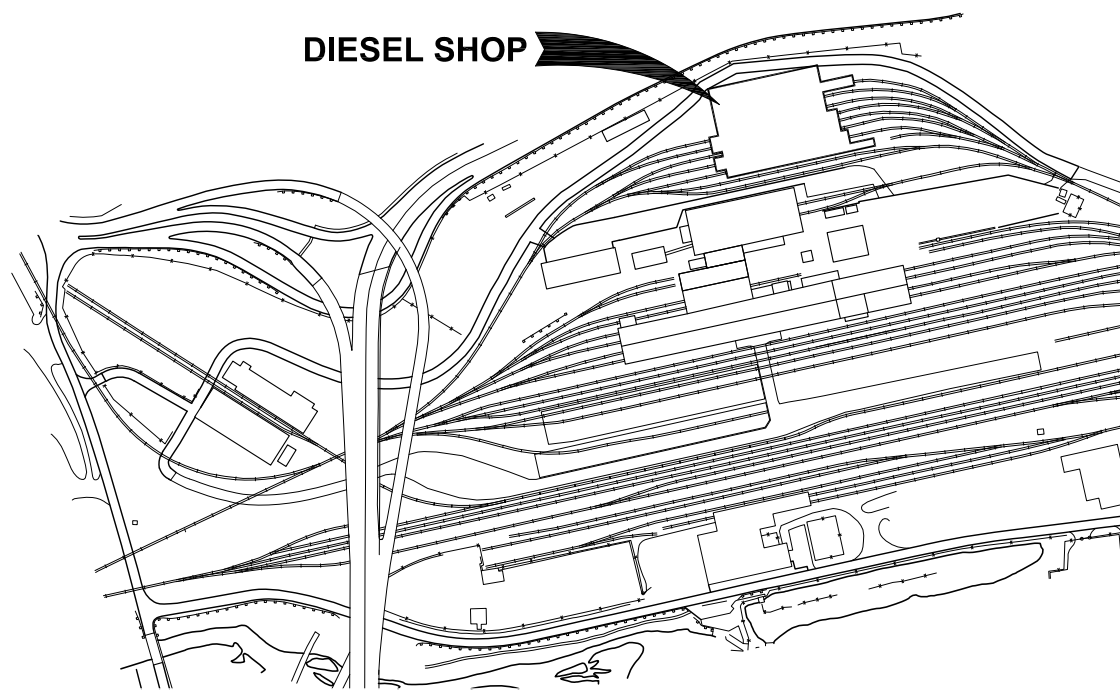


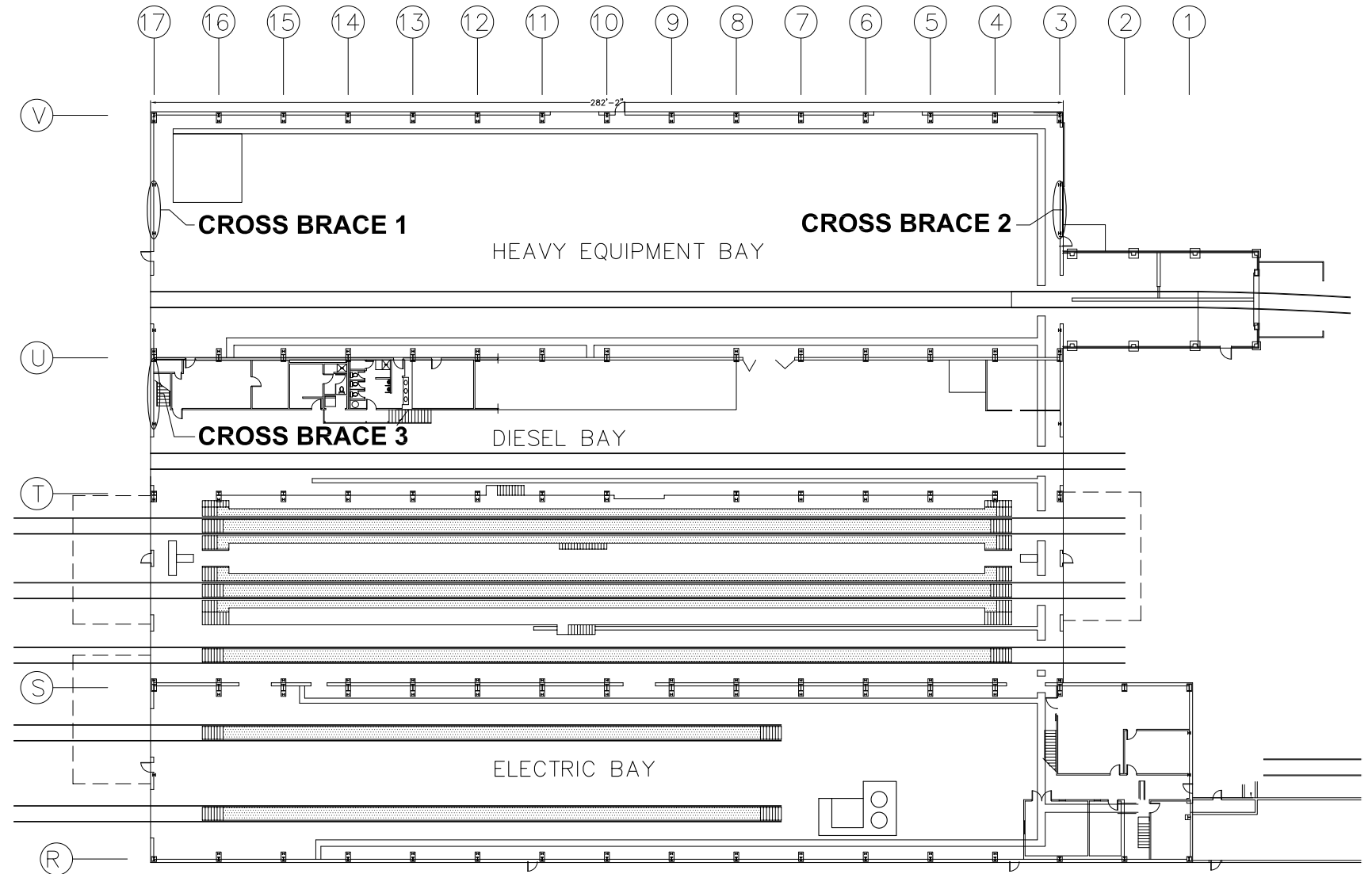


# Alaska Railroad Corporation

## 2022 ANCHORAGE DIESEL SHOP BUILDING 26 SELECT CROSS BRACE REPLACEMENT



**SITE MAP** ACCESS GAINED AT 485 OCEAN DOCK ROAD  
SCALE: NO SCALE



**DIESEL SHOP FLOOR PLAN**  
SCALE: NO SCALE

### DRAWING INDEX:

DRAWING NO.	DESCRIPTION
1 - G1	TITLE SHEET (THIS DRAWING)
2 - S1	SPECIFICATIONS AND INSTRUCTION
3 - S2	CROSS BRACE 1 & 2 - ELEVATION, PLATE & ANGLE DETAILS
4 - S3	CROSS BRACE 1 & 2 - ELEVATION DETAILS
5 - S4	CROSS BRACE 1 & 2 - PLATE AND ANGLE DETAILS
6 - S5	CROSS BRACE 3 - ELEVATION, ELEVATION & ANGLE DETAILS
7 - S6	CROSS BRACE 3 - ELEVATION DETAILS
8 - S7	CROSS BRACE 3 - PLATE AND ANGLE DETAILS

REV.	DATE	BY	REVISION

<p>ALASKA RAILROAD CORPORATION ENGINEERING SERVICES P.O. BOX 107500, ANCHORAGE, ALASKA 99510-7500</p>	
<p>PROJECT:</p> <p><b>ANCHORAGE DIESEL SHOP SELECT CROSS BRACE REPLACEMENT</b></p>	
<p>TITLE:</p> <p><b>TITLE SHEET SITE MAP AND FLOOR PLAN</b></p>	
<p>DESIGNED BY: ARRC</p> <p>DRAWN BY: ARRC</p> <p>CHECKED BY: ARRC</p> <p>APPROVED BY: CDR</p>	<p>SCALE: AS NOTED</p> <p>DATE: JAN 2022</p>
<p><b>G1</b></p>	<p>AFE NO.: ACAD FILE: DWG NO. <b>1</b> OF <b>8</b></p>

DOCUMENTS INCORPORATED INTO THE SPECIFICATION BY REFERENCE:

- A. ASTM A36, STANDARD SPECIFICATION FOR CARBON STRUCTURAL STEEL.
- B. ASTM A3125, STD. SPECIFICATION FOR HIGH STRENGTH STRUCTURAL BOLTS.
- C. ASTM A563, STD. SPECIFICATION FOR CARBON AND ALLOY STEEL NUTS.
- D. ASTM F436, STD. SPECIFICATION FOR HARDENED STEEL WASHERS.

MATERIALS:

- A. STRUCTURAL STEEL: ALL SHAPES AND PLATES – ASTM A36. THE CONTRACTOR MAY PROPOSE AN ALTERNATIVE SECTION SIZE, OR ALTERNATIVE MATERIAL SPECIFICATION, SUBJECT TO ARRC ACCEPTANCE AND APPROVAL.
- B. BOLTS: ASTM F3125 GRADE A325 TYPE 1
- C. NUTS: ASTM A563DH
- D. WASHERS: ASTM F436 TYPE 1

COATINGS:

- A. ALL STEEL SHALL RECEIVE PRIMER COATING. SHERWIN WILLIAMS STEEL SPEC SHOPCOAT PRIMER, GRAY COLOR, OR APPROVED EQUAL APPLIED PER MANUFACTURE’S INSTRUCTIONS.

