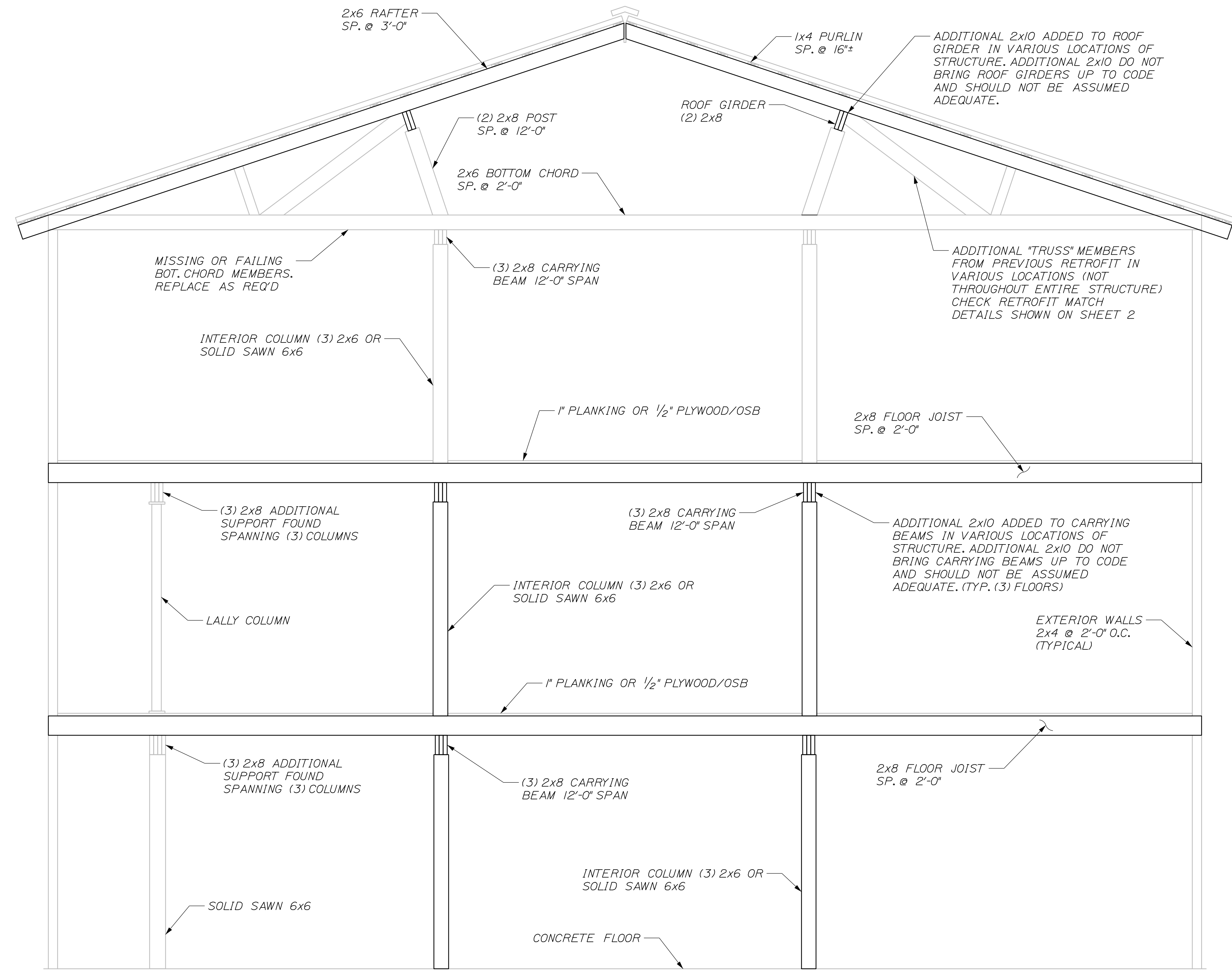


Filename: ... \001_Recycling Rehab Overhaul.dwg Structures Division
 Username: common
 Date: 1/27/2014



TYPICAL SECTION ~ LOOKING AWAY FROM THE ROAD
 1/2" = 1'-0"
 NOTE: MEMBERS IN BOLD ARE UNDERSIZED AND NEED RETROFIT TO BE ABLE TO SUPPORT DESIGN LOADS

GENERAL NOTES

- LAMINATED VENEER LUMBER SHALL HAVE A MINIMUM MODULUS OF ELASTICITY OF E=2,000,000 PSI AND A MINIMUM F =3100 PSI
- ALL SAWN DIMENSION LUMBER IS NOMINAL SIZE, SPF #2 GRADE
- ALL STEEL SHALL BE IN NEW OR GOOD USED CONDITION
- ALL STEEL TO MEET THE REQUIREMENTS OF ASTM A36 OR BETTER
- ALL BOLTS SHALL BE A325 BOLTS
- ALL MATERIALS STORED ON THE PROJECT SHALL BE PROTECTED FROM THE ELEMENTS BY BEING STORED INDOORS ABOVE GROUND LEVEL ON SUITABLE DUNNAGE.
- ALL DIMENSIONS WITHIN THESE DETAILS ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE EXACT DIMENSIONS IN THE FIELD.
- ANY CONFLICT BETWEEN THESE PLANS AND EXISTING CONDITIONS SHOULD BE ADDRESSED BY THE ENGINEER OF RECORD. DO NOT PROCEED WITH DEPENDENT WORK UNTIL ANY CONFLICT HAS BEEN ADDRESSED BY THE ENGINEER OF RECORD.
- ALL MATERIALS REQUIRED TO BE REMOVED AND REUSED, SHALL BE MAINTAINED IN SERVICEABLE CONDITION, STORED IN A MOISTURE FREE ENVIRONMENT INDOORS, AND ABOVE THE GROUND LEVEL.
- ALL MODIFICATION WORK MUST BE DONE WITH ONLY STRUCTURAL DEAD LOAD. DO NOT PERFORM THIS WORK WHEN THE STRUCTURE IS SUBJECT TO SNOW OR LIVE LOAD CONDITIONS.
- THESE DESIGNS ARE BASED ON TYPICAL SECTIONS OF THE WHOLE OF THE BUILDING. THERE ARE LOCATIONS WHERE THESE DESIGNS WILL NEED TO BE MODIFIED ACCORDING TO THE EXISTING SECTION. THOSE LOCATIONS WILL BE ADDRESSED ON A CASE BY CASE BASIS.

DESIGN LOADS
 DESIGN LOADS PER INTERNATIONAL BUILDING CODE 2012 IN CONJUNCTION WITH MINIMUM DESIGN LOADS FOR BUILDINGS 2010
 GROUND SNOW LOAD = 60psf
 UNBALANCED ROOF SNOW LOAD = 60psf
 LIVE LOAD = 125psf (LIGHT STORAGE)

EXISTING STRUCTURAL MEMBER	EXISTING ALLOWABLE LIVE LOAD
FLOOR JOIST ~ 2x8 @ 2'-0"	27.4psf
CARRYING BEAM ~ (3) 2x8 12' SPAN	10.3psf
2ND FLOOR COLUMNS ~ (3) 2x6 12' SPACING	61.1psf
1ST FLOOR COLUMNS ~ (3) 2x6 12' SPACING	56.1psf

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 STRUCTURAL ENGINEERING • DETAILING SERVICES
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 PREPARED FOR: TOWN OF BOWDOINHAM
 CEE 075-ST-13

