

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAS RTE 1588	*	ADAMS	38	26
FED. ROAD DIST. NO. 7		ILLINOIS	PROJECT	
Location #2 Structure No. 001-3028				
* 05-00189-00-BR				

Existing Structure - Single bridge built in 1959. Structure No. 001-3028 at Sta 407+65.
The structure is a three span, wide flange steel beam bridge with open stub concrete abutments and solid concrete piers, 137'-9" back to back of abutments, 28'-0" roadway width and 10° skew Lt. AH.

Roadway will be closed during construction. Access to local properties shall be maintained during construction.

No salvage.

BM #2 (Location #2) -
60d Spike in Power Pole, 49' Rt.
of Sta 409+56, Elevation = 617.47

SCOPE OF WORK

1. Remove deck, curbs, railing and top of abutment backwalls.
2. Remove existing rocker expansion bearings at abutments. Replace with elastomeric bearings.
3. Install shear connectors in positive moment areas of beam lines.
4. Construct 7 1/2" deck, top of abutment backwalls, preformed joint seals, steel bridge railing (special) and bridge approach pavements.

GENERAL NOTES

Painting of the existing structural steel will not be done under this contract.
All new structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Final field painting will be required for the elastomeric bearing assemblies.

Field welding of construction accessories will not be permitted to the bottom flange of beams nor to the top flange for a distance equal to one-fourth the span length each way from pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.

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 variation 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 shall take appropriate precautions to deal with the presence of lead on this project.

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 surfaces of the beams or girders in contact with concrete. The cost of this work will be included in the pay item "Removal of Existing Concrete Deck". All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams or 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.

The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.

INDEX OF SHEETS

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- 2-3 Top of Slab Elevations
- 4-5 Superstructure
- 6 Steel Bridge Rail (Special)
- 7 Structural Steel Details
- 8 Moment & Reaction Tables, Jack and Remove Existing Bearings
- 9 Type I Elastomeric Bearing
- 10 Type II Elastomeric Bearing
- 11 Anchor Bolt Details for Bearings
- 12 Bridge Approach Pavement (Special)
- 13 Cantilever Forming Brackets For Superstructures with W27 Beams and Smaller

**WALNUT FORK CREEK
REBUILT 200_**
SEC. 05-00189-00-BR
PROJECT RS-1588 (106)
LOADING HS20 STR. NO. 001-3028

Rail Mount Name Plate at Southwest Corner of Bridge (See Plan)

NAME PLATE

See Std. 515001
(1 Required)

© FAS Rte 1588
& Profile Grade Line

Ty. 5A Traffic Barrier Terminal
(Typ. each corner) STD. 631026
See Roadway Plans

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.043
Site Coefficient (S) = 1.0

**KLINGNER
& ASSOCIATES, P.C.**

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STATE OF ILLINOIS DESIGN FIRM # 1842738

