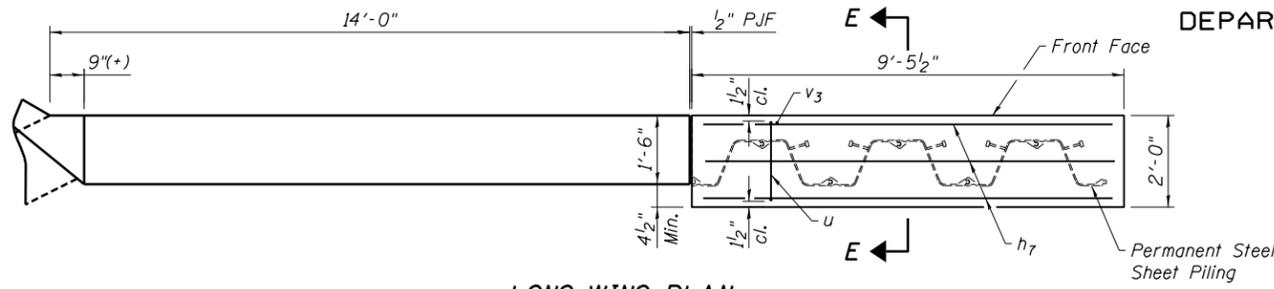
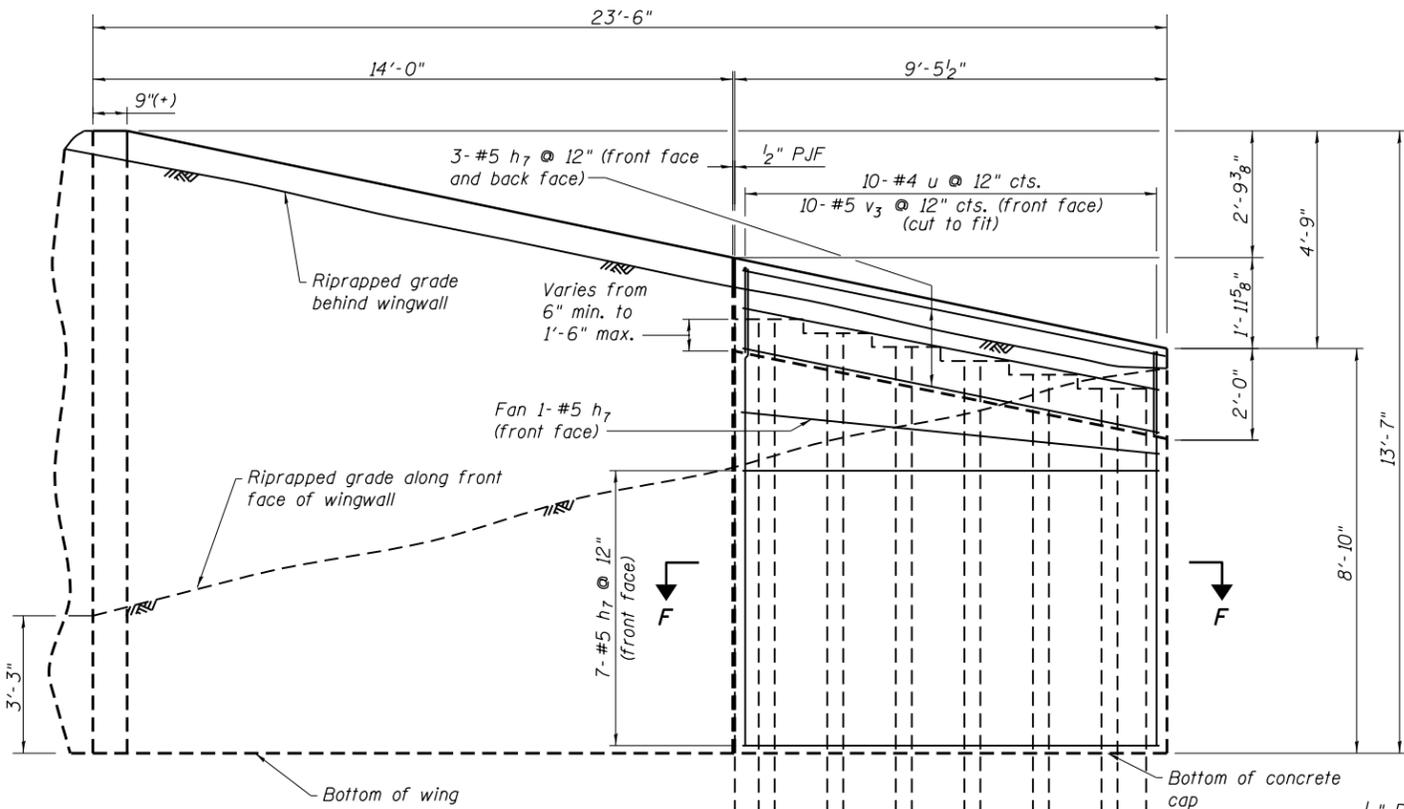