SUBMITTALS:

- A. SUBMITTALS LISTED BELOW MUST BE PROVIDED AND APPROVED BY THE OWNER’S REPRESENTATIVE BEFORE COMMENCING FABRICATION WORK:
  - 1. MANUFACTURER CERTIFICATES FOR ALL MATERIALS STATING COMPLIANCE WITH APPLICABLE SPECIFICATION.
  - 2. STEEL COATING.

CROSS BRACE MEMBER REPLACEMENT:


- A. EXISTING STEEL AND WALL SHEATHING IS ASSUMED TO BE COATED WITH LEAD BASED PAINT. DUST WITHIN BUILDINGS MAY CONTAIN ASBESTOS. AVOID CREATING DUST FROM OPERATIONS. WHEN DUST REMOVAL IS NECESSARY, USE WET METHODS. DO NOT USE COMPRESSED AIR TO BLOW DIRT OR DEBRIS WITHIN SHOPS.
- B. WORK WITHIN OFFICE WILL NEED TO BE PERFORMED OUTSIDE OF NORMAL OFFICE HOURS (6 AM TO 2 PM, MONDAY THROUGH FRIDAY) AND MEASURES WILL NEED TO BE TAKEN TO AVOID SPREADING WORK RELATED DUST THROUGHOUT OFFICE.
- C. COORDINATE WITH SHOP PERSONNEL AND LOCK OUT/TAG OUT OVERHEAD CRANE WHEN WORKING WITHIN CRANE TRAVEL AREA FOR EACH SHIFT.

- D. REMOVE RIVETS INDICATED IN DRAWINGS. AVOID DAMAGING OR REMOVING EXCESS STEEL FROM EXISTING PLATES OR COLUMNS THAT ARE TO REMAIN IN SERVICE. WHEN SHEARING OR GRINDING OFF RIVETS, PERFORM WORK FROM SIDE WHERE STEEL MEMBER IS TO BE REPLACED.
- E. CONTRACTOR MAY USE SHOPS COMPRESSED AIR AT CONTRACTOR’S RISK.
- F. INSTALL 3/4 INCH DIAMETER BOLTS WITH NUT AND WASHER, IN PLACE OF RIVETS, SECURING USING TURN OF NUT METHOD. PLACE WASHER UNDER TURNED ELEMENT.
- G. ALL NEW HOLES ARE TO BE 1 3/16 INCH DIAMETER UNLESS OTHERWISE INDICATED.
- H. PAINT NEW STEEL EXCEPT WITHIN THREE (3) INCHES OF HOLES ON CONTACT FACES. CUT ANGLES TO LENGTH.
- I. INSTALL NEW STEEL; AVOID HAVING MORE THAN ONE BRACE LEG OUT OF SERVICE AT ONE TIME. ALL BRACE ELEMENTS INCLUDING FASTENERS, EXISTING OR NEW, SHALL BE IN PLACE AT END OF SHIFT.
- J. MATCH EXISTING ANGLE ORIENTATION WHEN INSTALLING NEW.
- K. TOUCH-UP-PAINT STEEL AROUND BOLTS AND AS REQUIRED FOLLOWING INSTALLATION.
- L. STEEL REMOVED ~~(AND CUT OFFS)~~ WILL REMAIN RAILROAD PROPERTY AND ARE TO BE SET ASIDE AT DESIGNATED AREAS. EXISTING ANGLES, THAT ARE TO BE REPLACED, MAY BE CUT INTO MULTIPLE PIECES TO EASE REMOVAL.

SAFETY:

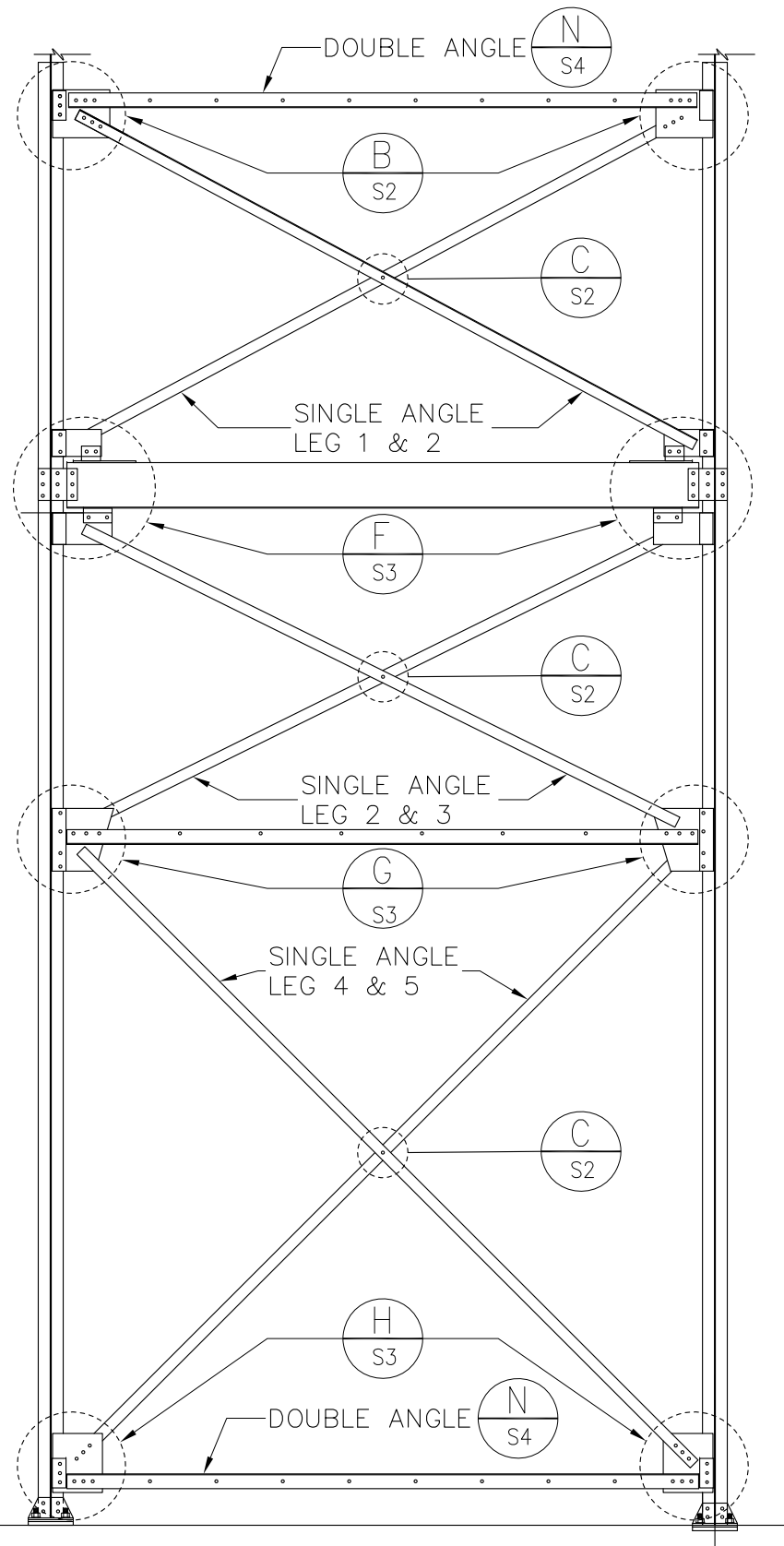
- A. CONTRACTOR SHALL, AT A MINIMUM, COMPLY WITH THE FOLLOWING:
  - 1. PERSONNEL SHALL HAVE AND WEAR AT ALL TIMES WHEN WORKING IN ALASKA RAILROAD RAILYARD: HARD HAT, SAFETY GLASSES, HIGH VISIBILITY VEST, SAFETY TOE WORK BOOTS AND COVID FACE MASK. OUTDOORS, MASK IS REQUIRED WHEN WORKING WITHIN SIX (6) FEET OF ANOTHER PERSON.
  - 2. COMPLY WITH FALL PROTECTION REQUIREMENTS WHEN WORKING AT HEIGHTS IN BUILDING AND FROM LIFTS OR SCAFFOLDING.
  - 3. PROVIDE LOCK OUT/TAG OUT FOR ELECTRICALLY OPERATED EQUIPMENT WITHIN THEIR SCOPE OF WORK. COORDINATE LOCK OUT WITH SHOP FOREMAN.
  - 4. DO NOT PARK ON OR WITHIN SIX (6) FEET OF RAILROAD TRACKS.
  - 5. COORDINATE WITH OWNER’S REPRESENTATIVE FOR PROTECTION WHEN WORKING ON OR WITHIN SIX (6) FEET OF RAILROAD TRACKS.
  - 6. CORDON OFF INTERIOR AND EXTERIOR AREAS BELOW WORK WHERE THERE IS RISK OF FALLING DEBRIS, TOOLS OR OTHER MATERIALS. COORDINATE CORDONING WITH OWNER’S REPRESENTATIVE.