STATE OF MAINE
 ERIC CALDERWOOD
 No. 9099
 LICENSED PROFESSIONAL ENGINEER

DATE: DEC. 2013
 BY: GJM
 CHECKED: GJM
 REVISIONS 1
 REVISIONS 2
 REVISIONS 3
 REVISIONS 4
 FIELD CHANGES

BOWDOINHAM RECYCLING CENTER
 RECYCLING CENTER TYPICAL SECTION

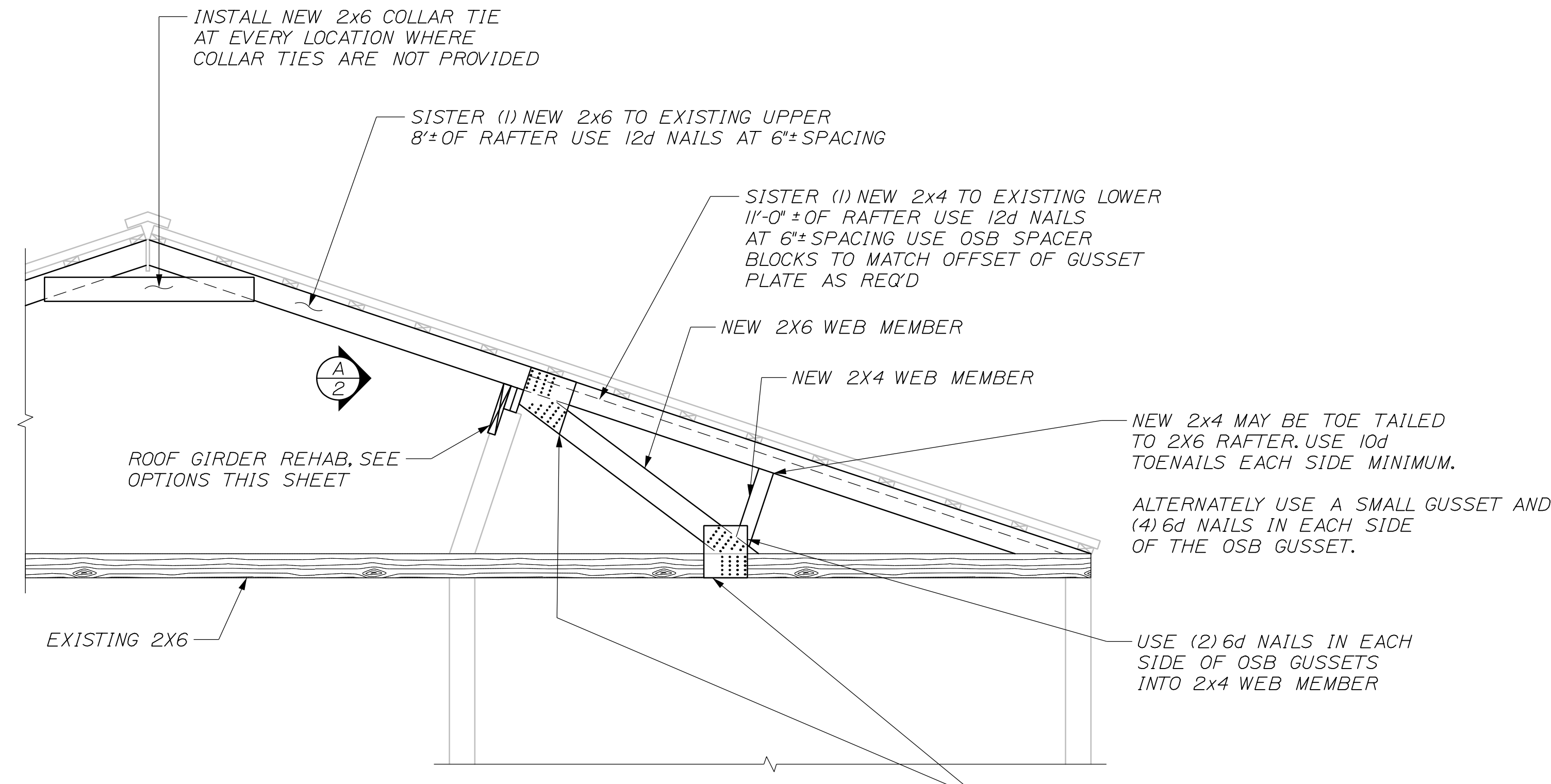
SHEET NUMBER
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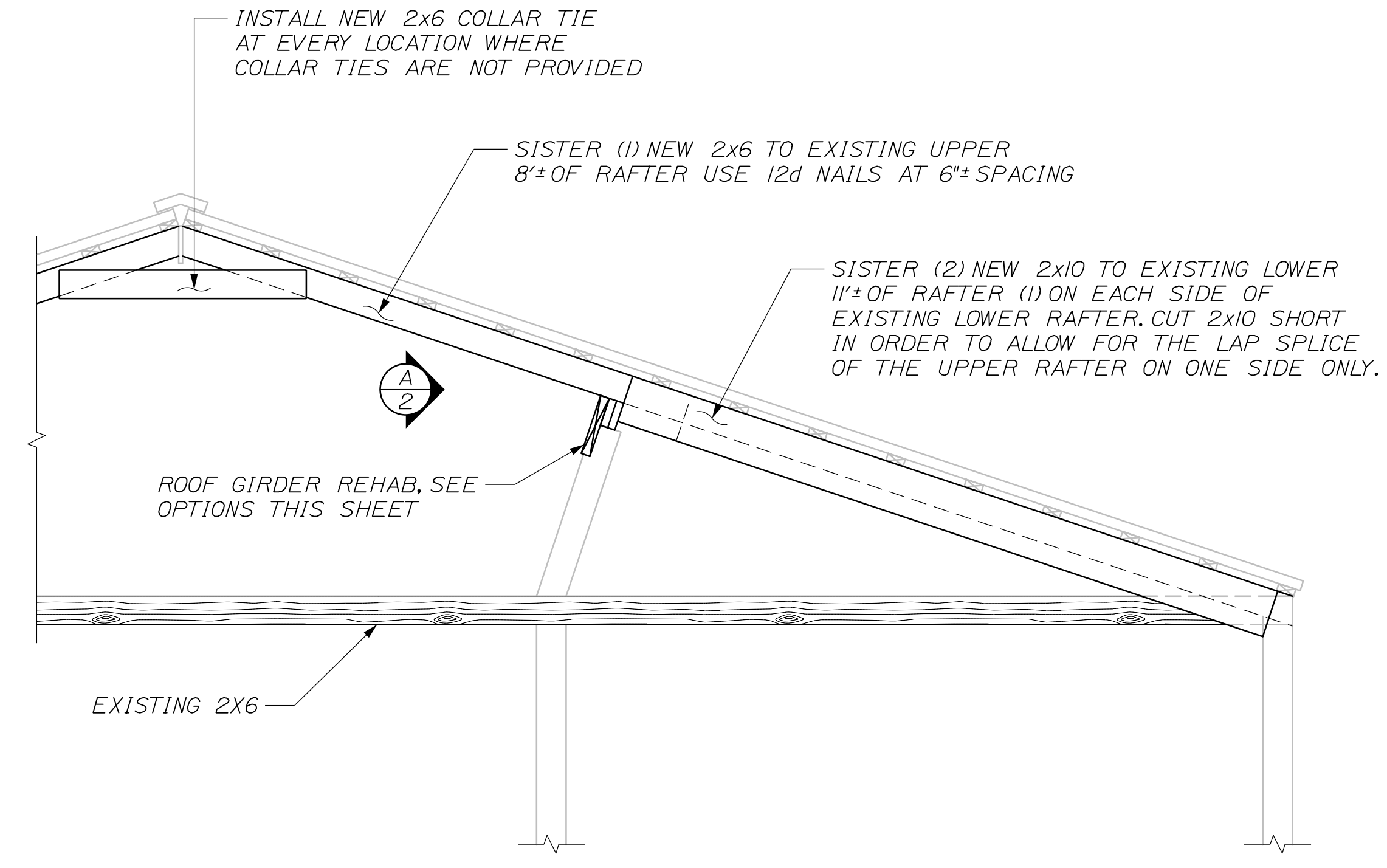
Date: 1/27/2014

