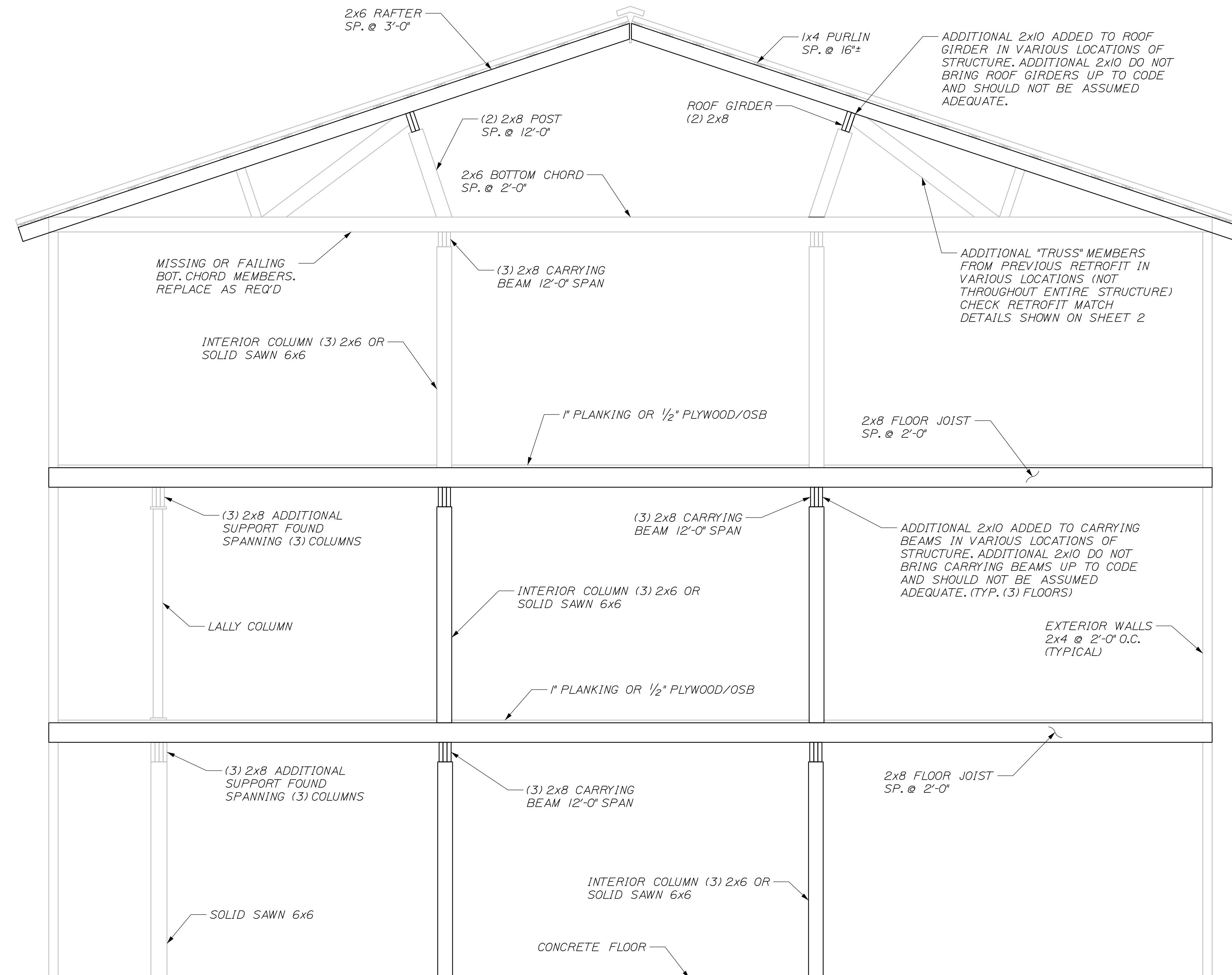


Filename: ... \001\_Recycling Rehab Overhaul.dwg Structures Division  
 Username: common  
 Date: 1/27/2014



**TYPICAL SECTION ~ LOOKING AWAY FROM THE ROAD**  
 $\frac{1}{2}'' = 1'-0''$   
 NOTE: MEMBERS IN BOLD ARE UNDERSIZED AND NEED RETROFIT TO BE ABLE TO SUPPORT DESIGN LOADS

**GENERAL NOTES**

1. LAMINATED VENEER LUMBER SHALL HAVE A MINIMUM MODULUS OF ELASTICITY OF E=2,000,000 PSI AND A MINIMUM F =3100 PSI
2. ALL SAWN DIMENSION LUMBER IS NOMINAL SIZE, SPF #2 GRADE
3. ALL STEEL SHALL BE IN NEW OR GOOD USED CONDITION
4. ALL STEEL TO MEET THE REQUIREMENTS OF ASTM A36 OR BETTER
5. ALL BOLTS SHALL BE A325 BOLTS
6. ALL MATERIALS STORED ON THE PROJECT SHALL BE PROTECTED FROM THE ELEMENTS BY BEING STORED INDOORS ABOVE GROUND LEVEL ON SUITABLE DUNNAGE.
7. ALL DIMENSIONS WITHIN THESE DETAILS ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE EXACT DIMENSIONS IN THE FIELD.
8. 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.
9. 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.
10. 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.
11. 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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**TOWN OF BOWDOINHAM**  
 CEE 075-ST-13

ERIC CALDERWOOD  
No. 9099  
LICENSED PROFESSIONAL ENGINEER

P.E. NUMBER: \_\_\_\_\_  
 DATE: \_\_\_\_\_

DATE	BY	DESCRIPTION
DEC. 2013	GNW	DESIGN
	GNW	CHECKED-REVIEWED
	GNW	REVISIONS 1
		REVISIONS 2
		REVISIONS 3
		REVISIONS 4
		FIELD CHANGES

