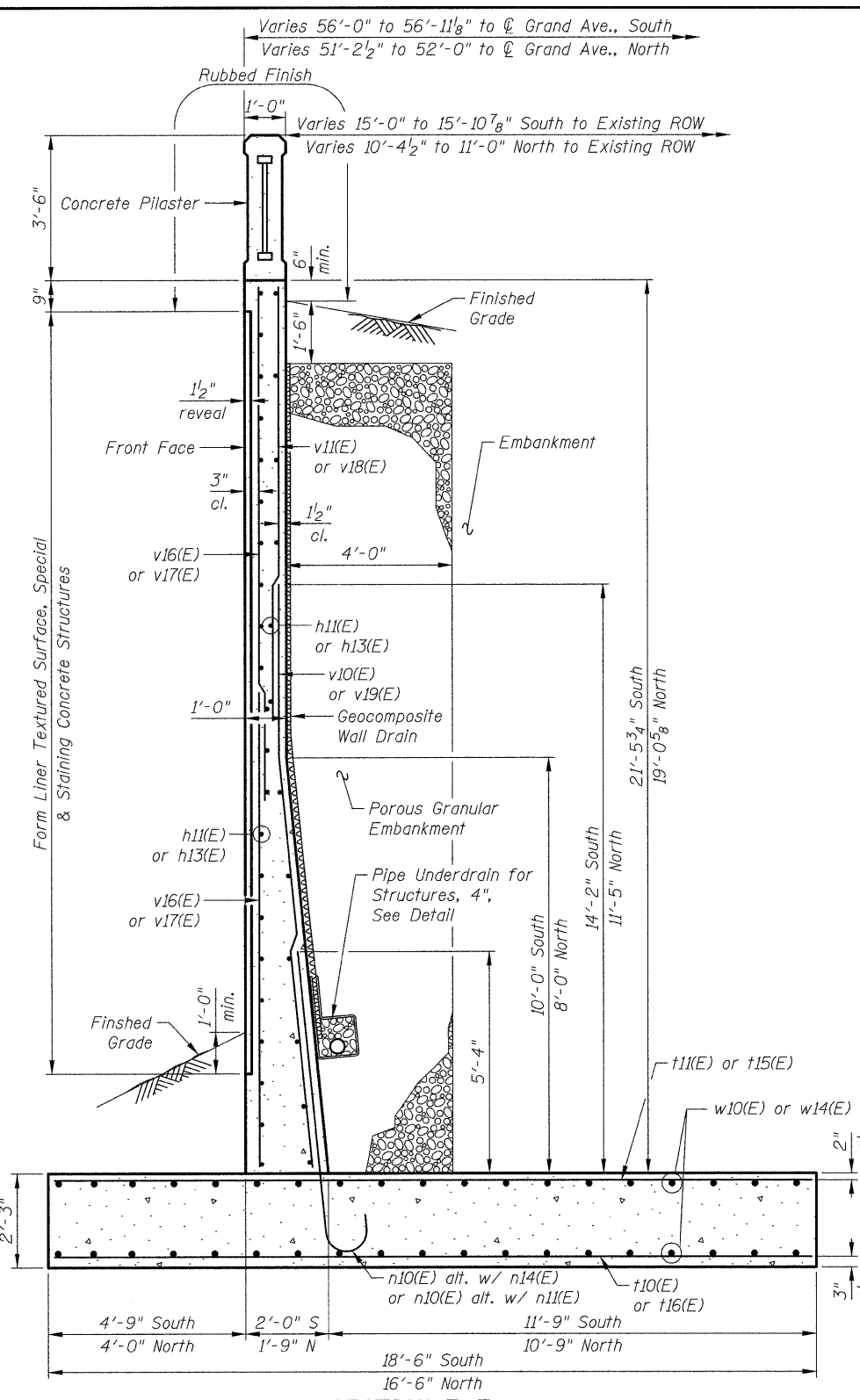
