

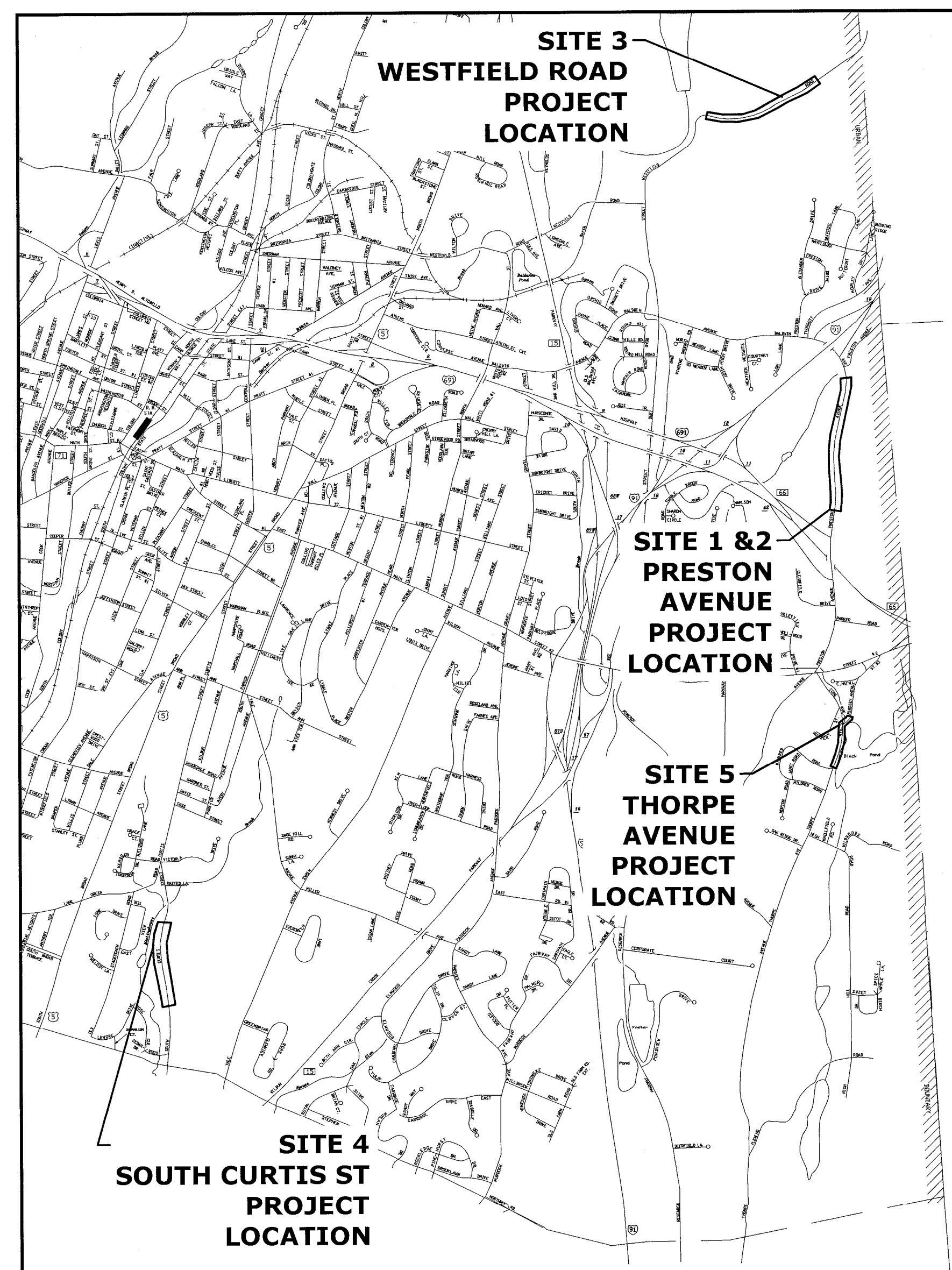
CITY OF MERIDEN

UPGRADE OF EXISTING GUIDERAIL-VARIOUS LOCATIONS

PROJECT No. 79-243

FINAL DESIGN

FEBRUARY 2020



LOCATION MAP
SCALE: 1"=2000'



MAYOR:

Kevin Scarpati

CITY MANAGER:

Timothy Coon

DIRECTOR OF PUBLIC WORKS:

Howard Weissberg, PE

BASE BID - SITE 1 & 2: PRESTON AVENUE STA 64+00 LT TO 80+50 LT, 81+00 LT TO 84+00 LT

BASE BID - SITE 3: WESTFIELD ROAD 131+50 RT TO 150+50 RT

ALTERNATE A - SITE 4: SOUTH CURTIS STREET STA 10+00 LT TO STA 18+40 LT

ALTERNATE B - SITE 5: THORPE AVENUE STA 21+03 RT TO 29+50 RT

MERIDEN, CONNECTICUT

NOTE: THE CITY OF MERIDEN SHALL BE RESPONSIBLE FOR FUTURE MAINTENANCE

STANDARD CONVENTIONS		
North Arrow	Limit Of Marsh	Chain Link Fence
Edge Of Road	Stone Wall	Rustic Fence
Concrete Pavement	Ledge Outcrop	Pipe Fence
Dirt Road	Inland Wetland Limits	Board Fence
B.C.L.C.	STATE LINE	Water Edge
Granite Curb	Power Line	Stream
Guide Rail	Swamp	Ditch
Concrete Median Barrier	Building	TOWN LINE
Bit. Walk	Transmission Tower	Easement Line
Conc. Sidewalk	Sanitary Sewer	Sediment Control System - Filter Fabric Fence System
Railroad Tracks	Water Line	Gas Line
	100 Year Flood Line	
		Riprap
		Hedge Row
		Tree Line
		Shrub
		Evergreen Tree
		Deciduous Tree
		Retaining Wall
		Highway Line
		Street Line
		Property Line
		Lot Line

SUBMITTED BY:	<i>Emile Pierides</i> 5/18/20 EMILE PIERIDES, PE ASSOCIATE CITY ENGINEER	DATE:	5/18/20
APPROVED BY:	<i>Howard Weissberg</i> 5/18/20 HOWARD WEISSBERG, PE DIRECTOR OF PUBLIC WORKS	DATE:	5/18/20
CITY OF MERIDEN DEPARTMENT OF PUBLIC WORKS COVER SHEET		DATE:	FEB 2020
DRAWING PREPARED BY: FUSS & O'NEILL Disciplines to Deliver		DESIGN:	JAG
		DRAWN:	LSS
		SCALE:	N.T.S.
BUREAU OF ENGINEERING ROOM 19 MERIDEN, CONNECTICUT		DWG.	20170572A10_C010
		SHEET	1
		OF	29

State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges, Facilities and Incidental Construction Form 817, dated 2016 and Supplementals dated January, 2019 Govern

FINAL REVIEW

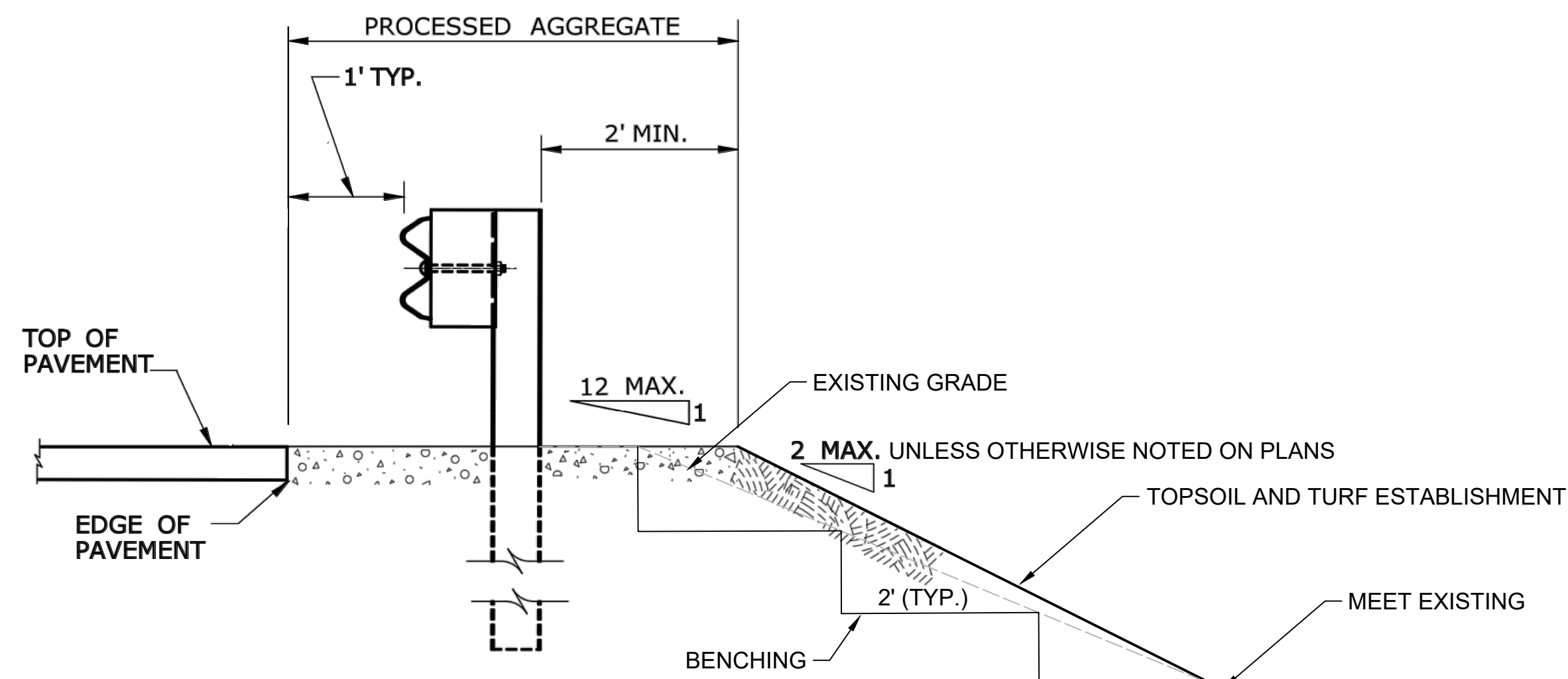
"SUBSET #3" - "HIGHWAY"

INDEX OF DRAWINGS

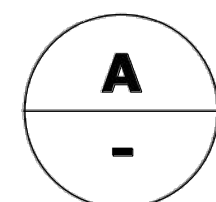
DRAWING NUMBER	DRAWING TITLE	DRAWING NUMBER	DRAWING TITLE
DET-01	DETAILED ESTIMATE		
HWY-01	INDEX OF DRAWINGS		
MDS-01	MISCELLANEOUS DETAILS		
EXC-01 TO EXC-04	GUIDERAIL REMOVAL PLANS		
HPN-01 TO HPN-04	GUIDERAIL UPGRADE PLANS		
	STANDARD HIGHWAY DETAILS		
A-1	EVSOURCE ELECTRIC UTILITY SHEET		
B-1 TO B-4	FRONTIER UTILITY SHEETS		

FINAL DESIGN REVIEW

		DESIGNER/DRAFTER: JAG/LSS		SIGNATURE/ BLOCK:	PROJECT TITLE: GUIDERAIL UPGRADE	CITY: CITY OF MERIDEN	PROJECT NO. 79-243
		CHECKED BY: MEG				DRAWING TITLE: HIGHWAY INDEX OF DRAWINGS	DRAWING NO. HWY-01
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 2/26/2019	Filename: J:\DWG\F2017\0572\A10\Civil\Plan\20170572A10_IND03.dwg		SHEET NO. 3

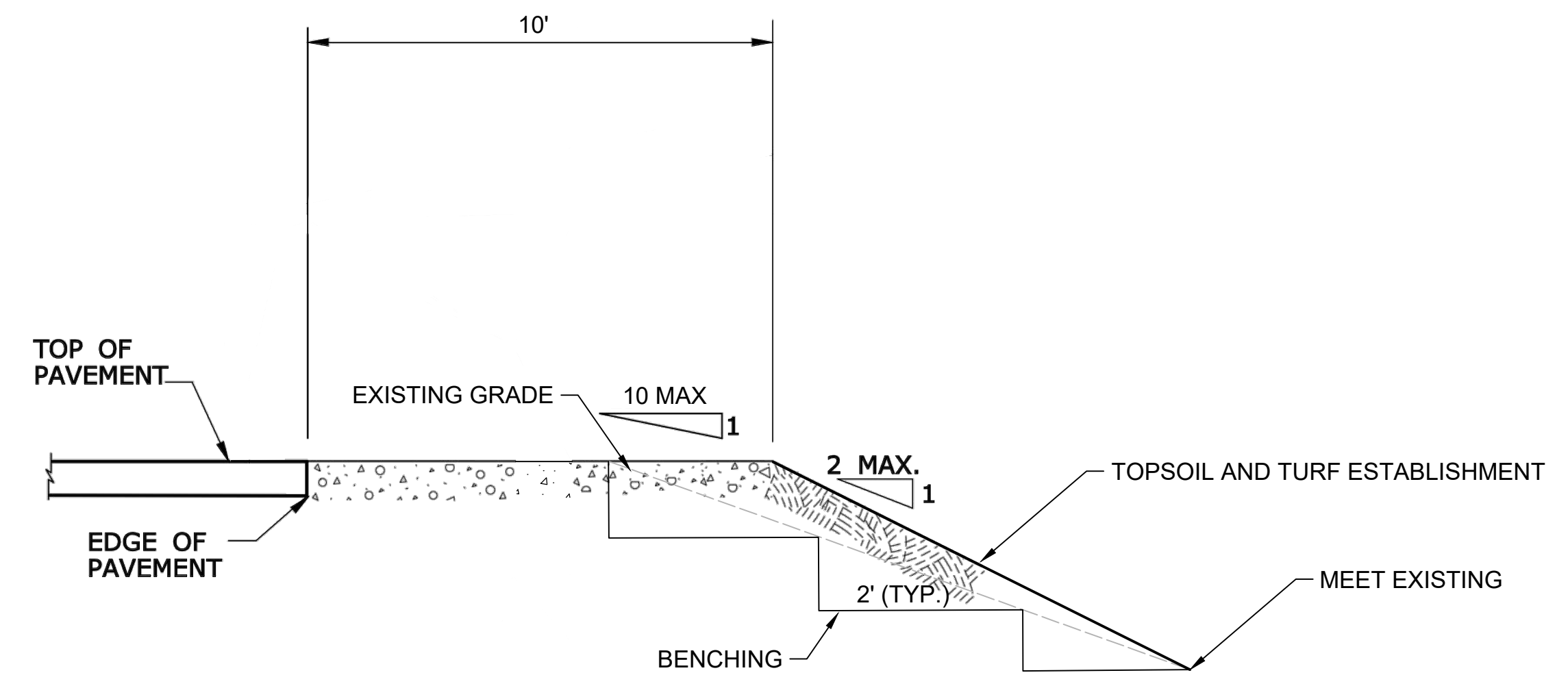


SECTION

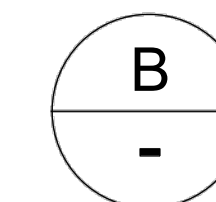


NO CURB APPLICATION

GENERAL GRADING

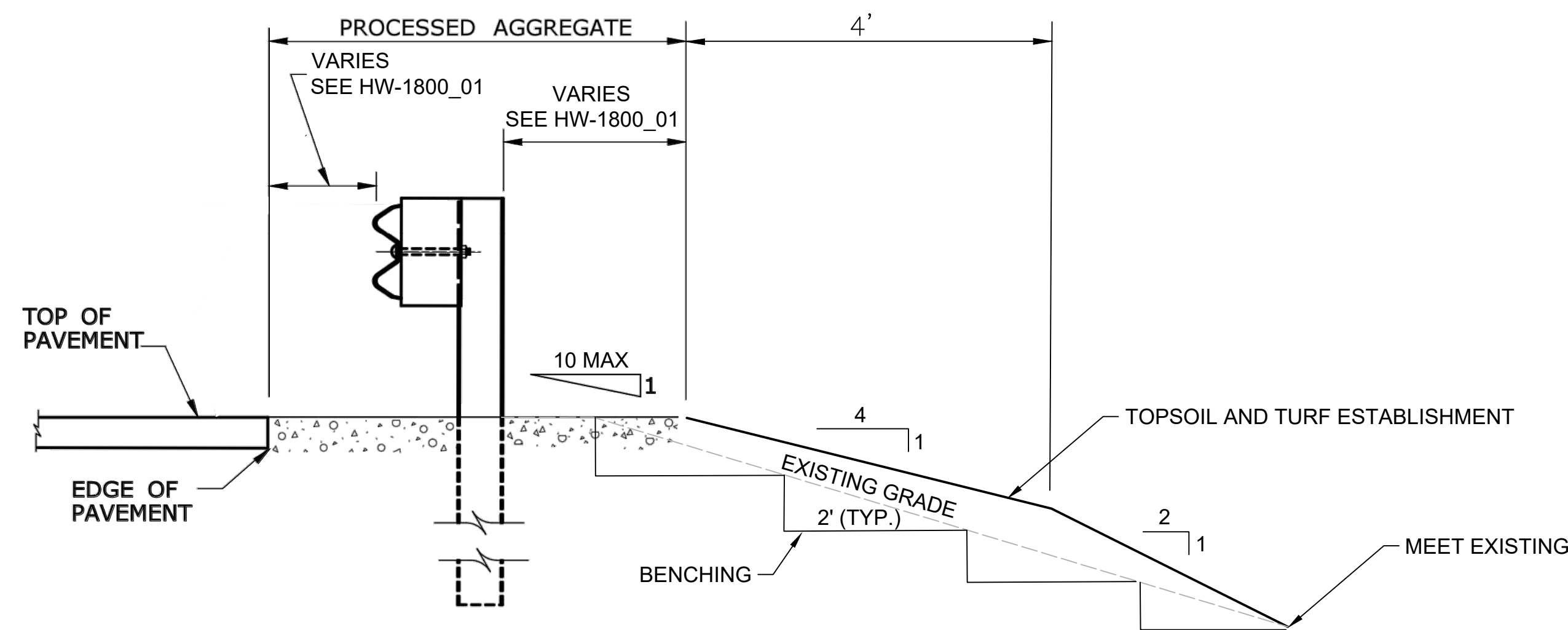


SECTION



NO CURB APPLICATION

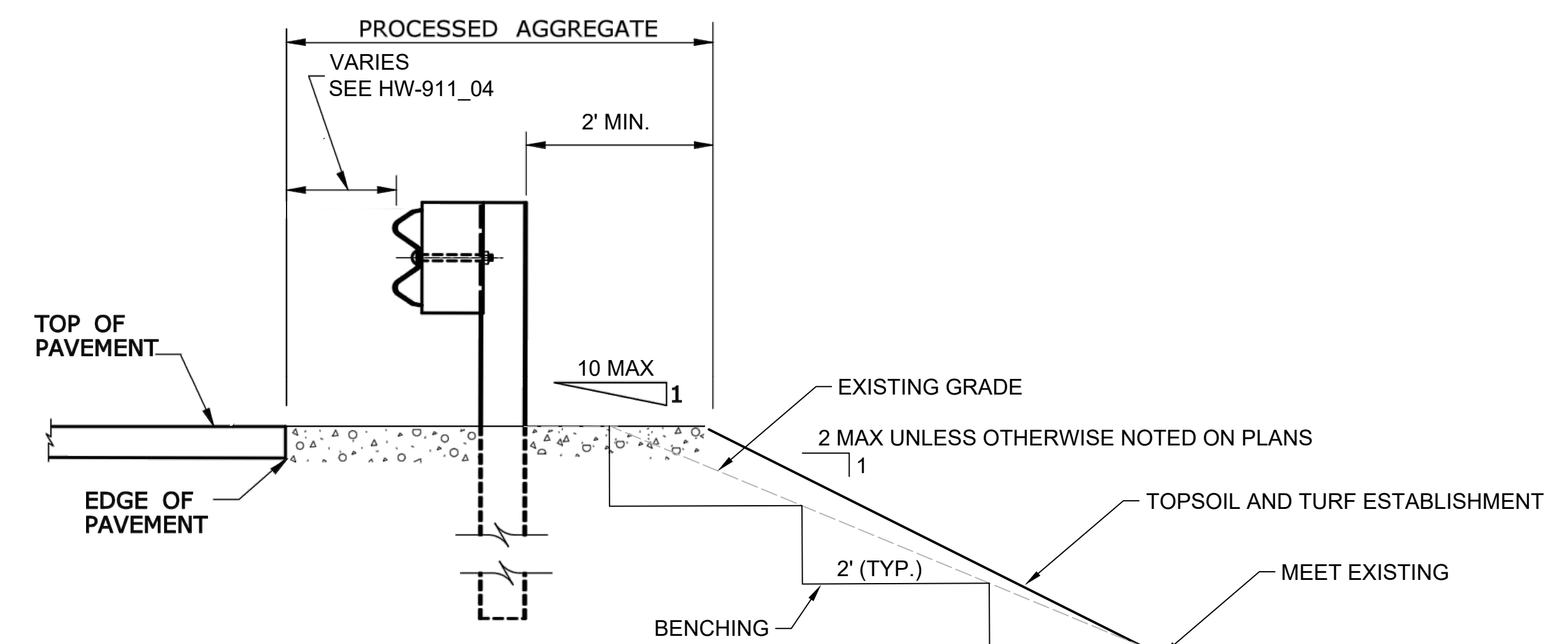
SECTION GRADING



SECTION VIEW

NO CURB APPLICATION

IMPACT ATTENUATION SYSTEM GRADING



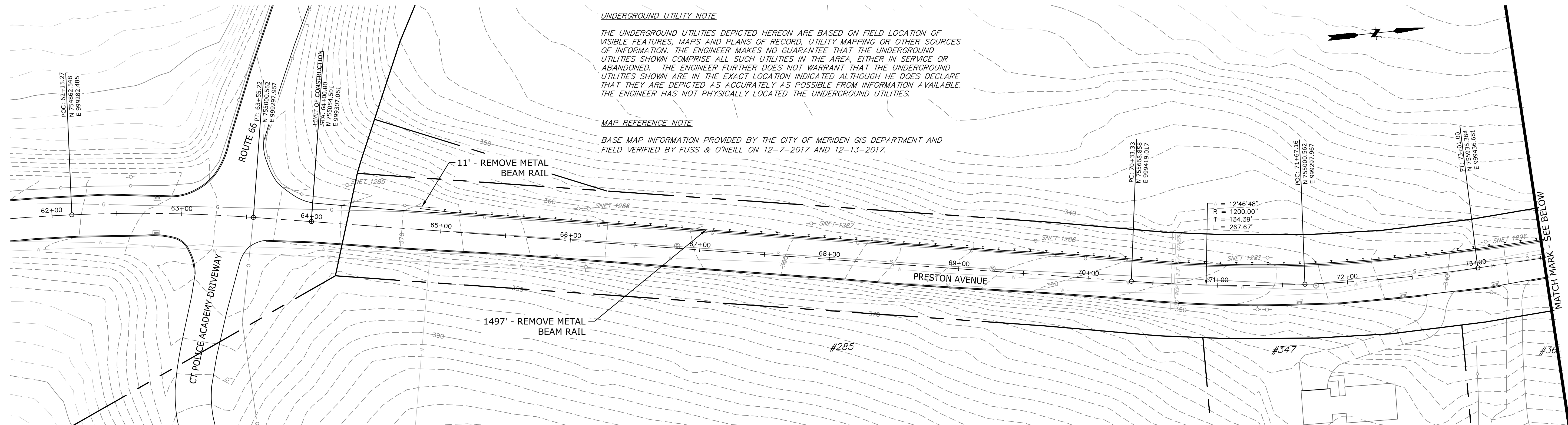
SECTION VIEW

NO CURB APPLICATION

GUIDERAIL TURN-DOWN END ANCHOR GRADING

FINAL DESIGN REVIEW

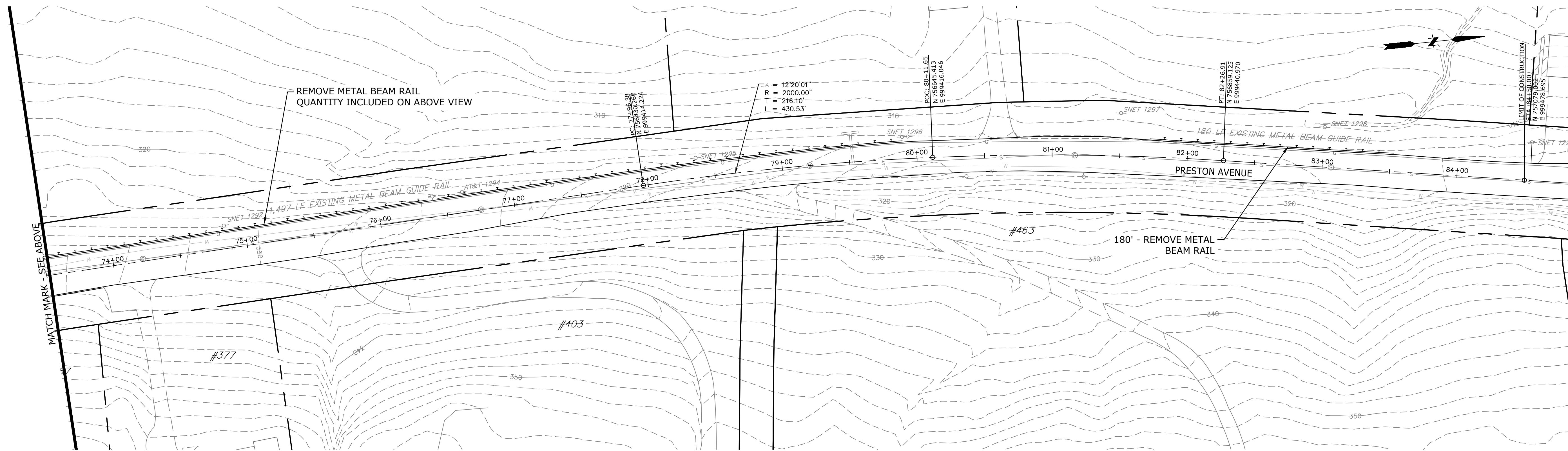
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: JAG/LSS	SIGNATURE/ BLOCK:	PROJECT TITLE: GUIDERAIL UPGRADE	CITY: CITY OF MERIDEN	PROJECT NO. 79-243
CHECKED BY: MEG	NOT TO SCALE	DRAWING TITLE: MISCELLANEOUS DETAILS			DRAWING NO. MDS-01	
REV. DATE REVISION DESCRIPTION	SHEET NO.	Plotted Date: 2/26/2020	Filename: J:\DWG\2017\0572\A10\Civil\Plan\20170572A10_MDS01.dwg	SHEET NO. 4		



UNDERGROUND UTILITY NOTE
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MAP REFERENCE NOTE
 BASE MAP INFORMATION PROVIDED BY THE CITY OF MERIDEN GIS DEPARTMENT AND FIELD VERIFIED BY FUSS & O'NEILL ON 12-7-2017 AND 12-13-2017.

**PRESTON AVENUE
 STA. 64+00 LT TO 80+50 LT**



**PRESTON AVENUE
 STA. 81+00 LT TO 84+00 LT**

BASE BID

FINAL DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
2.			
1.			

DESIGNER/DRAFTER:
JAG/LSS
 CHECKED BY:
MEG
 SCALE IN FEET
 0 40 80
 SCALE 1"=40'

SIGNATURE/
 BLOCK:
 PROJECT TITLE:
**GUIDERAIL UPGRADE
 PRESTON AVENUE**
 CITY:
CITY OF MERIDEN
 DRAWING TITLE:
**GUIDERAIL REMOVAL
 PLAN**

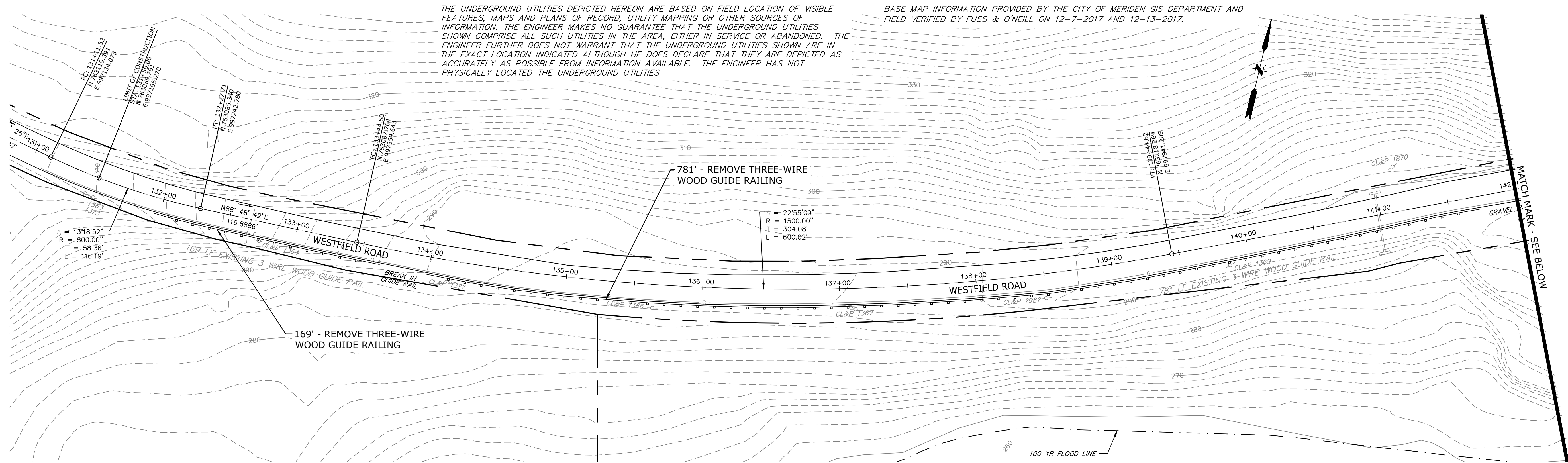
PROJECT NO.
79-243
 DRAWING NO.
EXC-01
 SHEET NO.
5

UNDERGROUND UTILITY NOTE

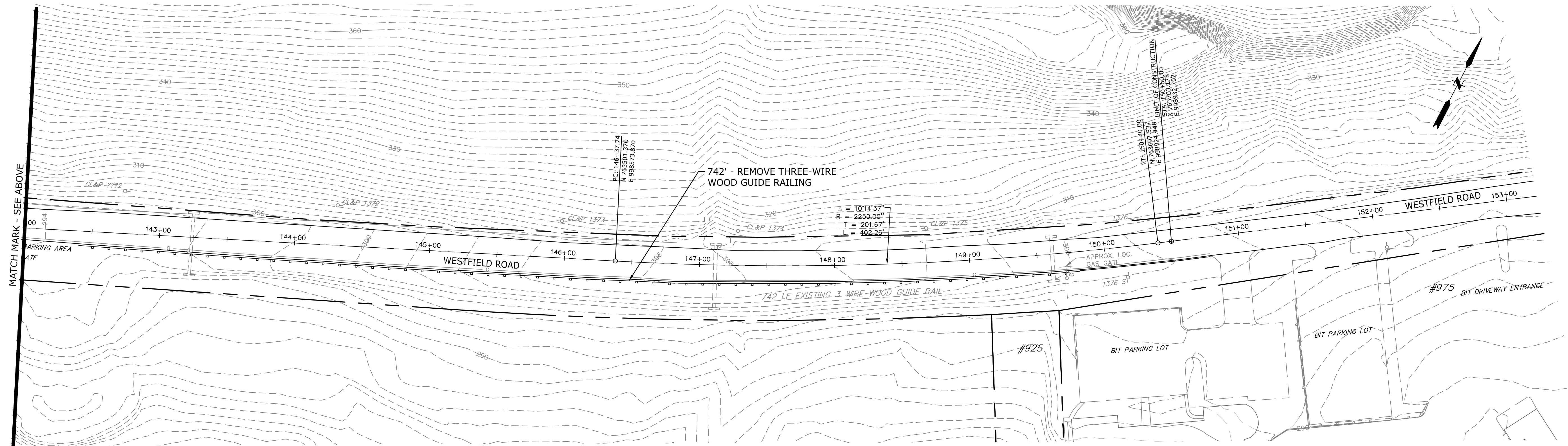
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MAP REFERENCE NOTE

BASE MAP INFORMATION PROVIDED BY THE CITY OF MERIDEN GIS DEPARTMENT AND FIELD VERIFIED BY FUSS & O'NEILL ON 12-7-2017 AND 12-13-2017.



