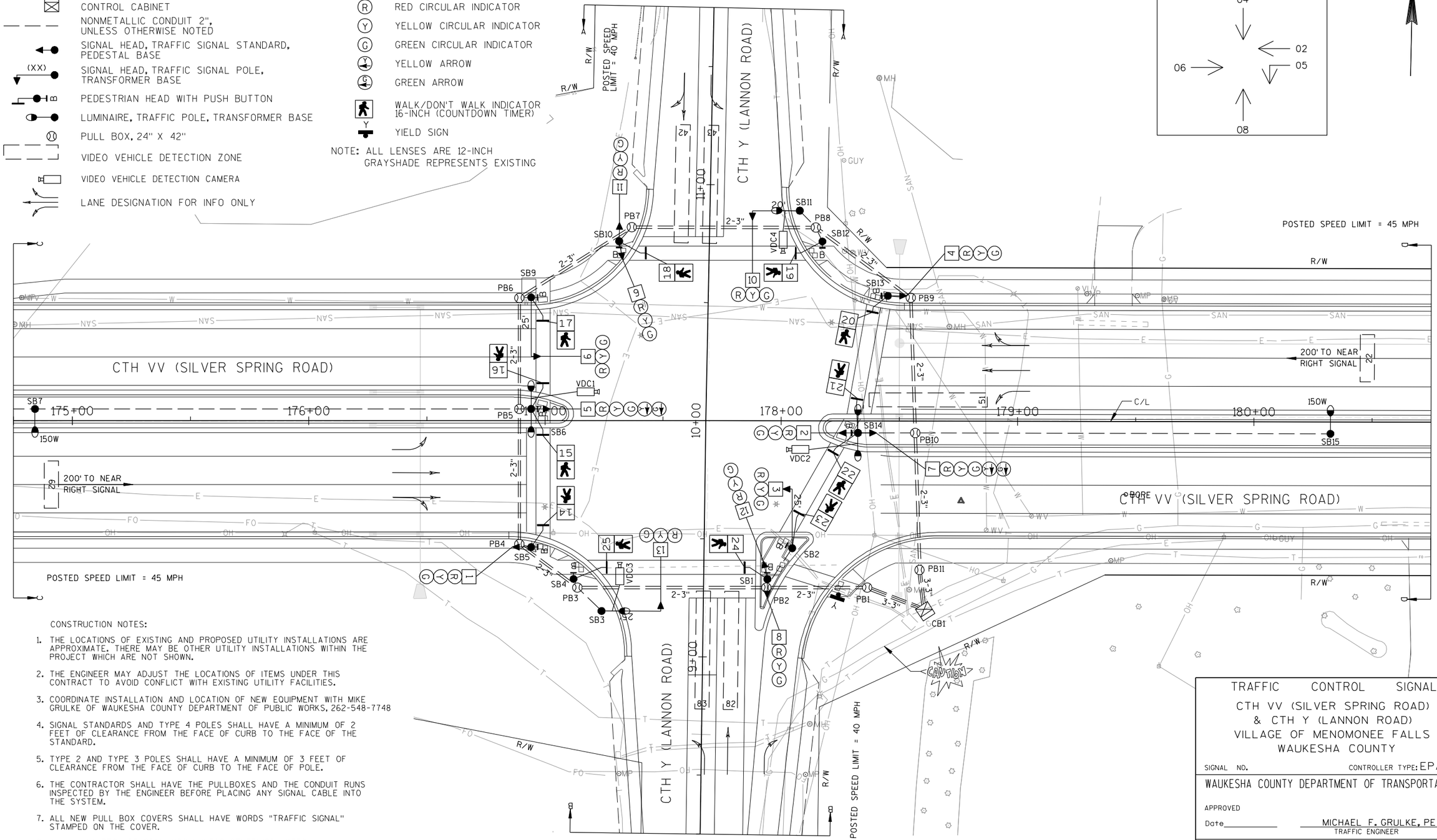
LEGEND

- SERVICE POLE
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX, 24" X 42"
- VIDEO VEHICLE DETECTION ZONE
- VIDEO VEHICLE DETECTION CAMERA
- LANE DESIGNATION FOR INFO ONLY
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- WALK/DON'T WALK INDICATOR 16-INCH (COUNTDOWN TIMER)
- Y YIELD SIGN

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

PHASING

N



CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
3. COORDINATE INSTALLATION AND LOCATION OF NEW EQUIPMENT WITH MIKE GRULKE OF WAUKESHA COUNTY DEPARTMENT OF PUBLIC WORKS, 262-548-7748
4. SIGNAL STANDARDS AND TYPE 4 POLES SHALL HAVE A MINIMUM OF 2 FEET OF CLEARANCE FROM THE FACE OF CURB TO THE FACE OF THE STANDARD.
5. TYPE 2 AND TYPE 3 POLES SHALL HAVE A MINIMUM OF 3 FEET OF CLEARANCE FROM THE FACE OF CURB TO THE FACE OF POLE.
6. THE CONTRACTOR SHALL HAVE THE PULLBOXES AND THE CONDUIT RUNS INSPECTED BY THE ENGINEER BEFORE PLACING ANY SIGNAL CABLE INTO THE SYSTEM.
7. ALL NEW PULL BOX COVERS SHALL HAVE WORDS "TRAFFIC SIGNAL" STAMPED ON THE COVER.
8. ALL LUMINAIRES ARE 250W HPS UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL SIGNAL

CTH VV (SILVER SPRING ROAD)
& CTH Y (LANNON ROAD)
VILLAGE OF MENOMONEE FALLS
WAUKESHA COUNTY

SIGNAL NO. CONTROLLER TYPE: EPAC

WAUKESHA COUNTY DEPARTMENT OF TRANSPORTATION

APPROVED

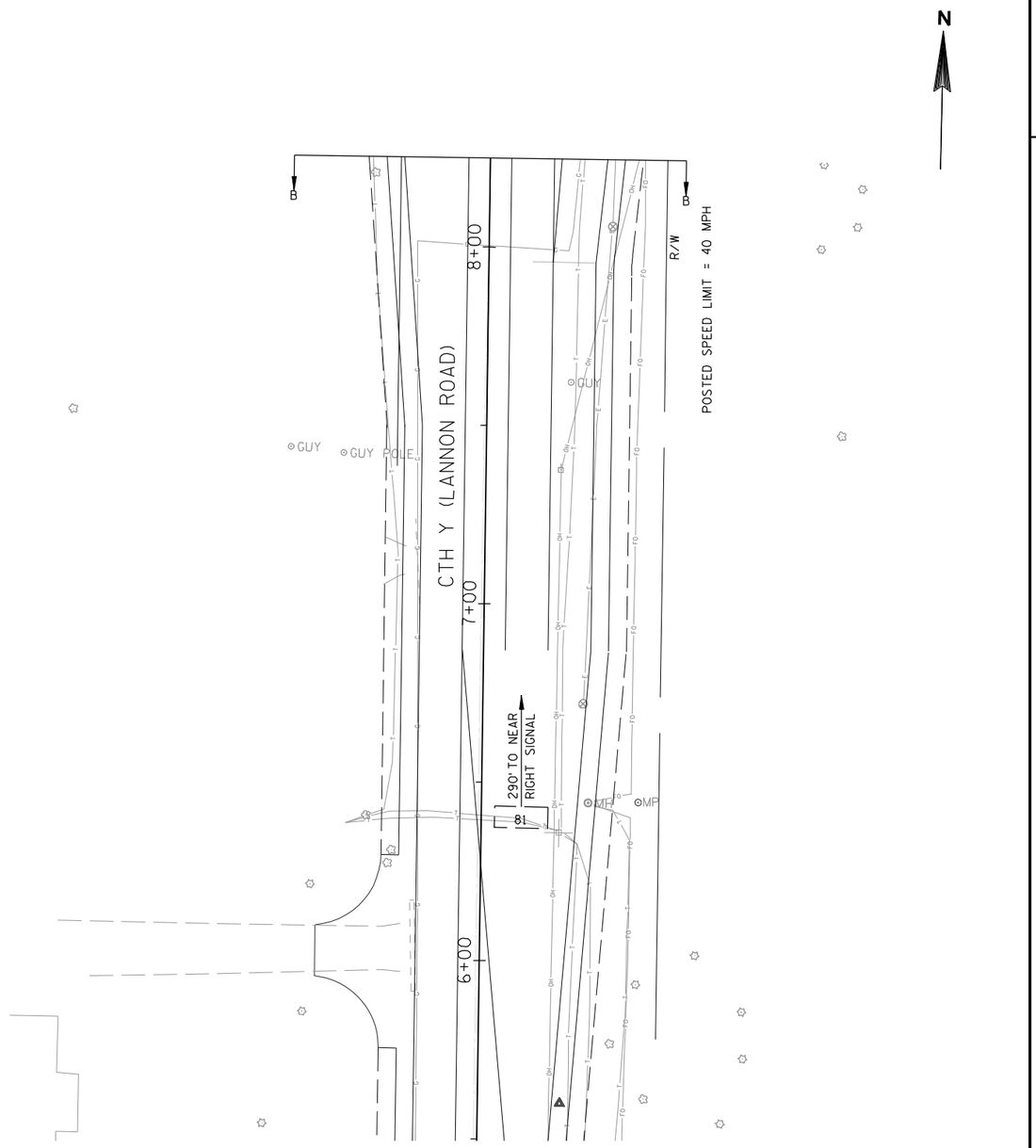
Date_____ MICHAEL F. GRULKE, PE
TRAFFIC ENGINEER

PAGE 1 OF 4

PROJECT NO: 2753-06-71	HWY: CTH VV	COUNTY: WAUKESHA	TRAFFIC SIGNAL PLAN	SHEET 102	E

FILE NAME : I:\jobs2010\20100196\cad\wisdot\dgn\00\01_cthy\024021_sp.DGN PLOT DATE : 5/29/2012 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / IN.
WISDOT/CADDS SHEET 42

2



2

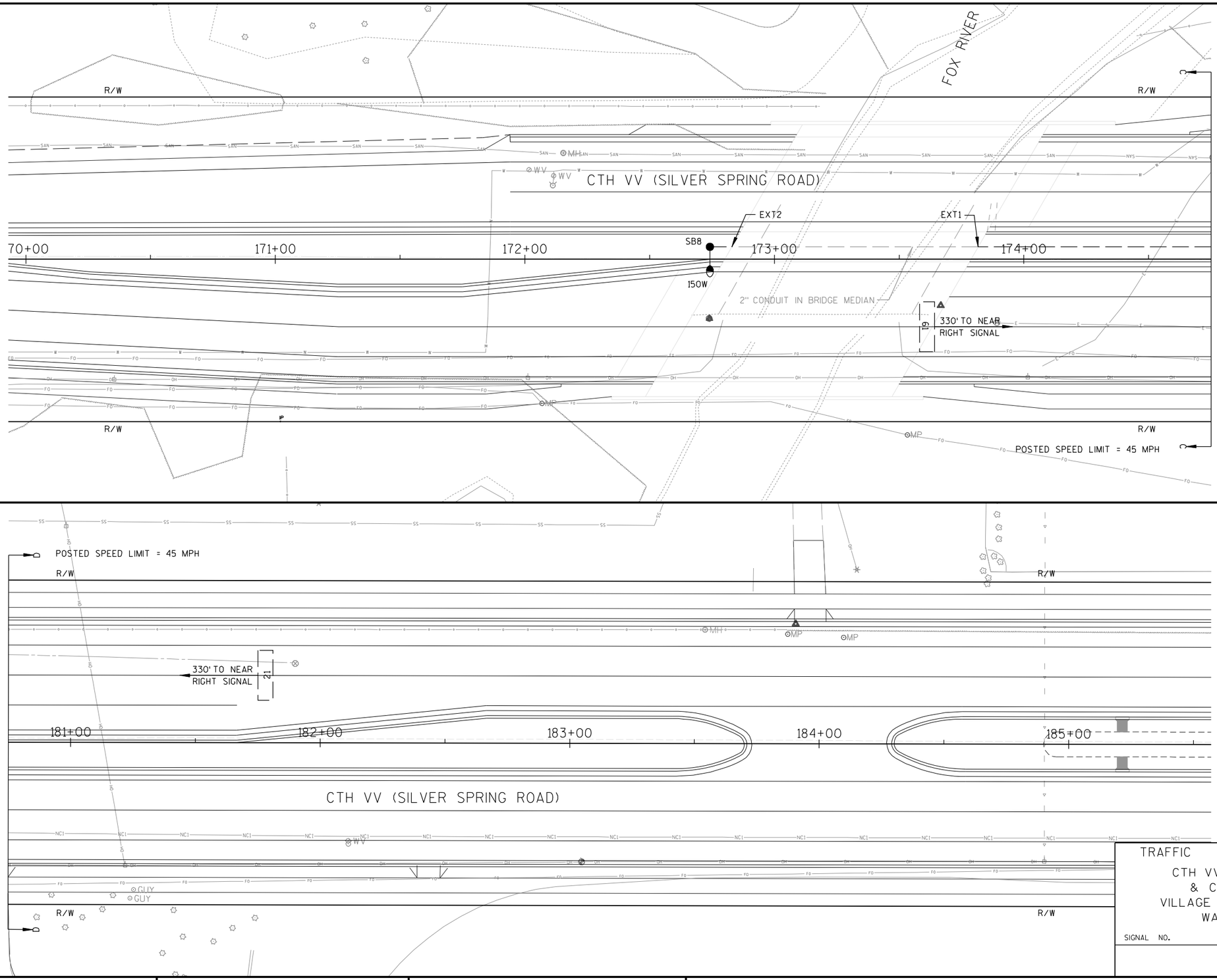
TRAFFIC CONTROL SIGNAL

CTH VV (SILVER SPRING ROAD)
& CTH Y (LANNON ROAD)
VILLAGE OF MENOMONEE FALLS
WAUKESHA COUNTY

SIGNAL NO. CONTROLLER TYPE: EPAC

PAGE 2 OF 4

PROJECT NO: 2753-06-71	HWY: CTH VV	COUNTY: WAUKESHA	TRAFFIC SIGNAL PLAN	SHEET 103	E



TRAFFIC CONTROL SIGNAL

CTH VV (SILVER SPRING ROAD)
& CTH Y (LANNON ROAD)
VILLAGE OF MENOMONEE FALLS
WAUKESHA COUNTY

SIGNAL NO. CONTROLLER TYPE: EPAC

PROJECT NO: 2753-06-71	HWY: CTH VV	COUNTY: WAUKESHA	TRAFFIC SIGNAL PLAN	SHEET 104	E

FILE NAME : I:\jobs2010\20100196\cad\wisdot\dgn\00\01_cthy\024023_sp.dgn PLOT DATE : 5/29/2012 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / IN.
WISDOT/CADDS SHEET 42

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 ✳✳	Ø1 CLEAR TO	Ø2 R/W	Ø2 ✳✳	Ø2 CLEAR TO	Ø3 R/W	Ø3 ✳✳	Ø3 CLEAR TO	Ø4 R/W	Ø4 ✳✳	Ø4 CLEAR TO	FLASH
		NOT USED						NOT USED						
Ø1														
Ø2	4,5,6,7				G	Y	R				R	R	R	R
Ø3														
Ø4	11,12,13				R	R	R				G	Y	R	R
Ø5	5,7				-	-	-				-	-	-	-
Ø6	1,2,3				R	R	R				R	R	R	R
Ø7														
Ø8	8,9,10				R	R	R				R	R	R	R
Ø2P	18,19				*	D	D				D	D	D	
Ø4P	14,15,16,17				D	D	D				*	D	D	
Ø6P	24,25				D	D	D				D	D	D	
Ø8P	20,21,22,23				D	D	D				D	D	D	

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 ✳✳	Ø5 CLEAR TO	Ø6 R/W	Ø6 ✳✳	Ø6 CLEAR TO	Ø7 R/W	Ø7 ✳✳	Ø7 CLEAR TO	Ø8 R/W	Ø8 ✳✳	Ø8 CLEAR TO
		NOT USED					NOT USED						
Ø1													
Ø2	4,5,6,7	R	R	R	R	R	R				R	R	R
Ø3													
Ø4	11,12,13	R	R	R	R	R	R				R	R	R
Ø5	5,7	G ←	Y ←	-	-	-	-				-	-	-
Ø6	1,2,3	R	R	R	G	Y	R				R	R	R
Ø7													
Ø8	8,9,10	R	R	R	R	R	R				G	Y	R
Ø2P	18,19	D	D	D	D	D	D				D	D	D
Ø4P	14,15,16,17	D	D	D	D	D	D				D	D	D
Ø6P	24,25	D	D	D	*	D	D				D	D	D
Ø8P	20,21,22,23	D	D	D	D	D	D				*	D	D

BARRIER

N

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

* WHEN CALLED, TIMED STEADY WALK, THEN FLASHING DON'T WALK, THEN GOES TO STEADY DON'T WALK

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1		
2	5 OR 6	4,8
3		
4	8	2,5,6
5		
6	2	4,5,8
7		
8	4	2,5,6

DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
21		X			2	2					VIDEO
22		X			2	2					VIDEO
41				X		4			X		VIDEO
42		X			4	4					VIDEO
43		X			4	4		X			VIDEO
51		X			5	5					VIDEO
61		X			6	6					VIDEO
62		X			6	6					VIDEO
81				X		8			X		VIDEO
82		X			8	8					VIDEO
83		X			8	8		X			VIDEO

CONTROLLER LOGIC

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
RADIO	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM #: SS- -	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

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

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)
3. IF ANY OPPOSING THRU PHASES ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

TRAFFIC CONTROL SIGNAL

CTH VV (SILVER SPRING ROAD)
& CTH Y (LANNON ROAD)
VILLAGE OF MENOMONEE FALLS
WAUKESHA COUNTY

SIGNAL NO. CONTROLLER TYPE: EPAC

FILE NAME : I:\jobs2010\20100196\cad\wisdot\dgn\00\01_cthy\024121_ph.DGN PLOT DATE : 5/29/2012 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0004 sf / IN.
WISDOT/CADDS SHEET 42

PROJECT ID:	2753-06-71
INTERSECTION:	CTH VV & CTH Y

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

CB1 TO	JUMPER	NO. OF CONDUCTORS	HEAD NO.	PHASE	RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	D/WALK	WALK	PED BUTTON	OTHER
SB1		12	8	8	RED	ORG	GRN							
			12	4	RED/BLK	ORG/BLK	GRN/BLK							
			24	6							BLK	BLU		
			B	6									WHT/BLK	
SB2		12	3	4	RED	ORG	GRN							
			23	8							BLK	BLU		
			B	8									WHT/BLK	
SB3		12	13	4	RED	ORG	GRN							
SB4		7	25	6							BLK	BLU		
			B	6									WHT/BLK	
SB5		12	1	6	RED	ORG	GRN							
			14	4							BLK	BLU		
			B	4									WHT/BLK	
SB6		12	5	2&5	RED/BLK	ORG/BLK	GRN/BLK		BLK/WHT	BLU/BLK				
			15	4							BLK	BLU		
			16	4							BLK	BLU		
			B	4									WHT/BLK	
SB9		12	6	2	RED	ORG	GRN							
			17	4							BLK	BLU		
			B	4									WHT/BLK	
SB10		12	9	8	RED	ORG	GRN							
			11	4	RED/BLK	ORG/BLK	GRN/BLK							
			18	2							BLK	BLU	WHT/BLK	
			B	2										
SB11		12	10	8	RED	ORG	GRN							
SB12		7	19	2							BLK	BLU		
			B	8									WHT/BLK	
SB13		12	4	2	RED	ORG	GRN							
			20	8							BLK	BLU		
			B	8									WHT/BLK	
SB14		15	2	6	RED	ORG	GRN							
			7	2&5	RED/BLK	ORG/BLK	GRN/BLK		BLK/WHT	BLU/BLK				
			21	8							BLK	BLU		
			22	8							BLK	BLU		
			B	8									WHT/BLK	

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB6	SB6
SB7	SB9
SB8	SB10
SB9	SB11
SB10	SB12
SB11	SB13
SB12	SB14
SB14	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	CB1
PB2	SB1
PB3	SB4
PB4	SB5
PB5	SB6
PB6	SB9
PB7	SB10
PB8	SB12
PB9	SB13
PB10	SB14
PB11	CB1

LIGHTING UF 10 AWG W/ GROUND	
FROM	TO
CB1	SB3
SB3	SB6
SB6	SB7
SB7	SB8
CB1	SB14
SB14	SB15
SB14	SB11

VIDEO DETECTION CABLE	
FROM	TO
CB1	VDC1
CB1	VDC2
CB1	VDC3
CB1	VDC4

NOTES: USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
AT THE SIGNAL BASES, CONNECT ON TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

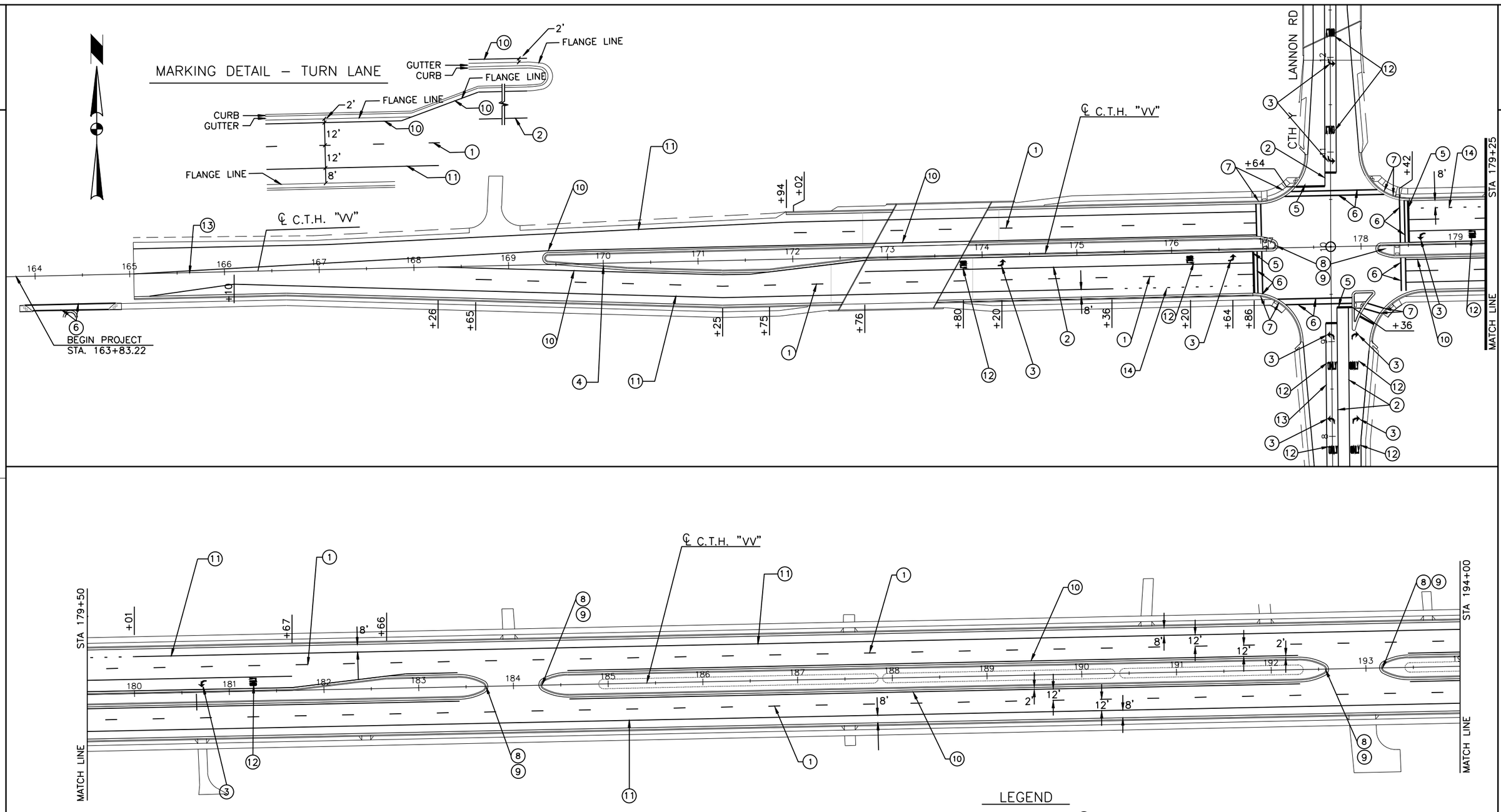
TRAFFIC CONTROL SIGNAL

CTH VV (SILVER SPRING ROAD)
& CTH Y (LANNON ROAD)
VILLAGE OF MENOMONEE FALLS
WAUKESHA COUNTY

SIGNAL NO. CONTROLLER TYPE: EPAC

FILE NAME : I:\jobs2010\20100196\cad\wisdot\dgn\00\01_cthy\024221_cr.dgn PLOT DATE : 5/29/2012 PLOT BY : GRAEF PLOT NAME : PLOT SCALE : 40.0000 sf / IN.
WISDOT/CADDS SHEET 42

MARKING DETAIL – TURN LANE

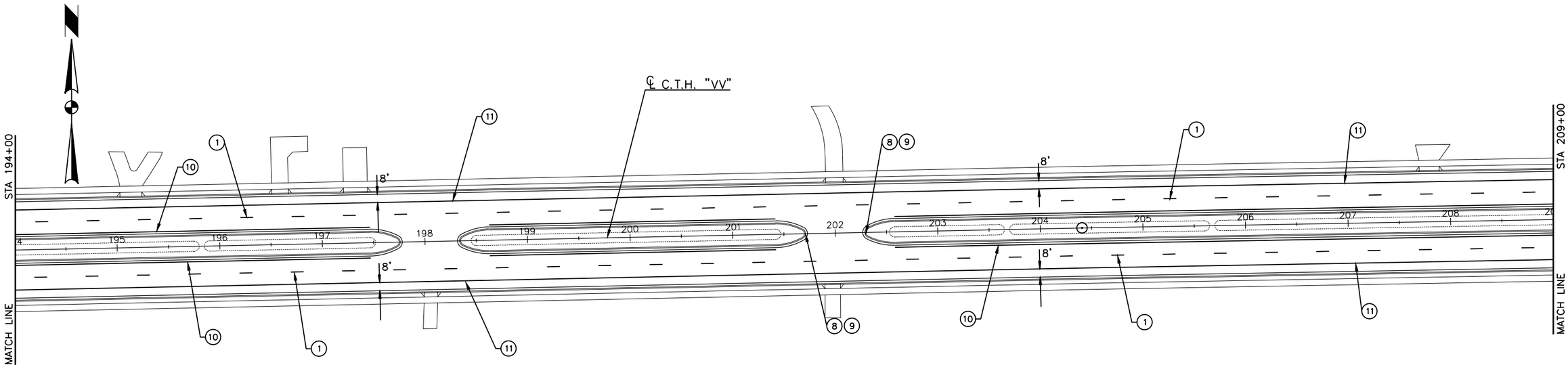


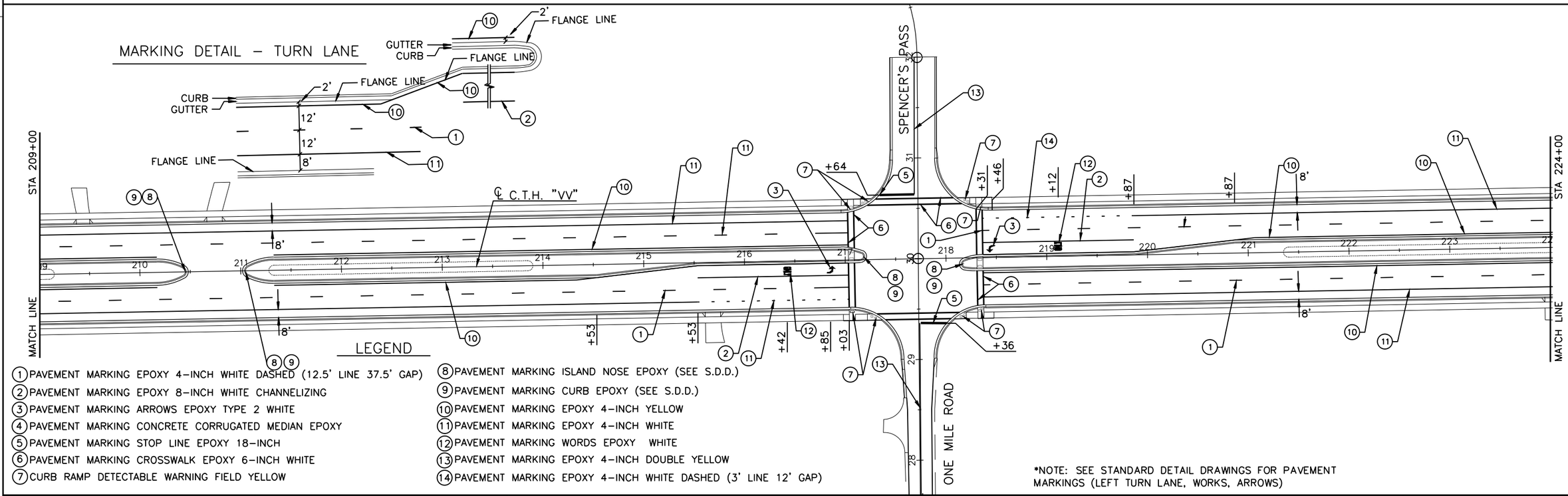
*NOTE: SEE STANDARD DETAIL DRAWINGS FOR PAVEMENT MARKINGS (LEFT TURN LANE, WORKS, ARROWS)

LEGEND

1. PAVEMENT MARKING EPOXY 4–INCH WHITE DASHED (12.5' LINE 37.5' GAP)
2. PAVEMENT MARKING EPOXY 8–INCH WHITE CHANNELIZING
3. PAVEMENT MARKING ARROWS EPOXY TYPE 2 WHITE
4. PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY
5. PAVEMENT MARKING STOP LINE EPOXY 18–INCH
6. PAVEMENT MARKING CROSSWALK EPOXY 6–INCH WHITE
7. CURB RAMP DETECTABLE WARNING FIELD YELLOW
8. PAVEMENT MARKING ISLAND NOSE EPOXY (SEE S.D.D.)
9. PAVEMENT MARKING CURB EPOXY (SEE S.D.D.)
10. PAVEMENT MARKING EPOXY 4–INCH YELLOW
11. PAVEMENT MARKING EPOXY 4–INCH WHITE
12. PAVEMENT MARKING WORDS EPOXY WHITE
13. PAVEMENT MARKING EPOXY 4–INCH DOUBLE YELLOW
14. PAVEMENT MARKING EPOXY 4–INCH WHITE DASHED (3' LINE 12' GAP)

PROJECT NUMBER: 2753–06–71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVEMENT MARKING PLAN STA 165+00 – 194+00	SHEET NO.: 107 E





LEGEND

1. PAVEMENT MARKING EPOXY 4–INCH WHITE DASHED (12.5' LINE 37.5' GAP)
2. PAVEMENT MARKING EPOXY 8–INCH WHITE CHANNELIZING
3. PAVEMENT MARKING ARROWS EPOXY TYPE 2 WHITE
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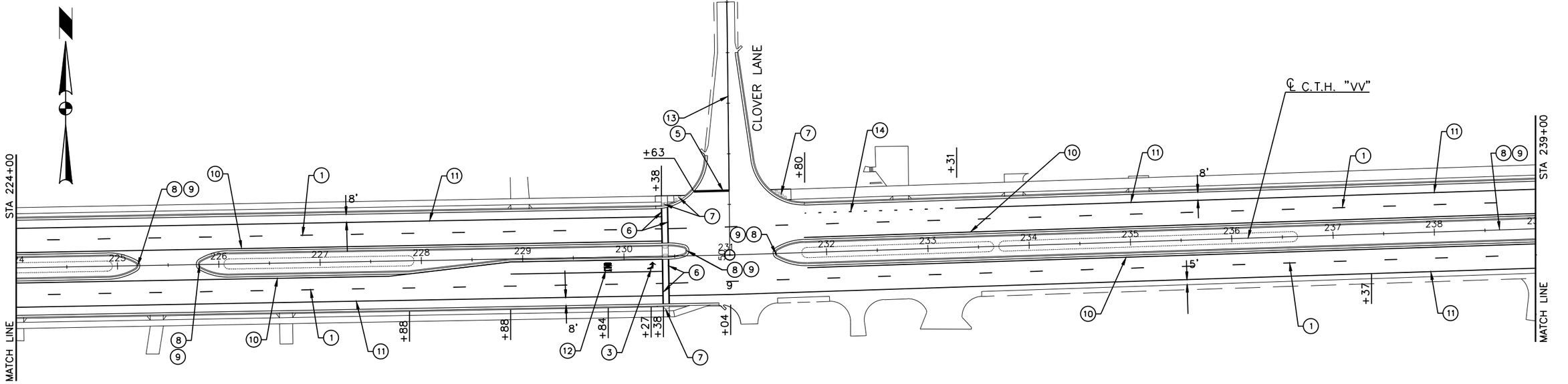
12. PAVEMENT MARKING WORDS EPOXY WHITE
13. PAVEMENT MARKING EPOXY 4–INCH DOUBLE YELLOW
14. PAVEMENT MARKING EPOXY 4–INCH WHITE DASHED (3' LINE 12' GAP)

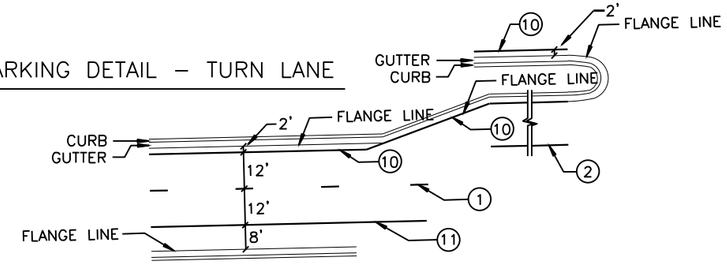
*NOTE: SEE STANDARD DETAIL DRAWINGS FOR PAVEMENT MARKINGS (LEFT TURN LANE, WORKS, ARROWS)

PROJECT NUMBER: 2753–06–71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVEMENT MARKING PLAN STA 194+00 – 224+00	SHEET NO.: 108	E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\PAVEMENT MARKING 2753–06–71.DWG PLOT DATE : 10/5/2012 10:15 AM PLOT BY : SOEHNER, JIM PLOT NAME : _____ PLOT SCALE : 1"=100'
WISDOT/CADDS SHEET 44



MARKING DETAIL – TURN LANE



LEGEND

1. PAVEMENT MARKING EPOXY 4–INCH WHITE DASHED (12.5' LINE 37.5' GAP)
2. PAVEMENT MARKING EPOXY 8–INCH WHITE CHANNELIZING
3. PAVEMENT MARKING ARROWS EPOXY TYPE 2 WHITE
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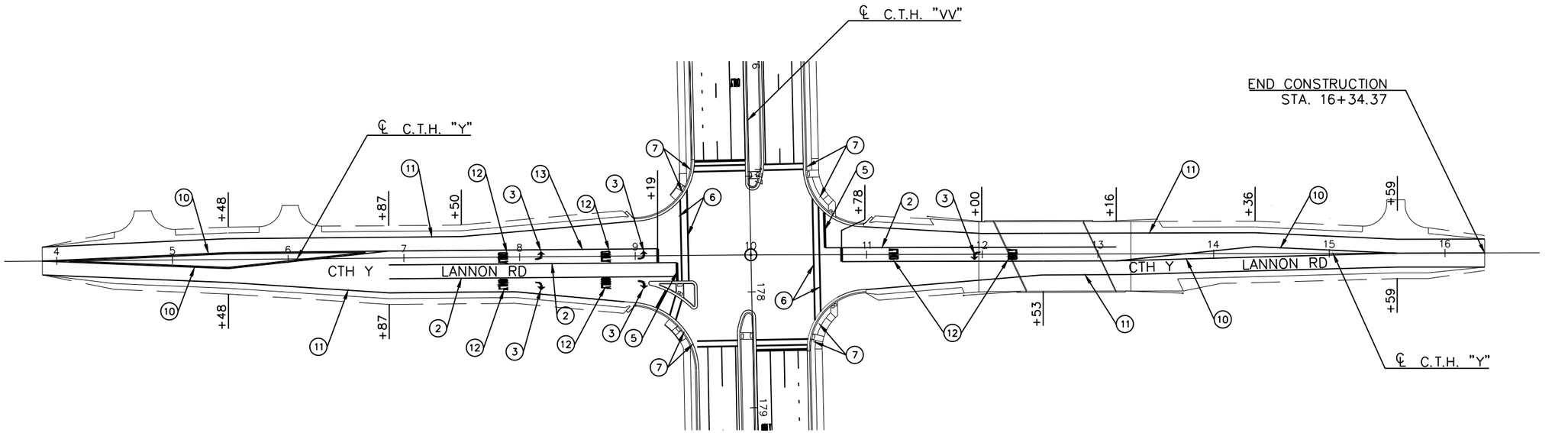
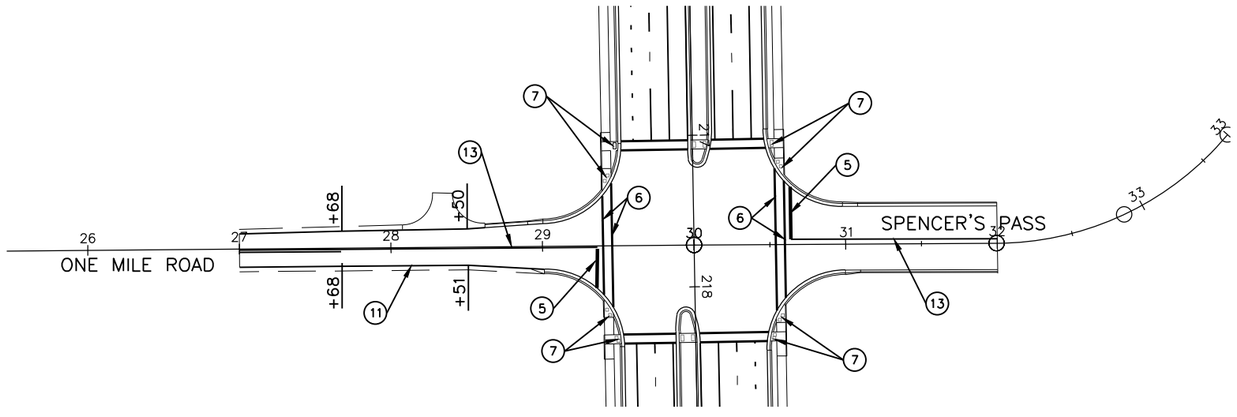
13. PAVEMENT MARKING EPOXY 4–INCH DOUBLE YELLOW
14. PAVEMENT MARKING EPOXY 4–INCH WHITE DASHED (3' LINE 12' GAP)

*NOTE: SEE STANDARD DETAIL DRAWINGS FOR PAVEMENT MARKINGS (LEFT TURN LANE, WORKS, ARROWS)

PROJECT NUMBER: 2753–06–71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVEMENT MARKING PLAN	SHEET NO.: 109 E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\PAVEMENT MARKING 2753–06–71.DWG PLOT DATE : 10/5/2012 10:15 AM PLOT BY : SOEHNER, JIM PLOT NAME : _____ PLOT SCALE : 1"=100'
WISDOT/CADDS SHEET 44





LEGEND

1. PAVEMENT MARKING EPOXY 4–INCH WHITE DASHED (12.5' LINE 37.5' GAP)
2. PAVEMENT MARKING EPOXY 8–INCH WHITE CHANNELIZING
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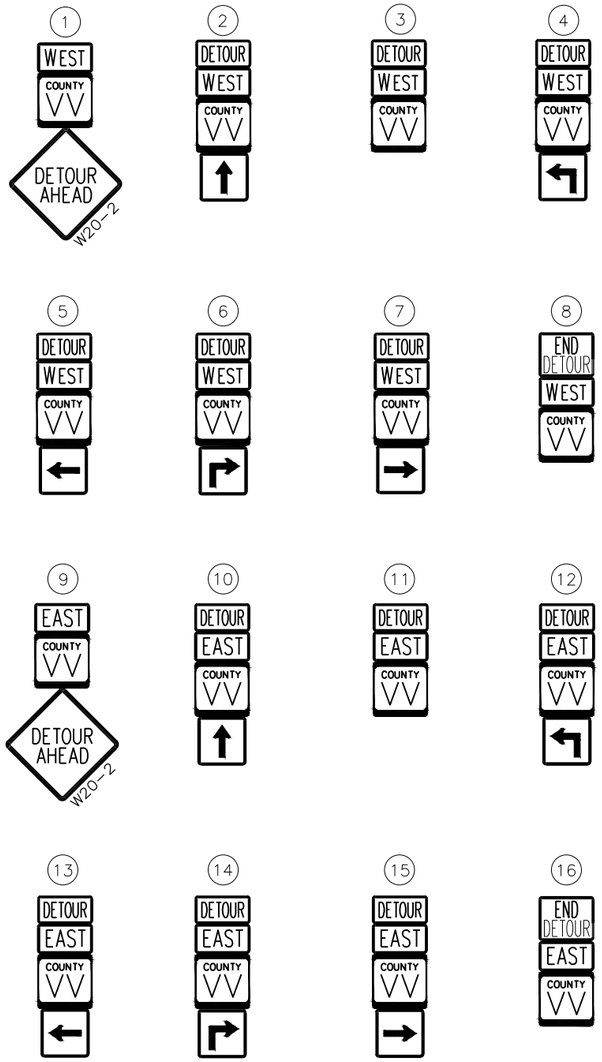
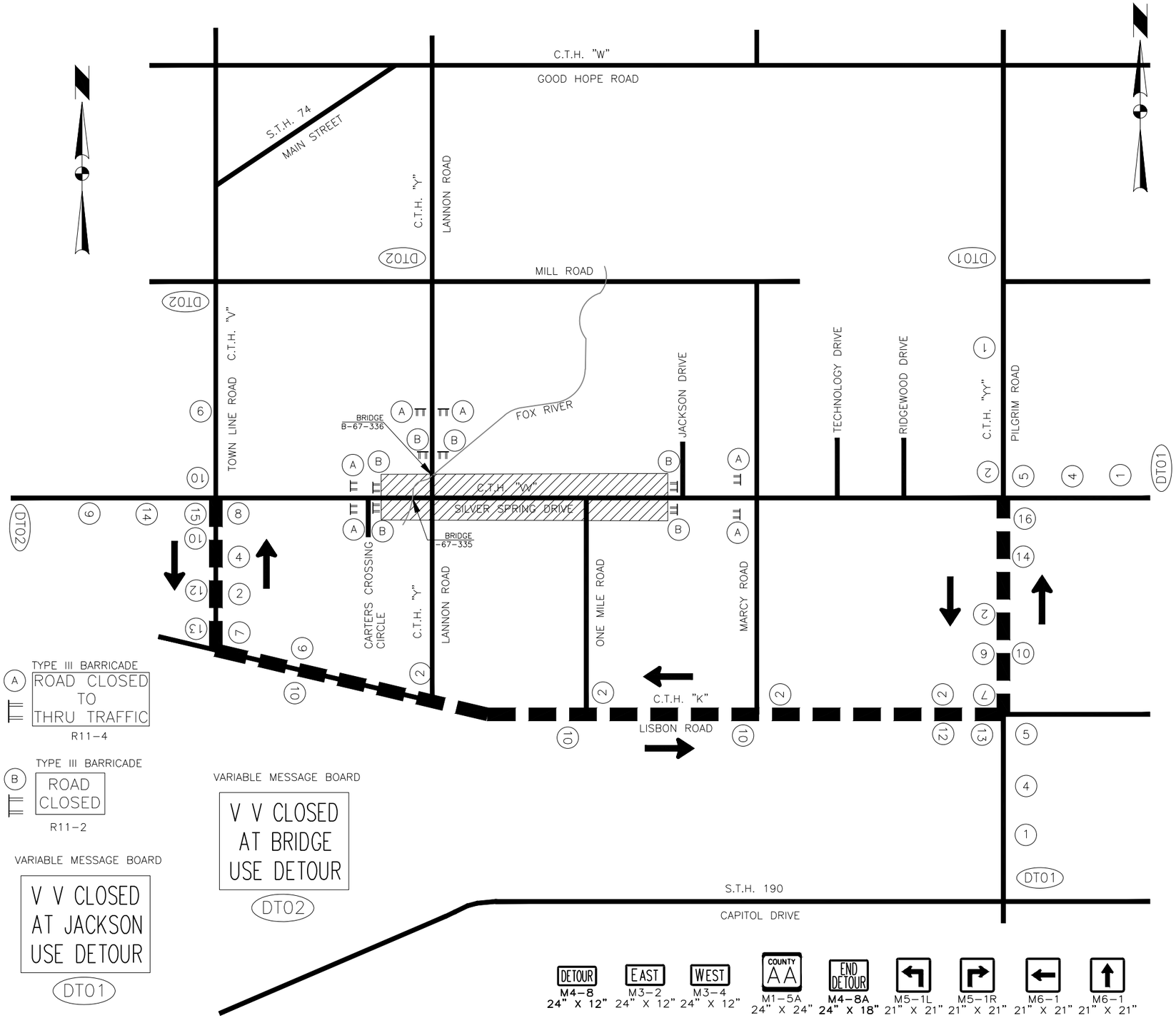
14. PAVEMENT MARKING EPOXY 4–INCH WHITE DASHED (3' LINE 12' GAP)

*NOTE: SEE STANDARD DETAIL DRAWINGS FOR PAVEMENT MARKINGS (LEFT TURN LANE, WORKS, ARROWS)

PROJECT NUMBER: 2753–06–71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PAVEMENT MARKING PLAN	SHEET NO.: 110	E





A TYPE III BARRICADE
ROAD CLOSED TO THRU TRAFFIC
R11-4

B TYPE III BARRICADE
ROAD CLOSED
R11-2

VARIABLE MESSAGE BOARD
V V CLOSED AT JACKSON USE DETOUR
DT01

VARIABLE MESSAGE BOARD
V V CLOSED AT BRIDGE USE DETOUR
DT02

GENERAL NOTES

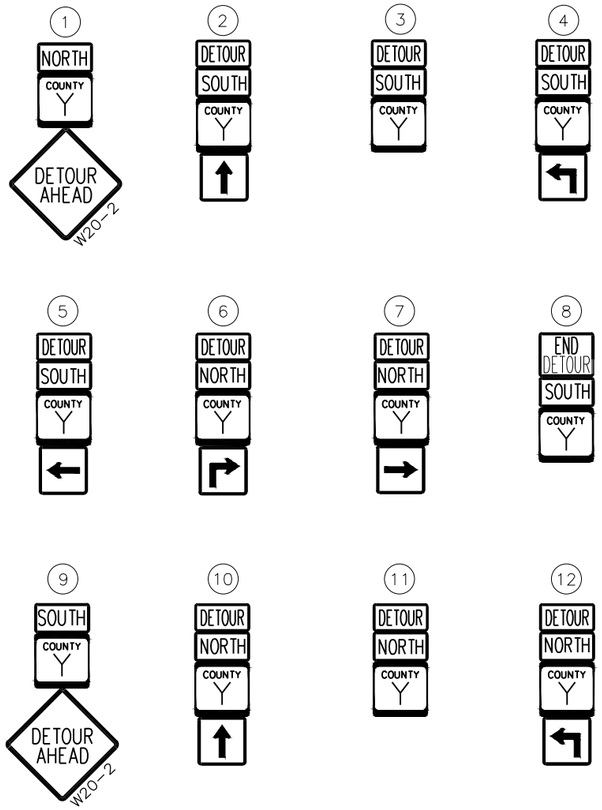
ALL EXISTING SIGN MESSAGES THAT CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.

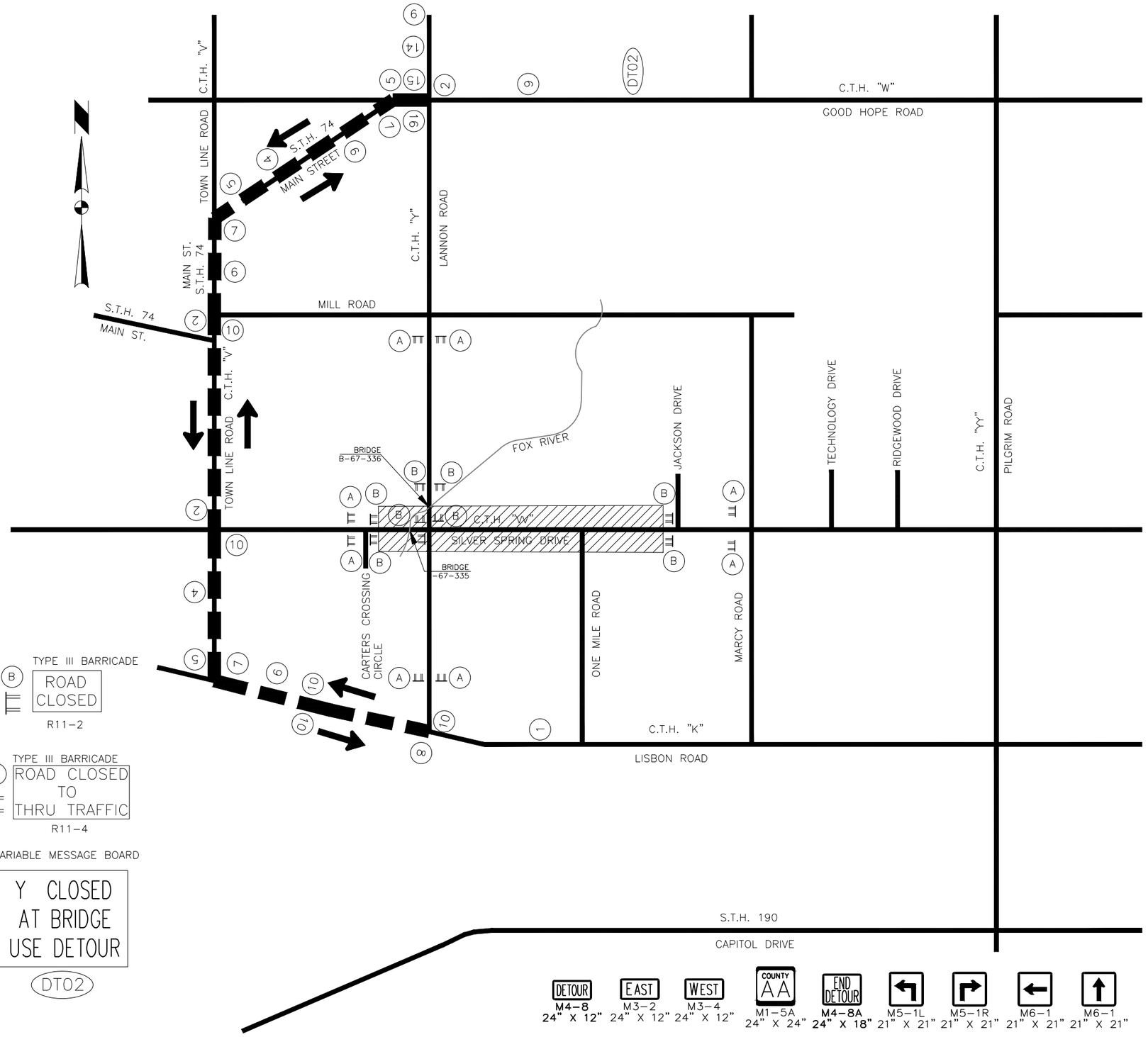
SEE SDD "DETOUR SIGNING FOR MAINLINE CLOSURES" FOR SIGN SPACING AND LOCATIONS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL M3 SERIES SIGNS WHICH ARE PART OF THE DETOUR ROUTE MARKER SIGNING ASSEMBLY OR ATTACHED TO ANY WARNING SIGN SHALL BE BLACK LETTERING ON A WHITE

PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	DETOUR PLAN: C.T.H. VV	SHEET 111	E





B TYPE III BARRICADE
ROAD CLOSED
R11-2

A TYPE III BARRICADE
ROAD CLOSED TO THRU TRAFFIC
R11-4

VARIABLE MESSAGE BOARD

Y CLOSED AT BRIDGE USE DETOUR

DT02

GENERAL NOTES

ALL EXISTING SIGN MESSAGES THAT CONFLICT WITH TRAFFIC CONTROL DETOUR SIGNS SHALL BE COVERED OR REMOVED.

SEE SDD "DETOUR SIGNING FOR MAINLINE CLOSURES" FOR SIGN SPACING AND LOCATIONS.

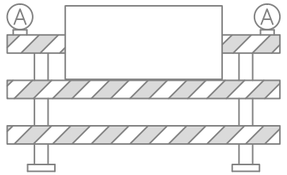
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL M3 SERIES SIGNS WHICH ARE PART OF THE DETOUR ROUTE MARKER SIGNING ASSEMBLY OR ATTACHED TO ANY WARNING SIGN SHALL BE BLACK LETTERING ON A WHITE BACKGROUND.

PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	DETOUR PLAN: C.T.H. Y	SHEET 112	E

LEGEND

- POST MOUNTED SIGN
- TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC FLOW DIRECTION
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- ACCESS CLOSED DURING STAGE



TYPE III BARRICADE WITH ATTACHED SIGN

1

2

3

4

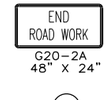
5

WO13-1
24" X 24"

6

R11-2
48" X 30"

7



G20-2A
48" X 24"

8

R2-1
24" X 30"

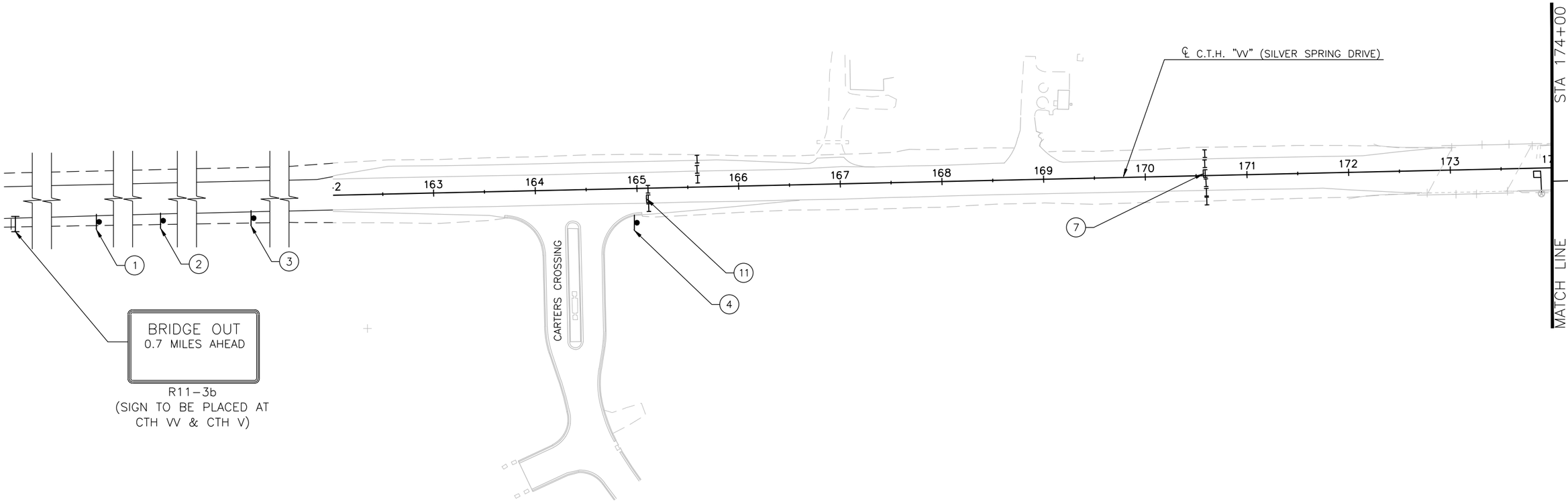
9

R11-4
60" x 30"

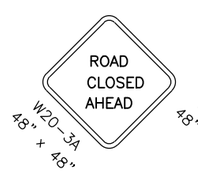
10

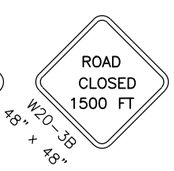
R11-4
60" x 30"

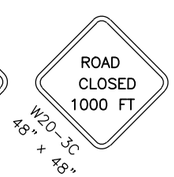
11



R11-3b
(SIGN TO BE PLACED AT CTH VV & CTH V)







ADVANCED SIGNING DETAIL
(TYPICAL ALL MAIN APPROACHES)

STAGE 1 TRAFFIC CONTROL

1. ROAD CLOSED TO THRU TRAFFIC
2. CONSTRUCT:
   - STRUCTURE B-67-335
   - STRUCTURE B-67-336
   - CTH VV THROUGH BINDER ASPHALT
   - TRAFFIC SIGNAL.
   - ALL STORMSEWERS
3. CONTRACTOR TO MAINTAIN ONE LANE OF TRAFFIC IN BOTH DIRECTIONS AT ALL TIMES ON HARD SURFACE (EXISTING ASPHALT OR GRAVEL OR AS APPROVED BY ENGINEER). SEE SPECIAL PROVISIONS.

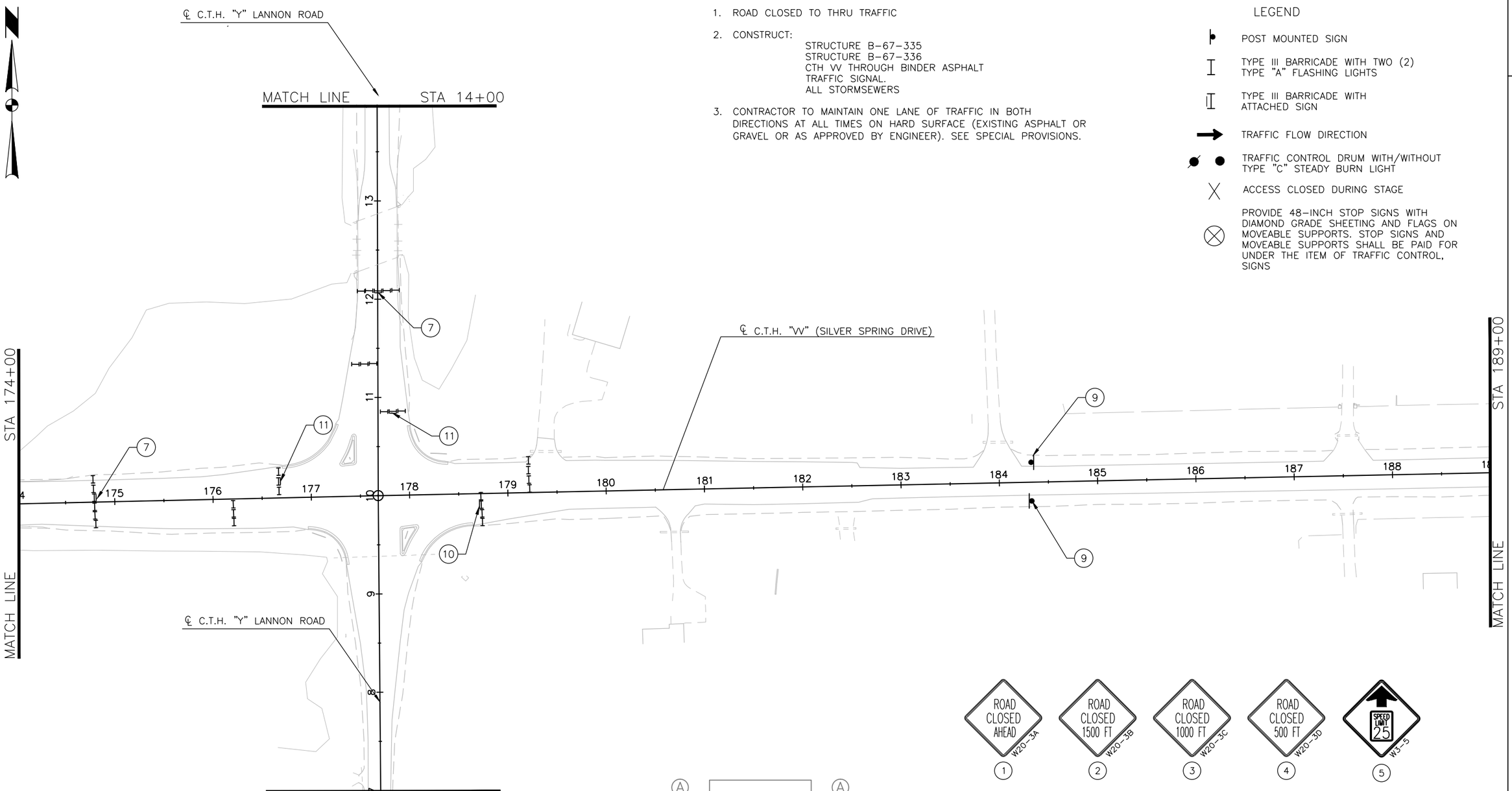
PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TRAFFIC CONTROL PLAN – STAGE 1 STA 160+00 – 174+00	SHEET NO.: 113 E

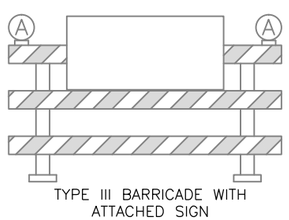
STAGE 1 TRAFFIC CONTROL

1. ROAD CLOSED TO THRU TRAFFIC
2. CONSTRUCT:
   - STRUCTURE B-67-335
   - STRUCTURE B-67-336
   - CTH VV THROUGH BINDER ASPHALT
   - TRAFFIC SIGNAL.
   - ALL STORMSEWERS
3. CONTRACTOR TO MAINTAIN ONE LANE OF TRAFFIC IN BOTH DIRECTIONS AT ALL TIMES ON HARD SURFACE (EXISTING ASPHALT OR GRAVEL OR AS APPROVED BY ENGINEER). SEE SPECIAL PROVISIONS.

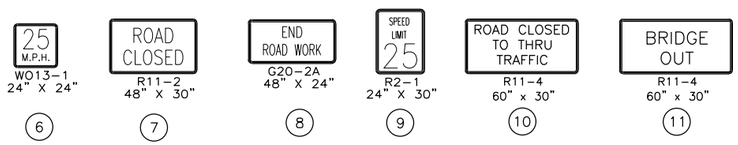
LEGEND

- POST MOUNTED SIGN
- TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC FLOW DIRECTION
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- ACCESS CLOSED DURING STAGE
- PROVIDE 48-INCH STOP SIGNS WITH DIAMOND GRADE SHEETING AND FLAGS ON MOVEABLE SUPPORTS. STOP SIGNS AND MOVEABLE SUPPORTS SHALL BE PAID FOR UNDER THE ITEM OF TRAFFIC CONTROL, SIGNS





TYPE III BARRICADE WITH ATTACHED SIGN



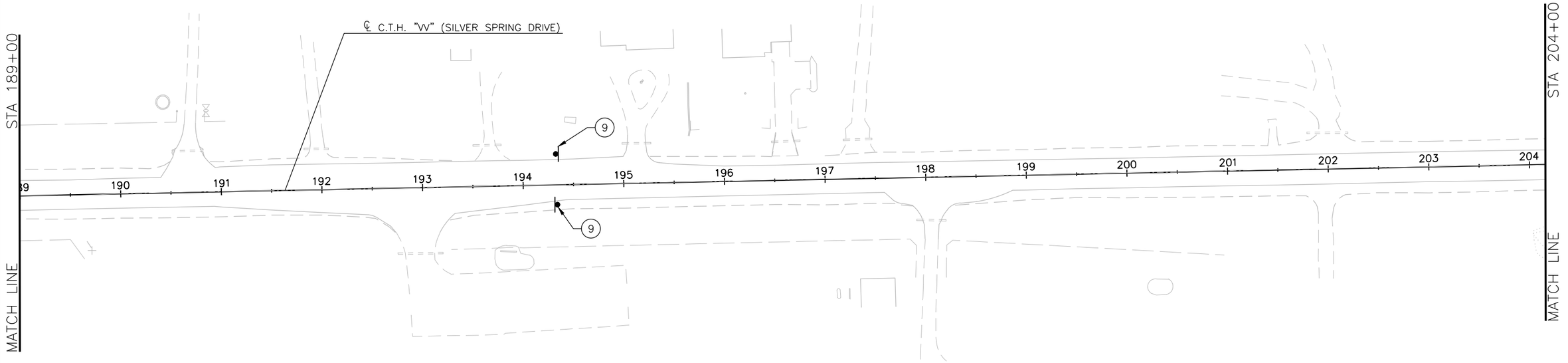
PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TRAFFIC CONTROL PLAN – STAGE 1 STA 174 – 189	SHEET NO.: 114 E

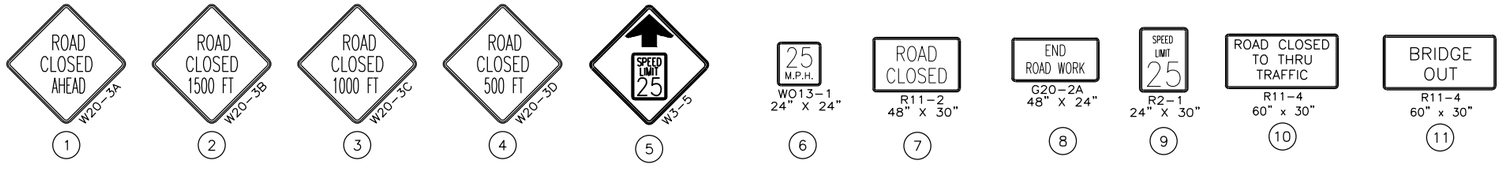
LEGEND

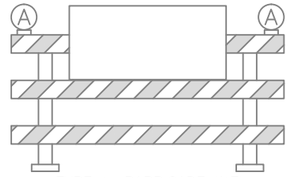
- POST MOUNTED SIGN
- TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC FLOW DIRECTION
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- ACCESS CLOSED DURING STAGE
- PROVIDE 48-INCH STOP SIGNS WITH DIAMOND GRADE SHEETING AND FLAGS ON MOVEABLE SUPPORTS. STOP SIGNS AND MOVEABLE SUPPORTS SHALL BE PAID FOR UNDER THE ITEM OF TRAFFIC CONTROL, SIGNS

STAGE 1 TRAFFIC CONTROL

1. ROAD CLOSED TO THRU TRAFFIC
2. CONSTRUCT:
   - STRUCTURE B-67-335
   - STRUCTURE B-67-336
   - CTH VV THROUGH BINDER ASPHALT
   - TRAFFIC SIGNAL.
   - ALL STORMSEWERS
3. CONTRACTOR TO MAINTAIN ONE LANE OF TRAFFIC IN BOTH DIRECTIONS AT ALL TIMES ON HARD SURFACE (EXISTING ASPHALT OR GRAVEL OR AS APPROVED BY ENGINEER). SEE SPECIAL PROVISIONS.

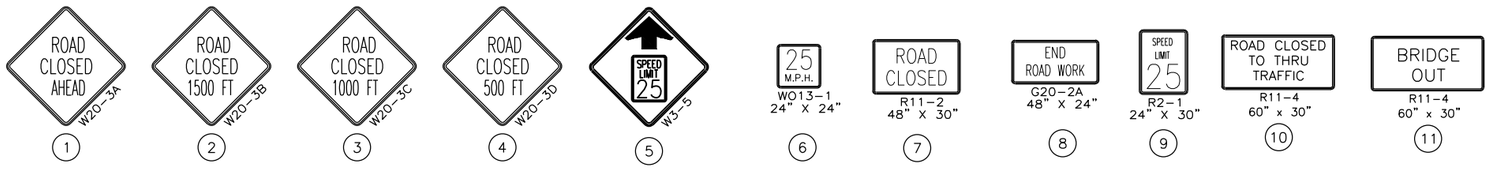


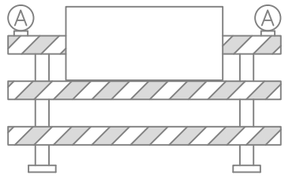




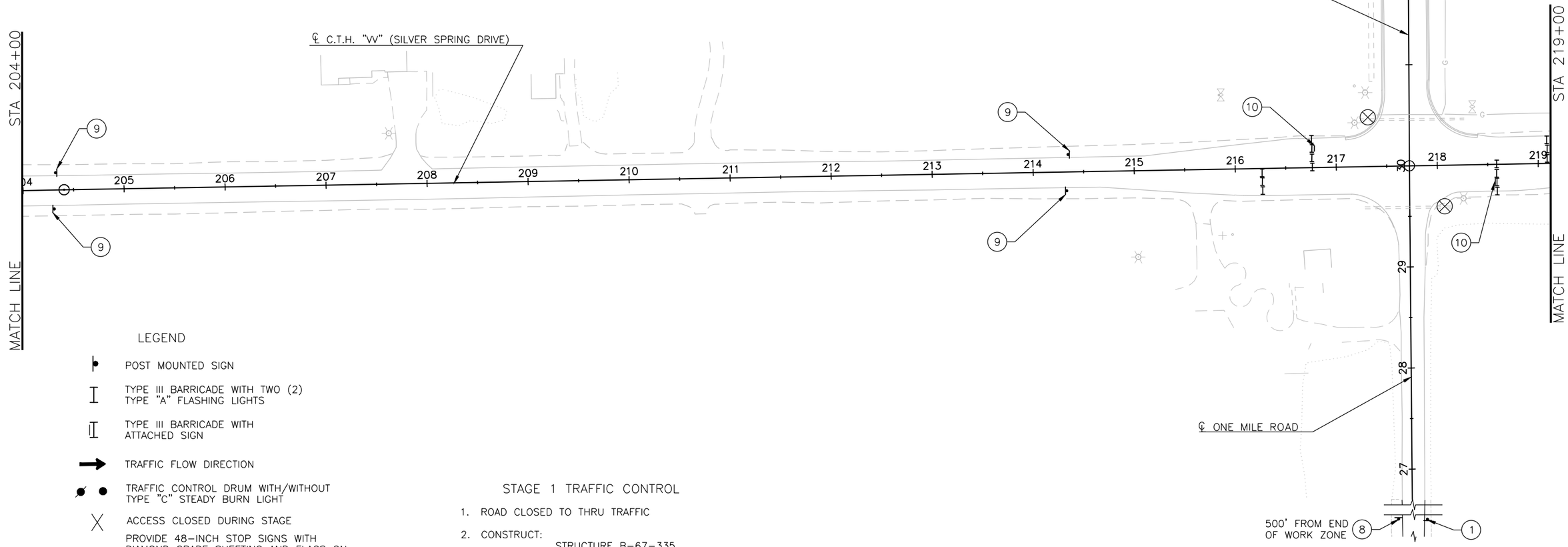
TYPE III BARRICADE WITH ATTACHED SIGN

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TRAFFIC CONTROL PLAN – STAGE 1 STA 189+00 – 204+00	SHEET NO.: 115 E





TYPE III BARRICADE WITH ATTACHED SIGN



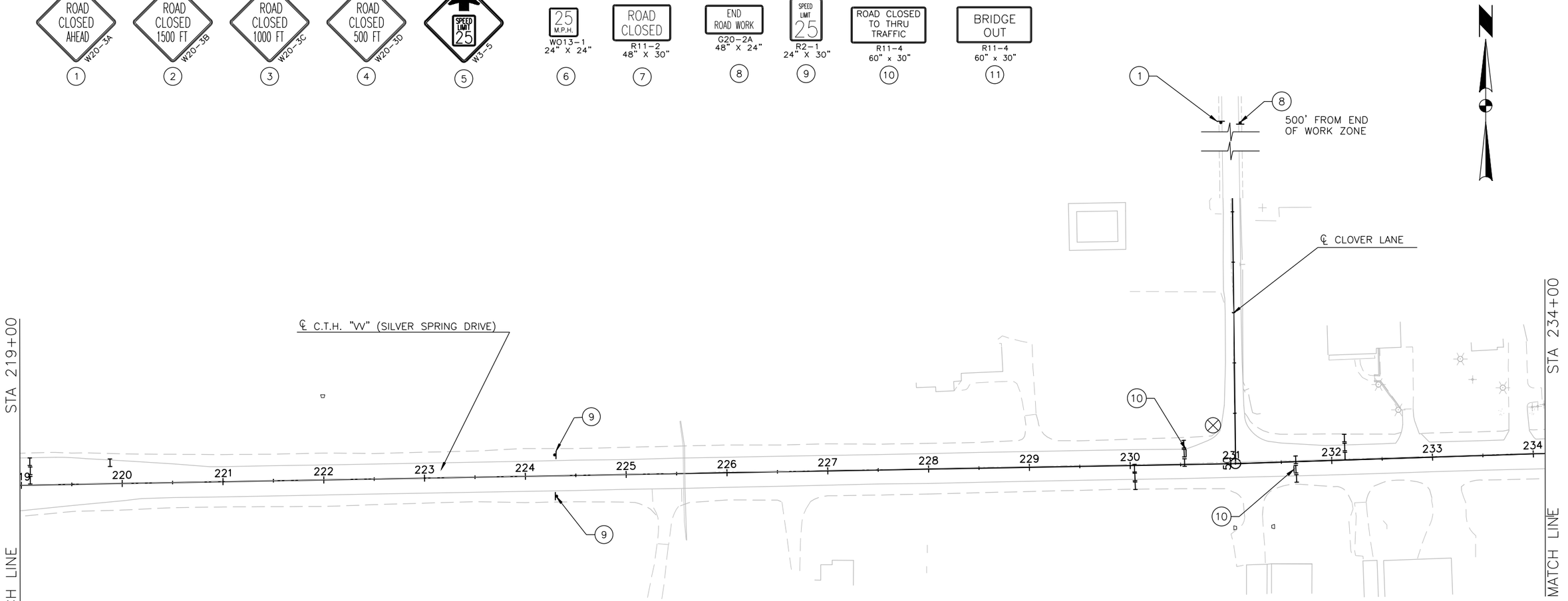
LEGEND

- POST MOUNTED SIGN
- TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC FLOW DIRECTION
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- ACCESS CLOSED DURING STAGE
- PROVIDE 48-INCH STOP SIGNS WITH DIAMOND GRADE SHEETING AND FLAGS ON MOVEABLE SUPPORTS. STOP SIGNS AND MOVEABLE SUPPORTS SHALL BE PAID FOR UNDER THE ITEM OF TRAFFIC CONTROL, SIGNS

STAGE 1 TRAFFIC CONTROL

1. ROAD CLOSED TO THRU TRAFFIC
2. CONSTRUCT:
   - STRUCTURE B-67-335
   - STRUCTURE B-67-336
   - CTH VV THROUGH BINDER ASPHALT
   - TRAFFIC SIGNAL.
   - ALL STORMSEWERS
3. CONTRACTOR TO MAINTAIN ONE LANE OF TRAFFIC IN BOTH DIRECTIONS AT ALL TIMES ON HARD SURFACE (EXISTING ASPHALT OR GRAVEL OR AS APPROVED BY ENGINEER). SEE SPECIAL PROVISIONS.

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TRAFFIC CONTROL PLAN – STAGE 1 STA 204+00 – 216+00	SHEET NO.: 116	E

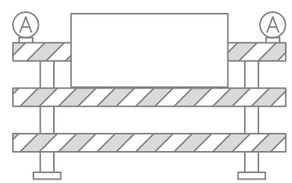


LEGEND

- POST MOUNTED SIGN
- TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC FLOW DIRECTION
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- ACCESS CLOSED DURING STAGE
- PROVIDE 48-INCH STOP SIGNS WITH DIAMOND GRADE SHEETING AND FLAGS ON MOVEABLE SUPPORTS. STOP SIGNS AND MOVEABLE SUPPORTS SHALL BE PAID FOR UNDER THE ITEM OF TRAFFIC CONTROL, SIGNS

STAGE 1 TRAFFIC CONTROL

1. ROAD CLOSED TO THRU TRAFFIC
2. CONSTRUCT:
   - STRUCTURE B-67-335
   - STRUCTURE B-67-336
   - CTH VV THROUGH BINDER ASPHALT
   - TRAFFIC SIGNAL.
   - ALL STORMSEWERS
3. CONTRACTOR TO MAINTAIN ONE LANE OF TRAFFIC IN BOTH DIRECTIONS AT ALL TIMES ON HARD SURFACE (EXISTING ASPHALT OR GRAVEL OR AS APPROVED BY ENGINEER). SEE SPECIAL PROVISIONS.

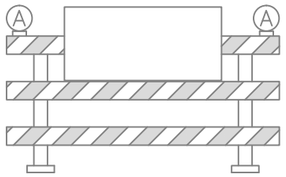


TYPE III BARRICADE WITH ATTACHED SIGN

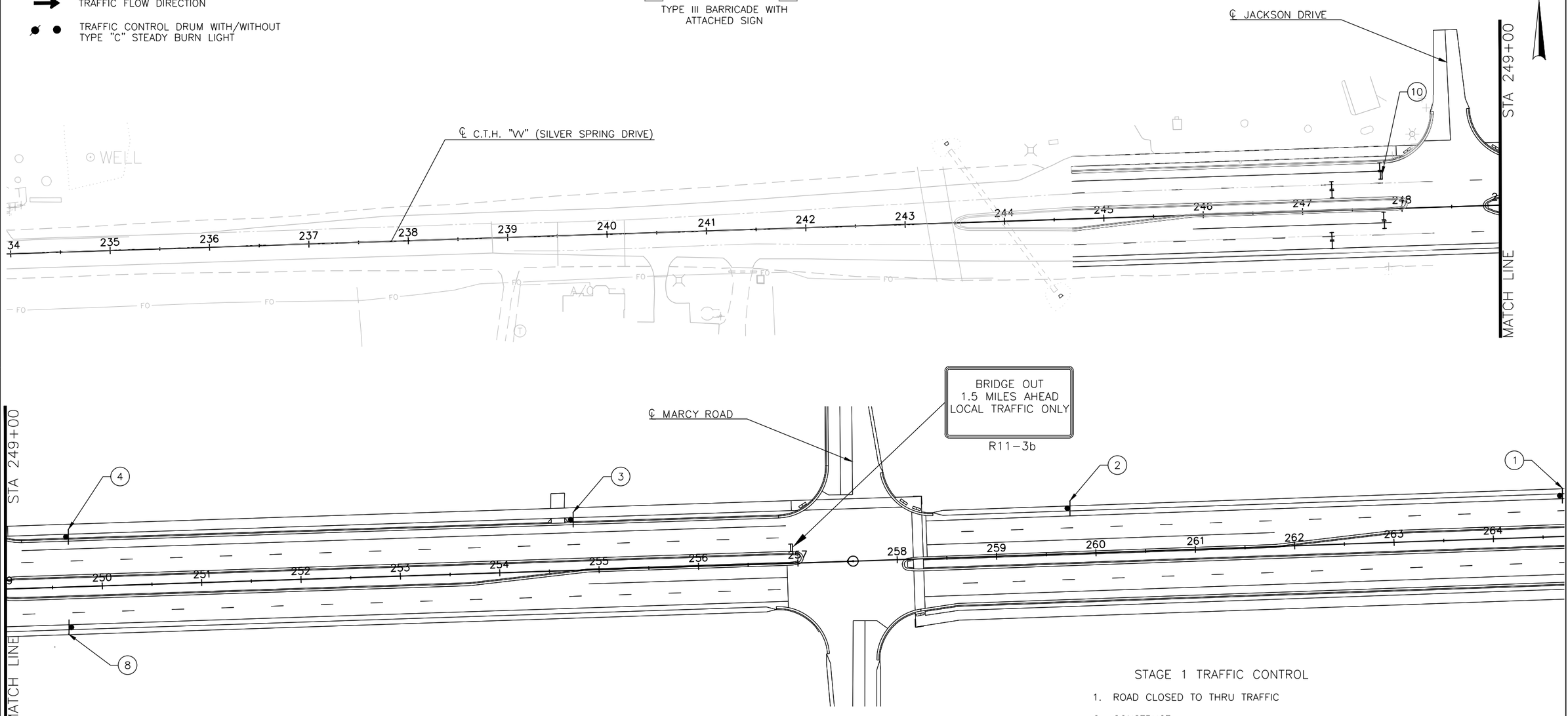
PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TRAFFIC CONTROL PLAN – STAGE 1 STA 219+00 – 234+00	SHEET NO.: 117	E

LEGEND

- POST MOUNTED SIGN
- TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC FLOW DIRECTION
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- ACCESS CLOSED DURING STAGE
- PROVIDE 48-INCH STOP SIGNS WITH DIAMOND GRADE SHEETING AND FLAGS ON MOVEABLE SUPPORTS. STOP SIGNS AND MOVEABLE SUPPORTS SHALL BE PAID FOR UNDER THE ITEM OF TRAFFIC CONTROL, SIGNS



TYPE III BARRICADE WITH ATTACHED SIGN



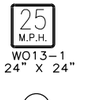
1

2

3

4

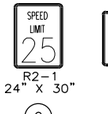
5



W013-1
24" X 24"
6

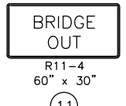
R11-2
48" X 30"
7

G20-2A
48" X 24"
8



R2-1
24" X 30"
9

R11-4
60" x 30"
10



R11-4
60" x 30"
11

STAGE 1 TRAFFIC CONTROL

1. ROAD CLOSED TO THRU TRAFFIC
2. CONSTRUCT:
   - STRUCTURE B-67-335
   - STRUCTURE B-67-336
   - CTH VV THROUGH BINDER ASPHALT
   - TRAFFIC SIGNAL.
   - ALL STORMSEWERS
3. CONTRACTOR TO MAINTAIN ONE LANE OF TRAFFIC IN BOTH DIRECTIONS AT ALL TIMES ON HARD SURFACE (EXISTING ASPHALT OR GRAVEL OR AS APPROVED BY ENGINEER). SEE SPECIAL PROVISIONS.

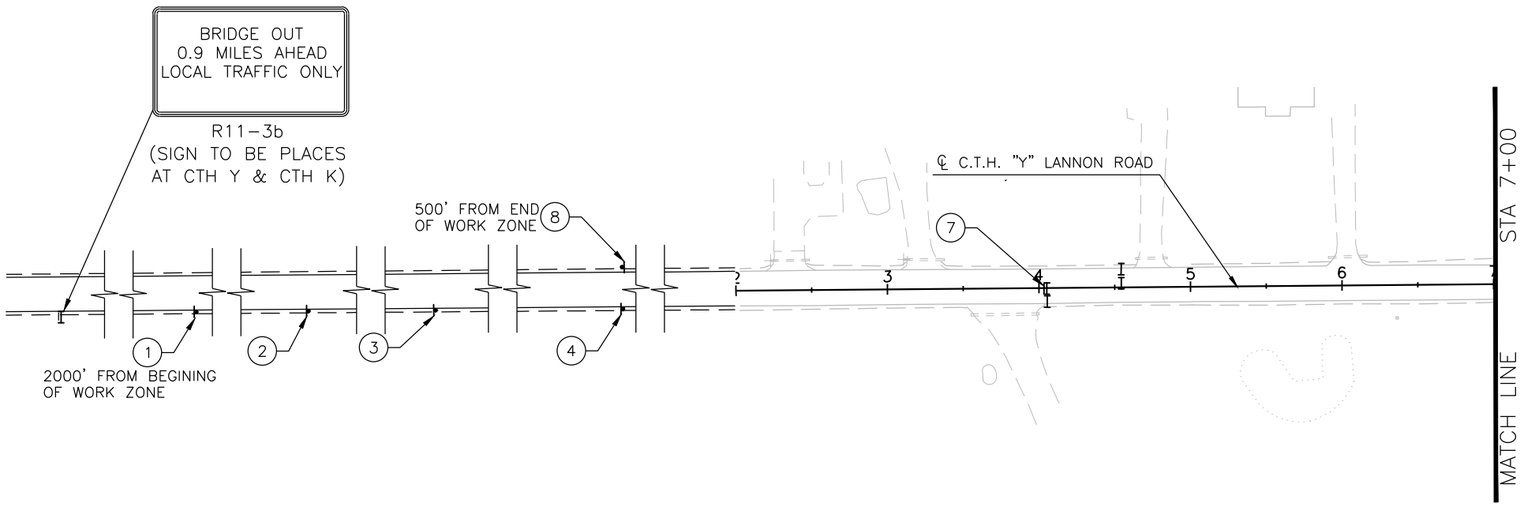
PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TRAFFIC CONTROL PLAN – STAGE 1 STA 234+00 – 264+00	SHEET NO.: 118 E

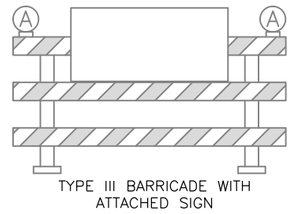
STAGE 1 TRAFFIC CONTROL

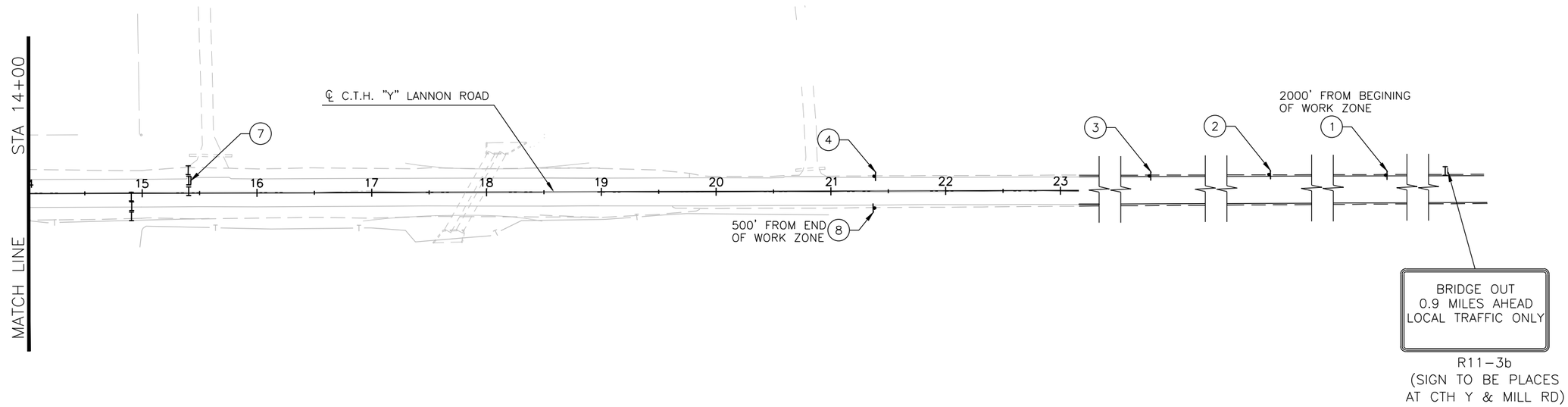
1. ROAD CLOSED TO THRU TRAFFIC
2. CONSTRUCT:
   - STRUCTURE B-67-335
   - STRUCTURE B-67-336
   - CTH VV THROUGH BINDER ASPHALT
   - TRAFFIC SIGNAL.
   - ALL STORMSEWERS
3. CONTRACTOR TO MAINTAIN ONE LANE OF TRAFFIC IN BOTH DIRECTIONS AT ALL TIMES ON HARD SURFACE (EXISTING ASPHALT OR GRAVEL OR AS APPROVED BY ENGINEER). SEE SPECIAL PROVISIONS.

LEGEND

- POST MOUNTED SIGN
- TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC FLOW DIRECTION
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- ACCESS CLOSED DURING STAGE
- PROVIDE 48-INCH STOP SIGNS WITH DIAMOND GRADE SHEETING AND FLAGS ON MOVEABLE SUPPORTS. STOP SIGNS AND MOVEABLE SUPPORTS SHALL BE PAID FOR UNDER THE ITEM OF TRAFFIC CONTROL, SIGNS



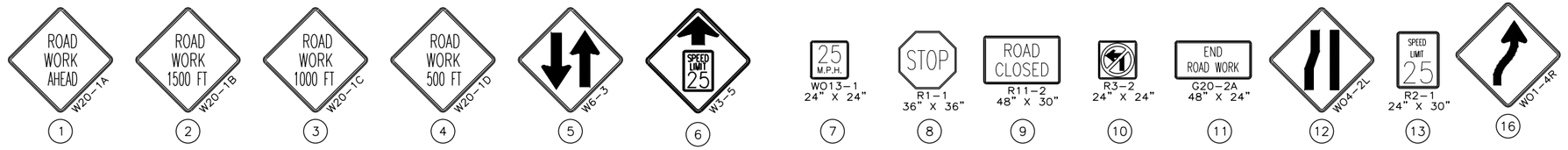


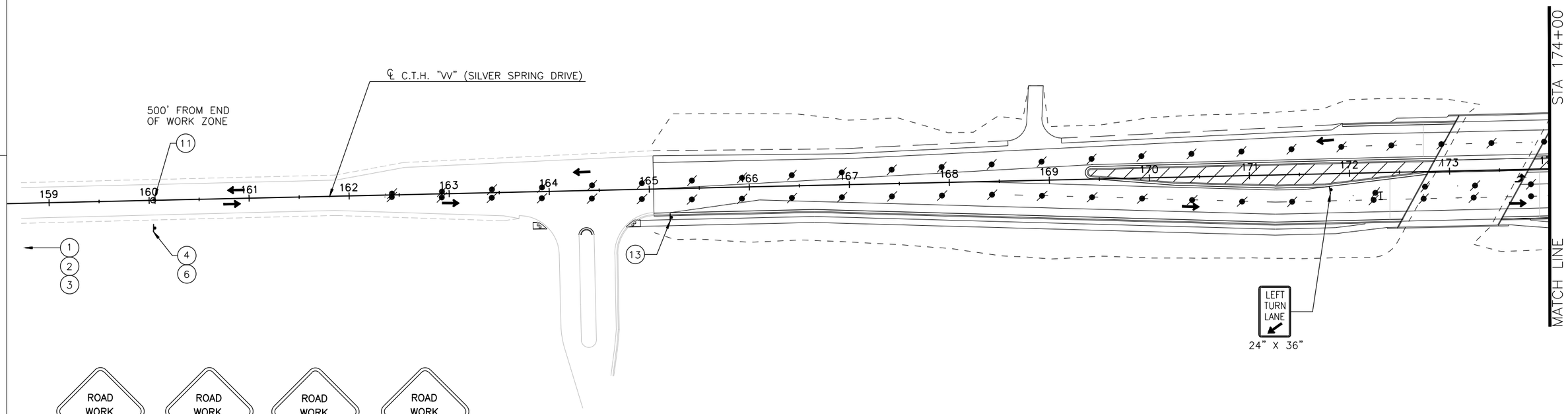


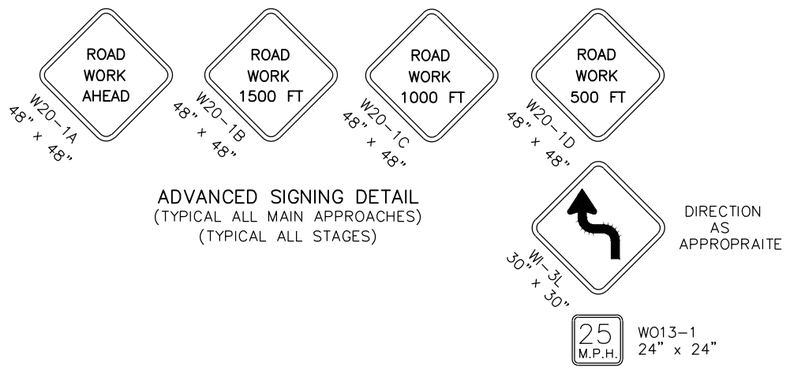
PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TRAFFIC CONTROL PLAN – STAGE 1 LANNON RD	SHEET NO.: 119 E

LEGEND

- POST MOUNTED SIGN
- TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC FLOW DIRECTION
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- ACCESS CLOSED DURING STAGE
- WORK ZONE







ADVANCED SIGNING DETAIL
(TYPICAL ALL MAIN APPROACHES)
(TYPICAL ALL STAGES)

STAGE 2 TRAFFIC CONTROL

1. SHIFT TRAFFIC TO NEW EASTBOUND AND WESTBOUND LANES (USE INSIDE OR OUTSIDE LANES AS NEEDED).
2. CONSTRUCT:
   - COMPLETE MEDIAN RESTORATION AND MEDIAN BIO-RETENTION SWALES
   - PLACE FINAL ASPHALT SURFACE AND PERMANENT PAVEMENT MARKING
   - COMPLETE TRAFFIC SIGNAL INSTALLATIONS
   - REMOVE TEMPORARY PAVEMENT MARKING
   - FINAL SIGNAGE BY OTHERS
   - COMPLETE RESTORATION

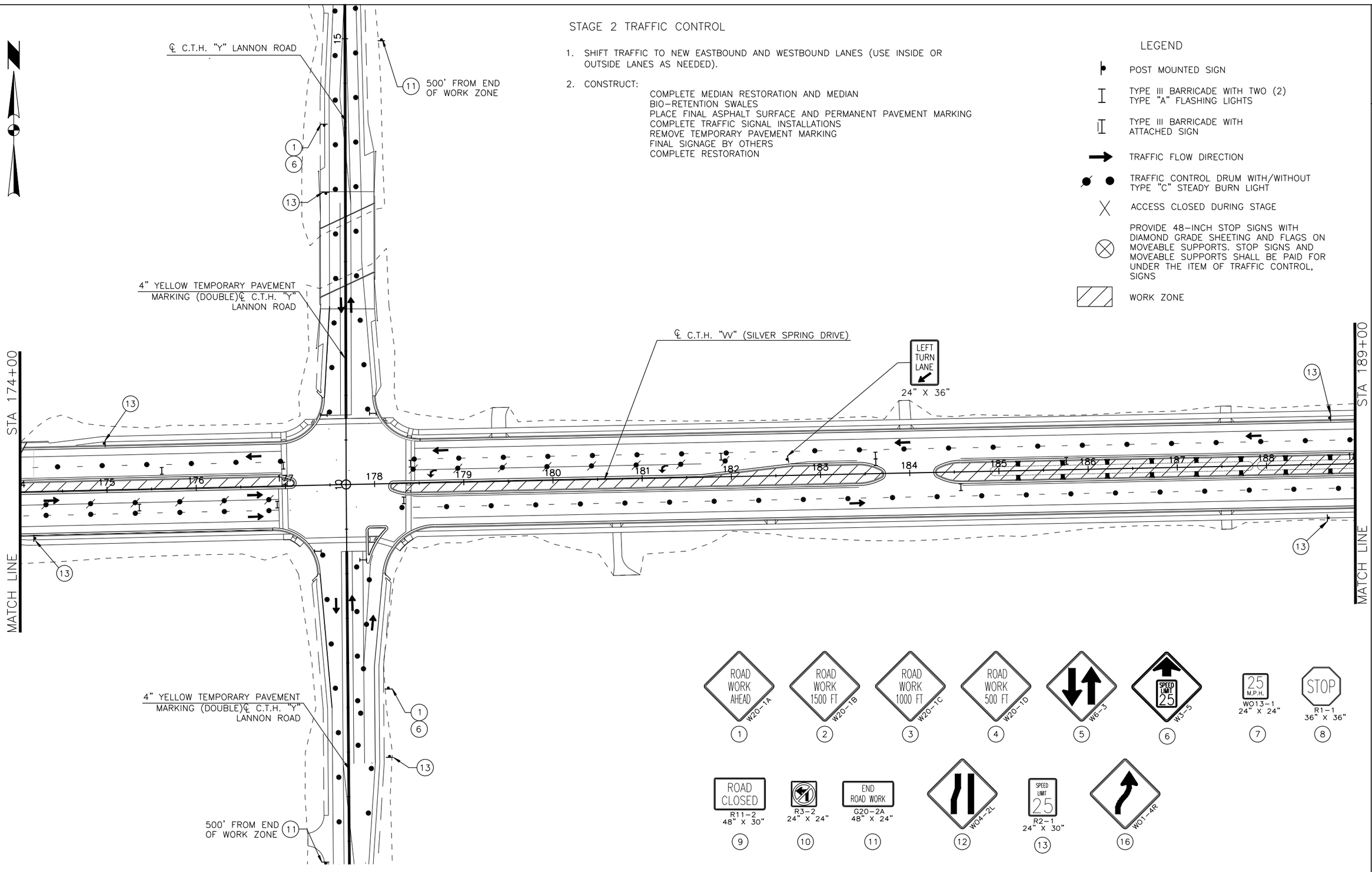
PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TRAFFIC CONTROL PLAN – STAGE 2 STA 160+00 – 174+00	SHEET NO.: 120	E

STAGE 2 TRAFFIC CONTROL

1. SHIFT TRAFFIC TO NEW EASTBOUND AND WESTBOUND LANES (USE INSIDE OR OUTSIDE LANES AS NEEDED).
2. CONSTRUCT:
   - COMPLETE MEDIAN RESTORATION AND MEDIAN
   - BIO-RETENTION SWALES
   - PLACE FINAL ASPHALT SURFACE AND PERMANENT PAVEMENT MARKING
   - COMPLETE TRAFFIC SIGNAL INSTALLATIONS
   - REMOVE TEMPORARY PAVEMENT MARKING
   - FINAL SIGNAGE BY OTHERS
   - COMPLETE RESTORATION

LEGEND

- POST MOUNTED SIGN
- TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC FLOW DIRECTION
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- ACCESS CLOSED DURING STAGE
- PROVIDE 48-INCH STOP SIGNS WITH DIAMOND GRADE SHEETING AND FLAGS ON MOVEABLE SUPPORTS. STOP SIGNS AND MOVEABLE SUPPORTS SHALL BE PAID FOR UNDER THE ITEM OF TRAFFIC CONTROL, SIGNS
- WORK ZONE



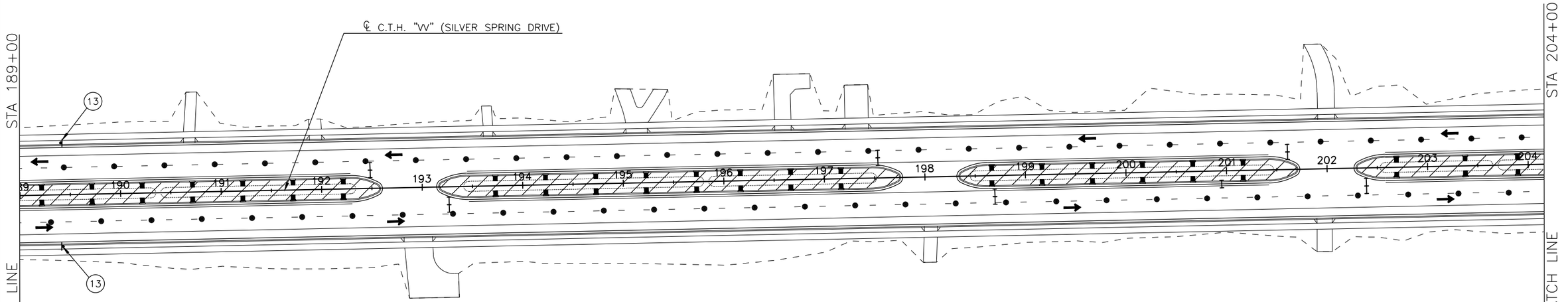
PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TRAFFIC CONTROL PLAN – STAGE 2 STA 174 – 189	SHEET NO.: 121 E

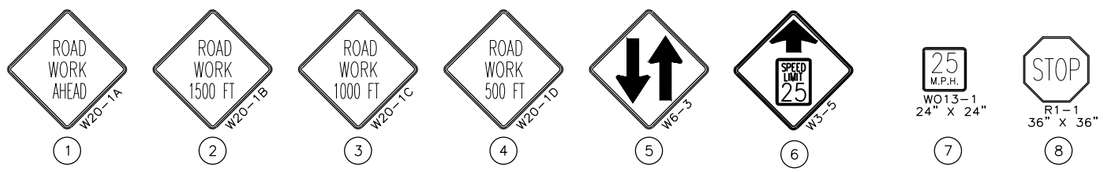
LEGEND

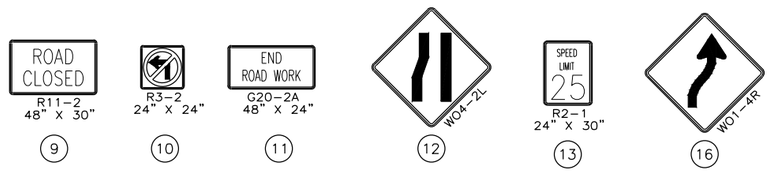
- POST MOUNTED SIGN
- TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC FLOW DIRECTION
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- ACCESS CLOSED DURING STAGE
- PROVIDE 48-INCH STOP SIGNS WITH DIAMOND GRADE SHEETING AND FLAGS ON MOVEABLE SUPPORTS. STOP SIGNS AND MOVEABLE SUPPORTS SHALL BE PAID FOR UNDER THE ITEM OF TRAFFIC CONTROL, SIGNS
- WORK ZONE

STAGE 2 TRAFFIC CONTROL

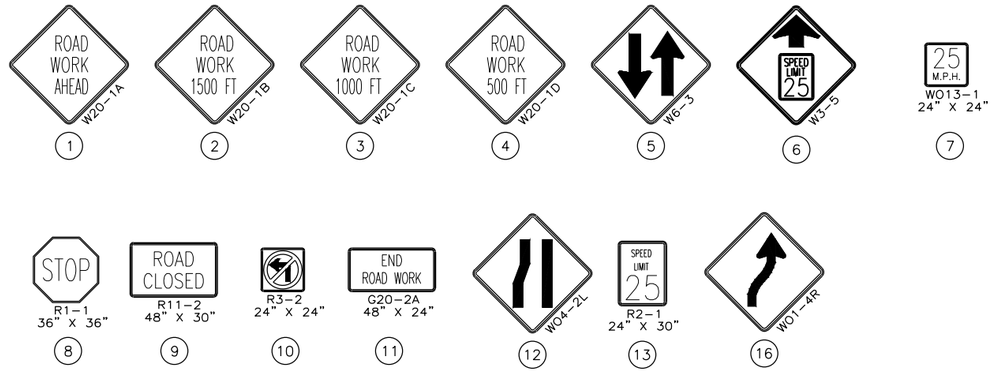
1. SHIFT TRAFFIC TO NEW EASTBOUND AND WESTBOUND LANES (USE INSIDE OR OUTSIDE LANES AS NEEDED).
2. CONSTRUCT:
   - COMPLETE MEDIAN RESTORATION AND MEDIAN BIO-RETENTION SWALES
   - PLACE FINAL ASPHALT SURFACE AND PERMANENT PAVEMENT MARKING
   - COMPLETE TRAFFIC SIGNAL INSTALLATIONS
   - REMOVE TEMPORARY PAVEMENT MARKING
   - FINAL SIGNAGE BY OTHERS
   - COMPLETE RESTORATION

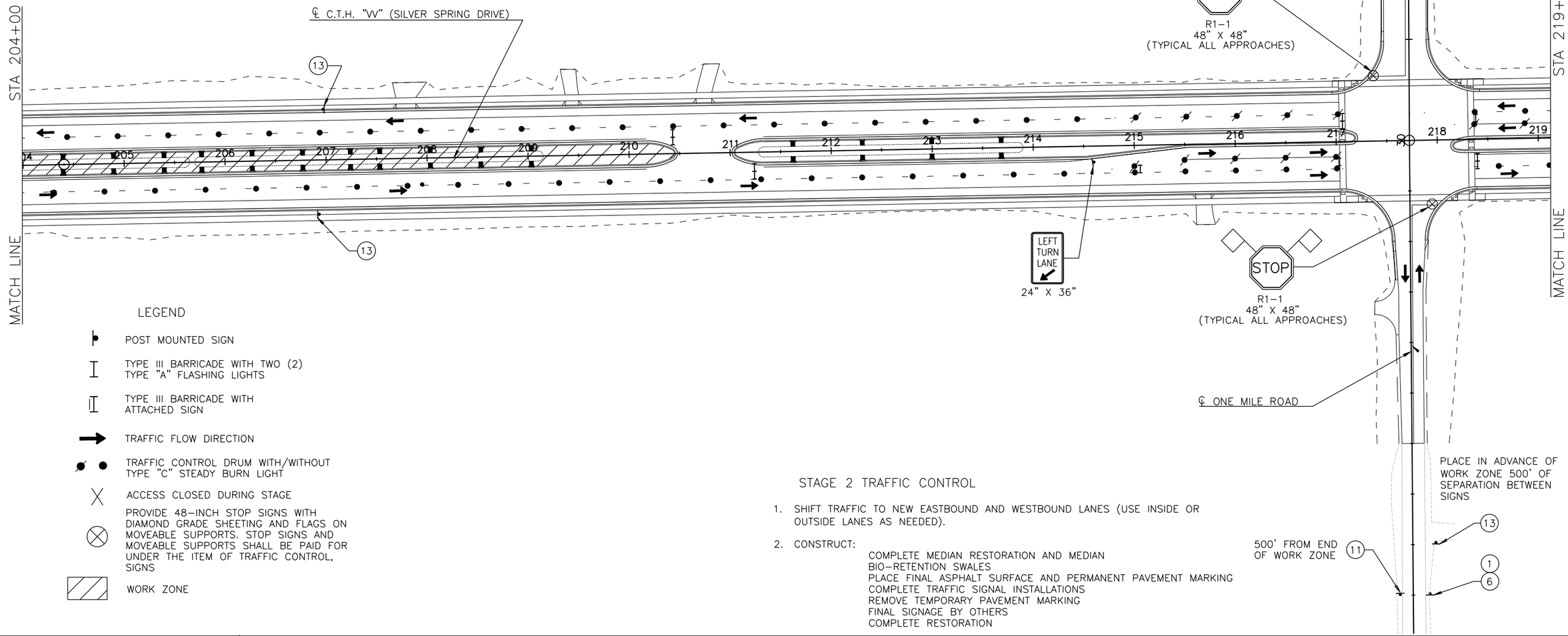






PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TRAFFIC CONTROL PLAN – STAGE 2	SHEET NO.: 122 E





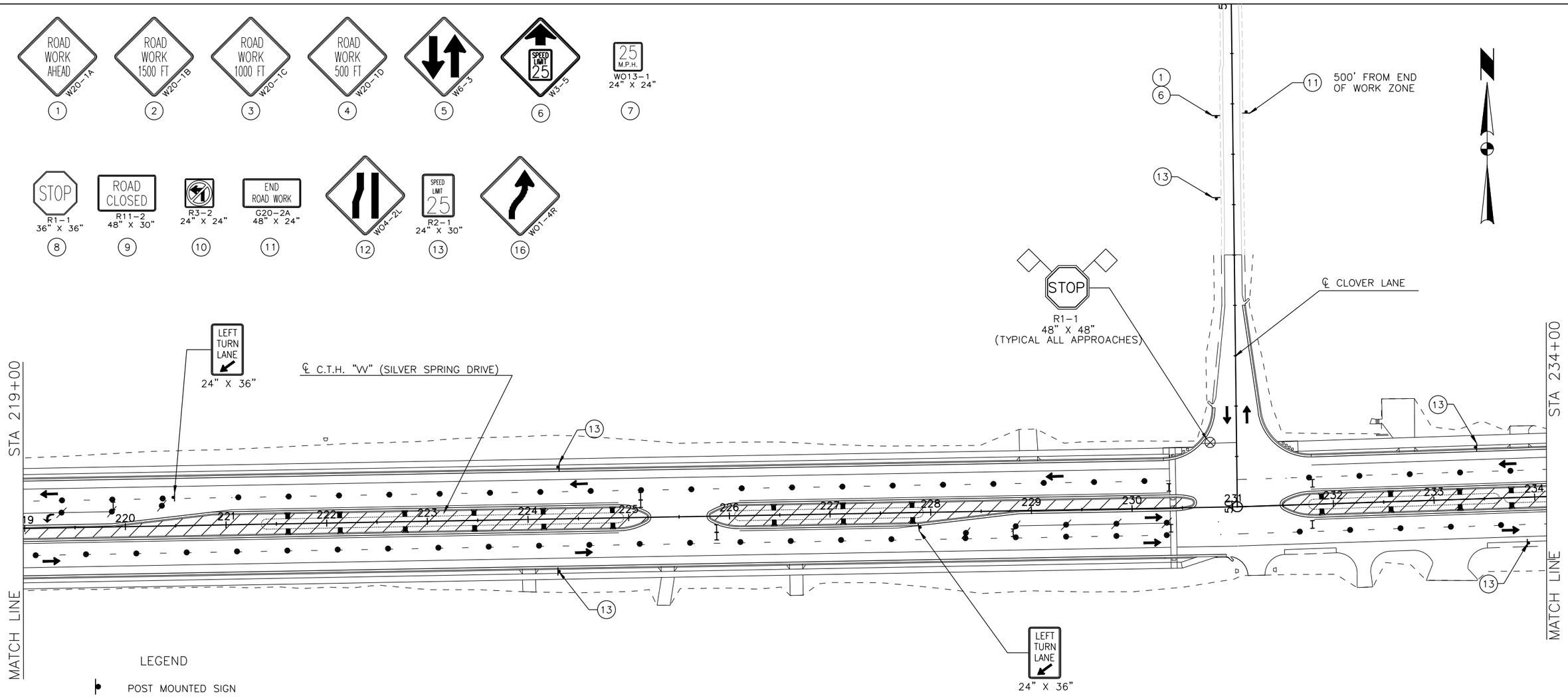
LEGEND

- POST MOUNTED SIGN
- TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC FLOW DIRECTION
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- ACCESS CLOSED DURING STAGE
- PROVIDE 48-INCH STOP SIGNS WITH DIAMOND GRADE SHEETING AND FLAGS ON MOVEABLE SUPPORTS. STOP SIGNS AND MOVEABLE SUPPORTS SHALL BE PAID FOR UNDER THE ITEM OF TRAFFIC CONTROL, SIGNS
- WORK ZONE

STAGE 2 TRAFFIC CONTROL

1. SHIFT TRAFFIC TO NEW EASTBOUND AND WESTBOUND LANES (USE INSIDE OR OUTSIDE LANES AS NEEDED).
2. CONSTRUCT:
   - COMPLETE MEDIAN RESTORATION AND MEDIAN BIO-RETENTION SWALES
   - PLACE FINAL ASPHALT SURFACE AND PERMANENT PAVEMENT MARKING
   - COMPLETE TRAFFIC SIGNAL INSTALLATIONS
   - REMOVE TEMPORARY PAVEMENT MARKING
   - FINAL SIGNAGE BY OTHERS
   - COMPLETE RESTORATION

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TRAFFIC CONTROL PLAN – STAGE 2	SHEET NO.: 123 E



LEGEND

- POST MOUNTED SIGN
- TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC FLOW DIRECTION
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- ACCESS CLOSED DURING STAGE
- PROVIDE 48-INCH STOP SIGNS WITH DIAMOND GRADE SHEETING AND FLAGS ON MOVEABLE SUPPORTS. STOP SIGNS AND MOVEABLE SUPPORTS SHALL BE PAID FOR UNDER THE ITEM OF TRAFFIC CONTROL, SIGNS
- WORK ZONE

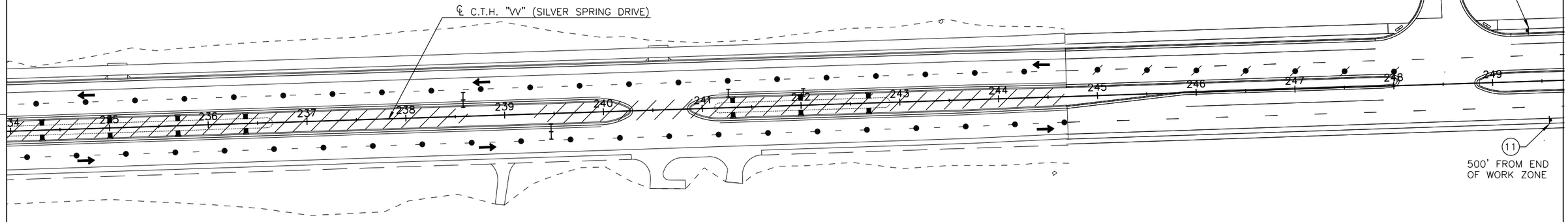
STAGE 2 TRAFFIC CONTROL

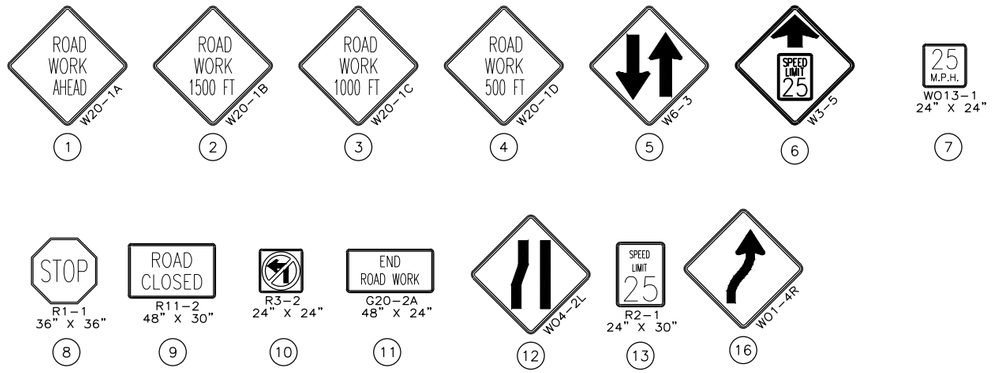
1. SHIFT TRAFFIC TO NEW EASTBOUND AND WESTBOUND LANES (USE INSIDE OR OUTSIDE LANES AS NEEDED).
2. CONSTRUCT:
   - COMPLETE MEDIAN RESTORATION AND MEDIAN
   - BIO-RETENTION SWALES
   - PLACE FINAL ASPHALT SURFACE AND PERMANENT PAVEMENT MARKING
   - COMPLETE TRAFFIC SIGNAL INSTALLATIONS
   - REMOVE TEMPORARY PAVEMENT MARKING
   - FINAL SIGNAGE BY OTHERS
   - COMPLETE RESTORATION

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TRAFFIC CONTROL PLAN – STAGE 2	SHEET NO.: 124 E

LEGEND

- POST MOUNTED SIGN
- TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC FLOW DIRECTION
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- ACCESS CLOSED DURING STAGE
- PROVIDE 48-INCH STOP SIGNS WITH DIAMOND GRADE SHEETING AND FLAGS ON MOVEABLE SUPPORTS. STOP SIGNS AND MOVEABLE SUPPORTS SHALL BE PAID FOR UNDER THE ITEM OF TRAFFIC CONTROL, SIGNS
- WORK ZONE





STAGE 2 TRAFFIC CONTROL

1. SHIFT TRAFFIC TO NEW EASTBOUND AND WESTBOUND LANES (USE INSIDE OR OUTSIDE LANES AS NEEDED).
2. CONSTRUCT:
   - COMPLETE MEDIAN RESTORATION AND MEDIAN
   - BIO-RETENTION SWALES
   - PLACE FINAL ASPHALT SURFACE AND PERMANENT PAVEMENT MARKING
   - COMPLETE TRAFFIC SIGNAL INSTALLATIONS
   - REMOVE TEMPORARY PAVEMENT MARKING
   - FINAL SIGNAGE BY OTHERS
   - COMPLETE RESTORATION

PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	TRAFFIC CONTROL PLAN – STAGE 2	SHEET NO.: 125	E

VILLAGE

OF

MENOMONEE FALLS

BRASS MONUMENT
IN CONCRETE
N = 413,260.278
E = 2,487,520.605

T 8 N
R 20 E
30 30
31 31

BRASS MONUMENT
IN CONCRETE
N = 413,320.074
E = 2,490170.061

T 8 N
R 20 E
30 29
31 32

BRASS MONUMENT
IN CONCRETE
N = 413,375.089
E = 2,492,842.149

T 8 N
R 20 E
29 29
32 32

150 155 160 165 170 175 180 185 190 195 200 205 210

N 88° 42' 25" E 2,650.14'

℄ C.T.H. "W"

N 88° 49' 14" E 2,672.65'

25 20 15 10 5 0

N 00° 09' 25" W

N 00° 29' 41" W

BEGIN PROJECT
STA. 163+83.22
N = 413,258.335
E = 2,488,789.219

STA. 177+68.07 C.T.H. "W" =
STA. 10+00.00 C.T.H. "Y"

P.C. 32+00.00

STA. 217+72.76 C.T.H. "W" =
STA. 30+00.00 SPENCER'S PASS

STA. 217+72.76 C.T.H. "W" =
STA. 30+00.00 ONE MILE ROAD

BRASS MONUMENT
IN CONCRETE
N = 413,422.694
E = 2,495,505.496

T 8 N
R 20 E
29 28
32 33

BRASS MONUMENT
IN CONCRETE
N = 413,375.089
E = 2,492,842.149

T 8 N
R 20 E
29 29
32 32

BRASS MONUMENT
IN CONCRETE
N = 413,509.442
E = 2,498,155.232

T 8 N
R 20 E
28 28
33 33

205 210 215 220 225 230 235 240 245 250 255 260 265

N 88° 58' 34" E 2,663.77'

℄ C.T.H. "W"

N 88° 07' 30" E 2,651.16'

25 30 55

N 00° 30' 45" W

N 00° 19' 17" W

N 00° 41' 07" W

STA. 231+04.49 C.T.H. "W" =
STA. 50+00.00 CLOVER LANE

END PROJECT
STA. 244+70
N = 413,467.374
E = 2,496870.268

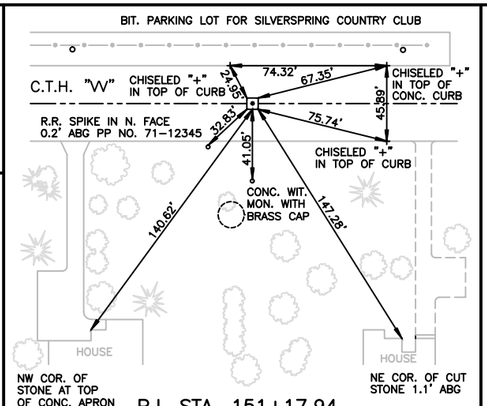
NOTE: THE COMBINATION FACTOR FOR CONVERSION TO GRID COORDINATES IS 0.99990348

PROJECT NO: 2753-06-71	HWY: C.T.H. "W"	COUNTY: WAUKESHA	ALIGNMENT DIAGRAM	SCALE: 1 IN. = 400 FT.	SHEET NO: E

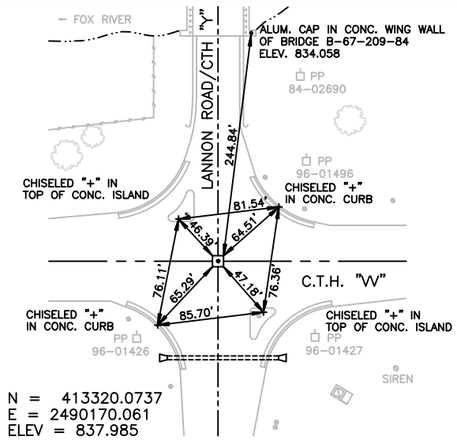
FILE NAME : N:\DPW\ENGINEER\PROJECTS\W CTH Y TO MARCY\ACAD\PLANS\ALIGNMENT-01.DWG

PLOT DATE : 10/1/2012 6:43 AM

PLOT BY : SOEHNER, JIM

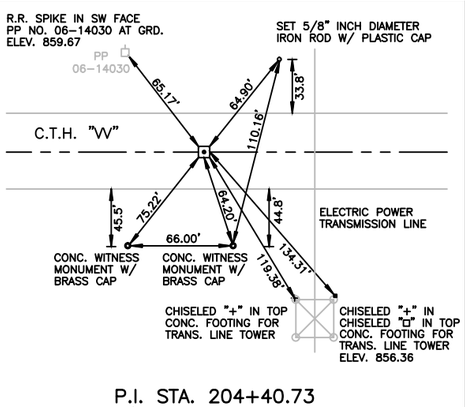


P.I. STA. 151+17.94
N 1/4 COR. SEC. 31-8-20
N = 413260.2779
E = 2487520.605
ELEV = 900.093

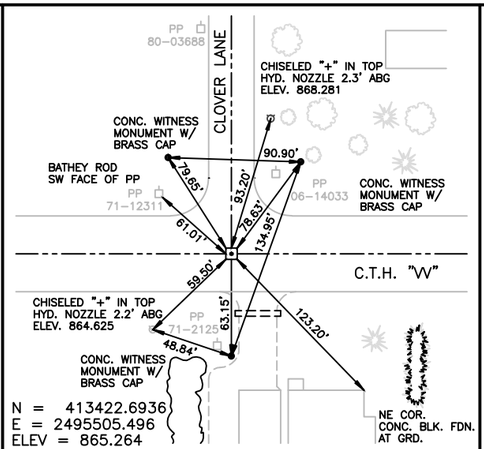


N = 413320.0737
E = 2490170.061
ELEV = 837.985

P.I. STA. 177+68.07
NE COR. SEC. 31-8-20

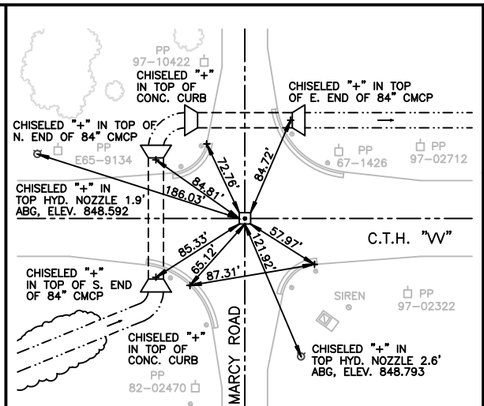


P.I. STA. 204+40.73
N 1/4 COR. SEC. 32-8-20
N = 413375.089
E = 2492842.149
ELEV = 860.618



N = 413422.6936
E = 2495505.496
ELEV = 865.264

P.I. STA. 231+04.50
NE COR. SEC. 32-8-20



N = 413509.4419
E = 2498155.232
ELEV = 846.822

P.I. STA. 257+55.65
N 1/4 COR. SEC. 27-8-20

2

CONTROL POINT 1
STA. 166+98.57, 26.27' RT.
N = 413269.68
E = 2489101.42
ELEV = 852.67

CONTROL POINT 2
STA. 168+99.19, 27.29' LT.
N = 413327.75
E = 2489300.78
ELEV = 844.33

CONTROL POINT 3
STA. 173+66.70, 18.49' RT.
N = 413292.53
E = 2489769.21
ELEV = 838.22

CONTROL POINT 4
STA. 178+76.11, 33.76' RT.
N = 413288.55
E = 2490278.78
ELEV = 838.62

CONTROL POINT 5
STA. 183+90.55, 48.05' LT.
N = 413380.92
E = 2490791.42
ELEV = 844.73

CONTROL POINT 6
STA. 187+63.90, 50.35' LT.
N = 413390.91
E = 2491164.64
ELEV = 846.43

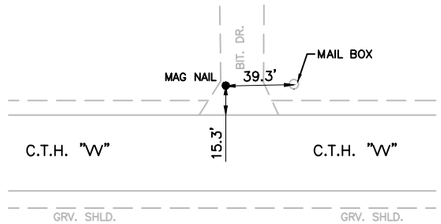
CONTROL POINT 7
STA. 193+78.28, 30.00' RT.
N = 413323.22
E = 2491780.54
ELEV = 848.55

CONTROL POINT 71
STA. 195+21.47, 46.47' LT.
N = 413402.62
E = 2491922.14
ELEV = 846.43

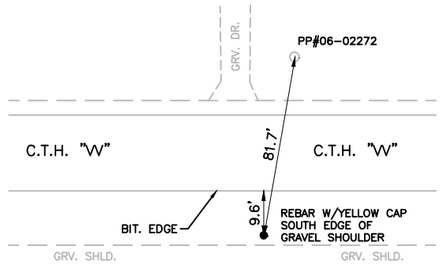
CONTROL POINT 8
STA. 198+32.68, 30.87' RT.
N = 413331.71
E = 2492234.87
ELEV = 846.43

CONTROL POINT 9
STA. 201+39.09, 37.71' LT.
N = 413406.58
E = 2492539.81
ELEV = 867.01

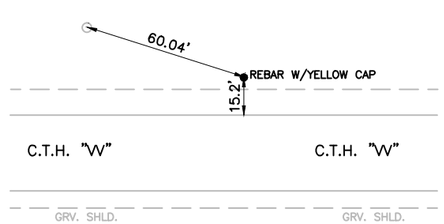
PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	SECTION CORNER AND CONTROL POINT TIES	SHEET NO.:	E



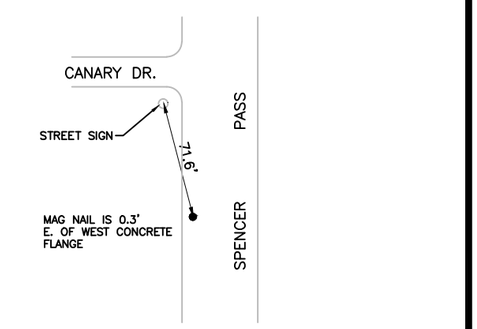
CONTROL POINT 110
STA. 207+67.08, 28.91 LT.
N = 413409.83
E = 2493167.94
ELEV = 854.86



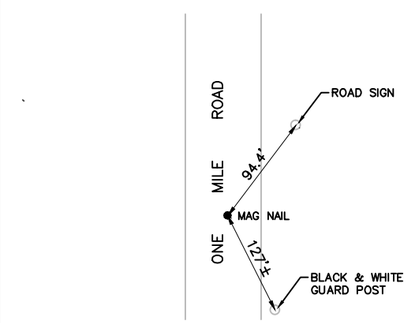
CONTROL POINT 10
STA. 209+50.85, 24.60' RT.
N = 413359.60
E = 2493352.64
ELEV = 856.27



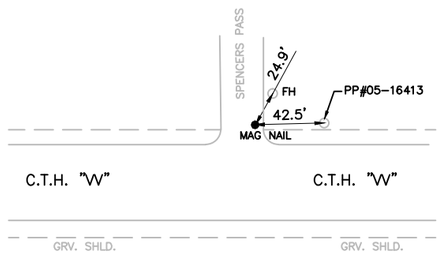
CONTROL POINT 111
STA. 214+14.38, 29.57' LT.
N = 413422.06
E = 2493815.12
ELEV = 859.41



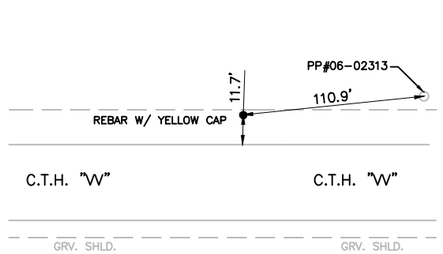
CONTROL POINT 114
STA. 216+07.08, -446.59' LT.
N = 413842.45
E = 2494000.33
ELEV = 858.43



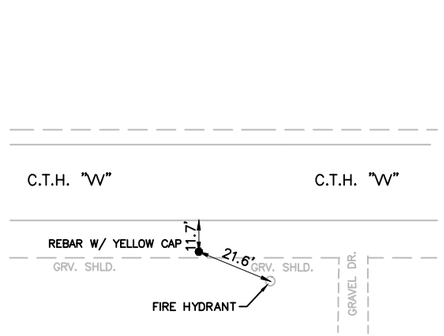
CONTROL POINT 113
STA. 217+67.65, 576.98' RT.
N = 412821.91
E = 2494179.17
ELEV = 859.09



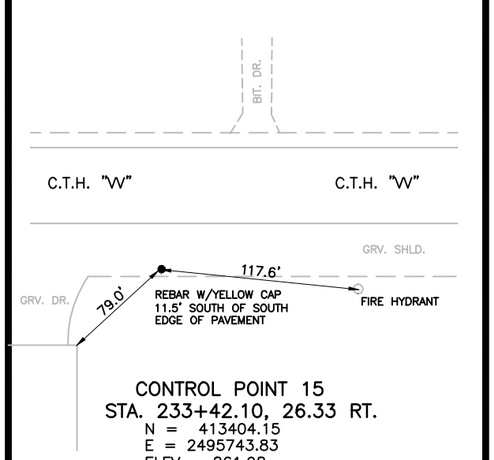
CONTROL POINT 11
STA. 217+94.32, -54.55 LT.
N = 413453.83
E = 2494194.56
ELEV = 861.89



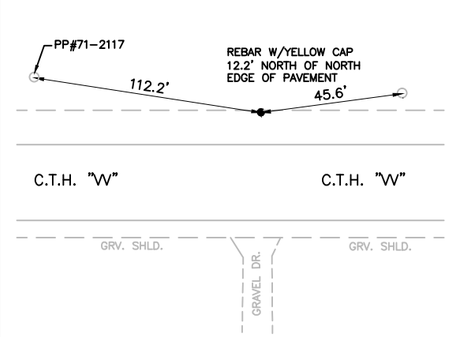
CONTROL POINT 12
STA. 222+00.43, -26.49 LT.
N = 413433.02
E = 2494601.10
ELEV = 862.79



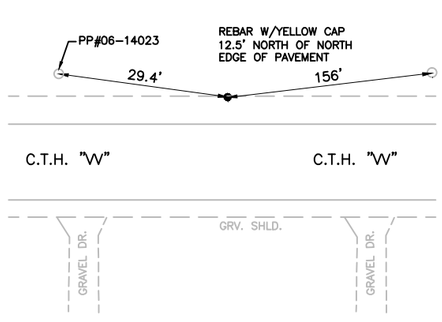
CONTROL POINT 13
STA. 226+09.61, 26.25 RT.
N = 413387.61
E = 2495011.16
ELEV = 864.25



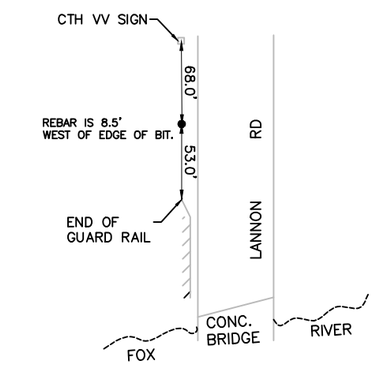
CONTROL POINT 15
STA. 233+42.10, 26.33 RT.
N = 413404.15
E = 2495743.83
ELEV = 861.98



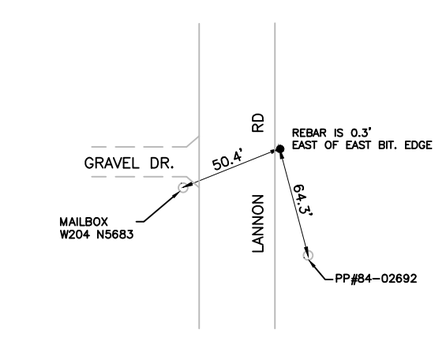
CONTROL POINT 16
STA. 238+98.99, 27.03 LT.
N = 413475.71
E = 2496298.68
ELEV = 852.09



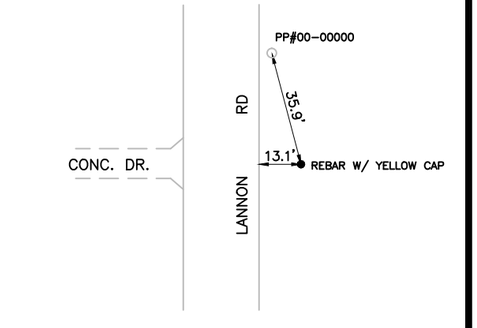
CONTROL POINT 17
STA. 240+98.84, 27.41 LT.
N = 413482.62
E = 2496498.41
ELEV = 849.25



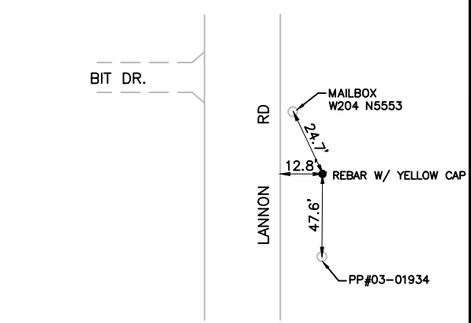
CONTROL POINT 40
STA. 14+04.11, 20.78' LT.
N = 413724.13
E = 2490190.60
ELEV = 833.20



CONTROL POINT 41
STA. 15+58.16, 22.07' RT.
N = 413878.29
E = 2490190.60
ELEV = 833.54

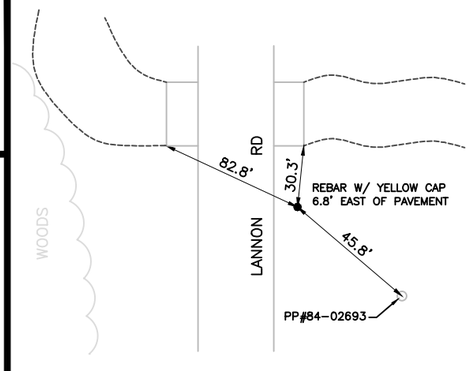


CONTROL POINT 420
STA. 2+37.92, 23.55' RT.
N = 412558.22
E = 2490200.19
ELEV = 840.33

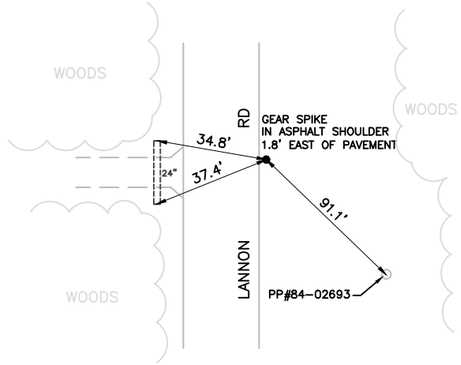


CONTROL POINT 42
STA. 5+60.28, 22.94' RT.
N = 412880.57
E = 2490196.80
ELEV = 838.10

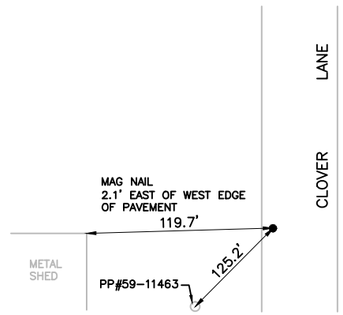
PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	SECTION CORNER AND CONTROL POINT TIES	SHEET NO.:	E



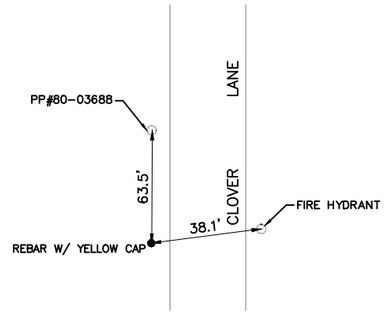
CONTROL POINT 401
STA. 17+35.14, 18.61' RT.
N = 414055.26
E = 2490186.66
ELEV = 834.84



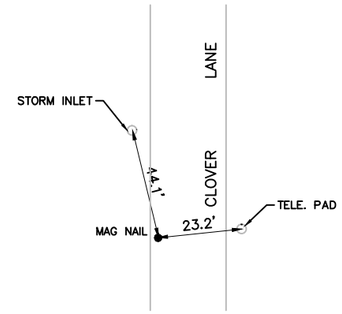
CONTROL POINT 403
STA. 20+87.93, 14.08' RT.
N = 414408.04
E = 2490181.16
ELEV = 834.14



CONTROL POINT 146
STA. 55+73.60, -7.07 LT.
N = 413996.17
E = 2495491.57
ELEV = 858.77



CONTROL POINT 14
STA. 50+73.90, -14.6 LT.
N = 413496.41
E = 2495490.01
ELEV = 865.48



CONTROL POINT 145
STA. 53+57.56, -8.41 LT.
N = 413780.13
E = 2495492.81
ELEV = 856.94

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PROJECT NUMBER: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	SECTION CORNER AND CONTROL POINT TIES	SHEET NO.:	E

DATE 28JAN13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2753-06-71 QUANTITY
0010	201.0105	CLEARING	STA	41.000	41.000
0020	201.0120	CLEARING	ID	1,902.000	1,902.000
0030	201.0205	GRUBBING	STA	41.000	41.000
0040	201.0220	GRUBBING	ID	1,902.000	1,902.000
0050	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	36.000	36.000
0060	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 01. 12+61	LS	1.000	1.000
0070	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 02. 173+28	LS	1.000	1.000
0080	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	994.000	994.000
0090	204.0150	REMOVING CURB & GUTTER	LF	662.000	662.000
0100	204.0170	REMOVING FENCE	LF	2,537.000	2,537.000
0110	204.0195	REMOVING CONCRETE BASES	EACH	6.000	6.000
0120	205.0100	EXCAVATION COMMON	CY	69,386.000	69,386.000
0130	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01. B-67-336	LS	1.000	1.000
0140	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 02. B-67-335	LS	1.000	1.000
0150	209.0100	BACKFILL GRANULAR	CY	794.000	794.000
0160	210.0100	BACKFILL STRUCTURE	CY	695.000	695.000
0170	213.0100	FINISHING ROADWAY (PROJECT) 01. 2753-06-71	EACH	1.000	1.000
0180	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	4,128.000	4,128.000
0190	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	60,765.000	60,765.000
0200	305.0125	BASE AGGREGATE DENSE 1 1/4-INCH	CY	43.000	43.000
0210	310.0110	BASE AGGREGATE OPEN GRADED	TON	15,261.000	15,261.000
0220	311.0110	BREAKER RUN	TON	68,790.000	68,790.000
0230	415.0410	CONCRETE PAVEMENT APPROACH SLAB	SY	778.000	778.000
0240	416.0160	CONCRETE DRIVEWAY 6-INCH	SY	463.000	463.000
0250	416.1010	CONCRETE SURFACE DRAINS	CY	34.300	34.300
0260	440.4410.S	INCENTIVE IRI RIDE	DOL	14,500.000	14,500.000
0270	455.0115	ASPHALTIC MATERIAL PG64-22	TON	1,468.000	1,468.000
0280	455.0120	ASPHALTIC MATERIAL PG64-28	TON	144.000	144.000
0290	455.0605	TACK COAT	GAL	3,580.000	3,580.000
0300	460.1100	HMA PAVEMENT TYPE E-0.3	TON	2,310.000	2,310.000
0310	460.1110	HMA PAVEMENT TYPE E-10	TON	24,472.000	24,472.000
0320	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	18,343.000	18,343.000
0330	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	500.000	500.000
0340	465.0315	ASPHALTIC FLUMES	SY	40.000	40.000
0350	502.0100	CONCRETE MASONRY BRIDGES	CY	1,639.000	1,639.000
0360	502.3200	PROTECTIVE SURFACE TREATMENT	SY	1,870.000	1,870.000
0370	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	258,050.000	258,050.000
0380	513.7015	RAILING STEEL TYPE C3 (STRUCTURE) 02. B-67-335	LS	1.000	1.000
0390	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	74.000	74.000
0400	520.8000	CONCRETE COLLARS FOR PIPE	EACH	1.000	1.000
0410	522.0118	CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	120.000	120.000
0420	522.0136	CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH	LF	60.000	60.000
0430	522.1015	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH	EACH	4.000	4.000
0440	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	10.000	10.000

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DATE 28JAN13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2753-06-71 QUANTITY
0450	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	4.000	4.000
0460	522.1036	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH	EACH	5.000	5.000
0470	550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	444.000	444.000
0480	550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	2,470.000	2,470.000
0490	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	183.000	183.000
0500	601.0557	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D	LF	27,543.000	27,543.000
0510	601.0600	CONCRETE CURB PEDESTRIAN	LF	56.000	56.000
0520	602.0410	CONCRETE SIDEWALK 5-INCH	SF	270.000	270.000
0530	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	302.000	302.000
0540	606.0200	RIPRAP MEDIUM	CY	43.000	43.000
0550	606.0300	RIPRAP HEAVY	CY	730.000	730.000
0560	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	450.000	450.000
0570	608.0324	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	4,970.000	4,970.000
0580	608.0336	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH	LF	342.000	342.000
0590	608.0415	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH	LF	2,275.000	2,275.000
0600	608.0512	STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH	LF	473.000	473.000
0610	611.0530	MANHOLE COVERS TYPE J	EACH	29.000	29.000
0620	611.0615	INLET COVERS TYPE F	EACH	120.000	120.000
0630	611.0642	INLET COVERS TYPE MS	EACH	4.000	4.000
0640	611.2004	MANHOLES 4-FT DIAMETER	EACH	25.000	25.000
0650	611.2006	MANHOLES 6-FT DIAMETER	EACH	4.000	4.000
0660	611.2044	MANHOLES 4X4-FT	EACH	6.000	6.000
0670	611.2066	MANHOLES 6X6-FT	EACH	1.000	1.000
0680	611.3253	INLETS 2.5X3-FT	EACH	113.000	113.000
0690	611.3901	INLETS MEDIAN 1 GRATE	EACH	4.000	4.000
0700	611.8110	ADJUSTING MANHOLE COVERS	EACH	36.000	36.000
0710	611.8120.S	COVER PLATES TEMPORARY	EACH	36.000	36.000
0720	612.0106	PIPE UNDERDRAIN 6-INCH	LF	33,044.000	33,044.000
0730	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	909.000	909.000
0740	612.0700	DRAIN TILE EXPLORATION	LF	500.000	500.000
0750	612.0806	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH	EACH	6.000	6.000
0760	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4.000	4.000
0770	614.2300	MGS GUARDRAIL 3	LF	50.000	50.000
0780	614.2500	MGS THRIE BEAM TRANSITION	LF	160.000	160.000
0790	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	4.000	4.000
0800	616.0700.S	FENCE SAFETY	LF	500.000	500.000
0810	619.1000	MOBILIZATION	EACH	1.000	1.000
0820	620.0300	CONCRETE MEDIAN SLOPED NOSE	SF	357.000	357.000
0830	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	5.000	5.000
0840	625.0100	TOPSOIL	SY	10,000.000	10,000.000
0850	625.0105	TOPSOIL	CY	68.000	68.000
0860	625.0500	SALVAGED TOPSOIL	SY	53,618.000	53,618.000
0870	627.0200	MULCHING	SY	32,724.000	32,724.000

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DATE 28JAN13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2753-06-71 QUANTITY
0880	628.1104	EROSION BALES	EACH	633.000	633.000
0890	628.1504	SILT FENCE	LF	14,141.000	14,141.000
0900	628.1520	SILT FENCE MAINTENANCE	LF	14,141.000	14,141.000
0910	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	1.000	1.000
0920	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	5.000	5.000
0930	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	28,023.000	28,023.000
0940	628.2027	EROSION MAT CLASS II TYPE C	SY	4,730.000	4,730.000
0950	628.6005	TURBIDITY BARRIERS	SY	540.000	540.000
0960	628.7005	INLET PROTECTION TYPE A	EACH	4.000	4.000
0970	628.7010	INLET PROTECTION TYPE B	EACH	95.000	95.000
0980	628.7020	INLET PROTECTION TYPE D	EACH	20.000	20.000
0990	628.7504	TEMPORARY DITCH CHECKS	LF	240.000	240.000
1000	628.7555	CULVERT PIPE CHECKS	EACH	9.000	9.000
1010	628.7560.S	STONE OR ROCK DITCH CHECKS	CY	10.000	10.000
1020	629.0205	FERTILIZER TYPE A	CWT	22.000	22.000
1030	630.0130	SEEDING MIXTURE NO. 30	LB	475.000	475.000
1040	630.0200	SEEDING TEMPORARY	LB	297.000	297.000
1050	631.0300	SOD WATER	MGAL	185.000	185.000
1060	631.1000	SOD LAWN	SY	8,125.000	8,125.000
1070	632.9101	LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES	EACH	20.000	20.000
1080	633.5200	MARKERS CULVERT END	EACH	4.000	4.000
1090	642.5201	FIELD OFFICE TYPE C	EACH	1.000	1.000
1100	643.0100	TRAFFIC CONTROL (PROJECT) 01. 2753-06-71	EACH	1.000	1.000
1110	643.0300	TRAFFIC CONTROL DRUMS	DAY	42,928.000	42,928.000
1120	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	15,528.000	15,528.000
1130	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	11,176.000	11,176.000
1140	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	11,244.000	11,244.000
1150	643.0900	TRAFFIC CONTROL SIGNS	DAY	9,644.000	9,644.000
1160	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	50.000	50.000
1170	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	980.000	980.000
1180	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 01. 2753-06-71	EACH	1.000	1.000
1190	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	38,080.000	38,080.000
1200	645.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A	SY	4,847.000	4,847.000
1210	645.0112	GEOTEXTILE FABRIC TYPE DF SCHEDULE B	SY	34,587.000	34,587.000
1220	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	1,115.000	1,115.000
1230	645.0130	GEOTEXTILE FABRIC TYPE R	SY	43.000	43.000
1240	645.0135	GEOTEXTILE FABRIC TYPE SR	SY	8,202.000	8,202.000
1250	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	38,622.000	38,622.000
1260	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	1,836.000	1,836.000
1270	646.0136	PAVEMENT MARKING EPOXY 12-INCH	LF	198.000	198.000
1280	646.0600	REMOVING PAVEMENT MARKINGS	LF	2,000.000	2,000.000
1290	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	13.000	13.000
1300	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	13.000	13.000
1310	647.0456	PAVEMENT MARKING CURB EPOXY	LF	1,162.000	1,162.000
1320	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	277.000	277.000
1330	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	18.000	18.000
1340	647.0766	PAVEMENT MARKING CROSSWALK EPOXY 6-INCH	LF	1,528.000	1,528.000
1350	647.0856	PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY	SF	3,493.000	3,493.000
1360	649.0200	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH	LF	4,000.000	4,000.000
1370	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	133.000	133.000

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DATE 28JAN13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2753-06-71 QUANTITY
1380	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	9,875.000	9,875.000
1390	650.5000	CONSTRUCTION STAKING BASE	LF	9,875.000	9,875.000
1400	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	27,726.000	27,726.000
1410	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. B-67-336	LS	1.000	1.000
1420	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 02. B-67-335	LS	1.000	1.000
1430	650.8500	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 01. 2753-06-71	LS	1.000	1.000
1440	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 2753-06-71	LS	1.000	1.000
1450	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	9,875.000	9,875.000
1460	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	713.000	713.000
1470	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	1,243.000	1,243.000
1480	653.0140	PULL BOXES STEEL 24X42-INCH	EACH	11.000	11.000
1490	654.0101	CONCRETE BASES TYPE 1	EACH	6.000	6.000
1500	654.0102	CONCRETE BASES TYPE 2	EACH	6.000	6.000
1510	654.0105	CONCRETE BASES TYPE 5	EACH	3.000	3.000
1520	654.0217	CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL	EACH	1.000	1.000
1530	655.0220	CABLE TRAFFIC SIGNAL 4-14 AWG	LF	168.000	168.000
1540	655.0230	CABLE TRAFFIC SIGNAL 5-14 AWG	LF	376.000	376.000
1550	655.0240	CABLE TRAFFIC SIGNAL 7-14 AWG	LF	406.000	406.000
1560	655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	LF	1,946.000	1,946.000
1570	655.0270	CABLE TRAFFIC SIGNAL 15-14 AWG	LF	122.000	122.000
1580	655.0320	CABLE TYPE UF 2-10 AWG GROUNDED	LF	1,263.000	1,263.000
1590	655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	LF	1,310.000	1,310.000
1600	655.0610	ELECTRICAL WIRE LIGHTING 12 AWG	LF	1,101.000	1,101.000
1610	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 01. STA 178+35, 79FT RT	LS	1.000	1.000
1620	657.0100	PEDESTAL BASES	EACH	6.000	6.000
1630	657.0255	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	EACH	9.000	9.000
1640	657.0305	POLES TYPE 2	EACH	2.000	2.000
1650	657.0310	POLES TYPE 3	EACH	2.000	2.000
1660	657.0315	POLES TYPE 4	EACH	2.000	2.000
1670	657.0322	POLES TYPE 5-ALUMINUM	EACH	3.000	3.000
1680	657.0410	TRAFFIC SIGNAL STANDARDS ALUMINUM 9-FT	EACH	2.000	2.000
1690	657.0420	TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT	EACH	4.000	4.000
1700	657.0590	TROMBONE ARMS 20-FT	EACH	1.000	1.000
1710	657.0595	TROMBONE ARMS 25-FT	EACH	3.000	3.000
1720	657.0614	LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 8-FT	EACH	6.000	6.000
1730	657.0615	LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 8-FT	EACH	3.000	3.000
1740	658.0110	TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL	EACH	8.000	8.000
1750	658.0120	TRAFFIC SIGNAL FACE 5-12 INCH VERTICAL	EACH	2.000	2.000
1760	658.0155	TRAFFIC SIGNAL FACE 3-12 INCH HORIZONTAL	EACH	3.000	3.000
1770	658.0215	BACKPLATES SIGNAL FACE 3 SECTION 12-INCH	EACH	11.000	11.000
1780	658.0225	BACKPLATES SIGNAL FACE 5 SECTION 12-INCH	EACH	2.000	2.000
1790	658.0416	PEDESTRIAN SIGNAL FACE 16-INCH	EACH	12.000	12.000
1800	658.0500	PEDESTRIAN PUSH BUTTONS	EACH	10.000	10.000

