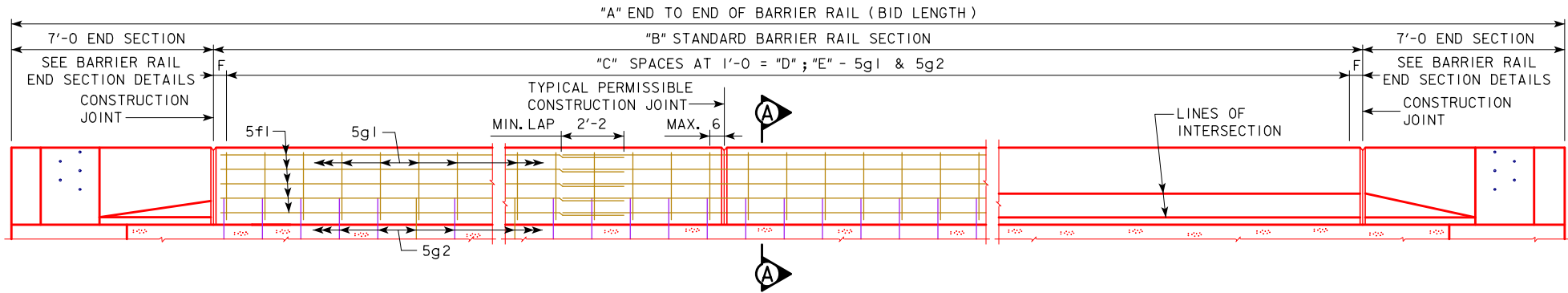


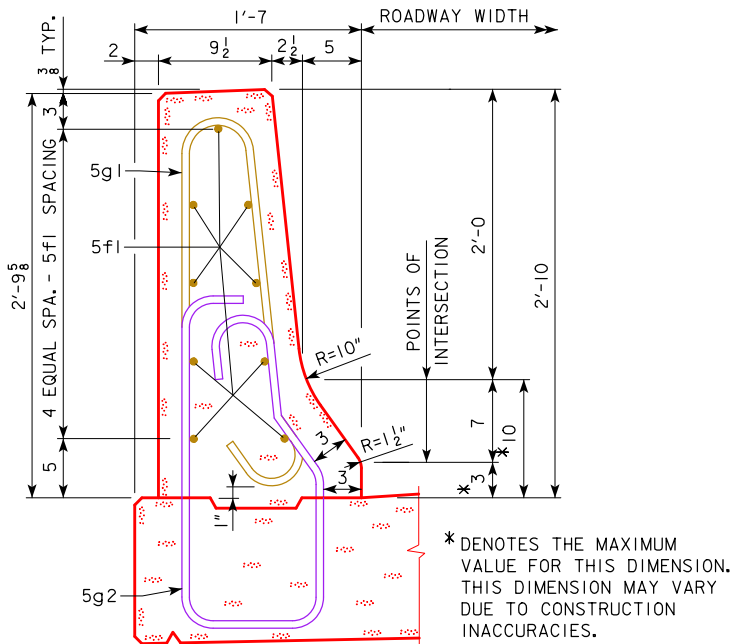
REVISED 08-2020: UPDATED BRIDGE ENGINEER SIGNATURE. REMOVED NOTE STATING "ALL BARRIER RAIL REINFORCING STEEL IS TO BE INCLUDED WITH THE SUPERSTRUCTURE REINFORCING STEEL."

TABLE OF BARRIER RAIL DIMENSIONS AND NUMBERS

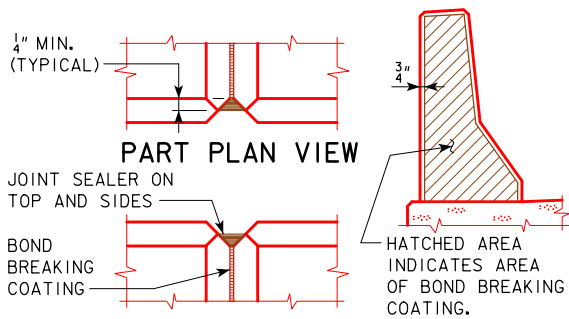
BRIDGE LENGTH		70'-0				80'-0				90'-0				100'-0				110'-0				120'-0				130'-0				140'-0				150'-0			
SKEW		0°	15°	30°	45°	0°	15°	30°	45°	0°	15°	30°	45°	0°	15°	30°	45°	0°	15°	30°	45°	0°	15°	30°	45°	0°	15°	30°	45°	0°	15°	30°	45°	0°	15°	30°	45°
DIMENSION OR NUMBER	A (FT.-IN.)	81'-0	81'-1 1/4	81'-5 1/2	82'-3	91'-0	91'-1 1/4	91'-5 1/2	92'-3	101'-0	101'-1 1/4	101'-5 1/2	102'-3	111'-0	111'-1 1/4	111'-5 1/2	112'-3	121'-0	121'-1 1/4	121'-5 1/2	122'-3	131'-0	131'-1 1/4	131'-5 1/2	132'-3	141'-0	141'-1 1/4	141'-5 1/2	142'-3	151'-0	151'-1 1/4	151'-5 1/2	152'-3	161'-0	161'-1 1/4	161'-5 1/2	162'-3
	B (FT.-IN.)	67'-0	67'-1 1/4	67'-5 1/2	68'-3	77'-0	77'-1 1/4	77'-5 1/2	78'-3	87'-0	87'-1 1/4	87'-5 1/2	88'-3	97'-0	97'-1 1/4	97'-5 1/2	98'-3	107'-0	107'-1 1/4	107'-5 1/2	108'-3	117'-0	117'-1 1/4	117'-5 1/2	118'-3	127'-0	127'-1 1/4	127'-5 1/2	128'-3	137'-0	137'-1 1/4	137'-5 1/2	138'-3	147'-0	147'-1 1/4	147'-5 1/2	148'-3
	C	66	66	66	67	76	76	76	77	86	86	86	87	96	96	96	97	106	106	106	107	116	116	116	117	126	126	126	127	136	136	136	137	146	146	146	147
	D (FT.-IN.)	66'-0	66'-0	66'-0	67'-0	76'-0	76'-0	76'-0	77'-0	86'-0	86'-0	86'-0	87'-0	96'-0	96'-0	96'-0	97'-0	106'-0	106'-0	106'-0	107'-0	116'-0	116'-0	116'-0	117'-0	126'-0	126'-0	126'-0	127'-0	136'-0	136'-0	136'-0	137'-0	146'-0	146'-0	146'-0	147'-0
	E	67	67	67	68	77	77	77	78	87	87	87	88	97	97	97	98	107	107	107	108	117	117	117	118	127	127	127	128	137	137	137	138	147	147	147	148
	F (IN.)	6	6 5/8	8 3/4	7 1/2	6	6 5/8	8 3/4	7 1/2	6	6 5/8	8 3/4	7 1/2	6	6 5/8	8 3/4	7 1/2	6	6 5/8	8 3/4	7 1/2	6	6 5/8	8 3/4	7 1/2	6	6 5/8	8 3/4	7 1/2	6	6 5/8	8 3/4	7 1/2	6	6 5/8	8 3/4	7 1/2



ELEVATION OF BARRIER RAIL



PART SECTION A-A



PART ELEVATION VIEW
BARRIER RAIL JOINT DETAILS

BARRIER RAIL NOTES:

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

THE PERMISSIBLE CONSTRUCTION JOINTS ARE TO BE PLACED BETWEEN VERTICAL BARS AT A MINIMUM SPACING OF 20 FEET. CONSTRUCTION JOINT CONTACT SURFACES ARE TO BE COATED WITH AN APPROVED BOND BREAKER.

