

EAU

PROJECT ID:
WITH: N/A

1000-06-09

COUNTY:

NW REGION WIDE

DECEMBER 2019

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 = 90



DESIGN DESIGNATION	STH 27	STH 40	STH 64 (AUBURN)	STH 64 (RUBY)	USH 10
A.A.D.T. (2020)	= 1,570	=1,270	=1,460	=1,140	=3,590
A.A.D.T. (2040)	= 1,570	=1,410	=1,690	=1,340	=3,590
D.H.V.	= N/A	=N/A	=N/A	=N/A	=N/A
D.D.	= 60/40	=60/40	=60/40	=60/40	=60/40
T.	= N/A	=N/A	=N/A	=N/A	=N/A
DESIGN SPEED	= 55	=55	=55	=55	=55
ESALS	= N/A	=N/A	=N/A	=N/A	=N/A

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

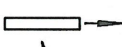
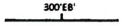
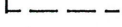
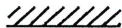
EXISTING CULVERT

PROPOSED CULVERT
(Box or Pipe)

COMBUSTIBLE FLUIDS

MARSH AREA

WOODED OR SHRUB AREA



PROFILE

GRADE LINE

ORIGINAL GROUND

MARSH OR ROCK PROFILE
(To be noted as such)

SPECIAL DITCH

GRADE ELEVATION

CULVERT (Profile View)

UTILITIES

ELECTRIC

FIBER OPTIC

GAS

SANITARY SEWER

STORM SEWER

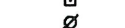
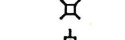
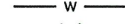
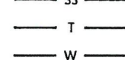
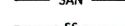
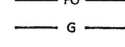
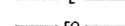
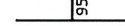
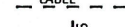
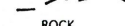
TELEPHONE

WATER

UTILITY PEDESTAL

POWER POLE

TELEPHONE POLE



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

NW REGION VAR HWYS/CULVERT REPLACE

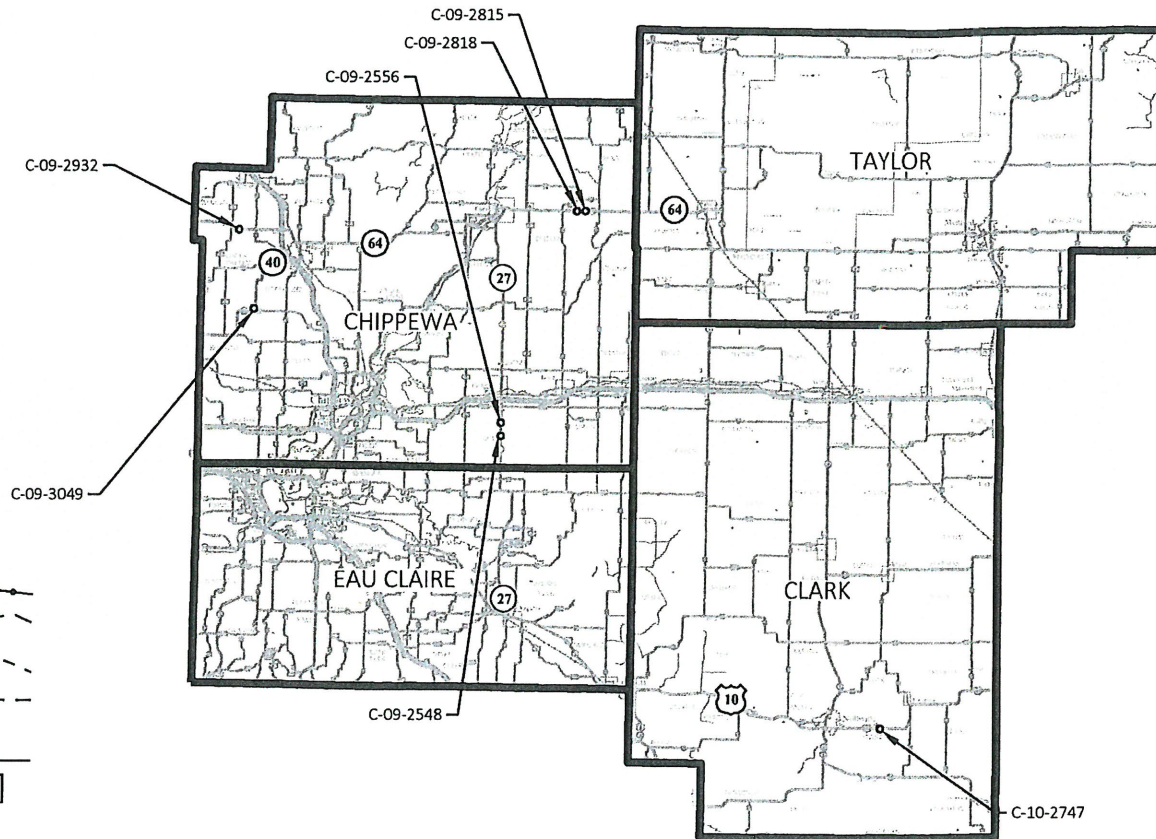
CHIPPEWA, CLARK, TAYLOR COUNTY

VAR HWY

NORTHWEST REGION WIDE

STATE PROJECT NUMBER

1000-06-09



LAYOUT
SCALE 0 15

TOTAL NET LENGTH OF CENTERLINE = N/A

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, CHIPPEWA AND CLARK COUNTIES, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 NAVD 88 (2012).

STATE PROJECT

1000-06-09

FEDERAL PROJECT

PROJECT

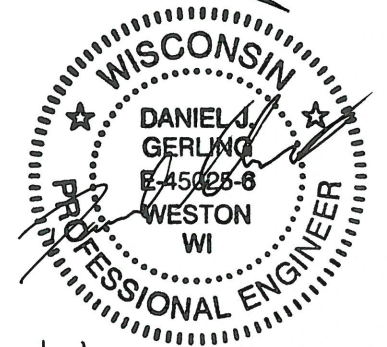
WISC 2019748

CONTRACT

1

ORIGINAL PLANS PREPARED BY

BECHER HOPPE



DATE: 7/30/19

(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor

Designer

Project Manager

Regional Examiner

Regional Supervisor

WISDOT

BECHER-HOPPE ASSOCIATES, INC.

ADAM HETRICK

JENNIFER OLDENBURG

WILLIAM KURTZ

APPROVED FOR THE DEPARTMENT

DATE: 7/25/19 Adam Hetrick
(Signature)

E

GENERAL NOTES

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

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED, AND EROSION MATTED.

PURSUANT TO CHAPTER 59 OF THE WISCONSIN STATE STATUTES, THE CONTRACTOR SHALL CAREFULLY MAKE A SEARCH FOR EVIDENCE OF A LANDMARK IN ALL AREAS WHERE SUCH A LANDMARK MAY EXIST.

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

RIGHT OF WAY LOCATION SHOWN IS APPROXIMATE BASED ON AS-BUILT AND RECORDED PLAT INFORMATION.

AS-BUILT REFERENCE (YEAR)

STH 27
PROJECT ID: S 057(6) (1963)
PROJECT ID: 7070-06-70 (1998)
PROJECT ID: 8200-08-61 (2009)

STH 40
PROJECT ID: S 058(2) (1952)
PROJECT ID: 8620-02-72 (2012)

STH 64 (C-09-2932)
PROJECT ID: 8110-08-71 (1989)
PROJECT ID: 8110-04-64 (2010)

STH 64 (C-09-2815 & -2818)
PROJECT ID: T 049(2) (1946)
PROJECT ID: 8190-07-71 (1978)
PROJECT ID: 8192-01-70 (2000)

USH 10
PROJECT ID: 7030-01-71 (1975)
PROJECT ID: 7030-06-71 (1989)

UTILITIES

COMMUNICATION
BLOOMER TELEPHONE COMPANY
JOSH LIEN
1120 15TH AVENUE
BLOOMER, WI 54724-1697
PHONE: (715) 568-4830
EMAIL: josh.lien@bloomer.net

TDS TELECOM
JEFF SHAW
202 EAST OGDEN STREET
MEDFORD, WI 54451
PHONE: (715) 748-6970
EMAIL: jeff.shaw@tdstelecom.com

WINDSTREAM NTI, LLC
ERIC BECKER
314 NORTH DANZ AVENUE
GREEN BAY, WI 54302
PHONE: (920) 461-9825
EMAIL: eric.becker@windstream.com

ELECTRIC
CHIPPEWA VALLEY ELECTRIC COOPERATIVE
BOB WRUCK
317 SOUTH 8TH STREET
PO BOX 575
CORNELL, WI 54732-0575
PHONE: (715) 239-6800
EMAIL: rwruck@cve.coop

XCEL ENERGY
STACEY HAUGEN
2911 SOUTH PIONEER AVENUE
RICE LAKE, WI 54868
PHONE: (715) 236-5721
MOBILE: (715) 579-9710
EMAIL: stacey.raether@xcelenergy.com

SECTION 2 ORDER

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
EROSION CONTROL
TRAFFIC CONTROL

RUNOFF COEFFICIENT TABLE

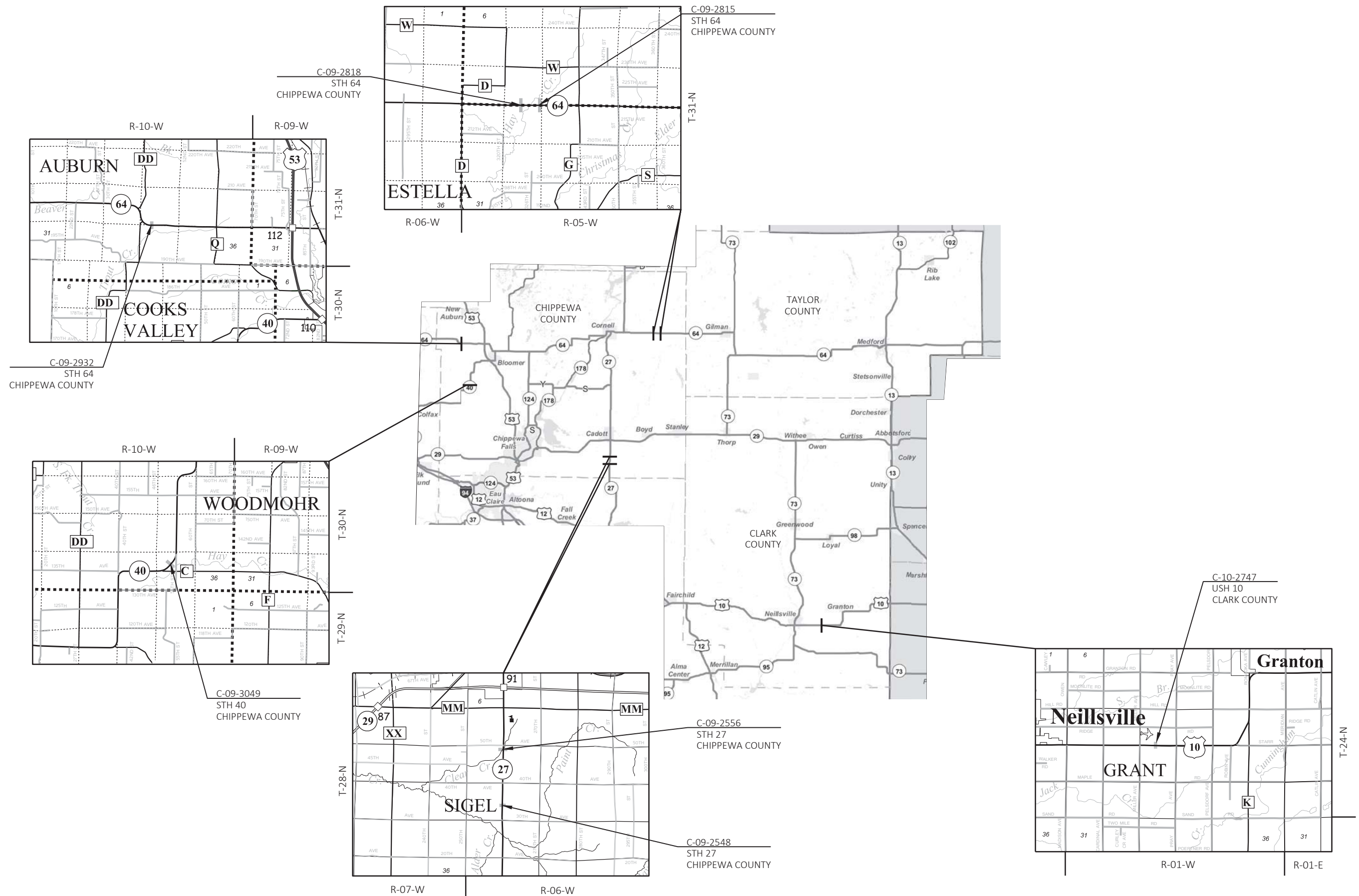
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP-TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE-TURF			.25			.27			.28			.30
			.32			.34			.36			.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 = 4.19 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.46 ACRES

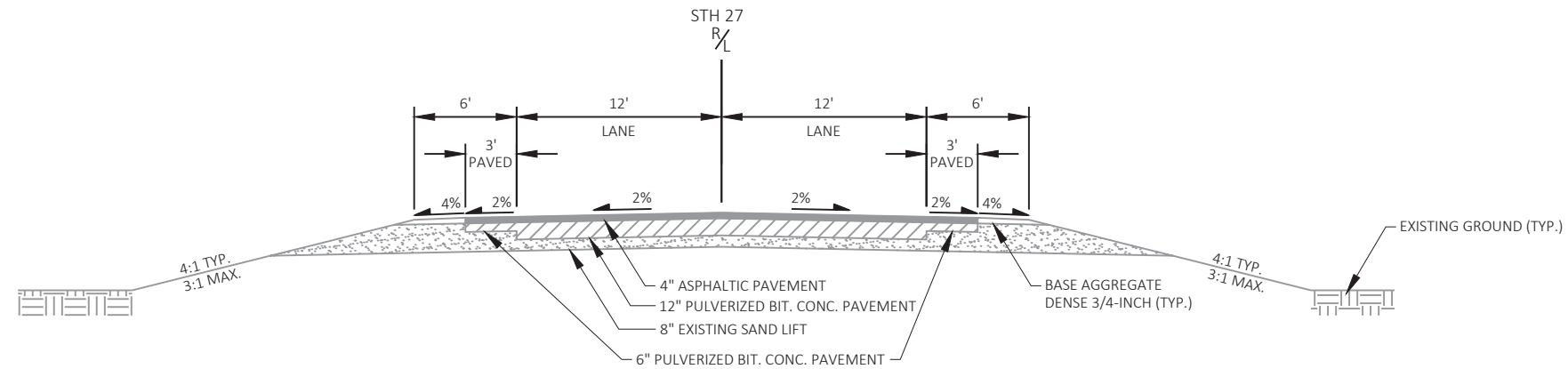
DNR CONTACT

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
LEAH NICOL
DNR WEST CENTRAL REGION HEADQUARTERS
1300 WEST CLAIREMONT AVENUE
EAU CLAIRE, WI 54701
PHONE: (715) 934-9014
EMAIL: leah.nicol@wisconsin.gov



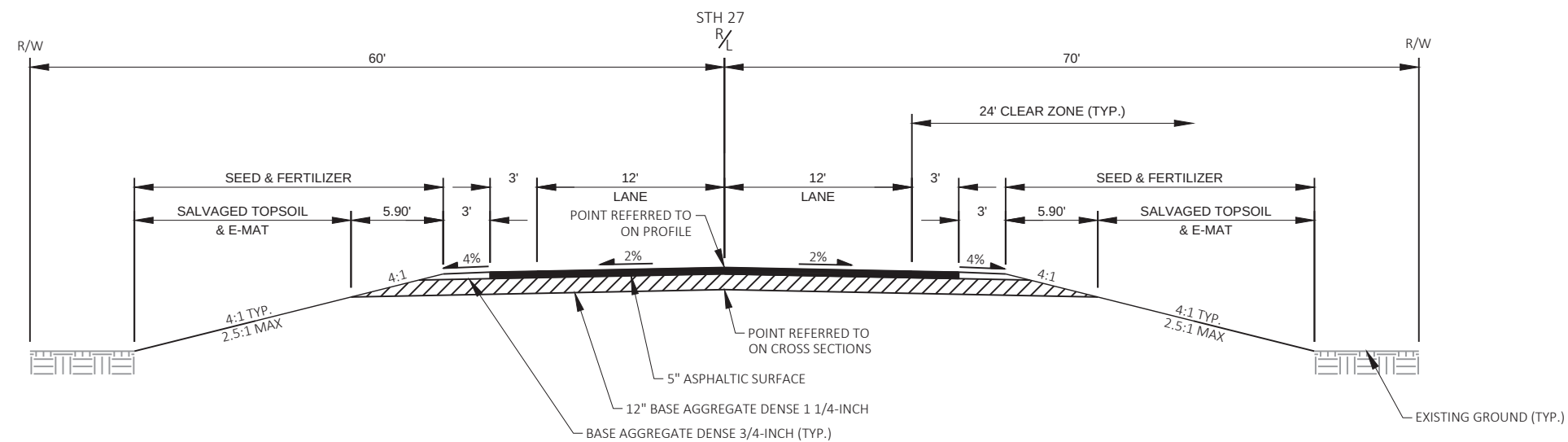


PROJECT NO: 1000-06-09	HWY: VARIOUS	COUNTY: VARIOUS	PLAN: PROJECT OVERVIEW	SHEET E
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EXISTING TYPICAL SECTION - STH 27

STATION 136'TS'+00 TO STATION 138'TS'+00
STATION 215'TN'+75 TO STATION 217'TN'+25



FINISHED TYPICAL SECTION - STH 27

STATION 136'TS'+00 TO STATION 138'TS'+00
STATION 215'TN'+75 TO STATION 217'TN'+25

NOTES
EXISTING TYPICAL SECTIONS BASED
ON AVAILABLE AS-BUILTS.

PROJECT NO: 1000-06-09

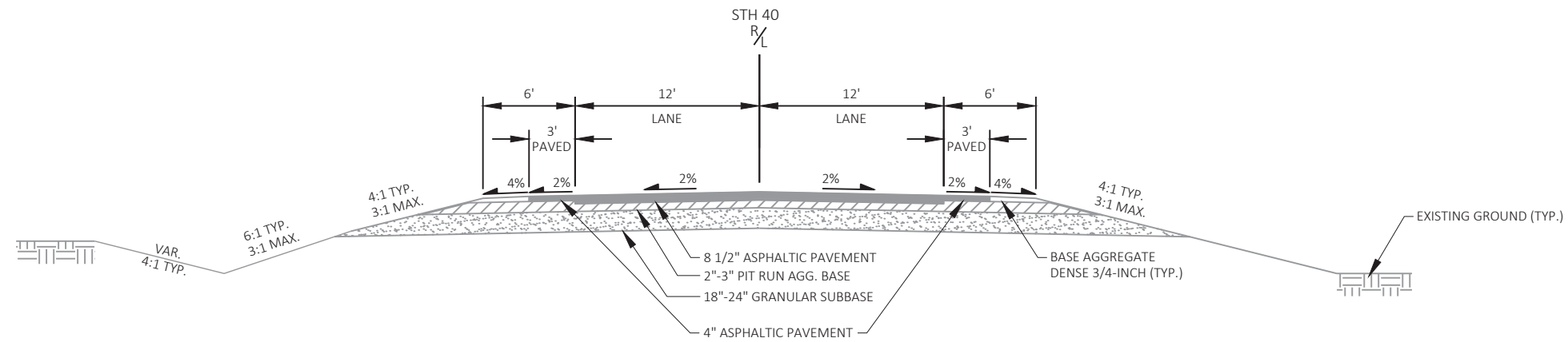
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COUNTY: VARIOUS

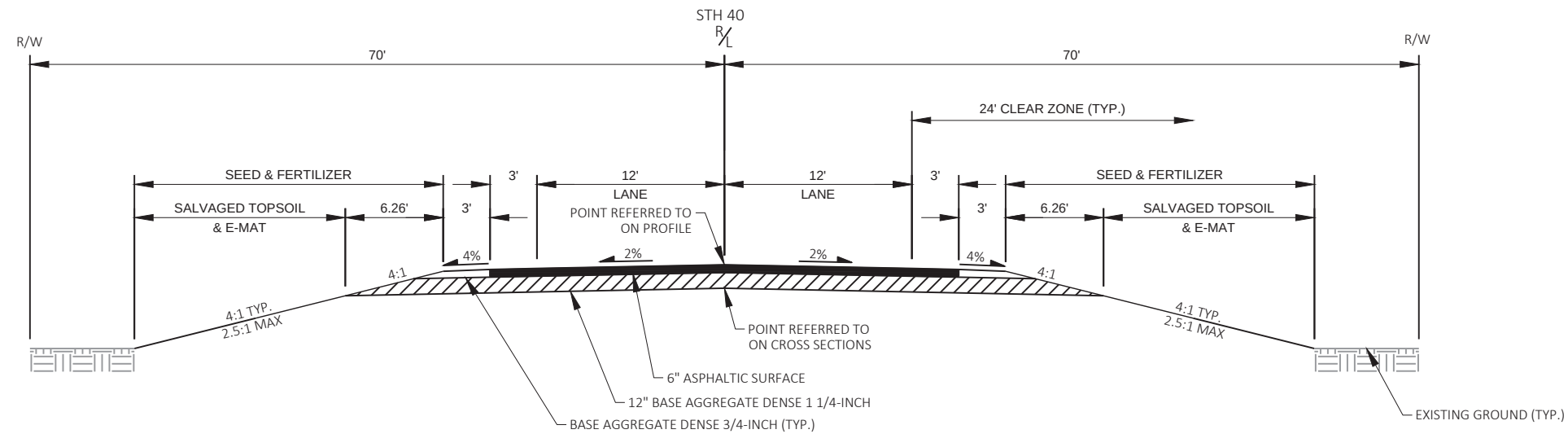
PLAN: TYPICAL SECTIONS - STH 27

SHEET

E



EXISTING TYPICAL SECTION - STH 40
STATION 976'F+25 TO STATION 978'F+00



FINISHED TYPICAL SECTION - STH 40
STATION 976'F+25 TO STATION 978'F+00

NOTES
EXISTING TYPICAL SECTIONS BASED
ON AVAILABLE AS-BUILTS.

PROJECT NO: 1000-06-09

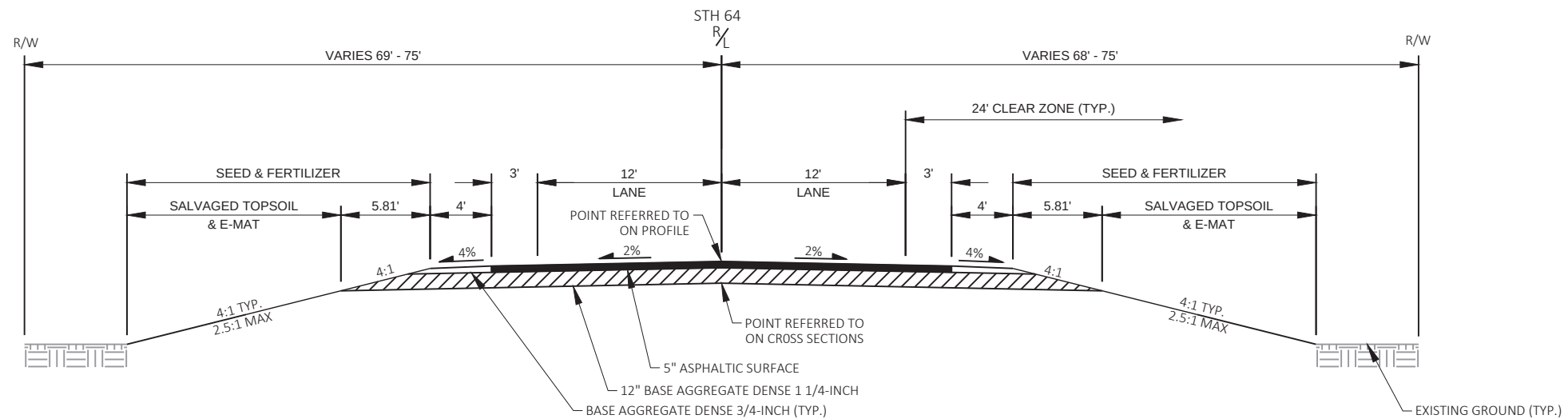
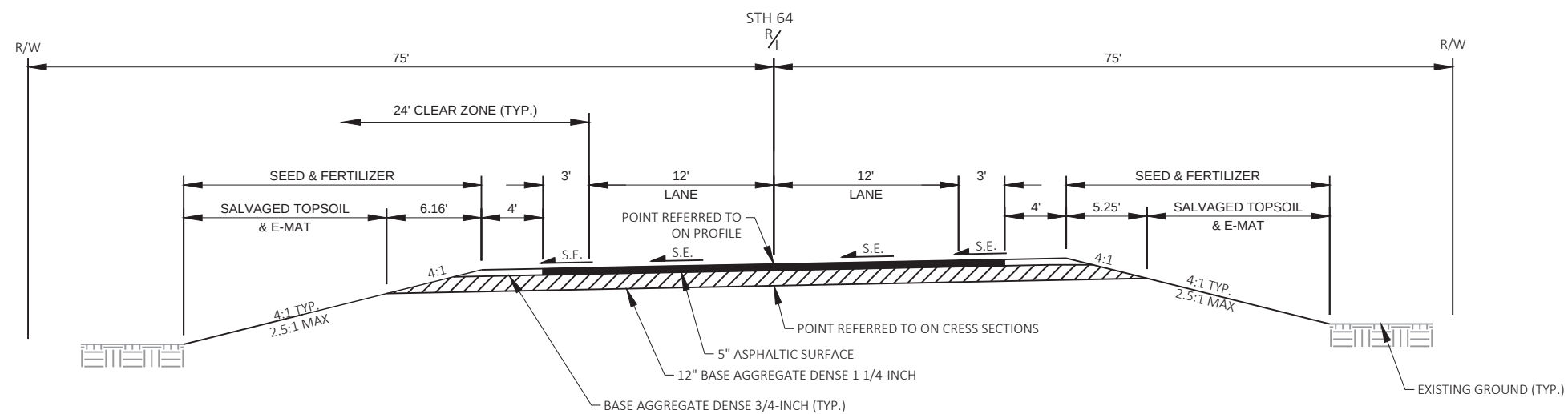
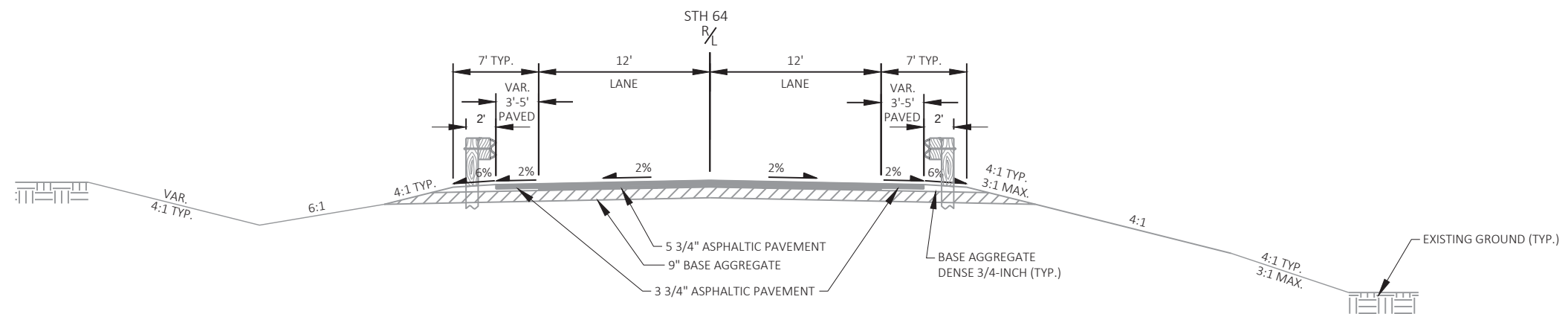
HWY: VARIOUS

COUNTY: VARIOUS

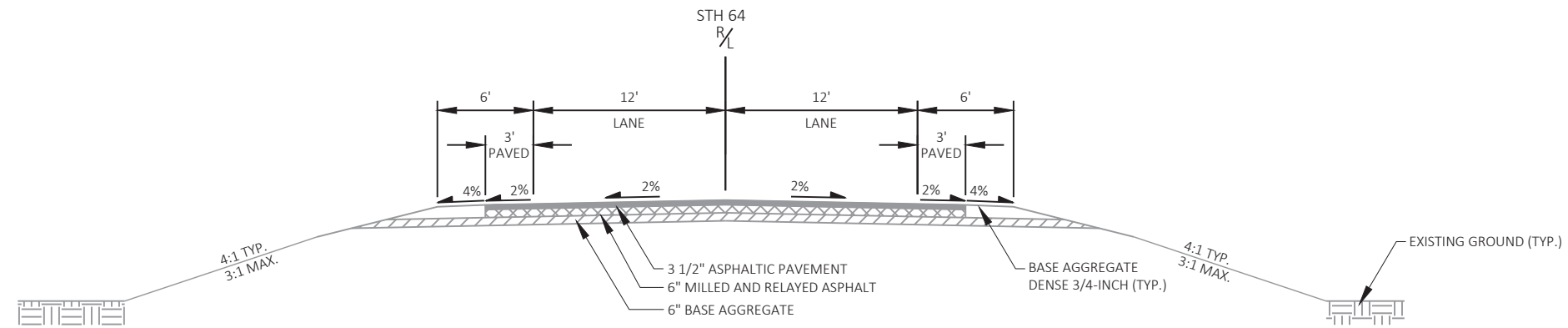
PLAN: TYPICAL SECTIONS - STH 40

SHEET

E

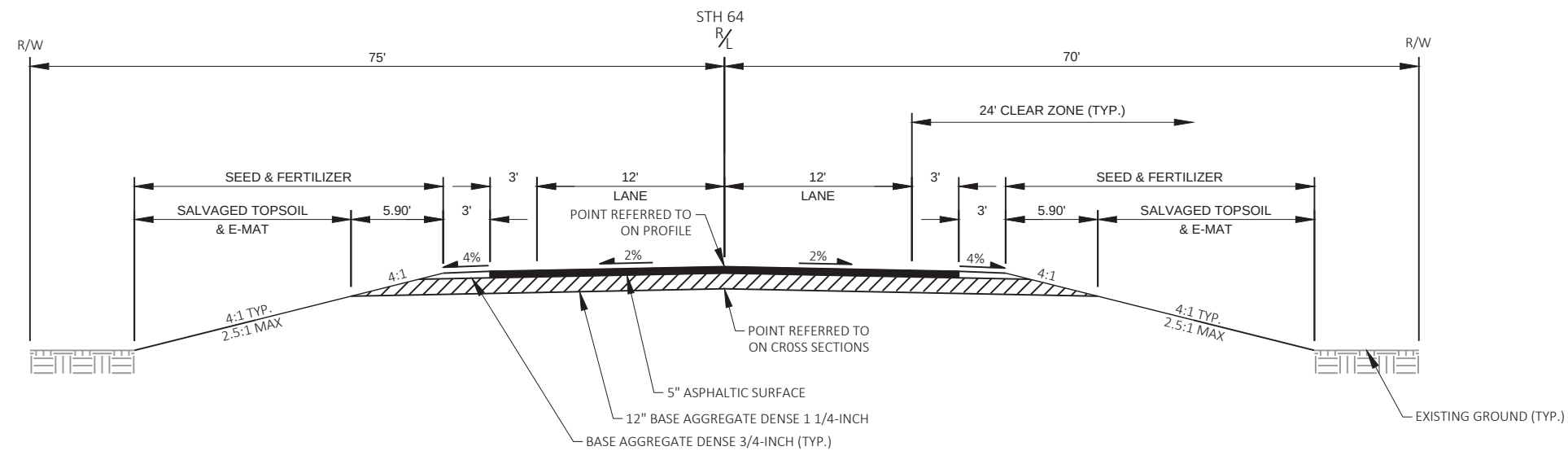


NOTES
EXISTING TYPICAL SECTIONS BASED
ON AVAILABLE AS-BUILTS.



EXISTING TYPICAL SECTION - STH 64

STATION 250+00'SE' TO STATION 252'SE'+00
STATION 277'SE'+25 TO STATION 279'SE'+25



FINISHED TYPICAL SECTION - STH 64

STATION 250'SE'+00 TO STATION 252'SE'+00
STATION 277'SE'+25 TO STATION 279'SE'+25

NOTES
EXISTING TYPICAL SECTIONS BASED
ON AVAILABLE AS-BUILTS.

PROJECT NO: 1000-06-09

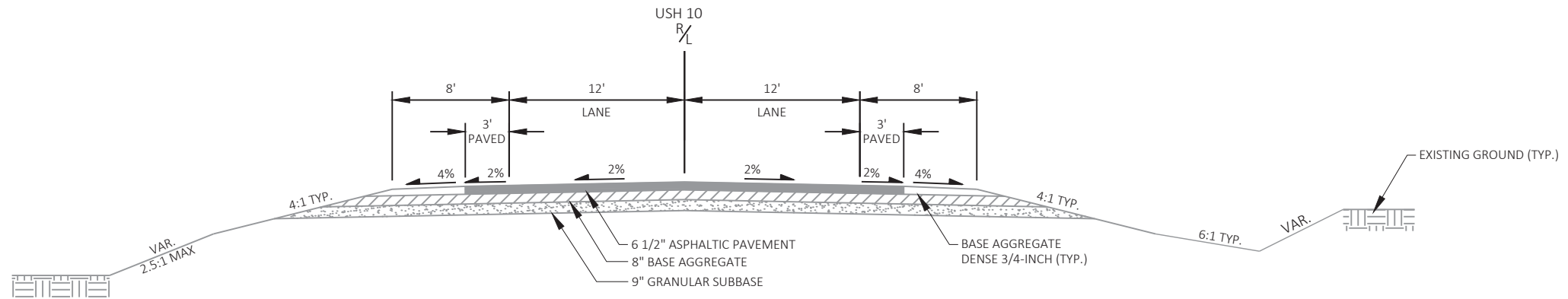
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COUNTY: VARIOUS

PLAN: TYPICAL SECTIONS - STH 64

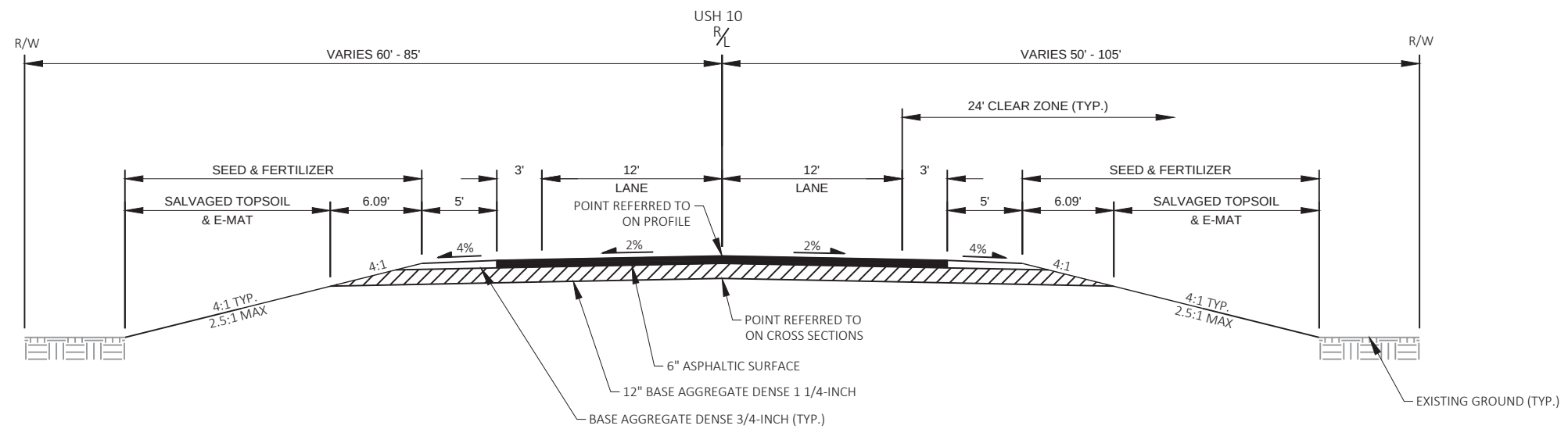
SHEET

E



EXISTING TYPICAL SECTION - USH 10

STATION 257'U'+50 TO STATION 259'U'+50



FINISHED TYPICAL SECTION - USH 10

STATION 257'U'+50 TO STATION 259'U'+50

NOTES
EXISTING TYPICAL SECTIONS BASED
ON AVAILABLE AS-BUILTS.

PROJECT NO: 1000-06-09

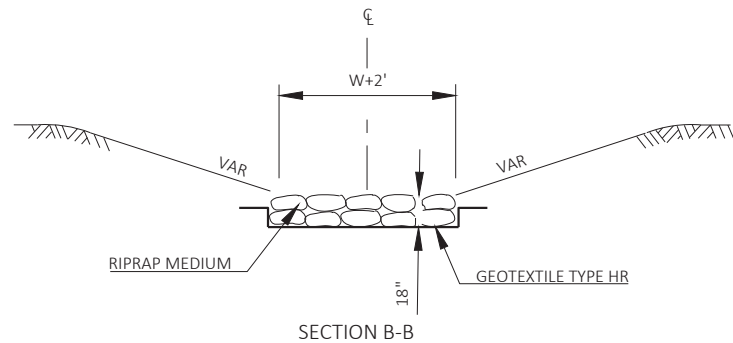
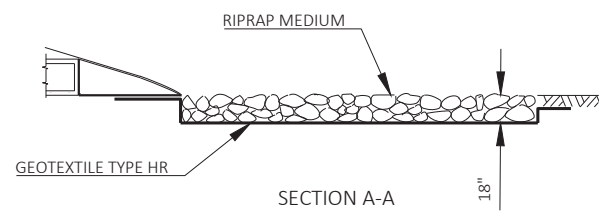
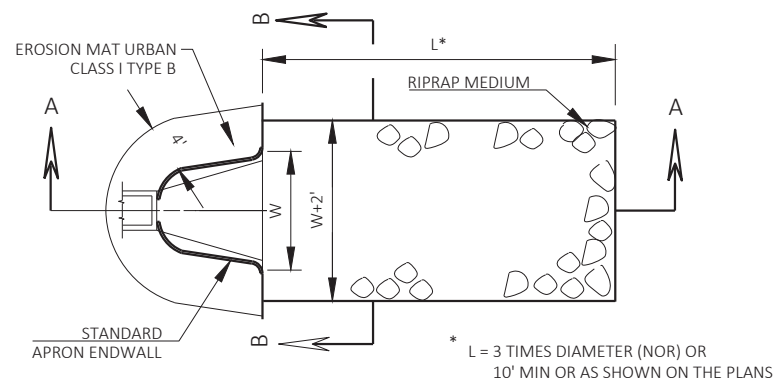
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COUNTY: VARIOUS

PLAN: TYPICAL SECTIONS - USH 10

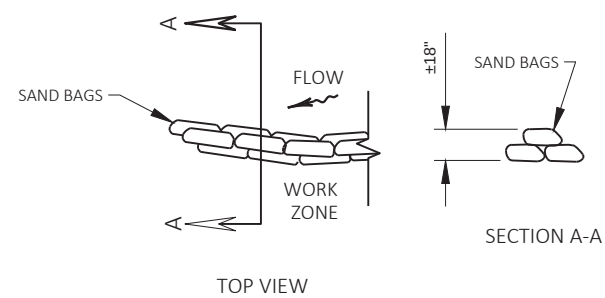
SHEET

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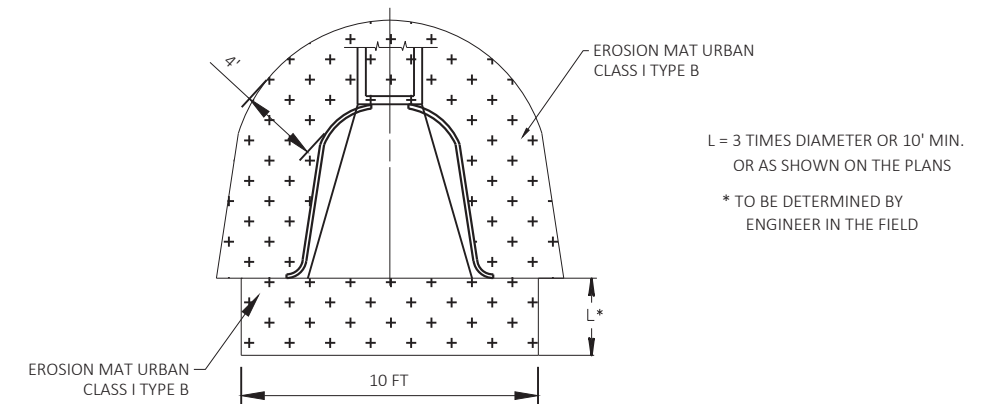
E-MAT, RIPRAP MEDIUM AND GEOTEXTILE TYPE HR

DETAIL AT APRON ENDWALLS AT DISCHARGE END

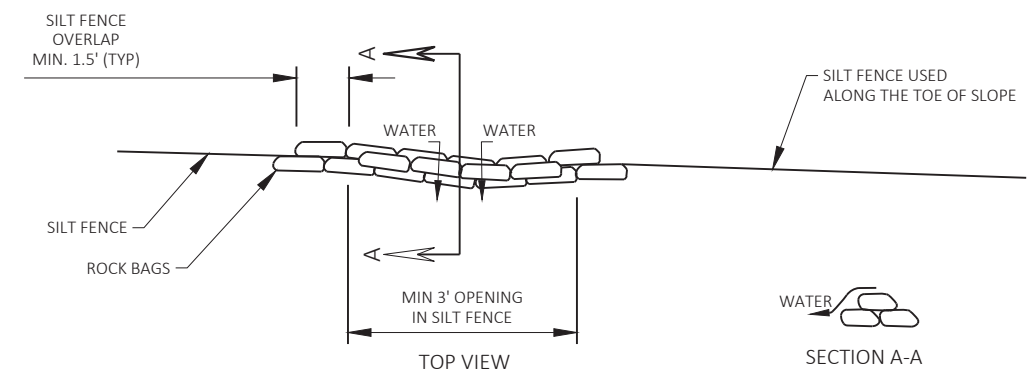


TEMPORARY FLOW DIVERSION

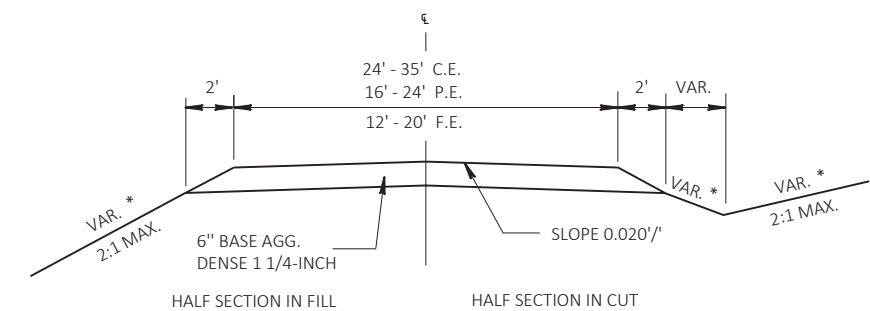
STH 27 CULVERT C-09-2556



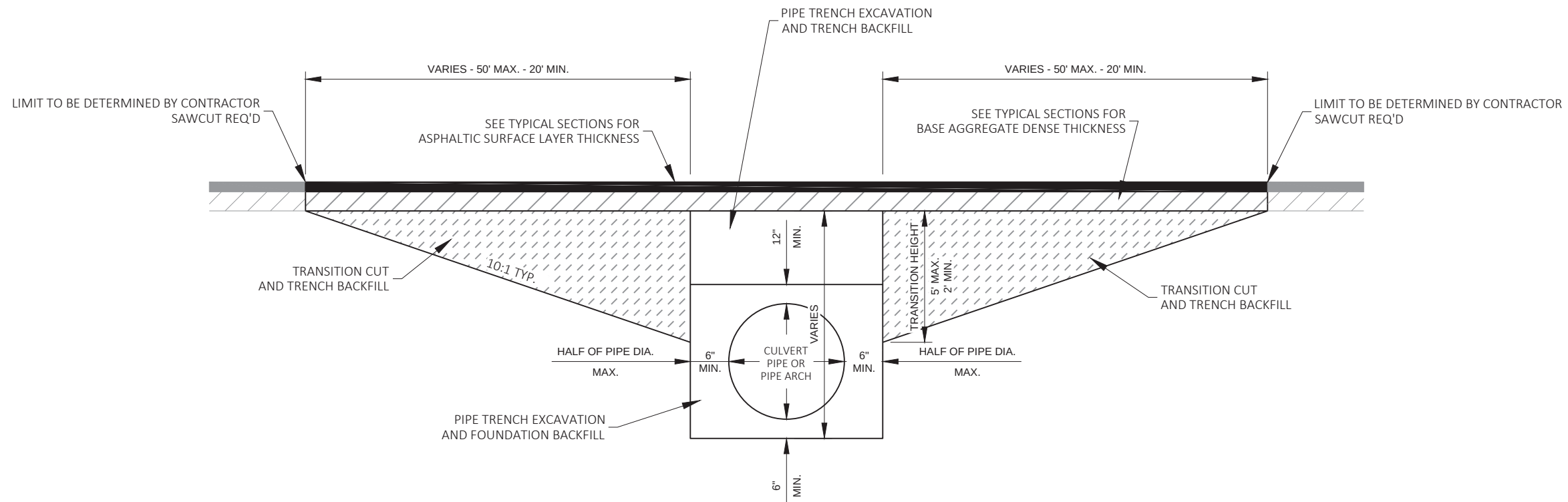
EROSION CONTROL AT PIPE INLET ENDS



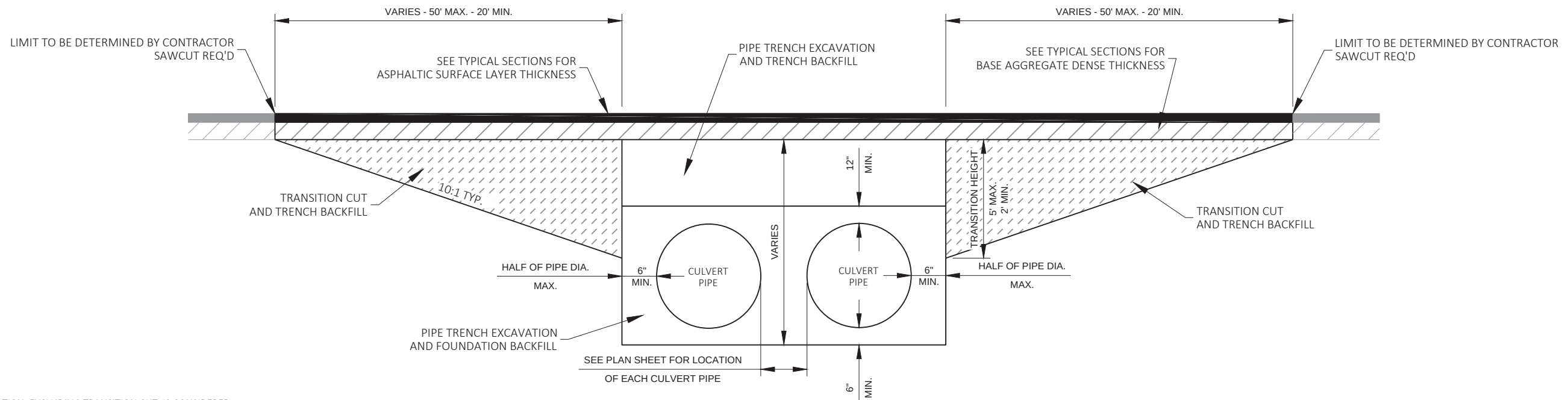
ROCK BAGS USED FOR SILT FENCE RELIEF



TYPICAL SECTION FOR PRIVATE ENTRANCES



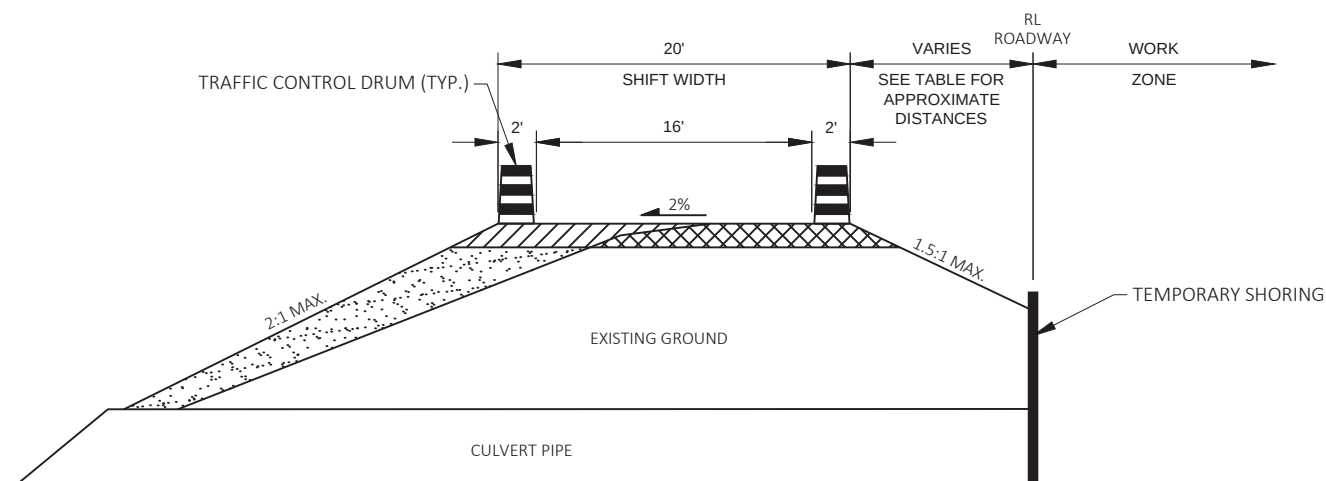
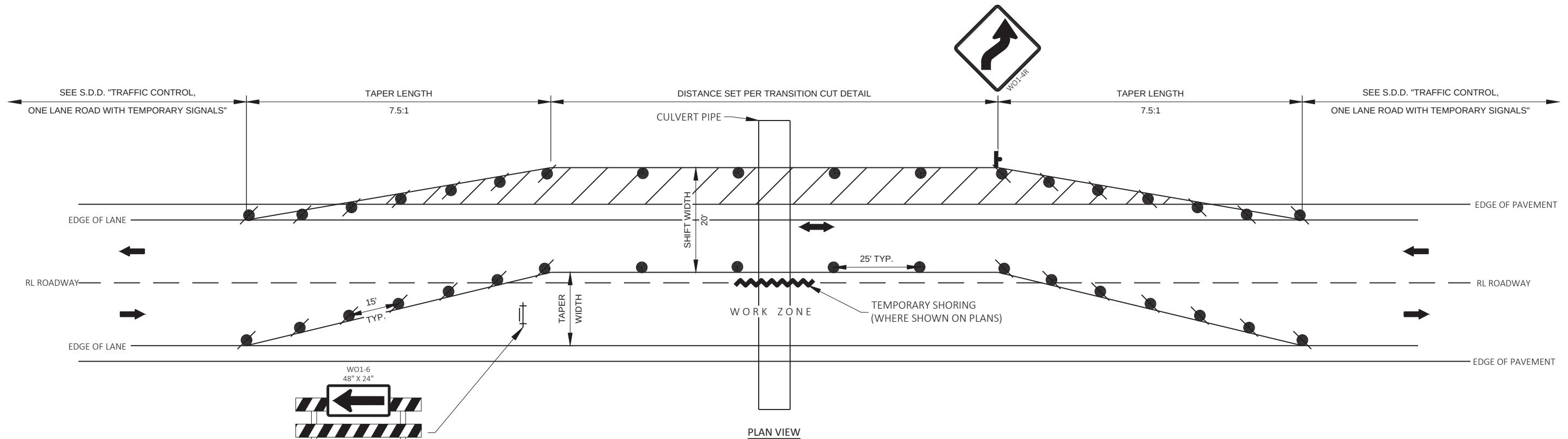
CULVERT PIPE OR PIPE ARCH TRANSITION DETAIL - SINGLE PIPE



CULVERT PIPE TRANSITION DETAIL - MULTIPLE PIPES

NOTES:
PIPE TRENCH EXCAVATION, EXCLUDING TRANSITION CUT, IS CONSIDERED INCIDENTAL TO PIPE INSTALLATION. TRANSITION CUT WILL BE PAID FOR AS EXCAVATION COMMON.