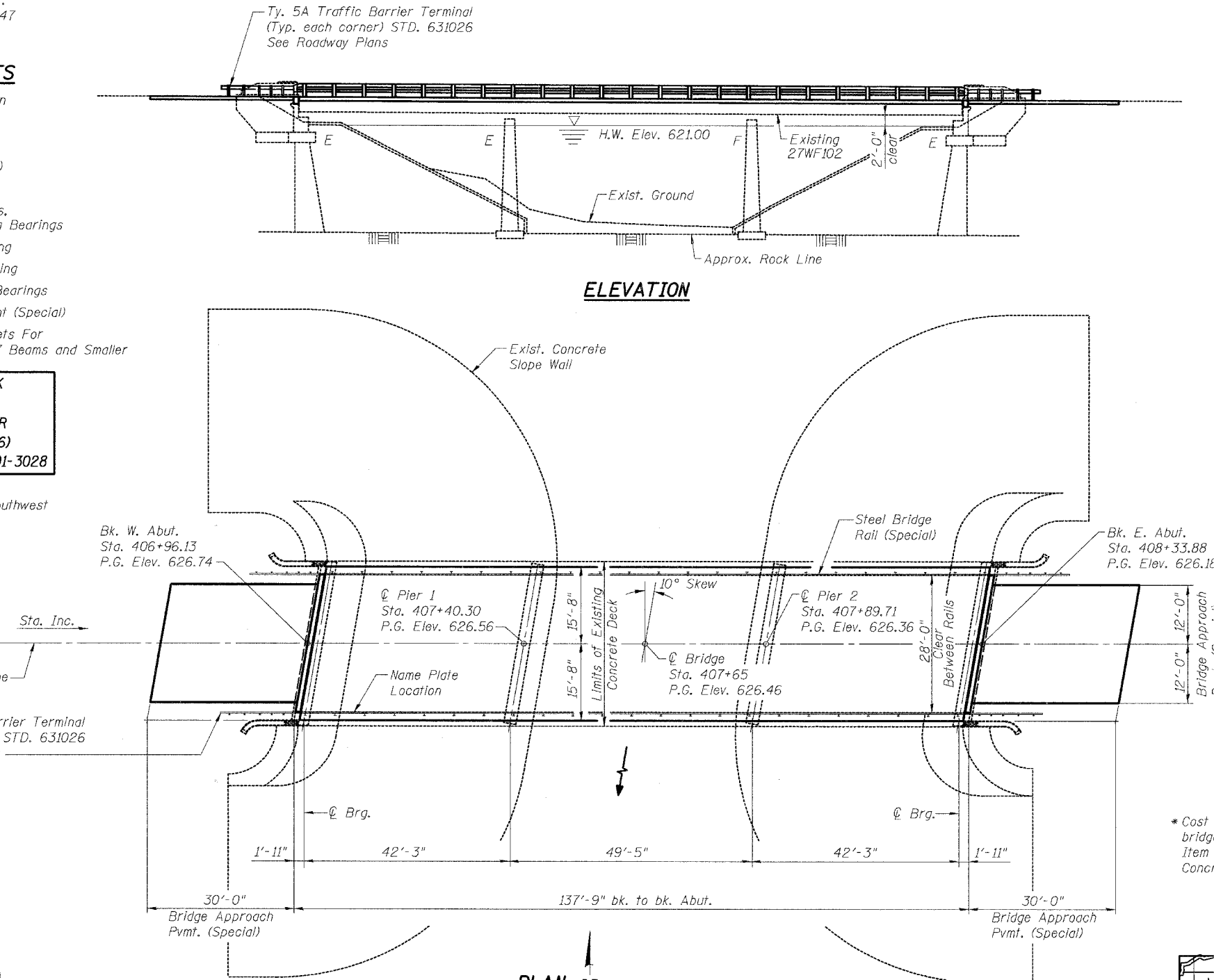
DESIGN SPECIFICATIONS

17th Edition - 2002 AASHTO
Load Factor Design
LOADING HS 20-44
Allow 50#/sq. ft. for future wearing surface.

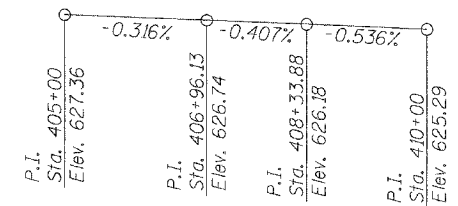
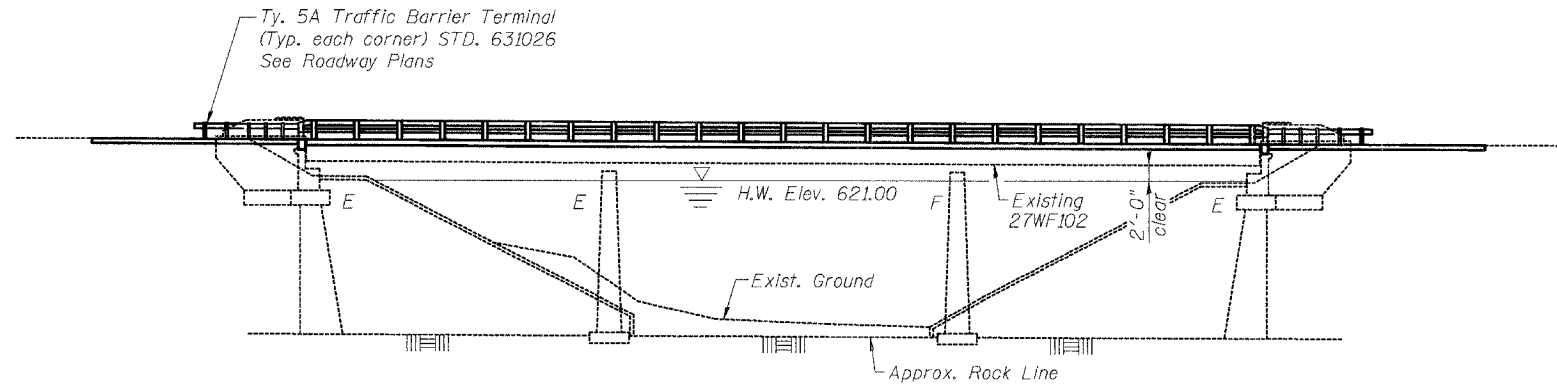
DESIGN STRESSES

FIELD UNITS
f'c = 2500 psi (existing)
f'c = 3500 psi (new)
fy = 60,000 psi (reinf.)
fs = 18,000 psi (Existing Structure)

PLAN



ELEVATION

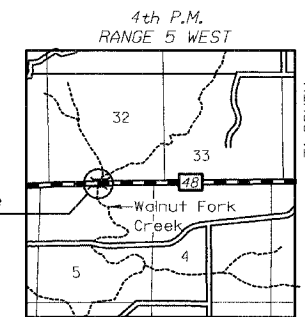


PROFILE GRADE
(along © roadway)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Name Plates	EACH	1		1
Removal of Existing Concrete Deck	EACH	1		1
Protective Coat	SQ YD	471		471
Elastomeric Bearing Assembly Type I	EACH	6		6
Elastomeric Bearing Assembly Type II	EACH	6		6
Concrete Superstructure	CU YD	107.2		107.2
Stud Shear Connectors	EACH	2,016		2,016
Reinforcement Bars, Epoxy Coated	POUND	24,940		24,940
Preformed Joint Seal 2 1/2"	FOOT	32.0		32.0
Preformed Joint Seal 4"	FOOT	32.0		32.0
Bridge Deck Grooving	SQ YD	421		421
Concrete Removal	CU YD	3.1		3.1
Jack and Remove Existing Bearings	Each	12		12
Steel Bridge Rail (Special)	FOOT	276		276
Bridge Approach Pavement (Special)	SQ YD	160		160

* Cost of removing existing steel bridge railing is included in Pay Item "Removal of Existing Concrete Deck".



LOCATION SKETCH

"I certify that to the best of my 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'."

Alan D. Lukens 01/23/06 Date
Alan D. Lukens
Licensed Structural Engineer
State of Illinois No. 081-005167
License Expires November 30, 2006

