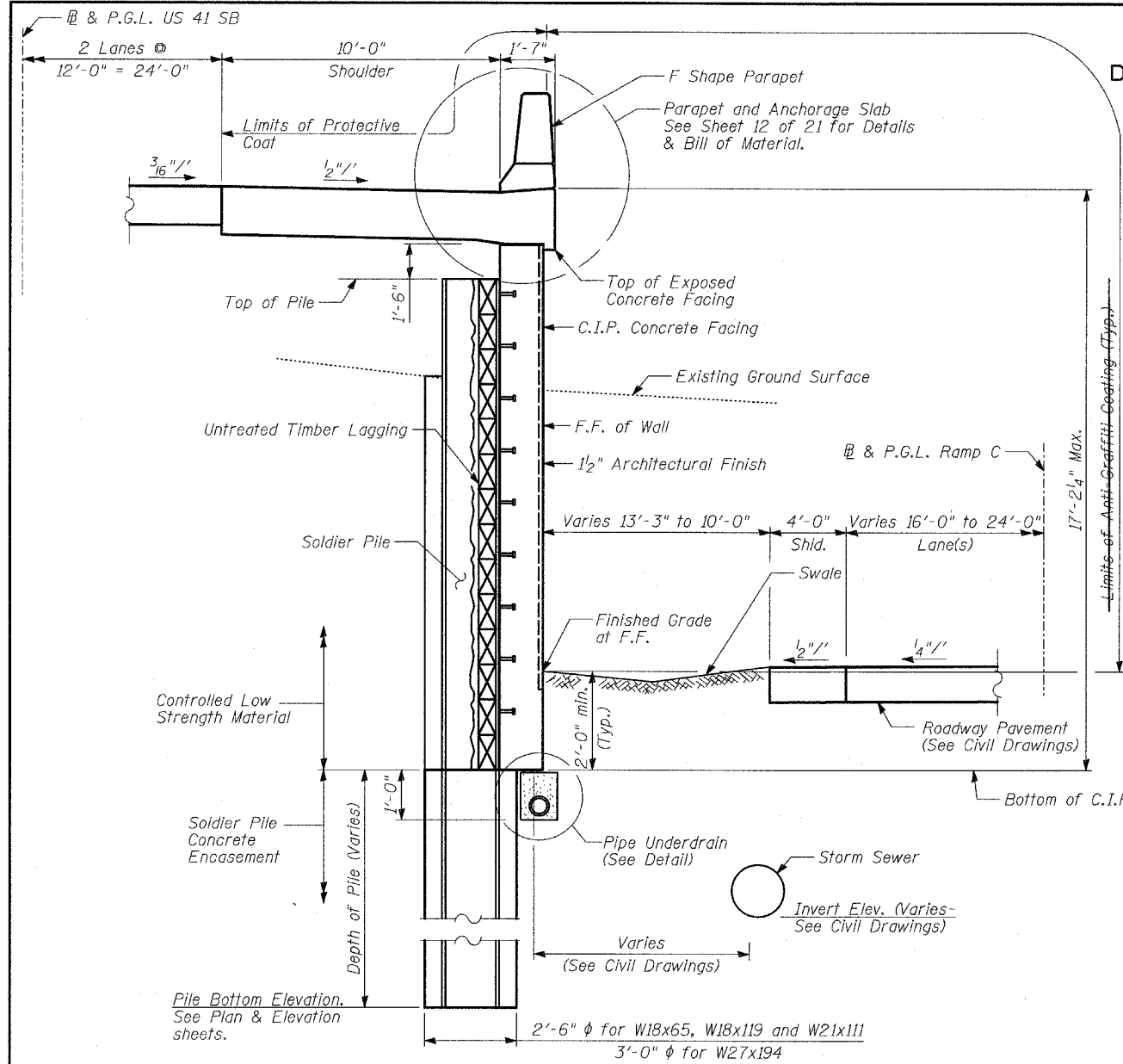
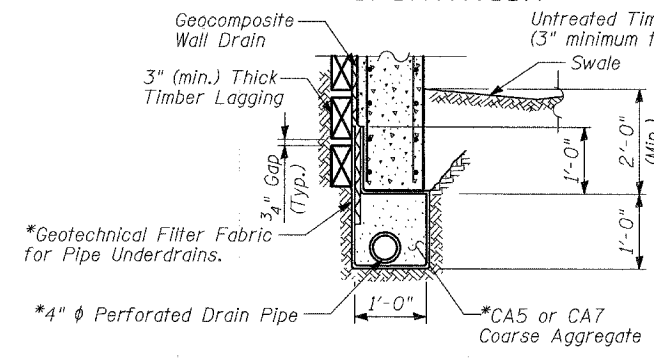


