

09/15/2026

Letting Date

GRADING

PLYMOUTH COUNTY

PROJECT NUMBER FM-TSF-C075(182)--5B-75

PROJECT TRAFFIC CONTROL PLAN

THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN ALL SIGNS AND BARRICADES ON THE PROJECT ROUTE.

THERE ARE NO PEDESTRIAN FACILITIES ON PROJECT SITE.

THIS PROJECT IS COVERED BY THE IOWA DEPARTMENT OF NATURAL RESOURCES NPDES GENERAL PERMIT NO.2, IA-43962-43558 THE CONTRACTOR SHALL CARRY OUT THE TERMS AND CONDITIONS OF GENERAL PERMIT NO.2 AND THE STORM WATER POLLUTION PREVENTION PLAN WHICH IS A PART OF THESE CONTRACT DOCUMENTS. REFER TO SECTION 2602 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL INFORMATION.

IOWA
DEPARTMENT OF TRANSPORTATION
Highway Division

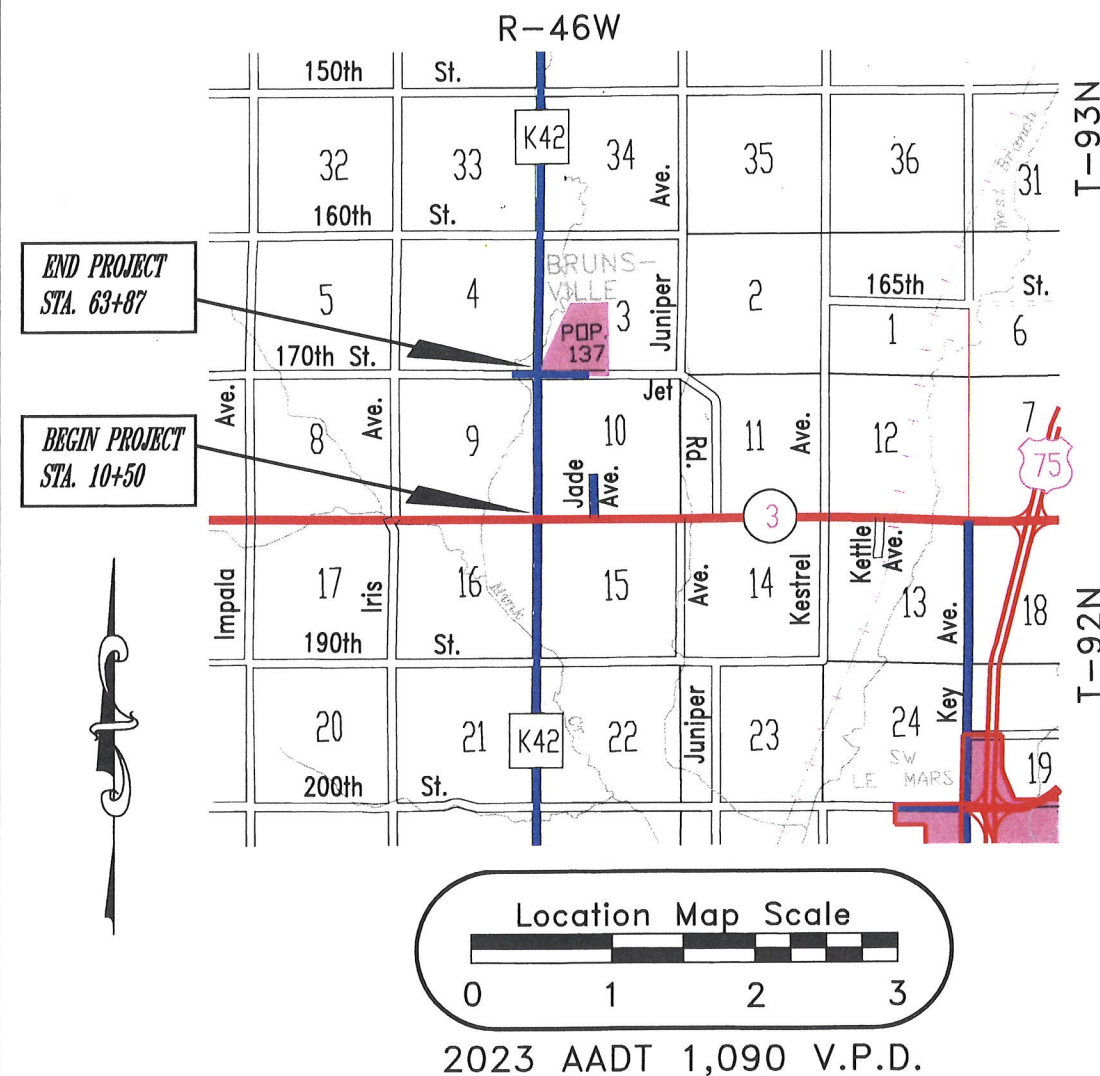
PLANS OF PROPOSED IMPROVEMENT ON THE

FARM TO MARKET SYSTEM
PLYMOUTH COUNTY
GRADING

FM-TSF-C075(182)--5B-75

On K-42, from Hwy 3 north 1 mile to 170th St

Refer to the Proposal Form for a list of Applicable Standards.



PROJECT NUMBER FM-TSF-C075(182)--5B-75

SHEET 1 of 20

INDEX OF SHEETS

No.	Description
1	TITLE SHEET
2	ESTIMATE OF QUANTITIES AND NOTES
3	TYPICAL CROSS SECTION AND TABULATIONS
4-7	35+85 48"X36" CONC. BOX SKEW 30° L.A. EXTENSION DETAILS
8-11	50+56 48"X40" CONC. BOX SKEW 0° EXTENSION DETAILS
12-15	56+87 42"X40" CONC. BOX 30° R.A. EXTENSION DETAILS
16	170th ST. INTERSECTION DETAILS
17-18	PLAN AND PROFILE
19-20	POLLUTION PREVENTION PLAN

MILEAGE SUMMARY

Location	Lin. Ft.	Miles
PROJECT STATIONING 10+50 to 63+87	5,337	1.01

ROAD STANDARD PLANS

The following standard plans shall be considered applicable to construction work on this project.

Identification	Date	Identification	Date	Identification	Date
TC-211	10-15-19				
PM-110	10-15-24				
PM-120	10-15-24				

LIST OF UTILITIES

TOWN OF BRUNSVILLE	STEVE DICKMAN	(712)-533-6205
FRONTIER COMMUNICATIONS	TRENT FLOCKHART	(515)-573-1268
MID-AMERICAN ELECTRIC	JOHN ROEST	(712)-548-6198
VERIZON	JEFF HALDIN	(605)-366-8555
NORTHWEST RURAL ELECTRIC COOP	DEREK HAAK	(712)-541-1727
PREMIER COMMUNICATIONS	LES SYBESMA	(712)-722-3451
SOUTHERN SIOUX COUNTY WATER	RUSS COONS	(712)-278-2212



Don Kass
Don Kass-Chairman

Craig Anderson

Mike VanOfferloo

Doug Manley

John Meis

Approved
Board of Supervisors



County Engineer's Seal

I hereby certify that this engineering document was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Thomas G. Rohe
Signature Date

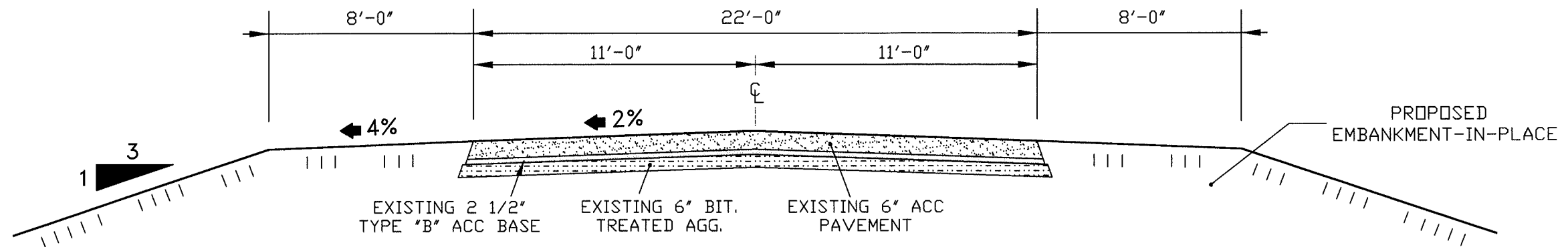
Thomas G. Rohe

My license renewal date is December 31, 2027

Pages or sheets covered by this Seal:

1-20

ESTIMATE OF QUANTITIES					
Ref. No.	Item Code	Item	Unit	Div. 1	Div. 2
1	2102-2625001	EMBANKMENT-IN-PLACE, CONTRACTOR FURNISHED	CY	10,531	-
2	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	CY	5,551	-
3	2115-0100000	MODIFIED SUBBASE	CY	75.12	-
4	2123-7450000	SHOULDER CONSTRUCTION, EARTH	STA	5.52	-
5	2213-2713300	EXCAVATION, CLASS 13, FOR WIDENING	CY	150.43	-
6	2303-0001000	HMA/WEDGE/LEVEL/STRENGTH	TON	134.07	-
7	2303-1258283	ASPHALT BINDER, PG 58-28S, STANDARD TRAFFIC	TON	8.00	-
8	2402-272000	EXCAVATION, CLASS 20	CY	677	-
9	2403-0100000	STRUCTURAL CONCRETE (MISCELLANEOUS)	CY	21	-
10	2404-7775000	REINFORCING STEEL	LB	1,792	-
11	2501-5775000	PILE, STEEL SHEET	SF	288	-
12	2503-0200036	REMOVE STORM SEWER PIPE LESS THAN OR EQUAL TO 36 IN.	LF	32	-
13	2507-3250005	ENGINEERING FABRIC	SY	128.6	-
14	2510-6745850	REMOVAL OF PAVEMENT	SY	469	-
15	2527-9263209	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	STA	7.36	-
16	2528-8445110	TRAFFIC CONTROL	LS	1	-
17	2528-8445113	FLAGGERS	EACH	PER PROPOSAL	-
18	2528-8445115	PILOT CARS	EACH	PER PROPOSAL	-
19	2533-4980005	MOBILIZATION	LS	1	-
20	2555-0000010	DELIVER AND STOCKPILE SALVAGED MATERIAL	LS	-	1
21	2599-9999005	('EACH' ITEM) INSTALL CONCRETE CULVERT EXTENSIONS	EACH	3	-
22	2599-9999005	('EACH' ITEM) REMOVAL OF CONCRETE CULVERT END SECTIONS	EACH	3	-
23	2599-9999020	GRANULAR MATERIAL FOR BEDDING (PLACE ONLY)	TON	42.4	-
24	2601-2634100	MULCHING	ACRE	7.06	-
25	2601-2636043	SEEDING AND FERTILIZING (RURAL)	ACRE	6.08	-
26	2601-2636044	SEEDING AND FERTILIZING (URBAN)	ACRE	0.98	-
27	2602-0000020	SILT FENCE	LF	4,420	-
28	2602-0000030	SILT FENCE FOR DITCH CHECKS	LF	570	-
29	2602-0010010	MOBILIZATION - EROSION CONTROL	EACH	2	-
GENERAL NOTES					
THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES OF THE CONSTRUCTION START DATE.					
REFER TO SHEET 16 FOR LOCATIONS OF UTILITIES AT INTERSECTION OF K-42 AND JET ROAD. UTILITY POWER POLES LOCATED ALONG EAST RIGHT OF WAY FOR 0.4 MILE FROM HIGHWAY 3 HEADING NORTH. TELEPHONE FIBER LOCATED ALONG EAST SHOULDER FROM HIGHWAY 3 TO JET ROAD.					
FINAL PAYMENT FOR EXCAVATION WORK SHALL BE BASED ON CONTRACT QUANTITIES WITH NO REMEASUREMENT.					
THE CONTRACTOR SHALL PROVIDE CERTIFIED PLANT INSPECTION AND THE COUNTY SHALL PROVIDE GRADE INSPECTION ON THIS PROJECT.					
BUILD AMERICA BUY AMERICA (BABA) APPLIES TO THIS PROJECT.					
DIV. 2 ARE NON-PARTICIPATING QUANTITIES.					
ESTIMATE REFERENCE NOTES					
1. THE QUANTITY 10,531 C.Y. FOR EMBANKMENT-IN-PLACE, CONTRACTOR FURNISHED IS BASED ON FILL AND INCLUDES 35% SHRINK. 684 C.Y. OF THIS MATERIAL WILL BE AVAILABLE FROM DITCH CUTS. THE BALANCE OF MATERIAL WILL NEED TO BE SUPPLIED BY THE CONTRACTOR FROM AN OUTSIDE BORROW SITE.					
2. THE CONTRACTOR SHALL REMOVE 6 INCHES OF TOPSOIL FROM SLOPES AND DITCHES WITHIN THE WORK AREA, AND STOCKPILE TOPSOIL ALONG THE INSIDE OF THE 40 FEET ROW OF THE ROADWAY.					
3. SEE PLAN SHEET 16 FOR LOCATIONS AND PLACEMENT OF MODIFIED SUBBASE FOR HMA INTERSECTION WIDENING (6 IN. DEPTH). SHALL MEET I.D.D.T. AGGREGATE SPECIFICATION NO. 14 FOR MODIFIED SUBBASE. CONTRACTOR SHALL SUPPLY AND PLACE MODIFIED SUBBASE.					
4. THE MATERIAL NECESSARY FOR SHOULDERING SHALL BE SUPPLIED BY THE CONTRACTOR. MATERIAL FOR SHOULDER CONSTRUCTION IS NOT AVAILABLE IN THE DITCHES OR BACKSLOPES. LOCATIONS WILL BE ACCEPTABLE PER THE STANDARD SPECIFICATION 2123.02 FOR CONTRACTOR FURNISHED MATERIALS. GRADING OF SHOULDERS SHALL BE PERFORMED AT THE LOCATION OF 170TH ST. INTERSECTION AT NE, NW AND SW RADIUS. REFER TO SHEET 16 FOR DETAILS.					
ESTIMATE REFERENCE NOTES cont...					
5. CLASS 13 EXCAVATION INCLUDES 1 FOOT DEPTH FOR RADIUS WIDENING AT INTERSECTION OF 170TH ST.. MATERIAL MAY BE USED FOR LINE ITEM 1, EMBANKMENT-IN-PLACE. SEE TABULATION OF CLASS 13 EXCAVATION, SHEET 3 FOR DETAILS. REFER TO SHEET 16 FOR LOCATIONS FOR EXCAVATION, CLASS 13, FOR WIDENING.					
6. MIX SHALL CONTAIN 60% CRUSHED PARTICLES. DESIGN WEIGHT FOR ½ IN. MIX IS 145 LBS. PER CUBIC FOOT. SEE PLAN SHEET 16 FOR LOCATIONS AND QUANTITIES OF HOT MIX ASPHALT. THE CONTRACTOR SHALL PROVIDE CERTIFIED PLANT INSPECTION AND THE COUNTY SHALL PROVIDE GRADE INSPECTION.					
8. ITEM INCLUDES EXCAVATION FOR THE 3 CONCRETE CULVERT EXTENSIONS WITHIN THE PROJECT SITE AT STATIONS 35+85 (261 CY), 50+56 (238 CY) AND 56+87 (178 CY). EXCAVATION FOR GRANULAR BEDDING IS INCLUDED IN THE BID ITEM.					
9. ITEM INCLUDES STRUCTURAL CONCRETE FOR THE CONCRETE CULVERT EXTENSIONS. REFER TO SHEETS 5-7, 9-11 AND 13-15 FOR LOCATIONS AND QUANTITIES. CONCRETE MIX DESIGN SHALL BE CLASS 'C'. THE CONTRACTOR SHALL PROVIDE CERTIFIED PLANT INSPECTION AND THE COUNTY SHALL PROVIDE GRADE INSPECTION.					
10. REFER TO SHEETS 5-7, 9-11 AND 13-15 FOR LOCATIONS AND QUANTITIES FOR STRUCTURAL STEEL FOR THE CONCRETE CULVERT EXTENSIONS.					
11. ITEM INCLUDES SHEET PILING FOR THE CONCRETE CULVERT EXTENSIONS. REFER TO SHEETS 5, 6, 9, 10, 13 AND 14 FOR LOCATIONS. SHEET PILING SHALL BE INTERLOCKING 8 Gg. HAVING A WIDTH OF 18 INCHES AND MEET THE FOLLOWING REQUIREMENTS. MINIMUM WEIGHT OF 8.8 lbs/sq. ft.. MINIMUM THICKNESS OF 0.164 INCHES. MINIMUM SECTION MODULUS OF 2.62 In..					
12. A 12 IN. CMP AT STATION 61+95 RT 40' IS TO BE REMOVED AND SHALL REMAIN THE PROPERTY OF PLYMOUTH COUNTY. CONTRACTOR SHALL LOAD THE 12 IN. CMP CAREFULLY ONTO PLYMOUTH COUNTY TRUCK.					
13. ITEM INCLUDES FABRIC FOR BENEATH GRANULAR BEDDING FOR THE CONCRETE CULVERT EXTENSIONS AT STATIONS 35+85, 50+56 AND 56+87. WIDTH OF FABRIC SHALL EXTEND 2 FEET BEYOND OUTSIDE OF CONCRETE CULVERT EXTENSION SIDE WALLS.					
14. SEE TABULATION OF REMOVAL OF PAVEMENT, SHEET 3. SAW CUT INCIDENTAL TO THIS ITEM. INCLUDED IN BID ITEM 20.					
15. SEE TABULATION OF PAVEMENT MARKINGS, SHEET 3. REFER TO STANDARD ROAD PLANS PM-110, FOR STANDARD TYPES OF PAVEMENT MARKINGS.					
16. PROJECT SITE WILL KEEP LIVE TRAFFIC THROUGHOUT CONSTRUCTION WITH USE OF PILOT CAR, FLAGGERS AND OR ONE LANE TRAFFIC. TC-211 (LANE CLOSURE ON LOW VOLUME ROADWAY) SHALL BE USED DURING CONSTRUCTION OF CULVERT EXTENSIONS.					
17. FLAGGERS SHALL BE USED DURING CONSTRUCTION NEAR THE INTERSECTION OF HWY 3 AND K-42 AND ANYTIME NECESSARY THROUGHOUT THE CONSTRUCTION PROJECT.					
20. ALL SALVAGED MATERIAL SHALL BE DELIVERED TO KELLEN EXCAVATION LLC LOCATED IN SECTION 27 AMERICA TWP. STOCKPILE SITE IS 10 MILES SOUTHEAST OF THE SOUTH END OF THIS PROJECT. DELIVER AND STOCKPILE SALVAGED MATERIALS SHALL BE MEASURED ACCORDING TO 2555.04. WITH BASIS OF PAYMENT ACCORDING TO 2555.05. SEE DELIVERY AND STOCKPILING TABLE ON SHEET 3.					
21. THERE ARE 3 SEPARATE CAST IN PLACE CONCRETE BOX CULVERTS ON THE PROJECT SITE NEEDING EXTENSIONS ON BOTH INLET AND OUTLET ENDS. THE 3 CONCRETE BOX CULVERT EXTENSIONS ARE LOCATED AT (STA. 35+85), (STA. 50+56) AND (STA. 56+87). REFER TO PLAN SHEETS 5-16 FOR LOCATIONS AND DETAILS. SEE TABULATION OF BOX CULVERT SECTIONS, SHEET 3. PRECAST CONCRETE BOX EXTENSIONS AND ANCHOR BOLTS WILL BE SUPPLIED BY PLYMOUTH COUNTY. THE UNIT OF MEASUREMENT IS EACH AND WILL INCLUDE BOTH INLET AND OUTLET OF EACH CULVERT EXTENSION AS ONE UNIT AT THE SPECIFIED LOCATIONS. THE BASIS OF PAYMENT IS EACH AND WILL INCLUDE BOTH INLET AND OUTLET OF EACH CULVERT EXTENSION AS ONE UNIT AT THE SPECIFIED LOCATIONS.					
22. THERE ARE 3 SEPARATE CAST IN PLACE CONCRETE BOX CULVERTS ON THE PROJECT SITE NEEDING PART OF BOTH INLET AND OUTLET ENDS TO BE REMOVED. THE 3 EXISTING CONCRETE BOX CULVERTS INCLUDE A 48"x39" (STA. 35+85), A 48"x40" (STA. 50+56) AND A 42"x40" (STA. 56+87). REMOVALS WILL CONSIST OF HAVING TO SAW CUT THE EXISTING CAST IN PLACE BOX CULVERT AS SPECIFIED IN THE PLAN SHEETS. REFER TO PLAN SHEETS 4, 8 AND 12 FOR DETAILS. THE UNIT OF MEASUREMENT IS EACH AND WILL INCLUDE BOTH INLET AND OUTLET OF EACH CULVERT END SECTIONS AS ONE UNIT AT THE SPECIFIED LOCATIONS. THE BASIS OF PAYMENT IS EACH AND WILL INCLUDE BOTH INLET AND OUTLET OF EACH CULVERT END SECTIONS AS ONE UNIT AT THE SPECIFIED LOCATIONS.					
23. ITEM INCLUDES GRANULAR MATERIAL FOR BEDDING FOR THE CONCRETE CULVERT EXTENSIONS. GRANULAR BEDDING DIMENSIONS SHALL BE 2 FEET FROM OUTSIDE WALL OF CONCRETE BOX CULVERT AND AT A DEPTH OF 8 INCHES. GRANULAR MATERIAL FOR BEDDING SHALL BE SUPPLIED BY PLYMOUTH COUNTY. ONLY MATERIAL PLACED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS WILL BE MEASURED. THE QUANTITY OF MATERIAL PLACED WILL BE PAID FOR AT THE CONTRACT PRICE PER TON.					
24. MULCH SHALL CONSIST OF NATIVE GRASS, BROME HAY, OR PRAIRIE HAY APPLIED EVENLY AT A RATE OF 1 1/2 TONS PER ACRE.					
25. RURAL SEED MIXTURE: FAWN FESCUE @ 40 lbs/acre, DATS @ 1 bushel/acre, BROME @ 20 lbs/acre, PERENNIAL RYE @ 30 lbs/acre. FERTILIZER - 500 lbs OF 12-12-12 OR AN EQUIVALENT CHEMICALLY COMBINED COMMERCIAL FERTILIZER/ACRE. QUANTITIES INCLUDE ALL AREAS INSIDE OF THE 40' ROW BOTH SIDES OF THE ROADWAY. EXCLUDING AREAS IN FRONT OF PROPERTY OWNERS DWELLINGS (STA. 10+15 TO 13+60 RT AND STA. 27+75 TO 33+50 LT) AND EAST RADIUS OF JET RD. INTERSECTION NEAR CITY OF BRUNSVILLE.					
26. URBAN SEED MIXTURE SHALL CONSIST OF A THREE WAY BLEND OF THE FOLLOWING: DELAWARE DWARF PERENNIAL RYE @ 80 lbs./acre KENTUCKY BLUEGRASS @ 80 lbs./acre, AND CREEPING RED FESCUE @ 80 lbs./acre. ALL THREE SHOULD HAVE 98% PURITY AND 85% GERMINATION RATE OR HIGHER. FERTILIZER - 500 LBS. OF 12-12-12 OR AN EQUIVALENT CHEMICALLY COMBINED COMMERCIAL FERTILIZER/ACRE. QUANTITIES INCLUDE IN FRONT OF PROPERTY OWNERS DWELLINGS (STA. 10+15 TO 13+60 RT AND STA. 27+75 TO 33+50 LT) AND EAST RADIUS OF JET RD. INTERSECTION NEAR CITY OF BRUNSVILLE.					
PLYMOUTH COUNTY PROJECT NO. FM-TSF-C075(182)--5B-75					
SHEET 2					