Username: common

Filename: ... \002_Recycling Roof Rehabilitation Group: Structures Division

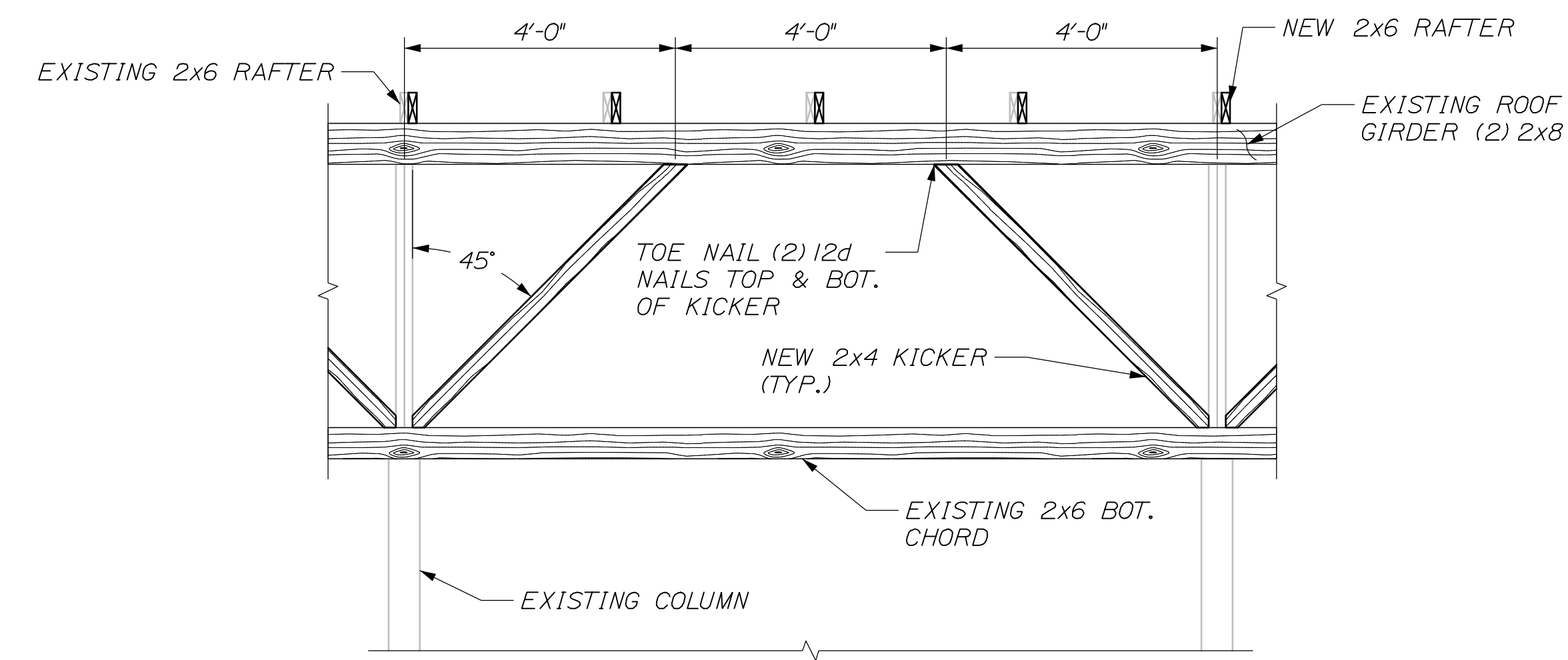


ROOF REHAB OPTION #1
 1/2" = 1'-0"
 NOTE: OPTION A & B ARE BOTH ACCEPTABLE REPAIRS FOR THE EXISTING FOR GIRDER

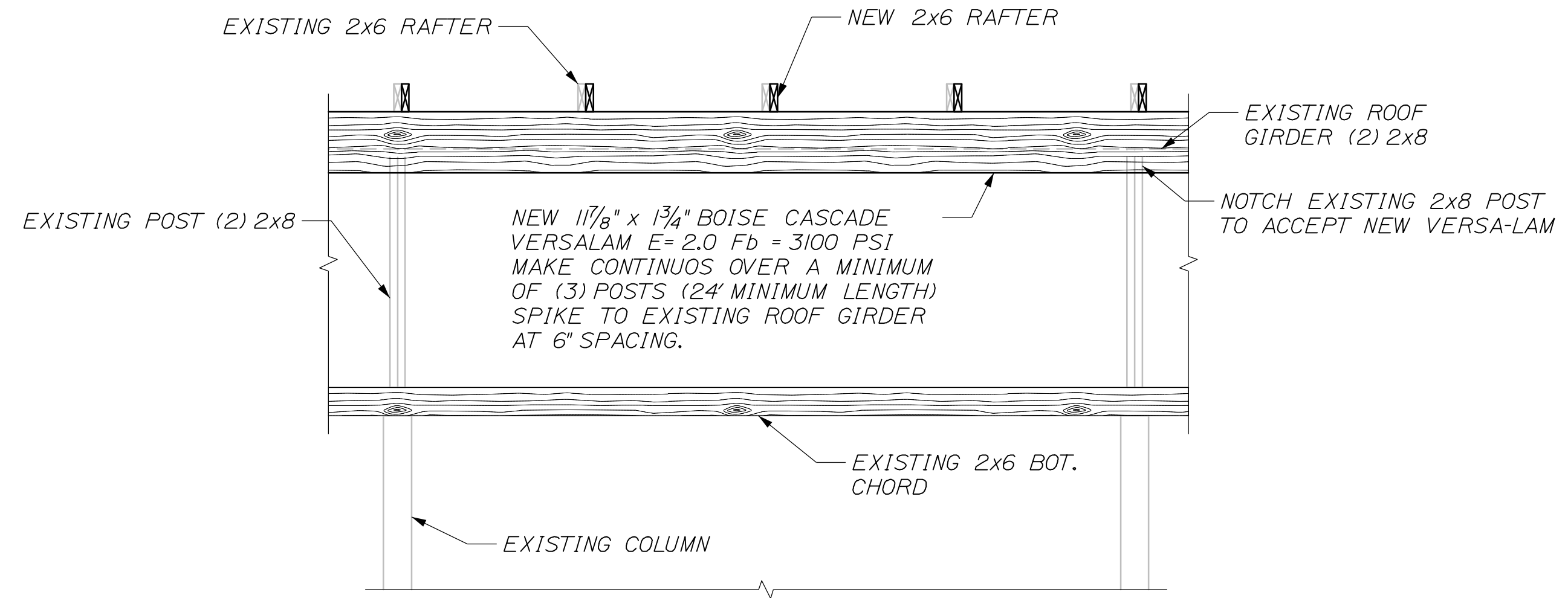


ROOF REHAB OPTION #2
 1/2" = 1'-0"
 NOTE: OPTION A & B ARE BOTH ACCEPTABLE REPAIRS FOR THE EXISTING FOR GIRDER

- GENERAL NOTES**
1. ALL NEW LUMBER SHALL BE SPF #2 OR BETTER
 2. ALL OSB SHALL BE STRUCTURAL I



ROOF GIRDER REHAB OPTION A
 1/2" = 1'-0"



ROOF GIRDER REHAB OPTION B
 1/2" = 1'-0"

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 PREPARED FOR: **TOWN OF BOWDOINHAM**
 CEE 075-ST-13

STATE OF MAINE
 ERIC CALDERWOOD
 No. 9099
 LICENSED PROFESSIONAL ENGINEER

DATE	BY	REVISIONS
DEC. 2013	GNM	1
	GNM	2
	GNM	3
	GNM	4
		FIELD CHANGES

BOWDOINHAM RECYCLING CENTER

ROOF REHAB OPTIONS

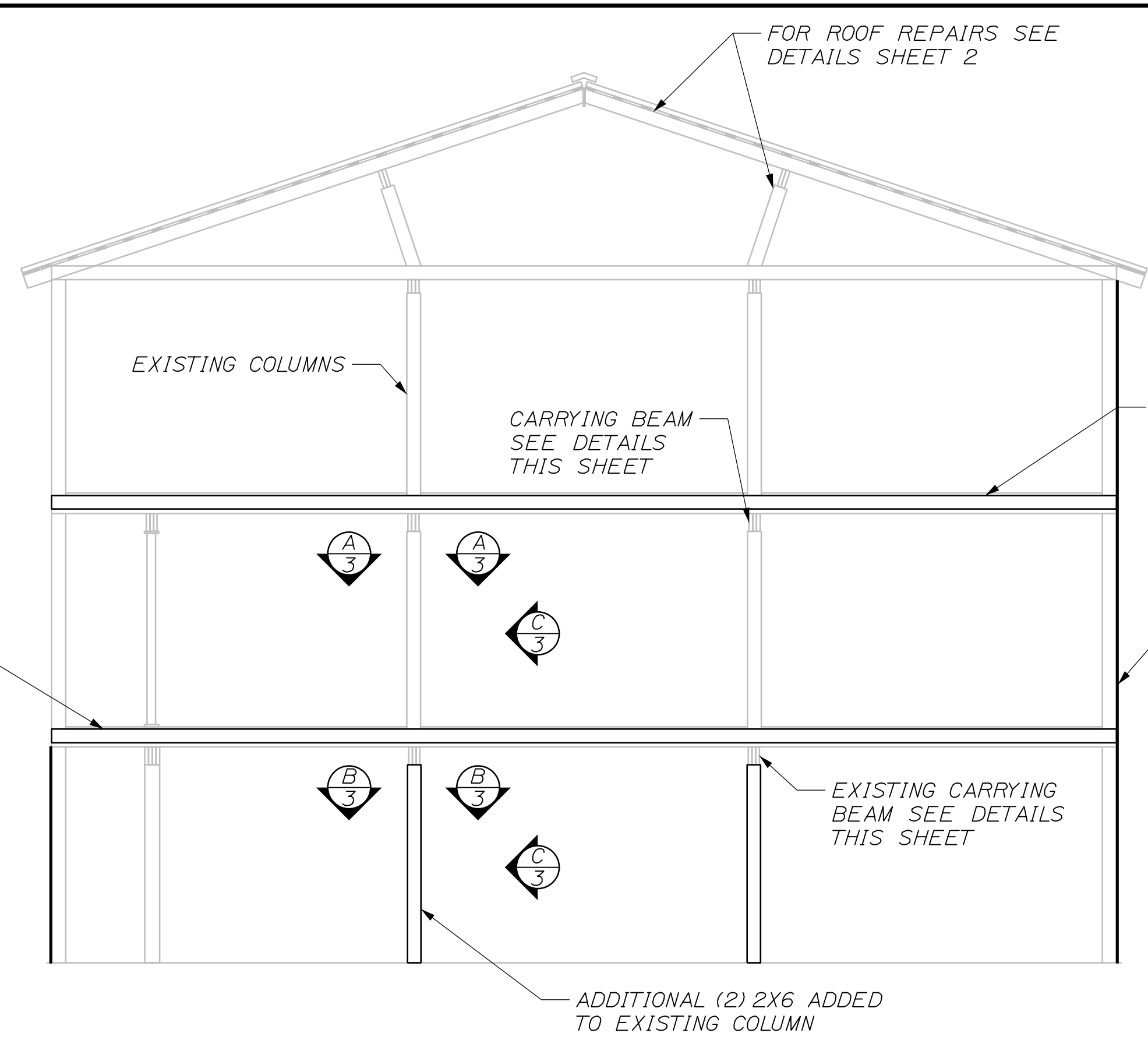
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CALDERWOOD ENGINEERING, ETC.
 222 RIVER RD. RICHMOND, ME 04857
 TEL (207) 737-2007 FAX (207) 737-2008

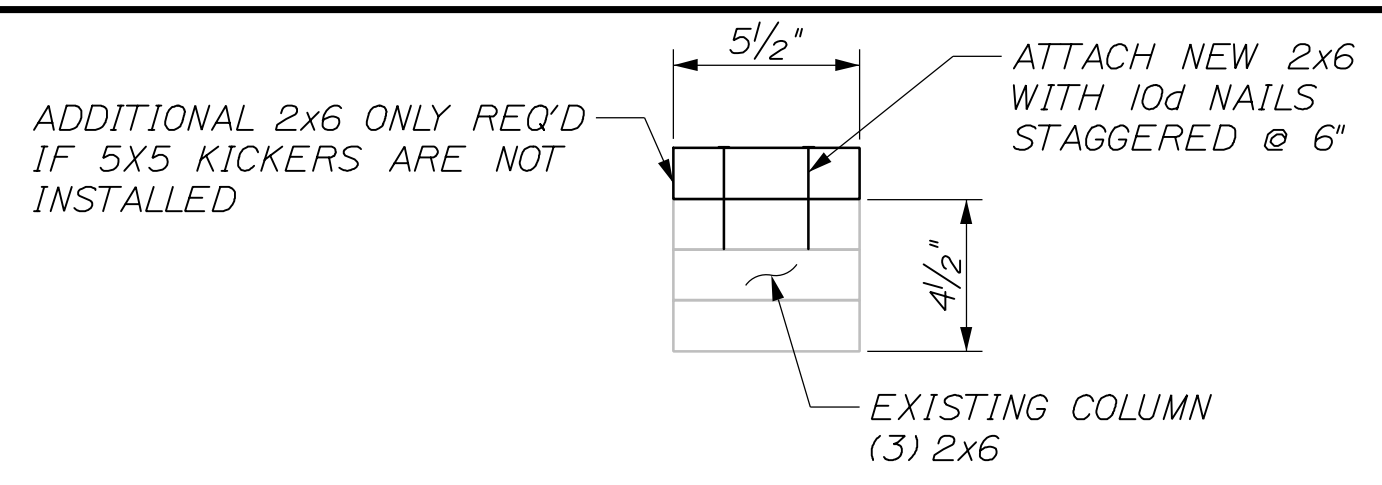
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Username: common