COST OF THE JOINT SEALER AND BOND BREAKER SHALL BE CONSIDERED INCIDENTAL TO OTHER CONSTRUCTION.

THE CONCRETE BARRIER RAIL IS TO BE BID ON A LINEAL FOOT BASIS. THE NUMBER OF LINEAL FEET OF BARRIER RAIL INSTALLED WILL BE PAID FOR AT THE CONTRACT PRICE PER LINEAL FOOT BASED ON PLAN QUANTITIES. PRICE BID FOR "CONCRETE BARRIER RAILING" SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, EXCLUDING REINFORCING STEEL, AND ALL OF THE EQUIPMENT AND LABOR REQUIRED TO ERECT THE RAIL IN ACCORDANCE WITH THESE PLANS AND CURRENT SPECIFICATIONS.

IF CONDUIT IS REQUIRED IN THIS PLAN THE RIGID STEEL CONDUIT, JUNCTION BOXES AND FITTINGS INCLUDING LABOR AND ANY ADDITIONAL WORK TO DO THE INSTALLATION IS CONSIDERED INCIDENTAL TO THE COST OF THE RAILING.

THE JOINT SEALER SHALL BE LIGHT GRAY NONSAG LATEX CAULKING SEALER MARKETED FOR OUTDOOR USE. NO TESTING OR CERTIFICATION IS REQUIRED.

TOP OF THE BARRIER RAIL IS TO BE PARALLEL TO THE THEORETICAL $\frac{1}{2}$ GRADE.

CROSS SECTIONAL AREA OF THE STANDARD SECTION OF THE BARRIER RAIL = 2.84 SQUARE FEET.

ALL BARRIER RAIL REINFORCING STEEL IS TO BE EITHER EPOXY COATED OR STAINLESS STEEL AS SHOWN OR NOTED. THE STAINLESS STEEL REINFORCING STEEL SHALL BE DEFORMED BAR GRADE 60 MEETING THE REQUIREMENTS OF MATERIALS I.M.452.

CONCRETE BARRIER RAILS PLACED USING THE SLIPFORM METHOD WILL REQUIRE THE USE OF A CLASS BR CONCRETE IN ACCORDANCE WITH ARTICLE 2513.03, A, 2, OF THE STANDARD SPECIFICATION. CAST-IN-PLACE BARRIER RAILS SHALL USE CLASS C MIX. CLASS D CONCRETE IS NOT PERMITTED FOR CONCRETE BARRIER RAILS (CAST-IN-PLACE OR SLIPFORMED METHOD).

08-2020
LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

IOWA DOT Highway Division

STANDARD DESIGN - 44' ROADWAY, 3 SPAN BRIDGES

CONTINUOUS CONCRETE
SLAB BRIDGES

JULY, 2014

BARRIER RAIL DETAILS

J44-45-14

REVISED 09-2014; CHANGED REFERENCE TO THE J44-45-14 STANDARD FOR DIMENSION "B" INSTEAD OF J44-45-06 STANDARD.
REVISED 08-2020; UPDATED BRIDGE ENGINEER SIGNATURE.

EPOXY REINFORCING STEEL-TWO BARRIER RAILS																														
BRIDGE LENGTH				70'-0			80'-0			90'-0			100'-0			110'-0			120'-0			130'-0			140'-0			150'-0		
SECTION	BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT
STANDARD SECTION	5g1	VERTICAL		136	5'-11	839	156	5'-11	963	176	5'-11	1086	196	5'-11	1210	216	5'-11	1333	236	5'-11	1456	256	5'-11	1580	276	5'-11	1703	296	5'-11	1827
	5f1	LONGITUDINAL		36	35'-1	1317	54	27'-5	1544	54	30'-9	1732	54	34'-1	1920	54	37'-5	2107	72	31'-2	2340	72	33'-8	2528	72	36'-2	2716	72	38'-8	2904
		4 END SECTIONS @ 266 LBS.					1064			1064			1064			1064			1064			1064			1064			1064		
(INCLUDE WITH SUPERSTRUCTURE REINFORCING)				TOTAL (LBS.)		3220	TOTAL (LBS.)		3571	TOTAL (LBS.)		3882	TOTAL (LBS.)		4194	TOTAL (LBS.)		4504	TOTAL (LBS.)		4860	TOTAL (LBS.)		5172	TOTAL (LBS.)		5483	TOTAL (LBS.)		5795

REINFORCING QUANTITIES SHOWN ARE BASED ON 45° SKEW BID LENGTHS.

STAINLESS STEEL REINFORCING STEEL-TWO BARRIER RAILS																														
BRIDGE LENGTH				70'-0			80'-0			90'-0			100'-0			110'-0			120'-0			130'-0			140'-0			150'-0		
SECTION	BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT
STANDARD SECTION	5g2	VERTICAL		136	6'-10	969	156	6'-11	1125	176	7'-1	1300	196	7'-4	1499	216	7'-6	1690	236	7'-9	1908	256	7'-11	2114	276	8'-2	2351	296	8'-5	2598
		4 END SECTIONS @ 192 LBS.				768			768			768			768			768			768			768			768			768
(INCLUDE WITH SUPERSTRUCTURE REINFORCING)				TOTAL (LBS.)		1737	TOTAL (LBS.)		1893	TOTAL (LBS.)		2068	TOTAL (LBS.)		2267	TOTAL (LBS.)		2458	TOTAL (LBS.)		2676	TOTAL (LBS.)		2882	TOTAL (LBS.)		3119	TOTAL (LBS.)		3366

REINFORCING QUANTITIES SHOWN ARE BASED ON 45° SKEW BID LENGTHS.

