

BENCH MARK: C.P. #63
 Chisled "X" on N.W. Flange Bolt of F.H. @ N.E. Corner of Ill. Rte. 64 &
 N. 12th Ave., Sta. 86+79, 35 Ft. Lt., El. 740.61

SHEET 51 OF 55

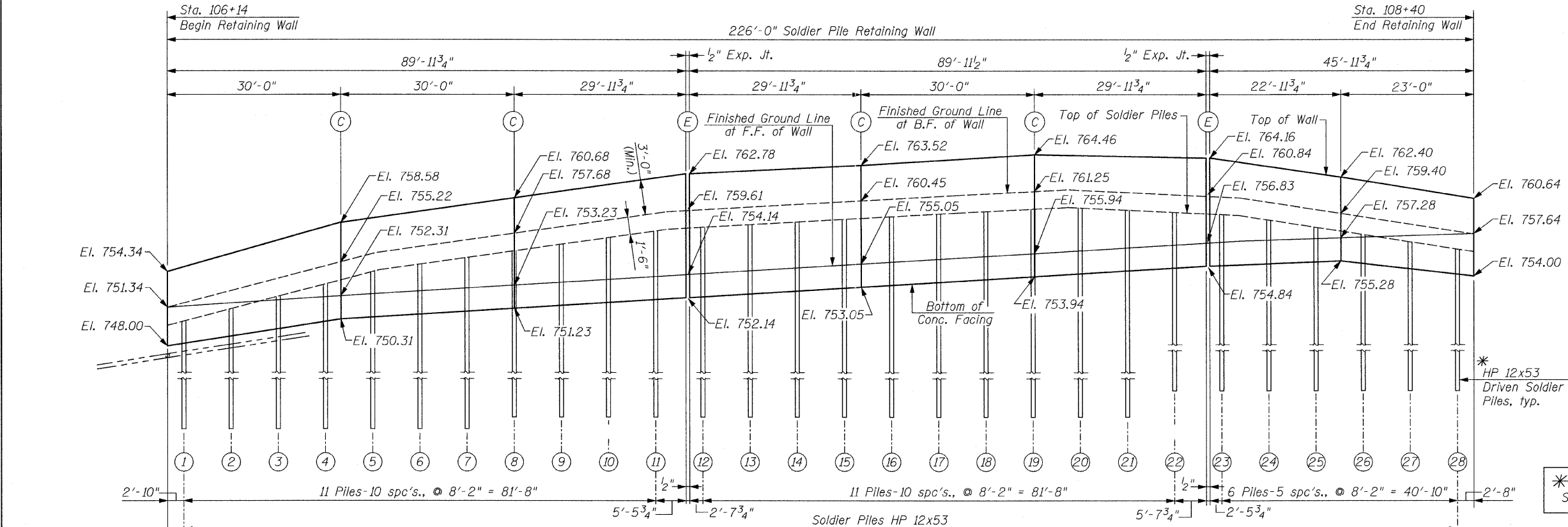
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	129-R-2	KANE	243	164
STA. 106+14 TO STA. 108+40		FED. AID PROJECT		
CONTRACT NO. 62195				

INDEX OF SHEETS

1. PLAN & ELEVATION
2. REINFORCEMENT DETAILS
3. SECTIONS & DETAILS OF SOLDIER PILES
4. SOIL BORING LOGS
5. SOIL BORING LOGS

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Structures	Cu. Yd.	84.7
Reinforcement Bars, Epoxy Coated	Pound	16,920
Structure Excavation	Cu. Yd.	151
Geocomposite Wall Drain	Sq. Yd.	104
Pipe Underdrains for Structures 4"	Foot	246.0
Stud Shear Connectors	Each	740
Furnishing Soldier Piles (HP Section)	Foot	563
Driving Soldier Piles	Foot	563
Untreated Timber Lagging	Sq. Ft.	929
Protective Coat	Sq. Yd.	109.0
Form Liner Textured Surface	Sq. Ft.	1,720



* See Sht. S3 for pile tip elevations

ELEVATION
 25'-4" Pipe Drain (PVC) to exist. MH Sta. 105+92, 37' Lt., Inv. El. 746.00 (See Roadway Plans)
 4" Perforated Drain Pipe (For Details See Sht. S4)
 Pipe Underdrain for Structures 4"

LEGEND:

- F.F. = Front Face
- B.F. = Back Face
- (C) = Construction Jt.
- (E) = Expansion Jt. (1/2")
- (1) = Pile Numbers

DESIGN SPECIFICATIONS
 AASHTO Standard Specifications for Highway Bridges 17th Edition - 2002

