BENCHMARK:

Du Page County Benchmark #MI12001

Elev. 690.83, NAVD 29 Bronze Disk, stamped "DuPage County Maps and Plats" in northwest concrete headwall of Crescent Blvd. Bridge over the East Branch of the Du Page River, south of St. Charles Road.

EXISTING STRUCTURE:

The existing bridge structure on CH-47 Illinois Prairie Path across the East Branch of the DuPage River is a steel truss prefabricated bridge. There are no plans available for the existing bridge and abutments structures. The description is based on the field observations; all dimensions are approximate. The width of the existing bridge is 6 feet with a span length of approximately 50 feet. The bridge rests on the old railroad abutment at the west end. The abutment structure is comprised of a concrete abutment with concrete back walls. The east end of the bridge apparently rests on a steel substructure with a sheet pile wall at the river face.

SCOPE OF WORK:

1. Remove the existing superstructure in it's entirety.
2. ✳✳ Remove the concrete backwalls in their entirety.
3. ✳✳ Remove the concrete abutment above El. 691.00, estimated 45 Cu. Yd. of concrete and remove the steel sheet piles above Elev. 690.00.
4. ✳✳ Two 8"ϕ Concrete Posts at Each End of the Existing Bridge to be Removed.
5. The path will be closed during the entire period of construction. Construction is expected to last approximately two months.

✳✳ Cost included with Removal of Existing Superstructure

NOTES FOR PREFABRICATED PEDESTRIAN TRUSS SUPERSTRUCTURE

The work shall consist of design, fabrication, storage, delivery and erection of a welded steel pedestrian truss superstructure, a pratt truss style as shown. The Fabricator may submit an alternate bridge style for approval. Also included in this work shall be the furnishing and installation of Galvanized Floor Deck for concrete, all bearings, anchors and/or retainers, railings and miscellaneous items as indicated on the plans.

MATERIALS:

Unpainted weathering steel.

Bridges which are not painted shall be fabricated from high strength, low alloy, atmospheric corrosion resistant ASTM A847 coldformed welded square and rectangular tubing and/or ASTM A588, ASTM A 606 plate structural steel shapes (F_y = 50,000 psi). The minimum corrosion index of atmospheric corrosion resistant steel, as determined in accordance with ASTM G101, shall be 5.8.

BOLTS:

Field splices shall be fully bolted with ASTM A325 Type 3 high strength bolts in accordance with the "Specifications for Structural Joints Using ASTM A325 or A490 Bolts".

WELDING:

Welding and weld procedure qualification tests shall conform to the provisions of ANSI/AWS D1.1 "Structural Welding Code", 1996 Edition. For exposed, bare unpainted applications of corrosion resistant steels (i.e. ASTM A588 and A847) the filler metal shall be in accordance with AWS D1.1, Section 3.7.3.

FINISHES:

All exposed surfaces of Weathering Steel Bridges shall be sandblasted in accordance with the Steel Structures Painting Council (SSPC) Surface Preparation Specifications No. 6 "Commercial Blast Cleaning". The ends (5'-0") of the truss shall be painted according to the Special Provisions "Surface Preparation and Painting Requirements for Weathering Steel".

CONCRETE FLOORS:

Concrete Floors shall be completely formed by the bridge manufacturer with a minimum of 22 gauge galvanized floor deck. The floor deck shall be manufactured by a member of the Steel Deck Institute or have their deck properties certified by the Steel Deck Institute. The pouring and finishing of 3,500 psi concrete (no additives allowed) and the furnishing of the reinforcement shall be the responsibility of the Contractor. The Contractor shall apply a Membrane Curing Compound, Type I, in accordance with Article 1022.01 of the Standard Specifications. The cost shall be considered as included in the unit bid price for the "Concrete Superstructure".

