NELSON LAGOON POWER SYSTEM UPGRADE PROJECT
ON SITE CONSTRUCTION

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C1	SITE PLAN
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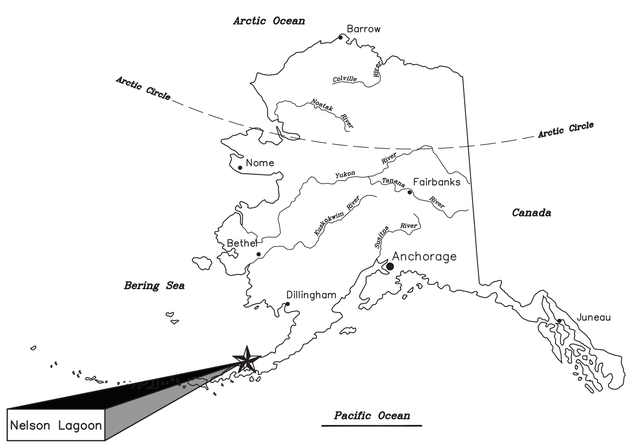

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2004 BFU E-07	LADDER DIAGRAM TANK FARM CONTROL
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E11.6	DISTRIBUTION DEMOLITION PLAN (6 OF 7)
E11.7	DISTRIBUTION DEMOLITION PLAN (7 OF 7)
E12.1	DISTRIBUTION PLAN (1 OF 7)
E12.2	DISTRIBUTION PLAN (2 OF 7)
E12.3	DISTRIBUTION PLAN (3 OF 7)
E12.4	DISTRIBUTION PLAN (4 OF 7)
E12.5	DISTRIBUTION PLAN (5 OF 7)
E12.6	DISTRIBUTION PLAN (6 OF 7)
E12.7	DISTRIBUTION PLAN (7 OF 7)

THIS DRAWING SET INCLUDES DRAWINGS THAT SHOW WORK THAT IS INCLUDED IN THIS CONTRACT AND REFERENCE DRAWINGS THAT SHOW WORK PERFORMED UNDER THE PRIOR MODULE ASSEMBLY CONTRACT. SEE RED NOTES ON EACH SHEET FOR DELINEATION OF SCOPE.

THIS DRAWING SET SHOWS WORK THAT IS UNDER THE BASE BID AND ADDITIVE ALTERNATES. ALL WORK SHOWN IS INCLUDED IN THE BASE BID UNLESS SPECIFICALLY INDICATED AS ADDITIVE ALTERNATE.

ISSUED FOR CONSTRUCTION
MAY 2023

ALASKA ENERGY AUTHORITY

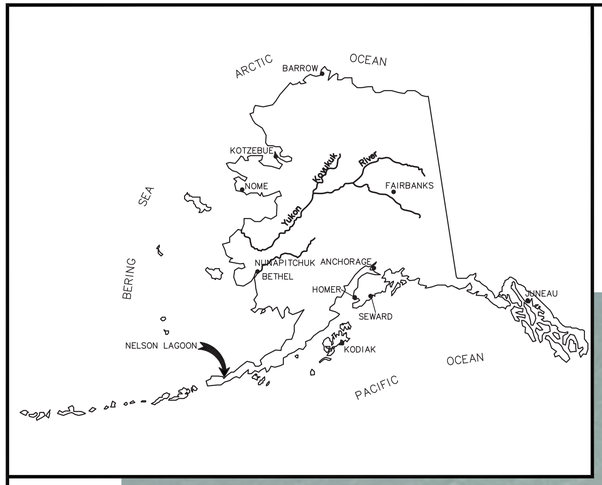
PROJECT: NELSON LAGOON POWER SYSTEM UPGRADE

TITLE: ON-SITE CONSTRUCTION SCHEDULE OF DRAWINGS

CRW ENGINEERING GROUP, INC
PHONE: (907) 562-3252

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

DRAWN BY: BCG	SCALE: NO SCALE
DESIGNED BY: BCG	DATE: 5/30/23
FILE NAME: NELS PP G1	SHEET: G0
PROJECT NUMBER:	



1 **VICINITY MAP**

ALL WORK ON THIS SHEET IS INCLUDED IN THE ON SITE CONTRACT.

400' 0 400' 800'

CRW ENGINEERING GROUP LLC
3940 ARCTIC BLVD, SUITE 300
ANCHORAGE, ALASKA 99503
PHONE (907) 677-3652
#AECL883-24

STATE OF ALASKA
49TH
Karl R. Hulke
CE-10383
5/30/23
REGISTERED PROFESSIONAL ENGINEER

PROJECT NO.	CITY GRID	WATER GRID	SEWER GRID
	–	–	–

NELSON LAGOON RPSU
VICINITY MAP
VICINITY MAP

DATE: 5/30/23
STATUS: FINAL SUBMITTAL

REVISION			
REV	DATE	DESCRIPTION	BY

SCALE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
HOR: NTS VER: NTS	–	–	–	–

SHEET NO.
G1

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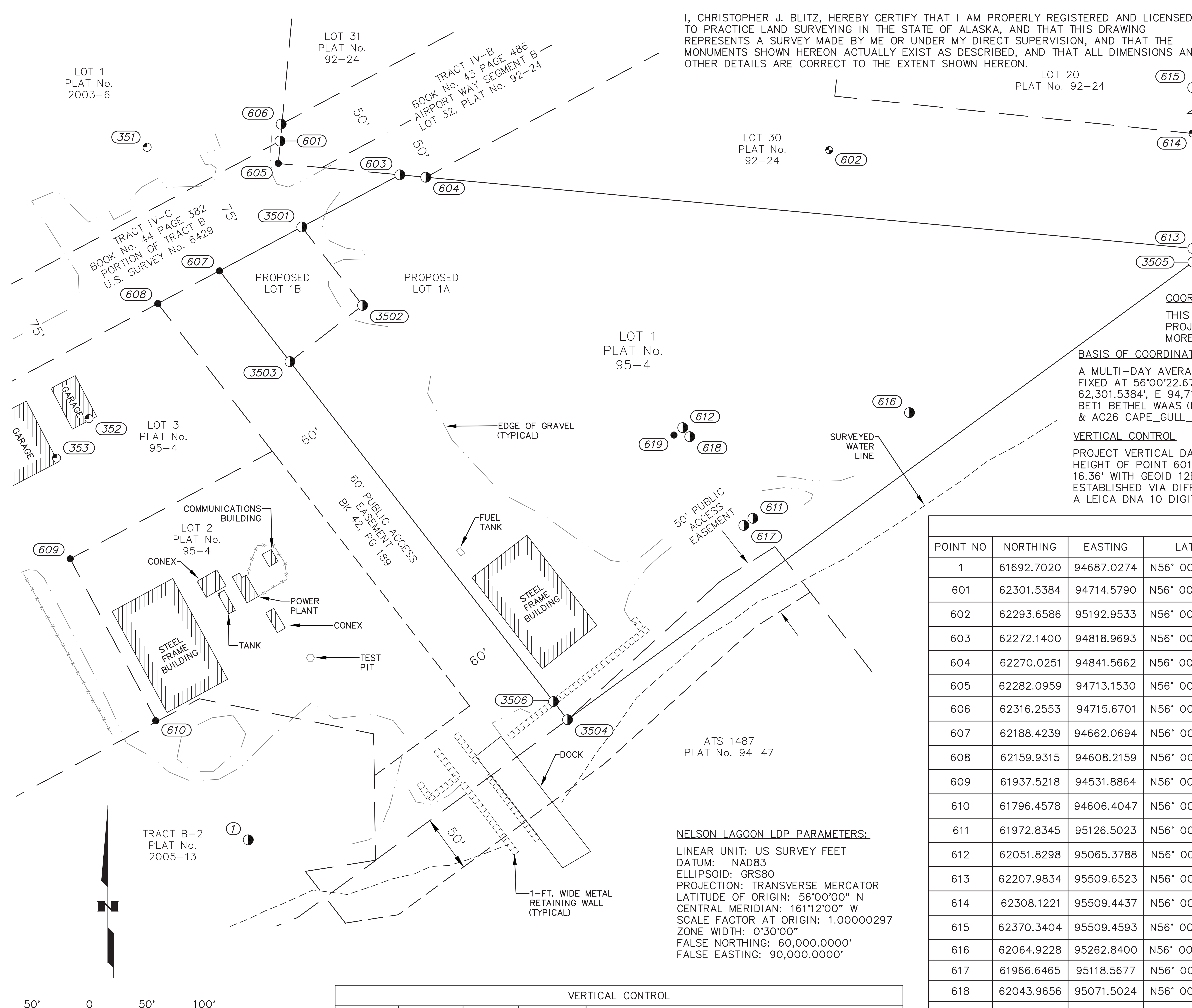
SURVEYOR'S CERTIFICATE

I, CHRISTOPHER J. BLITZ, HEREBY CERTIFY THAT I AM PROPERLY REGISTERED AND LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF ALASKA, AND THAT THIS DRAWING REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT THE MONUMENTS SHOWN HEREON ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONS AND OTHER DETAILS ARE CORRECT TO THE EXTENT SHOWN HEREON.



NELSON LAGOON LDP PARAMETERS:

LINEAR UNIT: US SURVEY FEET
DATUM: NAD83
ELLIPSOID: GRS80
PROJECTION: TRANSVERSE MERCATOR
LATITUDE OF ORIGIN: 56°00'00" N
CENTRAL MERIDIAN: 161°12'00" W
SCALE FACTOR AT ORIGIN: 1.00000297
ZONE WIDTH: 0°30'00"
FALSE NORTHING: 60,000.0000'
FALSE EASTING: 90,000.0000'

LEGEND

- ALUMINUM CAP
- TEMPORARY BENCHMARK
- REBAR OR PLASTIC CAP
- (500) POINT NUMBER IDENTIFIER
- * NOT SHOWN
- BUILDING

VERTICAL CONTROL				
POINT NO	NORTHING	EASTING	ELEVATION	DESCRIPTION
351	62296	94599	16.92	SET PAINTED MARK ON S.W. CORNER OF DIKE
352	62060	94548	9.62	SET PAINTED MARK IN CONCRETE FINISHED FLOOR ALONG SOUTH WALL NEAR EAST END OF GARAGE DOOR
353	62025	94520	10.05	SET PAINTED MARK IN S.E. CORNER OF CONCRETE SLAB EMERGING FROM GARAGE DOOR

1 SURVEY CONTROL

SCALE: GRAPHIC

ALL WORK ON THIS SHEET IS INCLUDED IN THE ON SITE CONTRACT.

NOTES

1. THIS FIELD SURVEY WAS CONDUCTED SEPTEMBER 27–30, 2022 BY CRW ENGINEERING GROUP. SURVEY NOTES ARE CONTAINED IN FIELD BOOK 227, PAGES 27–49.
2. ALL COORDINATES SHOWN ARE EXPRESSED IN U.S. SURVEY FEET AND ALL DISTANCES HAVE BEEN REDUCED TO HORIZONTAL GROUND DISTANCES
3. HORIZONTAL CONTROL POINTS SHOWN WERE ESTABLISHED VIA REDUNDANT RTK GNSS TECHNIQUES.
4. WHETHER LISTED OR NOT, ALL MONUMENTS OR PROPERTY MARKERS, CORNERS, OR ACCESSORIES, WHICH WILL BE DISTURBED OR BURIED, SHALL BE REFERENCED OR RE-ESTABLISHED IN THEIR ORIGINAL POSITION (A.S. 19.10.260) AND RECORDED (A.S. 34.65.040).
5. ALL DOCUMENTS SHOWN RECORDED IN THE ALEUTIAN ISLANDS RECORDING DISTRICT.
6. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE HORIZONTAL AND VERTICAL POSITIONS OF CONTROL POINTS SHOWN HEREON.
7. BACKGROUND TOPOGRAPHIC INFORMATION SHOWN IS FOR ORIENTATION PURPOSES ONLY.

COORDINATE SYSTEM:

THIS PROJECT IS LOCATED ENTIRELY WITHIN THE NELSON LAGOON LDP, A LOW DISTORTION PROJECTION CREATED BY CRW ENGINEERING GROUP, SEE NELSON LAGOON LDP PARAMETERS FOR MORE INFORMATION.

BASIS OF COORDINATES:

A MULTI-DAY AVERAGED NAD83 (2011) (EPOCH: 2010.0000) OPUS SOLUTION FOR CONTROL POINT 601 WAS HELD FIXED AT 56°00'22.67401" N, 161° 10' 37.07293" W. SAID POINT HAS NELSON LAGOON LDP COORDINATES N 62,301.5384', E 94,714.5790'. NGS CORS STATIONS USED INCLUDE AC42 SANAKISLNDAK2007 (PID DM7493), BET1 BETHEL WAAS (PID DK4091), AV09 HAYSTACK_AK2004 (PID DG7471), AC45 SITKINAKISAK2006 (PID DM7499), & AC26 CAPE_GULL_AK2008 (PID DL7659).

VERTICAL CONTROL

PROJECT VERTICAL DATUM IS NAVD 88 USING GEOID 12BAK SEPARATIONS. THE OPUS-AVERAGED ELLIPSOID HEIGHT OF POINT 601 WAS HELD FIXED AT 62.23', WHICH PROPAGATES TO AN ORTHOMETRIC ELEVATION OF 16.36' WITH GEOID 12BAK SEPARATIONS. ELEVATIONS FOR TEMPORARY BENCH MARKS 351–353 WERE ESTABLISHED VIA DIFFERENTIAL LEVELING HOLDING THE ABOVE LISTED ELEVATION OF CONTROL POINT 601 FIXED. A LEICA DNA 10 DIGITAL LEVEL WAS USED FOR ALL DIFFERENTIAL LEVELING.

HORIZONTAL CONTROL					
POINT NO	NORTHING	EASTING	LATITUDE	LONGITIUDE	DESCRIPTION
1	61692.7020	94687.0274	N56° 00' 16.6740"	W161° 10' 37.5611"	SET 2" ALUMINUM CAP 0.1' BELOW GRADE
601	62301.5384	94714.5790	N56° 00' 22.6740"	W161° 10' 37.0729"	FOUND 3-1/4" ALUMINUM CAP 0.4' ABOVE GRADE
602	62293.6586	95192.9533	N56° 00' 22.5947"	W161° 10' 28.6586"	FOUND 3-1/4" BRASS CAP 0.25' ABOVE GRADE
603	62272.1400	94818.9693	N56° 00' 22.3839"	W161° 10' 35.2369"	FOUND 2-1/2" ALUMINUM CAP FLUSH WITH GRADE
604	62270.0251	94841.5662	N56° 00' 22.3630"	W161° 10' 34.8395"	FOUND 3-1/4" ALUMINUM CAP FLUSH WITH GRADE
605	62282.0959	94713.1530	N56° 00' 22.4824"	W161° 10' 37.0981"	FOUND BENT S.S. ROD 0.6' BELOW GRADE, CAP MISSING
606	62316.2553	94715.6701	N56° 00' 22.8190"	W161° 10' 37.0537"	FOUND 3-1/4" ALUMINUM CAP 0.6' BELOW GRADE
607	62188.4239	94662.0694	N56° 00' 21.5594"	W161° 10' 37.9972"	FOUND 5/8" REBAR 1.7' BELOW GRADE & PLUMB
608	62159.9315	94608.2159	N56° 00' 21.2788"	W161° 10' 38.9446"	FOUND 1-1/2" PLASTIC CAP 1.5' BELOW GRADE
609	61937.5218	94531.8864	N56° 00' 19.0872"	W161° 10' 40.2885"	FOUND BENT 5/8" REBAR BELOW GRAVEL PAD LINER
610	61796.4578	94606.4047	N56° 00' 17.6968"	W161° 10' 38.9786"	FOUND 1/2" REBAR 0.7' BELOW GRADE & PLUMB
611	61972.8345	95126.5023	N56° 00' 19.4332"	W161° 10' 29.8295"	FOUND 3-1/4" ALUMINUM CAP 0.9' BELOW GRADE
612	62051.8298	95065.3788	N56° 00' 20.2119"	W161° 10' 30.9041"	FOUND 3-1/4" ALUMINUM CAP 0.1' ABOVE GRADE
613	62207.9834	95509.6523	N56° 00' 21.7492"	W161° 10' 23.0886"	FOUND 3-1/4" ALUMINUM CAP 0.5' BELOW GRADE
614	62308.1221	95509.4437	N56° 00' 22.7361"	W161° 10' 23.0916"	FOUND 3-1/4" BRASS CAP FLUSH WITH GRADE
615	62370.3404	95509.4593	N56° 00' 23.3492"	W161° 10' 23.0909"	FOUND 3-1/4" ALUMINUM CAP 0.9' BELOW GRADE
616	62064.9228	95262.8400	N56° 00' 20.3403"	W161° 10' 27.4308"	FOUND 2" ALUMINUM CAP 0.6' BELOW GRADE
617	61966.6465	95118.5677	N56° 00' 19.3723"	W161° 10' 29.9691"	FOUND 2" ALUMINUM CAP 1.0' BELOW GRADE
618	62043.9656	95071.5024	N56° 00' 20.1344"	W161° 10' 30.7965"	FOUND 2" ALUMINUM CAP 0.4' BELOW GRADE
619	62045.3902	95057.7395	N56° 00' 20.1485"	W161° 10' 31.0385"	FOUND 5/8" REBAR 0.6' BELOW GRADE & PLUMB
*620	61998.9485	94305.2486	N56° 00' 19.6933"	W161° 10' 44.2745"	FOUND 2-1/2" ALUMINUM CAP 0.2' BELOW GRADE
3501	62226.7046	94733.6120	N56° 00' 21.9365"	W161° 10' 36.7386"	SET 2" ALUMINUM CAP 0.3' BELOW GRADE
3502	62158.3752	94786.5560	N56° 00' 21.2629"	W161° 10' 35.8077"	SET 2" ALUMINUM CAP 0.3' BELOW GRADE
3503	62109.3760	94723.3178	N56° 00' 20.7802"	W161° 10' 36.9203"	SET 2" ALUMINUM CAP 0.3' BELOW GRADE
3504	61797.3783	94965.0644	N56° 00' 17.7047"	W161° 10' 32.6701"	SET 2" ALUMINUM CAP 0.3' BELOW GRADE
3505	62196.1094	95509.6665	N56° 00' 21.6322"	W161° 10' 23.0885"	SET 2" ALUMINUM CAP 0.3' BELOW GRADE
3506	61813.1879	94952.8146	N56° 00' 17.8605"	W161° 10' 32.8855"	SET 2" ALUMINUM CAP 0.3' BELOW GRADE