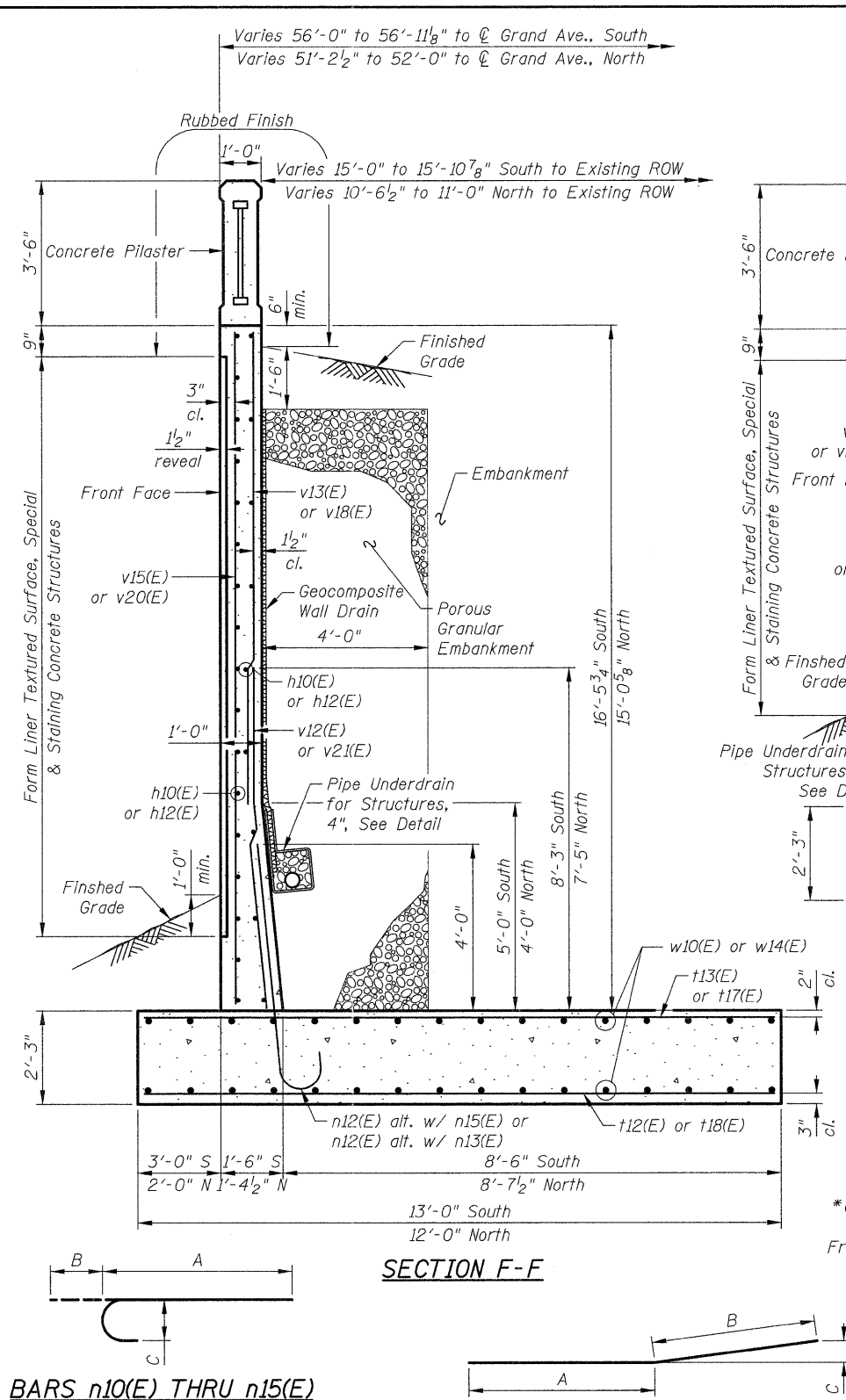


