

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2004-108 BR	#	COOK	72	54

SHEET NO. 1
5 SHEETS

*2004-108 BR CONTRACT NO. 62853

Benchmark: CCHD BM found in NW corner of the Frontage Road bridge over Palatine Road approximately 2000' east of Wheeling Road, Elev. 655.02

Existing Structure: Structure No. 016-2025 built as Soo Line Railroad over F.A.S. Route 116, Palatine Road Section 110-1415 in 1963. The superstructure consists of a 66" built up through girder, 71'-6" span. The deck is skewed 18° 18' 00". Also Wisconsin Central Railroad Siding Track over Palatine Road. The superstructure consists of a 118" welded through girder, 104'-6" span. The deck is not skewed. Total bridge width is 39'-9".

Construction Staging: The railroad shall be kept open at all times.

Scope of Work:

1. Structural Steel Repair.
2. Repairs to abutments and retaining walls.

GENERAL NOTES

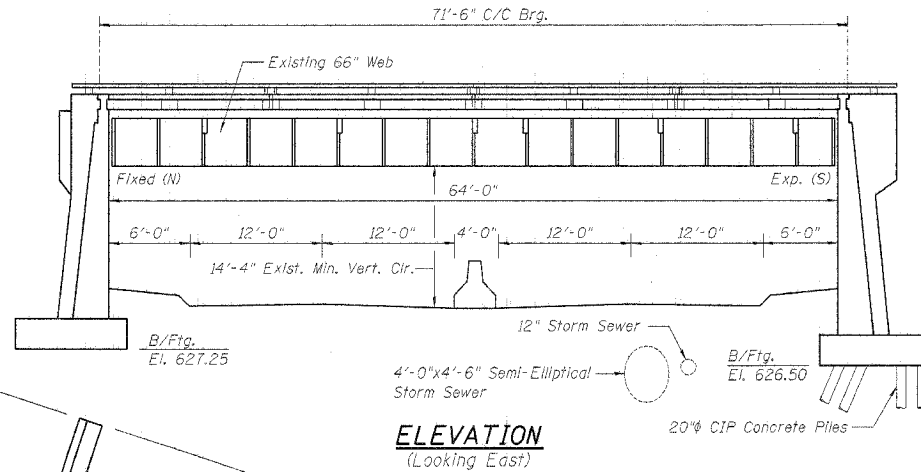
Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work; however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

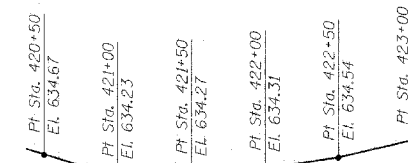
It is the Contractor's responsibility to take measurements in the field of the existing structure wherever new steel is to be replaced or connected into the existing material prior to ordering or fabricating any new steel. Existing connectors are either rivets or bolts, 1/2" φ per existing plans. Where connectors are to be replaced with H.S. bolts, the Contractor shall field verify the connector diameter, gage, and spacing and shall replace the connectors with H.S. bolts of the same diameter. The Contractor shall be responsible for the proper fitting and assembly of all parts of the work.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."

All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M 300, Type 1. Cost included with Structural Steel Repair.



ELEVATION
(Looking East)