CRW ENGINEERING GROUP, LLC
3940 ARCTIC BLVD, SUITE 300 ANCHORAGE, ALASKA 99503 PHONE: (907) 562-3252 #AECL882-AK

STATE OF ALASKA 49TH Christopher J. Blitz LS-11930 5/30/23 REGISTERED PROFESSIONAL LAND SURVEYOR

PROJECT NO. | CITY GRID – | WATER GRID – | SEWER GRID –

NELSON LAGOON RPSU

SURVEY CONTROL SHEET

SURVEY CONTROL SHEET

DATE: 5/30/23

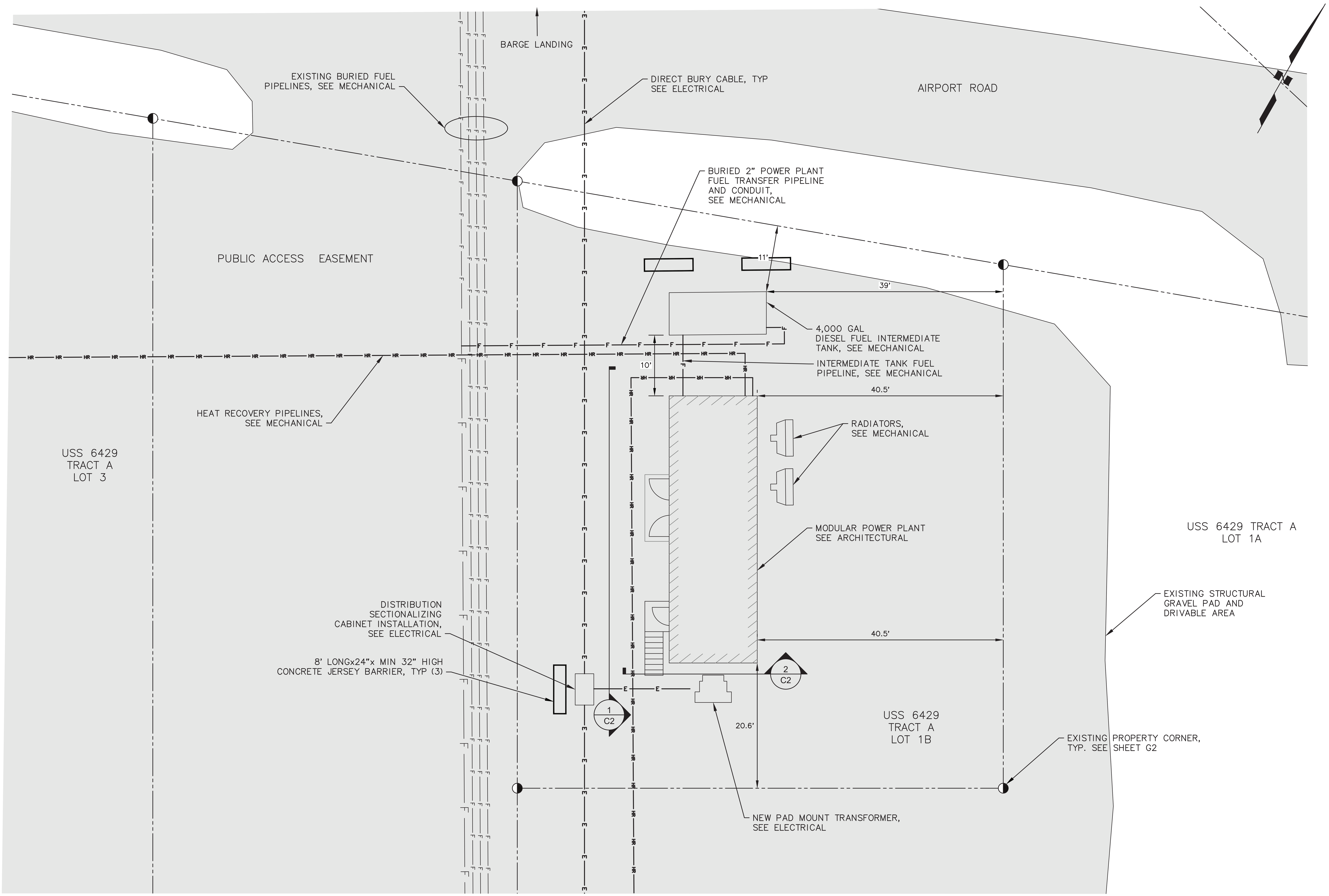
STATUS: FINAL SUBMITTAL

REV | DATE | DESCRIPTION | REVISION | BY

SCALE HOR. NTS VER. NTS | DESIGNED BY – | DRAWN BY – | CHECKED BY – | APPROVED BY –

SHEET NO. G2

File: J:\Jobs\Data\72308.02 Nelson Lagoon Rpsu - Civil Design\00 Cadd 2019\01 Working Set\02 Survey\03 Survey Control\72308.02_Nelson Lagoon - SCS.dwg PLOT DATE: 5/18/2023 10:22 AM



NOTES:

1. LOCATION OF UTILITIES AND EQUIPMENT MAY VARY.
2. SEE SHEETS M1.5 AND A1 FOR CODE ANALYSIS.

1 **SITE PLAN**

ALL WORK ON THIS SHEET IS INCLUDED IN THE ON SITE CONTRACT.

8' 0 8' 16'

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CRW ENGINEERING GROUP, LLC
3940 ARCTIC BLVD. SUITE 300
ANCHORAGE, ALASKA 99503
PHONE: (907) 562-3252
#AECL882-AK

STATE OF ALASKA 49 TH Karl R. Hulse CE-10583 05/30/23 REGISTERED PROFESSIONAL ENGINEER

PROJECT NO.	CITY GRID	WATER GRID	SEWER GRID
	–	–	–

NELSON LAGOON RPSU
SITE PLAN
SITE PLAN

STATUS: FINAL SUBMITTAL DATE: 5/30/23

REV	DATE	DESCRIPTION	BY

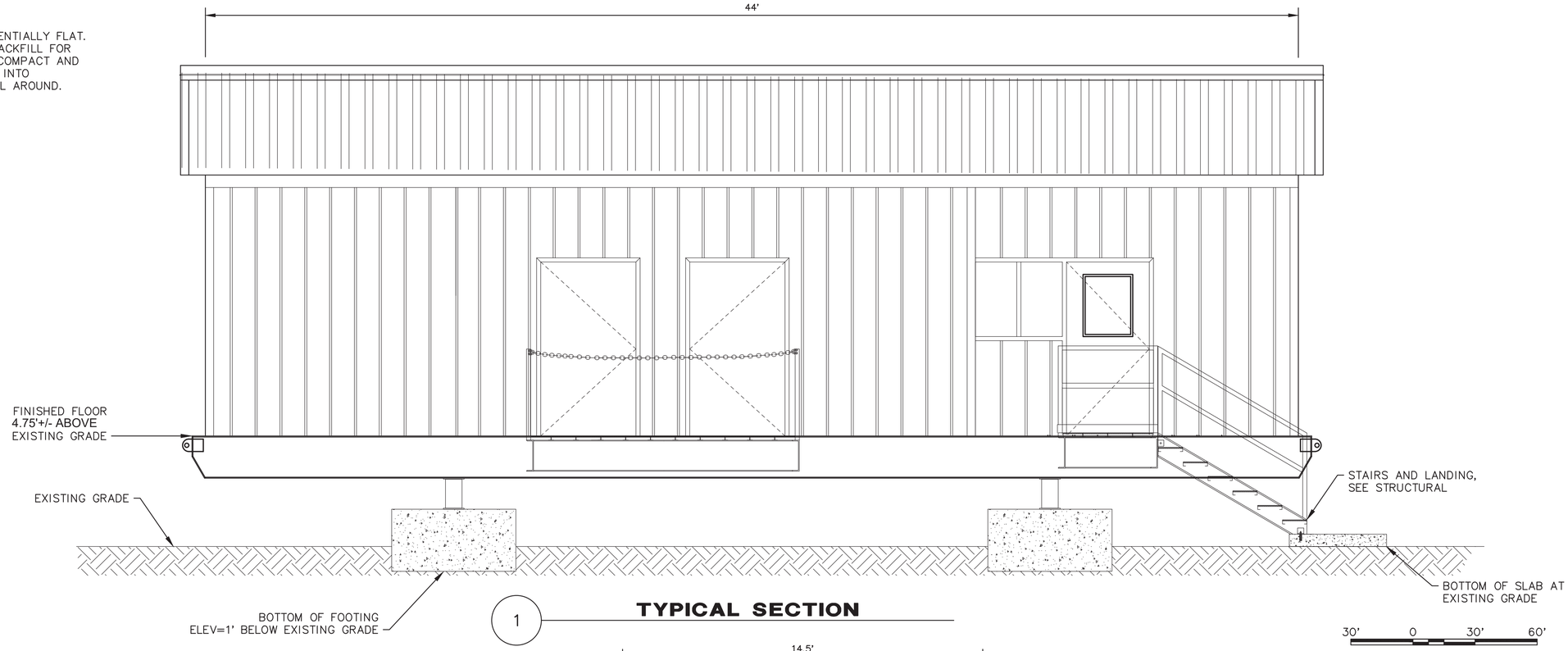
REVISION

SCALE HOR. NTS VER. NTS

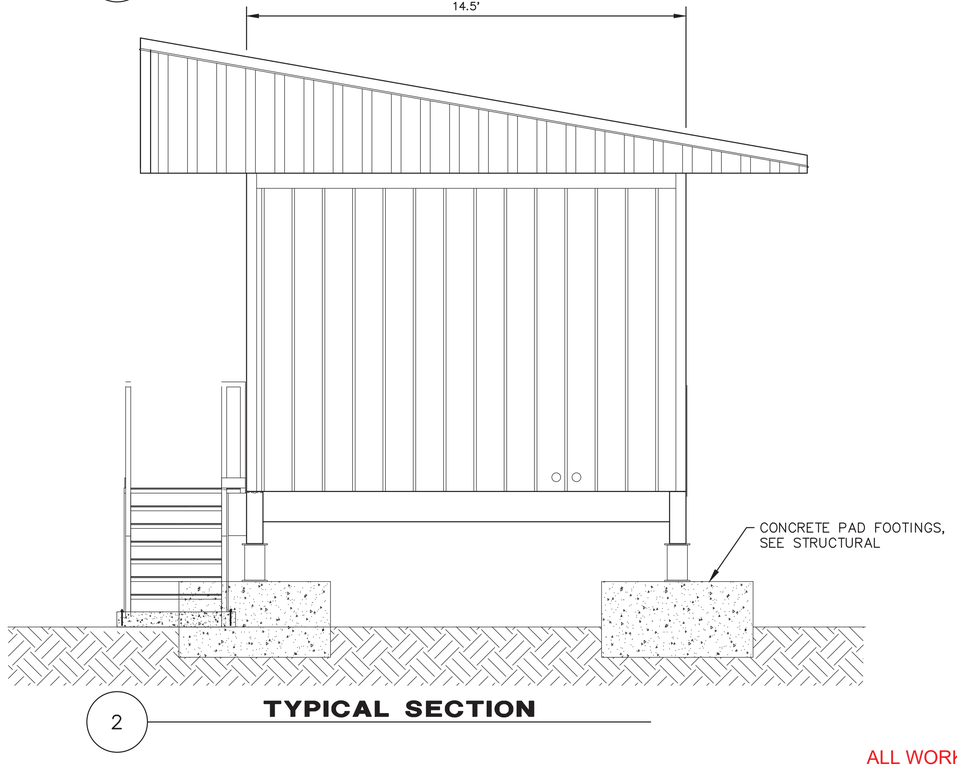
DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
–	–	–	–

SHEET NO.
C1

NOTE:
THE EXISTING SITE IS ESSENTIALLY FLAT. AFTER EXCAVATION AND BACKFILL FOR FOOTINGS AND UTILITIES, COMPACT AND RE-GRADE SITE TO BLEND INTO SURROUNDING SURFACE ALL AROUND.



1 **TYPICAL SECTION**



2 **TYPICAL SECTION**

ALL WORK ON THIS SHEET IS INCLUDED IN THE ON SITE CONTRACT.

CRW ENGINEERING GROUP LLC
3940 ARCTIC BLVD. SUITE 300
ANCHORAGE, ALASKA 99503
PHONE (907) 677-3652
#AECL883-24

STATE OF ALASKA
49TH
Karl R. Hulke
CE-10383
12/30/24
REGISTERED PROFESSIONAL ENGINEER

PROJECT NO.	CITY GRID	WATER GRID	SEWER GRID
	–	–	–

NELSON LAGOON RPSU
TYPICAL SECTIONS
TYPICAL SECTIONS

DATE: 5/30/23
STATUS: FINAL SUBMITTAL

REVISION REV	DATE	DESCRIPTION	BY

SCALE
HOR. NTS
VER. NTS
DESIGNED BY –
DRAWN BY –
CHECKED BY –
APPROVED BY –

SHEET NO.
C2

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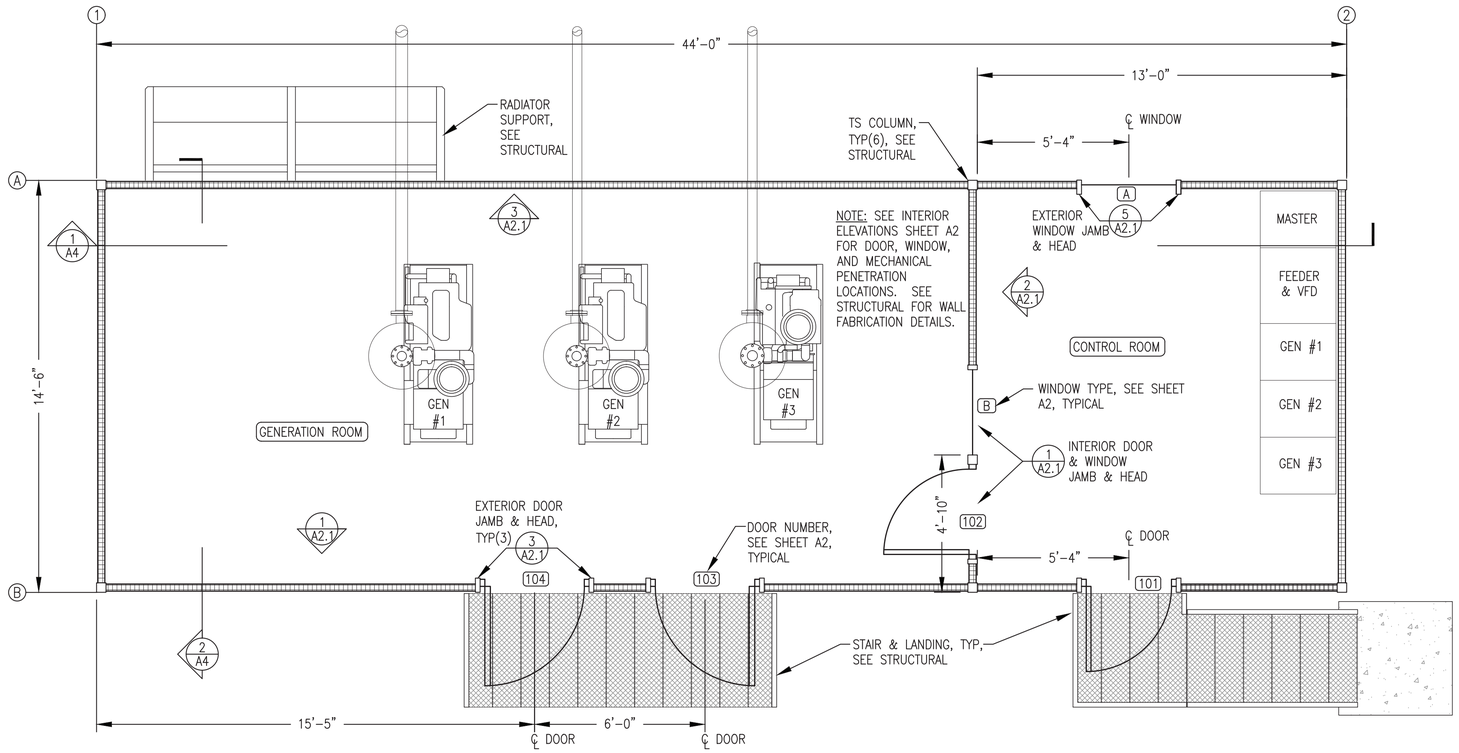
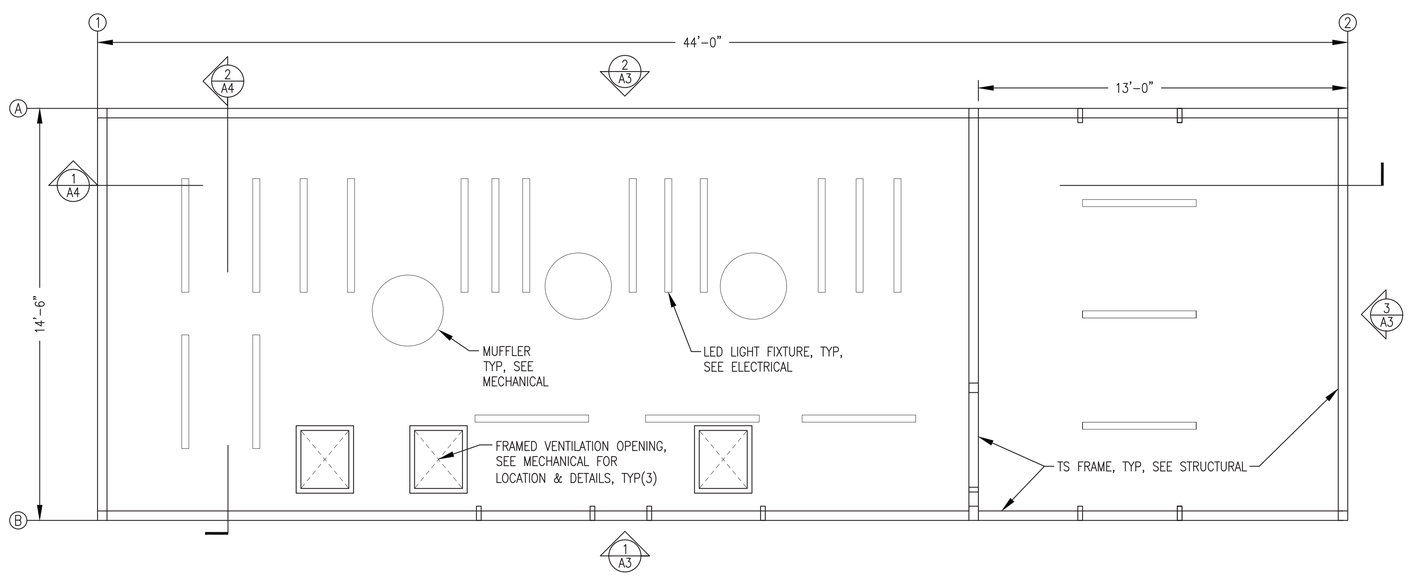


