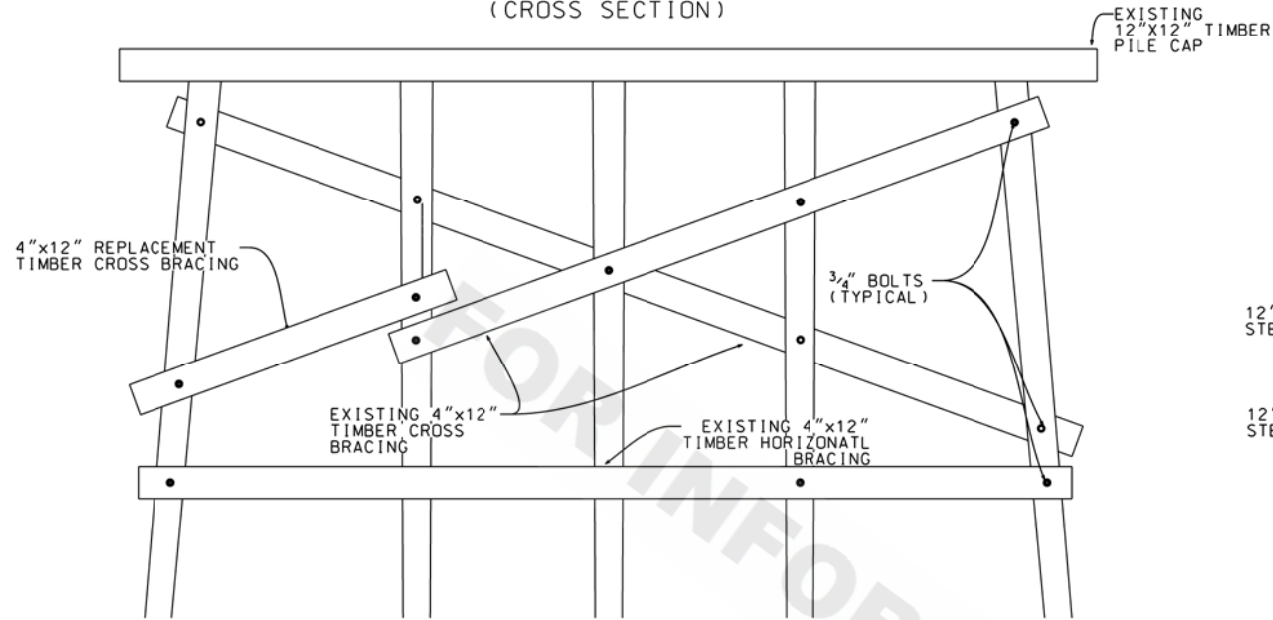


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8/20/2018

Bridge Repair Sheet 01.dgn

REPAIR OF TIMBER CROSS BRACING (CROSS SECTION)



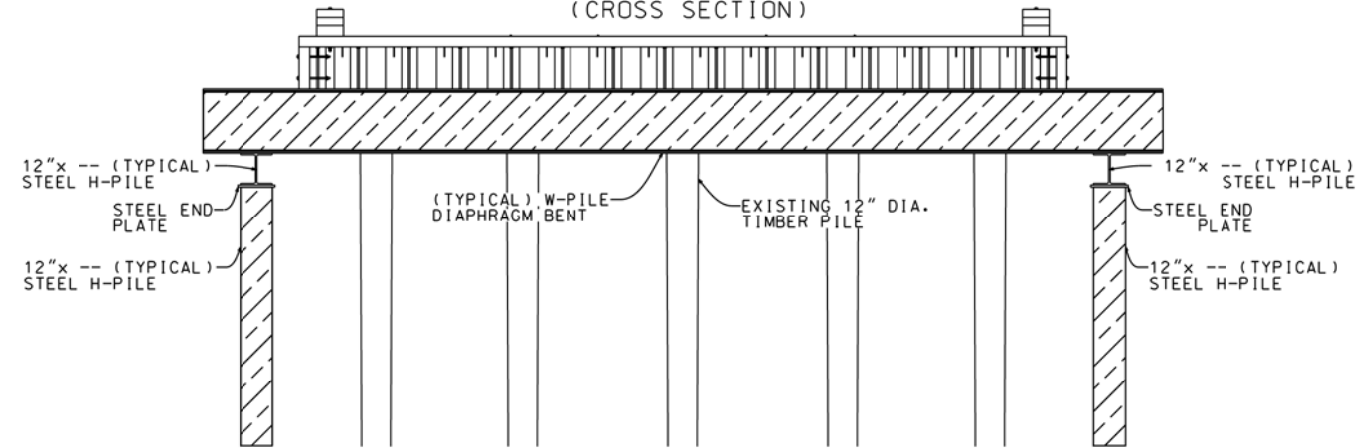
STRUCTURE NOTES:

FASTENERS SHOULD BE GALVANIZED NUT AND BOLTS AND REPLACEMENT TIMBER SIZE SHOULD BE SIMILAR, IF NOT, IDENTICAL IN SIZE.

TIMBER CROSS BRACING SHOULD UTILIZE BOLT, WASHERS, AND NUT FASTENERS TO ALLOW FOR THE DEVELOPMENT OF A PIN CONNECTION THAT IS SUBJECTED TO MINIMAL ECCENTRIC LOADING.

CONNECTIONS TO PILES SHOULD BE MADE IN A MANNER THE PREVENTS SPLITTING BETWEEN THE NEW AND EXISTING FASTENER HOLES.

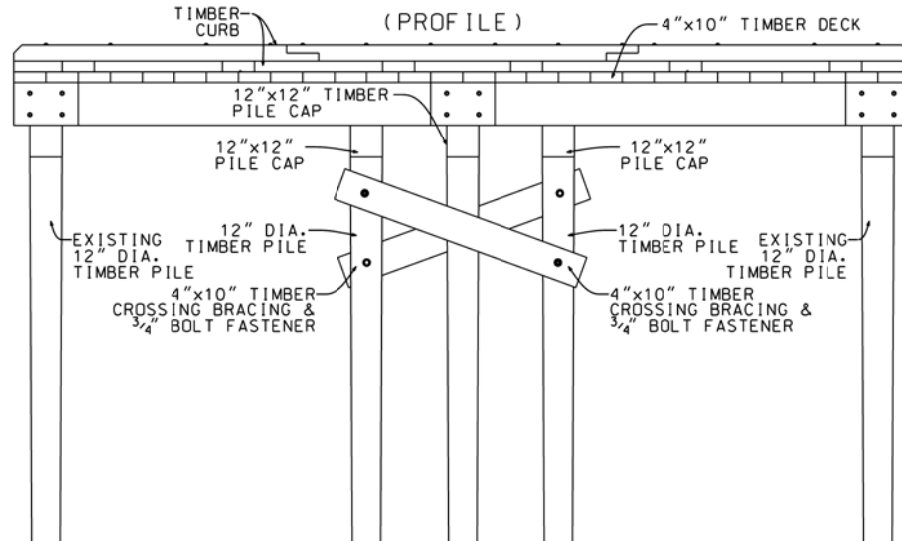
INTERMEDIATE HELPER BENT WITH CORBEL DIAPHRAGM (CROSS SECTION)



STRUCTURE NOTES:

REPLACEMENT DIAPHRAGM BENT SHOULD BE DESIGNED AS A FLEXURAL MEMBER WITH SPECIFIC CONSIDERATION GIVEN TO DEFLECTIONS AND LOADING.

INTERMEDIATE HELPER BENT W/ CROSS BRACING (PROFILE)



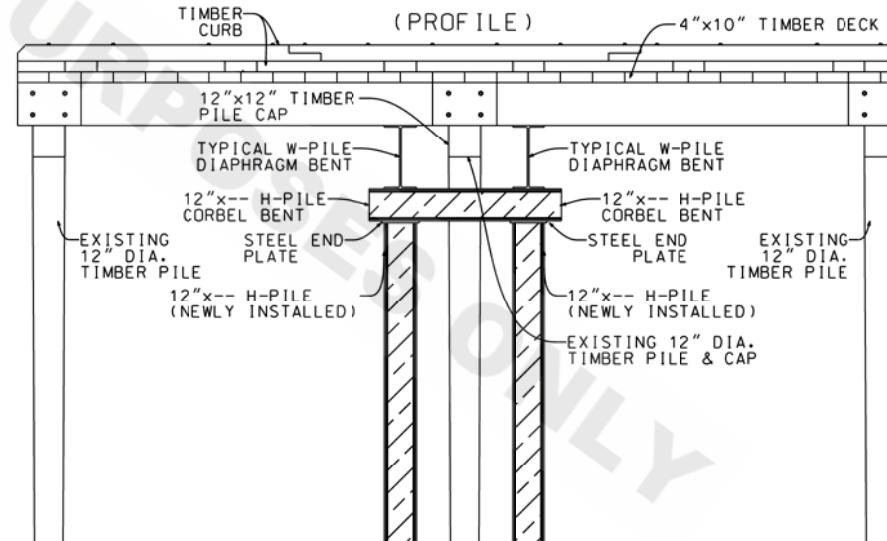
STRUCTURE NOTES:

FASTENERS SHOULD BE GALVANIZED NUT AND BOLTS AND REPLACEMENT TIMBER SIZE SHOULD BE SIMILAR, IF NOT, IDENTICAL IN SIZE.

TIMBER CROSS BRACING SHOULD UTILIZE BOLT, WASHERS, AND NUT FASTENERS TO ALLOW FOR THE DEVELOPMENT OF A PIN CONNECTION THAT IS SUBJECTED TO MINIMAL ECCENTRIC LOADING.

ANY LAG BOLT FASTENERS SHOULD ONLY BE EMPLOYED DURING THE INSTALLATION PROCESS TO FACILITATE INSTALLATION OF NUT AND BOLT FASTENERS.


