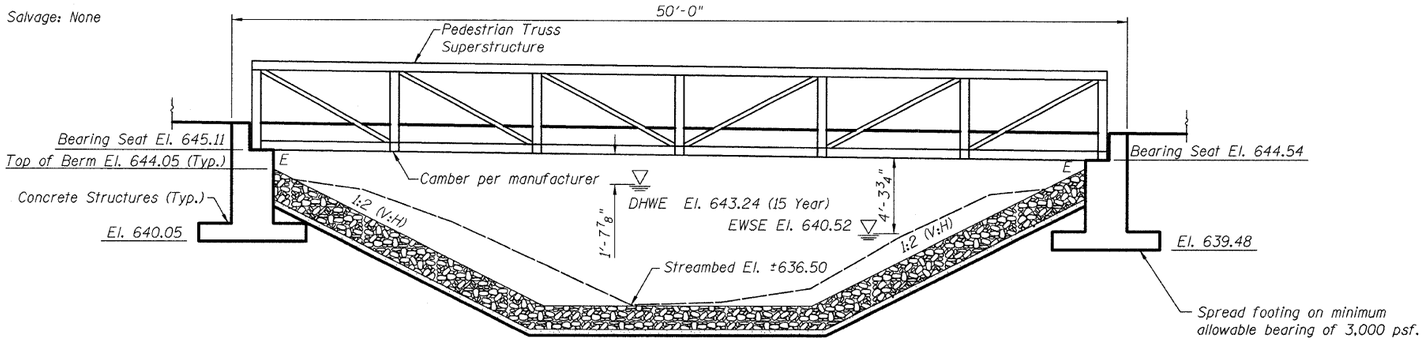
Benchmark: Chiseled square on SE corner of Existing Pedestrian Bridge Deck over Buffalo Creek. El. 646.22

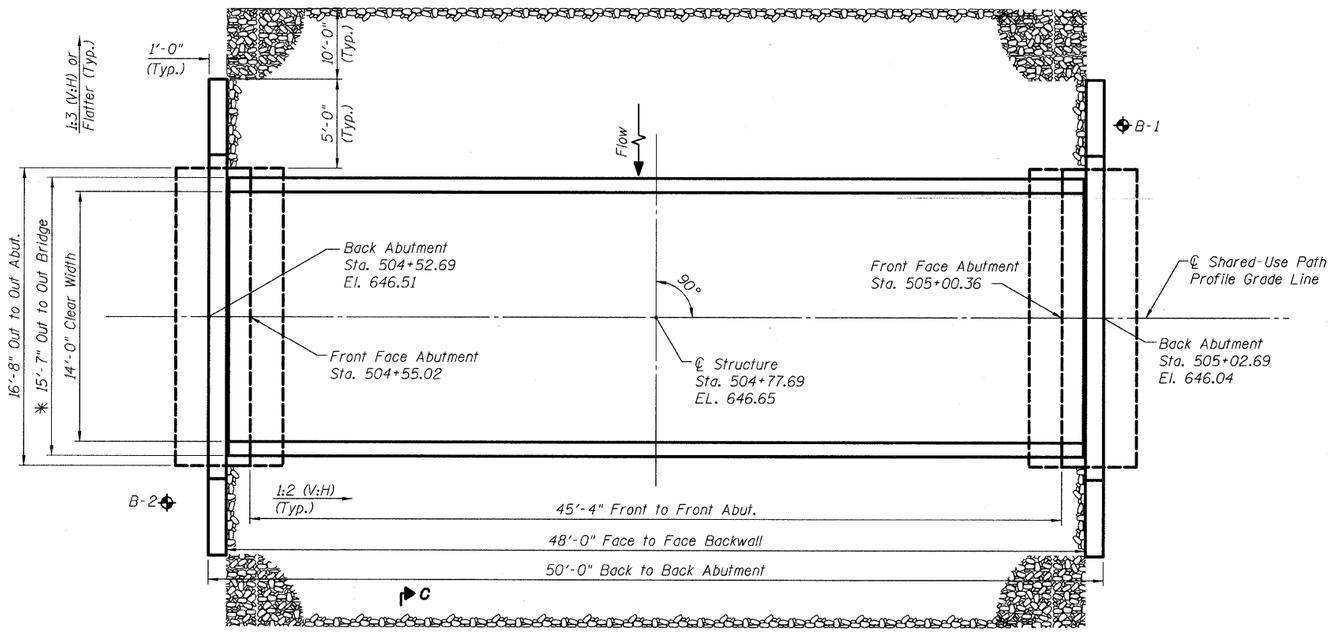
Existing Structure: The existing structure is a single span steel structure with R.C. Deck supported on R.C. closed wall abutments. Back to back of abutments of 29'-0", Width of 14'-0". Contractor shall remove existing structure and replace with single span Pedestrian Truss Superstructure on open abutments. Back to back of abutments of 50'-0", Clear width of 14'-0". Existing structure shall remain open throughout construction. Proposed structure is offset from existing.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Salvage: None

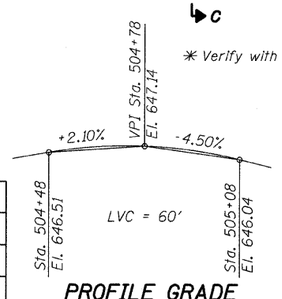


ELEVATION



PLAN

* Verify with Pedestrian Truss Superstructure Manufacturer.