BENT BAR DETAILS

5g2 BARS		
BRIDGE	"a"	LENGTH
70'	1'-2	6'-10
80'	1'-2 3/4	6'-11
90'	1'-3 3/4	7'-1
100'	1'-5	7'-4
110'	1'-6	7'-6
120'	1'-7 1/2	7'-9
130'	1'-8 3/4	7'-11
140'	1'-10	8'-2
150'	1'-11 1/2	8'-5

NOTE: ALL DIMENSIONS ARE OUT TO OUT.
"D"= PIN DIAMETER.

CONCRETE PLACEMENT SUMMARY											
BRIDGE LENGTH			70'-0	80'-0	90'-0	100'-0	110'-0	120'-0	130'-0	140'-0	150'-0
STANDARD SECTION	*	2 x B @ 0.1052 CU. YDS. PER FT.	14.4	16.5	18.6	20.7	22.8	24.9	27.0	29.1	31.2
END SECTION		4 @ 0.65 CU. YDS.	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
TOTAL (CU. YDS.)			17.0	19.1	21.2	23.3	25.4	27.5	29.6	31.7	33.8

* SEE J44-45-14 FOR DIMENSION "B".
CONCRETE QUANTITIES SHOWN ARE
BASED ON 45° SKEW BID LENGTHS.

CONCRETE BARRIER RAIL QUANTITIES											
BRIDGE LENGTH		UNIT	70'-0	80'-0	90'-0	100'-0	110'-0	120'-0	130'-0	140'-0	150'-0
CONCRETE BARRIER RAILING	0° SKEW	L.F.	162.0	182.0	202.0	222.0	242.0	262.0	282.0	302.0	322.0
CONCRETE BARRIER RAILING	15° SKEW	L.F.	162.2	182.2	202.2	222.2	242.2	262.2	282.2	302.2	322.2
CONCRETE BARRIER RAILING	30° SKEW	L.F.	162.9	182.9	202.9	222.9	242.9	262.9	282.9	302.9	322.9
CONCRETE BARRIER RAILING	45° SKEW	L.F.	164.5	184.5	204.5	224.5	244.5	264.5	284.5	304.5	324.5

08-2020
LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

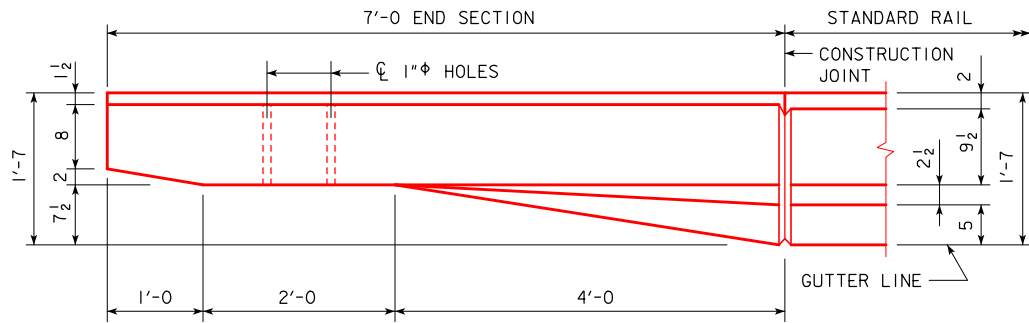
Highway Division

STANDARD DESIGN - 44' ROADWAY, 3 SPAN BRIDGES
**CONTINUOUS CONCRETE
SLAB BRIDGES**
JULY, 2014

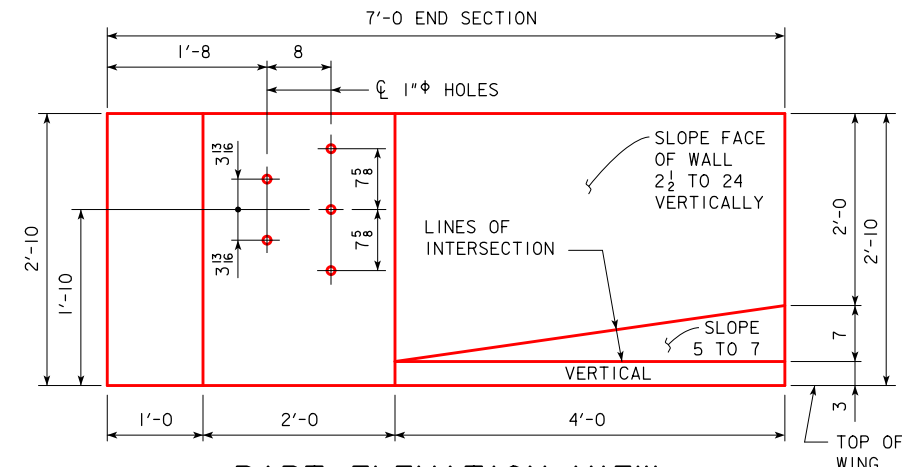
BARRIER RAIL DETAILS

J44-46-14

REVISED 03-2016: REFERENCE TO "1" PVC PIPE" WAS CHANGED FROM "1" PVC PLASTIC CONDUIT".
REVISED 09-2016: REMOVED "NOTE: REINFORCING STEEL QUANTITIES ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET."
REVISED 08-2020: UPDATED BRIDGE ENGINEER SIGNATURE. CHANGED SECTION A-A WAS VIEW A-A.