TYPICAL CROSS SECTION
STA. 10+50 TO 61+40

TABULATION OF CLASS 13 EXCAVATION

ROAD IDENTIFICATION	BEGIN STATION	END STATION	SIDE	LENGTH	TRENCH WIDTH	TRENCH DEPTH	TOTAL CY
K-42	170th ST. & JET RD INTERSECTION		LT & RT	VARIES	VARIES	1'-0"	126.1
TOTAL QUANTITY							126.1

TABULATION OF REMOVAL OF PAVEMENT

BEGIN STATION	END STATION	SIDE	PAVEMENT TYPE	PAVEMENT THICKNESS	AREA SY	SAW CUT* LF	REMARKS
61+00.6	62+65.2	RT	HMA	0'-9 1/2'	469.0	184.0	MAINLINE K-42 - RT TURN LANE ONTO 170TH ST.
TOTAL QUANTITY					469.0	184.0	* NOT A BID ITEM

TABULATION OF BOX CULVERT SECTIONS

STATION	LT/RT	4'x4'	4'x5'	4'x6'	END SECTION
35+85	LT	-	1 - 4' BARREL 1 - 6' BARREL	-	#3 & #4
35+85	RT	1 - 4' BARREL 2 - 6' BARRELS	-	-	#1
50+56	LT	-	1 - 4' BARREL 2 - 6' BARRELS	-	#3 & #4
50+56	RT	1 - 4' BARREL 2 - 6' BARRELS	-	-	#1
56+87	LT	-	-	1 - 4' BARREL 2 - 6' BARRELS	#1 & #2
56+87	RT	3 - 6' BARRELS	-	-	#1
TOTALS		2 - 4' BARRELS 7 - 6' BARRELS	2 - 4' BARRELS 3 - 6' BARRELS	1 - 4' BARREL 2 - 6' BARRELS	4-#1 1-#2 2-#3 2-#4

TABULATION OF SILT FENCE FOR DITCH CHECKS

STATION	SIDE	LENGTH	STATION	SIDE	LENGTH	STATION	SIDE	LENGTH
11+75	RT.	15'	27+00	RT.	15'	48+00	LT. & RT.	30'
15+00	LT. & RT.	30'	28+00	RT.	15'	49+00	RT.	15'
16+00	LT. & RT.	30'	31+50	LT. & RT.	30'	50+00	RT.	15'
17+00	LT. & RT.	30'	32+50	LT. & RT.	30'	52+50	RT.	15'
17+75	RT.	15'	37+50	RT.	15'	54+50	RT.	15'
19+00	RT.	15'	38+50	RT.	15'	55+50	RT.	15'
21+00	RT.	15'	41+00	RT.	15'	57+50	RT.	15'
23+00	RT.	15'	45+00	RT.	15'	59+50	RT.	15'
24+00	RT.	15'	46+00	LT. & RT.	30'	On JET RD. 120 Ft. East	RT.	30'
25+00	RT.	15'	47+00	LT. & RT.	30'	TOTAL LINEAR FEET =		570'

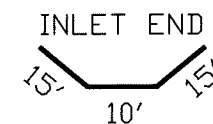
DELIVERY AND STOCKPILING

LINE NO.	ITEM DESCRIPTION	QUANTITY	QUANTITY UNITS	DELIVERY LOCATION	CONTACT NAME	CONTACT NUMBER	REMARKS
12	REMOVE STORM SEWER PIPE LESS THAN OR EQUAL TO 35 IN.	32	LF	K-42/JET RD INTERSECTION	TOM ROHE	(712)-546-4559	SHALL BE LOADED ONTO COUNTY TRUCKS ON PROJECT SITE
14	REMOVAL OF PAVEMENT	469	SY	KELLEN EXCAVATION LLC	TOM ROHE	(712)-546-4559	LOCATION - ML K-42 RT TURN LANE ONTO JETT ROAD

TABULATION OF SILT FENCE FOR
ALONG ROW & PIPE INLETS

STATION	TYPE	SIDE	LENGTH	STATION	TYPE	SIDE	LENGTH
10+50 to 12+75	ALONG ROW	LT.	225'	10+50	PIPE INLET	RT.	15'
17+75 to 27+10	ALONG ROW	LT.	935'	18+10	PIPE INLET	RT.	40'
27+75 to 29+00	ALONG ROW	LT.	125'	22+00	PIPE INLET	RT.	40'
33+00 to 36+25	ALONG ROW	LT.	325'	26+10	PIPE INLET	RT.	40'
33+00 to 36+00	ALONG ROW	RT.	300'	35+70	PIPE INLET	RT.	40'
36+75 to 43+00	ALONG ROW	LT.	625'	50+56	PIPE INLET	RT.	40'
43+50 to 46+00	ALONG ROW	LT.	250'	55+00	PIPE INLET	RT.	40'
48+00 to 61+40	ALONG ROW	LT.	1,340'	57+00	PIPE INLET	RT.	40'
TOTAL LINEAR FEET =			4,125'	TOTAL LINEAR FEET =			295'

TYPICAL SILT FENCE LAYOUT
FOR DRAINAGE STRUCTURES



TABULATION OF SEEDING & FERTILIZING
(RURAL)

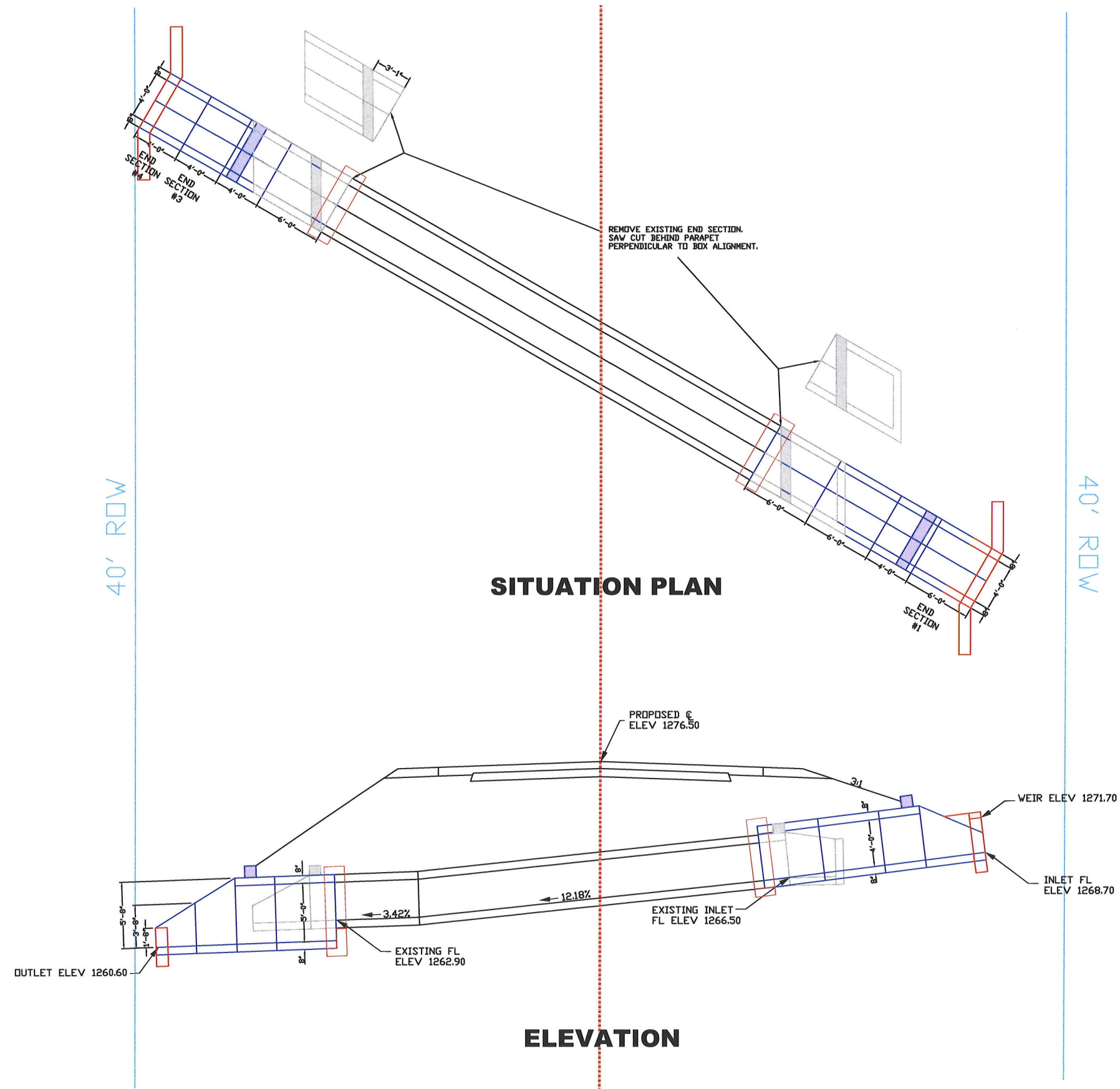
STATION	SIDE	ACRES	STATION	SIDE	ACRES
10+50 to 27+40	LT.	1.13	27+70 to 30+43	LT.	0.18
33+40 to 61+40	LT.	1.86	30+75 to 33+40	LT.	0.18
13+50 to 59+30	RT.	3.05	10+50 to 12+83	RT.	0.16
61+40 to 62+71	LT.	0.02	13+05 to 13+50	RT.	0.03
62+94 to 63+70	LT.	0.02	59+30 to 62+62	RT.	0.39
			62+88 to 63+83	RT.	0.04
TOTAL ACRES =		6.08	TOTAL ACRES =		0.98

TABULATION OF PAVEMENT MARKINGS

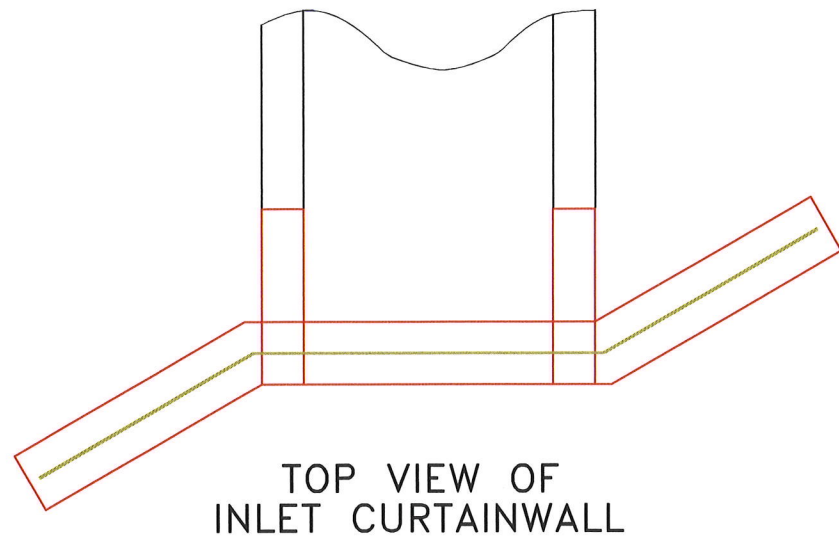
4' EDGELINES (ELW4)	
Location	LIn. Ft.
ALL RADIUS AT 170th ST.	512
2 STOP BAR LOCATIONS	224
TOTAL LIN. FT. EWL4 FACTOR 0.67	736 493
STOP BARS AT (28' LONG x 24'x6' x 4J) = 112' STOP BAR LOCATIONS: (2X) 170TH ST. & JET RD.	
TOTAL QUANTITY = 736 = 7.36 STATIONS	