BACKFILL IN ACCORDANCE WITH STANDARD SPEC 520.2.5. BACKFILL WITHIN PIPE TRENCH IS INCIDENTAL TO PIPE ITEM. BACKFILL WITHIN TRANSITION CUT IS INCIDENTAL TO EXCAVATION COMMON ITEM.



APPROXIMATE DISTANCE TABLE			
CULVERT	HIGHWAY	DISTANCE LT	DISTANCE RT
C-09-2548	STH 27	6.5'	6.5'
C-09-2556	STH 27	5.6'	5.6'
C-09-2932	STH 64	6'	6'
C-09-3049	STH 40	8.5'	7'
C-09-2815	STH 64	8'	8'
C-09-2818	STH 64	4'	4'
C-10-2747	USH 10	7.5'	7.5'

HALF CROSS SECTION - TEMPORARY SHORING

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC FLOW DIRECTION
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM W/ TYPE "C" STEADY BURN LIGHT
- FILL (BORROW)
- EXISTING PAVED SURFACE OR 8" BASE AGGREGATE DENSE 1 1/4-INCH
- 8" BASE AGGREGATE DENSE 1 1/4-INCH

NOTES:
USE WITH SDD "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS."
THE ENDS OF THE TAPER LENGTHS CORRESPOND TO THE ENDS OF THE TAPERS ON THE SDD.

THE TAPER SHOULD EXTEND ACROSS THE SHOULDER UNLESS DOING SO WOULD GREATLY CONFLICT WITH THE WORK OPERATION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

TEMPORARY WIDENING TO LEFT OF REFERENCE LINE SHOWN. TEMPORARY WIDENING TO RIGHT OF REFERENCE LINE IS MIRRORED.

SEE TRAFFIC CONTROL DETAILS FOR MORE INFORMATION.

REMOVE TEMPORARY WIDENING TO FINAL DIMENSIONS AS SHOWN IN THE CROSS SECTIONS. TEMPORARY WIDENING REMOVAL TO THESE DIMENSIONS WILL BE PAID FOR UNDER THE COMMON EXCAVATION BID ITEM.

TEMPORARY WIDENING DETAIL

PROJECT NO: 1000-06-09

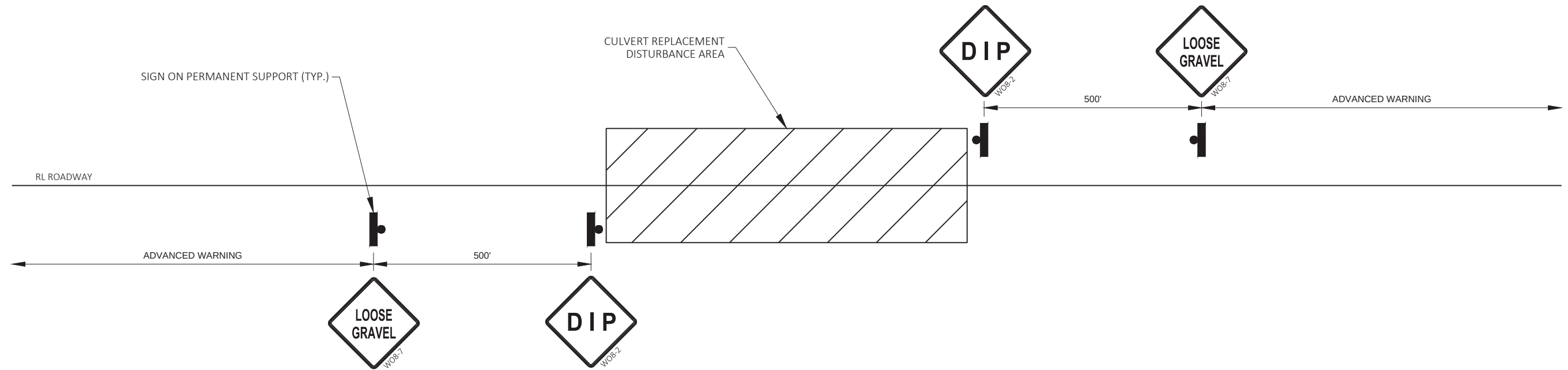
HWY: VARIOUS

COUNTY: VARIOUS

PLAN: CONSTRUCTION DETAILS

SHEET

E



NOTES:
USE PRIOR TO ASPHALTIC SURFACE BEING PLACED AFTER CULVERT REPLACEMENT.

TEMPORARY SUPPORTS MAY BE USED IF SIGNS ARE IN PLACE LESS THAN SEVEN CONSECUTIVE DAYS.

FOLLOW S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADVANCE WARNING SIGN PLACEMENT.

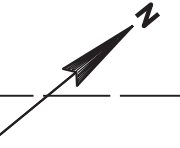
ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

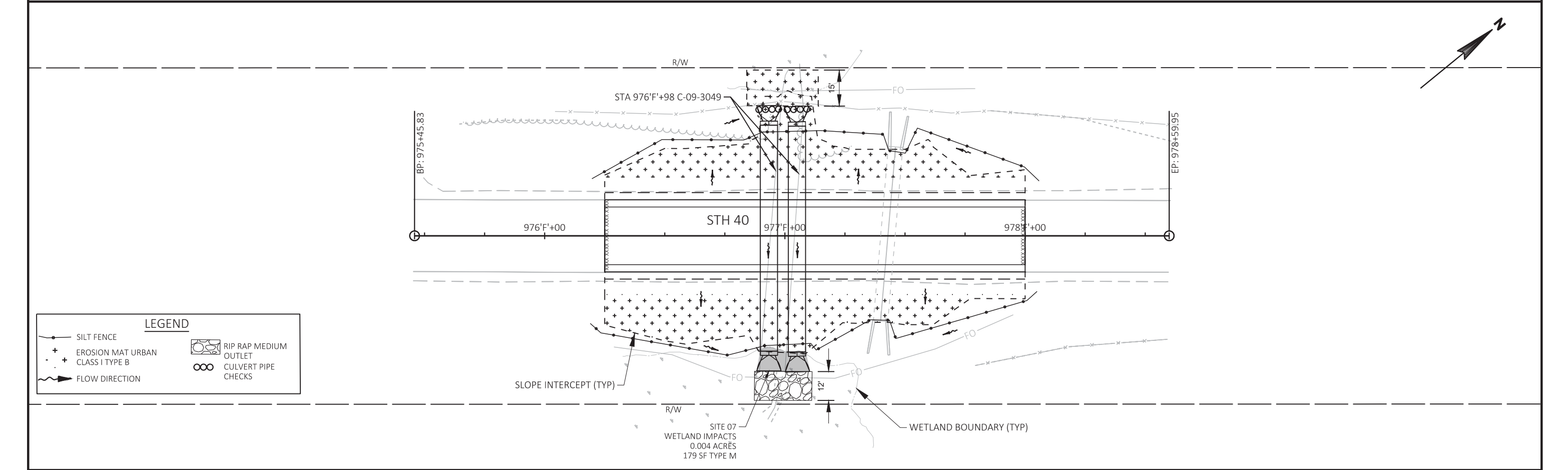
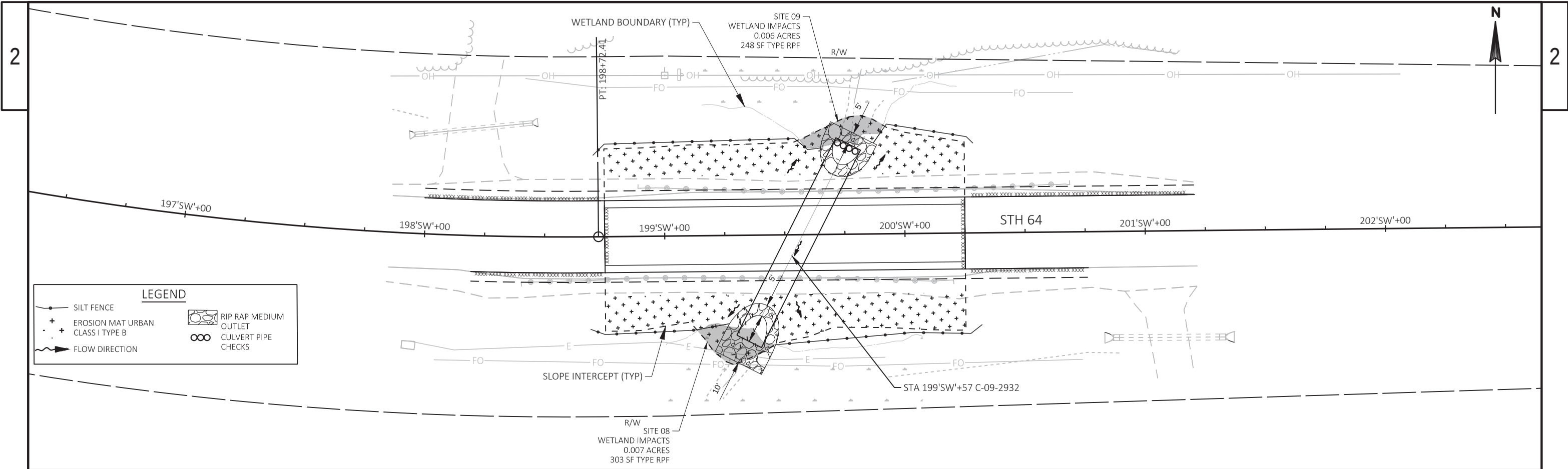
TEMPORARY SIGNING DETAIL AT CULVERT REPLACEMENT LOCATIONS

2

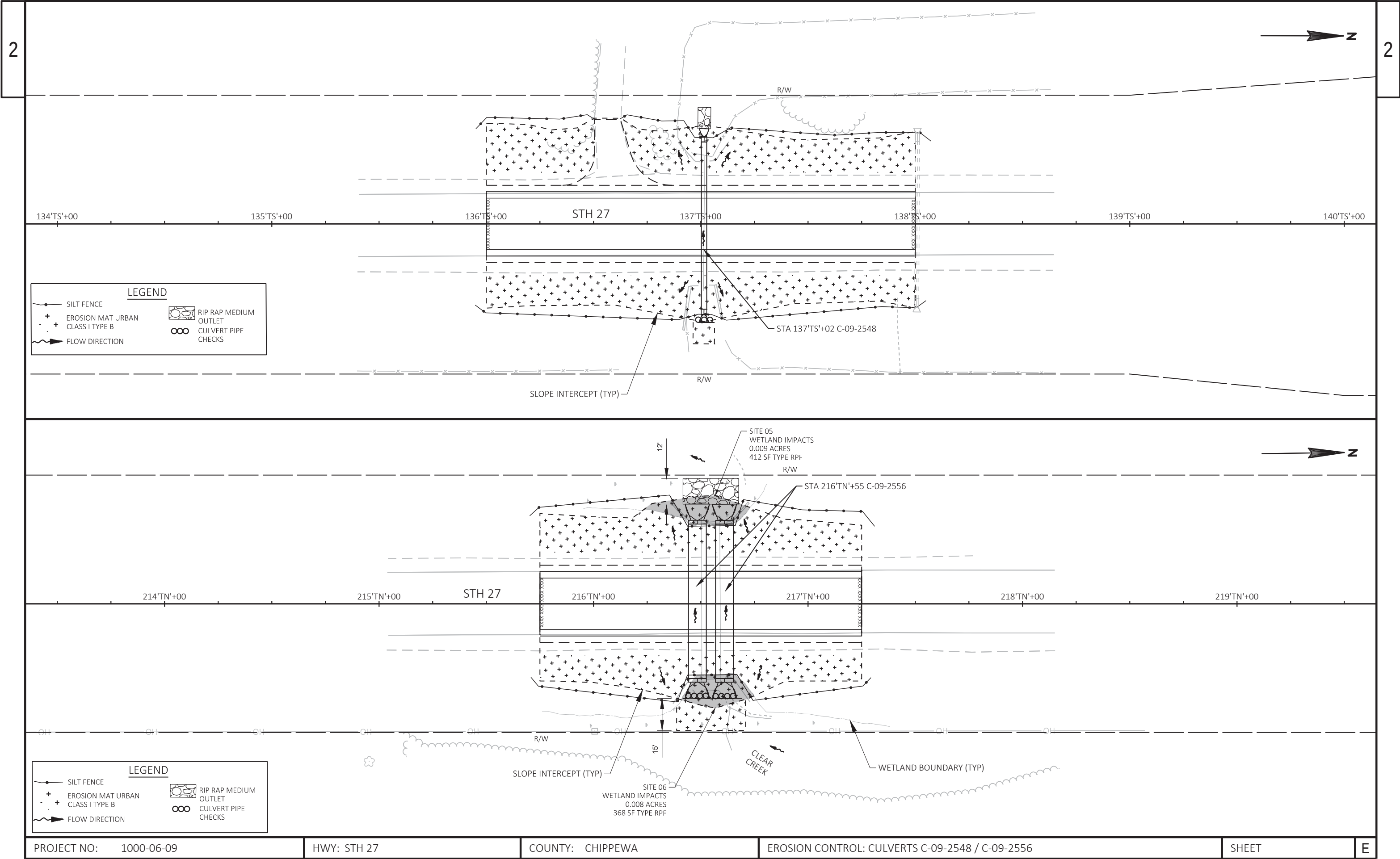
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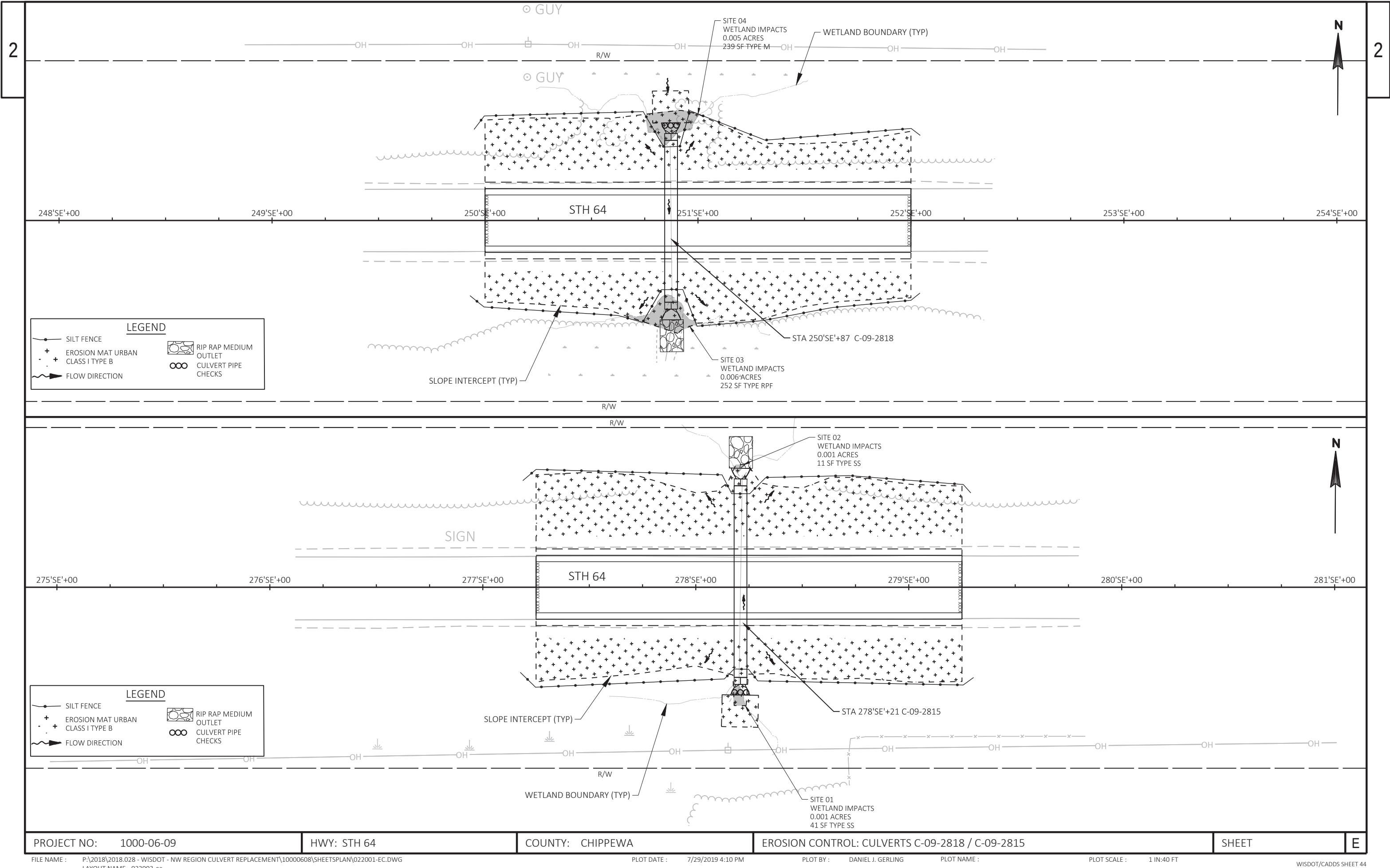


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PROJECT NO: 1000-06-09	HWY: STH 64 / STH 40	COUNTY: CHIPPEWA	EROSION CONTROL: CULVERTS C-09-2932 / C-09-3049	SHEET	E
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PROJECT NO: 1000-06-09

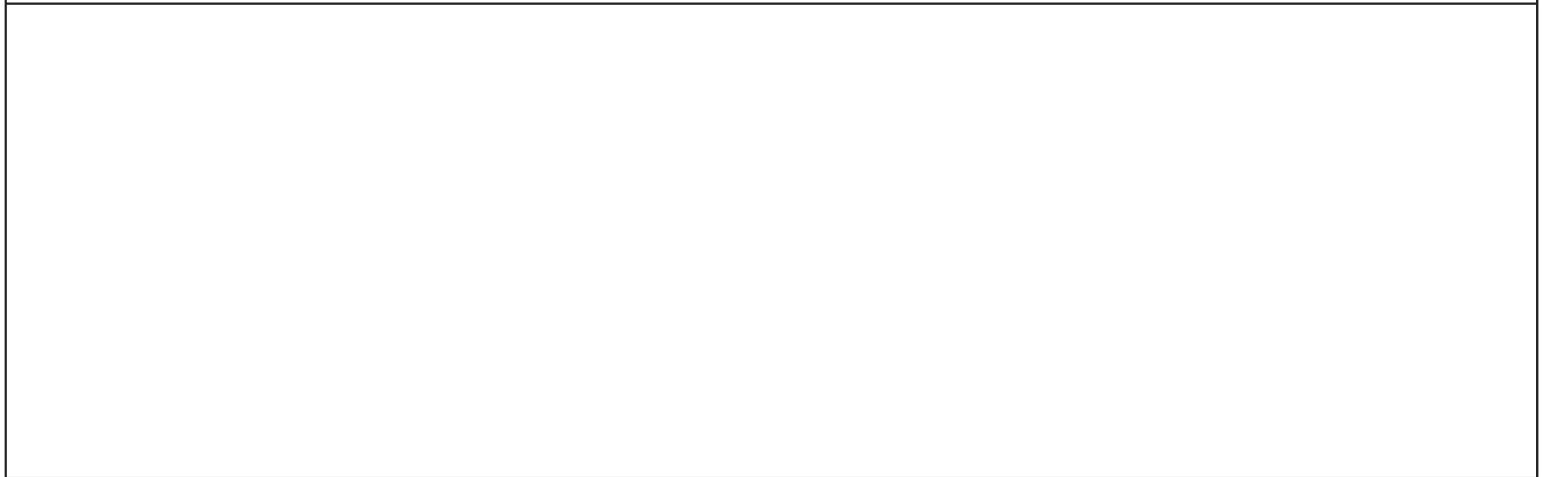
HWY: STH 64

COUNTY: CHIPPEWA

EROSION CONTROL: CULVERTS C-09-2818 / C-09-2815

SHEET

E



TEMPORARY TRAFFIC SIGNAL TIMING - C-09-2548					
STH 27					
CHIPPEWA COUNTY					
STOP BAR SPACING = 589 FT					
NORTHBOUND	SOUTHBOUND	YELLOW (SEC)	ALL RED (SEC)	GREEN (SEC)	
RED	RED	---	22	---	
GREEN	RED	---	---	13	
YELLOW	RED	5	---	---	
RED	RED	---	22	---	
RED	GREEN	---	---	13	
RED	YELLOW	5	---	---	
TOTAL		10	44	26	= 80 (SEC)

TEMPORARY TRAFFIC SIGNAL TIMING - C-09-3049					
STH 40					
CHIPPEWA COUNTY					
STOP BAR SPACING = 637 FT					
EASTBOUND	WESTBOUND	YELLOW (SEC)	ALL RED (SEC)	GREEN (SEC)	
RED	RED	---	22	---	
GREEN	RED	---	---	8	
YELLOW	RED	5	---	---	
RED	RED	---	22	---	
RED	GREEN	---	---	8	
RED	YELLOW	5	---	---	
TOTAL		10	44	16	= 70 (SEC)

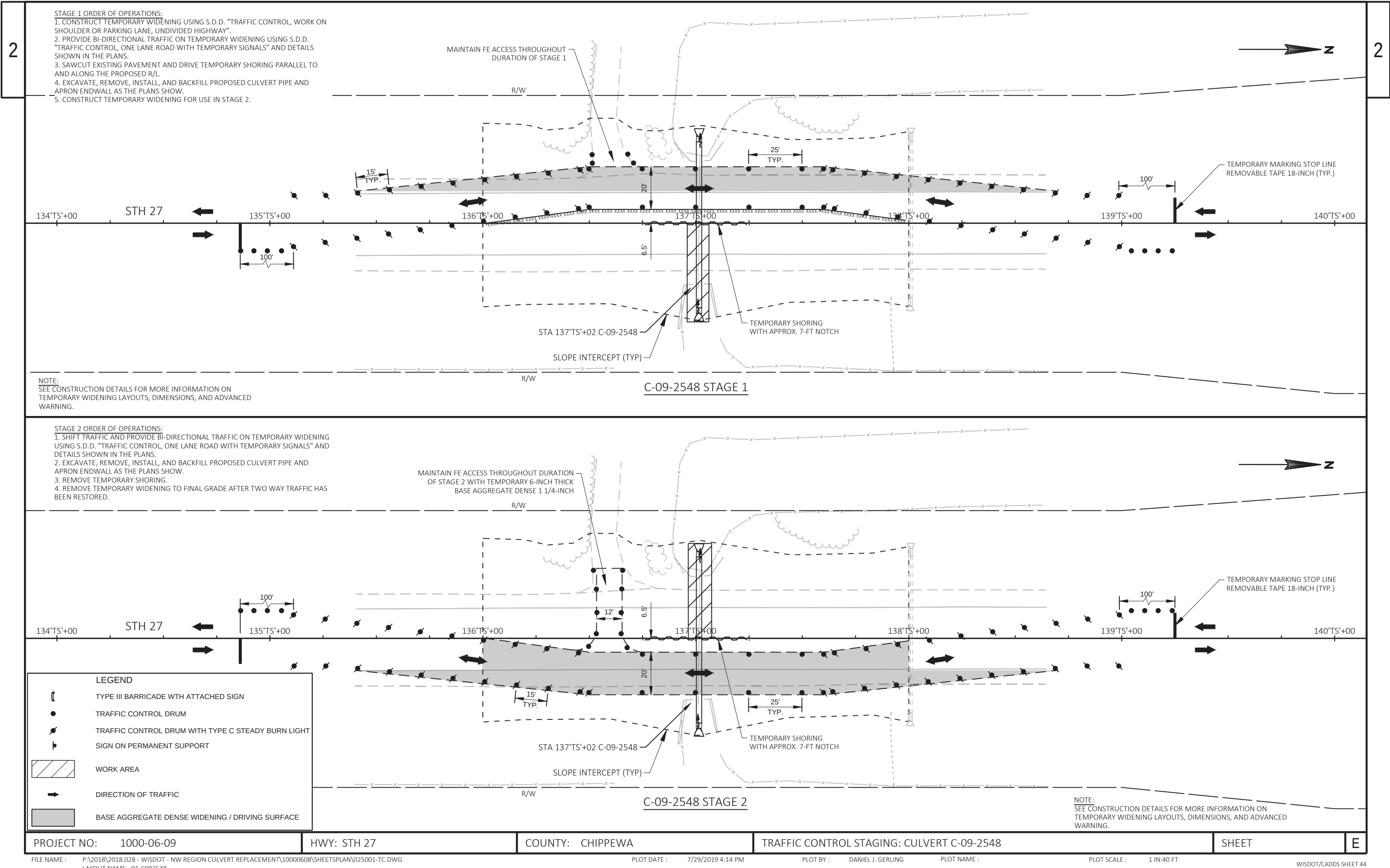
TEMPORARY TRAFFIC SIGNAL TIMING - C-09-2815					
STH 64					
CHIPPEWA COUNTY					
STOP BAR SPACING = 630 FT					
EASTBOUND	WESTBOUND	YELLOW (SEC)	ALL RED (SEC)	GREEN (SEC)	
RED	RED	---	22	---	
GREEN	RED	---	---	8	
YELLOW	RED	5	---	---	
RED	RED	---	22	---	
RED	GREEN	---	---	8	
RED	YELLOW	5	---	---	
TOTAL		10	44	16	= 70 (SEC)

TEMPORARY TRAFFIC SIGNAL TIMING - C-10-2747					
USH 10					
CLARK COUNTY					
STOP BAR SPACING = 621 FT					
EASTBOUND	WESTBOUND	YELLOW (SEC)	ALL RED (SEC)	GREEN (SEC)	
RED	RED	---	22	---	
GREEN	RED	---	---	23	
YELLOW	RED	5	---	---	
RED	RED	---	22	---	
RED	GREEN	---	---	23	
RED	YELLOW	5	---	---	
TOTAL		10	44	46	= 100 (SEC)

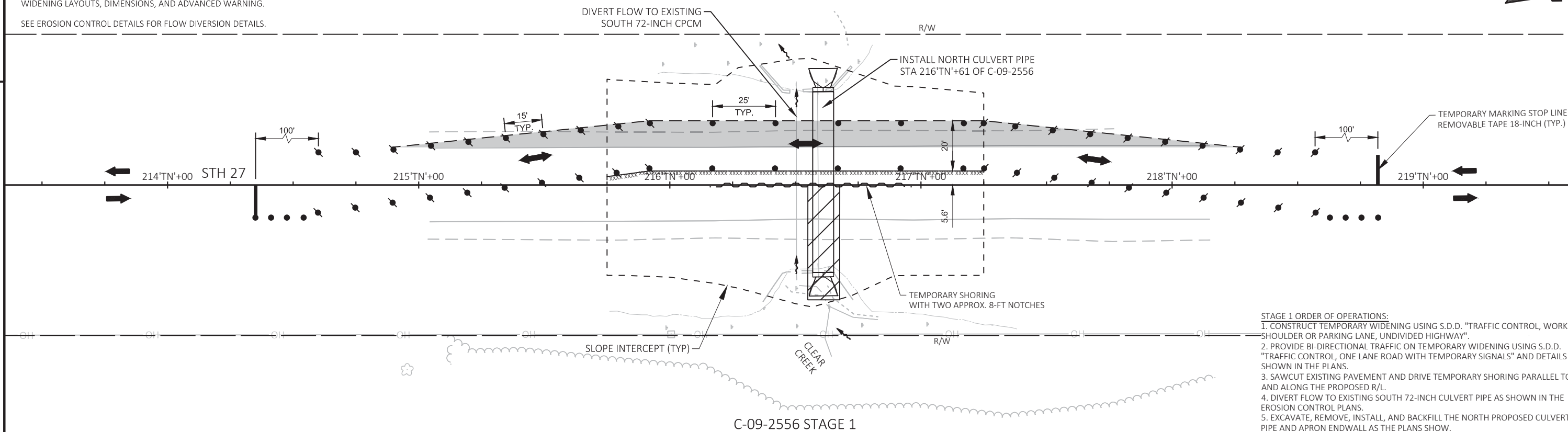
TEMPORARY TRAFFIC SIGNAL TIMING - C-09-2556					
STH 27					
CHIPPEWA COUNTY					
STOP BAR SPACING = 597 FT					
EASTBOUND	WESTBOUND	YELLOW (SEC)	ALL RED (SEC)	GREEN (SEC)	
RED	RED	---	21	---	
GREEN	RED	---	---	9	
YELLOW	RED	5	---	---	
RED	RED	---	21	---	
RED	GREEN	---	---	9	
RED	YELLOW	5	---	---	
TOTAL		10	42	18	= 70 (SEC)

TEMPORARY TRAFFIC SIGNAL TIMING - C-09-2932					
STH 64					
CHIPPEWA COUNTY					
STOP BAR SPACING = 623 FT					
EASTBOUND	WESTBOUND	YELLOW (SEC)	ALL RED (SEC)	GREEN (SEC)	
RED	RED	---	22	---	
GREEN	RED	---	---	13	
YELLOW	RED	5	---	---	
RED	RED	---	22	---	
RED	GREEN	---	---	13	
RED	YELLOW	5	---	---	
TOTAL		10	44	26	= 80 (SEC)

TEMPORARY TRAFFIC SIGNAL TIMING - C-09-2818					
STH 64					
CHIPPEWA COUNTY					
STOP BAR SPACING = 556 FT					
EASTBOUND	WESTBOUND	YELLOW (SEC)	ALL RED (SEC)	GREEN (SEC)	
RED	RED	---	19	---	
GREEN	RED	---	---	11	
YELLOW	RED	5	---	---	
RED	RED	---	19	---	
RED	GREEN	---	---	11	
RED	YELLOW	5	---	---	
TOTAL		10	38	22	= 70 (SEC)



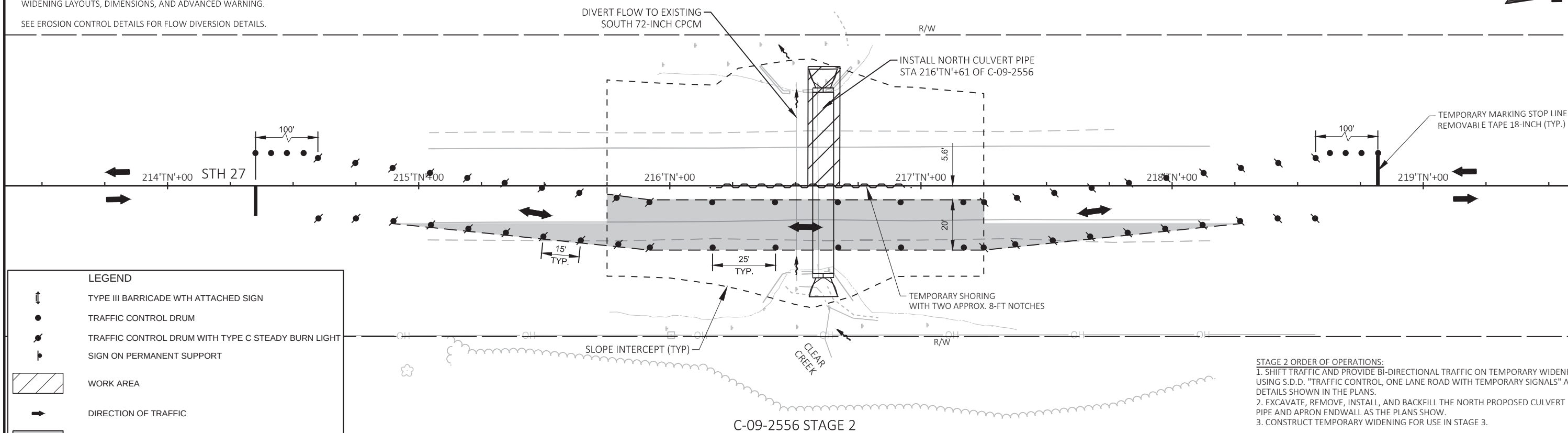
SEE EROSION CONTROL DETAILS FOR FLOW DIVERSION DETAILS.



STAGE 1 ORDER OF OPERATIONS:

1. CONSTRUCT TEMPORARY WIDENING USING S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED HIGHWAY".
2. PROVIDE BI-DIRECTIONAL TRAFFIC ON TEMPORARY WIDENING USING S.D.D. "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" AND DETAILS SHOWN IN THE PLANS.
3. SAWCUT EXISTING PAVEMENT AND DRIVE TEMPORARY SHORING PARALLEL TO AND ALONG THE PROPOSED R/L.
4. DIVERT FLOW TO EXISTING SOUTH 72-INCH CULVERT PIPE AS SHOWN IN THE EROSION CONTROL PLANS.
5. EXCAVATE, REMOVE, INSTALL, AND BACKFILL THE NORTH PROPOSED CULVERT PIPE AND APRON ENDWALL AS THE PLANS SHOW.
6. CONSTRUCT TEMPORARY WIDENING FOR USE IN STAGE 2.

SEE EROSION CONTROL DETAILS FOR FLOW DIVERSION DETAILS.

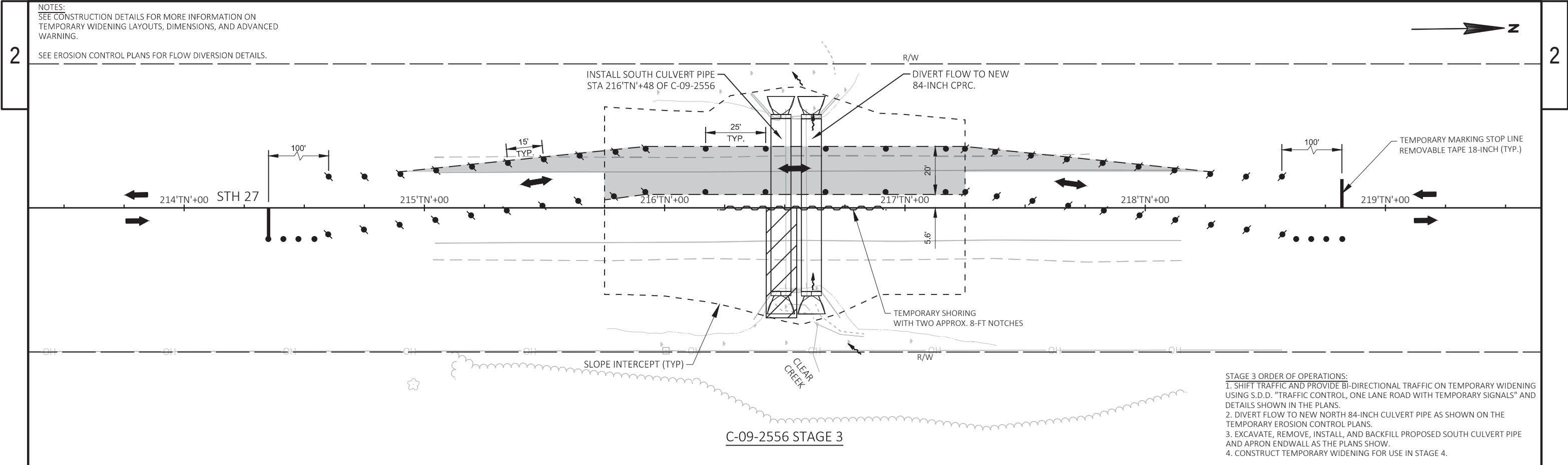


STAGE 2 ORDER OF OPERATIONS:

1. SHIFT TRAFFIC AND PROVIDE BI-DIRECTIONAL TRAFFIC ON TEMPORARY WIDENING USING S.D.D. "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" AND DETAILS SHOWN IN THE PLANS.
2. EXCAVATE, REMOVE, INSTALL, AND BACKFILL THE NORTH PROPOSED CULVERT PIPE AND APRON ENDWALL AS THE PLANS SHOW.
3. CONSTRUCT TEMPORARY WIDENING FOR USE IN STAGE 3.

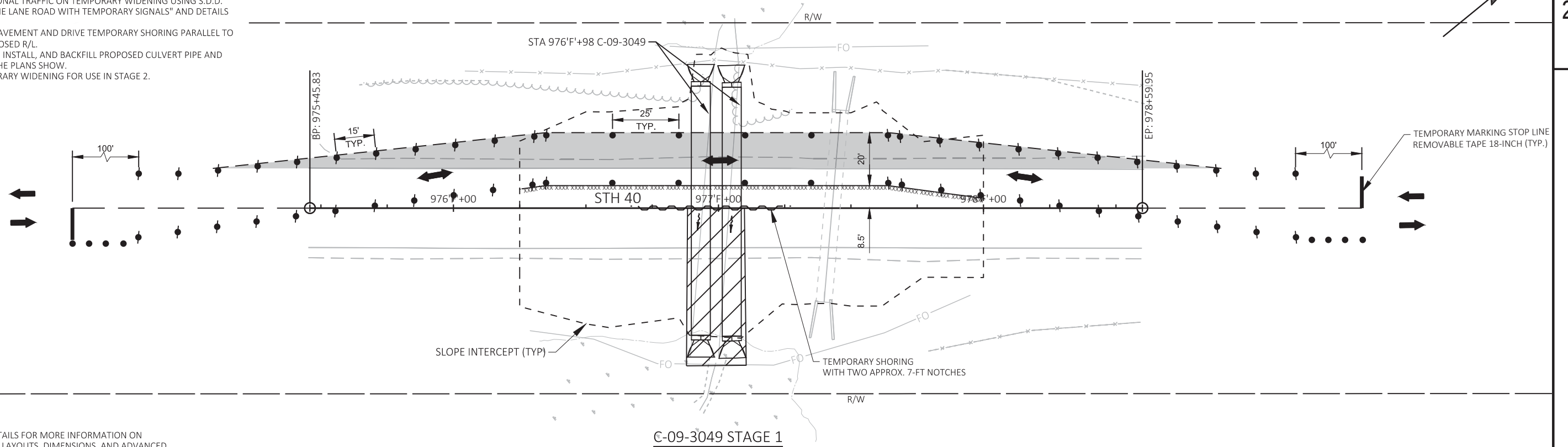
LEGEND

-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  SIGN ON PERMANENT SUPPORT
-  WORK AREA
-  DIRECTION OF TRAFFIC
-  BASE AGGREGATE DENSE WIDENING / DRIVING SURFACE



STAGE 1 ORDER OF OPERATIONS:

1. CONSTRUCT TEMPORARY WIDENING USING S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED HIGHWAY".
2. PROVIDE BI-DIRECTIONAL TRAFFIC ON TEMPORARY WIDENING USING S.D.D. "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" AND DETAILS SHOWN IN THE PLANS.
3. SAWCUT EXISTING PAVEMENT AND DRIVE TEMPORARY SHORING PARALLEL TO AND ALONG THE PROPOSED R/L.
4. EXCAVATE, REMOVE, INSTALL, AND BACKFILL PROPOSED CULVERT PIPE AND APRON ENDWALL AS THE PLANS SHOW.
5. CONSTRUCT TEMPORARY WIDENING FOR USE IN STAGE 2.

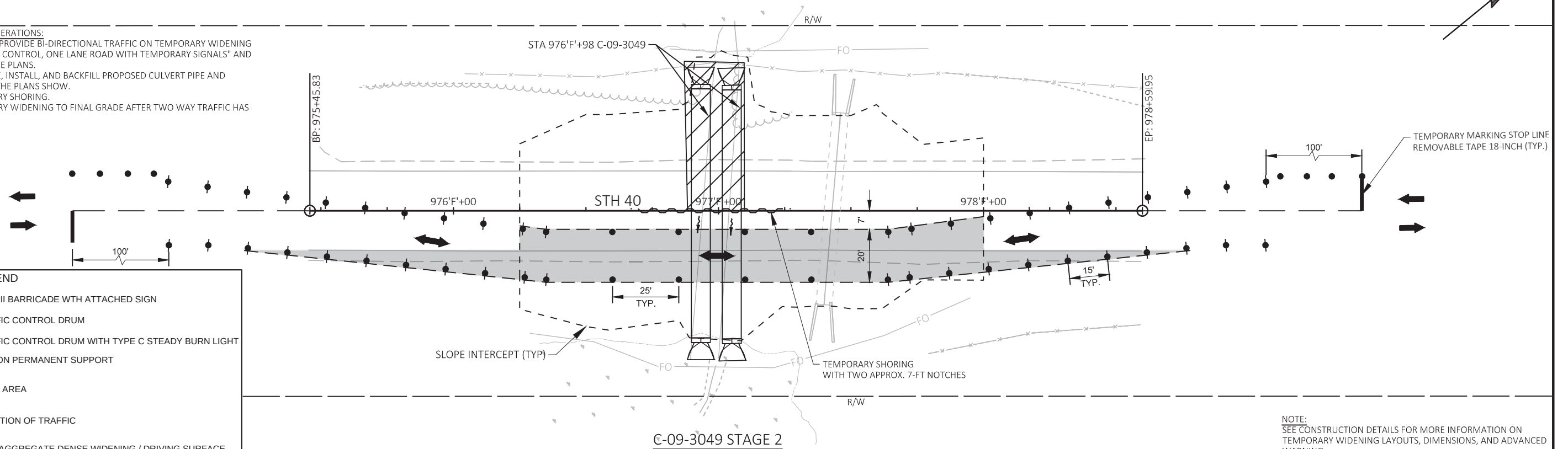


NOTE:

SEE CONSTRUCTION DETAILS FOR MORE INFORMATION ON TEMPORARY WIDENING LAYOUTS, DIMENSIONS, AND ADVANCED WARNING.

STAGE 2 ORDER OF OPERATIONS:

1. SHIFT TRAFFIC AND PROVIDE BI-DIRECTIONAL TRAFFIC ON TEMPORARY WIDENING USING S.D.D. "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" AND DETAILS SHOWN IN THE PLANS.
2. EXCAVATE, REMOVE, INSTALL, AND BACKFILL PROPOSED CULVERT PIPE AND APRON ENDWALL AS THE PLANS SHOW.
3. REMOVE TEMPORARY SHORING.
4. REMOVE TEMPORARY WIDENING TO FINAL GRADE AFTER TWO WAY TRAFFIC HAS BEEN RESTORED.



LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- BASE AGGREGATE DENSE WIDENING / DRIVING SURFACE

NOTE:

SEE CONSTRUCTION DETAILS FOR MORE INFORMATION ON TEMPORARY WIDENING LAYOUTS, DIMENSIONS, AND ADVANCED WARNING.

PROJECT NO: 1000-06-09

HWY: STH 40

COUNTY: CHIPPEWA

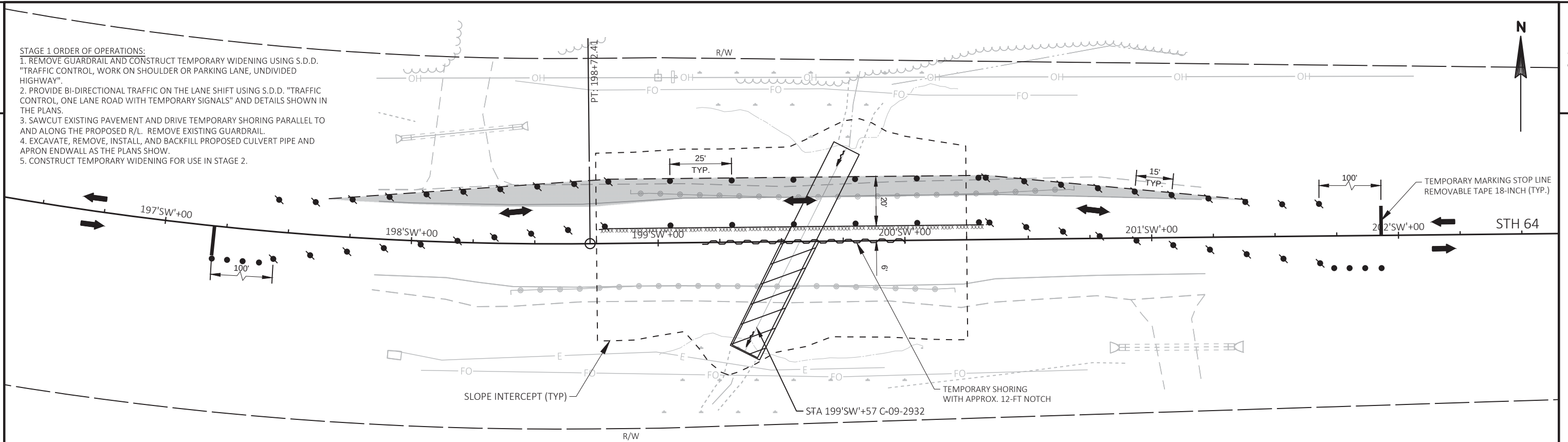
TRAFFIC CONTROL STAGING: CULVERT C-09-3049

SHEET

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STAGE 1 ORDER OF OPERATIONS:

1. REMOVE GUARDRAIL AND CONSTRUCT TEMPORARY WIDENING USING S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED HIGHWAY".
2. PROVIDE BI-DIRECTIONAL TRAFFIC ON THE LANE SHIFT USING S.D.D. "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" AND DETAILS SHOWN IN THE PLANS.
3. SAWCUT EXISTING PAVEMENT AND DRIVE TEMPORARY SHORING PARALLEL TO AND ALONG THE PROPOSED R/L. REMOVE EXISTING GUARDRAIL.
4. EXCAVATE, REMOVE, INSTALL, AND BACKFILL PROPOSED CULVERT PIPE AND APRON ENDWALL AS THE PLANS SHOW.
5. CONSTRUCT TEMPORARY WIDENING FOR USE IN STAGE 2.

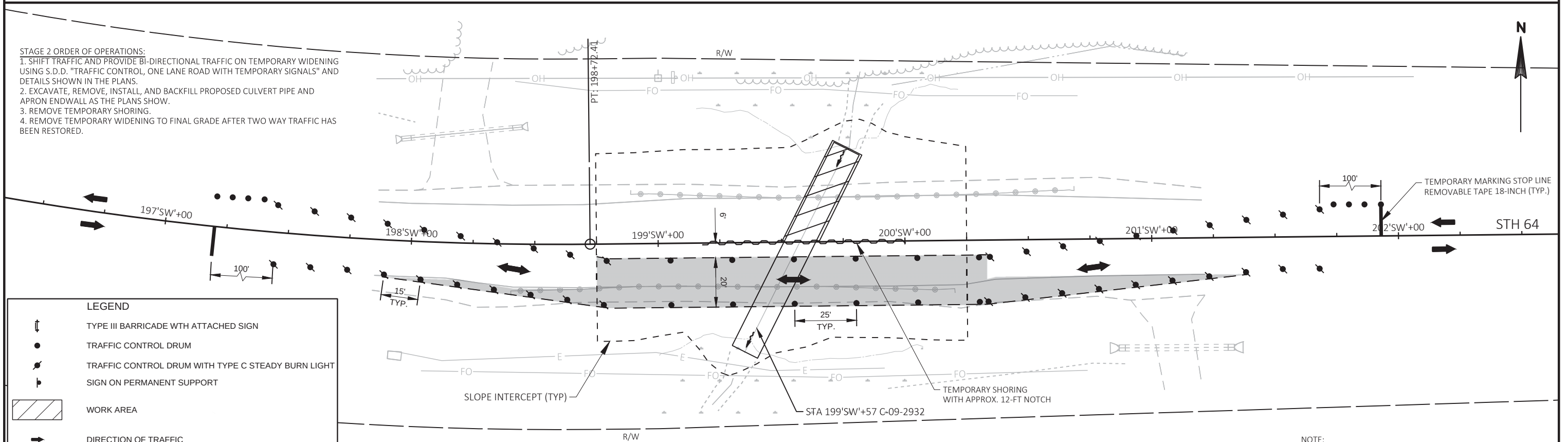


NOTE:
SEE CONSTRUCTION DETAILS FOR MORE INFORMATION ON TEMPORARY
WIDENING LAYOUTS, DIMENSIONS, AND ADVANCED WARNING.

