Bench Marks: Cut "□" on light pole foundation (Pole # 20) at west side of IL 158, +/- 295' north of north end IL 158 brg (S.N. 067-0006) over IL 3. Elev. 598.754

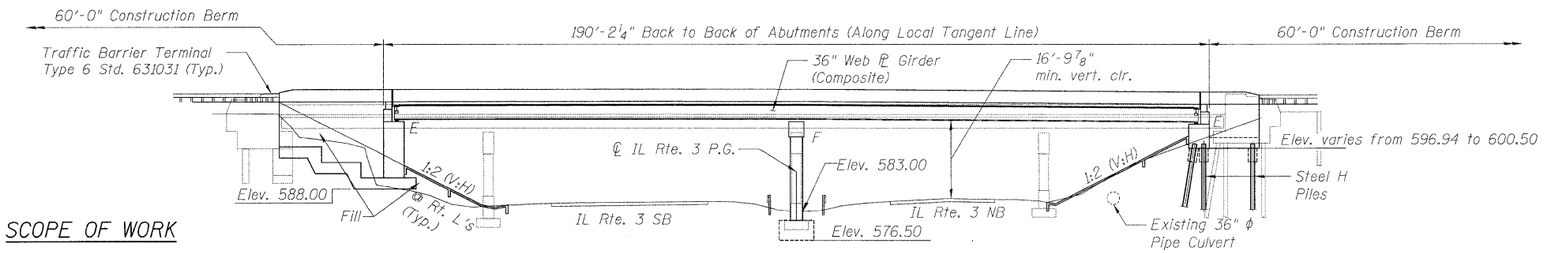
Existing Structure: S.N. 067-0006 was built in 1965 as section 67-1HBR IL 158 over IL 3 Sta. 111+00.25. The existing structure is 50'-0" Out to Out of Deck with 6'-0" raised median and 220'-10 1/2" back to back of Abutments along centerline. It has 4-spans with 30WF124 Steel beams with Abutments supported on Spread Footings and Steel Piles and Piers on Spread Footings. The Steel beams were repaired for damage due to Impact in 1988, 1995, 1999 & 2004.

Existing bridge to be removed and replaced.

Traffic to be maintained utilizing staged construction plans.

See Sheet 2 for Salvage Details 2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

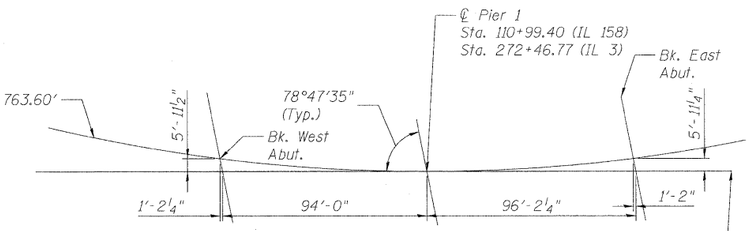


ELEVATION

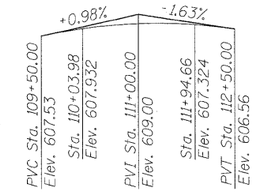
SCOPE OF WORK

1. Remove existing bridge in stages and provide shoring as needed.
2. Maintain traffic in all stages of construction.
3. Replace with new bridge.

Notes:
1. Field verify the existing bridge location and existing rock cut.
2. No Deck drains are required as there is sufficient spread.

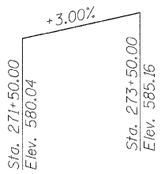


OFFSET SKETCH

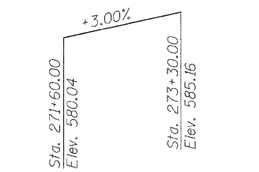


LVC = 300'

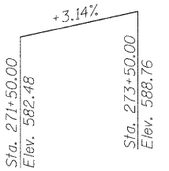
PROFILE GRADE
(along ℄ IL Route 158, WB & EB)



