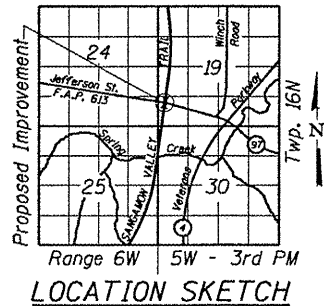


B.M. #23 Chiseled "+" on Steel Plate Southeast Corner Railroad Bridge (IL Rte 97), Station 1188+78.89, 5.99' Rt., Elev. 579.32

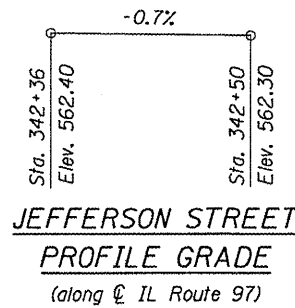
Existing Structure: SN 084-9936, originally built in 1917 as C&NW Railway Bridge No. 1862 over Highway 1.5 miles south of Bando. The existing structure is a 1-span riveted thru plate girder bridge on spread footing closed concrete abuts. The structure is 43'-4" fc-to-fc of abutment backwalls with a 15'-0" c.-c. of girder deck width. The existing girders have been previously raised and set on concrete and timber bearing extensions. Existing backwalls have been extended with timbers. The existing structure will be rehabilitated to carry pedestrian traffic.

The Contractor will install a protective shield, remove the existing timber backwalls, will jack the existing structure, remove the existing railroad ties, replace the existing bearing extensions with new concrete pedestals, pour new concrete abutment backwalls, construct a new timber deck and railing, and install fencing.

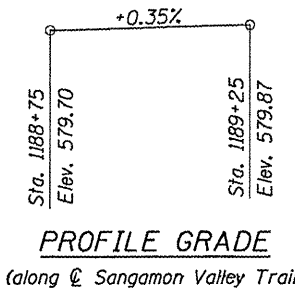
No Salvage.