**WESTFIELD ROAD
STA.131+50 RT TO 142+00 RT**



**WESTFIELD ROAD
STA.142+00 RT TO 150+50 RT**

BASE BID

FINAL DESIGN REVIEW

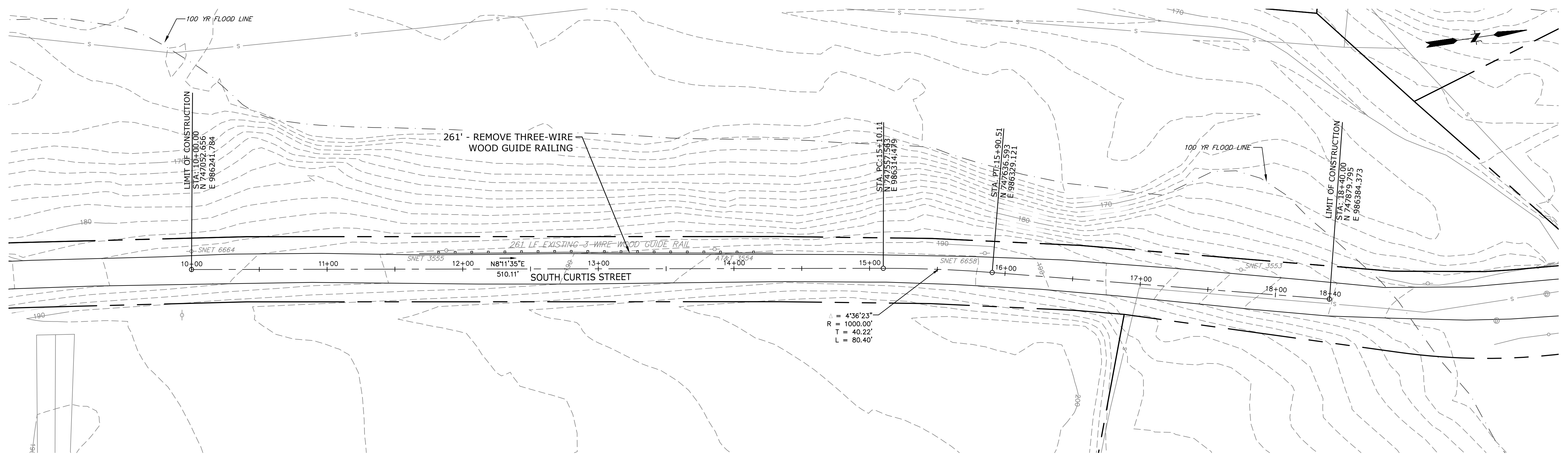
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1.			

DESIGNER/DRAFTER:
JAG/LSS
CHECKED BY:
MEG
SCALE IN FEET
0 40 80
SCALE 1"=40'

SIGNATURE/
BLOCK:
PROJECT TITLE:
**GUIDERAIL UPGRADE
WESTFIELD ROAD**

CITY:
CITY OF MERIDEN
DRAWING TITLE:
**GUIDERAIL REMOVAL
PLAN**

PROJECT NO.
79-243
DRAWING NO.
EXC-02
SHEET NO.
6



**SOUTH CURTIS STREET
STA. 10+00 LT TO 18+40 LT**

MAP REFERENCE NOTE

BASE MAP INFORMATION PROVIDED BY THE CITY OF MERIDEN GIS DEPARTMENT AND FIELD VERIFIED BY FUSS & O'NEILL ON 12-7-2017 AND 12-13-2017.

UNDERGROUND UTILITY NOTE

THE UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED ON FIELD LOCATION OF VISIBLE FEATURES, MAPS AND PLANS OF RECORD, UTILITY MAPPING OR OTHER SOURCES OF INFORMATION. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES DECLARE THAT THEY ARE DEPICTED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

ALTERNATE A

FINAL DESIGN REVIEW

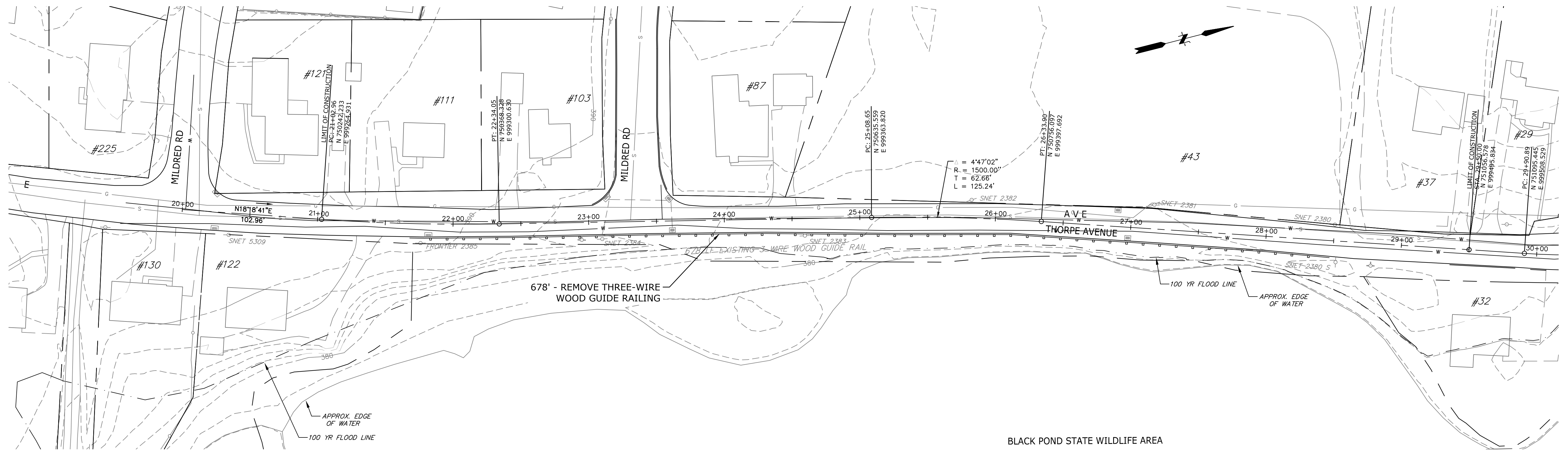
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2.			
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DESIGNER/DRAFTER:
JAG/LSS
CHECKED BY:
MEG
SCALE IN FEET
0 40 80
SCALE 1"=40'

SIGNATURE/
BLOCK:
PROJECT TITLE:
**GUIDERAIL UPGRADE
SOUTH CURTIS STREET**

CITY:
CITY OF MERIDEN
DRAWING TITLE:
**GUIDERAIL REMOVAL
PLAN**

PROJECT NO.
79-243
DRAWING NO.
EXC-03
SHEET NO.
7



**THORPE AVENUE
STA. 21+03 RT TO 29+50 RT**

BLACK POND STATE WILDLIFE AREA

MAP REFERENCE NOTE

BASE MAP INFORMATION PROVIDED BY THE CITY OF MERIDEN GIS DEPARTMENT AND FIELD VERIFIED BY FUSS & O'NEILL ON 12-7-2017 AND 12-13-2017.

UNDERGROUND UTILITY NOTE

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ALTERNATE B

FINAL DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
2.			
1.			

DESIGNER/DRAFTER:
JAG/LSS
CHECKED BY:
MEG
SCALE IN FEET
0 40 80
SCALE 1"=40'

SIGNATURE/
BLOCK:
PROJECT TITLE:
**GUIDERAIL UPGRADE
THORPE AVENUE**
CITY:
CITY OF MERIDEN

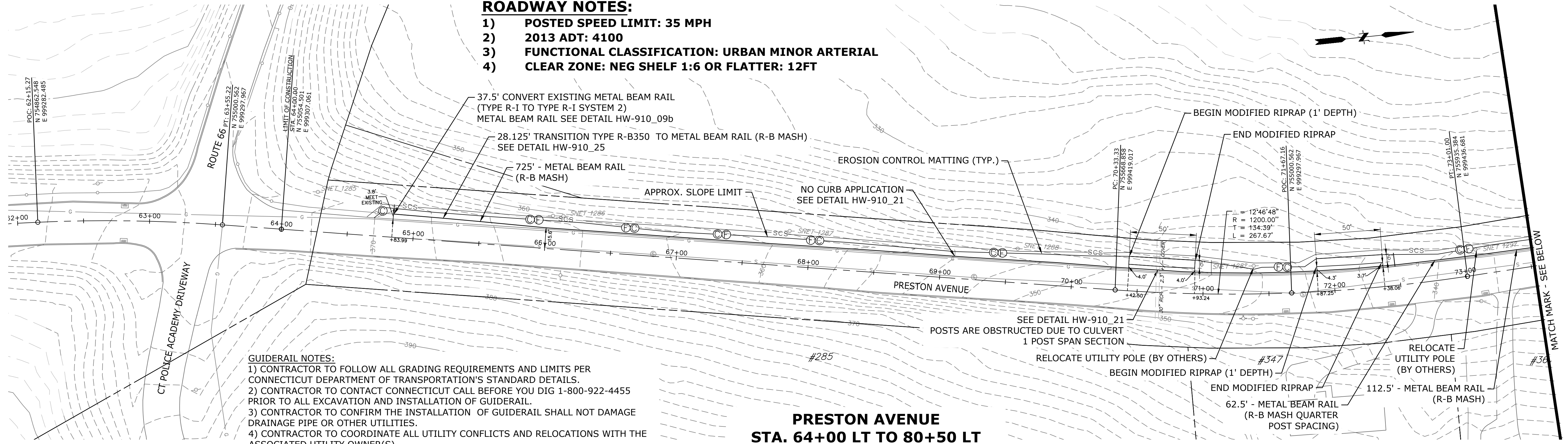
DRAWING TITLE:
**GUIDERAIL REMOVAL
PLAN**

PROJECT NO.
79-243
DRAWING NO.
EXC-04
SHEET NO.
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Plotted: 2/26/2020
Filename: J:\DWG\2017\0572\A10\CIVIL\PLAN\20170572A10_EXC01.DWG

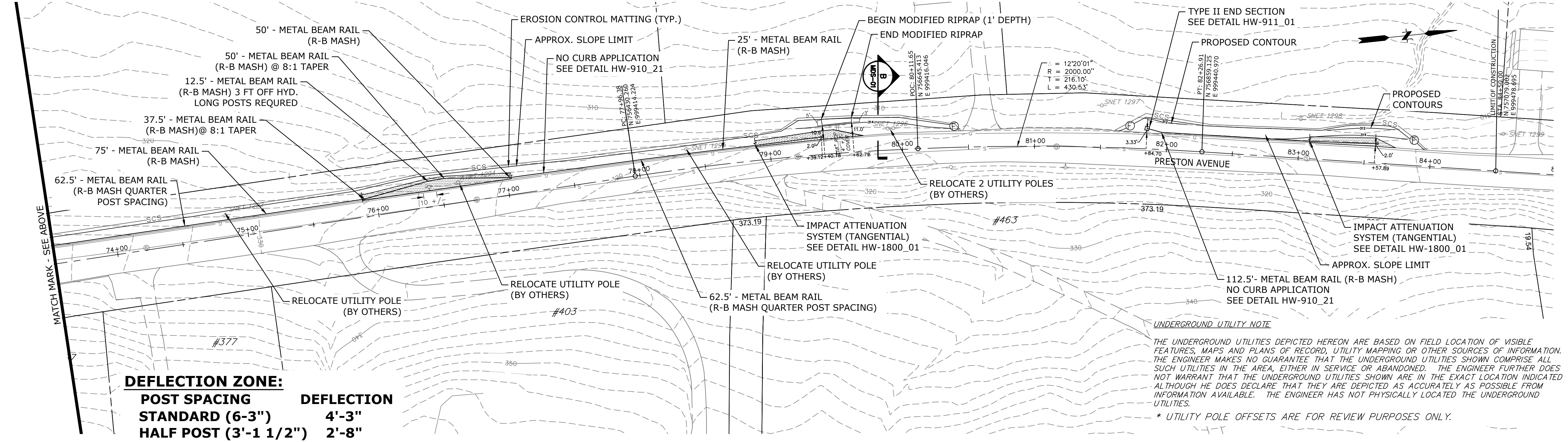
ROADWAY NOTES:

- 1) **POSTED SPEED LIMIT: 35 MPH**
- 2) **2013 ADT: 4100**
- 3) **FUNCTIONAL CLASSIFICATION: URBAN MINOR ARTERIAL**
- 4) **CLEAR ZONE: NEG SHELF 1:6 OR FLATTER: 12FT**



GUIDERAIL NOTES:
 1) CONTRACTOR TO FOLLOW ALL GRADING REQUIREMENTS AND LIMITS PER CONNECTICUT DEPARTMENT OF TRANSPORTATION'S STANDARD DETAILS.
 2) CONTRACTOR TO CONTACT CONNECTICUT CALL BEFORE YOU DIG 1-800-922-4455 PRIOR TO ALL EXCAVATION AND INSTALLATION OF GUIDERAIL.
 3) CONTRACTOR TO CONFIRM THE INSTALLATION OF GUIDERAIL SHALL NOT DAMAGE DRAINAGE PIPE OR OTHER UTILITIES.
 4) CONTRACTOR TO COORDINATE ALL UTILITY CONFLICTS AND RELOCATIONS WITH THE ASSOCIATED UTILITY OWNER(S).
 5) CONTRACTOR SHALL REMOVE ALL TREES WITHIN THE GUIDERAIL DEFLECTION ZONE.

**PRESTON AVENUE
 STA. 64+00 LT TO 80+50 LT**



DEFLECTION ZONE:

POST SPACING	DEFLECTION
STANDARD (6'-3")	4'-3"
HALF POST (3'-1 1/2")	2'-8"
QUARTER POST (1'-10")	1'-10"

UNDERGROUND UTILITY NOTE
 THE UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED ON FIELD LOCATION OF VISIBLE FEATURES, MAPS AND PLANS OF RECORD, UTILITY MAPPING OR OTHER SOURCES OF INFORMATION. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES DECLARE THAT THEY ARE DEPICTED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
 * UTILITY POLE OFFSETS ARE FOR REVIEW PURPOSES ONLY.

**PRESTON AVENUE
 STA. 81+00 LT TO 84+00 LT**

SUGGESTED GRADING: SEE DETAIL

	BASE BID	FINAL REVIEW	
	GUIDERAIL UPGRADE PRESTON AVENUE	CITY OF MERIDEN	79-243
		GUIDERAIL UPGRADE PLAN	HPN-01
			9

DESIGNER/DRAFTER:
JAG/LSS

CHECKED BY:
MEG

SCALE IN FEET
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SCALE 1"=40'

SIGNATURE/
BLOCK:

PROJECT TITLE:
**GUIDERAIL UPGRADE
PRESTON AVENUE**

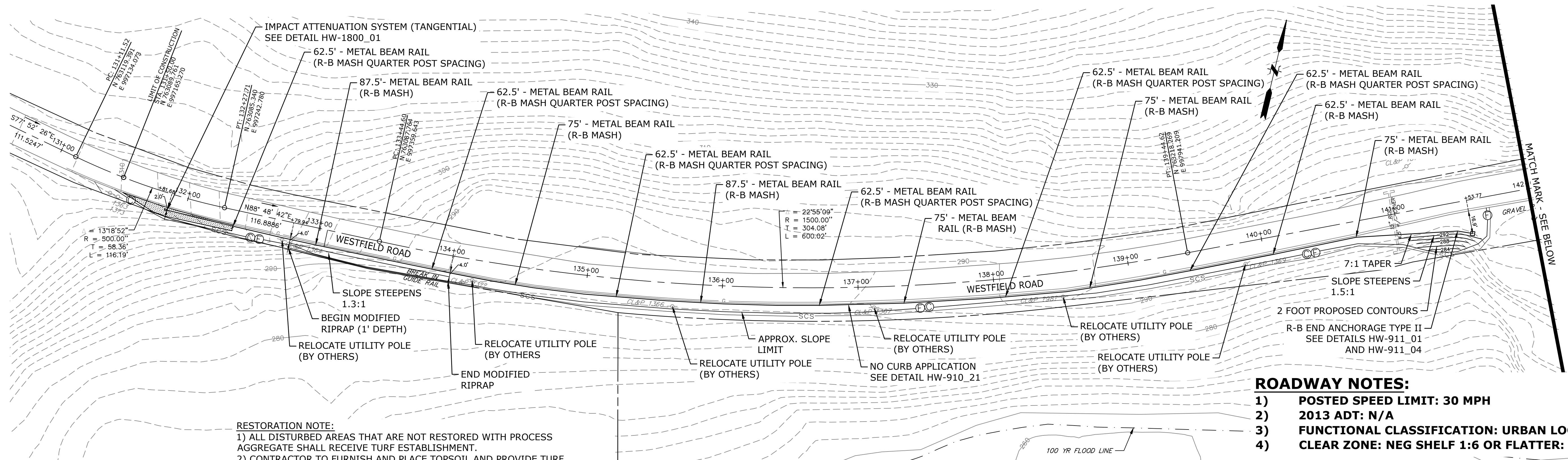
CITY:
CITY OF MERIDEN

DRAWING NO.:

SHEET NO.:

Plotted: 2/26/2020

Filename: J:\DWG\2017\0572\A10\CIVIL\PLAN\20170572A10_HP01.DWG



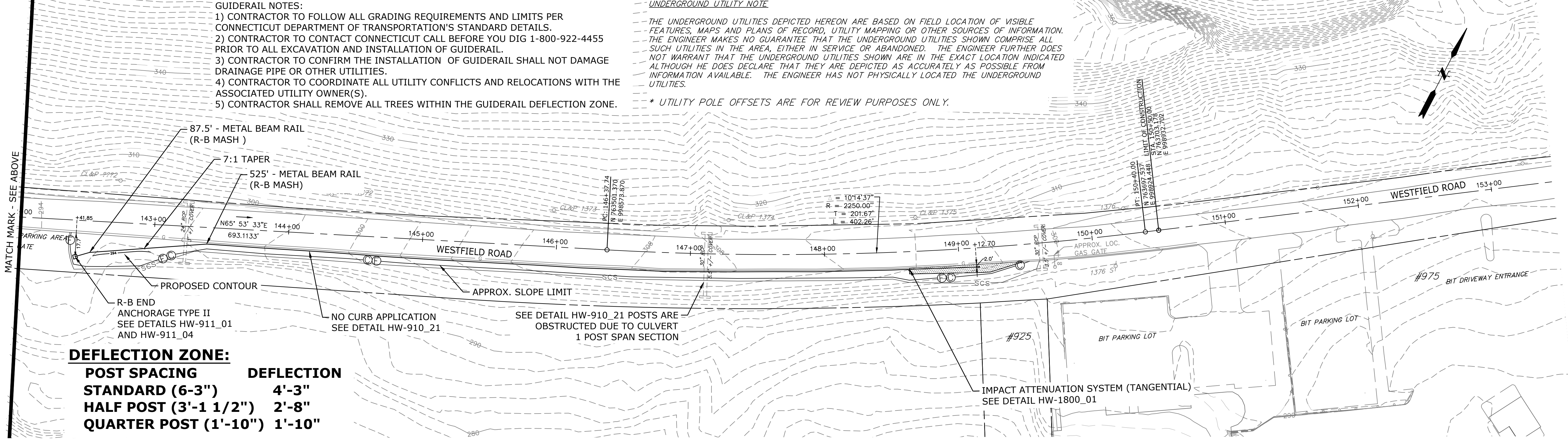
RESTORATION NOTE:
 1) ALL DISTURBED AREAS THAT ARE NOT RESTORED WITH PROCESS AGGREGATE SHALL RECEIVE TURF ESTABLISHMENT.
 2) CONTRACTOR TO FURNISH AND PLACE TOPSOIL AND PROVIDE TURF ESTABLISHMENT FROM FACE OF CURB/ROAD EDGE TO SEDIMENTATION CONTROL SYSTEM FILTER FABRIC FENCE SYSTEM.

- ROADWAY NOTES:**
- 1) POSTED SPEED LIMIT: 30 MPH
 - 2) 2013 ADT: N/A
 - 3) FUNCTIONAL CLASSIFICATION: URBAN LOCAL
 - 4) CLEAR ZONE: NEG SHELFF 1:6 OR FLATTER: 12FT

**WESTFIELD ROAD
 STA.131+50 RT TO 142+00 RT**

- GUIDERAIL NOTES:**
- 1) CONTRACTOR TO FOLLOW ALL GRADING REQUIREMENTS AND LIMITS PER CONNECTICUT DEPARTMENT OF TRANSPORTATION'S STANDARD DETAILS.
 - 2) CONTRACTOR TO CONTACT CONNECTICUT CALL BEFORE YOU DIG 1-800-922-4455 PRIOR TO ALL EXCAVATION AND INSTALLATION OF GUIDERAIL.
 - 3) CONTRACTOR TO CONFIRM THE INSTALLATION OF GUIDERAIL SHALL NOT DAMAGE DRAINAGE PIPE OR OTHER UTILITIES.
 - 4) CONTRACTOR TO COORDINATE ALL UTILITY CONFLICTS AND RELOCATIONS WITH THE ASSOCIATED UTILITY OWNER(S).
 - 5) CONTRACTOR SHALL REMOVE ALL TREES WITHIN THE GUIDERAIL DEFLECTION ZONE.

UNDERGROUND UTILITY NOTE:
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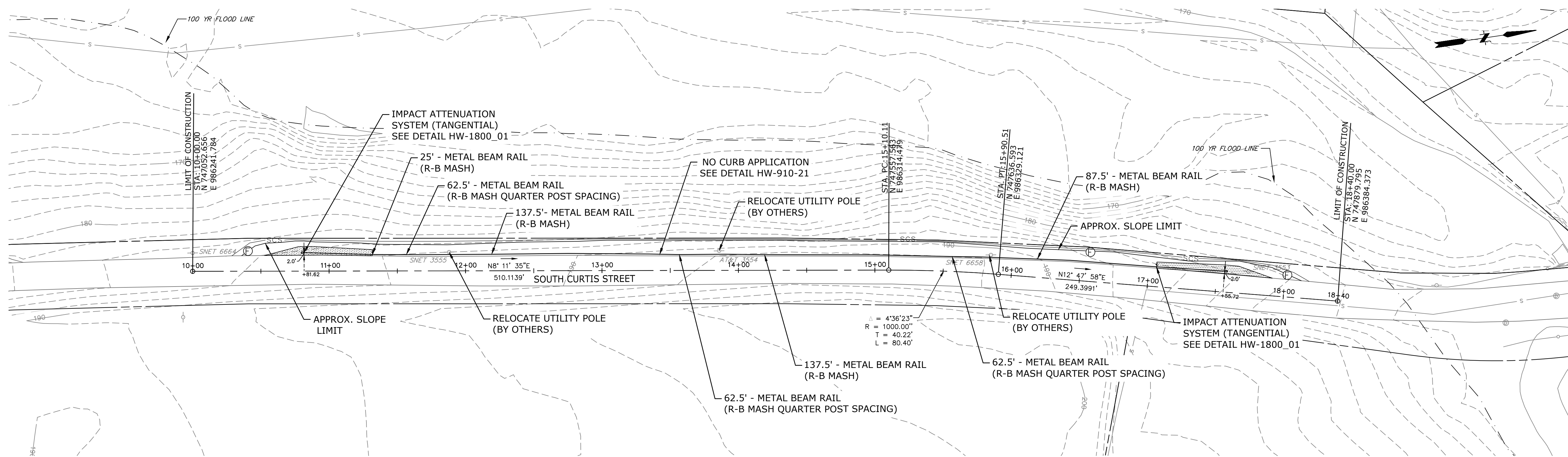
DEFLECTION ZONE:

POST SPACING	DEFLECTION
STANDARD (6'-3")	4'-3"
HALF POST (3'-1 1/2")	2'-8"
QUARTER POST (1'-10")	1'-10"

**WESTFIELD ROAD
 STA.142+00 RT TO 150+50 RT**

BASE BID FINAL REVIEW

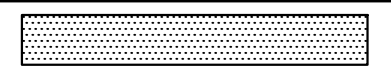
2. 1. REV. DATE REVISION DESCRIPTION SHEET NO. Plotted: 2/26/2020	DESIGNER/DRAFTER: JAG/LSS CHECKED BY: MEG SCALE IN FEET SCALE 1"=40' Filename: J:\DWG\2017\0572\A10\CIVIL\PLAN\20170572A10_HPNO1.DWG	SIGNATURE/ BLOCK: PROJECT TITLE: GUIDERAIL UPGRADE WESTFIELD ROAD	CITY: CITY OF MERIDEN DRAWING TITLE: GUIDERAIL UPGRADE PLAN	PROJECT NO. 79-243 DRAWING NO. HPN-02 SHEET NO. 10
	SUGGESTED GRADING: SEE DETAIL			



**SOUTH CURTIS STREET
STA. 10+00 LT TO 18+40 LT**

RESTORATION NOTE:
 1) ALL DISTURBED AREAS THAT ARE NOT RESTORED WITH PROCESS AGGREGATE SHALL RECEIVE TURF ESTABLISHMENT.
 2) CONTRACTOR TO FURNISH AND PLACE TOPSOIL AND PROVIDE TURF ESTABLISHMENT FROM FACE OF CURB/ROAD EDGE TO SEDIMENTATION CONTROL SYSTEM FILTER FABRIC FENCE SYSTEM.

SUGGESTED GRADING: SEE DETAIL



GUIDERAIL NOTES:
 1) CONTRACTOR TO FOLLOW ALL GRADING REQUIREMENTS AND LIMITS PER CONNECTICUT DEPARTMENT OF TRANSPORTATION'S STANDARD DETAILS.
 2) CONTRACTOR TO CONTACT CONNECTICUT CALL BEFORE YOU DIG 1-800-922-4455 PRIOR TO ALL EXCAVATION AND INSTALLATION OF GUIDERAIL.
 3) CONTRACTOR TO CONFIRM THE INSTALLATION OF GUIDERAIL SHALL NOT DAMAGE DRAINAGE PIPE OR OTHER UTILITIES.
 4) CONTRACTOR TO COORDINATE ALL UTILITY CONFLICTS AND RELOCATIONS WITH THE ASSOCIATED UTILITY OWNER(S).
 5) CONTRACTOR SHALL REMOVE ALL TREES WITHIN THE GUIDERAIL DEFLECTION ZONE.

DEFLECTION ZONE:

POST SPACING	DEFLECTION
STANDARD (6'-3")	4'-3"
HALF POST (3'-1 1/2")	2'-8"
QUARTER POST (1'-10")	1'-10"

ROADWAY NOTES:

- 1) POSTED SPEED LIMIT: 30 MPH
- 2) 2013 ADT: 2600
- 3) FUNCTIONAL CLASSIFICATION: URBAN COLLECTOR
- 4) CLEAR ZONE: NEG SHELF 1:6 OR FLATTER: 12FT

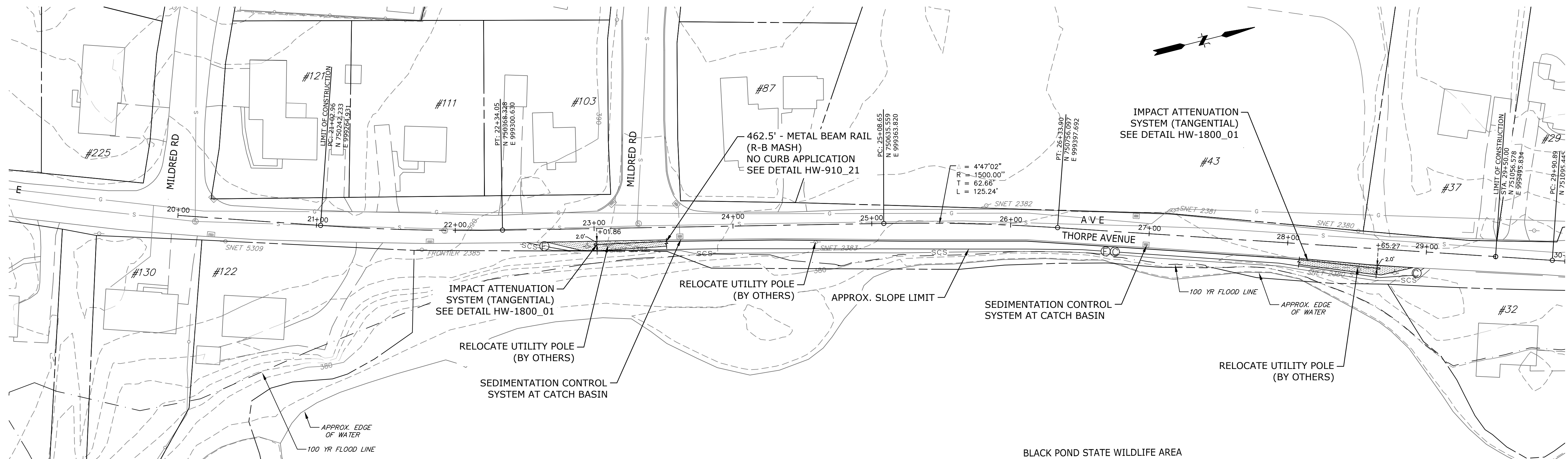
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ALTERNATE A

FINAL REVIEW

2. 1. REV. DATE REVISION DESCRIPTION SHEET NO.	DESIGNER/DRAFTER: JAG/LSS CHECKED BY: MEG SCALE IN FEET SCALE 1"=40' Plotted: 2/26/2020	SIGNATURE/ BLOCK: PROJECT TITLE: GUIDERAIL UPGRADE SOUTH CURTIS STREET	CITY: CITY OF MERIDEN DRAWING TITLE: GUIDERAIL UPGRADE PLAN	PROJECT NO. 79-243
				DRAWING NO. HPN-03 SHEET NO. 11



**THORPE AVENUE
STA. 21+03 RT TO 29+50 RT**

RESTORATION NOTE:
 1) ALL DISTURBED AREAS THAT ARE NOT RESTORED WITH PROCESS AGGREGATE SHALL RECEIVE TURF ESTABLISHMENT.
 2) CONTRACTOR TO FURNISH AND PLACE TOPSOIL AND PROVIDE TURF ESTABLISHMENT FROM FACE OF CURB/ROAD EDGE TO SEDIMENTATION CONTROL SYSTEM FILTER FABRIC FENCE SYSTEM.

SUGGESTED GRADING: SEE DETAIL

GUIDERAIL NOTES:
 1) CONTRACTOR TO FOLLOW ALL GRADING REQUIREMENTS AND LIMITS PER CONNECTICUT DEPARTMENT OF TRANSPORTATION'S STANDARD DETAILS.
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 4) CONTRACTOR TO COORDINATE ALL UTILITY CONFLICTS AND RELOCATIONS WITH THE ASSOCIATED UTILITY OWNER(S).
 5) CONTRACTOR SHALL REMOVE ALL TREES WITHIN THE GUIDERAIL DEFLECTION ZONE.

DEFLECTION ZONE:

POST SPACING	DEFLECTION
STANDARD (6'-3")	4'-3"
HALF POST (3'-1 1/2")	2'-8"
QUARTER POST (1'-10")	1'-10"

ROADWAY NOTES:
 1) **POSTED SPEED LIMIT: 25 MPH**
 2) **2013 ADT: 550**
 3) **FUNCTIONAL CLASSIFICATION: URBAN COLLECTOR**
 4) **CLEAR ZONE: NEG SHELF 1:6 OR FLATTER: 7FT**

UNDERGROUND UTILITY NOTE
 THE UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED ON FIELD LOCATION OF VISIBLE FEATURES, MAPS AND PLANS OF RECORD, UTILITY MAPPING OR OTHER SOURCES OF INFORMATION. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES DECLARE THAT THEY ARE DEPICTED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

* UTILITY POLE OFFSETS ARE FOR REVIEW PURPOSES ONLY.

ALTERNATE B

FINAL DESIGN REVIEW

DESIGNER/DRAFTER: JAG/LSS
CHECKED BY: MEG
SCALE IN FEET 0 40 80 SCALE 1"=40'
Plotted: 2/26/2020
REV. DATE REVISION DESCRIPTION SHEET NO.
1.
2.

