

RHI PROJECT ID: 9216-07-60 WITH: 14 COUNTY: PRICE

JUNE 2017
ORDER OF SHEETS

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

TOTAL SHEETS = 44

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

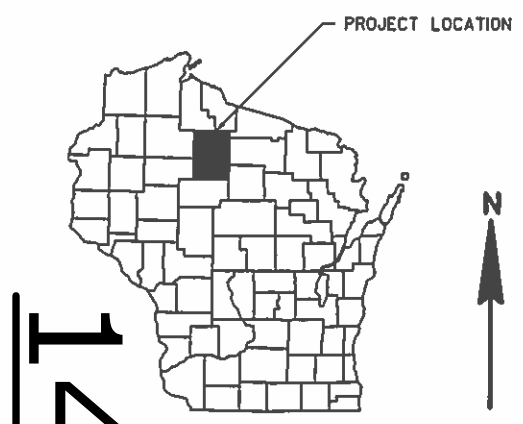
OGEMA-TOMAHAWK

CULVERT REPLACEMENT C-50-19

STH 86
PRICE COUNTY

STATE PROJECT NUMBER
9216-07-60

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9216-07-60		



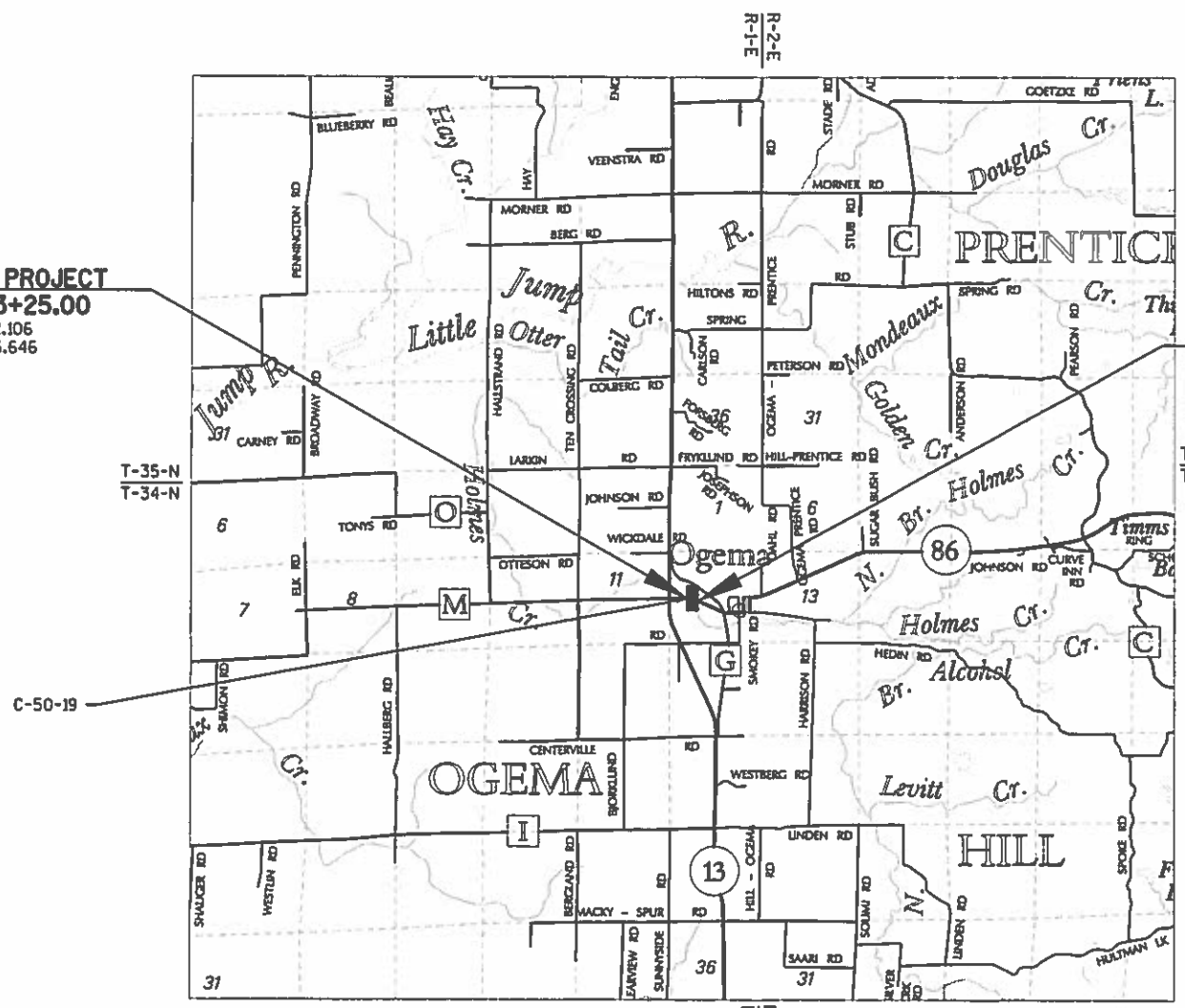
DESIGN DESIGNATION

A.A.D.T.	2017	=	450
A.A.D.T.	2037	=	640
D.H.V.	2037	=	120
D.D.		=	60/40
T.(DHV)		=	18.7%
DESIGN SPEED		=	35 MPH
ESALS		=	270,100

CONVENTIONAL SYMBOLS	
PLAN	
CORPORATE LIMITS	////
PROPERTY LINE	----
LOT LINE	----
LIMITED HIGHWAY EASEMENT	----
EXISTING RIGHT OF WAY	----
PROPOSED OR NEW R/W LINE	----
SLOPE INTERCEPT	----
REFERENCE LINE	----
EXISTING CULVERT	----
PROPOSED CULVERT (Box or Pipe)	----
COMBUSTIBLE FLUIDS	CAUTION
MARSH AREA	----
WOODED OR SHRUB AREA	----
PROFILE	
GRADE LINE	----
ORIGINAL GROUND	----
MARSH OR ROCK PROFILE (To be noted as such)	----
SPECIAL DITCH	----
GRADE ELEVATION	95.36
CULVERT (Profile View)	----
UTILITIES	
ELECTRIC	E
FIBER OPTIC	FO
GAS	G
SANITARY SEWER	SAN
STORM SEWER	SS
TELEPHONE	T
WATER	W
UTILITY PEDESTAL	----
POWER POLE	----
TELEPHONE POLE	----

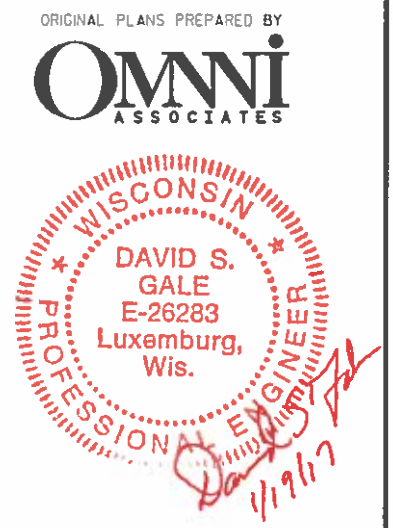
BEGIN PROJECT
STA 13+25.00
Y=324672.106
X=794805.646

END PROJECT
STA 15+50.00
Y=324638.143
X=795026.934



LAYOUT
SCALE 0 2 MILES
TOTAL NET LENGTH OF CENTERLINE = 0.076

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATE SYSTEM, PRICE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. VERTICAL DATUM NAVD88.



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	OMNI ASSOCIATES
Surveyor	OMNI ASSOCIATES
Designer	OMNI ASSOCIATES
Project Manager	JED P. PETERS
Regional Examiner	
Regional Supervisor	R. STAFFORD

APPROVED FOR THE DEPARTMENT
DATE: 1/19/17
(Signature)

GENERAL NOTES

LOCATIONS OF EXISTING AND PROPOSED UTILITY FACILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY ALSO BE OTHER UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

	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	0.08	0.16	0.22	0.12	0.20	0.27	0.15	0.24	0.33	0.19	0.28	0.38
	0.22	0.30	0.38	0.26	0.34	0.44	0.30	0.37	0.50	0.34	0.41	0.56
MEDIAN STRIP - TURF	0.19	0.20	0.24	0.19	0.22	0.26	0.20	0.23	0.30	0.20	0.25	0.30
	0.24	0.26	0.30	0.25	0.28	0.33	0.26	0.30	0.37	0.27	0.32	0.40
SIDE SLOPE - TURF			0.25			0.27			0.28			0.30
			0.32			0.34			0.36			0.38
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 = 1.1 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.5 ACRES

OTHER CONTACTS

DNR LI AI SON

DEPARTMENT OF NATURAL RESOURCES
810 W. MAPLE STREET
SPOONER, WI 54801
ATTN: SHAWN HASELEU
TELEPHONE: 715-635-4228
E-MAIL: SHAWN.HASELEU@WISCONSIN.GOV

UTILITIES

SANITARY

OGEMA SANITARY DISTRICT 1
N1775 SMOKEY RD
PO BOX 665
OGEMA , WI 54459
ATTN: JAMES GALLISTEL
TELEPHONE: (715) 767-5215
CELL: (414) 651-5449
EMAIL: GALLISTEL@EXECPC.COM

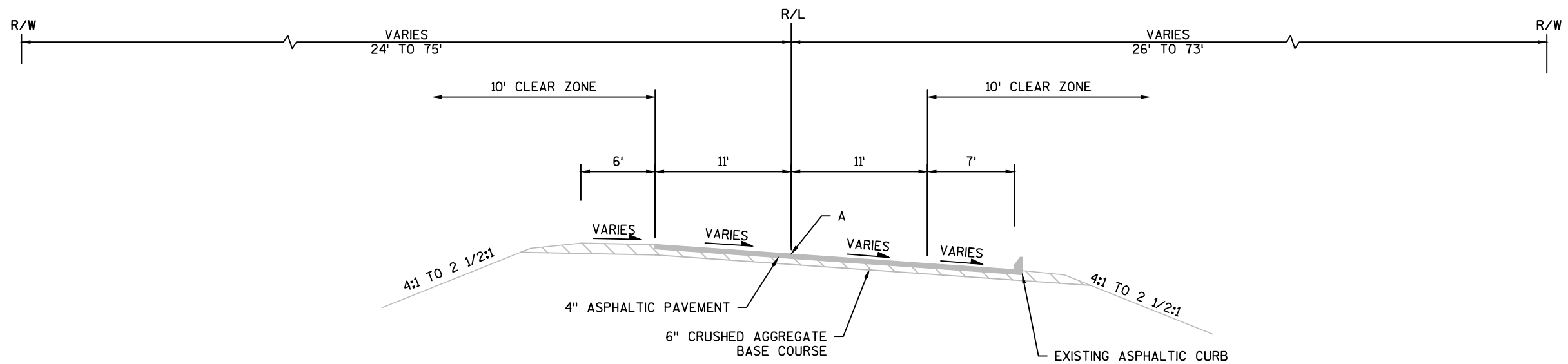
COMMUNICATIONS

CENTURYLINK
P. O. BOX 13
SHELDON, WI 54766
ATTN: JIM ARQUETTE
TELEPHONE: (715) 452-5168
CELL: (715) 563-8295
EMAIL: jim.arquette@centerylink.com

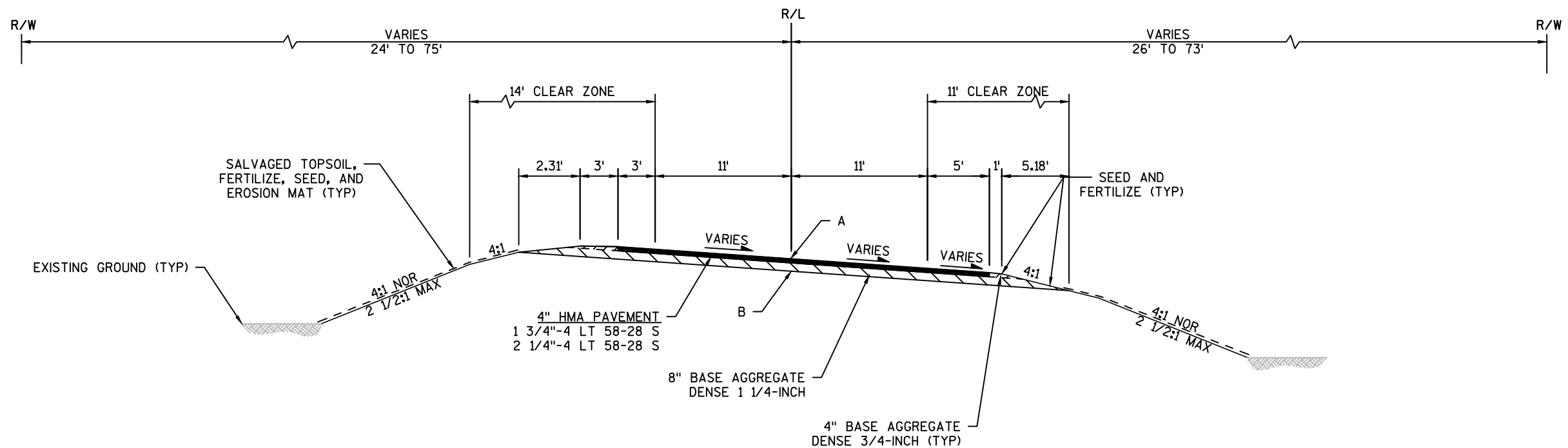


ORDER OF SECTION 2 SHEETS

GENERAL NOTES
TYPICAL SECTIONS
PROJECT OVERVIEW
CONSTRUCTION DETAILS
TRAFFIC CONTROL PLAN
DETOUR SIGNAGE PLAN

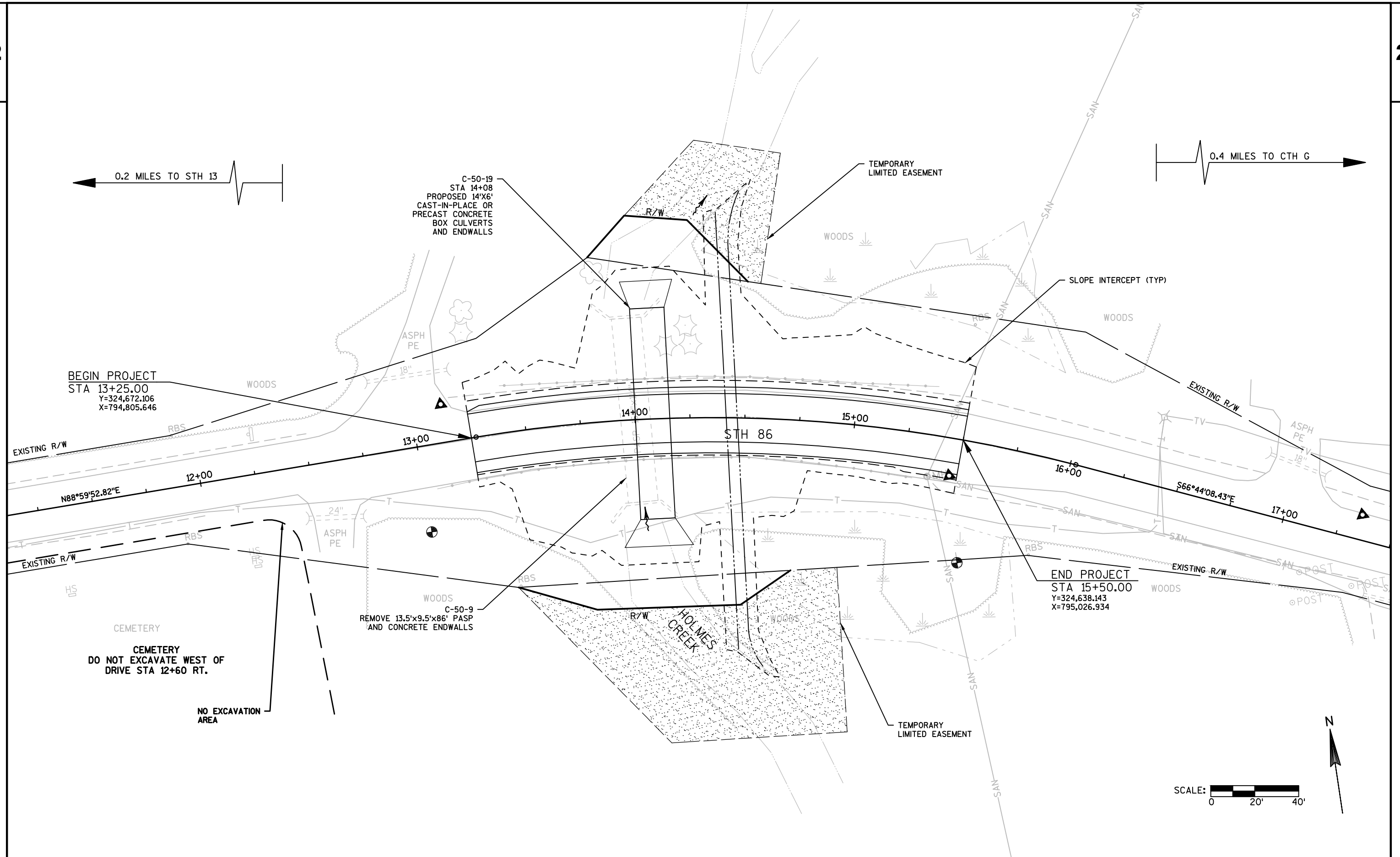


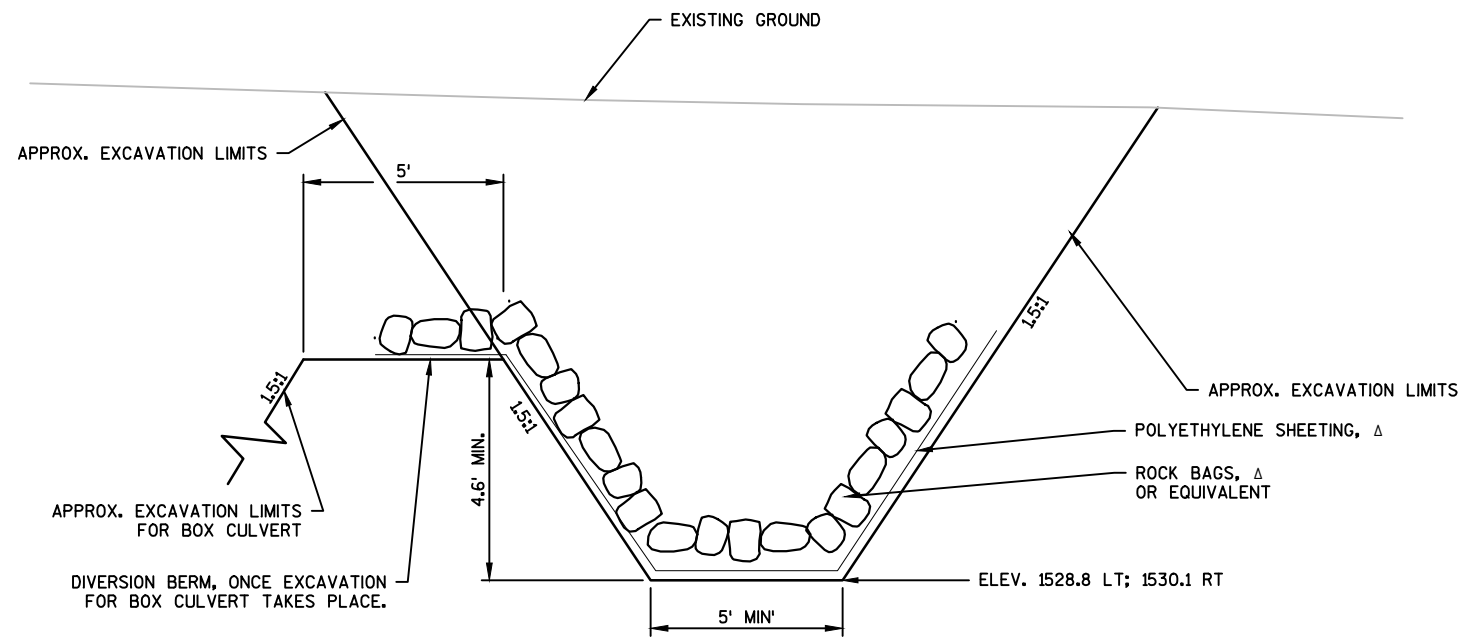
TYPICAL EXISTING SECTION STH 86
STA 13+25 TO STA 15+50



TYPICAL FINISHED SECTION STH 86
STA 13+25 TO STA 15+50

NOTE A: POINT REFERRED TO ON PROFILE.
NOTE B: POINT REFERRED TO ON CROSS SECTIONS.

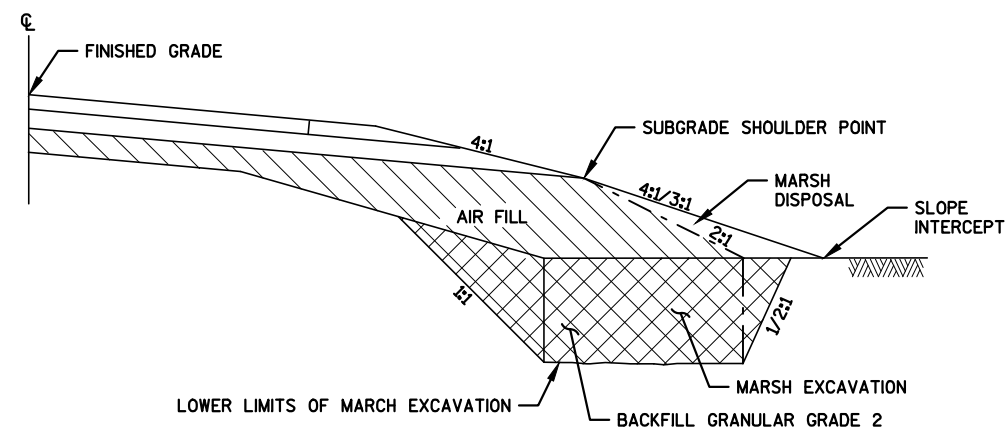




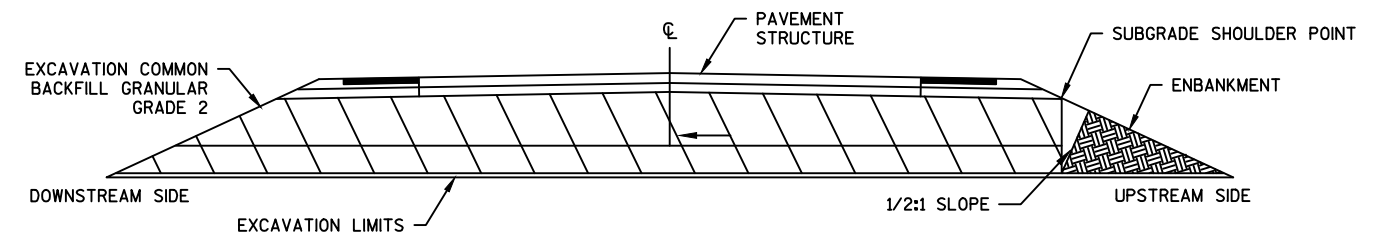
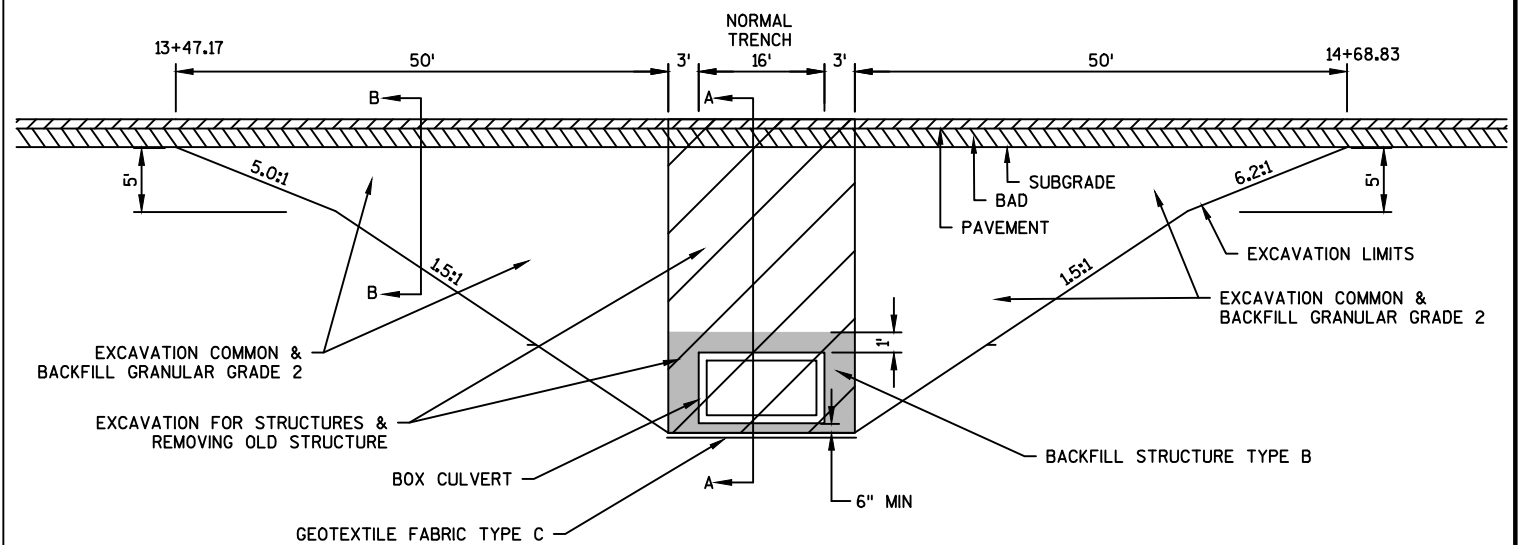
TEMPORARY WATER DIVERSION CHANNEL

Δ INCIDENTAL TO TEMPORARY WATER DIVERSION

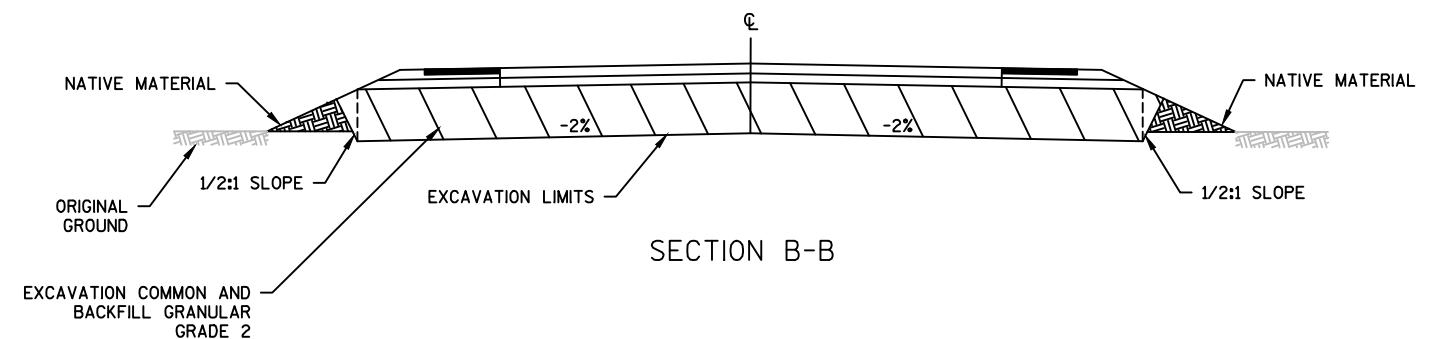
NOTE: EXCEPT FOR MARSH EXCAVATION AND MARSH BACKFILL, EXCAVATION AND BACKFILL FOR THE DIVERSION CHANNEL IS INCLUDED IN THE TEMPORARY WATER DIVERSION ITEM.