INTERMEDIATE HELPER BENT WITH CORBEL DIAPHRAGM (PROFILE)



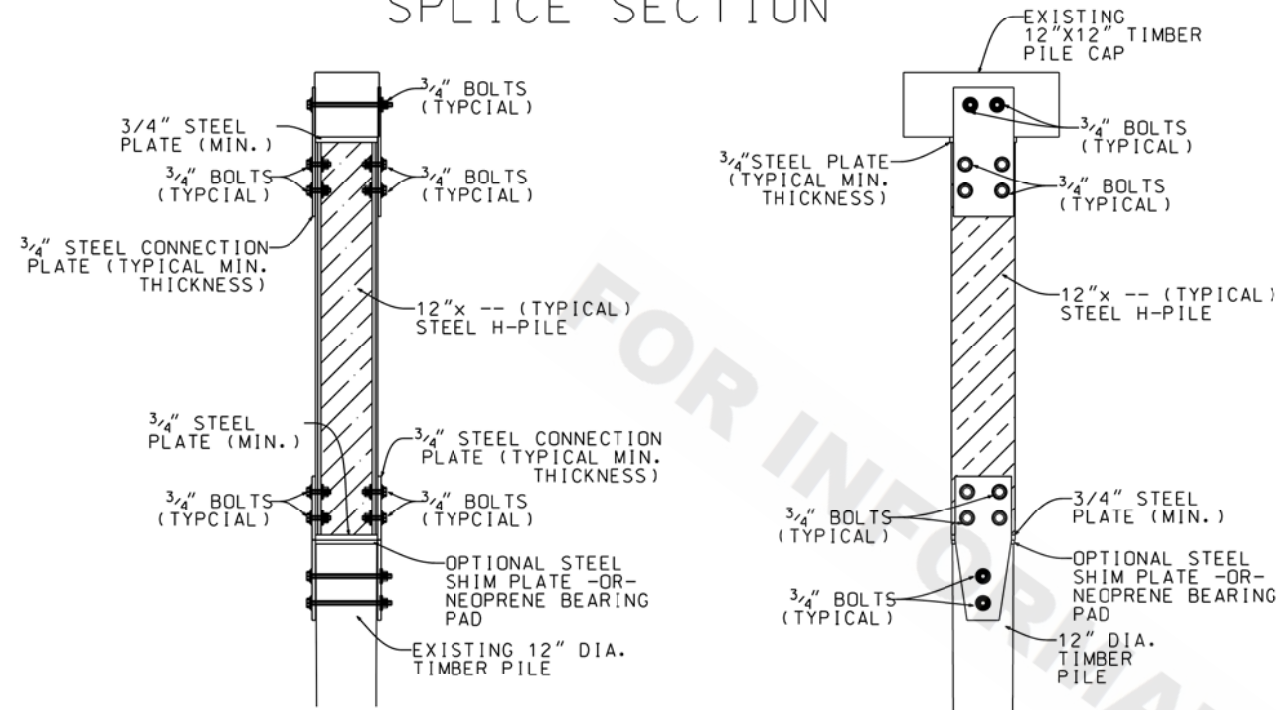
STRUCTURE NOTES:

STEEL SECTIONS UTILIZE WELDED CONNECTIONS BETWEEN ALL STEEL COMPONENTS ASSOCIATED WITH THIS REPAIR, ALTERNATIVELY BOTH FIELD AND SHOP WELDS MAY BE UTILIZED.

BOLTED CONNECTIONS MAY BE USED AND IS ENCOURAGED WHEN SHOP FABRICATION IS EMPLOYED FOR THE ASSEMBLY OF COMPLEX CONNECTIONS.

SHEET NUMBER	001
PARISH	N/A
RECALL NUMBER	N/A
STATE PROJECT	N/A
DESIGNED	
CHECKED	
DETAILED	
CHECKED	
REVIEWED	
SERIES #	
BY	
DATE	
NO.	
REVISION OR CHANGE ORDER DESCRIPTION	
	
BRIDGE REPAIR DETAILS LATERAL/HELPER BRACING SHEET (1 OF 6)	
DOTD DOTD BRIDGE MAIN	

TIMBER TO STEEL H-PILE SPLICE SECTION

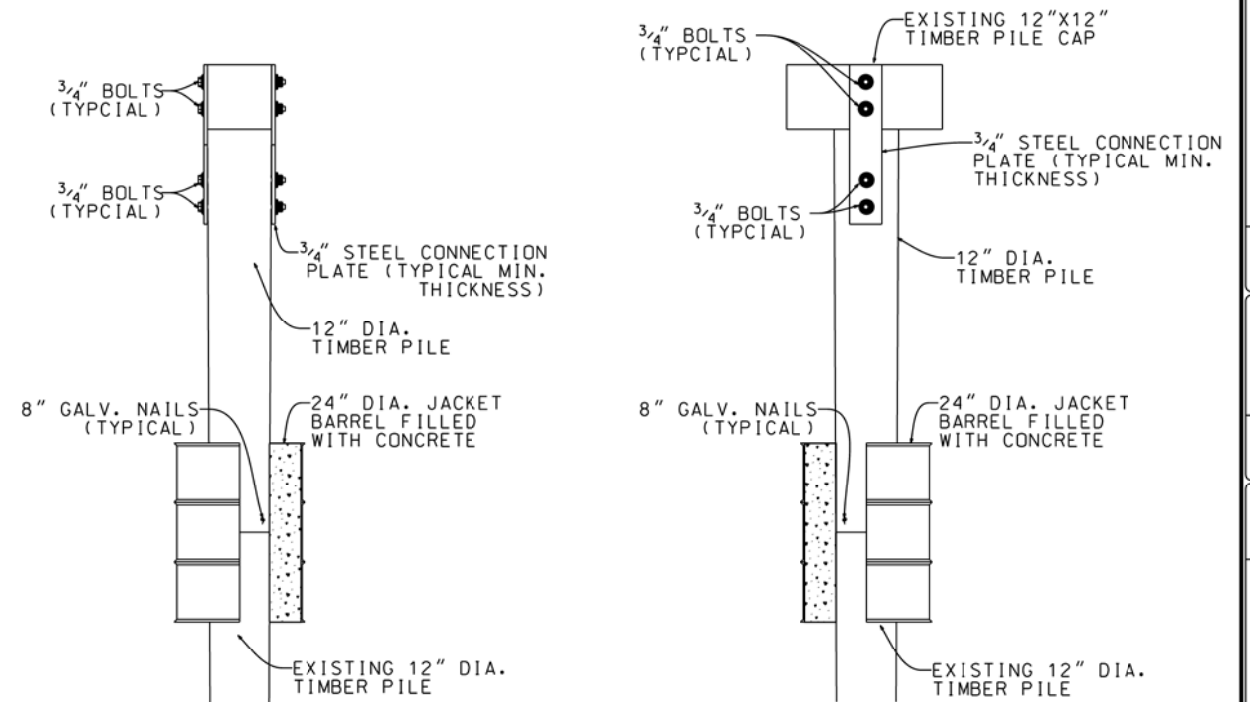


STRUCTURE NOTES:

STEEL PILE SECTIONS UTILIZE BOLTED CONNECTIONS BETWEEN ALL STEEL COMPONENTS ASSOCIATED WITH THIS REPAIR, ALTERNATIVELY BOTH FIELD AND SHOP HOLE DRILLING MAY BE UTILIZED.

BOLTED CONNECTIONS ARE ENCOURAGED WHEN SHOP FABRICATION IS EMPLOYED FOR THE ASSEMBLY OF COMPLEX CONNECTIONS. FASTENERS SHOULD BE GALVANIZED, AND REPLACEMENT TIMBER SIZE SHOULD BE SIMILAR, IF NOT, IDENTICAL IN SIZE. CONNECTIONS TO PILES SHOULD BE MADE IN A MANNER THAT PREVENTS SPLITTING

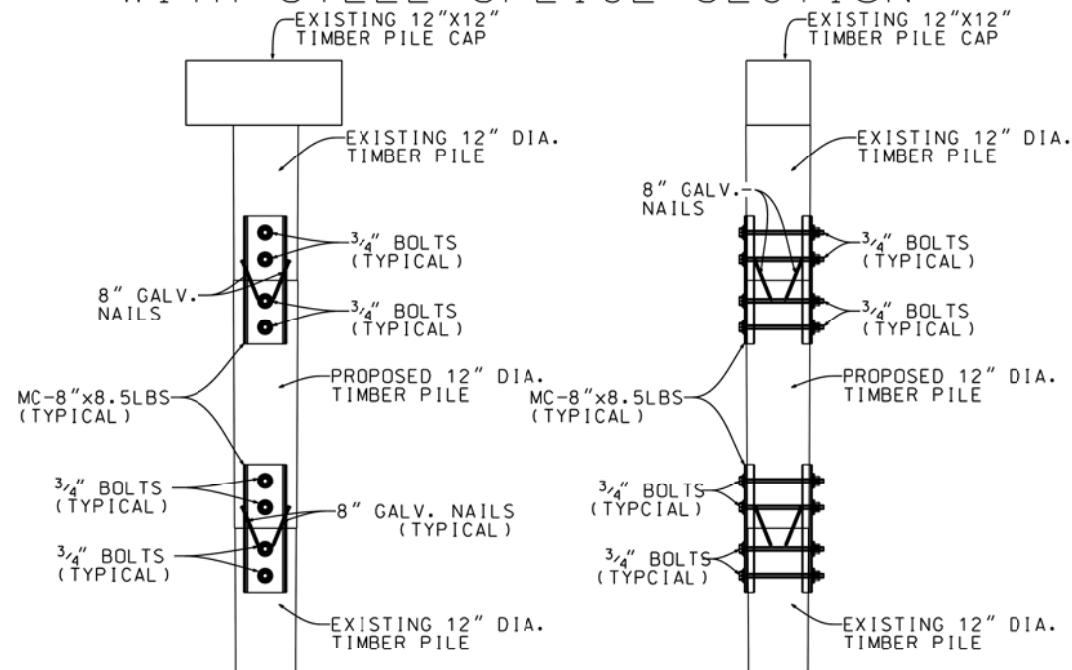
TIMBER TO TIMBER PILE WITH CONCRETE FILLED SPLICE SECTION



STRUCTURE NOTES:

TIMBER PILE SPLICING UTILIZING BARREL CONTAINMENT OF CONCRETE AND SHOULD HAVE HOLES CENTERED FOR THE PLACEMENT OF THE TIMBER PILE. TIMBER END SECTIONS SHOULD BE CENTERED IN THE BARREL ON ALL AXES. WELDED WIRE FABRIC SHOULD BE CONSIDERED FOR SPLICES AT MUDLINE OR PILES SUBJECTED TO MEAN WATER SURFACE ELEVATIONS COINCIDING WITH THE BARREL SPLICE SECTION.