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SECTION E-E

Note:
 Maximum Applied Bearing Pressure = 2,940 psf
 Maximum Allowed Bearing Pressure = 3,000 psf



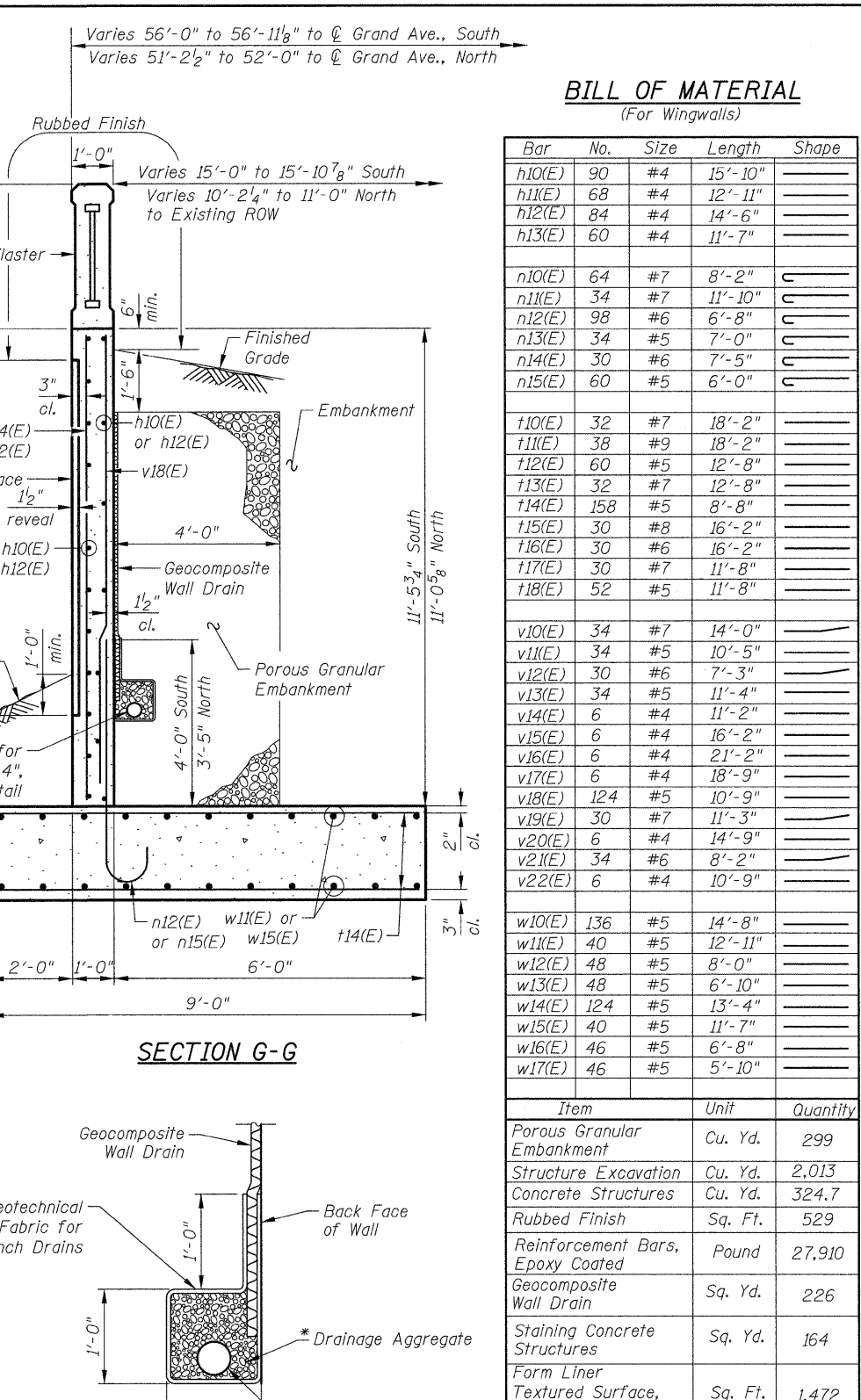
SECTION F-F

BARS n10(E) THRU n15(E)