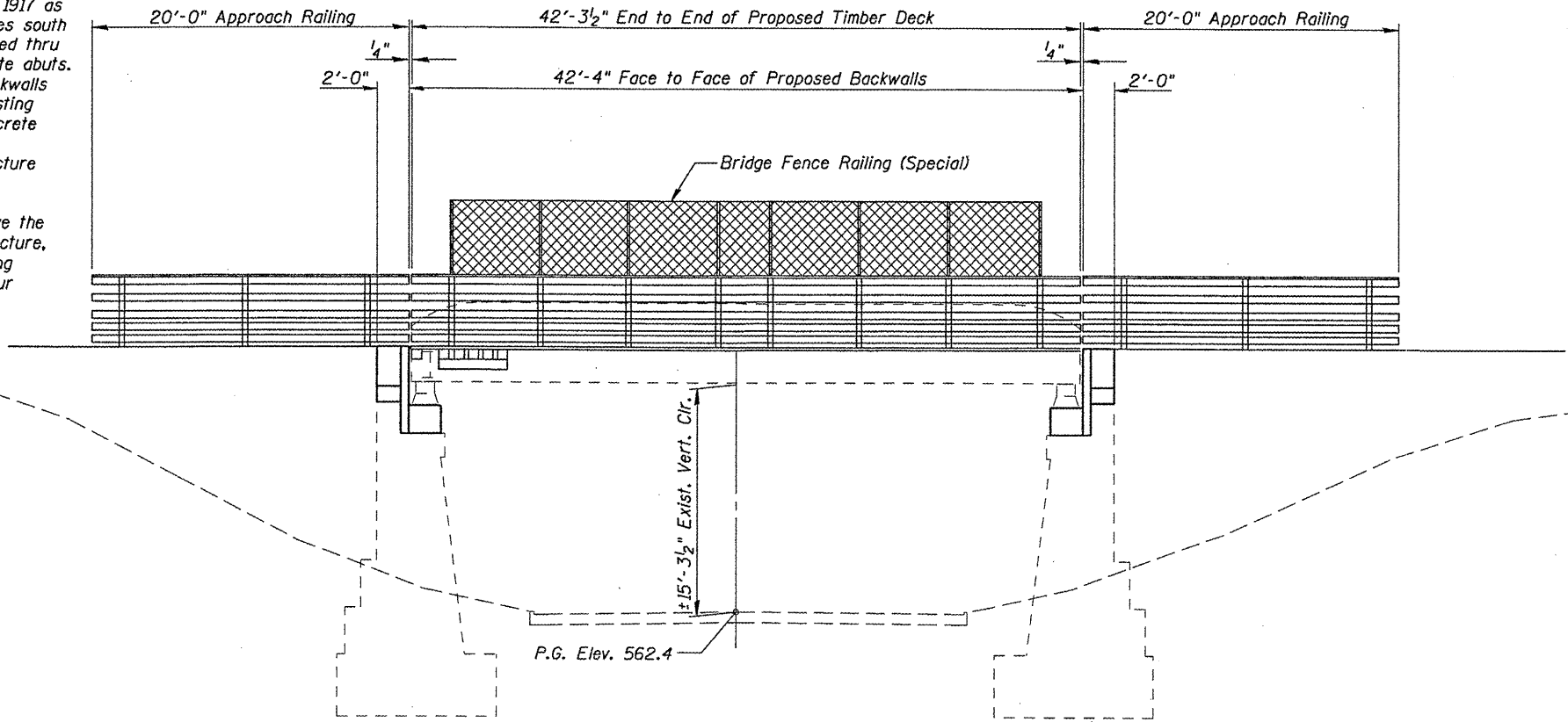
LOCATION SKETCH



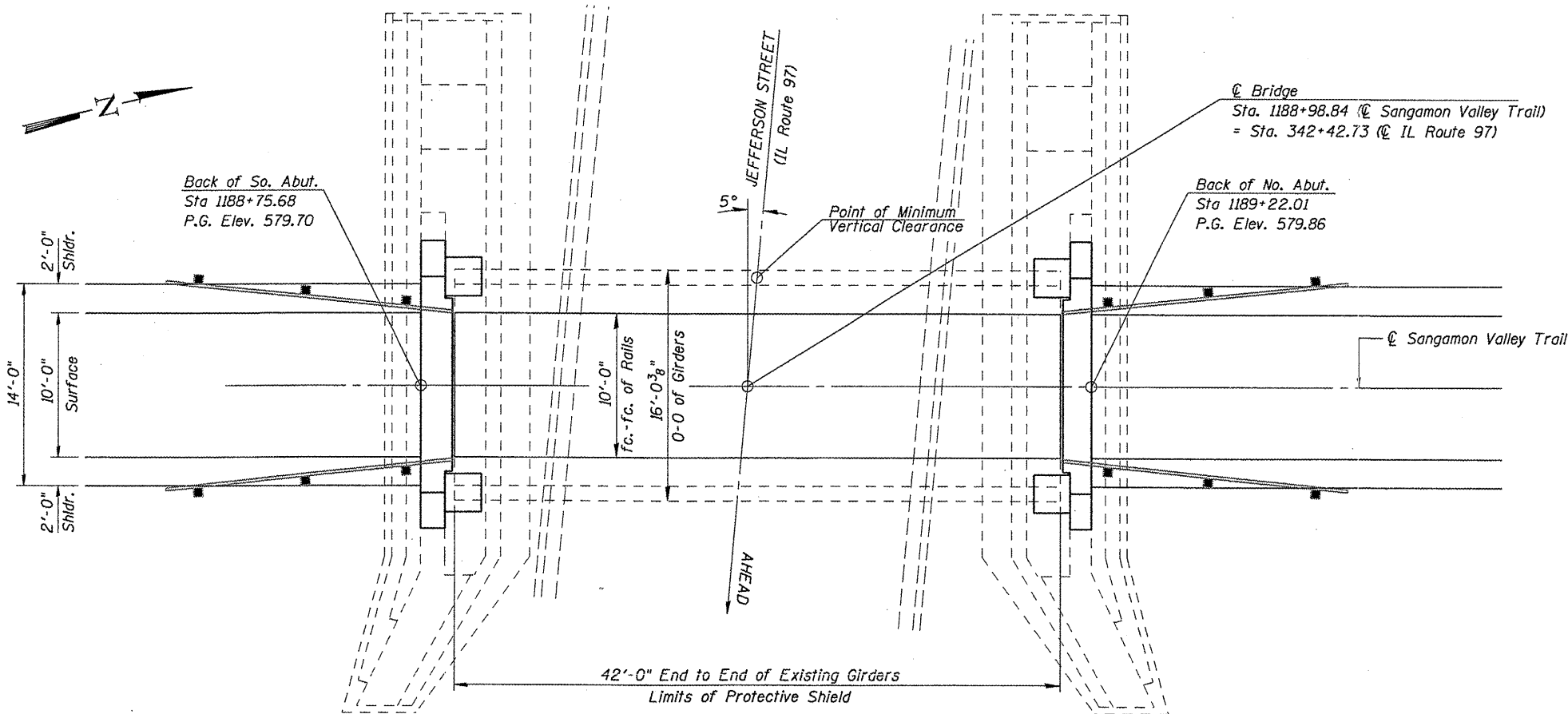
JEFFERSON STREET
PROFILE GRADE
(along IL Route 97)



PROFILE GRADE
(along Sangamon Valley Trail)



ELEVATION



PLAN

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.05g
Site Coefficient (S) = 2.0

DESIGN SPECIFICATIONS

2002 AASHTO

1997 AASHTO "Guide Specifications for Design of Pedestrian Bridges".

LOADING

Vehicle Load: 10,000lb Emergency Vehicle
Pedestrian Load: 85 psf uniform load

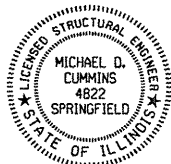
DESIGN STRESSES

f_c = 3,500 psi (Substructure)
 f_y = 60,000 psi (Reinforcement)
 f_b = 1,500 psi (Timber)
 f_b = 1,850 psi (Timber Planking)

APPROVED

For Structural Adequacy Only

Ralph E. Anderson
Engineer of Bridges & Structures



"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 Guide Specifications for Design of Pedestrian Bridges'".

Michael D. Cummins 1/8/10
ILLINOIS STRUCTURAL NO. 4822 (Expires 11/30/10)

GENERAL PLAN & ELEVATION
SANGAMON VALLEY TRAIL
OVER JEFFERSON STREET (IL ROUTE 97)
SECTION 05-00173-00-BT
SANGAMON COUNTY
STATION 1188+98.84
SVT BRIDGE NO. 15
STRUCTURE NO. 084-9936

CEC Cummins
Engineering
Corporation
Civil and Structural Engineering

JOB = 2192	DESIGNED M.D.C.
FILE = 2192jeff_gpe	CHECKED A.A.N.
DATE = 10/30/2009	DRAWN T.S.H.
	CHECKED M.D.C.