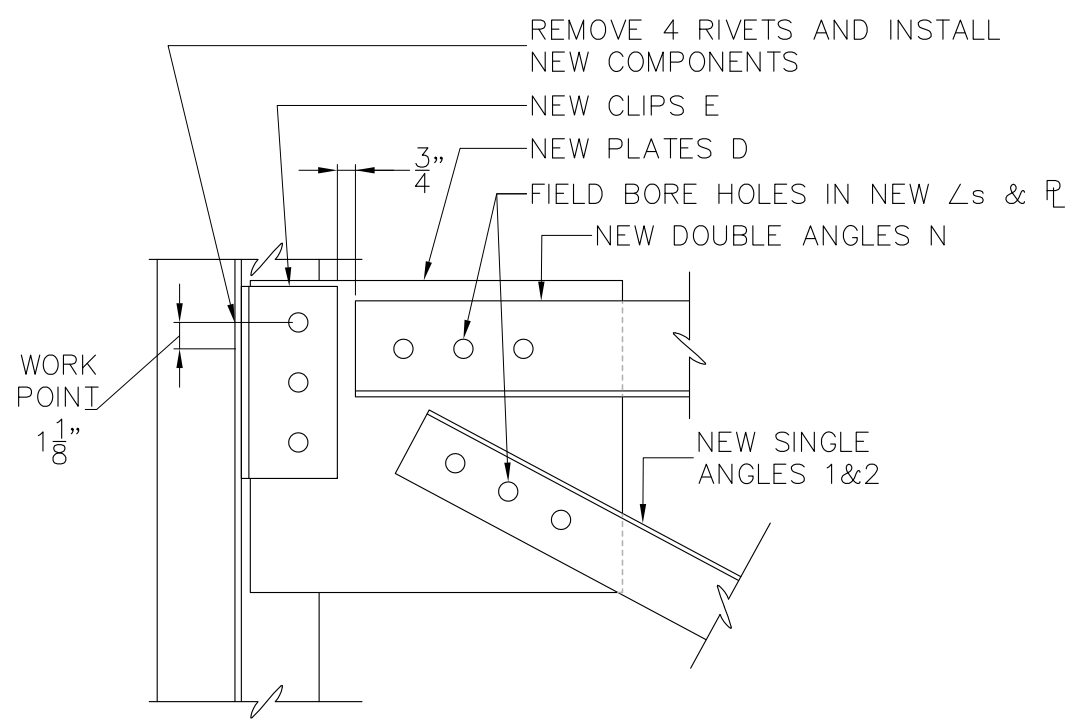
 <b>ALASKA RAILROAD CORPORATION</b> ENGINEERING SERVICES P.O. BOX 107500, ANCHORAGE, ALASKA 99510-7500			
PROJECT: <b>ANCHORAGE DIESEL SHOP SELECT CROSS BRACE REPLACEMENT</b>			
TITLE: <b>SPECIFICATIONS AND INSTRUCTION</b>			
DESIGNED BY: ARRC	SCALE: AS NOTED	S1	AFE NO.:
DRAWN BY: ARRC	DATE: DEC 2021		ACAD FILE:
CHECKED BY: ARRC			DWG NO. <b>2</b> OF <b>8</b>
APPROVED BY: CDR			

REV.	DATE	BY	REVISION
1	3/10/22	CR	NOTE L. CUTOFFS

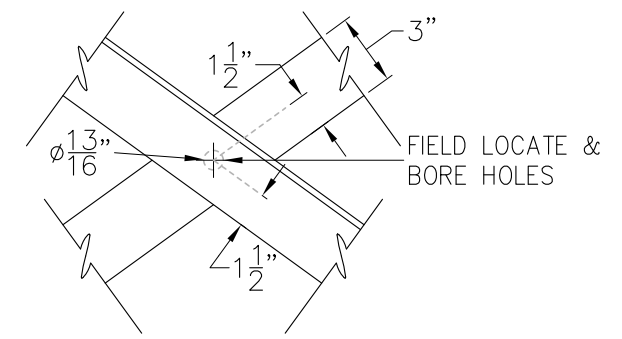
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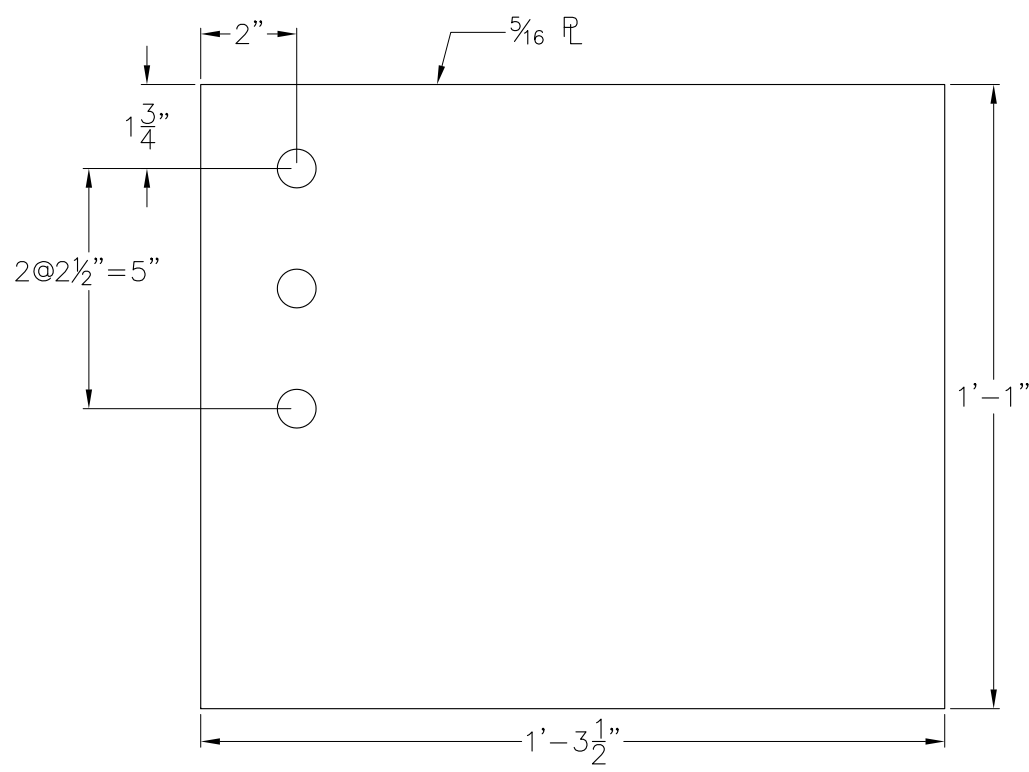
**A INTERIOR ELEVATION X-BRACE 1 & 2**  
 SCALE: 1/4" = 1'-0"



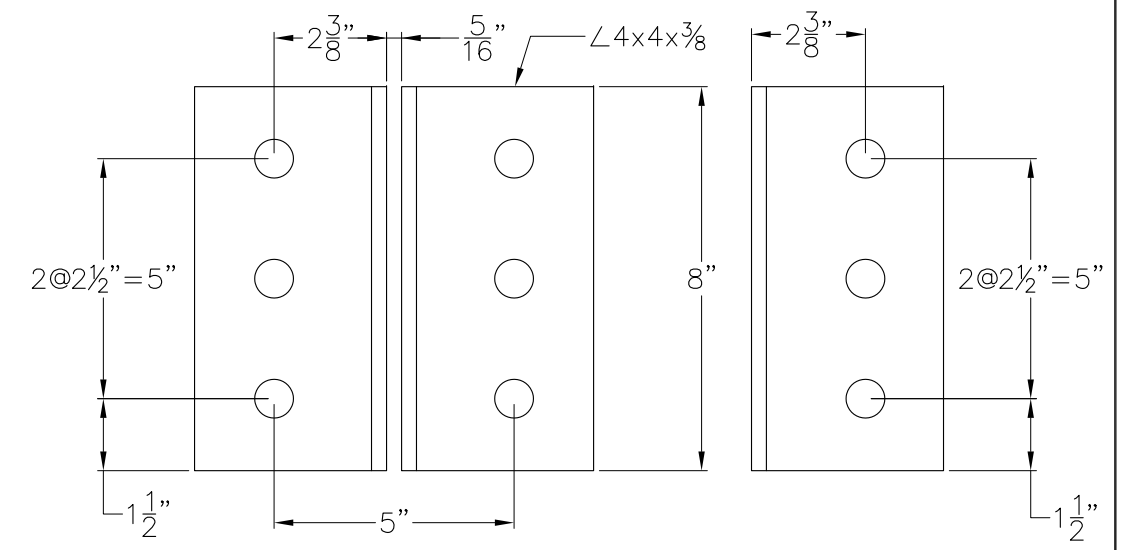
**B ELEVATION DETAIL B, TYPICAL**  
 SCALE: 1 1/2" = 1'-0"