TIMBER TO TIMBER PILE WITH STEEL SPLICE SECTION

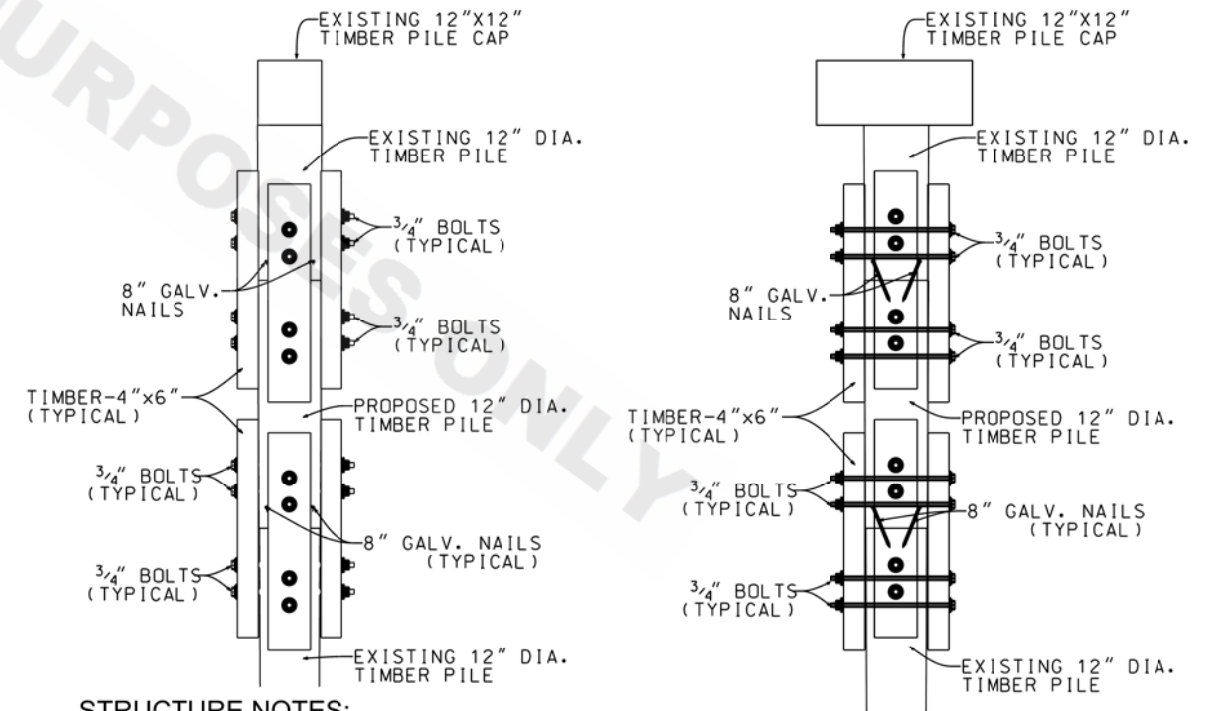


STRUCTURE NOTES:

STEEL SPLICE CHANNELS, FASTENERS SHOULD BE GALVANIZED AND REPLACEMENT TIMBER SIZE SHOULD BE SIMILAR OR IDENTICAL IN SIZE.

IN THIS REPAIR DETAIL, NAILS PROVIDE ONLY TEMPORARY FASTENING FOR THE INSTALLATION OF THE SPLICE SECTIONS INTO NEW AND EXISTING TIMBER PILES.

TIMBER TO TIMBER PILE SPLICE SECTION



STRUCTURE NOTES:

FASTENERS SHOULD BE GALVANIZED, AND CONNECTIONS TO PILES SHOULD BE MADE IN A MANNER THAT PREVENTS SPLITTING.

IN THIS REPAIR DETAIL, NAILS PROVIDE ONLY TEMPORARY FASTENING FOR THE INSTALLATION OF THE SPLICE SECTIONS INTO NEW AND EXISTING TIMBER PILES.

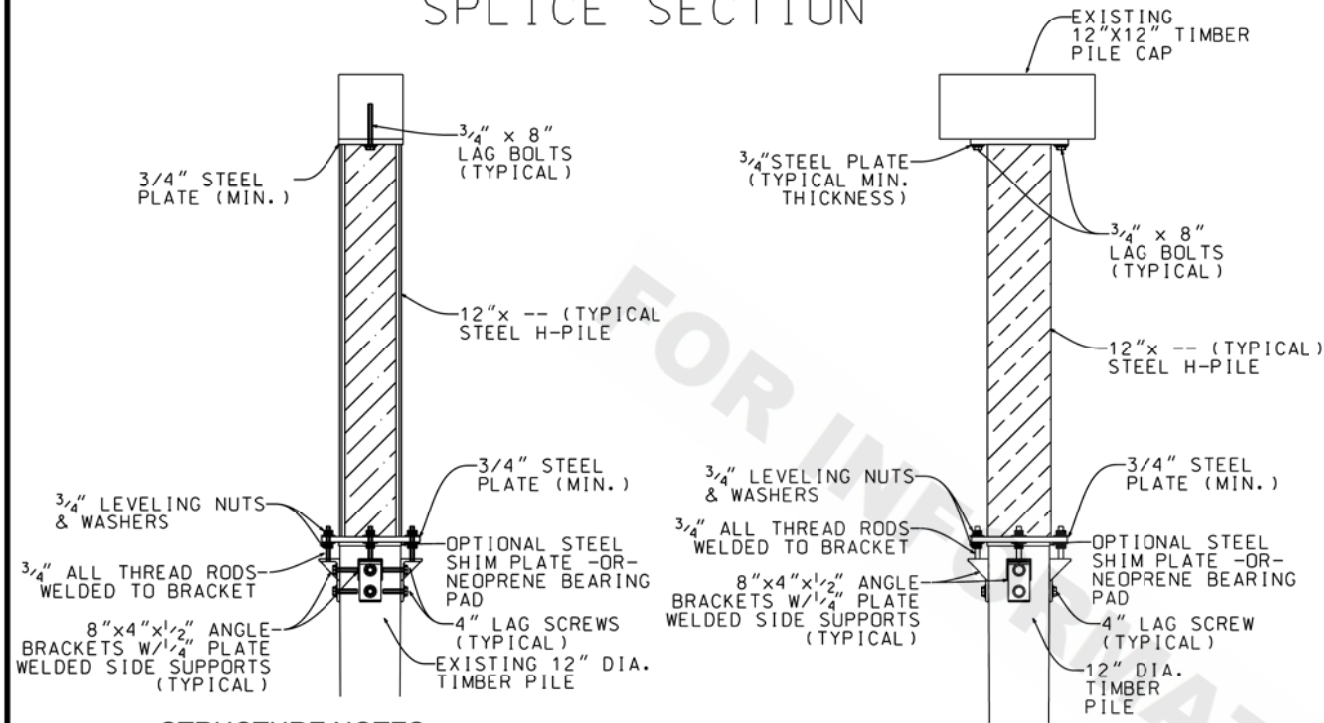
STILES

SDATES

SETLES

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PARISH	N/A	
RECALL NUMBER	N/A	
STATE PROJECT	N/A	
DESIGNED	CHECKED	DATE
DETAILED	CHECKED	NO.
REVIEWED	SERIES #	BY
REVISION OR CHANGE ORDER DESCRIPTION		
BRIDGE REPAIR DETAILS LATERAL/HELPER BRACING SHEET (2A OF 7)		
PILE SPLICING DOTD BRIDGE MAIN.		

TIMBER TO STEEL H-PILE SPLICE SECTION

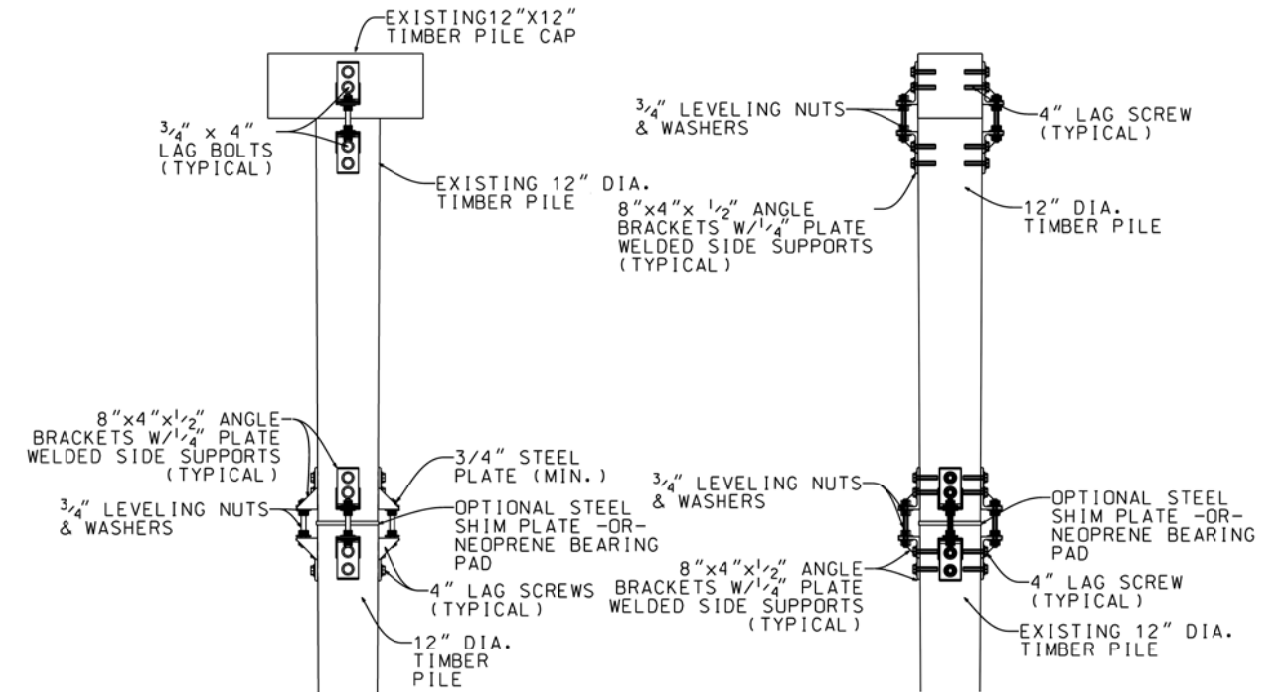


STRUCTURE NOTES:

STEEL PILE SECTIONS UTILIZE WELDED CONNECTIONS BETWEEN ALL STEEL COMPONENTS ASSOCIATED WITH THIS REPAIR, ALTERNATIVELY BOTH FIELD AND SHOP WELDS MAY BE UTILIZED.