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DATE 28JAN13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2753-06-71 QUANTITY
1810	658.0600	LED MODULES 12-INCH RED BALL	EACH	13.000	13.000
1820	658.0605	LED MODULES 12-INCH YELLOW BALL	EACH	13.000	13.000
1830	658.0610	LED MODULES 12-INCH GREEN BALL	EACH	13.000	13.000
1840	658.0620	LED MODULES 12-INCH YELLOW ARROW	EACH	2.000	2.000
1850	658.0625	LED MODULES 12-INCH GREEN ARROW	EACH	2.000	2.000
1860	658.0635	LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH	EACH	12.000	12.000
1870	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 01. CTH VV & CTH Y	LS	1.000	1.000
1880	659.0115	LUMINAIRES UTILITY HPS 150 WATTS	EACH	3.000	3.000
1890	659.0125	LUMINAIRES UTILITY HPS 250 WATTS	EACH	6.000	6.000
1900	690.0150	SAWING ASPHALT	LF	566.000	566.000
1910	690.0250	SAWING CONCRETE	LF	70.000	70.000
1920	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	9,834.000	9,834.000
1930	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5. 00/HR	HRS	4,400.000	4,400.000
1940	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	3,600.000	3,600.000
1950	SPV.0035	SPECIAL 01. FILTER AGGREGATE LAYER	CY	509.000	509.000
1960	SPV.0035	SPECIAL 02. ENGINEERED SOIL	CY	3,356.000	3,356.000
1970	SPV.0035	SPECIAL 03. SURFACE MULCH	CY	311.000	311.000
1980	SPV.0035	SPECIAL 04. STORAGE LAYER	CY	1,160.000	1,160.000
1990	SPV.0060	SPECIAL 01. PERENNIALS ASCLEPIA TUBEROSA PLUG 1"	EACH	173.000	173.000
2000	SPV.0060	SPECIAL 02. PERENNIALS ACHILLEA MOONSHINE PLUG 1	EACH	519.000	519.000
2010	SPV.0060	SPECIAL 03. PERENNIALS RUDBECKIA HIRTA PLUG 1"	EACH	692.000	692.000
2020	SPV.0060	SPECIAL 04. PERENNIALS ASCELPIAS INCARNATA PLUG 1"	EACH	346.000	346.000
2030	SPV.0060	SPECIAL 05. PERENNIALS ACHILLEA MILLEFOLIUM FIRE KING PLUG 1"	EACH	692.000	692.000
2040	SPV.0060	SPECIAL 06. PERRENIALS LIATRIS SPICATA PLUG 1"	EACH	346.000	346.000
2050	SPV.0060	SPECIAL 07. PERRENIALS EUPATORUM MACULATUM PLUG 1"	EACH	173.000	173.000
2060	SPV.0060	SPECIAL 08. PERRENIALS MONARDA FISTULOSA PLUG 1"	EACH	173.000	173.000
2070	SPV.0060	SPECIAL 09. PERRENIALS ASTERMOVAE-ANGLIAE PLUG 1"	EACH	346.000	346.000
2080	SPV.0060	SPECIAL 10. PERRENIALS HEMERPCALLIS "PARDON ME" CG #1	EACH	800.000	800.000
2090	SPV.0060	SPECIAL 11. PERRENIALS HEMERPCALLIS STELLA DE ORO CG #1	EACH	800.000	800.000
2100	SPV.0060	SPECIAL 12. PERRENIALS HEMERPCALLIS LITTLE WINE CUP CG #1	EACH	800.000	800.000
2110	SPV.0060	SPECIAL 13. PERRENIALS HEMERPCALLIS STRAWBERRY CANDY CG #1	EACH	800.000	800.000
2120	SPV.0060	SPECIAL 14. INLET COVER BIORETENTION STANDPIPE	EACH	15.000	15.000
2130	SPV.0060	SPECIAL 15. TRAFFIC SIGNAL CONTROLLER FULLY ACTUATED 8-PHASE	EACH	1.000	1.000
2140	SPV.0060	SPECIAL 16. ADJUST VALVE 0 TO 1.0' DECREASE	EACH	5.000	5.000
2150	SPV.0060	SPECIAL 17. ADJUST VALVE 1.0' TO 2.0' DECREASE	EACH	4.000	4.000

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DATE 28JAN13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2753-06-71 QUANTITY
2160	SPV.0060	SPECIAL 18. ADJUST VALVE 0 TO 1.0' INCREASE	EACH	6.000	6.000
2170	SPV.0060	SPECIAL 19. ADJUST VALVE 1.0' TO 2.0' INCREASE	EACH	6.000	6.000
2180	SPV.0060	SPECIAL 20. ADJUST VALVE 2.0' TO 3.0' INCREASE	EACH	15.000	15.000
2190	SPV.0060	SPECIAL 21. ADJUST VALVE 3.0' TO 4.0' INCREASE	EACH	9.000	9.000
2200	SPV.0060	SPECIAL 22. ADJUST VALVE 4.0' TO 5.0' INCREASE	EACH	1.000	1.000
2210	SPV.0060	SPECIAL 23. ADJUST CURBSTOP	EACH	6.000	6.000
2220	SPV.0060	SPECIAL 24. RECONSTRUCT SANITARY SEWER MANHOLE	EACH	8.000	8.000
2230	SPV.0060	SPECIAL 25. UTILITY LOCATE	EACH	20.000	20.000
2240	SPV.0060	SPECIAL 26. DRAIN TILE CONNECTION	EACH	10.000	10.000
2250	SPV.0090	SPECIAL 01. RELOCATE AND ADJUST HYDRANT ELEVATION	LF	328.300	328.300
2260	SPV.0090	SPECIAL 02. REMOVE AND RELOCATE CURBSTOP	LF	79.300	79.300
2270	SPV.0090	SPECIAL 03. STORM SEWER PIPE COMPOSITE 24-INCH	LF	499.000	499.000
2280	SPV.0105	SPECIAL 01. REMOVE TRAFFIC SIGNALS INTERSECTION CTH VV & CTH Y	LS	1.000	1.000
2290	SPV.0105	SPECIAL 02. VIDEO DETECTION SYSTEM INTERSECTION CTH VV & CTH Y	LS	1.000	1.000
2300	SPV.0105	SPECIAL 03. CONSTRUCTION STAKING CONCRETE SIDEWALK	LS	1.000	1.000
2310	SPV.0105	SPECIAL 04. REMOVE & RECONSTRUCT LANNON STONE RETAINING WALL	LS	1.000	1.000

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CLEARING AND GRUBBING

LOCATION	201.0105 CLEARING STA	201.0120 CLEARING ID	201.0205 GRUBBING STA	201.0220 GRUBBING ID
CTH "V V"				
165+00 – 168+00	3	117	3	117
168+00 – 169+00	1	22	1	22
169+00 – 170+00				
170+00 – 173+00	3		3	
173+00 – 179+00				
179+00 – 182+00		63		63
182+00 – 184+00				
184+00 – 185+00		79		79
185+00 – 187+00				
187+00 – 188+00	1	2	1	2
188+00 – 190+00	2		2	
190+00 – 191+00		1		1
191+00 – 192+00	1	10	1	10
192+00 – 193+00	1		1	
193+00 – 196+00	3	95	3	95
196+00 – 197+00		68		68
197+00 – 198+00		160		160
198+00 – 199+00				
199+00 – 201+00		10		10
201+00 – 202+00				
202+00 – 203+00		60		60
203+00 – 204+00	1	12	1	12
204+00 – 205+00	1		1	
205+00 – 206+00				
206+00 – 208+00		77		77
208+00 – 209+00	1	64	1	64
209+00 – 210+00	1	27	1	27
210+00 – 216+00				
216+00 – 217+00		31		31
217+00 – 218+00				
218+00 – 224+00	6		6	
224+00 – 227+00				
227+00 – 228+00	1	20	1	20
228+00 – 230+00		88		88
230+00 – 231+00	1		1	
231+00 – 233+00		124		124
233+00 – 234+00	1	56	1	56
234+00 – 235+00	1	60	1	60
235+00 – 237+00				
237+00 – 238+00		40		40
238+00 – 241+00	3	215	3	215
241+00 – 242+00		38		38
242+00 – 244+00				
244+00 – 244+69		6		6
CTH "Y"				
3+88 – 6+00	1	151	1	151
6+00 – 7+00	1	74	1	74
7+00 – 8+00	1		1	
8+00 – 9+00		6		6
9+00 – 14+00				
14+00 – 15+00	1		1	
15+00 – 16+35	2		2	
ONE MILE RD.				
27+00 – 28+00	1		1	
28+00 – 29+00	1	24	1	24
29+00 – 30+00	1		1	
CLOVER LN.				
50+00 – 52+00		86		86
52+00 – 52+50		16		16
TOTAL	41	1902	41	1902

REMOVAL

STATION	LOCATION	TYPE	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0150 REMOVING CURB & GUTTER LF	204.0170 REMOVING FENCE LF	204.0195 REMOVING CONCRETE BASES EACH
CTH "V V"						
165+00 – 166+19 LT		CHAIN LINK			125	
165+04			173			
168+66 – 173+18 LT		CHAIN LINK			456	
176+72 – 177+29 LT				78		
176+96 – 177+37 RT				63		
177+00	36' RT					1
177+30 – 177+47 LT				84		
177+32	66' RT					1
177+40	36' LT					1
177+90 – 178+09 RT				84		
177+99	35' RT					1
177+99 – 178+39 LT				63		
178+04	68' LT					1
178+09 – 178+64 RT				71		
178+31	41' LT					1
184+67 – 187+46 LT		WOOD			284	
187+03 – 187+47 RT		WOOD			54	
187+62 – 189+63 RT		WOOD			224	
187+65 – 187+67 RT		CHAIN LINK			31	
187+65 – 188+05 LT		CHAIN LINK			45	
188+06 – 190+58 LT		WOOD			266	
190+85 – 191+05 LT		WOOD			32	
193+28 – 197+88 RT		PLASTIC			483	
195+67 – 195+76 LT		WOOD			19	
196+38 – 196+47 LT		WOOD			19	
196+74 – 196+83 LT		WOOD			19	
198+18 – 200+95 RT		PLASTIC			295	
217+10 – 217+49 LT				106		
217+91 – 218+40 LT				113		
237+47 – 237+50 RT		WOVEN WIRE			55	
239+03 – 239+84 RT		CHAIN LINK			130	
244+69 RT			173			
244+69 LT			195			
CTH "Y"						
3+88			134			
16+34			134			
ONE MILE RD.						
27+00			49			
SPENCER'S PASS						
32+00			96			
CLOVER LN.						
52+50			40			
TOTAL			994	662	2537	6

FINISHING ROADWAY
213.0100
FINISHING ROADWAY

PROJECT ID	EACH
2753–06–71	1
TOTAL	1

ASPHALTIC SURFACE TEMPORARY
465.0125

LOCATION	TON
UNDISTRIBUTED	500
TOTAL	500

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4 INCH
649.0200

LOCATION	LF
UNDISTRIBUTED	4000
TOTAL	4000

REMOVING PAVEMENT MARKINGS
649.0600

LOCATION	LF
UNDISTRIBUTED	2000
TOTAL	2000

FIELD OFFICE
642.5201
FIELD OFFICE TYPE C

PROJECT ID	EACH
2753–06–71	1
TOTAL	1

ALL ITEMS ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

LOCATION	305.0110 BASE AGGREGATE DENSE 0.75–INCH TON	AGGREGATE 305.0120 BASE AGGREGATE DENSE 1.25–INCH TON	310.0110 BASE AGGREGATE OPEN GRADED TON	311.0110 BREAKER RUN TON
CTH "V V"				
165+04 – 178+00	462	5076	1324	5001
168+89 LT		35		
178+00 – 218+00	1755	20887	6032	24309
179+41 LT	2	14		
180+70 RT	2	22		
182+44 RT	2			
183+96 LT	2	10		
187+54 RT	2	5		
187+55 LT	2	4		
190+69 LT	2	13		
191+95 LT	2	5		
192+95 RT	4	64		
193+67 LT	2	4		
195+14 LT	3	37		
196+60 LT	28			
197+33 LT	3	29		
198+05 RT	2	11		
201+97 RT	2	13		
202+00 LT	2	41		
207+80 LT	3	16		
209+44 LT	2	14		
210+75 LT	2	17		
215+68 RT	2	13		
218+00 – 231+00	563	18433	5323	21451
225+38 RT	2	14		
226+65 RT	2	10		
228+98 LT	2	14		
231+00 – 244+69	703	9308	2582	9737
231+22 RT		20		
232+28 RT		25		
232+75 LT	31			
233+15 RT		50		
233+86 LT	3	6		
238+97 RT		19		
240+53 RT		28		
241+32 RT		22		
UNDISTRIBUTED EBS				3500
CTH "Y"				
3+88 – 16+35	230	5268		4792
4+75 LT		29		
6+02 LT		29		
15+58 LT		35		
ONE MILE RD.				
27+00 – 30+00	135	465		
28+34 LT		23		
SPENCER'S PASS				
31+00 – 32+00	53	276		
CLOVER LN.				
50+00 – 52+50	116	361		
TOTAL	4128	60765	15261	68790

ALL ITEMS ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

PROJECT NO: 2753–06–71	HWY: CTH VV	COUNTY: WAUKESHA	MISCELLANEOUS QUANTITIES	SHEET 137	E

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ASPHALTIC ITEMS

LOCATION	455.0120 ASPHALTIC MATERIAL PG64-28 TON	460.1100 HMA PAVEMENT TYPE E-0.3 TON
CTH "V V" BIKEPATHS		
165+00 – 178+00	14	219
178+00 – 218+00	70	1159
218+00 – 231+00	22	373
231+00 – 244+69	19	323
(CATEGORY 0040) TOTAL	125	2074
CTH "V V" DRIVEWAYS		
168+89 LT	1	24
179+41 LT	1	10
183+97 LT	1	7
187+56 LT	1	3
190+70 LT	1	9
192+95 RT	3	43
195+15 LT	2	25
198+05 RT	1	8
207+80 LT	1	10
209+45 LT	1	9
228+98 LT	1	10
232+28 RT	1	17
233+87 LT	1	19
240+54 RT	1	4
CTH "Y" DRIVEWAYS		
04+75 LT	1	19
06+03 LT	1	19
TOTAL	19	236

MOBILIZATIONS

619.1000

MOBILIZATION

PROJECT ID	EACH
2753-06-71	1
TOTAL	1

ASPHALTIC ITEMS

LOCATION	455.0115 ASPHALTIC MATERIAL PG64-22 TON	455.0605 TACK COAT GAL	460.1110 HMA PAVEMENT TYPE E-10 TON	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL	465.0315 ASPHALTIC FLUMES SY
CTH "V V"					
165+00 – 179+50	222	542	3705		
179+50 – 194+00	240	585	4007		
194+00 – 209+00	238	579	3967		
209+00 – 224+00	257	625	4285		
224+00 – 239+00	252	614	4199		
239+00 – 244+69	89	216	1477		
CTH "V V" & CTH "Y"					20
CTH "Y"					
3+88 – 9+46	56	137	1176		
10+48 – 16+35	71	172	933	18343	
ONE MILE RD.					
27+00 – 29+46	16	40	262		
SPENCER'S PASS					
30+54 – 32+00	15	38	251		
CLOVER LN.					
50+64 – 52+50	13	32	210		
CTH "V V" & CLOVER LN.					20
TOTAL	1468	3580	24472	18343	40

MOBILIZATIONS

628.1905

MOBILIZATIONS EROSION CONTROL

PROJECT ID	EACH
2753-06-71	1
TOTAL	1

MOBILIZATIONS

628.1910

MOBILIZATIONS EMERGENCY EROSION CONTROL

PROJECT ID	EACH
2753-06-71	5
TOTAL	5

INLET PROTECTION

LOCATION/STRUCTURE	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7020 INLET PROTECTION TYPE D EACH
5.3D, 5.5A, 7.2A, 7.3E	4		
1.2		1	
2.2, 2.3, 2.4		3	
3.2, 3.3, 3.4, 3.5			4
4.2, 4.2A, 4.3, 4.3A		4	
4.4, 4.4A, 4.5, 4.5A		4	
5.2, 5.3A, 5.3B, 5.3C			4
5.4A, 5.4B, 5.4C, 5.4D			4
5.5B, 5.5C, 5.5D, 5.5E		4	
5.6A, 5.6B, 5.6C, 5.6D		4	
5.7A, 5.7B, 5.7C, 5.7D		4	
5.8A, 5.8B, 5.8C, 5.8D		4	
5.9A, 5.9B, 5.9C, 5.9D		4	
5.10A, 5.10B, 5.10C, 5.10D		4	
6.11A, 6.11B, 6.11C, 6.11D		4	
6.10A, 6.10B, 6.10C, 6.10D		4	
6.3A, 6.3B, 6.3C, 6.3D			4
6.3E, 6.3F, 6.3G, 6.3H			4
6.4A, 6.4B, 6.4C, 6.4D		4	
6.5A, 6.5B, 6.5C, 6.5D		4	
6.6A, 6.6B, 6.6C, 6.6D		4	
6.7A, 6.7B, 6.7C, 6.7D		4	
6.8A, 6.8B, 6.8C, 6.8D		4	
6.8F, 6.8H, 6.8I		3	
6.9A, 6.9B, 6.9C, 6.9D		4	
7.3A, 7.3B, 7.3C, 7.3D		4	
7.4A, 7.4B, 7.4C, 7.4D		4	
7.5A, 7.5B, 7.5C, 7.5D		4	
8.5A, 8.5B, 8.5C		3	
8.4A, 8.4B, 8.4C		3	
8.3A, 8.3B, 8.3C		3	
8.2A, 8.2B, 8.2C		3	
TOTAL	4	95	20

ALL ITEMS ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

LOCATION	416.0160 CONCRETE DRIVEWAY 6-INCH SY	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0557 CONCRETE CURB & GUTTER 6-IN SLOPED 36-IN TYPE D LF	601.0600 CONCRETE CURB PEDESTRIAN LF	602.0410 CONCRETE SIDEWALK 5-IN SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF
CTH "V V"						
165+04 – 173+08			1560			
169+42						24
173+51 – 184+03			3882			
177+06						21
177+08 – 177+25				27		
178+30						21
179+40 LT	9					
180+70 RT	6					
182+44 RT	6					
183+68						21
183+96 LT	7					
184+03 – 193+02			3478			
184+29						21
187+54 RT	7					
187+55 LT	7					
190+69 LT	7					
191+95 LT	7					
192+55						21
192+95 RT	15					
193+02 – 202+04			3528			
193+17						21
193+67 LT	6					
195+14 LT	11					
196+60 LT	126					
197+33 LT	12					
198+05 RT	8					
201+68						21
201+97 RT	9					
202+00 LT	9					
202+04 – 210+83			3404			
202+29						21
207+80 LT	11					
209+44 LT	8					
210+43						21
210+75 LT	9					
210+83 – 217+73			2687			
211+04						21
215+68 RT	9					
217+16						20
217+73 – 231+03			5092			
218+19						19
225+18						13
225+38 RT	8					
225+80						13
226+65 RT	8					
228+98 LT	9					
230+59						19
231+03 – 244+69			3912			
231+45 – 231+67				29		
231+49						13
232+75 LT	139					
233+86 LT	10					
238+65						13
239+27						13
SPENCER'S PASS						
30+59 – 31+08 LT					270	
31+08 – 32+00		183				
TOTAL	463	183	27543	56	270	357

STATION	LOCATION	STRUCTURE NO.	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8120.S COVERPLATES TEMPORARY EACH
CTH "VV"				
172+15	49' RT	3.2	1	1
172+40	5' RT	3.3	1	1
172+50	12' LT	3.4	1	1
178+50	49' LT	5.2	1	1
178+50	33' LT	5.3	1	1
181+50	33' LT	5.4	1	1
185+00	33' LT	5.5	1	1
188+00	33' LT	5.6	1	1
190+50	33' LT	5.7	1	1
193+50	33' LT	5.8	1	1
196+00	33' LT	5.9	1	1
198+50	33' LT	5.10	1	1
203+50	33' LT	6.11	1	1
205+50	33' LT	6.10	1	1
206+25	33' LT	6.2	1	1
207+44	33' LT	6.3	1	1
209+25	33' LT	6.4	1	1
211+50	33' LT	6.5	1	1
214+00	33' LT	6.6	1	1
216+75	33' LT	6.7	1	1
217+92	100' LT	6.8I	1	1
218+50	49' LT	6.8A	1	1
218+50	33' LT	6.8	1	1
218+50	49' RT	6.8D	1	1
218+02	76' RT	6.8E	1	1
221+50	33' LT	6.9	1	1
222+00	33' LT	7.2	1	1
224+50	33' LT	7.3	1	1
226+25	33' LT	7.4	1	1
228+50	33' LT	7.5	1	1
230+25	33' LT	7.6	1	1
233+50	33' LT	8.5	1	1
236+50	33' LT	8.4	1	1
239+75	33' LT	8.3	1	1
242+75	33' LT	8.2	1	1
243+77	33' LT	8.1	1	1
TOTAL			36	36

LOCATION	PIPE UNDERDRAIN 6-INCH 612.0106 LF	GEOTEXTILE FABRIC TYPE DF SCHEDULE B 645.0112 SY
CTH "V V"		
165+04 – 172+00	2423	2602
172+00 – 231+05	22892	24588
231+05 – 244+69	4094	4397
TOTAL	29409	34587

APRON ENDWALLS FOR UNDERDRAIN
REINFORCED CONCRETE 6-INCH
612.0806

LOCATION	EACH
STA 232+00	1
STA 234+50	1
STA 237+00	1
STA 239+50	1
STA 242+00	1
STA 244+00	1
TOTAL	6

MONUMENTS
621.0100
LANDMARK REFERENCE MONUMENTS

LOCATION	EACH
CTH "V V"	
N: 413260.278 E: 2487520.605	1
N: 413320.074 E: 2490170.061	1
N: 413375.089 E: 2492842.149	1
N: 413422.694 E: 2495505.496	1
N: 413509.442 E: 2498155.232	1
TOTAL	5

ALL ITEMS ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\MISC QUANTITIES 2753-06-71.DWG PLOT DATE : 1/24/2013 3:30 PM PLOT BY : SOEHNER, JIM PLOT NAME : _____ PLOT SCALE : 1"=XX'

SOIL / SOD /WATER

LOCATION	625.0100 TOPSOIL 4" LAYER SY	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0205 FERTILIZER TYPE A CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0200 SEEDING TEMPORARY LB	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
CTH "V V"								
165+00 – 179+50				6	147		36	1587
LT		3145						
RT		3034						
179+50 – 194+00				3	50		42	1851
LT		4592						
RT		4901						
194+00 – 209+00				3	67		29	1273
LT		5565						
RT		5353						
209+00 – 224+00				4	69		46	2004
LT		5366						
RT		5023						
224+00 – 239+00				5	110		26	1152
LT		6134						
RT		4832						
239+00 – 244+69				1	32		6	258
LT		2319						
RT		1473						
CTH "Y"								
3+88 – 16+35								
LT		547						
RT		1334						
UNDISTRIBUTED	10000					297	46	2030
TOTAL	10000	53618	32724	22	475	297	185	8125

EROSION CONTROL

STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	645.0130 GEOTEXTILE FABRIC TYPE R SY	628.1104 EROSION BALES 4' EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.2027 EROSION MAT CLASS II TYPE C SY	628.7504 TEMPOARY DITCH CHECKS LF
PROJECT 2753-06-70									190
CTH "V V"									
165+00 – 179+50				185	2962	2962	4909	3228	
166+43	51' RT	4	4						
169+46	74' RT	4	4						
171+96	82' RT	4	4						
176+47	72' RT	4	4						
178+50	74' LT	9	9						
179+50 – 194+00					1659	1659	2733		
194+00 – 209+00				132	1579	1579	3676		
206+26	80' LT	9	9						
209+00 – 224+00				63	1272	1272	3809		
222+00	85' LT	9	9						
224+00 – 239+00					2366	2366	6106		
239+00 – 244+69					1123	1123	1740		
CTH "Y"									
03+88 – 16+35				126	352	352		1502	
UNDISTRIBUTED FOR USE AS DIRECTED BY THE ENGINEER				127	2828	2828	5050		50
TOTAL		43	43	633	14141	14141	28023	4730	240

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CONCRETE PAVEMENT APPROACH SLAB 415.0410

LOCATION	CY
CTH VV STRUCTURE	388
CTH Y STRUCTURE	390
TOTAL	778

UTILITY LOCATE SPV.0060.25

LOCATION	EA
PROJECT	
UNDISTRIBUTED	20
TOTAL	20

DRAIN TILE EXPLORATION 612.0700

LOCATION	CY
PROJECT	
UNDISTRIBUTED	500
TOTAL	500

DRAIN TILE CONNECTION SPV.0060.26

LOCATION	EA
PROJECT	
UNDISTRIBUTED	10
TOTAL	10

MARKERS CULVERT END 633.5200

STATION	EACH
CTH "V V"	
244+00	2
CTH "Y"	
9+38	2
TOTAL	4

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\MISC QUANTITIES 2753-06-71.DWG PLOT DATE : 1/16/2013 10:25 AM PLOT BY : 1, STUDENT PLOT NAME : _____ PLOT SCALE : 1"=XX'

PAVEMENT MARKING

STATION	YELLOW SINGLE EPOXY LF	WHITE SINGLE EPOXY LF	12.5' WHITE DASHED EPOXY LF	YELLOW DOUBLE EPOXY LF	WHITE CHANNELIZING EPOXY LF	YELLOW DIAGONAL EPOXY LF	ARROWS TYPE 2 EPOXY EACH	PAVEMENT WORDS EPOXY EACH	CURB EPOXY LF	STOP LINE EPOXY LF	ISLAND NOSE EPOXY EACH	CROSSWALK EPOXY LF	CONCRETE CORRUGATED EPOXY SF
	EPOXY 4-INCH 646.0106				EPOXY 8-INCH 646.0126	EPOXY 12-INCH 646.0136	EPOXY ARROWS 647.0166	EPOXY WORDS 647.0356	CURB EPOXY 647.0456	EPOXY 18-INCH 647.0566	ISLAND NOSE 647.0606	EPOXY 6-INCH 647.0766	MEDIAN 647.0856
CTH "V V"													
165+00 – 179+50	2574	2475	382	46	417		3	3	155	90	2	325	3493
179+50 – 194+00	2901	2900	726		217		1	1	264		4		
194+00 – 209+00	3001	3001	751						132		2		
209+00 – 224+00	2736	2737	684		300		2	2	217		4	324	
224+00 – 239+00	2719	2860	718		150		1	1	326		5	159	
239+00 – 244+69	1139	1140	286						68		1		
CTH "Y"													
3+88 – 16+35		2169		1574	752	198	6	6		91		400	
ONE MILE RD.													
27+00 – 29+50		402		237						26		148	
SPENCER'S PASS													
30+50 – 32+00				137						35		172	
CLOVER LN.													
50+50 – 52+50				127						35			
SUBTOTAL	15070	17684	3547	2121									
TOTAL			38622		1836	198	13	13	1162	277	18	1528	3493

DITCH CHECKS

LOCATION		628.7555 CULVERT PIPE DITCH CHECKS EACH	628.7560.S STONE OR ROCK DITCH CHECKS CY
C.T.H. "VV"			
166+43	51' RT	1	
169+46	74' RT	1	
171+00	50' LT		5
171+96	82' RT	1	
172+60	50' LT		5
176+47	72' RT	1	
178+50	74' LT	1	
206+26	80' LT	1	
222+00	85' LT	1	
UNDISTRIBUTED FOR USE AS DIRECTED BY THE ENGINEER		2	
TOTAL		9	10

REMOVE AND RECONSTRUCT LANNON STONE RETAINING WALL

SPV.0105.04

LOCATION	LS
PROJECT	
STA 232+75 LT	1
TOTAL	1

SAFETY FENCE

616.0700.S

LOCATION	LF
UNDISTRIBUTED	500
TOTAL	500

GUARD RAIL

STRUCTURE	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TREATMENT EAT EACH
B-67-336	50	160	4
TOTAL	50	160	4

TURBIDITY BARRIERS

628.6005

LOCATION	SY
STRUCTURE B-67-335	
REMOVAL STAGE 1	205
REMOVAL STAGE 2	70
STRUCTURE B-67-336	
REMOVAL STAGE 1	170
REMOVAL STAGE 2	95
TOTAL	540

CURB RAMP DETECTABLE WARNING FIELD YELLOW

602.0505

LOCATION	SF
INTERSECTION OF CTH VV & CTH YY	122
INTERSECTION OF CTH VV & ONE MILE RD	116
INTERSECTION OF CTH VV & CLOVER LN	64
TOTAL	302

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TRAFFIC CONTROL (2753-06-71)

STATION TO STATION	643.0100 TRAFFIC CONTROL (2753-06-71) EACH	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAYS	643.0900 TRAFFIC CONTROL SIGNS DAYS	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAYS	643.2000 TRAFFIC CONTROL DETOUR (2753-06-71) EACH	643.3000 TRAFFIC CONTROL DETOUR SIGNS DAYS
CTH "VV"										
STAGE 1 (140 DAYS)		158 22120	56 7840	40 5600	40 5600	34 4760				
STAGE 2 (68 DAYS)		306 20808	41 2788	82 5576	83 5644	20 1360				
DETOUR (DURING STAGE 1; 140 DAYS)			12 1680					6 840		157 21980
CTH "Y"										
STAGE 1 (140 DAYS)			7 980			12 1680				
STAGE 2 (68 DAYS)						8 544				
DETOUR (DURING STAGE 1; 140 DAYS)			16 2240					1 140		115 16100
ONE MILE ROAD										
STAGE 1 (140 DAYS)						2				
STAGE 2 (68 DAYS)						5 340				
SPENCER'S PASS										
STAGE 1 (140 DAYS)						2				
STAGE 2 (68 DAYS)						5 340				
CLOVER LANE										
STAGE 1 (140 DAYS)						2 280				
STAGE 2 (68 DAYS)						5 340				
TOTAL	1	42928	15528	11176	11244	9644	50 (UNDISTRIBUTED)	980	1	38080

ALL ITEMS ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

STAKING

LOCATION	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB & GUTTER LF	650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	SPV.0105.03 CONSTRUCTION STAKING CONCRETE SIDEWALK LS
PROJECT							
2753-06-71					1		1
CTH "V V"	133					7966	
165+04 – 244+70		7966	7966				
165+04 – 173+08				1560			
173+51 – 184+03				3882			
184+03 – 193+02				3478			
193+02 – 202+04				3528			
202+04 – 210+83				3404			
210+83 – 217+73				2687			
217+73 – 231+03				5092			
231+03 – 244+69				3912			
CTH "Y"						1248	
3+87 – 16+35		1248	1248				
ONE MILE RD.						250	
27+50 – 30+00		250	250				
SPENCER'S PASS						200	
30+00 – 32+00		200	200				
31+08 – 32+00				183			
CLOVER LN.						211	
50+39 – 52+50		211	211				
TOTAL	133	9875	9875	27726	1	9875	1

SAWING

LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
CTH "V V"		
165+04	31	
168+86 LT	15	
179+41 LT	19	
183+96 LT	12	
187+55 LT	12	
190+69 LT	11	
192+95 RT	50	
195+14 LT	30	
196+60 LT		37
198+05 RT	14	
207+80 LT	34	
209+44 LT	16	
228+98 LT	18	
232+28 RT	16	
232+75 LT		33
233+86 LT	24	
240+53 RT	36	
244+69 LT	35	
244+69 RT	31	
CTH "Y"		
3+87	25	
4+77 LT	15	
6+02 LT	15	
16+34	24	
ONE MILE RD.		
27+00	22	
SPENCER'S PASS		
32+00	43	
CLOVER LN.		
52+50	18	
TOTAL	566	70

ALL ITEMS ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

EARTHWORK SUMMARY TABLE

From/ To Station	Location	Common Excavation (1) (item # 205.0100)		Salvaged/ Unusable Pavement Material (2)	Available Material (5)	Reduced EBS in Fill (6)	Expanded EBS Backfill (7)	Unexpanded Fill	Expanded Fill (8)	Mass Ordinate +/ - (9)	Waste	Borrow	Comment:
		Cut (2)	EBS Excavation (3)			Factor 0.80	Factor 1.30		Factor 1.30			(item #208.0100)	
164+50 - 188+50	CTH VV	19,434		0	19434	0	0	7951	10336	9098	9098		
189+00 - 208+00	CTH VV	14,315		0	14315	0	0	2931	3810	10505	10505		
208+50 - 228+00	CTH VV	18,501		0	18501	0	0	2090	2717	15784	15784		
228+50 - 245+00	CTH VV	8971		0	8971	0	0	3971	5162	3808	3808		
								4627					
				0	61221	0	0	21570	22026	39195	39195	0	
164+50 - 245+00	CTH VV	61221		0	61221	0	0	16943	22026	39195	39195	-	
		61221		0	61221	0	0	16943	22026	39195	39195	0	
3+50 - 16+50	Lannon	3418		0	3418			1111	1444	1974	1974	-	
27+00 - 29+43	One-Mile	1075		0	1075			0	0	1075	1075	-	
30+50 - 32+50	Spencers Pass	985		0	985			21	27	958	958	-	
50+65 - 53+00	Clover	687		0	687			0	0	687	687	-	
		6165	0	0	6165	0	0	1132	1471	4694	4694	0	
Undistributed			2000			1600	3120		0	0	0	0	
			2000			1600	3120		0	0	0	0	
Grand Total		67386	2000	0	67386	1600	3120	18075	23497	43889	43889	0	

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/ Unsuable Pavement Material is included in Cut.
3) Excavation Below Subgrade is undistributed quantity only.
4) Salvaged/ Unusable Pavement Material
5) Available Material = Cut - Salvaged/ Unusuable Pavement Material
6) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8
7) Expanded Fill. Factor = 1.30 Expanded Fill = (Unexpanded Fill - Reduced Marsh - Reduced EBS) * Fill Factor
8) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.
9) A quantity equal to 2000CY has been added to the aggregate summary table for use with EBS.

REMOVING CULVERTS SUMMARY

LOCATION	LF	SIZE	MATERIAL	203.0100 REMOVING SMALL PIPE CULVERTS EACH	209.0100 BACKFILL GRANULAR* CY
167+00 LT	30	36-INCH	CPCS	1	22
168+86 LT	38	36-INCH	CPCS	1	28
179+41 LT	32	24-INCH	CACS	1	19
180+70 RT	28	18-INCH	CPCS	1	12
182+50 RT	20	18-INCH	CPCS	1	9
184+00 LT	30	24-INCH	CPCS	1	18
187+50 LT	20	18-INCH	CPCS	1	9
187+50 RT	30	18-INCH	CACS	1	20
190+69 LT	30	18-INCH	CACS	1	20
191+95 LT	24	18-INCH	CPCS	1	11
193+00 RT	45	18-INCH	CPCS	1	20
193+67 LT	28	18-INCH	CPCS	1	12
195+14 LT	28	18-INCH	CPCS	1	12
196+60 LT	28	18-INCH	CPCS	1	12
197+33 LT	28	18-INCH	CPCS	1	12
198+00 RT	30	18-INCH	CPCS	1	13
202+00 LT	42	18-INCH	CPCS	1	19
206+25	85	30-INCH	CPCS	1	50
207+75 LT	30	18-INCH	CACS	1	13
210+75 LT	28	18-INCH	CACS	1	12
210+75 RT	30	18-INCH	CACS	1	13
213+00 LT	24	18-INCH	CACS	1	11
215+68 RT	30	18-INCH	CACS	1	13
222+00	88	24-INCH	CPCS	1	52
225+38 RT	28	18-INCH	CPCS	1	25
226+65 RT	28	18-INCH	CPCS	1	12
229+00 LT	30	18-INCH	CPCS	1	13
231+25 RT	28	18-INCH	CPCS	1	12
232+28 RT	28	18-INCH	CPCS	1	12
232+75 LT	28	18-INCH	CPCS	1	12
233+12 RT	40	12-INCH X 18-INCH	CPCS	1	18
233+88 LT	30	18-INCH	CACS	1	13
241+32 LT	28	15-INCH	CPCS	1	12
9+40	104	24-INCH	RCP	1	62
29+55	86	24-INCH	RCP	1	51
30+45	104	13-INCH X 21-INCH	RCP	1	62
PROJECT TOTALS				36	741

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

CONCRETE SURFACE DRAINS SPECIAL

STATION	DESCRIPTION	LOCATION	OFFSET	416.1010 CONCRETE SURFACE DRAINS CY
185+22	BIO AREA 185+00	CTH VV	LT	0.24
185+22	BIO AREA 185+00	CTH VV	RT	0.24
185+72	BIO AREA 185+00	CTH VV	LT	0.24
185+72	BIO AREA 185+00	CTH VV	RT	0.24
186+22	BIO AREA 185+00	CTH VV	LT	0.24
186+22	BIO AREA 185+00	CTH VV	RT	0.24
186+72	BIO AREA 185+00	CTH VV	LT	0.24
168+72	BIO AREA 185+00	CTH VV	RT	0.24
187+22	BIO AREA 185+00	CTH VV	LT	0.24
187+22	BIO AREA 185+00	CTH VV	RT	0.24
187+72	BIO AREA 185+00	CTH VV	LT	0.24
187+72	BIO AREA 185+00	CTH VV	RT	0.24
188+22	BIO AREA 188+00	CTH VV	LT	0.24
188+22	BIO AREA 188+00	CTH VV	RT	0.24
188+72	BIO AREA 188+00	CTH VV	LT	0.24
188+72	BIO AREA 188+00	CTH VV	RT	0.24
189+22	BIO AREA 188+00	CTH VV	LT	0.24
189+22	BIO AREA 188+00	CTH VV	RT	0.24
189+72	BIO AREA 188+00	CTH VV	LT	0.24
189+72	BIO AREA 188+00	CTH VV	RT	0.24
190+22	BIO AREA 188+00	CTH VV	LT	0.24
190+22	BIO AREA 188+00	CTH VV	RT	0.24
190+72	BIO AREA 191+50	CTH VV	LT	0.24
190+72	BIO AREA 191+50	CTH VV	RT	0.24
191+22	BIO AREA 191+50	CTH VV	LT	0.24
191+22	BIO AREA 191+50	CTH VV	RT	0.24
191+72	BIO AREA 191+50	CTH VV	LT	0.24
191+72	BIO AREA 191+50	CTH VV	RT	0.24
192+22	BIO AREA 191+50	CTH VV	LT	0.24
192+22	BIO AREA 191+50	CTH VV	RT	0.24
193+73	BIO AREA 193+50	CTH VV	LT	0.24
193+73	BIO AREA 193+50	CTH VV	RT	0.24
194+23	BIO AREA 193+50	CTH VV	LT	0.24
194+23	BIO AREA 193+50	CTH VV	RT	0.24
194+73	BIO AREA 193+50	CTH VV	LT	0.24
194+73	BIO AREA 193+50	CTH VV	RT	0.24
195+23	BIO AREA 193+50	CTH VV	LT	0.24
195+23	BIO AREA 193+50	CTH VV	RT	0.24
195+73	BIO AREA 193+50	CTH VV	LT	0.24
195+73	BIO AREA 193+50	CTH VV	RT	0.24
196+17	BIO AREA 196+00	CTH VV	LT	0.24
196+17	BIO AREA 196+00	CTH VV	RT	0.24
196+67	BIO AREA 196+00	CTH VV	LT	0.24
196+67	BIO AREA 196+00	CTH VV	RT	0.24
197+17	BIO AREA 196+00	CTH VV	LT	0.24
SUBTOTAL				10.8

STATION	DESCRIPTION	LOCATION	OFFSET	416.1010 CONCRETE SURFACE DRAINS CY
197+17	BIO AREA 196+00	CTH VV	RT	0.24
199+67	BIO AREA 198+67	CTH VV	LT	0.24
199+67	BIO AREA 198+67	CTH VV	RT	0.24
200+17	BIO AREA 198+67	CTH VV	LT	0.24
200+17	BIO AREA 198+67	CTH VV	RT	0.24
200+67	BIO AREA 198+67	CTH VV	LT	0.24
200+67	BIO AREA 198+67	CTH VV	RT	0.24
201+17	BIO AREA 198+67	CTH VV	LT	0.24
201+17	BIO AREA 198+67	CTH VV	RT	0.24
202+69	BIO AREA 203+50	CTH VV	LT	0.24
202+69	BIO AREA 203+50	CTH VV	RT	0.24
203+37	BIO AREA 203+50	CTH VV	LT	0.24
203+37	BIO AREA 203+50	CTH VV	RT	0.24
203+90	BIO AREA 205+50	CTH VV	LT	0.24
203+90	BIO AREA 205+50	CTH VV	RT	0.24
204+40	BIO AREA 205+50	CTH VV	LT	0.24
204+40	BIO AREA 205+50	CTH VV	RT	0.24
204+90	BIO AREA 205+50	CTH VV	LT	0.24
204+90	BIO AREA 205+50	CTH VV	RT	0.24
205+40	BIO AREA 205+50	CTH VV	LT	0.24
205+40	BIO AREA 205+50	CTH VV	RT	0.24
205+77	BIO AREA 207+45	CTH VV	LT	0.24
205+77	BIO AREA 207+45	CTH VV	RT	0.24
206+27	BIO AREA 207+45	CTH VV	LT	0.24
206+27	BIO AREA 207+45	CTH VV	RT	0.24
206+77	BIO AREA 207+45	CTH VV	LT	0.24
206+77	BIO AREA 207+45	CTH VV	RT	0.24
207+24	BIO AREA 207+45	CTH VV	LT	0.24
207+24	BIO AREA 207+45	CTH VV	RT	0.24
207+53	BIO AREA 207+45	CTH VV	LT	0.24
207+53	BIO AREA 207+45	CTH VV	RT	0.24
208+03	BIO AREA 207+45	CTH VV	LT	0.24
208+03	BIO AREA 207+45	CTH VV	RT	0.24
208+53	BIO AREA 207+45	CTH VV	LT	0.24
208+53	BIO AREA 207+45	CTH VV	RT	0.24
209+03	BIO AREA 207+45	CTH VV	LT	0.24
209+03	BIO AREA 207+45	CTH VV	RT	0.24
211+62	BIO AREA 211+50	CTH VV	LT	0.24
211+62	BIO AREA 211+50	CTH VV	RT	0.24
212+31	BIO AREA 211+50	CTH VV	LT	0.24
212+31	BIO AREA 211+50	CTH VV	RT	0.24
213+00	BIO AREA 211+50	CTH VV	LT	0.24
213+00	BIO AREA 211+50	CTH VV	RT	0.24
213+68	BIO AREA 211+50	CTH VV	LT	0.24
213+68	BIO AREA 211+50	CTH VV	RT	0.24
SUBTOTAL				10.8

STATION	DESCRIPTION	LOCATION	OFFSET	416.1010 CONCRETE SURFACE DRAINS CY
221+62	BIO AREA 221+50	CTH VV	LT	0.24
221+62	BIO AREA 221+50	CTH VV	RT	0.24
222+13	BIO AREA 221+50	CTH VV	LT	0.24
222+13	BIO AREA 221+50	CTH VV	RT	0.24
222+78	BIO AREA 221+50	CTH VV	LT	0.24
222+78	BIO AREA 221+50	CTH VV	RT	0.24
223+46	BIO AREA 221+50	CTH VV	LT	0.24
223+47	BIO AREA 221+50	CTH VV	RT	0.24
224+15	BIO AREA 221+50	CTH VV	LT	0.24
224+16	BIO AREA 221+50	CTH VV	RT	0.24
224+84	BIO AREA 221+50	CTH VV	LT	0.24
224+84	BIO AREA 221+50	CTH VV	RT	0.24
226+44	BIO AREA 226+25	CTH VV	LT	0.24
226+44	BIO AREA 226+25	CTH VV	RT	0.24
227+13	BIO AREA 226+25	CTH VV	LT	0.24
227+13	BIO AREA 226+25	CTH VV	RT	0.24
227+82	BIO AREA 226+25	CTH VV	LT	0.24
227+82	BIO AREA 226+25	CTH VV	RT	0.24
231+88	BIO AREA 233+50	CTH VV	LT	0.24
231+88	BIO AREA 233+50	CTH VV	RT	0.24
232+57	BIO AREA 233+50	CTH VV	LT	0.24
232+57	BIO AREA 233+50	CTH VV	RT	0.24
233+26	BIO AREA 233+50	CTH VV	LT	0.24
233+26	BIO AREA 233+50	CTH VV	RT	0.24
233+77	BIO AREA 236+50	CTH VV	LT	0.24
233+77	BIO AREA 236+50	CTH VV	RT	0.24
234+32	BIO AREA 236+50	CTH VV	LT	0.24
234+32	BIO AREA 236+50	CTH VV	RT	0.24
235+01	BIO AREA 236+50	CTH VV	LT	0.24
235+01	BIO AREA 236+50	CTH VV	RT	0.24
235+69	BIO AREA 236+50	CTH VV	LT	0.24
235+69	BIO AREA 236+50	CTH VV	RT	0.24
236+38	BIO AREA 236+50	CTH VV	LT	0.24
SUBTOTAL				7.7

STATION	DESCRIPTION	LOCATION	OFFSET	416.1010 CONCRETE SURFACE DRAINS CY
236+38	BIO AREA 236+50	CTH VV	RT	0.24
236+77	BIO AREA 239+75	CTH VV	LT	0.24
236+77	BIO AREA 239+75	CTH VV	RT	0.24
237+46	BIO AREA 239+75	CTH VV	LT	0.24
237+46	BIO AREA 239+75	CTH VV	RT	0.24
238+14	BIO AREA 239+75	CTH VV	LT	0.24
238+14	BIO AREA 239+75	CTH VV	RT	0.24
238+83	BIO AREA 239+75	CTH VV	LT	0.24
238+83	BIO AREA 239+75	CTH VV	RT	0.24
239+52	BIO AREA 239+75	CTH VV	LT	0.24
239+52	BIO AREA 239+75	CTH VV	RT	0.24
239+94	BIO AREA 242+75	CTH VV	LT	0.24
239+94	BIO AREA 242+75	CTH VV	RT	0.24
240+62	BIO AREA 242+75	CTH VV	LT	0.24
240+62	BIO AREA 242+75	CTH VV	RT	0.24
241+31	BIO AREA 242+75	CTH VV	LT	0.24
241+31	BIO AREA 242+75	CTH VV	RT	0.24
242+00	BIO AREA 242+75	CTH VV	LT	0.24
242+00	BIO AREA 242+75	CTH VV	RT	0.24
242+68	BIO AREA 242+75	CTH VV	LT	0.24
242+68	BIO AREA 242+75	CTH VV	RT	0.24
SUBTOTAL				5.0
TOTAL				34.3

STORM SEWER SUMMARY

ITEM	QUANTITY	UNIT	DESCRIPTION	CATEGORY
520.8000	1	EACH	CULVERT PIPE CONCRETE COLLAR (STA. 244+00)	0010
522.1015	4	EACH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH	0010
522.1024	4	EACH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	0010
522.1036	1	EACH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH	0010
608.0318	450	LF	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	0010
608.0324	4970	LF	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	0010
608.0336	342	LF	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH	0010
608.0415	2275	LF	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH	0010
608.0512	473	LF	STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH	0010
611.2004	25	EACH	MANHOLES 4-FT DIAMETER	0010
611.2006	4	EACH	MANHOLES 6-FT DIAMETER	0010
611.2044	6	EACH	MANHOLES 4X4-FT	0010
611.2066	1	EACH	MANHOLES 6X6-FT	0010
611.3253	113	EACH	INLETS 2.5X3-FT	0010
611.3901	4	EACH	INLETS MEDIAN 1 GRATE	0010
611.0530	29	EACH	MANHOLE COVERS TYPE J	0010
611.0642	4	EACH	INLET COVERS TYPE MS	0010
611.0615	120	EACH	INLET COVERS TYPE F	0010
SPV.0090.03	448	LF	STORM SEWER PIPE COMPOSITE 24-INCH	0010

STRUCT. NO.	STATION	OFFSET	C-C (FT)	TO STRUCT.	INLET TYPE & COVER		MH TYPE & COVER		RIM/GRATE ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCH. ELEV.	LENGTH (FT)	SLOPE (%)	PIPE CLASS	REMARKS	SUMP (FT)
1.1	166+43	54.24 RT	---	---	---	---	---	---	---	---	--	851.41	---	---	---	15" APRON ENDWALL	---
1.2	166+43	25.13 RT	29.00	1.1	2.5X3-FT	F	---	---	856.46	5.99	15	851.97	29.00	2.00%	IV		1.5
2.1	169+46	77.11 RT	---	---	---	---	---	---	---	---	---	834.56	---	---	---	15" APRON ENDWALL	---
2.2	169+47	39.62 RT	37.00	2.1	2.5X3-FT	F	---	---	843.91	8.97	15	836.44	37.00	5.20%	IV		1.5
2.3	169+48	1.36 LT	41.00	2.2	2.5X3-FT	F	---	---	843.94	6.22	15	839.22	41.00	2.00%	IV		1.5
2.4	169+48	11.00 LT	10.00	2.3	2.5X3-FT	F	---	---	844.00	6.03	15	839.47	10.00	2.00%	IV		1.5
3.1	171+95	84.23 RT	---	---	---	---	---	---	---	---	--	830.60	---	---	---	15" APRON ENDWALL	---
3.2	172+15	48.50 RT	41.00	3.1	---	---	4X4-FT	F	839.18	6.93	15	832.25	41.00	4.23%	IV		---
3.3	172+40	5.45 RT	50.00	3.2	---	---	4X4-FT	F	839.04	5.66	15	833.38	50.00	2.00%	IV		---
3.4	172+50	12.00 LT	20.00	3.3	---	---	4X4-FT	F	839.12	5.29	15	833.83	20.00	2.00%	IV		---
3.5	172+71	48.50 LT	41.00	3.4	2.5X3-FT	F	---	---	838.90	6.06	15	834.34	41.00	1.00%	IV		1.5
4.1	176+47	75.25 RT	---	---	---	---	---	---	---	---	--	832.33	---	---	---	15" APRON ENDWALL	---
4.2	176+47	48.50 RT	27.00	4.1	2.5X3-FT	F	---	---	837.26	6.18	15	832.58	27.00	1.00%	IV		1.5
4.2A	176+27	48.50 RT	20.00	4.2	2.5X3-FT	F	---	---	837.26	5.16	12	833.60	20.00	2.00%	V		1.5
4.3	176+47	1.50 RT	47.00	4.2	2.5X3-FT	F	---	---	837.22	5.71	15	833.01	47.00	0.50%	IV		1.5
4.3A	176+27	1.50 RT	20.00	4.3	2.5X3-FT	F	---	---	837.21	5.34	12	833.37	20.00	2.00%	V		1.5
4.4	176+47	11.50 LT	13.00	4.3	2.5X3-FT	F	---	---	837.32	5.80	15	833.02	13.00	0.50%	IV		1.5
4.4A	176+27	11.50 LT	20.00	4.4	2.5X3-FT	F	---	---	837.33	5.46	12	833.37	20.00	2.00%	V		1.5
4.5	176+47	48.50 LT	37.00	4.4	2.5X3-FT	F	---	---	837.26	5.52	15	833.24	37.00	0.50%	IV		1.5
4.5A	176+27	48.50 LT	20.00	4.5	2.5X3-FT	F	---	---	837.26	5.39	12	833.37	20.00	2.00%	V		1.5
5.1	178+50	76.82 LT	---	---	---	---	---	---	---	---	--	833.50	---	---	---	36" APRON ENDWALL	---
5.2	178+50	48.50 LT	28.00	5.1	---	---	6X6-FT	F	838.68	5.08	36	833.60	28.00	0.38%	III		---
5.3	178+50	33.00 LT	16.00	5.2	---	---	6-FT DIA.	J	838.82	5.10	36	833.72	16.00	0.56%	III		---
5.3A	178+50	1.50 LT	31.00	5.3	2.5X3-FT	F	---	---	838.64	6.25	15	833.89	31.00	0.47%	IV		1.5
5.3B	178+50	11.50 RT	13.00	5.3A	2.5X3-FT	F	---	---	838.74	6.23	15	834.01	13.00	0.51%	IV		1.5
5.3C	178+50	50.71 RT	39.00	5.3B	2.5X3-FT	F	---	---	838.64	5.91	15	834.23	39.00	0.47%	IV		1.5
5.3D	178+50	73.45 RT	23.00	5.3C	MEDIAN 1 GRATE	MS	---	---	836.48	3.61	15	834.37	23.00	0.44%	IV		1.5
5.4	181+50	33.00 LT	298.00	5.3	---	---	4-FT DIA.	J	842.60	6.73	36	835.87	298.00	0.80%	III		---
5.4A	181+50	48.50 LT	15.00	5.4	2.5X3-FT	F	---	---	842.32	5.86	15	837.96	15.00	1.00%	IV		1.5
5.4B	181+50	1.50 LT	32.00	5.4	2.5X3-FT	F	---	---	842.24	6.16	15	837.58	32.00	1.00%	IV		1.5
5.4C	181+50	11.50 RT	13.00	5.4B	2.5X3-FT	F	---	---	842.44	6.20	15	837.74	13.00	0.50%	IV		1.5
5.4D	181+50	48.50 RT	37.00	5.3C	2.5X3-FT	F	---	---	842.32	5.83	15	837.99	37.00	0.50%	IV		1.5
5.5	185+00	33.00 LT	350.00	5.4	---	---	4-FT DIA.	J	845.10	7.34	24	837.76	350.00	0.50%	III		---
5.5A	184+50	62.15 LT	52.00	5.5B	MEDIAN 1 GRATE	MS	---	---	844.95	5.71	15	840.74	52.00	0.50%	IV		1.5
5.5B	185+00	48.50 LT	15.00	5.5	2.5X3-FT	F	---	---	844.82	5.88	15	840.44	15.00	1.00%	IV		1.5
5.5C	185+00	11.50 LT	22.00	5.5	2.5X3-FT	F	---	---	844.94	6.78	15	839.66	22.00	1.00%	IV		1.5
5.5D	185+00	11.50 RT	23.00	5.5C	2.5X3-FT	F	---	---	844.94	6.52	24	839.92	23.00	1.00%	N/A	COMPOSITE PIPE*	1.5
5.5E	185+00	48.50 RT	37.00	5.5D	2.5X3-FT	F	---	---	844.82	6.01	15	840.31	37.00	1.00%	IV		1.5
5.6	188+00	33.00 LT	300.00	5.5	---	---	4-FT DIA.	J	846.60	5.84	24	840.76	300.00	0.50%	III		---
5.6A	188+00	48.50 LT	15.00	5.6	2.5X3-FT	F	---	---	846.32	5.84	15	841.98	15.00	1.00%	IV		1.5
5.6B	188+00	11.50 LT	22.00	5.6	2.5X3-FT	F	---	---	846.44	6.35	15	841.59	22.00	0.50%	IV		1.5
5.6C	188+00	11.50 RT	23.00	5.6B	2.5X3-FT	F	---	---	846.44	6.18	24	841.76	23.00	0.50%	N/A	COMPOSITE PIPE*	1.5
5.6D	188+00	48.50 RT	37.00	5.6C	2.5X3-FT	F	---	---	846.32	5.83	15	841.99	37.00	0.50%	IV		1.5
5.7	190+50	33.00 LT	250.00	5.6	---	---	4-FT DIA.	J	847.85	5.85	24	842.00	250.00	0.50%	III		---
5.7A	190+50	48.50 LT	15.00	5.7	2.5X3-FT	F	---	---	847.57	6.84	15	842.23	15.00	1.00%	IV		1.5
5.7B	190+50	11.50 LT	22.00	5.7	2.5X3-FT	F	---	---	847.77	6.79	15	842.48	22.00	1.00%	IV		1.5
5.7C	190+50	11.50 RT	23.00	5.7B	2.5X3-FT	F	---	---	847.77	6.51	24	842.76	23.00	1.00%	N/A	COMPOSITE PIPE*	1.5
5.7D	190+50	48.50 RT	37.00	5.7C	2.5X3-FT	F	---	---	847.57	5.89	15	843.18	37.00	1.00%	IV		1.5
5.8	193+50	33.00 LT	300.00	5.7	---	---	4-FT DIA.	J	849.44	5.36	24	844.08	300.00	0.50%	III		---
5.8A	193+50	48.50 LT	15.00	5.8	2.5X3-FT	F	---	---	849.16	5.68	12	844.98	15.00	1.00%	V		1.5
5.8B	193+50	11.50 LT	22.00	5.8	2.5X3-FT	F	---	---	849.36	6.58	12	844.28	22.00	1.00%	V		1.5
5.8C	193+50	11.50 RT	23.00	5.8B	2.5X3-FT	F	---	---	849.36	6.30	24	844.56	23.00	1.00%	N/A	COMPOSITE PIPE*	1.5
5.8D	193+50	48.50 RT	37.00	5.8C	2.5X3-FT	F	---	---	849.16	5.68	12	844.98	37.00	1.00%	V		1.5
5.9	196+00	33.00 LT	250.00	5.8	---	---	4-FT DIA.	J	853.97	7.91	18	846.06	250.00	1.00%	III		---
5.9A	196+00	48.50 LT	15.00	5.9	2.5X3-FT	F	---	---	853.69	6.20	12	848.99	15.00	1.00%	V		1.5
5.9B	196+00	11.50 LT	22.00	5.9	2.5X3-FT	F	---	---	853.89	6.45	12	848.94	22.00	1.00%	V		1.5
5.9C	196+00	11.50 RT	23.00	5.9B	2.5X3-FT	F	---	---	853.89	6.15	24	849.24	23.00	1.00%	N/A	COMPOSITE PIPE*	1.5
5.9D	196+00	48.50 RT	37.00	5.9C	2.5X3-FT	F	---	---	853.69	5.52	12	849.67	37.00	1.00%	V		1.5
5.10	198+68	33.00 LT	268.00	5.9	---	---	4-FT DIA.	J	862.53	9.75	15	852.78	268.00	2.50%	IV		---
5.10A	198+68	48.50 LT	16.00	5.10	2.5X3-FT	F	---	---	862.25	6.00	12	857.75	16.00	2.00%	V		1.5
5.10B	198+68	11.50 LT	22.00	5.10	2.5X3-FT	F	---	---	862.45	6.91	12	857.04	22.00	1.00%	V		1.5
5.10C	198+68	11.50 RT	23.00	5.10B	2.5X3-FT	F	---	---	862.45	6.61	24	857.34	23.00	1.00%	N/A	COMPOSITE PIPE*	1.5
5.10D	198+68	48.50 RT	37.00	5.10C	2.5X3-FT	F	---	---	862.25	5.98	12	857.77	37.00	1.00%	V		1.5
6.1A	206+23.53	72.50 RT	99.00	6.2	---	---	---	---	---	--	--	853.32	---	---	N/A	24" APRON ENDWALL	---
6.1	206+26	76.92 LT	---	---	---	---	---	---	---	--	--	851.50	---	---	N/A	24" APRON ENDWALL	---
6.2	206+25	33.00 LT	50.00	6.1	---	---	4-FT DIA.	J	856.87	5.23	24	851.64	50.00	0.30%	III		---

NOTE:
OFFSET MEASURED TO CENTER OF STRUCTURE.

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

STRUCT. NO.	STATION	OFFSET	C-C (FT)	TO STRUCT.	INLET TYPE & COVER		MH TYPE & COVER		RIM/GRATE ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCHARGE PIPE DISCH. ELEV.	DISCHARGE PIPE LENGTH (FT)	DISCHARGE PIPE SLOPE (%)	DISCHARGE PIPE CLASS	REMARKS	SUMP (FT)
6.3	207+44	33.00 LT	119.00	6.2	---	---	4-FT DIA.	J	856.10	4.10	24	852.00	119.00	0.30%	III		---
6.3A	207+44	48.50 LT	15.00	6.3	2.5X3-FT	F	---	---	855.82	5.50	15	851.82	15.00	0.50%	IV		1.5
6.3B	207+32	48.50 LT	12.00	6.3A	2.5X3-FT	F	---	---	855.84	6.03	12	851.31	12.00	0.50%	V		1.5
6.3C	207+44	11.50 LT	22.00	6.3	2.5X3-FT	F	---	---	856.02	5.62	15	851.90	22.00	0.50%	IV		1.5
6.3D	207+32	11.50 LT	12.00	6.3C	2.5X3-FT	F	---	---	856.04	6.25	12	851.29	12.00	0.50%	V		1.5
6.3E	207+44	11.50 RT	23.00	6.3C	2.5X3-FT	F	---	---	856.02	5.46	24	852.06	23.00	0.50%	N/A	COMPOSITE PIPE*	1.5
6.3F	207+32	11.50 RT	12.00	6.3E	2.5X3-FT	F	---	---	856.04	6.25	12	851.29	12.00	0.50%	V		1.5
6.3G	207+44	48.50 RT	37.00	6.3E	2.5X3-FT	F	---	---	855.82	5.04	15	852.28	37.00	0.50%	IV		1.5
6.3H	207+32	48.50 RT	12.00	6.3G	2.5X3-FT	F	---	---	855.84	5.75	12	851.59	12.00	1.00%	V		1.5
6.4	209+25	33.00 LT	181.00	6.3	---	---	4-FT DIA.	J	856.85	4.31	24	852.54	181.00	0.30%	III		---
6.4A	209+25	48.50 LT	16.00	6.4	2.5X3-FT	F	---	---	856.57	5.83	15	852.24	16.00	0.50%	IV		1.5
6.4B	209+25	11.50 LT	21.00	6.4	2.5X3-FT	F	---	---	856.61	6.27	15	851.84	21.00	0.50%	IV		1.5
6.4C	209+25	11.50 RT	23.00	6.4B	2.5X3-FT	F	---	---	856.69	6.18	24	852.01	23.00	0.50%	N/A	COMPOSITE PIPE*	1.5
6.4D	209+25	48.50 RT	37.00	6.3C	2.5X3-FT	F	---	---	856.57	5.83	15	852.24	37.00	0.50%	IV		1.5
6.5	211+50	33.00 LT	225.00	6.4	---	---	4-FT DIA.	J	857.97	4.75	24	853.22	225.00	0.30%	III		---
6.5A	211+50	48.50 LT	15.00	6.5	2.5X3-FT	F	---	---	857.69	5.90	15	853.29	15.00	0.50%	IV		1.5
6.5B	211+50	11.50 LT	22.00	6.5	2.5X3-FT	F	---	---	857.73	6.34	15	852.89	22.00	0.50%	IV		1.5
6.5C	211+50	11.50 RT	23.00	6.5B	2.5X3-FT	F	---	---	857.81	6.27	24	853.04	23.00	0.50%	N/A	COMPOSITE PIPE*	1.5
6.5D	211+50	48.50 RT	37.00	6.5C	2.5X3-FT	F	---	---	857.69	5.90	15	853.29	37.00	0.50%	IV		1.5
6.6	214+00	33.00 LT	250.00	6.5	---	---	4-FT DIA.	J	859.22	5.23	24	853.99	250.00	0.30%	III		---
6.6A	214+00	48.50 LT	16.00	6.6	2.5X3-FT	F	---	---	858.94	5.95	15	854.49	16.00	0.50%	IV		1.5
6.6B	214+00	11.50 LT	21.00	6.6	2.5X3-FT	F	---	---	859.06	6.17	15	854.39	21.00	0.50%	IV		1.5
6.6C	214+00	11.50 RT	23.00	6.6B	2.5X3-FT	F	---	---	859.06	6.00	24	854.56	23.00	0.50%	N/A	COMPOSITE PIPE*	1.5
6.6D	214+00	48.50 RT	37.00	6.6C	2.5X3-FT	F	---	---	859.14	5.85	15	854.79	37.00	0.50%	IV		1.5
6.7	216+75	33.00 LT	275.00	6.6	---	---	4-FT DIA.	J	860.55	5.73	24	854.82	275.00	0.30%	III		---
6.7A	216+75	48.50 LT	15.00	6.7	2.5X3-FT	F	---	---	860.38	5.89	15	855.99	15.00	0.50%	IV		1.5
6.7B	216+75	11.50 LT	22.00	6.7	2.5X3-FT	F	---	---	860.45	5.86	15	856.09	22.00	0.50%	IV		1.5
6.7C	216+75	1.50 RT	13.00	6.7B	2.5X3-FT	F	---	---	860.33	5.62	15	856.21	13.00	0.50%	IV		1.5
6.7D	216+75	48.50 RT	47.00	6.7C	2.5X3-FT	F	---	---	860.98	5.99	15	856.49	47.00	0.50%	IV		1.5
6.8	218+50	33.00 LT	175.00	6.7	---	---	4-FT DIA.	J	861.41	6.07	24	855.34	175.00	0.30%	III		---
6.8A	218+50	48.50 LT	15.00	6.8	---	---	4X4-FT	F	861.27	5.70	15	855.57	15.00	0.50%	IV		---
6.8B	218+50	1.50 LT	32.00	6.8	2.5X3-FT	F	---	---	861.23	6.33	24	856.40	32.00	0.50%	III		1.5
6.8C	218+50	11.50 RT	13.00	6.8B	2.5X3-FT	F	---	---	861.33	6.32	24	856.51	13.00	0.50%	N/A	COMPOSITE PIPE*	1.5
6.8D	218+50	48.50 RT	37.00	6.8C	---	---	4X4-FT	F	861.87	6.63	24	856.74	37.00	0.50%	III		1.5
6.8E	218+02	75.55 RT	53.00	6.8D			4-FT DIA.	J	862.15	5.15	24	857.00	53.00	0.50%	III		---
6.8F	217+94	75.39 RT	8.00	6.8E	2.5X3-FT	F	---	---	861.54	6.05	12	856.99	8.00	1.00%	V		1.5
6.8G	218+02	118.84 RT	---	---	---	---	---	---	---	--	---	858.69	---	---	N/A	24" APRON ENDWALL	---
6.8H	217+47	100.60 LT	41.00	6.8I	2.5X3-FT	F	---	---	860.22	6.43	12	855.29	41.00	0.50%	V		1.5
6.8I	217+92	99.61 LT	77.00	6.8A	---	---	4X4-FT	F	860.37	4.52	12	855.85	77.00	0.33%	V		---
6.8J	217+49	74.56 RT	45.00	6.8F	2.5X3-FT	F	---	---	861.26	5.54	12	857.22	45.00	0.50%	V		1.5
6.9	221+50	33.00 LT	300.00	6.8	---	---	4-FT DIA.	J	862.97	6.13	24	856.84	300.00	0.50%	III		---
6.9A	221+50	48.50 LT	16.00	6.9	2.5X3-FT	F	---	---	862.69	5.95	15	858.24	16.00	0.50%	IV		1.5
6.9B	221+50	11.50 LT	21.00	6.9	2.5X3-FT	F	---	---	862.81	5.29	15	859.02	21.00	1.44%	IV		1.5
6.9C	221+50	11.50 RT	23.00	6.9B	2.5X3-FT	F	---	---	862.81	5.04	24	859.27	23.00	1.05%	N/A	COMPOSITE PIPE*	1.5
6.9D	221+50	48.50 RT	37.00	6.9C	2.5X3-FT	F	---	---	862.89	4.91	15	859.48	37.00	0.50%	IV		1.5
6.10	205+50	33.00 LT	75.00	6.2	---	---	6-FT DIA.	J	858.09	5.72	24	852.37	75.00	1.00%	III		---
6.10A	205+50	48.50 LT	15.00	6.10	2.5X3-FT	F	---	---	857.82	5.84	15	853.48	15.00	1.00%	IV		1.5
6.10B	205+50	11.50 LT	21.00	6.10	2.5X3-FT	F	---	---	858.02	6.79	15	852.73	21.00	1.00%	IV		1.5
6.10C	205+50	11.50 RT	23.00	6.10B	2.5X3-FT	F	---	---	858.02	6.51	24	853.01	23.00	1.00%	N/A	COMPOSITE PIPE*	1.5
6.10D	205+50	48.50 RT	37.00	6.10C	2.5X3-FT	F	---	---	857.82	5.90	15	853.42	37.00	1.00%	IV		1.5
6.11	203+50	33.00 LT	200.00	6.10	---	---	4-FT DIA.	J	863.31	6.48	18	856.83	200.00	2.24%	III		---
6.11A	203+50	48.50 LT	16.00	6.11	2.5X3-FT	F	---	---	863.03	6.05	15	858.48	16.00	1.00%	IV		1.5
6.11B	203+50	11.50 LT	21.00	6.11	2.5X3-FT	F	---	---	863.23	6.90	15	857.83	21.00	1.00%	IV		1.5
6.11C	203+50	11.50 RT	23.00	6.11B	2.5X3-FT	F	---	---	863.23	6.65	24	858.08	23.00	1.00%	N/A	COMPOSITE PIPE*	1.5
6.11D	203+50	48.50 RT	37.00	6.11C	2.5X3-FT	F	---	---	863.03	6.05	15	858.48	37.00	1.00%	IV		1.5
7.1	222+00	78.44 LT	---	---	---	---	---	---	---	--	--	859.07	---	---	N/A	24" APRON ENDWALL	---
7.2	222+00	33.00 LT	49.00	7.1	---	---	4-FT DIA.	J	863.22	4.03	24	859.19	49.00	0.27%	III		---
7.2A	222+00	63.64 RT	95.00	9.2	MEDIAN 1 GRATE	MS	---	---	863.06	5.08	24	859.48	95.00	0.30%	III		1.5
7.3	224+50	33.00 LT	250.00	7.2	---	---	4-FT DIA.	J	864.47	4.53	24	859.94	250.00	0.30%	III		---
7.3A	224+50	48.50 LT	15.00	7.3	2.5X3-FT	F	---	---	864.19	5.42	15	860.27	15.00	0.33%	IV		1.5
7.3B	224+50	11.50 LT	22.00	7.3	2.5X3-FT	F	---	---	864.31	5.71	15	860.10	22.00	0.50%	IV		1.5
7.3C	224+50	11.50 RT	23.00	7.3B	2.5X3-FT	F	---	---	864.31	5.60	24	860.21	23.00	0.50%	N/A	COMPOSITE PIPE*	1.5
7.3D	224+50	48.50 RT	37.00	7.3C	2.5X3-FT	F	---	---	864.19	5.29	15	860.40	37.00	0.50%	IV		1.5
7.3E	224+50	66.00 RT	18.00	7.3D	MEDIAN 1 GRATE	MS	---	---	863.78	4.79	15	860.49	18.00	0.50%	IV		1.5

NOTE:
OFFSET MEASURED TO CENTER OF STRUCTURE.

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

STRUCT. NO.	STATION	OFFSET	C-C (FT)	TO STRUCT.	INLET TYPE & COVER		MH TYPE & COVER		RIM/GRATE ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCH. ELEV.	LENGTH (FT)	SLOPE (%)	PIPE CLASS	REMARKS	SUMP (FT)
7.4	226+25	33.00 LT	175.00	7.3	---	---	4-FT DIA.	J	865.35	4.83	24	860.52	175.00	0.30%	III		---
7.4A	226+25	48.50 LT	15.00	7.4	2.5X3-FT	F	---	---	865.07	5.95	15	860.62	15.00	0.50%	IV		1.5
7.4B	226+25	11.50 LT	22.00	7.4	2.5X3-FT	F	---	---	865.19	5.89	15	860.80	22.00	1.00%	IV		1.5
7.4C	226+25	11.50 RT	23.00	7.4B	2.5X3-FT	F	---	---	865.19	5.62	24	861.07	23.00	1.00%	N/A	COMPOSITE PIPE*	1.5
7.4D	226+15	48.50 RT	37.00	7.4C	2.5X3-FT	F	---	---	865.02	5.01	15	861.51	37.00	1.00%	IV		1.5
7.5	228+50	33.00 LT	225.00	7.4	---	---	4-FT DIA.	J	866.42	5.20	24	861.22	225.00	0.30%	III		---
7.5A	228+50	48.50 LT	16.00	7.5	2.5X3-FT	F	---	---	866.14	6.27	15	861.37	16.00	0.50%	IV		1.5
7.5B	228+50	11.50 LT	22.00	7.5	2.5X3-FT	F	---	---	866.26	6.31	15	861.45	22.00	0.50%	IV		1.5
7.5C	228+50	5.28 RT	17.00	7.5B	2.5X3-FT	F	---	---	866.14	6.06	15	861.58	17.00	0.50%	IV		1.5
7.5D	228+50	48.50 RT	43.00	7.5C	2.5X3-FT	F	---	---	866.14	5.81	15	861.83	43.00	0.50%	IV		1.5
7.6	230+25	33.00 LT	175.00	7.5	---	---	4-FT DIA.	J	866.40	4.63	24	861.77	175.00	0.30%	III		---
7.6A	230+25	48.50 LT	16.00	7.6	2.5X3-FT	F	---	---	866.12	5.75	15	861.87	16.00	0.50%	IV		1.5
7.6B	230+25	11.50 LT	22.00	7.6	2.5X3-FT	F	---	---	866.24	5.68	15	862.06	22.00	0.50%	IV		1.5
7.6C	230+25	1.50 RT	13.00	7.6B	2.5X3-FT	F	---	---	866.04	5.38	15	862.16	13.00	0.50%	IV		1.5
7.6D	230+25	48.50 RT	47.00	7.6C	2.5X3-FT	F	---	---	866.12	5.19	15	862.43	47.00	0.50%	IV		1.5
8.1	243+77	33.00 LT	---	---	---	---	6-FT DIA.	J	846.49	6.11	---	840.38	---	---	---		---
8.2	242+75	33.00 LT	102.00	8.1	---	---	4-FT DIA.	J	847.47	6.62	24	840.85	102.00	0.50%	III		---
8.2A	242+75	48.50 LT	16.00	8.2	2.5X3-FT	F	---	---	847.19	6.45	15	842.24	16.00	1.00%	IV		1.5
8.2B	242+75	11.50 LT	21.00	8.2	2.5X3-FT	F	---	---	847.31	6.67	15	842.14	21.00	1.00%	IV		1.5
8.2C	242+75	11.50 RT	23.00	8.2B	2.5X3-FT	F	---	---	847.31	6.51	24	842.30	23.00	0.50%	N/A	COMPOSITE PIPE*	1.5
8.3	239+75	33.00 LT	300.00	8.2	---	---	4-FT DIA.	J	852.51	8.65	24	843.86	300.00	1.00%	III		---
8.3A	239+75	48.50 LT	16.00	8.3	2.5X3-FT	F	---	---	852.23	6.38	15	847.35	16.00	0.35%	IV		1.5
8.3B	239+75	11.50 LT	21.00	8.3	2.5X3-FT	F	---	---	852.35	6.33	15	847.52	21.00	4.75%	IV		1.5
8.3C	239+75	11.50 RT	23.00	8.3B	2.5X3-FT	F	---	---	852.35	6.06	24	847.79	23.00	1.04%	N/A	COMPOSITE PIPE*	1.5
8.4	236+50	33.00 LT	325.00	8.3	---	---	6-FT DIA.	J	858.16	11.04	24	847.12	325.00	1.00%	III		---
8.4A	236+50	48.50 LT	16.00	8.4	2.5X3-FT	F	---	---	857.88	6.53	15	852.85	16.00	1.00%	IV		1.5
8.4B	236+50	11.50 LT	21.00	8.4	2.5X3-FT	F	---	---	858.00	6.84	15	852.66	21.00	2.00%	IV		1.5
8.4C	236+50	11.50 TY	23.00	8.4B	2.5X3-FT	F	---	---	858.00	6.53	24	852.97	23.00	1.00%	N/A	COMPOSITE PIPE*	1.5
8.5	233+50	33.00 LT	300.00	8.4	---	---	4-FT DIA.	J	863.32	8.35	24	854.97	300.00	1.25%	III		---
8.5A	233+50	48.50 LT	15.00	8.5	2.5X3-FT	F	---	---	863.04	6.51	15	858.03	15.00	1.00%	IV		1.5
8.5B	233+50	11.50 LT	20.00	8.5	2.5X3-FT	F	---	---	863.16	6.76	15	857.90	20.00	1.00%	IV		1.5
8.5C	233+50	11.50 RT	21.00	8.5B	2.5X3-FT	F	---	---	863.16	6.52	24	858.14	21.00	1.00%	NA/	COMPOSITE PIPE*	1.5

NOTE:
OFFSET MEASURED TO CENTER OF STRUCTURE.

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

CULVERT SUMMARY

LOCATION	SKEW	522.0118 CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	522.0136 CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH LF	522.1018 APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1036 APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH EACH	209.0100 BACKFILL GRANULAR* CY
167+50	Driveway LT	-	30	-	2	9
168+86	Driveway LT	-	30	-	2	9
210+75	Driveway LT	24	-	2	-	7
225+38	Driveway RT	24	-	2	-	7
226+65	Driveway RT	24	-	2	-	7
232+28	Driveway RT	24	-	2	-	7
233+12	Driveway RT	24	-	2	-	7
PROJECT TOTALS		120	60	10	4	53

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

PLANTING SUMMARY

STATION			SPV.0060.01 PERENNIALS ASCLEPIAS TUBEROSA PLUG, 1" EACH	SPV.0060.02 PERENNIALS ACHILLEA "MOONSHINE" PLUG, 1" EACH	SPV.0060.03 PERENNIALS RUDBECKIA HIRTA PLUG, 1" EACH	SPV.0060.04 PERENNIALS ASCELPIAS INCARNATA PLUG, 1" EACH	SPV.0060.05 PERENNIALS ACHILLEA MILLEFOLIUM "FIRE KING" PLUG, 1" EACH	SPV.0060.06 PERENNIALS LIATRIS SPICATA PLUG, 1" EACH	SPV.0060.07 PERENNIALS EUPATORUM MACULATUM PLUG, 1" EACH	SPV.0060.08 PERENNIALS MONARDA FISTULOSA PLUG, 1" EACH	SPV.0060.09 PERENNIALS ASTER NOVAE-ANGLIAE PLUG, 1" EACH	SPV.0060.10 PERENNIALS HEMERPCALLIS "PARDON ME" CONT, #1 EACH	SPV.0060.11 PERENNIALS HEMERPCALLIS "STELLA DE ORO" CONT, #1 EACH	SPV.0060.12 PERENNIALS HEMERPCALLIS "LITTLE WINE CUP" CONT, #1 EACH	SPV.0060.13 PERENNIALS HEMERPCALLIS "STRAWBERRY CANDY" CONT, #1 EACH	632.9101 LANDSCAPE PLANTING SURVEILLANCE CARE CYCLES EACH
184+90	TO	187+85	14	42	56	28	56	28	14	14	28	65	65	65	65	
187+90	TO	190+35	12	35	47	23	47	23	12	12	23	54	54	54	54	
190+40	TO	192+30	9	27	36	18	36	18	9	9	18	42	42	42	42	
193+40	TO	195+75	11	34	45	22	45	22	11	11	22	52	52	52	52	
195+90	TO	197+50	8	23	30	15	30	15	8	8	15	35	35	35	35	
198+57	TO	201+42	14	41	54	27	54	27	14	14	27	63	63	63	63	
202+58	TO	203+60	5	15	19	10	19	10	5	5	10	22	22	22	22	
203+75	TO	205+60	9	26	35	18	35	18	9	9	18	41	41	41	41	
205+75	TO	209+35	17	51	69	34	69	34	17	17	34	79	79	79	79	
211+33	TO	213+90	12	37	49	24	49	24	12	12	24	57	57	57	57	
221+40	TO	224+90	17	50	67	33	67	33	17	17	33	77	77	77	77	
226+10	TO	227+88	8	25	34	17	34	17	8	8	17	39	39	39	39	
231+80	TO	233+60	9	26	34	17	34	17	9	9	17	40	40	40	40	
233+75	TO	236+60	14	41	54	27	54	27	14	14	27	63	63	63	63	
239+57	TO	242+85	16	47	62	31	62	31	16	16	31	72	72	72	72	
PROJECT TOTALS			173	519	692	346	692	346	173	173	346	800	800	800	800	20

STATION			SPV.0035.04 STORAGE LAYER CY	SPV.0035.02 ENGINEERED SOIL CY	SPV.0035.01 FILTER AGGREGATE CY	SPV.0035.03 SURFACE MULCH CY	645.0111 GEOTEXTILE FABRIC, TYPE DF SCHEDULE A* SY	645.0135 GEOTEXTILE FABRIC TYPE SR SY	SPV.0090.03 STORM SEWER PIPE COMPOSITE 24-INCH* LF	SPV.0060.14 INLET COVERS BIORETENTION STANDPIPE EA	612.0106 PIPE UNDERDRAIN* LF
184+90	TO	187+85	94	253	36	27	393	642	3	1	295
187+90	TO	190+35	78	178	30	3	327	512	3	1	245
190+40	TO	192+30	60	169	23	17	253	418	3	1	190
193+40	TO	195+75	75	199	31	21	313	507	3	1	235
195+90	TO	197+50	51	118	20	15	213	336	3	1	160
198+57	TO	201+42	91	228	35	26	380	611	3	1	285
202+58	TO	203+60	32	81	12	9	136	220	3	1	102
203+75	TO	205+60	59	208	22	17	247	430	4	1	185
205+75	TO	209+35	115	408	44	33	480	840	4	1	360
211+33	TO	213+90	82	23	31	23	343	611	4	1	257
221+40	TO	224+90	112	397	43	32	467	805	4	1	350
226+10	TO	227+88	57	200	22	16	237	411	4	1	178
231+80	TO	233+60	57	202	22	16	240	422	4	1	180
233+75	TO	236+60	91	322	35	26	380	671	4	1	285
239+57	TO	242+85	105	371	105	30	437	765	4	1	328
PROJECT TOTAL			1160	3356	509	311	4847	8202	51	15	3635

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.
CB1	PB1		78
PB1	PB2		86
PB2	PB3		160
PB3	PB4		62
PB4	PB5		114
PB5	PB6		94
PB6	PB7		112
PB7	PB8		156
PB8	PB9		100
PB9	PB10		114
PB10	PB11		116
PB11	CB1		51
PB2	SB1	4	
PB2	SB2	20	
PB3	SB3	14	
PB3	SB4	4	
PB4	SB5	5	
PB5	SB6	5	
PB5	SB7	205	
SB7	EXT1	103	
EXT2	SB8	9	
PB6	SB9	5	
PB7	SB10	8	
PB8	SB11	10	
PB8	SB12	7	
PB9	SB13	10	
PB10	SB14	24	
PB10	SB15	176	
	TOTALS	609	1243

PULL BOXES STEEL 24X42-INCH

PULL BOX NO.	STATION	LOCATION	653.0140 PULL BOXES STEEL 24X42-INCH EACH
PB1	178+36.5	70.5' RT.	1
PB2	177+93.9	70.5' RT.	1
PB3	177+13.7	70.5' RT.	1
PB4	176+89.1	52.2' RT.	1
PB5	176+89.1	5.0" LT.	1
PB6	179+89.1	52.0' LT.	1
PB7	177+36.7	82.0' LT.	1
PB8	178+14.5	82.0' LT.	1
PB9	178+54.7	52.3' LT.	1
PB10	178+56.7	5.0' RT	1
PB11	178+58.6	63.0' RT.	1
		TOTALS	11

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

CONCRETE BASES TYPE 1
CONCRETE BASES TYPE 2
CONCRETE BASES TYPE 5
CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL

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	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
CB1	178+60.6	79.6' RT.				1
SB1	9+33.3	27.0' RT.	1			
SB2	178+01.7	53.9' RT.		1		
SB3	9+18.9	43.0' LT.		1		
SB4	9+32.2	55.0' LT.	1			
SB5	176+94.2	53.5' RT.	1			
SB6	179+94.2	5.0' LT.		1		
SB7	174+82.2	5.0' LT.			1	
SB8	172+74.2	5.0' LT.			1	
SB9	176+94.2	52.3' LT.		1		
SB10	10+75.3	38.1' LT.	1			
SB11	10+89.7	38.0' RT.		1		
SB12	10+76.9	47.8' RT.	1			
SB13	178+45.0	53.0' LT	1			
SB14	178+32.3	5.0' RT.		1		
SB15	180+32.4	5.0' RT.			1	
		TOTALS	6	6	3	1

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

CABLE TRAFFIC SIGNAL 4-14 AWG
CABLE TRAFFIC SIGNAL 5-14 AWG
CABLE TRAFFIC SIGNAL 7-14 AWG
CABLE TRAFFIC SIGNAL 12-14 AWG
CABLE TRAFFIC SIGNAL 15-14 AWG

FROM	TO	655.0220 CABLE TRAFFIC SIGNAL 4-14 AWG L.F.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG L.F.
CB1	SB1				96	
SB1	HEAD 8		19			
SB1	HEAD 12		19			
SB1	HEAD 24	14				
CB1	SB2				113	
SB2	HEAD 3		50			
SB2	HEAD 23	14				
CB1	SB3				138	
SB3	HEAD 13		50			
CB1	SB4			182		
SB4	HEAD 25	14				
CB1	SB5				220	
SB5	HEAD 1		19			
SB5	HEAD 14	14				
CB1	SB6				283	
SB6	HEAD 5		23			
SB6	HEAD 15	14				
SB6	HEAD 16	14				
CB1	SB9				336	
SB9	HEAD 6		50			
SB9	HEAD 17	14				
CB1	SB10				309	
SB10	HEAD 9		19			
SB10	HEAD 11		19			
SB10	HEAD 18	14				
CB1	SB11				227	
SB11	HEAD 10		45			
CB1	SB12			224		
SB12	HEAD 19	14				
CB1	SB13				167	
SB13	HEAD 4		19			
SB13	HEAD 20	14				
CB1	SB14					122
SB14	HEAD 2		21			
SB14	HEAD 7		23			
SB14	HEAD 21	14				
SB14	HEAD 22	14				
	TOTALS	168	376	406	1946	122

ALL ITEMS ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

CABLE TYPE UF 2-10 AWG GROUNDED
ELECTRICAL WIRE LIGHTING 12 AWG

		655.0320 CABLE TYPE UF 2-10 AWG GROUNDED L.F.	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.
CB1	SB3	196	
SB3	SB6	133	
SB6	SB7	213	
SB7	SB8	218	
SB3	LUMIN		117
SB6	LUMIN		228
SB7	LUMIN		117
SB8	LUMIN		117
CB1	SB14	122	
SB14	SB15	214	
SB14	SB11	137	
SB14	LUMIN		288
SB15	LUMIN		117
SB11	LUMIN		117
	TOTALS	1263	1101

ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG

FROM	TO	655.0515 L.F.
CB1	SB1	95
SB1	SB2	38
SB2	SB3	134
SB3	SB4	32
SB4	SB5	60
SB5	SB6	87
SB6	SB9	77
SB9	SB10	89
SB10	SB11	116
SB11	SB12	31
SB12	SB13	87
SB13	SB14	111
SB14	CB1	122
PB1	CB1	39
PB2	SB1	14
PB3	SB4	14
PB4	SB5	15
PB5	SB6	15
PB6	SB9	15
PB7	SB10	18
PB8	SB12	17
PB9	SB13	20
PB10	SB14	34
PB11	CB1	30
	TOTAL	1310

ELECTRICAL SERVICE METER BREAKER PEDESTAL (INTERSECTION OF CTH VV & CTH Y)

BASE NO.	656.0200.01 L.S.
CB1	1
TOTAL	1

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

SIGNAL MOUNTING HARDWARE (INTERSECTION OF CTH VV & CTH Y)

LOCATION	658.5069.01 L.S.
CTH VV & CTH Y	1
TOTAL	1

TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL
TRAFFIC SIGNAL FACE 5-12 INCH VERTICAL
TRAFFIC SIGNAL FACE 3-12 INCH HORIZONTAL
BACKPLATES SIGNAL FACE 3 SECTION 12-INCH
BACKPLATES SIGNAL FACE 5 SECTION 12-INCH
PEDESTRIAN SIGNAL FACES 16-INCH
LED MODULES 12-INCH RED BALL
LED MODULES 12-INCH YELLOW BALL
LED MODULES 12-INCH GREEN BALL
LED MODULES 12-INCH YELLOW ARROW
LED MODULES 12-INCH GREEN ARROW
LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0110 TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL EACH	658.0120 TRAFFIC SIGNAL FACE 5-12 INCH VERTICAL EACH	658.0155 TRAFFIC SIGNAL FACE 3-12 INCH HORIZONTAL EACH	658.0215 BACKPLATES SIGNAL FACE 3 SECTION 12-INCH EACH	658.0225 BACKPLATES SIGNAL FACE 5 SECTION 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACES 16-INCH EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
1	SB5	1			1			1	1	1			
2	SB14	1			1			1	1	1			
3	SB2			1	1			1	1	1			
4	SB13	1			1			1	1	1			
5	SB6		1			1		1	1	1	1	1	
6	SB9	1			1			1	1	1			
7	SB14		1			1		1	1	1	1	1	
8	SB1	1			1			1	1	1			
9	SB10	1			1			1	1	1			
10	SB11			1	1			1	1	1			
11	SB10	1			1			1	1	1			
12	SB1	1			1			1	1	1			
13	SB3			1	1			1	1	1			
14	SB5						1						1
15	SB6						1						1
16	SB6						1						1
17	SB9						1						1
18	SB10						1						1
19	SB12						1						1
20	SB13						1						1
21	SB14						1						1
22	SB14						1						1
23	SB2						1						1
24	SB1						1						1
25	SB4						1						1
	TOTALS	8	2	3	11	2	12	13	13	13	2	2	12

ALL ITEMS ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

PEDESTAL BASES
TRANSFORMER BASES BREAKAWAY 11 1/2 INCH BOLT CIRCLE
POLES TYPE 2
POLES TYPE 3
POLES TYPE 4
POLES TYPE 5-ALUMINUM
TRAFFIC SIGNAL STANDARDS ALUMINUM 9-FT
TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT
TROMBONE ARMS 20-FT
TROMBONE ARMS 25-FT
LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 8-FT
LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 8-FT
LUMINAIRES UTILITY HPS 150W
LUMINAIRES UTILITY HPS 250W
PEDESTRIAN PUSH BUTTONS

SIGNAL BASE NO.	657.0100 PEDESTAL BASES EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2 INCH BOLT CIRCLE EACH	657.0305 POLES TYPE 2 EACH	657.0310 POLES TYPE 3 EACH	657.0315 POLES TYPE 4 EACH	657.0322 POLES TYPE 5 ALUMINUM EACH	657.0410 TRAFFIC SIGNAL STANDARDS ALUMINUM 9-FT EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0590 TROMBONE ARMS 20-FT EACH	657.0595 TROMBONE ARMS 25-FT EACH	657.0614 LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 8-FT EACH	657.0615 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 8-FT EACH	659.0115 LUMINAIRES UTILITY HPS 150W EACH	659.0125 LUMINAIRES UTILITY HPS 250W EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH
SB1	1							1							1
SB2		1	1							1					1
SB3		1		1						1	1			1	
SB4	1						1								1
SB5	1							1							1
SB6		1			1						2			2	1
SB7		1				1						1	1		
SB8		1				1						1	1		
SB9		1	1							1					1
SB10	1							1							1
SB11		1		1					1		1			1	
SB12	1						1								1
SB13	1							1							1
SB14		1			1						2			2	1
SB15		1				1						1	1		
TOTALS	6	9	2	2	2	3	2	4	1	3	6	3	3	6	10

TRAFFIC SIGNAL CONTROLLER FULLY ACTUATED 8-PHASE

BASE NO.	SPV.0060.15 EACH
CB1	1
TOTAL	1

REMOVE TRAFFIC SIGNALS (INTERSECTION OF CTH VV & CTH Y)

LOCATION	SPV.0105.01 L.S.
CTH VV & CTH Y	1
TOTAL	1

VIDEO DETECTION SYSTEM INTERSECTION OF CTH VV & CTH Y

LOCATION	SPV.0105.02 L.S.
CTH VV & CTH Y	1
TOTAL	1

VIDEO CAMERA NUMBER	SIGNAL BASE NO.	COAXIAL CABLE LF	POWER CABLE LF
VDC1	SB6	326	326
VDC2	SB14	171	171
VDC3	SB3	235	235
VDC4	SB11	270	270
	*** TOTAL	1002	1002

*** CABLE QUANTITES FOR INFORMAITON ONLY

ALL ITEMS ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
2753-06-71	4.1	11
FEDERAL PROJECT NUMBER		

PLAT OF RIGHT OF WAY REQUIRED FOR

SILVER SPRING DRIVE
C.T.H. "Y" TO JACKSON DRIVE

C.T.H. "W" WAUKESHA CO.

CONSTRUCTION PROJECT NUMBER
2753-06-71

CONVENTIONAL SIGNS AND ABBREVIATIONS

ACCESS RIGHTS	A.R.
ACCESS POINT	A.P.
ACRES	AC.
AGREEMENT	AGRMT.
AHEAD	AHD.
AND OTHERS	ET. AL.
BACK	BK.
CENTERLINE	℄
CENTRAL ANGLE OR DELTA	Δ
CORNER	COR.
COURT	CT.
DRIVE	DR.
EXTENSIVE (ACRES REMAINING)	EXT.
IRON PIPE	I.P.
LENGTH OF CURVE	L
LONG CHORD (BEARING)	LC(B)
MONUMENT	MON.
PERMANENT	PERM.
PROPERTY LINE	P.L.
RADIUS	R
REMAINING	REM.
RIGHT OF WAY	R/W
ROAD	RD.
SECTION	SEC.
STATION	STA.
TANGENT	T
TEMPORARY	TEMP.
TRANSIT LINE	℄

COUNTY LINE

CORPORATE LIMITS

SECTION LINE

PROPERTY LINE

LOT LINE

EXISTING RIGHT OF WAY

NEW RIGHT OF WAY

NEW CENTERLINE

SLOPE INTERCEPTS

TEMPORARY LIMITED EASEMENT

PERMANENT LIMITED EASEMENT

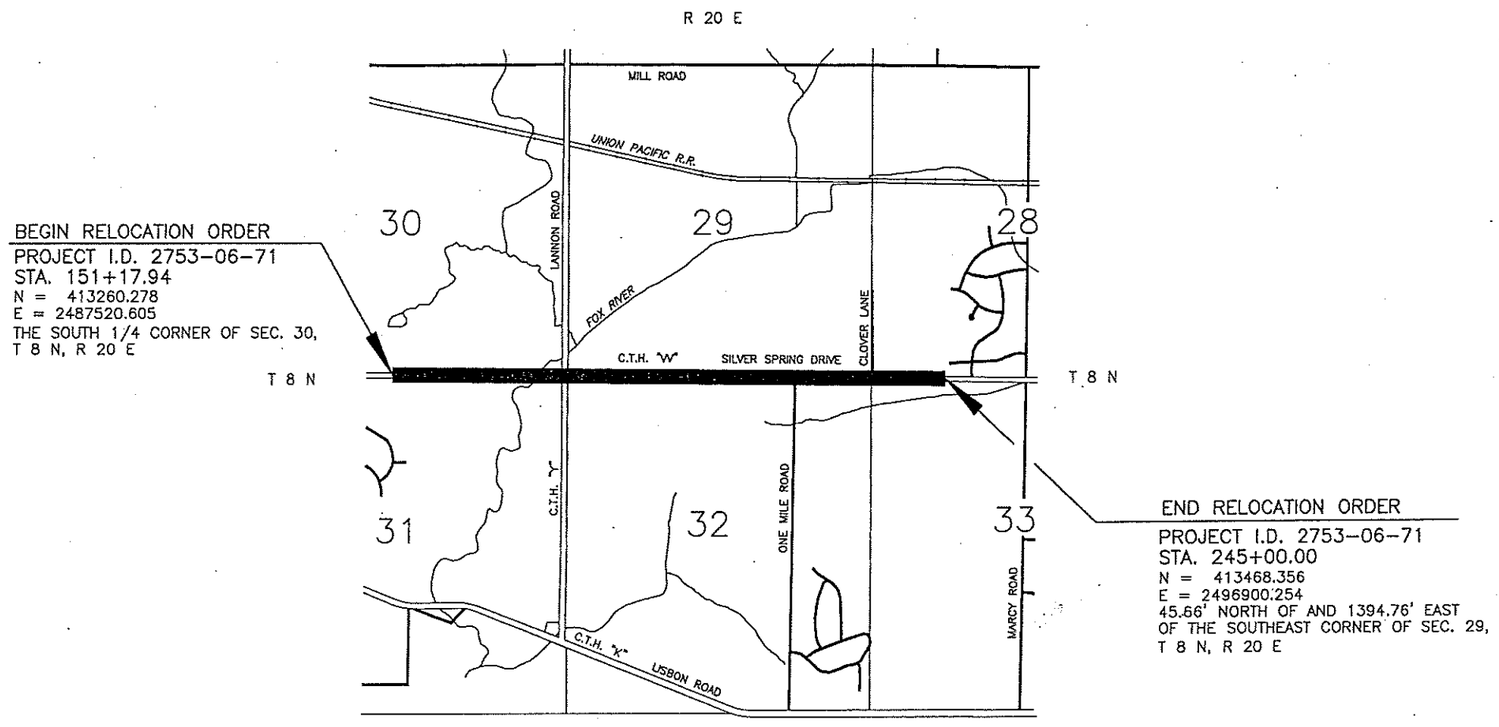
NO ACCESS (ACQUISITION)

EXISTING NO ACCESS

POWER POLE (COMPENSABLE)

TELEPHONE POLE (COMPENSABLE)

LIGHT POLE



BEGIN RELOCATION ORDER
PROJECT I.D. 2753-06-71
STA. 151+17.94
N = 413260.278
E = 2487520.605
THE SOUTH 1/4 CORNER OF SEC. 30, T 8 N, R 20 E

END RELOCATION ORDER
PROJECT I.D. 2753-06-71
STA. 245+00.00
N = 413468.356
E = 2496900.254
45.66' NORTH OF AND 1394.76' EAST OF THE SOUTHEAST CORNER OF SEC. 29, T 8 N, R 20 E

NOTES

COORDINATES SHOWN ON THIS PLAT ARE ORIENTED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE. ALL PLAT DISTANCES ARE GROUND LENGTH AND MAY BE CONVERTED TO GRID LENGTH BY MULTIPLYING THE DISTANCE BY THE GRID FACTOR PROVIDED ON THE DETAIL SHEETS.

RIGHT OF WAY 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. "W" PROJECT 2753-2-70 (S-SU 0822(18), 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.

Layout

0 0.25 0.50 MI.

Scale

TOTAL NET LENGTH OF CENTERLINE = 1.777 MI. (URBAN)

APPROVED FOR
WAUKESHA COUNTY
DEPARTMENT OF PUBLIC WORKS

DATE: 2-1-12 Allison Bussler DIRECTOR

DATE: 2/1/12 Gary M. Evans ENGINEERING SERVICES MANAGER

REVISION	DATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED FOR DISTRICT OFFICE:

DATE: _____ N/A SIGNATURE

E

SCHEDULE OF LANDS & INTERESTS REQUIRED

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	4.5	PETERSON LIVING TRUST (PREVIOUSLY ACQUIRED)	FEE, T.L.E.	74.49	1.87	–	0.18	–	0.18	54.78
2	4.5, 4.6	CB MIDWEST GOLF CLUBS, L.L.C.	FEE, T.L.E.	EXTENSIVE	0.14	–	0.09	–	0.09	EXTENSIVE
3	4.6	WAUKESHA COUNTY PARKS AND LAND USE	FEE, T.L.E.	3.06	0.14	–	0.01	–	0.01	3.05
4	4.6	SHIRLEY DELORM	FEE, T.L.E.	2.60	0.21	–	0.11	0.09	0.20	2.40
5	4.6	WILLIAM J. EVERS, JR. AND SHARYN EVERS	FEE	1.59	–	–	0.05	0.08	0.13	1.46
6	4.6	STEPHEN FLEGNER AND JUDITH FLEGNER	FEE	1.84	–	–	0.04	0.09	0.13	1.71
7	4.6, 4.7	CHRISTOPHER N. SMOLIK AND WENDY L. SMOLIK	FEE, T.L.E.	5.10	0.41	–	0.06	–	0.06	5.04
8	4.6, 4.7	K-9 OBEDIENCE TRAINING CLUB OF MENOMONEE FALLS, INC.	FEE, T.L.E.	21.37	0.17	–	0.06	–	0.06	21.31
9	4.7	WILLIAM AND RITA GERLS TRUST	FEE, T.L.E.	7.72	0.08	–	0.04	–	0.04	7.68
10	4.7	RUSSELL MATICEK JR. AND CHER MATICEK	FEE, T.L.E.	8.24	0.10	–	0.03	–	0.03	8.21
11	4.7	WISCONSIN GAS, L.L.C. d/b/a WE-ENERGIES	FEE, T.L.E.	9.06	0.04	–	0.02	–	0.02	9.04
12	4.7	EDWARD THIMM AND THEODORA THIMM	FEE, T.L.E.	0.69	0.03	–	0.05	–	0.05	0.64
13	4.7	DONALD L. HAASCH AND LYNDA S. HAASCH	FEE, T.L.E.	0.57	0.09	–	0.04	–	0.04	0.53
14	4.7, 4.8	NANCY LOCOCO	FEE, T.L.E.	0.64	0.10	–	0.05	–	0.05	0.59
15	4.7, 4.8	TOMICH INVESTMENTS III, L.L.C.	FEE, T.L.E.	41.90	0.41	–	0.15	–	0.15	41.75
16	4.7	KENNETH G. HELMAN AND ROSEMARIE HELMAN	FEE, T.L.E.	19.74	0.23	–	0.13	–	0.13	19.61
17	4.7, 4.8	KENNETH G. HELMAN AND ROSEMARIE HELMAN	FEE, T.L.E.	59.11	0.38	–	0.08	–	0.08	59.03
18	4.8	KENNETH G. HELMAN AND ROSEMARIE HELMAN	FEE, T.L.E.	3.19	0.15	–	0.04	–	0.04	3.15
19	4.8	BRADLEY J. MEINZER AND MICHELLE R. MEINZER	FEE, T.L.E.	10.01	0.16	–	0.04	–	0.04	9.97
20	4.8	TOMICH INVESTMENTS III, L.L.C.	FEE, T.L.E.	32.89	0.10	–	0.04	–	0.04	32.85
21	4.8	DAVID HOULE AND KAREN HOULE	FEE, T.L.E.	0.66	0.06	–	0.03	–	0.03	0.62
22	4.8	MICHAEL J. FLYNN AND MELISSA E. FLYNN	FEE, T.L.E.	0.87	0.08	–	0.06	–	0.06	0.81
23	4.8, 4.9	VILLAGE OF MENOMONEE FALLS	T.L.E.	2.81	0.10	–	–	–	–	2.81
24	4.8, 4.9	FALLS VENTURES, L.L.C.	FEE, T.L.E.	34.35	0.21	–	0.11	–	0.11	34.24
25	4.9	MARK ANTON AND SHELBY ANTON	FEE, T.L.E.	3.00	0.09	–	0.07	–	0.07	2.93
26	4.9, 4.10	HAMILTON SCHOOL DISTRICT	FEE, T.L.E.	70.64	0.39	–	0.01	–	0.01	70.63
27	4.9	AUDREY J. KRAEMER	FEE, T.L.E.	1.22	0.09	–	0.05	–	0.05	1.17
28	4.9	KENNETH D. RAPPETTE AND MARILYN ROSE	T.L.E.	3.89	0.05	–	–	–	–	–
29	4.9	TODD ADAMS AND SHERI ADAMS	FEE, T.L.E.	4.74	0.05	–	0.03	–	0.03	4.71
30	4.9, 4.10	DAVID POLINSKI	FEE, T.L.E.	4.74	0.09	–	0.03	–	0.03	4.71
31	4.10	EDWARD FLEISNER, ROBERT M. FLEISNER, AND KATHRYN A. FLEISNER TRUSTEES OF THE ROBERT M. FLEISNER AND KATHRYN A. FLEISNER LIVING TRUST	T.L.E.	4.67	0.09	–	–	–	–	4.67
32	4.10	RICHARD A. BAILEY AND CHERYL Y. BAILEY	FEE, T.L.E.	9.66	0.20	–	0.05	–	0.05	9.61

REVISION DATE:	DATE:	SCALE, FEET 0 50 100	HWY: C.T.H. "W"	CONSTRUCTION PROJECT NO.: 2753-06-71		
			COUNTY: WAUKESHA	R/W PROJECT NO.: 2753-06-71	PLAT SHEET NO: 4.2	E

Waukesha County CADD Sheet - NEW-ENGLISH-ROWSCHEDULE Drawing File: ROWSCHEDULE-W2

SCHEDULE OF LANDS & INTERESTS REQUIRED

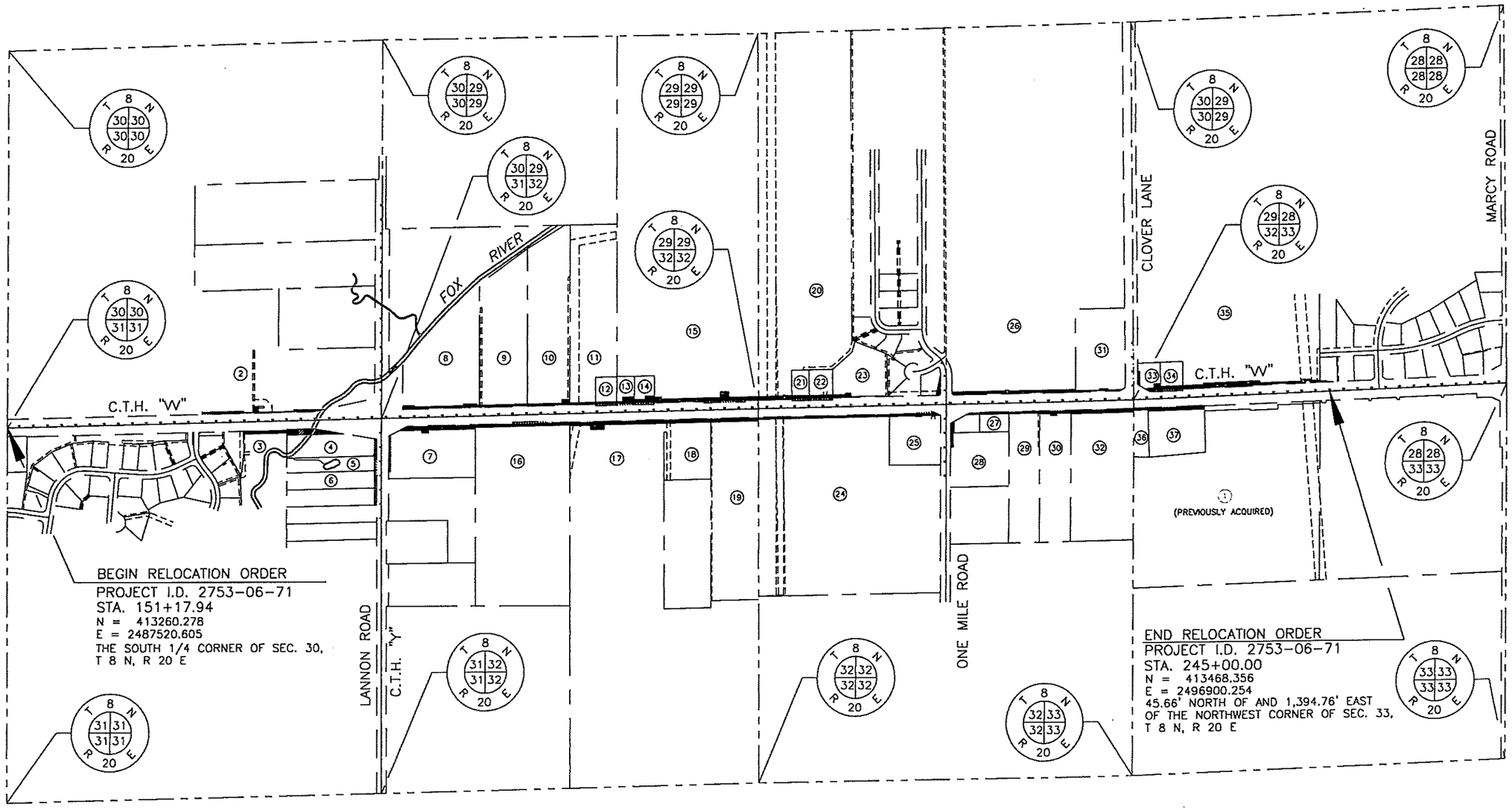
AREAS SHOWN IN THE TOTAL AREA MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

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	
33	4.10	RONALD LONDRE AND ELAINE LONDRE	FEE, T.L.E.	0.68	0.09	–	0.03	–	0.03	0.65
34	4.10	WALTER W. SCHMOLLER	FEE, T.L.E.	0.75	0.07	–	0.06	–	0.06	0.69
35	4.10, 4.11	JACQUE SOMMERS AND CORINNE SOMMERS	FEE, T.L.E.	37.10	0.47	–	0.08	–	0.08	37.02
36	4.10	JEFFREY MIHOR	FEE, T.L.E.	0.85	0.02	–	0.01	–	0.01	0.84
37	4.10	DAWN C. PETERMANN	FEE, T.L.E.	3.09	0.18	–	0.05	–	0.05	3.04
38	4.6	CHARLES LINK AND LOU ANN LINK	FEE	1.76	–	–	0.05	–	0.05	1.71
39	4.9	DANIEL ADAMS AND ANITA ADAMS	T.L.E.	0.55	0.06	–	–	–	–	0.55
40	4.11	DREW MARLEY AND JENNY MARLEY	T.L.E.	0.49	0.01	–	–	–	–	0.49
101	4.6, 4.7, 4.8, 4.9	WE–ENERGIES (ELECTRIC)	CONVEYANCE OF RIGHTS							
102	4.7	WE–ENERGIES (GAS)	CONVEYANCE OF RIGHTS							
103	4.6, 4.7, 4.8	A.T. & T.	CONVEYANCE OF RIGHTS							
105	4.6, 4.7	VILLAGE OF MENOMONEE FALLS SEWER AND WATER	CONVEYANCE OF RIGHTS							
106	4.8, 4.11	MICHIGAN–WISCONSIN PIPELINE CO. DBA ANR PIPELINE CO.	CONVEYANCE OF RIGHTS							
107	4.8	AMERICAN TRANSMISSION CO (AR)	CONVEYANCE OF RIGHTS							

4

REVISION DATE:	DATE:	SCALE, FEET 0 50 100	HWY: C.T.H. "VV"	CONSTRUCTION PROJECT NO.: 2753–06–71		
			COUNTY: WAUKESHA	R/W PROJECT NO.: 2753–06–71	PLAT SHEET NO: 4.3	E

Waukesha County CADD Sheet – NEW–ENGLISH–ROWSCHEDULE Drawing File: ROWSCHEDULE–2–VV2



REVISION DATE	DATE	SCALE, FEET 0 200 400	HWY: C.T.H. "W"	CONSTRUCTION PROJECT NO.: 2753-06-71	
	GRID FACTOR = 0.99990348		COUNTY: WAUKESHA	R/W PROJECT NO.: 2753-06-71	PLAT SHEET NO.: 4.4 E

Waukesha Co. CADD Sheet - NEW-ENGLISH-ROWBASE Drawing File : ROW-OVERVIEW-W2

VILLAGE OF MENOMONEE FALLS

P.I. STA. 151+17.94
BRASS MONUMENT IN CONCRETE
N = 413260.278
E = 2487520.605

T 8 N, R 20 E — 30 30 / 31 31

2651.70'
N 00° 17' 08" W

BEGIN RELOCATION ORDER
PROJECT I.D. 2753-06-71
STA. 151+17.94
N = 413260.278
E = 2487520.605
THE SOUTH 1/4 CORNER OF SEC. 30, T 8 N, R 20 E

(2)
CB MIDWEST GOLF CLUBS, L.L.C.
DOC. NO. 3803197
DOC. NO. 3833044
TAX KEY NO. MNFV 0120.991
0.09 AC.
EXT. AC. REM.

4

4

75' LT
+00
65' LT.
60' LT.
65'

151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166

℄ C.T.H. "W"
N 88° 42' 25" E
2650.14'

60' 60' 65'

OUTLOT 8
TAX KEY NO. MNFV 0121.070

OUTLOT 5
TAX KEY NO. MNFV 0121.067
VILLAGE OF MENO. FALLS
STORM WATER EASEMENT
DOC. NO. 3313324

OUTLOT 1

12'

15'

20'

VILLAGE OF MENOMONEE FALLS
DOC. NO. 3313322

CARTER'S CROSSING LOT OWNERS
BY PLAT
TAX KEY NO. MNFV 0121.063

OUTLOT 1

P.L. 152+57.16

P.L. 152+57.10

CAROLE ROBINSON
ELIZABETH ROBINSON
GENEVIEVE ROBINSON
DOC. NO. 3640077
TAX KEY NO. MNFV 0121.998

WEPCO d/b/o WE-ENERGIES
WISC. BELL d/b/a SBC WISCONSIN
TIME WARNER ENTERTAINMENT CO., L.P.
DOC. NO. 3321258

TAX KEY NO. MNFV 0121.008

TAX KEY NO. MNFV 0121.007

TAX KEY NO. MNFV 0121.005

20' STORM
SEWER ESM'T.

JEFF HORWATH
FAMILY BUILDERS, INC.
DOC. NO. 3384354
TAX KEY NO.
MNFV 0121.001

TOMICH INVESTMENTS II, L.L.C.
DOC. NO. 3043348
TAX KEY NO. MNFV 0121.062

MH

62

61

20' STORM
SEWER EASEMENT
VILLAGE OF
MENOMONEE FALLS
DOC. NO. 3313322

C A R T E R ' S

C R O S S I N G

STILL RIVER
DEVELOPMENT, INC.
DOC. NO. 3332941
TAX KEY NO.
MNFV 0121.006

KRISTINE L. MULLEN
DOC. NO. 3700808
TAX KEY NO.
MNFV 0121.004

TOMICH INVESTMENTS II, L.L.C.
DOC. NO. 3043348
TAX KEY NO. MNFV 0121.003

HICKORY HILL HOMES, INC.
DOC. NO. 3320529
TAX KEY NO. MNFV 0121.002

JOHN ROUBIK
KRISTEN ROUBIK
DOC. NO. 3740057
TAX KEY NO. MNFV 0121.009

ERIK GIERAHN
LORA GIERAHN
DOC. NO. 3590379
TAX KEY NO. MNFV 0121.010

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

℄ CARTER'S CROSSING CIRCLE

℄ GOETZ COURT

FALLS

22 23 24 25 26

OUTLOT 3
TAX KEY NO.
MNFV 0121.065

60

2647.68'
N 00° 32' 58" W

REVISION DATE	DATE	SCALE, FEET 0 50 100	HWY: C.T.H. "W"	CONSTRUCTION PROJECT NO.: 2753-06-71	
	GRID FACTOR = 0.99990348		COUNTY: WAUKESHA	R/W PROJECT NO.: 2753-06-71	PLAT SHEET NO.: 4.5 E

Waukesha Co. CADD Sheet - NEW-ENGLISH-ROWBASE Drawing File : ROW-01-W2 PLOT DATE: 01/31/2012

VILLAGE OF MENOMONEE FALLS

FOX RIVER

OUTLOT 5

OUTLOT 6

TOMICH INVESTMENTS II, L.L.C.
DOC. NO. 3043348
TAX KEY NO. MNFV 0121.062

CARTER'S CROSSING LOT OWNERS BY PLAT
TAX KEY NO. MNFV 0121.067

(3) WAUKESHA COUNTY PARKS AND LAND USE BY PLAT
TAX KEY NO. MNFV 0121.068
0.01 AC.
3.05 AC. REM.

(2) CB MIDWEST GOLF CLUBS, L.L.C.
DOC. NO. 3803197
DOC. NO. 3833044
TAX KEY NO. MNFV 0120.991
0.09 AC.
EXT. AC. REM.

(4) SHIRLEY DELORM
R. 1160, I. 1206
TAX KEY NO. MNFV 0121.988
0.06 AC.
2.40 AC. REM.

(5) WILLIAM EVERS, JR.
SHARYN EVERS
VOL. 1210, P. 301
TAX KEY NO. MNFV 0121.989
0.05 AC.
1.46 AC. REM.

(6) STEPHEN FLEGNER
JUDITH FLEGNER
R. 1052, I. 581
TAX KEY NO. MNFV 0121.989.003
0.04 AC.
1.71 AC. REM.

(38) CHARLES LINK
LOU ANN LINK
R. 1271, I. 119
TAX KEY NO. MNFV 0121.989.002
0.05 AC.
1.71 AC. REM.

(7) CHRISTOPHER N. SMOLIK
WENDY L. SMOLIK
DOC. NO. 3064065
TAX KEY NO. MNFV 0126.997
0.06 AC.
5.04 AC. REM.

(8) K-9 OBEDIENCE TRAINING CLUB OF MENOMONEE FALLS, INC.
DOC. NO. 3022958
TAX KEY NO. MNFV 0118.996
0.06 AC.
21.31 AC. REM.

FRED D REICH
MAUREEN M REICH ET AL
DOC. NO. 3223581
TAX KEY NO. MNFV 0126.997.003

PARCEL 1
C.S.M. 6551
VOL. 5, P. 206

PARCEL 2
C.S.M. 6551
VOL. 5, P. 206

(101) (103) 12' WE ENERGIES AT&T EASEMENT R. 1560, I. 546

(105) VILLAGE OF MENOMONEE FALLS SANITARY SEWER EASEMENT R. 2224, I. 1266

(101) (103) 12' WE ENERGIES AT&T EASEMENT R. 2224, I. 818

(103) 10'X10' AT&T EASEMENT R. 1248, I. 667

20' STORM SEWER ESM'T. VILLAGE OF MENOMONEE FALLS DOC. NO. 3313322

20' STORM SEWER ESM'T. VILLAGE OF MENOMONEE FALLS DOC. NO. 3313322

35' SANITARY SEWER ESM'T. VILLAGE OF MENOMONEE FALLS DOC. NO. 3313322

(101) WEPCO d/b/a WE-ENERGIES
R. 2213, I. 632

(103) 8'X20' AT&T EASEMENT R. 1022, I. 770

WEPCO d/b/a WE-ENERGIES
WISC. BELL d/b/a SBC WISCONSIN
TIME WARNER ENTERTAINMENT CO., L.P.
DOC. NO. 3321258

C.T.H. "W"

N 88° 42' 25" E 2650.14'

N 88° 49' 14" E 2672.65'

N 00° 09' 25" W 2662.97'

N 00° 29' 41" W 2644.65'

P.L. 166+56.78

P.L. 167+93.32

P.L. 171+01.66

P.L. 179+17.73

P.L. 7+37.48

P.L. 6+33.30

P.L. 5+13.30

P.L. 3+93.30

P.L. 5+77.96

+70 100' LT.
+05 100' LT.
+00 75' LT.
+50 65' LT. 75' LT.
+35 75' LT.
+39.58 50' LT.
+18.01 50' RT.
+18.80 85' LT.
+00 75' LT. 85' LT.
+17.73 65' LT.
+93.99 85' RT.
+90 80' RT.
+05 80' RT.
+01.18 85' RT. 100' RT.
+80 65' RT. 100' RT.
+25 100' RT. 65' RT.
+18.10 65' RT.
+02.56 100' RT.
+58.77 50' LT.
+75.59 50' RT.
+86.98 90' RT.
+37.28 65' RT.
+50 90' RT. 110' RT.
+00 90' RT. 110' RT.
+83.27 65' RT.
+37.48 50' LT.
+33.30 50' LT.
+13.30 50' LT.
+86.22 50' LT.
+25 65' RT.

T 8 N
R 20 E
30 29 31 32

P.I. STA. 177+88.07 = P.I. STA. 10+00.00
BRASS MONUMENT IN CONCRETE
N = 413320.074
E = 2490170.061

MENOMONEE FALLS

REVISION DATE	DATE	SCALE, FEET 0 50 100	HWY: C.T.H. "W"	CONSTRUCTION PROJECT NO.: 2753-06-71	
	GRID FACTOR = 0.99990348		COUNTY: WAUKESHA	R/W PROJECT NO.: 2753-06-71	PLAT SHEET NO.: 4.6 E

Waukesha Co. CADD Sheet - NEW-ENGLISH-ROWBASE Drawing File : ROW-02-W2 PLOT DATE: 01/31/2012

VILLAGE

OF

MENOMONEE FALLS

PARCEL 1
C.S.M. 2765
VOL. 20, P. 182

PARCEL 2
C.S.M. 2765
VOL. 20, P. 182

C.S.M. 225
VOL. 1, P. 335

(8) K-9 OBEDIENCE TRAINING CLUB OF MENOMONEE FALLS, INC.
DOC. NO. 3022958
TAX KEY NO. MNFV 0115.996
0.06 AC.
21.31 AC. REM.

(9) WILLIAM AND RITA GERLS TRUST
DOC. NO. 3178368
TAX KEY NO. MNFV 0115.994
0.04 AC.
7.68 AC. REM.

(101) (103) 12' WISCONSIN ELECTRIC POWER COMPANY
AT&T EASEMENT
R. 160, I. 205

(101) (103) WISCONSIN ELECTRIC POWER COMPANY 15'
AT&T EASEMENT
R. 227, I. 976

(10) RUSSELL MATICEK, JR.
CHER MATICEK
DOC. NO. 2678113
TAX KEY NO. MNFV 0115.994.001
0.03 AC.
8.21 AC. REM.

(11) WISCONSIN GAS, L.L.C.
d/b/a WE-ENERGIES
DOC. NO. 3189034
TAX KEY NO. MNFV 0115.993
0.02 AC.
9.04 AC. REM.

(105) VILLAGE OF MENOMONEE FALLS
SANITARY SEWER EASEMENT AGREEMENT
R. 2307, I. 522

(15) TOWICH INVESTMENTS III, L.L.C.
DOC. NO. 3193177
TAX KEY NO. MNFV 0115.992
0.15 AC.
41.75 AC. REM.

(12) EDWARD THIMM
THEODORA THIMM
R. 872, I. 1307
TAX KEY NO. MNFV 0115.993.001
0.05 AC.
0.64 AC. REM.

(13) DONALD L. HAASCH
LYNDA S. HAASCH
R. 2292, I. 74
TAX KEY NO.
MNFV 0115.991
0.04 AC.
0.53 AC. REM.

(14) NANCY LOCOCO
DOC. NO. 3135750
DOC. NO. 3369759
TAX KEY NO.
MNFV 0115.992.001
0.05 AC.
0.59 AC. REM.

(7) CHRISTOPHER N. SMOLIK
WENDY L. SMOLIK
DOC. NO. 3064065
TAX KEY NO. MNFV 0126.997
0.06 AC.
5.04 AC. REM.

(16) KENNETH G. HELMAN
ROSEMARIE HELMAN
DOC. NO. 3718907
TAX KEY NO.
MNFV 0126.998
0.13 AC.
19.61 AC. REM.

(103) WISCONSIN ELECTRIC POWER COMPANY
DOC. NO. 3391675

(102) WISCONSIN GAS COMPANY d/b/a WE-ENERGIES
RIGHT OF WAY AGREEMENT
DOC. NO. 3531436
TAX KEY NO. MNFV 0126.999.004

(17) KENNETH G. HELMAN
ROSEMARIE HELMAN
R. 360, I. 648
TAX KEY NO.
MNFV 0126.999.005
0.08 AC.
59.03 AC. REM.

PARCEL 1
C.S.M. 6551
VOL. 5, P. 206

PARCEL 2
C.S.M. 8541
VOL. 75, P. 60

P.L. 184+66.07 | P.L. 186+05.45 | P.L. 191+05.45 | P.L. 192+90.18 | P.L. 194+40.17 | P.L. 195+65.18 | P.L. 184+35.48 | P.L. 191+03.62

+50 75' LT. 85' LT. | +50 75' LT. 85' LT. | +66.22 75' LT. | +05.62 75' LT. | +06.11 100' LT. | +50 75' LT. 100' LT. | +05.70 75' LT. | +90.35 75' LT. | +40.43 75' LT. | +80 75' LT. 105' LT. | +68.85 105' LT. | +65.68 65' LT.

+00 90' RT. 110' RT. | +35.12 80' RT. 90' RT. | +03.26 80' RT. 85' RT. | +50 85' RT. 115' RT. | +50 85' RT. 115' RT.

65' | 65' | 50' | 60' | 10' | 20' | 10' | 50'

181 | 182 | 183 | 184 | 185 | 186 | 187 ℄ C.T.H. "W" N 88° 49' 14" E 2672.65' | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196

SEPC | GUY | GUY POLE | MH | WV | SAN | FO | OH | CUY

4 | 4

REVISION DATE	DATE	SCALE, FEET 0 50 100	HWY: C.T.H. "W"	CONSTRUCTION PROJECT NO.: 2753-06-71	
	GRID FACTOR = 0.99990348		COUNTY: WAUKESHA	R/W PROJECT NO.: 2753-06-71	PLAT SHEET NO.: 4.7 E

Waukesha Co. CADD Sheet - NEW-ENGLISH-ROWBASE Drawing File : ROW-03-W2 PLOT DATE: 01/31/2012

VILLAGE

OF

MENOMONEE FALLS

4

4

P.I. STA. 204+40.72
BRASS MONUMENT IN CONCRETE
N = 413375.089
E = 2492842.149

T 8 N
R 20 E
29 29
32 32

(14) NANCY LOCOCO
DOC. NO. 3335750
DOC. NO. 3369759
TAX KEY NO. MNFV 0115.992.001
0.05 AC.
0.59 AC. REM.

(15) TOMICH INVESTMENTS III, L.L.C.
DOC. NO. 3193117
TAX KEY NO. MNFV 0115.992
0.15 AC.
41.75 AC. REM.

(17) KENNETH G. HELMAN
ROSEMARIE HELMAN
R. 360, I. 648
TAX KEY NO. MNFV 0126.999.005
0.08 AC.
59.03 AC. REM.

PARCEL 2
C.S.M. 8541
VOL. 75, P. 60

(18) KENNETH G. HELMAN
ROSEMARIE HELMAN
R. 360, I. 648
TAX KEY NO. MNFV 0126.999.006
0.04 AC.
3.15 AC. REM.

LOT 1
C.S.M. 9879
VOL. 92, P. 17

(19) BRADLEY J. MEINZER
MICHELLE R. MEINZER
R. 2529, I. 1
TAX KEY NO. MNFV 0126.999.001
0.04 AC.
9.97 AC. REM.

PARCEL 1
C.S.M. 8373
VOL. 73, P. 197

(20) TOMICH INVESTMENTS III, L.L.C.
DOC. NO. 3353577
TAX KEY NO. MNFV 0116.997.003
0.04 AC.
32.85 AC. REM.

(21) DAVID HOULE
KAREN HOULE
R. 1125, I. 1019
TAX KEY NO. MNFV 0116.996
0.03 AC.
0.62 AC. REM.

(22) MICHAEL J. FLYNN
MELISSA E. FLYNN
DOC. NO. 3650121
TAX KEY NO. MNFV 0116.995
0.06 AC.
0.81 AC. REM.

(23) VILLAGE OF MENOMONEE FALLS
DOC. NO. 3631559
TAX KEY NO. MNFV 0116.997.004

LOT 1
C.S.M. 10654
VOL. 102, P. 268

(24) FALLS VENTURES, L.L.C.
DOC. NO. 3088425
TAX KEY NO. MNFV 0125.996.002
0.11 AC.
34.24 AC. REM.

LOT 2
C.S.M. 7256
VOL. 61, P. 195

(101) W.E.P. CO. EASEMENT
VOL. 906, P. 91

(103) WISCONSIN ELECTRIC POWER CO.
RESERVATION OF EASEMENT
DOC. NO. 3353577

(101) (103) 6' WISCONSIN ELECTRIC POWER COMPANY
AMERITECH-WISCONSIN EASEMENT
R. 2578, I. 59

(106) ANR PIPELINE CO.
R. 2690, I. 149

(107) AMERICAN TRANSMISSION COMPANY, L.L.C.
DOC. NO. 3348428
DOC. NO. 3517462

(107) W.E.P. CO. EASEMENT
VOL. 840, P. 324

(107) W.E.P. CO. EASEMENT
VOL. 874, P. 171

VILLAGE OF MENOMONEE FALLS
SANITARY SEWER EASEMENT
DOC. NO. 3630581

26' PRIVATE DRIVEWAY EASEMENT BY C.S.M.

P.I. 197+05.17
P.I. 200+99.93
P.I. 204+41.50
P.I. 204+39.95
P.I. 208+81.73
P.I. 208+05.97
P.I. 209+71.24

N 00° 20' 25" W 2638.98'
N 00° 29' 28" W 2639.15'

N 88° 49' 14" E 2672.65'
N 88° 58' 34" E 2663.77'

125'
50'
55'
20'
12'

+40 85' LT. 110' LT.
+05.85 115' LT.
+06.01 100' LT.
+50 85' LT. 100' LT.
+70 85' LT. 125' LT.
+30 85' LT. 125' LT.
+42.04 85' LT.
+40 90' LT.
+15 90' LT.
+81.71 85' LT.
+05.98 85' LT.
+60 85' LT. 95' LT.
+71.24 85' LT.
+00 70' LT. 95' LT.
+89.68 85' RT.
+99.68 85' RT.
+39.70 85' RT.
+39.68 75' RT.

196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211

℄ C.T.H. "W"

HOUSE
TILE
GTST
WV
WVV
FO

REVISION DATE	DATE	SCALE, FEET 0 50 100	HWY: C.T.H. "W"	CONSTRUCTION PROJECT NO.: 2753-06-71	
	GRID FACTOR = 0.99990348		COUNTY: WAUKESHA	R/W PROJECT NO.: 2753-06-71	PLAT SHEET NO.: 4.8 E

Waukesha Co. CADD Sheet - NEW-ENGLISH-ROWBASE Drawing File : ROW-04-W2 PLOT DATE: 01/31/2012

VILLAGE OF MENOMONEE FALLS

WILLIAM BERNHARD
MARGARET BERNHARD
DOC. NO. 3752073
TAX KEY NO. MNFV 0116.007

TOMICH INVESTMENTS III, L.L.C.
DOC. NO. 3193117
DOC. NO. 3356196
TAX KEY NO. MNFV 0116.006

TORREY MILLONZI
JOELLE MILLONZI
DOC. NO. 3737388
TAX KEY NO. MNFV 0116.005

LOT 1
C.S.M. 10654
VOL. 102, P. 268

WEPCO d/b/a WE-ENERGIES
WISC. BELL d/b/a SBC WISCONSIN
TIME WARNER ENTERTAINMENT CO., L.P.
DOC. NO. 3452886

RUSSELL JONES
LAURA SCHROEDER
DOC. NO. 3827142
TAX KEY NO.
MNFV 0116.004

SPENCER'S PASS

LOT 1
C.S.M. 9591
VOL. 88, P. 75

(26)
HAMILTON SCHOOL DISTRICT
DOC. NO. 3019716
TAX KEY NO. MNFV 0116.999.003
0.01 AC.
70.63 AC. REM.

(23)
VILLAGE OF MENOMONEE FALLS
DOC. NO. 3631559
TAX KEY NO.
MNFV 0116.997.004

CAROL OIE
DOC. NO. 3516434
TAX KEY NO.
MNFV 0116.003

℄ SPENCER'S CT.

(39)
DANIEL ADAMS
ANITA ADAMS
DOC. NO. 3581422
TAX KEY NO.
MNFV 0116.001

JAMES R. CORSO
DOC. NO. 3834800
TAX KEY NO.
MNFV 0116.002

P.T. 33+73.46

STA. 217+72.76 C.T.H. "W" =
STA. 30+00.00 ONE MILE ROAD
STA. 30+00.00 SPENCER'S PASS

PRIVATE LANDSCAPE EASEMENT

℄ C.T.H. "W"
N 88° 58' 34" E 2663.77'

(25)
MARK ANTON
SHELBY ANTON
R. 2611, I. 608
TAX KEY NO. MNFV 0125.996.001
0.07 AC.
2.93 AC. REM.

(27)
AUDREY J. KRAEMER
R. 2903, I. 354
TAX KEY NO. MNFV 0125.997
0.05 AC.
1.17 AC. REM.

PARCEL 1
C.S.M. 995
VOL. 6, P. 279

PARCEL 2
C.S.M. 995
VOL. 6, P. 279

(101)
WEPCO d/b/a WE-ENERGIES
DOC. NO. 3894605

(29)
TODD ADAMS
SHERI ADAMS
DOC. NO. 3228109
TAX KEY NO. MNFV 0125.998.001
0.03 AC.
4.71 AC. REM.

(30)
DAVID POLINSKI
DOC. NO. 2685058
TAX KEY NO. MNFV 0125.998
0.03 AC.
4.71 AC. REM.

(24)
FALLS VENTURES, L.L.C.
DOC. NO. 3068425
TAX KEY NO. MNFV 0125.996.002
0.11 AC.
34.24 AC. REM.

LOT 1
C.S.M. 7256
VOL. 61, P. 195

LOT 2
C.S.M. 7256
VOL. 61, P. 195

(28)
KENNETH D. RAPPETTE
MARILYN ROSE
DOC. NO. 2911507
TAX KEY NO. MNFV 0125.997.001

PARCEL 1
C.S.M. 668
VOL. 4, P. 200

PARCEL 2
C.S.M. 668
VOL. 4, P. 200

℄ ONE MILE RD.

MENOMONEE FALLS

REVISION DATE	DATE	SCALE, FEET 0 50 100	HWY: C.T.H. "W"	CONSTRUCTION PROJECT NO.: 2753-06-71	
	GRID FACTOR = 0.99990348		COUNTY: WAUKESHA	R/W PROJECT NO.: 2753-06-71	PLAT SHEET NO.: 4.9 E

Waukesha Co. CADD Sheet – NEW-ENGLISH-ROWBASE Drawing File : ROW-05-W2 PLOT DATE: 01/31/2012

LOT 1
C.S.M. 9591
VOL. 88, P. 75

LOT 2
C.S.M. 9591
VOL. 88, P. 75

P.I. STA. 231+04.49
BRASS MONUMENT IN CONCRETE
N = 413422.694
E = 2495505.496

T 8 N
R 20 E
29 28
32 33

VILLAGE

OF

MENOMONEE FALLS

(26) HAMILTON SCHOOL DISTRICT
DOC. NO. 3019716
TAX KEY NO. MNFV 0116.999.003
0.01 AC.
70.63 AC. REM.

(31) EDWARD FLEISNER
ROBERT M. FLEISNER
KATHRYN A. FLEISNER
TRUSTEES OF THE ROBERT M. FLEISNER AND KATHRYN A. FLEISNER LIVING TRUST DATED JULY 28, 2003
DOC. NO. 2987760
DOC. NO. 3077259
DOC. NO. 3400604
TAX KEY NO. MNFV 0116.999.002

(35) JACQUE SOMMERS
CORINNE SOMMERS
DOC. NO. 2614366
DOC. NO. 3063691
TAX KEY NO. MNFV 0111.999
0.08 AC.
37.02 AC. REM.

(33) RONALD LONDRE
ELAINE LONDRE
VOL. 844, P. 448
TAX KEY NO. MNFV 0111.999.002
0.03 AC.
0.65 AC. REM.

(34) WALTER W. SCHMOLLER
VOL. 1026, P. 3
TAX KEY NO. MNFV 0111.999.001
0.06 AC.
0.69 AC. REM.

(30) DAVID POLINSKI
DOC. NO. 2686058
TAX KEY NO. MNFV 0125.998
0.03 AC.
4.71 AC. REM.

(32) RICHARD A. BAILEY
CHERYL Y. BAILEY
DOC. NO. 2904994
TAX KEY NO. MNFV 0125.999
0.05 AC.
9.61 AC. REM.

(36) JEFFREY W. MIHOR
DOC. NO. 2627929
TAX KEY NO. MNFV 0130.998.001
0.01 AC.
0.84 AC. REM.

(37) DAWN C. PETERMANN
R.1026, I. 392
R.1645, I. 837
TAX KEY NO. MNFV 0130.998.002
0.05 AC.
3.04 AC.REM.

(1) PETERMANN LIVING TRUST
DOC. NO. 3564750
TAX KEY NO. MNFV 0130.998
0.14 AC.
34.35 AC. REM.

NOTE: RIGHT OF WAY AND T.L.E. PREVIOUSLY ACQUIRED

LOT 1
C.S.M. 4234
VOL. 33, P. 233

LOT 2
C.S.M. 4234
VOL. 33, P. 233

LOT 3
C.S.M. 4234
VOL. 33, P. 233

PARCEL 2
C.S.M. 668
VOL. 4, P. 200

HOUSE

℄ C.T.H. "W"
N 88° 58' 34" E 2663.77'
N 88° 07' 30" E 2651.16'
N 00° 41' 07" W 2637.95'
N 00° 09' 08" W 2648.35'

℄ CLOVER LANE

P.I. 226+94.87
P.I. 52++55.13
P.I. 232+95.88
P.I. 234+55.92
P.I. 231+03.50
P.I. 232+05.49
P.I. 235+03.49
P.I. 226+59.66

+95.02 75' LT. 85' LT.
+65 85' LT. 75' LT.
+25 85' LT. 75' LT.
+24.93 75' LT.
+00 45' RT.
+97.80 45' RT.
+50 75' LT. 105' LT.
+86.02 75' LT.
+01.82 65' LT.
+96.71 85' LT. 105' LT.
+56.64 85' LT.
+00 85' LT. 95' LT.
+00 80' LT. 95' LT.
+59.52 80' RT. 85' RT.
+03.35 75' RT. 85' RT.
+05.49 75' RT. 85' RT.
+03.49 85' RT.

226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241

60' 30' 65' 50' 60' 80' 65' 60'

GUY VLV WV T.L.E.

REVISION DATE	DATE	SCALE, FEET 0 50 100	HWY: C.T.H. "W"	CONSTRUCTION PROJECT NO.: 2753-06-71	
	GRID FACTOR = 0.99990348		COUNTY: WAUKESHA	R/W PROJECT NO.: 2753-06-71	PLAT SHEET NO.: 4.10 E

Waukesha Co. CADD Sheet - NEW-ENGLISH-ROWBASE Drawing File : ROW-06-W2 PLOT DATE: 01/31/2012

VILLAGE

OF

MENOMONEE FALLS

BLOCK 5

BLOCK 6

NORMANDALE

75'

MICHIGAN-WISCONSIN PIPELINE COMPANY R.O.W. CONTRACT VOL. 491, P. 221

VILLAGE OF MENO. FALLS WATERMAIN EASEMENT DOC. NO. 3071366

(35) JACQUE SOMMERS CORINNE SOMMERS DOC. NO. 2614366 DOC. NO. 3063691 TAX KEY NO. MNFV 0111.999 0.08 AC. 37.02 AC. REM.

(106)

℄ EVERGREEN DRIVE

30'

30'

WE-ENERGIES VOL. 717, P. 550

BLOCK (40)

DREW MARLEY JENNY MARLEY DOC. NO. 3418575 TAX KEY NO. MNFV 0111.091

PATRICK RENNER KATHLEEN RENNER R. 1358, I. 686 TAX KEY NO. MNFV 0111.092

DARIN LITZA SHARI LITZA R. 2968, I. 106 TAX KEY NO. 0111.093

THOMAS J. BINNEY R. 449, I. 843 TAX KEY NO. 0111.083

JEFFREY LUCZAK KERRY LUCZAK R. 885, I. 450 TAX KEY NO. MNFV 0111.084

GLEN DALLMANN TERRI DALLMANN R. 870, I. 207 TAX KEY NO. MNFV 0111.085

JON SALEWSKI YOLANDA SALEWSKI R. 2026, I. 970 TAX KEY NO. MNFV 0111.086

BLAZE PROPERTIES, L.L.C. DOC. NO. 2805739 TAX KEY NO. MNFV 0111.090

℄ JACKSON DRIVE

P.I. 244+31.44

P.I. 245+56.10

P.I. 246+76.10

P.I. 250+41.44

P.I. 251+94.63

P.I. 253+56.89

+60 90' LT.

+60 80' LT.

+94.99 90' LT.

+95.46 80' LT.

+31.78 80' LT. 75' LT.

+80 75' LT.

GUY

GV

MH

T.L.E.

241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256

℄ C.T.H. "W"

N 88° 07' 30" E 2651.16'

END RELOCATION ORDER
PROJECT I.D. 2753-06-71
STA. 245+00.00
N = 413468.356
E = 2496900.254
45.66' NORTH OF AND 1,394.76' EAST OF THE NORTHWEST CORNER OF SEC. 33, T 8 N, R 20 E

(1) PETERMANN LIVING TRUST DOC. NO. 3564750 TAX KEY NO. MNFV 0130.998 0.14 AC. 34.35 AC. REM.

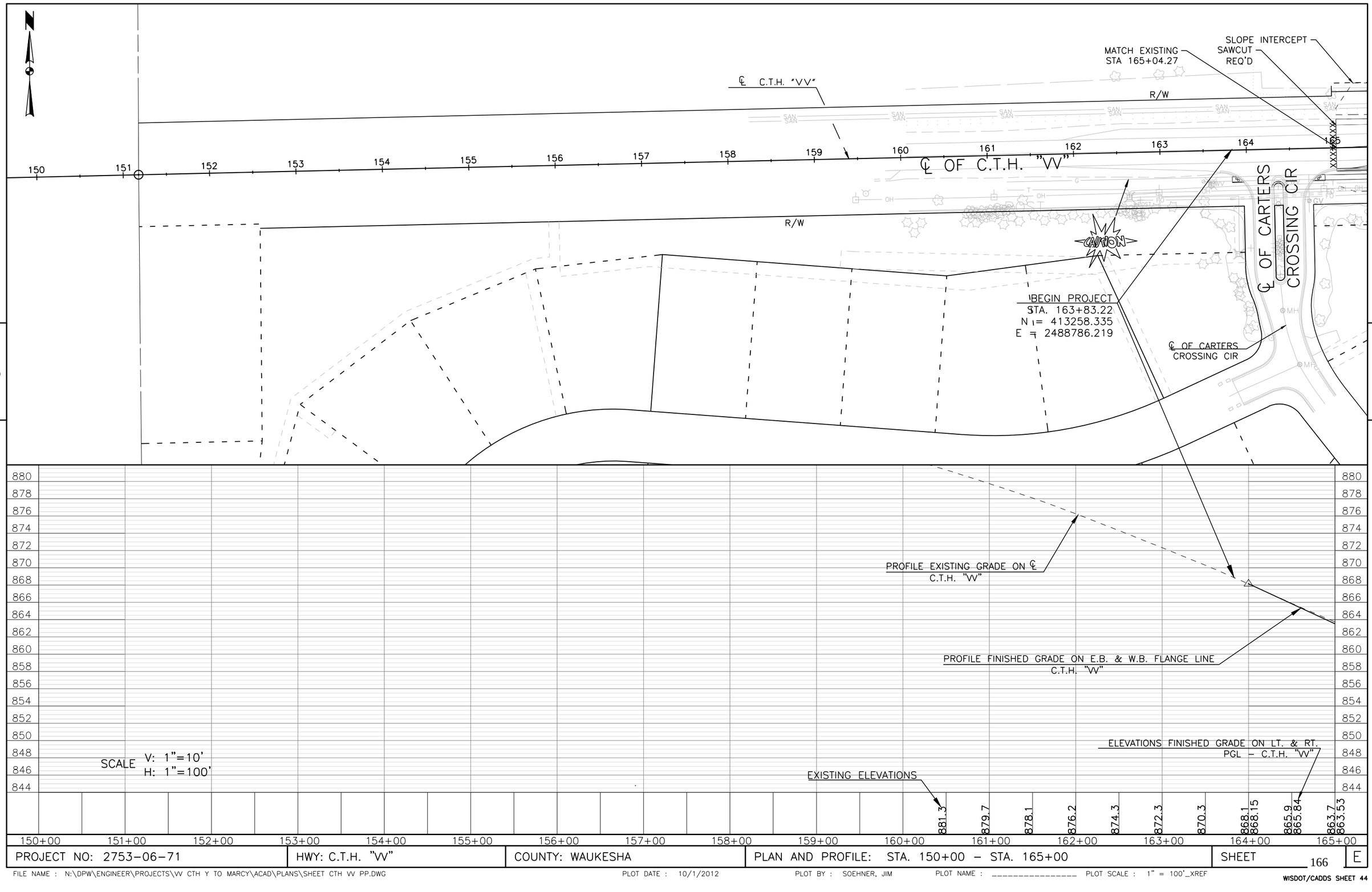
NOTE: RIGHT OF WAY AND T.L.E. PREVIOUSLY ACQUIRED

LOT 3 C.S.M. 4234 VOL. 33, P. 233

BLAZE SELESTOW SUZANNE SELESTOW DOC. NO. 3617228 TAX KEY NO. MNFV 0130.999

REVISION DATE	DATE	SCALE, FEET 0 50 100	HWY: C.T.H. "W"	CONSTRUCTION PROJECT NO.: 2753-06-71	
	GRID FACTOR = 0.99990348		COUNTY: WAUKESHA	R/W PROJECT NO.: 2753-06-71	PLAT SHEET NO.: 4.11 E

Waukesha Co. CADD Sheet - NEW-ENGLISH-ROWBASE Drawing File : ROW-07-W2 PLOT DATE: 01/31/2012



PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PLAN AND PROFILE: STA. 150+00 – STA. 165+00	SHEET 166	E

BENCH MARKS

NO.	LOCATION	DESCRIPTION	ELEV.
12	STA. 166+51.68, 46.5' LT.	COTTON SPINDLE (GEAR SPIKE) N/S P.P. NO. 05-16415	852.79
100	STA. 172+74.01, 23.7' RT.	BRASS CAP SET IN TOP OF SW PARPET WALL ON BRIDGE #67-151-71	841.27

CB MIDWEST GOLF CLUBS, L.L.C.

STA. 177+68.07 C.T.H. "VV" =
STA. 10+00.00 C.T.H. "Y"

SLOPE INTERCEPT

℄ C.T.H. "VV"

℄ C.T.H. "Y"

K-9 OBEDIENCE TRAINING CLUB OF MENOMONEE FALLS, INC.

T.L.E.

R/W

CP 1

CP 2

CP 3

CP 4

RBM 100

BM 12

TOMICH INVESTMENTS II, L.L.C.

