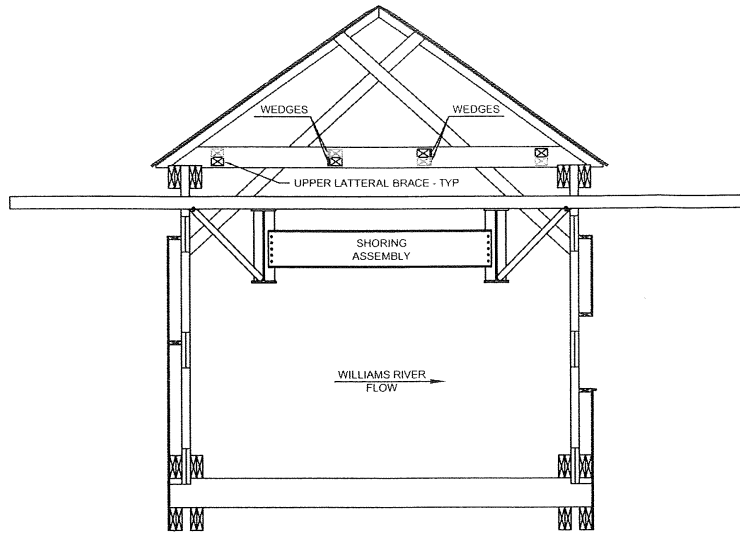


NORTH ELEVATION

SCALE: 1" = 5'-0"



STRAIGHTENING OF TOP CHORD/ROOF STRUCTURE

NOTES:

1. THE EXISTING TOP CHORDS/ROOF STRUCTURE OF THE COVERED BRIDGE HAS A $\frac{3}{4}$ " SWEEP IN THE UPSTREAM DIRECTION (EASTERN FACADE).
2. VAOT HAS SPECIFIED A 2 INCH MAXIMUM ALLOWABLE SWEEP FOR FINAL GEOMETRY.
3. AS THE EXISTING SWEEP IS LESS THAN THE ALLOWABLE SWEEP, NO CORRECTIVE MEASURES WILL BE MADE PRIOR TO THE JACKING OF THE COVERED BRIDGE.
4. DUE TO THE NEED TO SEPARATE THE ROOF STRUCTURE FROM THE TRUSSES (TOP CHORD MEMBER REPLACEMENT), IT IS ANTICIPATED THAT THE TRUSSES (TOP CHORD) MAY SLIGHTLY DEVIATE FROM THEIR EXISTING ALIGNMENT WHILE SEPARATED FROM THE HEAVILY LATERAL BRACED ROOF. THE FOLLOWING PROCEDURE SHALL BE FOLLOWED PRIOR TO SETTING THE ROOF STRUCTURE DOWN UPON THE REHABILITATED TRUSSES.

PROCEDURE:

1. VERIFY THE $\frac{3}{4}$ " UPSTREAM SWEEP OF THE ROOF STRUCTURE (STRING LINE). IF THERE IS ANY DEVIATION IN THIS $\frac{3}{4}$ " SWEEP NOTIFY THE RESIDENT ENGINEER, AND IF REQUIRED, SUBMIT A REVISED STRAIGHTENING PLAN - SUCH AS ADJUSTING THE WEDGES IN THE UPPER LATERAL BRACING IN/OUT TO CORRECT FOR EXCESS SWEEP.
2. VERIFY THE STRAIGHTNESS OF THE TOP CHORD (STRING LINE) TO CONFIRM THAT THE TOP CHORD WILL SET INTO THE NOTCHES OF THE TIE BEAMS AS THE ROOF STRUCTURE IS LOWERED.
3. IF THE TRUSSES SHIFTED WHILE SEPARATED FROM THE ROOF, PUSH/PULL THE TOP CHORD (UTILIZING THE W36x150 SHORING GIRDERS) TO PRE-REHABILITATION ALIGNMENT SO THAT IT WILL SET INTO THE NOTCHES OF THE TIE BEAMS AS THE ROOF STRUCTURE IS LOWERED. USE NYLON STRAPS TO CAPTURE THE TOP CHORD AND 1 TON COME-A-LONGS TO PULL AS REQUIRED. IF THE CHORD NEEDS TO BE PUSHED OUTWARDS, UTILIZE A PORTA-POWER OR MANUAL SCREW JACK. KEEP PUSH/PULL FORCES HORIZONTAL AND PERPENDICULAR TO THE TRUSSES AND GIRDERS.

STRAIGHTENING OF BOTTOM CHORD

NOTES:

1. WHILE THE TRUSSES ARE BEING REHABILITATED, IT IS ANTICIPATED THAT THE BOTTOM CHORD WILL DEVELOP SOME AMOUNT OF LATERAL SWEEP. THE FOLLOWING PROCEDURE SHALL BE FOLLOWED TO CORRECT FOR THIS CONDITION.