BOWDOINHAM RECYCLING CENTER  
 RECYCLING CENTER TYPICAL SECTION

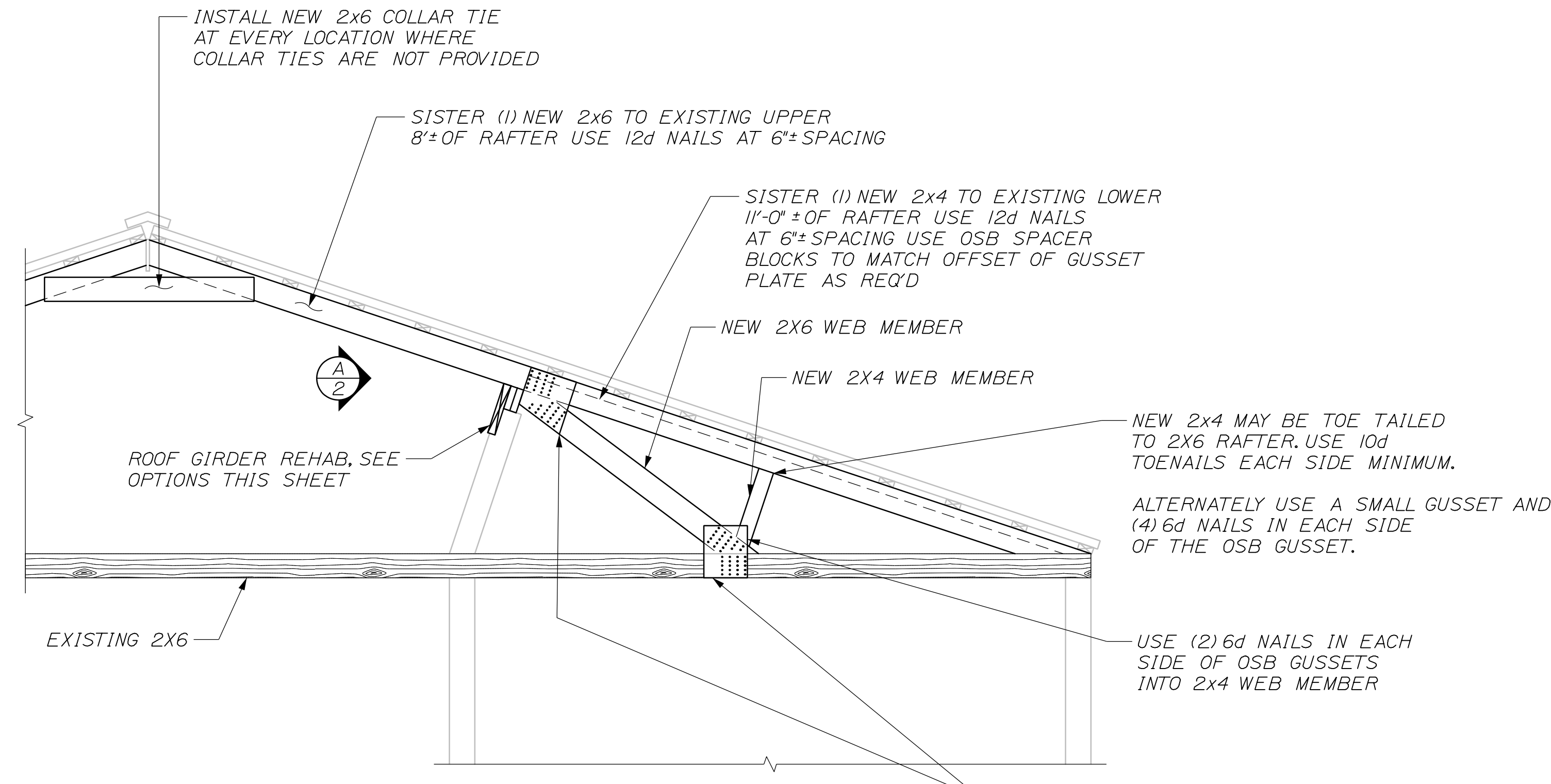
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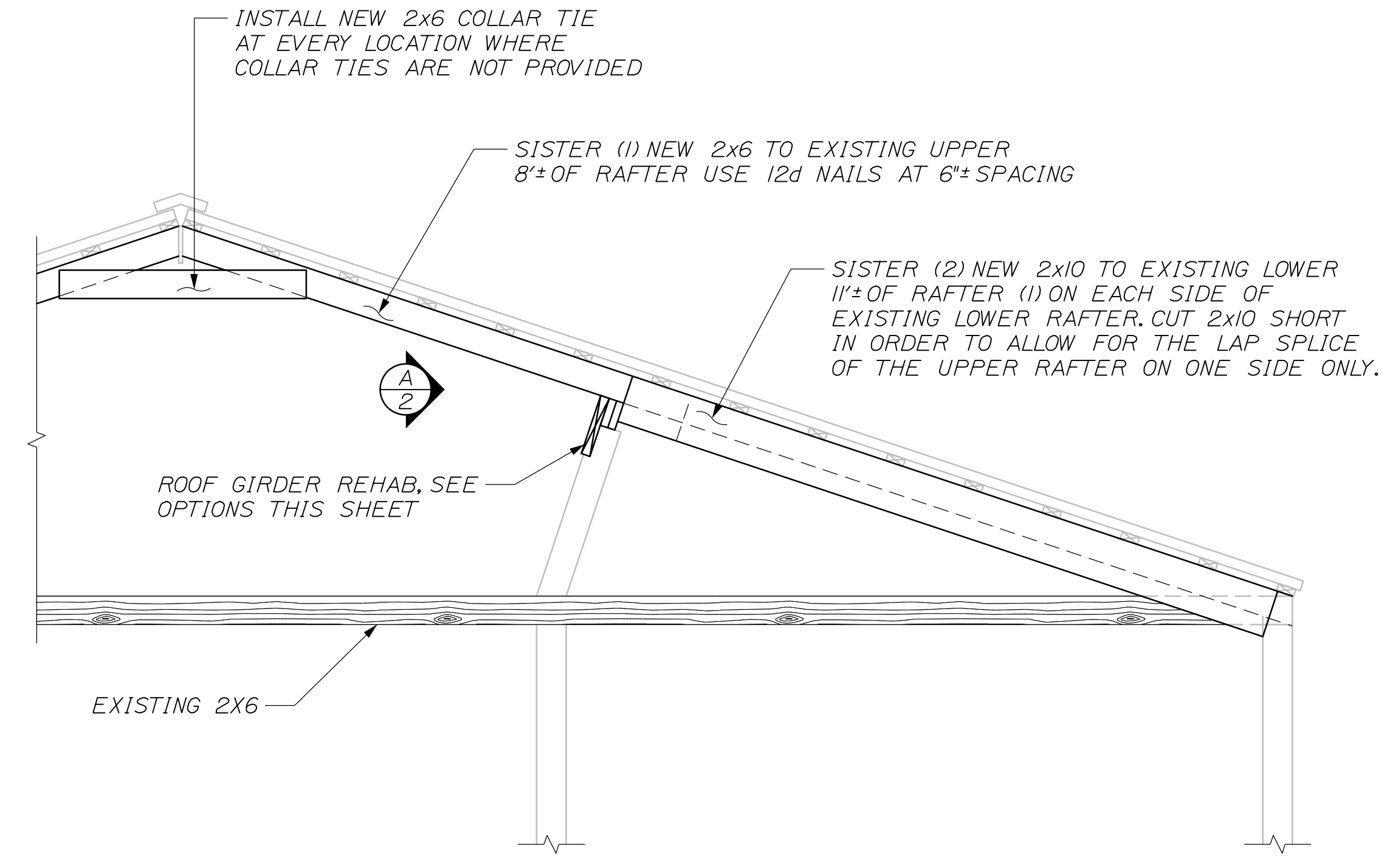
Date: 1/27/2014