Sheet 1 of 6	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	SVT	05-00173-00-BT	SANGAMON	173	107
	SANGAMON VALLEY TRAIL			CONTRACT NO.	
	FED. ROAD DIST. NO. 6 ILLINOIS FED. AID PROJECT			93522	

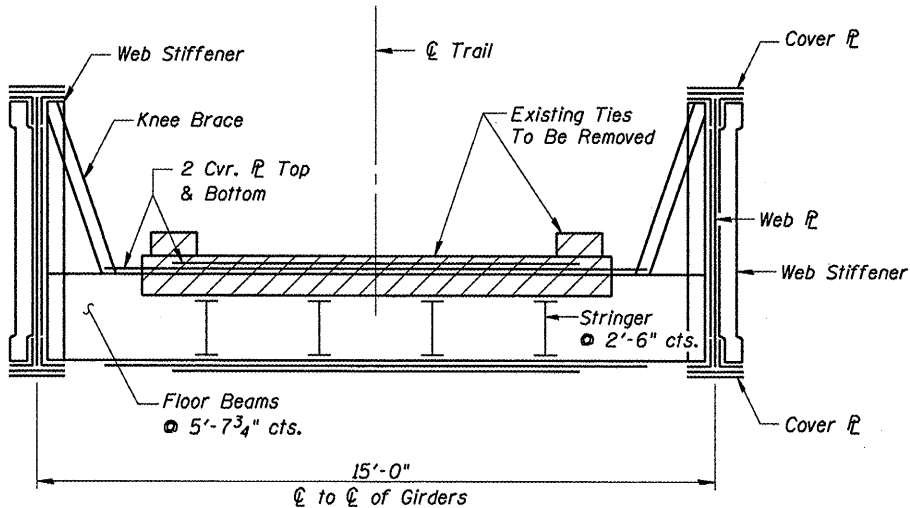
GENERAL NOTES

1. Fasteners shall be AASHTO M164 Type 3. Bolts $\frac{3}{4}$ " ϕ , holes $\frac{15}{16}$ " ϕ , unless otherwise noted.
2. All Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
3. Reinforcement bars shall be epoxy coated.
4. Plan dimensions and details relative to existing plans are subject to nominal construction 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 or work, however, the Contractor will be paid for the quantity actually furnished at the unit bid price for work.
5. Concrete Sealer shall be applied to the exposed surfaces of the new concrete bearing pedestals and the top and front face of the new concrete back wall.
6. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
7. Unless noted otherwise, exposed concrete edges shall have a $\frac{3}{4}$ " chamfer.
8. The Contractor shall provide and install all necessary timber shims to construct a level deck surface.
9. Timber deck planks shall be placed with the grain such that cupping will not cause water to sit on a plank.
10. The Contractor shall field verify all conditions at the site prior to the start of construction.
11. All structural timber shall be treated to conform to Section 507 of the Standard Specifications.
12. All hardware required for timber construction, including nuts, washers, lag screws, threaded rods and miscellaneous fasteners shall be stainless steel or hot-dipped galvanized and shall conform to Section 507 of the Standard Specifications unless noted otherwise.
13. The Contractor shall remove the existing debris from both abutments. The cost of this work shall be included in the cost for "Removal of Existing Timber Materials".
14. It shall be the responsibility of the Contractor to verify all dimensions and elevations of the existing structure in the field prior to construction and ordering materials. Do not scale dimensions from the drawings for construction purposes.
15. If, during the performance of the work, the Contractor finds a conflict or discrepancy related to existing details and dimensions of the existing structure, the Contractor shall report such discrepancies to the Engineer in writing at once and before proceeding with the work affected thereby. The Contractor shall obtain written interpretation or clarification of such discrepancies.
16. "Removal of Existing Timber Materials" includes:
Existing Railroad Ties, quantity = 44 each
Existing Spacer Ties, quantity = 4 each
Existing Backwall Timbers, approximate quantity = 10 each
Existing Bearing Cribbing, quantity = 12 each
17. All lumber dimensions given are nominal dimensions. The minimum surfaced areas of timbers shall be as follows:

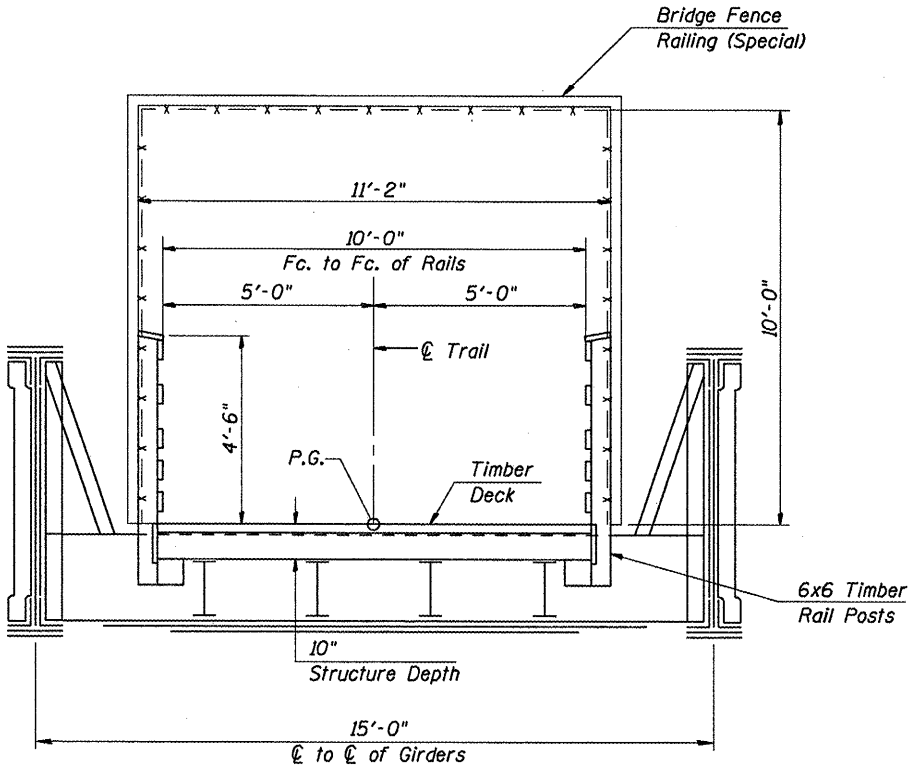
NOMINAL SIZE	DRESSED
2 x 6	1 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ "
2 x 8	1 $\frac{1}{2}$ " x 7 $\frac{1}{4}$ "
3 x 12	2 $\frac{1}{2}$ " x 11 $\frac{1}{4}$ "
6 x 6	5 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ "
8 x 8	7 $\frac{1}{2}$ " x 7 $\frac{1}{2}$ "

