Special Plans
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August 1, 2025

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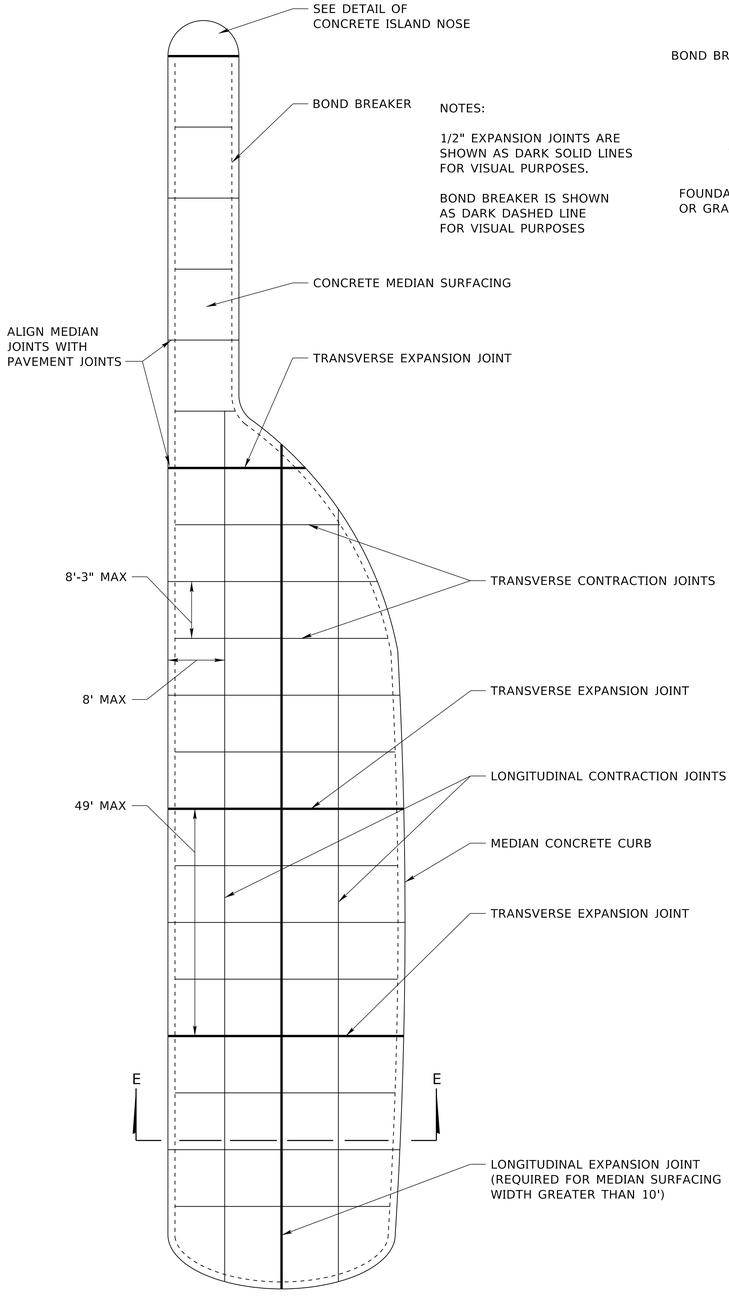
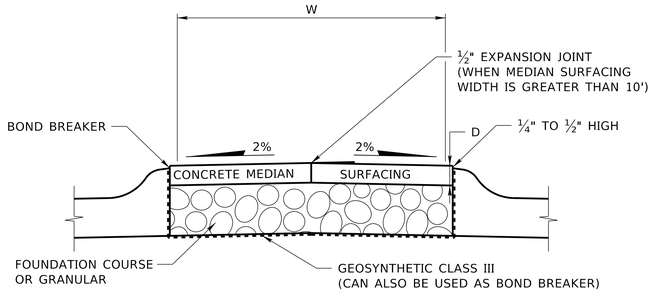


NOTES:

1/2" EXPANSION JOINTS ARE SHOWN AS DARK SOLID LINES FOR VISUAL PURPOSES.

BOND BREAKER IS SHOWN AS DARK DASHED LINE FOR VISUAL PURPOSES



CONCRETE MEDIAN SURFACING

W = 3'-0" MIN.
D = 4" WHEN W <= 8'-0"
6" WHEN W > 8'-0"

NOTES:

ONE INCH PREFORMED EXPANSION JOINT FILLER WITH JOINT SEALANT SHALL BE PLACED ACROSS THE FULL WIDTH OF THE MEDIAN SURFACING AT INTERVALS OF NOT MORE THAN 49 FEET.

LONGITUDINAL EXPANSION JOINTS SHALL BE MADE IN ALL MEDIANS WHEN SURFACING WIDTH IS 10 FEET OR GREATER.

LONGITUDINAL CONTRACTION JOINTS SHALL BE WITH SPACING NO MORE THAN 8' APART.

TRANSVERSE CONTRACTION JOINTS SHALL BE MADE IN MEDIAN SURFACING AT INTERVALS OF NOT MORE THAN 8'-3".

CONTRACTION JOINTS SHALL BE ONE INCH DEEP AND ⅛" TO ⅜" WIDE. CONTRACTION JOINTS MAY BE CUT BY A GROOVE FORMING TOOL.

TRANSVERSE AND LONGITUDINAL CONTRACTION JOINTS SHALL NOT BE FILLED WITH JOINT SEALANT. ALL EXPANSION JOINTS SHALL BE FILLED WITH JOINT SEALANT.

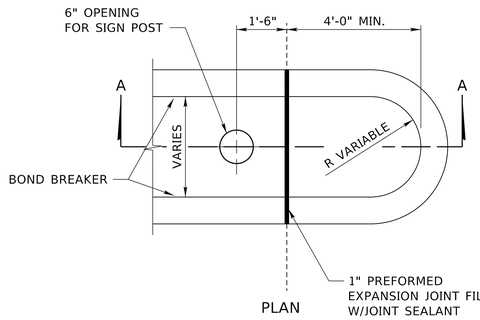
INSTALL PREFORMED EXPANSION JOINT FILLER, PER SECTION 1015, AT ALL EXPANSION JOINTS, FOR THE FULL THICKNESS OF THE CONCRETE MEDIAN SURFACING

INSTALL A BOND BREAKER FOR THE FULL THICKNESS OF THE CONCRETE MEDIAN SURFACING BETWEEN THE MEDIAN SURFACING AND THE CURB. USE A 15 OR 30 POUND ROOFING FELT MATERIAL, OR OTHER THIN PRODUCT AS APPROVED BY THE ENGINEER, FOR THE BOND BREAKER. DO NOT USE EXPANSION JOINT MATERIAL AS A BOND BREAKER.

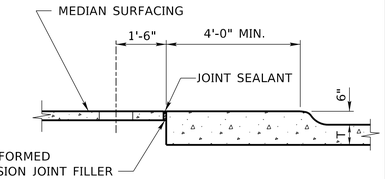
ALL JOINTS MUST BE STRAIGHT AND PERPENDICULAR TO THE CENTERLINE AND THE SURFACE OF THE MEDIAN SURFACING. WHERE PRACTICAL, ALIGN ALL JOINTS WITH LIKE JOINTS IN ADJOINING WORK. USE JOINTS TO OUTLINE ALL PANELS IN THE MEDIAN SURFACING. USE SQUARE PANELS WHEN PRACTICAL. ON NARROW MEDIAN SURFACING RECTANGULAR SHAPED PANELS ARE ACCEPTABLE.

CONCRETE MEDIAN SURFACING SHALL BE ¼" TO ½" HIGHER THAN BACK OF CURBS

SECTION E-E

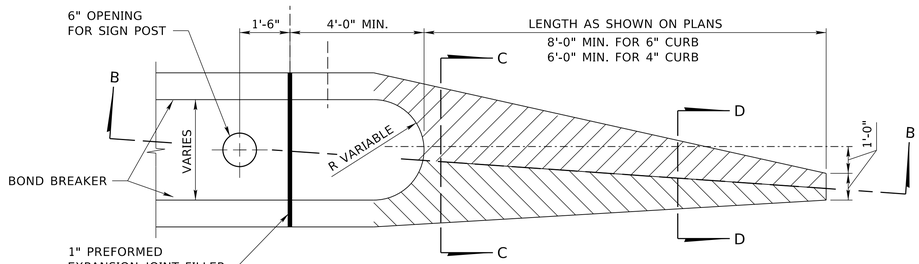


PLAN

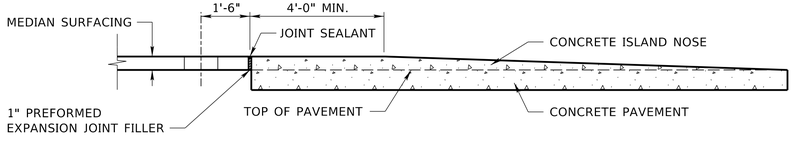


SECTION A-A
T = PAVEMENT THICKNESS

END OF MEDIAN ISLAND



PLAN



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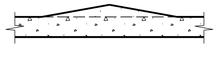

SECTION C-C

SECTION D-D

CONCRETE ISLAND NOSE

1 OF 1

Project Number

C.N.

SPECIAL PLAN _C

1 OF 1

CONCRETE MEDIAN SURFACING

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

Roadway Design Division

COMPUTER: BG04139M187

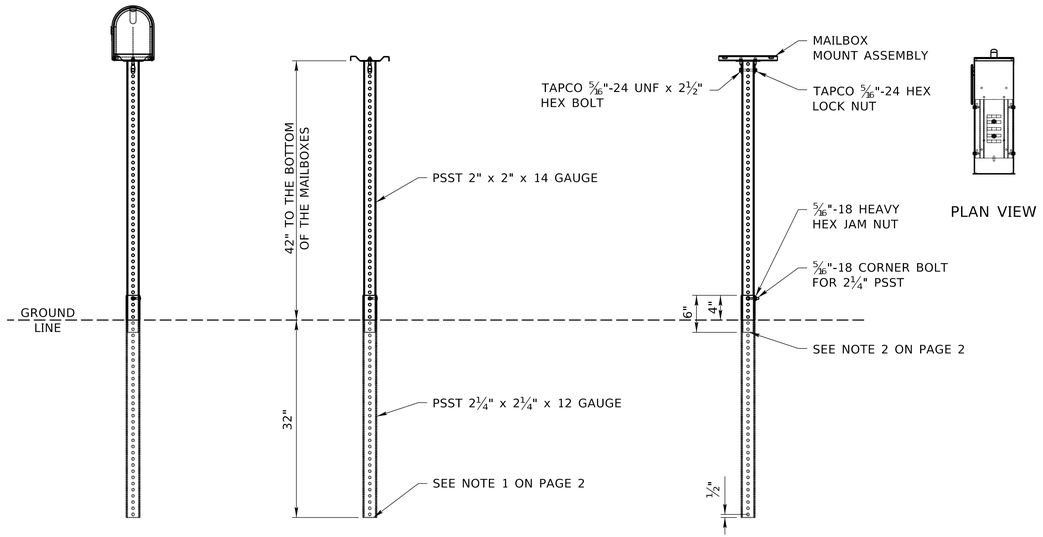
DATE: 10-SEP-2024 10:51

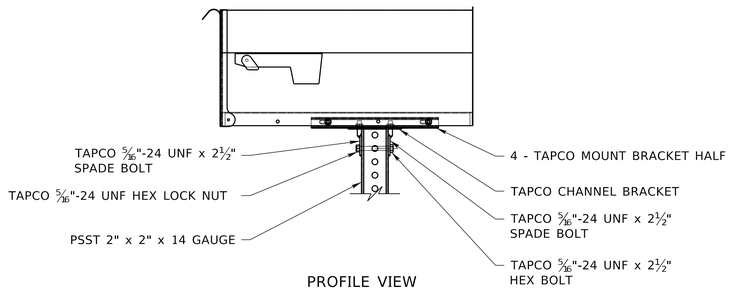
FILE: 3020 1 R0.dgn

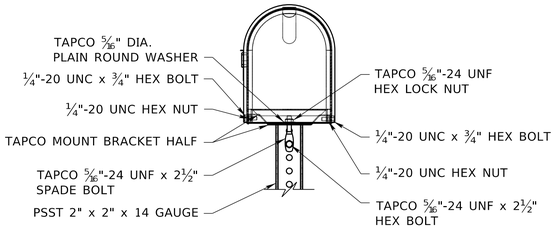
Approved Date: SEPT 23

Effective Letting Date: MAY 2024

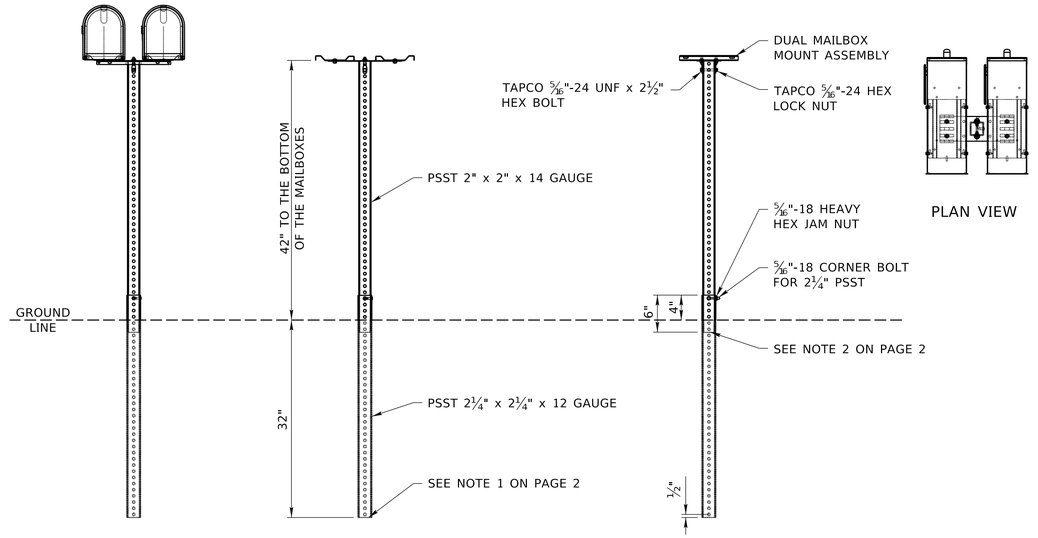
TAPCO SINGLE MAILBOX CONFIGURATION

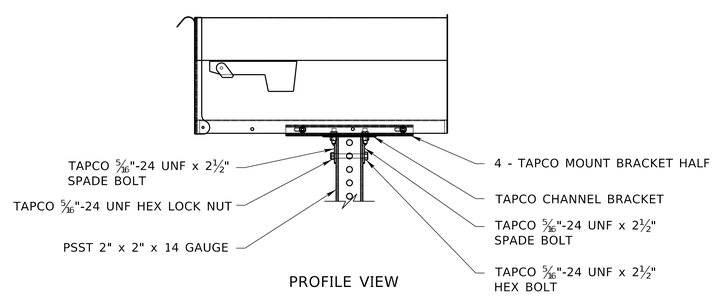


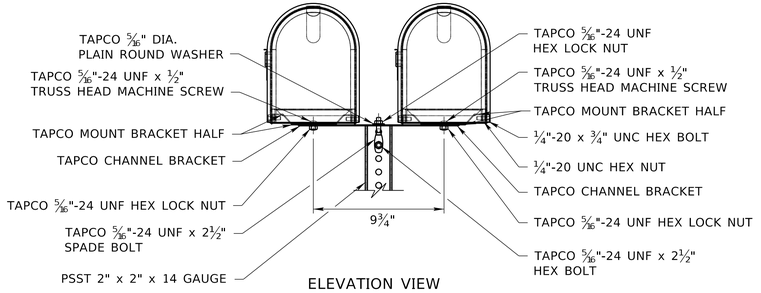




TAPCO DOUBLE MAILBOX CONFIGURATION







Project Number

C.N.

SPECIAL PLAN _C

1 OF 2

MAILBOX POST

NEBRASKA
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Roadway Design Division

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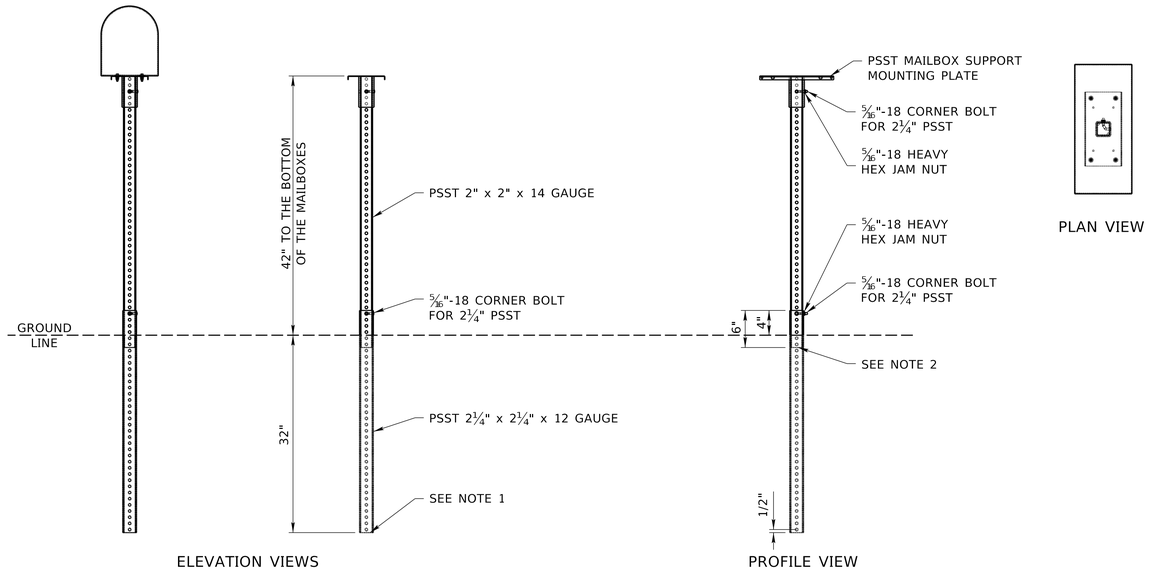
DATE: 10-SEP-2024 10:52

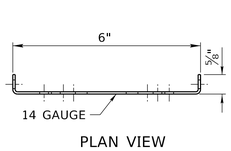
FILE: 3072 1 R4.dgn

NON-PROPRIETARY SINGLE MAILBOX CONFIGURATION

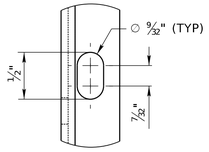


NOTES:

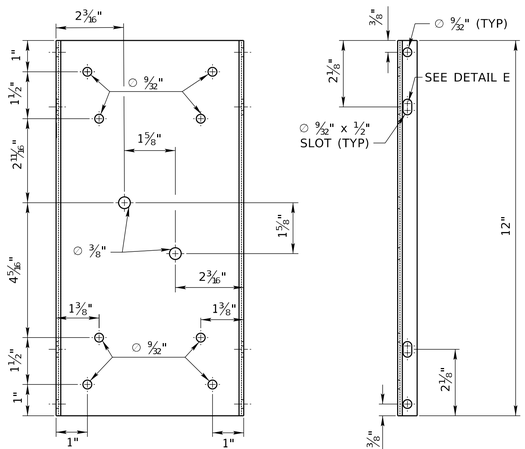
1. PSST 2¼ x 2¼ x 12 GAUGE IS ASYMMETRICAL AND SHALL BE INSERTED WITH THE END OF THE POST WITH THE ½" GAP BETWEEN THE FIRST HOLE AND THE END OF THE POST BEING INSERTED FIRST.
2. PSST 2 x 2 x 14 GAUGE SHALL BE INSERTED WITH THE ½" GAP DOWN.
3. THE TAPCO MAILBOX SUPPORTS ARE TO BE ATTACHED TO THE POST USING THE SUPPLIED TAPCO HARDWARE EXCEPT THE SUPPLIED #10 BOLTS ARE REPLACED WITH 1/4"-20 GRADE 5 HEX BOLTS AND NUTS TO ATTACH THE MAILBOXES TO THE BRACKETS VIA THE FURTHEST REARWARD HOLES.
4. CONTRACTOR MAY INSTALL TWO SINGLE MAILBOX CONFIGURATIONS IN LIEU OF THE DOUBLE MAILBOX CONFIGURATION.