SIGNATURE/BLOCK:
 PROJECT TITLE:
**GUIDERAIL UPGRADE
THORPE AVENUE**

CITY:
CITY OF MERIDEN

PROJECT NO.
79-243
 DRAWING NO.
HPN-04
 SHEET NO.
12

*ONLY STANDARD SHEETS MARKED WITH AN "✓" ARE IN THIS PROJECT # 79-XXX-LRARP

**REVISED OR ADDED

✓*	SHEET NO.	TITLE	APPROVAL DATE**
<input type="checkbox"/>	HW-506_01	ENDWALLS, SLOPE PAVED INLETS AND OUTLETS	1-26-12
<input type="checkbox"/>	HW-506_02	TYPE "D-G" & "L" ENDWALLS	7-13-12
<input type="checkbox"/>	HW-506_03	ENDWALLS FOR PIPE ARCH	9-18-09
<input type="checkbox"/>	HW-507_01	TYPE "C", "C-L" & DROP INLET CATCH BASIN	7-24-13
<input type="checkbox"/>	HW-507_02	TYPE "C", "C-L" & DOUBLE GRATE TYPE - I	7-24-13
<input type="checkbox"/>	HW-507_03	TYPE "C", "C-L" & DOUBLE GRATE TYPE - II	7-24-13
<input type="checkbox"/>	HW-507_04	TYPE "C", "C-L" & ROUND PRECAST CONCRETE CB	11-10-11
<input type="checkbox"/>	HW-507_05	TYPE "C" & "C-L" PRECAST CONCRETE CB DOUBLE GRATE TYPE - I	11-10-11
<input type="checkbox"/>	HW-507_06	TYPE "C" & "C-L" PRECAST CONCRETE CB DOUBLE GRATE TYPE - II	11-10-11
<input type="checkbox"/>	HW-507_07	TYPE "C" & "C-L" CATCH BASIN TOPS AND CURBS	11-10-11
<input type="checkbox"/>	HW-507_08	CATCH BASIN FRAMES AND GRATES	9-18-09
<input type="checkbox"/>	HW-507_09	HEAVY DUTY LOCK DOWN TOPS	7-12-12
<input type="checkbox"/>	HW-507_10	MANHOLE - FRAME & COVER	7-24-13
<input type="checkbox"/>	HW-651_01	C.C.M. PIPE INSTALLATIONS IN FILL & ROCK SLOPES & PIPE TRENCH DETAIL	7-24-13
<input type="checkbox"/>	HW-651_02	SLOTTED DRAIN PIPE 12"- 15"-18"-24"-30" (305-381-457-610-762)	7-12-12
<input type="checkbox"/>	HW-652_01	PIPE ENDS	7-24-13
<input type="checkbox"/>	HW-751_01	UNDERDRAINS AND UNDERDRAIN OUTLETS	7-12-12
<input type="checkbox"/>	HW-803_01a	PAVED APRONS	6-07-17
<input type="checkbox"/>	HW-803_01b	PAVED DITCHES AND PAVED CHANNELS	6-07-17
<input type="checkbox"/>	HW-811_01	CONCRETE CURBING	6-07-17
<input type="checkbox"/>	HW-813_01	GRANITE STONE TRANSITION CURBING	7-24-13
<input type="checkbox"/>	HW-813_02	STONE CURBING	6-07-17
<input type="checkbox"/>	HW-815_01	BITUMINOUS CONCRETE CURBING	6-07-17
<input type="checkbox"/>	HW-821_01a	TRANSITION - 45" (1145) F-SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 1	1-26-12
<input type="checkbox"/>	HW-821_01b	TRANSITION - 45" (1145) F-SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 2	10-18-10
<input type="checkbox"/>	HW-821_01c	TRANSITION - 45" (1145) F-SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 3	1-26-12
<input type="checkbox"/>	HW-821_02a	45" (1145) F-SHAPE PRECAST CONCRETE BARRIER CURB SHEET 1	7-24-13
<input type="checkbox"/>	HW-821_02b	45" (1145) F-SHAPE PRECAST CONCRETE BARRIER CURB SHEET 2	7-24-13
<input type="checkbox"/>	HW-821_03a	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 1	1-26-12
<input type="checkbox"/>	HW-821_03b	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 2	10-18-10
<input type="checkbox"/>	HW-821_03c	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 3	10-18-10
<input type="checkbox"/>	HW-821_03d	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 4	10-18-10
<input type="checkbox"/>	HW-821_03e	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) F-SHAPE	7-24-13

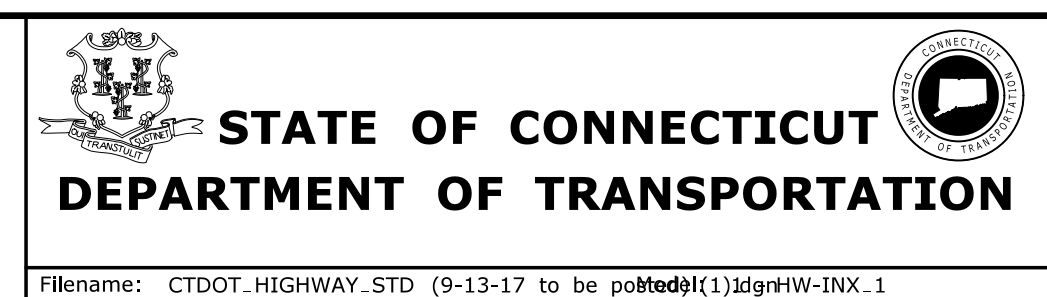
✓*	SHEET NO.	TITLE	APPROVAL DATE**
<input type="checkbox"/>	HW-821_04a	MERRITT PARKWAY NARROW MEDIAN BARRIER	6-09-11
<input type="checkbox"/>	HW-821_04b	MERRITT PARKWAY - 2' (610) WIDE MEDIAN BARRIER AND ROADSIDE BARRIER	7-24-13
<input type="checkbox"/>	HW-821_05a	TRANSITION - 45" (1145) F-SHAPE TO 54" (1372) VERTICAL SHAPE SHEET 1	1-26-12
<input type="checkbox"/>	HW-821_05b	TRANSITION - 45" (1145) F-SHAPE TO 54" (1372) VERTICAL SHAPE SHEET 2	1-26-12
<input type="checkbox"/>	HW-821_06	54" (1372) VERTICAL SHAPE BARRIER	2-06-12
<input type="checkbox"/>	HW-821_07	MISCELLANEOUS DETAILS FOR BARRIER TRANSITIONS	7-12-12
<input type="checkbox"/>	HW-822_01	TEMPORARY PRECAST CONCRETE BARRIER CURB	7-24-13
<input type="checkbox"/>	HW-905_01	STONE WALL, FARM WALL AND WIRE FENCES	6-07-17
<input type="checkbox"/>	HW-910_01	W-BEAM METAL BEAM RAIL HARDWARE	6-09-11
<input type="checkbox"/>	HW-910_02	METAL BEAM RAIL (TYPE R-B 350) GUIDERAIL	6-09-11
<input type="checkbox"/>	HW-910_03	METAL BEAM RAIL (TYPE MD-B 350)	6-09-11
<input type="checkbox"/>	HW-910_04	METAL BEAM RAIL (TYPE R-B 350) SYSTEMS 5, 5A, & 6	6-09-11
<input type="checkbox"/>	HW-910_05	METAL BEAM RAIL R-B 350 SPAN TYPE I, II, III SECTIONS	7-24-13
<input type="checkbox"/>	HW-910_06	R-B 350 BRIDGE ATTACHMENT SAFETY SHAPE PARAPET	6-09-11
<input checked="" type="checkbox"/>	HW-910_07	R-B 350 BRIDGE ATTACHMENT VERTICAL SHAPE PARAPET	6-09-11
<input type="checkbox"/>	HW-910_08	R-B 350 BRIDGE ATTACHMENT TRAILING END	6-09-11
<input type="checkbox"/>	HW-910_09a	MISCELLANEOUS GUIDERAIL TRANSITIONS SHEET 1	1-26-12
<input checked="" type="checkbox"/>	HW-910_09b	MISCELLANEOUS GUIDERAIL TRANSITIONS SHEET 2	7-25-12
<input type="checkbox"/>	HW-910_10	METAL BEAM RAIL 8" (203) X 6" (152) BOX BEAM	7-24-13
<input type="checkbox"/>	HW-910_11	CURVED GUIDERAIL TREATMENT DETAIL	7-25-12
<input type="checkbox"/>	HW-910_12a	MERRITT PARKWAY GUIDERAIL ATTACHMENT - SYSTEM 2 & 3	7-24-13
<input type="checkbox"/>	HW-910_12b	MERRITT PARKWAY GUIDERAIL	7-24-13
<input type="checkbox"/>	HW-910_12c	MERRITT PARKWAY GUIDERAIL TRAILING END ATTACHMENTS	7-24-13
<input type="checkbox"/>	HW-910_12d	MERRITT PARKWAY MEDIAN GUIDERAIL AND END ANCHOR	6-09-11
<input type="checkbox"/>	HW-910_13a	THRIE-BEAM METAL BEAM RAIL HARDWARE	7-24-13
<input type="checkbox"/>	HW-910_13b	THRIE-BEAM TRANSITIONS	7-24-13
<input type="checkbox"/>	HW-910_14a	THRIE-BEAM 350 BRIDGE ATTACHMENT	6-09-11
<input type="checkbox"/>	HW-910_14b	THRIE-BEAM 350 GUIDERAIL TRANSITION TO R-B 350 GUIDERAIL	6-09-11
<input type="checkbox"/>	HW-910_15	MD-B 350 MEDIAN BARRIER SAFETY SHAPE ATTACHMENT TYPE I	6-09-11
<input type="checkbox"/>	HW-910_16	MD-B 350 MEDIAN BARRIER SAFETY SHAPE ATTACHMENT TYPE II	6-09-11
<input type="checkbox"/>	HW-910_17	R-B TERMINAL SECTION	7-24-13
<input type="checkbox"/>	HW-910_18	METAL BEAM RAIL (TYPE MD-I)	10-18-10
<input type="checkbox"/>	HW-910_19a	METAL BEAM RAIL (MODIFIED TYPE R-I) AND END ANCHORAGE TYPE I	7-24-13

REV.	DATE	REVISION DESCRIPTION
-	-	-
-	-	-
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-	-	-

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 9/20/2017

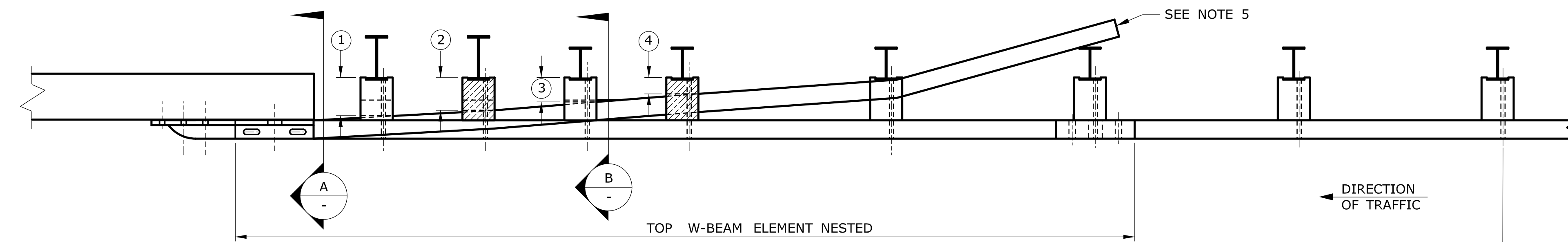
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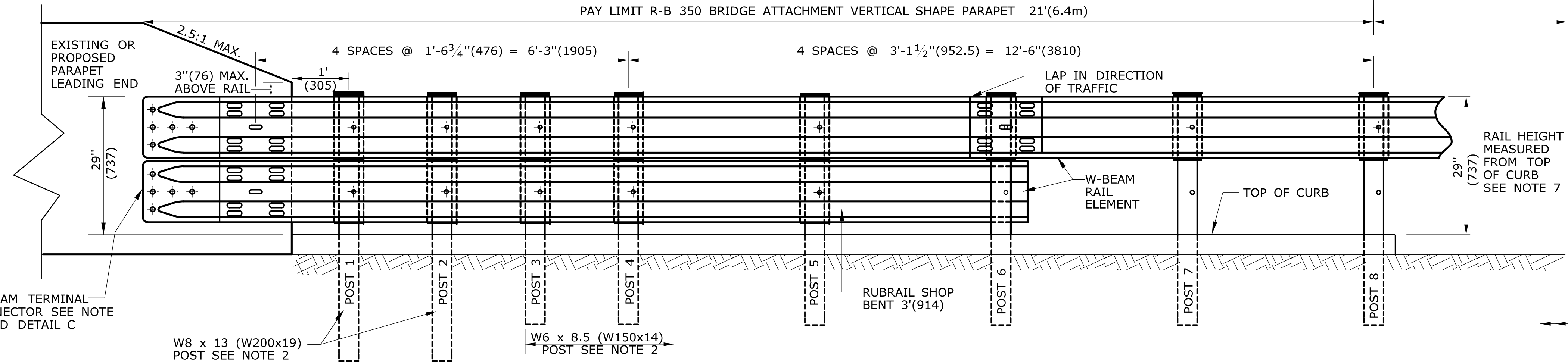
CTDOT
STANDARD SHEET
OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
**HIGHWAY
STANDARD SHEET INDEX**

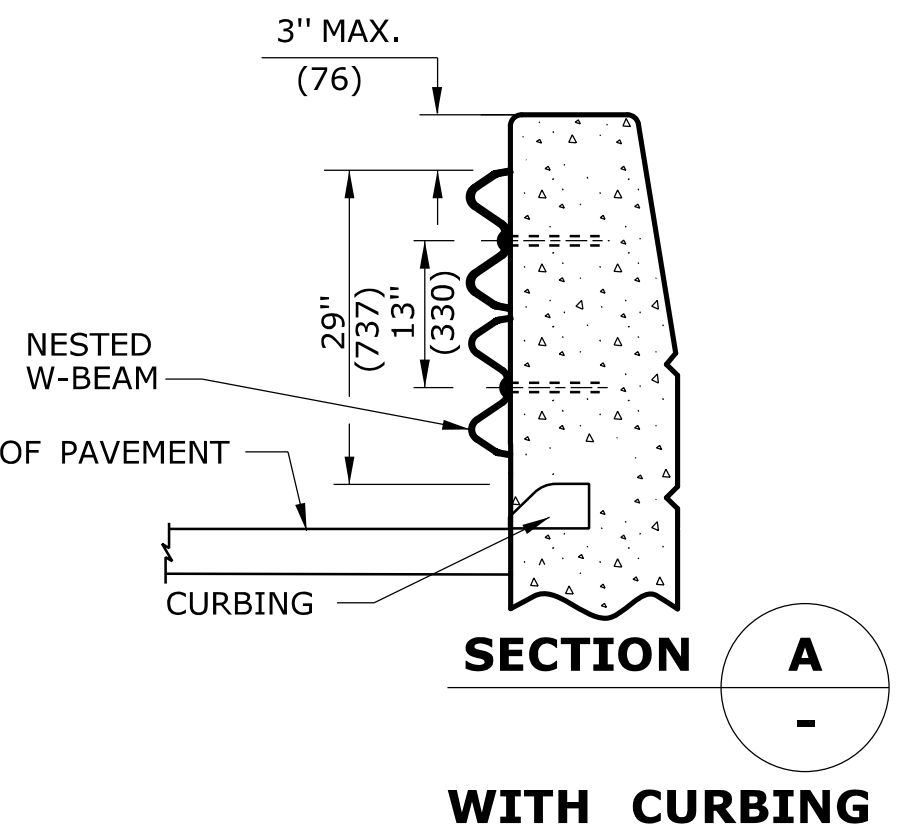
STANDARD SHEET NO.:
**HW_INX
1 of 2**



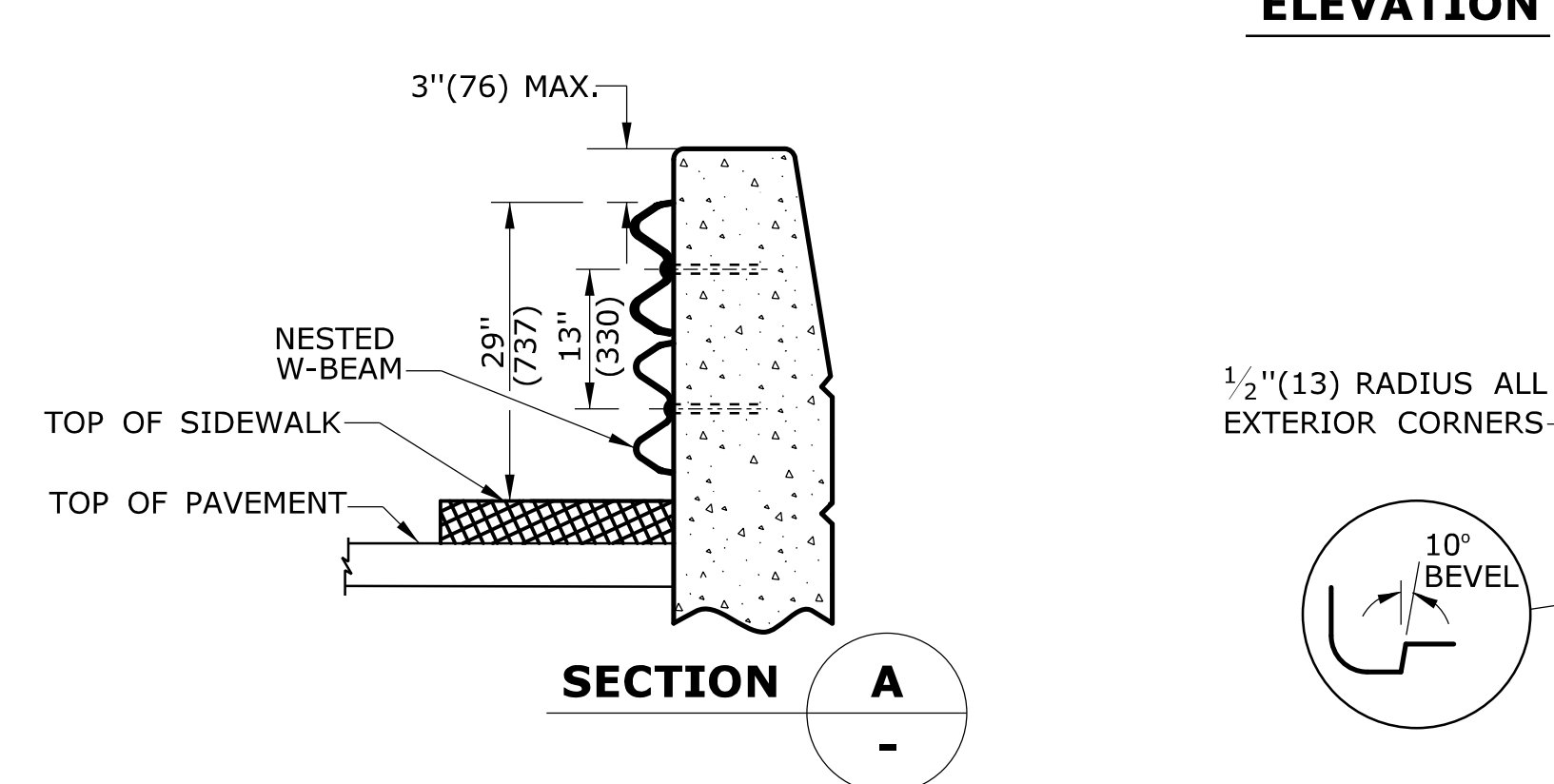
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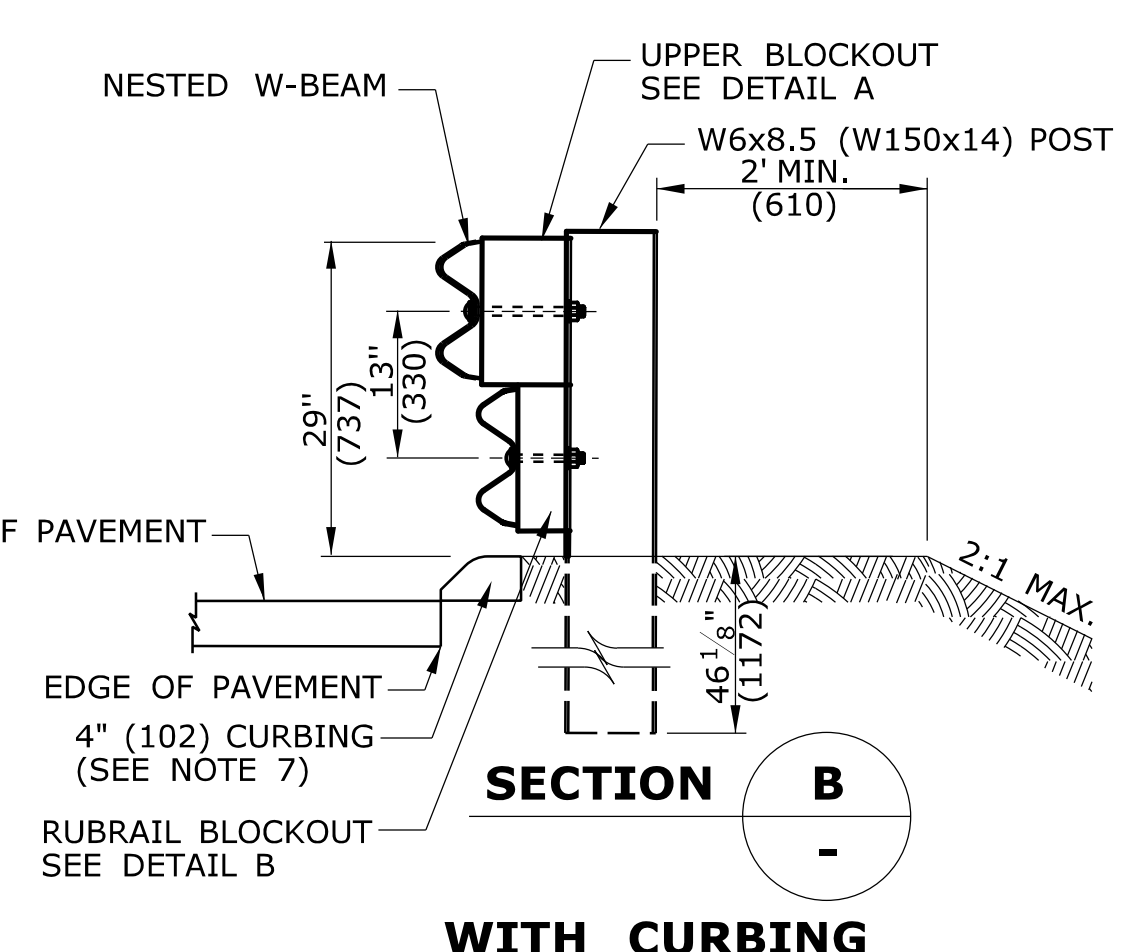
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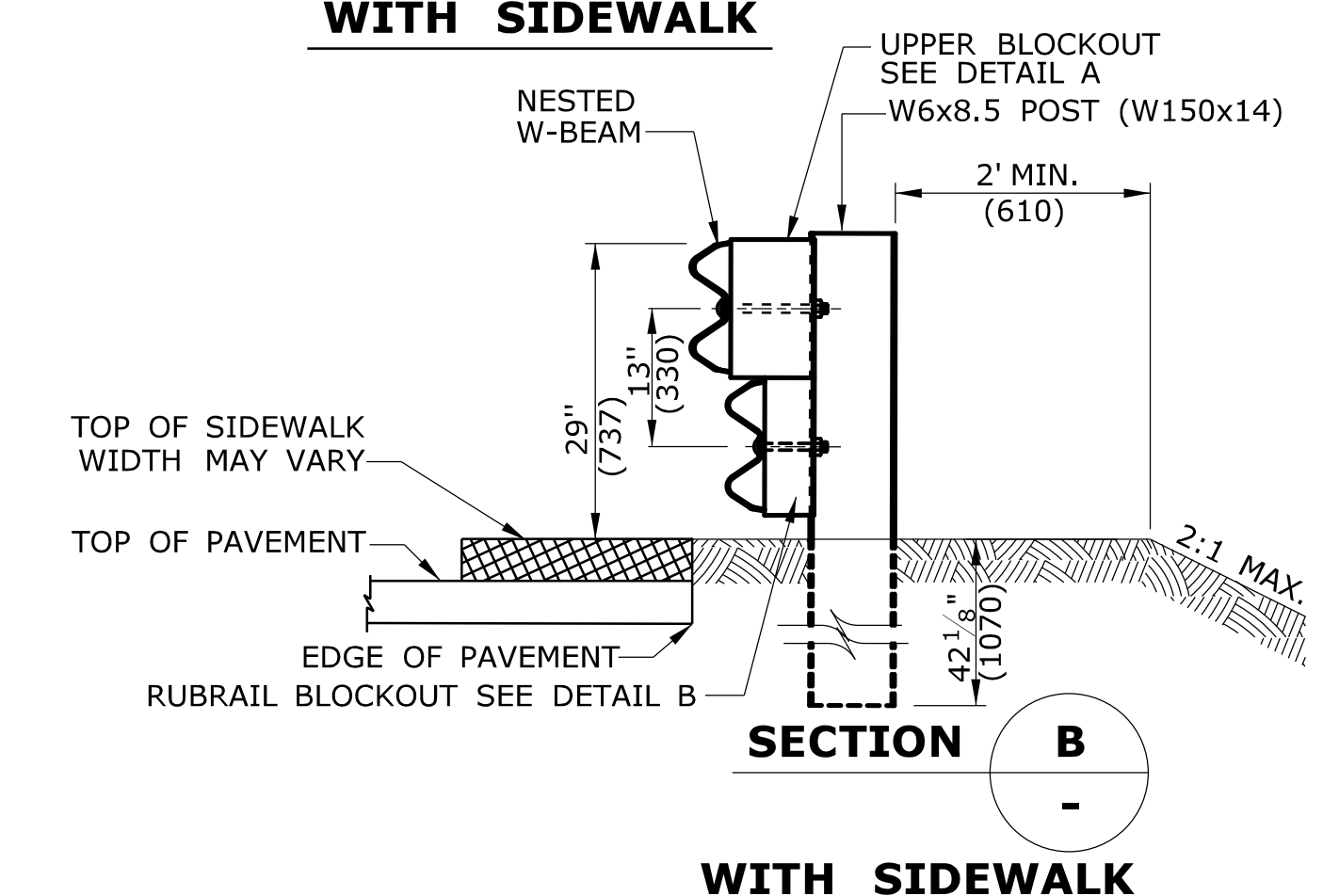
SECTION A WITH CURBING



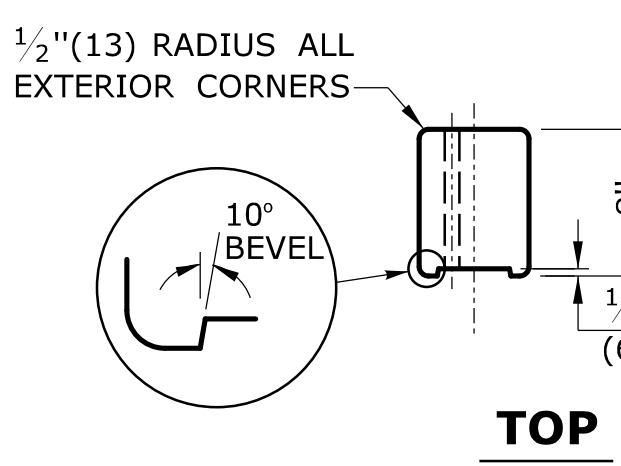
SECTION A WITH SIDEWALK



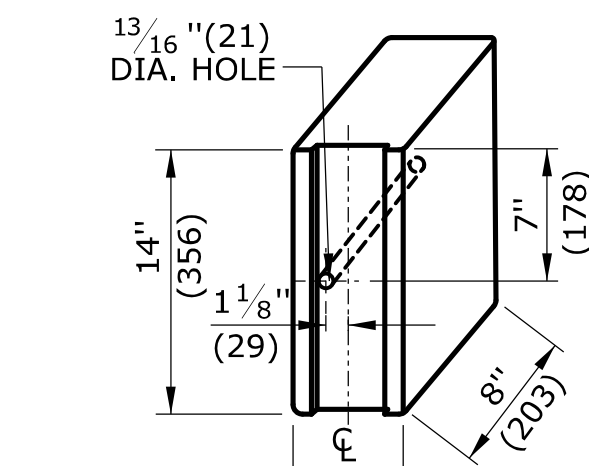
SECTION B WITH CURBING



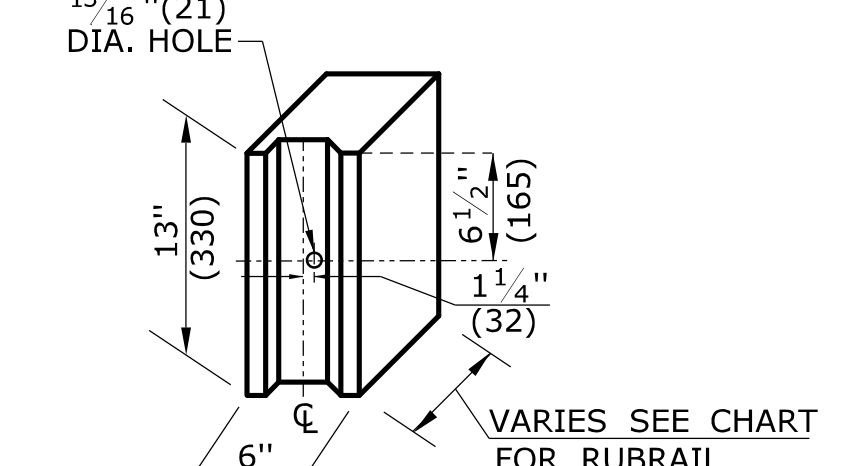
SECTION B WITH SIDEWALK



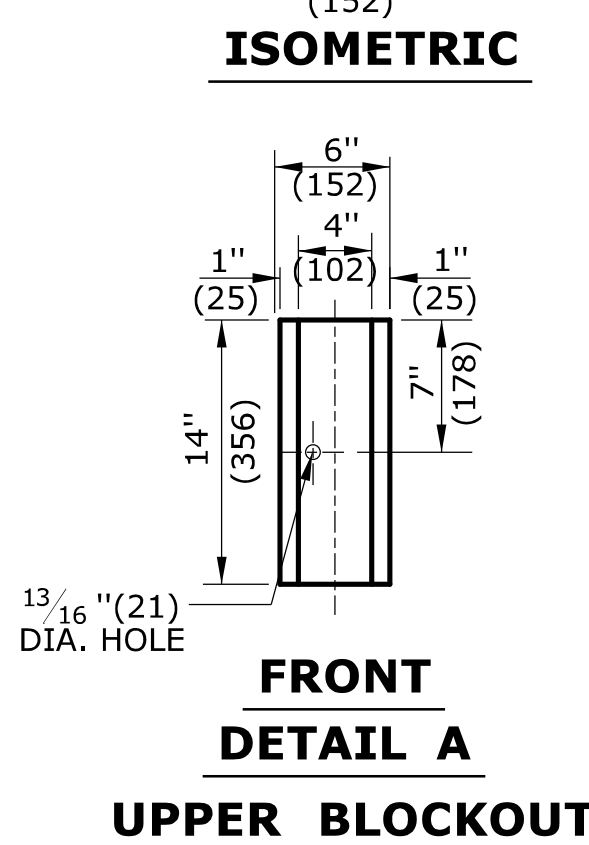
TOP



ISOMETRIC



DETAIL B RUBRAIL BLOCKOUT

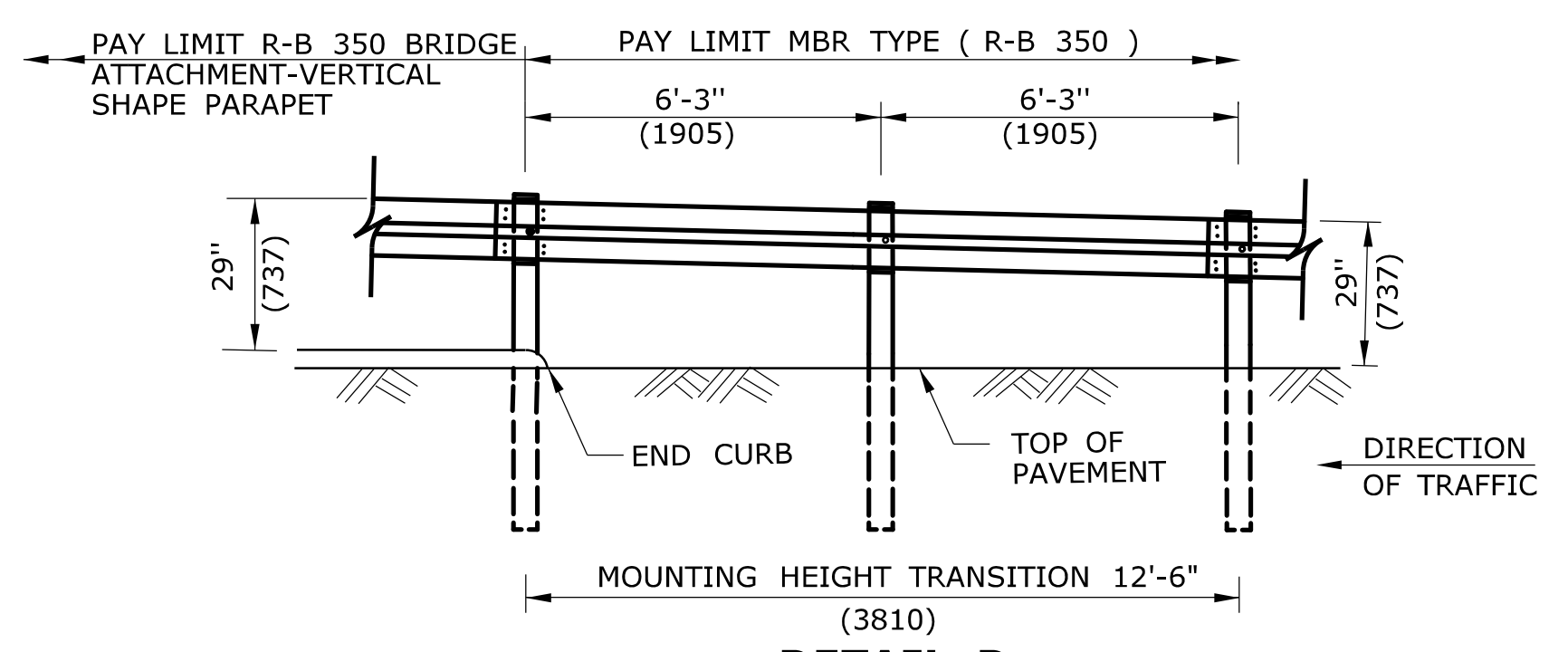


FRONT DETAIL A UPPER BLOCKOUT

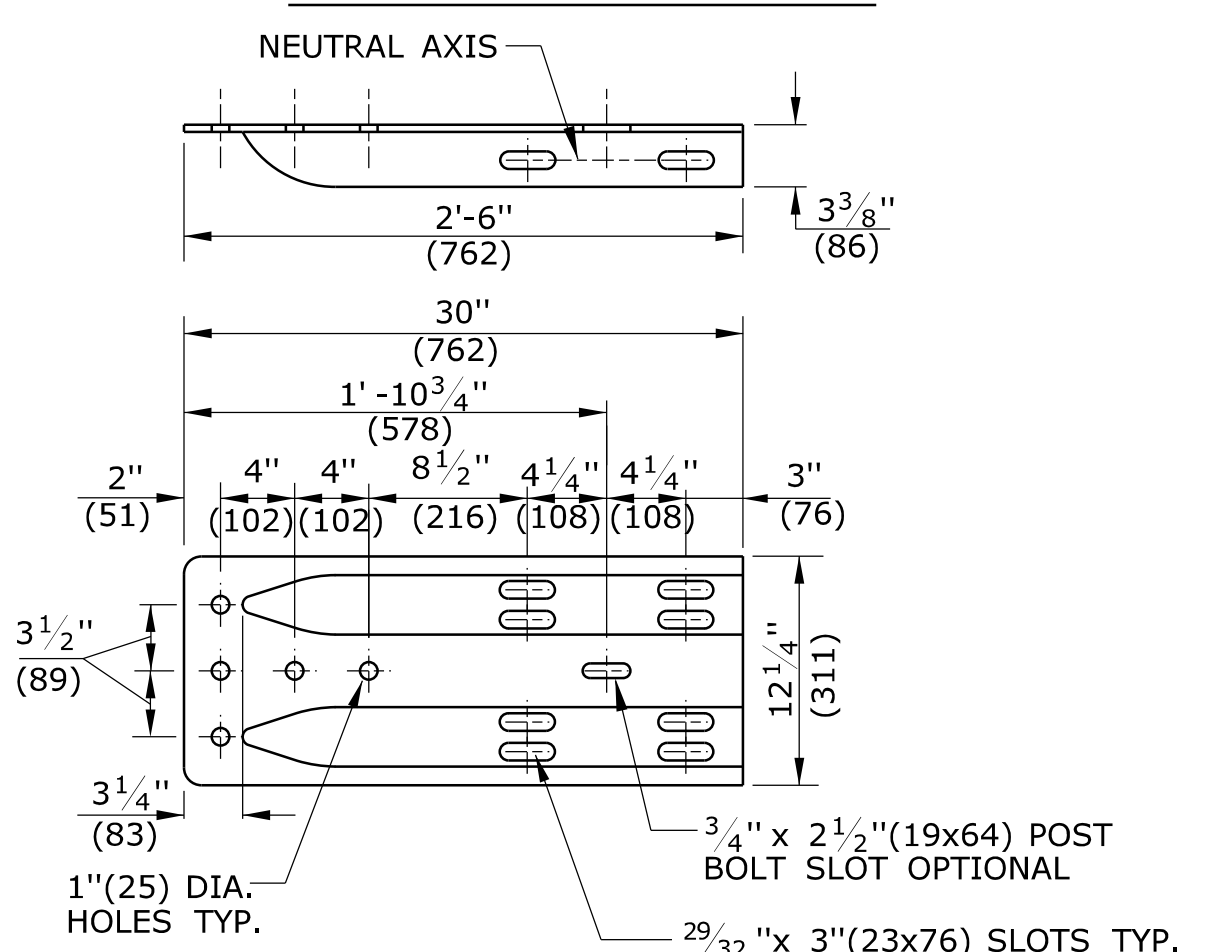
RUBRAIL BLOCKOUTS 13"(330)HIGH x 6"(152)WIDE		
POST	THICKNESS	BOLT LENGTH
①	7"(178)	9"(229)
②	6"(152)	8"(203)
③	4 1/2"(114)	6"(152)
④	3"(76)	5"(127)

