

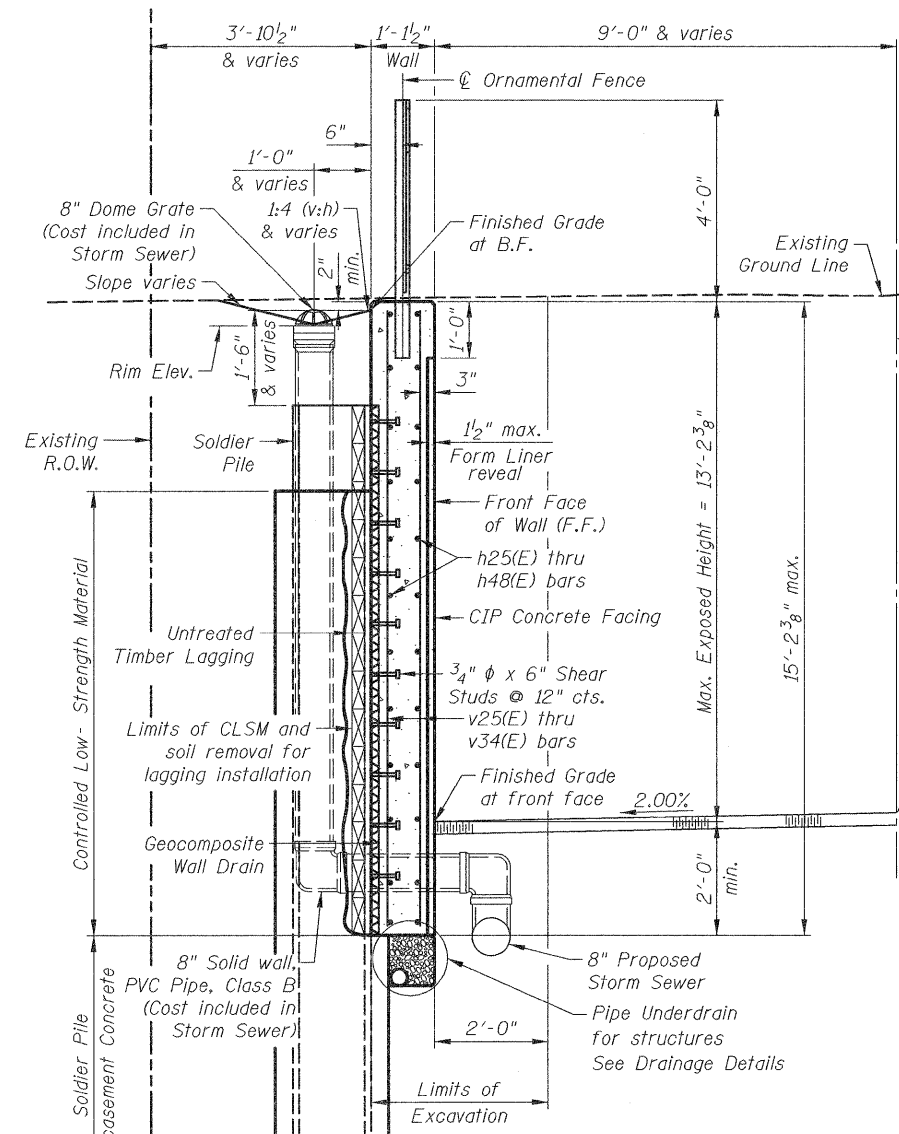
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h25(E)	20	#4	25'-11"	
h26(E)	2	#4	13'-11"	
h27(E)	10	#4	23'-0"	
h28(E)	80	#4	26'-7"	
h29(E)	46	#4	23'-8"	
h30(E)	2	#4	11'-0"	
h31(E)	6	#4	14'-9"	
h32(E)	4	#4	17'-10"	
h33(E)	28	#4	23'-6"	
h34(E)	2	#4	23'-3"	
h35(E)	30	#4	20'-0"	
h36(E)	2	#4	16'-0"	
h37(E)	2	#4	11'-3"	
h38(E)	2	#4	20'-7"	
h39(E)	16	#4	23'-1"	
h40(E)	2	#4	19'-4"	
h41(E)	2	#4	17'-0"	
h42(E)	2	#4	12'-3"	
h43(E)	2	#4	11'-0"	
h44(E)	2	#4	8'-0"	
h45(E)	2	#4	4'-0"	
h46(E)	2	#4	8'-3"	
h47(E)	10	#4	18'-1"	
h48(E)	2	#4	34'-0"	
v25(E)	62	#4	4'-2"	
v26(E)	22	#4	10'-1"	
v27(E)	50	#4	15'-3"	
v28(E)	50	#4	22'-3"	
v29(E)	8	#4	13'-0"	
v30(E)	12	#4	28'-9"	
v31(E)	18	#4	15'-5"	
v32(E)	4	#4	29'-6"	
v33(E)	4	#4	27'-6"	
v34(E)	18	#4	16'-10"	