INDEX OF SHEETS

1. General Plan & Elevation
2. General Notes, Total Bill of Material, Typical Cross Sections
3. Timber Deck & Railing Details
4. Timber Framing Details
5. Timber Details
6. Abutment Details



EXISTING CROSS SECTION
42' RIVETED THRU PLATE GIRDER



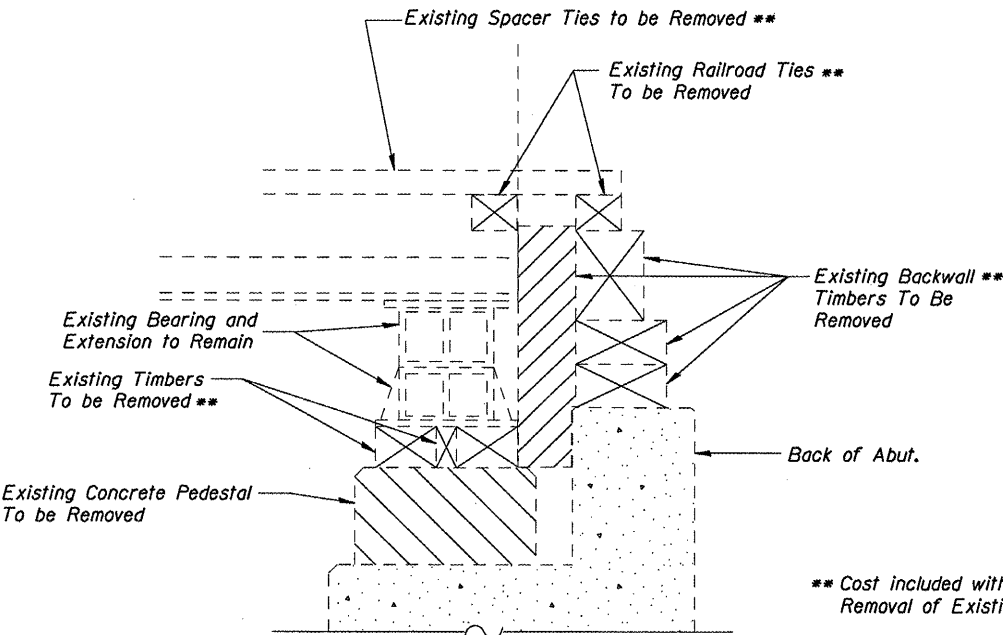
PROPOSED CROSS SECTION
REHABILITATION OF EXISTING RIVETED THRU PLATE GIRDERS

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Treated Timber	F.B.M.	4,785		4,785
Hardware	Pound	900		900
Concrete Structures	Cu. Yd.		10.8	10.8
Concrete Removal	Cu. Yd.		1.2	1.2
* Jacking Existing Superstructure	L. Sum	1		1
* Reinforcement Bars, Epoxy Coated	Pound		1,060	1,060
* Removal of Existing Timber Materials, Location 2	L. Sum	1		1
Bridge Fence Railing (Special)	Sq. Ft.	1,150		1,150
Structure Excavation	Cu. Yd.		7	7
Concrete Sealer	Sq. Ft.		330	330
* Protective Shield	Sq. Yd.	70		70
Anchor Bolts 1 $\frac{1}{4}$ "	Each		8	8

* See Special Provisions

GENERAL NOTES, TOTAL BILL OF MATERIAL
& TYPICAL CROSS SECTIONS
SANGAMON VALLEY TRAIL
OVER JEFFERSON STREET (IL ROUTE 97)
SVT BRIDGE NO. 15
STRUCTURE NO. 084-9936