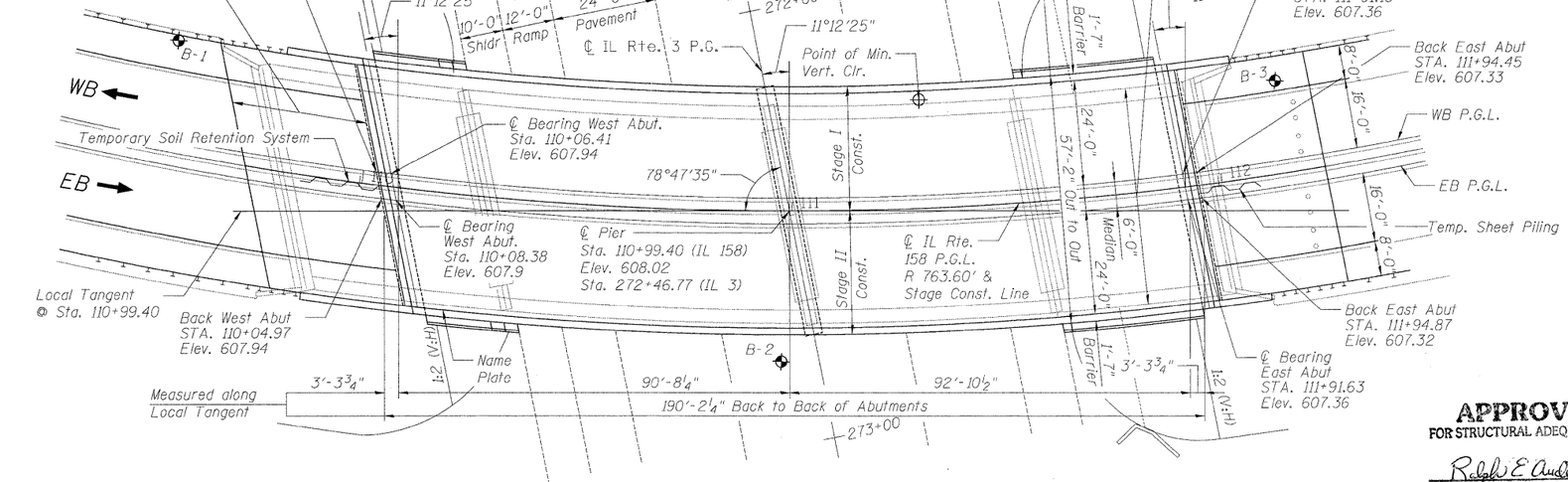
PROFILE GRADE
(along IL Route 3 NB)



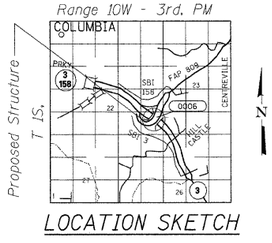
PROFILE GRADE
(along ℄ IL Route 3)



PROFILE GRADE
(along IL Route 3 SB)



PLAN



LOCATION SKETCH

STATE OF ILLINOIS
ROBERT A. LEE
081-005245
CHICAGO, IL
STRUCTURAL ENGINEER
Expires 11/30/10

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson (for)
ENGINEER OF BRIDGES AND STRUCTURES

LOADING HL93

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

Superstructure and E. Abut.: AASHTO LRFD Bridge Design Specifications Fourth Edition, 2007 with 2008 Interim Revisions except as noted

Pier and W. Abut.: AASHTO Standard Specifications For Highway Bridges, 2002 with all subsequent Interims

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi (M270 Grade 50 Structural Steel)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Acceleration Coefficient (A) = 0.12g
Site Coefficient (S) = 1.0

PROPOSED CURVE DATA

PI Sta. = 111+08.40
Δ = 63°00'04" (LT)
D = 7°30'12"
R = 763.60'
T = 467.95'
L = 839.64'
E = 131.98'
S.E. = 0.08'/'
P.C. Sta. = 106+40.46
P.T. Sta. = 114+80.10

2 Rev. 2-19-10

GENERAL PLAN AND ELEVATION
IL. RTE. 158 OVER IL. RTE. 3
F.A.P.809 - SEC. 67-1HBR
MONROE COUNTY
STATION 110+99.40
STRUCTURE NO. 067-0042