C-09-2932 STAGE 1

STAGE 2 ORDER OF OPERATIONS:

1. SHIFT TRAFFIC AND PROVIDE BI-DIRECTIONAL TRAFFIC ON TEMPORARY WIDENING USING S.D.D. "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" AND DETAILS SHOWN IN THE PLANS.
2. EXCAVATE, REMOVE, INSTALL, AND BACKFILL PROPOSED CULVERT PIPE AND APRON ENDWALL AS THE PLANS SHOW.
3. REMOVE TEMPORARY SHORING.
4. REMOVE TEMPORARY WIDENING TO FINAL GRADE AFTER TWO WAY TRAFFIC HAS BEEN RESTORED.



NOTE:
SEE CONSTRUCTION DETAILS FOR MORE INFORMATION ON
TEMPORARY WIDENING LAYOUTS, DIMENSIONS, AND ADVANCED
WARNING.

C-09-2932 STAGE 2

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- BASE AGGREGATE DENSE WIDENING / DRIVING SURFACE

PROJECT NO: 1000-06-09

HWY: STH 64

COUNTY: CHIPPEWA

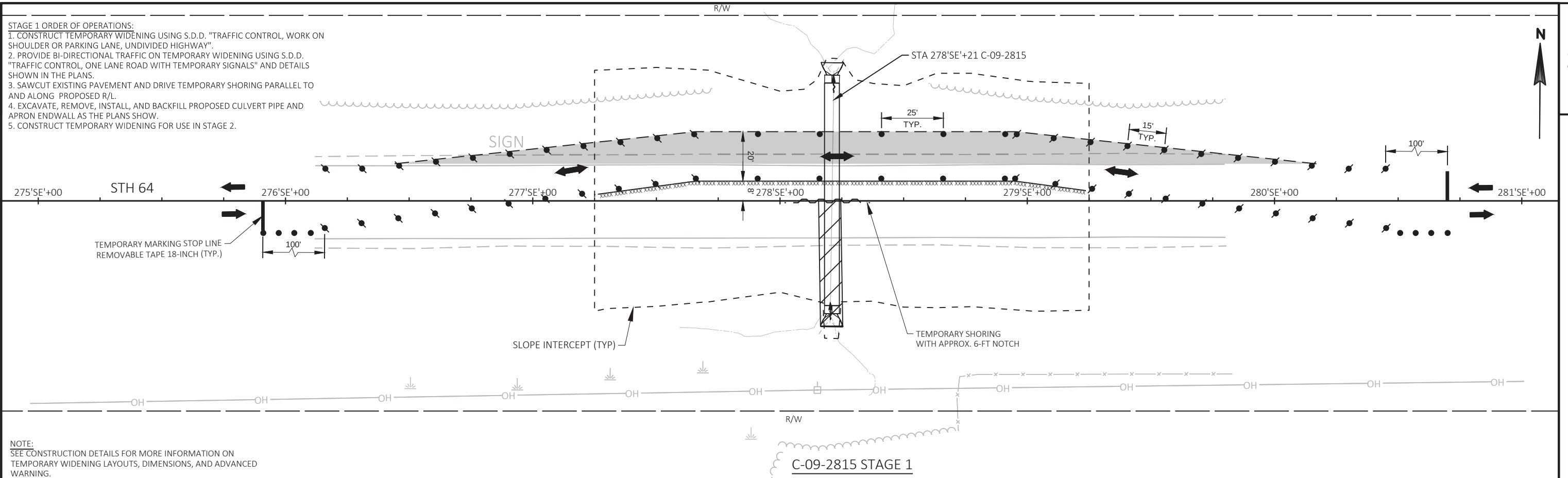
TRAFFIC CONTROL STAGING: CULVERT C-09-2932

SHEET

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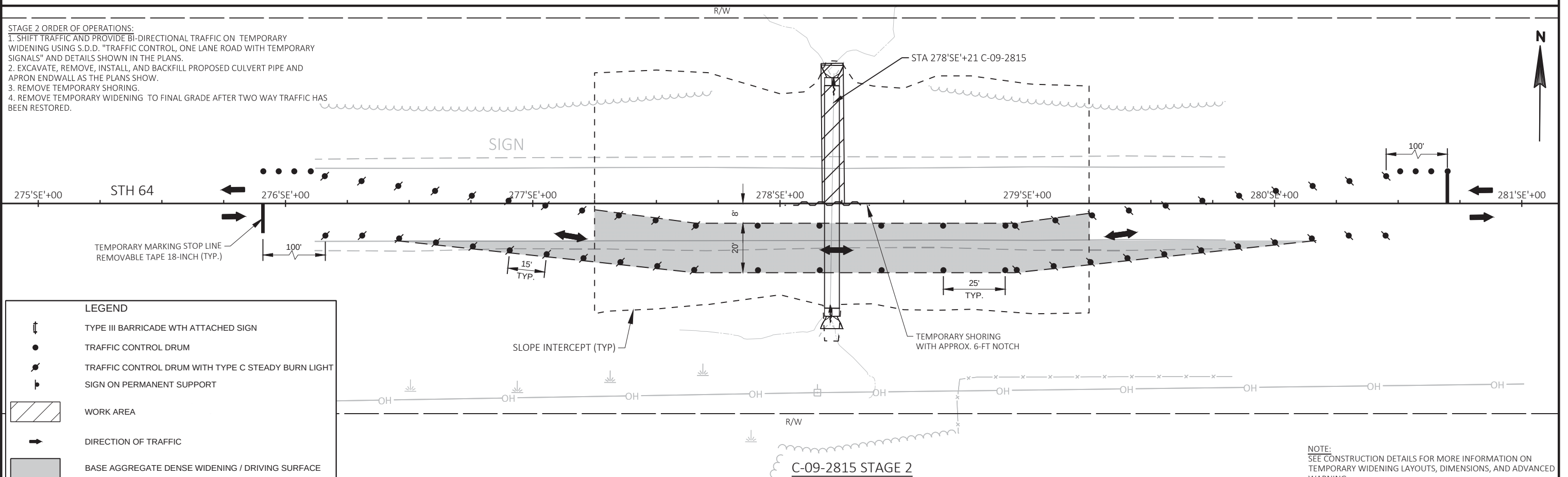
STAGE 1 ORDER OF OPERATIONS:

1. CONSTRUCT TEMPORARY WIDENING USING S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED HIGHWAY".
2. PROVIDE BI-DIRECTIONAL TRAFFIC ON TEMPORARY WIDENING USING S.D.D. "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" AND DETAILS SHOWN IN THE PLANS.
3. SAWCUT EXISTING PAVEMENT AND DRIVE TEMPORARY SHORING PARALLEL TO AND ALONG PROPOSED R/L.
4. EXCAVATE, REMOVE, INSTALL, AND BACKFILL PROPOSED CULVERT PIPE AND APRON ENDWALL AS THE PLANS SHOW.
5. CONSTRUCT TEMPORARY WIDENING FOR USE IN STAGE 2.



STAGE 2 ORDER OF OPERATIONS:

1. SHIFT TRAFFIC AND PROVIDE BI-DIRECTIONAL TRAFFIC ON TEMPORARY WIDENING USING S.D.D. "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" AND DETAILS SHOWN IN THE PLANS.
2. EXCAVATE, REMOVE, INSTALL, AND BACKFILL PROPOSED CULVERT PIPE AND APRON ENDWALL AS THE PLANS SHOW.
3. REMOVE TEMPORARY SHORING.
4. REMOVE TEMPORARY WIDENING TO FINAL GRADE AFTER TWO WAY TRAFFIC HAS BEEN RESTORED.



NOTE:
SEE CONSTRUCTION DETAILS FOR MORE INFORMATION ON
TEMPORARY WIDENING LAYOUTS, DIMENSIONS, AND ADVANCED
WARNING.

PROJECT NO: 1000-06-09

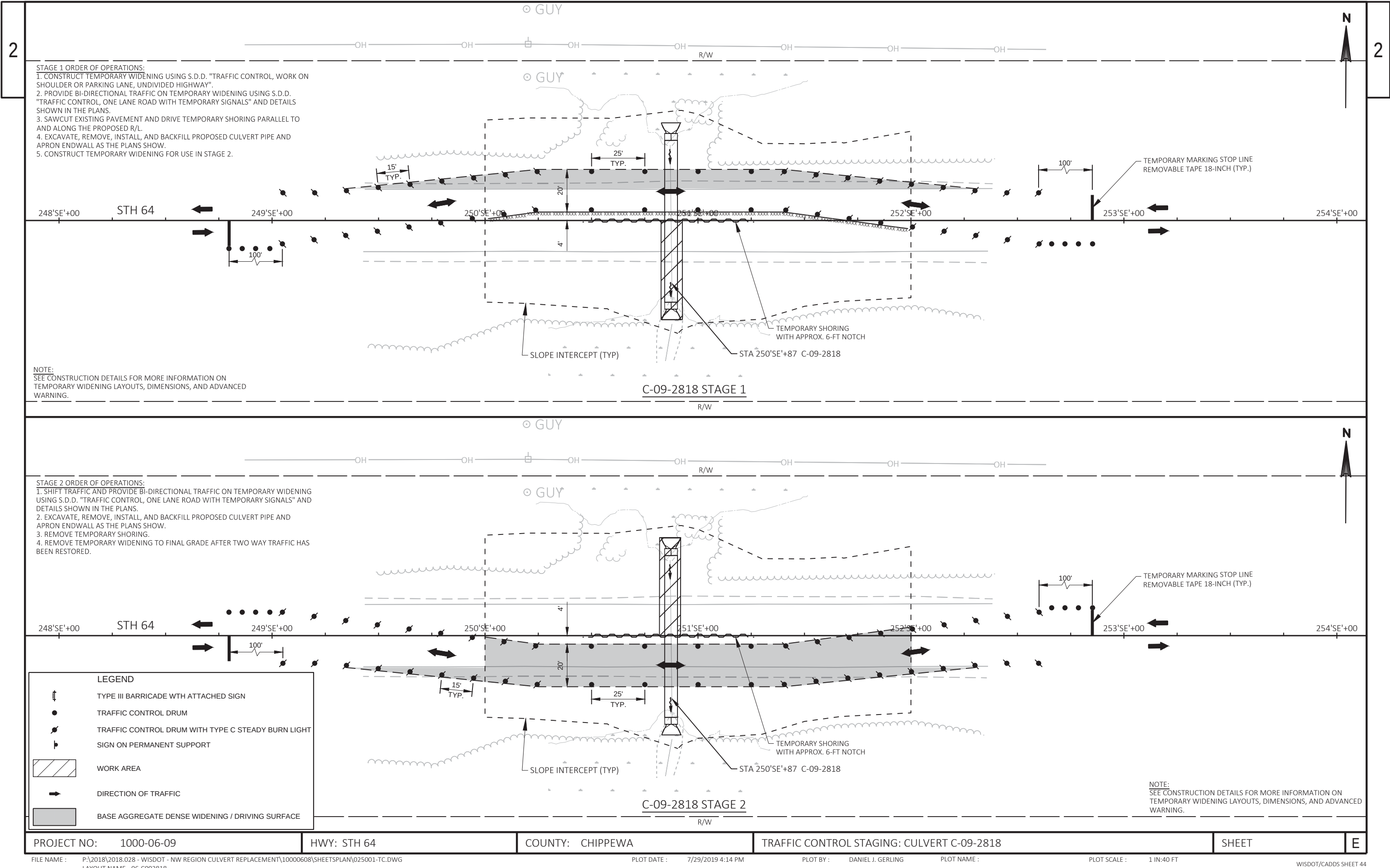
HWY: STH 64

COUNTY: CHIPPEWA

TRAFFIC CONTROL STAGING: CULVERT C-09-2815

SHEET

E



NOTE:
SEE CONSTRUCTION DETAILS FOR MORE INFORMATION ON
TEMPORARY WIDENING LAYOUTS, DIMENSIONS, AND ADVANCED
WARNING.

2

USH 10

262'U'+00

261'U'+00

260'U'+00

259'U'+00

258'U'+00

257'U'+00

256'U'+00

R/W

OH

FO

SLOPE INTERCEPT (TYP)

STA 258'U'+58.31 C-10-2747

C-10-2747 STAGE 1

TEMPORARY SHORING WITH APPROX. 6-FT NOTCH

15' TYP.

25' TYP.

20'

7.5'

100'

TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (TYP.)

N

STAGE 1 ORDER OF OPERATIONS:

1. CONSTRUCT TEMPORARY WIDENING USING S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED HIGHWAY".
2. PROVIDE BI-DIRECTIONAL TRAFFIC ON TEMPORARY WIDENING USING S.D.D. "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" AND DETAILS SHOWN IN THE PLANS.
3. SAWCUT EXISTING PAVEMENT AND DRIVE TEMPORARY SHORING PARALLEL TO AND ALONG THE PROPOSED R/L.
4. EXCAVATE, REMOVE, INSTALL, AND BACKFILL PROPOSED CULVERT PIPE AND APRON ENDWALL AS THE PLANS SHOW.
5. CONSTRUCT TEMPORARY WIDENING FOR USE IN STAGE 2.

NOTE:
SEE CONSTRUCTION DETAILS FOR MORE INFORMATION ON
TEMPORARY WIDENING LAYOUTS, DIMENSIONS, AND ADVANCED
WARNING.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- BASE AGGREGATE DENSE WIDENING / DRIVING SURFACE

C-10-2747 STAGE 2

STAGE 2 ORDER OF OPERATIONS:

- SHIFT TRAFFIC AND PROVIDE BI-DIRECTIONAL TRAFFIC ON TEMPORARY WIDENING USING S.D.D. "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" AND DETAILS SHOWN IN THE PLANS.
- EXCAVATE, REMOVE, INSTALL, AND BACKFILL PROPOSED CULVERT PIPE AND APRON ENDWALL AS THE PLANS SHOW.
- REMOVE TEMPORARY SHORING.
- REMOVE TEMPORARY WIDENING TO FINAL GRADE AFTER TWO WAY TRAFFIC HAS BEEN RESTORED.

Diagram Details:

- USH 10:** Main road alignment with stationing from 256'U'+00 to 262'U'+00.
- Temporary Widening:** Shaded area between dashed lines, 20' wide at the centerline.
- Temporary Shoring:** Indicated by a vertical structure with a 6-ft notch, located near STA 258'U'+58.31.
- Slope Intercept (TYP.):** Dimensioned as 7.5'.
- Dimensions:** 100' total width at one end, 25' TYP. and 15' TYP. segments within the widening.
- R/W:** Right-of-Way boundary shown with 'x' marks.
- FO:** Final Grade line.
- Markers:** Traffic control drums and barricades are placed along the widening boundaries.
- Stop Line:** Temporary marking stop line with removable tape, 18-inch (TYP.) wide.
- North Arrow:** Located in the top right corner.

PROJECT NO:	1000-06-09	HWY: USH 10	COUNTY: CLARK	TRAFFIC CONTROL STAGING: CULVERT C-10-2747	SHEET	E
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Estimate Of Quantities

1000-06-09

Line	Item	Item Description	Unit	Total	Qty
0002	201.0110	Clearing	SY	365.000	365.000
0004	201.0210	Grubbing	SY	365.000	365.000
0006	203.0100	Removing Small Pipe Culverts	EACH	3.000	3.000
0008	203.0200	Removing Old Structure (station) 01. 976'F'+98	LS	1.000	1.000
0010	203.0200	Removing Old Structure (station) 02. 199'SW'+57	LS	1.000	1.000
0012	203.0200	Removing Old Structure (station) 03. 137'TS'+02	LS	1.000	1.000
0014	203.0200	Removing Old Structure (station) 04. 216'TN'+55	LS	1.000	1.000
0016	204.0110	Removing Asphaltic Surface	SY	45.000	45.000
0018	204.0165	Removing Guardrail	LF	360.000	360.000
0020	204.0170	Removing Fence	LF	91.000	91.000
0022	204.0180	Removing Delineators and Markers	EACH	14.000	14.000
0024	205.0100	Excavation Common	CY	8,875.000	8,875.000
0026	208.0100	Borrow	CY	2,145.000	2,145.000
0028	213.0100	Finishing Roadway (project) 01. 1000-06-09	EACH	1.000	1.000
0030	305.0110	Base Aggregate Dense 3/4-Inch	TON	360.000	360.000
0032	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	6,720.000	6,720.000
0034	455.0605	Tack Coat	GAL	386.000	386.000
0036	465.0105	Asphaltic Surface	TON	1,290.000	1,290.000
0038	511.1100	Temporary Shoring	SF	1,405.000	1,405.000
0040	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	78.000	78.000
0042	522.0160	Culvert Pipe Reinforced Concrete Class III 60-Inch	LF	280.000	280.000
0044	522.0172	Culvert Pipe Reinforced Concrete Class III 72-Inch	LF	188.000	188.000
0046	522.0184	Culvert Pipe Reinforced Concrete Class III 84-Inch	LF	144.000	144.000
0048	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0050	522.1060	Apron Endwalls for Culvert Pipe Reinforced Concrete 60-Inch	EACH	6.000	6.000
0052	522.1072	Apron Endwalls for Culvert Pipe Reinforced Concrete 72-Inch	EACH	4.000	4.000
0054	522.1084	Apron Endwalls for Culvert Pipe Reinforced Concrete 84-Inch	EACH	4.000	4.000
0056	606.0200	Riprap Medium	CY	101.000	101.000
0058	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1000-06-09	EACH	1.000	1.000
0060	619.1000	Mobilization	EACH	1.000	1.000
0062	624.0100	Water	MGAL	142.000	142.000
0064	625.0500	Salvaged Topsoil	SY	4,980.000	4,980.000
0066	628.1504	Silt Fence	LF	2,857.000	2,857.000
0068	628.1520	Silt Fence Maintenance	LF	4,290.000	4,290.000
0070	628.1905	Mobilizations Erosion Control	EACH	9.000	9.000
0072	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000

Estimate Of Quantities

1000-06-09

Line	Item	Item Description	Unit	Total	Qty
0074	628.2008	Erosion Mat Urban Class I Type B	SY	5,034.000	5,034.000
0076	628.7504	Temporary Ditch Checks	LF	50.000	50.000
0078	628.7555	Culvert Pipe Checks	EACH	134.000	134.000
0080	628.7570	Rock Bags	EACH	50.000	50.000
0082	629.0210	Fertilizer Type B	CWT	4.500	4.500
0084	630.0130	Seeding Mixture No. 30	LB	128.000	128.000
0086	633.5200	Markers Culvert End	EACH	14.000	14.000
0088	642.5001	Field Office Type B 01. C-09-2548 & C-09-2556 STH 27	EACH	1.000	1.000
0090	642.5001	Field Office Type B 02. C-09-2815 & C-09-2818 STH 64	EACH	1.000	1.000
0092	642.5001	Field Office Type B 03. C-09-2932 STH 64	EACH	1.000	1.000
0094	642.5001	Field Office Type B 04. C-09-3049 STH 40	EACH	1.000	1.000
0096	642.5001	Field Office Type B 05. C-10-2747 USH 10	EACH	1.000	1.000
0098	643.0300	Traffic Control Drums	DAY	3,891.000	3,891.000
0100	643.0420	Traffic Control Barricades Type III	DAY	64.000	64.000
0102	643.0715	Traffic Control Warning Lights Type C	DAY	2,632.000	2,632.000
0104	643.0900	Traffic Control Signs	DAY	1,225.000	1,225.000
0106	643.5000	Traffic Control	EACH	1.000	1.000
0108	645.0120	Geotextile Type HR	SY	321.000	321.000
0110	646.1020	Marking Line Epoxy 4-Inch	LF	2,550.000	2,550.000
0112	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	3,824.000	3,824.000
0114	646.9000	Marking Removal Line 4-Inch	LF	2,636.000	2,636.000
0116	649.0105	Temporary Marking Line Paint 4-Inch	LF	12,605.000	12,605.000
0118	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	168.000	168.000
0120	650.4500	Construction Staking Subgrade	LF	1,275.000	1,275.000
0122	650.5000	Construction Staking Base	LF	1,275.000	1,275.000
0124	650.6000	Construction Staking Pipe Culverts	EACH	9.000	9.000
0126	650.9910	Construction Staking Supplemental Control (project) 01. 1000-06-09	LS	1.000	1.000
0128	650.9920	Construction Staking Slope Stakes	LF	1,275.000	1,275.000
0130	661.0100	Temporary Traffic Signals for Bridges (structure) 01. C-09-3049	LS	1.000	1.000
0132	661.0100	Temporary Traffic Signals for Bridges (structure) 02. C-09-2932	LS	1.000	1.000
0134	661.0100	Temporary Traffic Signals for Bridges (structure) 03. C-09-2818	LS	1.000	1.000
0136	661.0100	Temporary Traffic Signals for Bridges (structure) 04. C-09-2815	LS	1.000	1.000
0138	661.0100	Temporary Traffic Signals for Bridges (structure) 05. C-09-2548	LS	1.000	1.000
0140	661.0100	Temporary Traffic Signals for Bridges (structure) 06. C-09-2556	LS	1.000	1.000

Estimate Of Quantities

1000-06-09

Line	Item	Item Description	Unit	Total	Qty
0142	661.0100	Temporary Traffic Signals for Bridges (structure) 07. C-10-2747	LS	1.000	1.000
0144	690.0150	Sawing Asphalt	LF	1,973.000	1,973.000
0146	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	300.000	300.000
0148	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	300.000	300.000
0150	SPV.0090	Special 01. Pipe Arch Corrugated Steel Aluminum Coated 137x87-Inch	LF	92.000	92.000

CLEARING & GRUBBING							201.0110	201.0210
							CLEARING	GRUBBING
CATEGORY	CULVERT	HWY	STATION	TO	STATION	LOCATION	SY	SY
0010	C-09-2548	STH 27	136'TS'+23	-	136'TS'+49	LT	41	41
0010	C-09-2548	STH 27	136'TS'+77	-	136'TS'+86	LT	8	8
0010	C-09-3049	STH 40	976'F'+87	-	977'F'+26	LT	25	25
0010	C-09-2815	STH 64	277'SE'+25	-	277'SE'+72	LT	60	60
0010	C-09-2815	STH 64	278'SE'+59	-	279'SE'+25	LT	45	45
0010	C-09-2818	STH 64	250'SE'+00	-	250'SE'+65	LT	76	76
0010	C-09-2818	STH 64	250'SE'+90	-	252'SE'+00	LT	110	110
CATEGORY 0010 TOTALS							365	365
PROJECT 1000-06-09 TOTALS							365	365

203.0200 REMOVING OLD STRUCTURE (STATION)								
01. STATION 976'F'+98 02. STATION 199'SW'+57 03. STATION 137'TS'+02 04. STATION 216'TN'+55								
CATEGORY	CULVERT	HWY	STATION	LS	LS	LS	LS	COMMENT
0020	C-09-3049	STH 40	976'F'+98	1	-	-	-	TWO 72-INCH CPRC
CATEGORY 0020 TOTALS				1	0	0	0	
0030	C-09-2932	STH 64	199'SW'+57	-	1	-	-	137X87-INCH CPCSPA
CATEGORY 0030 TOTALS				0	1	0	0	
0060	C-09-2548	STH 27	137'TS'+02	-	-	1	-	72-INCH CPCS WITH MORTAR ENDWALLS
CATEGORY 0060 TOTALS				0	0	1	0	
0070	C-09-2556	STH 27	216'TN'+55	-	-	-	1	TWO 72-INCH CPCS WITH MORTAR ENDWALLS
CATEGORY 0070 TOTALS				0	0	0	1	
PROJECT 1000-06-09 TOTALS				1	1	1	1	

204.0110 REMOVING ASPHALTIC SURFACE							
CATEGORY	CULVERT	HWY	STATION	TO	STATION	LOCATION	SY
0010	C-09-2932	STH 64	198'SW'+00	-	198'SW'+75	LT	7
0010			198'SW'+19	-	198'SW'+75	RT	13
0010			200'SW'+25	-	200'SW'+75	RT	4
0010			200'SW'+25	-	201'SW'+20	LT	21
CATEGORY 0010 TOTALS							45
PROJECT 1000-06-09 TOTALS							45

204.0170 REMOVING FENCE							
CATEGORY	CULVERT	HWY	STATION	TO	STATION	LOCATION	LF
0010	C-09-2548	STH 27	136'TS'+88	-	136'TS'+94	LT	18
0010	C-09-2548	STH 27	136'TS'+93	-	136'TS'+94	RT	22
0010	C-09-2548	STH 27	137'TS'+05	-	137'TS'+15	LT	19
0010	C-09-3049	STH 40	976'F'+83	-	977'F'+15	LT	32
CATEGORY 0010 TOTALS							91
PROJECT 1000-06-09 TOTALS							91

204.0165 REMOVING GUARDRAIL							
CATEGORY	CULVERT	HWY	STATION	TO	STATION	LOCATION	LF
0010	C-09-2932	STH 64	198'SW'+40	-	200'SW'+20	RT	180
0010			198'SW'+89	-	200'SW'+69	LT	180
CATEGORY 0010 TOTALS							360
PROJECT 1000-06-09 TOTALS							360

213.0100 FINISHING ROADWAY (PROJECT) 01.		
1000-06-09		
CATEGORY	LOCATION	EACH
0010	PROJECT ID 1000-06-09	1

EARTHWORK SUMMARY																
205.0100									UNUSABLE							
EXCAVATION COMMON (1)									PAVEMENT	AVAILABLE			MASS		208.0100	
									MATERIAL	MATERIAL	UNEXPANDED	EXPANDED	ORDINATE	BORROW (8)		
									(4)	(5)	FILL	FILL (6)	± (7)			
DIVISION	CATEGORY	CULVERT	HWY	STATION	TO	STATION	CY	CY	CY	CY	CY	CY	CY	CY	COMMENTS	
1	0010	C-09-3049	STH 40	976'F'+41	-	977'F'+62	366	0	0	366	366	366	0	0	TRANSITION CUT	
	0010	C-09-3049	STH 40	976'F'+25	-	278'F'+00	410	0	117	293	39	47	246	0	FINAL GRADING	
DIVISION SUBTOTALS							776	0	117	659	405	413	246	0		
2	0010	C-09-2932	STH 64	198'SW'+96	-	200'SW'+12	145	0	0	145	145	145	0	0	TRANSITION CUT	
	0010	C-09-2932	STH 64	198'SW'+75	-	200'SW'+25	448	0	74	374	74	89	285	0	FINAL GRADING	
DIVISION SUBTOTALS							593	0	74	519	219	234	285	0		
3	0010	C-09-2818	STH 64	250'SE'+30	-	251'SE'+37	491	0	0	491	491	491	0	0	TRANSITION CUT	
	0010	C-09-2818	STH 64	250'SE'+00	-	252'SE'+00	431	0	65	366	220	264	102	0	FINAL GRADING	
	0010	C-09-2815	STH 64	277'SE'+73	-	278'SE'+86	395	0	0	395	395	395	0	0	TRANSITION CUT	
	0010	C-09-2815	STH 64	277'SE'+25	-	279'SE'+25	431	0	65	366	253	304	62	0	FINAL GRADING	
DIVISION SUBTOTALS							1,748	0	130	1,618	1,359	1,454	164	0		
4	0010	C-09-2548	STH 27	136'TS'+53	-	137'TS'+67	428	0	0	428	428	428	0	0	TRANSITION CUT	
	0010	C-09-2548	STH 27	136'TS'+00	-	138'TS'+00	448	0	74	374	195	234	140	0	FINAL GRADING	
	0010	C-09-2556	STH 27	215'TN'+96	-	217'TN'+19	455	0	0	455	455	455	0	0	TRANSITION CUT	
	0010	C-09-2556	STH 27	215'TN'+75	-	217'TN'+25	343	0	56	287	89	107	180	0	FINAL GRADING	
DIVISION SUBTOTALS							1,674	0	130	1,544	1,167	1,224	320	0		
5	0010	C-10-2747	USH 10	258'U'+17	-	259'U'+25	327	0	0	327	327	327	0	0	TRANSITION CUT	
	0010	C-10-2747	USH 10	257'U'+50	-	259'U'+50	537	0	120	417	54	65	352	0	FINAL GRADING	
DIVISION SUBTOTALS							864	0	120	744	381	392	352	0		
CATEGORY 0010 TOTALS							5,655	0	571	5,084	3,531	3,717	1,367	0		
	0020	C-09-3049	STH 40	975'F'+45	-	978'F'+60	700	0	0	0	0	0	0	525	TEMPORARY WIDENING	
CATEGORY 0020 TOTALS							700	0	0	0	0	0	0	525		
	0030	C-09-2932	STH 64	197'SW'+90	-	201'SW'+37	150	0	0	0	0	0	0	60	TEMPORARY WIDENING	
CATEGORY 0030 TOTALS							150	0	0	0	0	0	0	60		
	0040	C-09-2818	STH 64	249'SE'+35	-	252'SE'+25	300	0	0	0	0	0	0	175	TEMPORARY WIDENING	
CATEGORY 0040 TOTALS							300	0	0	0	0	0	0	175		
	0050	C-09-2815	STH 64	276'SE'+48	-	280'SE'+15	1,200	0	0	0	0	0	0	1,000	TEMPORARY WIDENING	
CATEGORY 0050 TOTALS							1,200	0	0	0	0	0	0	1,000		
	0060	C-09-2548	STH 27	135'TS'+42	-	138'TS'+64	400	0	0	0	0	0	0	225	TEMPORARY WIDENING	
CATEGORY 0060 TOTALS							400	0	0	0	0	0	0	225		
	0070	C-09-2556	STH 27	214'TN'+91	-	218'TN'+25	270	0	0	0	0	0	0	110	TEMPORARY WIDENING	
CATEGORY 0070 TOTALS							270	0	0	0	0	0	0	110		
	0080	C-10-2747	USH 10	256'U'+90	-	260'U'+50	200	0	0	0	0	0	0	50	TEMPORARY WIDENING	
CATEGORY 0080 TOTALS							200	0	0	0	0	0	0	50		
PROJECT 1000-06-09 TOTALS							8,875	0	571	5,084	3,531	3,717	1,367	2,145		
TOTAL EXCAVATION COMMON							8,875									

BASE AGGREGATE DENSE									
					305.0110	305.0120	624.0100		
					3/4-INCH	1 1/4-INCH	WATER		
CATEGORY	LOCATION	HWY	STATION	TO STATION	TON	TON	MGAL	COMMENT	
0010	C-09-2548	STH 27	136'TS'+00	- 138'TS'+00	43	640	14	MAINLINE	
0010	C-09-2548	STH 27	136'TS'+35	- 136'TS'+87	-	25	1	FE	
0010	C-09-2548	STH 27	136'TS'+43	- 136'TS'+75	-	20	-	TEMPORARY FE ACCESS	
0010	C-09-2556	STH 27	215'TN'+75	- 217'TN'+25	32	480	10	MAINLINE	
0010	C-09-3049	STH 40	976'F'+25	- 978'F'+00	47	570	12	MAINLINE	
0010	C-09-2815	STH 64	277'SE'+25	- 279'SE'+25	43	640	14	MAINLINE	
0010	C-09-2818	STH 64	250'SE'+00	- 252'SE'+00	43	640	14	MAINLINE	
0010	C-09-2932	STH 64	198'SW'+00	- 201'SW'+20	75	-	2	MAINLINE	
0010	C-09-2932	STH 64	198'SW'+75	- 200'SW'+25	-	500	10	MAINLINE	
0010	C-10-2747	USH 10	257'U'+50	- 259'U'+50	77	710	16	MAINLINE	
CATEGORY 0010 TOTALS					360	4,225	91		
0020	C-09-3049	STH 40	975'F'+45	- 978'F'+60	-	390	8	TEMPORARY WIDENING	
CATEGORY 0020 TOTALS					0	390	8		
0030	C-09-2932	STH 64	197'SW'+90	- 201'SW'+37	-	325	7	TEMPORARY WIDENING	
CATEGORY 0030 TOTALS					0	325	7		
0040	C-09-2818	STH 64	249'SE'+35	- 252'SE'+25	-	310	6	TEMPORARY WIDENING	
CATEGORY 0040 TOTALS					0	310	6		
0050	C-09-2815	STH 64	276'SE'+48	- 280'SE'+15	-	400	8	TEMPORARY WIDENING	
CATEGORY 0050 TOTALS					0	400	8		
0060	C-09-2548	STH 27	135'TS'+42	- 138'TS'+64	-	350	7	TEMPORARY WIDENING	
CATEGORY 0060 TOTALS					0	350	7		
0070	C-09-2556	STH 27	214'TN'+91	- 218'TN'+25	-	325	7	TEMPORARY WIDENING	
CATEGORY 0070 TOTALS					0	325	7		
0080	C-10-2747	USH 10	256'U'+90	- 260'U'+50	-	395	8	TEMPORARY WIDENING	
CATEGORY 0080 TOTALS					0	395	8		
PROJECT 1000-06-09 TOTALS					360	6,720	141		

ASPHALT ITEMS								
						455.0605	465.0105	
						TACK	ASPHALTIC	
						COAT	SURFACE	
CATEGORY	LOCATION	HWY	STATION	TO STATION	STATION	GAL	TON	COMMENT
0010	C-09-2548	STH 27	136'TS'+00	- 138'TS'+00		47	190	5-INCH THICKNESS
0010	C-09-2556	STH 27	215'TN'+75	- 217'TN'+25		35	145	5-INCH THICKNESS
0010	C-09-3049	STH 40	976'F'+25	- 978'F'+00		82	200	6-INCH THICKNESS
0010	C-09-2815	STH 64	277'SE'+25	- 279'SE'+25		47	190	5-INCH THICKNESS
0010	C-09-2818	STH 64	250'SE'+00	- 252'SE'+00		47	190	5-INCH THICKNESS
0010	C-09-2932	STH 64	198'SW'+75	- 200'SW'+25		35	145	5-INCH THICKNESS
0010	C-10-2747	USH 10	257'U'+50	- 259'U'+50		93	230	6-INCH THICKNESS
CATEGORY 0010 TOTALS						386	1,290	
PROJECT 1000-06-09 TOTALS						386	1,290	

511.1100 TEMPORARY SHORING							
CATEGORY	LOCATION	HWY	STATION	TO STATION	STATION	LOCATION	SF
0020	C-09-3049	STH 40	976'F'+67	- 977'F'+27		CL	290
CATEGORY 0020 TOTALS							290
0030	C-09-2932	STH 64	199'SW'+18	- 200'SW'+00		CL	250
CATEGORY 0030 TOTALS							250
0040	C-09-2818	STH 64	250'SE'+46	- 251'SE'+26		CL	200
CATEGORY 0040 TOTALS							200
0050	C-09-2815	STH 64	278'SE'+02	- 278'SE'+36		CL	120
CATEGORY 0050 TOTALS							120
0060	C-09-2548	STH 27	136'TS'+75	- 137'TS'+25		CL	120
CATEGORY 0060 TOTALS							120
0070	C-09-2556	STH 27	216'TN'+16	- 216'TN'+96		CL	240
CATEGORY 0070 TOTALS							240
0080	C-10-2747	USH 10	258'U'+33	- 258'U'+91		CL	185
CATEGORY 0080 TOTALS							185
PROJECT 1000-06-09 TOTALS							1,405

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CULVERT PIPE ITEMS

			203.0100		204.0180	522.0124		522.0160	522.0172	522.0184	522.1024	522.1060	522.1072	522.1084	633.5200	SPV.0090.01
			REMOVING	REMOVING	REMOVING	CULVERT PIPE	CULVERT PIPE	CULVERT PIPE	CULVERT PIPE	CULVERT PIPE	APRON ENDWALLS FOR	APRON ENDWALLS FOR	APRON ENDWALLS FOR	APRON ENDWALLS FOR	MARKERS	PIPE ARCH
			SMALL PIPE	DELINEATORS	DELINEATORS	REINFORCED CONCRETE	REINFORCED CONCRETE	REINFORCED CONCRETE	REINFORCED CONCRETE	REINFORCED CONCRETE	CULVERT PIPE	CULVERT PIPE	CULVERT PIPE	CULVERT PIPE	CULVERT END	CORRUGATED STEEL
			CULVERTS	AND	AND	CLASS III 24-INCH	CLASS III 60-INCH	CLASS III 72-INCH	CLASS III 84-INCH	CLASS III 84-INCH	REINFORCED CONCRETE	REINFORCED CONCRETE	REINFORCED CONCRETE	REINFORCED CONCRETE		ALUMINUM COATED
			THICKNESS	JOINT TIES**							24-INCH	60-INCH	72-INCH	84-INCH		137x87-INCH
CATEGORY	LOCATION	HWY	IN	EACH	EACH	EACH	LF	LF	LF	LF	EACH	EACH	EACH	EACH	EACH	LF
0020	C-09-3049	STH 40	-	24	-	2	-	-	188	-	-	-	4	-	2	-
CATEGORY 0020 TOTALS					0	2	0	0	188	0	0	0	4	0	2	0
0030	C-09-2932	STH 64	0.109	-	-	2	-	-	-	-	-	-	-	-	2	92
CATEGORY 0030 TOTALS					0	2	0	0	0	0	0	0	0	0	2	92
0040	C-09-2818	STH 64	-	12	1	2	-	76	-	-	-	2	-	-	2	-
CATEGORY 0040 TOTALS					1	2	0	76	0	0	0	2	0	0	2	0
0050	C-09-2815	STH 64	-	12	1	2	-	90	-	-	-	2	-	-	2	-
CATEGORY 0050 TOTALS					1	2	0	90	0	0	0	2	0	0	2	0
0060	C-09-2548	STH 27	-	12	-	2	78	-	-	-	2	-	-	-	2	-
CATEGORY 0060 TOTALS					0	2	78	0	0	0	2	0	0	0	2	0
0070	C-09-2556	STH 27	-	24	-	2	-	-	-	144	-	-	-	4	2	-
CATEGORY 0070 TOTALS					0	2	0	0	0	144	0	0	0	4	2	0
0080	C-10-2747	USH 10	-	12	1	2	-	114	-	-	-	2	-	-	2	-
CATEGORY 0080 TOTALS					1	2	0	114	0	0	0	2	0	0	2	0
PROJECT 1000-06-09 TOTALS					3	14	78	280	188	144	2	6	4	4	14	92

**NOT A BID ITEM. QUANTITY SHOWN FOR INFORMATIONAL PURPOSES ONLY.

618.0100 MAINTENANCE AND REPAIR OF
HAUL ROADS (PROJECT) 01. 1000-06-09

CATEGORY	LOCATION	EACH
0010	PROJECT ID 1000-06-09	1

619.1000 MOBILIZATION

CATEGORY	EACH
0010	0.125
0020	0.125
0030	0.125
0040	0.125
0050	0.125
0060	0.125
0070	0.125
0080	0.125
TOTAL	1

PROJECT NO: 1000-06-09

HWY: VARIOUS

COUNTY: VARIOUS

MISCELLANEOUS QUANTITIES

SHEET:

E

EROSION CONTROL AND LANDSCAPING ITEMS															
			606.0200	625.0500	628.1504	628.1520	628.1905	628.1910	628.2008	628.7504	628.7555	628.7570	629.0210	630.0130	645.0120
			RIPRAP	SALVAGED	SILT FENCE	SILT FENCE	MOBILIZATIONS	MOBILIZATIONS	EROSION MAT	TEMPORARY	CULVERT	ROCK	FERTILIZER	SEEDING	GEOTEXTILE
			MEDIUM	TOPSOIL		MAINTENANCE		EMERGENCY	URBAN CLASS	DITCH CHECKS	PIPE CHECKS	BAGS	TYPE B	MIXTURE NO. 30	FABRIC
			TYPE B												
CATEGORY	LOCATION	HWY	CY	SY	LF	LF	EACH	EACH	SY	LF	EACH	EACH	CWT	LB	SY
0010	C-09-2548	STH 27	-	730	425	638	-	-	730	-	-	-	0.6	17	-
0010	C-09-2556	STH 27	-	565	362	543	-	-	565	-	-	-	0.5	14	-
0010	C-09-3049	STH 40	-	525	411	617	-	-	525	-	-	-	0.5	14	-
0010	C-09-2815	STH 64	-	990	445	668	-	-	990	-	-	-	0.8	23	-
0010	C-09-2818	STH 64	-	845	476	715	-	-	845	-	-	-	0.7	20	-
0010	C-09-2932	STH 64	-	455	293	441	-	-	455	-	-	-	0.4	12	-
0010	C-10-2747	USH 10	-	720	445	669	-	-	720	-	-	-	0.6	18	-
0010	UNDISTRIBUTED		-	150	-	-	2	3	-	50	-	50	0.4	10	-
CATEGORY 0010 TOTALS			0	4,980	2,857	4,290	2	3	4,830	50	0	50	4.5	128	0
0020	C-09-3049	STH 40	16	-	-	-	1	-	50	-	32	-	-	-	48
CATEGORY 0020 TOTALS			16	0	0	0	1	0	50	0	32	0	0	0	48
0030	C-09-2932	STH 64	37	-	-	-	1	-	-	-	18	-	-	-	117
CATEGORY 0030 TOTALS			37	0	0	0	1	0	0	0	18	0	0	0	117
0040	C-09-2818	STH 64	9	-	-	-	1	-	30	-	13	-	-	-	30
CATEGORY 0040 TOTALS			9	0	0	0	1	0	30	0	13	0	0	0	30
0050	C-09-2815	STH 64	9	-	-	-	1	-	30	-	13	-	-	-	30
CATEGORY 0050 TOTALS			9	0	0	0	1	0	30	0	13	0	0	0	30
0060	C-09-2548	STH 27	4	-	-	-	1	-	11	-	5	-	-	-	14
CATEGORY 0060 TOTALS			4	0	0	0	1	0	11	0	5	0	0	0	14
0070	C-09-2556	STH 27	17	-	-	-	1	-	53	-	40	-	-	-	52
CATEGORY 0070 TOTALS			17	0	0	0	1	0	53	0	40	0	0	0	52
0080	C-10-2747	USH 10	9	-	-	-	1	-	30	-	13	-	-	-	30
CATEGORY 0080 TOTALS			9	0	0	0	1	0	30	0	13	0	0	0	30
PROJECT 1000-06-09 TOTALS			101	4,980	2,857	4,290	9	3	5,034	50	134	50	4.5	128	321

642.5001 FIELD OFFICE TYPE B						
01. C-09-2548 & C-09-2556 STH 27 02. C-09-2815 & C-09-2818 STH 64 03. C-09-2932 STH 64 04. C-09-3049 STH 40 05. C-10-2747 USH 10						
CATEGORY	LOCATION	EACH	EACH	EACH	EACH	EACH
0010	C-09-2548 & C-09-2556 STH 27	1	-	-	-	-
0010	C-09-2815 & C-09-2818 STH 64	-	1	-	-	-
0010	C-09-2932 STH 64	-	-	1	-	-
0010	C-09-3049 STH 40	-	-	-	1	-
0010	C-10-2747 USH 10	-	-	-	-	1
CATEGORY 0010 TOTALS		1	1	1	1	1
PROJECT 1000-06-09 TOTALS		1	1	1	1	1

TRAFFIC CONTROL													
				643.0300		643.0420		643.0715		643.0900		643.5000	
				DRUMS		BARRICADES		WARNING LIGHTS		SIGNS		TRAFFIC	
DURATION						TYPE III		TYPE C				CONTROL	
CATEGORY	LOCATION	HWY	DAYS	EACH	DAY	EACH	DAYS	EACH	DAYS	EACH	DAY	EACH	COMMENTS
0010	PROJECT 1000-06-09		-	-	-	-	-	-	-	-	-	1	
CATEGORY 0010 TOTALS					0		0		0		0	1	
0020	C-09-3049	STH 40	1	11	11	-	-	-	-	5	5	-	SHOULDER CLOSURE
			4	64	256	1	4	44	176	14	56	-	STAGE 1
			4	60	240	1	4	42	168	14	56	-	STAGE 2
			3	-	-	-	-	-	-	10	30	-	LOOSE GRAVEL WARNING
CATEGORY 0020 TOTALS					507		8		344		147	0	
0030	C-09-2932	STH 64	1	11	11	-	-	-	-	5	5	-	SHOULDER CLOSURE
			4	60	240	1	4	40	160	15	60	-	STAGE 1
			4	60	240	1	4	40	160	15	60	-	STAGE 2
			3	-	-	-	-	-	-	10	30	-	LOOSE GRAVEL WARNING
CATEGORY 0030 TOTALS					491		8		320		155	0	
0040	C-09-2818	STH 64	1	11	11	-	-	-	-	5	5	-	SHOULDER CLOSURE
			4	52	208	1	4	36	144	16	64	-	STAGE 1
			4	52	208	1	4	36	144	16	64	-	STAGE 2
			3	-	-	-	-	-	-	10	30	-	LOOSE GRAVEL WARNING
CATEGORY 0040 TOTALS					427		8		288		163	0	
0050	C-09-2815	STH 64	1	10	10	-	-	-	-	5	5	-	SHOULDER CLOSURE
			4	62	248	1	4	44	176	16	64	-	STAGE 1
			4	62	248	1	4	44	176	16	64	-	STAGE 2
			3	-	-	-	-	-	-	10	30	-	LOOSE GRAVEL WARNING
CATEGORY 0050 TOTALS					506		8		352		163	0	
0060	C-09-2548	STH 27	1	10	10	-	-	-	-	5	5	-	SHOULDER CLOSURE
			4	62	248	1	4	42	168	16	64	-	STAGE 1
			4	68	272	1	4	42	168	16	64	-	STAGE 2
			3	-	-	-	-	-	-	10	30	-	LOOSE GRAVEL WARNING
CATEGORY 0060 TOTALS					530		8		336		163	0	
0070	C-09-2556	STH 27	1	11	11	-	-	-	-	5	5	-	SHOULDER CLOSURE
			4	58	232	1	4	40	160	16	64		STAGE 1
			4	58	232	1	4	40	160	16	64		STAGE 2
			4	58	232	1	4	40	160	16	64		STAGE 3
			4	58	232	1	4	40	160	16	64		STAGE 4
			3	-	-	-	-	-	-	10	30		LOOSE GRAVEL WARNING
CATEGORY 0070 TOTALS					939		16		640		291	0	
0080	C-10-2747	USH 10	1	11	11	-	-	-	-	5	5	-	SHOULDER CLOSURE
			4	60	240	1	4	44	176	16	64	-	STAGE 1
			4	60	240	1	4	44	176	16	64	-	STAGE 2
			1	-	-	-	-	-	-	10	10	-	LOOSE GRAVEL WARNING
CATEGORY 0080 TOTALS					491		8		352		143	0	
PROJECT 1000-06-09 TOTALS					3,891		64		2,632		1,225	1	

MARKING LINE									
			646.1020		646.4520		646.9000		
			EPOXY 4-INCH		SAME DAY EPOXY		MARKING REMOVAL		
					4-INCH		LINE 4-INCH		
			(WHITE EDGE LINES)		(YELLOW CENTER LINE)				
CATEGORY	LOCATION	HWY	STATION	TO	STATION	LF	LF	LF	COMMENT
0010	C-09-2548	STH 27	134'TS'+11	-	136'TS'+00	-	237	237	SOLID NB / DASHED SB
0010	C-09-2548	STH 27	136'TS'+00	-	138'TS'+00	400	250	-	SOLID NB / DASHED SB
0010	C-09-2548	STH 27	138'TS'+00	-	140'TS'+00	-	250	250	SOLID NB / DASHED SB
0010	C-09-2556	STH 27	213'TN'+60	-	215'TN'+75	-	54	54	DASHED CL
0010	C-09-2556	STH 27	215'TN'+75	-	217'TN'+25	300	50	-	DASHED CL
0010	C-09-2556	STH 27	217'TN'+25	-	219'TN'+57	-	58	58	DASHED CL
0010	C-09-3049	STH 40	973'F'+82	-	976'F'+25	-	486	486	DOUBLE CL
0010	C-09-3049	STH 40	976'F'+25	-	978'F'+00	350	350	-	DOUBLE CL
0010	C-09-3049	STH 40	978'F'+00	-	980'F'+18	-	436	436	DOUBLE CL
0010	C-09-2815	STH 64	275'SE'+16	-	277'SE'+25	-	53	53	DASHED CL
0010	C-09-2815	STH 64	277'SE'+25	-	279'SE'+25	400	250	-	SOLID EB / DASHED WB
0010	C-09-2815	STH 64	279'SE'+25	-	281'SE'+45	-	275	275	SOLID EB / DASHED WB
0010	C-09-2818	STH 64	248'SE'+05	-	250'SE'+00	-	49	49	DASHED CL
0010	C-09-2818	STH 64	250'SE'+00	-	252'SE'+00	400	50	-	DASHED CL
0010	C-09-2818	STH 64	252'SE'+00	-	253'SE'+55	-	40	40	DASHED CL
0010	C-09-2932	STH 64	196'SW'+45	-	198'SW'+75	-	288	288	DASHED EB / SOLID WB
0010	C-09-2932	STH 64	198'SW'+75	-	200'SW'+25	300	188	-	DASHED EB / SOLID WB
0010	C-09-2932	STH 64	200'SW'+25	-	202'SW'+68	-	304	304	DASHED EB / SOLID WB
0010	C-10-2747	USH 10	255'U'+61	-	257'U'+50	-	48	48	DASHED CL
0010	C-10-2747	USH 10	257'U'+50	-	259'U'+50	400	50	-	DASHED CL
0010	C-10-2747	USH 10	259'U'+50	-	261'U'+81	-	58	58	DASHED CL
CATEGORY 0010 TOTALS						2,550	3,824	2,636	
PROJECT 1000-06-09 TOTALS						2,550	3,824	2,636	