**C ELEVATION DETAIL C**  
 SCALE: 3" = 1'-0"



**D PLATE D**  
 SCALE: 3" = 1'-0" PROVIDE FOUR

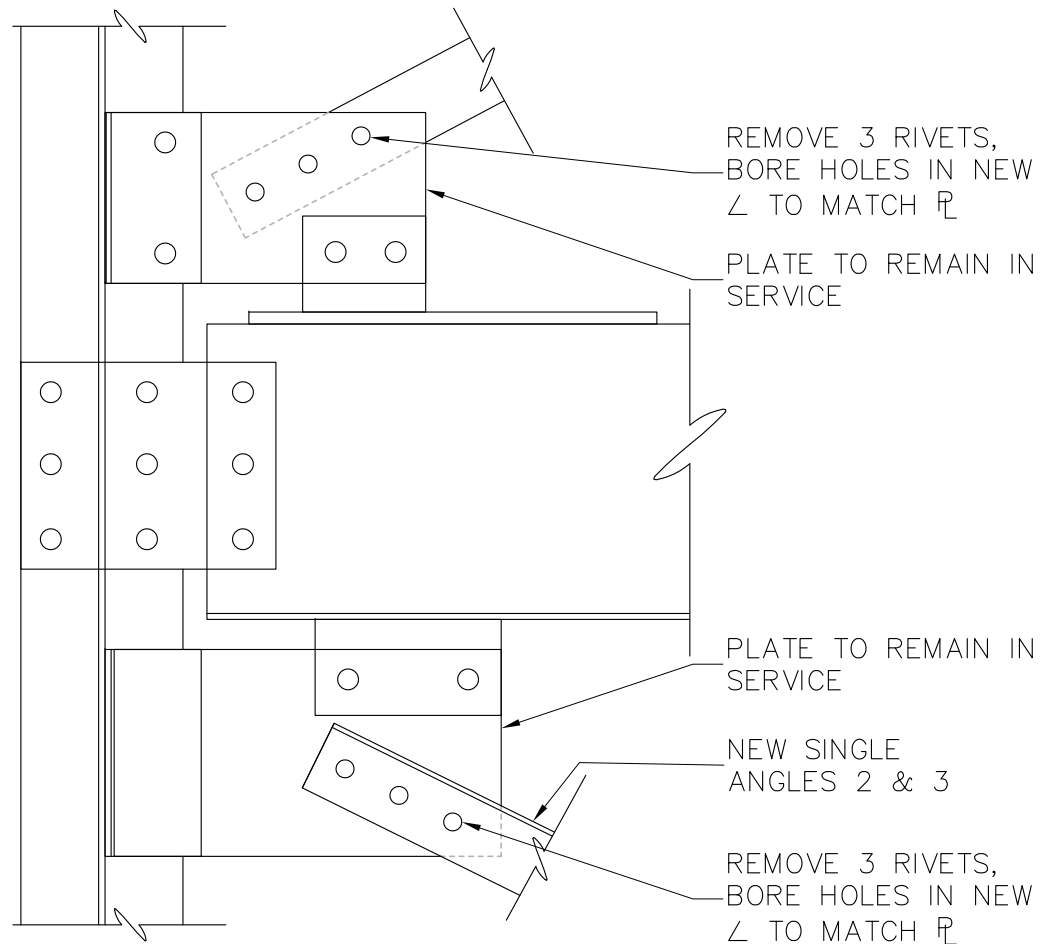


**E CLIPS E**  
 SCALE: 3" = 1'-0" PROVIDE EIGHT PAIR

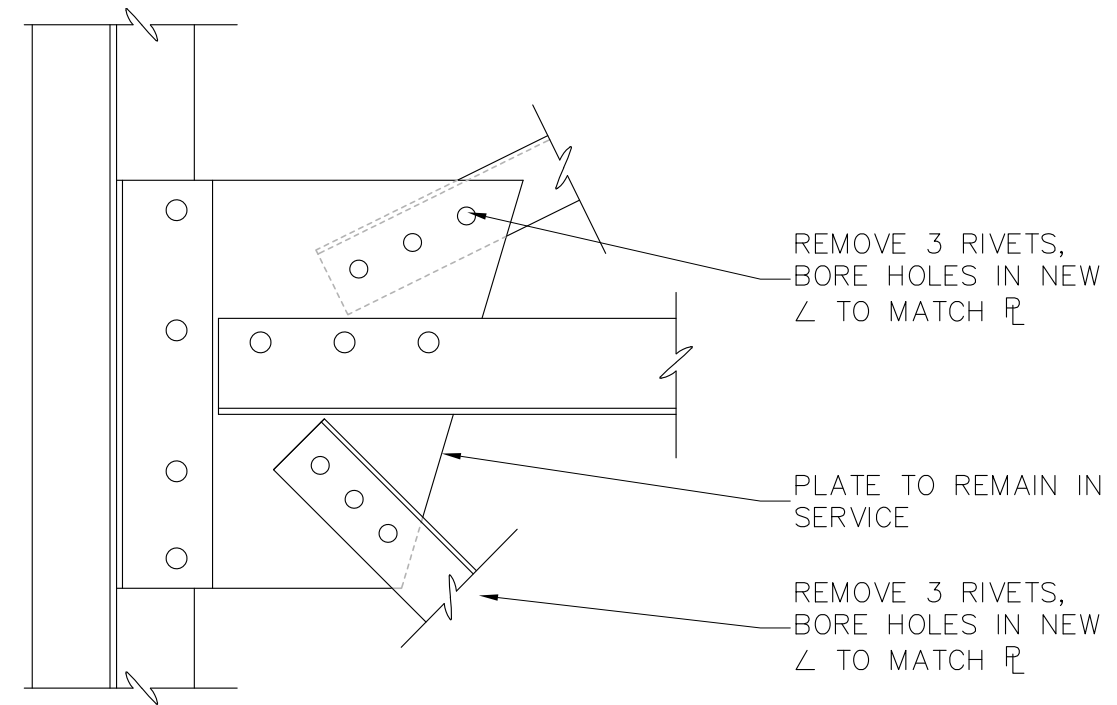


<b>ALASKA RAILROAD CORPORATION</b> ENGINEERING SERVICES P.O. BOX 107500, ANCHORAGE, ALASKA 99510-7500	
PROJECT: <b>ANCHORAGE DIESEL SHOP SELECT CROSS BRACE REPLACEMENT</b>	
TITLE: <b>CROSS BRACE 1 &amp; 2 ELEVATION, ANGLE LEGS &amp; DETAILS</b>	
DESIGNED BY: ARRC	SCALE: AS NOTED
DRAWN BY: ARRC	DATE: DEC 2021
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APPROVED BY: CDR	

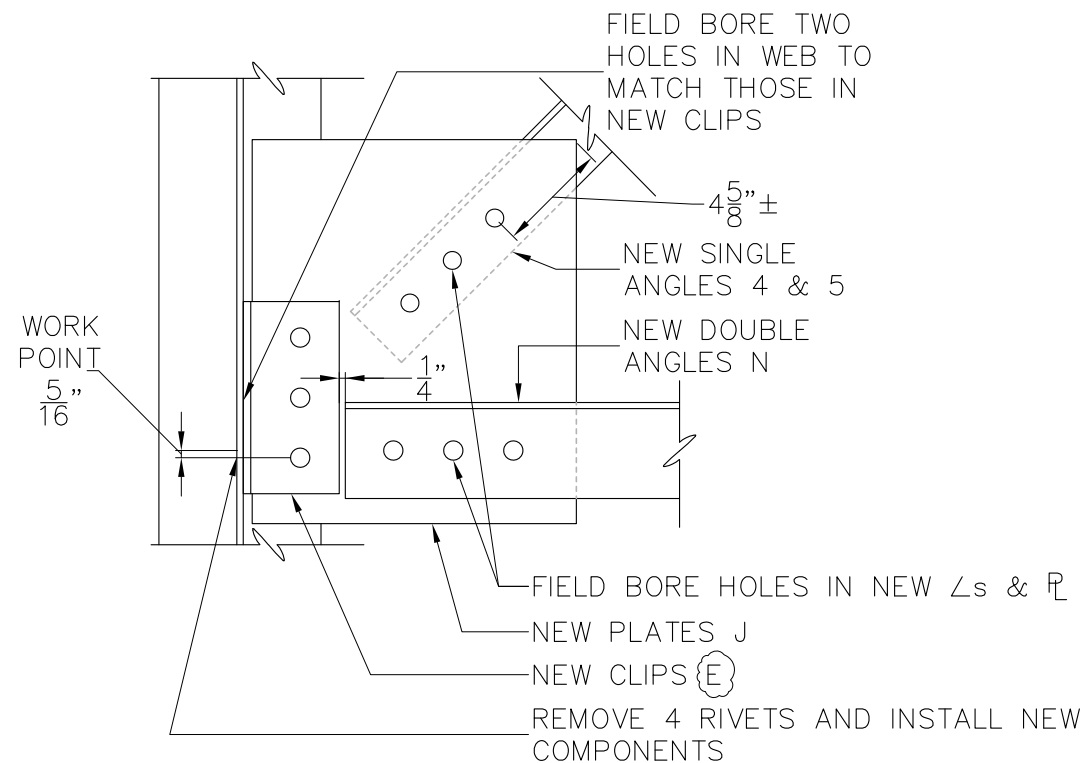
REV.	DATE	BY	REVISION
1	3/10/22	CR	PLATE D & CLIPS E QUANTITIES



**F BRACE DETAIL F, TYPICAL**  
 S3 SCALE: 1 1/2" = 1'-0"



**G BRACE DETAIL G, TYPICAL**  
 S3 SCALE: 1 1/2" = 1'-0"



**H BRACE DETAIL H, TYPICAL**  
 S3 SCALE: 1 1/2" = 1'-0"



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PROJECT: **ANCHORAGE DIESEL SHOP  
 SELECT CROSS BRACE REPLACEMENT**