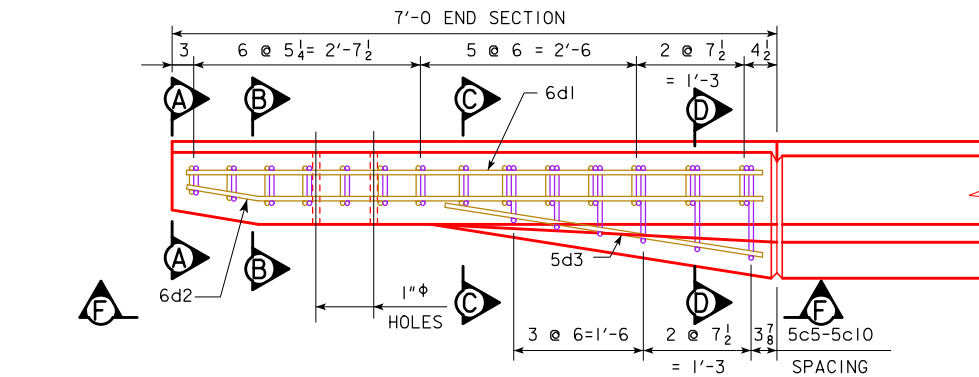
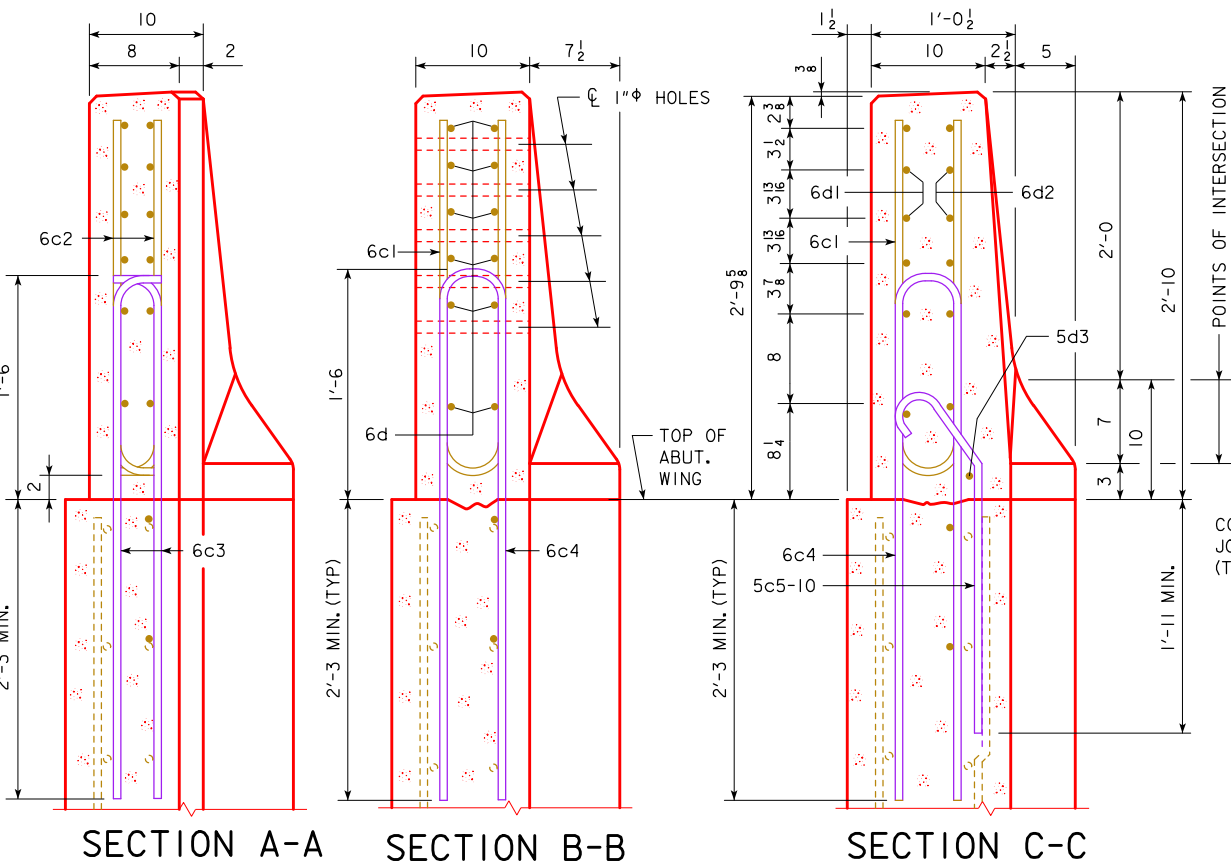


PART PLAN VIEW

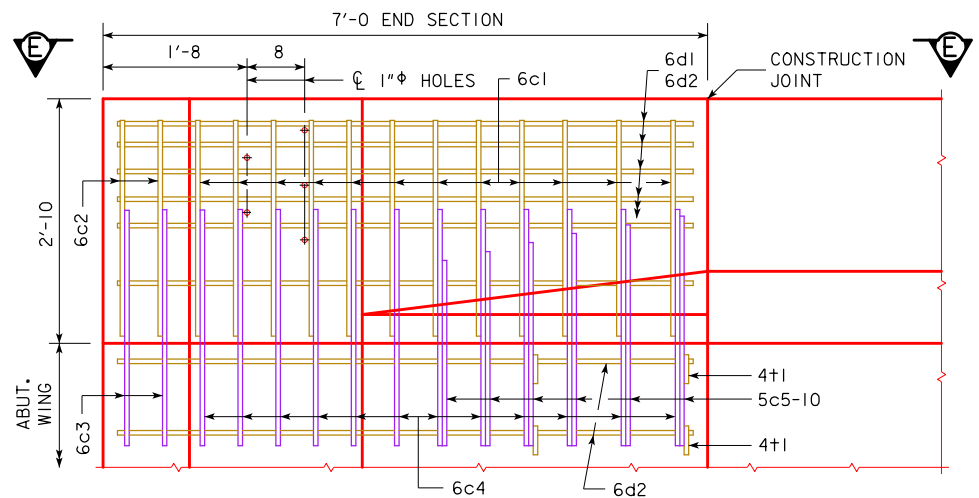


PART ELEVATION VIEW

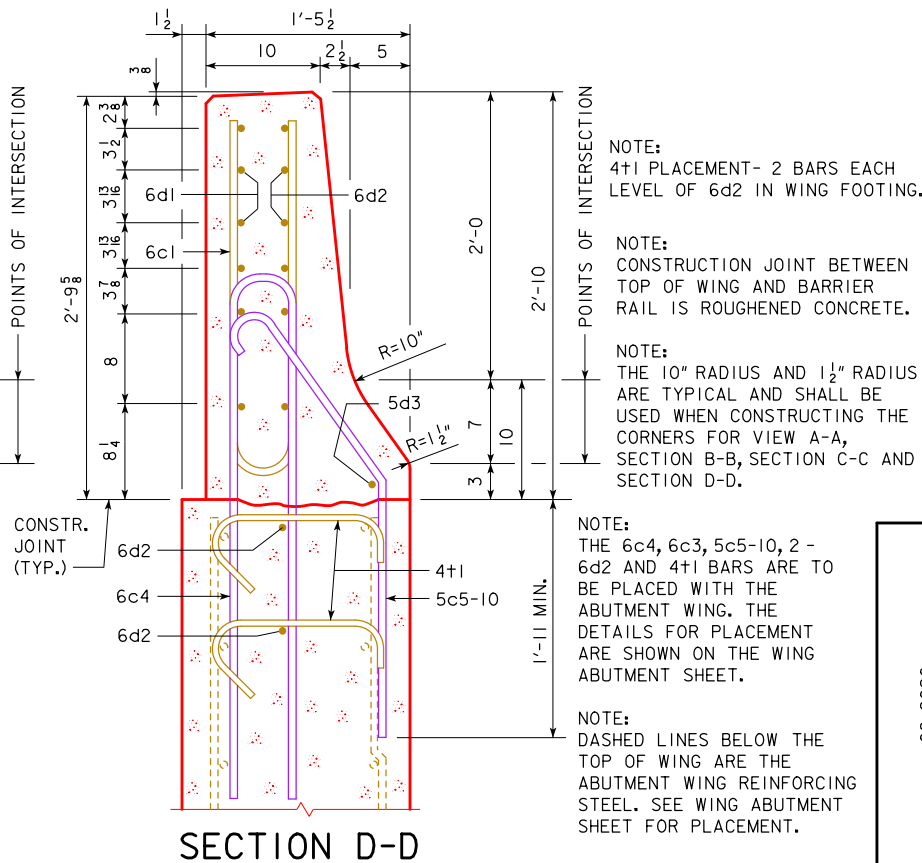
PROVIDE 5 HOLES FORMED WITH 1" PVC PIPE. COST TO BE INCLUDED IN PRICE BID FOR CONCRETE BARRIER RAILING.