BOLTED CONNECTIONS MAY BE USED AND IS ENCOURAGED WHEN SHOP FABRICATION IS EMPLOYED FOR THE ASSEMBLY OF COMPLEX CONNECTIONS. FASTENERS SHOULD BE GALVANIZED, AND REPLACEMENT TIMBER SIZE SHOULD BE SIMILAR, IF NOT, IDENTICAL IN SIZE. CONNECTIONS TO PILES SHOULD BE MADE IN A MANNER THAT PREVENTS SPLITTING

TIMBER TO TIMBER PILE WITH STEEL BRACKET SPLICE SECTION

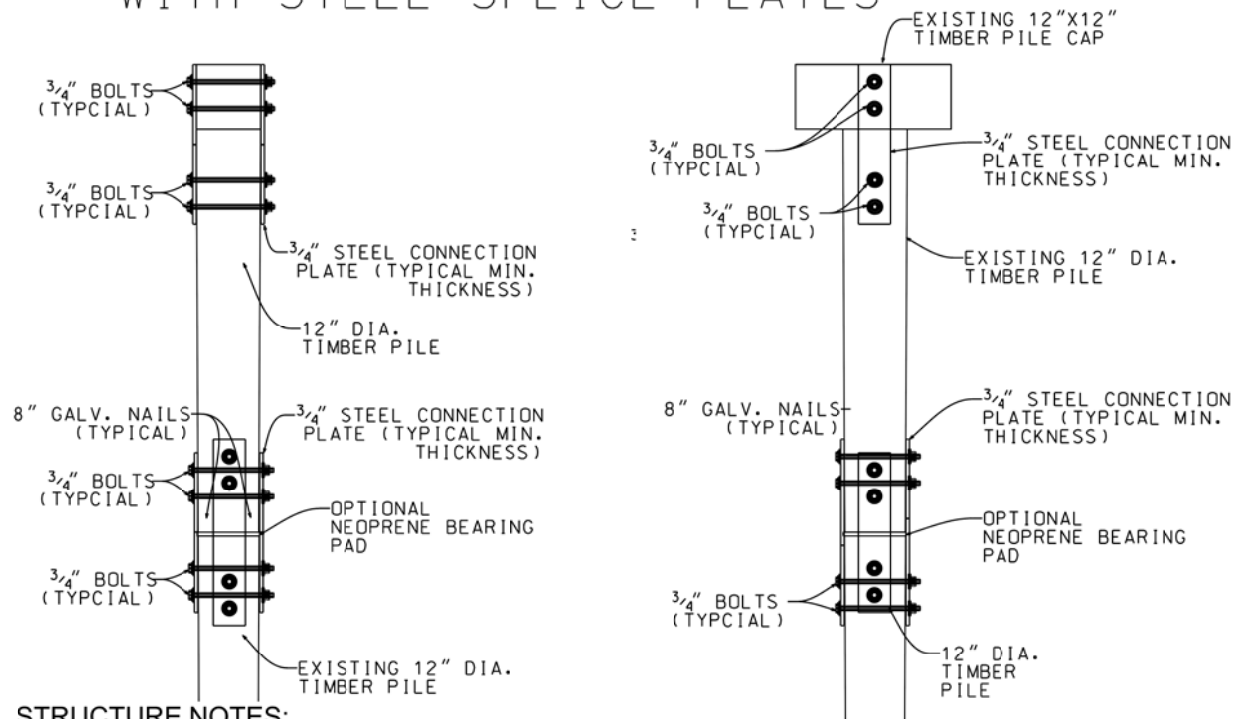


STRUCTURE NOTES:

BOLTED CONNECTIONS MAY BE USED AND IS ENCOURAGED WHEN SHOP FABRICATION IS EMPLOYED FOR THE ASSEMBLY OF COMPLEX CONNECTIONS.

FASTENERS SHOULD BE GALVANIZED, AND REPLACEMENT TIMBER SIZE SHOULD BE SIMILAR OR IDENTICAL IN SIZE. CONNECTIONS TO PILES SHOULD BE MADE IN A MANNER THAT PREVENTS SPLITTING

TIMBER TO TIMBER PILE WITH STEEL SPLICE PLATES

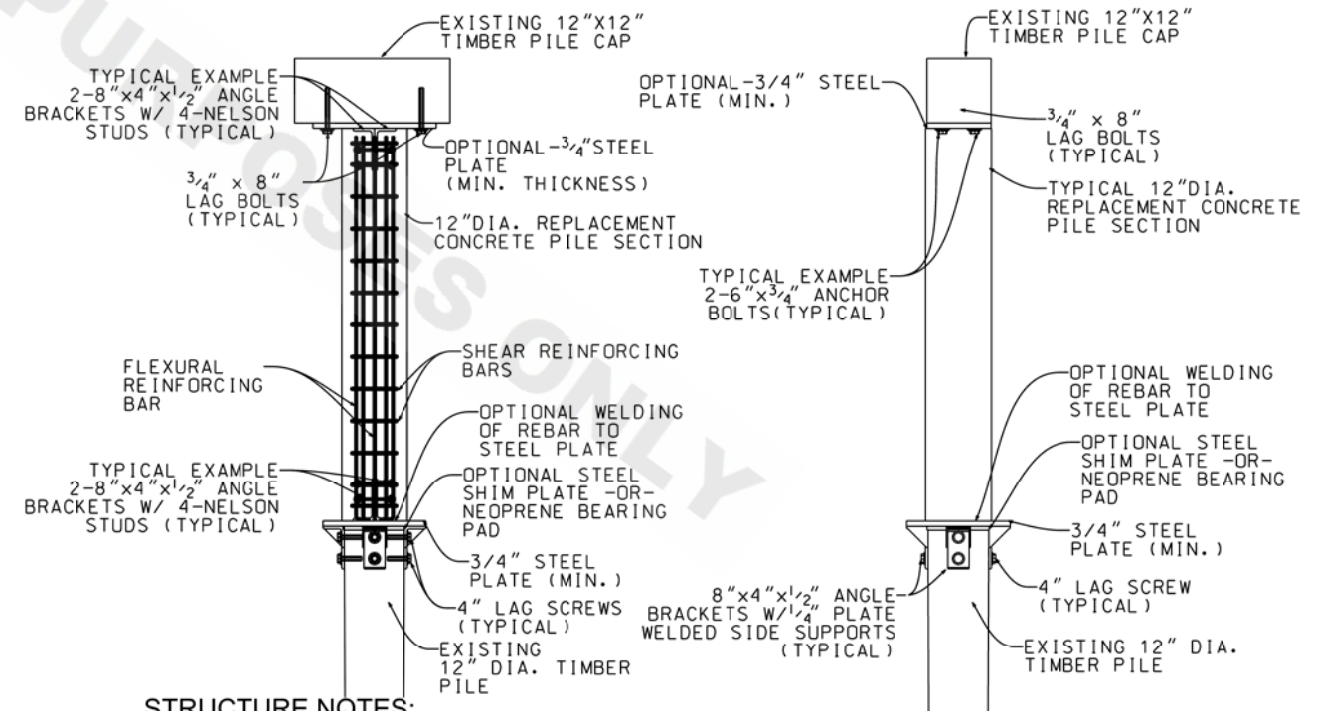


STRUCTURE NOTES:

STEEL SPLICE CHANNELS, FASTENERS SHOULD BE GALVANIZED AND REPLACEMENT TIMBER SIZE SHOULD BE SIMILAR OR IDENTICAL IN SIZE.

IN THIS REPAIR DETAIL, NAILS PROVIDE ONLY TEMPORARY FASTENING FOR THE INSTALLATION OF THE SPLICE SECTIONS INTO NEW AND EXISTING TIMBER PILES.

TIMBER TO TIMBER PILE SPLICE SECTION



STRUCTURE NOTES:

CONCRETE REPLACEMENT SECTIONS WITH A REINFORCING CAGE MAY UTILIZE LEAVE-IN-PLACE OR REMOVABLE FORMWORK. ADDITIONALLY THE USE OF NELSON STUDS OR EQUIVALENT IS ENCOURAGED TO PROVIDE A STURDY INTERFACE BETWEEN CAP AND PILE.

FASTENERS SHOULD BE GALVANIZED, AND CONNECTIONS TO PILES SHOULD BE MADE IN A MANNER THAT PREVENTS SPLITTING. PROVIDE ADEQUATE CONCRETE COVER OF 2" (MIN.) FOR REINFORCEMENT.

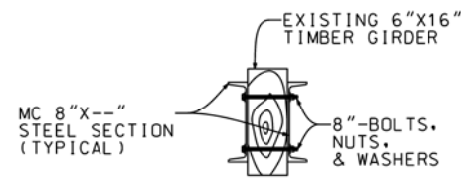
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CHECKED	N/A
DETAILED	N/A
REVIEWED	N/A
DATE	
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PARISH	
RECALL NUMBER	
STATE PROJECT	
BY	
REVISION OR CHANGE ORDER DESCRIPTION	
DATE	
NO.	
BRIDGE REPAIR DETAILS LATERAL/HELPER BRACING SHEET (28 OF 7)	
DOTD DOTD BRIDGE MAIN	

