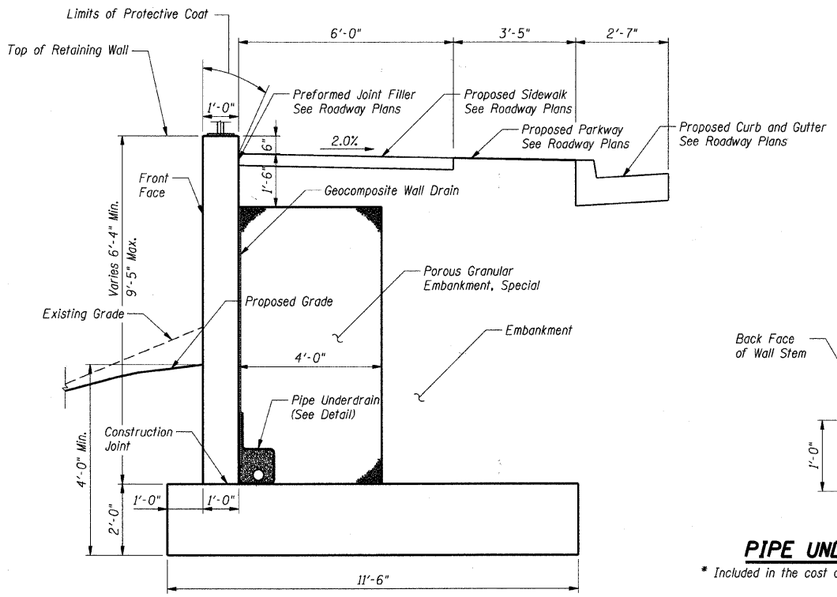
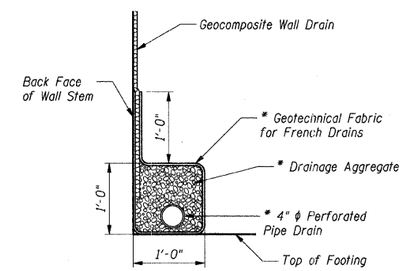
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0085	00-00246-02-FP	MCHENRY	292	193
STA.		TO STA.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO: 63522



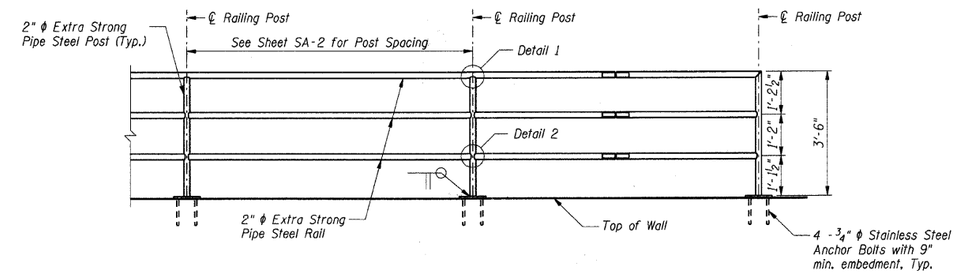
TYPICAL SECTION

Maximum Applied Bearing Pressure (Qmax) = 1,800 psf.

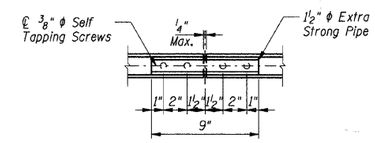


PIPE UNDERDRAIN DETAIL

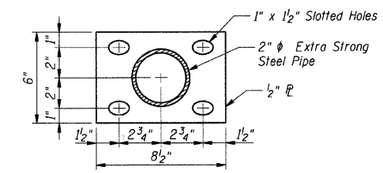
* Included in the cost of "Pipe Underdrains for Structures"



