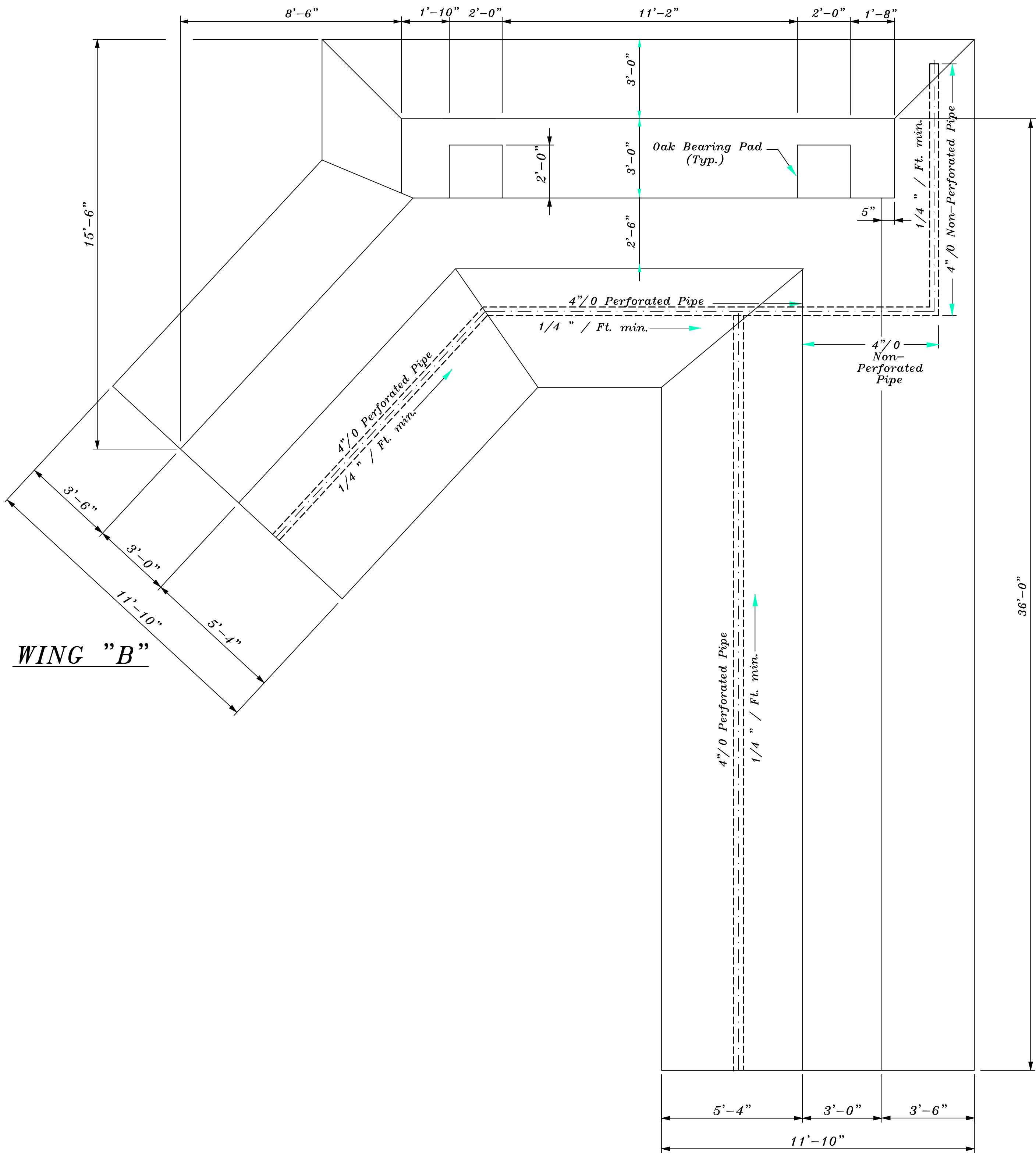
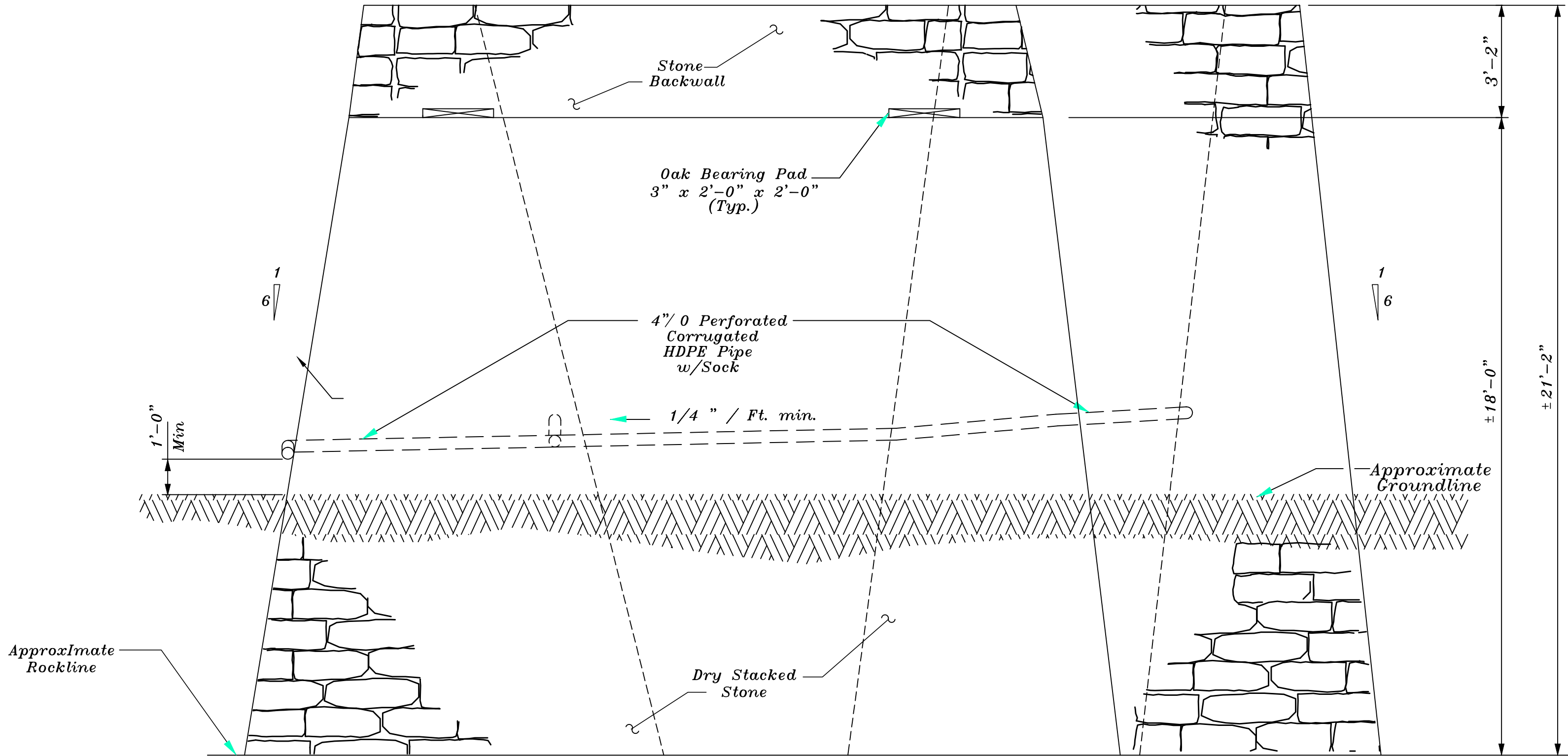


LETTING DATE

CONSTRUCTION PROJECT NO.



PLAN VIEW



ABUTMENT ELEVATION

(Looking West)



NOTE: Work this sheet with sheets 8 & 9.

NOTE: Dimensions shown on the plans are for information and estimating purposes only. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to ordering material and construction.

DATE:	August-98	CHECKED BY
DESIGNED BY:	LTX	MBJ
DETAILED BY:	BL	MBJ

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
FLEMING

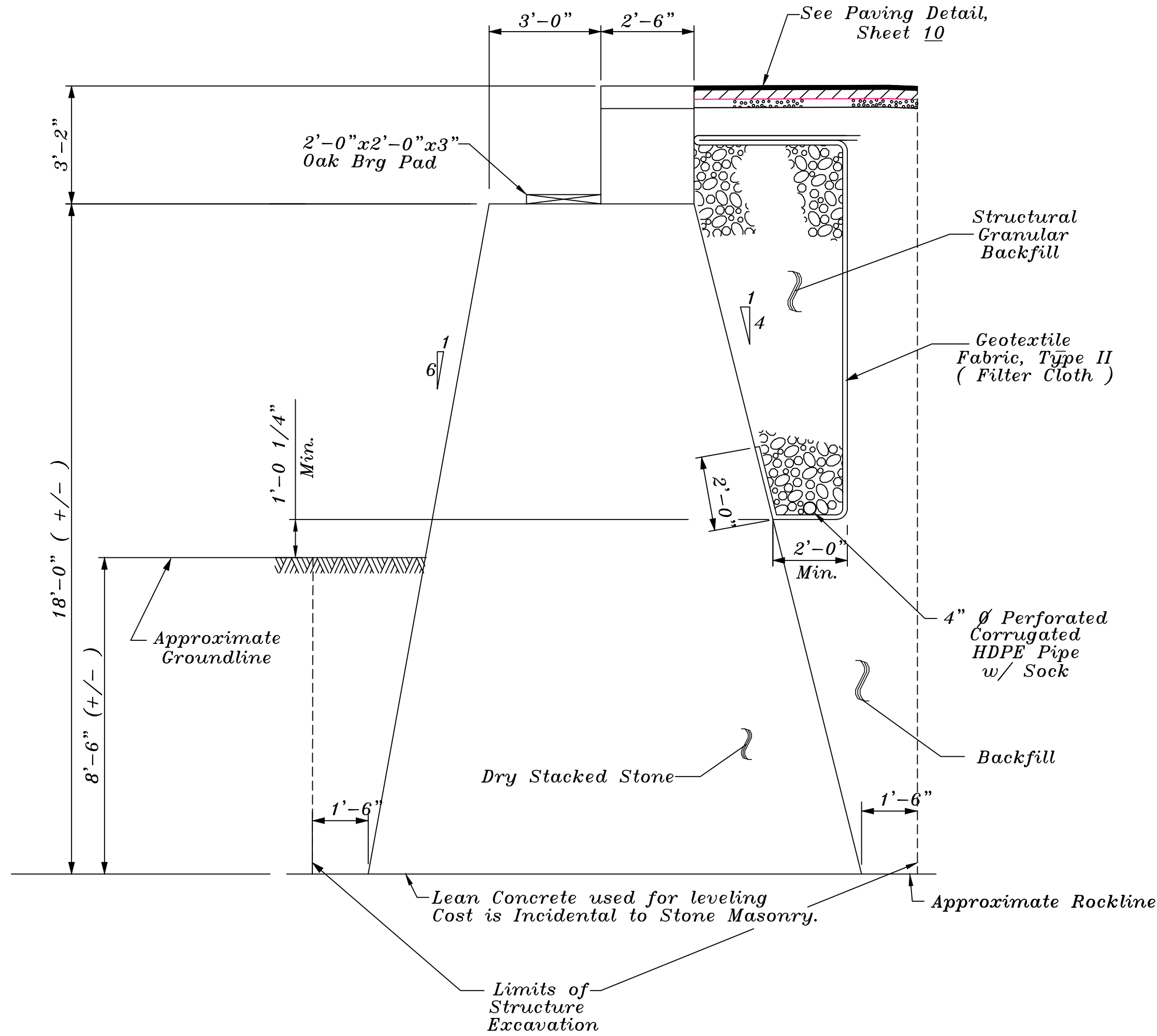
ROUTE CROSSING
CR3110 Goddard Covered Bridge

WEST ABUTMENT

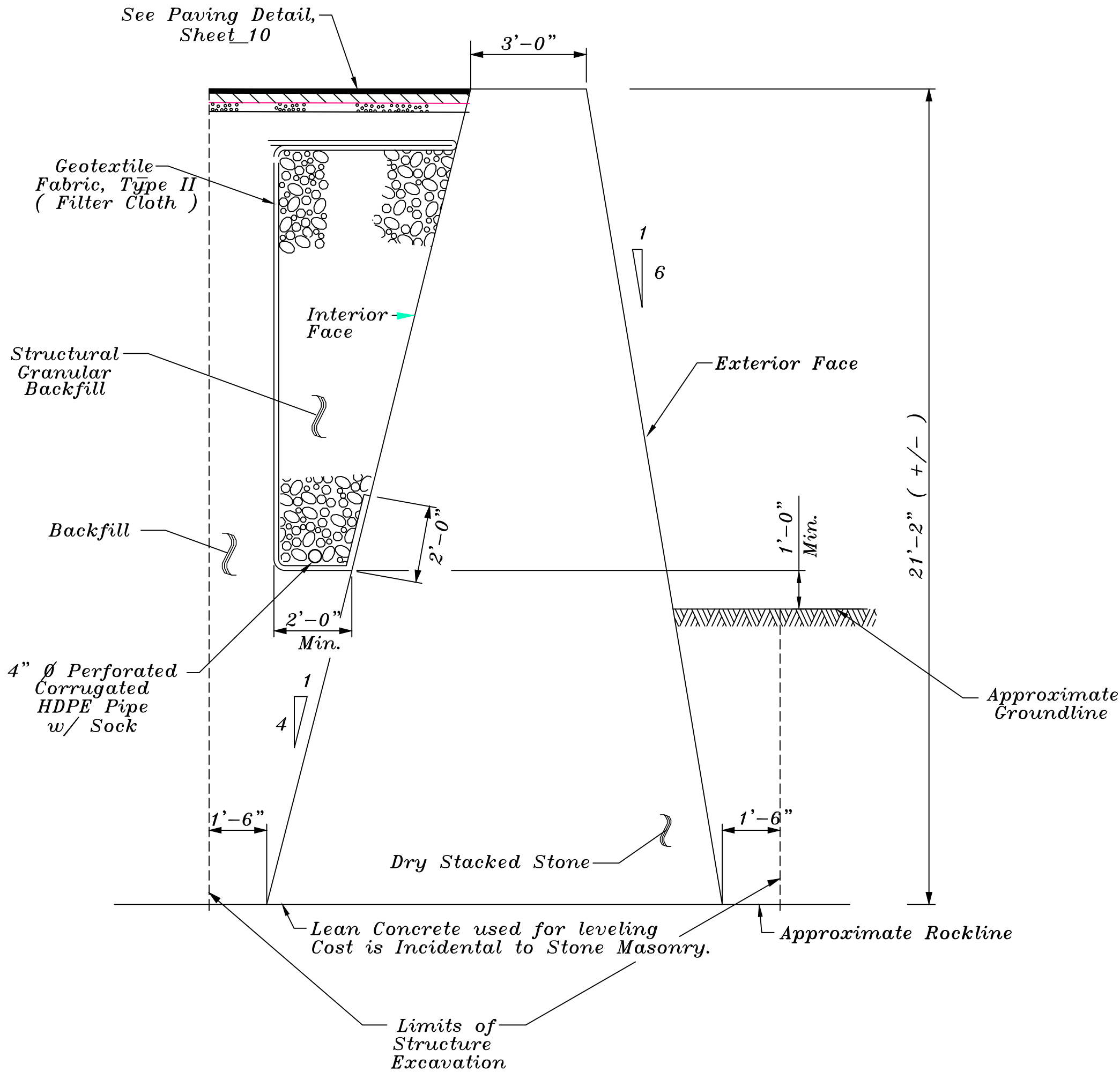
ITEM NUMBER	3-248.0	PREPARED BY	Brighton A & E Inc. Frankfort, Kentucky	SHEET NO.	7
				DRAWING NO.	24366

LETTING DATE

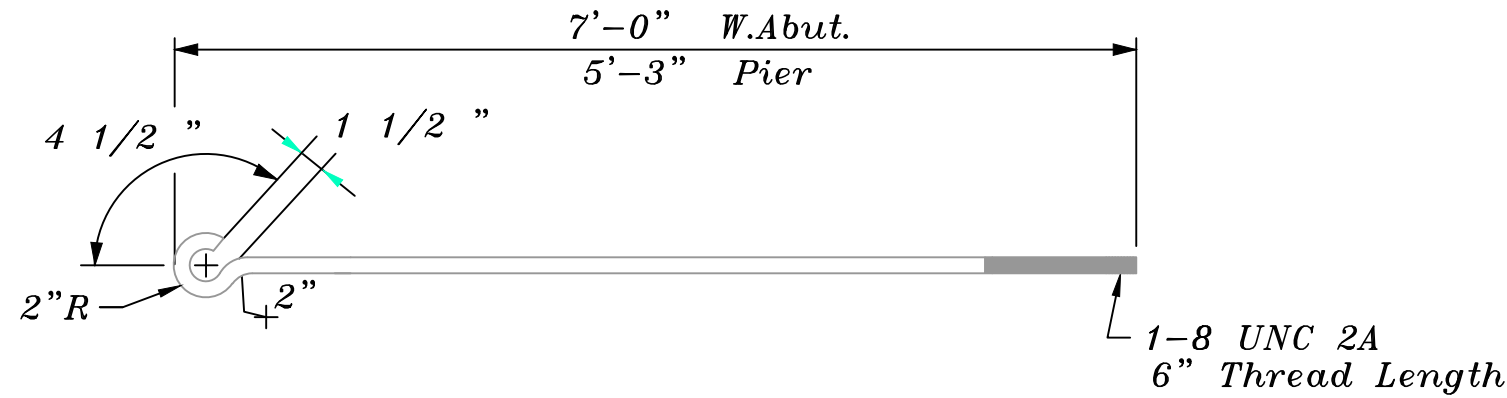
CONSTRUCTION PROJECT NO.



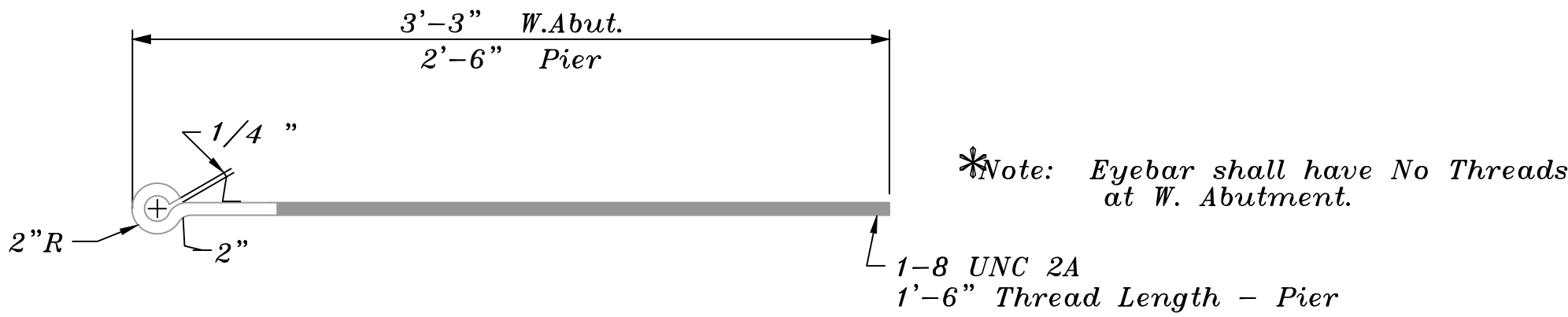
TYPICAL ABUTMENT SECTION



TYPICAL WING SECTION



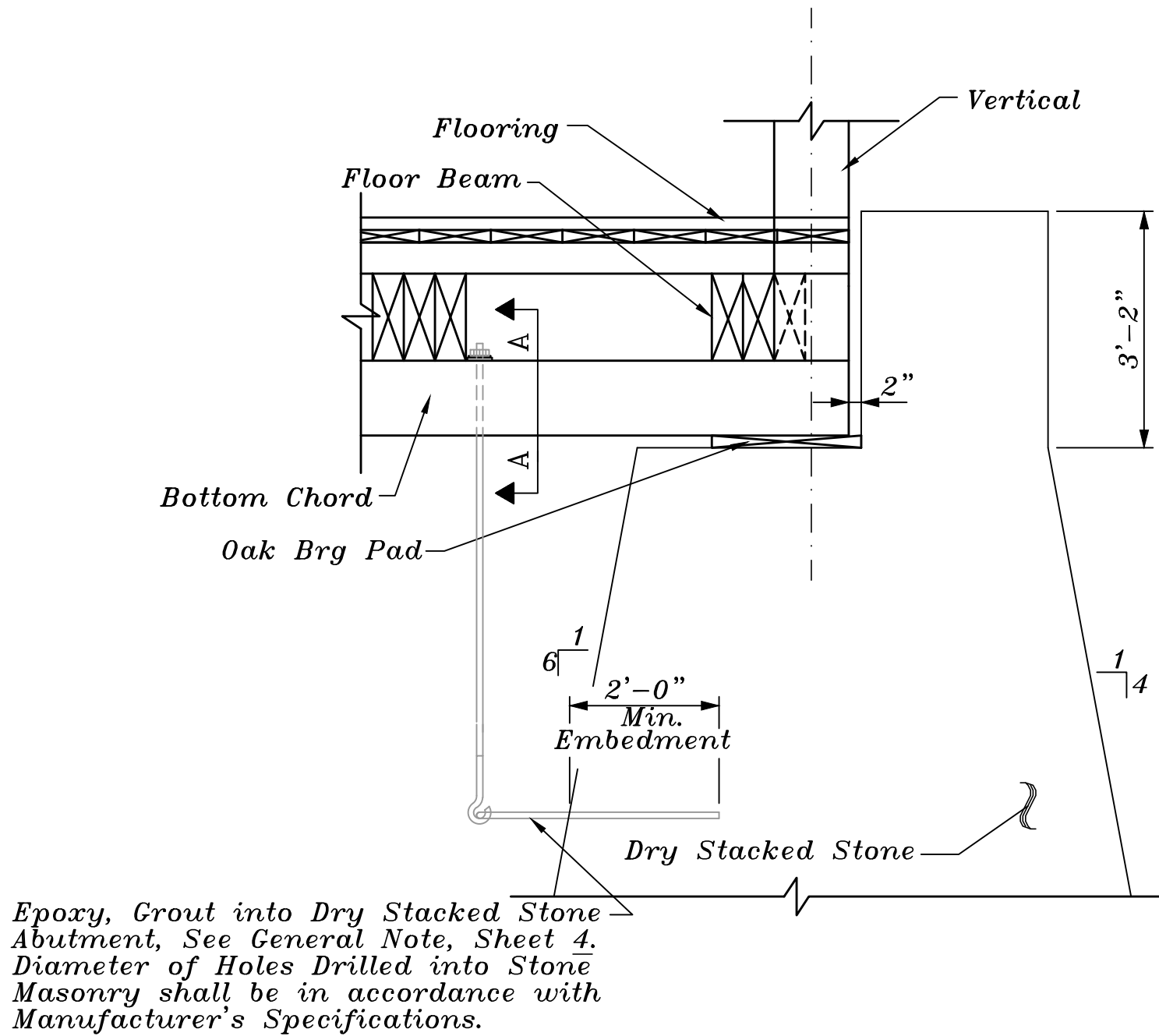
1 1/2" O HOOK BAR DETAIL



1 1/2" O EYEBARS DETAIL

NOTE: Work this sheet with sheets 7 & 9.

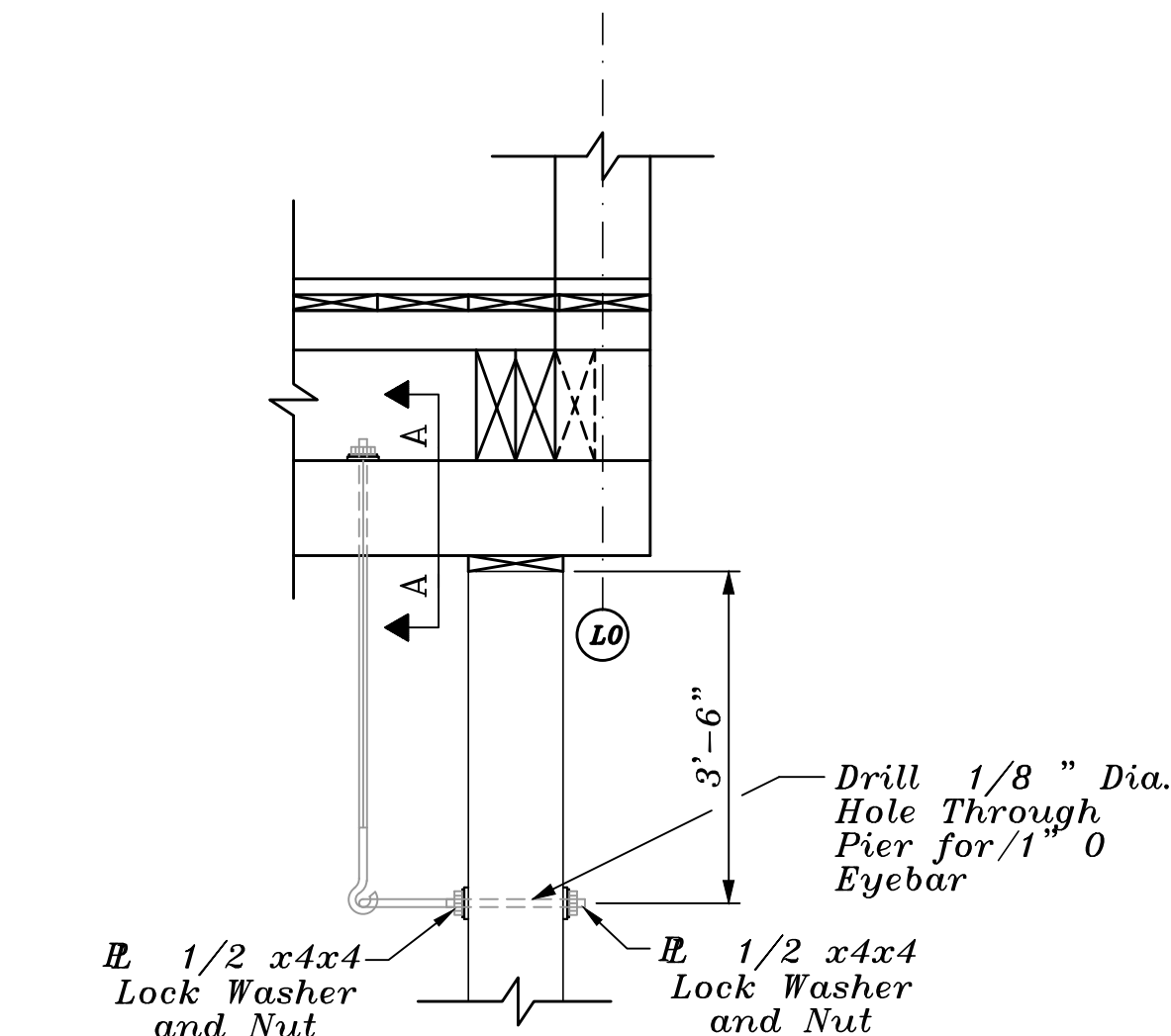
NOTE: Dimensions shown on the plans are for information and estimating purposes only. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to ordering material and construction.



ANCHOR BOLT DETAIL- WEST ABUTMENT

Scale: 1/2" = 1'-0"

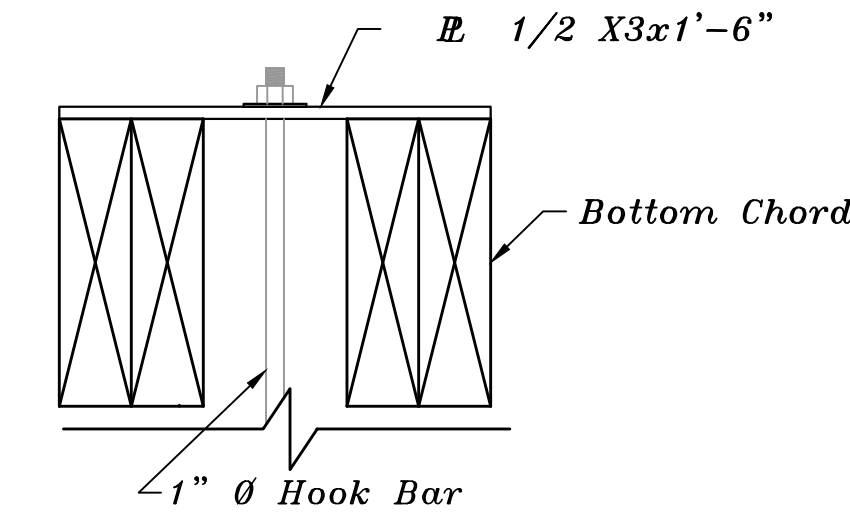
(Looking South)



ANCHOR BOLT DETAIL - PIER

Scale: 1/2" = 1'-0"

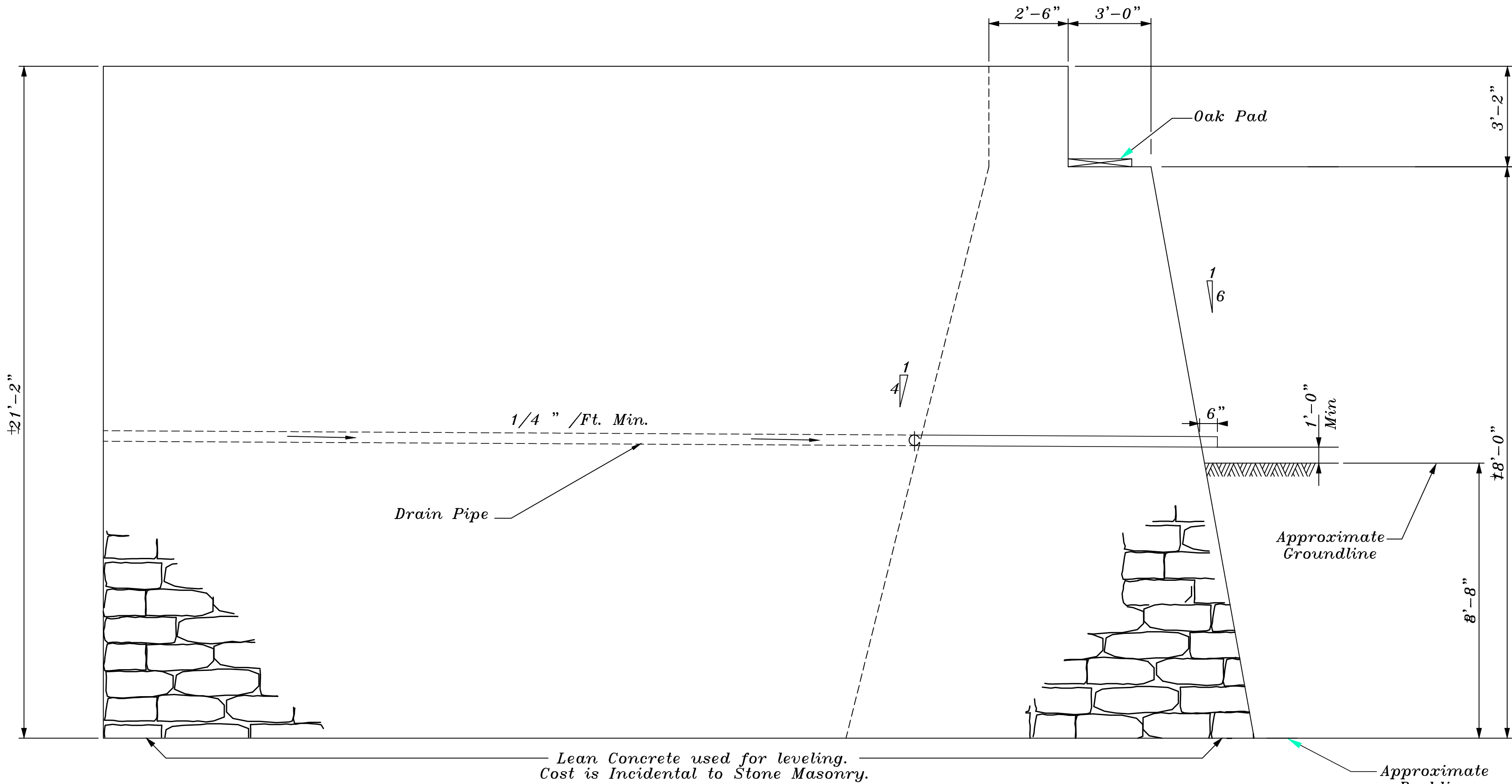
(Looking North)



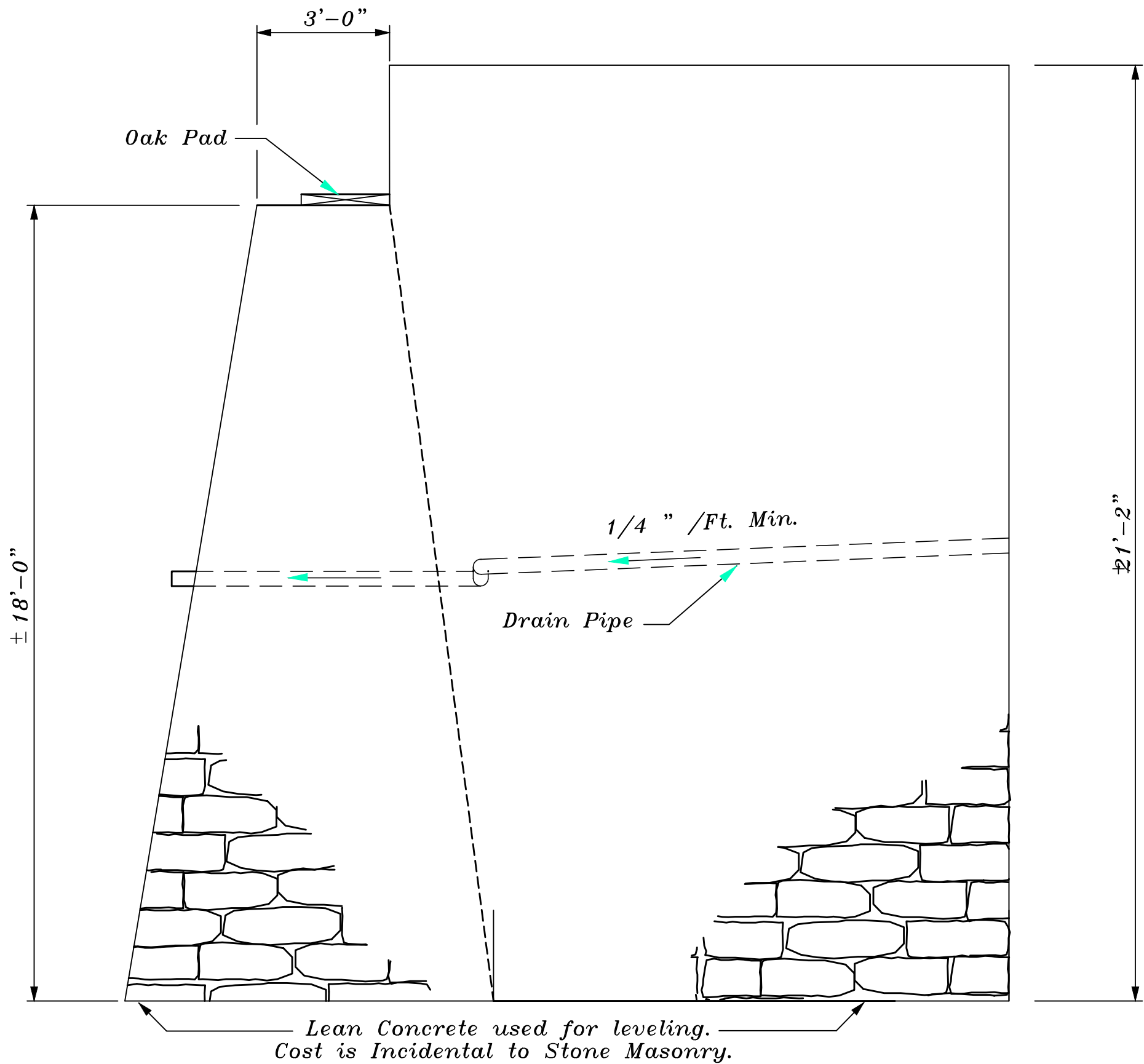
SECTION A-A

Scale: 1 1/2" = 1'-0"

ITEM NUMBER	Brighton A & E Inc. Frankfort, Kentucky	SHEET NO. 8
3-248.0		DRAWING NO. 24366



ELEVATION WING "A"



ELEVATION WING "B"

NOTE: Work this sheet with sheets 7 & 8.

