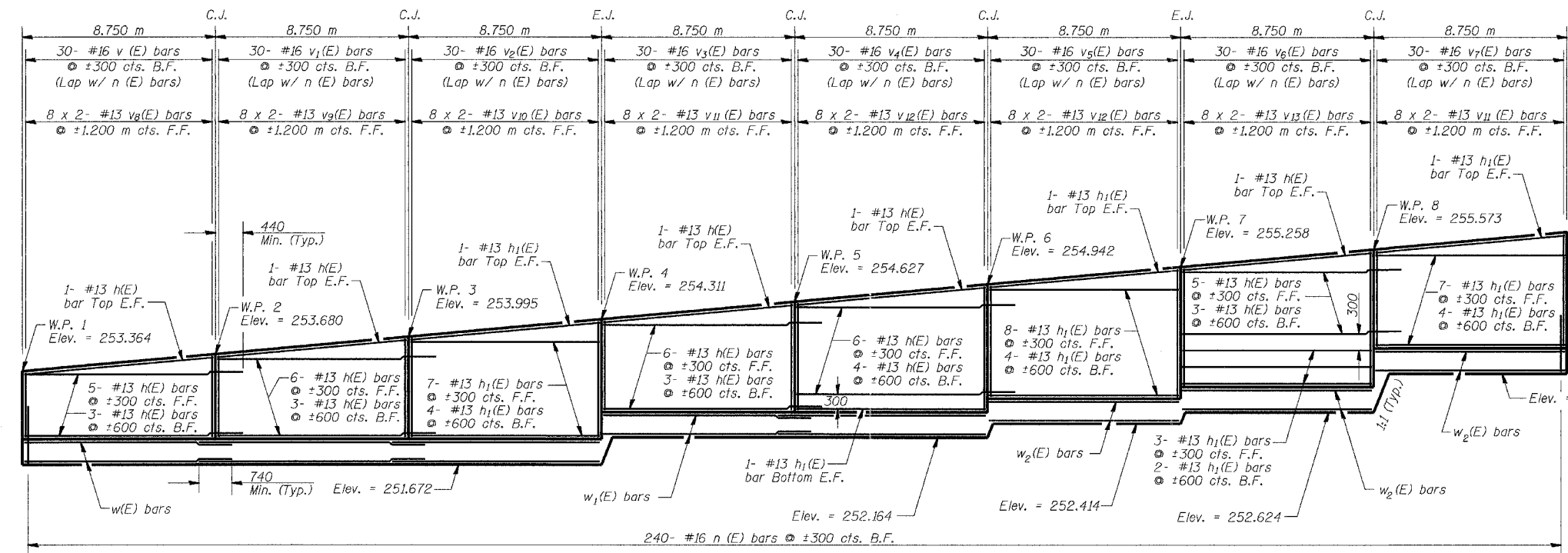


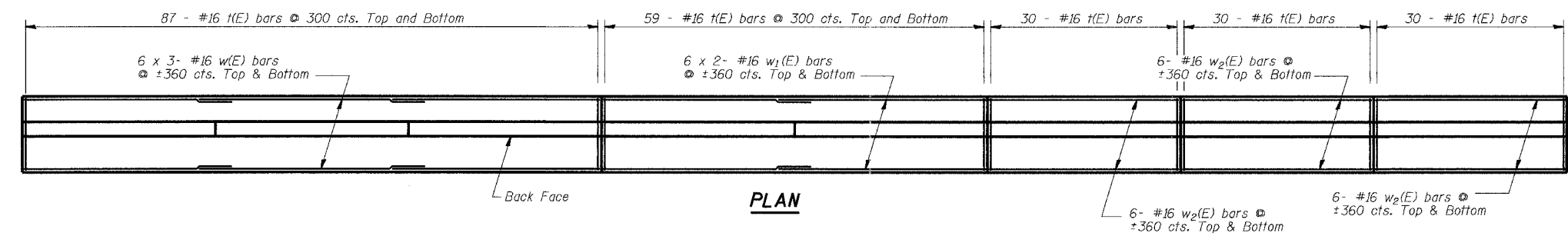
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

60997

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 337 (IL 22)	19R-1	LAKE	806	547
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