PLAN VIEW



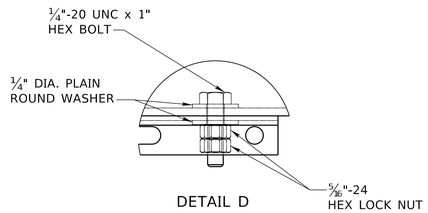
DETAIL E



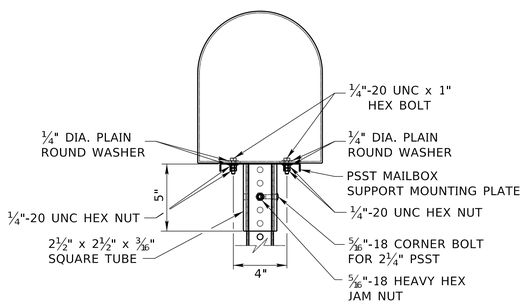
ELEVATION VIEW

PROFILE VIEW

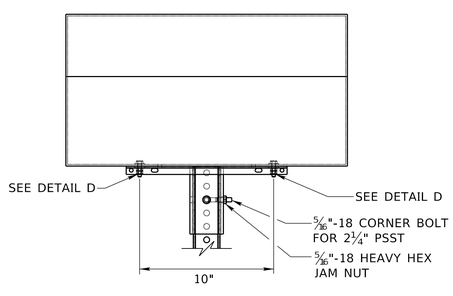
PSST MAILBOX SUPPORT MOUNTING PLATE



DETAIL D



ELEVATION VIEW



PROFILE VIEW

MAILBOX MOUNT ASSEMBLY

Project Number

C.N.

SPECIAL PLAN _C
2 OF 2
MAILBOX POST

NEBRASKA
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Roadway Design Division

COMPUTER$$$$
DATE$$$$$$$$$$$$$$
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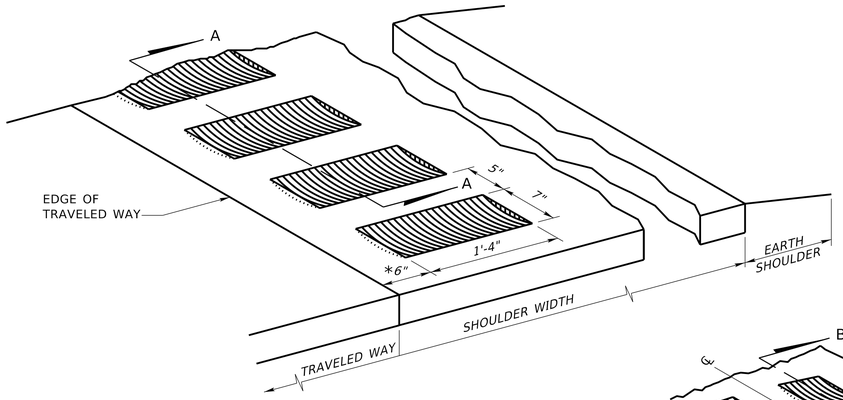
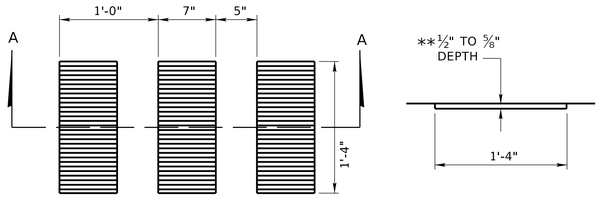
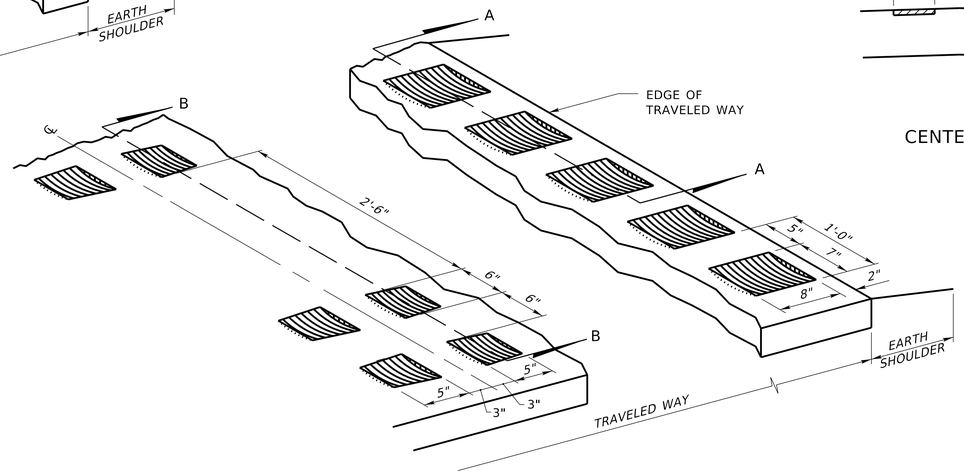


SHOULDER RUMBLE STRIPS DETAIL



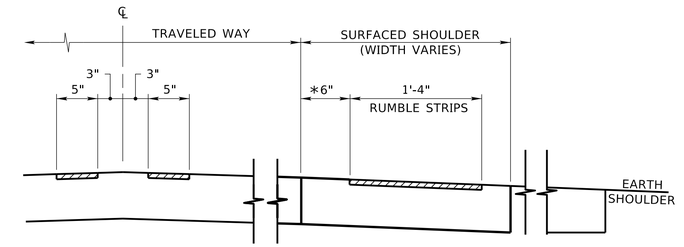
PLAN PROFILE

SHOULDER RUMBLE STRIPS SHAPE



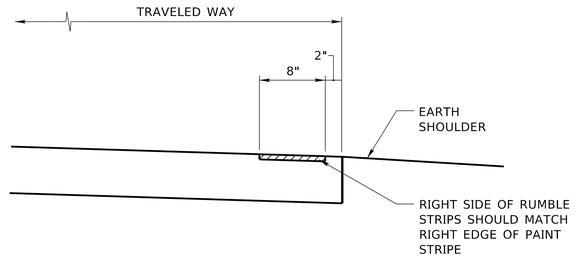
CENTERLINE RUMBLE STRIPS DETAIL

EDGELINE RUMBLE STRIPS DETAIL

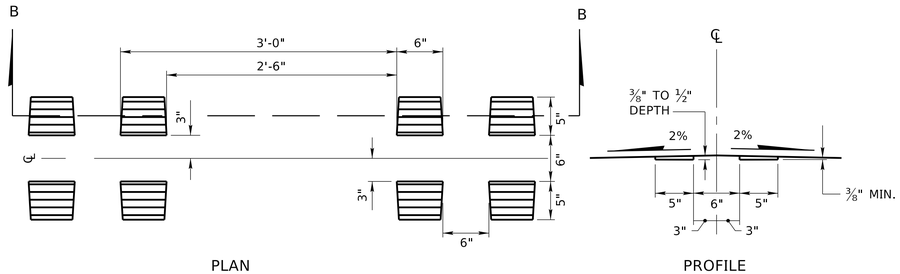


CENTERLINE SHOULDER

* 1'-0" FOR INTERSTATE

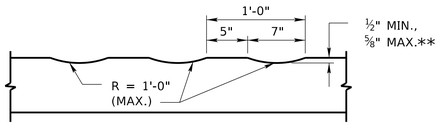


EDGELINE ON 24 FEET ROADWAY



PLAN PROFILE

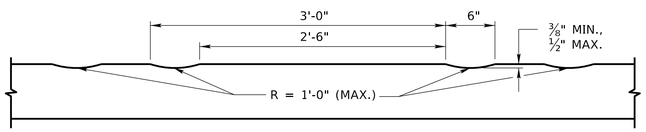
CENTERLINE RUMBLE STRIPS SHAPE



SHOULDER AND EDGELINE RUMBLE STRIPS

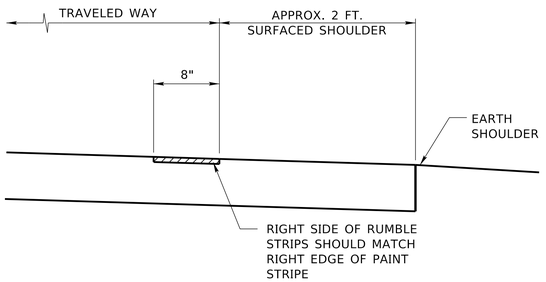
SECTION A-A

**⅜" MIN., ½" MAX. FOR 1" OVERLAY

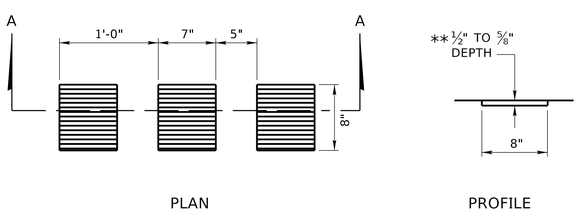


CENTERLINE RUMBLE STRIPS

SECTION B-B



EDGELINE ON 28 FEET ROADWAY



PLAN PROFILE

EDGELINE RUMBLE STRIPS SHAPE

NOTES:

RUMBLE STRIPS SHALL BE PLACED ON SHOULDERS AS INDICATED IN THIS PLAN AND IN ACCORDANCE WITH THE PROJECT PLANS. RUMBLE STRIPS ARE NOT NORMALLY REQUIRED ON CITY STREETS AND OTHER URBAN SHOULDERS ADJACENT TO CURB AND GUTTER UNLESS SPECIFICALLY NOTED IN THE PLANS.

RUMBLE STRIPS MAY BE CONTINUOUS THROUGH DRIVEWAYS AND SHALL BE OMITTED ACROSS INTERSECTING ROADWAYS AND BRIDGES.

SPECIAL PLAN _C
1 OF 2
RUMBLE STRIPS

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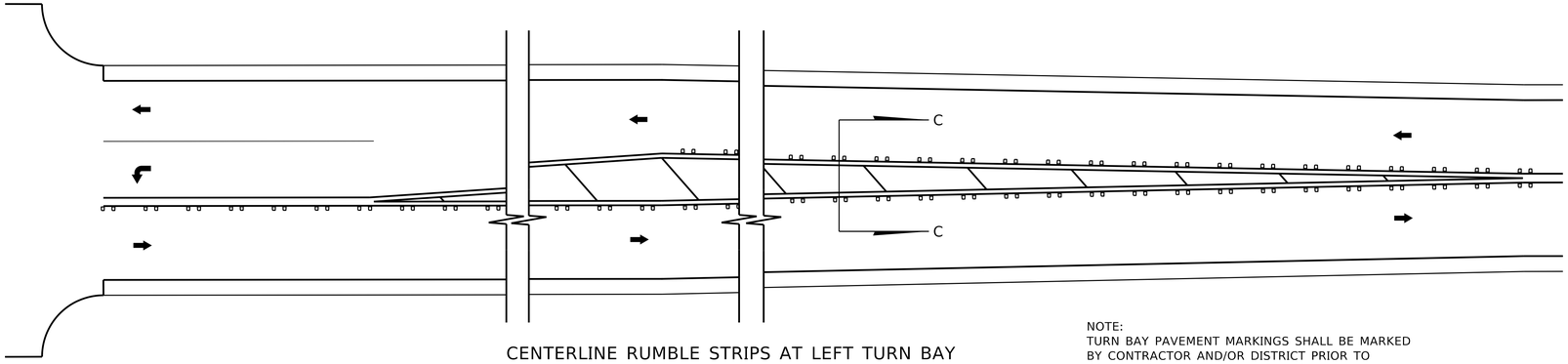
Roadway Design Division

COMPUTER: BG0419M187
DATE: 10-SEP-2024 10:52
FILE: 3200 1 R2.dgn

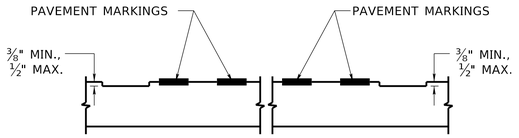
Project Number

C.N.



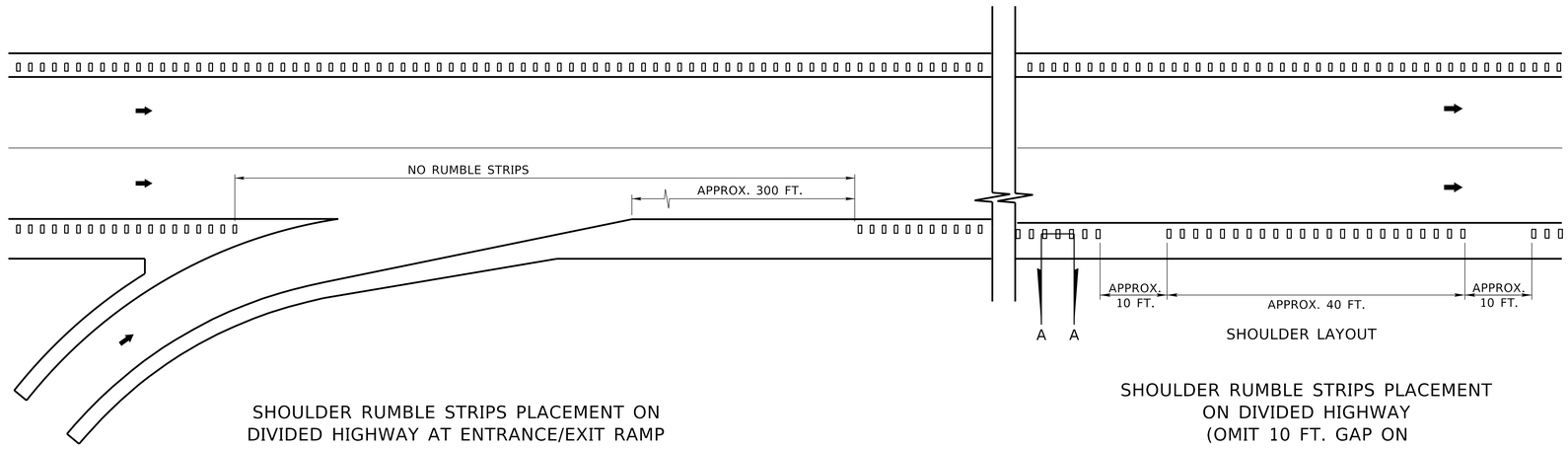
CENTERLINE RUMBLE STRIPS AT LEFT TURN BAY

NOTE:
TURN BAY PAVEMENT MARKINGS SHALL BE MARKED BY CONTRACTOR AND/OR DISTRICT PRIOR TO CONSTRUCTION OF RUMBLE STRIPS.



CENTERLINE RUMBLE STRIPS AT LEFT TURN BAY

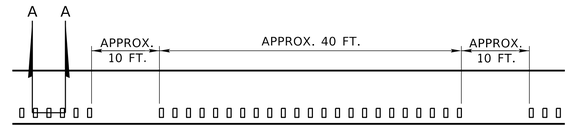
SECTION C-C

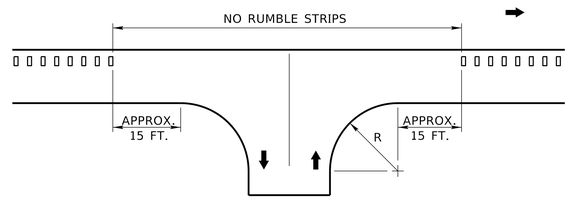


SHOULDER LAYOUT

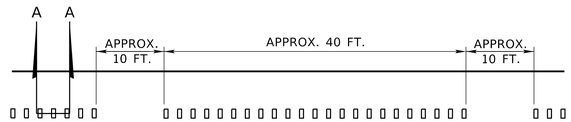
SHOULDER RUMBLE STRIPS PLACEMENT ON DIVIDED HIGHWAY AT ENTRANCE/EXIT RAMP

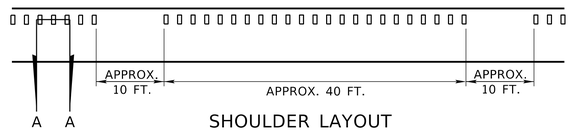
SHOULDER RUMBLE STRIPS PLACEMENT ON DIVIDED HIGHWAY (OMIT 10 FT. GAP ON INTERSTATE AND FREEWAYS)



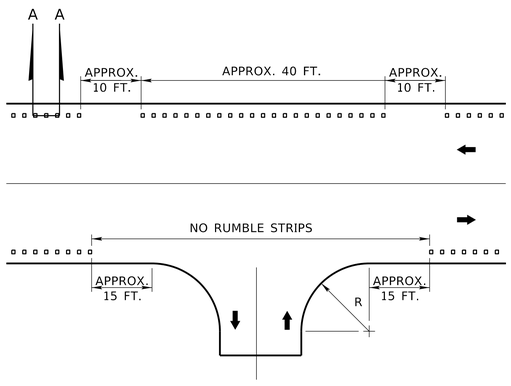


SHOULDER RUMBLE STRIPS PLACEMENT ON 2-LANE HIGHWAY AT INTERSECTION

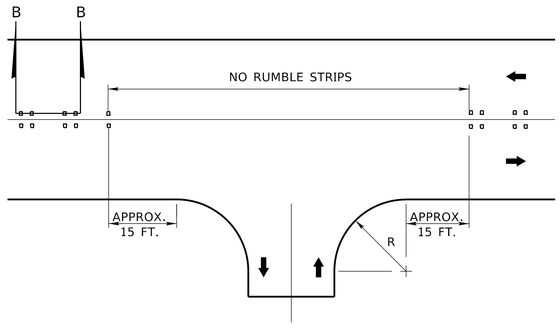




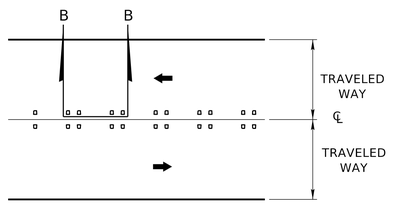
SHOULDER LAYOUT



EDGELINE RUMBLE STRIPS PLACEMENT AT INTERSECTION



CENTERLINE RUMBLE STRIPS PLACEMENT AT INTERSECTION



CENTERLINE LAYOUT

SPECIAL PLAN _C
2 OF 2
RUMBLE STRIPS

NEBRASKA
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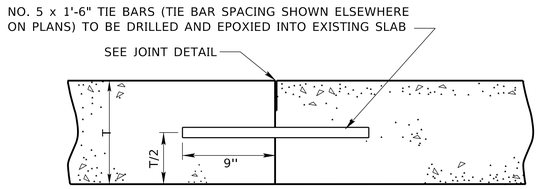
DEPARTMENT OF TRANSPORTATION

Roadway Design Division

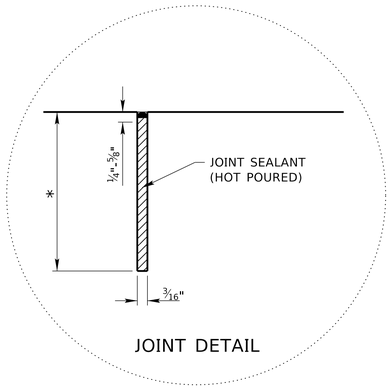
COMPUTER: BG0419M187
DATE: 10-SEP-2024 10:52
FILE: 3200 1 R2.dgn

Project Number

C.N.

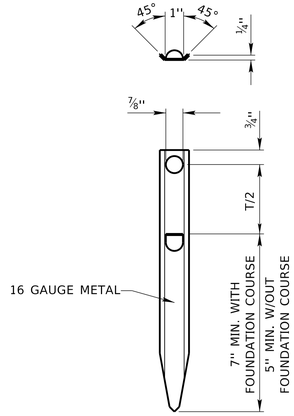


LONGITUDINAL CONSTRUCTION JOINT

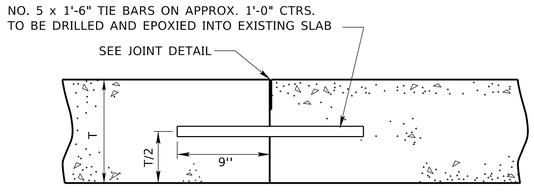


JOINT DETAIL

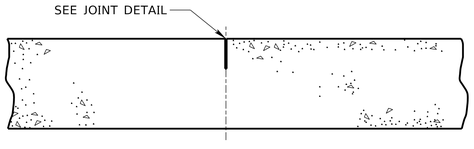
* CONTRACTION JOINTS ARE CONVENTIONAL SAWN T/4
ALL LONGITUDINAL JOINTS ARE SAWN T/3



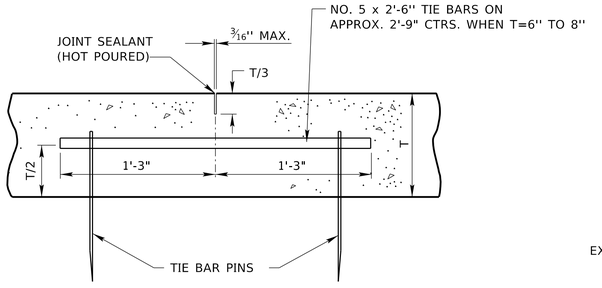
TIE BAR PIN



TRANSVERSE CONSTRUCTION JOINT



CONTRACTION JOINT

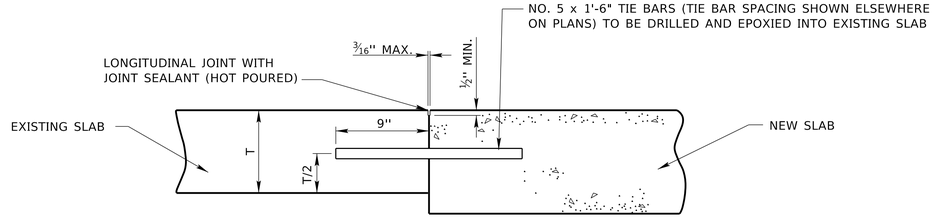


SAWED

WHEN TWO ADJACENT LANES ARE PLACED AT THE SAME TIME, THE LONGITUDINAL JOINT COMMON TO THE LANES SHALL BE SAWED

LONGITUDINAL JOINTS

NOTE:
NO TIE BARS SHALL BE CLOSER THAN 1'-3" TO A TRANSVERSE JOINT. ALL LONGITUDINAL JOINTS BETWEEN LANES AND BETWEEN LANES AND SHOULDERS MUST BE TIED. MEDIAN SHOULD NOT BE TIED.



