

Benchmark: Disk on E of F.A.I. 55
at Sta. 37+535.318
Elev. 265.765

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS	SHEET NO. 1
FAI 55	4	McLEAN	87	59	10A SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. ROAD PROJECT		

- Proposed Work
- Expansion joint removal and replacement.
 - Partial deck removal and replacement.
 - Add stud shear connectors at abutment ends of beams.
 - Structural Repair of Concrete at Piers
- (57-4)RS-3 & 1

Existing Structures

Structure Number 057-0024 and 057-0025 are dual structures carrying F.A.I. Route 55 over Bus. U.S. 51, Section (57-4) RS-3 & 1, McLean County at Station 38+474.206. Structures were built in 1962, widening and deck replacement occurred in 1990. The superstructures consist of 4 span, steel stringer, reinforced concrete slab deck with bk. to bk. abutment length of 63.576 m. The substructures consist of concrete pile bent abutments and multi-column piers.

See proposed work on this sheet for description of proposed improvements.

Traffic to be maintained by staged construction.

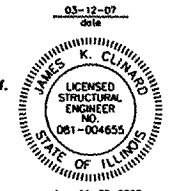
TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.	Total
CONCRETE REMOVAL	CU M	121.4	--	121.4
PREFORMED JOINT STRIP SEAL	METER	112.2	--	112.2
CONCRETE SUPERSTRUCTURE	CU M	121.4	--	121.4
PROTECTIVE COAT	SQ M	537	--	537
REINFORCEMENT BARS, EPOXY COATED	KG	16950	--	16950
PROTECTIVE SHIELD	SQ M	604	--	604
BRIDGE DECK GROOVING	SQ M	432	--	432
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 125 mm)	SQ M	--	1.2	1.2
STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 125 mm)	SQ M	--	0.2	0.2
BAR SPlicERS	EACH	198	--	198
STUD SHEAR CONNECTORS	EACH	2646	--	2646
SILICONE JOINT SEALER	METER	62.8	--	62.8

Quantities for Temporary Concrete Barrier and Relocate
Temporary Concrete Barrier Included in Roadway Plans.

General Notes

- Reinforcement Bars designated (E) shall be Epoxy Coated.
- All new structural steel shall be shop pointed with the inorganic zinc rich primer per AASHTO M 300, Type I. Cost included with Furnishing and Erecting Structural Steel.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- Field welding of construction accessories will not be permitted to beams or girders.
- Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction 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 scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.
- Any existing reinforcement bars which are intended to be incorporated into the new construction that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with "Concrete Removal".
- All dimensions are in millimeters (mm) except as noted.
- All construction joints shall be bonded.
- Prior to pouring the new concrete deck, all loose rust, loose mill scale, and other loose potentially detrimental foreign material shall be removed from the surface of beams or girders in contact with concrete. The cost of this work will be included in the pay item covering removal of the existing concrete. All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams of girders in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to Article 109.04.
- Reinforcement Bars shall conform to the requirements of ASTM A706 Grade 60 (1L, MOD.) See Special Provisions.



DESIGN STRESSES

(EXISTING CONSTRUCTION)

Concrete: $f'c = 24$ Mpa
Reinforcement: f_s (1962) = 138 Mpa
 f_y (1990) = 400 Mpa
Structural Steel: f_s (1962) = 124 Mpa
 f_y (1990) = 248 Mpa

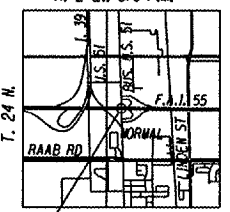
DESIGN STRESSES

(NEW CONSTRUCTION)

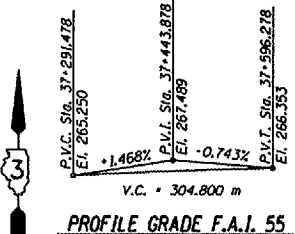
Concrete: $f'c = 24$ Mpa
Reinforcement: $f_y = 400$ Mpa
Structural Steel: $f_y = 248$ Mpa
Design Specifications: AASHTO 2002 and Interims

Design Loading: MS18 & Alternate
Allow 1.2 kN/m for future wearing surface.
Design Specifications: AASHTO (1983) plus 1984 thru 1988 Interims.

Professional Design Firm
License No. 184-001717
R. 2 E., 3rd P.M.