TYPICAL MARSH EXCAVATION



SECTION A-A

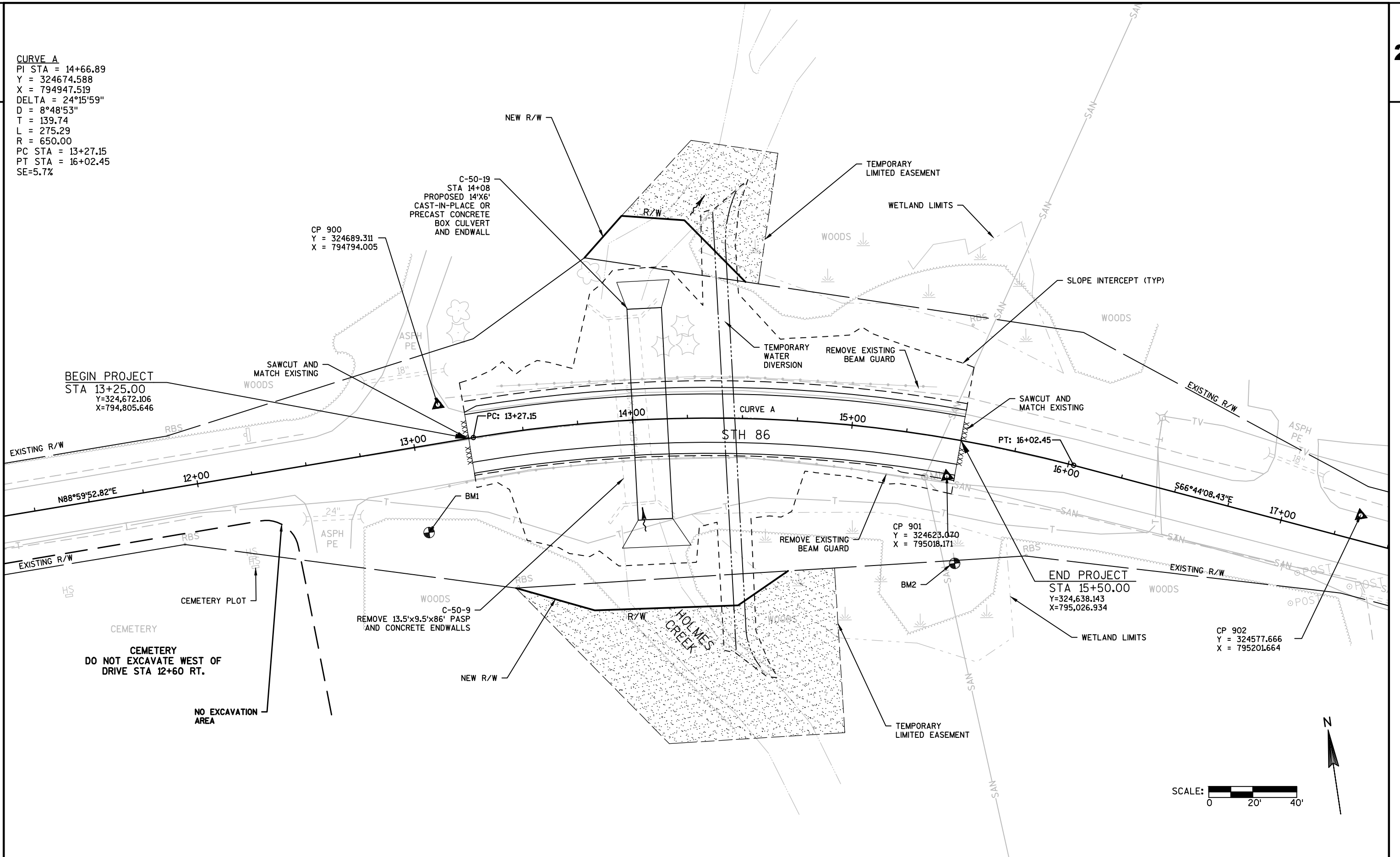


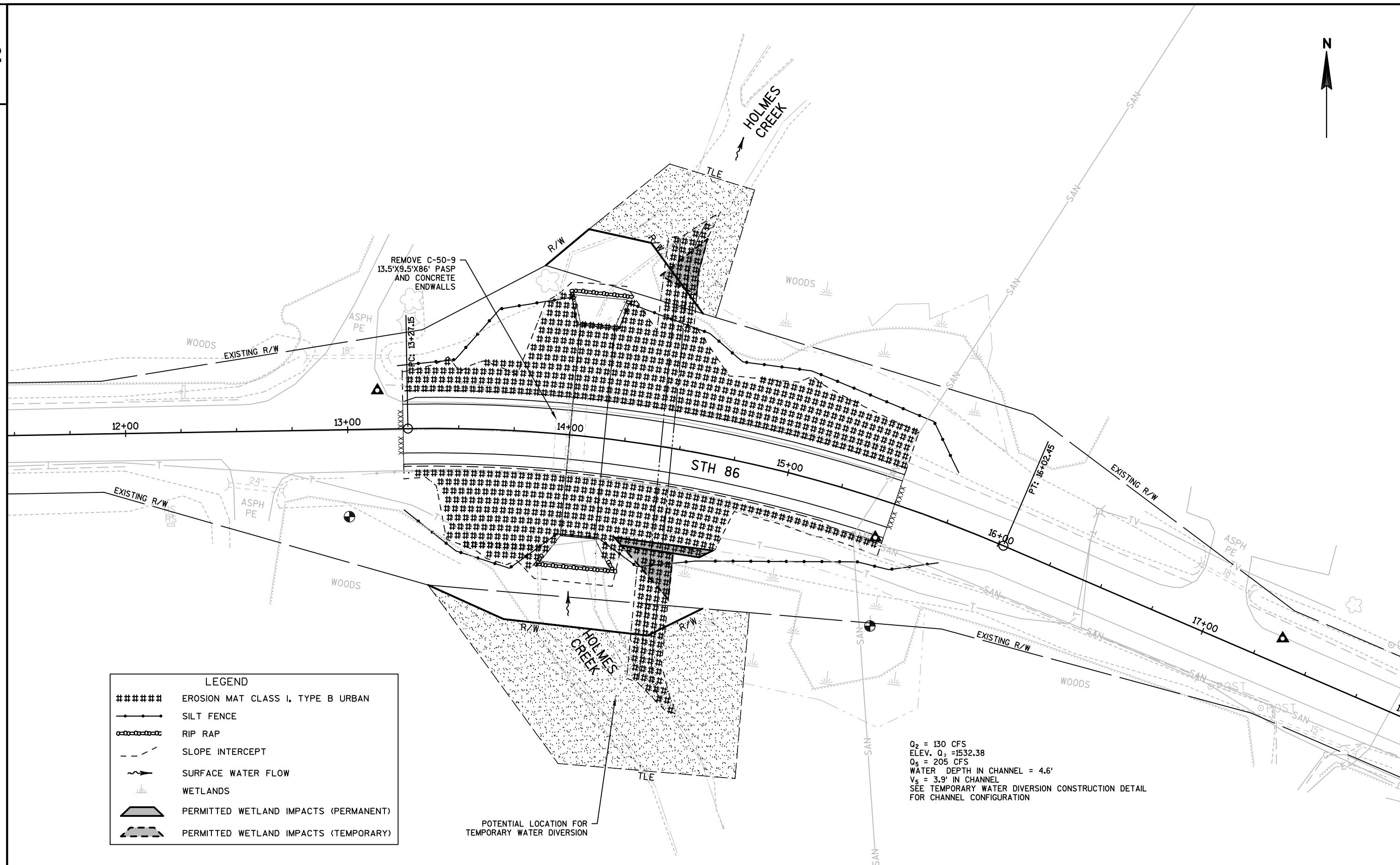
SECTION B-B

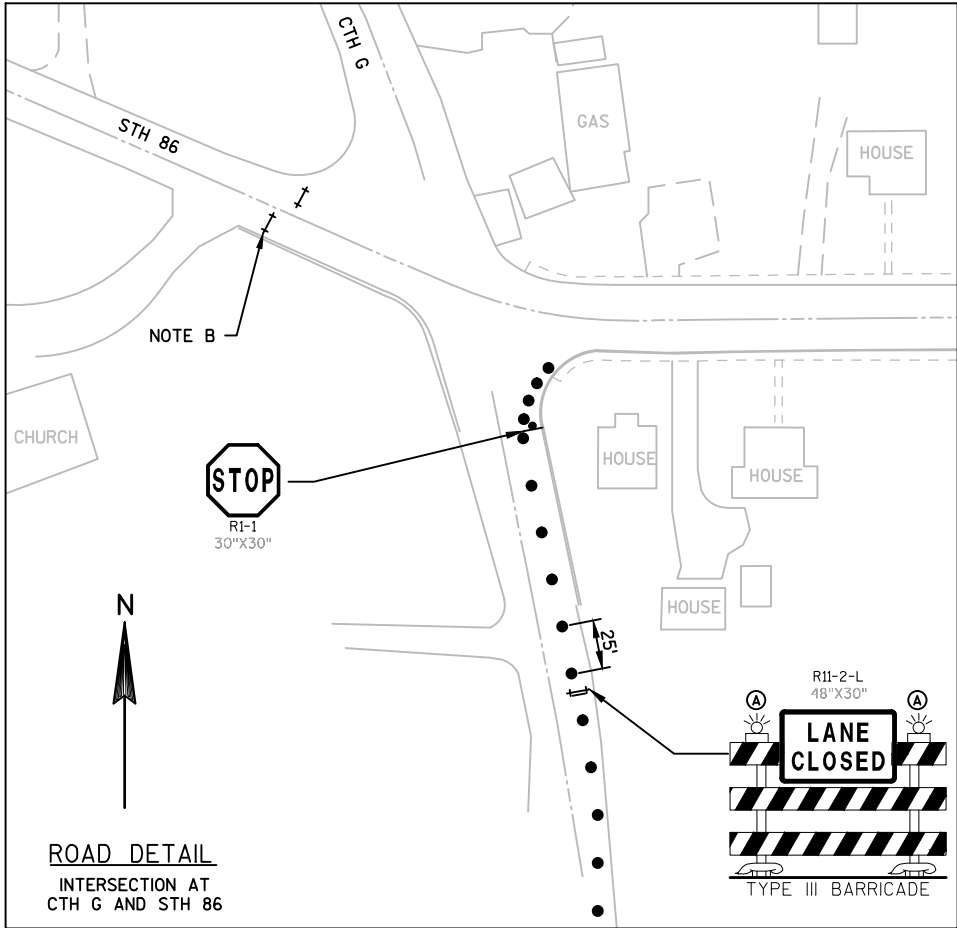
BOX CULVERT EXCAVATION AND INSTALLATION DETAIL

STA 14+08

CURVE A
PI STA = 14+66.89
Y = 324674.588
X = 794947.519
DELTA = 24°15'59"
D = 8°48'53"
T = 139.74
L = 275.29
R = 650.00
PC STA = 13+27.15
PT STA = 16+02.45
SE=5.7%







ROAD DETAIL
INTERSECTION AT
CTH G AND STH 86

TRAFFIC CONTROL GENERAL NOTES

1. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
2. THE SPACING BETWEEN PROPOSED SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.
3. ALL SIGNS SHALL BE 48" x 48" UNLESS OTHERWISE NOTED.
4. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
5. FIXED MESSAGE SIGNS SHALL BE PLACED ONE WEEK IN ADVANCE OF INITIAL LANE CLOSURE.
6. SEE ADDITIONAL TRAFFIC CONTROL DETAIL SHEETS, DETOUR DETAIL SHEETS AND STANDARD DETAIL DRAWINGS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.

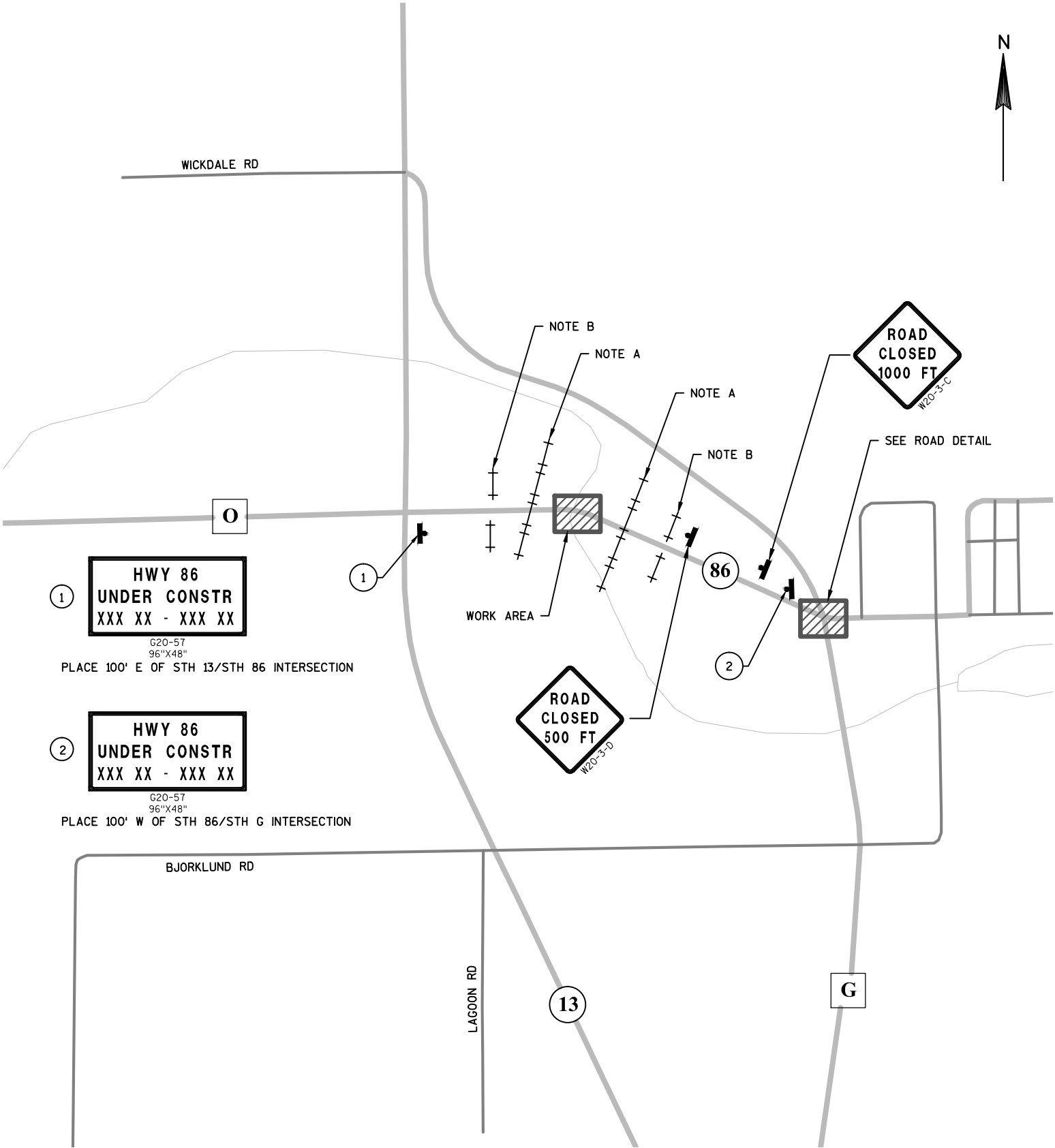
LEGEND

- 00 SIGN NUMBER
- XX NOTE LETTER
- POST MOUNTED SIGN
- ↑ TYPE III BARRICADE
- WORK AREA

NOTE A: USE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL D.

NOTE B: USE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL B.

SEE DETOUR PLAN FOR ADDITIONAL SIGNING AND INFORMATION.

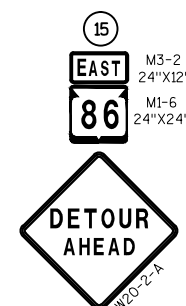
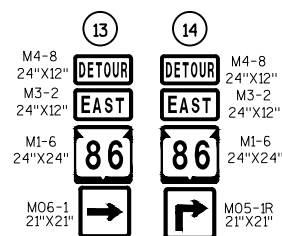
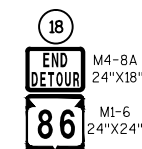
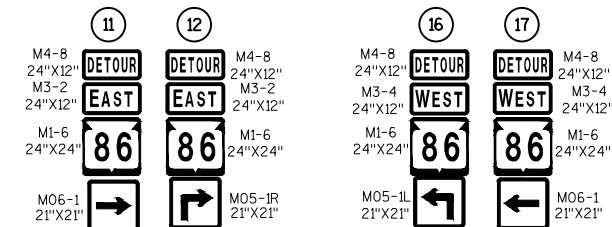
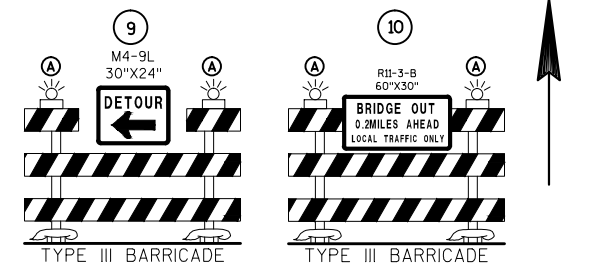
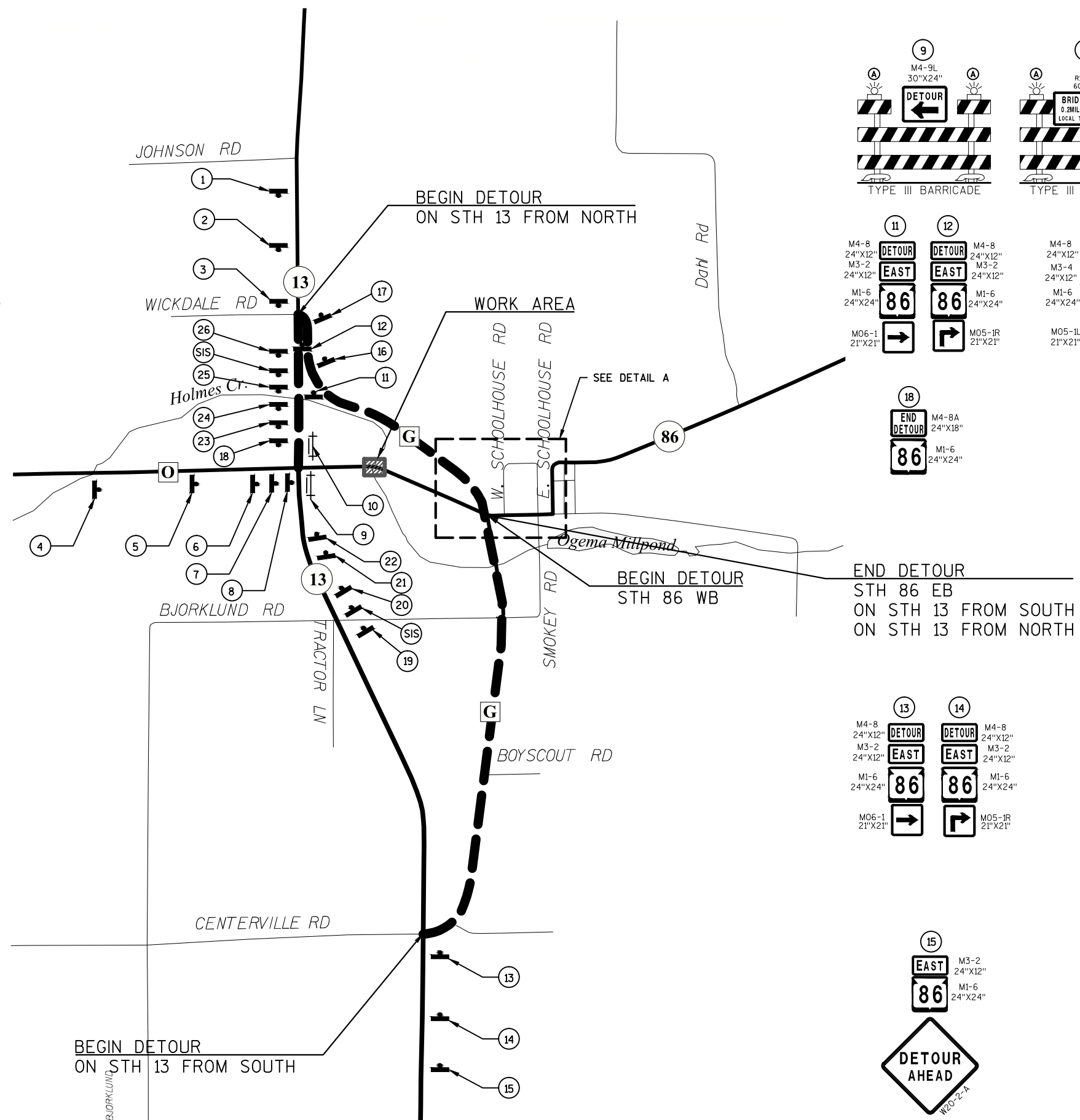
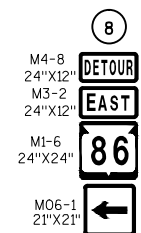
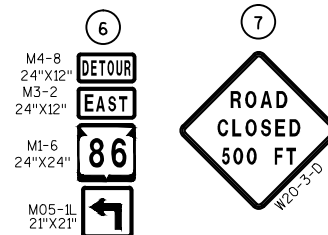
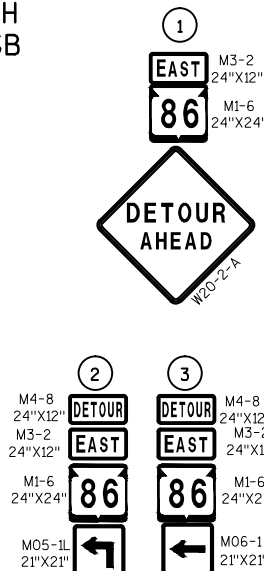
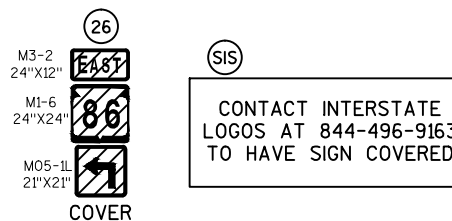
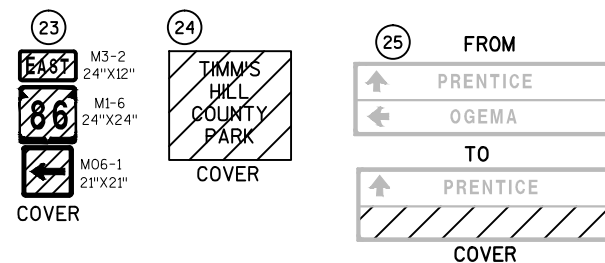
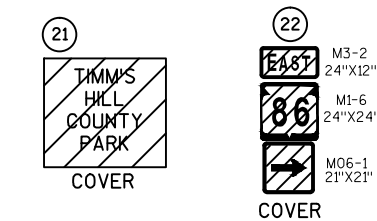
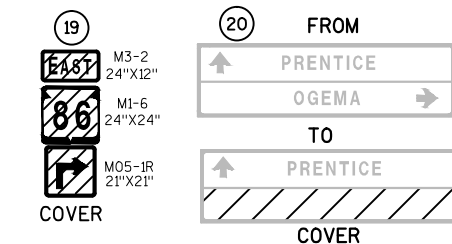


DETOUR ROUTE OVERVIEW

- STH 86 EB; STH 13 NB TO CTH G SOUTH
- STH 86 WB; CTH G NORTH TO STH 13 SB
- ON STH 13 FROM SOUTH; CTH G NORTH
- ON STH 13 FROM NORTH; CTH G SOUTH

LEGEND

- DETOUR ROUTE
- SIGN NUMBER
- TYPE "A" WARNING LIGHT (FLASHING)
- POST MOUNTED SIGN
- TYPE III BARRICADE
- WORK AREA



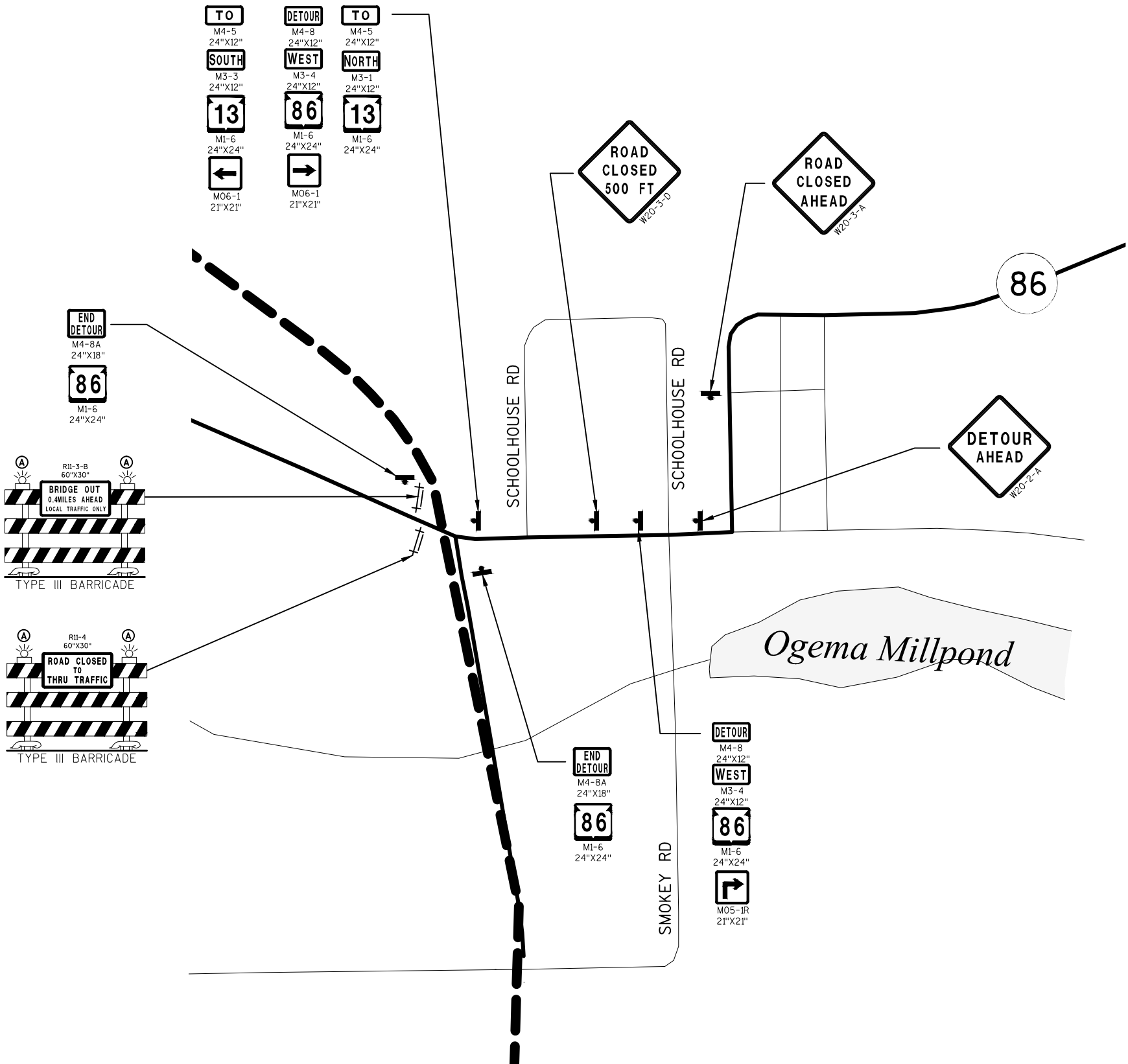
DETOUR ROUTE OVERVIEW

- STH 86 EB; STH 13 NB TO CTH G SOUTH
- STH 86 WB; CTH G NORTH TO STH 13 SB
- ON STH 13 FROM SOUTH; CTH G NORTH
- ON STH 13 FROM NORTH; CTH G SOUTH



LEGEND

- DETOUR ROUTE
- SIGN NUMBER
- TYPE "A" WARNING LIGHT (FLASHING)
- POST MOUNTED SIGN
- TYPE III BARRICADE
- WORK AREA



Estimate Of Quantities

9216-07-60

Line	Item	Item Description	Unit	Total	Qty
0010	201.0205	Grubbing	STA	1.000	1.000
0020	203.0200	Removing Old Structure (station) 01. 14+00	LS	1.000	1.000
0030	204.0165	Removing Guardrail	LF	425.000	425.000
0040	205.0100	Excavation Common	CY	1,588.000	1,588.000
0050	205.0400	Excavation Marsh	CY	120.000	120.000
0060	206.2000	Excavation for Structures Culverts (structure) 01. C-50-19	LS	1.000	1.000
0070	209.2500	Backfill Granular Grade 2	TON	2,840.000	2,840.000
0080	210.2500	Backfill Structure Type B	TON	710.000	710.000
0090	213.0100	Finishing Roadway (project) 01. 9216-07-60	EACH	1.000	1.000
0100	305.0110	Base Aggregate Dense 3/4-Inch	TON	30.000	30.000
0110	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	465.000	465.000
0120	455.0605	Tack Coat	GAL	60.000	60.000
0130	460.2000	Incentive Density HMA Pavement	DOL	120.000	120.000
0140	460.5224	HMA Pavement 4 LT 58-28 S	TON	173.000	173.000
0150	504.0100	Concrete Masonry Culverts	CY	198.000	198.000
0160	505.0400	Bar Steel Reinforcement HS Structures	LB	28,390.000	28,390.000
0170	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	1,220.000	1,220.000
0180	516.0500	Rubberized Membrane Waterproofing	SY	170.000	170.000
0190	606.0300	Riprap Heavy	CY	30.000	30.000
0200	619.1000	Mobilization	EACH	1.000	1.000
0210	624.0100	Water	MGAL	5.000	5.000
0220	625.0100	Topsoil	SY	400.000	400.000
0230	625.0500	Salvaged Topsoil	SY	2,150.000	2,150.000
0240	628.1504	Silt Fence	LF	670.000	670.000
0250	628.1520	Silt Fence Maintenance	LF	670.000	670.000
0260	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0270	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0280	628.2008	Erosion Mat Urban Class I Type B	SY	2,150.000	2,150.000
0290	628.7504	Temporary Ditch Checks	LF	100.000	100.000
0300	629.0210	Fertilizer Type B	CWT	1.500	1.500
0310	630.0120	Seeding Mixture No. 20	LB	70.000	70.000
0320	633.5100	Markers Row	EACH	7.000	7.000
0330	633.5200	Markers Culvert End	EACH	2.000	2.000
0340	642.5001	Field Office Type B	EACH	1.000	1.000
0350	643.0100	Traffic Control (project) 01. 9216-07-60	EACH	1.000	1.000
0360	643.0300	Traffic Control Drums	DAY	875.000	875.000
0370	643.0420	Traffic Control Barricades Type III	DAY	1,107.000	1,107.000
0380	643.0705	Traffic Control Warning Lights Type A	DAY	2,214.000	2,214.000
0390	643.0900	Traffic Control Signs	DAY	464.000	464.000

