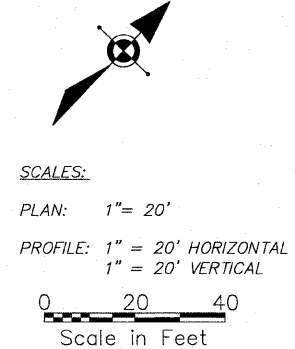


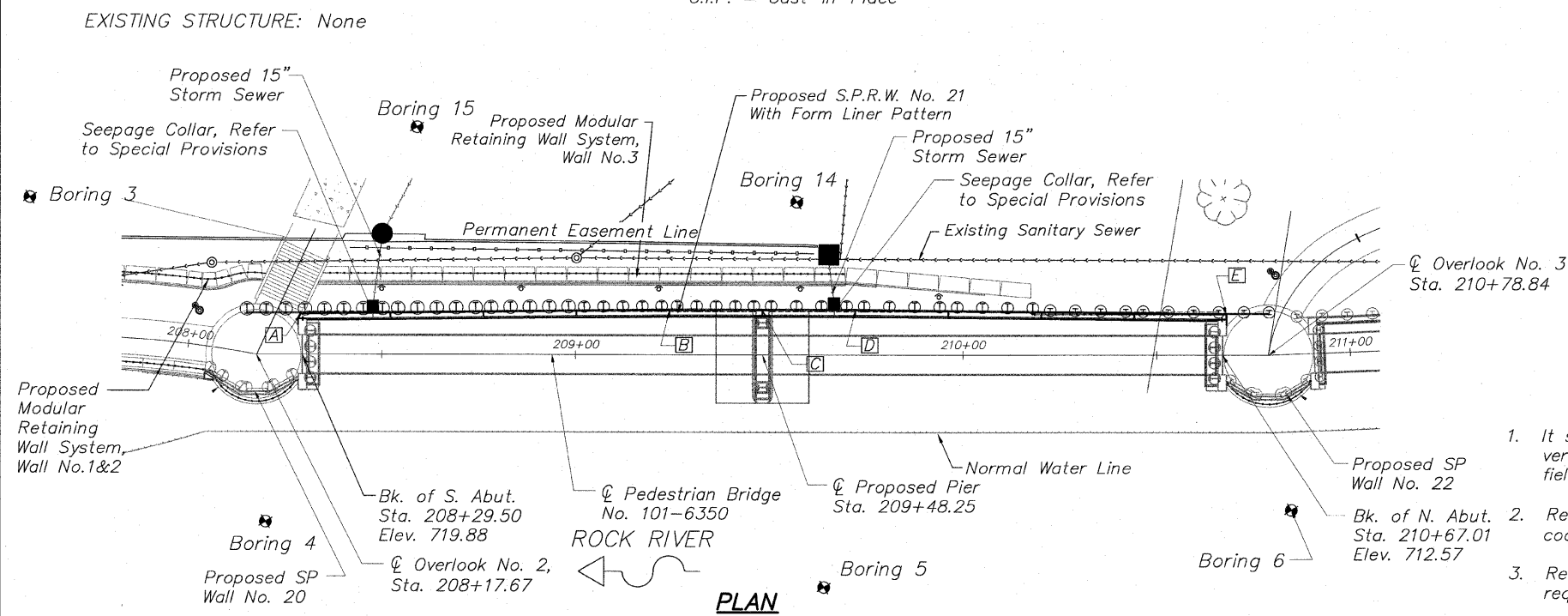
BENCHMARK		
NO.	DESCRIPTION	ELEVATION
	North Bonnet Bolt on Fire Hydrant South Of Museum Entrance on the East side of N. Main Street	736.60

Notes: Wall Offsets are Measured from the ϕ of the Pedestrian Walkway to the Back Face of the Cast-in-Place Portion of the Soldier Pile Wall.
 S.P.R.W. = Soldier Pile Retaining Wall
 C.I.P. = Cast-in-Place