CARTER'S CROSSING LOT OWNERS

WAUKESHA COUNTY PARKS AND LAND USE

SHIRLEY DELORM

P.I. 177+68.07
N= 413320.074
E= 2490170.061
CHRISTOPHER N. SMOLIK
WENDY L. SMOLIK

CAUTION

CONTROL POINTS

CP 1	CP 2	CP 3	CP 4
REBAR W/ YELLOW CAP	MAG NAIL	MAG NAIL	REBAR W/ YELLOW CAP
STA. 166+98.57, 26.27' RT.	STA. 168+99.19, 27.29' LT.	STA. 173+66.70, 18.49' RT.	STA. 178+76.11, 33.76' RT.
N = 413269.68	N = 413327.75	N = 413292.53	N = 413288.55
E = 2489101.42	E = 2489300.78	E = 2489769.21	E = 2490278.78
ELEV = 852.67	ELEV = 844.33	ELEV = 838.22	ELEV = 838.62

-4.62%

VCL=420
K=101.96

PVC=167+90.20
850.12

PVI=170+00.00
840.43

PVT=172+09.80
839.37

P.I. 171+01.66

PROFILE FINISHED GRADE ON E.B. & W.B. FLANGE LINE
C.T.H. "VV"

PROFILE EXISTING GRADE ON ℄
C.T.H. "VV"

-0.50%

STA 12+61.00
STR. NO. B-67-335 REQ'D
3-SPAN CONCRETE SLAB
SEE DRAWINGS
REMOVE EXISTING STRUCTURE B-67-151
2-SPAN CONCRETE SLAB, 52' LONG

STREAMBED 826.20

EL. 817.00

℄
C.T.H. "Y"

VCL=250
K=143.13

PVC=175+75.00
837.52

LOW=176+47.21
837.34

PVT=178+25.00
838.45

PVI=177+00.00
836.89

1.24%

ELEVATIONS FINISHED GRADE ON LT. & RT.
PGL - C.T.H. "VV"

EXISTING ELEVATIONS

SCALE V: 1"=10'
H: 1"=100'

165+00	166+00	167+00	168+00	169+00	170+00	171+00	172+00	173+00	174+00	175+00	176+00	177+00	178+00	179+00	180+00
863.7 / 863.53	861.5 / 861.22	859.1 / 858.91	856.6 / 856.60	854.1 / 854.29	851.5 / 851.98	849.2 / 849.67	847.0 / 847.53	845.2 / 845.64	843.8 / 843.99	842.5 / 842.58	841.5 / 841.43	840.6 / 840.51	839.9 / 839.84	839.5 / 839.42	839.0 / 839.16	838.91	838.66	838.2 / 838.41	837.9 / 838.16	837.7 / 837.90	837.6 / 837.65	837.4 / 837.42	837.4 / 837.34	837.6 / 837.44	838.0 / 837.71	838.5 / 838.16	839.3 / 838.76	840.2 / 839.38	841.0 / 840.00	841.7 / 840.62

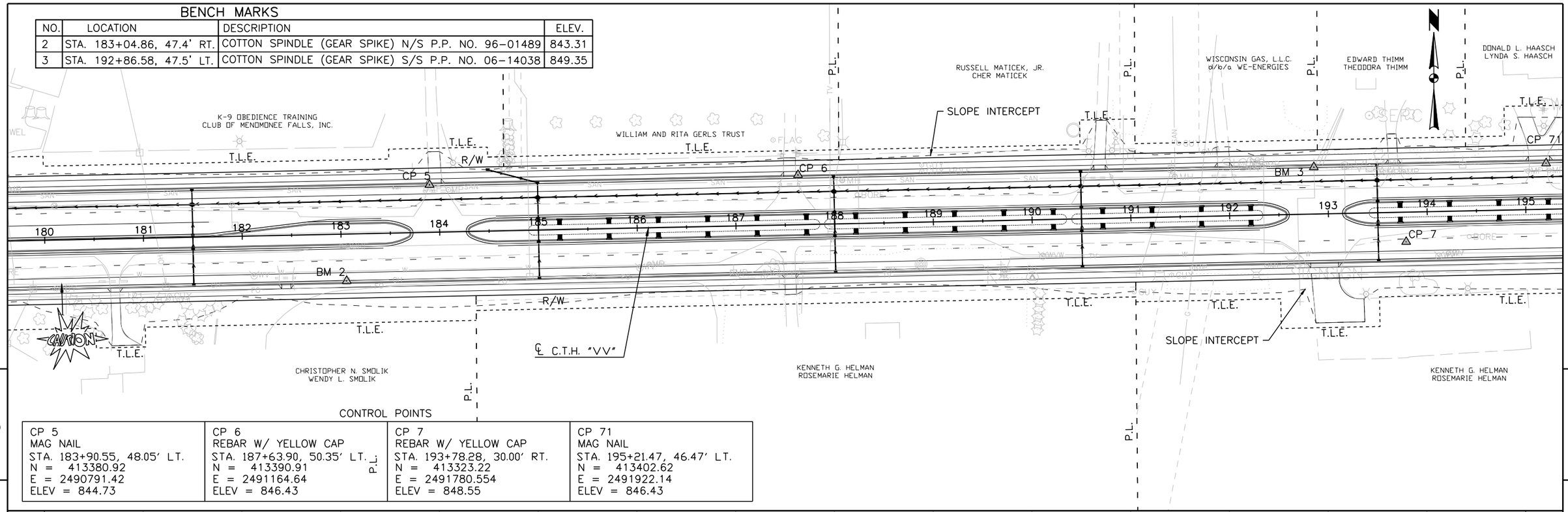
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PLAN AND PROFILE: STA. 165+00 - STA. 180+00	SHEET 167 E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\SHEET CTH VV PP.DWG
PLOT DATE : 10/1/2012 7:16 AM
PLOT BY : SOEHNER, JIM
PLOT NAME : _____
PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 44

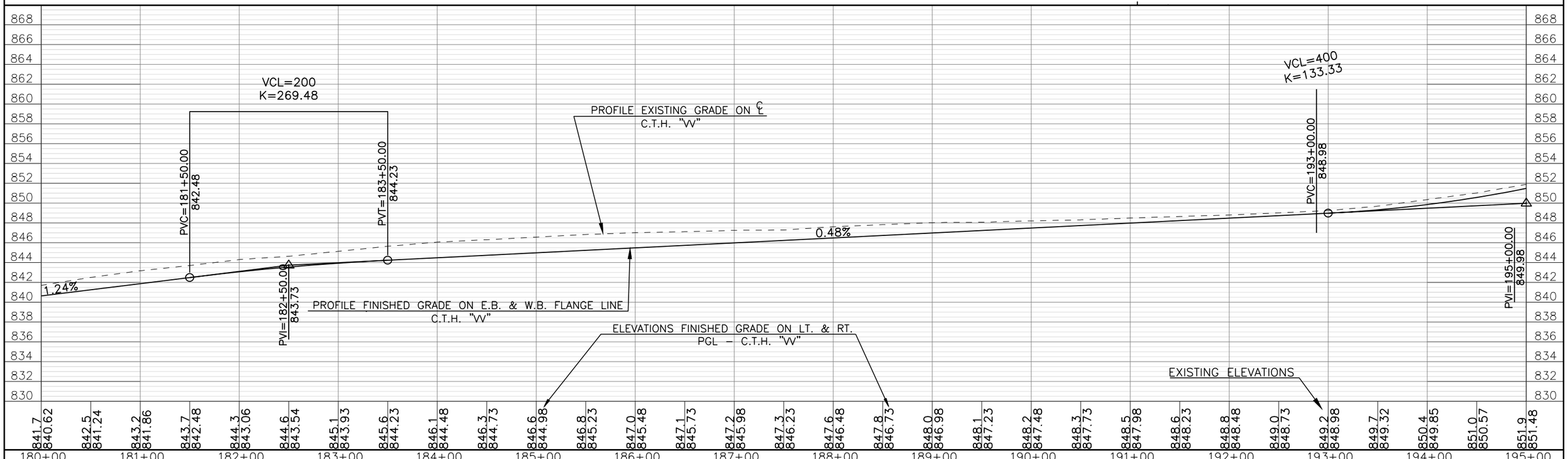
BENCH MARKS

NO.	LOCATION	DESCRIPTION	ELEV.
2	STA. 183+04.86, 47.4' RT.	COTTON SPINDLE (GEAR SPIKE) N/S P.P. NO. 96-01489	843.31
3	STA. 192+86.58, 47.5' LT.	COTTON SPINDLE (GEAR SPIKE) S/S P.P. NO. 06-14038	849.35



CONTROL POINTS

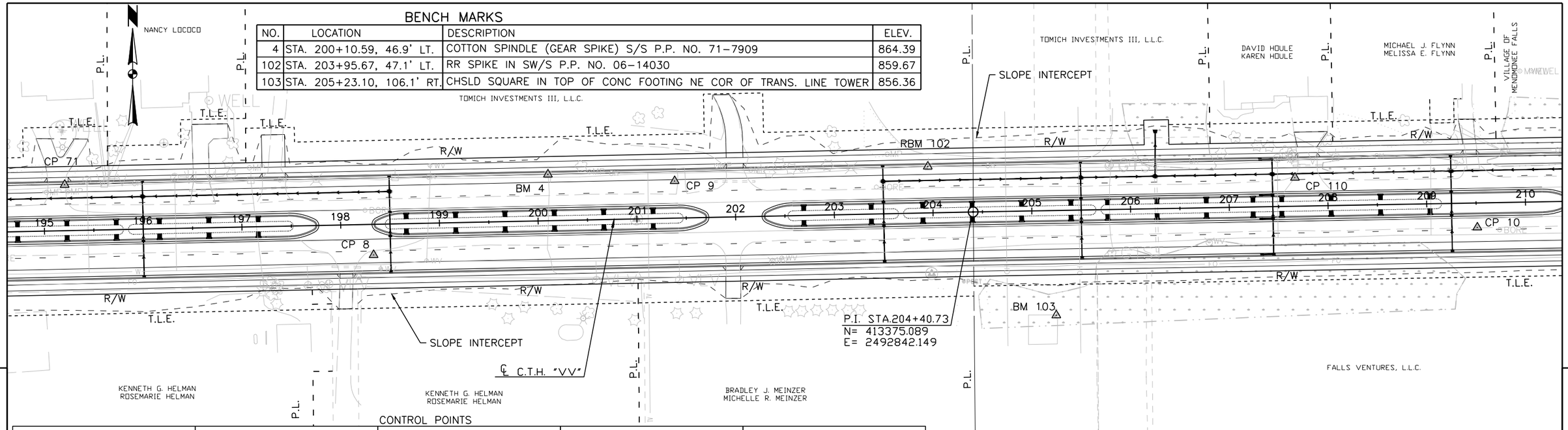
CP 5	CP 6	CP 7	CP 71
MAG NAIL	REBAR W/ YELLOW CAP	REBAR W/ YELLOW CAP	MAG NAIL
STA. 183+90.55, 48.05' LT.	STA. 187+63.90, 50.35' LT.	STA. 193+78.28, 30.00' RT.	STA. 195+21.47, 46.47' LT.
N = 413380.92	N = 413390.91	N = 413323.22	N = 413402.62
E = 2490791.42	E = 2491164.64	E = 2491780.554	E = 2491922.14
ELEV = 844.73	ELEV = 846.43	ELEV = 848.55	ELEV = 846.43



PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PLAN AND PROFILE: STA. 180+00 – STA. 195+00	SHEET 168 E

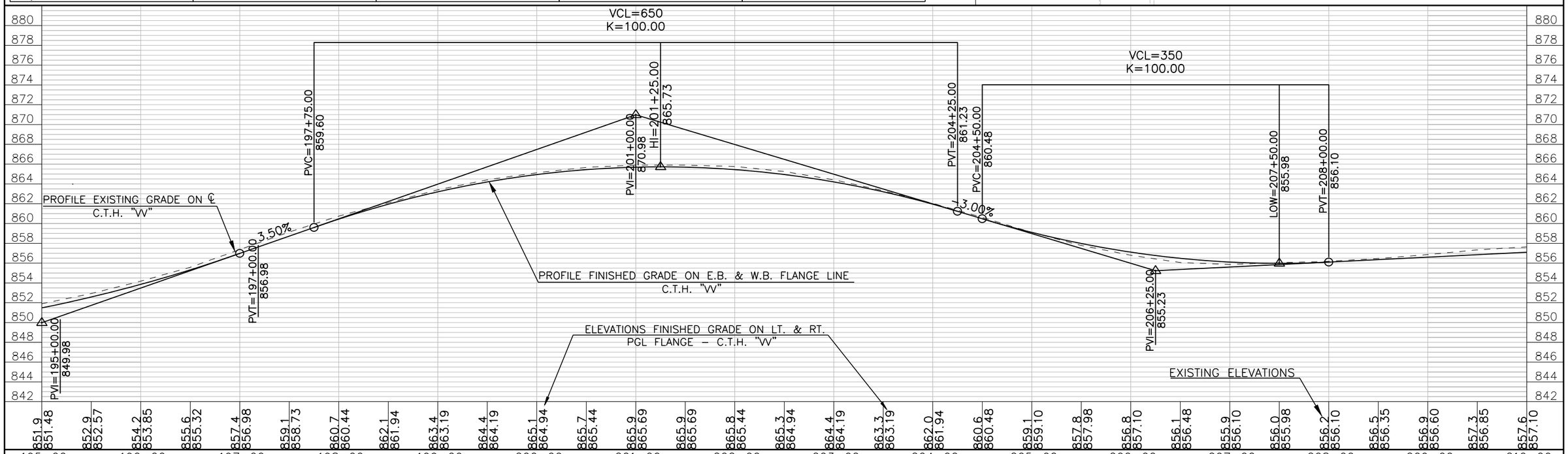
BENCH MARKS

NO.	LOCATION	DESCRIPTION	ELEV.
4	STA. 200+10.59, 46.9' LT.	COTTON SPINDLE (GEAR SPIKE) S/S P.P. NO. 71-7909	864.39
102	STA. 203+95.67, 47.1' LT.	RR SPIKE IN SW/S P.P. NO. 06-14030	859.67
103	STA. 205+23.10, 106.1' RT.	CHSLD SQUARE IN TOP OF CONC FOOTING NE COR OF TRANS. LINE TOWER	856.36



CONTROL POINTS

CP 71 MAG NAIL STA. 195+21.47, 46.47' LT. N = 413402.62 E = 2491922.14 ELEV = 846.43	CP 8 REBAR W/ YELLOW CAP STA. 198+32.68, 30.87' RT. N = 413331.71 E = 2492234.87 ELEV = 846.43	CP 9 REBAR W/ YELLOW CAP STA. 201+39.09, 37.71' LT. N = 413406.58 E = 2492539.81 ELEV = 867.01	CP 110 MAG NAIL STA. 207+67.08, 28.91' LT. N = 413409.83 E = 2493167.94 ELEV = 854.86	CP 10 REBAR W/ YELLOW CAP STA. 209+50.85, 24.60' RT. N = 413359.60 E = 2493352.64 ELEV = 856.27



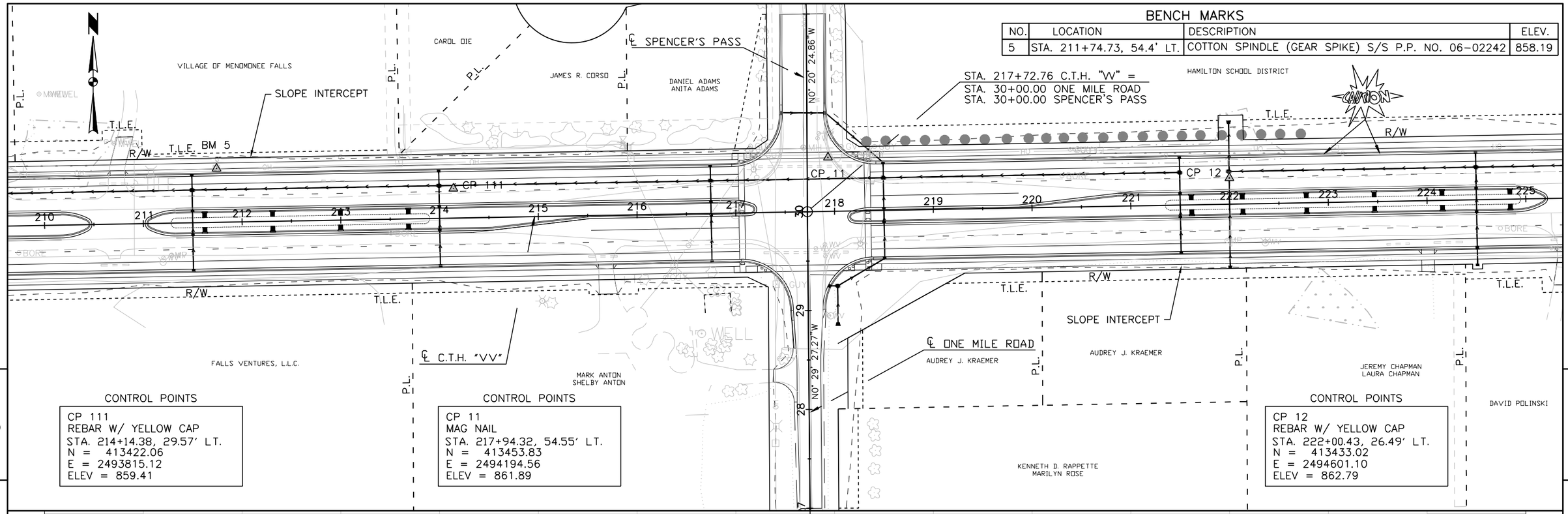
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PLAN AND PROFILE: STA. 195+00 – STA. 210+00	SHEET 169 E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\SHEET CTH VV PP.DWG
PLOT DATE : 10/1/2012 7:40 AM
PLOT BY : SOEHNER, JIM
PLOT NAME : _____ PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 44

BENCH MARKS

NO.	LOCATION	DESCRIPTION	ELEV.
5	STA. 211+74.73, 54.4' LT.	COTTON SPINDLE (GEAR SPIKE) S/S P.P. NO. 06-02242	858.19



CONTROL POINTS

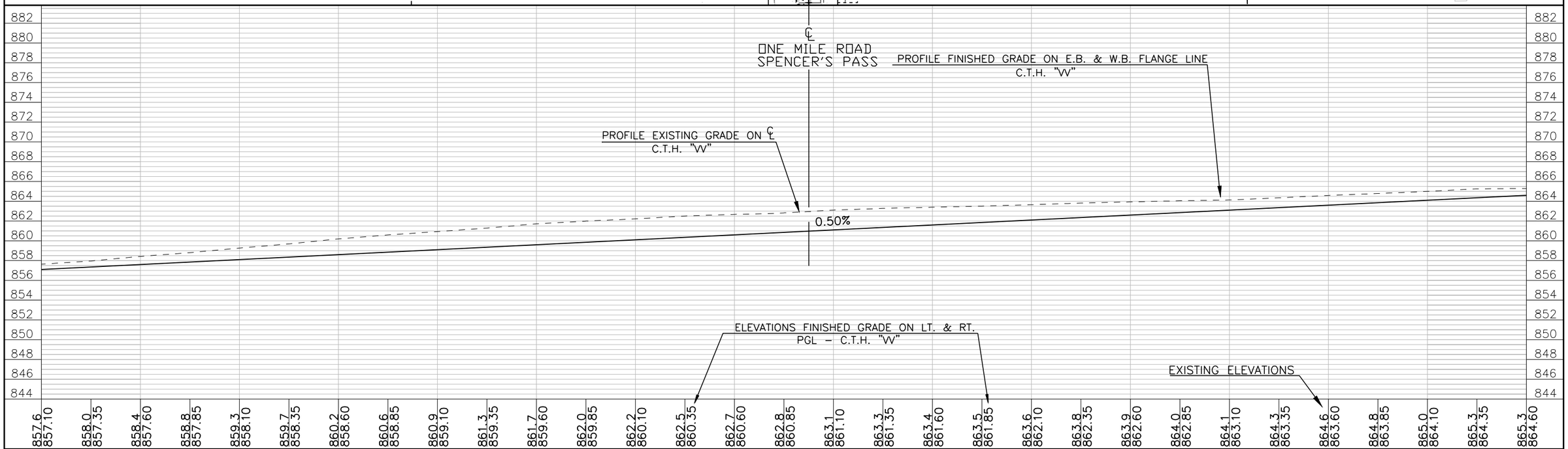
CP 111
REBAR W/ YELLOW CAP
STA. 214+14.38, 29.57' LT.
N = 413422.06
E = 2493815.12
ELEV = 859.41

CONTROL POINTS

CP 11
MAG NAIL
STA. 217+94.32, 54.55' LT.
N = 413453.83
E = 2494194.56
ELEV = 861.89

CONTROL POINTS

CP 12
REBAR W/ YELLOW CAP
STA. 222+00.43, 26.49' LT.
N = 413433.02
E = 2494601.10
ELEV = 862.79



PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PLAN AND PROFILE: STA. 210+00 – STA. 225+00	SHEET 170 E

BENCH MARKS

NO.	LOCATION	DESCRIPTION	ELEV.
104	STA. 50+91.12, 18.8' RT.	CHLSD "+" IN TOP NOZZLE OF HYDRANT	868.29
105	STA. 230+61.44, 41.2' RT.	CHLSD "+" IN TOP NOZZLE OF HYDRANT	864.64

N

HAMILTON SCHOOL DISTRICT

EDWARD FLEISNER
ROBERT M. FLEISNER
KATHRYN A. FLEISNER
TRUSTEES OF THE ROBERT M. FLEISNER
AND KATHRYN A. FLEISNER LIVING TRUST
DATED JULY 28, 2003

STA. 231+04.49 C.T.H. "VV" =
STA. 50+00.00 CLOVER LANE

℄ CLOVER LANE

N0° 41' 06.53"W 52.51

RONALD LONDRE
ELAINE LONDRE

WALTER W. SCHMOLLER

JACQUE SOMMERS
CORINNE SOMMERS

SLOPE INTERCEPT

CAUTION

T.L.E.

R/W

RBM 104

CP 14

CP 13

CP 15

CP 16

RBM 105

225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240

℄ C.T.H. "VV"

SLOPE INTERCEPT

P.I. 231+04.49
N= 413422.694
E= 2495505.496

DAVID POLINSKI

RICHARD A. BAILEY
CHERYL Y. BAILEY

JEFFREY W. MIHOR

DAWN C. PETERMANN

PETERMANN LIVING TRUST

P.L.

CONTROL POINTS

CP 13
REBAR W/ YELLOW CAP
STA. 226+09.61, 26.25' RT.
N = 413387.61
E = 2495011.16
ELEV = 862.79

CONTROL POINTS

CP 14
REBAR W/ YELLOW CAP
STA. 50+73.90, 14.60' LT.
N = 413496.41
E = 2495490.01
ELEV = 865.48

CONTROL POINTS

CP 15
REBAR W/ YELLOW CAP
STA. 233+42.10, 26.33' RT.
N = 413404.15
E = 2495743.83
ELEV = 861.98

CONTROL POINTS

CP 16
REBAR W/ YELLOW CAP
STA. 238+98.99, 27.03' LT.
N = 413475.71
E = 2496298.68
ELEV = 852.09

VCL=600
K=268.11

℄ CLOVER LANE

PVC=227+99.72
866.10

HI=229+33.78
866.43

PVI=230+99.74
867.60

PVT=233+99.72
862.39

PROFILE EXISTING GRADE ON ℄ C.T.H. "VV"

-1.74%

PROFILE FINISHED GRADE ON E.B. & W.B. FLANGE LINE
C.T.H. "VV"

ELEVATIONS FINISHED GRADE ON LT. & RT.
MEDIAN FLANGE – C.T.H. "VV"

EXISTING ELEVATIONS

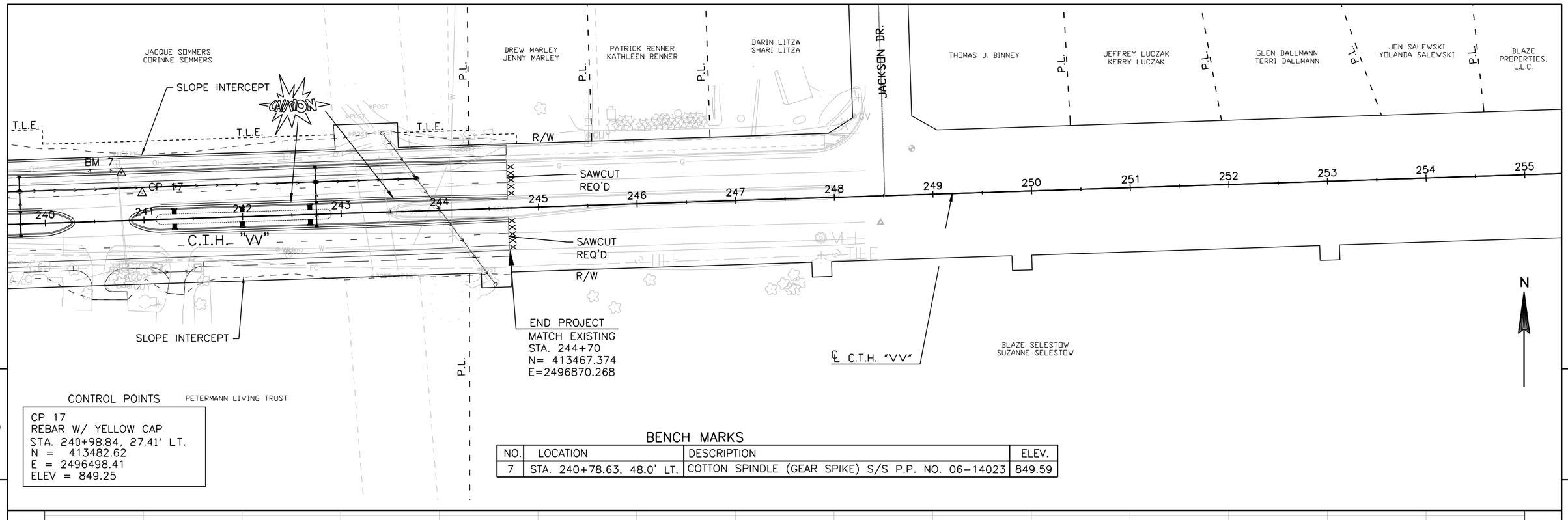
878 876 874 872 870 868 866 864 862 860 858 856 854 852 850 848 846 844 842 840

225+00	226+00	227+00	228+00	229+00	230+00	231+00	232+00	233+00	234+00	235+00	236+00	237+00	238+00	239+00	240+00
865.3 / 864.60	865.4 / 864.85	865.7 / 865.10	865.7 / 865.35	866.0 / 865.60	866.1 / 865.85	866.2 / 866.10	866.1 / 866.30	866.1 / 866.41	866.0 / 866.43	865.9 / 866.35	865.7 / 866.18	865.5 / 865.92	865.2 / 865.56	864.7 / 865.11	864.1 / 864.57	863.6 / 863.93	863.0 / 863.20	862.4 / 862.38	861.7 / 861.51	860.9 / 860.64	860.1 / 859.77	859.1 / 858.91	858.1 / 858.04	857.2 / 857.17	856.3 / 856.30	855.3 / 855.43	854.3 / 854.56	853.4 / 853.69	852.5 / 852.82	851.8 / 851.95

PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PLAN AND PROFILE: STA. 225+00 – STA. 240+00	SHEET 171 E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\SHEET CTH VV PP.DWG
PLOT DATE : 10/1/2012 7:59 AM PLOT BY : SOEHNER, JIM PLOT NAME : _____ PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 44

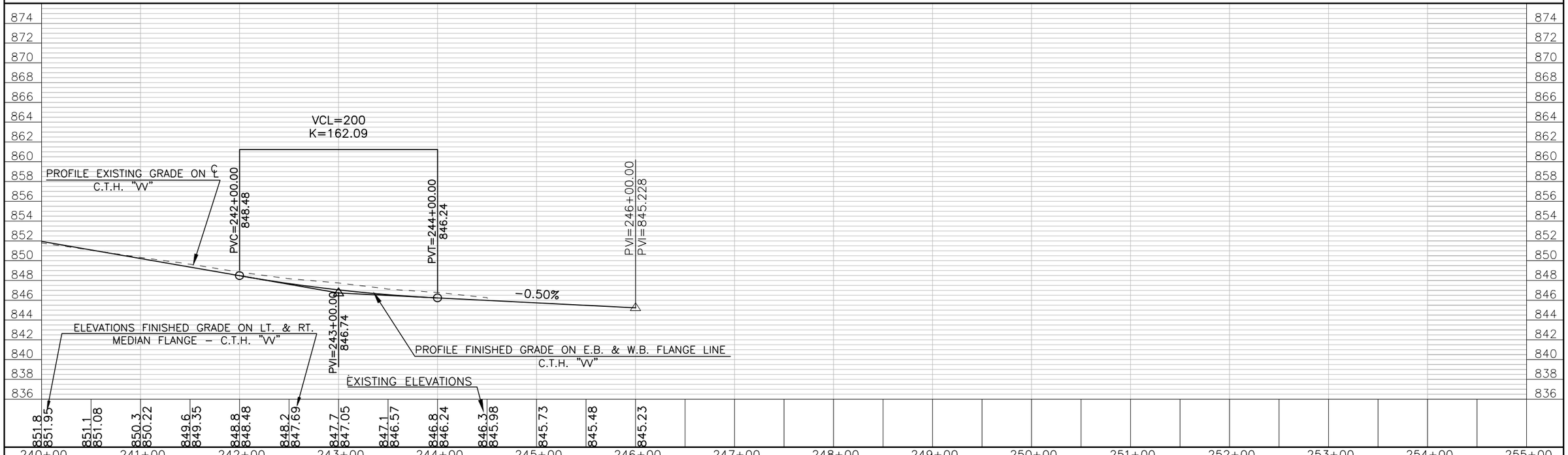


CONTROL POINTS

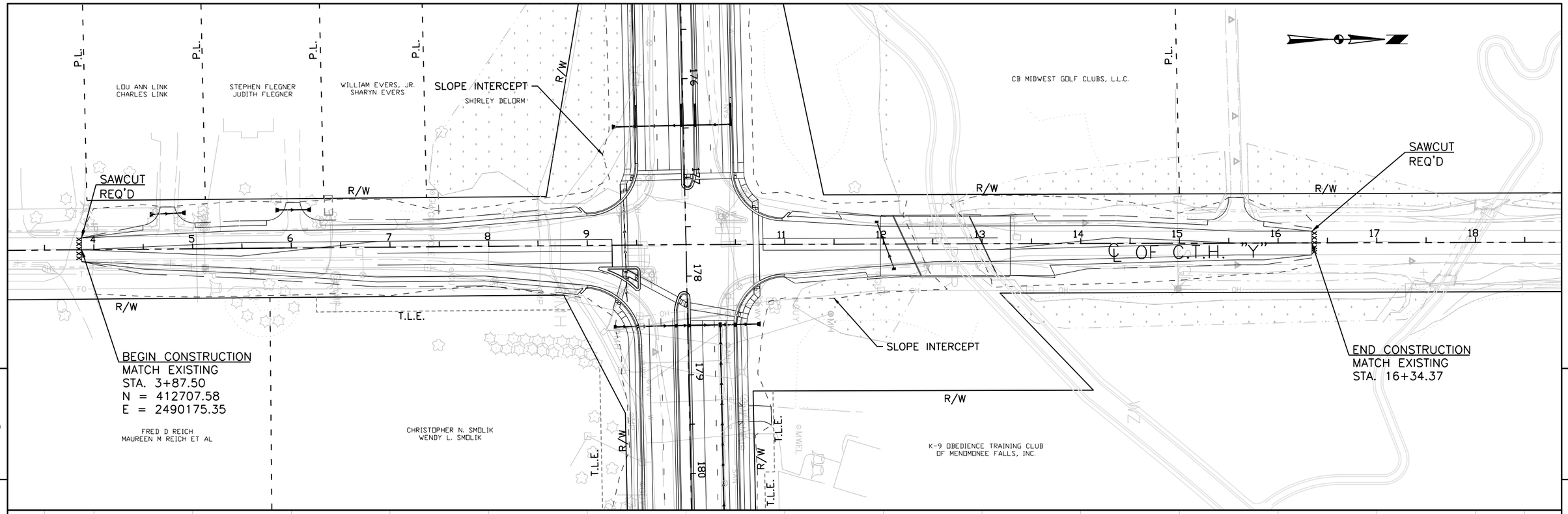
CP 17
REBAR W/ YELLOW CAP
STA. 240+98.84, 27.41' LT.
N = 413482.62
E = 2496498.41
ELEV = 849.25

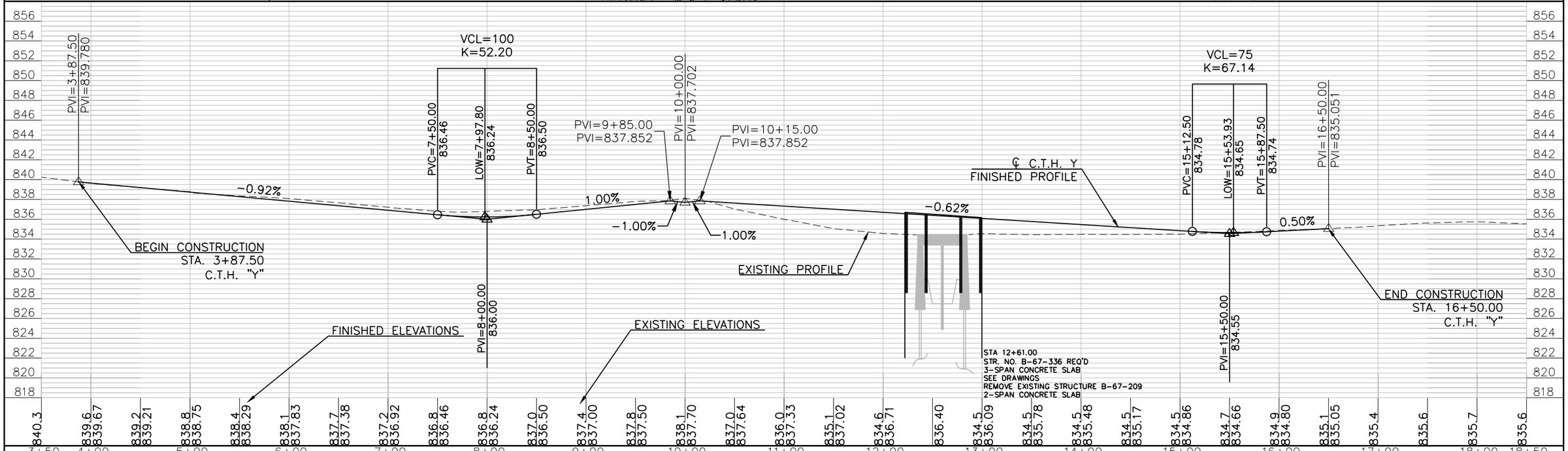
BENCH MARKS

NO.	LOCATION	DESCRIPTION	ELEV.
7	STA. 240+78.63, 48.0' LT.	COTTON SPINDLE (GEAR SPIKE) S/S P.P. NO. 06-14023	849.59

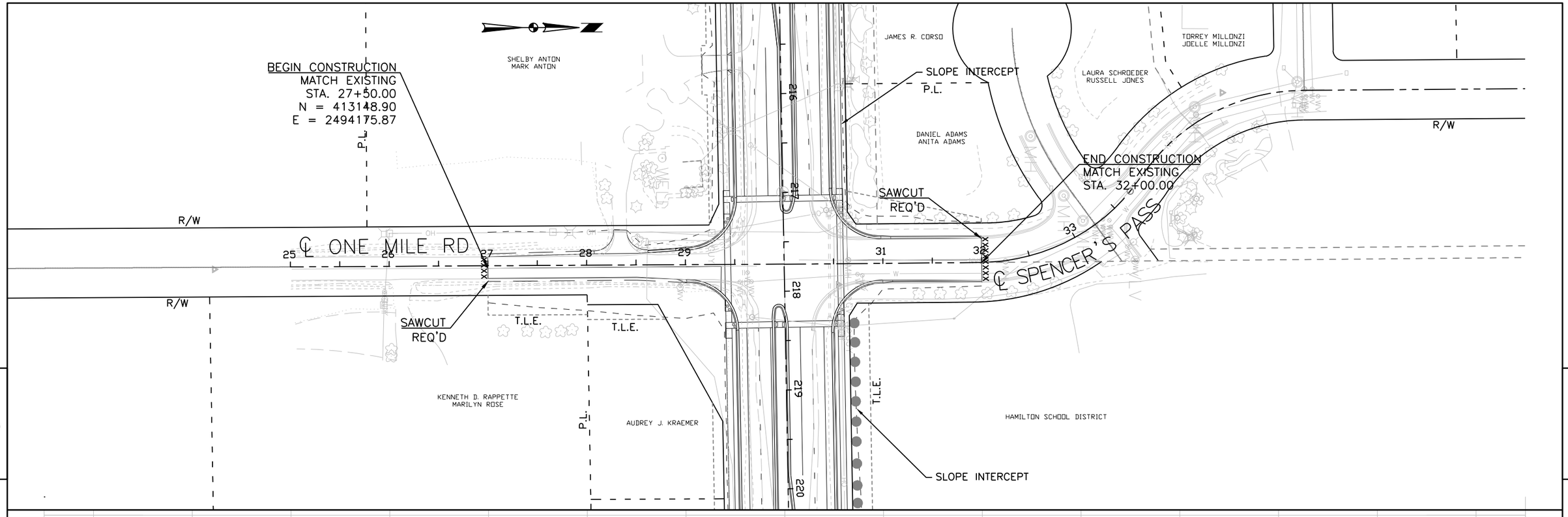


PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PLAN AND PROFILE: STA. 240+00 - STA. 247+00	SHEET 172	E



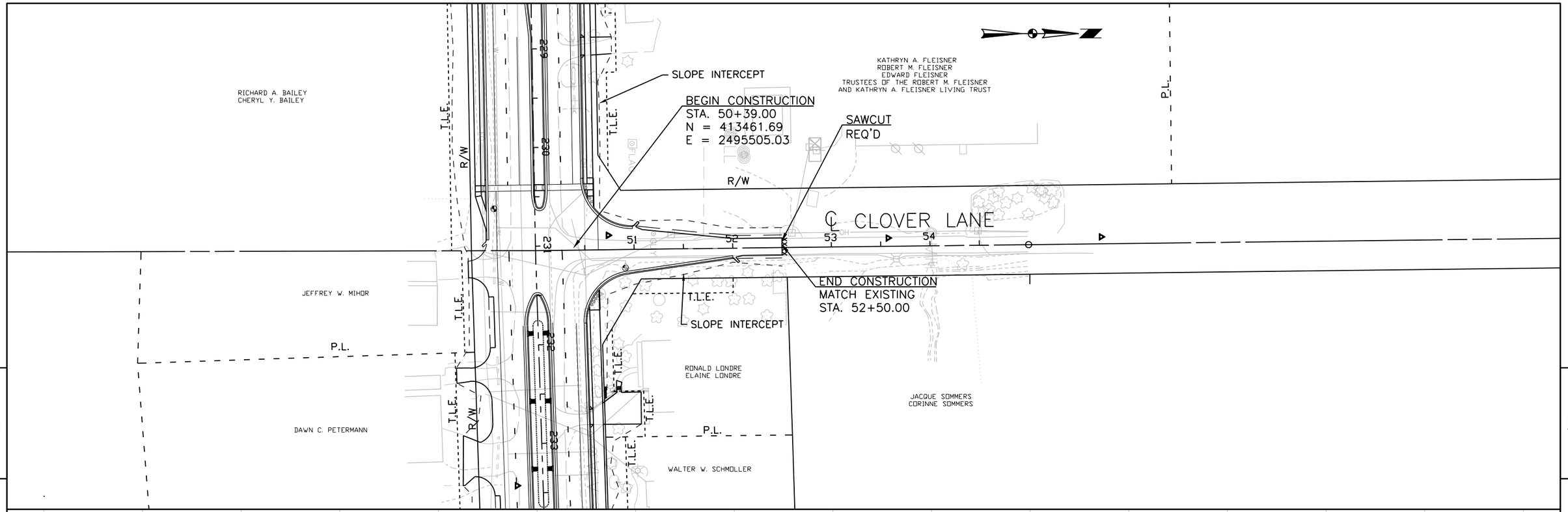


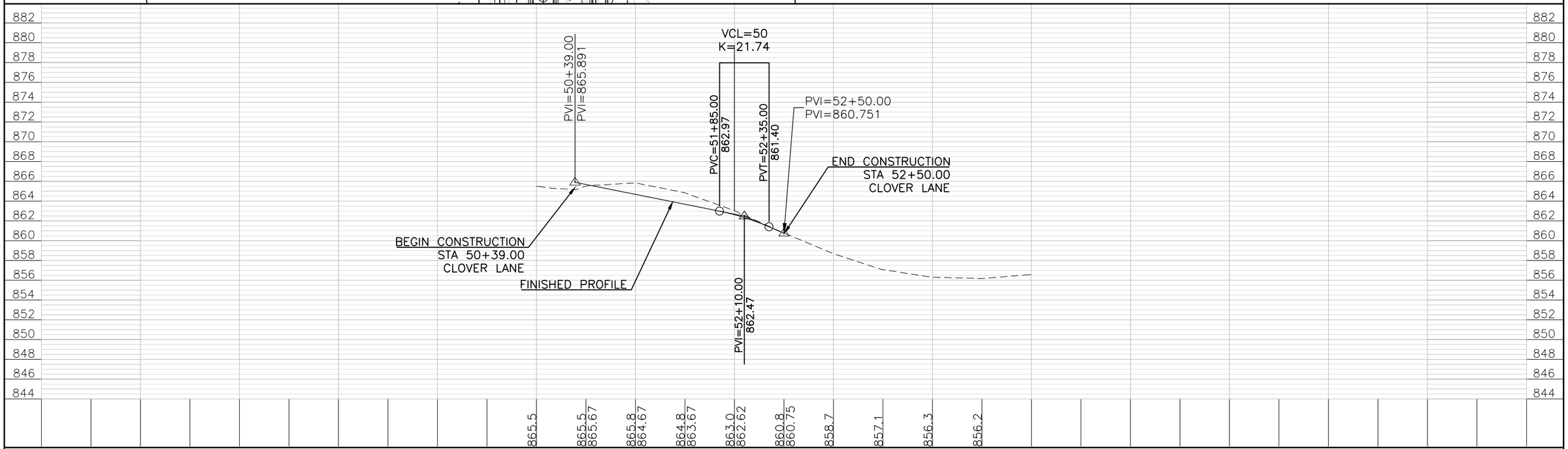
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PLAN AND PROFILE: STA. 3+50 – STA. 18+50 C.T.H. "Y"	SHEET 173 E



PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PLAN AND PROFILE: ONE MILE ROAD / SPENCER'S PASS	SHEET	E

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\SHEET ONE MILE PP.DWG PLOT DATE : 10/3/2012 6:20 AM PLOT BY : SOEHNER, JIM PLOT NAME : _____PLOT SCALE : 1" = 100'_XREF





PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	PLAN AND PROFILE: CLOVER LANE	SHEET 175

FILE NAME : N:\DPW\ENGINEER\PROJECTS\VV CTH Y TO MARCY\ACAD\PLANS\SHEET CLOVER PP.DWG PLOT DATE : 10/3/2012 6:25 AM PLOT BY : SOEHNER, JIM PLOT NAME : _____PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 44

Standard Detail Drawing List

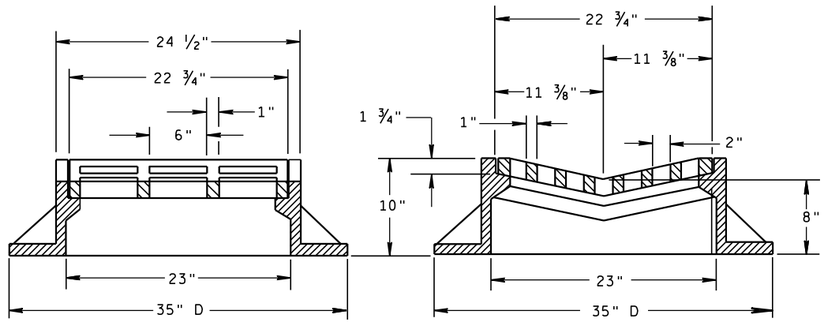
08A05-18B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-18C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-18D	INLET COVER, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08B10-01	MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-14A	CURB RAMPS TYPES 1 AND 1-A
08D05-14B	CURB RAMPS TYPES 2 AND 3
08D05-14C	CURB RAMPS TYPE 4A
08D05-14D	CURB RAMPS TYPE 4B
08D05-14E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D15-04A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08D15-04B	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D15-04C	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
09B02-07	CONDUIT
09B04-09	PULL BOX
09C02-06	CONCRETE BASES, TYPES 1, 2 & 5
09C03-03	TRANSFORMER/PEDESTAL BASES
09C06-05	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09D01-04	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-02	SIGNAL OR LIGHTING CONTROL CABINET
09E01-11A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-11B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-11C	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4
09E01-11D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-11G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-04	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-04	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
13B02-06	CONCRETE PAVEMENT APPROACH SLAB
14A02-01	TREE PLANTING DETAIL
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-02A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-02B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-02C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-02D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-01	MARKER POSTS, FLEXIBLE, FOR CULVERT END
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C04-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C08-15B	PAVEMENT MARKING (INTERSECTIONS)
15C08-15E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-15F	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C18-03	MEDIAN ISLAND MARKING
15C21-04	SIGNING AND MARKING FOR TWO LANE TO FOUR LANE DIVIDED TRANSITIONS
15D20-01	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

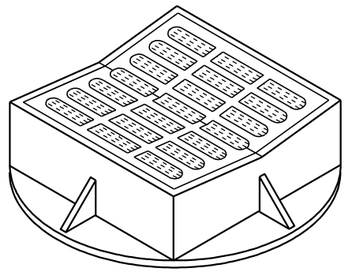
6

Standard Detail Drawing List

15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

6

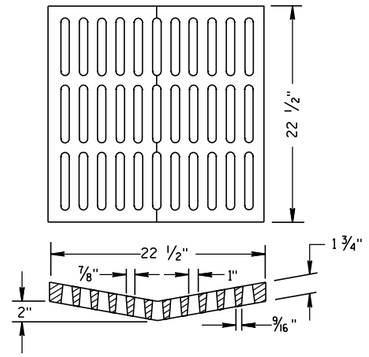




TYPE "B"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME..... 294 LBS.
GRATE..... 111 LBS.

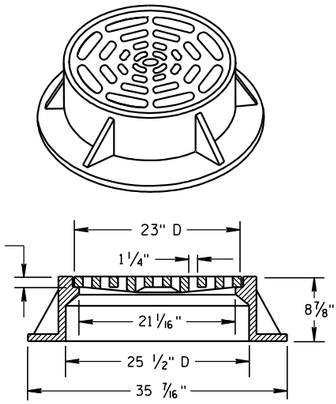


ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 134 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

(APPROXIMATE WEIGHT 259 LBS.)

FRAME..... 152 LBS.
GRATE..... 107 LBS.

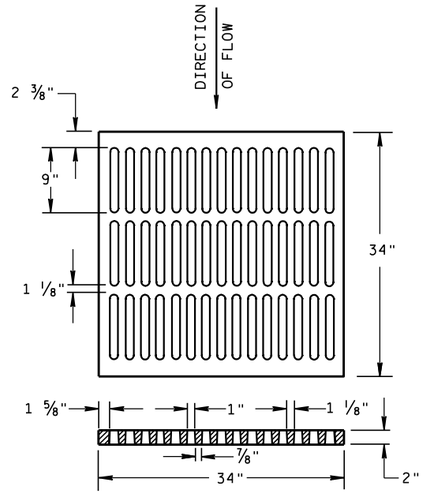
GENERAL NOTES

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

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

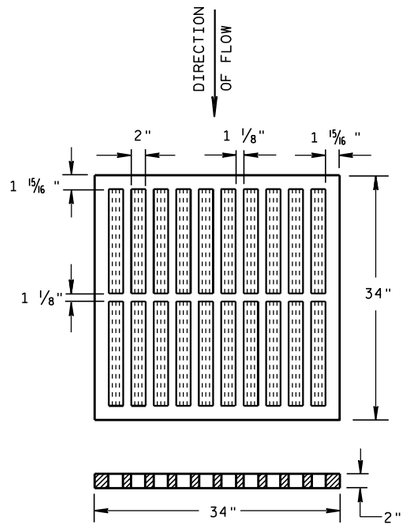


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

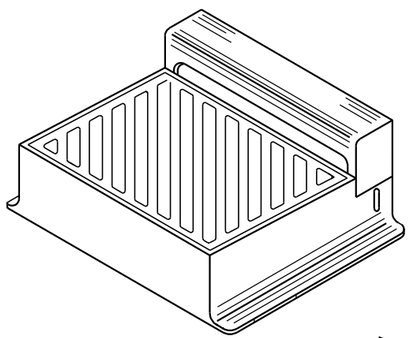


TYPE "MS"

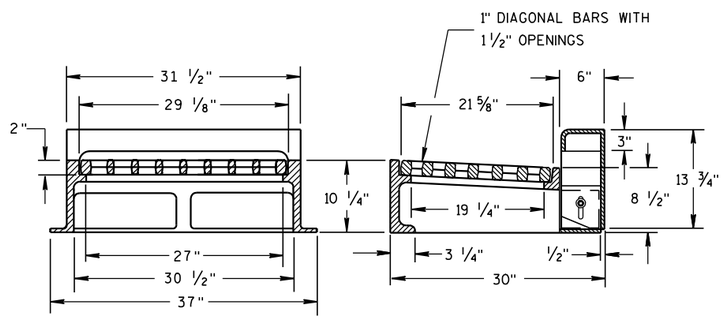
(APPROXIMATE GRATE WEIGHT 268 LBS.)

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

(APPROXIMATE WEIGHT 648 LBS.)

FRAME..... 355 LBS.
GRATE..... 156 LBS.
CURB BOX..... 137 LBS.

INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012 DATE

/S/ Jerry H. Zaas
ROADWAY STANDARDS ENGINEER

178

ENT

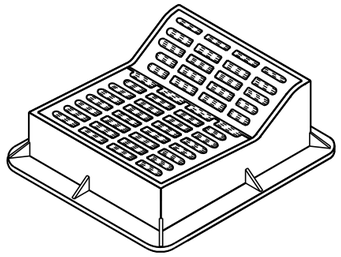
FHWA

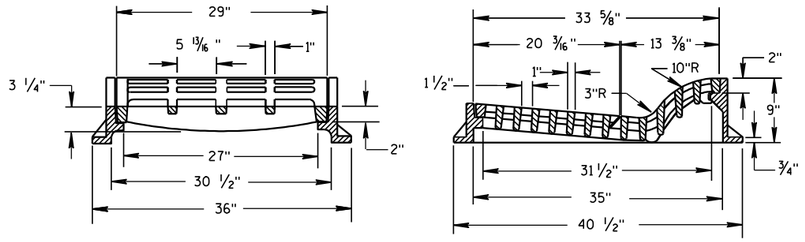
6

S.D.D. 8 A 5-18b

6

S.D.D. 8 A 5-18b



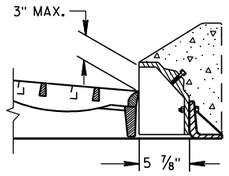


TYPE "F"

(APPROXIMATE WEIGHT 644 LBS.)

FRAME.....302 LBS.
GRATE.....160 LBS.
GRATE.....182 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

(APPROXIMATE WEIGHT CURB BOX 68 LBS.)

USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

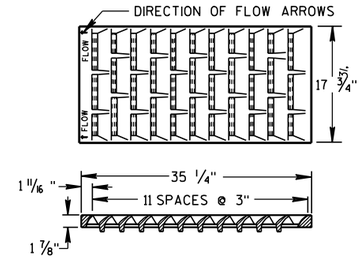
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

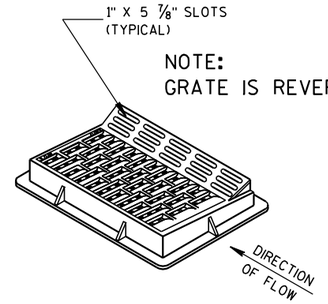
GENERAL NOTES

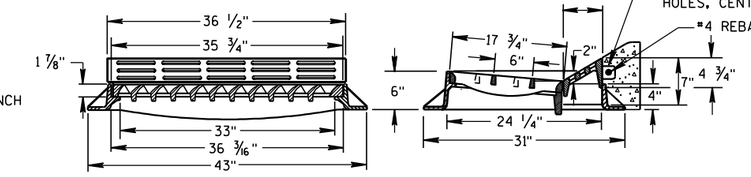
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





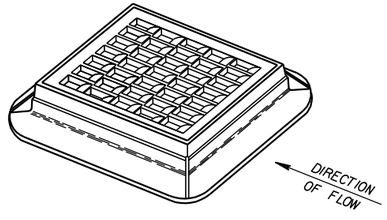


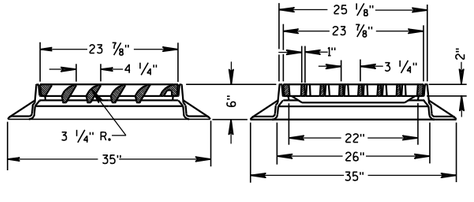
TYPE "HM"

(APPROXIMATE WEIGHT 414 LBS.)
FRAME..... 181 LBS.
GRATE..... 159 LBS.
CURB BOX..... 74 LBS.

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

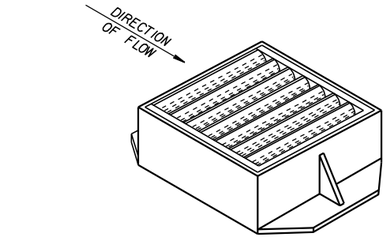


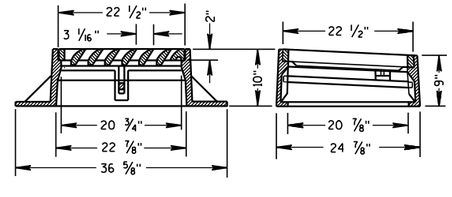


TYPE "S"

(APPROXIMATE WEIGHT 333 LBS.)

FRAME.....164 LBS.
GRATE..... 169 LBS.

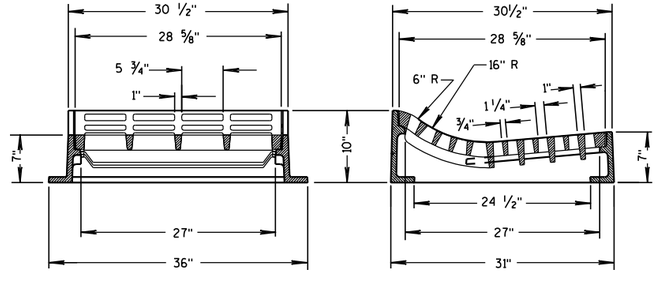




TYPE "V"

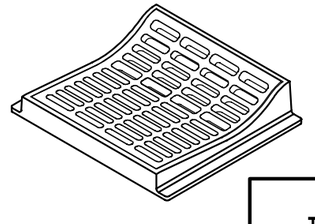
(APPROXIMATE WEIGHT 410 LBS.)

FRAME..... 269 LBS.
GRATE..... 136 LBS.
SAFETY BAR..... 5 LBS.



TYPE "T"

(APPROXIMATE WEIGHT 530 LBS.)
FRAME.....270 LBS.
GRATE.....260 LBS.
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

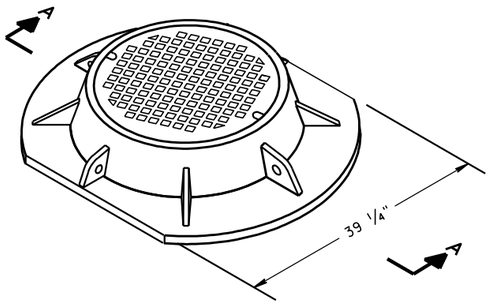
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

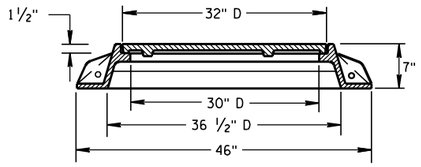
6

S.D.D. 8 A 5-18c

6

S.D.D. 8 A 5-18c



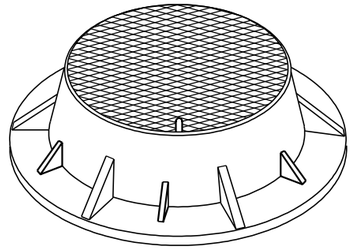


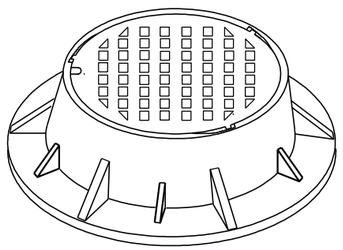
SECTION A-A

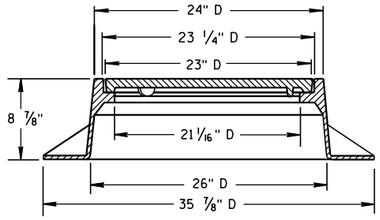
TYPE "K"

(APPROXIMATE WEIGHT 439 LBS.)

FRAME.....216 LBS.
LID.....223 LBS.



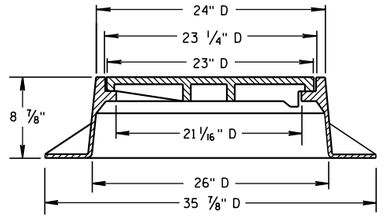




TYPE "J"

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....152 LBS.
LID.....115 LBS.



TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....158 LBS.
LID.....109 LBS.

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

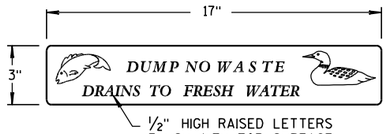
GENERAL NOTES

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.

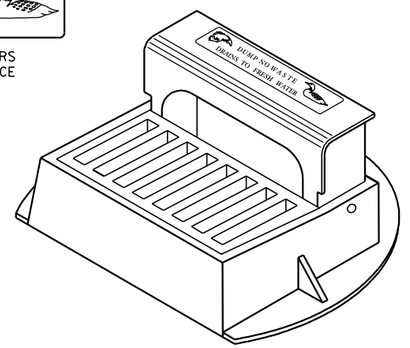
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

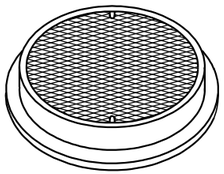
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

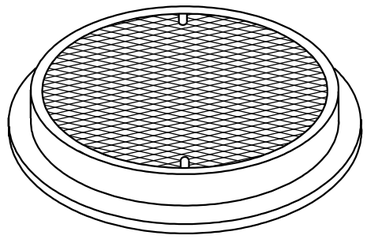
THE ACTUAL WEIGHT OF COVERS MAY VARY WITH 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

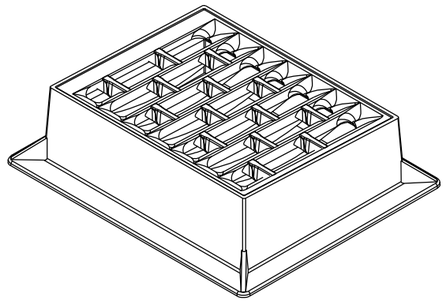


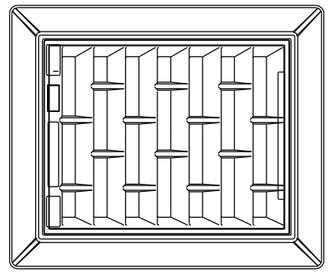
LOGO DETAIL

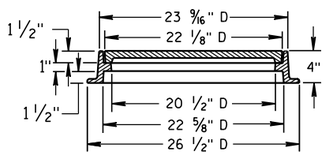








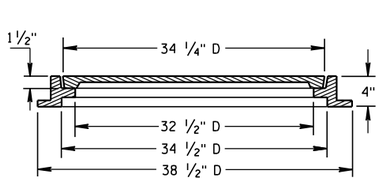




TYPE "L"

(APPROXIMATE WEIGHT 158 LBS.)

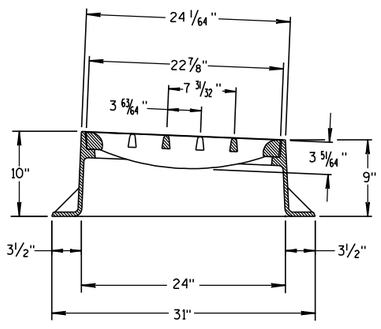
FRAME.....81 LBS.
LID.....77 LBS.

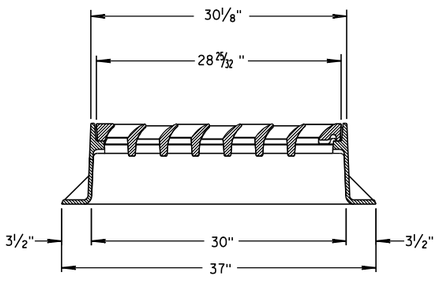


TYPE "M"

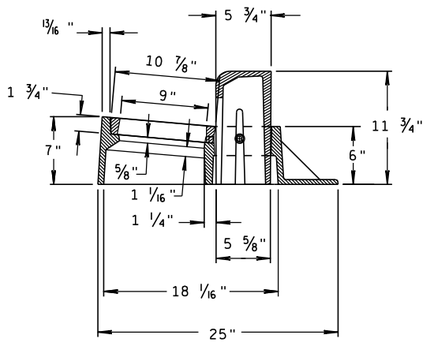
(APPROXIMATE WEIGHT 377 LBS.)

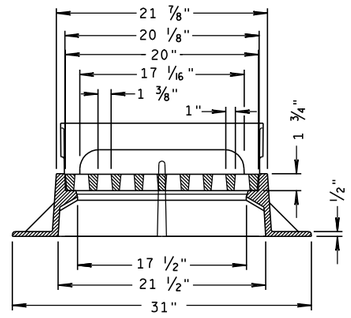
FRAME..... 125 LBS.
LID..... 252 LBS.





INLET COVER TYPE "BW"





INLET COVER TYPE "Z"

(APPROXIMATE WEIGHT 344 LBS.)

FRAME.....206 LBS.
GRATE..... 46 LBS.
CURB BOX..... 92 LBS.

INLET COVERS, TYPE BW, Z
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

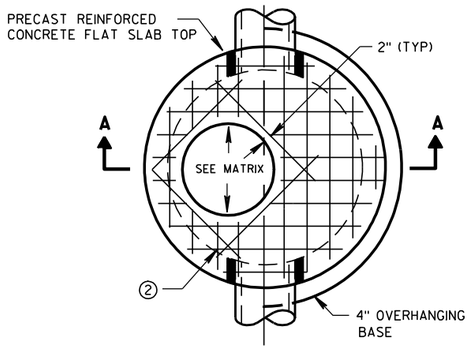
NT

6

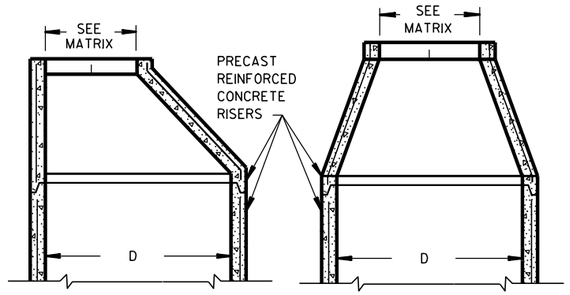
S.D.D. 8 A 5-18d

6

S.D.D. 8 A 5-18d

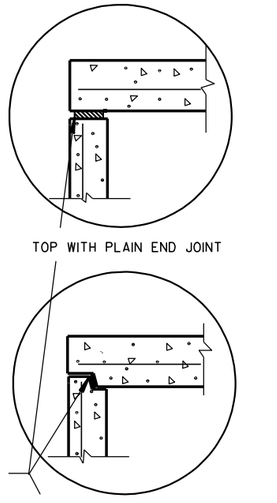


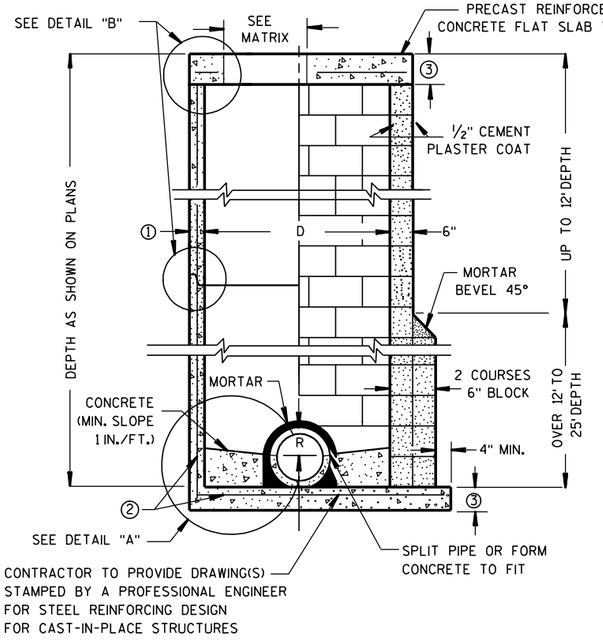
PLAN VIEW CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

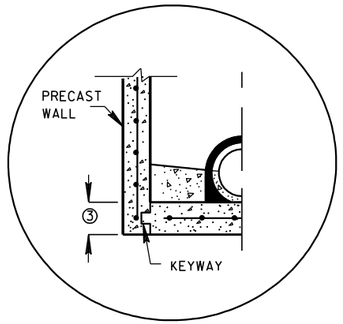
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



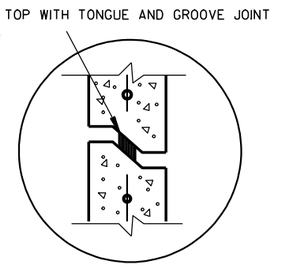


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

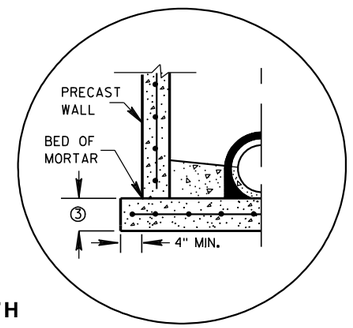
CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②



PRECAST REINFORCED
CONCRETE WITH INTEGRAL BASE OPTION

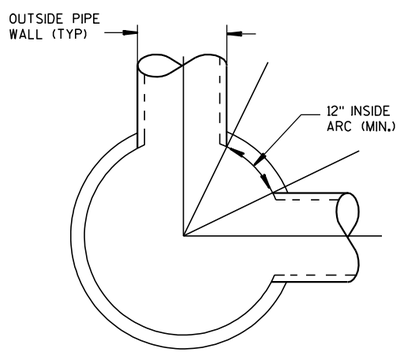


DETAIL "B"



SEPERATE 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 GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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 SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

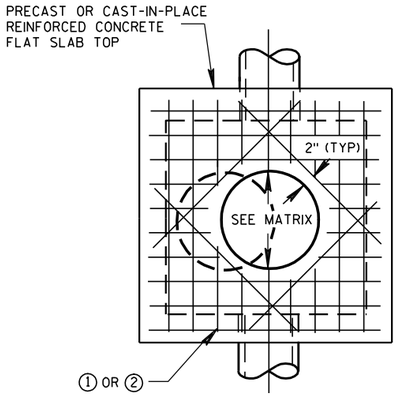
6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

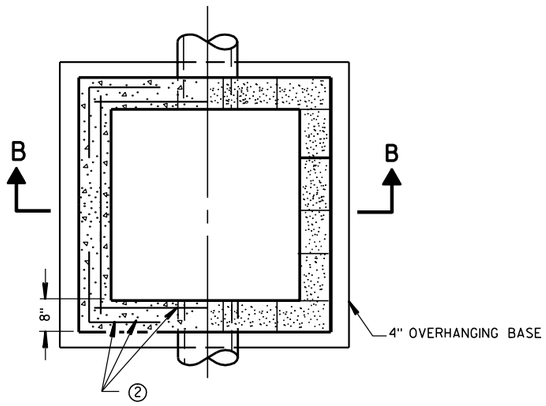
FHWA

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

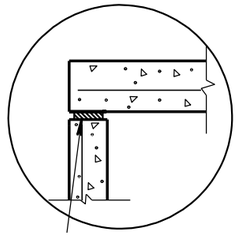
6
S.D.D. 8 B 9-1



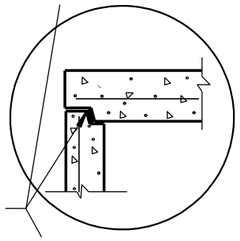
PLAN VIEW
CIRCULAR OPENING



SECTION A-A
PLAN VIEW

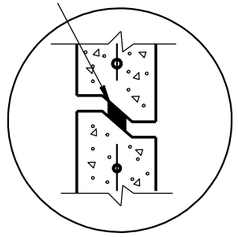


TOP WITH PLAIN END JOINT



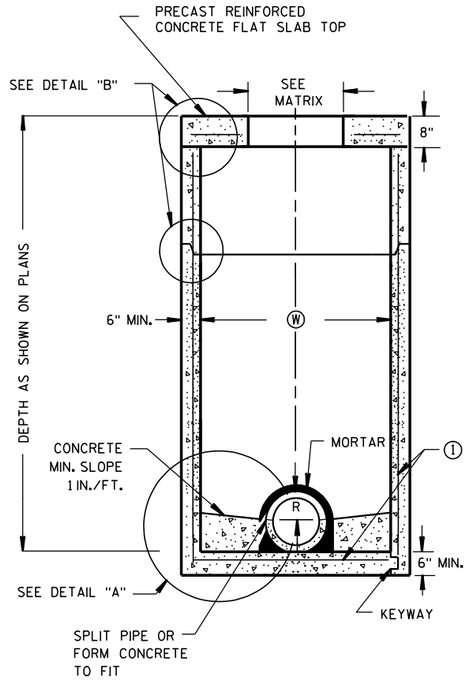
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT

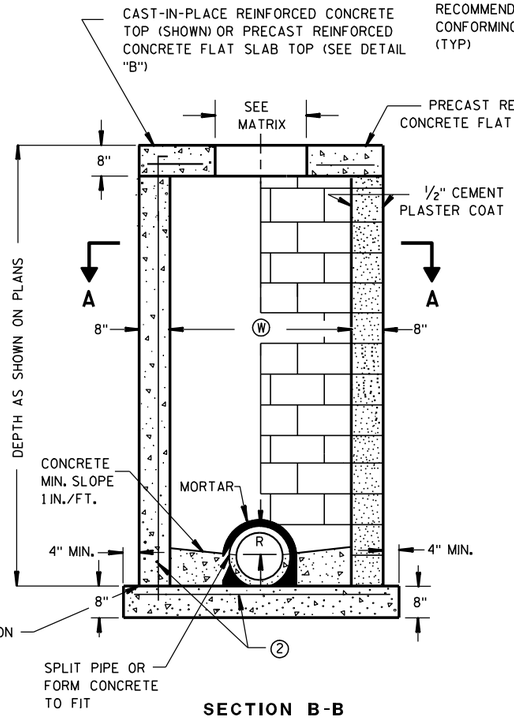


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

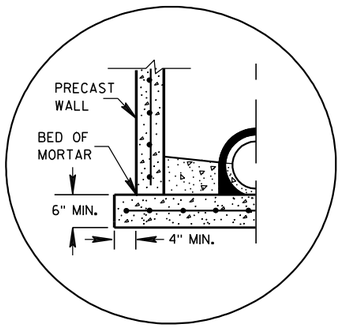


SECTION B-B

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

CAST-IN-PLACE REINFORCED CONCRETE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

GENERAL NOTES

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DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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.

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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 SEPERATE 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.

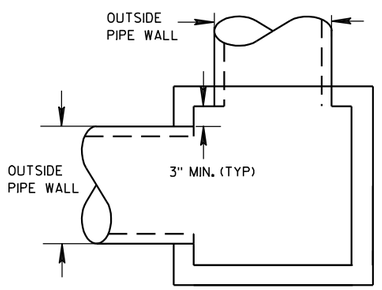
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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 Ⓦ (IN)	LENGTH Ⓛ (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
6/5/2012
DATE

/S/ Jerry H. Zaas
ROADWAY STANDARDS ENGINEER

FHWA

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S.D.D. 8 B 10-1

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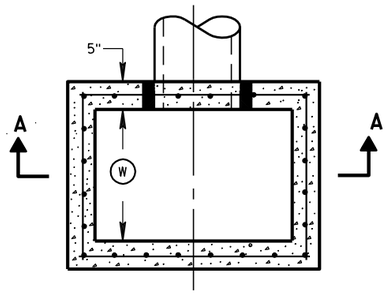
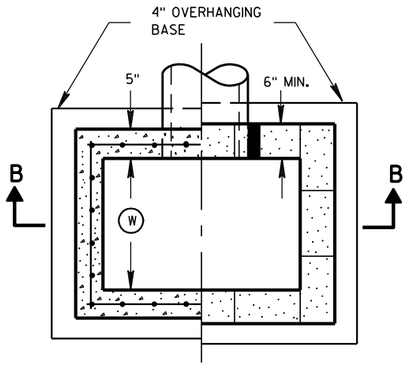
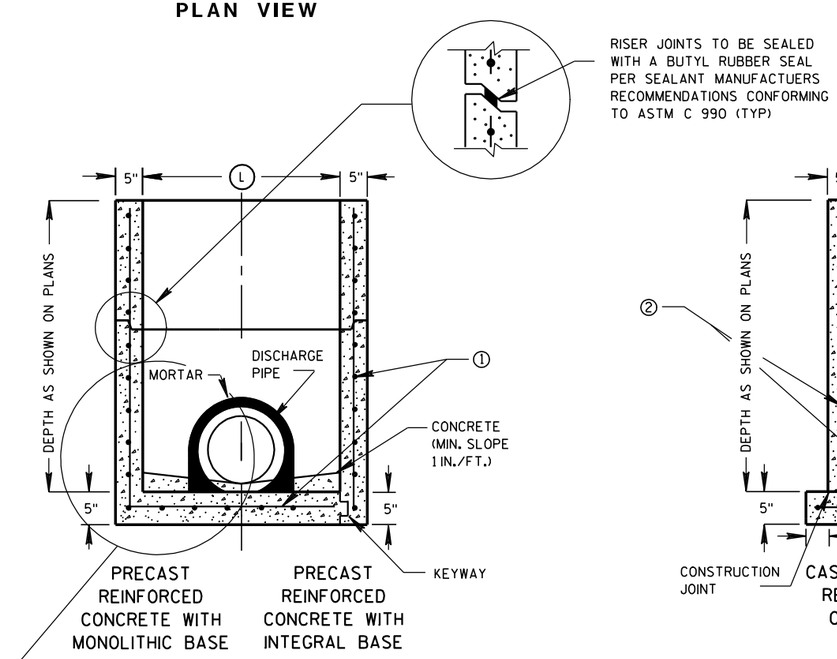


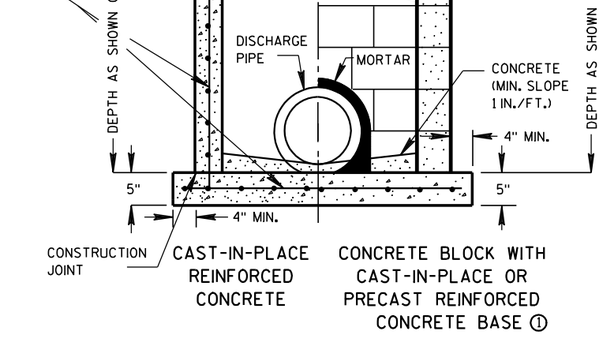
PLAN VIEW



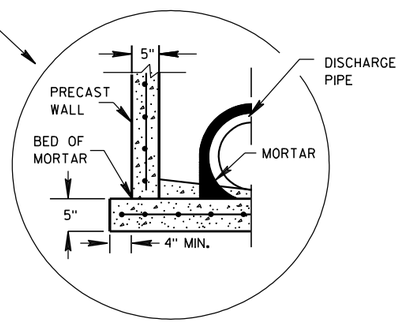
PLAN VIEW



SECTION A-A



SECTION B-B



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

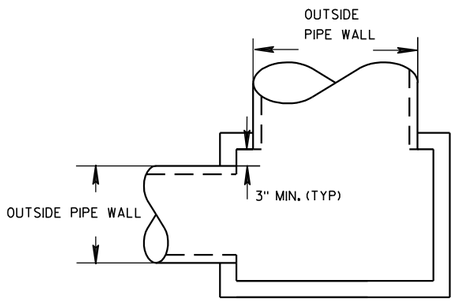
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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6/5/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS D ENGINEER
FHWA

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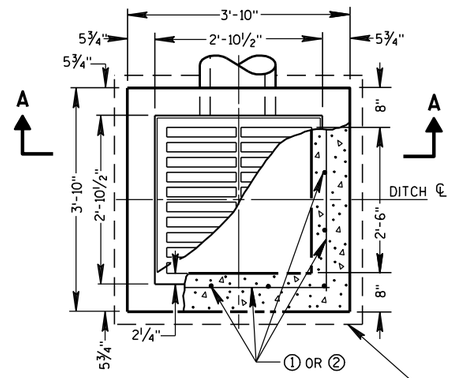
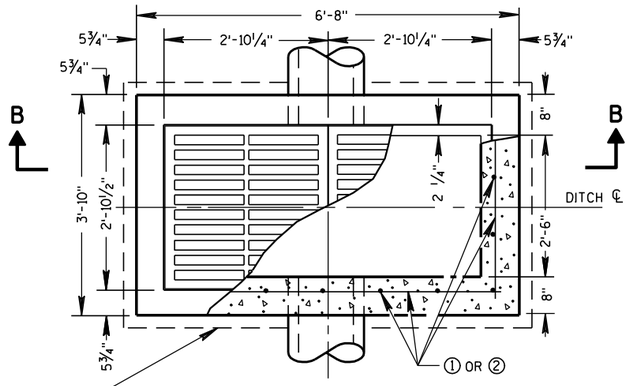
S.D.D. 8 C 7-1

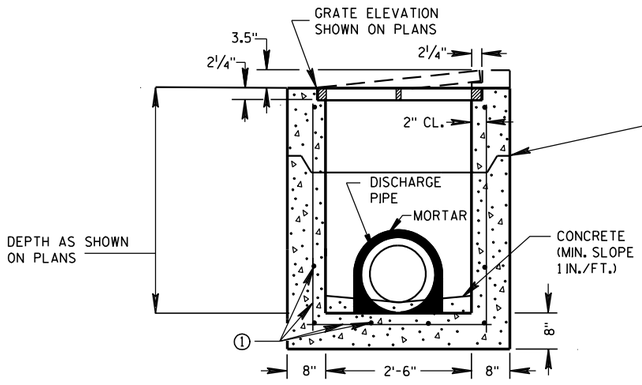


PLAN VIEW

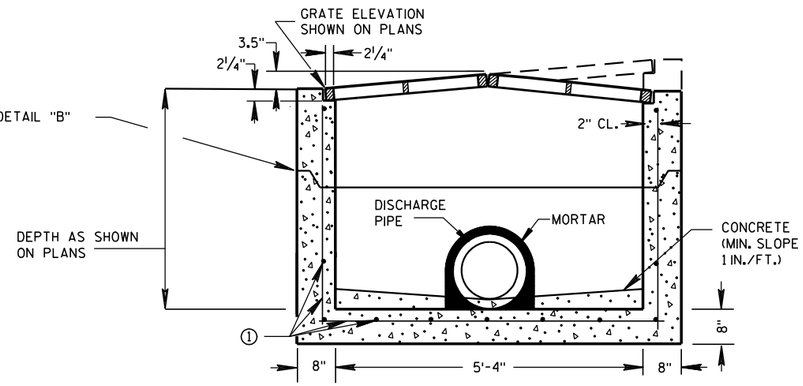


PLAN VIEW

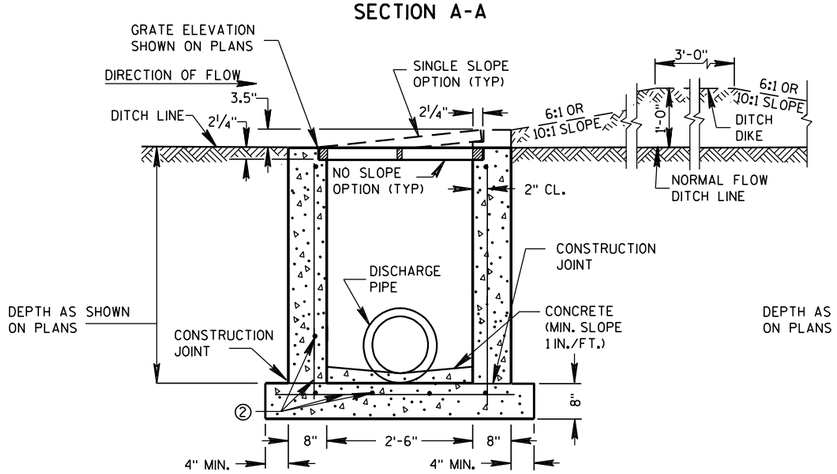
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



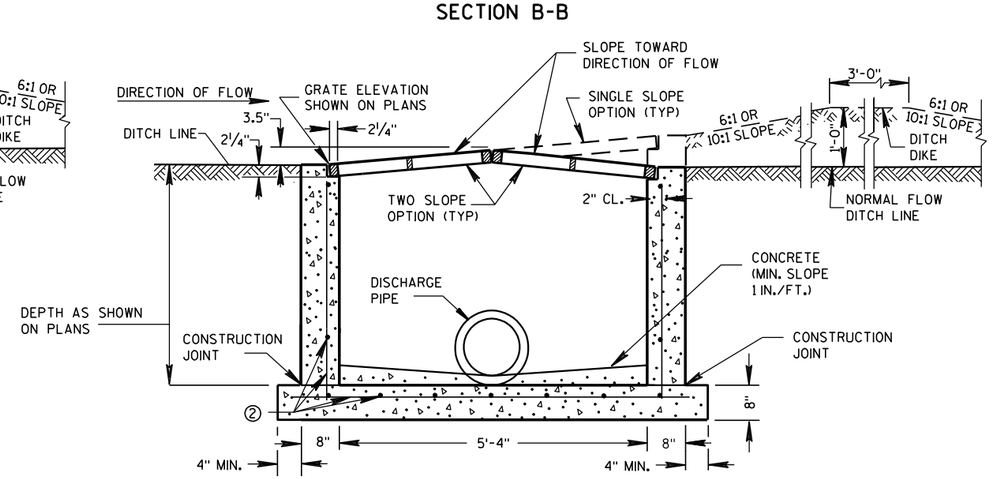
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

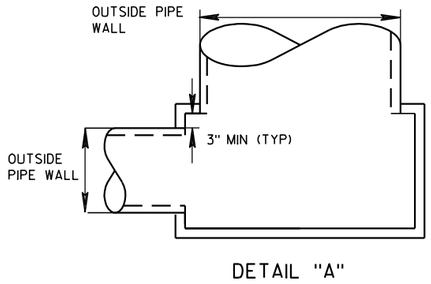
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

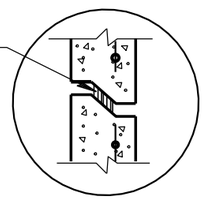
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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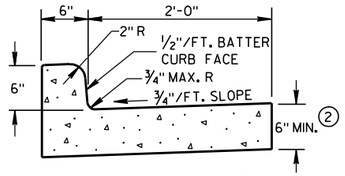
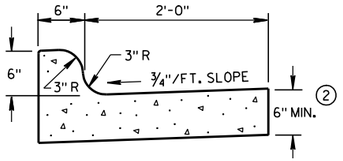
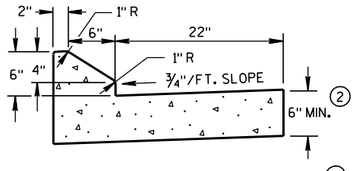
S.D.D. 8 C 8-1



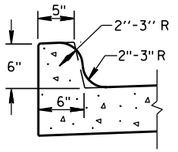
TYPES A & D (1)



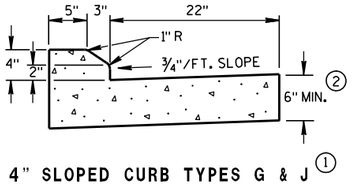
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

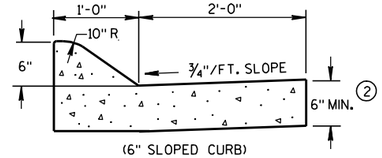


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

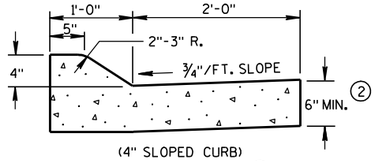


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

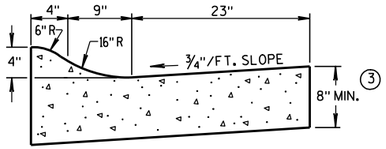


(6" SLOPED CURB)



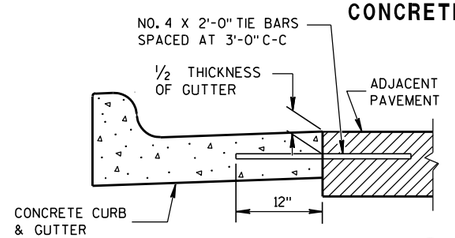
(4" SLOPED CURB)

TYPES A & D (1)

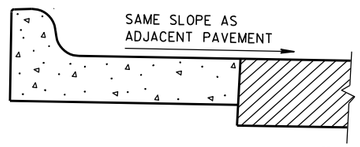


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)



REVERSE SLOPE GUTTER (5)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

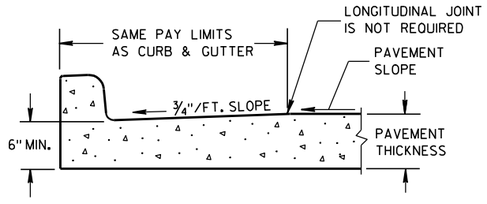
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(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.

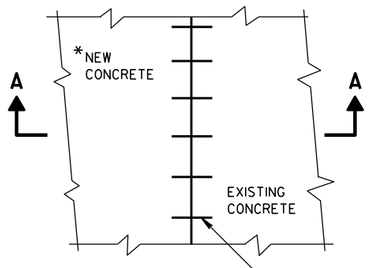
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

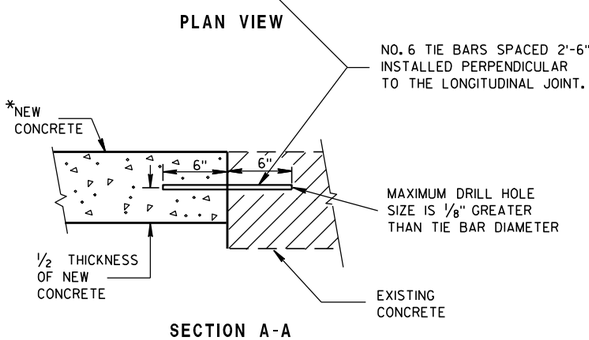


PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



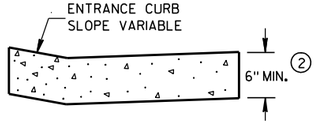
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

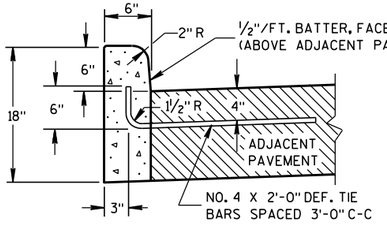


SECTION A-A

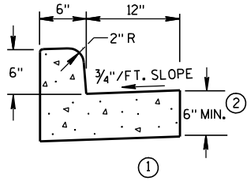
TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

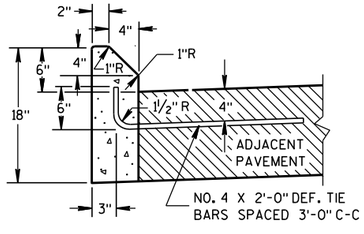


(1) TYPES A & D

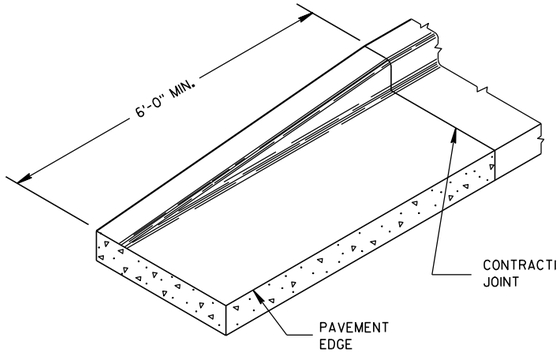


(1) TYPES A & D

CONCRETE CURB & GUTTER 18"



(1) TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 DATE
/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 8 D 1-17

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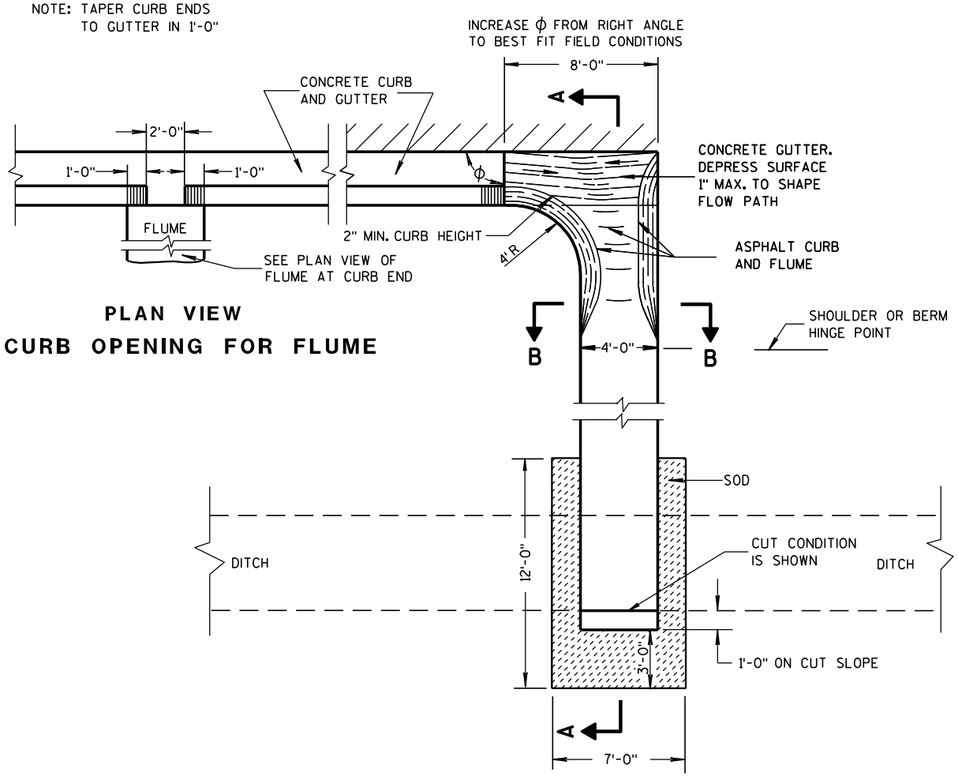
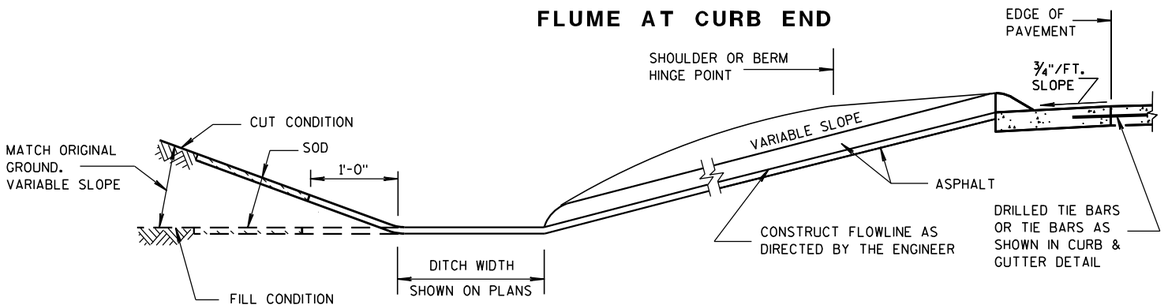
S.D.D. 8 D 1-17

ASPHALTIC FLUME

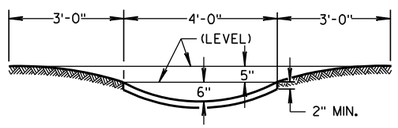


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

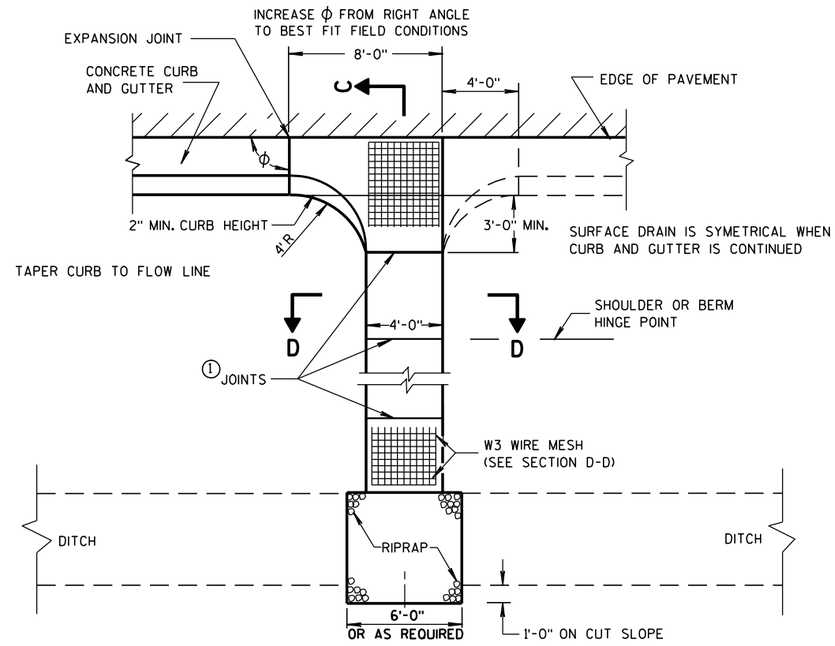
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

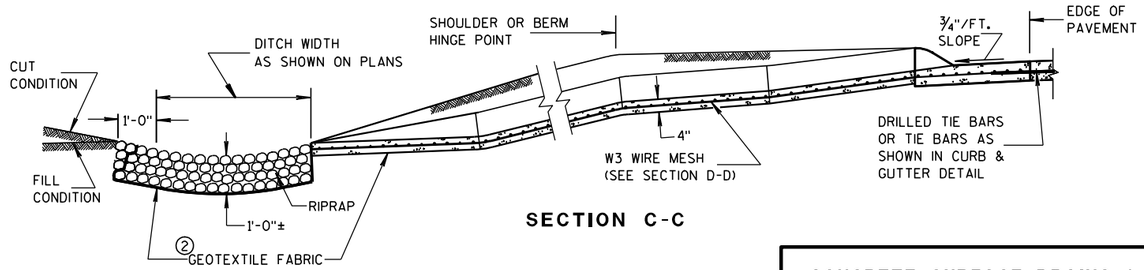
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

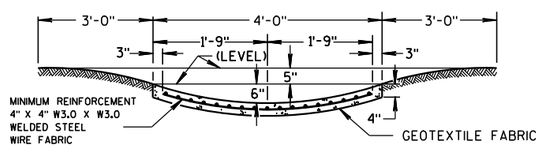
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

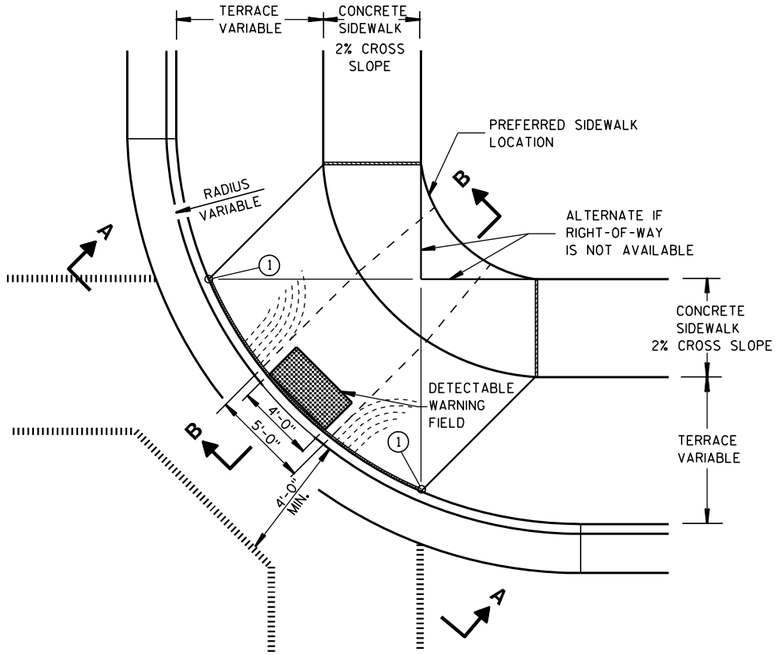
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 D 4-5

6

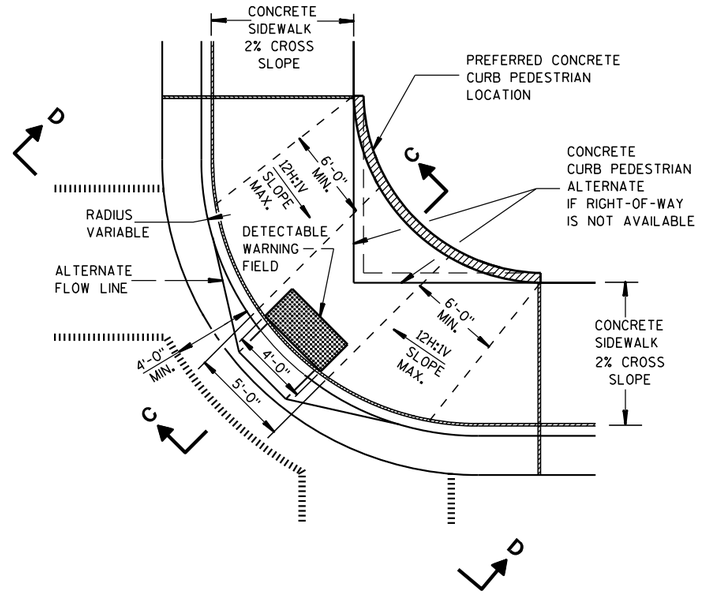
S.D.D. 8 D 4-5



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

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

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

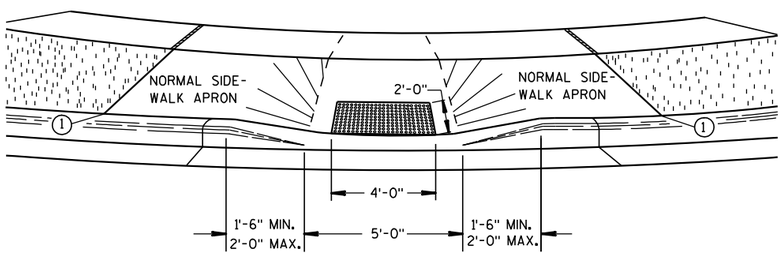
SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

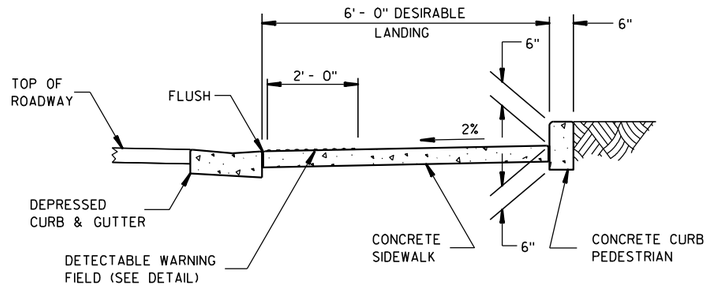
(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

LEGEND

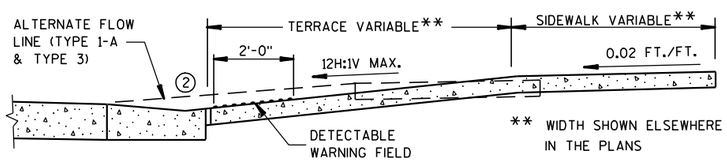
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



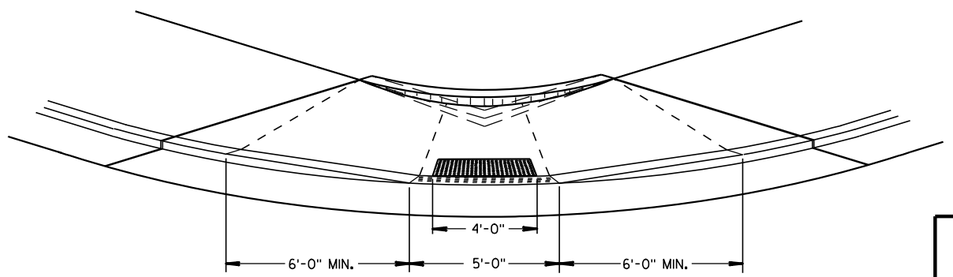
VIEW A-A



SECTION C-C



SECTION B-B

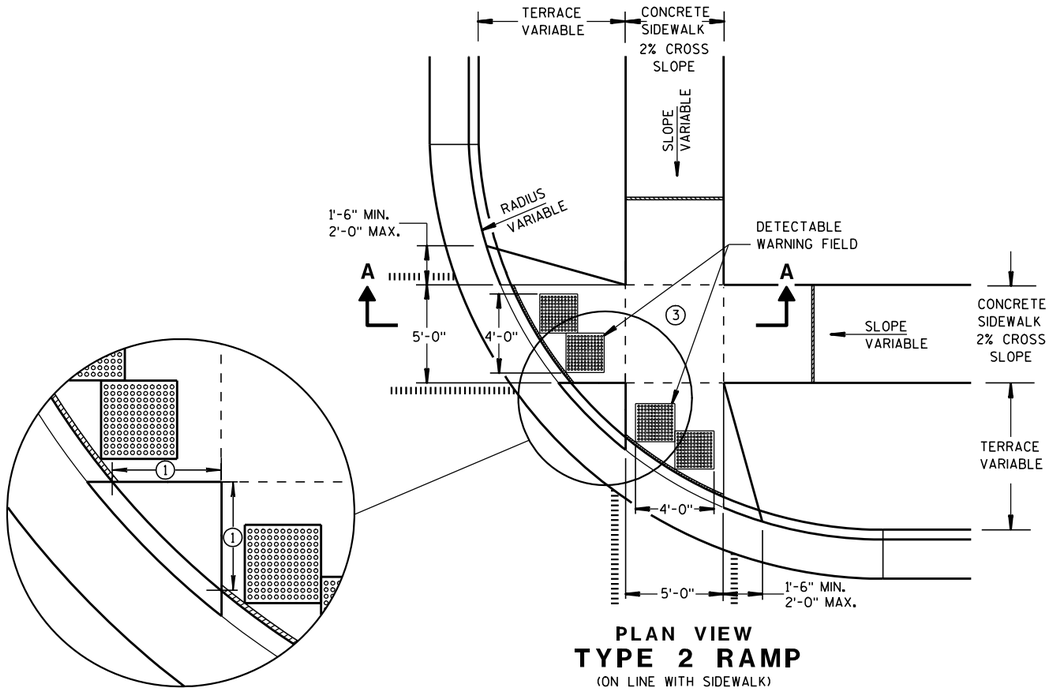


VIEW D-D

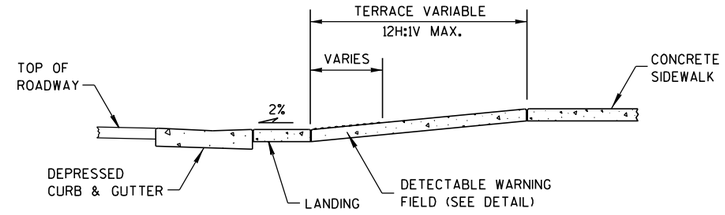
CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

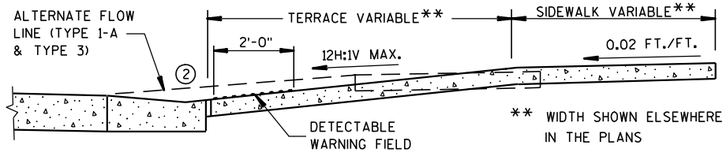
6
S.D.D. 8 D 5-14a



PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

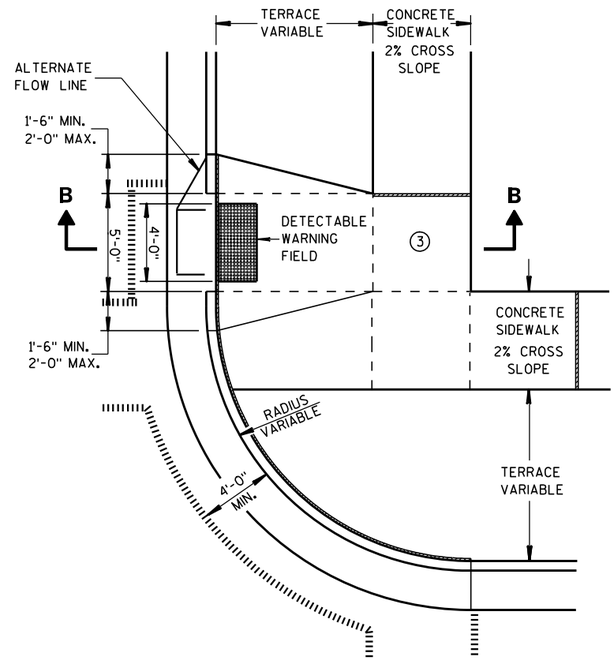
(1) WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

(3) PROVIDE LANDING AT TOP OF RAMP WITH NO MORE THAN 2% SLOPE IN ANY DIRECTION.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

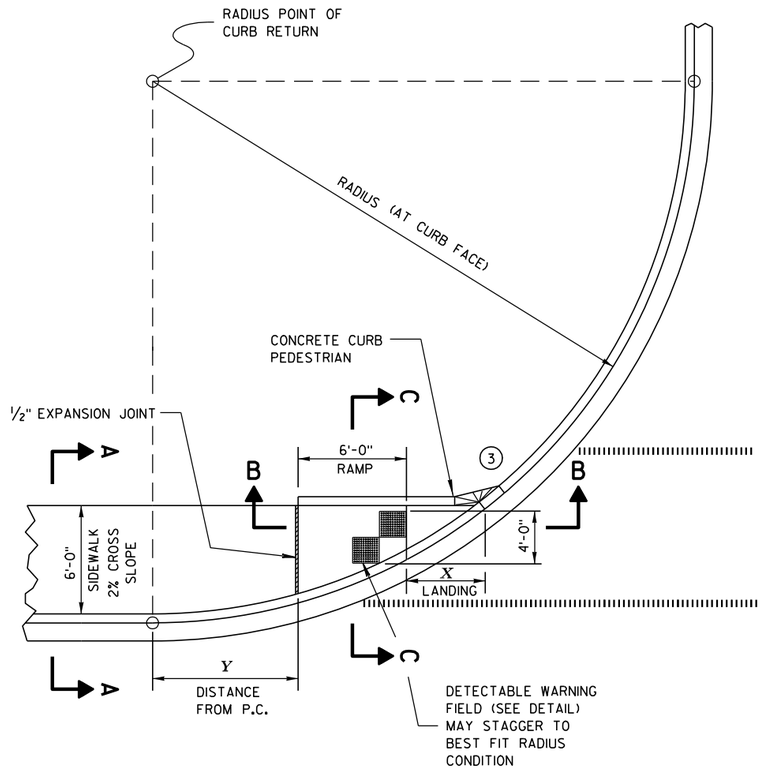


PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

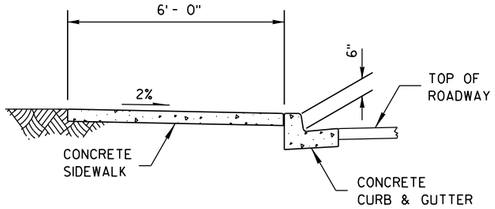
6
S.D.D. 8 D 5-14b



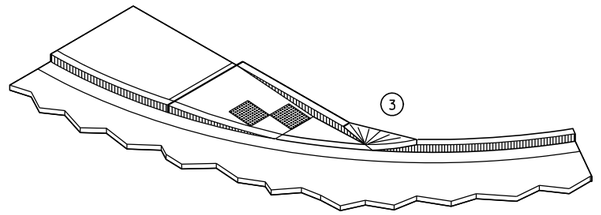
CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

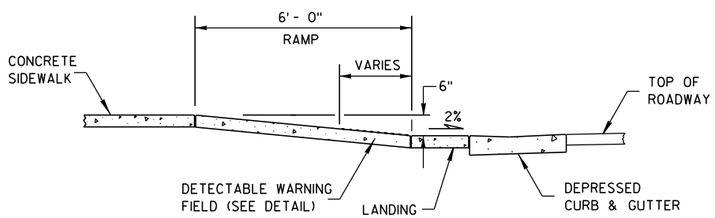
INTERMEDIATE RADII CAN BE INTERPOLATED



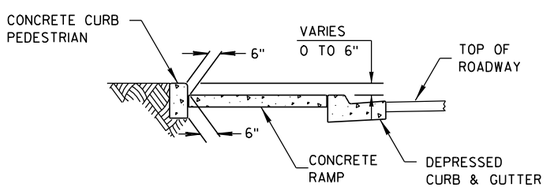
SECTION A-A



ISOMETRIC VIEW



SECTION B-B



SECTION C-C

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

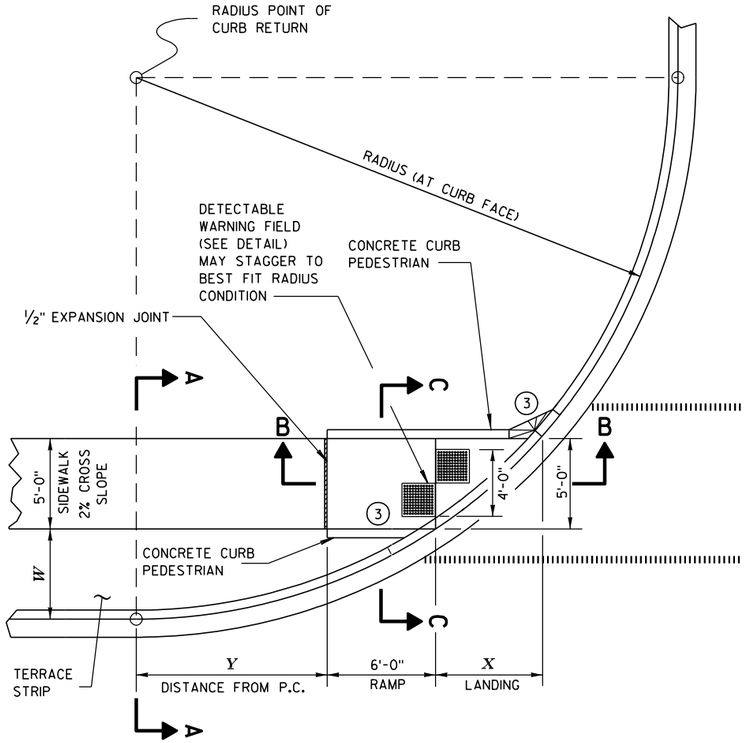
LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 8 D 5-14c



CURB RAMP TYPE 4B
PLAN VIEW

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

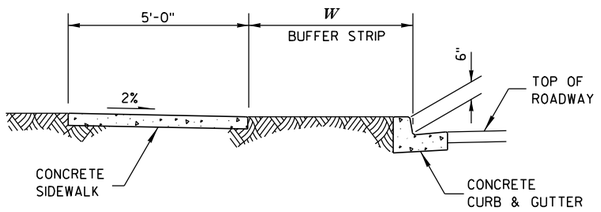
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

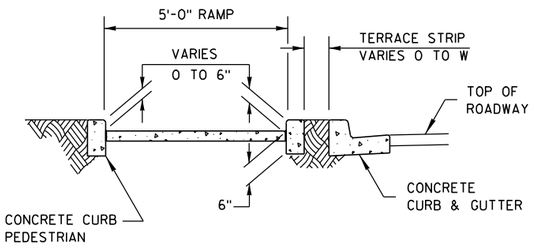
(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

RADIUS (AT CURB FACE)	W = 3'- 0"		W = 4'- 0"		W = 5'- 0"		W = 6'- 0"		W = 7'- 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"
70 FEET	12'-2¾"	14'-3¼"	11'-¼"	17'-4"	10'-1"	19'-11¾"	9'-3¾"	22'-4¼"	8'-8¼"	24'-6¼"
80 FEET	13'-2"	15'-8½"	11'-10½"	18'-11¾"	10'-10¾"	21'-10"	10'-1"	24'-4¾"	9'-5"	26'-8¾"
90 FEET	14'- ½"	17'-½"	12'-8¼"	20'-6½"	11'-7¾"	23'-7"	10'-9¾"	26'-3¾"	10'-1¼"	28'-9½"
100 FEET	14'-10½"	18'-3¾"	13'-5½"	22'-0"	12'-4¼"	25'-2¾"	11'-5¾"	28'-1½"	10'-9"	30'-9"

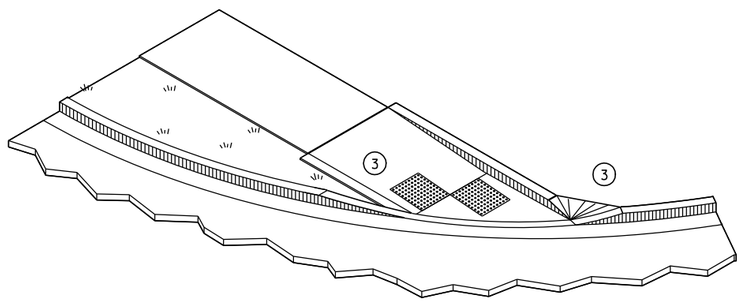
INTERMEDIATE RADII CAN BE INTERPOLATED



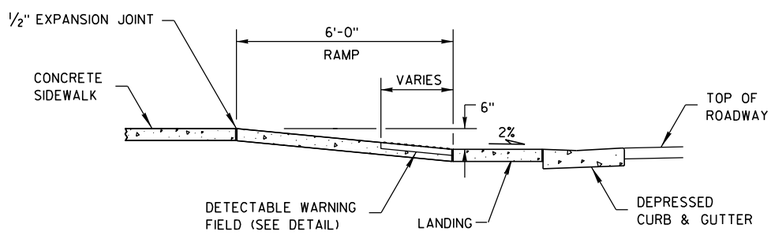
SECTION A-A



SECTION C-C



ISOMETRIC VIEW



SECTION B-B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

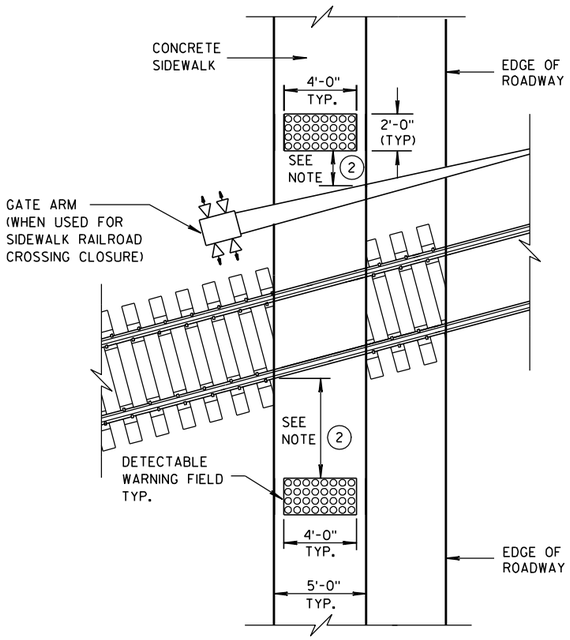
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4B

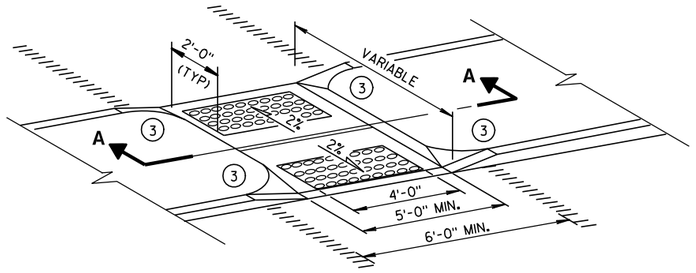
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

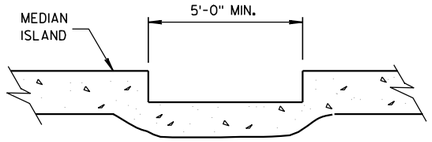
S.D.D. 8 D 5-14d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



SECTION A-A

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

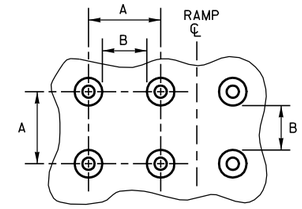
(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

LEGEND

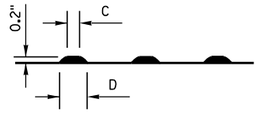
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



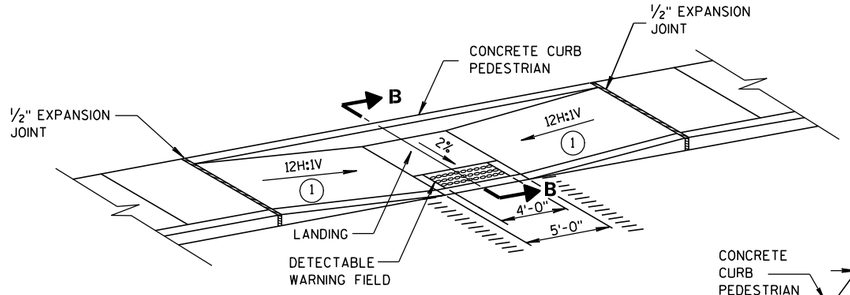
PLAN VIEW

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

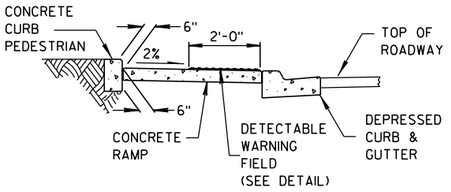
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

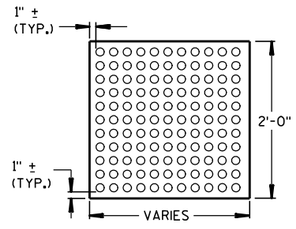


MID-BLOCK CROSSING
TYPE 7A



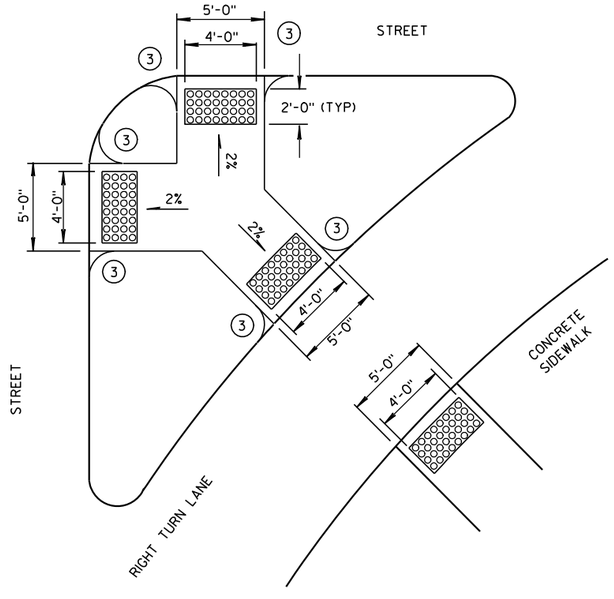
SECTION B-B

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

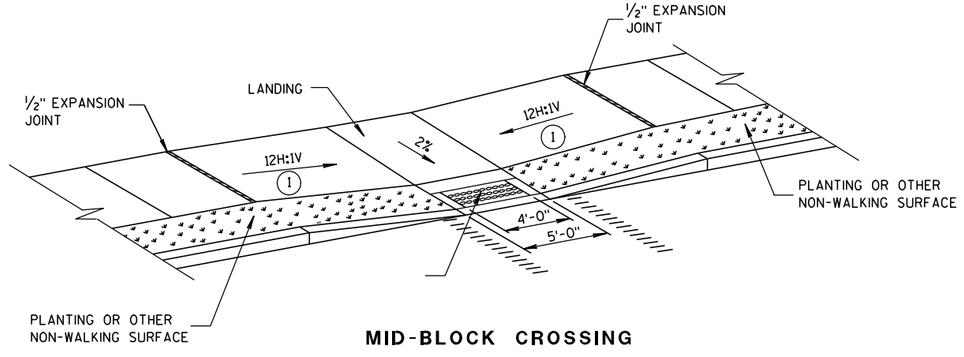


PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2-9-10 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 D 5-14e

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) UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

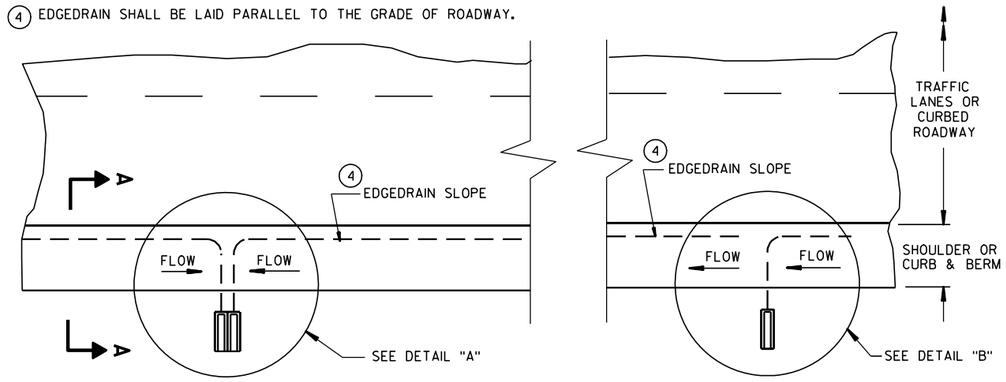
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.

(2) MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

(3) EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.

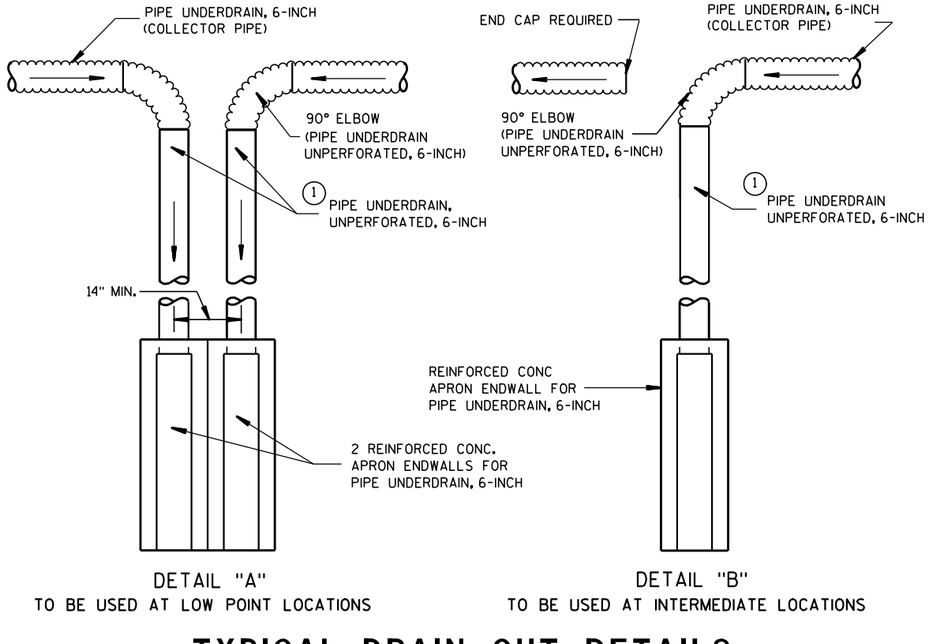
(4) EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



PLAN VIEW

ROADWAY WITH SHOULDERS OR CURBS

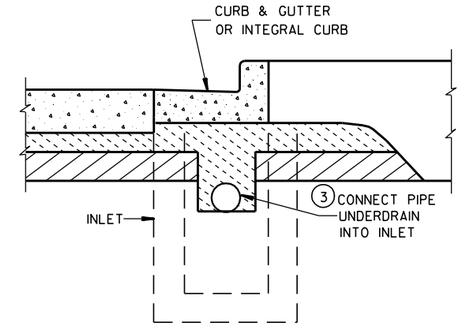
(EDGEDRAIN OUTLETS TO ROADSIDE) (2)



DETAIL "A"
TO BE USED AT LOW POINT LOCATIONS

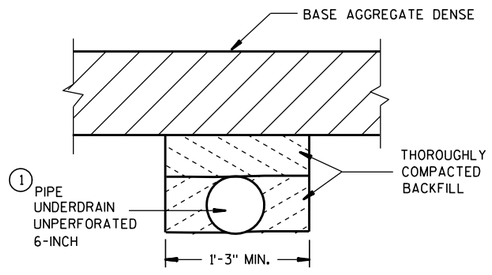
DETAIL "B"
TO BE USED AT INTERMEDIATE LOCATIONS

TYPICAL DRAIN OUT DETAILS



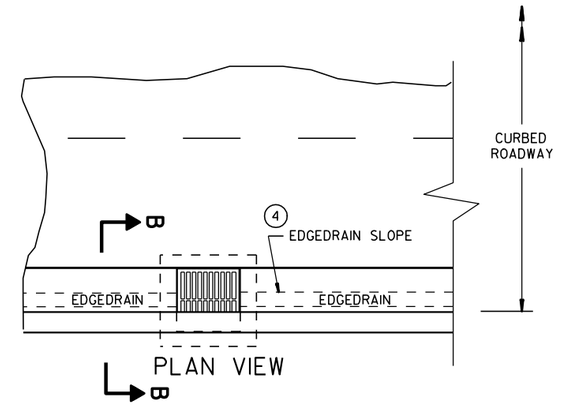
SECTION B-B

URBAN CROSS SECTION



SECTION C-C

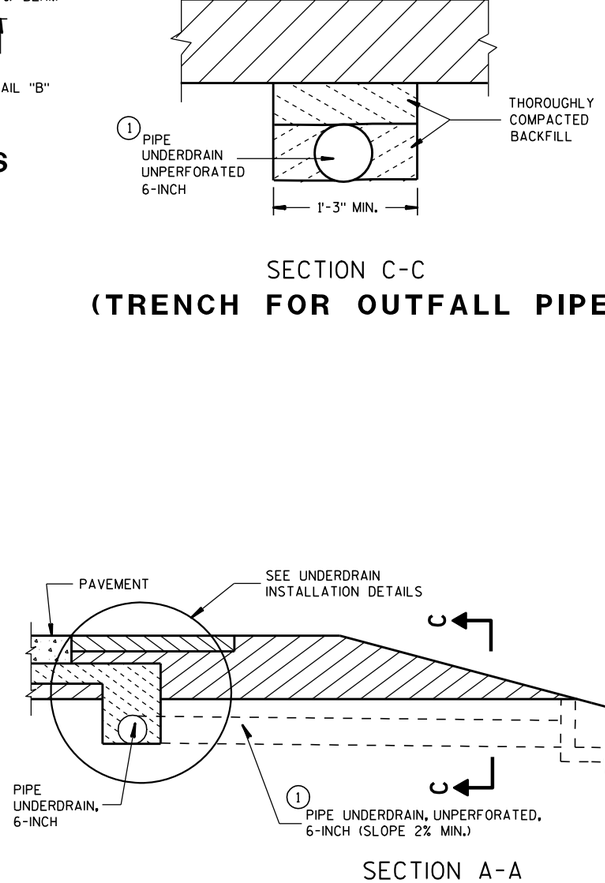
(TRENCH FOR OUTFALL PIPE)



PLAN VIEW

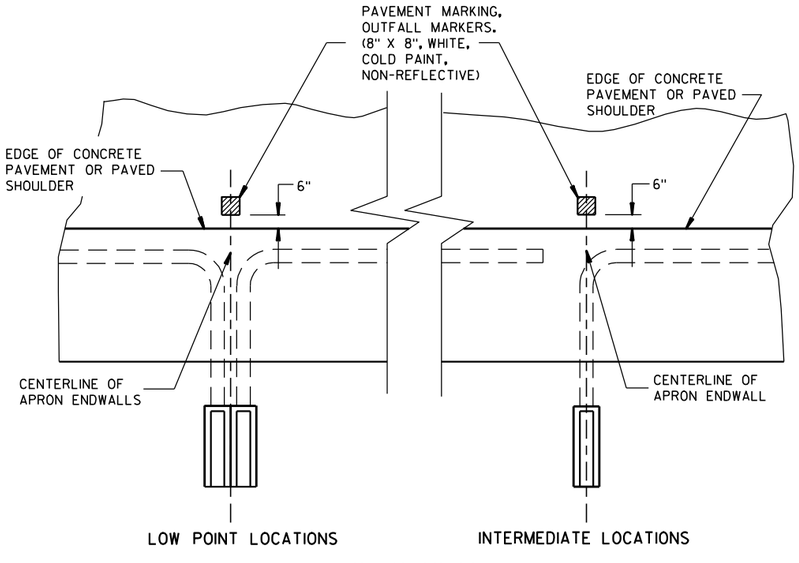
ROADWAY WITH CURBS

(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)



SECTION A-A

RURAL CROSS SECTION



PLAN VIEW

PAVEMENT MARKING FOR OUTFALL MARKERS

EDGEDRAIN OUTLET AND OUTFALL MARKERS

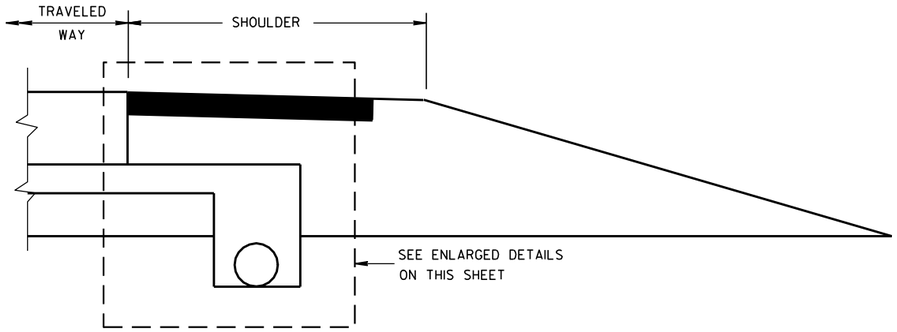
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 8 D 15-4a

6

S.D.D. 8 D 15-4a



RURAL CROSS SECTION

GENERAL NOTES

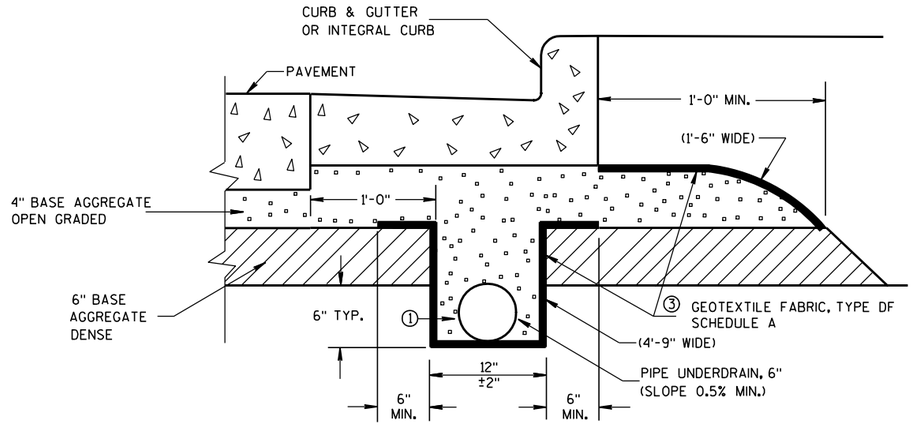
THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

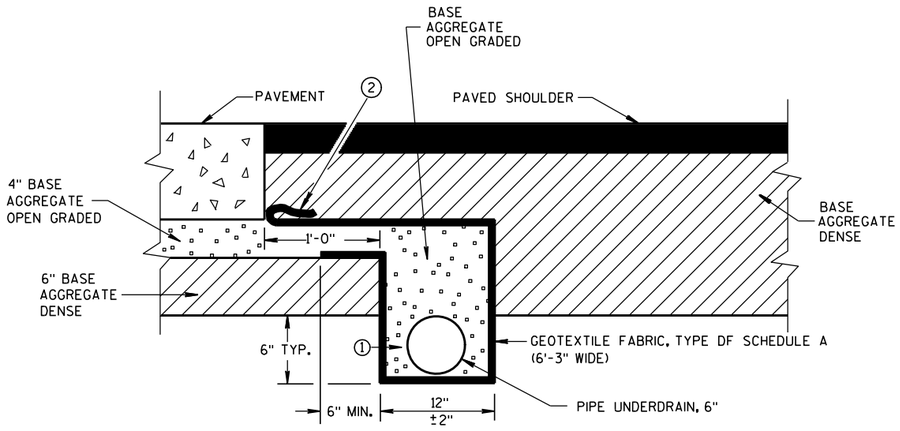
① TRENCH BACKFILL WILL BE PAID FOR AS BASE AGGREGATE OPEN GRADED.

② FOLD OVER EXCESS GEOTEXTILE FABRIC AT THIS LOCATION.

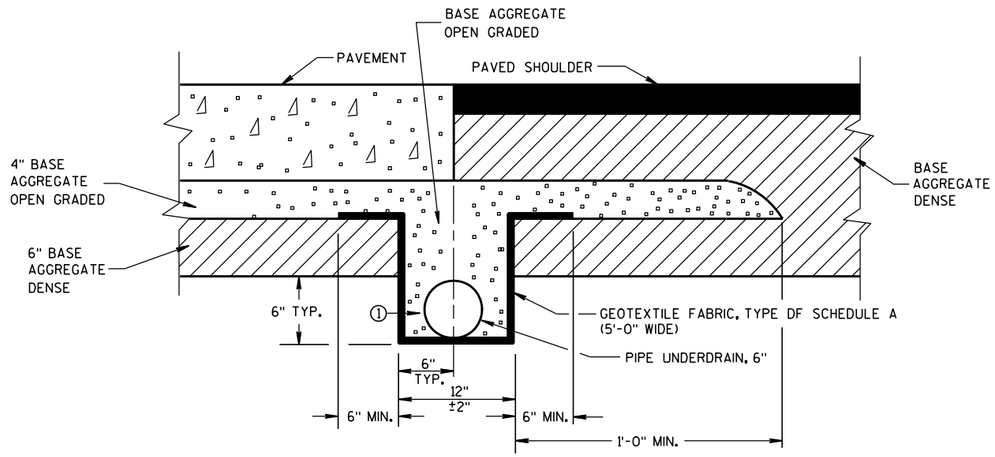
③ TOTAL FABRIC WIDTH IS 6'-3" FOR PAYMENT.



EDGEDRAIN IN URBAN ROADWAY



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATE

EDGEDRAIN IN RURAL ROADWAY

EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

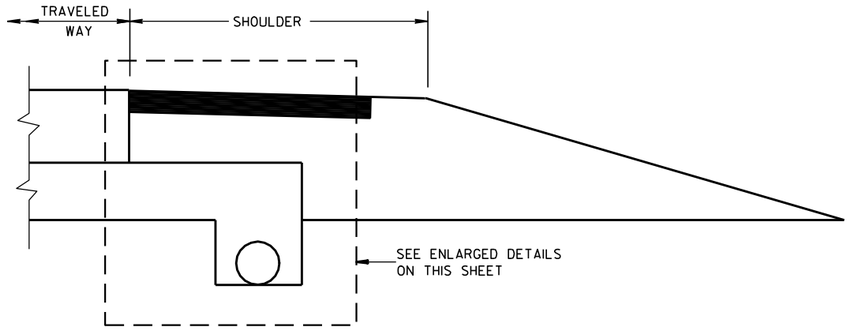
APPROVED

3/21/07 DATE — /S/ Steven W. [illegible] CHIEF MATERIALS MANAGER

FHWA

6

S.D.D. 8 D 15-4b



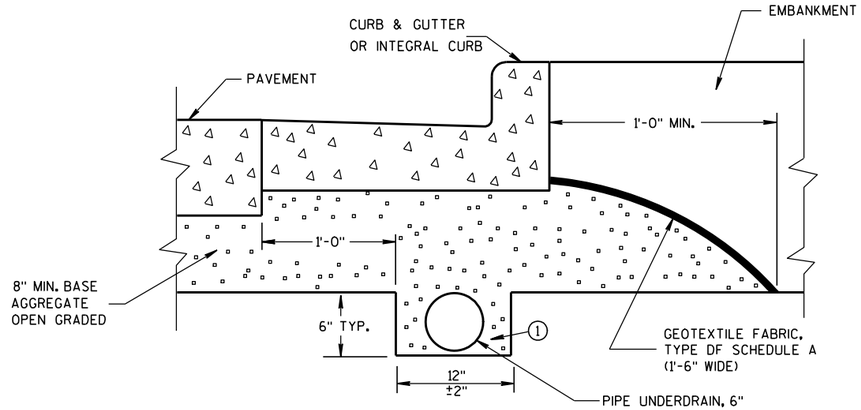
RURAL CROSS SECTION

GENERAL NOTES

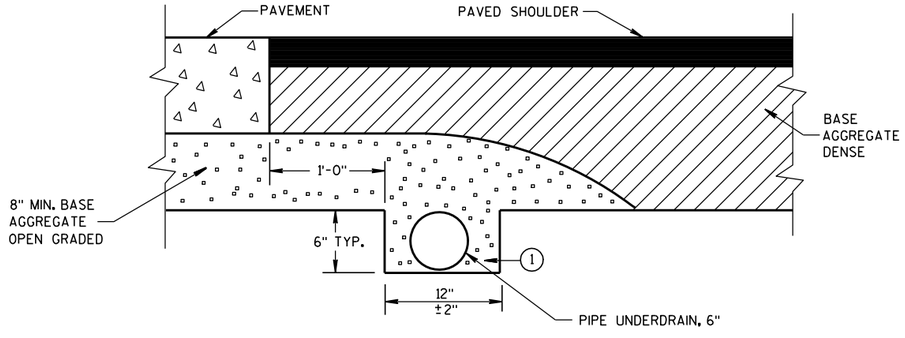
THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

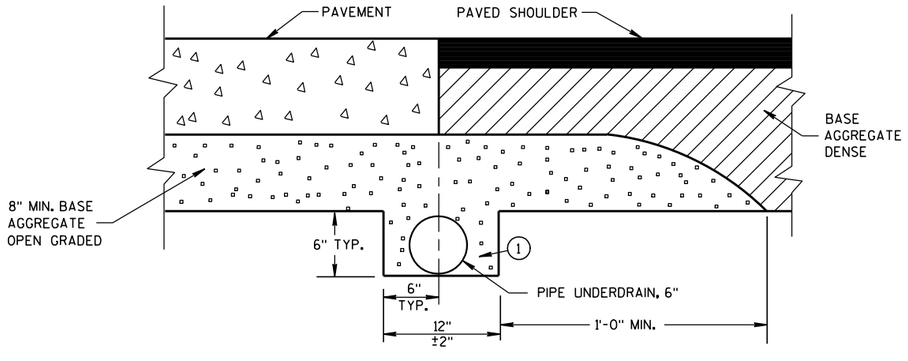
(1) TRENCH BACKFILL WILL BE PAID FOR AS BASE AGGREGATE OPEN GRADED.



EDGEDRAIN IN URBAN ROADWAY



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

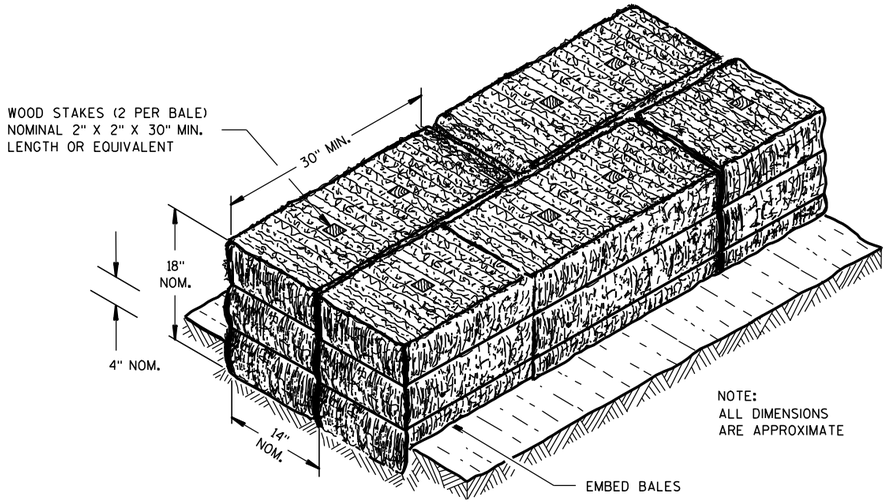
APPROVED
3/21/07 DATE
/S/ Steven W. Krebs
CHIEF MATERIALS MANAGER ENGINEER
FHWA

6

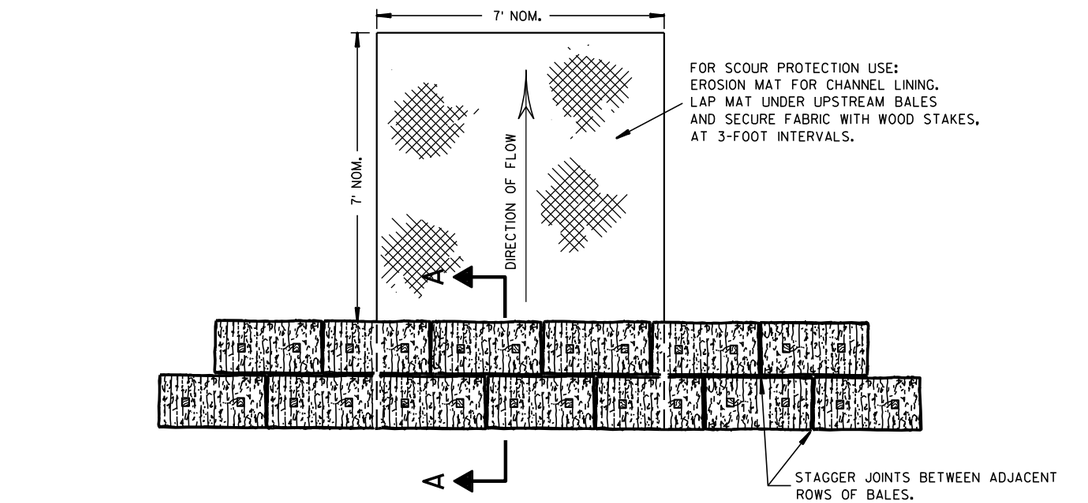
S.D.D. 8 D 15-4c

6

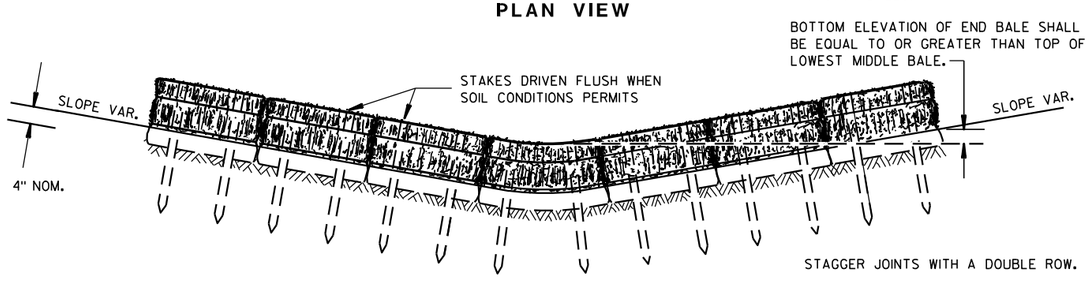
S.D.D. 8 D 15-4c



SECTION A-A



PLAN VIEW



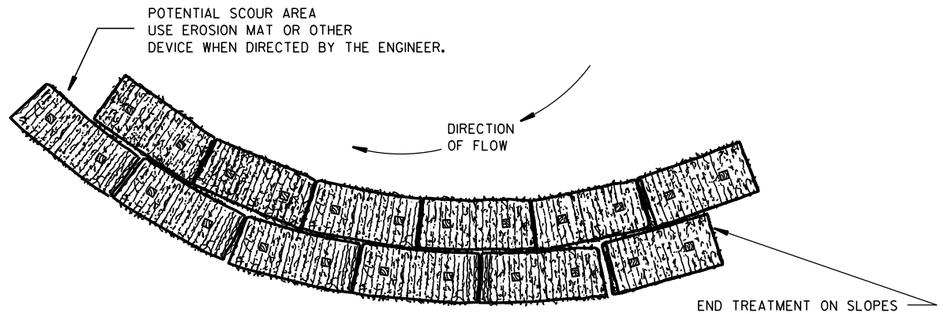
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

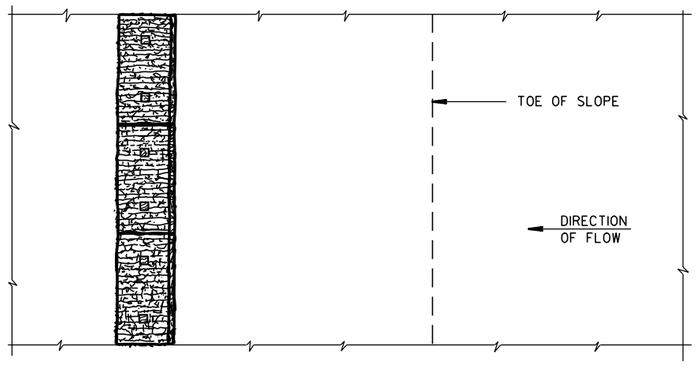
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

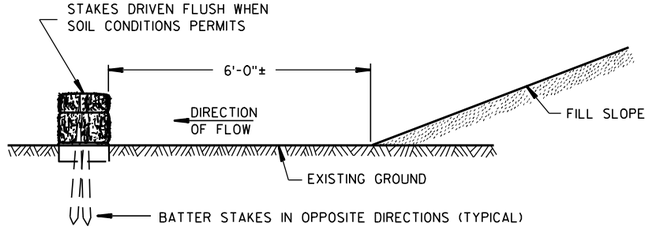


PLAN VIEW

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

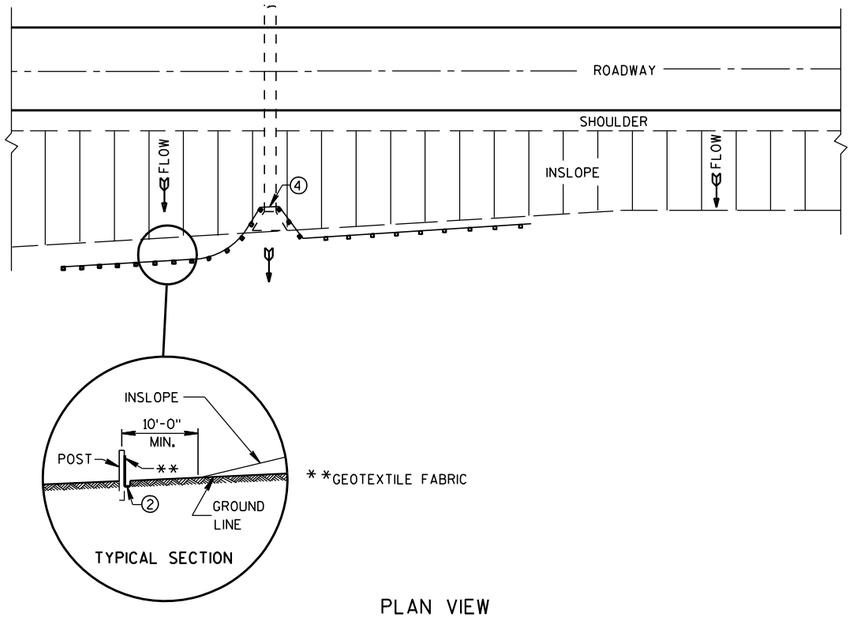
APPROVED
6/04/02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

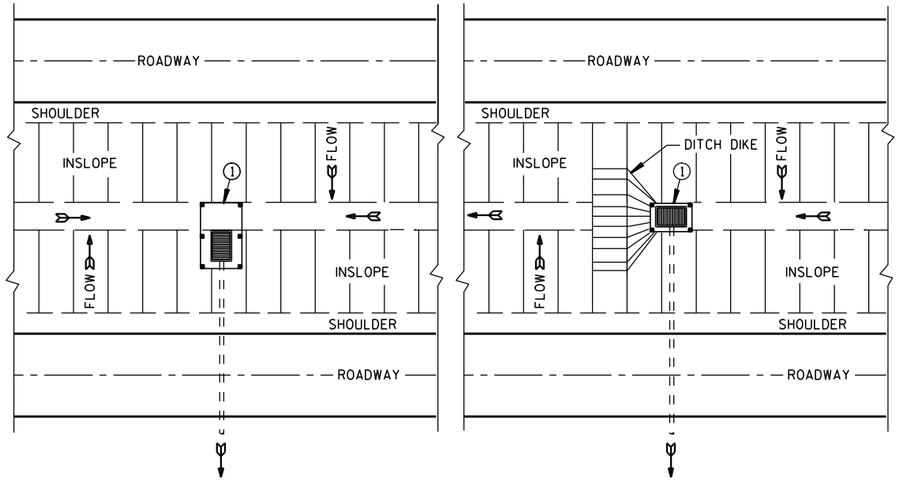
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



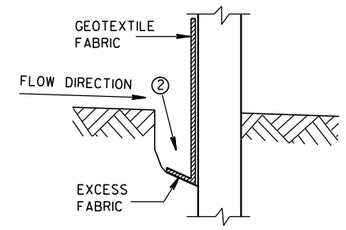
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

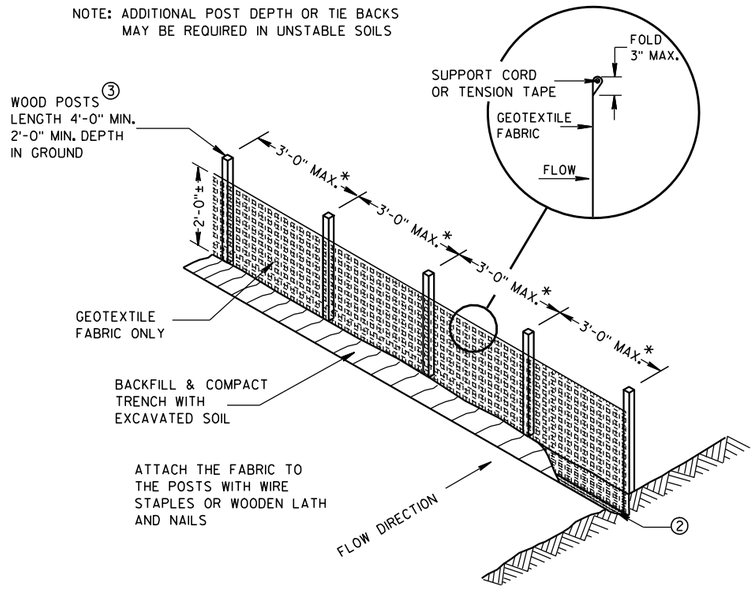
GENERAL NOTES

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

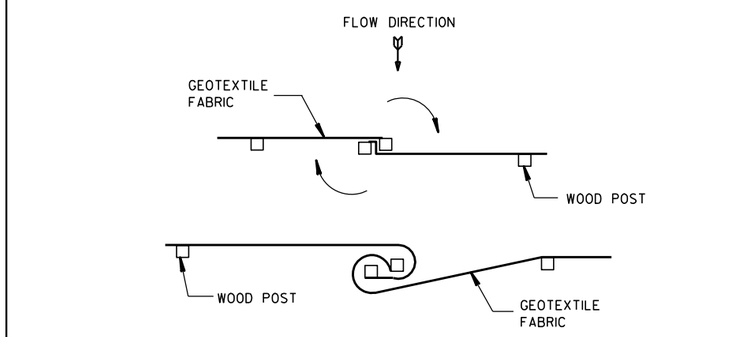
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL 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.



