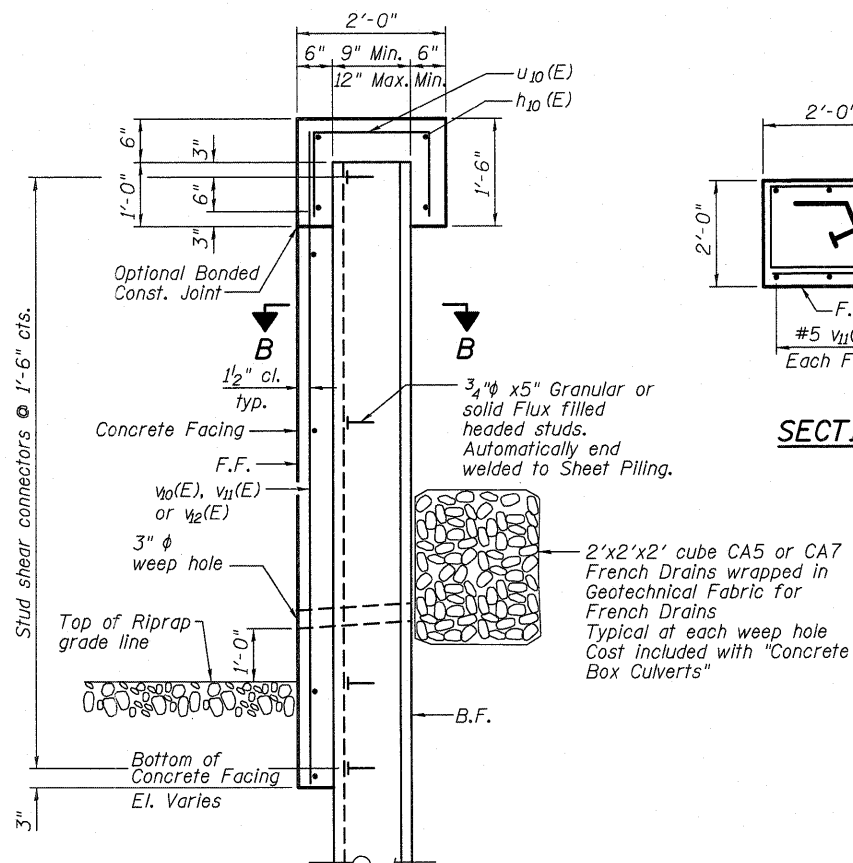
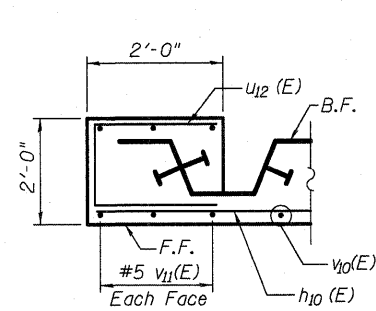


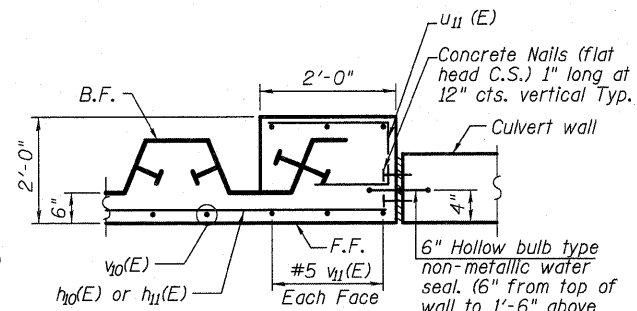
**NE WINGWALL ELEVATION
NW & SE - OPPOSITE HAND**