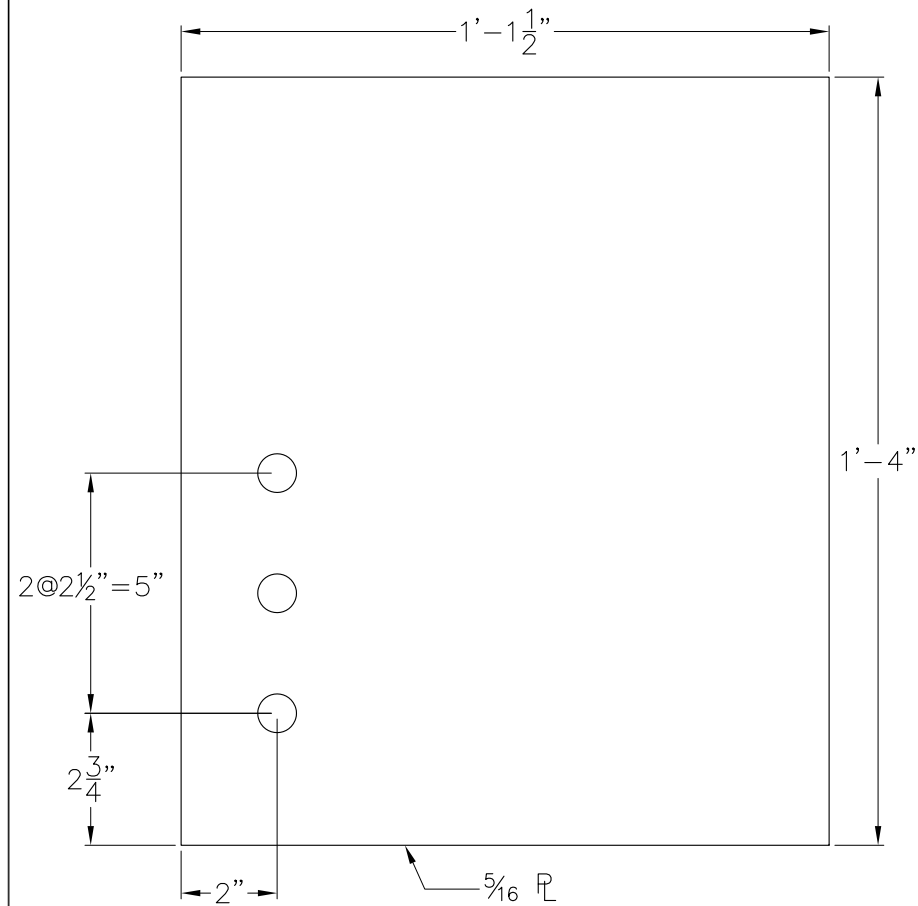
TITLE: **CROSS BRACE 1 & 2  
 ELEVATION DETAILS**

REV.	DATE	BY	REVISION
1	3/10/22	CR	DETAIL H, CLIPS E

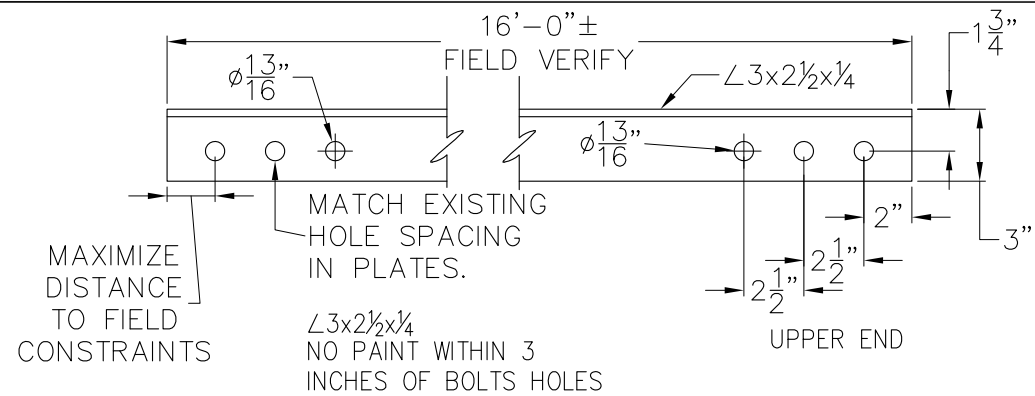
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DRAWN BY: ARRC	DATE: DEC 2021		ACAD FILE:
CHECKED BY: ARRC			DWG NO. <b>4</b> OF <b>8</b>
APPROVED BY: CDR			

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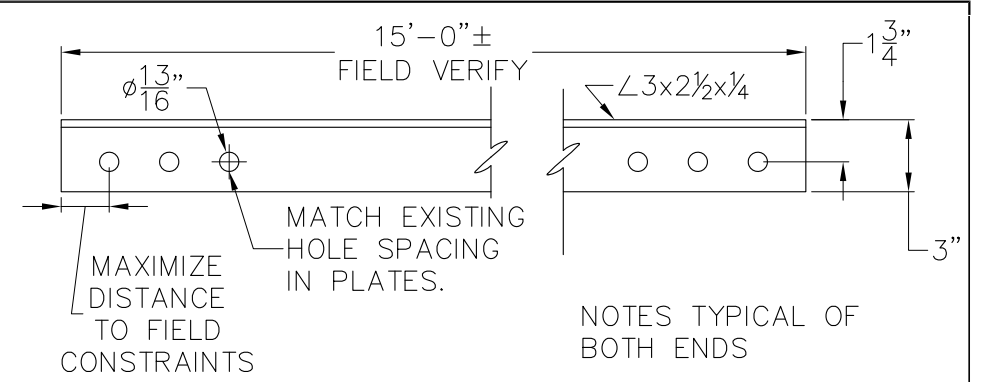
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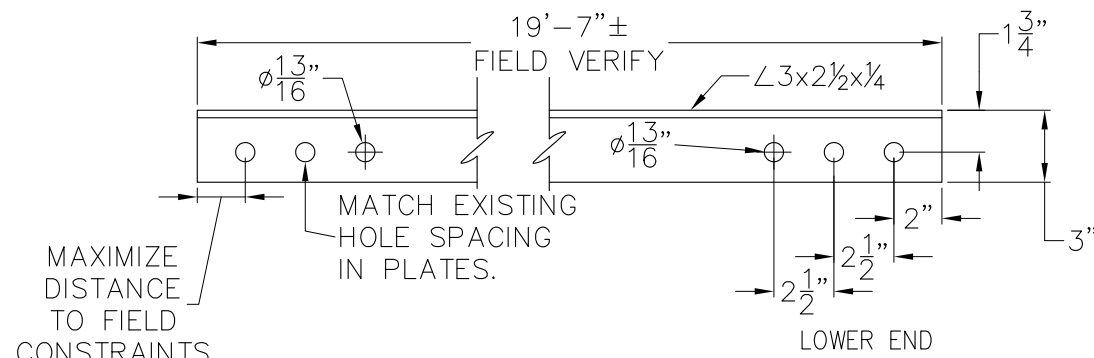
**J PLATE J**  
S4 SCALE: 3" = 1'-0" PROVIDE FOUR



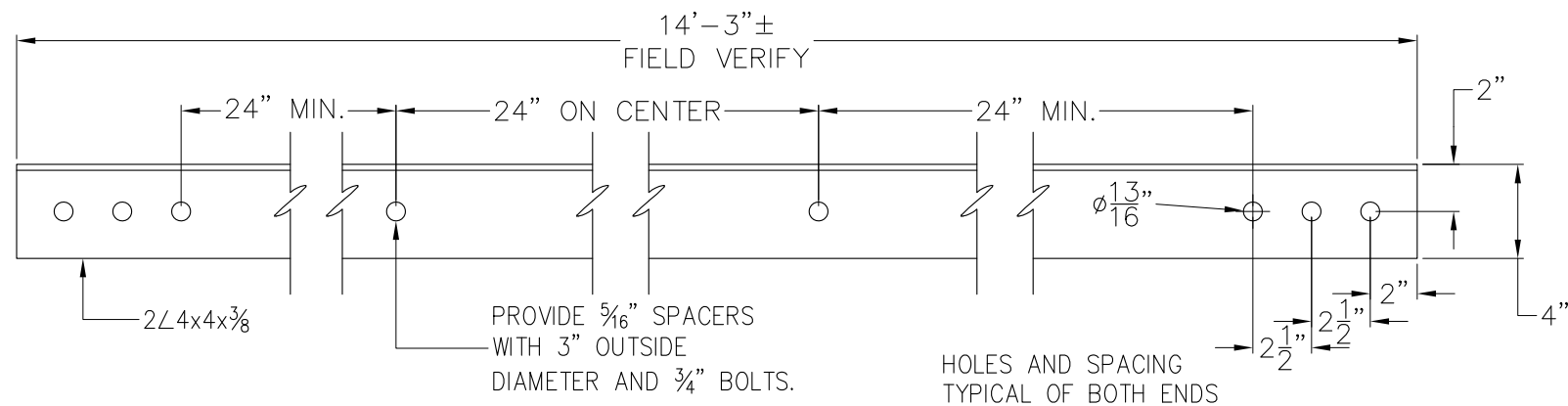
**K BRACE LEG 1 & 2**  
S4 SCALE: 1 1/2" = 1'-0"