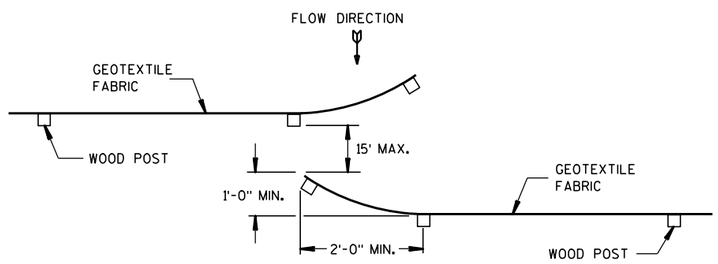
TRENCH DETAIL



SILT FENCE

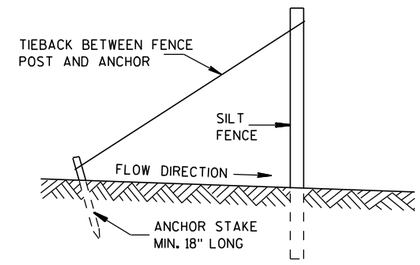


TWIST METHOD



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

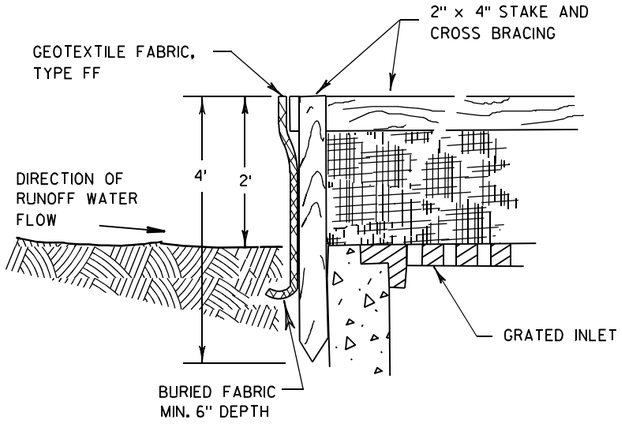
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

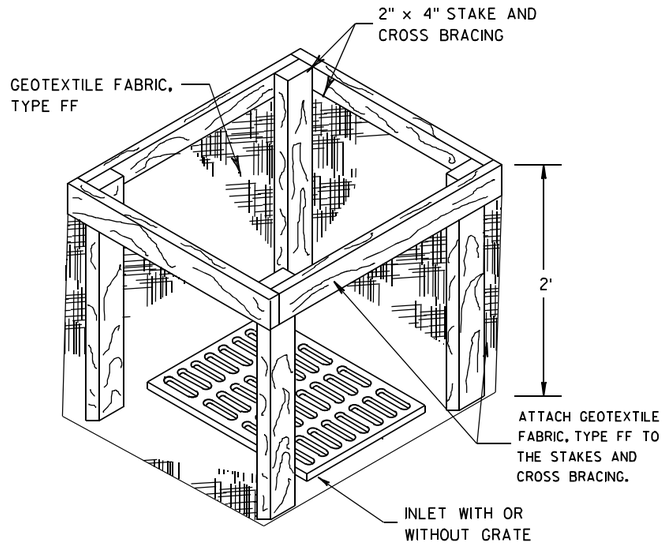
6

S.D.D. 8 E 9-6

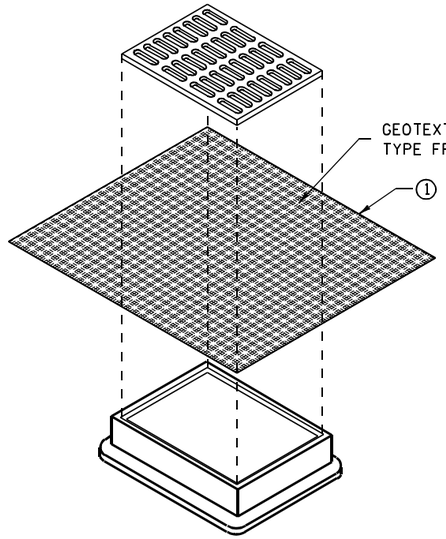
6

S.D.D. 8 E 9-6



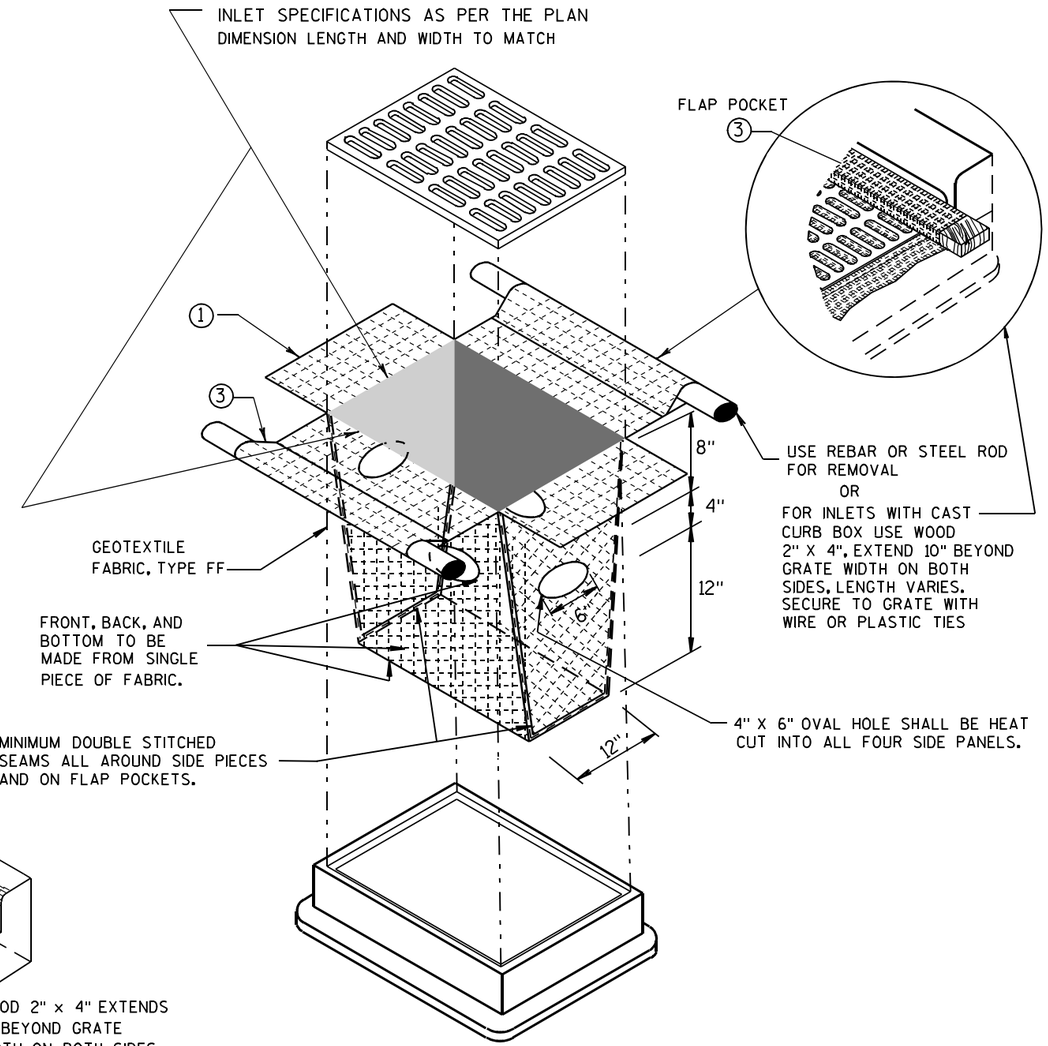


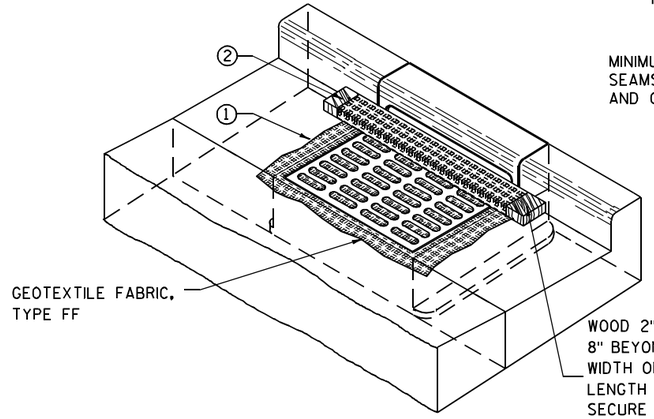
INLET PROTECTION, TYPE A



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.

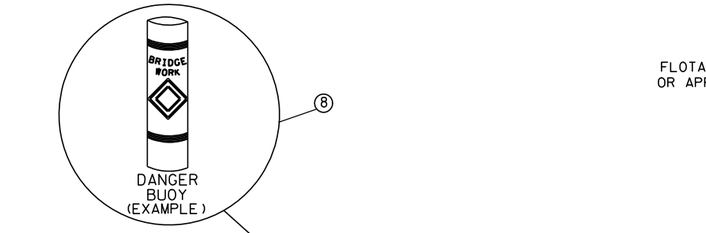
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

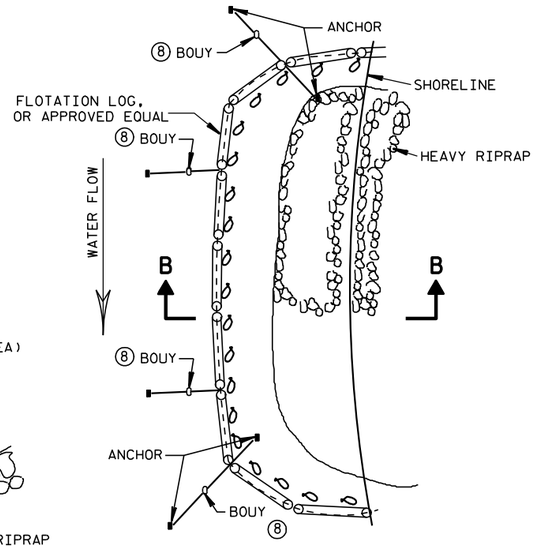
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

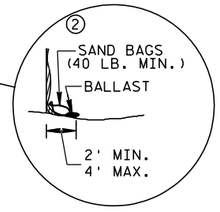
APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2

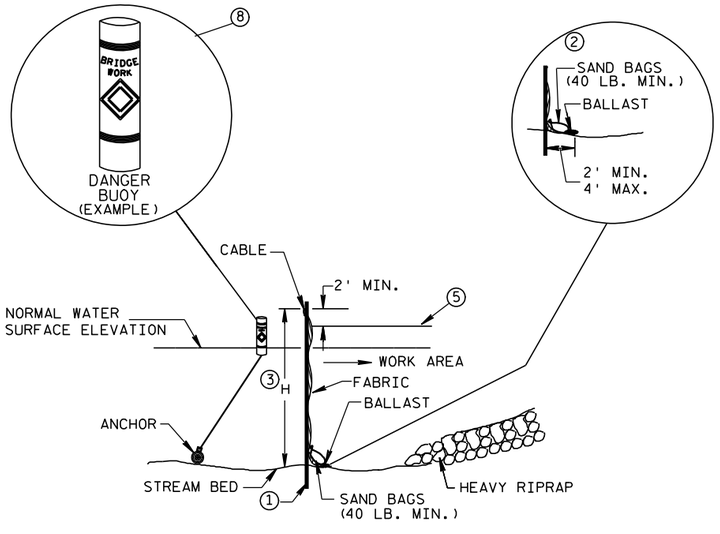


SECTION B-B

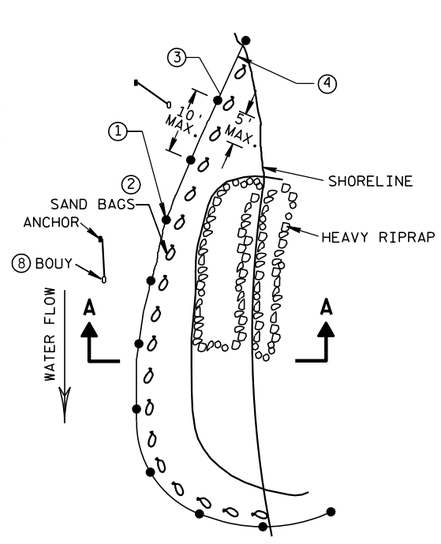




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

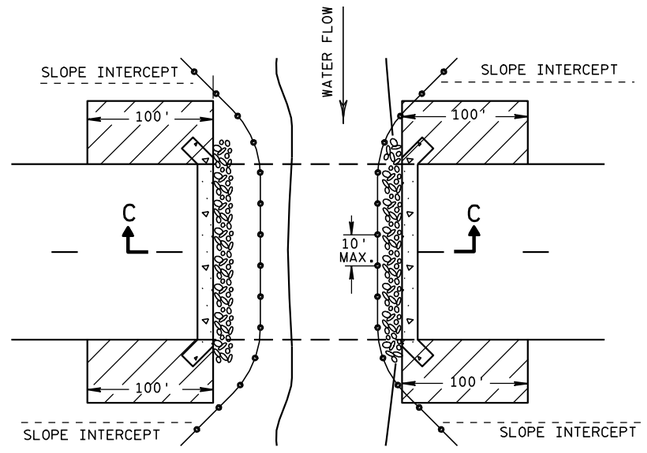
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

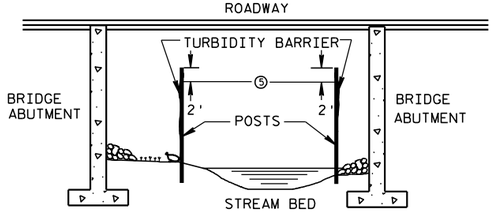
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

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 11-2

6

S.D.D. 8 E 11-2

METAL APRON ENDWALLS

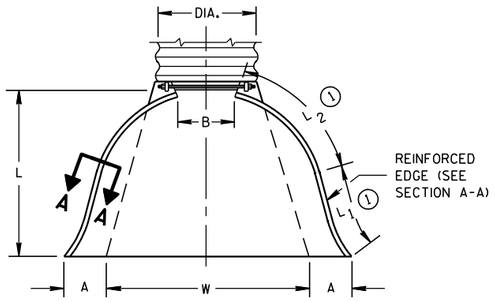
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

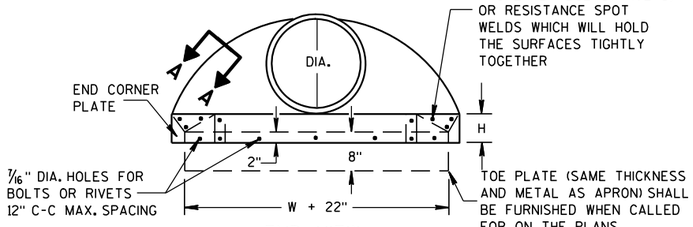
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

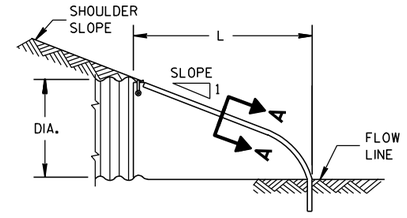
*MINIMUM
**MAXIMUM



PLAN VIEW

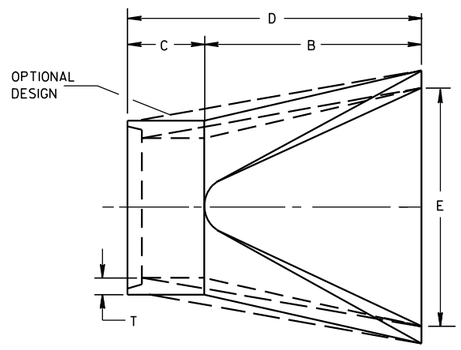


END VIEW

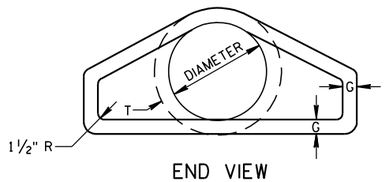


SIDE ELEVATION

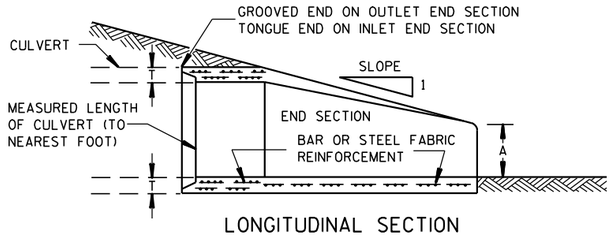
METAL ENDWALLS



PLAN

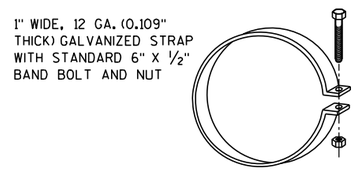


END VIEW



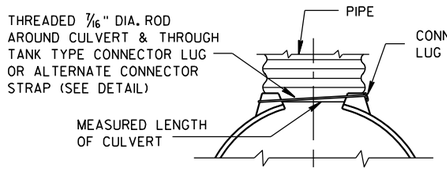
LONGITUDINAL SECTION

CONCRETE ENDWALLS

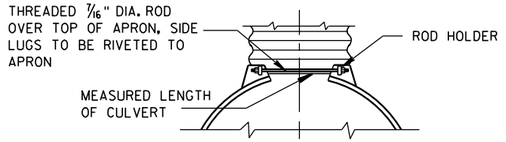


ALTERNATE FOR TYPE 1 CONNECTION

END SECTION CONNECTOR STRAP

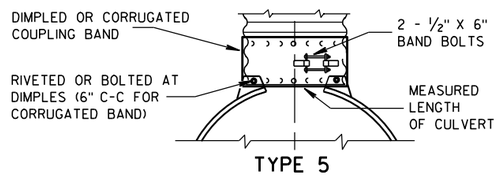


TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE

TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

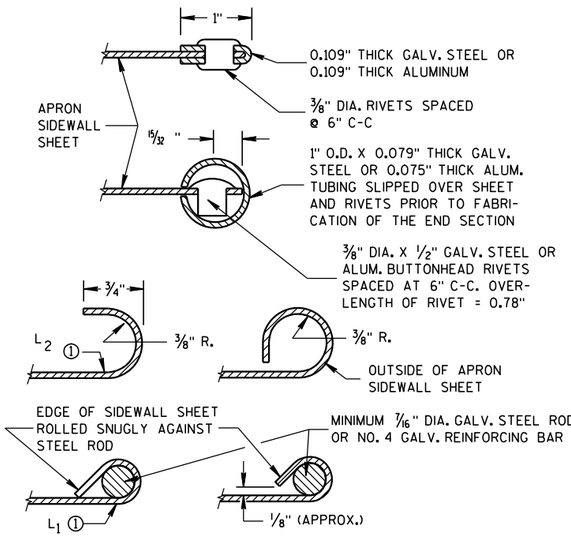
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

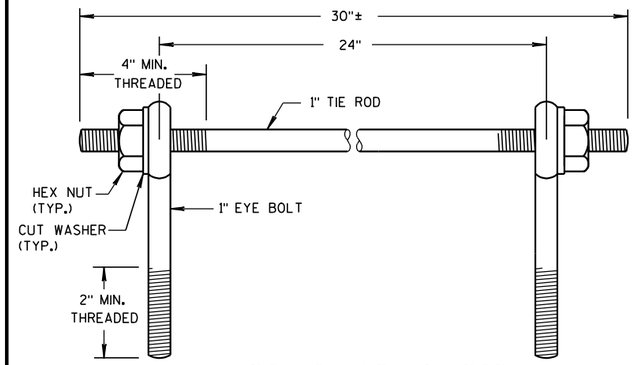
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

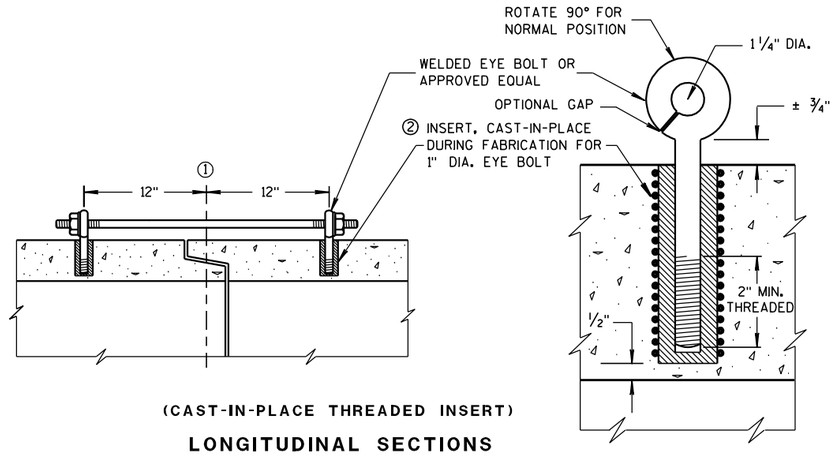
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 1-11



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.

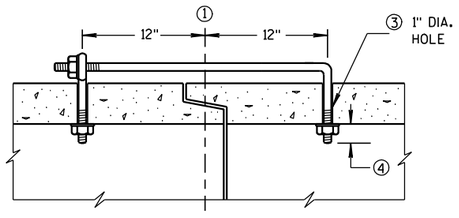
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

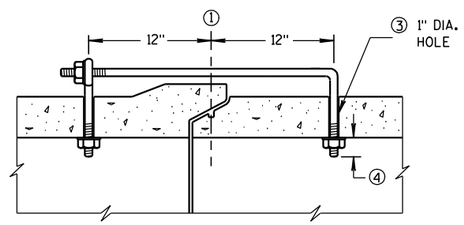
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

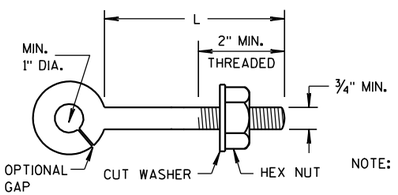


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

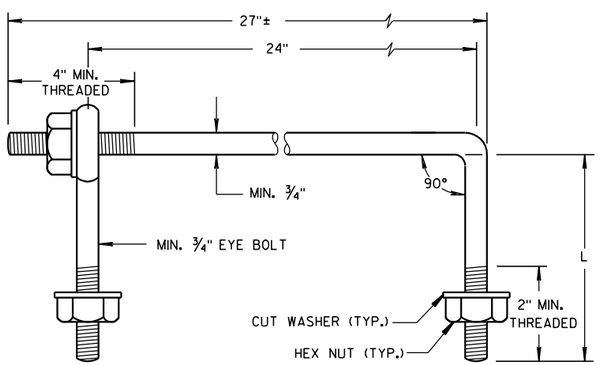
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

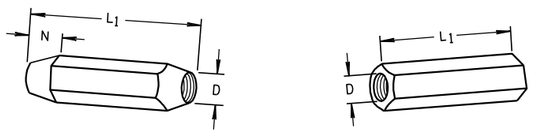
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

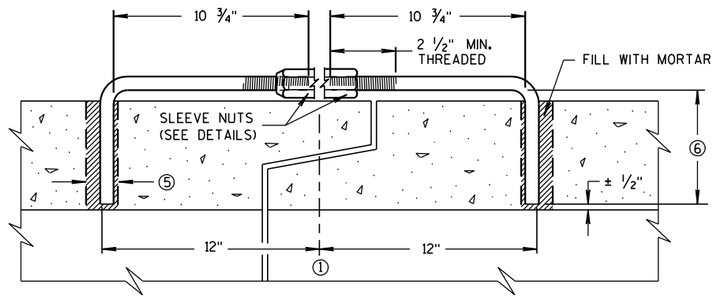
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

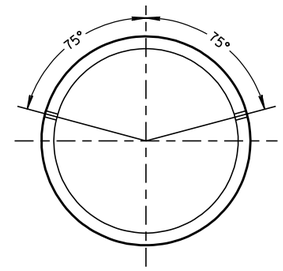
SLEEVE NUTS



LONGITUDINAL SECTION

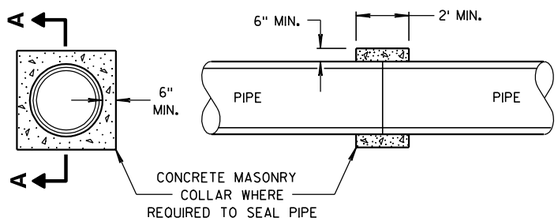
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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
200
FHWA

6

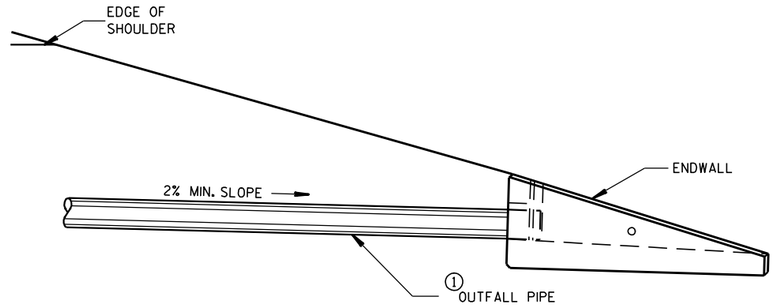
S.D.D. 8 F 4-7

6

S.D.D. 8 F 4-7

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

**APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



INSTALLATION 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.

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

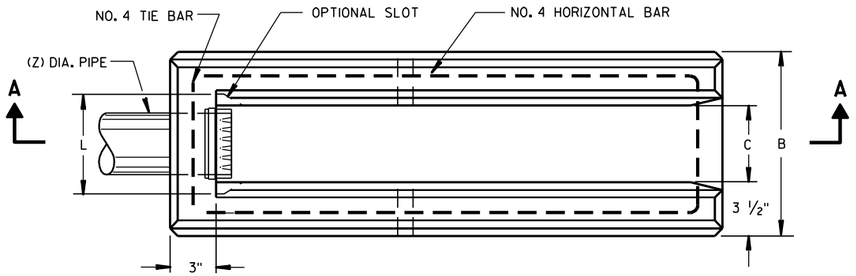
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

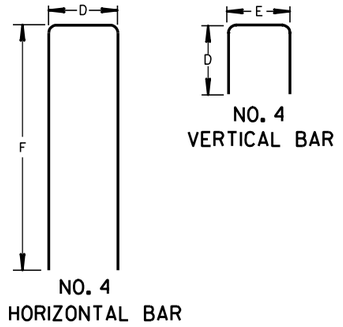
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

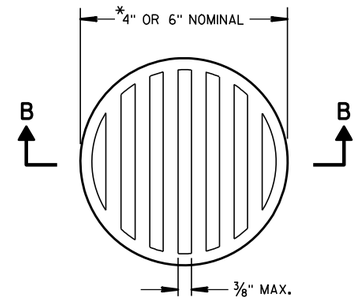
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



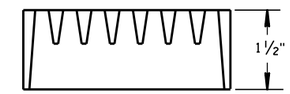
PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS



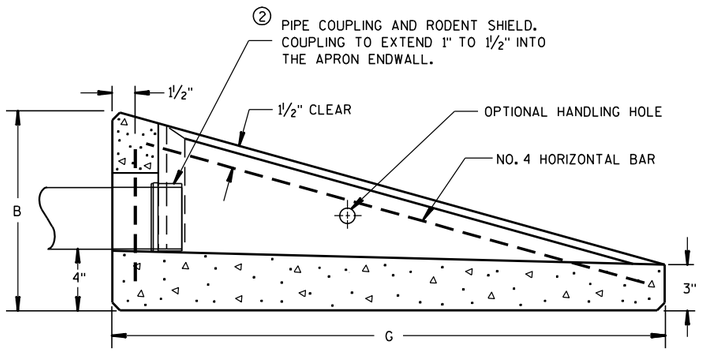
NOTE: ORIENT SHIELD SO SLOTS ARE VERTICAL.



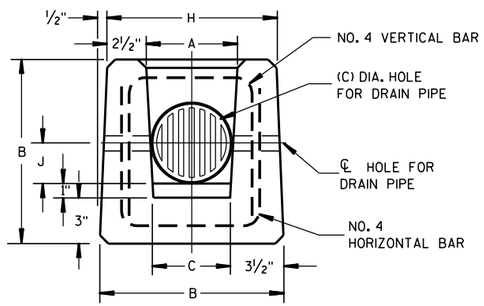
SECTION B-B

② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



SECTION A-A



END VIEW

CONCRETE APRON ENDWALL FOR UNDERDRAIN

REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/10/98 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 F 6-4

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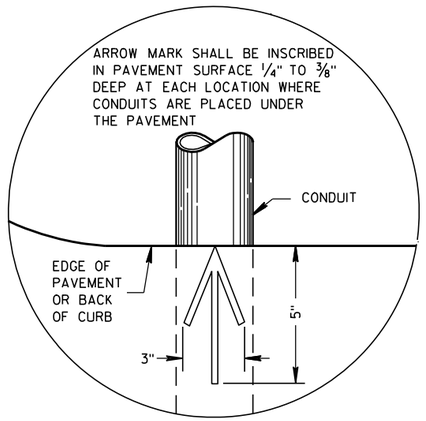
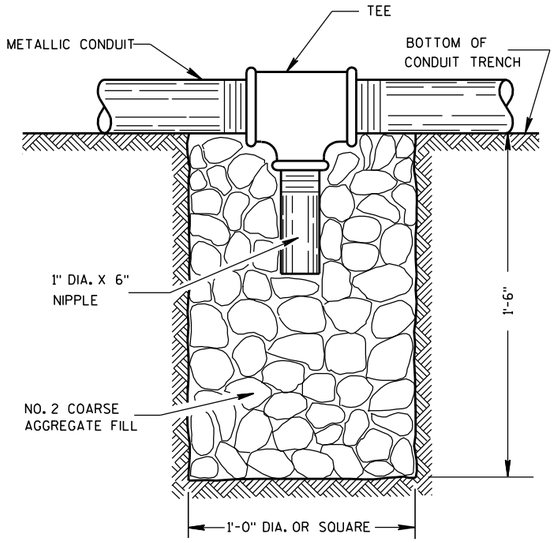
S.D.D. 8 F 6-4



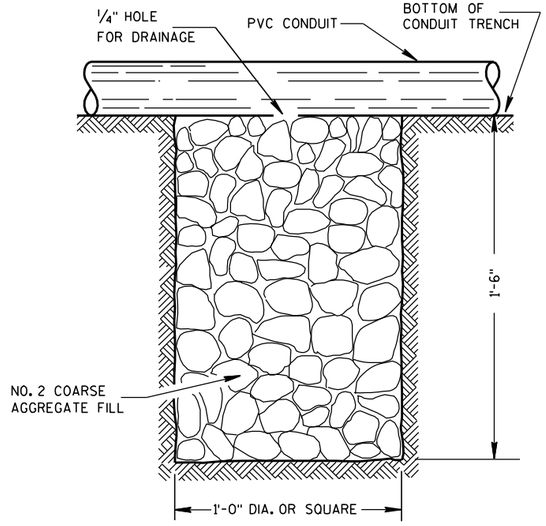
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

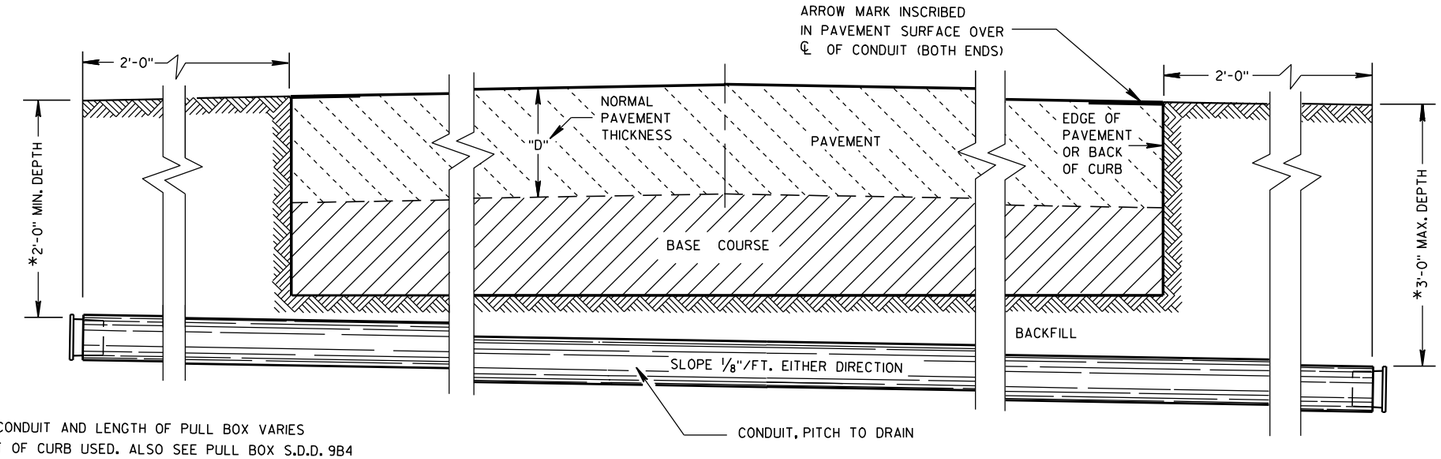
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03 DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI

202

HWYS

FHWA

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

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. THE MECHANICAL CONNECTION (INSIDE AND OUTSIDE) TO THE PULL BOX, SHALL BE TOTALLY AND PERMANENTLY SEALED WITH A SILICONE OR RUBBERIZED CAULKING COMPOUND AS APPROVED BY THE ENGINEER.

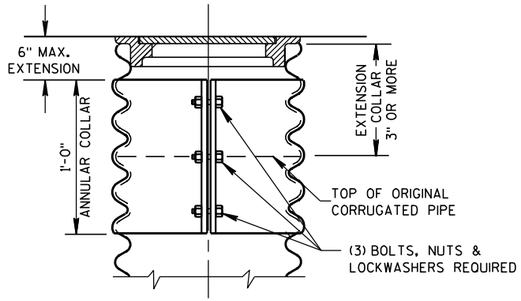
GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

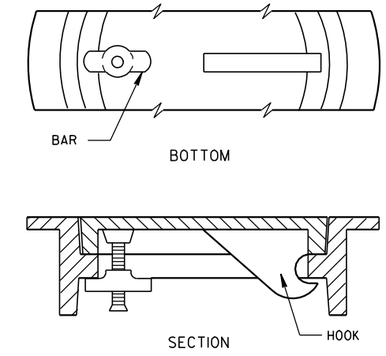
S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

IF PULL BOX EQUIPMENT GROUNDING IS REQUIRED USING AN EQUIPMENT GROUNDING ELECTRODE IN EACH PULL BOX, THE EQUIPMENT GROUNDING ELECTRODE SHALL BE 5/8" X 8'-0", COPPERCLAD AND BE EXOTHERMICALLY WELDED TO A #4 AWG, COPPER, STRANDED WIRE (BARE OR GREEN INSULATED). THE #4 AWG WIRE SHALL BE 4 FEET IN LENGTH, NEATLY COILED, TAPED AND AVAILABLE FOR USE WHEN REQUIRED.

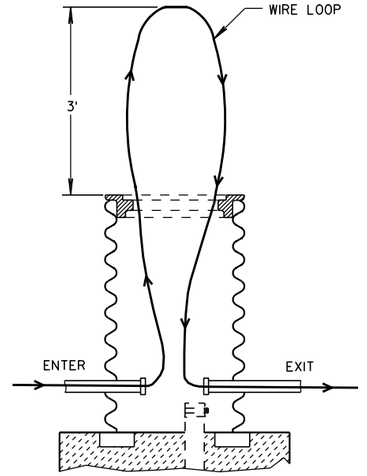


CORRUGATED PIPE EXTENDER

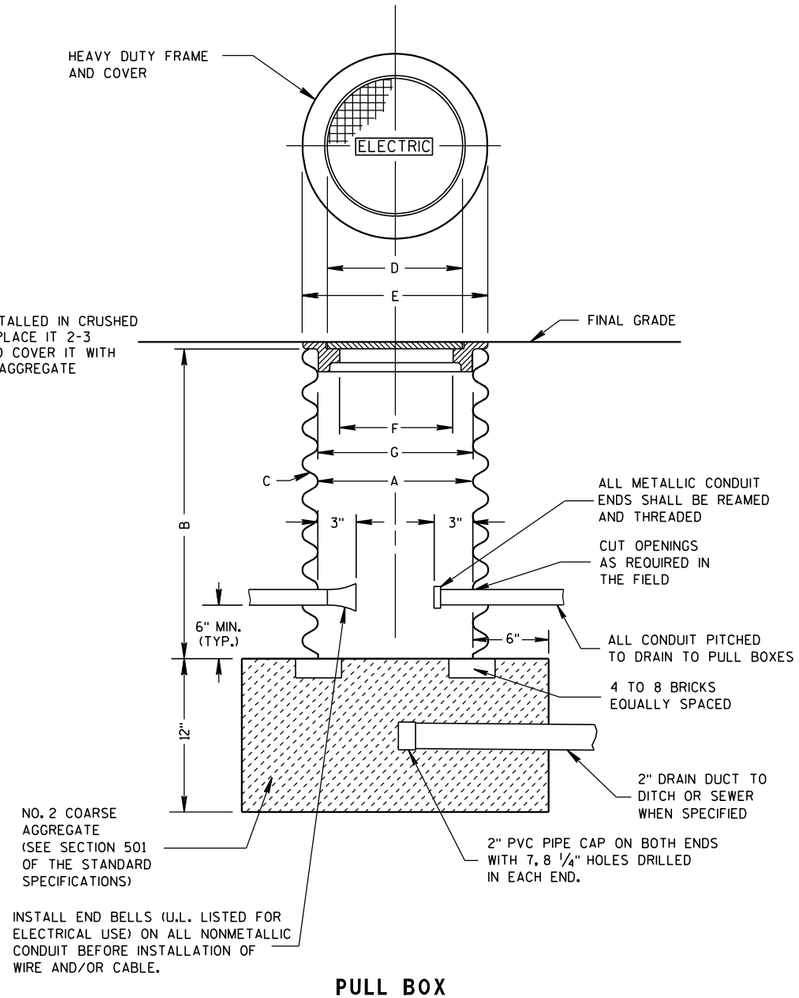


ALTERNATE COVER (LOCKING)

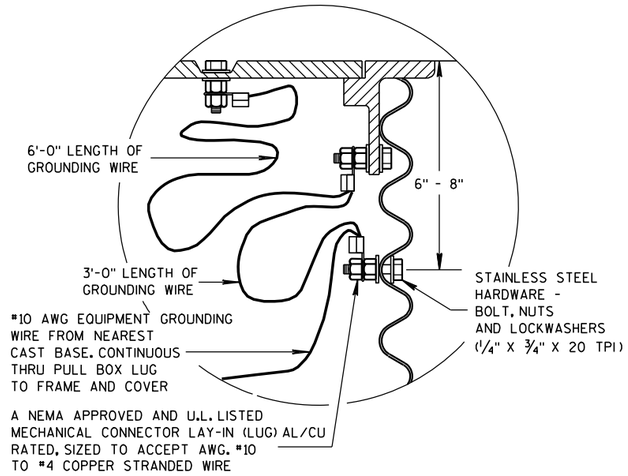
TIGHTENING BAR TYPE



MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/27/06 DATE
/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI
FHWA

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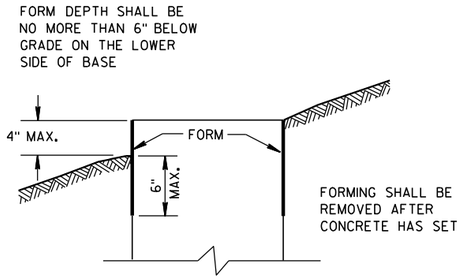
S.D.D. 9 B 4-9



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2 AND TYPE 5 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) I" DIA. X 3'-6" ANCHOR RODS.

(3) (4) I" DIA. X 5'-0" ANCHOR RODS.

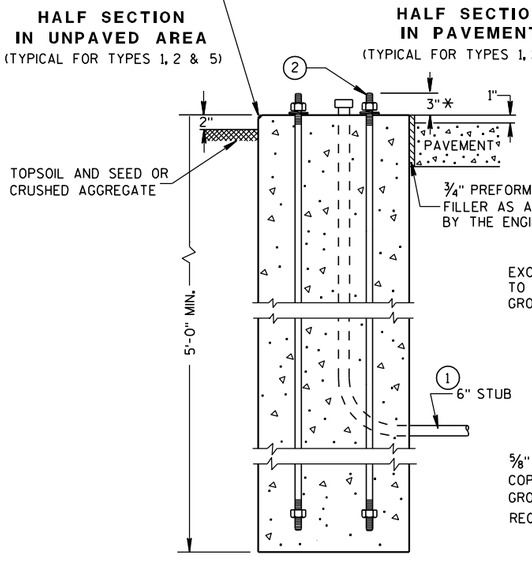
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

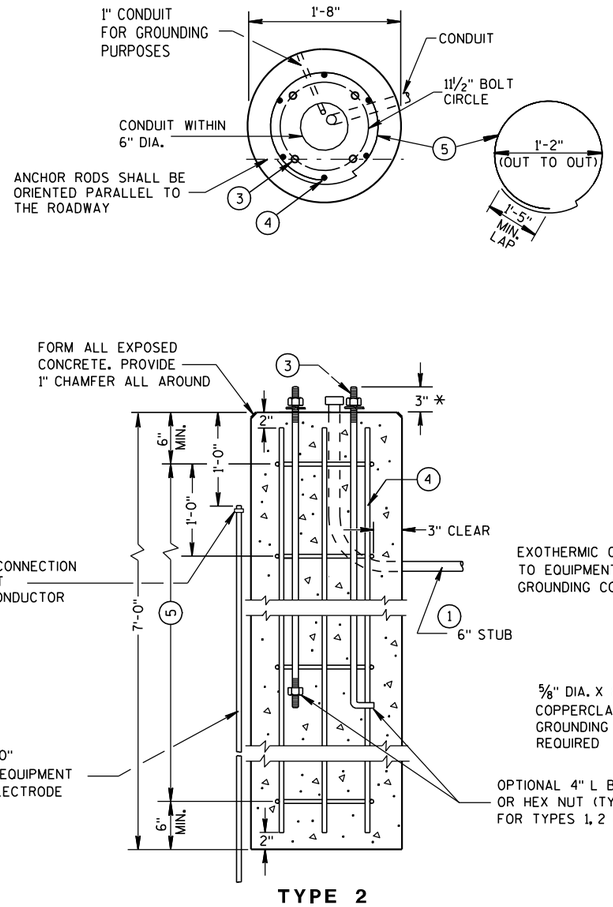
(6) (4) I" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

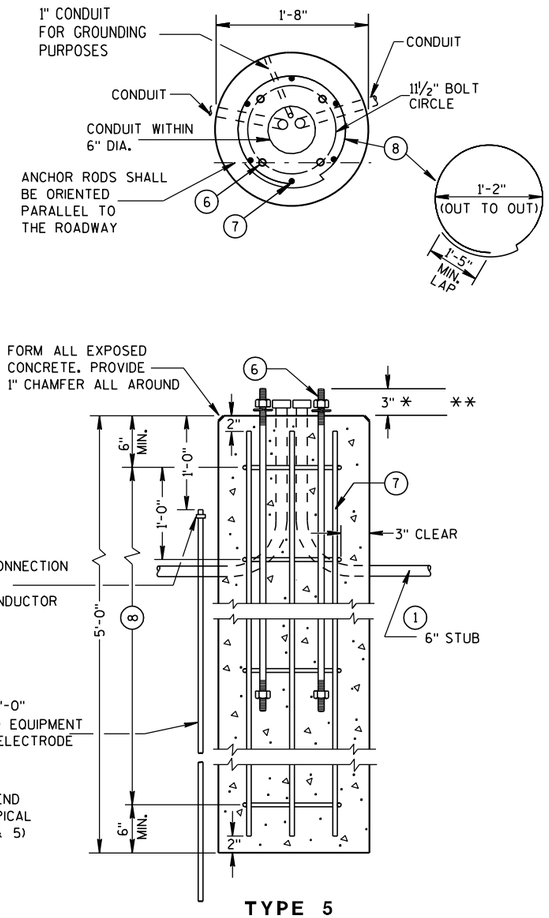
(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



TYPE 1



TYPE 2



TYPE 5

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2 & 5

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/3/10 — DATE
/S/ Joanna L. Rush — STATE ELECTRICAL ENGI
204
HWYS
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, ASTM A-325, (92,000 YIELD) HEAVY HEX NUT AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED AND U.L. LISTED MECHANICAL CONNECTOR (LUG) AL/CU RATED AND SIZED TO ACCEPT #10 AWG STRANDED WIRE, SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

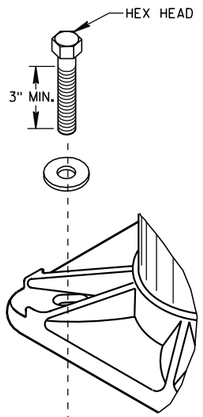
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

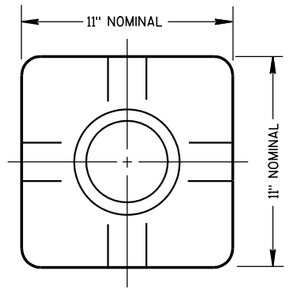
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

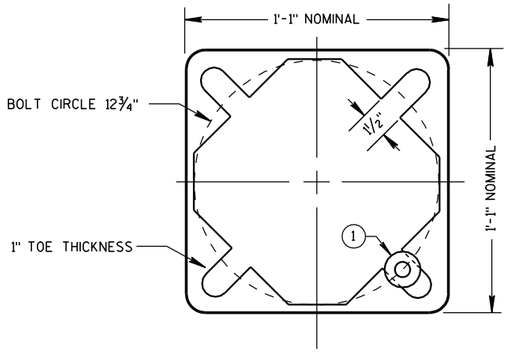
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1½", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

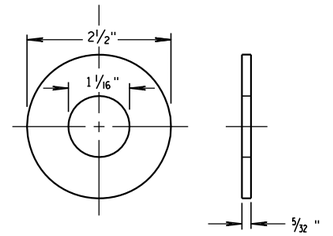




TOP VIEW
(PEDESTAL BASE)

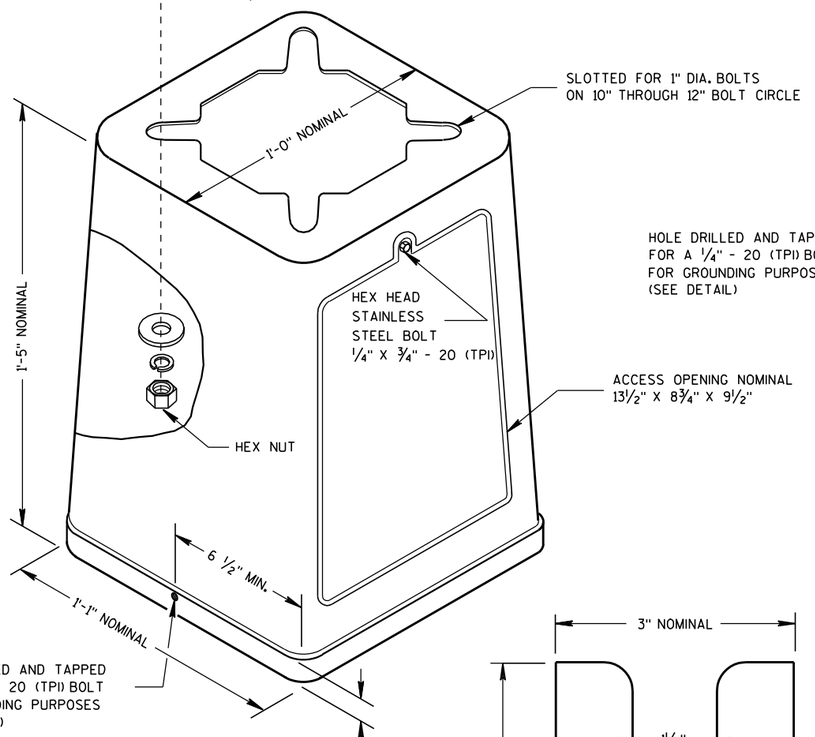


BOTTOM VIEW
(PEDESTAL BASE)

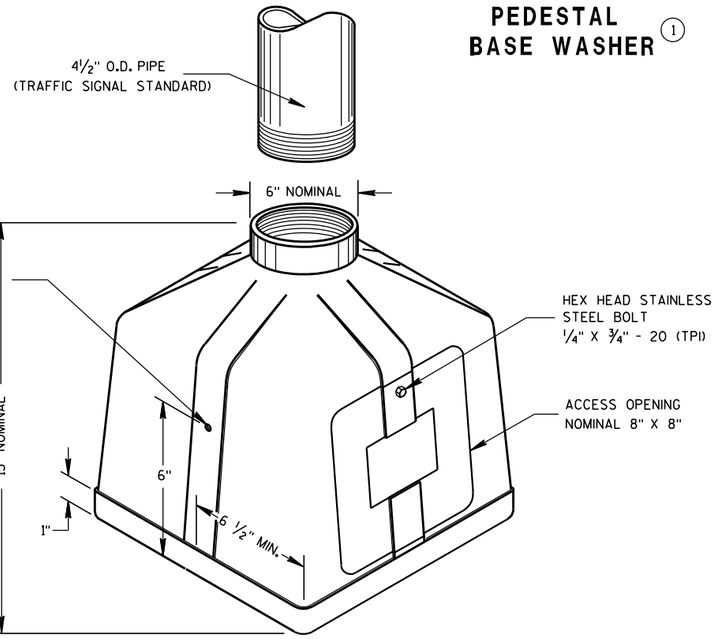


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

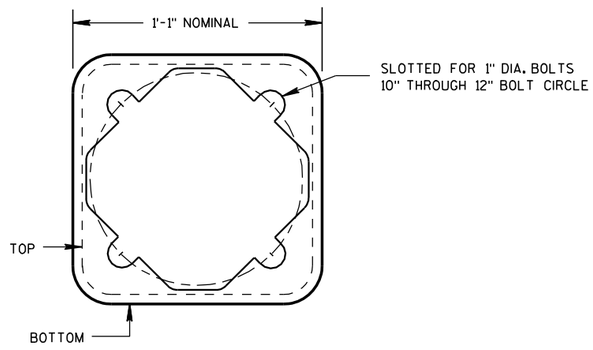


ISOMETRIC VIEW

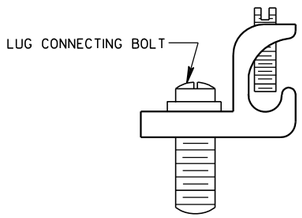


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

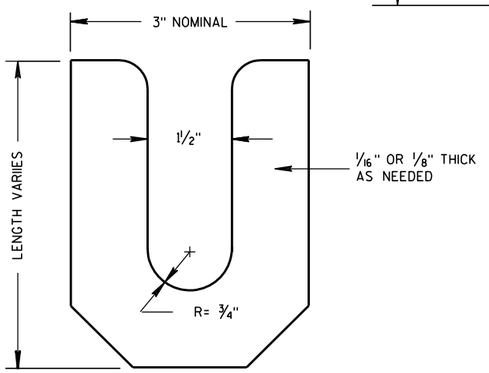


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

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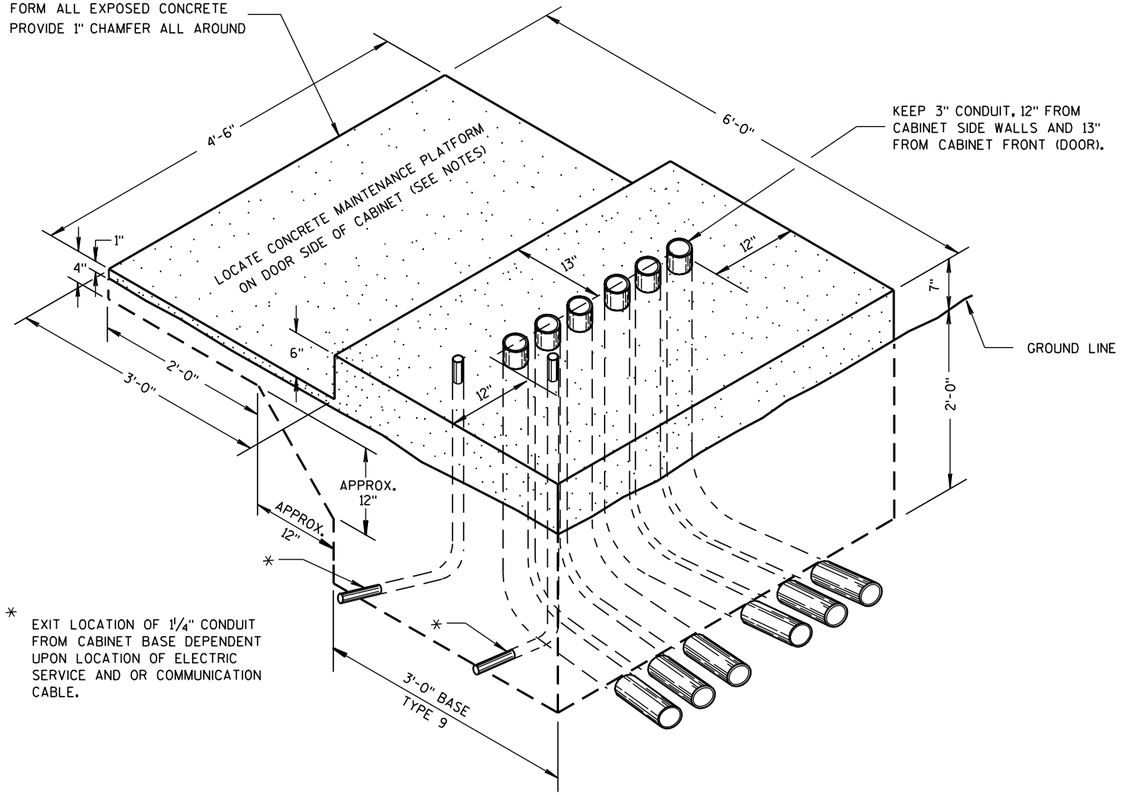
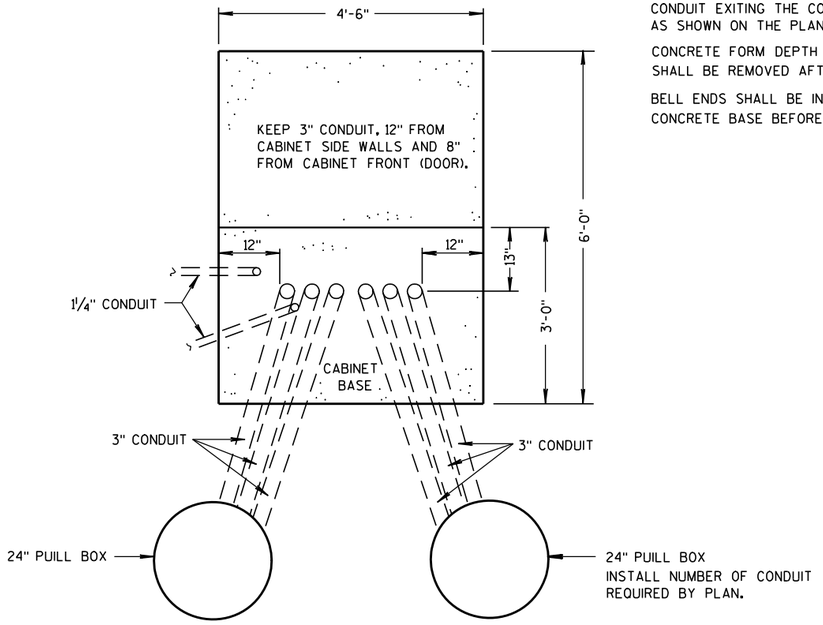


ISOMETRIC VIEW

TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

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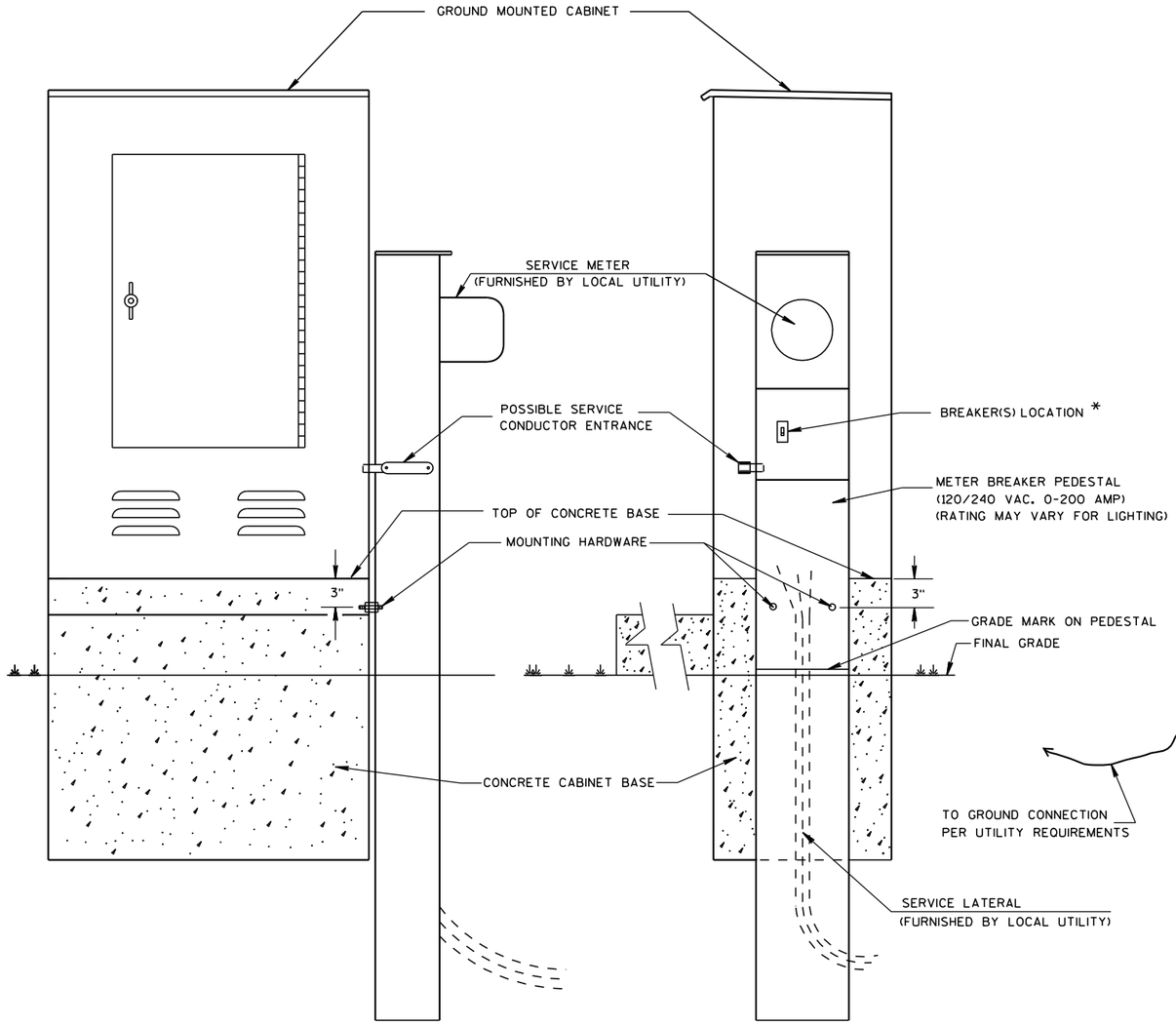

TYPICAL CABINET SERVICE INSTALLATION

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

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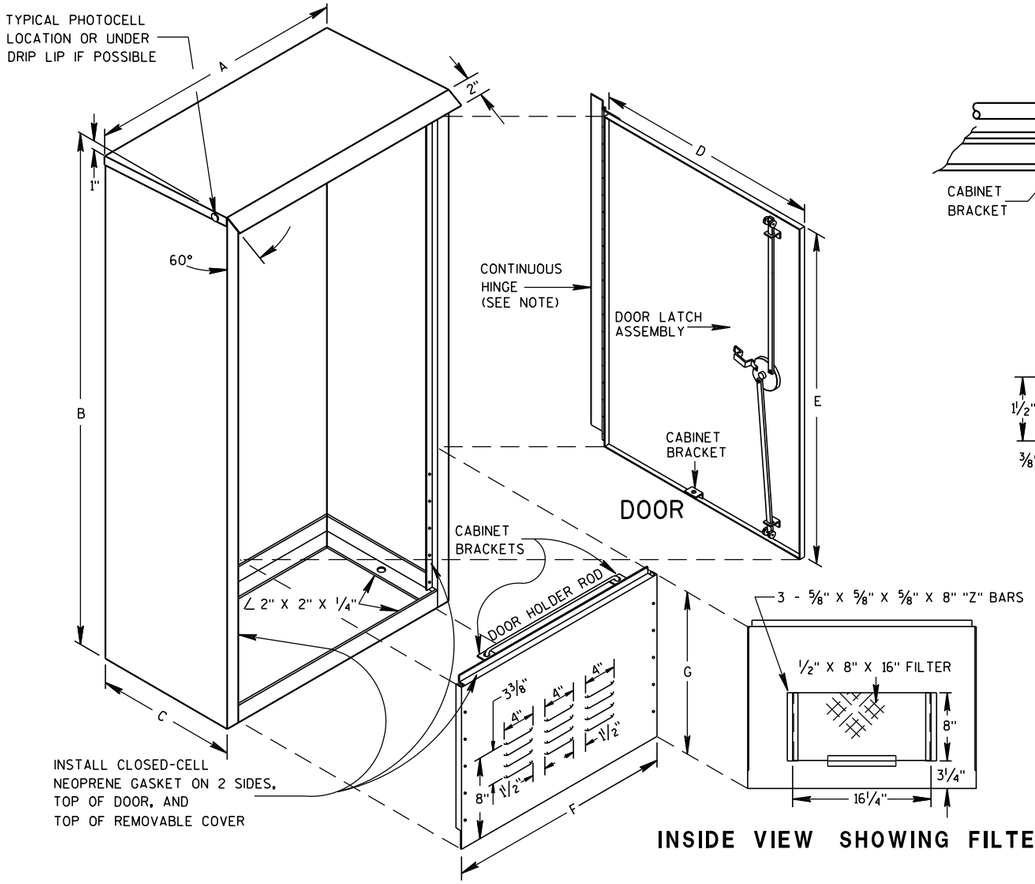
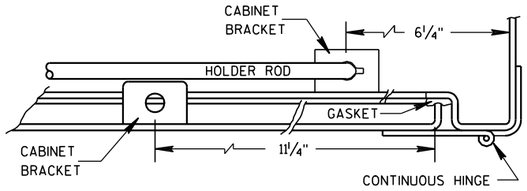
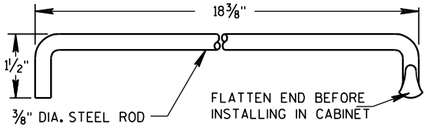


REMOVABLE COVER

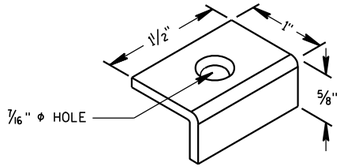
INSIDE VIEW SHOWING FILTER



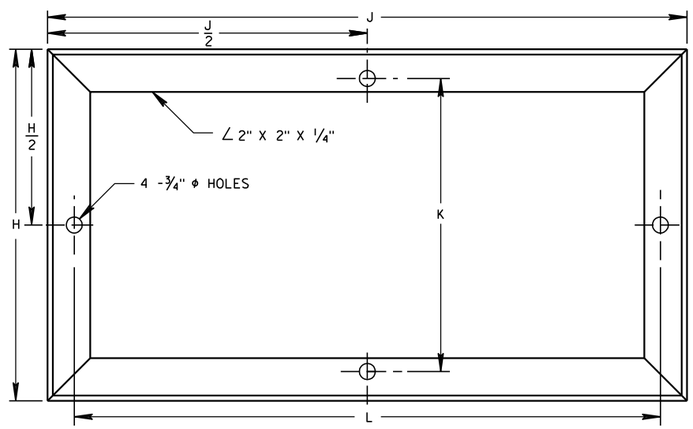
HINGE & DOOR HOLDER



HOLDER ROD



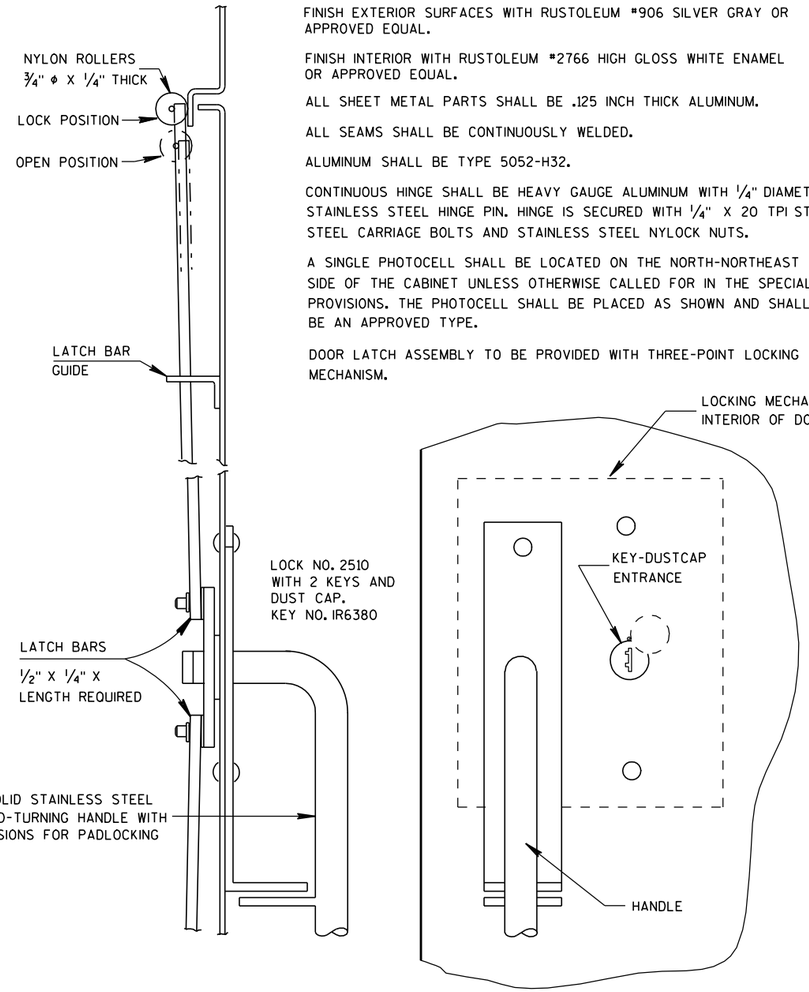
CABINET BRACKET



MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

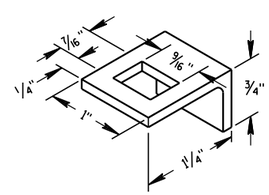
MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 1/4	8 1/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2



SIDE VIEW

FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

GENERAL NOTES

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

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/4" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH-NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE AN APPROVED TYPE.

DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.

SIGNAL OR LIGHTING CONTROL CABINET

STATE OF WISCONSIN
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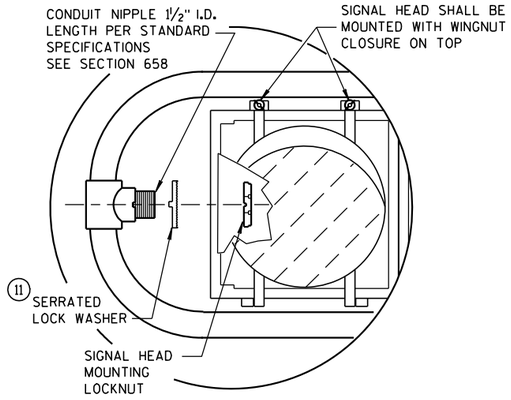
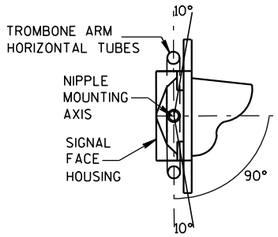


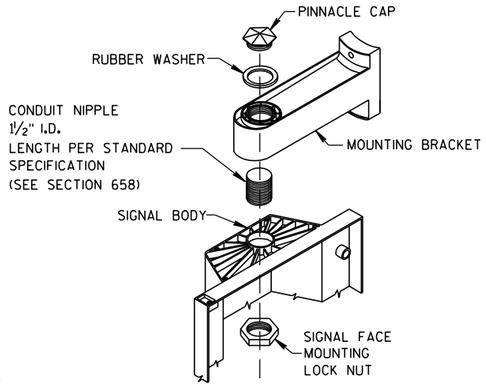
HORIZONTAL SIGNAL HEAD MOUNTING DETAIL *

* SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR



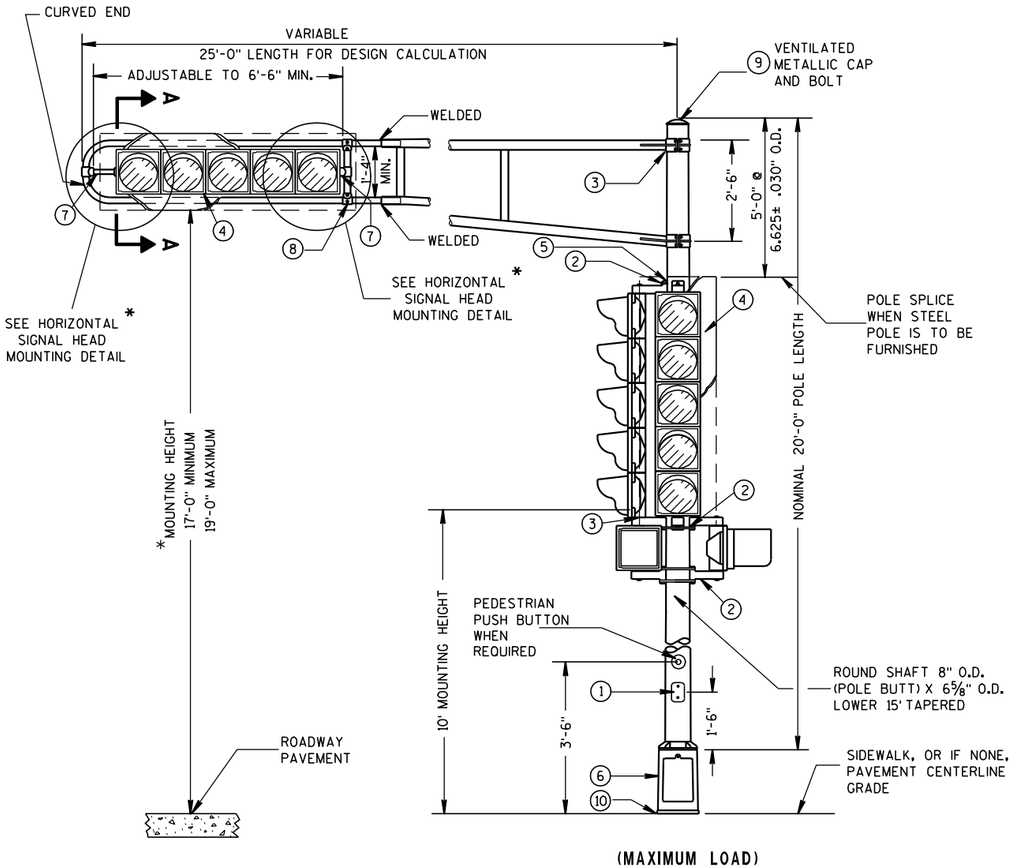
SECTION A-A

(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)

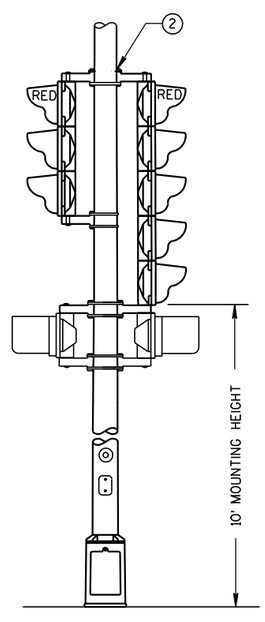


SIGNAL FACE MOUNTING DETAIL

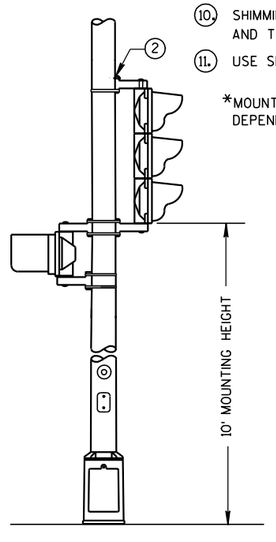
(BANDED)



(MAXIMUM LOAD)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE

TYPE 2 POLE MOUNTING CONFIGURATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT 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 IN ACCORDANCE WITH STANDARD SPECIFICATION 652 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.

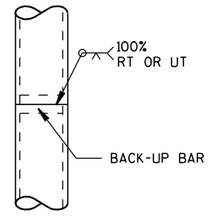
WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

1. 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.
2. SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658)
3. GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" 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 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACES.
6. CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
7. MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658).
8. VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" LONG- 20 TPI, STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS 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.

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

POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

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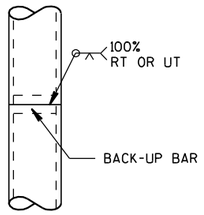
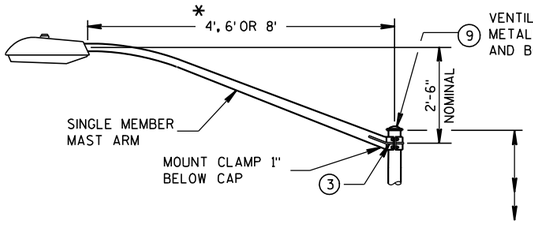
FOR MANUFACTURERS USE ONLY

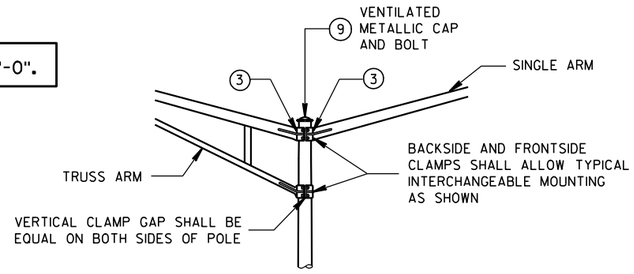
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.

* RISE FOR 4' ARM SHALL BE 2'-0".





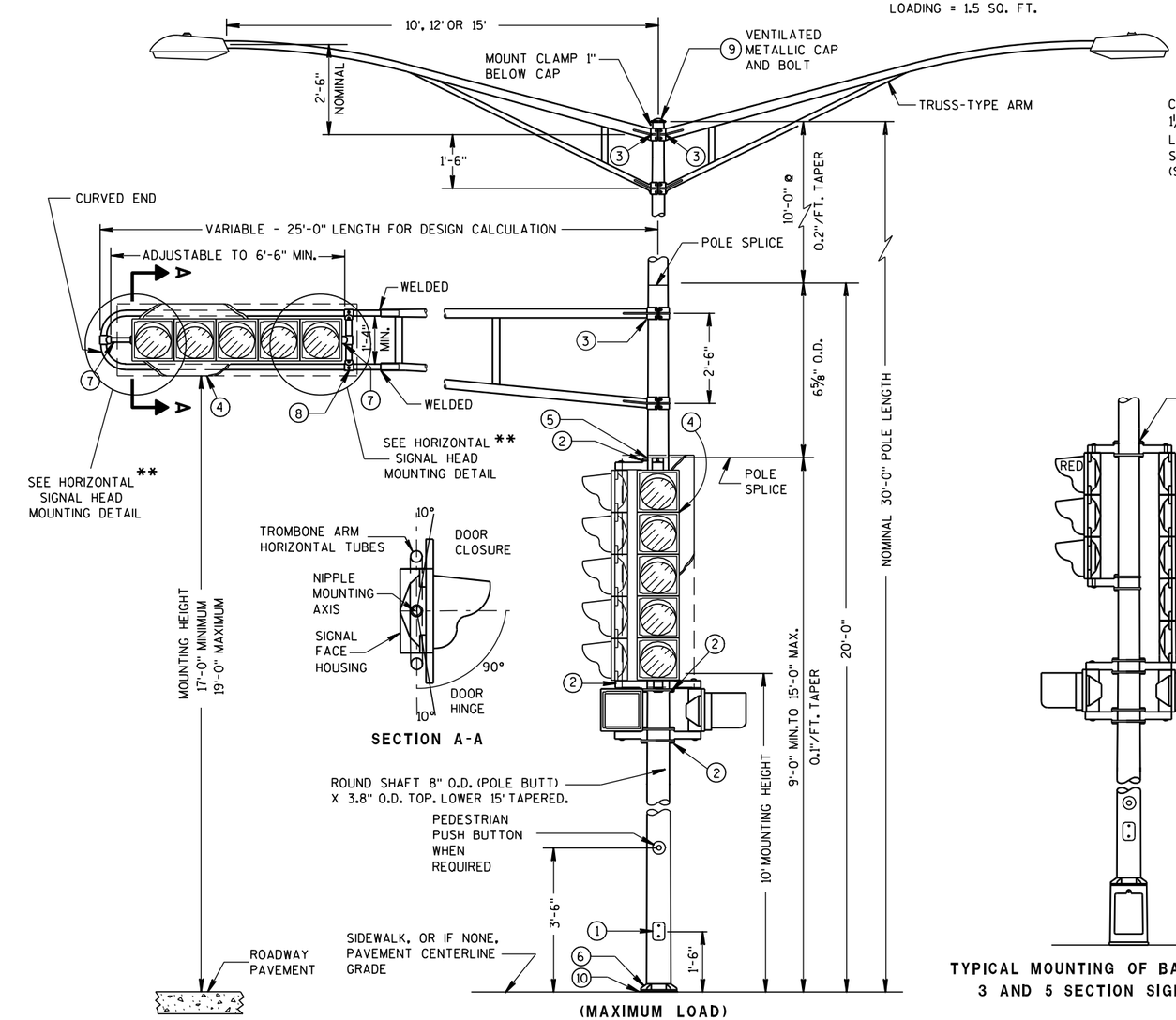
POLE SPLICE DETAIL

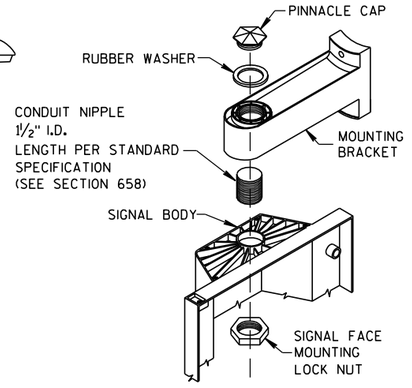


INTERCHANGEABLE MOUNTING DETAIL

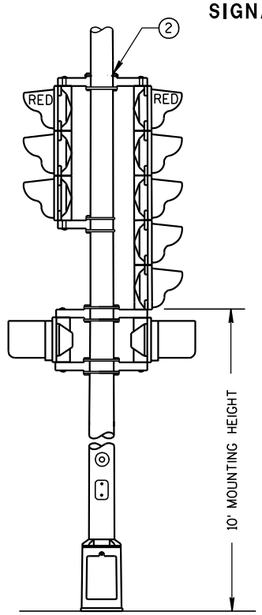
LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED AREA FOR WIND LOADING = 1.5 SQ. FT.

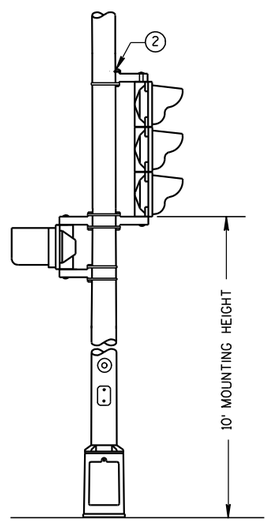




SIGNAL FACE MOUNTING DETAIL (BANDED)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

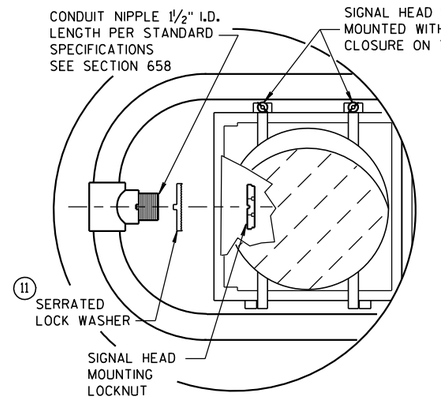
SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE/ROPE IN ACCORDANCE WITH STANDARD SPECIFICATION 652, SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ 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 & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.
2. SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658)
3. GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" 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 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.
6. TYPE 3 POLE CONFIGURATIONS SHALL BE MOUNTED DIRECTLY TO THEIR CONCRETE BASES.
7. MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658)
8. VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (1/4 " X ¾" -20 TPI, STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS 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 POLE.
11. USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

** SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR

TYPE 3 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)

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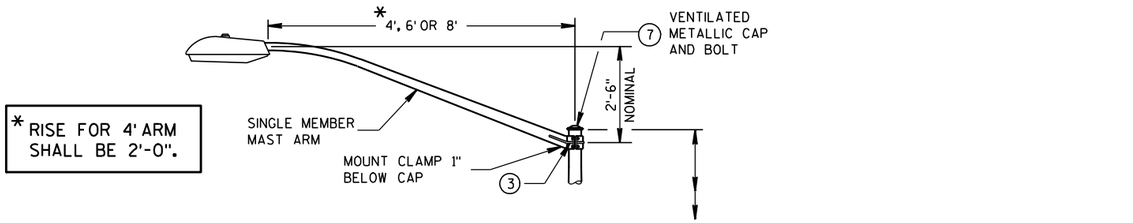
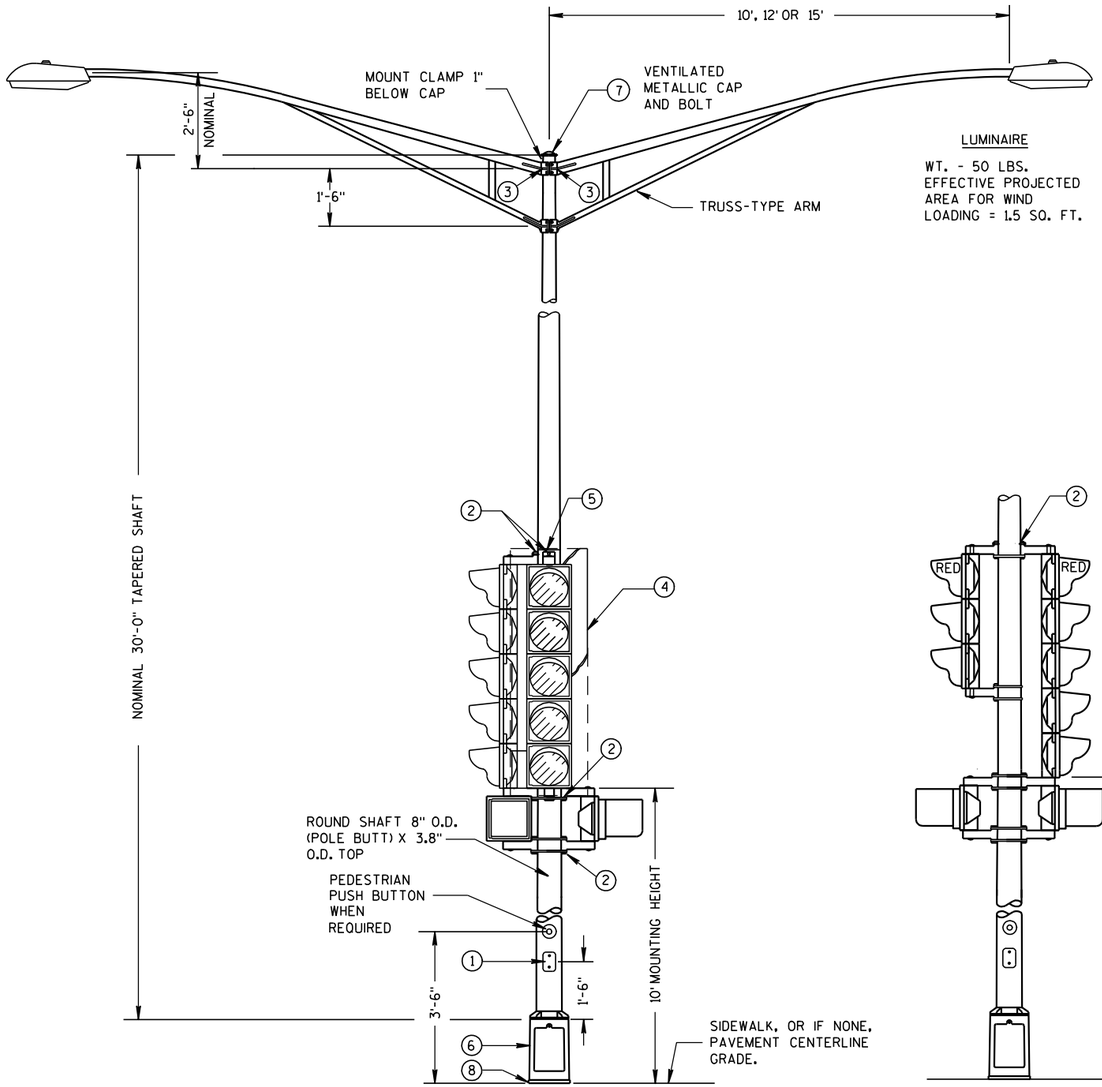
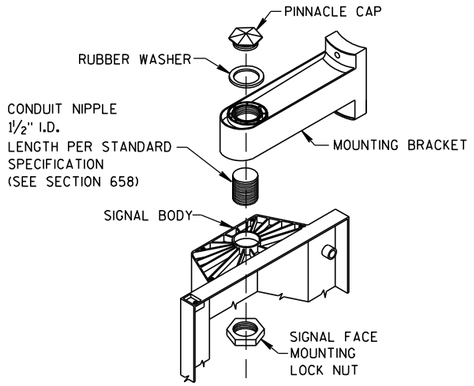




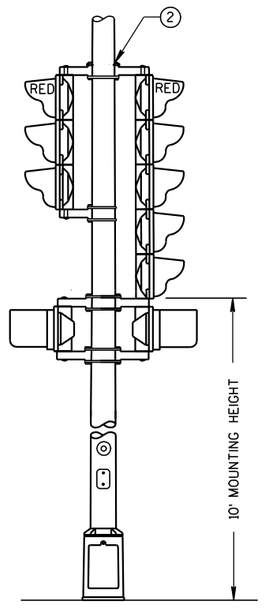
LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED AREA FOR WIND LOADING = 1.5 SQ. FT.

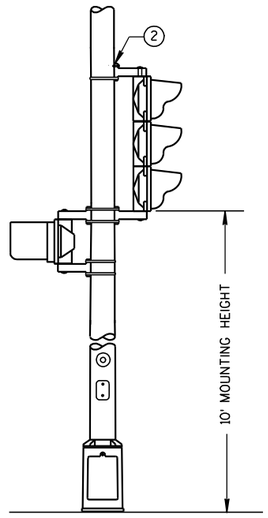
(MAXIMUM LOAD)



SIGNAL FACE MOUNTING DETAIL
(BANDED)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE

TYPE 4 POLE MOUNTING CONFIGURATION

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.

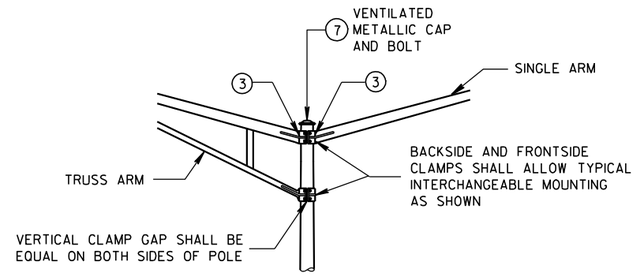
POLES SHALL BE GALVANIZED STEEL WITH A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ 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, CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

1. 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.
2. SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658).
3. GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" 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 1 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 THE TRANSFORMER BASE.



INTERCHANGEABLE MOUNTING DETAIL

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4

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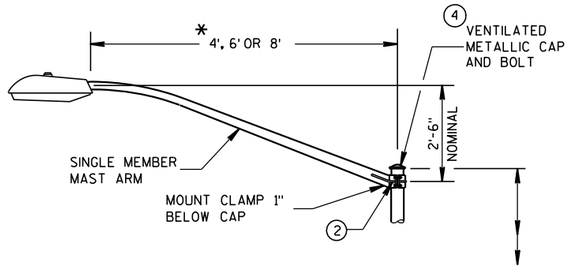
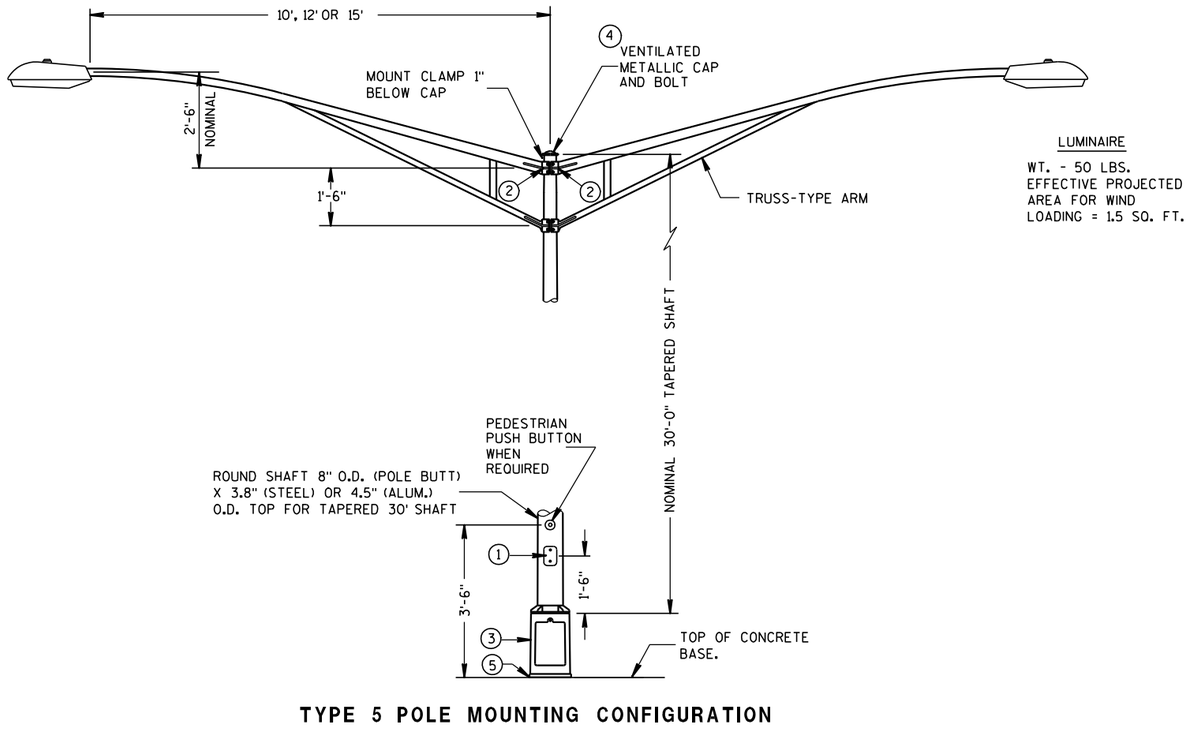
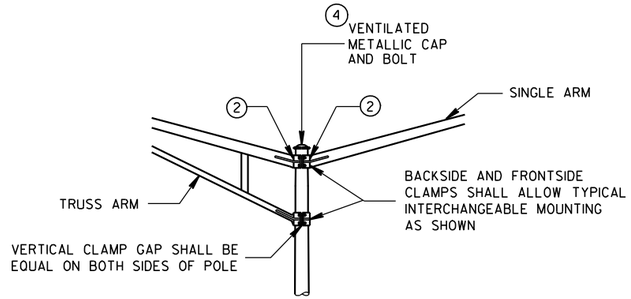
*RISE FOR 4' ARM SHALL BE 2'-0".





TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY



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 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

THE TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.188".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONEECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

1. 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.
2. GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.
3. CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
4. FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
5. SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

POLE MONTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)

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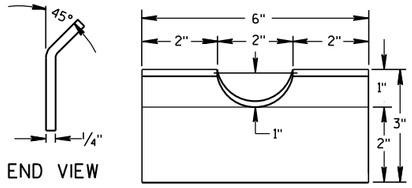
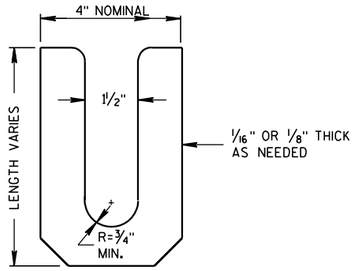
S.D.D. 9 E 1-11d



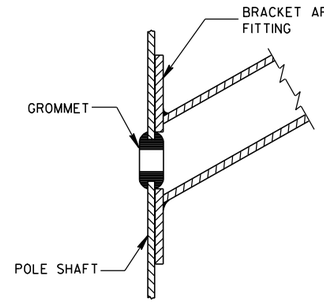
RECTANGULAR CLAMP SHIM

(4 TO A SET)

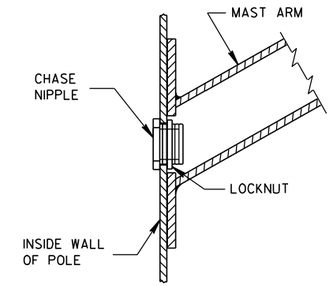


LEVELING SHIM (15)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

(10.) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11.) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

(12.) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13.) OUTSIDE SHIM DIAMETER - (4.5" O.D. FOR LUMINAIRE MAST ARM)
(6.625" O.D. FOR TROMBONE MAST ARM)

(14.) VARIABLE SHIM THICKNESS - (0.10", 0.25", 0.35", 0.53" OR 0.70")

SHIM THICKNESS FOR TROMBONE MAST ARMS MAY BE TYPICALLY 0.25", 0.35", 0.53" OR 0.70".

SHIM THICKNESS FOR LUMINAIRE MAST ARMS MAY BE TYPICALLY 0.10", 0.25" OR 0.35".

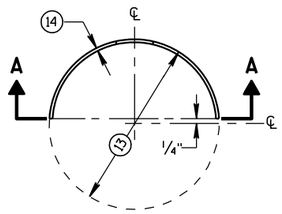
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.

SHIM THICKNESS SHALL BE IMPRESSED INTO EACH SHIM. NUMERALS SHALL BE 1/4" HIGH AND LEGIBLE.

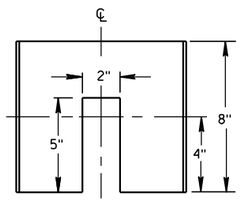
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.

(15.) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



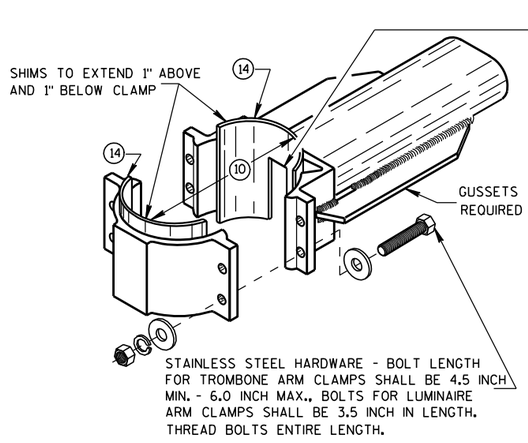
PLAN VIEW



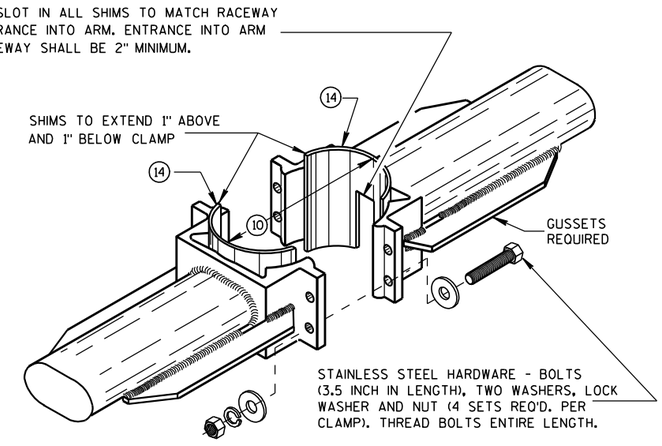
SECTION A-A

CIRCULAR CLAMP SHIM

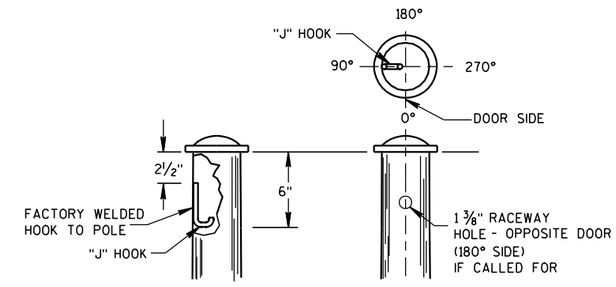
(2 TO A SET)



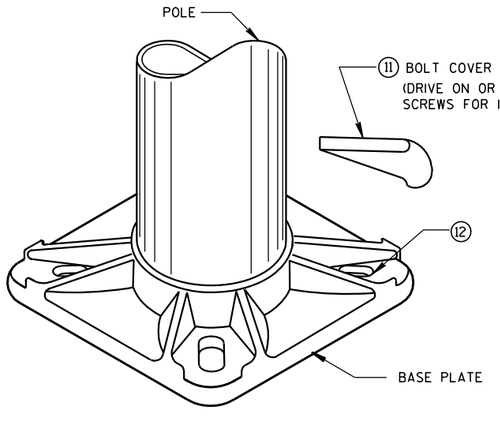
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



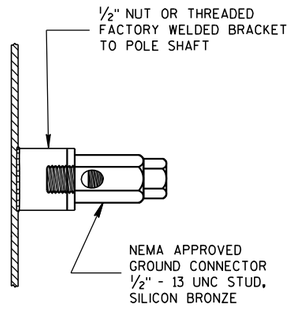
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

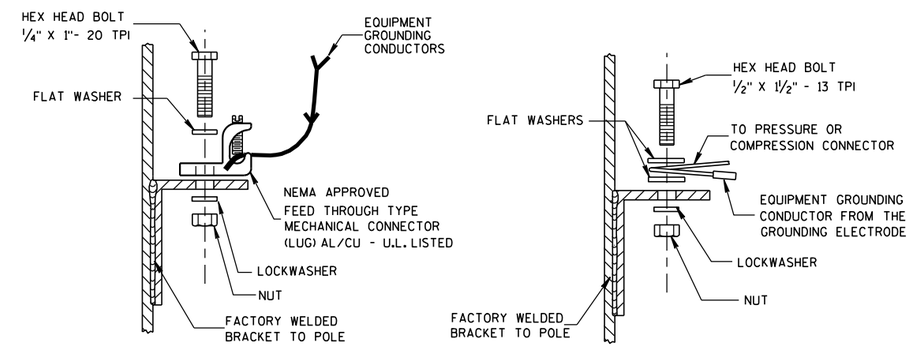


TYPICAL "J" HOOK LOCATION



BASE PLATE





TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/11 DATE

/S/ Thomas J. Gosling
STATE ELECTRICAL ENGI

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HWYS

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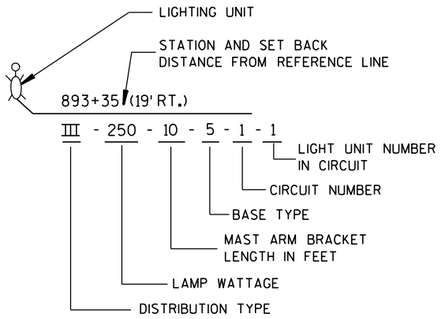
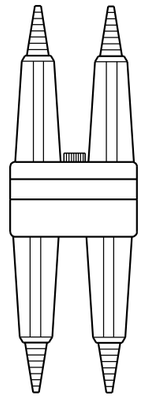
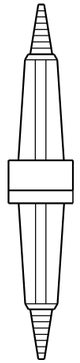


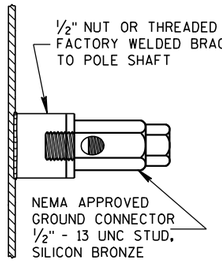
LIGHTING UNIT CODE
(TYPICAL)

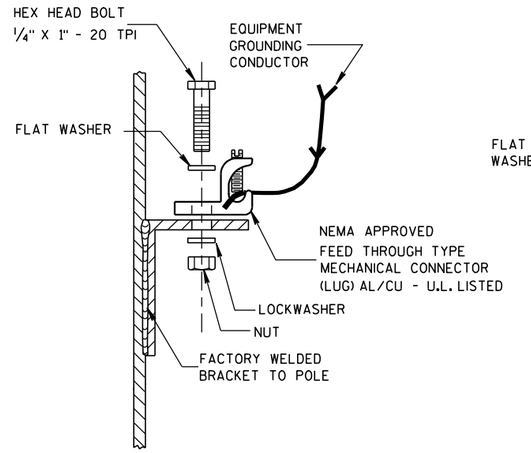


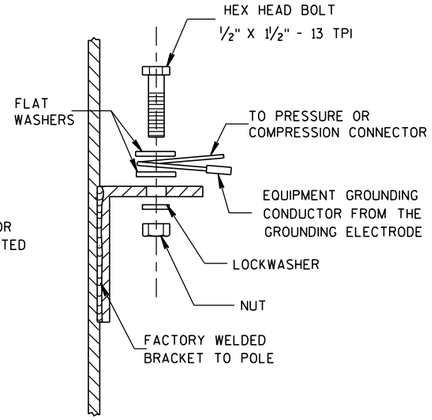
DETAIL "A"
BREAKAWAY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT



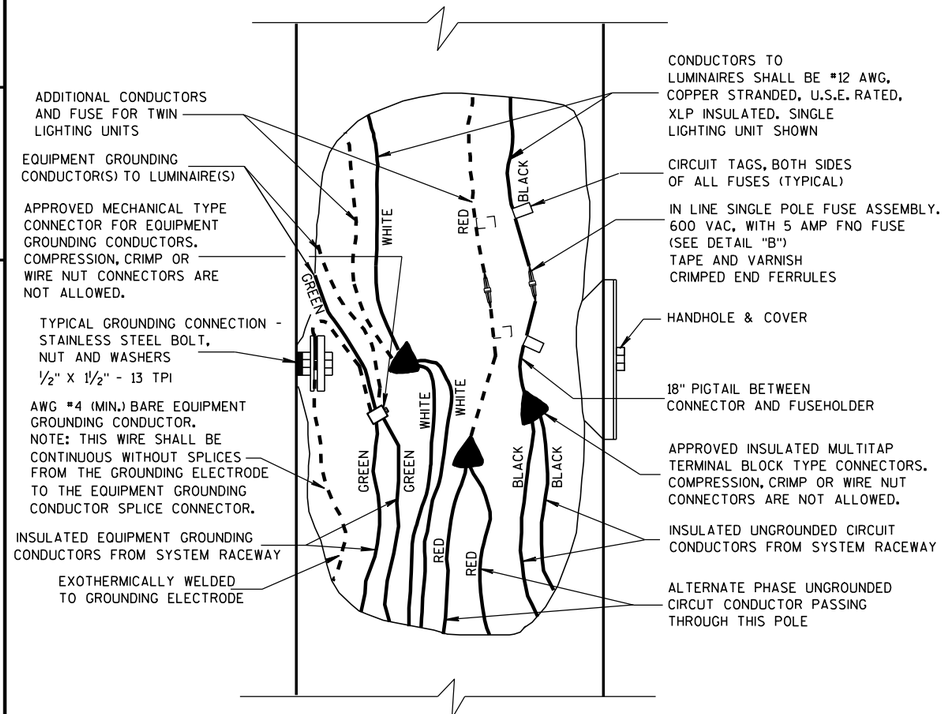
DETAIL "B"
BREAKAWAY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



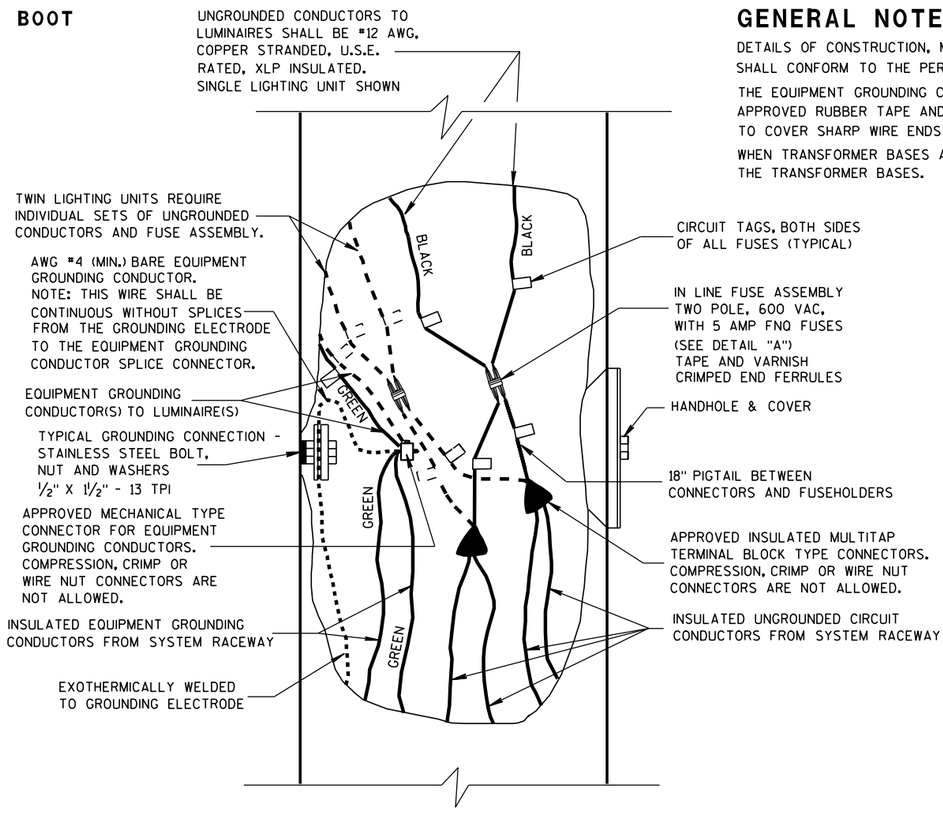




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 DATE — /S/ Thomas J. Gosnine STATE ELECTRICAL ENGI — HWYS

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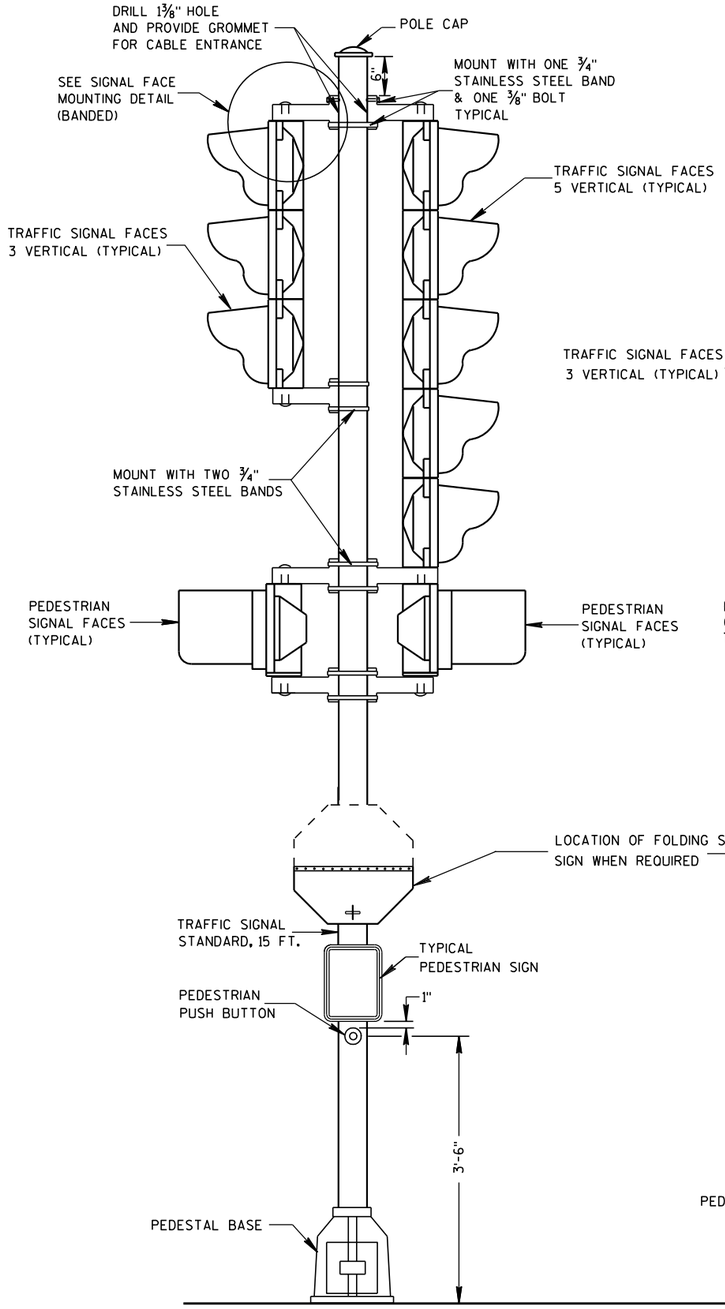
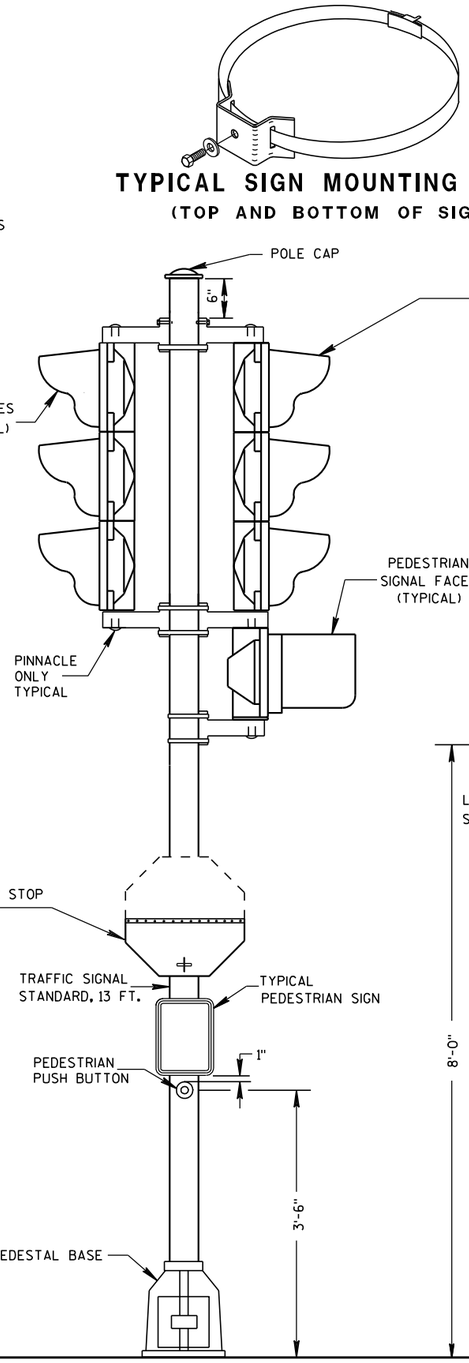
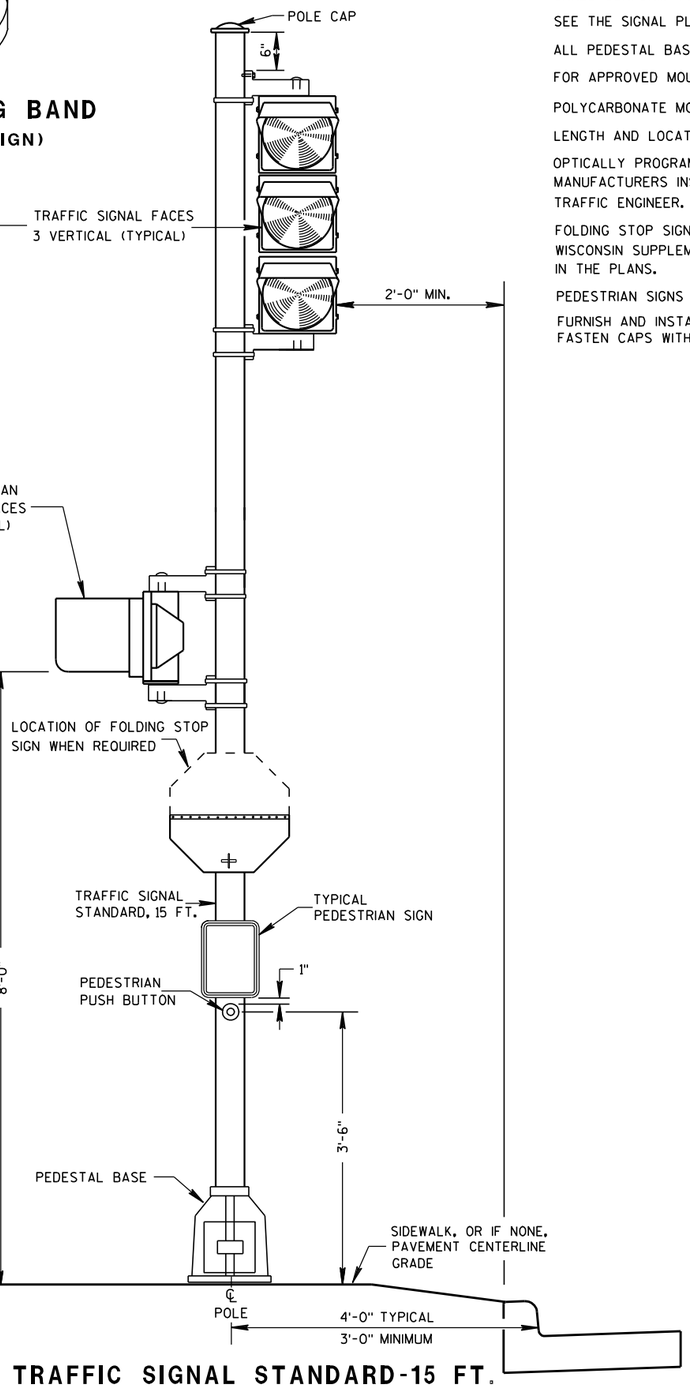


TRAFFIC SIGNAL STANDARD-15 FT.



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.

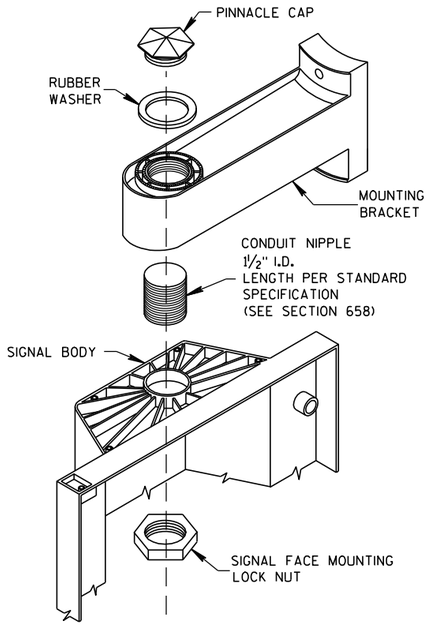
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE DISTRICT 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) 1/4" 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
5/11/10 DATE
/S/ John Corbin STATE ELECTRICAL ENGI
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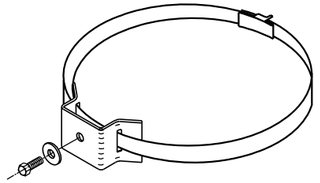
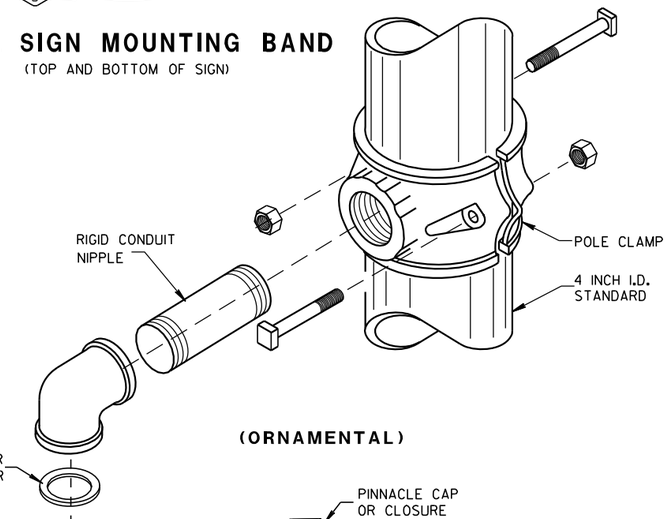
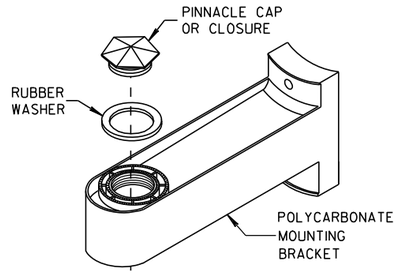


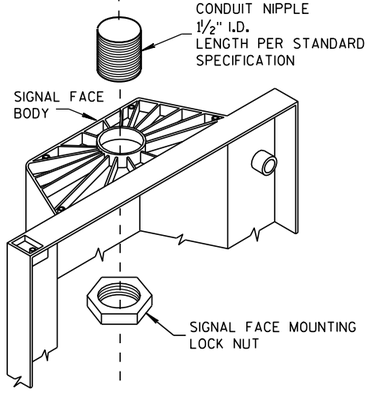
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



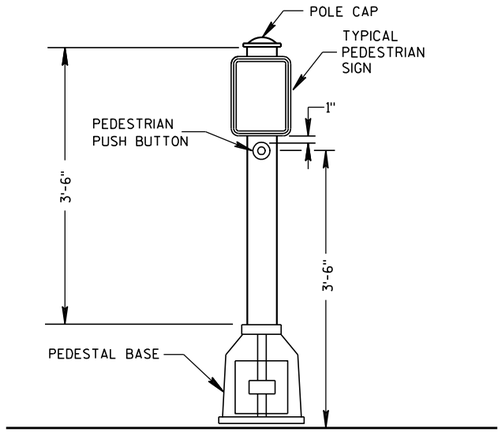
(ORNAMENTAL)



(BANDED)



SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

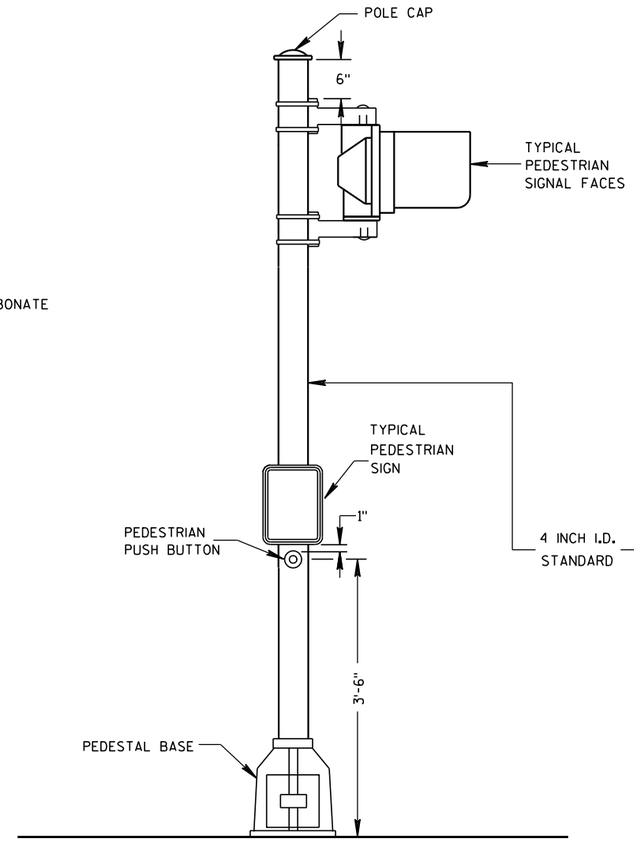
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

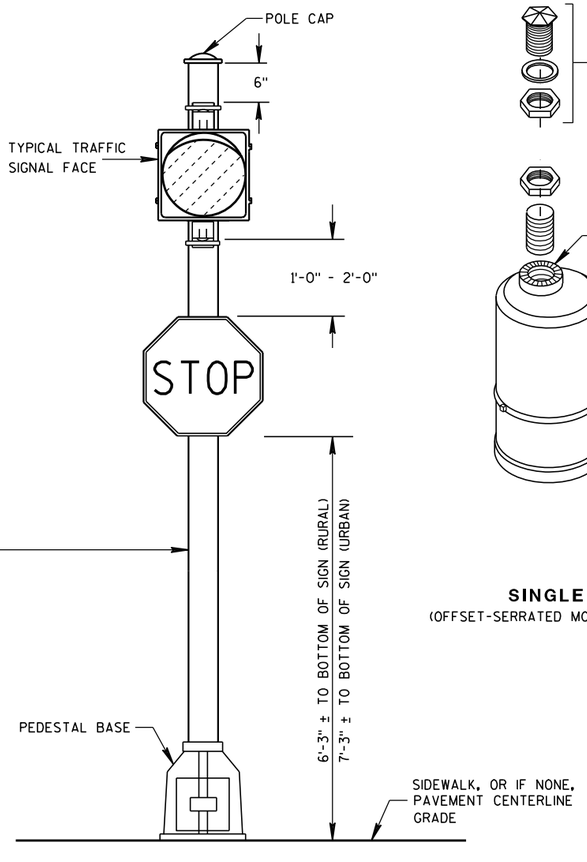
MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

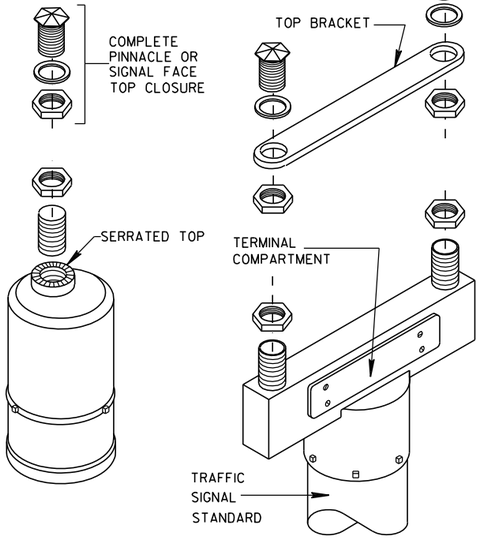
FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



PEDESTRIAN FACE STANDARD-10 FT.
(WALK-DON'T WALK)



STANDARD FLASHER.
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET-SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/11/10
DATE

/S/ John Corbin
STATE ELECTRICAL ENGI

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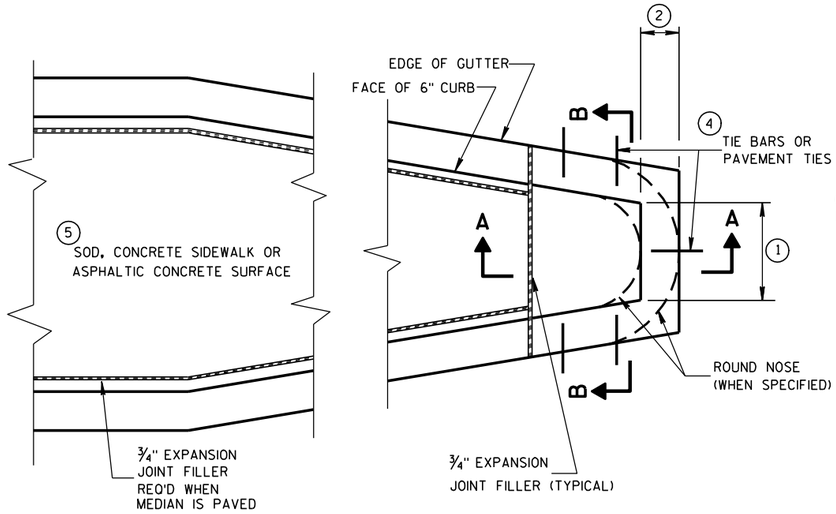
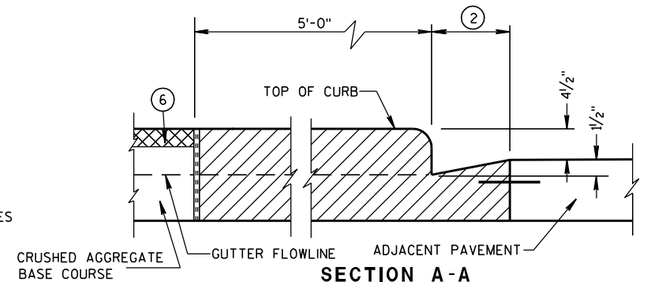
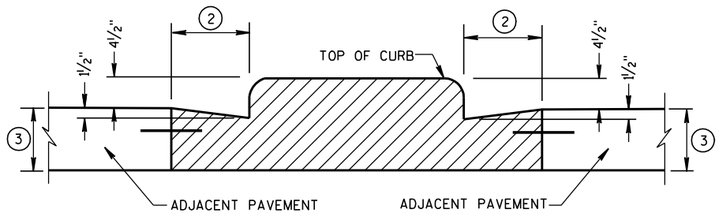




SECTION A-A



SECTION B-B

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.

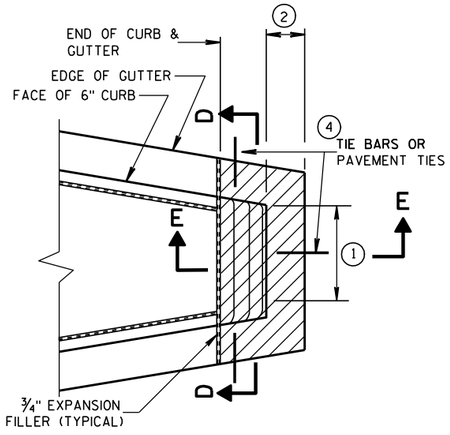
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

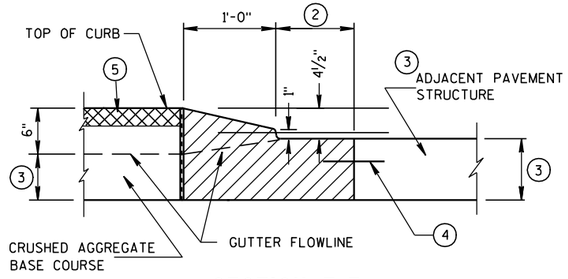
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(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.

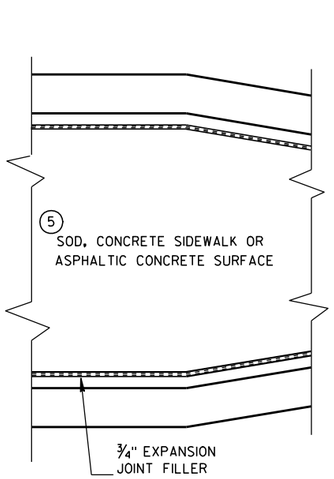
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

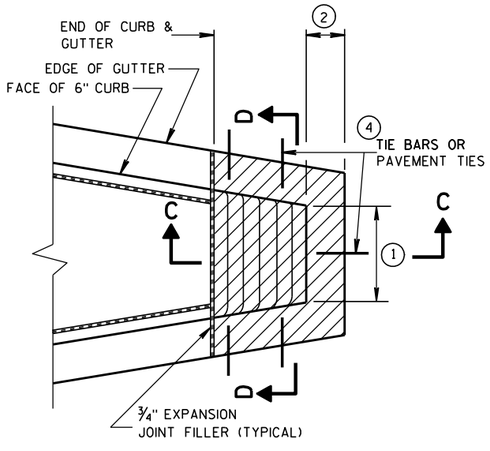




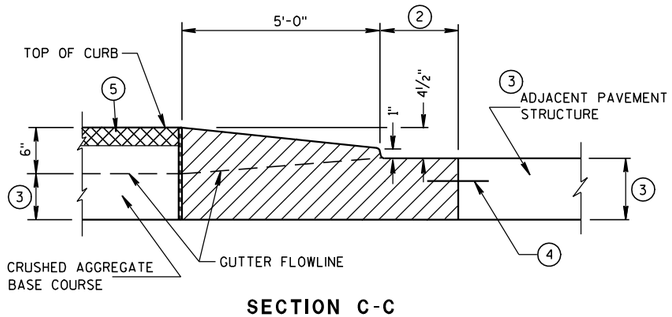
SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2

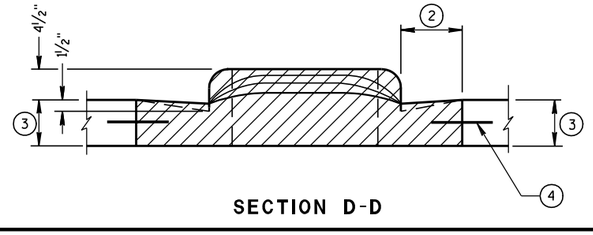




CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION C-C



SECTION D-D

CONCRETE MEDIAN NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/8/2006 DATE	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
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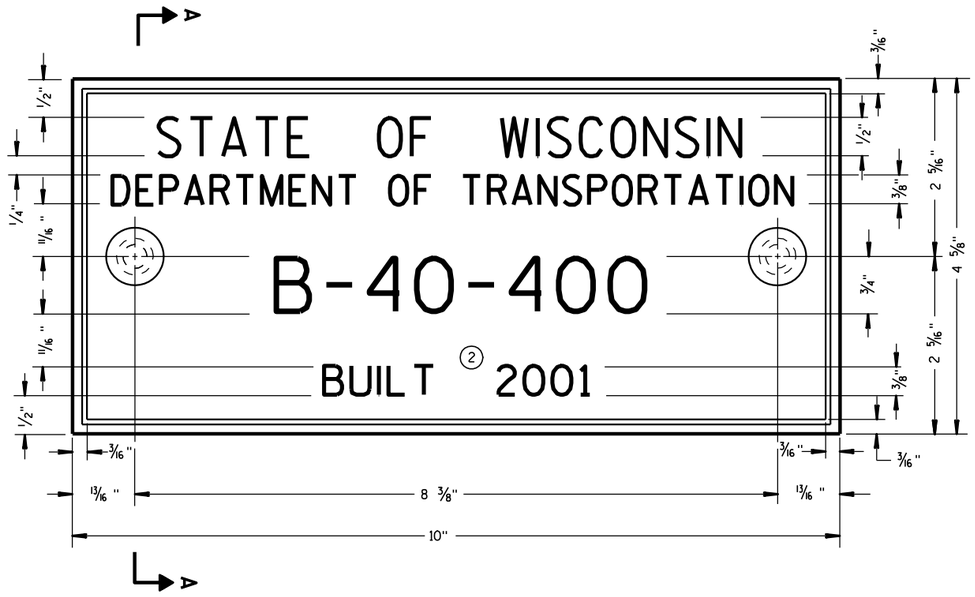


TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

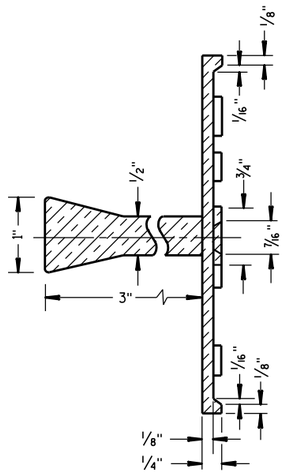
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

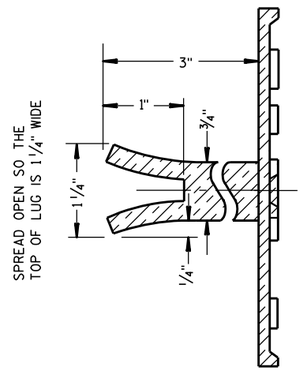
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

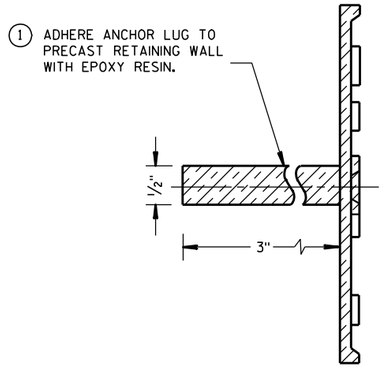
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck CHIEF STRUCTURAL DEVELOPMENT ENGINEER

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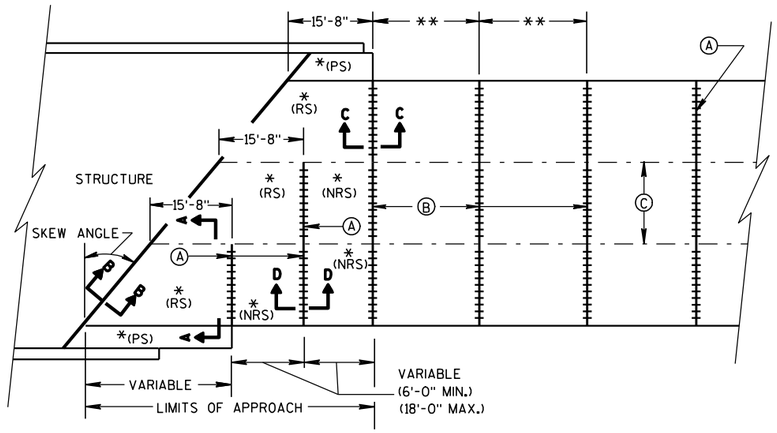
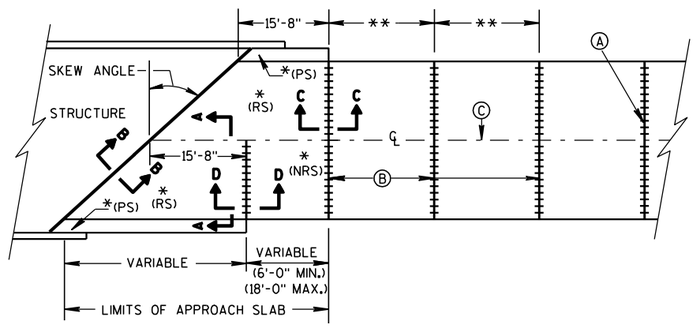
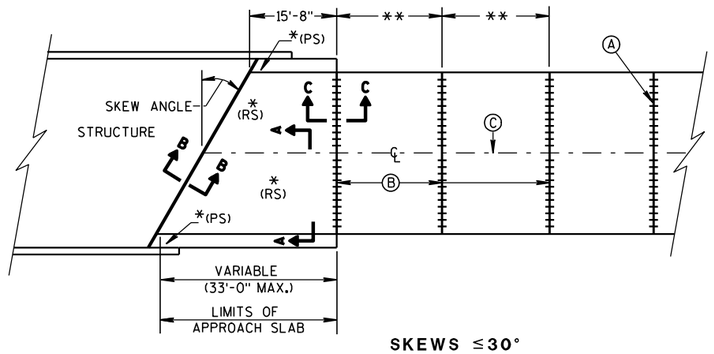


SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >30°
(PAVEMENT WIDTH ≤30')



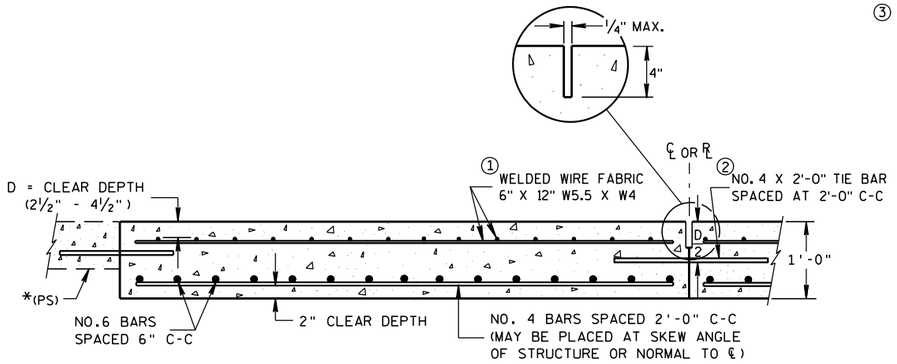
SKEWS ≤30°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

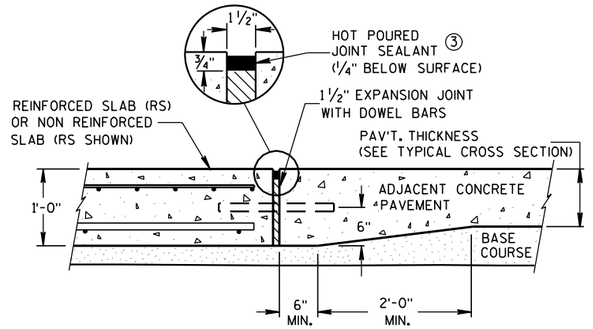
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

**STANDARD TRANSVERSE JOINT SPACING
(SEE SDD 13C4, SDD 13C11, & SDD 13C13)

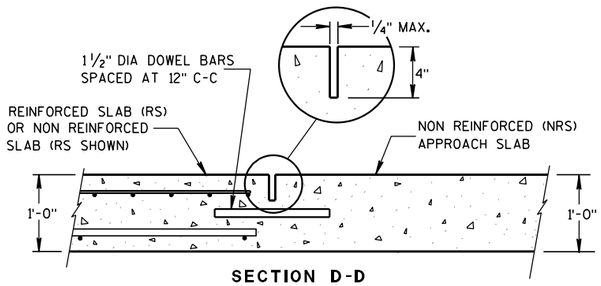
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
(B) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄
(C) STANDARD LONGITUDINAL JOINT AND TIE BARS.



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



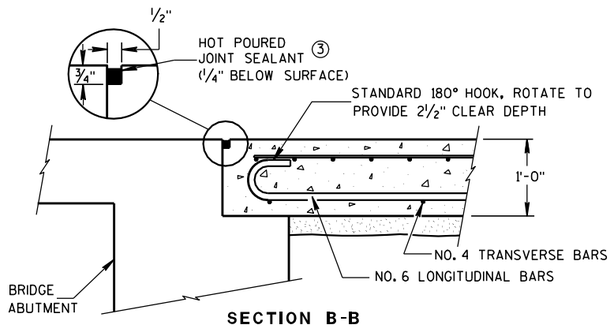
SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

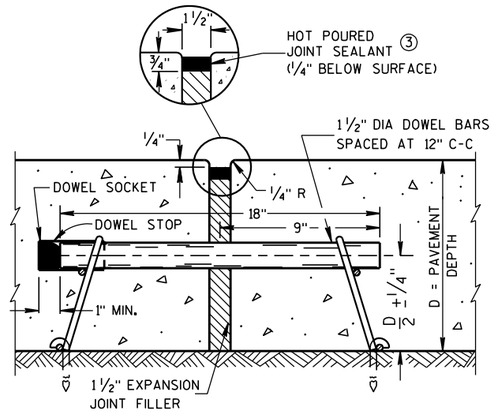
APPROACH SLABS ABUTTING AN HMA PAVEMENT OVER BASE COURSE DO NOT NEED TO BE DOWELED.

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

1. THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
2. THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
3. USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



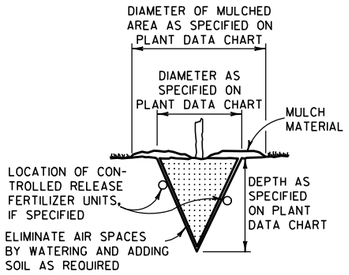
EXPANSION JOINT

CONCRETE PAVEMENT APPROACH SLAB

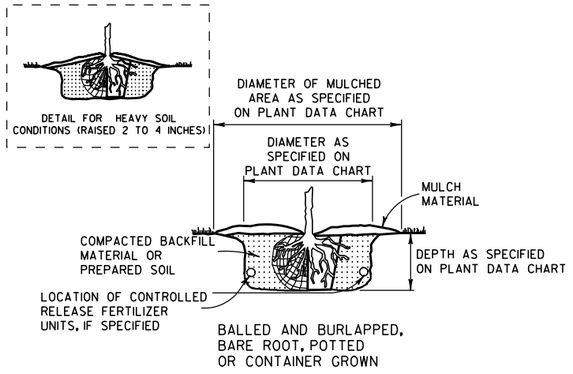
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/11/2009 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & DESIGN ENGINEER
FHWA

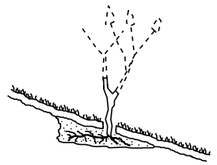
6
S.D.D. 13 B 2-6



MACHINE MOVED

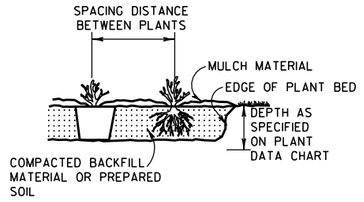


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



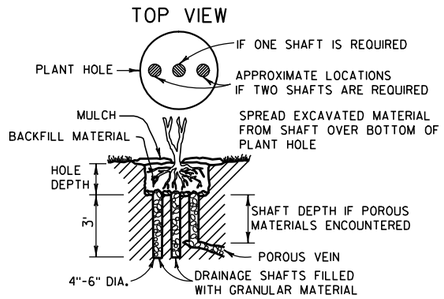
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

NOTE:
1) ENGINEER SHALL REQUIRE 3 SLITS IN POT TO SPEED DETERIORATION
2) METAL, PLASTIC OR OTHER NONDEGRADABLE POTS SHALL BE REMOVED PRIOR TO PLANTING



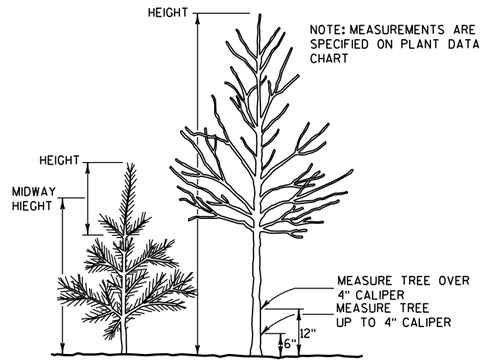
PREPARED BED (BARE ROOT AND POTTED)

PLANTING

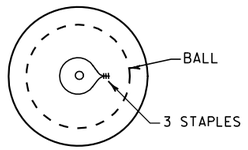


NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

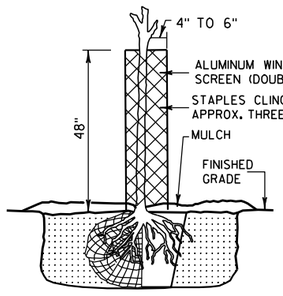
DRAINING



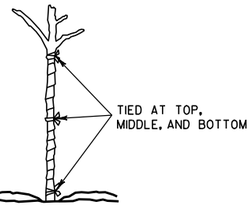
MEASURING



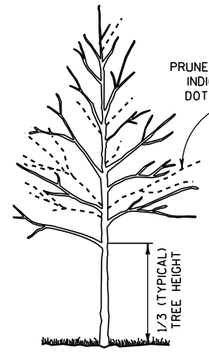
TOP VIEW



RODENT PROTECTION



WRAPPING



TALL DECIDUOUS TREES (ASH, MAPLE, LINDEN, OAK)

SINGLE STEMMED LOW DECIDUOUS TREES (CRABS AND OTHER SINGLE STEM TYPE)

MULTI-STEMMED LOW DECIDUOUS TREES OR LARGE SHRUBS (HAWTHORN, SERVICEBERRY)

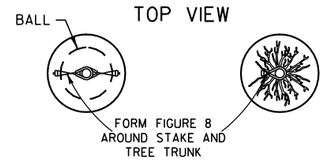
NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES

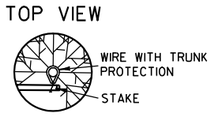
SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

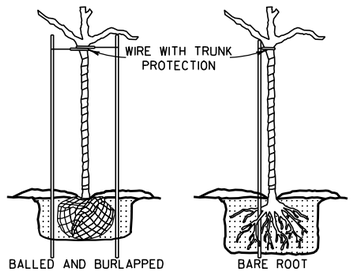
SUMAC

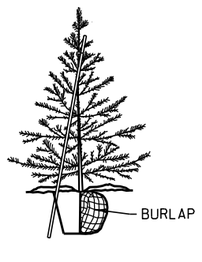
TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

PRUNING



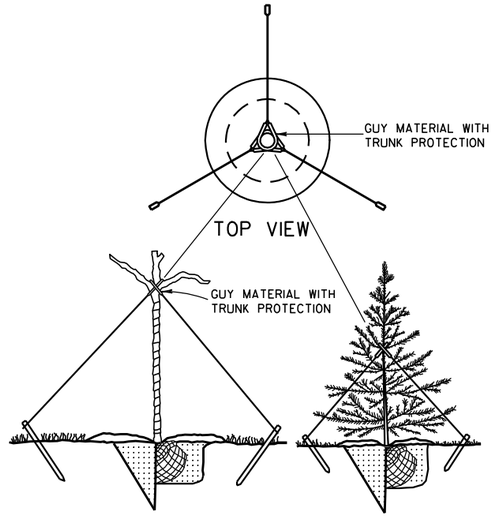






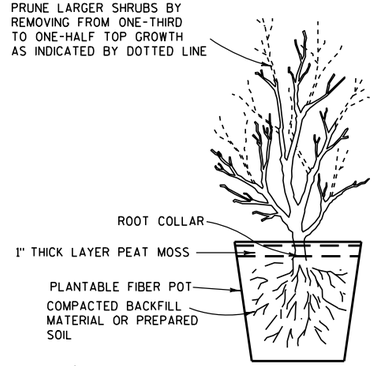
NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE IN PLACE.

