

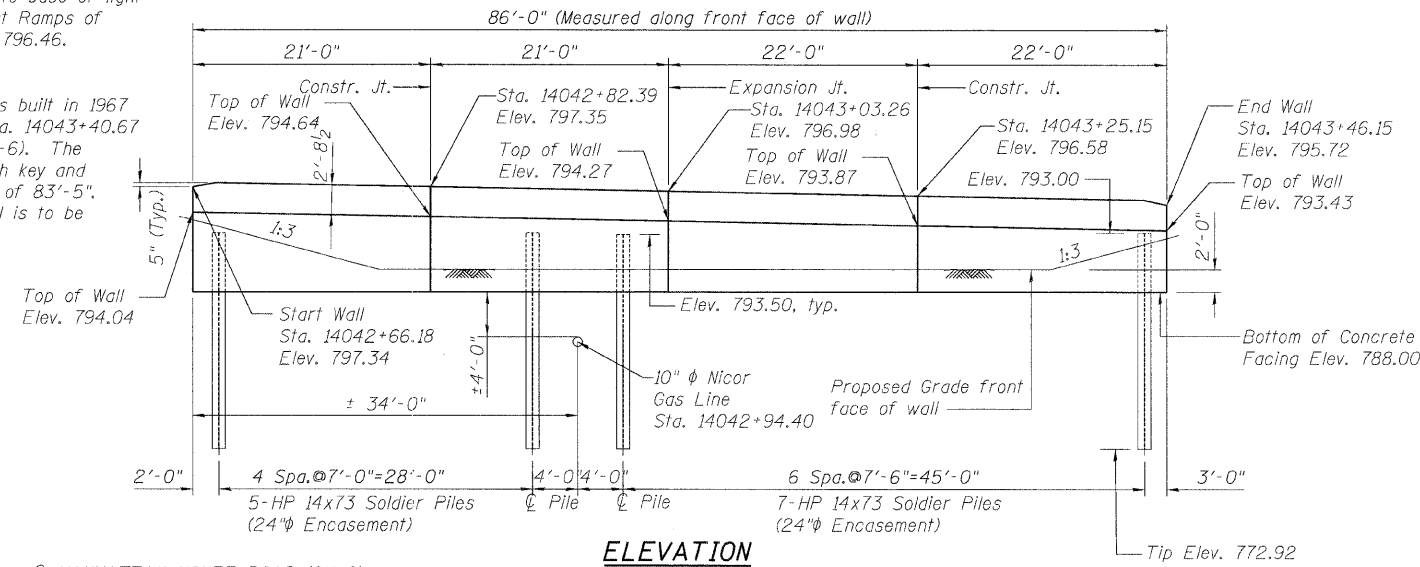
Benchmark: Box cut in concrete base of light pole in Northeast quad of East Ramps of I-57 and Monee Road. Elev. 796.46.

Existing Structure:
The existing retaining wall was built in 1967 from Sta. 14042+62.62 to Sta. 14043+40.67 of Manhattan-Monee Road (CH-6). The wall is a cantilevered type with key and varies in height over a length of 83'-5". The stem of the retaining wall is to be partially removed

Salvage:
None

*SEC. 99 (18.2) R 3&9-1HB-1-BR2

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
FAI 57	*	WILL	303	152	4 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		Contract #62253



GENERAL NOTES

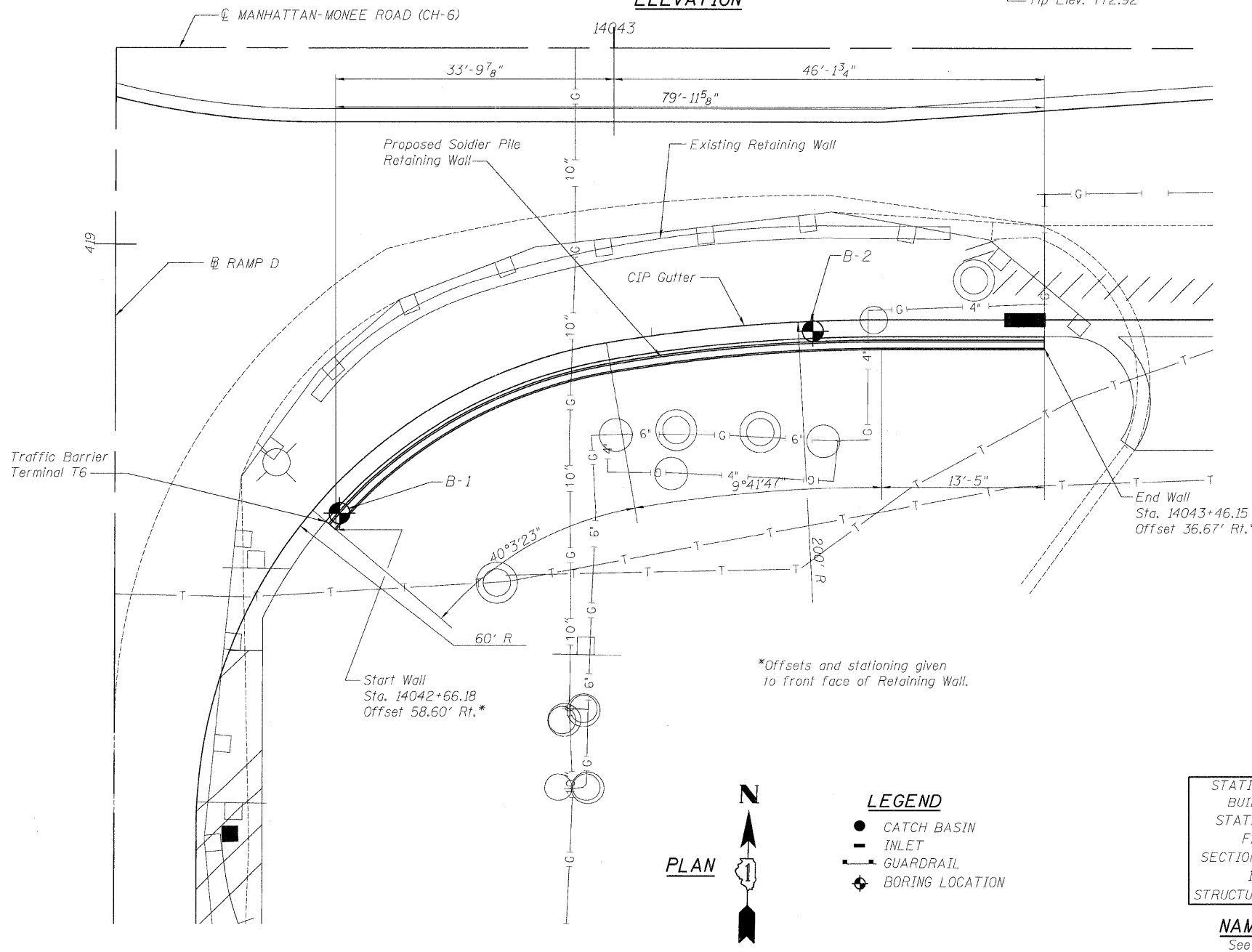
Contractor shall coordinate with utility for protection of gas pipeline. The retaining wall shall be constructed in such a way that the existing pipeline, valves and appurtenances are not disturbed and remain accessible during construction. Hand excavation may be required in close proximity to pipeline facilities and oversight by a Nicor inspector may be necessary. All retaining wall stations and offsets are off the Manhattan-Monee Rd (CH-6) centerline. Reinforcement Bars shall conform to the requirements of ASTM A 706 Gr. 60 (IL Modified). See Special Provisions for installation of Soldier Pile Retaining Wall. Shear Studs shall be granular or solid flux filled headed studs automatically end welded to the front flange in field. The geocomposite wall drain shall be constructed according to Section 591 of the Standard Specifications. The contractor shall ensure that the bottom, side and the top edges are protected for soil entering or sealing the drain while placing the pervious fabric side of the drain toward the soil. Geocomposite wall drain shall be installed in stages as the excavation proceeds downward. Splicing should be minimized, following proper splice practices to insure no long term soil contamination. All construction joints shall be bonded. Proposed grade front face of wall shall match existing grade.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stud Shear Connectors	Each	144
Structure Excavation	Cu. Yd.	35
Concrete Retaining Wall Removal	Foot	83
Concrete Structures	Cu. Yd.	32.8
Reinforcement Bars, Epoxy Coated	Pound	4,580
Furnishing Soldier Piles, HP 14x73	Foot	247
Drilling and Setting Soldier Piles (in Soil)	Cu. Yd.	24.2
Geocomposite Wall Drain	Sq. Yd.	48
Protective Coat	Sq. Yd.	156
Pipe Underdrains for Structures, 4"	Foot	86
Untreated Timber Lagging	Sq. Ft.	511
Name Plates	Each	1
Porous Granular Embankment	Cu. Yd.	96