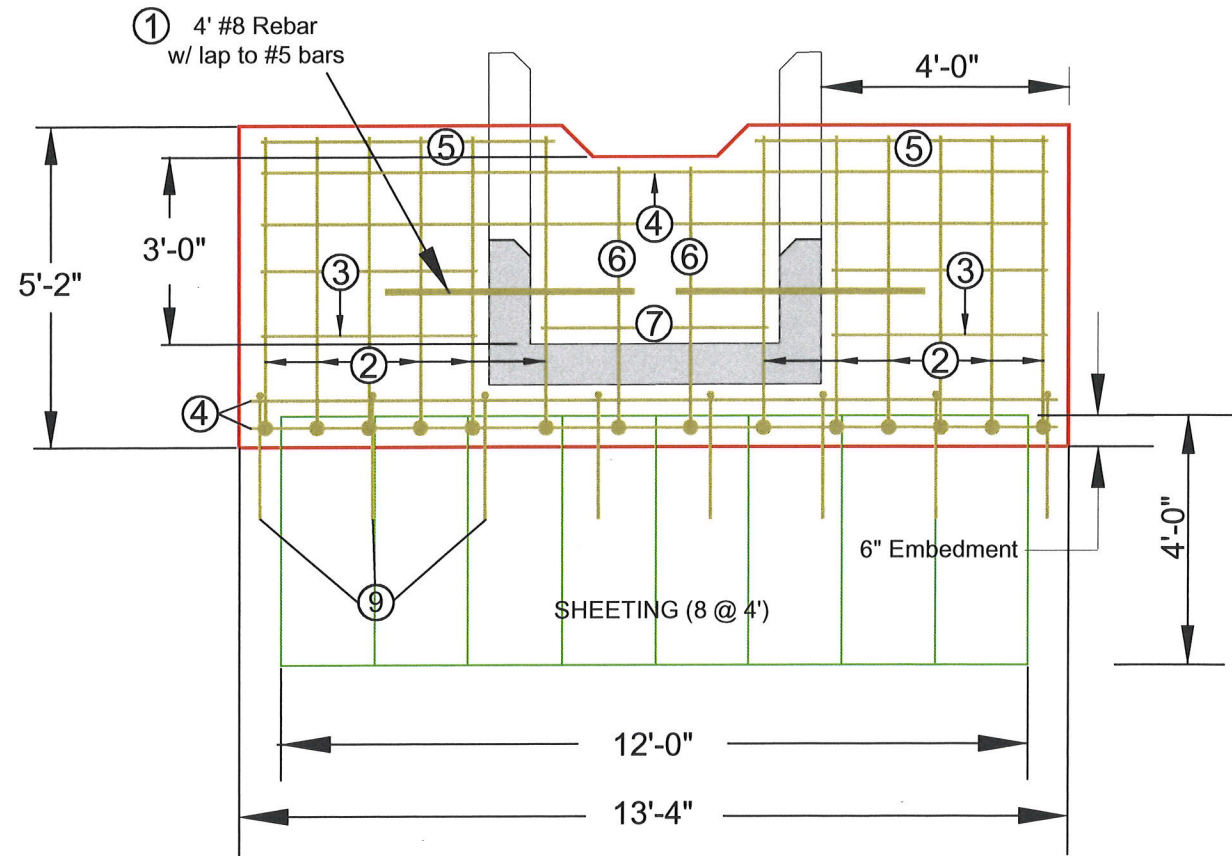
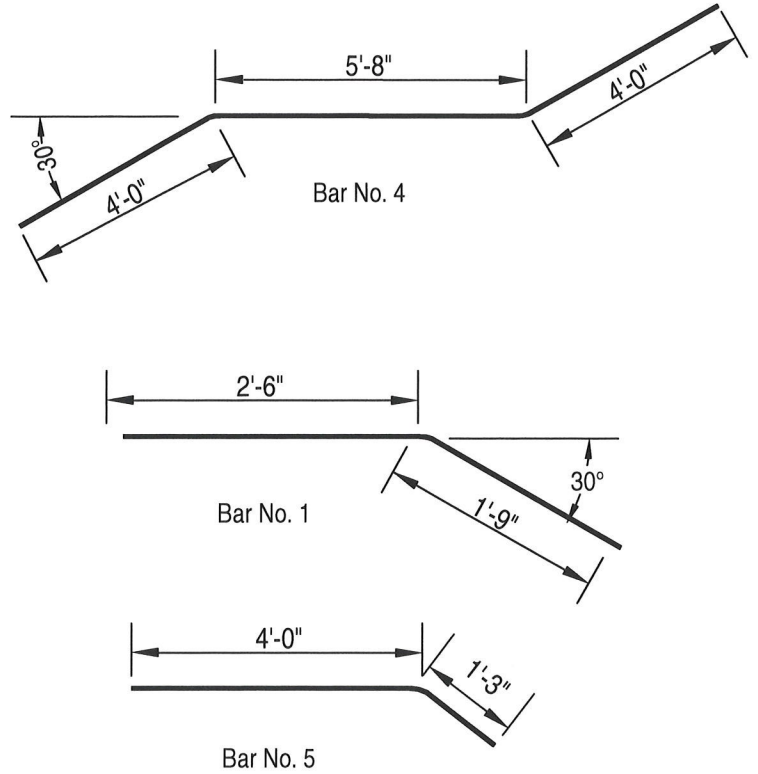
Scale 1" = 10'



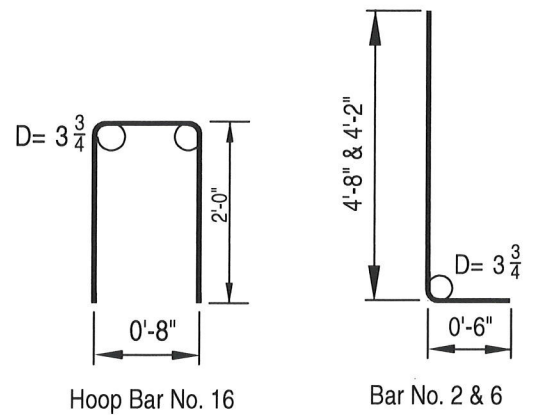
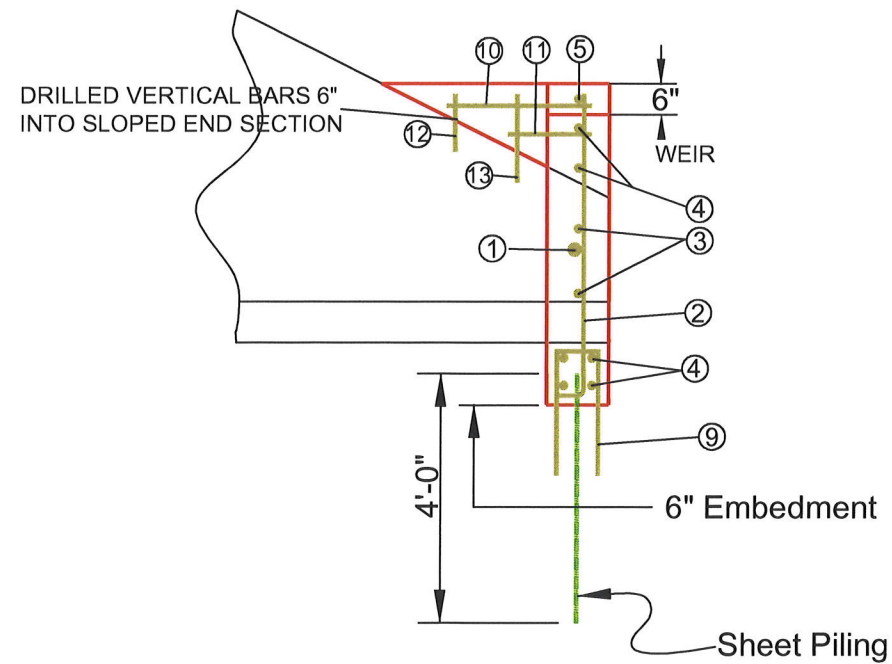
35+85
48" x 36" x 58' Box
Skew 30° L.A.



BILL OF REINFORCING FOR DROP INLET & CURTAINWALL						
LOCATION	BAR	SIZE	SHAPE	QTY.	LENGTH	WT.
HORIZONTAL	①	8	—	2	4'-3"	23
VERTICAL	②	5	—	12	5'-2"	65
HORIZONTAL	③	5	—	4	4'-0"	17
HORIZONTAL	④	5	—	6	13'-8"	86
HORIZONTAL	⑤	5	—	2	5'-3"	11
VERTICAL	⑥	5	—	2	4'-8"	10
HORIZONTAL	⑦	5	—	1	3'-8"	4
HORIZONTAL	⑧	5	—	0	0'-0"	0
VERTICAL	⑨	5	—	8	4'-8"	39
HORIZONTAL	⑩	5	—	2	2'-4"	5
HORIZONTAL	⑪	5	—	2	1'-4"	3
VERTICAL	⑫	5	—	2	1'-0"	2
VERTICAL	⑬	5	—	2	1'-5"	3
ESTIMATE OF QUANTITIES		CONCRETE 2.8 CY		REINFORCING STEEL 268 LB		

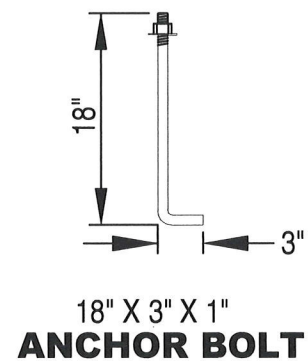
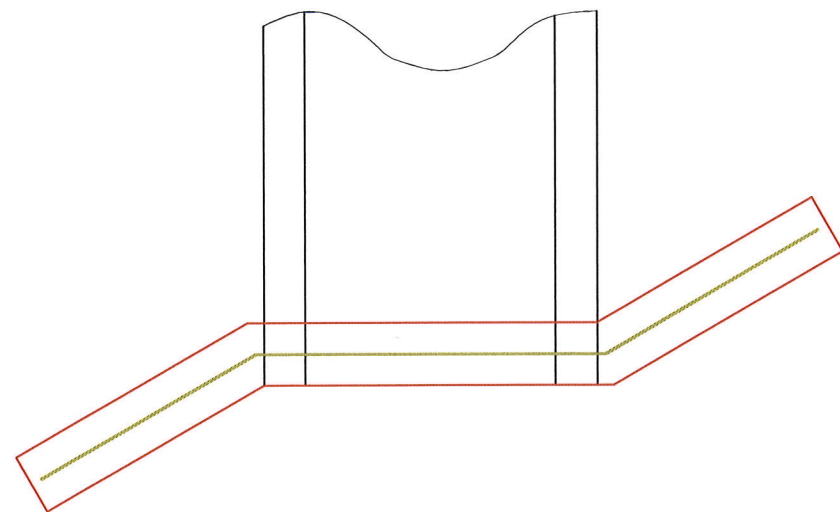


BARS 1, 2 & 6 SHALL BE PLACED THRU THE FLOOR AND WINGWALLS OF THE END SECTIONS AS DETAILED HERE.

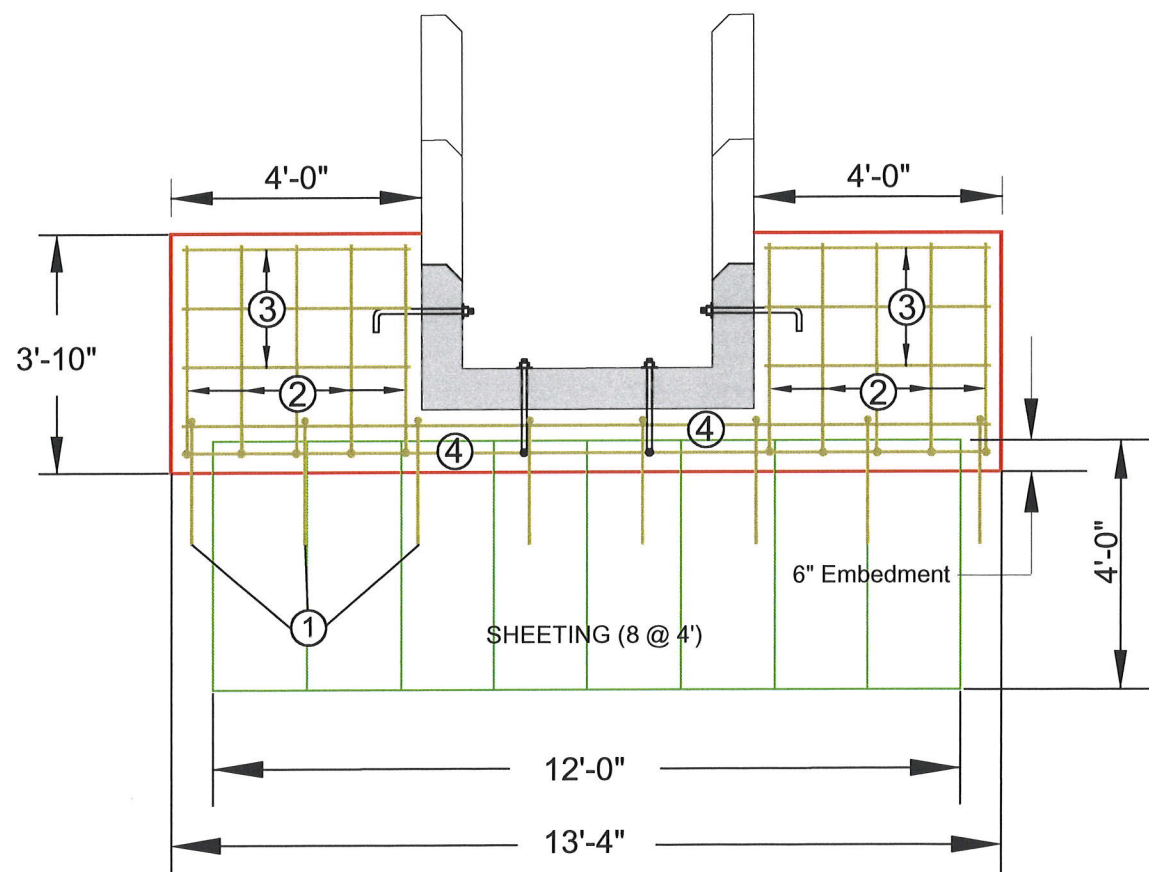


BENT BAR DETAILS

Note: No. 2 & 6 bars shall be inserted through the sheet piling.
Minimum bar end clearance = 2 inches
Minimum bar edge clearance = 3 inches



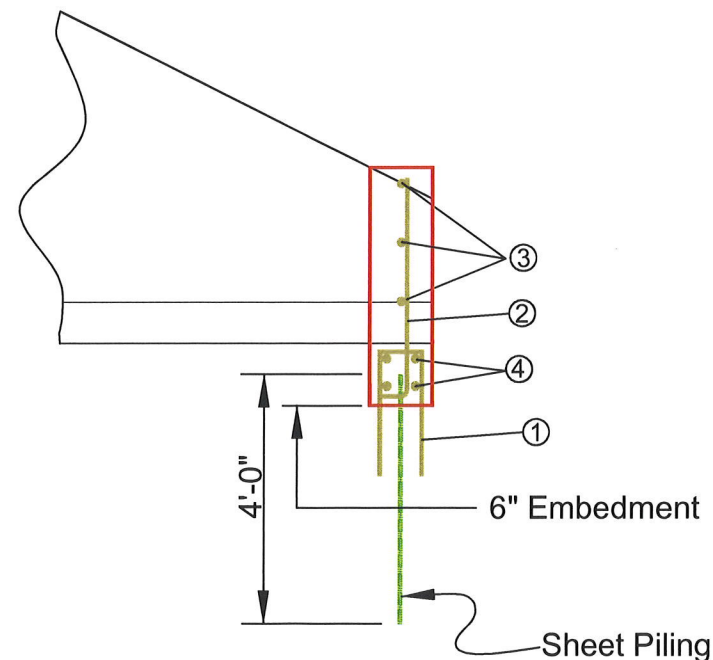
BILL OF REINFORCING FOR OUTLET CURTAINWALL						
LOCATION	BAR	SIZE	SHAPE	QTY.	LENGTH	WT.
VERTICAL	①	5		8	4'-8"	39
VERTICAL	②	5		10	4'-0"	42
HORIZONTAL	③	5		6	4'-0"	25
HORIZONTAL	④	5		4	13'-8"	57
ESTIMATE OF QUANTITIES	18" x 3" x 1" Anchor Bolts 4		CONCRETE 1.4 CY		REINFORCING STEEL 163 LB	



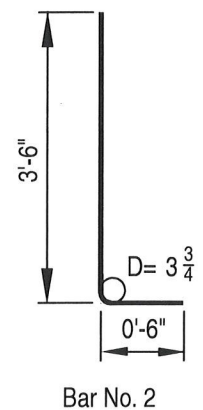
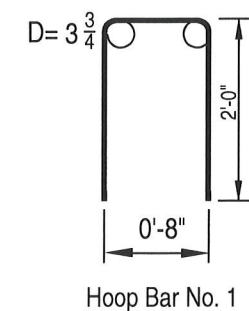
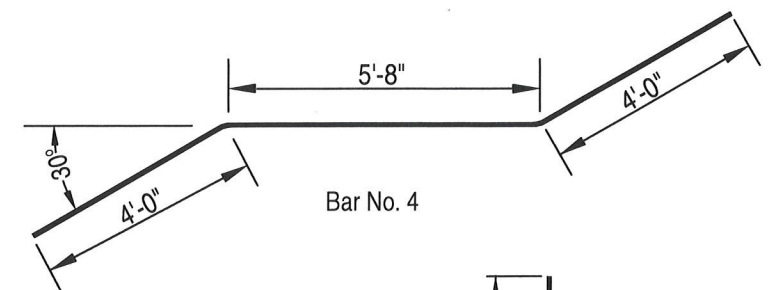
ANCHOR BOLTS SHALL BE PLACED THRU THE FLOOR AND WINGWALLS OF THE END SECTIONS AS DETAILED HERE.

OUTLET CURTAINWALL DETAIL

Scale 1" = 3'



SIDEVIEW OF
OUTLET CURTAINWALL

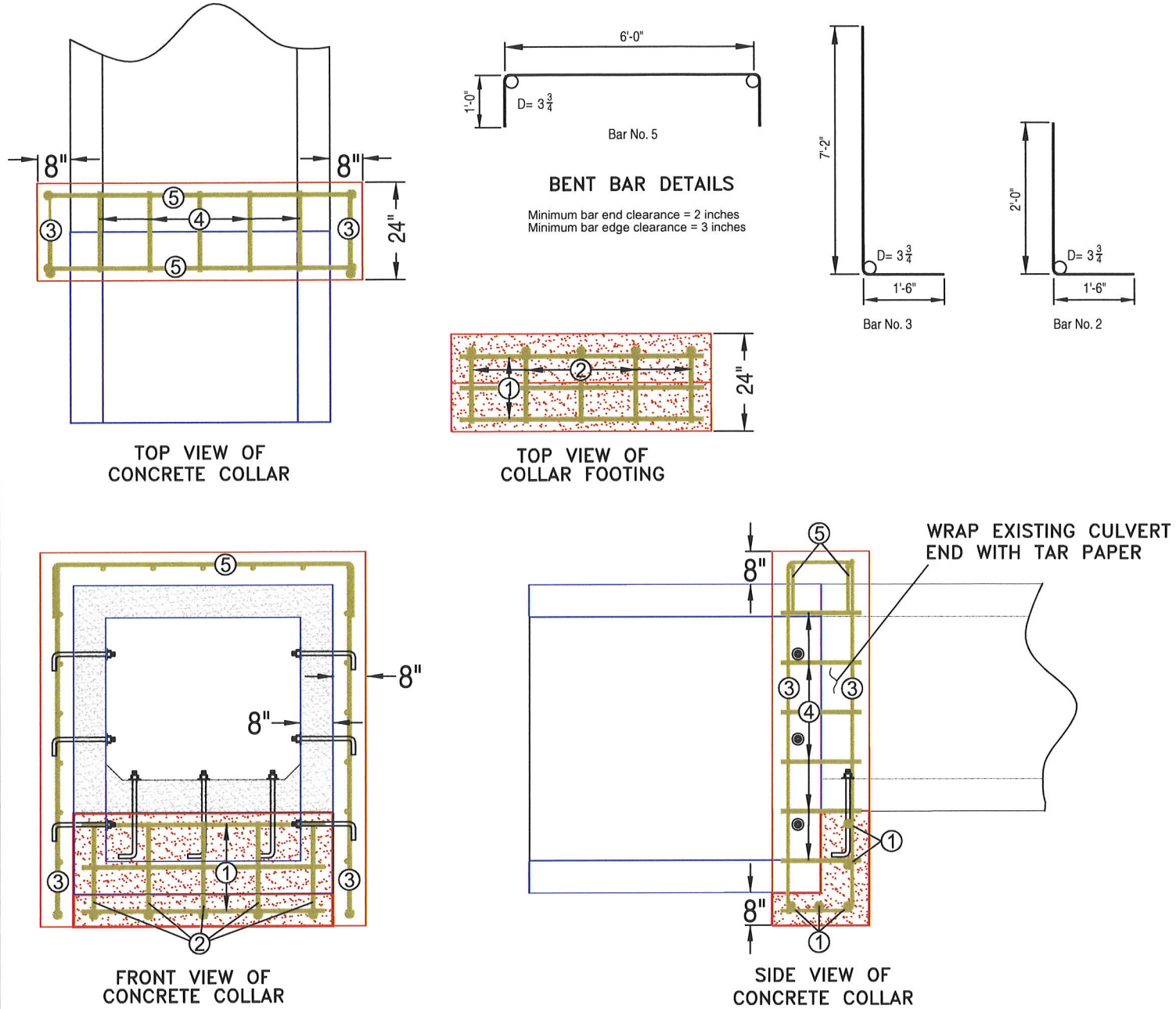


BENT BAR DETAILS

Note: No. 2 bars shall be inserted through the sheet piling.
Minimum bar end clearance = 2 inches
Minimum bar edge clearance = 3 inches

35+85
48" x 36" x 58' Box
Skew 30° L.A.

