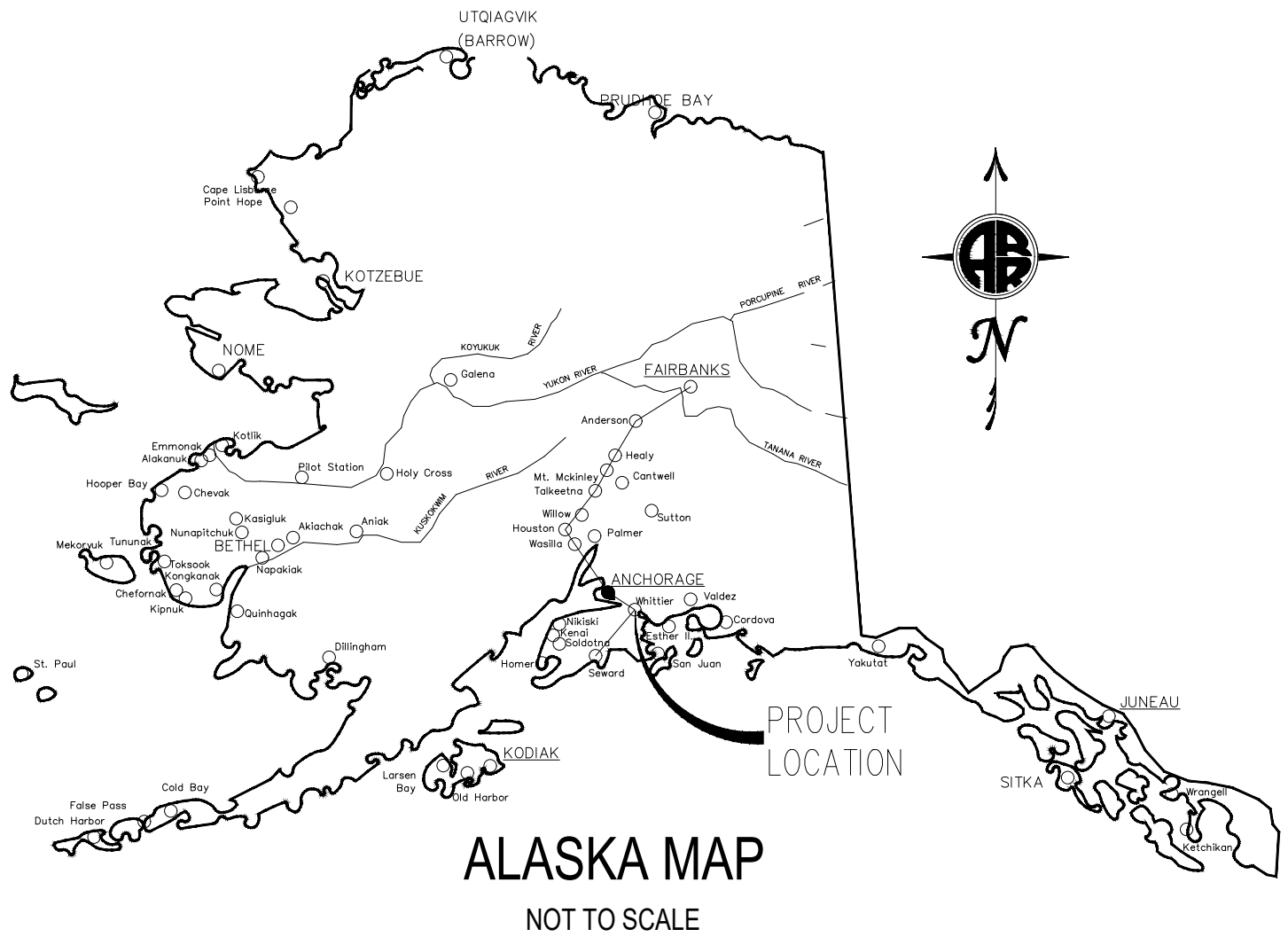


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 PUBLISHED CTB: ---
 SCALE: AS NOTED
 TIME: 3:42 PM
 DATE: 10/3/2023

WHITTIER YARD SNOW DUMP GUARDRAIL

SEPTEMBER 2023



VICINITY MAP
NOT TO SCALE

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CHECKED BY:	ARRC
DRAFTED BY:	ARRC

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 99510-7500
 327 W SHIP CREEK AVE
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 (907) 265-2300

KEY MAP

A/E FIRM

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



PROJECT: WHITTIER TERMINAL SNOW DUMP BARRIER

SHEET TITLE: TITLE

AFE NO.	T.B.D
YEAR	2023
SHEET	01 of 07

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 PUBLISHED CTB: ---
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 TIME: 3:43 PM
 DATE: 10/3/2023

GENERAL NOTES:

1. REMOVE APPROXIMATELY 39'-7" OF CHAIN LINK FENCE BETWEEN THE TWO (2) POSTS INDICATED ON THE PLANS
2. MINIMUM BARRIER HEIGHT ESTABLISHED PER MSHA § 57.9300(b), BERMS OR GUARDRAILS, BASED ON THE MID-AXLE HEIGHT OF THE DESIGN VEHICLE.
 - 2.1. DESIGN VEHICLE IS A CAT 988K WHEEL LOADER WITH A MID-AXLE HEIGHT OF 3.2'.
3. BARRIER TO CONSIST OF THREE (3) SECTIONS OF MASH "F" CONCRETE BARRIERS.
 - 3.1. INDIVIDUAL WEIGHT OF EACH BARRIER SECTION IS ≈7,000 LBS.
4. PLACE CONCRETE BARRIERS NO CLOSER THAN 2'-7" FROM THE FACE OF THE MARGINAL WHARF.
 - 4.1. CENTER BARRIERS ON THE OPENING BETWEEN THE TWO (2) FENCE POSTS SCHEDULED TO REMAIN.
 - 4.2. ALIGN BARRIER SECTIONS PARALLEL TO THE FACE OF THE WHARF.
5. BARRIER SECTIONS ARE TO BE SECURED TO ONE ANOTHER WITH A 1"Ø CONNECTION PIN, OR AS SPECIFIED BY THE MANUFACTURER.
6. EACH SECTION OF BARRIER REQUIRES SIX (6) EACH 1-1/2"Ø x 48" ANCHOR PINS.
 - 6.1. DRIVE ANCHOR PINS UNTIL THE HEADS OF THE PINS ARE ADJACENT TO FACE OF THE CONCRETE BARRIERS.
7. SHOP WELD 12" x 8" x 0.375"t KEEPER PLATES ONTO THE 8"Ø x 40" (NOMINAL) SCHEDULE 80 PIPE.
 - 7.1. REQUIRES A TOTAL OF EIGHTEEN (18) UNCOATED STEEL "KEEPER PLATES", SIX (6) PER SECTION OF BARRIER.
 - 7.2. WELD KEEPER PLATES ALONG THE CENTERLINE OF THE 8"Ø SCHEDULE 80 PIPE.
 - 7.2. REQUIRES A TOTAL OF NINE (9) UNCOATED STEEL "BOTTOM PLATES", THREE (3) PER SECTION OF BARRIER.
8. SHOP WELD "BOTTOM PLATES" TO THE "KEEPER PLATES".
9. BURN OR DRILL 2"Ø MINIMUM HOLES ALONG THE CENTERLINE OF THE WELL CASING AT THE CENTER OF EACH "KEEPER PLATE".
10. PLACE 8"Ø WELL CASING ON TOP OF CONCRETE BARRIERS AS SHOWN IN SECTION D-D ON SHEET 3.
 - 10.1. CUT THE 8"Ø SCHEDULE 80 PIPE SO THAT EACH END IS FLUSH WITH EACH END OF THE ASSEMBLED BARRIER
11. PROVIDE SIX (6) "CORNER PROTECTOR" PLATES AS SHOWN IN DETAIL C ON SHEET 3.
 - 11.1. BEND ENDS OF PLATE SUCH THAT THERE IS A MINIMUM OF 24" BETWEEN THE INNER BENDS.
 - 11.2. FIELD BEND (TO THE GREATEST EXTENT POSSIBLE) THE TABS OF THE "CORNER PROTECTOR" PLATES ONCE PLACED WITHIN THE FORK POCKETS.
 - 11.3. PROVIDE APPROXIMATELY 8' OF 3/8"Ø CHAIN, GRADE 70 (MIN.) AND ONE (1) CHAIN BINDER OR RATCHET BINDER PER EACH "CORNER PROTECTOR".
 - 11.4. TENSION CHAIN FROM THE WATER SIDE OF THE CONCRETE BARRIER.

STEEL PROPERTIES

1. L3"x3" TO BE A36
2. STEEL PLATE TO BE 1/2" THICK, A36
3. ALL BOLTS TO BE 7/8"Ø ASTM A325, TYPE 3, PLAIN
4. ALL NUTS TO BE 7/8"Ø ASTM A563 GRADE C3 OR DH3, PLAIN
5. ALL WASHERS TO BE 7/8"Ø ASTM F436, TYPE 3, PLAIN
6. ALL WELDS TO FOLLOW AWS D1.1 IF NOT SPECIFIED
7. ALL STRUCTURAL STEEL IS UNCOATED
8. ALL WELDS ARE FIELD WELDS

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KEY MAP

A/E FIRM

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 ENGINEERING DEPARTMENT
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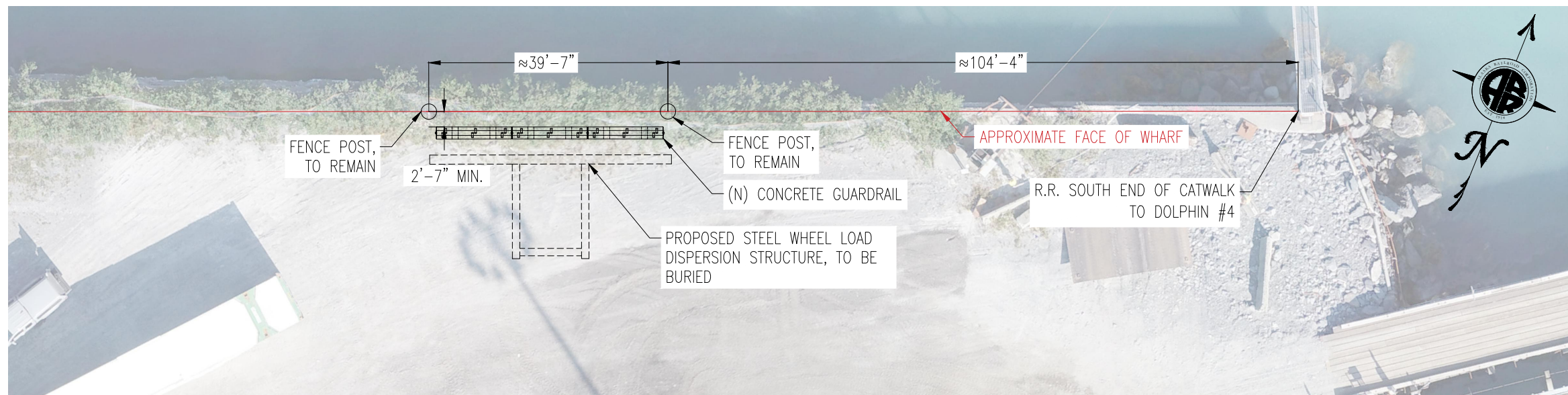
PROJECT: WHITTIER TERMINAL SNOW DUMP BARRIER
 SHEET TITLE: GENERAL NOTES

AFE NO. T.B.D

YEAR 2023

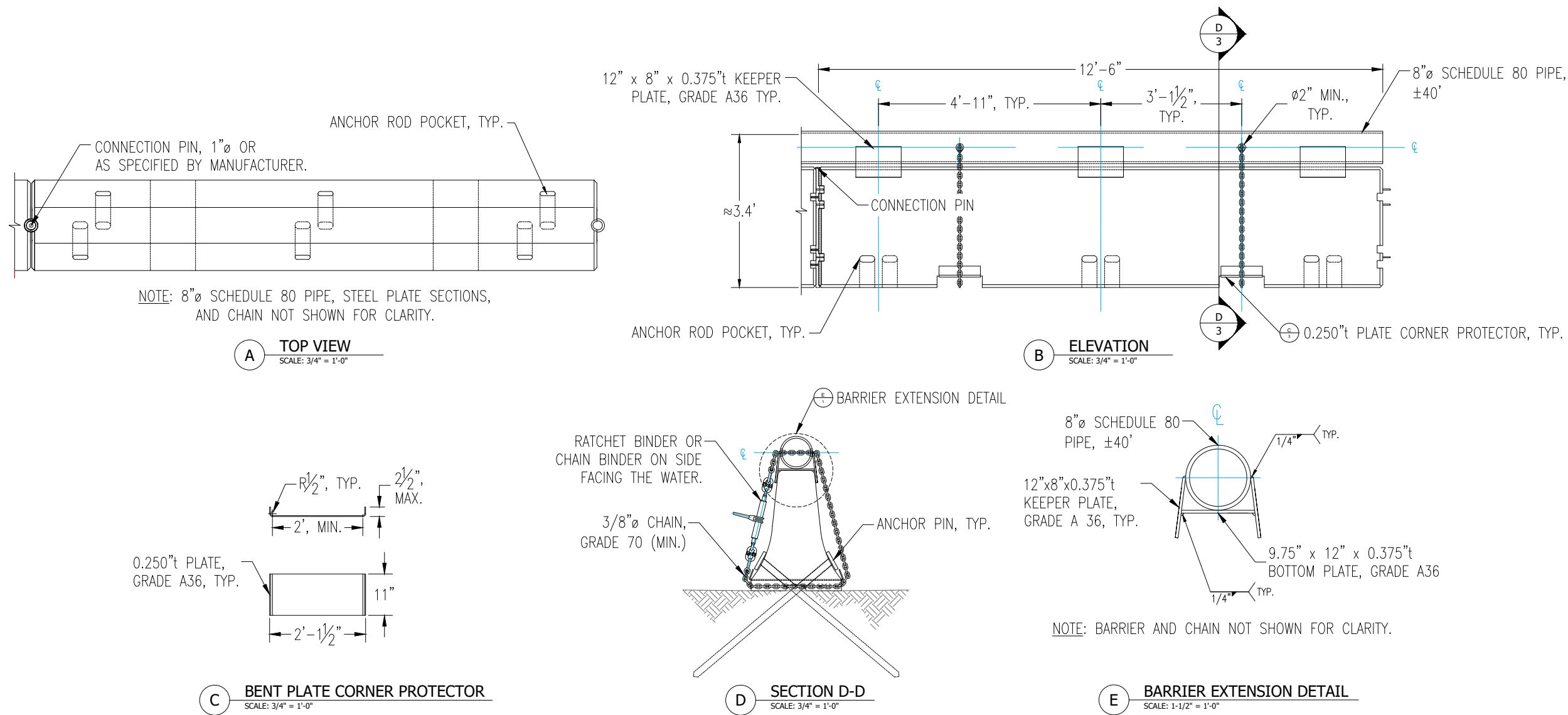
SHEET 02 OF 07

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WHITTIER SNOW DUMP GUARDRAIL

SCALE: N.T.S.



MASH "F" CONCRETE BARRIERS

SCALE: AS NOTED

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KEY MAP

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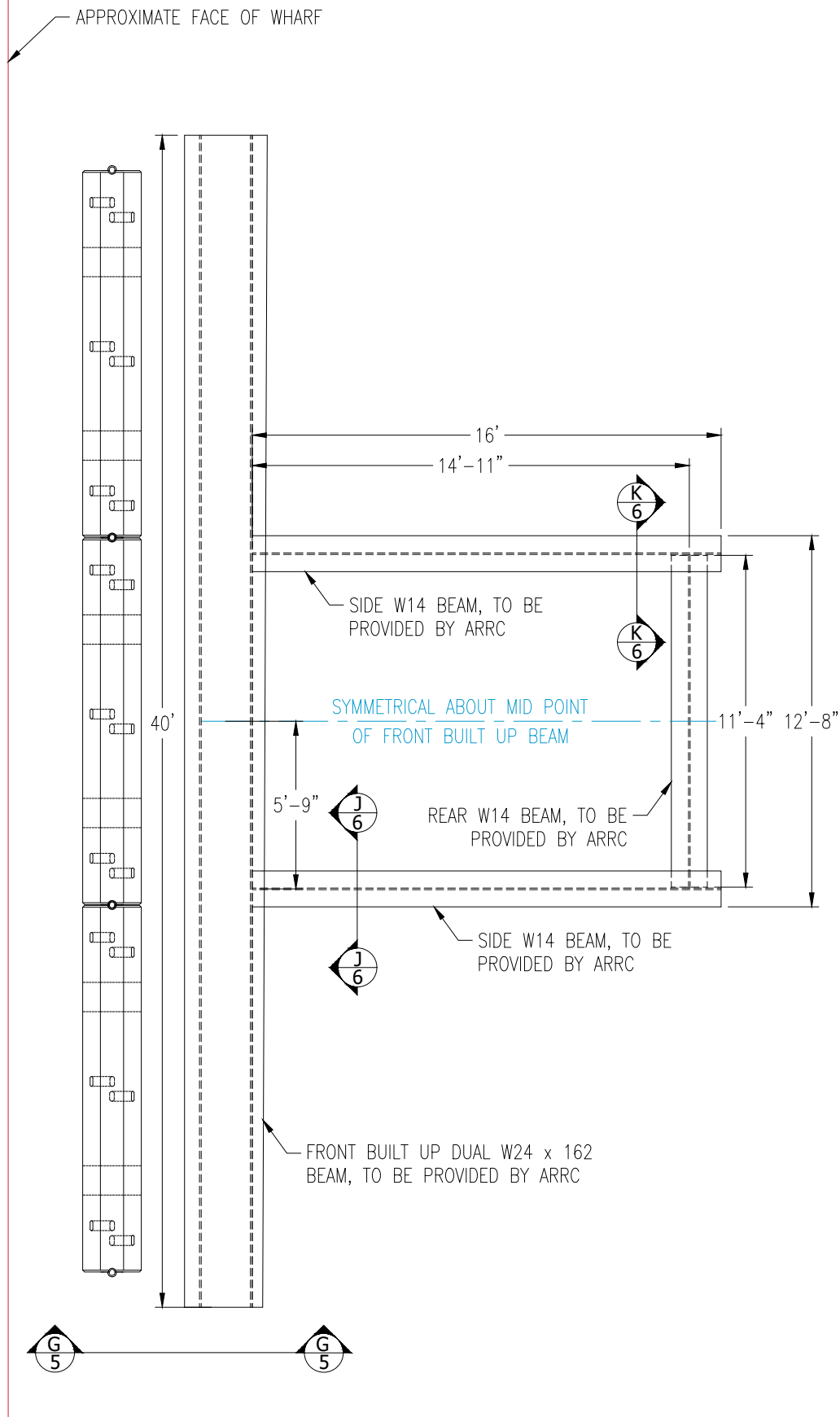
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ALASKA RAILROAD

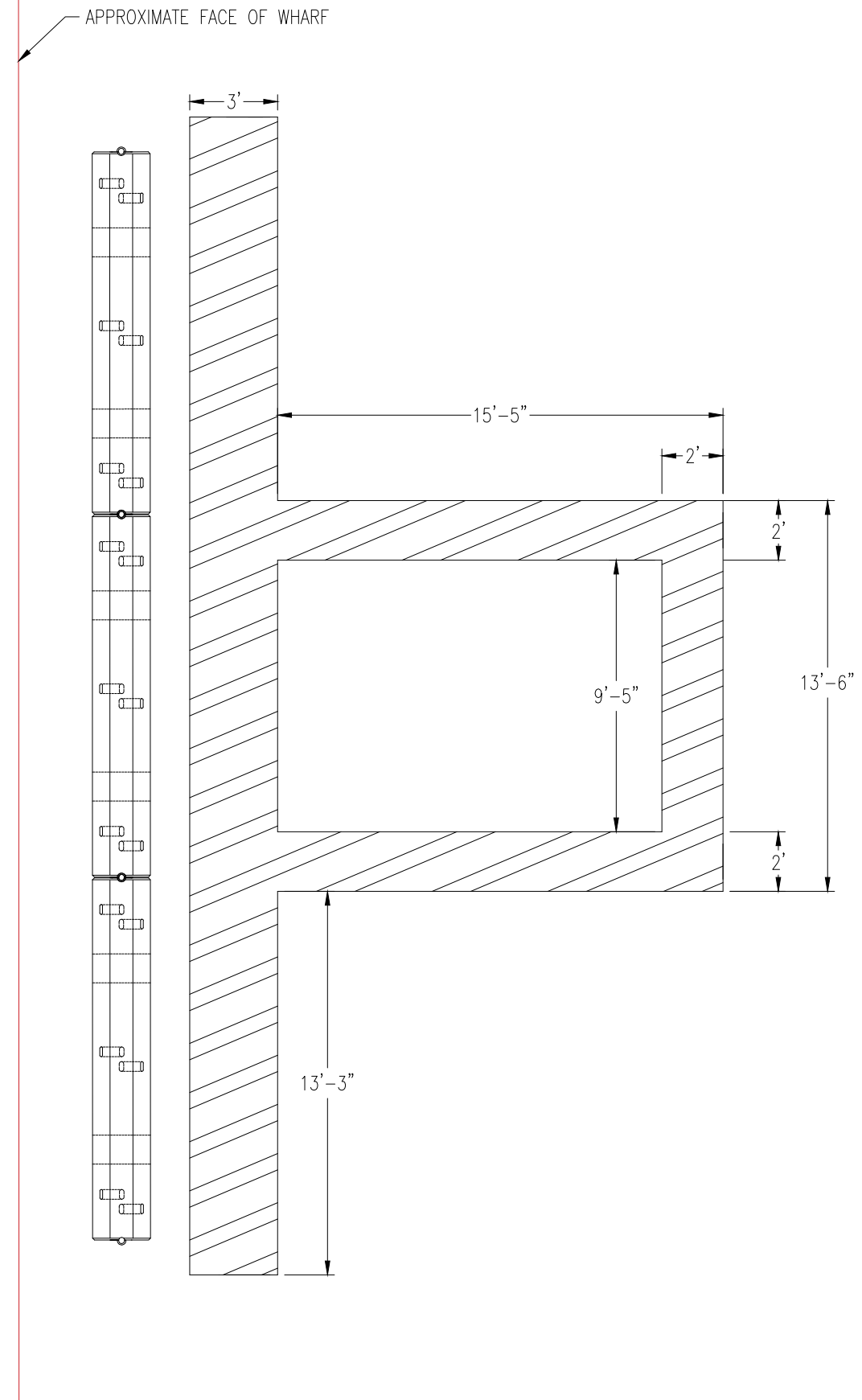
PROJECT: WHITTIER TERMINAL SNOW DUMP BARRIER

SHEET TITLE: GENERAL PLAN

AFE NO. T.B.D
 YEAR 2023
 SHEET 03 OF 07



E TOP VIEW
 SCALE: 3/8" = 1'-0"



F EXCAVATION AREA
 SCALE: 3/8" = 1'-0"

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KEY MAP

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PROJECT: WHITTIER TERMINAL SNOW DUMP BARRIER

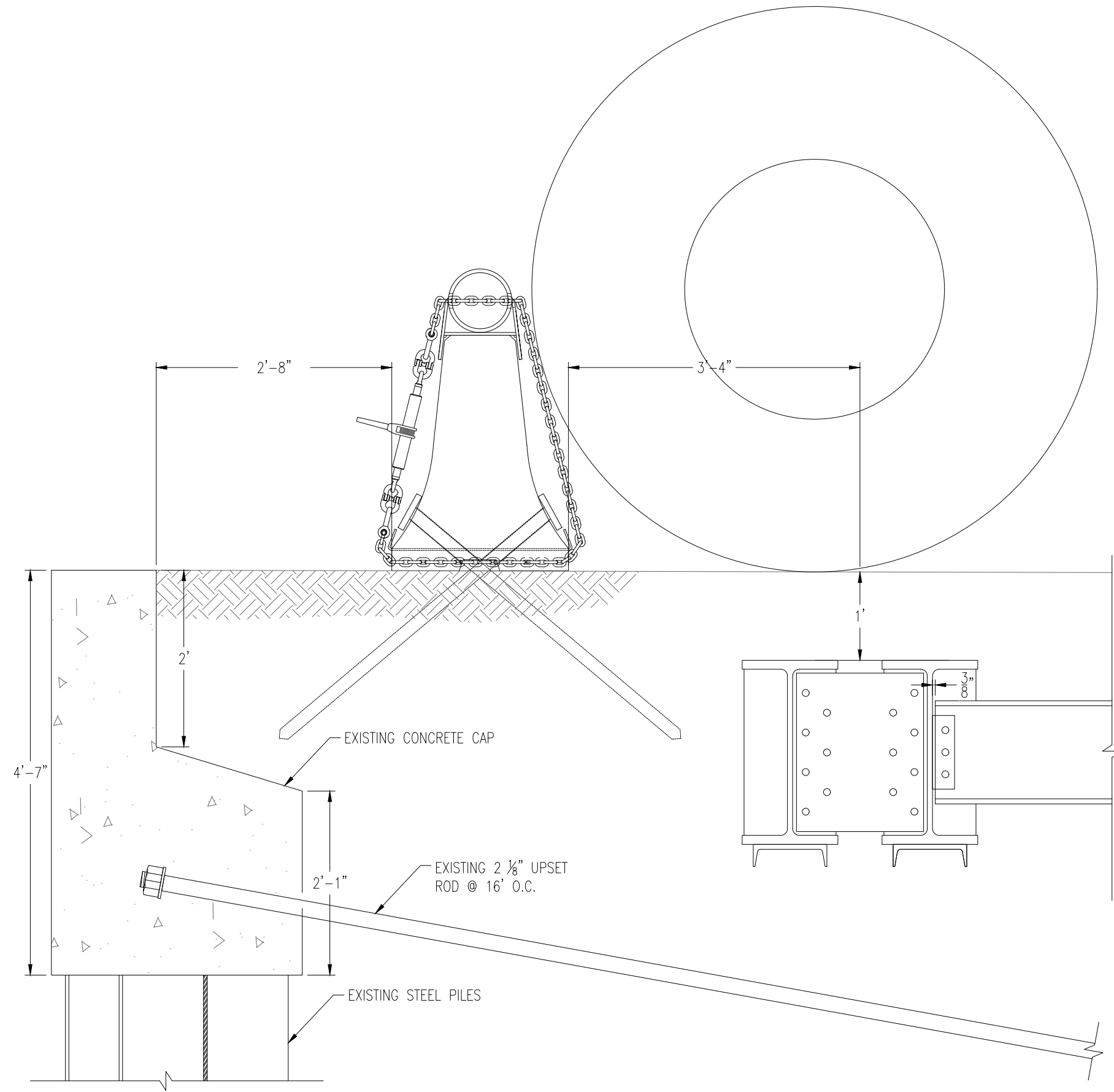
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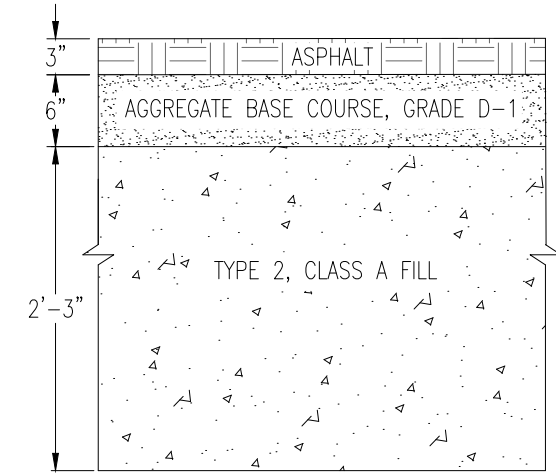
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SHEET 04 of 07

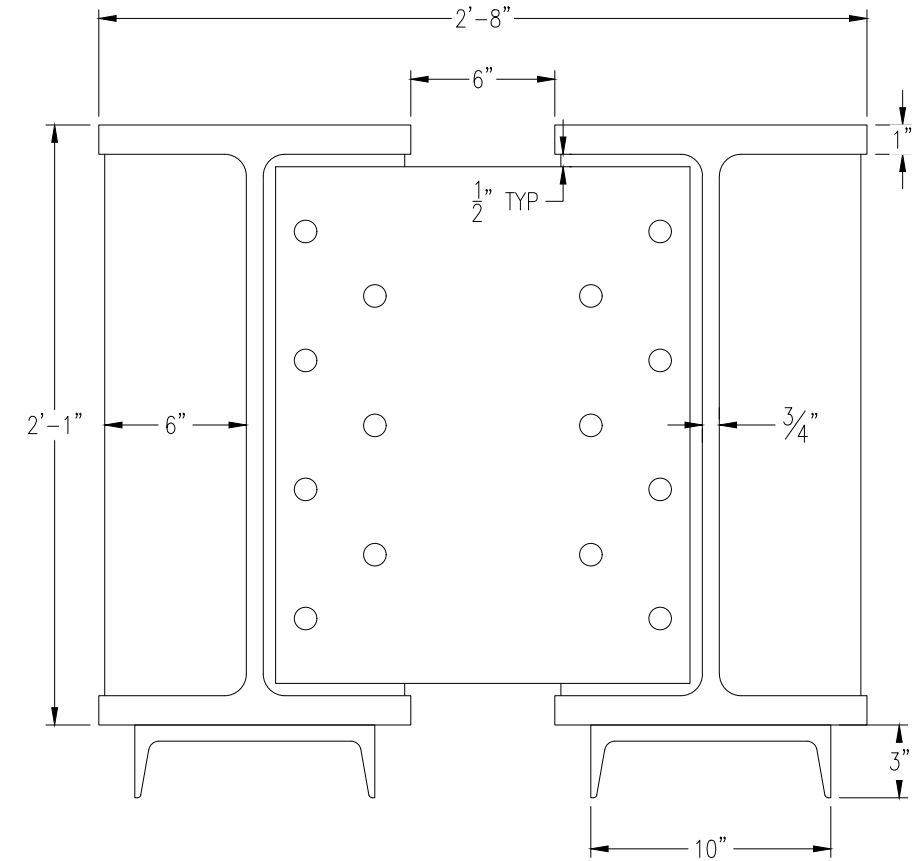
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G SECTION G - G
SCALE: 3/4" = 1'-0"



H PAVEMENT SECTION
SCALE 3/4" = 1'-0"



I FRONT BUILT UP DUAL W24 X 162
SCALE: 1-1/2" = 1'-0"

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KEY MAP

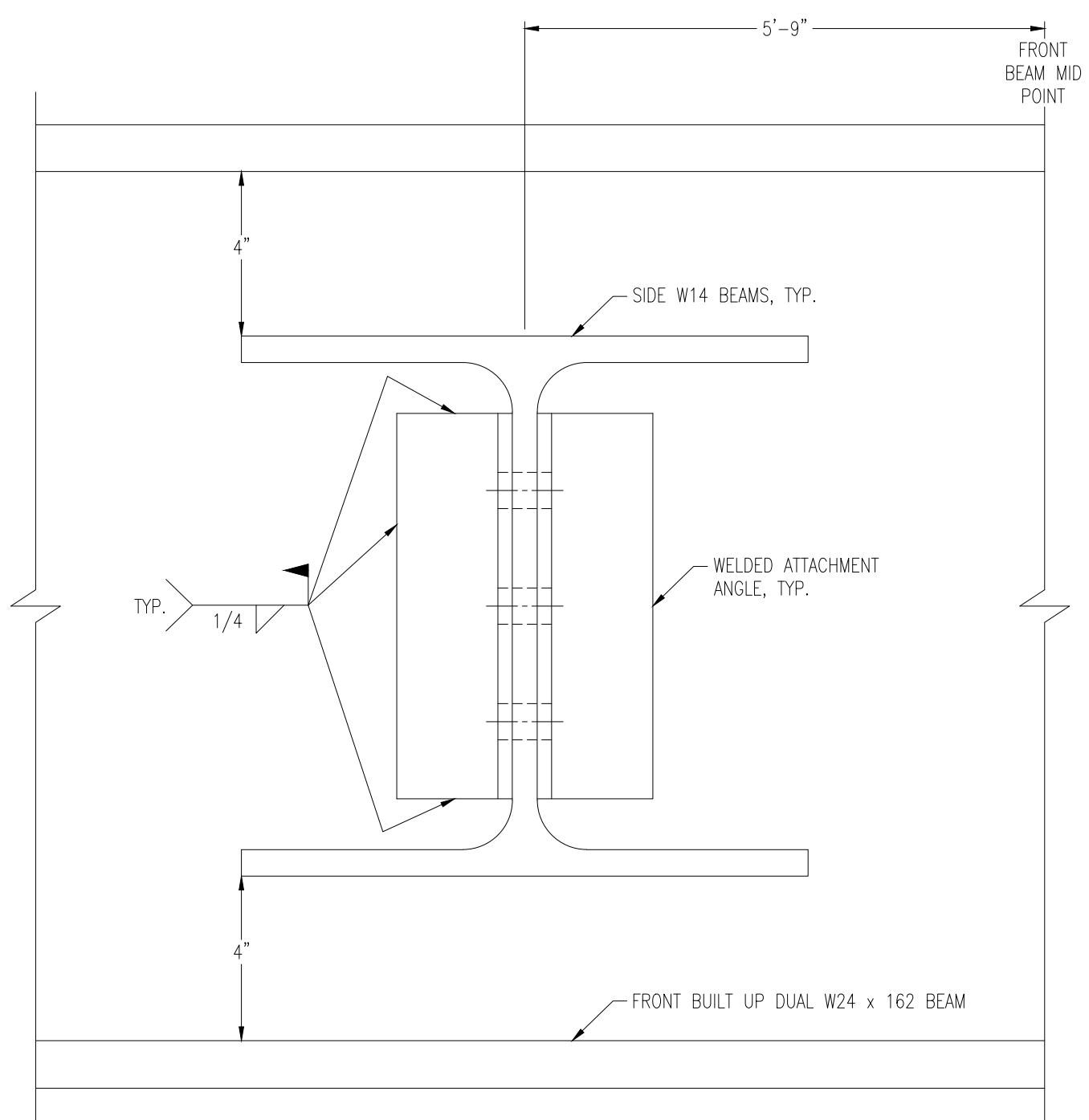
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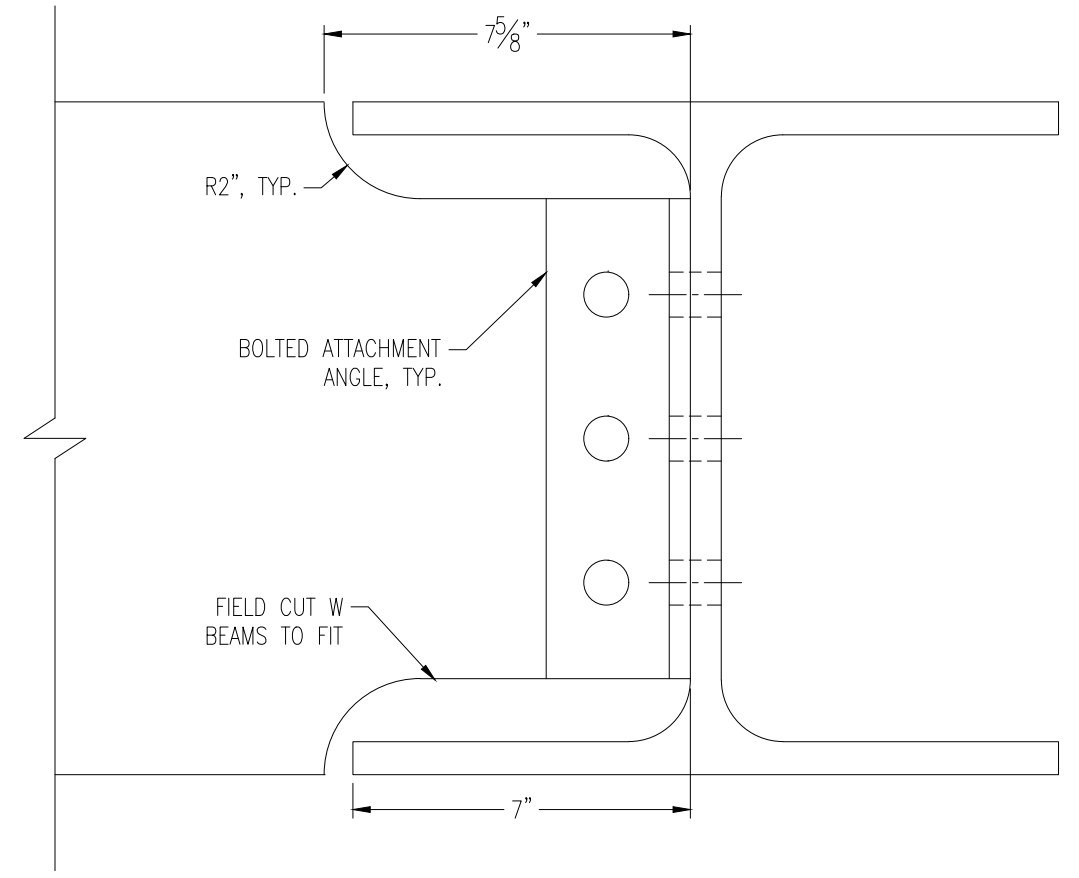
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 PROJECT: WHITTIER TERMINAL SNOW DUMP BARRIER

SHEET TITLE: SECTION
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 YEAR 2023
 SHEET 05 of 07

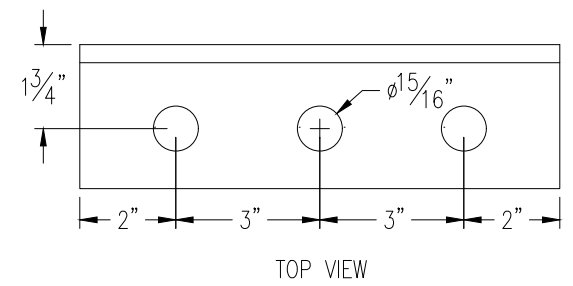
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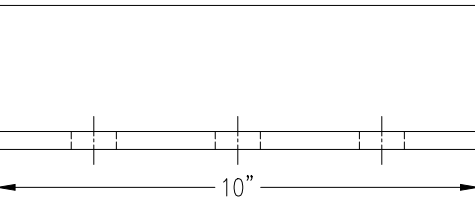
J SECTION J - J
SCALE: 3" = 1'-0"



K SECTION K - K
SCALE: 3" = 1'-0"

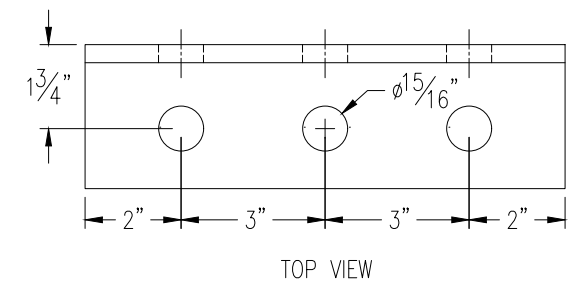


TOP VIEW

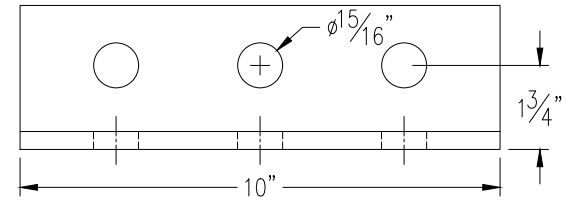


FRONT VIEW

K WELDED ATTACHMENT ANGLE
L 3" x 3" x 3/8" (4) REQ'D
SCALE: 3" = 1'-0"



TOP VIEW

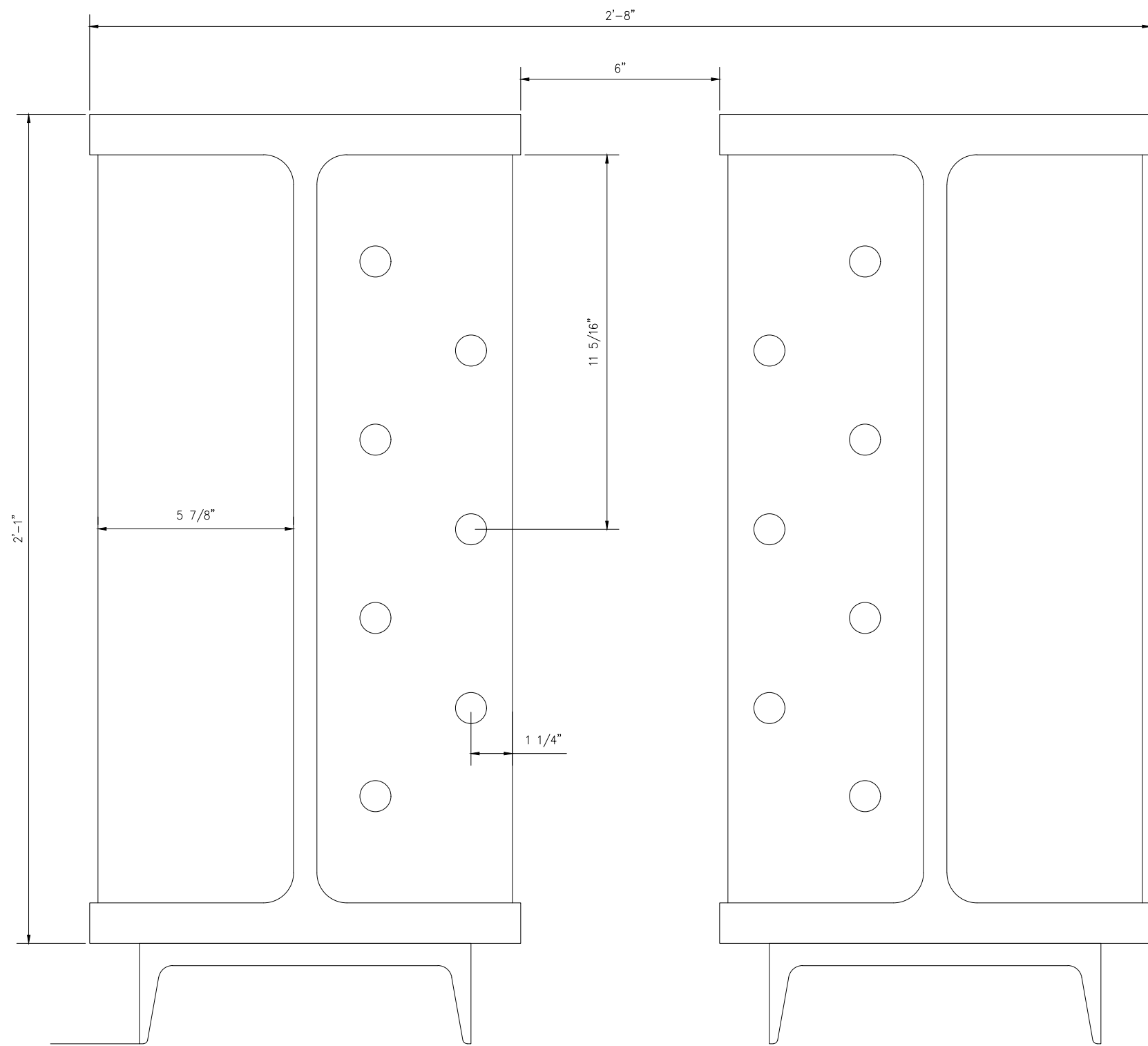


FRONT VIEW

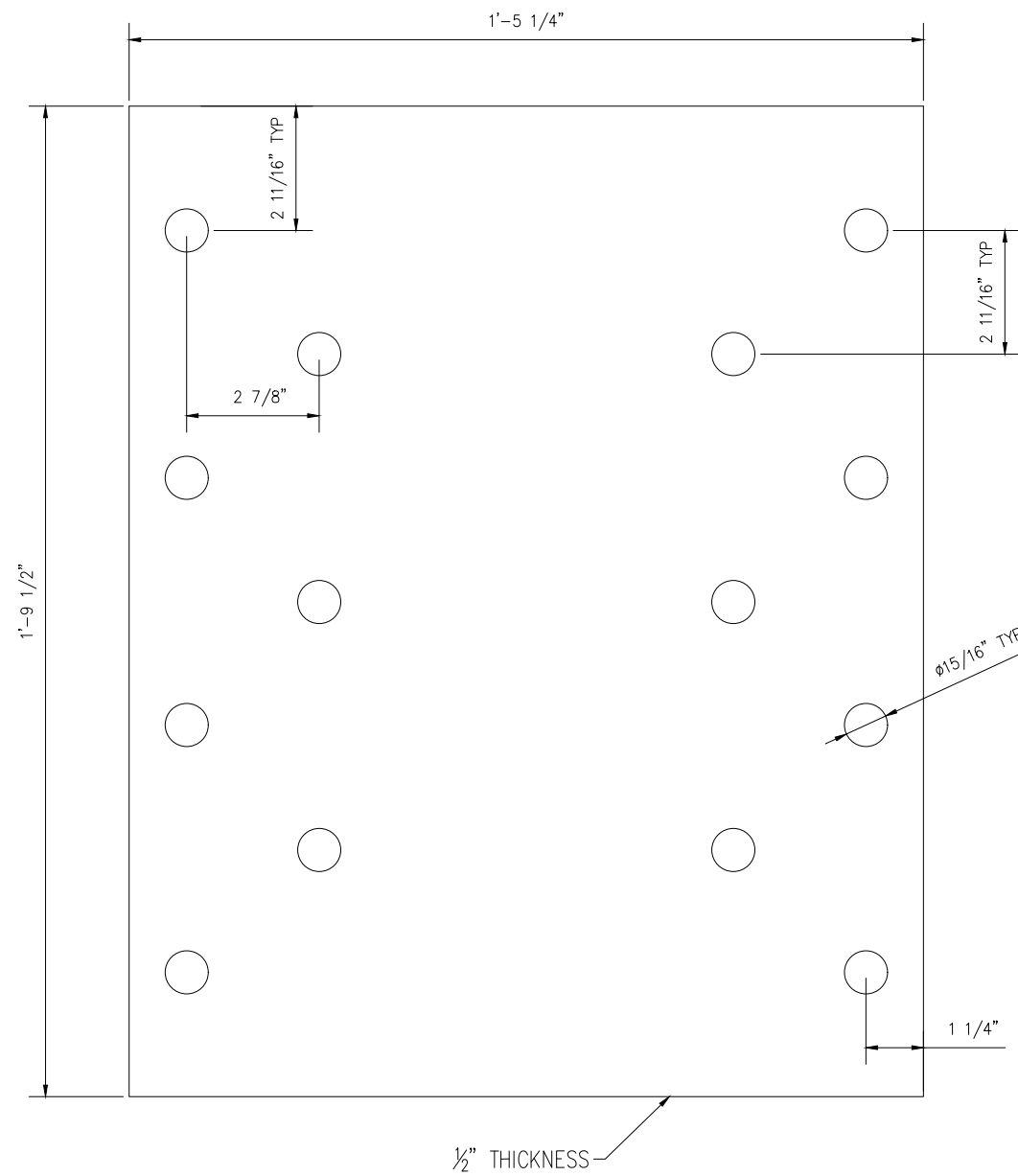
L BOLTED ATTACHMENT ANGLE
L 3" x 3" x 3/8" (4) REQ'D
SCALE: 3" = 1'-0"

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ALASKA RAILROAD ENGINEERING DEPARTMENT P.O. BOX 107500 ANCHORAGE, ALASKA 99510-7500	PROJECT: WHITTIER TERMINAL SNOW DUMP BARRIER SHEET TITLE: FABRICATION DETAILS
AFE NO.	T.B.D
YEAR	2023
SHEET	06 of 07

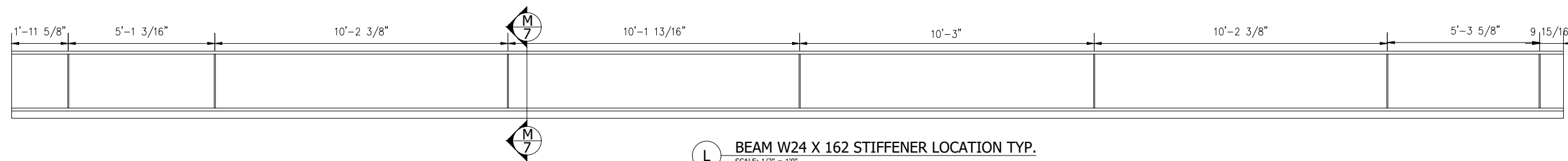
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M BUILT UP DUAL W24 X 162 DETAIL
SCALE: 6" = 1'-0"



N BUILT UP DUAL W24 X 162 PLATE DETAIL
SCALE: 6" = 1'-0"



L BEAM W24 X 162 STIFFENER LOCATION TYP.
SCALE: 1/2" = 1'-0"

NOTE: DETAIL M SHALL BE CONNECTED AT EACH STIFFENER, EXPECTED TO BE A TOTAL OF 5 CONNECTION OVER 40' LENGTH.

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ALASKA
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PROJECT: WHITTIER TERMINAL SNOW DUMP BARRIER
 SHEET TITLE: SECTION

AFE NO. T.B.D

YEAR 2023

SHEET 07 OF 07