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

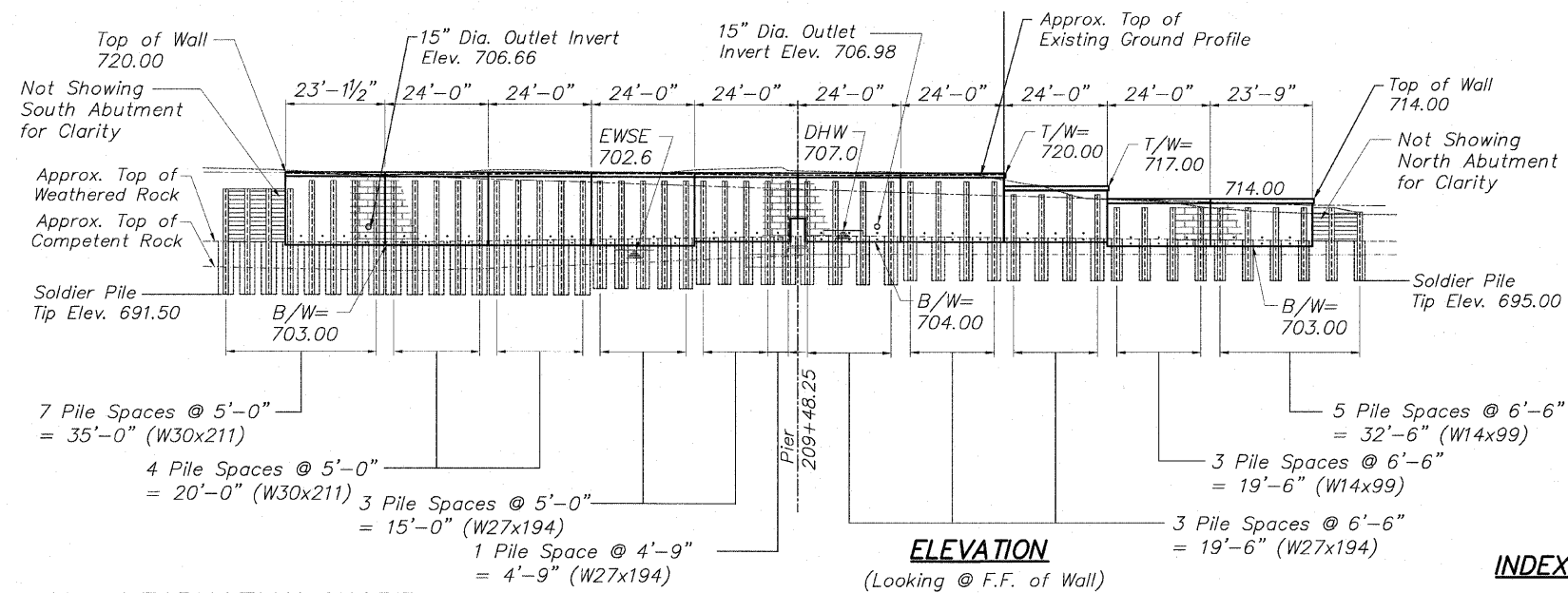


TOTAL BILL OF MATERIALS		
ITEM	UNITS	TOTAL
Structure Excavation	Cu. Yd.	1,226
Concrete Structures	Cu. Yd.	182.4
Protective Coat	Sq. Yd.	448
Stud Shear Connectors	Each	1,196
Untreated Timber Lagging	Sq. Ft.	2,707
Furnishing Soldier Piles W Section	Foot	179
Furnishing Soldier Piles W Section	Foot	535
Furnishing Soldier Piles W Section	Foot	487
Drilling and Setting Soldier Piles in Rock	Cu. Ft.	4,082
Drilling and Setting Soldier Piles in Soil	Cu. Ft.	6,027
Reinforcement Bars (Epoxy Coated)	Pound	15,325
Geocomposite Wall Drain	Sq. Yd.	154
Rubbed Finish	Sq. Ft.	637
Form Liner Textured Surface	Sq. Ft.	3,395
Rock Excavation for Structures, Special	Cu. Yd.	28.5
Staining Concrete Structures	Sq. Yd.	0