4' x 3' to 4' x 5' CONCRETE COLLAR

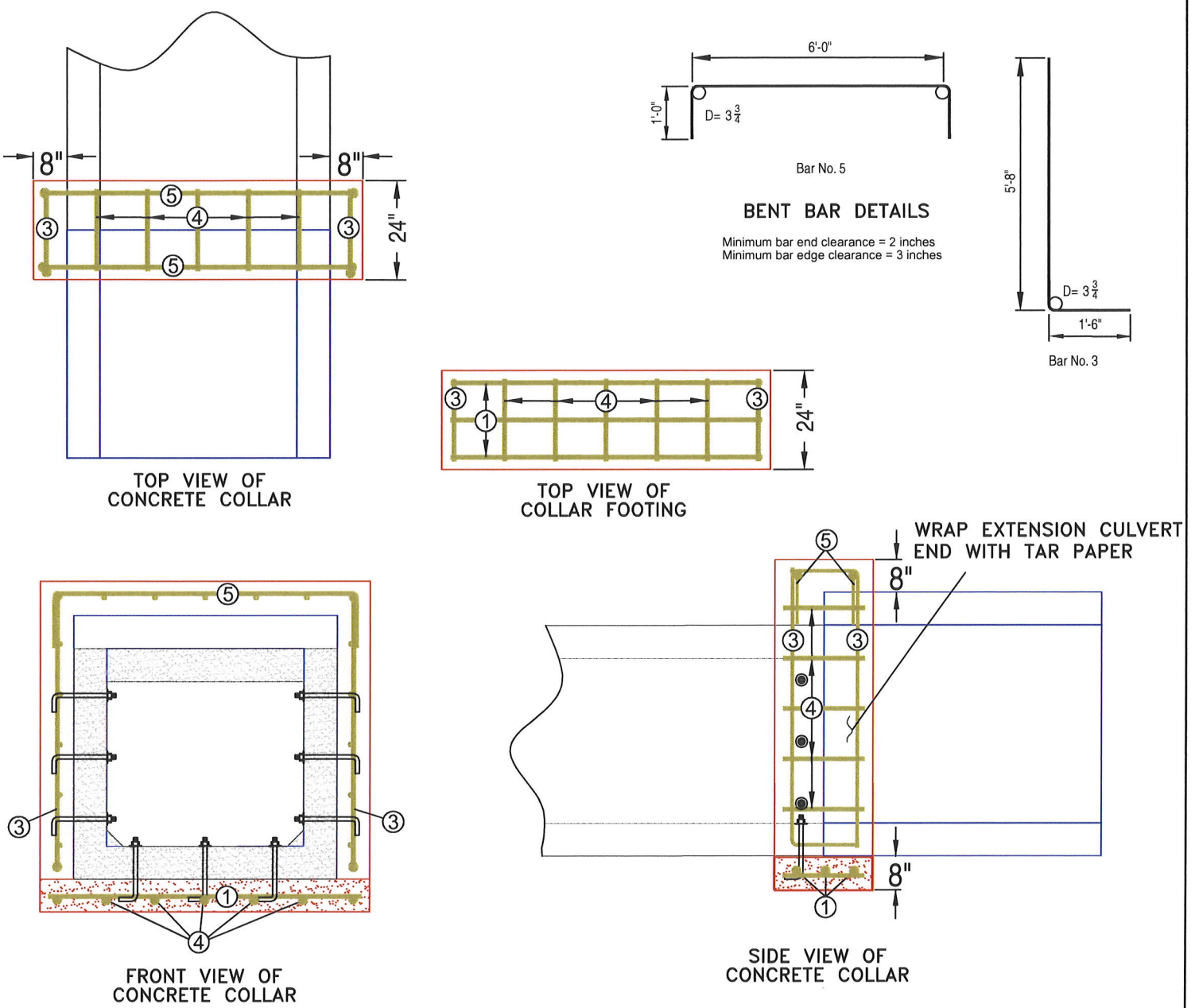


Scale 1" = 3'

NOTE: 14" ANCHOR BOLTS SHALL BE PLACED THRU THE WALLS OF NEW BARREL & 18" ANCHOR BOLTS PLACED THRU THE FLOOR OF EXISTING CULVERT AS DETAILED HERE.

BILL OF REINFORCING FOR CONCRETE COLLAR						
LOCATION	BAR	SIZE	SHAPE	QTY.	LENGTH	WT.
HORIZONTAL	①	4	—	5	5'-0"	21
VERTICAL	②	4	┘	5	3'-6"	12
VERTICAL	③	4	┘	4	8'-8"	24
HORIZONTAL	④	4	—	17	1'-8"	19
HORIZONTAL	⑤	4	┘	2	8'-0"	11
ESTIMATE OF QUANTITIES	18" x 3" x 1" 3 14" x 3" x 1" 6 Anchor Bolts	CONCRETE 1.6 CY	REINFORCING STEEL 87 LB			

4' x 3' to 4' x 4' CONCRETE COLLAR



Scale 1" = 3'

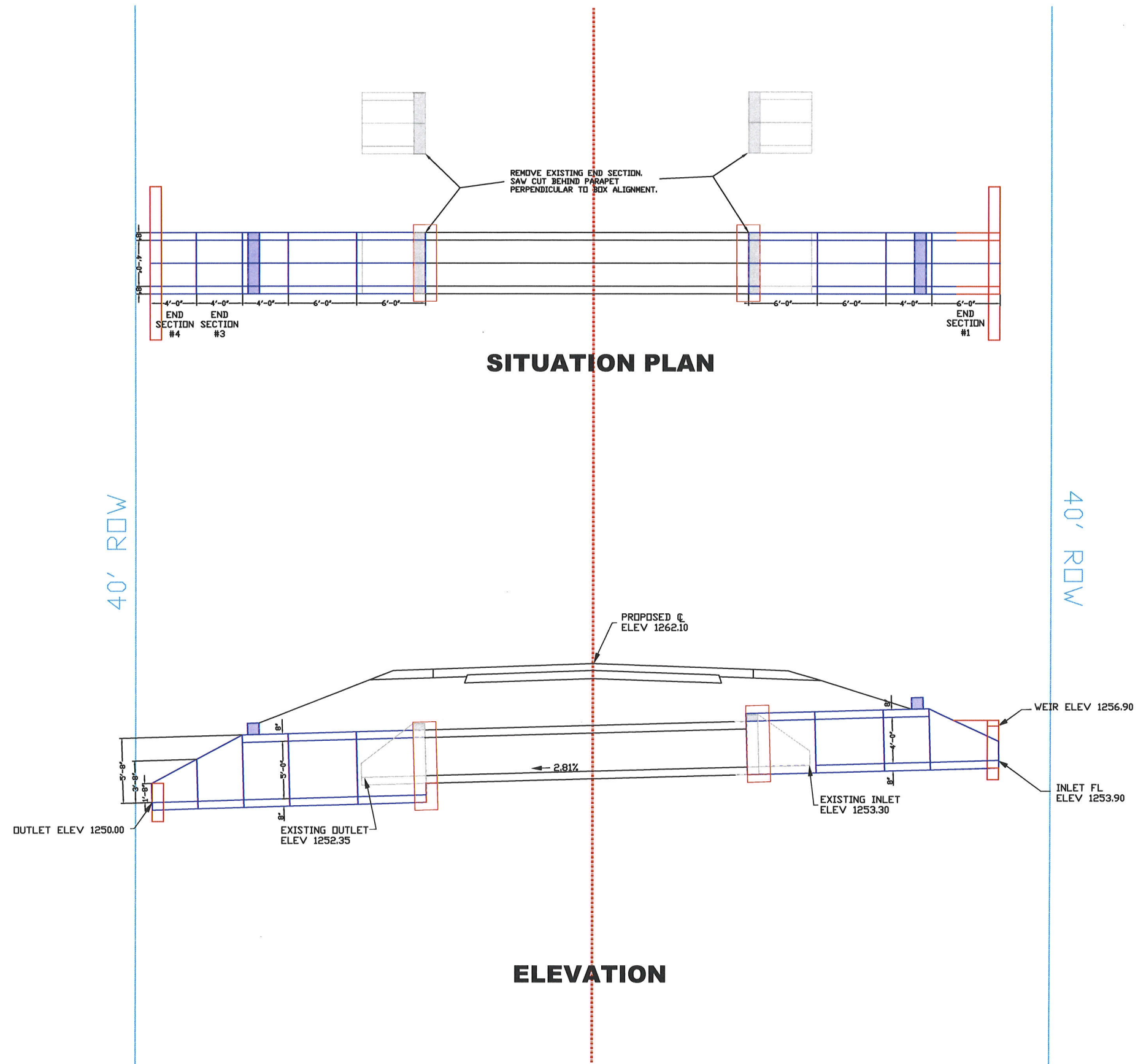
NOTE: 14" ANCHOR BOLTS SHALL BE PLACED THRU THE WALLS AND FLOOR OF EXISTING CULVERT AS DETAILED HERE.

BILL OF REINFORCING FOR CONCRETE COLLAR						
LOCATION	BAR	SIZE	SHAPE	QTY.	LENGTH	WT.
HORIZONTAL	①	4	—	3	6'-4"	13
VERTICAL	②	0	┘	0	0'-0"	0
VERTICAL	③	4	┘	4	7'-2"	19
HORIZONTAL	④	4	—	22	1'-8"	24
HORIZONTAL	⑤	4	┘	2	8'-0"	11
ESTIMATE OF QUANTITIES	14" x 3" x 1" 9 Anchor Bolts	CONCRETE 1.2 CY	REINFORCING STEEL 84 LB			

35+85
48" x 36" x 58' Box
Skew 30° L.A.

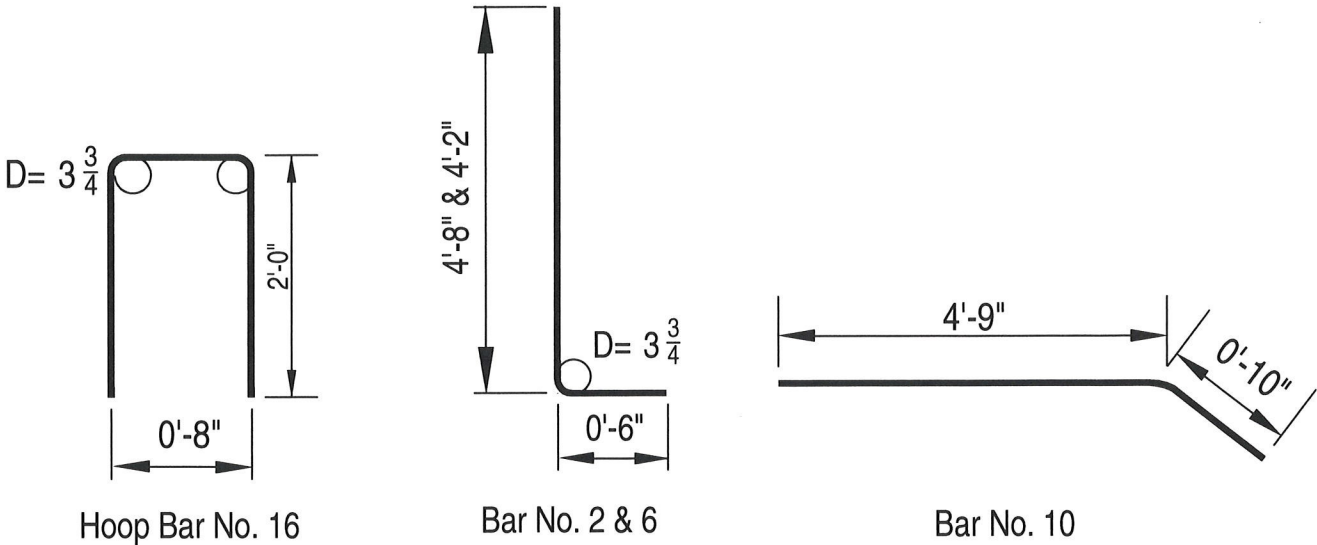


Scale 1" = 10'

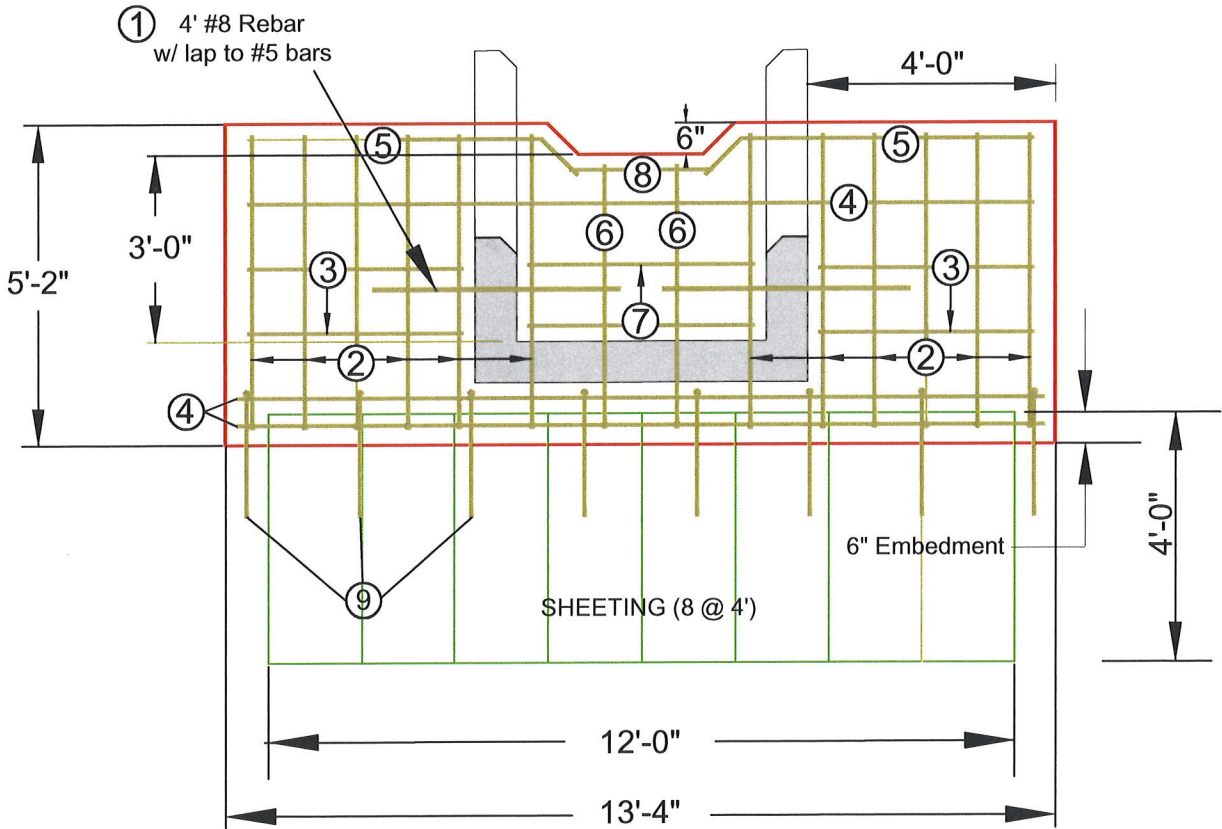


50+56
48" x 36" x 39' Box
Skew 0°

BILL OF REINFORCING FOR DROP INLET & CURTAINWALL						
LOCATION	BAR	SIZE	SHAPE	QTY.	LENGTH	WT.
HORIZONTAL	①	8	—	2	4'-0"	22
VERTICAL	②	5	┘	12	5'-2"	65
HORIZONTAL	③	5	—	4	3'-6"	15
HORIZONTAL	④	5	—	5	13'-0"	68
HORIZONTAL	⑤	5	┘	2	5'-7"	12
VERTICAL	⑥	5	┘	2	4'-8"	10
HORIZONTAL	⑦	5	—	2	3'-8"	8
HORIZONTAL	⑧	5	—	1	2'-4"	3
VERTICAL	⑨	5	▬	8	4'-8"	39
HORIZONTAL	⑩	5	—	2	2'-4"	5
HORIZONTAL	⑪	5	—	2	1'-4"	3
VERTICAL	⑫	5	—	2	1'-0"	2
VERTICAL	⑬	5	—	2	1'-5"	3
ESTIMATE OF QUANTITIES		CONCRETE 2.7 CY		REINFORCING STEEL 255 LB		

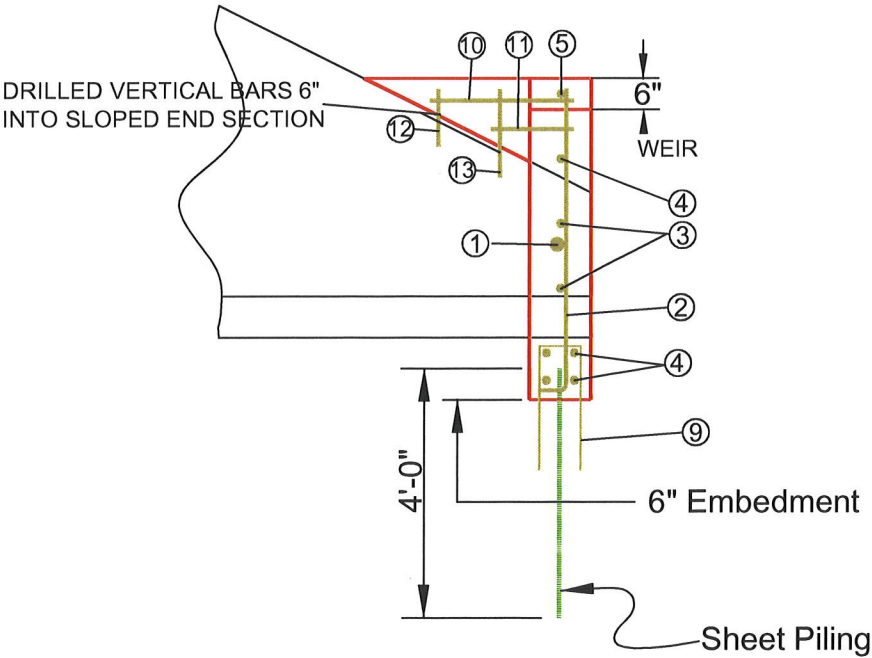


BENT BAR DETAILS
 Note: No. 2 & 6 bars shall be inserted through the sheet piling.
 Minimum bar end clearance = 2 inches
 Minimum bar edge clearance = 3 inches



BARS 1, 2 & 6 SHALL BE PLACED THRU THE FLOOR AND WINGWALLS OF THE END SECTIONS AS DETAILED HERE.