NOTE: Dimensions shown on the plans are for information and estimating purposes only. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to ordering material and construction.

DATE:	August-98	CHECKED BY
DESIGNED BY:	LTX	MBJ
DETAILED BY:	BL	MBJ

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

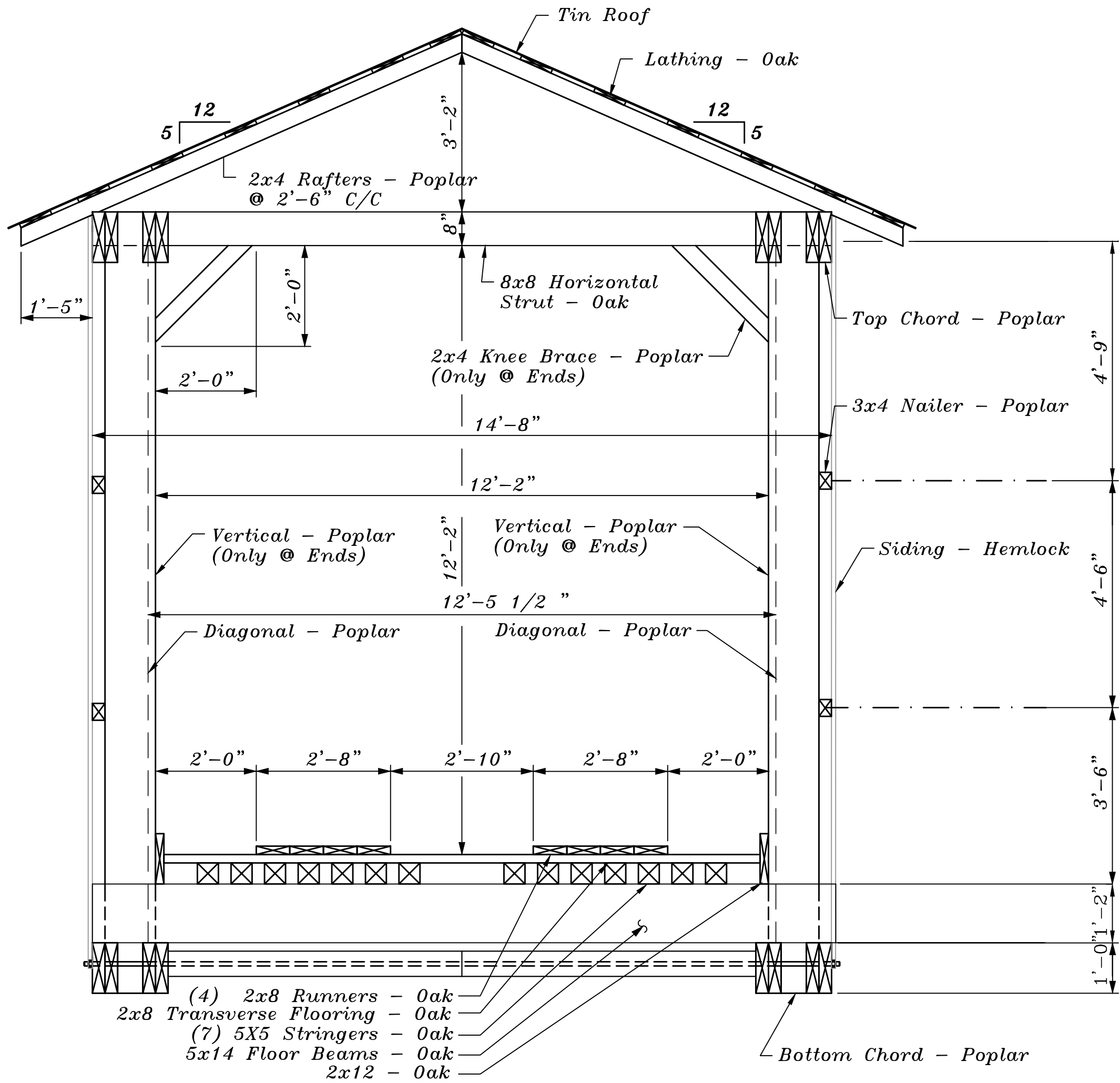
COUNTY FLEMING	
ROUTE CR3110	CROSSING Goddard Covered Bridge
WEST ABUTMENT	

ITEM NUMBER
3-248.0

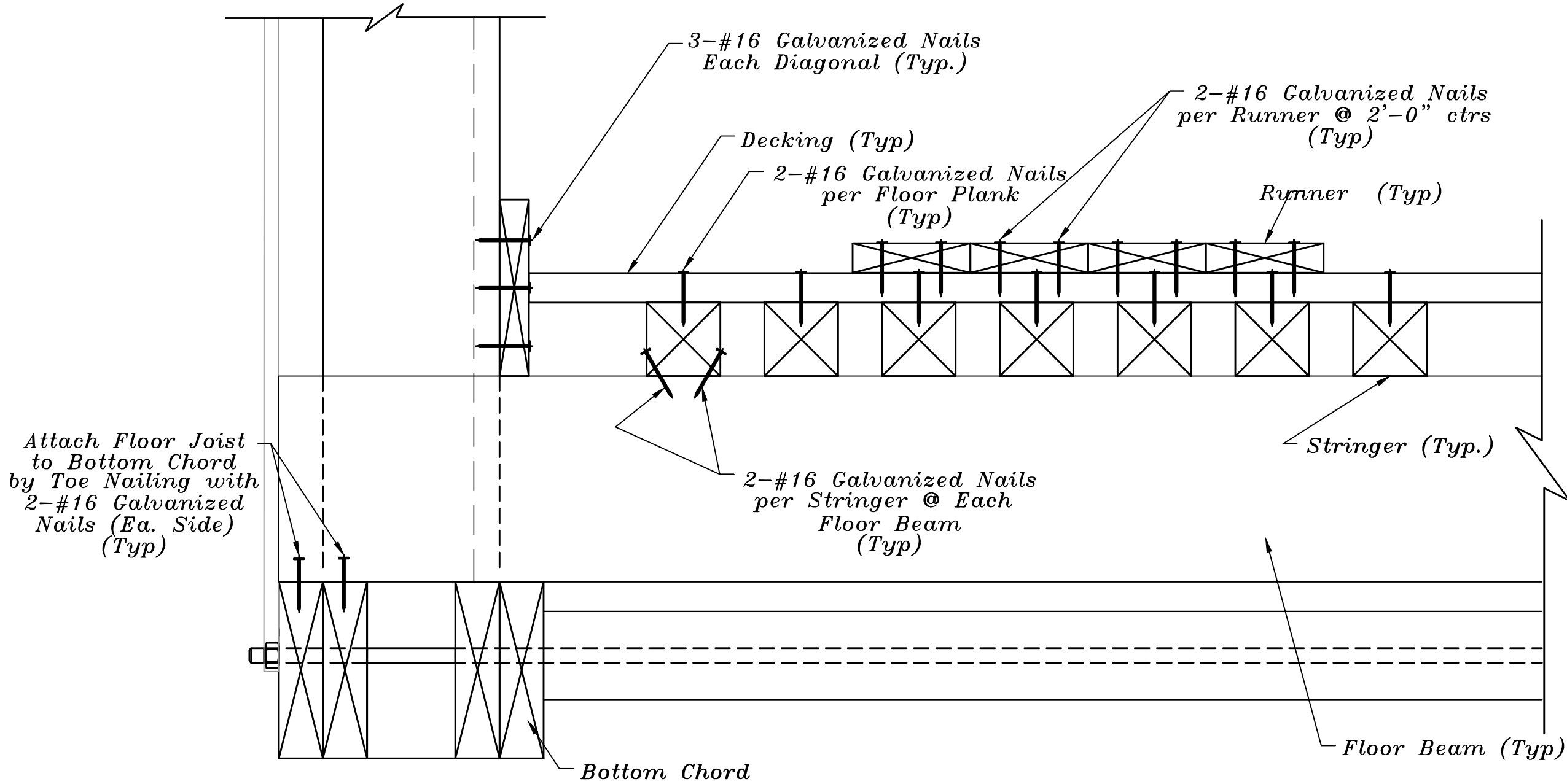
PREPARED BY Brighton A & E Inc. Frankfort, Kentucky	SHEET NO. 9 DRAWING NO. 24366
---	--

LETTING DATE

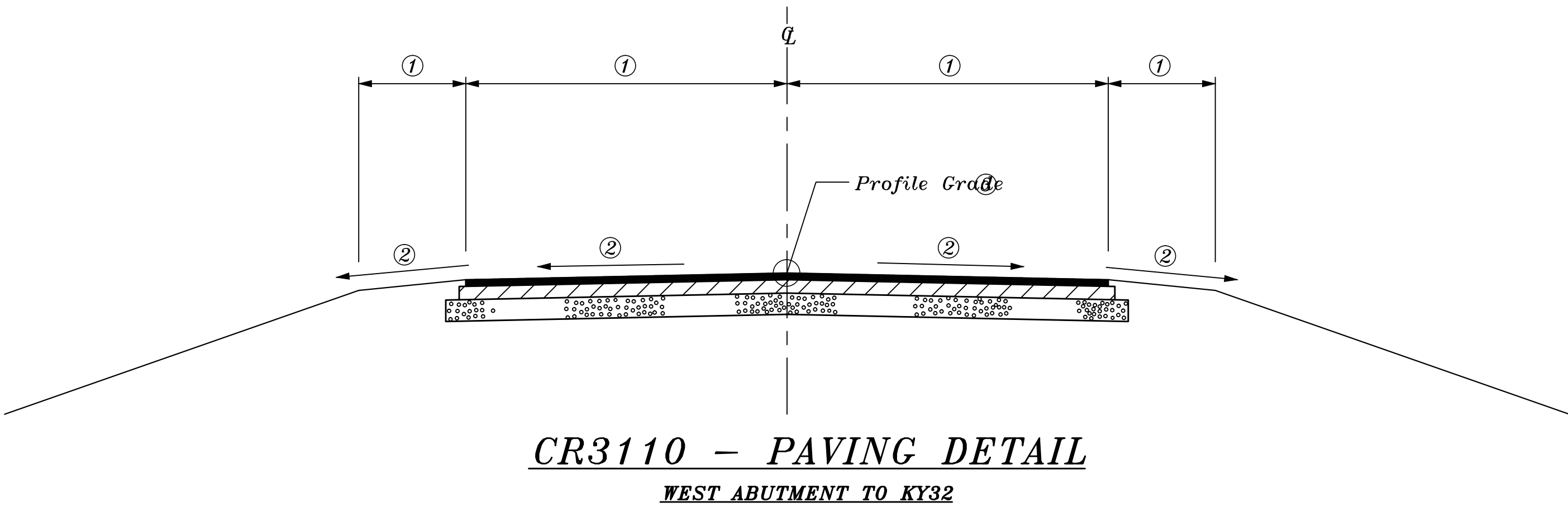
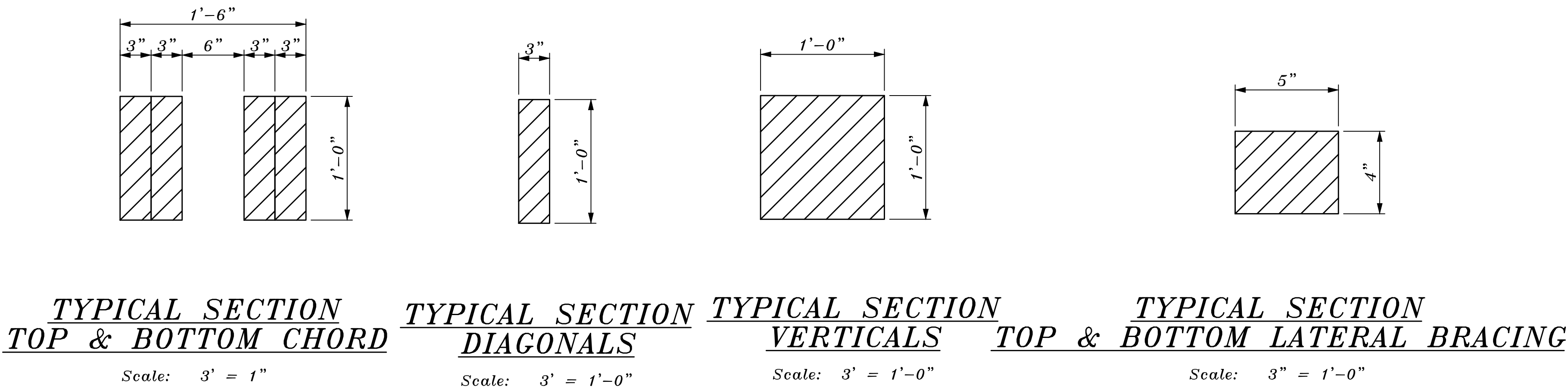
CONSTRUCTION PROJECT NO.



TYPICAL SECTION - BRIDGE



NAILING DETAIL



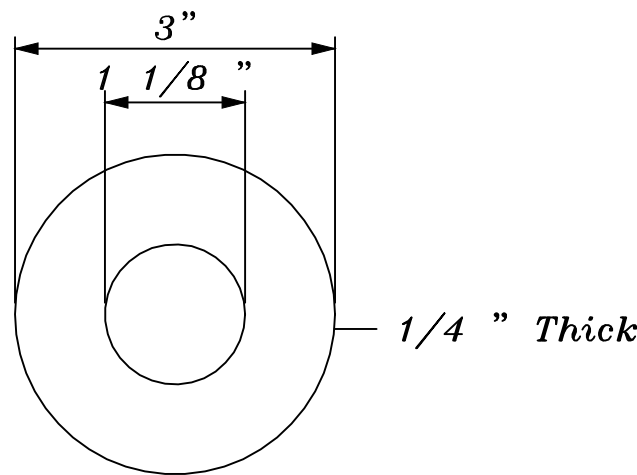
SURFACE DESIGN

- 1 1/4" Bit. Conc. Surf. Class I-0
- 2" Bit. Conc. Base Class I
- 4" D.C.A. Base

Tack (Apply as directed by the Engineer between each Bituminous Course)

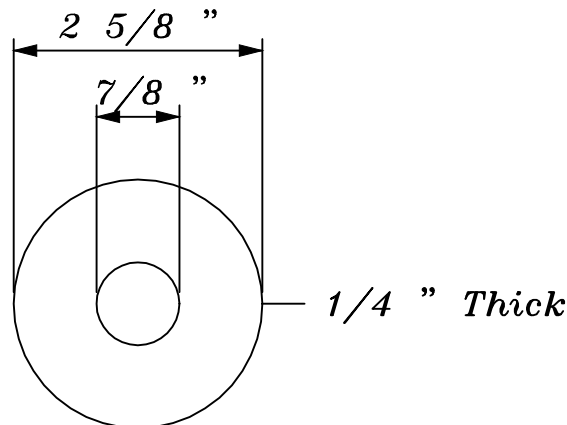
- ① Match Existing Pavement and Shoulder Widths
- ② Match Existing Cross Slopes
- ③ Match Existing Roadway for Profile Grade.

NOTE: Dimensions shown on the plans are for information and estimating purposes only. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to ordering material and construction.



1" Ø METAL ROD PLATE WASHER

Scale: 6" = 1'-0"



3/4" Ø METAL ROD PLATE WASHER

Scale: 6" = 1'-0"

DATE:	August-98	CHECKED BY
DESIGNED BY:	LTX	MBJ
DETAILED BY:	KDA	MBJ

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
FLEMING

ROUTE CROSSING
CR3110 Goddard Covered Bridge

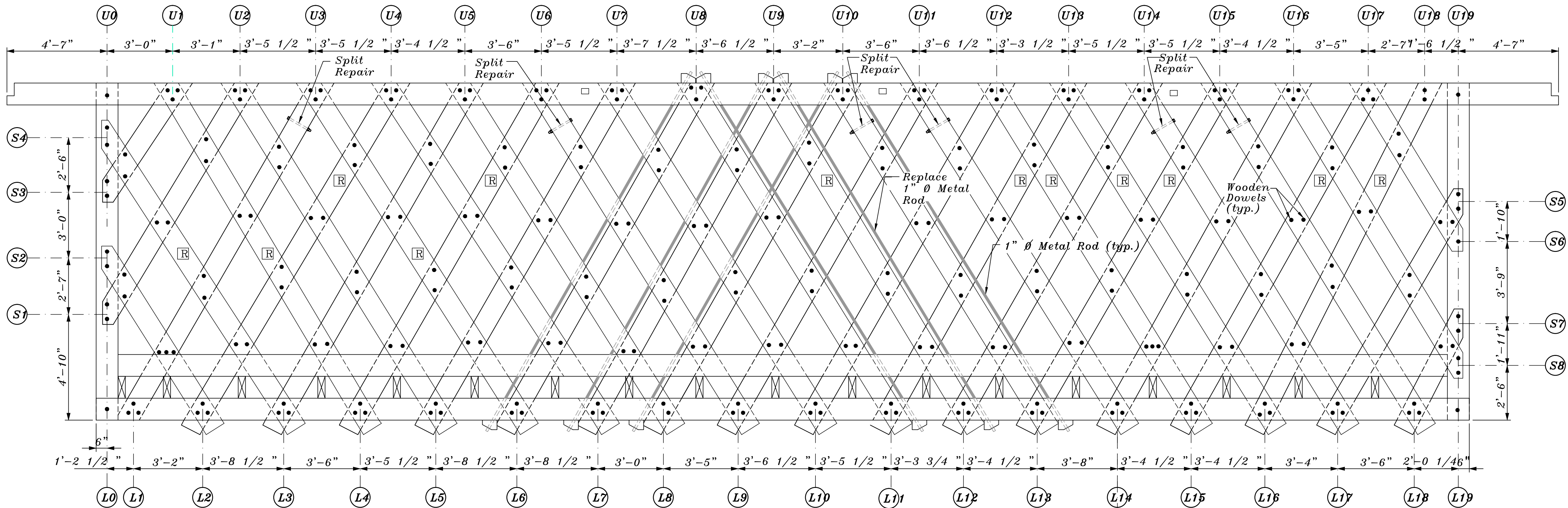
TYPICAL SECTIONS

PREPARED BY	SHEET NO.
Brighton A & E Inc.	10
Frankfort, Kentucky	DRAWING NO.
	24366

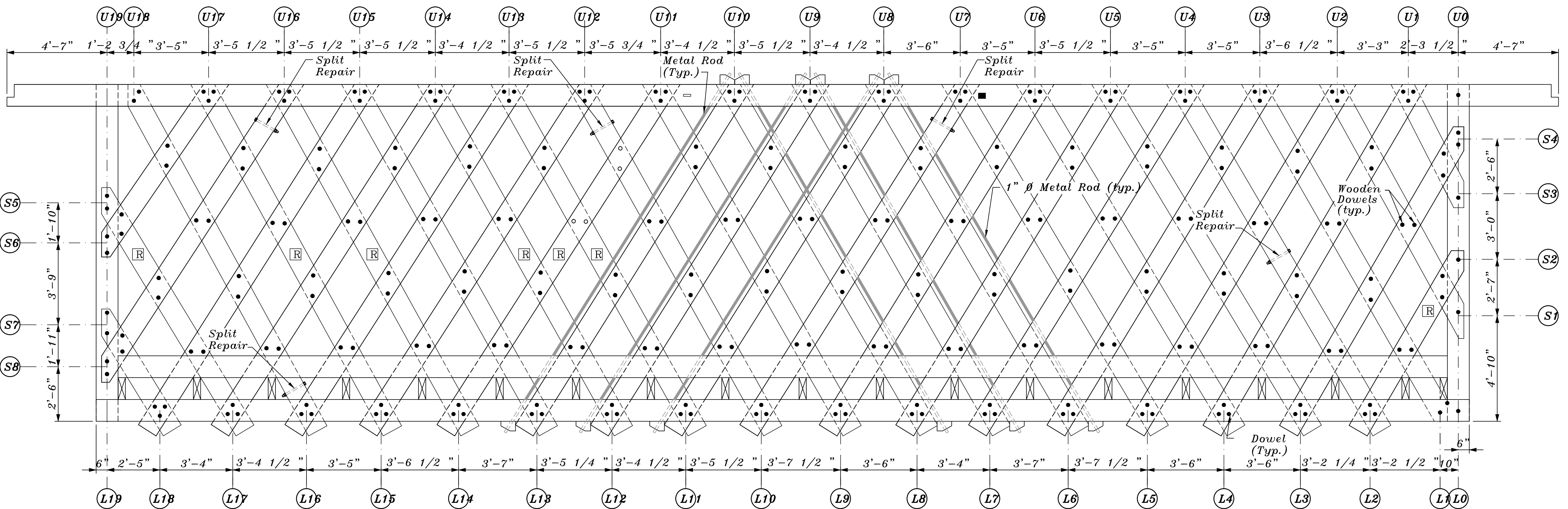
ITEM NUMBER
3-248.0

LETTING DATE

CONSTRUCTION PROJECT NO.

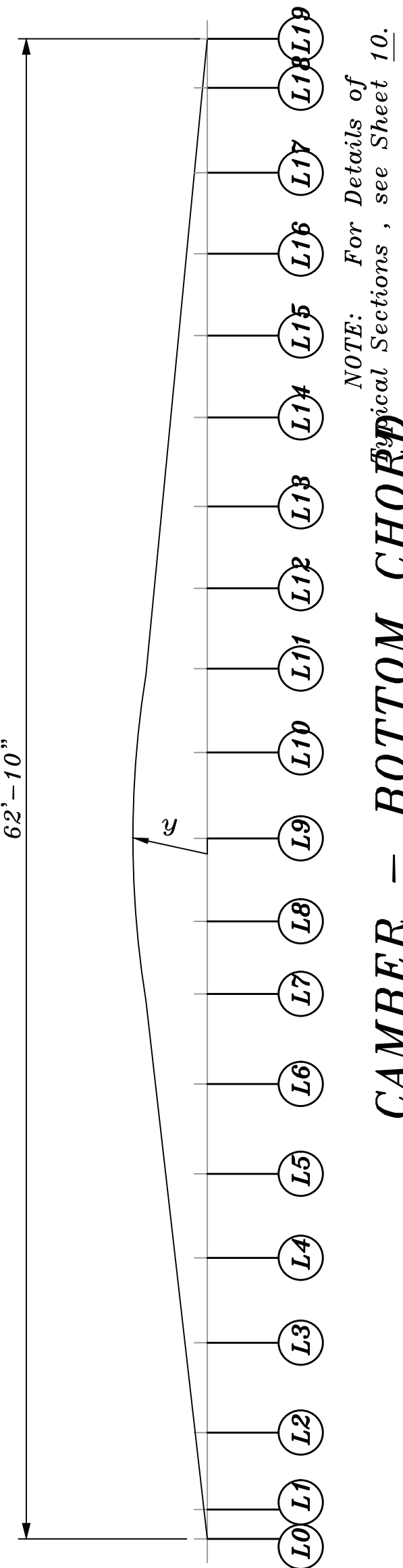


SOUTH ELEVATION
(Looking South)



NORTH ELEVATION
(Looking North)

NOTE:
[R] Replace Member



CAMBER - BOTTOM CHORD

CAMBER		L0	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16	L17	L18	L19
Y	0"	1	3/44"	6"	7	3/8	1/40	3/8	1/4	3/16	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8

NOTE: Split Repair Detail See Sheet 19.
For Joint Details see sheet 19.

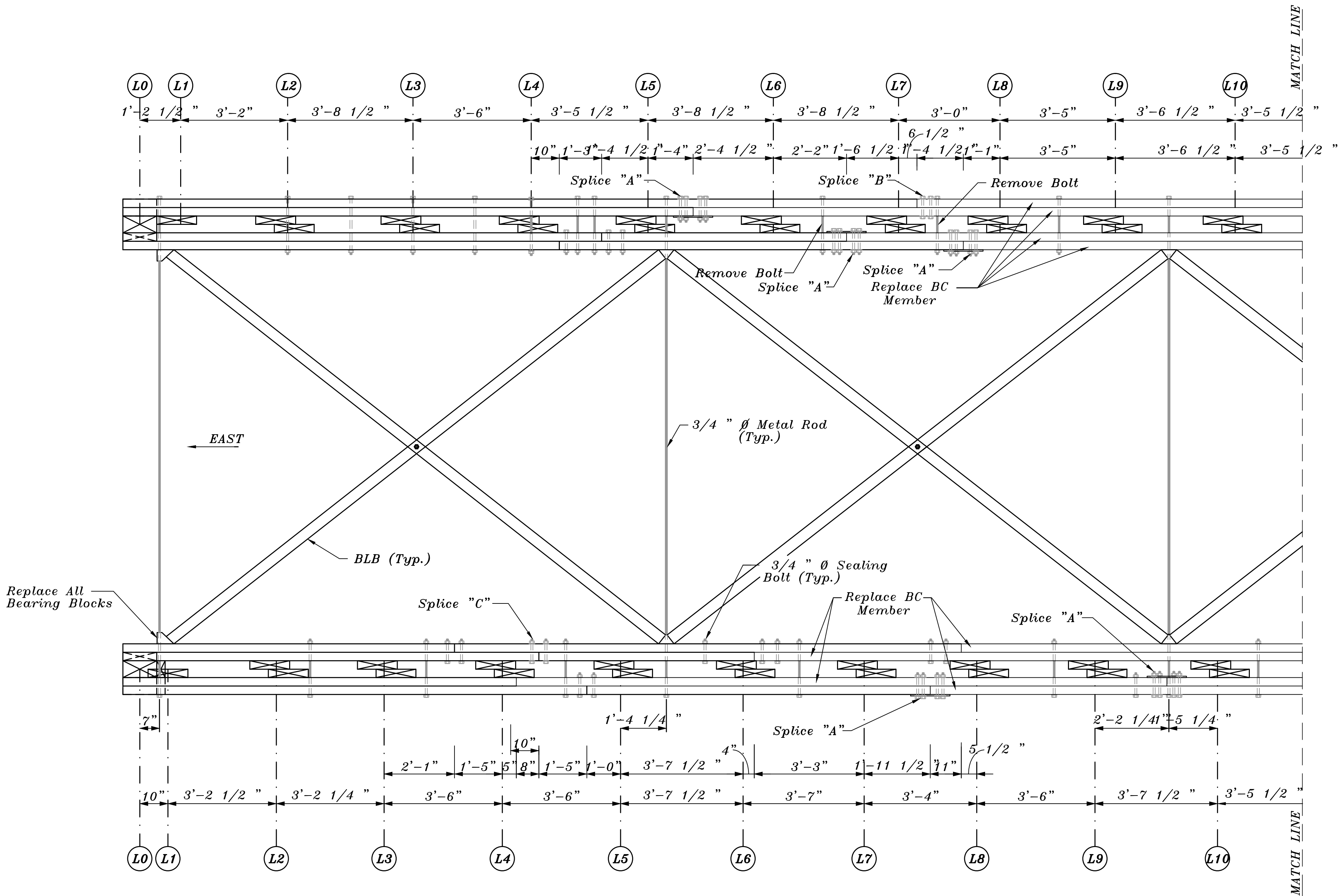
New Diagonal Members Shall consist of Popular, Structural Grade No. 2 for Typical Section see sheet 10.

Damaged or Missing Wooden Dowels shall be replaced, by a 2" 0 x 1'-6" Oak Wooden Dowels.