SECTION THRU EXISTING ABUTMENT

** Cost included with
Removal of Existing Timber Materials

CEC

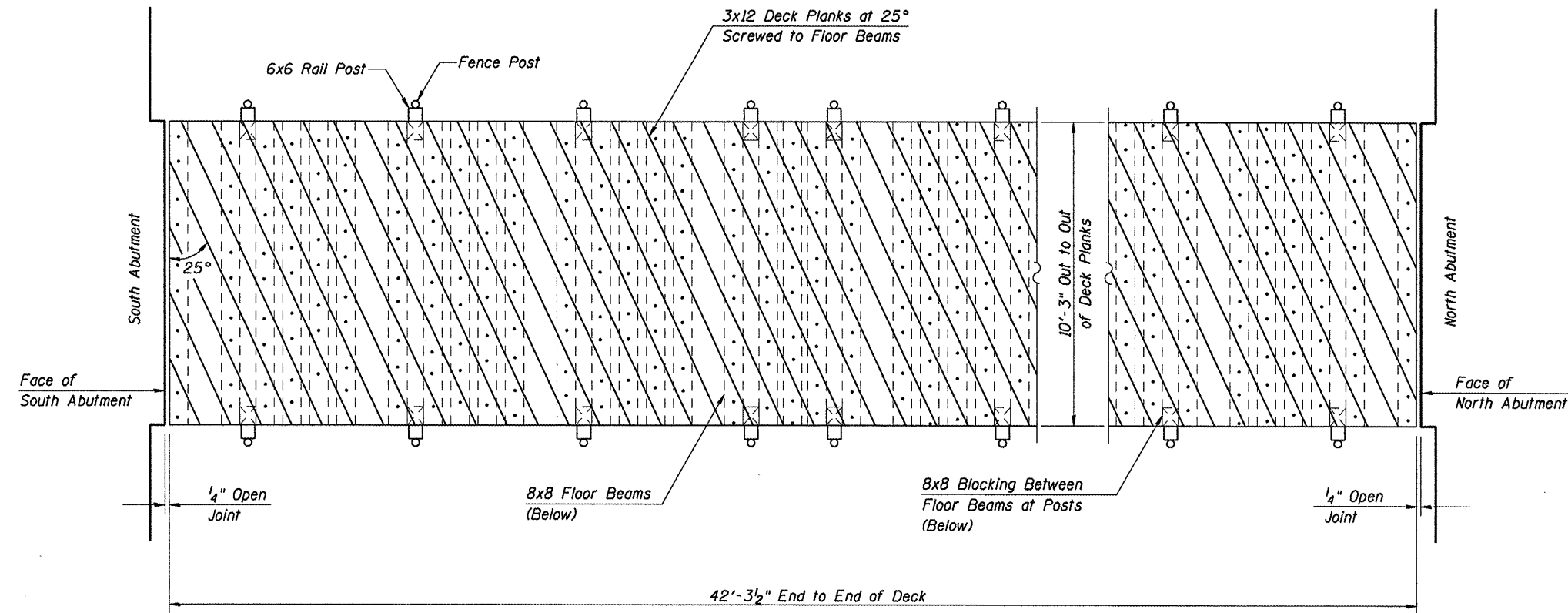
Cummins
Engineering
Corporation

Civil and Structural Engineering

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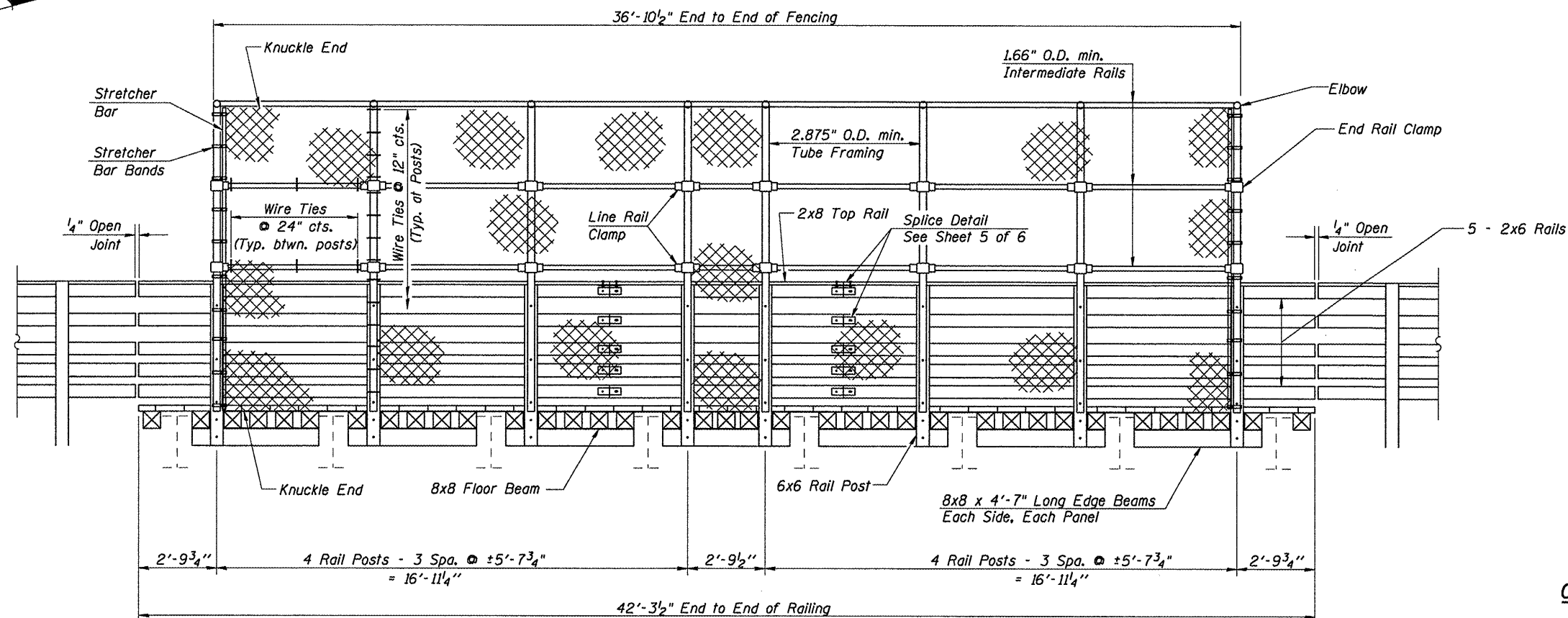
Sheet 2 of 6	RTE. SVT	SECTION 05-00173-00-BT	COUNTY SANGAMON	TOTAL SHEETS 173	SHEET NO. 108
	SANGAMON VALLEY TRAIL		CONTRACT NO.		
	FED. ROAD DIST. NO. 6		ILLINOIS FED. AID PROJECT		