Username: common

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

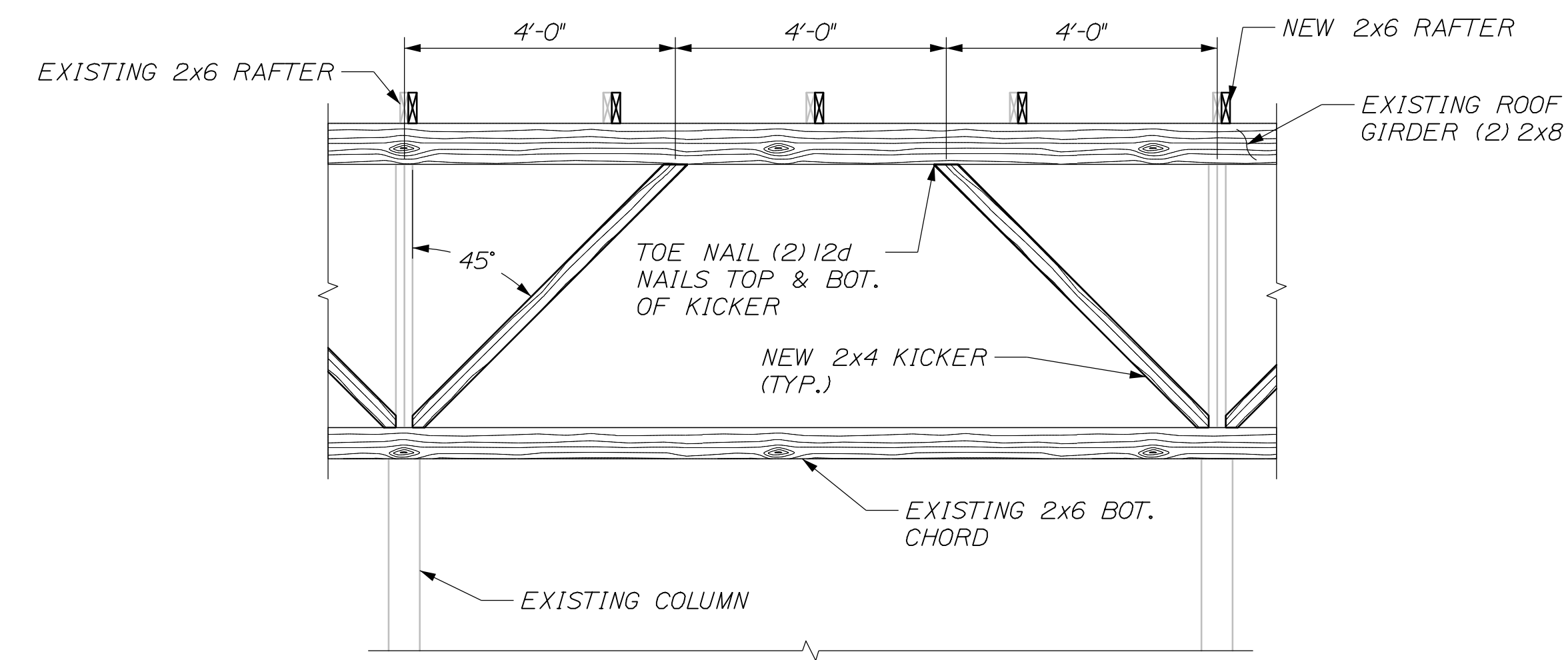


**ROOF REHAB OPTION #1**  
 1/2" = 1'-0"  
 NOTE: OPTION A & B ARE BOTH ACCEPTABLE REPAIRS FOR THE EXISTING FOR GIRDER

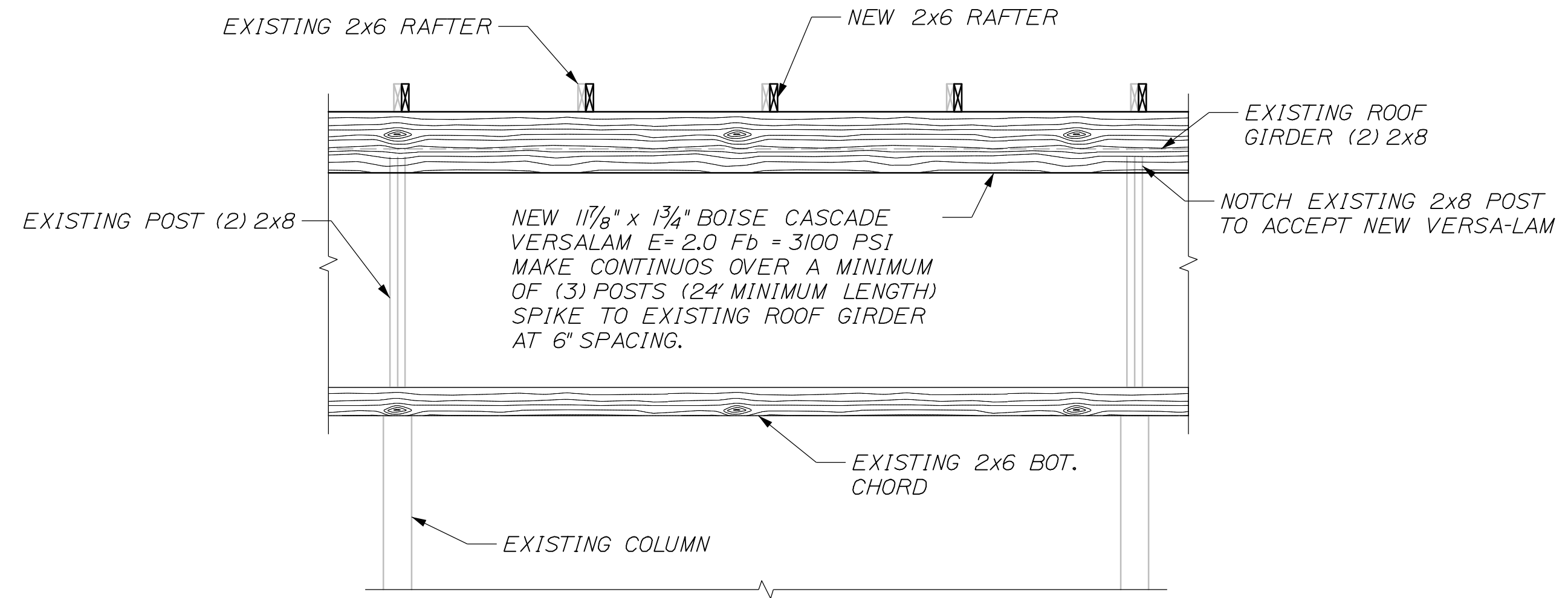


**ROOF REHAB OPTION #2**  
 1/2" = 1'-0"  
 NOTE: OPTION A & B ARE BOTH ACCEPTABLE REPAIRS FOR THE EXISTING FOR GIRDER

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

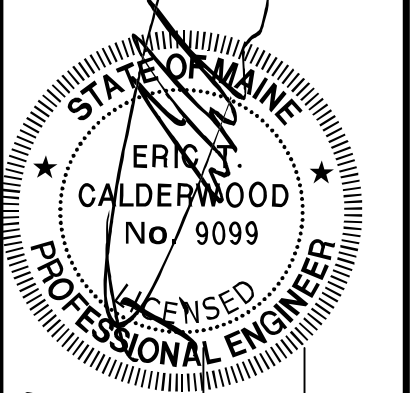


**ROOF GIRDER REHAB OPTION A**  
 1/2" = 1'-0"



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

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P.E. NUMBER  
 DATE

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

BOWDOINHAM RECYCLING CENTER

ROOF REHAB OPTIONS

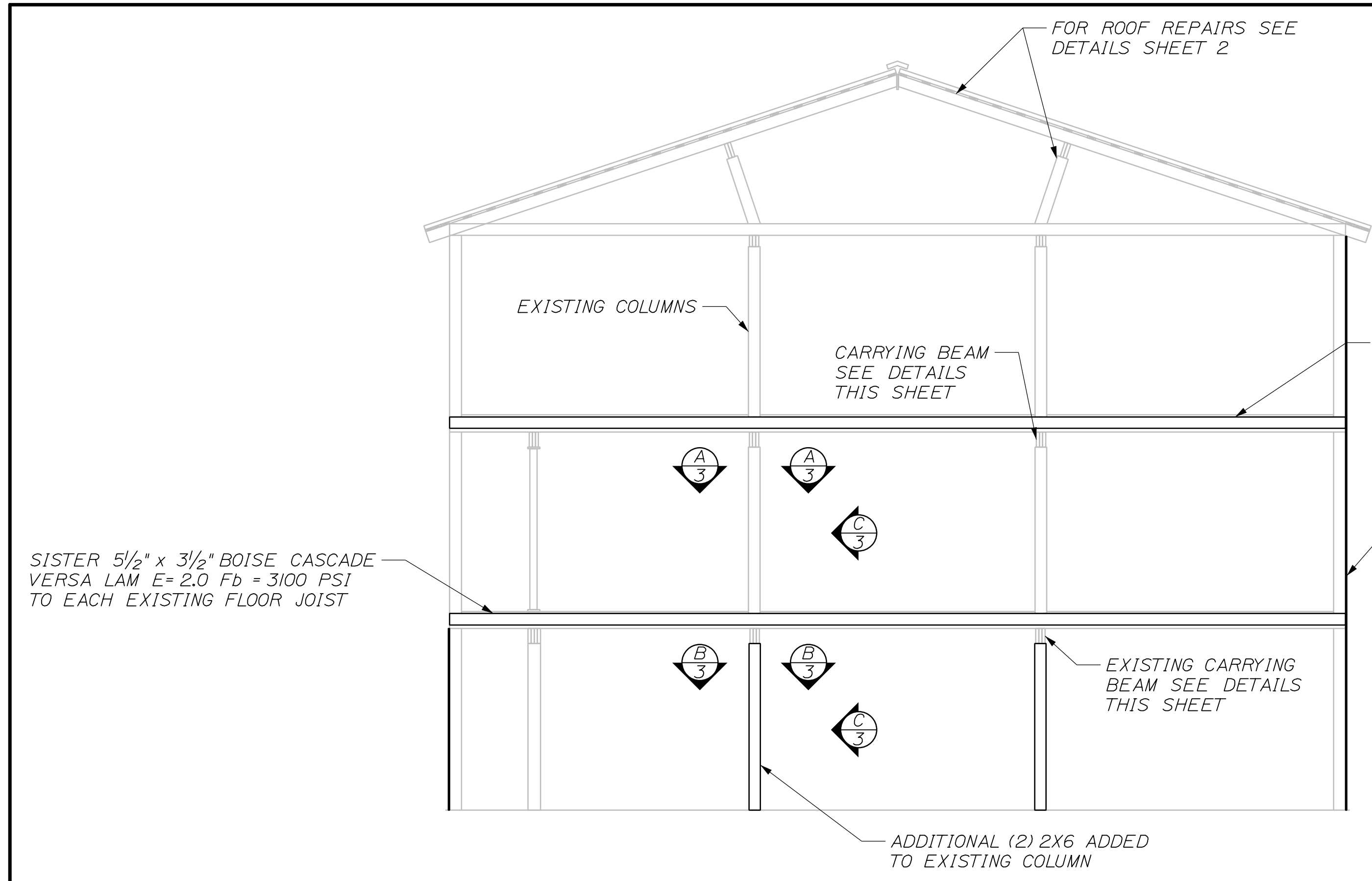
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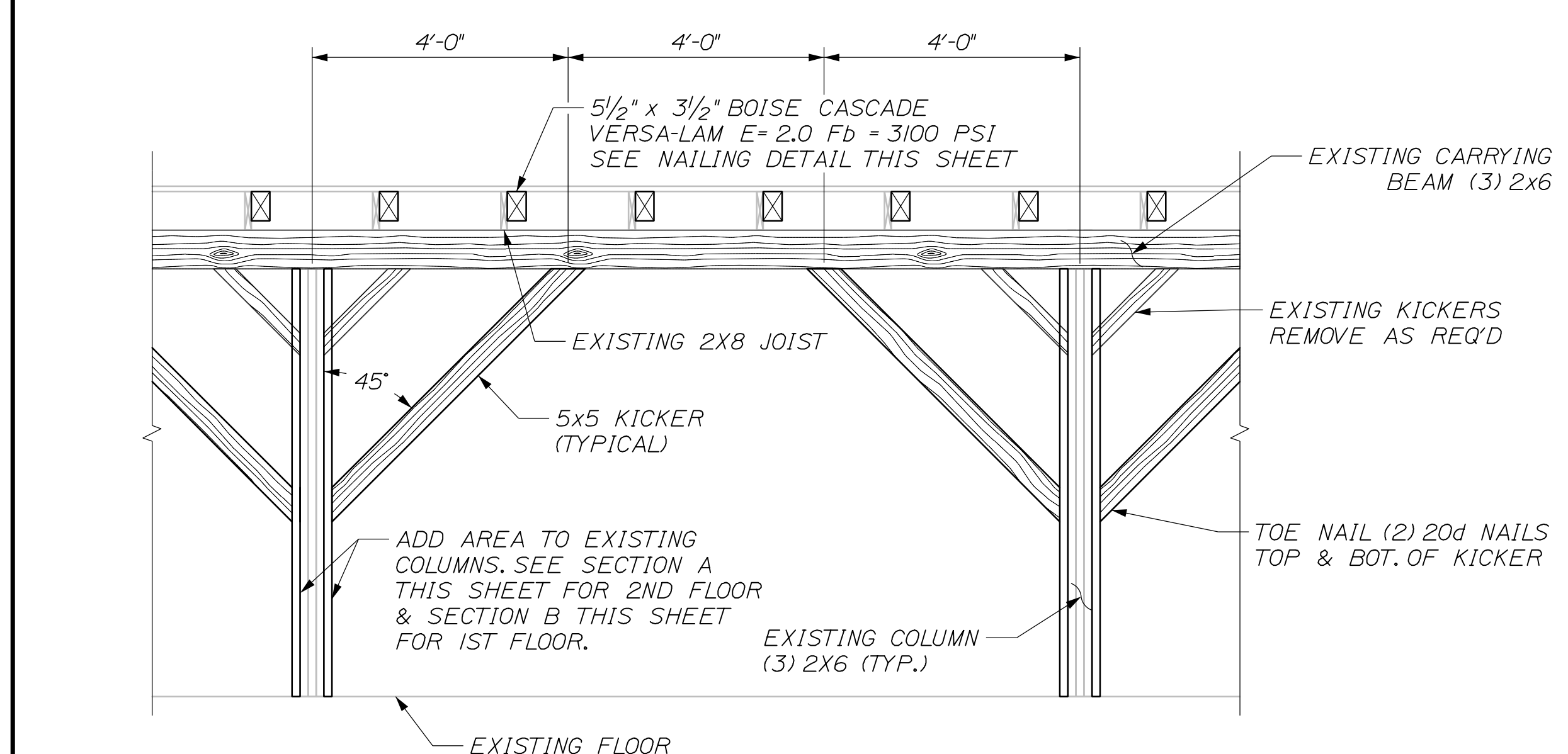
Date: 1/27/2014