**L BRACE LEG 3 & 4**  
S4 SCALE: 1 1/2" = 1'-0"



**M BRACE LEG 5 & 6**  
S4 SCALE: 1 1/2" = 1'-0"



**N DOUBLE ANGLE N**  
S4 SCALE: 1 1/2" = 1'-0" PROVIDE FOUR PAIR

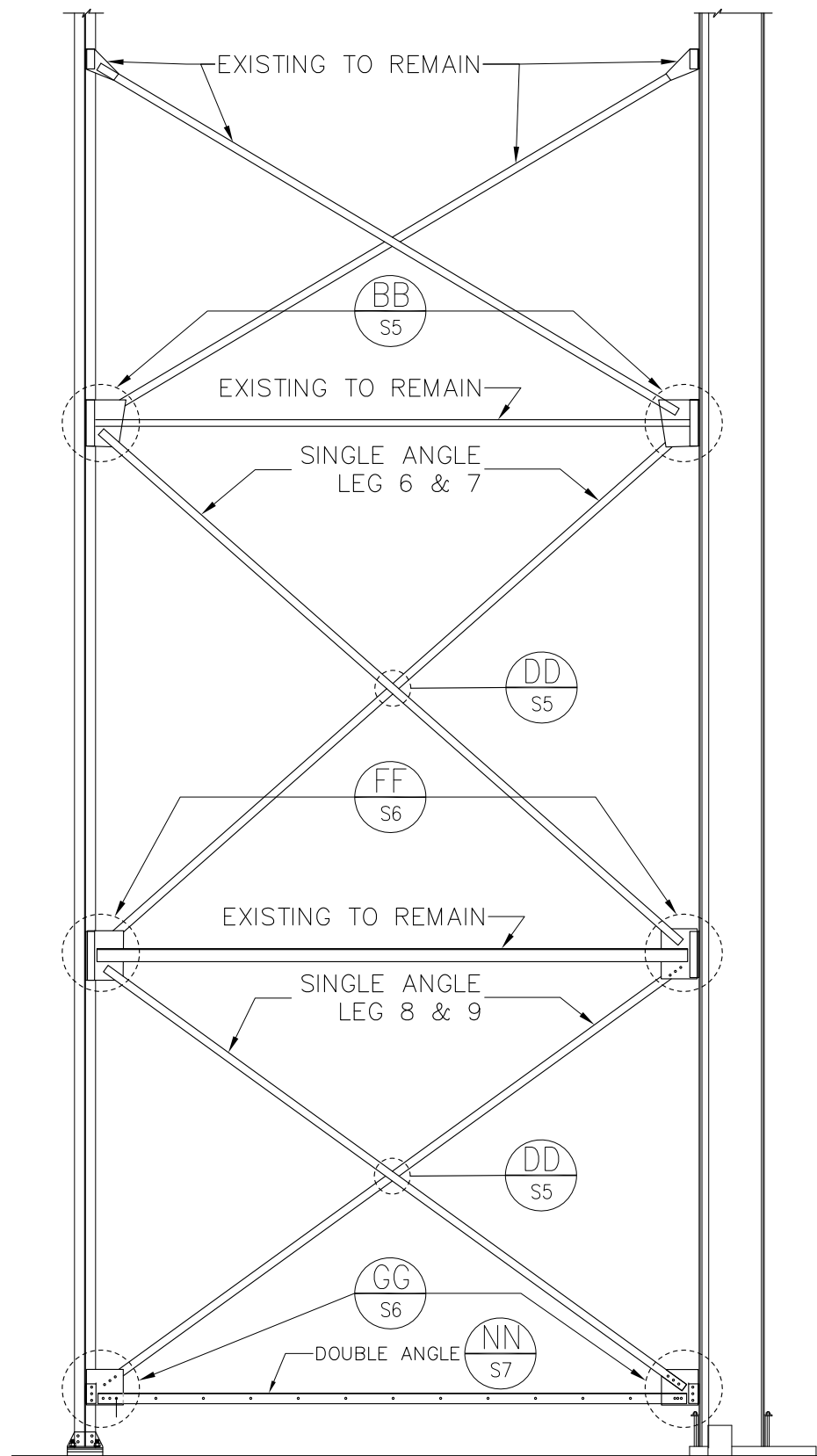


REV.	DATE	BY	REVISION
1	3/10/22	CR	DOUBLE ANGLE N QUANTITY

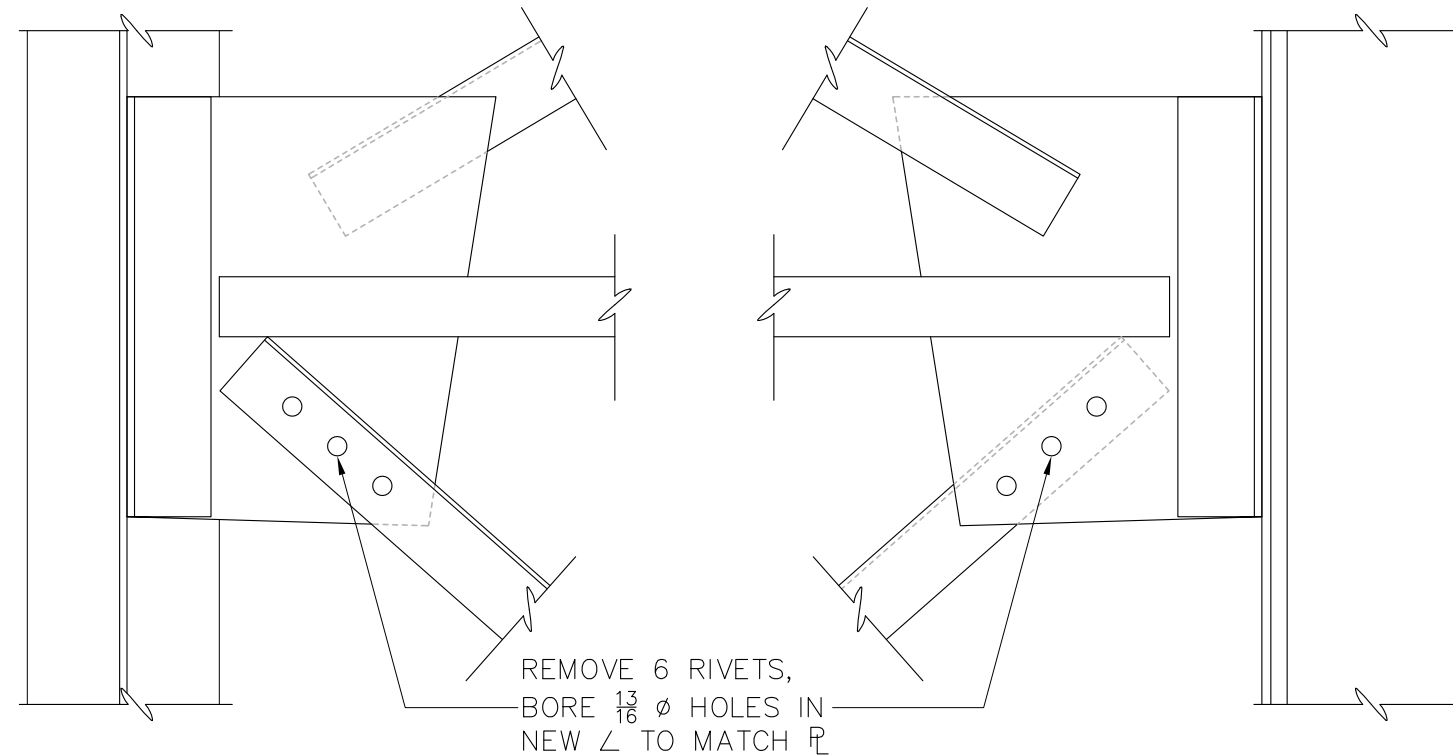
<b>ALASKA RAILROAD CORPORATION</b> ENGINEERING SERVICES P.O. BOX 107500, ANCHORAGE, ALASKA 99510-7500	
PROJECT: <b>ANCHORAGE DIESEL SHOP          SELECT CROSS BRACE REPLACEMENT</b>	
TITLE: <b>CROSS BRACE 1 &amp; 2          PLATE AND ANGLE DETAILS</b>	
DESIGNED BY: ARRC	SCALE: AS NOTED
DRAWN BY: ARRC	DATE: DEC 2021
CHECKED BY: ARRC	<div style="font-size: 2em; font-weight: bold; border: 1px solid black; padding: 2px;">S4</div>
APPROVED BY: CDR	
AFE NO.: ACAD FILE: DWG NO. <b>5</b> OF <b>8</b>	



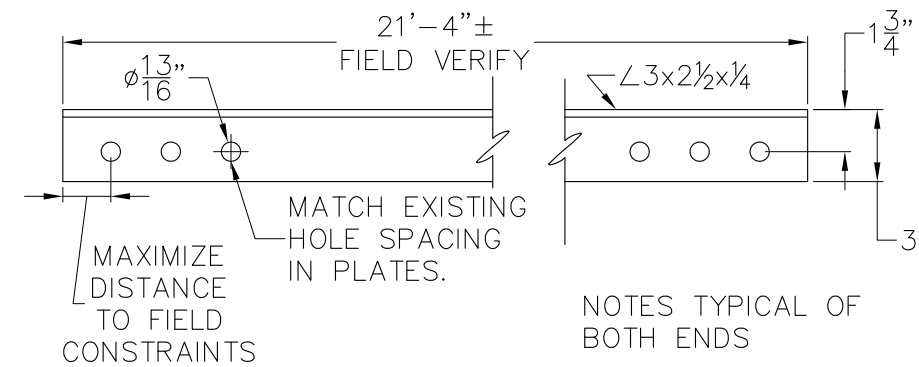
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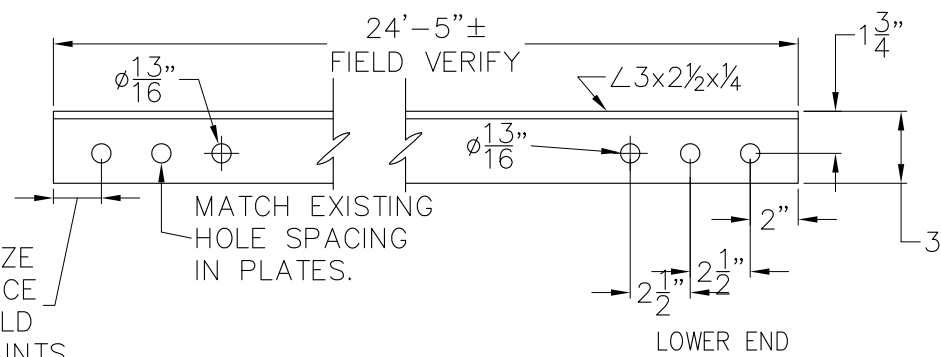
**AA INTERIOR ELEVATION X-BRACE 3**  
 S6 SCALE: 3/16" = 1'-0"