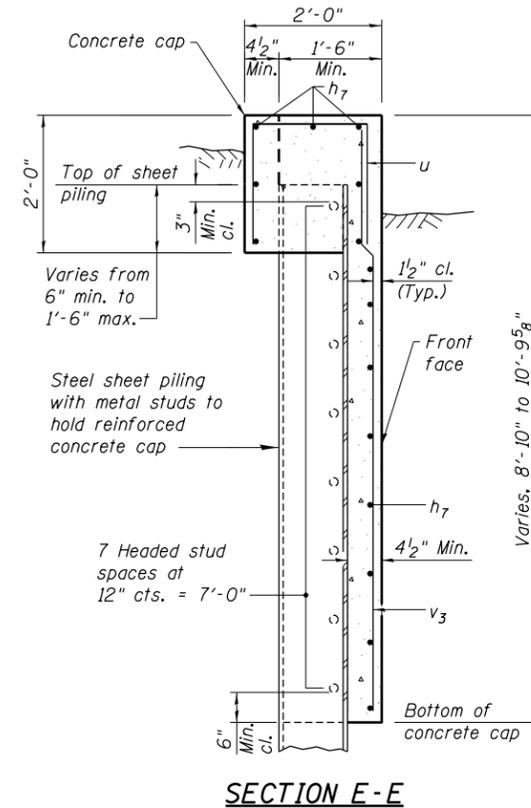
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



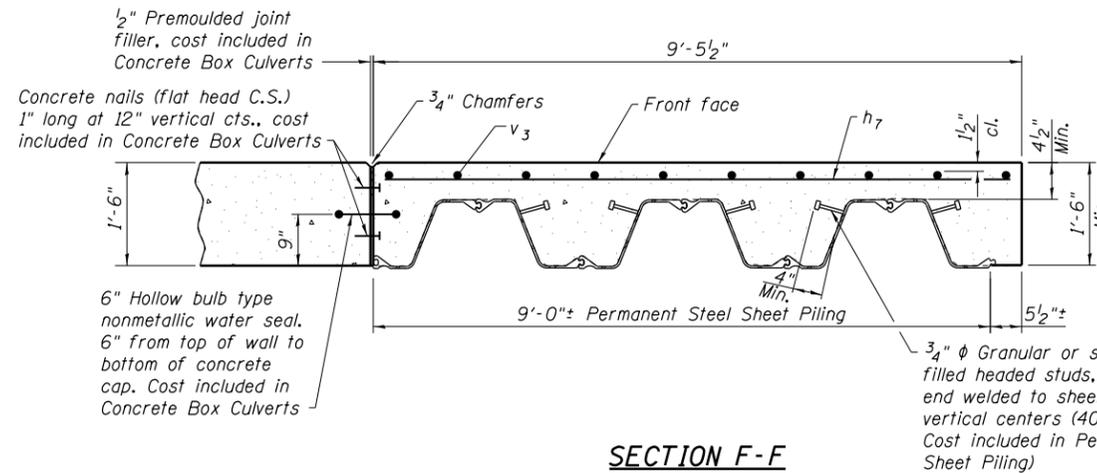
LONG WING PLAN



LONG WING ELEVATION
(Looking at Back Face)



SECTION E-E



SECTION F-F

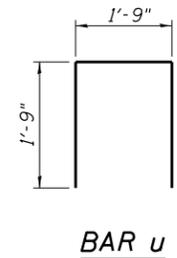
BILL OF MATERIAL				
Bar	No.	Size	Length	Shape
h ₇	28	#5	9'-2"	—
u	20	#4	5'-3"	□
v ₃	10	#5	18'-11"	—
Concrete Box Culverts			Cu. Yd.	8.5
Reinforcement Bars			Pound	540
Permanent Steel Sheet Piling			Sq. Ft.	402

NOTES

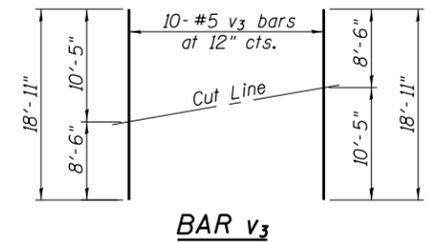
- The quantity of concrete for the sheet piling cap is included in Concrete Box Culverts.
- The cost of supplying and installing the shear studs is included in Permanent Steel Sheet Piling.

CONSTRUCTION SEQUENCE

- Excavate site for box culvert wingwall and steel sheet piling wall.
- Backfill with rock fill as shown on the plans.
- Construct box culvert wingwall and include water seal in concrete pour.
- Install 1/2" P.J.F. with concrete nails.
- Install Permanent Steel Sheet Piling.
- Backfill behind box culvert wingwall and Permanent Steel Sheet Piling.
- Construct concrete cap.
- Complete backfill in front of and behind wall.
- Install stone riprap around wall.



BAR u



BAR v₃

FIELD CUTTING DIAGRAM

Order v₃ full length. Cut as shown and use remainder of bars in opposite wall.

**STEEL SHEET PILING WALL DETAILS
STRUCTURE NO. 051-2008**

ESCA
CONSULTANTS, INC.

DESIGNED BY: ELH 03/10
DRAWN BY: DWH/HAS 03/10
CHECKED BY: ELH 06/10
APPROVED BY: RDP 06/10

Permanent Steel Sheet Piling
minimum effective section
modulus = 25 in.³/ft.

Elev. 391.18 SE wall
Elev. 391.28 NW wall
Minimum tip elevation
of sheet piling

SHEET NO. 7 10 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	781	109B-1	LAWRENCE	34	21
CONTRACT NO. 74105					
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		