8:25:30 AM

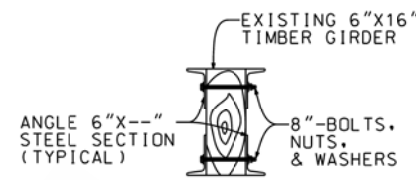
8/20/2018

Bridge Repair Sheet 03.dgn

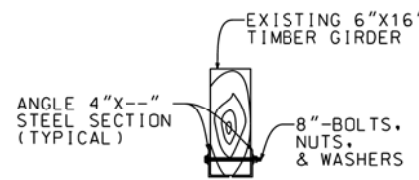
TYPICAL GIRDER REPAIR DETAILS



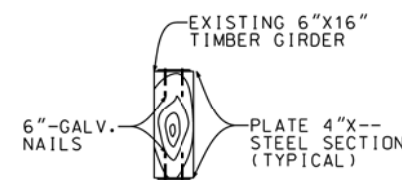
STRENGTHENING OF FLEXURAL & SHEAR ZONES



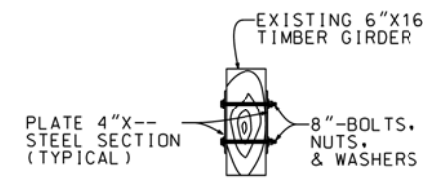
STRENGTHENING OF EXTREME FLEXURAL ZONES



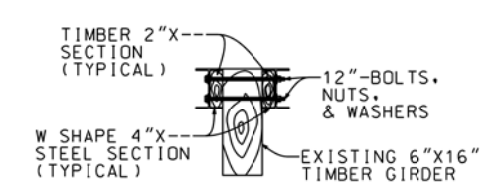
STRENGTHENING OF TENSION ZONES



STRENGTHENING OF FLEXURAL ZONES

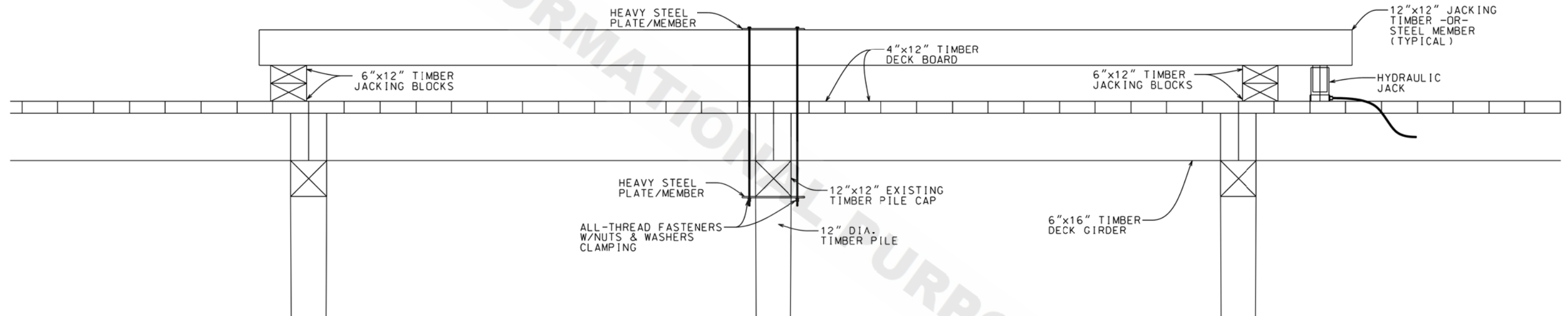


STRENGTHENING OF LATERAL ZONES

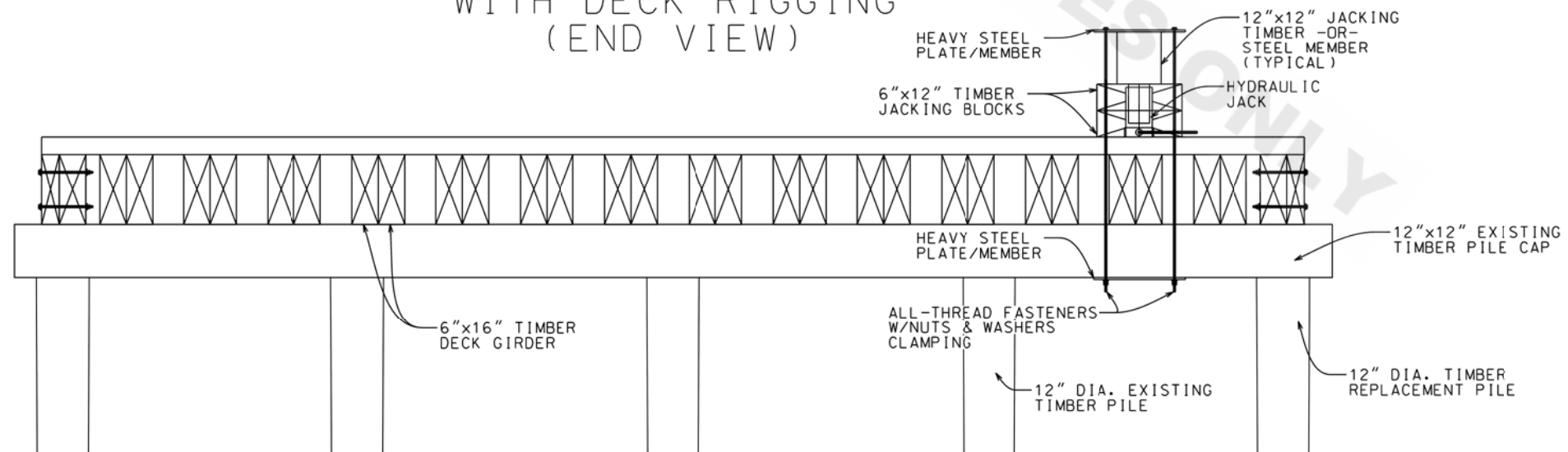


STRENGTHENING OF COMPRESSION ZONES


TYPICAL JACKING ARRANGEMENT WITH DECK RIGGING (PROFILE VIEW)



TYPICAL JACKING ARRANGEMENT WITH DECK RIGGING (END VIEW)




SHEET NUMBER	003
DESIGNED	N/A
CHECKED	N/A
DATE	
REVISION OR CHANGE ORDER DESCRIPTION	
NO.	
DATE	
BY	
REVISION	
SERIES #	
PROJECT	
STATE	
RECALL NUMBER	
PARISH	



BRIDGE REPAIR DETAILS
LATERAL/HELPER BRACING
SHEET (3 OF 6)

JACKING, STRINGER REPAIR & STRENGTHENING



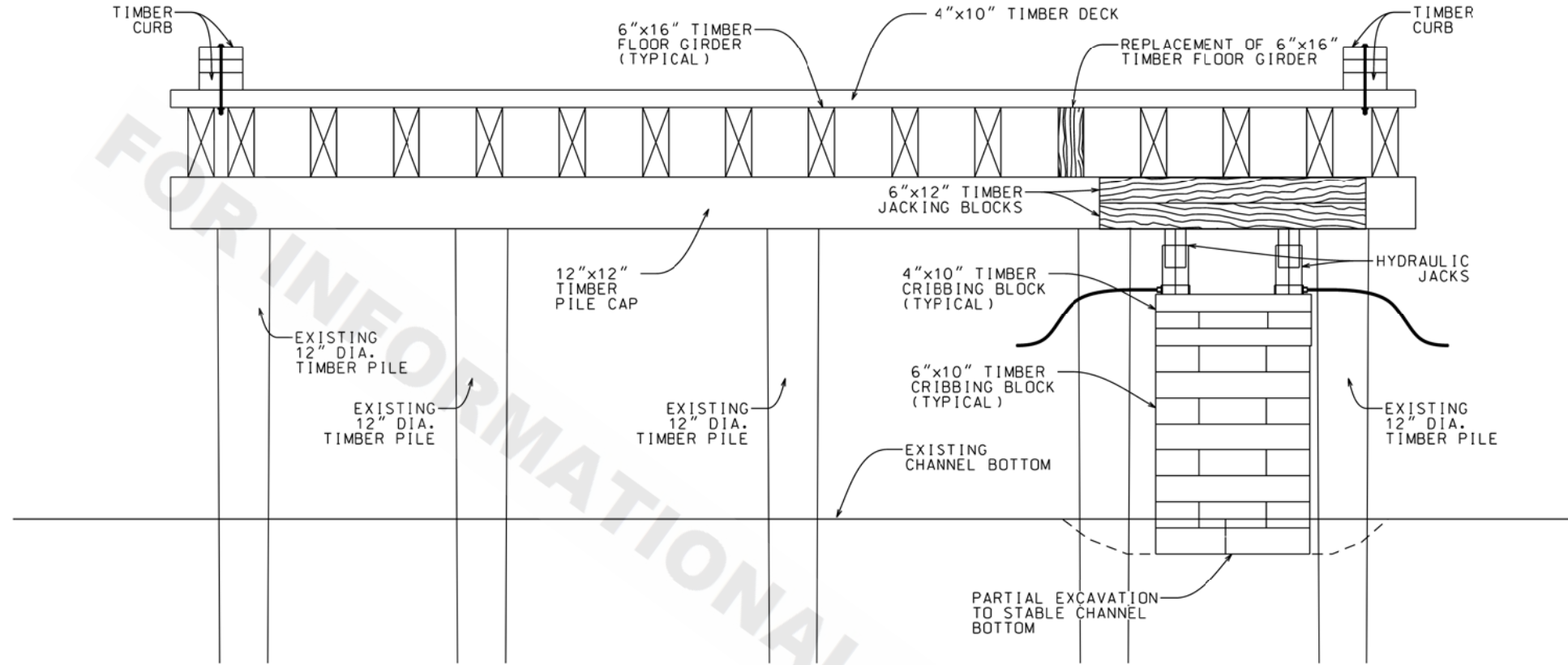
DOTD BRIDGE MAIN

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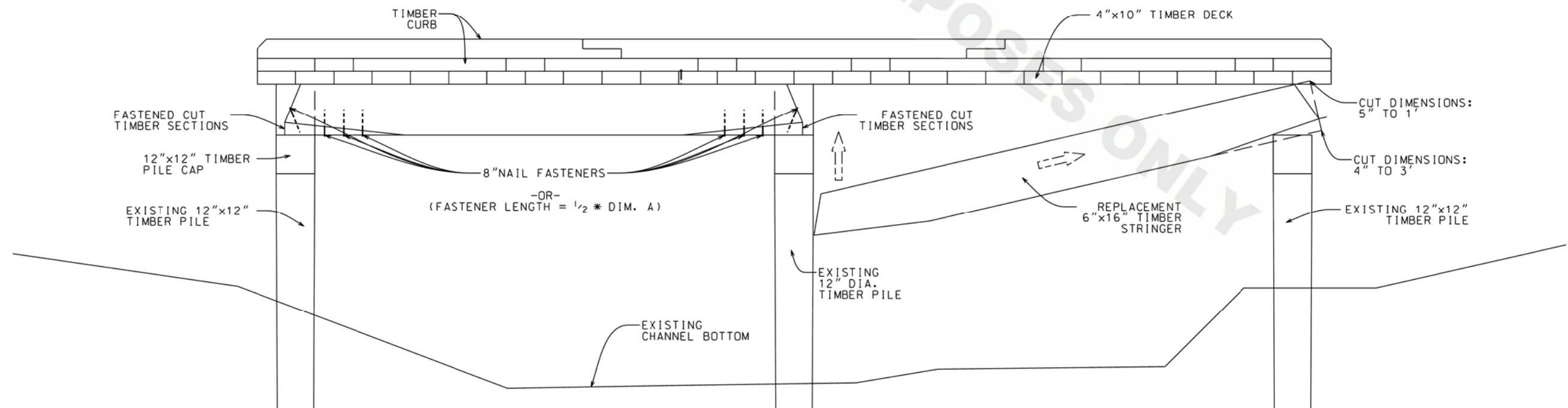
8/20/2018

Bridge Repair Sheet 04.dgn

TYPICAL STRINGER JACKING ARRANGEMENT



METHOD OF STRINGER REPLACEMENT



SHEET NUMBER 004

DESIGNED	N/A
CHECKED	N/A
REVISION OR CHANGE ORDER DESCRIPTION	NO.
DATE	BY

DESIGNED	N/A
CHECKED	N/A
REVISION OR CHANGE ORDER DESCRIPTION	NO.
DATE	BY

DESIGNED	N/A
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DATE	BY

DESIGNED	N/A
CHECKED	N/A
REVISION OR CHANGE ORDER DESCRIPTION	NO.
DATE	BY

DESIGNED	N/A
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REVISION OR CHANGE ORDER DESCRIPTION	NO.
DATE	BY

DESIGNED	N/A
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REVISION OR CHANGE ORDER DESCRIPTION	NO.
DATE	BY

DESIGNED	N/A
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REVISION OR CHANGE ORDER DESCRIPTION	NO.
DATE	BY

DESIGNED	N/A
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REVISION OR CHANGE ORDER DESCRIPTION	NO.
DATE	BY

DESIGNED	N/A
CHECKED	N/A
REVISION OR CHANGE ORDER DESCRIPTION	NO.
DATE	BY

BRIDGE REPAIR MAIN.