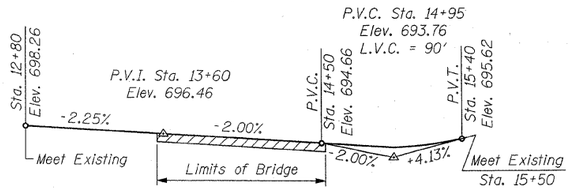
GENERAL NOTES:

Reinforcement Bars shall conform to the requirements of ASTM A706, Grade 60. See Special Provisions.

The Contractor shall drive Test Piles to 110 percent of the Nominal Required Bearing specified in the Production locations at Abutments specified or approved by the Engineer, before ordering the remainder of Piles.

Concrete Sealer shall be applied to designated areas of the Abutments.

Reinforcement Bars designated (E) shall be Epoxy Coated.



PROFILE GRADE
(Along ℄ Prairie Path)

BRIDGE REACTIONS
(FOR INFORMATION ONLY)

	AT EACH ABUTMENT		
	P (LBS.)	H (LBS.)	L (LBS.)
Dead Load	+95,500	-	-
Uniform Live Load	+39,000	-	-
Vehicle Load	+40,000	-	-
Wind Uplift 20 p.s.f.	-21,500	-	-
Wind	+22,112	+21,298	-
Thermal	-	-	+7,165

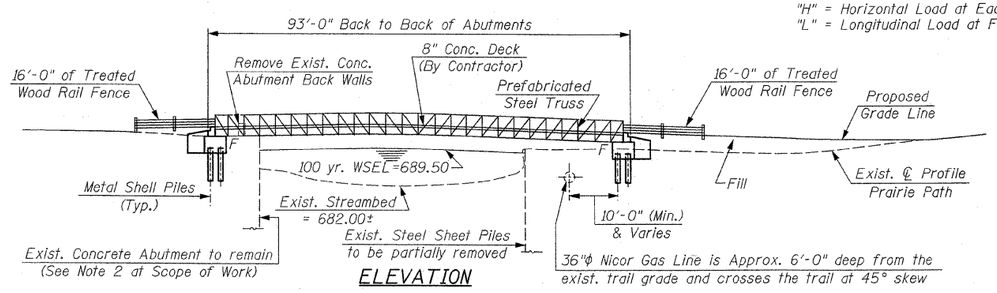
Bridge Lifting Weight = 89.000 Lbs.
(Not including weight of Concrete)

+ Downward Load - Upward Load
"P" = Vertical Load
"H" = Horizontal Load at Each Footing
"L" = Longitudinal Load at Fixed Bearing

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	99-00313-03-BT	DuPAGE	18	12
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 63069

