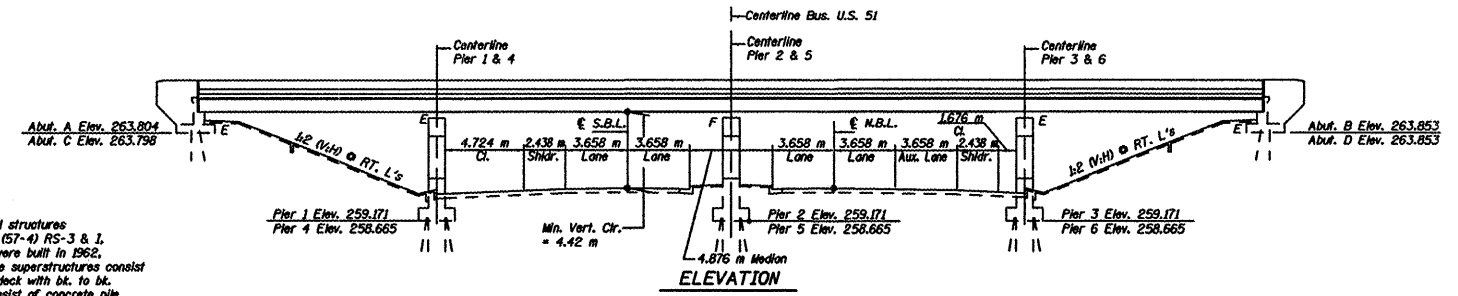


ROUTE NO.	DISTRICT	COUNTY	SECTION	SHEET
FAI 55		McLEAN	70	38
SHEET NO. 1				
JOA SHEETS				

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



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 & I, McLean County of 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.

- 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.

Item	Unit	Super	Sub	Total
CONCRETE REMOVAL	CU M	121.4	--	121.4
SLOPE WALL REMOVAL	SO M	--	39	39
SLOPE WALL 100 mm	SO M	--	39	39
PREFORMED JOINT STRIP SEAL	METER	112.2	--	112.2
CONCRETE SUPERSTRUCTURE	CU M	121.4	--	121.4
PROTECTIVE COAT	SO M	537	--	537
REINFORCEMENT BARS, EPOXY COATED	KG	8990	--	8990
PROTECTIVE SHIELD	SO M	604	--	604
BRIDGE DECK GROOVING	SO M	432	--	432
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 125 mm)	SO M	--	1.2	1.2
STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 125 mm)	SO M	--	1.0	1.0
BAR SPLICERS	EACH	196	--	196
STUD SHEAR CONNECTORS	EACH	2646	--	2646
SILICONE JOINT SEALER	METER	62.8	--	62.8