BRIDGE REPAIR DETAILS
LATERAL/HELPER BRACING
SHEET (4 OF 6)
STRINGER REPLACEMENT

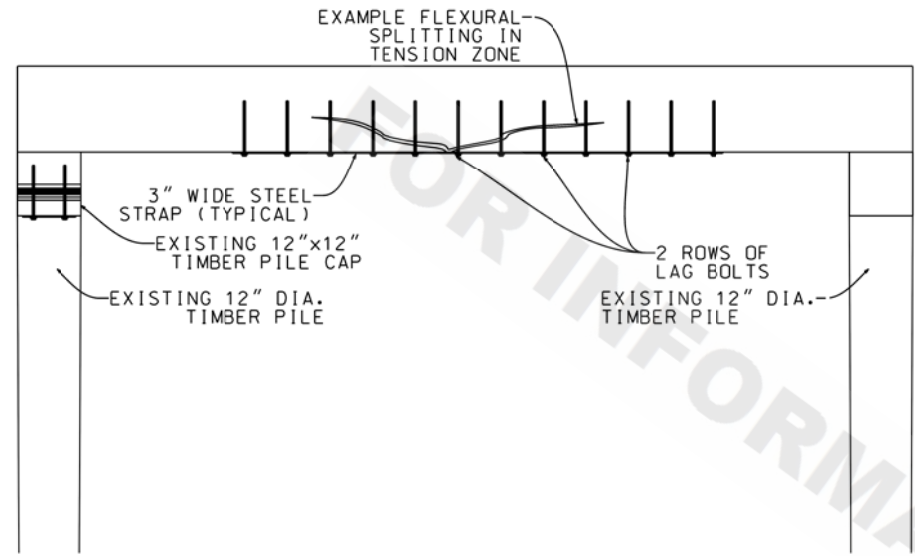


8/18/02 AM

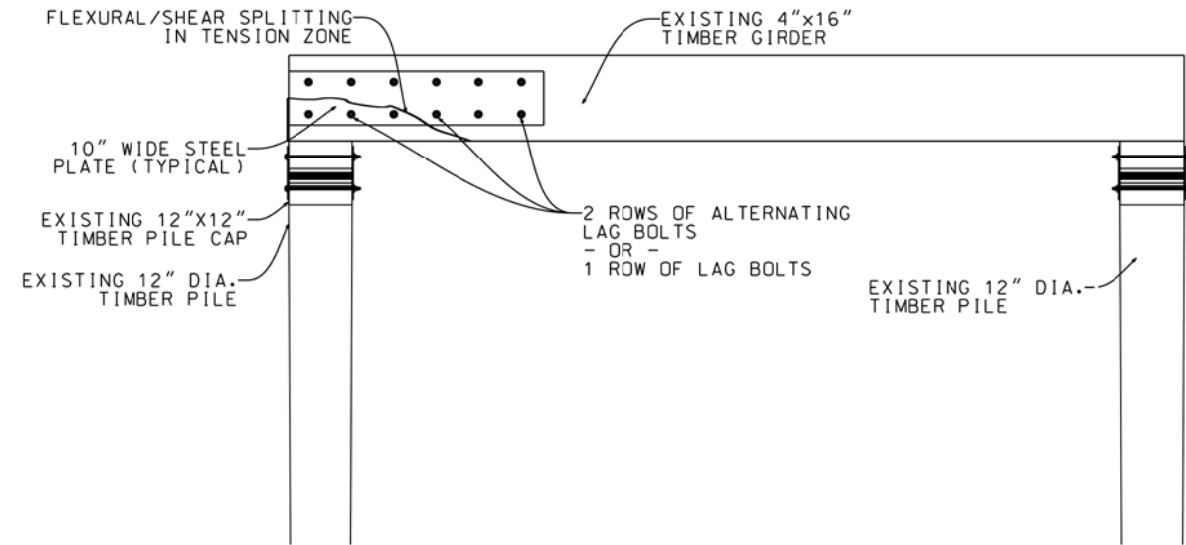
8/20/2018

Bridge Repair Sheet 05.dgn

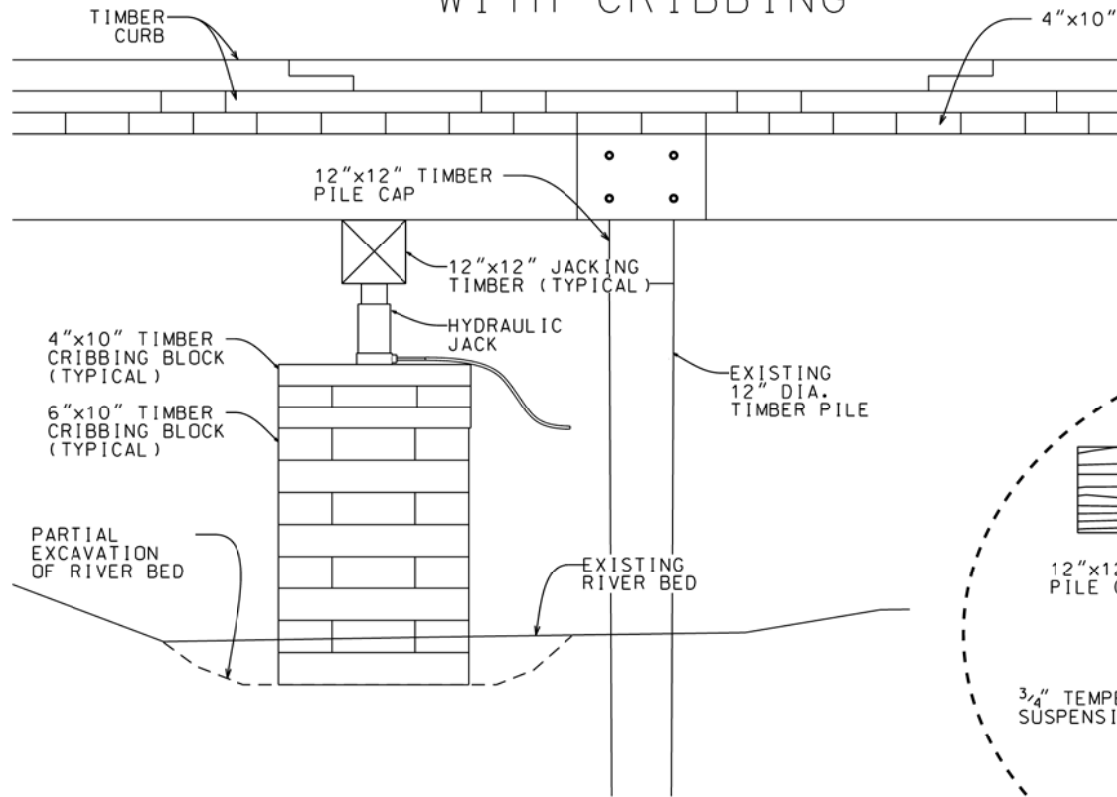
FLEXURAL SPLIT REPAIR GIRDER W/METAL STRAP AND FASTENERS



END SPLIT REPAIR GIRDER W/METAL PLATE AND BOLT FASTENERS



TYPICAL JACKING ARRANGEMENT WITH CRIBBING



TYPICAL JACKING ARRANGEMENT WITH ELEVATED RIGGING

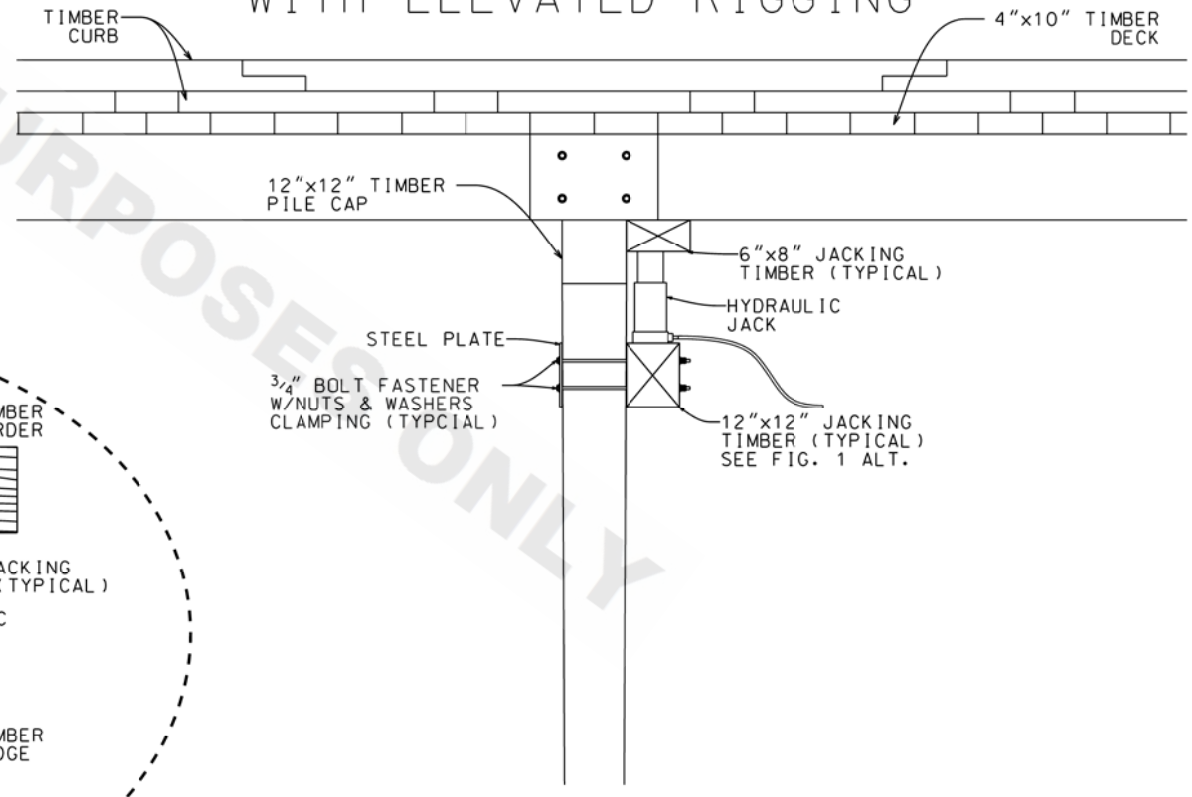
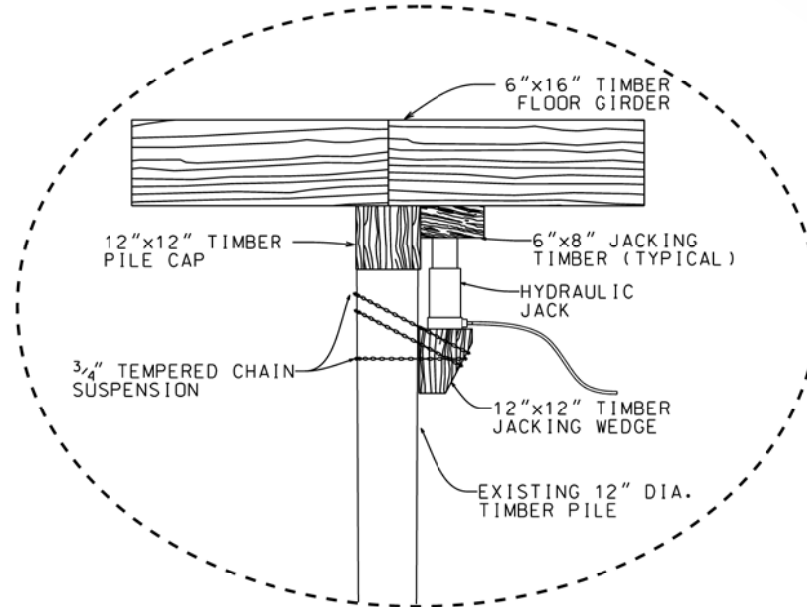