PART VIEW E-E



PART VIEW F-F



NOTE:
4+1 PLACEMENT - 2 BARS EACH
LEVEL OF 6d2 IN WING FOOTING.

NOTE:
CONSTRUCTION JOINT BETWEEN
TOP OF WING AND BARRIER
RAIL IS ROUGHENED CONCRETE.

NOTE:
THE 10" RADIUS AND 1 1/2" RADIUS
ARE TYPICAL AND SHALL BE
USED WHEN CONSTRUCTING THE
CORNERS FOR VIEW A-A,
SECTION B-B, SECTION C-C AND
SECTION D-D.

NOTE:
THE 6c4, 6c3, 5c5-10, 2 -
6d2 AND 4+1 BARS ARE TO
BE PLACED WITH THE
ABUTMENT WING. THE
DETAILS FOR PLACEMENT
ARE SHOWN ON THE WING
ABUTMENT SHEET.

NOTE:
DASHED LINES BELOW THE
TOP OF WING ARE THE
ABUTMENT WING REINFORCING
STEEL. SEE WING ABUTMENT
SHEET FOR PLACEMENT.

EPOXY COATED REINF. STEEL - ONE END SECT.

BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
6c1	RAIL, VERTICAL		12	5'-6	99
6c2	RAIL, VERTICAL		4	2'-10	17
6d1	RAIL, HORIZONTAL		6	6'-8	60
6d2	RAIL, HORIZONTAL		8	6'-9	81
5d3	RAIL, HORIZONTAL		1	3'-9	4
4+1	RAIL, ABUTMENT WING TIE BARS		4	VARIES	5
EPOXY REINF. TOTAL WEIGHT (LBS.)					266

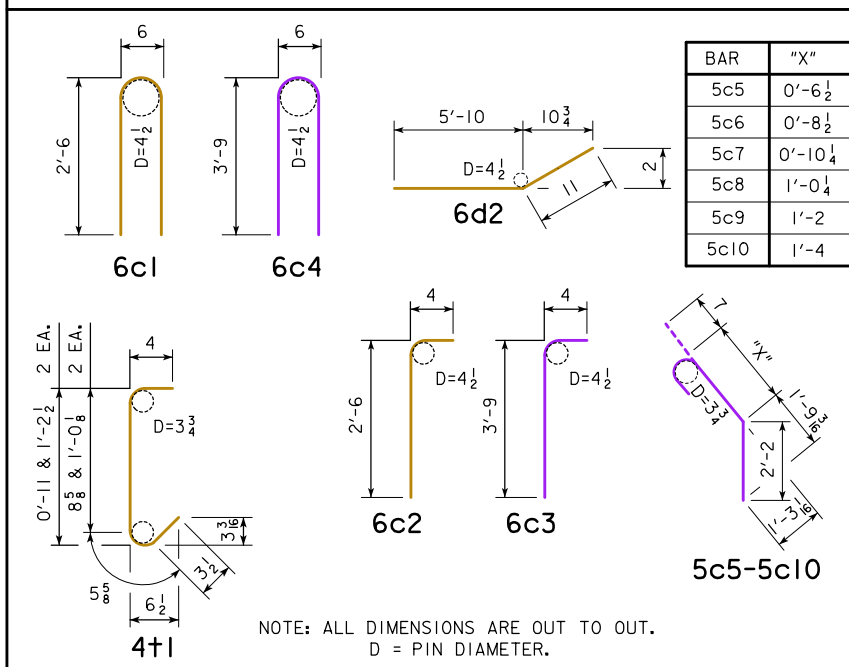
STAINLESS STEEL REINF. STEEL - ONE END SECT.

BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
6c3	RAIL, VERTICAL		4	4'-1	25
6c4	RAIL, VERTICAL		12	8'-0	144
5c5-10	RAIL, VERTICAL		6	VARIES	23
STAINLESS STEEL TOTAL WEIGHT (LBS.)					192

CONCRETE PLACEMENT SUMMARY

SECTION	TOTAL
BARRIER RAIL ONE END SECTION	0.65 CU. YD.

BENT BAR DETAILS



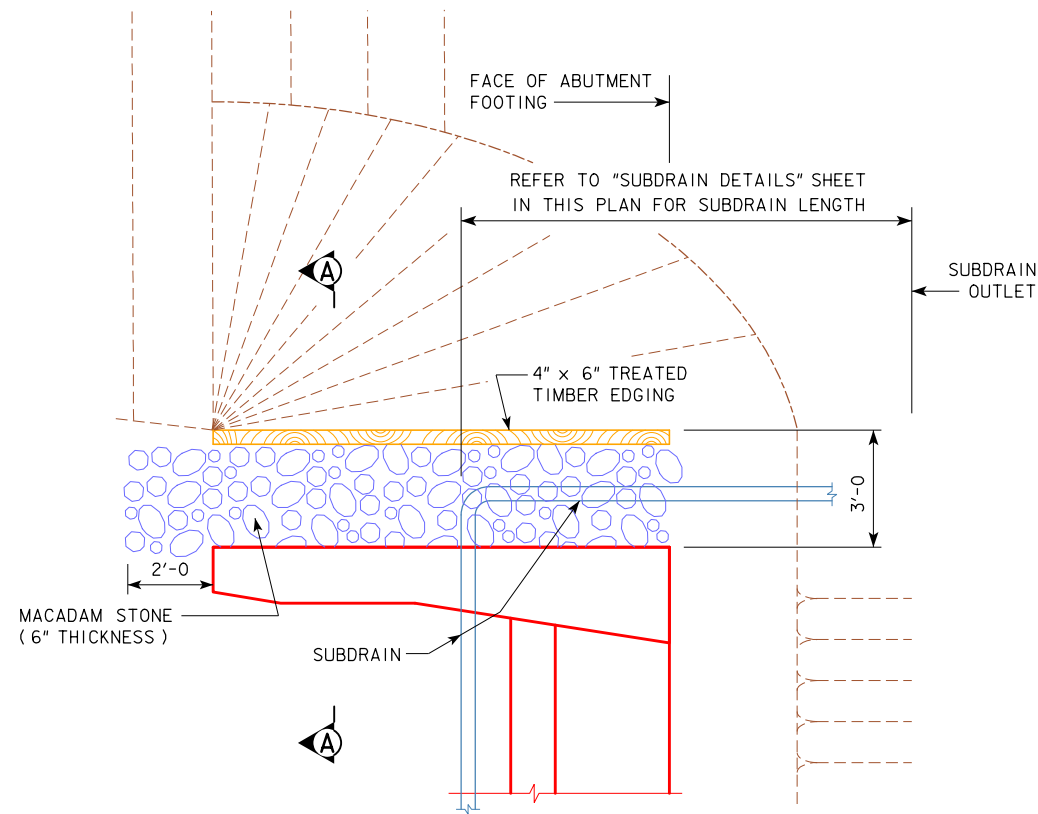
08-2020
LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