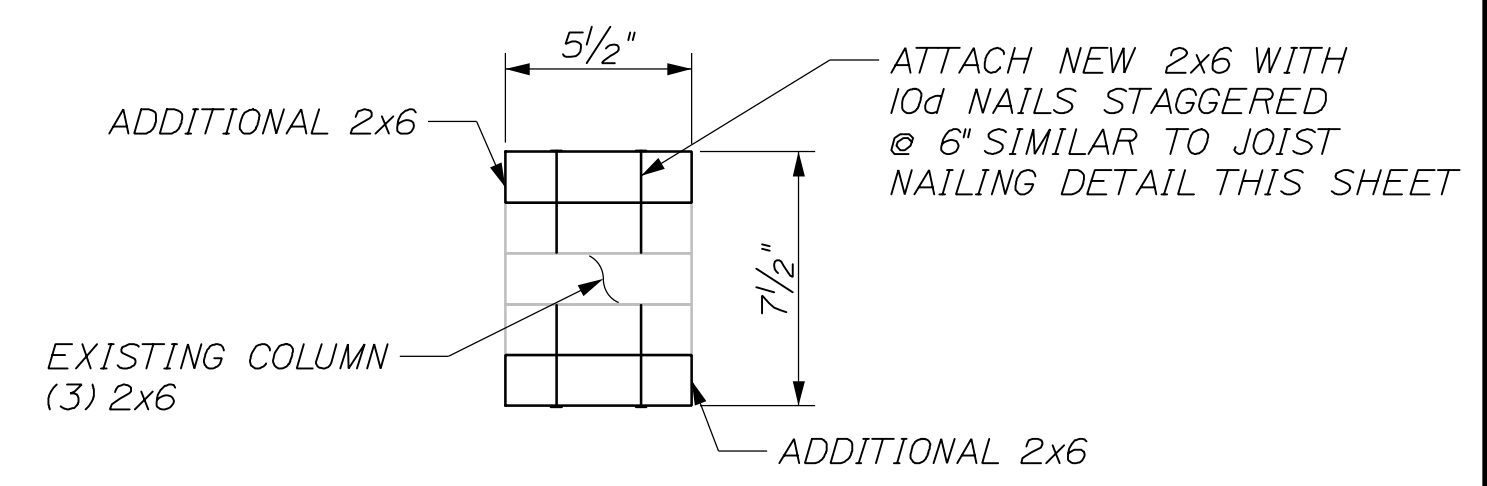
Filename: ... \003_Floor Rehab Option\dwg\group: Structures Division



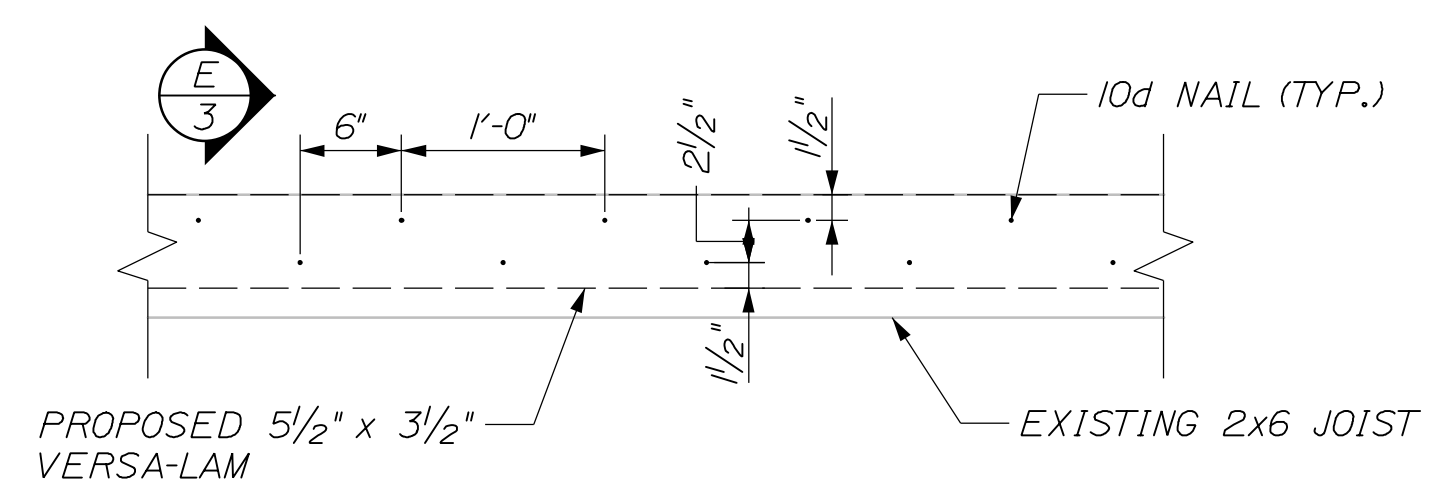
TYPICAL REPAIR SECTION
1/4" = 1'-0"



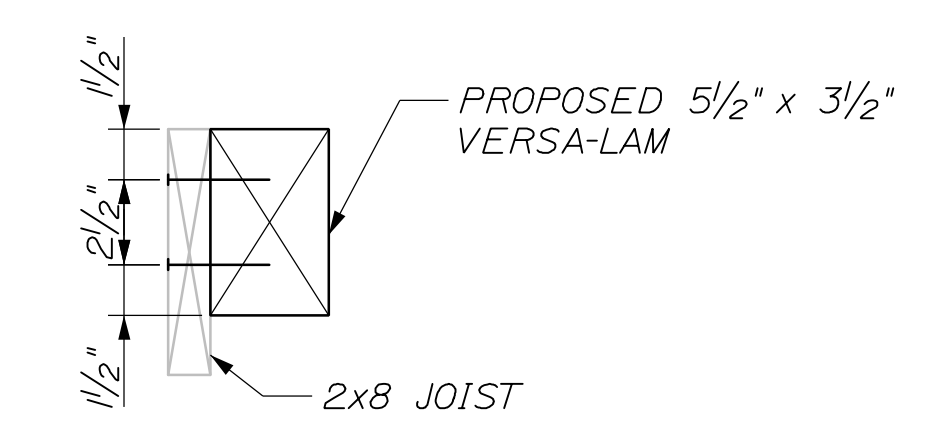
A
3
2" = 1'-0"



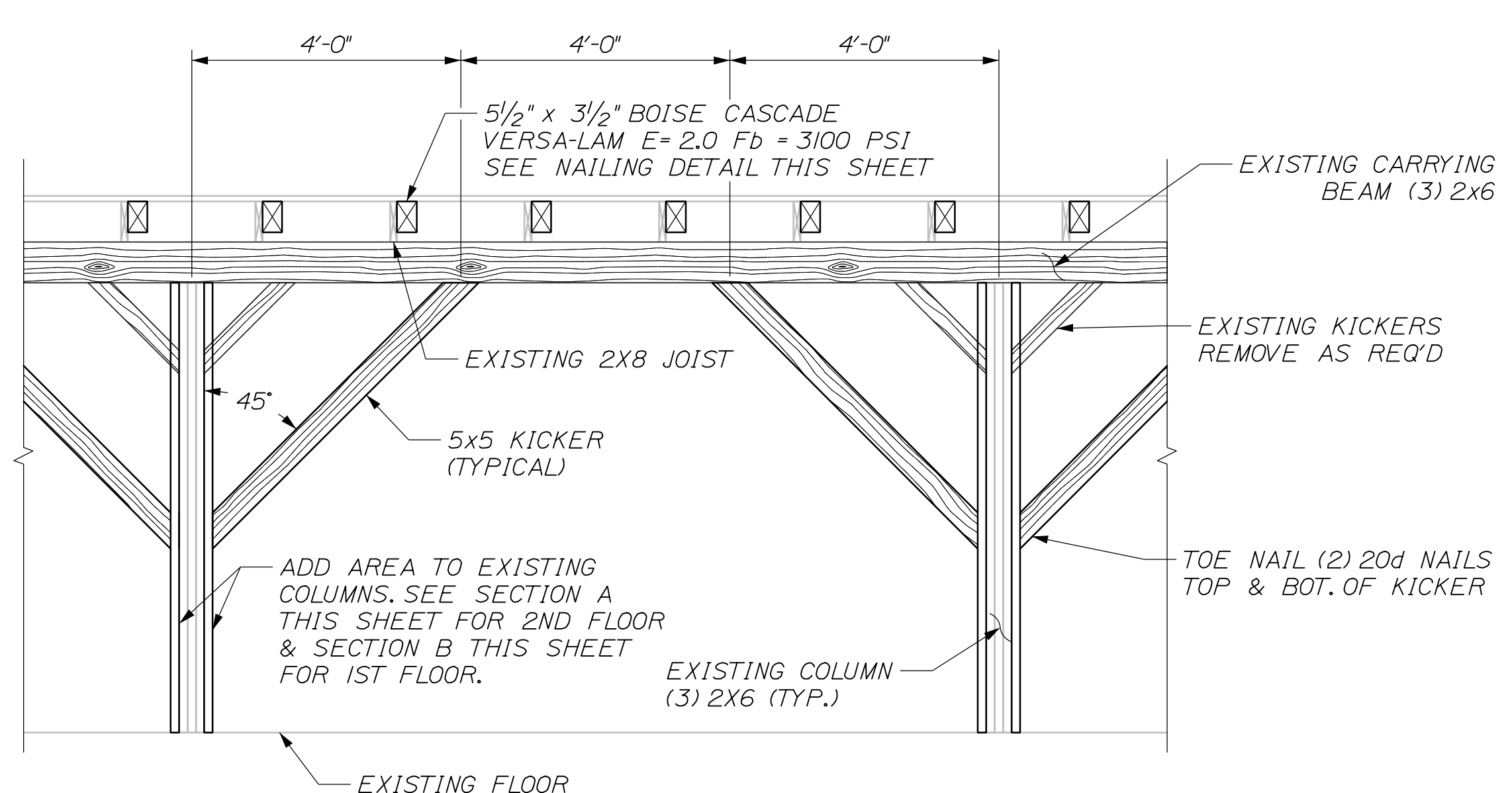
B
3
2" = 1'-0"