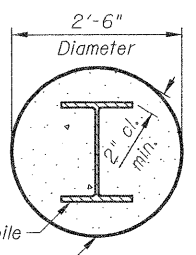
ITEM	UNIT	QUANTITY
Structure Excavation	Cu. Yd.	301
Concrete Structures	Cu. Yd.	112.8
Stud Shear Connectors	Each	302
Reinforcement Bars, Epoxy Coated	Pound	6,790
Geocomposite Wall Drain	Sq. Yd.	159
* Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	2,494
* Untreated Timber Lagging	Sq. Ft.	1,913
* Furnishing Soldier Piles (W Section)	Foot	753
* Pipe Underdrains for Structures 4"	Foot	318
* Ornamental Fence	Foot	293
* Staining Concrete Structures	Sq. Yd.	256
* Form Liner Textured Surface, Special	Sq. Ft.	2,303

\* Indicates Special Provision

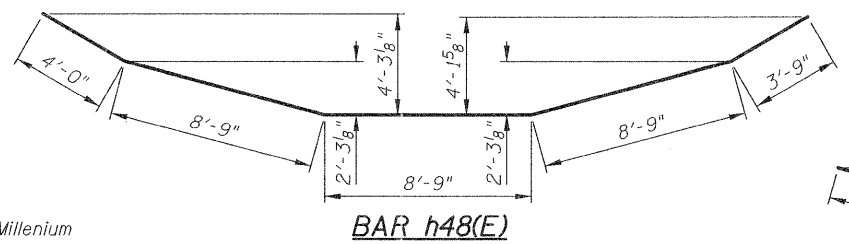


**SECTION SOLDIER PILE WALL**

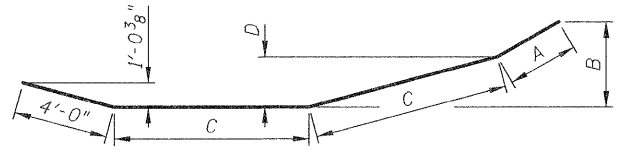
The Contractor is responsible for the design and performance of the lagging using no less than a 3 in. nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi.



**SOLDIER PILE ENCASEMENT**

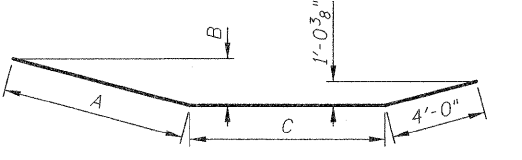


**BAR h48(E)**



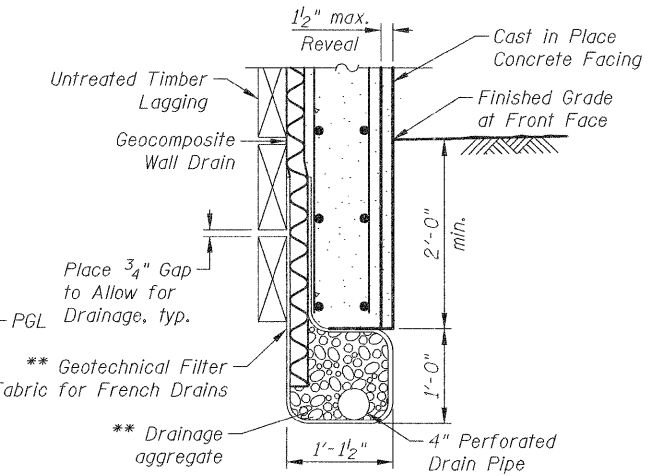
**BARS h33(E), h34(E) & h39(E)**

Bars	A	B	C	D
h33(E)	3'-0"	3'-7 5/8"	8'-3"	2'-1 5/8"
h34(E)	4'-7"	3'-5 5/8"	8'-4"	2'-1 5/8"
h39(E)	2'-7"	3'-5 5/8"	8'-3"	2'-1 5/8"