SHEET NO. 1	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34 SHEETS	809	67-1HBR	Monroe	144	65
			CONTRACT NO. 76977		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

DESIGNED	JPM
CHECKED	CCS
DRAWN	GAP
CHECKED	JPM, CCS

MACTEC

9-28-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

GENERAL NOTES

1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $^{7}/_{8}$" ϕ, open holes $^{15}/_{16}$" ϕ, unless otherwise noted.
2. Calculated weight of Structural Steel = 403,400 lbs
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $^{1}/_{8}$ in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
7. Concrete Sealer shall be applied to the designated areas of the abutments.
8. The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Gray Munsell No. 5B YR 7/1. See Special Provision for "Cleaning and Painting New Metal Structures". (1)
9. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
10. The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of the piles.
11. Slipforming of the parapets is not allowed.
12. The existing structural steel coating contains lead. The contractor shall take appropriate precautions to deal with the presence of lead on this project.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each	-	-	1
Protective Coat	Sq Yd	1,322	55	1,377
Concrete Superstructure	Cu Yd	539	-	539
Concrete Structures	Cu Yd	-	543	543
Name Plates	Each	1	-	1
Preformed Joint Strip Seal	Foot	115	-	115
Elastomeric Bearing Assembly, Type I	Each	16	-	16
Protective Shield	Sq Yd	1,018	-	1,018
Furnishing and Erecting Structural Steel	L Sum	1	-	1
Bridge Deck Grooving	Sq Yd	1,022	-	1,022
Stud Shear Connectors	Each	6,960	-	6,960
Reinforcement Bars, Epoxy Coated	Pound	117,522	84,498	202,020
Structure Excavation	Cu Yd	-	157	157
Concrete Sealer	Sq Ft	-	1531	1531
Slope Wall 4 Inch	Sq Yd	-	494	494
Geocomposite Wall Drain	Sq Yd	-	274	274
Test Pile Steel HP 12 x 53	Each	-	1	1
Furnishing Steel Piles HP 12 x 53	Foot	-	513	513
Driving Piles	Foot	-	513	513
Pile Shoes	Each	-	20	20
Pipe Underdrains for Structures 4 Inch	Foot	-	247	247
Bar Splicers	Each	-	303	303
Mechanical Splicers	Each	-	120	120
Porous Granular Embankment, Special	Cu Yd	-	139	139
Temporary Sheet Piling	Sq Ft	-	163	163
Rock Excavation For Structures	Cu Yd	-	349	349
Concrete Encasement	Cu Yd	-	7	7
Anchor Bolts $1^{1}/_{2}$"	Each	-	32	32
Anchor Bolts 2"	Each	-	16	16
Pile Extraction	Each	-	8	8
Temporary Support System	L Sum	-	1	1
Temporary Soil Retention System	Sq Ft	-	207	207

(2) The existing rocker bearings at the abutments, as well as the most corroded and least corroded bearing at Pier 2, shall be salvaged. This salvage shall include the rocker/bolster, top and bottom bearing plates, any shim plates, and anchor bolts. The bearing components shall be identified with substructure unit and beam line markings such that they can be re-assembled at a future date. The bearings shall be delivered to the Columbia Maintenance Yard; Field Technician Mark Harris; Phone # 618-281-4565.

See Sheet 2 for salvage details.

STATION 110+99.40
BUILT BY
STATE OF ILLINOIS
F.A. RT. 158 SEC. 67-1HBR
LOADING HL-93
STR. NO. 067-0042

NAME PLATE
See Std. 515001

DESIGNED - JPM
CHECKED - WPM
DRAWN - GAP
CHECKED - JPM, WPM
9-28-09

MACTEC

(2) Rev. 2-19-10
(1) Rev. 2-11-10

INDEX OF DRAWINGS, BILL OF MATERIAL & GENERAL NOTES
STRUCTURE NO. 067-0042

SHEET NO. 2	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34 SHEETS	809	67-1HBR	Monroe	144	66
			CONTRACT NO. 76977		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		