Username: common

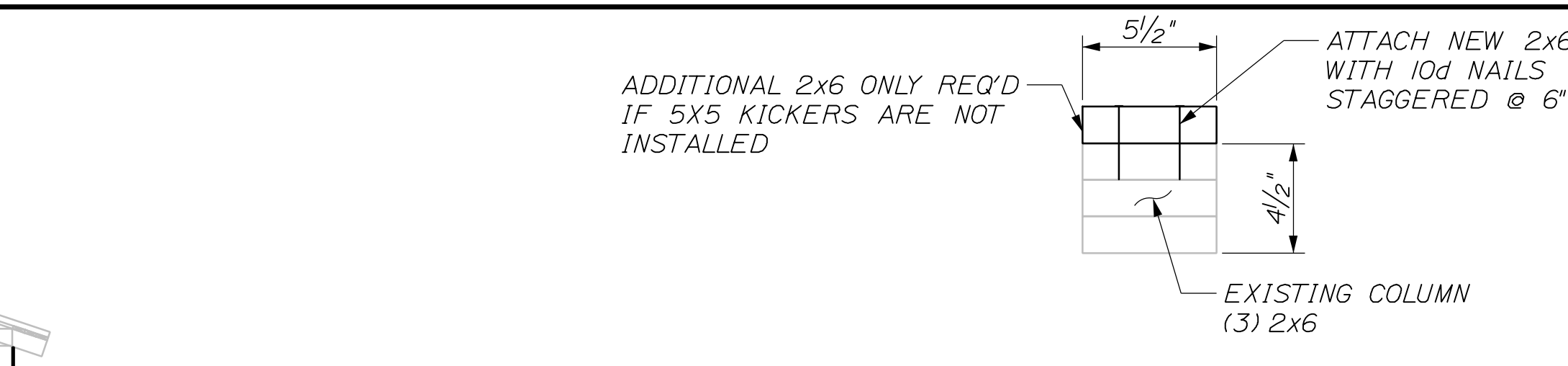
Filename: ... \003\_Floor Rehab Option\dwg\group: Structures Division



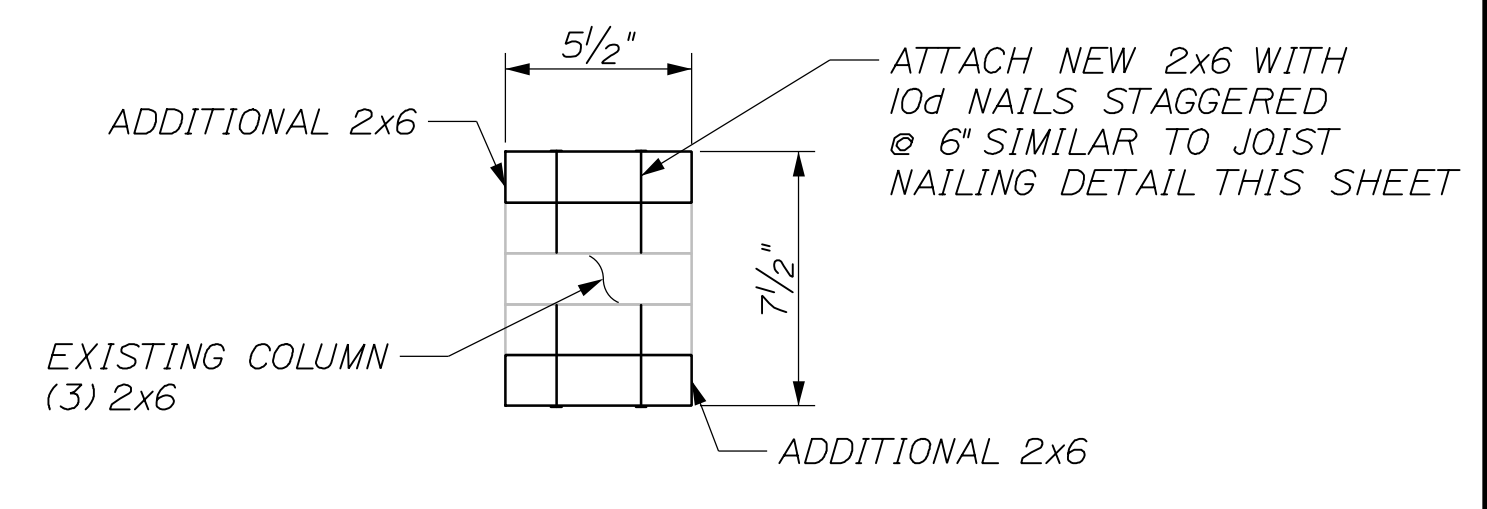
**TYPICAL REPAIR SECTION**  
1/4" = 1'-0"



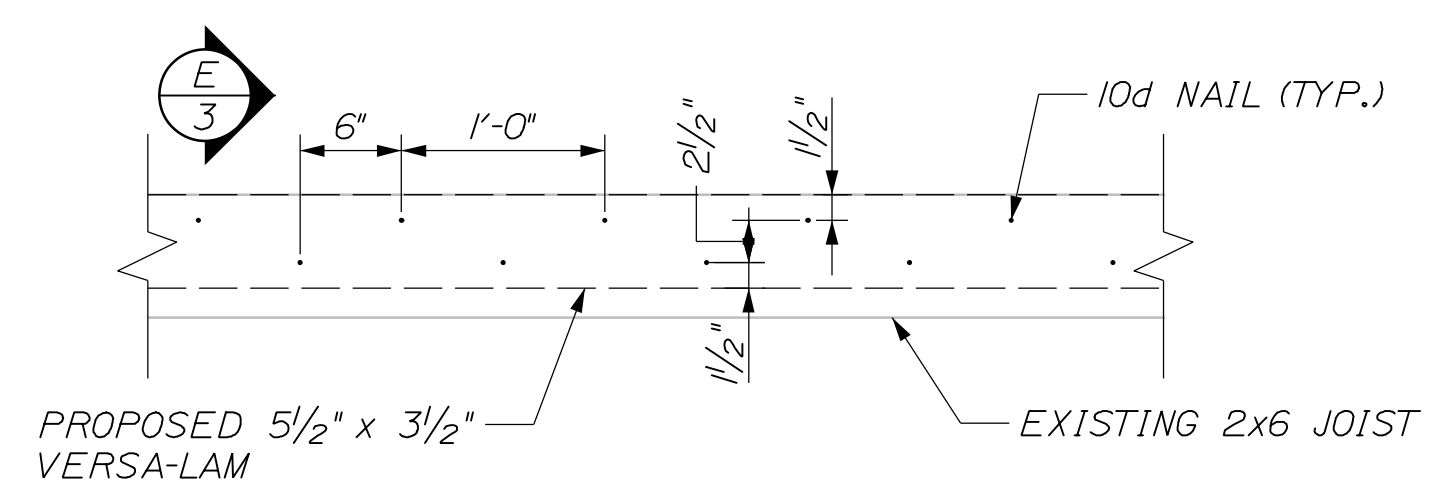
**(C) 1ST & 2ND FLOOR CARRYING BEAM REHAB OPTION 1**  
1/2" = 1'-0"