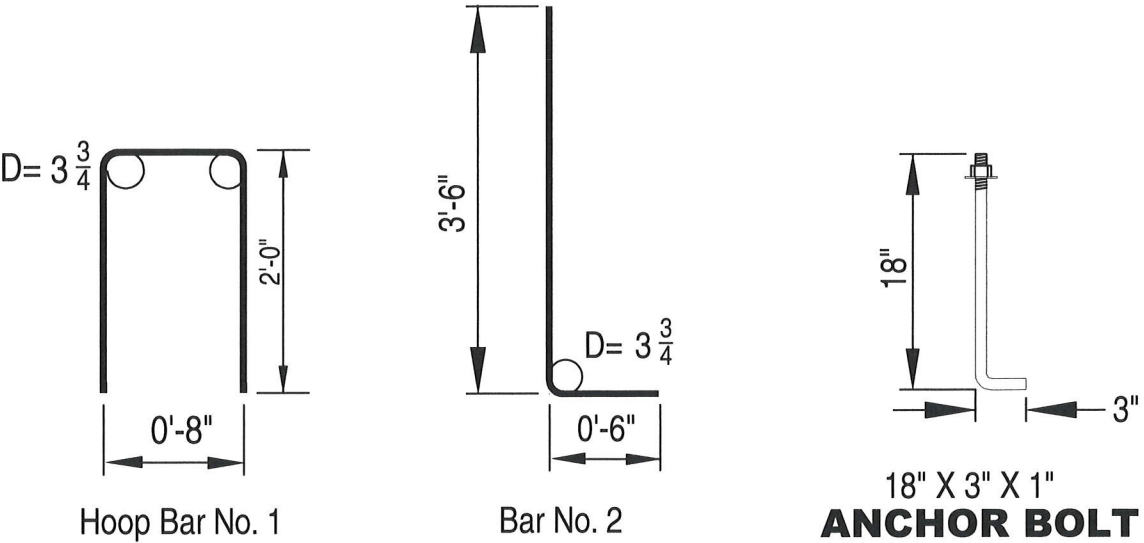
INLET CURTAINWALL & WEIR DETAIL
 Scale 1" = 3'



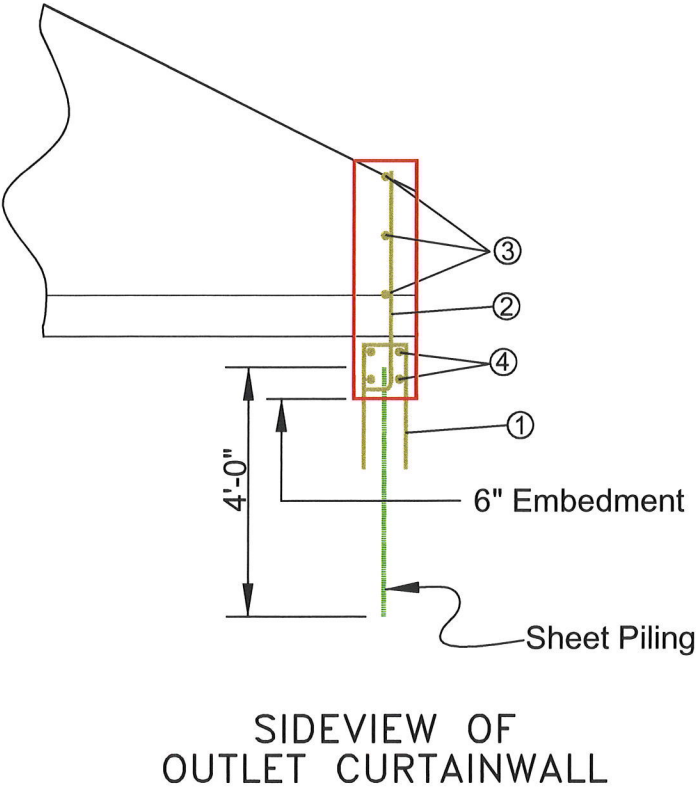
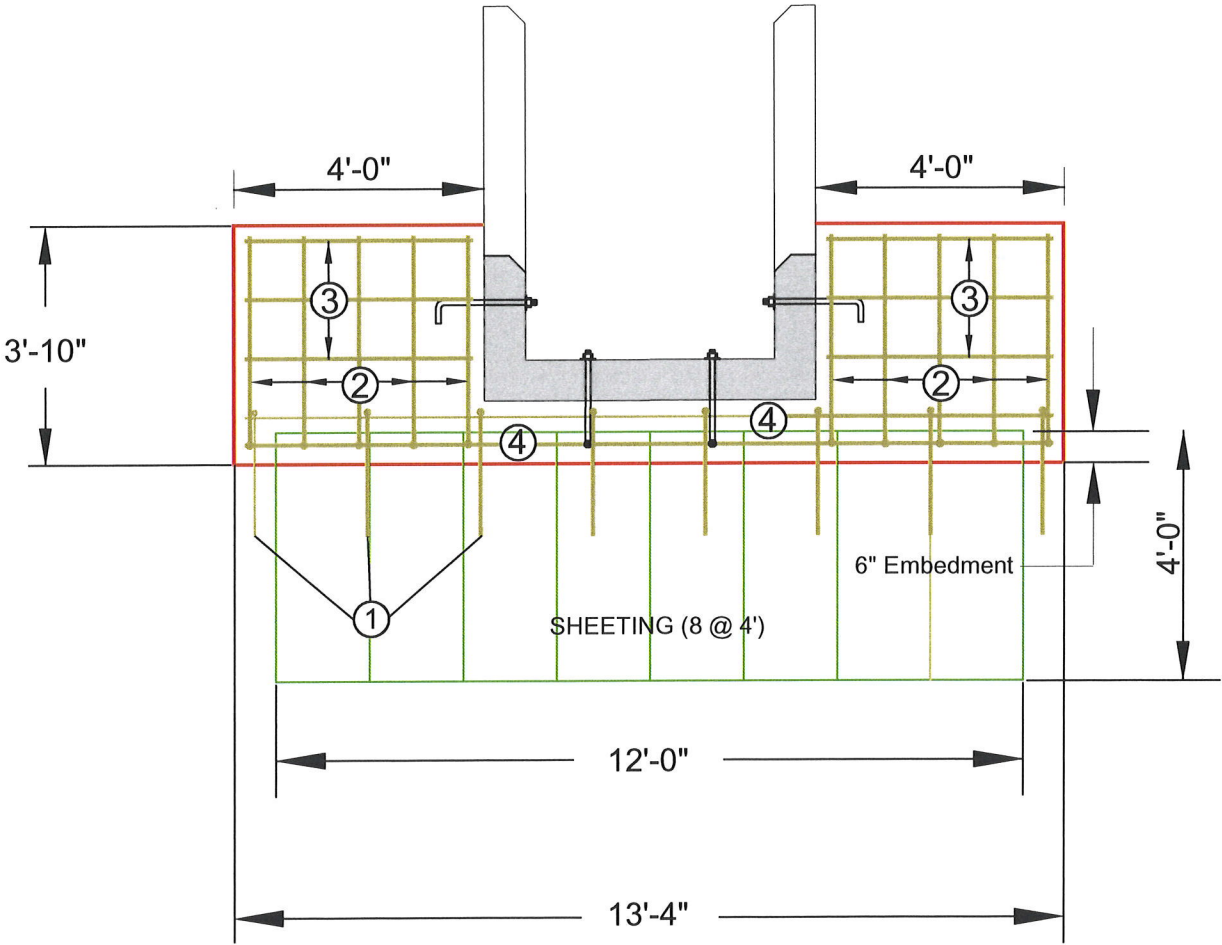
SIDEVIEW OF INLET CURTAINWALL

50+56
 48" x 36" x 39' Box
 Skew 0°

BILL OF REINFORCING FOR OUTLET CURTAINWALL						
LOCATION	BAR	SIZE	SHAPE	QTY.	LENGTH	WT.
VERTICAL	①	5		8	4'-8"	39
VERTICAL	②	5		10	4'-0"	42
HORIZONTAL	③	5		6	3'-8"	22
HORIZONTAL	④	5		4	13'-0"	54
ESTIMATE OF QUANTITIES	18" x 3" x 1" Anchor Bolts	4	CONCRETE	1.3 CY	REINFORCING STEEL	157 LB



BENT BAR DETAILS
 Note: No. 2 bars shall be inserted through the sheet piling.
 Minimum bar end clearance = 2 inches
 Minimum bar edge clearance = 3 inches

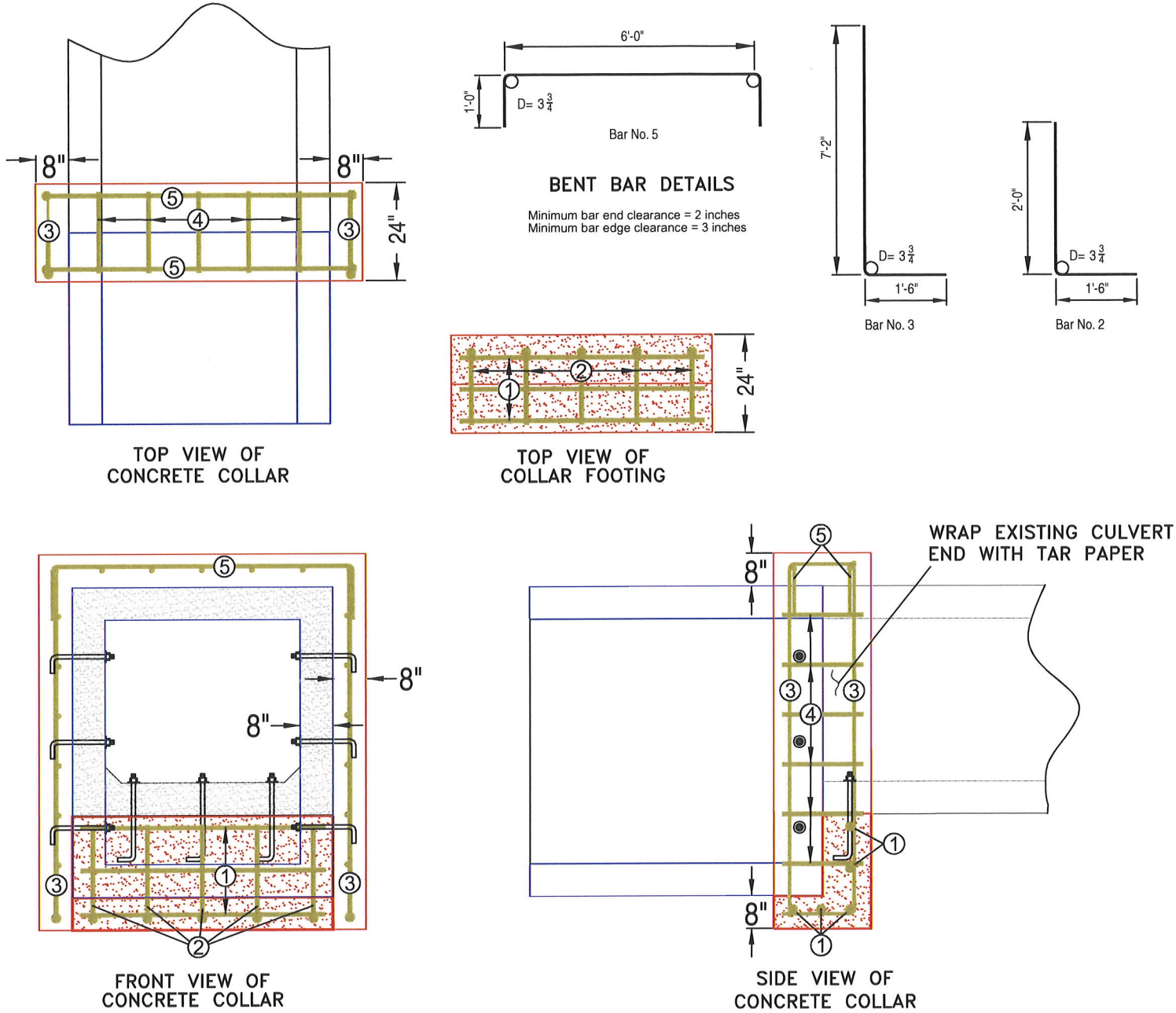


ANCHOR BOLTS SHALL BE PLACED THRU THE FLOOR AND WINGWALLS OF THE END SECTIONS AS DETAILED HERE.

OUTLET CURTAINWALL DETAIL
 Scale 1" = 3'

50+56
 48" x 36" x 39' Box
 Skew 0°

4' x 3' to 4' x 5' CONCRETE COLLAR

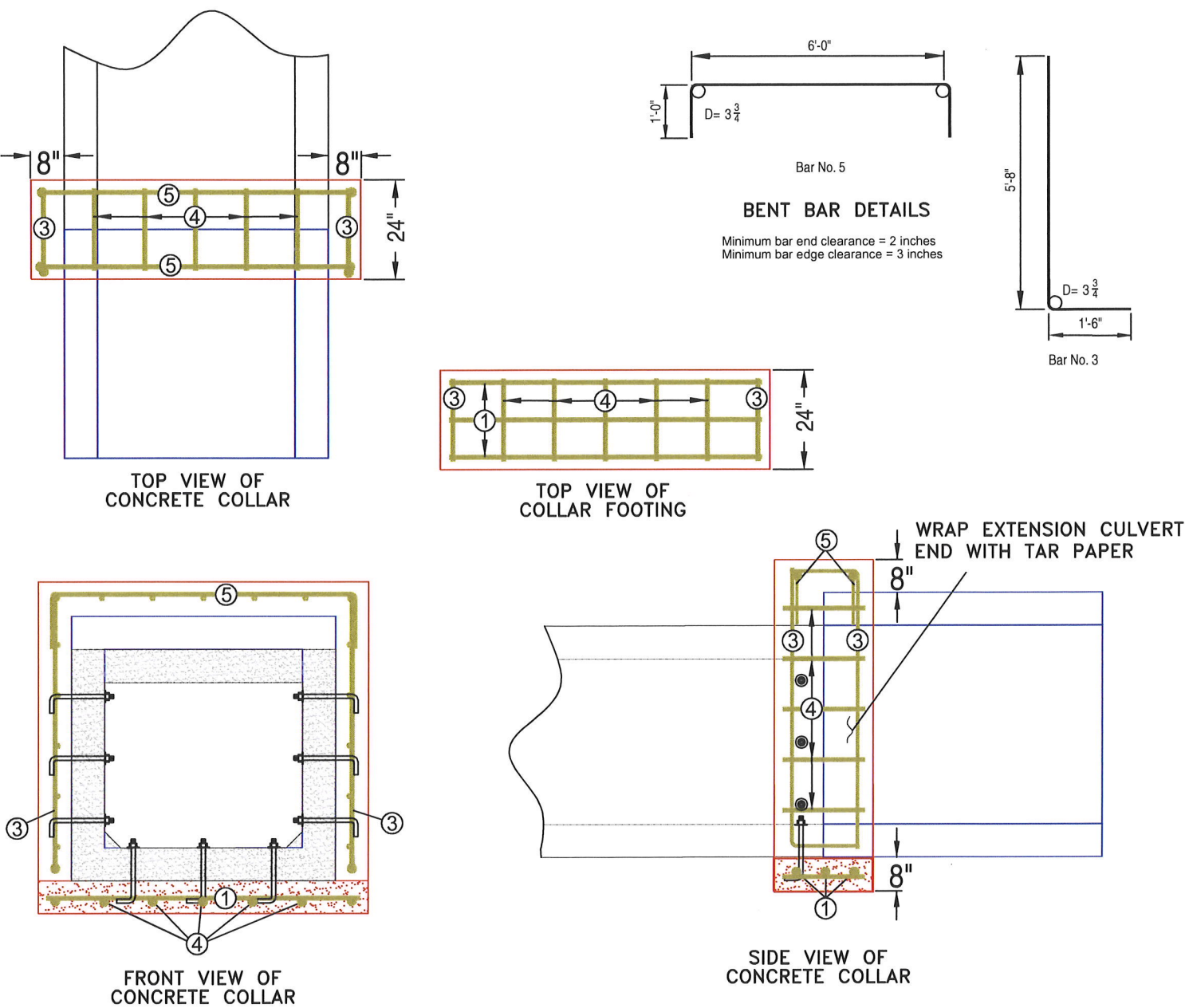


Scale 1" = 3'

NOTE: 14" ANCHOR BOLTS SHALL BE PLACED THRU THE WALLS OF NEW BARREL & 18" ANCHOR BOLTS PLACED THRU THE FLOOR OF EXISTING CULVERT AS DETAILED HERE.