Estimate Of Quantities

9216-07-60

Line	Item	Item Description	Unit	Total	Qty
0400	643.0920	Traffic Control Covering Signs Type II	EACH	16.000	16.000
0410	643.1000	Traffic Control Signs Fixed Message	SF	64.000	64.000
0420	643.2000	Traffic Control Detour (project) 01. 9216-07-60	EACH	1.000	1.000
0430	643.3000	Traffic Control Detour Signs	DAY	4,428.000	4,428.000
0440	645.0105	Geotextile Type C	SY	255.000	255.000
0450	645.0120	Geotextile Type HR	SY	40.000	40.000
0460	646.0106	Pavement Marking Epoxy 4-Inch	LF	42,330.000	42,330.000
0470	650.4500	Construction Staking Subgrade	LF	225.000	225.000
0480	650.5000	Construction Staking Base	LF	225.000	225.000
0490	650.6500	Construction Staking Structure Layout (structure) 01. C-50-19	LS	1.000	1.000
0500	650.9910	Construction Staking Supplemental Control (project) 01. 9216-07-60	LS	1.000	1.000
0510	650.9920	Construction Staking Slope Stakes	LF	225.000	225.000
0520	690.0150	Sawing Asphalt	LF	65.000	65.000
0530	715.0502	Incentive Strength Concrete Structures	DOL	1,188.000	1,188.000
0540	SPV.0105	Special Temporary Water Diversion	LS	1.000	1.000

STH 86 EARTHWORK SUMMARY																		
STATION TO STATION			ROADWAY		205.0100 EXCAVATION COMMON CY NOTE 1	AVAILABLE MATERIAL CY NOTE 1	205.0400 EXCAVATION MARSH CY	EXPANDED MARSH CY	UNEXPANDED FILL CY	EXPANDED FILL CY	MASS ORDINATE +/- CY NOTE 2	WASTE CY						
					EXP FACTOR 1.50		EXP FACTOR 1.25											
CATEGORY 0010																		
13+25 - 15+50			STH 86		442	442	120	180	64	81	361	361						
13+47 - 14+69			STH 86		1,146	1,146	0	0	0	0	1,146	1,146						
TOTALS					1,588	1,588	120	180	64	81	1,507	1,507						
1. ALL EXCAVATED ASPHALT MATERIAL ASSUMED USABLE AS FILL. 2. MASS ORDINATE = EXCAVATION COMMON - EXPANDED FILL																		
GRUBBING					REMOVING GUARDRAIL					BACKFILL GRANULAR GRADE 2								
STATION TO STATION		ROADWAY	201.0205 GRUBBING STA		STATION TO STATION		DIR	ROADWAY	204.0165 LF		209.2500 BACKFILL GRANULAR GRADE 2 CY							
			CATEGORY 0010						CATEGORY 0010									
13+75	-	14+75	STH 86	1	13+41	-	15+35	LT	STH 86	201	STATION TO STATION							
PROJECT TOTALS					1	13+06	-	15+30	RT	STH 86	224	LOCATION						
						PROJECT TOTAL					425	PROJECT TOTALS						
											2,840							
BASE AGGREGATE DENSE AND WATER																		
STATION TO STATION		ROADWAY		305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	624.0100 WATER MGAL		STATION TO STATION					ROADWAY	455.0605 TACK COAT GAL	460.5224 HMA PAVEMENT 4 LT 58-28 S TON			
				CATEGORY 0010		CATEGORY 0010												
13+25	-	15+50	STH 86	28	460	3		13+25	-	15+50	STH 86	60	173					
UNDISTRIBUTED		STH 86		2	5	2		PROJECT TOTALS					60	173				
				30	465	5												
RESTORATION																		
STATION TO STATION		ROADWAY	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB		STATION TO STATION				ROADWAY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7504 TEMPORARY DITCH CHECKS LF	628.1905 MOBILIZATIONS EROSION CONTROL EA	628.1910 MOBILIZATIONS EROSION CONTROL EMERGENCY EA
			CATEGORY 0010		CATEGORY 0010													
13+00	-	15+75	STH 86	---	1,720	1,720	1.2	51	13+00	-	15+75	STH 86	540	540	---	2	2	
UNDISTRIBUTED		STH 86		400	430	430	0.3	19	UNDISTRIBUTED		STH 86		130	130	100	---	---	
PROJECT TOTALS				400	2,150	2,150	1.5	70	PROJECT TOTALS				670	670	100	2	2	
PROJECT NO: 9216-07-60					HWY: STH 86			COUNTY: PRICE			MISCELLANEOUS QUANTITIES			SHEET			E	

3

STATION TO STATION			ROADWAY	646.0106		REMARKS
				EPOXY 4-INCH		
				WHITE LF	YELLOW LF	
CATEGORY 0010						
13+25	-	15+50	STH 86	450	450	SOLID
STH 13		STH 13	CTH G	24,300	17,130	SOLID AND DASHED

SUB TOTALS	24,750	17,580
PROJECT TOTALS	42,330	

				650.4500	650.5000	CATEGORY 0020 650.6500	650.9910	650.9920
STA	TO	STA	LOCATION	SUBGRADE	BASE	STRUCTURE LAYOUT	SUPPLEMENTAL CONTROL	SLOPE STAKES
				LF	LF	LS	LS	LF
CATEGORY 0010								
13+25	-	15+50	STH 86	225	225	---	---	225
STRUCTURE C-50-19			STH 86	---	---	1	---	---
PROJECT			STH 86	---	---	---	1	---
PROJECT TOTALS				225	225	1	1	225

3

STATION TO STATION			ROADWAY	690.0150 ASPHALT LF
CATEGORY 0010				
13+25	-	15+50	STH 86	65

PROJECT TOTALS	65
----------------	----

	643.0920	
	COVERING SIGNS TYPE II	
LOCATION	EACH	NO. OF CYCLES
		NO. OF SIGNS
		REMARKS
CATEGORY 0010		
STH 13 NORTH OF STH 86	8	1
STH 13 SOUTH OF STH 86	8	1

PROJECT TOTALS	16
----------------	----

STATION	LOCATION	633.5100 MARKERS ROW EACH
CATEGORY 0010		
13+35.96	70.56' RT	1
13+75	85.00' RT	1
13+83.97	75.09' LT	1
14+00	93.00' LT	1
14+50	85.00' RT	1
14+50	62.07' LT	1
14+75	68.36' RT	1

PROJECT TOTALS	7
----------------	---

STATION	LOCATION	633.5200 MARKERS CULVERT END EACH
CATEGORY 0010		
13+98 RT	STH 86	1
14+18 LT	STH 86	1

PROJECT TOTALS	2
----------------	---

LOCATION	APPROX. SERVICE PERIOD 60 DAYS	643.0300		643.0420		643.0705 WARNING LIGHTS TYPE A		643.0900		643.1000 SIGNS FIXED MESSAGE **		643.3000 DETOUR SIGNS	
		TRAFFIC CONTROL DRUMS		BARRICADES TYPE III				SIGNS					
		NO.	DAYS	NO.	DAYS	NO.	DAYS	NO.	DAYS	NO.	SF	NO.	DAYS
CATEGORY 0010													
STH 86 WEST OF G	53	--	--	16	848	32	1696	6	318	1	32	2	106
CTH G AT STH 86	53	15	795	1	53	2	106	2	106	--	--	4	212
CTH G NORTH OF STH 86	53	--	--	--	--	--	--	--	--	--	--	8	424
STH 86 AT STH 13	53	--	--	2	106	4	212	--	--	1	32	2	106
STH 13 SOUTH OF CTH G SOUTH	53	--	--	--	--	--	--	--	--	--	--	11	583
CTH O WEST OF STH 13	53	--	--	--	--	--	--	--	--	--	--	11	583
STH 13 NORTH OF CTH G NORTH	53	--	--	--	--	--	--	--	--	--	--	11	583
STH 13 SOUTH OF CTH G NORTH	53	--	--	--	--	--	--	--	--	--	--	10	530
STH 86 EAST OF CTH G	53	--	--	--	--	--	--	--	--	--	--	17	901
UNDISTRIBUTED		80		100		200		40				400	

PROJECT TOTALS	875	1,107	2,214	464	64	4,428
----------------	-----	-------	-------	-----	----	-------

** FIXED MESSAGE SIGNS TO BE PLACED 1 WEEK PRIOR TO CONSTRUCTION

PROJECT NO: 9216-07-60

HWY: STH 86

COUNTY: PRICE

MISCELLANEOUS QUANTITIES

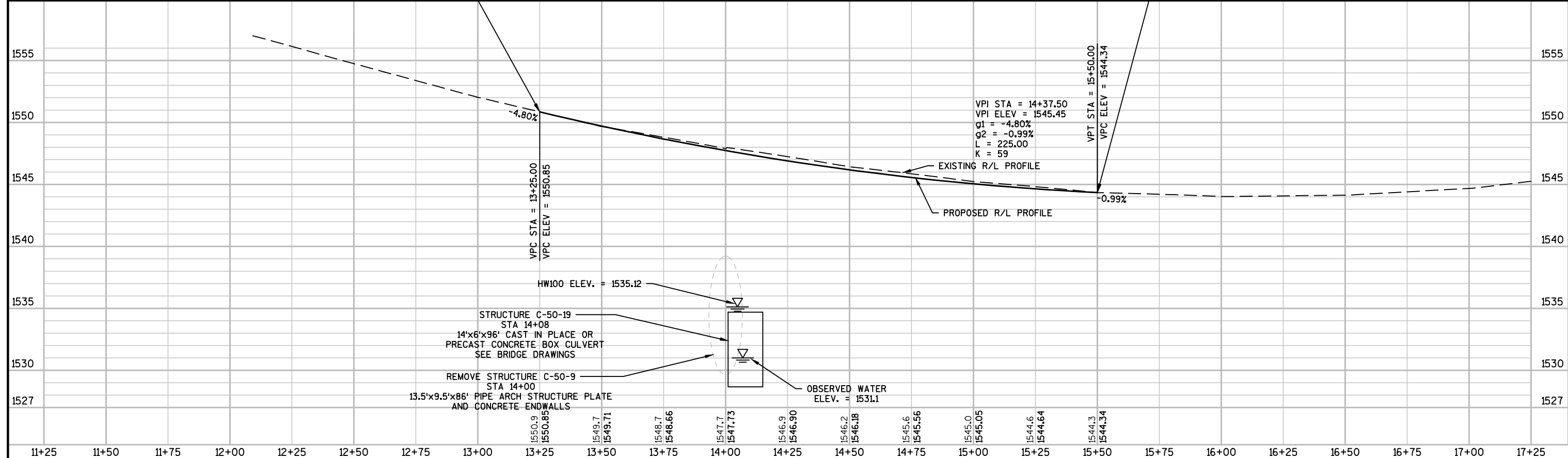
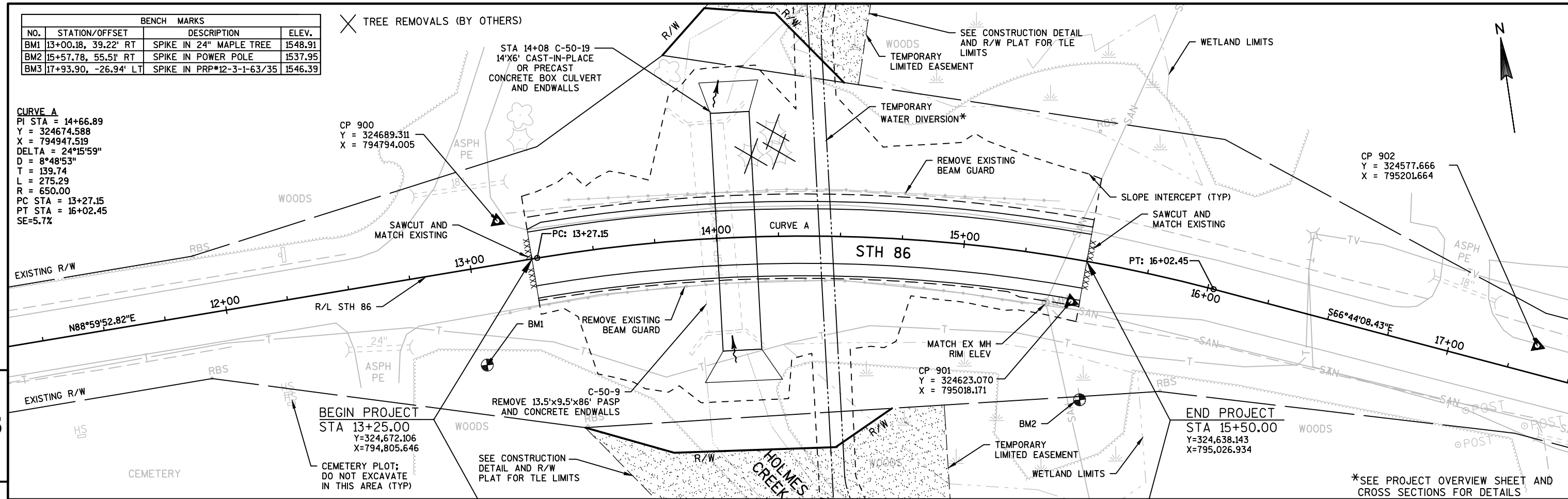
SHEET

E	3.1
---	-----

BENCH MARKS			
NO.	STATION/OFFSET	DESCRIPTION	ELEV.
BM1	13+00.18, 39.22' RT	SPIKE IN 24" MAPLE TREE	1548.91
BM2	15+57.78, 55.51' RT	SPIKE IN POWER POLE	1537.95
BM3	17+93.90, -26.94' LT	SPIKE IN PRP#12-3-1-63/35	1546.39

CURVE A
PI STA = 14+66.89
Y = 324674.588
X = 794947.519
DELTA = 24°15'59"
D = 8°48'53"
T = 139.74
L = 275.29
R = 650.00
PC STA = 13+27.15
PT STA = 16+02.45
SE=5.7%

✕ TREE REMOVALS (BY OTHERS)

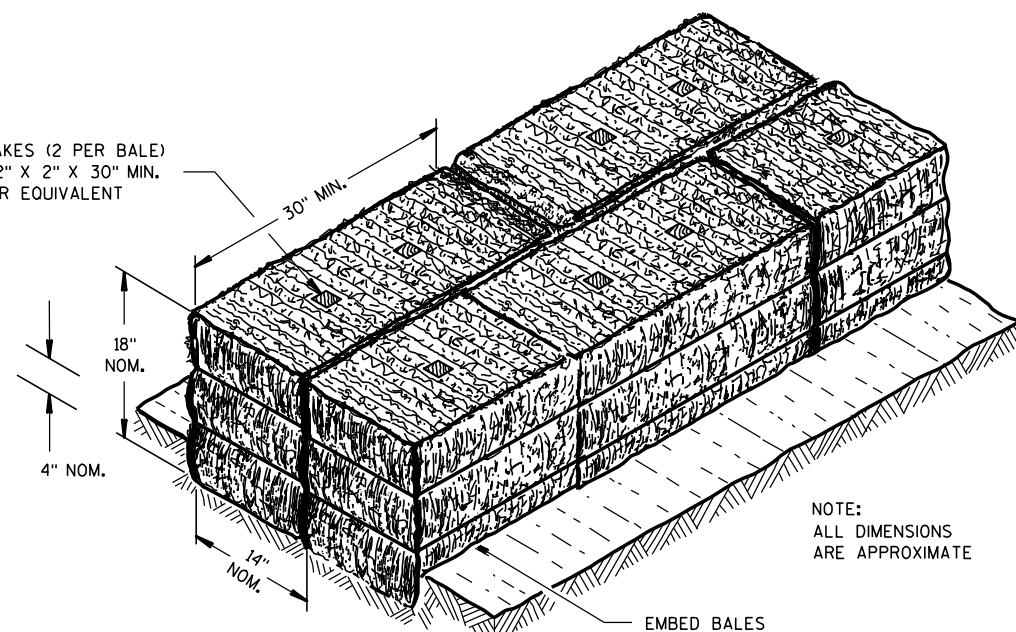


PROJECT NO: 9216-07-60	HWY: STH 86	COUNTY: PRICE	PLAN AND PROFILE: STH 86	SHEET	E
------------------------	-------------	---------------	--------------------------	-------	---

Standard Detail Drawing List

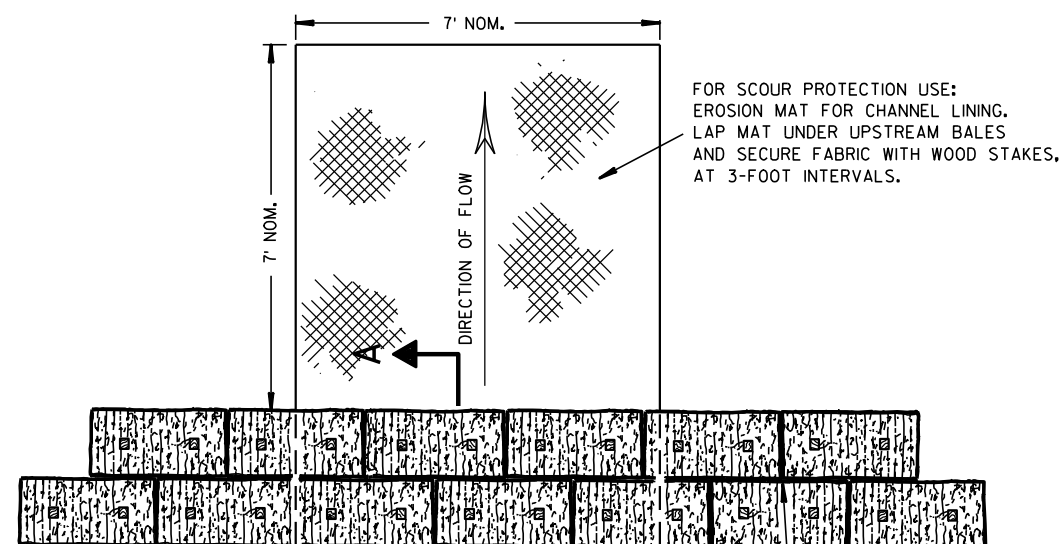
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
12A03-10	NAME PLATE (STRUCTURES)
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15A01-13B	FLEXIBLE MARKER POST FOR RIGHT-OF-WAY
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C08-17A	LONGITUDINAL MARKING (MAINLINE)
15D38-01A	TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS
15D38-01B	ATTACHMENT OF SIGNS TO POSTS

WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

SECTION A-A

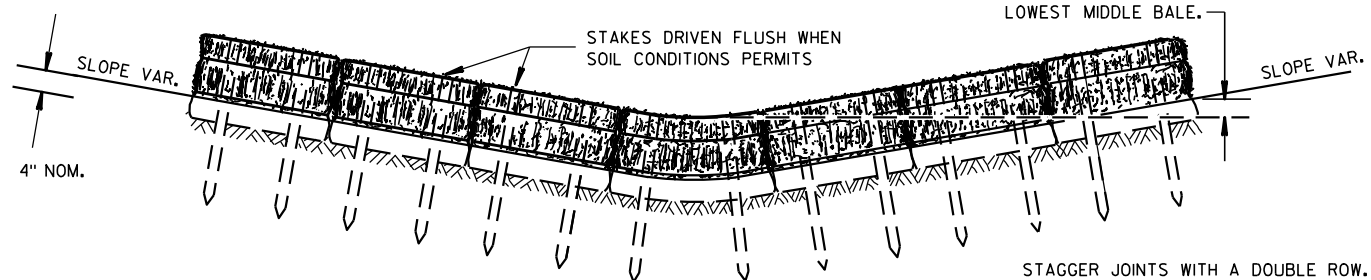


FOR SCOUR PROTECTION USE:
EROSION MAT FOR CHANNEL LINING.
LAP MAT UNDER UPSTREAM BALES
AND SECURE FABRIC WITH WOOD STAKES,
AT 3-FOOT INTERVALS.

PLAN VIEW

STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

BOTTOM ELEVATION OF END BALE SHALL
BE EQUAL TO OR GREATER THAN TOP OF
LOWEST MIDDLE BALE.



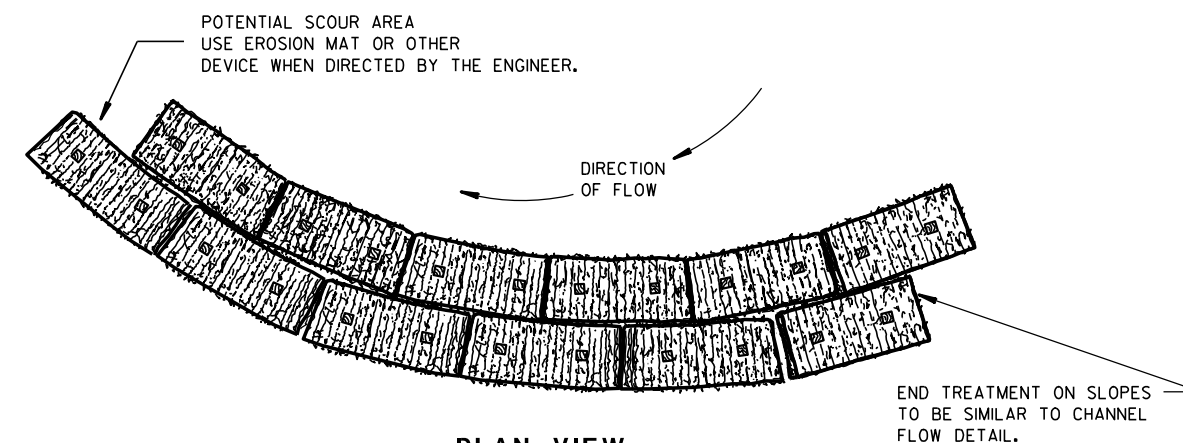
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

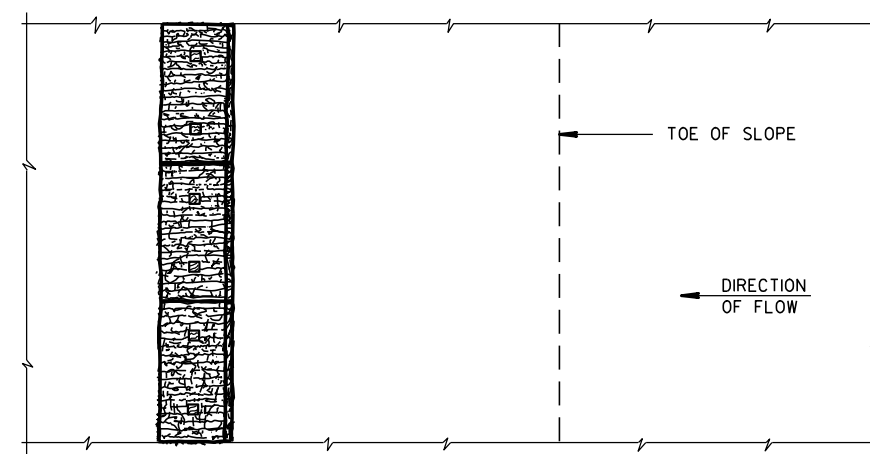
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

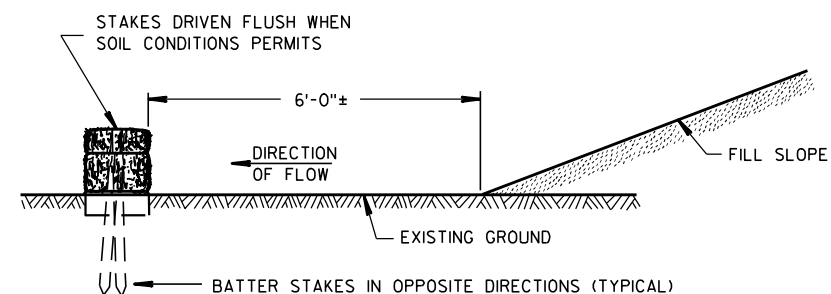


PLAN VIEW

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

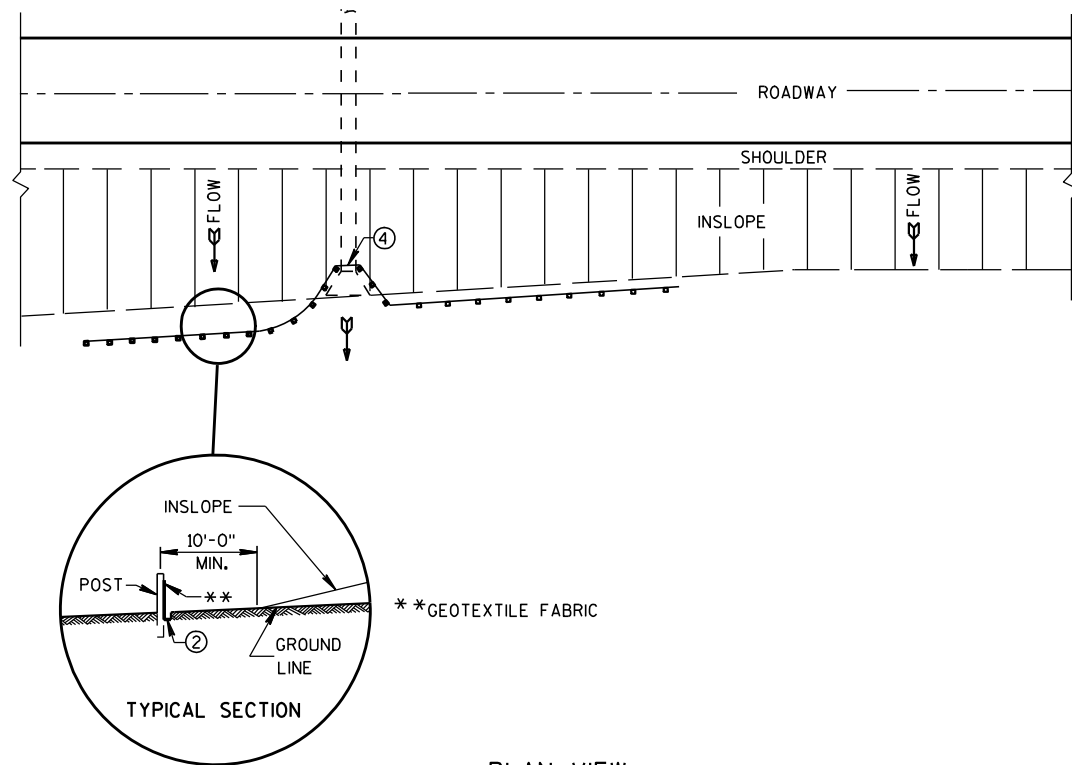
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE

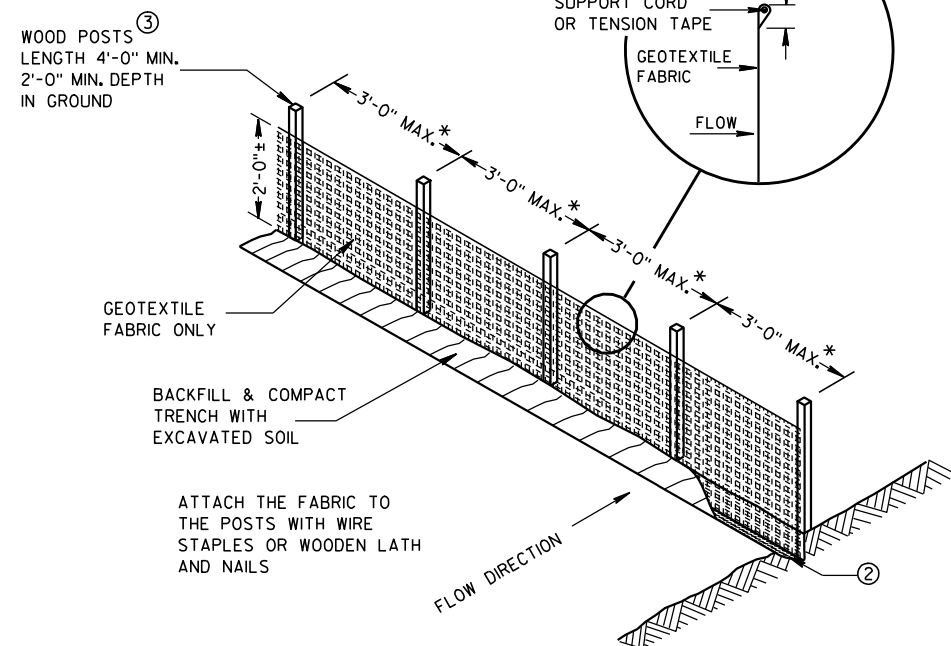
FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



