

CORE SYSTEM

006458 - Tanana Chiefs Conference - Badger Road

2605 Badger Rd. North Pole, AK 99505



6889 Rexwood Road, Unit 5, Mississauga, ON L4V 1R2
TEL: 416-860-6722 FAX: 416-860-6719
www.polarracking.com



SITE LOCATION MAP

PROJECT DRAWING PACKAGE			
SHEET #	DRAWING #	DRAWING NAMES	REV #
1		COVER PAGE	
2	G-01	GENERAL NOTES	A
3	L-01	RACKING LAYOUT & DETAILS	04
4	S-01	RACKING ASSEMBLY DETAILS, 2X24 DUAL-LEG ORANGE TABLE	A
5	S-02	CONNECTION SECTIONS & DETAILS	A
6	S-03	ASSEMBLY DETAILS PRUP-DUAL LEG WITH CIP CONCRETE TUB	A
7	S-04	BALLAST FOUNDATION DESIGN	A

A. GENERAL NOTES:

1. THE CONTRACTORS MUST VISIT THE SITE AND BECOME FAMILIARIZED WITH ALL CHARACTERISTICS AFFECTING NEW AND EXISTING CONSTRUCTION ON DRAWINGS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK, ANY CHANGES, ALTERATIONS, OR REVISIONS MUST BE REPORTED TO THE ENGINEER.
2. ALL MATERIAL AND WORK SHALL CONFORM TO THE ADOPTED CODE REQUIREMENTS OF THE APPLICABLE BUILDING DEPARTMENT.
3. NEITHER THE OWNER NOR SUPPLIER WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES INCLUDING SHORING AND BRACING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL HEALTH AND SAFETY STANDARDS, LAWS AND REGULATIONS. THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE METHODS, PROCEDURES OR SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE DURING CONSTRUCTION. IF A LAWSUIT IS FILED BY ONE OF THE CONTRACTOR'S OR SUBCONTRACTOR'S EMPLOYEES, OR ANY ONE ELSE, THE CONTRACTOR WILL INDEMNIFY, DEFEND AND HOLD THE OWNER AND POLAR RACKING HARMLESS OF ANY AND ALL SUCH CLAIMS.
4. NO PIPES, DUCTS, SLEEVES, CHASE ETC., SHALL BE PLACED CONCRETE PIERS, OR ATTACHED TO RACK STEEL WORK UNLESS SPECIFICALLY SHOWN OR NOTED. NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR PIPES, DUCTS, ETC., UNLESS SPECIFICALLY SHOWN. OBTAIN PRIOR WRITTEN APPROVAL FOR INSTALLATION OF ANY ADDITIONAL PIPES, DUCTS, ETC.
5. CONTRACTOR TO CONFIRM WITH PV MODULE INSTALLATION MANUAL FOR BOLTING DISTANCES TO ENSURE THEY ARE FASTENED PER MODULE REQUIREMENTS.
6. THE SLOPE OF ANY TABLE SHOULD BE CONSTANT AND A MAXIMUM OF 10% IN THE EAST WEST DIRECTION.
7. THE INTER TABLE SLOPES SHOULD NOT VARY MORE THAN 3%.
8. TABLE TO TABLE SLOPE CHANGES SHOULD NOT VARY MORE THAN 5%.
9. ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OF CONSTRUCTION SELECTED BY THE CONTRACTOR.
- 10.NO PERSONNEL SHALL STEP OR STAND ON PV MODULES OR RACKING AT ANY TIME. RACKING STRUCTURE AND PV MODULES ARE NOT DESIGNED FOR LIVE LOADS AND MAY VOID WARRANTY.
- 11.CONTRACTOR OR OPERATOR MUST FOLLOW ALL MAINTENANCE RECOMMENDATIONS AS OUTLINED IN THE PROVIDED INSTALLATION MANUAL.

B. LOADING PARAMETERS:

DEAD LOAD

PANEL WEIGHT: 2.3 PSF

STEEL MEMBERS: ACTUAL WEIGHT OF MEMBERS

SNOW LOAD

1/50 YEAR GROUND SNOW LOAD: 60 PSF

WIND DESIGN DATA

1/50 YEAR 3-SEC GUST WIND SPEED: 105 MPH

C_p C_g :VARIES, SEE CPP REPORT

PILE DESIGN: REFER TO PILE DESIGN DOCUMENTS AND DRAWINGS FOR FOUNDATION REACTION LOADS

C. STRUCTURAL STEEL NOTES

1. RACKING SYSTEM WAS DESIGNED TO SPECIFIED CLIMATIC LOADS AT GROUND LEVEL SEE SECTION-B.
2. WIND LOADS HAVE BEEN PRODUCED BASED ON POLAR RACKING PROPRIETARY WIND

TUNNEL TESTS RESULTS BY CPP Project # 8005 (June 9, 2016).