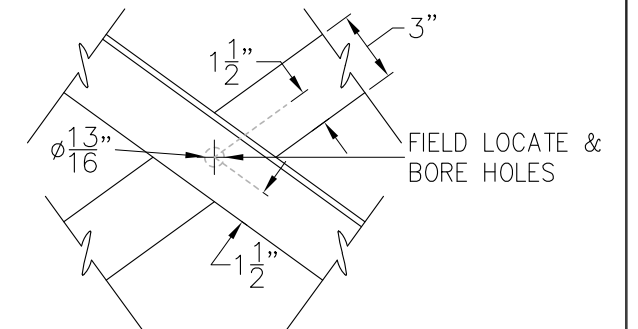
**BB ELEVATION DETAIL BB**  
 S5 SCALE: 3" = 1'-0"



**CC BRACE LEG 6 & 7**  
 S5 SCALE: 3" = 1'-0"



**EE BRACE LEG 8 & 9**  
 S5 SCALE: 3" = 1'-0"



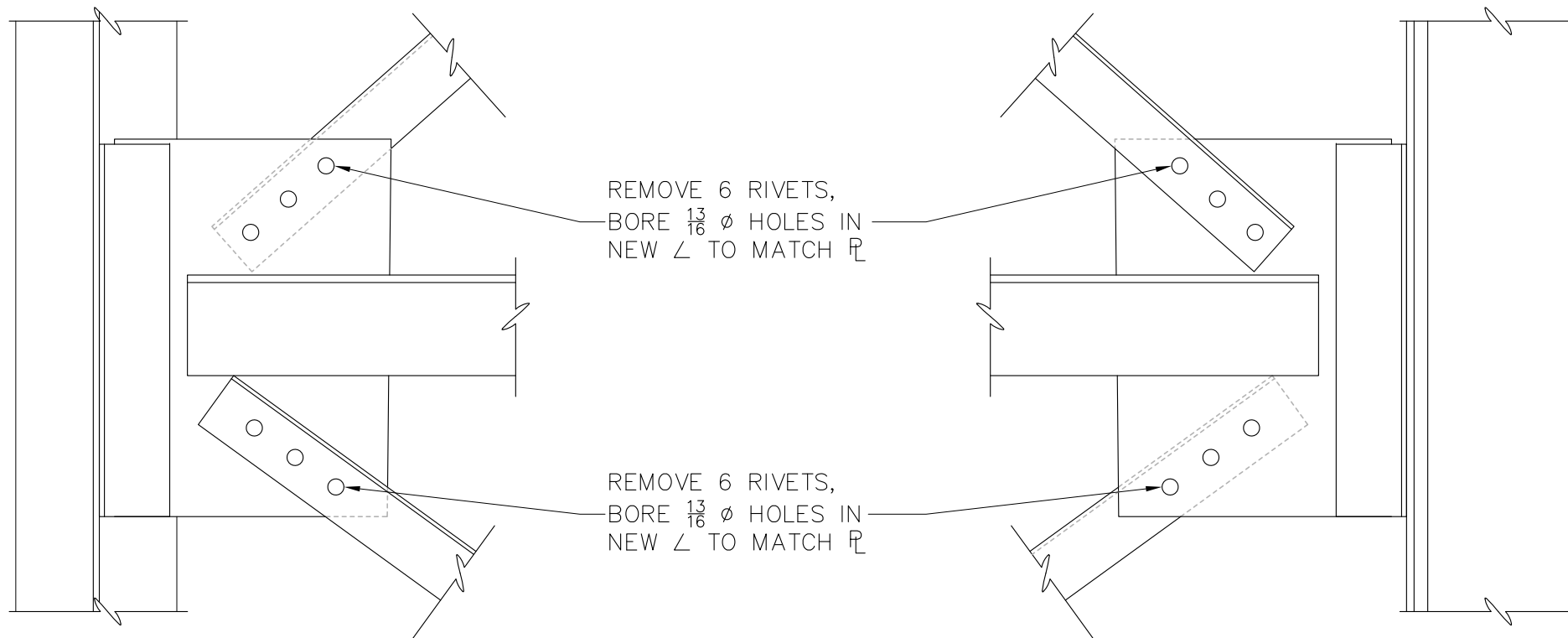
**DD BRACE LEG LAP DETAIL**  
 S5 SCALE: 3" = 1'-0"



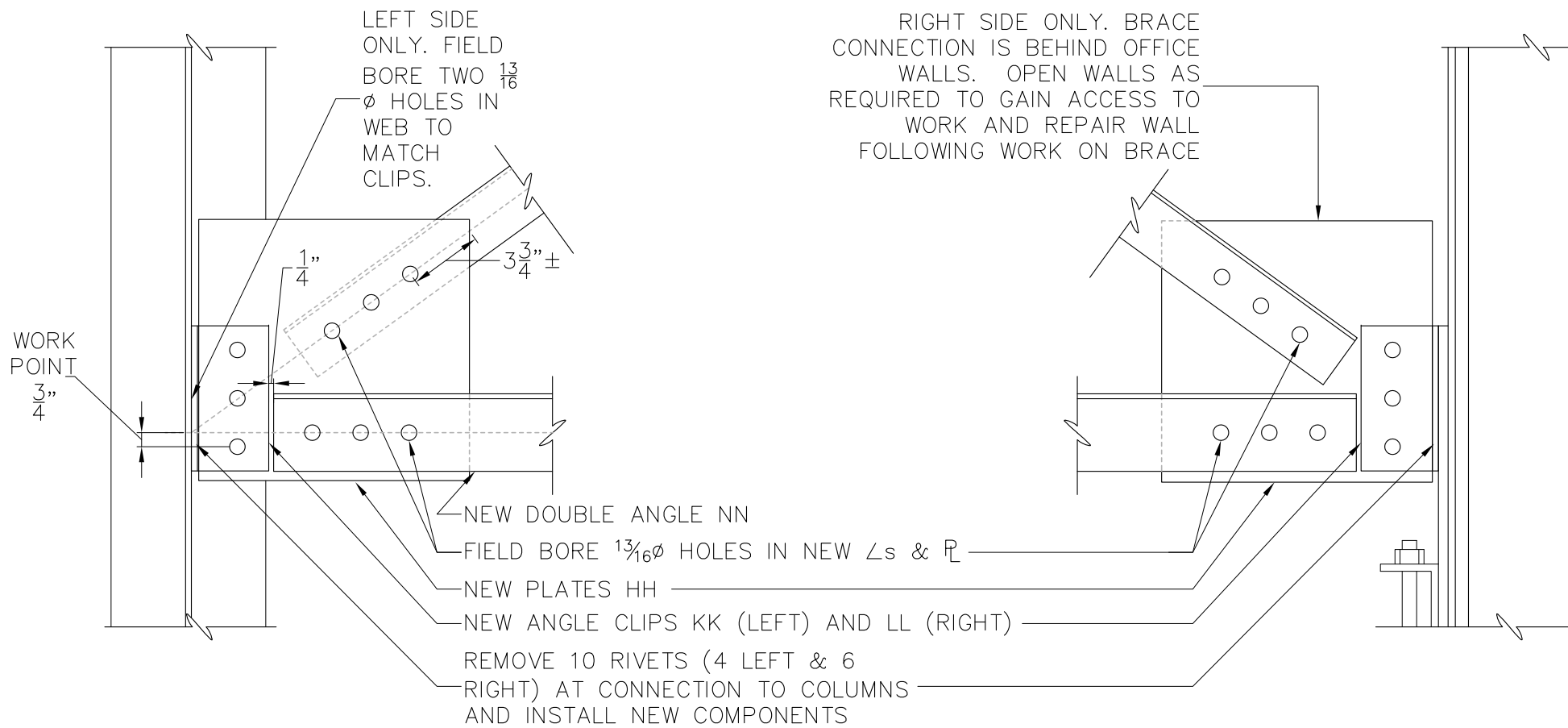
<b>ALASKA RAILROAD CORPORATION</b> ENGINEERING SERVICES P.O. BOX 107500, ANCHORAGE, ALASKA 99510-7500	
<b>PROJECT :</b> <b>ANCHORAGE DIESEL SHOP</b> <b>SELECT CROSS BRACE REPLACEMENT</b>	
<b>TITLE:</b> <b>CROSS BRACE 3</b> <b>ELEVATION, ANGLE LEGS &amp; DETAILS</b>	
DESIGNED BY: ARRC DRAWN BY: ARRC CHECKED BY: ARRC APPROVED BY: CDR	SCALE: AS NOTED DATE: DEC 2021
<b>S5</b>	AFE NO.: ACAD FILE: DWG NO. <b>6</b> OF <b>8</b>

REV.	DATE	BY	REVISION

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**FF**  
S6 SCALE: 1 1/2" = 1'-0"