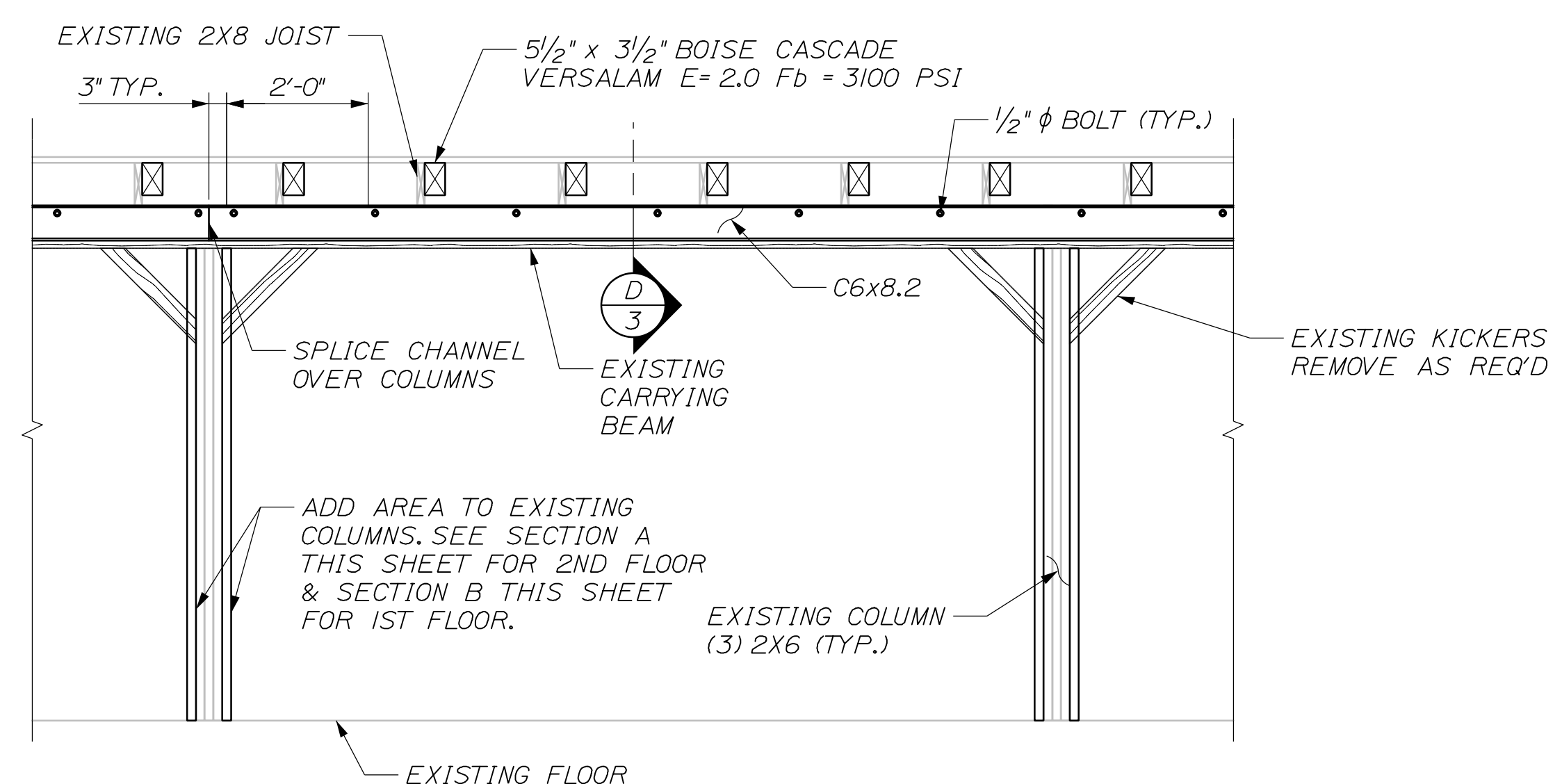
TYPICAL FLOOR JOIST NAIL SPACING
1" = 1'-0"



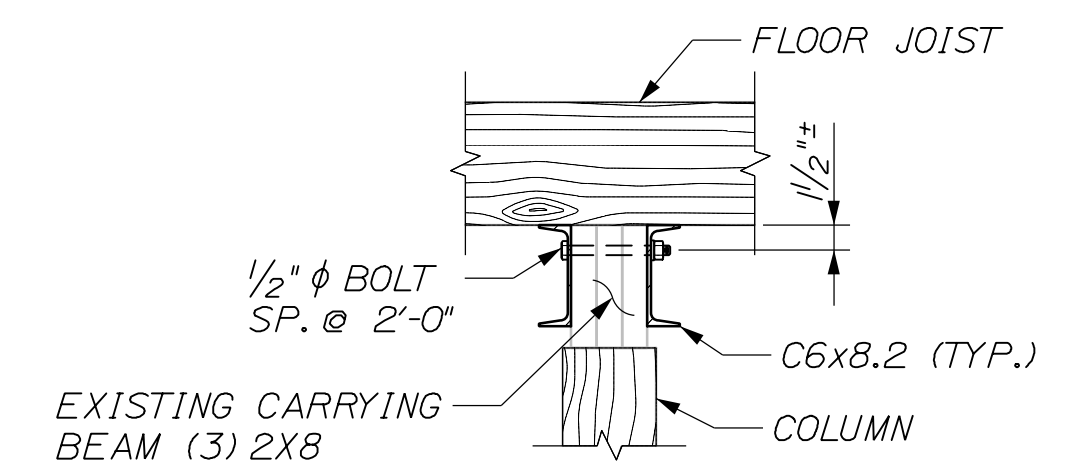
E
3
2" = 1'-0"



C
3
1/2" = 1'-0"



C
3
1/2" = 1'-0"



D
3
1" = 1'-0"

REHABILITATION OPTION 1 PROCEDURE

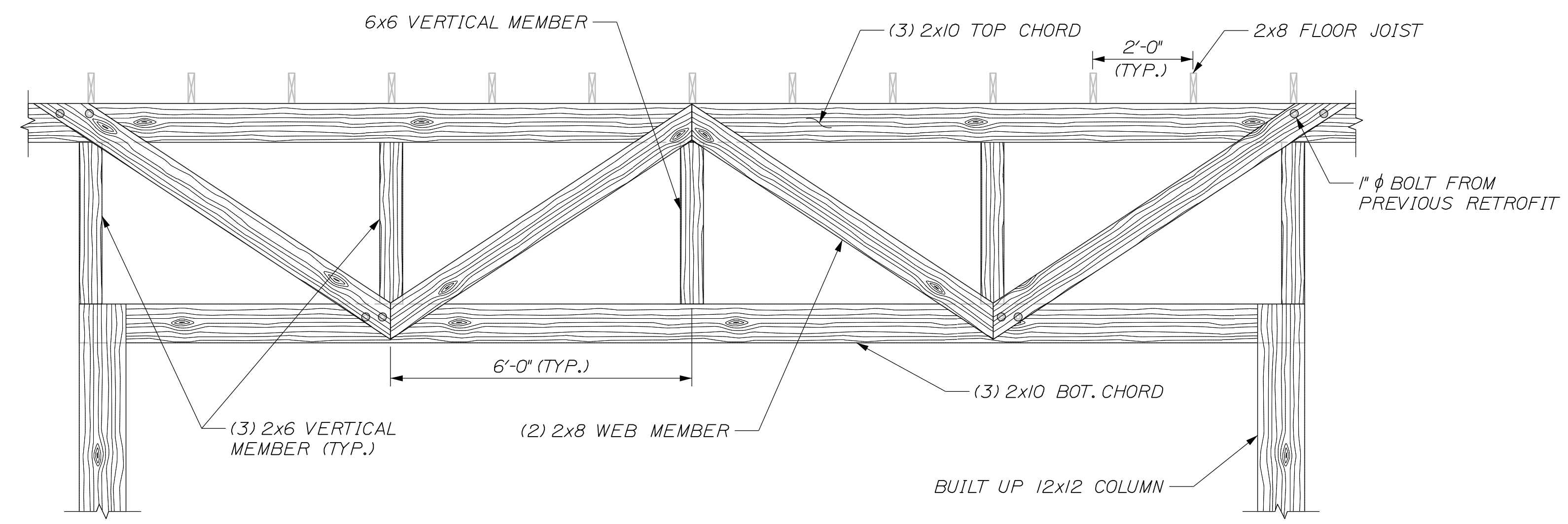
1. RELOCATE ALL EXISTING WIRING PLACED ALONG EXISTING (3) 2x8 CARRYING BEAM
2. JACK UP (3) 2x8 CARRYING BEAM 1/4" OR UNTIL VISUALLY LEVEL. USE 4x4 POST SET ON (2) 2x12x1'-0" SET ON (2) LAYERS WITH GRAIN RUNNING PERPENDICULAR BETWEEN THEM.
3. INSTALL ADDITIONAL SECTION TO EXISTING COLUMNS AS SHOWN IN SECTIONS A AND B THIS SHEET.
4. INSTALL 5x5 KICKERS TIGHT BETWEEN CARRYING BEAM AND COLUMNS AS SHOWN
5. REMOVE 4x4 TEMPORARY POST