93522



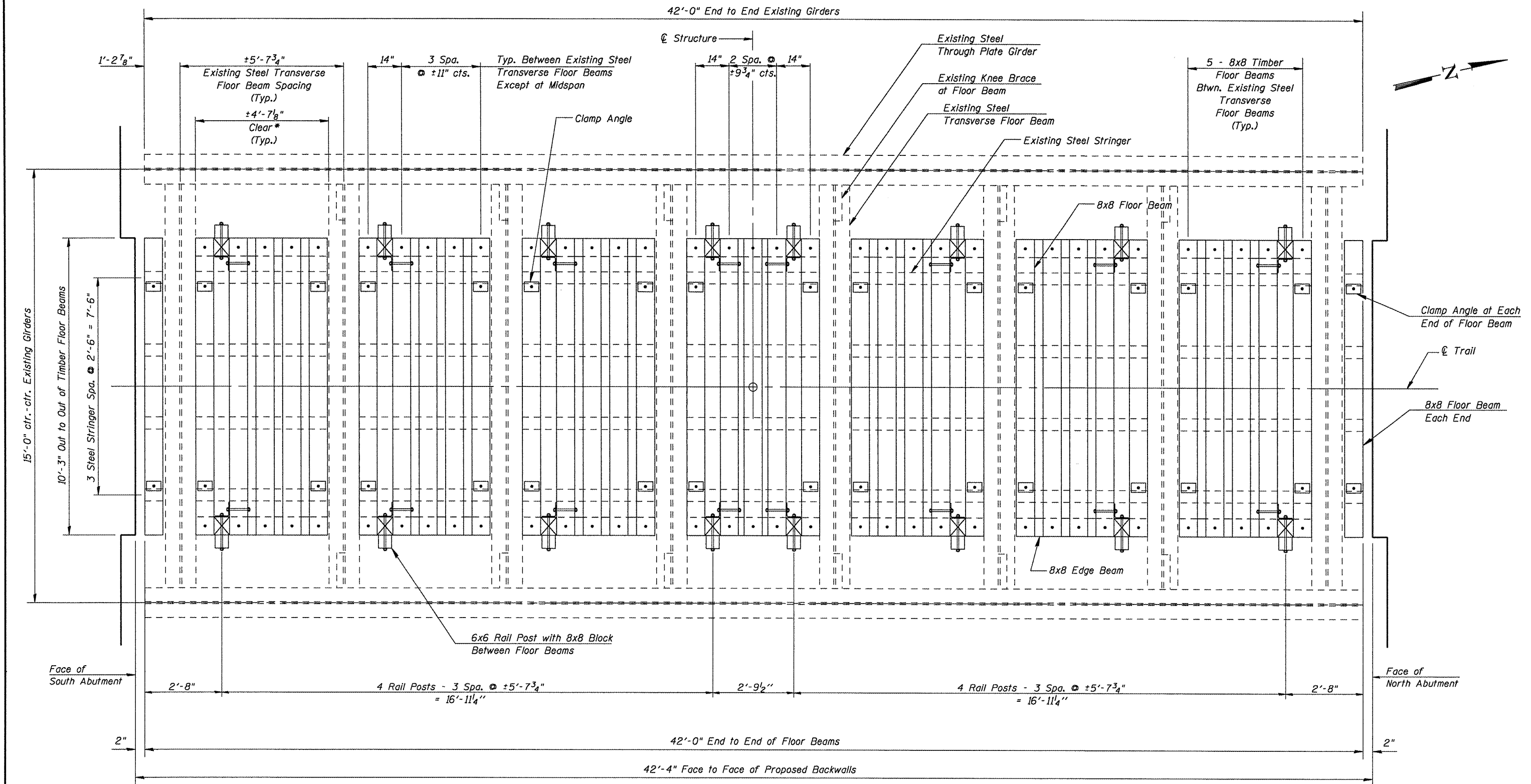
DECK PLAN

(Railing Not Shown)



RAIL ELEVATION

TIMBER DECK & RAILING DETAILS
SANGAMON VALLEY TRAIL
OVER JEFFERSON STREET (IL ROUTE 97)
SVT BRIDGE NO. 15
STRUCTURE NO. 084-9936



* Verify clear distance between transverse floor beams.

TIMBER DECK FRAMING PLAN
(Deck Planks & Railing Not Shown)