TEMPORARY MARKING						
				649.0105	649.0850	
				LINE PAINT	STOP LINE REMOVABLE	
				4-INCH	TAPE 18-INCH	
				(DOUBLE YELLOW)		
CATEGORY	LOCATION	HWY	STATION	LF	LF	COMMENT
0020	C-09-3049	NB STH 40	973'F'+82	-	12	NB APPROACH TO WORK ZONE
0020		SB STH 40	980'F'+18	-	12	SB APPROACH TO WORK ZONE
CATEGORY 0020 TOTALS				0	24	
0030	C-09-2932	EB STH 64	196'SW'+45	-	12	EB APPROACH TO WORK ZONE
0030		WB STH 64	202'SW'+68	1,000	12	WB APPROACH TO WORK ZONE
CATEGORY 0030 TOTALS				1,000	24	
0040	C-09-2818	EB STH 64	248'SE'+05	1,400	12	EB APPROACH TO WORK ZONE
0040		WB STH 64	253'SE'+55	650	12	WB APPROACH TO WORK ZONE
CATEGORY 0040 TOTALS				2,050	24	
0050	C-09-2815	EB STH 64	275'SE'+16	1,400	12	EB APPROACH TO WORK ZONE
0050		WB STH 64	281'SE'+45	1,400	12	WB APPROACH TO WORK ZONE
CATEGORY 0050 TOTALS				2,800	24	
0060	C-09-2548	NB STH 27	134'TS'+11	990	12	NB APPROACH TO WORK ZONE
0060		SB STH 27	140'TS'+00	515	12	SB APPROACH TO WORK ZONE
CATEGORY 0060 TOTALS				1,505	24	
0070	C-09-2556	NB STH 27	213'TN'+60	1,400	12	NB APPROACH TO WORK ZONE
0070		SB STH 27	219'TN'+57	1,400	12	SB APPROACH TO WORK ZONE
CATEGORY 0070 TOTALS				2,800	24	
0080	C-10-2747	EB USH 10	255'U'+61	1,050	12	EB APPROACH TO WORK ZONE
0080		WB USH 10	261'U'+81	1,400	12	WB APPROACH TO WORK ZONE
CATEGORY 0080 TOTALS				2,450	24	
PROJECT 1000-06-09 TOTALS				12,605	168	

3

CONSTRUCTION STAKING										
					650.4500	650.5000	650.6000	650.9910	650.9920	
					SUBGRADE	BASE	PIPE CULVERTS	SUPPLEMENTAL	SLOPE STAKES	
					CONTROL					
					01. 1000-06-09					
CATEGORY	LOCATION	HWY	STATION	TO	STATION	LF	LF	EACH	LS	LF
0010	C-09-2548	STH 27	136'TS'+00	-	138'TS'+00	200	200	-	-	200
0010	C-09-2556	STH 27	215'TN'+75	-	217'TN'+25	150	150	-	-	150
0010	C-09-3049	STH 40	976'F'+25	-	978'F'+00	175	175	-	-	175
0010	C-09-2932	STH 64	198'SW'+75	-	200'SW'+25	150	150	-	-	150
0010	C-09-2815	STH 64	277'SE'+25	-	279'SE'+25	200	200	-	-	200
0010	C-09-2818	STH 64	250'SE'+00	-	252'SE'+00	200	200	-	-	200
0010	C-10-2747	USH 10	257'U'+50	-	259'U'+50	200	200	-	-	200
0010	PROJECT 1000-06-09					-	-	-	1	-
CATEGORY 0010 TOTALS						1,275	1,275	0	1	1,275
0020	C-09-3049	STH 40	976'F'+98	-	-	-	-	2	-	-
CATEGORY 0020 TOTALS						0	0	2	0	0
0030	C-09-2932	STH 64	199'SW'+57	-	-	-	-	1	-	-
CATEGORY 0030 TOTALS						0	0	1	0	0
0040	C-09-2818	STH 64	250'SE'+87	-	-	-	-	1	-	-
CATEGORY 0040 TOTALS						0	0	1	0	0
0050	C-09-2815	STH 64	278'SE'+21	-	-	-	-	1	-	-
CATEGORY 0050 TOTALS						0	0	1	0	0
0060	C-09-2548	STH 27	137'TS'+02	-	-	-	-	1	-	-
CATEGORY 0060 TOTALS						0	0	1	0	0
0070	C-09-2556	STH 27	216'TN'+55	-	-	-	-	2	-	-
CATEGORY 0070 TOTALS						0	0	2	0	0
0080	C-10-2747	USH 10	258'U'+58	-	-	-	-	1	-	-
CATEGORY 0080 TOTALS						0	0	1	0	0
PROJECT 1000-06-09 TOTALS						1,275	1,275	9	1	1,275

3

690.0150 SAWING ASPHALT							
CATEGORY	LOCATION	HWY	STATION	TO	STATION	LF	COMMENTS
0010	C-09-2548	STH 27	136'TS'+00	-	-	30	PROJECT LIMITS
0010			136'TS'+00	-	138'TS'+00	200	TEMPORARY WIDENING
0010			138'TS'+00	-	-	30	PROJECT LIMITS
0010	C-09-2556	STH 27	215'TN'+75	-	-	30	PROJECT LIMITS
0010			215'TN'+75	-	217'TN'+25	150	TEMPORARY WIDENING
0010			217'TN'+25	-	-	30	PROJECT LIMITS
0010	C-09-3049	STH 40	976'F'+25	-	-	30	PROJECT LIMITS
0010			976'F'+25	-	978'F'+00	175	TEMPORARY WIDENING
0010			978'F'+00	-	-	30	PROJECT LIMITS
0010	C-09-2932	STH 64	198'SW'+00	-	198'SW'+75	161	PROJECT LIMITS
0010			198'SW'+75	-	200'SW'+25	150	TEMPORARY WIDENING
0010			200'SW'+25	-	201'SW'+20	177	PROJECT LIMITS
0010	C-09-2815	STH 64	277'SE'+25	-	-	30	PROJECT LIMITS
0010			277'SE'+25	-	279'SE'+25	200	TEMPORARY WIDENING
0010			279'SE'+25			30	PROJECT LIMITS
0010	C-09-2818	STH 64	250'SE'+00	-	-	30	PROJECT LIMITS
0010			250'SE'+00	-	252'SE'+00	200	TEMPORARY WIDENING
0010			252'SE'+00	-	-	30	PROJECT LIMITS
0010	C-10-2747	USH 10	257'U'+50	-	-	30	PROJECT LIMITS
0010			257'U'+50	-	259'U'+50	200	TEMPORARY WIDENING
0010			259'U'+50	-	-	30	PROJECT LIMITS
CATEGORY 0010 TOTALS						1,973	
PROJECT 1000-06-09 TOTALS						1,973	

661.0100 TEMPORARY TRAFFIC SIGNALS FOR BRIDGES (STRUCTURE)									
		01. C-09-3049	02. C-09-2932	03. C-09-2818	04. C-09-2815	05. C-09-2548	06. C-09-2556	07. C-10-2747	
CATEGORY	LOCATION	HWY	LS	LS	LS	LS	LS	LS	
0020	C-09-3049	STH 40	1	-	-	-	-	-	
CATEGORY 0020 TOTALS			1	0	0	0	0	0	
0030	C-09-2932	STH 64	-	1	-	-	-	-	
CATEGORY 0030 TOTALS			0	1	0	0	0	0	
0040	C-09-2818	STH 64	-	-	1	-	-	-	
CATEGORY 0040 TOTALS			0	0	1	0	0	0	
0050	C-09-2815	STH 64	-	-	-	1	-	-	
CATEGORY 0050 TOTALS			0	0	0	1	0	0	
0060	C-09-2548	STH 27	-	-	-	-	1	-	
CATEGORY 0060 TOTALS			0	0	0	0	1	0	
0070	C-09-2556	STH 27	-	-	-	-	-	1	
CATEGORY 0070 TOTALS			0	0	0	0	0	1	
0080	C-10-2747	USH 10	-	-	-	-	-	-	1
CATEGORY 0080 TOTALS			0	0	0	0	0	0	1
PROJECT 1000-06-09 TOTALS			1	1	1	1	1	1	

PROJECT NO: 1000-06-09

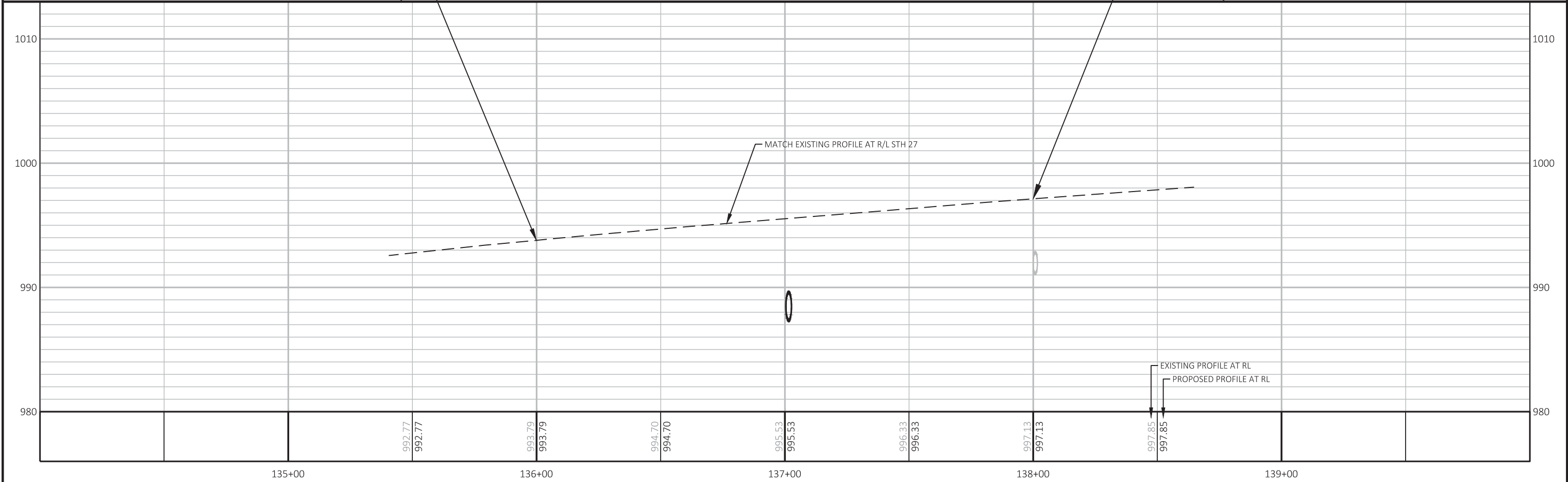
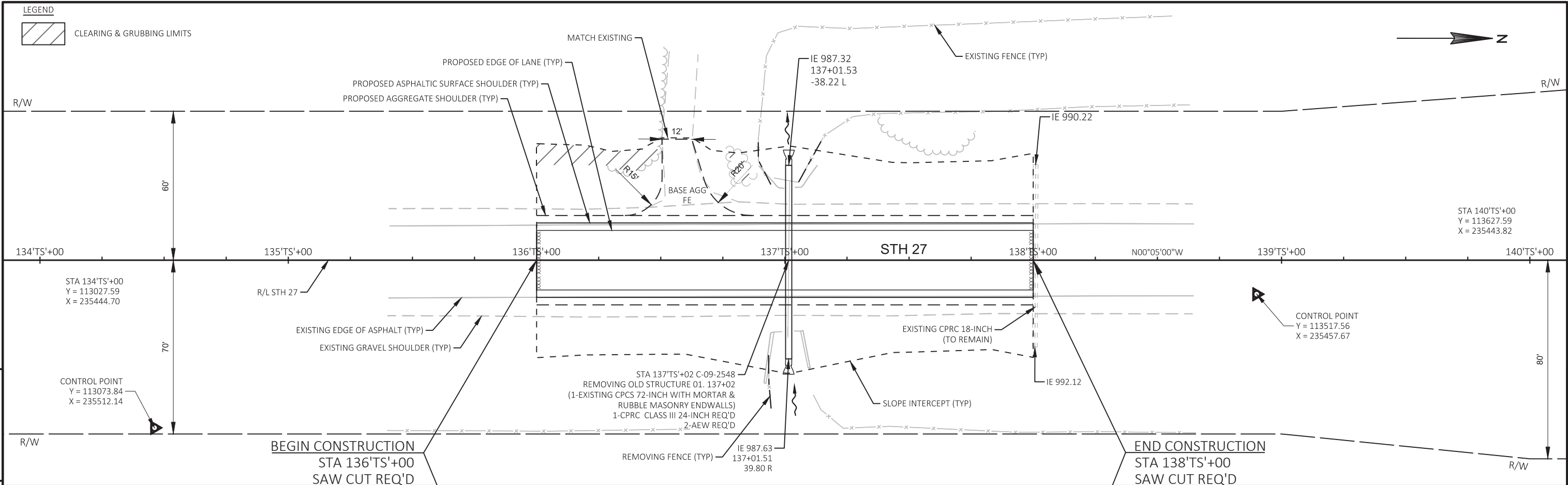
HWY: VARIOUS

COUNTY: VARIOUS

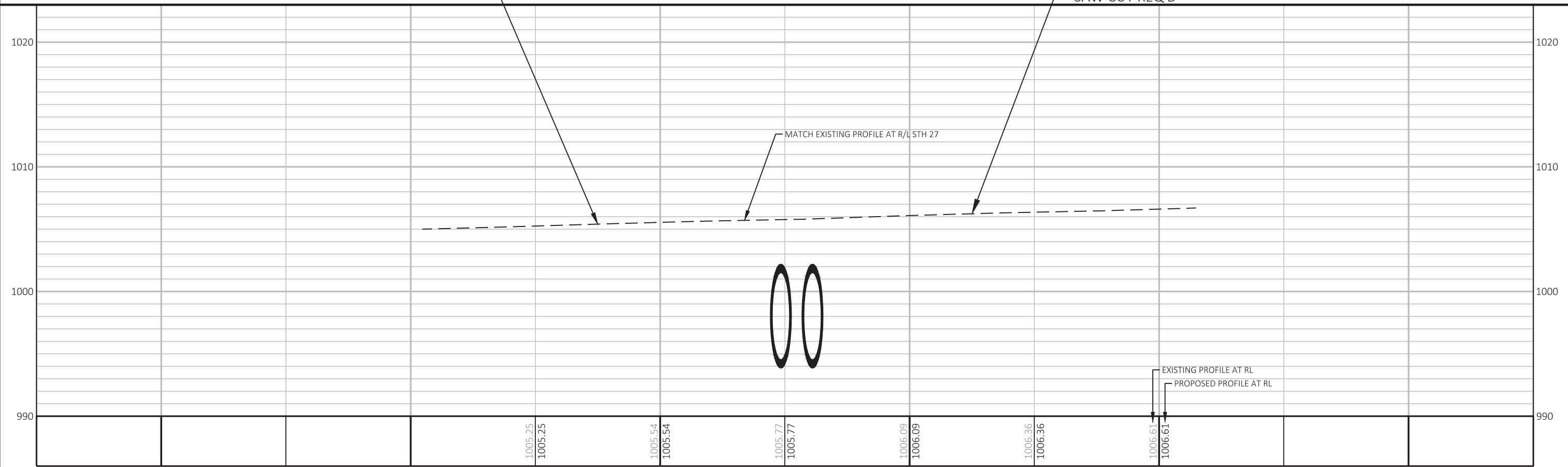
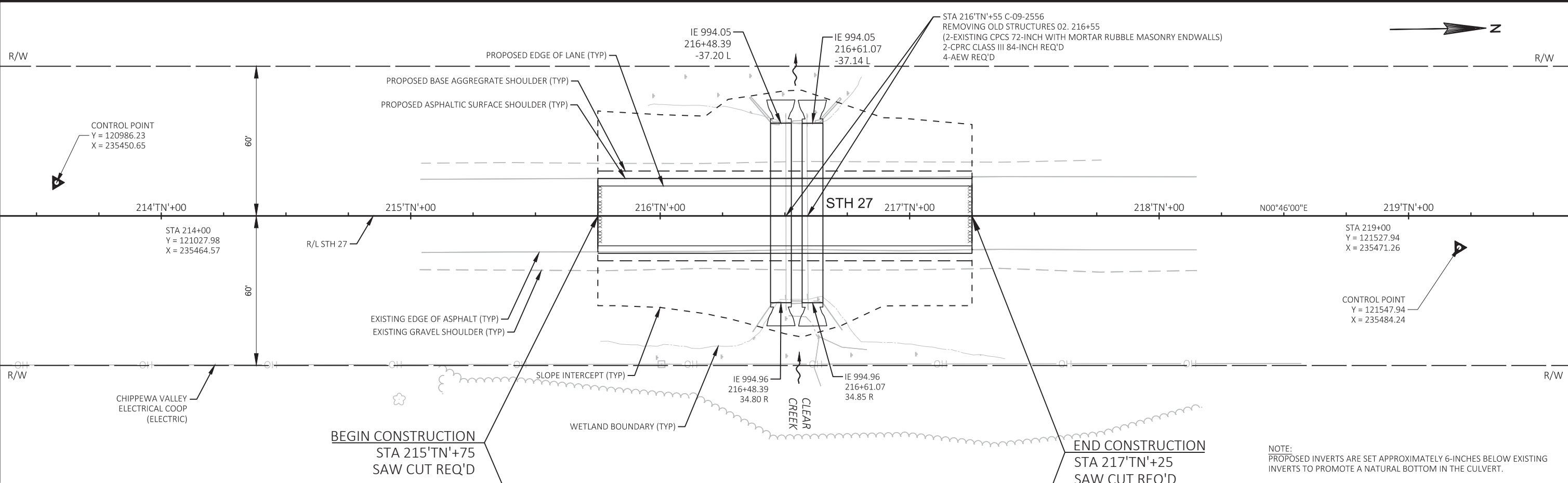
MISCELLANEOUS QUANTITIES

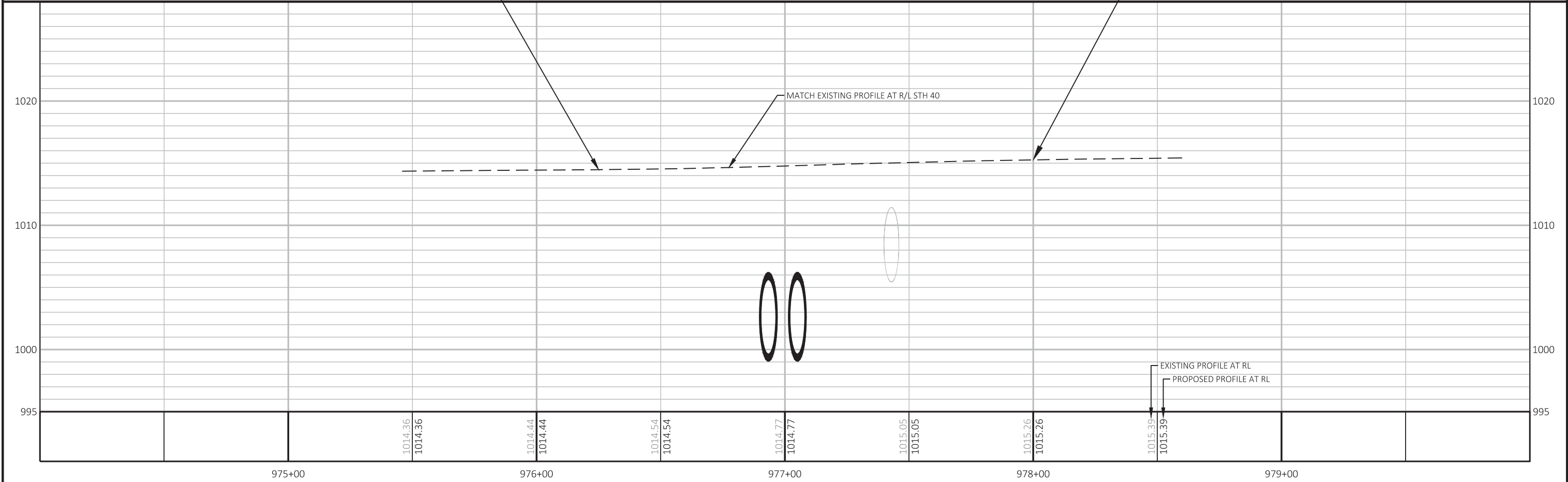
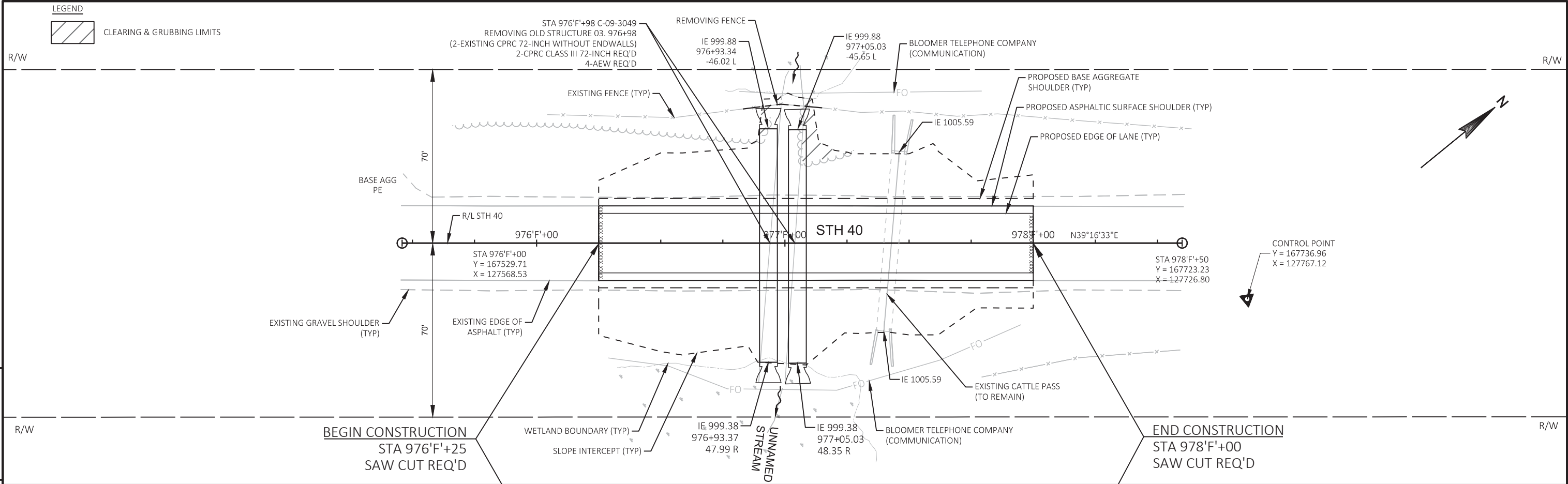
SHEET:

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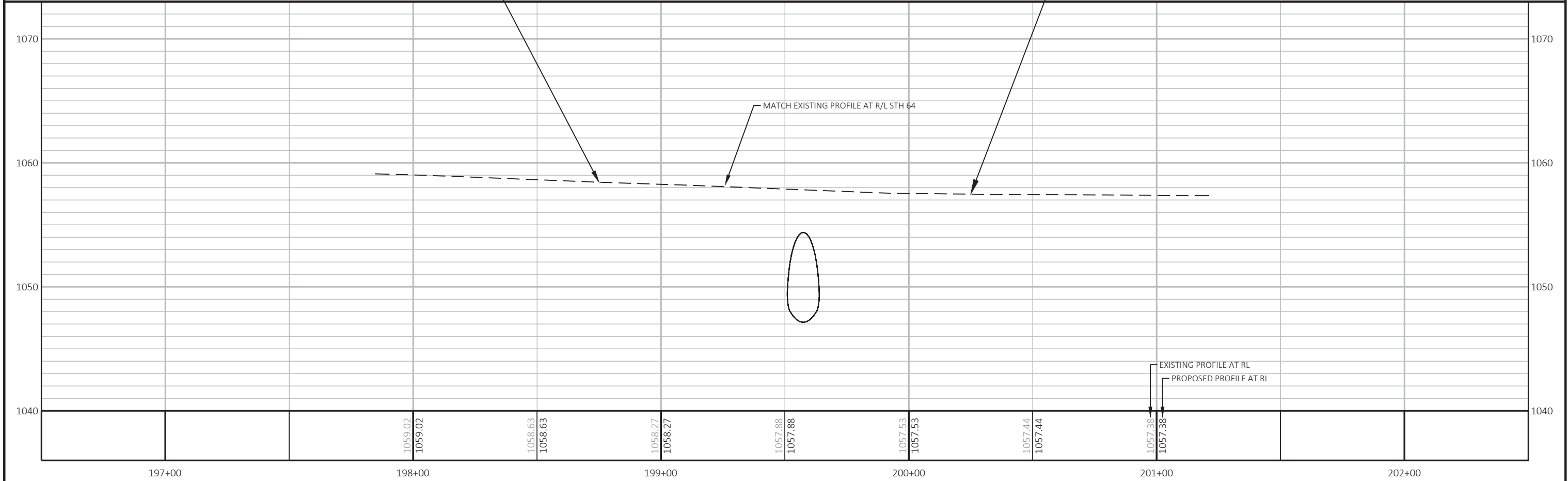
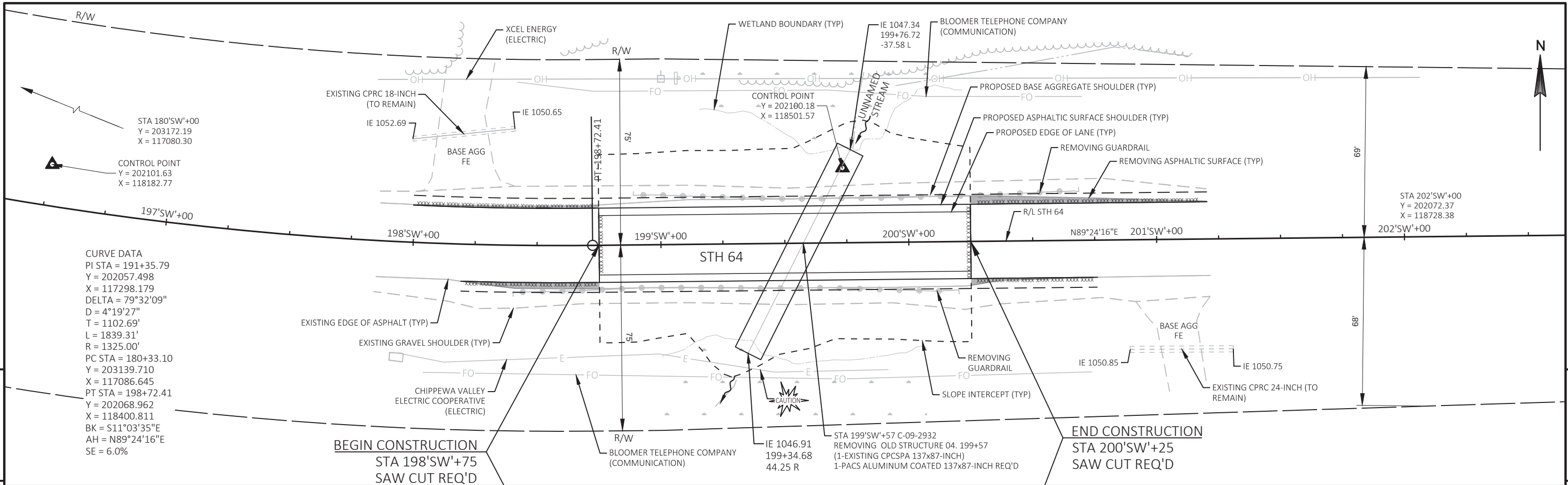


PROJECT NO: 1000-06-09	HWY: STH 27	COUNTY: CHIPPEWA	PLAN AND PROFILE: CULVERT C-09-2548	SHEET	E
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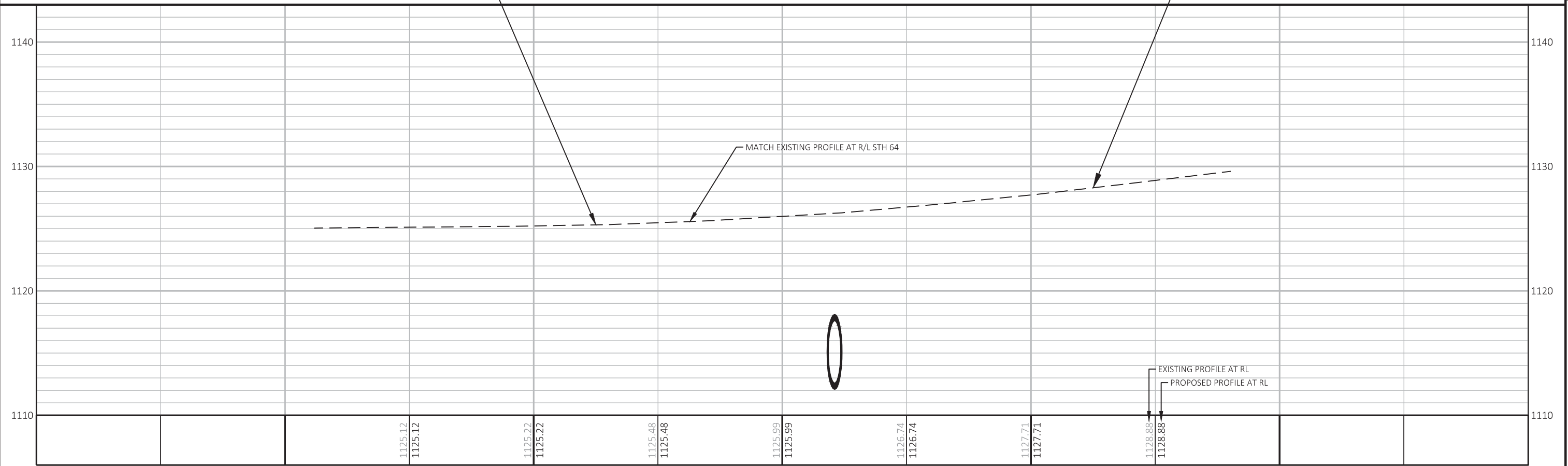
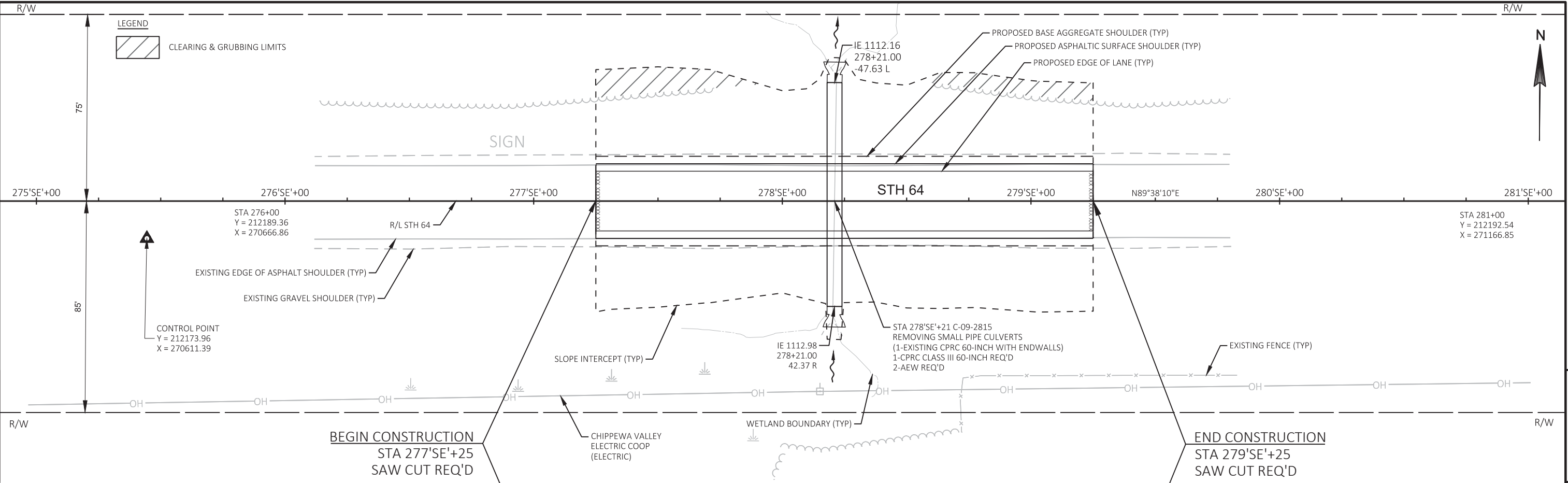


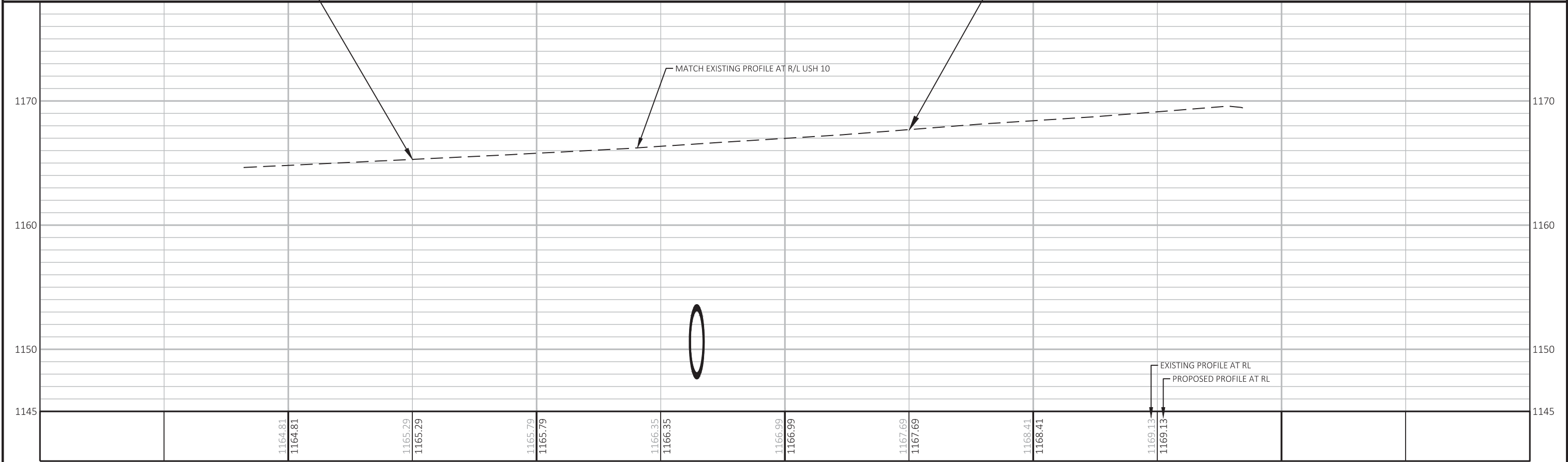
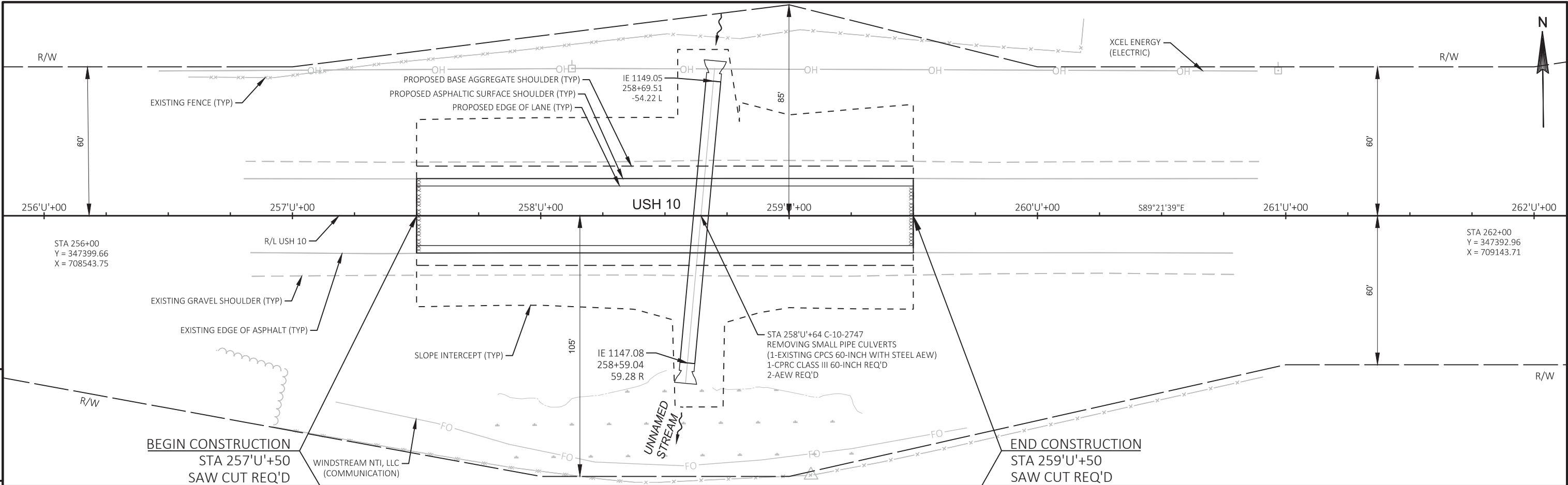


PROJECT NO: 1000-06-09	HWY: STH 40	COUNTY: CHIPPEWA	PLAN AND PROFILE: CULVERT C-09-3049	SHEET E
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PROJECT NO: 1000-06-09	HWY: STH 64	COUNTY: CHIPPEWA	PLAN AND PROFILE: CULVERT C-09-2932	SHEET E
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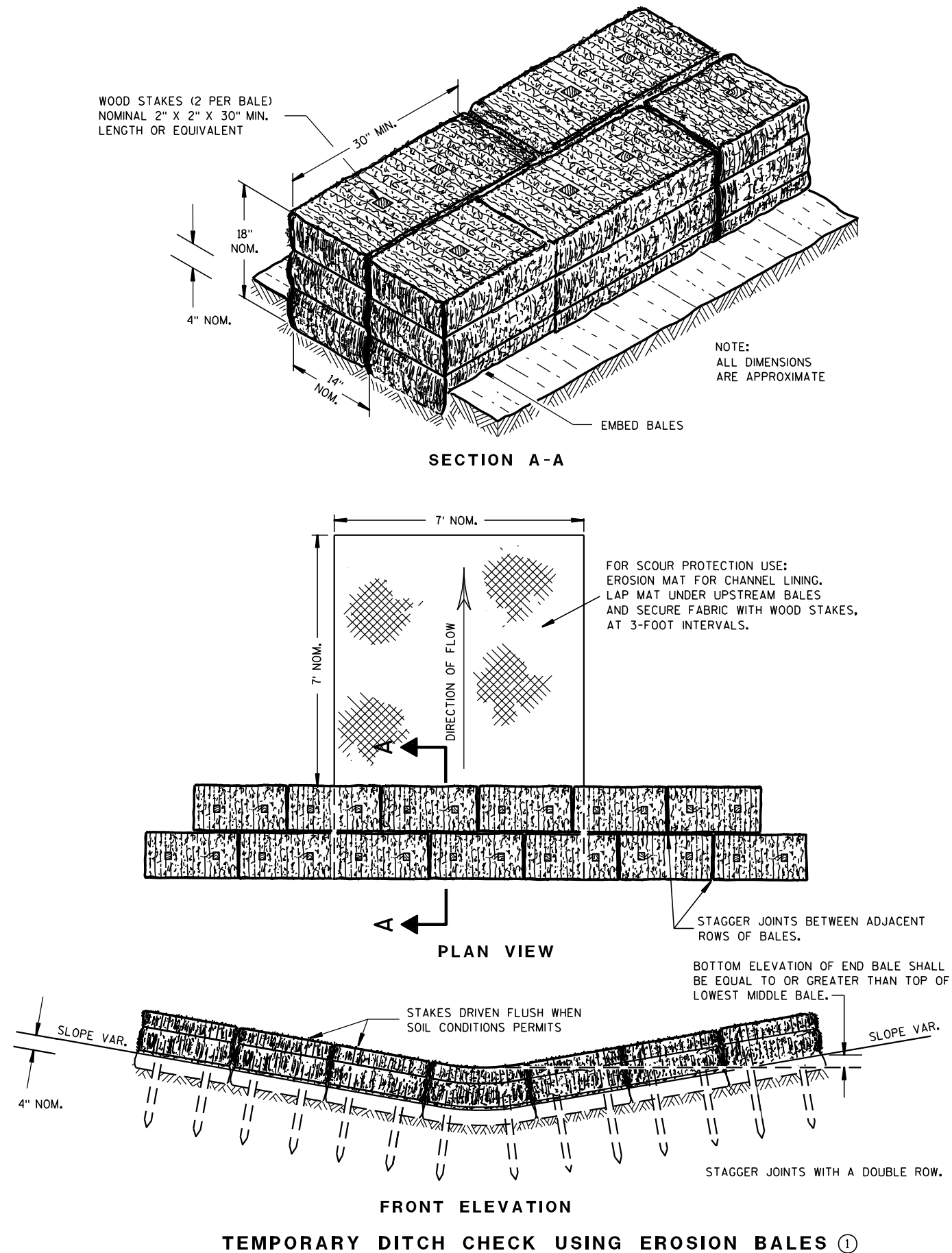




PROJECT NO: 1000-06-09	HWY: USH 10	COUNTY: CLARK	PLAN AND PROFILE: CULVERT C-10-2747	SHEET	E
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Standard Detail Drawing List

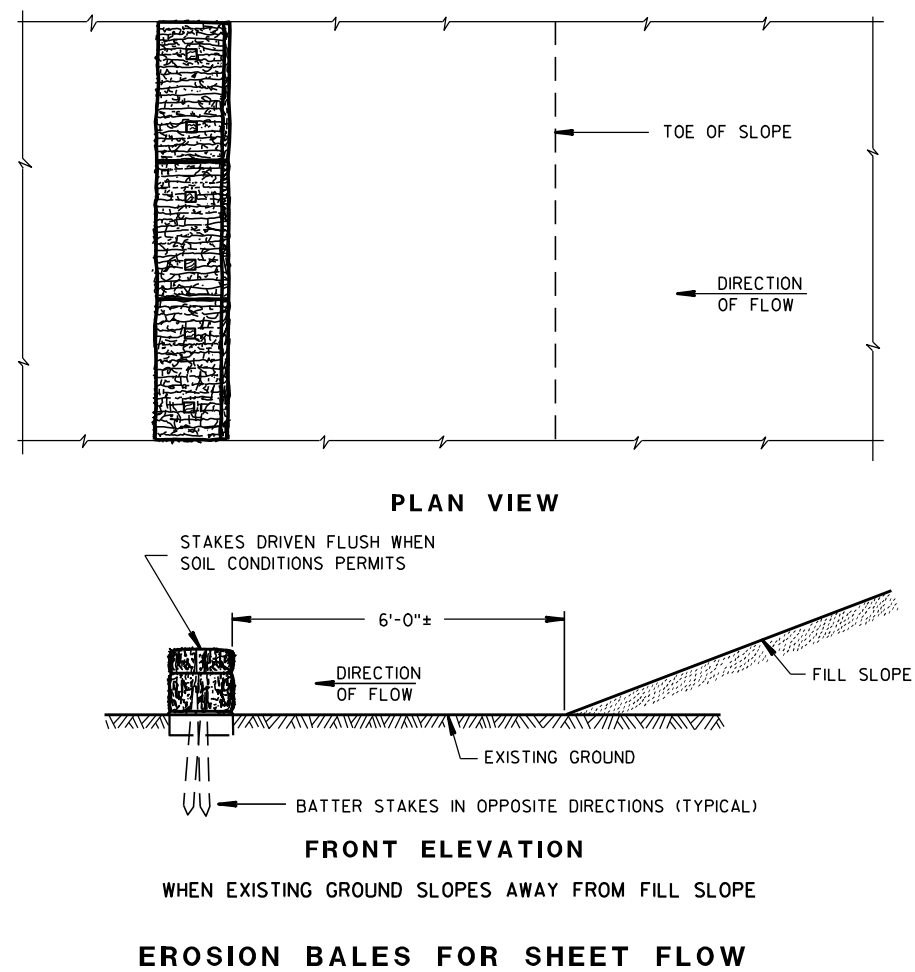
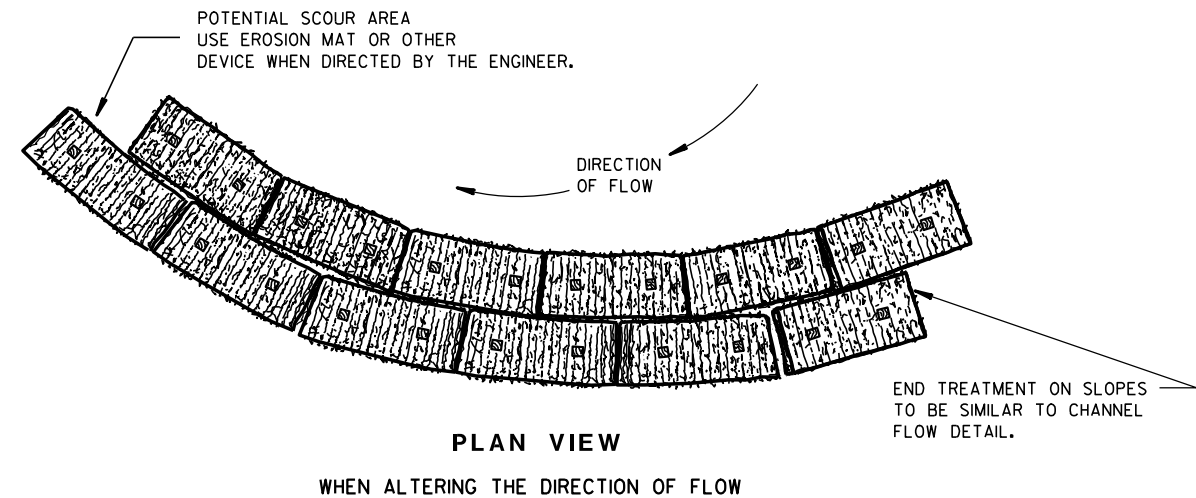
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09G02-05A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C19-05A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D33-05	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



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.