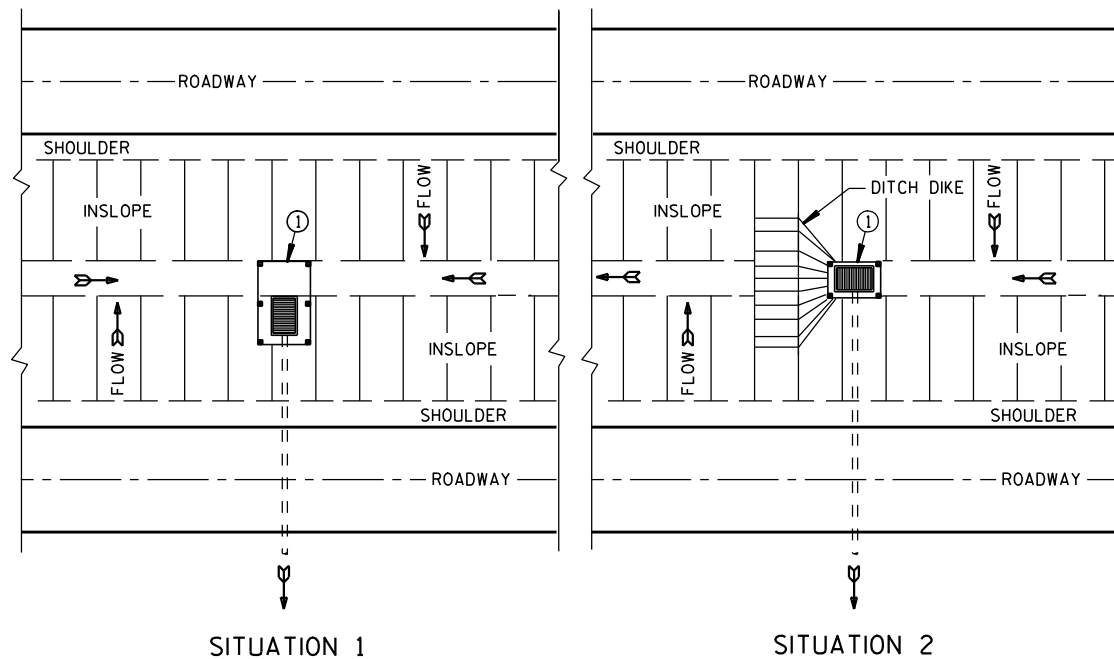
TYPICAL APPLICATION OF SILT FENCE

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS



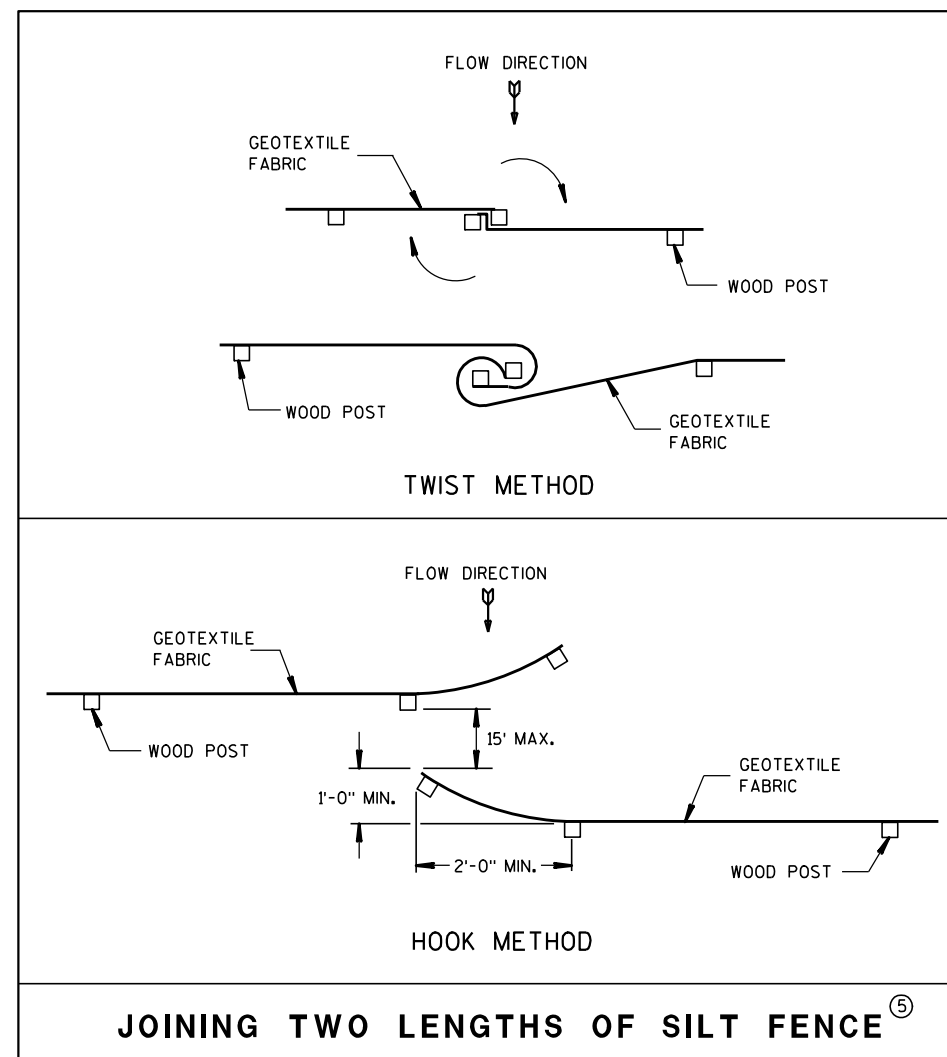
* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE



PLAN VIEW

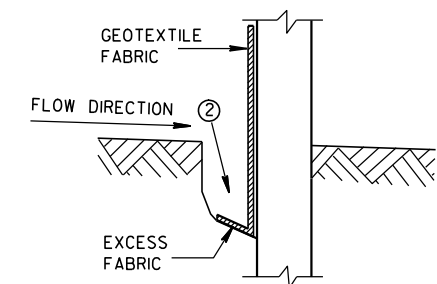
SILT FENCE AT MEDIAN SURFACE DRAINS



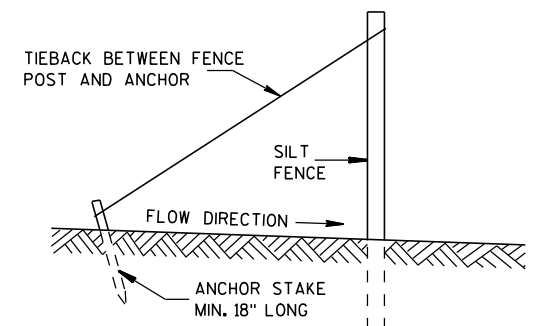
GENERAL NOTES

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 1 1/8" X 1 1/8" 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 TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

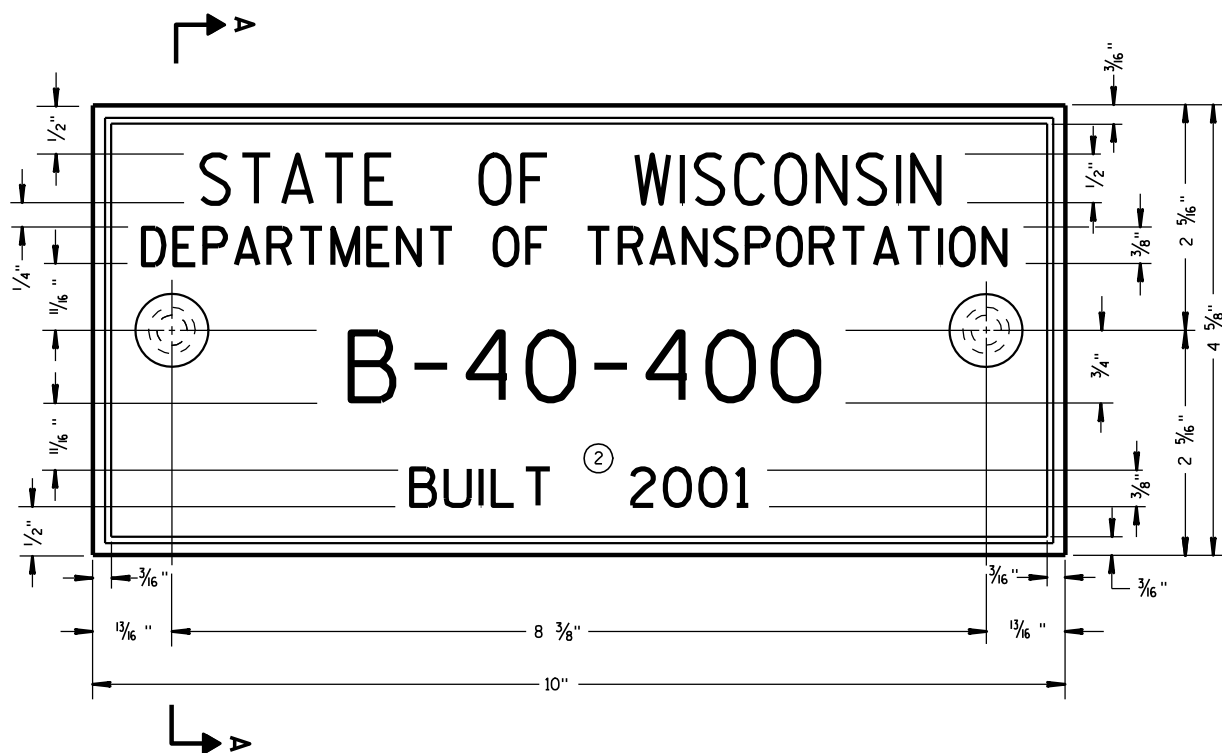
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

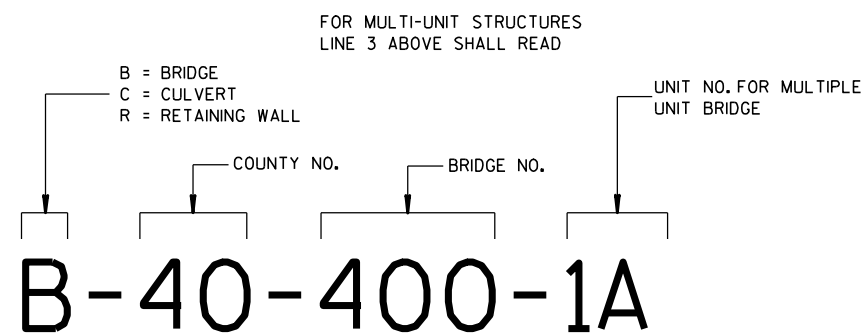
4-29-05
DATE

FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)



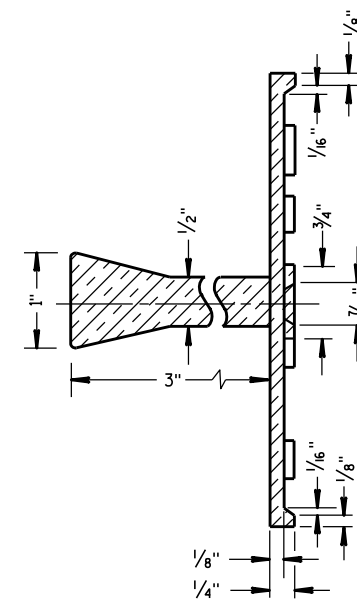
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

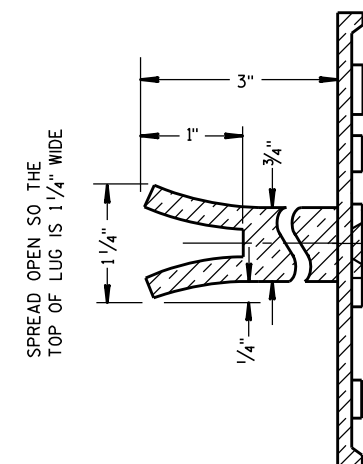
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.

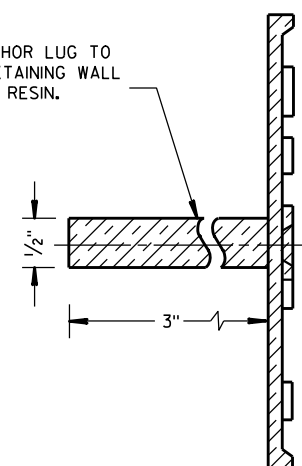


SECTION A-A



ALTERNATE LUG

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

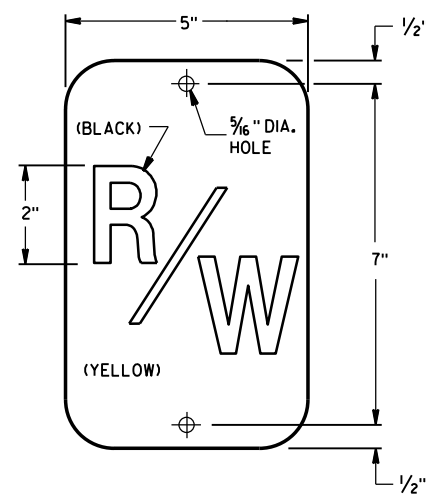
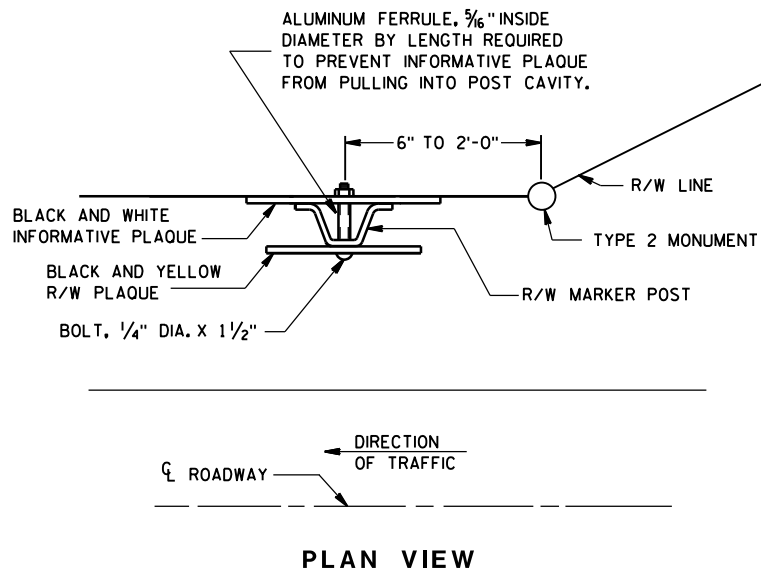
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

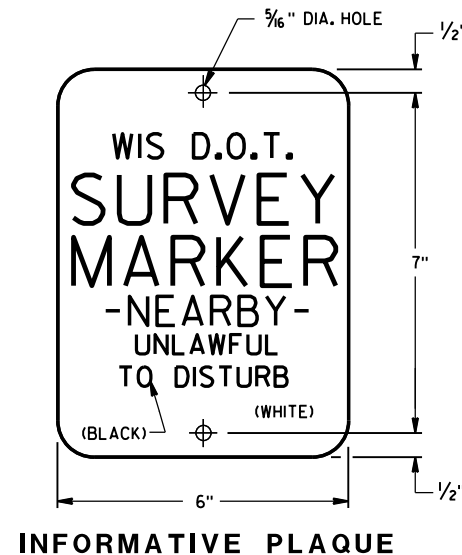
3/26/10
DATE

FHWA

/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



R/W PLAQUE
THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



GENERAL NOTES

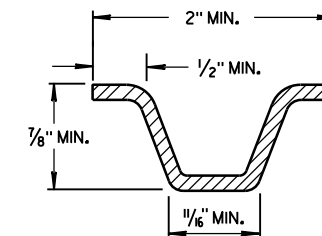
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A STEEL MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY, WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

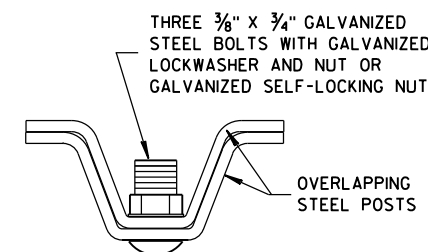
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. R/W AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE DEPARTMENT OF TRANSPORTATION.

STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

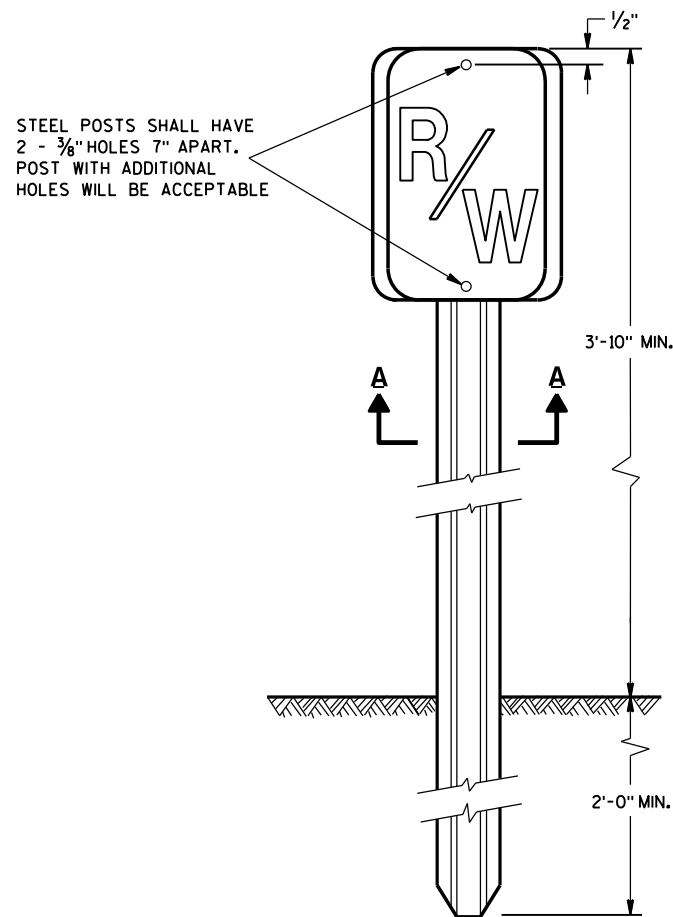
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK TO A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT, OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



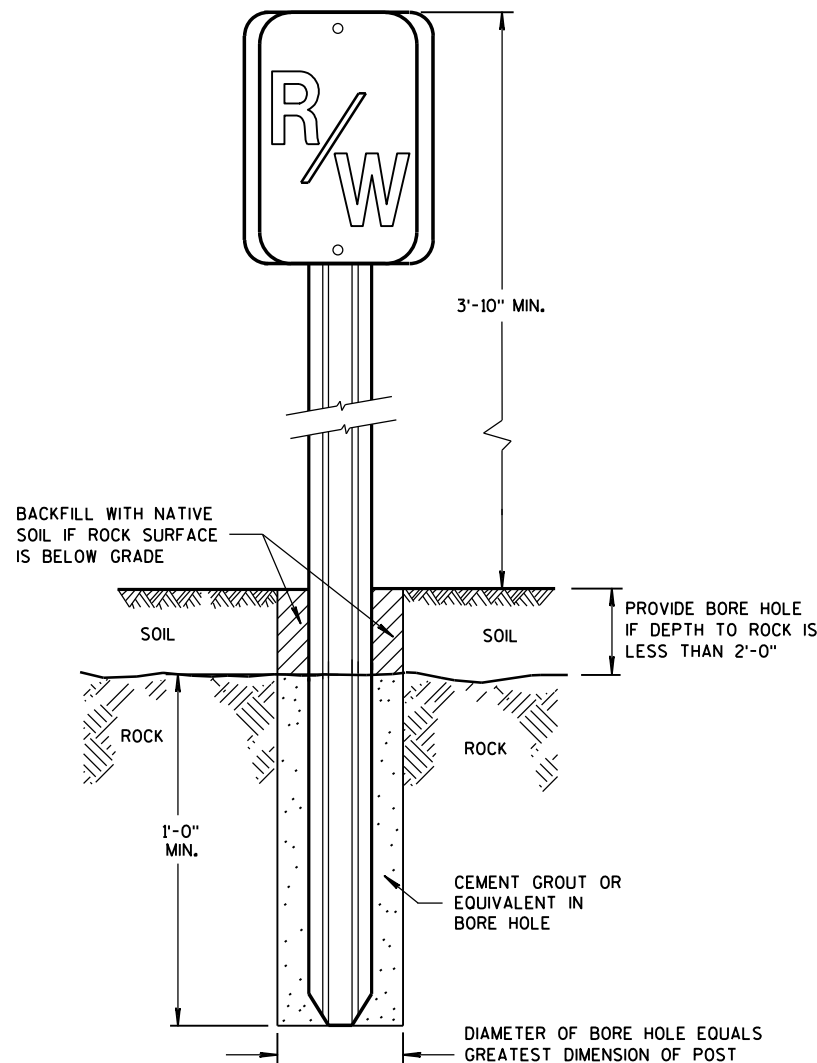
MIN. WEIGHT 1.12 LB./FT.
SECTION A-A



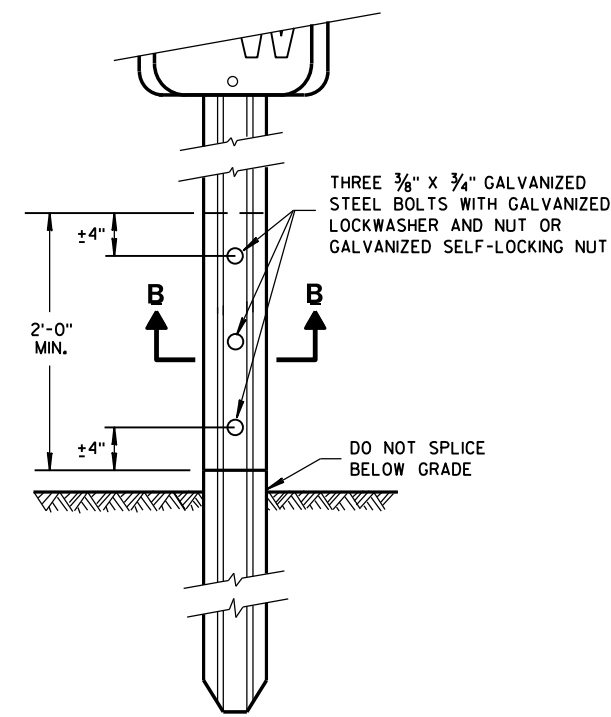
SECTION B-B



**FRONT VIEW
STEEL MARKER POST**



**FRONT VIEW
ROCK INSTALLATION** ①

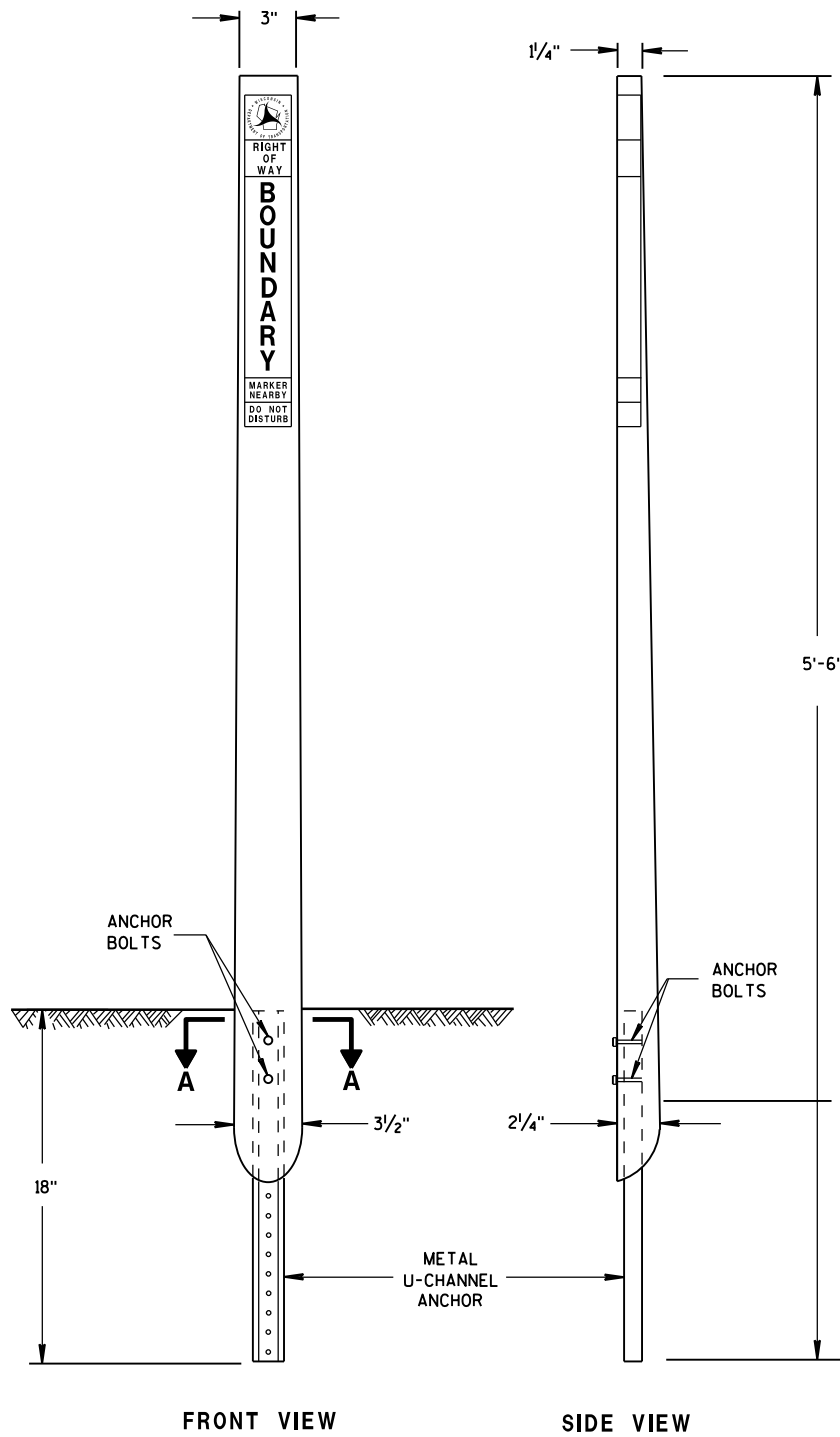


**FRONT VIEW
SPLICE DETAIL**

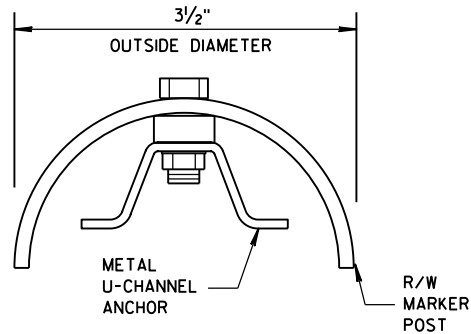
**MARKER POST
FOR RIGHT-OF-WAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

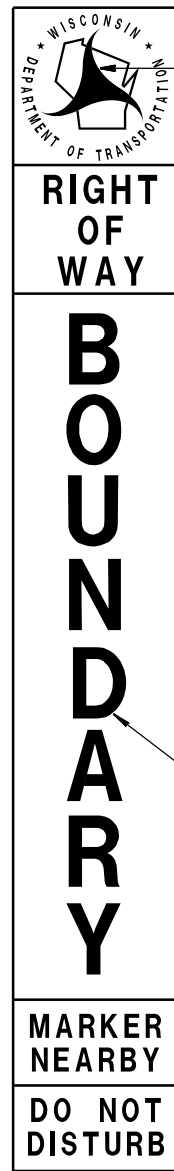
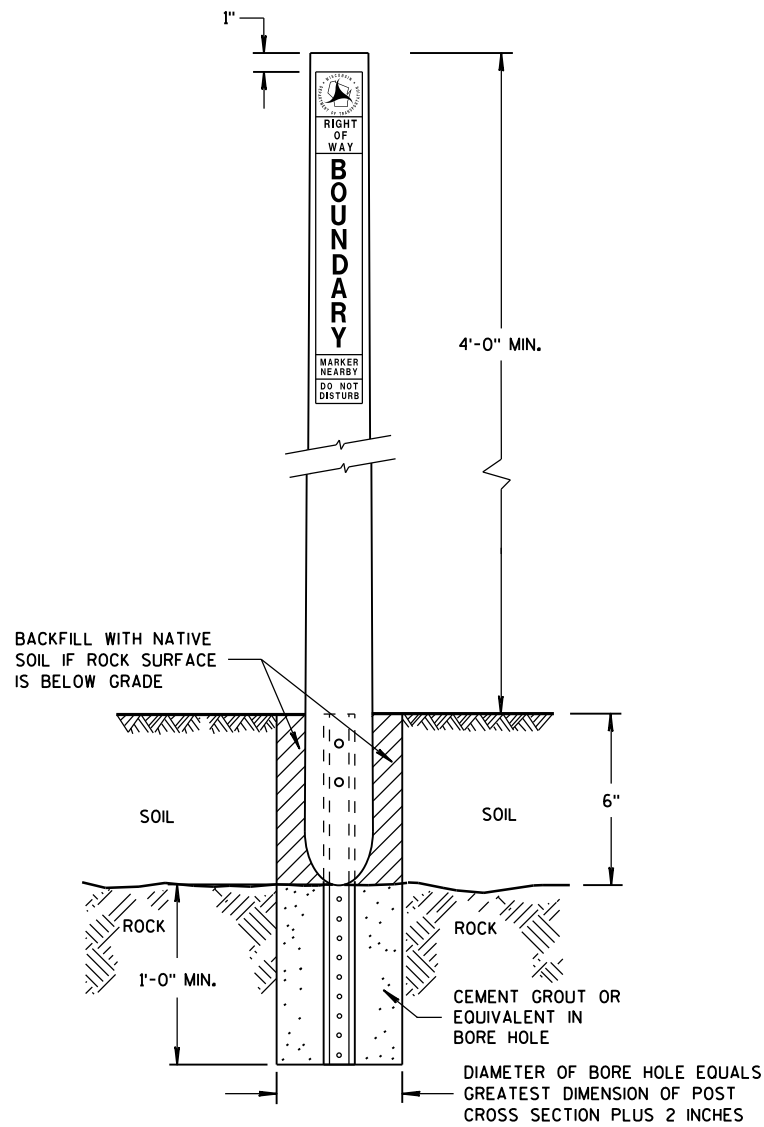
APPROVED
2/18/2016 /S/ Ray Kumapayi
DATE CHIEF SURVEYING AND MAPPING ENGINEER
FHWA



FLEXIBLE MARKER POST ①
FOR RIGHT-OF-WAY



SECTION A-A



RIGHT-OF-WAY STICKER

THE RIGHT-OF-WAY STICKER SHALL BE ATTACHED 1" FROM THE TOP OF THE RIGHT-OF-WAY POST PRIOR TO DELIVERY.