1 A1 FLOOR PLAN
3/8"=1'-0"



2 A1 REFLECTED CEILING PLAN
3/8"=1'-0"

CODE ANALYSIS – 2021 EDITION INTERNATIONAL BUILDING CODE

OCCUPANCY CLASSIFICATION	REF: IBC–2021, SEC. 306.2
GROUP F–1: FACTORY INDUSTRIAL MODERATE HAZARD – ELECTRIC GENERATION PLANT	
TYPE OF CONSTRUCTION	REF: IBC–2021, TABLE 601
TYPE V–B (NON–RATED)	REF: IBC–2021, SEC. 602.5
BUILDING HEIGHTS AND AREAS	REF: IBC–2021, TABLES 504.3, 504.4, & 506.2
MAX ALLOWED = 40'–0" 1 STORY 8,500 S.F	ACTUAL = 16'–0" 1 STORY 640 S.F
FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS	REF: IBC–2021, TABLE 601
STRUCTURAL FRAME: 0 HR BEARING WALLS: 0 HR INTERIOR PARTITIONS: 0 HR	FLOOR: 0 HR ROOF: 0 HR
FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS	REF: IBC–2021, SEC. 705.5
EXTERIOR WALLS 10' < X < 30' 0 HR	
FIRE PROTECTION SYSTEM	REF: IBC–2021, SEC. 903.2.4
FIRE PROTECTION NOT REQUIRED. WATER MIST FIRE SUPPRESSION SYSTEM PROVIDED (SEE MECHANICAL).	
OCCUPANT LOAD	REF: IBC–2021, TABLE 1004.5
MECHANICAL/STORAGE = 300 S.F./PERSON	610 S.F./300 S.F. PER OCCUPANT = 2 OCCUPANTS
MEANS OF EGRESS – TRAVEL DISTANCE	REF: IBC–2021, TABLE 1017.2
MAX ALLOWED = 200'	ACTUAL = 40'
COMBUSTIBLE LIQUIDS STORAGE	REF: IBC–2021, TABLE 307.1(1)(i)
MAX ALLOWED = 660 GAL CLASS II LIQUIDS	ACTUAL = 200 GAL CLASS II (DIESEL FUEL DAY TANK)
MAX ALLOWED = 13200 GAL CLASS IIIB LIQUIDS	ACTUAL = 110 GAL CLASS IIIB (GLYCOL & LUBE OIL)
STATIONARY STORAGE BATTERY SYSTEMS	REF: IFC–2021, TABLE 1207.1.1
MAX EXEMPT = 50 GAL (FLOODED LEAD ACID)	ACTUAL = 6 GAL (6 BATTERIES AT 1 GAL MAX EACH)

ARCHITECTURAL GENERAL NOTES:

1) SEE CIVIL SITE PLAN FOR LOCATION AND LAYOUT. PROVIDE SEPARATION TO PROPERTY BOUNDARIES IN ACCORDANCE WITH CODE ANALYSIS.
2) PROVIDE A COMPLETE AND OPERATIONAL FACILITY. ALL WORK TO BE IN ACCORDANCE WITH CURRENT APPROVED EDITIONS OF THE IBC, IMC, IFC, AND NEC INCLUDING STATE OF ALASKA AMENDMENTS.
3) SEE SHEET A2 FOR DOOR AND WINDOW DETAILS AND SCHEDULE. SEE SHEETS A3 AND A4 FOR DESCRIPTION OF FIELD INSTALLED ROOF SYSTEM.
4) INSULATE ALL WALLS, FLOORS, AND CEILINGS WITH HIGH TEMPERATURE MINERAL FIBER ACOUSTICAL FIRE BATT INSULATION, MIN R VALUE 4 PER INCH, MIN 2000F MELTING TEMP. ROXUL AFB OR EQUAL. FILL ALL PANEL VOIDS OR PROVIDE THICKNESS AS INDICATED ON DRAWINGS. MECHANICALLY FASTEN FLOOR INSULATION TIGHT TO FLOOR.
5) UPON COMPLETION OF FABRICATION ROUND ALL CORNERS AND GRIND EDGES SMOOTH AND PAINT ALL INTERIOR AND EXTERIOR EXPOSED STEEL. PERFORM ALL PAINTING IN A WARM DRY ENVIRONMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS INCLUDING DRYING TIME TO RE–COAT.
6) SANDBLAST EXTERIOR SURFACE TO SSPC–SP–10. PRIME WITH ONE COAT OF REINFORCED INORGANIC ZINC PRIMER, DEVOE CATHA–COAT 302 OR APPROVED EQUAL, COLOR GREEN, TO 3 MILS DRY FILM THICKNESS. COVER WITH TWO COATS OF EPOXY, DEVOE BAR–RUST 236 OR APPROVED EQUAL, TO 10 MILS DRY FILM THICKNESS. FIRST COAT COLOR WHITE, SECOND COAT COLOR GRAY.
7) FINISH EXTERIOR WALLS AND SKIDS (ALL EXPOSED VERTICAL EXTERIOR SURFACES) WITH ONE COAT OF ALIPHATIC URETHANE ENAMEL, DEVOE DEVTHANE 389 OR APPROVED EQUAL, COLOR WHITE, TO 3 MILS DRY FILM THICKNESS. NOTE: TOTAL EXTERIOR COATING BUILD 16 MILS MINIMUM DRY FILM THICKNESS.
8) SANDBLAST INTERIOR SURFACE TO SSPC–SP–6. PRIME AND FINISH WITH TWO COATS OF EPOXY, PPG AMERLOC 2 VOC OR APPROVED EQUAL, TO 8 MILS TOTAL DRY FILM THICKNESS. CEILING COLOR WHITE. WALL AND FLOOR COLOR ANSI 61 GRAY. NOTE THAT FIRST COAT ON WALLS AND FLOOR MAY BE WHITE.
9) SANDBLAST ALL EXTERIOR PLATFORMS AND FABRICATIONS AND APPLY 3 COATS OF COLD GALVANIZING COMPOUND, ZRC OR EQUAL, TO 9 MILS MINIMUM DRY FILM THICKNESS. SEE STRUCTURAL.

ALL WORK ON THIS SHEET WAS PERFORMED AS PART OF THE PRIOR MODULE ASSEMBLY CONTRACT EXCEPT FOR FIELD INSTALLATION OF PREVIOUSLY FABRICATED STAIRS AND SUPPORTS AS INDICATED ON STRUCTURAL.

ISSUED FOR CONSTRUCTION MARCH 2023

STATE OF ALASKA 49 TH
David G. Thompson
No. 7034
3/2/23
REGISTERED PROFESSIONAL ARCHITECT

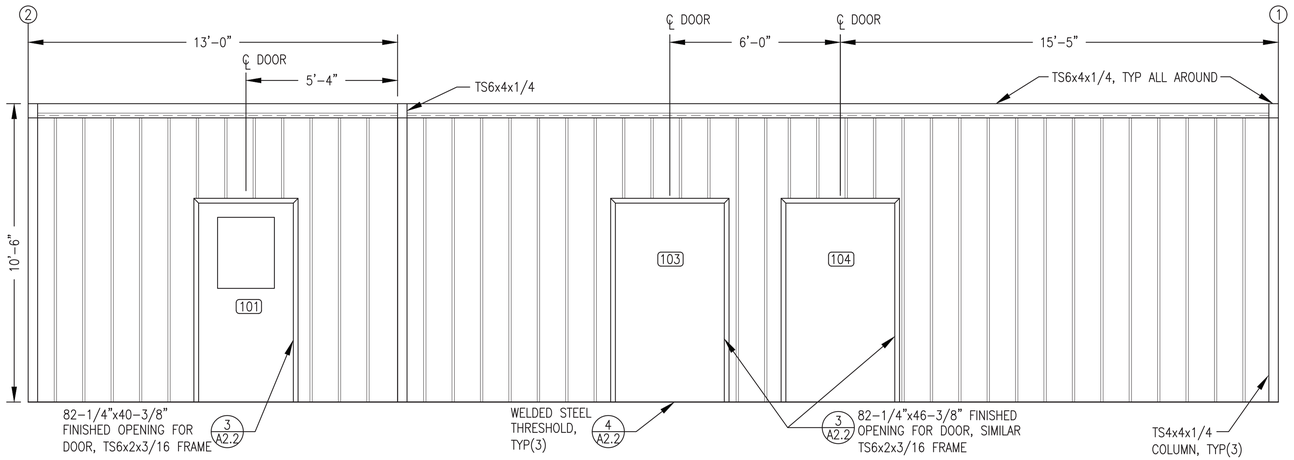
ALASKA ENERGY AUTHORITY

PROJECT: NELSON LAGOON POWER SYSTEM UPGRADE

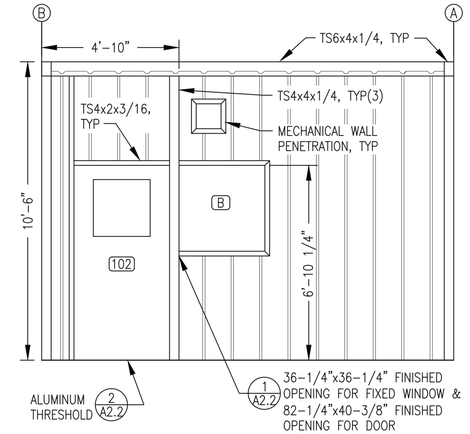
TITLE: FLOOR PLAN, REFLECTED CEILING PLAN, CODE ANALYSIS, & GENERAL NOTES

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

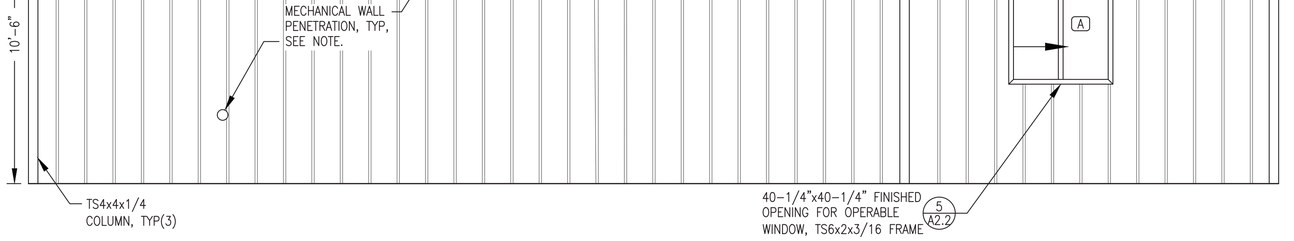
DRAWN BY: JTD	SCALE: AS NOTED
DESIGNED BY: DGT/BCG	DATE: 3/2/23
FILE NAME: NELS PP A1–A4	SHEET: A1
PROJECT NUMBER:	



1 A2.1 FRONT WALL INTERIOR ELEVATION
3/8"=1'-0"



2 A2.1 CONTROL ROOM WALL INTERIOR ELEVATION
3/8"=1'-0"



3 A2.1 PARTIAL BACK WALL INTERIOR ELEVATION
3/8"=1'-0"

FRAMED OPENING NOTES:

1) SEE MECHANICAL FOR SIZE, LOCATIONS, QUANTITY, AND DETAILS OF ALL MECHANICAL WALL PENETRATIONS.
2) FABRICATE DOOR AND WINDOW FRAMED OPENINGS TO FINISHED INSIDE (CLEAR) DIMENSIONS INDICATED AND LOCATE TO INSIDE EDGE OR CENTERLINE AS INDICATED.
3) FABRICATE ALL FRAMED OPENINGS WITH MITERED CORNERS AND FULL PENETRATION GROOVE WELDS. GRIND OUT INSIDE OF MITERED CORNERS TO PROVIDE FULL CLEAR OPENING.

ALL WORK ON THIS SHEET WAS PERFORMED AS PART OF THE PRIOR MODULE ASSEMBLY CONTRACT AND IS SHOWN HERE FOR REFERENCE ONLY.

ISSUED FOR CONSTRUCTION MARCH 2023

STATE OF ALASKA 49 TH David G. Thompson No. 7034 3/2/23 REGISTERED PROFESSIONAL ARCHITECT

ALASKA ENERGY AUTHORITY

PROJECT: NELSON LAGOON POWER SYSTEM UPGRADE

TITLE: INTERIOR ELEVATIONS

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

DRAWN BY: JTD	SCALE: AS NOTED
DESIGNED BY: DGT/BCG	DATE: 3/2/23
FILE NAME: NELS PP A1-A4	SHEET: A2.1
PROJECT NUMBER:	

DOOR CONSTRUCTION

DOOR NO.	WIDTH	HEIGHT	THICK NESS	FIRE RATING	HARDWARE GROUP	WALL THICK.	FRAME PROFILE	FRAME PREP.	REMARKS
101	3'-0"	6'-8"	1-3/4"	NONE	HW-1	N/A	3-3/4" SINGLE RABBETED	DIMPLE & PUNCH	24"x24" RE-LIGHT {4}
102	3'-0"	6'-8"	1-3/4"	NONE	HW-2	N/A	3-3/4" SINGLE RABBETED	DIMPLE & PUNCH	24"x24" RE-LIGHT {4}
103	3'-6"	6'-8"	1-3/4"	NONE	HW-3	N/A	3-3/4" SINGLE RABBETED	DIMPLE & PUNCH	
104	3'-6"	6'-8"	1-3/4"	NONE	HW-3	N/A	3-3/4" SINGLE RABBETED	DIMPLE & PUNCH	

DOOR HARDWARE:

HW-1				
3	EA	HINGES	HAGER	BB1191 4.5 x 4.5NRP x 630
1	EA	EXIT DEVICE	PRECISION	2108 x 4908AX3 x 630
1	EA	CORE	BEST	BROWN CONSTRUCTION CORE
1	EA	DOOR CLOSER W/SPRING STOP	LCN	4040 x SCUSH x 689
1	EA	KICK PLATE	ROCKWOOD	K1050 10 x 34 x 630
1	EA	WEATHER STRIP	PEMKO	2891AS x 36 (HEAD)
2	EA	WEATHER STRIP	PEMKO	290AS x 80 (SIDE JAMBS)
1	EA	BOTTOM SWEEP	HAGER	750S x 36
HW-2				
3	EA	HINGES	HAGER	BB1191 4.5 x 4.5 x 630
1	EA	EXIT DEVICE	PRECISION	2108 x 4908AX3 x 630
1	EA	DOOR CLOSER	LCN	4040 x CUSH x 689
1	EA	KICK PLATE	ROCKWOOD	K1050 10 x 34 x 630
1	EA	MOP PLATE	ROCKWOOD	K1050 10 x 35 x 630
1	EA	WEATHER STRIP	PEMKO	2891AS x 36 (HEAD)
2	EA	WEATHER STRIP	PEMKO	290AS x 80 (SIDE JAMBS)
1	EA	THRESHOLD	HAGER	580S x 36
HW-3				
3	EA	HINGES	HAGER	BB1191 4.5 x 4.5NRP x 630
1	EA	EXIT LOCK	SCHLAGE	ND25D x RHODES x 626
1	EA	OVERHEAD STOP HEAVY DUTY	ROCKWOOD	OH903H x US32D
1	EA	WEATHER STRIP	PEMKO	2891AS x 42 (HEAD)
2	EA	WEATHER STRIP	PEMKO	290AS x 80 (SIDE JAMBS)
1	EA	BOTTOM SWEEP	HAGER	750S x 42

NOTES:

{1} DOORS TO BE 16 GA. STEEL WITH SOLID POLYURETHANE INSULATION CORE AND WITH TOPS INVERTED AND CAULKED WATER TIGHT.

{2} HOLLOW METAL FRAMES TO BE 16 GA. STEEL WELDED CONSTRUCTION, DIMPLED AND PUNCHED.

{3} DOORS AND HOLLOW METAL FRAMES GALVANIZED AND FACTORY PRIMED. FIELD FINISH WITH TWO COATS OF PAINT IDENTICAL TO INTERIOR WALLS AND FLOORS AS SPECIFIED ON SHEET A1.

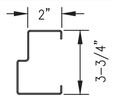
{4} INSTALL INSULATED RE-LIGHT WITH TWO PANES OF 1/4" LAMINATED SAFETY GLASS WITH 1/2" AIR GAP, SIZE AS INDICATED.

{5} MOUNT DOOR CLOSERS AND OVERHEAD STOPS TO VERTICAL INTERIOR FACES OF DOORS AND FRAMES SO THERE IS NO INTERFERENCE WITH WEATHER STRIP.

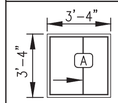
{6} SET FRAMES PLUMB AND ADJUST POSITION AND HARDWARE SO DOORS OPERATE SMOOTH WITHOUT INTERFERENCE.