BRACING



GUYING

PRUNE LARGER SHRUBS BY REMOVING FROM ONE-THIRD TO ONE-HALF TOP GROWTH AS INDICATED BY DOTTED LINE



POTTING

NOTES

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

BRACING, WRAPPING, GUYING, RODENT PROTECTION, FERTILIZER AND MULCH SHALL BE USED ONLY WHEN SPECIFIED ON THE PLANT DATA CHART (PART OF PLAN) OR SPECIAL PROVISIONS.

TREE PLANTING DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/11/94
DATE
/S/ Rory L. Rhinesmith
CHIEF METHODS DEVELOPMENT ENGINEER
FHWA

S.D.D. 14 A 2-1

6
S.D.D. 14 A 2-1

GENERAL NOTES

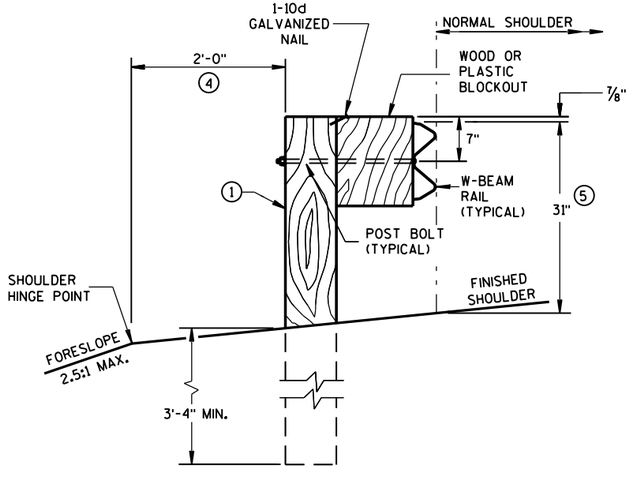
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

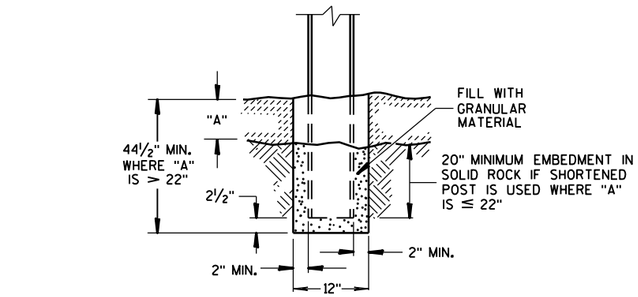
4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".



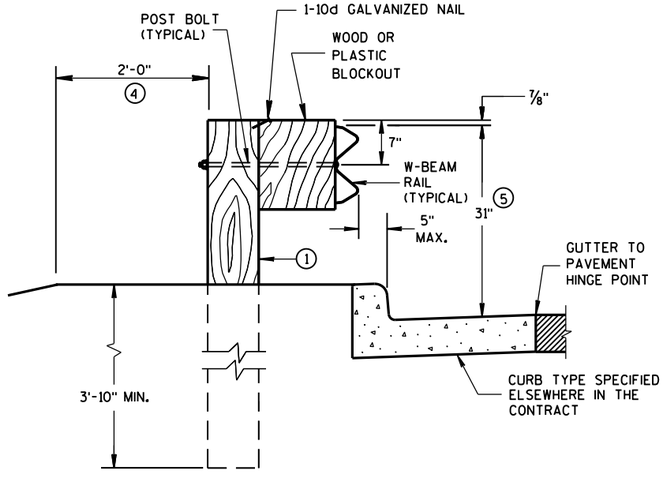
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



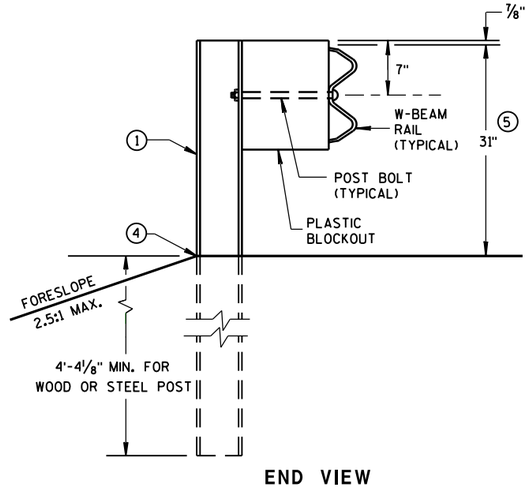
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



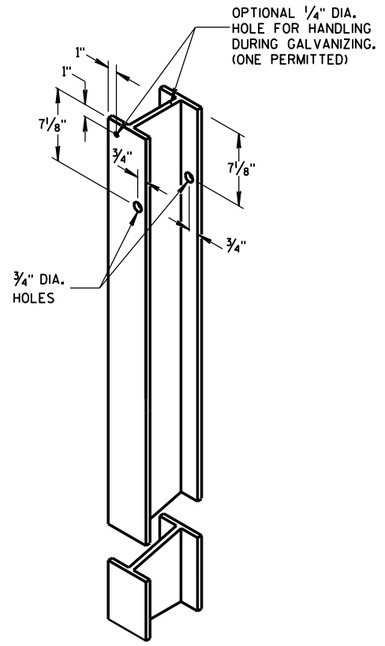
END VIEW

LOCATED ALONG A CURBED ROADWAY

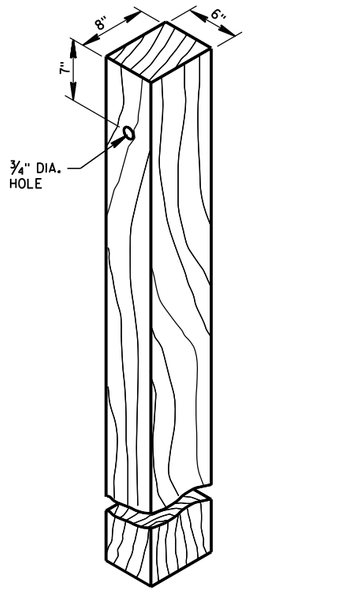


END VIEW

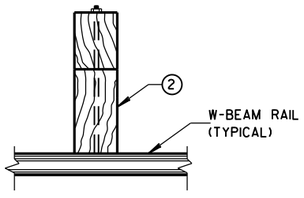
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



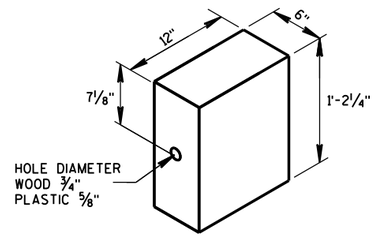
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



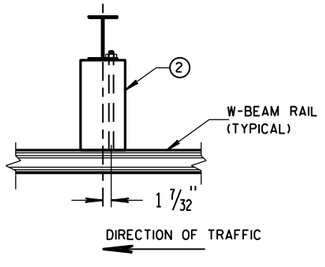
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

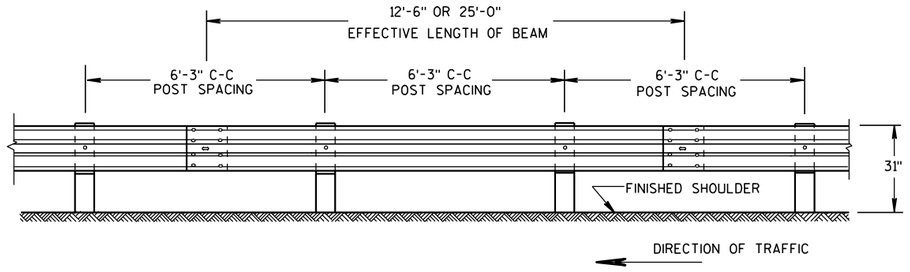


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

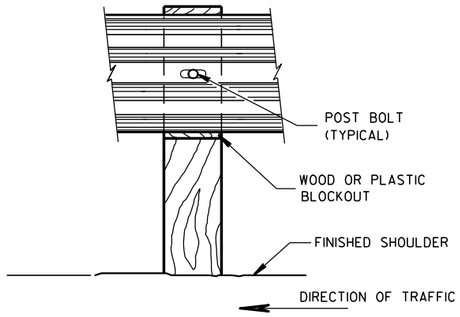
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 42-2a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



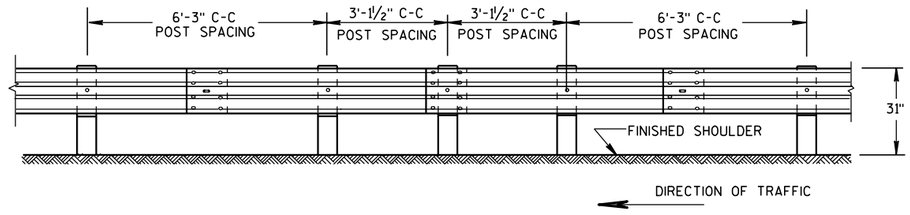
FRONT VIEW AT WOOD POST

GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

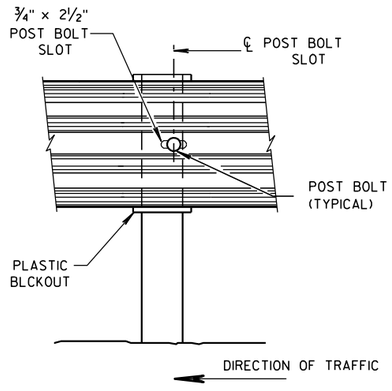
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

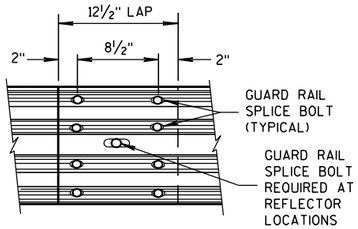


FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

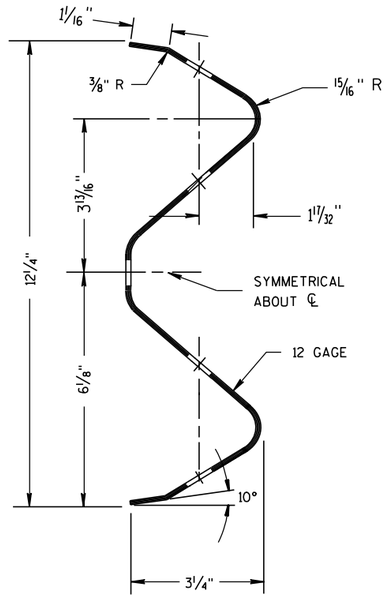


FRONT VIEW AT STEEL POST

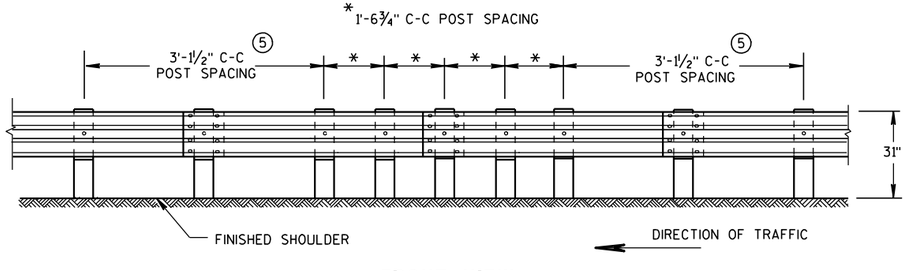


FRONT VIEW

MID-SPAN BEAM SPLICE

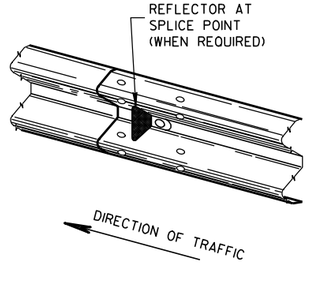


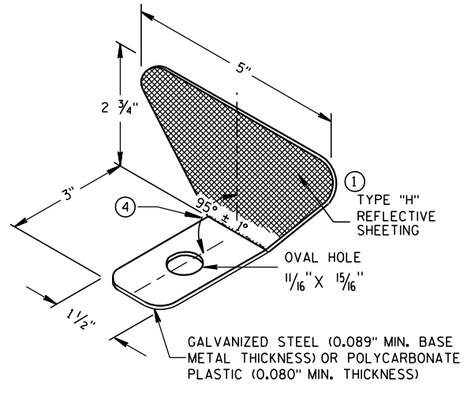
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①

REFLECTOR SPACING ②

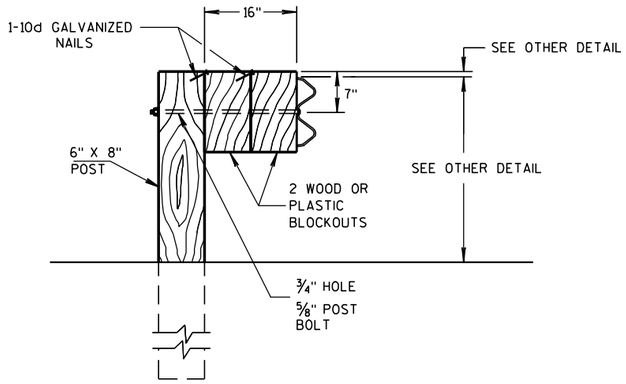
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ③ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 ④ 2	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

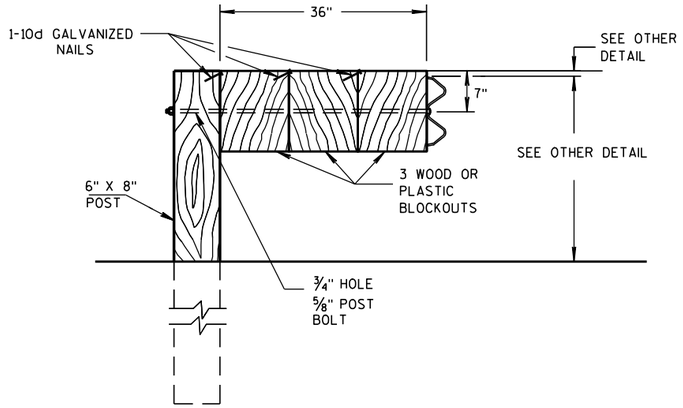
S.D.D. 14 B 42-2b

S.D.D. 14 B 42-2b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

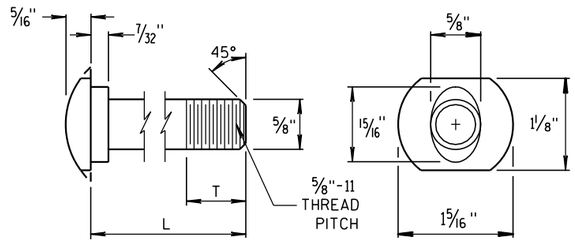


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

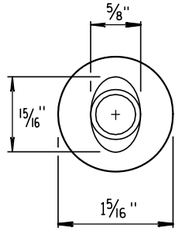
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

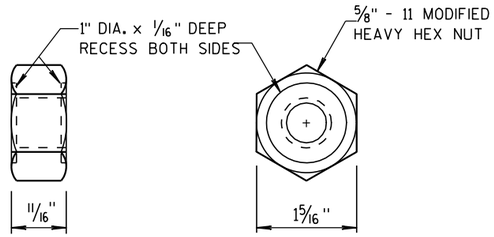


POST BOLT TABLE

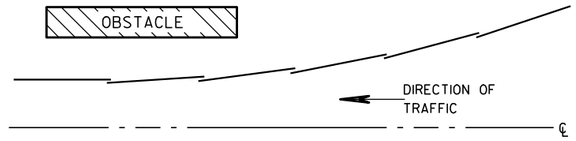
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

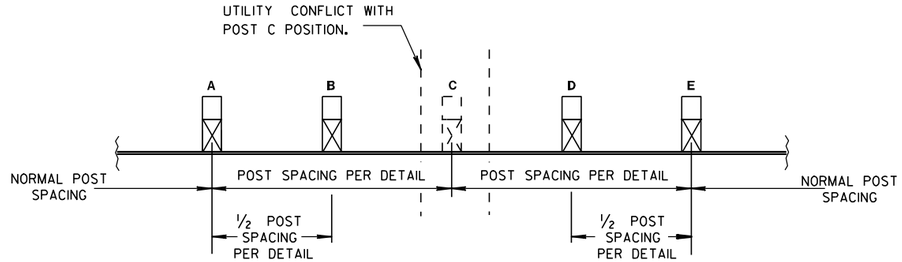


POST BOLT AND RECESS NUT

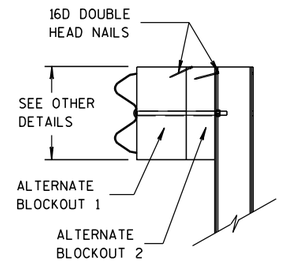


PLAN VIEW

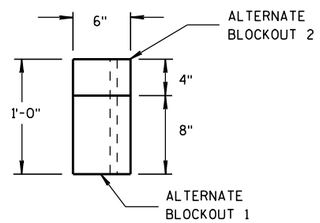
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/15/2011 DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

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6

S.D.D. 14 B 42-2c

6

S.D.D. 14 B 42-2c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL),AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

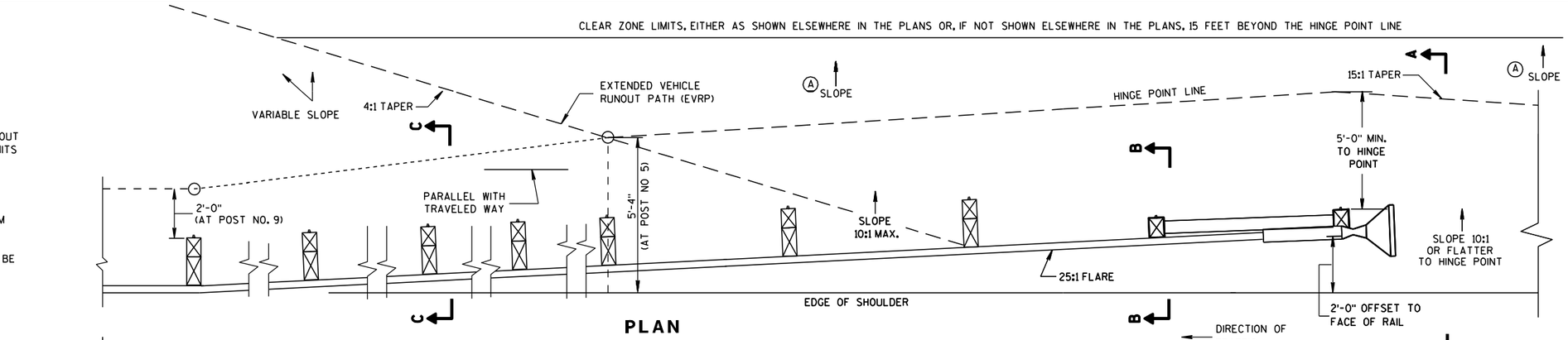
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

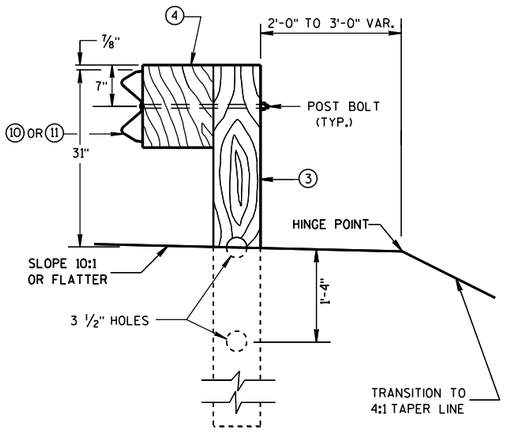
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

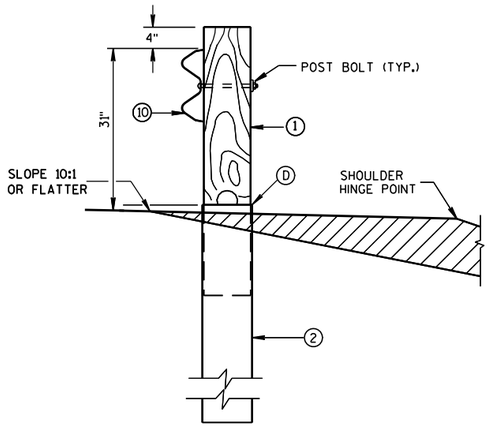
THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")



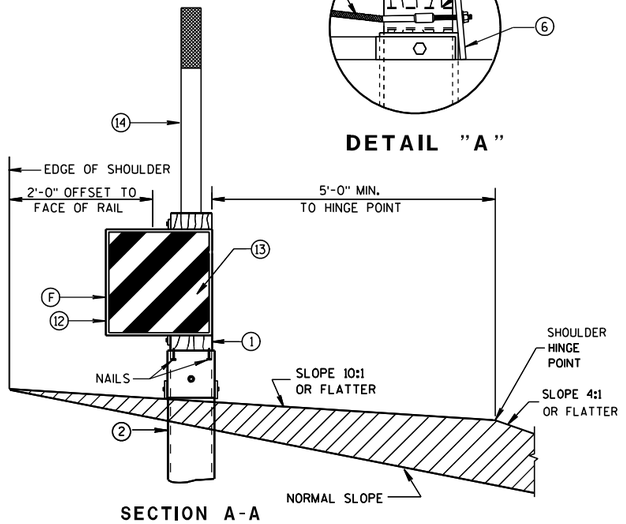
ELEVATION



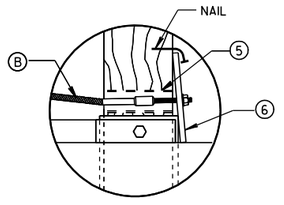
SECTION C-C
TYPICAL AT POST NOS. 3-9



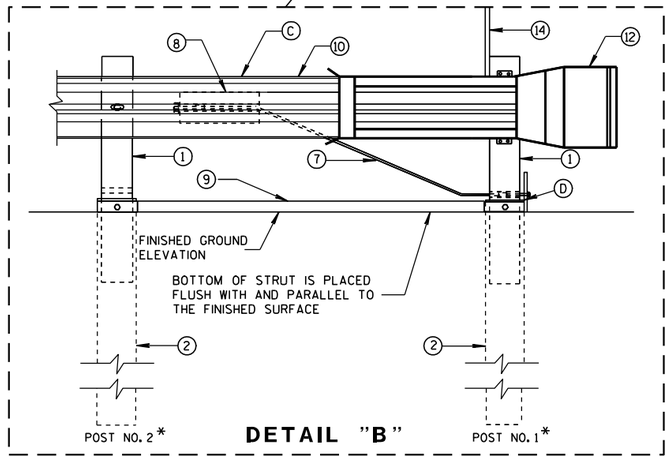
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



DETAIL "B"

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 14 B 44-1a

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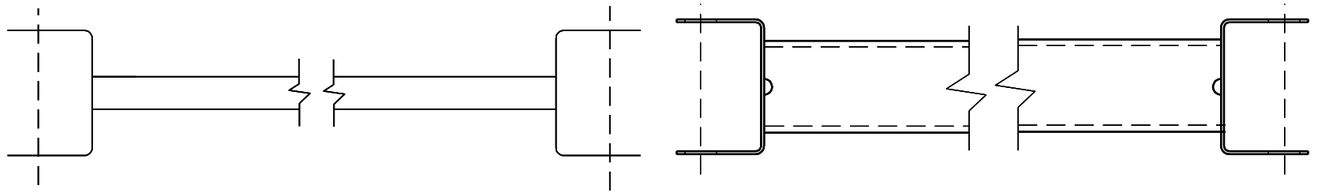
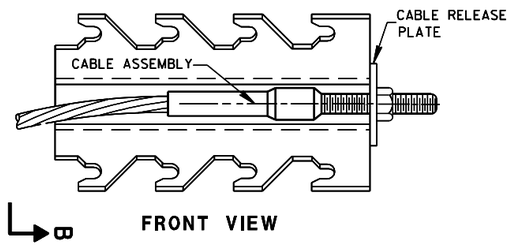


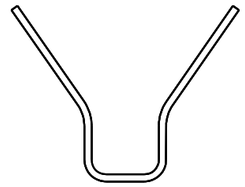
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

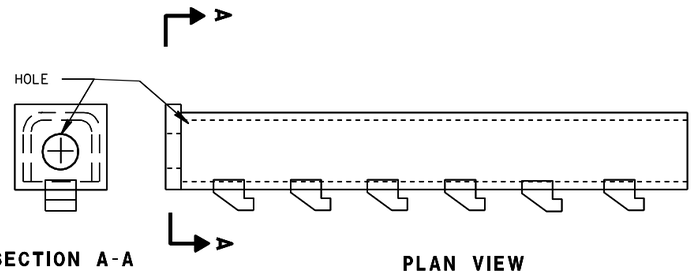
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



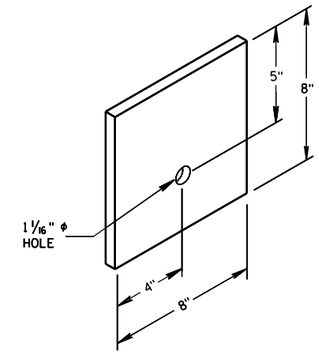
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)

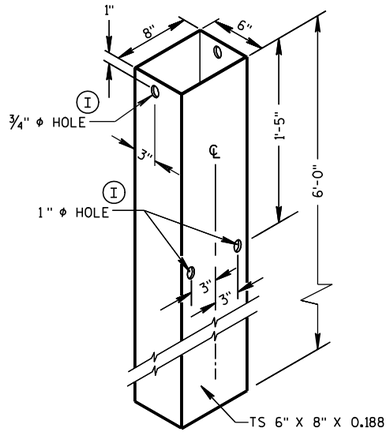


BEARING PLATE (6)

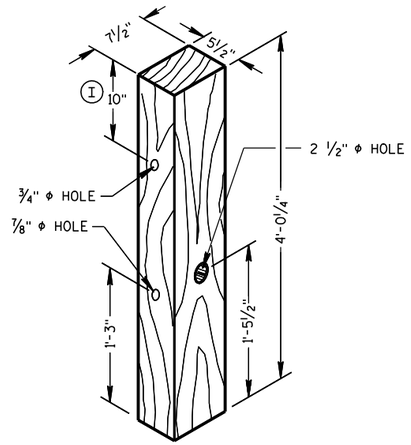
MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 44-1b

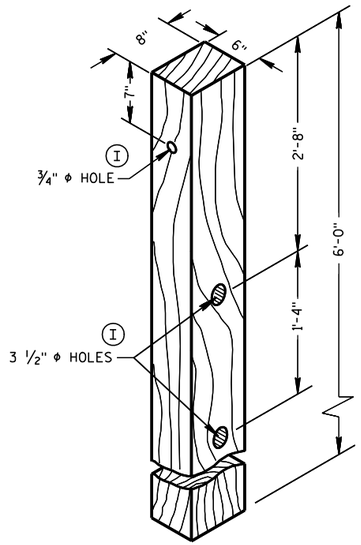


FOUNDATION TUBE (2)



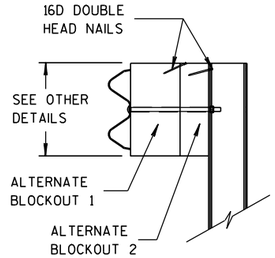
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

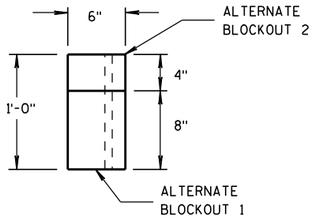


POSTS NUMBER 3-9

WOOD CRT POST (3)

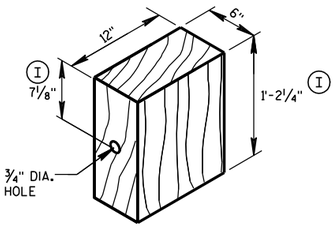


SIDE VIEW



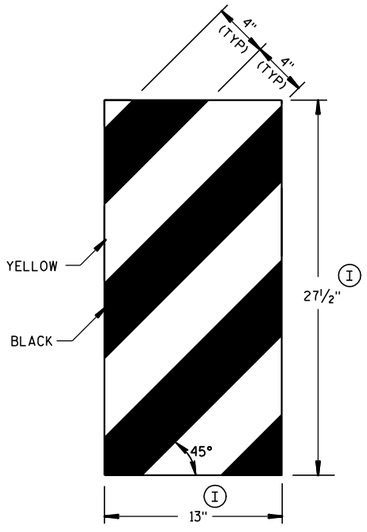
TOP VIEW

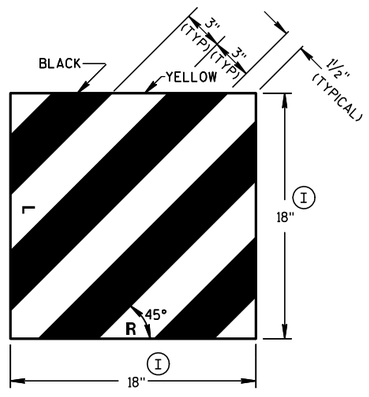
ALTERNATE WOOD BLOCKOUT DETAIL



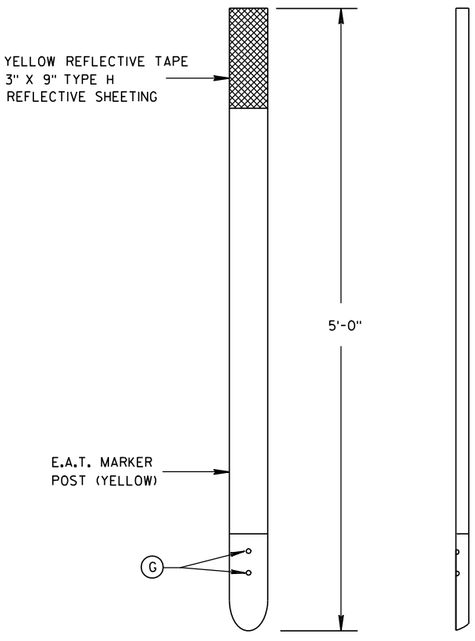
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



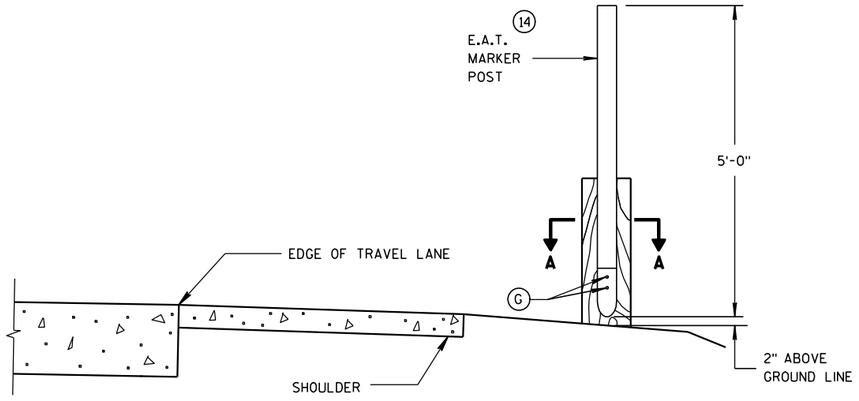


GENERIC REFLECTIVE SHEETING (13) (H)



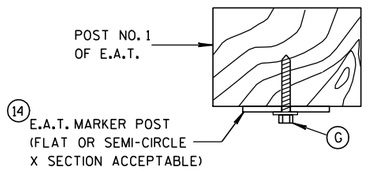
FRONT VIEW **SIDE VIEW**

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

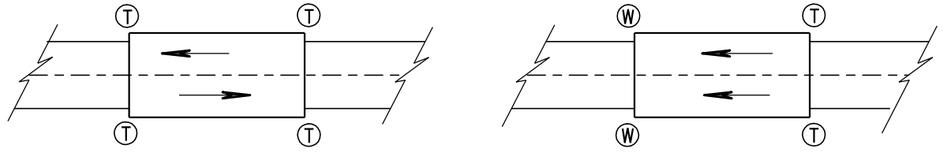
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-1c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

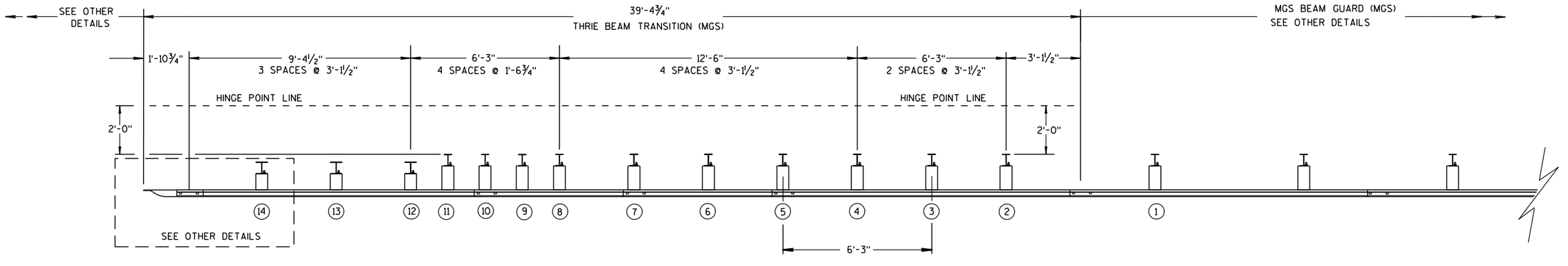
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED DURING EXCAVATION, SEE STANDARD DETAIL DRAWING 14 B 42.

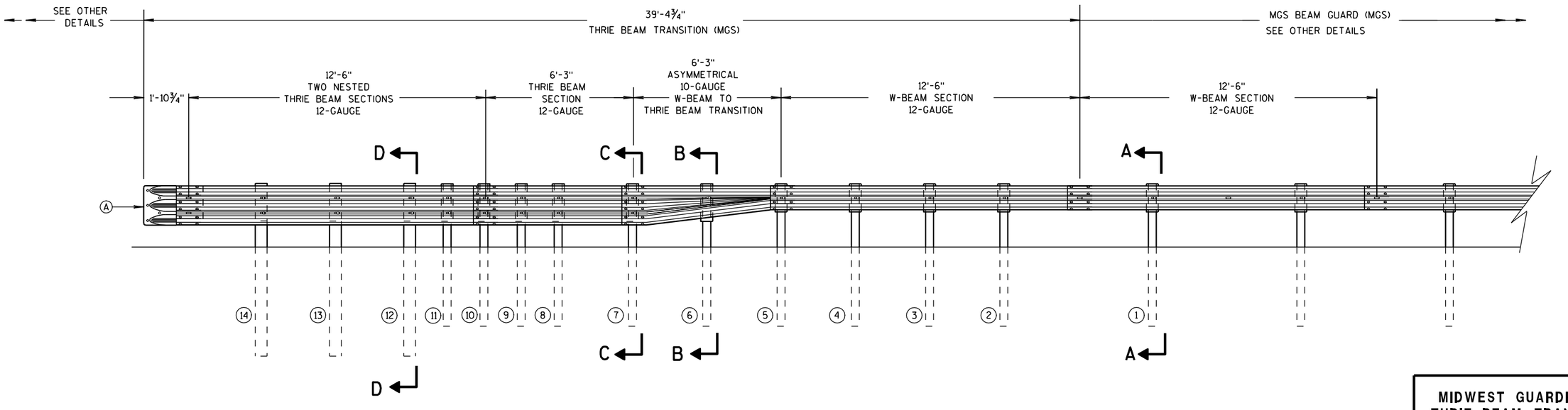
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

Ⓐ BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

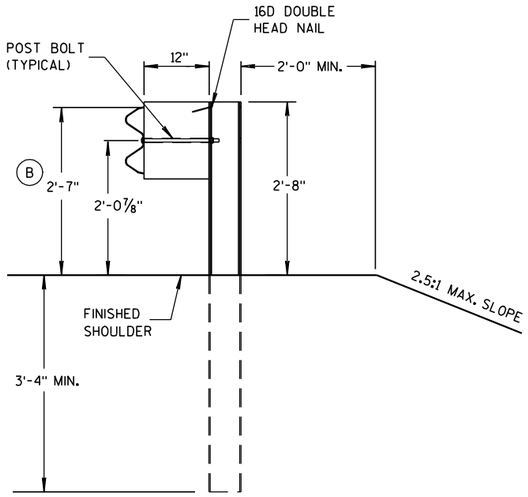
S.D.D. 14 B 45-2a

6

S.D.D. 14 B 45-2a

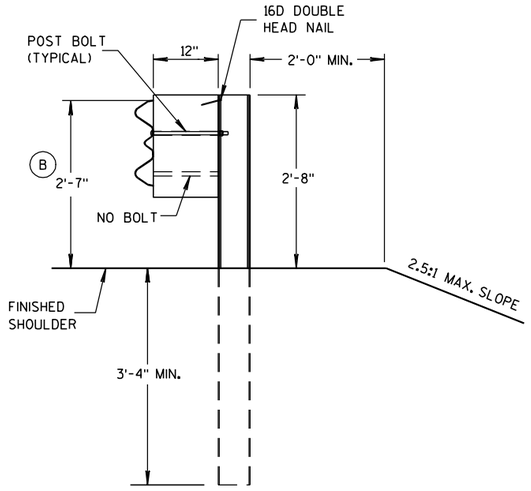
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



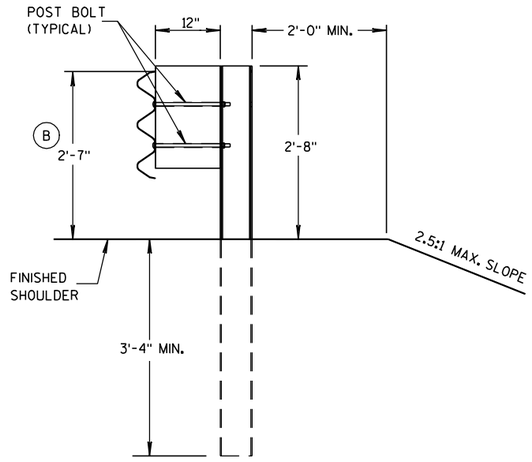
SECTION A-A

POSTS 1-5



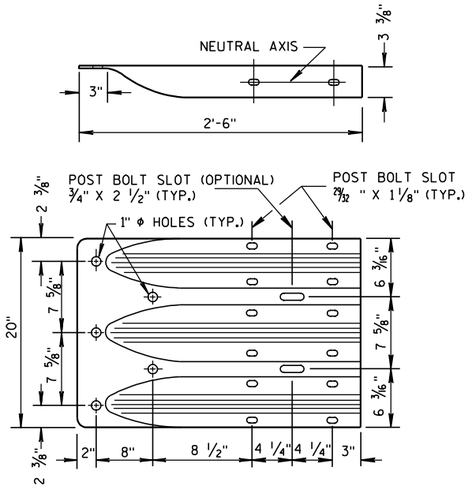
SECTION B-B

POST 6

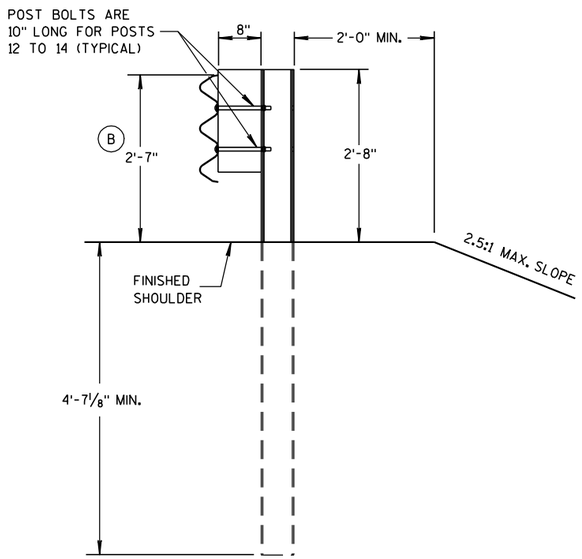


SECTION C-C

POSTS 7-11

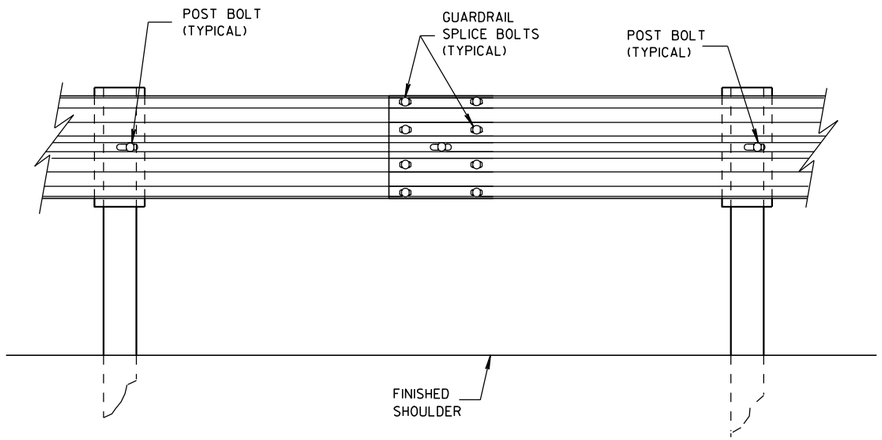


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14



SPLICE DETAIL

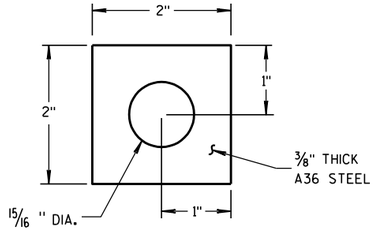
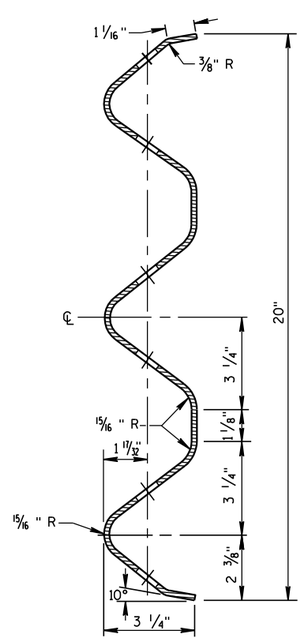


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

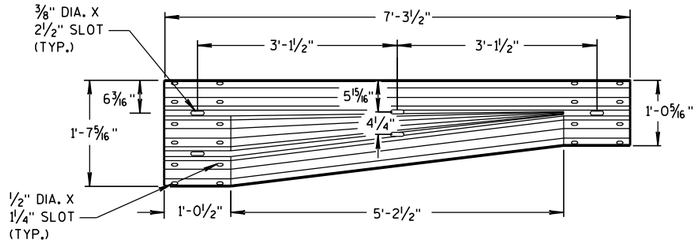
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

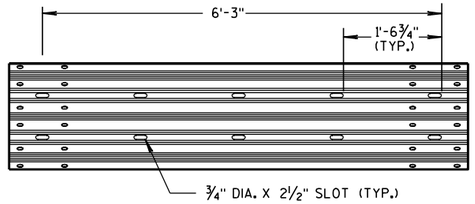
S.D.D. 14 B 45-2b

6

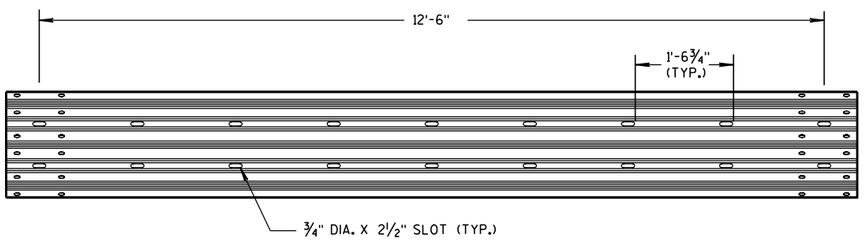
S.D.D. 14 B 45-2b



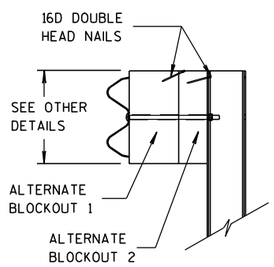
W-BEAM TO THRIE BEAM TRANSITION SECTION



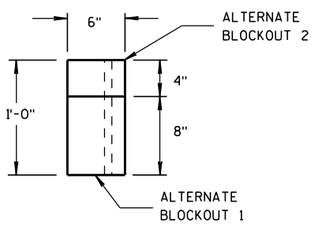
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

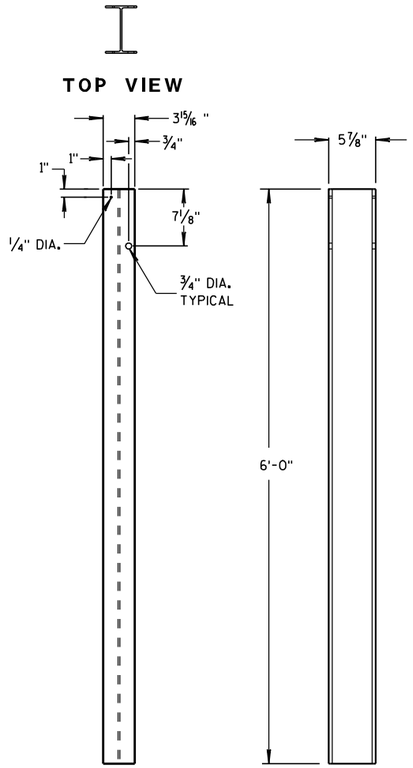


SIDE VIEW

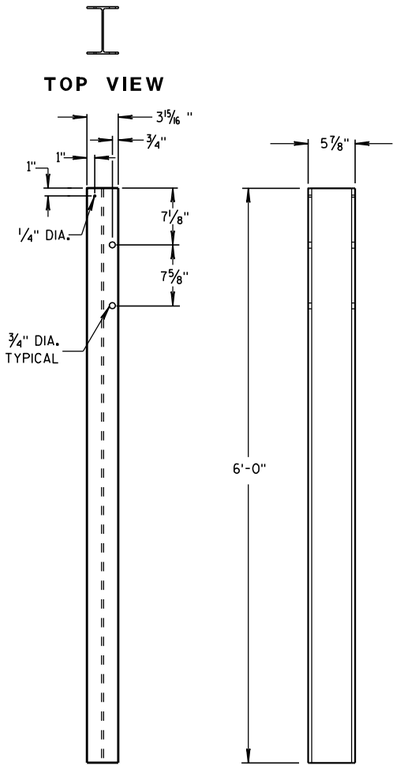


TOP VIEW

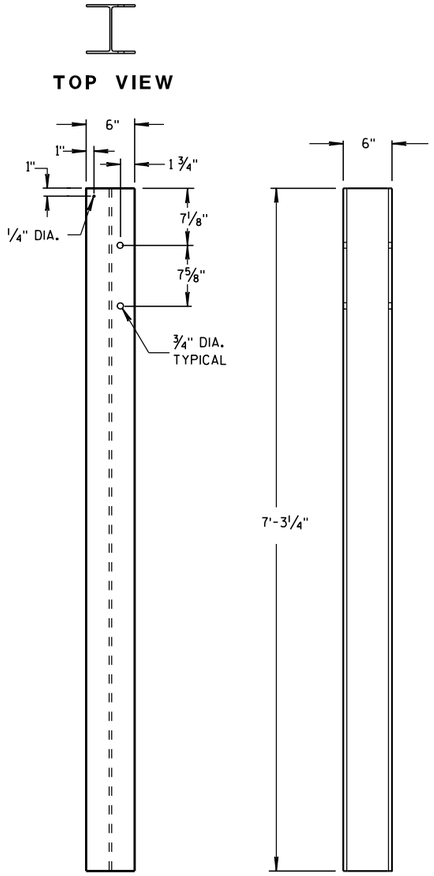
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

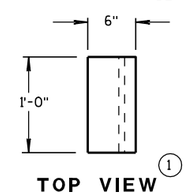


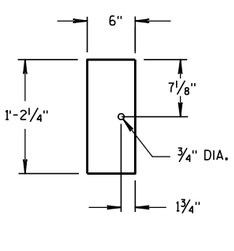
STEEL POSTS 6-11



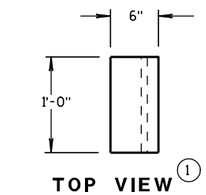
STEEL POSTS 12-14

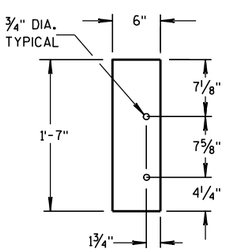
1 WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



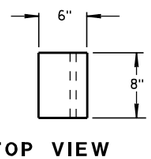


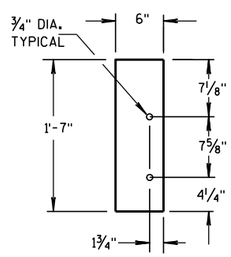
BLOCKOUT POSTS 1-5





BLOCKOUT POSTS 6-11





BLOCKOUT POSTS 12-14

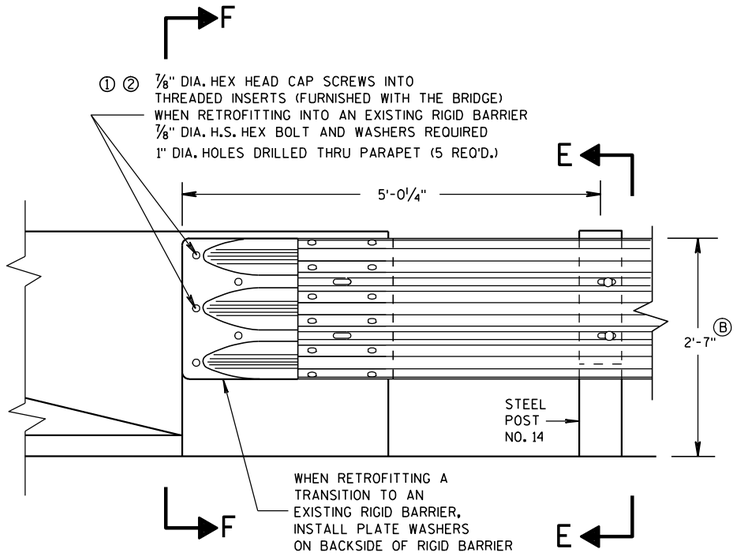
STEEL POST SIZES

POST NUMBER	SECTION TYPE	LENGTH
1	W6x9	72"
2	W6x9	72"
3	W6x9	72"
4	W6x9	72"
5	W6x9	72"
6	W6x9	72"
7	W6x9	72"
8	W6x9	72"
9	W6x9	72"
10	W6x9	72"
11	W6x9	72"
12	W6x15	87 1/8"
13	W6x15	87 1/8"
14	W6x15	87 1/8"

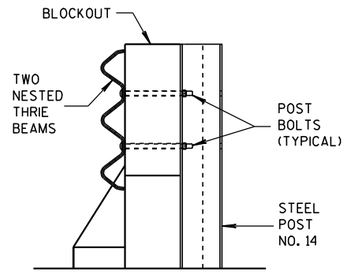
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-2c



FRONT VIEW



SECTION E-E

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

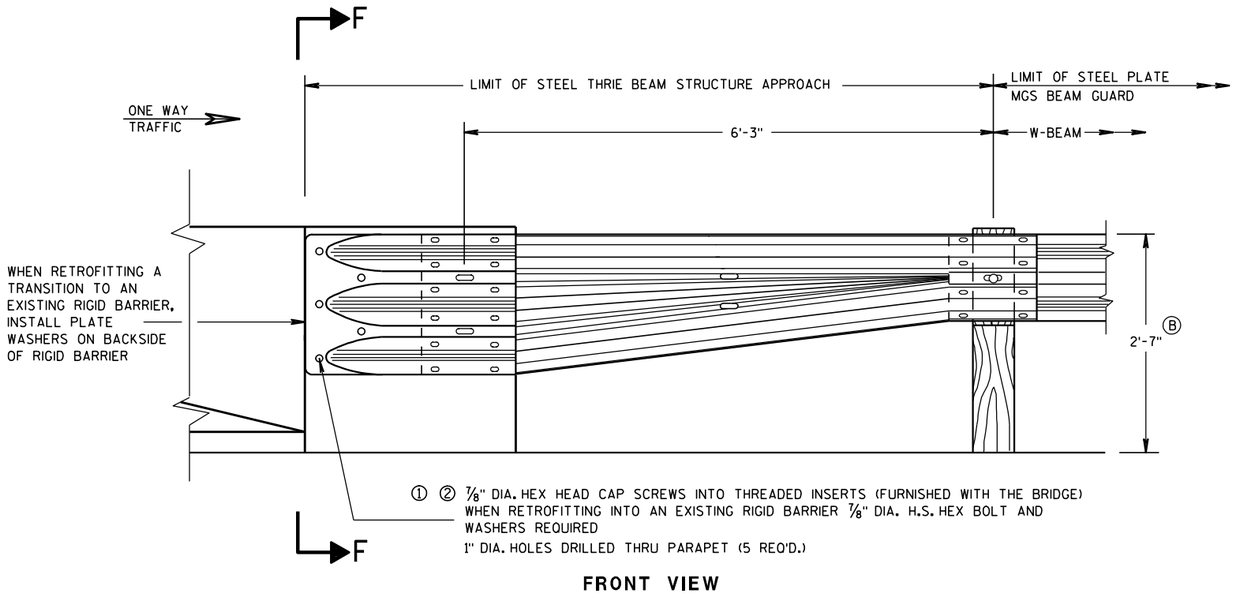
① INCLUDE THE PAYMENT FOR DRILLING BOLT HOLES THROUGH THE PARAPET, AND ALL BOLTS, NUTS AND WASHERS IN THE ITEM "STEEL THRIE BEAMSTRUCTURAL APPROACH".

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

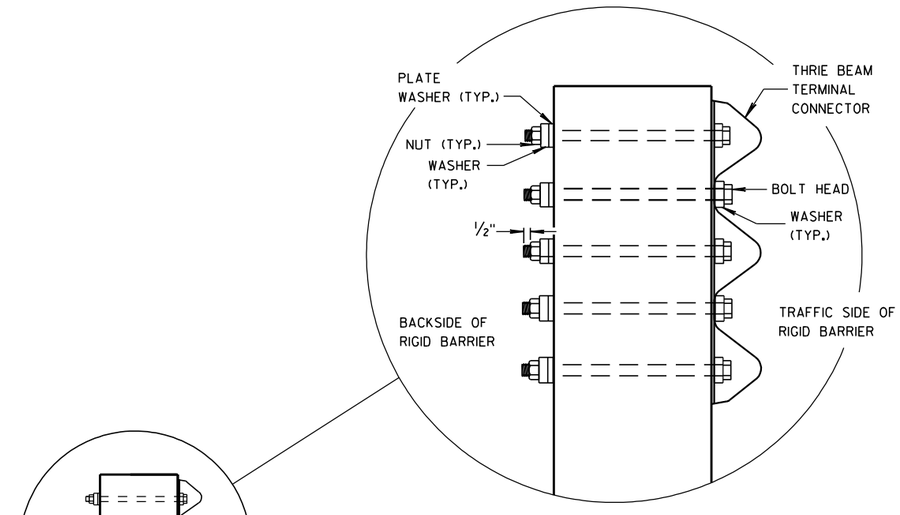
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

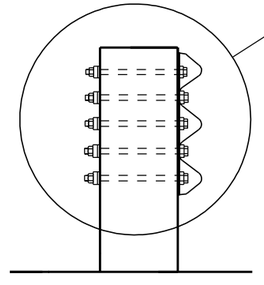
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW





SECTION F-F

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/8/2012 — DATE

/S/ Jerry H. [illegible] — ROADWAY STANDARDS [illegible]230 — ENGINEER

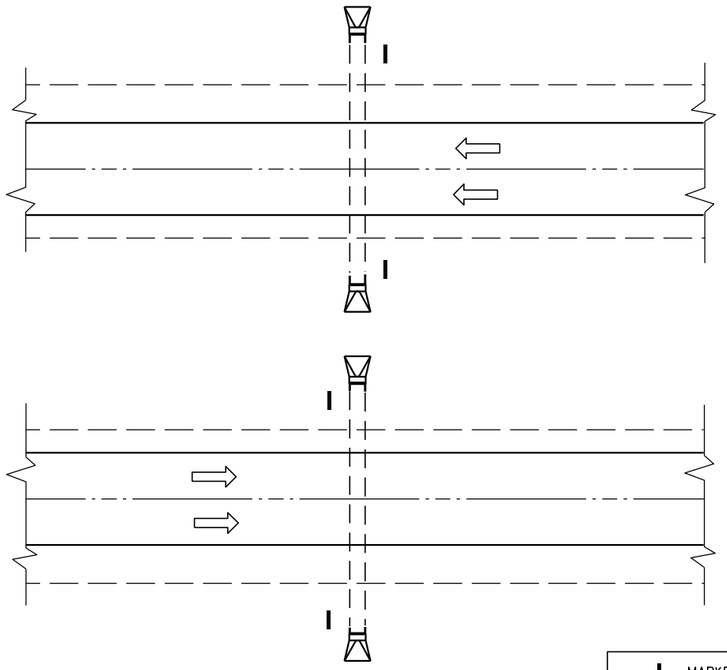
FHWA

6

S.D.D. 14 B 45-2d

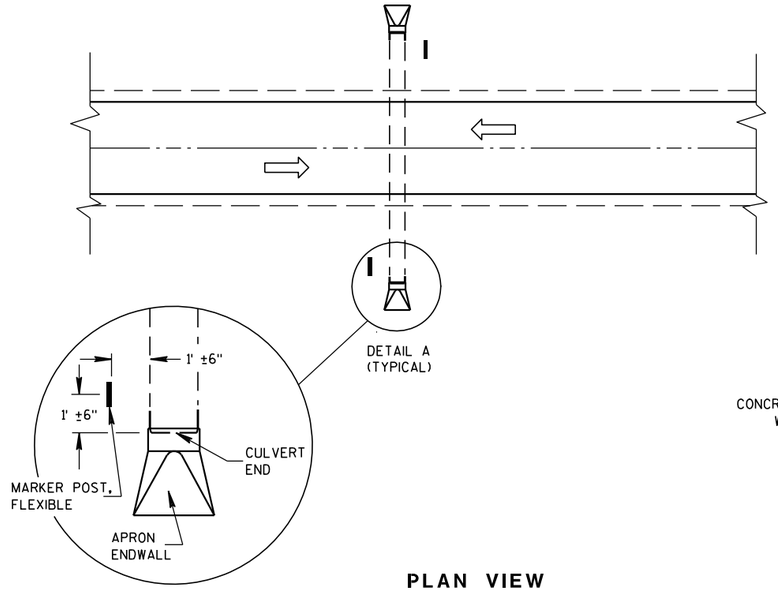
6

S.D.D. 14 B 45-2d



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

UNDIVIDED HIGHWAY

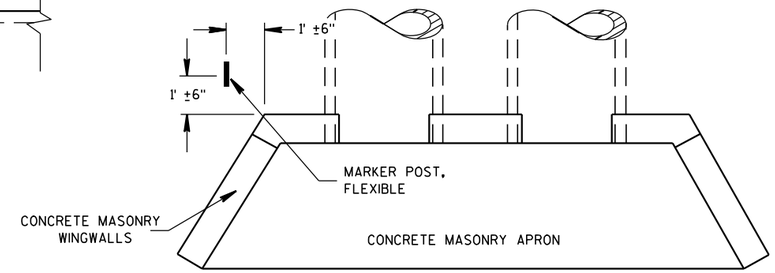
MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

FLEXIBLE MARKER POST LOCATION

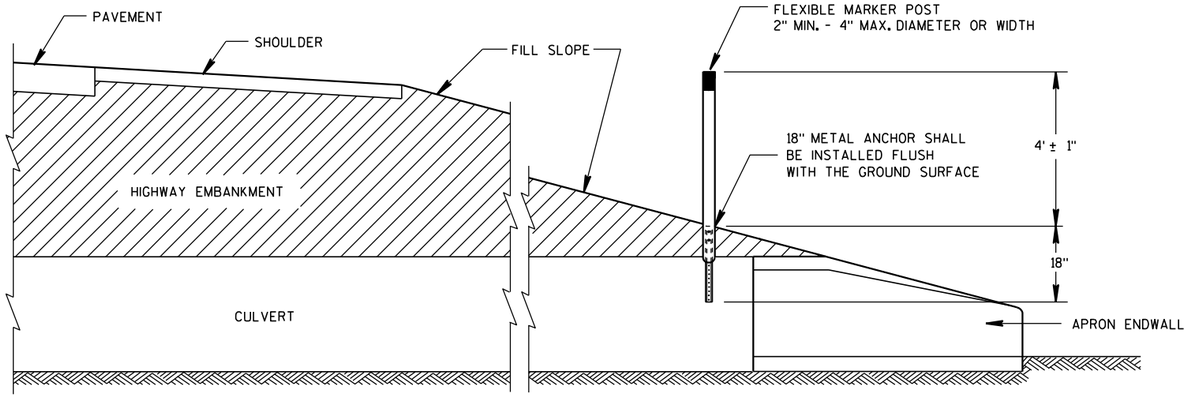
GENERAL NOTES

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.



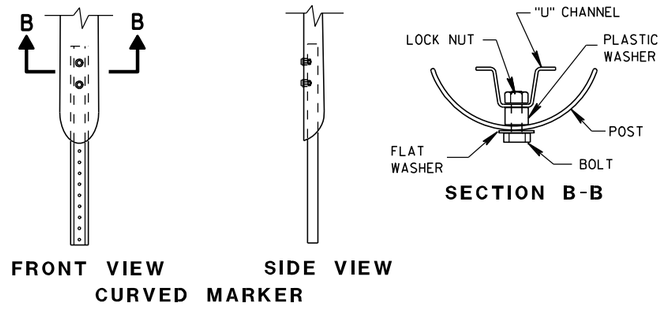
PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

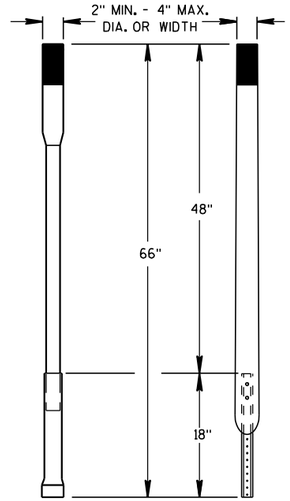


CROSS SECTION

FLEXIBLE MARKER POST



FLEXIBLE MARKER POST ANCHORS



ALTERNATE 1 ALTERNATE 2

FLEXIBLE MARKER POST

MARKER POST, FLEXIBLE, FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/1/98 DATE

/S/ Rory L. Rhinesmith
CHEIF ROADWAY DEVELOP ENGINEER

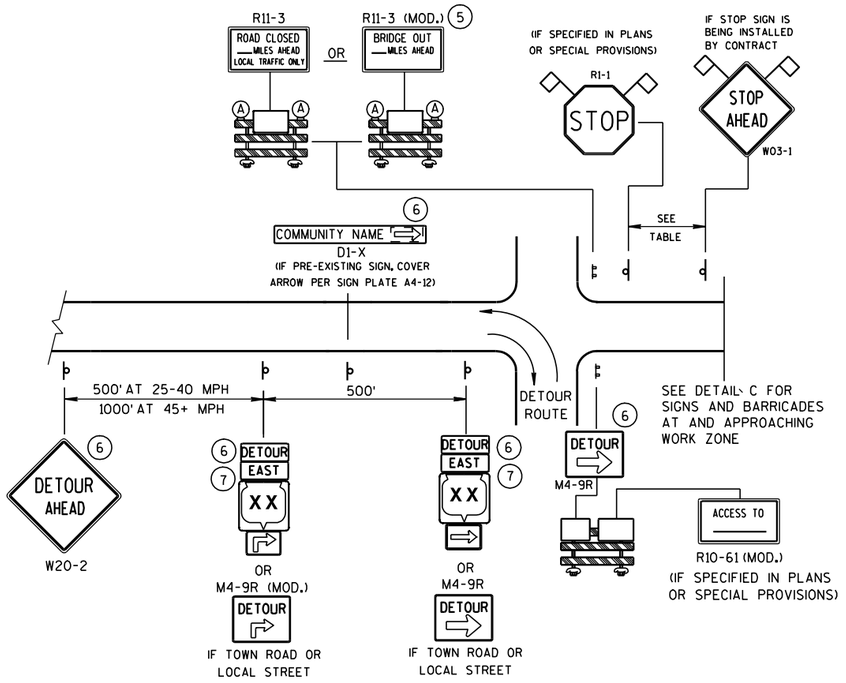
FHWA

6

S.D.D. 15 A 3-1

6

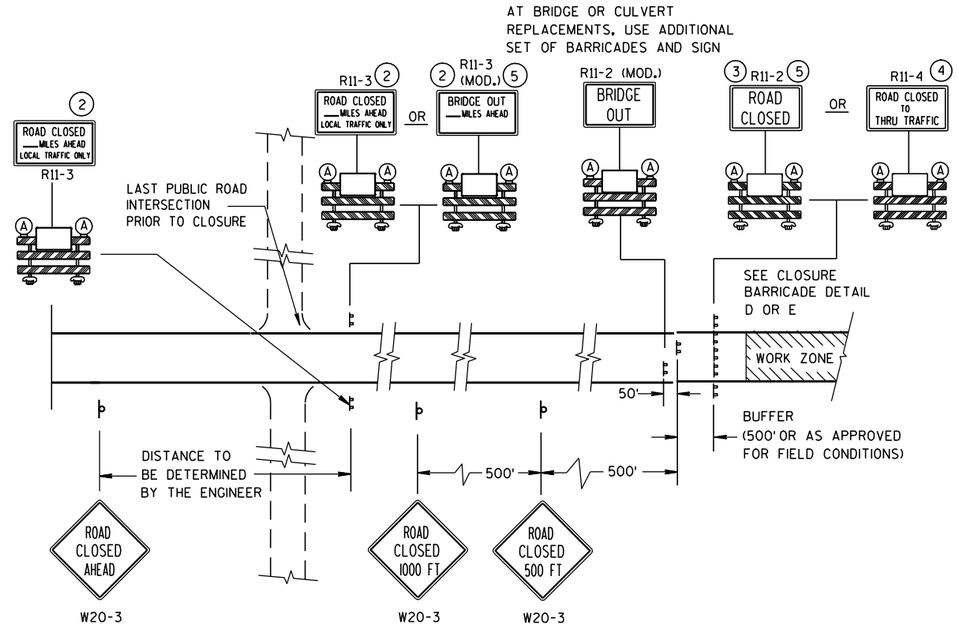
S.D.D. 15 A 3-1



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

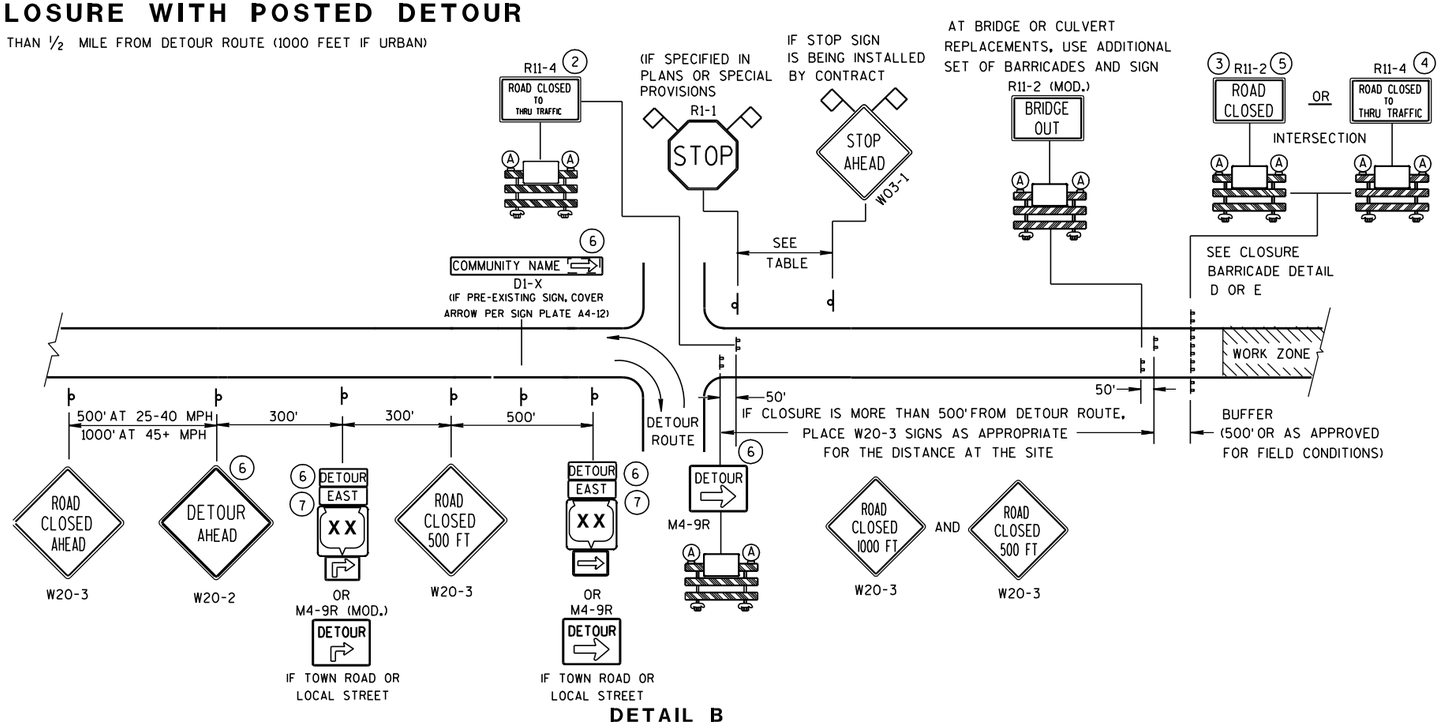


DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-4b
FOR GENERAL NOTES
AND FOOTNOTES (1) THROUGH (7)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

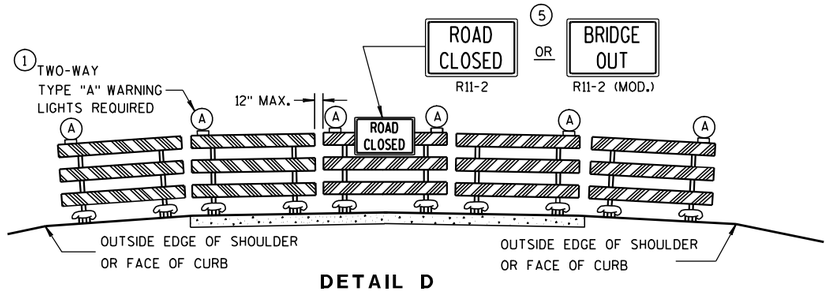
- POST MOUNTED SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1; M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

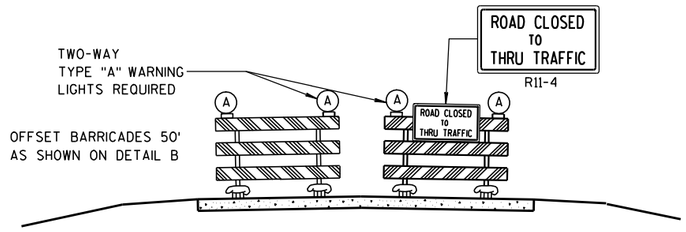
S.D.D. 15 C 2-4a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-4a FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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.

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.

BARRICADES 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.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" 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.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. 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. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/16/03
DATE

/S/ Thomas N. N[illegible]
CHIEF SIGNS AND MARKING ENGINEER

FHWA

6

S.D.D. 15 C 2-4b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

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.

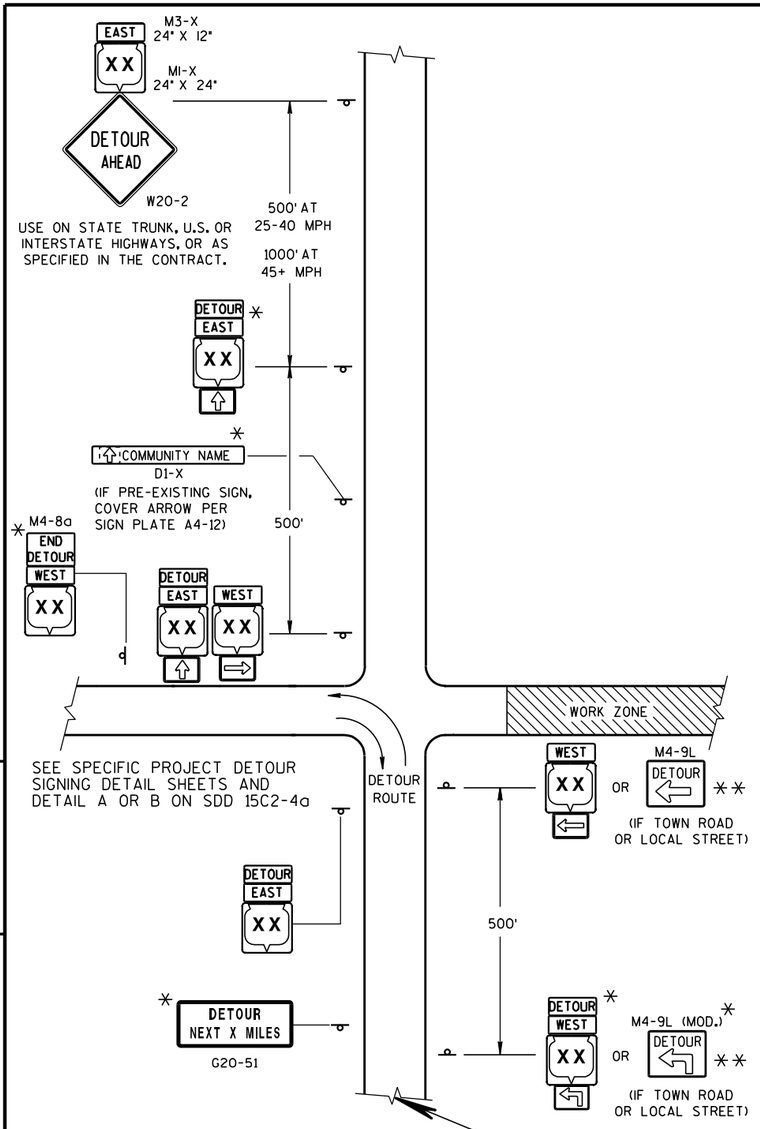
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

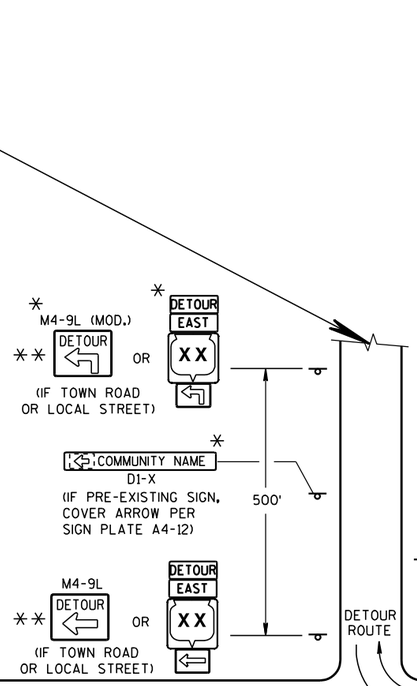
SIGN SIZES SHALL BE AS FOLLOWS:

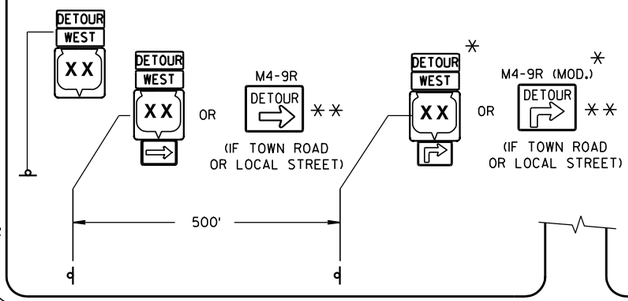
M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
M4-9 SHALL BE 30" X 24".
M4-8a SHALL BE 24" X 18".
G20-51 SHALL BE 60" X 24".
W20-2 SHALL BE 48" X 48".
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

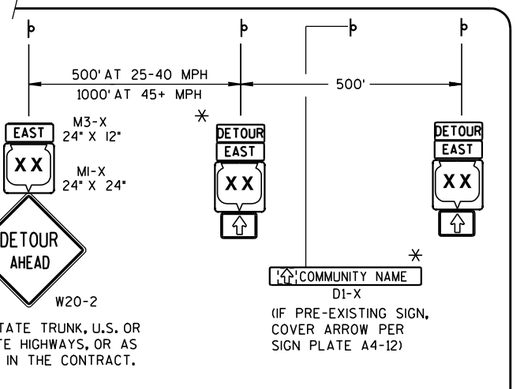
* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

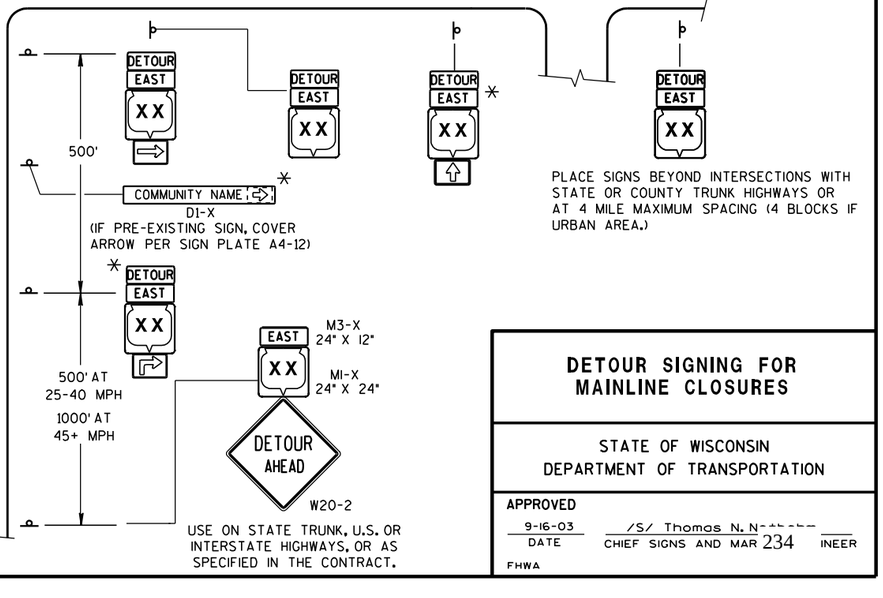
** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.











MATCH POINT

LEGEND

- POST MOUNTED SIGN
- WORK ZONE
- DETOUR / EAST — M4-8 / M3-X
- XX OR COUNTY XX OR XX — M1-4, M1-5A, M1-6
- MO5-1 OR MO6-1 OR MO6-1

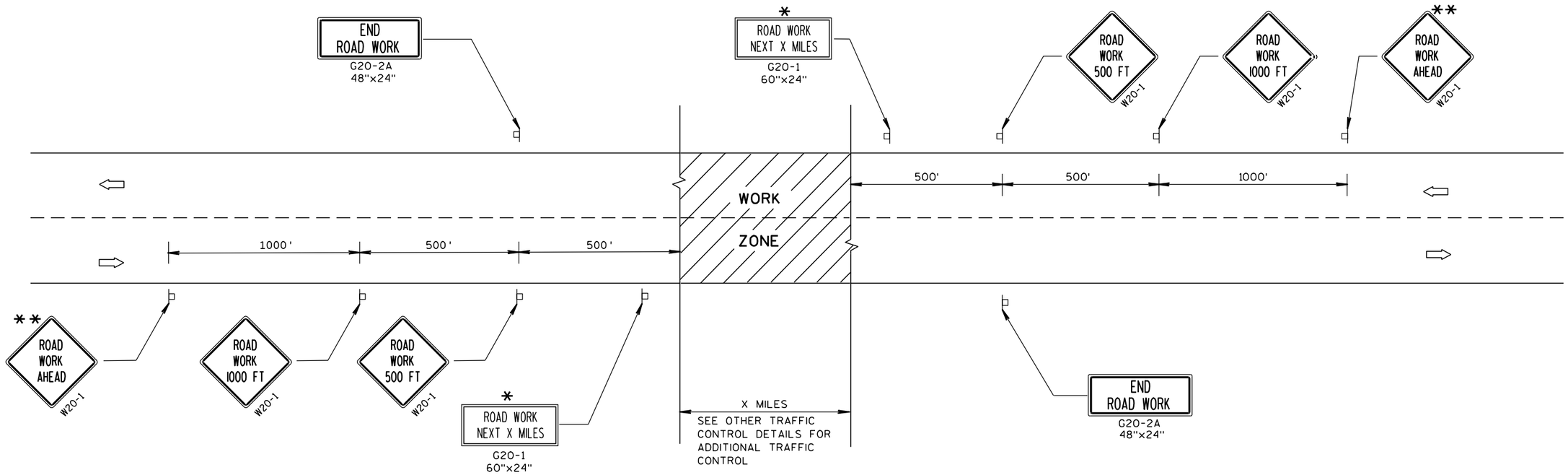
DETAIL F

DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-16-03 DATE
/S/ Thomas N. [illegible] CHIEF SIGNS AND MAR 234 INEER
FHWA



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GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

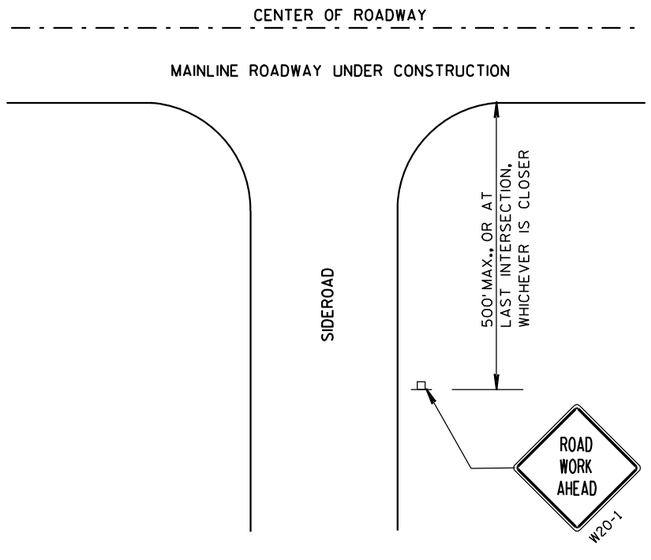
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA OR SIGNING.

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



LEGEND

POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/00 DATE

/S/ Chester J. [illegible] CHIEF SIGNS AND MARKING ENGINEER

FHWA

S.D.D. 15 C 4-1

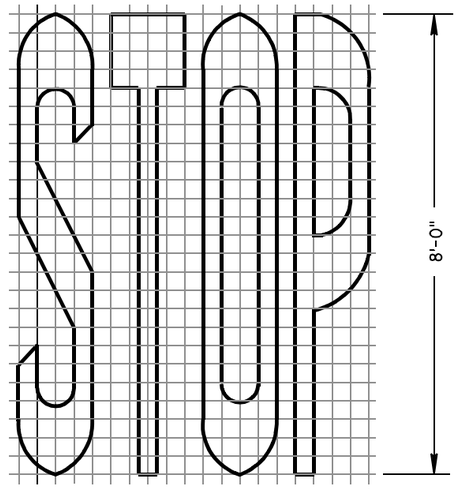
6

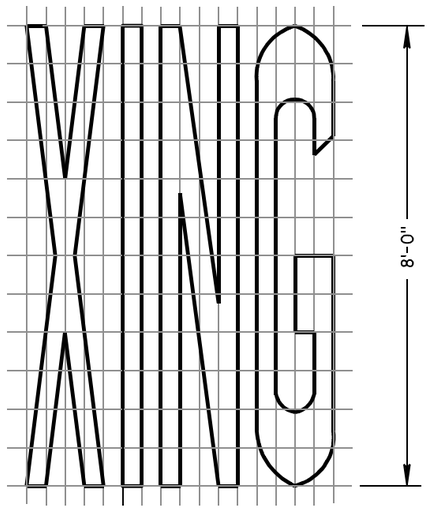
S.D.D. 15 C 4-1

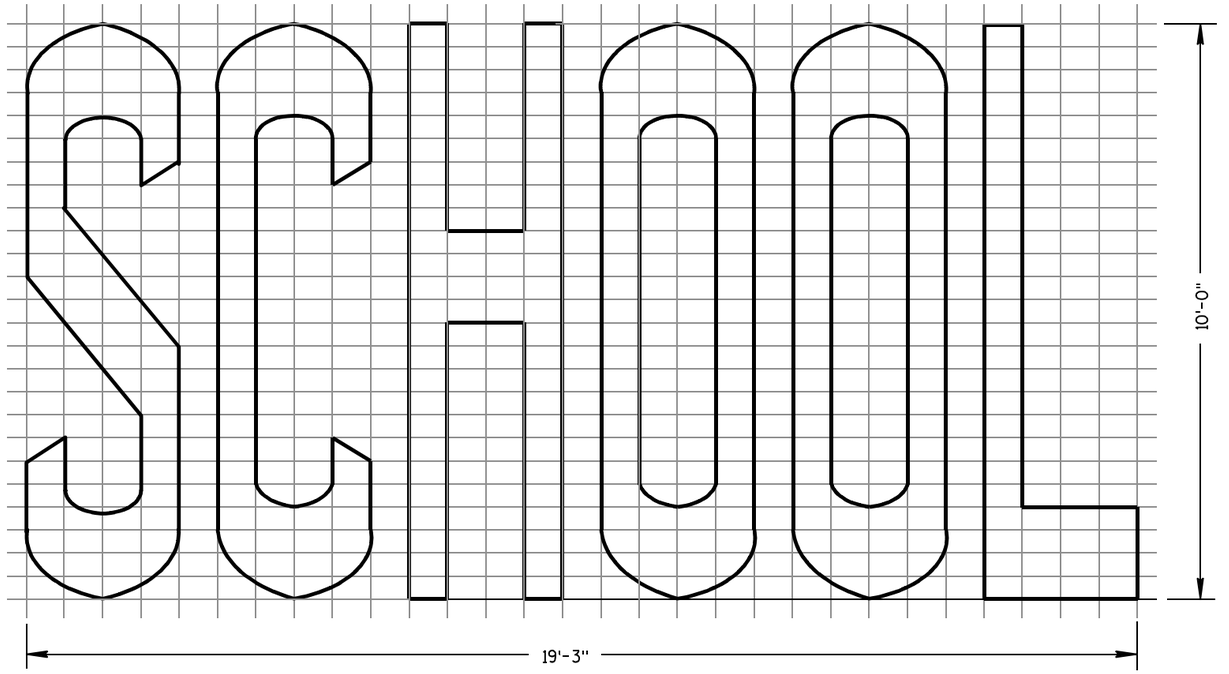
GENERAL NOTES

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

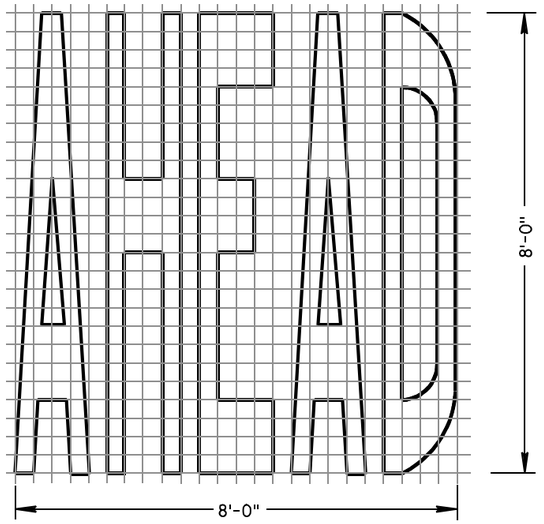
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

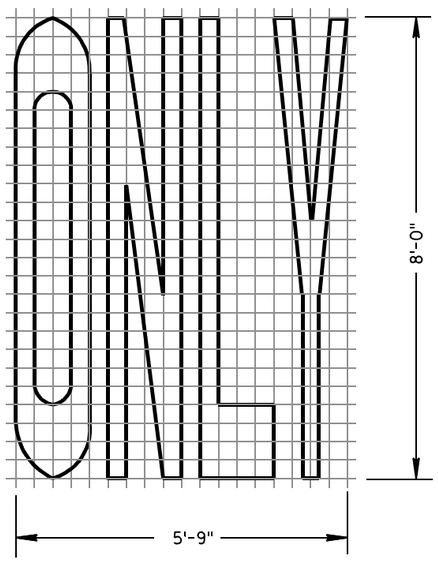


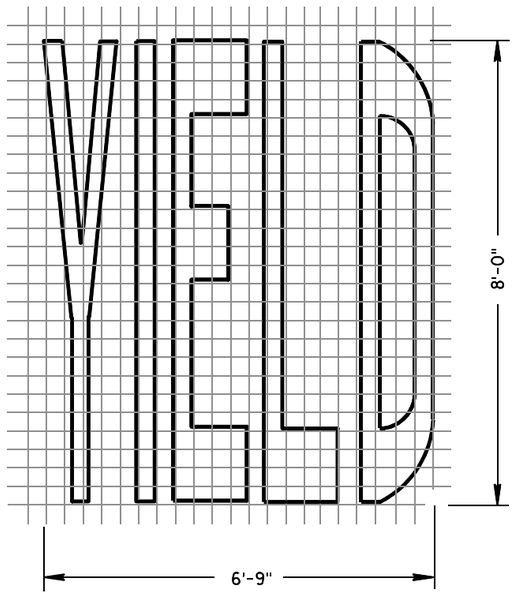


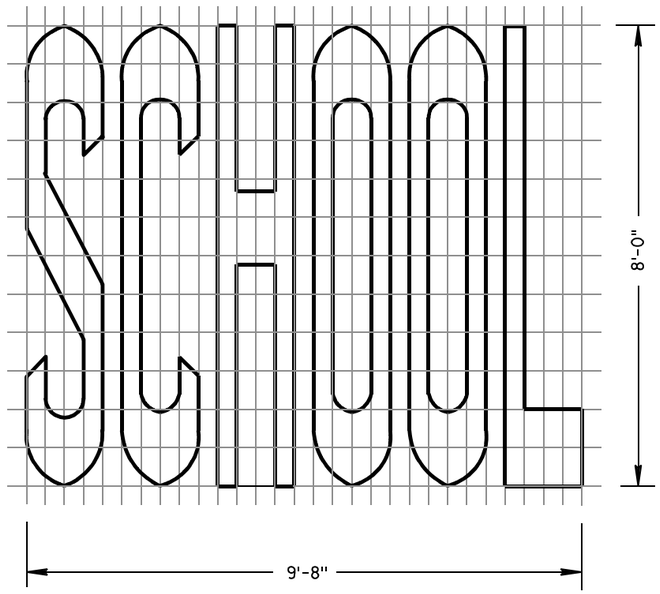


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 — DATE

/S/ Thomas N. Nothohm — STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 7-12b

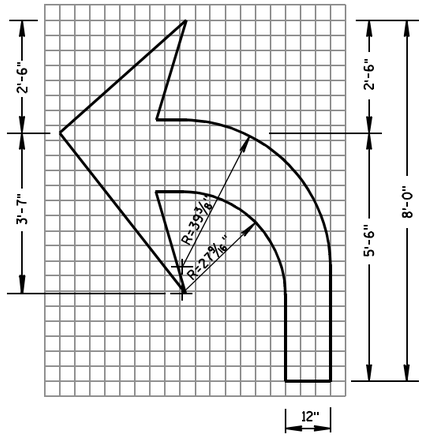
6

S.D.D. 15 C 7-12b

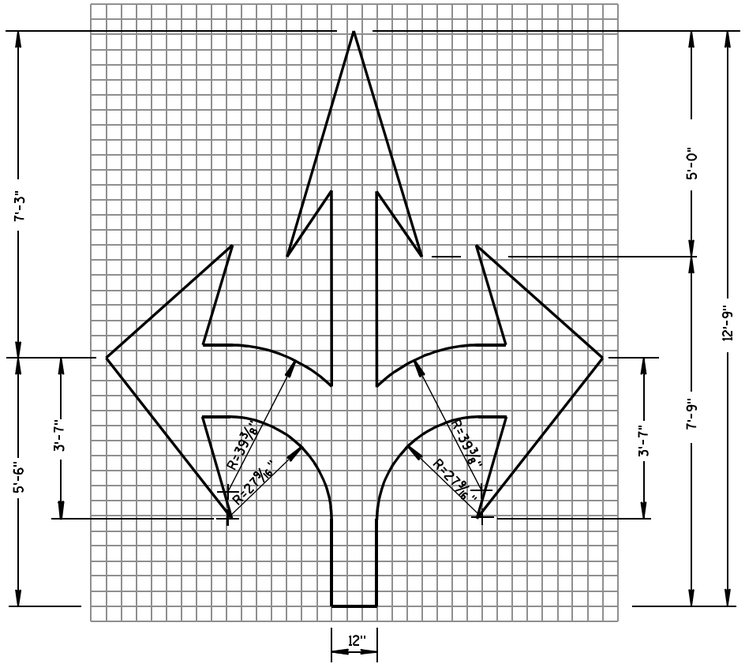
GENERAL NOTES

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

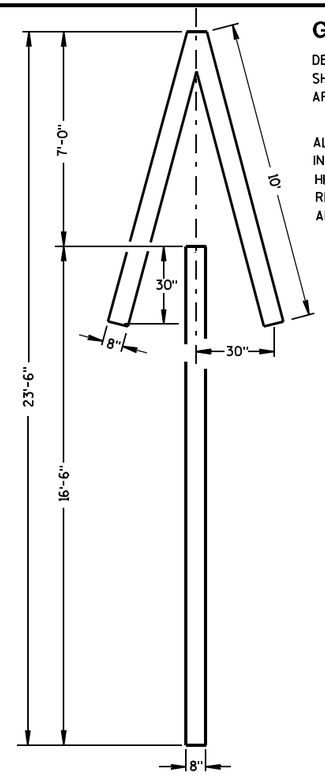
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



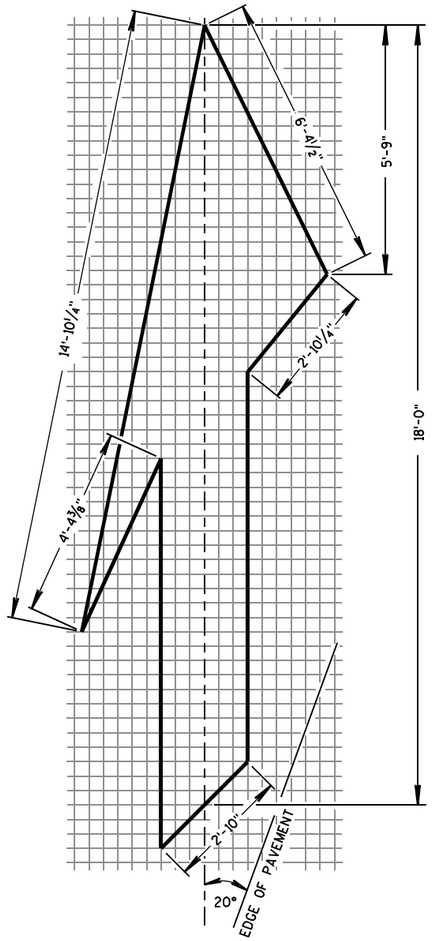
TYPE 2



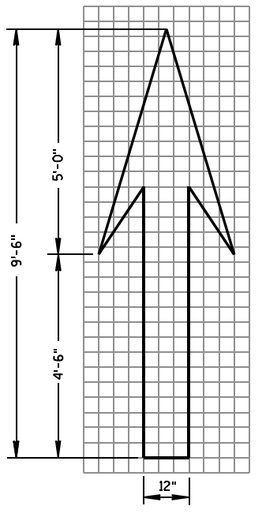
TYPE 6



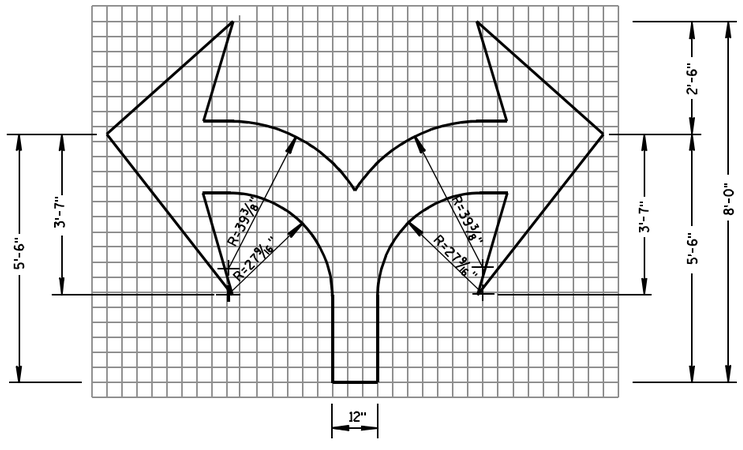
TYPE 4



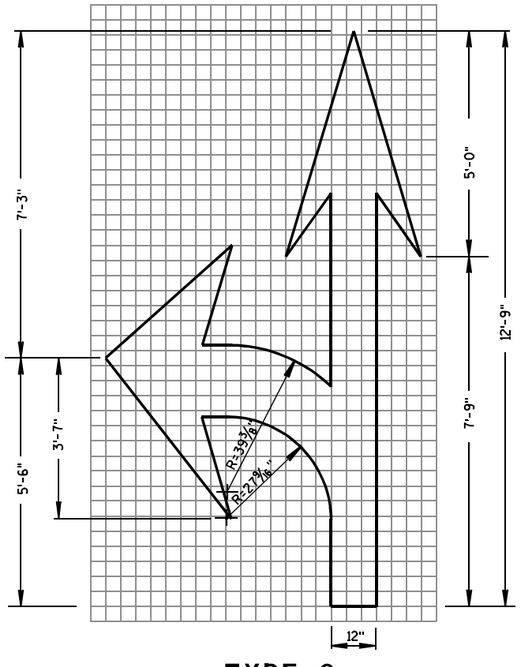
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

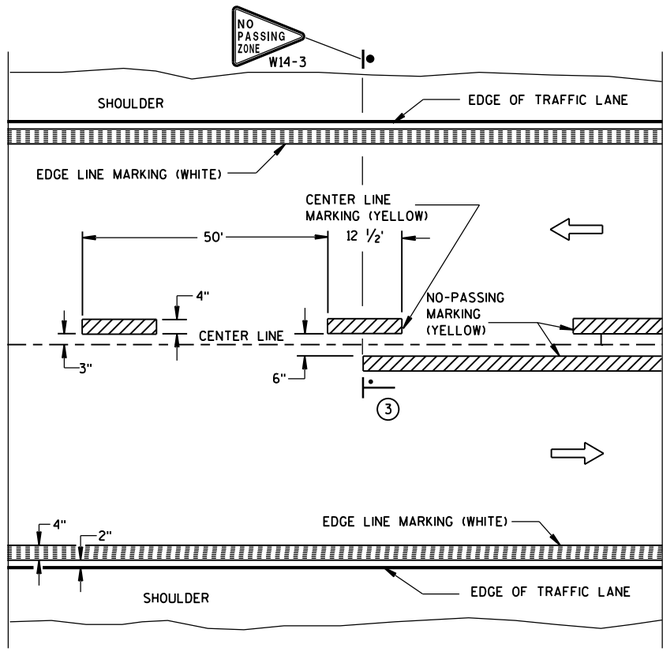
FHWA

6

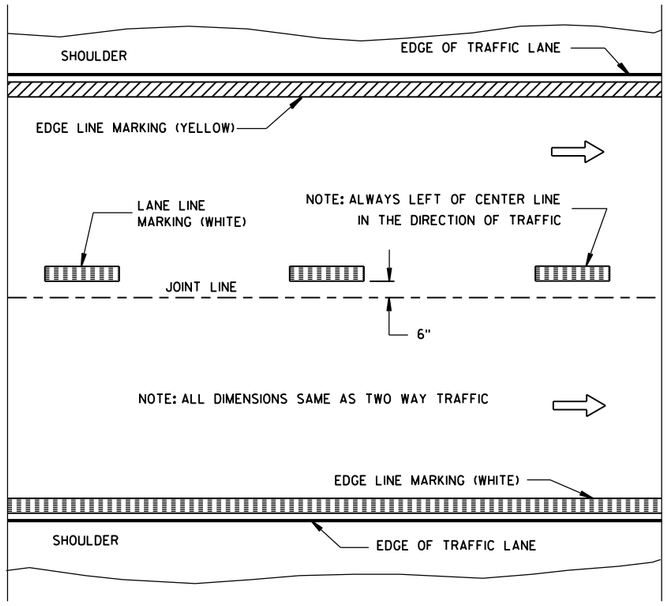
S.D.D. 15 C 7-12c

6

S.D.D. 15 C 7-12c

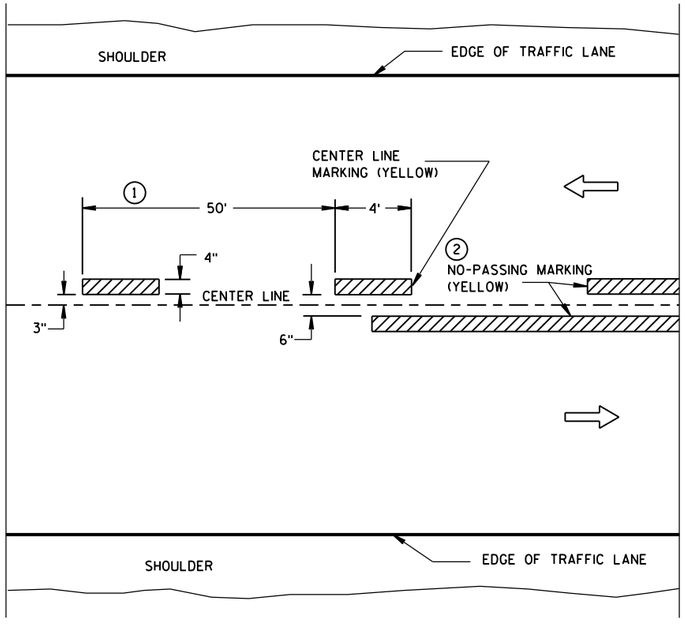


TWO WAY TRAFFIC

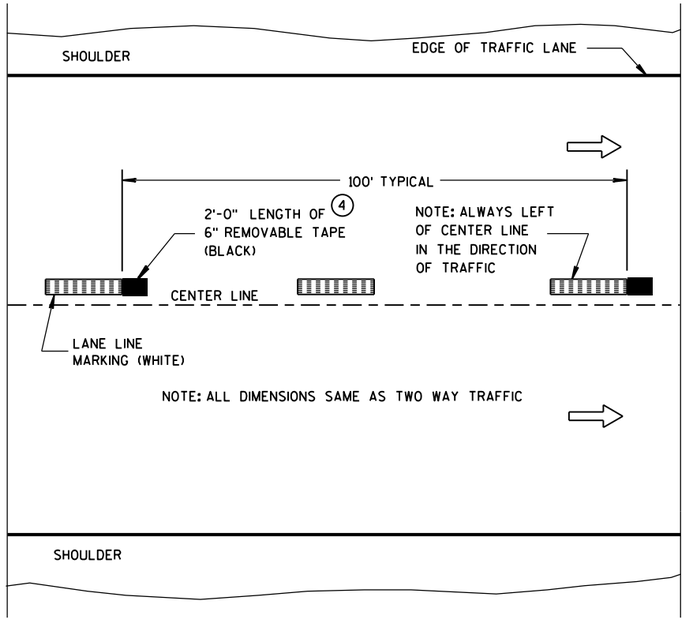


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

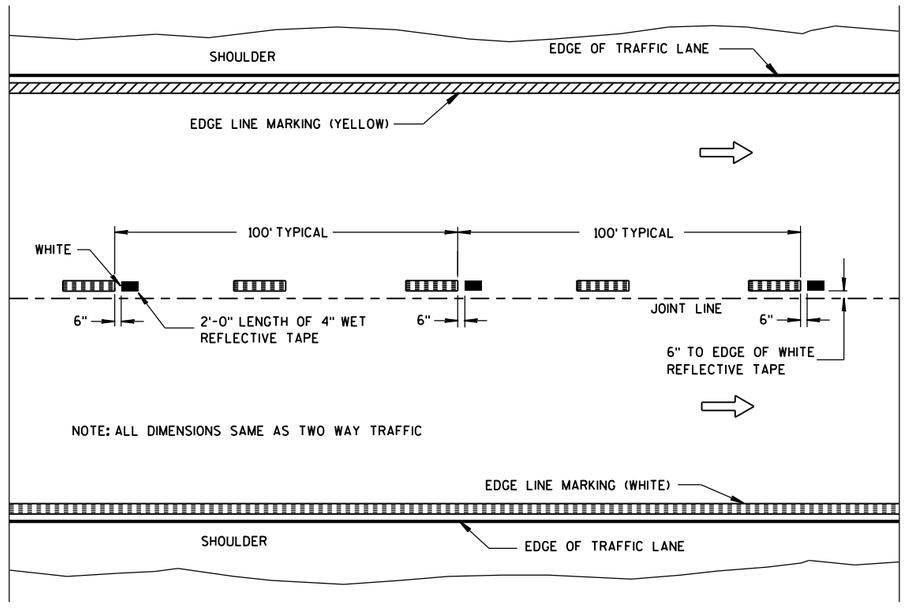
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

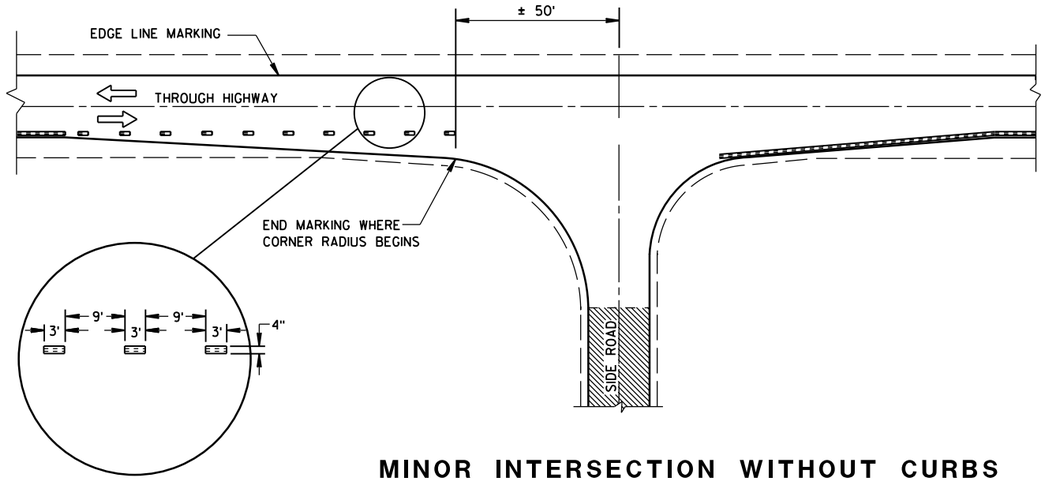
APPROVED
10-1-2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
238
DESIGN
FHWA

6

S.D.D. 15 C 8-15a

6

S.D.D. 15 C 8-15a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

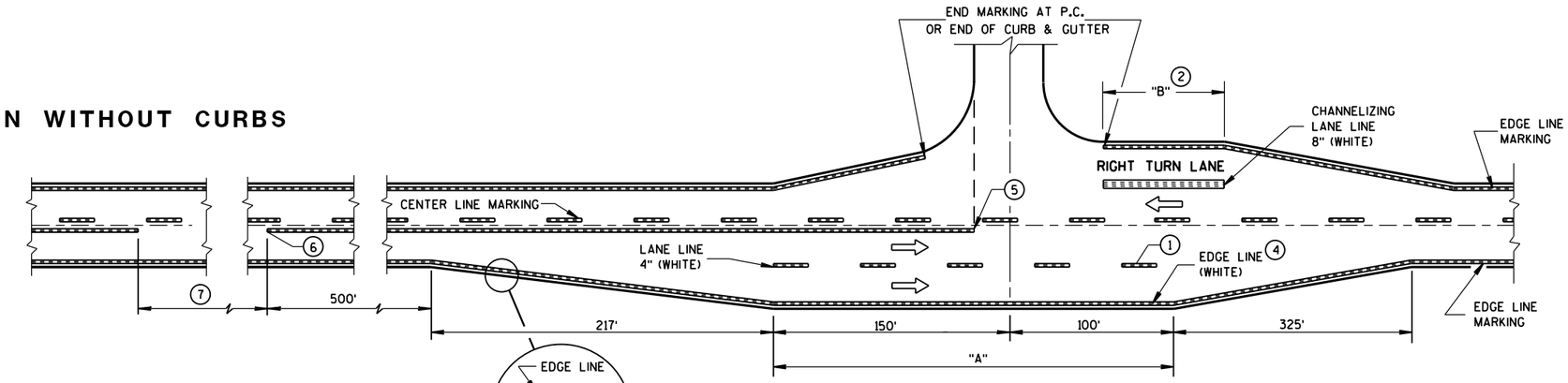
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

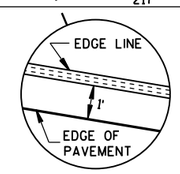
(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

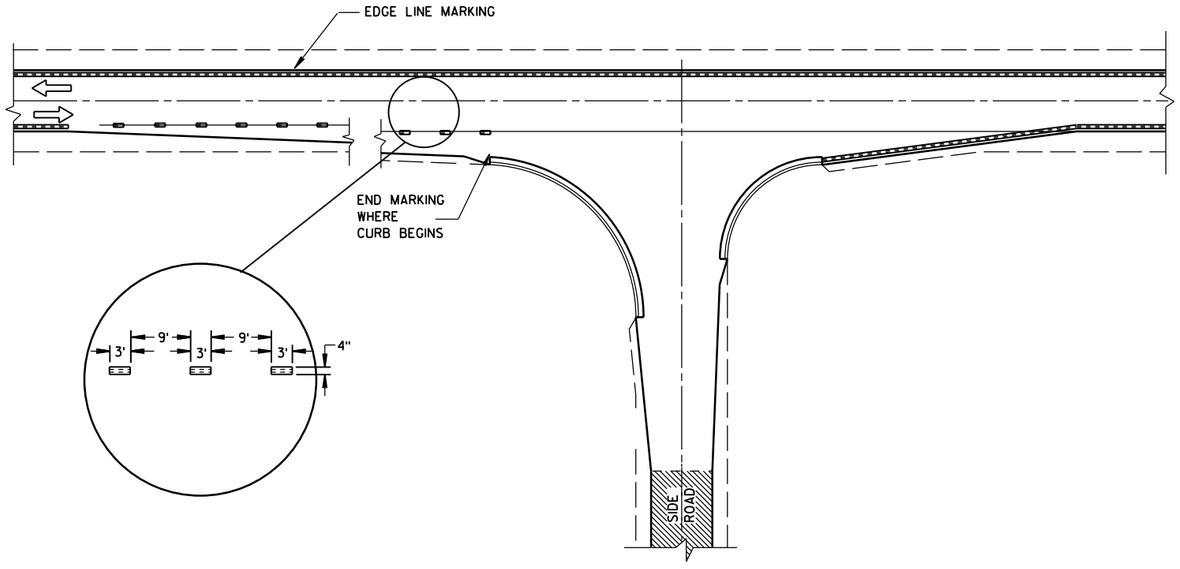
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792

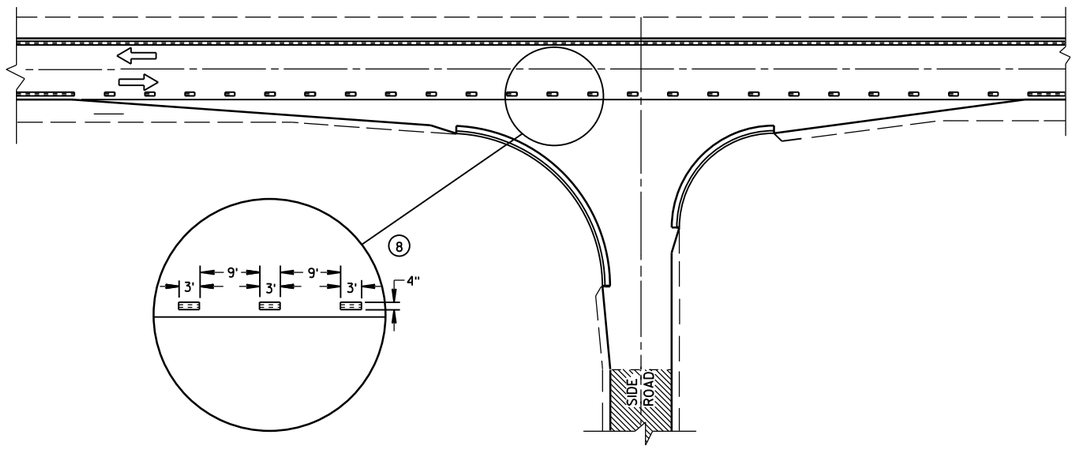




MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS
(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

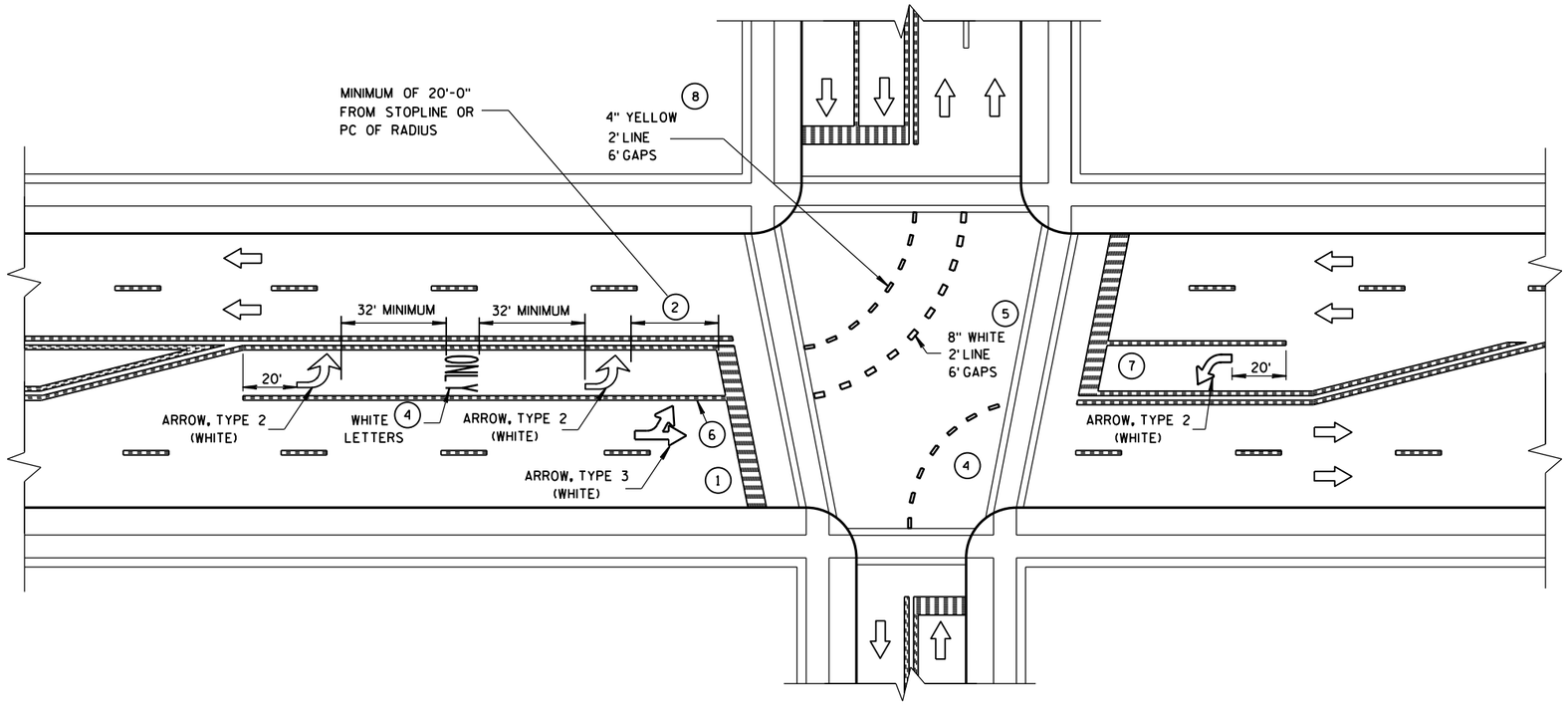
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI 239

6

S.D.D. 15 C 8-15b

6

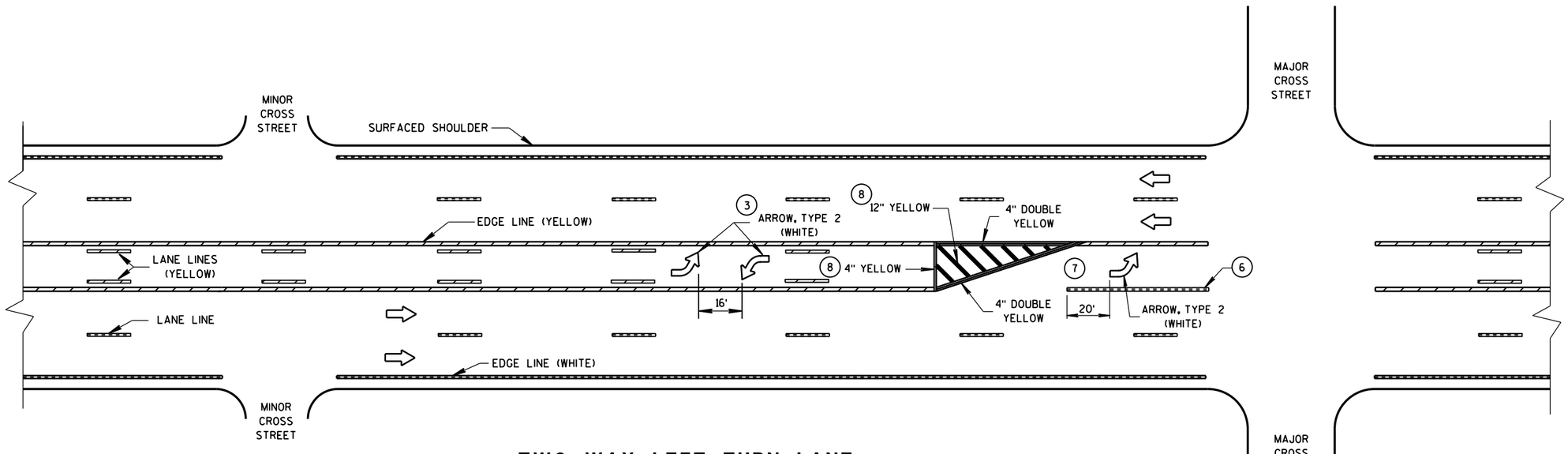
S.D.D. 15 C 8-15b



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400' OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA ARROW AND ONLY PER 160' OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108'.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

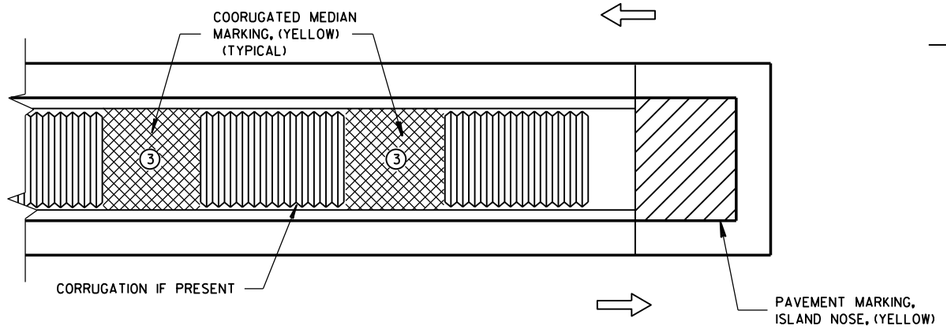
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

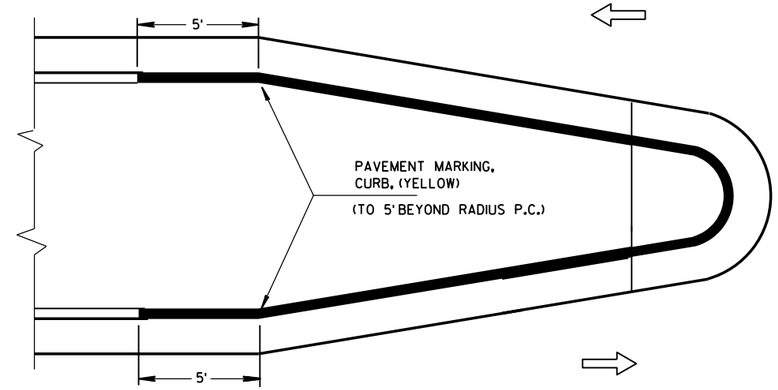
S.D.D. 15 C 8-15e

6

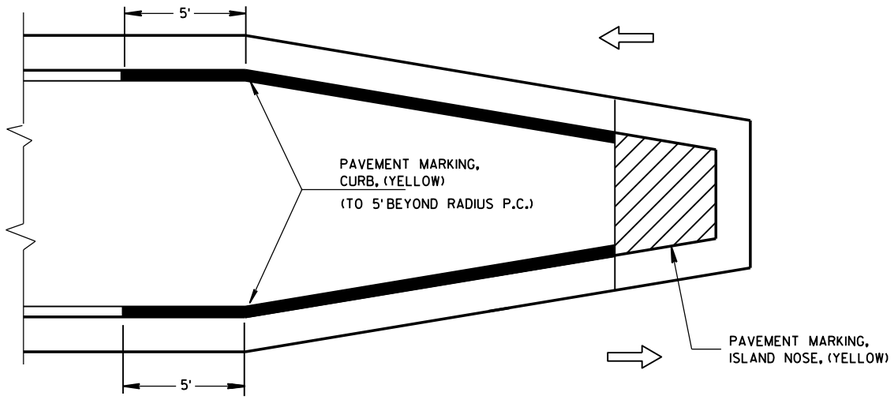
S.D.D. 15 C 8-15e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

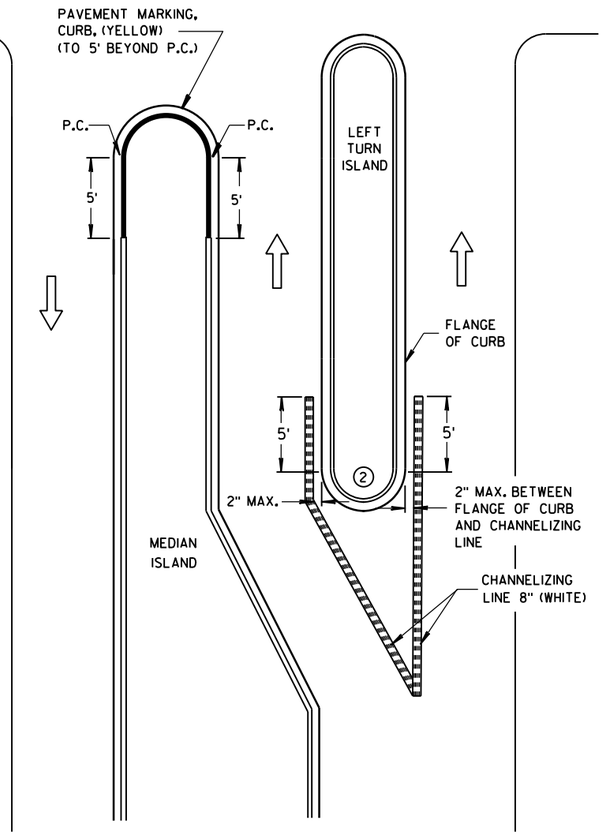


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

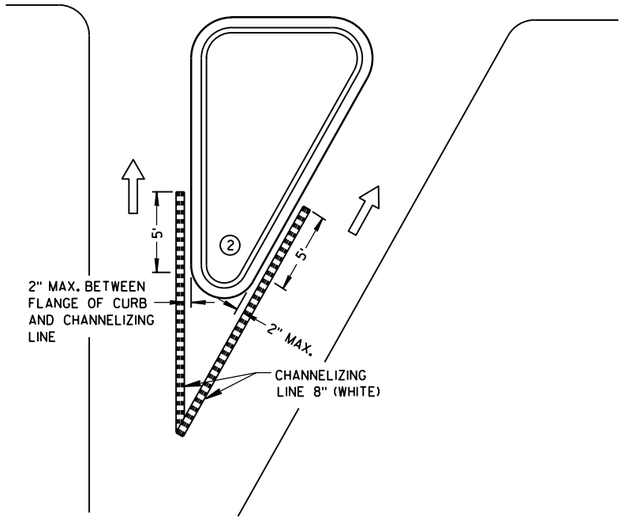
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



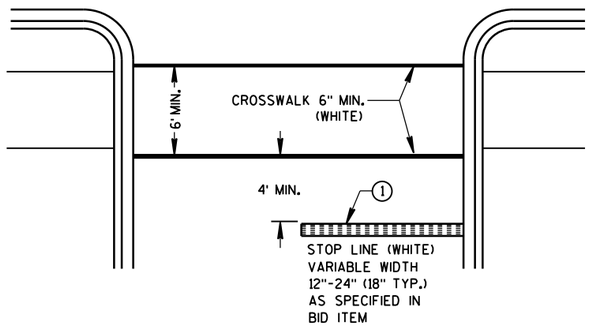
LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. STOP LINE IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
3. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND



STOP LINE AND CROSSWALK

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS, STOP LINE &
CROSS WALK)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 C 8-15f

6

S.D.D. 15 C 8-15f

TWO-LANE ROADWAY

SYMBOLS

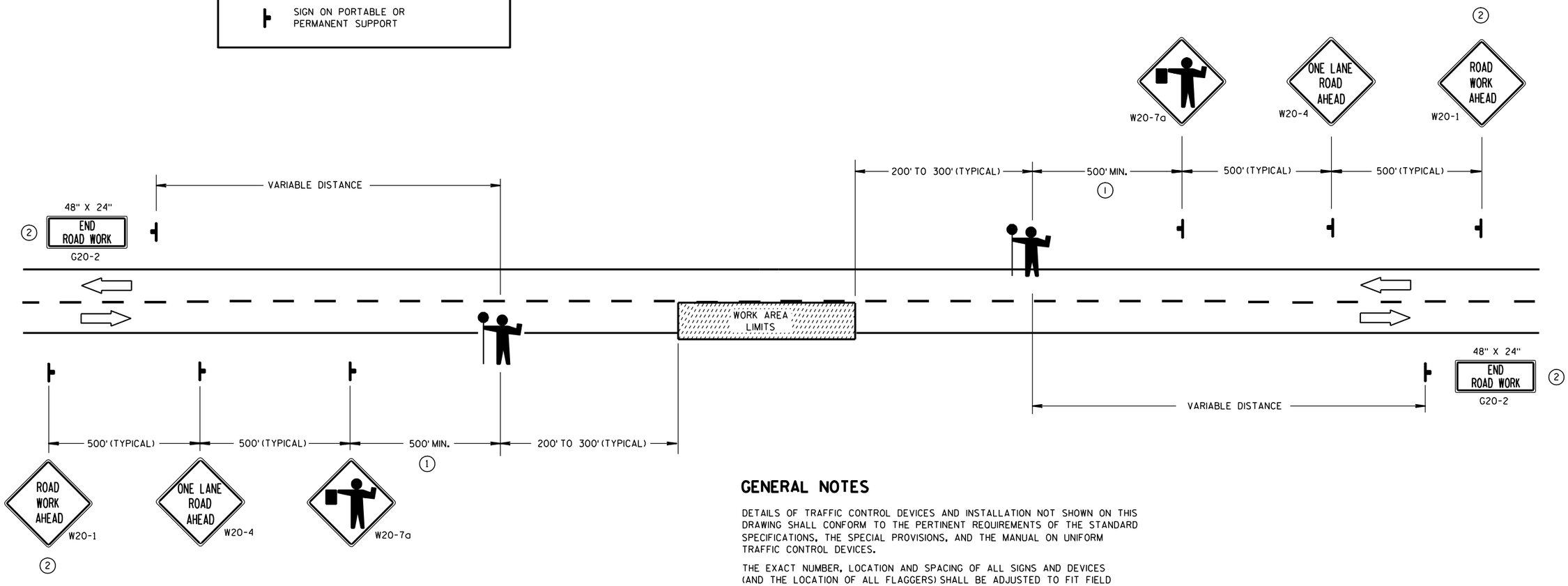
WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN ON PORTABLE OR PERMANENT SUPPORT

W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT 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.

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.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE 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.

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, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/5/06 — DATE

/S/ Thomas N. Nathaam — STATE TRAFFIC ENGINEER

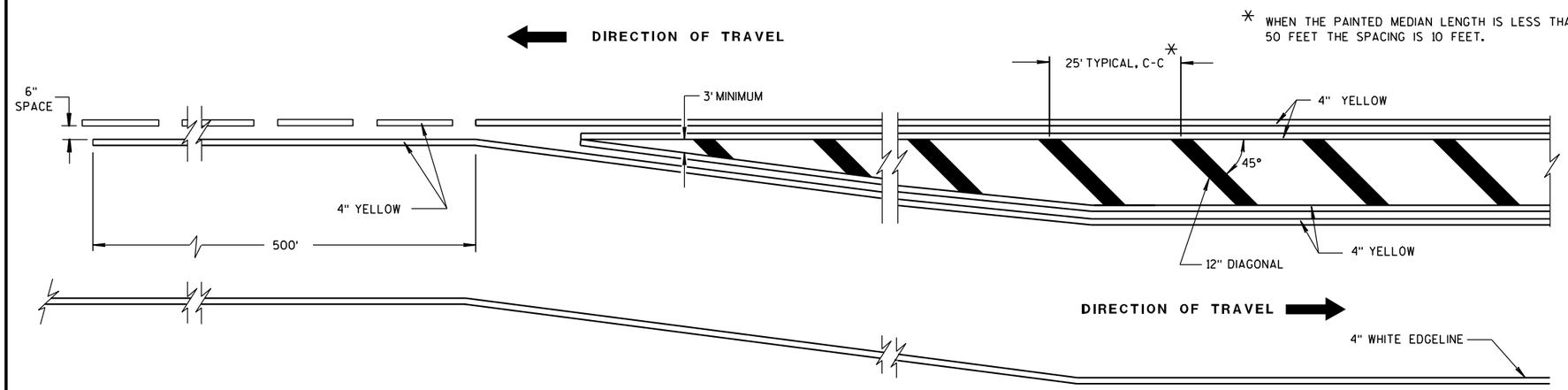
FHWA

6

S.D.D. 15 C 12-3

6

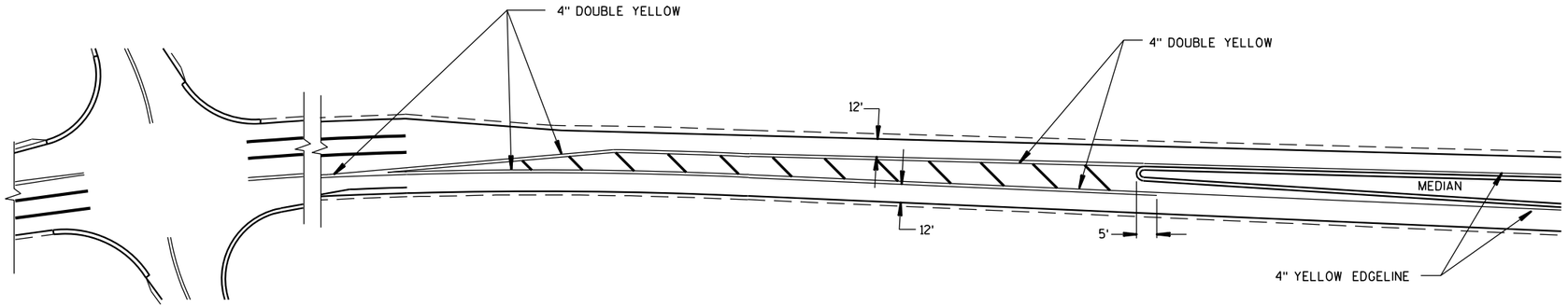
S.D.D. 15 C 12-3



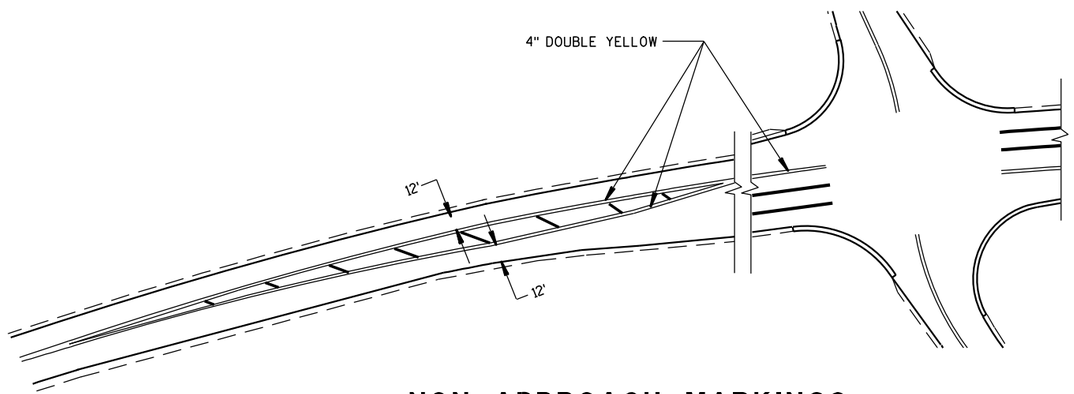
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

6

6

S.D.D. 15 C 18-3

S.D.D. 15 C 18-3

MEDIAN ISLAND MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2-5-09 DATE

/S/ Thomas N. Nothohm
STATE TRAFFIC ENGINEER

243 IGN

FHWA

GENERAL NOTES

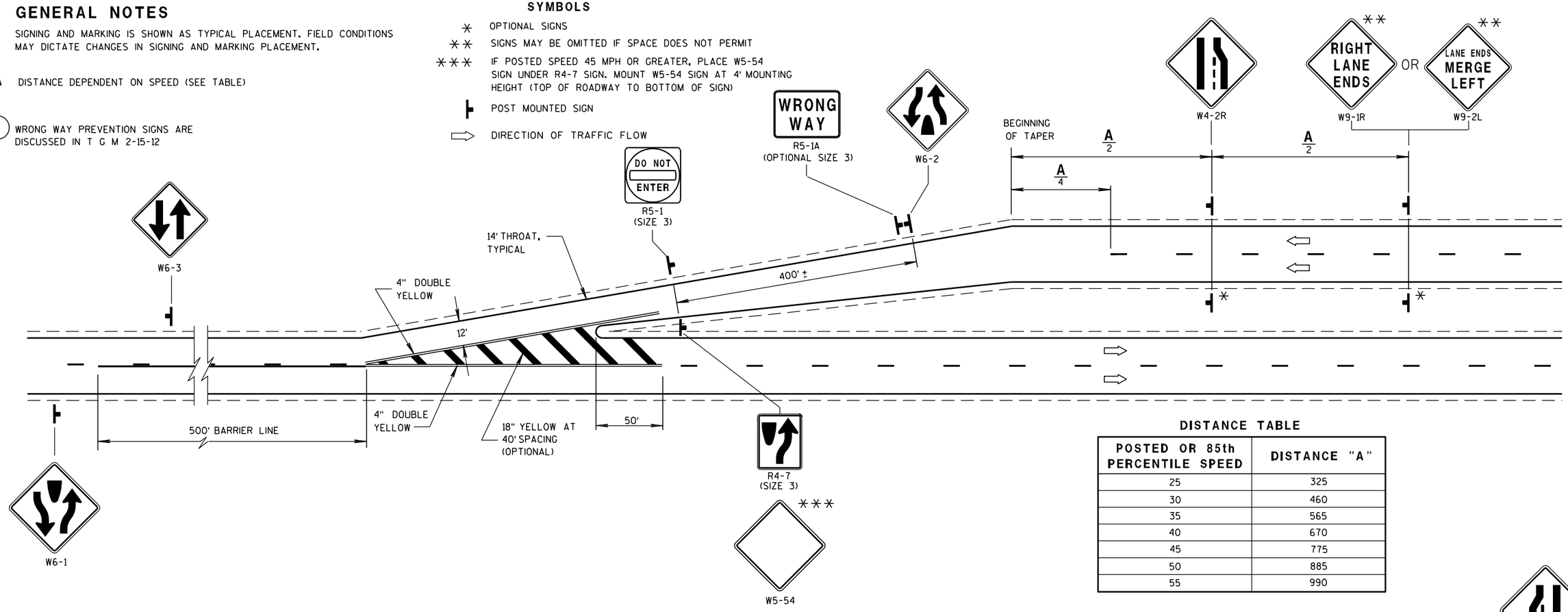
SIGNING AND MARKING IS SHOWN AS TYPICAL PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGNING AND MARKING PLACEMENT.

A DISTANCE DEPENDENT ON SPEED (SEE TABLE)

(1) WRONG WAY PREVENTION SIGNS ARE DISCUSSED IN T G M 2-15-12

SYMBOLS

- ✳ OPTIONAL SIGNS
- ✳✳ SIGNS MAY BE OMITTED IF SPACE DOES NOT PERMIT
- ✳✳✳ IF POSTED SPEED 45 MPH OR GREATER, PLACE W5-54 SIGN UNDER R4-7 SIGN. MOUNT W5-54 SIGN AT 4' MOUNTING HEIGHT (TOP OF ROADWAY TO BOTTOM OF SIGN)
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW



DISTANCE TABLE

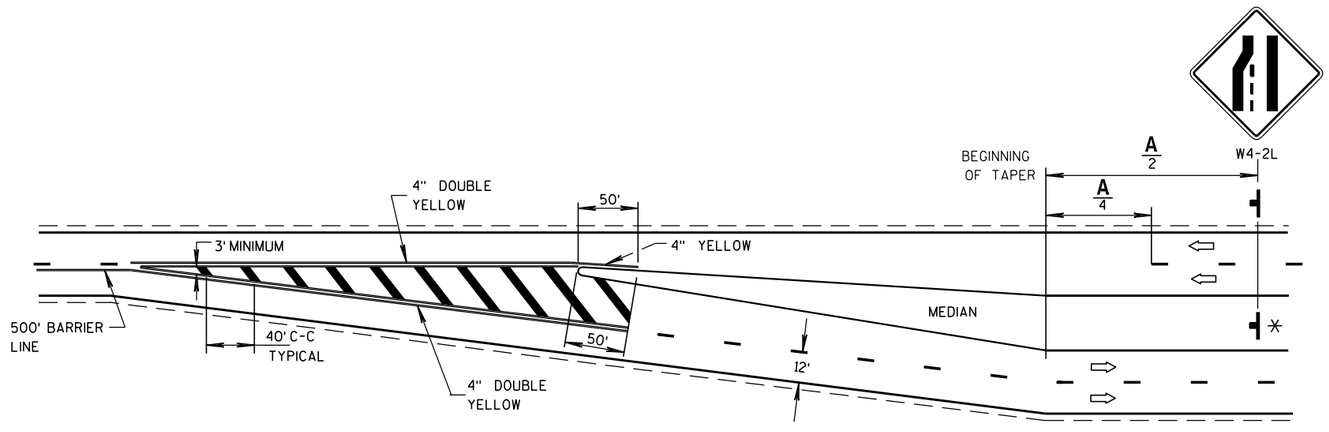
POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	325
30	460
35	565
40	670
45	775
50	885
55	990

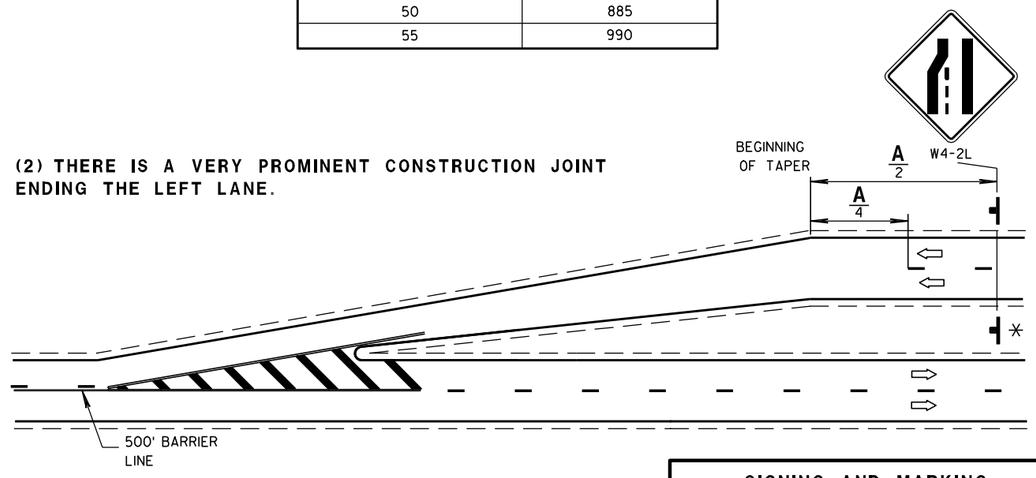
USE W4-2L IF :

(1) THE LEFT LANE IS PUSHED TO THE RIGHT:

OR

(2) THERE IS A VERY PROMINENT CONSTRUCTION JOINT ENDING THE LEFT LANE.