GENERAL NOTES:

- THIS R-B 350 GUIDERAIL TRANSITION IS APPROPRIATE FOR CONNECTION AT THE FOLLOWING LOCATIONS:
 - WHEN ANY SAFETY SHAPE (F-SHAPED OR JERSEY SHAPE) PARAPET HAS AN ELECTRICAL JUNCTION BOX WITHIN 8' (2438) OF THE END OF THE PARAPET, THE END OF THE PARAPET SHALL BE MODIFIED OR TRANSFORMED TO A VERTICAL SHAPE PRIOR TO GUIDERAIL ATTACHMENT.
 - VERTICAL WALL OR ABUTMENT FACE.
 - VERTICAL CONCRETE PARAPET WITH SIDEWALK.
 - VERTICAL FACE FOR LEADING AND TRAILING ENDS ON DUAL DIRECTION ROADWAYS.
- POSTS 1 AND 2 ARE W8 x 13 (W200x19), 7'-6" (2286) LONG. ALL OTHER POSTS IN TRANSITION ARE W6 x 8.5 (W150x14), 6' (1829) LONG.
- POSTS 1 THROUGH 5 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKOUTS AND/OR LOWER RUBRAIL.
- RUBRAIL BLOCKOUTS FOR POSTS 1 THROUGH 4 ARE ATTACHED TO POST AND RAIL WITH A 5/8" (16) BUTTONHEAD BOLTS (SEE CHART FOR BOLT LENGTH). RUBRAIL ONLY IS ATTACHED TO POST 5 WITH A 5/8" x 1 1/4" (16 x 32) BUTTONHEAD BOLT.
- THE RUBRAIL MAY BE SHOP BENT IN THE LAST 3' (914) TO FACILITATE INSTALLATION. DO NOT ATTACH RUBRAIL TO BACK OF POST 6.
- USE CLASS B (10 GAUGE) TYPE II W-BEAM RAIL ELEMENTS FOR INSTALLATIONS ON EXPRESSWAYS AND RAMP.
- FOR THIS APPLICATION WHEN CURBING IS USED, R-B 350 RAIL HEIGHT MUST BE MEASURED FROM THE TOP OF CURBING TO THE TOP OF RAIL. SEE DETAIL D FOR HEIGHT TRANSITION.
- FOR NEW CONSTRUCTION WHERE CURBING IS NEEDED, USE EITHER 4" (102) BITUMINOUS CONCRETE PARK CURBING OR PRECAST CONCRETE TRANSITION CURBING SET WITH A 4" (102) REVEAL. THE PREFERRED CURBING FOR HIGH SPEED ROADWAYS (>45 MPH (72kph)) IS 4" (102). HOWEVER, ON LOW SPEED ROADWAYS (<45 MPH (72kph)) A 6" (152) CURBING MAY BE USED. ADJUST RAIL HEIGHT AS REQUIRED.
- ANCHORAGE:
 - AT EXISTING PARAPETS EACH W-BEAM TERMINAL CONNECTOR SHALL BE ANCHORED USING FOUR 7/8" x 12" (22 x 305) CHEMICALLY ANCHORED BOLTS WITH WASHERS OR AS DETAILED ON STRUCTURE SHEETS. MAXIMUM BOLT PROJECTION BEYOND THE NUT SHALL BE 1/2" (13). THE 12" (305) MINIMUM LENGTH OF CHEMICALLY ANCHORED BOLTS SHALL INCLUDE A MINIMUM EMBEDMENT DEPTH OF 10" (254) INTO SUITABLY REINFORCED CONCRETE OR AS RECOMMENDED BY THE MANUFACTURER OF BONDING MATERIAL.
 - FOR NEW PARAPETS OR BARRIERS, THE W-BEAM TERMINAL CONNECTORS SHALL BE ANCHORED AS DETAILED ON THE STRUCTURE SHEETS.
- ADDITIONAL BLOCKOUTS WITH POSTS 1 THROUGH 6 SHOULD BE AVOIDED.
- FOR SINGLE DIRECTION ROADWAY:
 - INSTALL W-BEAM TERMINAL CONNECTOR BETWEEN NESTED GUIDERAIL ELEMENTS.
 - FOR DUAL DIRECTION ROADWAY FOR APPROACHING TRAFFIC:
 - INSTALL W-BEAM TERMINAL CONNECTOR BETWEEN NESTED GUIDERAIL ELEMENTS.
 - FOR TRAILING END:
 - INSTALL W-BEAM TERMINAL CONNECTOR OUTSIDE OF THE NESTED GUIDERAIL ELEMENTS.
- MINIMUM RAIL HEIGHT FOR NEW CONSTRUCTION SHALL BE 29" (737) ± 1" (25).



DETAIL D HEIGHT TRANSITION



DETAIL C W-BEAM TERMINAL CONNECTOR CLASS B TYPE II

SEE NOTE 11
ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

REV.	DATE	REVISION DESCRIPTION
1	6/11	REVISED NOTE 9 FOR USE OF CHEMICAL ANCHORS
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 5/10/2011

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

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SUBMITTED BY: [Signature]
NAME/DATE/TIME: [Blank]

APPROVED BY: [Signature]
NAME/DATE/TIME: James H. Norman
2011.06.09 15:14:46 -04'00'

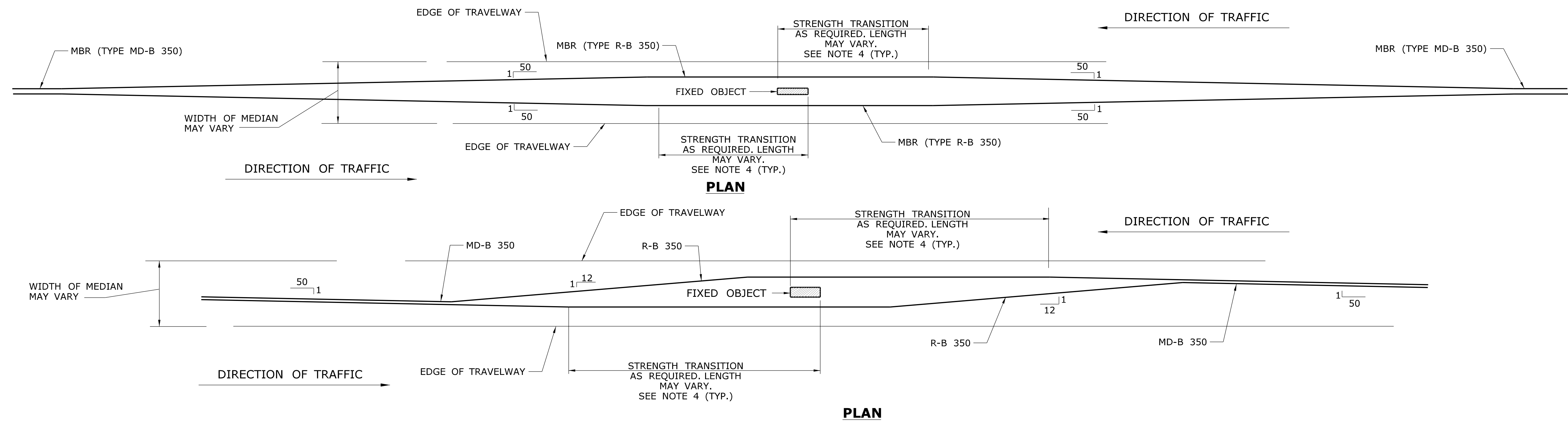
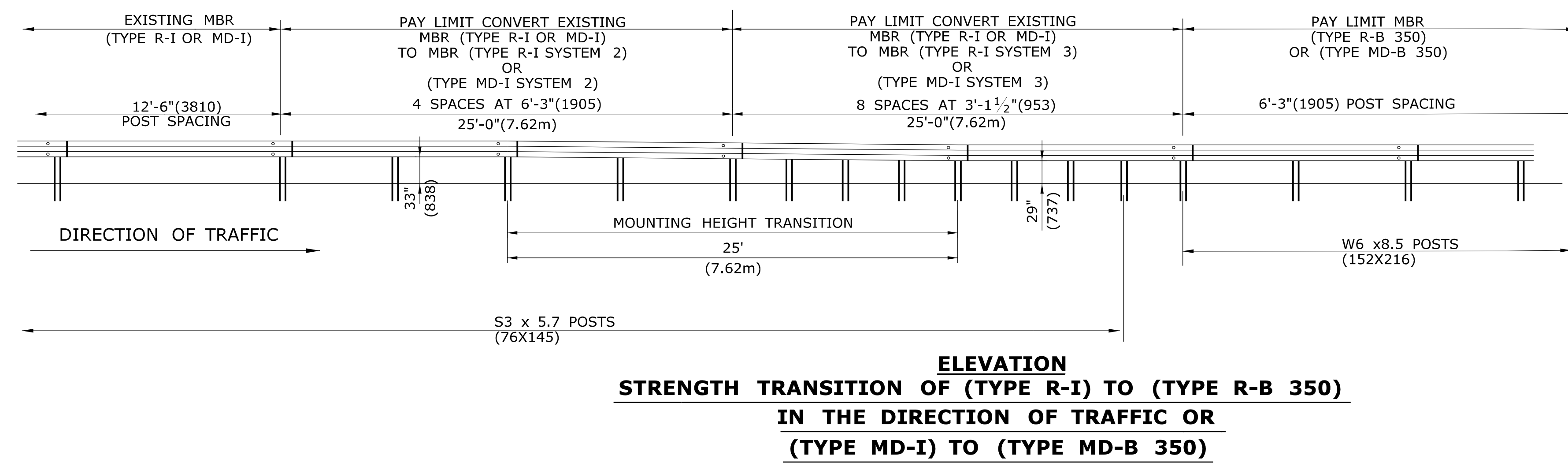
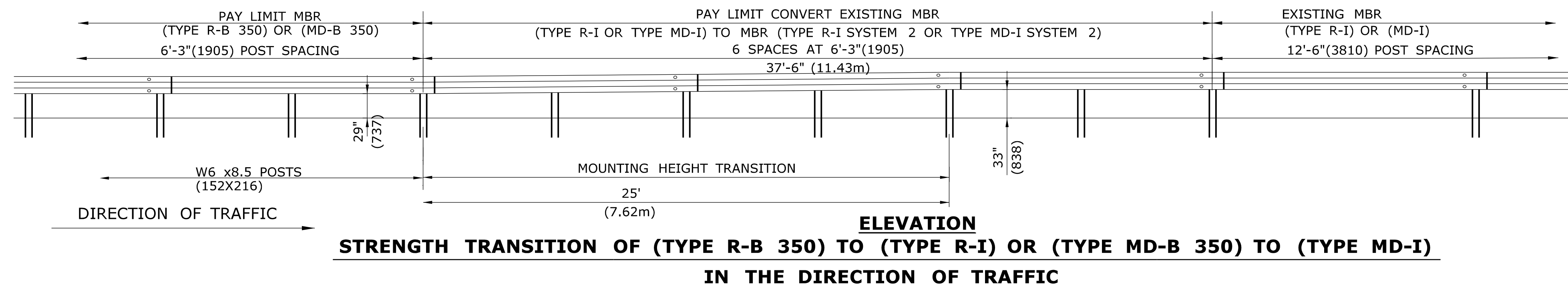
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STANDARD SHEET
OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
R-B 350 BRIDGE ATTACHMENT VERTICAL SHAPE PARAPET

STANDARD SHEET NO.:
HW-910_07

GENERAL NOTES:

1. POST PLACEMENT WITHIN THE LIMITS OF THE TRANSITION SHOULD BE ADJUSTED TO ACCOMMODATE THE INTRODUCTION OF THE BLOCKOUT WHILE MAINTAINING A SMOOTH RAIL LINE.
2. LATERAL PLACEMENT OF RAIL IN MEDIAN SHALL BE AS SHOWN ON THE PLANS.
3. CROSS SECTION GRADE IN MEDIAN THRU TRANSITION AREA SHALL NOT EXCEED 10:1. AVOID PLACEMENT RAIL ON CROSS SLOPES STEEPER THAN 6:1. ADJUST RAIL HEIGHT WHEN RAIL IS GREATER THAN 2' FROM EDGE OF ROAD.
4. PLACEMENT OF R-B 350 OR APPROPRIATE SYSTEMS ARE BASED ON DEFLECTION REQUIREMENTS FOR FIXED OBJECT. SEE STANDARD SHEET HW-910_04.



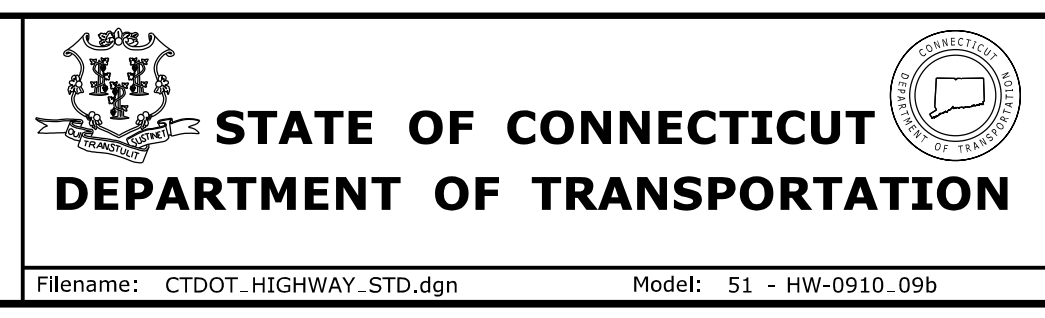
ALL METRIC DEMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

1	1/12	ADD NOTE 4 . REVISE TITLE	-
2	7/12	ERRATA	-
-	-	-	-
-	-	-	-
-	-	-	-
REV.	DATE	REVISION DESCRIPTION	

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 7/18/2012

NOT TO SCALE



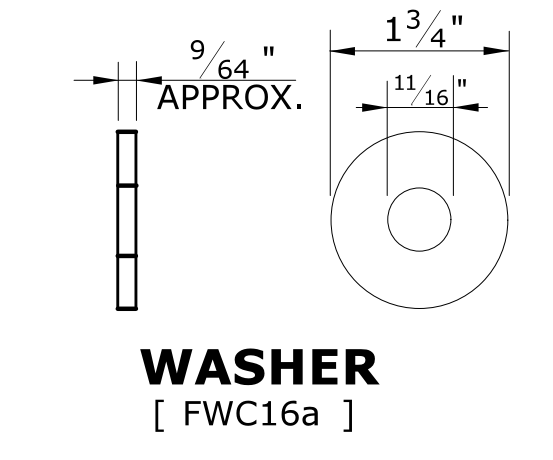
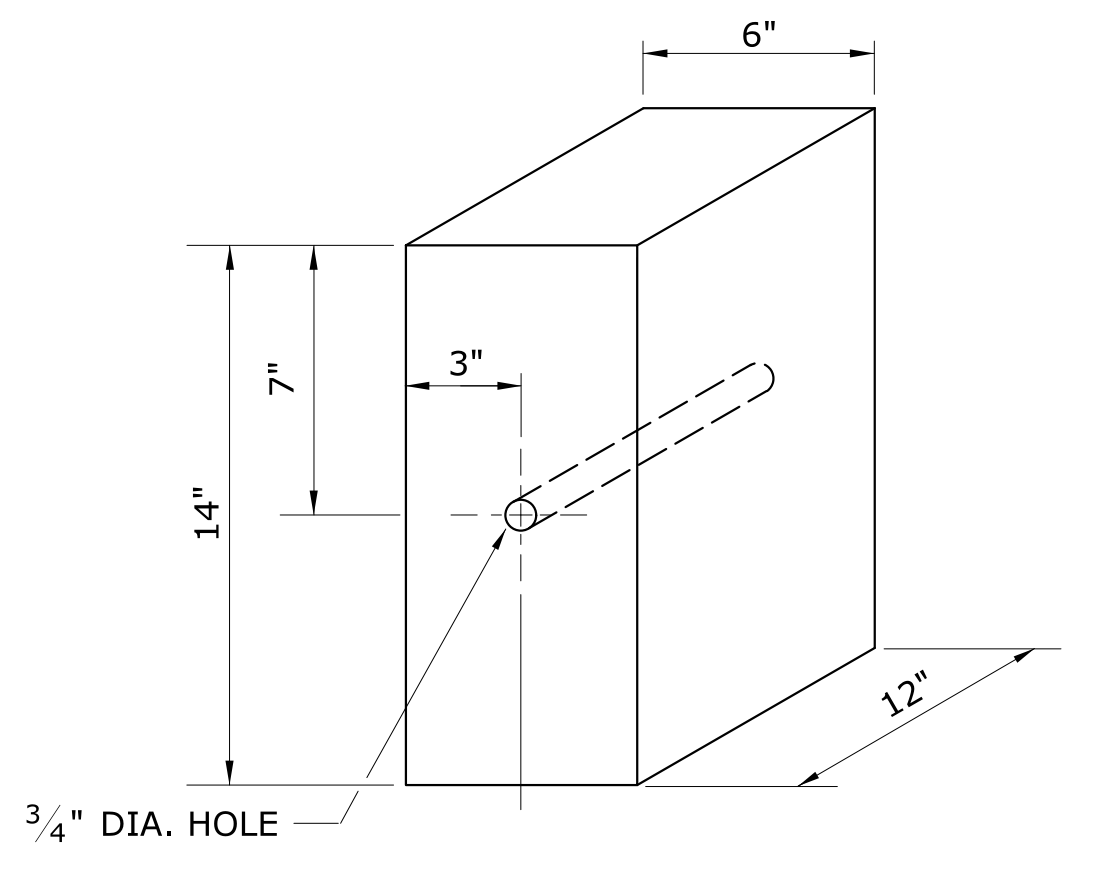
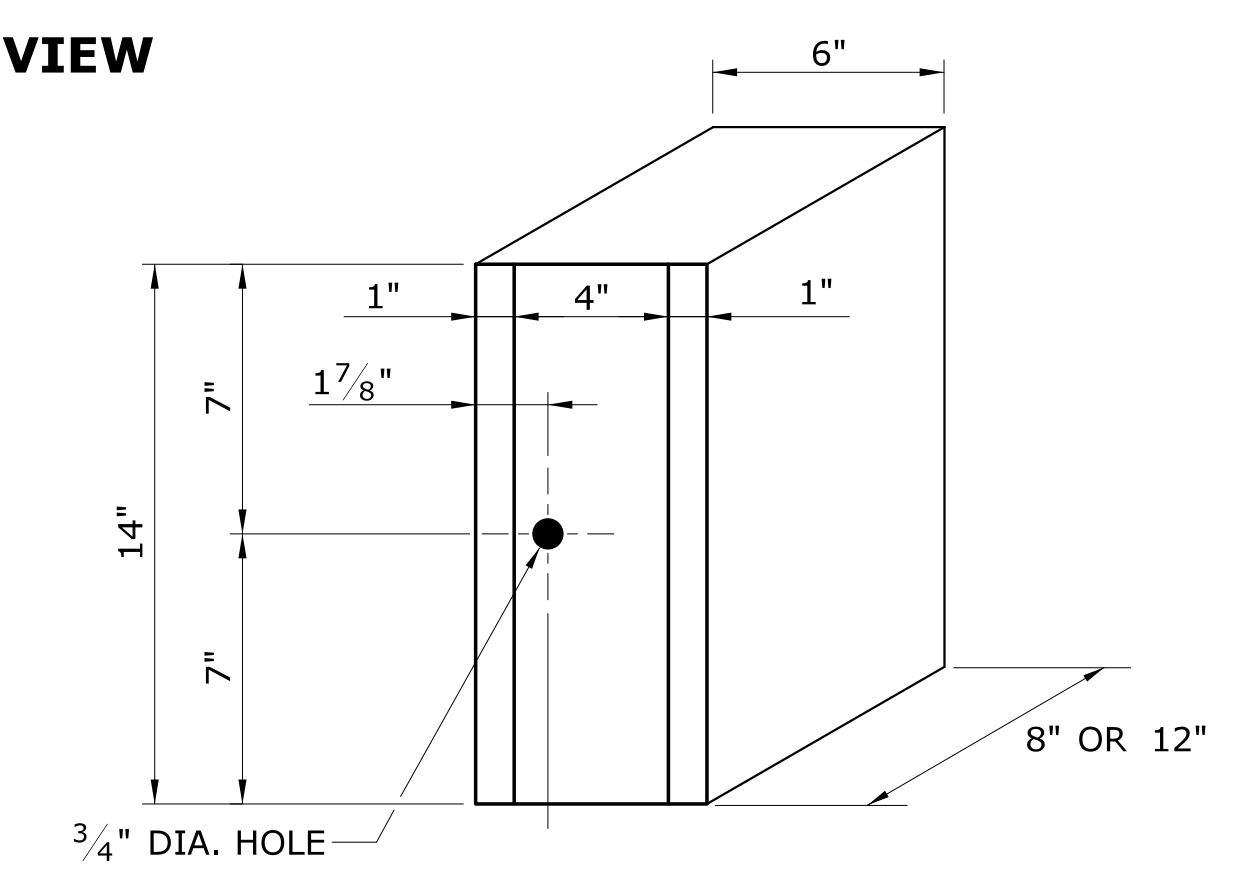
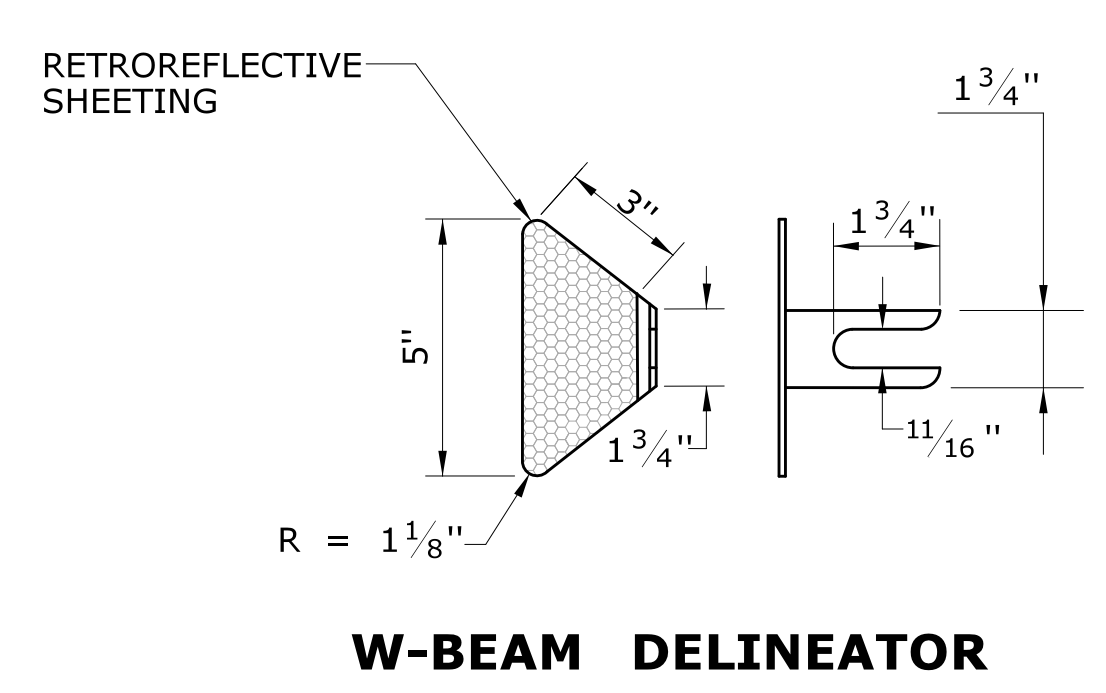
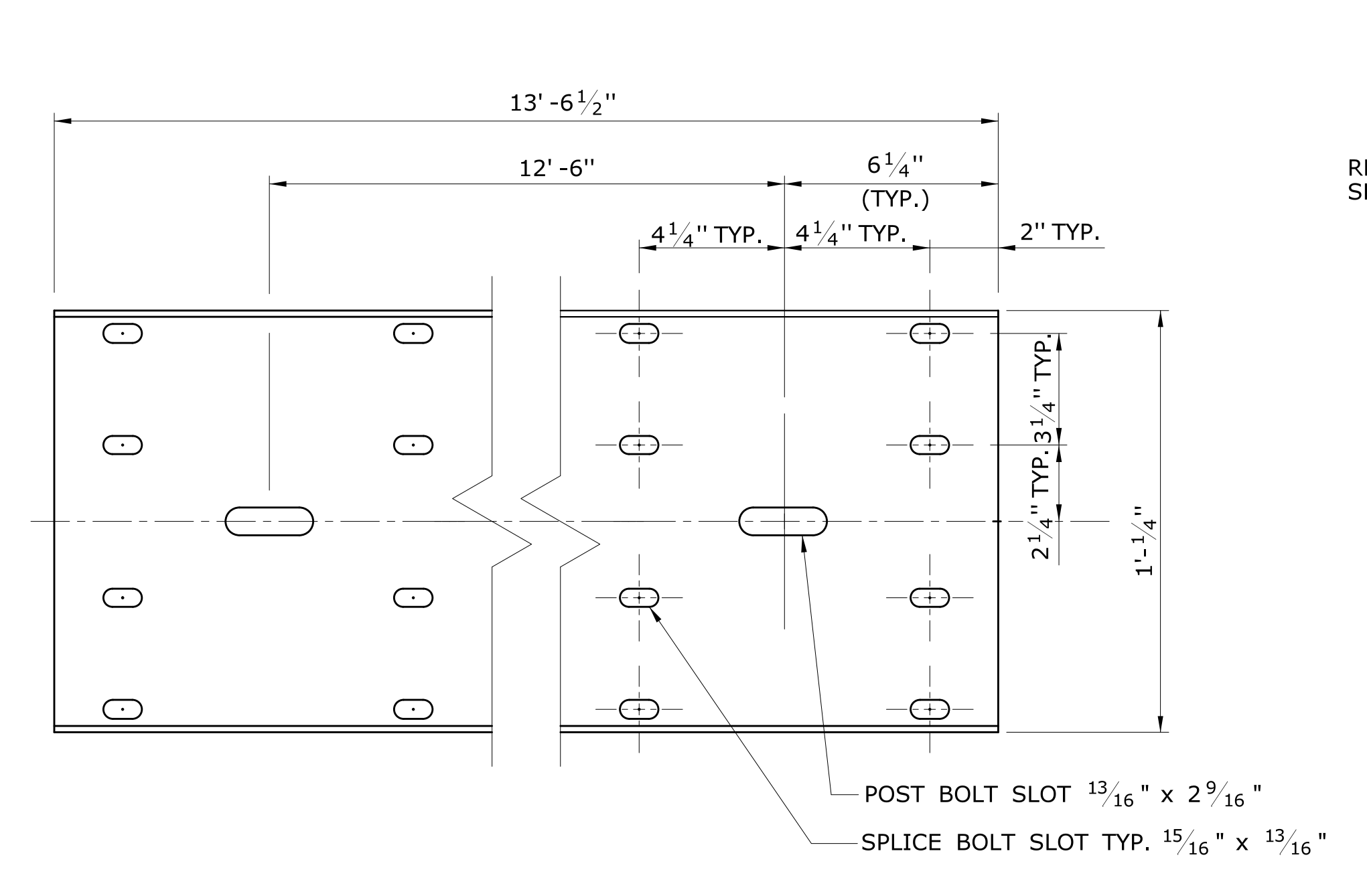
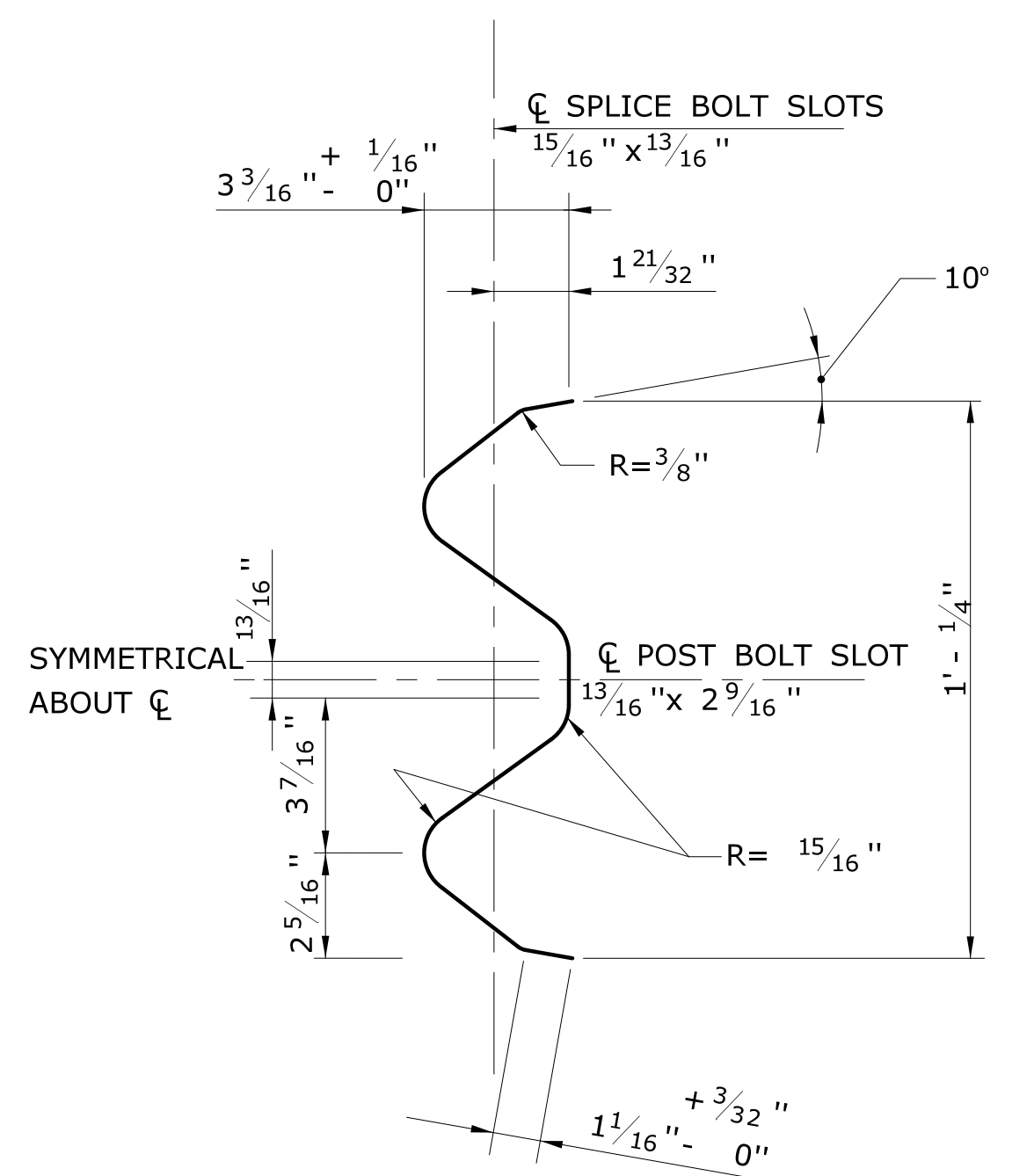
SUBMITTED BY: _____ NAME/DATE/TIME: _____