BILL OF REINFORCING FOR CONCRETE COLLAR						
LOCATION	BAR	SIZE	SHAPE	QTY.	LENGTH	WT.
HORIZONTAL	①	4	—	5	5'-0"	21
VERTICAL	②	4	┘	5	3'-6"	12
VERTICAL	③	4	┘	4	8'-8"	24
HORIZONTAL	④	4	—	17	1'-8"	19
HORIZONTAL	⑤	4	┘	2	8'-0"	11
ESTIMATE OF QUANTITIES	18" x 3" x 1" 3 14" x 3" x 1" 6 Anchor Bolts	CONCRETE 1.6 CY	REINFORCING STEEL 87 LB			

4' x 3' to 4' x 4' CONCRETE COLLAR

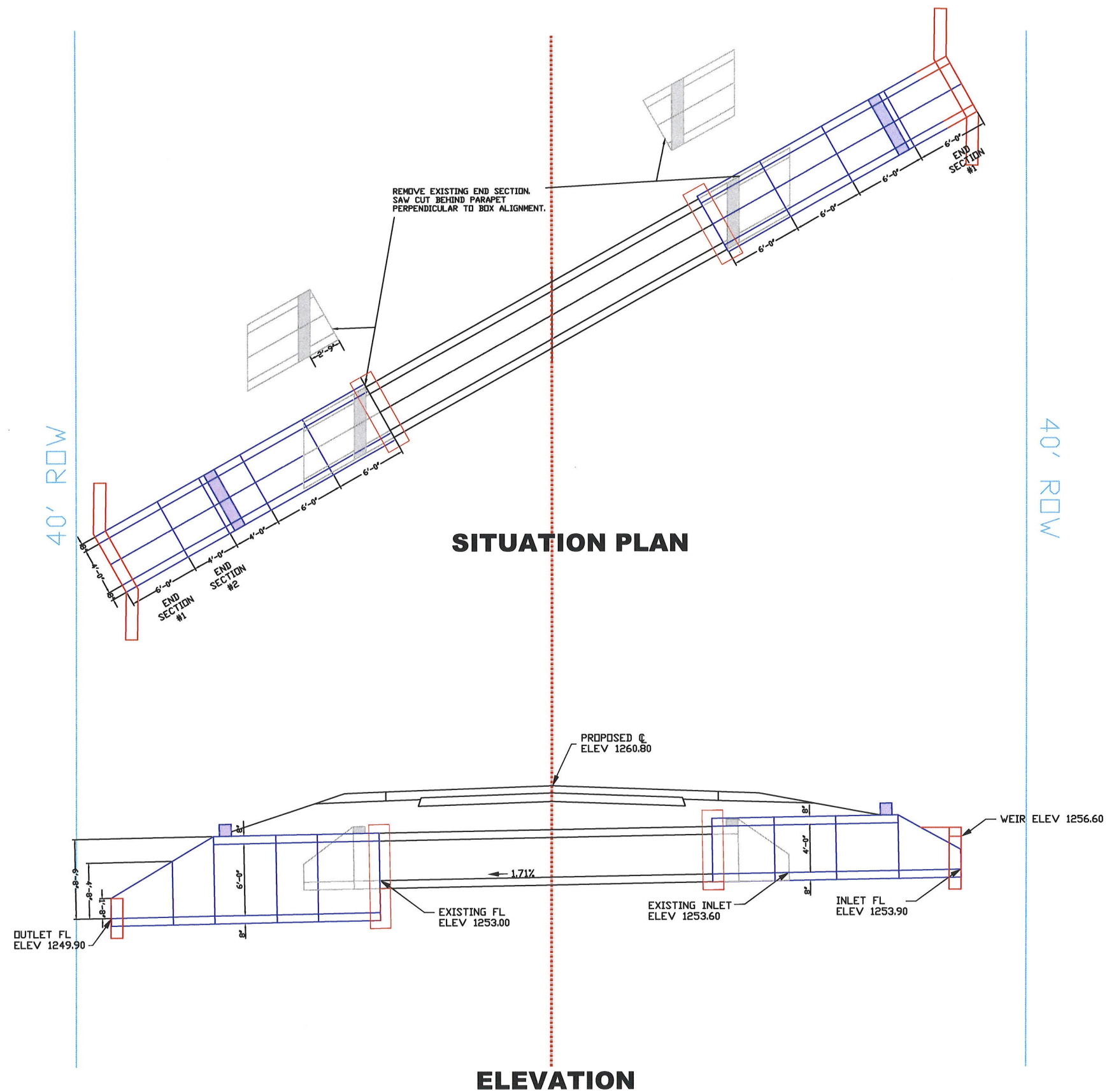


Scale 1" = 3'

NOTE: 14" ANCHOR BOLTS SHALL BE PLACED THRU THE WALLS AND FLOOR OF EXISTING CULVERT AS DETAILED HERE.

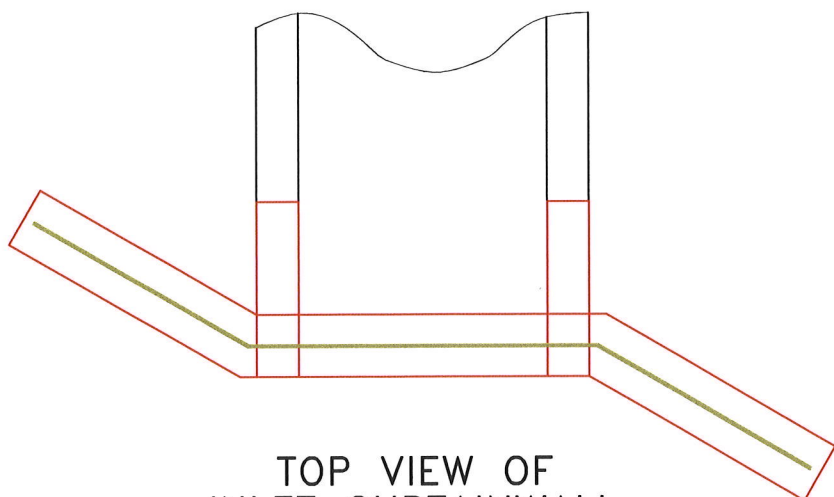
BILL OF REINFORCING FOR CONCRETE COLLAR						
LOCATION	BAR	SIZE	SHAPE	QTY.	LENGTH	WT.
HORIZONTAL	①	4	—	3	6'-4"	13
VERTICAL	②	0	┘	0	0'-0"	0
VERTICAL	③	4	┘	4	7'-2"	19
HORIZONTAL	④	4	—	22	1'-8"	24
HORIZONTAL	⑤	4	┘	2	8'-0"	11
ESTIMATE OF QUANTITIES	14" x 3" x 1" 9 Anchor Bolts	CONCRETE 1.2 CY	REINFORCING STEEL 84 LB			

50+56
48" x 36" x 39' Box
Skew 0°



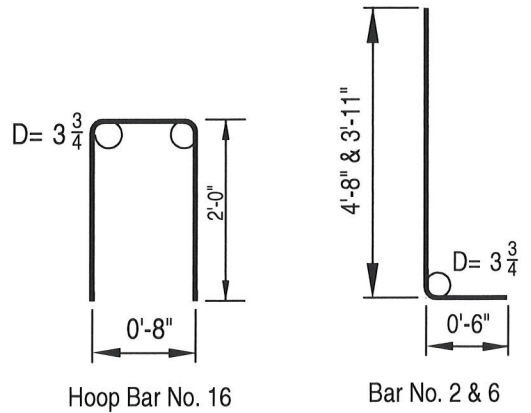
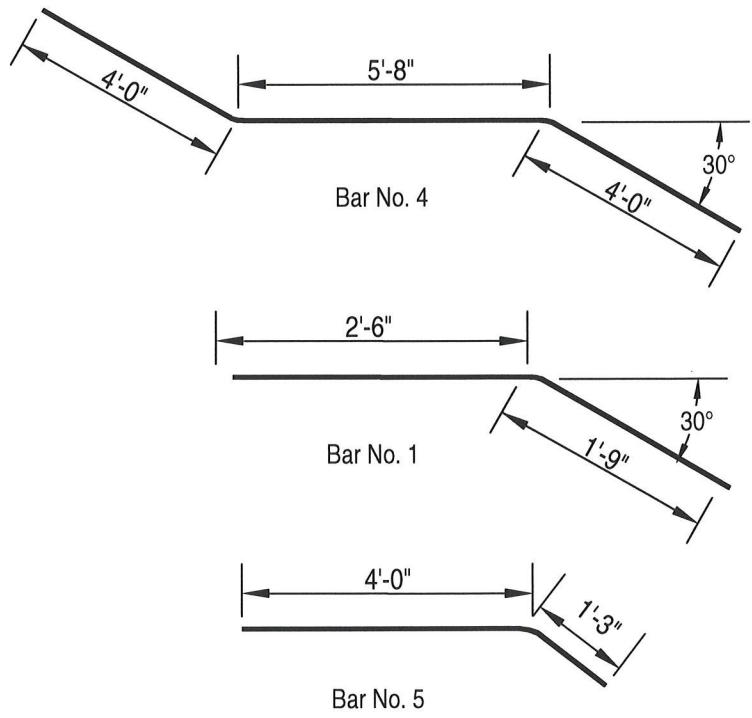
Scale 1" = 10'

56+87
42" x 40" x 41' Box
Skew 30° R.A.



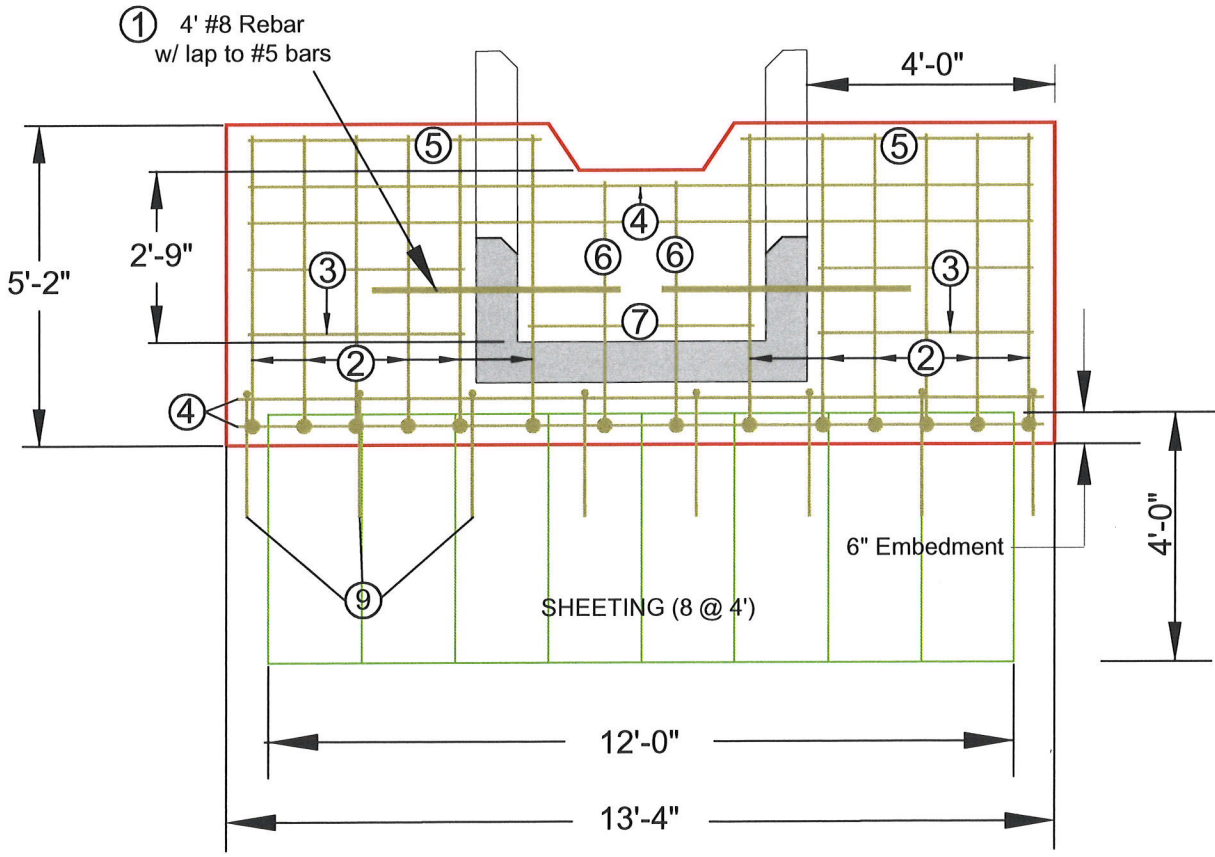
TOP VIEW OF
INLET CURTAINWALL

BILL OF REINFORCING FOR DROP INLET & CURTAINWALL						
LOCATION	BAR	SIZE	SHAPE	QTY.	LENGTH	WT.
HORIZONTAL	①	8	—	2	4'-3"	23
VERTICAL	②	5	—	12	5'-2"	65
HORIZONTAL	③	5	—	4	4'-0"	17
HORIZONTAL	④	5	—	6	13'-8"	86
HORIZONTAL	⑤	5	—	2	5'-3"	11
VERTICAL	⑥	5	—	2	4'-5"	10
HORIZONTAL	⑦	5	—	1	3'-8"	4
HORIZONTAL	⑧	5	—	0	0'-0"	0
VERTICAL	⑨	5	—	8	4'-8"	39
HORIZONTAL	⑩	5	—	2	2'-4"	5
HORIZONTAL	⑪	5	—	2	1'-4"	3
VERTICAL	⑫	5	—	2	1'-0"	2
VERTICAL	⑬	5	—	2	1'-5"	3
ESTIMATE OF QUANTITIES		CONCRETE 2.8 CY		REINFORCING STEEL 268 LB		



BENT BAR DETAILS

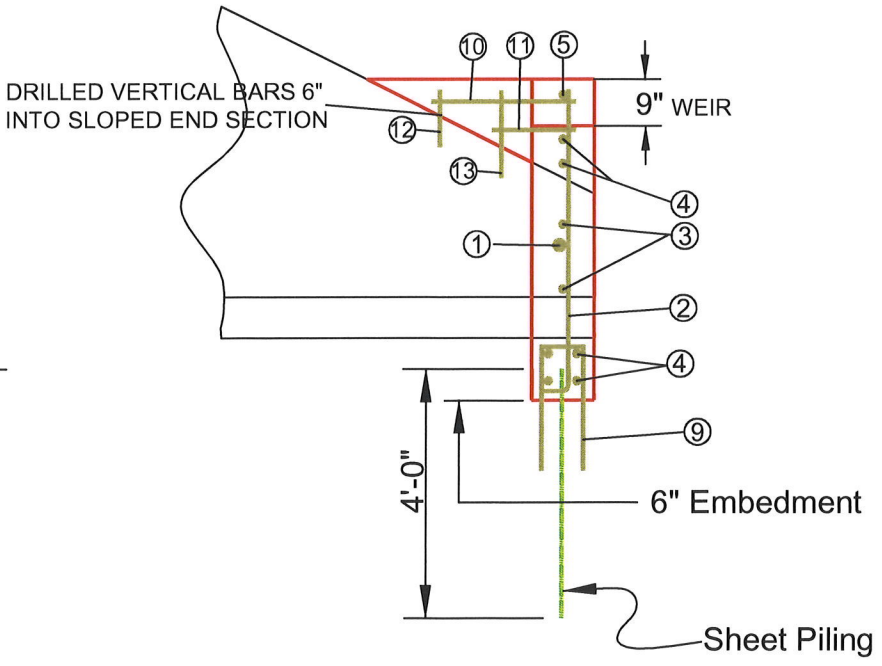
Note: No. 2 & 6 bars shall be inserted through the sheet piling.
Minimum bar end clearance = 2 inches
Minimum bar edge clearance = 3 inches



BARS 1, 2 & 6 SHALL BE PLACED THRU THE FLOOR AND WINGWALLS OF THE END SECTIONS AS DETAILED HERE.

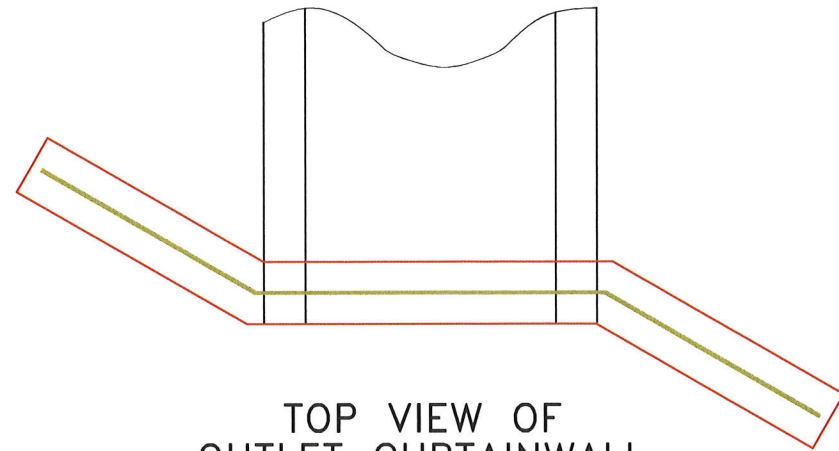
INLET CURTAINWALL & WEIR DETAIL

Scale 1" = 3'

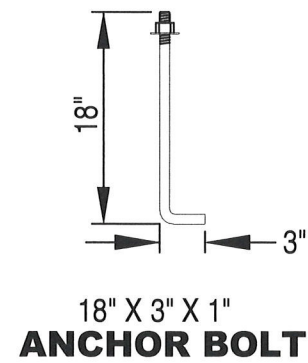


SIDEVIEW OF
INLET CURTAINWALL

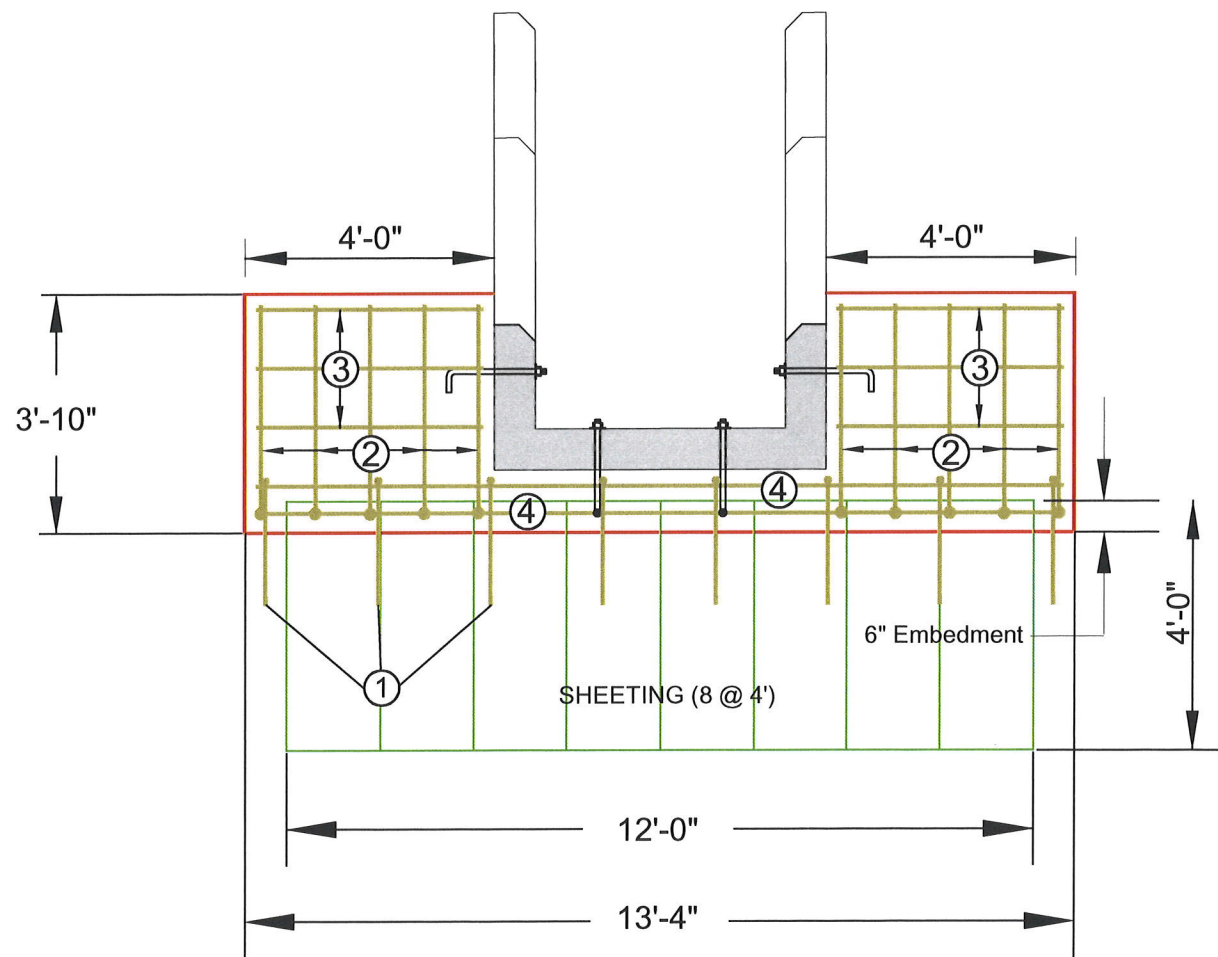
56+87
42" x 40" x 41' Box
Skew 30° R.A.