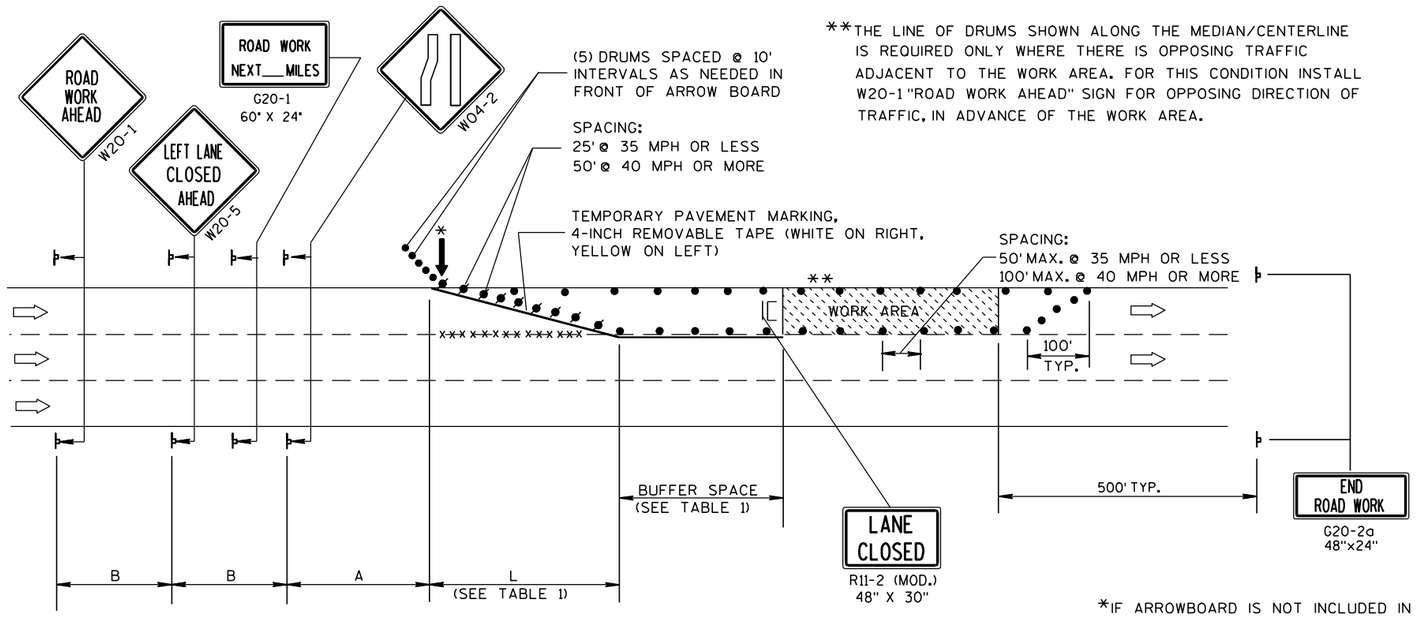


SIGNING AND MARKING
TWO LANE TO FOUR LANE
DIVIDED TRANSITIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/27/2011 — DATE
/S/ Thomas N. Notbohm — STATE TRAFFIC ENGINEER
FHWA

6
S.D.D. 15 C 21-4



**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"

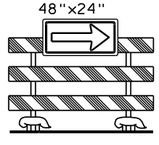


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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

- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- POST MOUNTED SIGN
- ARROW BOARD
- TYPE III BARRICADE (8' EQUIVALENT) AND WARNING LIGHTS, TYPE A (FLASHING) WITH/WITHOUT SIGN
- DIRECTION OF TRAFFIC FLOW
- xxxx REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

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 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1, 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

5/23/00
DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible]245 INEER

FHWA

6
S.D.D. 15 D 20-1

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

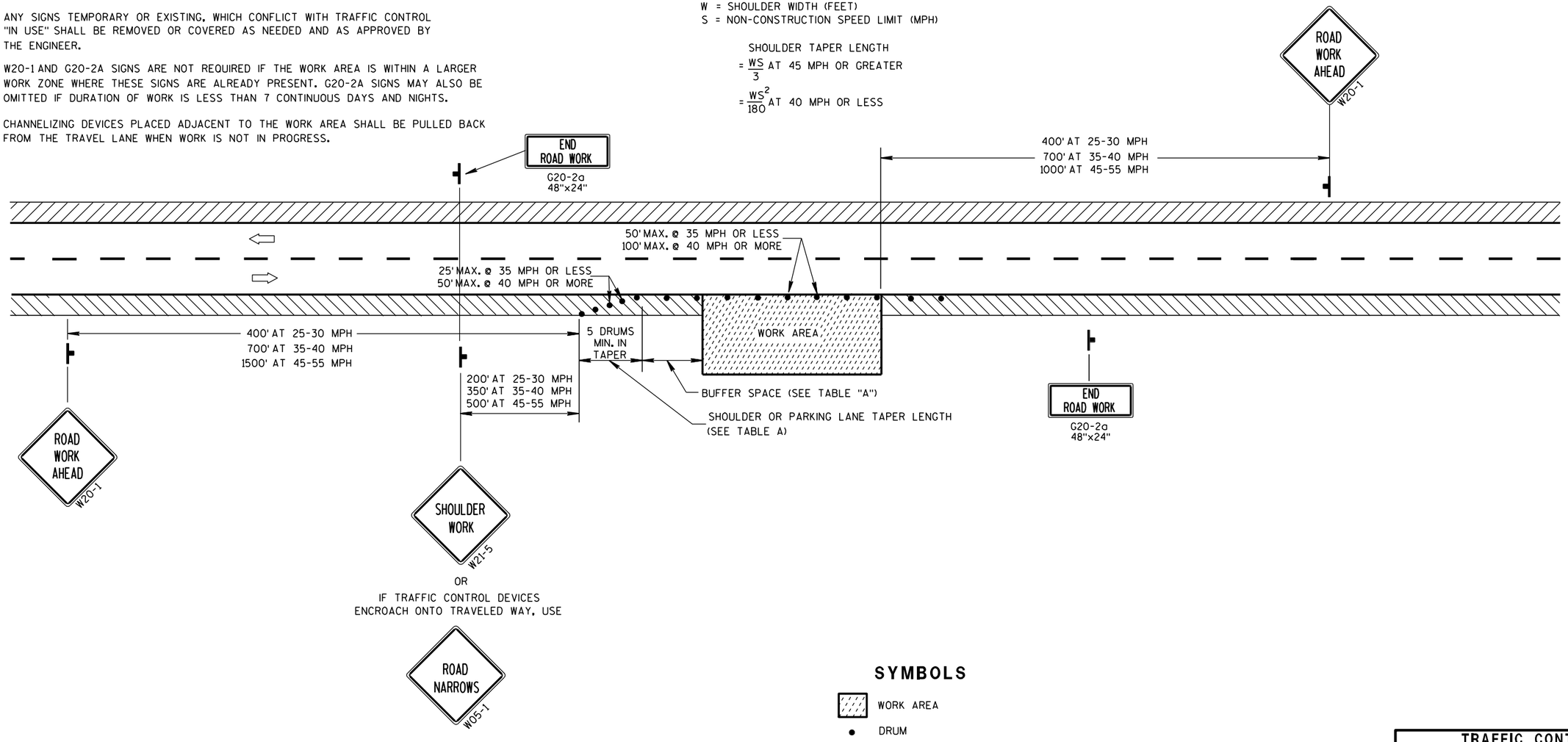
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
$= \frac{WS}{3}$ AT 45 MPH OR GREATER
$= \frac{WS^2}{180}$ AT 40 MPH OR LESS



SYMBOLS

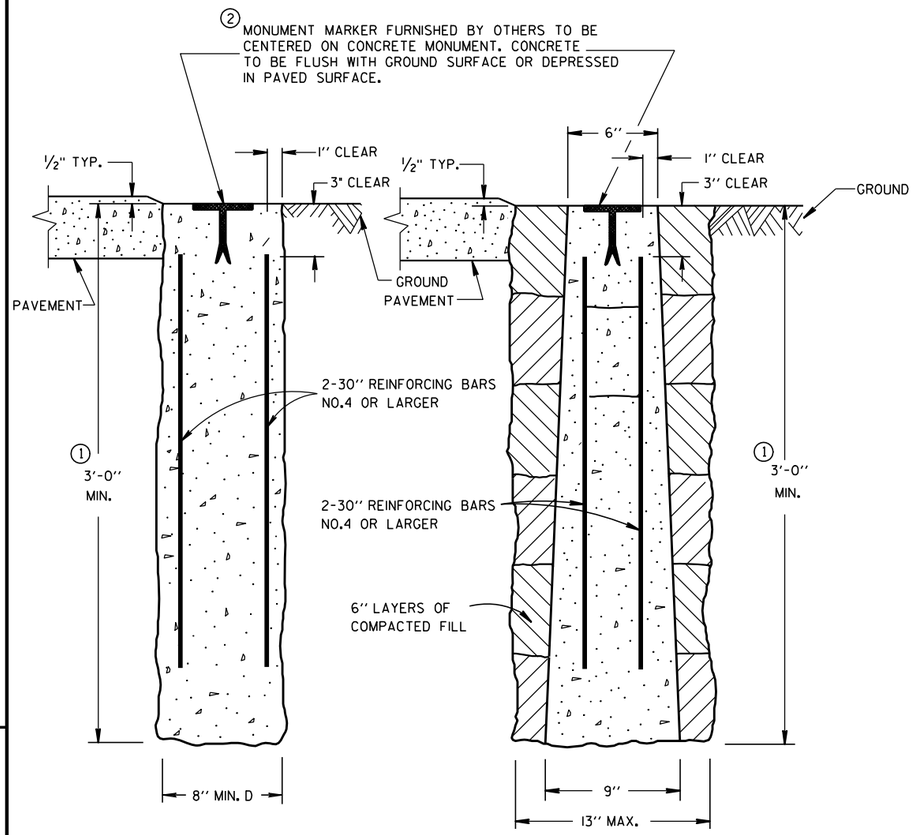
- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible] ENGINEER
FHWA

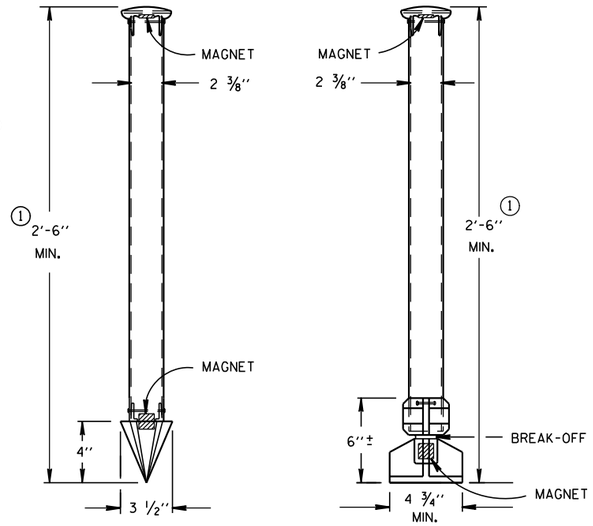
6
S.D.D. 15 D 28-1



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS

TYPE A



TYPE C DRIVE-IN MONUMENT

TYPE D BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

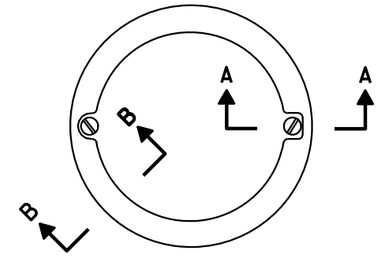
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

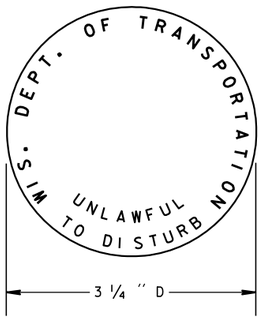
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

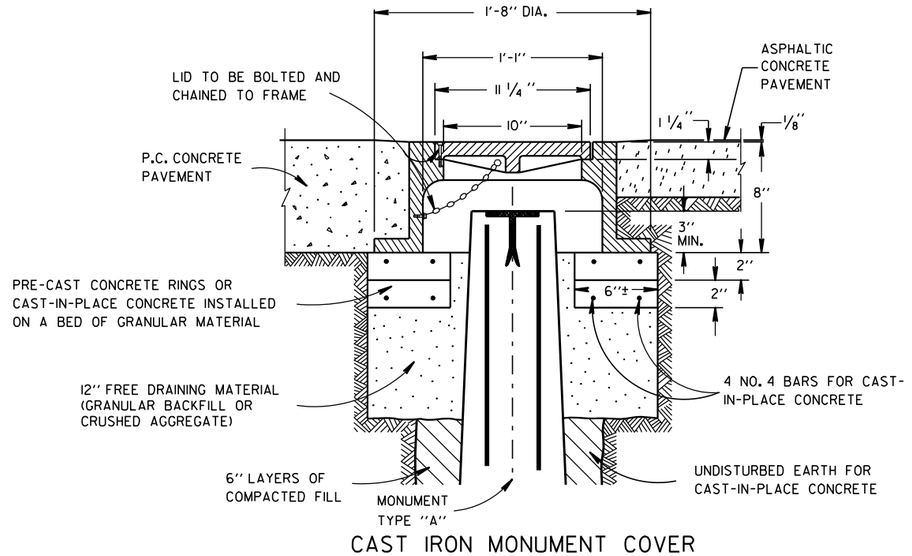
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TOP VIEW

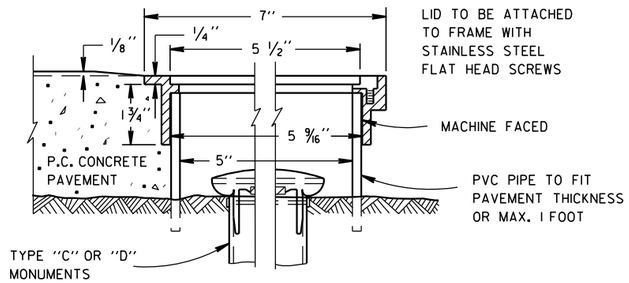


② WIS DOT MONUMENT MARKER LOGO FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)

(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MOUNMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/22/1999 DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOP NEER

FHWA

6

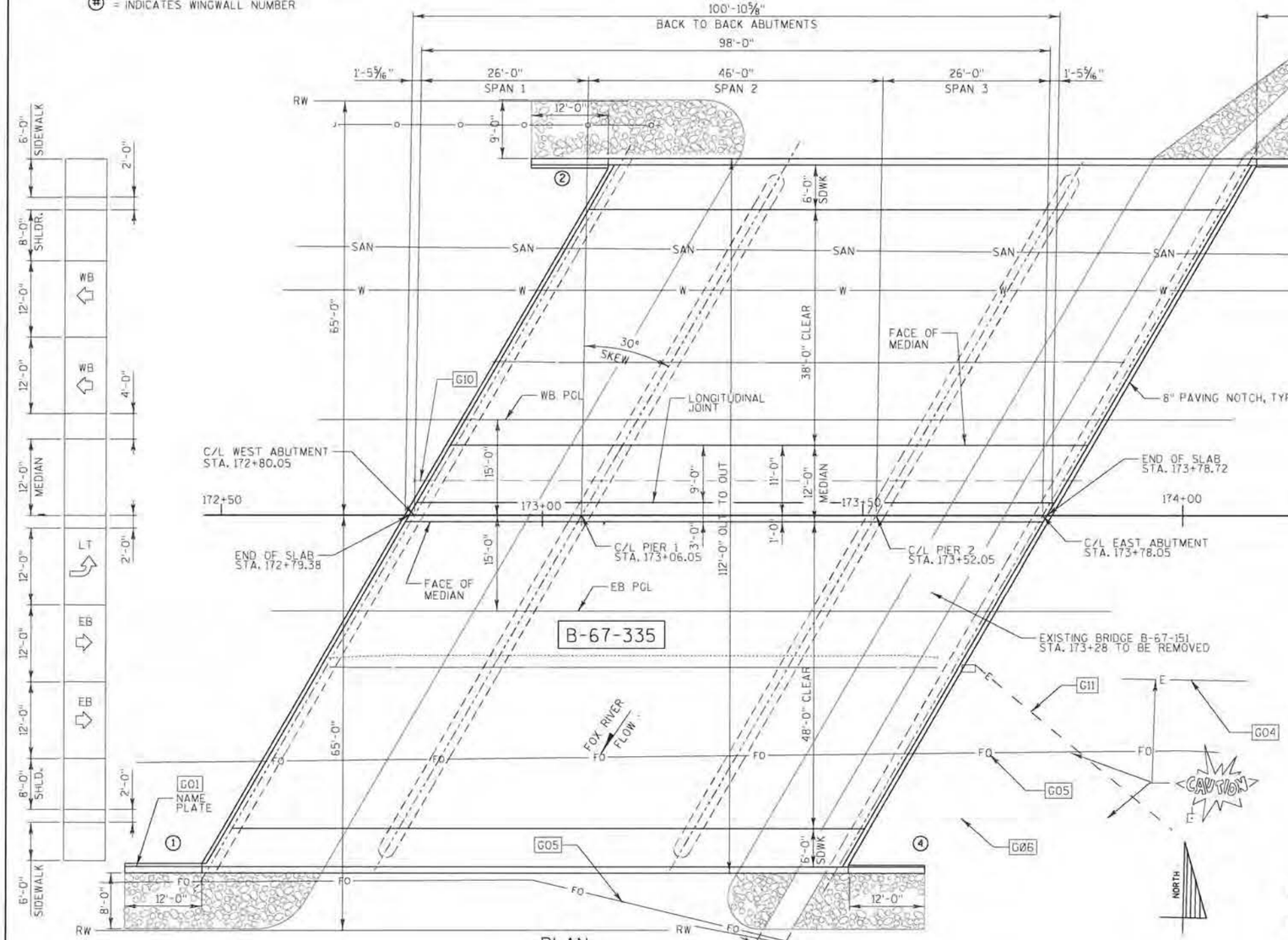
S.D.D. 16 A 1-6

6

S.D.D. 16 A 1-6

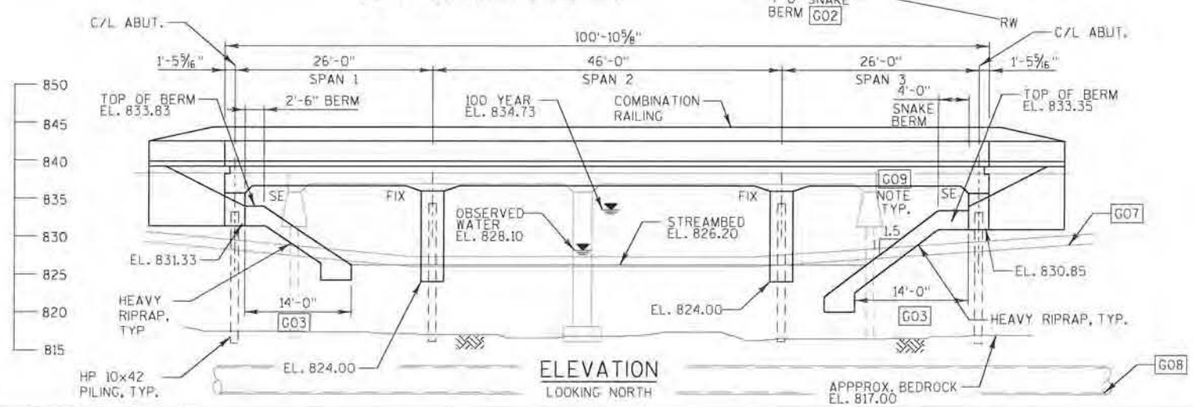
STATE PROJECT NUMBER
2753-06-01

Ⓝ = INDICATES WINGWALL NUMBER



PLAN

3 SPAN - CONCRETE HAUNCHED SLAB



ELEVATION

LOOKING NORTH

DESIGN DATA

STRUCTURE IS DESIGNED FOR FUTURE WEARING SURFACE OF 20 PSF
LIVE LOAD:
DESIGN LOADING HL-93
INVENTORY RATING FACTOR 1.29
OPERATING RATING FACTOR 1.68
MAX. STD. PERMIT VEHICLE LOAD ..... 250 KIPS
ULTIMATE DESIGN STRESS:
CONCRETE MASONRY SUPERSTRUCTURE ..... f'c = 4,000 psi
SUBSTRUCTURE ..... f'c = 3,500 psi
HIGH STRENGTH BAR
STEEL REINFORCEMENT ..... fy = 60,000 psi

TRAFFIC DATA

RDS = 50 M.P.H.
ADT = 10,900 (2013)
ADT = 18,600 (2033)

HYDRAULIC DATA

Q100 ..... 1500 CFS
VELOCITY ..... 3.56 FPS
HIGH WATER EL. 834.73
WATERWAY AREA ..... 421 SQ. FT.
DRAINAGE AREA ..... 21.0 SQ. MI.
SCOUR CRITICAL CODE 5
Q_2 ..... 170 CFS
Q_2 ELEV 831.11
OVERTOPPING ..... N/A

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP10x42 STEEL PILING DRIVEN FOR BEARING ON BEDROCK TO A REQUIRED DRIVING RESISTANCE OF 180 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION.

** THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF Ø.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

ESTIMATED PILE LENGTH 20 FEET LONG AT ABUTMENTS.
ESTIMATED PILE LENGTH 20 FEET LONG AT PIERS.

JAN O. HANSEN, P.E. E-24930 Milwaukee, Wisconsin
PROFESSIONAL ENGINEER — WISCONSIN
10-10-2012

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. QUANTITIES AND GENERAL NOTES
3. CROSS SECTION
4. SUBSURFACE EXPLORATION
5. FOUNDATION LAYOUT
6. WEST ABUTMENT
7. EAST ABUTMENT
8. ABUTMENT DETAILS
9. WINGWALL DETAILS
10. PIER 1 AND 2
11. PIER DETAILS
12. SUPERSTRUCTURE PLAN
13. SUPERSTRUCTURE SECTIONS
14. SUPERSTRUCTURE DETAILS
15. SUPERSTRUCTURE BAR DETAILS AND CAMBER
16. COMBINATION RAILING
17. COMBINATION RAILING DETAILS

NOTES

G01 NAME PLATE LOCATION. SEE SHEET 16 FOR DETAILS.

G02 SNAKE BERM. SEE SHEET 3 FOR DETAILS.

G03 DIMENSION NORMAL TO FF ABUTMENT.

G04 WAUKESHA DOT UNDERGROUND SIGNAL ELECTRIC TO BE RELOCATED. DO NOT COMMENCE CONSTRUCTION BEFORE CONFIRMATION.

G05 AT&T UNDERGROUND FIBER OPTIC TO BE RELOCATED. DO NOT COMMENCE CONSTRUCTION BEFORE CONFIRMATION. 2 LOCATIONS.

G06 WE ENERGIES OH ELECTRIC TO BE RELOCATED. DO NOT COMMENCE CONSTRUCTION BEFORE CONFIRMATION.

G07 16" WATER MAIN TO REMAIN

G08 42" SANITARY SEWER TO REMAIN

G09 EXCAVATION INCLUDED IN EXCAVATION FOR STRUCTURES

G10 PLACE CONDUIT FOR LIGHTING IN MEDIAN CURB

G11 CATHODIC SYSTEM TO BE SHUT OFF/ABANDONED

STRUCTURE DESIGN CONTACTS

BUREAU OF STRUCTURES:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
JAN HANSEN (414) 259-1500

NO.	DATE	REVISION	BY

GRÄEF
One Honey Creek Corporate Center
125 South 84th Street, Suite 401
Milwaukee, WI 53214-1470
414 / 259 1500
414 / 259 0037 fax
www.graef-usa.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 01/07/13
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-67-335

CTH VV SILVER SPRING OVER FOX RIVER

COUNTY	TOWN/CITY/VILLAGE
WAUKESHA	MENOMONEE FALLS

DESIGN SPEC.
AASHTO LRFD DESIGN SPEC. 5th EDITION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
RPB	JOH	RBH	JOH

GENERAL PLAN AND ELEVATION

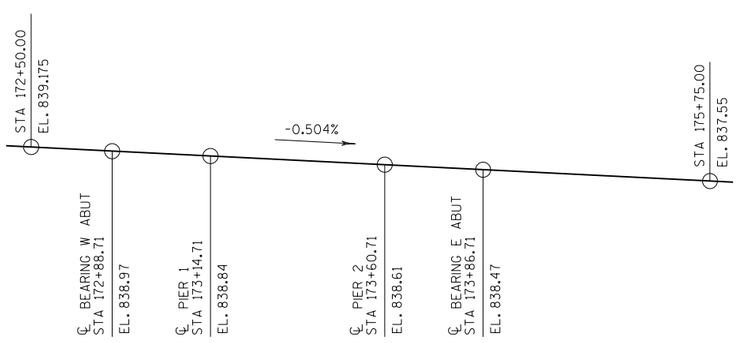
SHEET 1 OF 17

STATE PROJECT NUMBER
2753-06-01

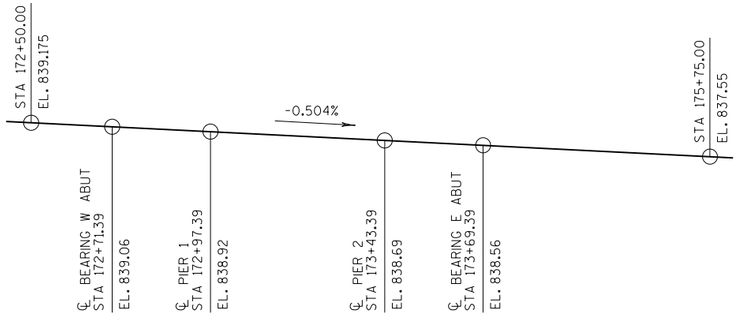
TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID - ITEM	UNIT	W ABUT	E ABUT	PIER 1	PIER 2	SUPER	TOTAL
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 173+28	LS	-	-	-	-	-	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-67-335	LS	-	-	-	-	-	1
210.0100	BACKFILL STRUCTURE	CY	215	235	-	-	-	450
305.0125	BASE AGGREGATE DENSE 1¼- INCH	CY	-	28	-	-	-	28
502.0100	CONCRETE MASONRY BRIDGES	CY	85	90	143	140	696	1154
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	-	1300	1300
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	9620	11170	6764	6624	149942	184120 ☆
513.7015	RAILING TYPE C3 B-67-335	LS	-	-	-	-	1	1
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	24	24	-	-	-	48
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIAL	LF	71	74	86	93	-	324
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	400	400	500	500	-	1800
606.0300	RIPRAP HEAVY	CY	215	275	-	-	-	490
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	180	204	-	-	-	384
625.0105	TOPSOIL	CY	-	44	-	-	-	44
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	330	420	-	-	-	750
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	-	-	-	-	104	104
	NON-BID ITEMS							
	FILLER	SIZE	-	-	-	-	-	½" & ¾"

☆ THE QUANTITY FOR BAR STEEL REINFORCEMENT HS COATED BRIDGES IN THE PARAPETS ON THE ABUTMENT WINGWALLS IS INCLUDED WITH THE ABUTMENT QUANTITY.



WB PROFILE GRADE LINE - CTH VV



EB PROFILE GRADE LINE - CTH VV

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

THE FIRST DIGIT OF A THREE DIGIT AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

ALL DETAILS, MATERIALS AND FABRICATION SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE SPECIFICATIONS OF THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION, EDITION OF 2013.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE ROADWAY DECK, MEDIAN, SIDEWALKS, FRONT FACE OF PARAPETS AND THE TOP OF THE PARAPETS.

THE TOP LAYER OF BAR STEEL REINFORCEMENT IN THE SLAB SHALL BE PLACED WITH 2½ INCHES OF CLEAR COVER.

THE EXISTING STREAM BED SHALL BE THE UPPER LIMITS OF EXCAVATION AT THE PIERS.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION AT THE ABUTMENTS AND WINGS.

AT THE BACKFACE OF THE ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIALS.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE FABRIC TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

THE EXISTING STRUCTURE B-67-151, IS A 2 SPAN CONCRETE HAUNCHED SLAB STRUCTURE WITH AN OVERALL WIDTH OF 47'-10" AND AN OVERALL LENGTH OF 78'-11". THE ENTIRE STRUCTURE IS TO BE REMOVED.

AT THE ABUTMENTS, HP12x53 STEEL PILING MAY BE USED IN LIEU OF HP12x42 STEEL PILING. PAYMENT SHALL BE BASED ON BID PRICE FOR PILING STEEL HP12-INCH x 42 LB.

FOR RESTRICTIONS AND DATES FOR IN-STREAM CONSTRUCTION ACTIVITIES, SEE SPECIAL PROVISIONS.

SUBMIT A STRUCTURE REMOVAL AND CLEAN-UP PLAN AS PART OF THE EROSION CONTROL IMPLEMENTATION PLAN (ECIP).

IN THE ECIP SUBMIT MEANS ACCEPTABLE TO THE DNR TO SAFEGUARD THE RIVER AND MAINTAIN FLOW DURING DEMOLITION AND CONSTRUCTION, AS A MINIMUM, LINE THE CHANNEL WITH TURBIDITY BARRIER AND AT THE UP-STREAM TRANSITIONS SUPPORT TURBIDITY BARRIER WITH CONCRETE BARRIER SEALING THE BOTTOM WITH ROCK BAGS. ALL MEANS TO ACCEPTABLY SAFEGUARD THE RIVER AND MAINTAIN FLOW ARE INCIDENTAL TO REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS AND EXCAVATION FOR STRUCTURES BRIDGES.

BENCH MARKS

NO.	LOCATION	DESCRIPTION	ELEV.
12	STA 166+51.68, 46.5' LT	COTTON SPINDLE (GEAR SPIKE) N/S P.P. NO. 05-16415	852.79
100	STA 172+74.01, 23.7' RT	BRASS CAP SET IN TOP OF SW PARAPET WALL ON BRIDGE #67-151-71	841.27

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-335

DRAWN BY RBH | PLANS CK'D. JOH

QUANTITIES AND GENERAL NOTES

SHEET 2 OF 17
249

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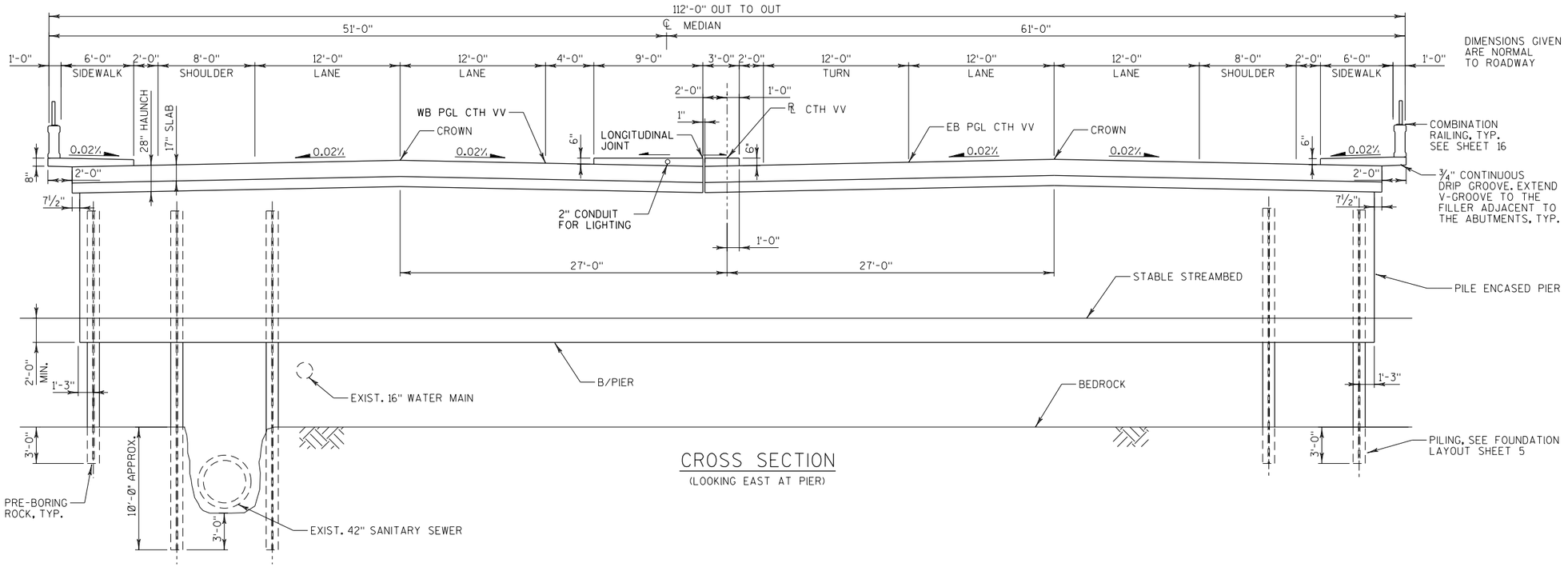
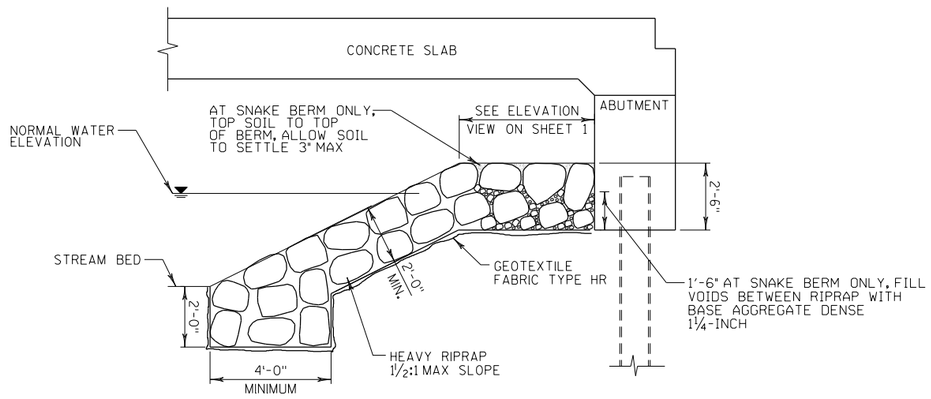
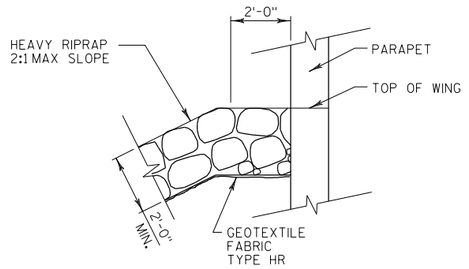
STATE PROJECT NUMBER
2753-06-01



CROSS SECTION
(LOOKING EAST AT PIER)



ABUTMENT RIPRAP SECTION



WING RIPRAP SECTION
(AT WING TIP)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-335

DRAWN BY RBH | PLANS CK'D. JOH

CROSS SECTION

SHEET 3 OF 17
250

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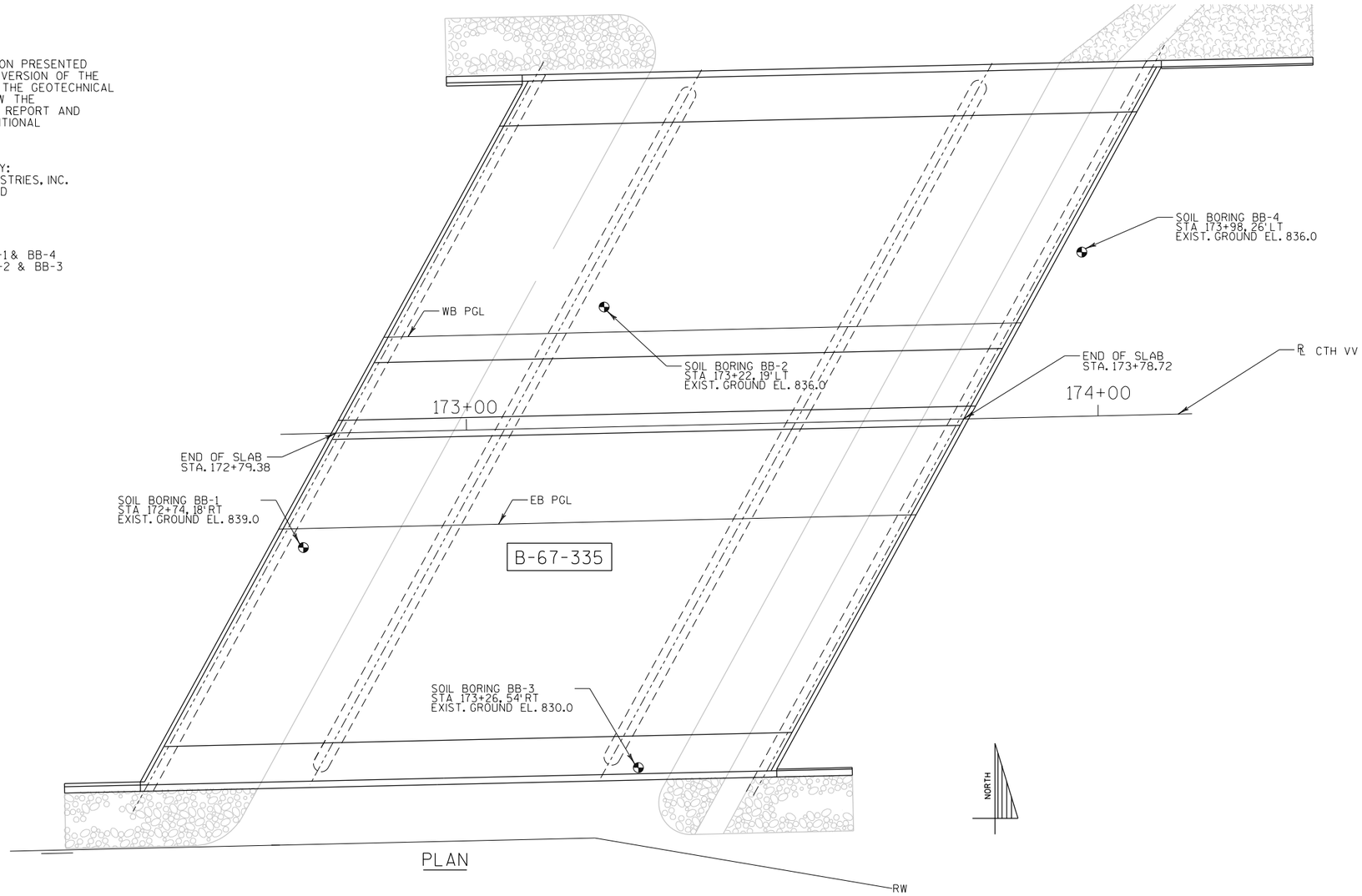
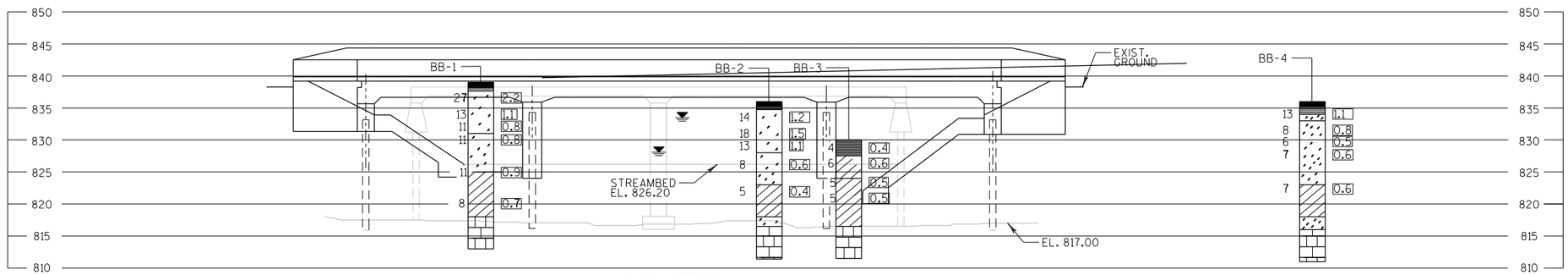
THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

SOIL BORINGS COMPLETED BY:
PROFESSIONAL SERVICE INDUSTRIES, INC.
W237 N2878 WOODGATE ROAD
PEWAUKEE, WISCONSIN 53072
262 347 0898

SOIL BORING TAKEN:
JUNE 29, 2011 - BORINGS BB-1 & BB-4
JUNE 30, 2011 - BORINGS BB-2 & BB-3



PLAN



ELEVATION
(LOOKING NORTH)

STATE PROJECT NUMBER

2753-06-01

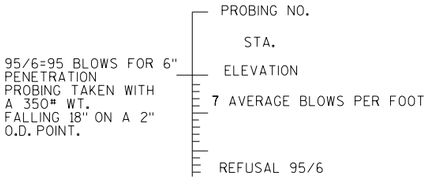
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

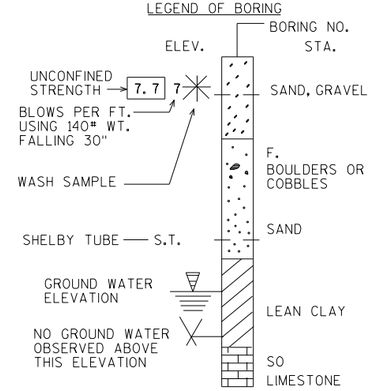
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-335

DRAWN BY MWP | PLANS CK'D. JOH

SUBSURFACE EXPLORATION

SHEET 4 OF 17
251

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STATE PROJECT NUMBER
2753-06-01

NOTES:

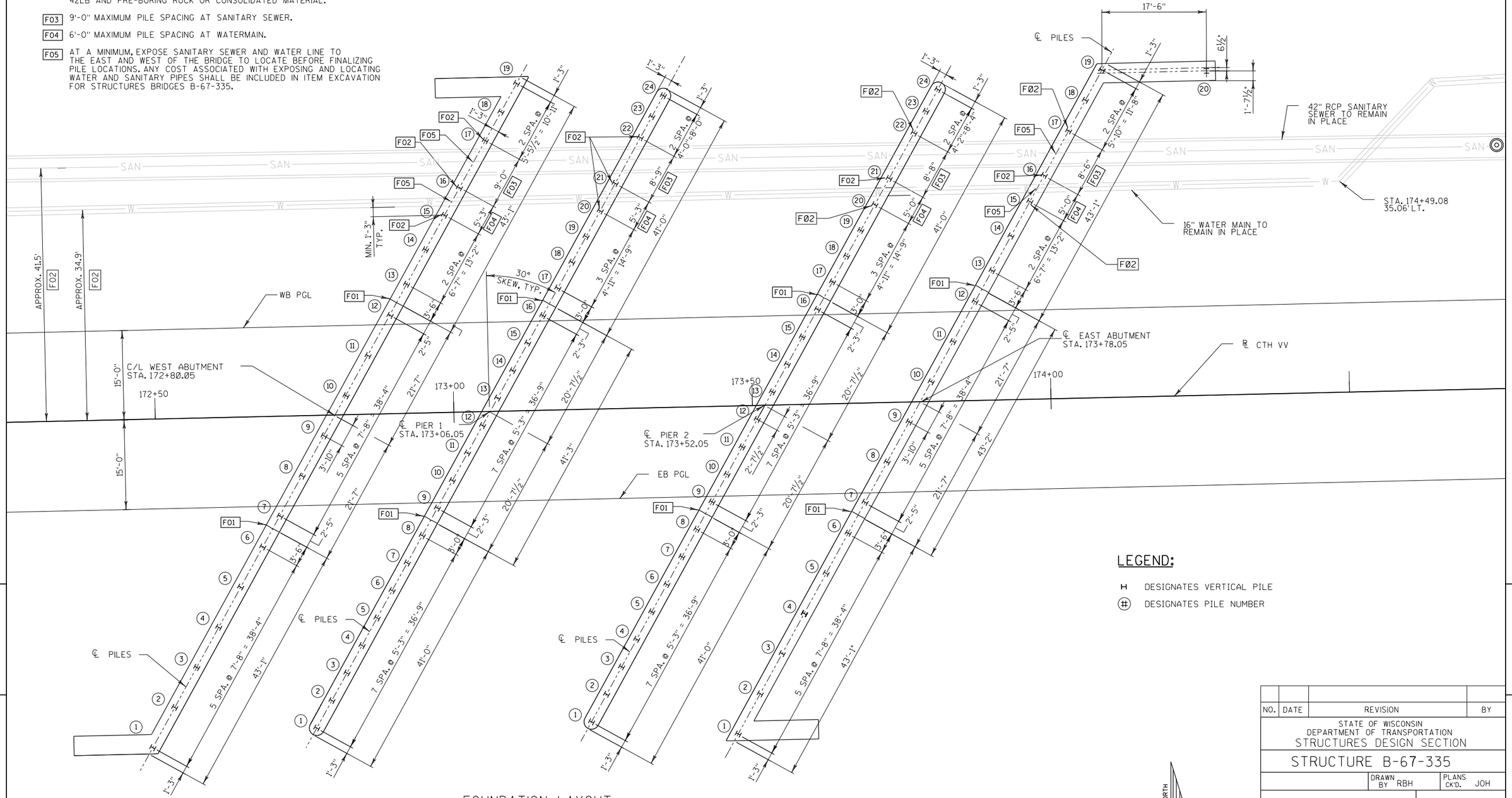
F01 KEYED CONSTRUCTION JOINT FORMED BY A SURFACE BEVELED 2X6.

F02 REFER TO THE UTILITY LINE OPENING ITEM IN PROJECT DOCUEMNTS TO CONFIRM UTILITY LOCATIONS. EXISTING 16" PVC WATER LINE AND 42" RCP SANITARY SEWER ARE SHOWN PER AS-BUILT PLANS. THE INTENT IS TO PREBORE AND INSTALL PILES FOR THE BRIDGE FOUNDATION WITHOUT HITTING, DISTURBING, OR DAMAGING THE WATER AND SANITARY PIPES. IF NEEDED RELOCATE CONFLICTING PILES NOT MORE THAN 1'-0" FROM THEIR PLAN LOCATION. MAINTAIN 1'-3" MINIMUM DISTANCE FROM CENTER OF PILE TO EDGE OF CONCRETE SUBSTRUCTURE AND MINIMUM 1'-3" CLEAR FROM PILE CENTER TO PIPES. THE ENGINEER SHALL BE NOTIFIED IF SPACING ADJUSTMENT IS MORE THAN 1'-0". ANY COST ASSOCIATED WITH PILE RELOCATION SHALL BE INCLUDED IN ITEMS PILING STEEL HP 10-INCH × 42LB AND PRE-BORING ROCK OR CONSOLIDATED MATERIAL.

F03 9'-0" MAXIMUM PILE SPACING AT SANITARY SEWER.

F04 6'-0" MAXIMUM PILE SPACING AT WATERMAIN.

F05 AT A MINIMUM, EXPOSE SANITARY SEWER AND WATER LINE TO THE EAST AND WEST OF THE BRIDGE TO LOCATE BEFORE FINALIZING PILE LOCATIONS. ANY COST ASSOCIATED WITH EXPOSING AND LOCATING WATER AND SANITARY PIPES SHALL BE INCLUDED IN ITEM EXCAVATION FOR STRUCTURES BRIDGES B-67-335.



LEGEND:

H DESIGNATES VERTICAL PILE

(#) DESIGNATES PILE NUMBER

FOUNDATION LAYOUT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-335

DRAWN BY RBH | PLANS CK'D. JOH

FOUNDATION LAYOUT

SHEET 5 OF 17
252

NORTH

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SCALE =

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STATE PROJECT NUMBER
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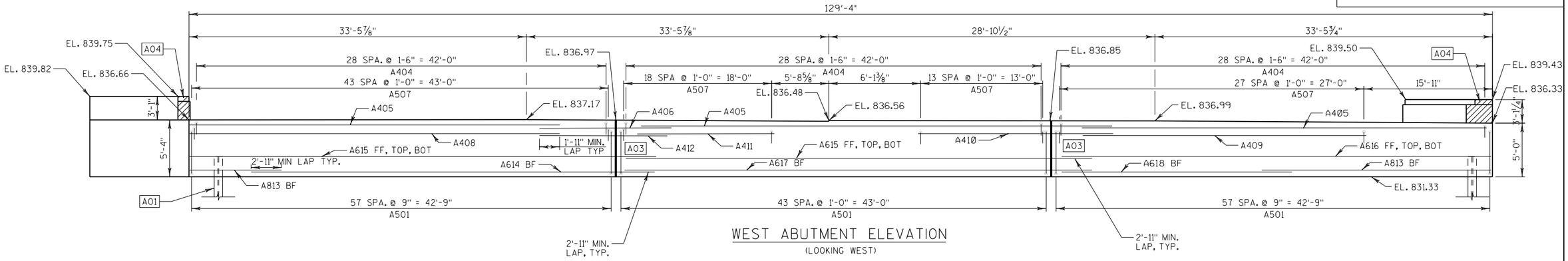
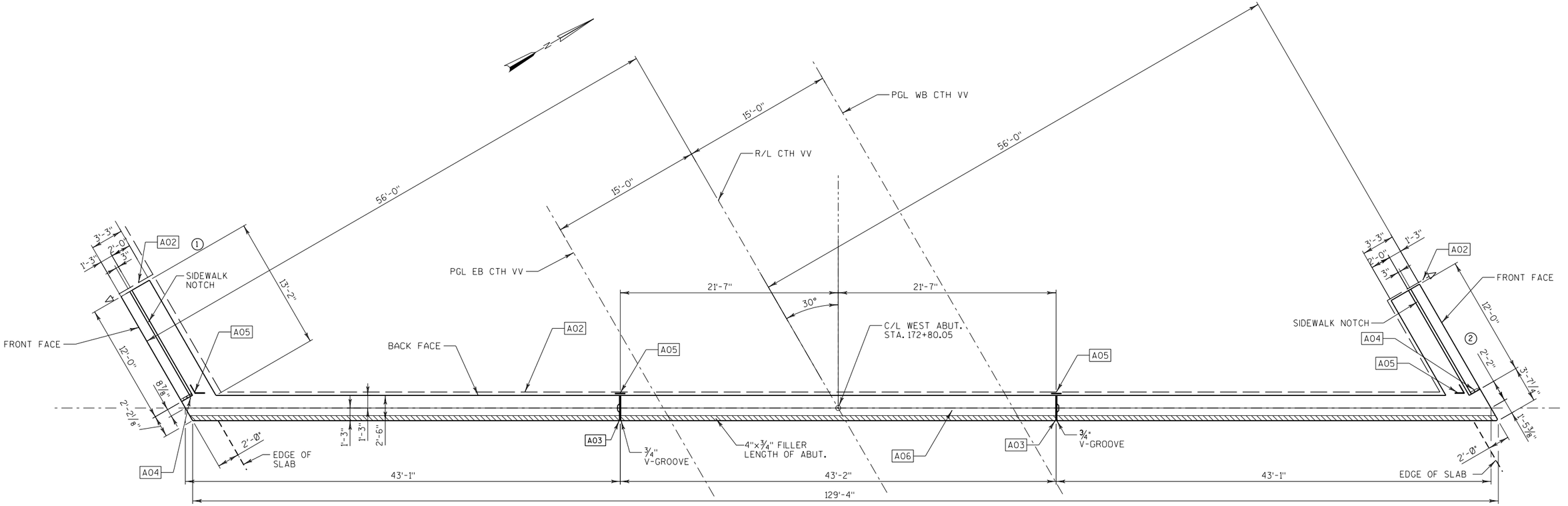


WEST ABUTMENT ELEVATION

(LOOKING WEST)



WEST ABUTMENT PLAN

NOTES:

Ⓦ WINGWALL

A01 SUPPORT ABUTMENT ON HP10x42 STEEL PILING. SEE SHEET 5 FOR PILING LAYOUT.

A02 PIPE UNDERDRAIN, WRAPPED, 6 INCH. SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SDD REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN.

A03 KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2X8

A04 ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ & VERT SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE

A05 18" RUBBERIZED MEMBRANE WATER-PROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

A06 STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUERSTURCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-335

DRAWN BY RBH | PLANS CK'D. JOH

WEST ABUTMENT

SHEET 6 OF 17
253

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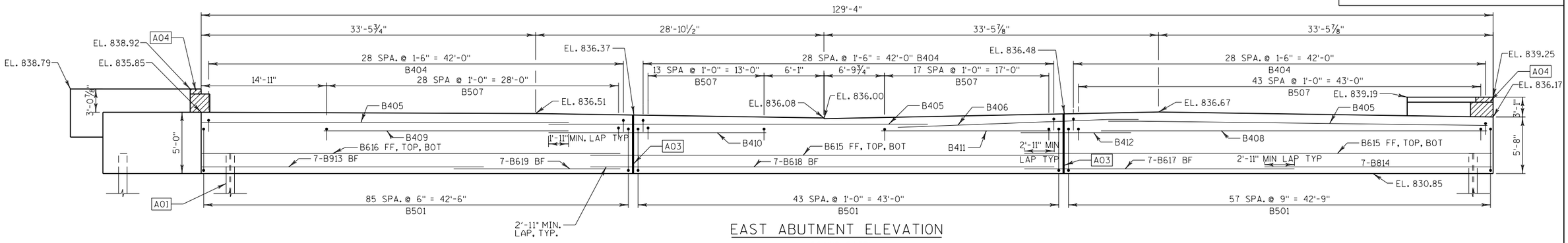
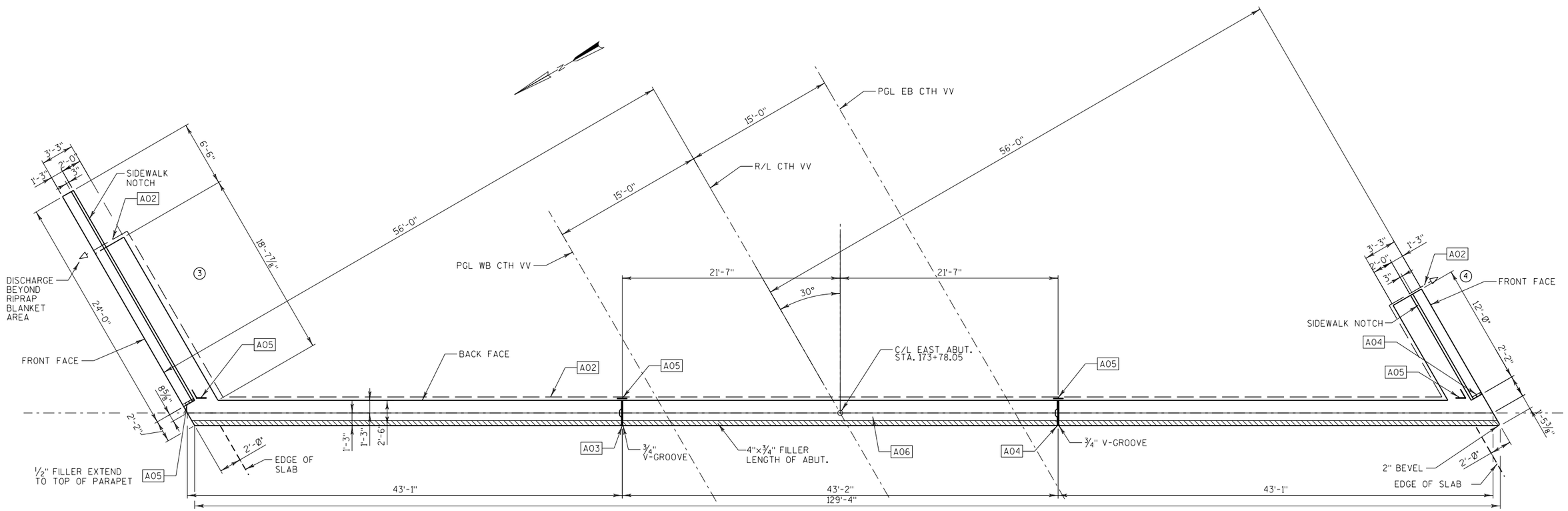


EAST ABUTMENT ELEVATION

(LOOKING EAST)



EAST ABUTMENT PLAN

NOTES:

Ⓦ WINGWALL

A01 SUPPORT ABUTMENT ON HP10x42 STEEL PILING. SEE SHEET 5 FOR PILING LAYOUT

A02 PIPE UNDERDRAIN, WRAPPED, 6 INCH. SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SDD REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN.

A03 KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2X8

A04 ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ & VERT SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE

A05 18" RUBBERIZED MEMBRANE WATER-PROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

A06 STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUERSTURCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-335

DRAWN BY RBH | PLANS CK'D. JOH

EAST ABUTMENT

SHEET 7 OF 17
254

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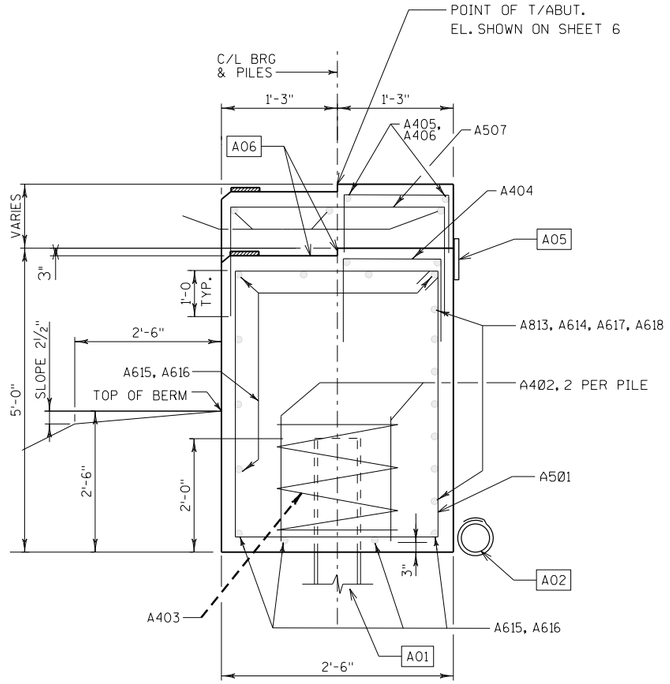
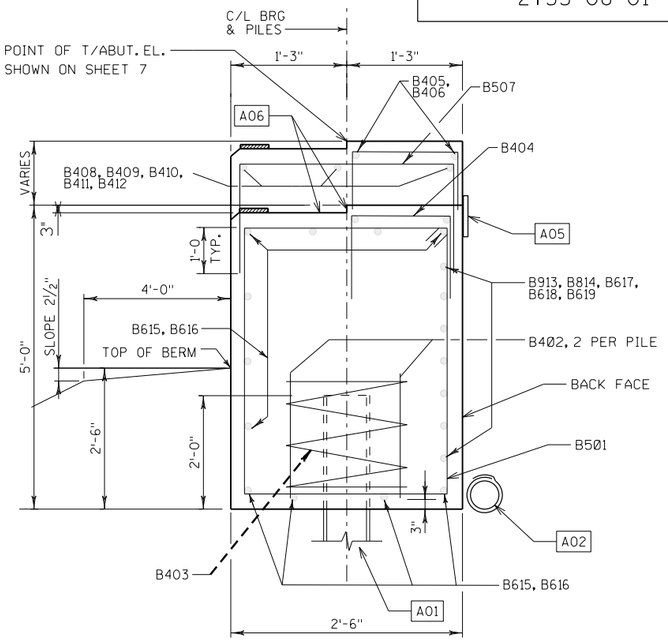


WEST ABUTMENT SECTION

WEST ABUTMENT BILL OF BARS

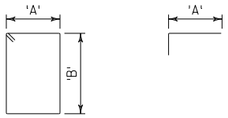
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
A501	X	160	13'-7"		X	ABUT. BODY STIRRUPS
A402	X	38	2'-3"			ABUT. PILES
A403	X	19	28'-0"		X	ABUT. PILES
A404	X	87	3'-3"		X	ABUT. BODY TOP STIRRUPS
A405	X	6	40'-0"			ABUT. BODY TOP HORIZ.
A406	X	2	14'-9"			ABUT. BODY TOP HORIZ.
A507	X	105	4'-11"		X	ABUT. BODY TOP STIRRUPS
A408	X	3	40'-0"			ABUT. BODY TOP HORIZ.
A409	X	3	27'-0"			ABUT. BODY TOP HORIZ.
A410	X	3	15'-3"			ABUT. BODY TOP HORIZ.
A411	X	3	18'-0"			ABUT. BODY TOP HORIZ.
A412	X	3	4'-6"			ABUT. BODY TOP HORIZ.
A813	X	14	12'-0"			ABUT. BODY HORIZ. BF
A614	X	7	37'-8"			ABUT. BODY HORIZ. BF
A615	X	22	46'-9"			ABUT. BODY HORIZ.
A616	X	11	42'-0"			ABUT. BODY HORIZ.
A617	X	7	46'-1"			ABUT. BODY HORIZ. BF
A618	X	7	33'-1"			ABUT. BODY HORIZ. BF
A521	X	6	13'-10"			WING 1 HORIZ.
A622	X	6	13'-8"		X	WING 1 HORIZ.
A623	X	2	13'-0"			WING 1 HORIZ. TOP
A524	X	13	16'-1"		X	WING 1 STIRRUPS
A425	X	4	11'-8"			WING 1 HORIZ. BF
A426	X	3	11'-8"			WING 1 HORIZ. FF
A527	X	16	10'-0"		X	WING 1 STIRRUPS
A628	X	2	11'-8"			WING 1 SIDEWALK NOTCH HORIZ.
A429	X	16	3'-6"		X	WING 1 SIDEWALK NOTCH STIRRUPS
A541	X	6	15'-0"			WING 2 HORIZ.
A642	X	6	12'-8"		X	WING 2 HORIZ.
A643	X	2	13'-0"			WING 2 HORIZ. TOP
A544	X	13	15'-5"		X	WING 2 STIRRUPS
A445	X	4	11'-8"			WING 2 HORIZ. BF
A446	X	3	11'-8"			WING 2 HORIZ. FF
A547	X	16	9'-2"		X	WING 2 STIRRUPS
A648	X	2	11'-8"			WING 2 SIDEWALK NOTCH HORIZ.
A449	X	16	3'-6"		X	WING 2 SIDEWALK NOTCH STIRRUPS



EAST ABUTMENT SECTION

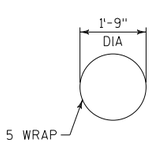
EAST ABUTMENT BILL OF BARS

MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
B501	X	188	13'-7"		X	ABUT. BODY STIRRUPS
B402	X	40	2'-3"			ABUT. PILES
B403	X	20	28'-0"		X	ABUT. PILES
B404	X	87	3'-3"		X	ABUT. BODY TOP STIRRUPS
B405	X	6	40'-0"			ABUT. BODY TOP HORIZ.
B406	X	2	14'-9"			ABUT. BODY TOP HORIZ.
B507	X	105	5'-7"		X	ABUT. BODY TOP STIRRUPS
B408	X	3	40'-0"			ABUT. BODY TOP HORIZ.
B409	X	3	28'-0"			ABUT. BODY TOP HORIZ.
B410	X	3	25'-0"			ABUT. BODY TOP HORIZ.
B411	X	3	17'-0"			ABUT. BODY TOP HORIZ.
B412	X	3	7'-8"			ABUT. BODY TOP HORIZ.
B913	X	7	24'-0"			ABUT. BODY HORIZ. BF
B814	X	7	12'-0"			ABUT. BODY HORIZ. BF
B615	X	22	46'-9"			ABUT. BODY HORIZ.
B616	X	11	41'-4"			ABUT. BODY HORIZ.
B617	X	7	34'-0"			ABUT. BODY HORIZ. BF
B618	X	7	46'-1"			ABUT. BODY HORIZ. BF
B619	X	7	22'-7"			ABUT. BODY HORIZ. BF
B521	X	6	19'-4"			WING 3 HORIZ.
B822	X	8	13'-5"		X	WING 3 HORIZ.
B823	X	2	19'-4"			WING 3 HORIZ.
B524	X	19	15'-5"		X	WING 3 STIRRUPS
B425	X	2	7'-9"			WING 3 HORIZ. FF
B426	X	2	23'-8"			WING 3 HORIZ. FF
B427	X	3	7'-9"			WING 3 HORIZ. BF
B528	X	5	23'-8"			WING 3 HORIZ. FF
B529	X	9	8'-4"		X	WING 3 STIRRUPS
B530	X	23	9'-0"		X	WING 3 STIRRUPS
B631	X	2	23'-8"			WING 3 SIDEWALK NOTCH HORIZ.
B432	X	32	3'-6"		X	WING 3 SIDEWALK NOTCH STIRRUPS
B541	X	6	15'-0"			WING 4 HORIZ.
B642	X	6	12'-8"		X	WING 4 HORIZ.
B643	X	2	13'-0"			WING 4 HORIZ. TOP
B544	X	13	15'-11"		X	WING 4 STIRRUPS
B445	X	4	11'-8"			WING 4 HORIZ. BF
B446	X	3	11'-8"			WING 4 HORIZ. FF
B547	X	16	9'-2"		X	WING 4 STIRRUPS
B648	X	2	11'-8"			WING 4 SIDEWALK NOTCH HORIZ.
B449	X	16	3'-6"		X	WING 4 SIDEWALK NOTCH STIRRUPS

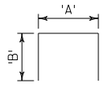


BAR MARK	DIM. 'A'	DIM. 'B'
A501	2'-2"	4'-4"
A524	2'-11"	4'-11"
A544	2'-11"	4'-7"
B501	2'-2"	4'-4"
B524	2'-11"	4'-7"
B544	2'-11"	4'-10"

BAR MARK	DIM. 'A'
A622	13'-0"
A642	12'-0"
B822	12'-3"
B642	12'-0"



A403, B403



BAR MARK	DIM. 'A'	DIM. 'B'
A404	11"	1'-3"
A429	8"	1'-6"
A449	8"	1'-6"
A507	2'-2"	1'-6"
A527	11"	4'-8"
A547	11"	4'-3"
B404	11"	1'-3"
B432	8"	1'-6"
B449	8"	1'-6"
B507	2'-2"	1'-10"
B529	11"	3'-10"
B530	11"	4'-2"
B547	11"	4'-3"

NOTES:

A01 SUPPORT ABUTMENT ON HP10x42 STEEL PILING.

A02 PIPE UNDERDRAIN, WRAPPED, 6 INCH. SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SDD REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN.

A03 KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2x8

A04 ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ & VERT SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE

A05 18" RUBBERIZED MEMBRANE WATER-PROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

A06 STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUERSTURCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-335

DRAWN BY RBH | PLANS CK'D. JOH

ABUTMENT DETAILS

SHEET 8 OF 17
255

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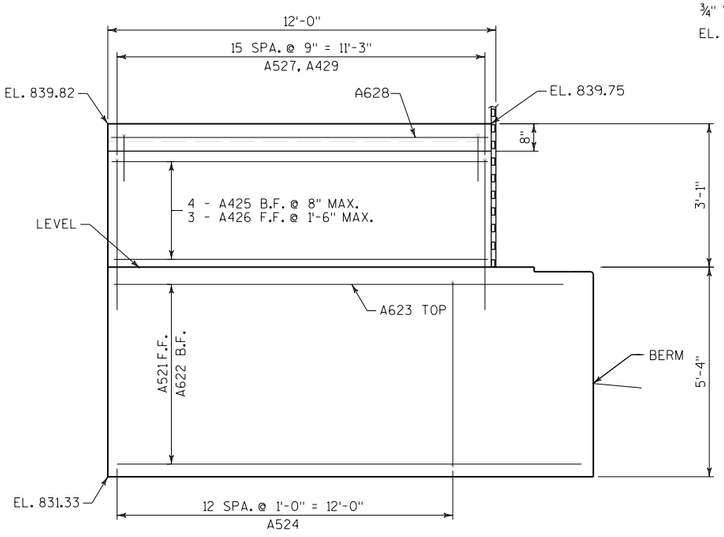
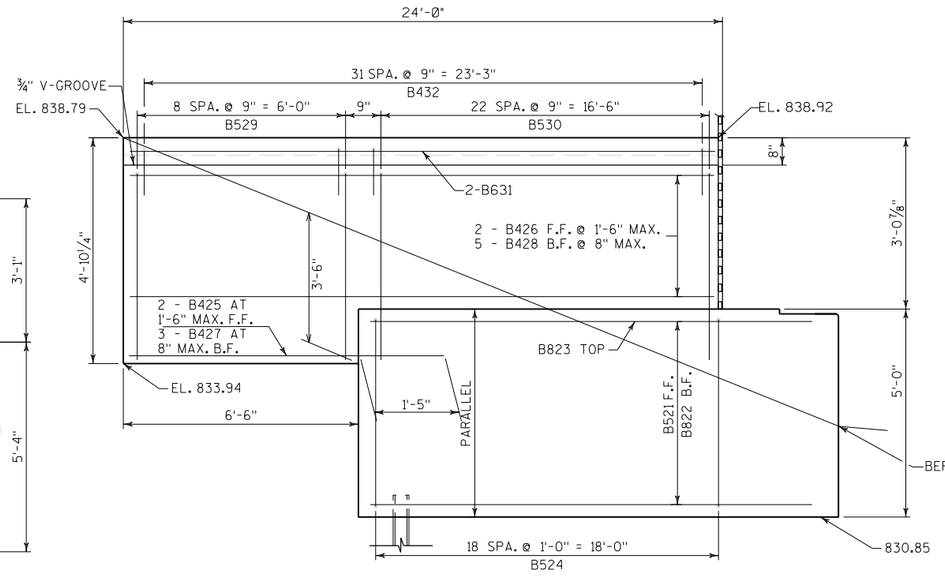
STATE PROJECT NUMBER

2753-06-01



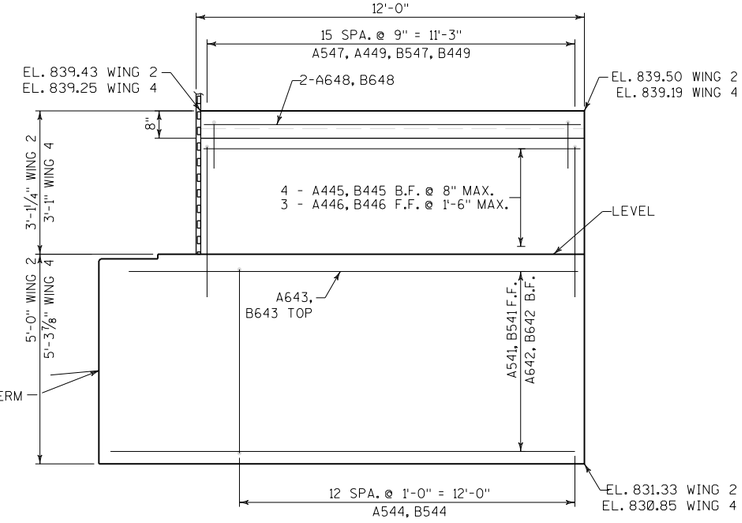
WING 1 ELEVATION

(FRONT FACE)



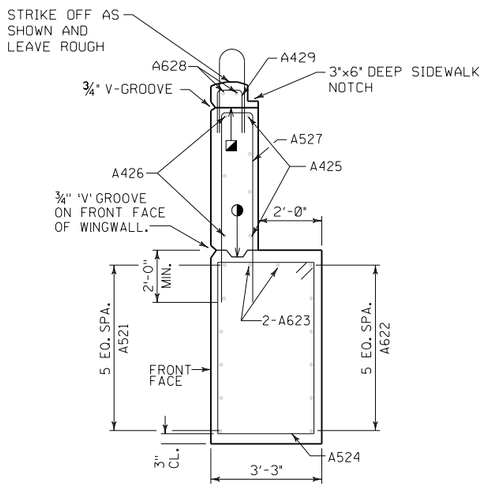
WING 3 ELEVATION

(FRONT FACE)

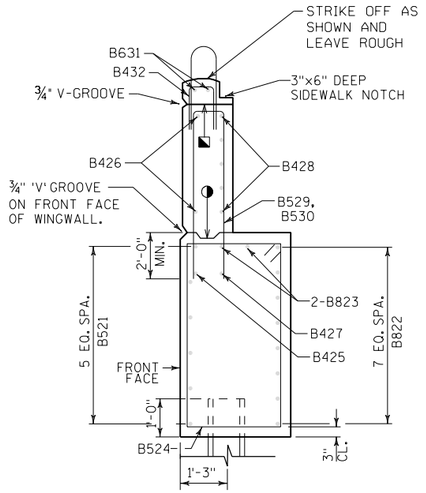


WING 2 AND 4 SECTION

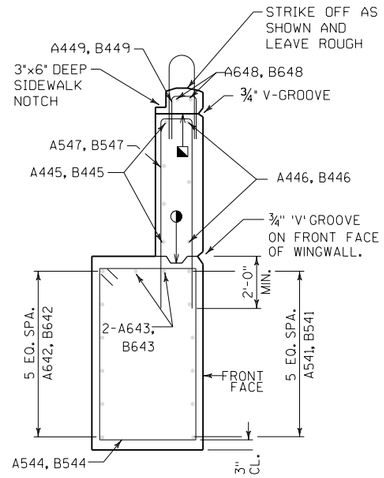
(FRONT FACE)



WING 1 SECTION



WING 3 SECTION



WING 2 AND 4 SECTION

TEXT

◑ OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACKFACE.

◪ OPTIONAL CONSTRUCTION JOINT, LEAVE ROUGH. POUR CONCRETE ABOVE THIS JOINT AFTER SLAB IS IN PLACE.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-335

DRAWN BY RBH | PLANS CK'D. JOH

WINGWALL DETAILS

SHEET 9 OF 17
256

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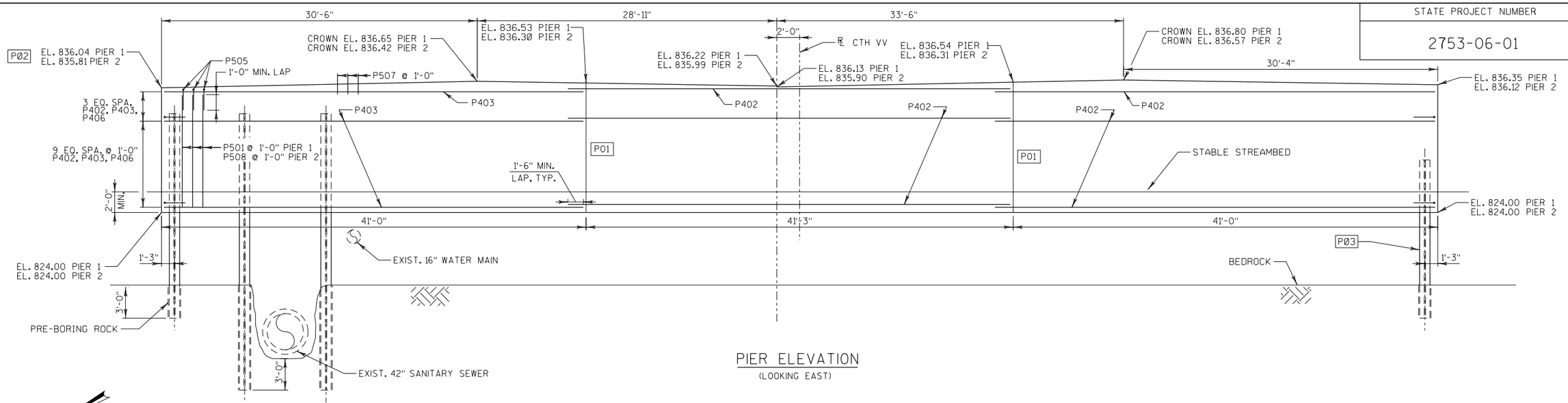
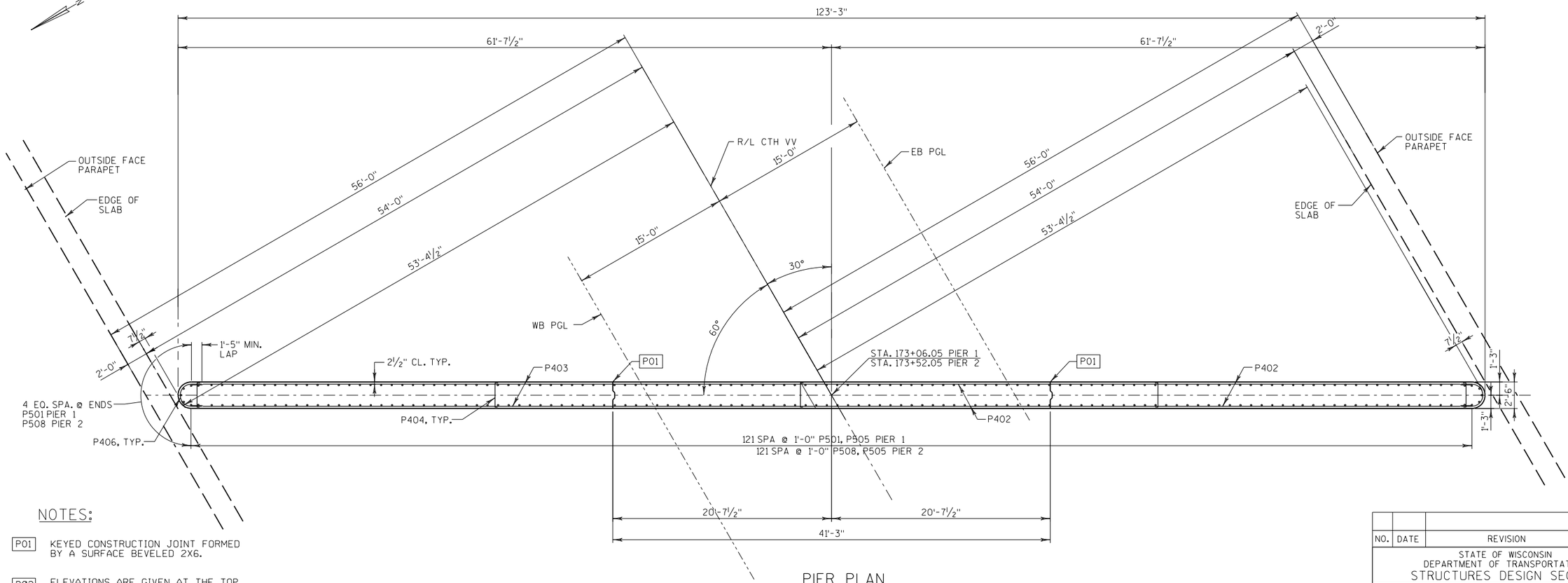


PIER ELEVATION

(LOOKING EAST)



PIER PLAN

NOTES:

P01 KEYED CONSTRUCTION JOINT FORMED BY A SURFACE BEVELED 2X6.

P02 ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE AT THE C/L PIER AND DIMENSIONS ALONG C/L OF PIER.

P03 SUPPORT PIERS ON HP10×42 STEEL PILING. SEE FOUNDATION LAYOUT SHEET 5.

NO.	DATE	REVISION	BY

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DRAWN BY RBH | PLANS CK'D. JOH

PIER 1 AND 2

SHEET 10 OF 17

257

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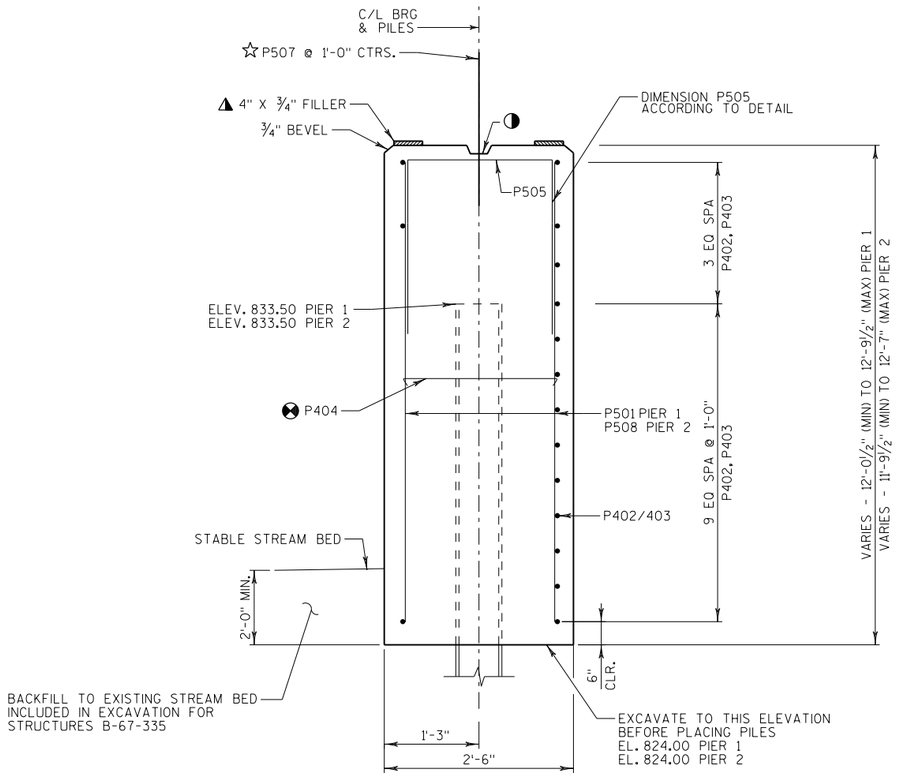
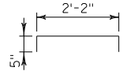


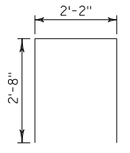
PIER SECTION

BILL OF BARS

MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
P501	X	256	11'-6"			PIER 1 VERTICAL
P402	X	52	43'-0"			PIER 1 TRANS.
P403	X	26	40'-6"			PIER 1 TRANS.
P404	X	312	3'-0"		X	PIER 1 TIES
P505	X	64	7'-6"		X	PIER 1 VERTICAL TOP
P406	X	26	6'-6"		X	PIER 1 TRANS. ENDS
P507	X	122	2'-0"			PIER 1 VERTICAL DOWELS
P508	X	256	11'-0"			PIER 2 VERTICAL
P402	X	52	43'-0"			PIER 2 TRANS.
P403	X	26	40'-6"			PIER 2 TRANS.
P404	X	312	3'-0"			PIER 2 TIES
P505	X	64	7'-6"			PIER 2 VERTICAL TOP
P406	X	26	6'-6"			PIER 2 TRANS. ENDS
P507	X	122	2'-0"			PIER 2 VERTICAL DOWELS



P404



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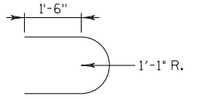

P406

LEGEND

- ◑ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2X6
- ☆ P507 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".
- ◭ 4"X¾" FILLER, EXTEND FULL LENGTH OF PIERS AS SHOWN.
- ⊗ PLACE P404 BARS ADJACENT TO PILING @ 1'-0" VERT. SPACING FROM BASE OF SHAFT TO TOP OF PILING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-335

DRAWN BY RBH | PLANS CK'D. JOH

PIER DETAILS

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258

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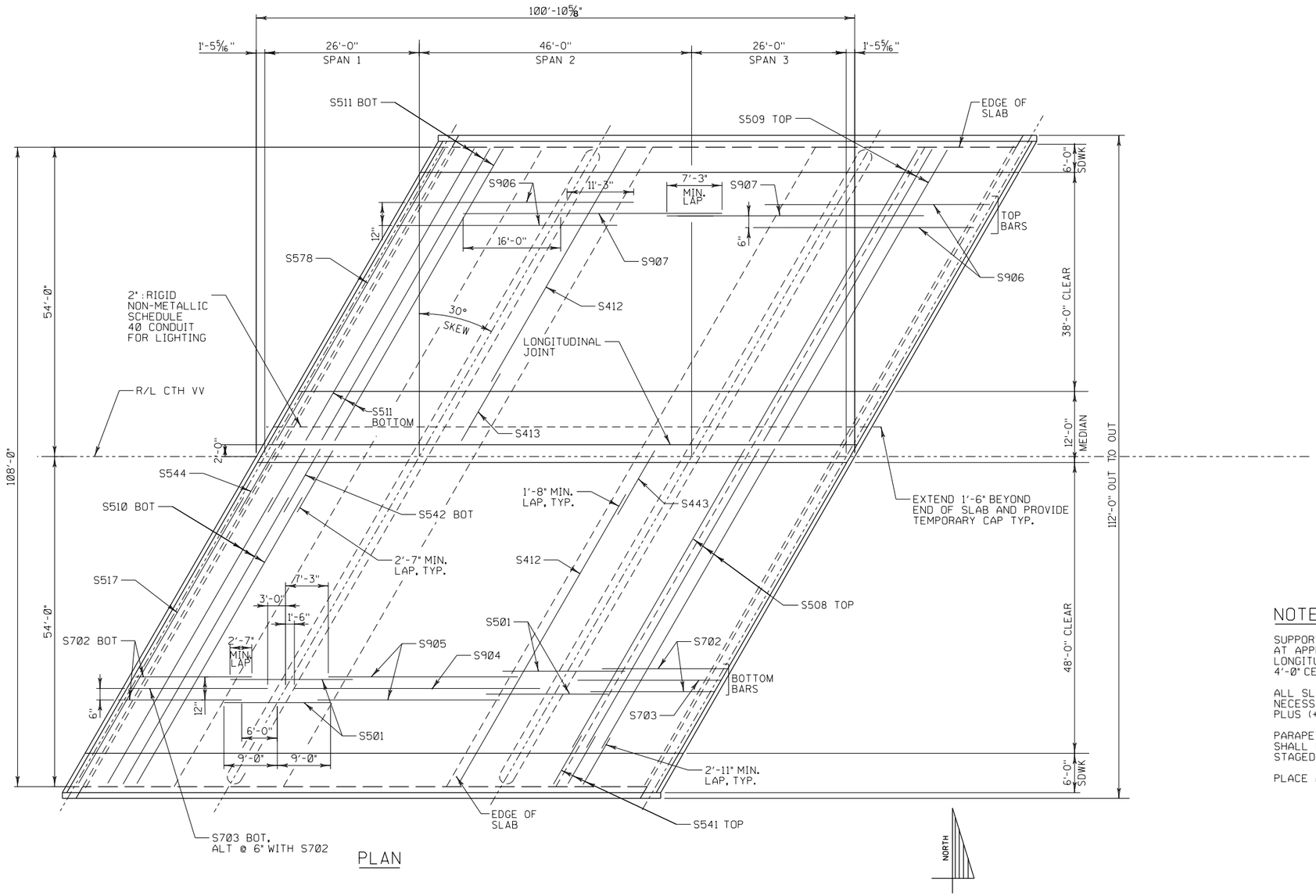

PLAN

NOTES

SUPPORT TOP TRANSVERSE BARS IN SLAB BY INDIVIDUAL BAR CHAIRS AT APPRPXIMATELY 3'-0" CENTERS EACH WAY. SUPPORT BOTTOM LONGITUDINAL BARS BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DESCREPANCIES ARE TO BE PLUS (+).

PARAPETS, SIDEWALKS, AND MEDIAN PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED, EXCEPT FOR STAGED CONSTRUCTION.

PLACE ALL TRANSVERSE BARS ON THE SKEW.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-335

DRAWN BY RBH | PLANS CK'D. JOH

SUPERSTRUCTURE PLAN

SHEET 12 OF 17
259

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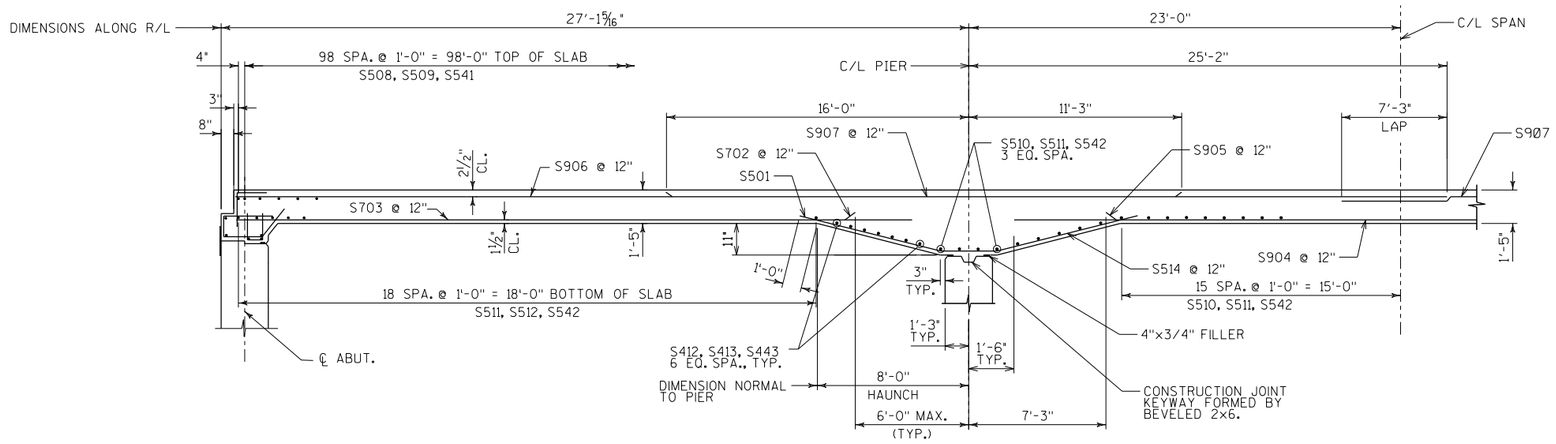
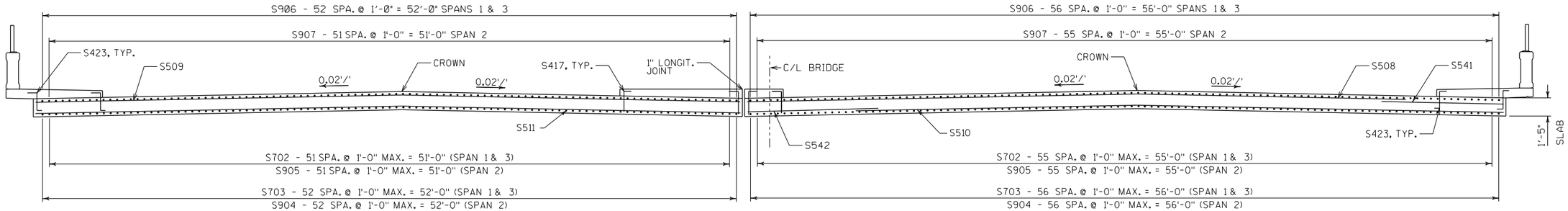
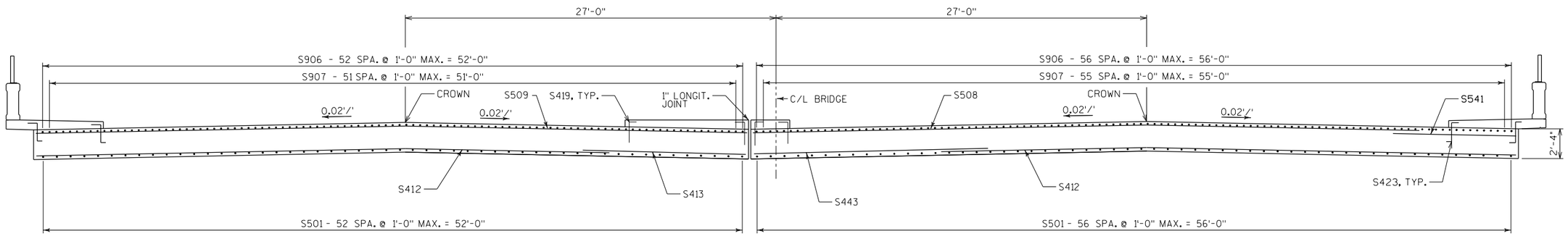


LONGITUDINAL SECTION



CROSS SECTION IN SPAN

(LOOKING EAST)



CROSS SECTION AT PIERS

(LOOKING EAST)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-335

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SUPERSTRUCTURE SECTIONS

SHEET 13 OF 17
260

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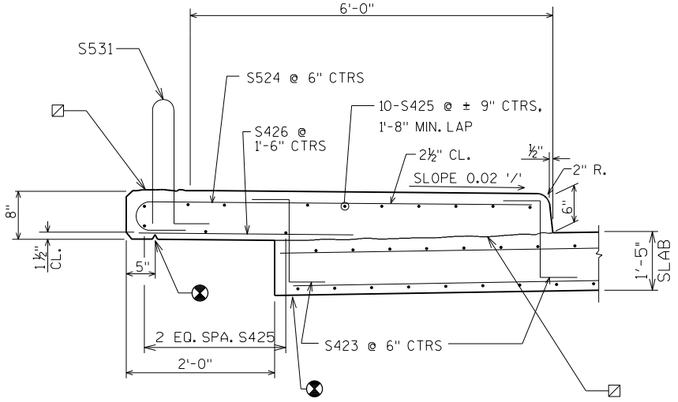
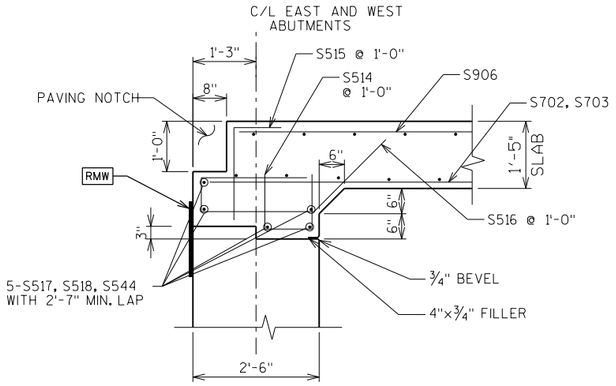
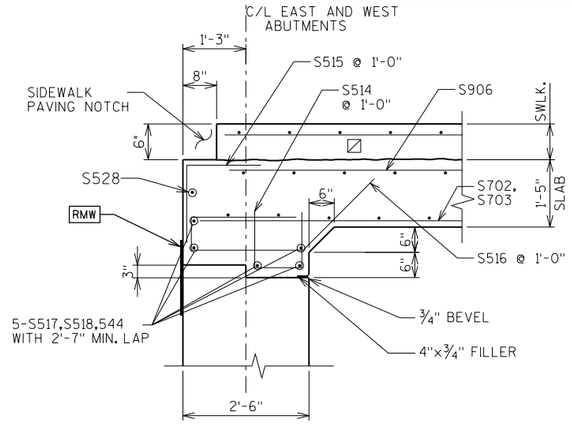


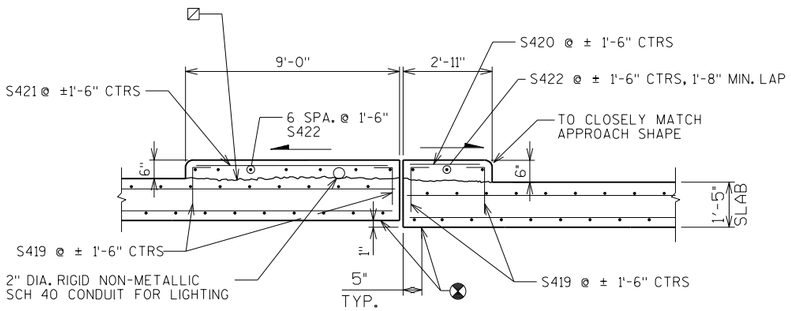
CROSS SECTION THRU SIDEWALK



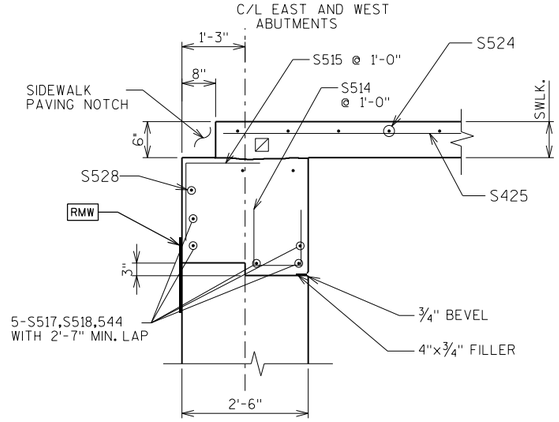
DETAIL AT ABUTMENTS



DETAIL AT SLAB/SIDEWALK



CROSS SECTION THRU ANCHORED MEDIAN



DETAIL AT SIDEWALK

NOTES:

☒ CONST. JOINT-STRIKE OFF AS SHOWN AND LEAVE ROUGH. FOR DECK POUR, MATCH BRIDGE X-SLOPES.

⊗ 3"x4" CONTINUOUS DRIP GROOVE. TERMINATE 2'-0" FROM FACE OF ABUTMENT.

RMW 18" RUBBERIZED MEMBRANE WATERPROOFING, SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE

Location	C/L BRG W ABUT	Span 1									C/L PIER 1	Span 2									C/L PIER 2	Span 3									C/L BRG. E. ABUT
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	
North Edge	838.56	838.54	838.53	838.52	838.50	838.49	838.48	838.47	838.45	838.44	838.43	838.40	838.38	838.36	838.33	838.31	838.29	838.27	838.24	838.22	838.20	838.18	838.17	838.15	838.14	838.13	838.11	838.10	838.08	838.07	838.06
North Curb	838.67	838.66	838.64	838.63	838.62	838.61	838.59	838.58	838.57	838.55	838.54	838.52	838.49	838.47	838.45	838.43	838.40	838.38	838.36	838.33	838.31	838.30	838.28	838.27	838.25	838.24	838.23	838.21	838.20	838.18	838.17
Crown Point	839.18	839.16	839.15	839.14	839.12	839.11	839.10	839.08	839.07	839.06	839.05	839.02	839.00	838.98	838.95	838.93	838.91	838.88	838.86	838.84	838.82	838.80	838.79	838.77	838.76	838.75	838.73	838.72	838.70	838.69	838.68
PGL	838.97	838.96	838.94	838.93	838.92	838.91	838.89	838.88	838.87	838.85	838.84	838.82	838.79	838.77	838.75	838.73	838.70	838.68	838.66	838.63	838.61	838.60	838.58	838.57	838.55	838.54	838.53	838.51	838.50	838.48	838.47
Median	838.90	838.89	838.88	838.86	838.85	838.84	838.82	838.81	838.80	838.78	838.77	838.75	838.73	838.70	838.68	838.66	838.63	838.61	838.59	838.56	838.54	838.53	838.51	838.50	838.49	838.47	838.46	838.44	838.43	838.42	838.40
Joint	838.75	838.73	838.72	838.71	838.70	838.68	838.67	838.66	838.64	838.63	838.62	838.59	838.57	838.55	838.53	838.50	838.48	838.46	838.43	838.41	838.39	838.37	838.36	838.35	838.33	838.32	838.30	838.29	838.28	838.26	838.25

Location	C/L BRG W ABUT	Span 1									C/L PIER 1	Span 2									C/L PIER 2	Span 3									C/L BRG. E. ABUT
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	
Joint	838.67	838.66	838.64	838.63	838.61	838.60	838.59	838.57	838.56	838.54	838.53	838.51	838.48	838.46	838.44	838.42	838.39	838.37	838.35	838.32	838.30	838.29	838.27	838.26	838.25	838.24	838.22	838.21	838.20	838.18	838.17
Median	838.74	838.73	838.71	838.70	838.68	838.67	838.66	838.64	838.63	838.61	838.60	838.58	838.55	838.53	838.51	838.48	838.46	838.44	838.42	838.39	838.37	838.36	838.34	838.33	838.32	838.30	838.29	838.28	838.27	838.25	838.24
PGL	839.06	839.05	839.03	839.02	839.00	838.99	838.98	838.96	838.95	838.93	838.92	838.90	838.87	838.85	838.83	838.81	838.78	838.76	838.74	838.71	838.69	838.68	838.66	838.65	838.64	838.63	838.61	838.60	838.59	838.57	838.56
Crown	839.33	839.32	839.31	839.29	839.28	839.26	839.25	839.24	839.22	839.21	839.19	839.17	839.15	839.13	839.10	839.08	839.06	839.03	839.01	838.99	838.96	838.95	838.94	838.93	838.91	838.90	838.89	838.87	838.86	838.85	838.83
South Curb	838.96	838.95	838.93	838.92	838.90	838.89	838.88	838.86	838.85	838.83	838.82	838.80	838.77	838.75	838.73	838.70	838.68	838.66	838.64	838.61	838.59	838.58	838.56	838.55	838.54	838.52	838.51	838.50	838.49	838.47	838.46
South Edge	838.87	838.86	838.85	838.83	838.82	838.80	838.79	838.78	838.76	838.75	838.73	838.71	838.69	838.66	838.64	838.62	838.60	838.57	838.55	838.53	838.50	838.49	838.48	838.46	838.45	838.44	838.43	838.41	838.40	838.39	838.37

FINISHED GRADE ELEVATIONS GIVEN.

TOP OF SLAB ELEVATIONS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-335

DRAWN BY RBH | PLANS CK'D. JOH

SUPERSTRUCTURE DETAILS

SHEET 14 OF 17
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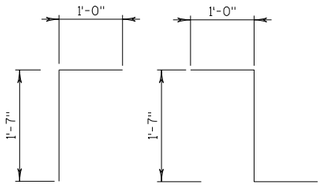
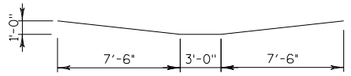
STATE PROJECT NUMBER
2753-06-01

BILL OF BARS

MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
S501	X	220	15'-2"		Y	SLAB LONG. BOTTOM AT HAUNCH
S702	X	216	20'-0"			SLAB LONG. BOTTOM SPAN 1 & 3
S703	X	220	23'-0"			SLAB LONG. BOTTOM SPAN 1 & 3
S904	X	110	43'-0"			SLAB LONG. BOTTOM SPAN 2
S905	X	108	31'-6"			SLAB LONG. BOTTOM SPAN 2
S906	X	220	37'-3"			SLAB LONG. TOP
S907	X	216	42'-8"			SLAB LONG. TOP
S508	X	99	60'-0"			SLAB TRANS. TOP
S509	X	99	59'-8"			SLAB TRANS. TOP
S510	X	77	60'-0"			SLAB TRANS. BOTTOM
S511	X	77	59'-8"			SLAB TRANS. BOTTOM
S412	X	56	40'-0"			SLAB TRANS. BOTTOM AT HAUNCH
S413	X	28	21'-4"			SLAB TRANS. BOTTOM AT HAUNCH
S514	X	220	2'-7"		Y	SLAB VERTICAL AT ABUTMENT
S515	X	220	3'-0"		Y	SLAB VERTICAL AT ABUTMENT
S516	X	220	6'-0"		Y	SLAB VERTICAL AT ABUTMENT
S517	X	10	60'-0"			SLAB TRANS. AT ABUTMENT
S518	X	10	59'-8"			SLAB TRANS. AT ABUTMENT
S419	X	264	2'-6"		Y	MEDIAN VERTICAL
S420	X	66	2'-7"			MEDIAN TRANS.
S421	X	66	8'-8"			MEDIAN TRANS.
S422	X	30	33'-9"			MEDIAN LONG.
S423	X	784	3'-5"		Y	SIDEWALK VERTICAL
S524	X	392	7'-7"		Y	SIDEWALK TRANS.
S425	X	78	33'-9"			SIDEWALK LONG.
S426	X	132	3'-3"			SIDEWALK TRANS.
S528	X	4	4'-6"			SLAB TRANS. SIDEWALK NOTCHES
S531	X	204	6'-8"		Y	PARAPET VERT.
S432	X	24	40'-0"			PARAPET HORIZ.
S433	X	12	23'-4"			PARAPET HORIZ.
S541	X	99	7'-3"			SLAB TRANS. TOP
S542	X	77	6'-11"			SLAB TRANS. BOTTOM
S443	X	28	26'-0"			SLAB TRANS. BOTTOM AT HAUNCH
S544	X	10	6'-11"			SLAB TRANS. AT ABUTMENT



S419 S423



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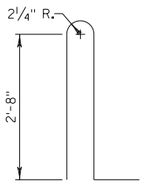

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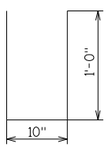

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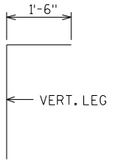

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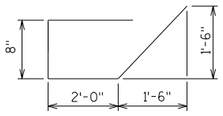

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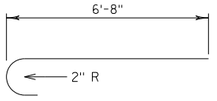

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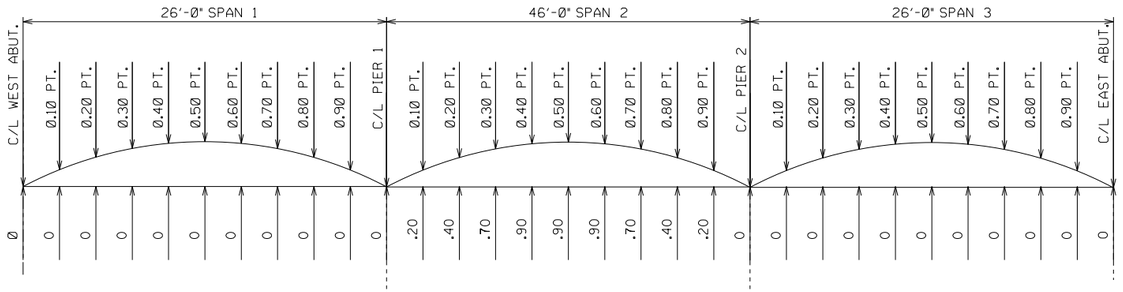

CAMBER DIAGRAM

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEADLOAD DEFLECTION & FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. CAMBER IN INCHES.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-335

DRAWN BY RBH | PLANS CK'D. JOH

SUPERSTRUCTURE BAR DETAILS AND CAMBER

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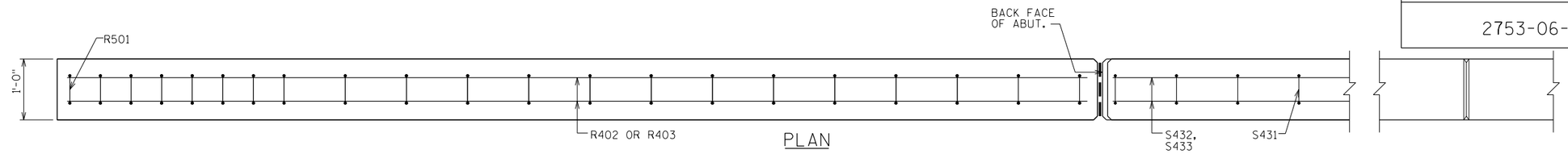
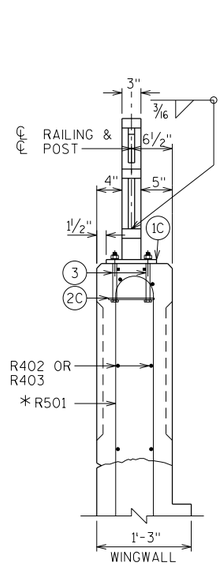
STATE PROJECT NUMBER

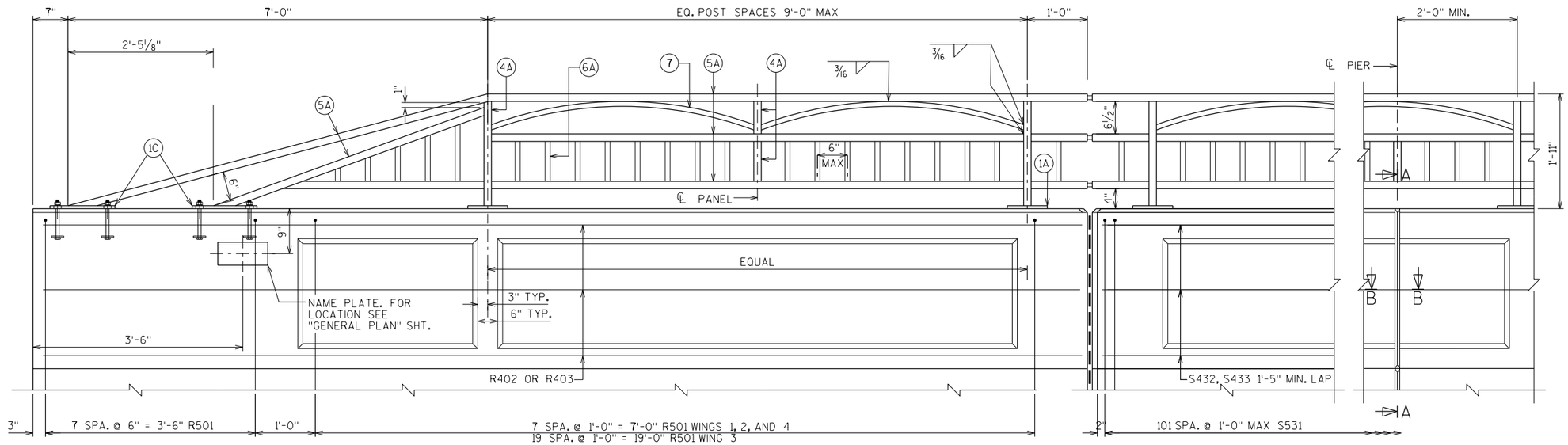
2753-06-01



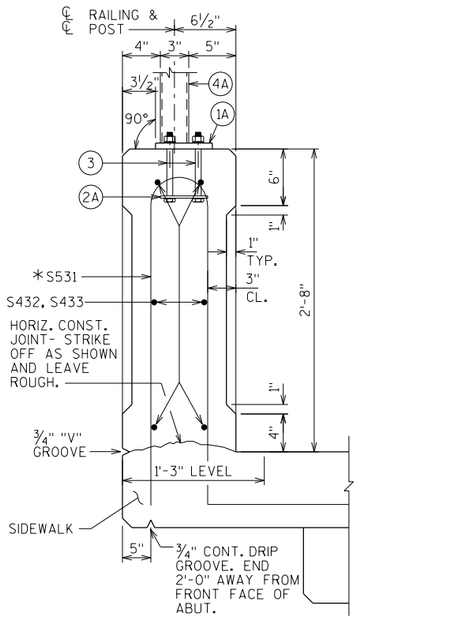
PLAN



END VIEW



ELEVATION OF PARAPET

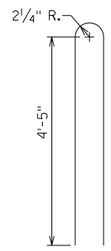


SECTION THRU PARAPET ON BRIDGE

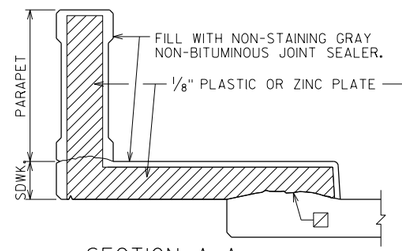
* ADJUST LOCATIONS OF BARS TO ALLOW PLACEMENT OF ANCHOR ASSEMBLY FOR RAILING.

BILL OF BARS

BAR MARK	COAT	WEST ABUT.	EAST ABUT.	LENGTH	BENT	LOCATION
R501	X	32	44	9'-5"	X	PARAPET VERT. @ WINGS
R402	X	12	6	11'-6"		PARAPET HORIZ. @ WINGS
R403	X	-	6	23'-6"		PARAPET HORIZ. @ WINGS



R501



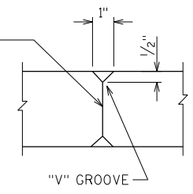
SECTION A-A

(SHOWING DEFLECTION JOINT IN PARAPET AND SIDEWALK.)

WHEN PARAPETS ARE POURED CONTINUOUSLY FROM END TO END, THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF 1/8" ZINC OR PLASTIC PLATE CUT AS SHOWN IN SECTION A-A BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS ARE USED AT THE DEFLECTION JOINTS, ONE SIDE OF JOINT SHALL BE COATED WITH AN APPROVED LIQUID BOND BREAKER AND PLATE SEPARATORS MAY BE OMITTED.

☒ HORIZ. CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.

FOR NOTES, SEE SHEET 17



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-335

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COMBINATION RAILING

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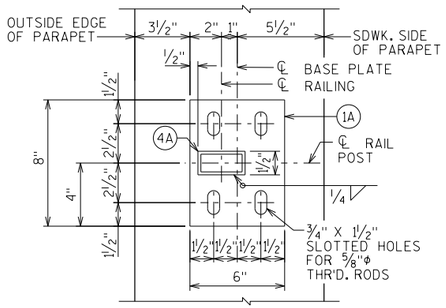
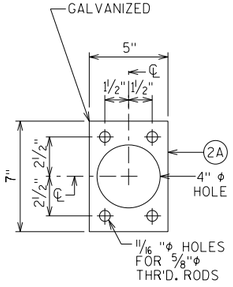
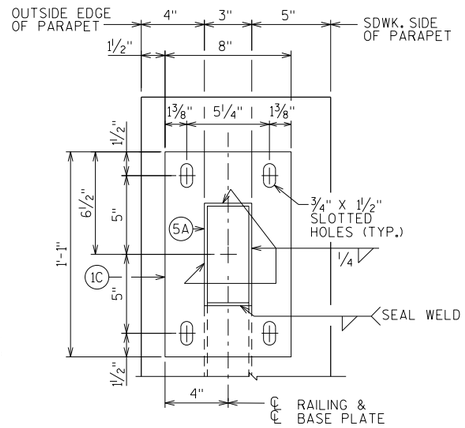


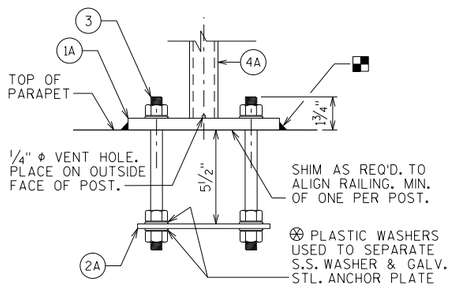
TYPICAL RAIL POST BASE PLATE



ANCHOR PLATE

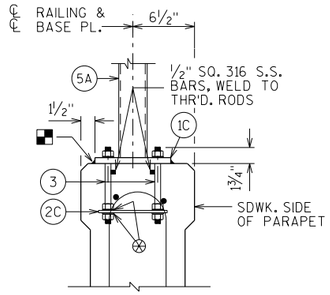


END RAIL BASE PLATE



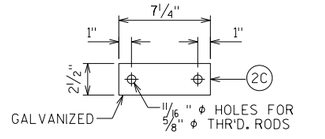
ANCHORAGE FOR RAIL POSTS

NOTE: ANCHOR PLATE NOT REQUIRED WHEN TYPE S ANCHORS ARE USED.



ANCHORAGE FOR END RAIL

NOTE: ANCHOR PLATES NOT REQ'D. WHEN TYPE "S" ANCHORS ARE USED.



END RAIL ANCHOR PLATE

2 REQ'D. PER END RAIL BASE PLATE

LEGEND

(1A) PLATE ⅝" X 6" X 8" WITH ¾" X 1½" SLOTTED HOLES.

(1C) PLATE ⅝" X 8" X 1'-1" WITH ¾" X 1½" SLOTTED HOLES.

(2A) ¼" X 5" X 7" ANCHOR PLATE WITH 11/16 " φ HOLES FOR THR'D. RODS NO. 3.

(2C) ¼" X 2½" X 7¼" ANCHOR PLATE WITH 11/16 " φ HOLES FOR THR'D. RODS NO. 3.

(3) ⅝" DIA. X 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. (ALTERNATE RAIL POST ANCHORAGE - 4 EQUIV. STAINLESS STEEL CONCRETE MASONRY ANCHORS, TYPE S (EPOXY), ⅝" φ, MINIMUM PULLOUT CAPACITY OF 13 KIPS. EMBED A MIN. OF 7" FOR RAIL POSTS AND 5" FOR END RAILS.)

(4A) STRUCTURAL TUBING 3" X 1½" X 3/16". PLACE VERTICAL. WELD TO NO. 1 & 5.

(5A) STRUCTURAL TUBING 3" X 1½" X 3/16" RAILS. WELD TO NO. 1 & NO. 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.

(6A) BAR 1" X 1" PICKETS. WELD TO NO. 5. PLACE VERTICAL.

(7) BAR 1" X 1". BEND TO REQUIRED RADIUS. WELD TO NO. 4 & 5.

(9A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. PROVIDE "SLIDING FIT".

(10A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'-4" @ FIELD ERECTION JTS.) (1'-4" @ STRIP SEAL EXP. JTS.)

RAILING NOTES

BID ITEM SHALL BE "RAILING STEEL TYPE C3 B-67-335", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN, GALVANIZED, AND PAINTING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

NO. 1, 2, 6, 7, 9, AND NO. 10 SHALL CONFORM TO ASTM A709 GRADE 36. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B (NO. 4 AND NO. 5).

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STAINLESS STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

■ CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL JOINTS AND RECESSES IN CONCRETE PARAPET ARE TO BE VERTICAL.

AFTER FABRICATION, ALL MATERIAL, EXCEPT ANCHORAGE (NO. 2 & 3) & SHIMS SHALL BE PAINTED WITH A TIE COAT AND TOP COAT.

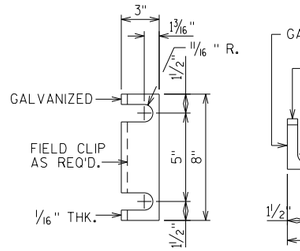
GALVANIZE RAILING IN ACCORDANCE WITH SUBSECTION 513.3.3 OF THE STANDARD SPECIFICATIONS.

PRODUCER	COAT	PRODUCT	DRY FILM THICKNESS
SHERWIN WILLIAMS	TIE	RECOATABLE EPOXY PRIMER	4 MILS
SHERWIN WILLIAMS	TOP	HIGH SOLIDS POLYURETHANE	3 MILS
CARBOLINE	TIE	RUSTBOND PENETRATING SEAL SG	1 MILS
CARBOLINE	TOP	CARBOTHANE 133LH	4 MILS

VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

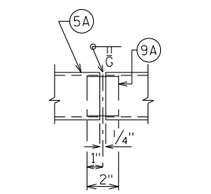
RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.



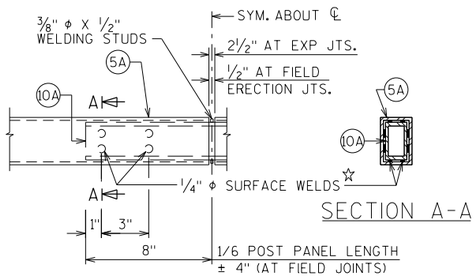
RAIL POST SHIM DETAIL

(2 SETS PER POST)



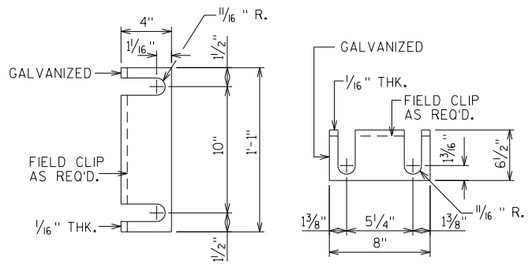
SHOP RAIL SPLICE DETAIL

(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



FIELD ERECTION JOINT DETAIL

☆ MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



END RAIL SHIM DETAIL

(2 SETS PER POST)

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STRUCTURES DESIGN SECTION

STRUCTURE B-67-335

DRAWN BY RBH | PLANS CK'D. JOH

COMBINATION RAILING DETAILS

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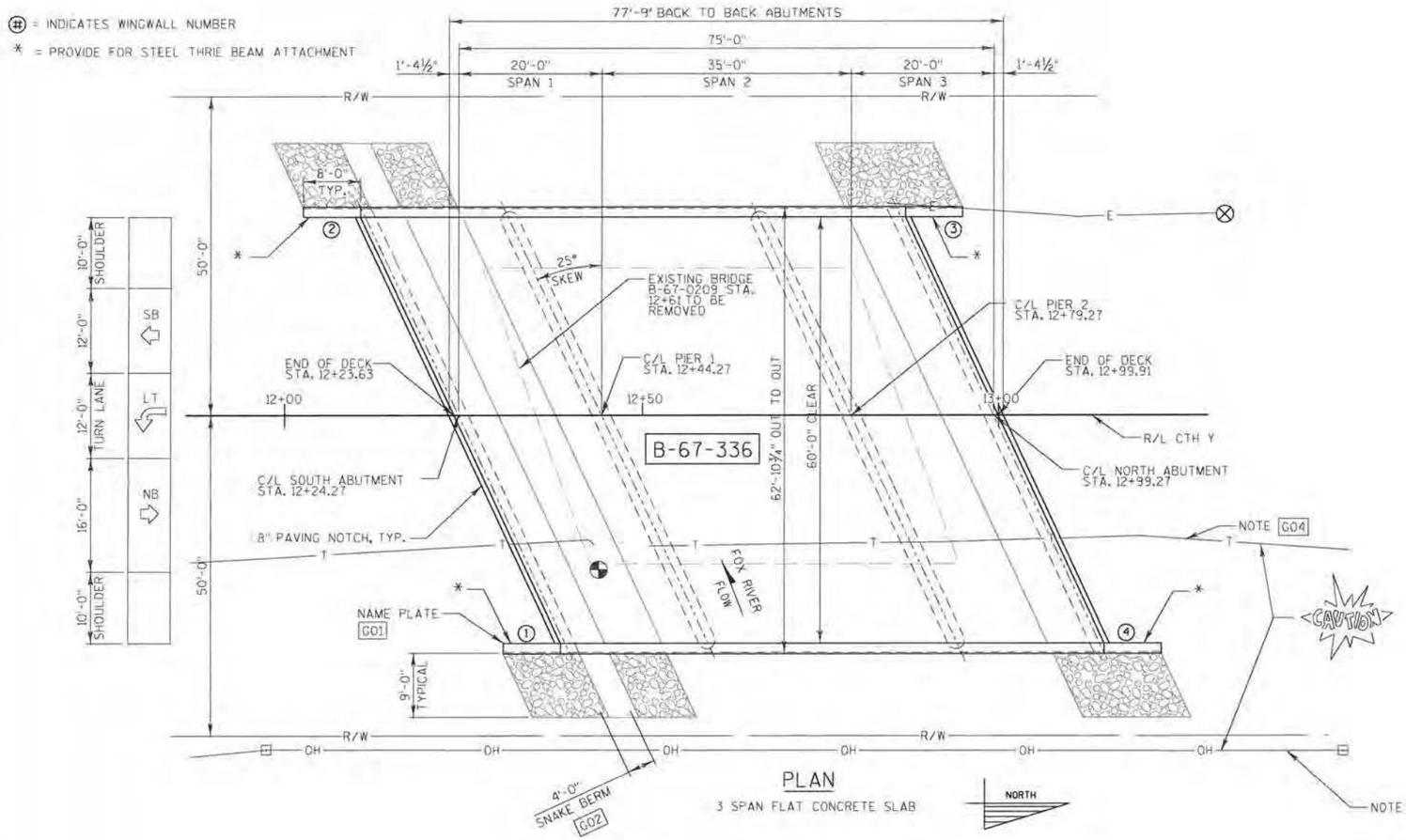
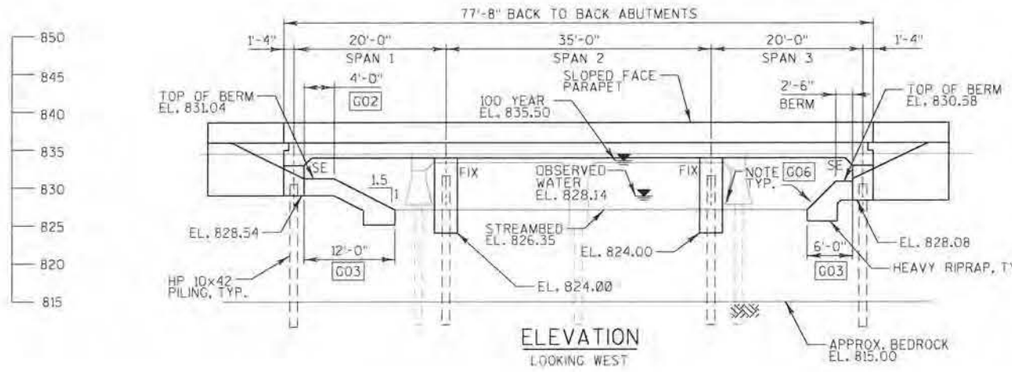
STATE PROJECT NUMBER
2753-06-01



PLAN

3 SPAN FLAT CONCRETE SLAB

NORTH



ELEVATION

LOOKING WEST

DESIGN DATA

STRUCTURE IS DESIGNED FOR FUTURE WEARING SURFACE OF 20 PSF
LIVE LOAD:
DESIGN LOADING HL-93
INVENTORY RATING FACTOR 1.22
OPERATING RATING FACTOR 1.58
MAX. STD. PERMIT VEHICLE LOAD ..... 250 KIPS
ULTIMATE DESIGN STRESS:
CONCRETE MASONRY SUPERSTRUCTURE ..... f'c = 4,000 psi
SUBSTRUCTURE ..... f'c = 3,500 psi
HIGH STRENGTH BAR
STEEL REINFORCEMENT ..... fy = 60,000 psi

TRAFFIC DATA

RDS = 45 M.P.H.
ADT = 4,000 (2013)
ADT = 6,900 (2033)

HYDRAULIC DATA

Q100 ..... 1500 CFS
VELOCITY ..... 4.28 FPS
HIGH WATER EL 835.49
WATERWAY AREA ..... 351 SQ. FT.
DRAINAGE AREA ..... 21.0 SQ. MI.
SCOUR CRITICAL CODE 5
Q_2 ..... 170 CFS
Q_2 ELEV 831.25
OVERTOPPING ..... N/A
REGULATORY FLOOD STAGE 833.71

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP10x42 STEEL PILING PRE-BORED INTO BEDROCK TO A REQUIRED DRIVING RESISTANCE OF 180 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION.

** THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

ESTIMATED PILE LENGTH 20 FEET LONG AT ABUTMENTS.
ESTIMATED PILE LENGTH 20 FEET LONG AT PIERS.

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. CROSS SECTION AND QUANTITIES
3. FOUNDATION LAYOUT AND DETAILS
4. SUBSURFACE EXPLORATION
5. SOUTH ABUTMENT
6. NORTH ABUTMENT
7. ABUTMENT DETAILS
8. WING WALL DETAILS
9. PIER 1 AND 2
10. PIER DETAILS
11. SUPERSTRUCTURE PLAN
12. SUPERSTURCTURE DETAILS
13. SUPERSTRUCTURE SECTIONS
14. PARAPET DETAILS

NOTES

G01 NAME PLATE LOCATION, SEE SHEET 14 FOR DETAILS.

G02 SNAKE BERM. SEE SHEET 3 FOR DETAILS.

G03 DIMENSION NORMAL TO FF ABUTMENT.

G04 AT&T UNDERGROUND FIBER OPTIC TO BE RELOCATED. DO NOT COMMENCE CONSTRUCTION BEFORE CONFIRMATION.

G05 WE ENERGIES OH ELECTRIC.

G06 EXCAVATION INCLUDED IN EXCAVATION FOR STRUCTURES.

WISCONSIN
JAN O. HANSEN, P.E.
E-24930
Milwaukee, Wisconsin
PROFESSIONAL ENGINEER
10-6-2012

STRUCTURE DESIGN CONTACTS

BUREAU OF STRUCTURES:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
JAN HANSEN (414) 259-1500

NO.	DATE	REVISION	BY

GRAEF
One Honey Creek Corporate Center
125 South 84th Street
Suite 401
Milwaukee, WI 53214-1470
414 / 259 1500
414 / 259 0037 fax
www.graef-usa.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 01/07/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-67-336

CTH Y LANNON ROAD OVER FOX RIVER

COUNTY	TOWN/CITY/VILLAGE
WAUKESHA	MENOMONEE FALLS

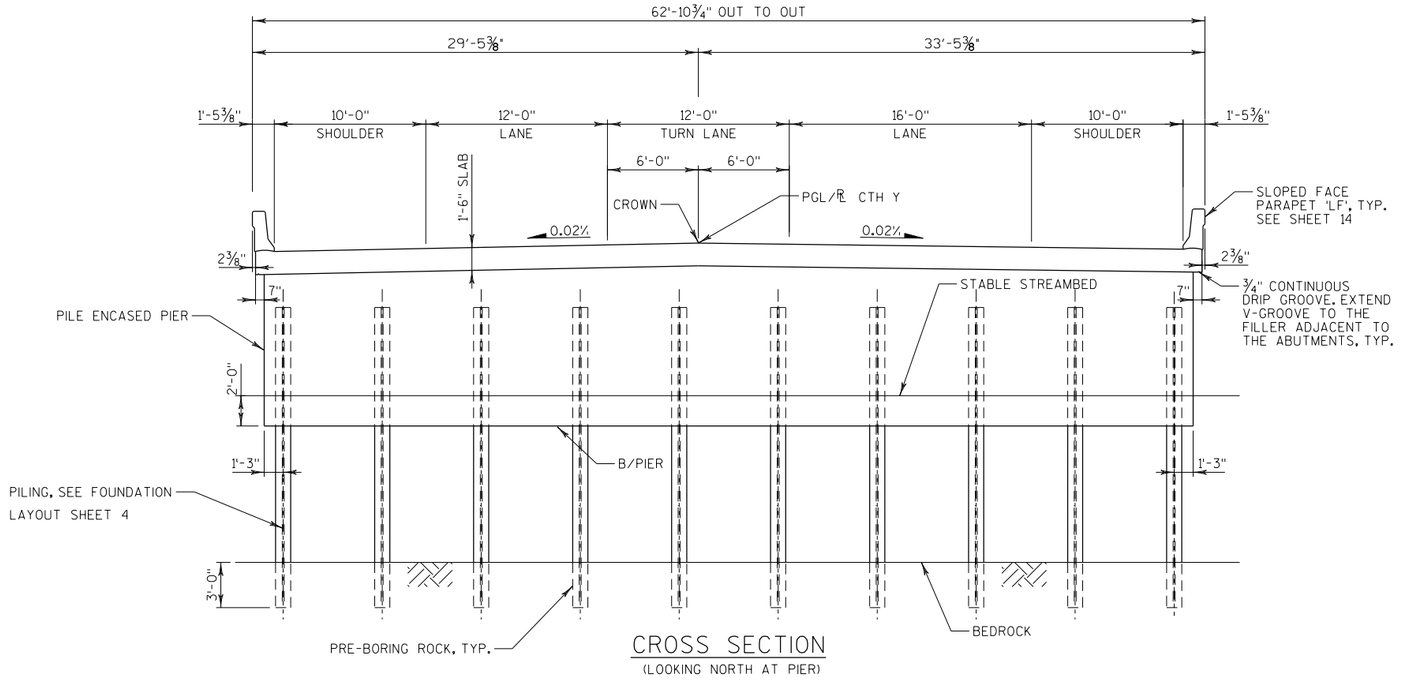
DESIGN SPEC.
AASHTO LRFD DESIGN SPEC. 5th EDITION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
RPB	JOH	RBH	JOH

GENERAL PLAN AND ELEVATION

SHEET 1 OF 14

STATE PROJECT NUMBER
2753-06-01



CROSS SECTION
(LOOKING NORTH AT PIER)

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID - ITEM	UNIT	S ABUT	N ABUT	PIER 1	PIER 2	SUPER	TOTAL
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 12+61	LS	-	-	-	-	-	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-67-336	LS	-	-	-	-	-	1
210.0100	BACKFILL STRUCTURE	CY	130	115	-	-	-	245
305.0125	BASE AGGREGATE DENSE 1¼-INCH	CY	15	-	-	-	-	15
502.0100	CONCRETE MASONRY BRIDGES	CY	40	37	67	65	276	485
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	-	570	570
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	5380	5340	3038	2998	57174	73930
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	13	13	-	-	-	26 ☆
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIAL	LF	30	30	30	30	-	120
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	140	140	195	195	-	670
606.0300	RIPRAP HEAVY	CY	145	95	-	-	-	240
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	215	310	-	-	-	525
614.0150	ANCHORAGE ASSEMBLES FOR STEEL PLATE BEAM GUARD	EACH	-	-	-	-	4	4
625.0105	TOPSOIL	CY	24	-	-	-	-	24
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	220	145	-	-	-	365
	NON-BID ITEMS							
	FILLER	SIZE	-	-	-	-	-	½" & ¾"

☆ THE QUANTITY FOR BAR STEEL REINFORCEMENT HS COATED BRIDGES IN THE PARAPETS ON THE ABUTMENT WINGWALLS IS INCLUDED WITH THE ABUTMENT QUANTITY.

BENCH MARKS

NO.	LOCATION	DESCRIPTION	ELEV.
12	STA 166+51.68, 46.5' LT	COTTON SPINDLE (GEAR SPIKE) N/S P.P. NO. 05-16415	852.79
100	STA 172+74.01, 23.7' RT	BRASS CAP SET IN TOP OF SW PARAPET WALL ON BRIDGE #67-151-71	841.27

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

THE FIRST DIGIT OF A THREE DIGIT AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.
BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

ALL DETAILS, MATERIALS AND FABRICATION SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE SPECIFICATIONS OF THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION, EDITION OF 2013.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE ROADWAY DECK, FRONT FACE OF PARAPETS AND THE TOP OF THE PARAPETS.

THE TOP LAYER OF BAR STEEL REINFORCEMENT IN THE SLAB SHALL BE PLACED WITH 2½ INCHES OF CLEAR COVER.

THE EXISTING STREAM BED SHALL BE THE UPPER LIMITS OF EXCAVATION AT THE PIERS.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION AT THE ABUTMENTS AND WINGS.

AT THE BACKFACE OF THE ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIALS.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE FABRIC TO THE EXTENT SHOWN ON SHEET 1 AND IN DETAILS.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

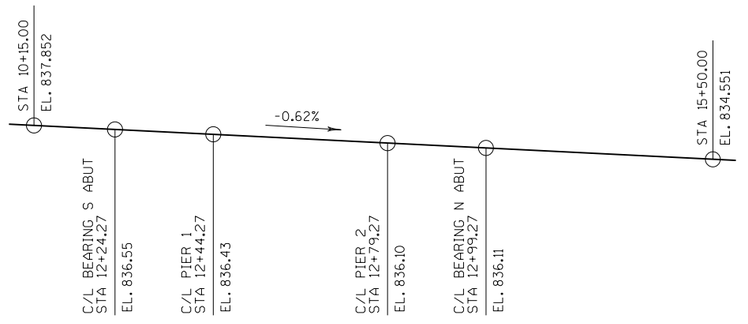
THE EXISTING STRUCTURE B-67-209, IS A 2 SPAN CONCRETE FLAT SLAB STRUCTURE WITH AN OVERALL WIDTH OF 42 FEET AND AN OVERALL LENGTH OF 51'-11½". THE ENTIRE STRUCTURE IS TO BE REMOVED.

AT THE ABUTMENTS, HP12x53 STEEL PILING MAY BE USED IN LIEU OF HP12x42 STEEL PILING. PAYMENT SHALL BE BASED ON BID PRICE FOR PILING STEEL HP12-INCH x 42 LB.

FOR RESTRICTIONS AND DATES FOR IN-STREAM CONSTRUCTION ACTIVITIES, SEE SPECIAL PROVISIONS.

SUBMIT A STRUCTURE REMOVAL AND CLEAN-UP PLAN AS PART OF THE EROSION CONTROL IMPLEMENTATION PLAN (ECIP).

IN THE ECIP SUBMIT MEANS ACCEPTABLE TO THE DNR TO SAFEGUARD THE RIVER AND MAINTAIN FLOW DURING DEMOLITION AND CONSTRUCTION. AS A MINIMUM, LINE THE CHANNEL WITH TURBIDITY BARRIER AND AT THE UP-STREAM TRANSITIONS SUPPORT TURBIDITY BARRIER WITH CONCRETE BARRIER SEALING THE BOTTOM WITH ROCK BAGS. ALL MEANS TO ACCEPTABLY SAFEGUARD THE RIVER AND MAINTAIN FLOW ARE INCIDENTAL TO REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS AND EXCAVATION FOR STRUCTURES BRIDGES.



PROFILE GRADE LINE - CTH Y

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-336

DRAWN BY RBH | PLANS CK'D. JOH

CROSS SECTION AND QUANTITIES

SHEET 2 OF 14
266

8

8

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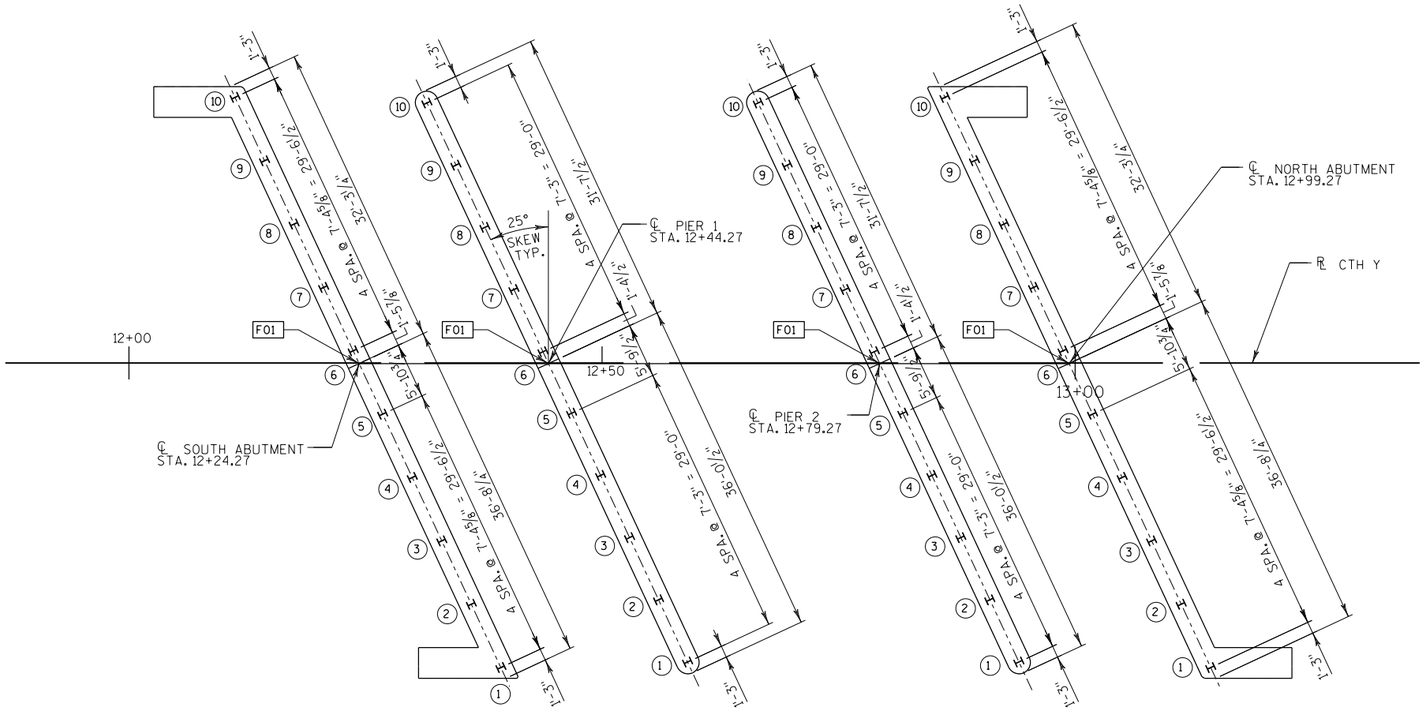
STATE PROJECT NUMBER
2753-06-01



FOUNDATION LAYOUT

NORTH

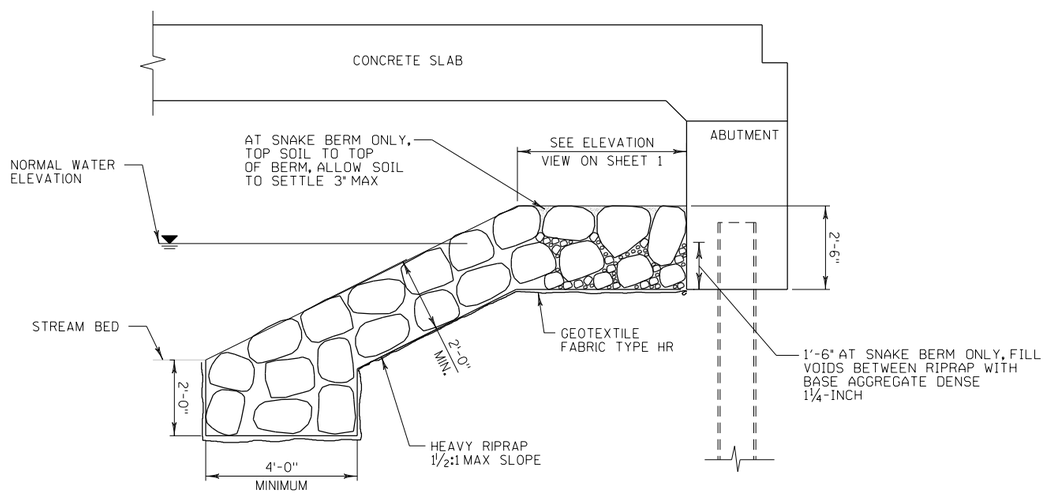
NOTES:

F01 KEYED CONSTRUCTION JOINT FORMED BY A SURFACE BEVELED 2X6.

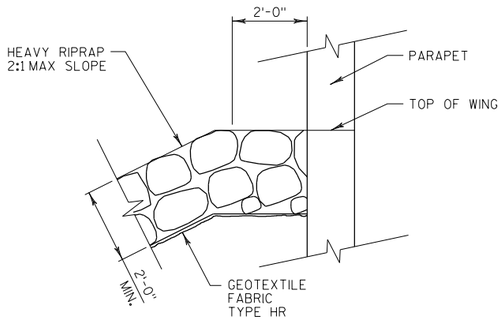
LEGEND:

H DESIGNATES VERTICAL PILE

(#) DESIGNATES PILE NUMBER



ABUTMENT RIPRAP SECTION



WING RIPRAP SECTION

(AT WING TIP)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-336

DRAWN BY RBH | PLANS CK'D. JOH

FOUNDATION LAYOUT AND DETAILS

SHEET 3 OF 14

267

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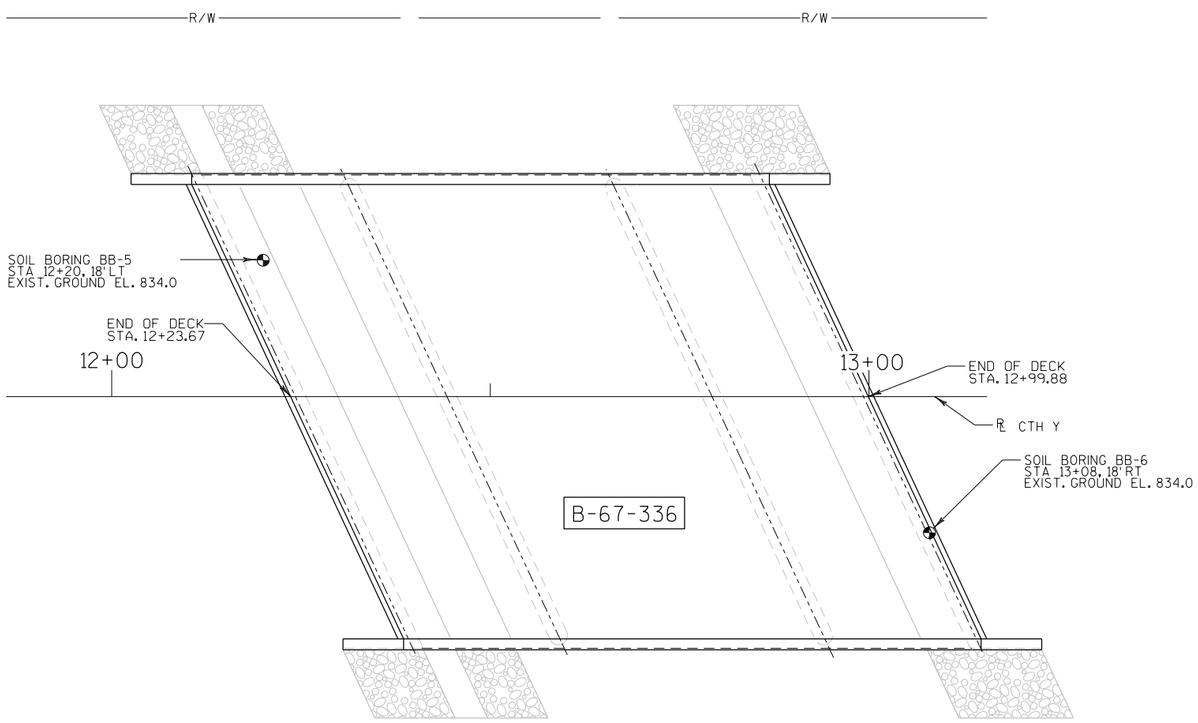
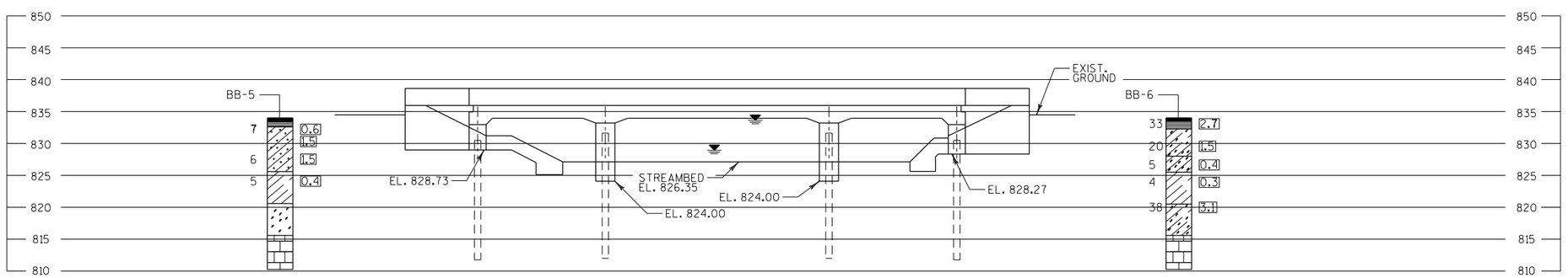


PLAN



ELEVATION

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

SOIL SORINGS COMPLETED BY:
PROFESSIONAL SERVICE INDUSTRIES, INC.
W237 N2878 WOODGATE ROAD
PEWAUKEE, WISCONSIN 53072
262 347 0898

SOIL BORING TAKEN:
JUNE 29, 2011 - BORING BB-5
JUNE 30, 2011 - BORING BB-6

STATE PROJECT NUMBER

2753-06-01

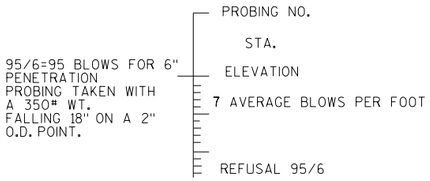
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

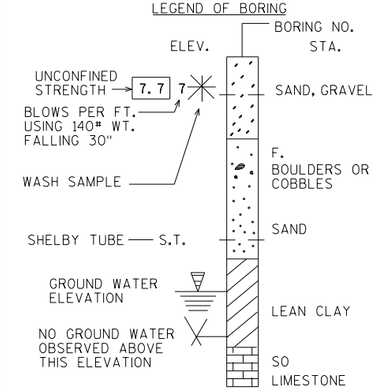
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-336

DRAWN BY MWP | PLANS CK'D. JOH

SUBSURFACE EXPLORATION

SHEET 4 OF 14
268

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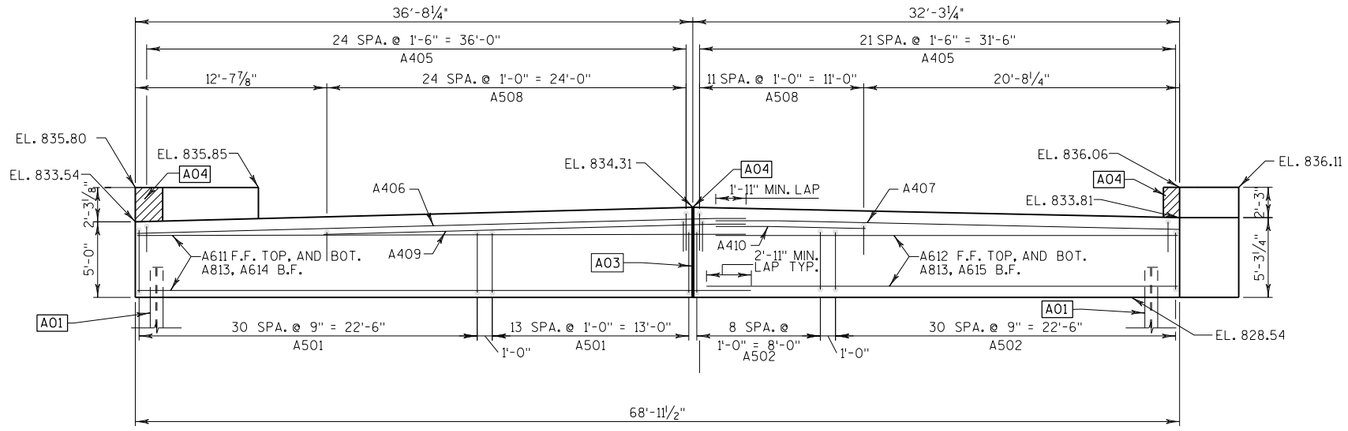
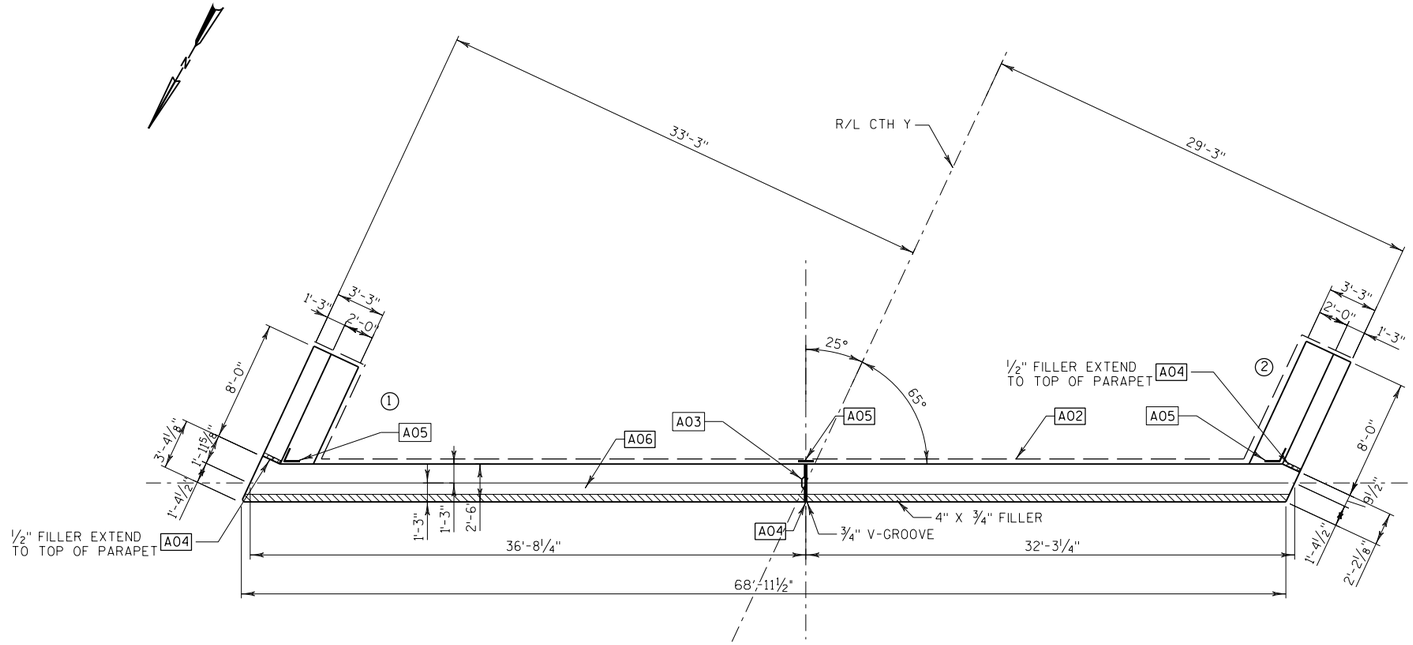
STATE PROJECT NUMBER
2753-06-01



SOUTH ABUTMENT ELEVATION

LOOKING SOUTH



SOUTH ABUTMENT PLAN

NOTES:

A01 SUPPORT ABUTMENT ON HP10×42 STEEL PILING. SEE SHEET 3 FOR PILING LAYOUT.