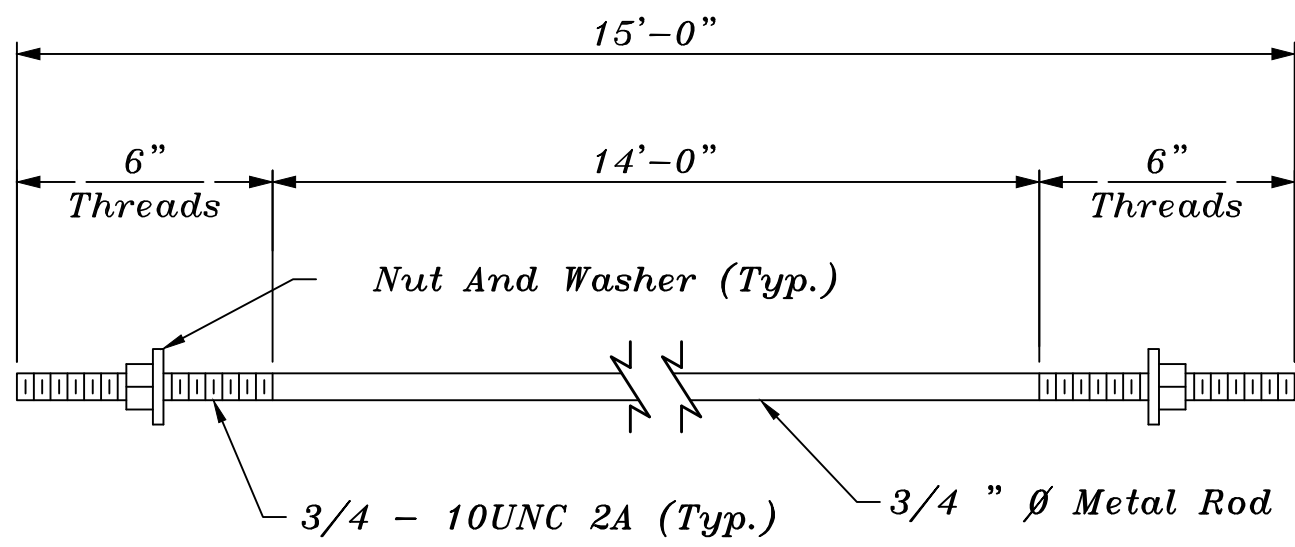
For 1" 0 Metal Rod Detail see sheet 12.

NOTE: Dimensions shown on the plans are for information and estimating purposes only. It shall be the responsibility of Contractor to verify all dimensions and conditions existing in the field prior to ordering material and construction.

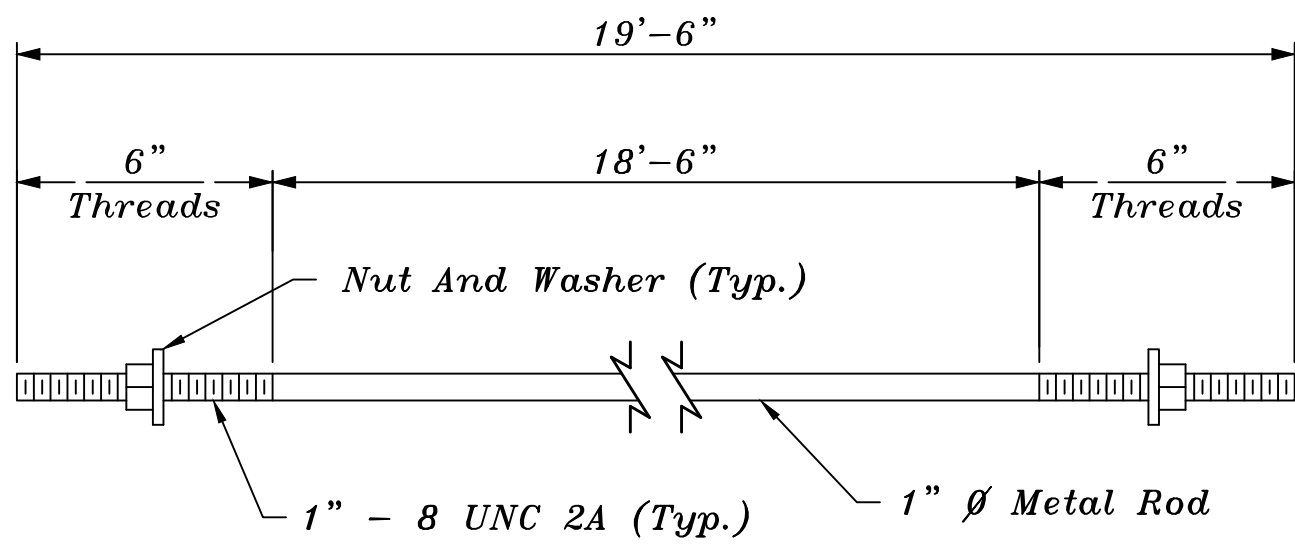
DATE: August-98		CHECKED BY	
DESIGNED BY: LTX		MBJ	
DETAILED BY: KDA		MBJ	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY FLEMING			
ROUTE CR3110		CROSSING Goddard Covered Bridge	
TRUSS ELEVATIONS			
PREPARED BY Brighton A & E Inc. Frankfort, Kentucky			SHEET NO. 11
			DRAWING NO. 24366



BOTTOM CHORD PLAN



3/4" Ø METAL ROD DETAIL



3/4" Ø METAL ROD DETAIL

Note: New Bottom Chord Members shall consist of 3x12 Poplar Lumber, Structural Grade No. 2. Length and Splice locations shall be maintained. For Typical Sect see Sheet 10.

Replace all Bearing Blocks with Oak, Structural Grade No. 2, see Sheet 19 for details.

All Metal Rods shall be Replaced. See Metal Rod Detail on this sheet.

See Washer Details on Sheet 10.

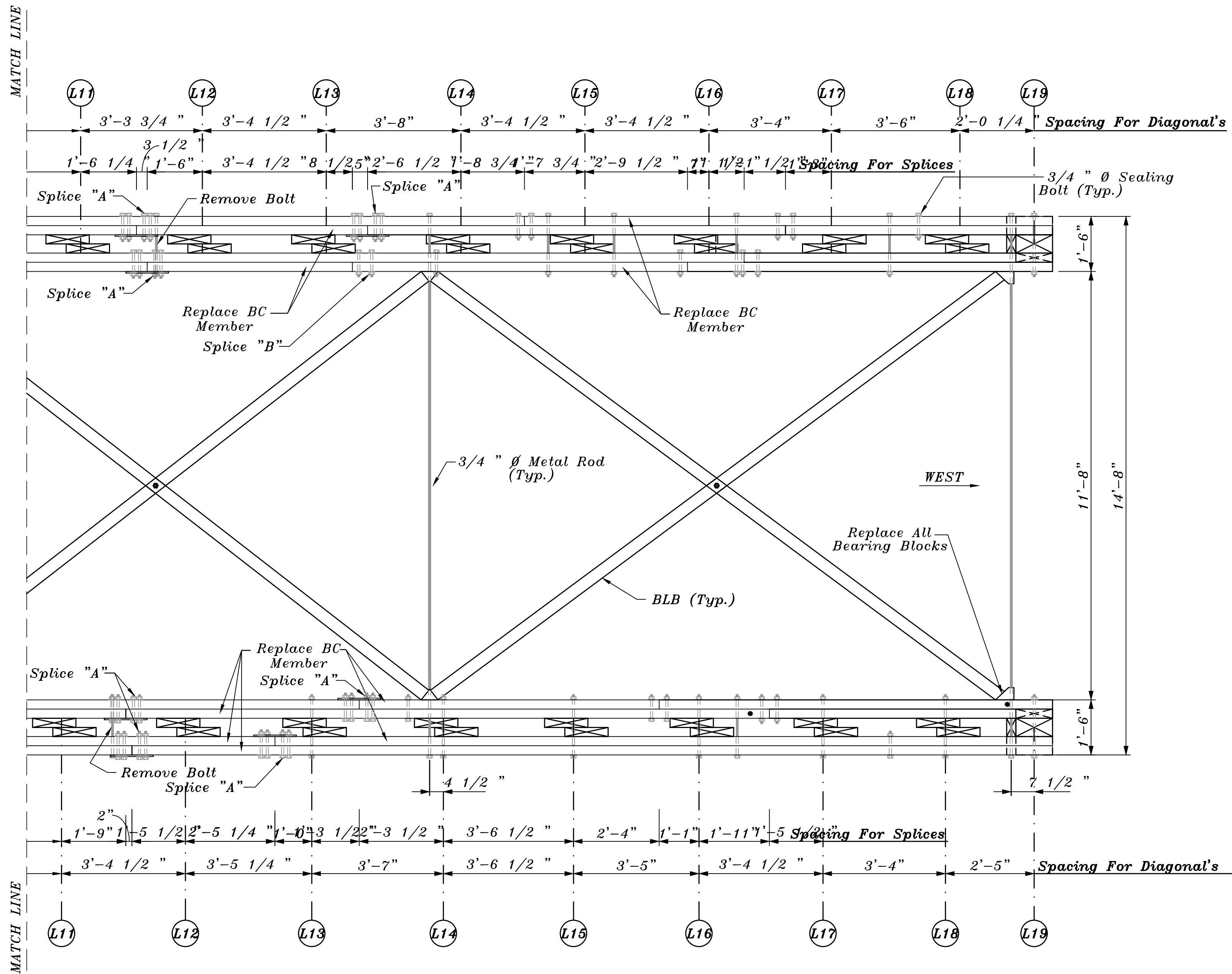
See Sheet 19 For Splice A, B & C Details.

BC = Bottom Chord
BLB = Bottom Lateral Bracing

NOTE: Dimensions shown on the plans are for information and estimating purposes only. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to ordering material and construction.

DATE: August-98		CHECKED BY	
DESIGNED BY: LTX		MBJ	
DETAILED BY: KDA		MBJ	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY FLEMING			
ROUTE CR3110		CROSSING Goddard Covered Bridge	
BOTTOM CHORD PLAN			
PREPARED BY Brighton A & E Inc. Frankfort, Kentucky			SHEET NO. 12
			DRAWING NO. 24366

ITEM NUMBER
3-248.0



Note: New Bottom Chord Members shall consist of 3x12 Poplar Lumber, Structural Grade No. 2. Length and Splice locations shall be maintained. For Typical Sect see Sheet 10.

Replace all Bearing Blocks with Oak, Structural Grade No. 2, see Sheet 19 for details.

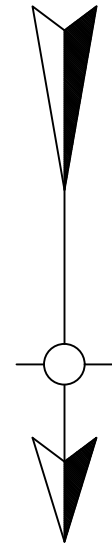
All Metal Rods shall be Replaced. See Metal Rod Detail on Sheet 12.

See Washer Details on Sheet 10.

See Sheet 19 For Splice A, B & C Details.

BC = Bottom Chord
BLB = Bottom Lateral Bracing

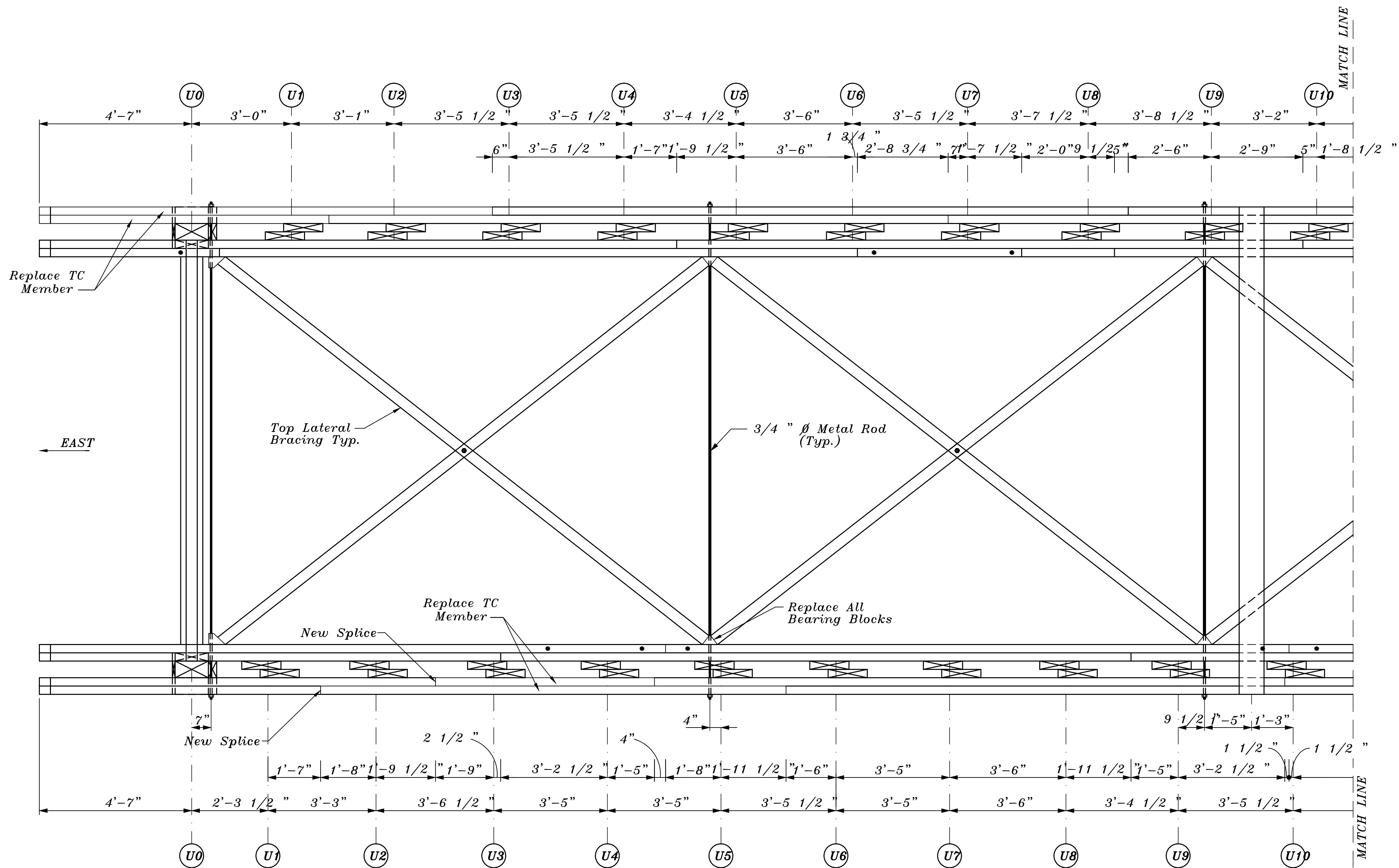
NOTE: Dimensions shown on the plans are for information and estimating purposes only. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to ordering material and construction.



BOTTOM CHORD PLAN

DATE: August-98		CHECKED BY
DESIGNED BY: LTX		MBJ
DETAILED BY: KDA		MBJ
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY FLEMING		
ROUTE CR3110	CROSSING Goddard Covered Bridge	
BOTTOM CHORD PLAN		
PREPARED BY Brighton A & E Inc. Frankfort, Kentucky		SHEET NO. 13 DRAWING NO. 24366

ITEM NUMBER
3-248.0



NOTE: Dimensions shown on the plans are for information and estimating purposes only. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to ordering material and construction.

TC = Top Chord
TLB = Top Lateral Bracing

TOP CHORD PLAN

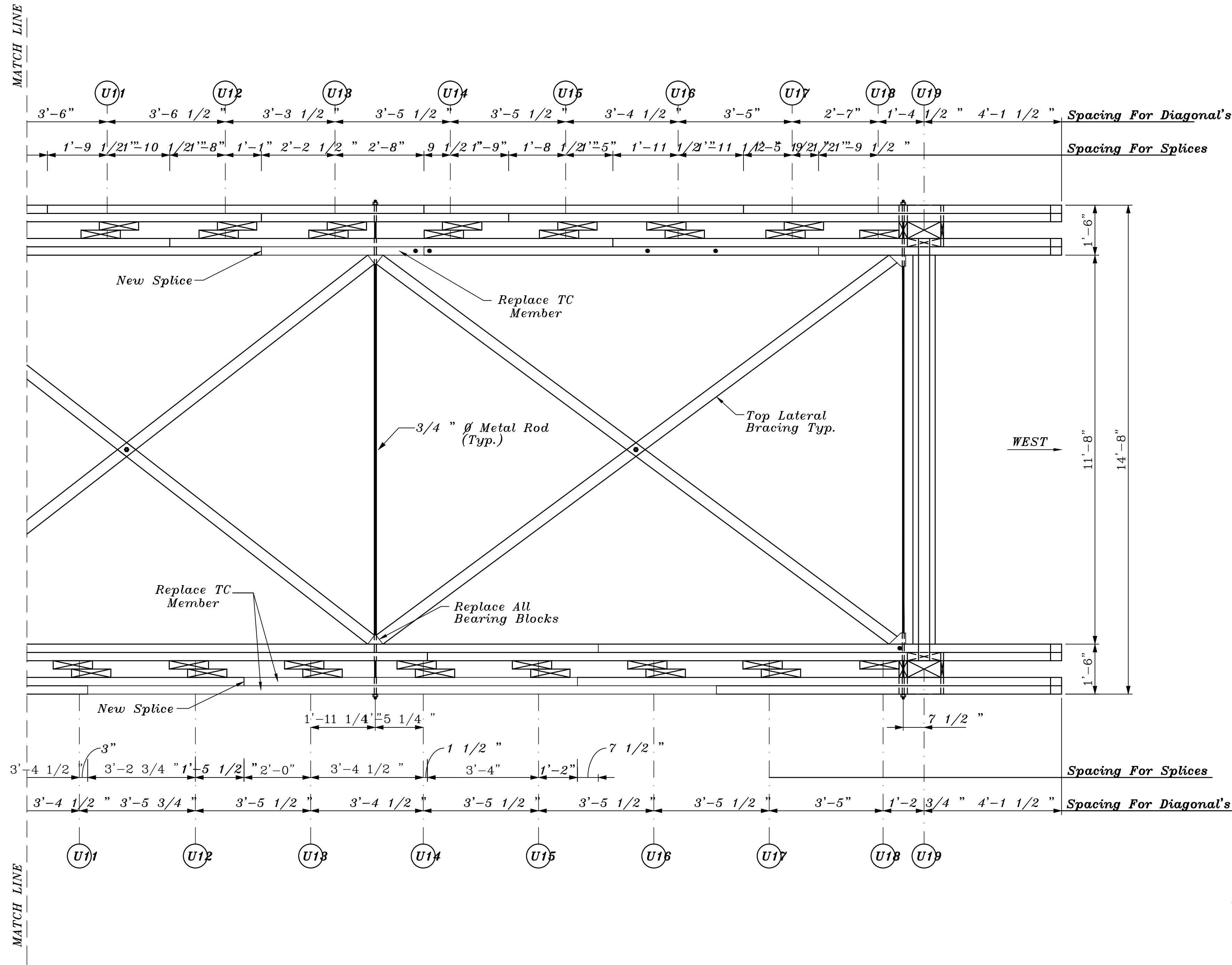
Note: All Metal Rods shall be Replaced. See Metal Rod Detail on sheet 12.
See Washer Detail on sheet 10.

Replace Bearing Blocks with Oak, Structural Grade No. 2, See sheet 19 for details.

New Top Chord Members shall consist of Poplar Lumber, Structural Grade No.2. Length and Splice locations shall be as shown on plans. For Typical Section of Top Chord see Sheet 10.

DATE: August--98		CHECKED BY
DESIGNED BY: LTX		MBJ
DETAILED BY: KDA		MBJ
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY FLEMING		
ROUTE CR3110	CROSSING Goddard Covered Bridge	
TOP CHORD PLAN		
PREPARED BY Brighton A & E Inc. Frankfort, Kentucky		SHEET NO. 14 DRAWING NO. 24366

ITEM NUMBER
3-248.0



NOTE: Dimensions shown on the plans are for information and estimating purposes only. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to ordering material and construction.

TC = Top Chord
TLB = Top Lateral Bracing

TOP CHORD PLAN

Note: All Metal Rods shall be Replaced. See Metal Rod Detail on sheet 12.

See Washer Detail on sheet 10.

Replace Bearing Blocks with Oak, Structural Grade No. 2. See sheet 19 for details.

New Top Chord Members shall consist of Poplar Lumber, Structural Grade No.2. Length and Splice locations shall be as shown on plans. For Typical Section of Top Chord see Sheet 10.

DATE:	August-98	CHECKED BY
DESIGNED BY:	LTX	MBJ
DETAILED BY:	KDA	MBJ

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
FLEMING

ROUTE CROSSING
CR3110 Goddard Covered Bridge

TOP CHORD PLAN

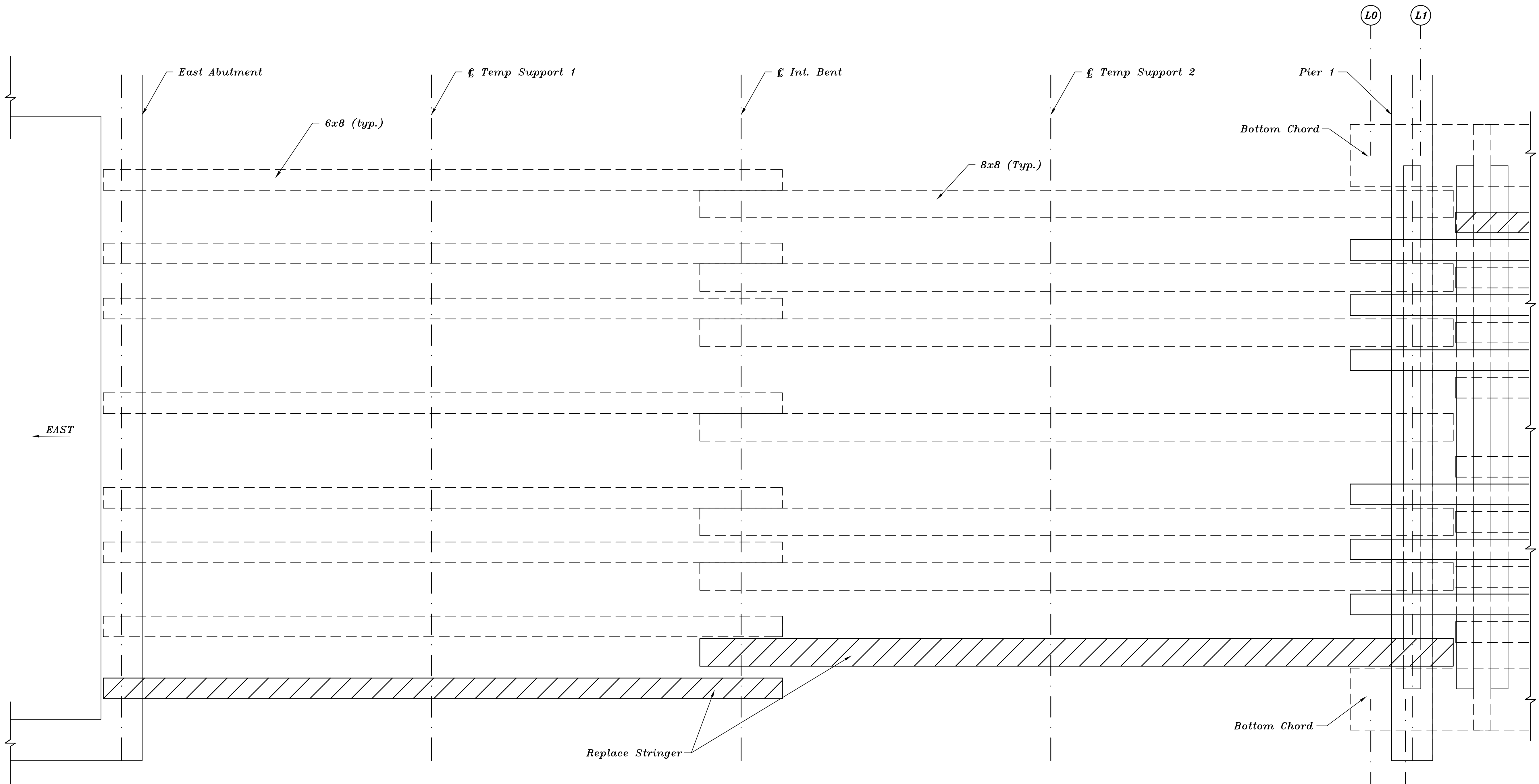
PREPARED BY
Brighton A & E Inc.
Frankfort, Kentucky

SHEET NO.
15
DRAWING NO.
24366

ITEM NUMBER
3-248.0

LETTING DATE

CONSTRUCTION PROJECT NO.



STRINGER PLAN

- Existing
- Replace
- New

NOTE: Work this sheet with sheets 17 & 18.
NOTE: Stringers shall consist of Oak Member, Structural Grade No.2
NOTE: Dimensions shown on the plans are for information and estimating purposes only. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to ordering material and construction.

DATE:	August-98	CHECKED BY
DESIGNED BY:	LTX	MBJ
DETAILED BY:	KDA	MBJ

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

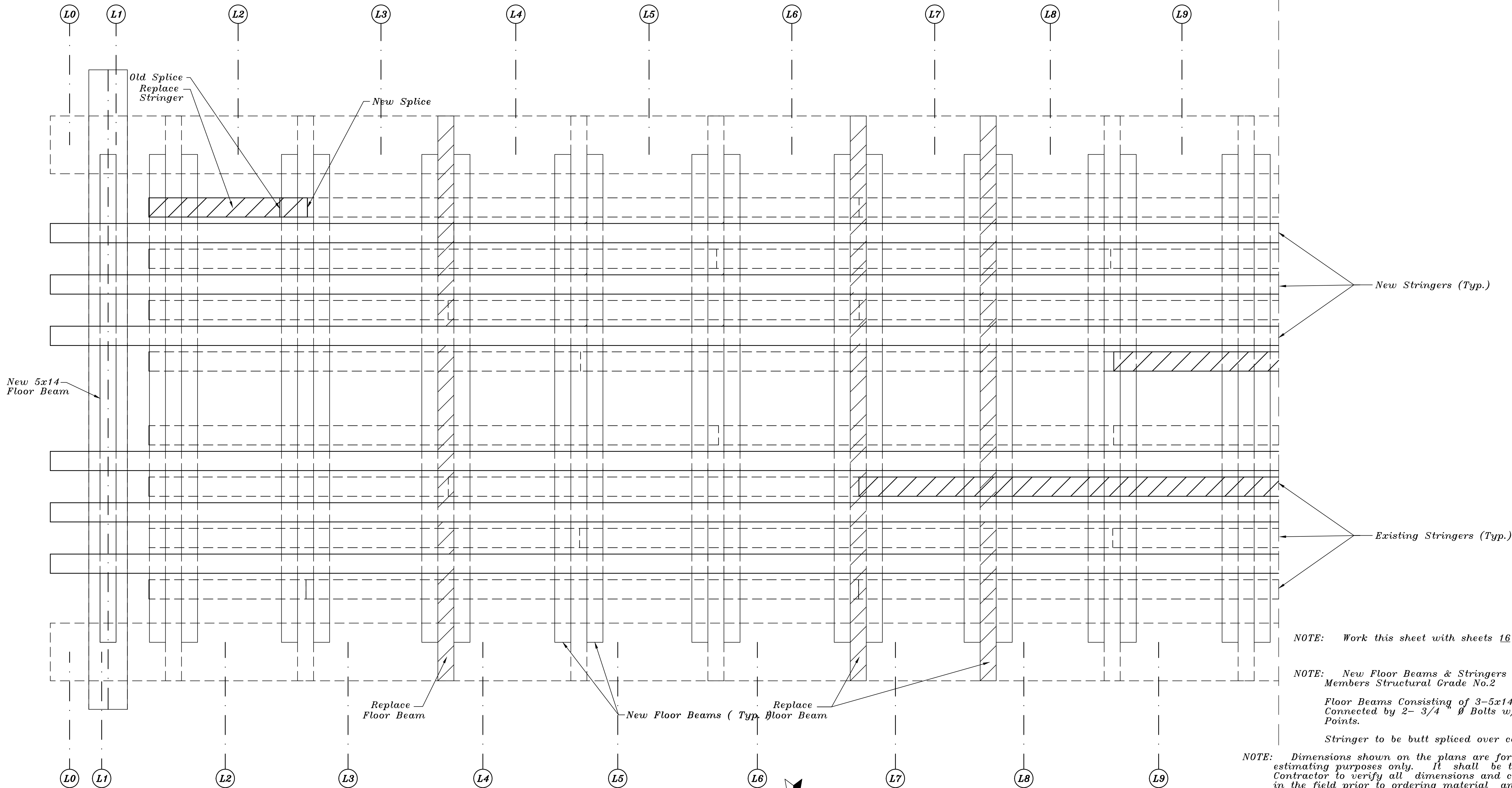
COUNTY
FLEMING

ROUTE CROSSING
CR3110 Goddard Covered Bridge

STRINGER PLAN - APPROACH

ITEM NUMBER
3-248.0

PREPARED BY	Brighton A & E Inc. Frankfort, Kentucky	SHEET NO. 16
DRAWING NO.		24366



NOTE: Work this sheet with sheets 16 & 18.

NOTE: New Floor Beams & Stringers shall consist of Oak Members Structural Grade No.2

Floor Beams Consisting of 3-5x14 Members shall be Connected by 2- 3/4" Ø Bolts w/Washers at the Third Points.

Stringer to be butt spliced over center floorbeam

NOTE: Dimensions shown on the plans are for information and estimating purposes only. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to ordering material and construction.

STRINGER PLAN

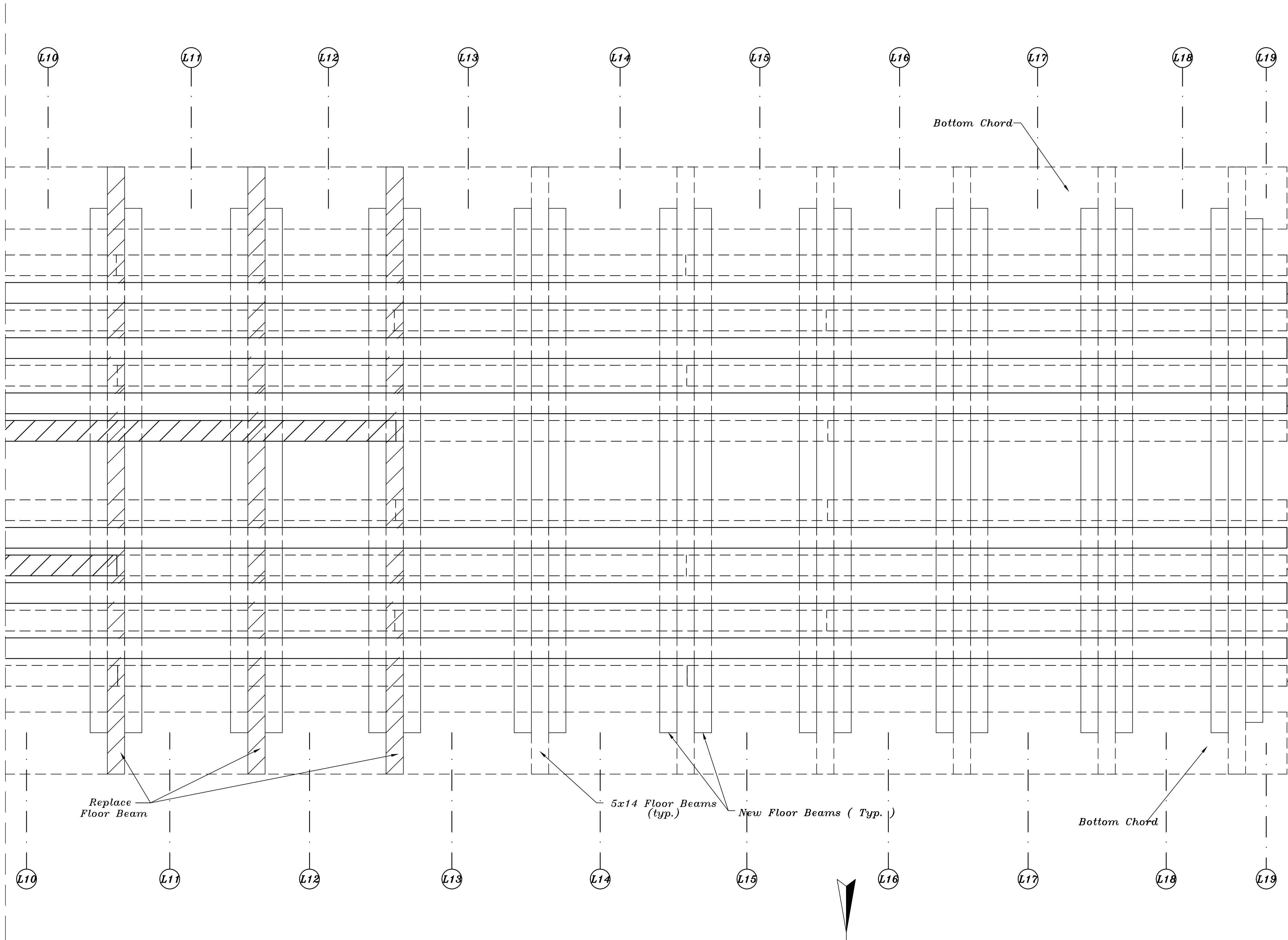
- Existing
- Replace
- New

ITEM NUMBER
3-248.0

DATE: August-98		CHECKED BY
DESIGNED BY: LTX		MBJ
DETAILED BY: KDA		MBJ
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY FLEMING		
ROUTE CR3110	CROSSING Goddard Covered Bridge	
STRINGER PLAN - BRIDGE		
PREPARED BY Brighton A & E Inc. Frankfort, Kentucky		SHEET NO. 17
		DRAWING NO. 24366

LETTING DATE

CONSTRUCTION PROJECT NO.