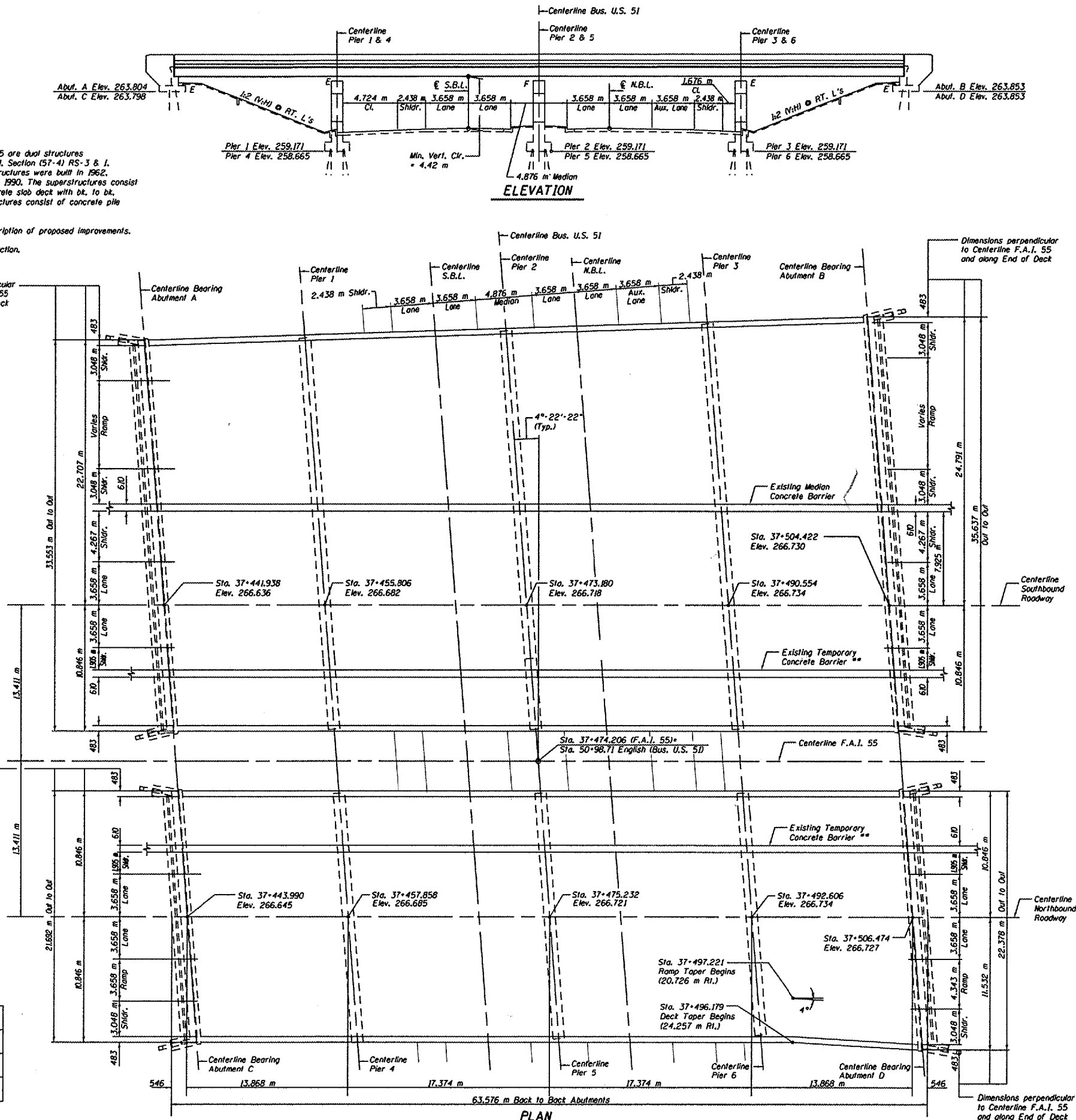


LOCATION SKETCH



CHAMLIN & ASSOCIATES
PERU ILLINOIS MORRIS

GENERAL PLAN AND ELEVATION
F.A.I. 55 OVER BUSINESS U.S. 51
SECTION (57-4)RS-3 & 1
McLEAN COUNTY
SN 057-0024 (NB)
SN 057-0025 (SB)
STA. 37+474.206



DESIGNED	GAE
CHECKED	JDA
DRAWN	NO
CHECKED	GAE