INDEX OF DRAWINGS

- R-1 General Plan and Elevation
- R-2 Typical Section and Details
- R-3 Wall Elevation and Reinforcement
- R-4 Soil Borings



DESIGN LOADINGS

Equivalent Lateral Fluid Pressure: 40 pcf

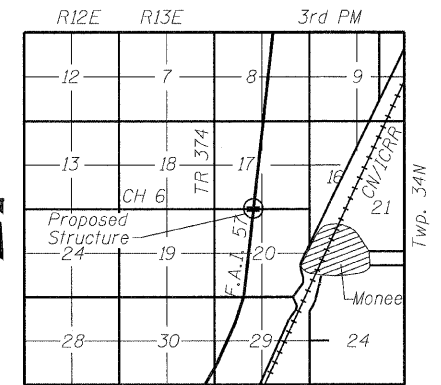
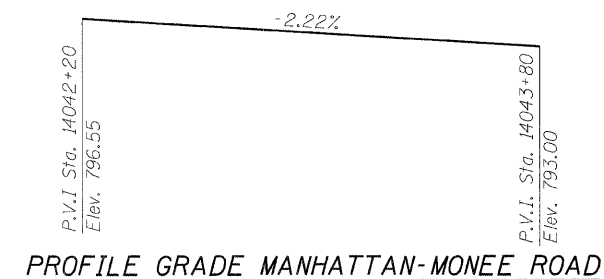
DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinf.)
 $f_y = 50,000$ psi (M270, Grade 50 Soldier Piles)



LOCATION SKETCH

PROFILE GRADE MANHATTAN-MONEE ROAD

GENERAL PLAN

MANHATTAN-MONEE ROAD (CH-6)
 OVER I-57
 RETAINING WALL AT RAMP D
 F.A. I-57 SEC. 99(18.2) R 3&9-1HB-1-BR2
 WILL COUNTY STA. 14037+43.90
 STRUCTURE NUMBER 099-W022



Sean Marzano
 STRUCTURAL ENGINEER
 CLARK DIETZ, INC.
 DATE: 5/1/2008
 LICENSE EXPIRES 11-30-2009

DESIGN FIRM REGISTRATION
 No. 184-000450
 1817 SOUTH NEIL STREET
 SUITE 100
 CHAMPAIGN, IL 61820
 PHONE : 217.373.8900
 FAX : 217.373.8923

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

DESIGNED BY: SMM PROJECT NO. 102230
 DRAWN BY: MEW DATE: 05/20/08
 CHECKED BY: SLD
 APPROVED BY: SMM
 ACTIVITY INITIALS

DRAWING NUMBER

R-1

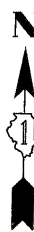
STATION 14043+06.16
 BUILT 200_ BY
 STATE OF ILLINOIS
 FAI RTE 57
 SECTION 99(18.2) R 3&9-1HB-1-BR2
 STRUCTURE NO. 099-W022

NAME PLATE
 See Std. 515001

LEGEND

- CATCH BASIN
- INLET
- GUARDRAIL
- ◆ BORING LOCATION

PLAN



*Offsets and stationing given to front face of Retaining Wall.