Bottom Chord

New Stringers (Typ.)

Existing Stringers (Typ.)

Replace
Floor Beam

5x14 Floor Beams
(typ.)

New Floor Beams (Typ.)

Bottom Chord

NOTE: Work this sheet with sheets 16 & 17.

NOTE: New Floor Beams & Stringers shall consist of Oak Members.
Structural Grade No.2

Floor Beams Consisting of 3-5x14 Members shall be
Connected by 2- 3/4" Ø Bolts w/Washers at the Third Points.

Stringer to be butt spliced over center floorbeam

NOTE: Dimensions shown on the plans are for information and
estimating purposes only. It shall be the responsibility of the
Contractor to verify all dimensions and conditions existing
in the field prior to ordering material and construction.

STRINGER PLAN

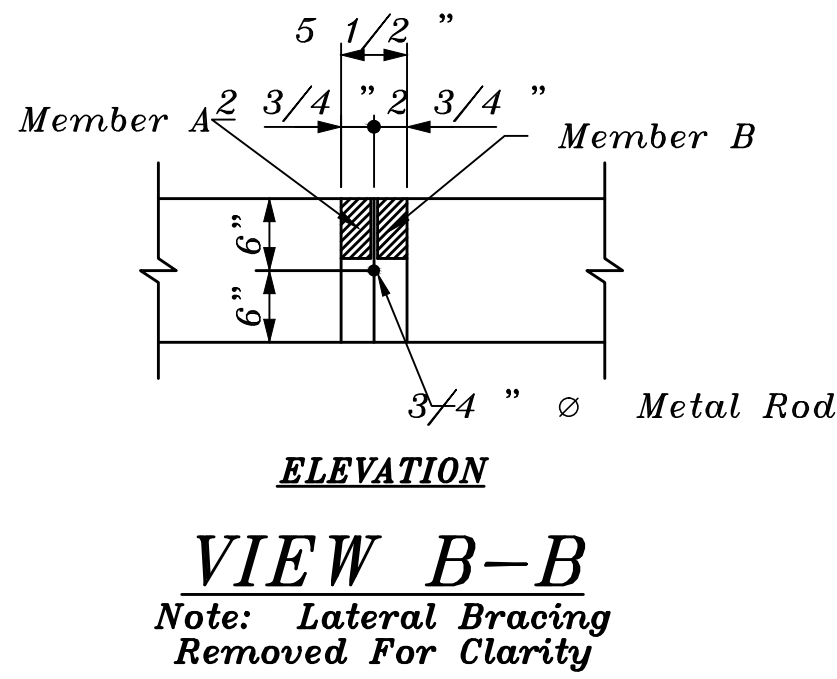
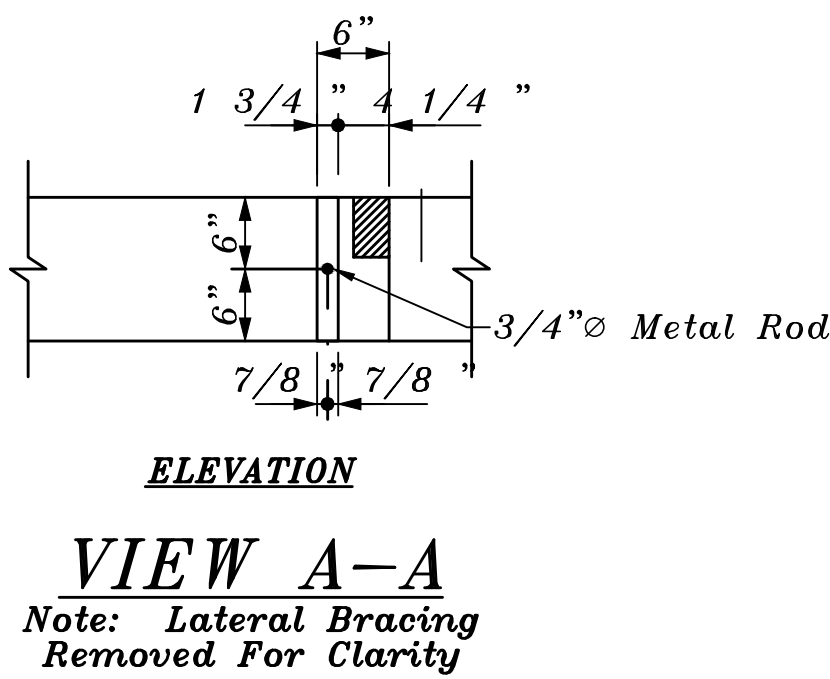
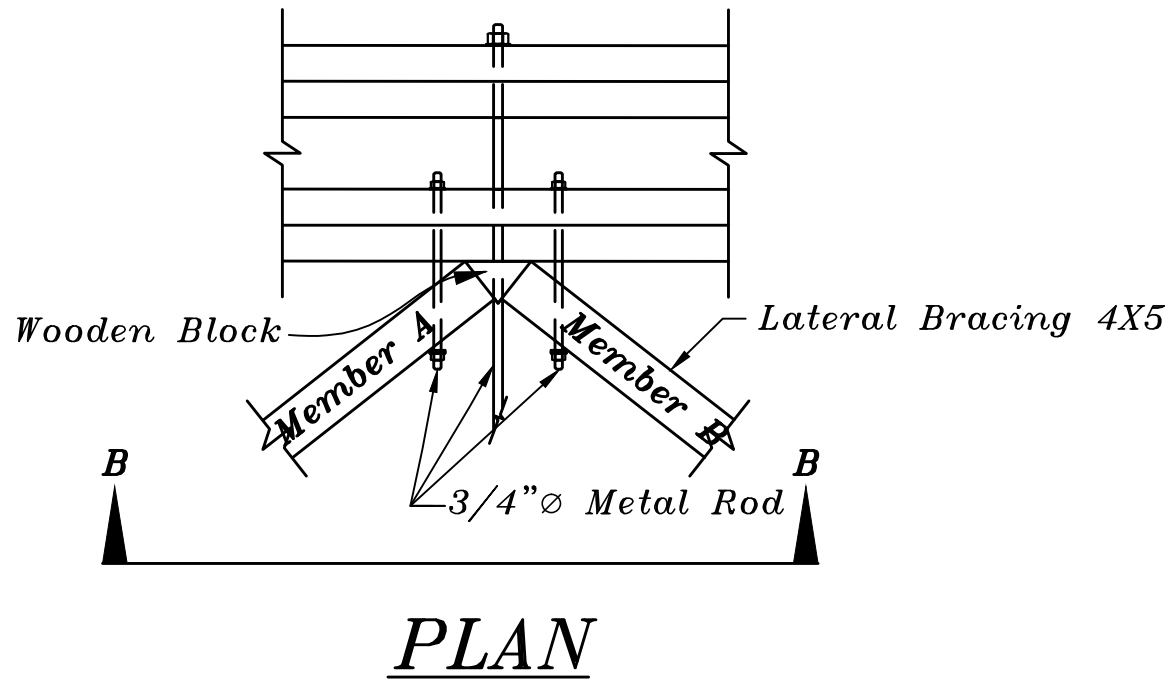
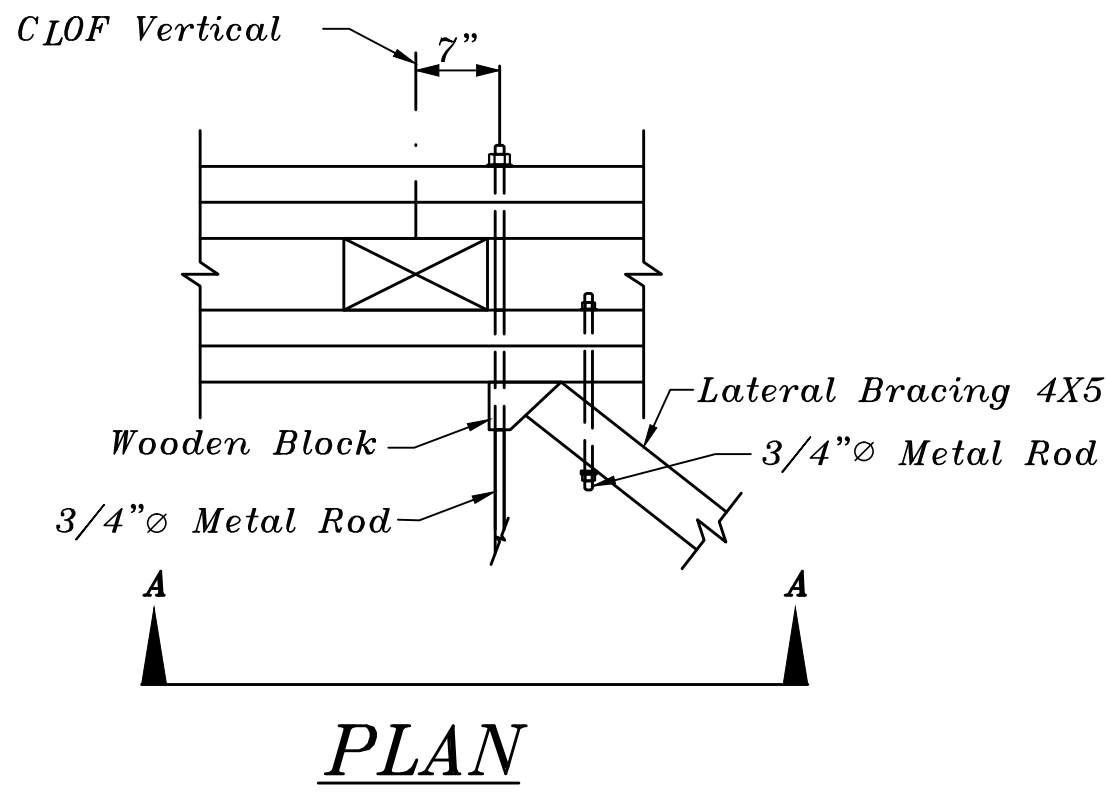
- Existing
- Replace
- New

ITEM NUMBER
3-248.0

DATE:	August-98	CHECKED BY	
DESIGNED BY:	LTX	MBJ	
DETAILED BY:	KDA	MBJ	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY FLEMING			
ROUTE	CROSSING		
CR3110	Goddard Covered Bridge		
STRINGER PLAN - BRIDGE			
PREPARED BY			SHEET NO.
Brighton A & E Inc.			18
Frankfort, Kentucky			DRAWING NO.
			24366

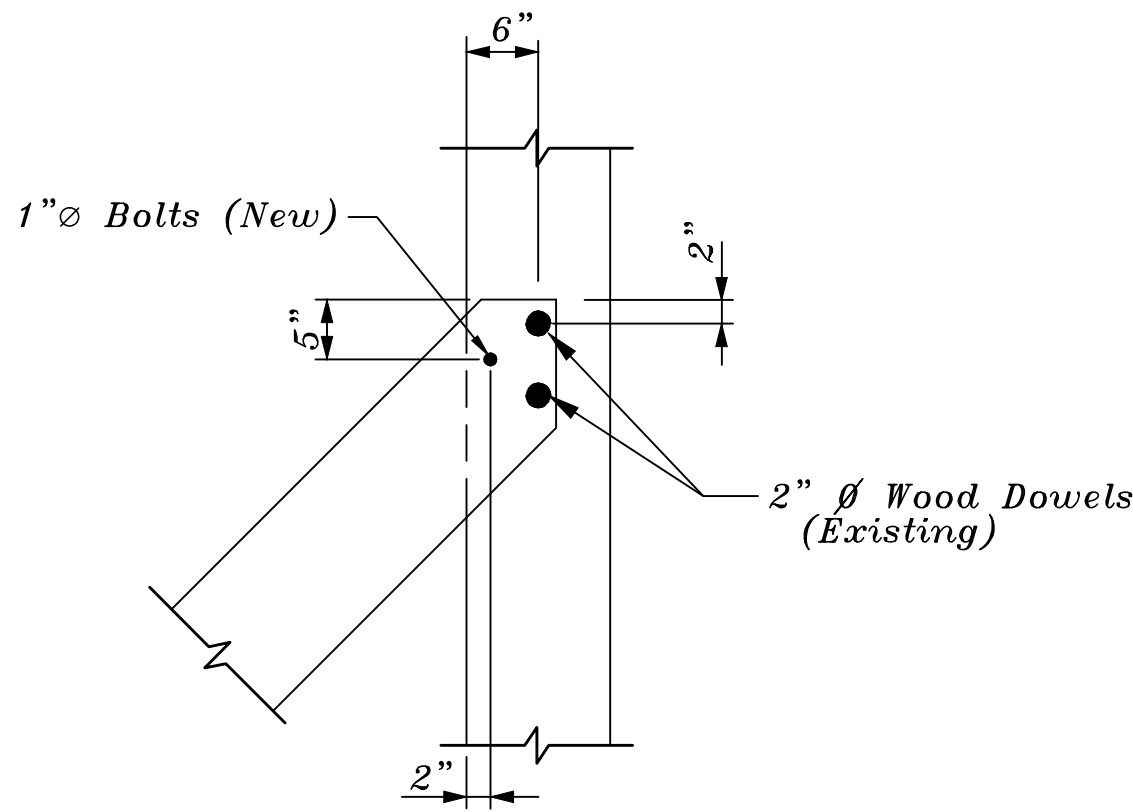
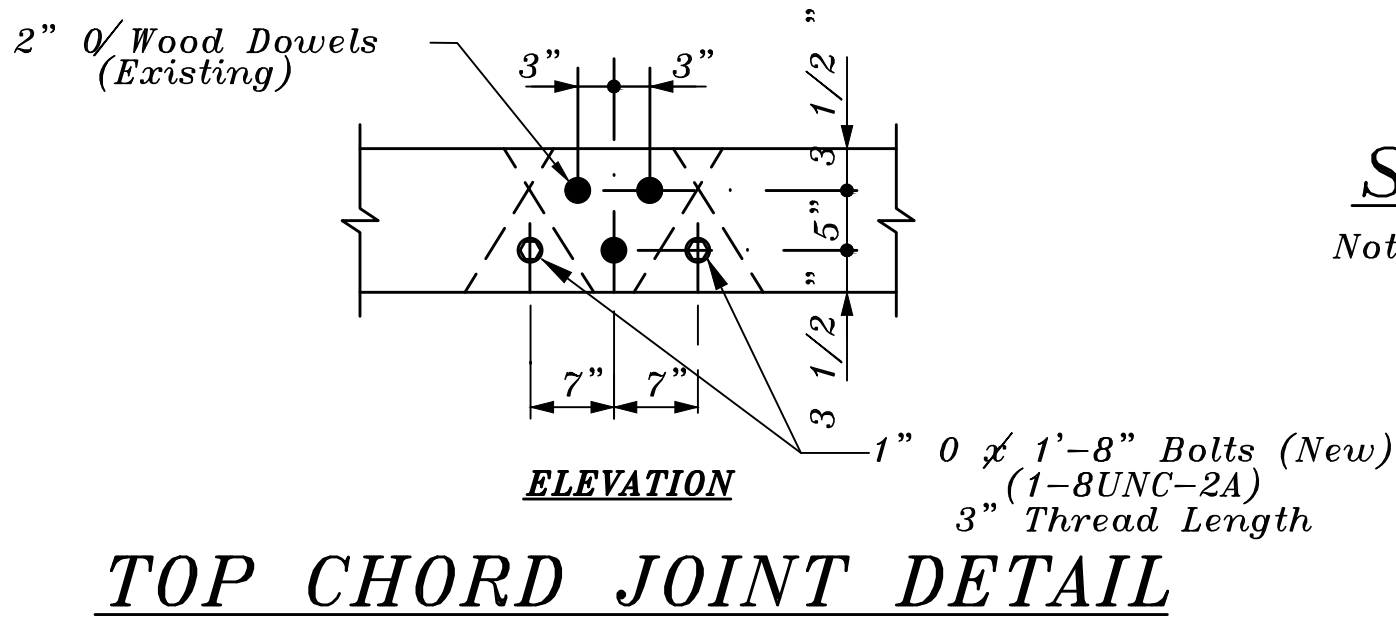
LETTING DATE

CONSTRUCTION PROJECT NO.

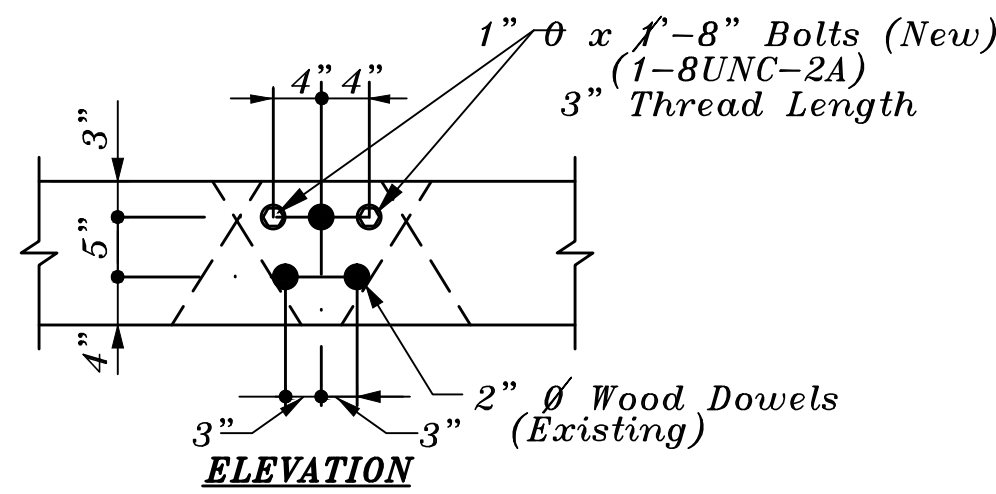


BEARING BLOCK DETAIL
@ TOP AND BOTTOM CHORD
ENDS OF BRIDGE ONLY

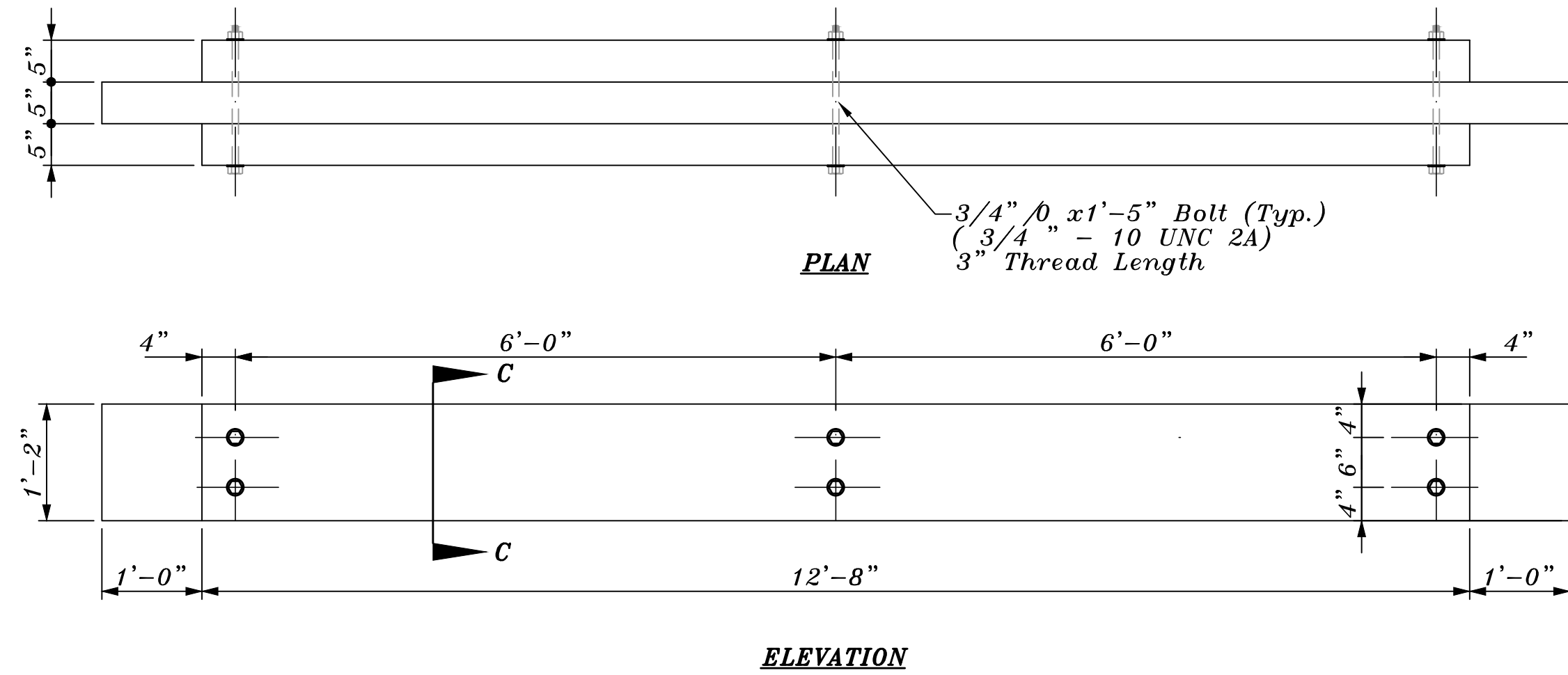
BEARING BLOCK DETAIL
@ TOP & BOTTOM CHORD



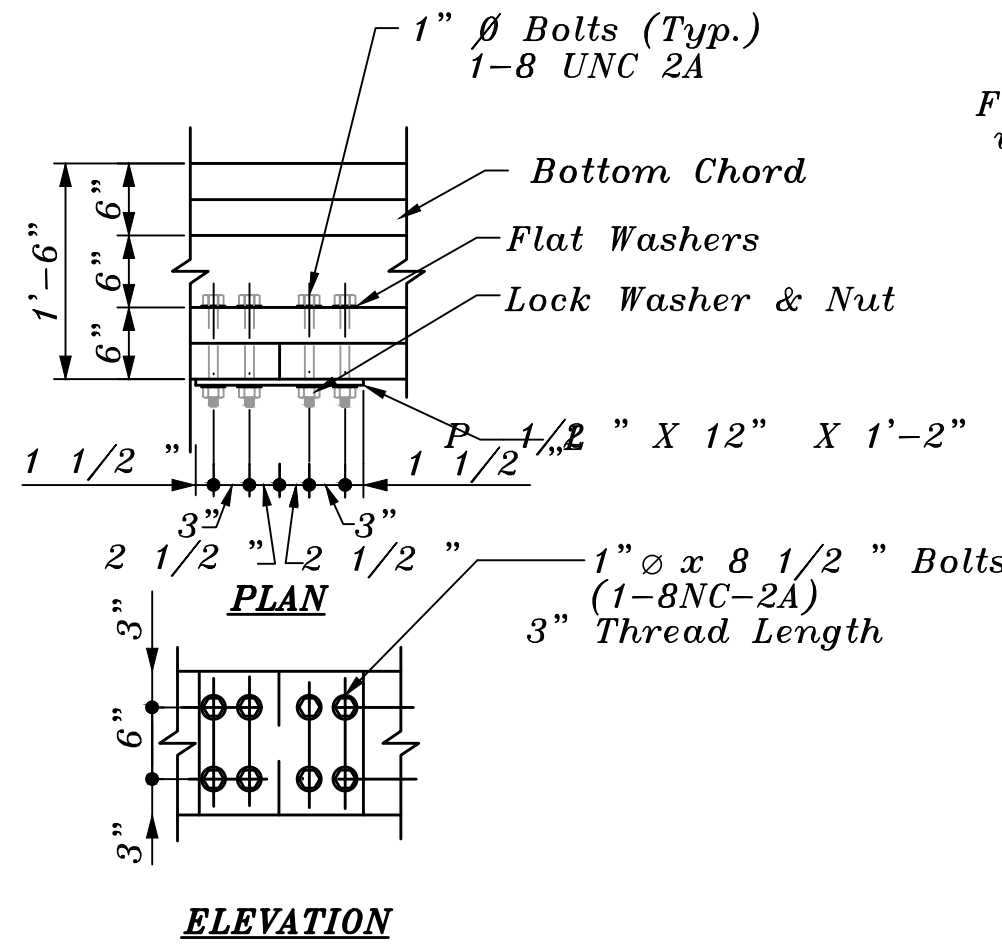
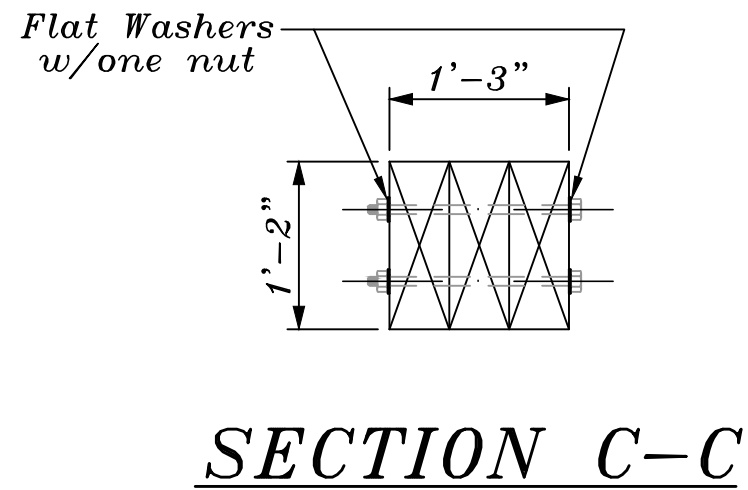
TYPICAL DIAGONAL @ VERTICAL