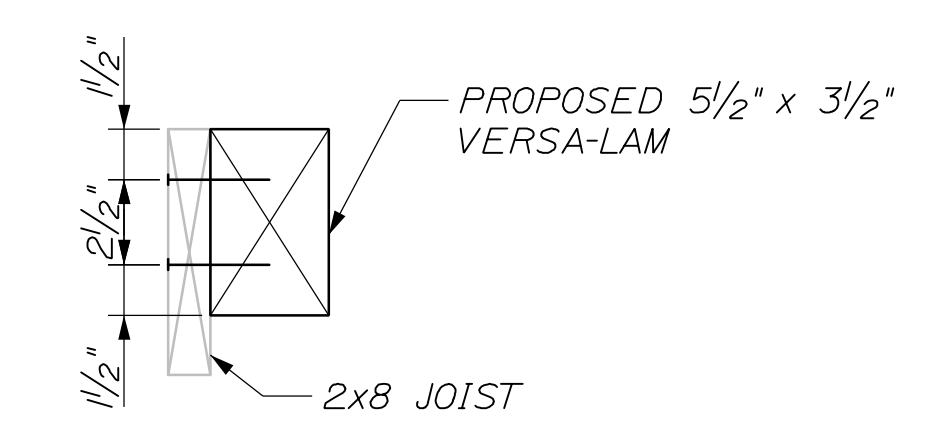
**(A) SECOND FLOOR COLUMN SECTION**  
2" = 1'-0"



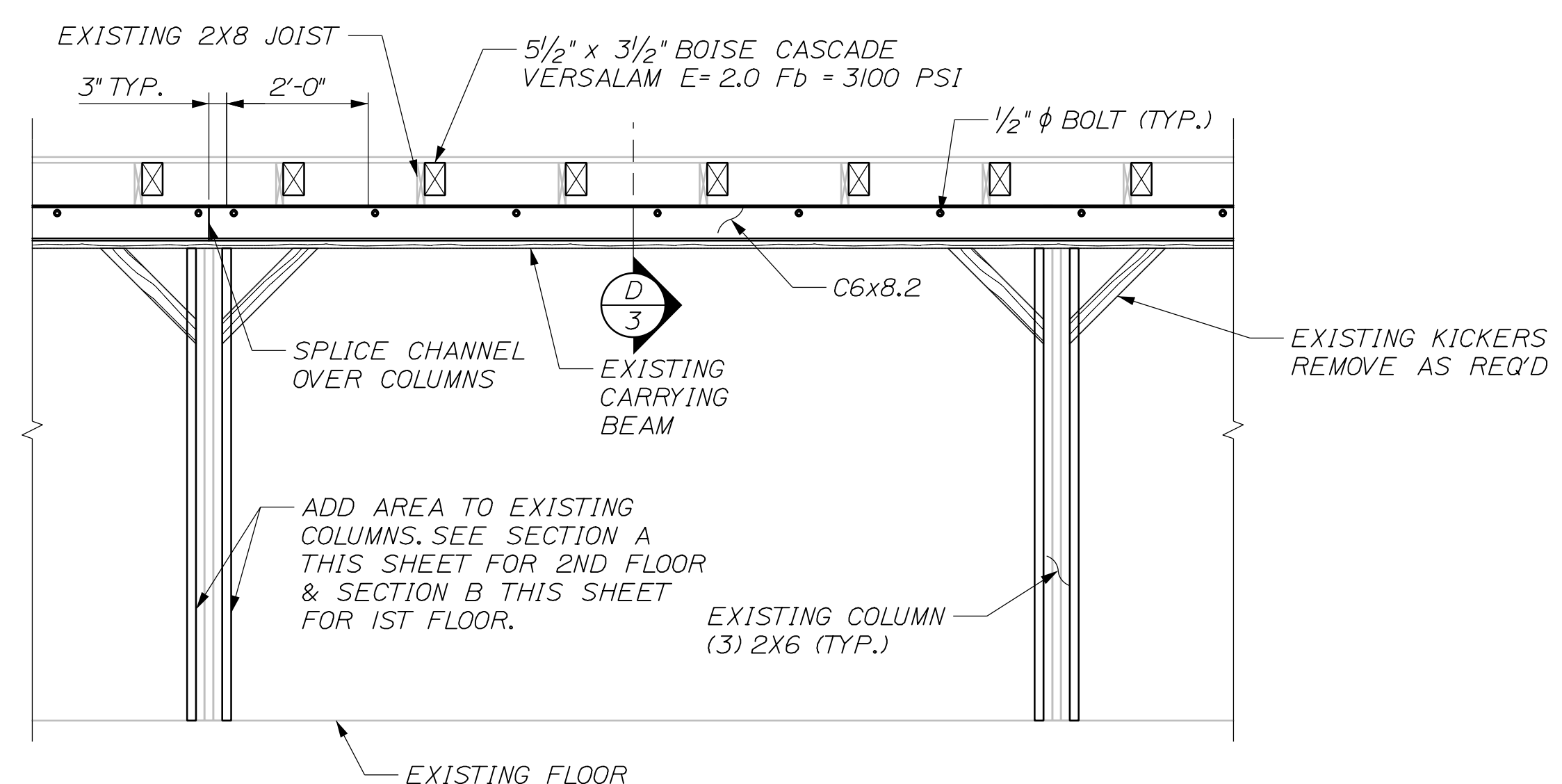
**(B) FIRST FLOOR COLUMN SECTION**  
2" = 1'-0"



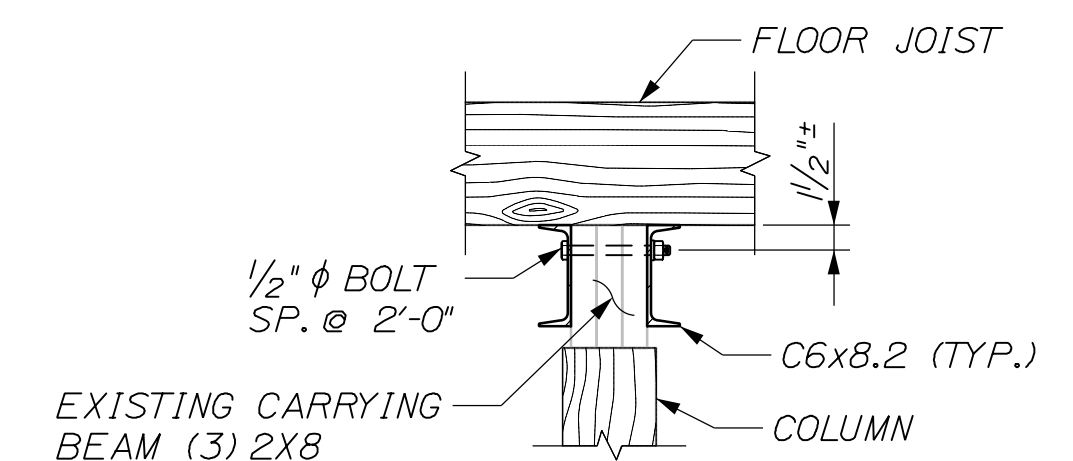
**TYPICAL FLOOR JOIST NAIL SPACING**  
1" = 1'-0"



**(E) JOIST SECTION VIEW**  
3" = 1'-0"



**(C) 1ST & 2ND FLOOR CARRYING BEAM REHAB OPTION 2**  
1/2" = 1'-0"



**(D) CARRYING BEAM SECTION**  
3" = 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" φ BOLTS 2'-0".
5. REMOVE 4x4 TEMPORARY POST

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 P.E. NUMBER: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CEE 075-ST-13