GENERAL NOTES

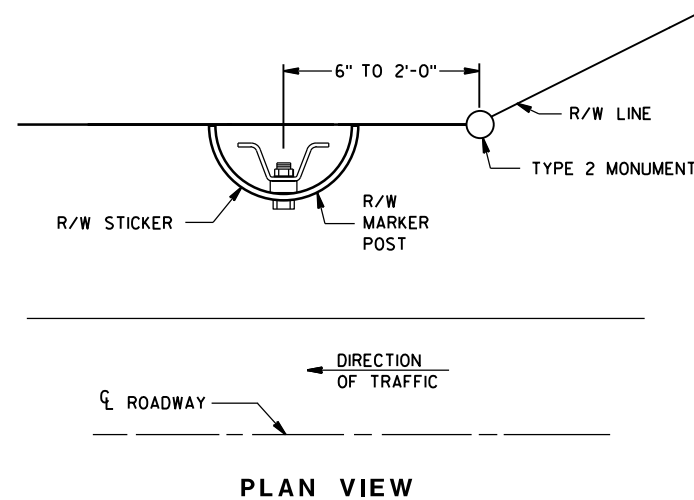
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A FLEXIBLE MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY, WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

THE RIGHT-OF-WAY STICKER DIMENSIONS SHALL BE 2 1/4" X 17" AND THE STICKER SHALL BE MADE OF A NON-REFLECTIVE VINYL MATERIAL. THE RIGHT-OF-WAY STICKER SHALL FACE THE ROADWAY.

INSTALL PER DEPTH OF MANUFACTURER'S RECOMMENDATIONS BUT NOT LESS THAN 18 INCHES BELOW GRADE FROM THE BOTTOM OF THE METAL U-CHANNEL ANCHOR.

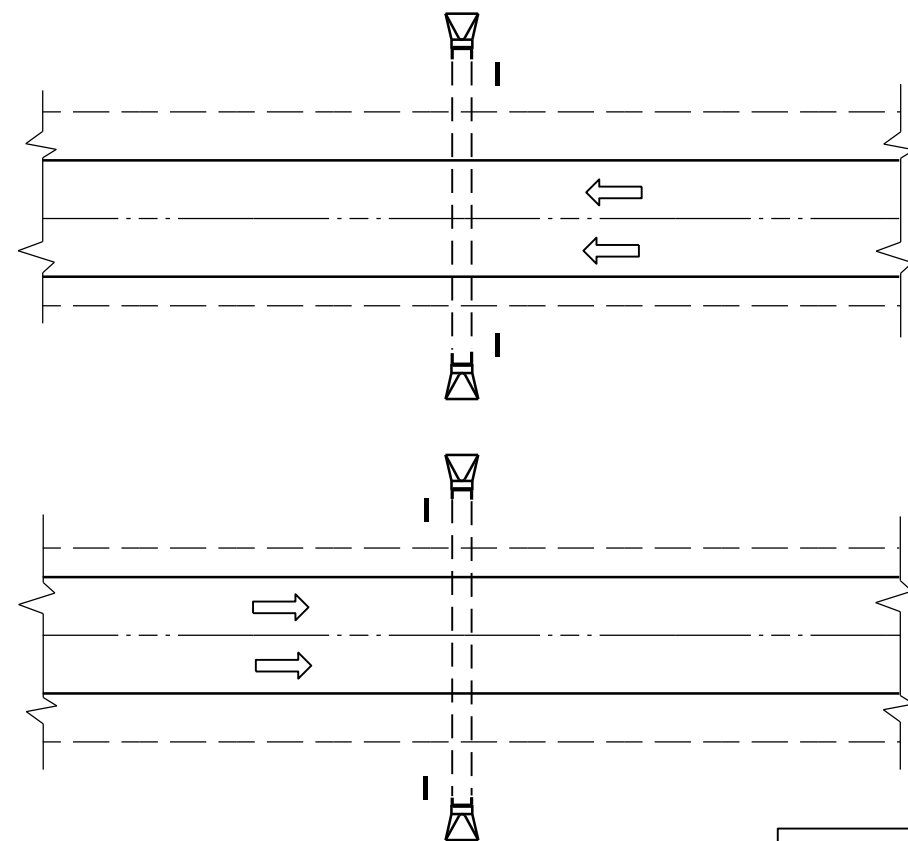
- ① FLEXIBLE MARKER POSTS SHALL BE INCLUDED IN THE APPROVED PRODUCTS LIST FOR MARKER POSTS AND SHALL BE FEDERAL YELLOW IN COLOR.
- ② IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK TO A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 4'-0" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT, OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



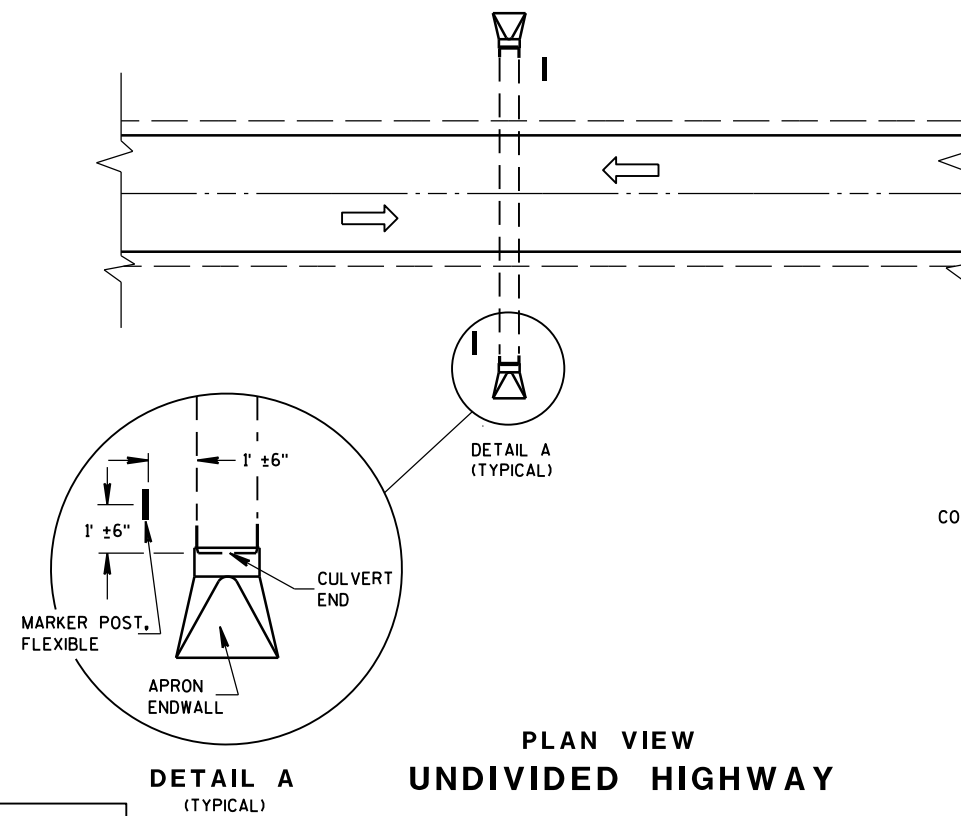
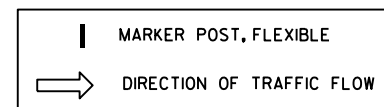
FLEXIBLE MARKER POST
FOR RIGHT-OF-WAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/18/2016 /S/ Ray Kumapayi
DATE CHIEF SURVEYING AND MAPPING ENGINEER
FHWA



PLAN VIEW
DIVIDED HIGHWAY

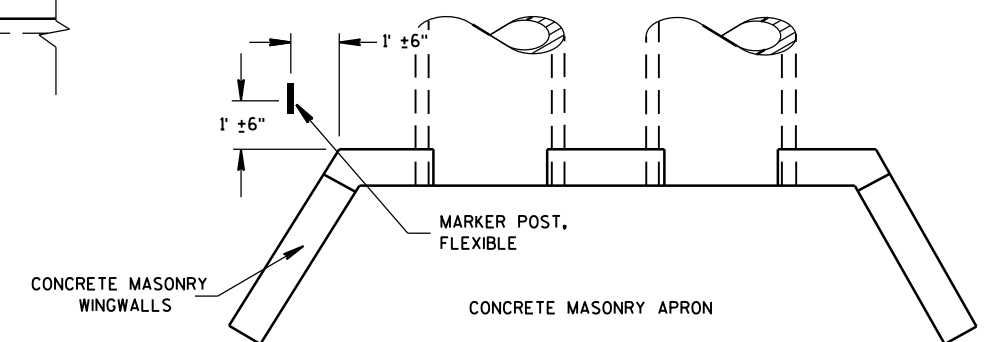


PLAN VIEW
UNDIVIDED HIGHWAY

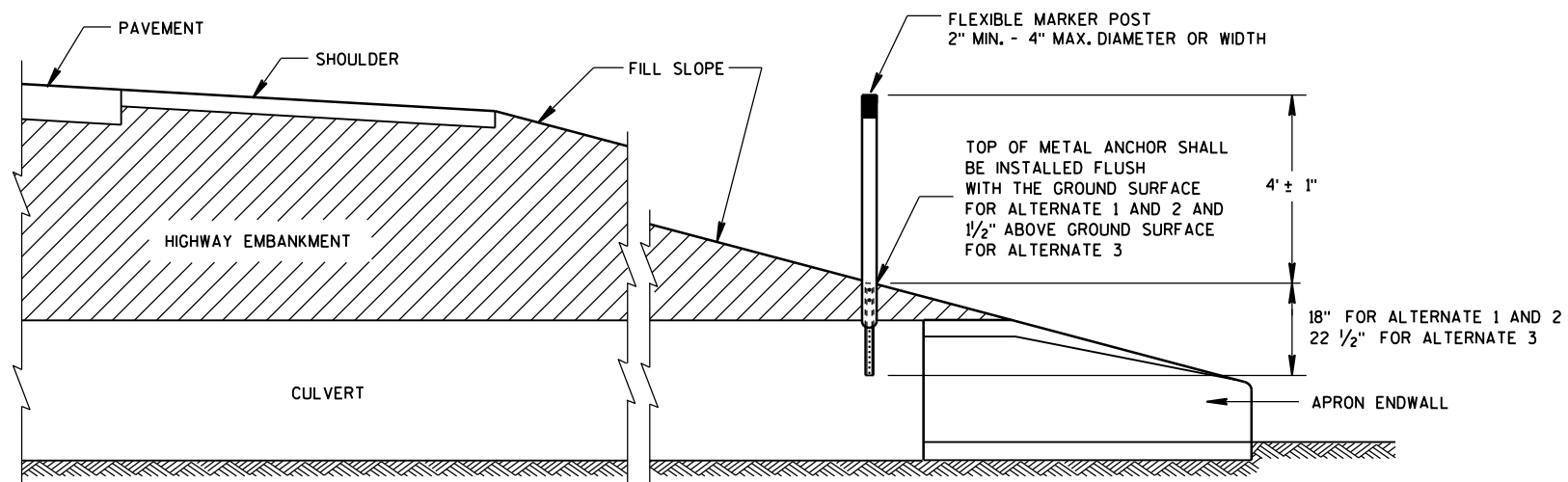
FLEXIBLE MARKER POST LOCATION

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.



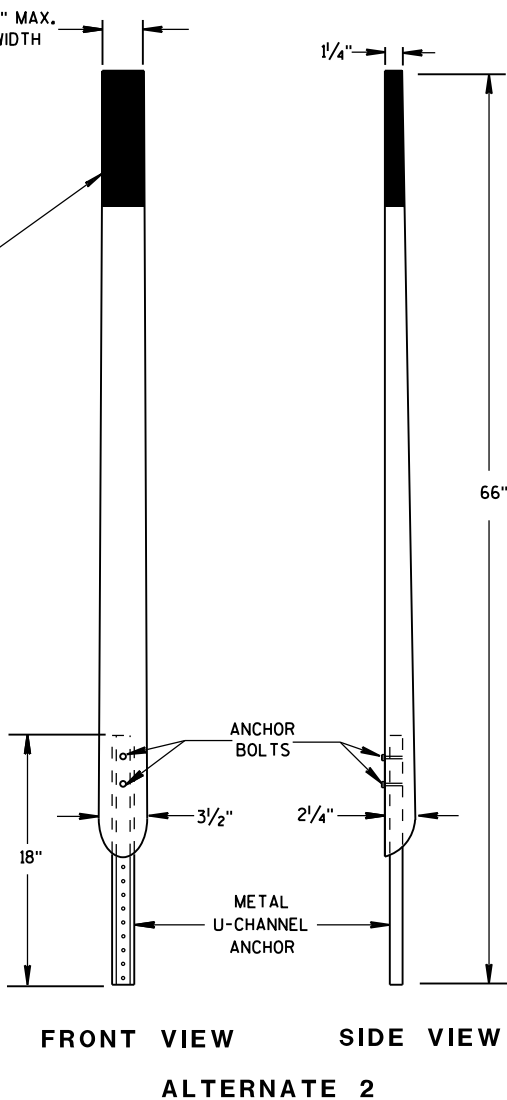
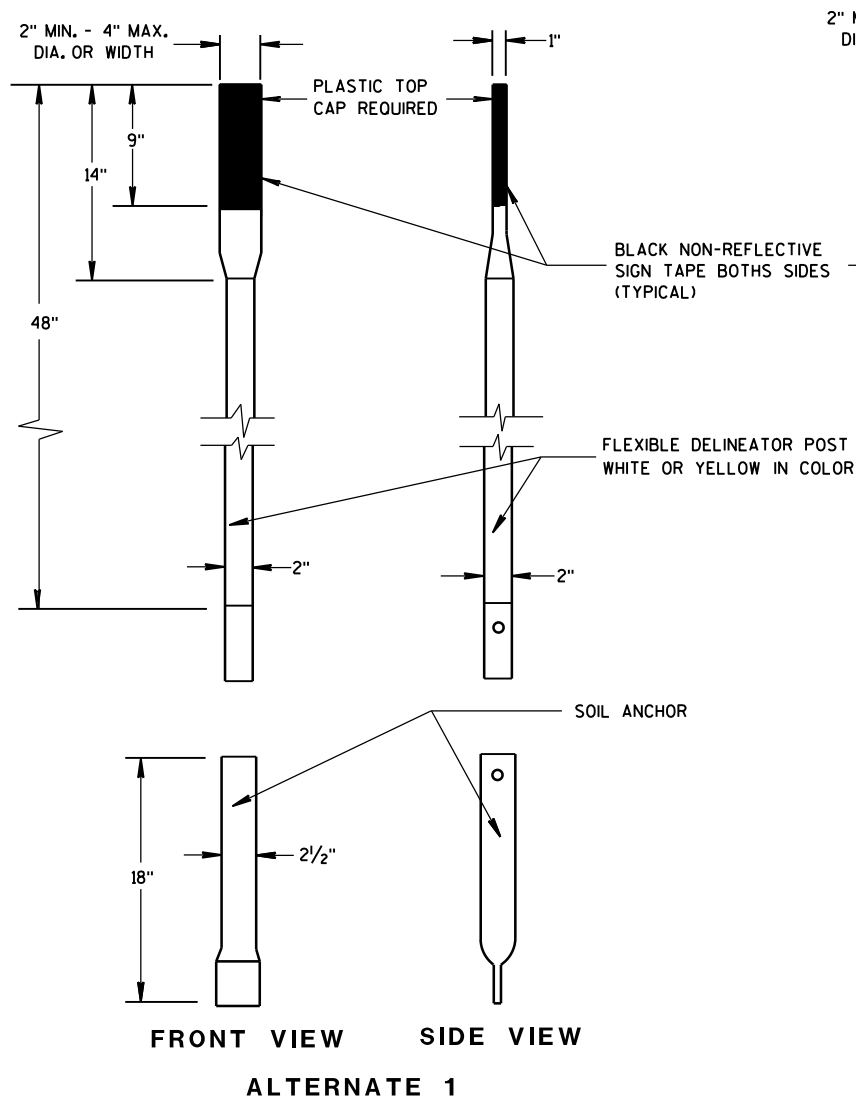
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



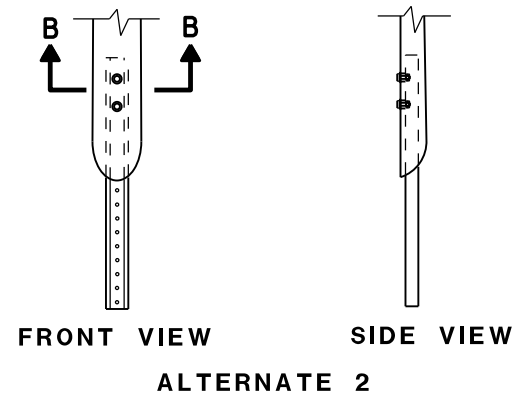
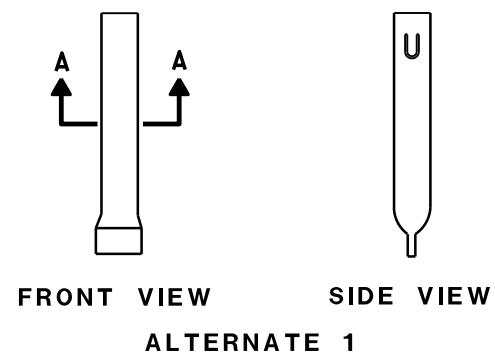
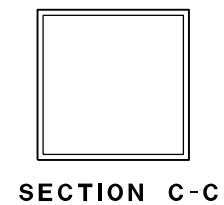
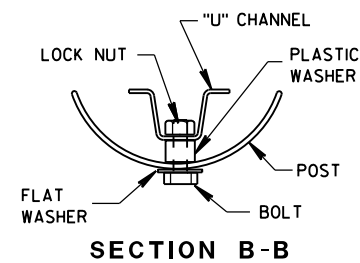
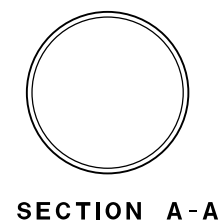
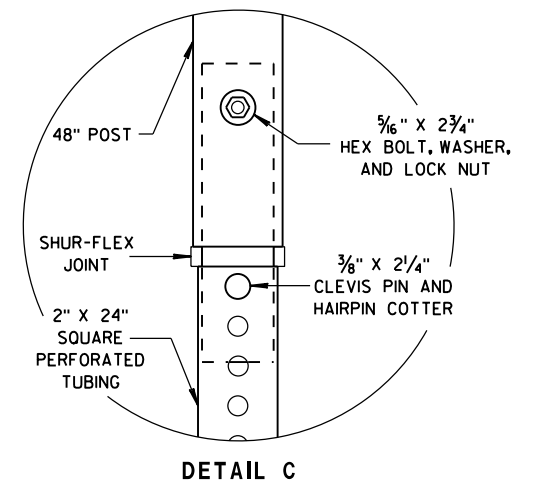
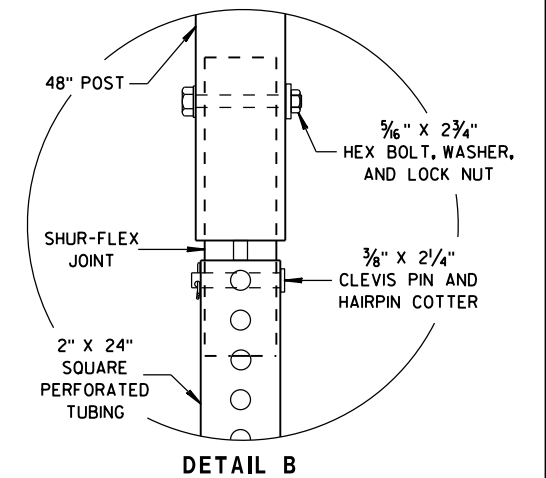
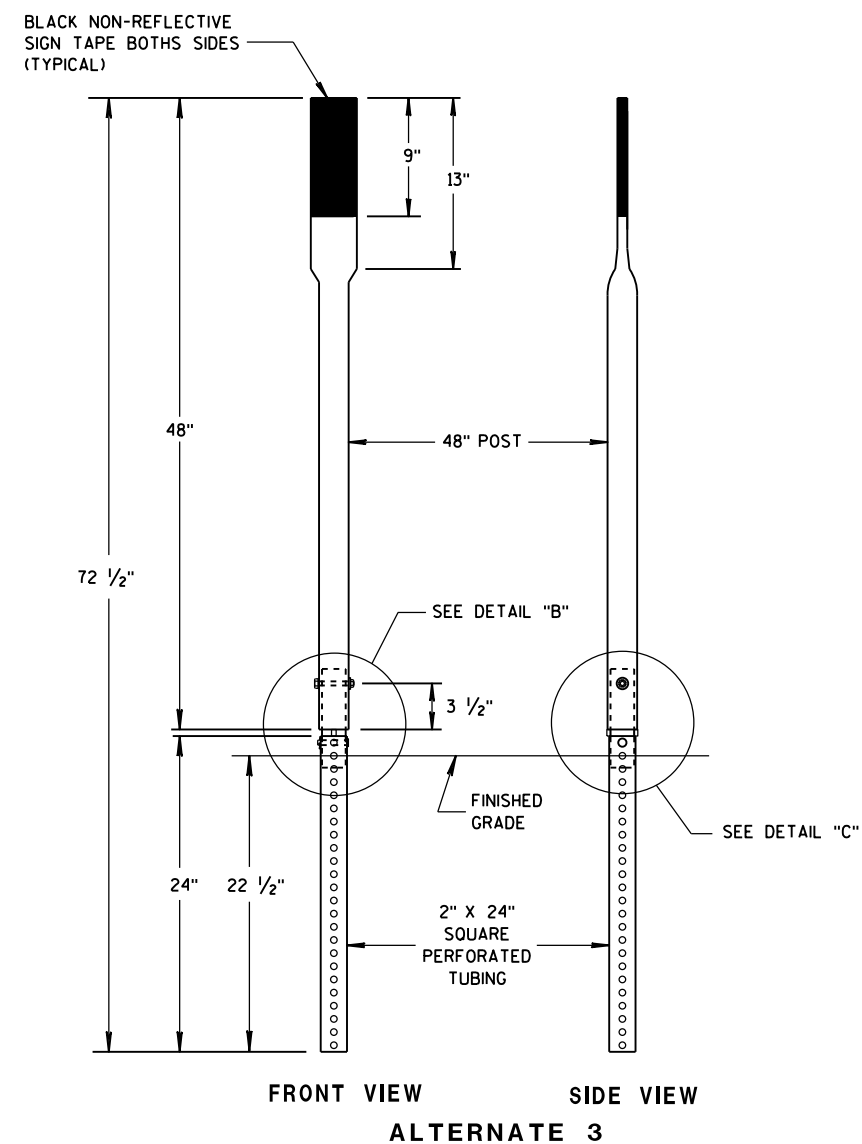
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

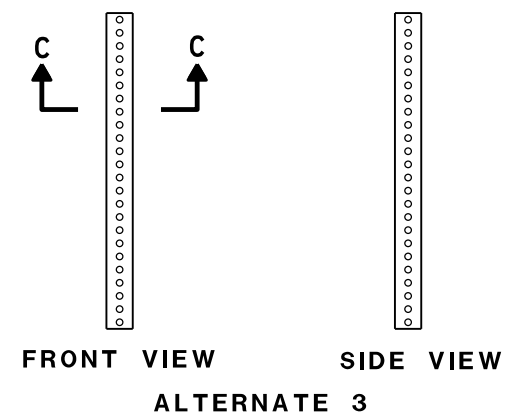
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



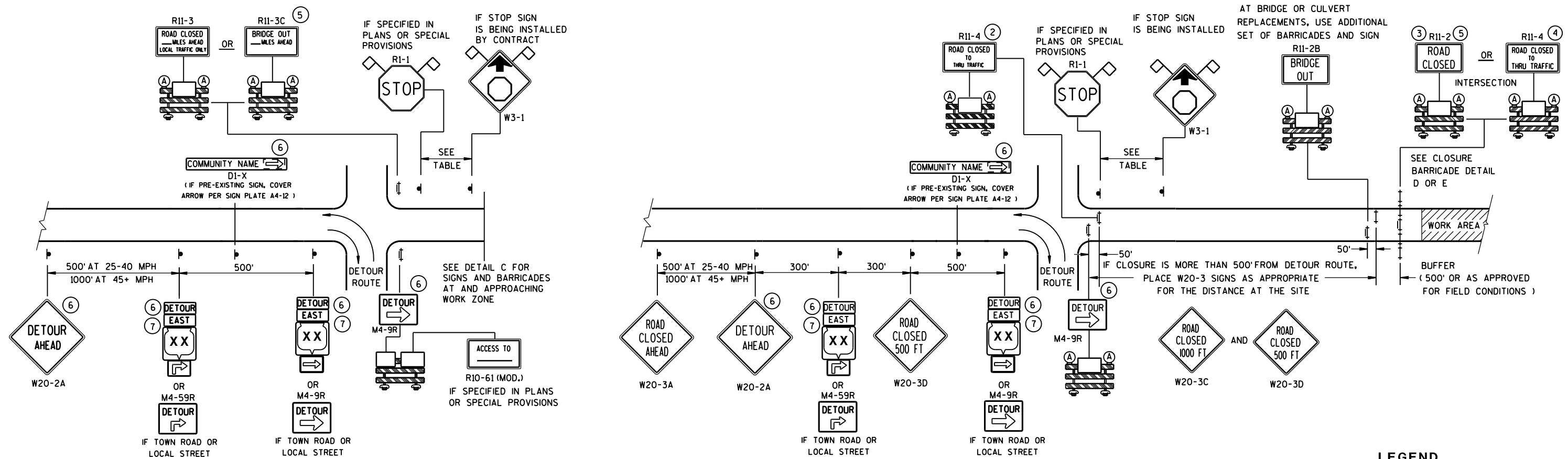
FLEXIBLE MARKER POSTS



FLEXIBLE MARKER POST ANCHORS



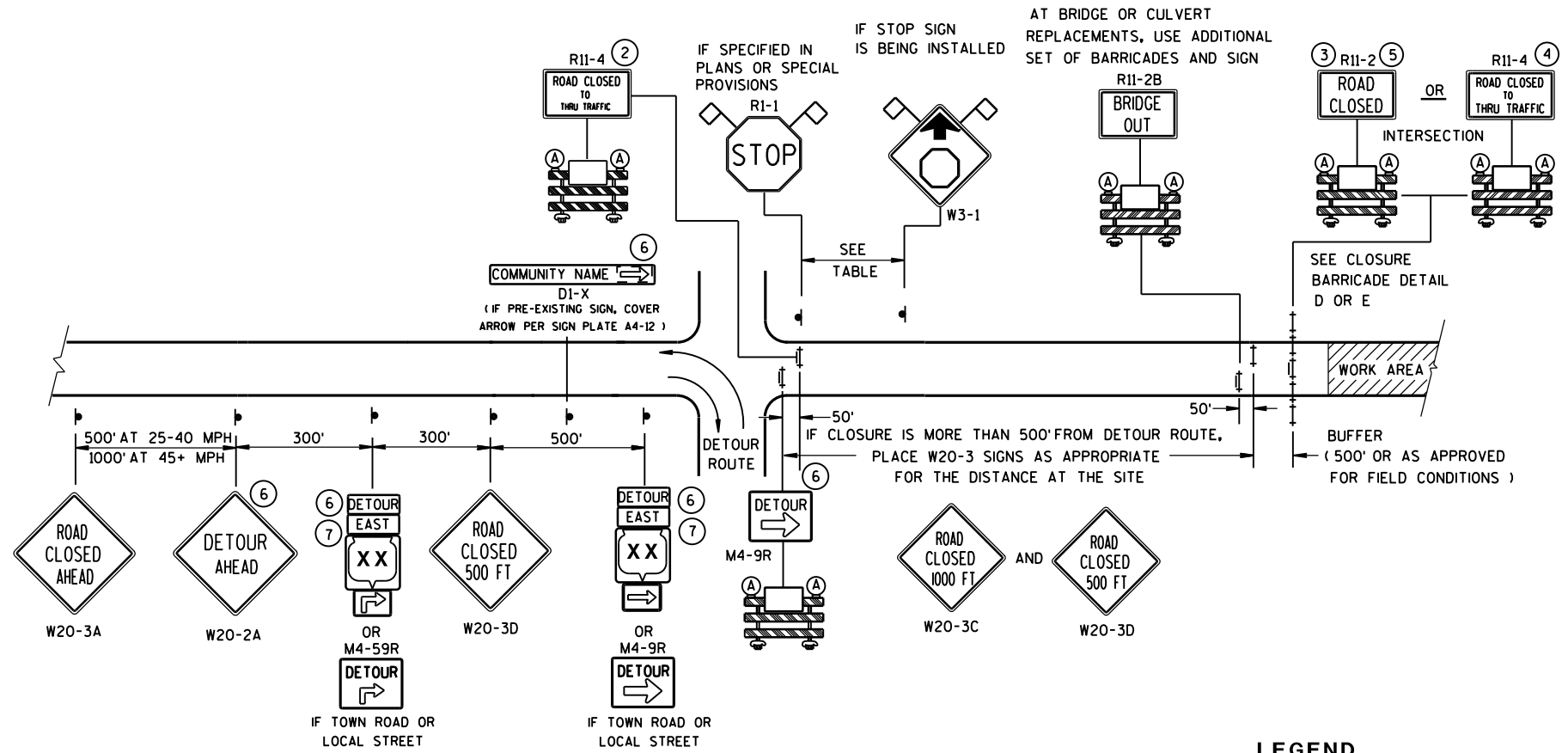
FLEXIBLE MARKER POST FOR CULVERT END	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/1/2012 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