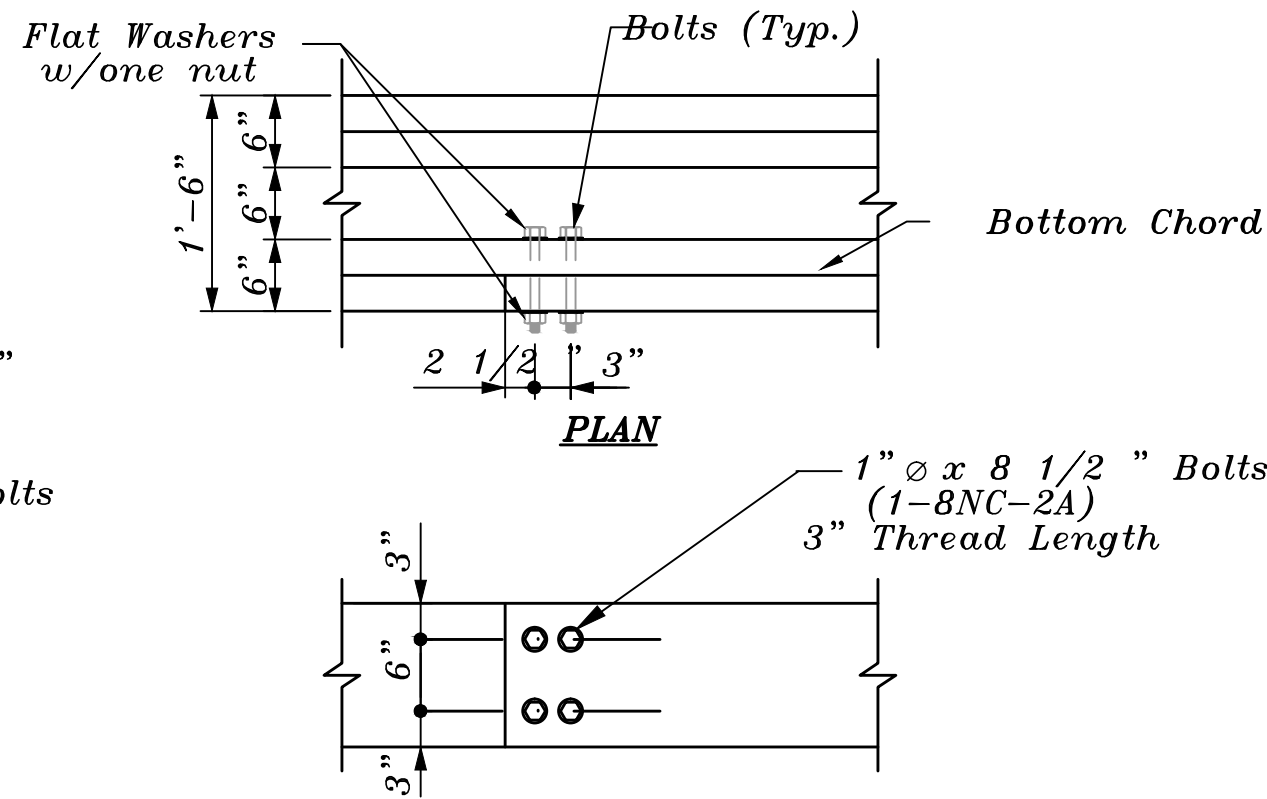
BOTTOM CHORD JOINT DETAIL



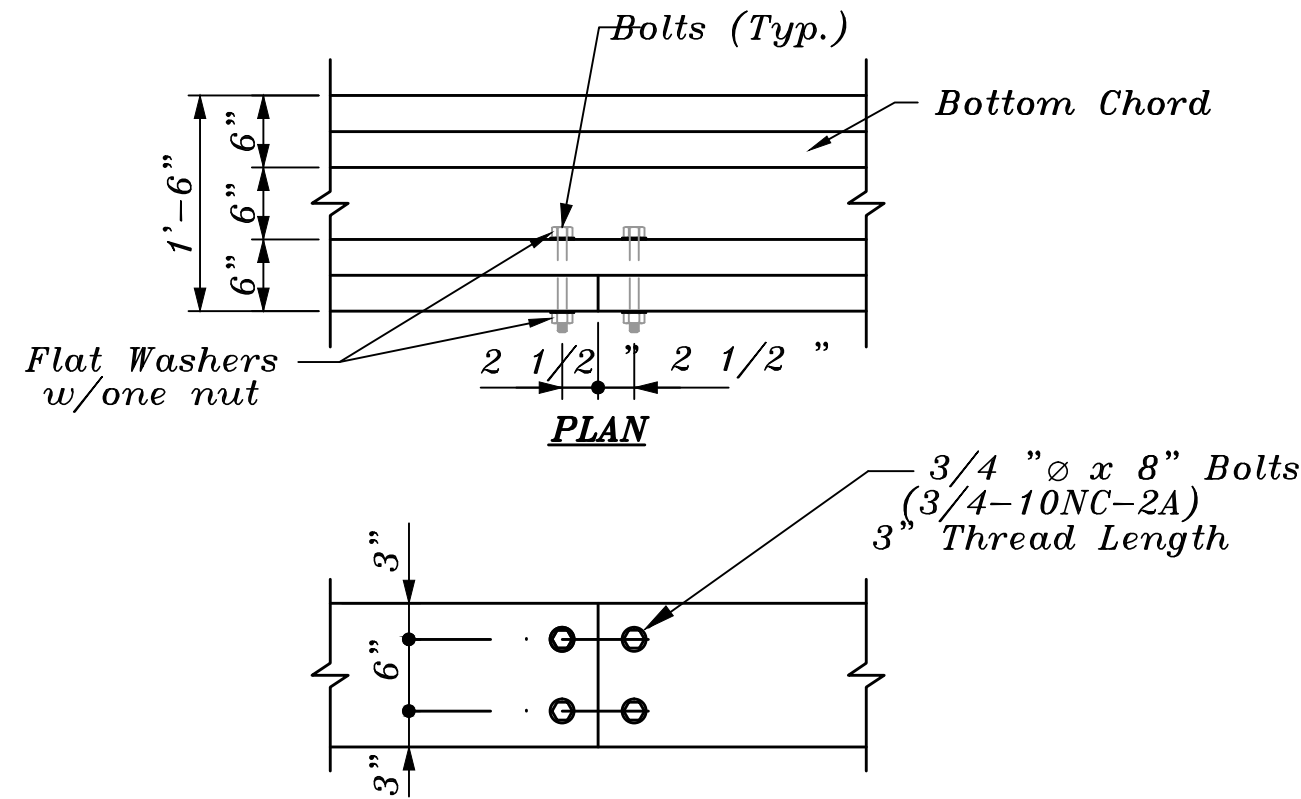
FLOOR BEAM



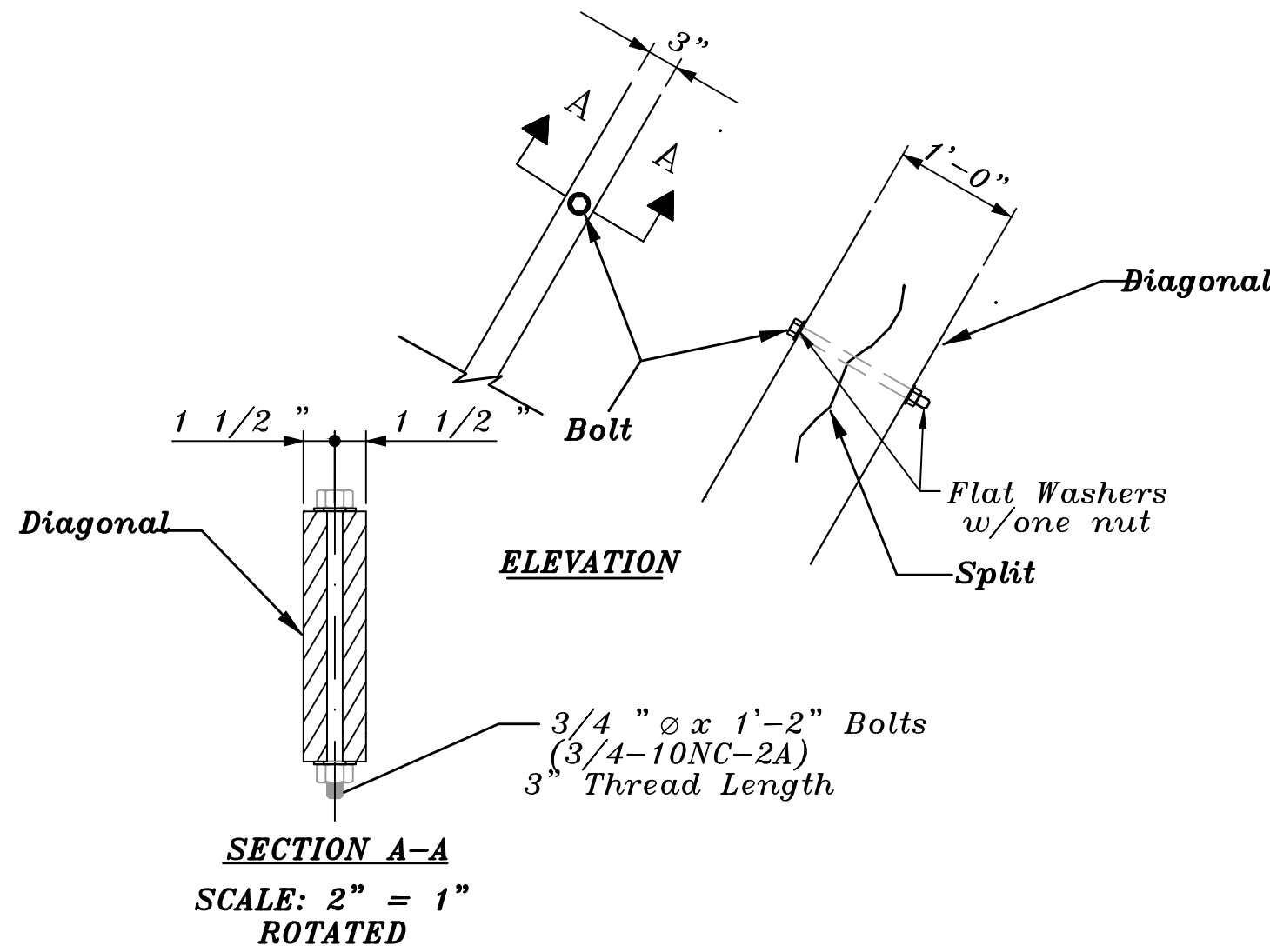
SPLICE "A" DETAIL
Note: Splice Plate adjacent to Siding shall be recessed into Bottom Chord.



SPLICE "B" DETAIL



SPLICE "C" DETAIL



SPLIT REPAIR DETAIL

NOTE: Dimensions shown on the plans are for information and estimating purposes only. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to ordering material and construction.

DATE: August-98		CHECKED BY	
DESIGNED BY: LTX		MBJ	
DETAILED BY: KDA		MBJ	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY FLEMING			
ROUTE CR3110		CROSSING Goddard Covered Bridge	
TRUSS DETAILS			
PREPARED BY Brighton A & E Inc. Frankfort, Kentucky			SHEET NO. 19 DRAWING NO. 24366

ITEM NUMBER
3-248.0



559 Jones Franklin Rd. Suite 164
Raleigh, N.C. 27606
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

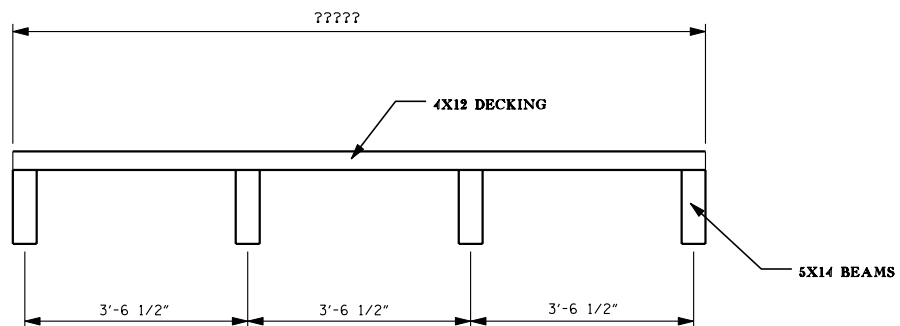
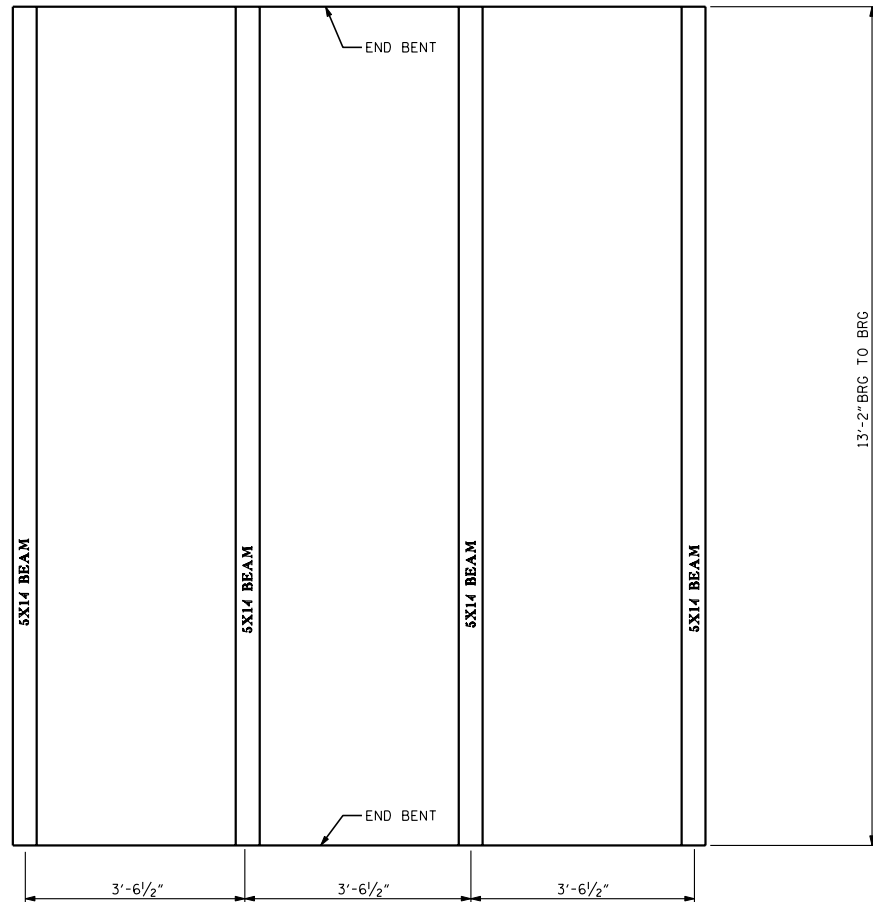
GODDARD COVERED BRIDGE

COUNTY: FLEMING

DRAWN BY: MWC

CHECKED BY: _____

DATE: 5/26/05



LETTING DATE

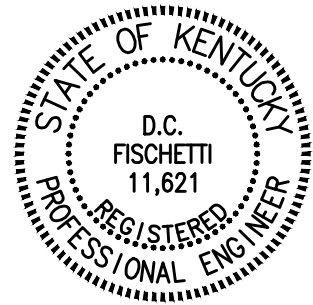
CONSTRUCTION PROJECT NO.



INTERIOR DETAIL



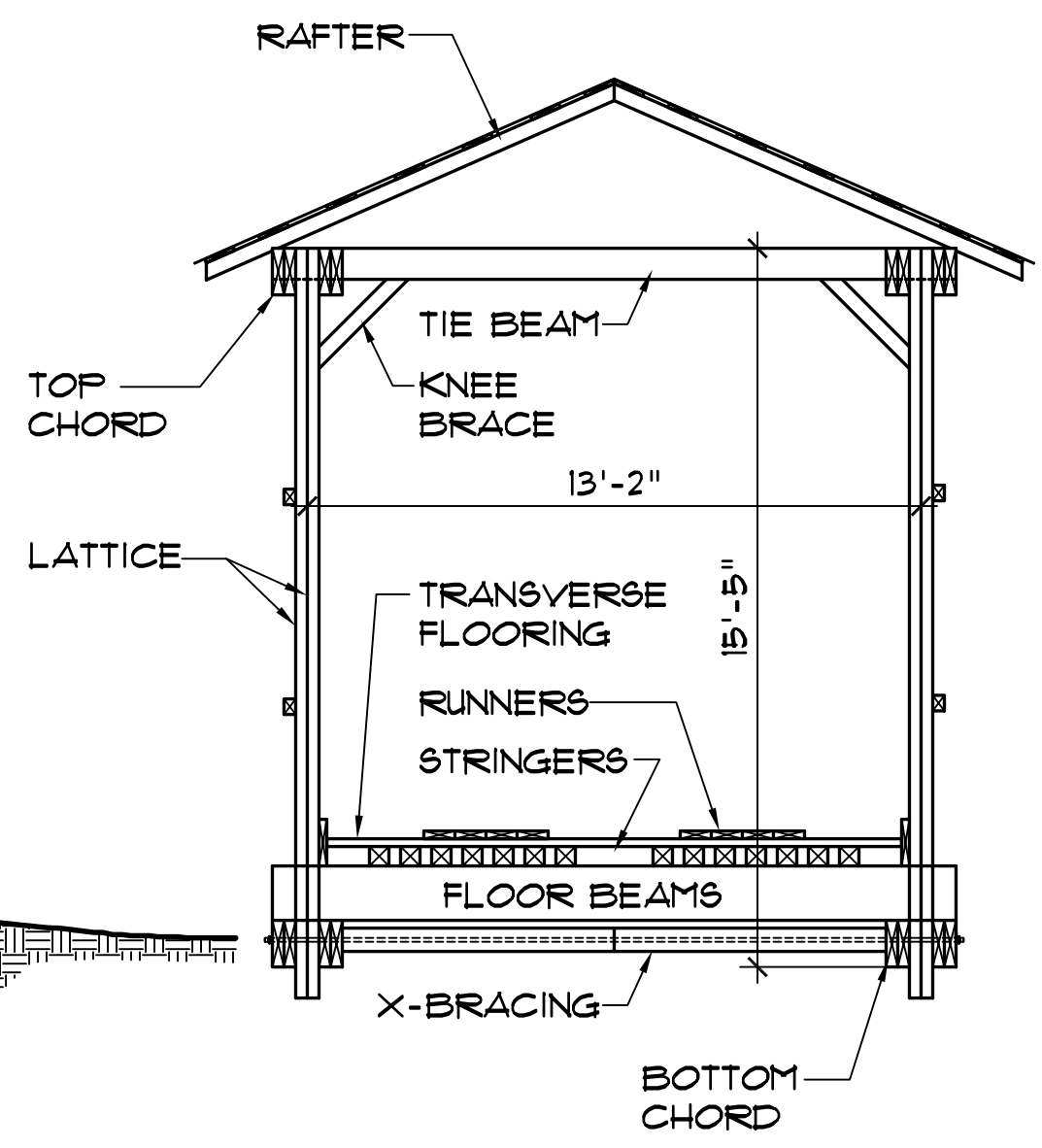
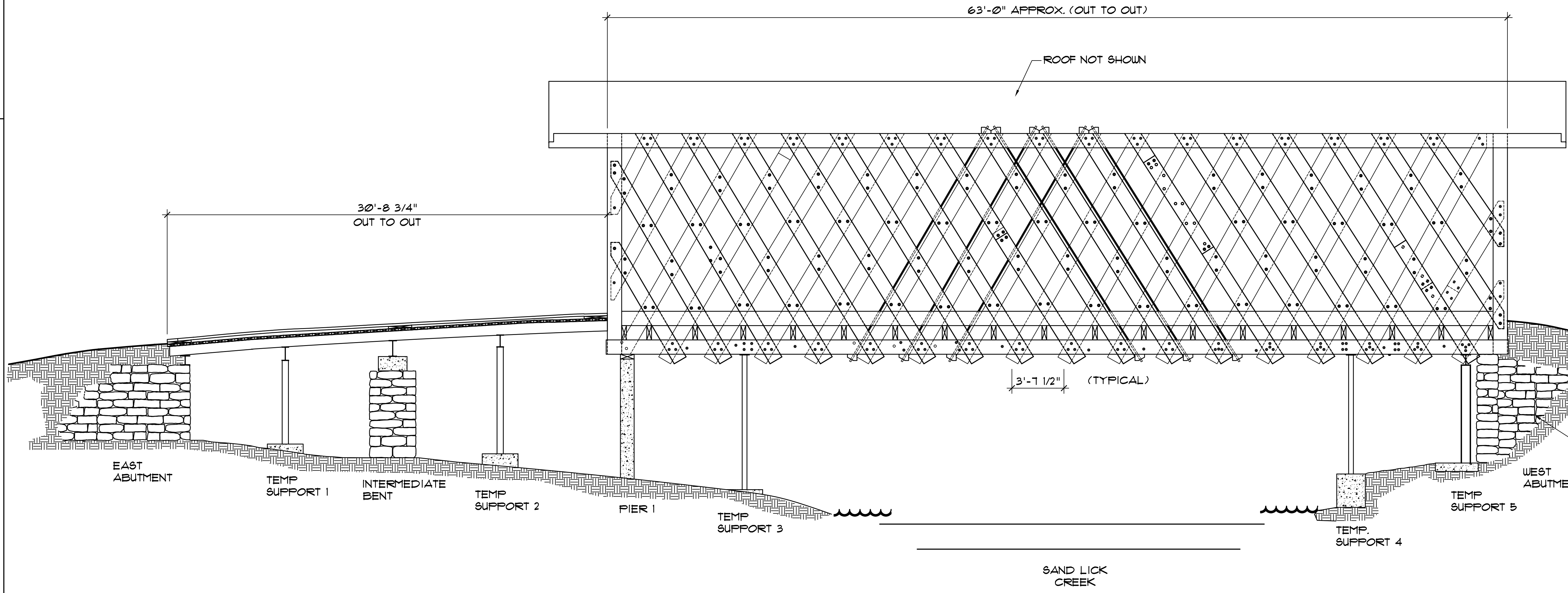
INTERIOR VIEW



03041.A

ITEM NUMBER
3-248.0

DATE: March 2005	CHECKED BY
DESIGNED BY: DCF	DCF
DETAILED BY: CG, DCF	DCF
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY FLEMING	
ROUTE	CROSSING Goddard Covered Bridge
INTERIOR VIEWS	
PREPARED BY DCF Engineering, Inc. PO Box 879 ■ 109 Brady Ct. ■ Cary, NC 27512-0879	
SHEET NO. P1	DRAWING NO. 24366

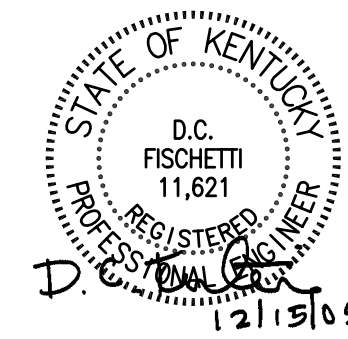


TYPICAL SECTION

EXISTING BRIDGE ELEVATION

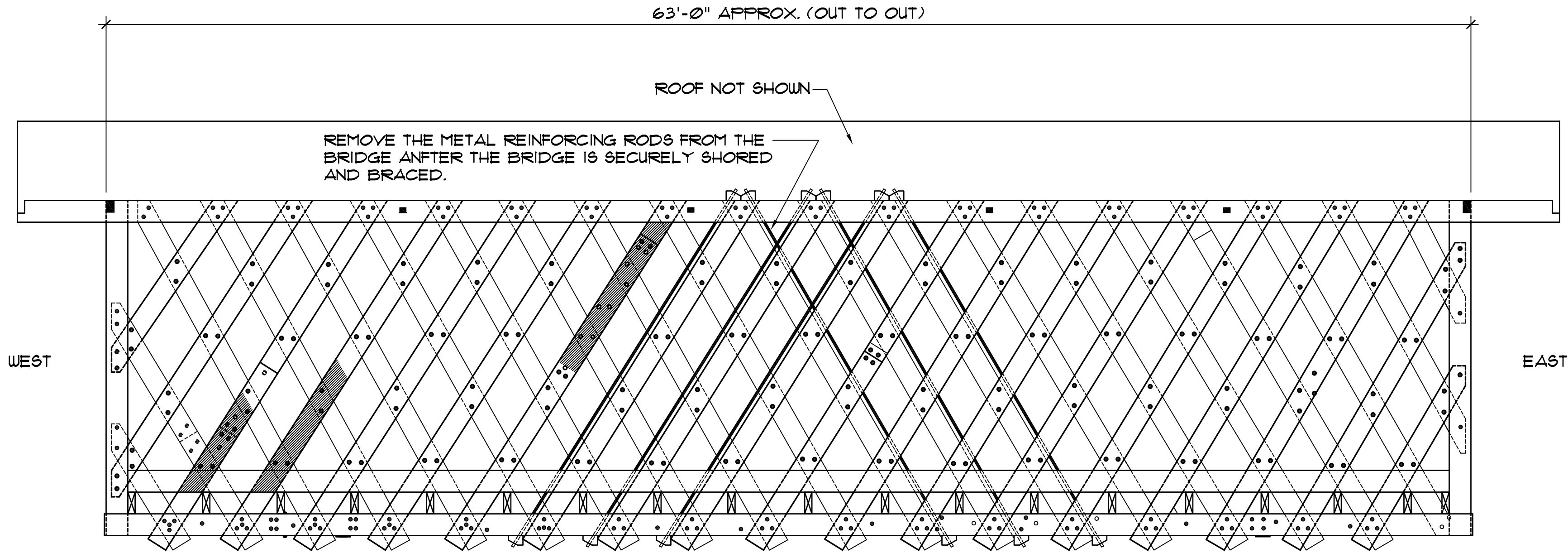
THE BASE DRAWINGS USED TO PRODUCE THESE CONSTRUCTION DRAWINGS WERE PREPARED BY BRIGHTON A&E INC. OF FRANKFORT, KENTUCKY IN AUGUST, 1998

NOTE: Dimensions shown on the plans are for information and estimating purposes only. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to ordering material and construction.



DATE:	May 2005	CHECKED BY:	
DESIGNED BY:	DCF		DCF
DETAILED BY:	CG, DCF		DCF
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY FLEMING			
ROUTE	CROSSING Goddard Covered Bridge		
EXISTING BRIDGE ELEVATION			
PREPARED BY DCF Engineering, Inc.			SHEET NO. SR-1
P0 Box 879 ■ 109 Brady Ct. ■ Cary, NC 27512-0879			DRAWING NO. 24366

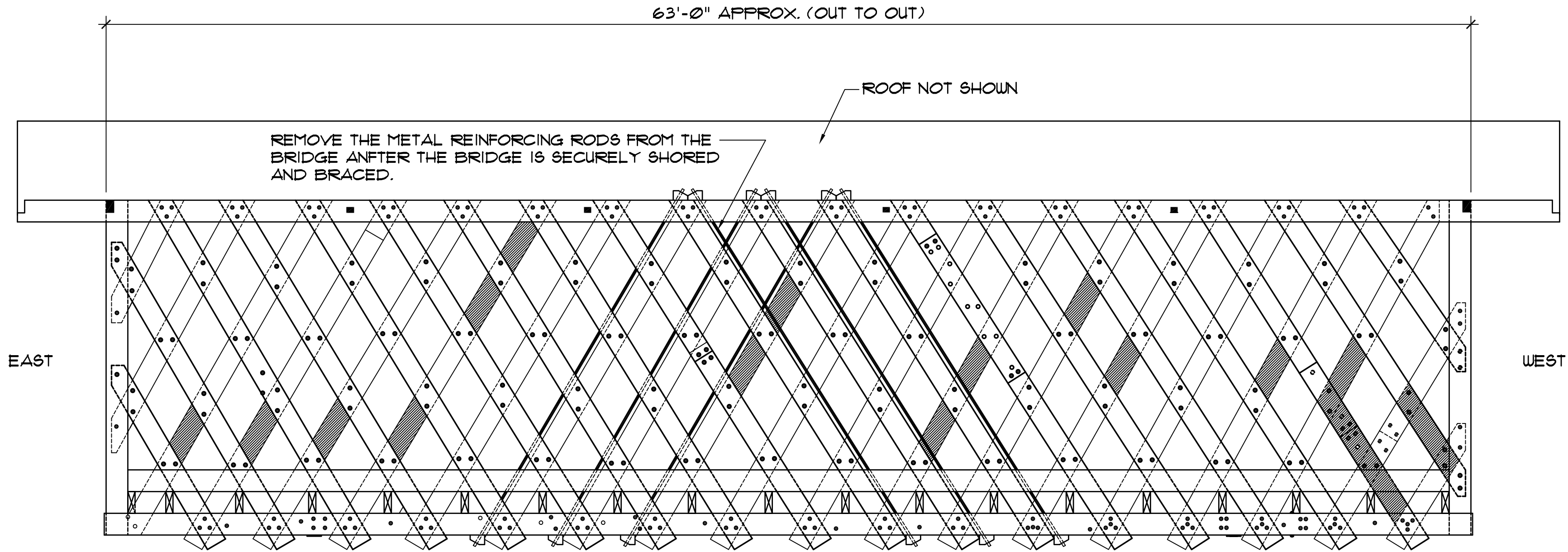
ITEM NUMBER
3-248.0



EXISTING BRIDGE TRUSS ELEVATION- SOUTH FACE OF THE NORTH TRUSS

THE SHADED PORTIONS OF THE LATTICE INDICATE "FILLER" PIECES OR SCABS BOLTED TO THE LATTICE TO REPAIR BREAKS OR MEMBERS WITH LARGE KNOTS OR OTHER STRENGTH REDUCING CHARACTERISTICS.

THESE MAY REMAIN, AS THEY ARE PART OF THE HISTORY OF THE BRIDGE.



EXISTING BRIDGE TRUSS ELEVATION- NORTH FACE OF THE SOUTH TRUSS

THE SHADED PORTIONS OF THE LATTICE INDICATE "FILLER" PIECES OR SCABS BOLTED TO THE LATTICE TO REPAIR BREAKS OR MEMBERS WITH LARGE KNOTS OR OTHER STRENGTH REDUCING CHARACTERISTICS.

THESE MAY REMAIN, AS THEY ARE PART OF THE HISTORY OF THE BRIDGE.

PARTIAL TIMBER LIST

LOCATION	SIZE		GRADE NO.	SPECIES	TREATMENT	MOISTURE CONTENT
	IN.	x IN.				
TOP CHORD	3	12	NO. 1	POPLAR OR OAK		14 %
BOTTOM CHORD	3	12	NO. 1	POPLAR OR OAK		14 %
LATTICE	3	12	NO. 1	POPLAR OR OAK		14 %
COMMON RAFTERS	3	6	NO. 2	POPLAR OR OAK		16 %
FLOOR BEAM	5	16	NO. 1D	SOUTHERN PINE		16 %
SIDING	1	10	NO. 1	HEMLOCK		10 %
BOLSTER BEAMS	10	14	NO. 1	SOUTHERN PINE	CREOSOTE	23 %
BENTS	12	12	NO. 1	SOUTHERN PINE	CREOSOTE	23 %
BED TIMBERS	12	12	NO. 1	SOUTHERN PINE	CREOSOTE	23 %
UPPER LATERAL BRACING	6	6	NO. 1	OAK, OR S. PINE, OR D. FIR		14 %
KNEE BRACES	4"	5"	NO. 1D	S. PINE OR D. FIR		12 %
TIE BEAM	6	14	NO. 1D	OAK		16 %
LOWER LATERAL BRACING	6	6	NO. 1	OAK, OR S. PINE, OR D. FIR		14 %
PRINCIPAL RAFTERS	6	8	NO. 1	OAK, OR S. PINE, OR D. FIR		14 %

NOTES:

MEMBERS DESIGNATED 3x8, 6x8 (ETC.) SHALL BE FURNISHED IN STANDARD SIZES, E.G. 2 1/2"x5 1/2", 5 1/2"x1 1/2" (ETC.) UNLESS OTHERWISE NOTED.

MEMBERS DESIGNATED AS 2"x6", 5"x5" (ETC.) SHALL BE FURNISHED FULL DIMENSION AS INDICATED.

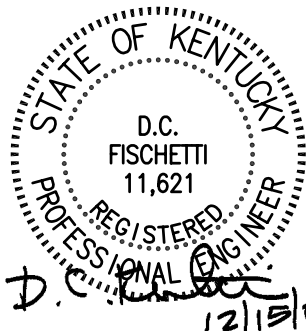
TIMBER FOR LATTICE AND CHORD MEMBERS SHALL HAVE A BAND SAWED FINISH.

REPLACEMENT TRUNNELS (PINS) SHALL CONSIST OF HARD WHITE OAK WITH A UNIFORM MOISTURE CONTENT EQUAL TO THE EXISTING TRUNNELS IN THE BRIDGE.

PRESSURE TREAT THE BENTS, BOLSTER BEAMS AND BED TIMBERS IN ACCORDANCE WITH AWP A STANDARD C14-94 FOR ABOVE GROUND, SOIL AND FRESH WATER USE WITH CREOSOTE (P1/P13) TO A RETENTION OF 12.0 PCF. THE CREOSOTE SOLUTION MUST NOT EXCEED A LEVEL OF 0.50 XYLENE INSOLUBLE. PRESSURE TREAT AFTER FABRICATION AND PRIOR TO ASSEMBLY OF THE BENTS.

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NOTE: Dimensions shown on the plans are for information and estimating purposes only. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to ordering material and construction.