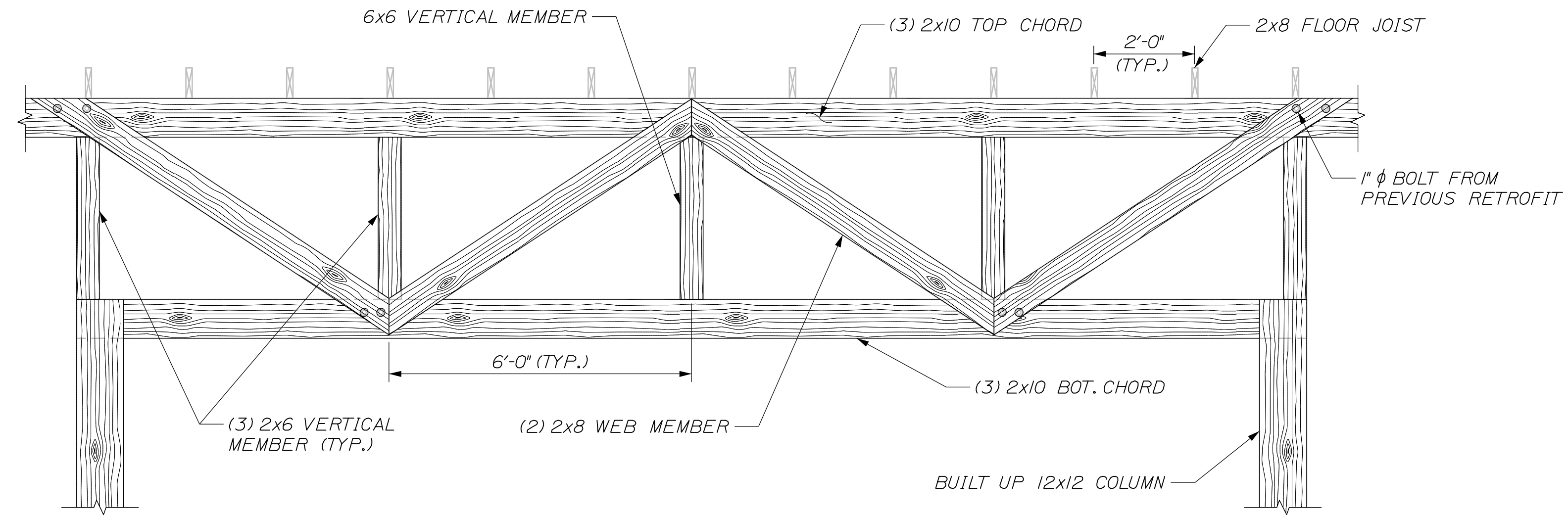
**BOWDOINHAM RECYCLING CENTER**  
**FLOOR REHAB OPTION #1**

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

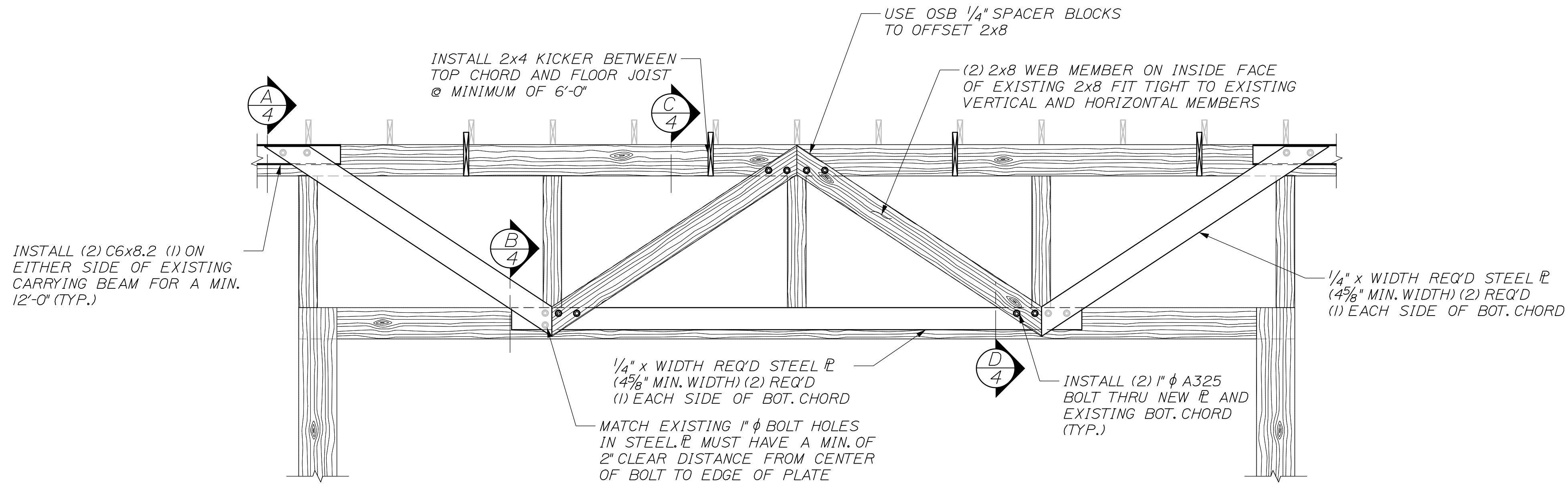
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SHEET NUMBER

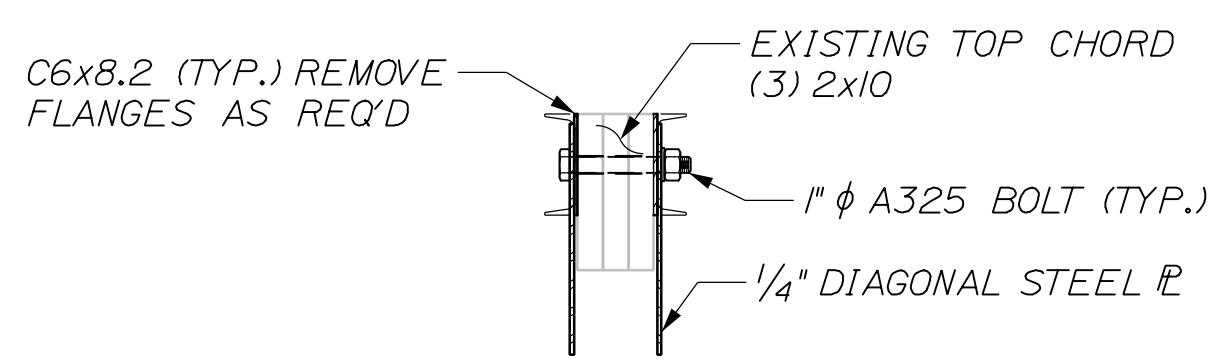




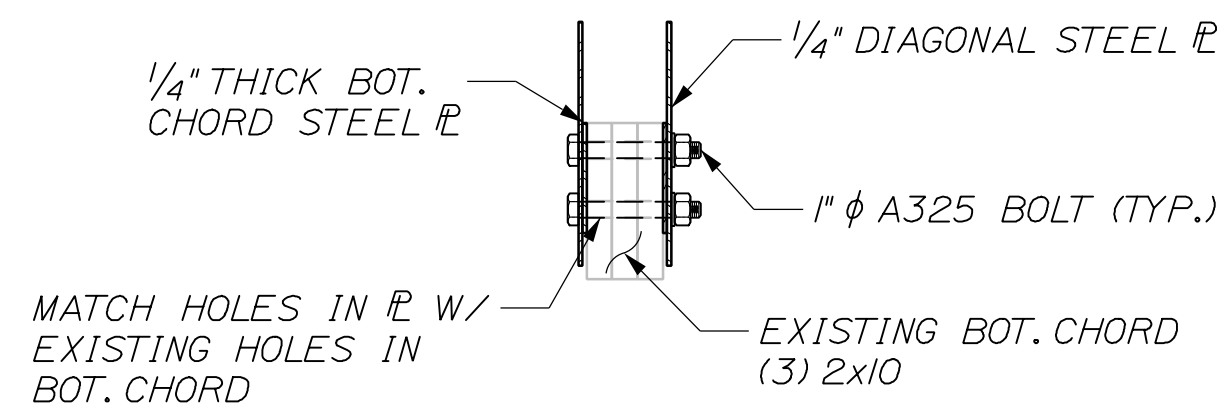
**EXISTING CEILING TRUSS**  
 $\frac{1}{2}'' = 1'-0''$   
 NOTE: EXISTING CEILING TRUSS FOUND IN REAR OF BUILDING



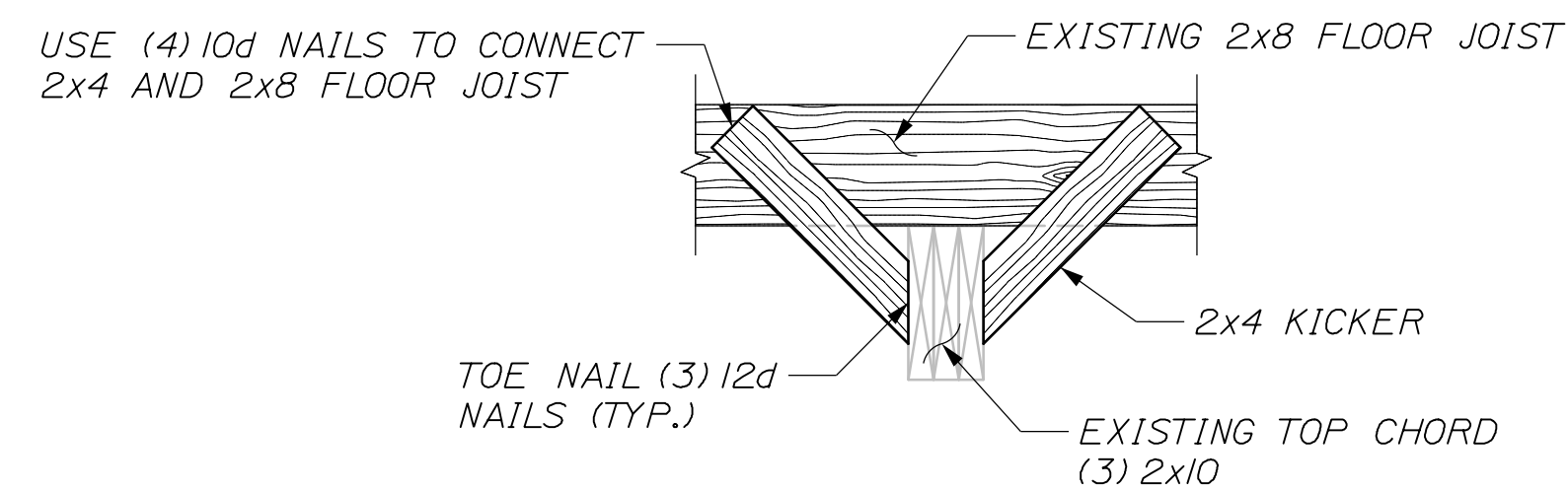
**CEILING TRUSS REHAB**  
 $\frac{1}{2}'' = 1'-0''$   
 NOTE: (2) 2x8 MAY BE SUBSTITUTED WITH (1) SOLID SAWN 6x6