Bar	A	B	C
n10(E)	7'-4"	0'-10"	0'-7"
n11(E)	11'-0"	0'-10"	0'-7"
n12(E)	6'-0"	0'-8"	0'-6"
n13(E)	6'-5"	0'-7"	0'-5"
n14(E)	6'-9"	0'-8"	0'-6"
n15(E)	5'-5"	0'-7"	0'-5"

BARS v10(E), v12(E), v19(E), AND v21(E)

Bar	A	B	C
v10(E)	4'-2"	9'-10"	1'-0"
v12(E)	3'-5"	3'-10"	0'-4 1/2"
v19(E)	3'-5"	7'-10"	0'-9"
v21(E)	3'-3"	4'-11"	0'-6"



SECTION G-G

PIPE UNDERDRAIN DETAIL

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

BILL OF MATERIAL
(For Wingwalls)

Bar	No.	Size	Length	Shape
h10(E)	90	#4	15'-10"	---
h11(E)	68	#4	12'-11"	---
h12(E)	84	#4	14'-6"	---
h13(E)	60	#4	11'-7"	---
n10(E)	64	#7	8'-2"	U
n11(E)	34	#7	11'-10"	U
n12(E)	98	#6	6'-8"	U
n13(E)	34	#5	7'-0"	U
n14(E)	30	#6	7'-5"	U
n15(E)	60	#5	6'-0"	U
t10(E)	32	#7	18'-2"	---
t11(E)	38	#9	18'-2"	---
t12(E)	60	#5	12'-8"	---
t13(E)	32	#7	12'-8"	---
t14(E)	158	#5	8'-8"	---
t15(E)	30	#8	16'-2"	---
t16(E)	30	#6	16'-2"	---
t17(E)	30	#7	11'-8"	---
t18(E)	52	#5	11'-8"	---
v10(E)	34	#7	14'-0"	---
v11(E)	34	#5	10'-5"	---
v12(E)	30	#6	7'-3"	---
v13(E)	34	#5	11'-4"	---
v14(E)	6	#4	11'-2"	---
v15(E)	6	#4	16'-2"	---
v16(E)	6	#4	21'-2"	---
v17(E)	6	#4	18'-9"	---
v18(E)	124	#5	10'-9"	---
v19(E)	30	#7	11'-3"	---
v20(E)	6	#4	14'-9"	---
v21(E)	34	#6	8'-2"	---
v22(E)	6	#4	10'-9"	---
w10(E)	136	#5	14'-8"	---
w11(E)	40	#5	12'-11"	---
w12(E)	48	#5	8'-0"	---
w13(E)	48	#5	6'-10"	---
w14(E)	124	#5	13'-4"	---
w15(E)	40	#5	11'-7"	---
w16(E)	46	#5	6'-8"	---
w17(E)	46	#5	5'-10"	---

Item	Unit	Quantity
Porous Granular Embankment	Cu. Yd.	299
Structure Excavation	Cu. Yd.	2,013
Concrete Structures	Cu. Yd.	324.7
Rubbed Finish	Sq. Ft.	529
Reinforcement Bars, Epoxy Coated	Pound	27,910
Geocomposite Wall Drain	Sq. Yd.	226
Staining Concrete Structures	Sq. Yd.	164
Form Liner Textured Surface, Special	Sq. Ft.	1,472
Pipe Underdrain For Structures, 4"	Foot	163

Notes:
 See Sheet S8 for Concrete Pilasters Details.
 See Sheets S5 & S6 for Pipe Underdrain Invert Elevations

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

DRAWN - K. BOCHNOWSKI	REVISED -
DESIGNED - M. LANGE	REVISED -
CHECKED - G. HATLESTAD	REVISED -
DATE - JANUARY 27, 2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WINGWALL DETAILS
GRAND AVENUE OVER MILLENNIUM TRAIL
STRUCTURE NO. 049-9003
 SHEET NO. S7 OF S11 SHEETS

F.A.P. RTE. 0541	SECTION 10-F3000-00-BT	COUNTY LAKE	TOTAL SHEETS 91	SHEET NO. 32
				CONTRACT NO.

ILLINOIS FED. AID PROJECT