APPROVED BY: _____ NAME/DATE/TIME: _____

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OFFICE OF ENGINEERING

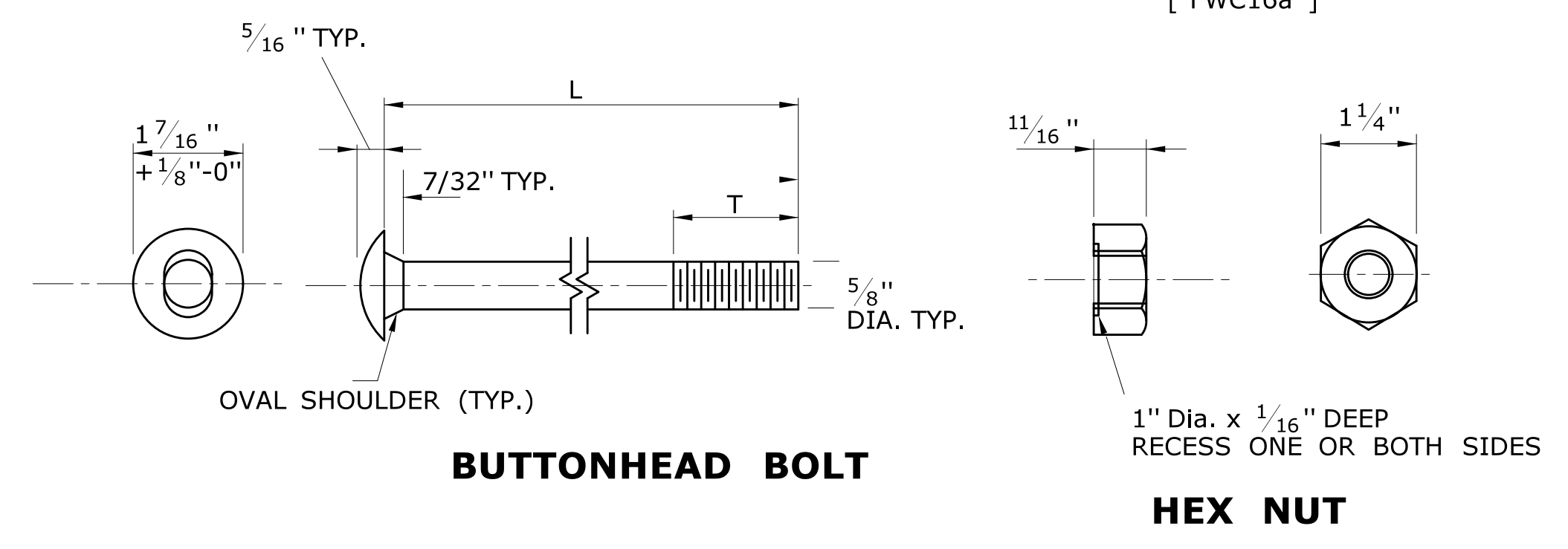
MISCELLANEOUS
GUIDERAIL TRANSITIONS
SHEET 2

STANDARD SHEET NO.: **HW-910_09b**



8" or 12" PLASTIC BLOCKOUT
NOMINAL DIMENSIONS

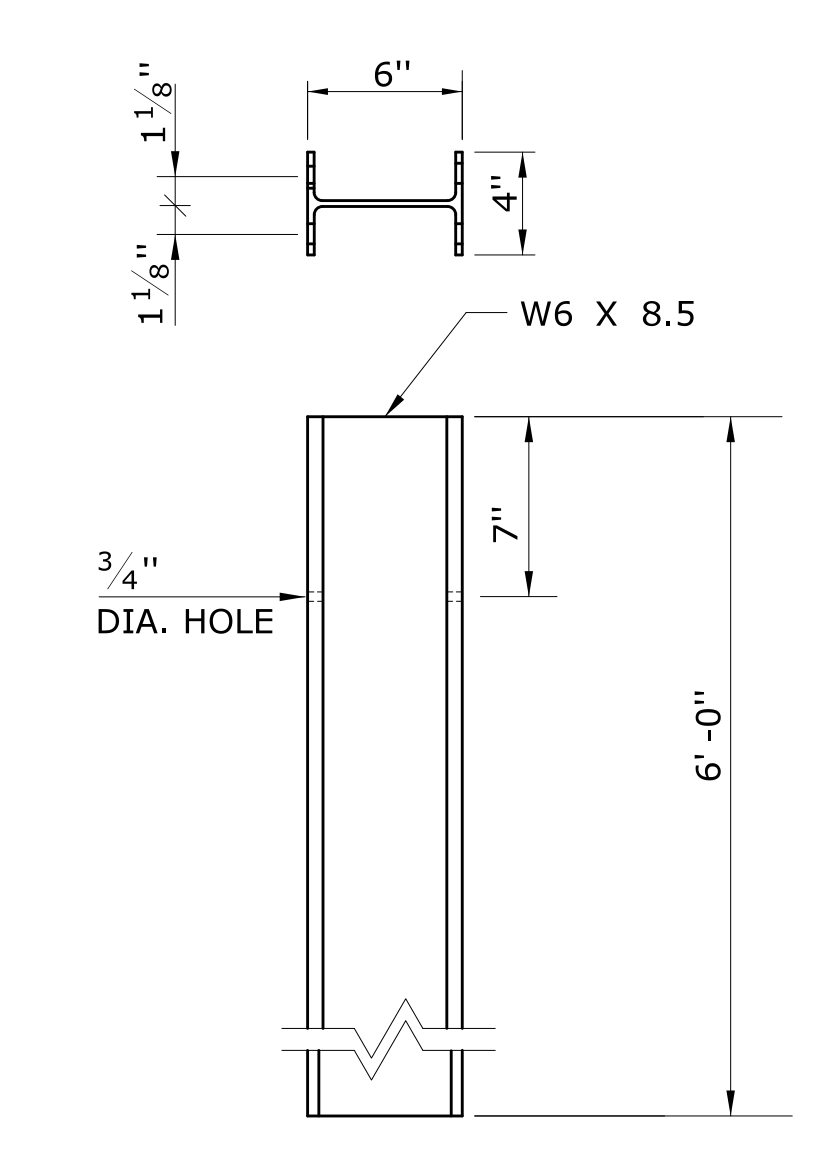
12" WOOD BLOCKOUT



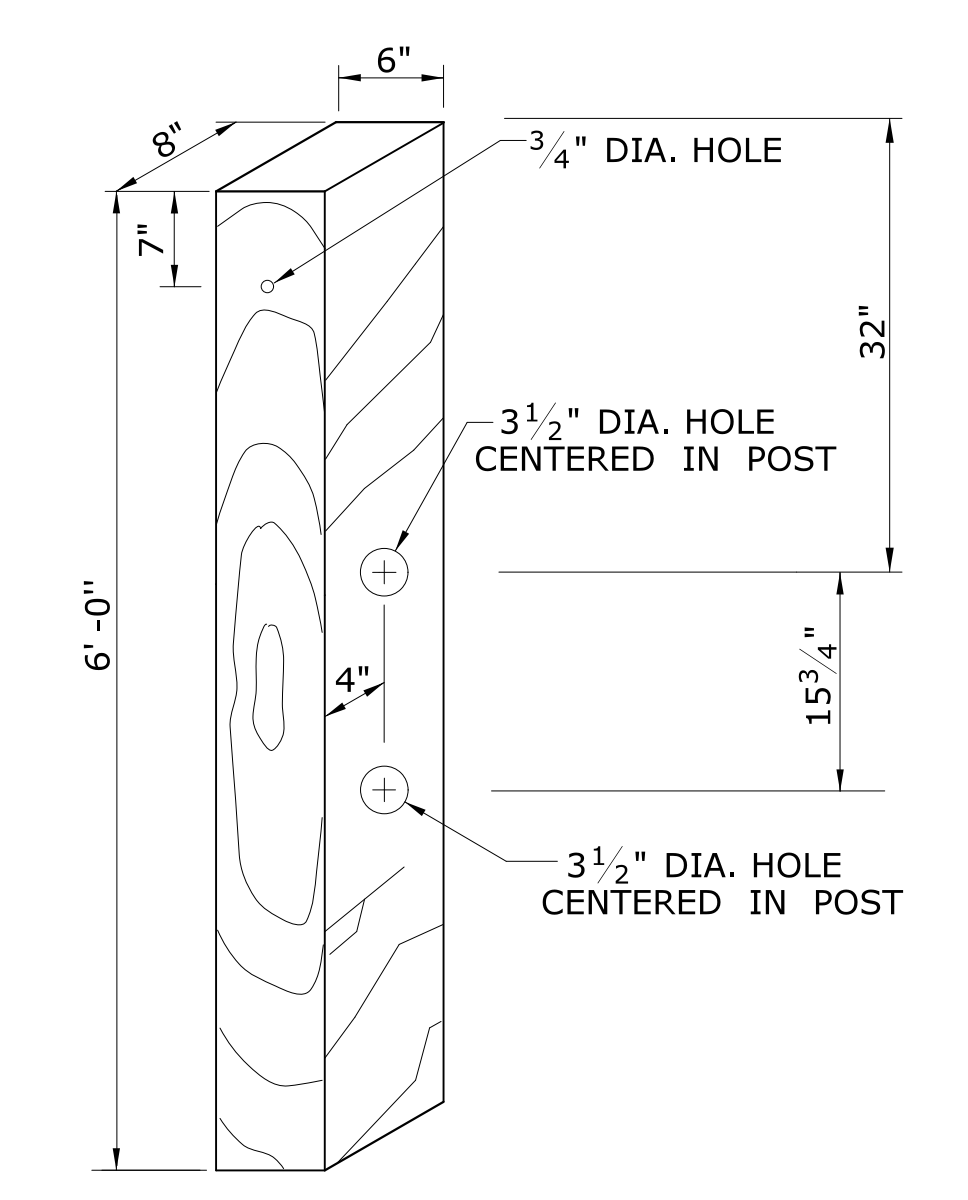
DESIGNATOR	L	T	INTENDED USE
FBB01	1-1/4"	1-1/8"	RAIL SPLICE BOLTS
FBB02	2"	1-3/4"	RUB RAIL BOLTS
FBB03	10"	4"	POST BOLTS (8" BLOCK OUTS)
	14"	4"	POST BOLT (12" BLOCK OUTS)
FBB04	18"	4"	POST BOLTS (2- 8"BLOCK OUTS)
	22"	4"	POST BOLT (CRT WOOD POST SYSTEM)

5/8" BUTTON HEAD BOLT(S) AND RECESSED NUT(S)

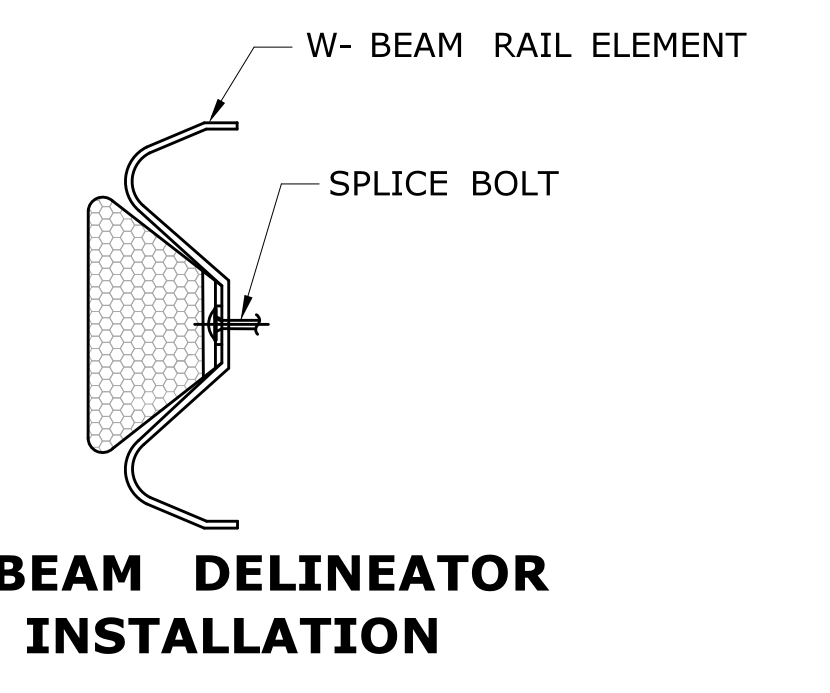
NOTE: AFTER GALVANIZING, THE NUT SHALL BE FREE RUNNING ON THE BOLT. DIAMETER SHOWN IS TYPICAL FOR ALL GUIDERAIL BOLTS. SEE DETAILS ABOVE FOR SPECIFIC LENGTHS.



STEEL POST
6'-0" LONG



CONTROL RELEASE TIMBER (CRT) POST
6'-0" LONG

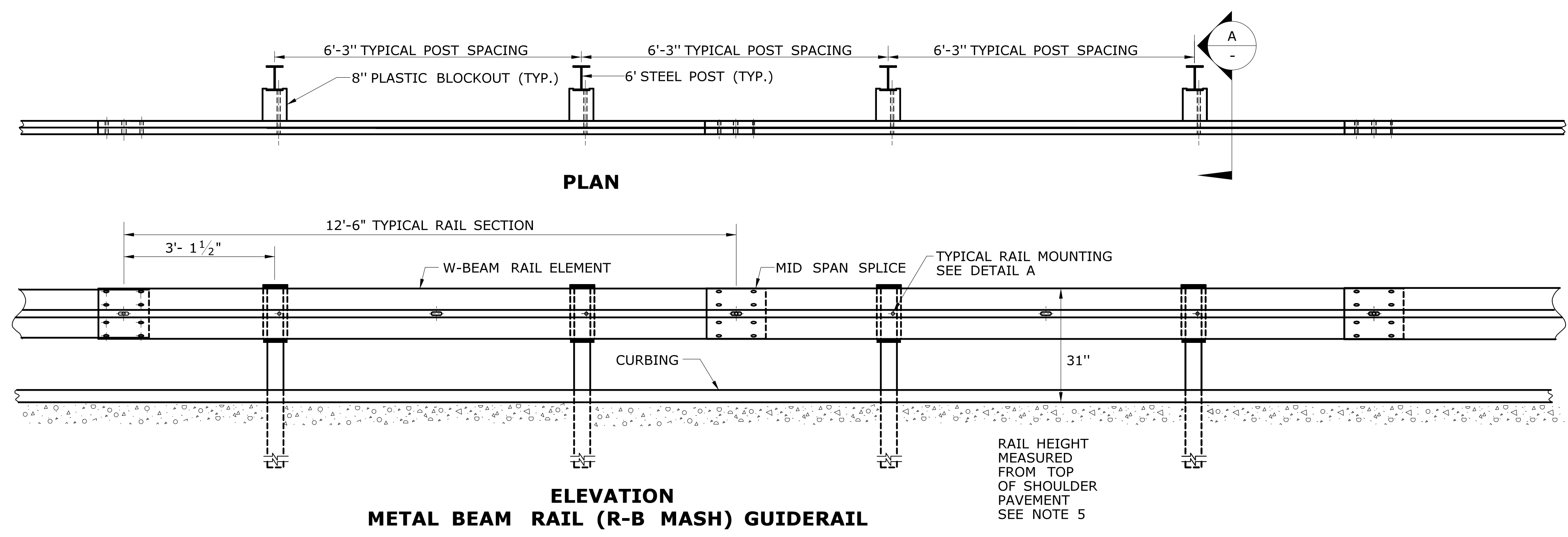


GENERAL NOTES:

- W6 x 9 POSTS MAY BE USED IN PLACE OF W6 x 8.5 POSTS.
- W-BEAM GUIDERAIL SHALL USE CLASS A (12 GAUGE), TYPE II W-BEAM RAIL ELEMENTS.
- SEVEN FOOT LONG STEEL POSTS (W6 X 8.5) ARE TO BE INSTALLED WHERE INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- ALL DIMENSIONS SUBJECT TO MANUFACTURING TOLERANCES

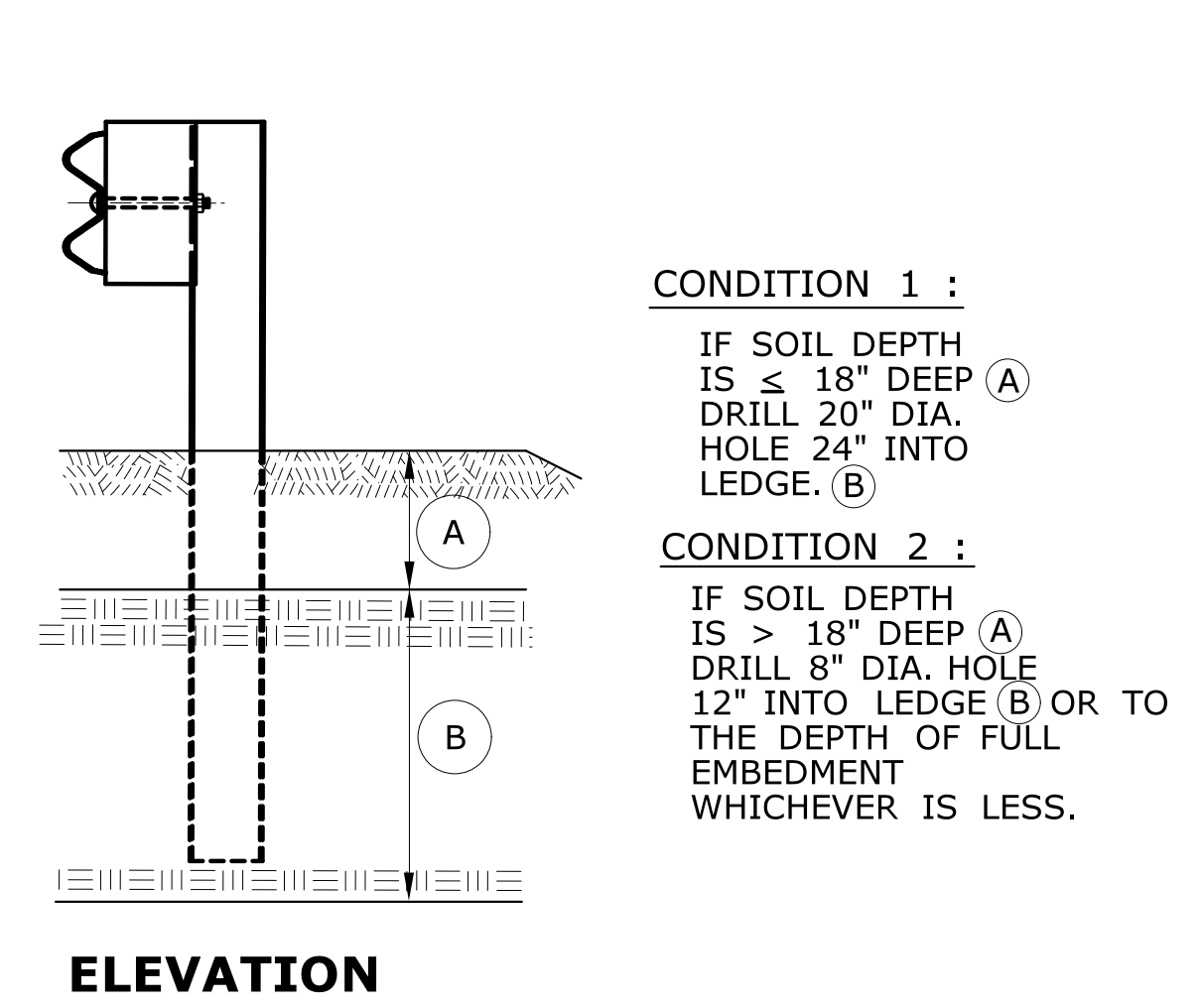
W-BEAM DELINEATOR INSTALLATION NOTES:

- INSTALL W-BEAM DELINEATORS ON RAIL THAT IS PARALLEL TO AND NOT GREATER THAN 8' FROM THE EDGE OF THE ROADWAY. A MINIMUM OF THREE W-BEAM DELINEATORS SHALL BE INSTALLED ON ANY LENGTH OF GUIDERAIL.
- THE SPACING OF W-BEAM DELINEATORS IS 50 FEET, INSTALLED AT RAIL SPLICE LOCATIONS. SPACING IS 25 FEET ON RADII LESS THAN 300 FEET.
- NO W-BEAM DELINEATORS ARE PERMITTED WITHIN 75 FEET OF THE IMPACT HEAD OF ANY TANGENTIAL OR FLARED IMPACT ATTENUATION SYSTEM.
- RETROREFLECTIVE SHEETING SHALL BE WHITE EXCEPT ON THE LEFT SIDE OF DIVIDED STREETS, HIGHWAYS, RAMPS, AND ONE WAY ROADS IN THE DIRECTION OF TRAVEL WHERE IT SHALL BE YELLOW.

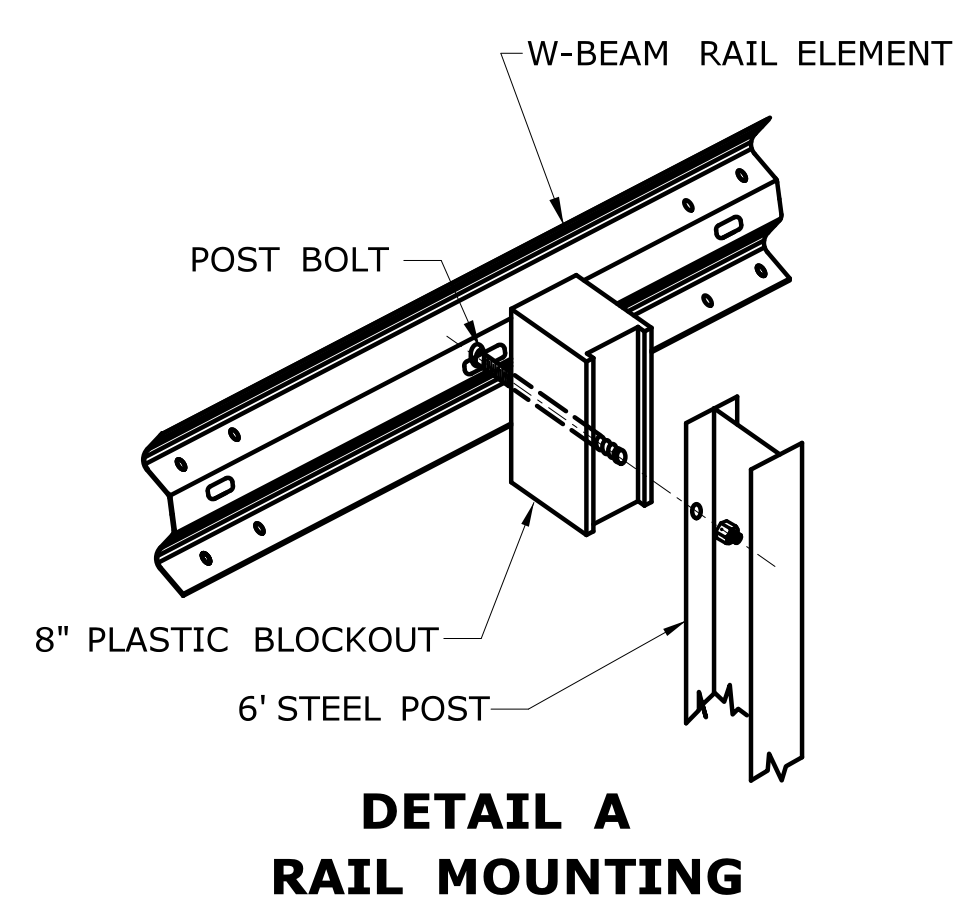


**ELEVATION
METAL BEAM RAIL (R-B MASH) GUIDERAIL**

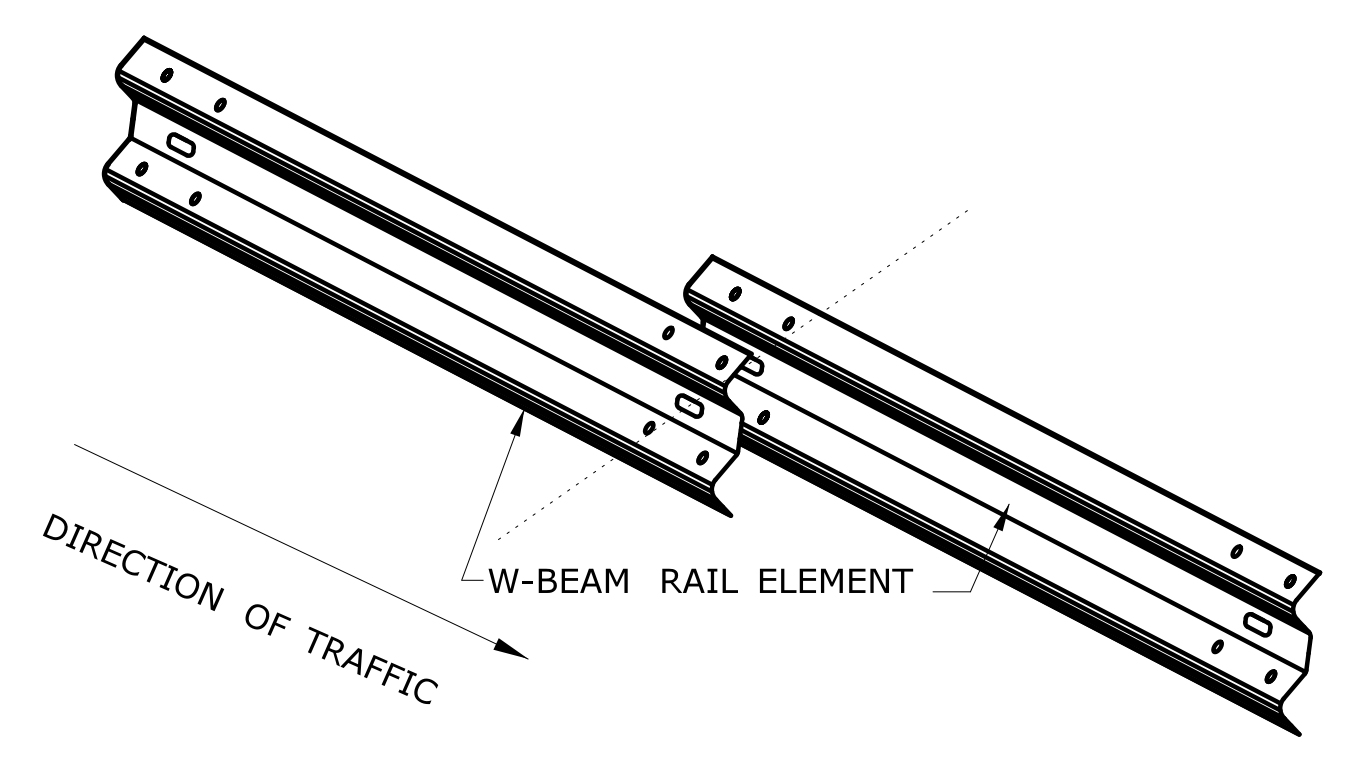
- GENERAL NOTES:**
1. SEE SHEET HW-910-20 FOR MASH W-BEAM HARDWARE AND W-BEAM DELINEATOR DETAILS.
 2. THREE BLOCKOUTS MAY BE USED FOR ONE POST ONLY. TWO BLOCKOUTS MAY BE USED FOR A SERIES OF POSTS. THE COST OF ADDITIONAL BLOCKOUTS AND LONGER BOLTS SHALL BE INCLUDED IN THE PRICE PER FOOT OF GUIDERAIL. EXTRA BLOCKOUTS AT TRANSITIONS TO BRIDGE PARAPETS SHOULD BE AVOIDED. DO NOT USE ADDITIONAL BLOCKS IF IT CAUSES THE POST TO BE DRIVEN BEYOND AN EMBANKMENT HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.
 3. IF BLOCKOUTS DO NOT AVOID POST FROM OBSTRUCTION, ONE POST MAY BE OMITTED IF 50 FEET OF GUIDERAIL EXISTS ON BOTH SIDES OF LOCATION. USE METAL BEAM RAIL SPAN SECTION TYPE II OR III FOR MORE THAN ONE CONSECUTIVE OMITTED POST, SEE SHEET HW-910-24.
 4. W-BEAM GUIDERAIL MAY BE PLACED 1' OR MORE FROM THE EDGE OF PAVEMENT ONLY ON SLOPES 10:1 OR FLATTER AND WITHOUT CURBING.
 5. IF THE RAIL IS INSTALLED WITHIN 2' OF THE EDGE OF PAVEMENT, THE RAIL HEIGHT IS MEASURED FROM THE SHOULDER SLOPE EXTENDED TO THE RAIL. IF THE RAIL IS INSTALLED BEYOND 2' FROM THE EDGE OF PAVEMENT, THE RAIL HEIGHT IS MEASURED FROM THE GROUND DIRECTLY BELOW THE RAIL.
 6. RAIL HEIGHT CONSTRUCTION TOLERANCE IS +/- 1 INCH.