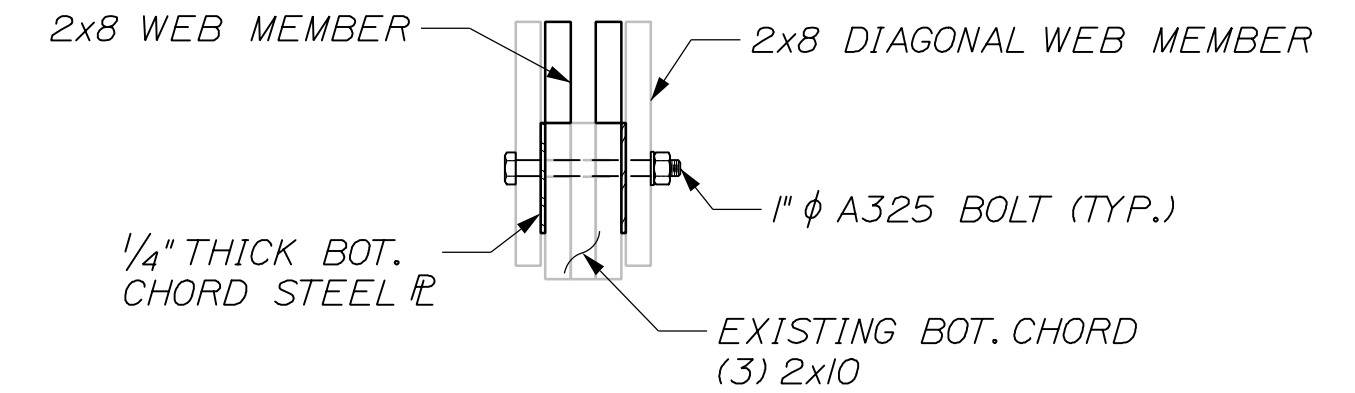
**A TOP CHORD SECTION**  
 $\frac{1}{4}'' = 1'-0''$



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

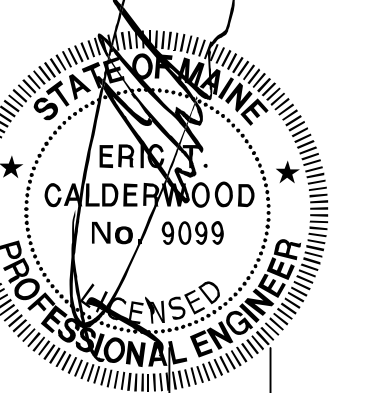


**C TOP CHORD BRACE SECTION**  
 $\frac{1}{4}'' = 1'-0''$



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

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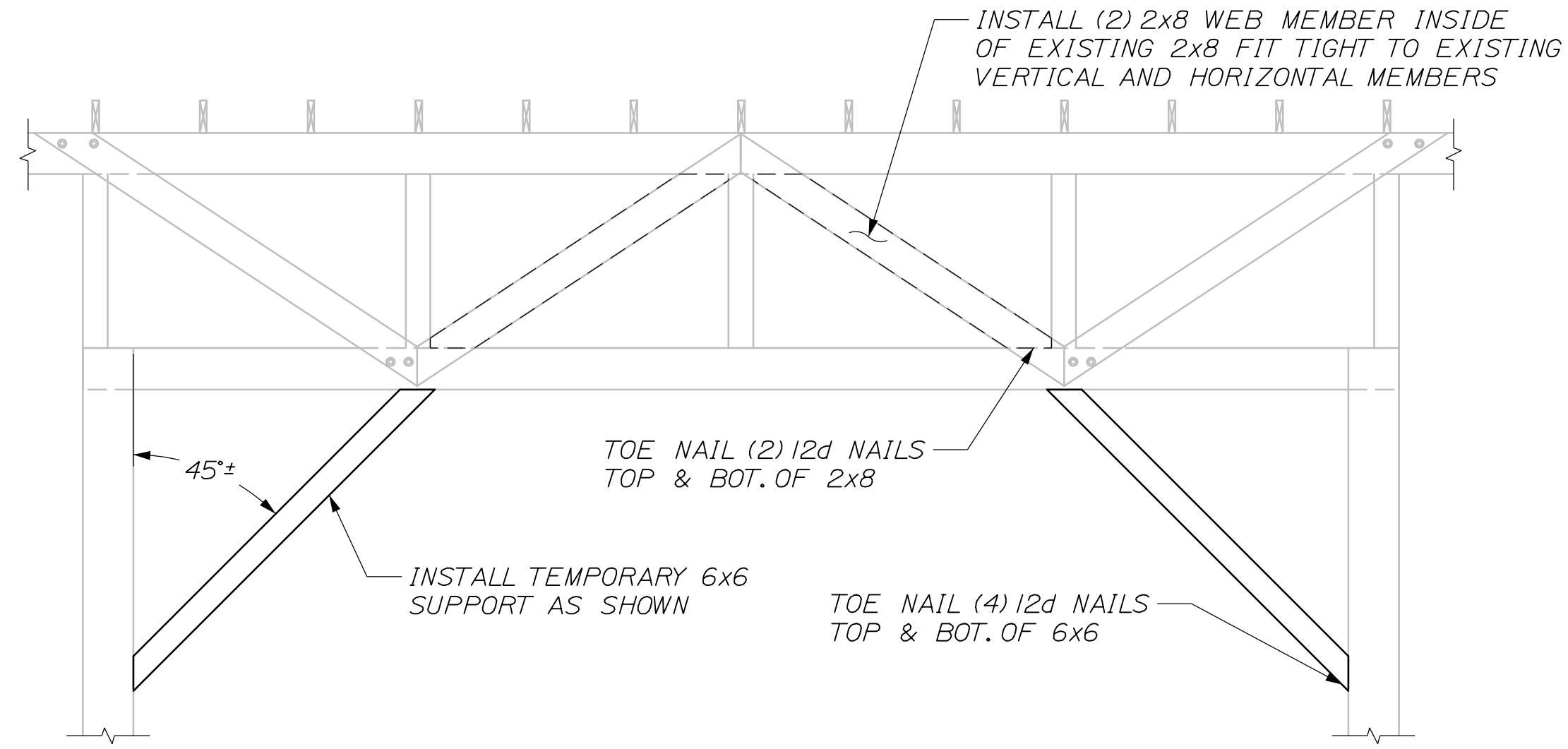
P.E. NUMBER: \_\_\_\_\_ DATE: \_\_\_\_\_