TIE BARS ARE TO BE INSTALLED WHERE NEW CONCRETE PAVEMENT IS PLACED ADJACENT TO EXISTING CONCRETE PAVEMENT

DETAILS OF TIE BAR

NOTES:

TIE BARS SHALL BE DEFORMED BARS.

TIE BARS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

THE CONTRACTOR MAY USE A MACHINE FOR PLACING THE LONGITUDINAL TIE BARS IN LIEU OF THE TIE BAR PINS. IF A MECHANICAL TIE BAR PLACEMENT MACHINE IS NOT USED, TIE BAR PINS AS SHOWN SHALL BE USED.

CONCRETE PAVEMENT SHALL BE TINED UNLESS OTHERWISE SHOWN IN THE PLANS.

PAVEMENT PLACED ADJACENT TO R.R. TRACKS REQUIRES 3-EXPANSION JOINTS SPACED AT APPROX. 49'-6" INTERVALS.

EXPANSION JOINTS SHALL NOT BE SKEWED.

T= PAVEMENT THICKNESS

SPECIAL PLAN _C
1 OF 2
LESS THAN 8 INCH CONCRETE PAVEMENT

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Roadway Design Division

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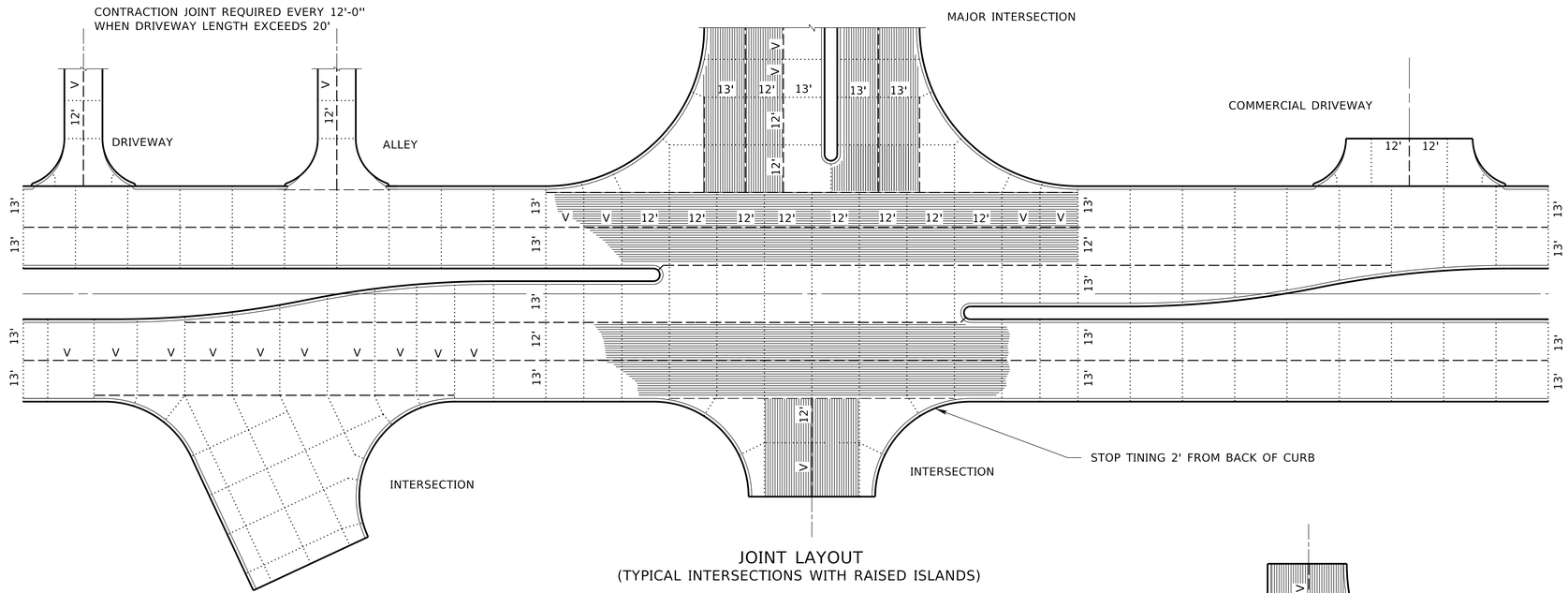
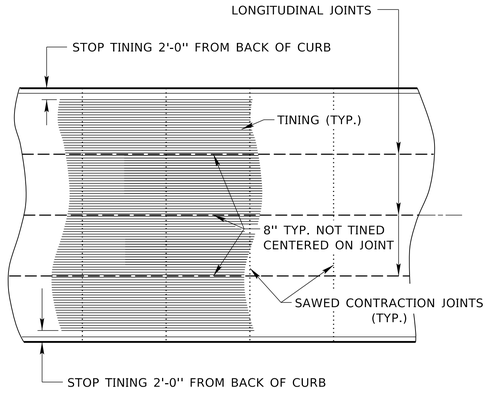
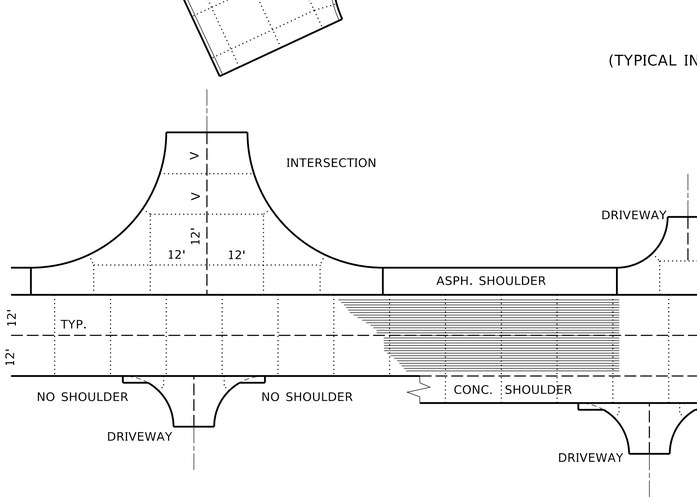
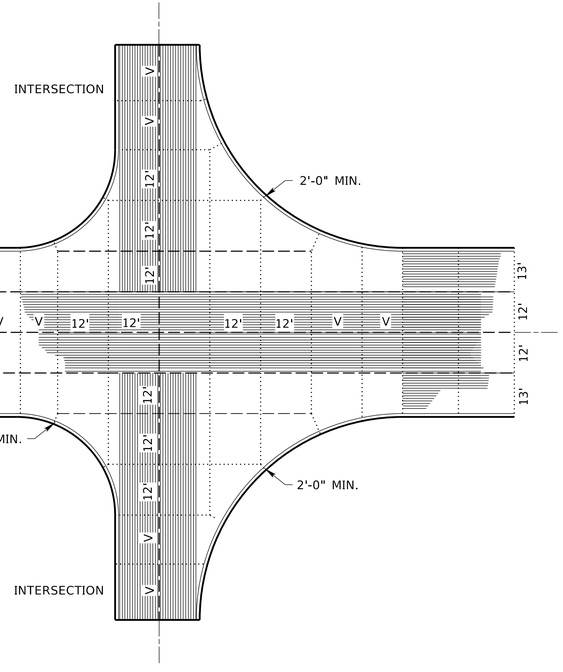


JOINT LAYOUT
(TYPICAL INTERSECTIONS WITH RAISED ISLANDS)



TINING LIMITS





JOINT LAYOUT
(TYPICAL INTERSECTIONS & DRIVES)

LEGEND
SAWED CONTRACTION JOINT
LONGITUDINAL JOINT

NOTES:

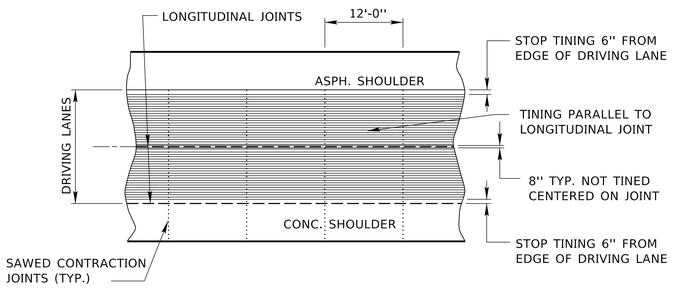
12'-0" TRANSVERSE JOINT SPACING IS THE STANDARD SPACING REGARDLESS OF THE PAVEMENT THICKNESS.

V VARIES FROM 10'-0" TO MAX. 12'-0".

VARIABLE SPACING IS USED AROUND INTERSECTIONS AND LARGE DRIVEWAYS WHICH IS TIED TO THE CONCRETE LANES OR SHOULDERS TO MATCH THE JOINTS.

ALL CONCRETE SURFACES, NOT TINED, WILL REQUIRE TRANSVERSE BROOMING OR BURLAP DRAG. (NOT APPLICABLE TO SHOULDERS)

BEVELED EDGE SHALL BE USED WHEN PAVEMENT IS ADJACENT TO AN EARTH SHOULDER. CONCRETE SHOULDERS SHALL INCLUDE A BEVELED EDGE WHEN THE SHOULDER WIDTH IS LESS THAN 6'-0".



RURAL TINING LIMITS WITH SURFACED SHOULDERS
(IF CALLED FOR IN THE PLANS)

SPECIAL PLAN _C
2 OF 2
LESS THAN 8 INCH CONCRETE PAVEMENT

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Roadway Design Division

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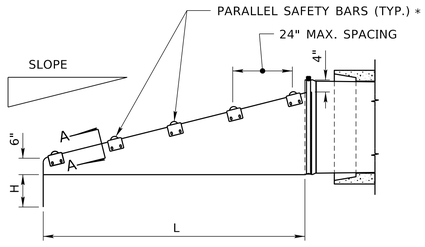
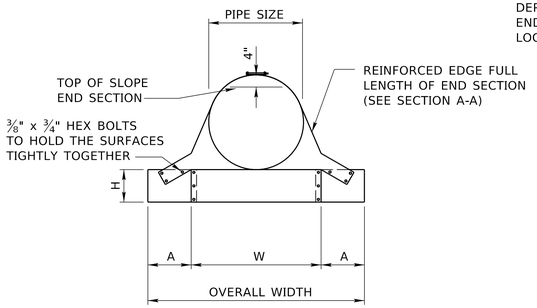
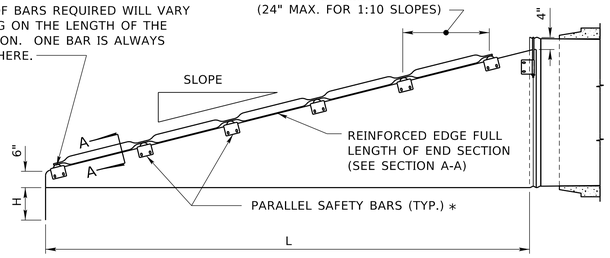


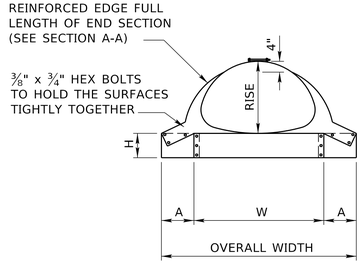
SIDE ELEVATION OF
PARALLEL DRAINAGE STRUCTURE



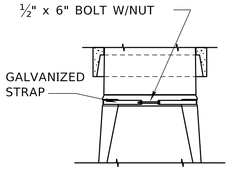
FRONT VIEW



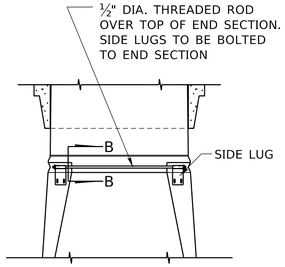
SIDE ELEVATION OF
CROSS DRAINAGE STRUCTURE



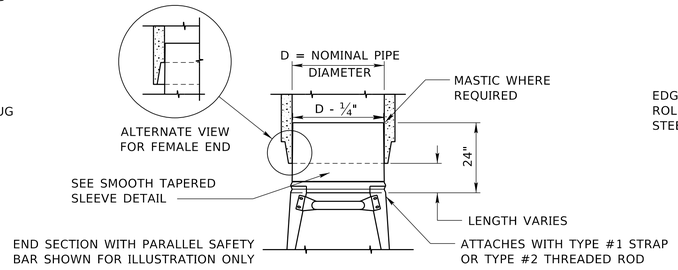
FRONT VIEW



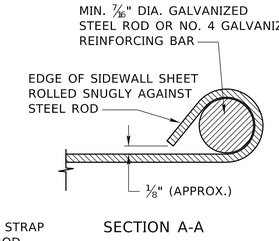
TYPE #1
CONNECTOR DETAILS
THRU 24"



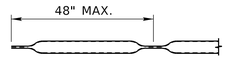
TYPE #2
CONNECTOR DETAILS
FOR 27" AND LARGER



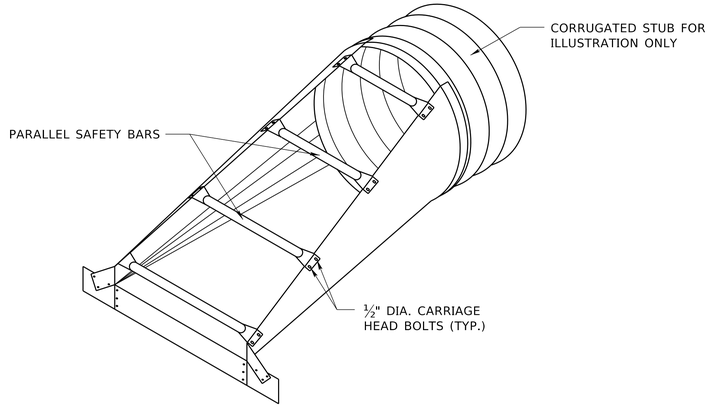
TAPERED SLEEVE FOR ATTACHING
STEEL END SECTIONS TO CONCRETE PIPE



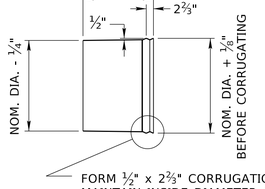
SECTION A-A

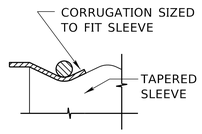


DETAIL OF CROSS
DRAINAGE SAFETY BAR



PARALLEL DRAINAGE STRUCTURE



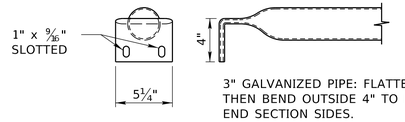


SECTION B-B

FORM 1/2" x 2 2/3" CORRUGATIONS.
MAINTAIN INSIDE DIAMETER OF SLEEVE.

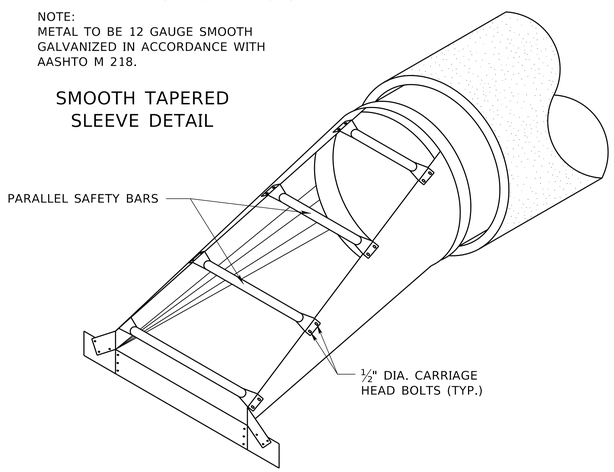
NOTE:
METAL TO BE 12 GAUGE SMOOTH
GALVANIZED IN ACCORDANCE WITH
AASHTO M 218.

SMOOTH TAPERED
SLEEVE DETAIL

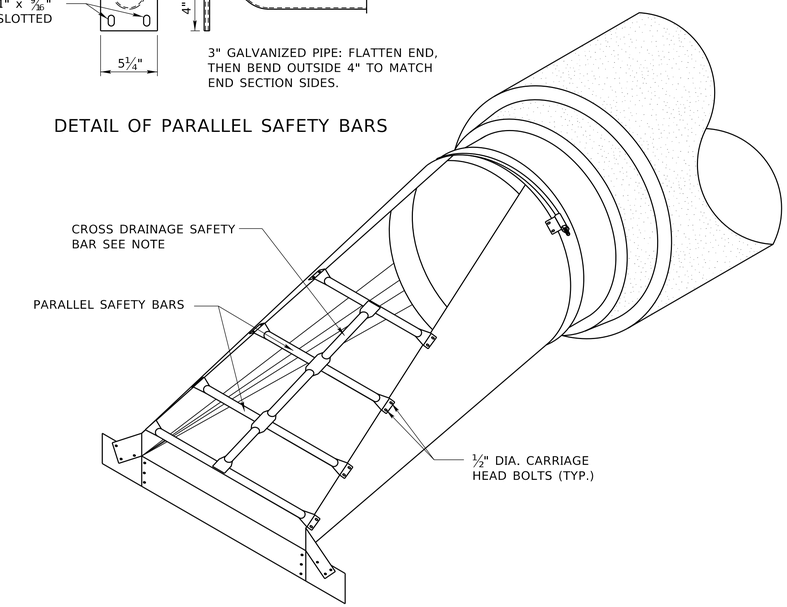


3" GALVANIZED PIPE: FLATTEN END,
THEN BEND OUTSIDE 4" TO MATCH
END SECTION SIDES.

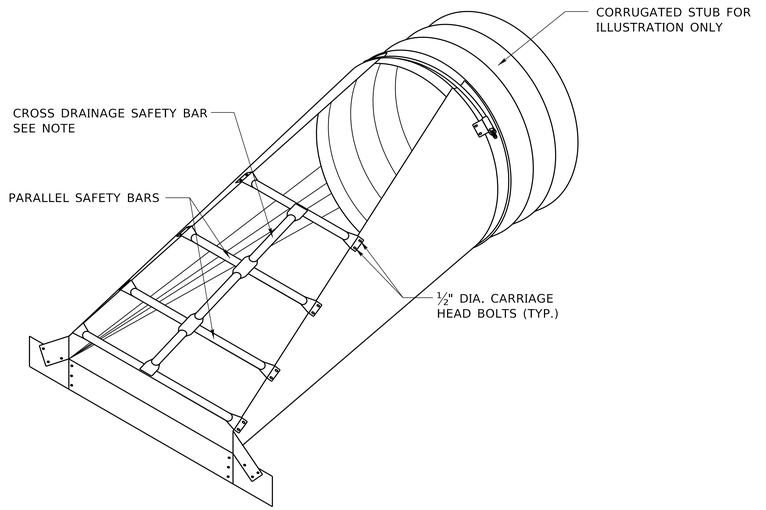
DETAIL OF PARALLEL SAFETY BARS



PARALLEL DRAINAGE STRUCTURE



CROSS DRAINAGE STRUCTURE



CROSS DRAINAGE STRUCTURE

NOTE:
BARS SHOWN ARE FOR CROSS DRAINAGE STRUCTURES.
CROSS DRAINAGE SAFETY BAR IS REQUIRED ONLY
WHEN SPAN IS GREATER THAN 30". CROSS DRAINAGE
SAFETY BAR IS WELDED TO PARALLEL SAFETY BARS FOR
SINGLE PIECE STRUCTURE.

1 OF 2

Project Number

C.N.