DATE:	May 2005	CHECKED BY:	DCF
DESIGNED BY:	DCF		DCF
DETAILED BY:	CG, DCF		DCF

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

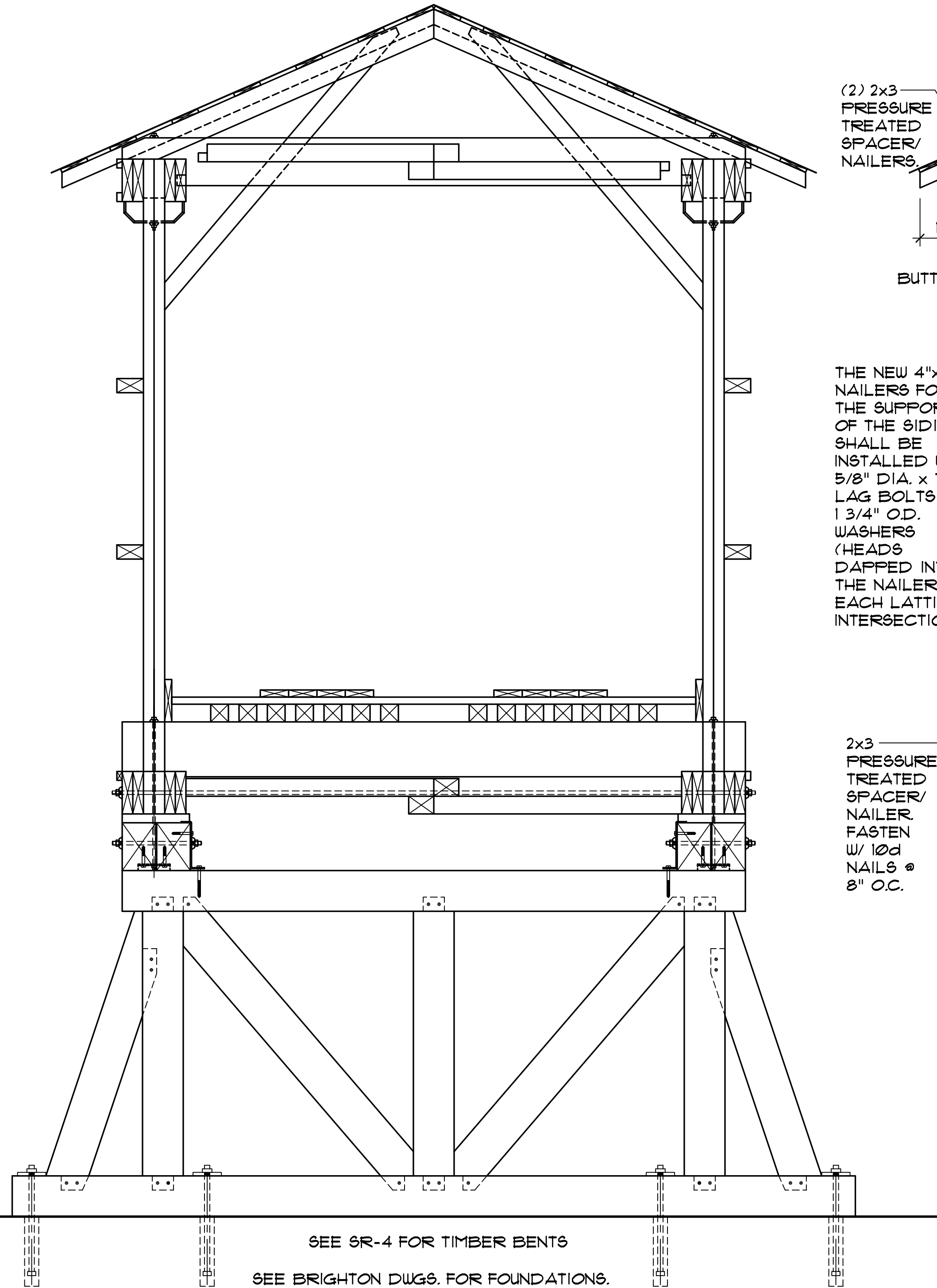
COUNTY
FLEMING

ROUTE CROSSING
Goddard Covered Bridge

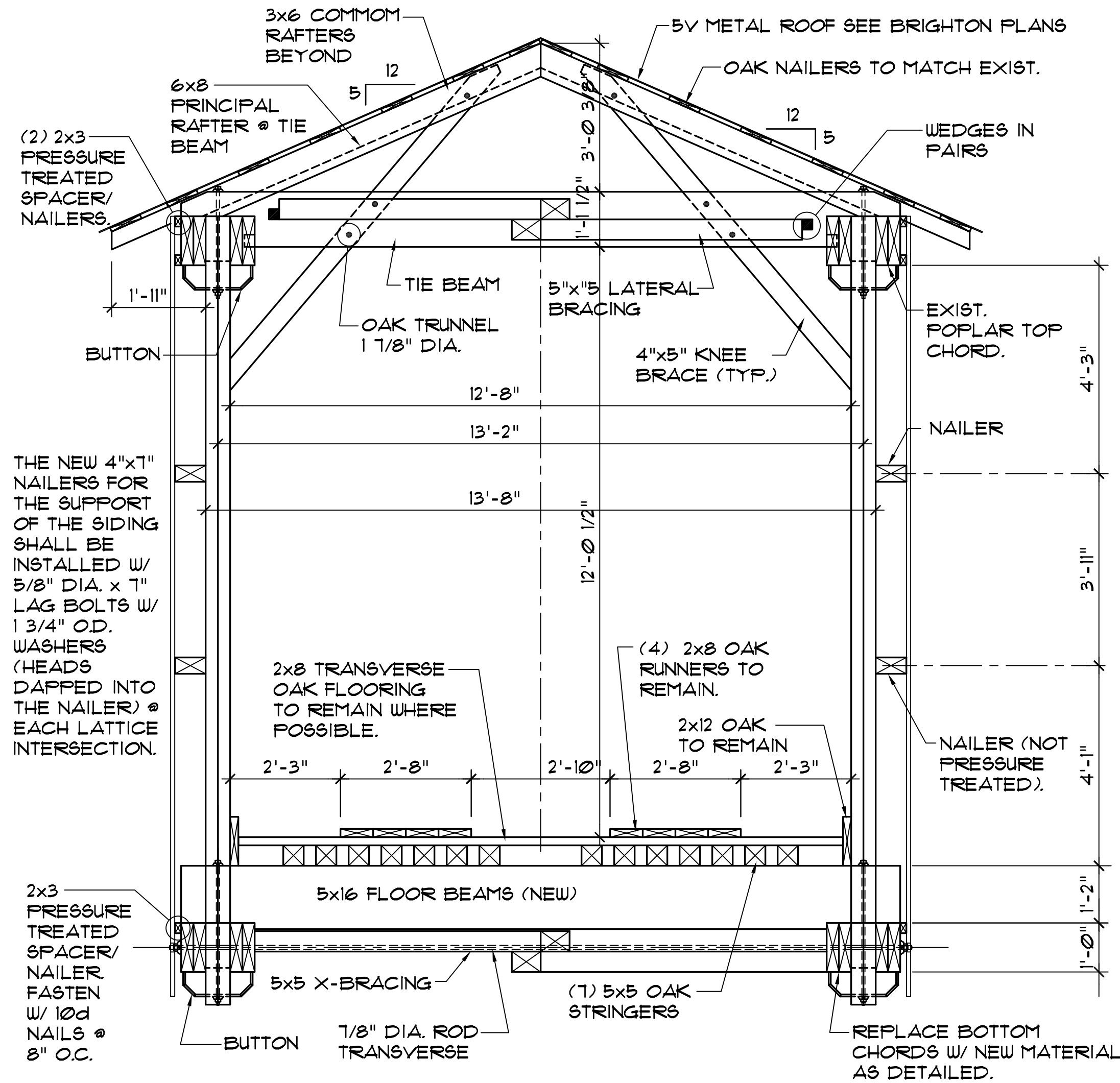
EXISTING BRIDGE ELEVATION

ITEM NUMBER	PREPARED BY	SHEET NO.
3-248.0	DCF Engineering, Inc. PO Box 879 ■ 109 Brady Ct. ■ Cary, NC 27512-0879	SR-2 DRAWING NO. 24366





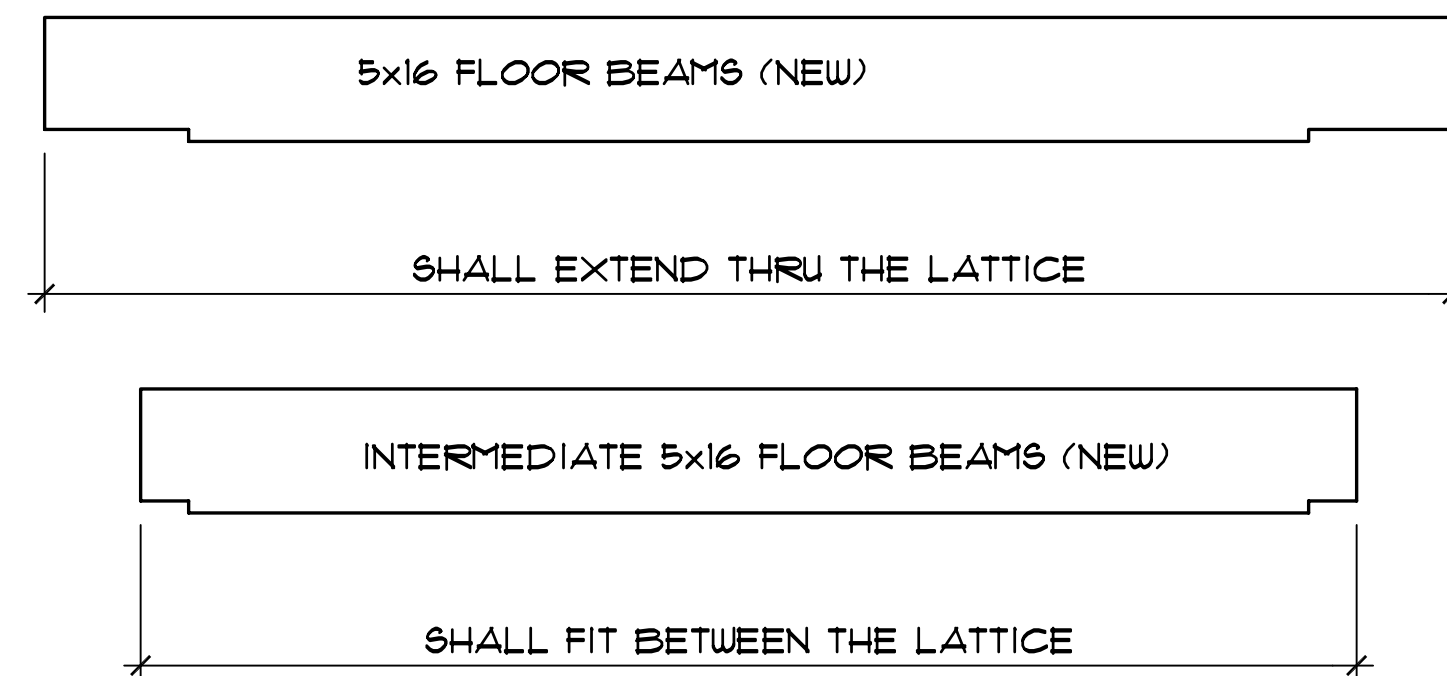
PROPOSED BRIDGE TRANSVERSE SECTION @ BENT



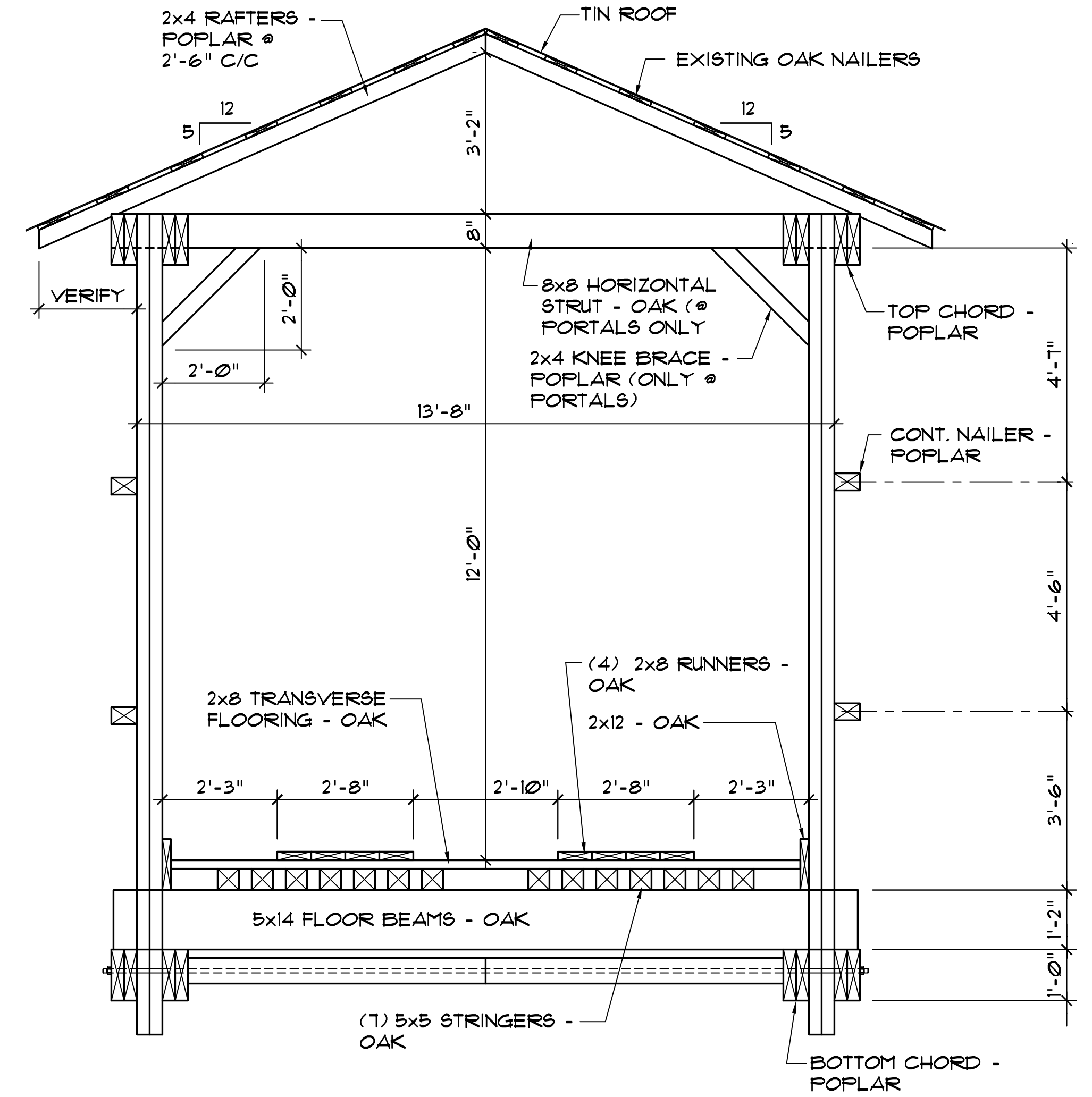
PROPOSED BRIDGE TRANSVERSE SECTION

REPLACE THE FLOOR RUNNERS, TRANSVERSE FLOORING, AND LONGITUDINAL STRINGERS IN KIND WHERE INDICATED IN THE BRIGHTON A & E DWGS.

REUSE THE EXISTING MATERIAL, IF SOUND, IN THE ORIGINAL LAYOUT WHEREVER POSSIBLE.



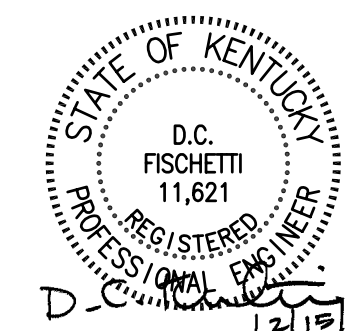
ENSURE PROPER BEARING OF THE TRANSVERSE FLOOR BEAMS IN ACCORDANCE WITH PROCEDURES AS DIRECTED BY THE TIMBER FRAMER.



EXISTING BRIDGE TRANSVERSE SECTION

THE BASE DRAWINGS USED TO PRODUCE THESE CONSTRUCTION DRAWINGS WERE PREPARED BY BRIGHTON A&E INC. OF FRANKFORT, KENTUCKY IN AUGUST, 1998

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2304.1A

DATE:	May 2005	CHECKED BY:	
DESIGNED BY:	DCF	DCF	
DETAILED BY:	CG, DCF	DCF	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY FLEMING			
ROUTE	CROSSING Goddard Covered Bridge		
TYPICAL BRIDGE CROSS SECTIONS			
PREPARED BY DCF Engineering, Inc. PO Box 879 ■ 109 Brady Ct. ■ Cary, NC 27512-0879			SHEET NO. SR-4 DRAWING NO. 24366

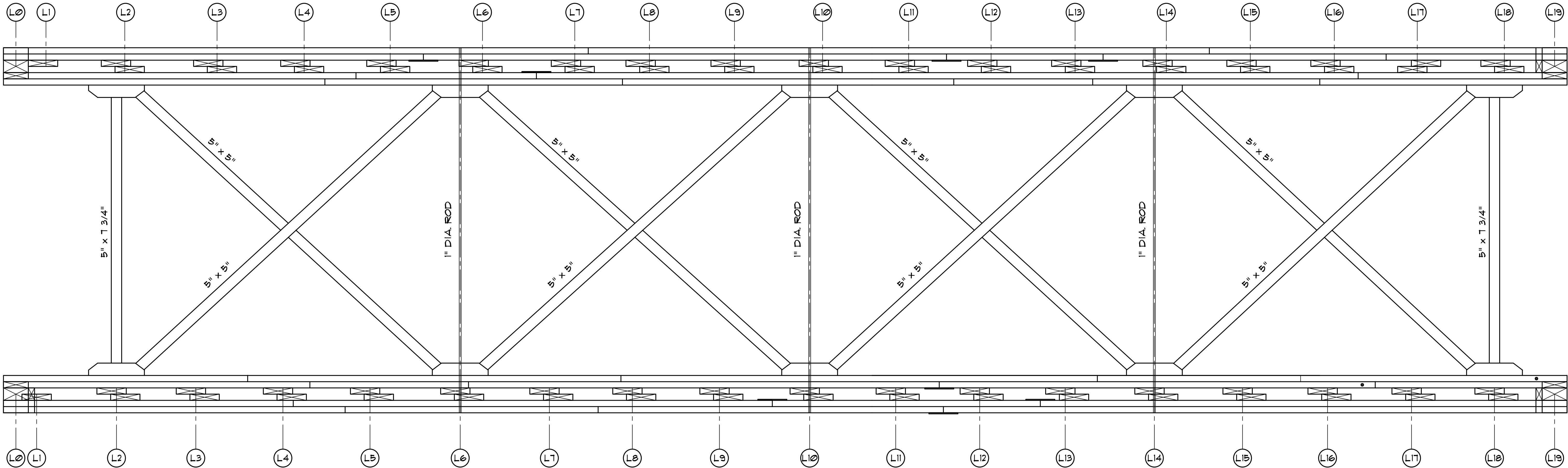


EXISTING TRUNNELS WHICH ARE MISSING OR DAMAGED SHALL BE REPLACED WITH TIGHTLY FITTING NEW TRUNNELS.

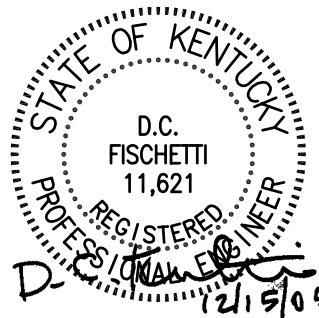


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DATE:	May 2005	CHECKED BY:	
DESIGNED BY:	DCF	DCF	
DETAILED BY:	CG, DCF	DCF	
<i>Commonwealth of Kentucky</i> DEPARTMENT OF HIGHWAYS			
<div style="text-align: center;">COUNTY</div> FLEMING			
ROUTE	CROSSING Goddard Covered Bridge		
PROPOSED TIMBER BENTS			
<div style="text-align: center;">PREPARED BY</div> DCF Engineering, Inc.			<div style="text-align: center;">SHEET NO.</div> SR-5
PO Box 879 ■ 109 Brady Ct. ■ Cary, NC 27512-0879			<div style="text-align: center;">DRAWING NO.</div> 24366



PLAN OF THE BOTTOM CHORD LATERAL BRACING

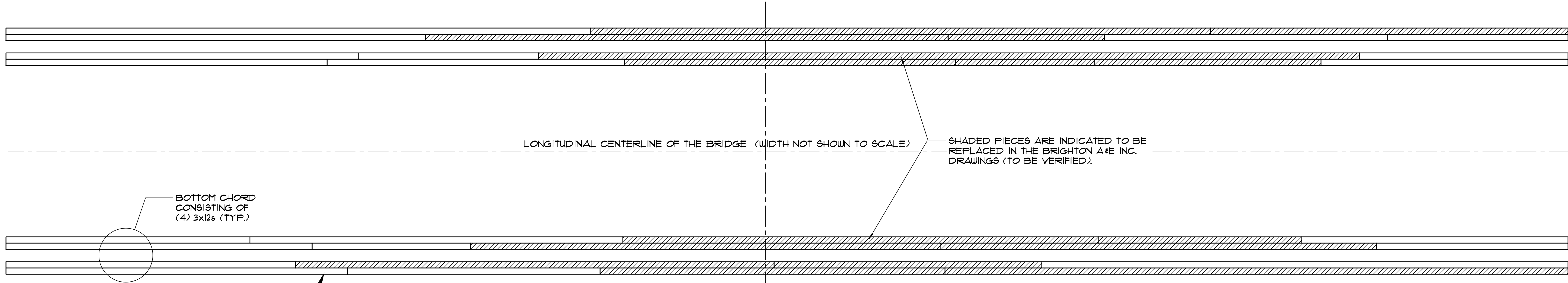


DATE: May 2005		CHECKED BY:	
DESIGNED BY: DCF		DCF	
DETAILED BY: CG, DCF		DCF	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY FLEMING			
ROUTE	CROSSING Goddard Covered Bridge		
BOTTOM CHORD PLAN			
PREPARED BY DCF Engineering, Inc.			SHEET NO. SR-6
PO Box 879 ■ 109 Brady Ct. ■ Cary, NC 27512-0879			DRAWING NO. 24366

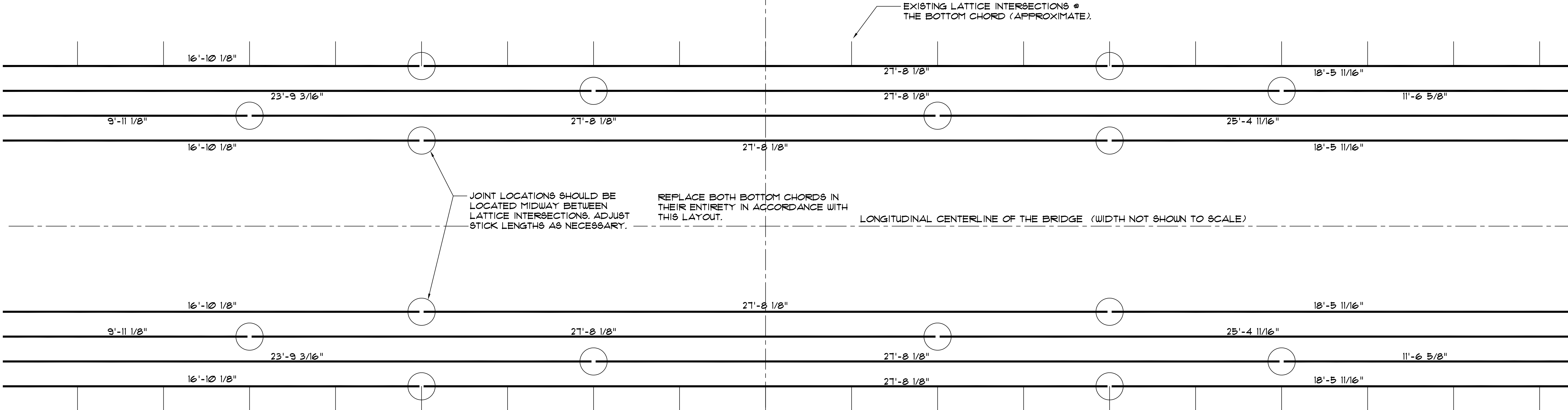
ITEM NUMBER
3-248.0

LETTING DATE

CONSTRUCTION PROJECT NO.



BOTTOM CHORD PLAN SHOWING MATERIAL TO BE REPLACED



SCHEMATIC BOTTOM CHORD PLAN SHOWING PROPOSED SPLICE LOCATIONS

EXISTING LATTICE INTERSECTIONS @ THE BOTTOM CHORD (APPROXIMATE).

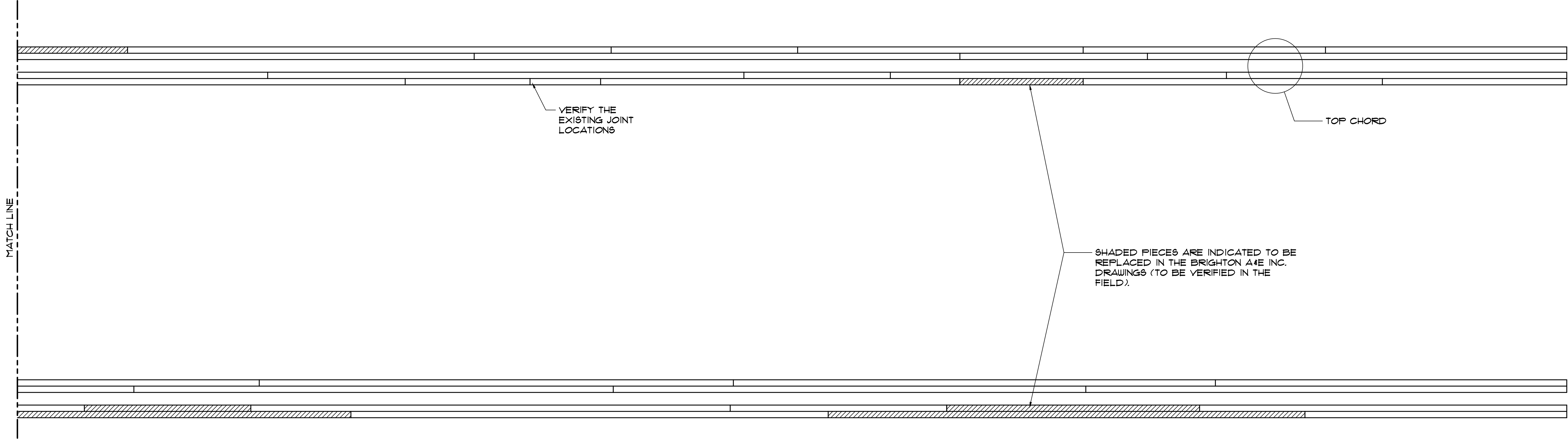
THE BASE DRAWINGS USED TO PRODUCE THESE CONSTRUCTION DRAWINGS WERE PREPARED BY BRIGHTON A&E INC. OF FRANKFORT, KENTUCKY IN AUGUST, 1998

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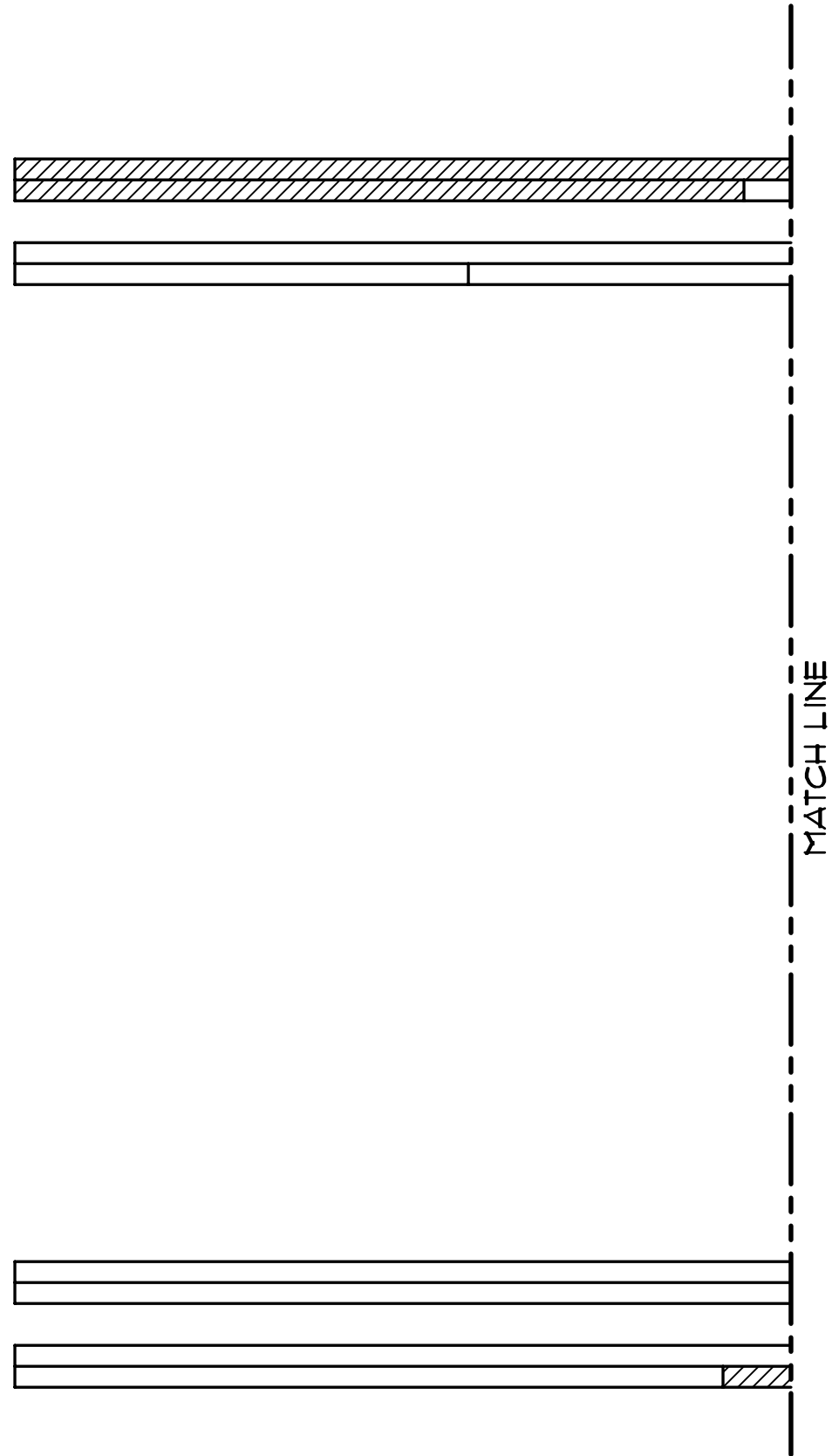


ITEM NUMBER
3-248.0

DATE: May 2005		CHECKED BY	
DESIGNED BY: DCF		DCF	
DETAILED BY: CG, DCF		DCF	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY FLEMING			
ROUTE		CROSSING Goddard Covered Bridge	
EXISTING BRIDGE PLANS			
PREPARED BY DCF Engineering, Inc.			SHEET NO. SR-7
PO Box 879 ■ 109 Brady Ct. ■ Cary, NC 27512-0879			DRAWING NO. 24366

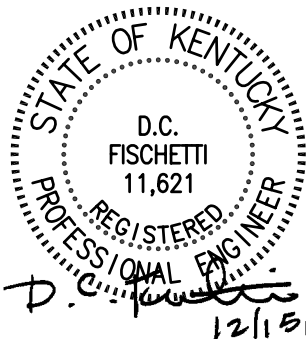


TOP CHORD PLAN SHOWING MATERIAL TO BE REPLACED



THE BASE DRAWINGS USED TO PRODUCE THESE CONSTRUCTION DRAWINGS WERE PREPARED BY BRIGHTON A&E INC. OF FRANKFORT, KENTUCKY IN AUGUST, 1998

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DATE:	May 2005	CHECKED BY
DESIGNED BY:	DCF	DCF
DETAILED BY:	CG, DCF	DCF

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
FLEMING

ROUTE CROSSING
Goddard Covered Bridge

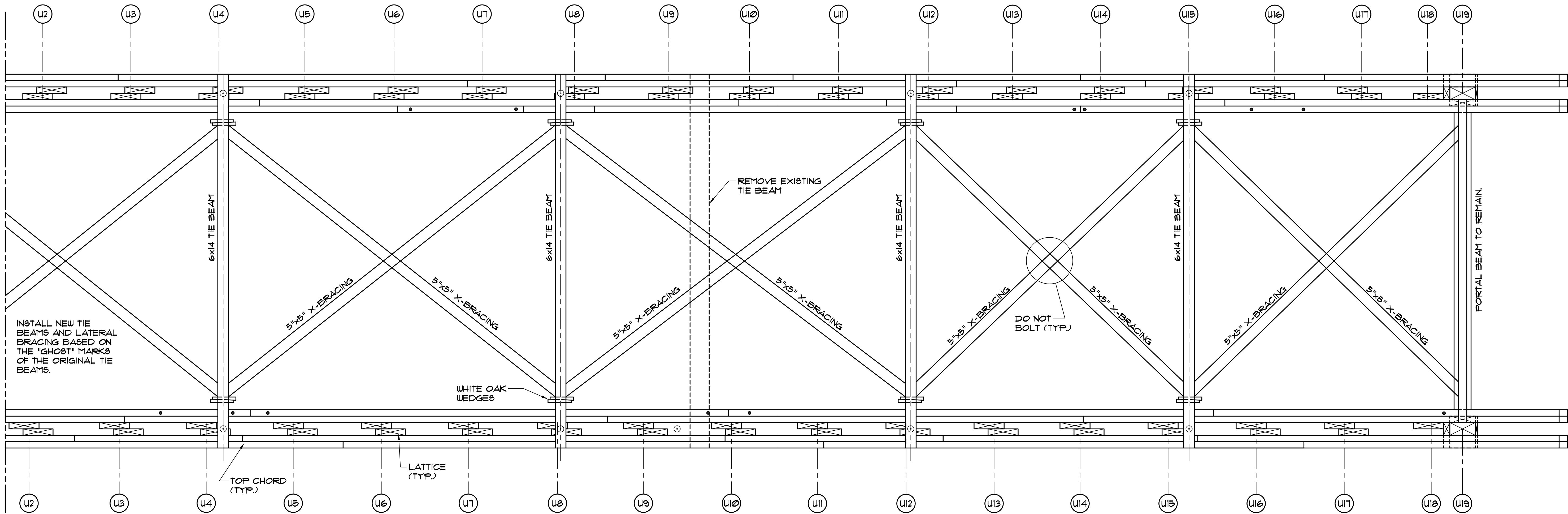
EXISTING BRIDGE PLANS

ITEM NUMBER
3-248.0

PREPARED BY DCF Engineering, Inc. PO Box 879 ■ 109 Brady Ct. ■ Cary, NC 27512-0879	SHEET NO. SR-8 DRAWING NO. 24366
---	--

LETTING DATE

CONSTRUCTION PROJECT NO.



INSTALL NEW TIE BEAMS AND LATERAL BRACING BASED ON THE "GHOST" MARKS OF THE ORIGINAL TIE BEAMS.

REMOVE EXISTING TIE BEAM

DO NOT BOLT (TYP.)

WHITE OAK WEDGES

TOP CHORD (TYP.)

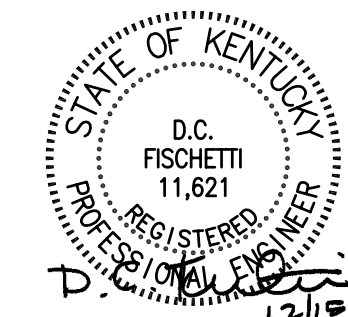
LATTICE (TYP.)