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

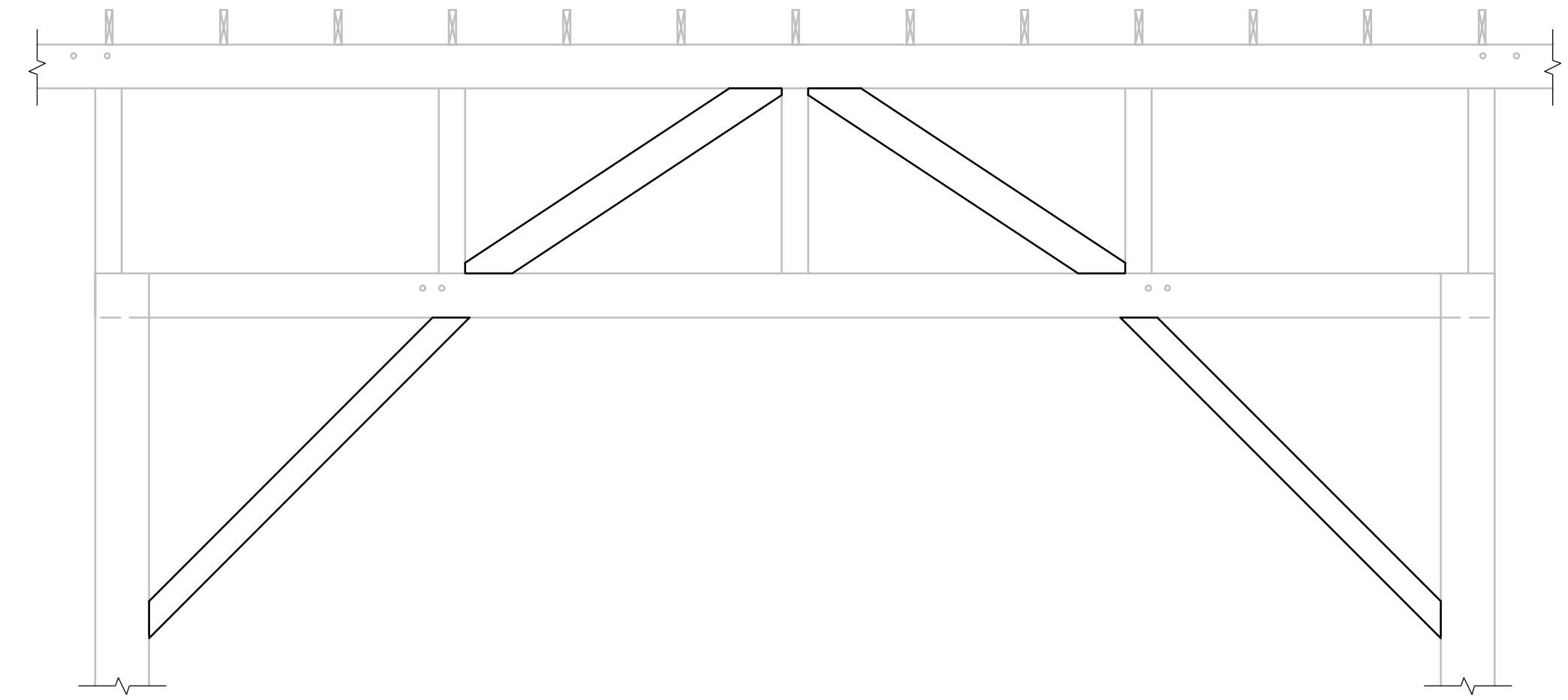
BOWDOINHAM RECYCLING CENTER  
 TRUSS REHABILITATION DETAILS

SHEET NUMBER  
**4**

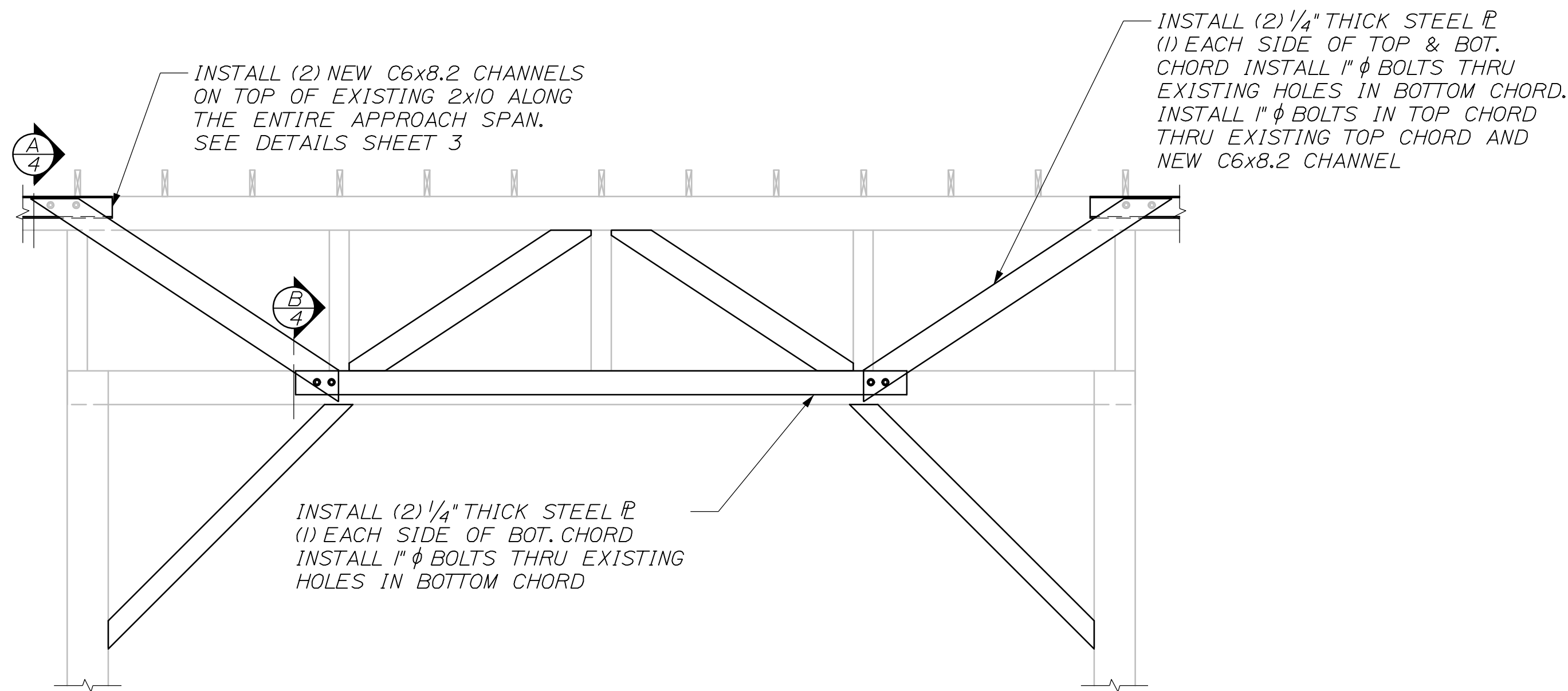




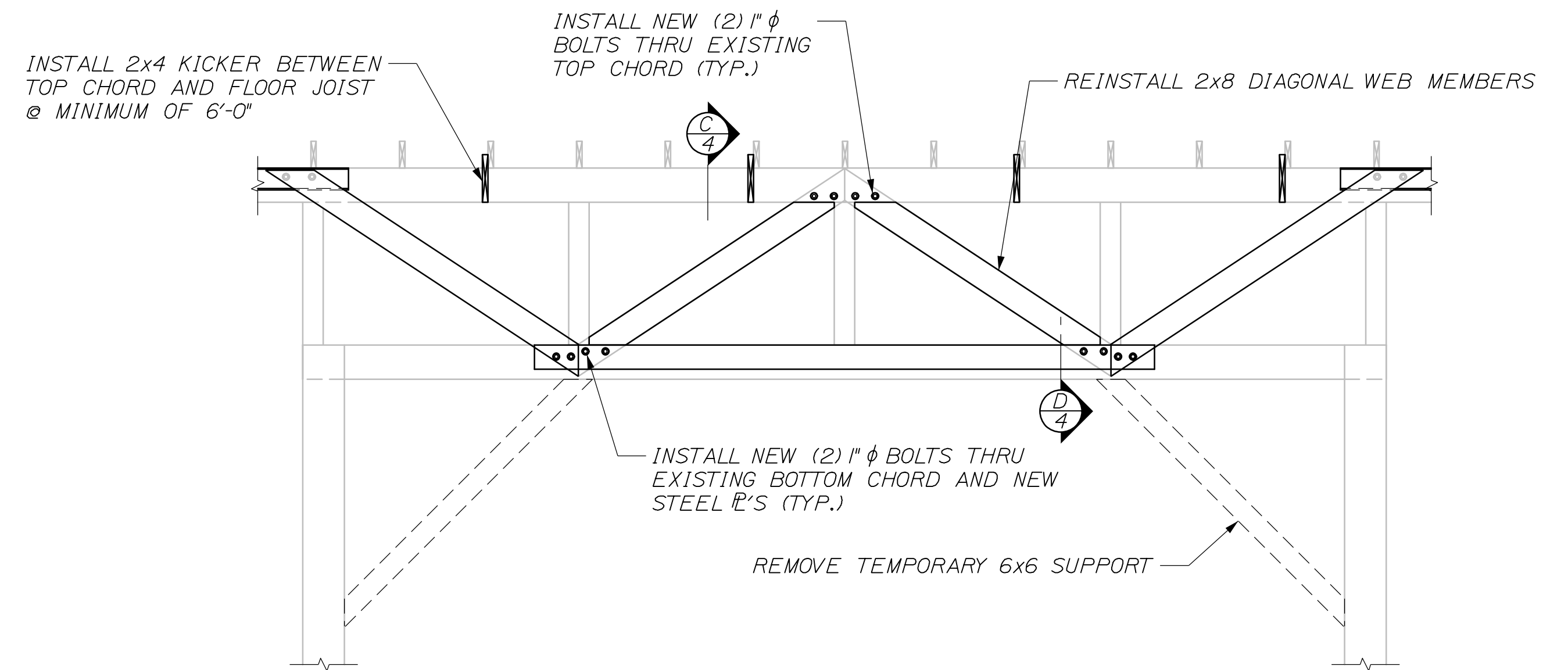
**TRUSS REHAB ~ STEP 1**  
 $\frac{3}{8}'' = 1'-0''$   
 INSTALL TEMPORARY SUPPORTS  
 NOTE: (2) 2x8 MAY BE SUBSTITUTED WITH (1) 6x6 POST



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

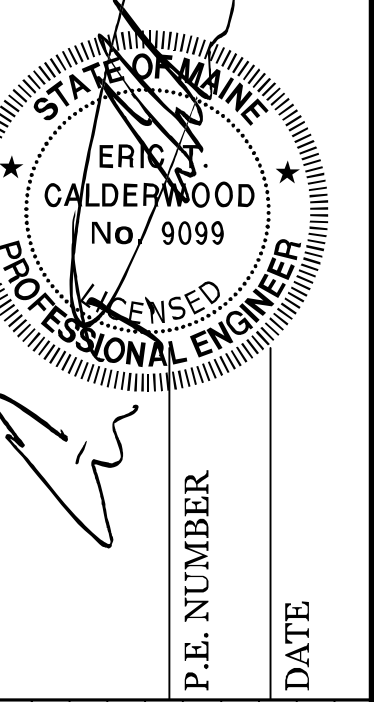


**TRUSS REHAB ~ STEP 3**  
 $\frac{3}{8}'' = 1'-0''$   
 INSTALL NEW 1/4" PLATE ON BOTTOM CHORD AND DIAGONAL WEB MEMBERS



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

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 CEE 075-ST-13



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

**BOWDOINHAM RECYCLING CENTER**

**TRUSS REHAB SEQUENCE**

SHEET NUMBER  
**5**

