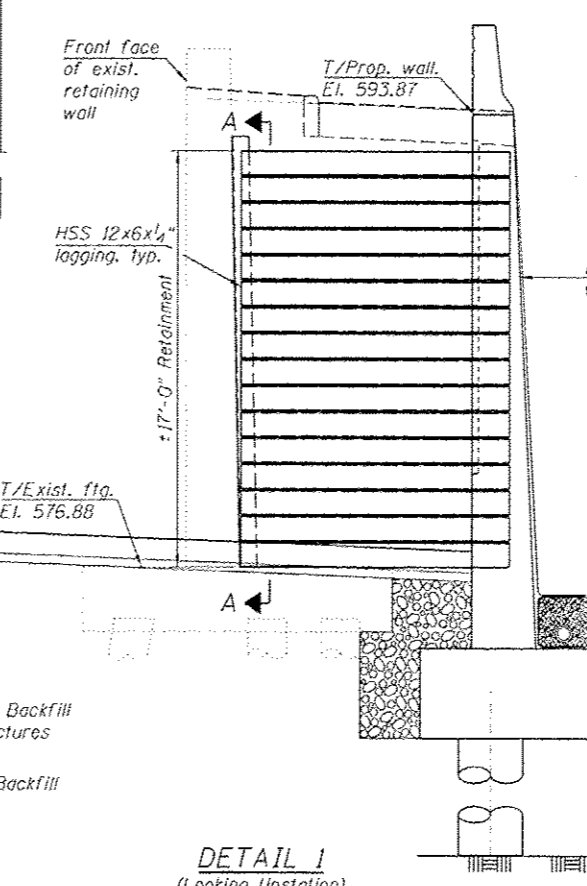
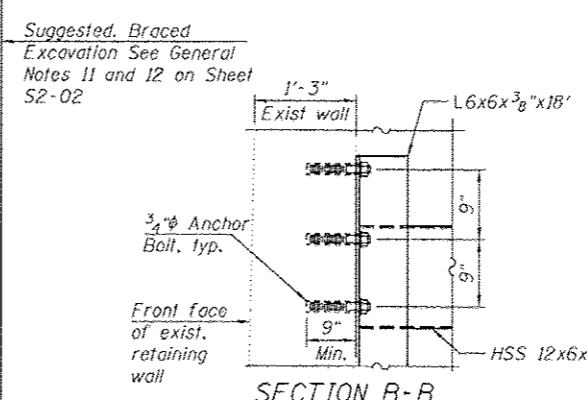
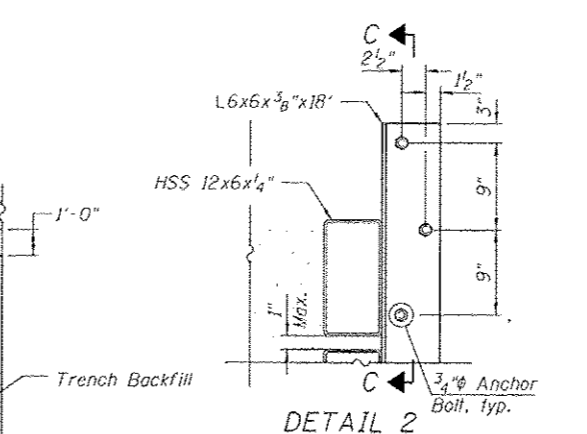