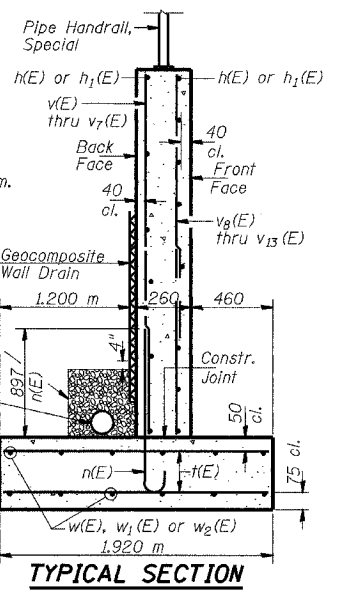


ELEVATION
(Looking at Back Face)



PLAN

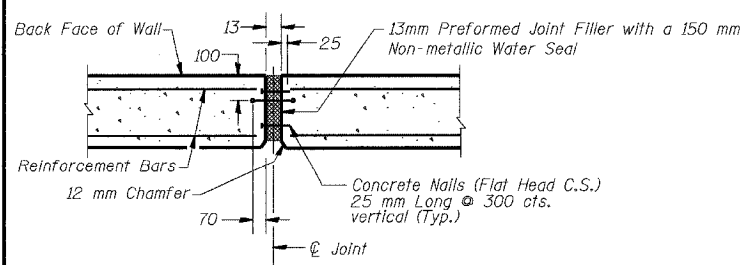
* 100 mm ϕ perforated pipe drain according to Section 601 of the Standard Specifications, encased in 450 mm of CA-5 or CA-7 coarse aggregate. The cost for perforated pipe, geotechnical fabric and coarse aggregate will be included with the Pay Item Pipe Underdrains for Structures, 100 mm.



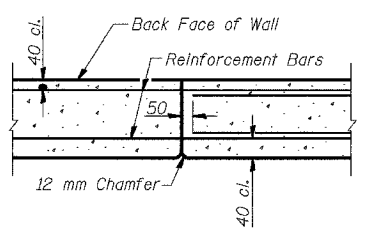
TYPICAL SECTION

BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape	
h(E)	54	#13	9.14	—	
h ₁ (E)	47	#13	8.65	—	
n(E)	240	#16	1.46	—	
t(E)	472	#16	1.82	—	
v(E)	30	#16	1.12	—	
v ₁ (E)	30	#16	1.43	—	
v ₂ (E)	30	#16	1.75	—	
v ₃ (E)	30	#16	1.57	—	
v ₄ (E)	30	#16	1.89	—	
v ₅ (E)	30	#16	1.95	—	
v ₆ (E)	30	#16	2.06	—	
v ₇ (E)	30	#16	1.68	—	
v ₈ (E)	16	#13	0.96	—	
v ₉ (E)	16	#13	1.12	—	
v ₁₀ (E)	16	#13	1.28	—	
v ₁₁ (E)	32	#13	1.19	—	
v ₁₂ (E)	32	#13	1.38	—	
v ₁₃ (E)	16	#13	1.43	—	
w(E)	36	#16	9.21	—	
w ₁ (E)	24	#16	9.07	—	
w ₂ (E)	36	#16	8.65	—	
Pipe Underdrains for Structures, 100 mm				m	70.0
Concrete Structures				cu m	98.2
Reinforcement Bars, Epoxy Coated				kg	4900
Structure Excavation				cu m	334
Pipe Handrail, Special				m	70.1
Geocomposite Wall Drain				sq m	126.3



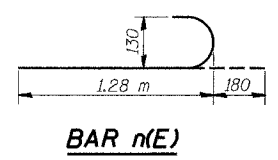
EXPANSION JOINT DETAIL
No Reinforcement to pass thru joint



CONSTRUCTION JOINT DETAIL
Reinforcement to pass thru joint

NOTES

- All dimensions are in millimeters (mm) except as noted.
- Bars indicated thus 6 x 3- #16 etc. Indicates 6 lines of bars with 3 lengths per line.



BAR n(E)

WALL DETAILS

Date	Designed ACW	F.A.P. RTE. 337 (IL. RTE. 22) SECTION 19R-1 WEST OF U.S. 12 TO EAST OF BEUSCHING ROAD LAKE COUNTY STATION 7+480.000 TO 7+550.000	Sheet No.
Revisions	Drawn BKN		2
	Checked ACW		of 3
	Approved KWB		URS Job No. 210001385.01