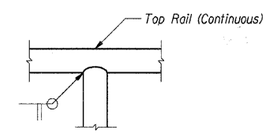
TYPICAL PIPE HANDRAIL ELEVATION



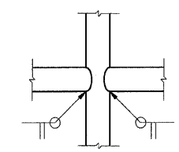
RAIL SPLICE DETAIL



BASE ℙ



DETAIL 1



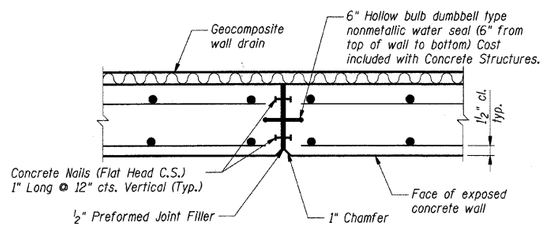
DETAIL 2

BAR LIST

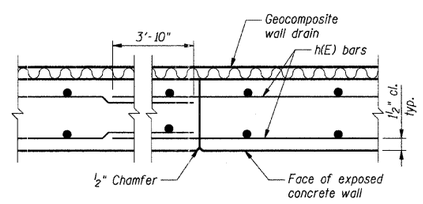
Bar	No.	Size	Length	Shape
h1(E)	36	#4	31'-4"	
h2(E)	20	#4	27'-2"	
h3(E)	34	#4	24'-8"	
h4(E)	32	#4	28'-10"	
n1(E)	189	#6	5'-7"	
t1(E)	184	#10	12'-10"	
t2(E)	184	#5	11'-2"	
v1(E)	28	#6	13'-0"	
v2(E)	28	#6	17'-0"	
v3(E)	33	#6	18'-0"	
v4(E)	25	#6	15'-11"	
v5(E)	25	#6	13'-10"	
v6(E)	50	#6	12'-3"	
w1(E)	24	#5	27'-2"	
w2(E)	24	#5	31'-2"	
w3(E)	24	#5	29'-6"	
w4(E)	24	#5	26'-10"	
w5(E)	24	#5	25'-4"	
w6(E)	48	#5	26'-6"	
w7(E)	48	#5	5'-0"	
w8(E)	48	#5	8'-8"	

BILL OF MATERIAL

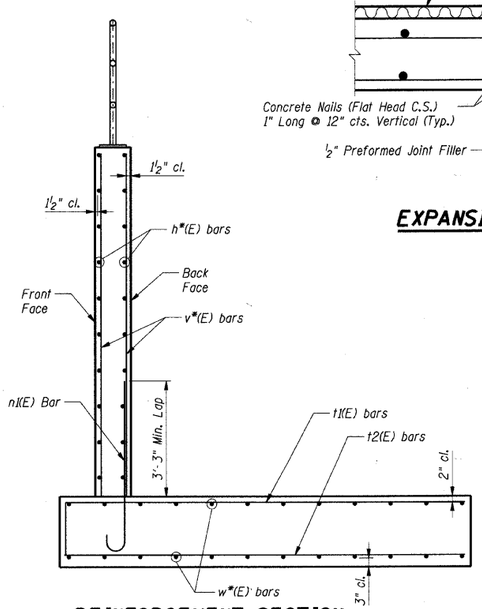
Item	Unit	Total
Concrete Structures	Cu. Yd.	210.6
Reinforcement Bars, Epoxy Coated	Pound	25,890



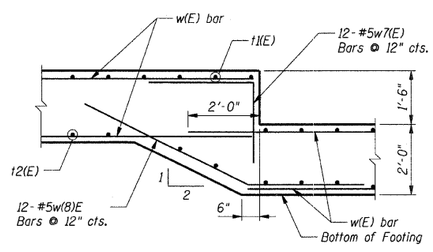
EXPANSION JOINT DETAIL



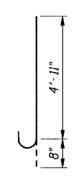
CONSTRUCTION JOINT DETAIL



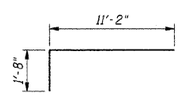
REINFORCEMENT SECTION



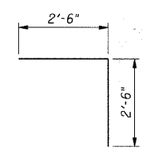
FOOTING STEP DETAIL



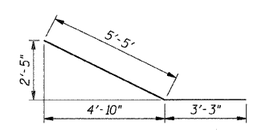
n1(E) Bar



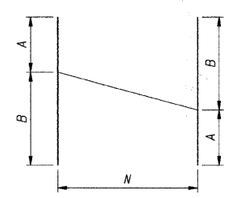
t1(E) Bar



w7(E) Bar



w8(E) Bar



BAR CUTTING DIAGRAM

CUTTING DIAGRAM TABLE

Bar	A	B	N
v1(E)	6'-3"	6'-9"	28
v2(E)	8'-3"	8'-9"	28
v3(E)	8'-9"	9'-3"	33
v4(E)	7'-9"	8'-2"	25
v5(E)	6'-8"	7'-2"	25
v6(E)	5'-8"	6'-7"	50

Notes:

1. Railing shall be according to Section 509 of the Standard Specifications except as noted.
2. Hollow structural steel tubing shall conform the requirements of ASTM designation A 500, Grade B, Structural Steel Tubing.
3. All other steel shapes and plates shall conform to the requirements of AASHTO M-270, Grade 345.
4. All posts, railings, splices, anchor devises, and plates shall be galvanized after shop fabrication according to AASHTO M-111 and ASTM A-385. All bolts, nuts, and washers shall be galvanized according to AASHTO M-232 except stainless steel bolts as noted.
5. Vent holes for galvanizing shall be placed in the posts and rails at locations that will not allow the accumulation of moisture in the members.
6. Rail to match profile of top of wall.
7. Work this Sheet with SA-1, SA-2 & SA-4.

SHT. SA-3

REVISIONS	
NAME	DATE

MCHENRY COUNTY DIVISION OF TRANSPORTATION
WALKUP ROAD F.A.U. 0085
SECTION 00-00246-02-FP
STATION 45+50.00 TO 47+32.25
ILLINOIS ROUTE 176 RETAINING WALL

WALL SECTION AND DETAILS

SCALE: N.T.S. DRAWN BY: CPB
DATE: 04/15/11 CHECKED BY: TCG

TENG

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
205 N. MICHIGAN AVE. CHICAGO, IL 60601
TELEPHONE: 312/616-0300

\\FS-0044\VAULT\D-TRANS_OT\2202\300-03\STRUCT\CAD\02 CONTRACT\IL 176 WALL\SHEET\WS02LO0.SHT STANKRJ

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