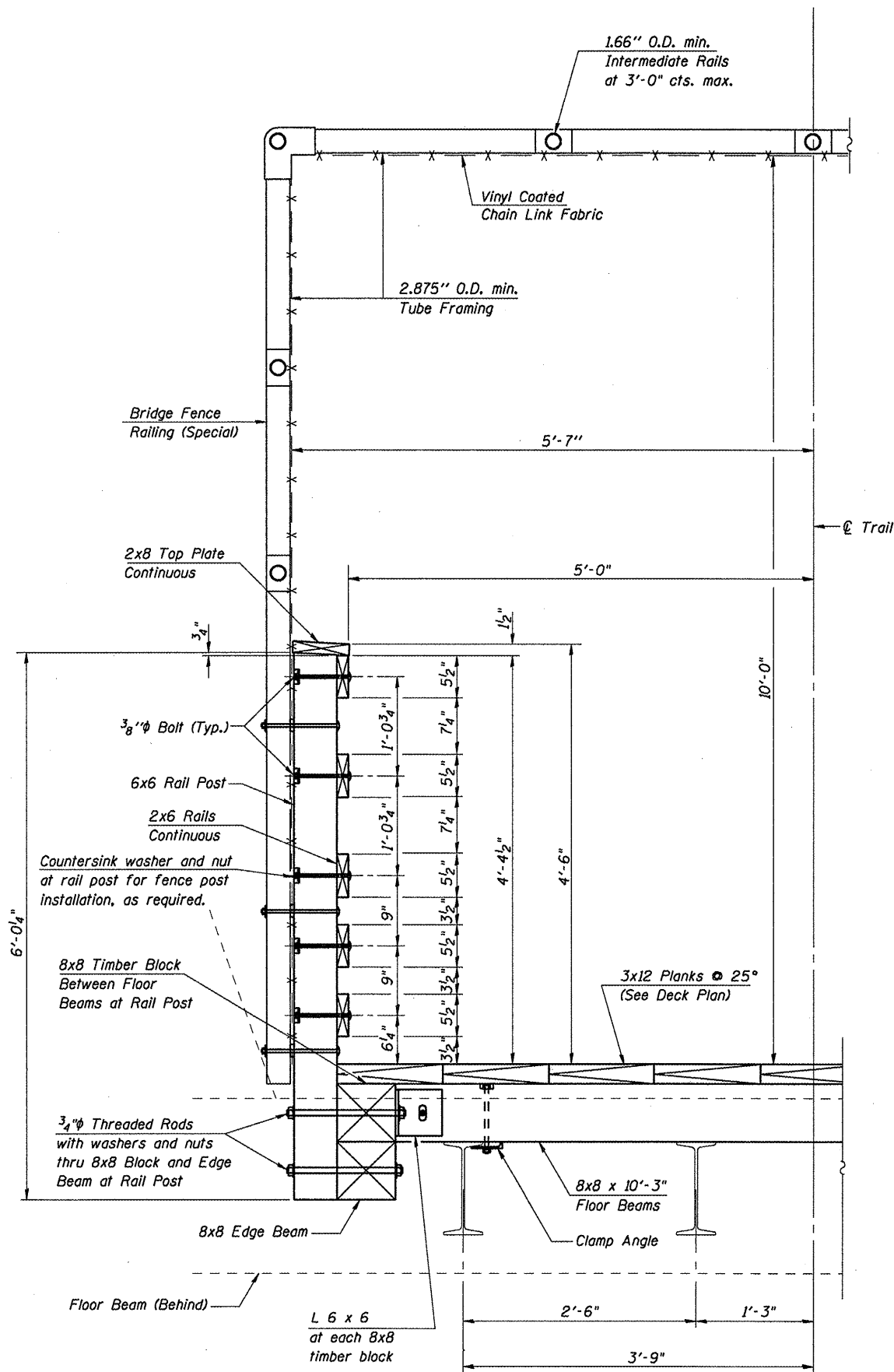
TIMBER FRAMING DETAILS
SANGAMON VALLET TRAIL
OVER JEFFERSON STREET (IL ROUTE 97)
SVT BRIDGE NO. 15
STRUCTURE NO. 084-9936

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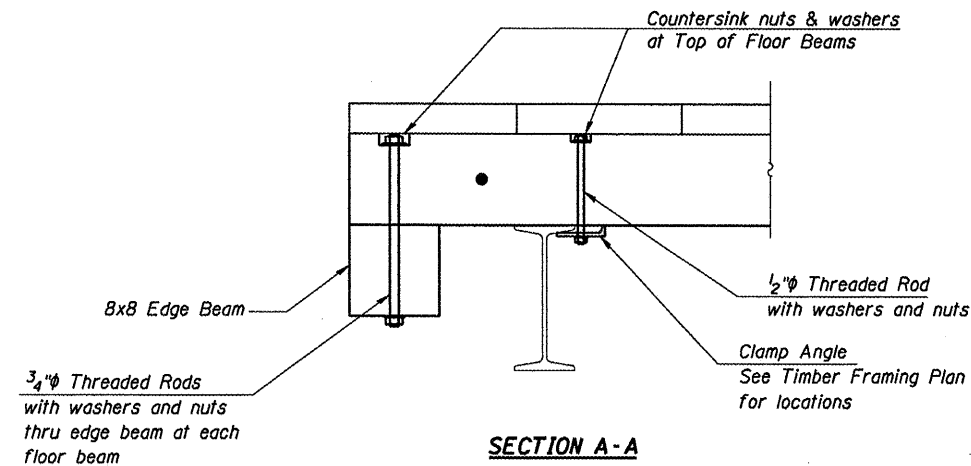
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Sheet 4 of 6	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	FED. ROAD DIST. NO. 6 ILLINOIS FED. AID PROJECT 00500				