SPECIAL PLAN _C
1 OF 2
SAFETY SLOPED END SECTIONS

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Roadway
Design
Division

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1 OF 2 4120 1 R2

METAL END SECTIONS FOR CONCRETE PIPE										
PIPE DIA. (IN.)	MIN. THICK.		DIMENSIONS (IN.)				L DIMENSIONS			
	IN.	GAUGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH (IN.)	SLOPE	LENGTH (IN.)
15	.064	16	8	6	21	37	1:4	20	1:6	30
18	.064	16	8	6	24	40	1:4	32	1:6	48
24	.064	16	8	6	30	46	1:4	56	1:6	84
30	.109	12	12	9	36	60	1:4	80	1:6	120
36	.109	12	12	9	42	66	1:4	104	1:6	156
42	.109	12	12	12	48	80	1:4	128	1:6	192
48	.109	12	12	12	54	86	1:4	152	1:6	228
54	.109	12	12	12	30	92	1:4	176	1:6	264
60	.109	12	12	12	66	98	1:4	200	1:6	300

METAL END SECTIONS FOR ELLIPTICAL PIPE												
EQUIV. DIA. (IN.)	SPAN (IN.)	RISE (IN.)	MIN. THICK.		DIMENSIONS (IN.)				L DIMENSIONS			
			IN.	GAUGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH (IN.)	SLOPE	LENGTH (IN.)
18	23	14	.064	16	8	6	29	45	1:4	16	1:6	24
24	30	19	.064	16	8	6	36	52	1:4	36	1:6	54
30	38	24	.079	14	12	9	44	68	1:4	56	1:6	84
36	45	29	.109	12	16	12	51	83	1:4	76	1:6	114
42	53	34	.109	12	16	12	59	91	1:4	96	1:6	144
48	60	38	.109	12	16	12	66	98	1:4	112	1:6	168
54	68	43	.109	12	16	12	74	106	1:4	132	1:6	198
60	76	48	.109	12	16	12	80	112	1:4	152	1:6	228

METAL END SECTIONS FOR CIRCULAR PIPE										
PIPE DIA. (IN.)	MIN. THICK.		DIMENSIONS (IN.)				L DIMENSIONS			
	IN.	GAUGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH (IN.)	SLOPE	LENGTH (IN.)
15	.064	16	8	6	21	37	1:4	20	1:6	30
18	.064	16	8	6	24	40	1:4	32	1:6	48
24	.064	16	8	6	30	46	1:4	56	1:6	84
30	.109	12	12	9	36	60	1:4	80	1:6	120
36	.109	12	12	9	42	66	1:4	104	1:6	156
42	.109	12	12	12	48	80	1:4	128	1:6	192
48	.109	12	12	12	54	86	1:4	152	1:6	228
54	.109	12	12	12	30	92	1:4	176	1:6	264
60	.109	12	12	12	66	98	1:4	200	1:6	300

METAL END SECTIONS FOR ARCHED PIPE												
EQUIV. DIA. (IN.)	SPAN (IN.)	RISE (IN.)	MIN. THICK.		DIMENSIONS (IN.)				L DIMENSIONS			
			IN.	GAUGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH (IN.)	SLOPE	LENGTH (IN.)
18	21	15	.064	16	8	6	27	43	1:4	20	1:6	30
24	28	20	.064	16	8	6	34	50	1:4	40	1:6	60
30	35	24	.079	14	12	9	41	65	1:4	56	1:6	84
36	42	29	.109	12	12	9	48	72	1:4	76	1:6	114
42	49	33	.109	12	16	12	55	87	1:4	92	1:6	138
48	57	38	.109	12	16	12	63	95	1:4	112	1:6	168
54	64	43	.109	12	16	12	70	102	1:4	132	1:6	198
60	71	47	.109	12	16	12	77	109	1:4	148	1:6	222
72	83	57	.109	12	16	12	89	121	1:4	188	1:6	282

METAL END SECTIONS FOR CIRCULAR PIPE								
PIPE DIA. (IN.)	MIN. THICK.		DIMENSIONS (IN.)				L DIMENSIONS	
	IN.	GAUGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH (IN.)
15	.109	12	8	6	21	37	1:10	70
18	.109	12	8	6	24	40	1:10	100
24	.109	12	8	6	30	46	1:10	160

METAL END SECTIONS FOR ARCHED PIPE										
EQUIV. DIA. (IN.)	SPAN (IN.)	RISE (IN.)	MIN. THICK.		DIMENSIONS (IN.)				L DIMENSIONS	
			IN.	GAUGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH (IN.)
18	21	15	.109	12	8	6	27	43	1:10	70
24	28	20	.109	12	8	6	34	50	1:10	120

NOTES:

STEEL:
GALVANIZED STEEL SHALL MEET AASHTO SPECIFICATIONS.

CONNECTORS:
ROUND SIZES THRU 24" ATTACH TO PIPE WITH TYPE #1 STRAPS.
ALL OTHER SIZES ATTACH WITH TYPE #2 RODS AND LUGS.

TOE PLATE EXTENSIONS:
WHEN REQUIRED, TOE PLATE EXTENSIONS ARE TO BE THE SAME GAUGE AS END SECTION. DIMENSIONS SHALL BE OVERALL WIDTH LESS 6 INCHES BY 8 INCHES HIGH.

SAFETY BARS:
SAFETY BARS SHALL BE SCHEDULE 40 GALVANIZED STEEL PIPE. PIPE TO BE GALVANIZED AFTER FORMING.

MISCELLANEOUS DETAILS:
SLOTTED HOLES FOR SAFETY BAR ATTACHMENT SHALL BE PROVIDED FOR ALL END SECTIONS.

Project Number

C.N.

SPECIAL PLAN _C
1 OF 2
SAFETY SLOPED END SECTIONS

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Roadway Design Division
1500 Nebraska Parkway
Lincoln, NE 68502
Office: 402-479-4601

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2 OF 2 4120 1 R2
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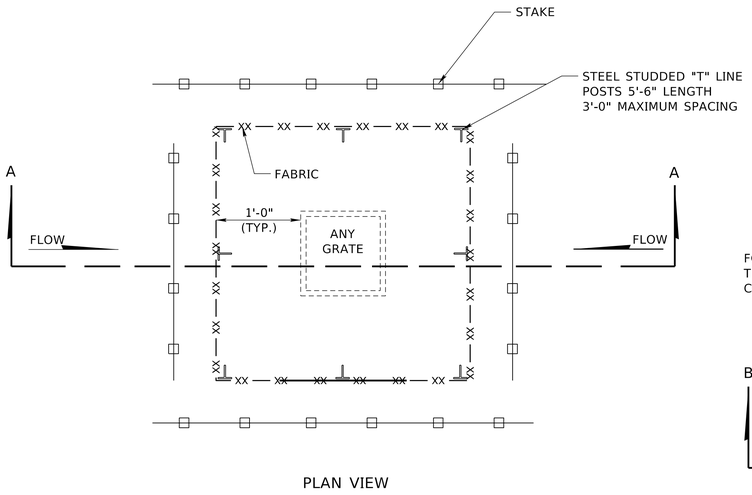
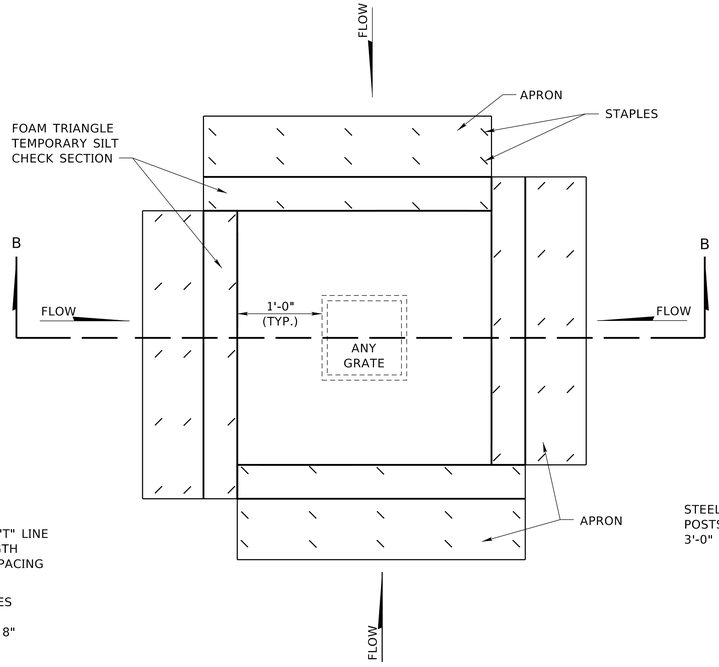
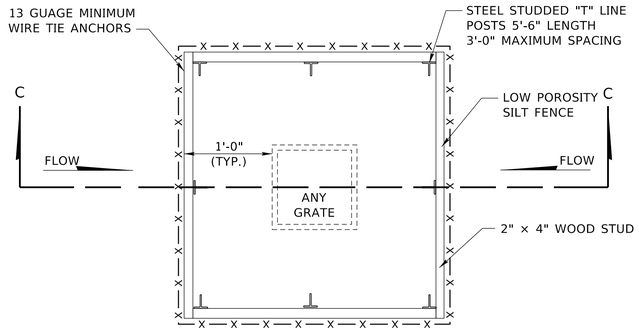
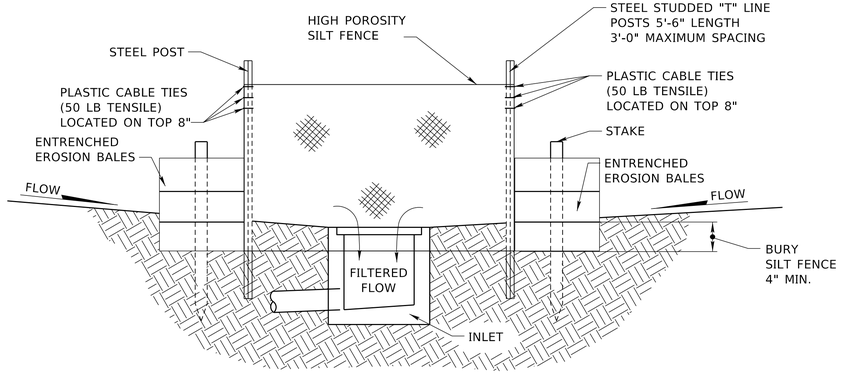


PLAN VIEW





PLAN VIEW



SECTION A-A

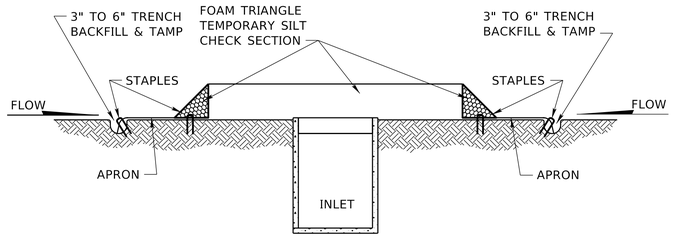
EROSION BALE AND SILT FENCE FILTER AT INLET

NOTES:

STAKES SHALL BE WOOD AND BE 2" × 2" × 3'-0" NOMINAL.

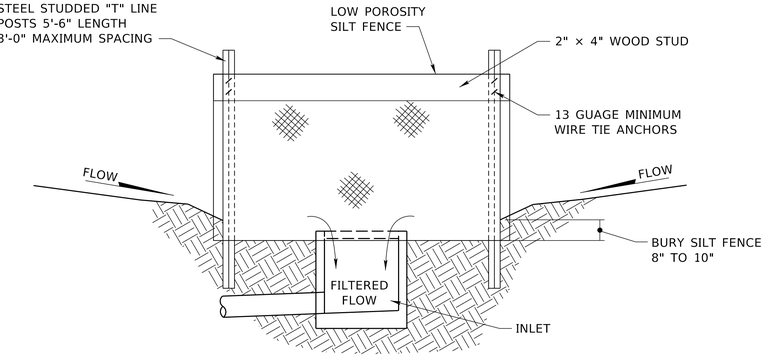
EROSION BALES SHALL BE 18" × 18" × 36".

EROSION BALES SHALL BE ENTRENCHED 4 INCH MINIMUM INTO THE SOIL, TIGHTLY ABUTTED WITH NO GAPS, STAKED, AND BACKFILLED AROUND THE ENTIRE OUTSIDE PERIMETER.



SECTION B-B

F0AM TRIANGLE FILTER AT INLET



ELEVATION

SECTION C-C

SILT FENCE AND WOOD FRAME FILTER AT INLET

NOTES:

1. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.

SPECIAL PLAN _C
1 OF 2
INLET PROTECTION

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Roadway Design Division

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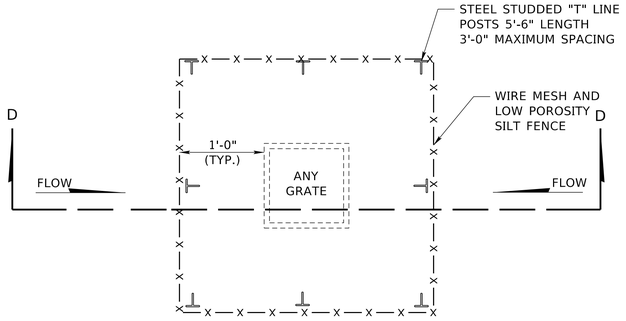
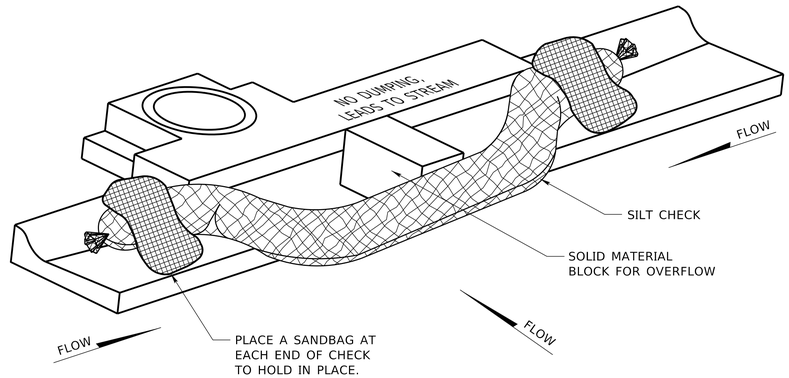
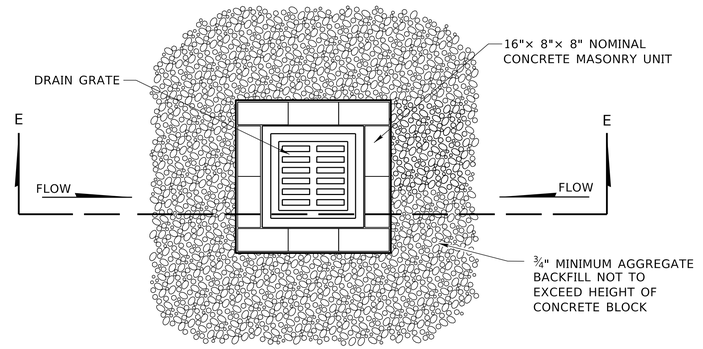


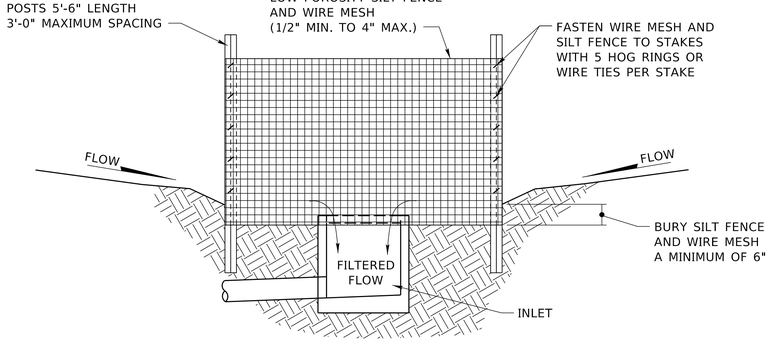
PLAN VIEW



CURB INLET PERSPECTIVE VIEW



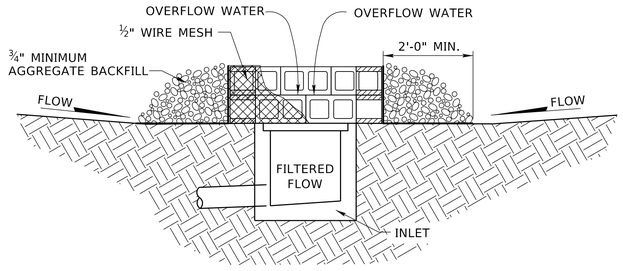
PLAN VIEW



ELEVATION

SECTION D-D

WIRE MESH BACKED SILT FENCE
FILTER AT INLET



SECTION E-E

BLOCK AND GRAVEL
FILTER AT INLET

NOTES:

1. APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.
2. ½" WIRE MESH SHALL COVER ENTIRE VERTICAL FACE OF BLOCKS AND APRON BELOW THE AGGREGATE BACKFILL.
3. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.
4. BLOCK COURSES SHOULD OFFSET TO IMPROVE STRUCTURAL STABILITY.

SPECIAL PLAN _C
2 OF 2
INLET PROTECTION

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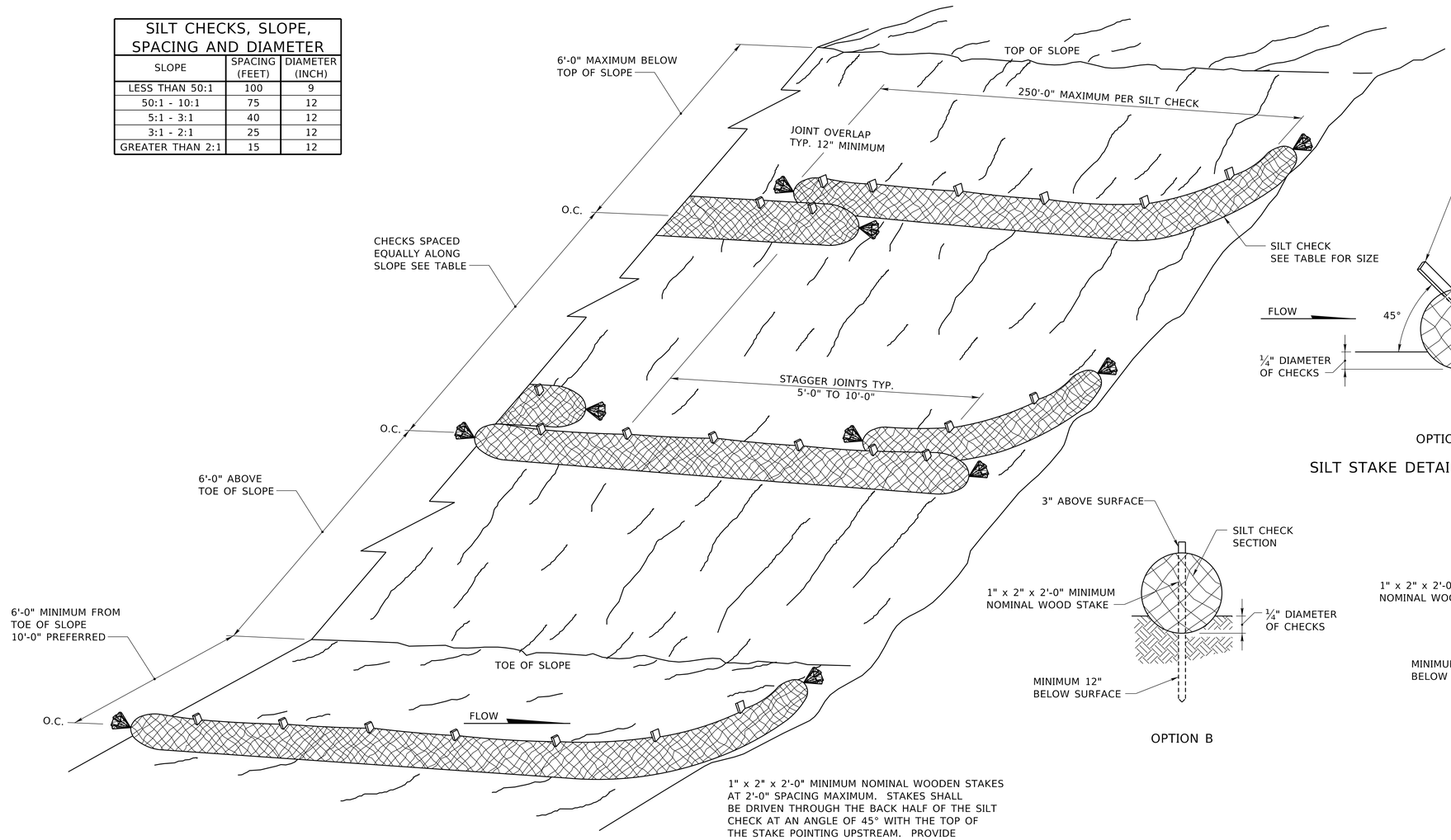
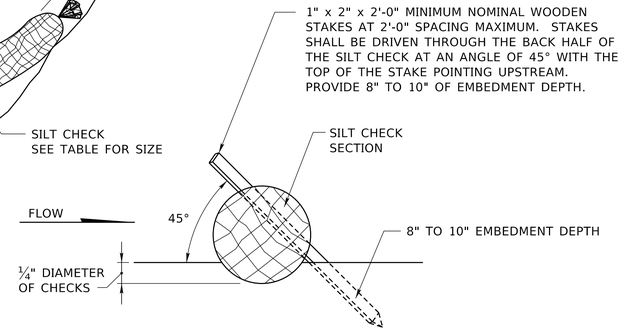
SILT CHECKS, SLOPE, SPACING AND DIAMETER		
SLOPE	SPACING (FEET)	DIAMETER (INCH)
LESS THAN 50:1	100	9
50:1 - 10:1	75	12
5:1 - 3:1	40	12
3:1 - 2:1	25	12
GREATER THAN 2:1	15	12



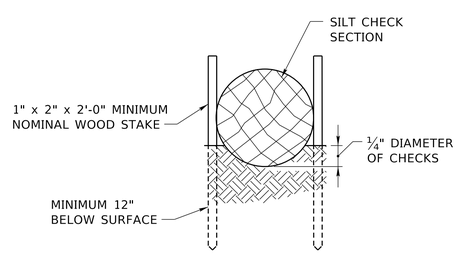
SLOPE APPLICATION
PERSPECTIVE VIEW



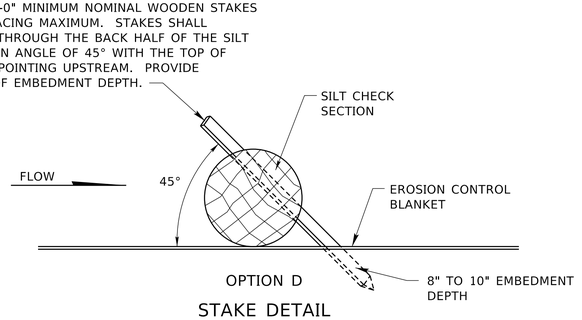
OPTION A

SILT STAKE DETAIL (WITH TRENCH)

OPTION B



OPTION C



OPTION D

STAKE DETAIL
(NO TRENCH)

NOTE:

TRENCHING IS OPTIONAL FOR CHECKS ON BACKSLOPES & FORESLOPES

Project Number

C.N.