**GG**  
S6 SCALE: 1 1/2" = 1'-0"



**ALASKA RAILROAD CORPORATION**  
ENGINEERING SERVICES  
P.O. BOX 107500, ANCHORAGE, ALASKA 99510-7500

PROJECT: **ANCHORAGE DIESEL SHOP  
SELECT CROSS BRACE REPLACEMENT**

TITLE: **CROSS BRACE 3  
ELEVATION DETAILS**

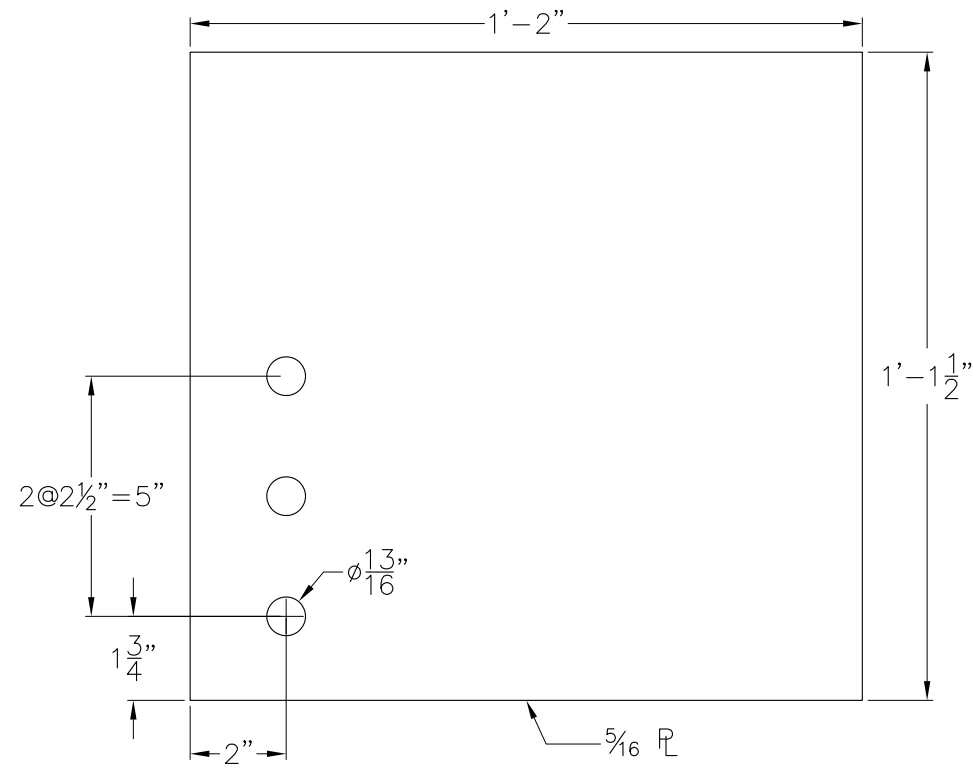
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DATE: DEC 2021

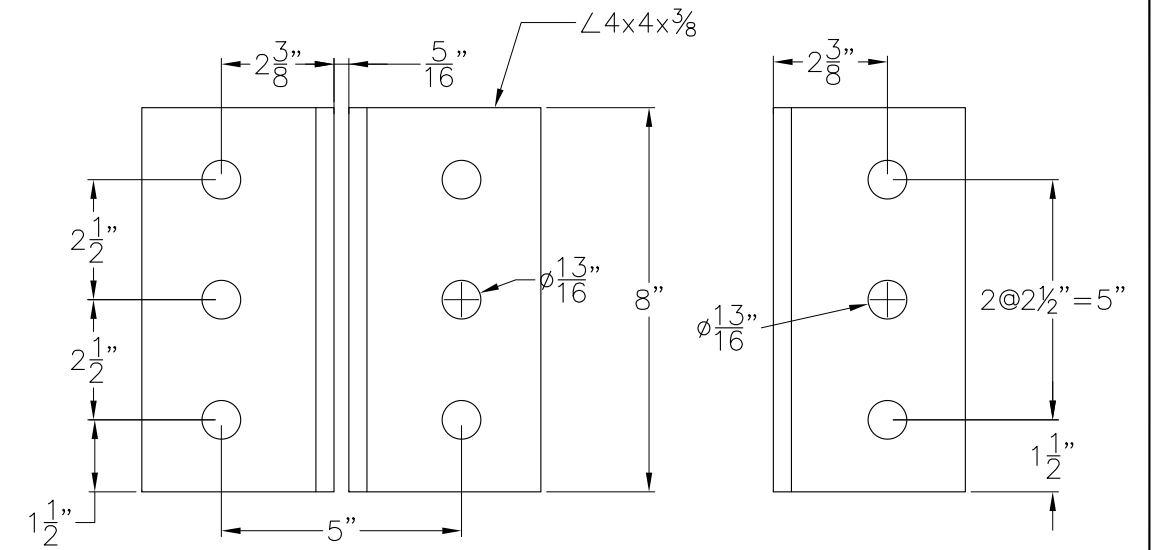
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ACAD FILE:  
**S6**  
DWG NO. **7** OF **8**

REV.	DATE	BY	REVISION

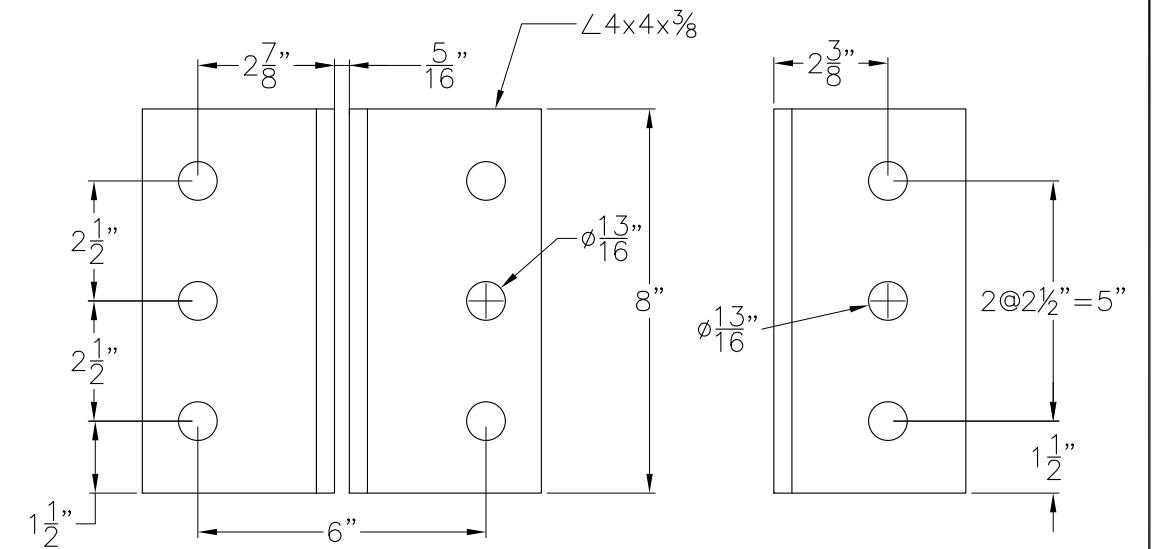
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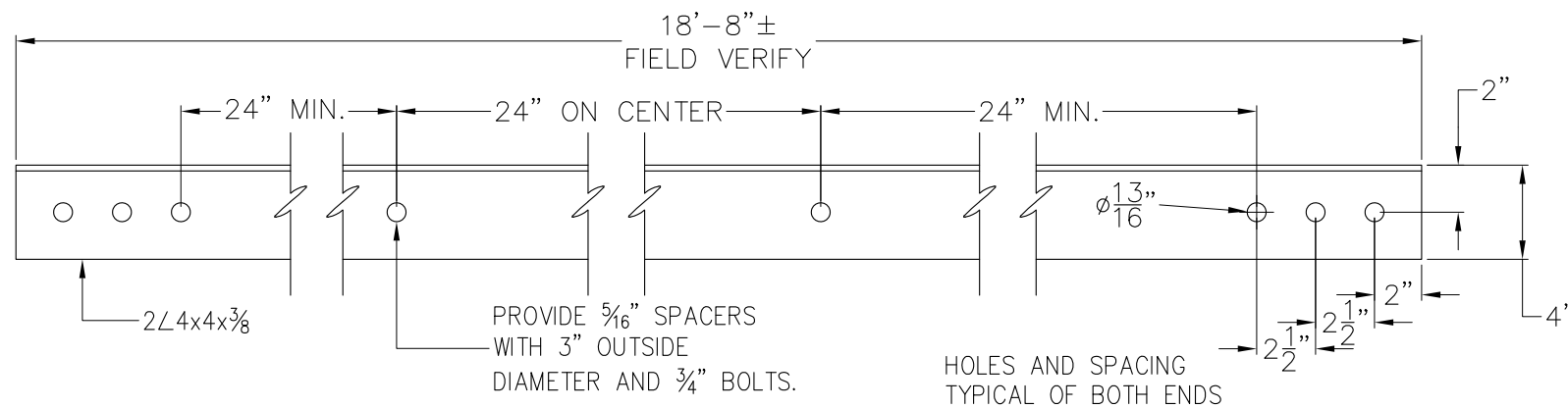
**HH PLATE HH**  
S7 SCALE: 3" = 1'-0" PROVIDE TWO



**KK CLIPS KK**  
S7 SCALE: 3" = 1'-0" PROVIDE ONE PAIR



**LL CLIPS LL**  
S7 SCALE: 3" = 1'-0" PROVIDE ONE PAIR



**NN DOUBLE ANGLE NN**  
S7 SCALE: 1 1/2" = 1'-0" PROVIDE ONE PAIR



**ALASKA RAILROAD CORPORATION**  
ENGINEERING SERVICES  
P.O. BOX 107500, ANCHORAGE, ALASKA 99510-7500

PROJECT: **ANCHORAGE DIESEL SHOP SELECT CROSS BRACE REPLACEMENT**  
TITLE: **CROSS BRACE 3 PLATES AND ANGLES DETAILS**

REV.	DATE	BY	REVISION
1	3/10/22	CDR	DOUBLE ANGLE NN QUANTITY

DESIGNED BY: ARRC	SCALE: AS NOTED	<b>S7</b>	AFE NO.:
DRAWN BY: ARRC	DATE: DEC 2021		ACAD FILE:
CHECKED BY: ARRC			DWG NO. <b>8</b> OF <b>8</b>
APPROVED BY: CDR			