GENERAL NOTES

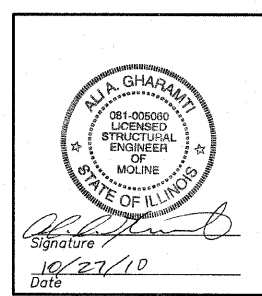
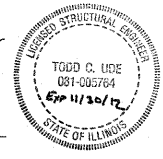
- It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering materials.
- Reinforcement bars designated (E) shall be epoxy coated.
- Reinforcement bars shall conform to the requirements of ASTM A706 Gr 60.
- Reinforcing bars shall be lapped a minimum as shown on plans where splices occur. Radius bars shall be factory bent and delivered to the site with appropriate radius. Field bending will only be allowed to achieve form clearances.
- Stud shear connectors shall be $\frac{3}{4}$ " diameter x 6" granular or flux filled headed studs automatically end welded to the front flange in the field.
- Protective coat shall be applied to all exposed surfaces of the wall and shall extend 1'-0" minimum below finished grade.
- All construction joints shall be bonded.
- The cost of cutting off any piling in excess of that needed shall be included in the cost of "Drilling and Setting Soldier Piles".
- Drilling and setting of soldier piles will require drilling through layers of sand and gravel. Refer to boring logs. The use of temporary drill casings or drilling slurry may be required to keep holes open prior to placement of concrete at no additional cost to the contract. Refer to Special Provisions for Drilling and Setting Soldier Piles.
- The approximate embedment depth for the soldier pile tip is as provided on the plans and considers a penetration into competent rock of 5.5 feet (minimum) based on the soil boring information and uniaxial compressive rock strength value of 4,000 PSI (minimum) as provided by Terracon Consultants, Inc. The actual top of rock elevation, which qualifies as competent rock meeting the minimum requirements of the design, shall be determined and field verified by the geotechnical engineer during the drilling operation at each soldier pile location. Final pile tip elevations shall be a minimum of 5.5 feet below actual top of competent rock elevations.
- All exposed edges shall have a $\frac{3}{4}$ " x 45° chamfer, except as shown otherwise. Chamfers on vertical edges shall be continued a minimum of one foot below finished ground level.
- Exposed surfaces of concrete shall be given a "rubbed finish" except where form liner is specified.
- Contractor shall be responsible for any dewatering in accordance with the erosion control plan at no additional cost to the contract.
- Backfill behind wall shall be placed to the lines and grades as shown on the plans. The Contractor shall take care to ensure the use of suitable material and proper compaction of all fill areas. Compaction shall be performed with a loose thickness of no more than 8" and each lift shall be compacted to a density equal to or greater than 95% standard proctor maximum dry density (ASTM D-698) taking care not to over compact the soil directly behind the wall. Moisture shall be within -2 to +3 percent of optimum. No heavy equipment shall be allowed within 6 feet of the wall during backfilling and compaction. Compaction shall be by hand method, "walk behind", equipment in the areas within 6 feet of the face of the wall.
- The Contractor is responsible for the design and performance of the lagging using no less than a 3" nominal rough-sawn thickness and timber with allowable bending stress of 1000 psi.



INDEX OF WALL No. 21 SHEETS

- General Plan and Elevation
- SP Wall No. 21 Details
- SP Wall No. 21 Details
- SP Wall No. 21 Details
- Pile Information & C.I.P. Bill of Materials

Reviewed and Approved for Structural Adequacy Only
 Todd C. Ude 11/6/16



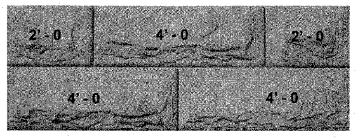
GENERAL PLAN & ELEVATION
 SP WALL No. 21
 PEDESTRIAN RIVERWALK
 ALONG THE ROCK RIVER
 WINNEBAGO COUNTY
 SECTION NO. 06-00543-00-BT
 STATION 208+13.27 TO STATION 210+79.46

WALL INFORMATION CHART

Reference Point	Station to Back Face of C.I.P. Wall	Offset to Back Face of C.I.P. Wall
A	208+29.12	10.50' Rt.
B	209+24.26	11.50' Rt.
C	209+48.26	11.50' Rt.
D	209+72.26	11.50' Rt.
E	210+68.01	10.50' Rt.

MINIMUM BAR LAP

No. 4 bars 1'-8"
 No. 5 bars 2'-2"
 No. 6 bars 2'-7"



FORM LINER PATTERN

Milestone, Inc.
 Pattern No. MS-1011
 Weathered Limestone or Equal
 (See Special Provisions)

HIGHWAY CLASSIFICATION

Rockford Pedestrian Riverwalk
 Functional Class: Pedestrian

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications - 17th Edition

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi (Cast-in-place Concrete)
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (Soldier Pile Steel)

DESIGNED	CTB
CHECKED	AAG
DRAWN	JAW
CHECKED	JWH

EXAMINED	ENGINEER OF BRIDGE DESIGN
PASSED	ENGINEER OF BRIDGES AND STRUCTURES

McClure
 Engineering Associates, Inc.
 7282 Argus Drive
 (815) 398-2332
 Rockford, Illinois 61107-5837
 Fax (815) 398-2496
 Design Firm License: Illinois #184-000816
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SHEET NO. 1
5 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00543-00-BT	WINNEBAGO	148	85
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 85521	

H:\05-008 Riverwalk Museum\DESIGN\DRAWINGS\STRUCTURAL\GP&E\08-008 SP-WALL 21.dwg, GP&E Wall 21, 10/26/2010 6:04:00 PM, MEAT, Oce D1-2436 in (Landscape), 1:1