REHABILITATION OPTION 2 PROCEDURE

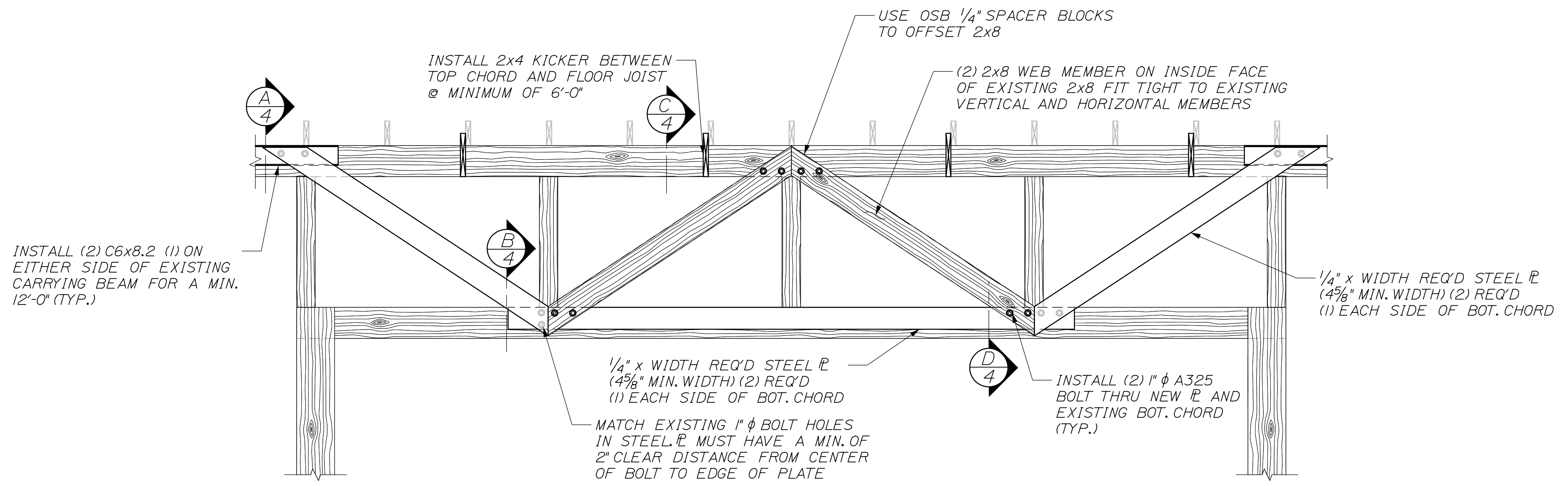
1. RELOCATE ALL EXISTING WIRING PLACED ALONG EXISTING (3) 2x8 CARRYING BEAM
2. JACK UP (3) 2x8 CARRYING BEAM 1/4" OR UNTIL VISUALLY LEVEL. USE 4x4 POST SET ON (2) 2x12x1'-0" SET ON (2) LAYERS WITH GRAIN RUNNING PERPENDICULAR BETWEEN THEM. JACK UP CONSECUTIVE SPANS AS REQ'D TO MATCH THE LENGTH OF C6x8.2 CHANNELS. SOLIDLY BLOCK TEMP POST.
3. DRILL 9/16" HOLES @ 2'-0" CENTERS ALONG EXISTING CARRYING BEAM TO MATCH HOLES IN NEW C6x8.2 CHANNELS.
4. INSTALL (2) C6x8.2 CHANNELS AS SHOWN WITH 1/2" phi BOLTS 2'-0".
5. REMOVE 4x4 TEMPORARY POST

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 P.E. NUMBER: _____ DATE: _____
 CEE 075-ST-13
BOWDOINHAM RECYCLING CENTER
FLOOR REHAB OPTION #1
 SHEET NUMBER: **3**

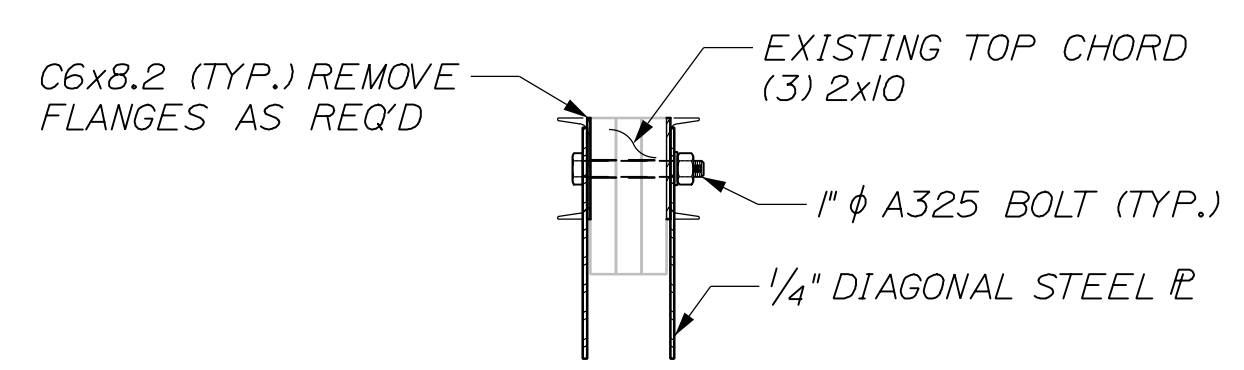




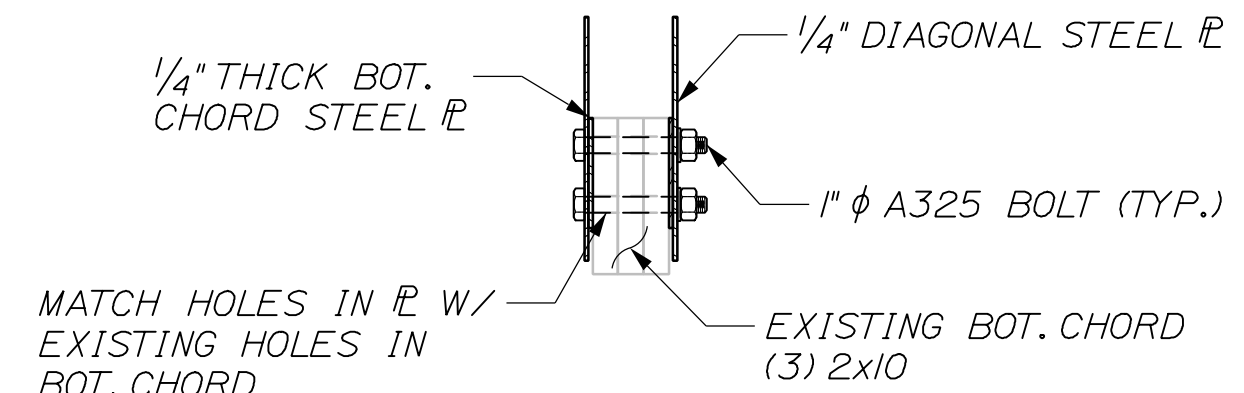
EXISTING CEILING TRUSS
 $\frac{1}{2}'' = 1'-0''$
 NOTE: EXISTING CEILING TRUSS FOUND IN REAR OF BUILDING



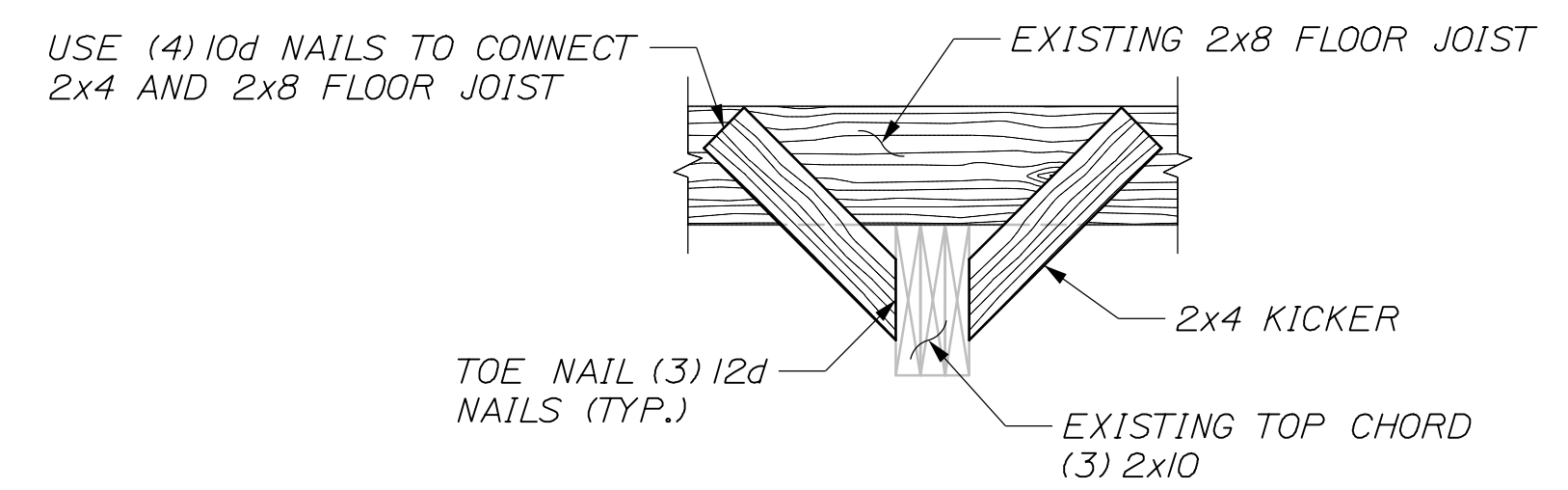
CEILING TRUSS REHAB
 $\frac{1}{2}'' = 1'-0''$
 NOTE: (2) 2x8 MAY BE SUBSTITUTED WITH (1) SOLID SAWN 6x6