FIGURE 1 ALTERNATE



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STATE PROJECT	N/A
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CHECKED	
DETAILED	
CHECKED	
REVIEWED	
SERIES #	
BY	
DATE	
NO.	
REVISION OR CHANGE ORDER DESCRIPTION	

BRIDGE REPAIR DETAILS
LATERAL/HELPER BRACING
SHEET (5 OF 6)

JACKING ARRANGEMENT & STRINGER REPAIR

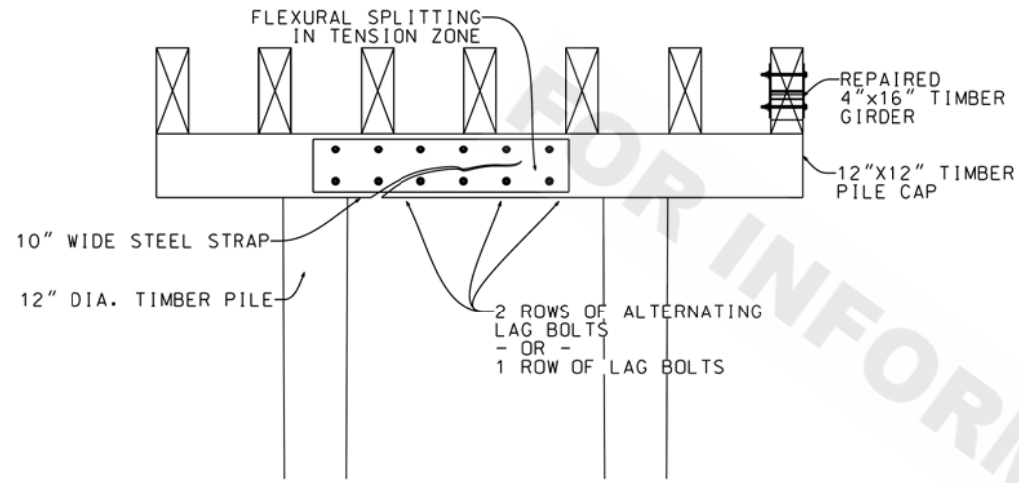
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DOTD BRIDGE MAIN

8:07:33 AM

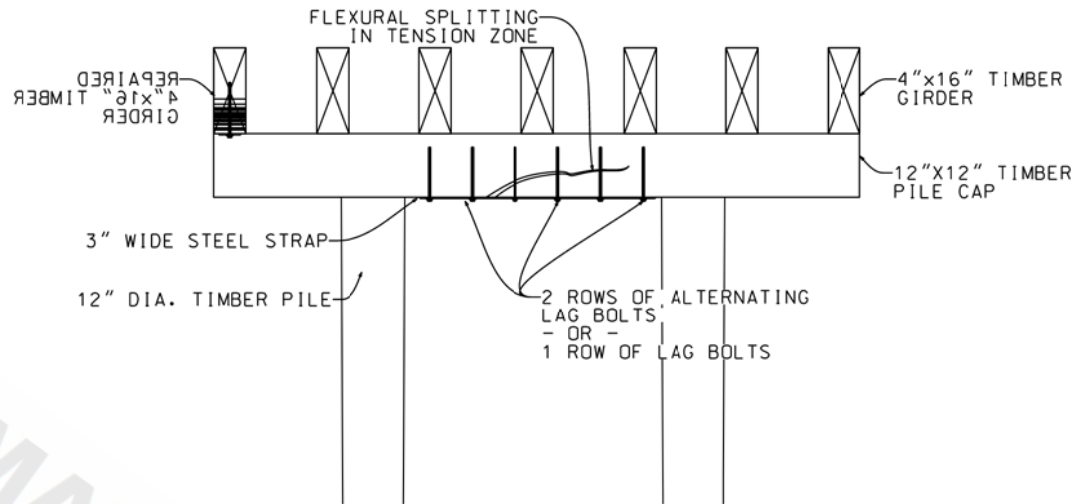
8/20/2018

Bridge Repair Sheet 06.dgn

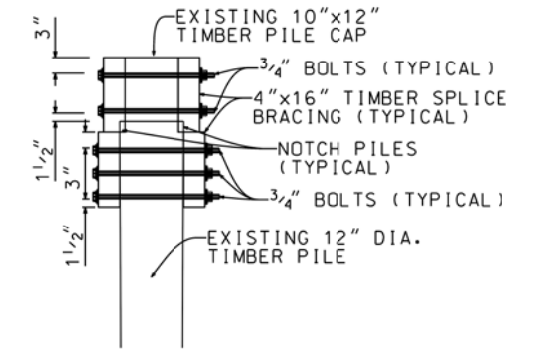
TENSION SPLIT REPAIR PILE CAP W/METAL PLATE AND BOLT FASTENERS



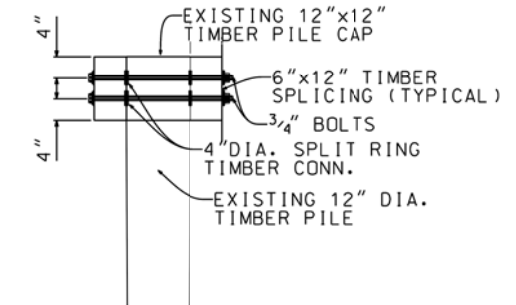
TENSION SPLIT REPAIR PILE CAP W/METAL STRAP AND FASTENERS



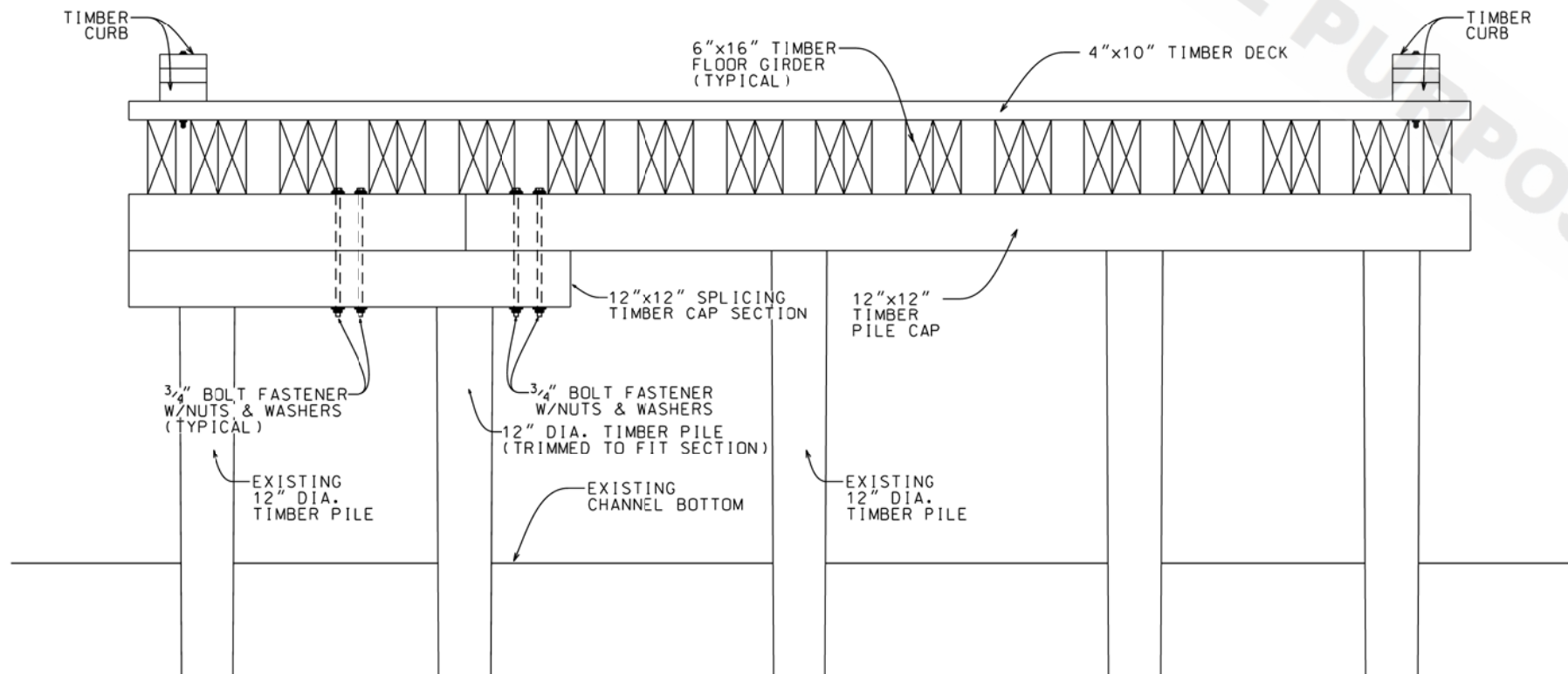
PILE CAP SPLICING WITH BRACING SPLICE (SIDE VIEW)



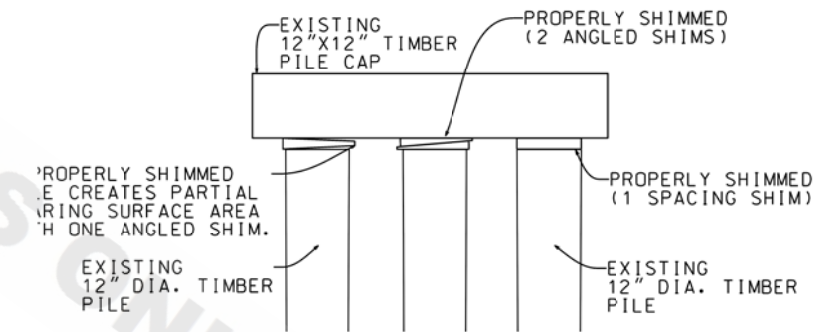
PILE CAP SPLICING (SIDE VIEW)



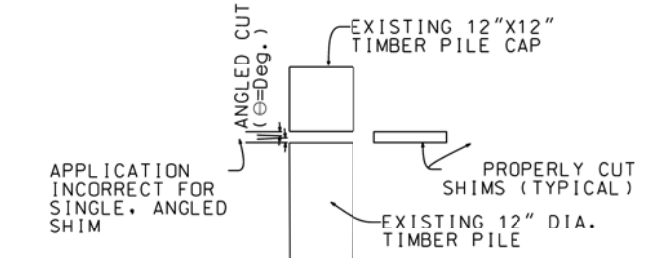
PILE CAP SPLICE DETAIL




SHIMMING PILE CAPS (FRONT VIEW)