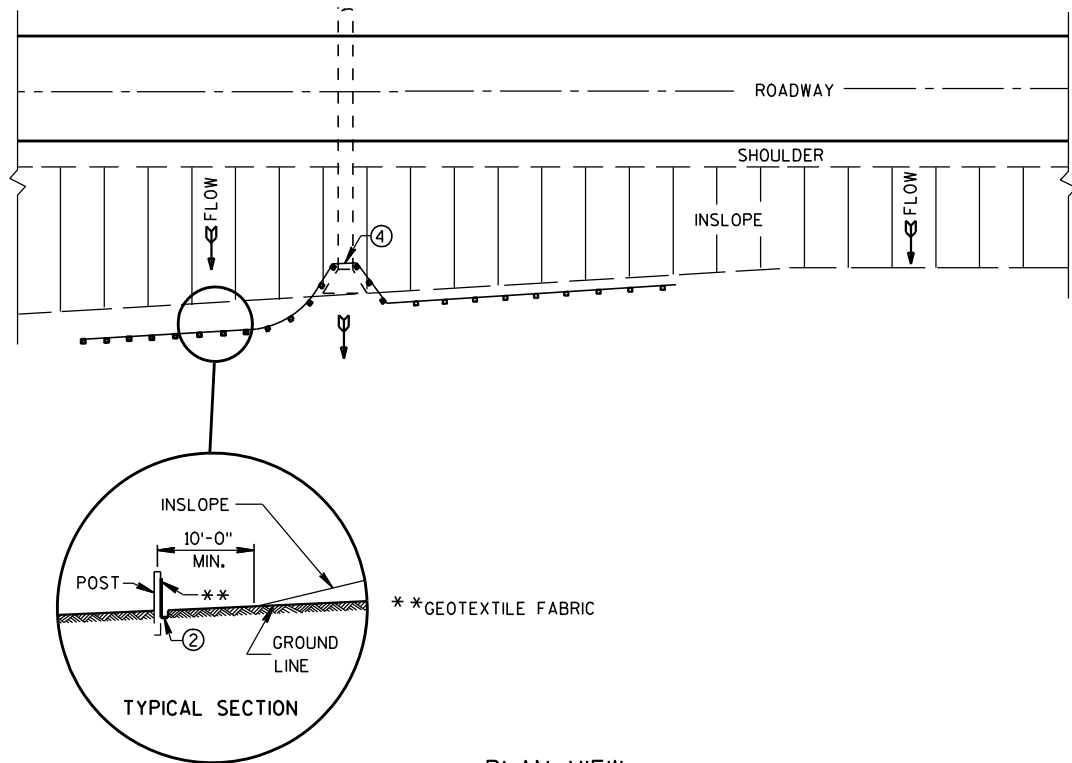
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

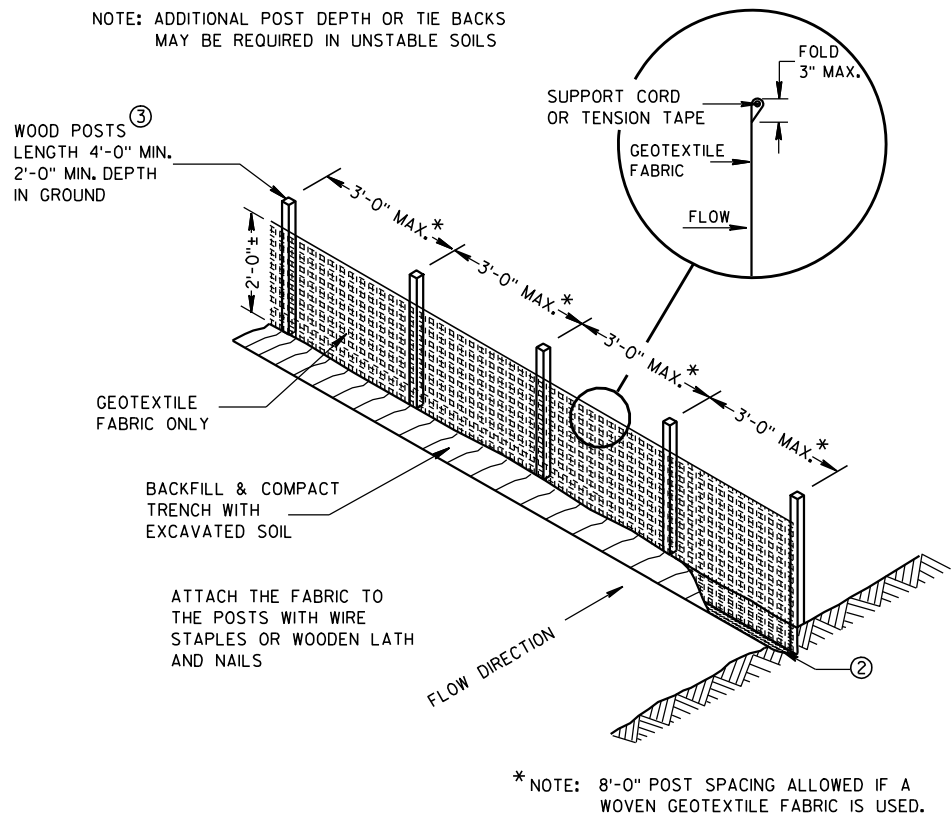
APPROVED

6/04/02
DATE/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

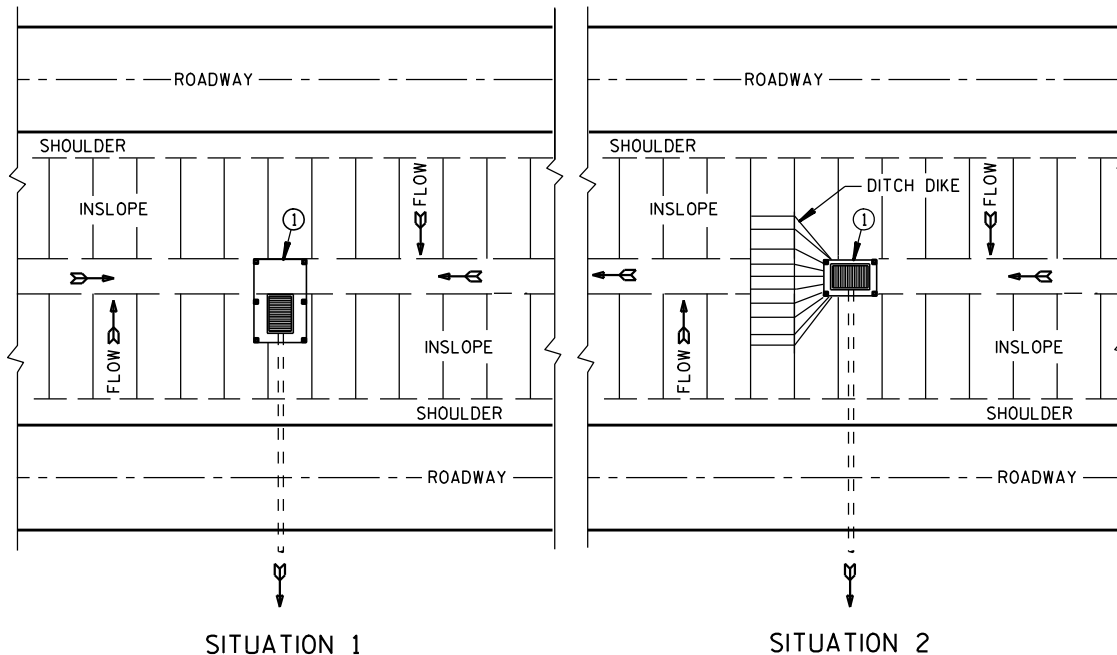
FHWA



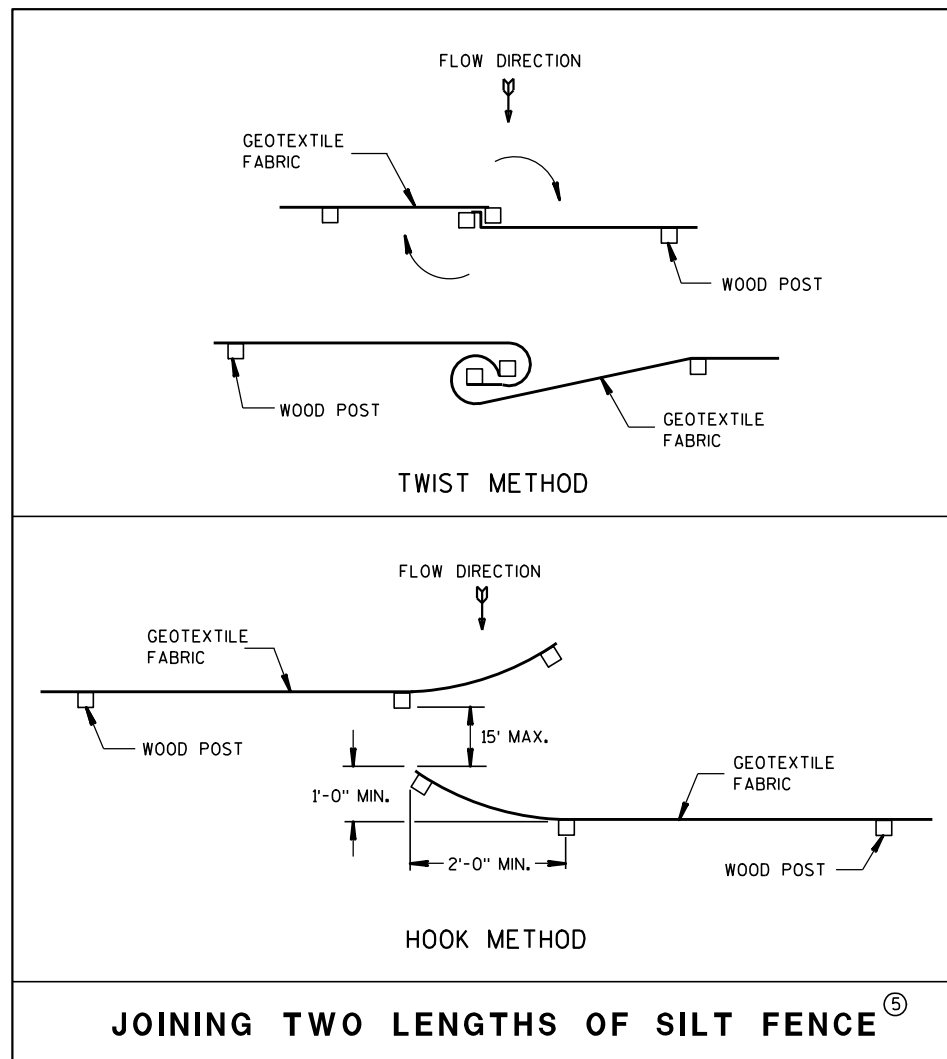
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

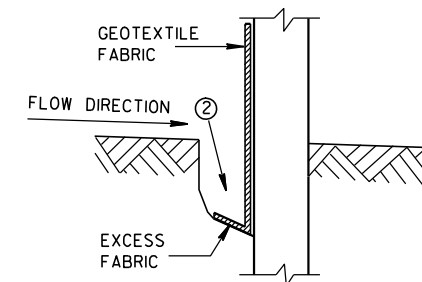


JOINING TWO LENGTHS OF SILT FENCE (5)

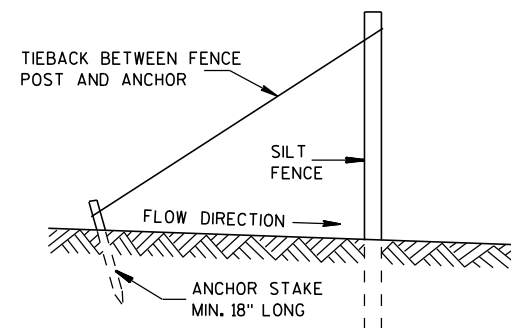
GENERAL NOTES

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.

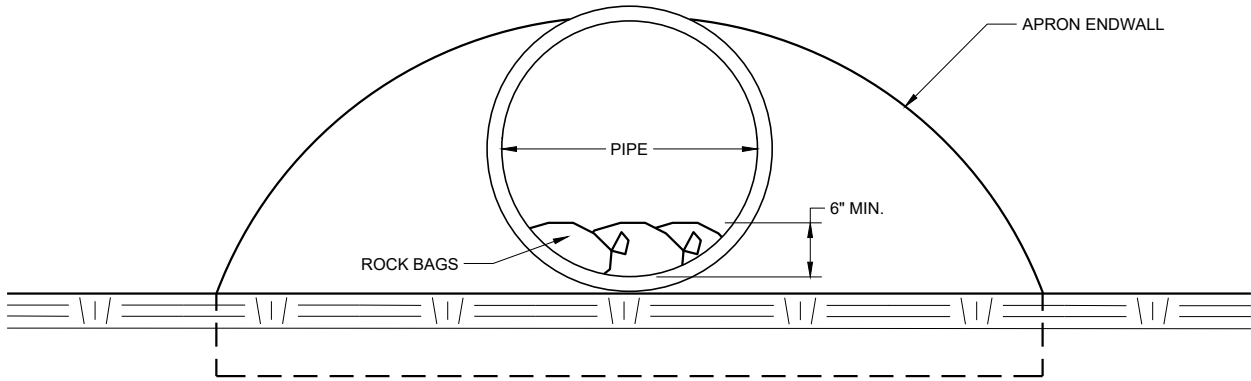


TRENCH DETAIL

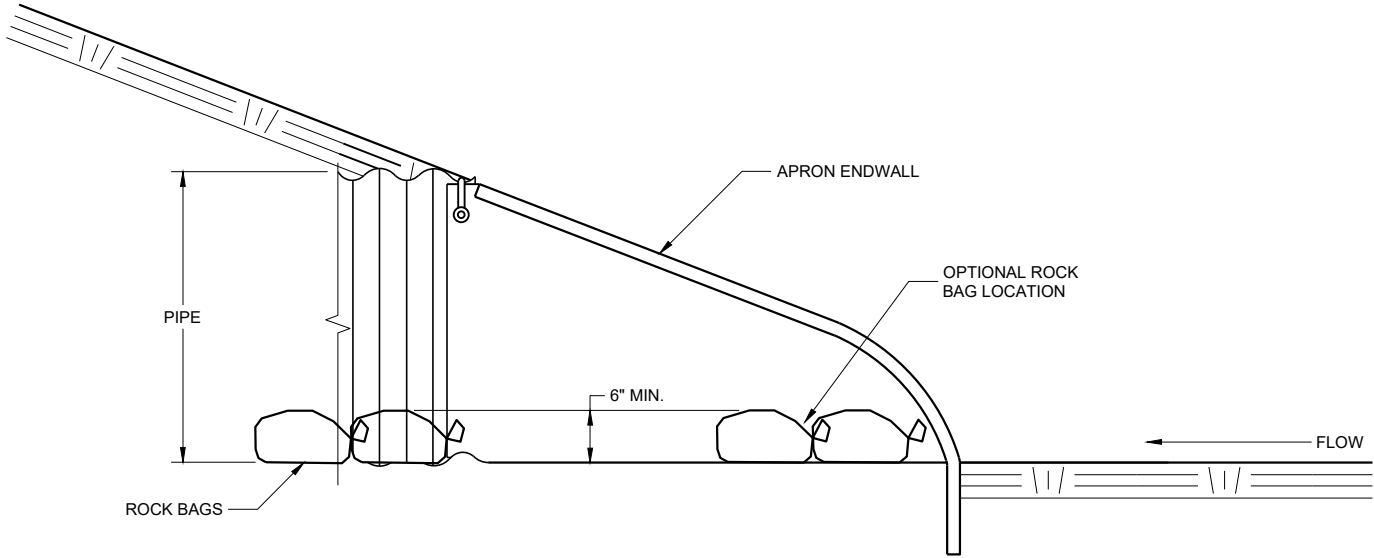


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Canestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



END VIEW



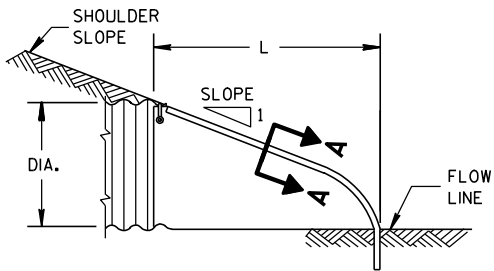
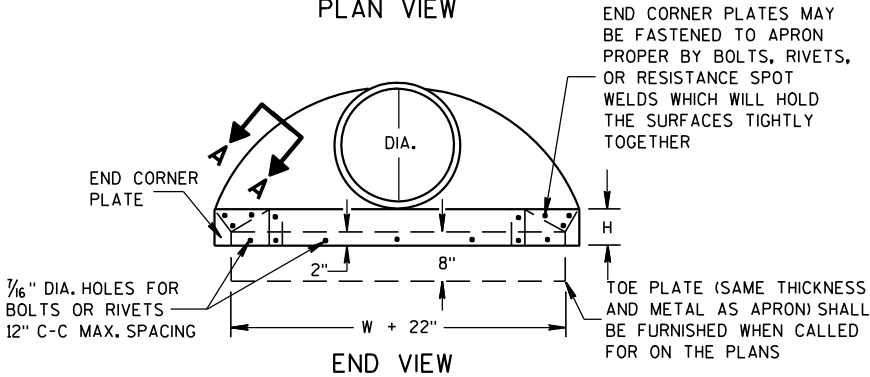
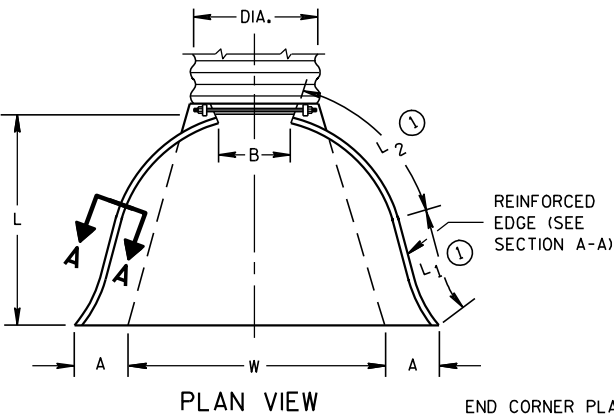
SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGINEER
FHWA	

METAL APRON ENDWALLS												
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE		BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")			
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3	3 Pc.

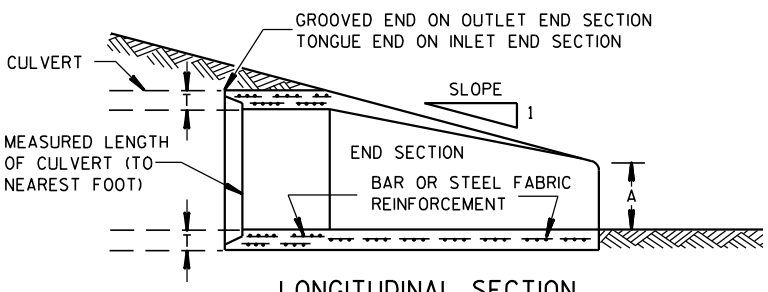
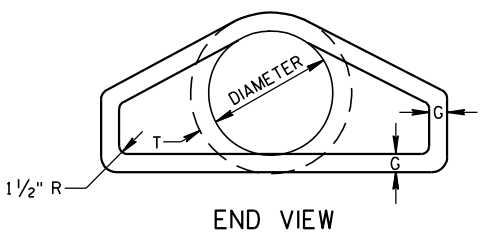
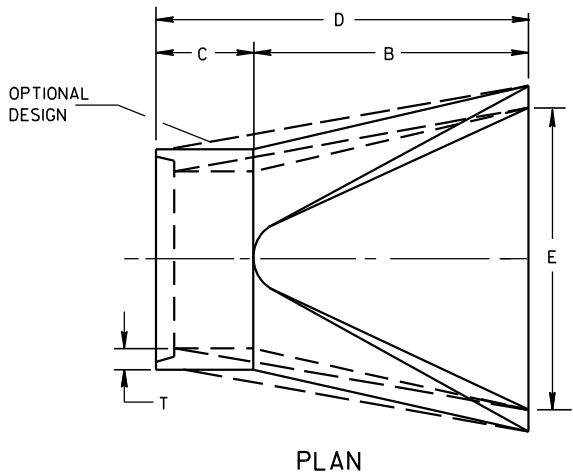
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



METAL ENDWALLS

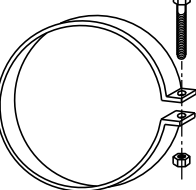
REINFORCED CONCRETE APRON ENDWALLS												
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE				
	T	A	B	C	D	E	G					
12	2	4	24	48 7/8	72 7/8	24	2	3 to 1				
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1				
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1				
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1				
24	3	9 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

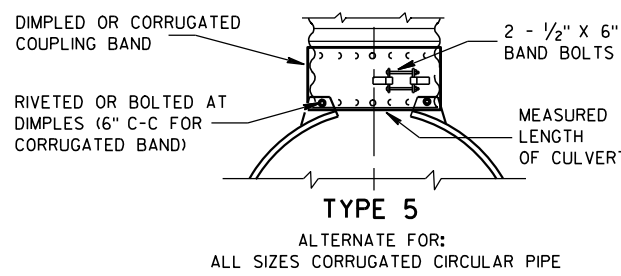
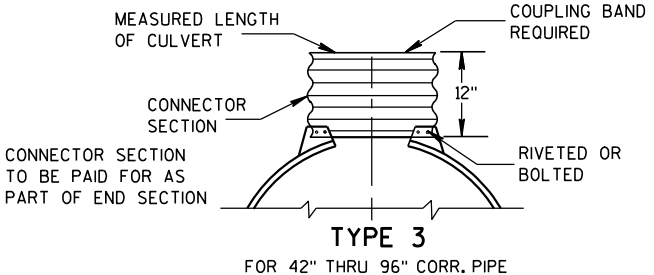
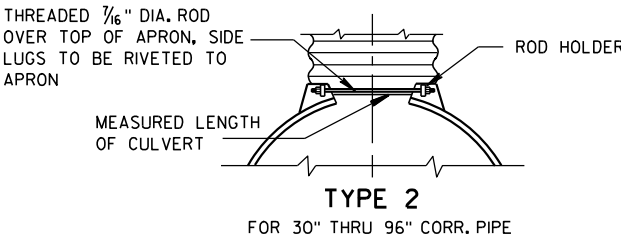
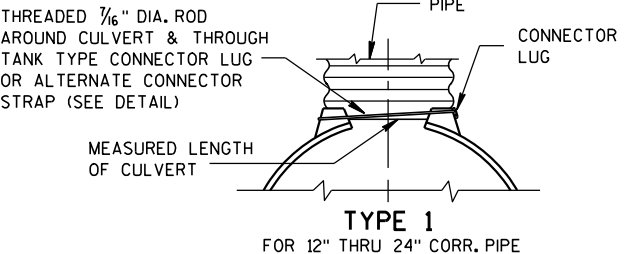


CONCRETE ENDWALLS

1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



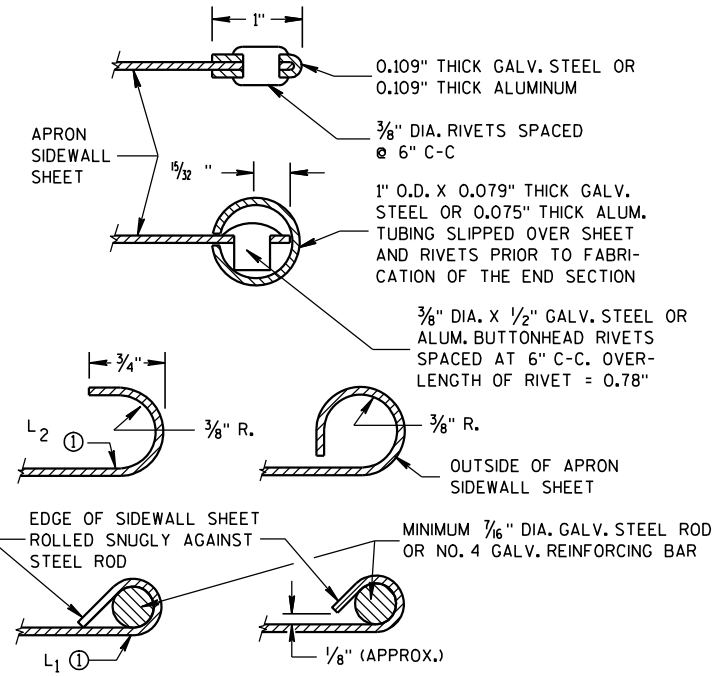
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

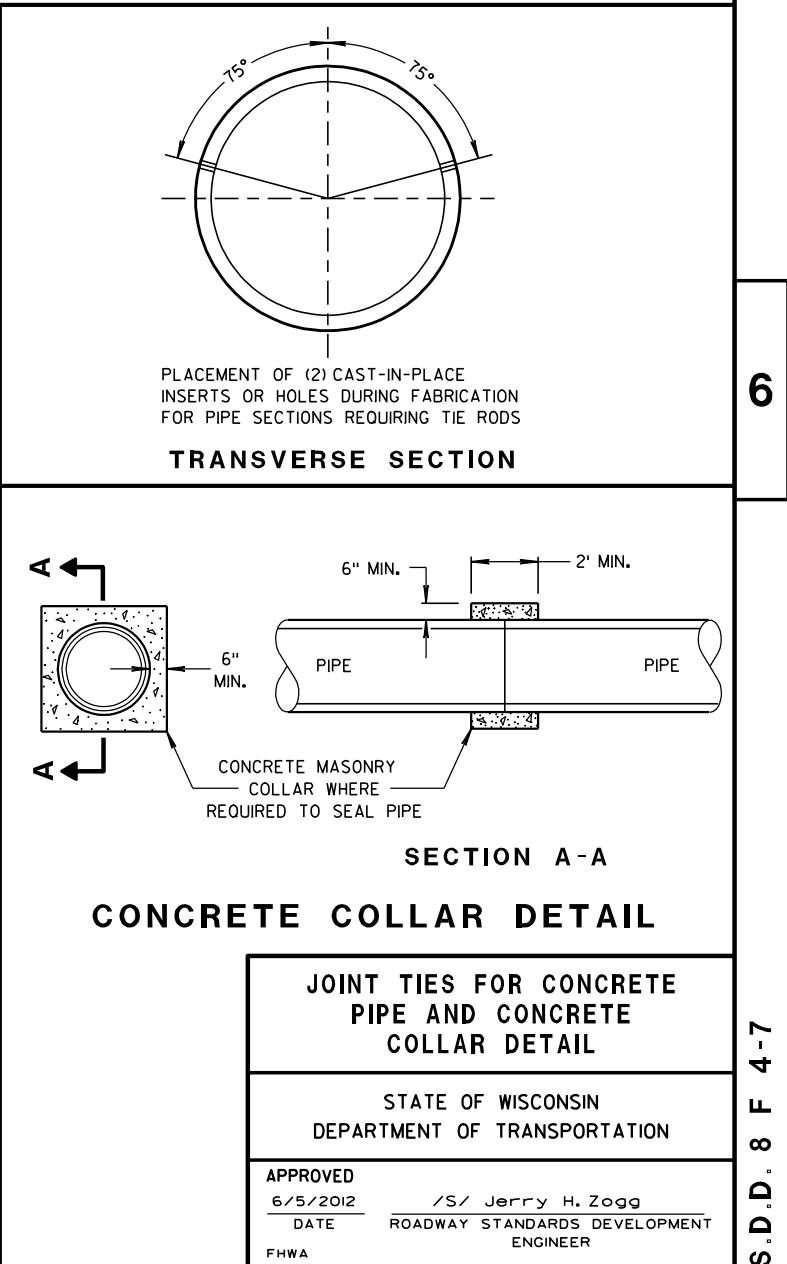
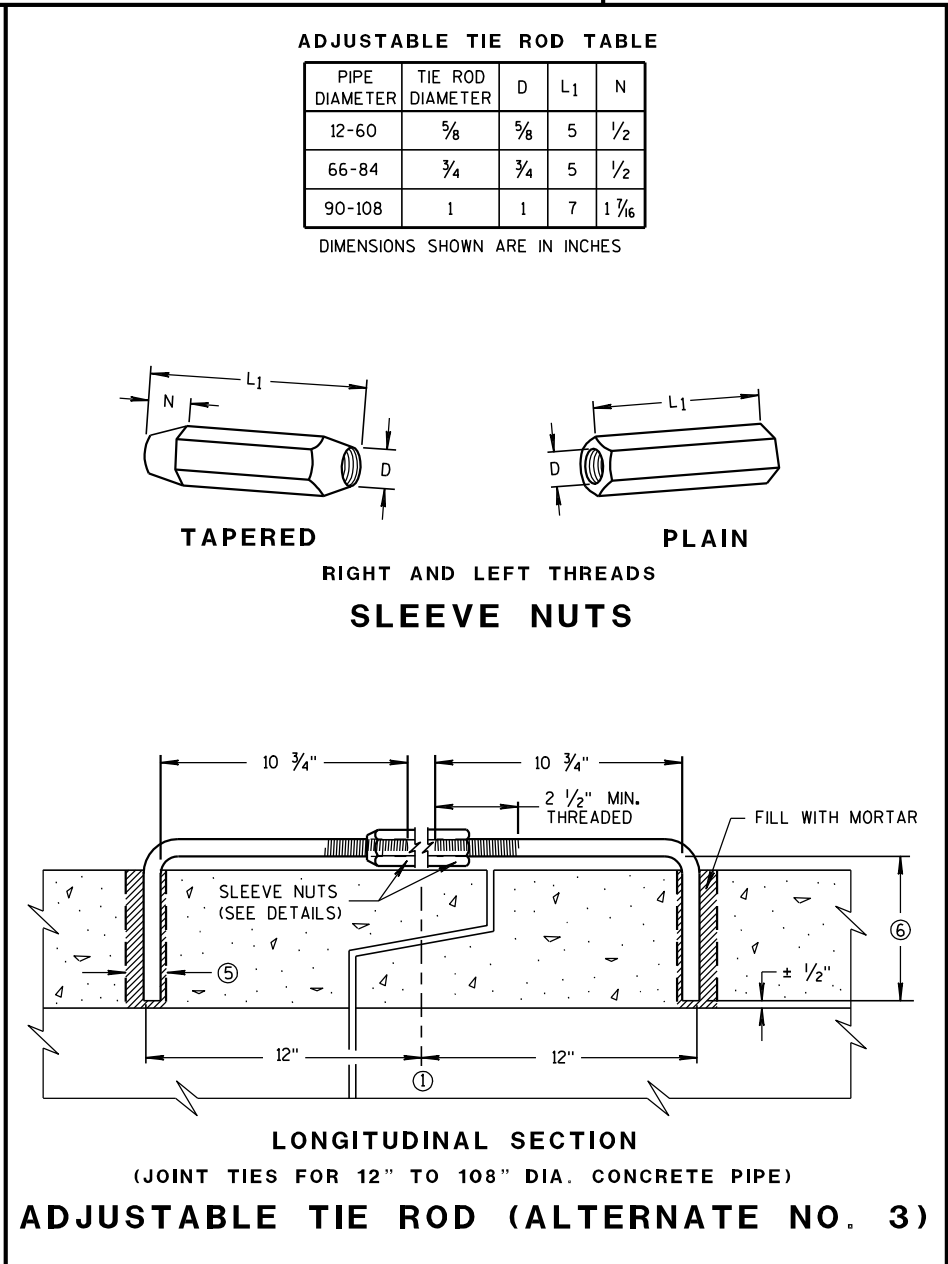
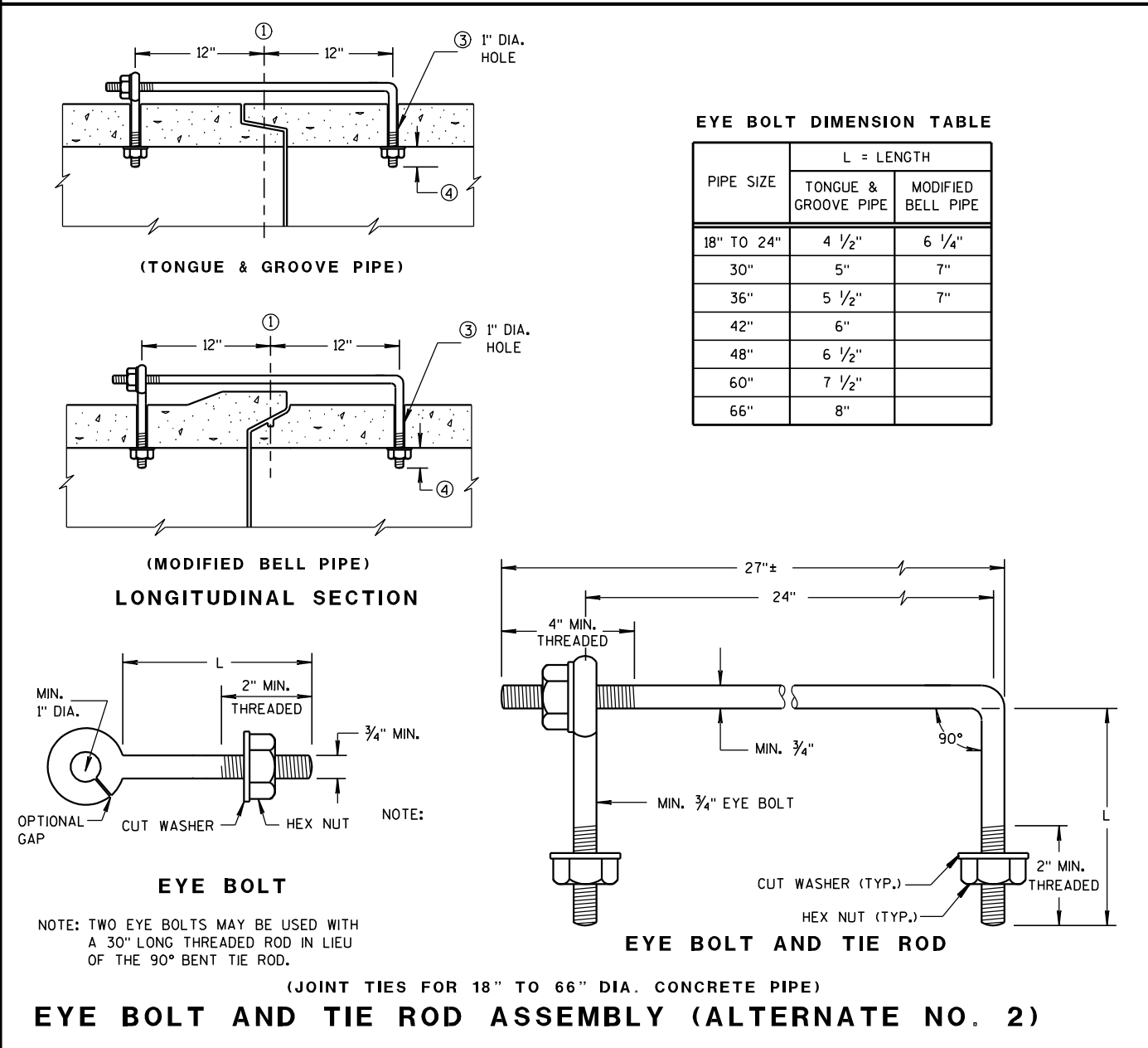
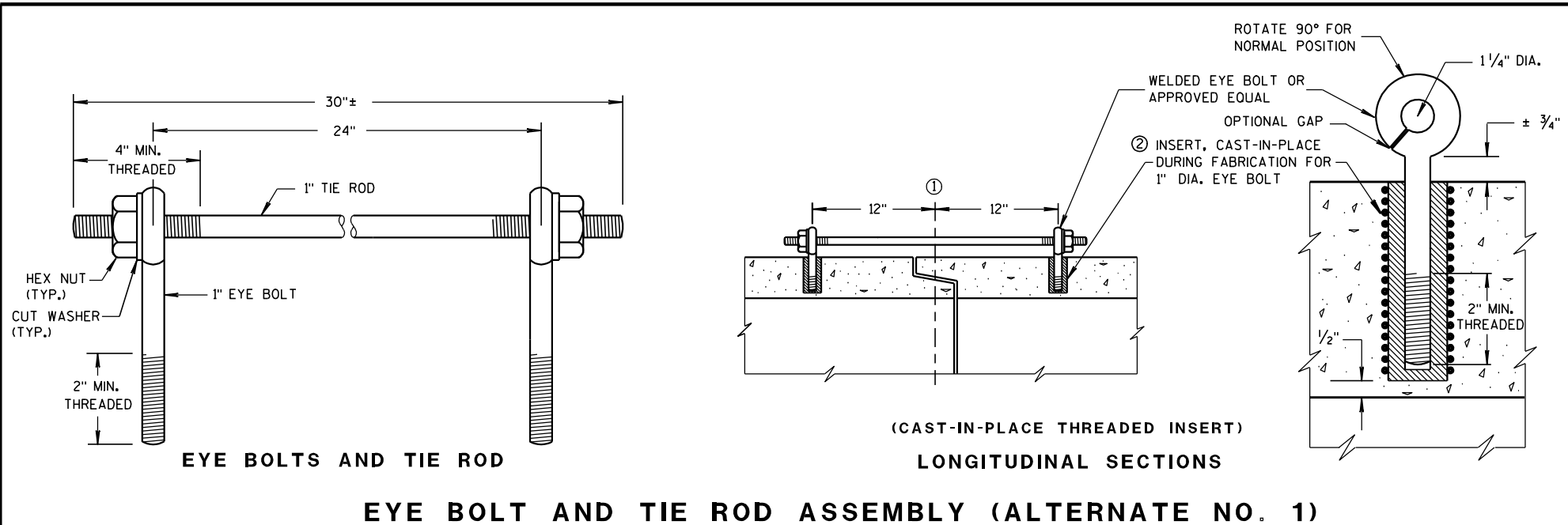
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

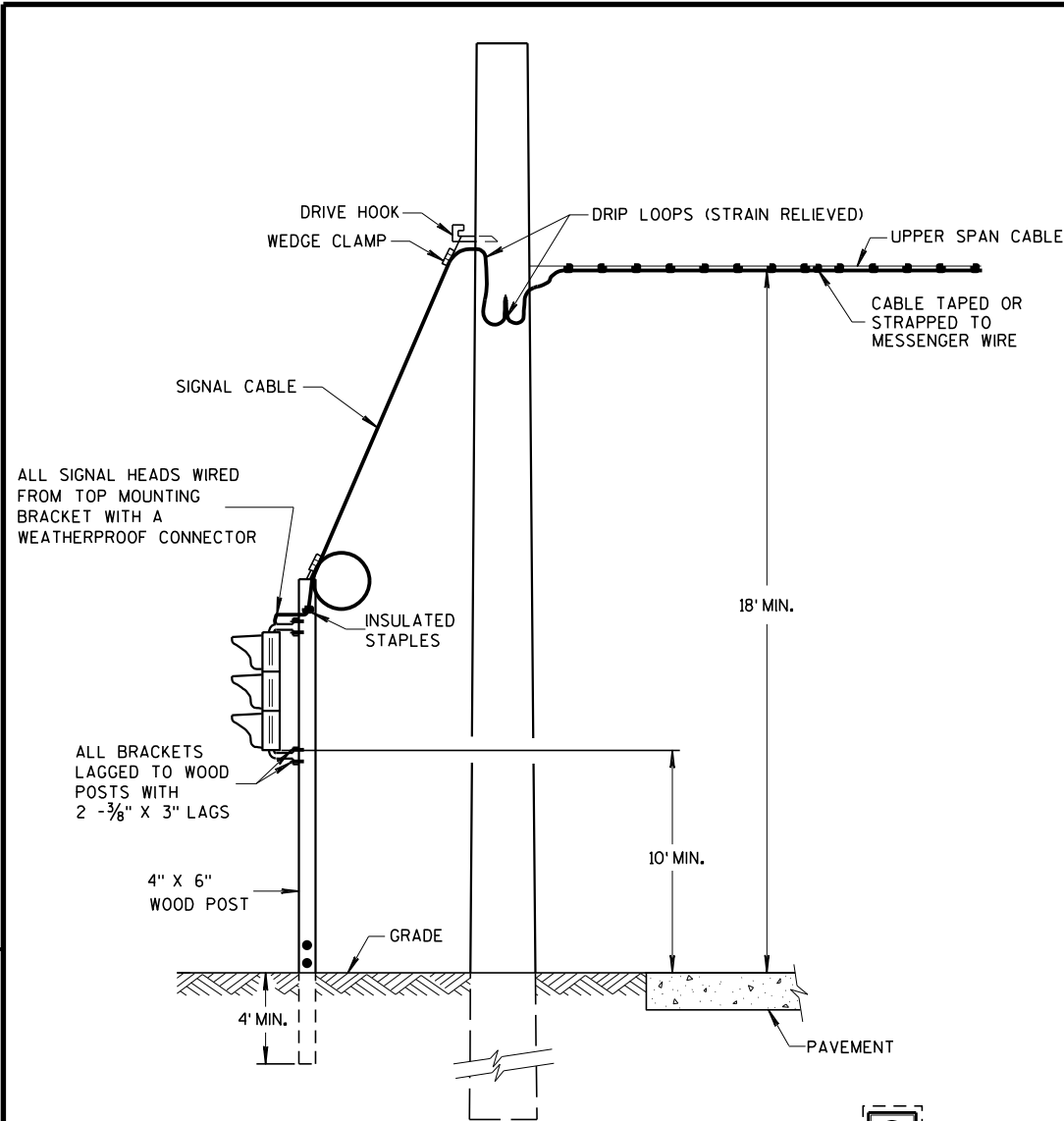
LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. 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	

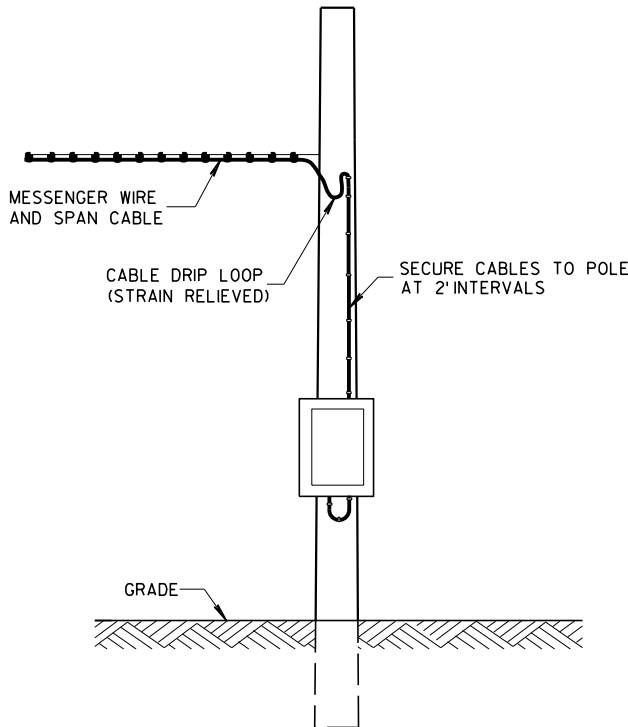




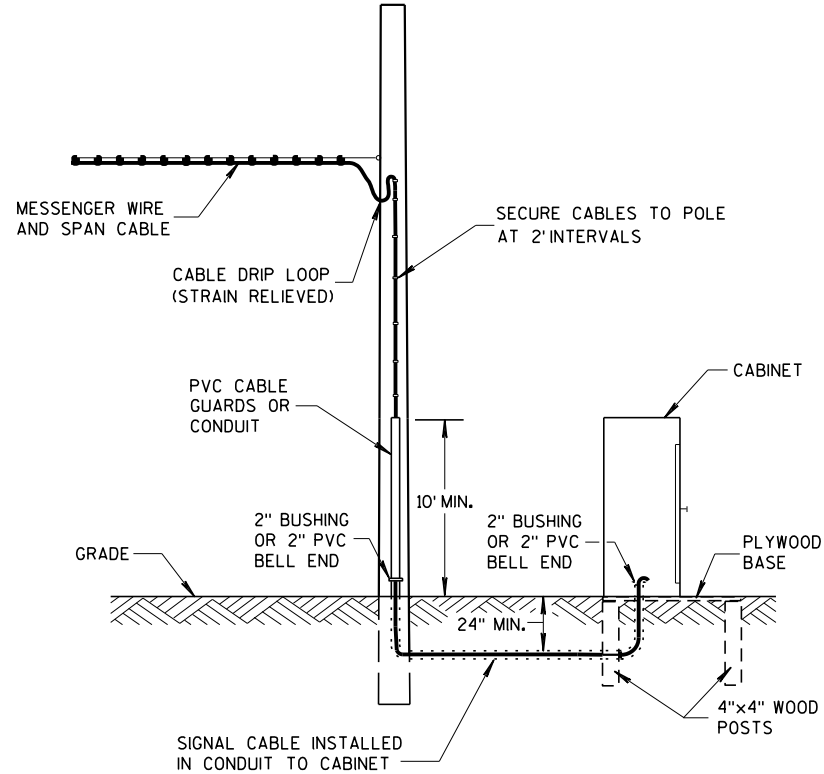
TYPICAL DROP TO TRAFFIC SIGNAL FACE

OFFSET DISTANCES FOR TEMPORARY NON-BREAKAWAY POLES	
SPEED LIMIT	OFFSET DISTANCE**
GREATER THAN 45 MPH	18 FT
45 MPH OR LESS	12 FT
45 MPH OR LESS W/ CURBS	2 FT
**NOTE: OFFSET MEASURED FROM OUTER EDGE OF OUTSIDE THRU LANE.	

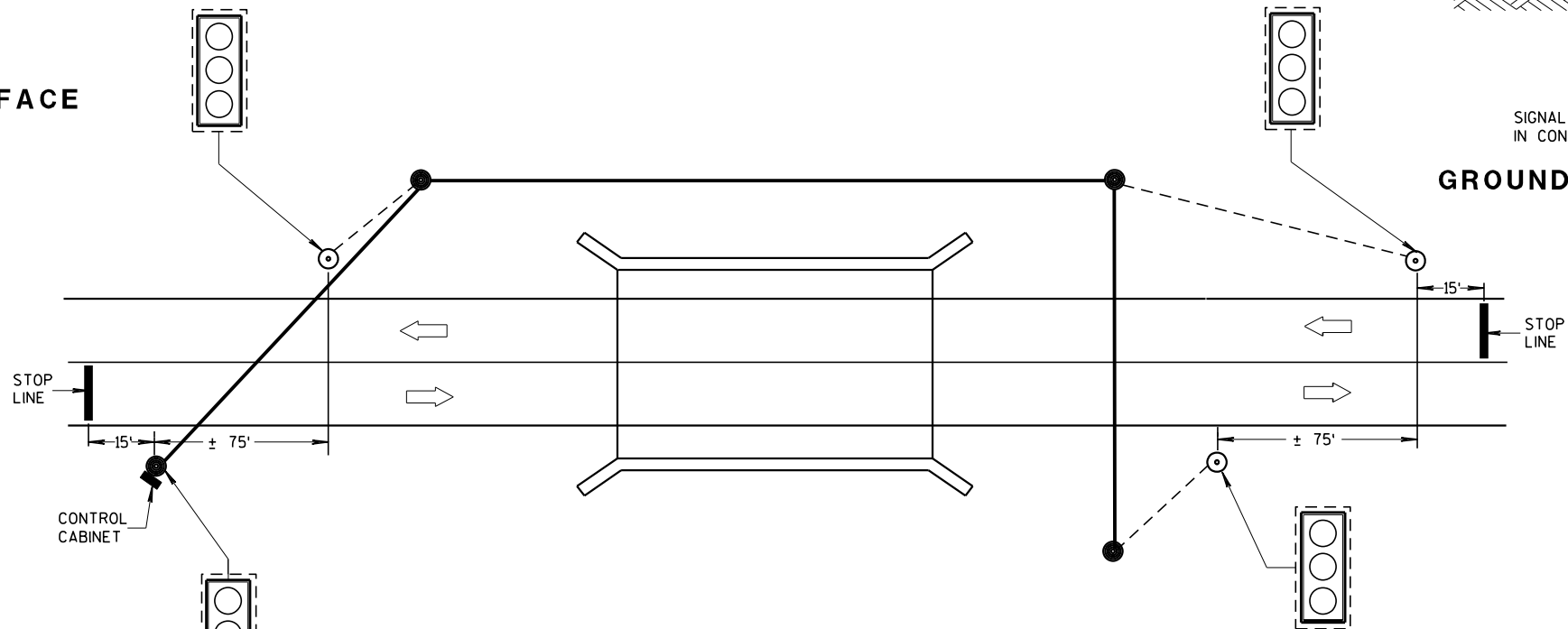
MINIMUM POLE LENGTHS	CLASS	MINIMUM BURIAL DEPTHS
25 FEET	V	5 FEET
30 FEET	V	6 FEET
35 FEET	IV	7 FEET
40 FEET	IV	8 FEET
45 FEET	IV	9 FEET



POLE MOUNT CABINET INSTALLATION



GROUND MOUNT CABINET INSTALLATION



PLAN VIEW
TYPICAL BRIDGE TEMPORARY TRAFFIC SIGNAL LOCATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLE MOUNTED TRAFFIC SIGNAL CONTROL CABINET MAYBE MOUNTED ON THE SERVICE POLE IF THE ELECTRICAL UTILITY ALLOWS THE INSTALLATION.

WHEN UTILITY POLES ARE USED TO SPAN THE TEMPORARY OVERHEAD CABLE, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER OF THE POLES AND GIVEN TO THE PROJECT MANAGER. ALL PERTINENT UTILITY AND CODE CLEARANCES SHALL BE MAINTAINED.

WOOD POLES (NONBREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAM GUARD, ETC.).

WOOD POSTS (BREAKAWAY) SHALL BE NO CLOSER THAN 2 FEET OUTSIDE OF SHOULDER.

VERTICAL CLEARANCE ETC. PER NEC.

TRAFFIC SIGNAL FACES SHALL BE TYPICALLY PLACED 12 FEET FROM EDGE OF PAVEMENT.

EACH TRAFFIC SIGNAL FACE SHALL HAVE A BACKPLATE.

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15 D 33.