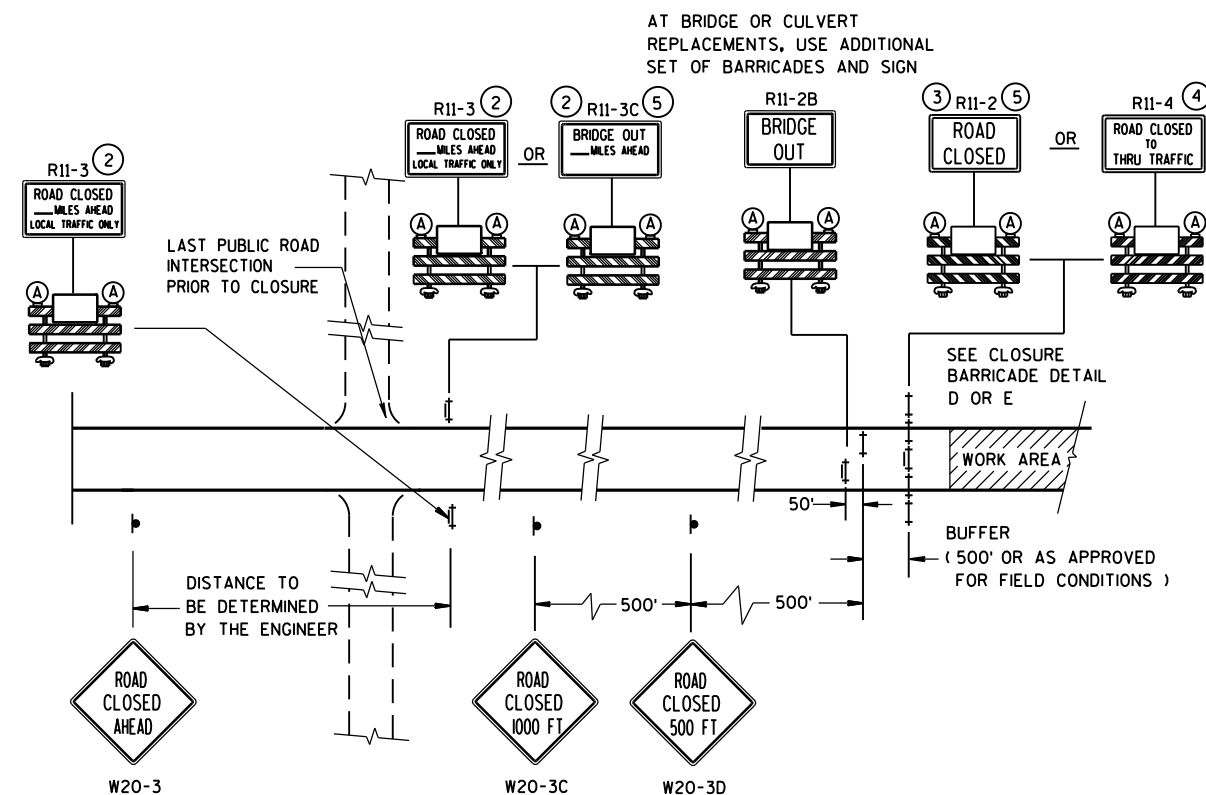
WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B














MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN 1/2 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

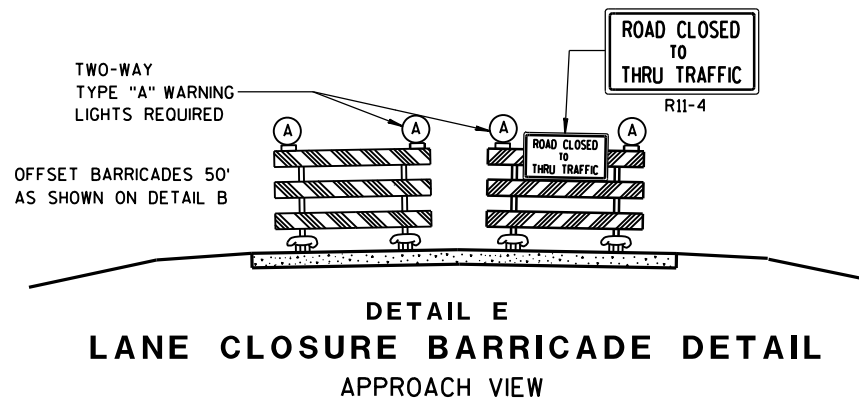
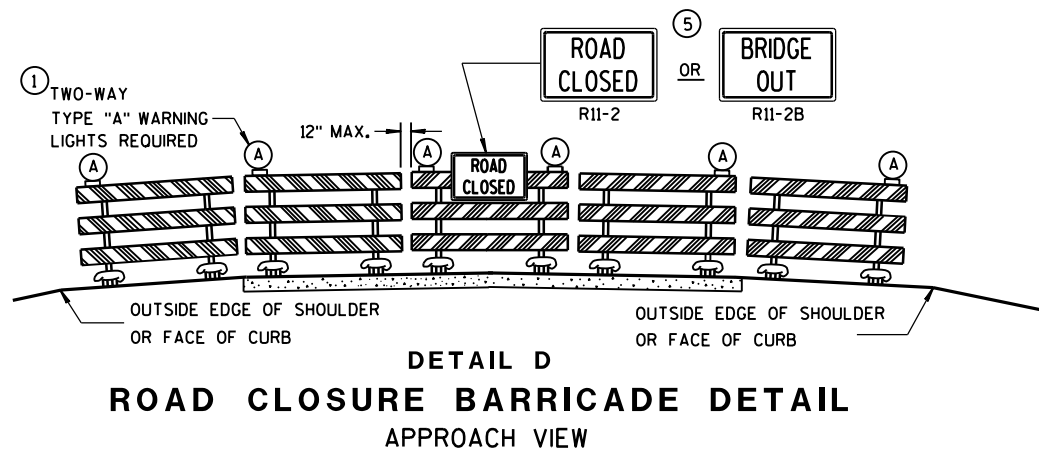
- # LEGEND
-  SIGN ON PERMANENT SUPPORT
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  WORK AREA
-  M4-8
-  M3-X
-  M1-4
- OR
-  M1-5A
- OR
-  M1-6
-  M05-1
- OR
-  M06-1
-  FLAGS, 16" X 16" MIN., (ORANGE)

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES (1) THROUGH (7)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015	/S/ Peter Amakobe Atepe
DATE	STATEWIDE WORK ZONE TRAFFIC
FHWA	SAFETY ENGINEER



SEE SDD 15C2-SHEET "a" 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.

"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 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)

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.)

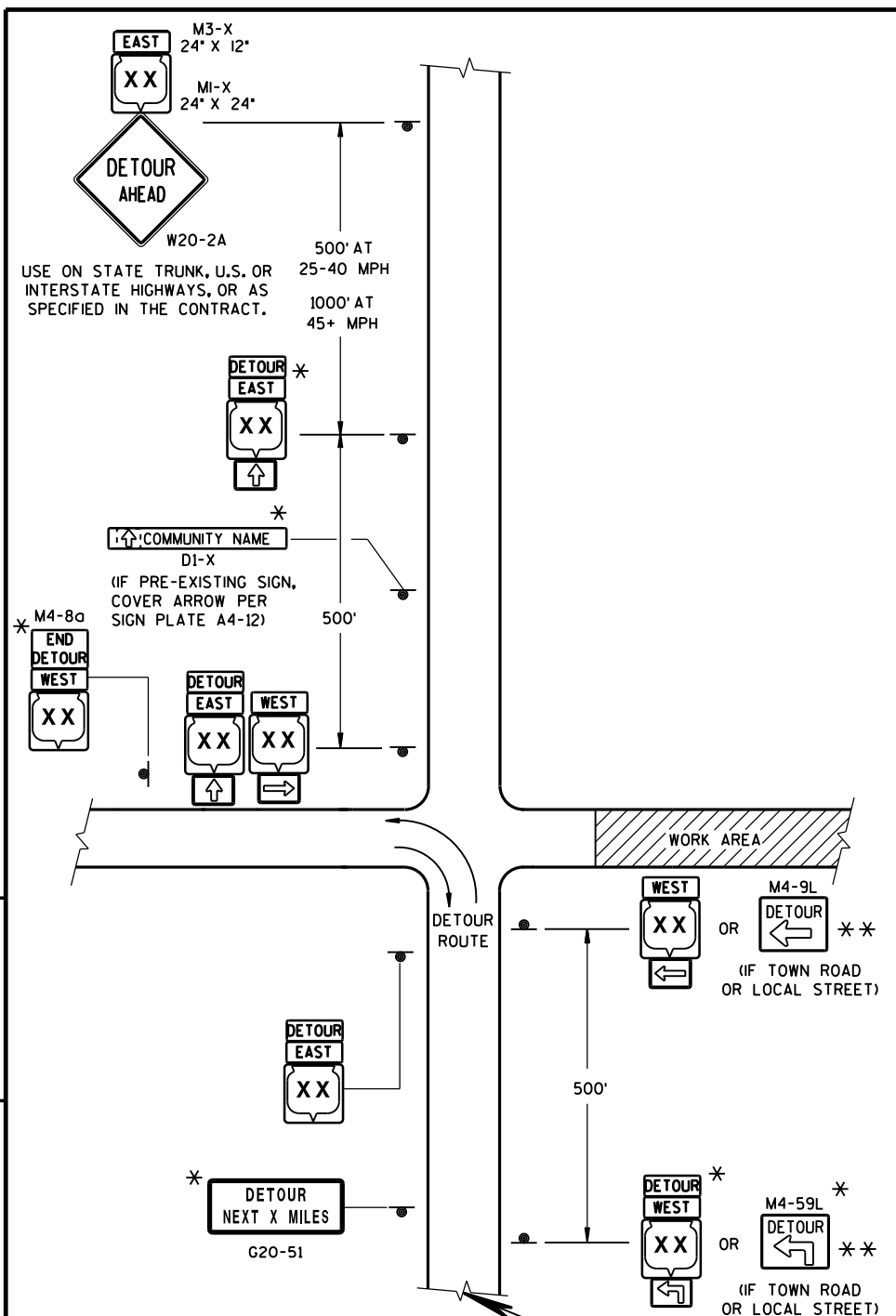
M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)

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	
Sept. 2015 DATE	/S/ Peter Amokobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	



THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

MATCH POINT

DETAIL F
DETOUR SIGNING

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS, MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

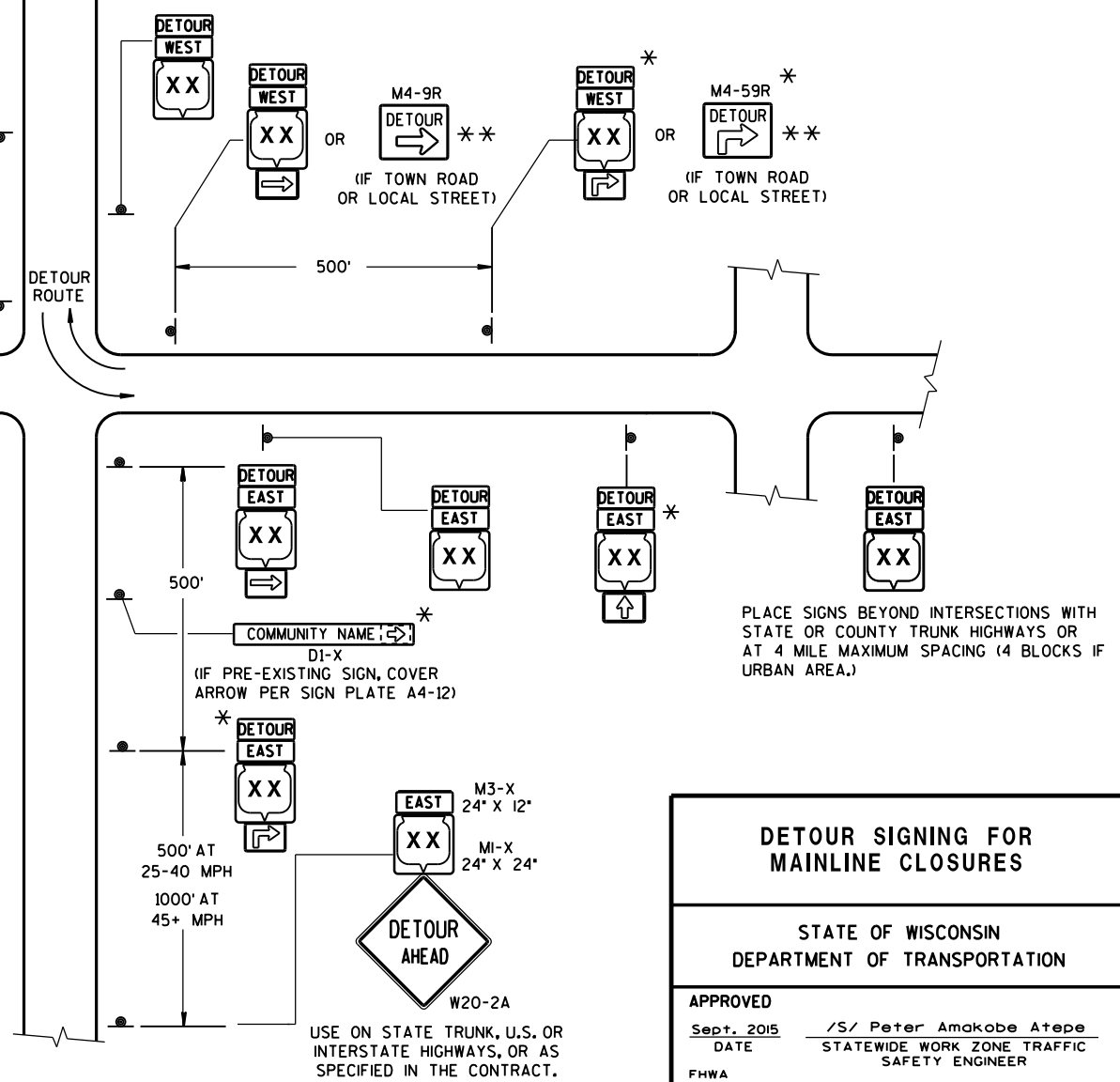
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

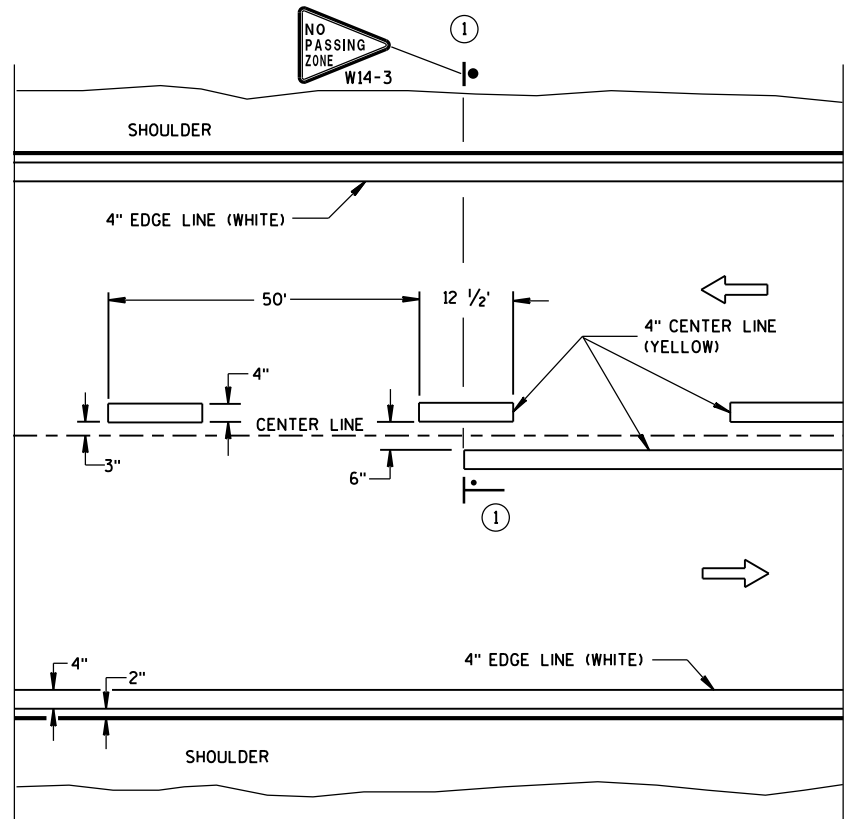
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO 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.

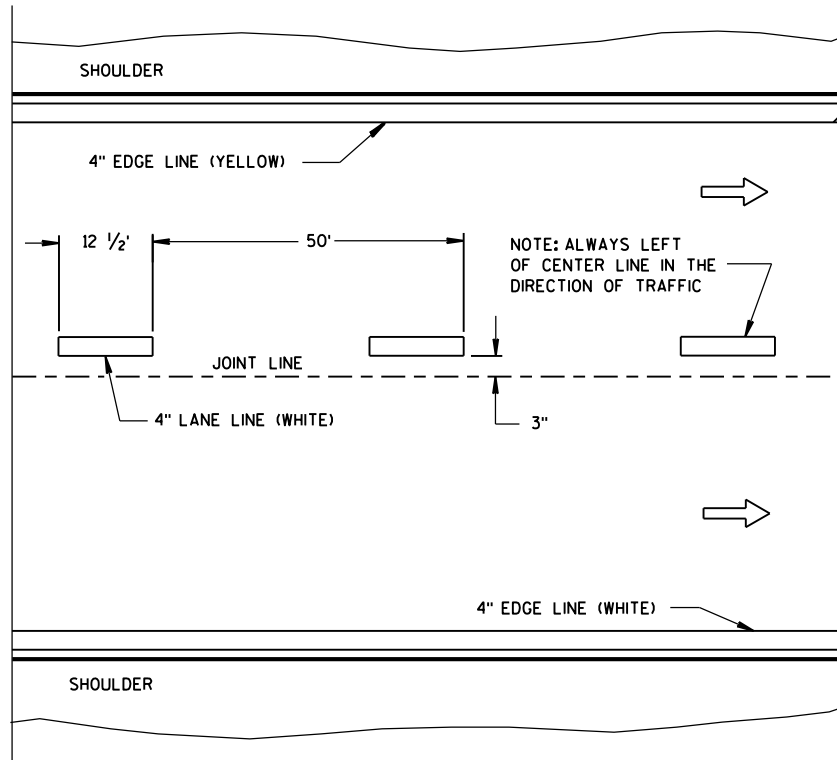
** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE FWHA	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

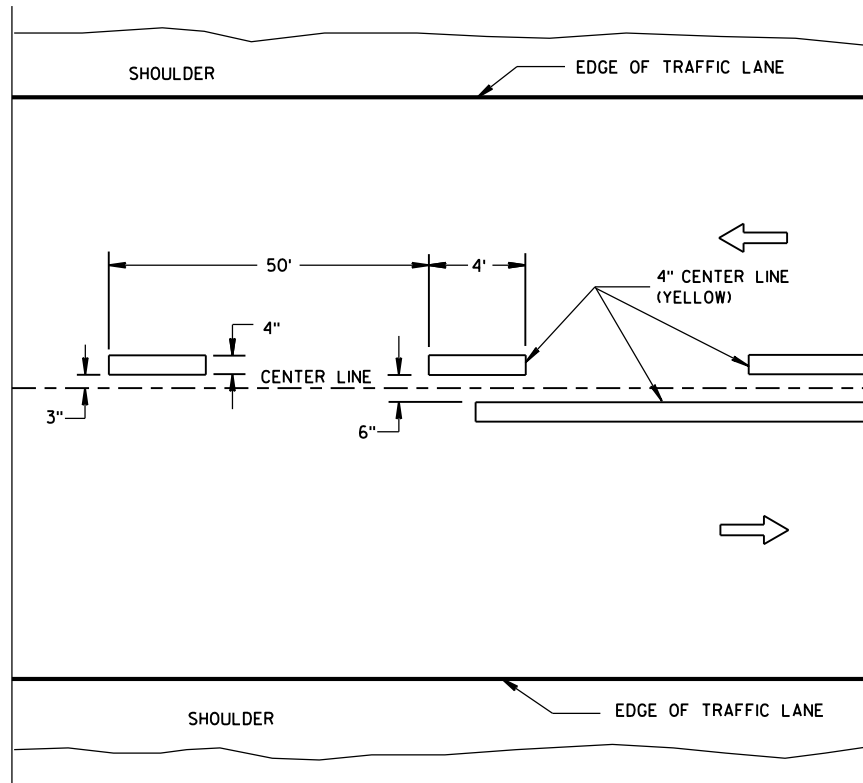


TWO WAY TRAFFIC

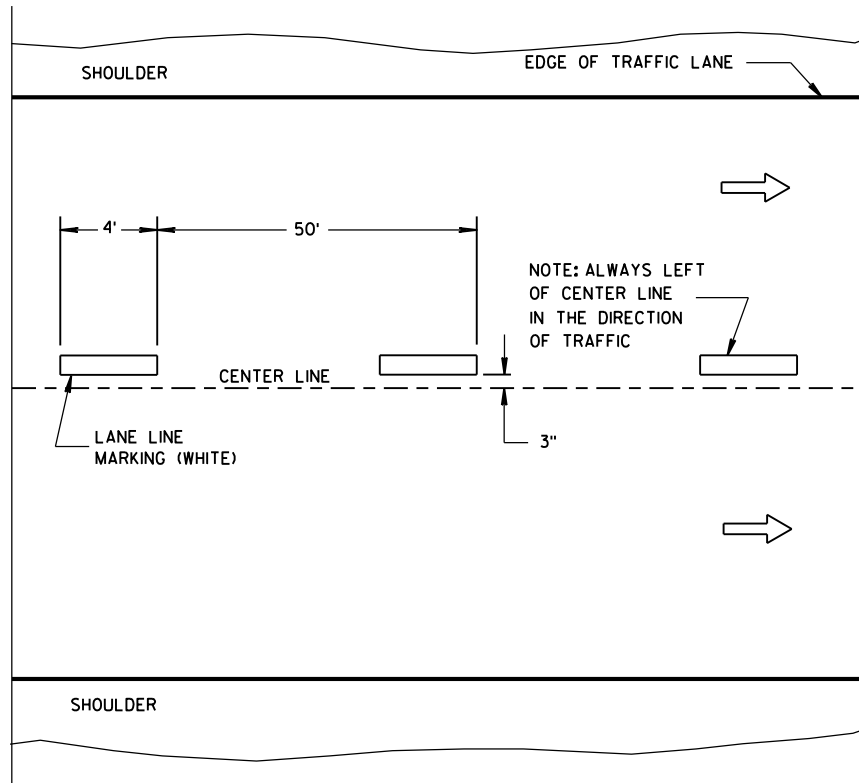


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

① NO PASSING ZONE W14-3 SIGN SHALL BE LOCATED WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

LEGEND

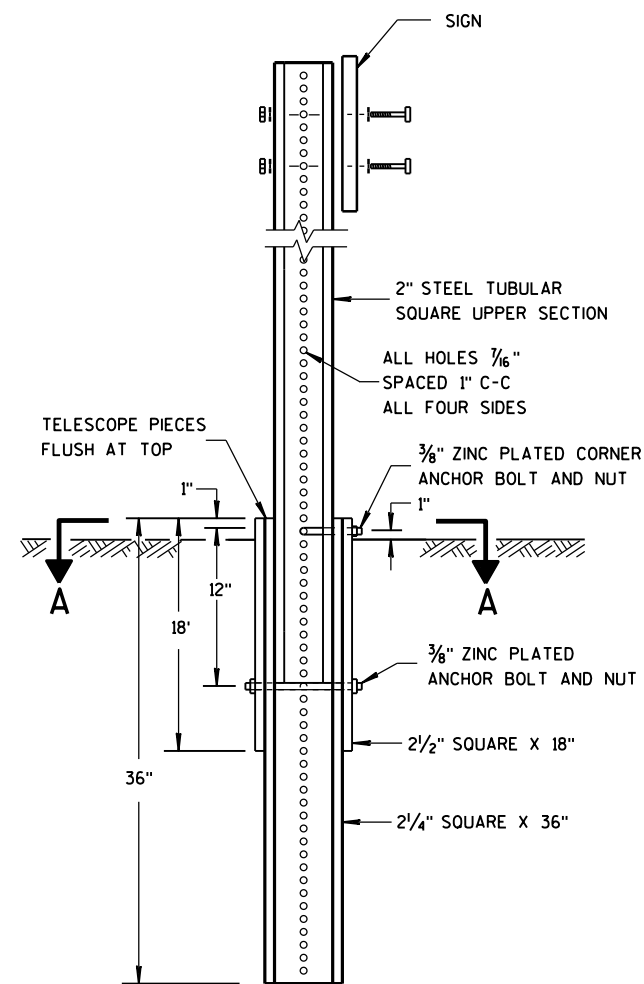
—•— "T" MARKING

● POST MOUNTED SIGN

LONGITUDINAL MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



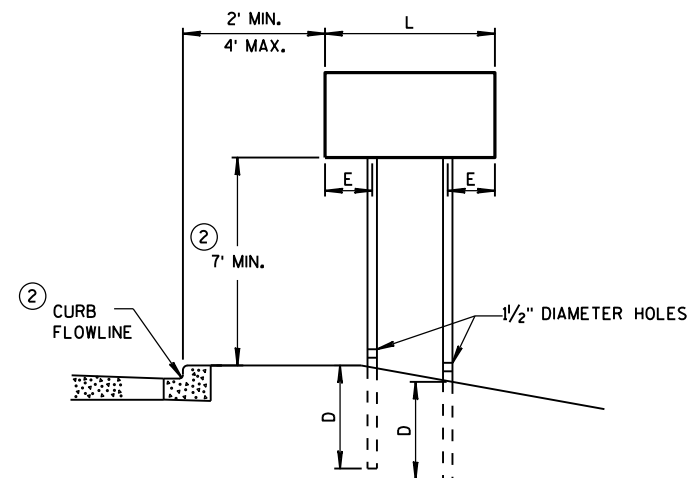
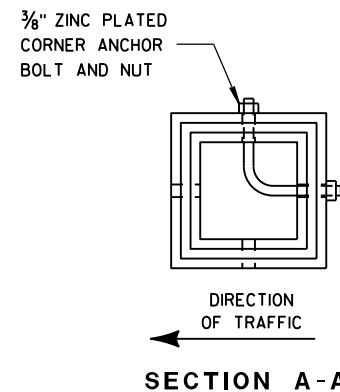
DETAIL OF TUBULAR STEEL SIGN POST

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

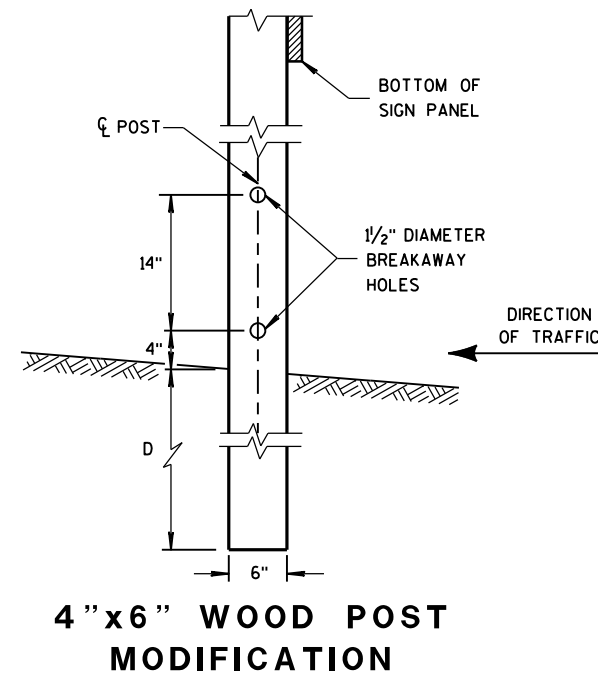


URBAN AREA

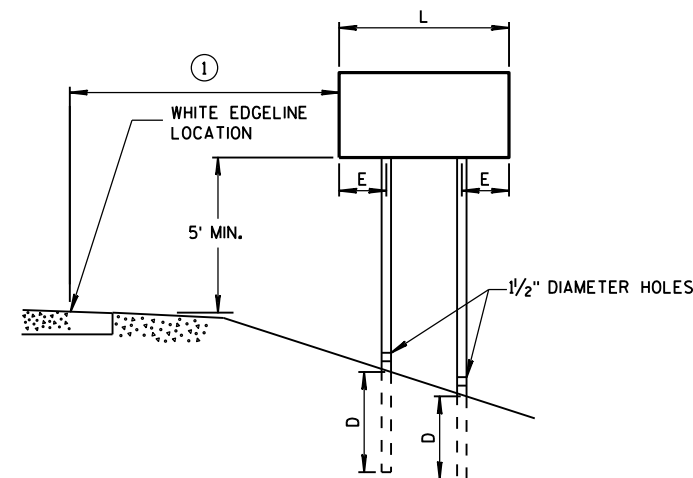
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



4" x 6" WOOD POST MODIFICATION



RURAL AREA

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE ③

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

TEMPORARY TRAFFIC CONTROL
FIXED MESSAGE SIGNS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3"
 - MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS
 - RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 - 1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Feb. 2015 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

7

Metric equivalent
for this sign is:

SIZE	
1	
2	
3	
4	2400 mm X 1200 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2																												
3																												
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	1 5/8	7	12	35 7/8	6 1/4	41 3/8	18 5/8		3 1/2									32.0	2.88
5																												

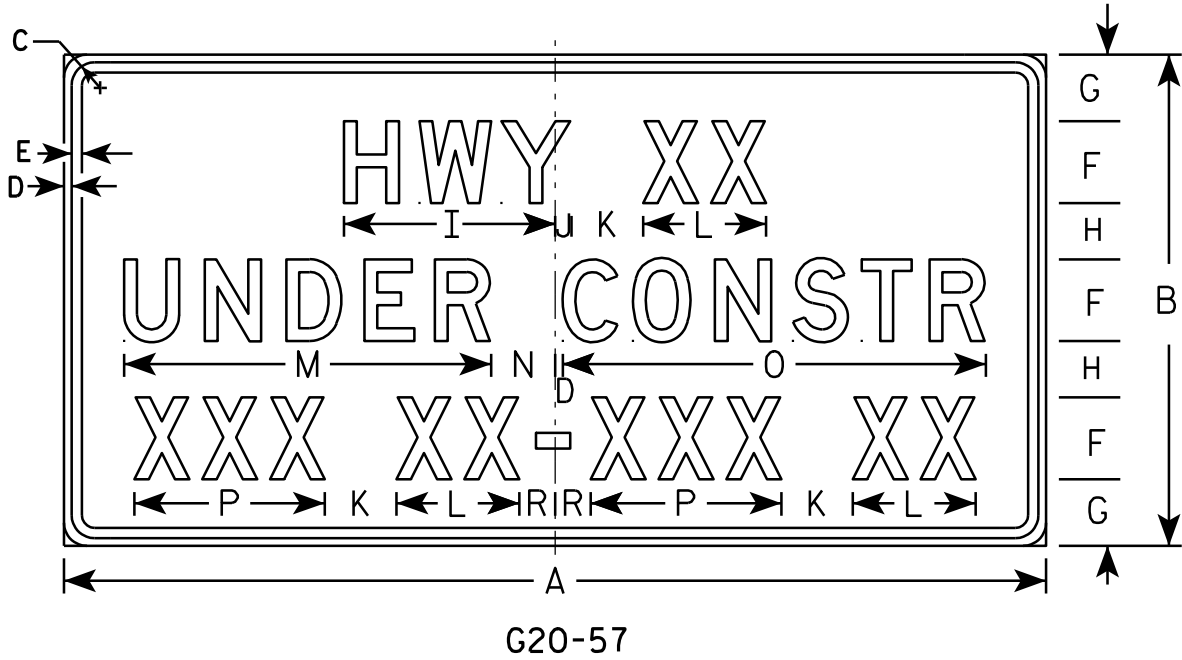
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Orange
Message - Black
- Message Series - D
- Substitute appropriate numeral and adjust spacing to achieve proper balance.