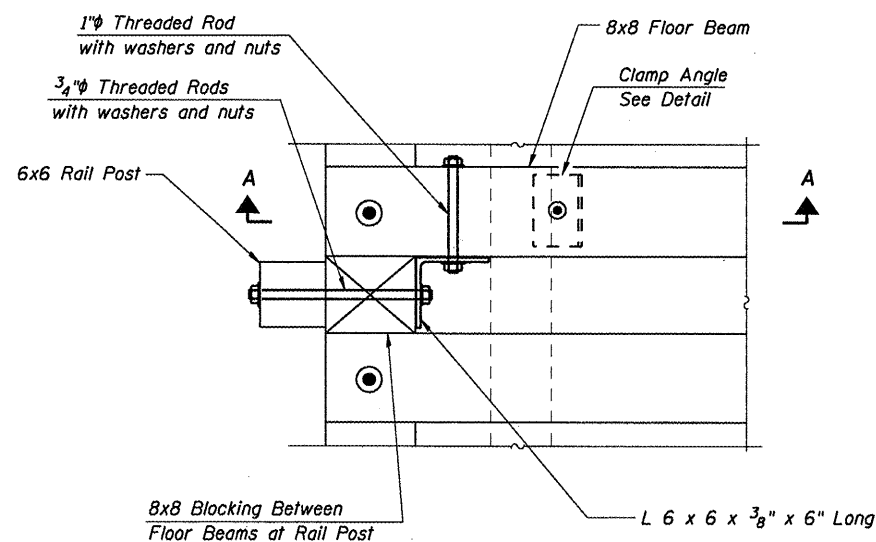
93522



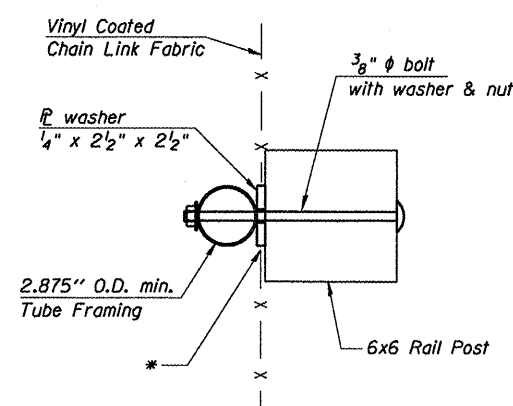
SECTION AT RAIL POST



SECTION A-A

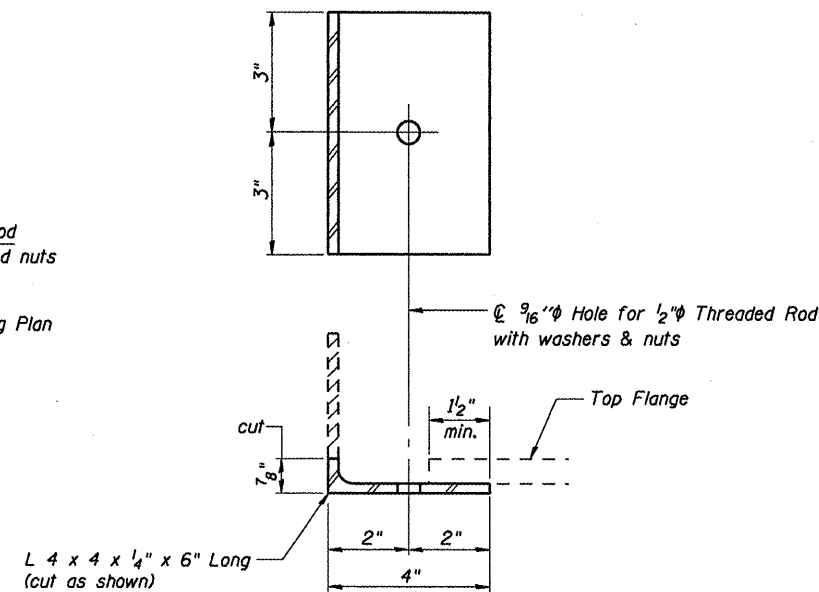


PLAN AT RAIL POST
(Deck Planks Not Shown)

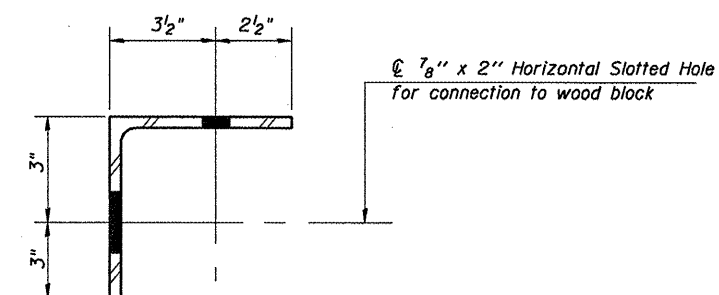


FENCE ATTACHMENT DETAIL

* Cut and Knuckle chain link fabric as required.

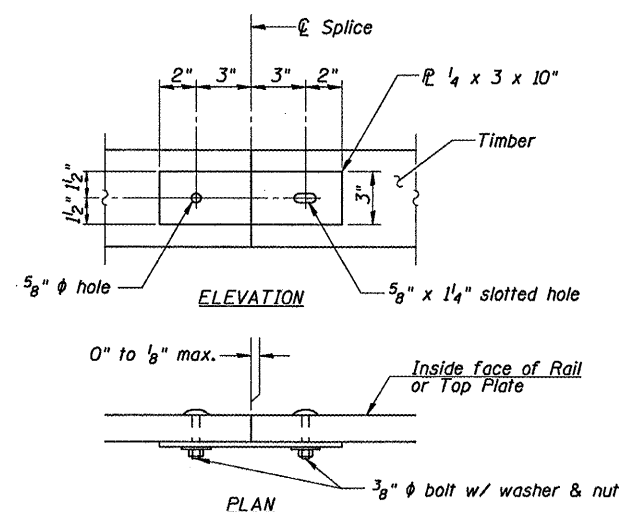


CLAMP ANGLE
(32 Required)



TIMBER BLOCK ANGLE
(16 Required)

* Weight of angles included in the weight of Hardware.



SPLICE DETAIL

Note: Minimize splices in rails and top plate. Where possible span 3 rail posts.

**TIMBER DETAILS
SANGAMON VALLEY TRAIL
OVER JEFFERSON STREET (IL ROUTE 97)
SVT BRIDGE NO. 15
STRUCTURE NO. 084-9936**

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Sheet 5 of 6	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	SVT	05-00173-00-BT	SANGAMON	173	111
	SANGAMON VALLEY TRAIL			CONTRACT NO.	
	FED. ROAD DIST. NO. 6			ILLINOIS FED. AID PROJECT	

93522