{7} SET WEATHER STRIPS TIGHT TO DOORS TO MAKE WATER TIGHT SEAL TOP AND SIDE. SEAL CORNERS WITH POLYURETHANE CAULK. UPON COMPLETION, DOORS SHALL BE TESTED FOR WATER TIGHTNESS WITH 10 GPM HOSE STREAM AGAINST EXTERIOR EDGES.

DOOR FRAME PROFILE:



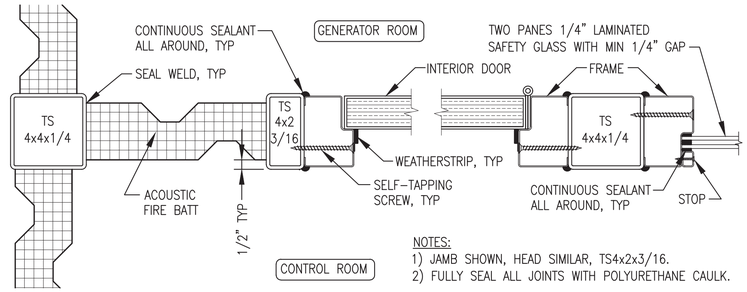
WINDOW TYPES:



OPERABLE SLIDER WITH WHITE VINYL FRAME & 1" INSULATED GLAZING

FIXED SINGLE RABBET HOLLOW METAL FRAME WITH 2 PANES OF 1/4" LAMINATED SAFETY GLASS

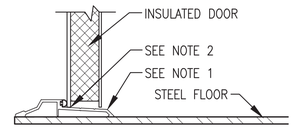
NOTE: DIMENSIONS ARE OVERALL FRAME SIZE.



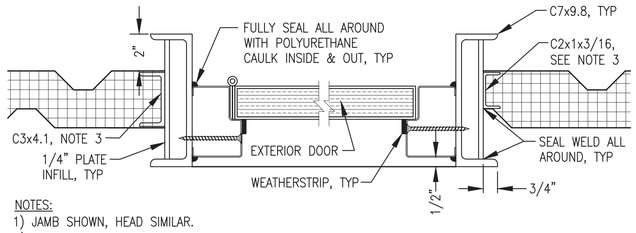
NOTES:
1) JAMB SHOWN, HEAD SIMILAR, TS4x2x3/16.
2) FULLY SEAL ALL JOINTS WITH POLYURETHANE CAULK.

1 A2.2 INTERIOR DOOR AND WINDOW JAMB/HEAD
NO SCALE

NOTES:
1) SET THRESHOLD IN CONTINUOUS BED OF POLYURETHANE CAULK & CAULK ENDS TO JAMB TO FORM LIQUID TIGHT CONTAINMENT.
2) TRIM DOOR BOTTOM TO WITHIN 1/8" MAX OF THRESHOLD TO ACHIEVE FULL CONTACT WITH GASKET.

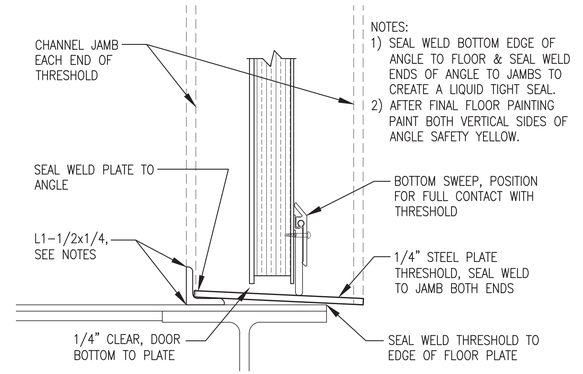


2 A2.2 INTERIOR DOOR THRESHOLD
NO SCALE



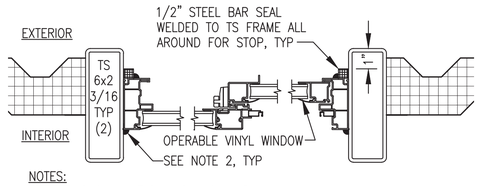
NOTES:
1) JAMB SHOWN, HEAD SIMILAR.
2) MITER TOP CORNERS & SEAL WELD TO FORM WATERTIGHT DAM.
3) PROVIDE 2" CHANNEL AT CORRUGATIONS & ACROSS HEAD. PROVIDE 3" CHANNEL AT FULL PANEL AS SHOWN. ON JAMBS RUN CONTINUOUS FLOOR TO ROOF FRAME.

3 A2.2 TYPICAL EXTERIOR DOOR JAMB/HEAD
NO SCALE



NOTES:
1) SEAL WELD BOTTOM EDGE OF ANGLE TO FLOOR & SEAL WELD ENDS OF ANGLE TO JAMBS TO CREATE A LIQUID TIGHT SEAL.
2) AFTER FINAL FLOOR PAINTING PAINT BOTH VERTICAL SIDES OF ANGLE SAFETY YELLOW.

4 A2.2 EXTERIOR DOOR THRESHOLD
NO SCALE



NOTES:
1) JAMB SHOWN, HEAD & SILL SIMILAR.
2) FULLY SEAL ALL JOINTS WITH POLYURETHANE CAULK.

5 A2.2 EXTERIOR WINDOW JAMB/HEAD
NO SCALE

ALL WORK ON THIS SHEET WAS PERFORMED AS PART OF THE PRIOR MODULE ASSEMBLY CONTRACT EXCEPT.

ISSUED FOR CONSTRUCTION
MARCH 2023

STATE OF ALASKA 49TH
David G. Thompson No. 7034 3/2/23
REGISTERED PROFESSIONAL ARCHITECT

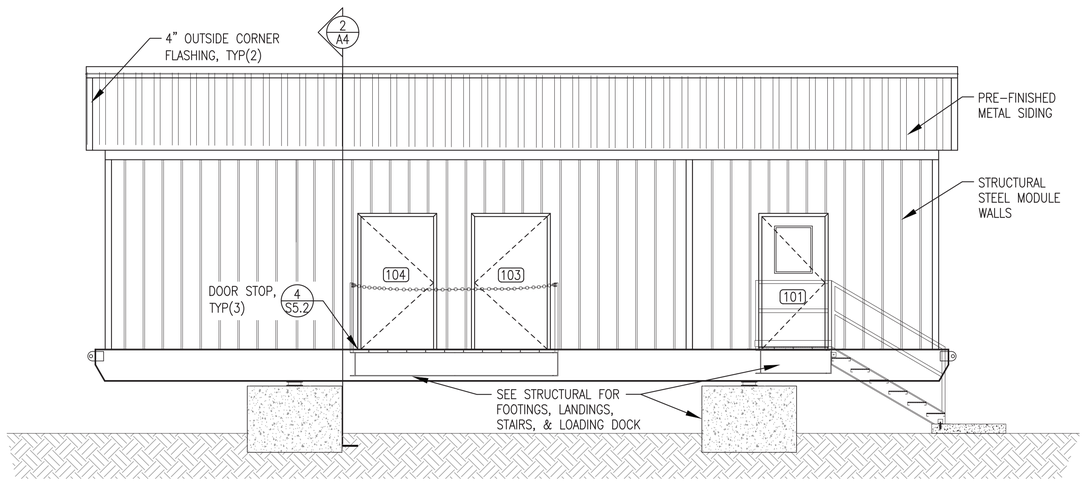
ALASKA ENERGY AUTHORITY

PROJECT: NELSON LAGOON POWER SYSTEM UPGRADE

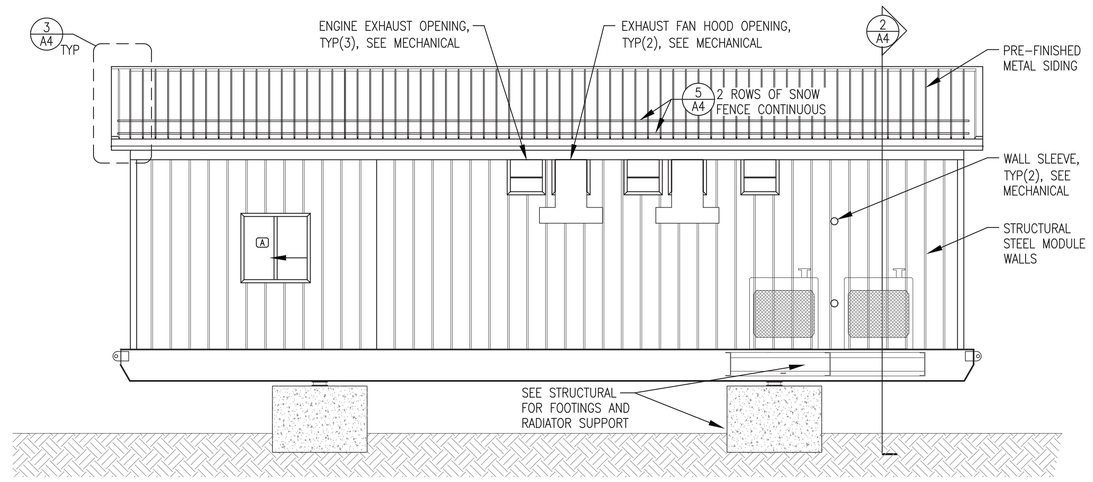
TITLE: DOOR & WINDOW DETAILS & SCHEDULE

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

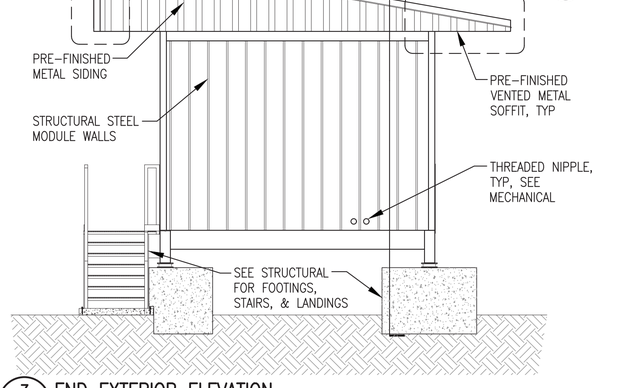
DRAWN BY: JTD | SCALE: AS NOTED
DESIGNED BY: DGT/BCG | DATE: 3/2/23
FILE NAME: NELS PP A1-A4 | SHEET: A2.2
PROJECT NUMBER:



1 A3 FRONT EXTERIOR ELEVATION
1/4"=1'-0"



2 A3 BACK EXTERIOR ELEVATION
1/4"=1'-0"



3 A3 END EXTERIOR ELEVATION
1/4"=1'-0"

ROOFING SYSTEM NOTES:

1) FIELD INSTALL TRUSSES TO MODULE STRUCTURE, SEE STRUCTURAL. FIELD INSTALL PLYWOOD SHEATHING, ICE AND WATER SHIELD, AND METAL ROOFING/SIDING AS INDICATED. SEAL AND FLASH ALL SEAMS TO FORM A CONTINUOUS WEATHERPROOF SEAL.

2) ALL ROOFING, SIDING, SOFFIT, TRIM, AND FLASHING SHALL BE MIN 24 GAUGE GALVANIZED STEEL WITH KYNAR FINISH, COLOR COOL TAHOE BLUE. ALL FASTENERS SHALL BE CORROSION RESISTANT COATED SCREWS AND RIVETS.

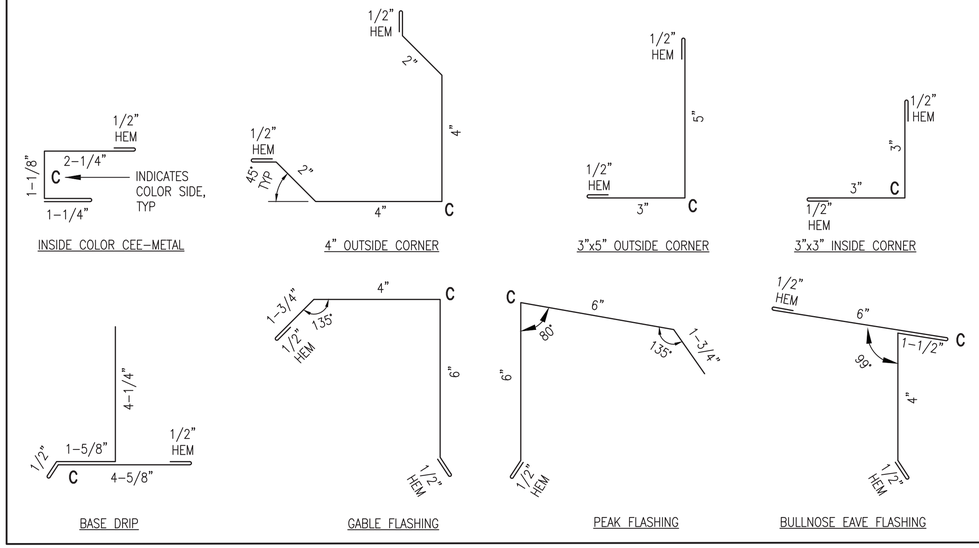
3) ROOFING SHALL BE MECHANICAL STANDING SEAM TYPE, 24 GAUGE, 16" NET COVERAGE, 2" HIGH RIBS AT 16" O.C. WITH TWO PENCIL RIBS BETWEEN. AEP SPAN SPAN LOK HP OR EQUAL. FURNISH CLIPS AND FASTENERS AS REQUIRED TO MEET LOAD CONDITIONS INDICATED ON SHEET S1.

4) SIDING SHALL BE LOW PROFILE, 24 GAUGE, 36" NET COVERAGE, 1-1/4" HIGH MAJOR RIBS AND 1/4 HIGH MINOR RIBS AT 12" O.C. AEP SPAN SUPER-SPAN OR EQUAL. FURNISH FASTENERS AS REQUIRED TO MEET LOAD CONDITIONS INDICATED ON SHEET S1.1.

5) VENTED SOFFIT PANELS SHALL BE 24 GAUGE GALVANIZED STEEL, 12" NET COVERAGE, KYNAR FINISH, 1" STANDOFF FROM SUBSTRATE, CONCEALED FASTENERS, WITH TWO PENCIL RIBS PROVIDING MINIMUM 7.8% NET FREE AREA. AEP SPAN FLUSH PANEL OR EQUAL.

6) SEE SHEET A4 FOR ROOF MOUNTED SNOW FENCE.

ROOFING SYSTEM TRIM & FLASHING:



FIELD INSTALLED ROOF SYSTEM SHOWN THIS SHEET IS INCLUDED IN THE ON SITE CONTRACT

ISSUED FOR CONSTRUCTION MARCH 2023

STATE OF ALASKA 49 TH
David G. Thompson No. 7034 3/2/23
REGISTERED PROFESSIONAL ARCHITECT

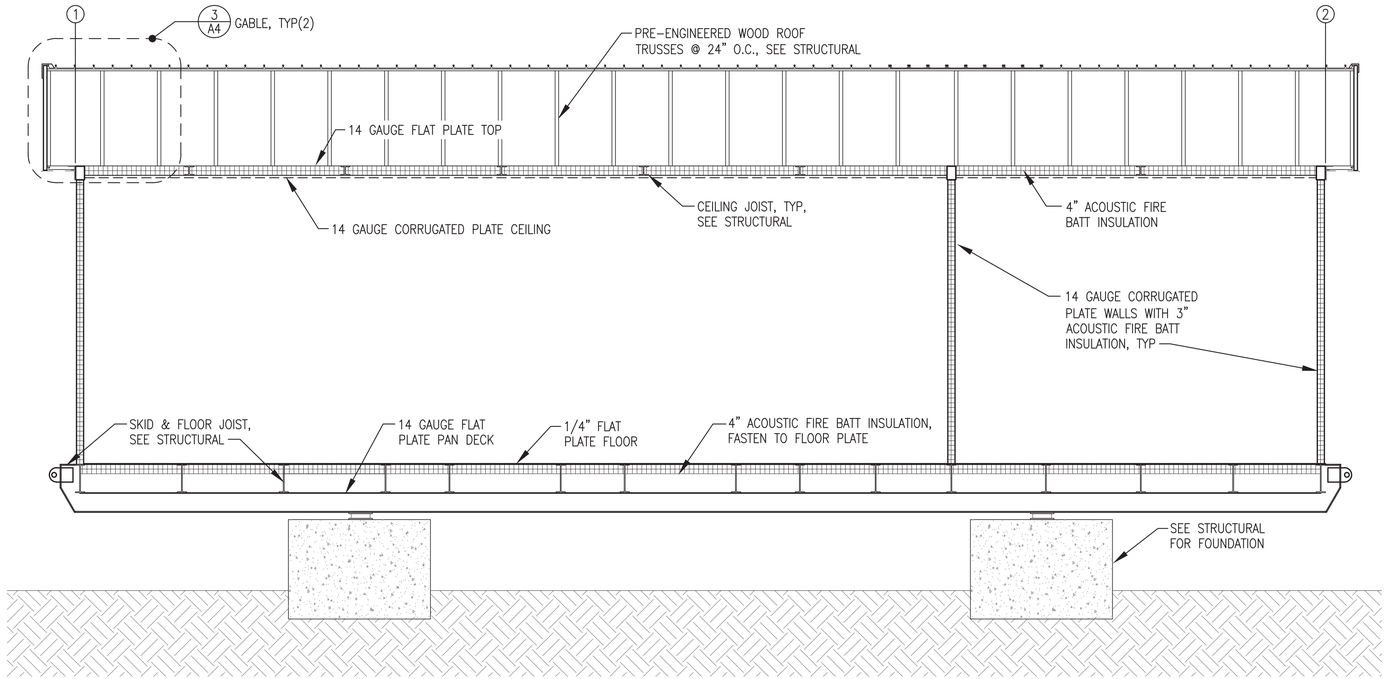
ALASKA ENERGY AUTHORITY

PROJECT: NELSON LAGOON POWER SYSTEM UPGRADE

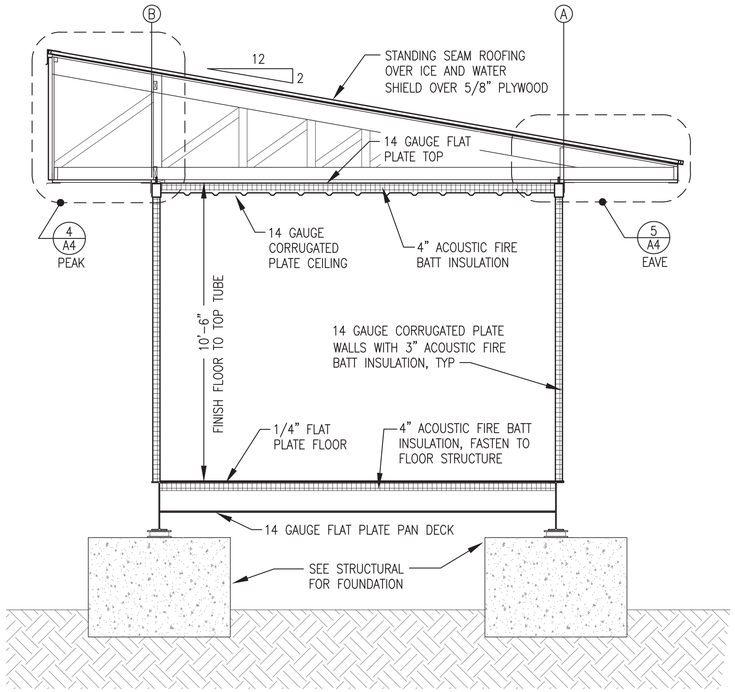
TITLE: EXTERIOR ELEVATIONS & ROOFING NOTES & TRIM DETAILS

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

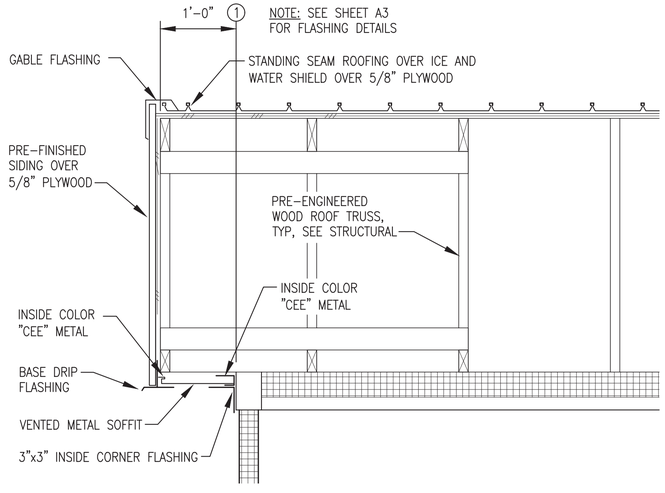
DRAWN BY: JTD | SCALE: AS NOTED
DESIGNED BY: DGT/BCG | DATE: 3/2/23
FILE NAME: NELS PP A1-A4 | SHEET: A3
PROJECT NUMBER:



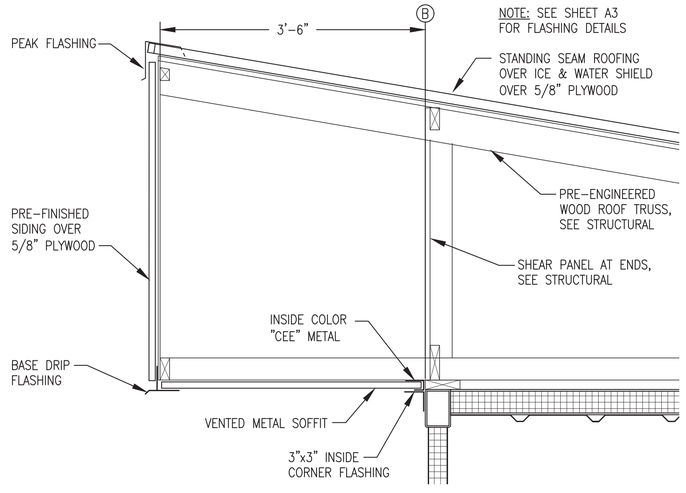
1 A4 BUILDING SECTION
3/8"=1'-0"



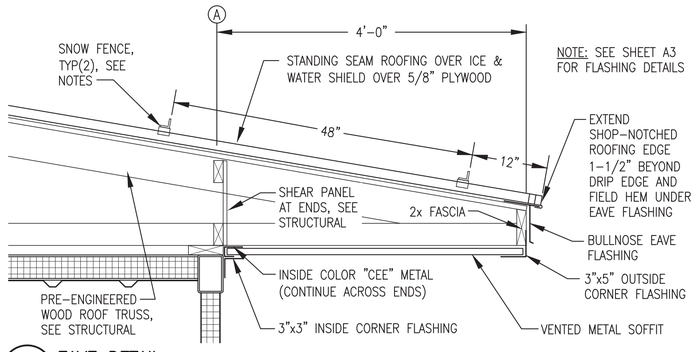
2 A4 BUILDING SECTION
3/8"=1'-0"



3 A4 GABLE DETAIL
1"=1'-0"



4 A4 PEAK DETAIL
1"=1'-0"



5 A4 EAVE DETAIL
1"=1'-0"

SNOW FENCE NOTES:

1) PROVIDE 2 ROWS OF CONTINUOUS SNOW RETENTION FENCE AS INDICATED.
2) SNOW FENCE SHALL BE L.M. CURBS COLOR GUARD OR APPROVED EQUAL. FURNISH COMPLETE SYSTEM INCLUDING UNPUNCHED COLOR GUARD, SPLICES, VERSA CLIPS, SNO CLIPS III, S5–U CLAMPS, AND ALL REQUIRED FASTENERS.

FIELD INSTALLED ROOF SYSTEM SHOWN THIS SHEET IS INCLUDED IN THE ON SITE CONTRACT

ISSUED FOR CONSTRUCTION
MARCH 2023

STATE OF ALASKA
49 TH
David G. Thompson
No. 7034
3/2/23
REGISTERED PROFESSIONAL ARCHITECT

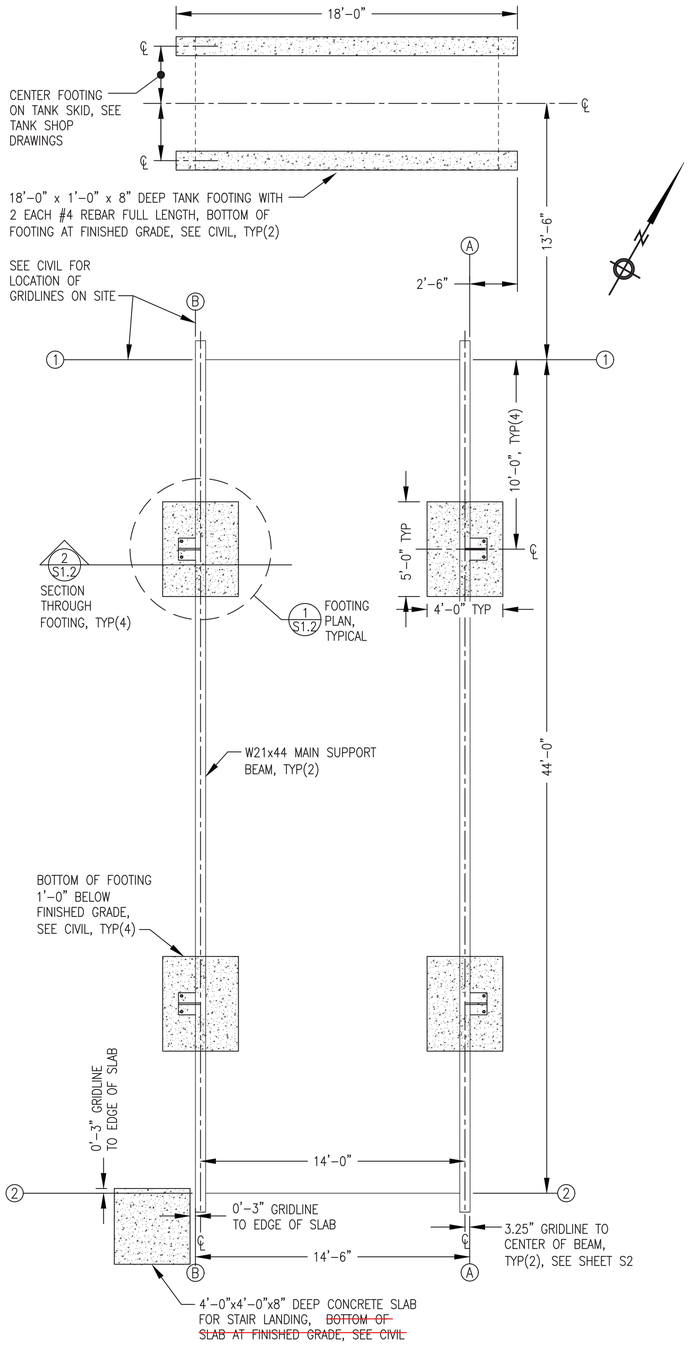
ALASKA ENERGY AUTHORITY

PROJECT: NELSON LAGOON POWER SYSTEM UPGRADE

TITLE: BUILDING SECTIONS & DETAILS

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

DRAWN BY: JTD	SCALE: AS NOTED
DESIGNED BY: DGT/BCG	DATE: 3/2/23
FILE NAME: NELS PP A1–A4	SHEET: A4
PROJECT NUMBER:	



TOP OF SLAB 50" BELOW MODULE FINISHED FLOOR

1 / S1.1 FOUNDATION PLAN
1/4"=1'-0"

STRUCTURAL GENERAL NOTES:

1.0 DESIGN LOADS:

BUILDING CODE:	2021 INTERNATIONAL BUILDING CODE, ASCE 7-16
A. FLOOR LIVE LOADS: (IBC TABLE 1607.1)	
LIGHT STORAGE/MANUFACTURING	125 PSF OR 2000 POUND POINT LOAD
MAXIMUM GENERATOR UNIT WEIGHT	6,000 POUNDS
B. SNOW LOADS: (ASCE 7-22)	
GROUND SNOW LOAD, Pg =	70 PSF
COEFFICIENT OF EXPOSURE, Ce =	1.0 PARTIALLY EXPOSED
SNOW IMPORTANCE FACTOR, Is =	1.2 CATEGORY IV
THERMAL COEFFICIENT, Ct =	1.2 COLD, VENTILATED ROOF
ROOF/FLAT SNOW LOAD, Pf =	70 PSF
C. WIND LOADS:	
BASIC WIND SPEED =	175 MPH, 3 SECOND GUST
RISK CATEGORY =	CATEGORY IV
EXPOSURE CLASSIFICATION =	EXPOSURE D
D. SEISMIC LOADING:	
SEISMIC =	Ss = 0.931 S1 = 0.401
SEISMIC IMPORTANCE FACTOR =	1.50 , CATEGORY IV
SITE CLASS	"D" (DEFAULT)
BASIC SEISMIC FORCE RESISTANCE SYSTEM	
BUILDING = BEARING WALL WITH STEEL SHEAR PANELS	
FOUNDATION = SPREAD CONCRETE FOOTINGS	
SEISMIC RESPONSE COEFFICIENT	R = 7.0

MODULE FOUNDATION SYSTEM SHOWN THIS SHEET IS INCLUDED IN THE ON SITE CONTRACT.

ISSUED FOR CONSTRUCTION MARCH 2023

STATE OF ALASKA 49TH
David G. Thompson
No. 14226
3/2/23
REGISTERED PROFESSIONAL ENGINEER

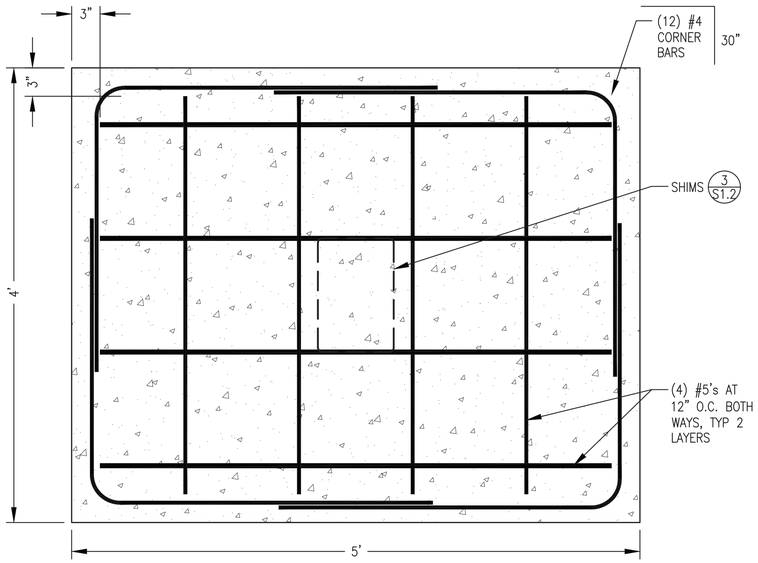
ALASKA ENERGY AUTHORITY

PROJECT: NELSON LAGOON POWER SYSTEM UPGRADE

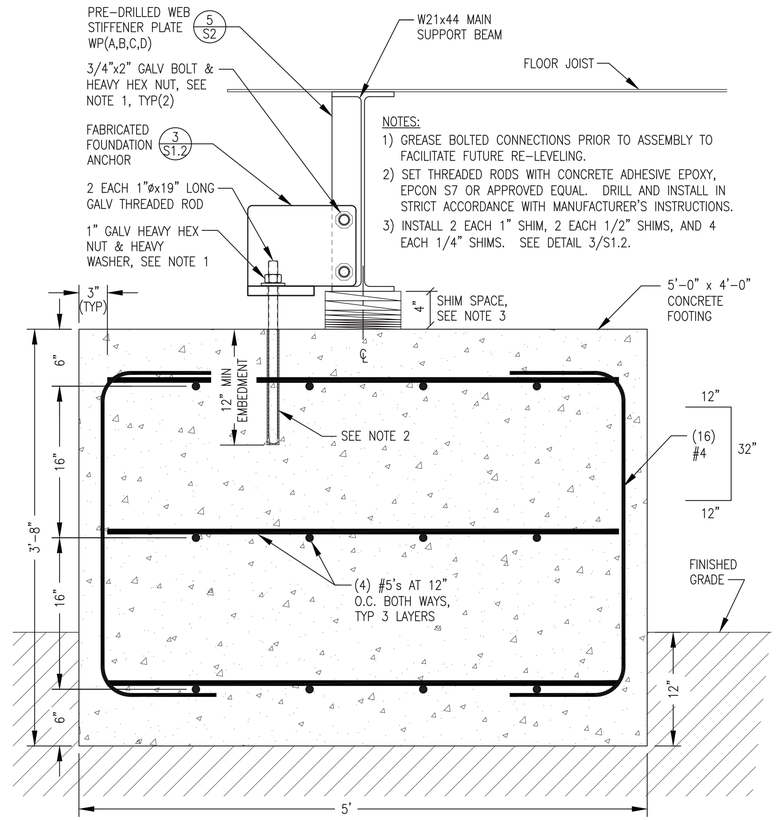
TITLE: FOUNDATION PLAN, CODE ANALYSIS, & STRUCTURAL NOTES

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

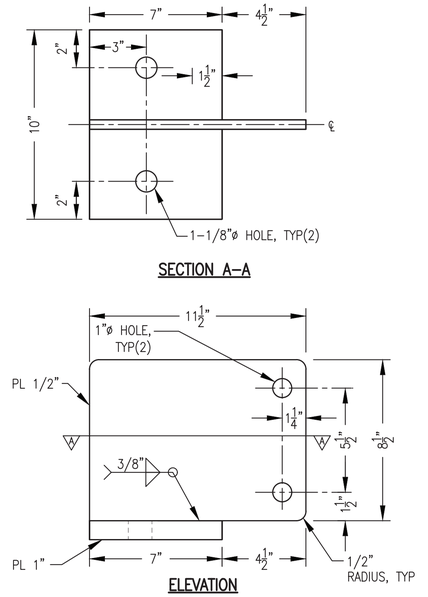
DRAWN BY: JTD	SCALE: AS NOTED
DESIGNED BY: DGT/BCG	DATE: 3/2/23
FILE NAME: NELS PP S1-S5	SHEET: S1.1
PROJECT NUMBER:	



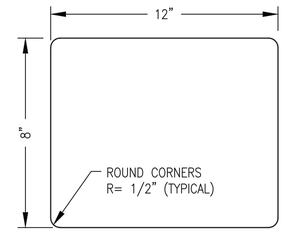
1 S1.2 FOOTING PLAN
1 1/2"=1'-0"



2 S1.2 SECTION THROUGH FOOTING
1 1/2"=1'-0"



3 S1.2 TYPICAL FOUNDATION ANCHOR & SHIM FABRICATION
3"=1'-0"



TYPICAL SHIM

SHIM FABRICATION TABLE		
THICKNESS	QUANTITY	MATERIAL
1/4"	16	GALV STEEL
1/2"	8	GALV STEEL
1"	8	GALV STEEL

ANCHOR & SHIM FABRICATION NOTES:

1) FABRICATE FOUR IDENTICAL ANCHOR ASSEMBLIES. DO NOT SHEAR ANCHOR PLATES. CUT WITH WATER JET, TORCH, OR SAW.
2) FABRICATE FROM ASTM A-36 STEEL PLATE.
3) MAKE ALL JOINTS AND CONNECTIONS WITH CONTINUOUS GROOVE OR FILLET WELDS.
4) FABRICATE SHIMS OF QUANTITY AND THICKNESS AS DESCRIBED IN SHIM FABRICATION TABLE.
5) UPON COMPLETION OF FABRICATION ROUND ALL OUTSIDE CORNERS AND GRIND ALL EDGES SMOOTH.
6) SAND BLAST ALL PIECES TO SSPC-SP-6. COAT WITH 3 COATS OF COLD GALVANIZING COMPOUND, ZRC OR APPROVED EQUAL TO 9 MILS MINIMUM DRY FILM THICKNESS.