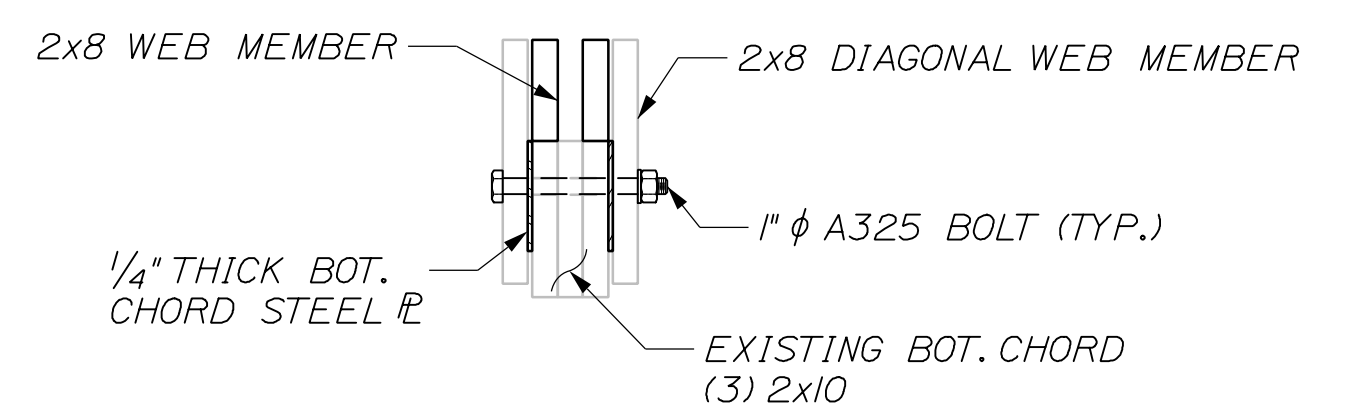
A TOP CHORD SECTION
 $\frac{1}{4}'' = 1'-0''$



B BOTTOM CHORD SECTION
 $\frac{1}{4}'' = 1'-0''$

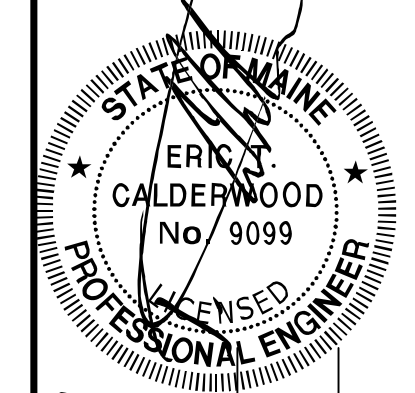


C TOP CHORD BRACE SECTION
 $\frac{1}{4}'' = 1'-0''$



D BOTTOM CHORD SECTION
 $\frac{1}{4}'' = 1'-0''$

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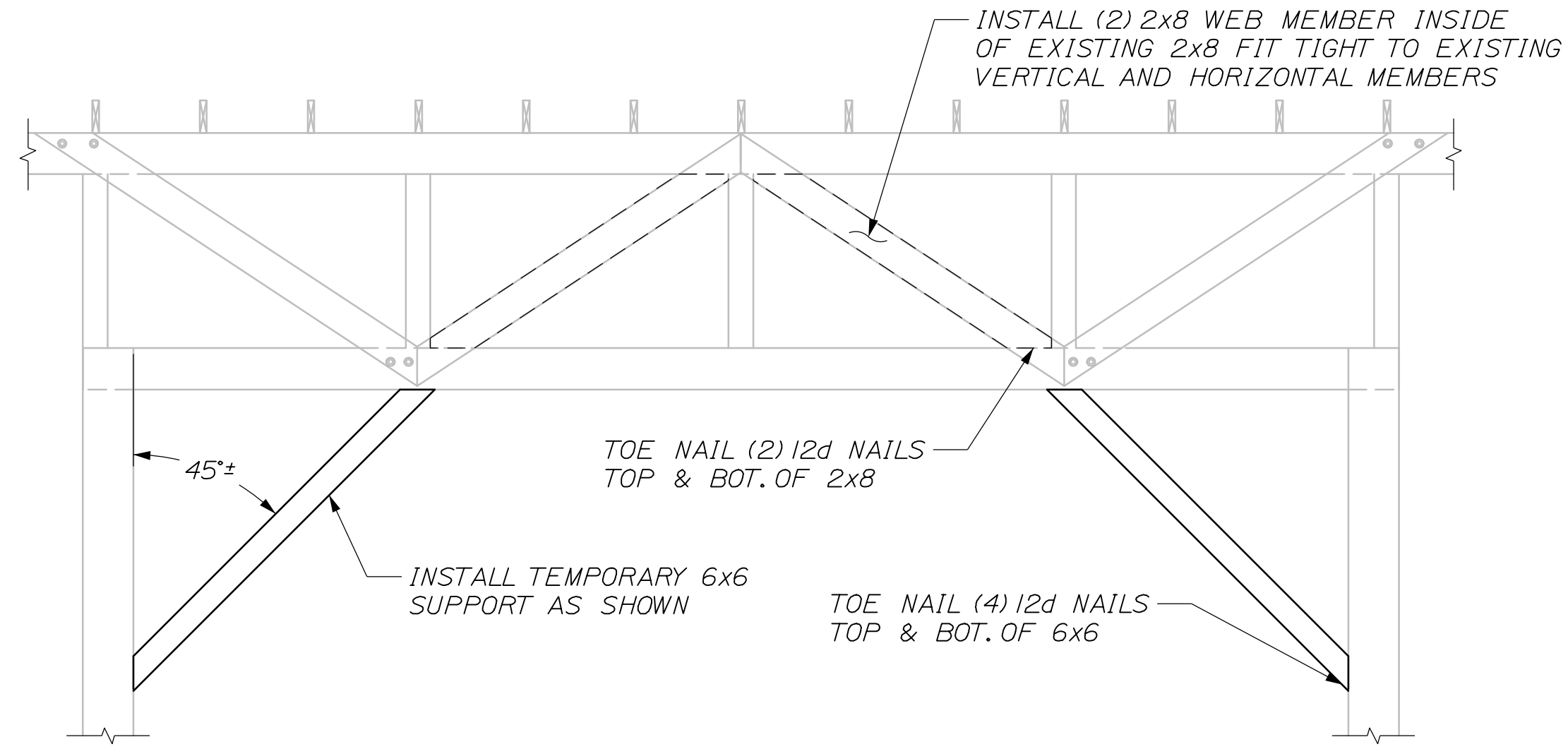
P.E. NUMBER: _____ DATE: _____

