MIDLAND COUNTY ROAD COMMISSION

BID FORM

Sealed Proposals will be received at the office of the Board of Road Commissioners, County of Midland, at 2334 N. Meridian Road, Sanford, Michigan 48657 until:

DATE: Monday, March 21st, 2016, at 1:00 P.M.

Item No. 29 – TIMBER DECKING

PAY ITEM	PRICE PER UNIT
DECKING, TIMBER, MODIFIED	$_____/LSUM
PL-1 TIMBER RAIL SYSTEM	$_____/DECK

DESCRIPTION

Attached are the details included in these bid items. There are 2 timber decks included in this bid. Stressing rod holes need to be pre-drilled and treated as detailed. Stressing rods are included in the lump sum per deck along with all hardware necessary to install. Bridge railing is bid as a lump sum per deck and includes all hardware and materials necessary for installation on both sides of the deck as detailed.

Delivered to Midland County Road Commission at 2334 N. Meridian Road, Sanford MI

COMPANY BIDDING_____

CONTACT PERSON _____

ADDRESS_____

PHONE/FAX _____

_____

AUTHORIZED SIGNATURE TITLE

INDICATE ON ENVELOPE: Company Name, Item Number, Bid Item, Time and Date

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
DECKING, TIMBER (MODIFIED)

a. Description. This work consists of supplying timber decking for use in construction of new bridges. This work must be in accordance with section 709 of the Standard Specifications for Construction, except as modified herein.

b. Materials. Ensure materials meet the requirements specified in subsection 709.02 of the Standard Specifications for Construction. In addition, materials must meet the requirements listed on the title sheet and listed below:

Ensure all timber material is treated with Pentachlorophenol in light oil per AWPA for ground contact. All glu-lam members must be treated prior to gluing.

Ensure the treatment complies with Best Management Practice for the Use of Preservative-Treated Woods in Aquatic Environments in Michigan, 2002, except as modified herein. Preservative treatments and treated timber materials must comply with the following AWPA standards:

Commodities
Sawn Products - U1 Specification A
Glued Laminated Wood Composites - U1 Specification F

Processing and Treatment Standard
Sawn Products - T1 Section A
Glued Laminated Wood Composites - T1 Section F

Preservatives
Pentachlorophenol, in light oil

Ensure techniques are incorporated into the treating process to minimize the amount of residual treatment on the surface of treated timber members, and to avoid excessively high retentions. To assure that treated timber members are not treated to excessively high retentions, the average retentions must not exceed 150 percent of the AWPA specified minimums.

Ensure treated materials are dried to a moisture content of 19 percent or less before shipping. Ensure individual laminations of glued laminated members are dried before gluing.

Ensure the preservative treatment process is inspected per AWPA M2. The Contractor must employ and pay for the required inspections and tests at the treatment plant.

In addition to the certifications required by section 912 of the Standard Specifications for Construction, the Contractor must submit the following certifications demonstrating compliance with preservative treatment specifications.

1. Certification that treatment processes meet the requirements of this contract.

2. The final inspection report per AWPA M2, Part A, Section 6, including a statement by the inspector that any materials or work not conforming with these contract requirements has been rejected.

3. Certification that the material moisture contents have been tested and found to comply with contract requirements.

Ensure the Contractor furnishes all treatment certifications for approval of the Engineer prior to shipping. Approval of the certifications does not constitute final acceptance.

Manufacture glu-lam members from timber species and combination symbols as specified on the drawings. Glu-lams must be manufactured in accordance with ANSI/AITC A190.1. Members will be marked with a Quality Mark and, in addition, a Certificate of Conformance must be provided to indicate conformance with ANSI/AITC A190.1.

In addition to the certification required by section 912 of the Standard Specifications for Construction, the Contractor will be required to submit written certification that the glu-lam members meet the allowable bending stress, and modulus of elasticity specified on the plans. Written certification must be approved by the Engineer prior to cutting or fabricating of glu-lam members. Galvanize all structural steel, miscellaneous metals, and hardware in accordance with ASTM A 153. Ensure bolts are ASTM A 307, unless otherwise specified on the plans.

c. Construction. Ensure construction meets the requirements specified in subsection 709.03 of the Standard Specification for Construction. In addition, construction must meet requirements listed below.