**PROFILE GRADE
PALATINE RD.**
(Center Median Edges of Pavement)

LOADING

Cooper E-80 plus impact for equipment without hammer blow

DESIGN SPECIFICATIONS

AREMA, 2001

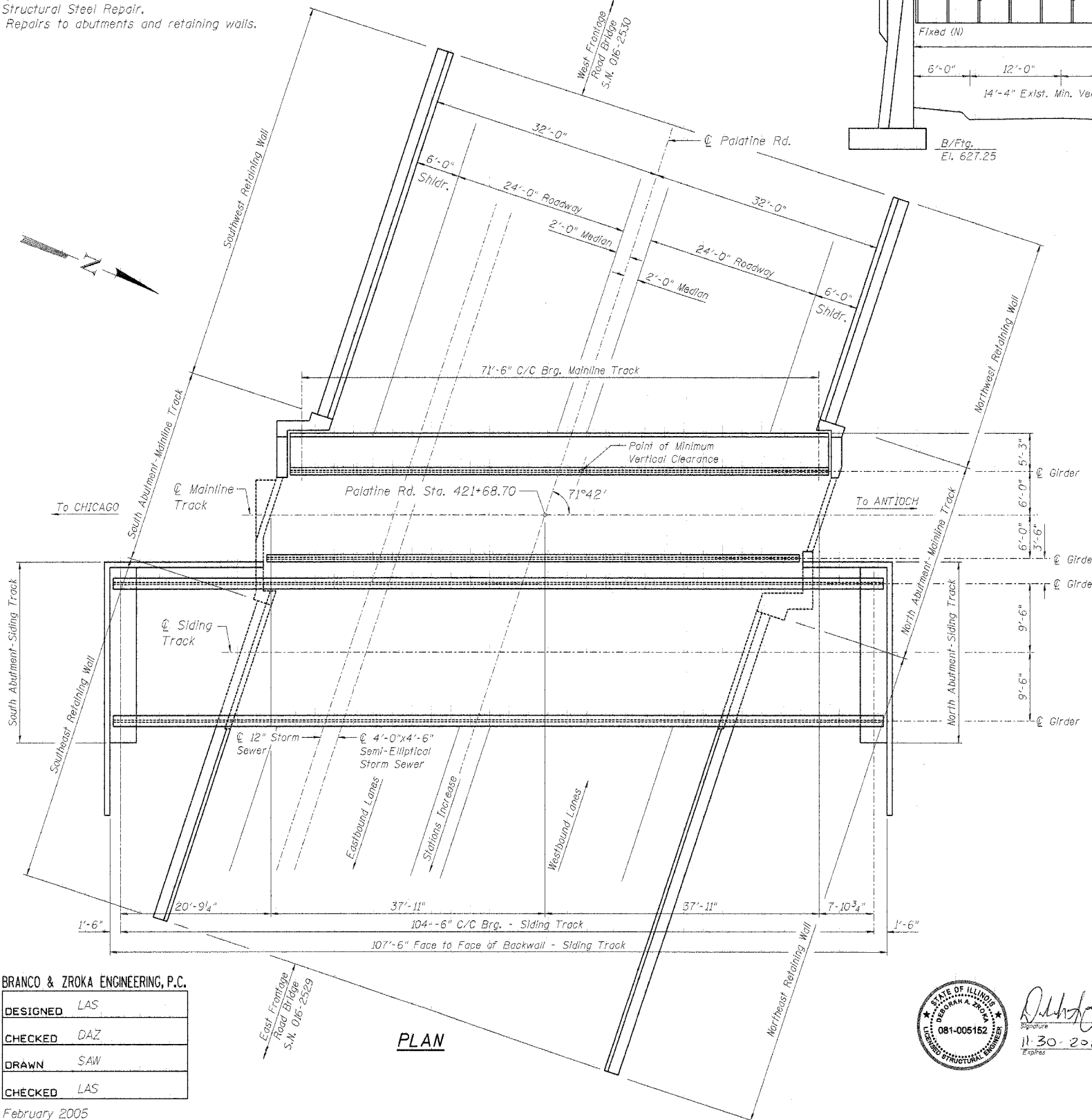
DESIGN STRESSES

FIELD UNITS

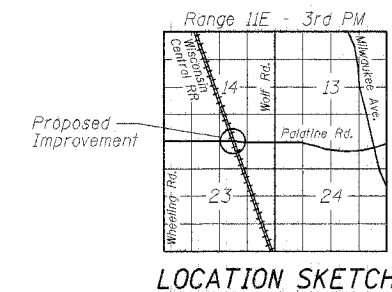
- $f'_c = 3,500$ psi
- $f'_s = 20,000$ psi - Structural Steel (A36)
- $f_s = 24,000$ psi Reinforcing Bars (Grade 60)

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Formed Concrete Repair (Depth Equal to or Less Than 5")	Sq Ft	40
Structural Steel Repair	Pound	100
Epoxy Crack Sealing	Foot	650
Railroad Protective Liability Insurance	L Sum	1
Railroad Flagmen	L Sum	1
Formed Concrete Repair (Depth Larger Than 5")	Sq. Ft.	15



PLAN



LOCATION SKETCH

BRANCO & ZROKA ENGINEERING, P.C.

DESIGNED	LAS
CHECKED	DAZ
DRAWN	SAW
CHECKED	LAS

February 2005



Signature: [Signature]
Date: 02-04-05
11-30-2006

**GENERAL PLAN & ELEVATION
WISCONSIN CENTRAL RAILROAD
OVER PALATINE ROAD
FAP 305/PALATINE ROAD
SECTION 2004-108 BR
COOK COUNTY
STA. 421+68.70
STRUCTURE NO. 016-2025**