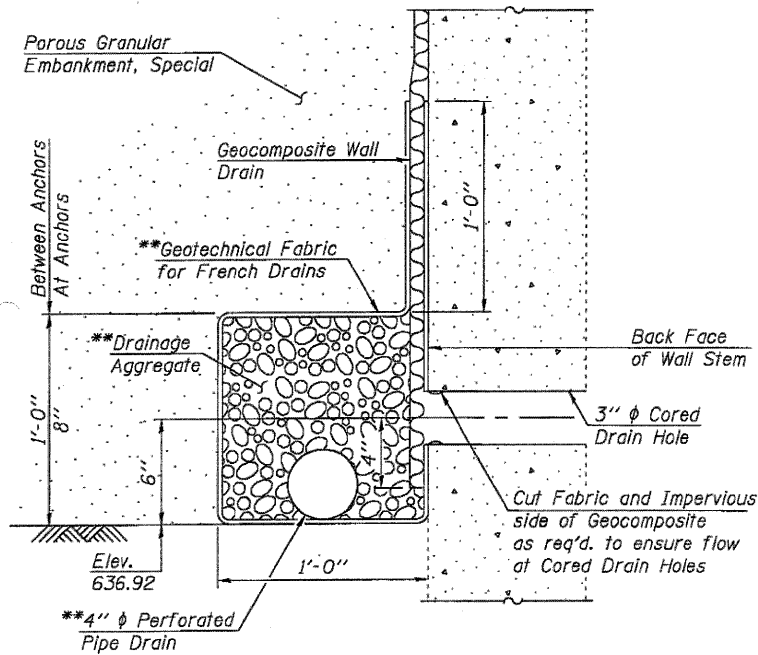
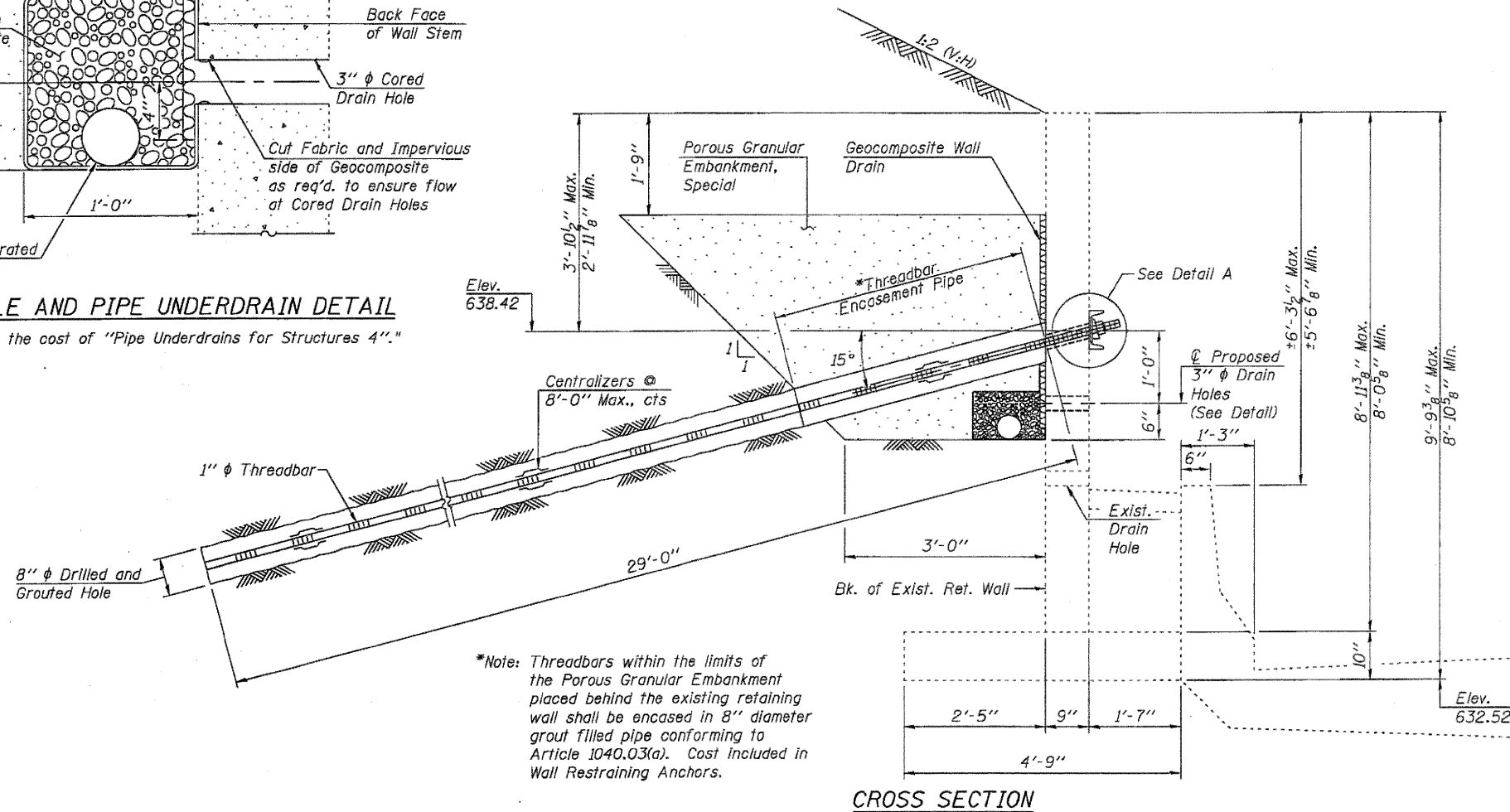