Ensure the diameter and depth of holes in timber members, for drift pins, drive spikes, bolts, and lag bolts are as recommended by the American Institute for Timber Construction (AITC).

All drilling, cutting, and fabricating of timber members, other than glu-lams treated before laminating, must be done prior to treatment, unless otherwise noted on the plans or approved by the Engineer. Field treat glu-lam members drilled, cut or fabricated after treatment per AWPA standard M4. Submit three sets of shop drawings for approval, prior to fabrication.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	**Pay Unit**
Decking, Timber, Modified	Lump Sum
PL-1 Timber Rail System	Deck

Decking, Timber, Modified includes all miscellaneous steel, hardware, and accessories necessary for a complete installation.

PL-1 Timber Rail System includes all miscellaneous steel, hardware, and accessories necessary for a complete installation.

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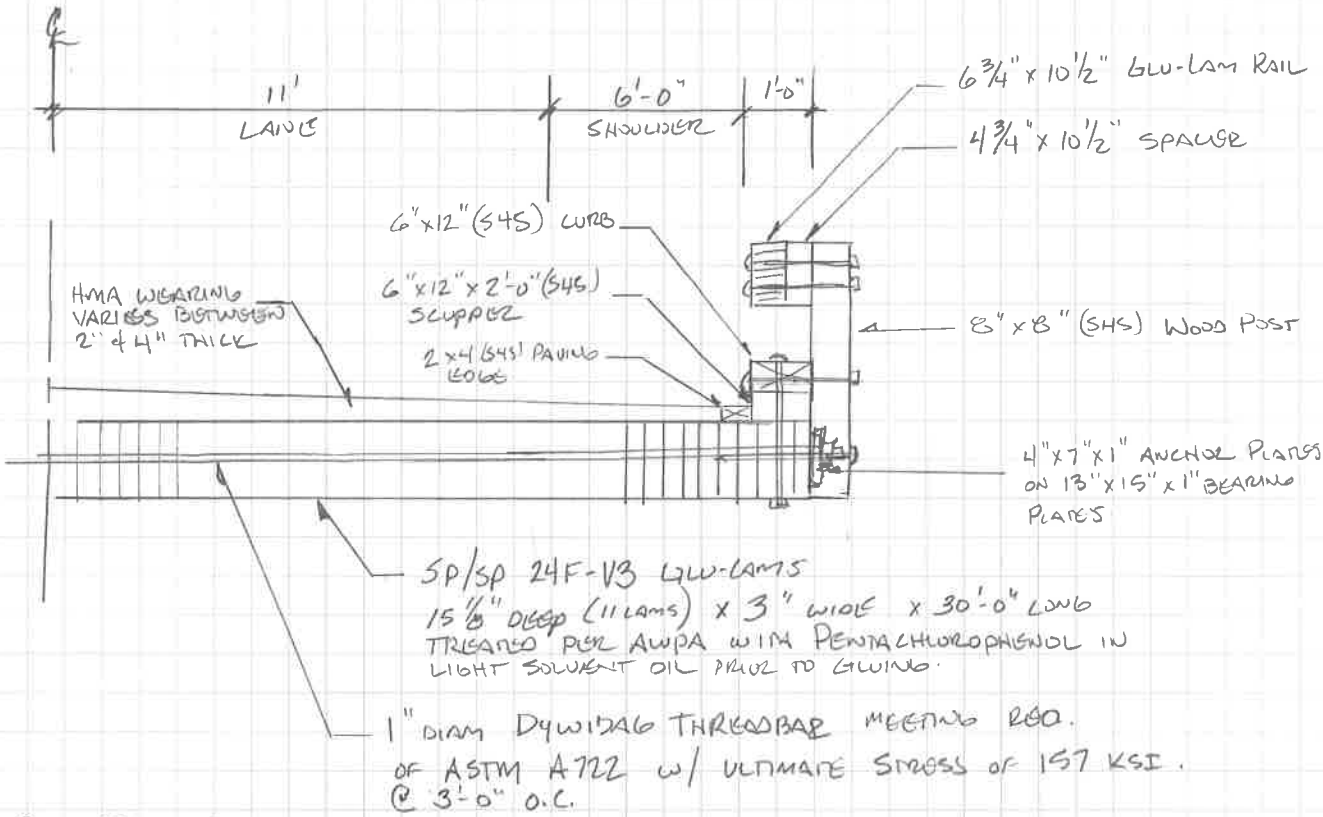
PROJECT WORK SHEET