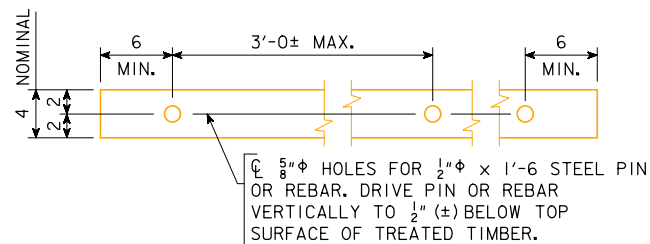
STANDARD DESIGN - 44' ROADWAY, 3 SPAN BRIDGES
**CONTINUOUS CONCRETE
SLAB BRIDGES**
JULY, 2014

BARRIER RAIL END SECTION

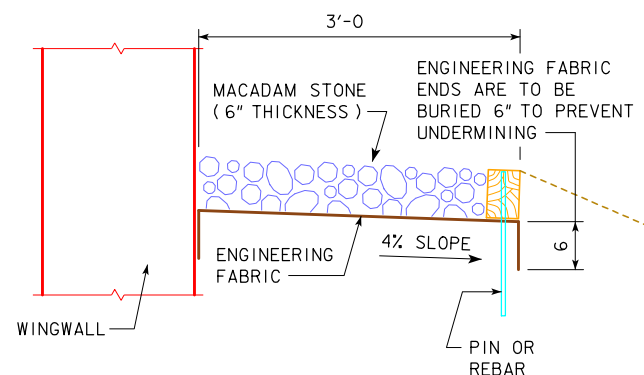
J44-47-14



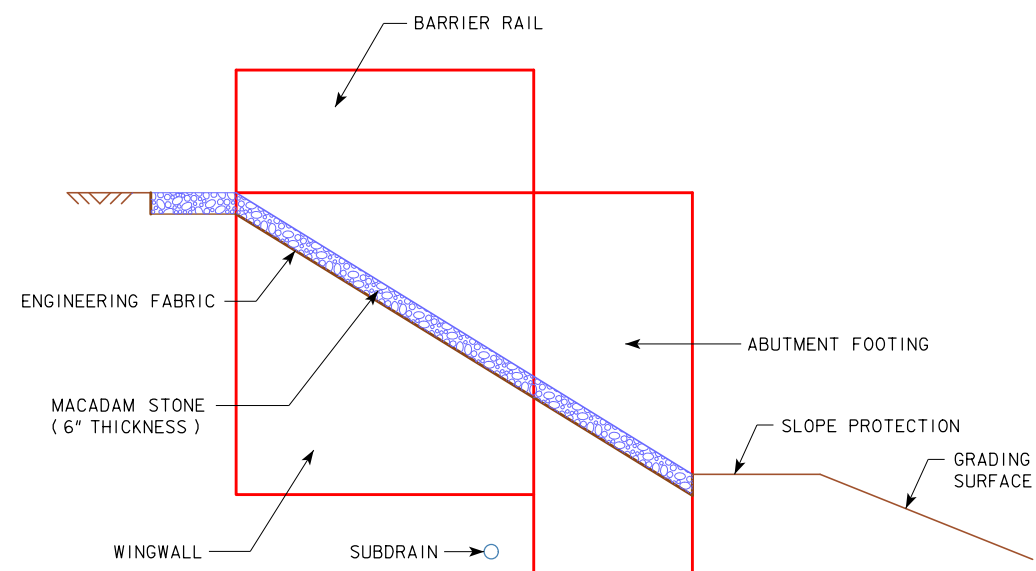
TOP VIEW OF WING ARMORING



4" x 6" TREATED TIMBER EDGING DETAILS



SECTION A-A



PROFILE VIEW OF WING ARMORING

SUBDRAIN NOTES:

SEE J44-50-14 AND "SITUATION PLAN" SHEETS FOR DETAILS OF PLACING ALL SUBDRAINS AND SUBDRAIN OUTLETS REQUIRED FOR THIS STRUCTURE.

THE BRIDGE CONTRACTOR IS TO INSTALL SUBDRAINS BEHIND THE ABUTMENT. THE SUBDRAINS SHALL BE 4" IN DIAMETER AND BE IN ACCORDANCE WITH ARTICLE 4143.01, B, OF THE STANDARD SPECIFICATIONS. THE SUBDRAIN OUTLET SHALL CONSIST OF A 6'-0 LENGTH OF PIPE WITH A REMOVABLE RODENT GUARD.

THE DIMENSIONS SHOWN FOR THE PROPOSED SUBDRAINS ARE BASED ON THE PROPOSED GRADING LAYOUT OF BRIDGE BERMS. THE DIMENSIONS SHOWN ARE FOR ESTIMATING ONLY. REQUIRED LENGTHS AND GENERAL LOCATIONS OF SUBDRAINS ARE SUBJECT TO CHANGE DUE TO FIELD ADJUSTMENTS OF THE GRADING LAYOUT.

THE COST OF FURNISHING AND PLACING SUBDRAIN (INCLUDING EXCAVATION), GRANULAR BACKFILL, POROUS BACKFILL, AND SUBDRAIN OUTLET IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)". NO EXTRA PAYMENT WILL BE MADE.

MACADAM STONE WING ARMORING NOTES:

MACADAM STONE SHALL BE PLACED ALONG THE SIDE OF THE WING AND ABUTMENT FOOTING. THIS IS TYPICAL AT EACH CORNER OF THE BRIDGE UNLESS OTHERWISE NOTED IN THE PLANS. THE MACADAM STONE AT THESE LOCATIONS SHALL BE UNDERLAYED WITH ENGINEERING FABRIC AND BE IN ACCORDANCE WITH ARTICLE 4196.01, B, 3, OF THE STANDARD SPECIFICATIONS.

THE BRIDGE BERM FORESLOPE SHALL BE COMPACTED AND SHAPED AS SHOWN ON THESE PLANS, THE SITUATION PLAN AND AS DIRECTED BY THE ENGINEER. THE BERM FORESLOPE SHALL BE FIRM WHEN THE ENGINEERING FABRIC AND MACADAM STONE ARE PLACED.