SPECIAL PLAN _C
1 OF 4
SILT CHECKS ALL TYPES

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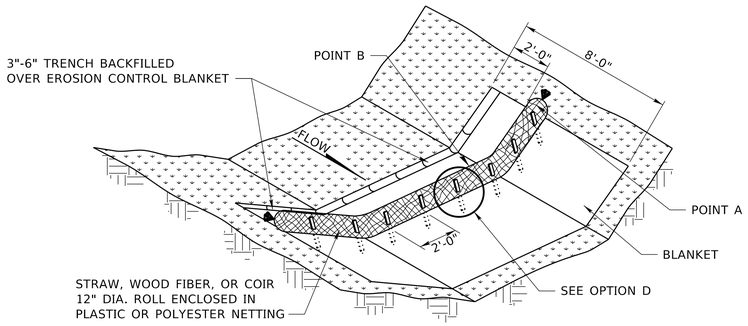
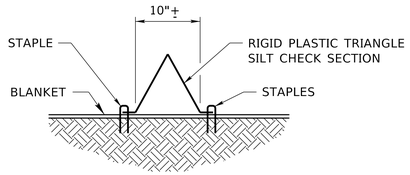
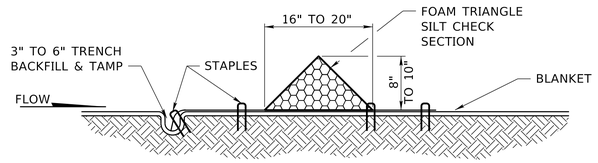
1 OF 4 5104 1 R0



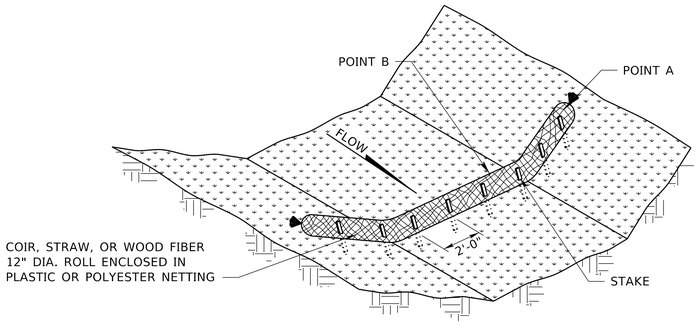
TYPE 2 & 3: HIGH & LOW
WITH EROSION CONTROL



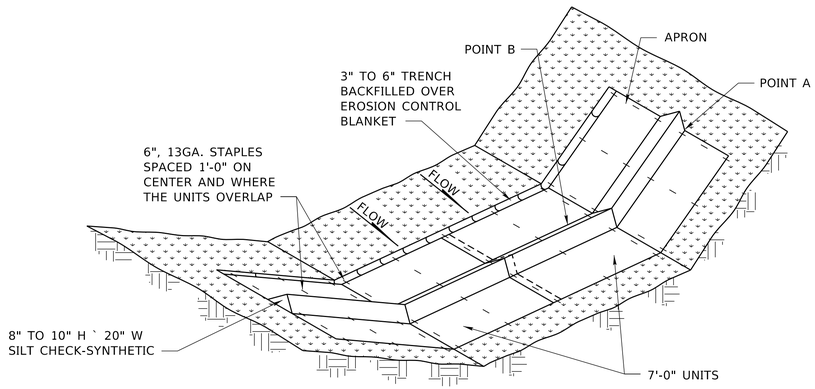
TYPE 4 SECTION



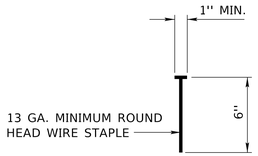
TYPE 4 SECTION



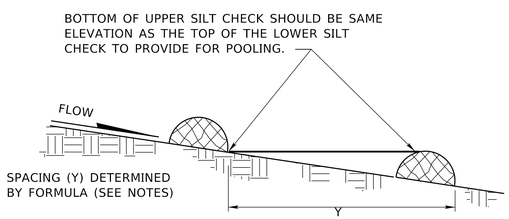
TYPE 1, 2 & 3: HIGH & LOW
USE ON ROUGH GRADED & BARE SOIL AREAS



SILT CHECK: TYPE 4



WIRE STAPLE DETAIL



SILT CHECK SPACING-DITCH

NOTES:

APPROXIMATE SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM THE FOLLOWING SPACING FORMULA:

APPROXIMATE SPACING OF DITCH CHECKS (FT.) = $Y = \frac{\text{SILT CHECK HEIGHT (FT.)}}{\text{\% CHANNEL SLOPE}} \times 100$

POINT A MUST BE A MINIMUM OF 6" HIGHER THAN POINT B TO ENSURE THAT WATER FLOWS OVER THE CHECK AND NOT AROUND THE ENDS.

PERMANENT ROCK CHECKS PLACED WITHIN THE CLEAR ZONE WILL NEED TO BE 18" OR LESS IN HEIGHT. A 10:1 APPROACH AND DEPARTURE SLOPE SHALL BE PROVIDED.

THE TRENCH ON THE UPSTREAM SIDE OF THE SILT CHECK IS NOT REQUIRED IF THE EROSION CONTROL BLANKET CONTINUES IN THE ENTIRE LENGTH OF THE DITCH.

THE MANUFACTURERS RECOMMENDED INSTALLATION DETAILS SHALL GOVERN OVER THE PLANS.

SEE STAKING DETAIL SHEET 1 OF 4

SPECIAL PLAN _C
2 OF 4
SILT CHECKS ALL TYPES

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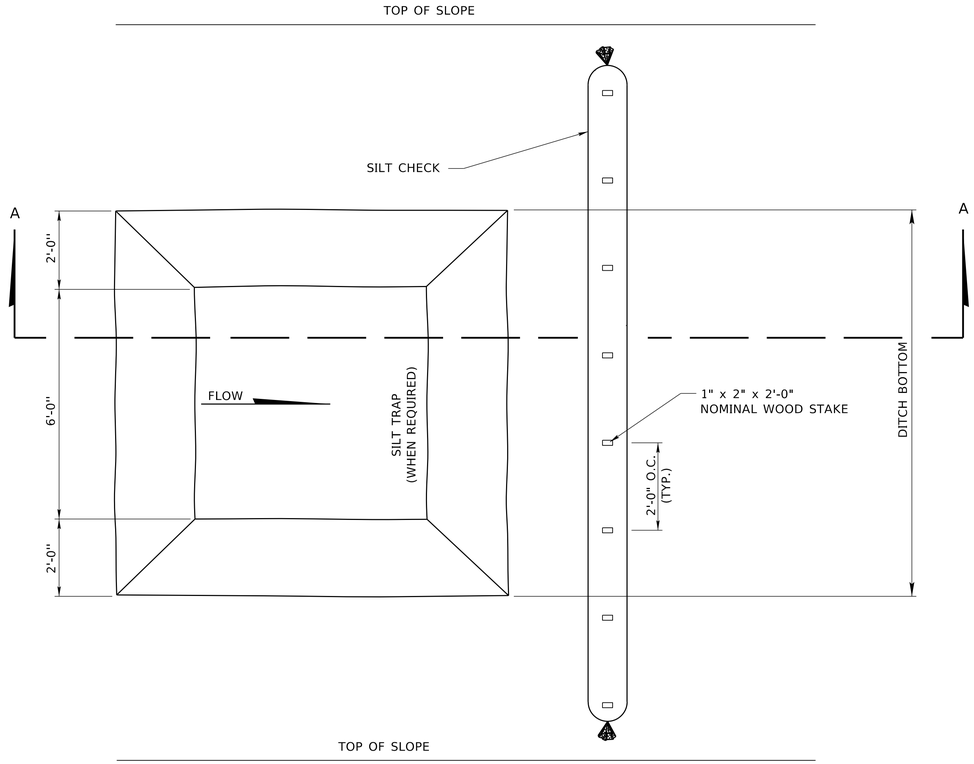
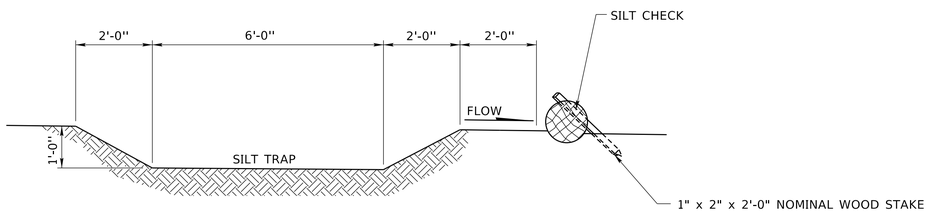


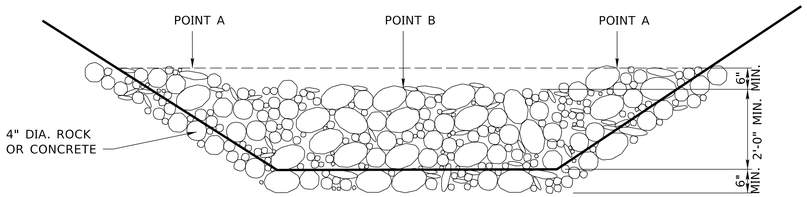
PLAN VIEW

FOR FLAT BOTTOM DITCH

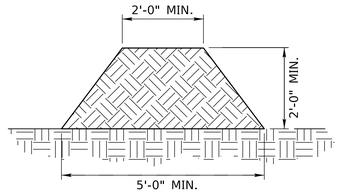


WHEN REQUIRED A SILT TRAP (ST) SHALL BE EXCAVATED TO THE WIDTH OF THE DITCH AND NO DIRECT PAYMENT WILL BE MADE.

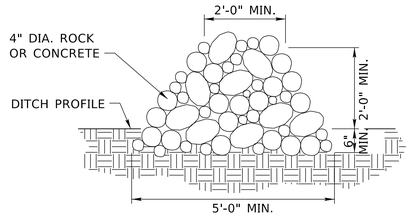
SECTION A-A



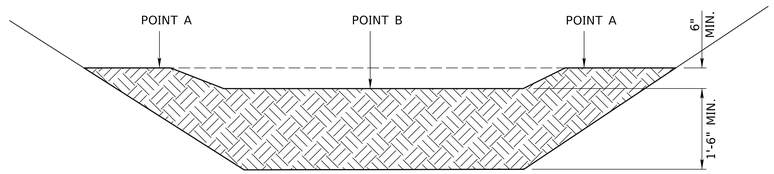
ROCK CHECK
ELEVATION VIEW



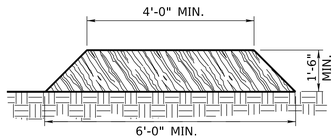
EARTH-SLASH MULCH PERIMETER BERM
CROSS SECTION



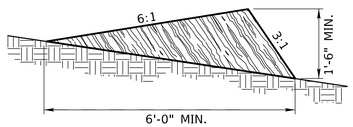
ROCK CHECK
CROSS SECTION



EARTH-SLASH MULCH CHECK
ELEVATION VIEW



CROSS SECTION
SILT CHECK-SLASH MULCH
OPTION A



CROSS SECTION
SILT CHECK-SLASH MULCH
OPTION B

SEE STAKING DETAIL SHEET 1 OF 4

SPECIAL PLAN _C
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SILT CHECKS ALL TYPES

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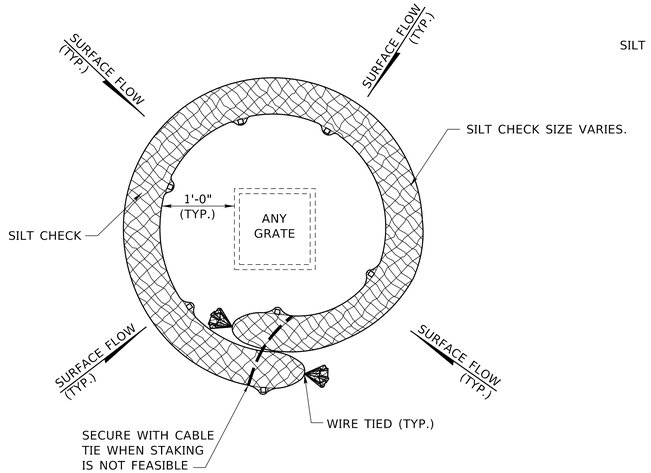
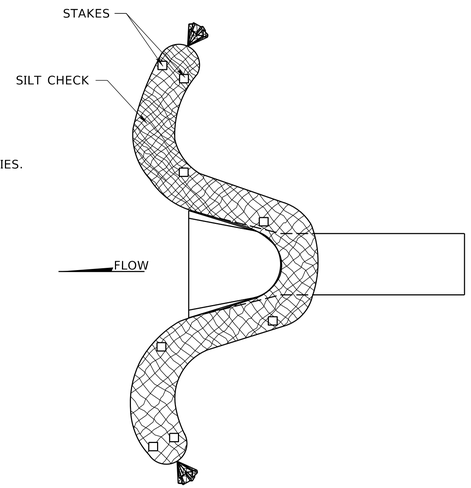
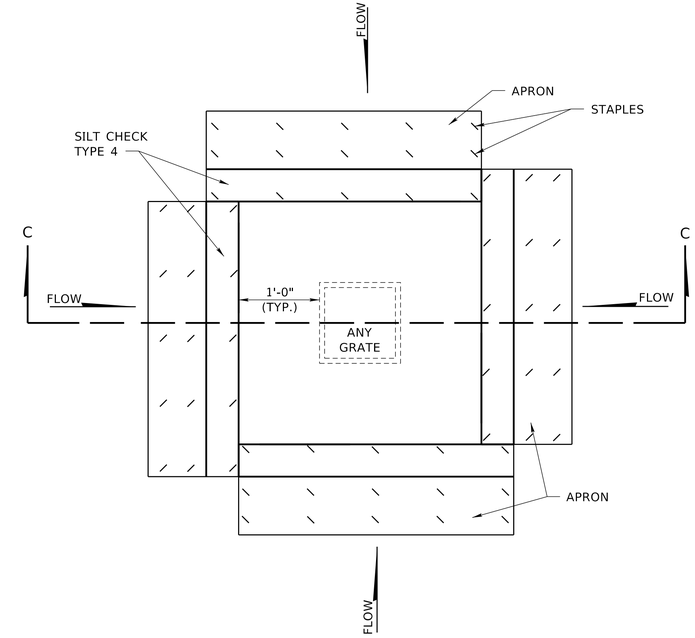


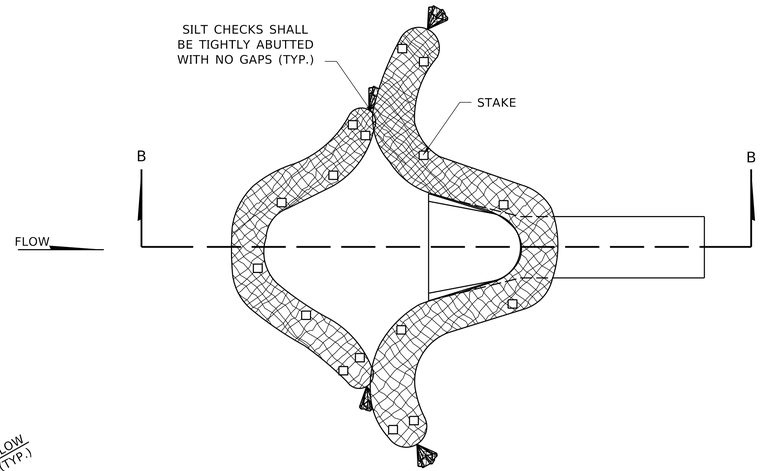
PLAN VIEW



SILT CHECK OUTLET PROTECTION

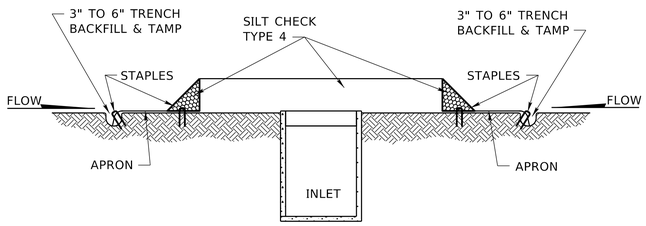


PLAN VIEW



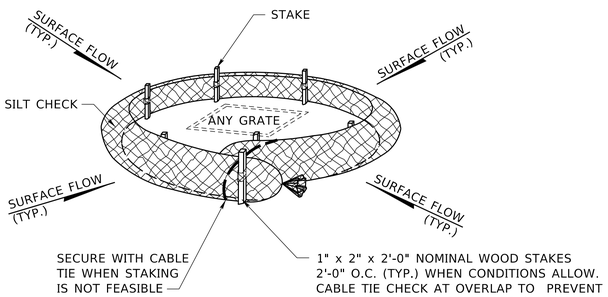
PLAN VIEW

SILT CHECK INLET PROTECTION

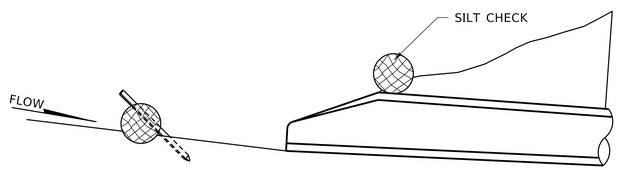


SECTION C-C

SILT CHECK TYPE 4
AT INLET



SILT CHECK INLET FILTER
PERSPECTIVE VIEW



SECTION B-B

SEE STAKING DETAIL SHEET 1 OF 4

SPECIAL PLAN _C
4 OF 4
SILT CHECKS ALL TYPES

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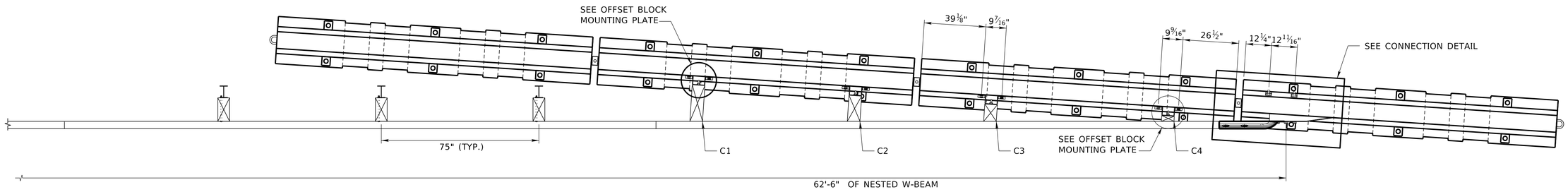
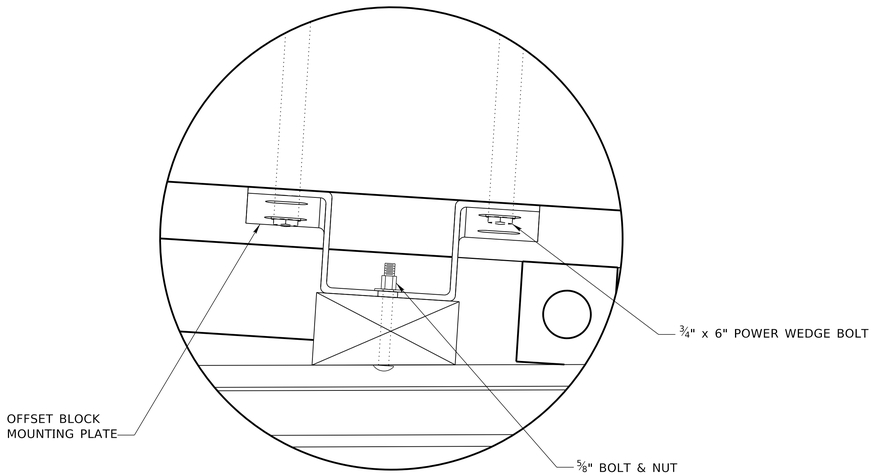
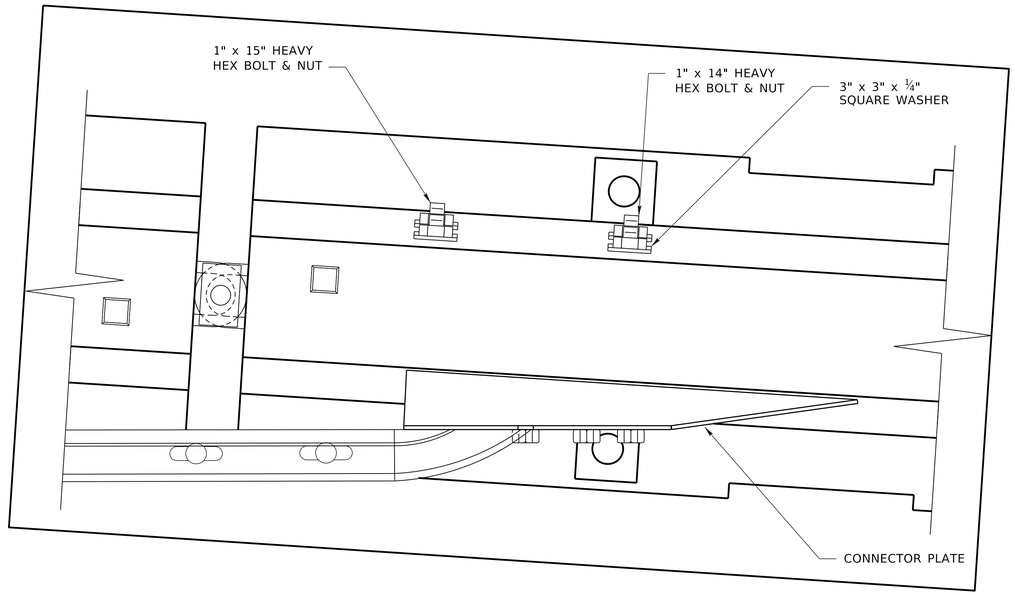