PORTAL BEAM TO REMAIN

PORTAL BEAM TO REMAIN

TOP CHORD TIE BEAMS AND LATERAL BRACING PLAN

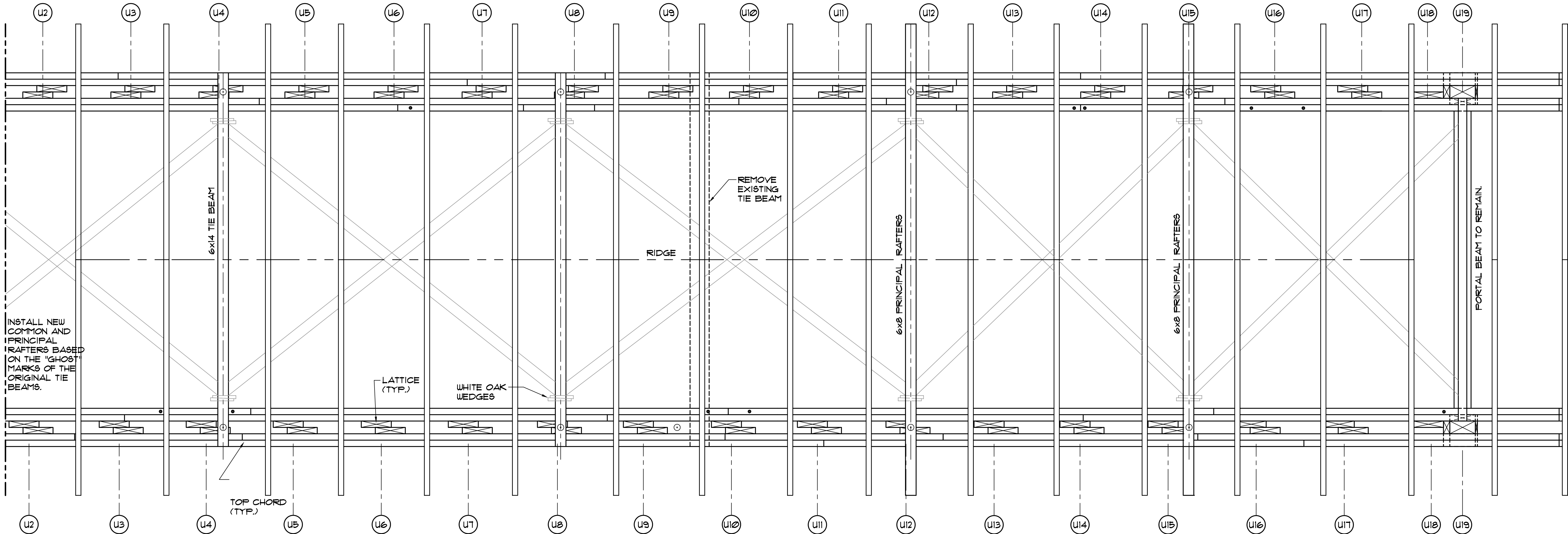
REPLACE THE UPPER LATERAL BRACING WITH SOUTHERN PINE, DOUGLAS FIR, OR WHITE OAK (CONTRACTOR'S OPTION).



03041A

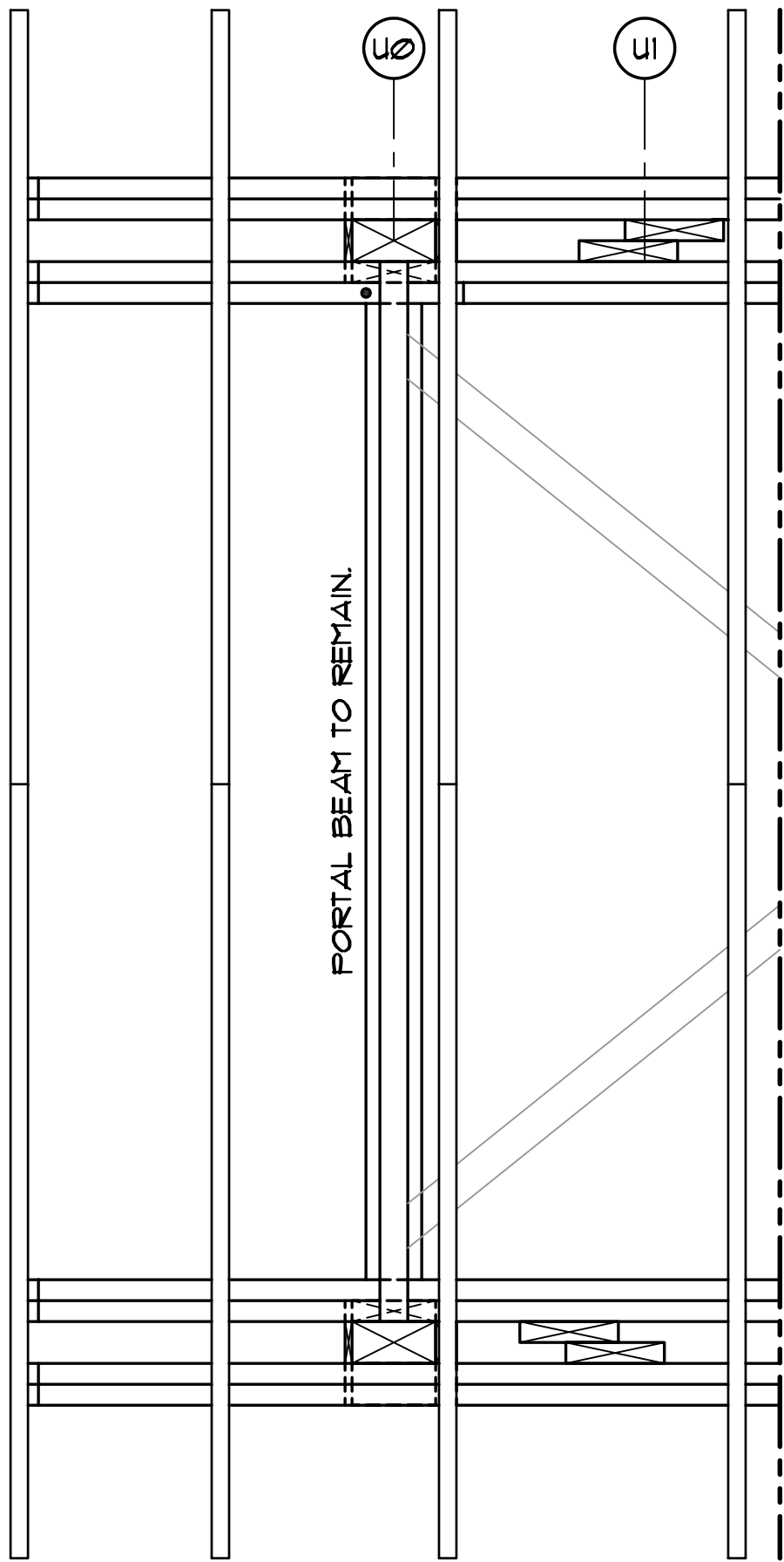
ITEM NUMBER
3-248.0

DATE: May 2005	CHECKED BY: DCF
DESIGNED BY: DCF	DCP
DETAILED BY: CG, DCF	DCP
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY FLEMING	
ROUTE	CROSSING Goddard Covered Bridge
BRIDGE PLANS	
PREPARED BY DCF Engineering, Inc.	
PO Box 879 ■ 109 Brady Ct. ■ Cary, NC 27512-0879	
SHEET NO. SR-9	DRAWING NO. 24366



ROOF FRAMING PLAN

SPACE THE COMMON RAFTERS AS REQUIRED TO AVOID CONFLICT WITH LATTICE EXTENSIONS.



PARTIAL ROOF FRAMING PLAN



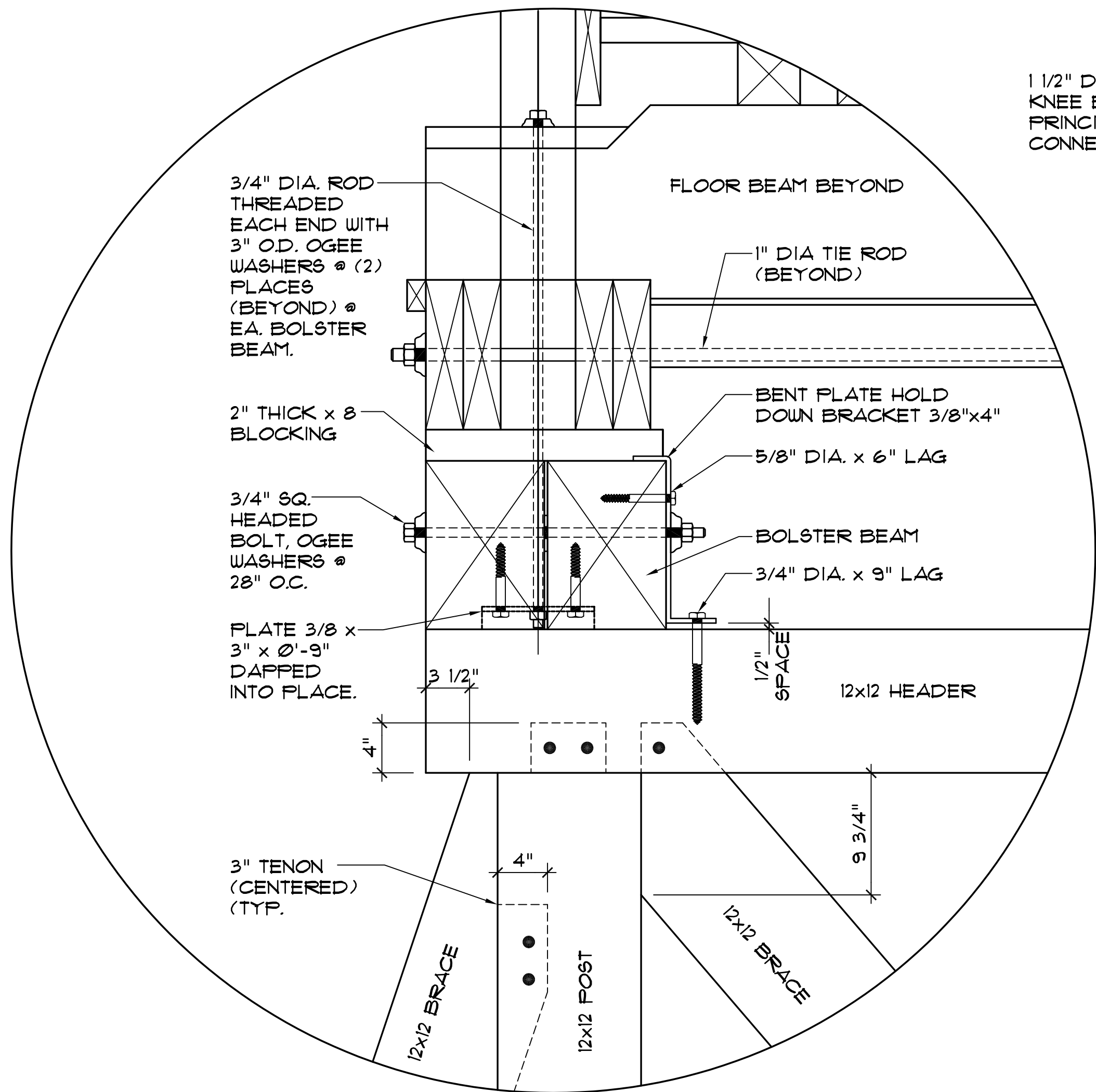
DATE:	May 2005	CHECKED BY:	DCF
DESIGNED BY:	DCF		DCF
DETAILED BY:	CG, DCF		DCF

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

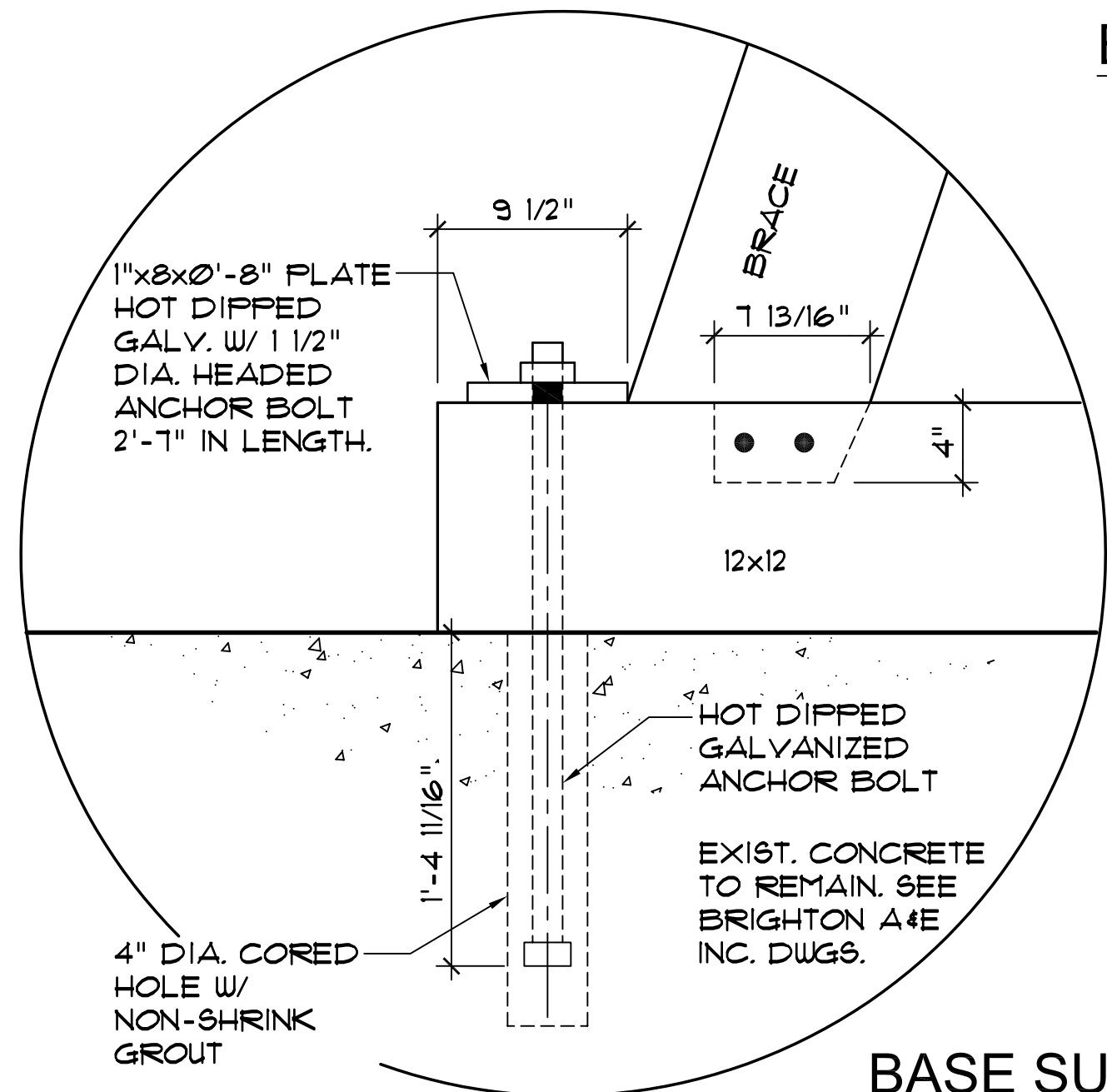
COUNTY		FLEMING
ROUTE	CROSSING Goddard Covered Bridge	
BRIDGE PLANS		

ITEM NUMBER
3-248.0

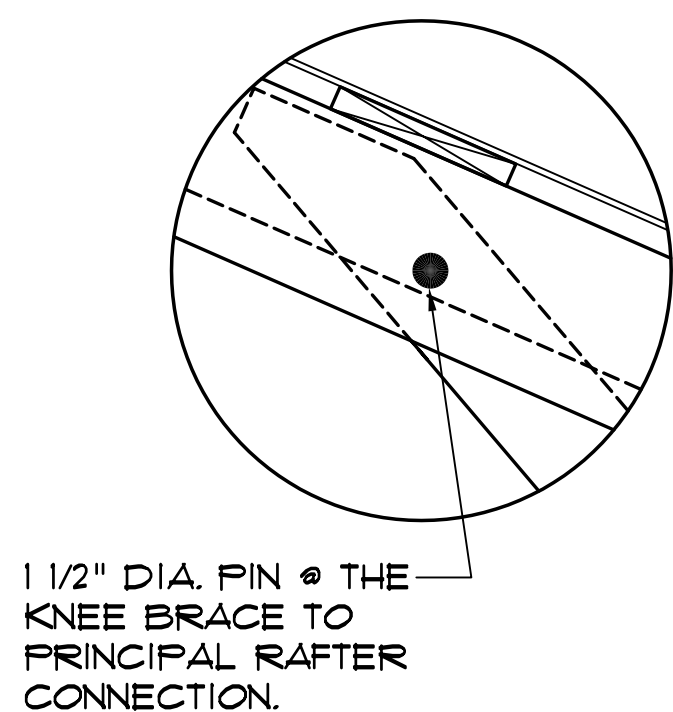
PREPARED BY	DCF Engineering, Inc.	SHEET NO.	SR-10
PO Box 879 ■ 109 Brady Ct. ■ Cary, NC 27512-0879		DRAWING NO.	24366



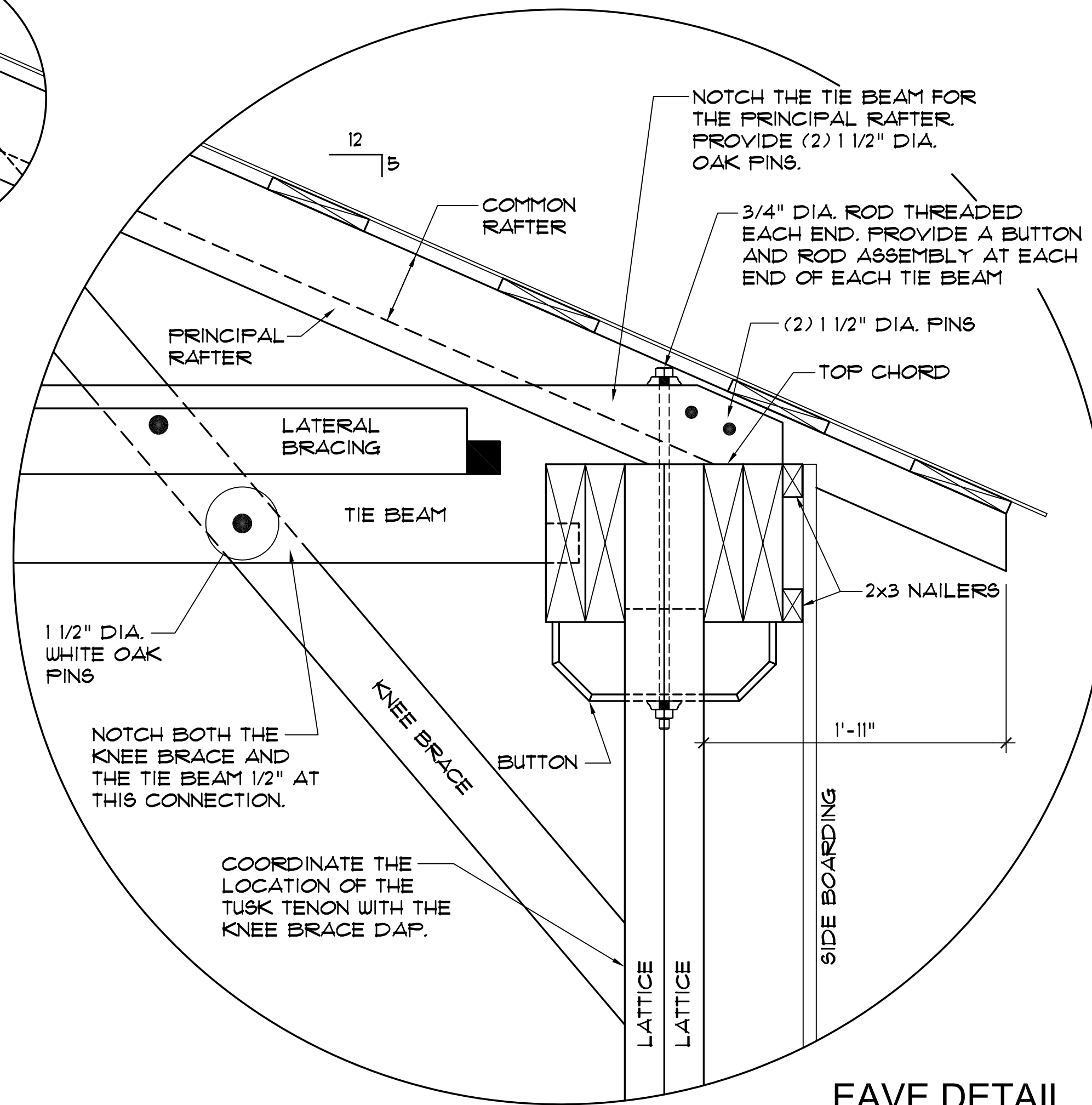
BENT, BOLSTER, TRUSS DETAIL



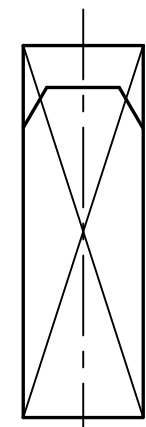
BASE SUPPORT @ BENT



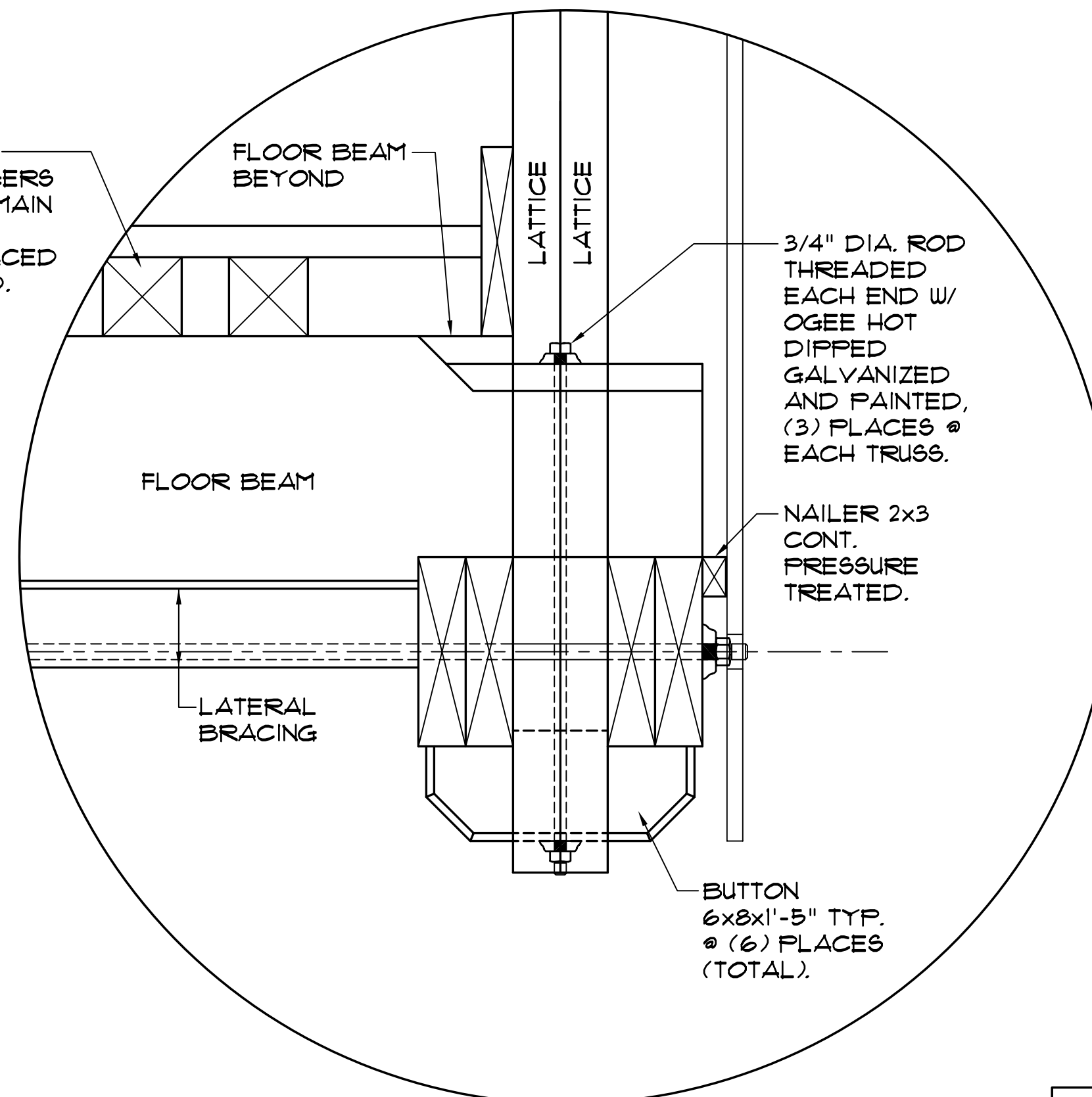
1 1/2" DIA. PIN @ THE KNEE BRACE TO PRINCIPAL RAFTER CONNECTION.