DESIGN STRESSES

f'c = 3,500 psi
 fy = 60,000 psi (Reinforcement)
 fy = 36,000 psi (Soldier Piles)

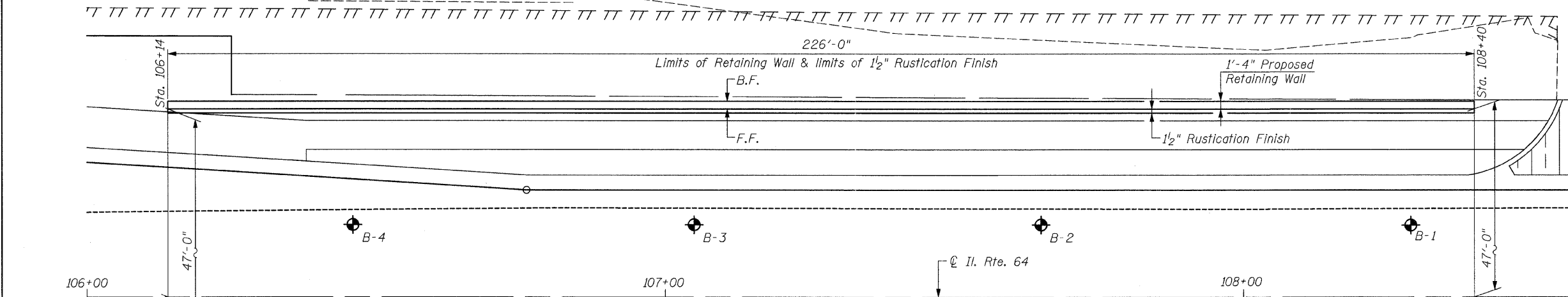


Bhadresh N. Shah
 BHADRESH N. SHAH 05/22/2011
 LICENSED STRUCTURAL ENGINEER
 STATE OF ILLINOIS LIC. NO. 081-004476
 EXPIRES: 11-30-12

ILLINOIS DEPARTMENT OF TRANSPORTATION

**PLAN & ELEVATION
 SOLDIER PILE RETAINING WALL (RW-3)
 F.A.P. RTE. 307 (IL. RTE. 64)
 SECTION 129-R-2
 STA. 106+14.00 TO STA. 108+40.00
 KANE COUNTY
 STRUCTURE NO. 045-W009**
 SCALE: 1"=10'
 DATE: AUGUST 10, 2011
 DRAWN BY: F.M.
 CHECKED BY: B.N.S.
CHRISTIAN-ROGE & ASSOC., INC.
 CHICAGO ILLINOIS

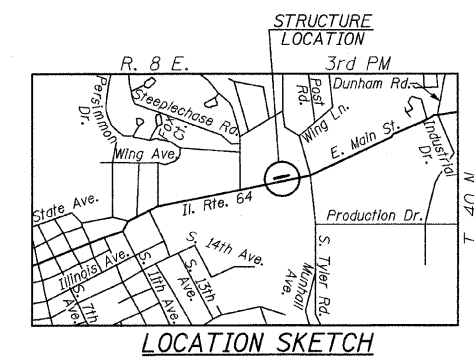
REVISIONS	
NAME	DATE



**PLAN OF WALL
 SOLDIER PILE RETAINING WALL (RW-3)**

GENERAL NOTES:

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 1,000 psi.
 All exposed concrete edges shall be chamfered 3/4" unless otherwise noted.
 Protective coat shall be applied to exposed surfaces of the upper traffic barrier and the wall facing above the ground line.
 Pipe underdrain outlet pipes shall drain into concrete headwalls. See Article 601.05 of the Standard Specifications and see Highway Standard 601101.
 Reinforcement bars shall conform to the requirements of ASTM A 760 Gr. 60. See Special Provisions.
 Reinforcement bars designated (E) shall be epoxy coated.
 Rustication Finish is paid for as Form Liner Textured Surface.



**RECOMMENDED
 CONSTRUCTION SEQUENCE**
 (For Driven Soldier Piles)

1. Position piles and drive to tip elevations as shown in plans.
2. Excavate in front of wall in stages, removing only the soil necessary to place each timber lagging snug against the excavated surface.
3. After the lagging has been placed to the depths shown in the plans, the Geocomposite Wall Drain shall be attached to and cover the untreated timber lagging.
4. The french drains shall be constructed by excavating a trench, lining it with fabric, placing a pipe and aggregate such that the Geocomposite Wall Drain is connected as shown on the plans.
5. Attach Shear Studs, set Reinforcement, form and pour C.I.P. Concrete Facing.

FILE NAME = rce64gn3.dgn
 PLOT DATE = 9/12/2011
 PLOT SCALE = 10:8000 1/1 IN.