MODULE FOUNDATION SYSTEM SHOWN THIS SHEET IS INCLUDED IN THE ON SITE CONTRACT. NOTE THAT FABRICATED FOUNDATION ANCHOR AND SHIMS WERE PREVIOUSLY FABRICATED AND ARE INCLUDED WITH THE OWNER FURNISHED MODULE.

ISSUED FOR CONSTRUCTION
MARCH 2023

STATE OF ALASKA
49TH
David G. Thompson
No. 14226
3/2/23
REGISTERED PROFESSIONAL ENGINEER

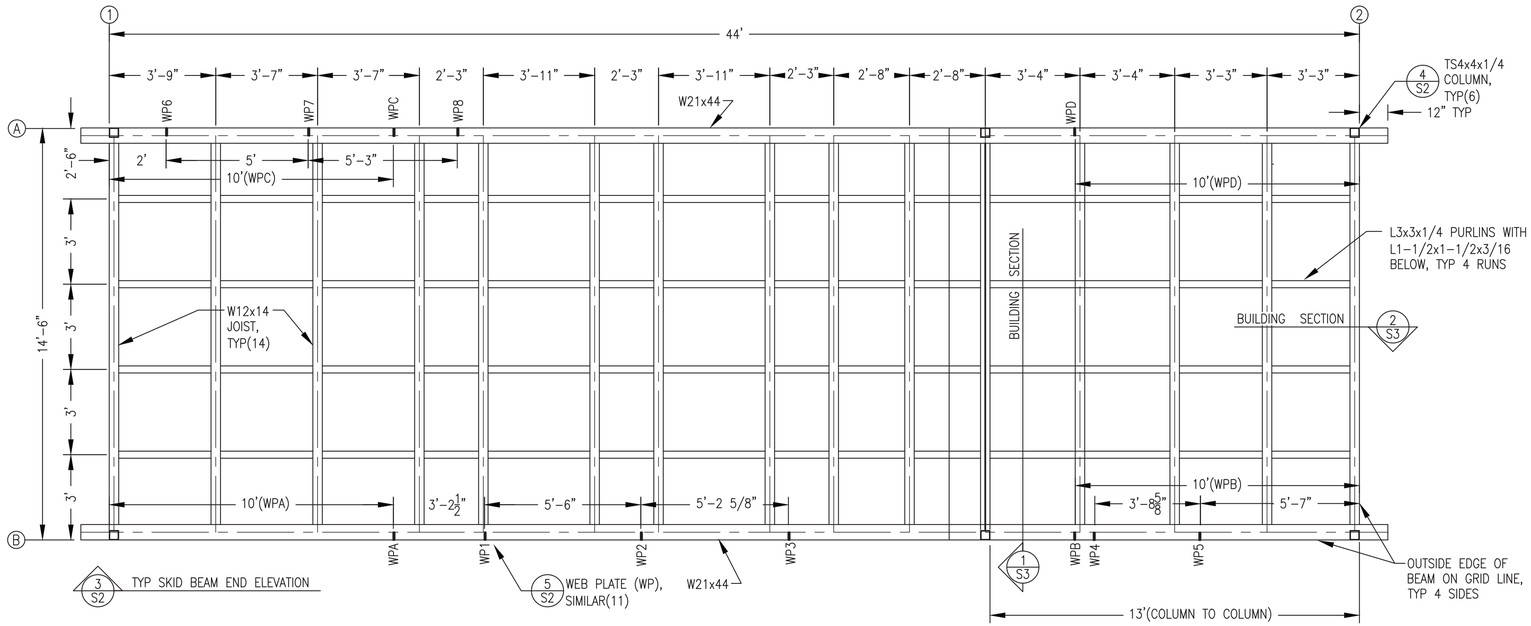
ALASKA ENERGY AUTHORITY

PROJECT: NELSON LAGOON POWER SYSTEM UPGRADE

TITLE: FOUNDATION DETAILS

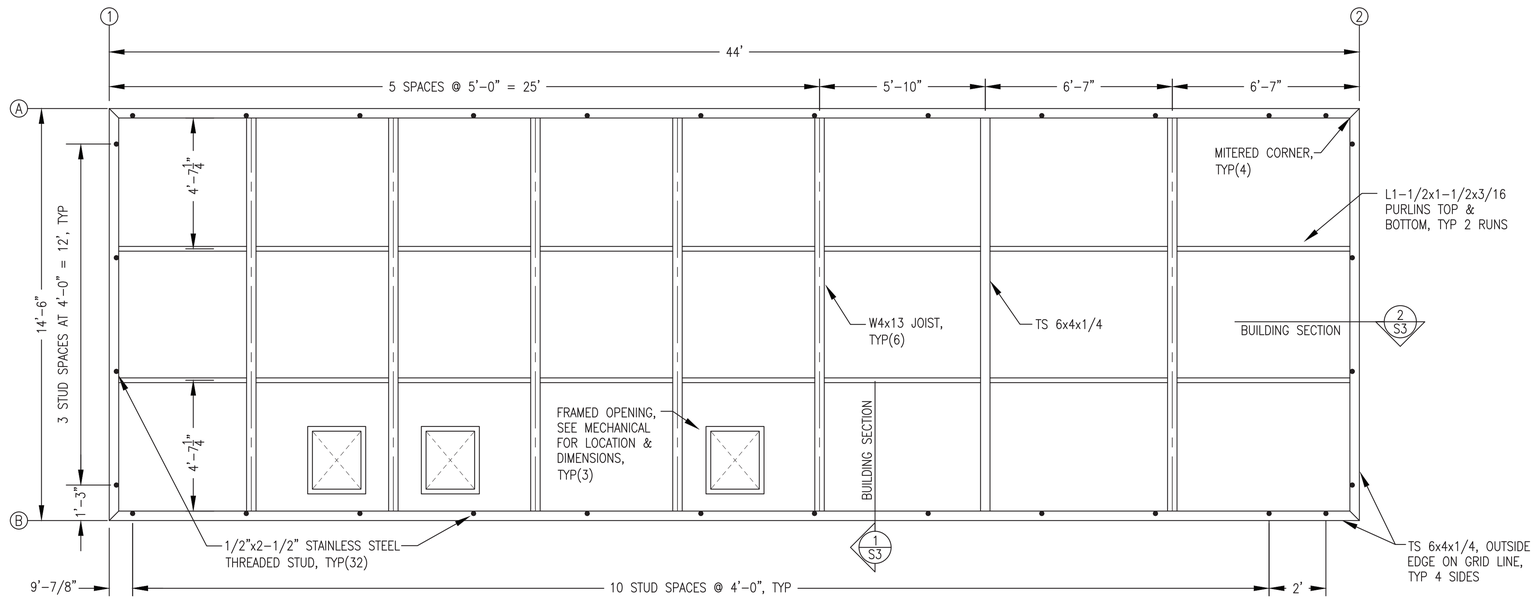
Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

DRAWN BY: JTD | SCALE: AS NOTED
DESIGNED BY: DGT/BCG | DATE: 3/2/23
FILE NAME: NELS PP S1-S5 | SHEET: S1.2
PROJECT NUMBER:



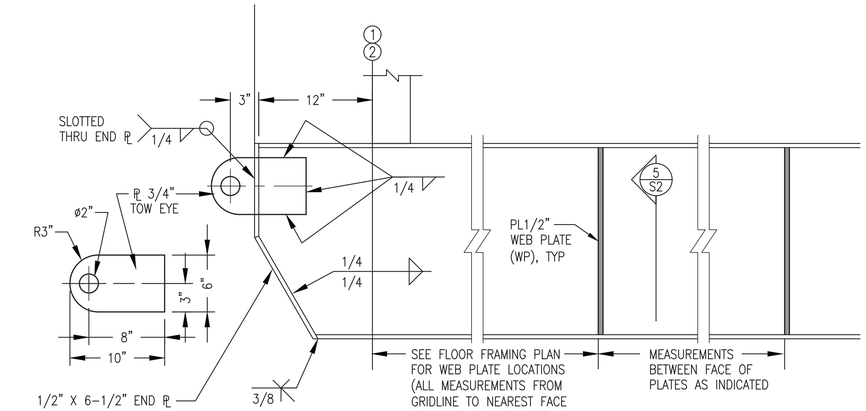
NOTES: 1) FABRICATE FLOOR AND PAN DECKS USING SHEETS CUT SO THAT ALL JOINTS ARE CENTERED ON PURLINS AND/OR JOISTS.
2) SEE MECHANICAL SUPPORT PLAN M2.2 FOR GENERATOR SUPPORT PEDESTAL LOCATIONS AND FABRICATION.

1 S2 FLOOR FRAMING PLAN
3/8"=1'-0"

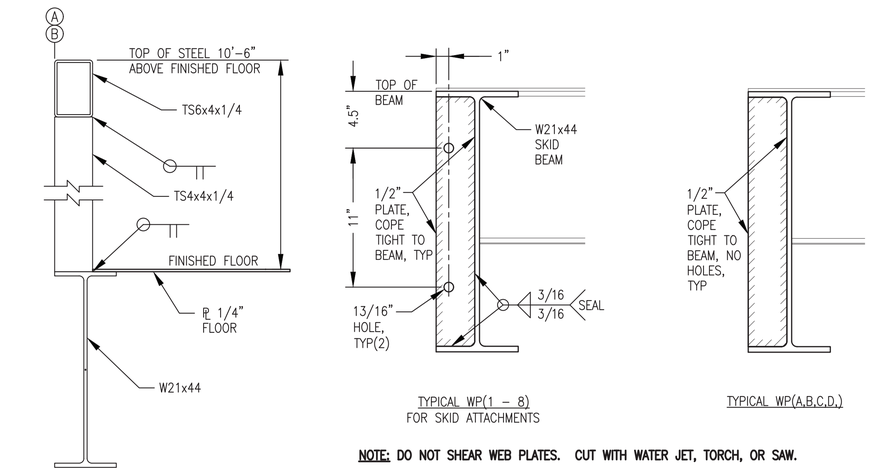


NOTES: 1) FABRICATE CEILING FLAT AND CORRUGATED DECKS USING SHEETS CUT SO THAT ALL JOINTS ARE CENTERED ON PURLINS AND/OR JOISTS.
2) SEE MECHANICAL SUPPORT PLAN M2.3 FOR CEILING CORRUGATION LAYOUT AND STRUT SUPPORT LOCATION AND INSTALLATION.
3) PROVIDE ADDITIONAL L1-1/2" BOTTOM PURLINS AGAINST PERIMETER TS AS REQUIRED FOR CEILING PLATE SUPPORT.

2 S2 CEILING FRAMING PLAN
3/8"=1'-0"



3 S2 TYPICAL SKID BEAM END ELEVATION
1-1/2"=1'-0"



NOTE: DO NOT SHEAR WEB PLATES. CUT WITH WATER JET, TORCH, OR SAW.

4 S2 TYP CORNER COLUMN
1-1/2"=1'-0"

5 S2 TYPICAL WEB PLATE (WP)
2"=1'-0"

ALL WORK ON THIS SHEET WAS PERFORMED AS PART OF THE PRIOR MODULE FABRICATION CONTRACT AND IS SHOWN HERE FOR REFERENCE ONLY.

ISSUED FOR CONSTRUCTION MARCH 2023

STATE OF ALASKA 49TH
David G. Thompson
No. 14226
3/3/23
REGISTERED PROFESSIONAL ENGINEER

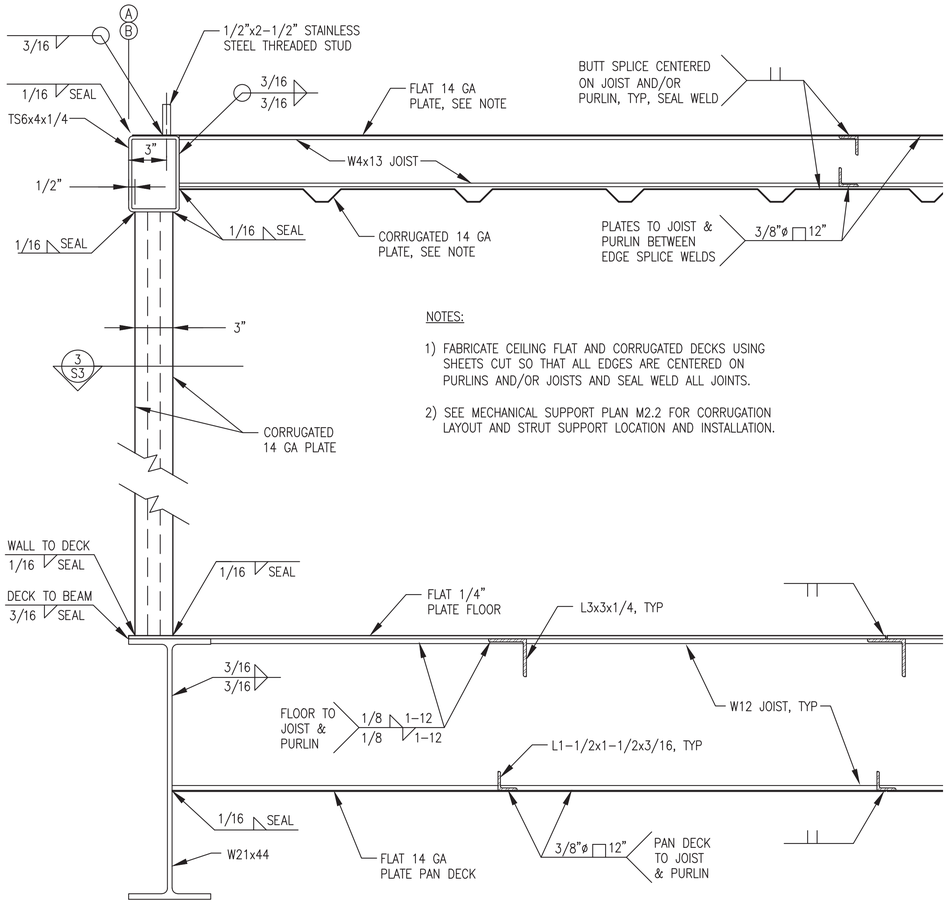
ALASKA ENERGY AUTHORITY

PROJECT: NELSON LAGOON POWER SYSTEM UPGRADE

TITLE: MODULE FRAMING PLANS & DETAILS

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

DRAWN BY: JTD | SCALE: AS NOTED
DESIGNED BY: DGT/BCG | DATE: 3/2/23
FILE NAME: NELS PP S1-S5 | SHEET: S2
PROJECT NUMBER:

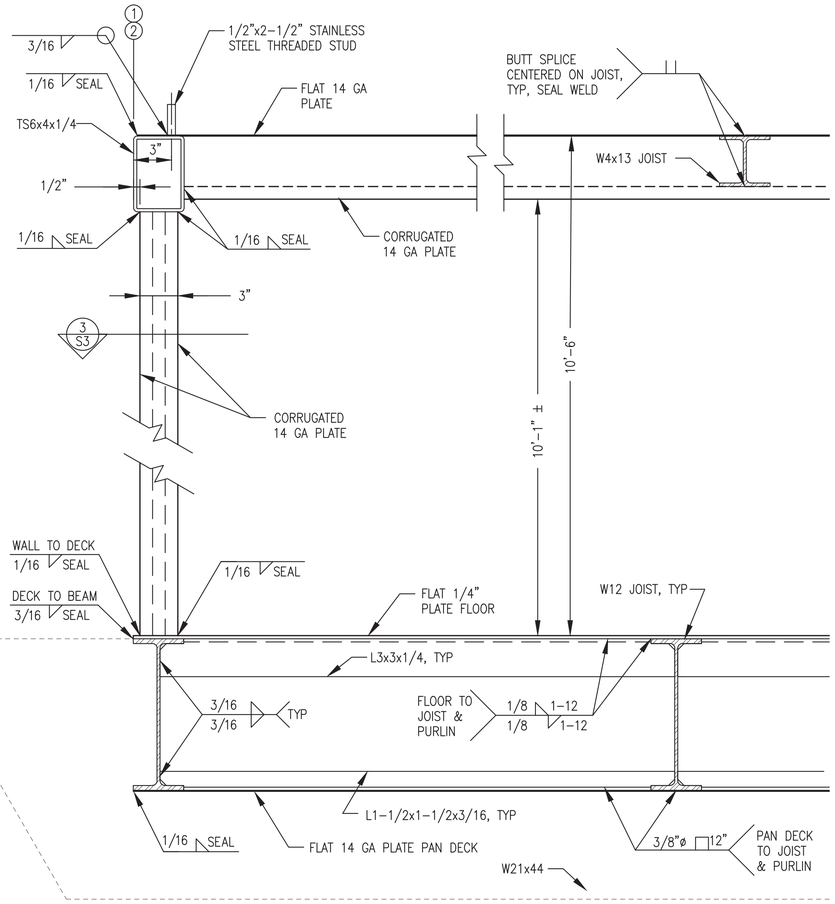


NOTES:

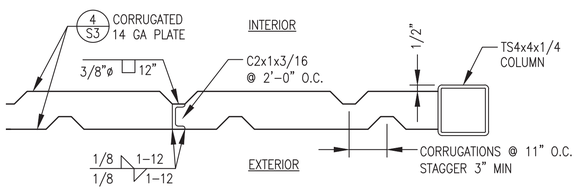
1) FABRICATE CEILING FLAT AND CORRUGATED DECKS USING SHEETS CUT SO THAT ALL EDGES ARE CENTERED ON PURLINS AND/OR JOISTS AND SEAL WELD ALL JOINTS.

2) SEE MECHANICAL SUPPORT PLAN M2.2 FOR CORRUGATION LAYOUT AND STRUT SUPPORT LOCATION AND INSTALLATION.

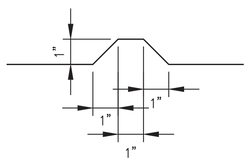
1 / S3 TYPICAL BUILDING SECTION
2"=1'-0"



2 / S3 TYPICAL BUILDING SECTION
2"=1'-0"



3 / S3 TYPICAL EXTERIOR WALL – PLAN VIEW
2"=1'-0"



4 / S3 TYPICAL CORRUGATION
4"=1'-0"

ALL WORK ON THIS SHEET WAS PERFORMED AS PART OF THE PRIOR MODULE FABRICATION CONTRACT AND IS SHOWN HERE FOR REFERENCE ONLY.