SHIMMING PILE CAPS (SIDE VIEW)



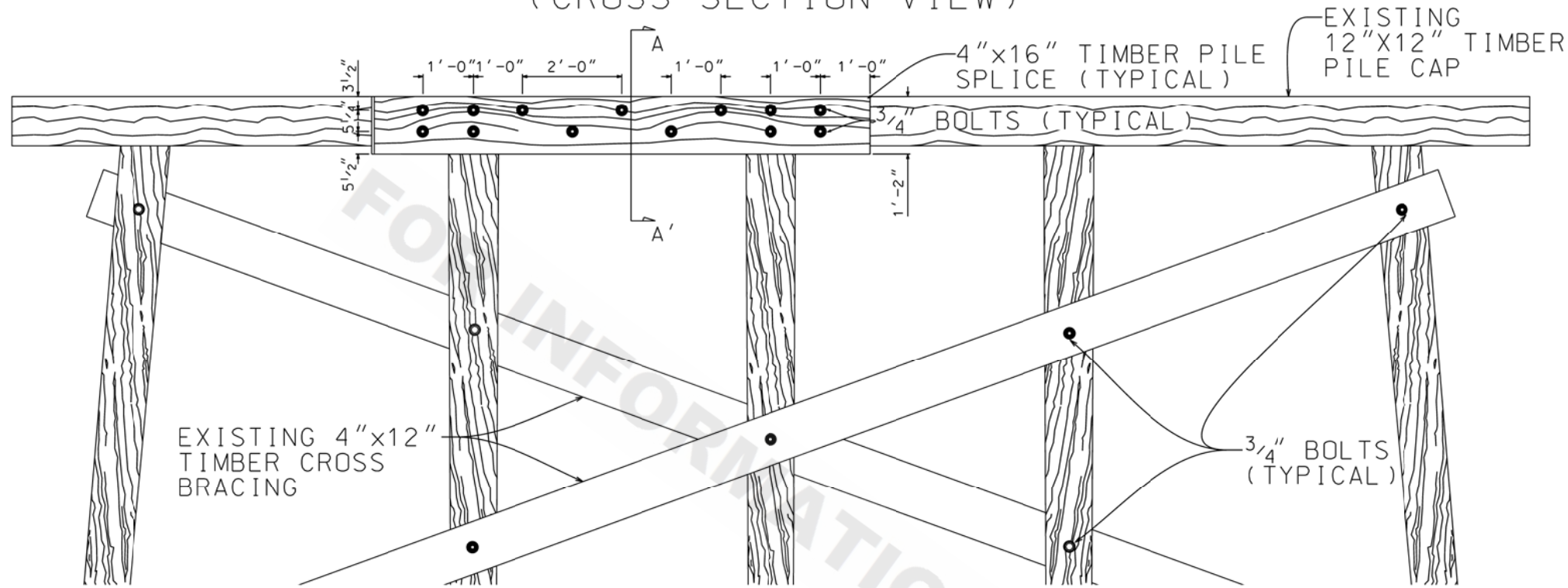
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RECALL NUMBER	N/A
DATE	N/A
PROJECT	
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DETAILED	
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REVIEWED	
SERIES #	
BY	
REVISION OR CHANGE ORDER DESCRIPTION	
NO.	
DATE	
	
BRIDGE REPAIR DETAILS LATERAL/HELPER BRACING SHEET (6 OF 6)	
DOTD DOTD BRIDGE MAIN	

8:05:09 AM

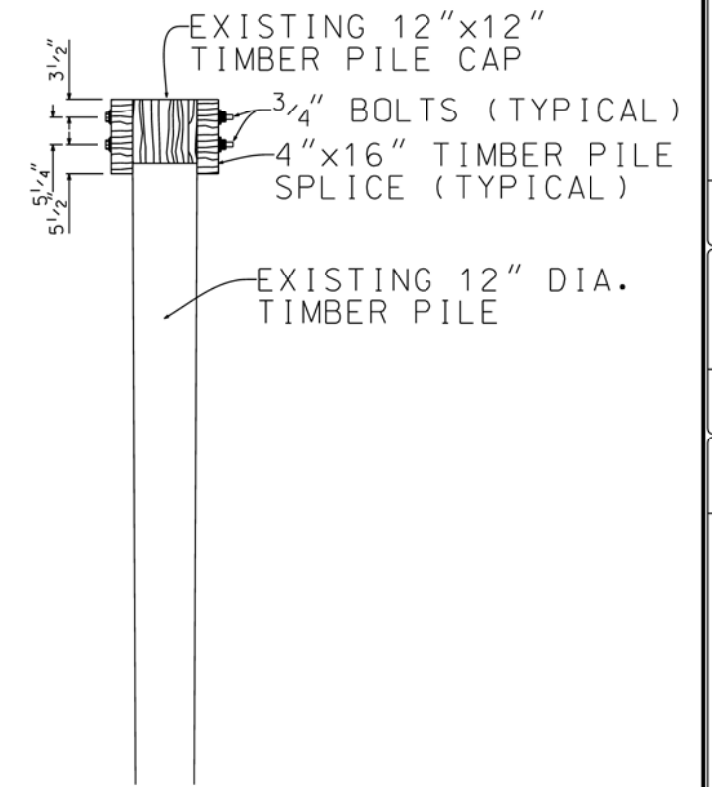
8/20/2018

Bridge Repair Sheet 07.dgn

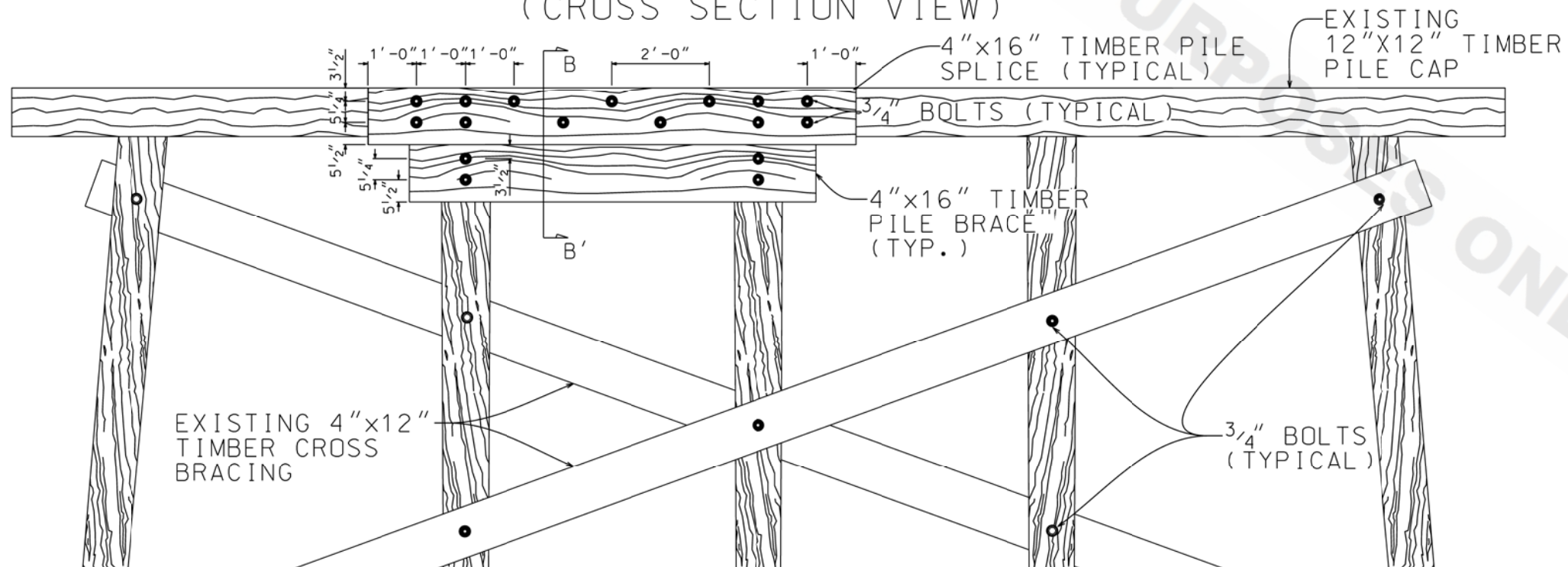
PILE CAP BRACING SCAB (CROSS SECTION VIEW)



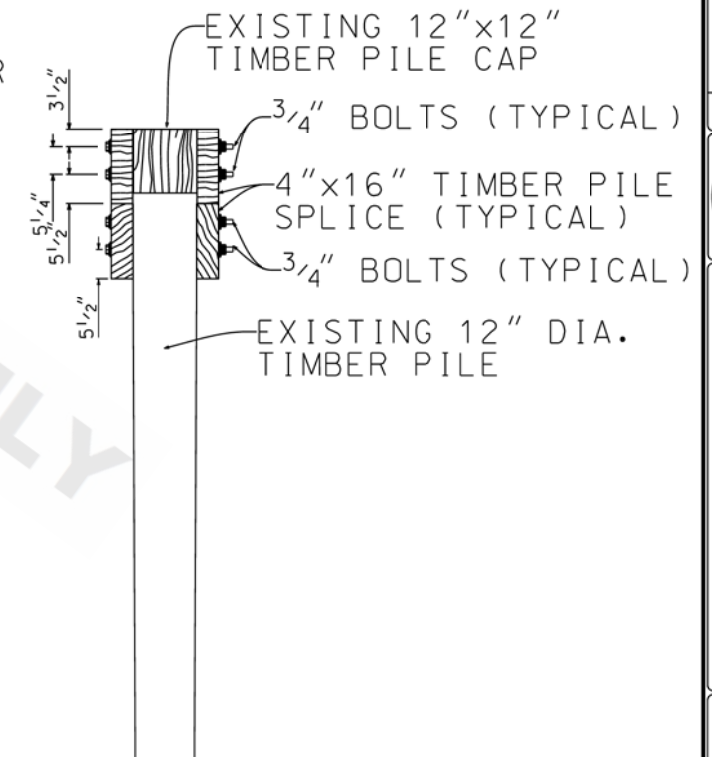
A-A' (END SECTION VIEW)




PILE CAP BRACING SCAB WITH STRENGTHENING BRACES (CROSS SECTION VIEW)



B-B' (END SECTION VIEW)



SHEET NUMBER		007	
DESIGNED	CHECKED	DATE	BY
REVISION OR CHANGE ORDER DESCRIPTION	NO.	DATE	BY
			
BRIDGE REPAIR DETAILS			
LATERAL/HELPER BRACING			
SHEET (6 OF 6)			
PILE CAP INPLACE REPAIRS			