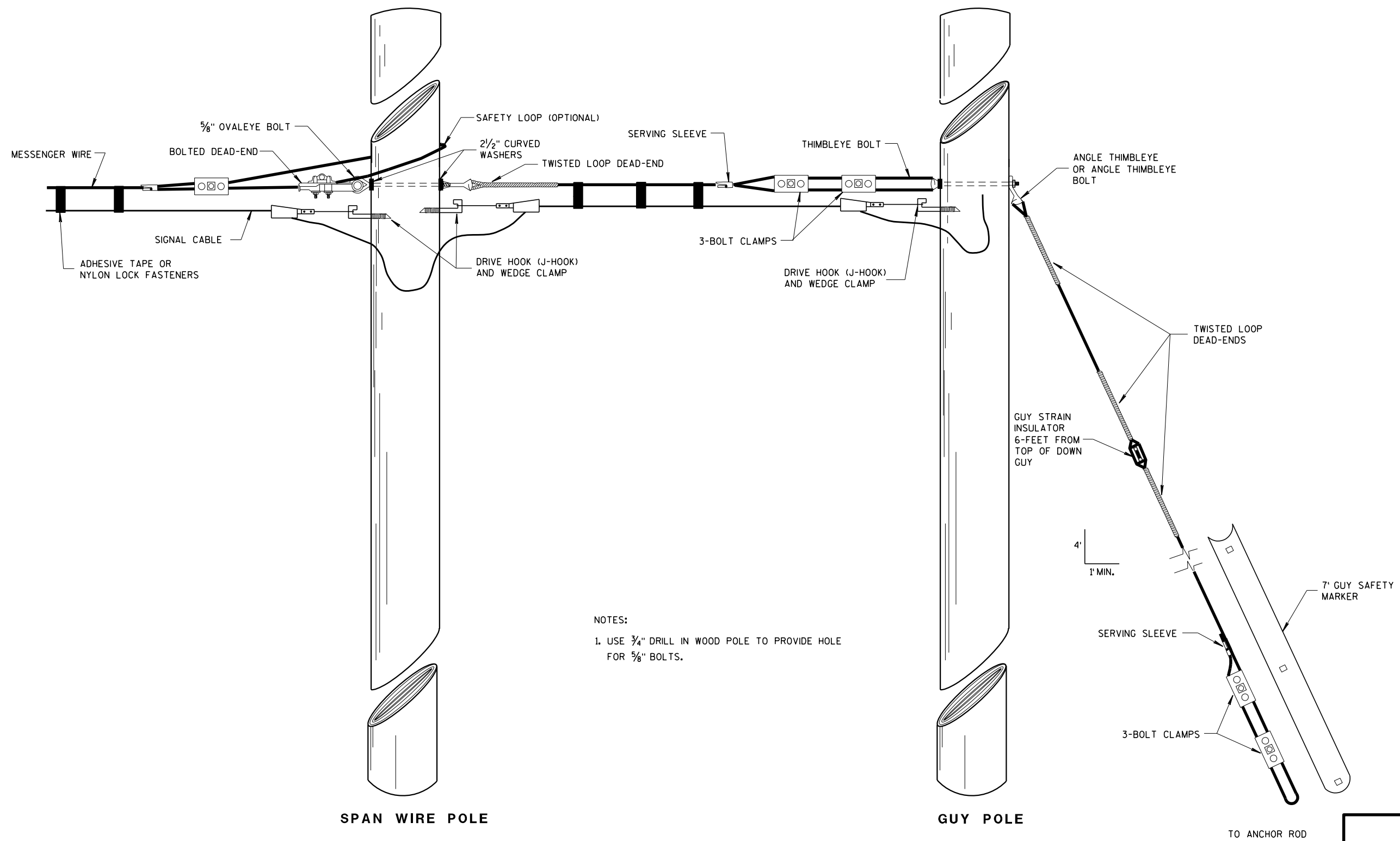
LEGEND

- WOOD POLE (NON-BREAKAWAY)
- WOOD POST (BREAKAWAY)
- SIGNAL CABLE
- SIGNAL CABLE W/MESSENGER
- LED TRAFFIC SIGNAL FACE WITH BACKPLATE
- 3'-12"
- DIRECTION OF TRAFFIC

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER
FHWA



NOTES:

1. USE 3/4" DRILL IN WOOD POLE TO PROVIDE HOLE FOR 5/8" BOLTS.

TYPICAL DEAD-ENDINGS OR GUYING

BRIDGE TEMPORARY
TRAFFIC SIGNAL INSTALLATIONSTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

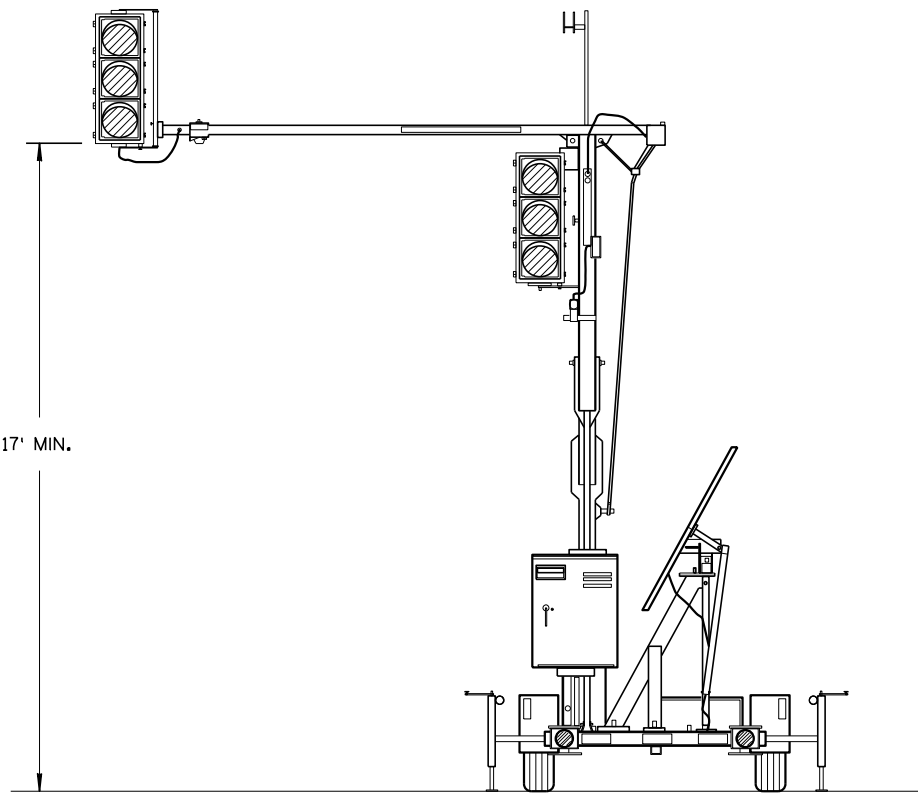
March 2018

DATE

/S/ Ahmet Demirelek

STATE ELECTRICAL ENGINEER

FHWA

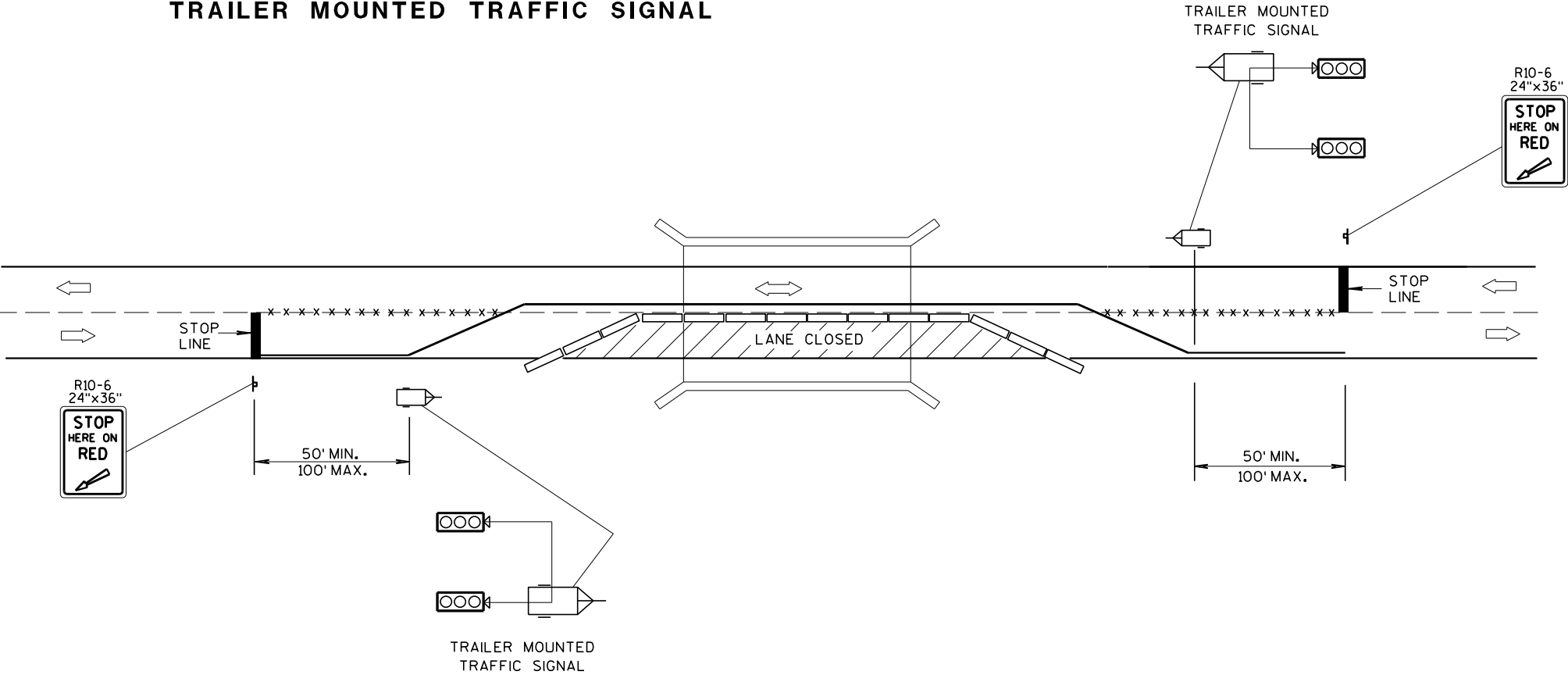


TRAILER MOUNTED TRAFFIC SIGNAL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15 D 33.



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

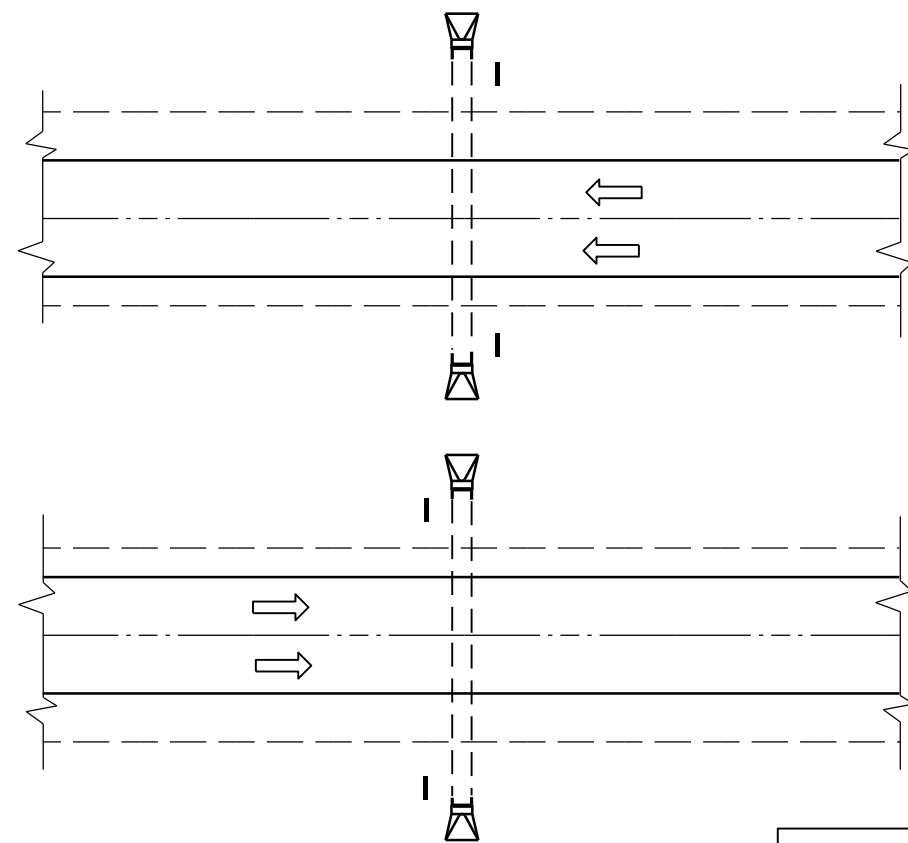
LEGEND

- POST MOUNTED SIGN
- REMOVING PAVEMENT MARKING
- TEMPORARY PRECAST CONCRETE BARRIER
- TRAILER MOUNTED TRAFFIC SIGNAL
- DIRECTION OF TRAFFIC FLOW

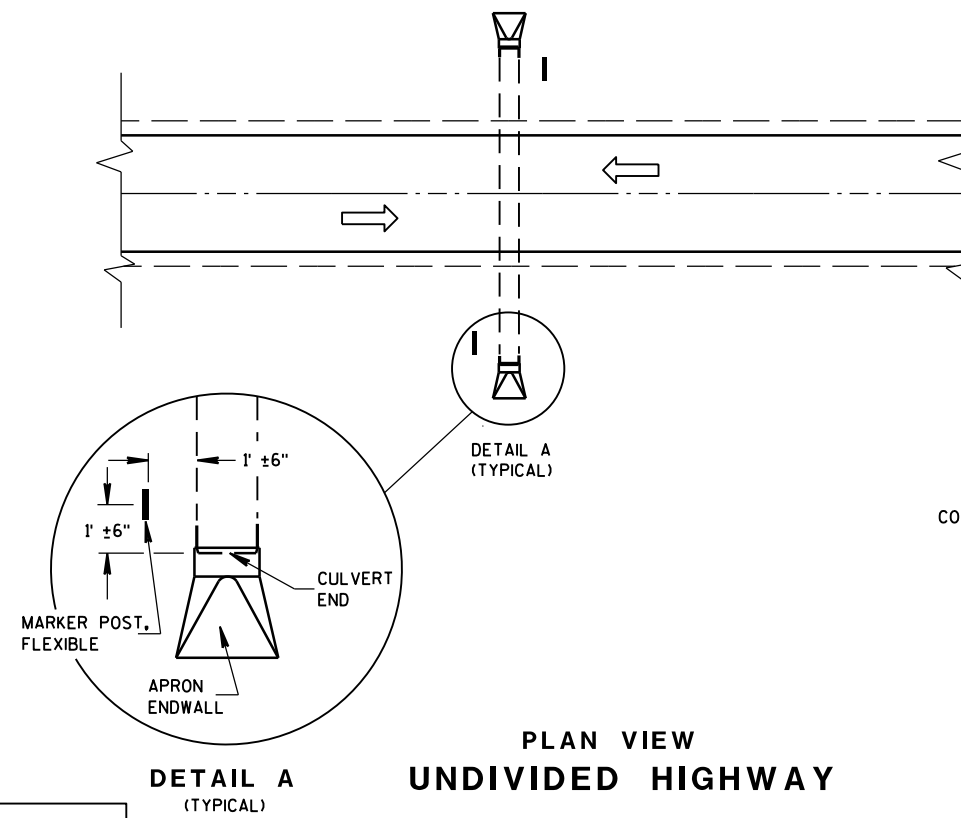
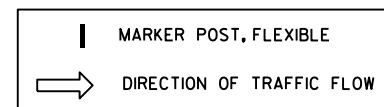
BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER
FHWA



PLAN VIEW
DIVIDED HIGHWAY

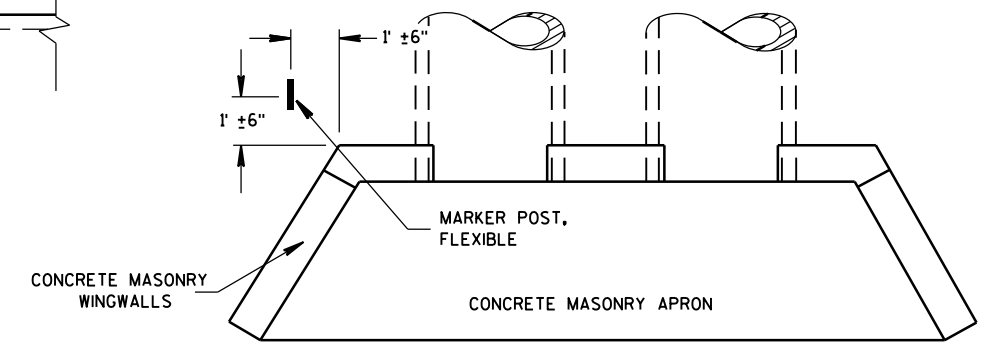


PLAN VIEW
UNDIVIDED HIGHWAY

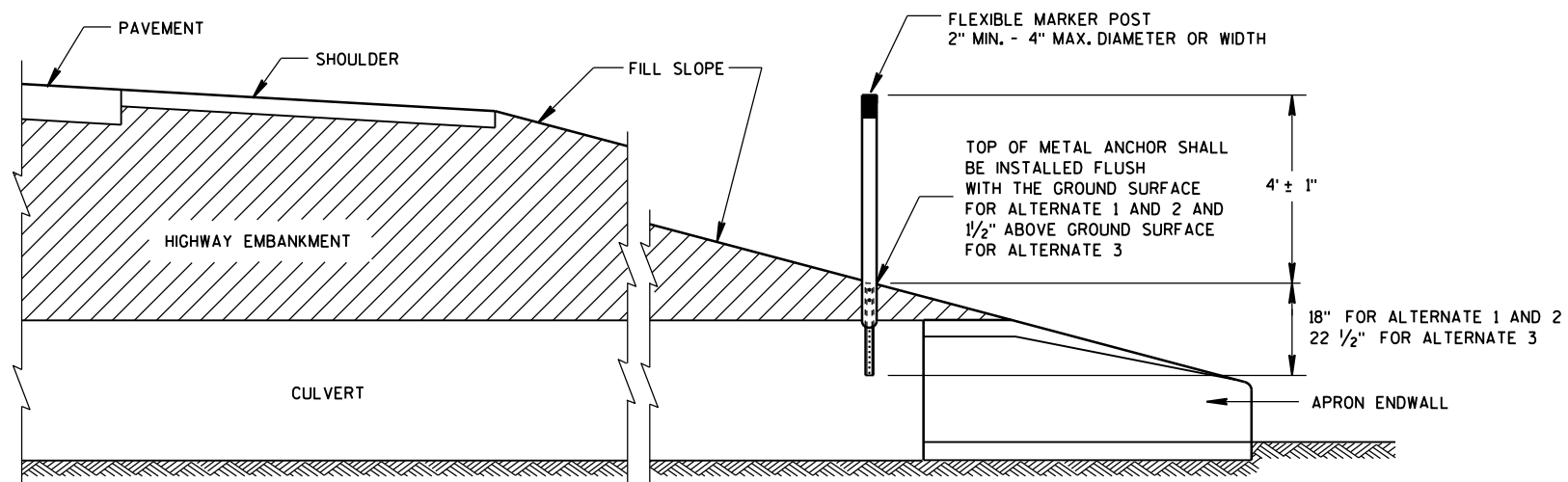
FLEXIBLE MARKER POST LOCATION

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.



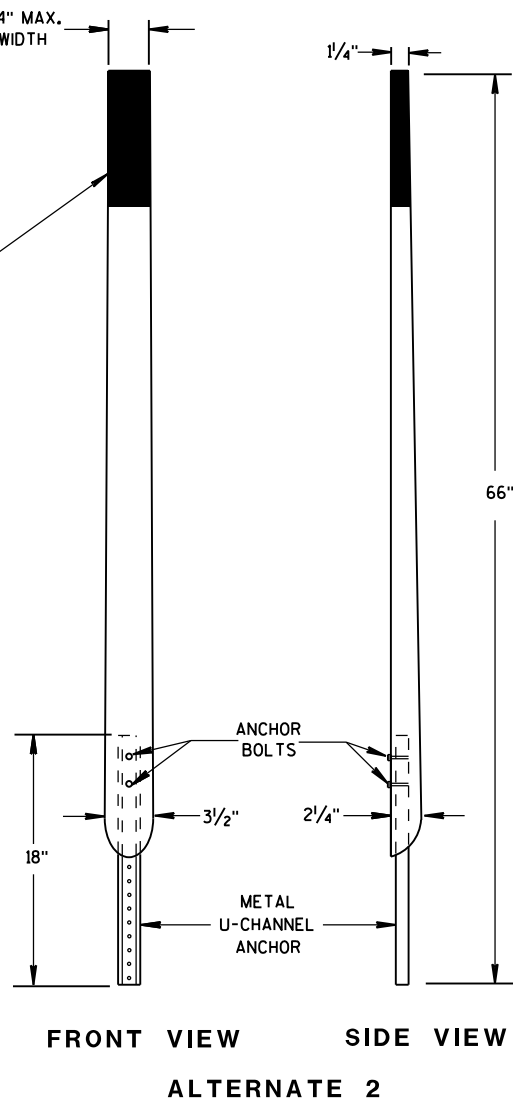
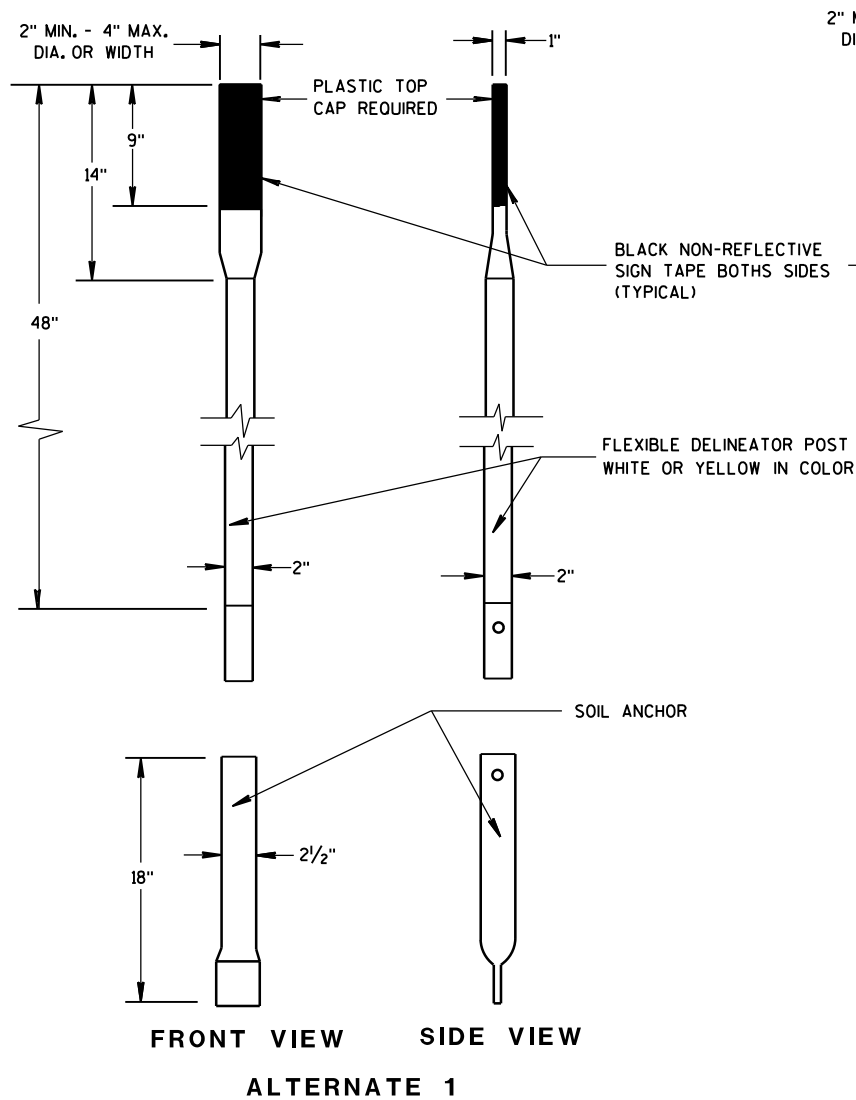
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



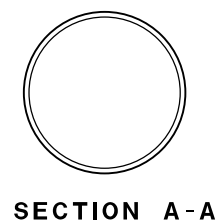
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

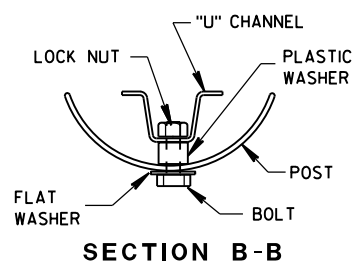
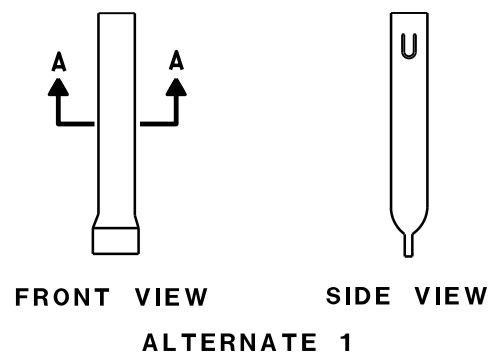
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



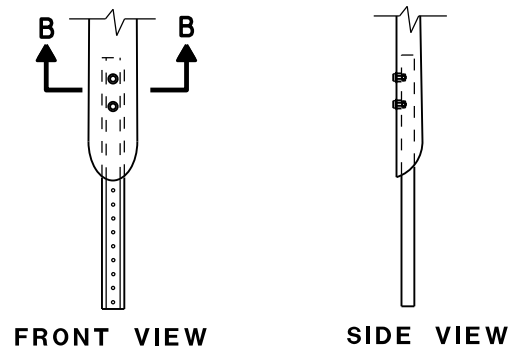
FLEXIBLE MARKER POSTS



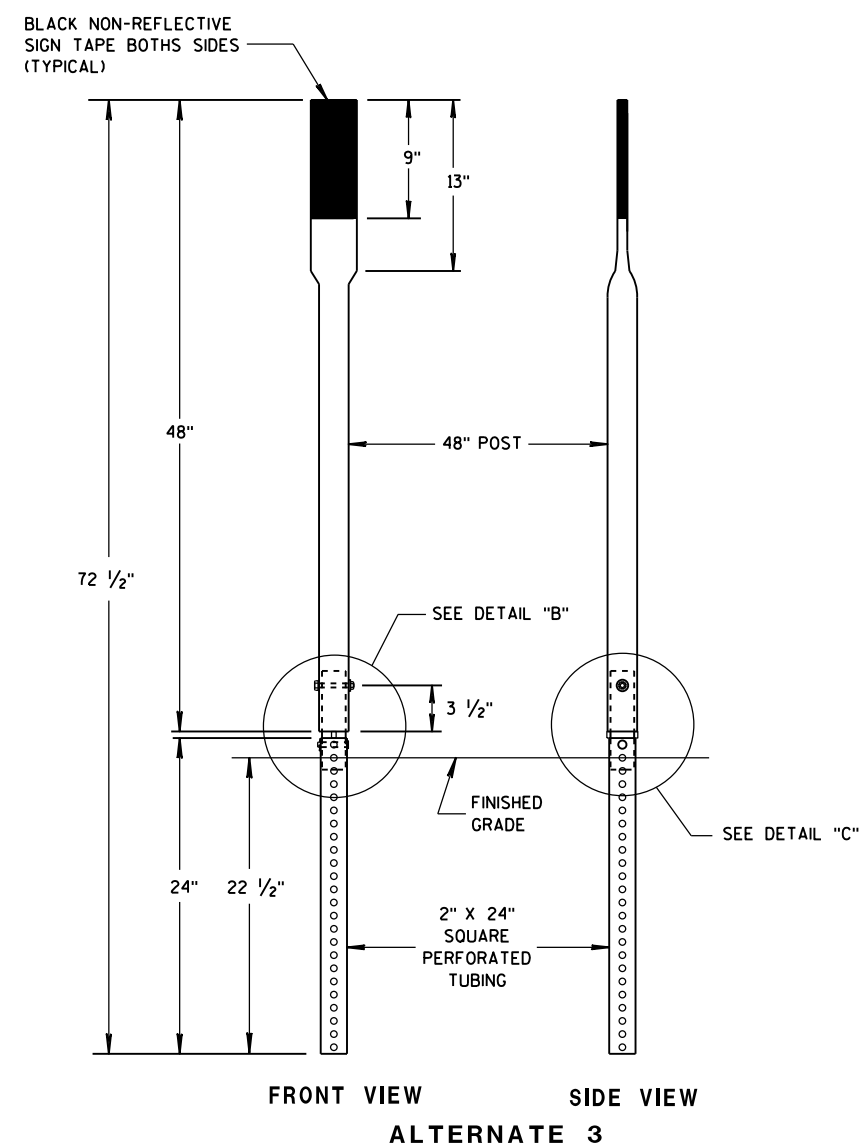
SECTION A-A



SECTION B-B

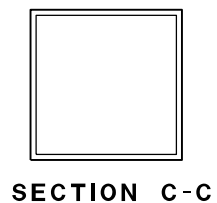


FLEXIBLE MARKER POST ANCHORS

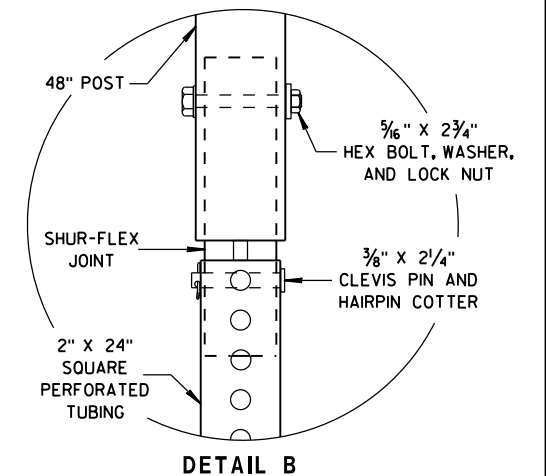
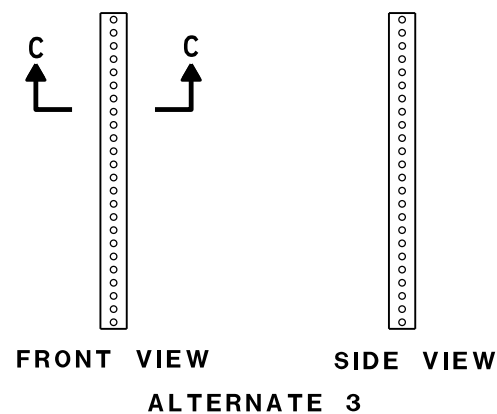


FRONT VIEW SIDE VIEW

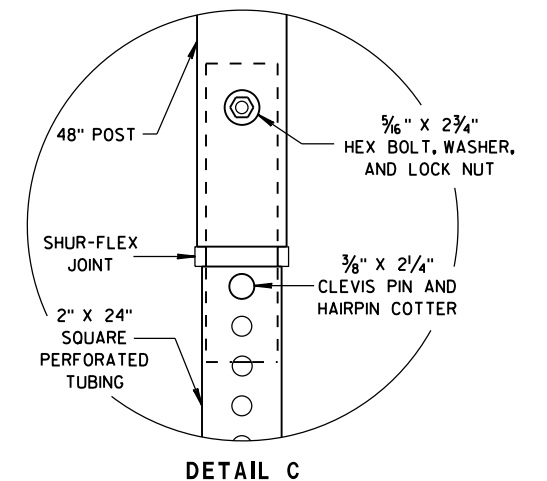
ALTERNATE 3



SECTION C-C



DETAIL B

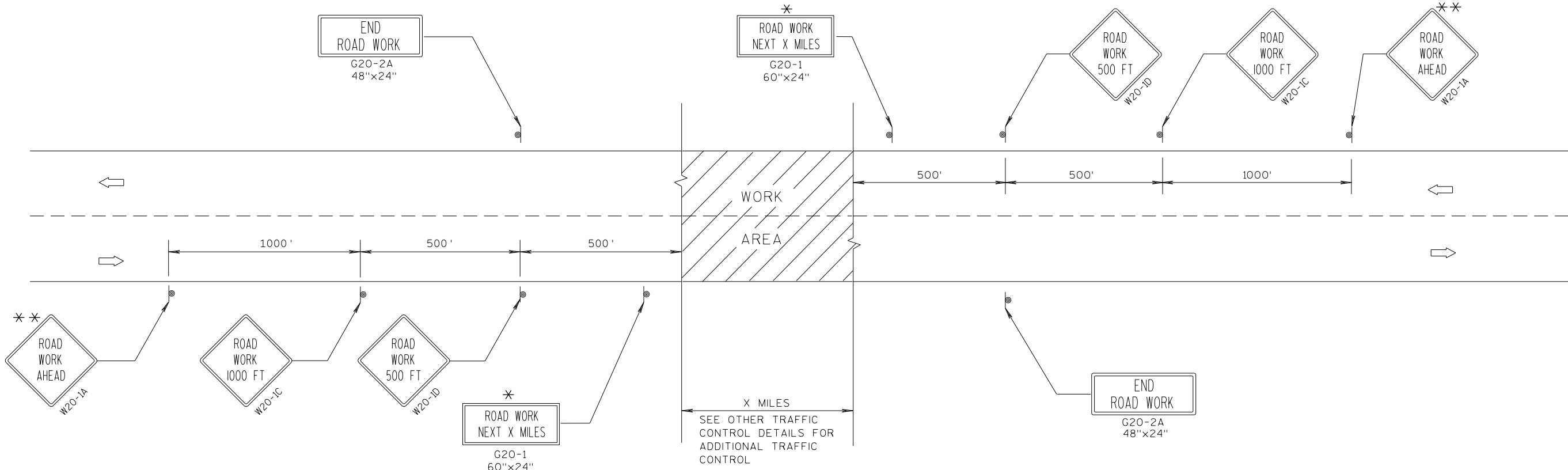


DETAIL C

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

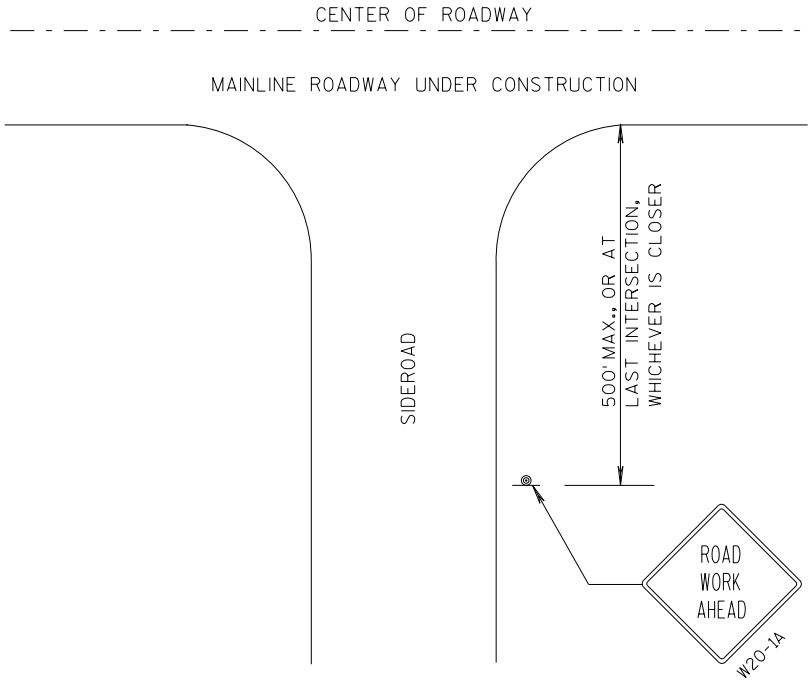
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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 W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



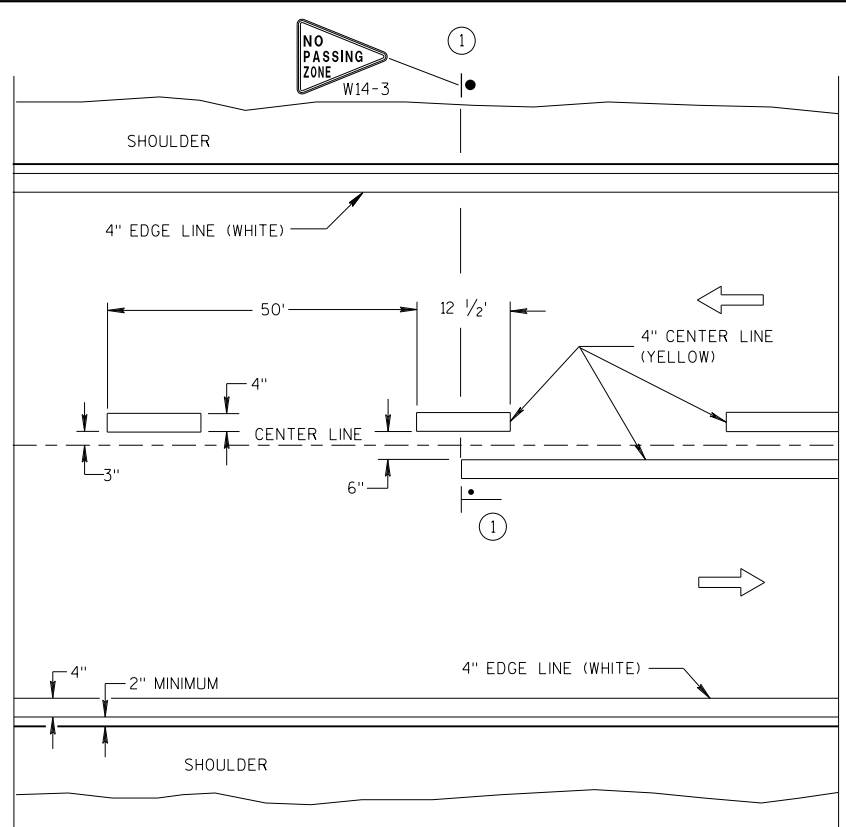
LEGEND

- ⊙ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA

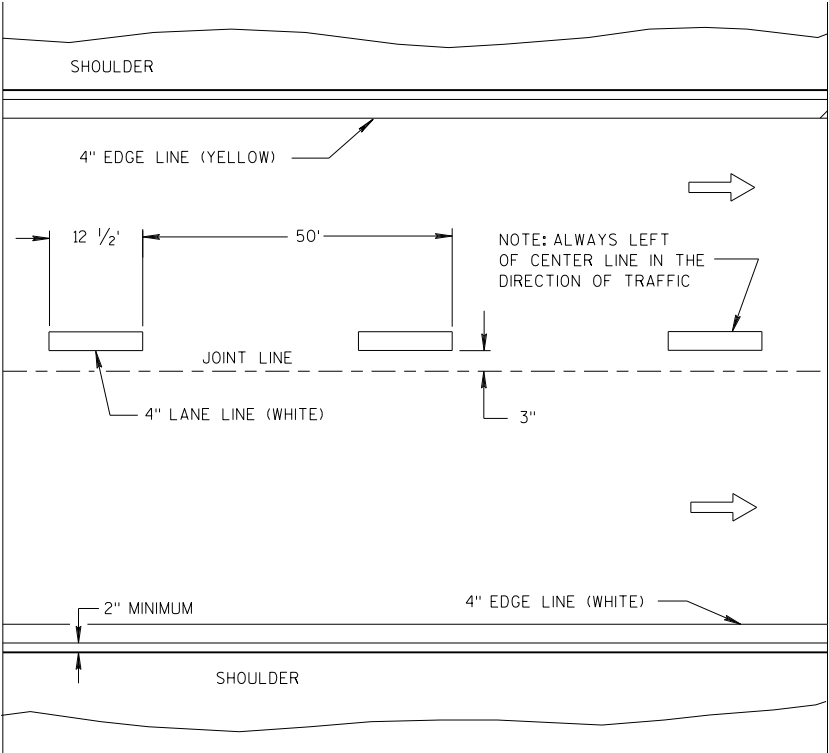
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 45 M.P.H.
OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA

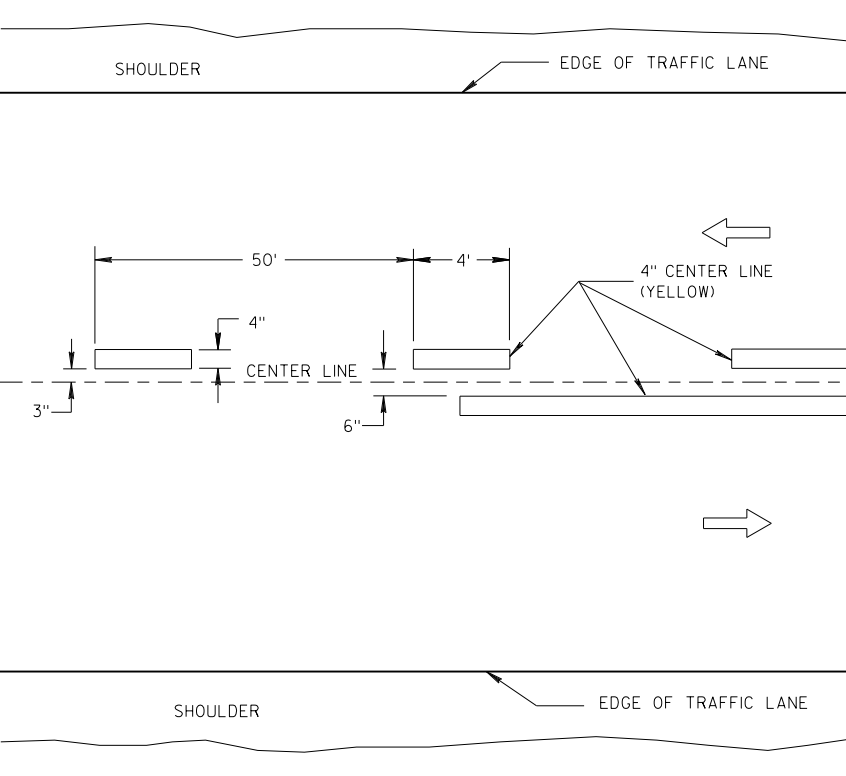


TWO WAY TRAFFIC

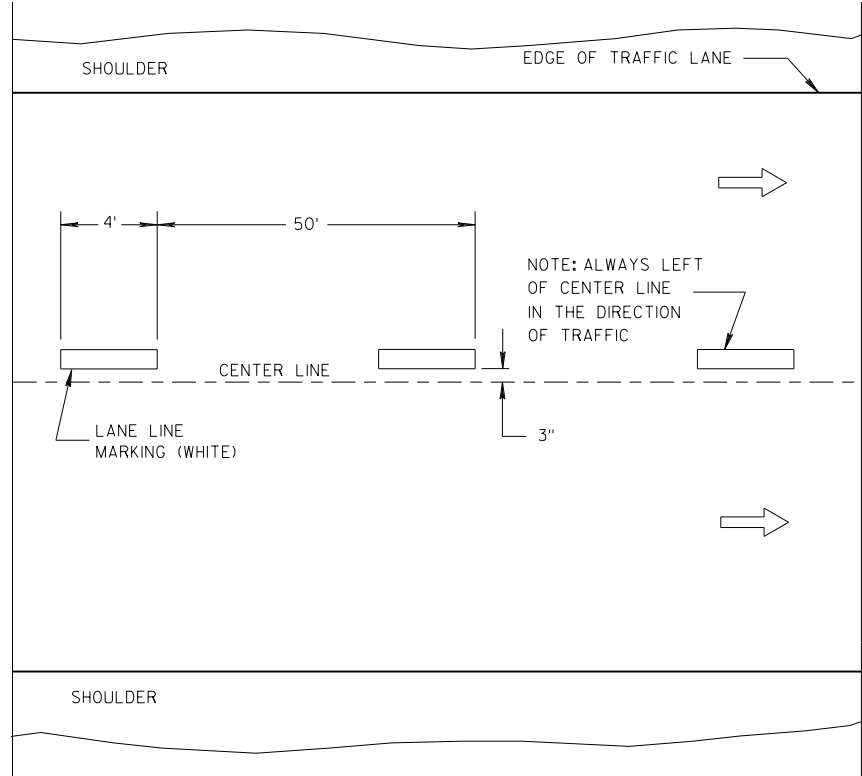


ONE WAY TRAFFIC

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 LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (➡) SHOWS DIRECTION OF TRAVEL

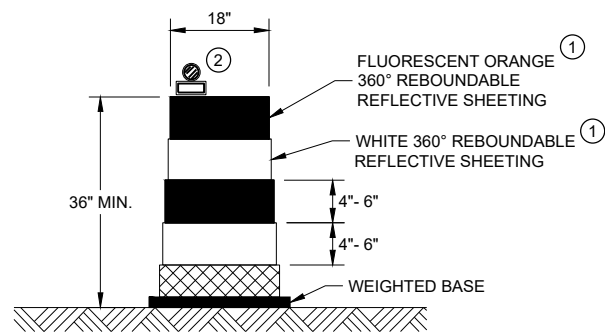
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

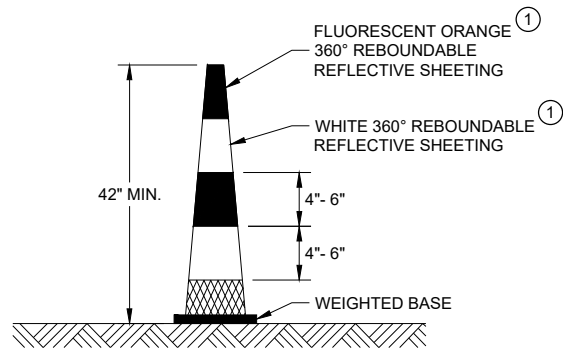
LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA

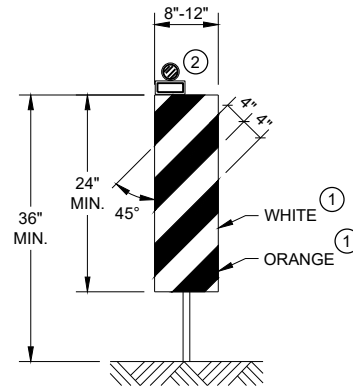


DRUM



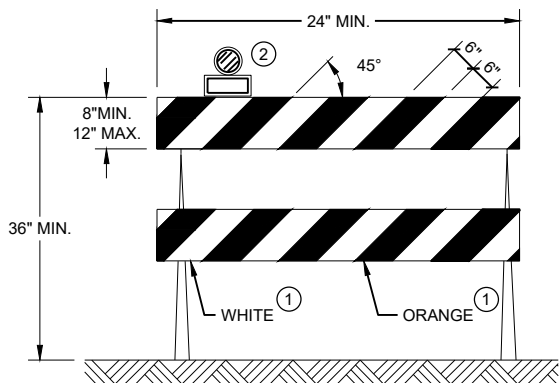
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



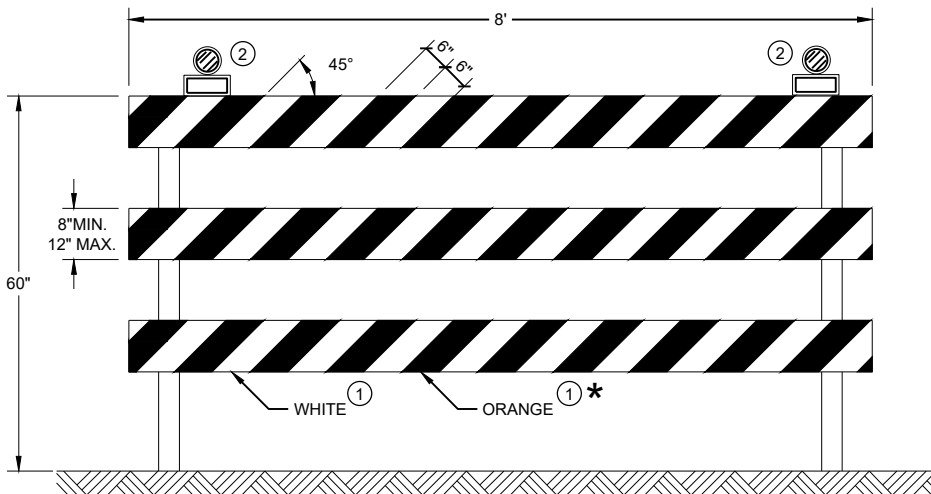
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

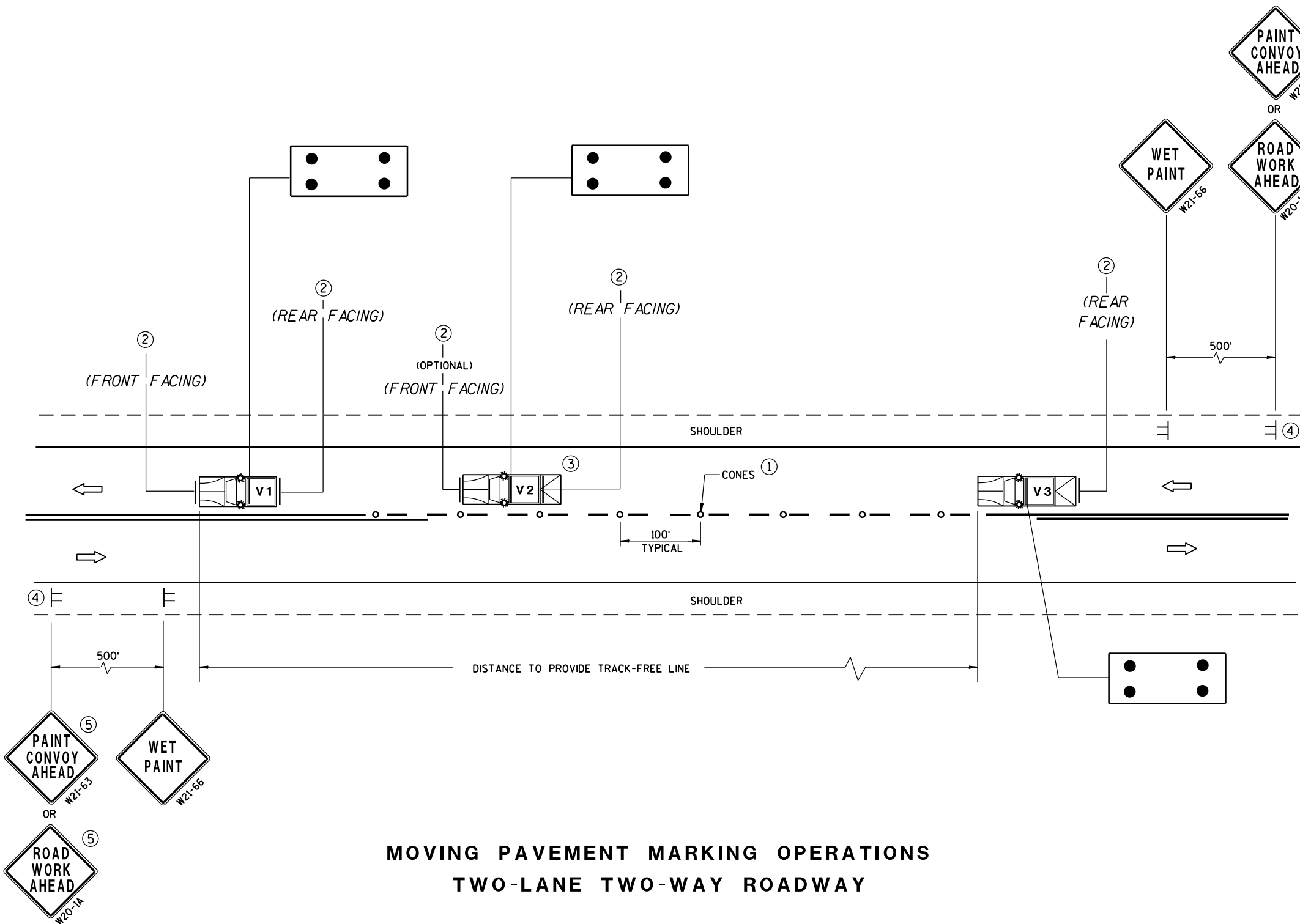
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

- ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.
- VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.
- IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.
- ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.
- DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.
- THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.
- WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.
- ① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.
- ② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.
- ③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.
- ④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

- V1 LEAD VEHICLE
- V2 SHADOW VEHICLE
- V3 TRAIL VEHICLE WITH TMA
- TMA TRUCK-MOUNTED ATTENUATOR
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONES
- FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE Sept., 2017 /S/ Andrew Heidtke
WORK ZONE ENGINEER
FHWA

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  DIRECTION OF TRAFFIC
-  WORK ZONE

TABLE A

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

W = SHOULDER WIDTH (FEET
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER
L = WS² / 60 AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = 1/3L

GENERAL NOTES

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 THE REGIONAL TRAFFIC UNIT.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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

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

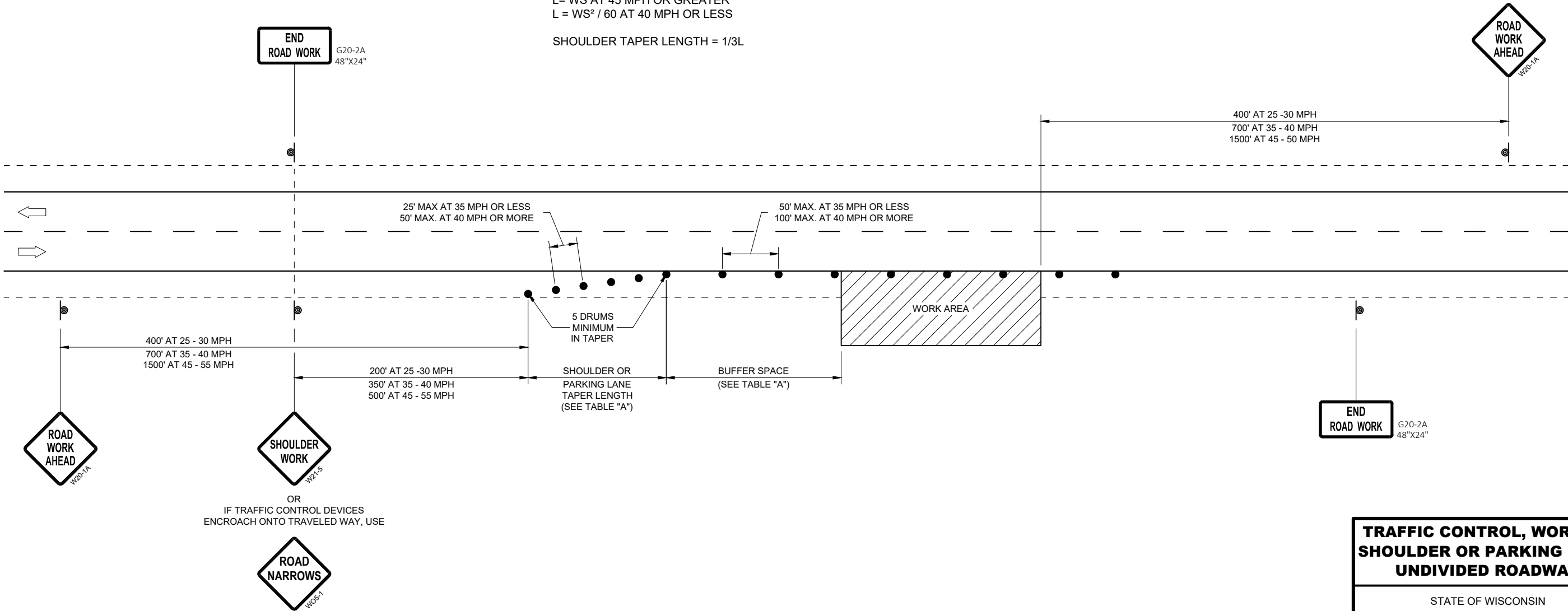
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY RESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

6

SDD 15D28 - 03



TRAFFIC CONTROL, WORK ON
SHOULDER OR PARKING LANE,
UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019
DATE

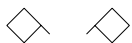
/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER

FHWA

6

SDD 15D28 - 03

LEGEND

- 
- TYPE III BARRICADE WITH ATTACHED SIGN
- 
- SIGN ON PERMANENT SUPPORT
- 
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- 
- TRAFFIC CONTROL DRUM
- 
- FLAGS, 16" X 16" MIN. (ORANGE)
- 
- REMOVING PAVEMENT MARKING
- 
- DIRECTION OF TRAFFIC
- 
- ASPHALTIC PAVEMENT WIDENING
- 
- CONCRETE BARRIER TEMPORARY PRECAST
- 
- TEMPORARY SIGNAL. SEE SDD 09G02 FOR EXACT PLACEMENT

WIDTH ON SIGN TO BE APPROX. 1-FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET)

- ①

500 FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35 - 40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25 - 30 MPH, USE 200 FOOT TYPICAL SPACING.
- ②

USE 300 FOOT SPACING IF THE PRE - CONSTRUCTION REGULATORY SPEED IS 35 MPH OR LESS.
- ③

DIMENSION DETERMINED BY CBTP TAPER FROM EDGE LINE TO TANGENT SECTION OF THE ROAD.
- ④

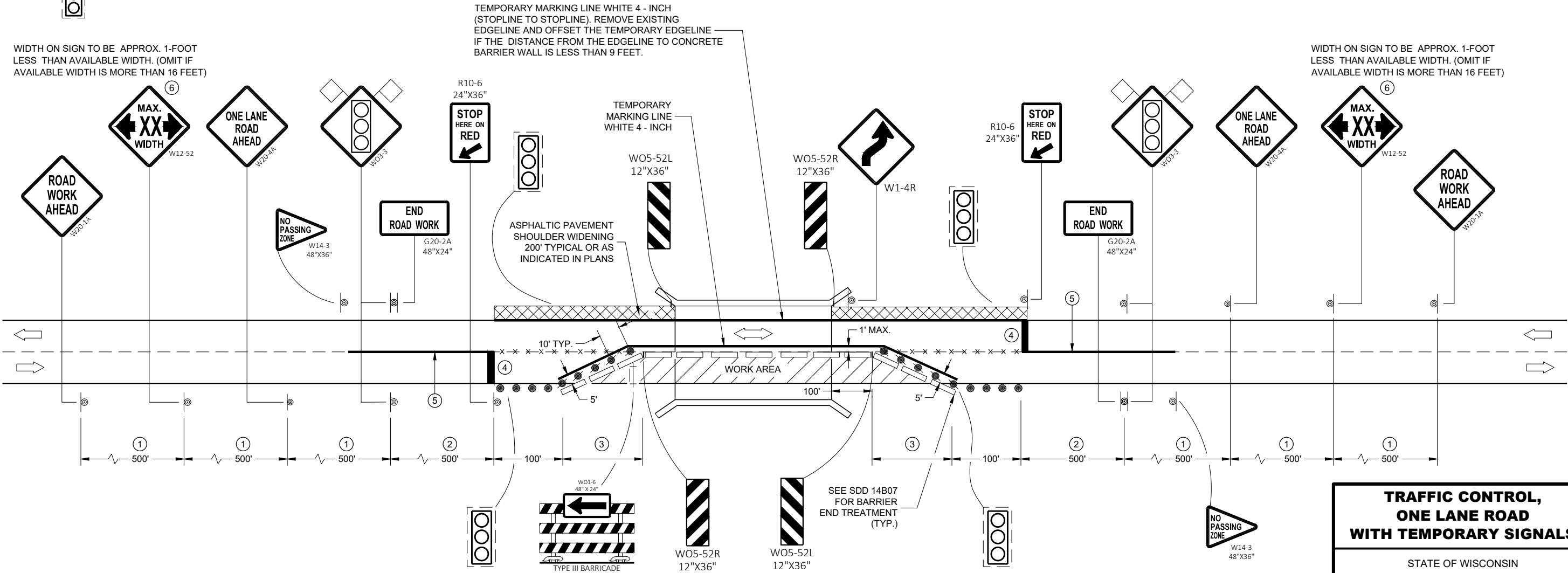
TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18 - INCH.
- ⑤

700 FOOT TEMPORARY MARKING DOUBLE YELLOW LINE 4 - INCH. WHEN THE DISTANCE FOR THE PRECEDING NO - PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
- ⑥

SEE SDD 15C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.