TOP VIEW OF
OUTLET CURTAINWALL



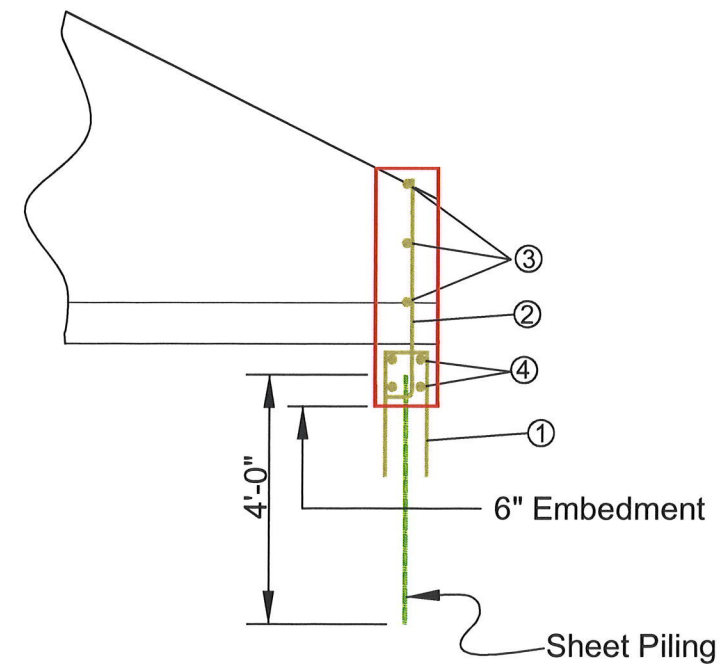
BILL OF REINFORCING FOR OUTLET CURTAINWALL						
LOCATION	BAR	SIZE	SHAPE	QTY.	LENGTH	WT.
VERTICAL	①	5		8	4'-8"	39
VERTICAL	②	5		10	4'-0"	42
HORIZONTAL	③	5		6	4'-0"	25
HORIZONTAL	④	5		4	13'-8"	57
ESTIMATE OF QUANTITIES	18" x 3" x 1" Anchor Bolts 4		CONCRETE 1.4 CY		REINFORCING STEEL	163 LB



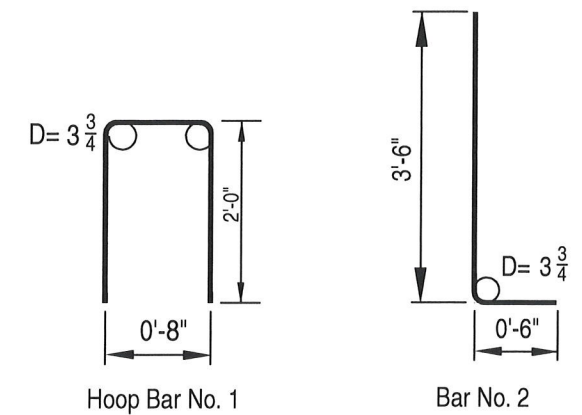
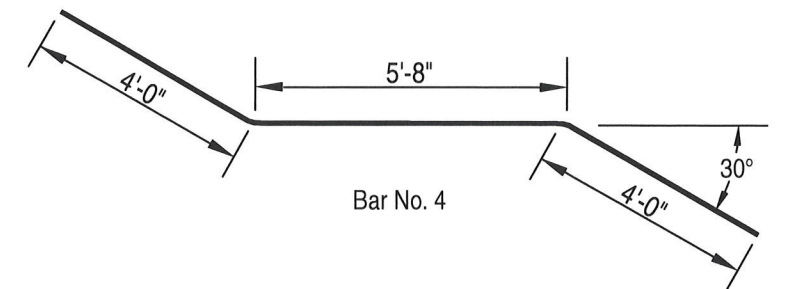
ANCHOR BOLTS SHALL BE PLACED THRU THE FLOOR AND WINGWALLS OF THE END SECTIONS AS DETAILED HERE.

OUTLET CURTAINWALL DETAIL

Scale 1" = 3'



SIDE VIEW OF
OUTLET CURTAINWALL

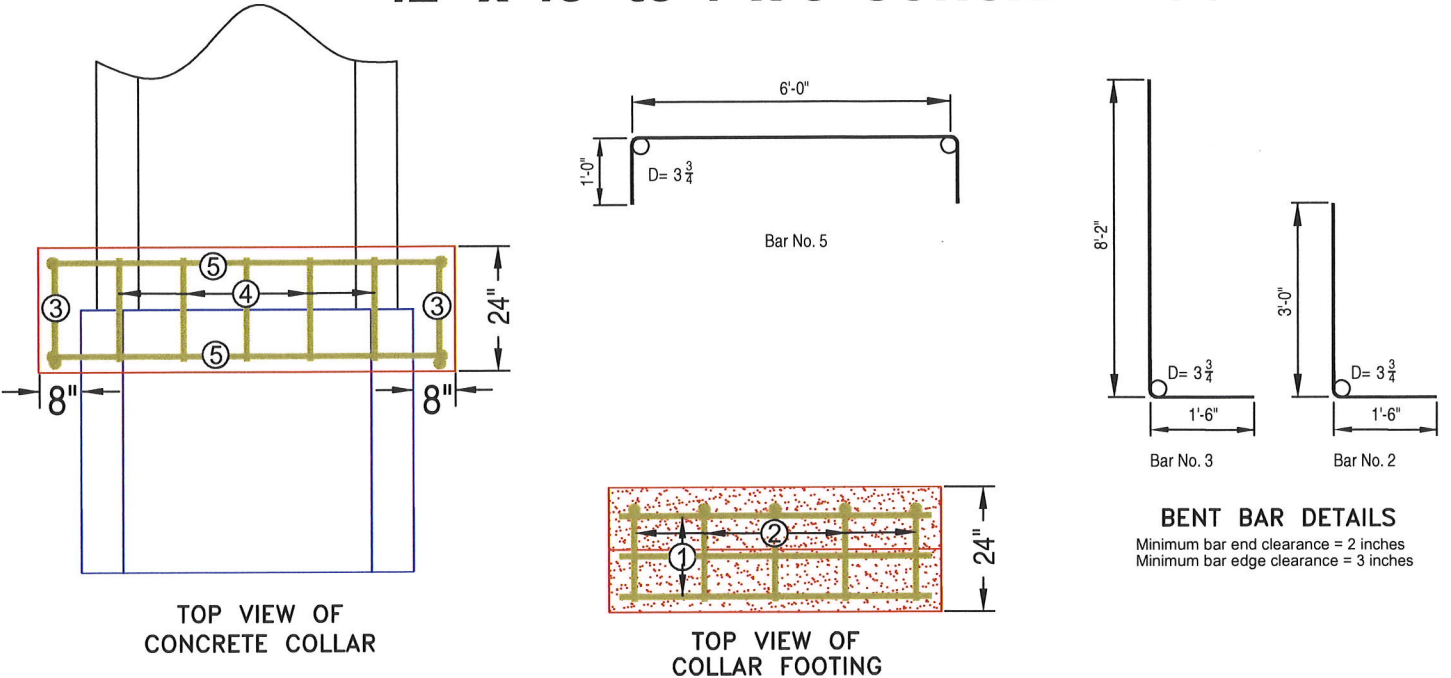


BENT BAR DETAILS

Note: No. 2 bars shall be inserted through the sheet piling.
Minimum bar end clearance = 2 inches
Minimum bar edge clearance = 3 inches

56+87
42" x 40" x 41' Box
Skew 30° R.A.

42" x 40" to 4' x 6' CONCRETE COLLAR

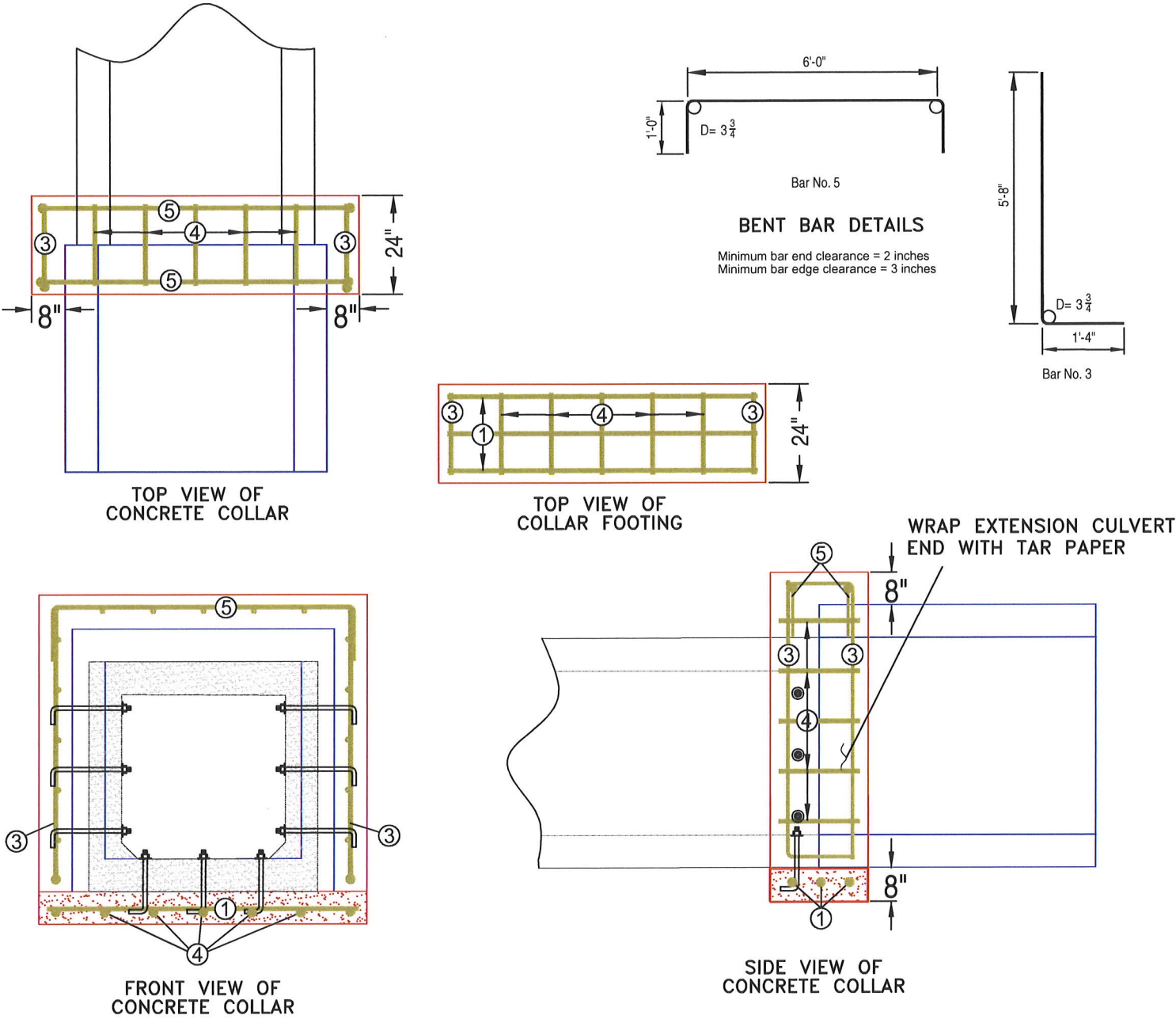


Scale 1" = 3'

NOTE: 14" ANCHOR BOLTS SHALL BE PLACED THRU THE WALLS OF NEW BARREL & 18" ANCHOR BOLTS PLACED THRU THE FLOOR OF EXISTING CULVERT AS DETAILED HERE.

BILL OF REINFORCING FOR CONCRETE COLLAR						
LOCATION	BAR	SIZE	SHAPE	QTY.	LENGTH	WT.
HORIZONTAL	①	4	—	6	5'-0"	20
VERTICAL	②	4	┘	5	4'-6"	15
VERTICAL	③	4	┘	4	9'-8"	25
HORIZONTAL	④	4	—	19	1'-8"	21
HORIZONTAL	⑤	4	┘	2	8'-0"	11
ESTIMATE OF QUANTITIES	18" x 3" x 1"	3	CONCRETE	1.8 CY	REINFORCING STEEL	92 LB
	14" x 3" x 1" Anchor Bolts	6				

42" x 40" to 4' x 4' CONCRETE COLLAR

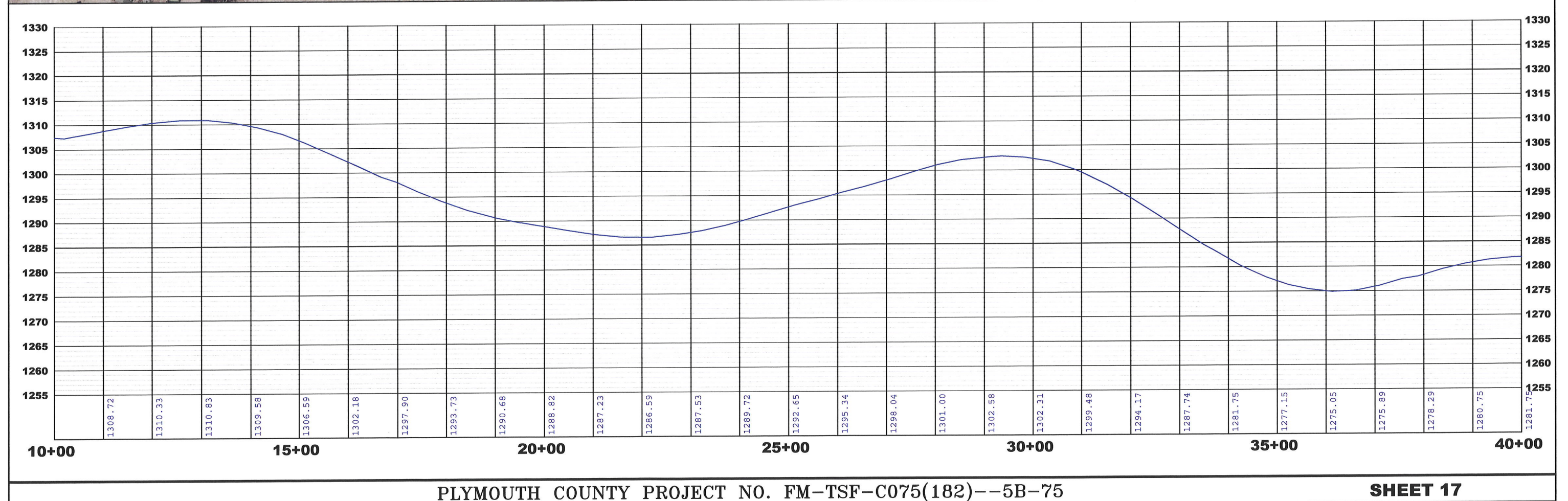
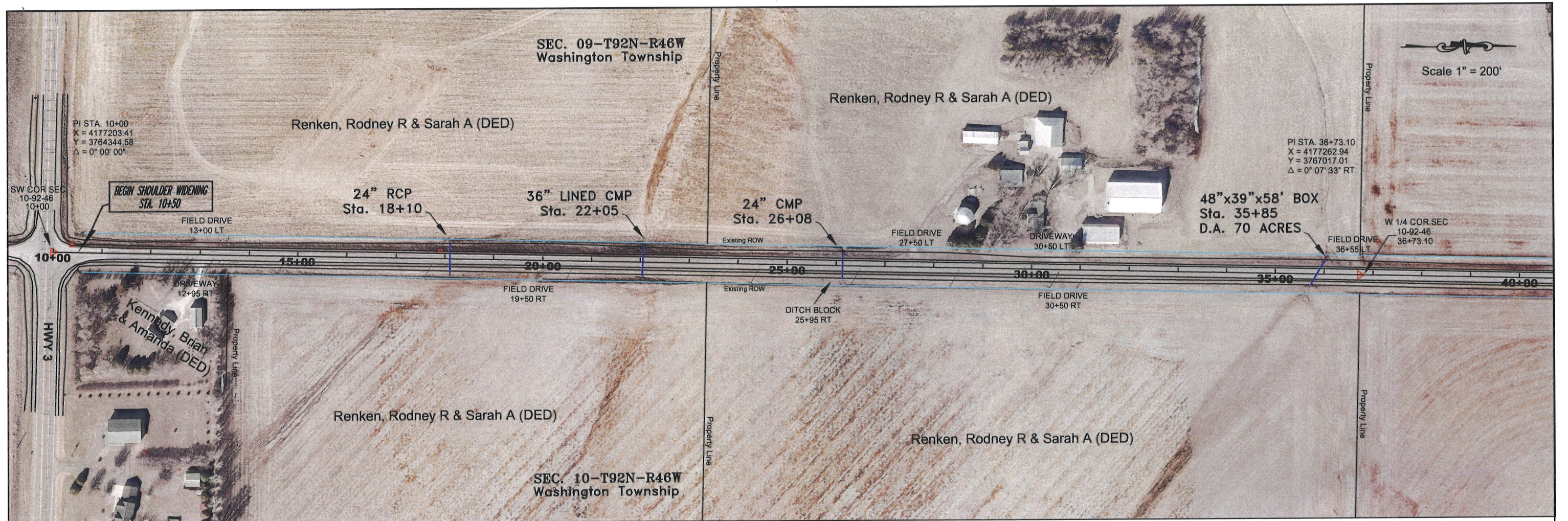