ISSUED FOR CONSTRUCTION MARCH 2023

STATE OF ALASKA
49TH
David G. Thompson
No. 14226
3/2/23
REGISTERED PROFESSIONAL ENGINEER

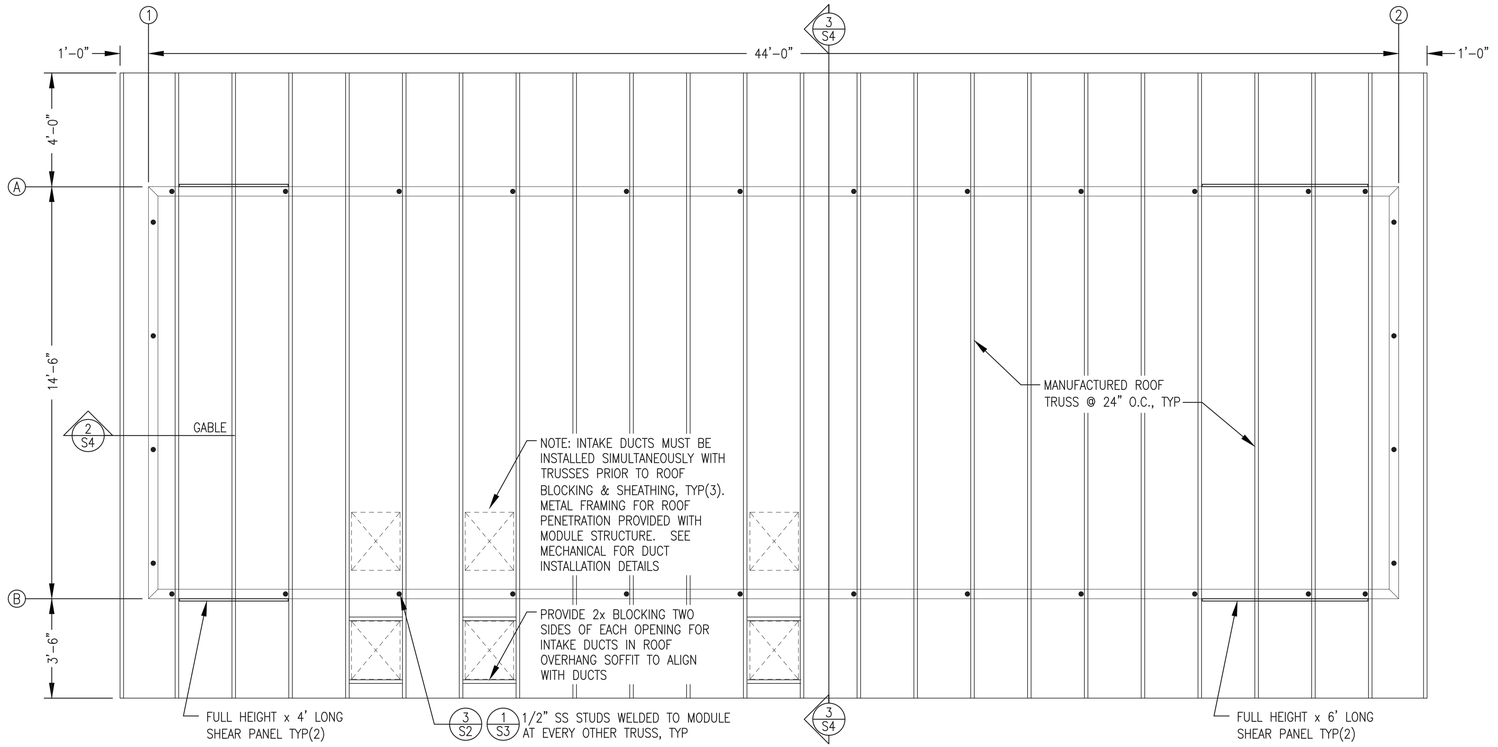
ALASKA ENERGY AUTHORITY

PROJECT: NELSON LAGOON POWER SYSTEM UPGRADE

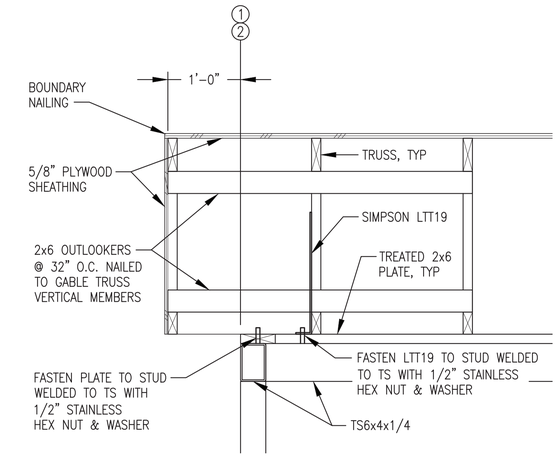
TITLE: MODULE SECTIONS DETAILS

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

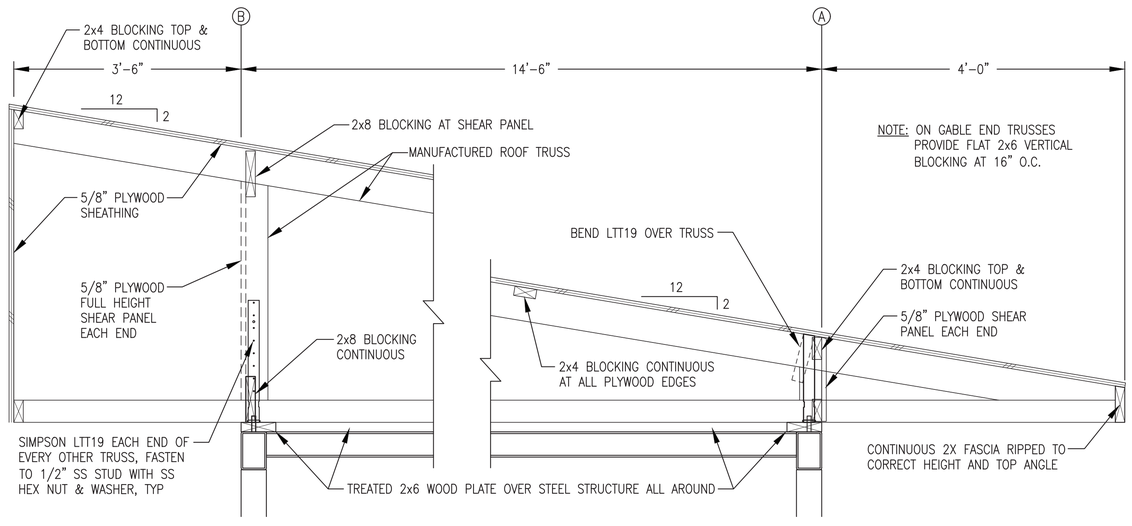
DRAWN BY: JTD	SCALE: AS NOTED
DESIGNED BY: DGT/BCG	DATE: 3/2/23
FILE NAME: NELS PP S1-S5	SHEET: S3
PROJECT NUMBER:	



1/S4 ROOF FRAMING PLAN
3/8"=1'-0"



2/S4 TYPICAL GABLE
1"=1'-0"



3/S4 ROOF TRUSS INSTALLATION
NO SCALE

STAINLESS STEEL STUDS WERE WELDED TO THE MODULE AS PART OF THE PRIOR MODULE FABRICATION CONTRACT. ALL OTHER WORK THIS SHEET IS INCLUDED IN THE ON SITE SCOPE.

ISSUED FOR CONSTRUCTION
MARCH 2023

STATE OF ALASKA
49TH
David G. Thompson
No. 14226
3/2/23
REGISTERED PROFESSIONAL ENGINEER

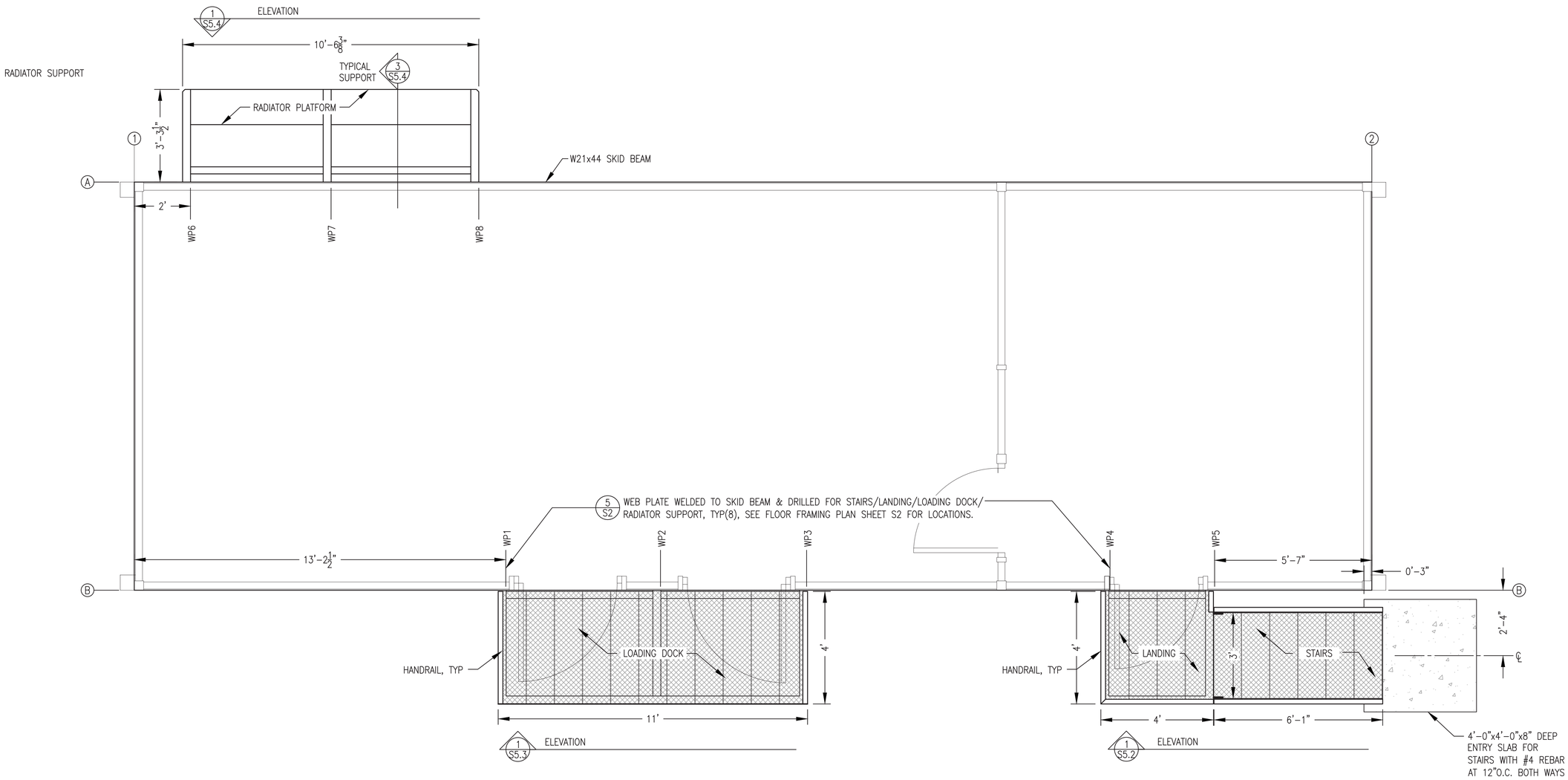
ALASKA ENERGY AUTHORITY

PROJECT: NELSON LAGOON POWER SYSTEM UPGRADE

TITLE: ROOF FRAMING PLAN & DETAILS

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

DRAWN BY: JTD	SCALE: AS NOTED
DESIGNED BY: DGT/BCG	DATE: 3/2/23
FILE NAME: NELS PP S1-S5	SHEET: S4
PROJECT NUMBER:	



1 / S5.1 STAIRS, LANDINGS, LOADING DOCK & RADIATOR SUPPORT PLAN

1/2"=1'-0"

EXTERIOR ASSEMBLY FABRICATION GENERAL NOTES:

1) THESE NOTES APPLY TO THE SHOP FABRICATION OF ALL EXTERIOR ASSEMBLIES SHOWN ON THE S5 SHEETS INCLUDING STAIRS, LANDINGS, LOADING DOCK, AND RADIATOR SUPPORT.
2) FABRICATE FROM ASTM A-36 STEEL SHAPES AND PLATE. STAIR AND PLATFORM TREADS TO BE PRE-GALVANIZED 2"x11-3/4"x12 GA. GRIP STRUT.
4) MAKE ALL JOINTS WITH CONTINUOUS GROOVE OR FILLET WELDS EXCEPT WHERE SPECIFICALLY INDICATED AS BOLTED.
5) PRIOR TO FINAL WELDING, BOLT ASSEMBLIES TO SKIDS AND VERIFY ALL FRAMING IS LEVEL WITH AND PERPENDICULAR TO SKIDS. WELD OUT THEN REMOVE FOR COATING.
6) UPON COMPLETION OF WELDING, ROUND CORNERS AND GRIND EDGES SMOOTH.
6) SANDBLAST OR WIRE BRUSH ENDS OF PRE-GALV TREADS PRIOR TO WELDING TREADS TO FRAMING OR USE BOLT-ON END CAPS.
7) SANDBLAST ALL FABRICATIONS EXCEPT PRE-GALVANIZED GRIP STRUT TO SSPC-SP-6 AND APPLY 3 COATS OF COLD GALVANIZING COMPOUND, ZRC OR EQUAL, TO 9 MILS MINIMUM DRY FILM THICKNESS.
8) FURNISH GALVANIZED STEEL NUTS, BOLTS, AND WASHERS FOR FIELD ASSEMBLY.

ALL EXTERIOR ASSEMBLIES THIS SHEET WERE FABRICATED AS PART OF THE PRIOR MODULE FABRICATION. CONCRETE SLAB AND FINAL INSTALLATION OF EXTERIOR ASSEMBLIES IS INCLUDED IN THE ON SITE SCOPE.

ISSUED FOR CONSTRUCTION MARCH 2023

STATE OF ALASKA 49TH David G. Thompson No. 14226 3/2/23 REGISTERED PROFESSIONAL ENGINEER

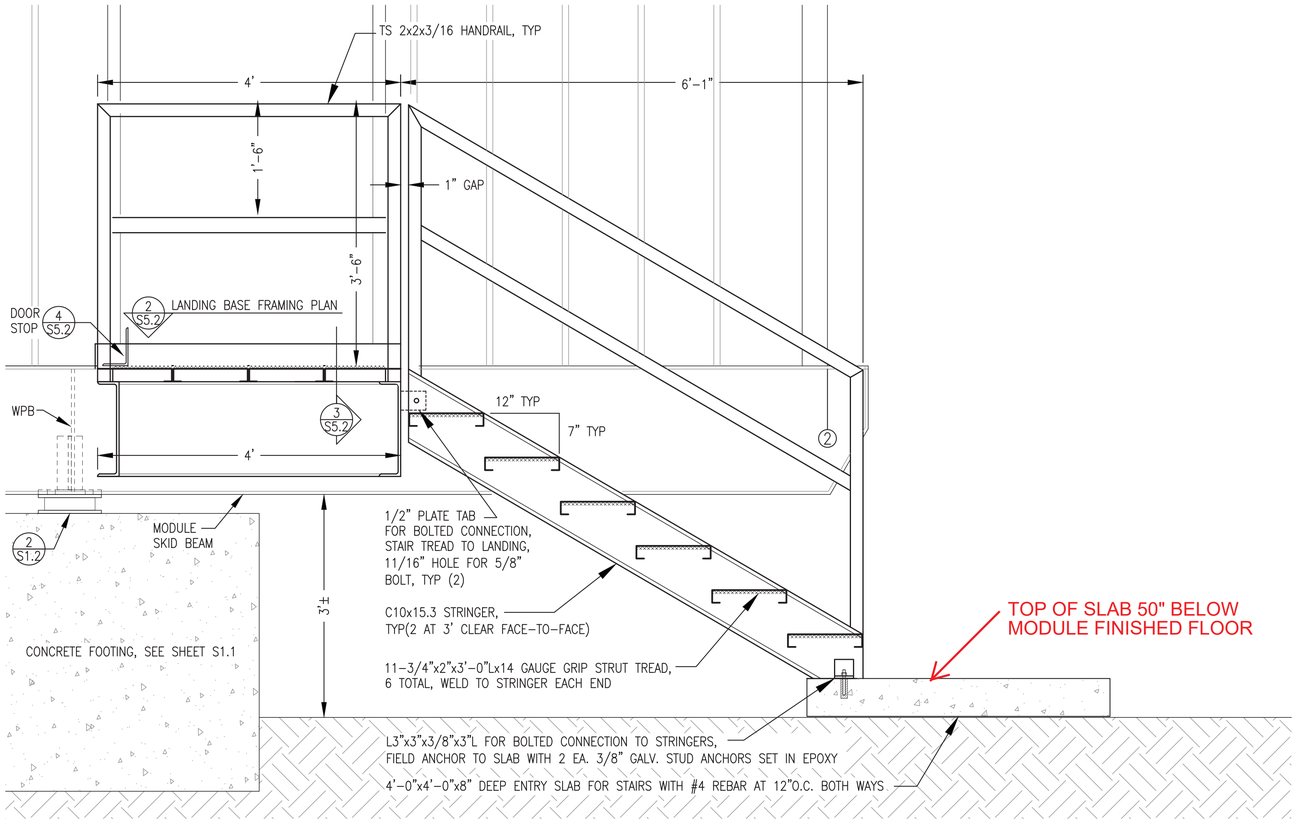
ALASKA ENERGY AUTHORITY

PROJECT: NELSON LAGOON POWER SYSTEM UPGRADE

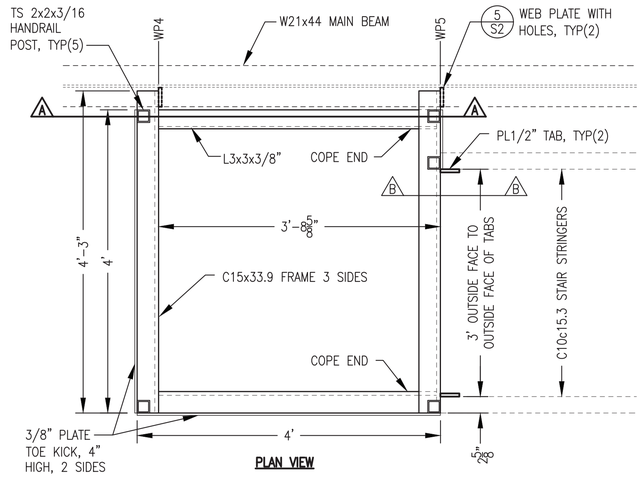
TITLE: STAIRS, LANDINGS, LOADING DOCK, & RADIATOR SUPPORT PLAN

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

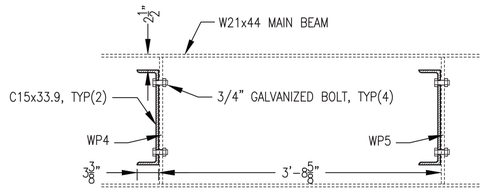
DRAWN BY: JTD	SCALE: AS NOTED
DESIGNED BY: DGT/BCG	DATE: 3/2/23
FILE NAME: NELS PP S1-S5	SHEET: S5.1
PROJECT NUMBER:	



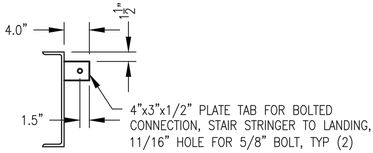
1 S5.2 STAIR/LANDING ELEVATION
1"=1'-0"



PLAN VIEW



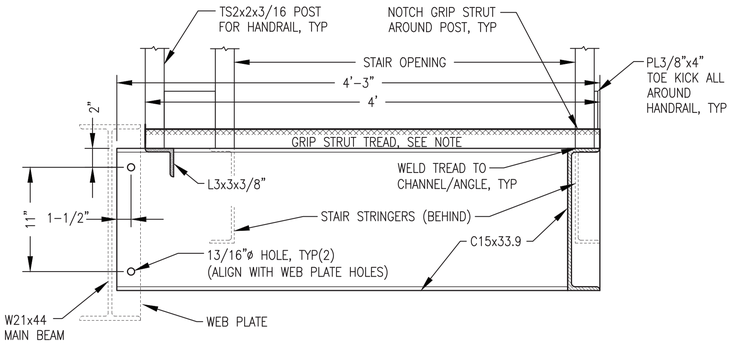
SECTION A-A



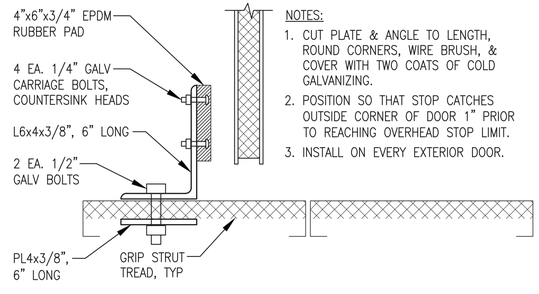
SECTION B-B

2 S5.2 LANDING BASE FRAMING PLAN & SECTIONS
1"=1'-0"

NOTE: INSTALL 4 EACH 11-3/4"x2"x4'-0"Lx14 GAUGE GRIP STRUT TREADS.



3 S5.2 LANDING SECTION & MAIN BEAM CONNECTION DETAIL
1-1/2"=1'-0"



4 S5.2 TYPICAL EXTERIOR DOOR BOTTOM STOP
NO SCALE

ALL EXTERIOR ASSEMBLIES THIS SHEET WERE FABRICATED AS PART OF THE PRIOR MODULE FABRICATION.
CONCRETE SLAB AND FINAL INSTALLATION OF EXTERIOR ASSEMBLIES IS INCLUDED IN THE ON SITE SCOPE.
FURNISH AND INSTALL DOOR STOPS AS PART OF THE ON SITE CONTRACT.

ISSUED FOR CONSTRUCTION
MARCH 2023

STATE OF ALASKA
49TH
David G. Thompson
No. 14226
3/2/23
REGISTERED PROFESSIONAL ENGINEER

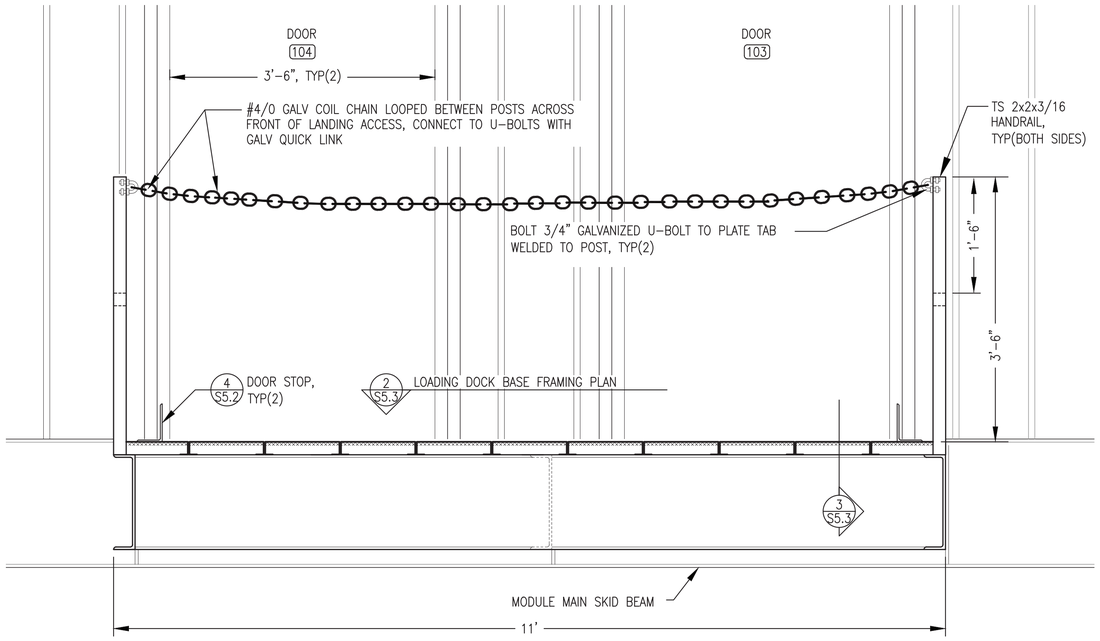
ALASKA ENERGY AUTHORITY

PROJECT: NELSON LAGOON POWER SYSTEM UPGRADE

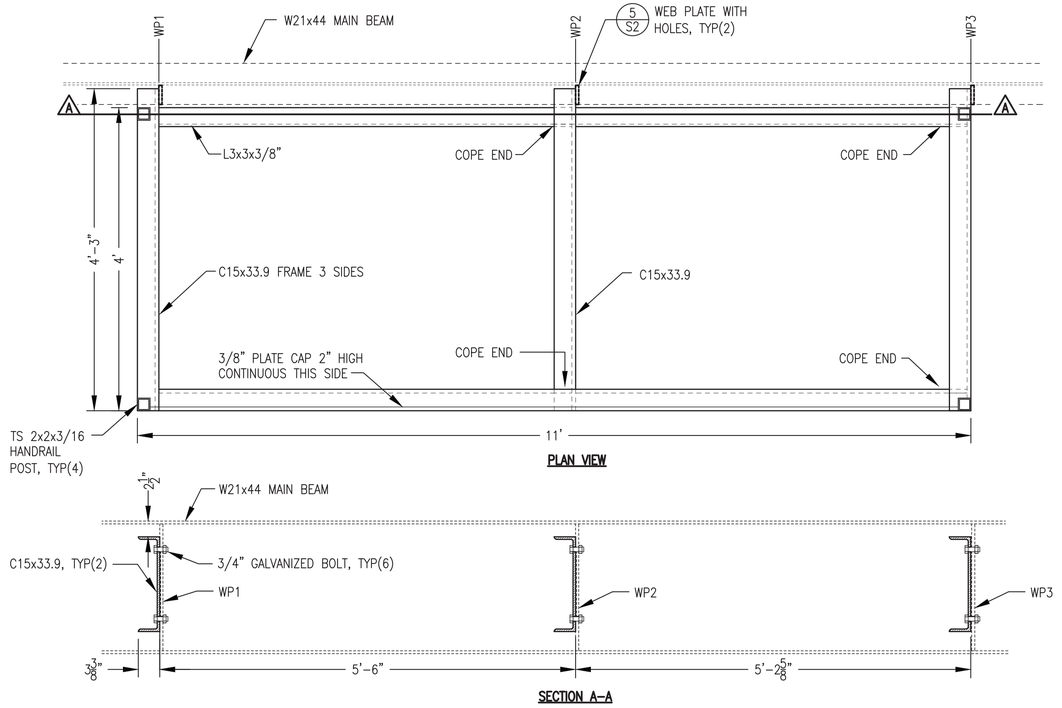
TITLE: STAIRS/LANDINGS FABRICATION DETAILS

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

DRAWN BY: JTD	SCALE: AS NOTED
DESIGNED BY: DGT/BCG	DATE: 3/2/23
FILE NAME: NELS PP S1-S5	SHEET: S5.2
PROJECT NUMBER:	

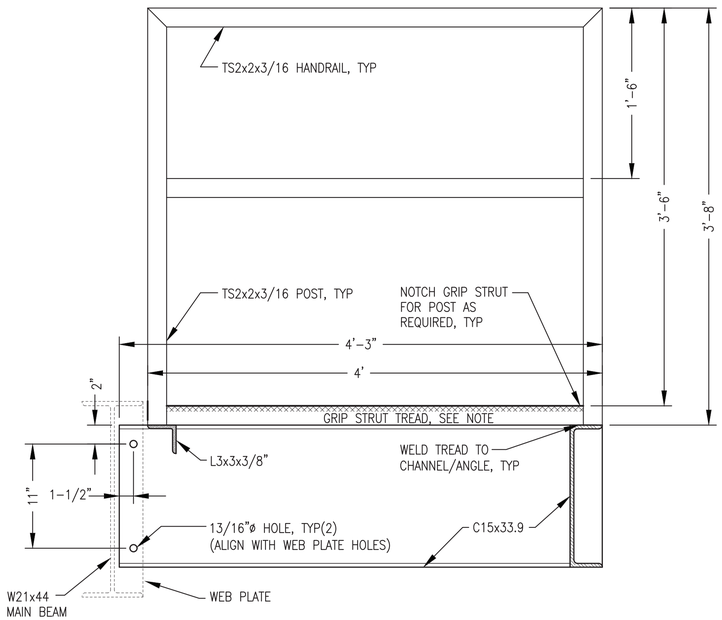


1 S5.3 LOADING DOCK ELEVATION
1"=1'-0"



2 S5.3 LOADING DOCK BASE FRAMING PLAN & SECTION
1"=1'-0"

NOTE: INSTALL 11 EACH 11-3/4"x2"x4'-0"Lx14 GAUGE GRIP STRUT TREADS.



3 S5.3 LOADING DOCK SECTION & MAIN BEAM CONNECTION DETAIL
1-1/2"=1'-0"

ALL EXTERIOR ASSEMBLIES THIS SHEET WERE FABRICATED AS PART OF THE PRIOR MODULE FABRICATION. FINAL INSTALLATION OF EXTERIOR ASSEMBLIES IS INCLUDED IN THE ON SITE SCOPE.

ISSUED FOR CONSTRUCTION MARCH 2023

STATE OF ALASKA 49TH
David G. Thompson No. 14226 3/2/23
REGISTERED PROFESSIONAL ENGINEER

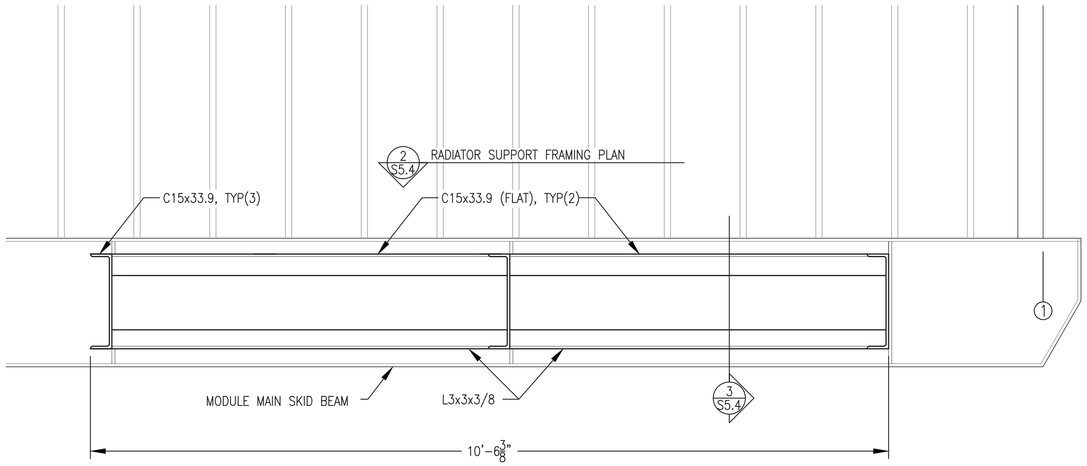
ALASKA ENERGY AUTHORITY

PROJECT: NELSON LAGOON POWER SYSTEM UPGRADE

TITLE: LOADING DOCK FABRICATION DETAILS

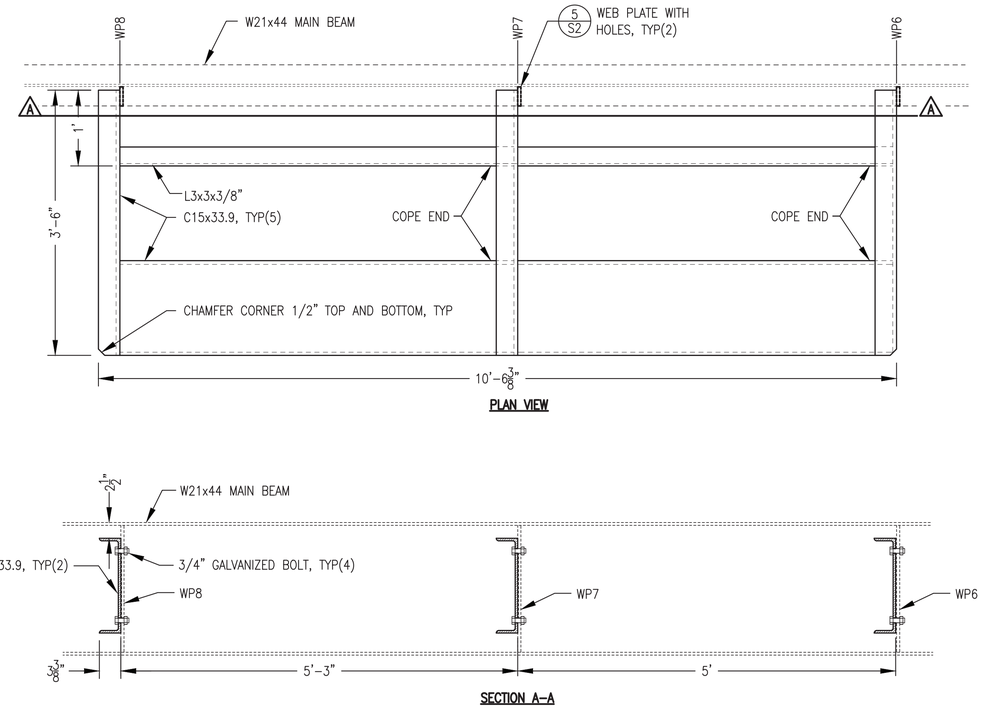
Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

DRAWN BY: JTD | SCALE: AS NOTED
DESIGNED BY: DGT/BCG | DATE: 3/2/23
FILE NAME: NELS PP S1-S5 | SHEET: S5.3
PROJECT NUMBER:



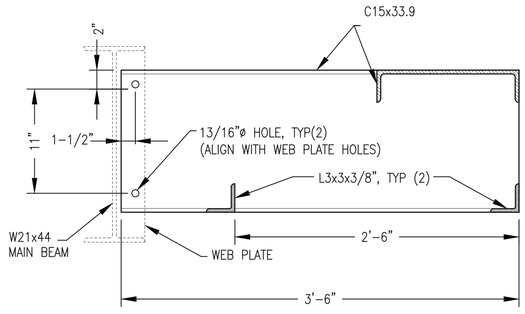
1 S5.4 RADIATOR SUPPORT ELEVATION

1"=1'-0"



2 S5.4 RADIATOR SUPPORT FRAMING PLAN & SECTION

1"=1'-0"



3 S5.4 RADIATOR SUPPORT SECTION & MAIN BEAM CONNECTION DETAIL

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

ALL EXTERIOR ASSEMBLIES THIS SHEET WERE FABRICATED AS PART OF THE PRIOR MODULE FABRICATION.
FINAL INSTALLATION OF EXTERIOR ASSEMBLIES IS INCLUDED IN THE ON SITE SCOPE.

ISSUED FOR CONSTRUCTION
MARCH 2023

STATE OF ALASKA
49TH
David G. Thompson
No. 14226
3/2/23
REGISTERED PROFESSIONAL ENGINEER

ALASKA ENERGY AUTHORITY

PROJECT: NELSON LAGOON POWER SYSTEM UPGRADE

TITLE: RADIATOR SUPPORT FABRICATION DETAILS

Gray Stassel Engineering, Inc.
P.O. 111405, Anchorage, AK 99511 (907)349-0100

DRAWN BY: JTD	SCALE: AS NOTED
DESIGNED BY: DGT/BCG	DATE: 3/2/23
FILE NAME: NELS PP S1-S5	SHEET: S5.4
PROJECT NUMBER:	