OFFSET BLOCK MOUNTING PLATE

PLAN VIEW



CONNECTION DETAIL

NOTES:

EACH OFFSET BLOCK MOUNTING PLATE USES TWO DIAGONAL POWER WEDGE BOLTS.

FOUR 1" HOLES ARE FIELD DRILLED THROUGH THE CONCRETE PROTECTION BARRIER FOR THE BOLTS USED TO MOUNT THE CONNECTOR PLATE.

Project Number

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SPECIAL PLAN _C
1 OF 5

W-BEAM CONNECT TO CONCRETE PROTECTION BARRIER

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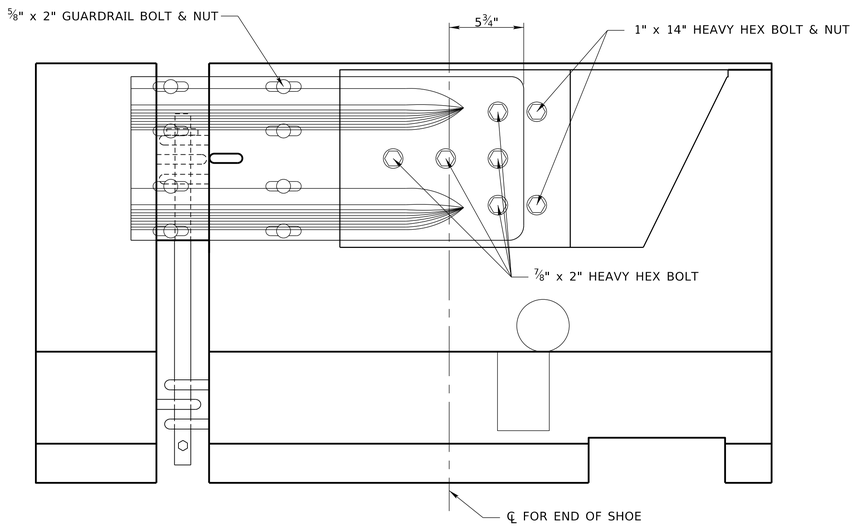
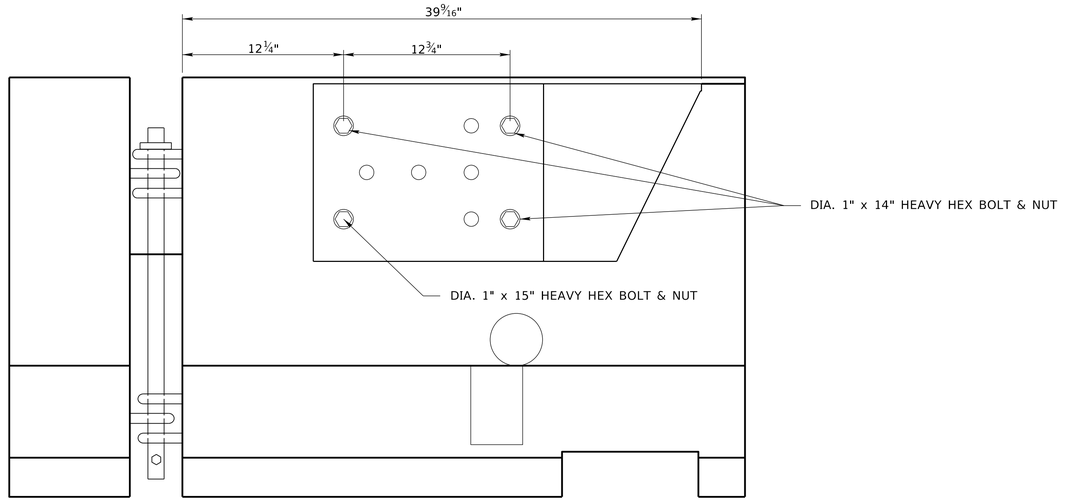
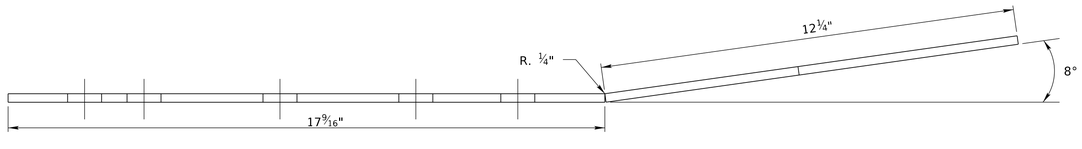


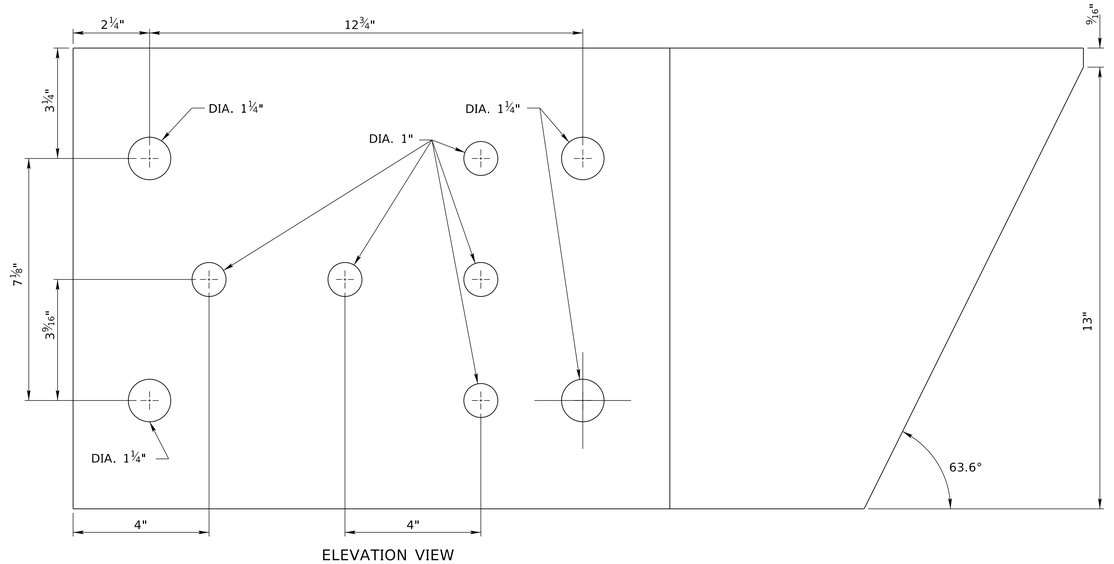
CONNECTION DETAIL



CONNECTOR PLATE BOLT DETAIL



PLAN VIEW
THICKNESS OF ¼"



ELEVATION VIEW

CONNECTOR FACE PLATE
PART E1

2 OF 5

Project Number

C.N.

SPECIAL PLAN _C
2 OF 5
W-BEAM CONNECT TO CONCRETE PROTECTION BARRIER

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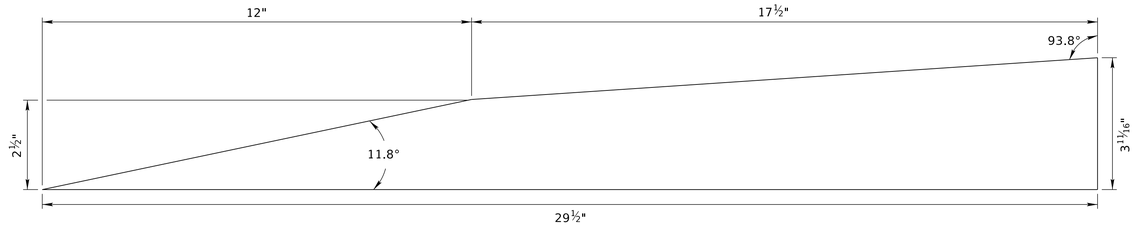
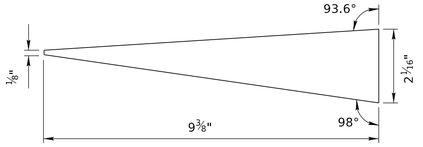
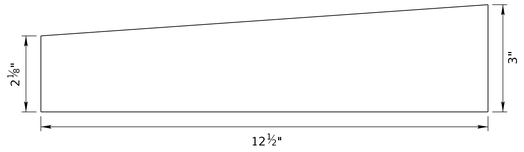


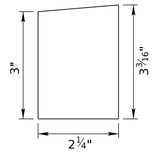
PART E6



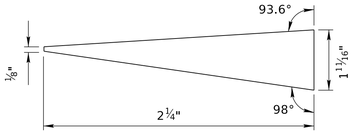
PART E9



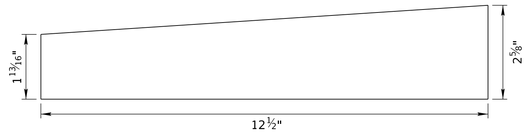
PART E8



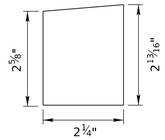
PART E7



PART E12

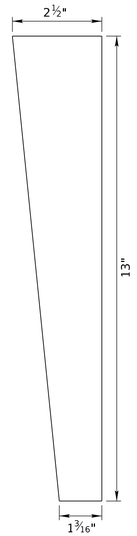


PART E11

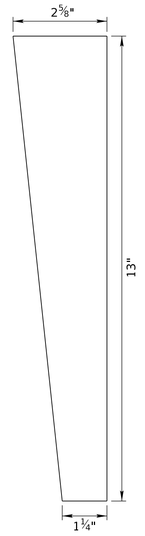


PART E10

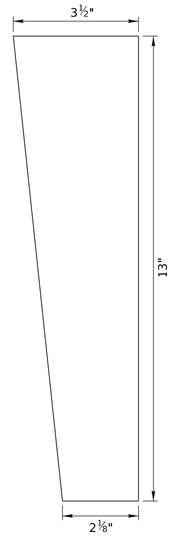
CONNECTOR PLATE HORIZONTAL GUSSETS



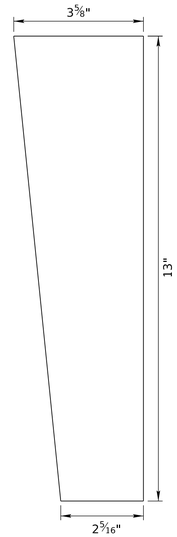
PART E5



PART E4



PART E3

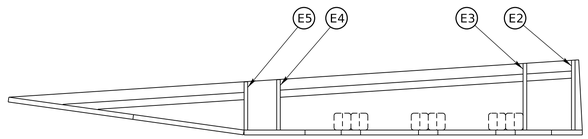


PART E2

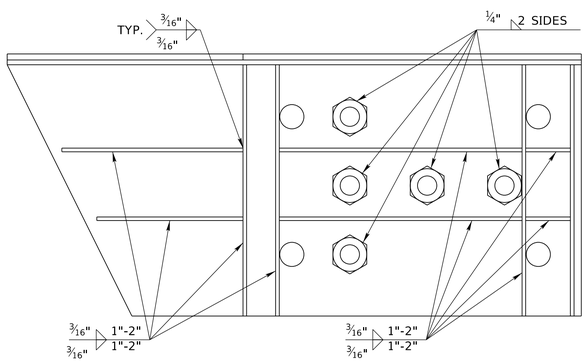
CONNECTOR PLATE VERTICAL GUSSETS

ALL VERTICAL GUSSETS HAVE A THICKNESS OF ¼"

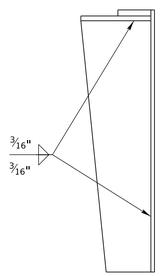
PLAN VIEW



BOTTOM PLAN VIEW

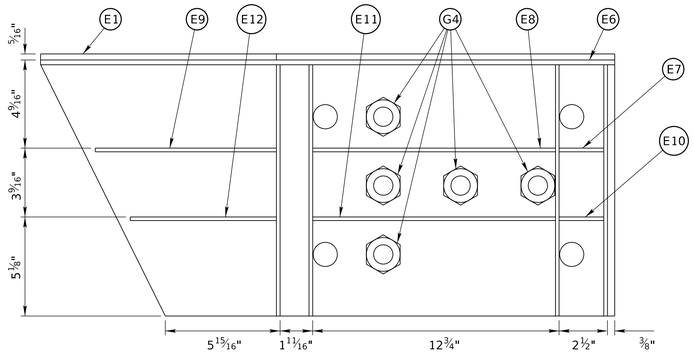


BACK ELEVATION VIEW



PROFILE VIEW

CONNECTOR PLATE WELD DETAIL



BACK ELEVATION VIEW

CONNECTOR PLATE DETAIL

SPECIAL PLAN _C

3 OF 5

W-BEAM CONNECT TO CONCRETE PROTECTION BARRIER

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

Roadway Design Division

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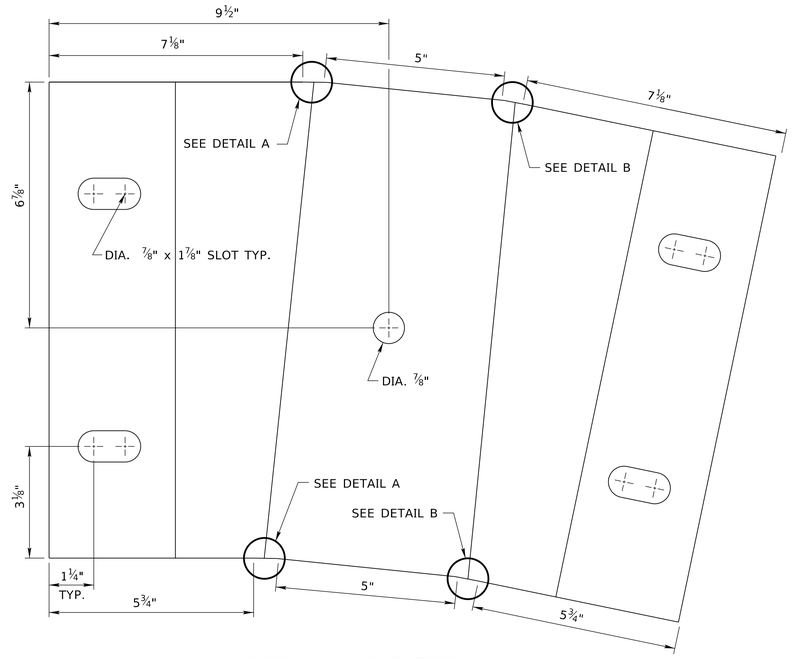
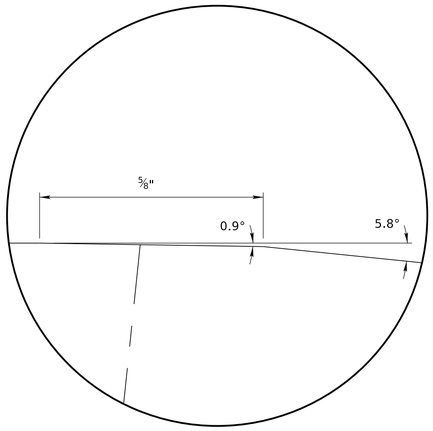
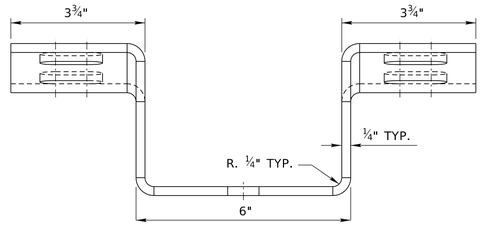


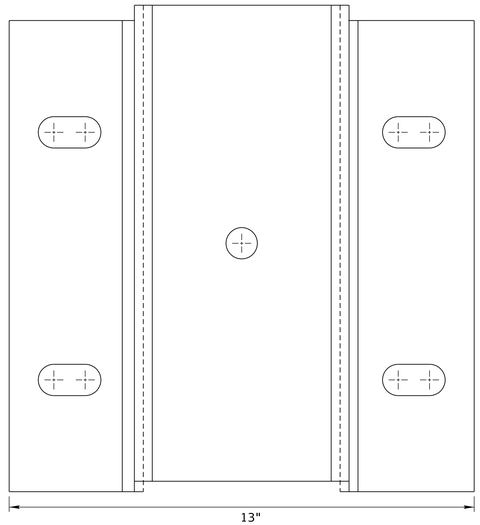
SIZE & ANGLE PATTERN



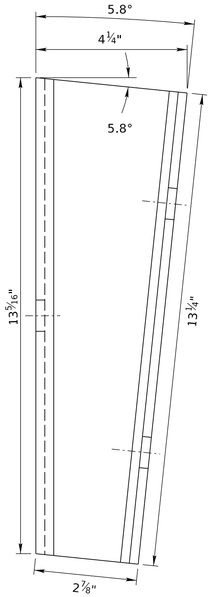
DETAIL A



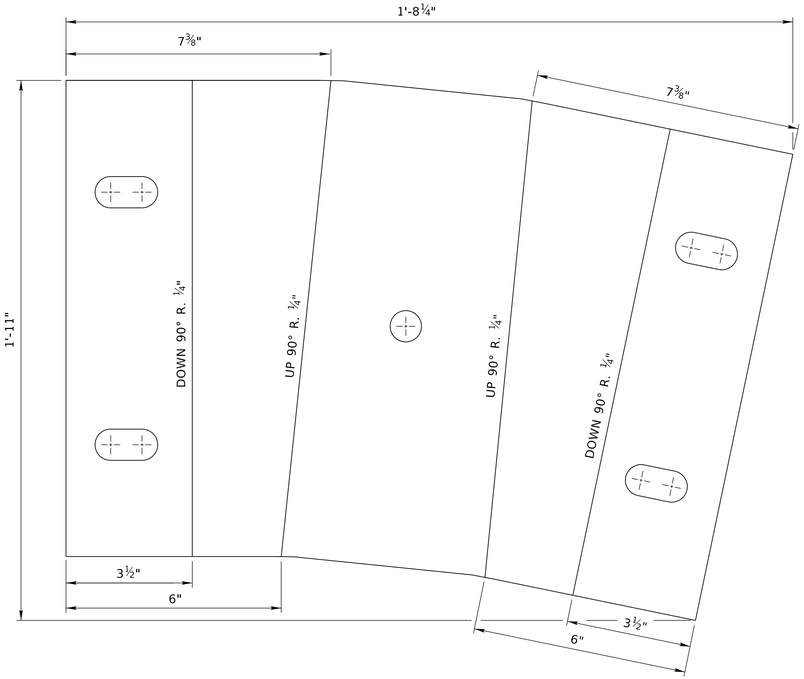
PLAN VIEW



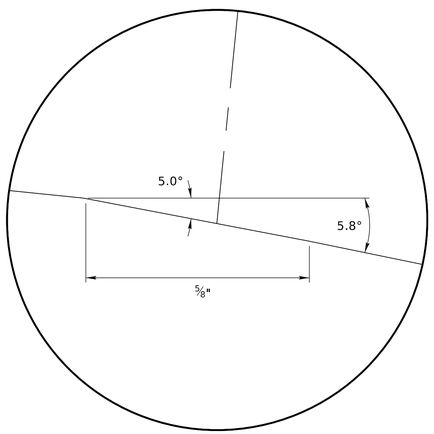
ELEVATION VIEW



PROFILE VIEW



FOLD PATTERN



DETAIL B

OFFSET BLOCK MOUNTING BRACKET
THICKNESS FOR PLATE IS ¼"

4 OF 5

Project Number

C.N.