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

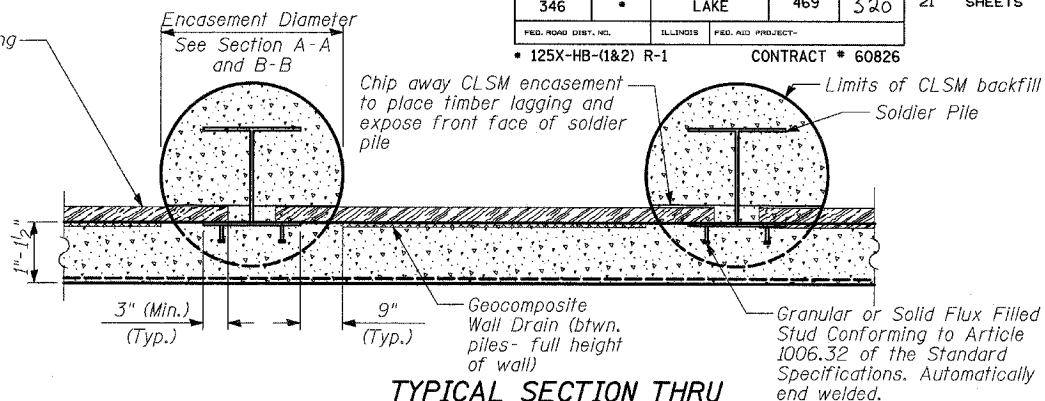
ROUTE NO.	SECTION	COUNTY	STATIONING	SHEET	SHEET NO. - 7 21 SHEETS
346		LAKE	469	320	
FED. ROAD DIST. NO.					ILLINOIS
FED. AID PROJECT-					CONTRACT # 60826



SECTION A-A
Sta. 538+18.57 to Sta. 540+88.57



PIPE UNDERDRAIN DETAIL BETWEEN SOLDIER PILES

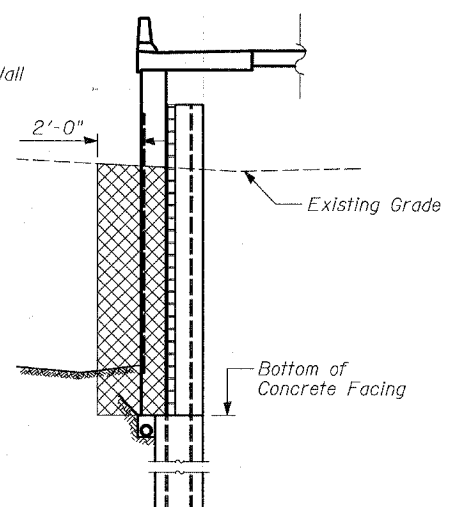


TYPICAL SECTION THRU SOLDIER PILE WALL

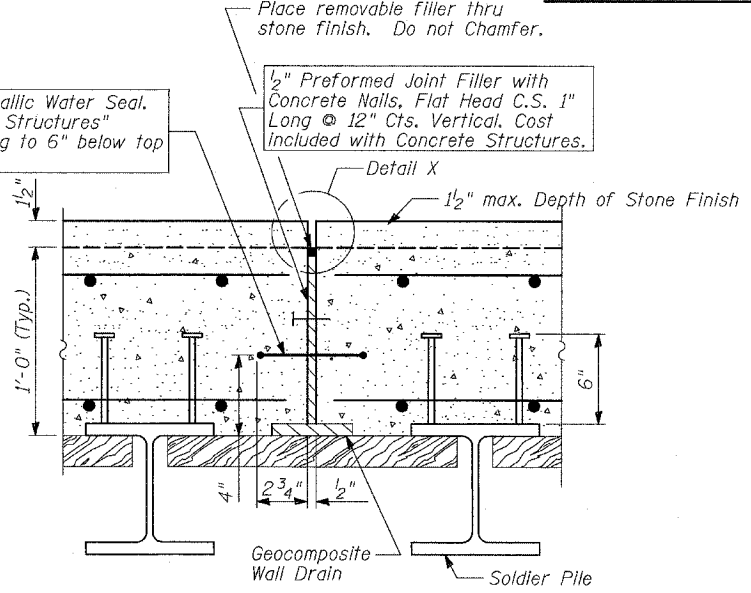
*Included in the cost of "Pipe Underdrains for Structures"

6" Hollow Bulb Type Non-Metallic Water Seal. Cost included with "Concrete Structures" Extend from bottom of facing to 6" below top of facing.

Place removable filler thru stone finish. Do not Chamfer.
2" Preformed Joint Filler with Concrete Nails, Flat Head C.S. 1" Long @ 12" Cts. Vertical. Cost included with Concrete Structures.