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.
- THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE..
- THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.
- PLACE TEMPORARY PAVEMENT MARKING EDGELINE AND CENTERLINE AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.

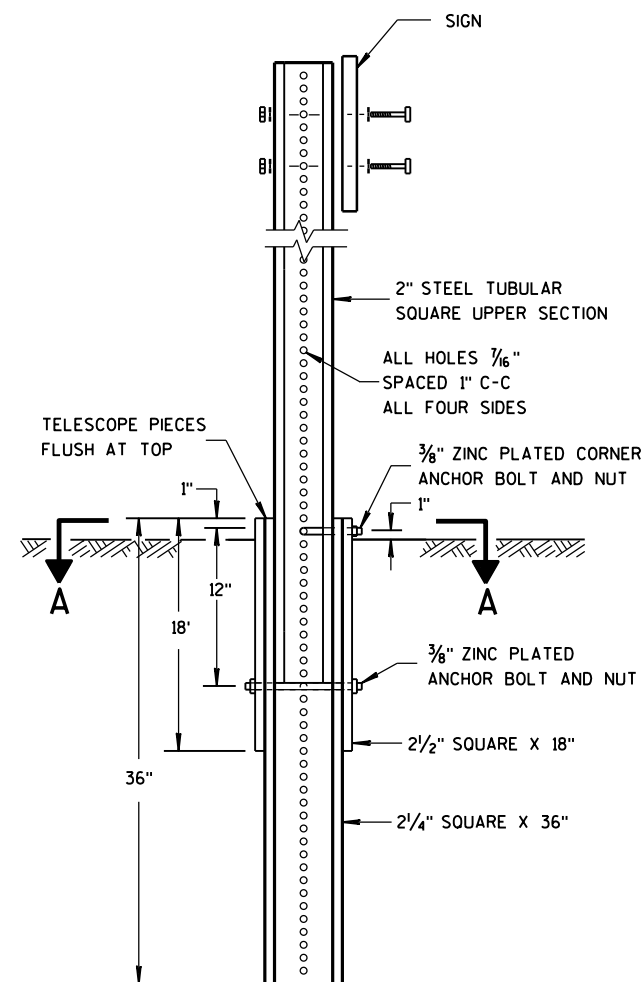


TRAFFIC CONTROL,
ONE LANE ROAD
WITH TEMPORARY SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



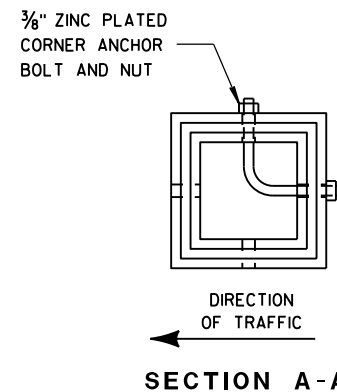
DETAIL OF TUBULAR
STEEL SIGN POST

TUBULAR STEEL POSTS

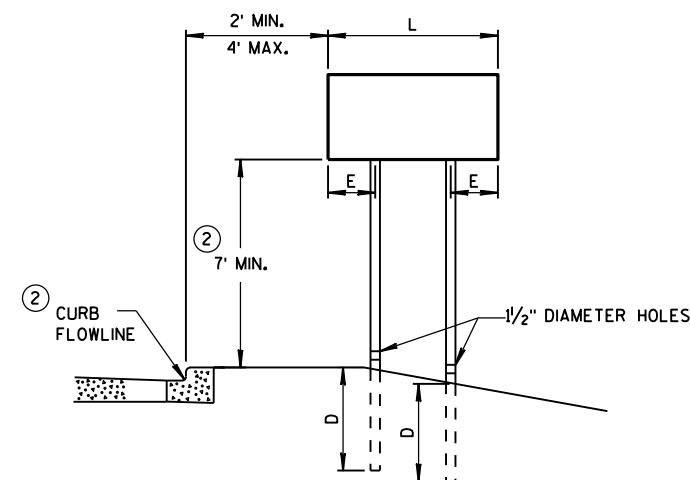
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

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.



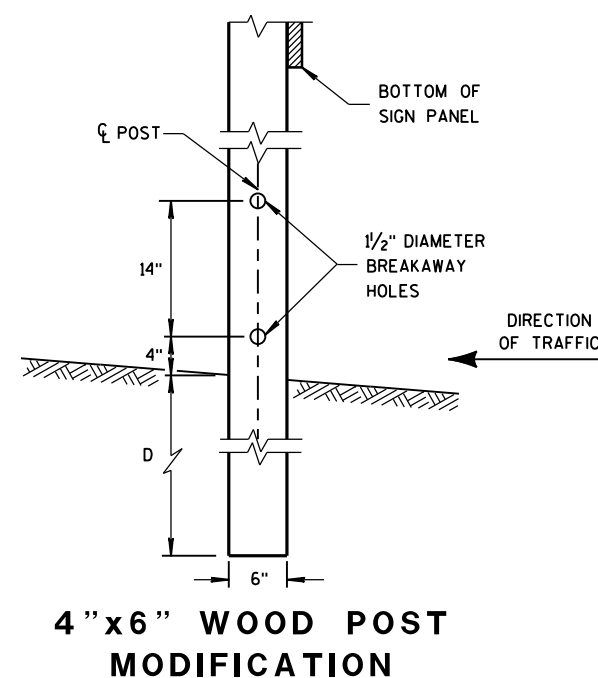
SECTION A-A



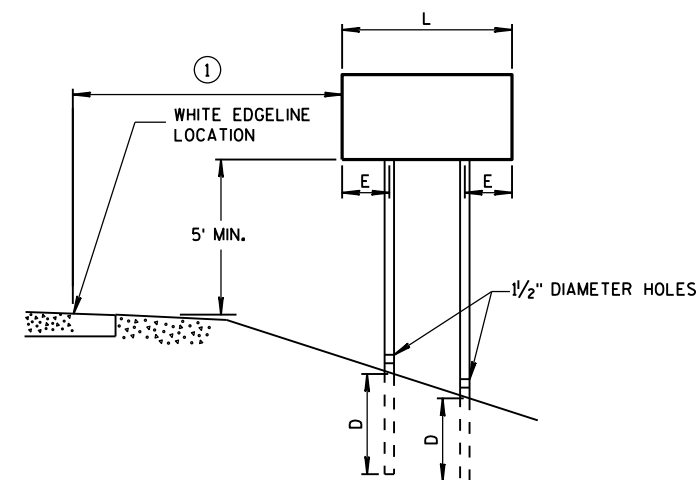
URBAN AREA

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 "x6 " WOOD POST
MODIFICATION



RURAL AREA

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

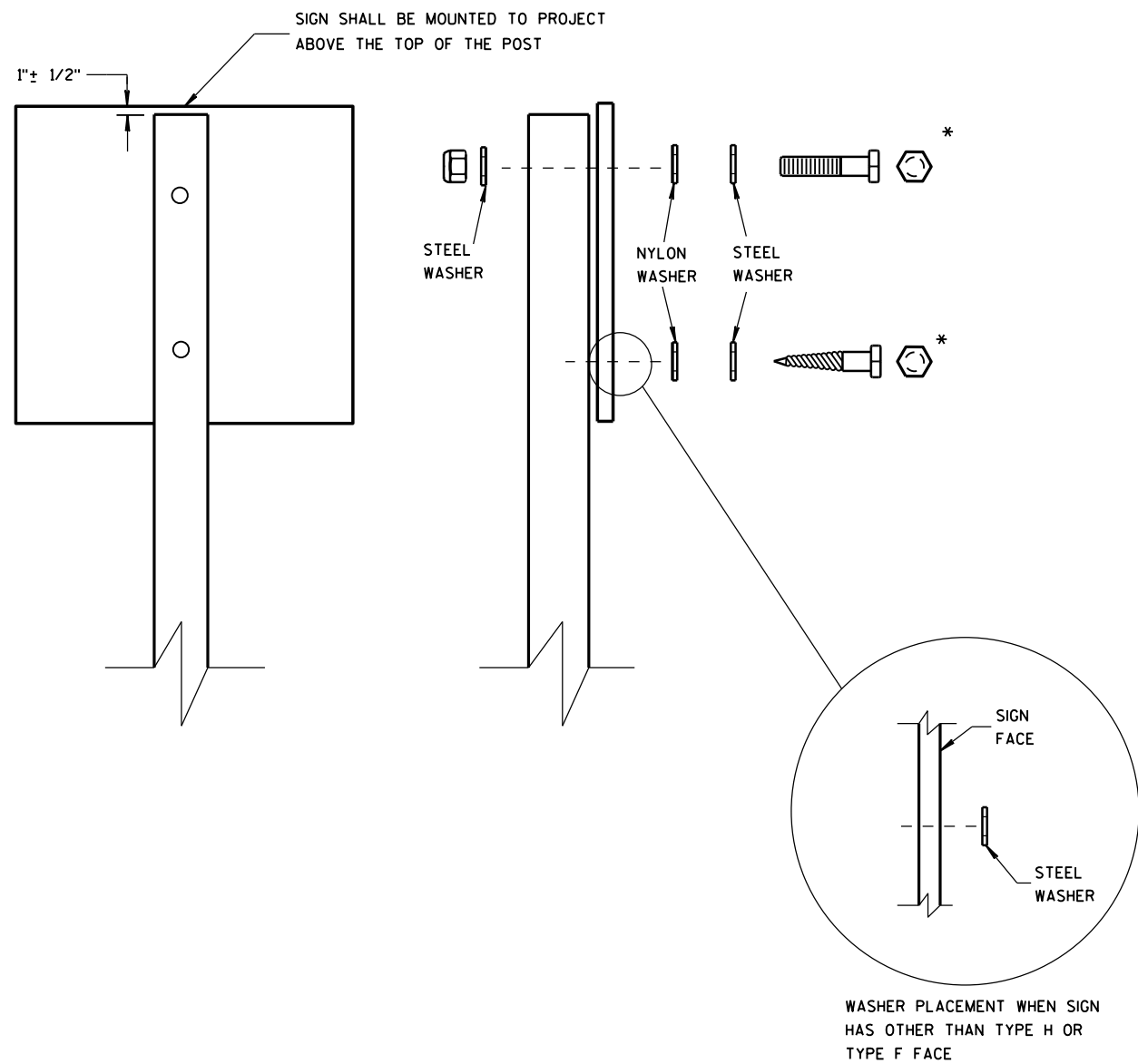
SEE NOTE ③

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
SIGN MOUNTING

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 June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

CULVERT C-09-2548 STH 27												
STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		MASS ORDINATE NOTE 5
		CUT	UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT NOTE 1	UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.20 NOTE 4	
136+00	---	59	10	26	0	---	---	---	---	---	---	---
136+25	25	60	10	24	0	55	9	23	0	55	28	18
136+50	25	61	10	4	0	56	9	13	0	111	43	50
136+75	25	68	10	0	0	60	9	2	0	171	45	98
137+02	27	59	10	95	0	62	10	47	0	233	101	95
137+25	23	58	10	52	0	51	9	64	0	284	178	60
137+50	25	59	10	9	0	54	9	28	0	338	212	71
137+75	25	59	10	9	0	55	9	8	0	393	221	107
138+00	25	60	10	19	0	55	9	13	0	448	237	137
COLUMN TOTALS						448	74	197	0			

NOTES:
1) CUT INCLUDES UNUSABLE PAVEMENT MATERIAL
2) UNUSABLE PAVEMENT MATERIAL DOES NOT APPEAR IN THE CROSS SECTIONS
3) FILL DOES NOT INCLUDE UNUSABLE PAVEMENT MATERIAL EXCAVATION VOLUME
4) EXPANDED FILL = UNEXPANDED FILL * EXPANDED FILL FACTOR. EXPANDED FILL FACTOR = 1.20
5) MASS ORDINATE = (CUT - UNUSABLE PAVEMENT MATERIAL) - (FILL * FILL FACTOR)

CULVERT C-09-2556 STH 27												
STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		MASS ORDINATE NOTE 5
		CUT	UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT NOTE 1	UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.20 NOTE 4	
215+75	---	62	10	6	0	---	---	---	---	---	---	---
216+00	25	62	10	4	0	58	9	5	0	58	6	43
216+25	25	60	10	18	0	56	9	10	0	114	18	77
216+48	23	59	10	53	0	50	9	30	0	164	55	83
216+61	13	60	10	51	0	29	5	25	0	193	85	76
216+75	14	61	10	7	0	31	5	15	0	224	103	84
217+00	25	63	10	2	0	58	9	4	0	282	107	128
217+25	25	69	10	0	0	61	9	1	0	343	108	179
COLUMN TOTALS						343	56	90	0			

NOTES:
1) CUT INCLUDES UNUSABLE PAVEMENT MATERIAL
2) UNUSABLE PAVEMENT MATERIAL DOES NOT APPEAR IN THE CROSS SECTIONS
3) FILL DOES NOT INCLUDE UNUSABLE PAVEMENT MATERIAL EXCAVATION VOLUME
4) EXPANDED FILL = UNEXPANDED FILL * EXPANDED FILL FACTOR. EXPANDED FILL FACTOR = 1.20
5) MASS ORDINATE = (CUT - UNUSABLE PAVEMENT MATERIAL) - (FILL * FILL FACTOR)

CULVERT C-09-3049 STH 40												
STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		MASS ORDINATE NOTE 5
		CUT	UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT NOTE 1	UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.20 NOTE 4	
976+25	---	62	18	2	0	---	---	---	---	---	---	---
976+50	25	61	18	8	0	57	17	4	0	57	5	35
976+75	25	60	18	10	0	56	17	8	0	113	15	64
976+93	18	66	18	13	0	43	12	8	0	156	24	85
977+05	12	74	18	12	0	30	8	5	0	186	31	102
977+25	20	63	18	1	0	50	13	5	0	236	37	133
977+50	25	61	18	8	0	58	17	4	0	294	42	169
977+75	25	63	18	0	0	57	17	4	0	351	46	205
978+00	25	65	18	0	0	59	17	0	0	410	46	247
				COLUMN TOTALS		410	117	39	0			

NOTES:
1) CUT INCLUDES UNUSABLE PAVEMENT MATERIAL
2) UNUSABLE PAVEMENT MATERIAL DOES NOT APPEAR IN THE CROSS SECTIONS
3) FILL DOES NOT INCLUDE UNUSABLE PAVEMENT MATERIAL EXCAVATION VOLUME
4) EXPANDED FILL = UNEXPANDED FILL * EXPANDED FILL FACTOR. EXPANDED FILL FACTOR = 1.20
5) MASS ORDINATE = (CUT - UNUSABLE PAVEMENT MATERIAL) - (FILL * FILL FACTOR)

CULVERT C-09-2932 STH 64												
STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		MASS ORDINATE NOTE 5
		CUT	UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT NOTE 1	UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.20 NOTE 4	
198+75	---	81	13	0	0	---	---	---	---	---	---	---
199+00	25	80	13	0	0	75	12	0	0	75	0	62
199+25	25	72	13	21	0	71	12	10	0	145	12	109
199+57	32	84	13	48	0	94	16	42	0	239	62	136
199+75	18	85	13	19	0	55	9	22	0	294	88	156
200+00	25	81	13	5	0	77	12	11	0	371	102	207
200+25	25	86	13	0	0	77	12	2	0	448	104	270
				COLUMN TOTALS		448	74	87	0			

NOTES:
1) CUT INCLUDES UNUSABLE PAVEMENT MATERIAL
2) UNUSABLE PAVEMENT MATERIAL DOES NOT APPEAR IN THE CROSS SECTIONS
3) FILL DOES NOT INCLUDE UNUSABLE PAVEMENT MATERIAL EXCAVATION VOLUME
4) EXPANDED FILL = UNEXPANDED FILL * EXPANDED FILL FACTOR. EXPANDED FILL FACTOR = 1.20
5) MASS ORDINATE = (CUT - UNUSABLE PAVEMENT MATERIAL) - (FILL * FILL FACTOR)

CULVERT C-09-2815 STH 64												
STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		MASS ORDINATE NOTE 5
		CUT	UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT NOTE 1	UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.20 NOTE 4	
277+25	---	53	9	61	0	---	---	---	---	---	---	---
277+50	25	53	9	53	0	49	8	53	0	49	63	-22
277+75	25	57	9	41	0	51	8	44	0	100	116	-32
278+00	25	62	9	24	0	55	8	30	0	155	152	-21
278+21	21	80	9	9	0	55	7	13	0	211	168	12
278+25	4	65	9	9	0	11	1	1	0	221	169	20
278+50	25	58	9	31	0	57	8	19	0	278	192	46
278+75	25	55	9	35	0	52	8	31	0	330	228	53
279+00	25	54	9	34	0	50	8	32	0	380	266	58
279+25	25	54	9	33	0	50	8	31	0	431	303	63
COLUMN TOTALS						431	65	253	0			

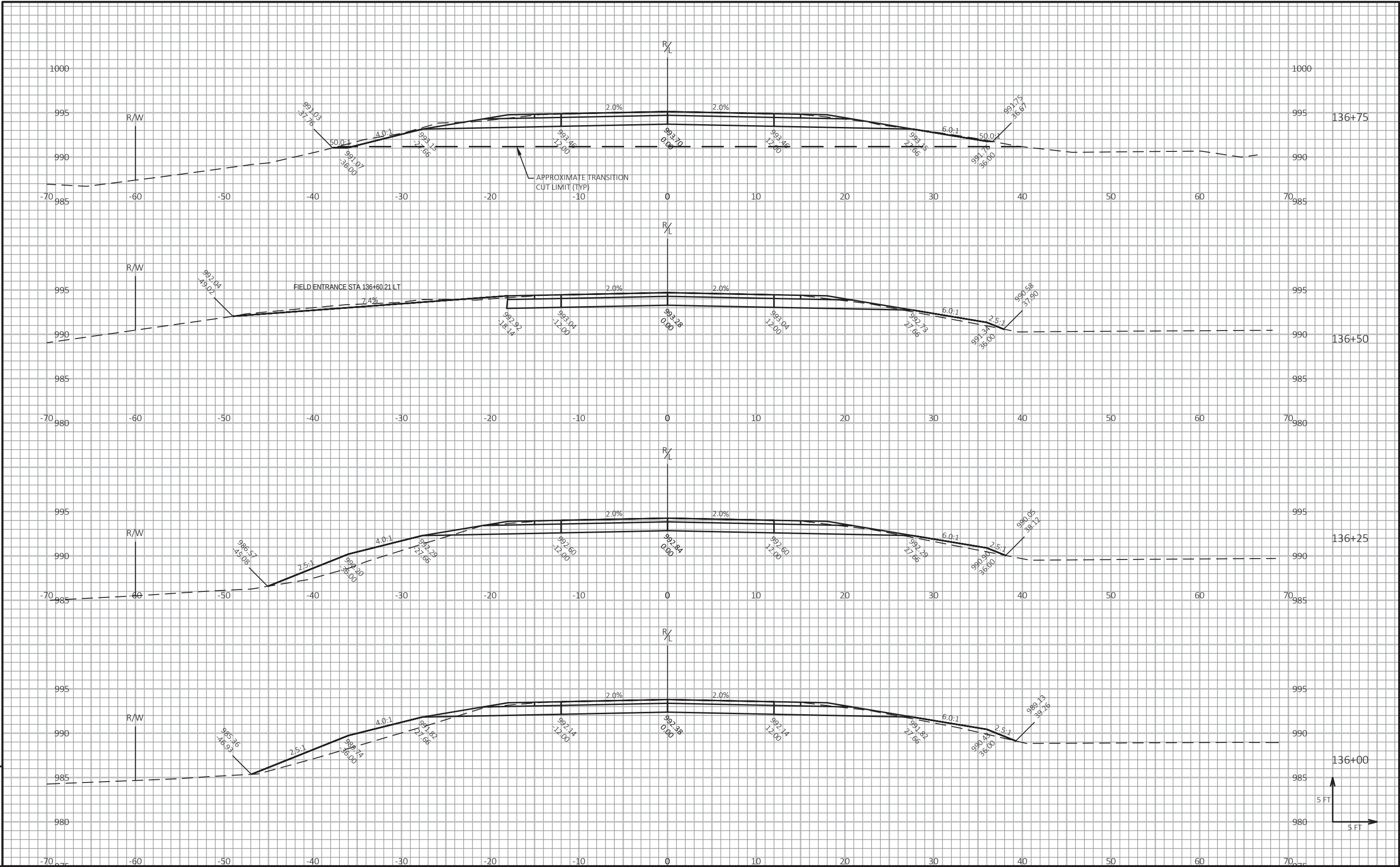
NOTES:
1) CUT INCLUDES UNUSABLE PAVEMENT MATERIAL
2) UNUSABLE PAVEMENT MATERIAL DOES NOT APPEAR IN THE CROSS SECTIONS
3) FILL DOES NOT INCLUDE UNUSABLE PAVEMENT MATERIAL EXCAVATION VOLUME
4) EXPANDED FILL = UNEXPANDED FILL * EXPANDED FILL FACTOR. EXPANDED FILL FACTOR = 1.20
5) MASS ORDINATE = (CUT - UNUSABLE PAVEMENT MATERIAL) - (FILL * FILL FACTOR)

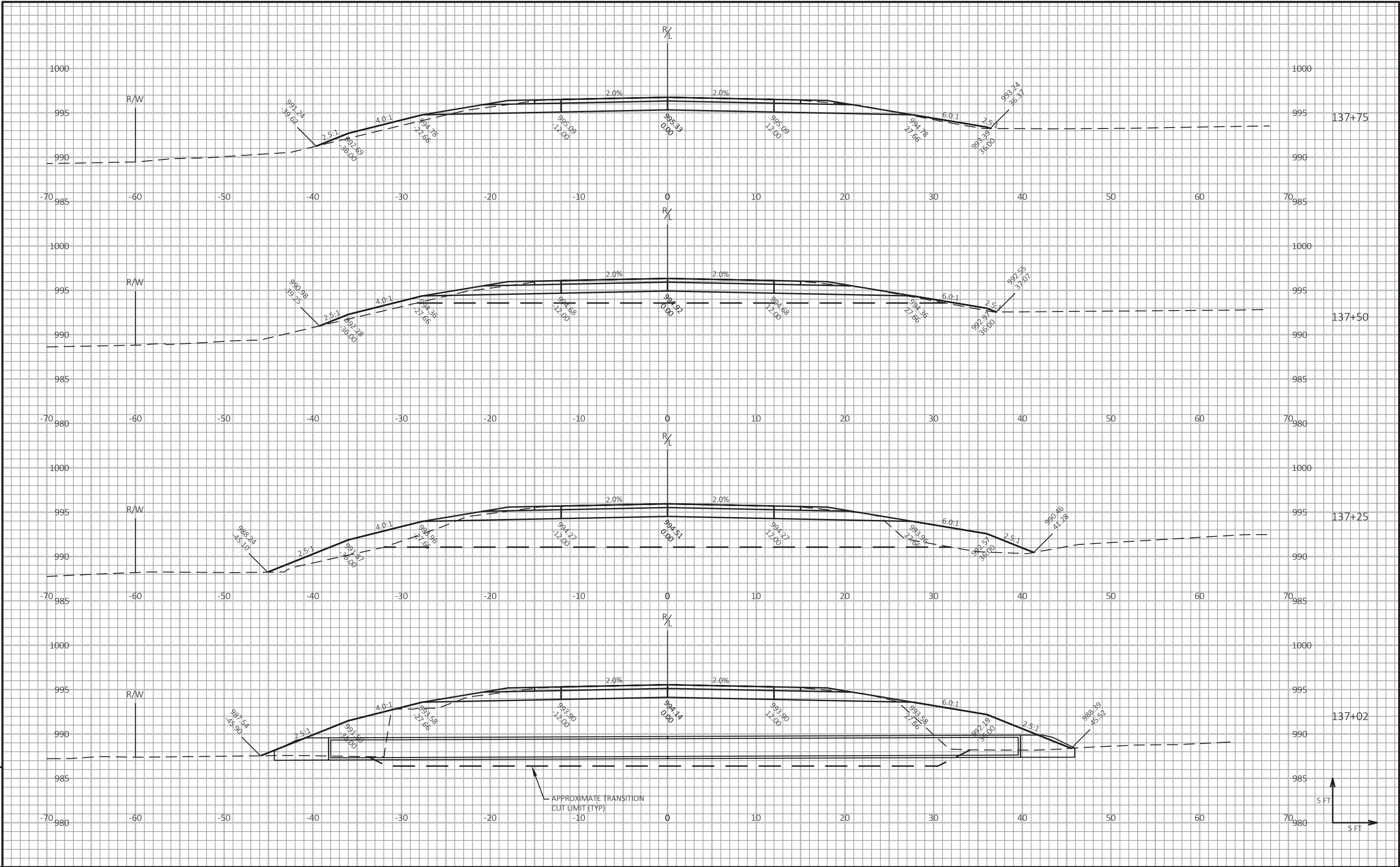
CULVERT C-09-2818 STH 64												
STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		MASS ORDINATE NOTE 5
		CUT	UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT NOTE 1	UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.20 NOTE 4	
250+00	---	55	9	34	0	---	---	---	---	---	---	---
250+25	25	55	9	42	0	51	8	35	0	51	42	1
250+50	25	55	9	35	0	51	8	36	0	102	85	1
250+75	25	57	9	53	0	52	8	41	0	154	134	-5
250+87	12	57	9	86	0	25	4	31	0	179	171	-20
251+00	13	57	9	42	0	28	4	31	0	207	209	-34
251+25	25	60	9	16	0	54	8	27	0	261	241	-21
251+50	25	60	9	4	0	55	8	9	0	316	252	15
251+75	25	59	9	6	0	55	8	5	0	371	258	56
252+00	25	71	9	1	0	60	8	3	0	431	262	105
COLUMN TOTALS						431	65	218	0			

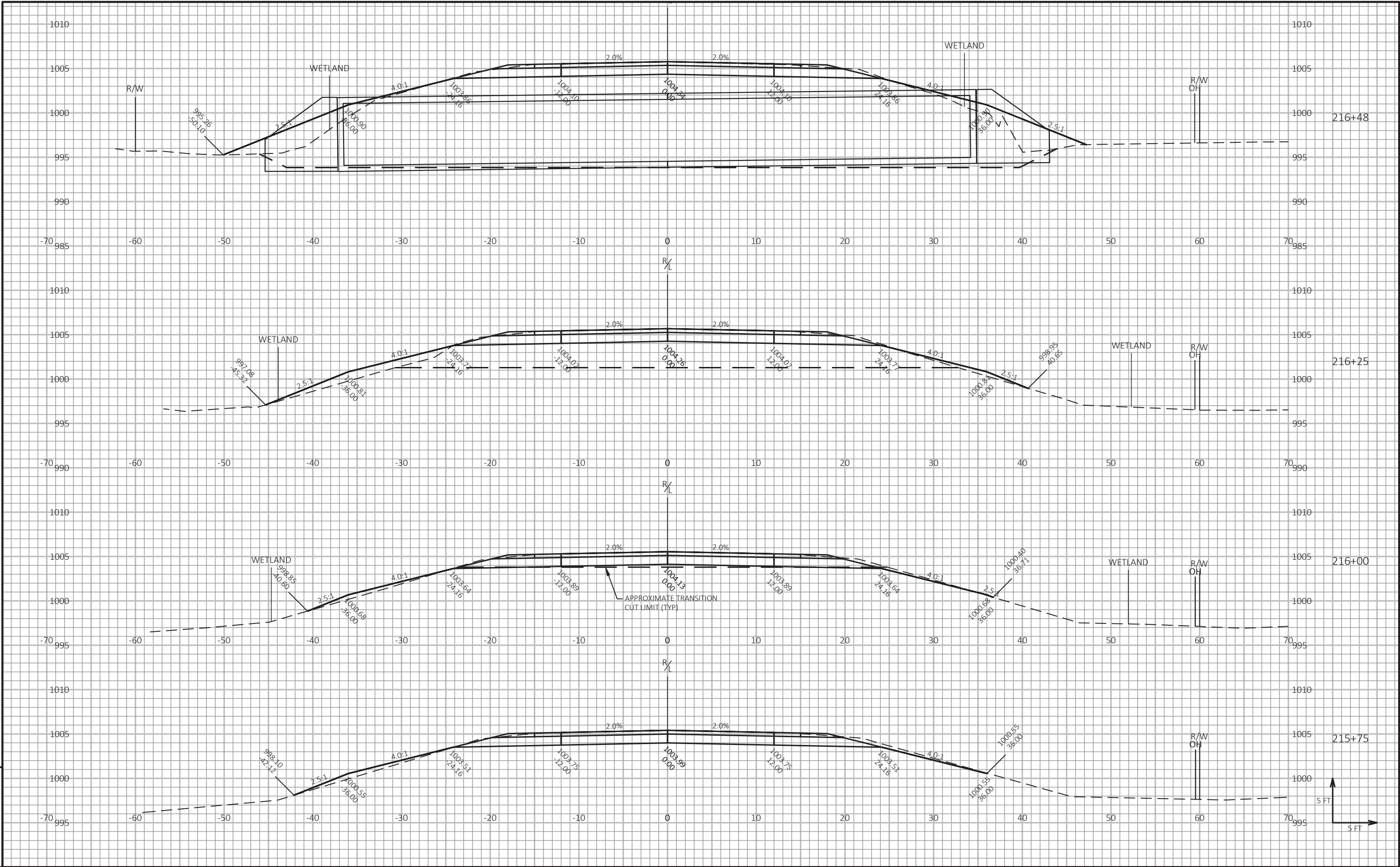
NOTES:
1) CUT INCLUDES UNUSABLE PAVEMENT MATERIAL
2) UNUSABLE PAVEMENT MATERIAL DOES NOT APPEAR IN THE CROSS SECTIONS
3) FILL DOES NOT INCLUDE UNUSABLE PAVEMENT MATERIAL EXCAVATION VOLUME
4) EXPANDED FILL = UNEXPANDED FILL * EXPANDED FILL FACTOR. EXPANDED FILL FACTOR = 1.20
5) MASS ORDINATE = (CUT - UNUSABLE PAVEMENT MATERIAL) - (FILL * FILL FACTOR)

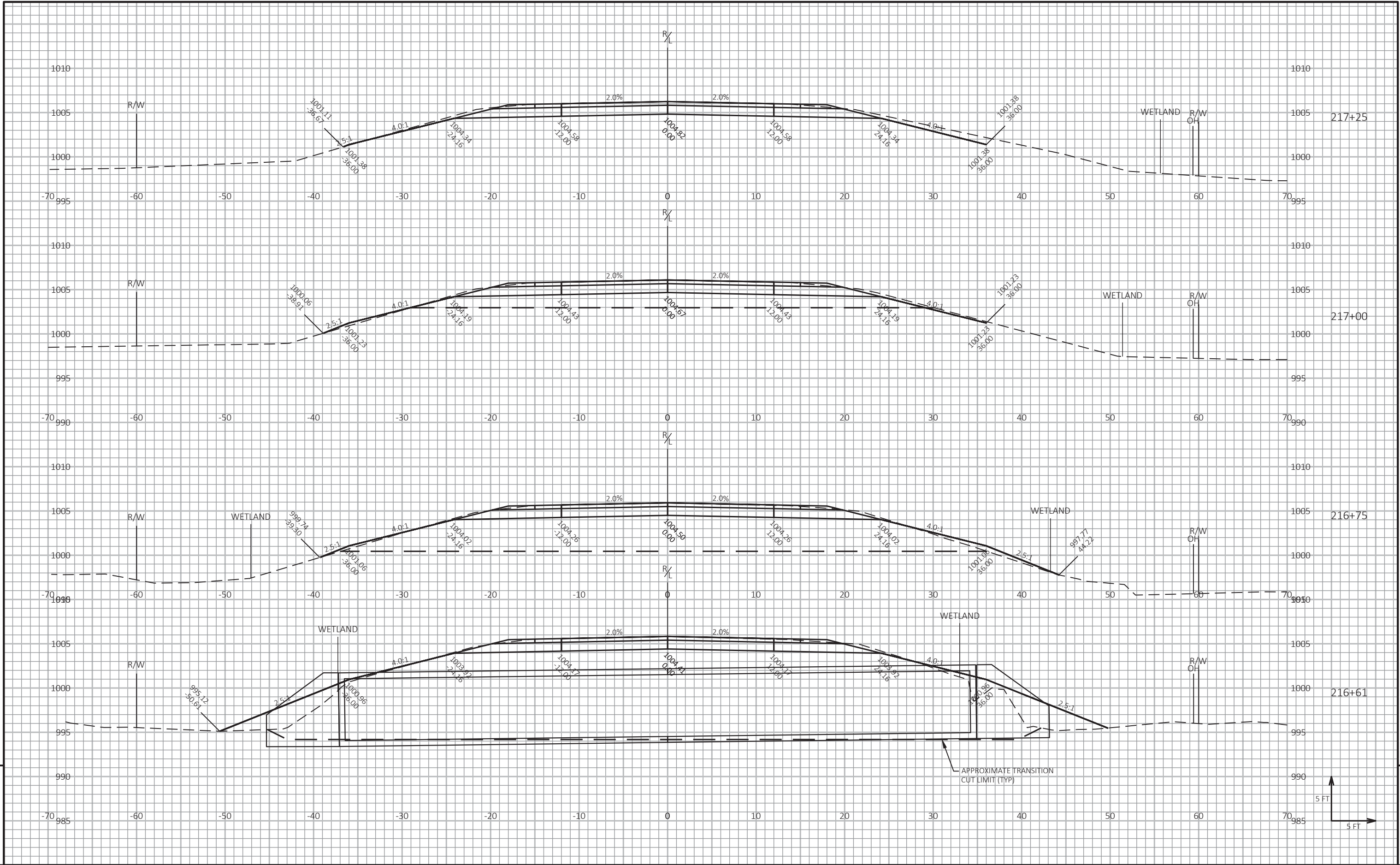
CULVERT C-10-2747 USH 10												
STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		MASS ORDINATE NOTE 5
		CUT	UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT NOTE 1	UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.20 NOTE 4	
257+50	---	68	16	3	0	---	---	---	---	---	---	---
257+75	25	69	16	3	0	63	15	3	0	63	3	45
258+00	25	70	16	3	0	64	15	3	0	128	7	91
258+25	25	69	16	4	0	64	15	3	0	192	11	136
258+50	25	69	16	3	0	64	15	3	0	256	15	181
258+65	15	108	16	44	0	48	9	13	0	303	30	205
258+75	10	72	16	11	0	35	6	11	0	339	43	220
259+00	25	71	16	3	0	66	15	7	0	405	51	263
259+25	25	72	16	6	0	66	15	4	0	471	56	309
259+50	25	71	16	11	0	66	15	7	0	537	65	352
				COLUMN TOTALS		537	120	54	0			

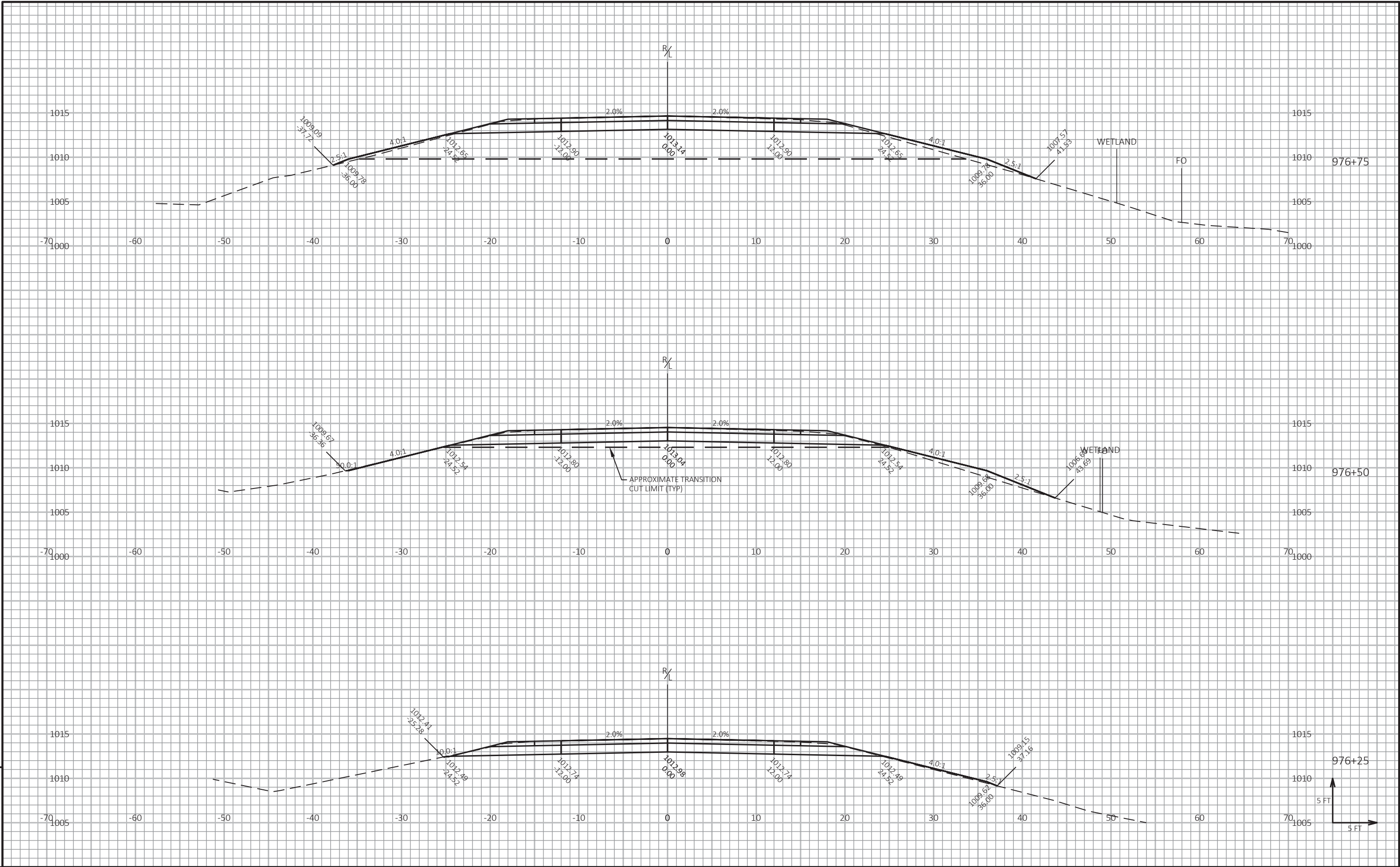
NOTES:
1) CUT INCLUDES UNUSABLE PAVEMENT MATERIAL
2) UNUSABLE PAVEMENT MATERIAL DOES NOT APPEAR IN THE CROSS SECTIONS
3) FILL DOES NOT INCLUDE UNUSABLE PAVEMENT MATERIAL EXCAVATION VOLUME
4) EXPANDED FILL = UNEXPANDED FILL * EXPANDED FILL FACTOR. EXPANDED FILL FACTOR = 1.20
5) MASS ORDINATE = (CUT - UNUSABLE PAVEMENT MATERIAL) - (FILL * FILL FACTOR)