DATE	BY	DESCRIPTION
DEC. 2013	GNM	
	GNM	
	GNM	
	GNM	

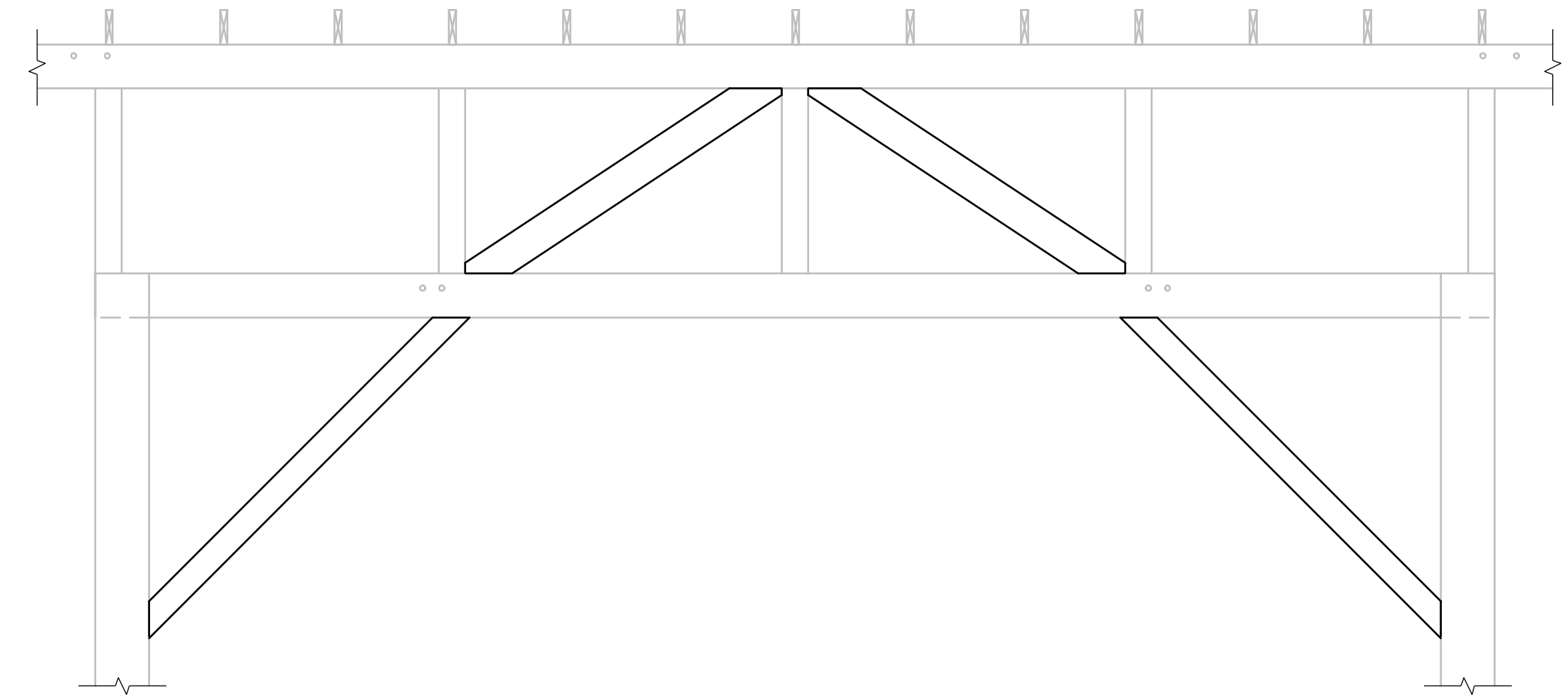
BOWDOINHAM RECYCLING CENTER
 TRUSS REHABILITATION DETAILS

SHEET NUMBER
4

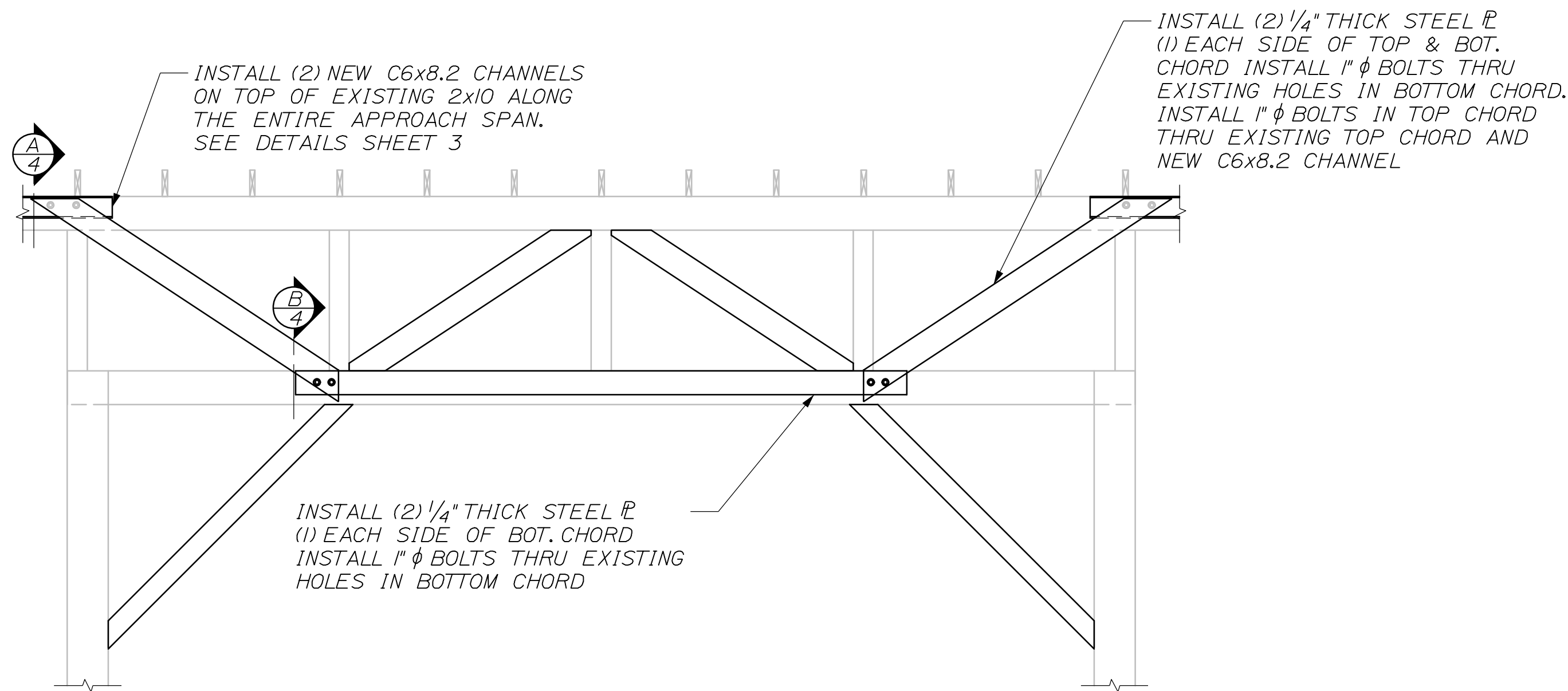




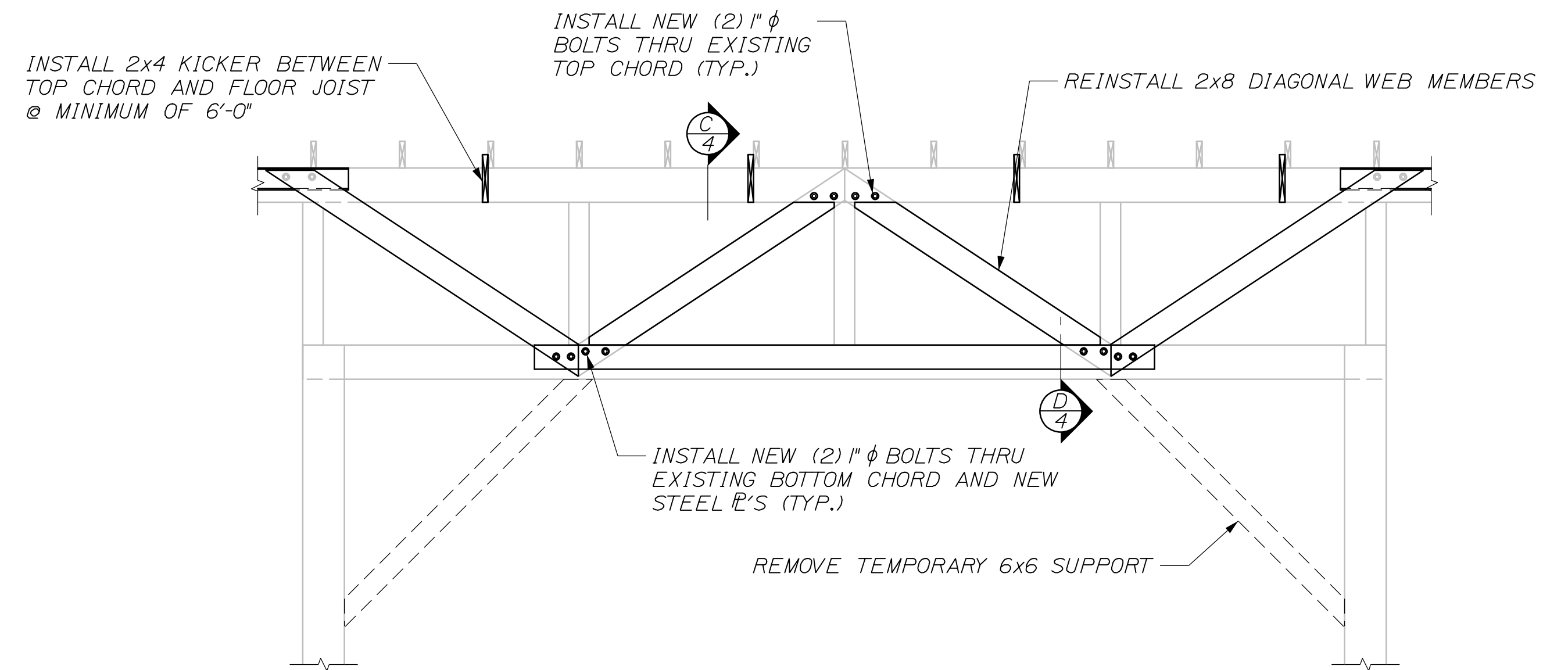
TRUSS REHAB ~ STEP 1
 $\frac{3}{8}'' = 1'-0''$
 INSTALL TEMPORARY SUPPORTS
 NOTE: (2) 2x8 MAY BE SUBSTITUTED WITH (1) 6x6 POST



TRUSS REHAB ~ STEP 2
 $\frac{3}{8}'' = 1'-0''$
 REMOVE DIAGONAL WEB MEMBERS

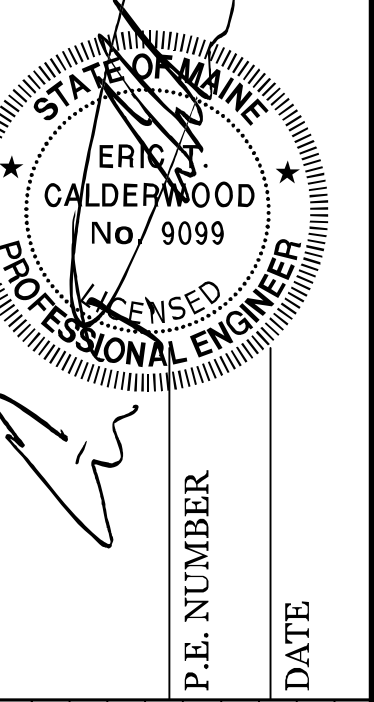


TRUSS REHAB ~ STEP 3
 $\frac{3}{8}'' = 1'-0''$
 INSTALL NEW 1/4" PLATE ON BOTTOM CHORD AND DIAGONAL WEB MEMBERS



TRUSS REHAB ~ STEP 4
 $\frac{3}{8}'' = 1'-0''$
 REINSTALL 2x8 WEB MEMBERS & 2x6 LATERAL SUPPORTS FOR TOP CHORD

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TOWN OF BOWDOINHAM
 CEE 075-ST-13



DESIGN/RETAILED	DATE
CHECKED/REVIEWED	DEC. 2013
BY	
DATE	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

BOWDOINHAM RECYCLING CENTER

TRUSS REHAB SEQUENCE

SHEET NUMBER
5