A02 PIPE UNDERDRAIN, WRAPPED, 6 INCH. SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SDD REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN.

A03 KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2×8

A04 ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ & VERT SURFACES OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE

A05 18" RUBBERIZED MEMBRANE WATER-PROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

A06 STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUPERSTURCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

(#) WINGWALL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-336

DRAWN BY RBH | PLANS CK'D. JOH

SOUTH ABUTMENT

SHEET 5 OF 14
269

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STATE PROJECT NUMBER
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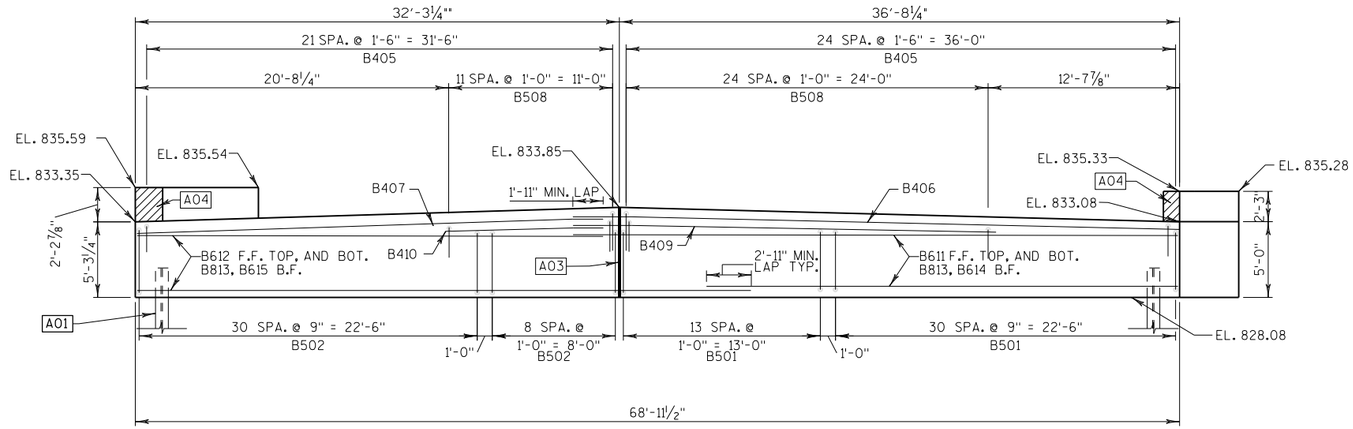
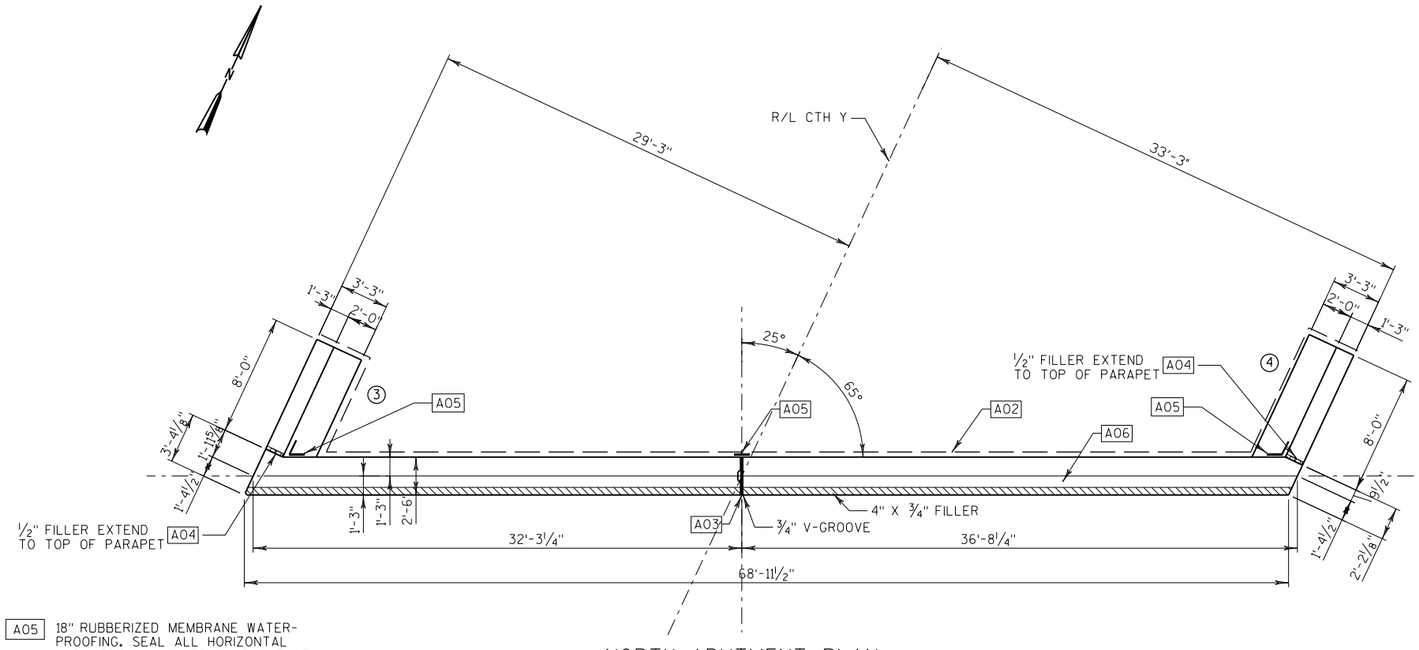


NORTH ABUTMENT ELEVATION

LOOKING NORTH



NORTH ABUTMENT PLAN

NOTES:

A01 SUPPORT ABUTMENT ON HP10x42 STEEL PILING. SEE SHEET 3 FOR PILING LAYOUT.

A02 PIPE UNDERDRAIN, WRAPPED, 6 INCH. SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SDD REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN.

A03 KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2x8

A04 ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ & VERT SURFACES OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE

A05 18" RUBBERIZED MEMBRANE WATER-PROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

A06 STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUPERSTURCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

(#) WINGWALL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-336

DRAWN BY RBH | PLANS CK'D. JOH

NORTH ABUTMENT

SHEET 6 OF 14
270

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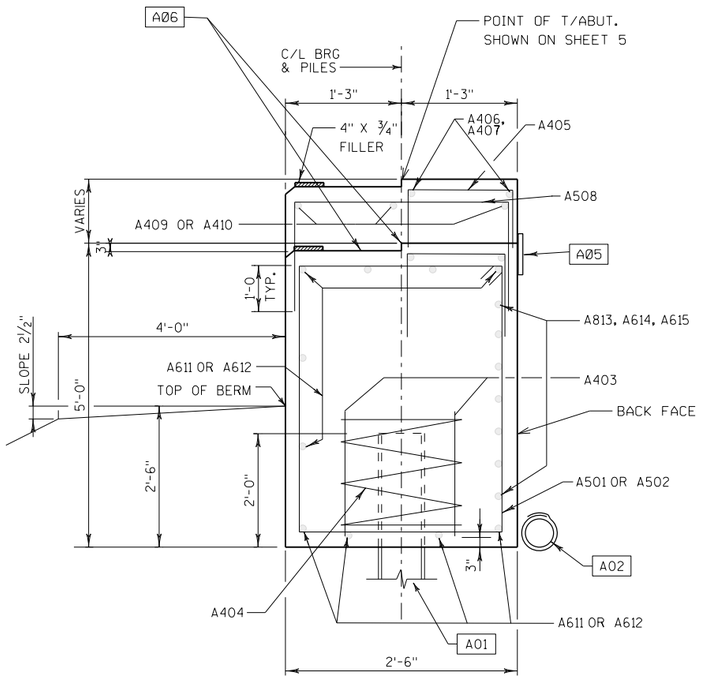
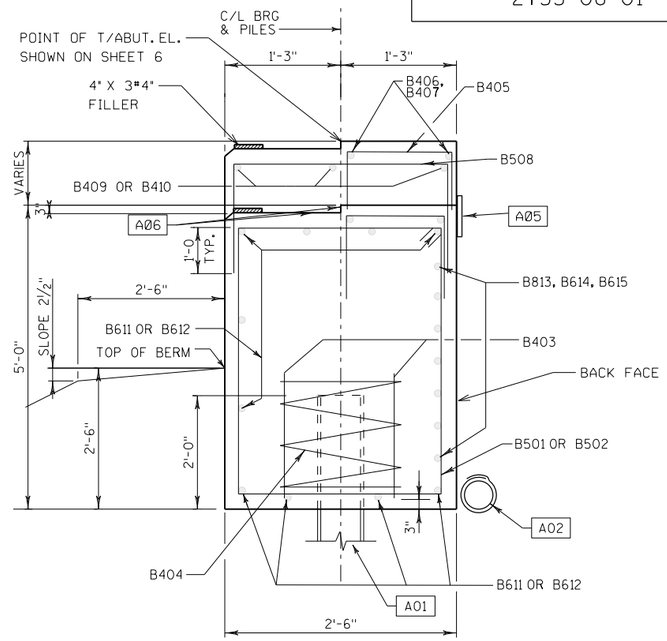


SOUTH ABUTMENT SECTION

SOUTH ABUTMENT BILL OF BARS

MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
A501	X	45	13'-7"		X	ABUT. BODY STIRRUPS
A502	X	40	14'-1"		X	ABUT. BODY STIRRUPS
A403	X	20	2'-3"			ABUT. PILES
A404	X	10	28'-0"		X	ABUT. PILES
A405	X	47	3'-3"		X	ABUT. BODY TOP STIRRUPS
A406	X	2	38'-9"			ABUT. BODY TOP HORIZ.
A407	X	2	31'-11"			ABUT. BODY TOP HORIZ.
A508	X	47	5'-5"		X	ABUT. BODY TOP STIRRUPS
A409	X	3	26'-3"			ABUT. BODY TOP HORIZ.
A410	X	3	11'-0"			ABUT. BODY TOP HORIZ.
A611	X	10	39'-9"			ABUT. BODY HORIZ.
A612	X	10	31'-9"			ABUT. BODY HORIZ.
A813	X	14	8'-0"			ABUT. BODY HORIZ. BF
A614	X	7	34'-8"			ABUT. BODY HORIZ. BF
A615	X	7	25'-11"			ABUT. BODY HORIZ. BF
A621	X	8	9'-11"			WING 1 HORIZ.
A522	X	6	11'-0"			WING 1 HORIZ.
A523	X	9	15'-7"		X	WING 1 STIRRUP
A624	X	2	7'-8"			WING 1 HORIZ.
A425	X	3	7'-8"			WING 1 HORIZ.
A426	X	2	7'-8"			WING 1 HORIZ.
A527	X	11	9'-0"		X	WING 1 VERT.
A631	X	8	9'-11"			WING 2 HORIZ.
A532	X	6	9'-10"			WING 2 HORIZ.
A533	X	9	16'-1"		X	WING 2 STIRRUP
A634	X	2	7'-8"			WING 2 HORIZ.
A435	X	3	7'-8"			WING 2 HORIZ.
A436	X	2	7'-8"			WING 2 HORIZ.
A537	X	10	8'-8"		X	WING 2 VERT.



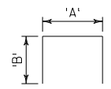
NORTH ABUTMENT SECTION

NORTH ABUTMENT BILL OF BARS

MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
B501	X	45	13'-7"		X	ABUT. BODY STIRRUPS
B502	X	40	14'-1"		X	ABUT. BODY STIRRUPS
B403	X	20	2'-3"			ABUT. PILES
B404	X	10	28'-0"		X	ABUT. PILES
B405	X	47	3'-3"		X	ABUT. BODY TOP STIRRUPS
B406	X	2	39'-10"			ABUT. BODY TOP HORIZ.
B407	X	2	30'-7"			ABUT. BODY TOP HORIZ.
B508	X	47	5'-5"		X	ABUT. BODY TOP STIRRUPS
B409	X	3	26'-3"			ABUT. BODY TOP HORIZ.
B410	X	3	11'-0"			ABUT. BODY TOP HORIZ.
B611	X	10	40'-10"			ABUT. BODY HORIZ.
B612	X	10	30'-7"			ABUT. BODY HORIZ.
B813	X	14	8'-0"			ABUT. BODY HORIZ. BF
B614	X	7	34'-8"			ABUT. BODY HORIZ. BF
B615	X	7	22'-8"			ABUT. BODY HORIZ. BF
B621	X	8	9'-11"			WING 3 HORIZ.
B522	X	6	11'-0"			WING 3 HORIZ.
B523	X	9	15'-7"		X	WING 3 STIRRUP
B624	X	2	7'-8"			WING 3 HORIZ.
B425	X	3	7'-8"			WING 3 HORIZ.
B426	X	2	7'-8"			WING 3 HORIZ.
B527	X	11	9'-0"		X	WING 3 VERT.
B631	X	8	9'-11"			WING 4 HORIZ.
B532	X	6	9'-10"			WING 4 HORIZ.
B533	X	9	16'-1"		X	WING 4 STIRRUP
B634	X	2	7'-8"			WING 4 HORIZ.
B435	X	3	7'-8"			WING 4 HORIZ.
B436	X	2	7'-8"			WING 4 HORIZ.
B537	X	10	8'-8"		X	WING 4 VERT.

A404, B404

BAR MARK	DIM. 'A'	DIM. 'B'
A501	2'-2"	4'-4"
A502	2'-2"	4'-7"
A523	2'-11"	4'-7"
A533	2'-11"	4'-10"
B501	2'-2"	4'-4"
B502	2'-2"	4'-7"
B523	2'-11"	4'-7"
B533	2'-11"	4'-10"



BAR MARK	DIM. 'A'	DIM. 'B'
A405	11"	1'-3"
A508	2'-2"	1'-9"
A527	11"	4'-2"
A537	11"	4'-0"
B405	11"	1'-3"
B508	2'-2"	1'-9"
B527	11"	4'-2"
B537	11"	4'-0"

TEXT

NOTES:

A01 SUPPORT ABUTMENT ON HP10×42 STEEL PILING.

A02 PIPE UNDERDRAIN, WRAPPED, 6 INCH. SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SDD REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN.

A03 KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2×8

A04 ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ & VERT SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE

A05 18" RUBBERIZED MEMBRANE WATER-PROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

A06 STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUPERSTURCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-336

DRAWN BY RBH | PLANS CK'D. JOH

ABUTMENT DETAILS

SHEET 7 OF 14
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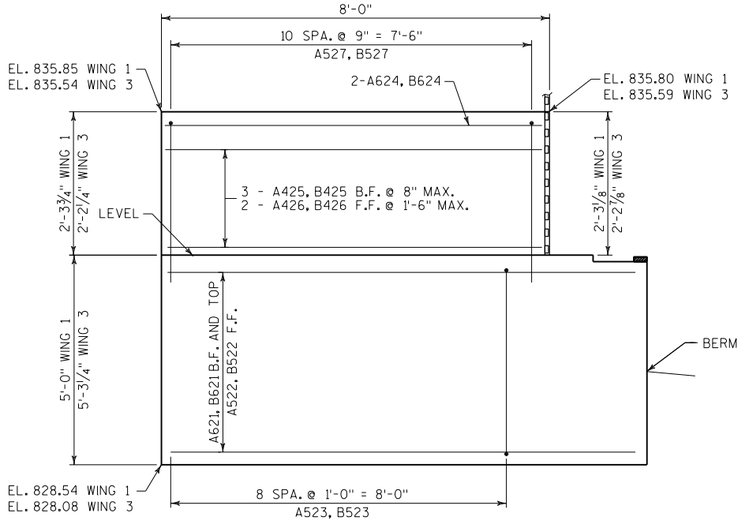
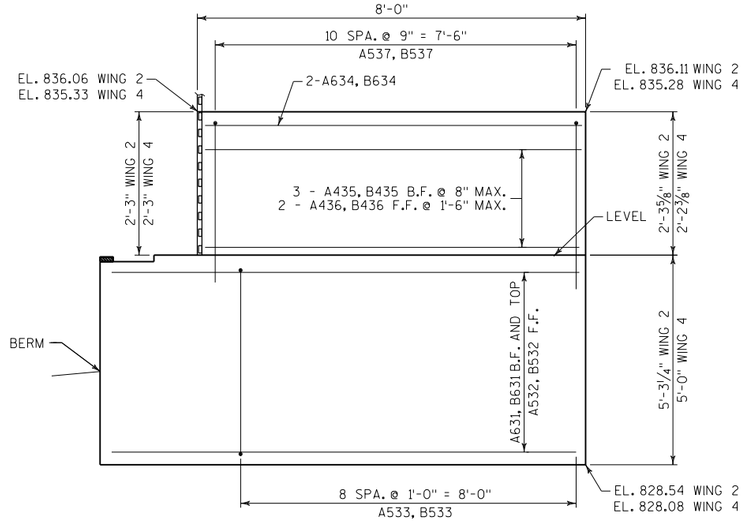
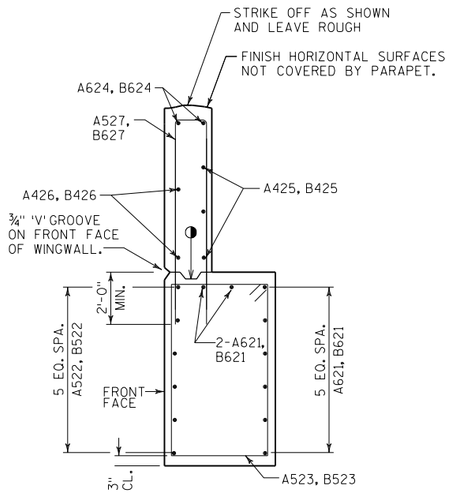


WING 1 & 3 ELEVATION
FRONT FACE

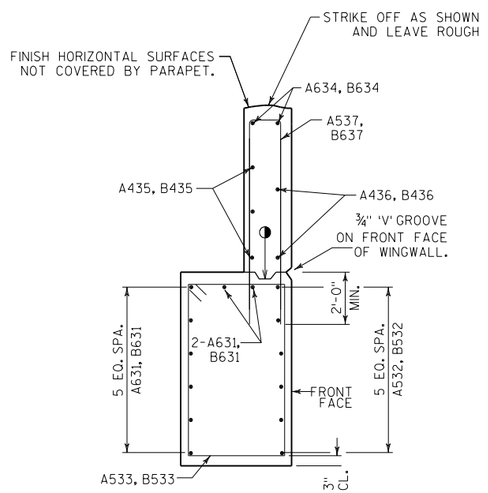


WING 2 & 4 ELEVATION
FRONT FACE



WING 1 & 3 SECTION

TEXT



WING 2 & 4 SECTION

◑ OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-336

DRAWN BY RBH | PLANS CK'D. JOH

WINGWALL DETAILS

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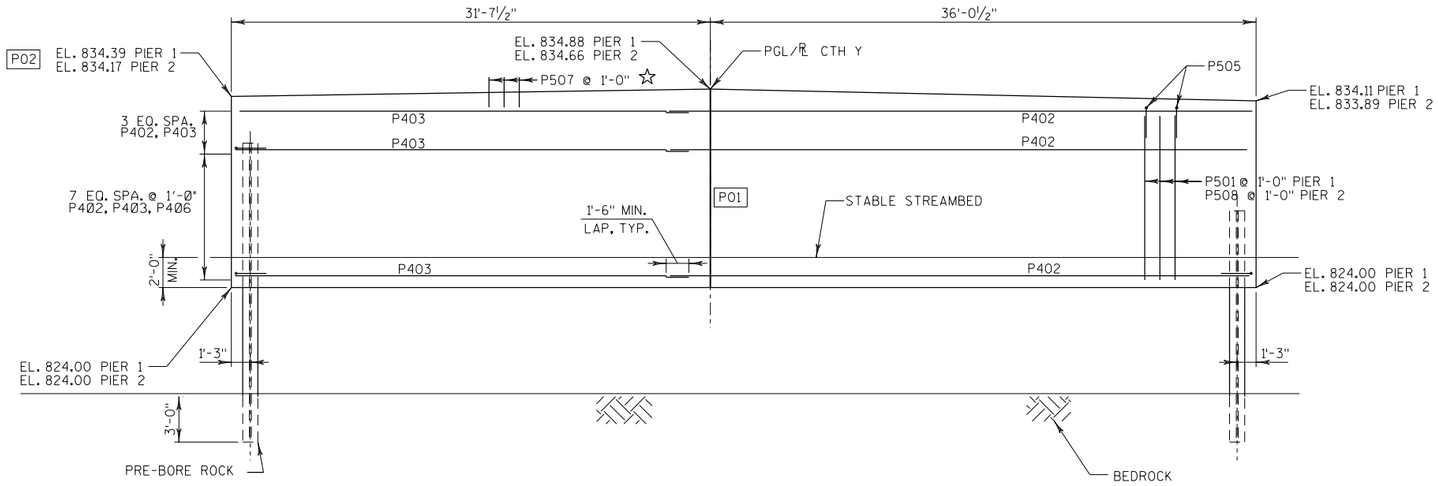
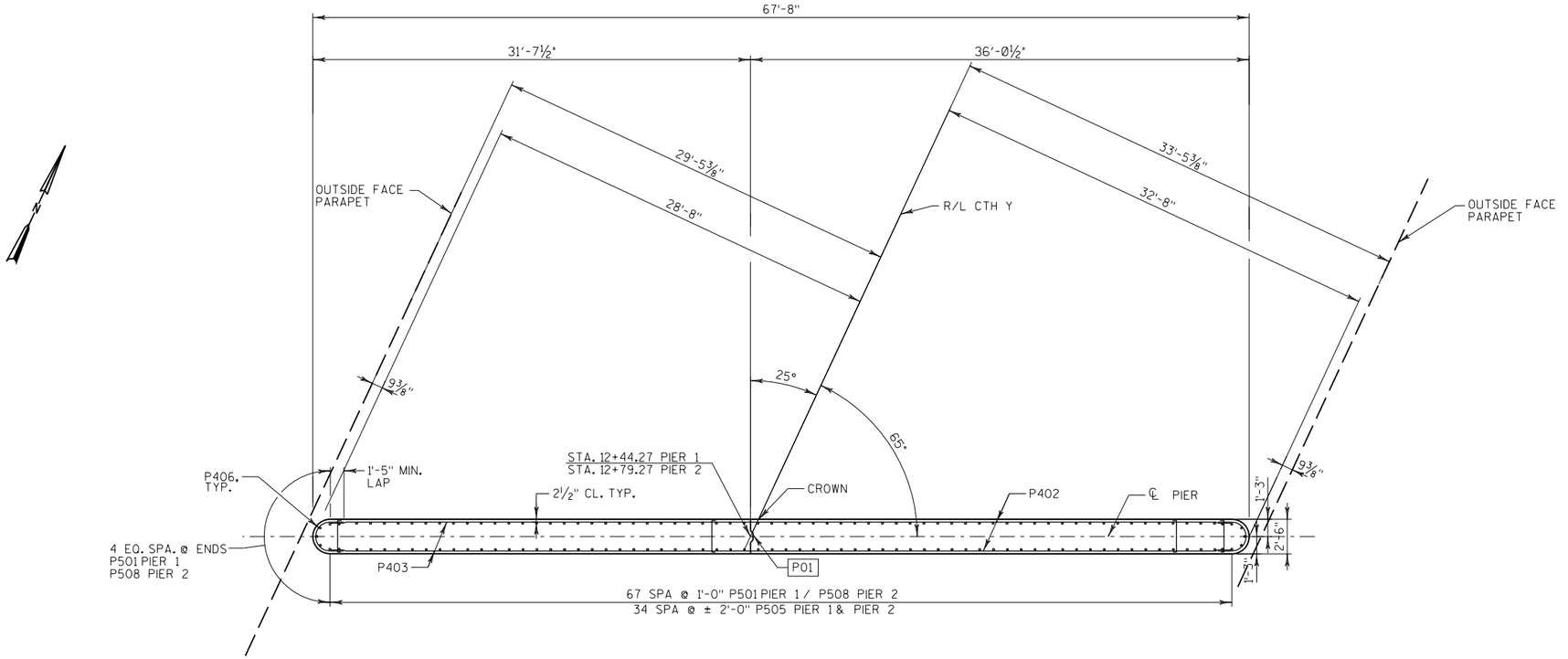


PIER ELEVATION

LOOKING NORTH



PIER PLAN

LOOKING NORTH

NOTES:

P01 KEYED CONSTRUCTION JOINT FORMED BY A SURFACE BEVELED 2X6.

P02 ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE AT THE C/L PIER AND DIMENSIONS ALONG C/L OF PIER.

☆ THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-336

DRAWN BY RBH | PLANS CK'D. JOH

PIER 1 AND 2

SHEET 9 OF 14
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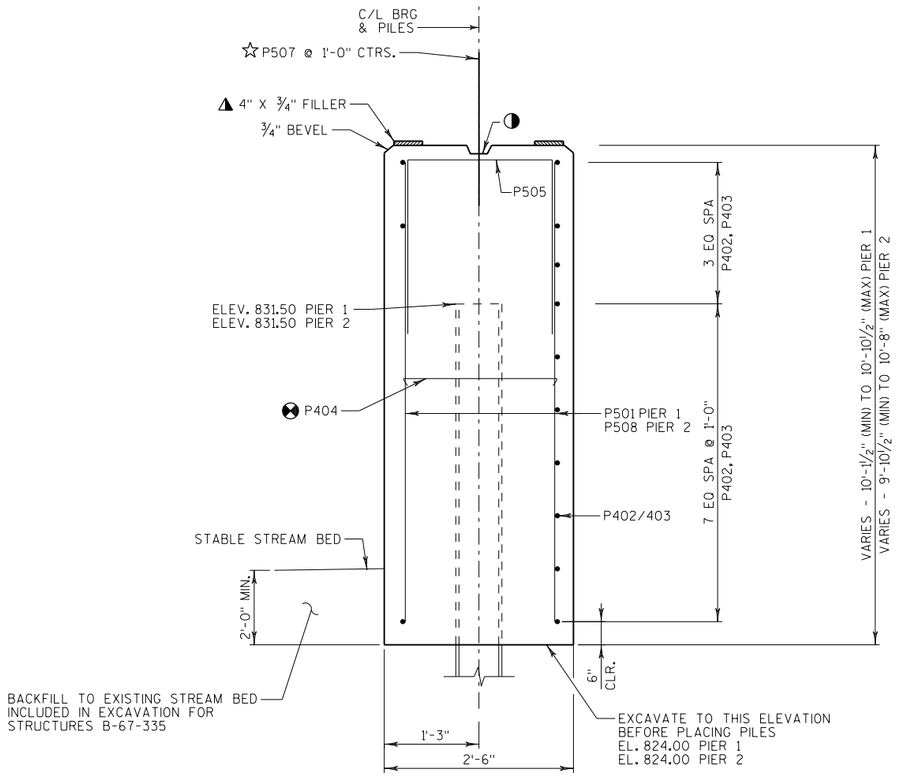
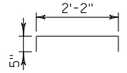


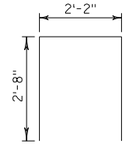
PIER SECTION

BILL OF BARS

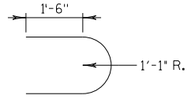
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
P501	X	256	11'-6"			PIER 1 VERTICAL
P402	X	52	43'-0"			PIER 1 TRANS.
P403	X	26	40'-6"			PIER 1 TRANS.
P404	X	312	3'-0"		X	PIER 1 TIES
P505	X	64	7'-6"		X	PIER 1 VERTICAL TOP
P406	X	26	6'-6"		X	PIER 1 TRANS. ENDS
P507	X	122	2'-0"			PIER 1 VERTICAL DOWELS
P508	X	256	11'-0"			PIER 2 VERTICAL
P402	X	52	43'-0"			PIER 2 TRANS.
P403	X	26	40'-6"			PIER 2 TRANS.
P404	X	312	3'-0"			PIER 2 TIES
P505	X	64	7'-6"			PIER 2 VERTICAL TOP
P406	X	26	6'-6"			PIER 2 TRANS. ENDS
P507	X	122	2'-0"			PIER 2 VERTICAL DOWELS



P404



P505



P406

LEGEND

◑ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2X6

☆ P507 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".

◭ 4"X¾" FILLER, EXTEND FULL LENGTH OF PIERS AS SHOWN.

⊗ PLACE P404 BARS ADJACENT TO PILING @ 1'-0" VERT. SPACING FROM BASE OF SHAFT TO TOP OF PILING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-336

DRAWN BY RBH | PLANS CK'D. JOH

PIER DETAILS

SHEET 10 OF 14
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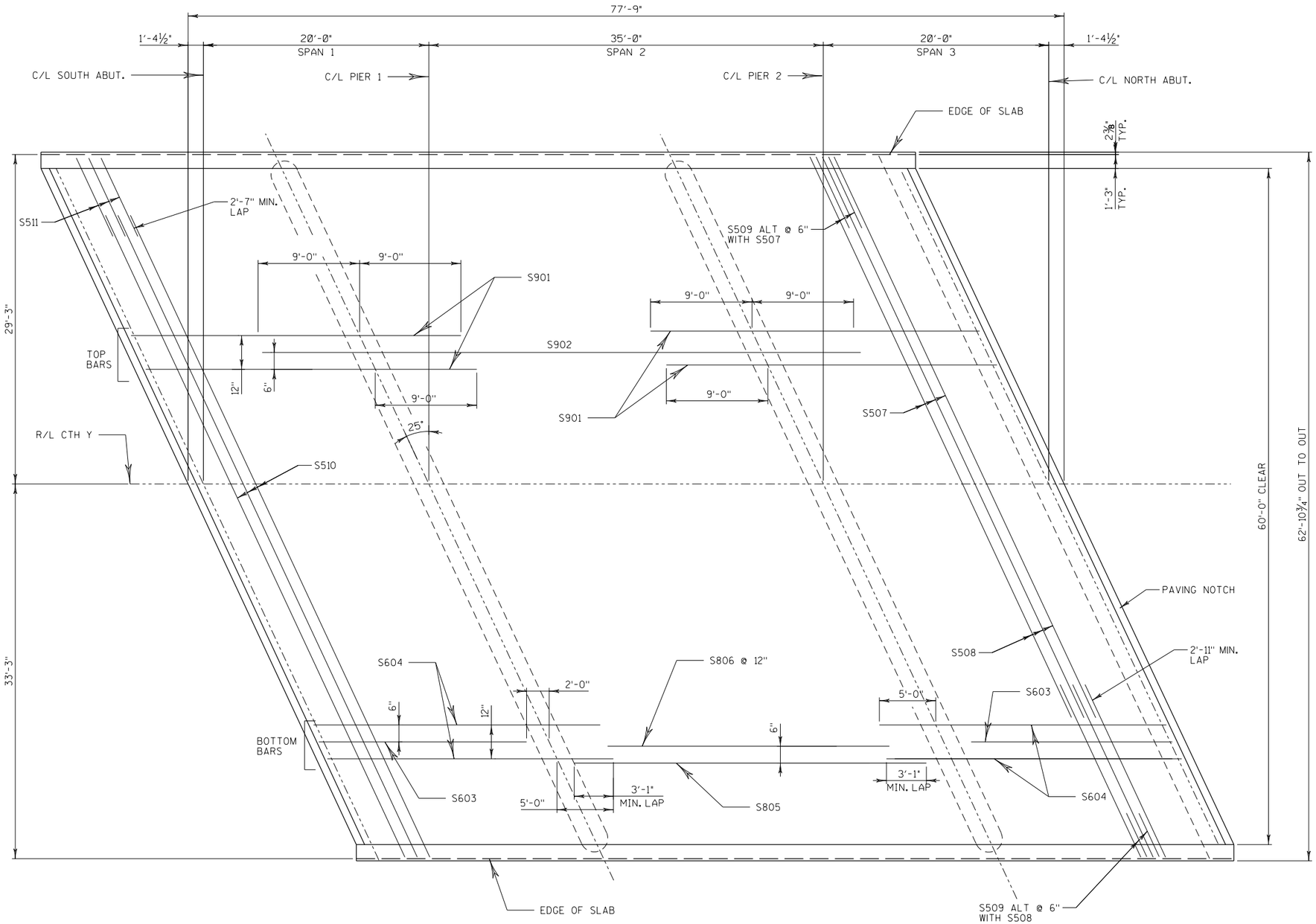

PLAN

NORTH

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-336

DRAWN BY RBH | PLANS CK'D. JOH

SUPERSTRUCTURE PLAN

SHEET 11 OF 14
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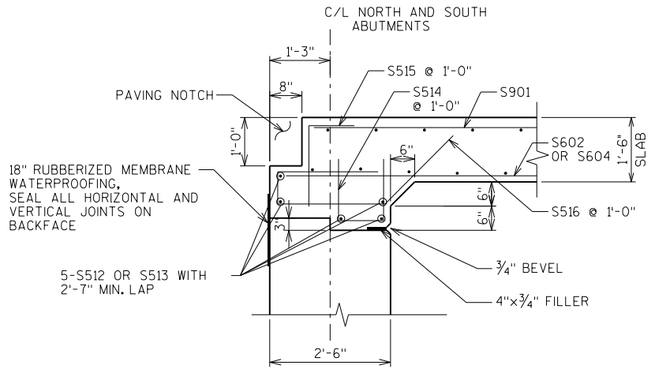
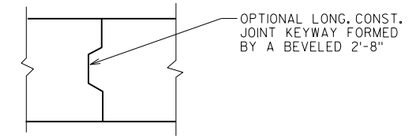
STATE PROJECT NUMBER
2753-06-01

BILL OF BARS

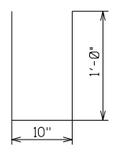
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
S901	X	126	29'-0"			SLAB LONG. TOP
S902	X	63	53'-0"			SLAB LONG. TOP
S603	X	124	19'-2"			SLAB LONG. BOTTOM
S604	X	126	26'-2"			SLAB LONG. BOTTOM
S805	X	63	31'-2"			SLAB LONG. BOTTOM
S806	X	62	25'-0"			SLAB LONG. BOTTOM
S507	X	69	60'-0"			SLAB TRANS. TOP
S508	X	69	11'-6"			SLAB TRANS. TOP
S509	X	136	5'-7"			SLAB TRANS. TOP AT SLAB EDGE
S510	X	69	60'-0"			SLAB TRANS. BOTTOM
S511	X	69	11'-2"			SLAB TRANS. BOTTOM
S512	X	10	60'-0"			SLAB TRANS. AT ABUTMENT
S513	X	10	11'-2"			SLAB TRANS. AT ABUTMENT
S514	X	63	2'-7"			SLAB VERT. AT ABUTMENT
S515	X	63	1'-8"			SLAB VERT. AT ABUTMENT
S516	X	63	6'-0"			SLAB VERT. AT ABUTMENT
S531	X	234	4'-10"		X	PARAPET VERT.
S532	X	234	4'-2"		X	PARAPET VERT.
S533	X	10	60'-0"			PARAPET HORIZ.
S534	X	10	19'-1"			PARAPET HORIZ.



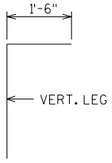
DETAIL AT ABUTMENTS



OPTIONAL LONGITUDINAL CONSTRUCTION JOINT



S514



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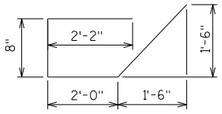
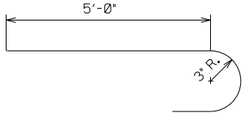


S516



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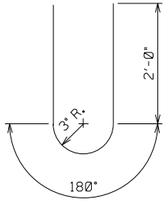
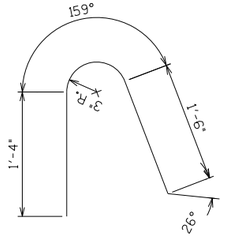


S531

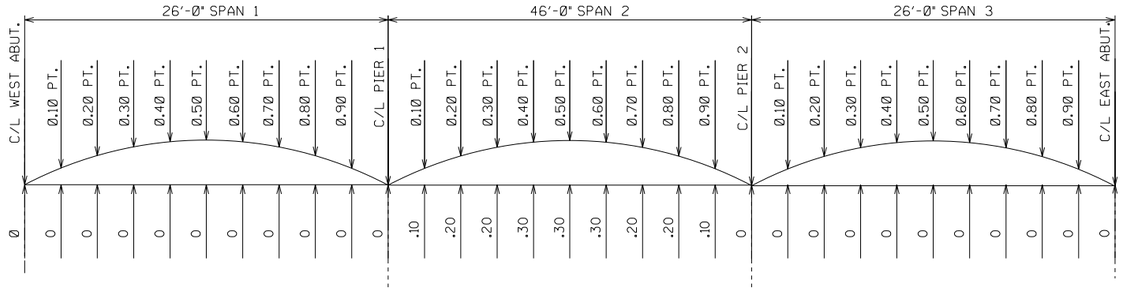


S532

Location	C/L BRG W ABUT	Span 1									C/L PIER 1	Span 2									C/L PIER 2	Span 3									C/L BRG. E. ABUT
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	
West edge	836.06	836.04	836.03	836.02	836.01	836.00	835.98	835.97	835.96	835.95	835.94	835.91	835.89	835.87	835.85	835.83	835.80	835.78	835.76	835.74	835.72	835.70	835.69	835.68	835.67	835.66	835.64	835.63	835.62	835.61	835.60
West ppet toe	836.08	836.07	836.06	836.05	836.03	836.02	836.01	836.00	835.99	835.97	835.96	835.94	835.92	835.90	835.87	835.85	835.83	835.81	835.79	835.76	835.74	835.73	835.72	835.71	835.69	835.68	835.67	835.66	835.65	835.63	835.62
PGL Crown	836.56	836.55	836.54	836.52	836.51	836.50	836.49	836.48	836.46	836.45	836.44	836.42	836.40	836.37	836.35	836.33	836.31	836.29	836.26	836.24	836.22	836.21	836.20	836.18	836.17	836.16	836.15	836.14	836.12	836.11	836.10
East ppet toe	835.83	835.82	835.80	835.79	835.78	835.77	835.76	835.74	835.73	835.72	835.71	835.69	835.66	835.64	835.62	835.60	835.58	835.55	835.53	835.51	835.49	835.48	835.46	835.45	835.44	835.43	835.42	835.40	835.39	835.38	835.37
East edge	835.79	835.78	835.77	835.76	835.75	835.73	835.72	835.71	835.70	835.69	835.67	835.65	835.63	835.61	835.59	835.56	835.54	835.52	835.50	835.48	835.45	835.44	835.43	835.42	835.41	835.39	835.38	835.37	835.36	835.35	835.33

FINISHED GRADE ELEVATIONS

TOP OF SLAB ELEVATIONS



CAMBER DIAGRAM

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEADLOAD DEFLECTION & FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. CAMBER IN INCHES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-336

DRAWN BY RBH | PLANS CK'D. JOH

SUPERSTRUCTURE DETAILS AND CAMBER

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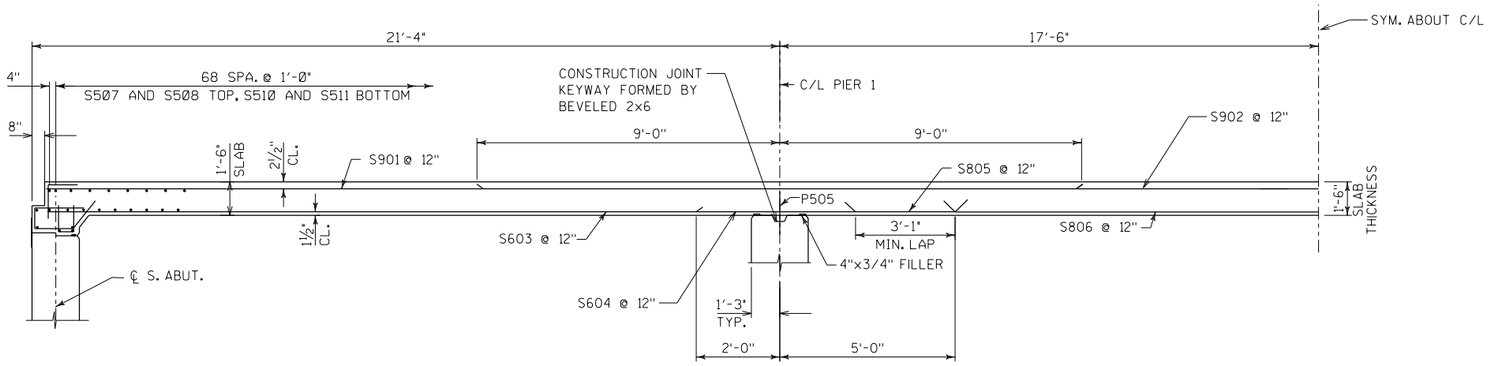
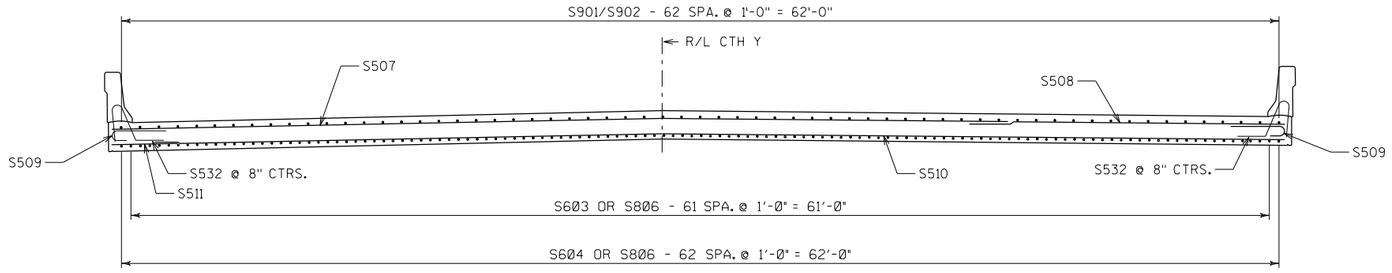
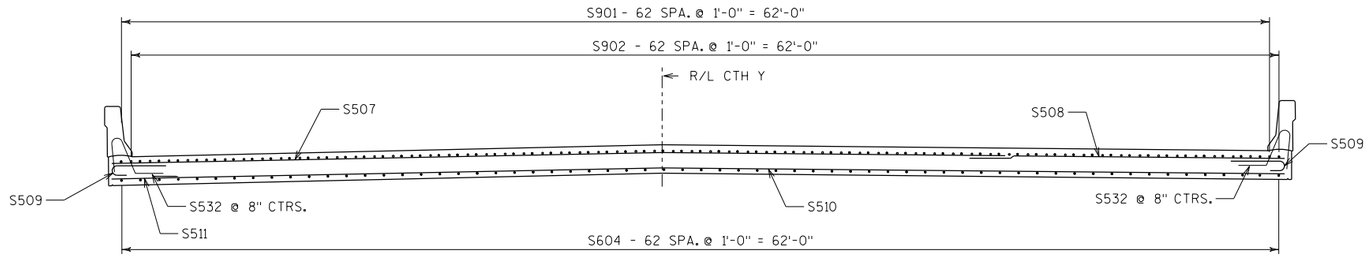


LONGITUDINAL SECTION



CROSS SECTION IN SPAN

(LOOKING NORTH)



CROSS SECTION AT PIERS

(LOOKING NORTH)

NOTES:

SUPPORT TOP TRANSVERSE BARS IN SLAB BY INDIVIDUAL BAR CHAIRS AT APPRPXIMATELY 3'-0" CENTERS EACH WAY. SUPPORT BOTTOM LONGITUDINAL BARS BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DESCREPANCIES ARE TO BE PLUS (+).

PARAPETS ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED, EXCEPT FOR STAGED CONSTRUCTION.

PLACE ALL TRANSVERSE BARS ON THE SKEW.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-336

DRAWN BY RBH | PLANS CK'D. JOH

SUPERSTRUCTURE SECTIONS

SHEET 13 OF 14
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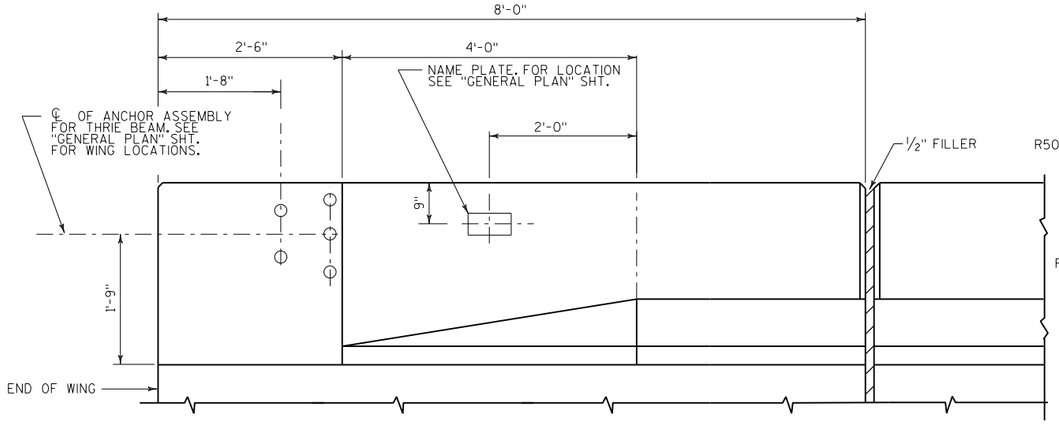
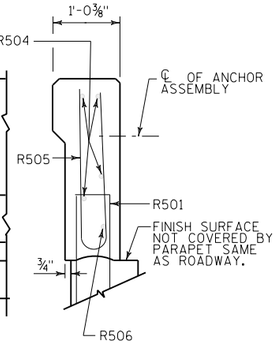
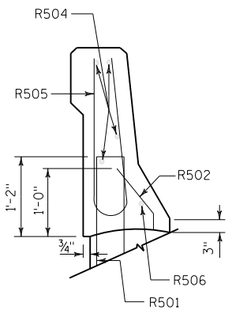


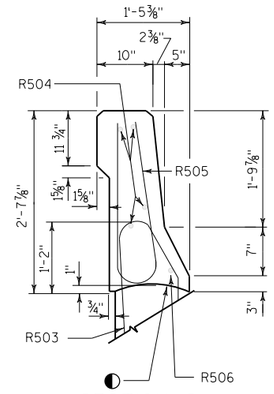
INSIDE ELEVATION



SECTION A



SECTION B

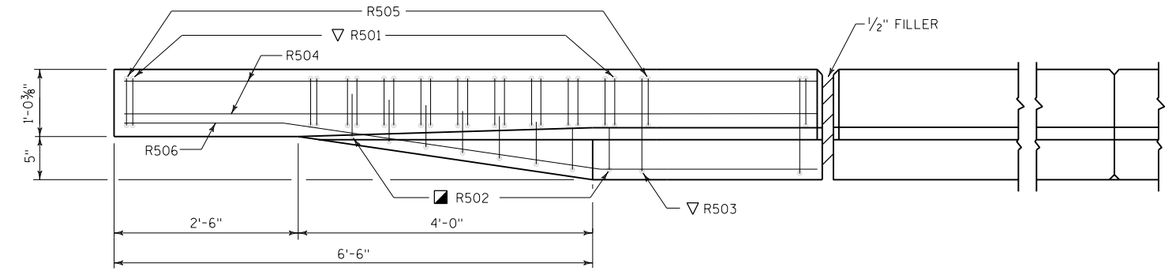


SECTION C

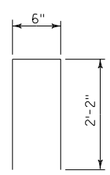
BILL OF BARS

FOR ABUTMENT PARAPETS

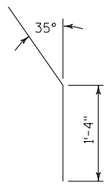
BAR MARK	COAT	NORTH ABUT.	SOUTH ABUT.	LENGTH	BENT	LOCATION
R501	X	28	28	4'-7"	X	PARAPET VERT.
R502	X	16	16	2'-4"	X	PARAPET VERT.
R503	X	4	4	4'-7"	X	PARAPET VERT.
R504	X	8	8	7'-8"		PARAPET HORIZ.
R505	X	32	32	4'-10"	X	PARAPET HORIZ.
R506	X	2	2	7'-8"	X	PARAPET HORIZ.



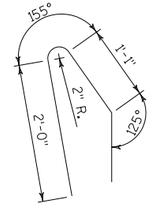
PLAN



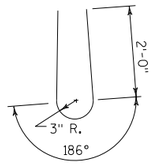
R501



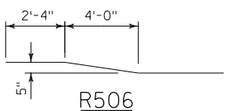
R502



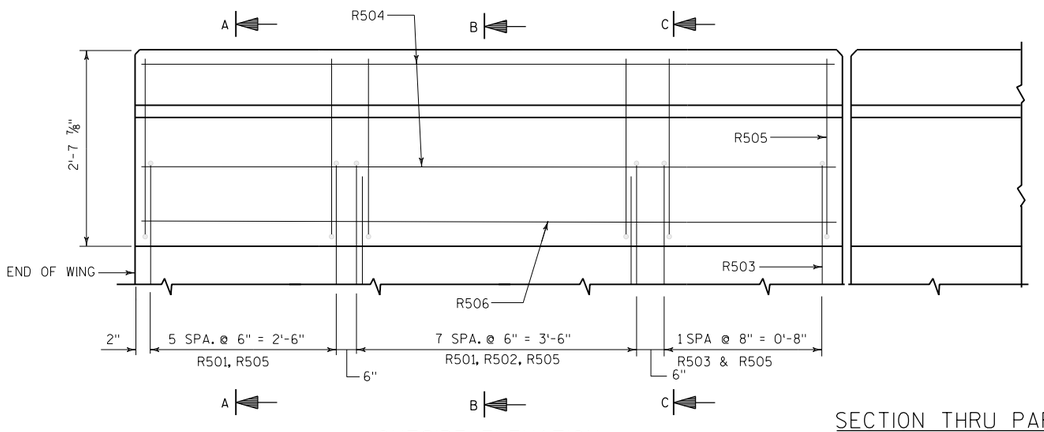
R503



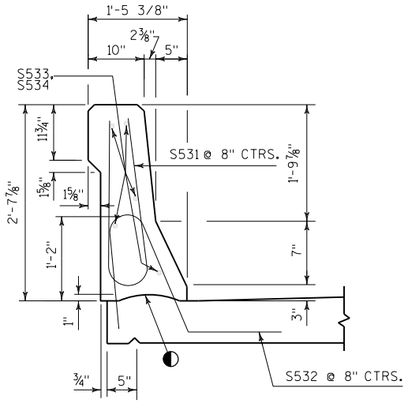
R505



R506



OUTSIDE ELEVATION



SECTION THRU PARAPET ON BRIDGE

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◪ R502 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R502 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R503 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

LAP LONGITUDINAL BARS A MIN. OF 1'-9".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-67-336

DRAWN BY RBH | PLANS CK'D. JOH

PARAPET DETAILS

SHEET 14 OF 14
278

8

8

L:±JOBS2010±20100196±CAD±WISDOT±DGN±00±B_00_336_14.DGN 9/14/2012 5:18:15 PM

FILE=
SCALE =

STATION	Distance	AREA (SF) Cut	Salvaged/ Unusable Pavement Material	Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/ Unusable Pavement Material Note 2	Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.30	Mass Ordinate Note 8
164+50		0		0						
165+00	50	0	0	0	0	0	0	0	0	0
165+50	50	289	0	47	268	0	44	268	57	211
166+00	50	223	0	73	474	0	111	742	201	541
166+50	50	214	0	82	405	0	144	1146	388	759
167+00	50	187	0	108	371	0	176	1518	616	901
167+50	50	150	0	136	312	0	226	1830	910	920
168+00	50	113	0	228	244	0	337	2073	1348	725
168+50	50	111	0	256	207	0	448	2281	1931	350
168+86	36	68	0	20	119	0	184	2400	2170	230
169+00	14	123	0	257	50	0	72	2449	2263	186
169+50	50	135	0	218	239	0	440	2688	2835	-147
170+00	50	111	0	296	228	0	476	2916	3454	-538
170+50	50	105	0	307	200	0	558	3116	4180	-1064
171+00	50	110	0	267	199	0	531	3315	4871	-1555
171+50	50	127	0	278	219	0	505	3535	5527	-1992
172+00	50	149	0	326	256	0	559	3790	6254	-2463
172+50	50	201	0	376	324	0	650	4114	7099	-2984
173+00	50	151	0	687	326	0	984	4440	8378	-3938
173+50	50	67	0	659	202	0	1246	4642	9998	-5356
174+00	50	125	0	587	178	0	1154	4820	11498	-6678
174+50	50	146	0	327	251	0	846	5071	12598	-7528
175+00	50	173	0	207	295	0	494	5366	13241	-7875
175+50	50	183	0	160	330	0	340	5696	13683	-7987
176+00	50	180	0	154	336	0	291	6032	14061	-8029
176+50	50	202	0	169	354	0	299	6386	14450	-8064
177+00	50	236	0	158	406	0	303	6791	14843	-8052
177+25	25	370	0	48	281	0	95	7072	14967	-7896
177+50	25	466	0	19	387	0	31	7459	15008	-7549
178+00	50	463	0	42	860	0	56	8319	15081	-6762
178+10	10	426	0	56	165	0	18	8483	15105	-6621
178+50	40	236	0	196	490	0	187	8974	15347	-6373
179+00	50	325	0	76	519	0	252	9493	15675	-6181
179+41	41	170	0	20	376	0	73	9869	15769	-5900
179+50	9	372	0	36	90	0	9	9959	15781	-5822
180+00	50	361	0	19	679	0	51	10638	15848	-5210
180+50	50	372	0	40	679	0	55	11317	15919	-4602
180+70	20	302	0	0	250	0	15	11567	15938	-4371
181+00	30	360	0	65	368	0	36	11934	15985	-4051
181+50	50	370	0	74	676	0	129	12610	16152	-3542
182+00	50	282	0	161	604	0	218	13214	16435	-3221
182+50	50	273	0	134	514	0	273	13728	16790	-3062
183+00	50	244	0	142	479	0	256	14207	17122	-2916
183+50	50	237	0	96	445	0	220	14652	17409	-2757
184+00	50	335	0	86	530	0	169	15182	17628	-2446
184+50	50	238	0	82	531	0	156	15712	17830	-2118
185+00	50	234	0	67	437	0	138	16149	18010	-1860
185+50	50	242	0	37	441	0	96	16590	18135	-1545
186+00	50	260	0	15	465	0	48	17055	18197	-1143
186+50	50	242	0	11	465	0	24	17519	18229	-709
187+00	50	233	0	16	440	0	25	17959	18261	-302
187+50	50	308	0	6	501	0	20	18460	18288	173
188+00	50	252	0	9	519	0	14	18979	18306	673
188+50	50	240	0	15	456	0	22	19434	18335	1100

STATION	Distance	AREA (SF) Cut	Salvaged/ Unusable Pavement Material	Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/ Unusable Pavement Material Note 2	Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.30	Mass Ordinate Note 8
189+00		255	0	10	0	0	0	0	0	0
189+50		215	0	20	0	0	0	0	0	0
190+00	50	191	0	44	376	0	59	376	77	299
190+50	50	188	0	68	351	0	104	727	212	515
190+69	19	128	0	26	111	0	33	838	255	583
191+00	31	159	0	83	165	0	63	1003	336	667
191+50	50	171	0	93	306	0	163	1308	548	760
191+95	45	140	0	2	259	0	79	1568	651	917
192+00	50	206	0	101	319	0	95	1887	775	1112
192+50	50	211	0	100	386	0	186	2273	1017	1256
193+00	50	273	0	60	448	0	148	2721	1209	1511
193+50	50	194	0	91	432	0	140	3153	1391	1762
193+67	17	133	0	3	103	0	30	3256	1430	1827
194+00	33	185	0	107	194	0	67	3451	1517	1933
194+50	50	173	0	125	331	0	215	3782	1796	1986
195+00	50	214	0	112	358	0	219	4140	2082	2059
195+14	14	179	0	1	102	0	29	4242	2120	2123
195+50	36	179	0	117	239	0	79	4481	2222	2259
196+00	50	240	0	84	388	0	186	4869	2464	2405
196+50	50	275	0	68	477	0	141	5346	2647	2699
196+60	10	241	0	1	96	0	13	5441	2664	2778
197+00	40	258	0	40	370	0	30	5811	2703	3108
197+33	33	170	0	11	262	0	31	6073	2744	3329
197+50	17	263	0	18	136	0	9	6209	2755	3453
198+00	50	219	0	69	446	0	81	6655	2860	3795
198+50	50	174	0	75	364	0	133	7019	3033	3986
199+00	50	165	0	58	314	0	123	7333	3194	4139
199+50	50	163	0	81	304	0	129	7637	3361	4276
200+00	50	174	0	22	312	0	95	7949	3485	4464
200+50	50	259	0	16	401	0	35	8350	3531	4819
201+00	50	296	0	44	514	0	56	8863	3603	5261
201+50	50	374	0	29	620	0	68	9484	3691	5793
202+00	50	460	0	0	772	0	27	10256	3726	6531
202+50	50	392	0	9	789	0	8	11045	3736	7309
203+00	50	245	0	117	590	0	117	11635	3888	7747
203+50	50	165	0	149	380	0	246	12014	4208	7806
204+00	50	147	0	117	289	0	246	12303	4528	7775
204+50	50	152	0	93	277	0	194	12580	4781	7799
205+00	50	152	0	79	281	0	159	12862	4988	7873
205+50	50	121	0	116	253	0	181	13114	5223	7891
206+00	50	123	0	130	226	0	228	13340	5519	7821
206+50	50	121	0	153	226	0	262	13566	5860	7707
207+00	50	140	0	66	242	0	203	13808	6123	7685
207+50	50	147	0	60	266	0	117	14074	6275	7799
207+80	30	112	0	12	144	0	40	14218	6327	7891
208+00	20	151	0	51	97	0	23	14315	6357	7958

PROJECT NO: 2753-06-71	HWY: CTH VV	COUNTY: WAUKESHA	EARTHWORK COMPUTATIONS	SHEET: 279	E

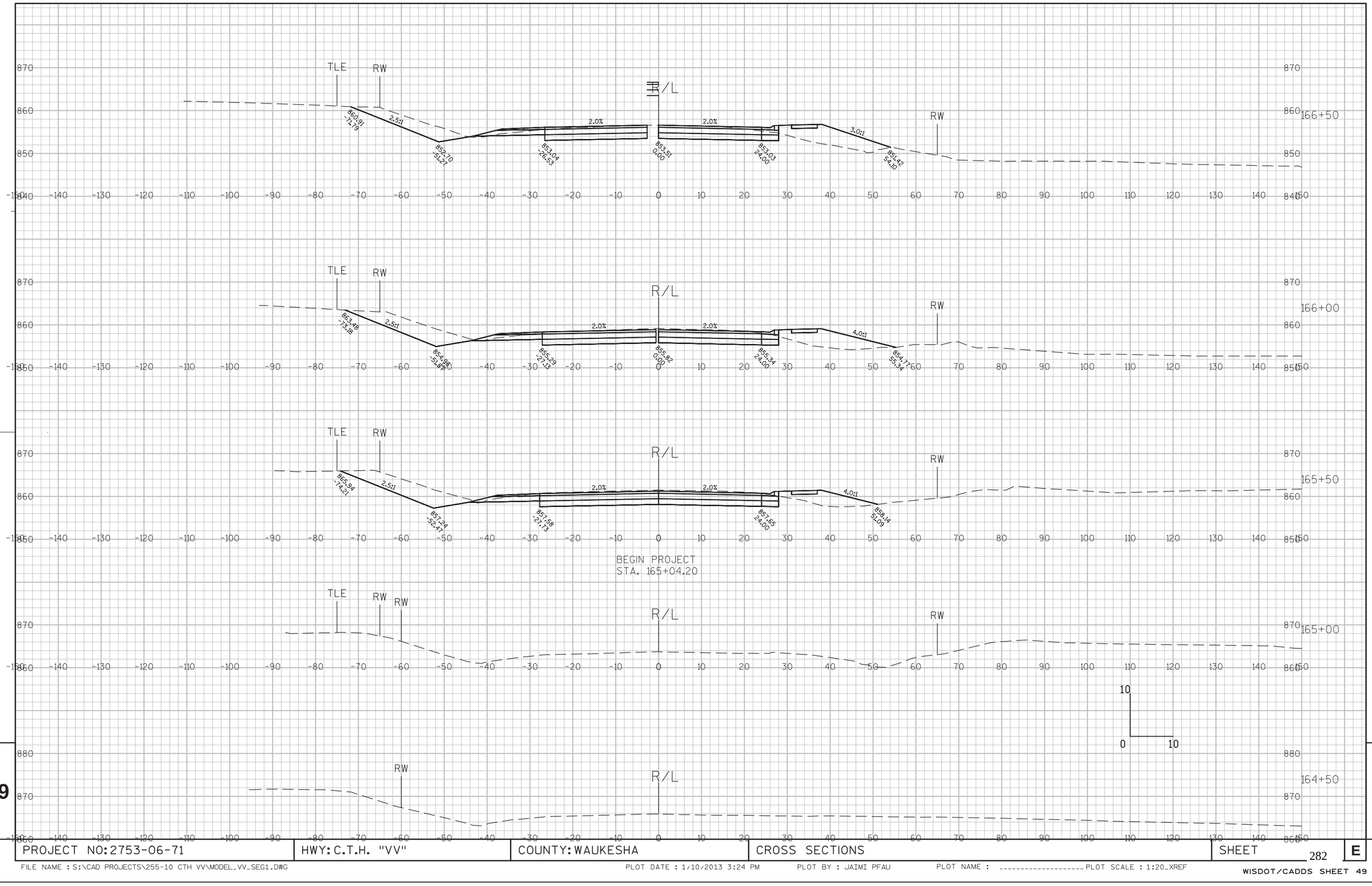
FILE NAME : S:\FinalDesign\MIL\10302080_C\Roads\cds\030201.ppt PLOT DATE : 10/1/2012 12:56:16 PM PLOT BY : MSCCEJ PLOT NAME : 030201_mq2 PLOT SCALE : 1:1

STATION	Distance	AREA (SF) Cut	Salvaged/ Unusable Pavement Material	Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/ Unusable Pavement Material Note 2	Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.30	Mass Ordinate Note 8
208+50		117	0	87	0	0	0	0	0	0
209+00	50	135	0	73	233	0	148	233	193	41
209+44	44	101	0	32	192	0	86	425	304	122
209+50	6	181	0	44	31	0	8	457	315	142
210+00	50	146	0	91	303	0	125	760	477	282
210+50	50	260	0	61	376	0	141	1135	660	475
210+75	25	155	0	40	192	0	47	1328	721	607
211+00	25	318	0	16	219	0	26	1547	755	792
211+50	50	237	0	21	514	0	34	2060	799	1261
212+00	50	241	0	17	443	0	35	2503	845	1658
212+50	50	261	0	11	465	0	26	2968	879	2089
213+00	50	280	0	17	501	0	26	3469	912	2556
213+50	50	297	0	15	534	0	30	4003	951	3052
214+00	50	310	0	14	562	0	27	4565	986	3579
214+50	50	341	0	0	603	0	13	5168	1003	4165
215+00	50	402	0	0	688	0	0	5856	1003	4853
215+50	50	430	0	1	770	0	1	6626	1004	5622
215+68	18	460	0	0	297	0	0	6923	1004	5919
216+00	32	404	0	0	512	0	0	7435	1004	6431
216+50	50	424	0	0	767	0	0	8202	1004	7197
217+00	50	427	0	1	788	0	1	8989	1006	7984
217+50	50	594	0	1	945	0	2	9935	1008	8927
218+00	50	587	0	0	1094	0	1	11028	1009	10019
218+50	50	349	0	25	867	0	23	11895	1039	10856
219+00	50	329	0	29	628	0	50	12523	1104	11419
219+50	50	210	0	34	499	0	58	13022	1180	11842
220+00	50	282	0	44	456	0	72	13477	1274	12203
220+50	50	244	0	51	487	0	88	13964	1388	12576
221+00	50	209	0	58	419	0	101	14384	1520	12864
221+50	50	186	0	72	366	0	120	14750	1676	13074
222+00	50	185	0	89	344	0	149	15093	1870	13223
222+50	50	162	0	79	321	0	156	15414	2072	13342
223+00	50	163	0	94	301	0	160	15715	2280	13435
223+50	50	154	0	105	294	0	184	16009	2520	13489
224+00	50	158	0	126	289	0	214	16298	2798	13500
224+50	50	153	0	140	288	0	246	16586	3118	13468
225+00	50	154	0	121	284	0	242	16870	3432	13438
225+38	38	138	0	44	205	0	116	17076	3583	13492
225+50	12	243	0	78	85	0	27	17160	3618	13542
226+00	50	147	0	81	361	0	147	17521	3810	13712
226+50	50	142	0	80	268	0	149	17789	4004	13785
226+65	15	96	0	36	66	0	32	17855	4045	13810
227+00	35	139	0	52	152	0	57	18007	4120	13888
227+50	50	133	0	47	252	0	92	18259	4239	14020
228+00	50	128	0	63	242	0	102	18501	4371	14130
228+50		135	0	82	0	0	0	0	0	0
229+00	50	161	0	103	274	0	171	274	223	51
229+50	50	152	0	134	290	0	219	564	508	56
230+00	50	124	0	156	256	0	269	819	857	-38
230+50	50	150	0	163	254	0	295	1073	1241	-168
231+00	50	307	0	108	423	0	251	1496	1567	-71
231+25	25	101	0	11	189	0	55	1685	1639	46
231+50	25	248	0	8	162	0	9	1847	1650	196
232+00	50	177	0	17	394	0	23	2240	1680	560
232+28	28	56	0	37	121	0	28	2361	1717	644
232+50	22	161	0	47	88	0	34	2450	1761	688
232+75	25	91	0	36	117	0	38	2566	1811	755
233+00	25	107	0	51	92	0	40	2658	1864	794
233+12	12	50	0	90	35	0	31	2693	1904	788
233+50	38	149	0	80	140	0	120	2833	2060	773
233+88	38	180	0	4	232	0	59	3064	2137	928
234+00	12	213	0	78	87	0	18	3152	2160	991
234+50	50	160	0	80	345	0	146	3497	2351	1146
235+00	50	144	0	91	281	0	158	3778	2556	1222
235+50	50	119	0	156	244	0	229	4022	2854	1168
236+00	50	110	0	221	212	0	349	4234	3307	927
236+50	50	100	0	284	194	0	468	4428	3915	513
237+00	50	96	0	349	181	0	586	4610	4677	-67
237+50	50	94	0	367	176	0	663	4786	5539	-753
238+00	50	101	0	354	181	0	668	4966	6407	-1441
238+50	50	105	0	333	191	0	636	5157	7234	-2077
239+00	50	145	0	360	231	0	642	5389	8068	-2679
239+50	50	108	0	162	234	0	483	5623	8696	-3074
240+00	50	102	0	77	194	0	221	5817	8984	-3167
240+50	50	114	0	90	200	0	155	6017	9185	-3168
241+00	50	125	0	56	221	0	135	6239	9361	-3122
241+32	32	71	0	22	116	0	46	6355	9421	-3066
241+50	18	160	0	50	77	0	24	6432	9452	-3020
242+00	50	151	0	70	288	0	111	6720	9597	-2877
242+50	50	185	0	71	311	0	131	7031	9766	-2736
243+00	50	222	0	71	377	0	131	7408	9937	-2530
243+50	50	237	0	82	425	0	142	7833	10121	-2289
244+00	50	244	0	54	445	0	126	8278	10285	-2007
244+50	50	252	0	22	459	0	70	8737	10377	-1639
245+00	50	0	0	0	233	0	20	8971	10403	-1432
		CTH VV TOTAL			61221		30359			

PROJECT NO: 2753-06-71 | HWY: CTH VV | COUNTY: WAUKESHA | EARTHWORK COMPUTATIONS | SHEET: 280 | E

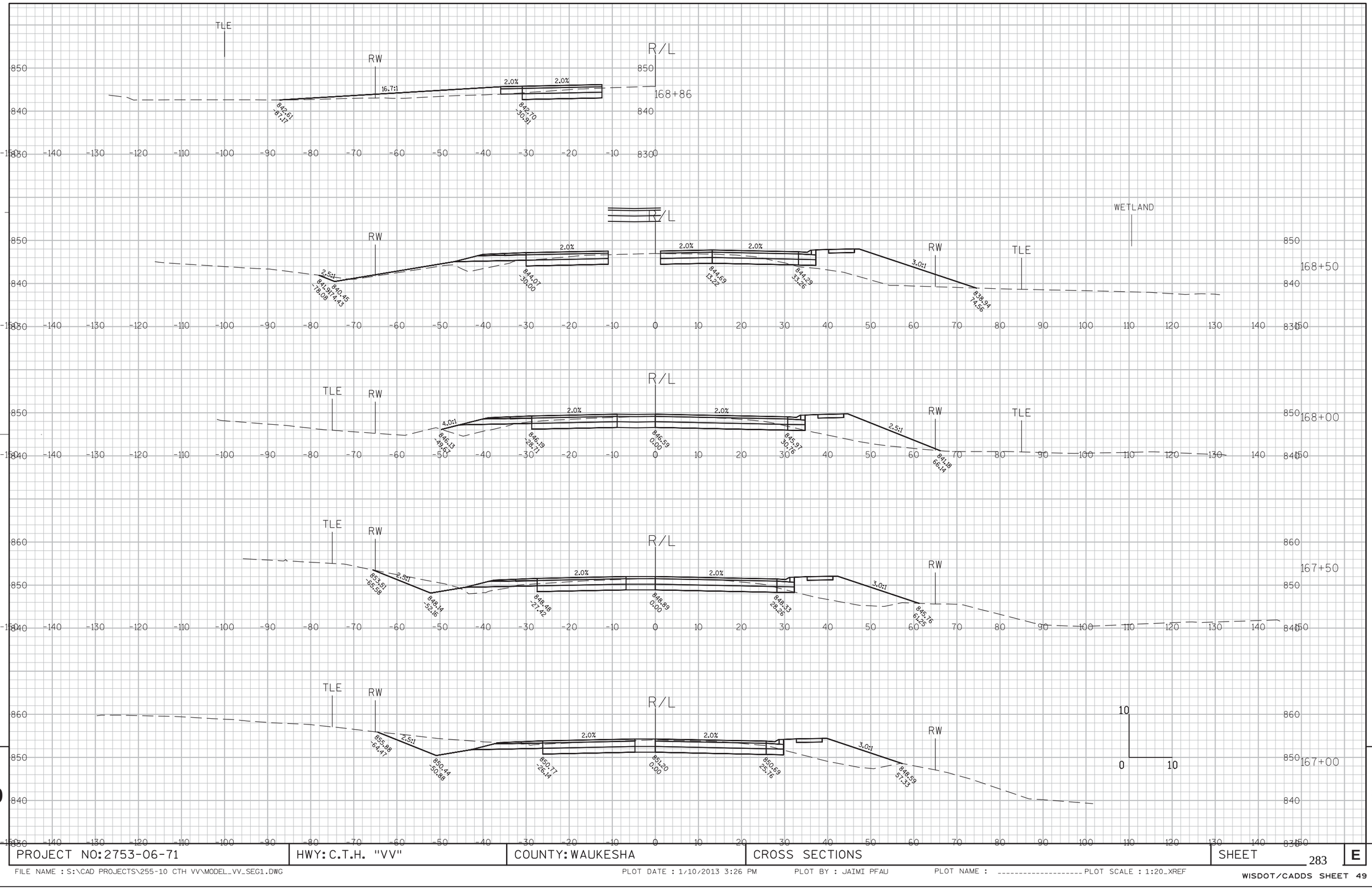
FILE NAME : S:\FinalDesign\MIL\10302080_C\Roads\cds\030201.ppt PLOT DATE : 10/1/2012 12:56:16 PM PLOT BY : MSCCEJ PLOT NAME : 030201_mq3 PLOT SCALE : 1:1

STATION	Distance	AREA (SF) Cut	Salvaged/ Unusable Pavement Material	Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/ Unusable Pavement Material Note 2	Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Fill	Expanded Fill 1.30	Mass Ordinate Note 8
3+50		0	0	0							
4+00	50	62	0	1	57	0	1	57	1	1	56
4+50	50	63	0	2	116	0	3	173	4	5	168
4+75	25	40	0	0	48	0	1	221	5	6	215
5+00	25	73	0	3	52	0	1	273	6	8	265
5+50	50	86	0	0	159	0	0	432	6	8	425
6+00	50	112	0	0	183	0	0	616	6	8	608
6+50	50	86	0	5	183	0	5	799	11	14	785
7+00	50	86	0	6	159	0	10	958	21	27	931
7+50	50	98	0	5	170	0	10	1129	31	40	1088
8+00	50	125	0	13	206	0	17	1335	48	62	1273
8+50	50	142	0	30	247	0	40	1582	88	114	1469
9+00	50	157	0	38	277	0	63	1859	150	196	1664
9+36	36	184	0	64	227	0	68	2087	218	284	1803
10+64	128	86	0	21	640	0	201	2727	420	546	2181
11+00	36	69	0	53	103	0	49	2830	469	610	2220
11+50	50	29	0	46	91	0	92	2921	561	729	2191
12+00	50	17	0	58	43	0	96	2963	657	854	2109
13+50	150	3	0	49	56	0	297	3019	954	1241	1778
14+00	50	14	0	35	16	0	78	3035	1032	1342	1693
14+50	50	29	0	19	40	0	50	3074	1082	1407	1667
15+00	50	45	0	6	69	0	23	3143	1105	1437	1706
15+50	50	73	0	0	109	0	6	3252	1111	1444	1808
15+57	7	41	0	0	15	0	0	3267	1111	1444	1823
16+00	43	69	0	0	88	0	0	3355	1111	1444	1910
16+50	50	0	0	0	64	0	0	3418	1111	1444	1974
	SUBTOTAL LANNON				3418	0	1111				
27+00		45	0	0							
27+50	50	51	0	0	89	0	0	89	0	0	89
28+00	50	69	0	0	111	0	0	200	0	0	200
28+33	33	53	0	0	75	0	0	275	0	0	275
28+50	17	120	0	0	54	0	0	329	0	0	329
29+00	50	239	0	0	332	0	0	661	0	0	661
29+43	43	280	0	0	413	0	0	1075	0	0	1075
	SUBTOTAL ONE-MILE				1075	0	0				
30+50		322	0	1							
30+64	14	230	0	5	143	0	2	143	2	2	141
31+00	36	127	0	6	238	0	7	381	9	12	369
31+50	86	82	0	0	466	0	12	847	21	27	820
32+00	50	67	0	0	138	0	0	985	21	27	958
32+50	50	0	0	0	0	0	0	985	21	27	958
	SUBTOTAL SPENCER'S PASS				985	0	21				
50+65		177	0	0							
51+00	35	146	0	0	209	0	0	209	0	0	209
51+50	50	113	0	0	240	0	0	449	0	0	449
52+00	50	37	0	0	139	0	0	588	0	0	588
52+50	50	35	0	0	67	0	0	655	0	0	655
53+00	50	0	0	0	32	0	0	687	0	0	687
	SUBTOTAL CLOVER				687	0	0				



PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 282	E

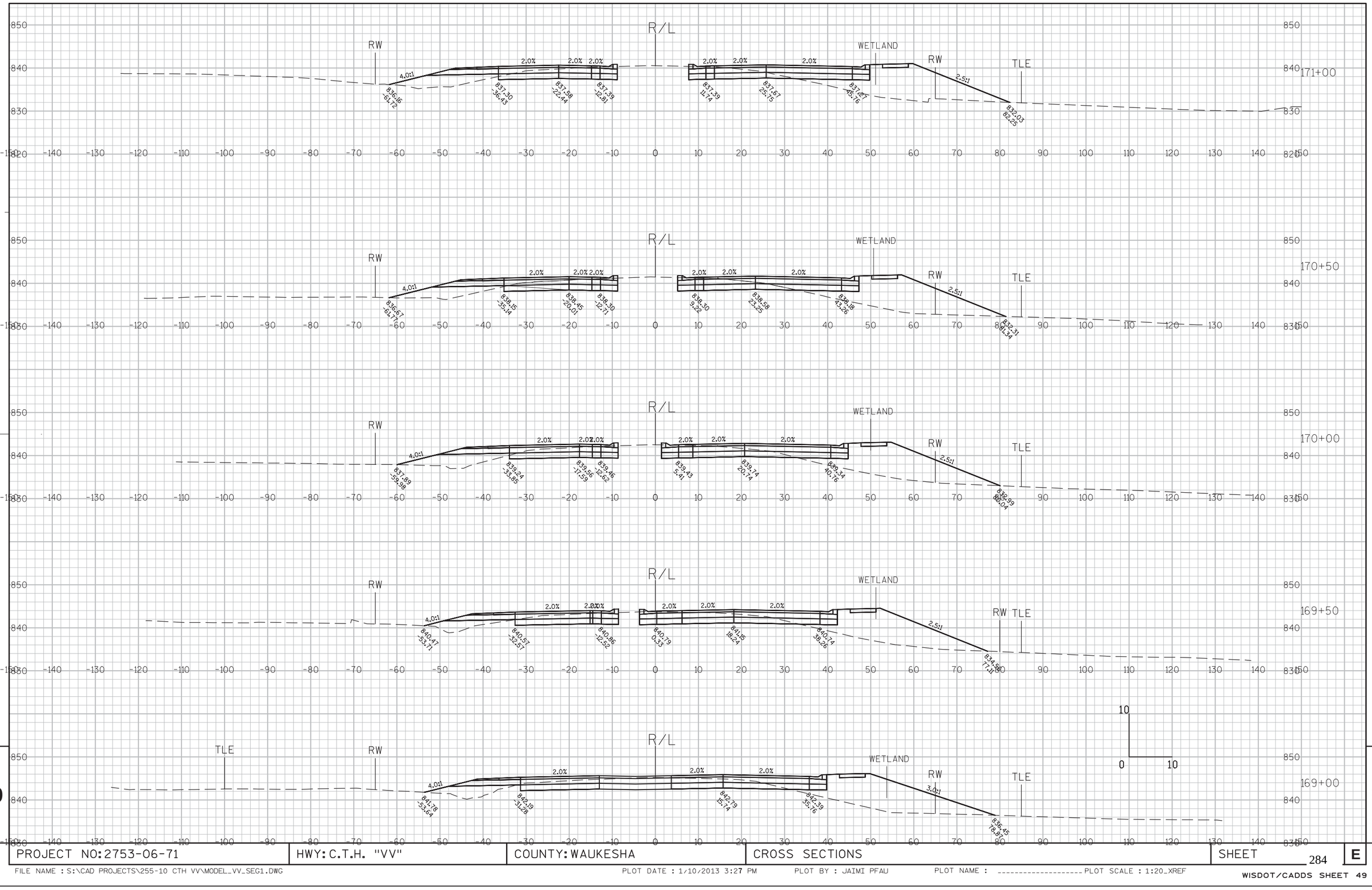
FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG1.DWG PLOT DATE : 1/10/2013 3:24 PM PLOT BY : JAIMI PFAU PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 283	E

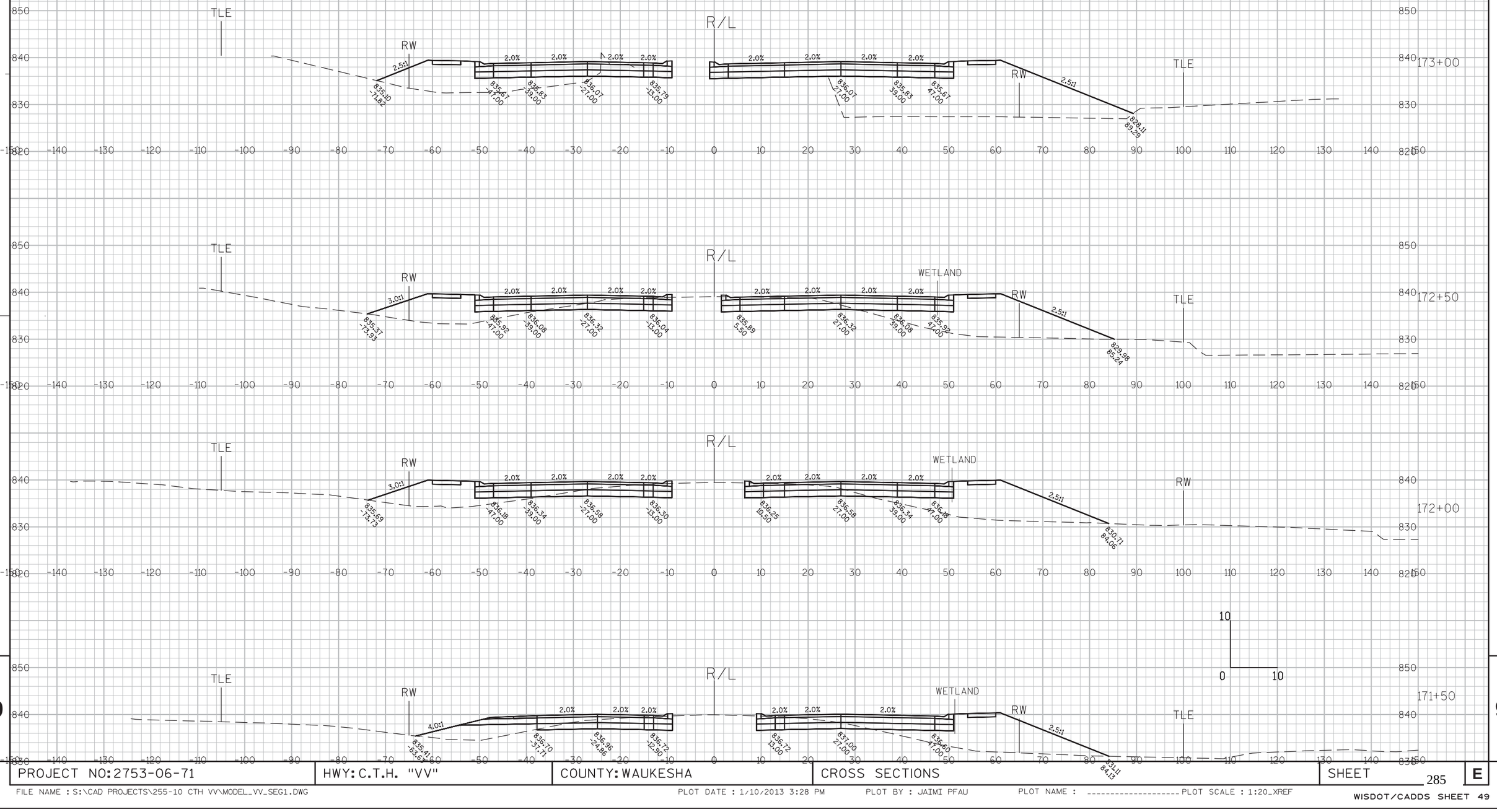
FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG1.DWG PLOT DATE : 1/10/2013 3:26 PM PLOT BY : JAIMI PFAU PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 284	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG1.DWG PLOT DATE : 1/10/2013 3:27 PM PLOT BY : JAIMI PFAU PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



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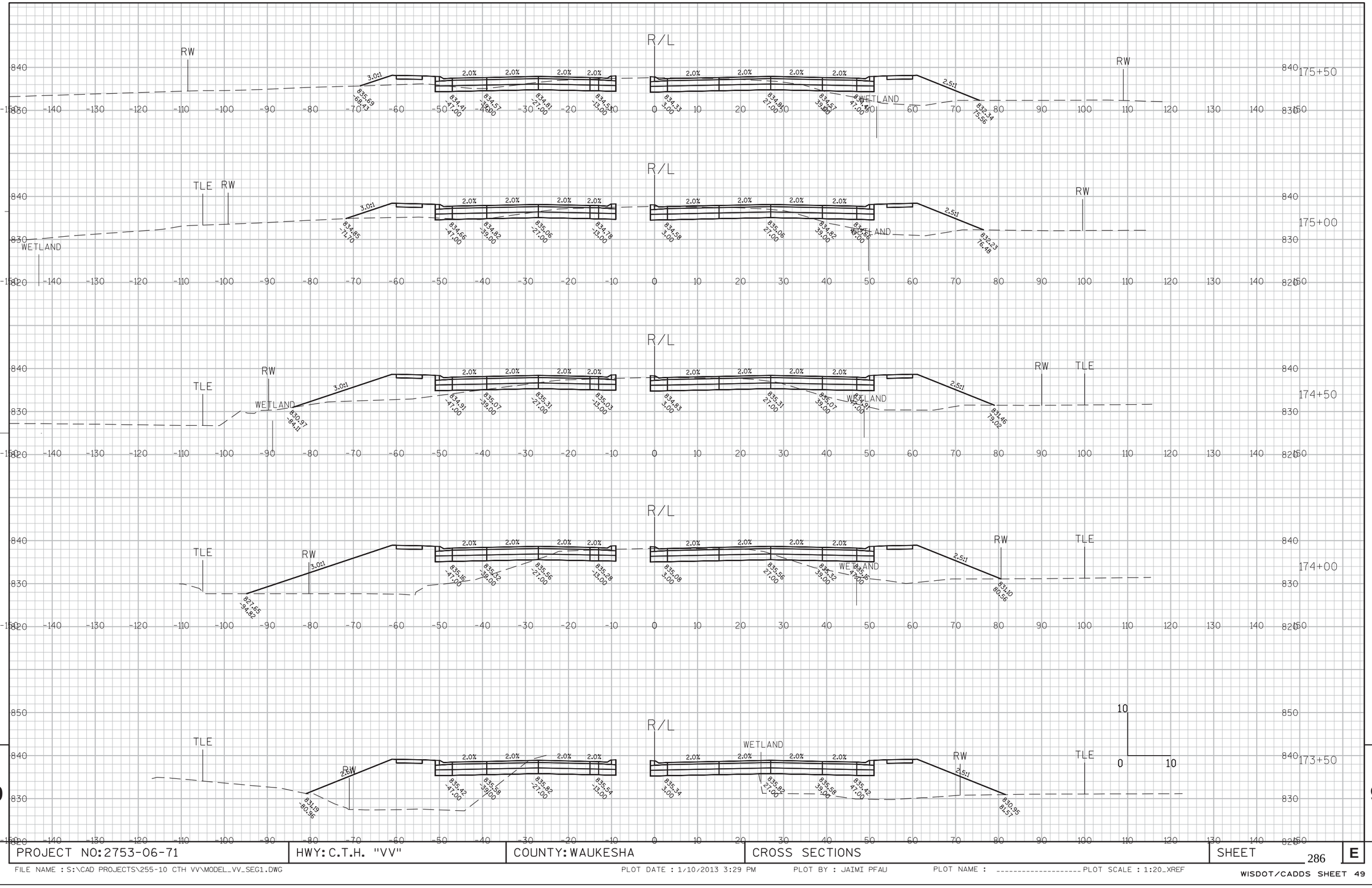
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 285	E

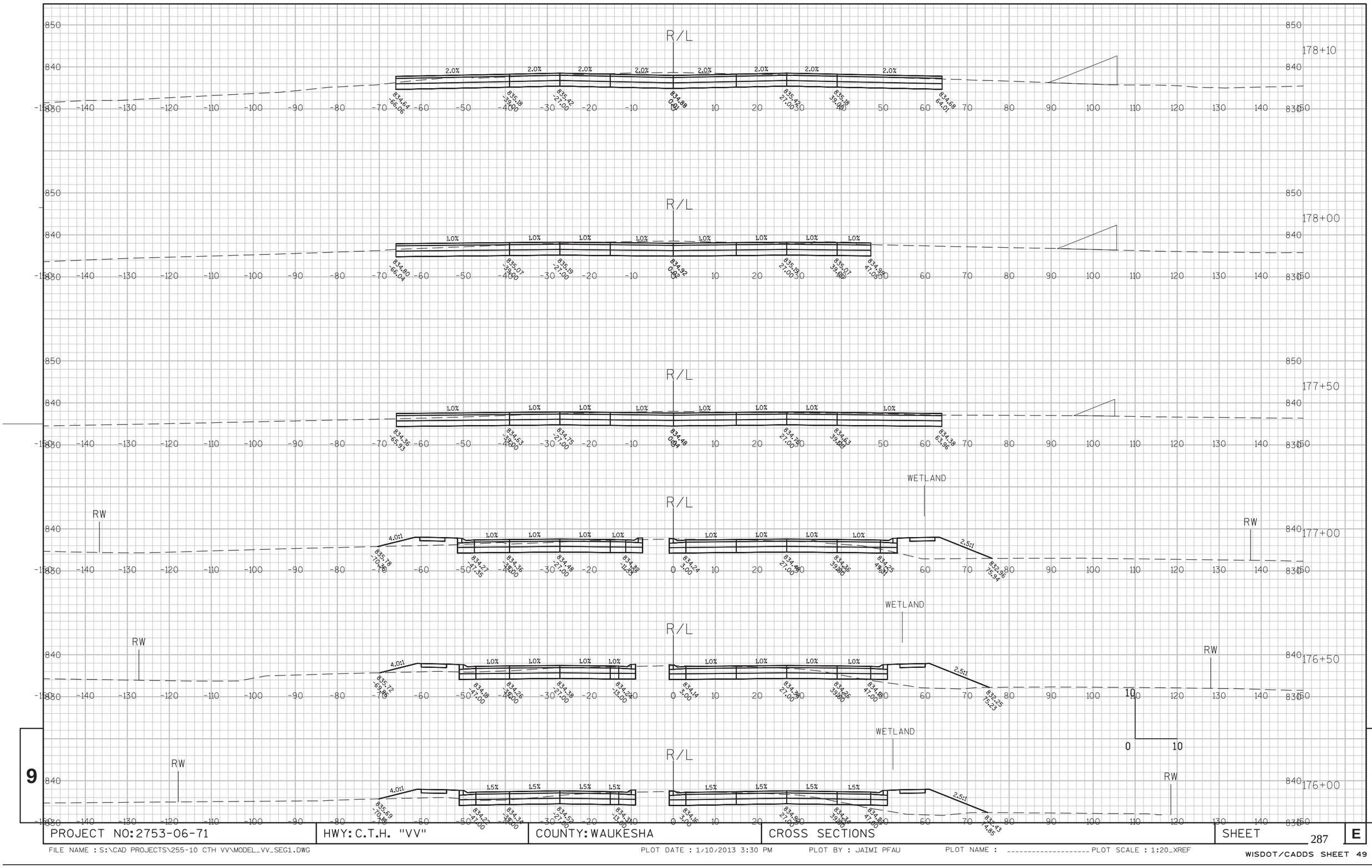
FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG1.DWG PLOT DATE : 1/10/2013 3:28 PM PLOT BY : JAIMI PFAU PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 286	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG1.DWG PLOT DATE : 1/10/2013 3:29 PM PLOT BY : JAIMI PFAU PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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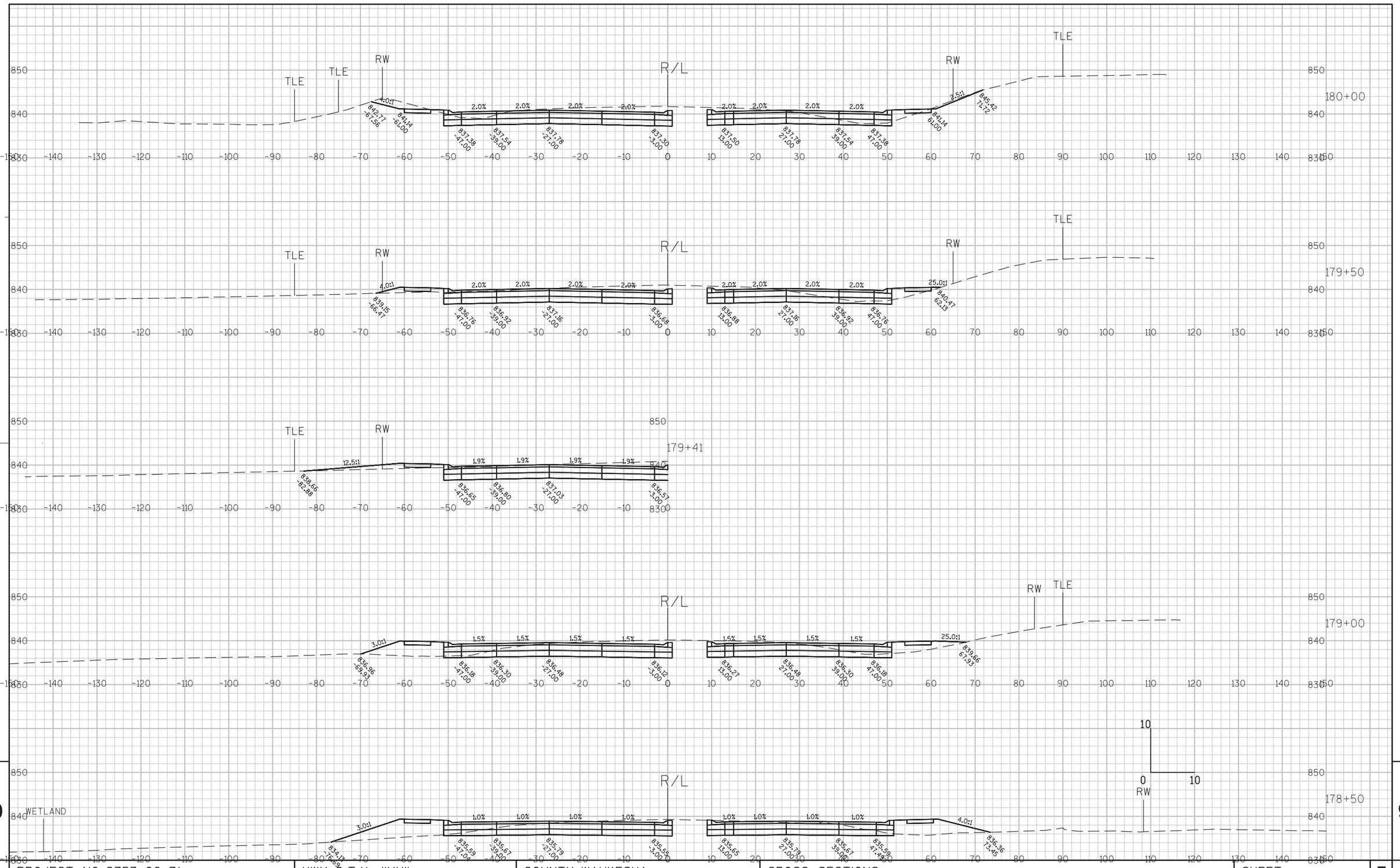
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 287	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG1.DWG PLOT DATE : 1/10/2013 3:30 PM PLOT BY : JAIMI PFAU PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 288	E

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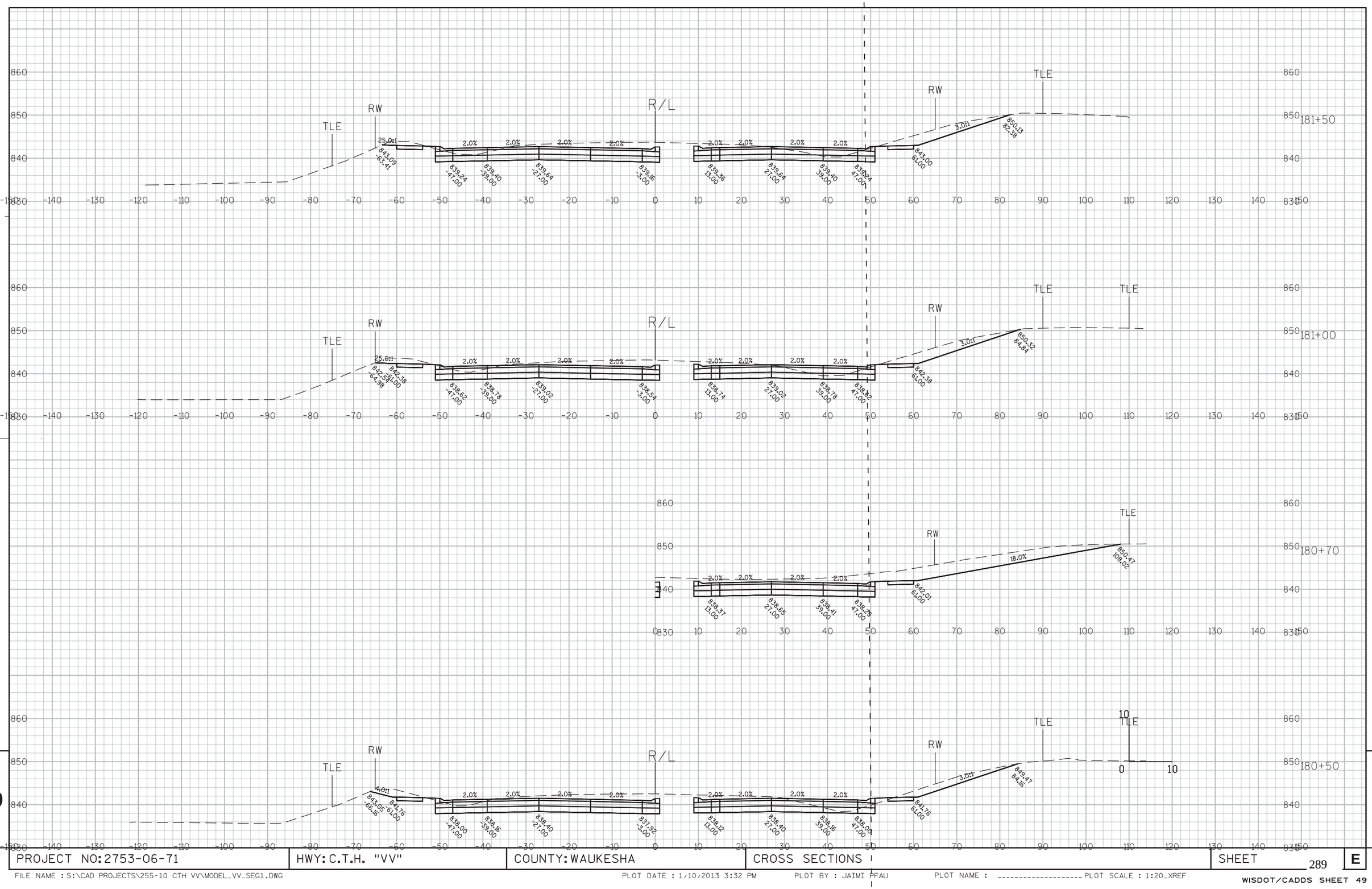
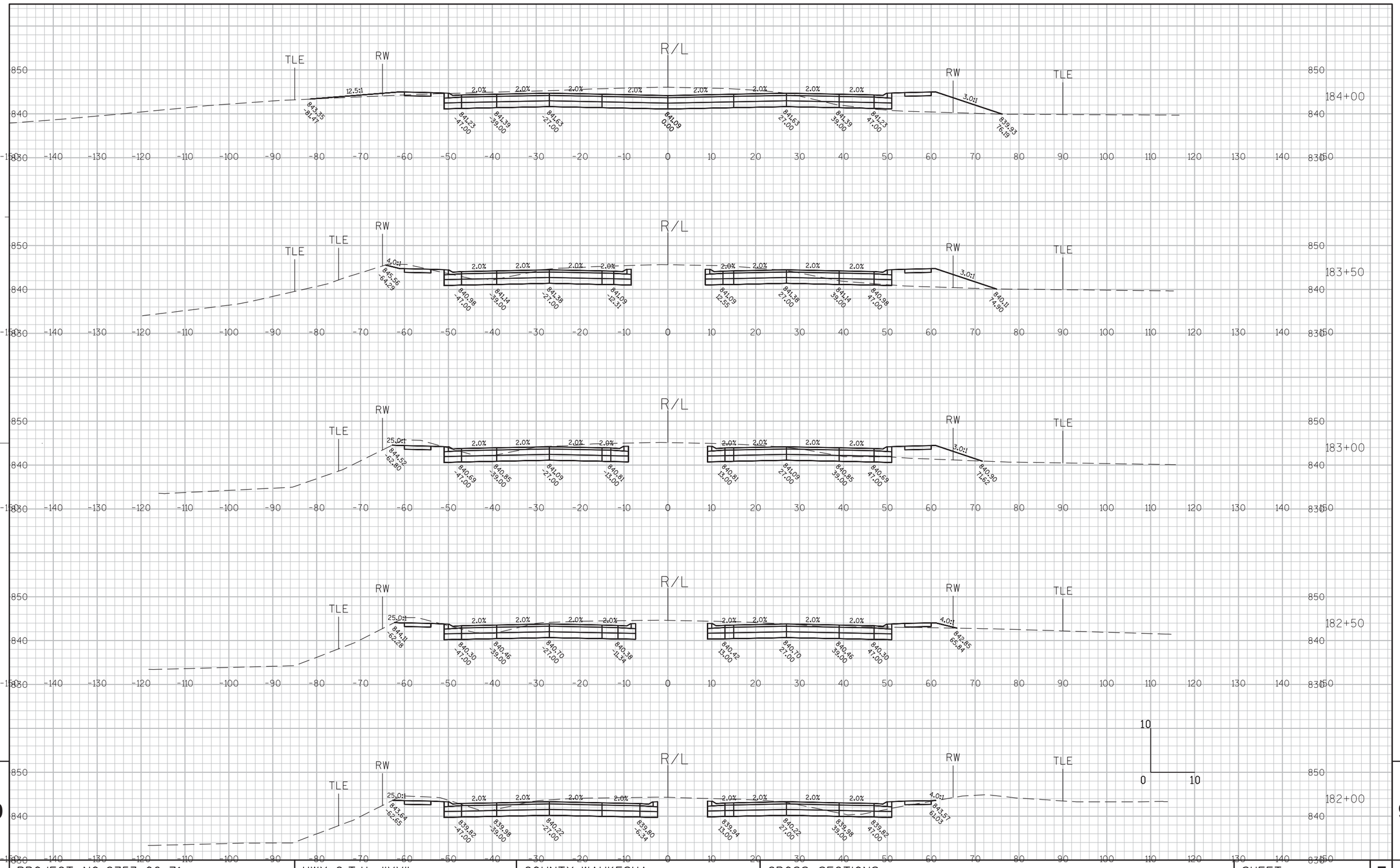
FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG1.DWG PLOT DATE : 1/10/2013 3:30 PM PLOT BY : JAIMI PFAU PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 289 E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG1.DWG PLOT DATE : 1/10/2013 3:32 PM PLOT BY : JAIMI PFAU PLOT NAME : _____ PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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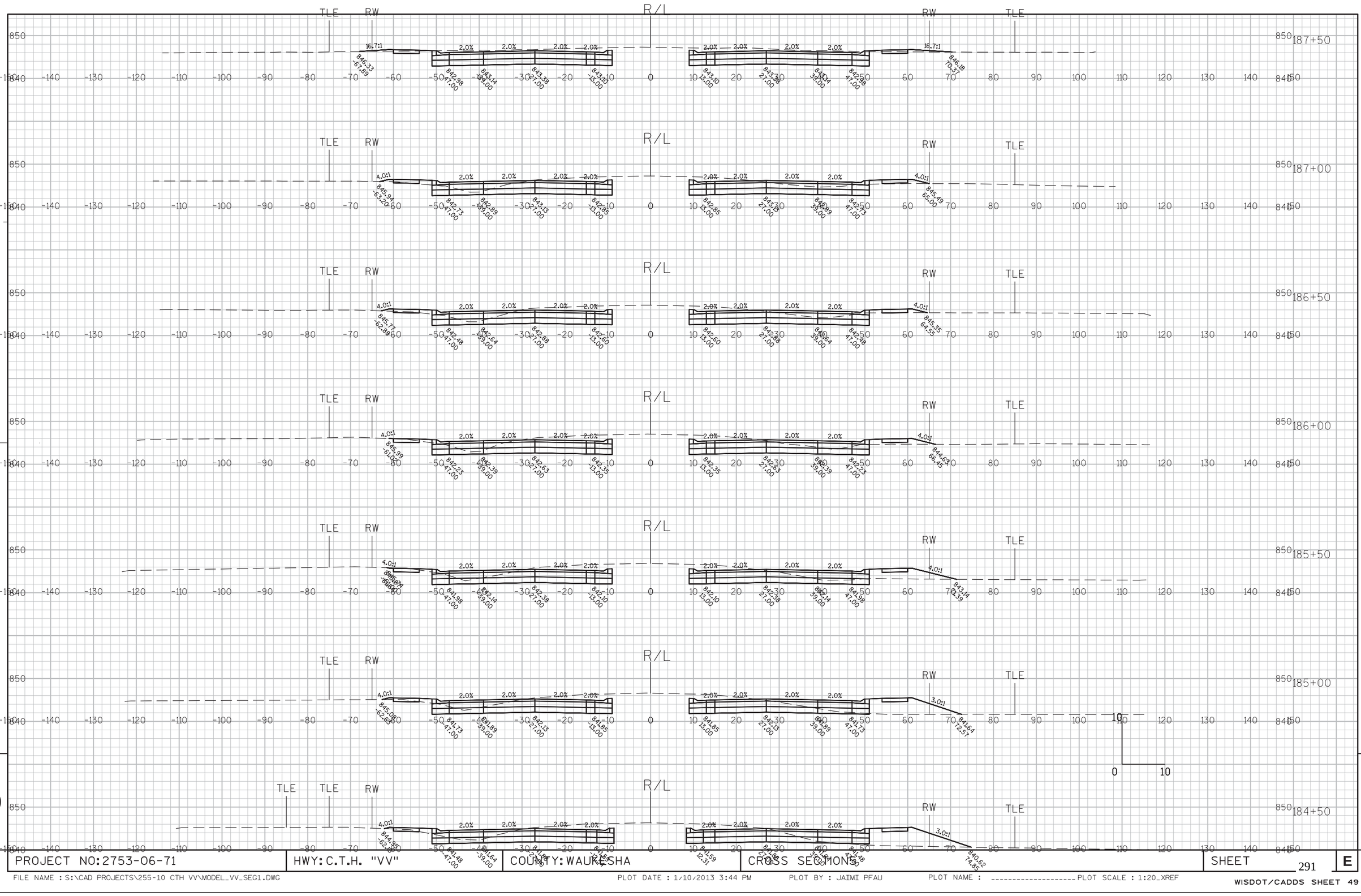
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 290	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG1.DWG PLOT DATE : 1/10/2013 3:32 PM PLOT BY : JAIMI PFAU PLOT NAME : ---------- PLOT SCALE : 1:20_XREF


TLE
RW
R/L
187+50
187+00
186+50
186+00
185+50
185+00
184+50
16.7:1
4.0:1
3.0:1
2.0%
846.33
-61.89
842.98
-41.00
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-27.00
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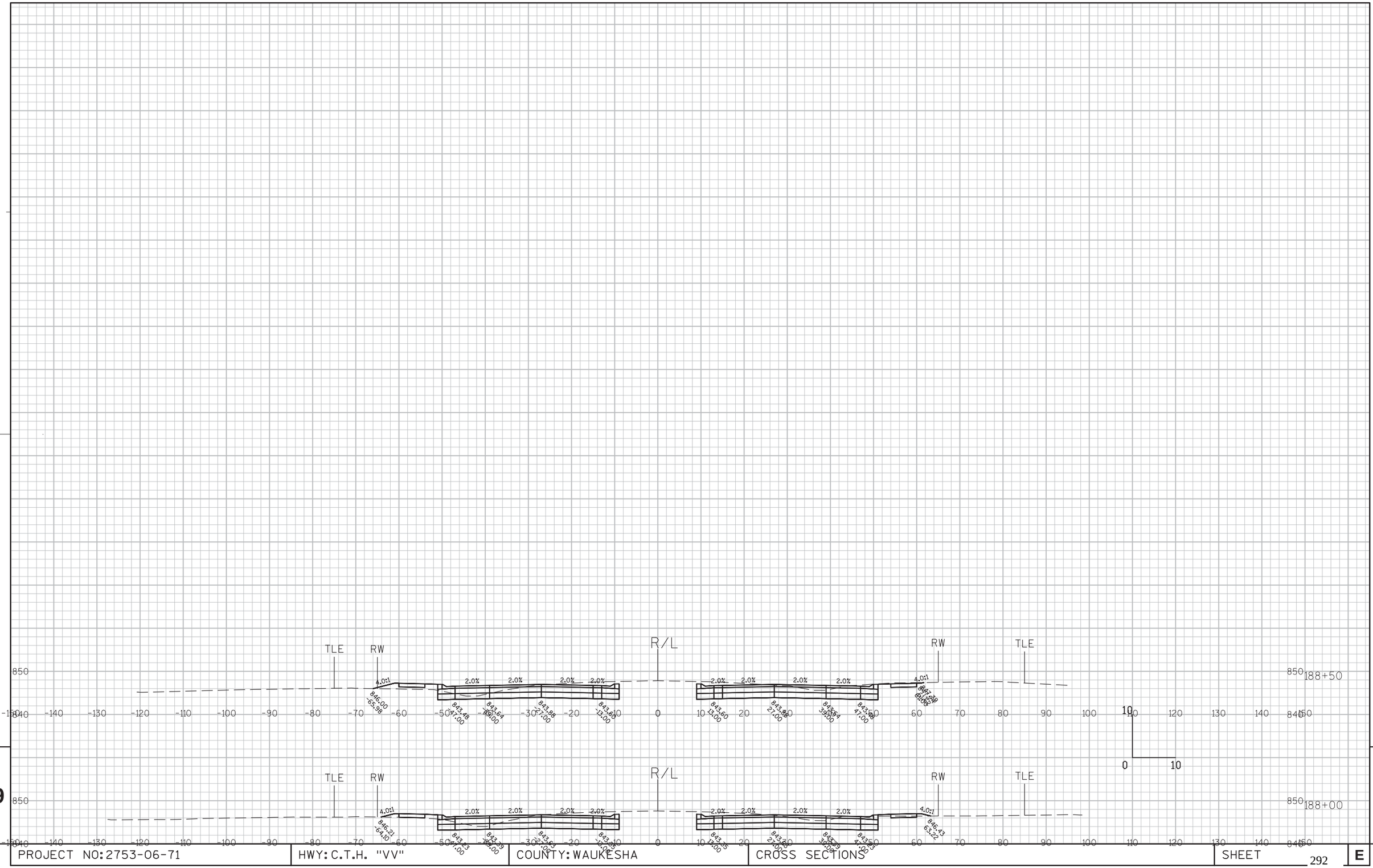

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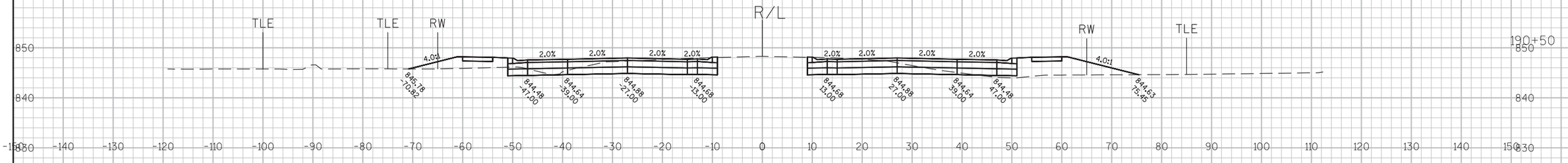
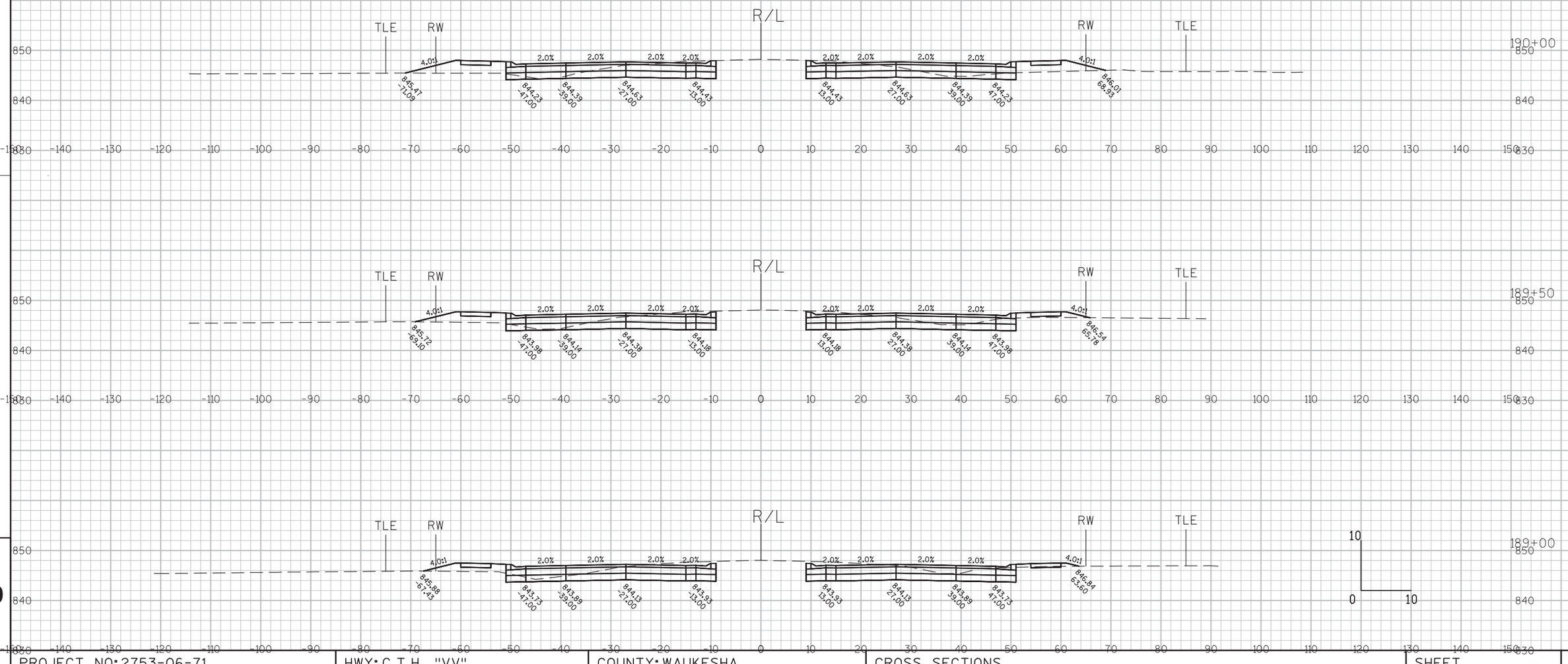
PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 292	E





10
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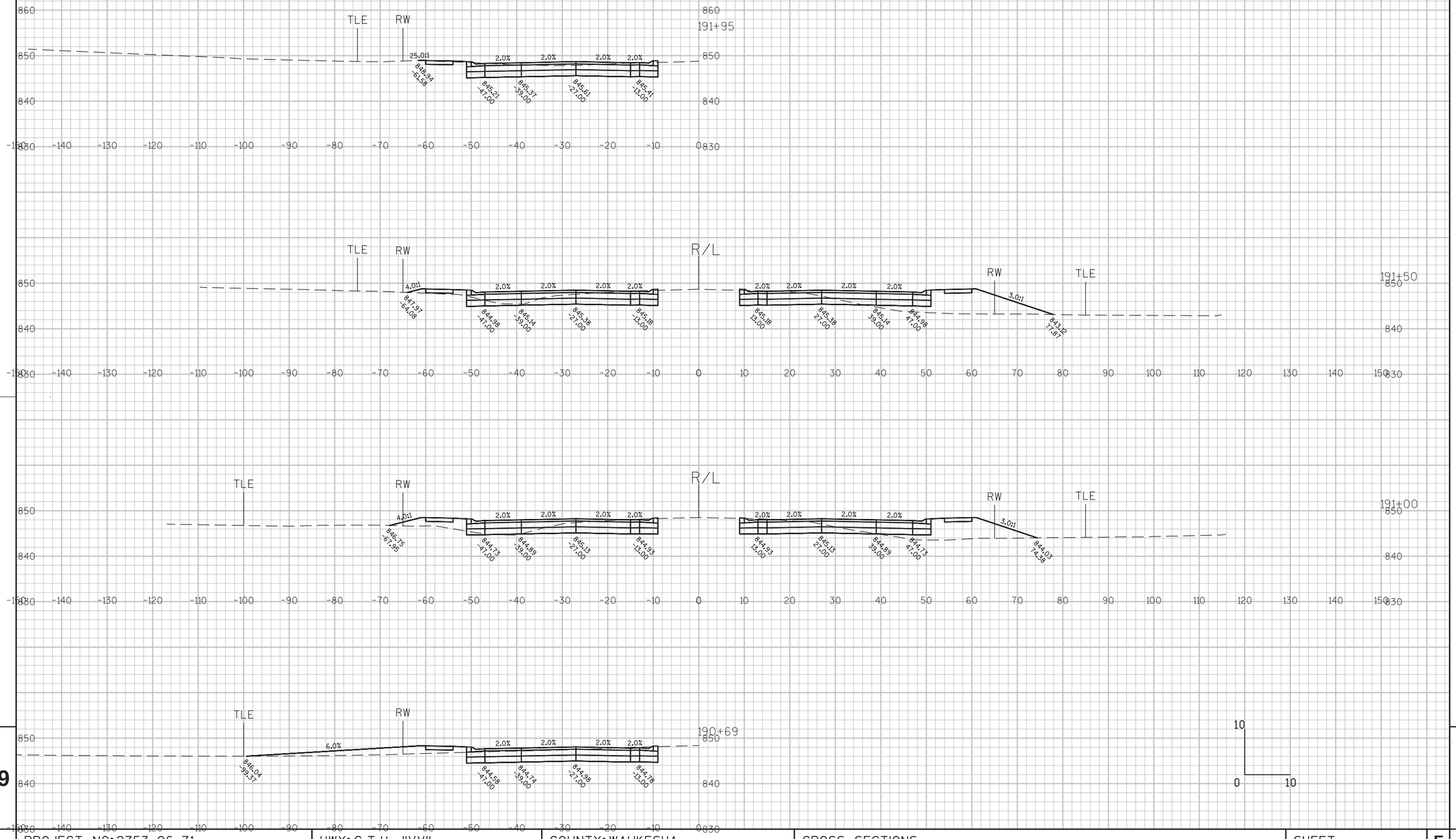
PROJECT NO: 2753-06-71 | HWY: C.T.H. "VV" | COUNTY: WAUKESHA | CROSS SECTIONS | SHEET 293 | E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG2.DWG | PLOT DATE : | PLOT BY : CDONZE | PLOT NAME : ---------- | PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49



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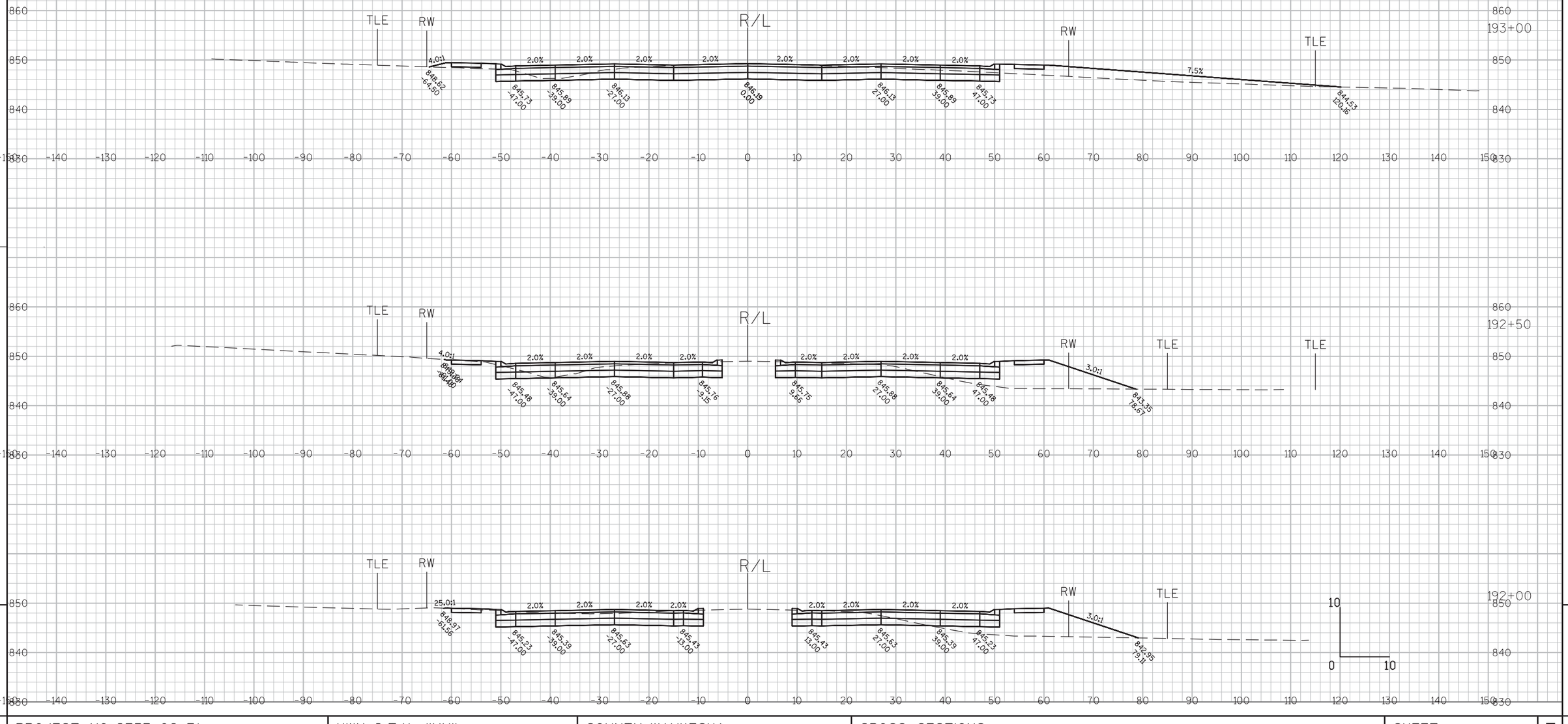
PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 294	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG2.DWG PLOT DATE : PLOT BY : CDONZE PLOT NAME : ---------- PLOT SCALE : 1" = 20'_XREF

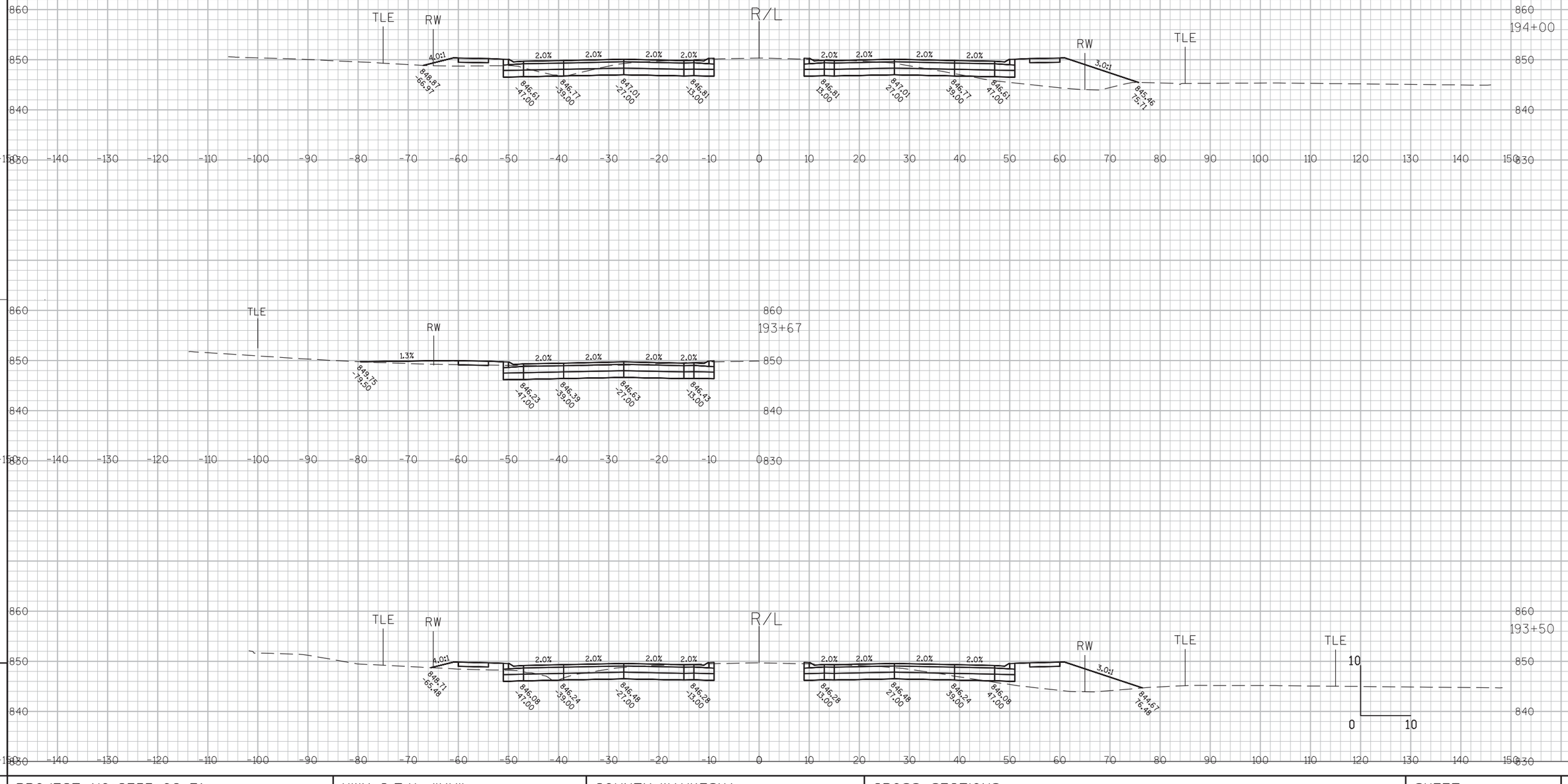
WISDOT/CADDS SHEET 49



PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 295	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG2.DWG PLOT DATE : PLOT BY : CDONZE PLOT NAME : ---------- PLOT SCALE : 1" = 20'_XREF

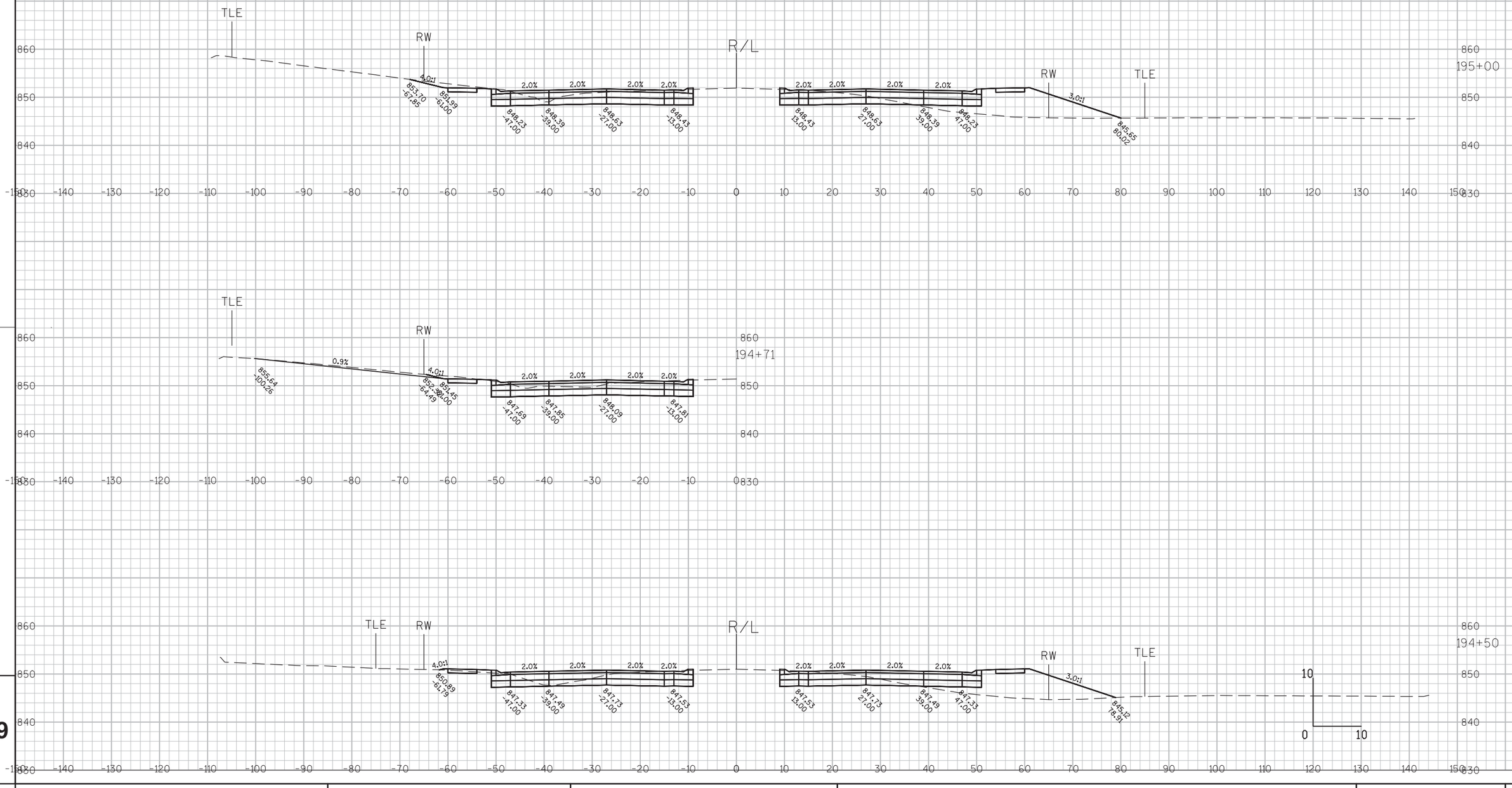
WISDOT/CADDS SHEET 49



PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 296	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG2.DWG PLOT DATE : PLOT BY : CDONZE PLOT NAME : _____ PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49



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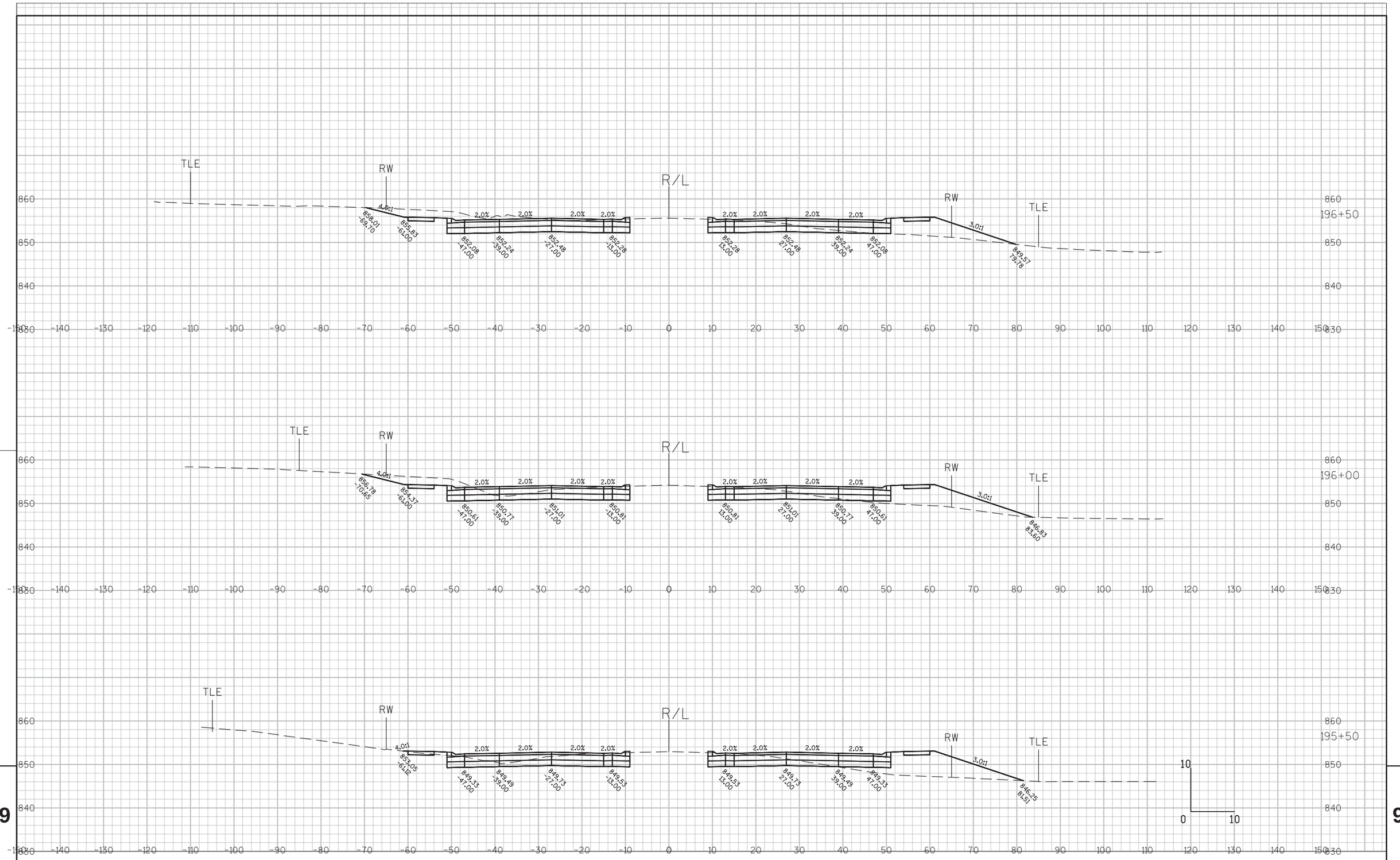
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 297	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG2.DWG PLOT DATE : PLOT BY : CDONZE PLOT NAME : ---------- PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49



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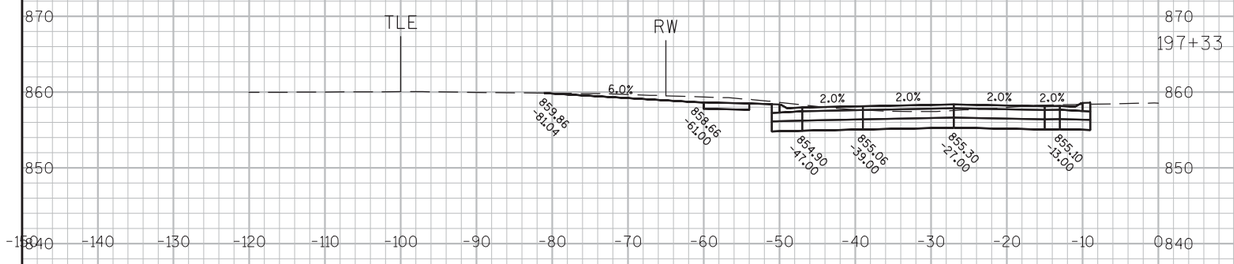
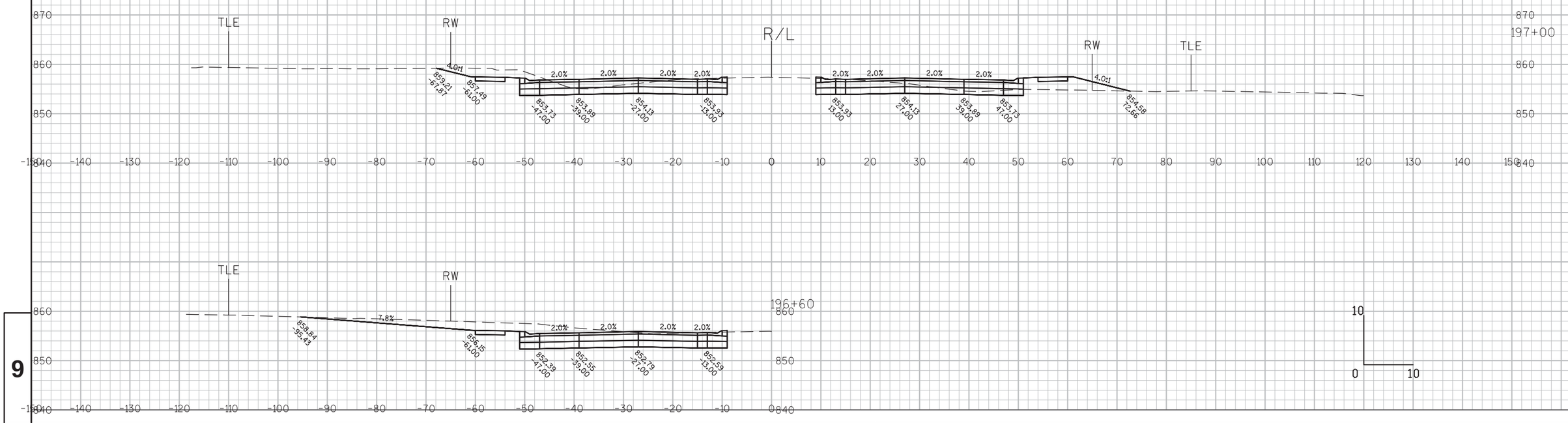
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 298	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG2.DWG PLOT DATE : PLOT BY : CDONZE PLOT NAME : _____ PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49





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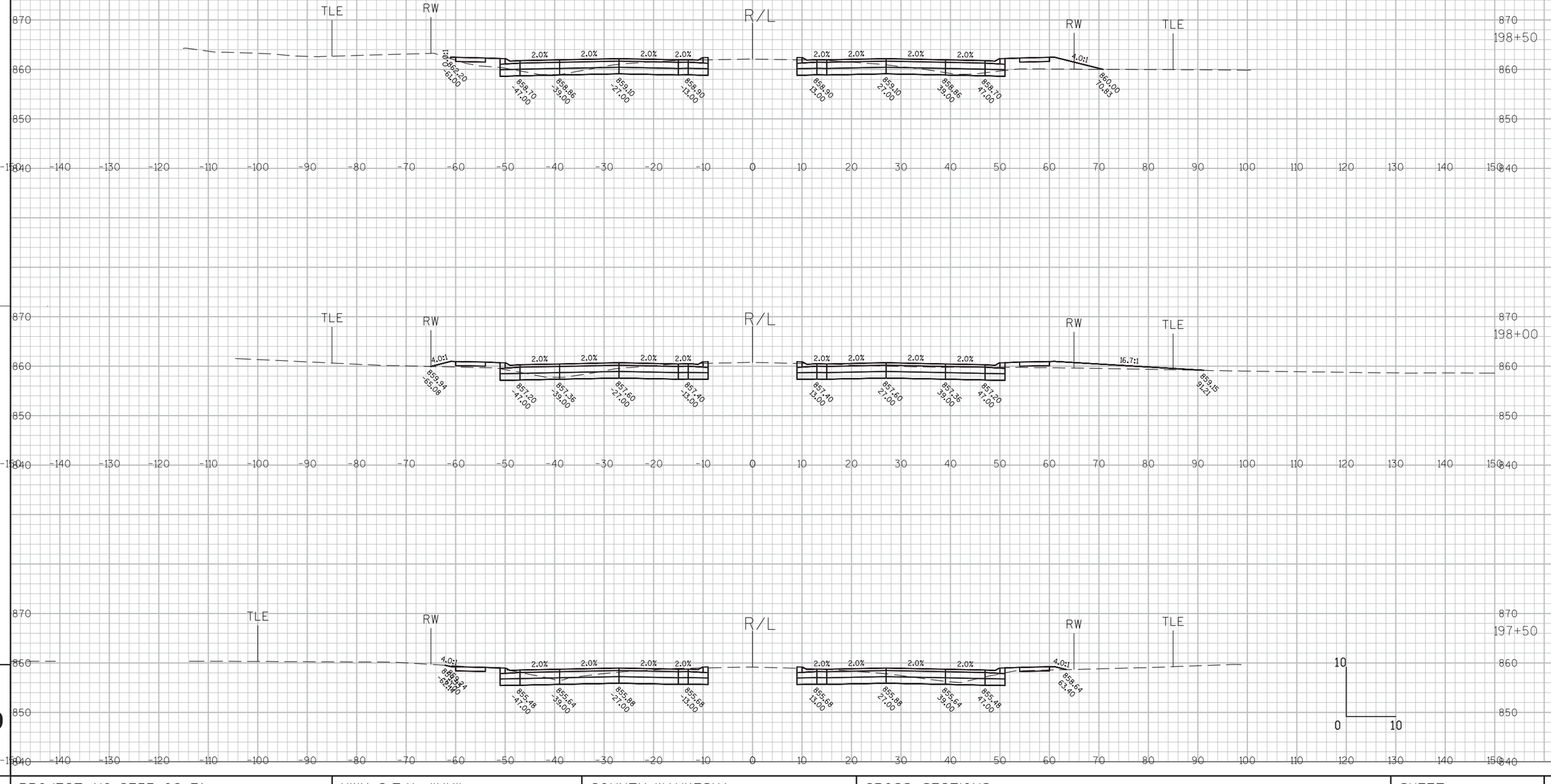
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 299	E

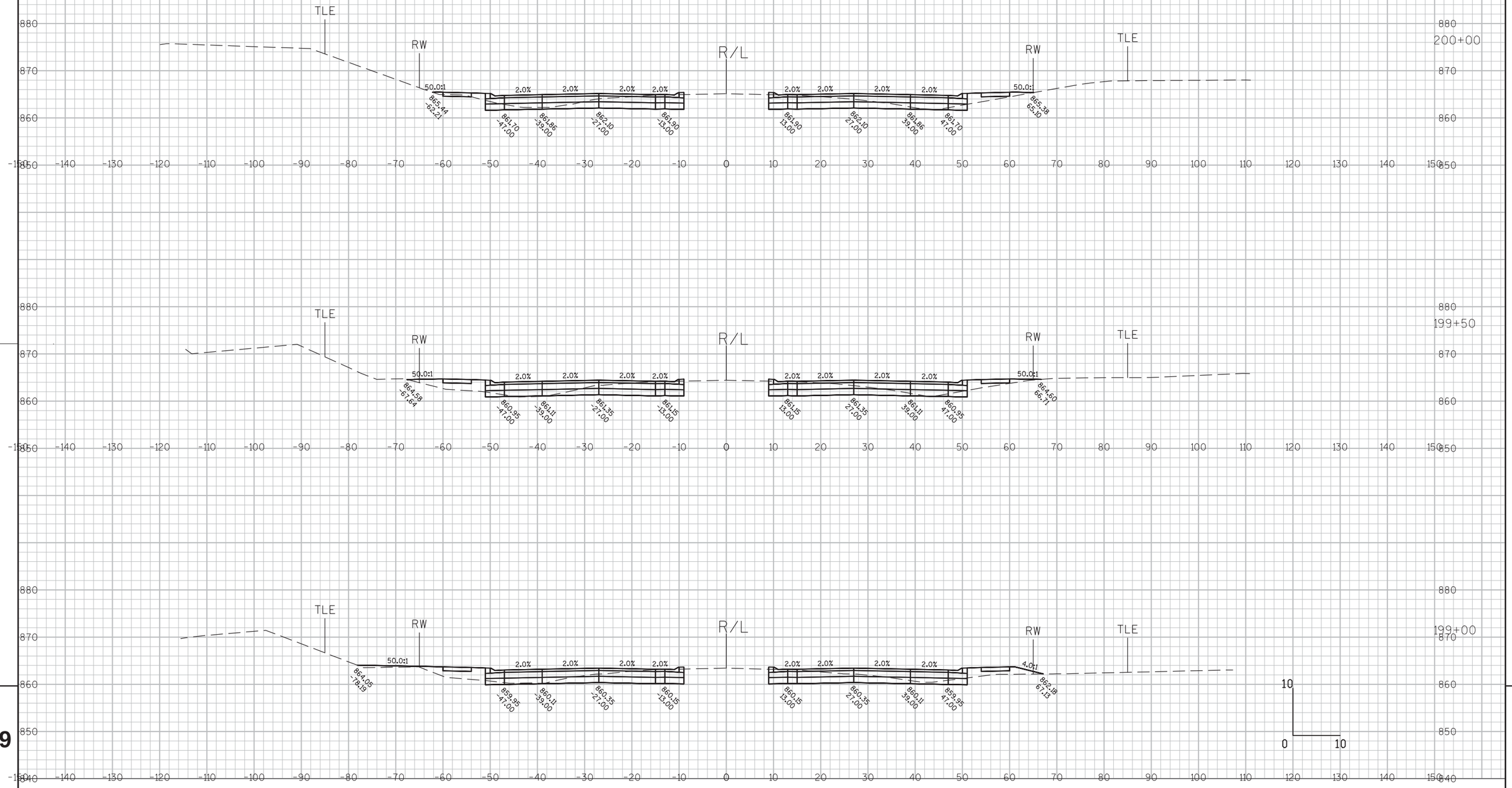
FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG2.DWG PLOT DATE : PLOT BY : CDONZE PLOT NAME : ---------- PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 300	E

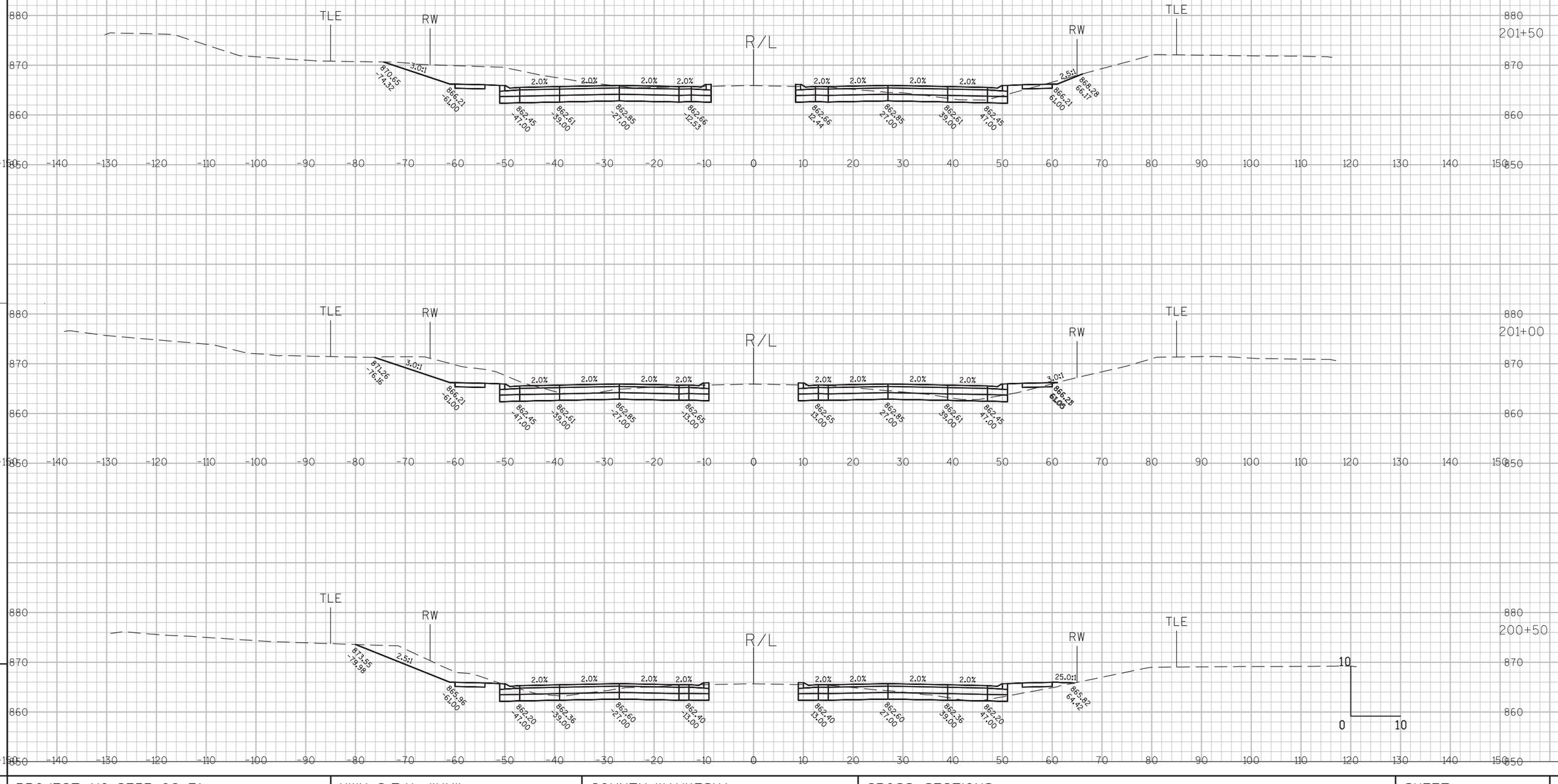
FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG2.DWG PLOT DATE : PLOT BY : CDONZE PLOT NAME : _____ PLOT SCALE : 1" = 20'_XREF



PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 301	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG2.DWG PLOT DATE : PLOT BY : CDONZE PLOT NAME : _____ PLOT SCALE : 1" = 20'_XREF

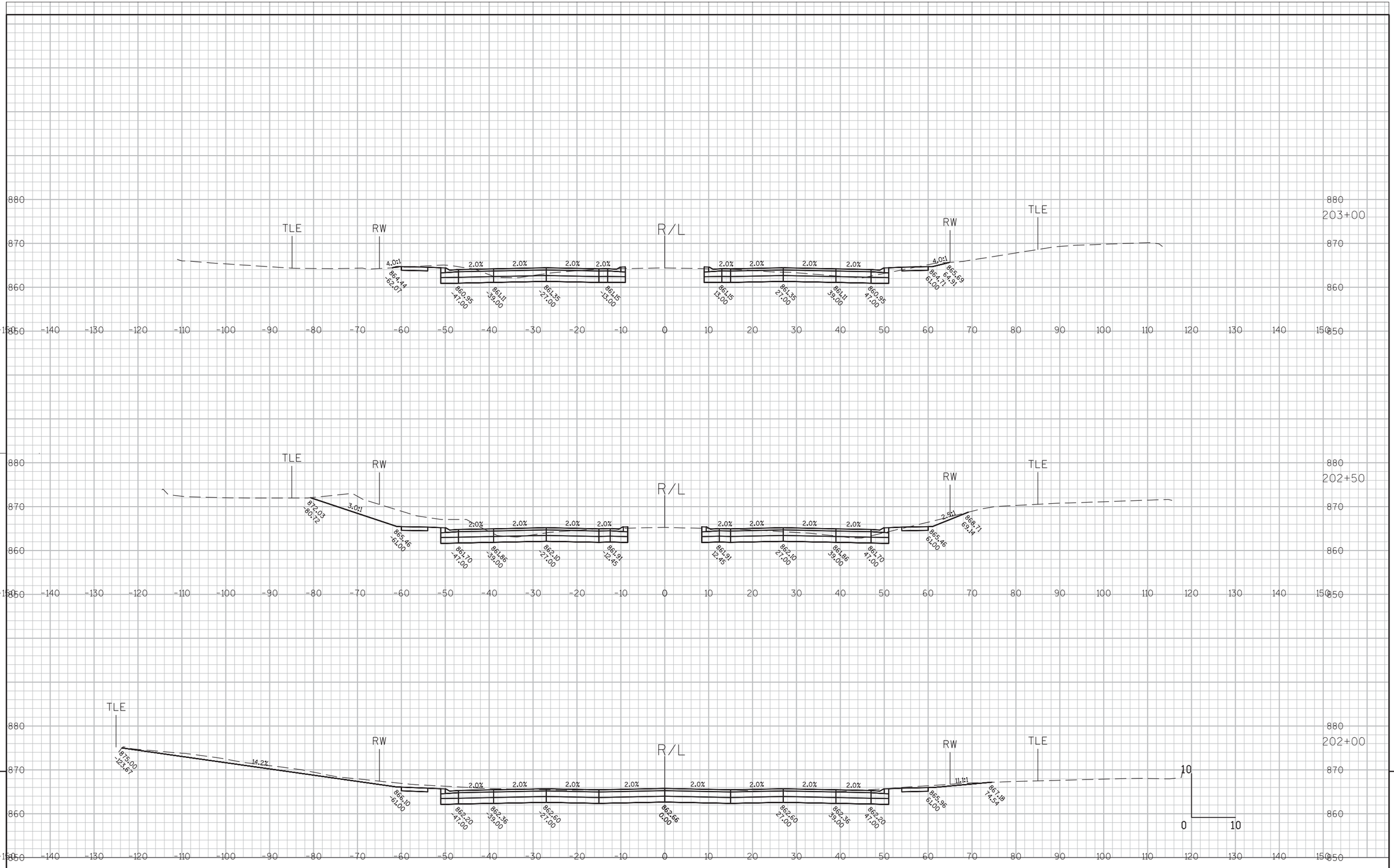
WISDOT/CADDS SHEET 49



PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 302	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG2.DWG PLOT DATE : PLOT BY : CDONZE PLOT NAME : _____ PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 303	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG2.DWG PLOT DATE : PLOT BY : CDONZE PLOT NAME : ---------- PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49

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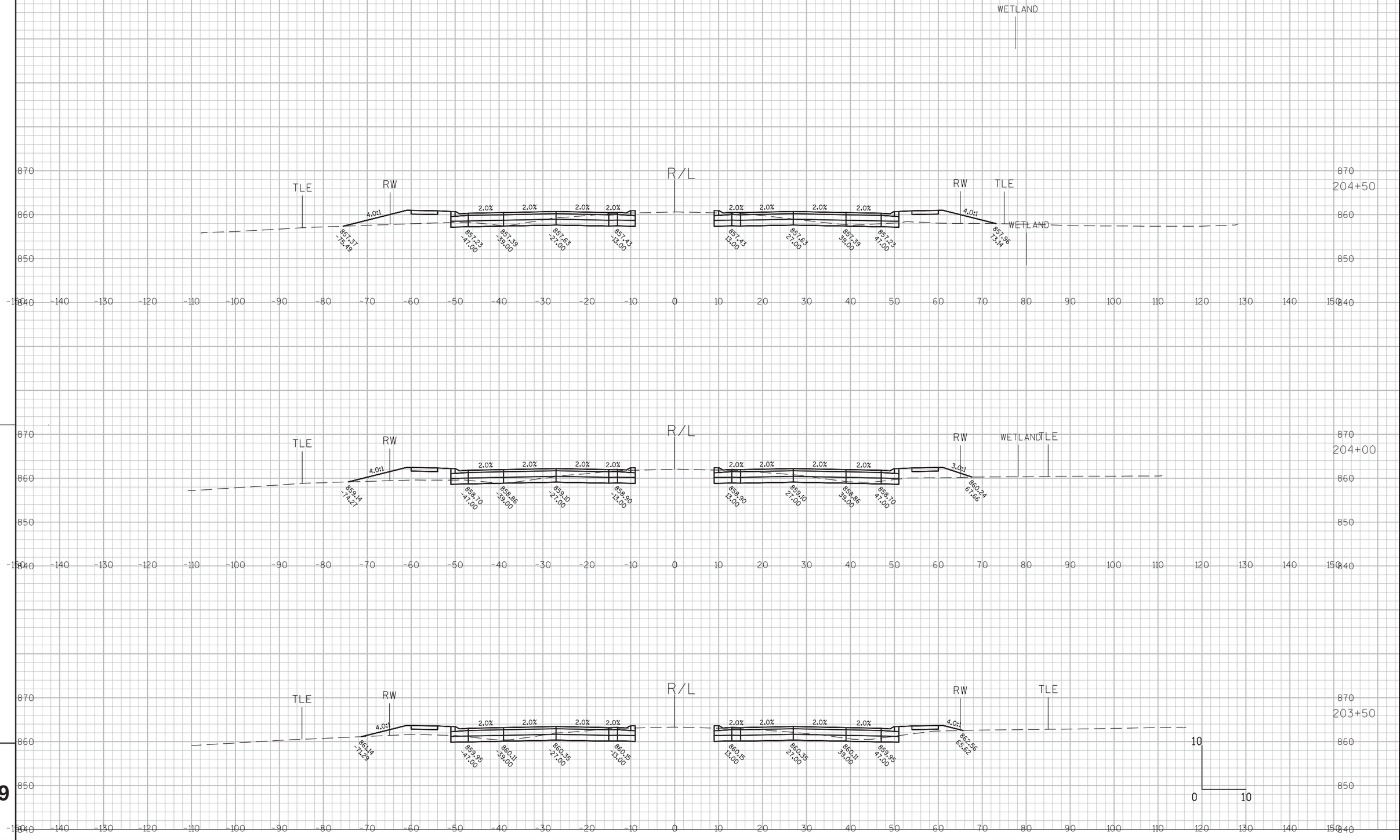

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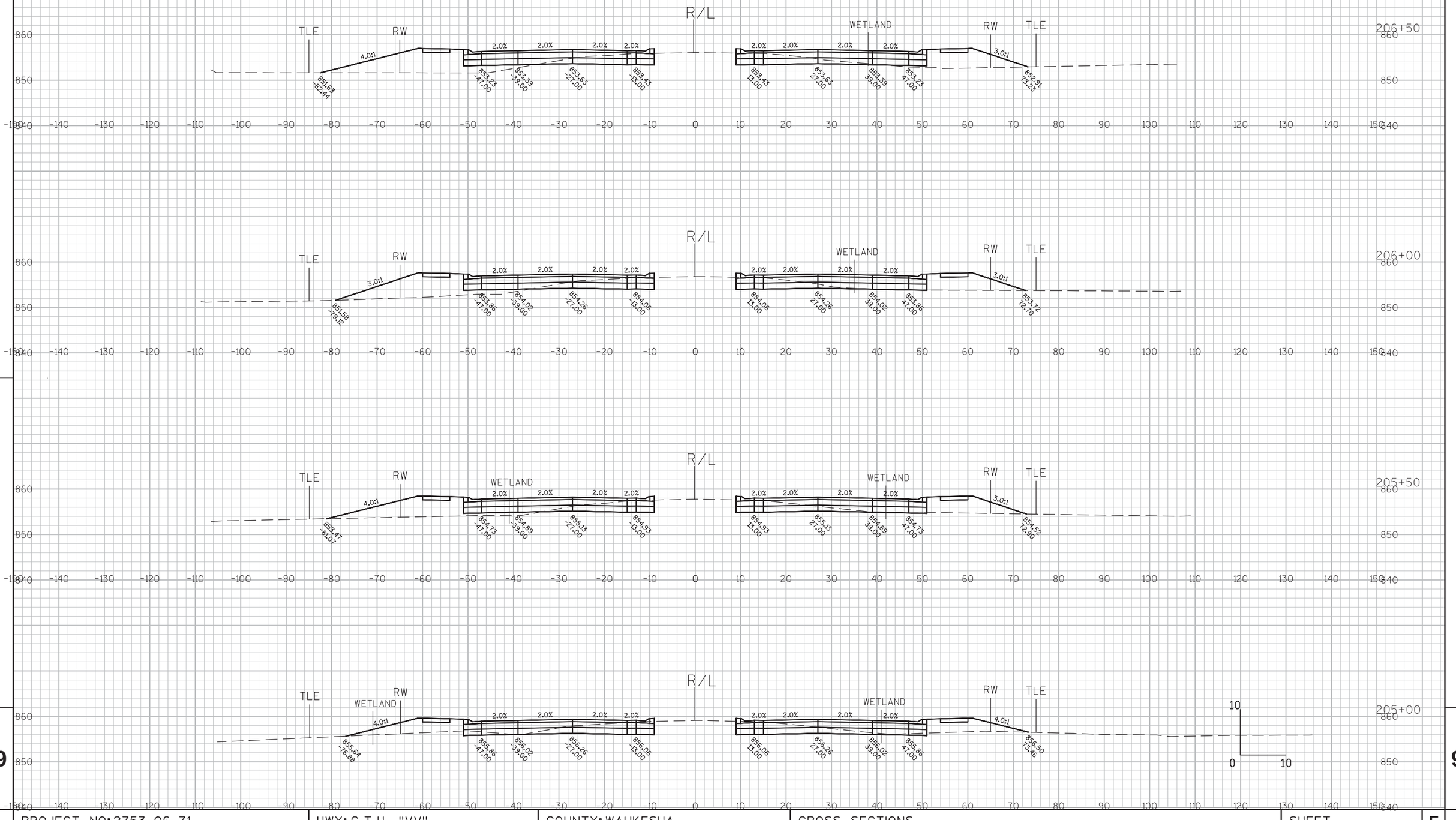
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 304	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG2.DWG PLOT DATE : PLOT BY : CDONZE PLOT NAME : ---------- PLOT SCALE : 1" = 20'_XREF

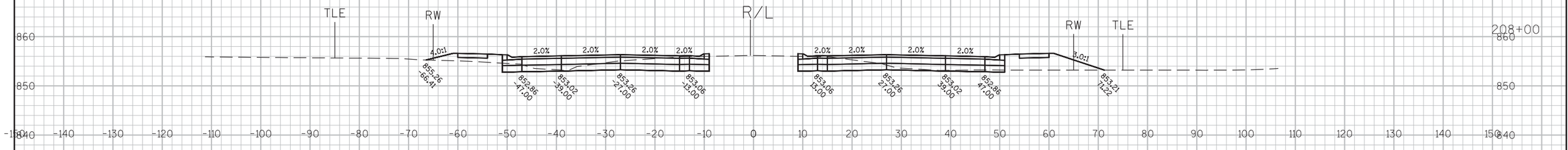
WISDOT/CADDS SHEET 49

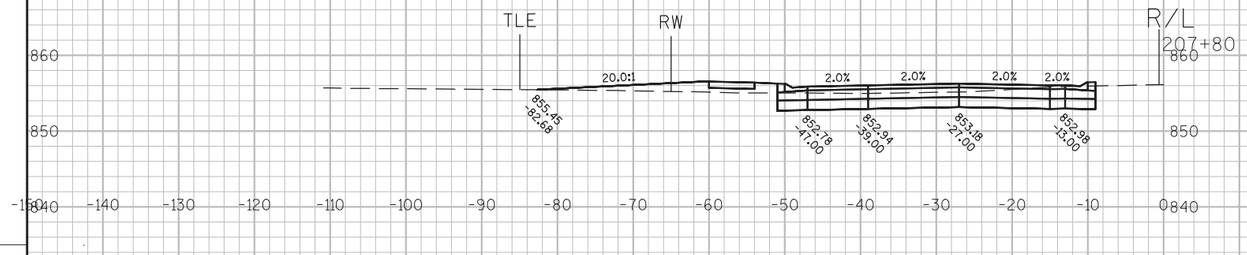


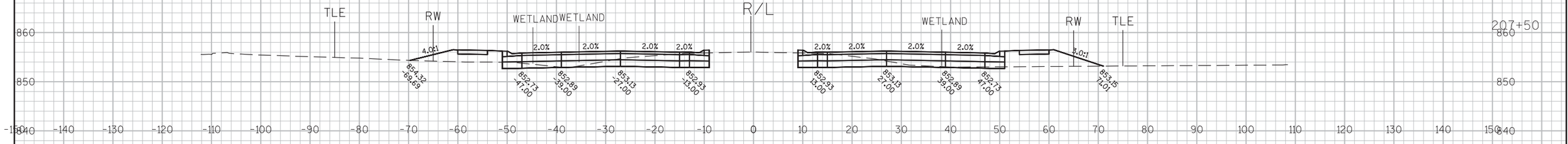
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 305	E

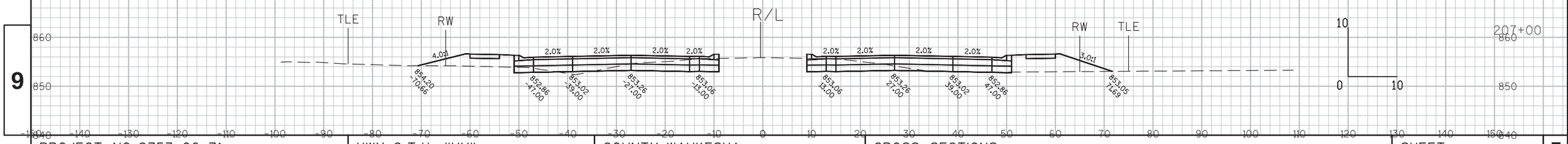
FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG2.DWG PLOT DATE : PLOT BY : CDONZE PLOT NAME : ---------- PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49









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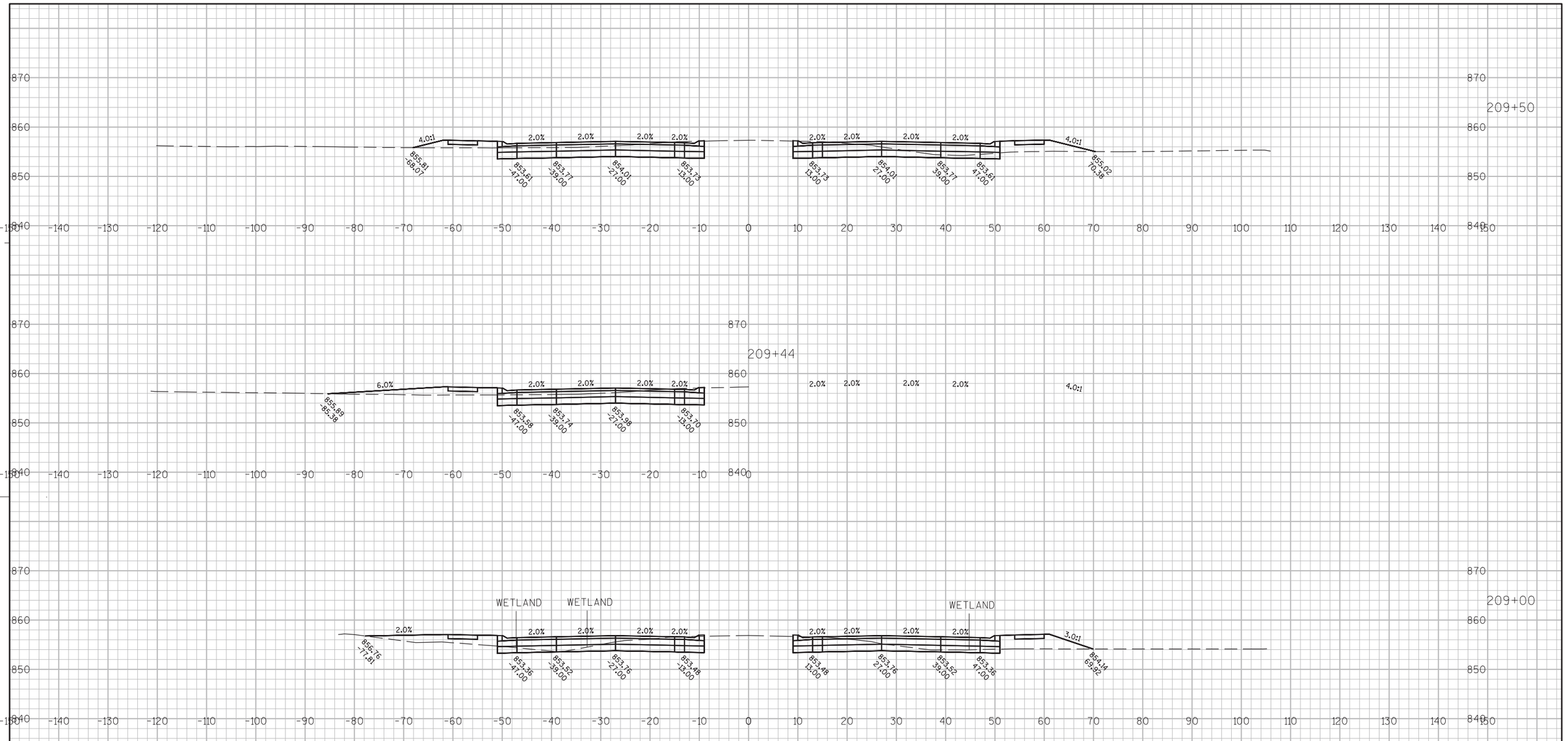
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 306	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG2.DWG PLOT DATE : PLOT BY : CDONZE PLOT NAME : ---------- PLOT SCALE : 1" = 20'_XREF



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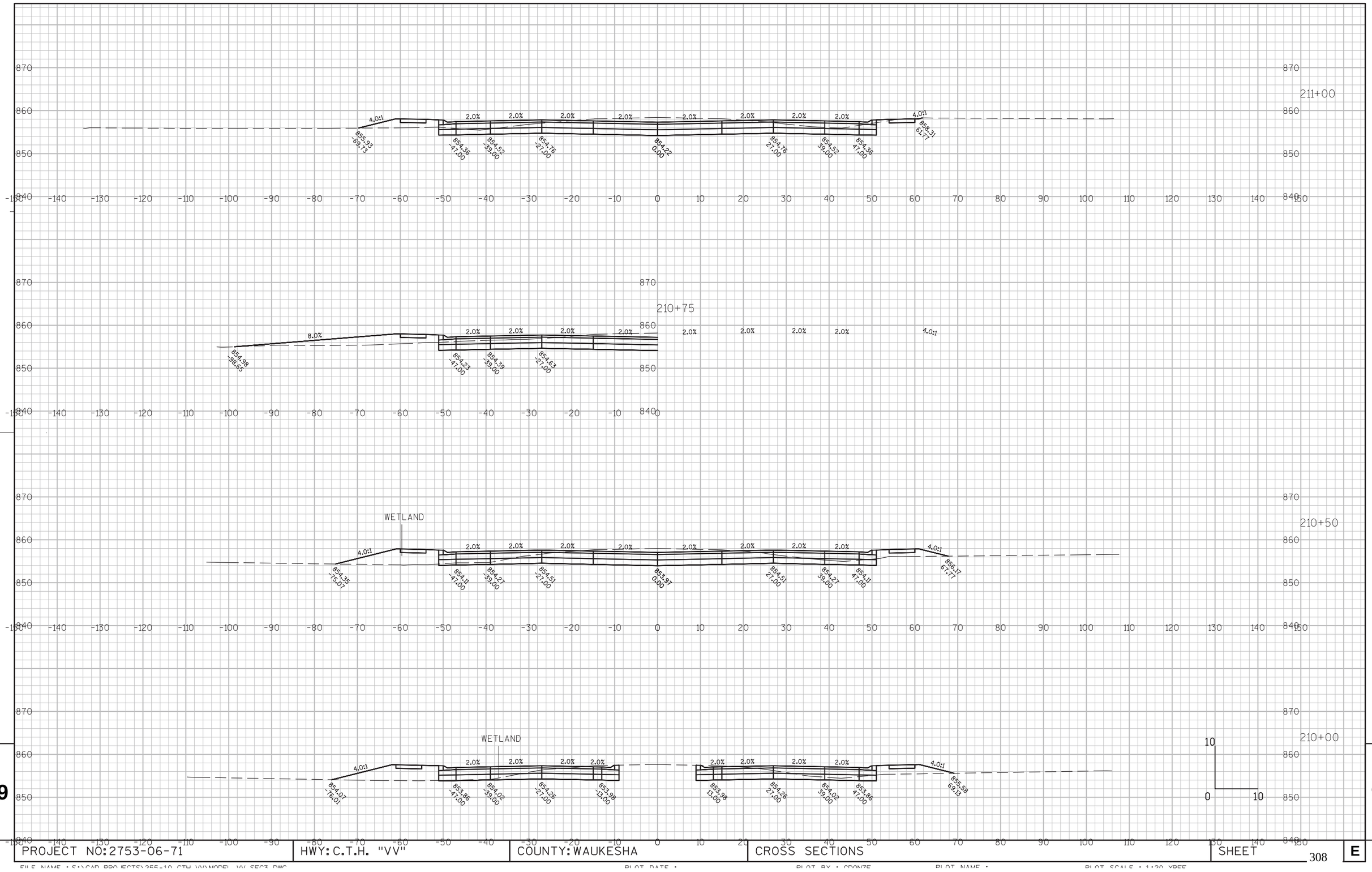
9

PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET	E

FILE NAME = S:\CAD PROJECTS\255-10 CTH VV\MODEL VV SEC3.DWG PLOT DATE = PLOT BY = CDONZE PLOT NAME = PLOT SCALE = 1:20 XREF



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PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 308 E

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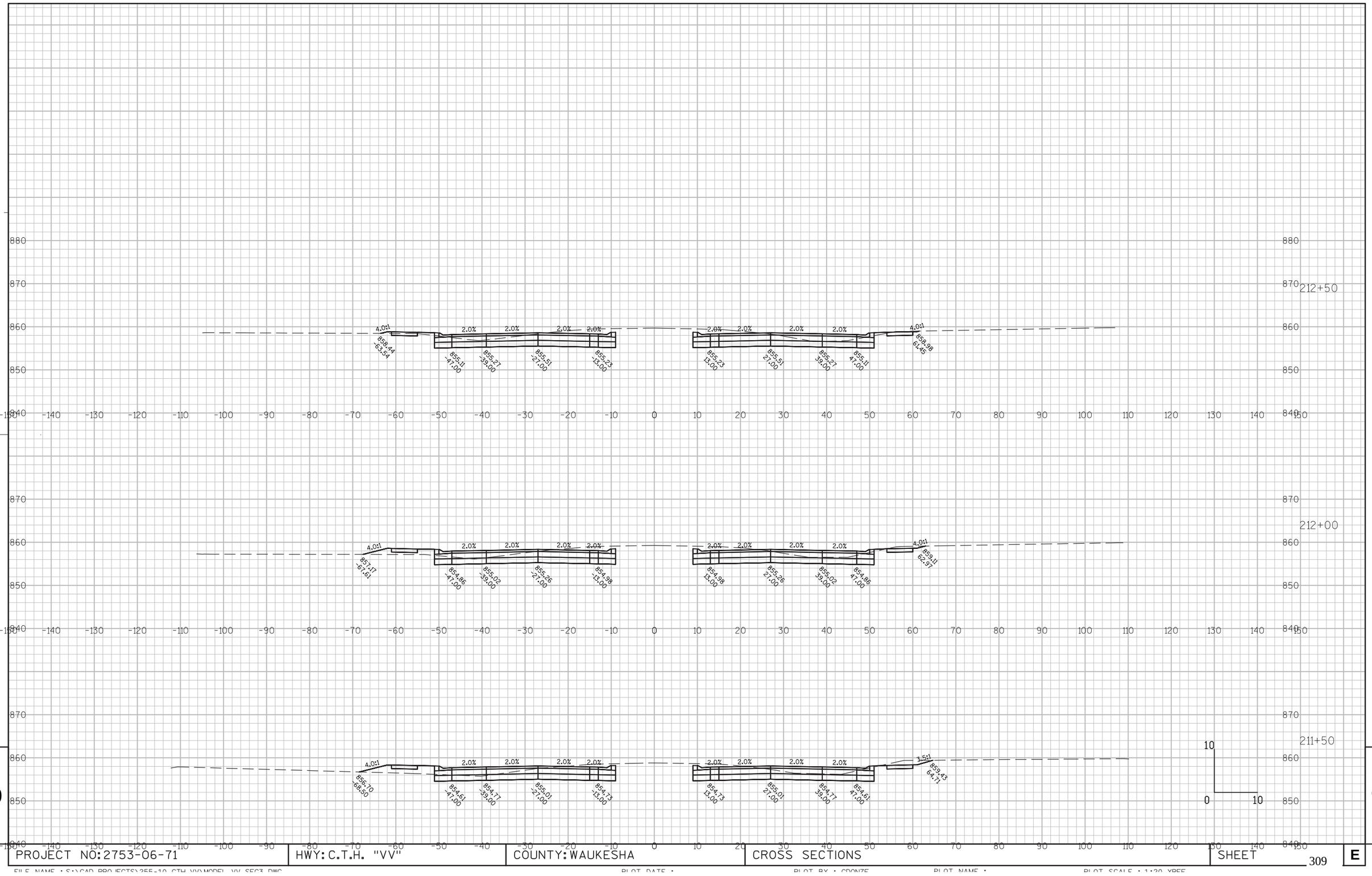

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PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 309	E

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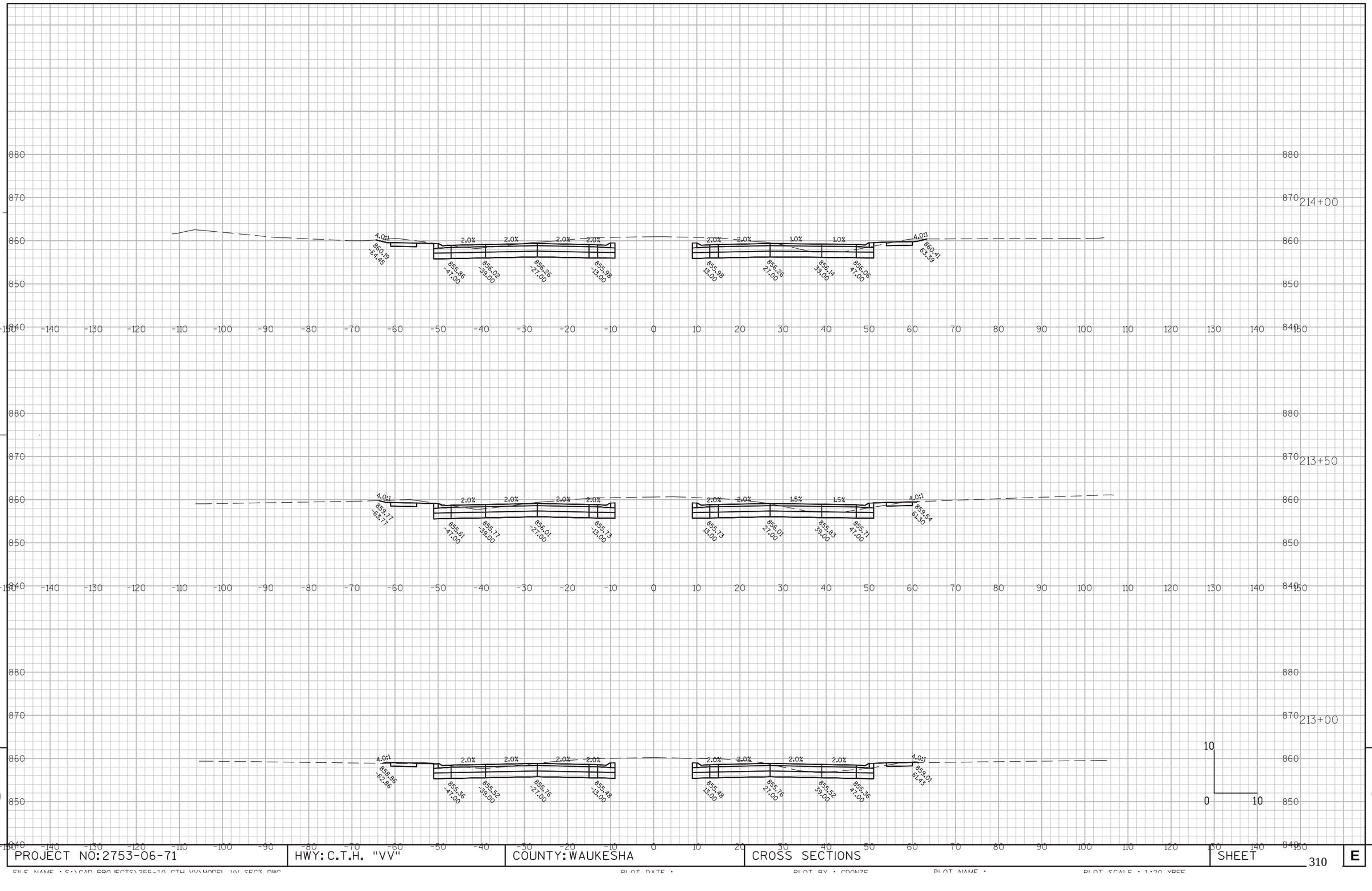

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PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 310	E

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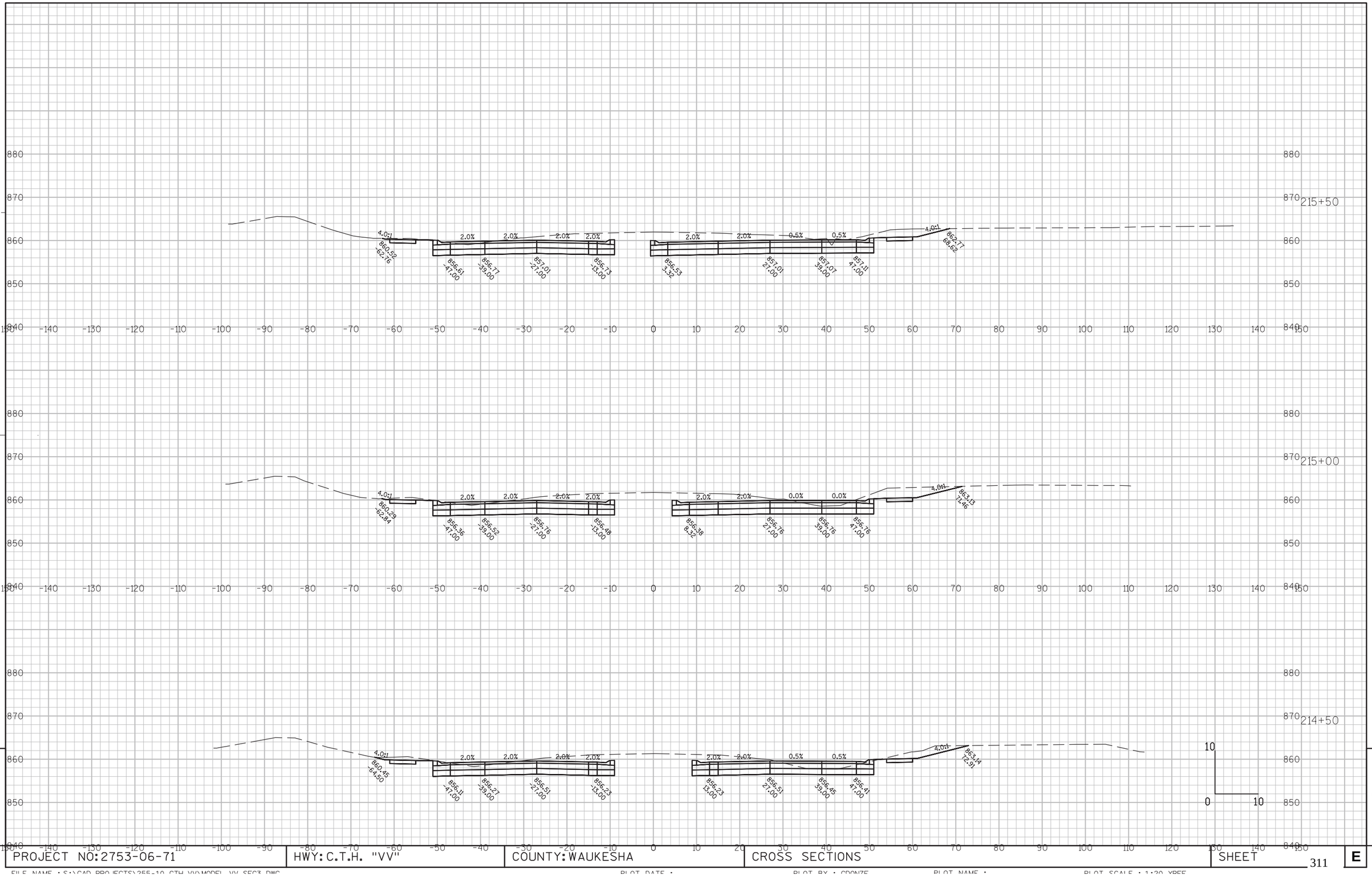

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PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 311	E

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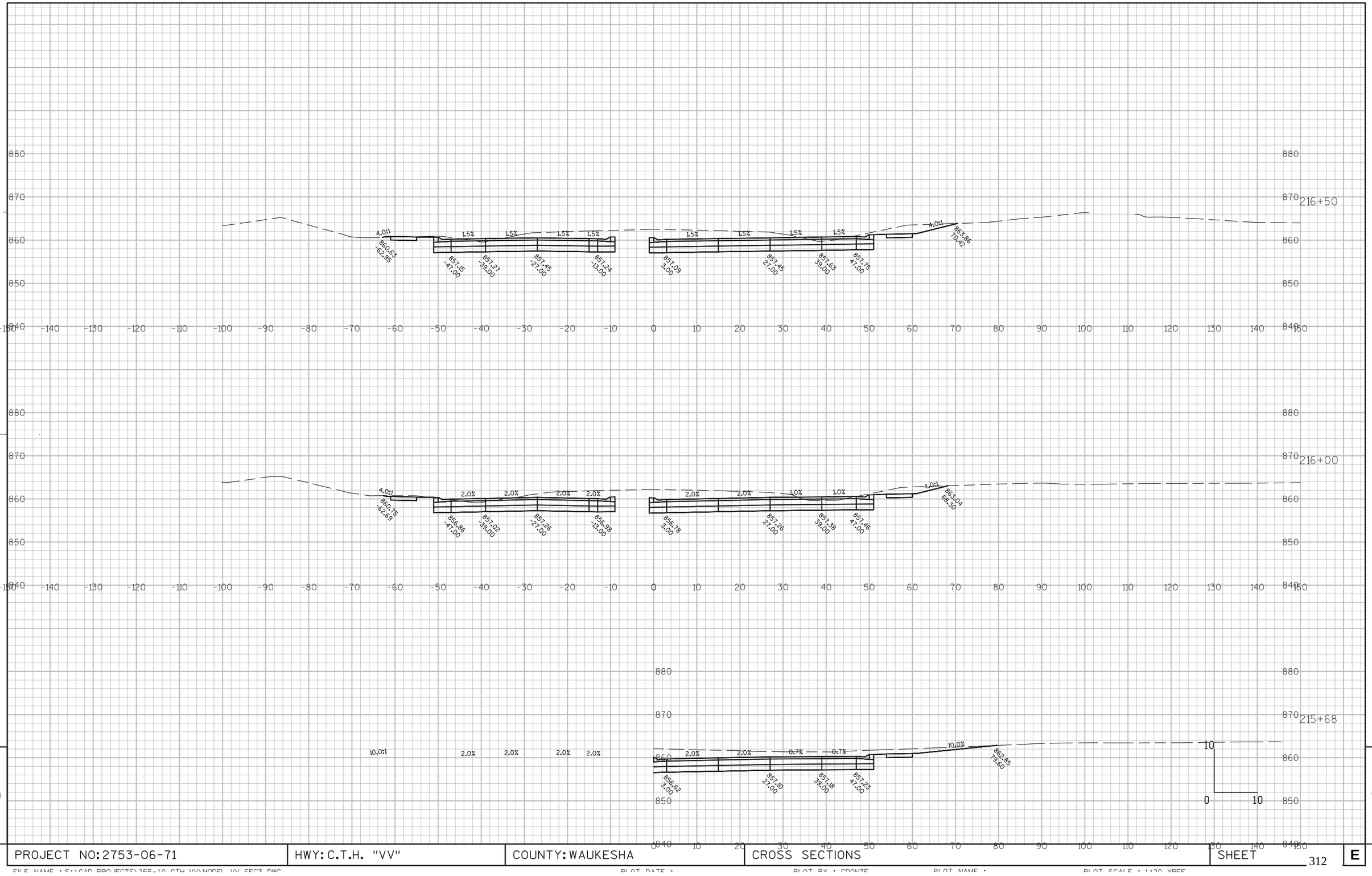

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PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 312	E

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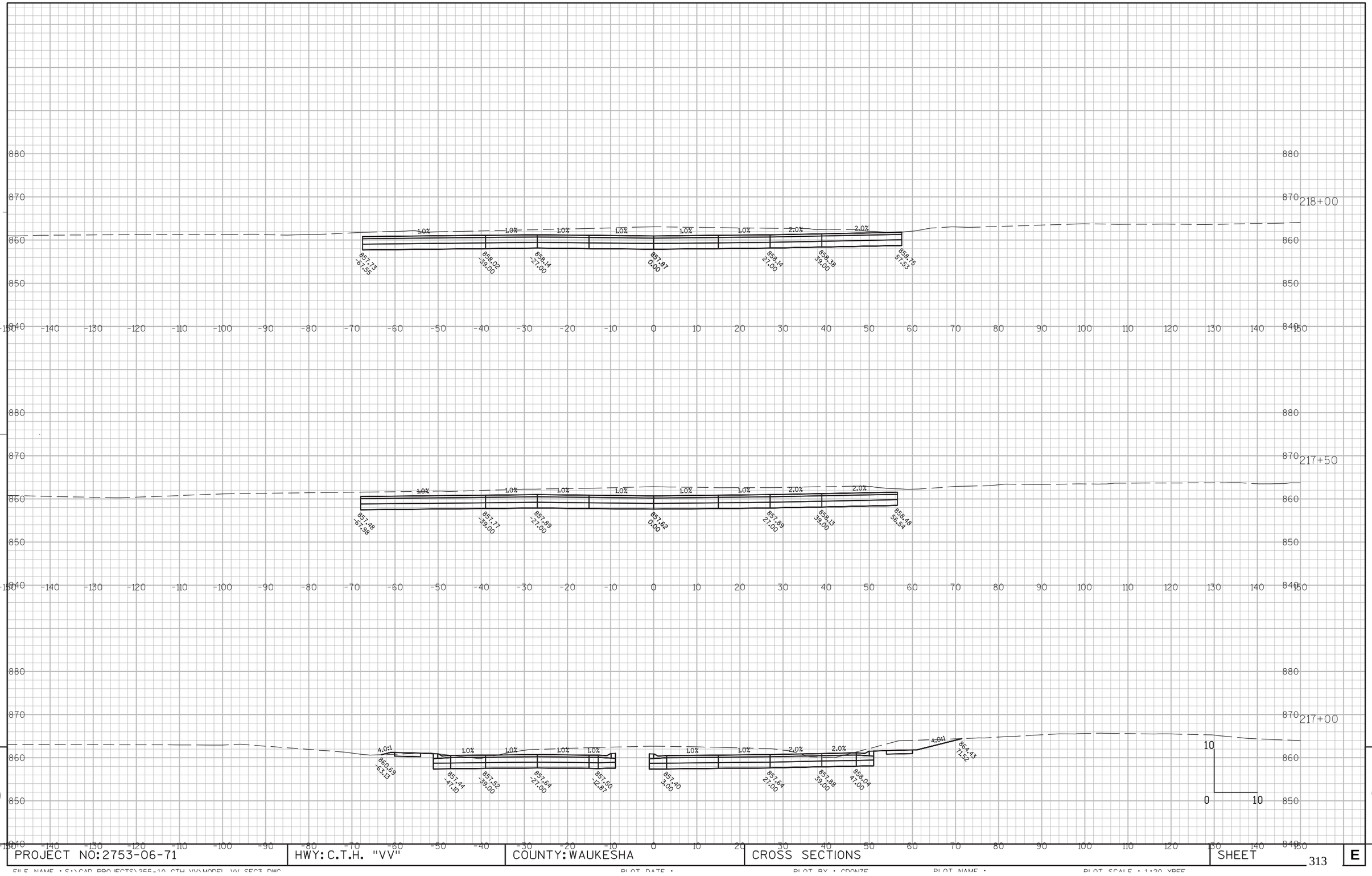

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PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 313	E

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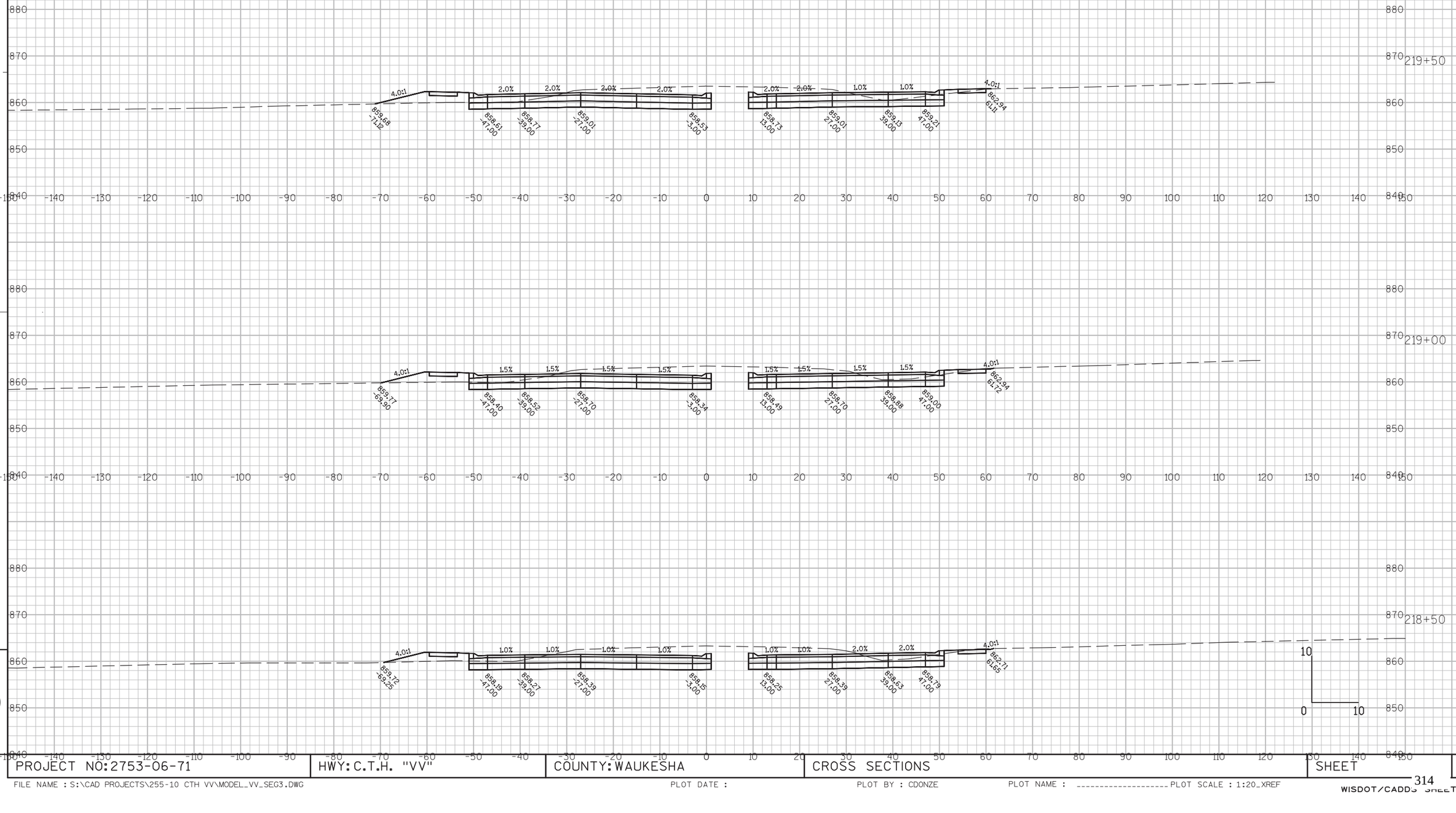

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PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET	E

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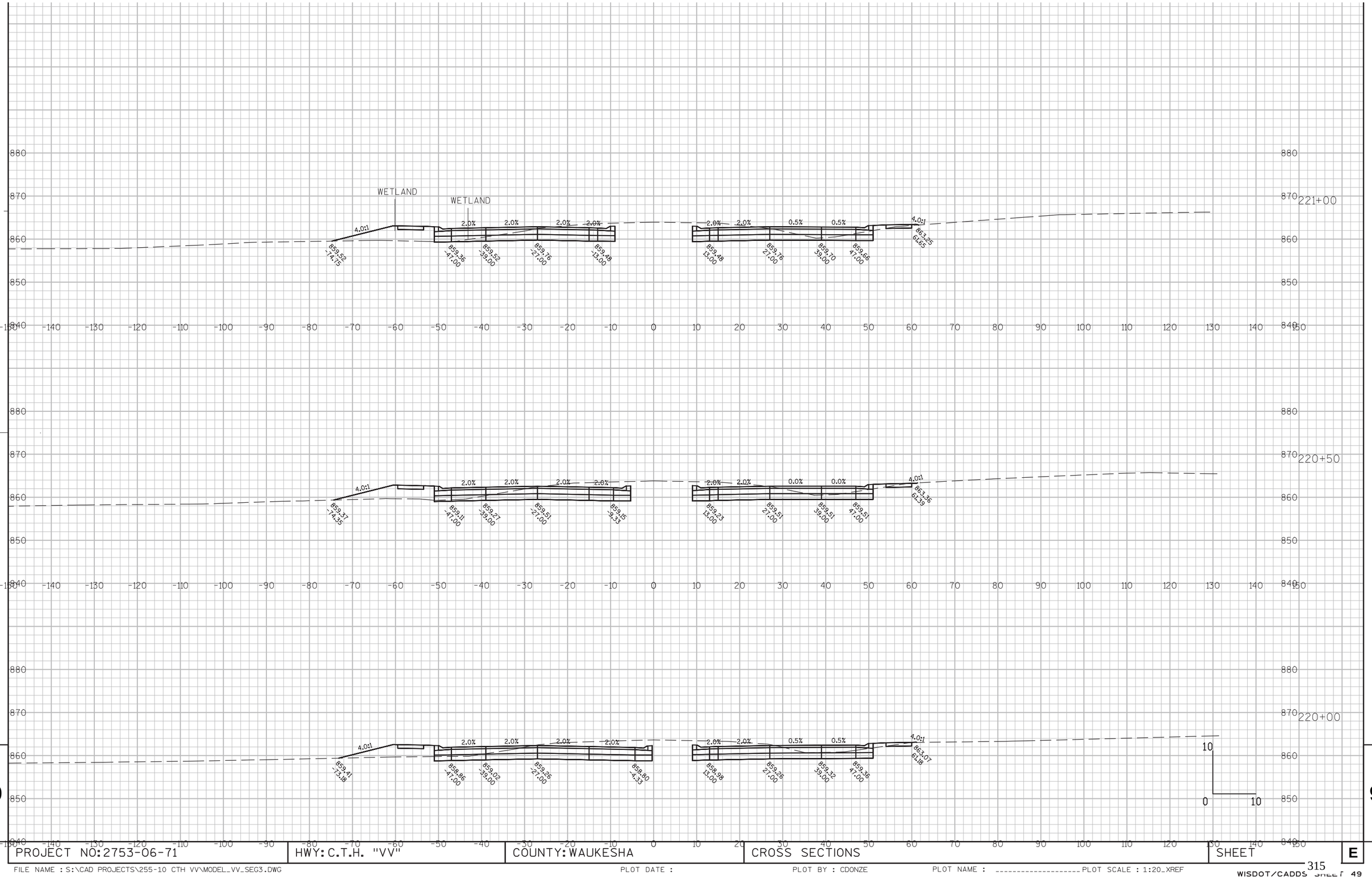
WISDOT/CADDS SHEET 49



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PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET	E

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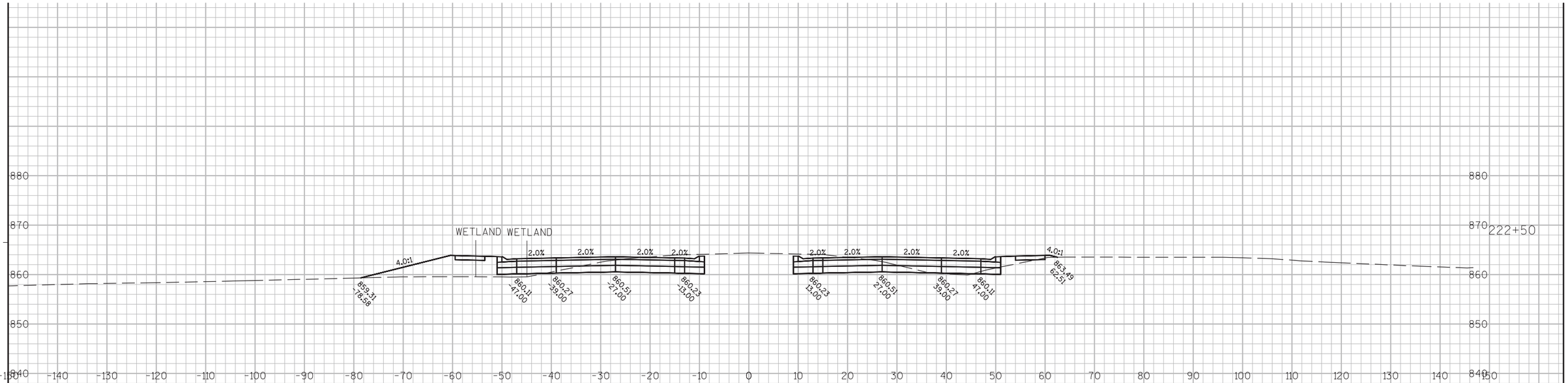
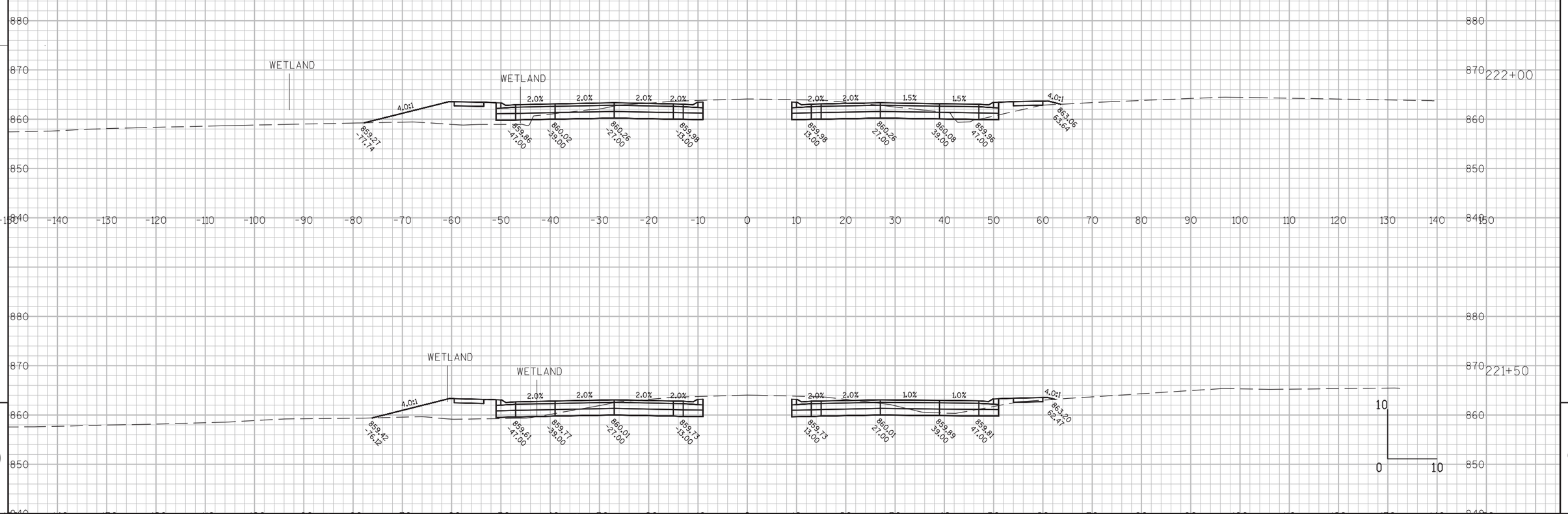
WISDOT/CADDS SHEET 49





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PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET	E

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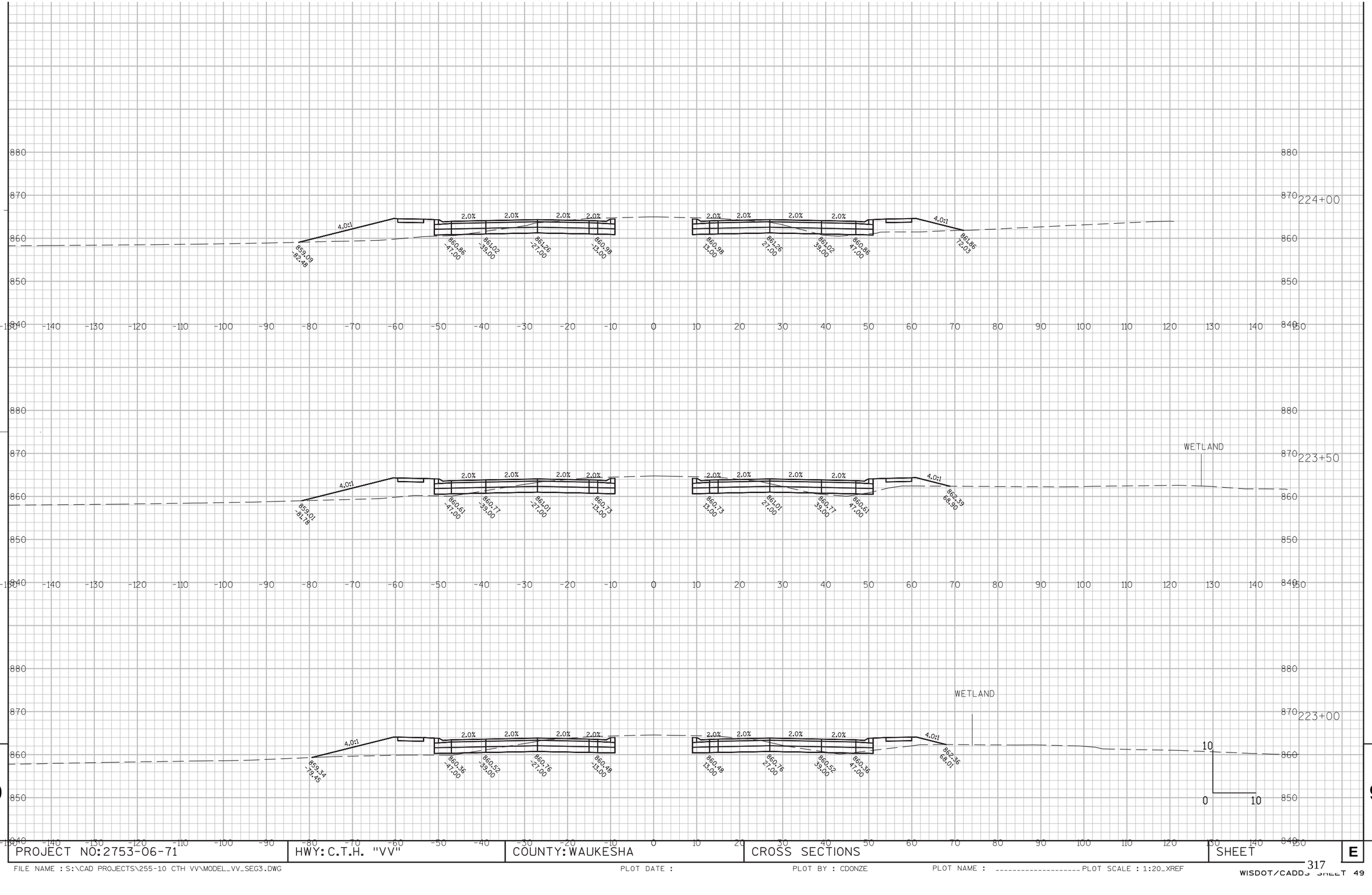
WISDOT/CADDS SHEET 49



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PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET	E

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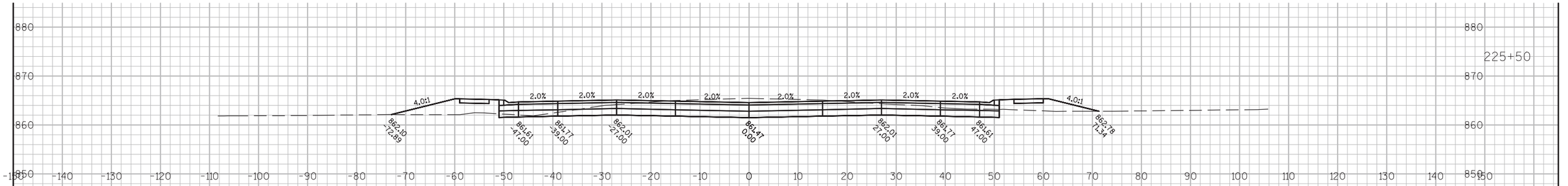

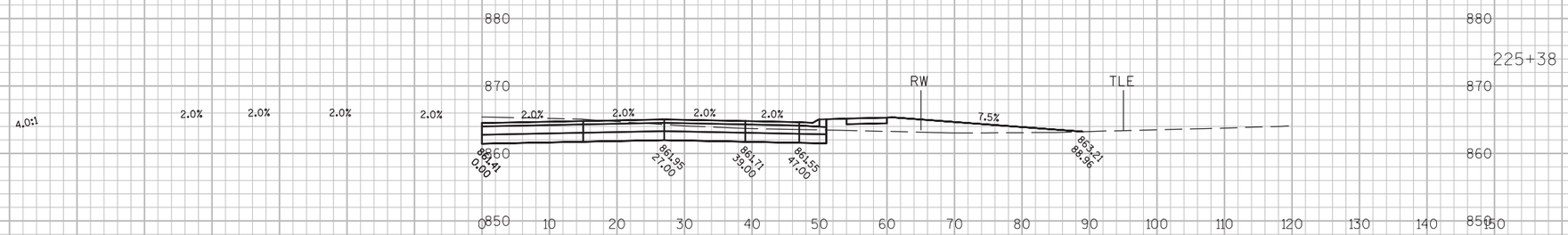

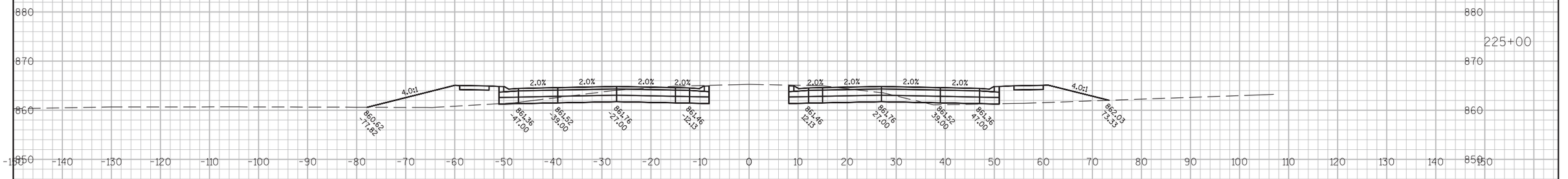

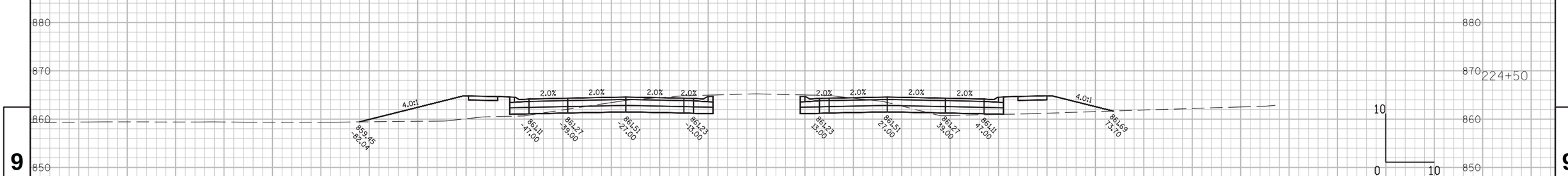

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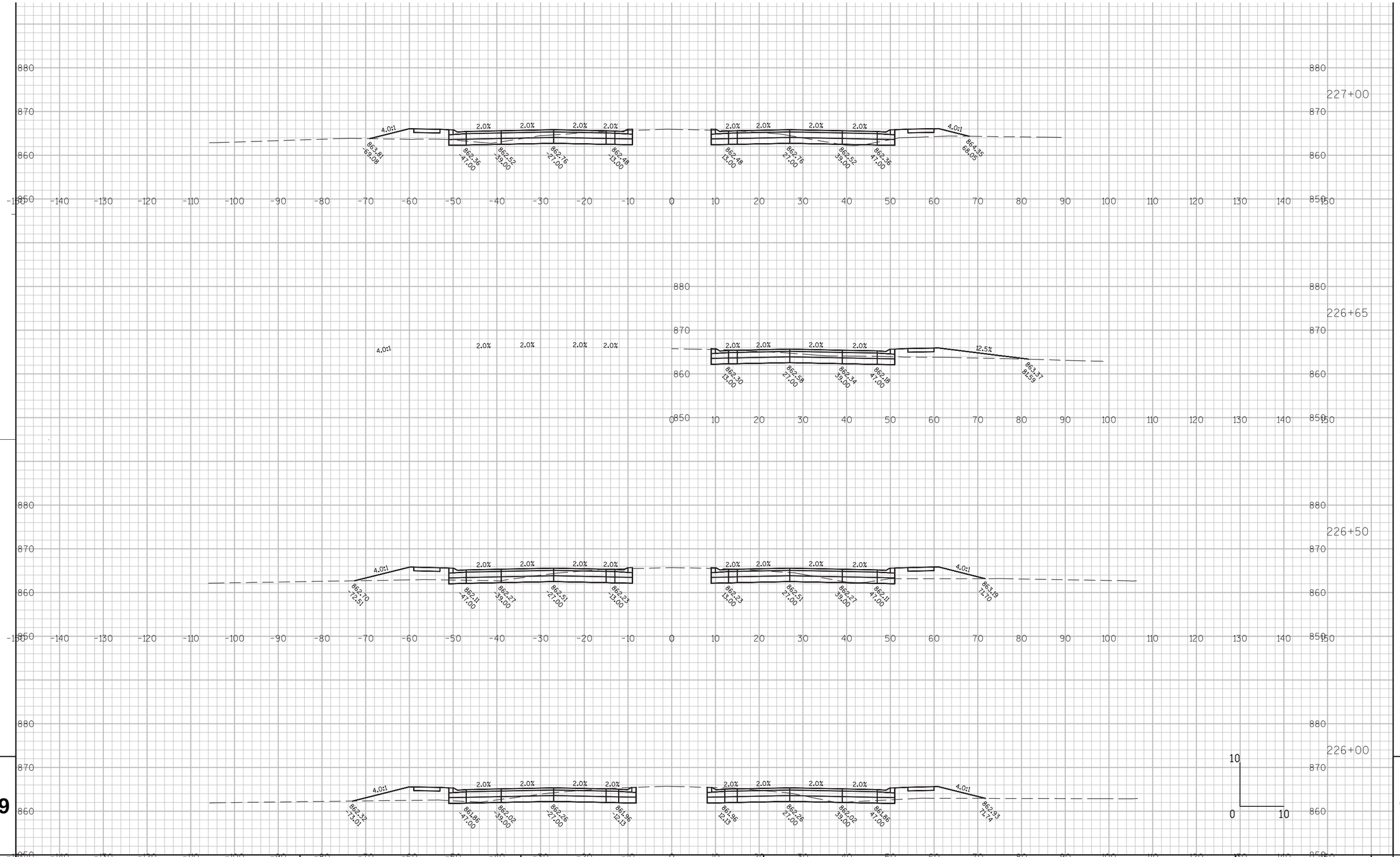
PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_VV_SEG3.DWG PLOT DATE : PLOT BY : CDONZE PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET	E

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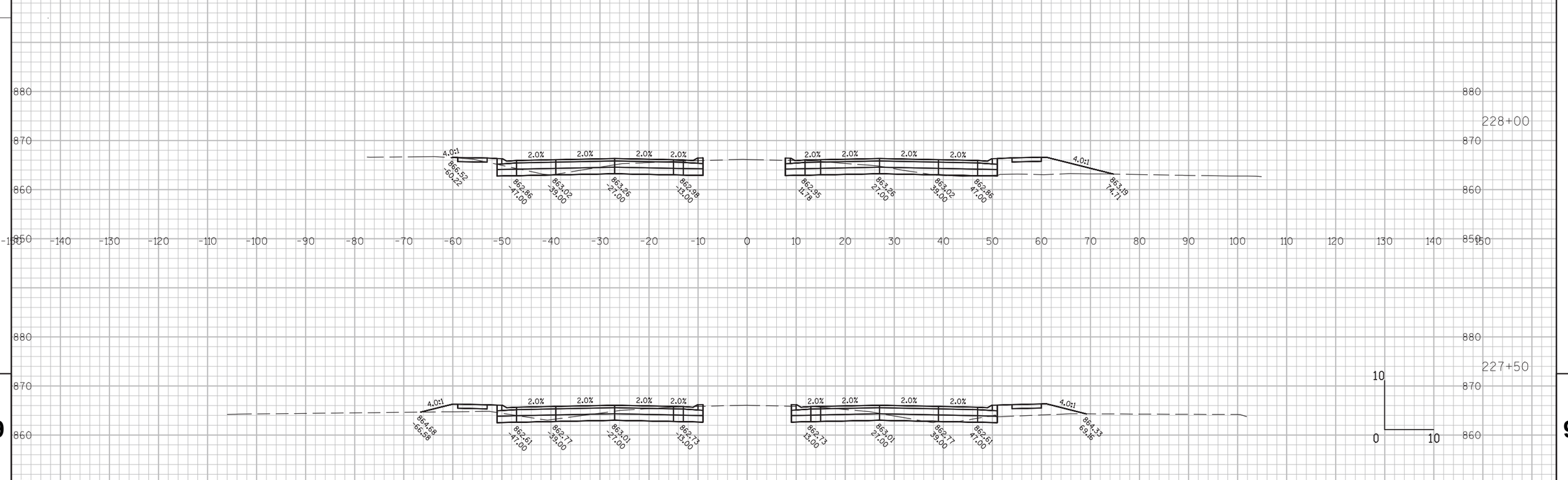
WISDOT/CADDS SHEET 49



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PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET	E

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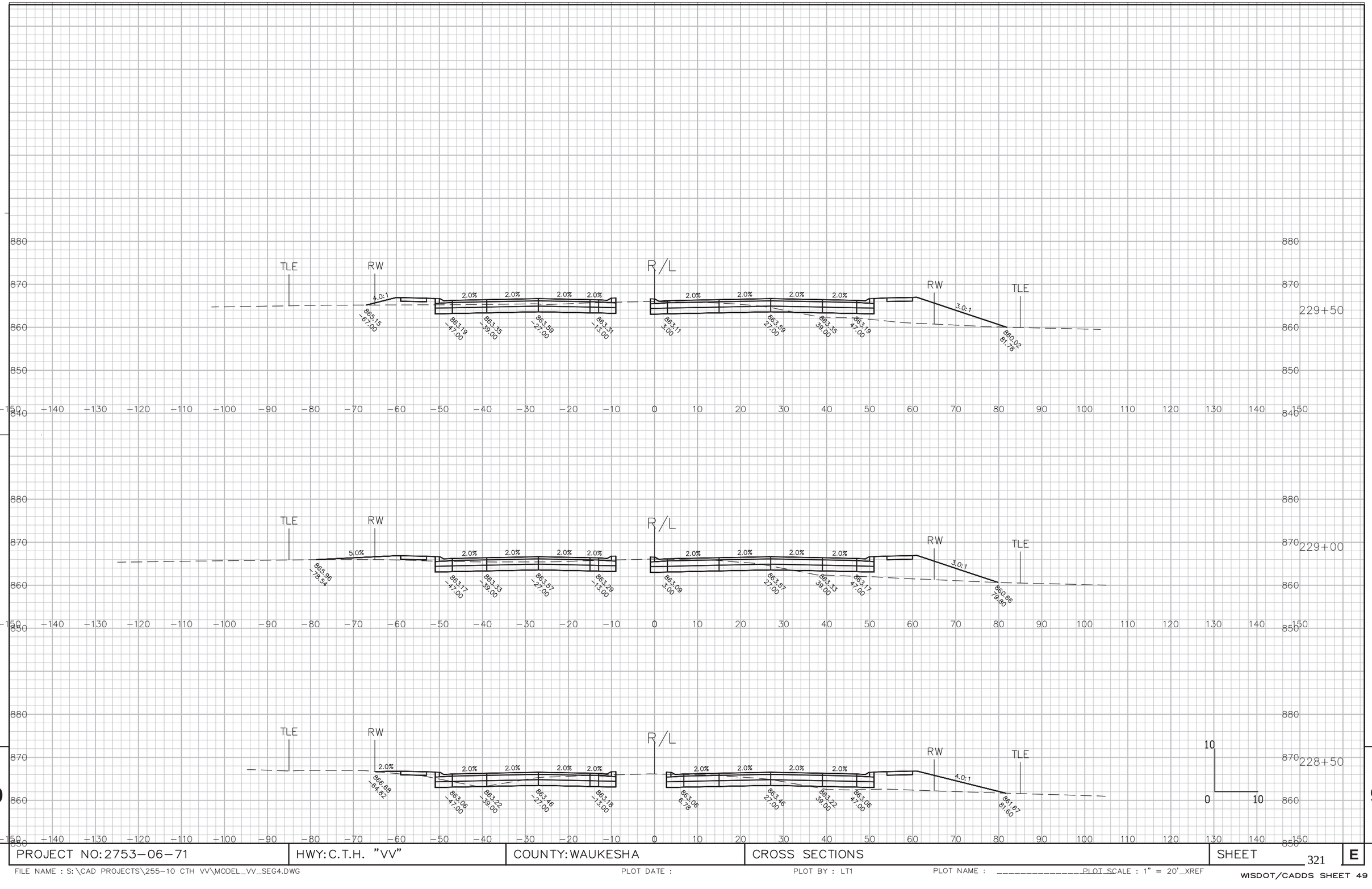

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PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 321	E

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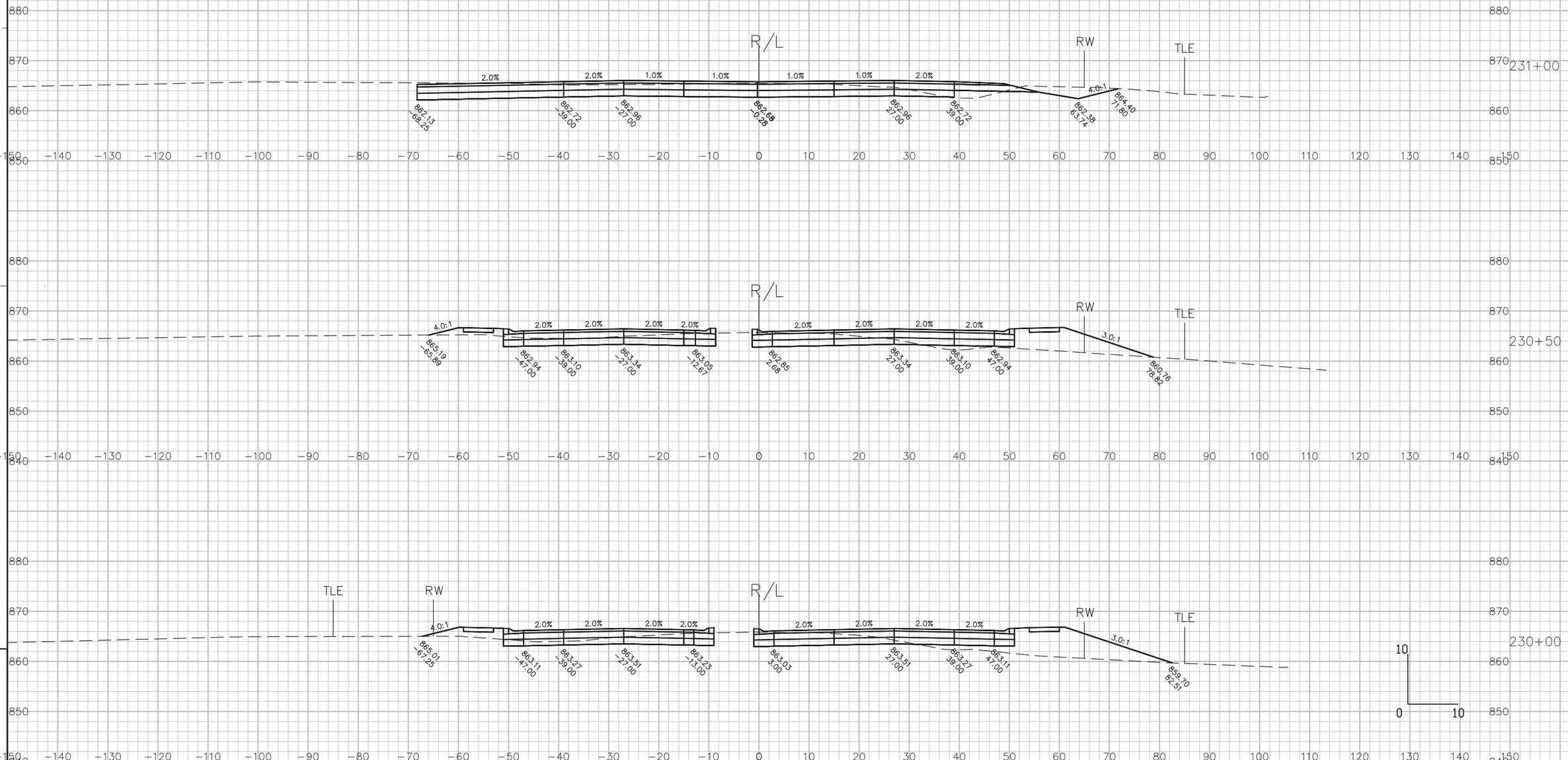

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PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 322	E

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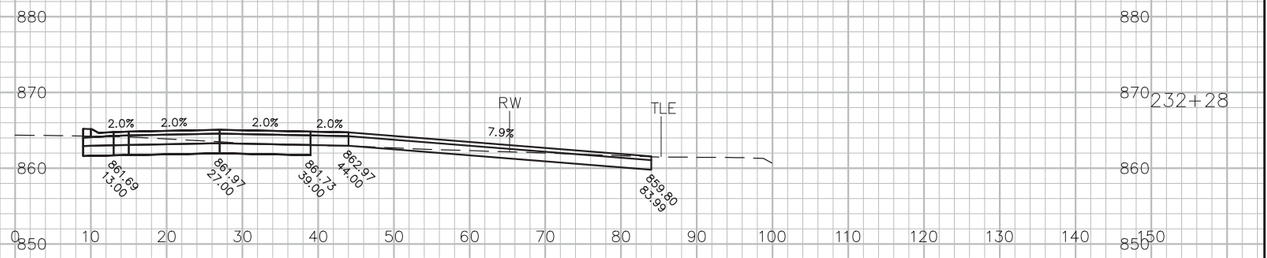

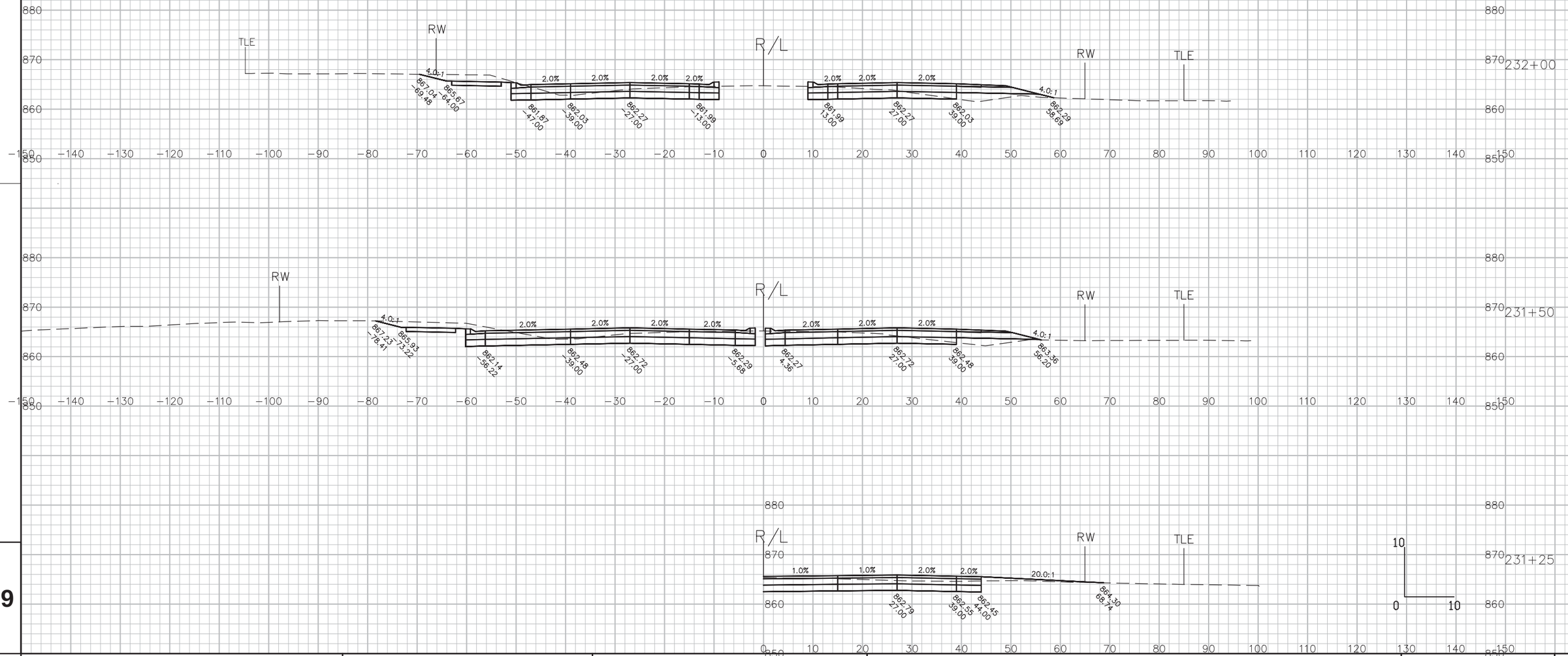

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PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 323	E

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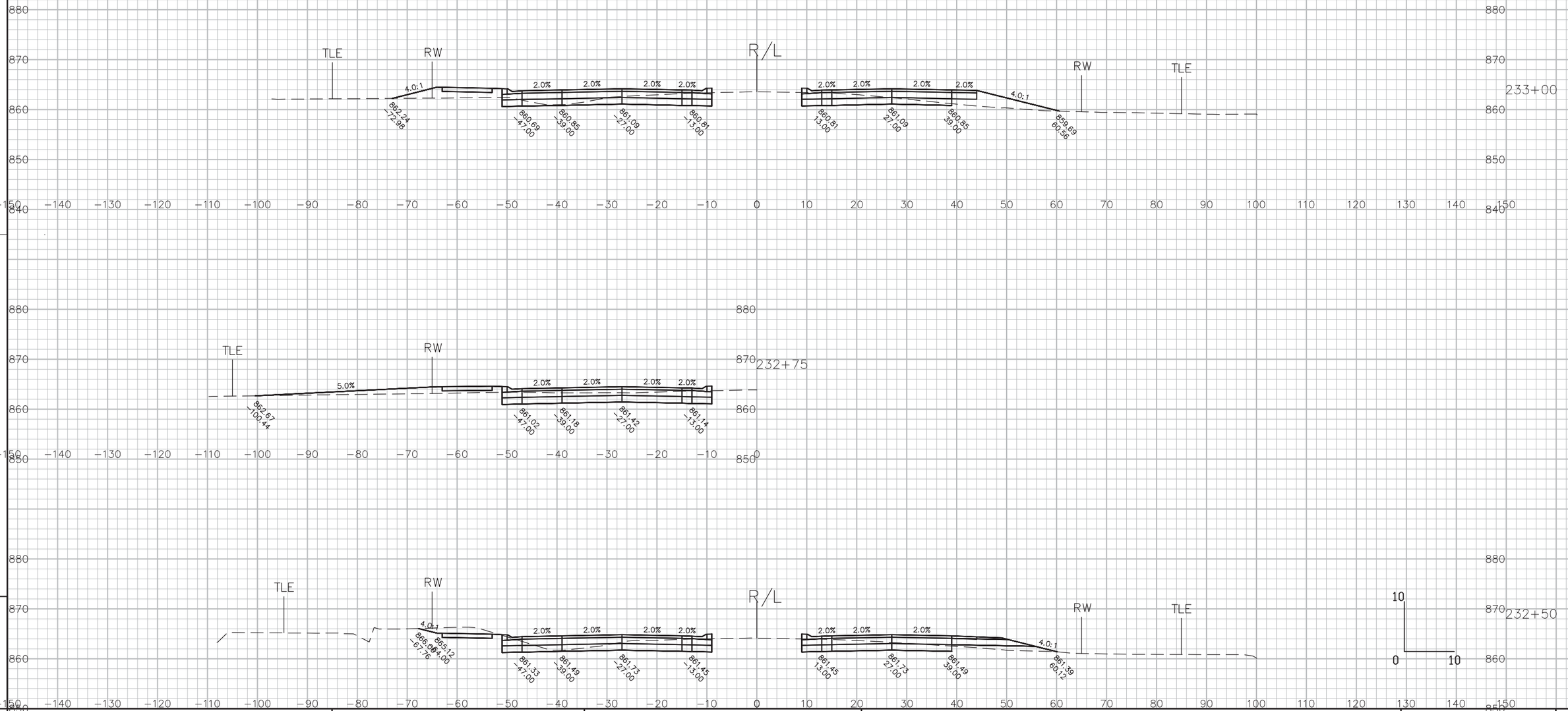

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PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 324	E

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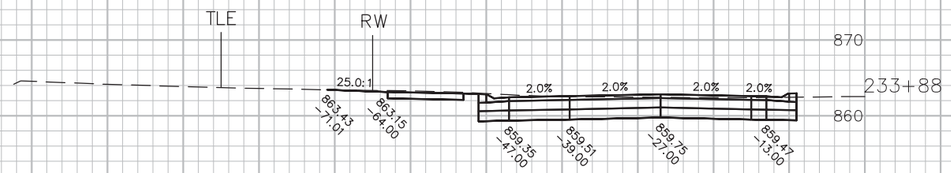

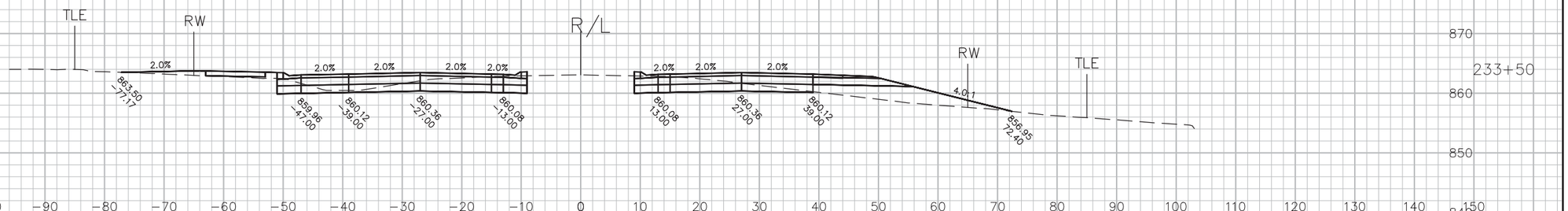

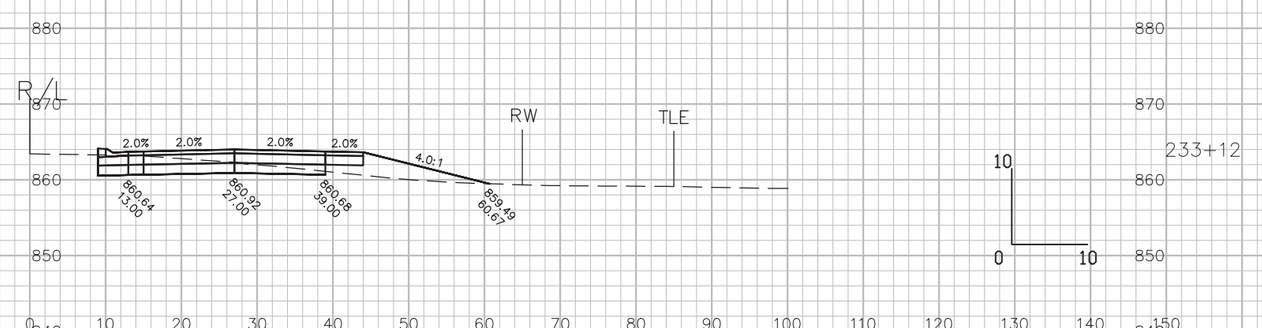

PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 325	E

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WISDOT/CADDS SHEET 49

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PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 326	E

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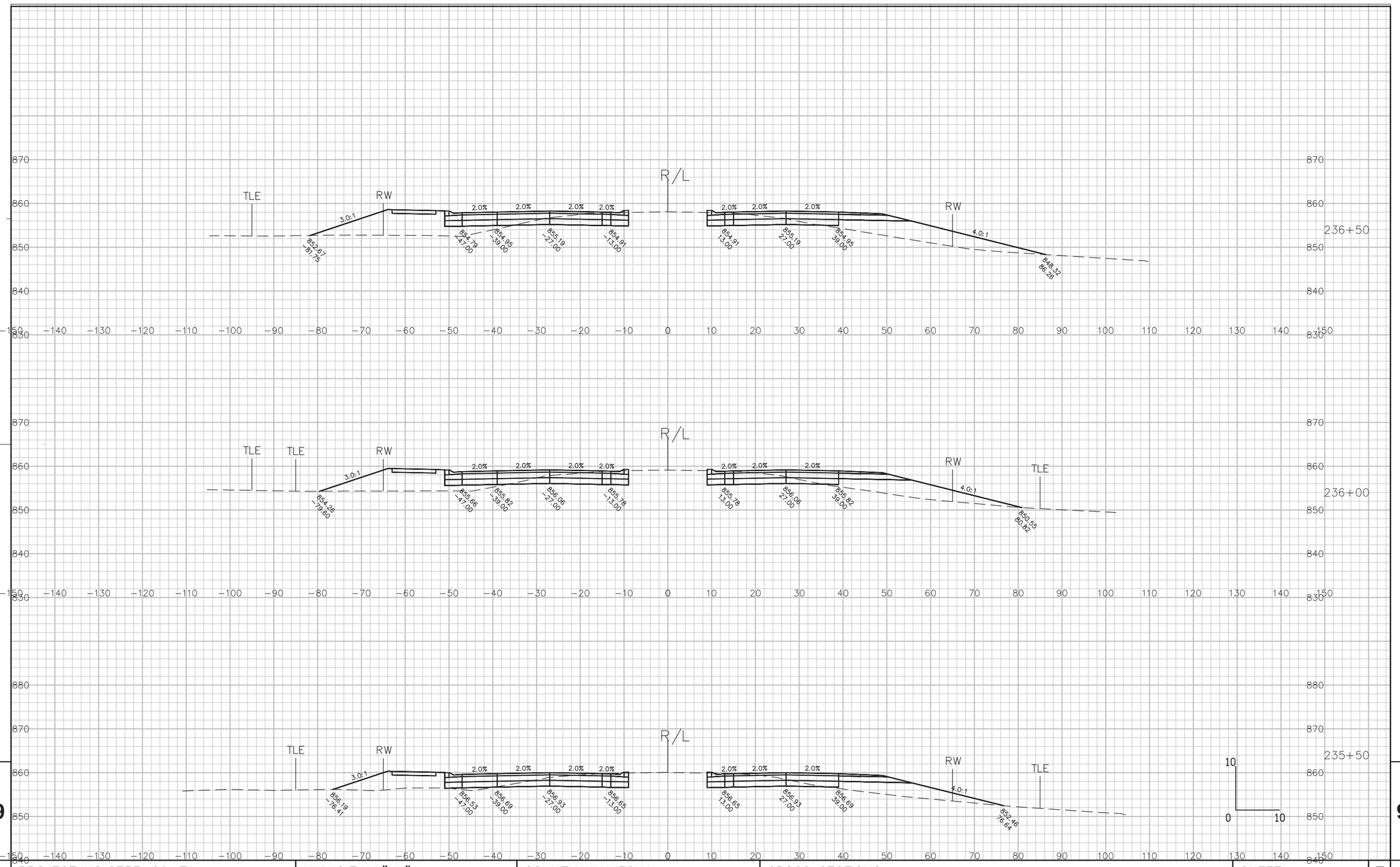

PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 327	E

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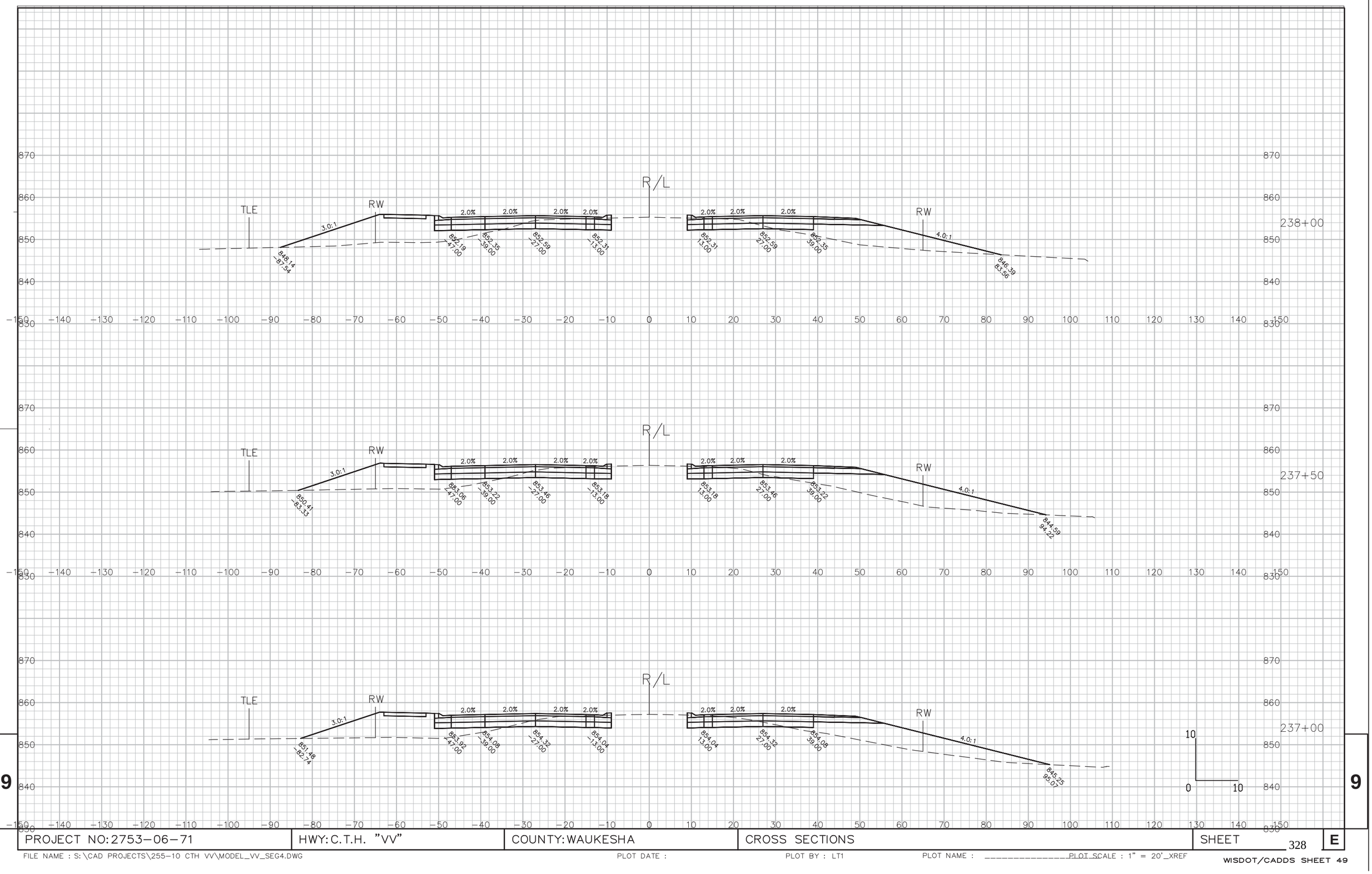

PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 328	E

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PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 329	E

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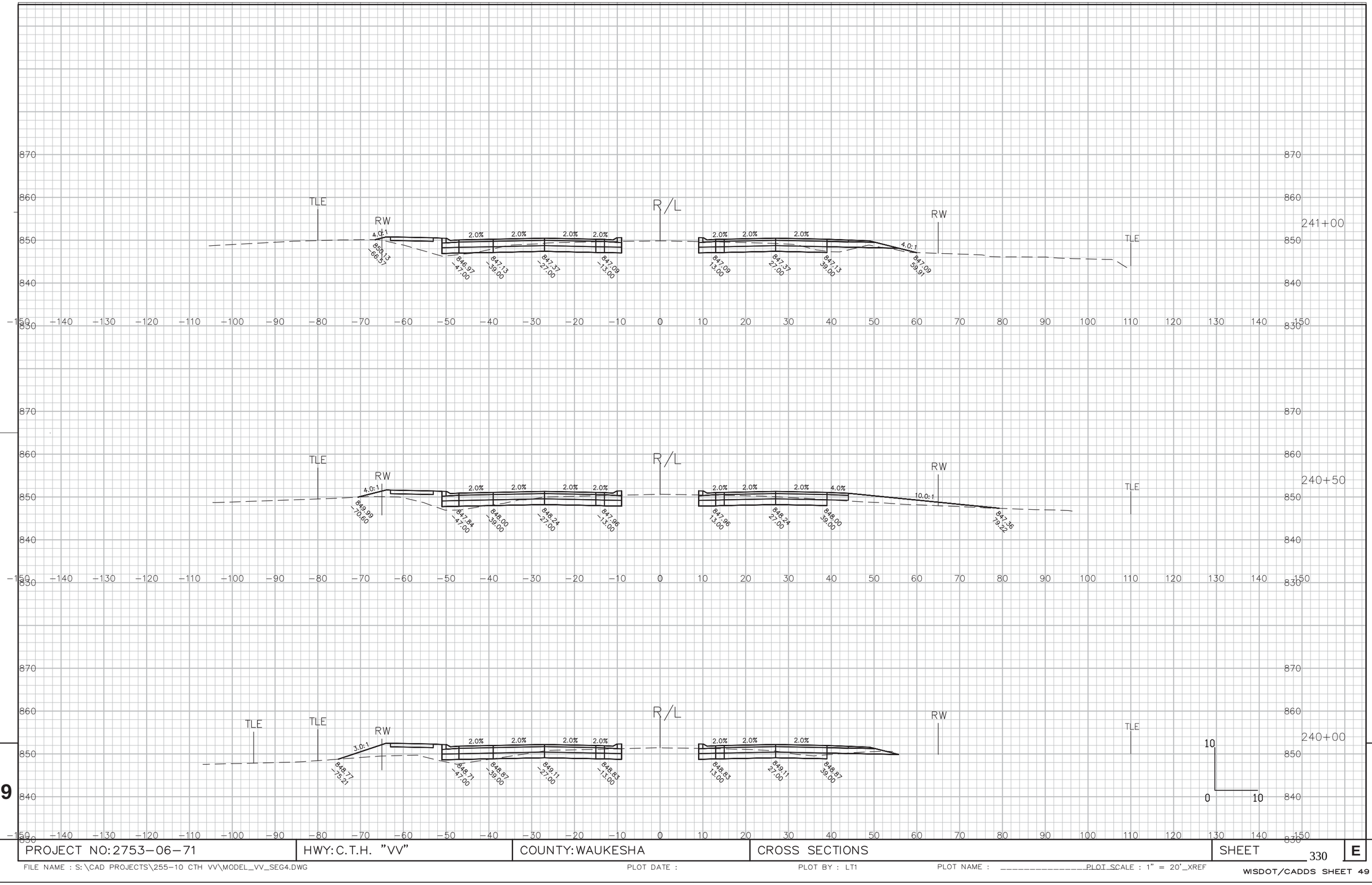

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PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 330	E

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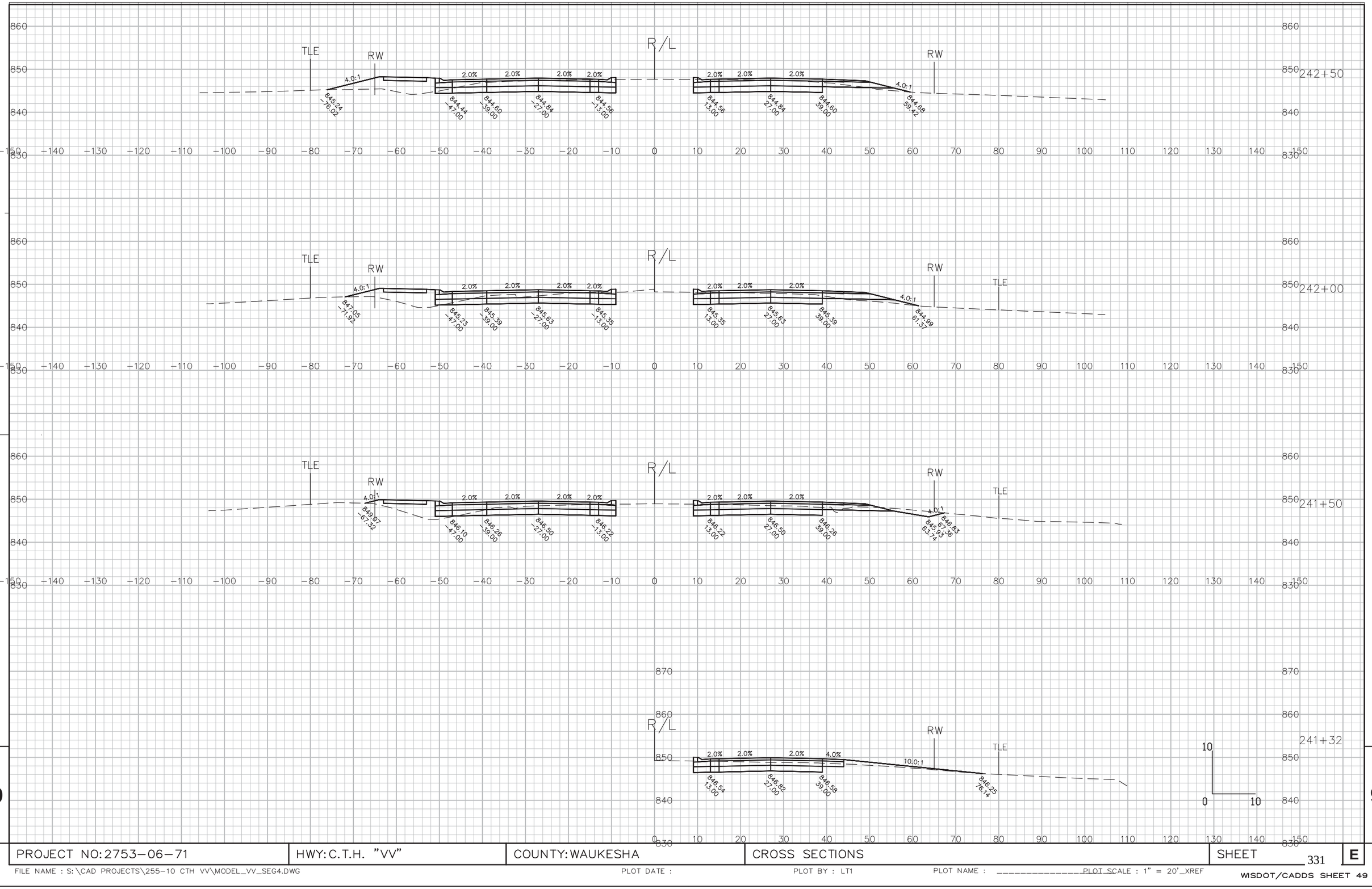

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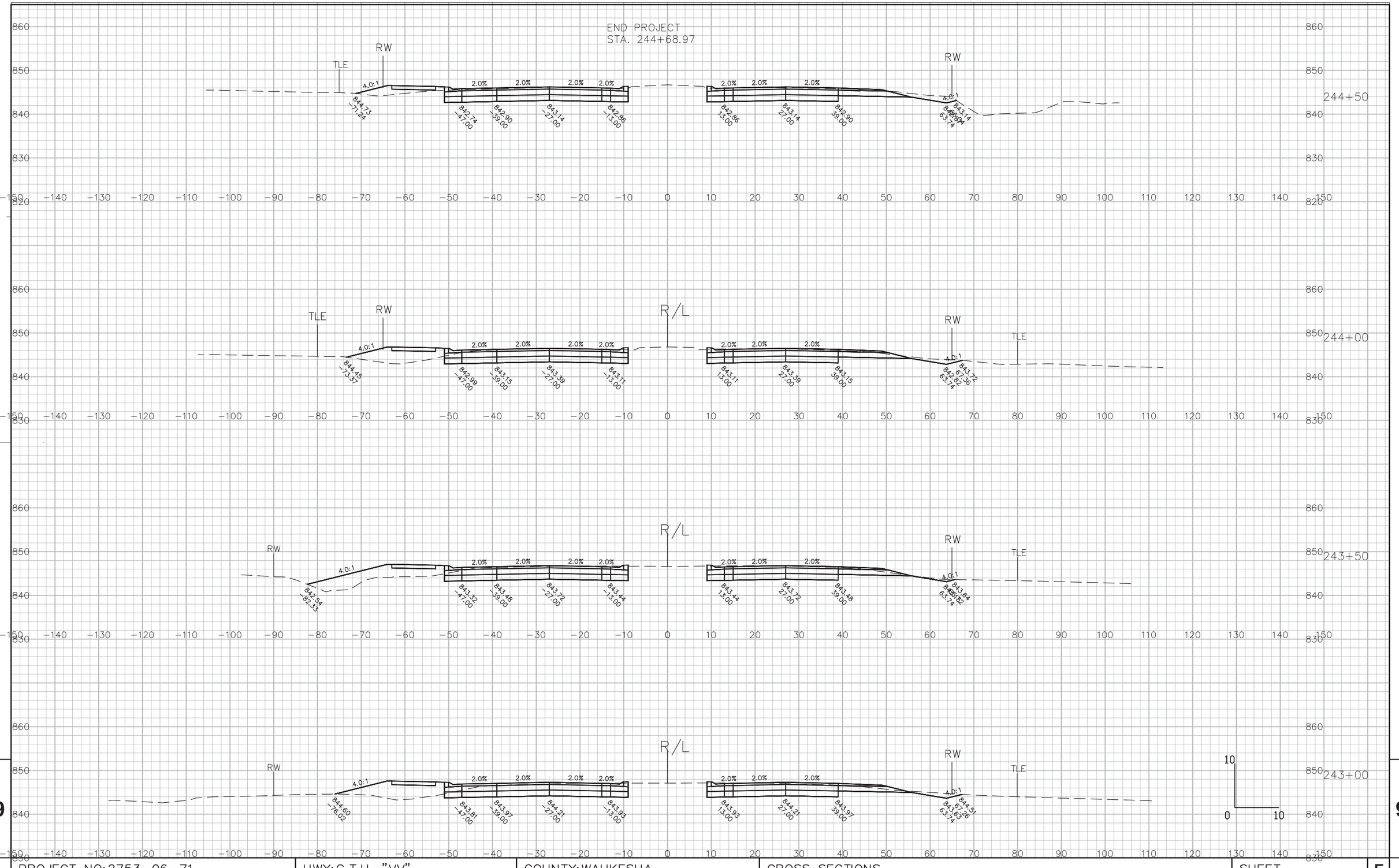
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 331	E



PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS	SHEET 332	E

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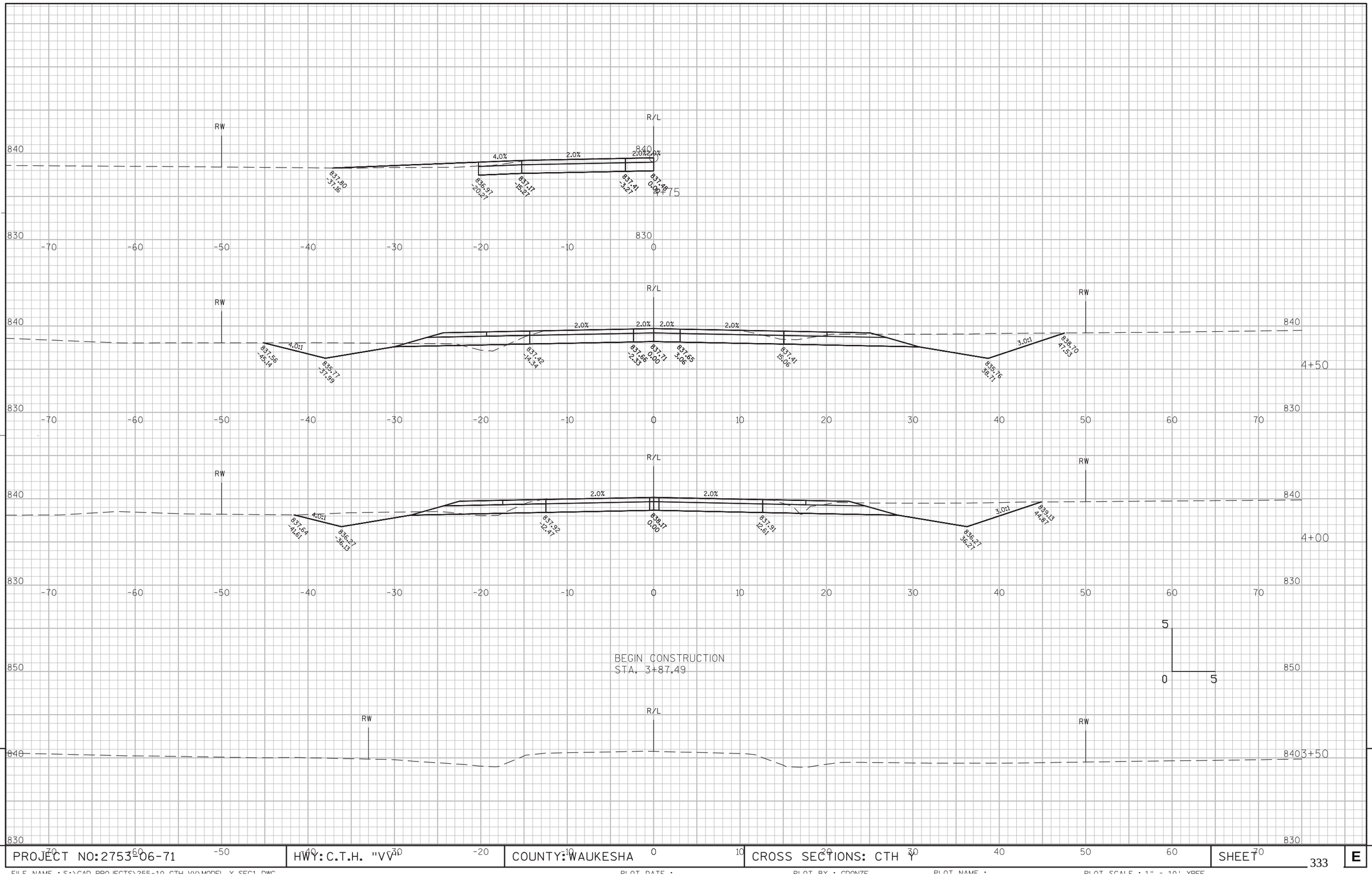

PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS: CTH Y	SHEET 333 E

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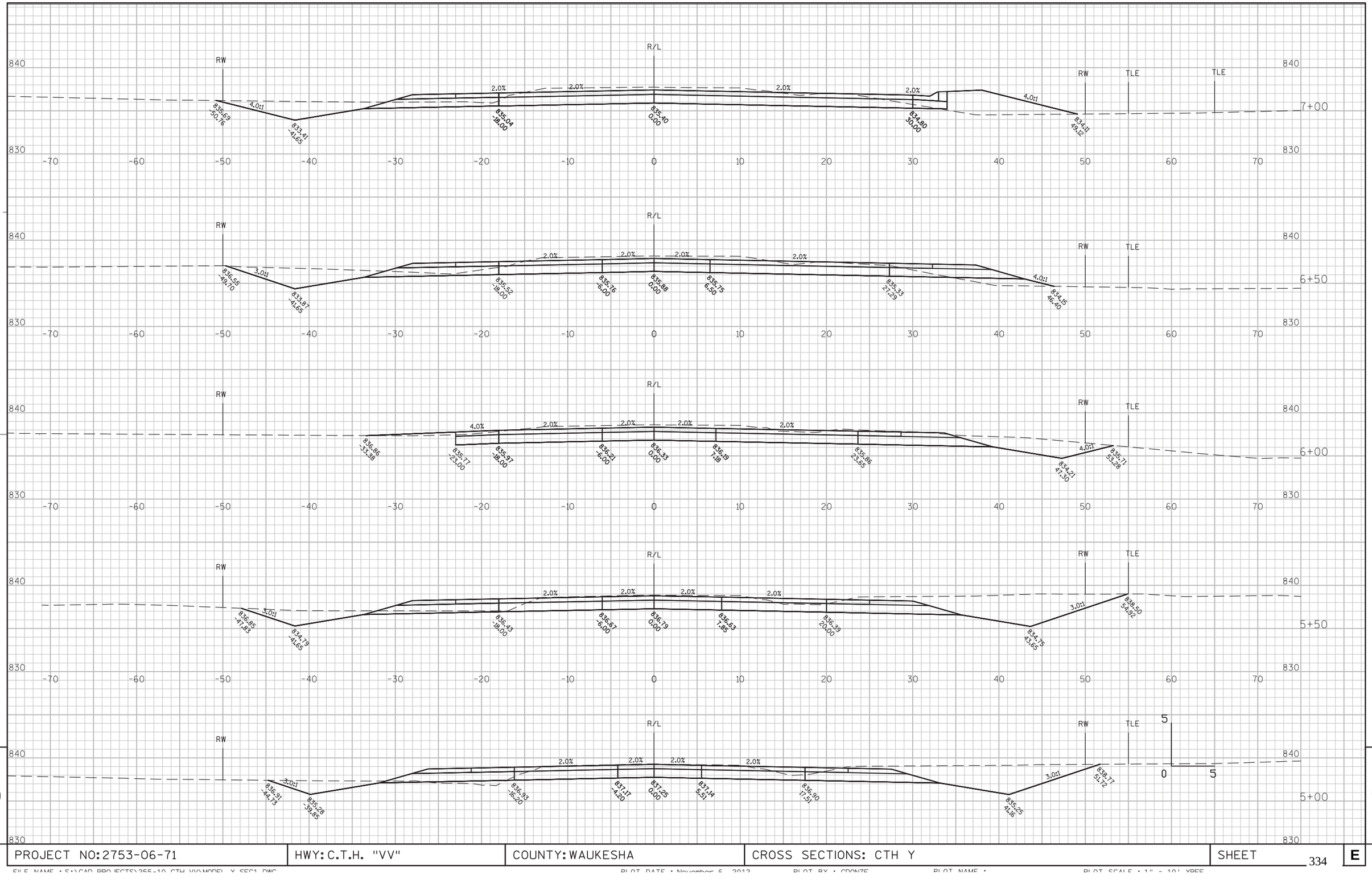

PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS: CTH Y	SHEET 334	E

FILE NAME • S:\CAD PROJECTS\255-10 CTH VV\MODEL Y SEC1.DWG PLOT DATE • November 6, 2013 PLOT BY • CDONZE PLOT NAME • PLOT SCALE • 1" = 10' XREF

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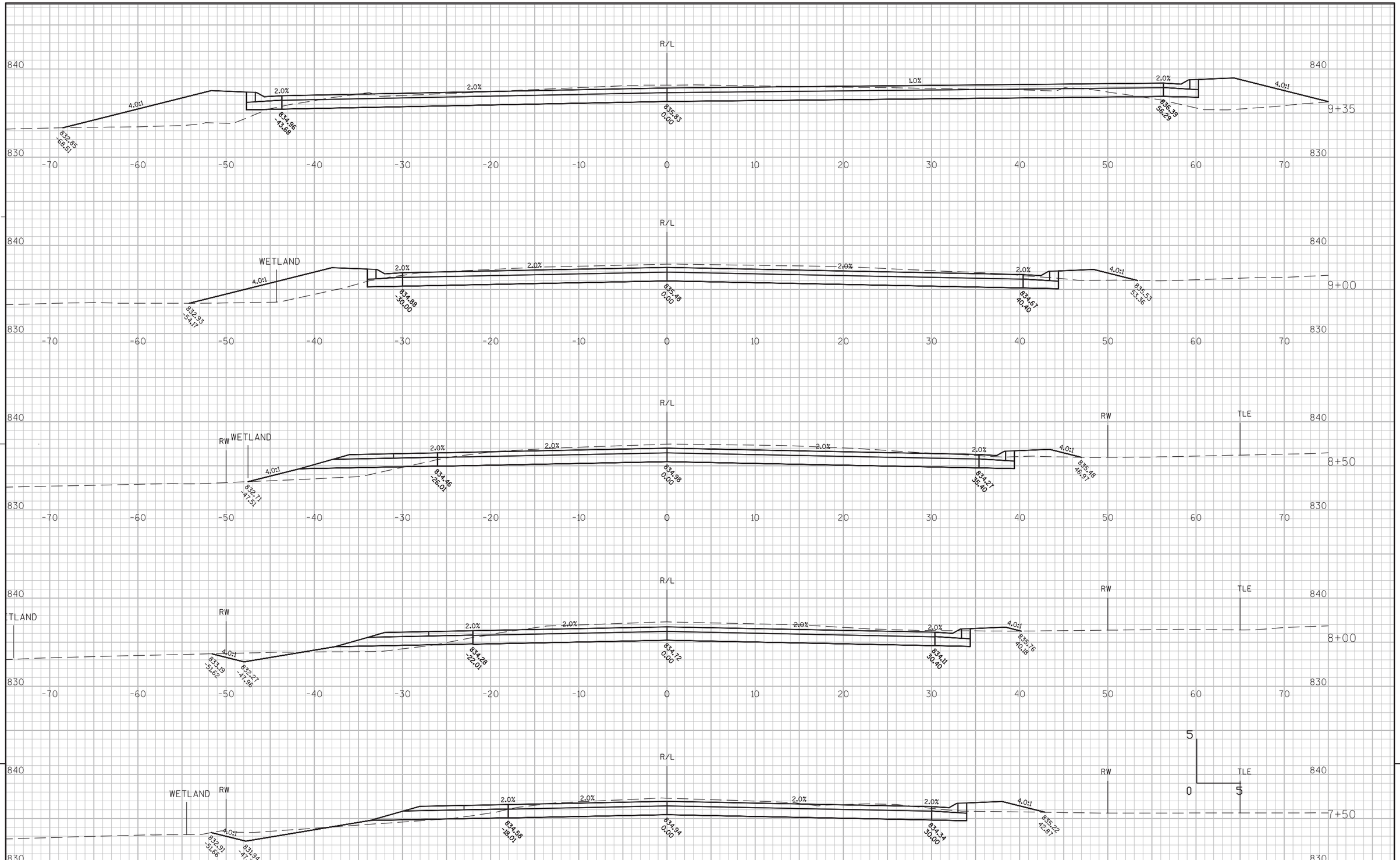

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FILE NAME • S:\CAD PROJECTS\255-10 CTH VV\MODEL Y SEC1.DWG PLOT DATE • 11/6/2013 2:23 PM PLOT BY • CDONZE PLOT NAME • PLOT SCALE • 1" = 10' XREF

9 9 E

PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS: CTH Y	SHEET 336	E

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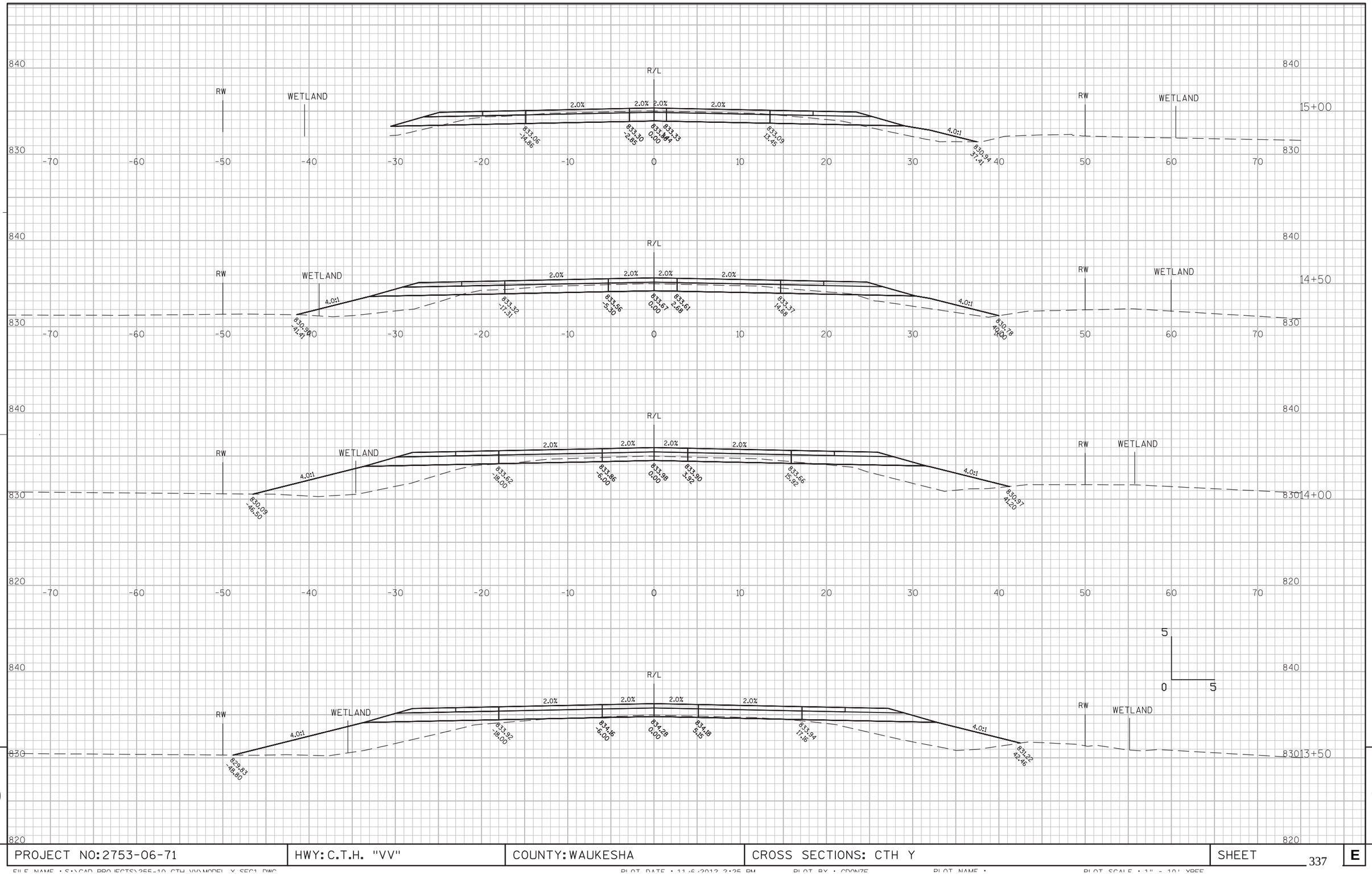
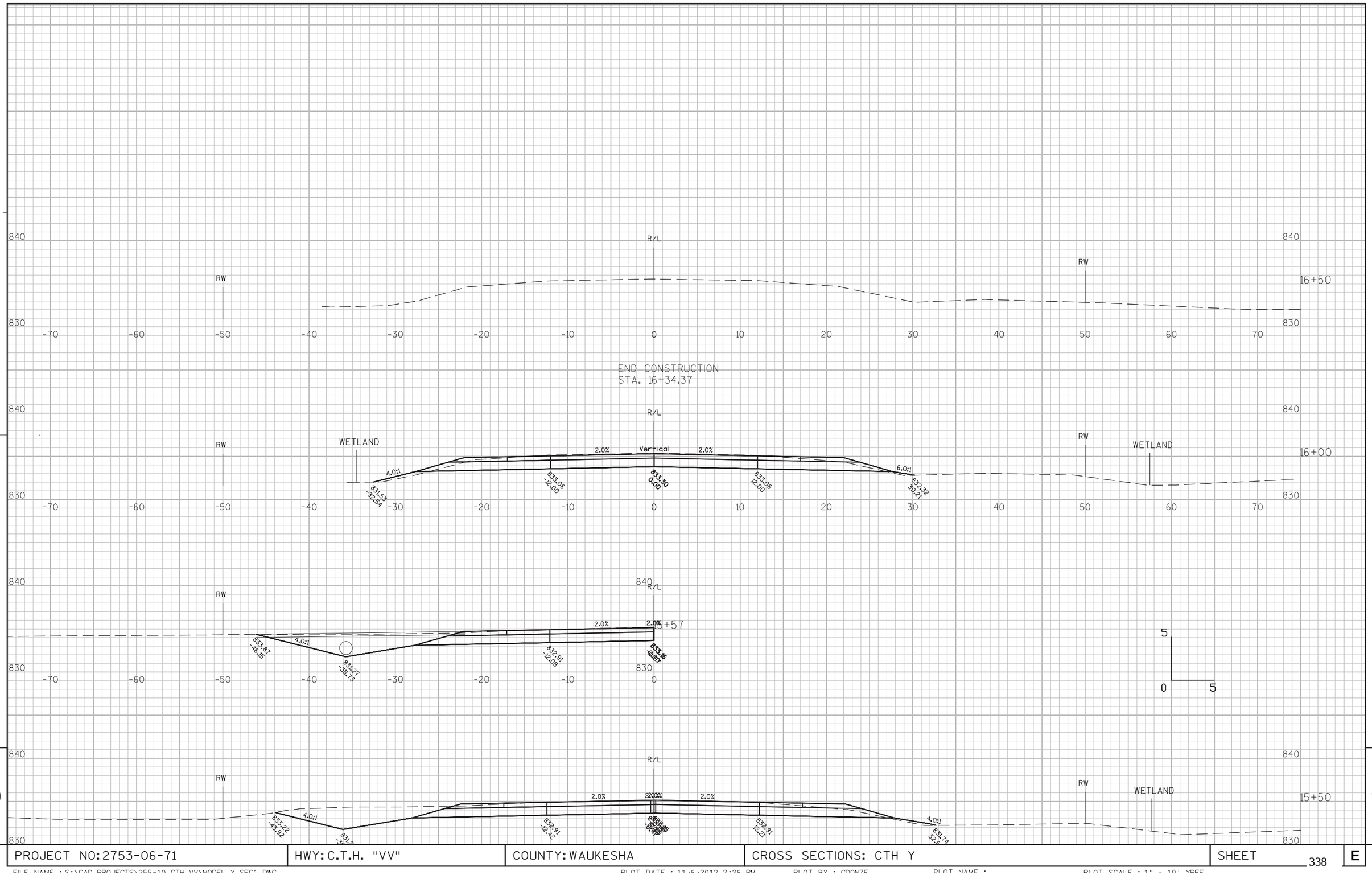


PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS: CTH Y	SHEET 337	E

FILE NAME • S:\CAD PROJECTS\255-10 CTH VV\MODEL X SEC1.DWG PLOT DATE • 11/6/2013 2:35 PM PLOT BY • CDONZE PLOT NAME • PLOT SCALE • 1" = 10' XREF



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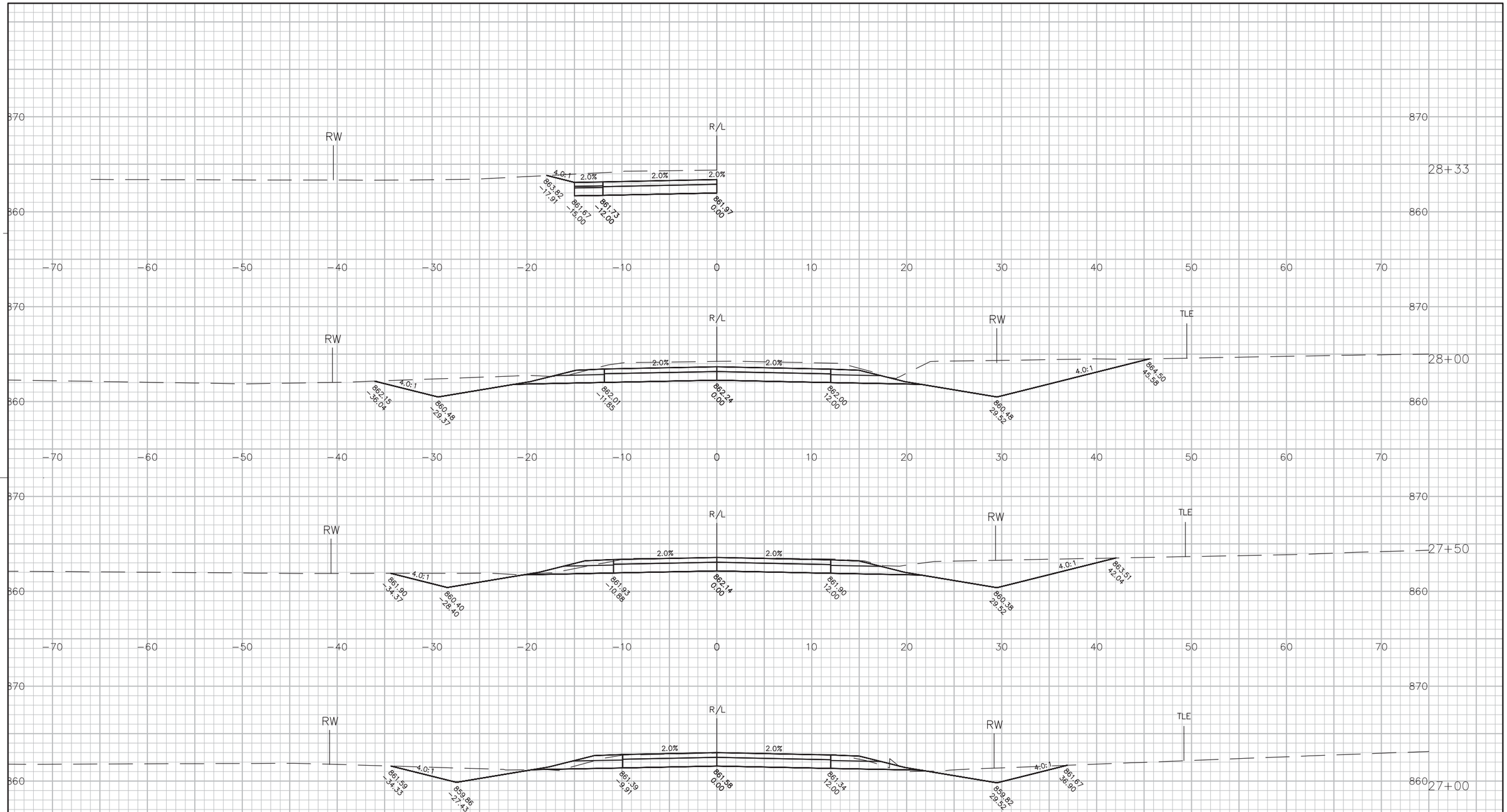
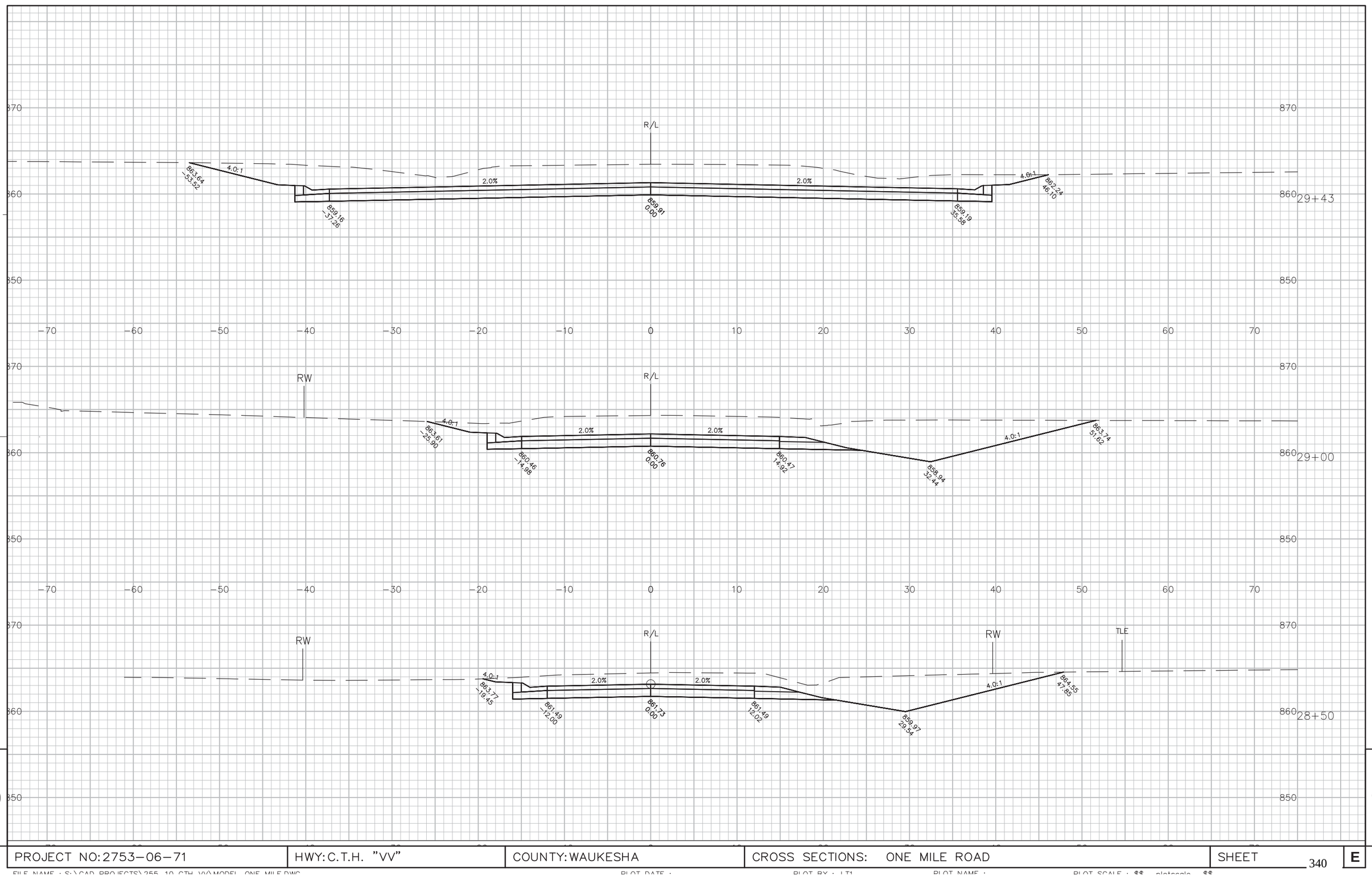


BEGIN CONSTRUCTION
STA. 27+00.00

PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS: ONE MILE ROAD	SHEET 339	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL ONE MILE.DWG PLOT DATE : PLOT BY : LT1 PLOT NAME : PLOT SCALE : $$ plotscale $$



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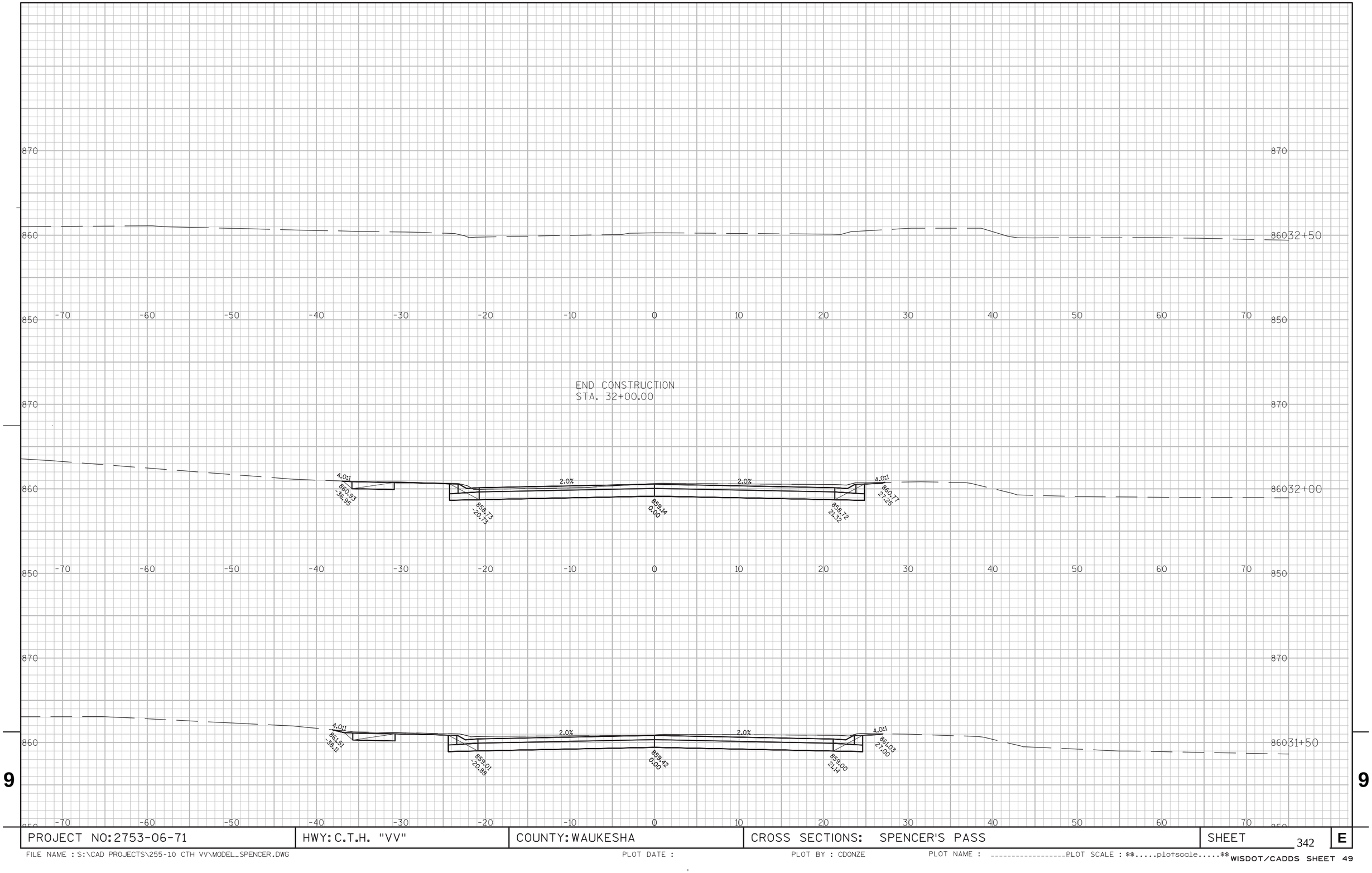
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS: ONE MILE ROAD	SHEET 340	E

9

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL ONE MILE.DWG PLOT DATE : PLOT BY : LT1 PLOT NAME : PLOT SCALE : $$ plotscale $$

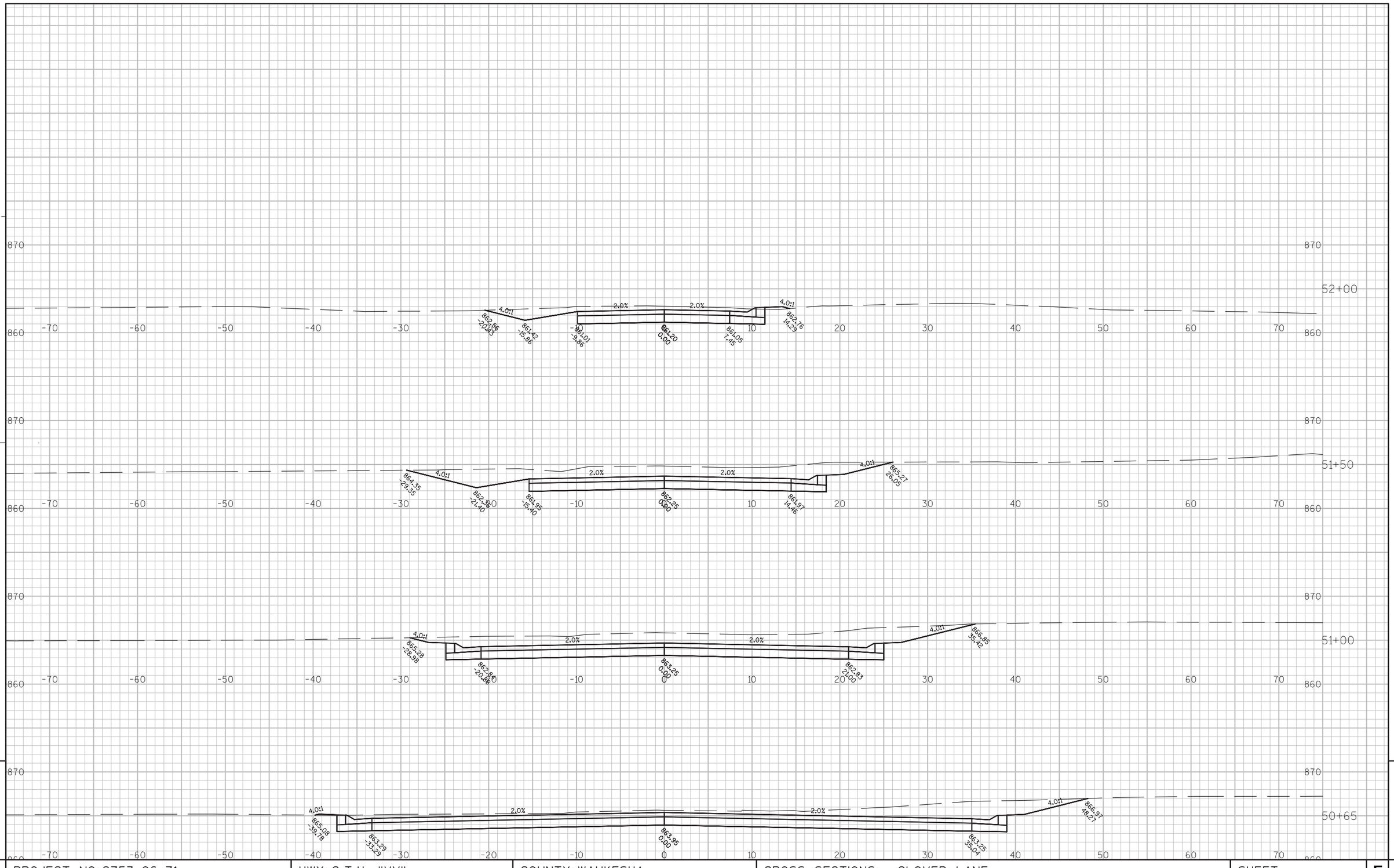
PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS: SPENCER'S PASS	SHEET 341 E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_SPENCER.DWG PLOT DATE : PLOT BY : CDONZE PLOT NAME : _____PLOT SCALE : $$.....plotscale.....$$



PROJECT NO: 2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS: SPENCER'S PASS	SHEET 342	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL_SPENCER.DWG PLOT DATE : PLOT BY : CDONZE PLOT NAME : _____PLOT SCALE : $$.....plotscale.....$$



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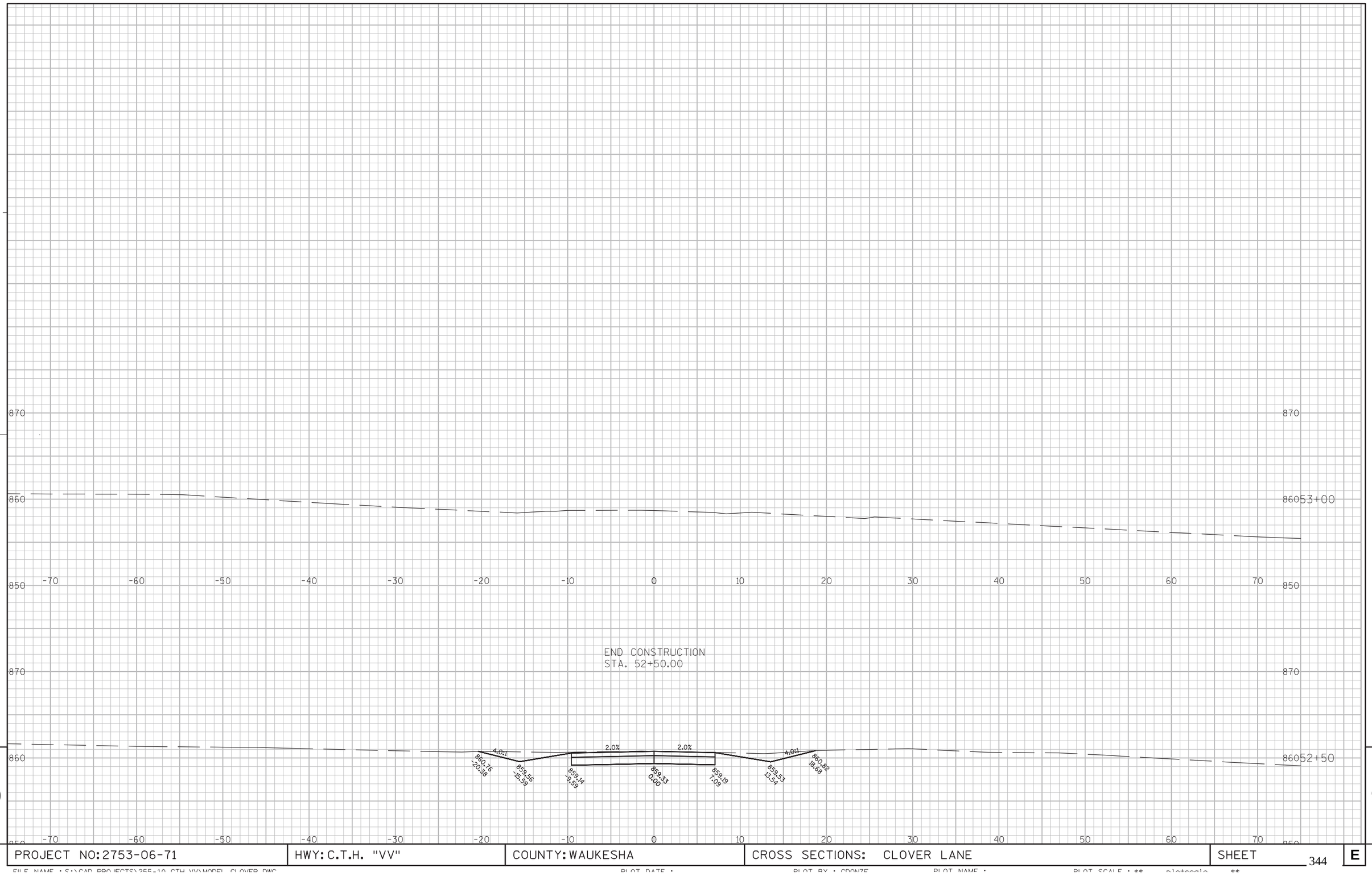
PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS: CLOVER LANE	SHEET 343	E

FILE NAME = S:\CAD PROJECTS\255-10 CTH VV\MODEL CLOVER.DWG PLOT DATE = PLOT BY = CDONTZ PLOT NAME = PLOT SCALE = $$ plotscale $$



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9

PROJECT NO:2753-06-71	HWY: C.T.H. "VV"	COUNTY: WAUKESHA	CROSS SECTIONS: CLOVER LANE	SHEET 344	E

FILE NAME : S:\CAD PROJECTS\255-10 CTH VV\MODEL CLOVER.DWG PLOT DATE : PLOT BY : CDONZE PLOT NAME : PLOT SCALE : $$ plotscale $$

Notes

Wisconsin Department of Transportation

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