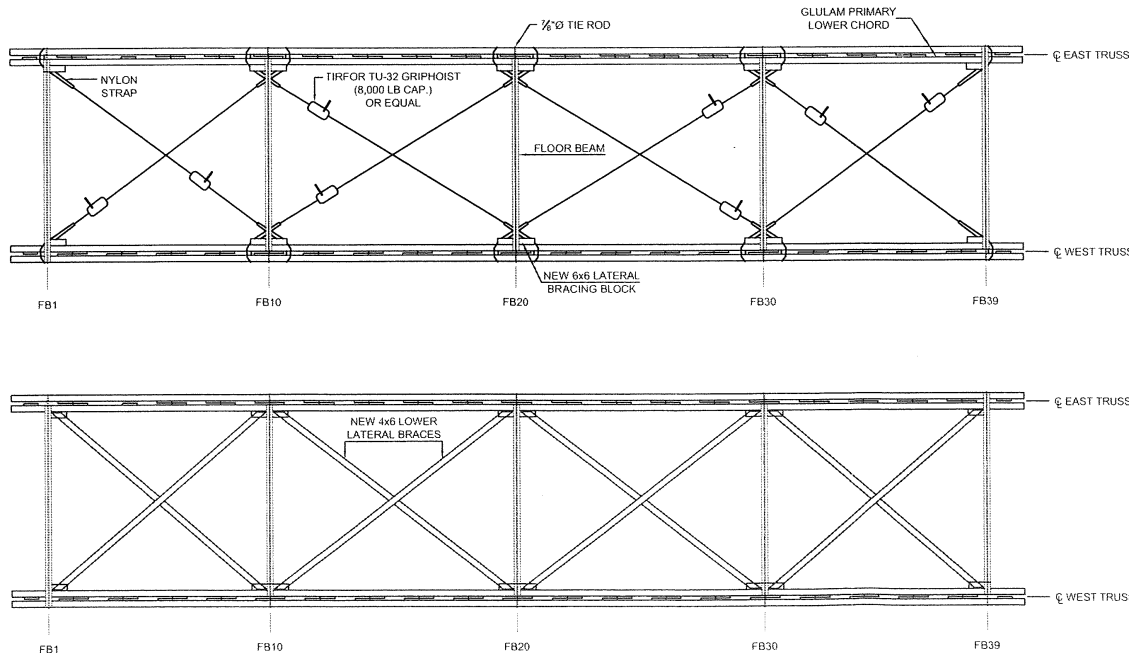
PROCEDURE:

1. UPON COMPLETION OF TRUSS MEMBER REPLACEMENT, INSTALL FLOOR BEAMS: FB1, FB10, FB20, FB30, AND FB39.
2. INSTALL ALL LOWER LATERAL BRACING BLOCKS AND TIE ROD ASSEMBLIES. WHEN NECESSARY:
 - A. USE NYLON STRAPS WRAPPED AROUND LOWER CHORDS IN CONJUNCTION WITH MECHANICAL HOISTS TO PULL CHORDS TOGETHER.
 - B. USE A HYDRAULIC PORTA-POWER OR MANUAL SCREW JACK TO SPREAD CHORDS APART.
4. VERIFY THE STRAIGHTNESS OF THE BOTTOM CHORD (STRING LINE). IF THE BOTTOM CHORD HAS A DIFFERENT LATERAL SWEEP THAN THE TOP CHORD, PLACE NYLON STRAPS AT EACH LATERAL BRACING BLOCK LOCATION, AND CONNECT STRAPS TO MECHANICAL HOISTS AS SHOWN.
5. VERIFY THE NYLON STRAPS WILL NOT INTERFERE WITH THE PROPOSED LATERAL BRACES AND ADJUST STRAPS ACCORDINGLY.
6. TIGHTEN THE MECHANICAL HOISTS TO STRAIGHTEN THE CHORDS AND MATCH THE SWEEP OF THE TOP CHORD.
7. INSTALL THE LATERAL TIMBER BRACES AND REMOVE THE STRAPS AND HOISTS.

GENERAL NOTES

1. ALL RIGGING EQUIPMENT SHALL BE RATED FOR A MINIMUM LOAD CAPACITY OF 4 TONS (8,000 LBS), INCLUDING BUT NOT LIMITED TO, NYLON STRAPS, CABLES, CHAINS, AND CLEVIS. COMALONGS, GRIPHOISTS AND LEVER CHAIN HOISTS SHALL BE RIGGED SUCH TO BE CAPABLE OF LIFTING AN 8,000 LB LOAD, BY USING EITHER SINGLE OR MULTIPLE LINES.

PLAN VIEW
LOWER LATERAL BRACING
SCALE: 1" = 10'-0"



WORRALL COVERED BRIDGE (BRIDGE #40) WILLIAMS ROAD SHORING, STAGING & REHABILITATION PLAN	
REHABILITATION PLAN (STRAIGHTENING)	
SCALE	AS NOTED
DATE	DECEMBER 1, 2009
JOB NUMBER	BHO 1442 (34)
FILE	BR40.dwg
SHEET	8 OF 9
DRAWING NUMBER	STRAIGHT-1



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