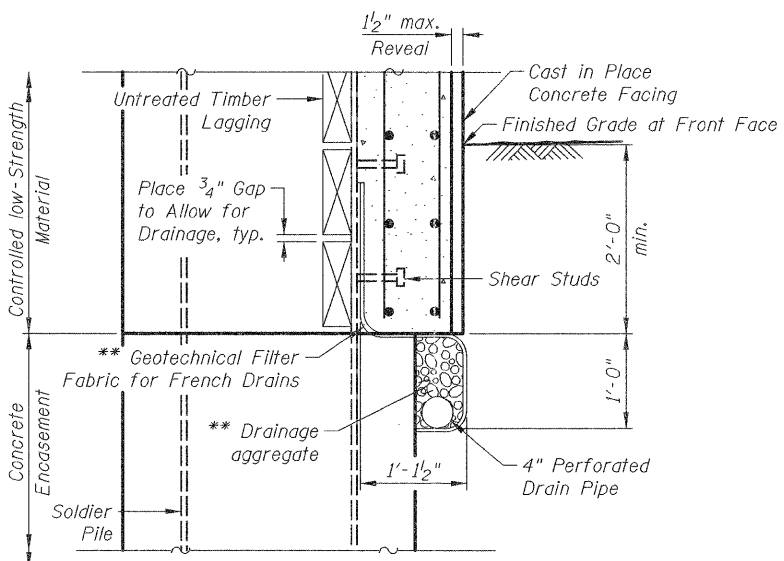


**BARS h35(E), h38(E), h40(E) & h41(E)**

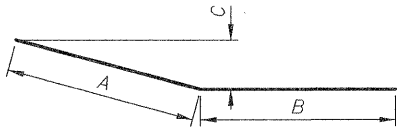
Bars	A	B	C
h35(E)	7'-9"	2'-0 1/8"	8'-3"
h38(E)	8'-3"	2'-1 5/8"	8'-4"
h40(E)	7'-1"	1'-10"	8'-3"
h41(E)	4'-9"	1'-2 3/4"	8'-3"



**DRAINAGE DETAILS BETWEEN SOLDIER PILES**

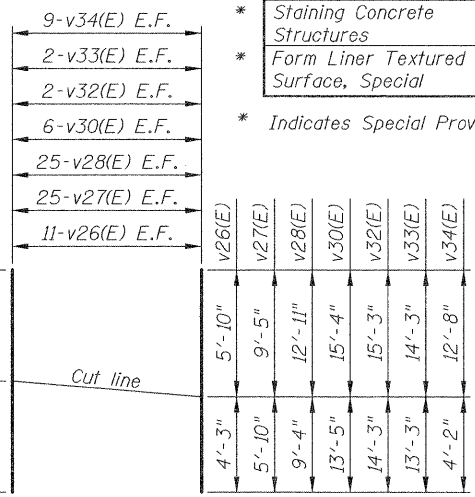


**DRAINAGE DETAILS AT SOLDIER PILES**



**BARS h36(E), h37(E), h42(E), h43(E), h44(E) & h47(E)**

Bars	A	B	C
h36(E)	7'-9"	8'-3"	2'-0 1/8"
h37(E)	3'-0"	8'-3"	9 3/8"
h42(E)	4'-0"	8'-3"	1'-0 3/8"
h43(E)	4'-0"	7'-0"	1'-0 3/8"
h44(E)	4'-0"	4'-0"	1'-0 3/8"
h47(E)	10'-0"	8'-1"	2'-7"



**BAR v26(E), thru v28(E), v30(E), v32(E) thru v34(E)**

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

Notes:  
See sheet WS1 for Ornamental Fence details.  
See sheet WA3 for Section Thru Drilled Soldier Pile Wall, Construction Joint and Expansion Joint details.

J:\2322\cad\struct\Wall A\04\_WA\_Wall Details.dgn 11:44:05 AM 12/15/2011

**CIVILTECH**  
450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DRAWN - D. ATKINS	REVISED -
DESIGNED - M. LANGE	REVISED -
CHECKED - G. HATLESTAD	REVISED -
DATE - DECEMBER 19, 2011	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**WALL A DETAILS WALL A; MILLENNIUM TRAIL**  
SHEET NO. WA4 OF WA5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0541	10-F3000-00-BT	LAKE	91	40

CONTRACT NO. [ILLINOIS] FED. AID PROJECT