INDEX OF SHEETS



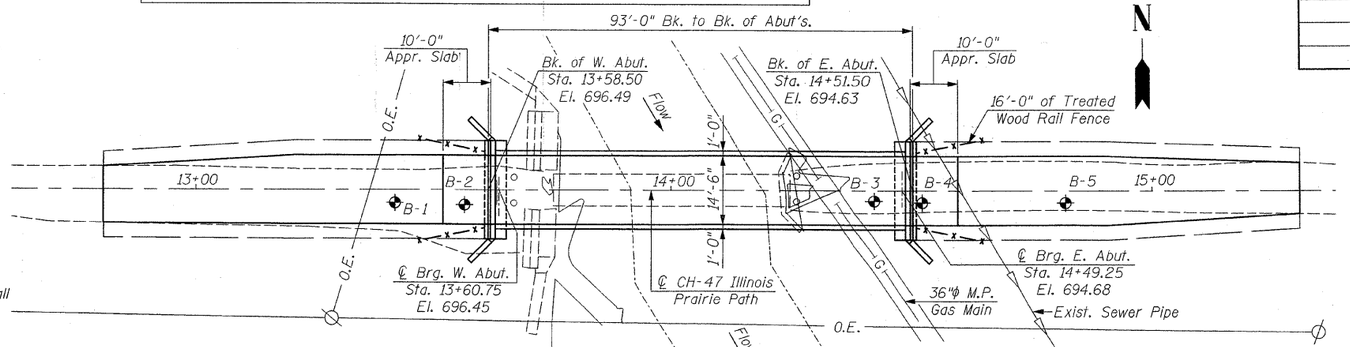
ELEVATION

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structure Excavation	Cu. Yd.	52.8
Concrete Structures	Cu. Yd.	35.8
Concrete Superstructure	Cu. Yd.	32.3
Reinforcement Bars, Epoxy Coated	Lbs.	9,330
Pedestrian Truss Superstructure	Sq. Ft.	1,305
Name Plates	Each	1
Removal of Existing Superstructure	L. Sum	1
Furnishing Metal Shell Piles 12" x 0.179"	Ft.	480
Driving Piles	Ft.	480
Test Pile Metal Shells	Each	2
Bridge Approach Pavement	Sq. Yd.	32.3
Porous Granular Embankment	Cu. Yd.	23.0
Concrete Sealer	Sq. Ft.	98.0
Preformed Joint Seal, $1\frac{3}{4}$"	Ft.	29.0

NOTES:

1. The bridge shall be a prefabricated steel bridge as manufactured by Continental Bridge Company or approved equal.
2. Based on the Manufacturer's shipping requirements, the bridge shall be brought to this restricted site in either two, three or four sections and spliced together in the field as per the Manufacturer's recommendations.



PLAN

Indicates Boring Locations

NOTE:

Commonwealth Edison overhead power lines and towers exist in the vicinity of the proposed improvements. The work should be undertaken in close coordination with the utility company. Also precautions should be taken during the construction, so as not to damage the existing underground 36" Nicor natural gas line between the east abutment of the existing bridge and Sewer Pipe.

CERTIFICATION STATEMENT

I Certify that to the best of knowledge, information and belief, this Bridge Design is Structurally adequate for the Design Loading shown on the Plans. The Design is an Economical one for the style of Structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.

STATE OF ILLINOIS · BHADRESH N. SHAH · 081-004476 · LICENSED STRUCTURAL ENGINEER · CHICAGO

Bhadresh N. Shah

BHADRESH N. SHAH 08/19/08
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS LIC. No. 081-004476
EXPIRES: 11-30-08

DESIGN SPECIFICATIONS

AASHTO 1997 "Guide Specifications For Design of Pedestrian Bridge".

AASHTO 2002, 17th Edition.

Standard Specifications for Road and Bridge Construction, adopted January 1, 2007 by The Illinois Department of Transportation.

Supplemental Specifications and Recurring Special Provisions, adopted January 1, 2008 by The Illinois Department of Transportation.

LIVE LOAD DEFLECTION

Limited to span length/400

DESIGN LOADINGS

Live Load = 85psf (or H20 AASHTO Truck)
Wind Load = 35psf on the full vertical projected area of the bridges, as if enclosed.

DESIGN STRESSES

FIELD UNITS

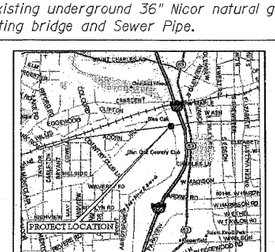
f'_c = 3,500 psi
f_y = 60,000 psi (Reinforcement)
f_s = 27,000 psi (AASHTO M270 Grade 50W)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient = 0.039g
Site Coefficient (S) = 1.0

ILLINOIS PRAIRIE PATH
BUILT 200_ BY
DuPAGE COUNTY
SEC. 99-00313-03-BT
STATION 14+05
LOADING H20

NAME PLATE
See Std. 515001-02



LOCATION SKETCH

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
C.H. 47 ILLINOIS PRAIRIE PATH BRIDGE OVER THE EAST BRANCH OF THE DuPAGE RIVER
MILTON TOWNSHIP DuPAGE COUNTY

SCALE:
DATE: AUGUST 19, 2008
DRAWN BY: F.M.
CHECKED BY: B.N.S.

CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS