

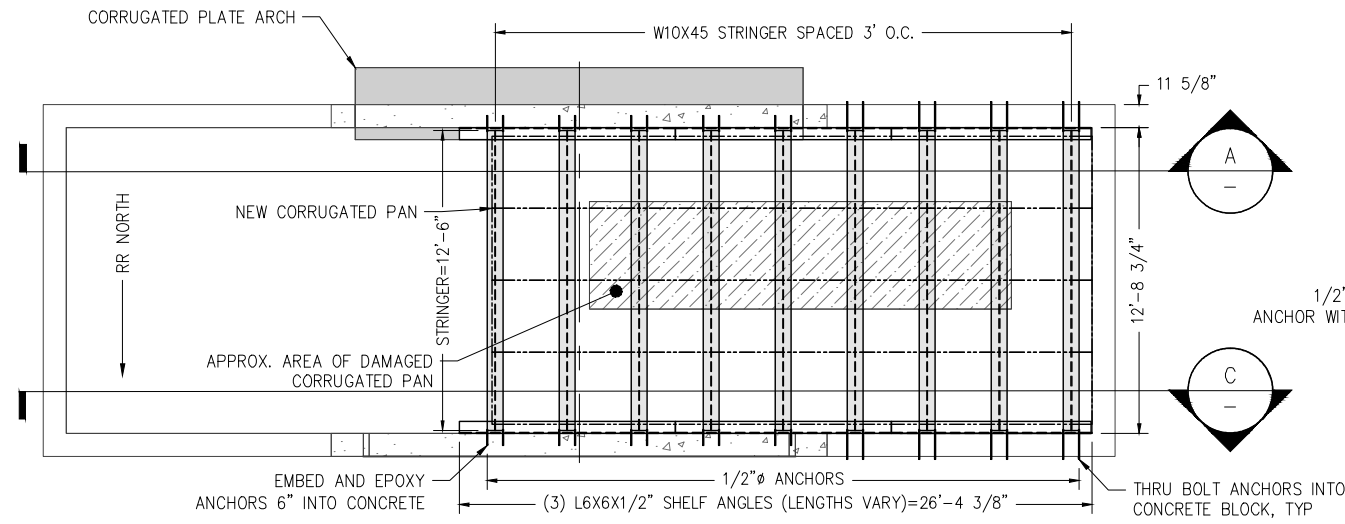
DRAWING LOCATION: P:\ENGINEERING\TUNNELS\MP\_F05\_B PORTAGE TUNNEL\5. PROJECTS\DOOR 4 SHORING\DOOR 4 PORTAL\_SHORING.DWG  
 PUBLISHED CTB: 7/23/2024 9:09 AM  
 SCALE: AS NOTED  
 DATE: 7/23/2024 9:09 AM  
 TIME: 9:09 AM

**SCOPE OF WORK:**

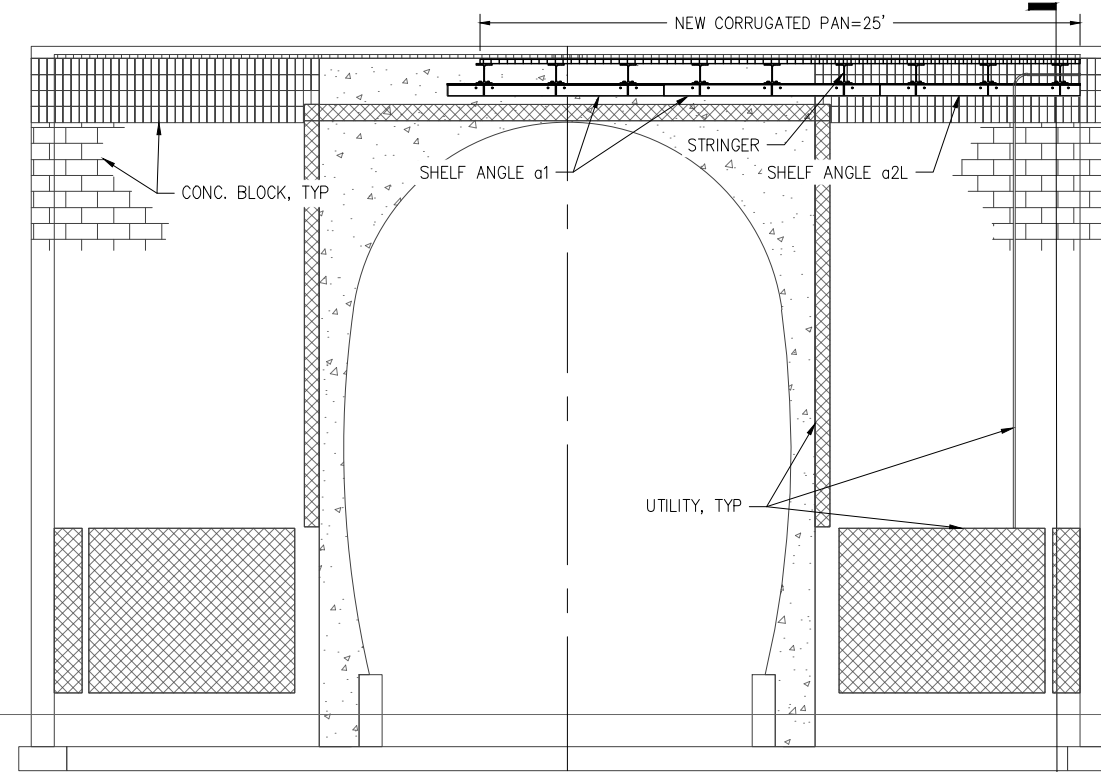
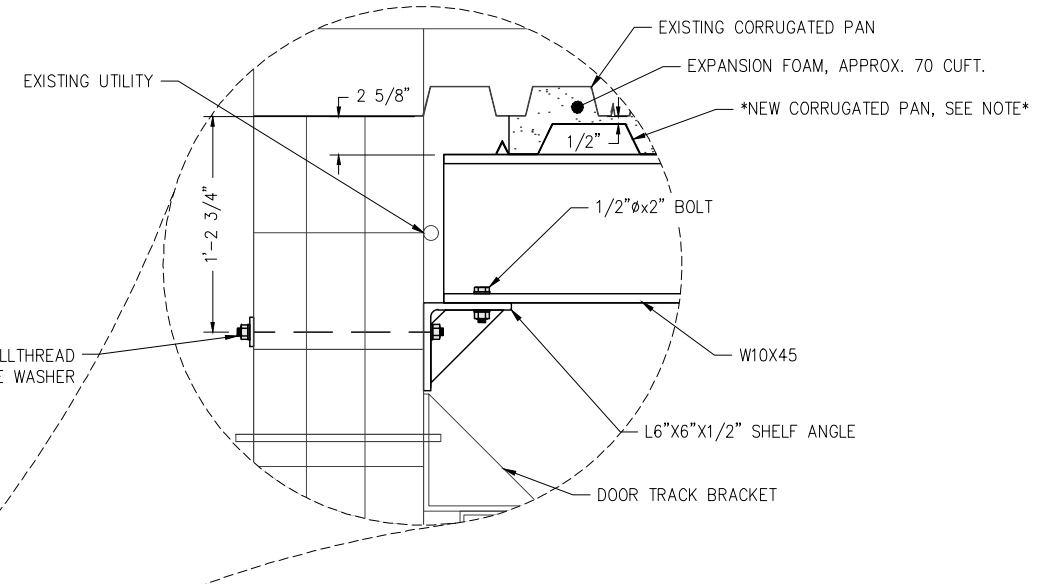
1. RE-LOCATE ANY UTILITIES AS NEEDED.
2. DRILL AND INSTALL ANCHORS INTO CONCRETE/CONCRETE BLOCKS AND INSTALL SHELF ANGLES.
3. INSTALL STRINGERS.
4. INSTALL CORRUGATED PAN AND SEAL EDGES.
5. DRILL HOLES THROUGH ROOF AND PUMP STRUCTURAL EXPANDING FOAM TO FILL VOID BETWEEN STEEL PANS.

**NOTE:**

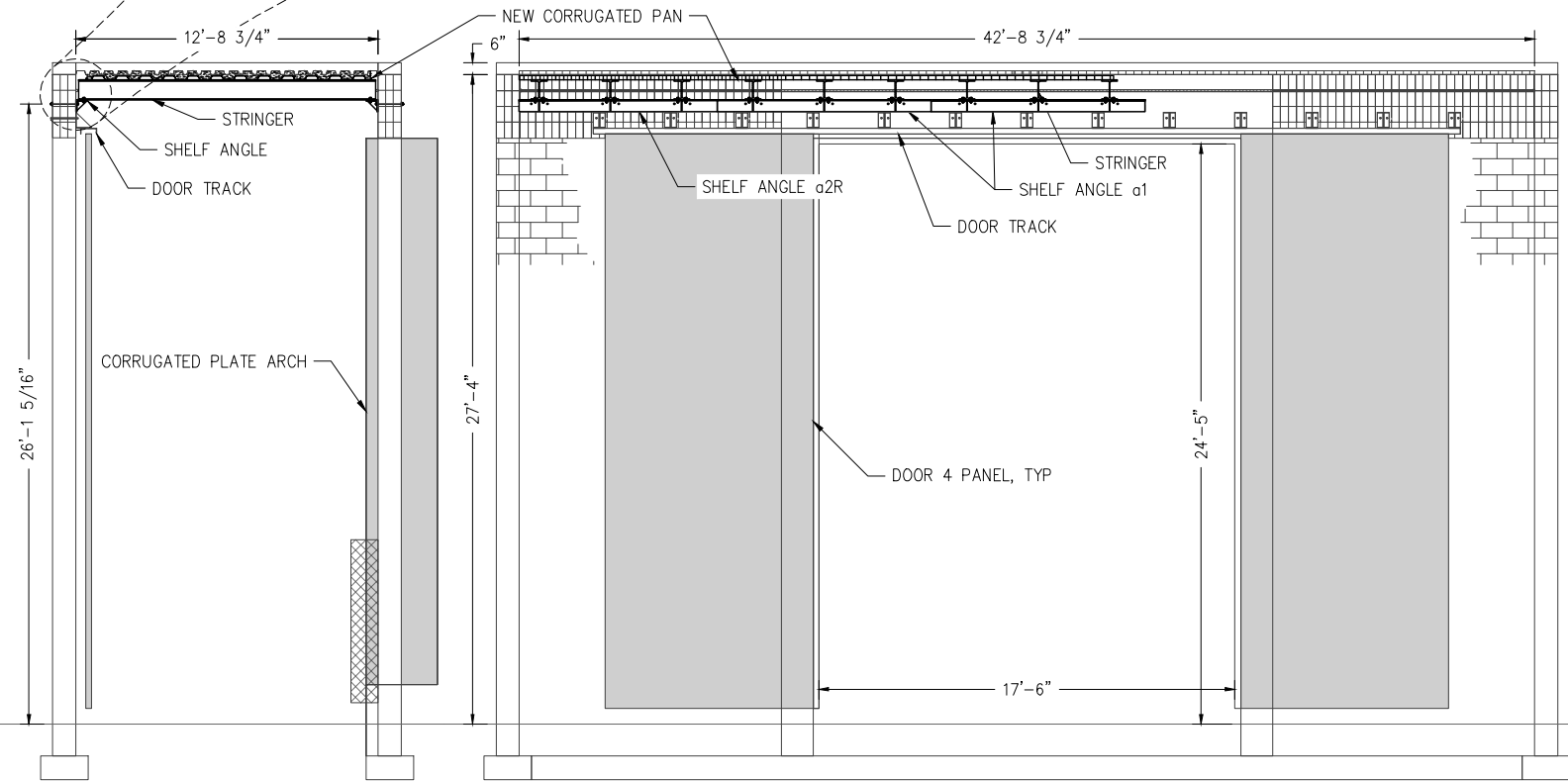
\*USE ARRC SURPLUS 'VERCO W2-36 FORMLOC' FROM SEWARD PASSENGER DOCK PROJECT.\*



**TOP VIEW**



**A SECTION VIEW**  
SCALE: 1/4" = 1'-0"



**B SECTION VIEW**  
SCALE: 1/4" = 1'-0"

**C SECTION VIEW**  
SCALE: 1/4" = 1'-0"

DESIGNED BY:	DJS
CHECKED BY:	ARRC
DRAFTED BY:	DJS

ALASKA RAILROAD CORPORATION  
 PO BOX 107500, ANCHORAGE, AK  
 99510-7500  
 327 W SHIP CREEK AVE  
 ANCHORAGE, AK 99501  
 (907) 265-2300

KEY MAP

A/E FIRM

ENGINEERING DEPARTMENT  
 P.O. BOX 107500  
 ANCHORAGE, ALASKA 99510-7500

PROJECT: PORTAGE TUNNEL, DOOR 4

SHEET TITLE: SCOPE OF WORK, PLAN AND SECTION VIEWS

AFE NO.	11288
YEAR	2024
SHEET	1 OF 2

DRAWING LOCATION: P:\ENGINEERING\TUNNELS\MP\_F05\_8 PORTAGE TUNNEL\5. PROJECTS\DOOR 4 SHORING\DOOR 4 PORTAL SHORING.DWG

DATE: 7/23/2024 9:05 AM  
 TIME: 9:05 AM  
 SCALE: AS NOTED  
 PUBLISHED BY: CTB

DESIGNED BY: DJS  
 CHECKED BY: ARRC  
 DRAFTED BY: DJS

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KEY MAP

A/E FIRM

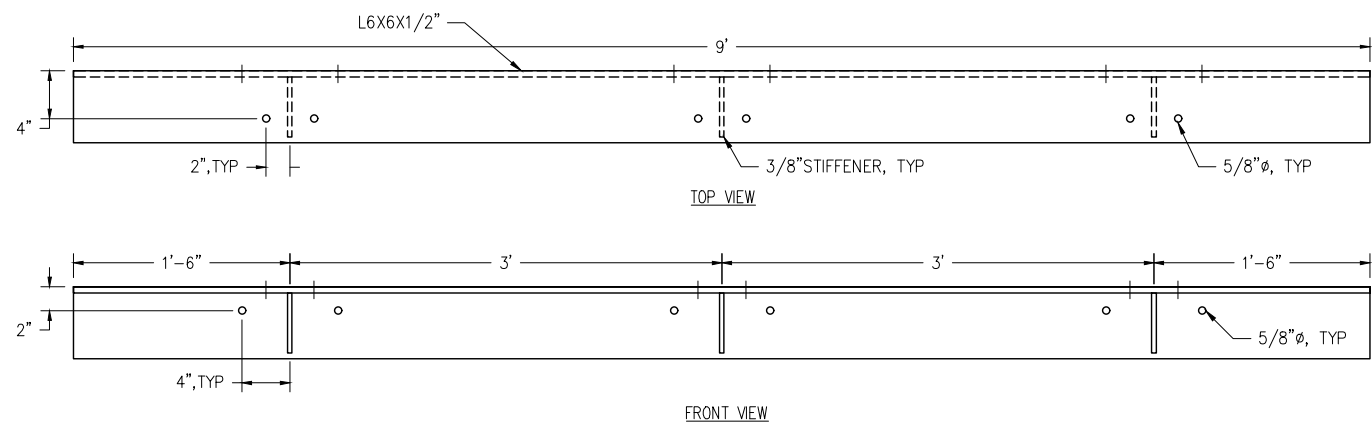
ENGINEERING DEPARTMENT  
 P.O. BOX 107500  
 ANCHORAGE, ALASKA 99510-7500

PROJECT: PORTAGE TUNNEL, DOOR 4

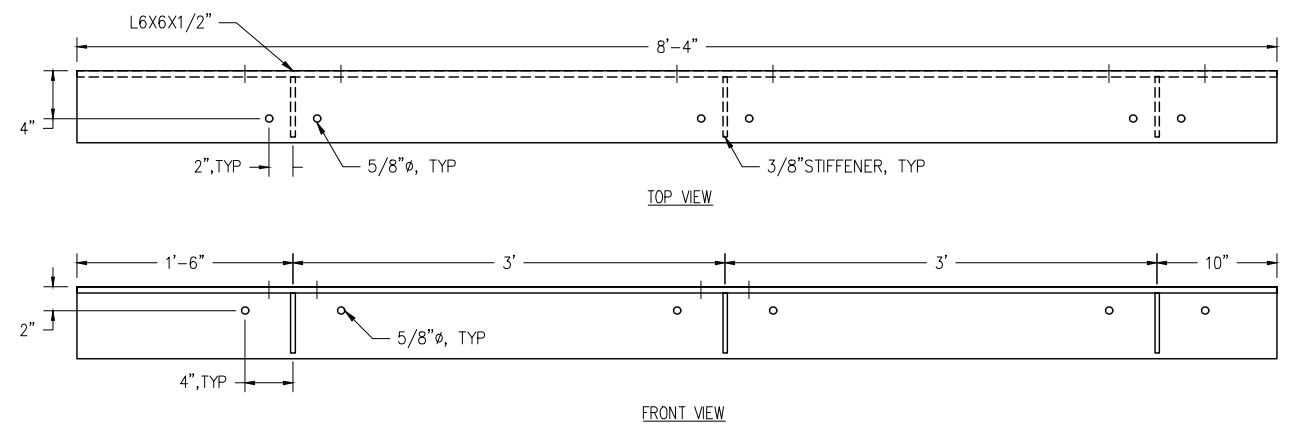
ALASKA RAILROAD

SHEET TITLE: PARTS DETAIL

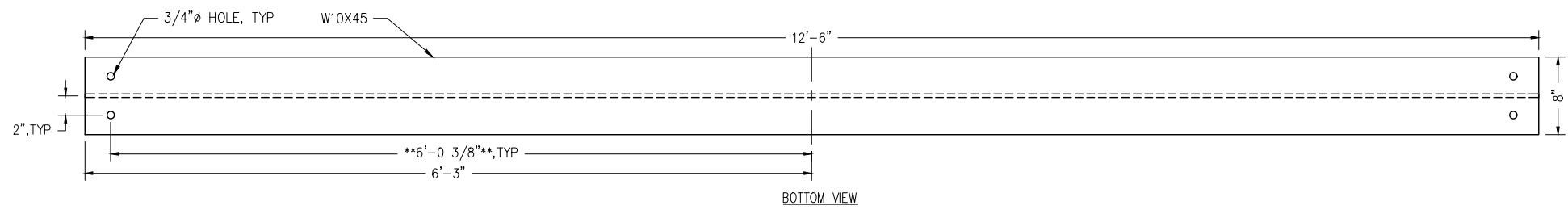
AFE NO. 11288  
 YEAR 2024  
 SHEET 2 OF 2



**(4) SHELF ANGLE-a1**  
 SCALE: 1 1/2" = 1'-0"

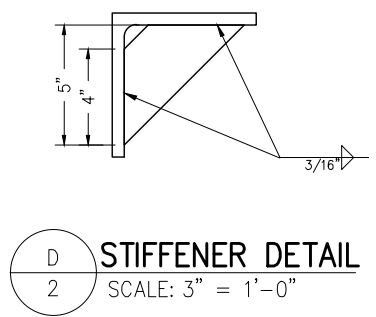


**(2) SHELF ANGLE-a2L/R**  
 SCALE: 1 1/2" = 1'-0"  
 MAKE (1) AS SHOWN, a2L  
 MAKE (1) OPPOSITE, a2R

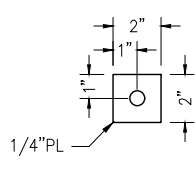


NOTE: \*\*CONTRACTOR TO VERIFY HOLE SPACING LINES UP WITH INSTALLED SHELF ANGLE.\*\*

**(9) STRINGERS**  
 SCALE: 1 1/2" = 1'-0"



**(D) STIFFENER DETAIL**  
 SCALE: 3" = 1'-0"



**(E) PLATE WASHER**  
 SCALE: 3" = 1'-0"

**MATERIAL NOTES:**  
 A. STRUCTURAL STEEL  
 1. ANGLE, PLATE: ASTM A36  
 2. STRINGERS: ASTM A572 GRADE 50, OR APPROVED EQUIVALENT  
 3. BOLTS, ALLTHREAD: ASTM A193 GRADE B7, OR APPROVED EQUIVALENT  
 4. NUTS: ASTM A194 GRADE 2H, OR APPROVED EQUIVALENT  
 5. WASHERS: ASTM F435  
 B. WELD ELECTRODES: WELD ELECTRODES SHALL BE COMPATIBLE WITH BASE METAL AND HAVE A MINIMUM TENSILE STRENGTH OF 70,000 PSI.  
 C. EPOXY: EMBEDDED ANCHORS TO BE SET WITH RED HEAD A7+ EPOXY OR APPROVED EQUAL.  
 D. EXPANDING FOAM: TWO PART LIQUID EXPANDING URETHANE FOAM WITH A MINIMUM COMPRESSIVE STRENGTH OF 150 PSI.  
**COATINGS:**  
 A. NO COATINGS REQUIRED ON ANY MATERIALS  
**BOLT INSTALLATION:**  
 A. ALL BOLTS TO HAVE WASHERS ON UNDER BOTH THE HEAD AND NUT WHERE APPLICABLE WITH THE ADDITION OF A PLATE WASHER ON THE OUTBOARD SIDE OF THE THRU BOLTED ANCHORS.  
 B. ALL BOLTS TO BE SNUG TIGHT.