PROFILE GRADE

(Along ℄ of Shared-Use Path)

DESIGNED	RRD
CHECKED	JAR
DRAWN	KAS
CHECKED	JAR

GENERAL NOTES:

Details on this drawing are not to scale.

Provide 1" chamfer on all concrete edges unless otherwise specified.

Reinforcement shall be placed with a minimum of 2" concrete cover unless otherwise specified.

All details and dimensions shown on this sheet are to be coordinated with the Pedestrian Truss Superstructure manufacturer. See Specifications for Pedestrian Truss Superstructure. These drawings shall be worked with Pedestrian Truss Superstructure drawings provided by the Pedestrian Truss Superstructure Manufacturer. Required modifications will be at no additional cost to the owner. Pedestrian Truss Superstructure shall be a Pratt Truss with a reinforced concrete deck.

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.

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Contractor to supply necessary material and equipment to construct concrete bridge deck. Cost included in Pedestrian Truss Superstructure.

All structural steel shall be AASHTO M 270 Grade 50W (except expansion joints which shall be AASHTO M 270 Grade 50.)

No field welding is permitted except as specified in the contract documents.

INDEX OF SHEETS

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 Interims
1997 AASHTO Guide Sepcifications for Design of Pedestrian Bridges

LOADING

85 psf Live Load
H10 Vehicle Load
35 psf Wind Load

SCOPE OF WORK

Two new concrete abutments supported on spread footings will be placed to support a prefabricated bridge. The abutments will be spaced 48'-0" face to face of backwall. Pedestrian Truss Superstructure will be installed per Manufacturer's recommendations.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	CU YD	0	43	43
Stone Riprap, Class A4	SQ YD	0	250	250
Filter Fabric	SQ YD	0	250	250
Removal Of Existing Structures	EACH	-	-	1
Structure Excavation	CU YD	0	92	92
Concrete Structures	CU YD	0	26	26
Reinforcement Bars, Epoxy Coated	POUND	0	1600	1600
Geocomposite Wall Drain	SQ YD	0	22	22
Pipe Underdrains For Structures 4"	FOOT	0	117	117
Pedestrian Truss Superstructure	SQ FT	669	0	669

BRIDGE REACTION

All Reactions are Unfactored

LOAD	P (lb)	H (lb)	L (lb)
DEAD	19,900		
UNIFORM LIVE	15,100		
VEHICLE	6,700		
WIND		7,100	4,700
WINDWARD	-7,900		
LEEWARD	2,000		
THERMAL			4,000

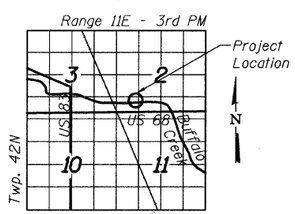
"P" - Vertical Load per Shoe
"H" - Horizontal Load per Abutment
"L" - Longitudinal Load per Shoe
+ Downward Load
- Upward Load

WATERWAY INFORMATION

Drainage Area = 20 sq mi Low Grade Elev. 642.56 © Sta. 505+40

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	15	662	113	130	643.24	0.07	0.09	643.04	643.33
Base	100	1203	159	200	644.83	0.19	0.17	644.66	645.00
Overtopping	6	491	100	104	642.51	0.03	0.05	642.46	642.56
Max. Calc.	500	2003	167	218	646.70	0.01	0.08	646.62	646.78

Scour measures are in place. Scour is not anticipated.
Existing structure is located just east of proposed structure.



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."

ANTHONY J. STANDISH 081-005819 LICENSED STRUCTURAL ENGINEER STATE OF ILLINOIS

5/22/2007

ILLINOIS STRUCTURAL NO. 081-005819 (Expires 11/30/09)

GENERAL PLAN & ELEVATION
HAWTHORNE SCHOOL
PEDESTRIAN BRIDGE
STA. 504+77.69

STRAND ASSOCIATES, INC.

SHEET NO. 1	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3 SHEETS		06-00069-00-BR	COOK	26	16
		GENERAL PLAN	CONTRACT NO. 63217		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		