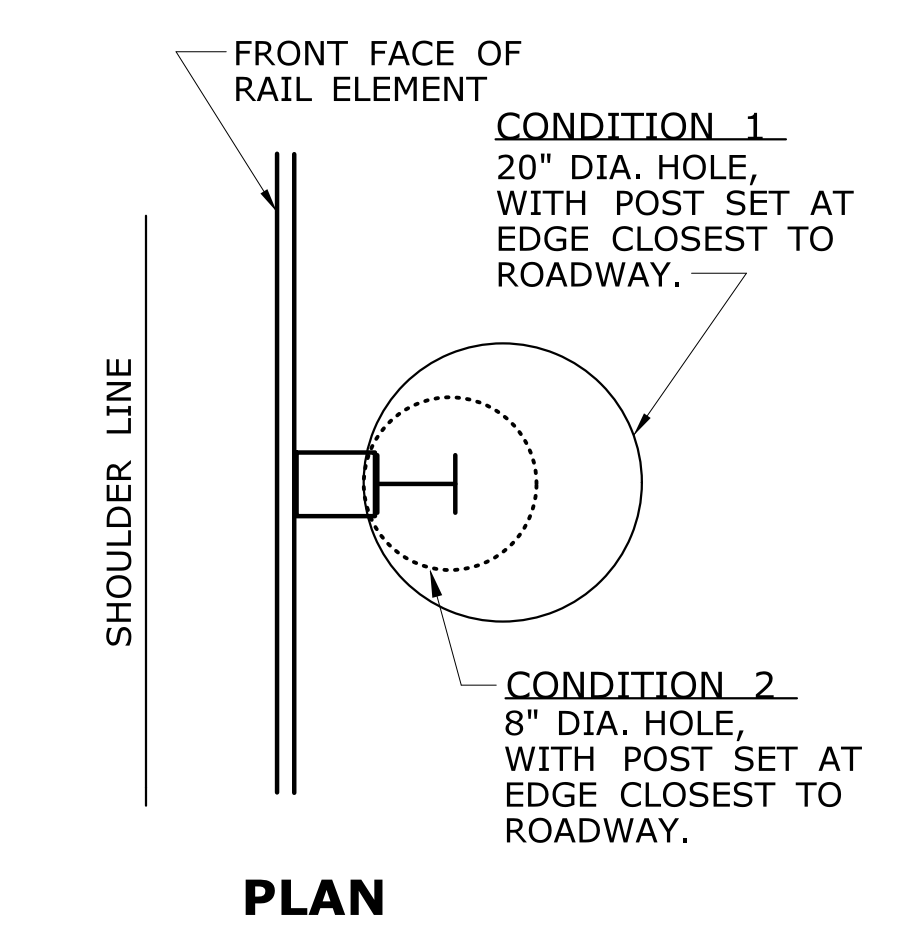
ELEVATION



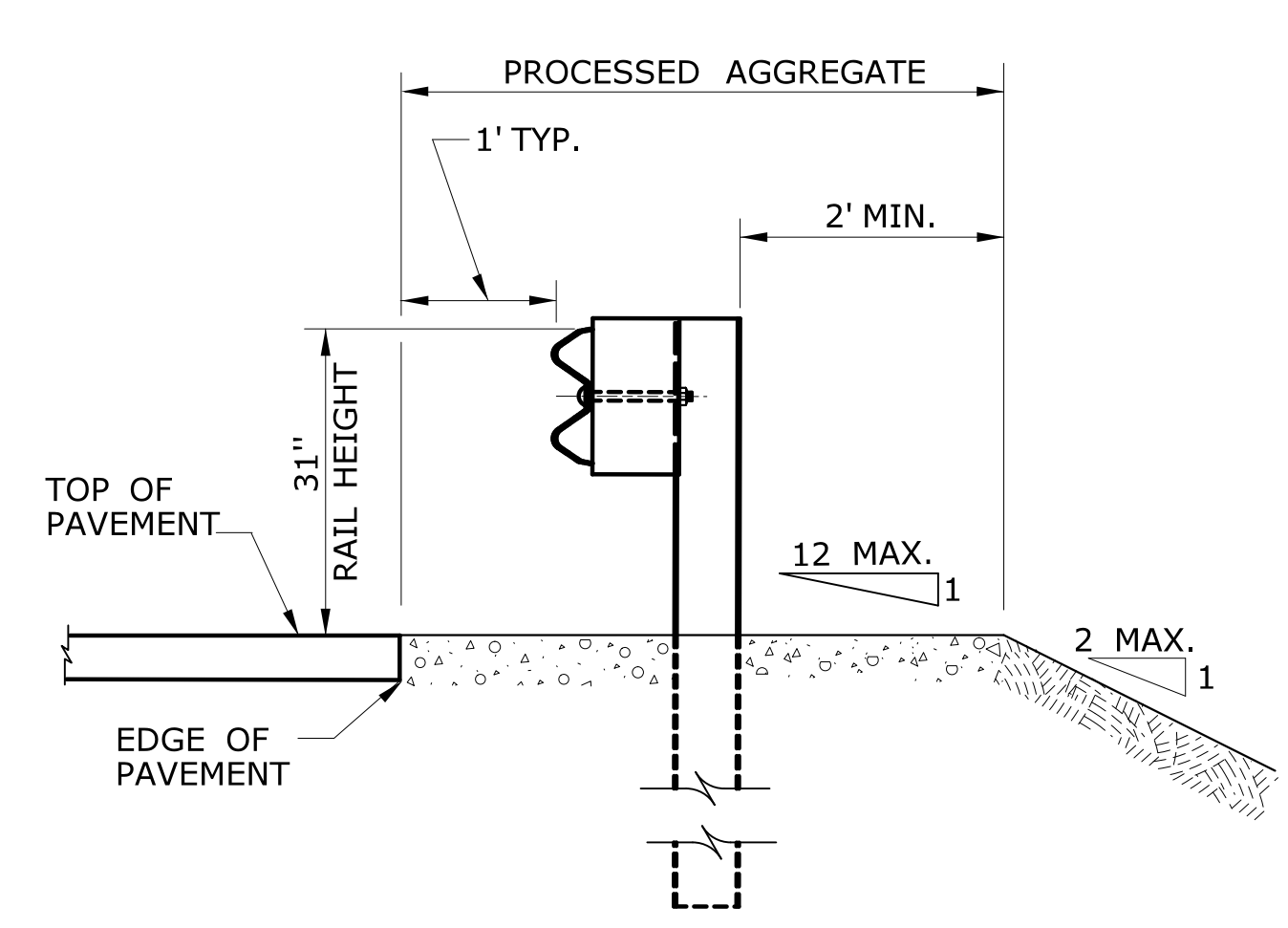
**DETAIL A
RAIL MOUNTING**



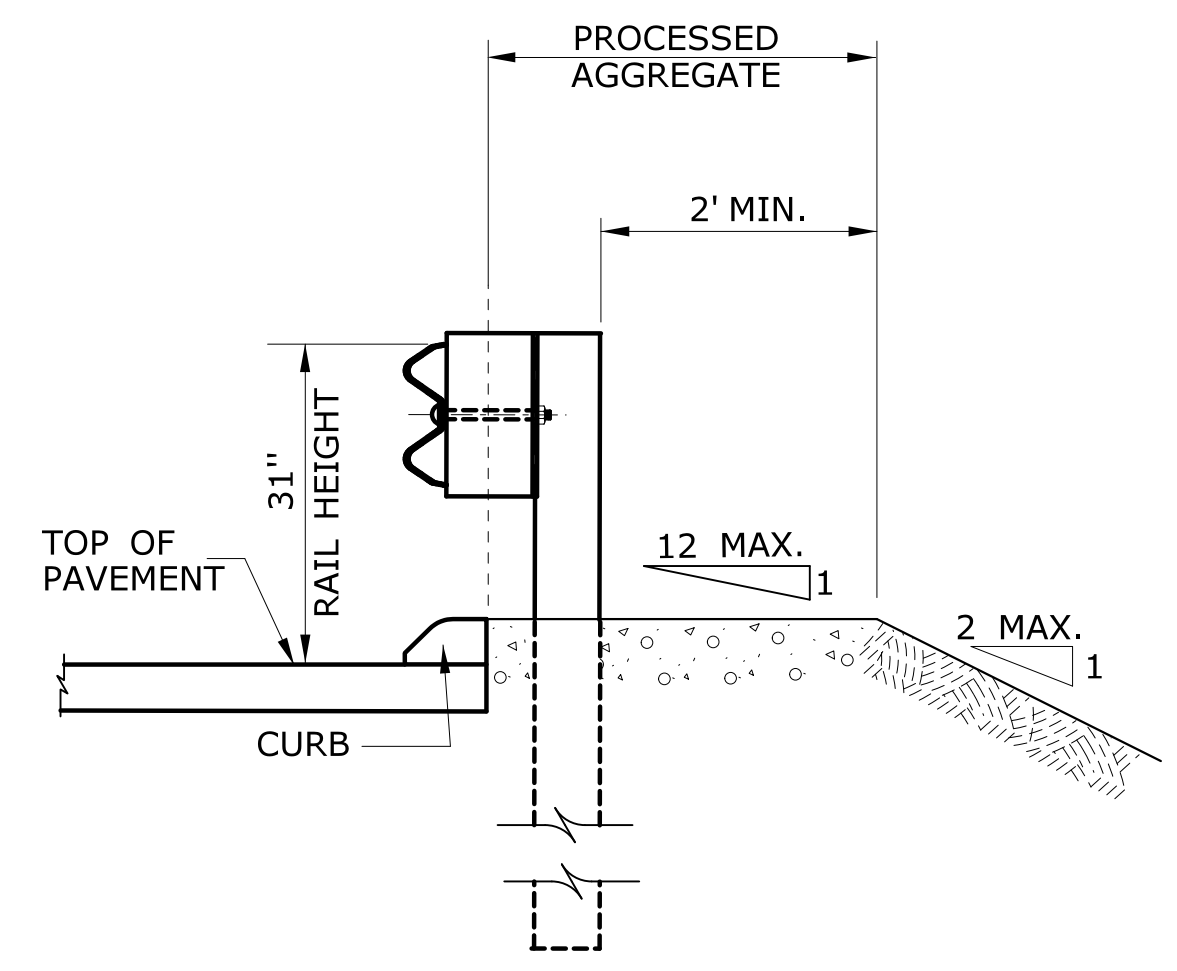
LAP W-BEAM RAIL SECTIONS
NOTE: EIGHT (8) SPLICE BOLTS PER JOINT



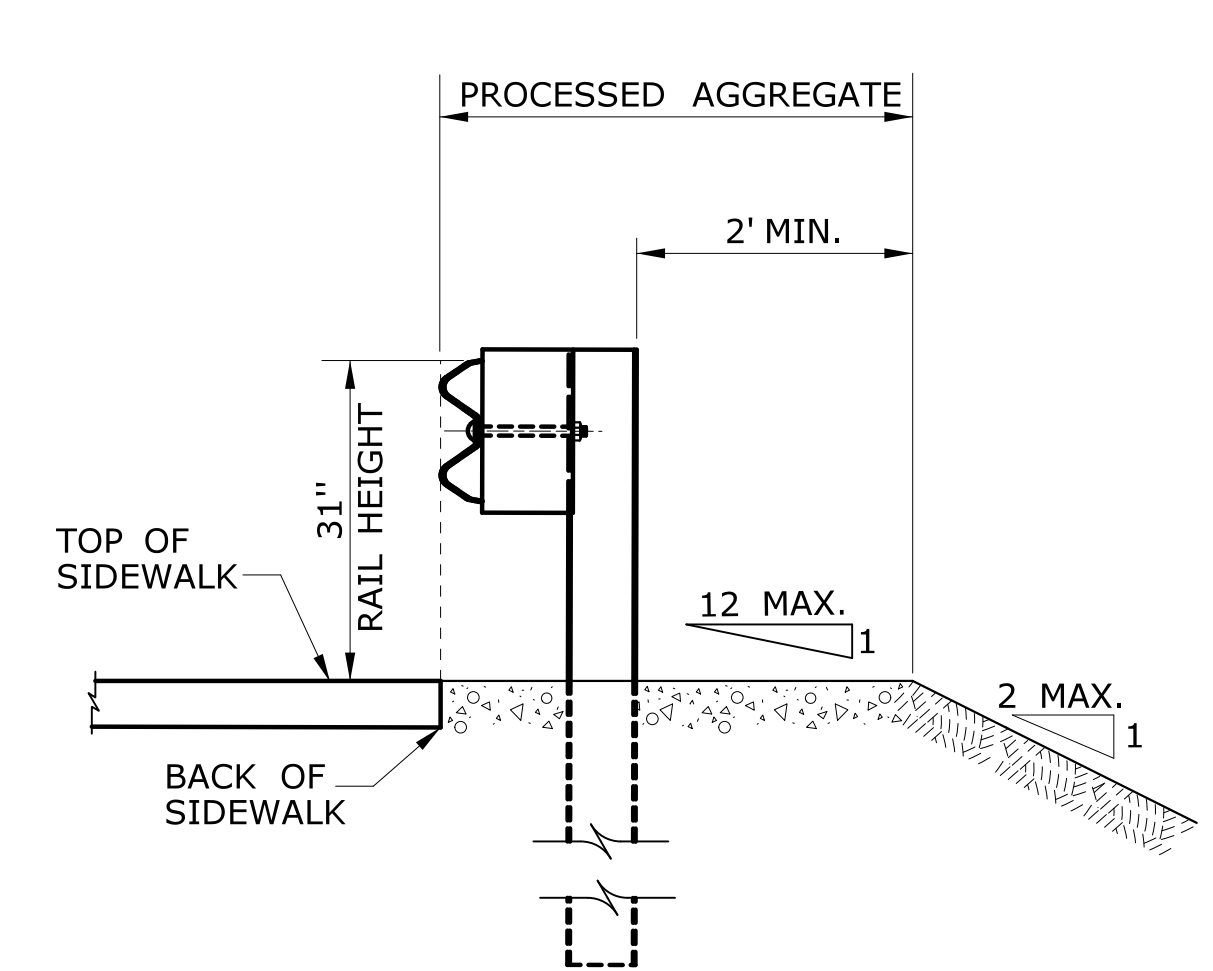
GUIDERAIL POSTS IN ROCK



**SECTION A
NO CURB APPLICATION**



**SECTION A
CURB APPLICATION**

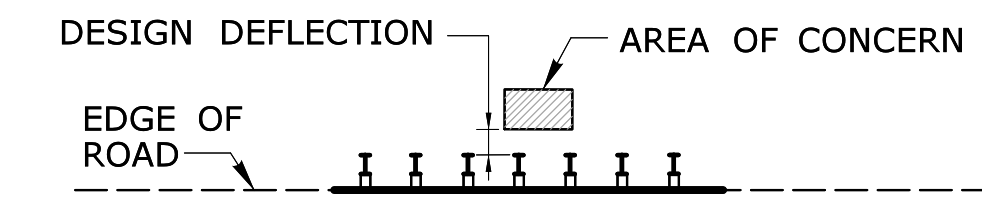


**SECTION A
SIDEWALK APPLICATION**

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		NOT TO SCALE	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SUBMITTED BY: <i>Leo Fontaine</i> NAME/DATE/TIME: Leo Fontaine, P.E. 2017.09.13 11:41:56-04'00"	CTDOT STANDARD SHEET OFFICE OF ENGINEERING	STANDARD SHEET TITLE:	STANDARD SHEET NO.:
REV. DATE REVISION DESCRIPTION	Plotted Date: 9/13/2017	Filename: HW-910_21.dgn Model: CT_Civil_2D_Sheet	APPROVED BY: <i>Gregory M. Dorosh</i> NAME/DATE/TIME: Gregory M. Dorosh, P.E. 2017.09.15 14:10:49-04'00"	METAL BEAM RAIL (R-B MASH) GUIDERAIL		HW-910_21	

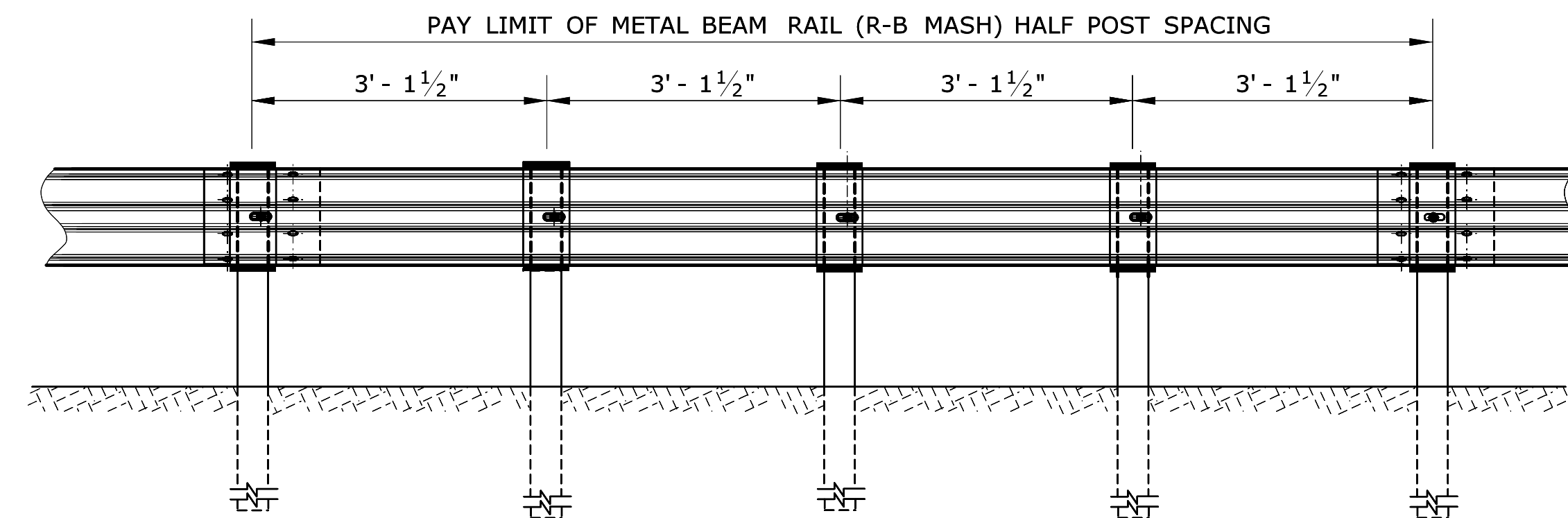
GENERAL NOTES:

1. SEE SHEET HW-910_20 FOR HARDWARE AND W-BEAM DELINEATOR DETAILS.
2. W-BEAM DELINEATOR MAY BE INSTALLED AT POST BOLT CONNECTION TO MAINTAIN APPROPRIATE DELINEATOR SPACING.

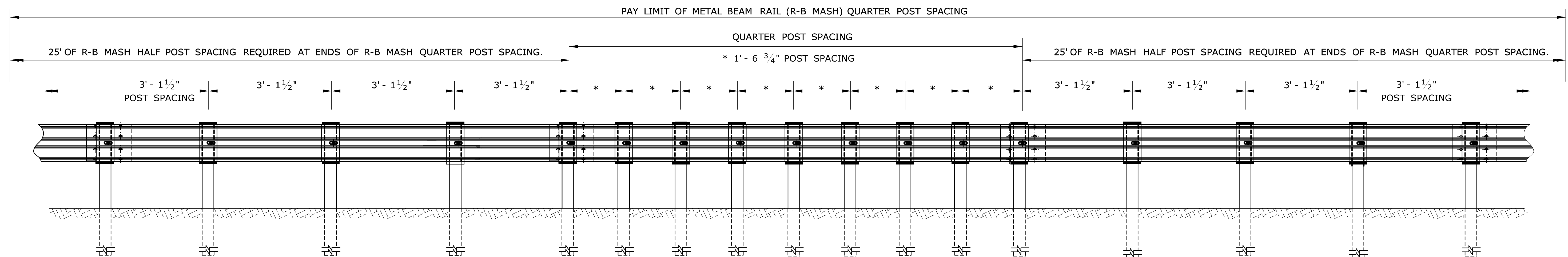


POST SPACING	DESIGN DEFLECTION
STANDARD (6' - 3")	4' - 3"
HALF POST (3' - 1 1/2")	2' - 8"
QUARTER POST (1' - 6 3/4")	1' - 10"

TABLE 1

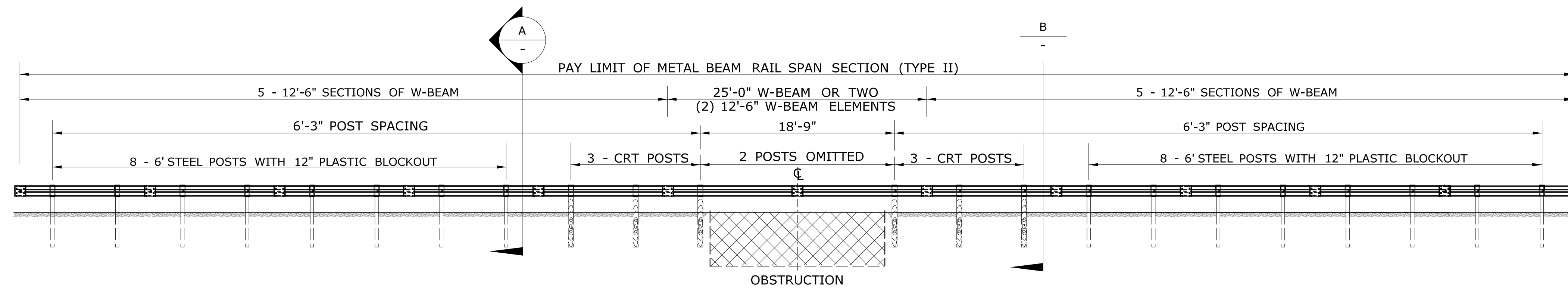


METAL BEAM RAIL (R-B MASH) HALF POST SPACING

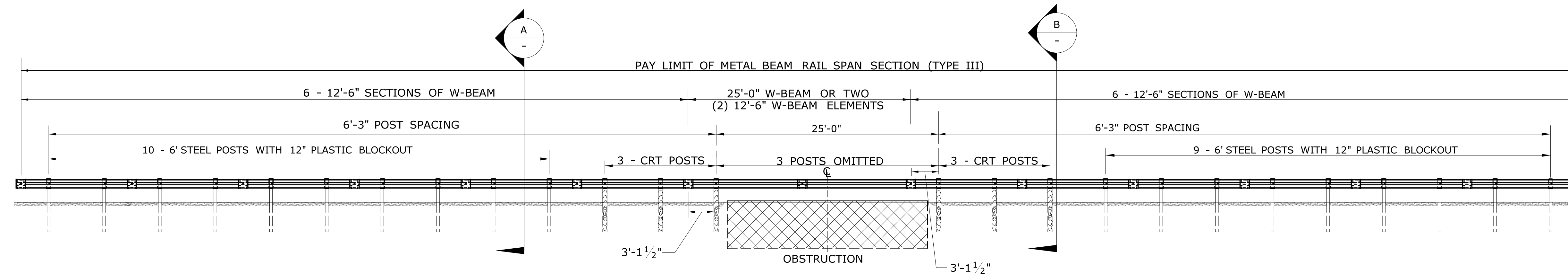


METAL BEAM RAIL (R-B MASH) QUARTER POST SPACING

	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	NOT TO SCALE	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SUBMITTED BY: NAME/DATE/TIME: Leo Fontaine, P.E. 2017.09.13 11:51:51-04'00' APPROVED BY: NAME/DATE/TIME: Gregory M. Dorosh, P.E. 2017.09.15 14:11:47-04'00'	<p>CTDOT STANDARD SHEET</p> <p>OFFICE OF ENGINEERING</p>	STANDARD SHEET TITLE: <p>METAL BEAM RAIL (R-B MASH) HALF AND QUARTER POST SPACING</p>	STANDARD SHEET NO.: <p>HW-910_23</p>
REV. DATE REVISION DESCRIPTION Plotted Date: 9/13/2017 Filename: HW-910_23.dgn Model: CT_Civil_2D_Sheet							



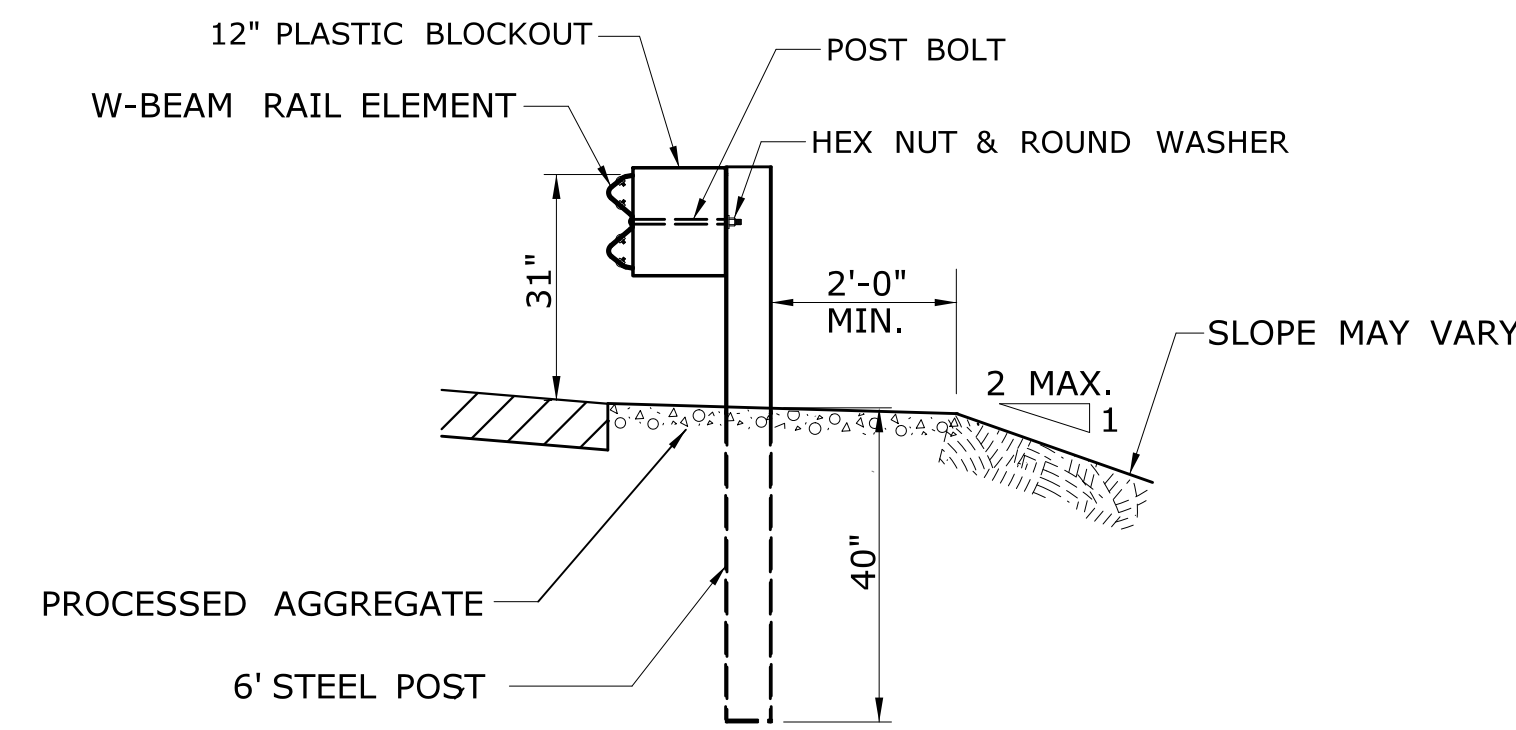
METAL BEAM RAIL SPAN SECTION TYPE II



METAL BEAM RAIL SPAN SECTION TYPE III

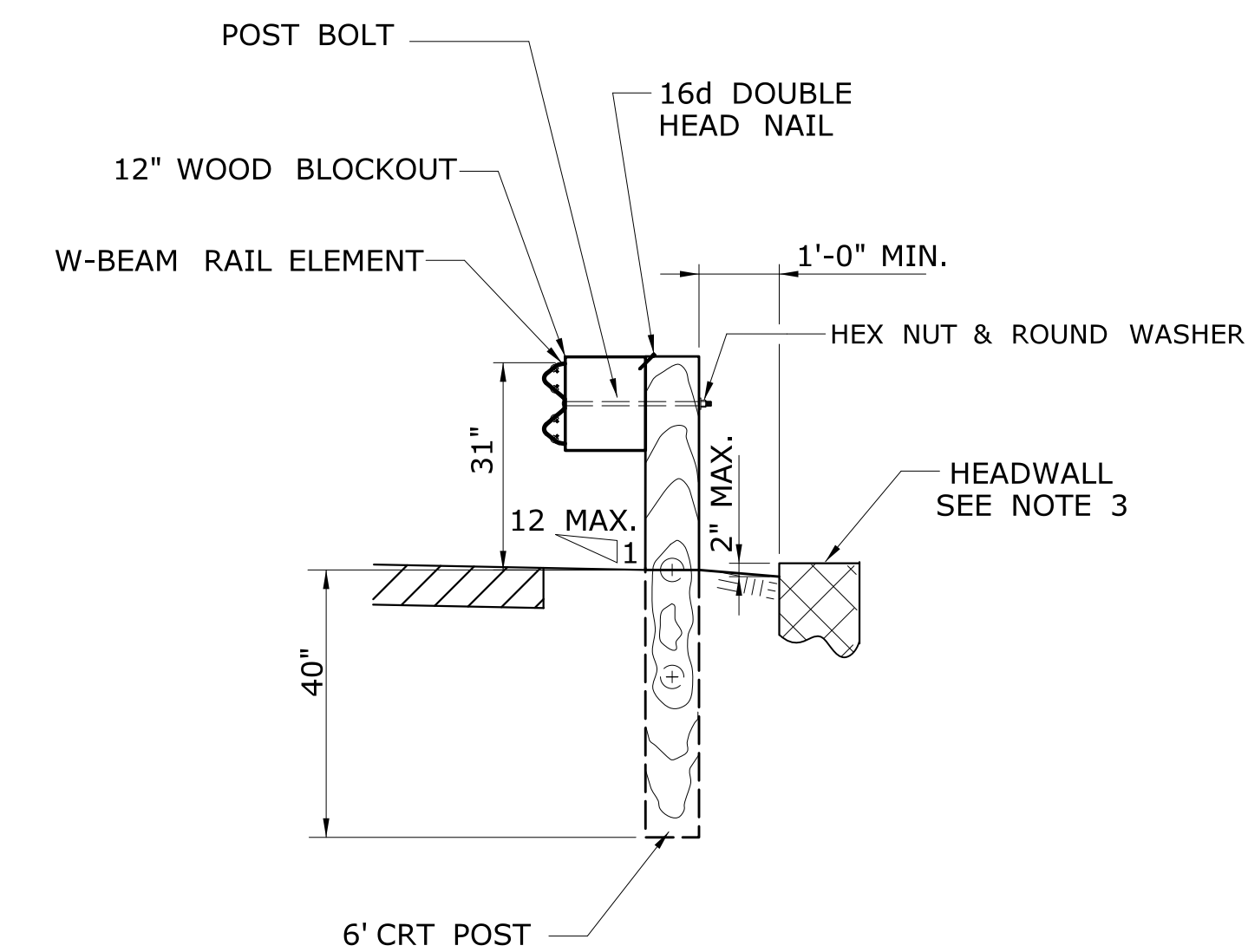
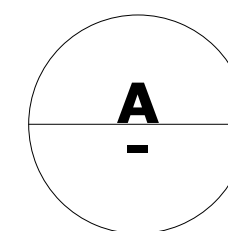
GENERAL NOTES:

1. THIS SYSTEM IS NOT FOR USE IN-CONJUNCTION WITH ANY CURB TYPE.
2. INSTALL SYSTEM TANGENTIALLY.
3. FINISHED GRADE TO BE WITHIN 2" FROM THE TOP OF THE HEADWALL.
4. LAP W-BEAM RAIL SECTIONS IN ACCORDANCE WITH HW-910-21.



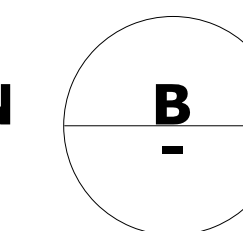
**STEEL POST W/
12" PLASTIC BLOCKOUT**

SECTION **A**



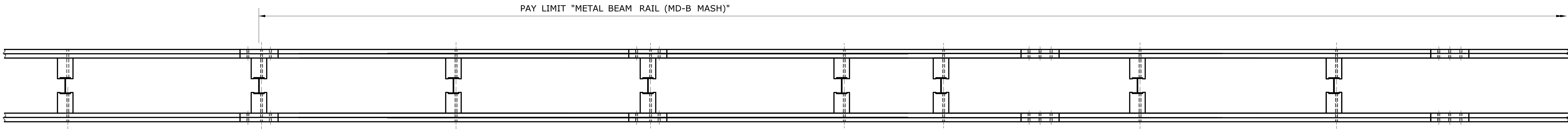
CONTROL RELEASE TIMBER (CRT) POST

SECTION **B**

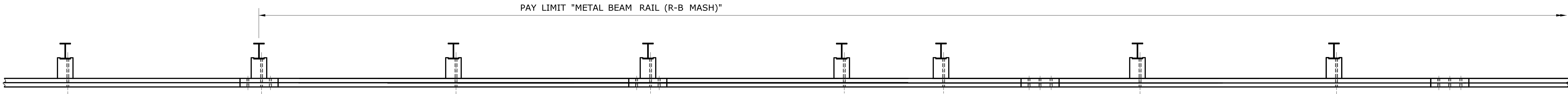


THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED. Plotted Date: 9/13/2017		NOT TO SCALE	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SUBMITTED BY: <i>Leo Fontaine</i> NAME/DATE/TIME: Leo Fontaine, P.E. 2017.09.13 11:52:25-04'00' APPROVED BY: <i>Gregory M. Dorosh</i> NAME/DATE/TIME: Gregory M. Dorosh, P.E. 2017.09.15 14:12:17-04'00'	CTDOT STANDARD SHEET OFFICE OF ENGINEERING	STANDARD SHEET TITLE: METAL BEAM RAIL SPAN SECTION TYPES II AND III	STANDARD SHEET NO.: HW-910_24
REV.	DATE	REVISION DESCRIPTION					

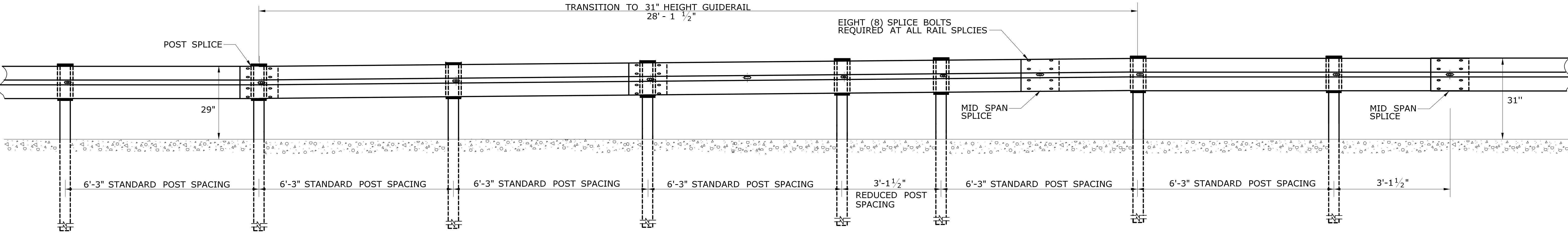
- GENERAL NOTES:**
1. SEE SHEET HW-910_20 FOR HARDWARE AND W-BEAM DELINEATOR DETAILS.
 2. NO POST(S) SHALL BE OMITTED WITHIN THE LENGTH OF GUIDERAIL TRANSITION.