W-BEAM CONNECT TO CONCRETE PROTECTION BARRIER

SPECIAL PLAN _C
4 OF 5

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Roadway Design Division

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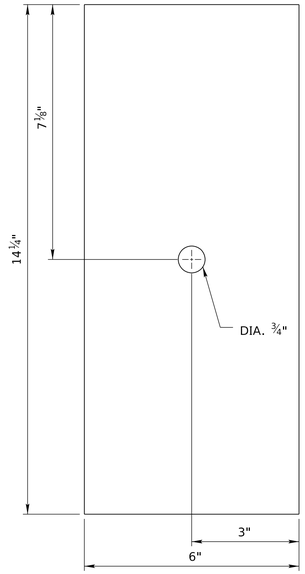
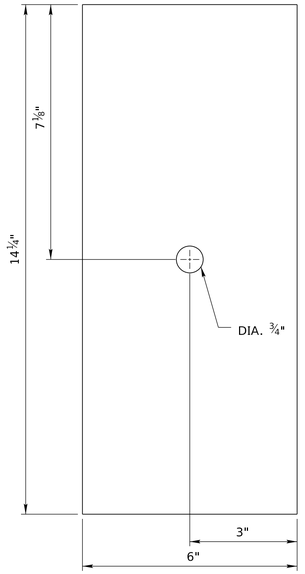
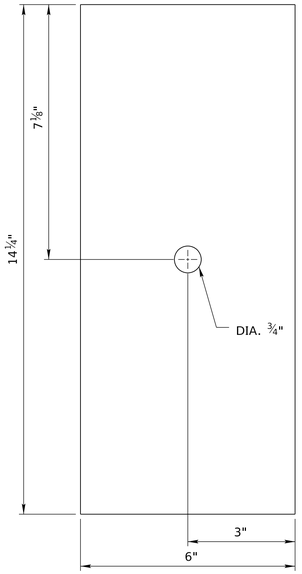


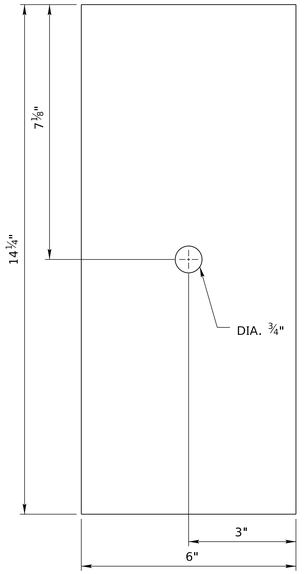
ELEVATION VIEW



ELEVATION VIEW



ELEVATION VIEW



ELEVATION VIEW

PLAN VIEW

C1

6" x 17¾" x 14¼"
OFFSET BLOCK

PLAN VIEW

C2

6" x 12¾" x 14¼"
OFFSET BLOCK

PLAN VIEW

C3

6" x 7¾" x 14¼"
OFFSET BLOCK

PLAN VIEW

C4

6" x 2¾" x 14¼"
OFFSET BLOCK

TRANSITION BLOCKOUTS

NOTES:

PARTS C2 AND C3 CAN BE MADE FROM ANY TWO
COMBINED BLOCK SIZES AND CAN BE ADJUSTED AS NECESSARY.

Project Number

C.N.

SPECIAL PLAN _C

5 OF 5

W-BEAM CONNECT TO CONCRETE PROTECTION BARRIER

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Roadway
Design
Division

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DATE: 26-AUG-2024 14:10

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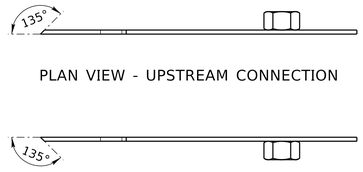
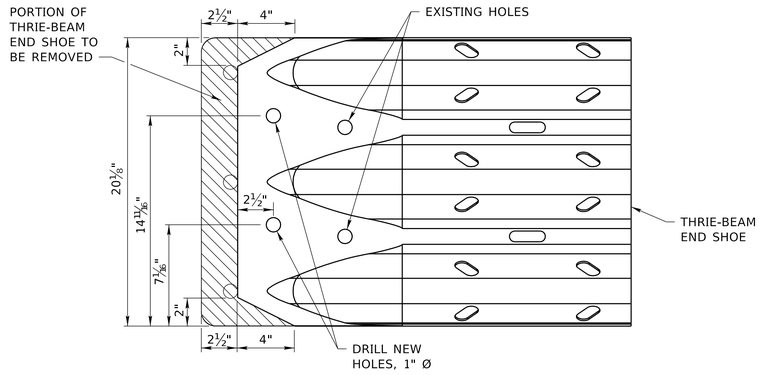
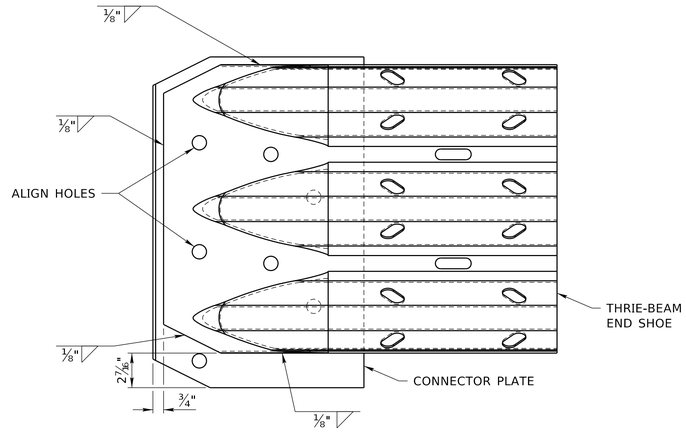


CONNECTOR PLATE DETAILS

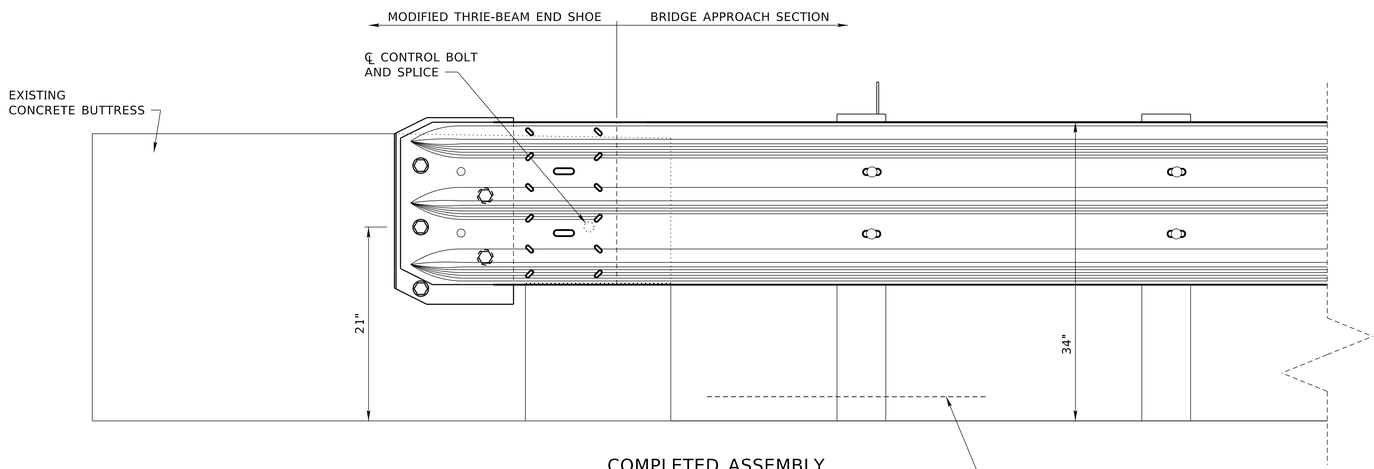
∗HEX NUTS SHALL BE OMITTED FOR USE WITH BUTTRESS CONTAINING CAST-IN ANCHORS.



THRIE-BEAM END SHOE TRIM DETAILS

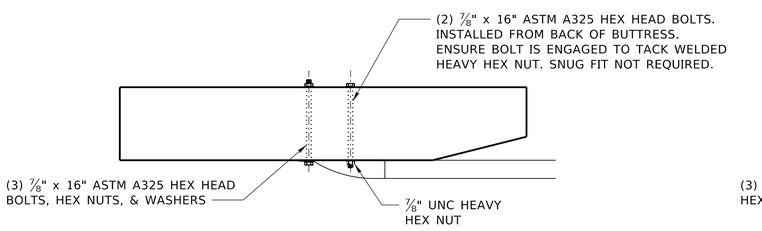


THRIE-BEAM END SHOE WELDMENT

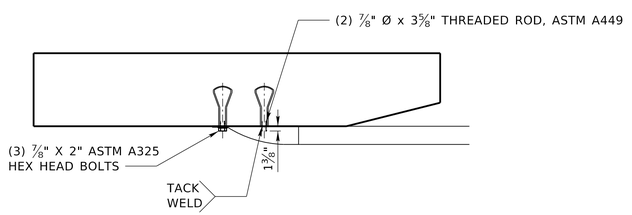


COMPLETED ASSEMBLY

NOTE: BUTTRESS BLOCKOUT ASSEMBLY NOT SHOWN



ANCHOR ROD DETAIL



CAST-IN ANCHOR DETAIL

NOTES:

CONNECTOR PLATE SHALL BE ASTM A709 GRADE 50, GALVANIZED. HEAVY HEX NUT SHALL BE ASTM A563, GRADE DH, GALVANIZED.

THRIE-BEAM END SHOE SHALL MEET AASHTO M180. GALVANIZED FINISH AND BASE SHEET METAL SHALL BE FABRICATED TO ASTM A1008 OR ASTM A1011 TO ENSURE WELDABILITY. CONTRACTOR SHALL SUPPLY MATERIAL CERTIFICATIONS FOR THRIE-BEAM END SHOE PLATE BASE SHEET METAL GRADE.

ALL STEEL SHALL BE HOT-DIP GALVANIZED PER ASTM A123. ALL STEEL HARDWARE SHALL BE GALVANIZED PER ASTM A153. CONNECTOR PLATE SHALL BE GALVANIZED PRIOR TO WELDING TO THRIE-BEAM END SHOE PLATE AND PRIOR TO TACK WELDING THE HEAVY HEX NUTS.

GALVANIZATION OF THRIE-BEAM END SHOE AND CONNECTOR PLATE SHALL BE REMOVED AT WELD LOCATIONS PRIOR TO WELDING. GALVANIZING SHALL BE REPAIRED PER ASTM A780.

Project Number

C.N.

SPECIAL PLAN _C
1 OF 2
MODIFIED THRIE-BEAM END SHOE

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

Roadway Design Division
1500 Nebraska Parkway
Lincoln, NE 68502
Office: 402-479-4601

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FILE: 7380 1 R0.dgn

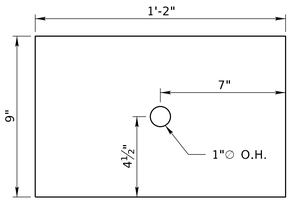


PLATE "A"

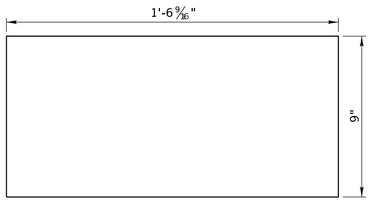


PLATE "B"

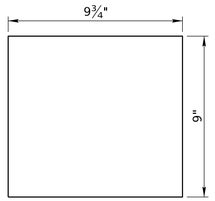


PLATE "C"

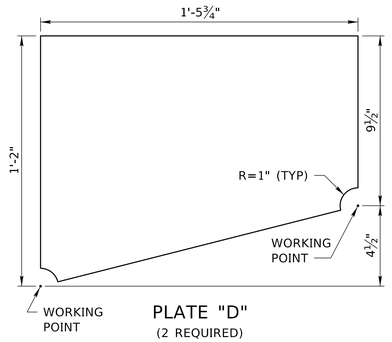


PLATE "D"
(2 REQUIRED)

NOTES:

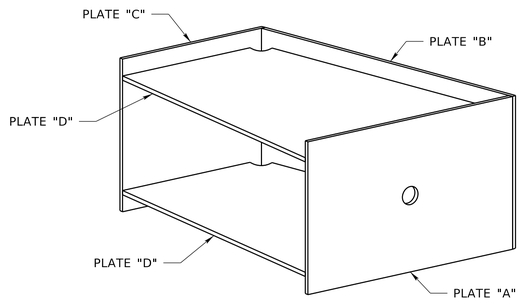
ALL PLATES ARE ¼" THICK, ASTM A709 GRADE 50.

BUTTRESS BLOCKOUT ASSEMBLY SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. ANCHOR RODS SHALL BE ASTM 449, FULLY THREADED, GALVANIZED PER ASTM A153. HEAVY HEX NUTS SHALL BE ASTM A563, GRADE DH, GALVANIZED.

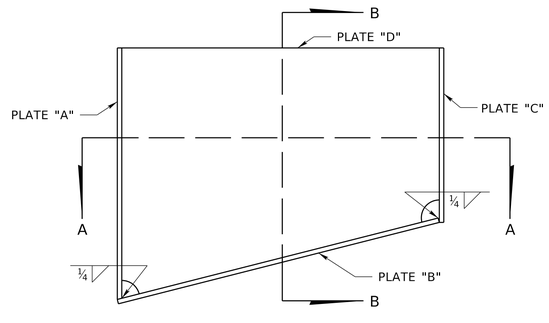
BUTTRESS BLOCKOUT ASSEMBLY SHALL BE USED AS A TEMPLATE TO LOCATE ANCHOR ROD PLACEMENT.

DRILL HOLE INTO EXISTING CONCRETE AND FILL WITH RESIN ADHESIVE FROM NDOT APPROVED PRODUCT LIST PRIOR TO INSERTING THREADED ROD. SEE SPECIAL PROVISIONS.

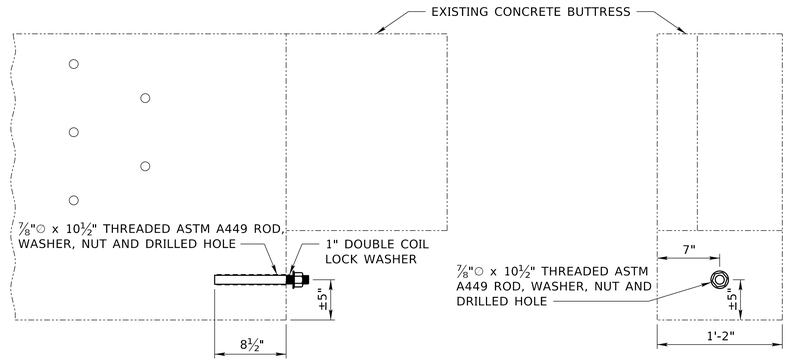
PEEN ENDS OF ANCHOR BOLTS AFTER INSTALLATION IS COMPLETE.



BACK ISOMETRIC

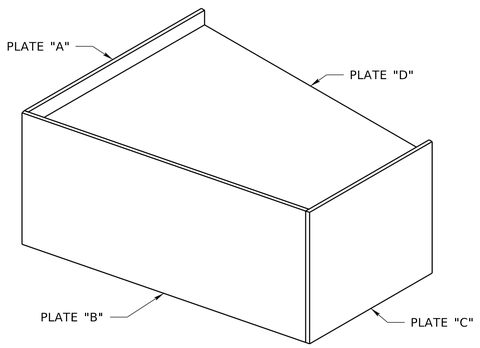


PLAN VIEW

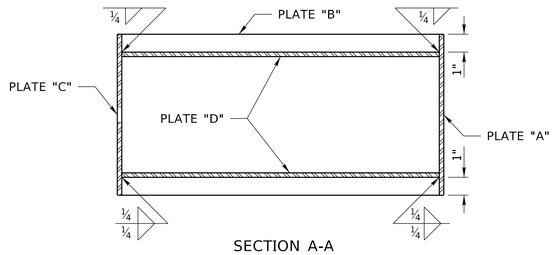


FRONT SIDE

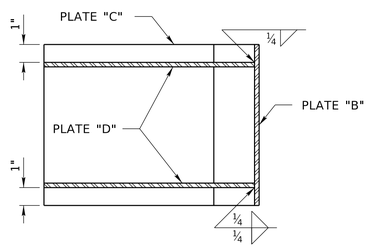
ANCHOR ROD



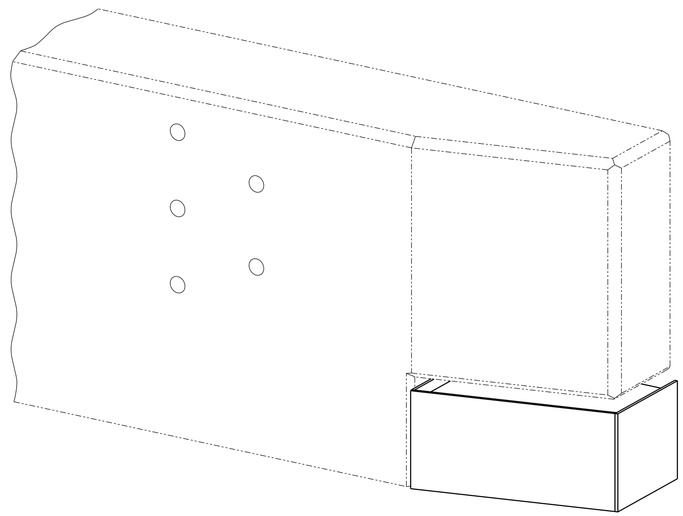
FRONT ISOMETRIC



SECTION A-A



SECTION B-B



COMPLETED BUTTRESS BLOCKOUT PLACEMENT

BUTTRESS BLOCKOUT ASSEMBLY

FOR INFORMATION ONLY
TOTAL STRUCTURAL STEEL = 56 LB
⅞"∅x10½" ANCHOR ROD, NUT & LOCK WASHER = 1 EA

2 OF 2

Project Number

C.N.