STRUCTURE EXCAVATION
(For Proposed Wall)



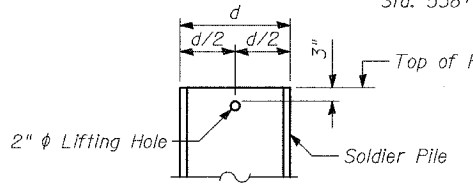
EXPANSION JOINT DETAIL

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	CU YD	318
Stud Shear Connectors	EACH	778
Untreated Timber Lagging	SQ FT	3,746
Geocomposite Wall Drain	SQ YD	438
Pipe Underdrains for Structures, 4"	FOOT	379

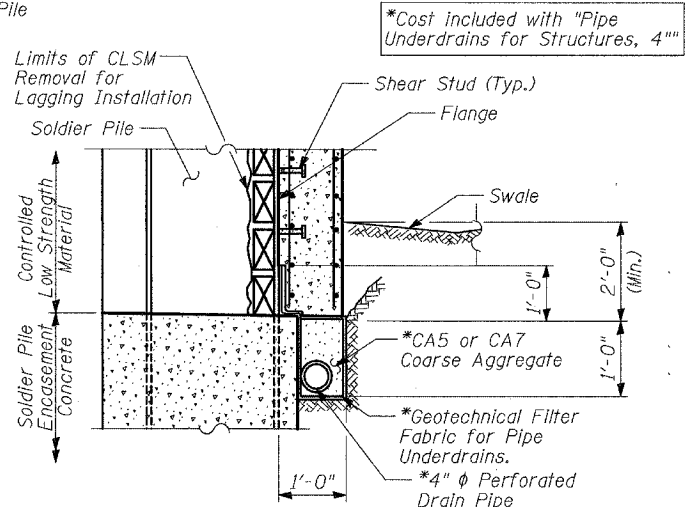
NOTES:

- The Geocomposite Wall Drain shall be constructed according to Section 591 of the Standard Specifications.
- The Contractor is responsible for the design and performance of the lagging using no less than 3" nominal rough-sawn thickness and the minimum tabulated unit stress in bending (f_b), used in the design of timber lagging shall be 1000 psi.
- Stud shear connectors shall be 3/4" ϕ x 6" granular or solid flux filled headed studs, automatically end welded to the front flange of the soldier piles.

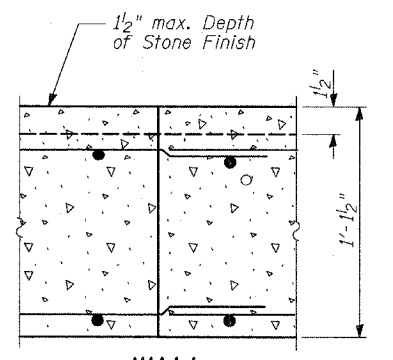


LIFTING HOLE DETAIL

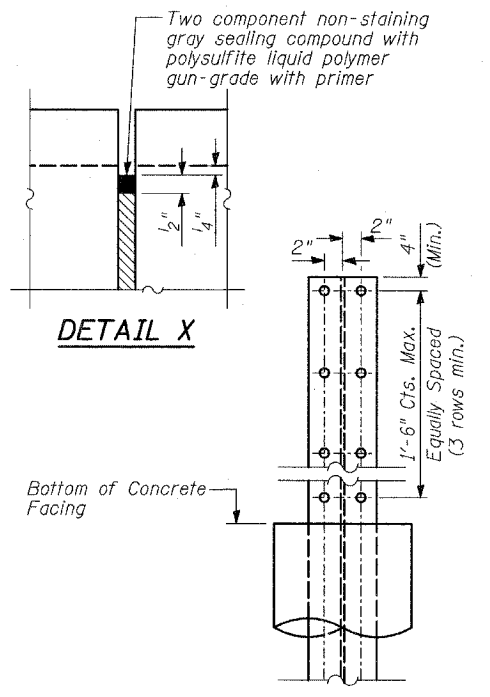
Lifting Hole to be Provided if Necessary. Cost included with "Furnishing Soldier Piles (W Section).



PIPE UNDERDRAIN DETAIL AT SOLDIER PILE



CONSTRUCTION JOINT DETAIL



SHEAR STUD CONNECTOR DETAIL

TYLIN INTERNATIONAL

DESIGNED	- MB
CHECKED	- AD
DRAWN	- CM
CHECKED	- MB

WALL O SECTIONS AND DETAILS (1 OF 2)

FAP 346 (U.S. ROUTE 41 - SKOKIE HIGHWAY) OVER ILLINOIS ROUTE 132
SECTION 125X-HB-(1&2)R-1
LAKE COUNTY
S.N. 049-W036