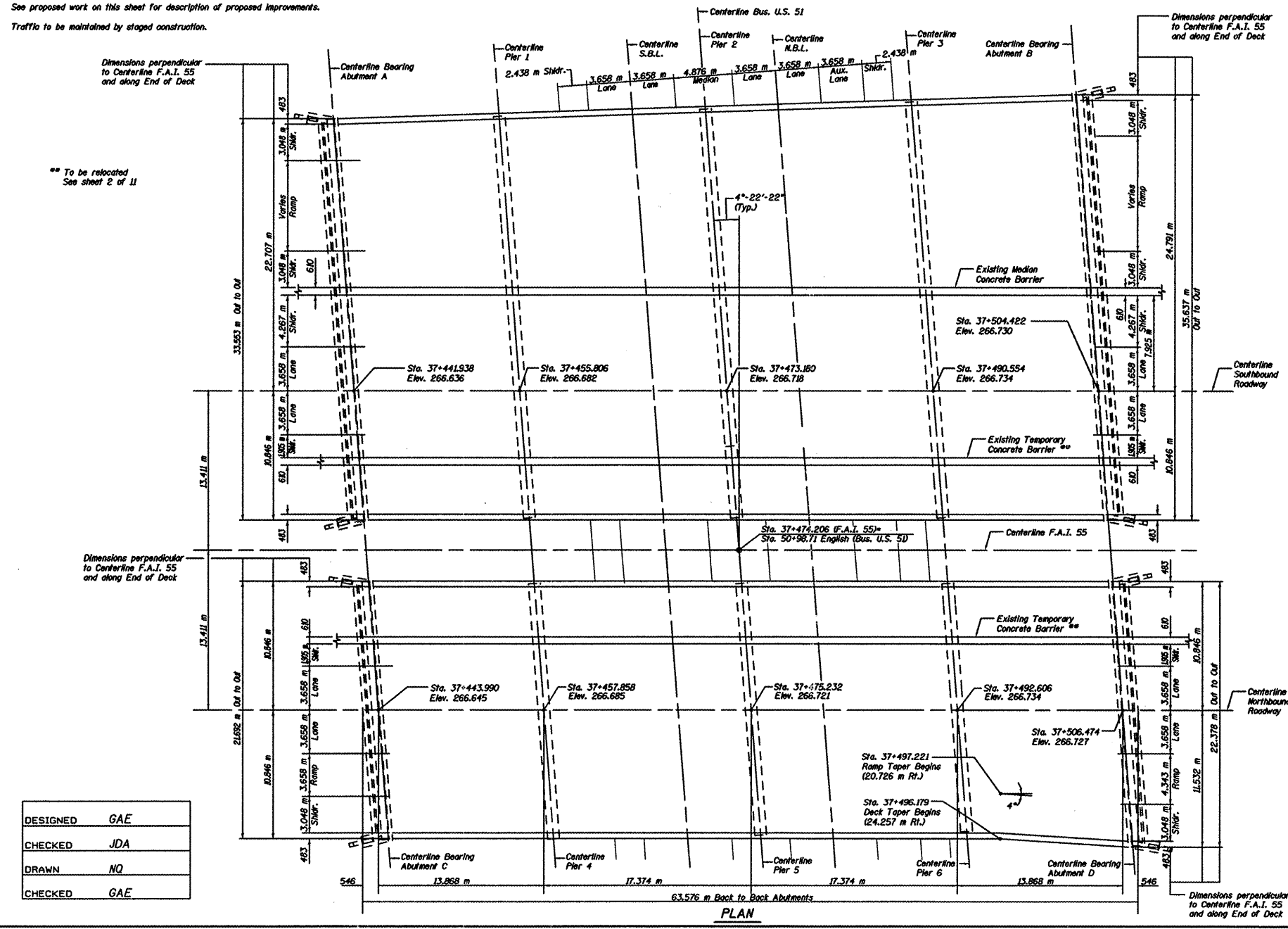
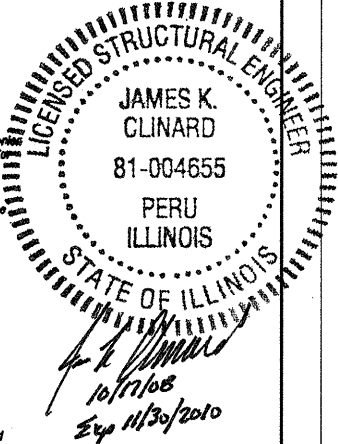
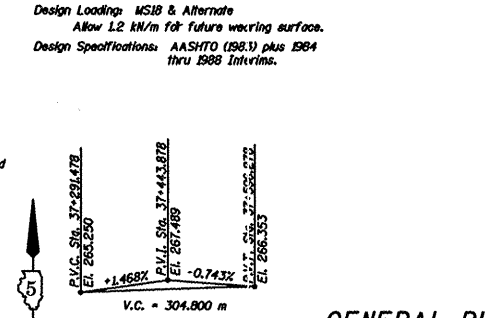
Quantities for Temporary Concrete Barrier and Relocate Temporary Concrete Barrier Included in Roadway Plans. For Bearing Replacement details, notes and Bill of Material see sheets 49 thru 51.

General Notes
Reinforcement Bars designated (E) shall be Epoxy Coated.
All new structural steel shall be shop primed with the Inorganic zinc rich primer per AASHTO M 300, Type 1, last 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 heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.
As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer.
Any cracks that cannot be removed by grinding 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
Reinforcement bars shall conform to the requirements of ASTM A 706 or 400. 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
R. 2 E., 3rd P.M.

Design Loading: MS18 & Alternate
Allow 12 kN/m for future wearing surface.
Design Specifications: AASHTO (1981) plus 1984 thru 1988 Interims.



DESIGNED	GAE
CHECKED	JDA
DRAWN	NQ
CHECKED	GAE

CHAMLIN ASSOCIATES
PERU ILLINOIS MORRIS

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