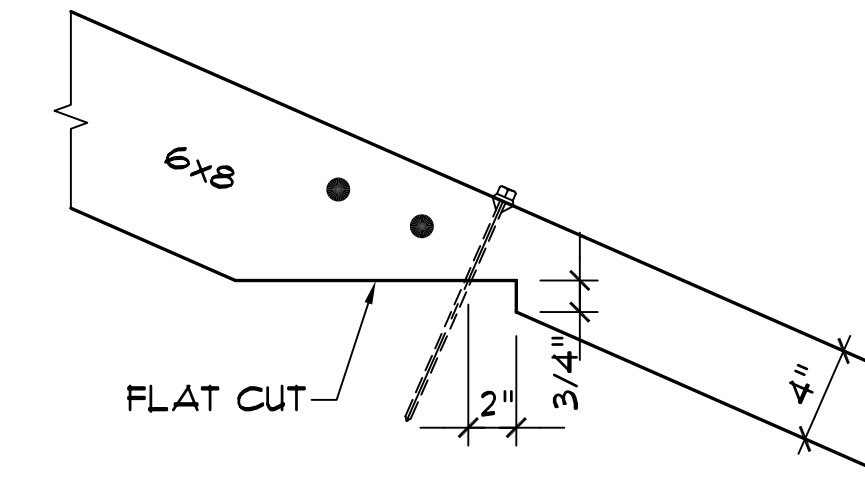
EAVE DETAIL



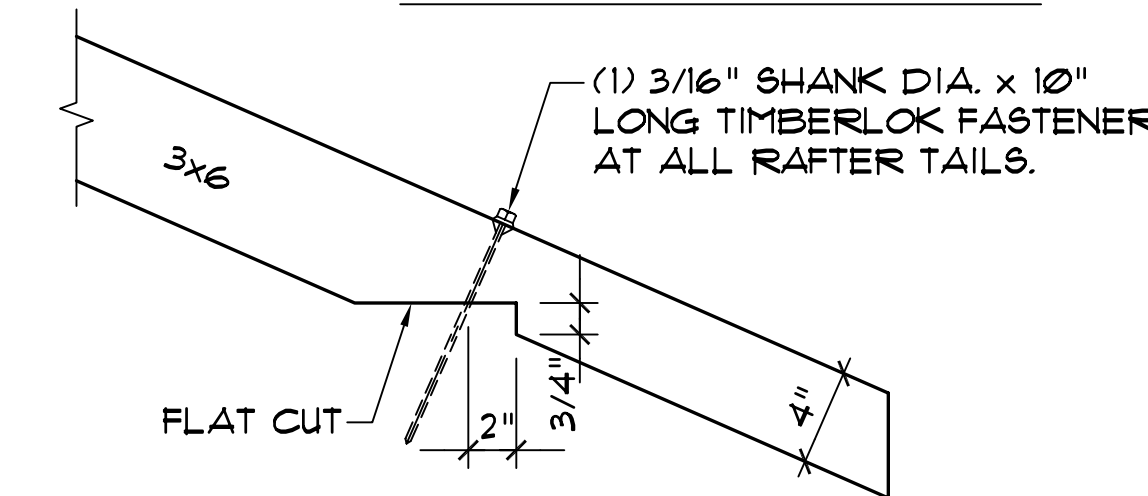
SECT @ FLOOR BEAM



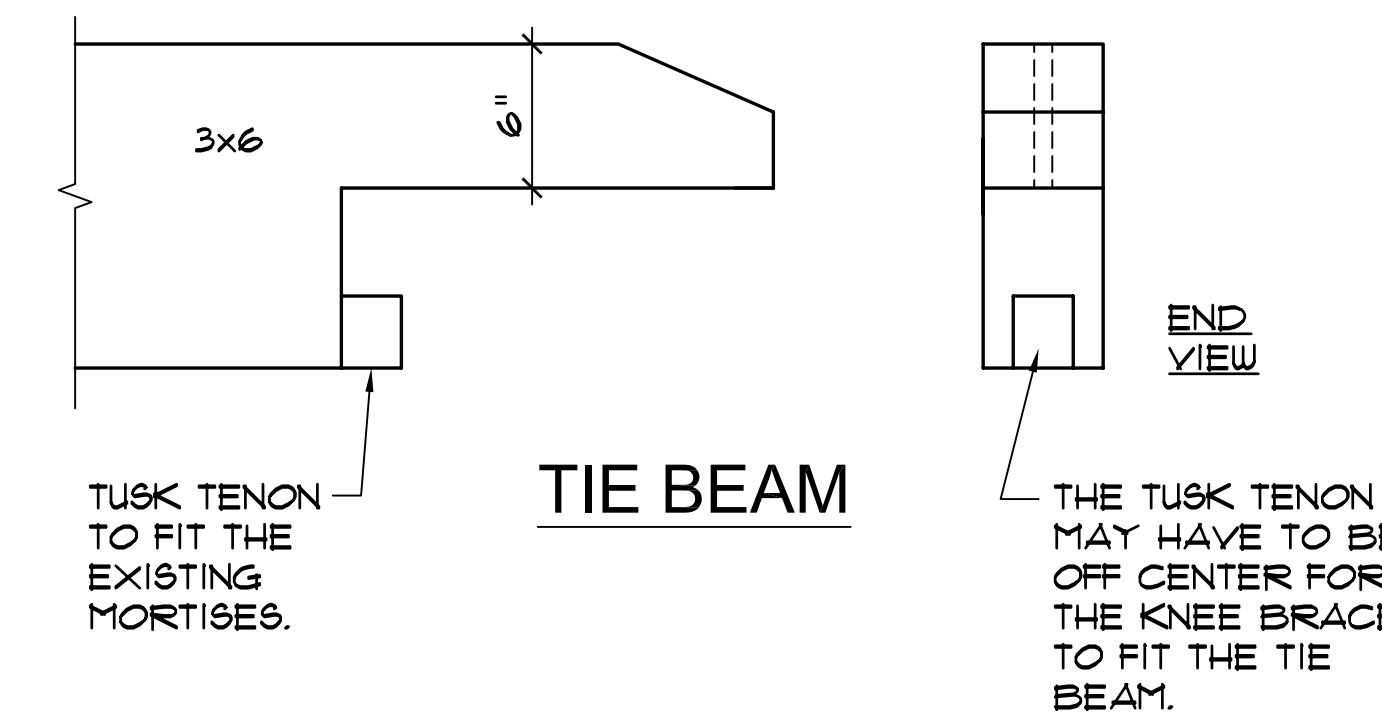
FLOOR TO TRUSS DETAIL



PRINCIPAL RAFTER



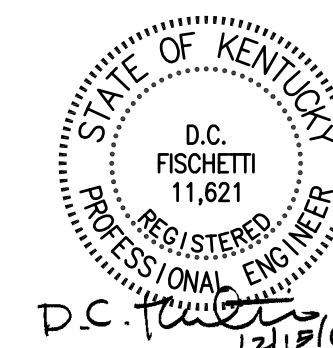
COMMON RAFTER



TIE BEAM

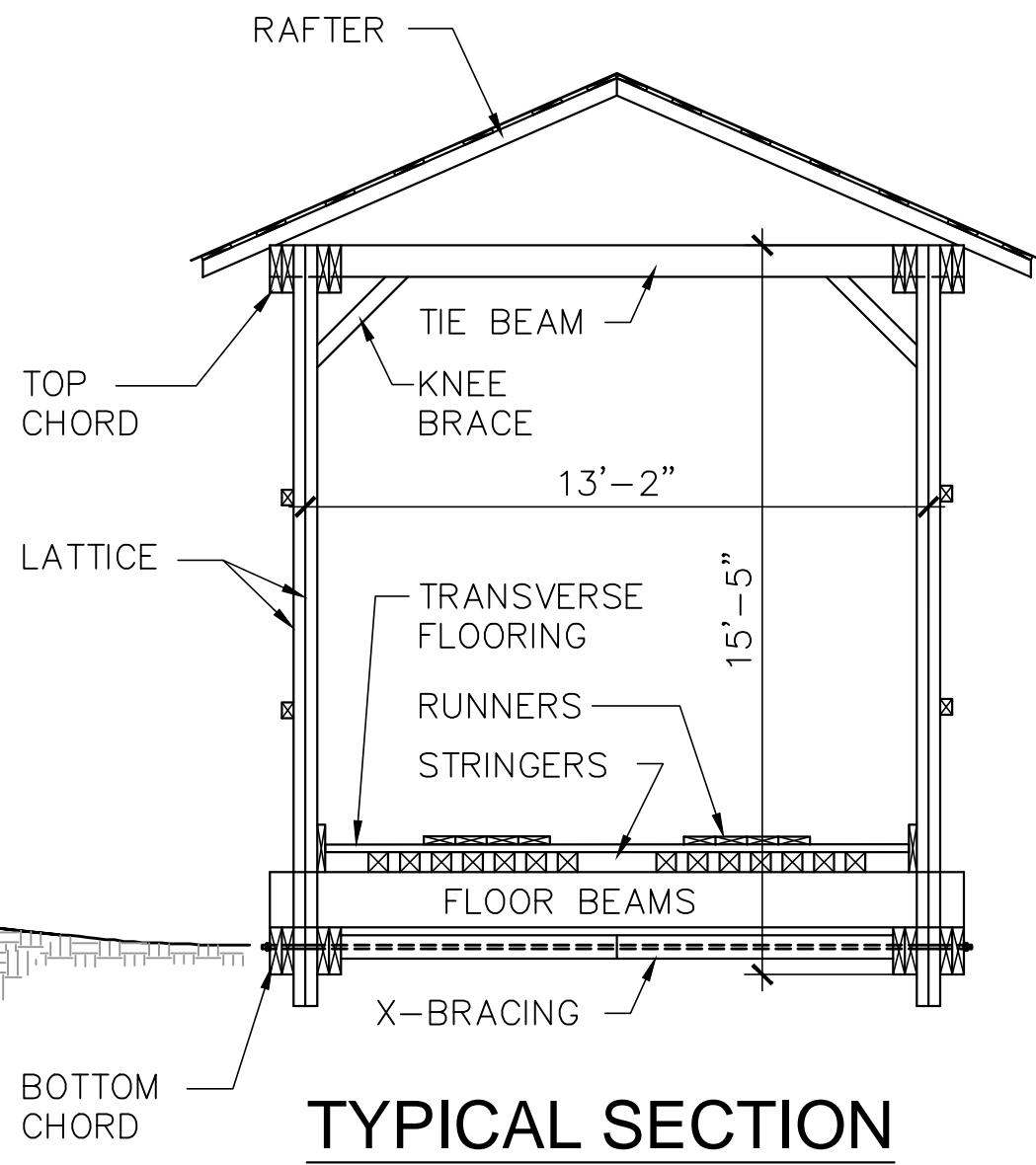
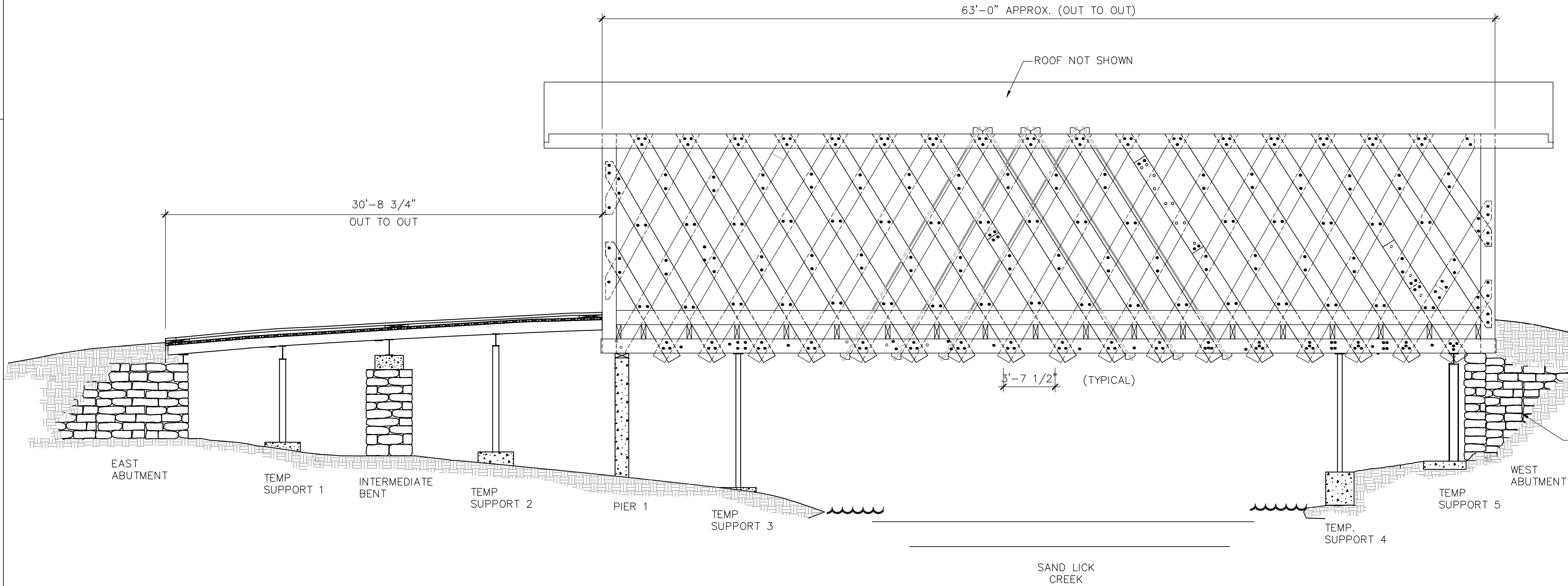
THE BASE DRAWINGS USED TO PRODUCE THESE CONSTRUCTION DRAWINGS WERE PREPARED BY BRIGHTON A&E INC. OF FRANKFORT, KENTUCKY IN AUGUST, 1998

NOTE: Dimensions shown on the plans are for information and estimating purposes only. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to ordering material and construction.



03041A

DATE:	May 2005	CHECKED BY:	
DESIGNED BY:	DCF	DCF	
DETAILED BY:	CG, DCF	DCF	
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY FLEMING			
ROUTE	CROSSING Goddard Covered Bridge		
DETAILS			
PREPARED BY DCF Engineering, Inc.			SHEET NO. SR-1
PO Box 879 ■ 109 Brady Ct. ■ Cary, NC 27512-0879			DRAWING NO. 2436

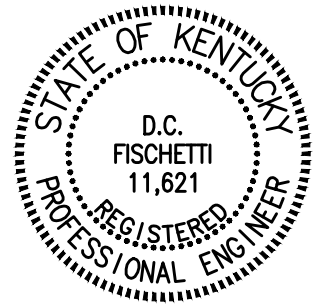


REMOVE AND REPLACE WEST ABUTMENT (SEE OTHER SHEETS FOR DETAILS).

EXISTING BRIDGE ELEVATION

THE BASE DRAWINGS USED TO PRODUCE THESE CONSTRUCTION DRAWINGS WERE PREPARED BY BRIGHTON A&E INC. OF FRANKFORT, KENTUCKY IN AUGUST, 1998

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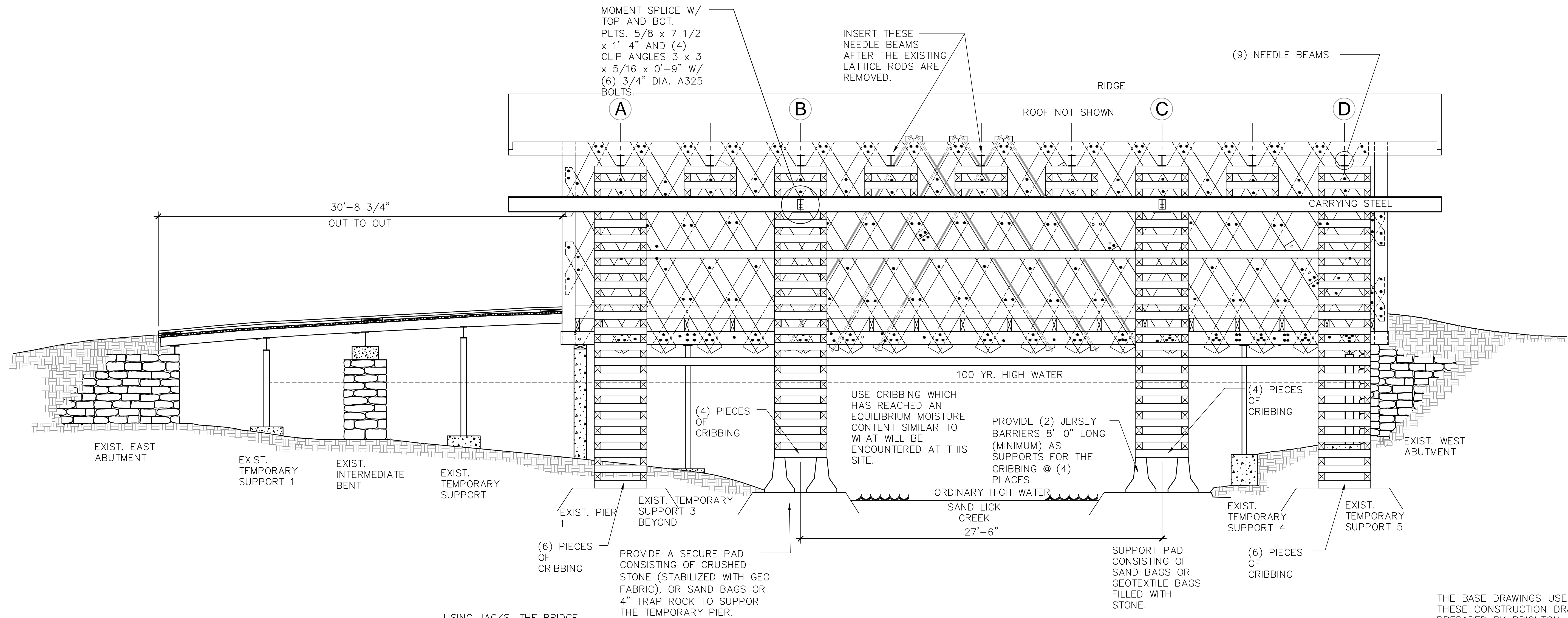
DATE:	December 2004	CHECKED BY:	
DESIGNED BY:	DCF	DCP	
DETAILED BY:	CG, DCF	DCP	

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY	
FLEMING	
ROUTE	CROSSING
	Goddard Covered Bridge
EXISTING BRIDGE ELEVATION	

ITEM NUMBER
3-248.0

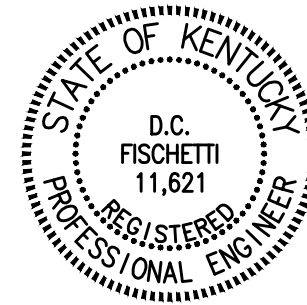
PREPARED BY	SHEET NO.
DCF Engineering, Inc.	TS-1
PO Box 879 ■ 109 Brady Ct. ■ Cary, NC 27512-0879	DRAWING NO.
	24366



EXISTING BRIDGE ELEVATION WITH TEMPORARY SHORING

USING JACKS, THE BRIDGE
CAN BE LIFTED AT ITS
SUPPORTS AND ALSO LIFTED
THRU THE USE OF
HYDRAULIC JACKS PLACED
BETWEEN THE TOP OF THE
CRIBBING AND THE
UNDERSIDE OF THE MAIN
TEMPORARY (LONGITUDINAL)
SUPPORT STEEL.

NOTE: Dimensions shown on the plans are for information and
estimating purposes only. It shall be the responsibility of the
Contractor to verify all dimensions and conditions existing in
the field prior to ordering material and construction.



DATE:	December 2004	CHECKED BY:	
DESIGNED BY:	DCF		DCF
DETAILED BY:	CG, DCF		DCF

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

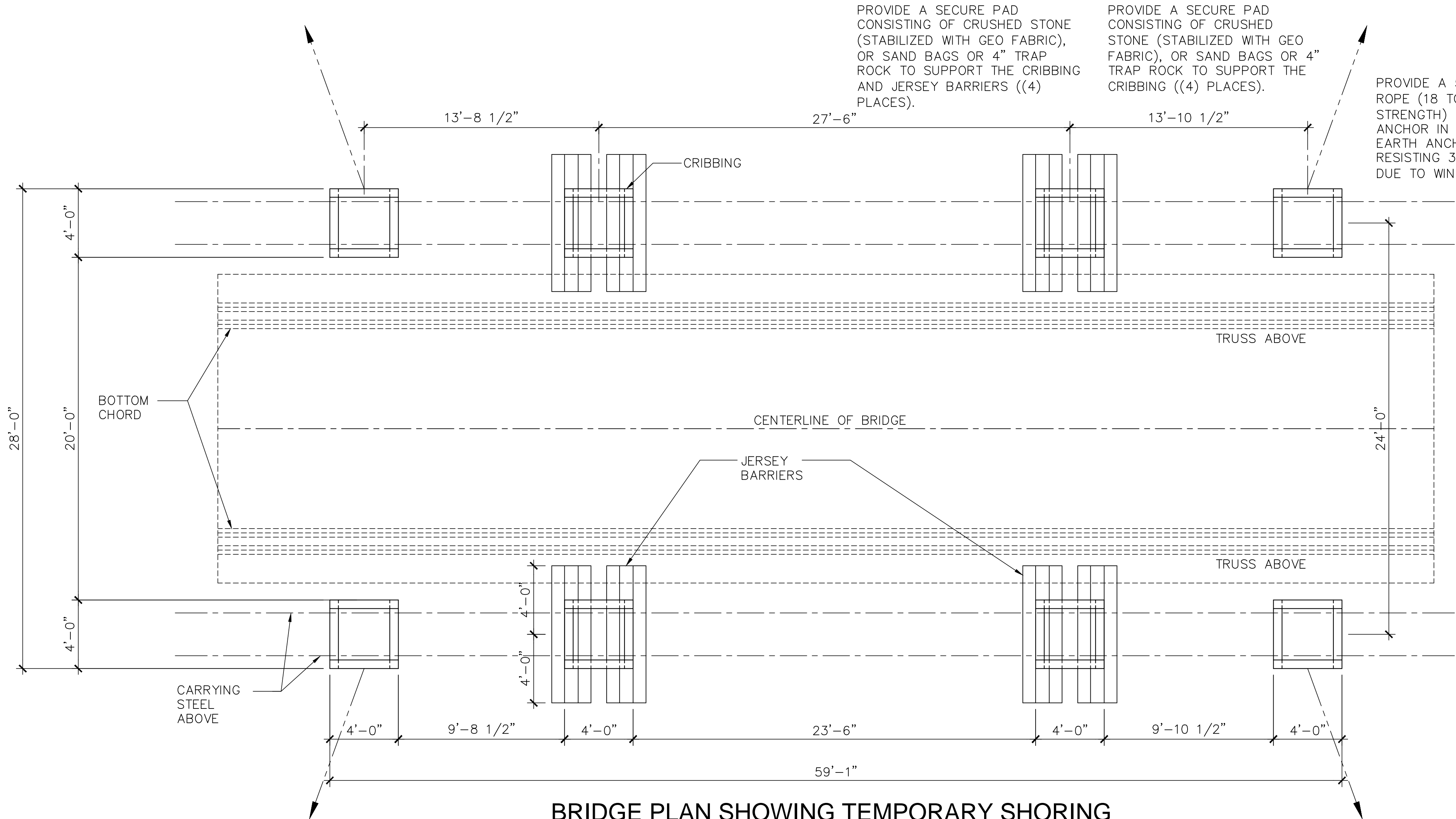
COUNTY		FLEMING
ROUTE	CROSSING	Goddard Covered Bridge
		TEMPORARY SHORING

PREPARED BY	DCF Engineering, Inc.	SHEET NO.	TS-2
PO Box 879 ■ 109 Brady Ct. ■ Cary, NC 27512-0879		DRAWING NO.	24366

ITEM NUMBER
3-248.0

LETTING DATE

CONSTRUCTION PROJECT NO.



BRIDGE PLAN SHOWING TEMPORARY SHORING

NOTES FOR THE TEMPORARY TIEDOWN EARTH ANCHORS

HOLDING CAPACITY WITHOUT GROUT= 29 TO 41 KIPS AT 16.4 FT. DEPTH IN MEDIUM DENSE SANDY GRAVEL OR VERY STIFF TO HARD SILTS AND CLAYS WITH BLOW COUNT (N) = 24-40
PILOT HOLE DIAMETER= 6 IN. ONLY WHEN REQUIRED IN VERY HARD SOILS.

FORESIGHT PRODUCTS, LLC
6430 EAST 49TH DRIVE
COMMERCE CITY, CO 80022 USA
PHONE: (303) 286-8955
FAX: (303) 287-3866
WWW.EARTHANCHOR.COM

SEE OTHER REQUIREMENTS, THIS SHEET.

DESCRIPTION: IMPACT, TRACK DRILL, OR VIBRATION DRIVEN SOIL ANCHOR.

ANCHOR WIDTH= 7"

ANCHOR LENGTH= 21.0"

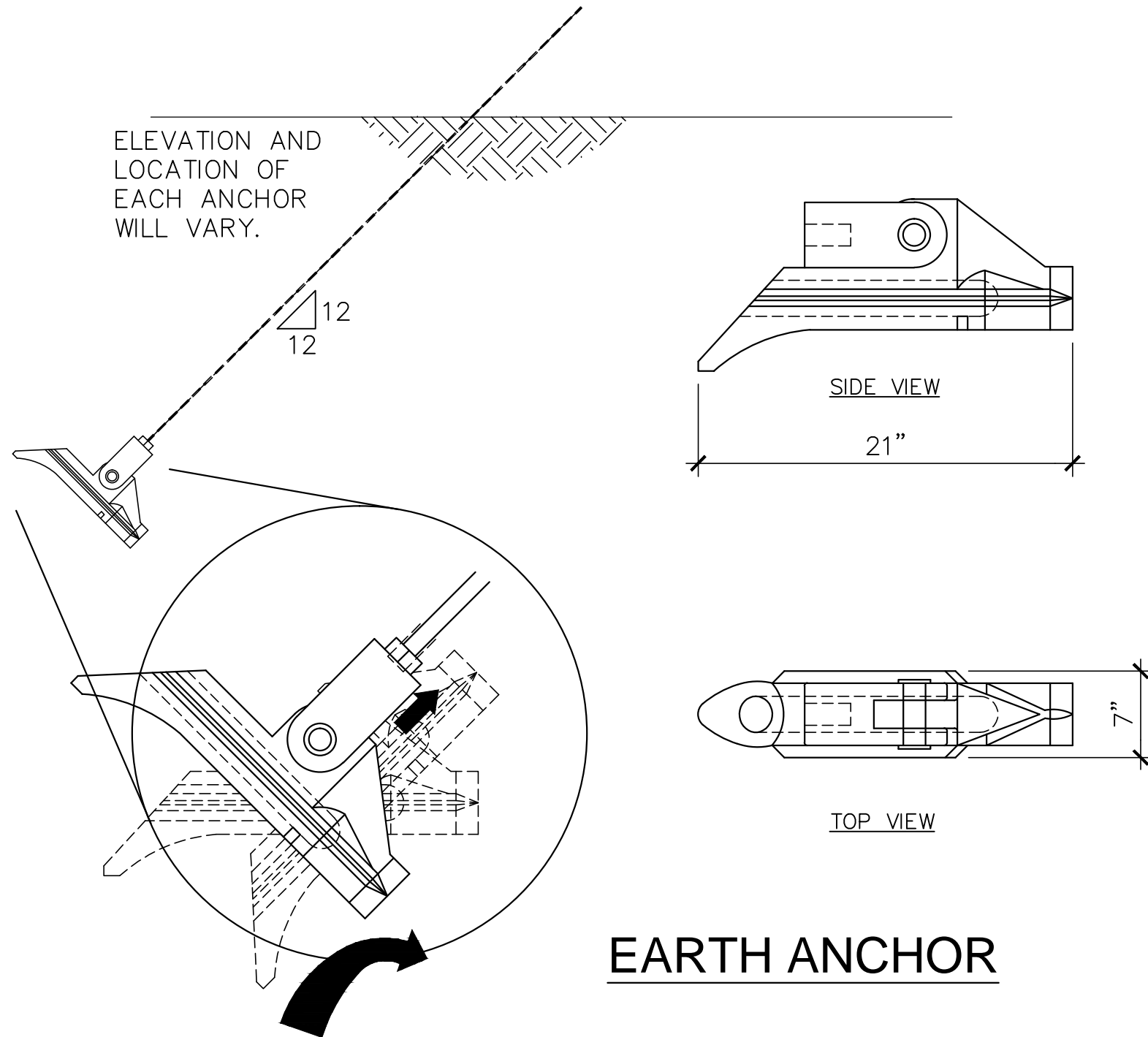
BEARING AREA= 115 SQ. INCHES

ANCHOR WEIGHT: 47 LBS

ANCHOR RODS: SCR-10 SOLID CORE ROD (OTHERS MAY BE AVAILABLE, CONSULT FORESIGHT).

INSTALLATION DEPTH= 15 TO 50 FT.

YIELD STRENGTH= 75 KIPS
ULTIMATE STRENGTH= 100 KIPS
WORKING LOAD= UP TO 66 KIPS



EARTH ANCHOR

REQUIREMENTS FOR TEMPORARY TIEDOWN EARTH ANCHORS

1. SOILS INVESTIGATION REPORT

A FOUNDATION ANALYSIS REPORT SHALL BE PROVIDED. THE FOUNDATION ANALYSIS REPORT SHALL INCLUDE RECOMMENDED SOILS ENGINEERING CRITERIA WHICH WILL ENABLE THE STRUCTURAL ENGINEER TO VERIFY THE SIZE, DEPTH, LOCATION, AND CAPACITY OF THE EARTH ANCHORS, AND ASSIST THE CONTRACTOR TO SELECT A SATISFACTORY METHOD OF INSTALLATION.

2. ANCHOR INSTALLATION

A. IT IS SUGGESTED THAT THE INSTALLER CONTACT FORESIGHT PRODUCTS ENGINEERING DEPARTMENT AT 1-800-325-5360 FOR INSTALLATION RECOMMENDATIONS.

B. THE INDEPENDENT TESTING LABORATORY, SHALL VERIFY THAT THE SIZE, DEPTH AND LOCATION OF EACH INSTALLED ANCHOR COMPLIES WITH THE APPROVED PLANS. A LOG OF DEPTH READINGS FOR EACH ANCHOR SHALL BE AVAILABLE FOR THE STRUCTURAL ENGINEER. THIS SHALL NOT WAIVE INSPECTIONS BY THE LOCAL BUILDING INSPECTOR WHICH MAY BE REQUIRED.

C. THE INDEPENDENT TESTING LABORATORY SHALL POST WRITTEN CERTIFICATION AT THE JOB SITE STATING THAT THE SOIL CONDITIONS ENCOUNTERED AT EACH ANCHOR IS IN CONFORMANCE WITH THE CONDITIONS REQUIRED BY THE GEOTECHNICAL REPORT FOR PROPER INSTALLATION.

D. ANCHORS SHALL BE INSTALLED AT THE LOCATIONS AND ANGLES SHOWN ON THE PROJECT PLANS.

E. ALL ANCHORS SHALL MEET THE MINIMUM EMBEDMENT LENGTH (ALONG THE AXIS OF THE ANCHOR ROD) SPECIFIED ON THE PROJECT PLANS AFTER THE PROOF TEST AS SPECIFIED BELOW. IT SHALL BE THE RESPONSIBILITY OF THE INSTALLER TO DRIVE THE ANCHORS TO A SUFFICIENT DEPTH PRIOR TO PROOF TESTING SUCH THAT THE ANCHORS WILL MEET THIS MINIMUM EMBEDMENT LENGTH AFTER THE PROOF TEST.

F. ALL ANCHORS SHALL BE PROOF TESTED ALONG THE AXIS OF THE ANCHOR ROD TO THE MINIMUM PROOF TEST SPECIFIED ON THE PROJECT PLANS. THE PROOF TEST LOAD SHALL BE HELD FOR A PERIOD OF ONE MINUTE DURING WHICH TIME THE MOVEMENT OF THE ANCHOR SHALL NOT EXCEED 1/2 INCH.

G. THE INSTALLER MUST KEEP A RECORD OF INSTALLATION AND TEST FOR EACH ANCHOR THAT RECORDS THE ANCHOR SPECIFICS (ANCHOR AND ROD MODEL, INSTALLATION ANGLE), PROOF TEST RESULTS, FINAL EMBEDMENT LENGTH.

H. THE PROOF TESTING DEVICE SHALL HAVE BEEN CALIBRATED OR "LOAD VERIFIED" WITHIN THE PAST 1 YEAR. IT SHALL BE THE RESPONSIBILITY OF THE INSTALLER TO SUPPLY THE CALIBRATION OR LOAD VERIFICATION CERTIFICATE.

I. THE INSTALLER MAY SUBSTITUTE A DIFFERENT SIZE ANCHOR HEAD AS IS APPROPRIATE FOR SOIL CONDITIONS PROVIDED THAT ALL OF THE ABOVE CRITERIA ARE MET.

3. ANCHOR MATERIAL

A. EARTH ANCHORS SHALL BE AS MANUFACTURED BY FORESIGHT PRODUCTS, LLC OF COMMERCE CITY, CO. THE ANCHOR TO BE USED SHALL BE THE STINGRAY MODEL, SR-1 HEAVY-DUTY EARTH ANCHOR THAT CAN RESIST UP TO 66 KIPS OF PULL-OUT FORCE.

CONTACT:

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2831 CARDWELL RD.
RICHMOND, VA 23234
(804) 330-5641
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INSTALLED WITH A JACK-HAMMER OR OTHER PNEUMATIC DRIVER, STINGRAY ANCHORS SHALL BE LOCKED AND TESTED ON-SITE TO MEET REQUIRED DESIGN LOAD.

B. THE ANCHOR MATERIAL IS MANUFACTURED OF MILD STEEL OR HIGH TENSILE STEEL. FOR STEEL WITH AN FY GREATER THAN 36,000 PSI, THE MANUFACTURER SHALL FURNISH A CERTIFICATION OF THE MATERIAL PROPERTIES.

C. ATTACHMENT HARDWARE CONSISTING OF WASHERS, BEVELED WASHERS, STEEL PLATES AND NUTS OR EYENUTS SHALL BE COMPATIBLE WITH THE ANCHOR RODS IN TERMS OF FIT, FUNCTION AND STRENGTH.

D. BOTH THE ROD AND THE NUT ARE TO BE FREE OF MILL SCALE.

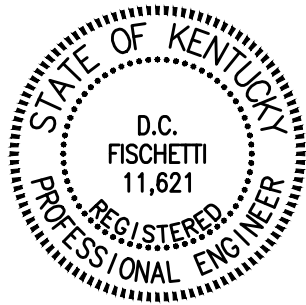
E. MINIMUM ULTIMATE TENSILE STRENGTH OF THE ANCHOR AND ITS COMPONENTS (INCLUDING THE ANCHORED AND ATTACHMENT HARDWARE) SHALL BE 100 KIPS.

F. ALL COMPONENTS OF THE EARTH ANCHOR SHALL BE HOT DIP GALVANIZED PER ASTM A-123 / ASTM A-153.

G. ANCHOR RODS SHALL BE 1 3/4" DIAMETER, ASTM A-615 GRADE 75, HOT DIPPED GALVANIZED PER ASTM A-153.

THE BASE DRAWINGS USED TO PRODUCE THESE CONSTRUCTION DRAWINGS WERE PREPARED BY BRIGHTON A&E INC. OF FRANKFORT, KENTUCKY IN AUGUST, 1998

NOTE: Dimensions shown on the plans are for information and estimating purposes only. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to ordering material and construction.



03041.A

DATE:	December 2004	CHECKED BY:	
DESIGNED BY:	DCF		DCF
DETAILED BY:	CG, DCF		DCF
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY FLEMING			
ROUTE	CROSSING		
CR31110	Goddard Covered Bridge		
BRIDGE PLAN			
PREPARED BY			SHEET NO.
DCF Engineering, Inc.			TS-3
PO Box 879 ■ 109 Brady Ct. ■ Cary, NC 27512-0879			DRAWING NO. 24366

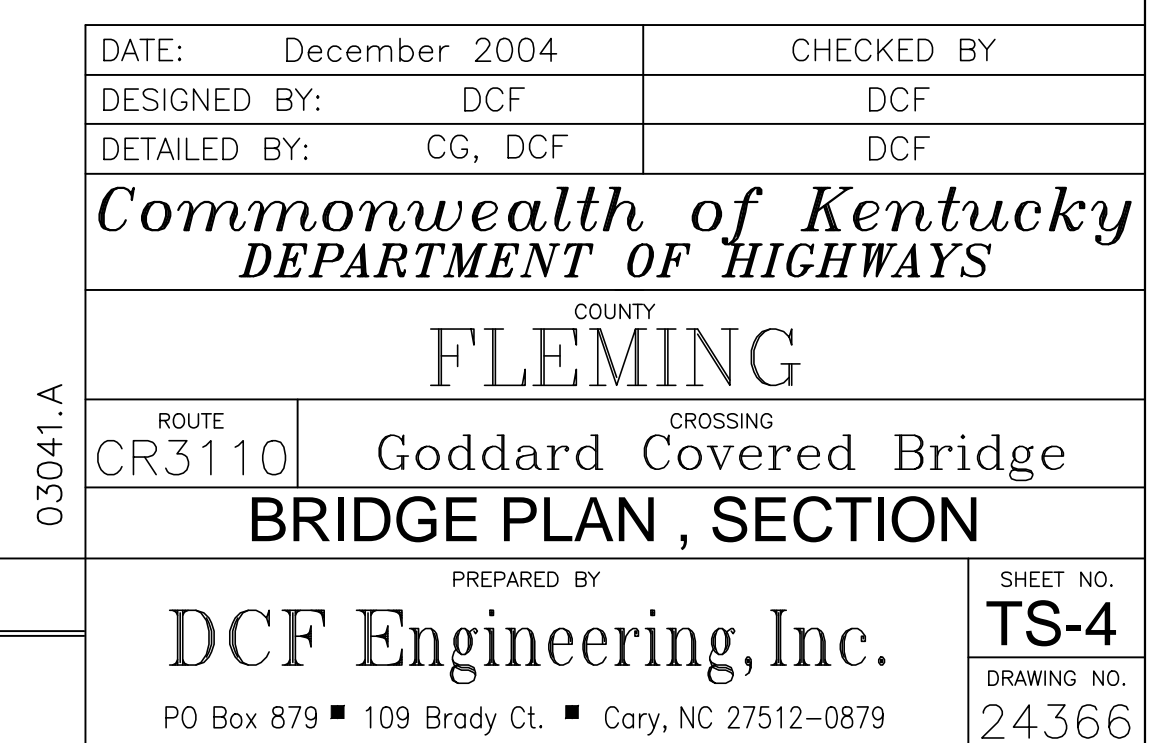
ITEM NUMBER
3-248.0



1. WIDE FLANGE SHAPES SHALL BE ASTM A992, Fy=50 ksi (NEW STEEL).
2. TIMBER CRIBBING SHALL BE NO. 1 (OR BETTER) EASTERN WHITE SPRUCE .
3. WIRE ROPE SHALL BE 1/2 INCH (NOMINAL) DIA. CLASS A ZINC COATED.



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