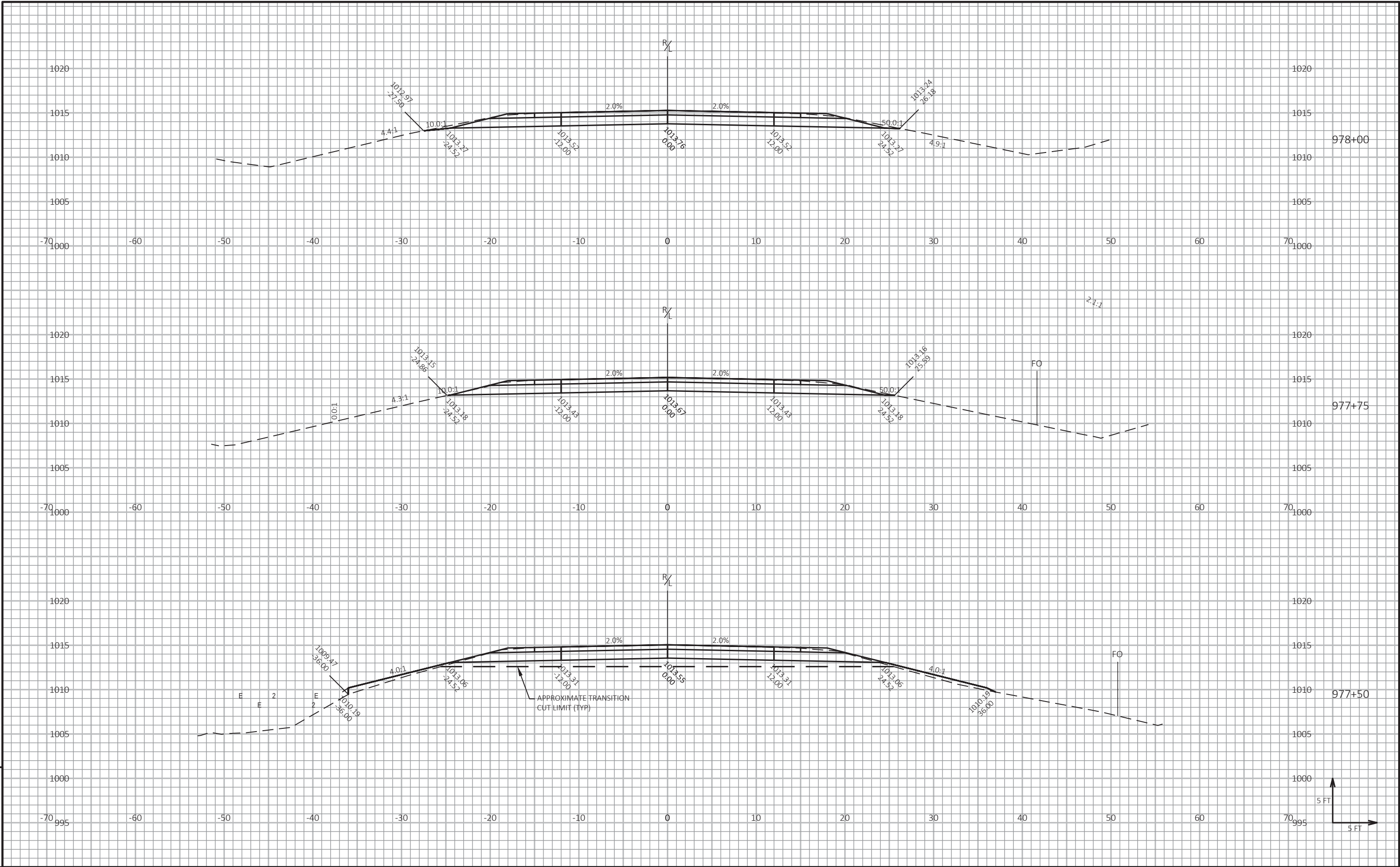




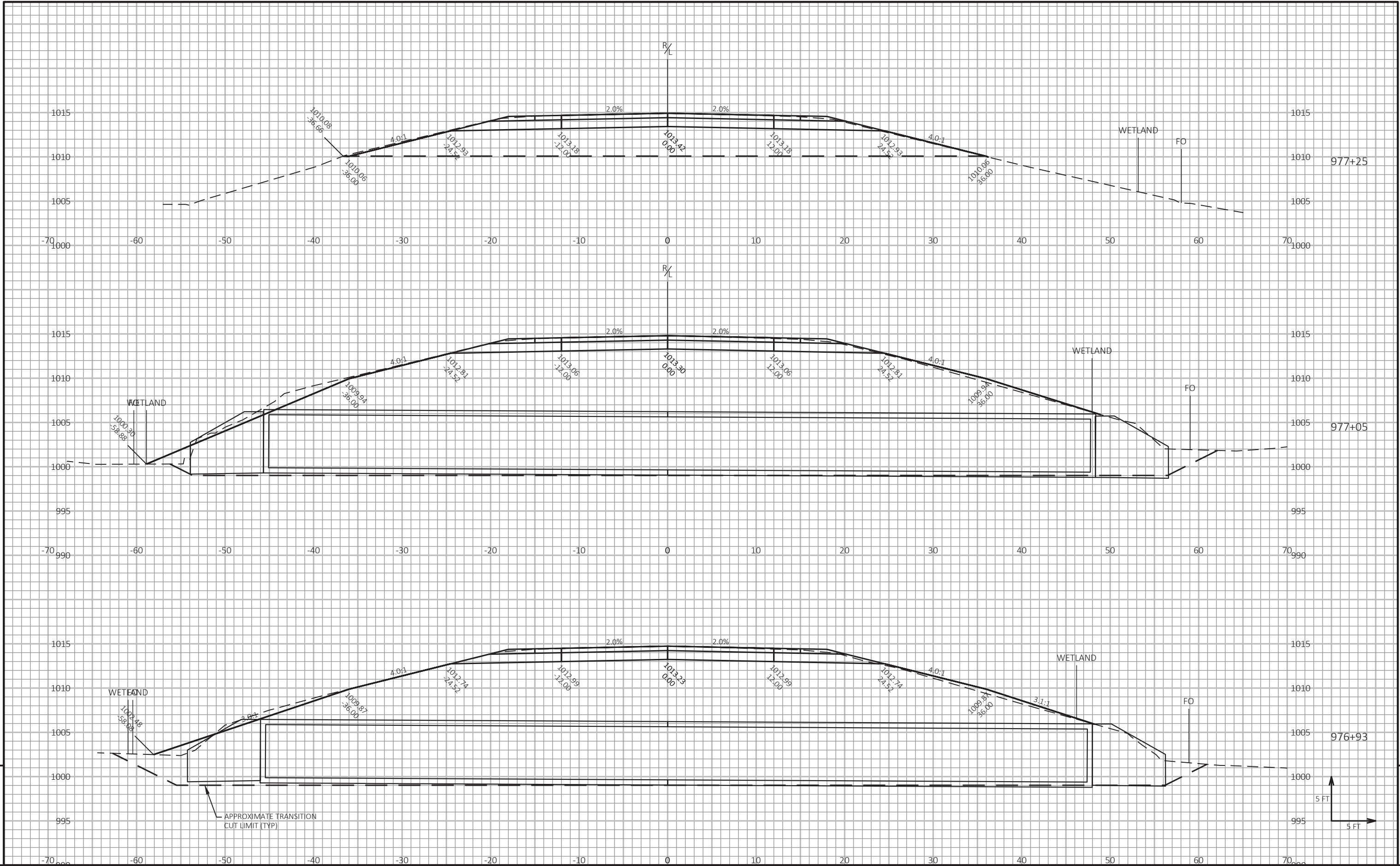


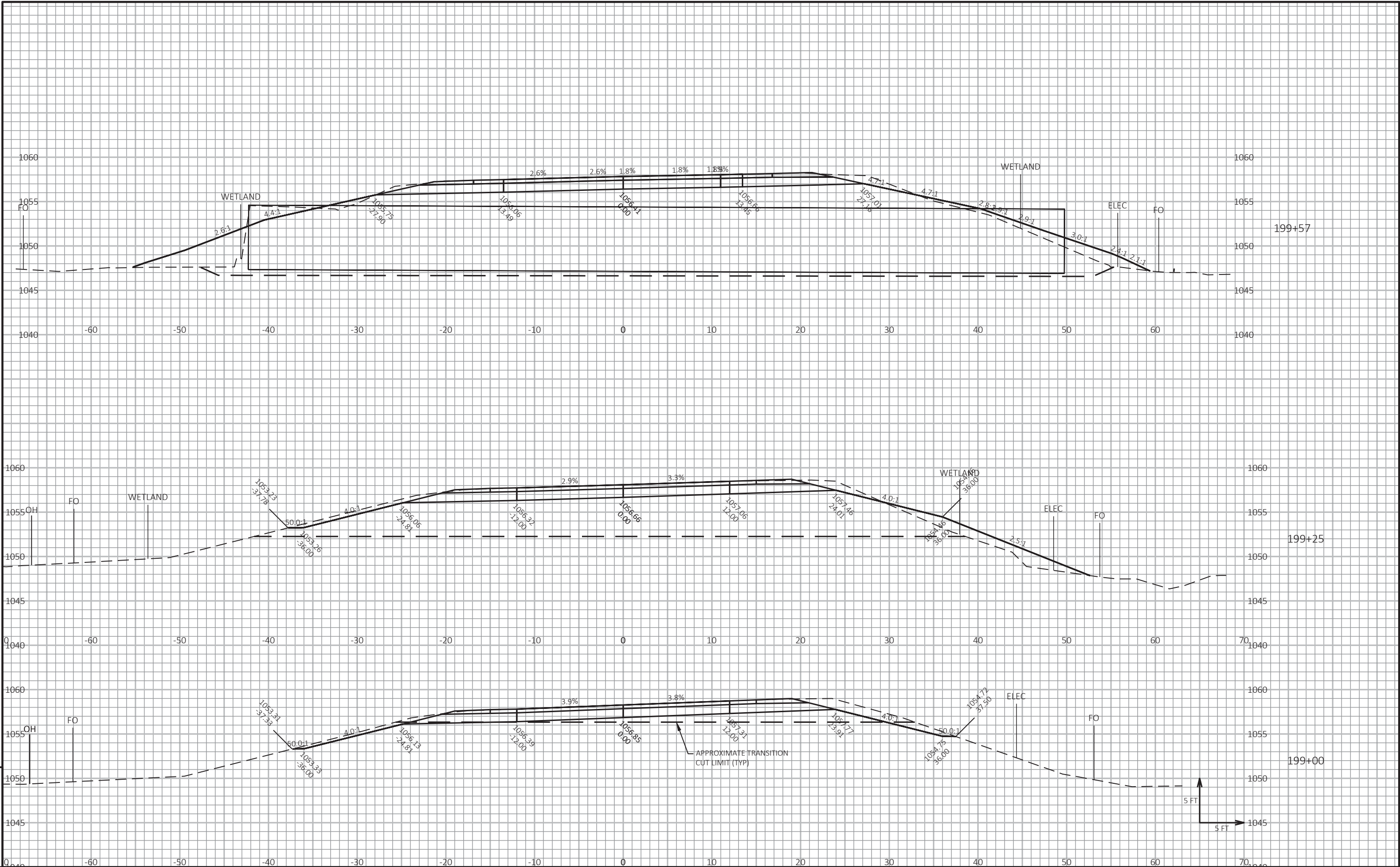




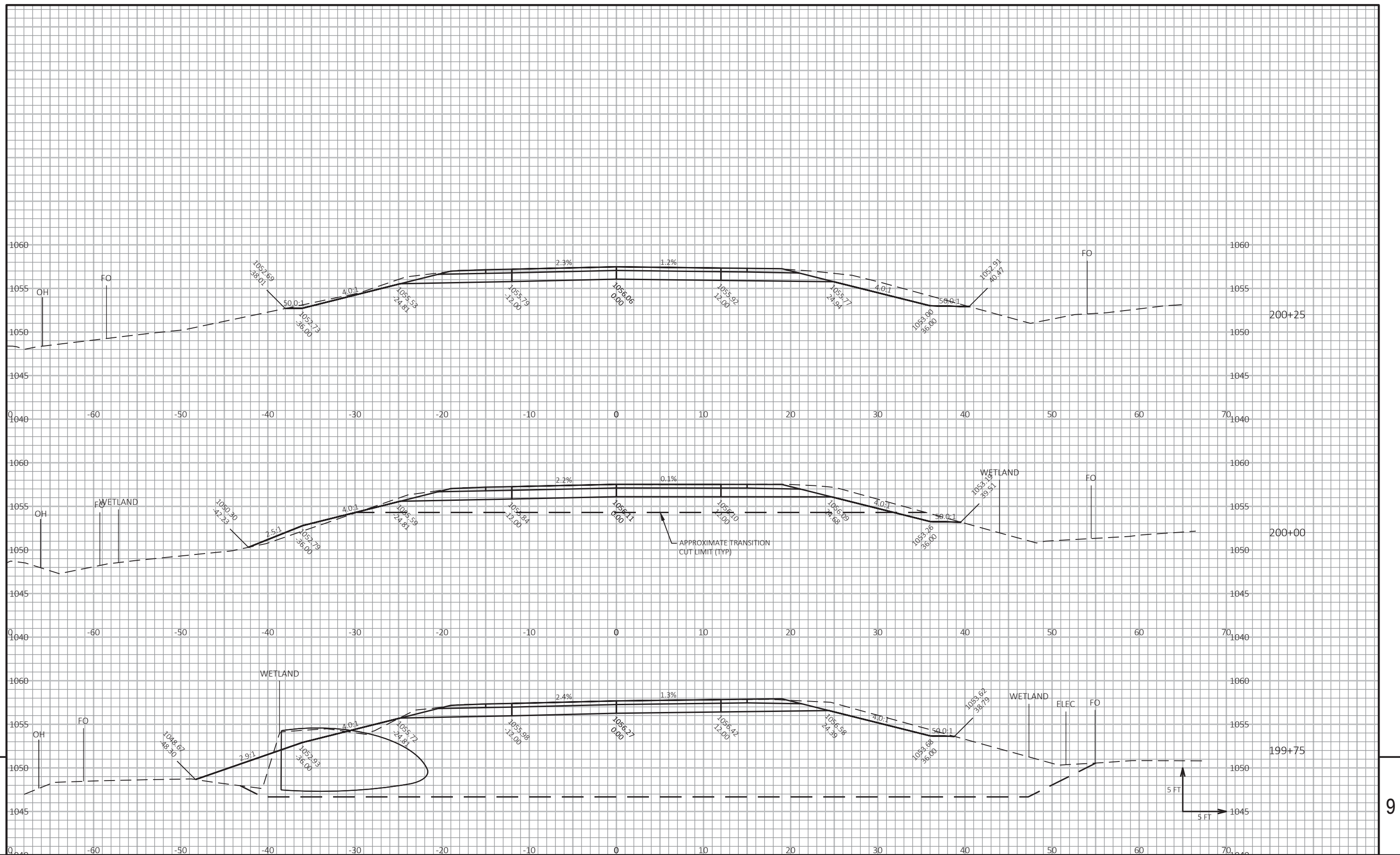


PROJECT NO: 1000-06-09	HWY: STH 40	COUNTY: CHIPPEWA	CROSS SECTIONS: C-09-3049	SHEET E
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PROJECT NO:	1000-06-09	HWY:	STH 64	COUNTY:	CHIPPewa	CROSS SECTIONS:	C-09-2932	SHEET	E
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PROJECT NO:	1000-06-09
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HWY: STH 64

COUNTY: CHIPPEWA

CROSS SECTIONS: C-09-2932

SHEET

1

FILE NAME : P:\2018\2018.028 - WISDOT - NW REGION CULVERT REPLACEMENT\10000608\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090206-06

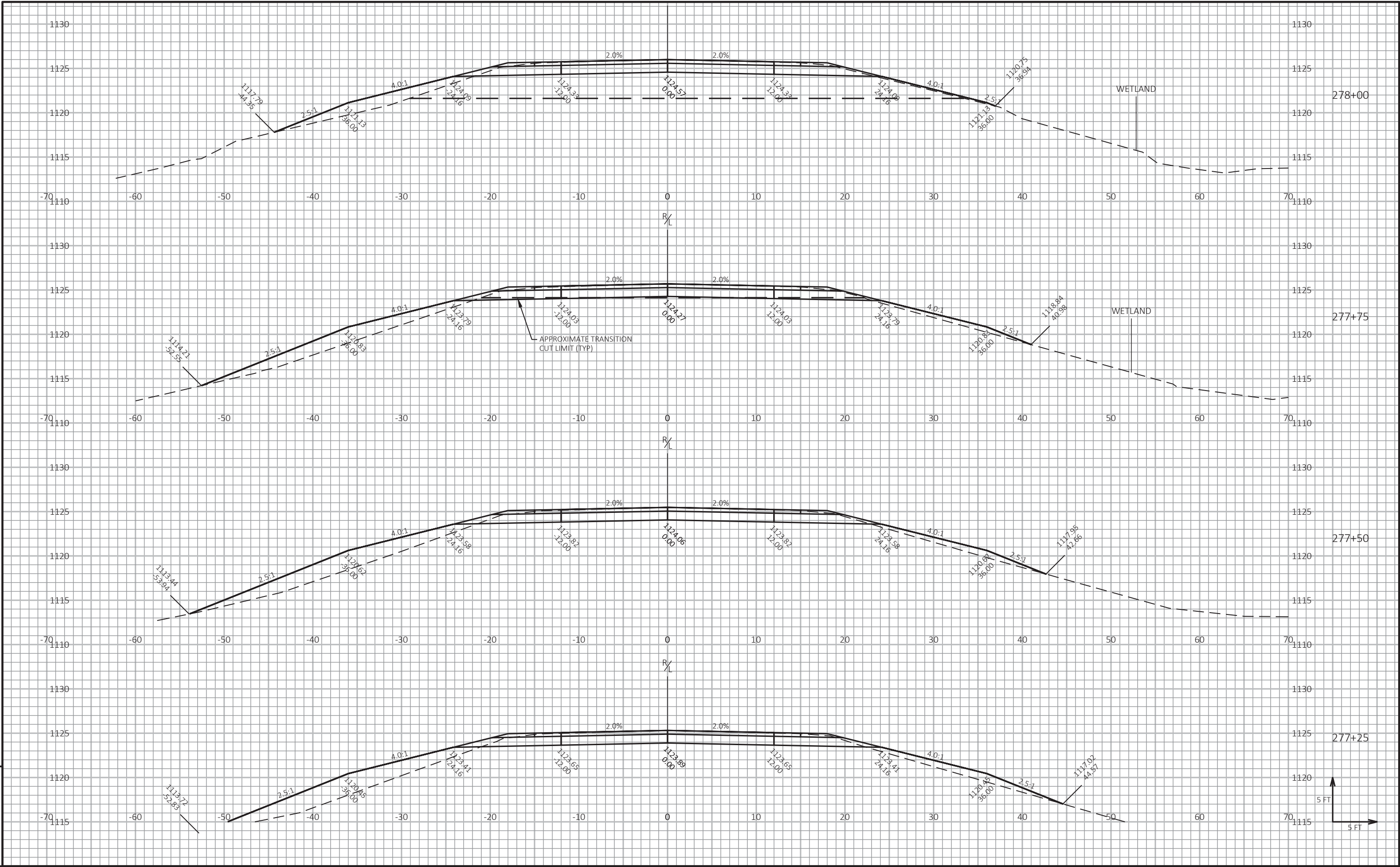
PLOT DATE : 7/31/2019 9:00 AM

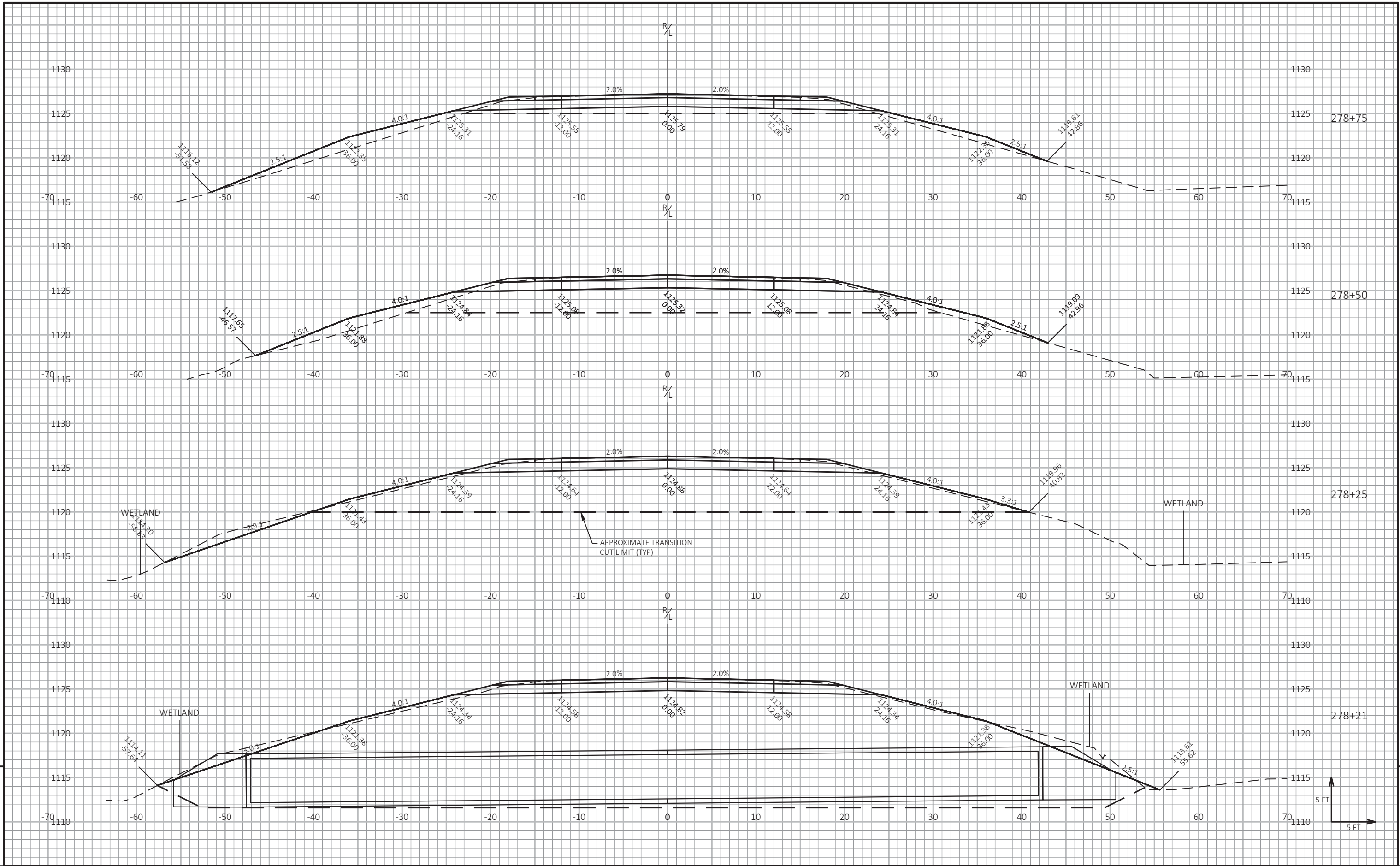
PLOT BY : MATTHEW T. GRAUN

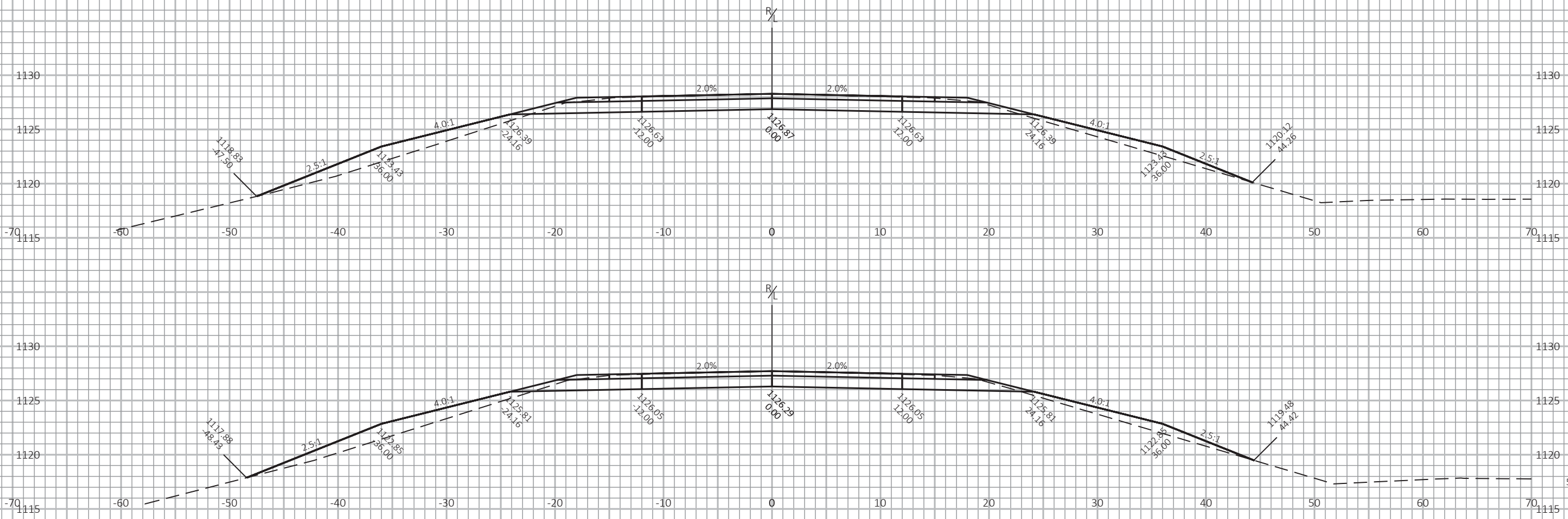
PLOT NAME :

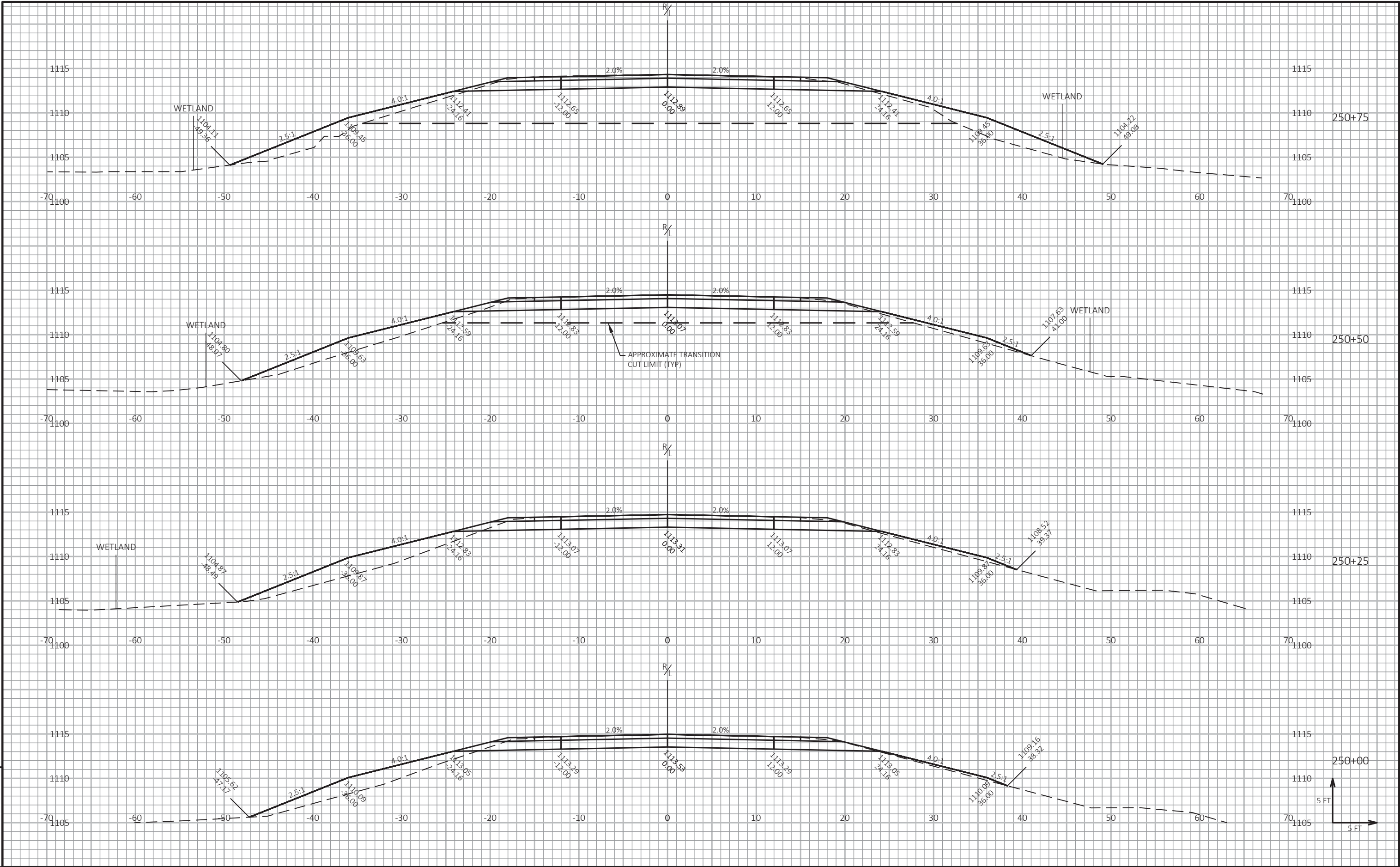
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

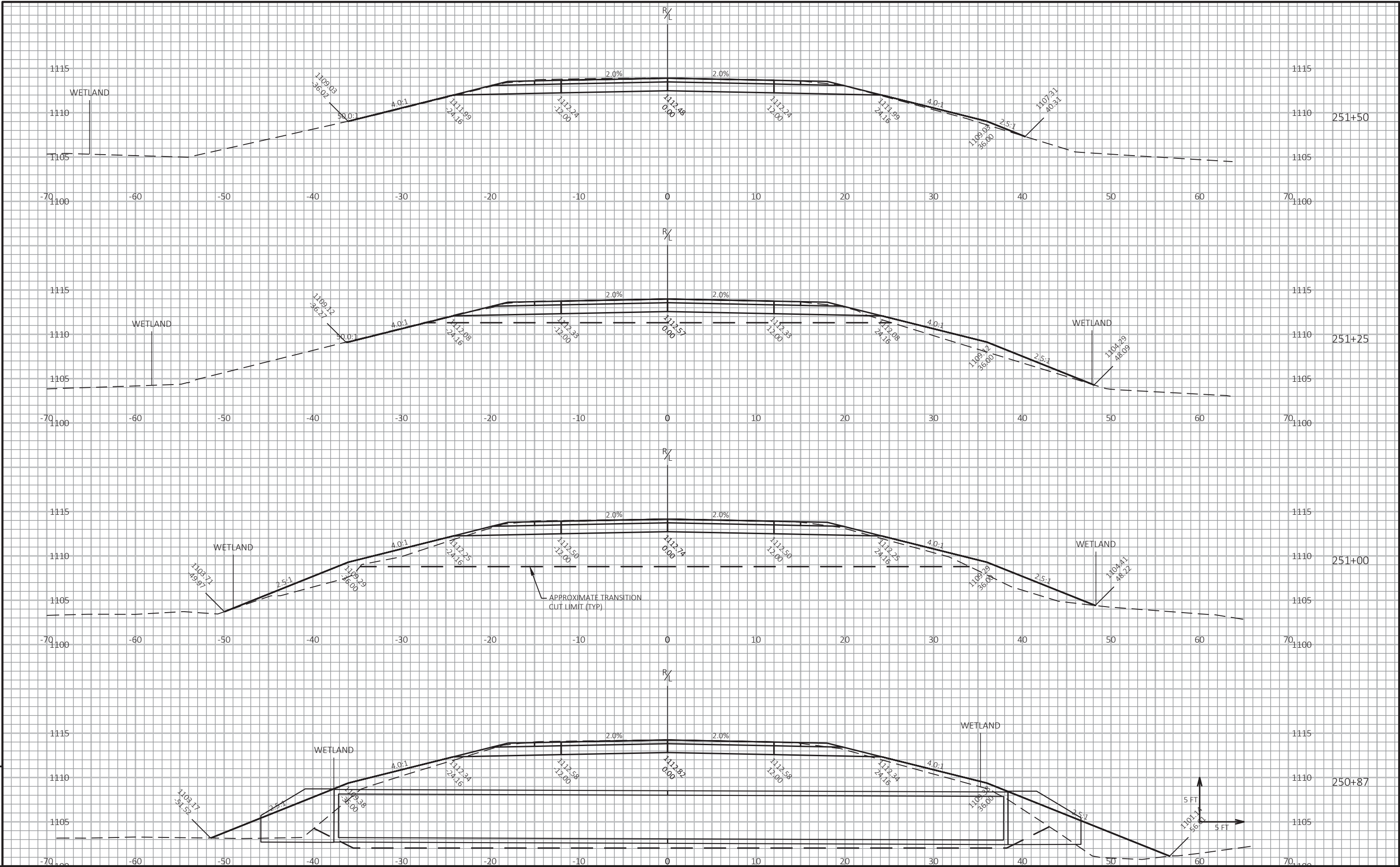
WISDOT/CADDS SHEET 49

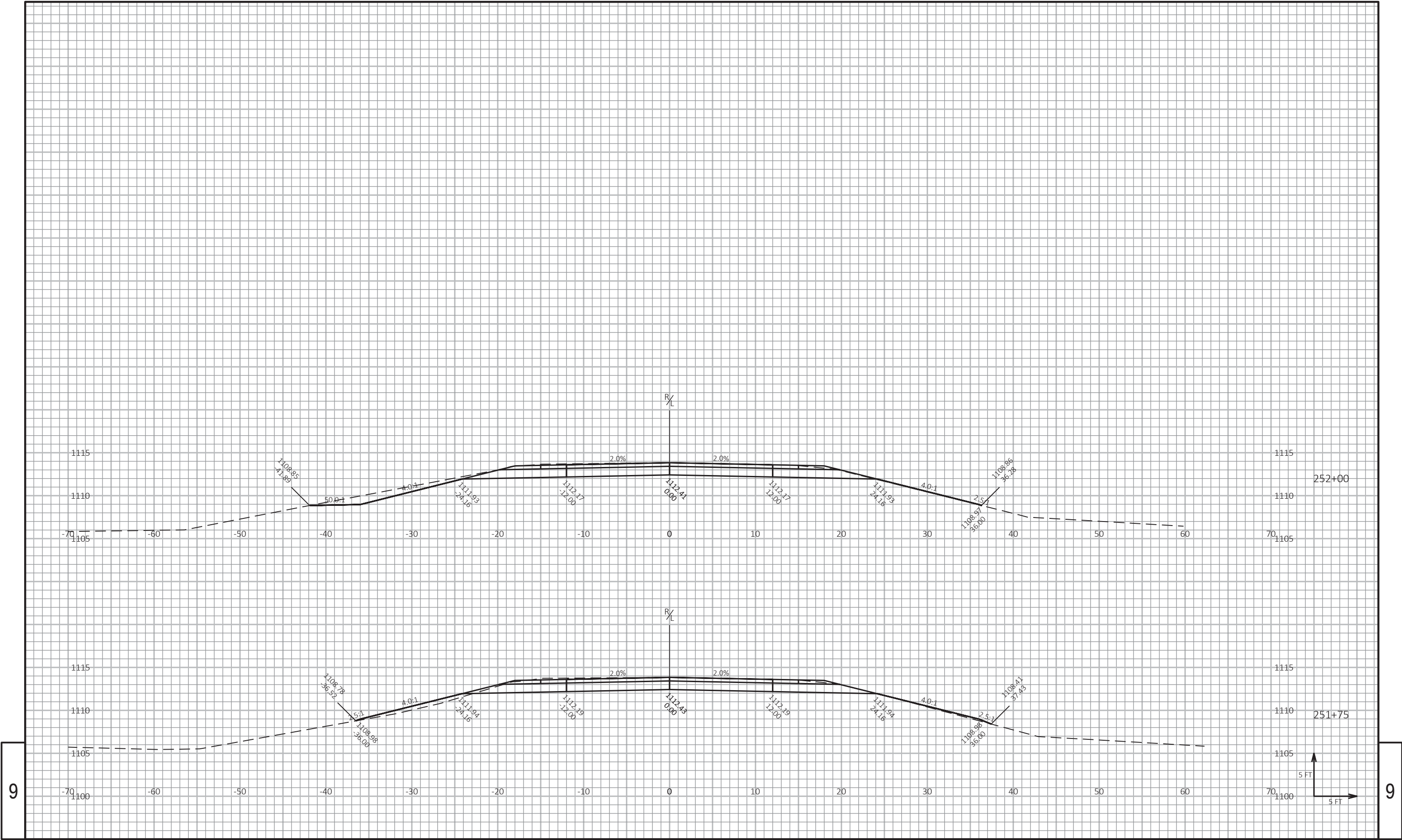


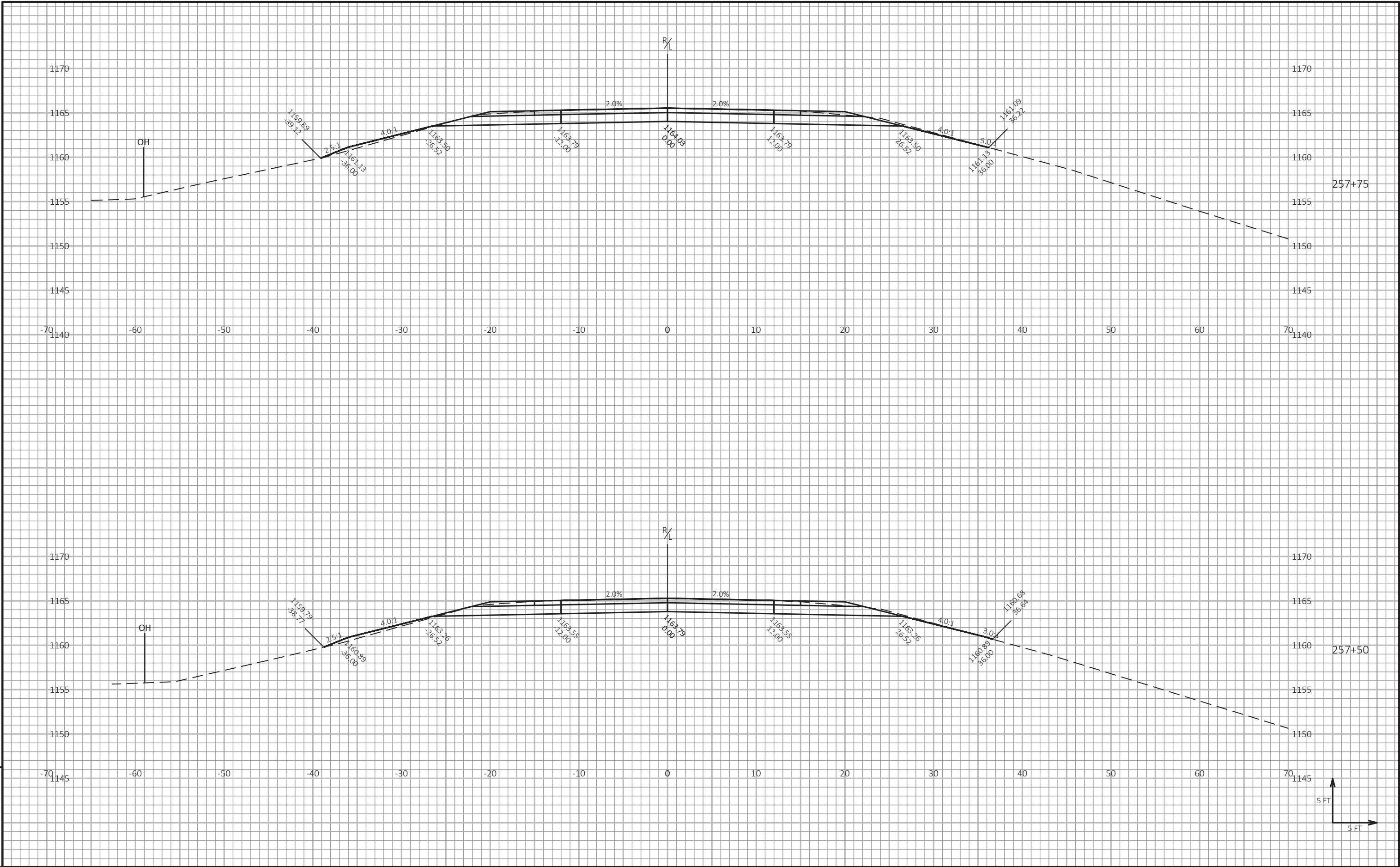






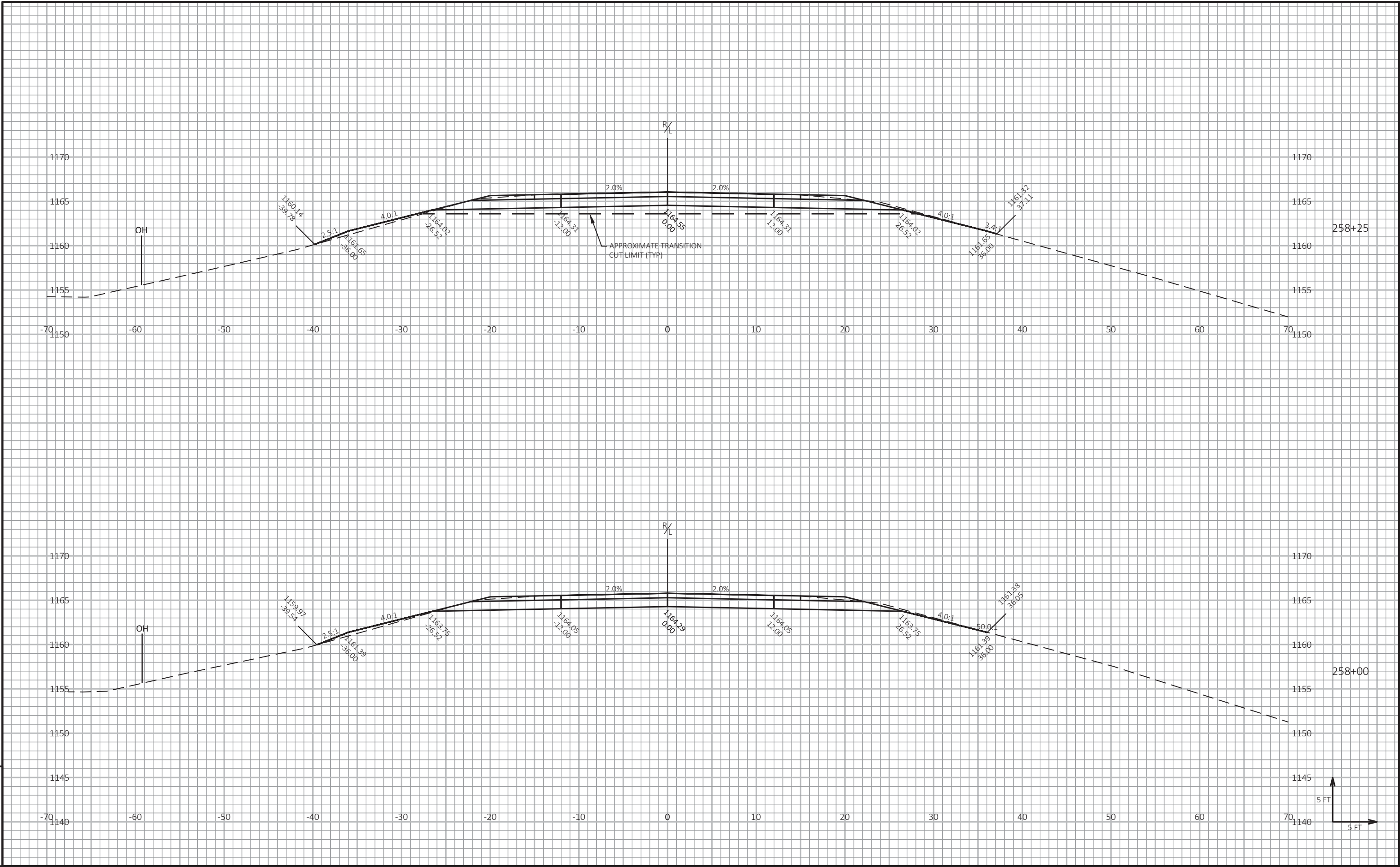


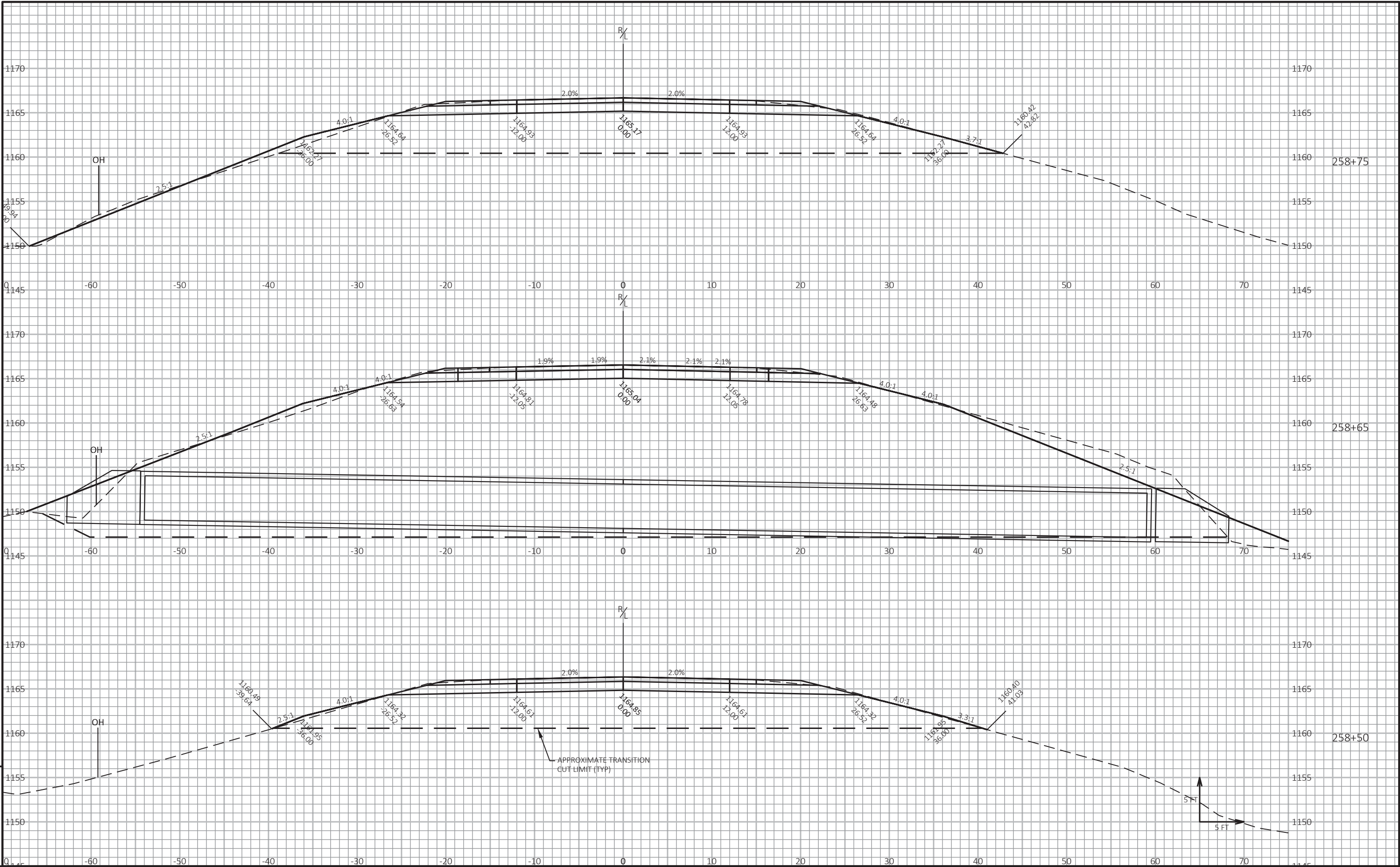


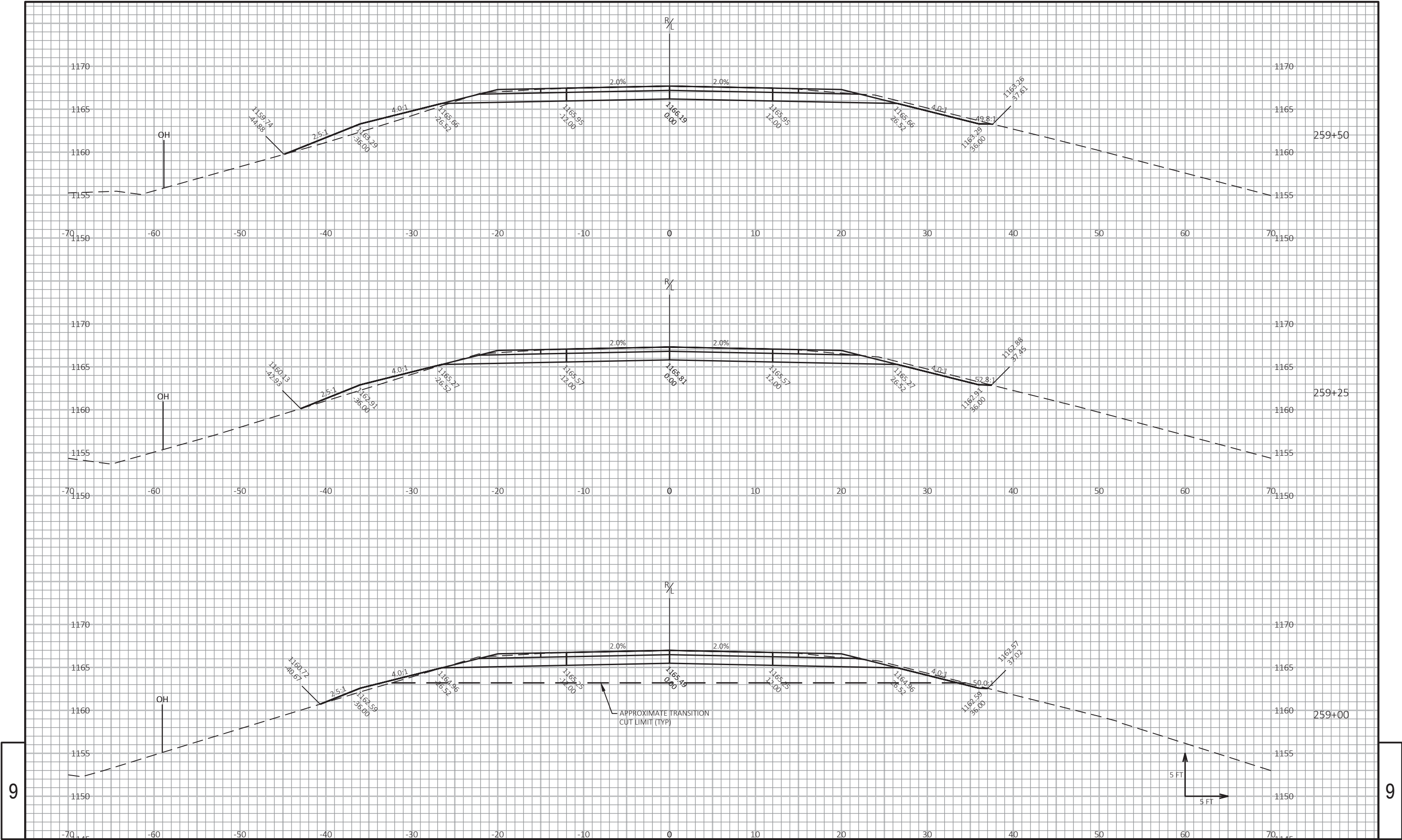


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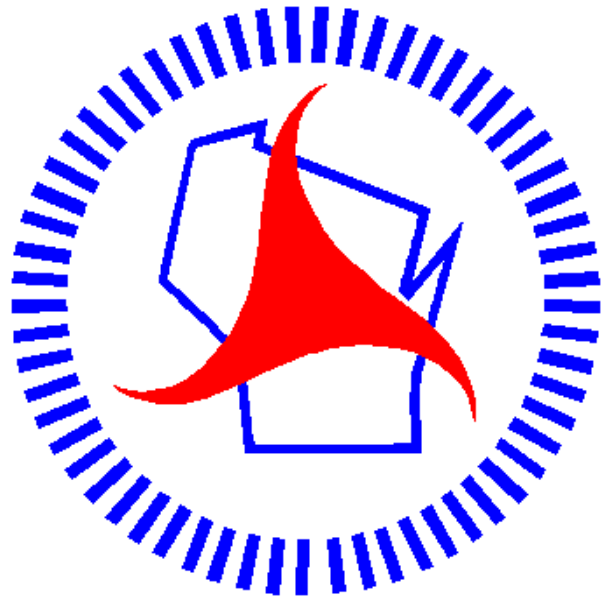




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9

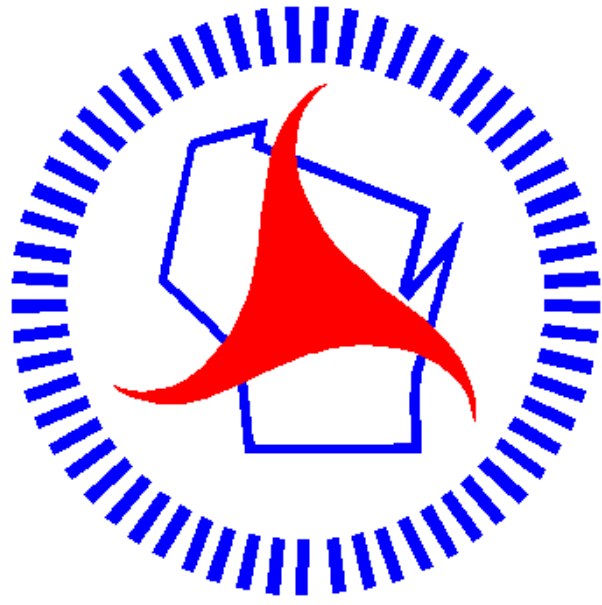
Notes



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