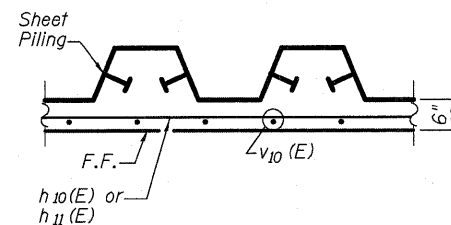
SECTION A-A



SECTION D-D



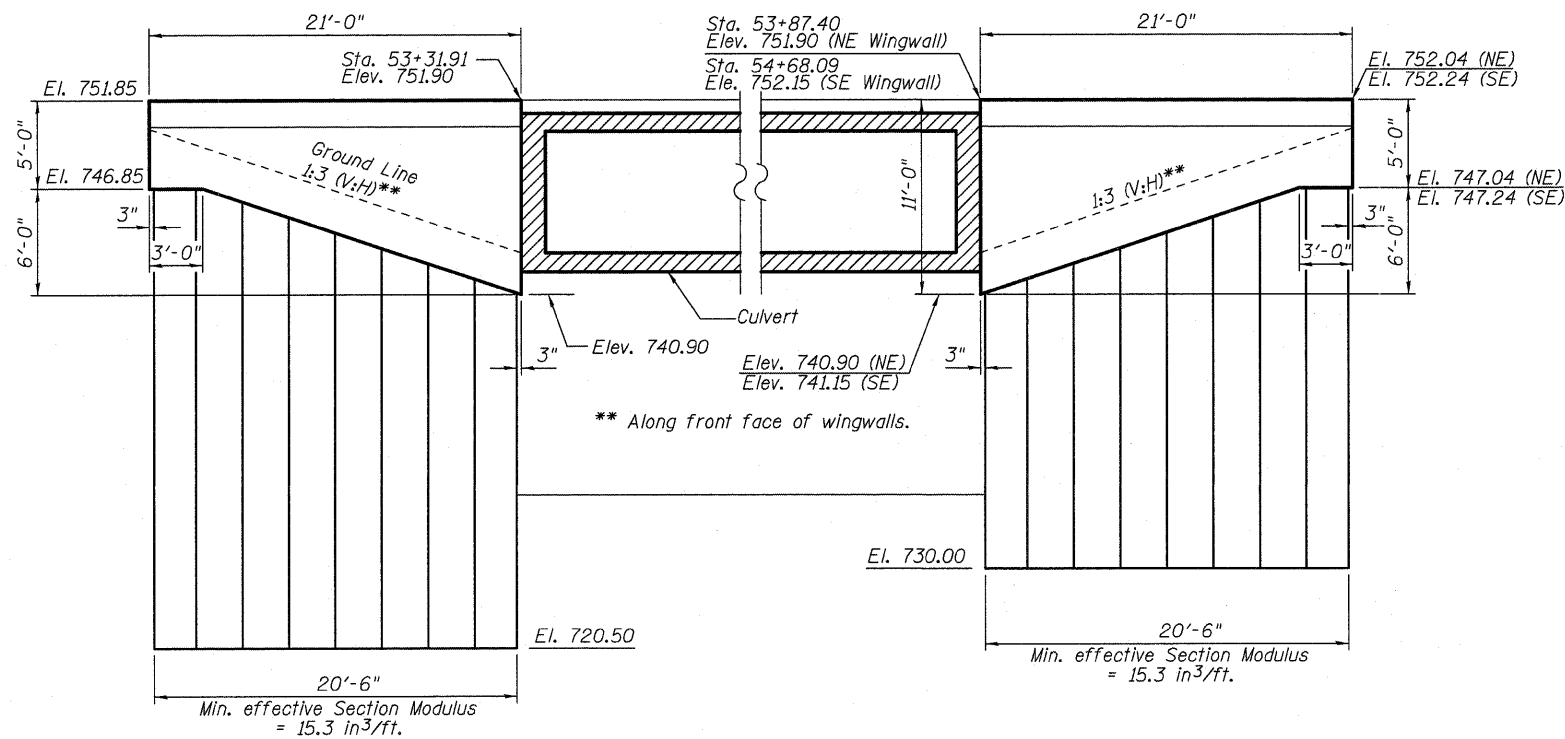
SECTION C-C



SECTION B-B

BILL OF MATERIAL

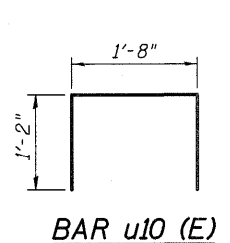
Bar	No.	Size	Length	Shape
h10(E)	27	#5	20'-8"	—
h11(E)	9	#5	19'-0"	—
u10(E)	66	#4	4'-0"	□
u11(E)	36	#4	4'-1"	□
u12(E)	18	#4	5'-0"	□
v10(E)	24	#5	14'-6"	—
v11(E)	18	#5	4'-9"	—
v12(E)	18	#5	10'-9"	—
Stud Shear Connectors	Each		288	
Concrete Box Culverts	Cu. Yd.		24.8	
Reinforcement Bars Epoxy Coated	Pound		1,750	
Permanent Steel Sheet Piling	Sq. Ft.		1,519	



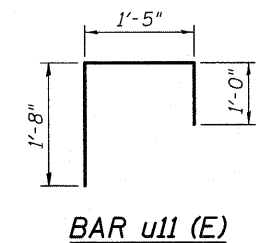
NORTHWEST WINGWALL

NORTHEAST & SOUTHEAST WINGWALLS

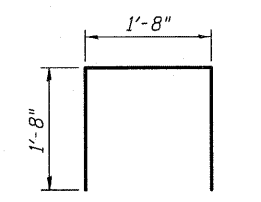
PERMANENT SHEET PILING ELEVATIONS



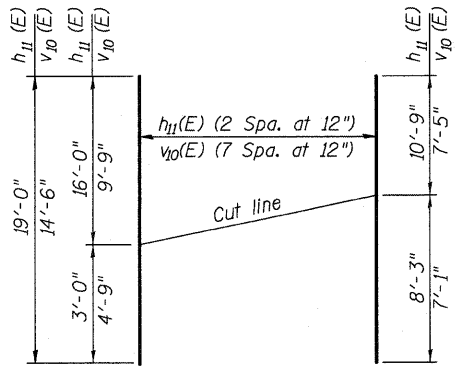
BAR u10 (E)



BAR u11 (E)



BAR u12 (E)



FIELD CUTTING DIAGRAM

* Order h11(E) and v10(E) bars full length. Cut to fit and use the remainder of bars in opposite side.

MIN. BAR LAP

#4 1'-8"
#5 2'-2"

NOTES:

- Permanent Steel Pile Walls shall be backfilled prior to constructing the concrete facing.
- Hard driving may be encountered during the sheet piling installation. The Contractor shall provide the appropriate driving equipment for the soil conditions indicated on the boring logs.
- If the Contractor chooses to alter the permanent cantilevered sheet piling wingwall design requirements shown on the plans, design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
- All dimensions are in feet except as noted.
F.F. - Front Face
B.F. - Back Face
E.F. - Each Face
P.J.F. - Preformed Joint Filler



USER NAME =	DESIGNED - JSG	REVISED -
PLOT SCALE =	CHECKED - LRG	REVISED -
PLOT DATE =	DRAWN - MPS	REVISED -
	CHECKED - JXH/TPG	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SHEET PILING WINGWALL DETAILS
STRUCTURE No. 049-0196 STA. 54+00.00**

SHEET NO. SA5 OF SA10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	145 X-T	LAKE	80	49
			CONTRACT NO. 62187	
DATE: 11-30-2011		ILLINOIS FED. AID PROJECT		