STANDARD SIGN
G20-57

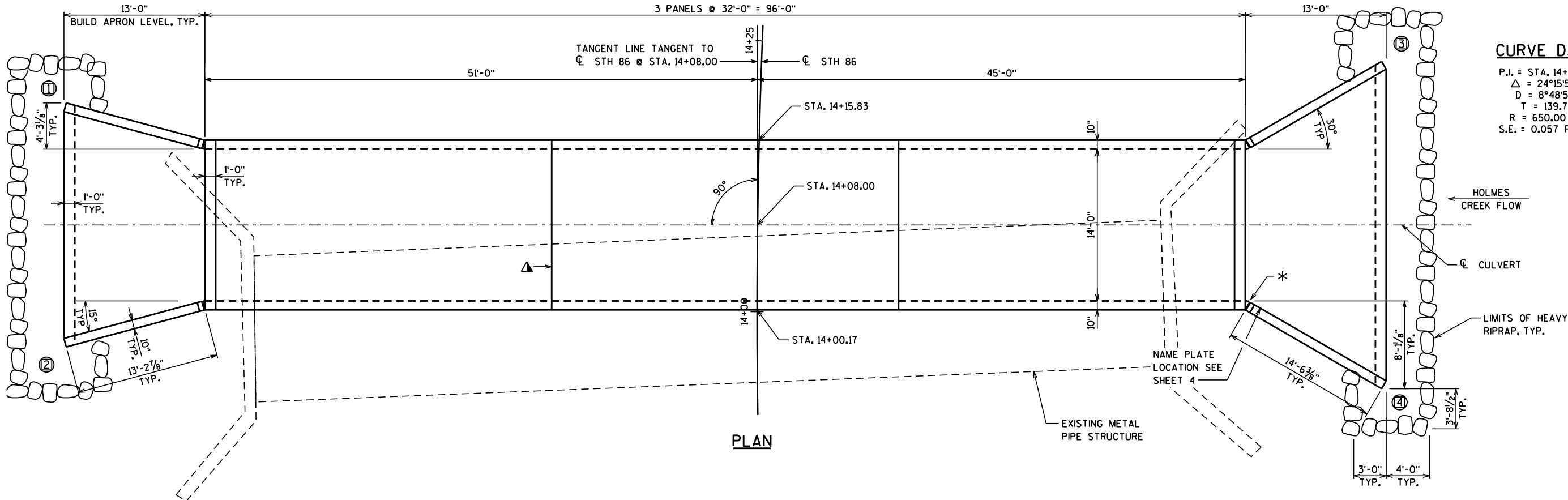
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

DATE 7/13/09 PLATE NO. G20-57.2

NOTE: STRUCTURE BACKFILL REQUIRED
BEHIND ALL WING WALLS.

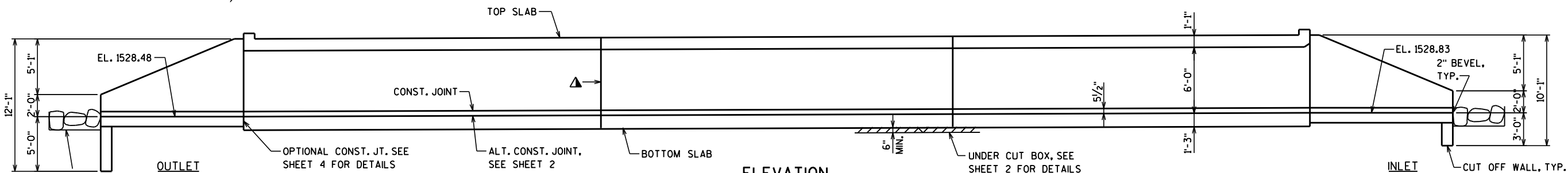
3 PANELS @ 32'-0" = 96'-0"



CURVE DATA

P.I. = STA. 14+66.89
 $\Delta = 24^\circ 15' 59''$
 $D = 8^\circ 48' 53''$
 $T = 139.74$
 $R = 650.00 \text{ FT}$
 $S.E. = 0.057 \text{ FT/FT}$

PLAN



ELEVATION

(LOOKING NORTH)

TRAFFIC DATA

ADT = 450 (2017)
640 (2037)
RDS = 35 M.P.H.

NOTES

(X) INDICATES WING NUMBER

* SEE CORNER DETAILS SHT. 4, TYP.

▲ VERTICAL CONSTRUCTION JOINT (TYP.);
18" RMW UP WALLS & ACROSS TOP SLAB

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTAL
203.0200	REMOVING OLD STRUCTURE STA 14+00	LS	1
206.2000	EXCAVATION FOR STRUCTURES CULVERTS C-50-19	LS	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	710
504.0100	CONCRETE MASONRY CULVERTS	CY	198
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	28,390
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,220
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	170
606.0300	RIPRAP HEAVY	CY	30
645.0105	GEOTEXTILE TYPE C	SY	255
645.0120	GEOTEXTILE TYPE HR	SY	40
NON-BID ITEMS			
	FILLER	SIZE	3/4"

HYDRAULIC DATA

100 YEAR FREQUENCY

 Q_{100} ————— 424 C.F.S.
VELOCITY ————— 9.66 F.P.S.
HIGH WATER — EL. 1535.12 (100 YEAR)
WATERWAY AREA ————— 43.9 S.F.
DRAINAGE AREA ————— 8.6 SQ. MILES
OVERTOPPING FREQUENCY = N/A
SCOUR CRITICAL CODE = 5

2 YEAR FREQUENCY

 Q_2 ————— 130 C.F.S.
HIGH WATER — EL. 1532.38 (2 YEAR)

DESIGN DATA

LIVE LOAD:

DESIGN LOADING ————— HL-93
INVENTORY RATING FACTOR — RF = 1.05
OPERATING RATING FACTOR — RF = 1.35
WISCONSIN STANDARD
PERMIT VEHICLE (Wis-SPV) — 255 KIPS

EARTH LOAD:

DESIGNED FOR 10 TO 13 FEET OF FILL.

MATERIAL PROPERTIES:

CONCRETE MASONRY GRADE A-FA — $f'_c = 3,500 \text{ P.S.I.}$
HIGH STRENGTH BAR STEEL
REINFORCEMENT, GRADE 60 — $f_y = 60,000 \text{ P.S.I.}$

LIST OF DRAWINGS

1. LAYOUT
2. BOX DETAILS
3. APRON DETAILS
4. DETAILS
5. SUBSURFACE EXPLORATION

CONSULTANT CONTACT

KRISTOFER OLSON
OMNI ASSOCIATES, INC.
(920) 735-6900

BRIDGE OFFICE CONTACT

WILLIAM DREHER
(608) 266-8489

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
Omni ASSOCIATES			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	William C. Dieker, SR.	03/20/17	DATE
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE C-50-19			
STH 86 OVER HOLMES CREEK			
COUNTY	PRICE	TOWN	OGEMA
DESIGN SPEC.	AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS	LOAD	HL-93
DESIGNED BY	BRE	CK'D.	KRO
DRAWN BY	BRE	CK'D.	JAW
LAYOUT			SHEET 1 OF 5

DRAWINGS SHALL NOT BE SCALED.

▲ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

WITHIN THE LENGTH OF THE BOX ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE ELEVATION AND SECTION EXISTING PRIOR TO EXCAVATION WITHIN THE LENGTH OF THE CULVERT.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE APPROVAL OF THE STRUCTURES DESIGN SECTION. THE PRECAST STRUCTURE SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 36 STANDARDS OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES". ALL PRECAST BOX SECTIONS SHALL BE PLACED ON A BEDDING OF "STRUCTURE BACKFILL TYPE B" OF 6" MINIMUM DEPTH.

THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

- ☆ OPTIONAL CONST. JOINT. OMIT 1" FILLET IF OPTIONAL CONST. JOINT IS USED.

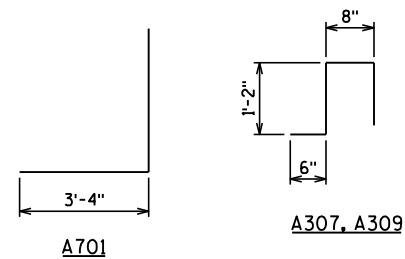
- ① UNDER CUT BOX AND APRONS 6" (INCLUDED IN EXCAVATION FOR STRUCTURES), PLACE GEOTEXTILE FABRIC TYPE 'C', AND BACKFILL WITH STRUCTURE BACKFILL, TYPE B. EXTEND 3'-0" BEYOND THE FOOTPRINT OF THE CULVERT.

- ☐ IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING.

- ⊕ ALTERNATE CONST. JOINT. OMIT 1" FILLET IF ALTERNATE CONST. JOINT IS USED.



BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
A701		588	8'-7"	X	CORNERS
A402		264	2'-7"		WALLS - DOWEL VERT.
A403		264	6'-5"		WALLS - VERT.
A404		132	31'-8"		TOP & BOT. SLAB & WALL
A705		390	15'-4"		TOP & BOT. SLAB TRANS.
A506		88	4'-0"		VERT. CONST. JOINT
A307		22	3'-3"	X	HEADER STIRRUPS VERT. OUTLET
A408		4	15'-4"		HEADERS HORIZ.
A309		22	2'-11"	X	HEADER STIRRUPS VERT. INLET



2'-0"

2'-0"

1/2" MIN.

A506 @ 12", TOP & BOT. SLAB & WALLS

1/3 OF BOX WALL, TOP SLAB OR BOTTOM SLAB THICKNESS

SURFACE BEVELED KEYWAY

Diagram illustrating the structure and dimensions of a box culvert:

- TOP OF BOX CULVERT**: Indicated by a vertical dimension line showing a height of **1'-0" TYP.**
- STRUCTURE BACKFILL, TYPE B**: Indicated by a vertical dimension line showing a height of **3'-0" REQ'D.**
- LIMITS OF UNDERCUT**: Indicated by a horizontal dimension line showing a width of **3'-0" REQ'D.**
- LIMITS OF BACKFILL**: Indicated by a horizontal dimension line showing a width of **3'-0" REQ'D.**
- 6" O TYP.**: Indicated by a vertical dimension line showing a height of **6" O TYP.**

BEVEL TO EXTEND BETWEEN INSIDE FACE OF BOX WALLS.

TOP SLAB

1'-0"

4"

A408, TYP.

A307 9" CTRS.

SECTION THRU TOP HEADER

TOP SLAB

4"

A309 9" CTRS.

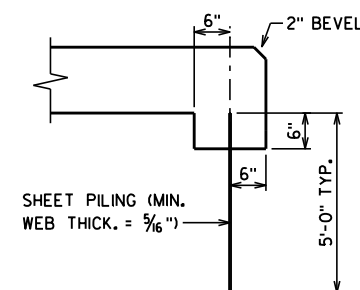
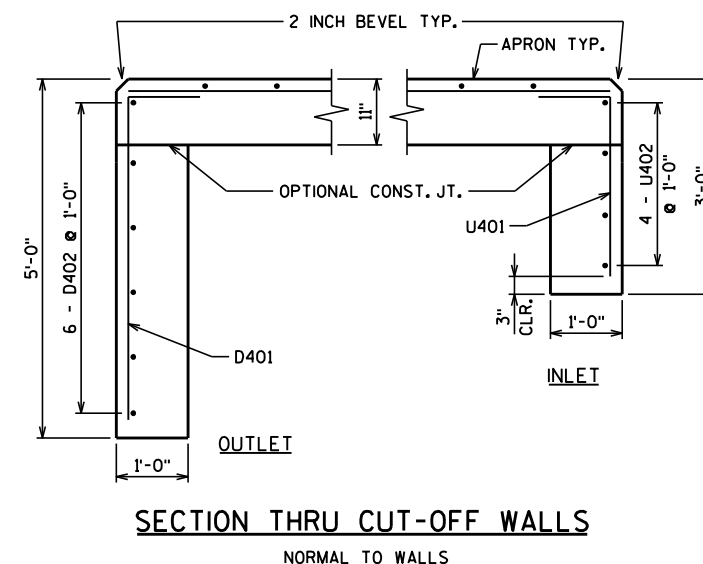
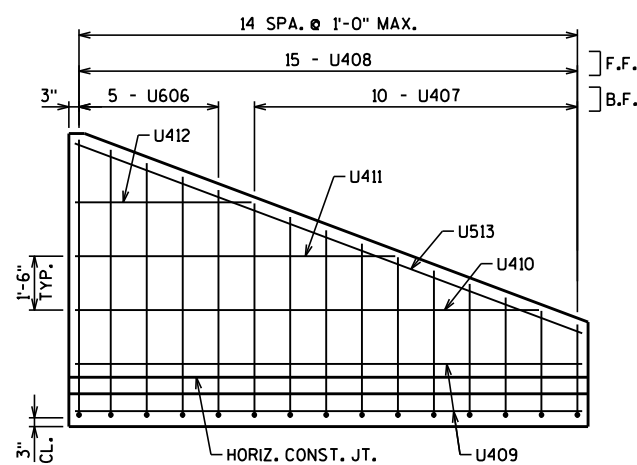
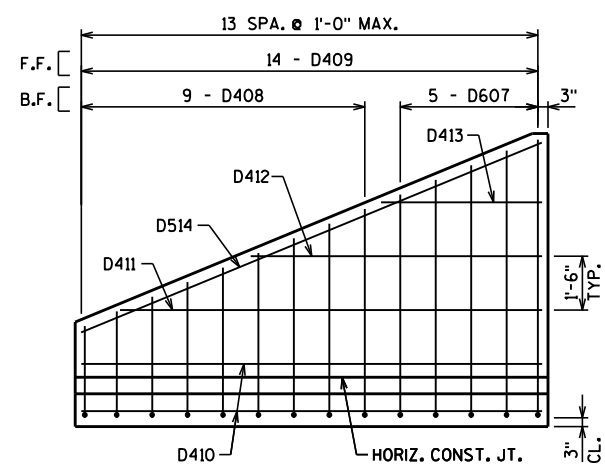
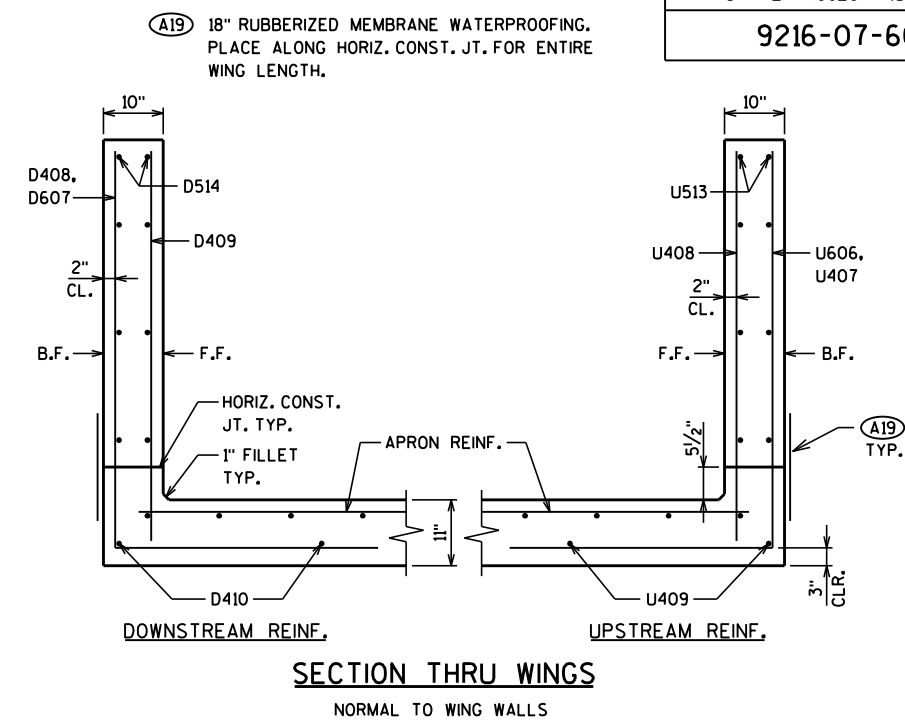
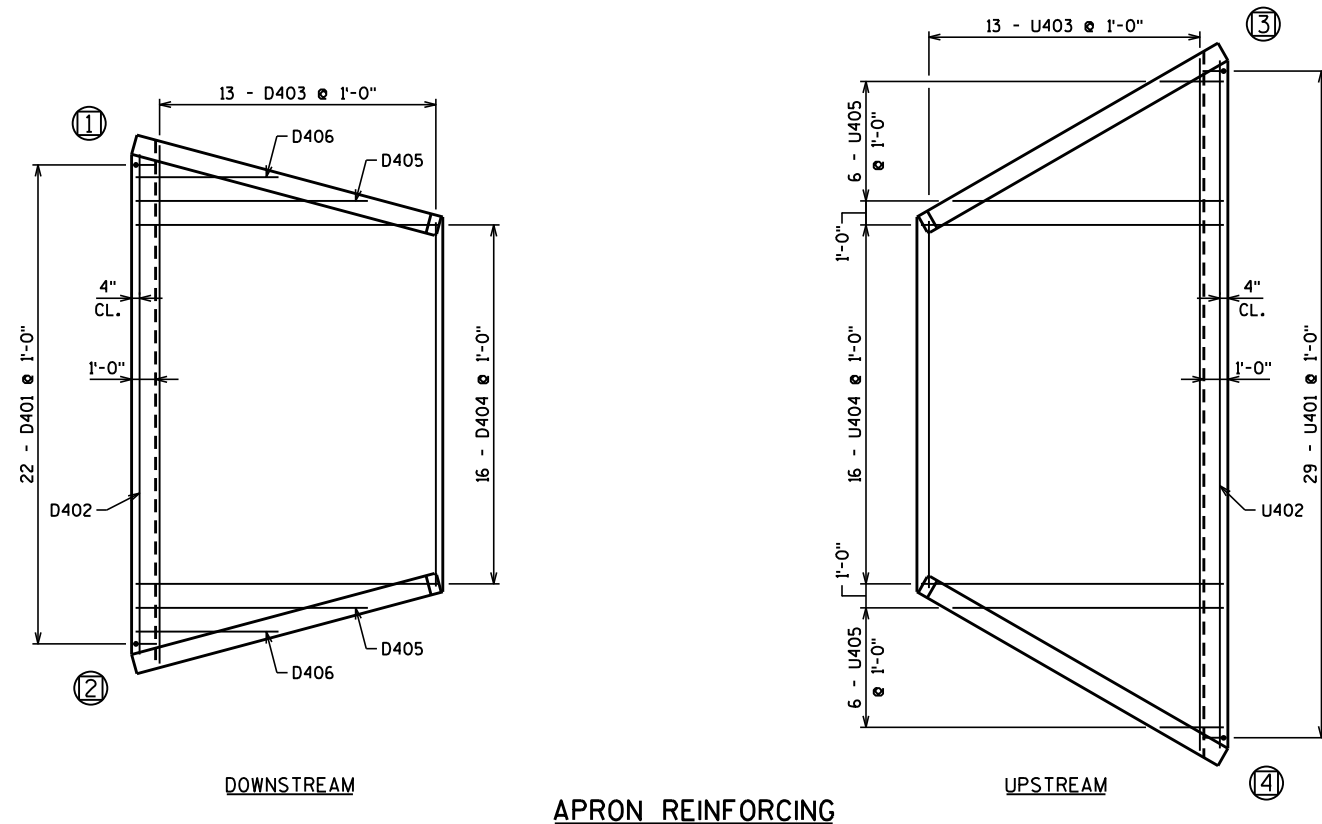
A307 9" CTRS.

6"

SECTION THRU HEADER AT INLET

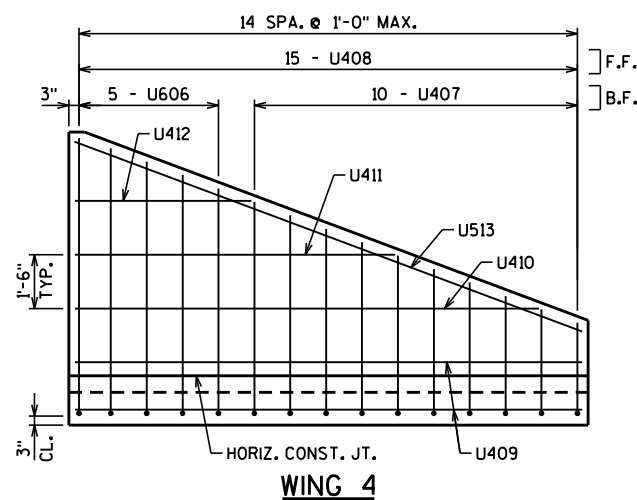
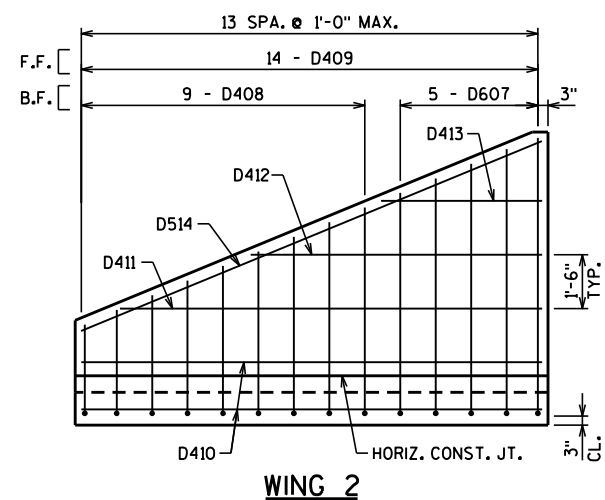


USE IDENTICAL STEEL IN OTHER PANELS.
APRON AND HEADER ARE NOT SHOWN.



ALTERNATE CUT-OFF WALLS

THE ABOVE ALT. MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONC. CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONC. CUT-OFF WALLS.



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-50-19			
DRAWN BY		BRE	PLANS CK'D. JAW
APRON DETAILS		SHEET 3 OF 5	

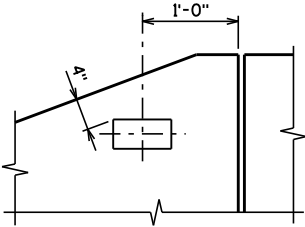
BILL OF BARS

BAR MARK	CONT	NO. REQ'D.	LENGTH	SERIES	BENT	LOCATION
D401		22	5'-6"		X	OUTLET CUTOFF WALL
D402		6	20'-10"			OUTLET CUTOFF WALL
D403		13	18'-5"	△		OUTLET APRON
D404		16	12'-8"			OUTLET APRON
D405		2	9'-8"			OUTLET APRON
D406		2	6'-0"			OUTLET APRON
D607	X	10	13'-3"	△	X	OUTLET WINGS VERTICAL B.F.
D408	X	18	9'-2"	△	X	OUTLET WINGS VERTICAL B.F.
D409	X	28	5'-1"	△		OUTLET WINGS VERTICAL F.F.
D410	X	8	12'-10"			OUTLET WINGS HORIZONTAL
D411	X	4	11'-9"			OUTLET WINGS HORIZONTAL
D412	X	4	8'-1"			OUTLET WINGS HORIZONTAL
D413	X	4	4'-6"			OUTLET WINGS HORIZONTAL
D514	X	4	13'-8"			OUTLET WINGS HORIZONTAL, TOP
U401		29	3'-6"		X	INLET CUTOFF WALL
U402		4	28'-9"			INLET CUTOFF WALL
U403		13	22'-0"	△		INLET APRON
U404		16	12'-8"			INLET APRON
U405		12	7'-0"	△		INLET APRON
U606	X	10	12'-9"	△	X	INLET WINGS VERTICAL B.F.
U407	X	20	9'-3"	△	X	INLET WINGS VERTICAL B.F.
U408	X	30	5'-2"	△		INLET WINGS VERTICAL F.F.
U409	X	8	14'-1"			INLET WINGS HORIZONTAL
U410	X	4	12'-11"			INLET WINGS HORIZONTAL
U411	X	4	8'-11"			INLET WINGS HORIZONTAL
U412	X	4	4'-11"			INLET WINGS HORIZONTAL
U513	X	4	15'-0"			INLET WINGS HORIZONTAL, TOP

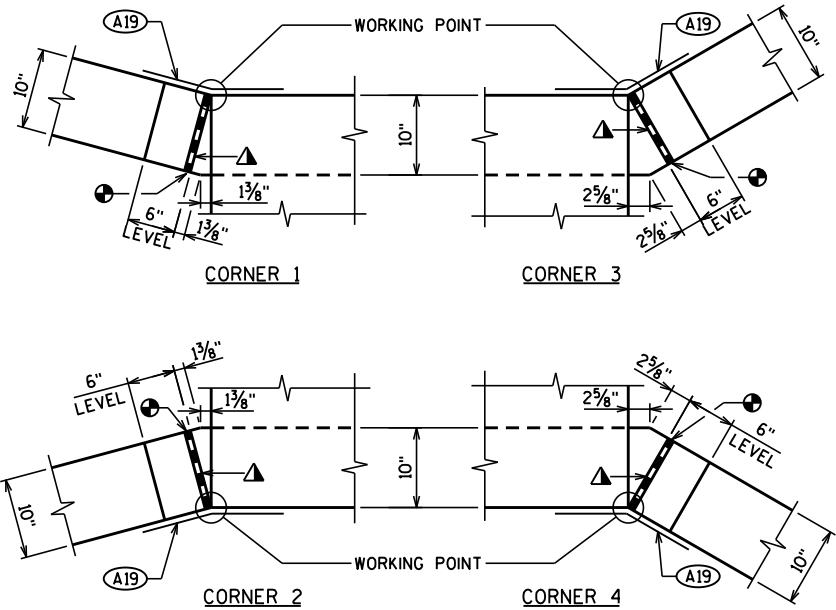
△ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BAR NO.	NO. REQ'D.	LENGTH
D403	1 SERIES OF 13	15'-3" TO 21'-7"
D607	2 SERIES OF 5	12'-0" TO 13'-6"
D408	2 SERIES OF 9	7'-7" TO 10'-9"
D409	2 SERIES OF 14	2'-6" TO 7'-8"
U403	1 SERIES OF 13	15'-1" TO 28'-11"
U405	2 SERIES OF 6	2'-8" TO 11'-4"
U606	2 SERIES OF 5	12'-0" TO 13'-6"
U407	2 SERIES OF 10	7'-8" TO 10'-10"
U408	2 SERIES OF 15	2'-7" TO 7'-9"



NAME PLATE
LOCATION WING 4

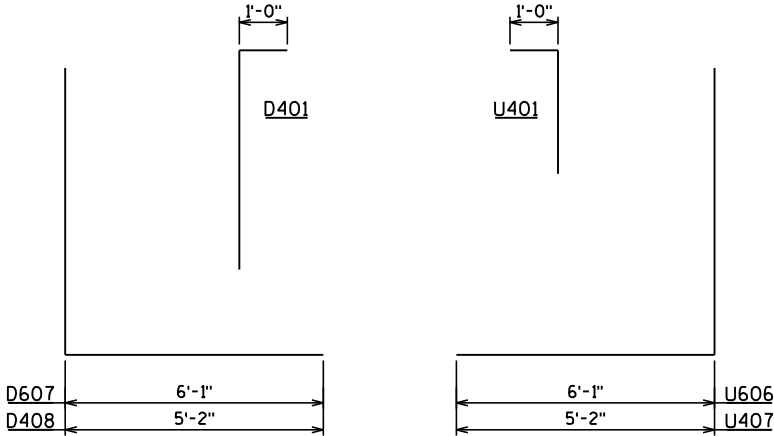


CORNER DETAILS

△ 3/4" FILLER TYPICAL. EXTEND FILLER FROM HORIZ. CONST. JT. TO TOP OF WING.