PLAN
METAL BEAM RAIL MD-B 350 TRANSITION TO METAL BEAM RAIL MD-B MASH



PLAN
METAL BEAM RAIL R-B 350 TRANSITION TO METAL BEAM RAIL R-B MASH

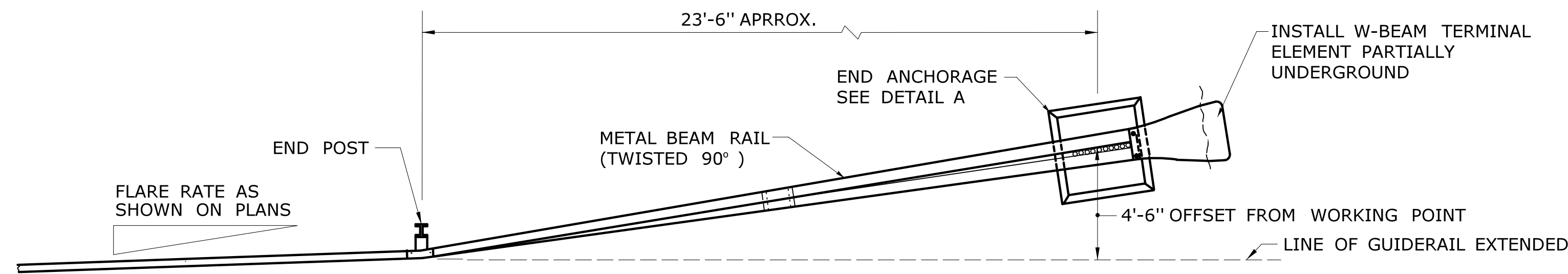


ELEVATION

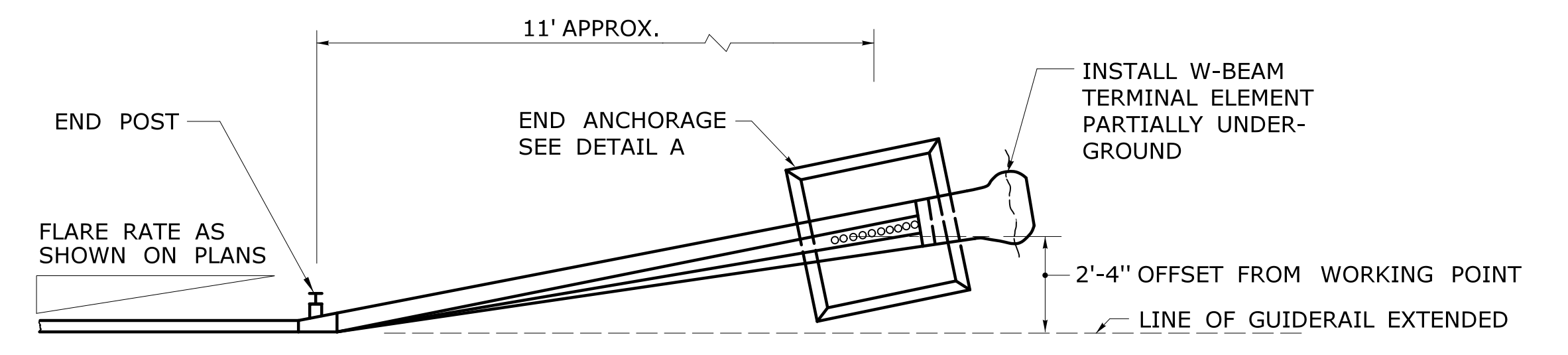
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		NOT TO SCALE	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SUBMITTED BY: NAME/DATE/TIME: Leo Fontaine, P.E. 2017.09.13 11:52:53-04'00'	CTDOT STANDARD SHEET OFFICE OF ENGINEERING	STANDARD SHEET TITLE: METAL BEAM RAIL TRANSITION 350 TO MASH	STANDARD SHEET NO.: HW-910_25
REV. DATE REVISION DESCRIPTION	Plotted Date: 9/13/2017	Filename: HW-910_25 MASH (7-6-17).dgn Model: CT_Civil_2D_Sheet	APPROVED BY: NAME/DATE/TIME: Gregory M. Dorosh, P.E. 2017.09.15 14:12:48-04'00'				

GENERAL NOTES:

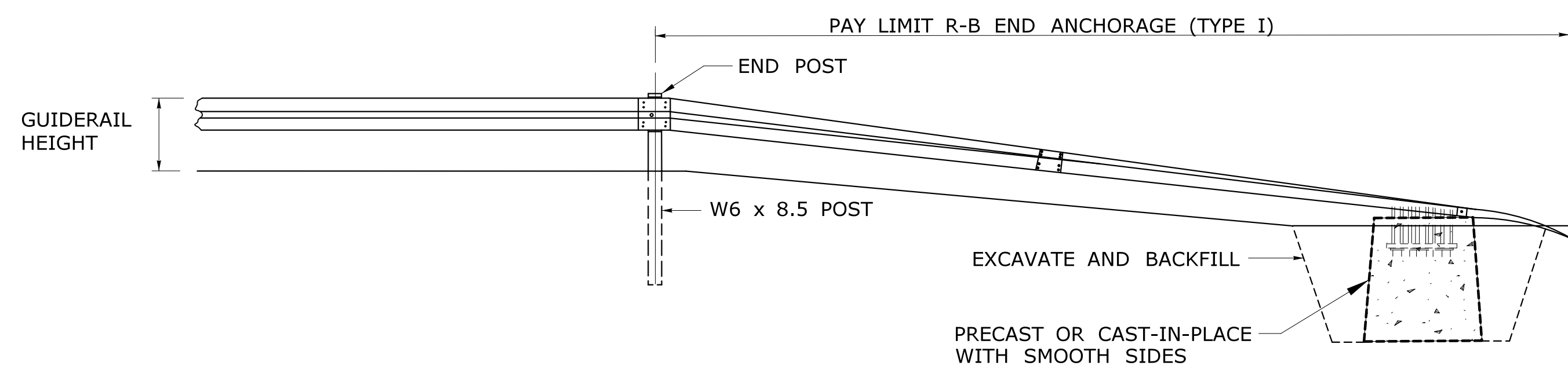
1. SEE SHEET HW-911.04 FOR TYPICAL END ANCHOR GRADING PLAN.
2. J-HOOK BOLTS MAY BE SUBSTITUTED FOR BOTTOM PLATE ANCHORAGE IN CONCRETE END ANCHORS USING THE SAME SIZE, STRENGTH, AND LENGTH AS NOTED ON THE PLANS.
3. INSTALLATION OF RADII DIFFERENT THAN WHAT IS SHOWN IN DETAIL "C" FOR R-B END ANCHORAGE TYPE II MUST BE APPROVED BY THE ENGINEER.



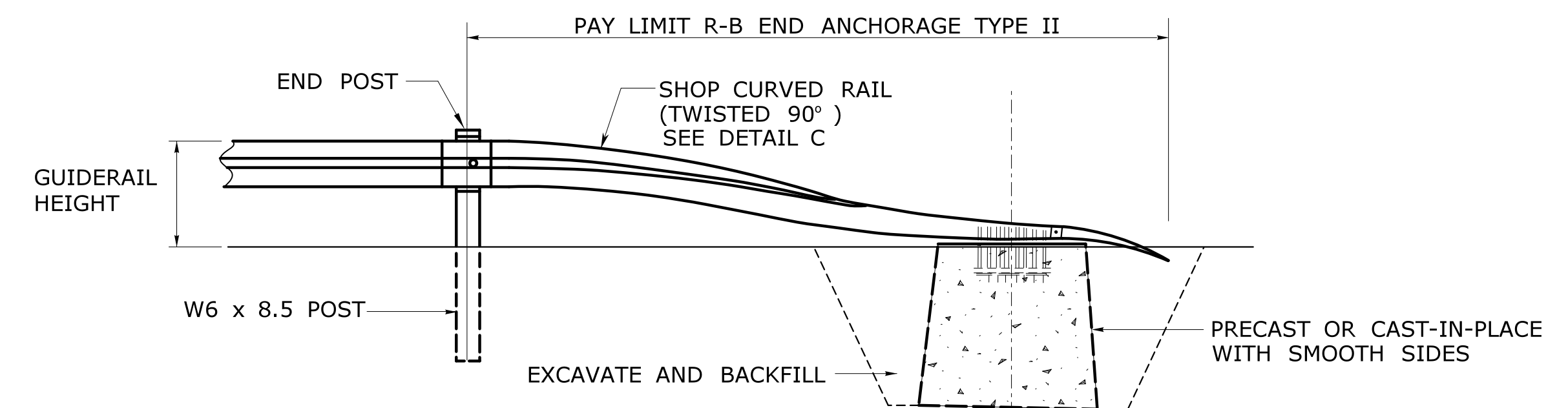
PLAN



PLAN



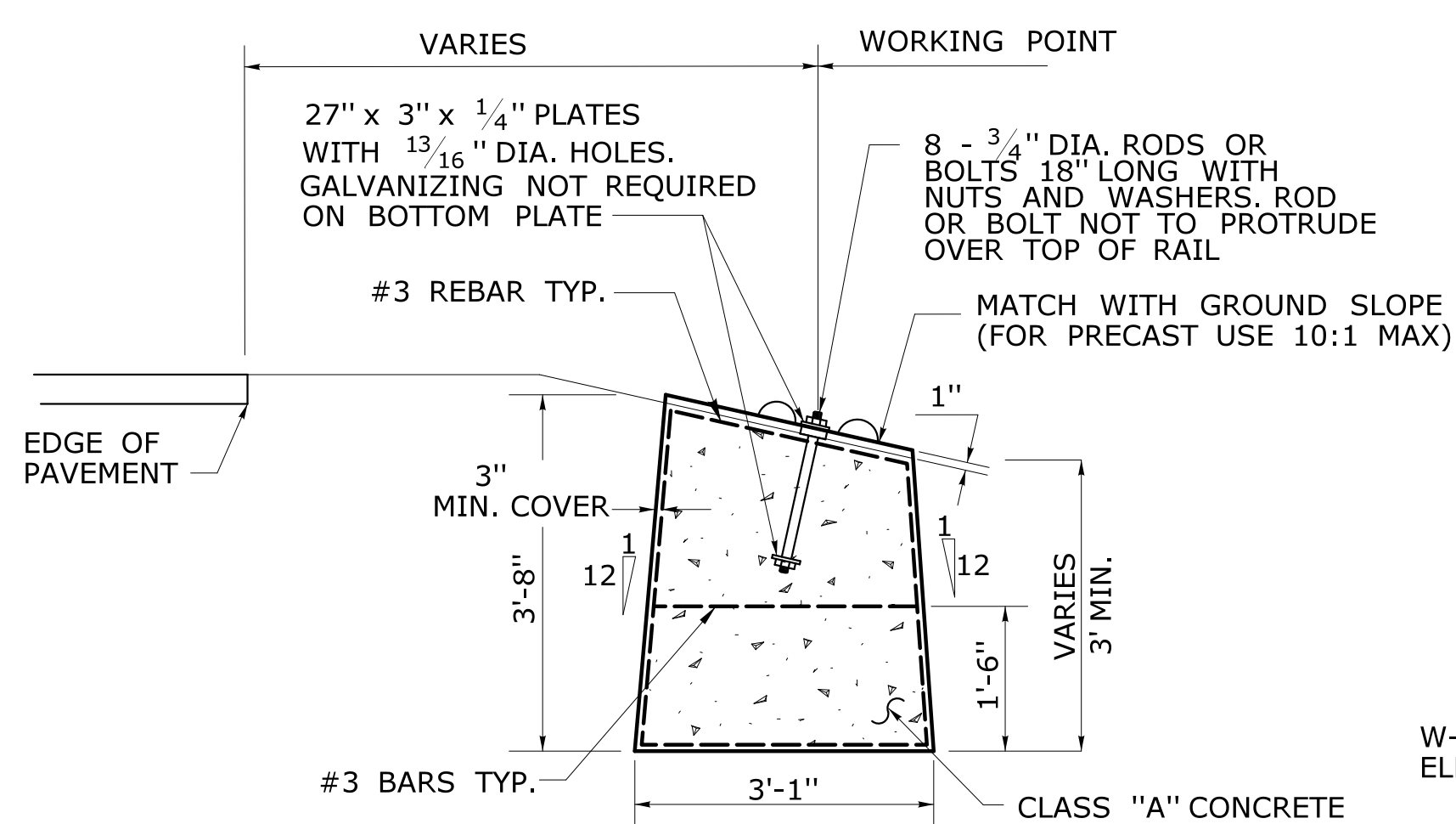
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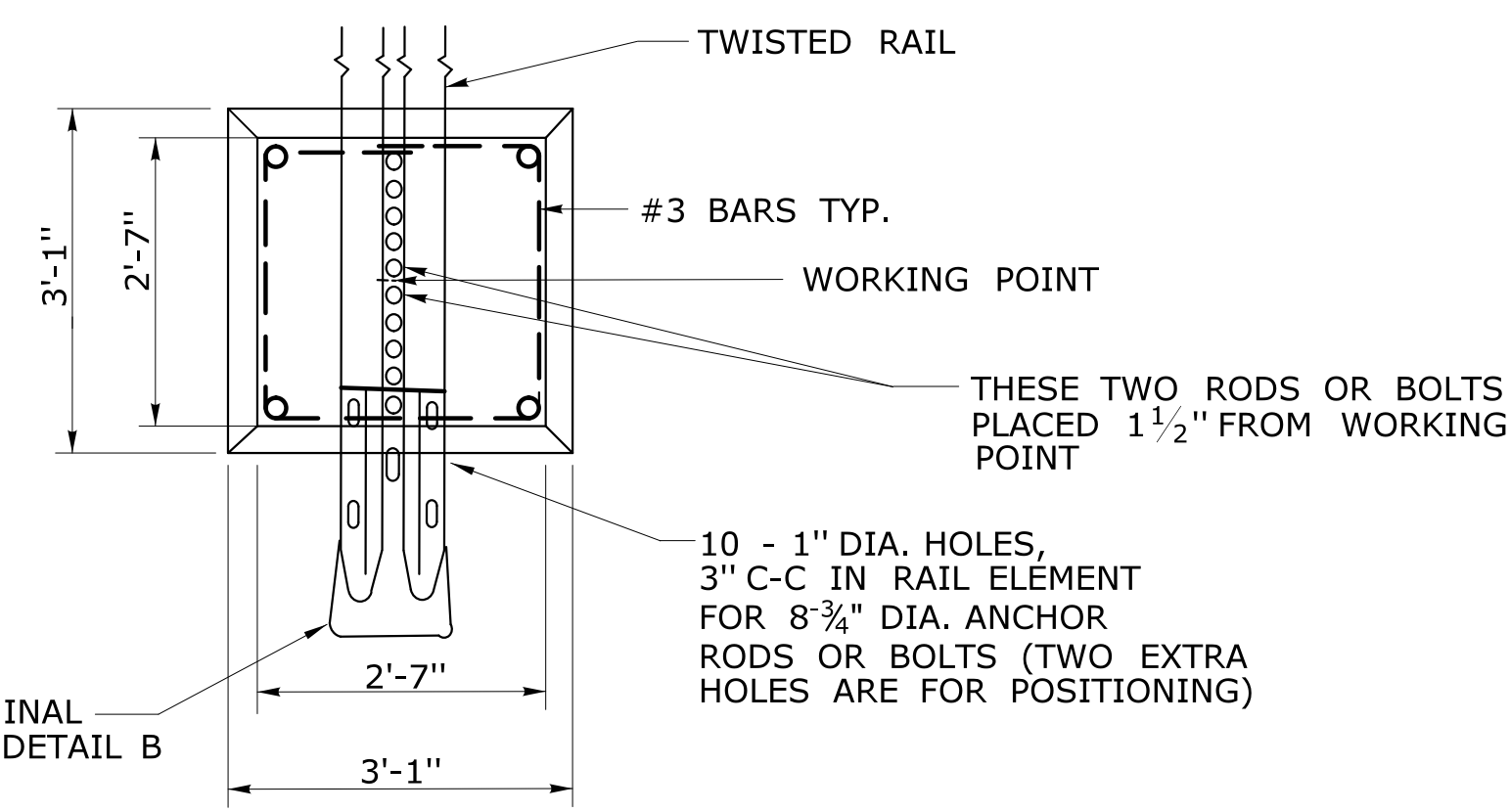
ELEVATION

R-B END ANCHORAGE TYPE I

R-B END ANCHORAGE TYPE II



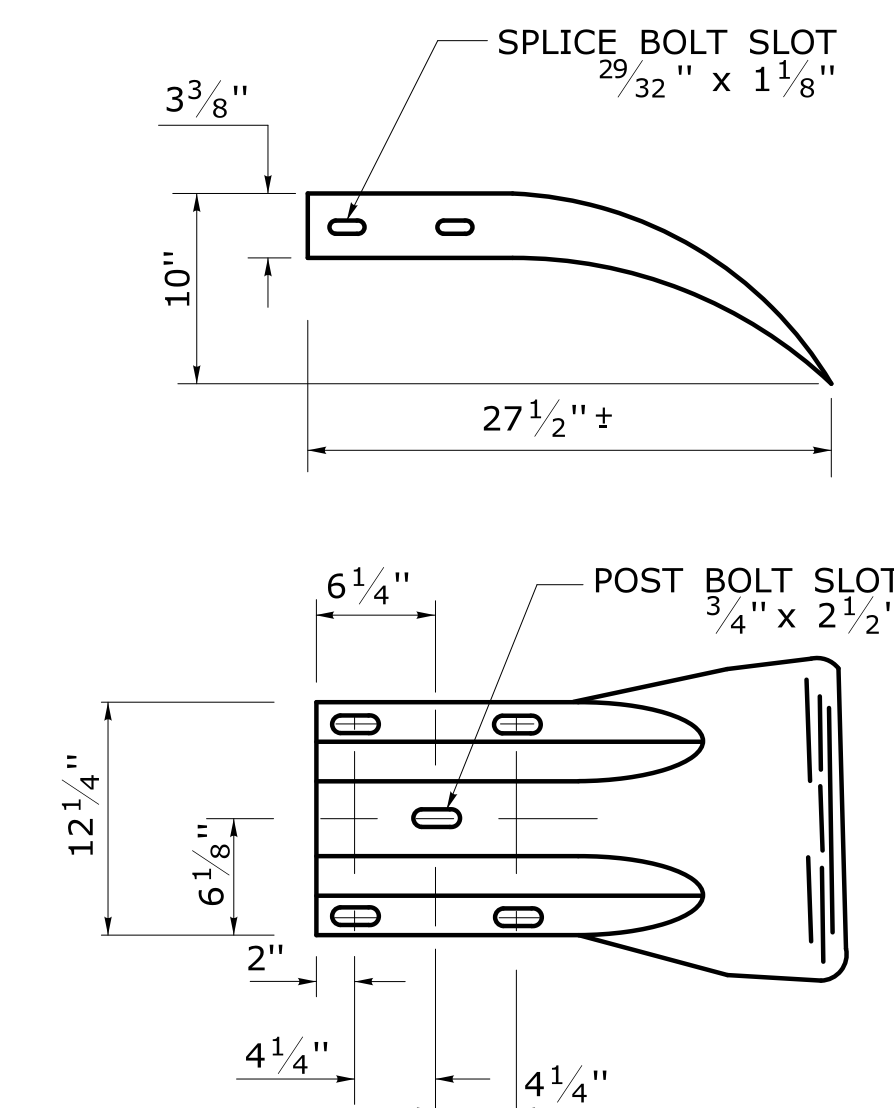
ELEVATION



PLAN

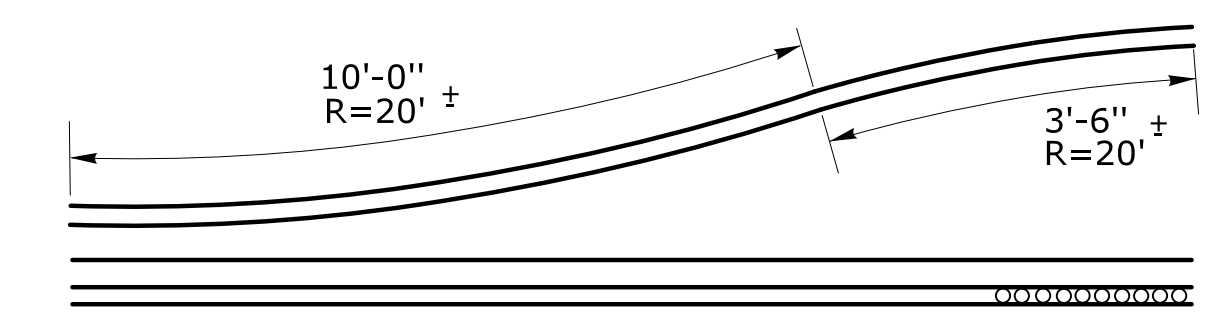
**DETAIL A
ROADSIDE CONCRETE END ANCHOR**

SEE NOTE 2



DETAIL B

W-BEAM TERMINAL ELEMENT




**DETAIL C
SHOP CURVED RAIL**
SEE NOTE 3

REV.	DATE	REVISION DESCRIPTION
1	6/11	REVISED TYPE I AND II ANCHOR FOR CLEAR ZONE PLACEMENT
2	7/13	ADD POST OFFSET DISTANCE
3	9/17	REVISED TYPE I AND II FOR R-B MASH OR R-B 350 RAIL

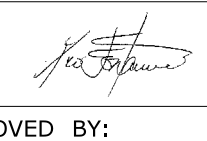
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

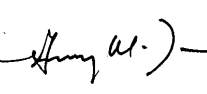
Plotted Date: 9/13/2017

NOT TO SCALE


STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: HW-911.01 (8-1-17).dgn Model: CT_Civil_2D_Sheet

SUBMITTED BY: NAME/DATE/TIME:
 Leo Fontaine, P.E.
 2017.09.13 11:53:23-04'00'

APPROVED BY: NAME/DATE/TIME:
 Gregory M. Dorosh, P.E.
 2017.09.15 14:13:21-04'00'

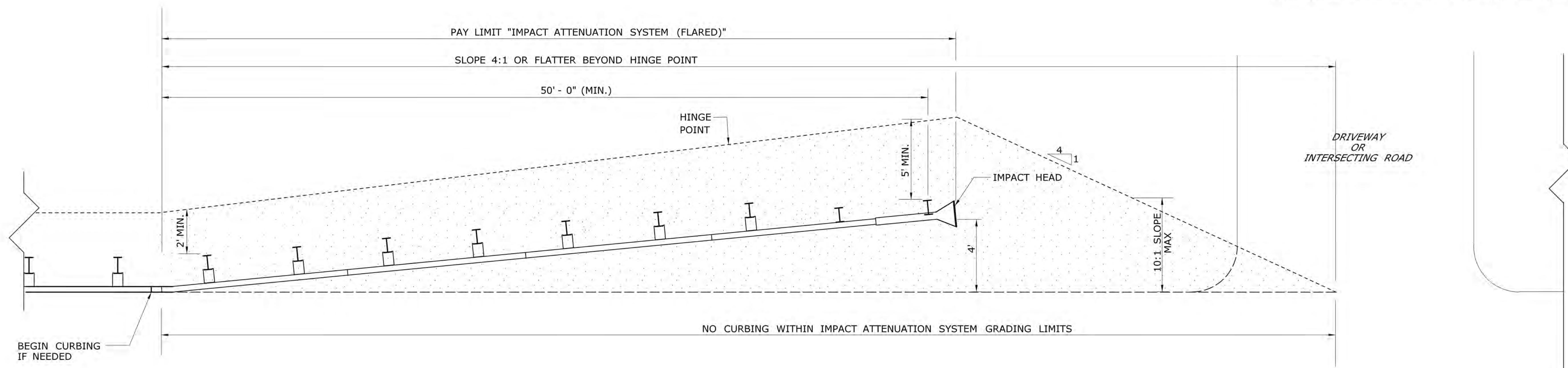
CTDOT
STANDARD SHEET
OFFICE OF ENGINEERING

R-B END ANCHORAGE
TYPE I AND II

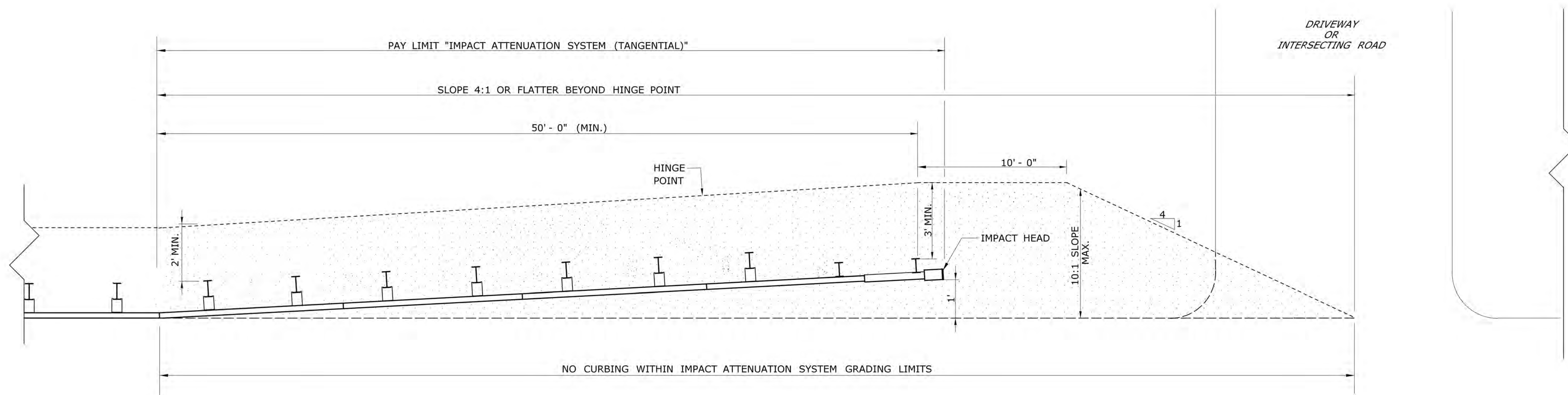
STANDARD SHEET NO.:
HW-911_01

GENERAL NOTE:

- SEE TR-1205.01 FOR ATTENUATOR REFLECTOR SIGN #50-5032 TO BE INSTALLED ON THE NOSE OF THE IMPACT HEAD. THE HEIGHT AND WIDTH OF THE SHEET VARIES DEPENDING ON THE SIZE OF THE NOSE OF THE IMPACT HEAD. REFLECTOR SIGN SHALL COVER THE ENTIRE SURFACE AREA OF THE IMPACT HEAD.



GRADING PLAN FOR IMPACT ATTENUATION SYSTEM (FLARED)

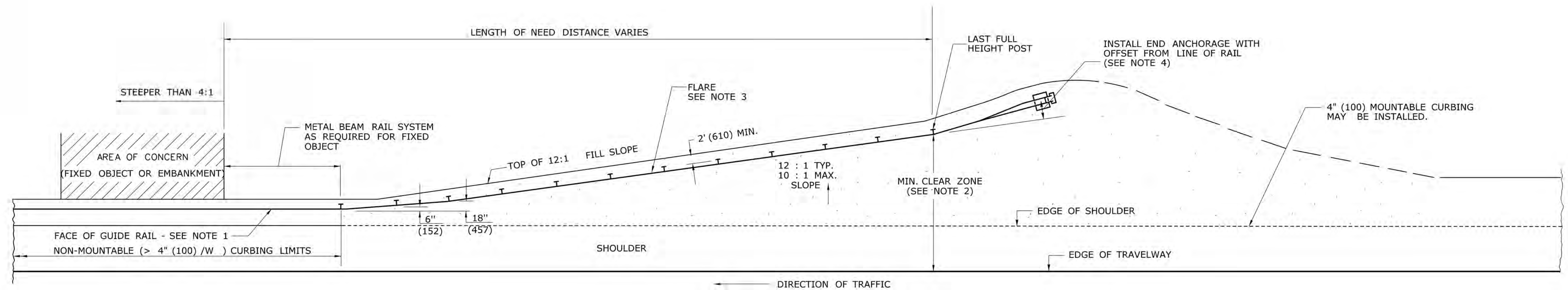


GRADING PLAN FOR IMPACT ATTENUATION SYSTEM (TANGENTIAL)

1	1/19	COMBINED GRADING PLANS FOR FLARED AND TANGENTIAL IMPACT ATTENUATION SYSTEMS AND REVISED GRADING LIMITS FOR FLARED SYSTEM	<p>THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.</p>	<p>NOT TO SCALE</p>	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	<p>SUBMITTED BY: _____ NAME/DATE/TIME: _____</p>	<p>CTDOT STANDARD SHEET OFFICE OF ENGINEERING</p>	<p>STANDARD SHEET TITLE: GRADING PLAN FOR IMPACT ATTENUATION SYSTEMS (FLARED AND TANGENTIAL)</p>	<p>STANDARD SHEET NO.: HW-1800_01</p>
-	-	-				<p>APPROVED BY: _____ NAME/DATE/TIME: _____</p>			
-	-	-				<p>Filename: CTDOT_HIGHWAY STD [1-23-19].dgn Model: 328 - HW-1800_01</p>			
REV.	DATE	REVISION DESCRIPTION				Plotted Date: 1/23/2019			

GENERAL NOTES:

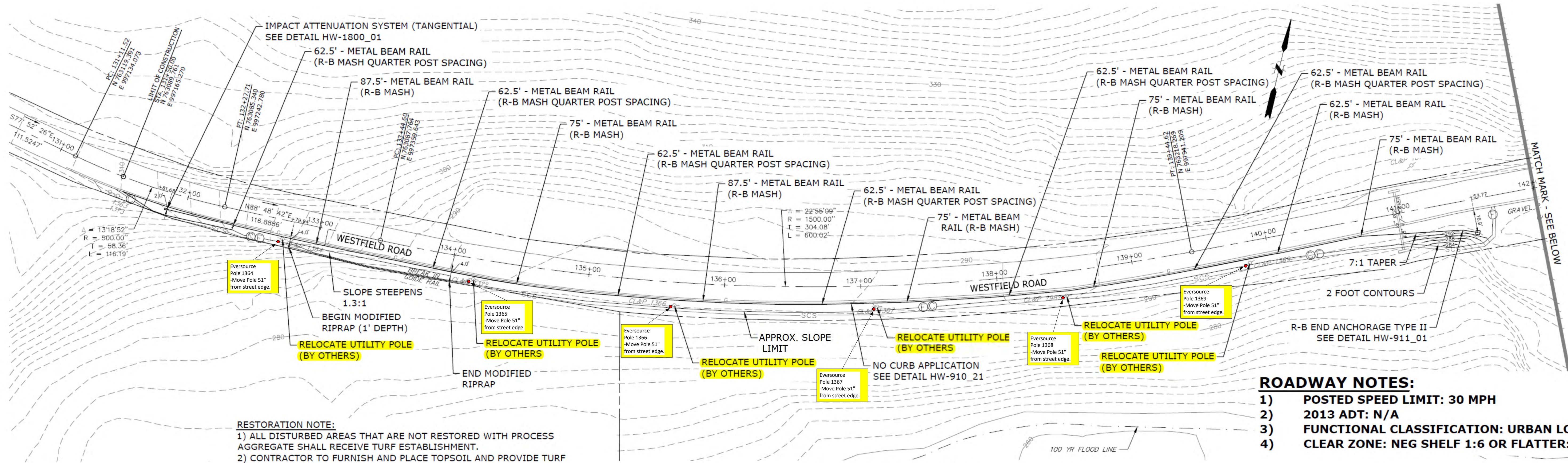
1. THE PLACEMENT OF THE FACE OF GUIDERAIL SHALL BE AS FOLLOWS:
 WITHOUT CURBING: FACE OF GUIDERAIL MAY BE PLACED BEYOND THE EDGE OF SHOULDER. REFER TO GUIDERAIL STANDARD SHEETS FOR CRITERIA OF RAIL PLACEMENT ON SLOPES AND DESIGN DEFLECTION DISTANCES.
 WITH CURBING: FACE OF GUIDERAIL MUST BE PLACED FLUSH WITH FACE OF CURBING.
2. LEADING END TURN-DOWN END ANCHOR MUST BE INSTALLED OUTSIDE DESIGN CLEAR ZONE. FOR TRAILING END TURN-DOWN END ANCHORS ON DUAL DIRECTION ROADWAYS, THIS DISTANCE IS MEASURED FROM THE CENTER LINE. CLEAR ZONE VARIES. SEE PLANS.
3. FLARE RATE VARIES BASED ON DESIGN SPEED OF ROAD. SEE PLANS.
4. TURN-DOWN END ANCHOR OFFSET DISTANCE MAY VARY BASED ON ANCHOR TYPE INSTALLED. SEE HW-911.01 AND PLANS.