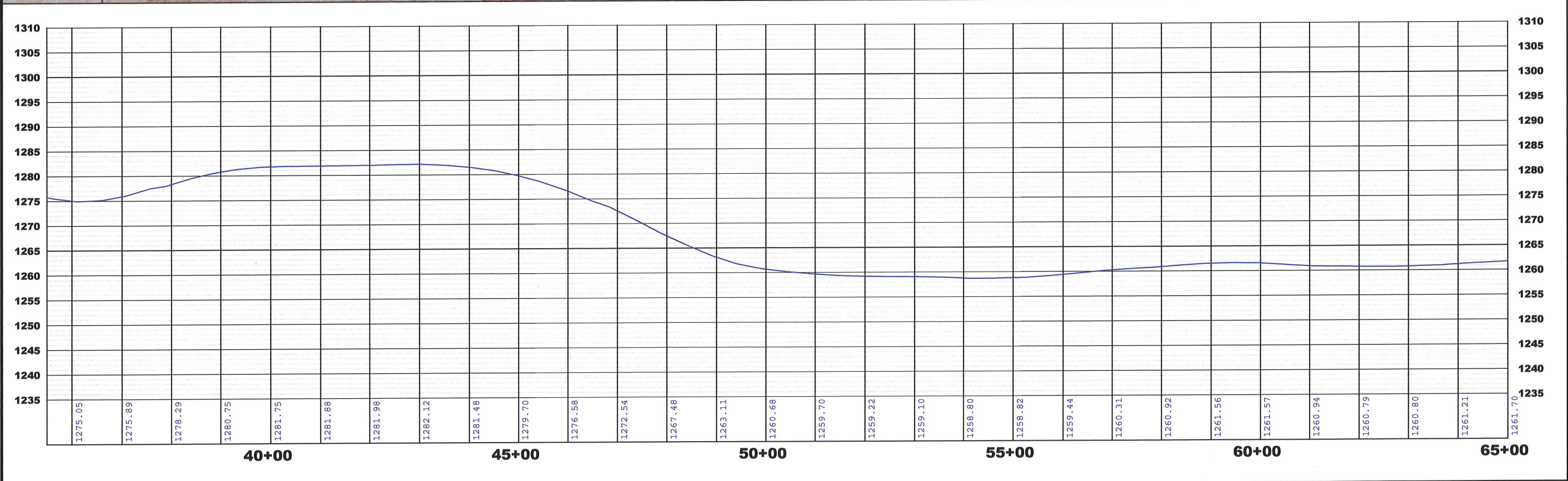
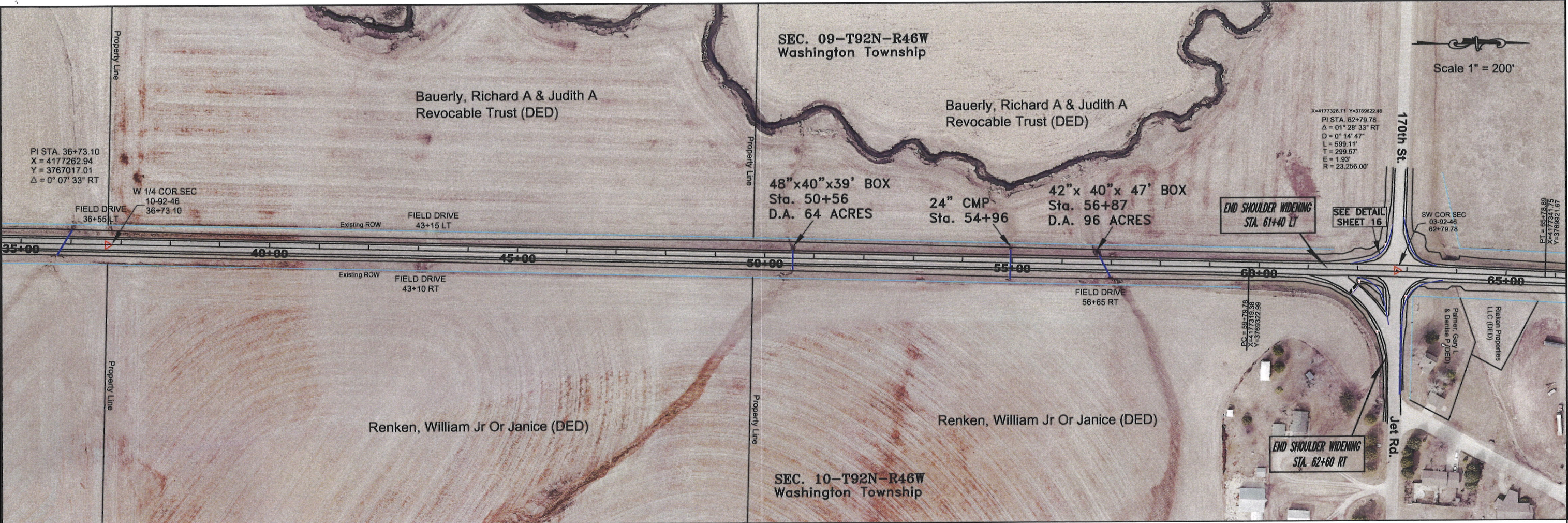
Scale 1" = 3'

NOTE: 18" ANCHOR BOLTS SHALL BE PLACED THRU THE WALLS OF EXISTING CULVERT & 14" ANCHOR BOLTS PLACED THRU THE FLOOR OF EXISTING CULVERT AS DETAILED HERE.

BILL OF REINFORCING FOR CONCRETE COLLAR						
LOCATION	BAR	SIZE	SHAPE	QTY.	LENGTH	WT.
HORIZONTAL	①	4	—	3	6'-4"	13
VERTICAL	②	0	┘	0	0'-0"	0
VERTICAL	③	4	┘	4	7'-0"	19
HORIZONTAL	④	4	—	22	1'-8"	24
HORIZONTAL	⑤	4	┘	2	8'-0"	11
ESTIMATE OF QUANTITIES	14" x 3" x 1" Anchor Bolts	9	CONCRETE	1.2 CY	REINFORCING STEEL	84 LB

56+87
42" x 40" x 41' Box
Skew 30° R.A.





110-12L 10-20-20 POLLUTION PREVENTION PLAN	110-12L 10-20-20 POLLUTION PREVENTION PLAN
This project is regulated by the requirements of the Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) General Permit No. 2 OR an Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System(NPDES) individual storm water permit. The Contractor shall carry out the terms and conditions of this permit and the Pollution Prevention Plan (PPP). This Base PPP includes information on Roles and Responsibilities, Project Site Description, Controls, Maintenance Procedures, Inspection Requirements, Non-Storm Water Controls, Potential Sources of Off Right-of-Way Pollution, and Definitions. This plan references other documents rather than repeating the information contained in the documents. A copy of this Base Pollution Prevention Plan, amended as needed during construction, will be readily available for review. All contractors shall conduct their operations in a manner that controls pollutants, minimizes erosion, and prevents sediments from entering waters of the state and leaving the highway right-of-way. The Contractor shall be responsible for compliance and implementation of the PPP for their entire contract. This responsibility shall be further shared with subcontractors whose work is a source of potential pollution as defined in this PPP. I. ROLES AND RESPONSIBILITIES A. Designer: 1. Prepares Base PPP included in the project plan. 2. Prepares Notice of Intent (NOI) submitted to Iowa DNR. 3. Is signature authority on the Base PPP. If consultant designed, signature from Contracting Authority is also required. B. Contractor: 1. Signs a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP. 2. Designates a Water Pollution Control Manager (WPCM), who has the duties and responsibilities as defined in Section 2602 of the Standard Specifications. 3. Submits an Erosion Control Implementation Plan (ECIP) and ECIP updates according to Section 2602 of the Standard Specifications. 4. Installs and maintains appropriate controls. This work may be subcontracted as documented through Subcontractor Request Forms (Form 830231). 5. Supervises and implements good housekeeping practices according to Paragraph III, C, 2. 6. Conducts joint required inspections of the site with inspection staff. When Contractor is not mobilized on site, Contractor may delegate this responsibility to a trained or certified subcontractor. Contracting Authority also may waive joint inspection requirement during winter shutdown. In both circumstances, WPCM (or trained or certified delegate from the Contractor) is still responsible to review and sign inspection reports. 7. Complies with training and certification requirements of Section 2602 of the Standard Specifications. 8. Submits amended PPP site map according to Section 2602 of the Standard Specifications. C. Subcontractors: 1. Sign a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP if: responsible for sediment or erosion controls; involved in land disturbing activities; or performing work that is a source of potential pollution as defined in this PPP. Subcontracted work items are identified in Subcontractor Request Forms (Form 830231). All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP. 2. Implement good housekeeping practices according to Paragraph III, C, 2. D. RCE/Project Engineer: 1. Is Project Storm Water Manager. 2. Takes actions necessary to ensure compliance with storm water requirements including, where appropriate, issuing stop work orders, and directing additional inspections at construction project sites that are experiencing problems with achieving permit compliance. 3. Orders the taking of measures to cease, correct, prevent, or minimize the consequences of non-compliance with the storm water requirements of the Applicable Permit. 4. Supervises all work necessary to meet storm water requirements at the Project, including work performed by contractors and subcontractors. 5. Requires employees, contractors, and subcontractors to take appropriate responsive action to comply with storm water requirements, including requiring any such person to cease or correct a violation of storm water requirements, and to order or recommend such other actions as necessary to meet storm water requirements. 6. Is familiar with the Project PPP and storm water site map. 7. Is the point of contact for the Project for regulatory officials, Inspector, contractors, and subcontractors regarding storm water requirements. 8. Is signature authority on Notice of Discontinuation. 9. Maintains an up-to-date record of contractors, subcontractors, and subcontracted work items through Subcontractor Request Forms (Form 830231). 10. Makes information to determine permit compliance available to the DNR upon their request. E. Inspector: 1. Updates PPP through fieldbook entries and storm water site inspection reports if there is a change in design, construction, operation, or maintenance which has a significant effect on the discharge of pollutants from the project. 2. Makes information to determine permit compliance available to the DNR upon their request. 3. Conducts joint required inspections of the site with the contractor/subcontractor. 4. Completes an inspection report after each inspection. 5. Is signature authority on storm water inspection reports. II. PROJECT SITE DESCRIPTION A. This Pollution Prevention Plan (PPP) is for the construction of K-42 Earth Shoulder Widening. B. This PPP covers approximately 9.71 acres with an estimated 7.06 acres being disturbed. The portion of the PPP covered by this contract has 7.06 acres disturbed. C. The PPP is located in an area of one soil association (Galva-Primghar). The estimated weighted average runoff coefficient number for this PPP after completion will be 0.38. D. Storm Water Site Map - Multiple sources of information comprise the base storm water site map including: 1. Drainage Patterns - Plan and Profile sheets and Situation plans. 2. Proposed Slopes - Cross Sections. 3. Areas of Soil Disturbance - Construction limits shown on Plan and Profile sheets. 4. Location of Structural Controls - Tabulations on sheet 3. 5. Locations of Non-structural Controls - Tabulations on sheet 3. 6. Locations of Stabilization Practices - Generally within construction limits shown on Plan and Profile sheets. 7. Surface Waters (including wetlands) - Project Location Map and Plan and Profile sheets. 8. Locations where Storm Water is Discharged - Plan and Profile sheets.	E. The base storm water site map is amended by contract modifications and progress payments (fieldbook entries) of completed erosion control work. Also, due to project phasing, erosion and sediment controls shown on project plans may not be installed until needed, based on site conditions. For example, silt fence ditch checks will typically not be installed until the ditch has been installed. Installed locations may also be modified from tabulation locations by field staff. Installed locations will be documented by fieldbook entries and amended PPP site map. F. Runoff from this work will flow into roadway ditches into Mink Creek. III. CONTROLS A. The Contractor's ECIP specified in Article 2602.03 of the Standard Specifications for accomplishment of storm water controls should clearly describe the intended sequence of major activities, and for each activity define the control measure and the timing during the construction process that the measure will be implemented. B. Preserve vegetation in areas not needed for construction. C. Sections 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used and installed locations may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries, amended PPP site map, or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water site inspections. If the work involved is not applicable to any contract items, the work will be paid for according to Article 1109.03 paragraph B of the Standard Specifications. 1. EROSION AND SEDIMENT CONTROLS a. Stabilization Practices 1) Site plans will ensure that existing vegetation or natural buffers are preserved where attainable and disturbed portions of the site will be stabilized. 2) Initialize stabilization of disturbed areas immediately after clearing, grading, excavating, or other earth disturbing activities have: a) Permanently ceased on any portion of the site, or b) Temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. 3) Staged permanent and/or temporary stabilizing seeding and mulching shall be completed as the disturbed areas are completed. Incomplete areas shall be stabilized according to paragraph III, C, 1, a, 2, b above. 4) Permanent and Temporary Stabilization practices to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C sheets. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4) in the C sheets. 5) Preservation of existing vegetation within right-of-way or easements will act as vegetative buffer strips. 6) Preservation of topsoil: Bid items to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C sheets. Additional information may be found in Tabulations in the C or T sheets or is referenced in Section 2105 of Standard Specifications. b. Structural Practices 1) Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Additionally, structural practices may include: silt basins that provide 3600 cubic feet of storage per acre drained or equivalent sediment controls, outlet structures that withdraw water from surface when discharging basins, and controls to direct storm water to vegetated areas. 2) Structural practices to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C sheets, as well as all other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be found in the B sheets or are referenced in the Standard Road Plans Tabulation (105-4) located in the C sheets. c. Storm Water Management Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. This may include velocity dissipation devices at discharge locations and along length of outfall channel as necessary to provide a non-erosion velocity flow from structure to water course. If included with this project, these items are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C sheets, as well as all other item specific Tabulations. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4) in the C sheets. The installation of these devices may be subject to Section 404 of the Clean Water Act. 2. OTHER CONTROLS Contractor disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive applicable laws, rules or regulations shall apply. a. Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways. b. Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use. c. Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving. d. Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit. e. Spill Prevention and Control - Implement chemical spill and leak prevention and response procedures to contain and clean up spills and prevent material discharges to the storm drain system and waters of the state. f. Concrete Residuals and Washout Wastes - Waste shall not be discharged to a surface water and is not allowed to adversely affect a water of the state. Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located. Designated washout areas should be located at least 50 feet away from storm drains, streams or other water bodies. Care should be taken to ensure these facilities do not overflow during storm events. g. Concrete Grooving/Grinding Slurry - Do not discharge slurry to a waterbody or storm drain. Slurry may be applied on foreslopes or removed from the project. h. Vehicle and Equipment Storage and Maintenance Areas - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onsite fuels and proper disposal of used engine oil or other fluids on site. Employ washing practices that prevent contamination of surface and ground water from wash water. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge. i. Litter Management - Ensure employees properly dispose of litter. Minimize exposure of trash if exposure to precipitation or storm water would result in a discharge of pollutants. j. Dewatering - Properly treat water to remove suspended sediment before it re-enters a waterbody or discharges off-site. Measures are also to be taken to prevent scour erosion at dewatering discharge point. 3. APPROVED STATE OR LOCAL PLANS During the course of this construction, it is possible that situations will arise where unknown materials will be encountered. When such situations are encountered, they will be handled according to all federal, state, and local regulations in effect at the time.
PLYMOUTH COUNTY PROJECT NO. FM-TSF-C075(182)--5B-75	SHEET 19

POLLUTION PREVENTION PLAN

110-12L
10-20-20

IV. MAINTENANCE PROCEDURES

The Contractor is required to maintain all temporary erosion and sediment control measures in proper working order, including cleaning, repairing, or replacing them throughout the contract period. This shall begin when the features have lost 50% of their capacity.

V. INSPECTION REQUIREMENTS

- A. Inspections shall be made jointly by the Contractor and the Contracting Authority's inspector at least once every seven calendar days. Storm water site inspections will include:
1. Date of the inspection.
 2. Summary of the scope of the inspection.
 3. Name and qualifications of the personnel making the inspection.
 5. Review of erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
 6. Major observations related to the implementation of the PPP.
 7. Identification of corrective actions required to maintain or modify erosion and sediment control measures.
- B. Include storm water site inspection reports in the amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found within 3 calendar days of the inspection and complete within 7 calendar days following the inspection. If it is determined that making the corrections less than 72 hours after the inspection is impracticable, it should be documented why it is impracticable and indicate an estimated date by which the corrections will be made.

VI. NON-STORM WATER DISCHARGES

This includes subsurface drains (i.e. longitudinal and standard subdrains) and slope drains. The velocity of the discharge from these features may be controlled by the use of headwalls or blocks, Class A stone, erosion stone or other appropriate materials. This also includes uncontaminated groundwater from dewatering operations, which will be controlled as discussed in Section III of the PPP.

VII. POTENTIAL SOURCES OF OFF RIGHT-OF-WAY (ROW) POLLUTION

Silts, sediment, and other forms of pollution may be transported onto highway right-of-way (ROW) as a result of a storm event. Potential sources of pollution located outside highway ROW are beyond the control of this PPP. Pollution within highway ROW will be conveyed and controlled per this PPP.

VIII. DEFINITIONS

- A. Base PPP - Initial Pollution Prevention Plan.
- B. Amended PPP - Base PPP amended during construction. May include Plan Revisions or Contract Modifications for new items, storm water site inspection reports, fieldbook entries made by the inspector, amended PPP site map by the Contractor, ECIP, NOI, co-permittee certifications, and Subcontractor Request Forms. Items amending the PPP are stored electronically and are readily available upon request.
- C. Fieldbook Entries - This contains the inspector's daily diary and bid item postings.
- D. Controls - Methods, practices, or measures to minimize or prevent erosion, control sedimentation, control storm water, or minimize contaminants from other types of waste or materials. Also called Best Management Practices (BMPs).
- E. Signature Authority - Representative authorized to sign various storm water documents.

CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.


Signature

Thomas G. Rohe
Printed or Typed Name