TOTAL BRIDGE WIDTH = 36' ⇒ 432 INCHES

w/ 3" WIDE GLULAMS = 144 INDIVIDUAL BEAMS ← OK

w/ 3 1/8" WIDE GLULAMS = 139 INDIVIDUAL BEAM = 434 3/8"

w/ 5" WIDE GLU-LAMS = 87 INDIVIDUAL BEAM = 435" ← OK



SUMMARY PER BRIDGE

BRIDGE RAIL = FHWA APPROVED PL-1 GLU-LAM TIMBER RAIL SYSTEM

GLU-LAM DECK = 144 INDIVIDUAL 3" WIDE x 15 1/8" DEEP x 30'-0" LONG GLU-LAM BEAMS TREATED PER AWPA W/ PENTA IN LIGHT OIL PRIOR TO GLUING. FABRICATED W/ HOLES FOR 1" DIAM THREADBAR @ 3'-0" O.C.

STRESSING RODS = 1" DIAM. DYWIDAG THREADBAR, PER ASTM A722 & 157 KSI U.S. W/ANCHORING NUTS, 4"x7"x1" ANCHOR PLATES & 13"x15"x1" BEARING PLATES ALL STRUCTURAL STEEL SHALL BE HOT DIPPED GALVANIZED PER ASTM A153