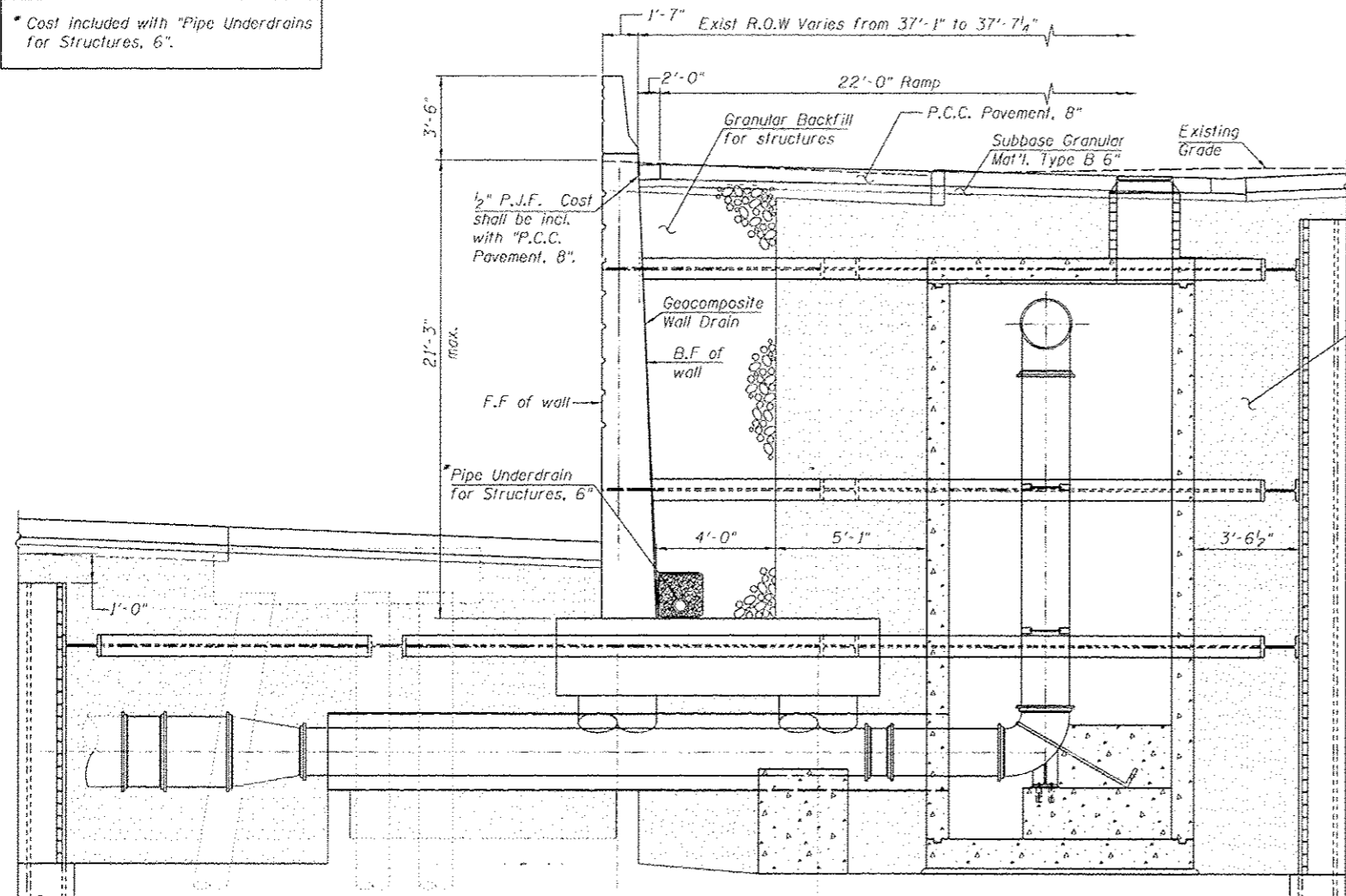
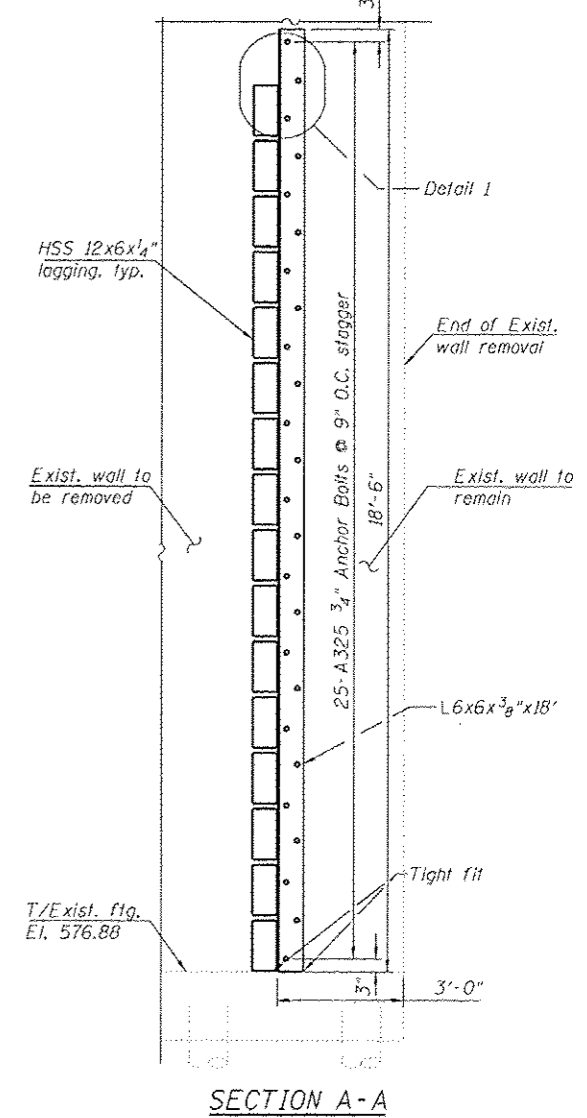