● 1" BEVEL TYPICAL

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. FROM HORIZ. CONST. JT. TO TOP OF WALL (FLUSH WITH FACE OF CONCRETE)



BAR BEND DIAGRAMS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-50-19			
DRAWN BY		BRE	PLANS CK'D. JAW
DETAILS		SHEET 4 OF 5	

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

Probing No.
Sta.
Elevation
95/6=95 Blows for 6"
Penetration
Probing taken with a
350*wt.
Falling 18" on a 2"
O.D. Point.
7 Average Blows Per Foot
Refusal 95/6

LEGEND OF BORING

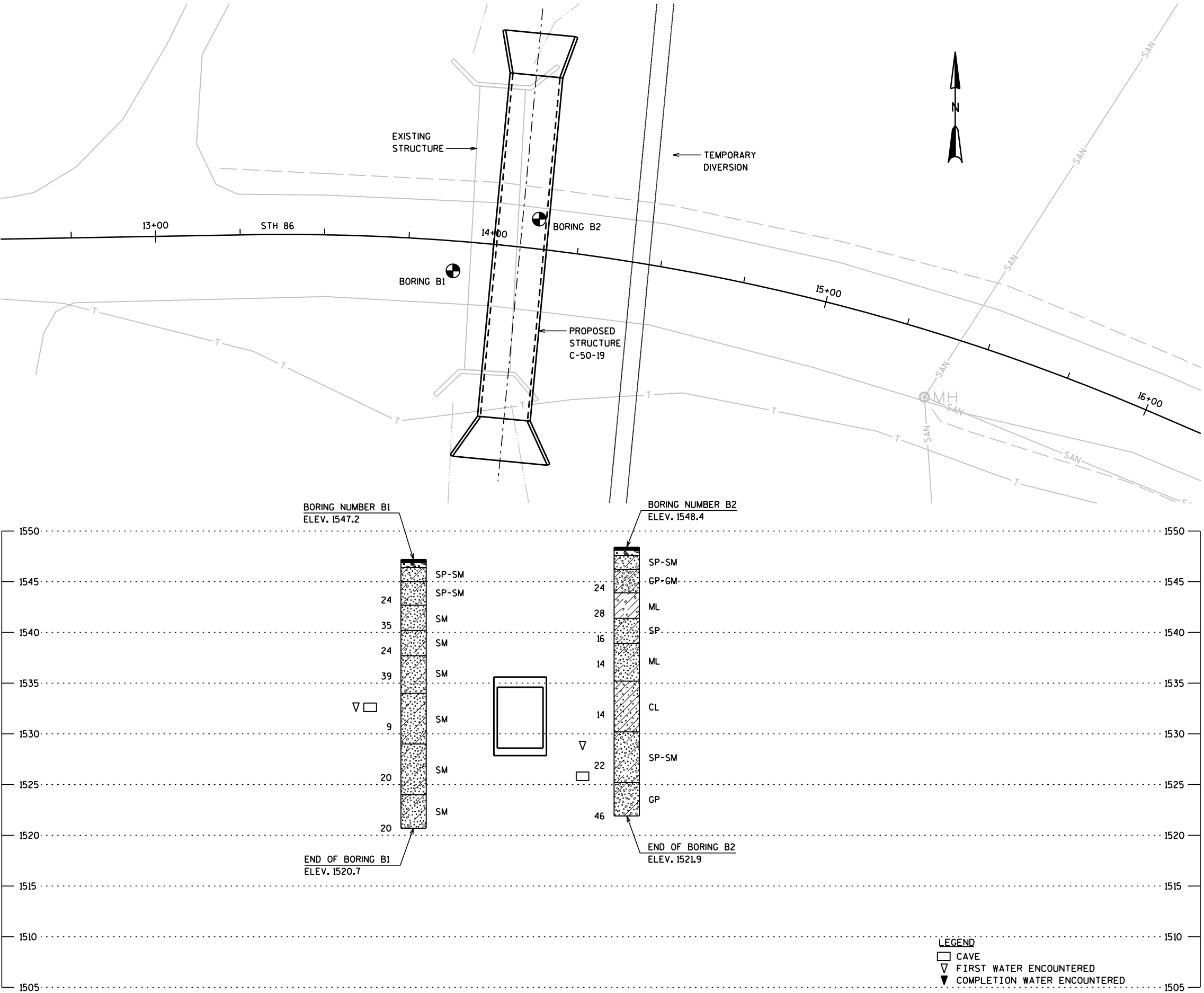
Boring No.
Sta.
Elev.
Unconfined Strength—7.7
Blows Per Ft.
Using 140* Wt.
Falling 30"
Wash Sample
Shelby Tube — S.T.
Ground Water Elevation
No Ground Water Observed Above This Elevation
Sandy Gravel
F.
Boulders or Cobbles
Sand
Silty Clay
So
Limestone

Unless otherwise specified, the blows per foot at the locations indicated are based on driving a 0.D.x1.4" 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 Division of Highways does not warrant conditions below the depths investigated or that the classification of material encountered in these investigations is necessarily typical of the entire site.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-50-19			
DRAWN BY		BRE	PLANS CK'D. KRO
SUBSURFACE EXPLORATION		SHEET 5 OF 5	



STH 86 EARTHWORK - CATEGORY 0010

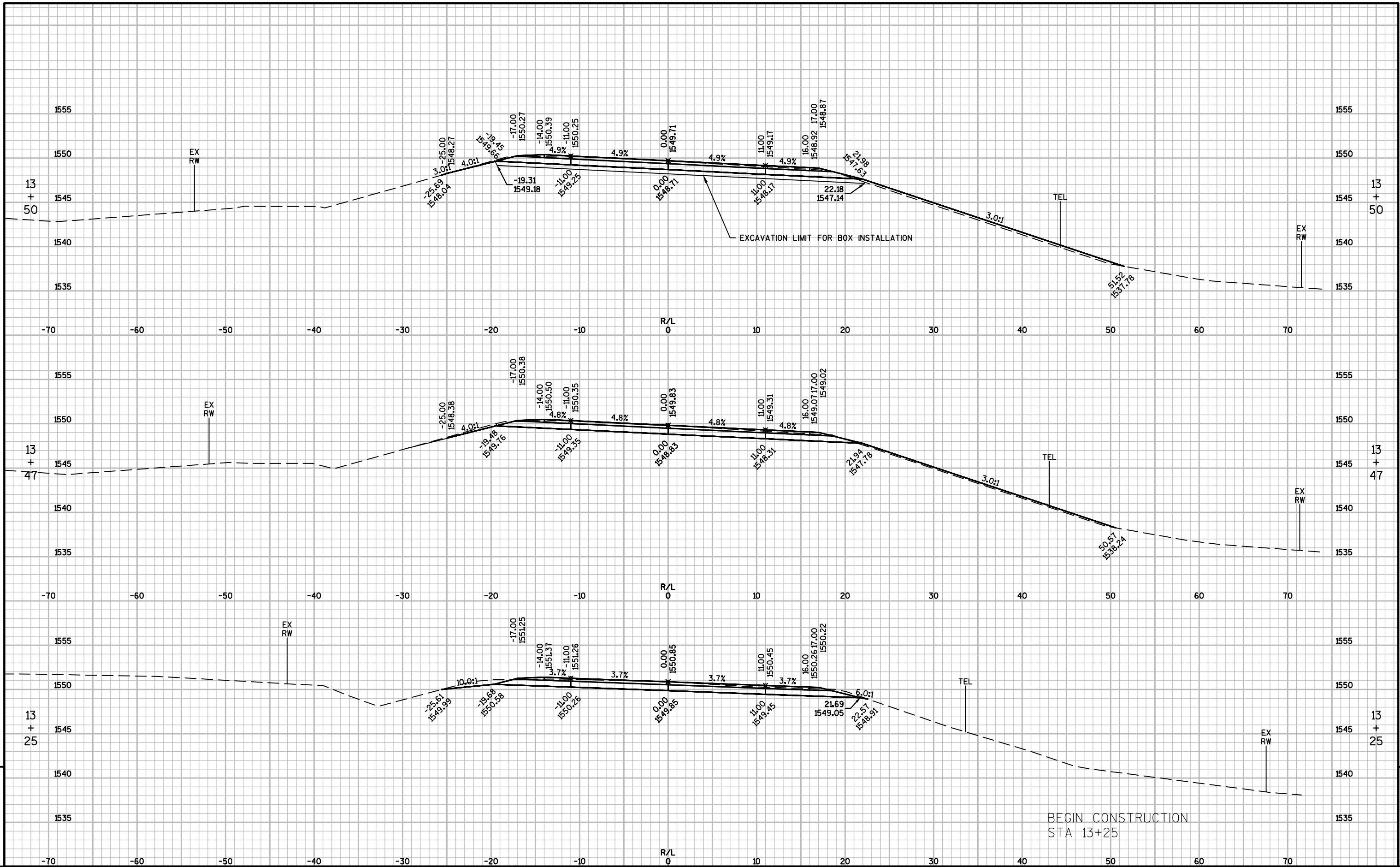
STATION	INCREMENTAL AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)			MASS ORDINATE
	CUT	FILL	MARSH EXC	BOX EXC NOTE 3	CUT	FILL	MARSH EXC	BOX EXC	CUT + BOX EXC	EXPANDED FILL	EXPANDED MARSH BACKFILL	
	NOTE 1								FACTOR 1.00	FACTOR 1.25	FACTOR 1.50	NOTE 2
START ABRUPTLY												
13+25	36.8	0.0	0.0	0.0	0	0	0	0	0	0	0	0
13+47	35.2	5.0	0.0	0.0	30	2	0	0	30	3	0	27
13+50	34.0	7.9	0.0	19.7	4	1	0	1	34	3	0	31
13+73	42.8	35.6	0.0	188.7	32	18	0	88	154	26	0	128
13+75	43.6	39.4	0.0	255.4	4	3	0	19	177	30	0	146
13+97	68.6	1.5	0.0	985.7	46	17	0	510	732	51	0	681
14+00	71.6	1.5	0.0	NOTE 4	7	0	0	0	740	51	0	688
14+08	72.7	1.5	0.0	NOTE 4	21	0	0	0	761	52	0	709
14+19	55.2	13.5	0.0	943.2	26	3	0	0	787	56	0	731
14+25	53.9	11.1	79.0	702.3	12	3	9	188	987	59	14	928
14+40	54.1	16.1	88.0	180.1	30	8	47	247	1,264	69	84	1196
14+50	56.8	8.9	90.0	115.2	20	5	33	54	1,339	74	133	1264
14+69	58.3	3.0	0.0	0.0	40	4	31	40	1,419	80	180	1339
14+75	58.8	0.6	0.0	0.0	13	0	0	0	1,432	80	180	1352
15+00	61.6	0.0	0.0	0.0	56	0	0	0	1,488	81	180	1408
15+25	54.8	0.0	0.0	0.0	54	0	0	0	1,542	81	180	1462
15+50	45.2	0.1	0.0	0.0	46	0	0	0	1,588	81	180	1508
END ABRUPTLY												

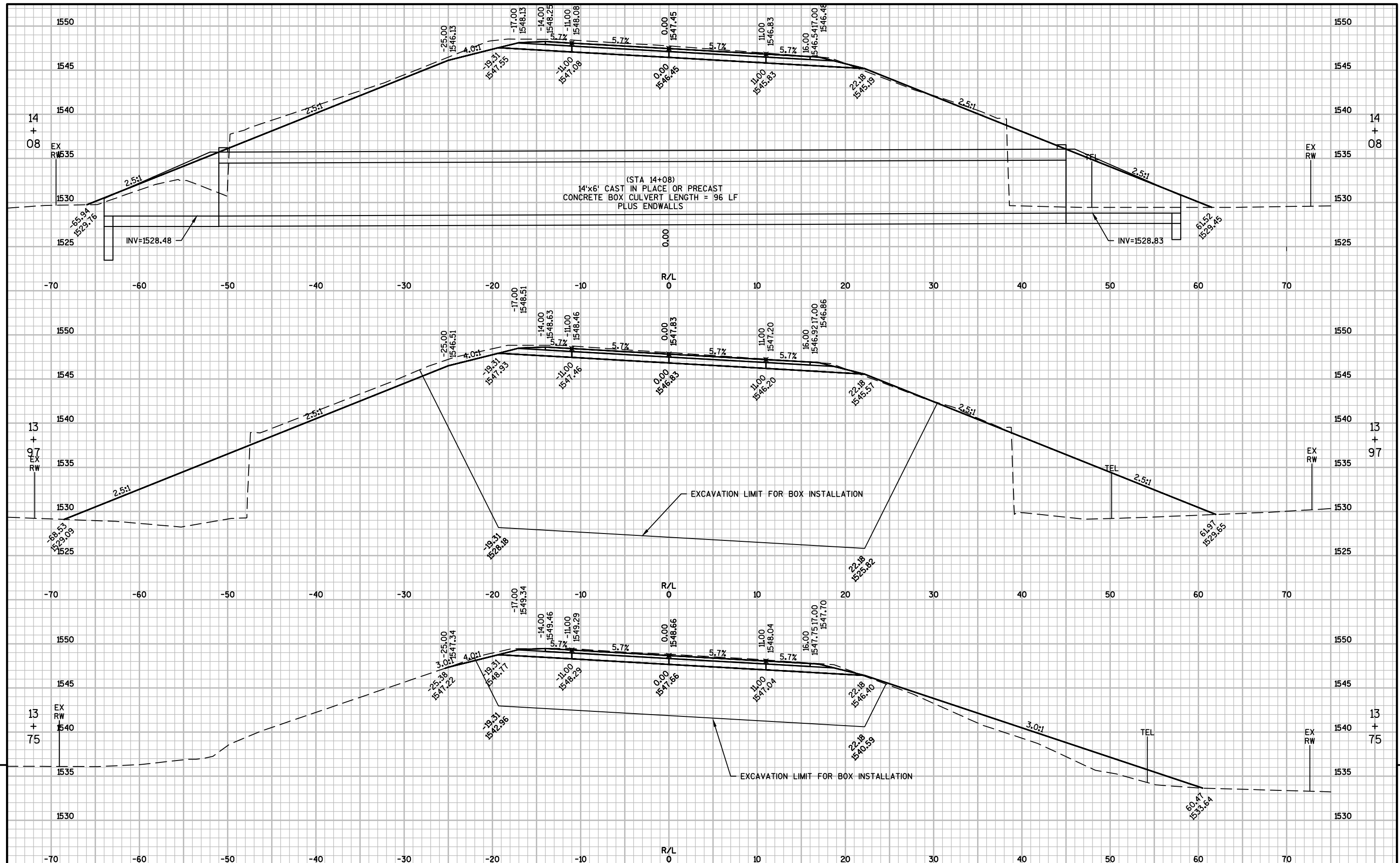
- NOTES:
1. ALL EXCAVATED ASPHALT MATERIAL ASSUMED USABLE AS FILL.

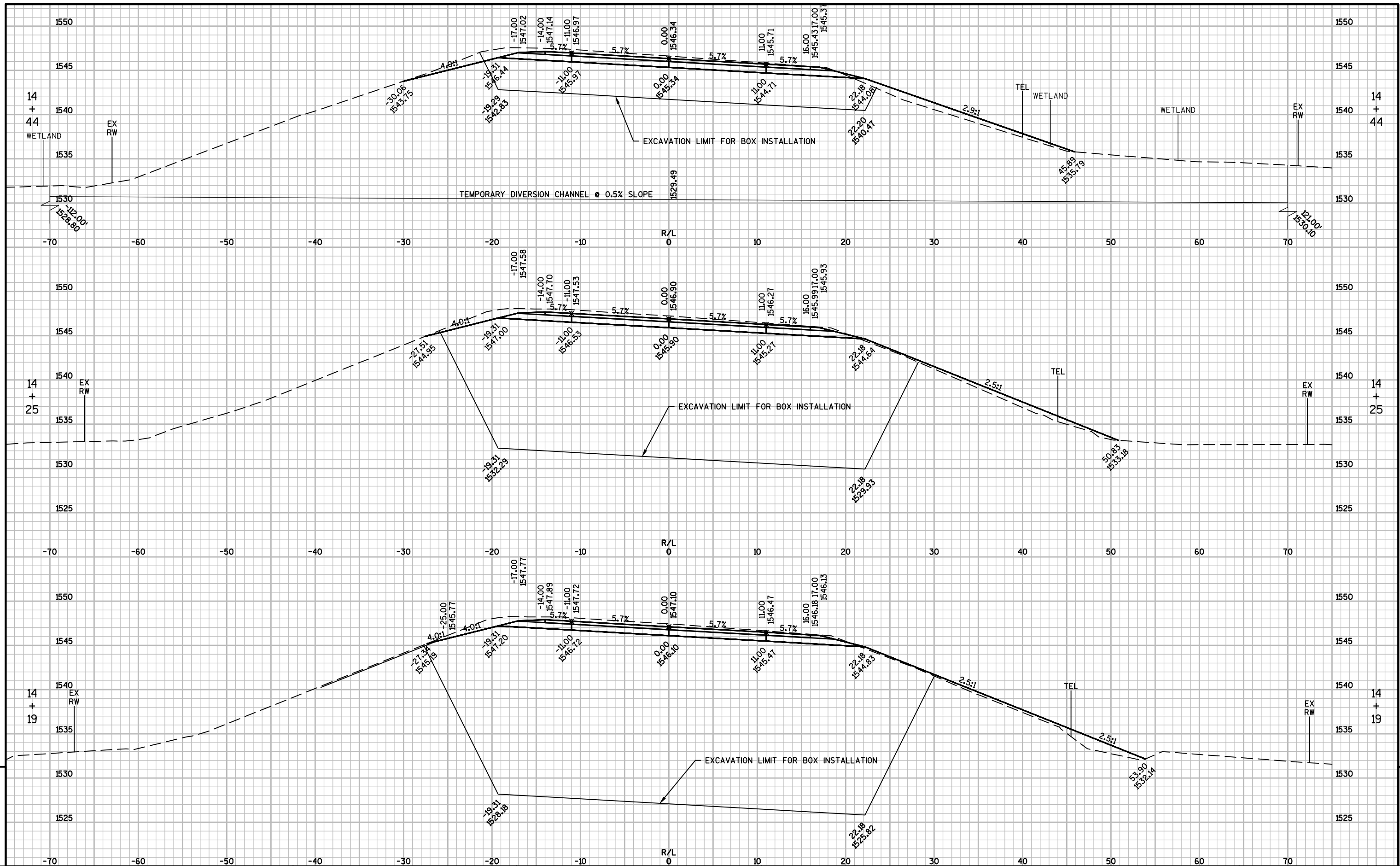
2. MASS ORDINATE = CUT - EXPANDED FILL

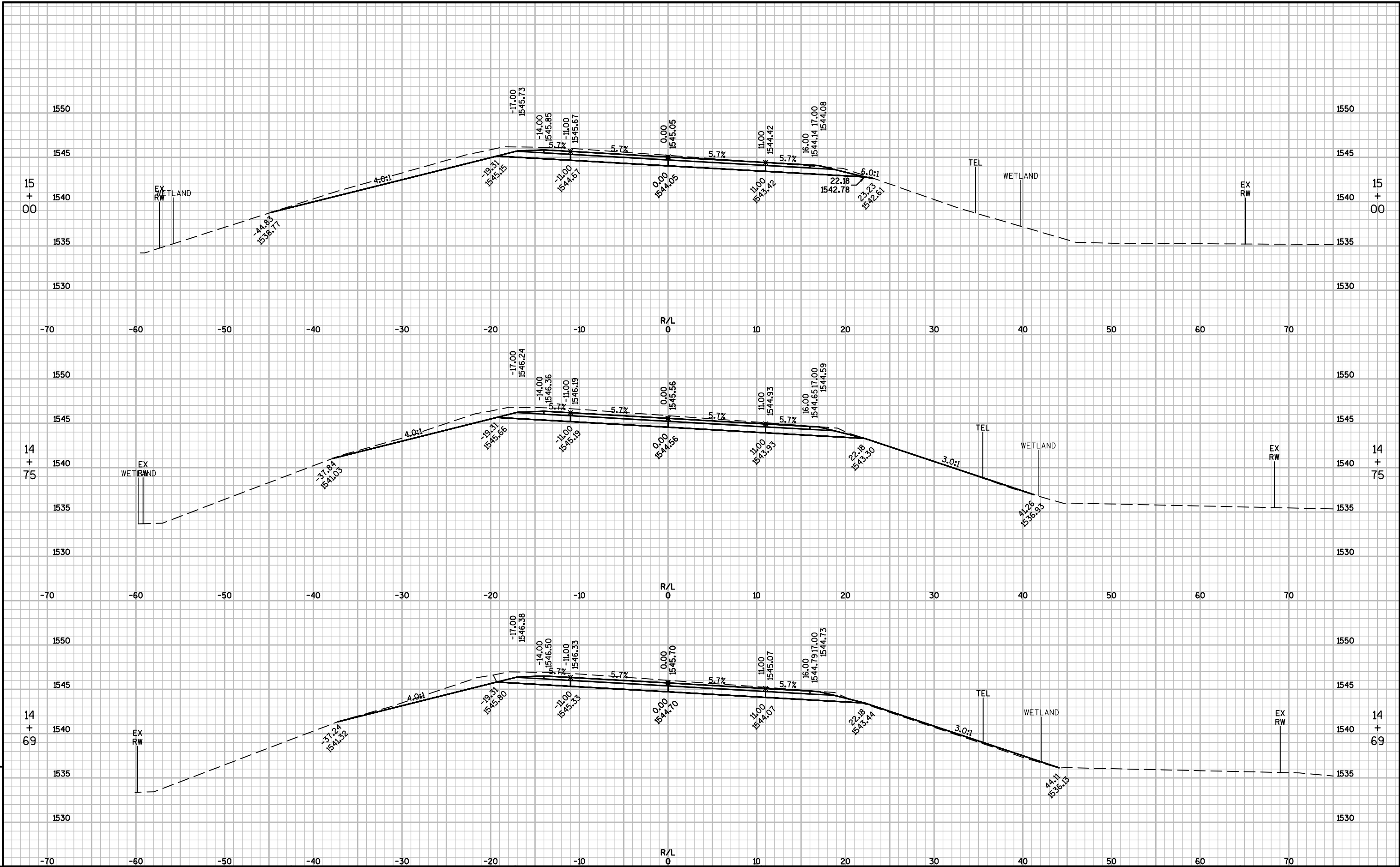
3. BOX EXC IS EXCAVATION COMMON REQUIRED FOR BOX INSTALLATION. SEE BOX CULVERT EXCAVATION AND INSTALLATION DETAIL.

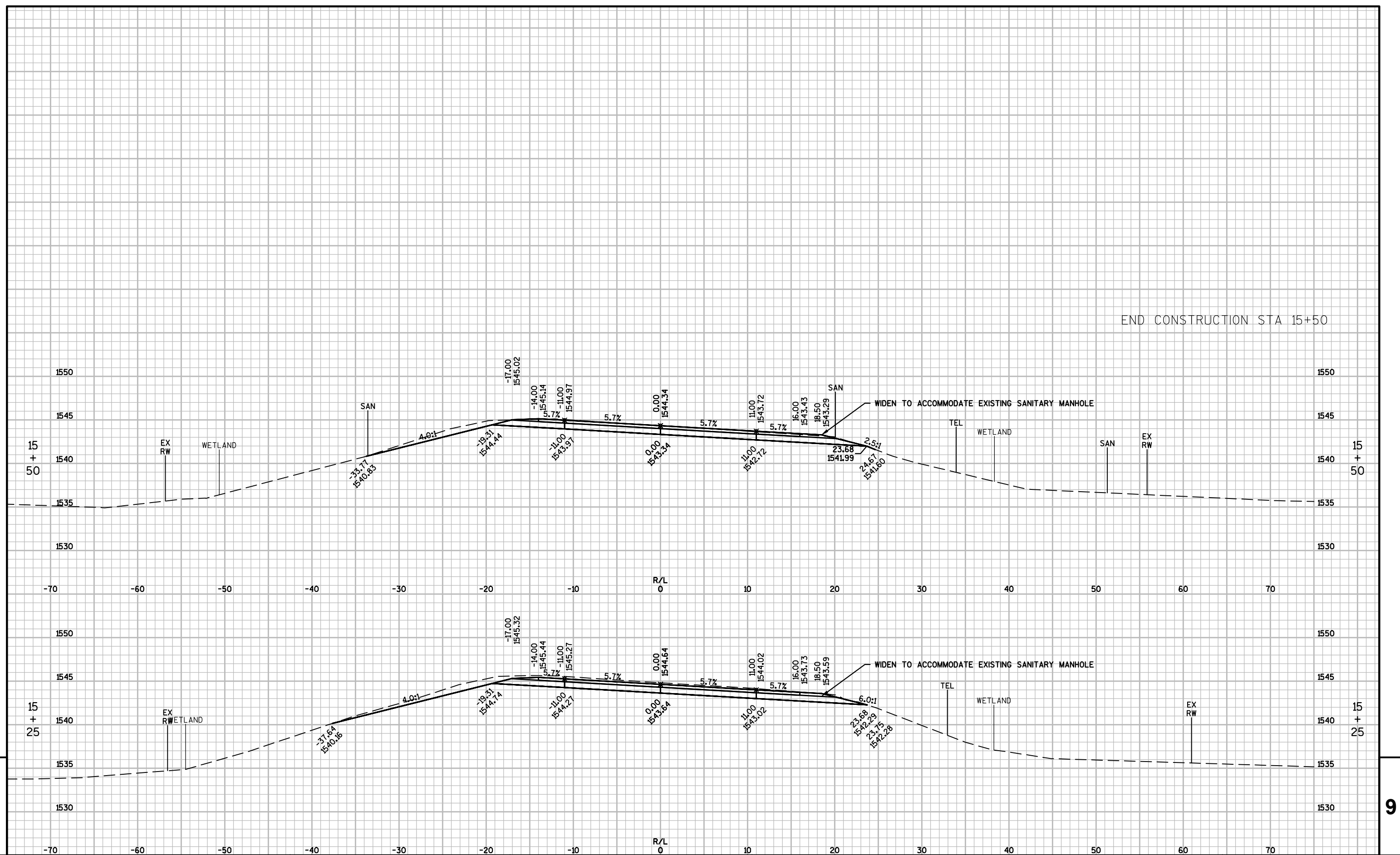
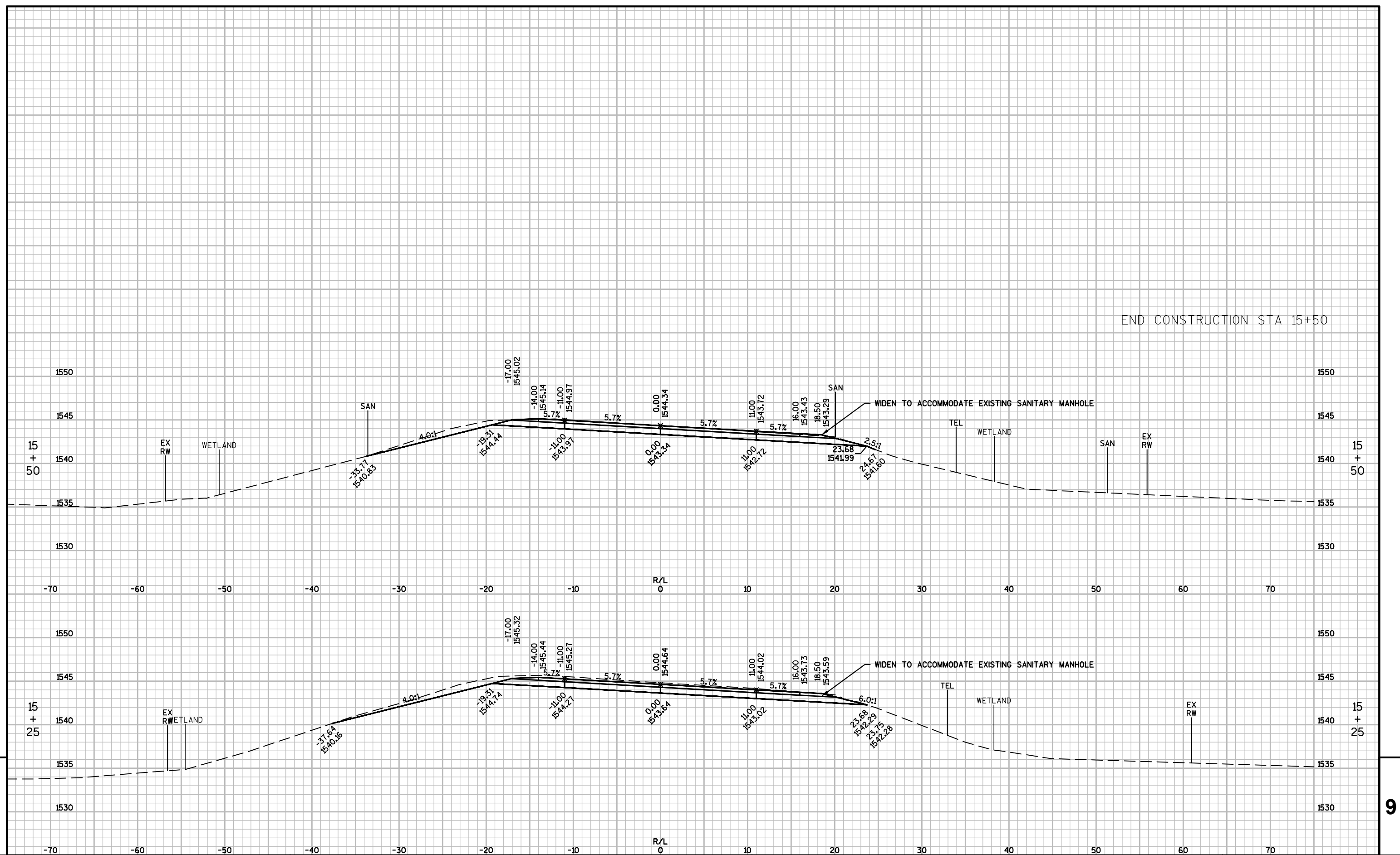
4. END BOX EXC ABRUPTLY STA 13+97 AND BEGIN ABRUPTLY STA 14+19.











Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

<http://www.dot.wisconsin.gov>