TYPICAL GRADING FOR GUIDERAIL TURN-DOWN END ANCHOR APPROACH TO AREA OF CONCERN

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

<table border="1"> <tr> <td>1</td> <td>6/11</td> <td>ADDED NOTE 4, REVISED TITLE AND NOTES</td> </tr> <tr> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>REV.</td> <td>DATE</td> <td>REVISION DESCRIPTION</td> </tr> </table>		1	6/11	ADDED NOTE 4, REVISED TITLE AND NOTES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	REV.	DATE	REVISION DESCRIPTION	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	NOT TO SCALE	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SUBMITTED BY: _____ NAME/DATE/TIME: _____ APPROVED BY: _____ NAME/DATE/TIME: _____	<p align="center">CTDOT STANDARD SHEET</p> <p align="center">OFFICE OF ENGINEERING</p>	STANDARD SHEET TITLE: <p align="center">TYPICAL GRADING PLAN FOR W-BEAM GUIDERAIL TURN-DOWN END ANCHOR</p>	STANDARD SHEET NO.: <p align="right">HW-911_04</p>
1	6/11	ADDED NOTE 4, REVISED TITLE AND NOTES																														
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REV.	DATE	REVISION DESCRIPTION																														
		Plotted Date: 6/4/2011	Filename: CTDOT_HIGHWAY STD_JUNE2011.dgn Model: 63 - HW-911_04																													



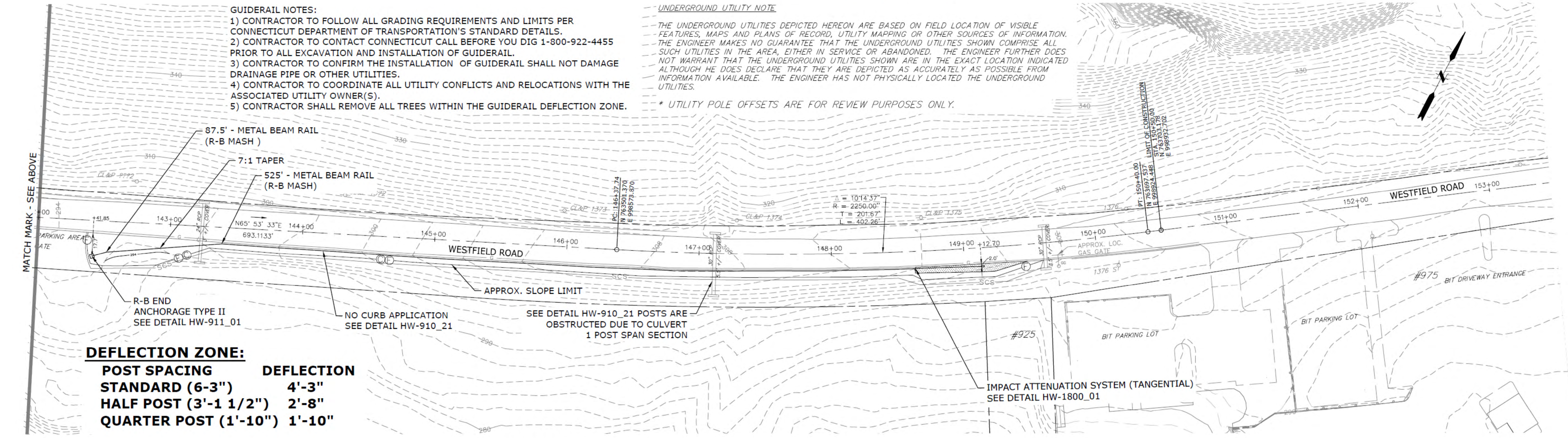
RESTORATION NOTE:
 1) ALL DISTURBED AREAS THAT ARE NOT RESTORED WITH PROCESS AGGREGATE SHALL RECEIVE TURF ESTABLISHMENT.
 2) CONTRACTOR TO FURNISH AND PLACE TOPSOIL AND PROVIDE TURF ESTABLISHMENT FROM FACE OF CURB/ROAD EDGE TO SEDIMENTATION CONTROL SYSTEM FILTER FABRIC FENCE SYSTEM.

**WESTFIELD ROAD
 STA.131+50 RT TO 142+00 RT**

- ROADWAY NOTES:**
- 1) POSTED SPEED LIMIT: 30 MPH
 - 2) 2013 ADT: N/A
 - 3) FUNCTIONAL CLASSIFICATION: URBAN LOCAL
 - 4) CLEAR ZONE: NEG SHELF 1:6 OR FLATTER: 12FT

- GUIDERAIL NOTES:**
- 1) CONTRACTOR TO FOLLOW ALL GRADING REQUIREMENTS AND LIMITS PER CONNECTICUT DEPARTMENT OF TRANSPORTATION'S STANDARD DETAILS.
 - 2) CONTRACTOR TO CONTACT CONNECTICUT CALL BEFORE YOU DIG 1-800-922-4455 PRIOR TO ALL EXCAVATION AND INSTALLATION OF GUIDERAIL.
 - 3) CONTRACTOR TO CONFIRM THE INSTALLATION OF GUIDERAIL SHALL NOT DAMAGE DRAINAGE PIPE OR OTHER UTILITIES.
 - 4) CONTRACTOR TO COORDINATE ALL UTILITY CONFLICTS AND RELOCATIONS WITH THE ASSOCIATED UTILITY OWNER(S).
 - 5) CONTRACTOR SHALL REMOVE ALL TREES WITHIN THE GUIDERAIL DEFLECTION ZONE.

UNDERGROUND UTILITY NOTE
 THE UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED ON FIELD LOCATION OF VISIBLE FEATURES, MAPS AND PLANS OF RECORD, UTILITY MAPPING OR OTHER SOURCES OF INFORMATION. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES DECLARE THAT THEY ARE DEPICTED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
 * UTILITY POLE OFFSETS ARE FOR REVIEW PURPOSES ONLY.



DEFLECTION ZONE:

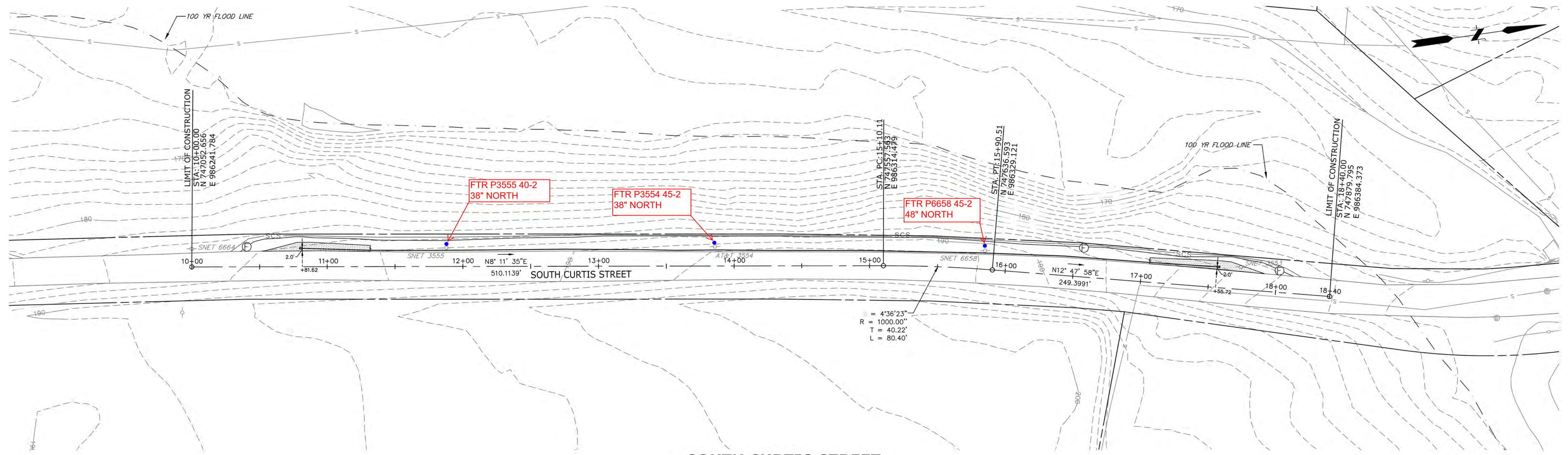
POST SPACING	DEFLECTION
STANDARD (6'-3")	4'-3"
HALF POST (3'-1 1/2")	2'-8"
QUARTER POST (1'-10")	1'-10"

**WESTFIELD ROAD
 STA.142+00 RT TO 150+50 RT**

SUGGESTED GRADING: SEE DETAIL

FINAL REVIEW

2. 1. REV. DATE REVISION DESCRIPTION SHEET NO. Plotted: 1/22/2020	DESIGNER/DRAFTER: JAG/LSS CHECKED BY: MEG SCALE IN FEET 0 40 80 SCALE 1"=40'	SIGNATURE/ BLOCK:	PROJECT TITLE: GUIDERAIL UPGRADE WESTFIELD ROAD	CITY: CITY OF MERIDEN DRAWING TITLE: EVERSOURCE ELECTRIC UTILITY SHEET	PROJECT NO. 79-243 DRAWING NO. A-1 SHEET NO. 25
	Filename: J:\DWG\2017\0522\A10\CIVIL\PLAN\20170522A10_HPNO1.DWG				



**SOUTH CURTIS STREET
STA. 10+00 LT TO 18+40 LT**

Meriden Guardrail Project
Marino Limauro - TS ONE
Frontier Communications

- POLE TO BE RELOCATED BY FRONTIER

RESTORATION NOTE:
1) ALL DISTURBED AREAS THAT ARE NOT RESTORED WITH PROCESS AGGREGATE SHALL RECEIVE TURF ESTABLISHMENT.
2) CONTRACTOR TO FURNISH AND PLACE TOPSOIL AND PROVIDE TURF ESTABLISHMENT FROM FACE OF CURB/ROAD EDGE TO SEDIMENTATION CONTROL SYSTEM FILTER FABRIC FENCE SYSTEM.

SUGGESTED GRADING: SEE DETAIL

- GUIDERAIL NOTES:**
- 1) CONTRACTOR TO FOLLOW ALL GRADING REQUIREMENTS AND LIMITS PER CONNECTICUT DEPARTMENT OF TRANSPORTATION'S STANDARD DETAILS.
 - 2) CONTRACTOR TO CONTACT CONNECTICUT CALL BEFORE YOU DIG 1-800-922-4455 PRIOR TO ALL EXCAVATION AND INSTALLATION OF GUIDERAIL.
 - 3) CONTRACTOR TO CONFIRM THE INSTALLATION OF GUIDERAIL SHALL NOT DAMAGE DRAINAGE PIPE OR OTHER UTILITIES.
 - 4) CONTRACTOR TO COORDINATE ALL UTILITY CONFLICTS AND RELOCATIONS WITH THE ASSOCIATED UTILITY OWNER(S).
 - 5) CONTRACTOR SHALL REMOVE ALL TREES WITHIN THE GUIDERAIL DEFLECTION ZONE.

DEFLECTION ZONE:

POST SPACING	DEFLECTION
STANDARD (6'-3")	4'-3"
HALF POST (3'-1 1/2")	2'-8"
QUARTER POST (1'-10")	1'-10"

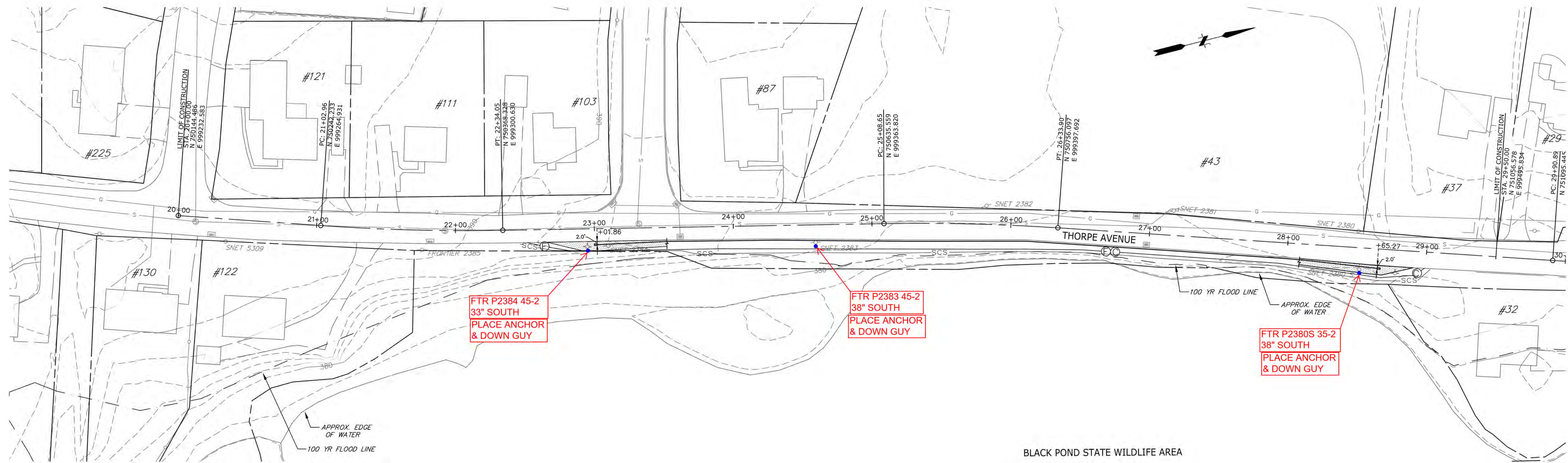
- ROADWAY NOTES:**
- 1) POSTED SPEED LIMIT: 30 MPH
 - 2) 2013 ADT: 2600
 - 3) FUNCTIONAL CLASSIFICATION: URBAN COLLECTOR
 - 4) CLEAR ZONE: NEG SHELFF 1:6 OR FLATTER: 12FT

UNDERGROUND UTILITY NOTE
THE UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED ON FIELD LOCATION OF VISIBLE FEATURES, MAPS AND PLANS OF RECORD, UTILITY MAPPING OR OTHER SOURCES OF INFORMATION. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES DECLARE THAT THEY ARE DEPICTED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

* UTILITY POLE OFFSETS ARE FOR REVIEW PURPOSES ONLY.

FINAL REVIEW

2 1	REV. DATE REVISION DESCRIPTION SHEET NO.	Plotted: 1/21/2020	DESIGNER/DRAFTER: JAG/SAL	SIGNATURE/ BLOCK:	PROJECT TITLE: GUIDERAIL UPGRADE SOUTH CURTIS STREET	TOWN: CITY OF MERIDEN	PROJECT NO. 79-243
			CHECKED BY: MEG SCALE IN FEET 0 40 80 SCALE 1"=40'			DRAWING TITLE: GUIDERAIL UPGRADE PLAN	DRAWING NO. B-1 SHEET NO. 26



**THORPE AVENUE
STA. 20+00 RT TO 29+50 RT**

BLACK POND STATE WILDLIFE AREA

RESTORATION NOTE:
 1) ALL DISTURBED AREAS THAT ARE NOT RESTORED WITH PROCESS AGGREGATE SHALL RECEIVE TURF ESTABLISHMENT.
 2) CONTRACTOR TO FURNISH AND PLACE TOPSOIL AND PROVIDE TURF ESTABLISHMENT FROM FACE OF CURB/ROAD EDGE TO SEDIMENTATION CONTROL SYSTEM FILTER FABRIC FENCE SYSTEM.

SUGGESTED GRADING: SEE DETAIL

GUIDERAIL NOTES:
 1) CONTRACTOR TO FOLLOW ALL GRADING REQUIREMENTS AND LIMITS PER CONNECTICUT DEPARTMENT OF TRANSPORTATION'S STANDARD DETAILS.
 2) CONTRACTOR TO CONTACT CONNECTICUT CALL BEFORE YOU DIG 1-800-922-4455 PRIOR TO ALL EXCAVATION AND INSTALLATION OF GUIDERAIL.
 3) CONTRACTOR TO CONFIRM THE INSTALLATION OF GUIDERAIL SHALL NOT DAMAGE DRAINAGE PIPE OR OTHER UTILITIES.
 4) CONTRACTOR TO COORDINATE ALL UTILITY CONFLICTS AND RELOCATIONS WITH THE ASSOCIATED UTILITY OWNER(S).
 5) CONTRACTOR SHALL REMOVE ALL TREES WITHIN THE GUIDERAIL DEFLECTION ZONE.

DEFLECTION ZONE:
 POST SPACING STANDARD (6'-3") HALF POST (3'-1 1/2") QUARTER POST (1'-10")
 DEFLECTION 4'-3" 2'-8" 1'-10"

ROADWAY NOTES:
 1) POSTED SPEED LIMIT: 25 MPH
 2) 2013 ADT: 550
 3) FUNCTIONAL CLASSIFICATION: URBAN COLLECTOR
 4) CLEAR ZONE: NEG SHELF 1:6 OR FLATTER: 7FT

UNDERGROUND UTILITY NOTE:
 THE UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED ON FIELD LOCATION OF VISIBLE FEATURES, MAPS AND PLANS OF RECORD, UTILITY MAPPING OR OTHER SOURCES OF INFORMATION. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES DECLARE THAT THEY ARE DEPICTED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

* UTILITY POLE OFFSETS ARE FOR REVIEW PURPOSES ONLY.

**Meriden Guardrail Project
Marino Limauro - TS ONE
Frontier Communications**

- POLE TO BE RELOCATED BY FRONTIER

FINAL DESIGN REVIEW

2. 1. REV. DATE REVISION DESCRIPTION SHEET NO. Plotted: 1/21/2020	DESIGNER/DRAFTER: JAG/SAL CHECKED BY: MEG SCALE IN FEET SCALE 1"=40'	SIGNATURE/ BLOCK:	PROJECT TITLE: <p style="text-align: center;">GUIDERAIL UPGRADE THORPE AVENUE</p>	TOWN: CITY OF MERIDEN DRAWING TITLE: GUIDERAIL UPGRADE PLAN	PROJECT NO. 79-243 DRAWING NO. B-2 SHEET NO. 27
	Filename: J:\DWG\2017\0572\A10 - CORRESPONDENCE\SENT\UTILITY PLANS\2020-01-21 - GUYEN - PANS\20170572\A10 - MERIDEN GUIDERAIL UPGRADE PLAN.DWG				

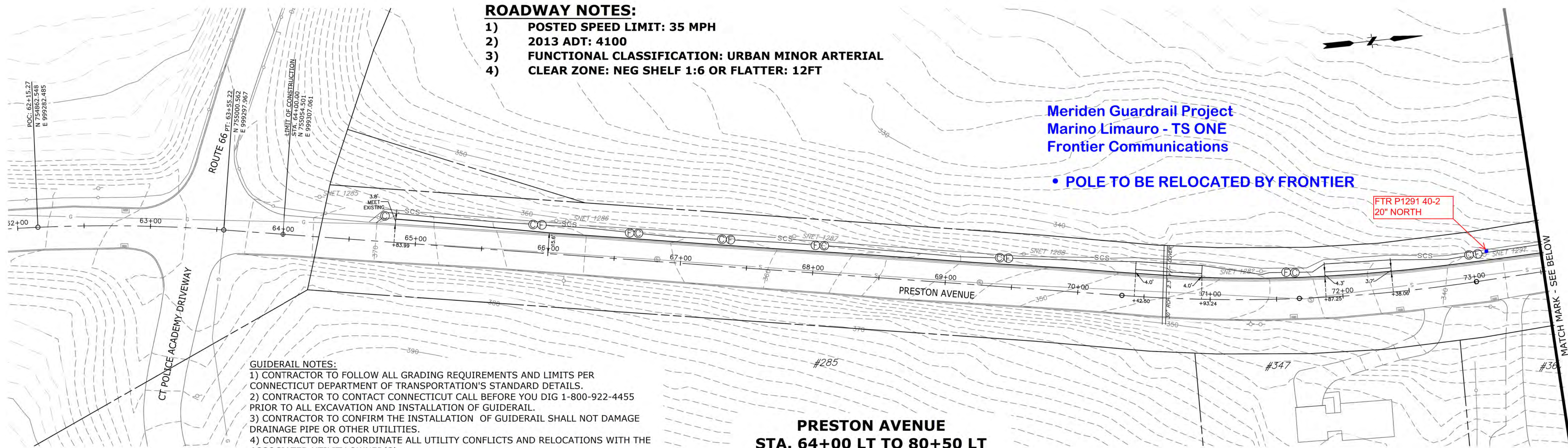
ROADWAY NOTES:

- 1) POSTED SPEED LIMIT: 35 MPH
- 2) 2013 ADT: 4100
- 3) FUNCTIONAL CLASSIFICATION: URBAN MINOR ARTERIAL
- 4) CLEAR ZONE: NEG SHELF 1:6 OR FLATTER: 12FT

Meriden Guardrail Project
Marino Limauro - TS ONE
Frontier Communications

• POLE TO BE RELOCATED BY FRONTIER

FTR P1291 40-2
20" NORTH



GUIDERAIL NOTES:

- 1) CONTRACTOR TO FOLLOW ALL GRADING REQUIREMENTS AND LIMITS PER CONNECTICUT DEPARTMENT OF TRANSPORTATION'S STANDARD DETAILS.
- 2) CONTRACTOR TO CONTACT CONNECTICUT CALL BEFORE YOU DIG 1-800-922-4455 PRIOR TO ALL EXCAVATION AND INSTALLATION OF GUIDERAIL.
- 3) CONTRACTOR TO CONFIRM THE INSTALLATION OF GUIDERAIL SHALL NOT DAMAGE DRAINAGE PIPE OR OTHER UTILITIES.
- 4) CONTRACTOR TO COORDINATE ALL UTILITY CONFLICTS AND RELOCATIONS WITH THE ASSOCIATED UTILITY OWNER(S).
- 5) CONTRACTOR SHALL REMOVE ALL TREES WITHIN THE GUIDERAIL DEFLECTION ZONE.

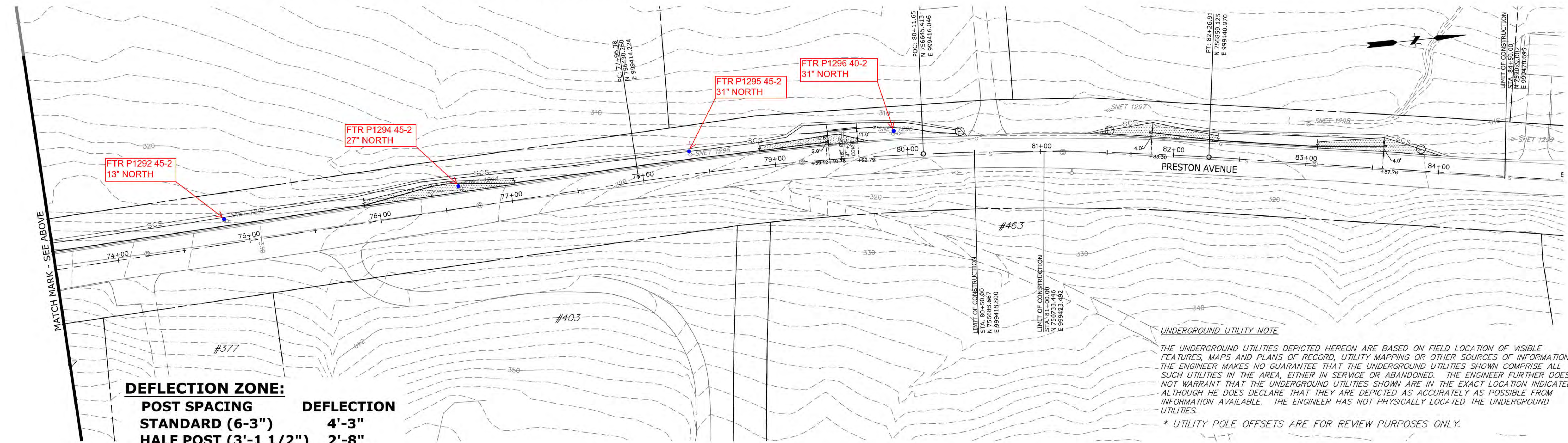
**PRESTON AVENUE
STA. 64+00 LT TO 80+50 LT**

FTR P1292 45-2
13" NORTH

FTR P1294 45-2
27" NORTH

FTR P1295 45-2
31" NORTH

FTR P1296 40-2
31" NORTH



DEFLECTION ZONE:

POST SPACING	DEFLECTION
STANDARD (6'-3")	4'-3"
HALF POST (3'-1 1/2")	2'-8"
QUARTER POST (1'-10")	1'-10"

UNDERGROUND UTILITY NOTE

THE UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED ON FIELD LOCATION OF VISIBLE FEATURES, MAPS AND PLANS OF RECORD, UTILITY MAPPING OR OTHER SOURCES OF INFORMATION. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES DECLARE THAT THEY ARE DEPICTED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

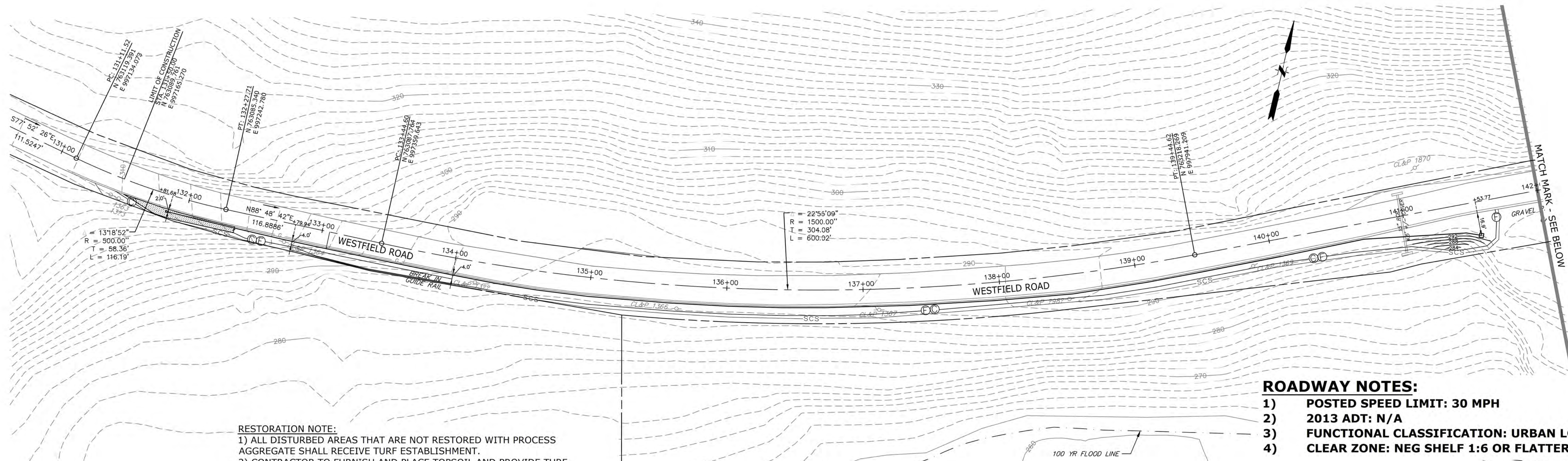
* UTILITY POLE OFFSETS ARE FOR REVIEW PURPOSES ONLY.

**PRESTON AVENUE
STA. 81+00 LT TO 84+00 LT**

SUGGESTED GRADING: SEE DETAIL

FINAL REVIEW

2 1 REV. DATE REVISION DESCRIPTION SHEET NO. Plotted: 1/21/2020	DESIGNER/DRAFTER: JAG/SAL	SIGNATURE/ BLOCK:	PROJECT TITLE: GUIDERAIL UPGRADE PRESTON AVENUE	TOWN: CITY OF MERIDEN	PROJECT NO. 79-243
	CHECKED BY: MEG				DRAWING NO. B-3
SCALE IN FEET 0 40 80 SCALE 1"=40'			DRAWING TITLE: GUIDERAIL UPGRADE PLAN		SHEET NO. 28



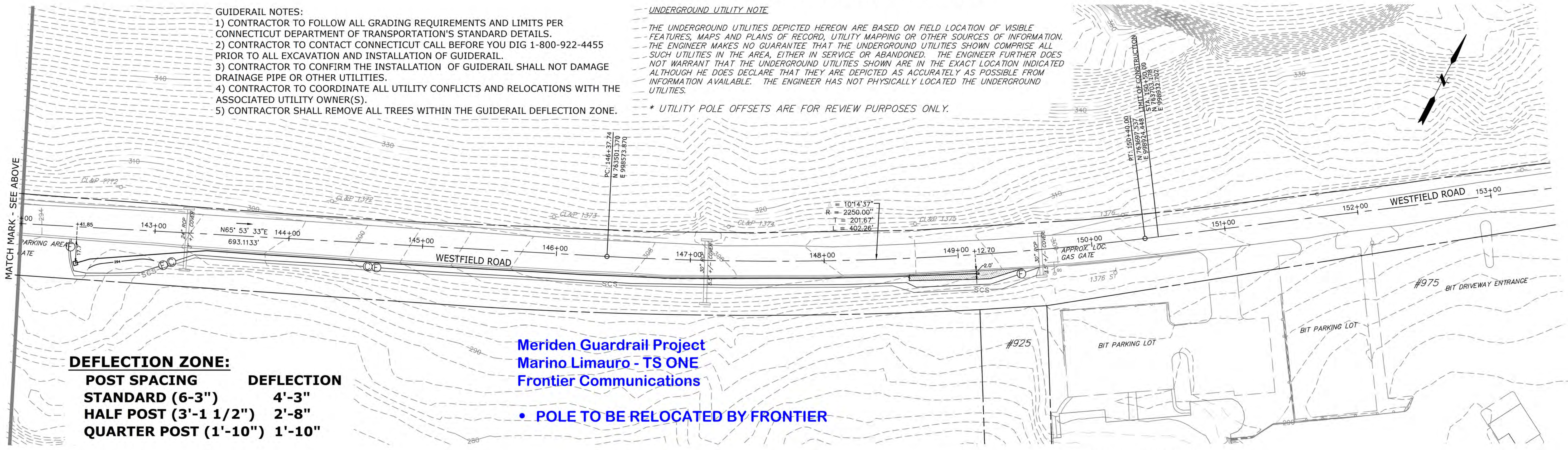
RESTORATION NOTE:
 1) ALL DISTURBED AREAS THAT ARE NOT RESTORED WITH PROCESS AGGREGATE SHALL RECEIVE TURF ESTABLISHMENT.
 2) CONTRACTOR TO FURNISH AND PLACE TOPSOIL AND PROVIDE TURF ESTABLISHMENT FROM FACE OF CURB/ROAD EDGE TO SEDIMENTATION CONTROL SYSTEM FILTER FABRIC FENCE SYSTEM.

- ROADWAY NOTES:**
- 1) POSTED SPEED LIMIT: 30 MPH
 - 2) 2013 ADT: N/A
 - 3) FUNCTIONAL CLASSIFICATION: URBAN LOCAL
 - 4) CLEAR ZONE: NEG SHELFF 1:6 OR FLATTER: 12FT

**WESTFIELD ROAD
 STA.131+50 RT TO 142+00 RT**

- GUIDERAIL NOTES:**
- 1) CONTRACTOR TO FOLLOW ALL GRADING REQUIREMENTS AND LIMITS PER CONNECTICUT DEPARTMENT OF TRANSPORTATION'S STANDARD DETAILS.
 - 2) CONTRACTOR TO CONTACT CONNECTICUT CALL BEFORE YOU DIG 1-800-922-4455 PRIOR TO ALL EXCAVATION AND INSTALLATION OF GUIDERAIL.
 - 3) CONTRACTOR TO CONFIRM THE INSTALLATION OF GUIDERAIL SHALL NOT DAMAGE DRAINAGE PIPE OR OTHER UTILITIES.
 - 4) CONTRACTOR TO COORDINATE ALL UTILITY CONFLICTS AND RELOCATIONS WITH THE ASSOCIATED UTILITY OWNER(S).
 - 5) CONTRACTOR SHALL REMOVE ALL TREES WITHIN THE GUIDERAIL DEFLECTION ZONE.

UNDERGROUND UTILITY NOTE
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 * UTILITY POLE OFFSETS ARE FOR REVIEW PURPOSES ONLY.



DEFLECTION ZONE:

POST SPACING	DEFLECTION
STANDARD (6'-3")	4'-3"
HALF POST (3'-1 1/2")	2'-8"
QUARTER POST (1'-10")	1'-10"

**Meriden Guardrail Project
 Marino Limauro - TS ONE
 Frontier Communications**

• POLE TO BE RELOCATED BY FRONTIER

**WESTFIELD ROAD
 STA.142+00 RT TO 150+50 RT**

SUGGESTED GRADING: SEE DETAIL

FINAL REVIEW

DESIGNER/DRAFTER: JAG/SAL CHECKED BY: MEG SCALE IN FEET SCALE 1"=40'	SIGNATURE/ BLOCK:	PROJECT TITLE: GUIDERAIL UPGRADE WESTFIELD ROAD	TOWN: CITY OF MERIDEN	PROJECT NO. 79-243
				DRAWING NO. B-4
REV. DATE REVISION DESCRIPTION SHEET NO. Plotted: 1/21/2020	FILENAME: J:\DWG\2017\0572\A101 - CORRESPONDENCE\UTILITY PLANS\2020-01-21 - UTILITY PLANS\20170572R10 - RPT01 - MERIDEN GUIDERAIL UTILITY PLAN.DWG	DRAWING TITLE: GUIDERAIL UPGRADE PLAN	SHEET NO. 29	