\* Cost included with "Pipe Underdrains for Structures, 6".

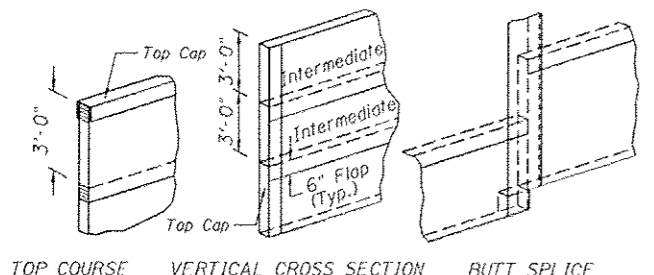
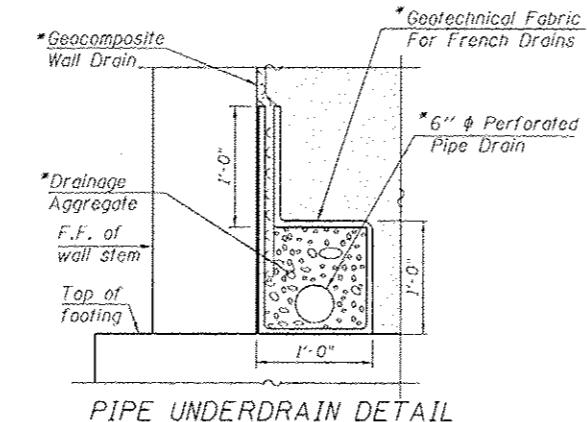
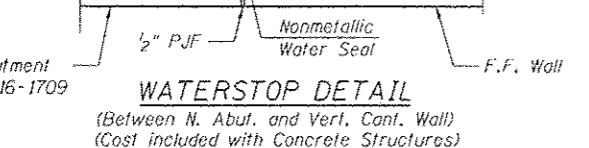


BILL OF MATERIAL		
ITEM	UNIT	TOTAL
Trench Backfill	CU YD	1.124
Furnishing and Erecting Structural Steel	POUND	6,340
Anchor Bolts, 3/4"	EACH	25
Geocomposite Wall Drain	50 YD	57
Braced Excavation	CU YD	1428
Granular Backfill for Structures	CU YD	78
Pipe Underdrains for Structures 6"	FOOT	29

- NOTES:**
- For location, layout and details of watermain see sheet No. 87.
  - The proposed retaining wall foundation locations may require adjustment based upon the field location of the water main which should be determined by the Engineer.
  - HSS 12x6x1/4" to serve as lagging between existing wall & proposed wall. Cost of the steel lagging, as well as work necessary to place the lagging, shall be included with "Furnishing and Erecting Structural Steel".
  - The minimum density of "Granular Backfill for Structures" and "Trench Backfill" shall not be less than 95 percent of the standard laboratory density determined according to AASHTO T 99. Proper mechanical compaction shall be used so as to not impose any excessive lateral load onto any proposed structures. Lifts shall be placed as required to obtain the necessary density but not greater than 8" thick.



**TYPICAL CROSS SECTION**  
(Looking Upstation)  
(From Sta. 5248+63.81 to Sta. 5248+66.48)



**LEGEND**

Granular Backfill for structures

Trench Backfill

B.F. - Back Face  
F.F. - Front Face

Entire sheet revised

FILE PATH: c:\projects\110111\110111.dwg

<b>HBM</b> ENGINEERING GROUP, LLC CONSULTING & DESIGN INSPECTION & TESTING RESEARCH & TESTING 4415 WEST HARRISON ST. SUITE 231 HILLSIDE, IL 60162 PHONE: (708) 236-0900 FAX: (708) 236-0901	0161724-02N29-567-T Wall Sect-W5.dgn USER NAME: willardous PLOT SCALE: 2/8.0000 1/4" = 1'-0" PLOT DATE: 7/16/2013	DESIGNED - MI, MAF, WM DRAWN - MAF, WM CHECKED - MAI, MI, LAB DATE - 6/17/2013	REVISED - 07/19/2013 MI, WM REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>SOIL RETENTION SYSTEM AND BACKFILL</b> <b>RETAINING WALL (STRUCTURE NO. 016-1724) AND RISER SHAFT</b>	F.A.I. R.I.E.: 90/3/290 SECTION: 2013-007R COUNTY: COOK TOTAL SHEETS: 317 SHEET NO.: 202 CONTRACT NO.: 60W25 ILLINOIS FED. AID PROJECT
	SCALE: SHEET S2-07 OF 12 SHEETS STA. TO STA.					