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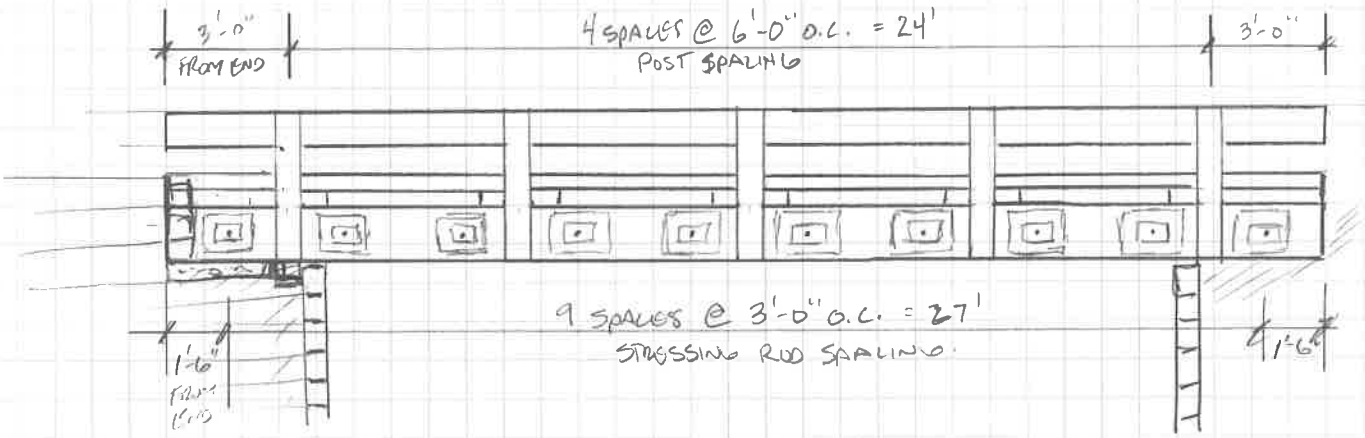
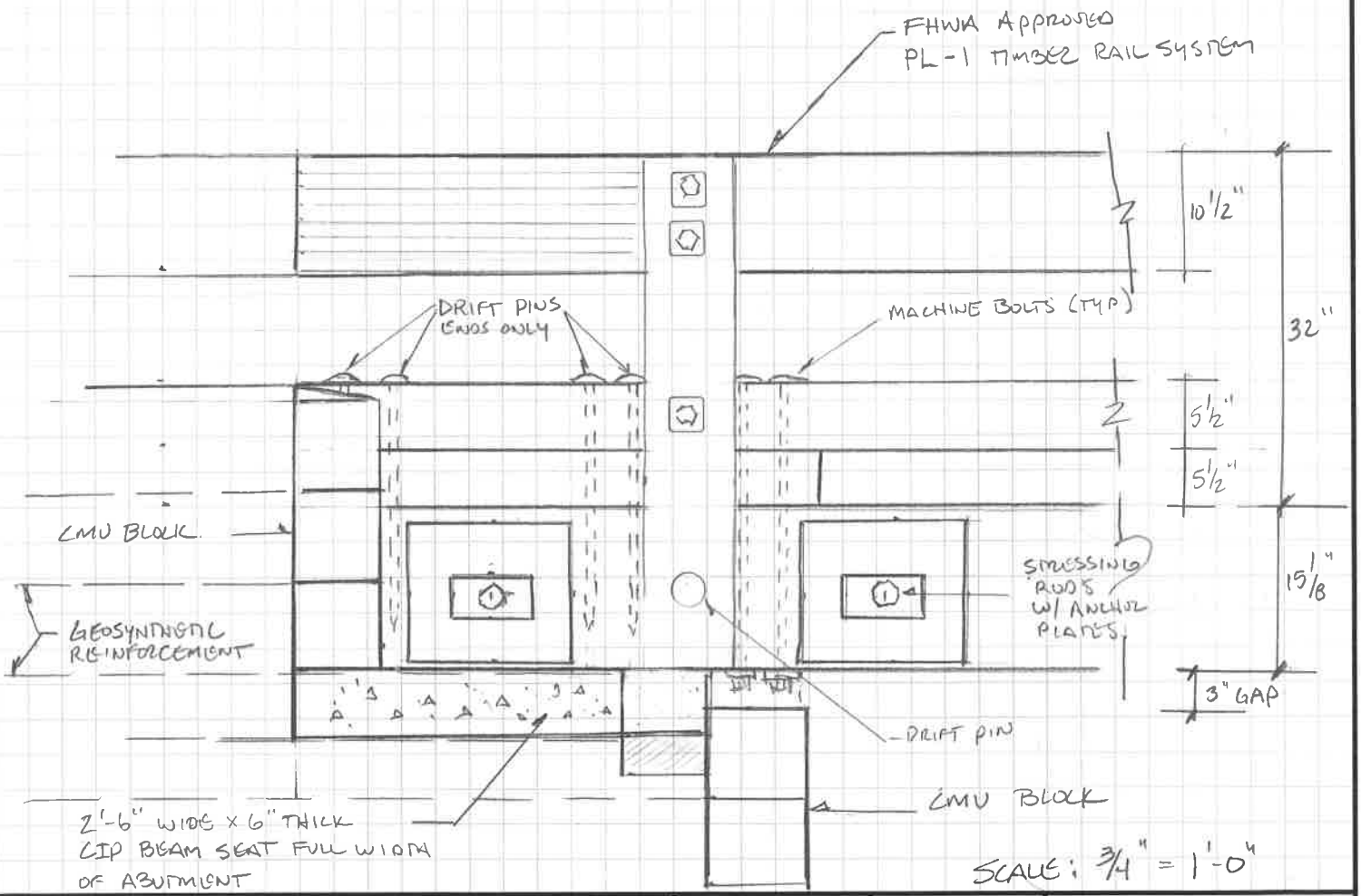
PROJECT WORK SHEET



SCALE: 1" = 5'



SCALE: 3/4" = 1'-0"

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