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

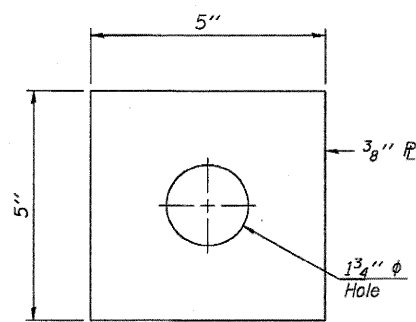


DRAIN HOLE AND PIPE UNDERDRAIN DETAIL

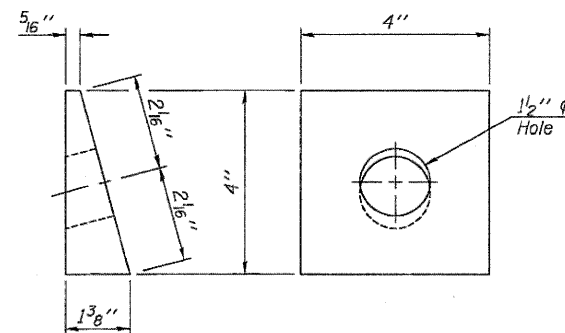
**Included in the cost of "Pipe Underdrains for Structures 4".



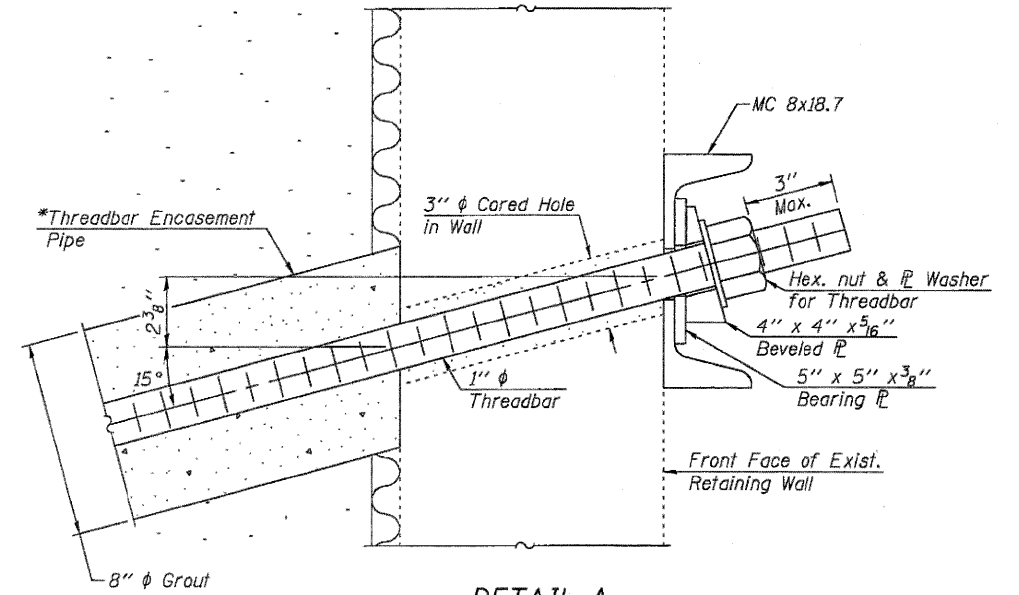
CROSS SECTION



BEARING PLATE



BEVELED PLATE



DETAIL A

NOTES

1. Wall Restraining Anchor - Factored Design Load = 29,000 pounds/Anchor.
2. Cost of channel MC 8x18.7, plates, washers and nuts is included in the cost of Wall Restraining Anchors.
3. All Structural Steel shapes and plates shall be AASHTO M270 Grade 50 and shall be galvanized according to AASHTO M111.
4. Cost of coring Drain Holes in existing wall is included in the cost of Wall Restraining Anchors.

CONSTRUCTION SEQUENCE

1. Provide temporary wall bracing system to restrain the existing retaining wall.
2. Core holes in the existing retaining wall at the locations shown in the plans.
3. Excavate behind the wall to 6" below the proposed drain holes. The excavation shall be limited to only that which is necessary for the placement of Porous Granular Embankment, Geocomposite Wall Drain, Pipe Underdrains and the positioning of drilling hardware.
4. Drill 8" diameter holes into the embankment behind the wall at the angle and to the depth shown in the plans.
5. Place Geocomposite Wall Drain, Pipe Underdrains, Porous Granular Embankment and Threadbar Encasement Pipes behind the existing retaining wall.
6. Place Threadbars in the holes drilled in the embankment as shown in the plans and fill holes with grout from the bottom of the drill holes to the face of the existing retaining wall.
7. No sooner than 3 days after grouting, install nuts and washers to the Threadbars to secure the steel channels and plates to the face of the existing retaining wall, as shown in the plans.
8. Remove temporary wall bracing system.
9. Repair cracks in existing wall with epoxy injected compound.

WALL RESTRAINING ANCHOR DETAILS
AROMA PARK RD. OVER F.A.I. 57
SECTION (46-3) I-2
KANKAKEE COUNTY
STATION 229+29.11
S.N. 046-8803

DESIGNED	J.A.M.
CHECKED	A.R.K.
DRAWN	S.A.P.
CHECKED	A.R.K. & J.A.M.

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4440 ASH GROVE SPRINGFIELD, IL. 62711 (217)-793-8600 www.fehr-graham.com

SHEET NO. 2
4 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-3) I-2	KANKAKEE	10	8
CONTRACT NO. 66A23				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		