SPECIAL PLAN _C
2 OF 2
MODIFIED THRIE-BEAM END SHOE

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

Roadway Design Division
1500 Nebraska Parkway
Lincoln, NE 68502
Office: 402-479-4601

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DATE: 4-JUN-2025 08:37
FILE: 7380 1 R0.dgn

CONNECTION NOTES:

FOR DIVIDED ROADWAY

INSTALL THRIE-BEAM END SHOE,
BETWEEN NESTED GUARDRAIL ELEMENTS.
(SUBSIDIARY TO BRIDGE APPROACH SECTION)

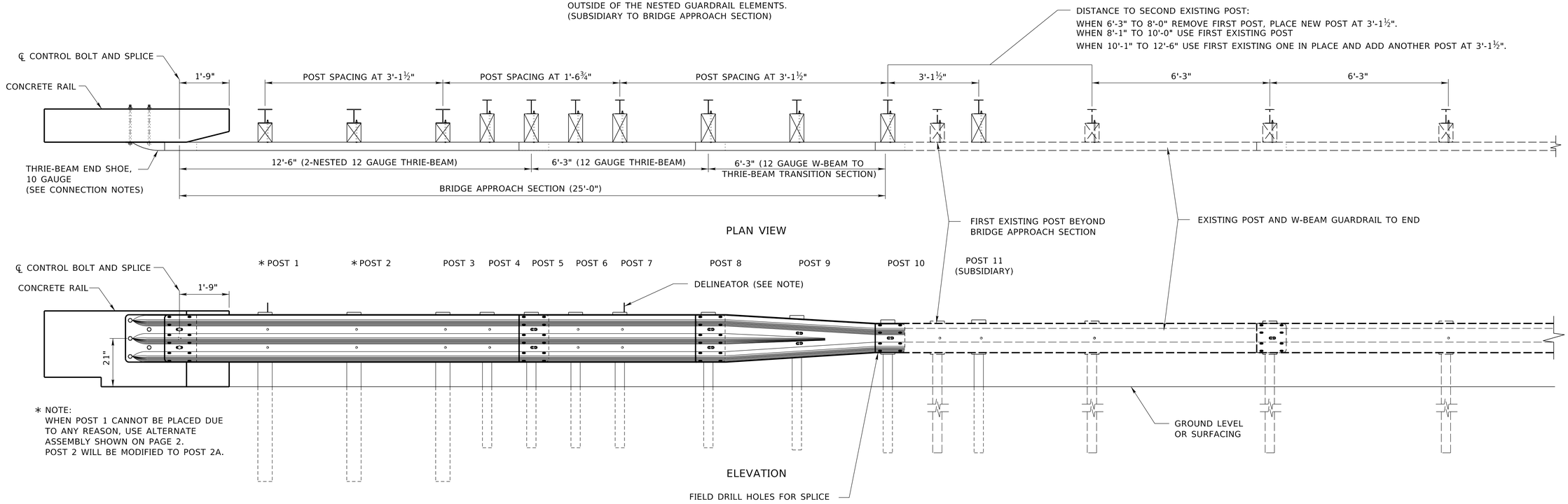
FOR 2-LANE ROADWAY

FOR APPROACHING TRAFFIC
INSTALL THRIE-BEAM END SHOE,
BETWEEN NESTED GUARDRAIL ELEMENTS.
(SUBSIDIARY TO BRIDGE APPROACH SECTION)

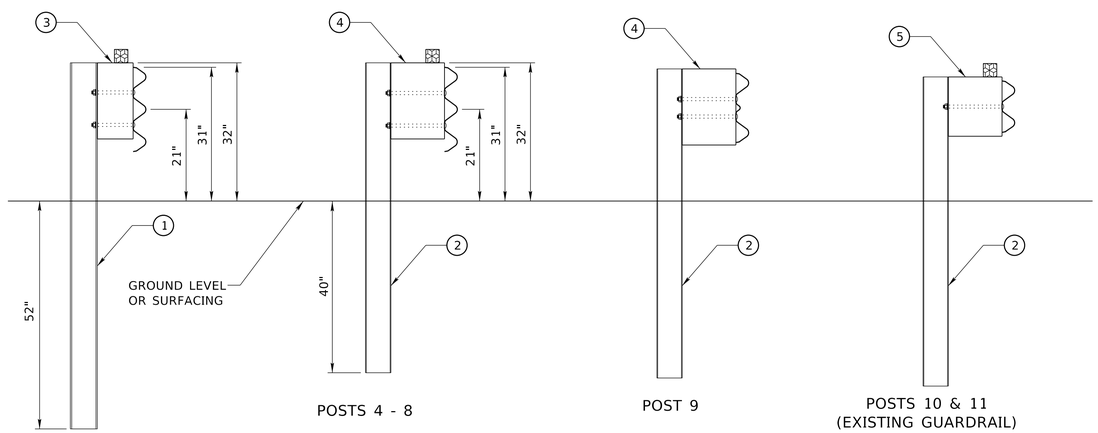
FOR OFF END CONNECTIONS
INSTALL THRIE-BEAM END SHOE,
OUTSIDE OF THE NESTED GUARDRAIL ELEMENTS.
(SUBSIDIARY TO BRIDGE APPROACH SECTION)

LEGEND

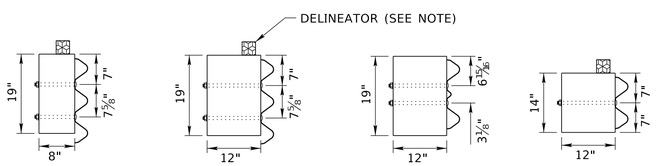
1. W6 × 15 × 7' POST
2. W6 × 8.5 × 6' OR W6' × 9 × 6' POST
3. 6" × 8" × 19" OFFSET BLOCK
4. 6" × 12" × 19" OFFSET BLOCK
5. 6" × 12" × 14" OFFSET BLOCK



∗ NOTE:
WHEN POST 1 CANNOT BE PLACED DUE TO ANY REASON, USE ALTERNATE ASSEMBLY SHOWN ON PAGE 2. POST 2 WILL BE MODIFIED TO POST 2A.



POSTS 1 - 3 | POSTS 4 - 8 | POST 9 | POSTS 10 & 11 (EXISTING GUARDRAIL)



POSTS 1 - 3 | POSTS 4 - 8 | POST 9 | POSTS 10 & 11

BLOCK DETAILS

NOTES:

DELINEATORS SUBSIDIARY TO BRIDGE APPROACH SECTION.

BUTTON HEAD BOLT ⅝" DIA. × LENGTH AS REQUIRED, SECURED WITH HEX NUT.

ALL STEEL MEMBERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

1 OF 2

Project Number

C.N.

SPECIAL PLAN _C
1 OF 2
BRIDGE APPROACH SECTION 31" TO EXISTING

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Roadway Design Division

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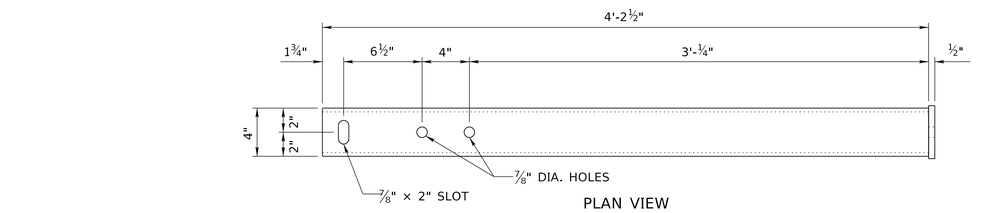
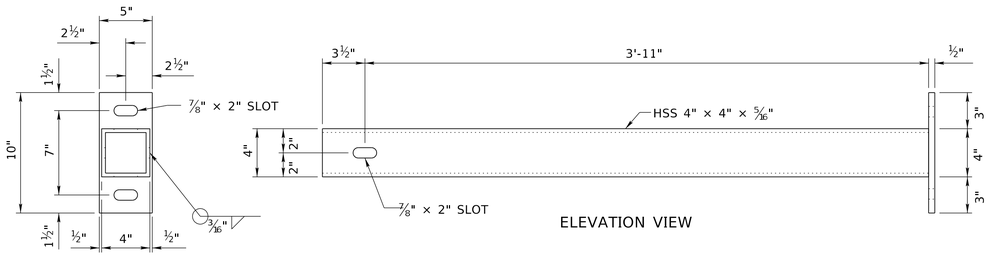


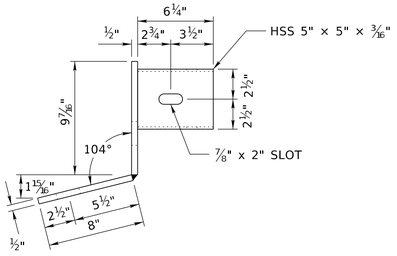
PLAN VIEW



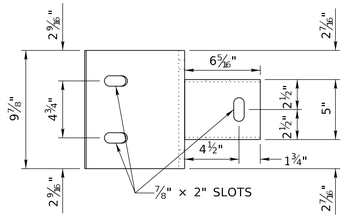
SIDE VIEW

ELEVATION VIEW

RAIL DETAIL

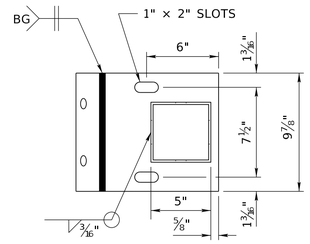


TOP VIEW

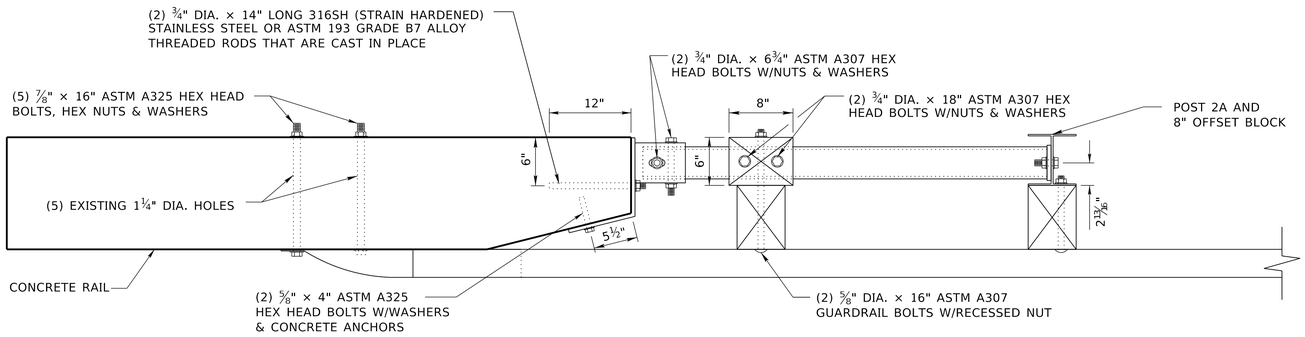


ELEVATION VIEW

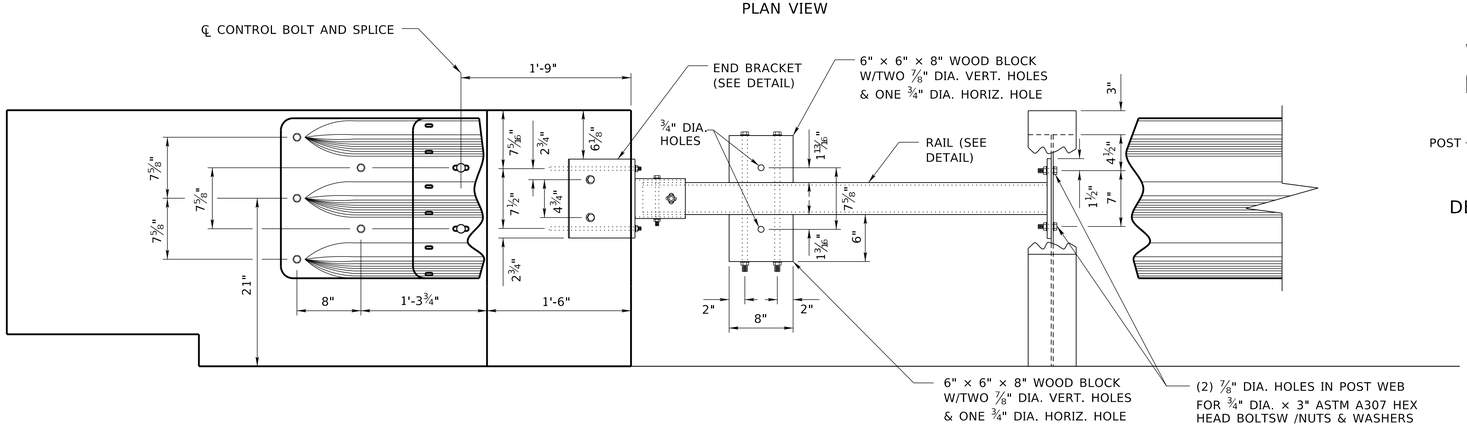
END BRACKET DETAIL



SIDE VIEW



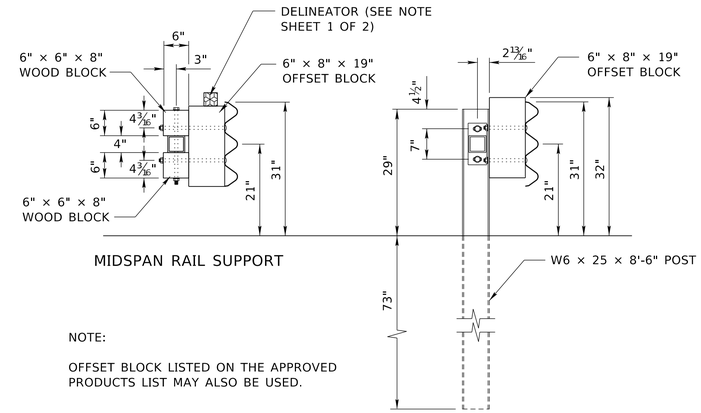
PLAN VIEW



ELEVATION VIEW

MIDSPAN RAIL SUPPORT DETAIL

MUST USE POST 2A (W6 × 25 × 8'-6")



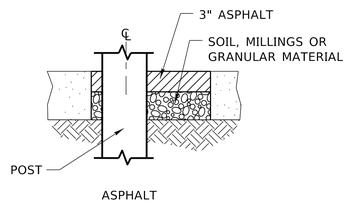
MIDSPAN RAIL SUPPORT

POST 2A

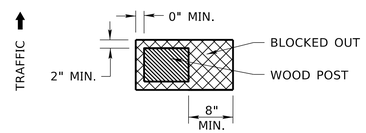
NOTE:

OFFSET BLOCK LISTED ON THE APPROVED PRODUCTS LIST MAY ALSO BE USED.

ALTERNATE ASSEMBLY



DETAIL OF BACKFILLING AROUND POST



GUARDRAIL POSTS IN SURFACING

NOTE:

ALL STEEL MEMBERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

IN LIEU OF THE CAST IN PLACE ¾" DIA. × 14" ANCHOR BOLTS, THE CONTRACTOR MAY GROUT ¾" DIA. × 12" BOLTS INTO ⅞" DIA. × 12" DRILLED HOLES. ALL GROUT USED SHALL BE AN APPROVED NON-SHRINK GROUT. FOR ⅝" DIA. BOLTS USE ¾" DIA. HOLES. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS OPTION.

SPECIAL PLAN _C

2 OF 2

BRIDGE APPROACH SECTION 31" TO EXISTING

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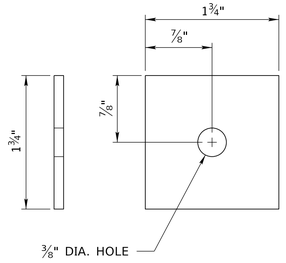
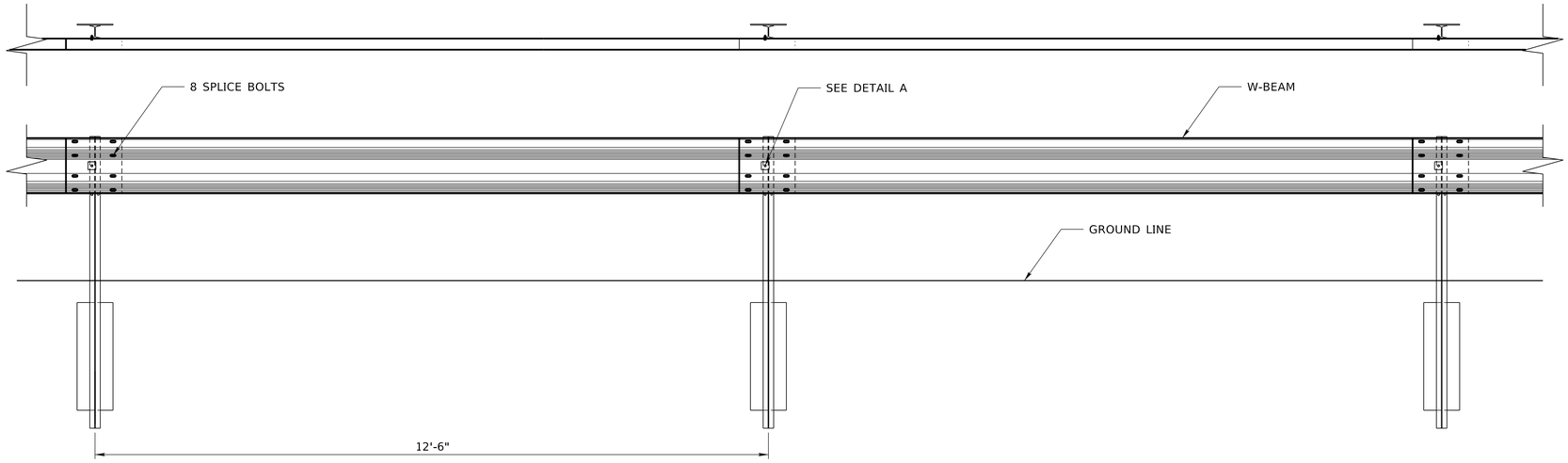
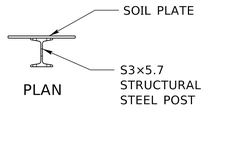


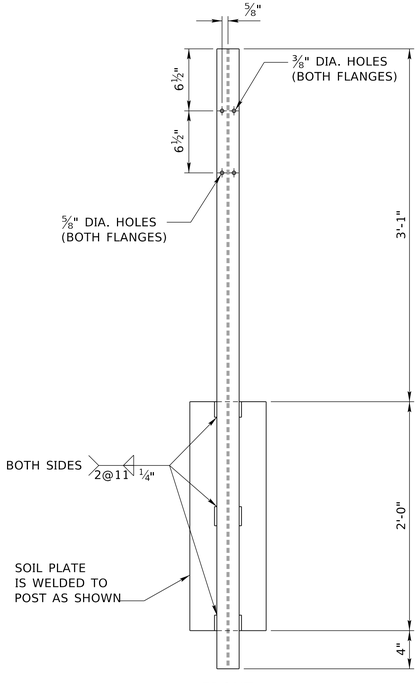
SQUARE GUARDRAIL WASHER



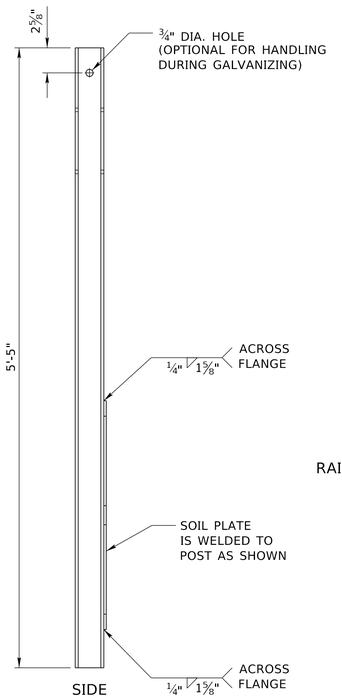
ELEVATION



PLAN

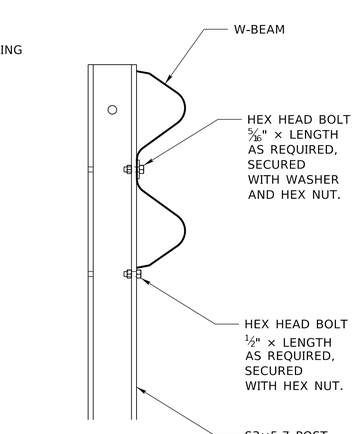


FRONT

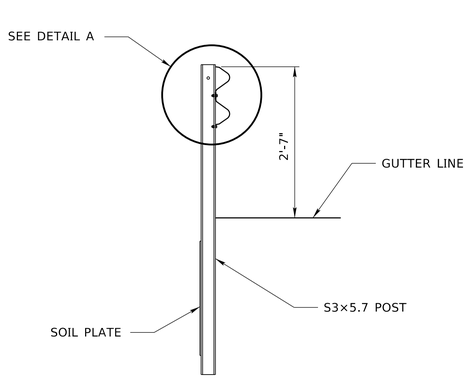


SIDE

WEAK POST GUARDRAIL POST & SOIL PLATE



DETAIL A
RAIL-POST ATTACHMENT



SECTION
RAIL-POST ATTACHMENT

NOTES:

ALL POSTS SHALL BE MANUFACTURED USING STEEL CONFORMING TO ASTM A 36. THIS SECTION SHALL BE MANUFACTURED SUCH THAT IT CONFORMS TO THE GEOMETRY AND TOLERANCES OF ASTM A6 FOR A S3 × 5.7 S-SECTION. AFTER ALL PUNCHING, DRILLING, STAMPING AND WELDING IS COMPLETE, THE SECTION SHALL BE GALVANIZED ACCORDING TO ASTM A 123. ALL HOLES SHALL BE PUNCHED THROUGH BOTH FLANGES (IN-LINE).

THE SQUARE GUARDRAIL WASHER SHALL BE MANUFACTURED FROM ASTM A 36 STEEL PLATE. AFTER STAMPING OR PUNCHING, GALVANIZED PLATES SHALL BE FINISHED ACCORDING TO ASTM A 123.

MATERIAL FOR HOT DIPPED ZINC-COATED BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A307 GRADE A.

ALL STEEL MEMBERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

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Project Number

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SPECIAL PLAN _C
1 OF 1
WEAK POST GUARDRAIL 31"

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