THE ENGINEERING FABRIC SHALL BE IN ACCORDANCE WITH ARTICLE 4196.01, B, 3, OF THE STANDARD SPECIFICATIONS. IF THE ENGINEERING FABRIC IS LAPPED THE LAPS SHALL BE A MINIMUM OF ONE FOOT IN LENGTH, SHINGLE FASHION WITH UP SLOPE LAP PIECE ON TOP AND STAPLED FOR CONTINUITY.

THE MACADAM STONE SHALL BE IN ACCORDANCE WITH ARTICLE 4122.02, OF THE STANDARD SPECIFICATIONS FOR COARSE MATERIAL (NO CHOKE STONE IS ALLOWED).

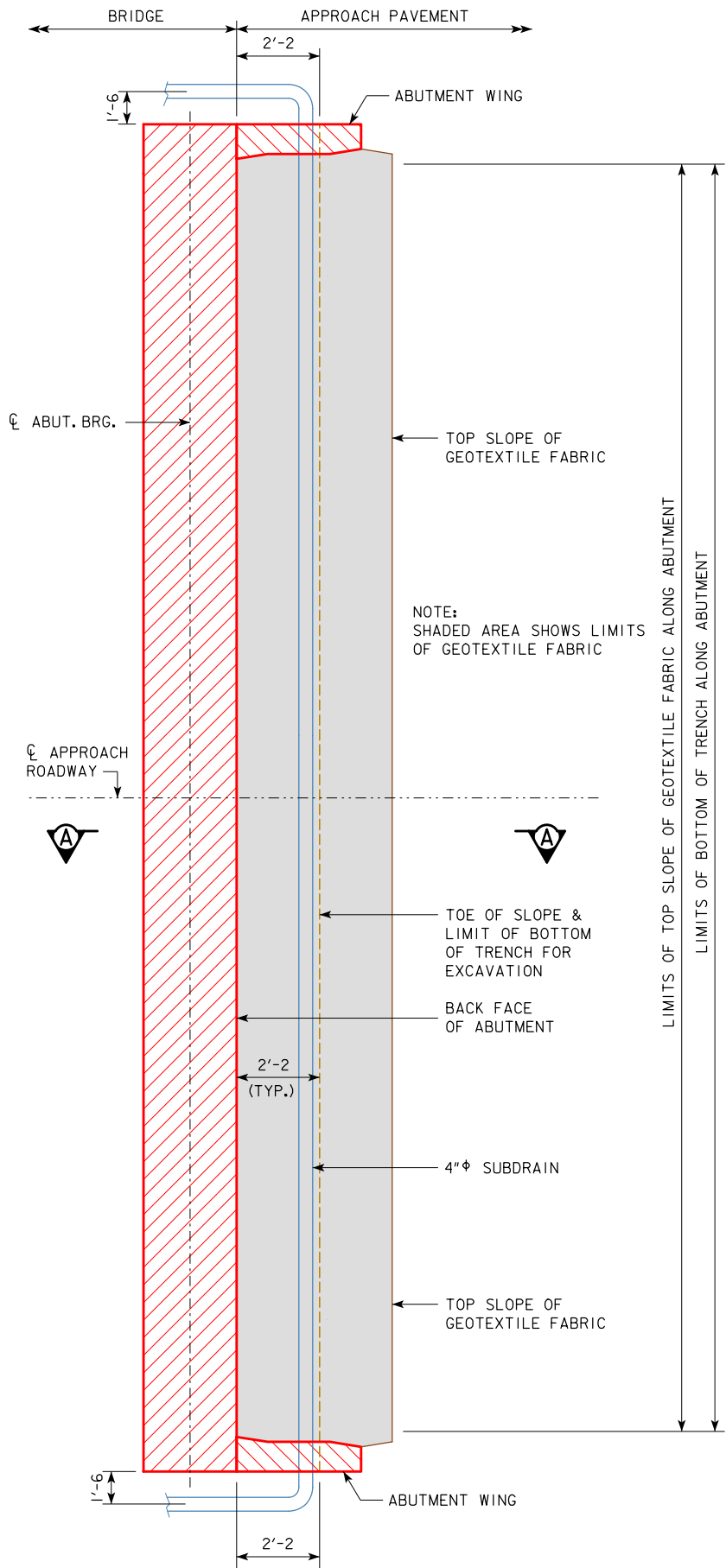
WOOD PRESERVATIVE TREATMENT FOR THE TIMBER EDGING SHALL MEET THE REQUIREMENTS FOR GUARDRAIL POSTS, SAWED FOUR SIDES, AND BE IN ACCORDANCE WITH SECTION 4161, OF THE STANDARD SPECIFICATIONS.

THE MACADAM STONE SHALL BE DEPOSITED, SPREAD, CONSOLIDATED AND SHAPED BY MECHANICAL OR HAND METHODS THAT WILL PROVIDE UNIFORM DEPTH AND DENSITY AND PROVIDE UNIFORM SURFACE APPEARANCE.

PAYMENT FOR THE BRIDGE WING ARMORING SHALL BE INCIDENTAL TO THE BID ITEM "STRUCTURAL CONCRETE (BRIDGE)" AND SHALL INCLUDE COSTS OF ALL MATERIAL AND LABOR TO CONSTRUCT THE WING ARMORING AS SHOWN ON THESE PLANS.

08-2020 LATEST REVISION DATE	 APPROVED BY BRIDGE ENGINEER		
		STANDARD DESIGN - 44' ROADWAY, 3 SPAN BRIDGES CONTINUOUS CONCRETE SLAB BRIDGES JULY, 2014	
		WING ARMORING DETAILS	J44-51-14

REVISED 09-2014: THE TECHNICAL DATA INFORMATION TABLE WAS REMOVED AND A NOTE ADDED TO REFER TO THE STANDARDS SPECIFICATIONS FOR THIS INFORMATION.
REVISED 09-2016: CHANGED THE BRIDGE APPROACH PAVEMENT STANDARD TO "BR" (WAS "RK-20").
REVISED 08-2020: UPDATED BRIDGE ENGINEER SIGNATURE.



ABUTMENT PLAN

ABUTMENT BACKFILL PROCESS:

THE BASE OF THE EXCAVATION SUBGRADE BEHIND THE ABUTMENT IS TO BE GRADED WITH A 4% SLOPE AWAY FROM THE ABUTMENT FOOTING AND A 2% CROSS SLOPE IN THE DIRECTION OF THE SUBDRAIN OUTLET. THIS EXCAVATION SHAPING IS TO BE DONE PRIOR TO BEGINNING INSTALLATION OF THE GEOTEXTILE AND BACKFILL MATERIAL.

AFTER THE SUBGRADE HAS BEEN SHAPED, THE GEOTEXTILE FABRIC SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS SHOWN. THE FABRIC IS INTENDED TO BE INSTALLED IN THE BASE OF THE EXCAVATION AND EXTENDED VERTICALLY UP THE ABUTMENT BACKWALL, ABUTMENT WING WALLS, AND EXCAVATION FACE TO A HEIGHT THAT WILL BE APPROXIMATELY 1 TO 2 FOOT HIGHER THAN THE HEIGHT OF THE POROUS BACKFILL PLACEMENT AS SHOWN IN THE "BACKFILL DETAILS" ON THIS SHEET. THE STRIPS OF THE FABRIC PLACED SHALL OVERLAP APPROXIMATELY 1 FOOT AND SHALL BE PINNED IN PLACE. THE FABRIC SHALL BE ATTACHED TO THE ABUTMENT BY USING LATH FOLDED IN THE FABRIC AND SECURED TO THE CONCRETE WITH SHALLOW CONCRETE NAILS. THE FABRIC PLACED AGAINST THE EXCAVATION FACE SHALL BE PINNED.

WHEN THE FABRIC IS IN PLACE, THE SUBDRAIN SHALL BE INSTALLED DIRECTLY ON THE FABRIC AT THE TOE OF THE REAR EXCAVATION SLOPE. A SLOT WILL NEED TO BE CUT IN THE FABRIC AT THE POINT WHERE THE SUBDRAIN EXITS THE FABRIC NEAR THE END OF THE ABUTMENT WING WALL.

POROUS BACKFILL IS THEN PLACED AND LEVELED, NO COMPACTION IS REQUIRED.

THE REMAINING WORK INVOLVES BACKFILLING WITH FLOODABLE BACKFILL, SURFACE FLOODING, AND VIBRATORY COMPACTION. THE FLOODABLE BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE FLOODABLE BACKFILL SHALL BE PLACED IN INDIVIDUAL LIFTS, SURFACE FLOODED, AND COMPACTED WITH VIBRATORY COMPACTION TO ENSURE FULL CONSOLIDATION. LIMIT THE LOOSE LIFTS TO NO MORE THAN 2 FEET OF THICKNESS.

START SURFACE FLOODING FOR EACH FLOODABLE BACKFILL LIFT AT THE HIGH POINT OF THE SUBDRAIN AND PROGRESS TO THE LOW POINT WHERE THE SUBDRAIN EXITS THE FABRIC. TO ENSURE UNIFORM SURFACE FLOODING, WATER RUNNING FULL IN A 2-INCH DIAMETER HOSE SHOULD BE SPRAYED IN SUCCESSIVE 6-FOOT TO 8-FOOT INCREMENTS FOR 3 MINUTES WITHIN EACH INCREMENT.

FLOODABLE BACKFILL LIFT PLACEMENT, FLOODING, AND COMPACTION SHALL PROGRESS UNTIL THE REQUIRED FULL THICKNESS OF THE ABUTMENT BACKFILL HAS BEEN COMPLETED.

WATER REQUIRED FOR FLOODING, SUBDRAINS, POROUS BACKFILL, FLOODABLE BACKFILL, AND GEOTEXTILE FABRIC FURNISHED AT THE BRIDGE ABUTMENTS WILL NOT BE MEASURED SEPARATELY FOR PAYMENT.

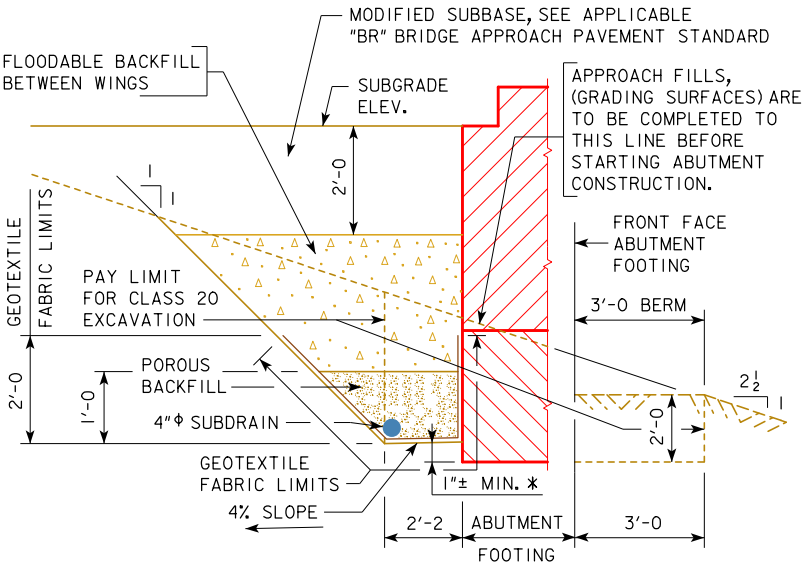
THE COST OF WATER REQUIRED FOR FLOODING, SUBDRAINS, POROUS BACKFILL, FLOODABLE BACKFILL, AND GEOTEXTILE FABRIC FURNISHED AT THE BRIDGE ABUTMENTS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR STRUCTURAL CONCRETE.

NOTE:

SUBDRAIN SHALL SLOPE DOWNWARD 2% FROM CL APPROACH ROADWAY WHEN OUTLETTING BOTH SIDES OF THE ABUTMENT.

SUBDRAIN SHALL SLOPE DOWNWARD 2% FROM HIGH END WHEN OUTLETTING AT ONE END OF THE ABUTMENT.

THE GEOTEXTILE FABRIC SHALL BE IN ACCORDANCE WITH ARTICLE 4196.01, B, 6 OF THE STANDARD SPECIFICATIONS. IF THE ENGINEERING FABRIC IS LAPPED THE LAPS SHALL BE A MINIMUM OF ONE FOOT IN LENGTH, SHINGLE FASHION WITH UP SLOPE LAP PIECE ON TOP AND STAPLED FOR CONTINUITY.



SECTION A-A
BACKFILL DETAILS

NOTE: GEOTEXTILE FABRIC WILL BE ATTACHED TO FACE OF ABUTMENT FOOTING AND WINGS.

* DIMENSION VARIES DUE TO 2% SUBDRAIN SLOPE.

NOTE:
SEE SUBDRAIN DETAILS SHEET FOR DETAILS NOT SHOWN ON THIS SHEET WHICH ARE PERTINENT TO THIS STRUCTURE.

08-2020
LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

IOWA DOT Highway Division

STANDARD DESIGN - 44' ROADWAY, 3 SPAN BRIDGES

CONTINUOUS CONCRETE
SLAB BRIDGES

JULY, 2014

ABUTMENT BACKFILL
DETAILS
FOR 0° SKEWS

J44-52-14