3. POSITIVE LOADS ARE DOWNWARD I.E COMPRESSIVE LOADS, NEGATIVE LOADS ARE UPLIFT I.E. TENSION LOADS
4. LOADS ARE SPECIFIED VALUES AND MUST BE COMBINED AS PER ASCE 7-16
5. REACTION LOADS ASSUME NOMINAL INSTALLATION LOCATIONS
6. LATEST AISI & AISC STANDARD SHALL BE CONSIDERED TO FABRICATE OR DESIGN ANY STEEL COMPONENTS ON RACK
7. CONNECTION SECTIONS AND DETAILS PAGE TO BE USED FOR TORQUE VALUES ON ALL STRUCTURAL CONNECTION POINTS AND IS TO TAKE PRIORITY OVER INSTALLATION MANUAL VALUES. TORQUED CONNECTIONS TO BE MARKED AS PER INSTALLATION MANUAL.
8. POLAR RACKING STRUCTURE DOES NOT REQUIRE FIELD WELD. IF ANY FIELD WELD WILL BE REQUIRED, IT SHOULD BE DONE ACCORDING TO AWS. ENGINEERING OF RECORD SHOULD BE NOTIFIED BEFORE ANY SUCH ACTION IS TAKEN.
9. SELF-DRILLING SCREWS SHOULD BE INSTALLED WITH NON-IMPACTING VARIABLE SPEED DRILL WITH CLUTCH OUT
10. PV MODULE HARDWARE SHOULD BE TORQUED AND INSPECTED AS PER POLAR RACKING INSTALLATION MANUAL.
11. DESIGN, FABRICATION AND ERECTION SHALL CONFORM TO SPECIFICATIONS AND STANDARDS OF AISC STEEL CONSTRUCTION MANUAL 15TH EDITION, FABRICATION AND ERECTION TO AISC 15TH EDITION.
12. STRUCTURAL STEEL GRADES:

- SHAPES AND PLATES ASTM A572 OR ASTM A992, GRADE 50 (Fy=50 KSI)
- WIDE FLANGE BEAMS & COLUMNS ASTM A572, ASTM A992, AND ASTM A252 (MATERIAL GRADES SPECIFIED ON THE TOP LEVEL PAGE)
- HIGH STRENGTH BOLTS, NUTS, AND WASHER: SAE J429 GR.5; NUT: SAE J429 GR.5, (F436)
- PRE -GALVANIZED MATERIAL SHALL COMPLY WITH ASTM A653 - G90 MIN. (UNLESS OTHERWISE SPECIFIED ON THE TOP LEVEL PAGE)

13. ALL CONNECTIONS THAT AREN'T WELDS SHOULD CONFORM TO AISC STEEL CONSTRUCTION MANUAL 15TH EDITION AND /OR FABRICATION AISC 15TH EDITION (2021) WHICHEVER IS MORE STRINGENT.
14. ALL INSTALLATION WORK SHALL BE DONE IN ACCORDANCE WITH THE FEDERAL AND PROVINCIAL CODES AND STANDARD SPECIFICATION.
15. ALL STRUCTURAL STEEL COMPONENTS ARE HOT-DIPPED GALVANIZED (HDG) PER ASTM A123 AFTER COMPLETION OF FABRICATION, CUTTING, AND MACHINING.

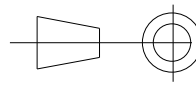
D. LIGHT GAUGE METAL NOTES:

1. DESIGN, FABRICATION AND ERECTION SHALL CONFORM TO THE SPECIFICATIONS AND STANDARDS OF THE AISI S100-16 “NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS.
2. NORTH-SOUTH BEAMS, EAST-WEST BEAMS AND BRACES SHALL BE FORMED TO CHANNEL SHAPE, PUNCHED WEB AND KNURLED FACES, CONFORMING TO ASTM A-653, GRADE SPECIFIED ON STRUCTURAL PAGE.
3. NORTH-SOUTH BEAMS, EAST-WEST BEAMS AND BRACES MINIMUM GAUGE THICKNESSES ARE SIZED AS SHOWN ON THE RACKING DRAWINGS.



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REV.:

A

ARRAY INFORMATION

PROPOSED DC SIZE	1.188MW DC
ARRAY SIZE	2X24 MODULES
TILT ANGLE	40°
AZIMUTH	XX°
PANEL TYPE	SEG YUKON Series 550 W
PANEL DIMS.	2278X1134X35MM
PANEL QTY.	2160
TABLE QTY 2X24.	45
ROW PITCH	15.724m
PAPER SIZE	D

REVISIONS

REV#	DESCRIPTION	DATE
A	PRELIMINARY	26APR24



PROJECT NAME:
Tanana Chiefs Conference
Badger Road

TITLE:
GENERAL NOTES

PROJ. NO.:	DWG. BY:	CHECKED. BY:	SCALE:
006458	AK	MG	NTS

CUSTOMER DRAWING NUMBER:

DRAWING NUMBER: G-01

www.segsolar.com

YUKON Series

Half-Cell
Transparent Backsheet Module

540-555W

21.48%

Module Power Output

Max Efficiency

Key Features

High module conversion efficiency

Better temperature coefficient

Super multi busbar technology

Low attenuation long warranty

Superior load capacity

Higher bifacially

USA based liability insurance

Houston, Texas based company

Warranty

15 Years Linear power output warranty
25 Years Linear power output warranty

Product Certification

IEC61215:2016, IEC 61730:2016, UL1703, UL61730/ETL/CEC
PID
Salt Mist
Ammonia Resistance
Dust and Sand
Halotone
Pvt Type (UL61730) Type1
ISO14001:2015, ISO9001:2015, ISO45001:2018

About SEG Solar

SEG Solar is a leading manufacturer of high-performance solar panels for residential, commercial, and utility applications. The company, headquartered in Houston, Texas, is committed to providing cost-effective and reliable solar solutions that help customers reduce their energy costs and carbon footprint.

YUKON Series SEG-XXX-BMA-TB(144Cells)

Electrical Characteristics

Module Type	SEG-540-BMA-TB			SEG-545-BMA-TB			SEG-550-BMA-TB			SEG-555-BMA-TB		
	Front	Front	Back	Front	Front	Back	Front	Front	Back	Front	Front	Back
Maximum Power -Pmp(W)	540	406	378	545	409	382	550	414	385	555	418	389
Open Circuit Voltage -Voc(V)	49.50	46.18	49.48	49.60	46.32	49.58	49.70	46.40	49.68	49.80	46.47	49.78
Short Circuit Current -Isc(A)	13.81	11.16	9.74	13.90	11.23	9.80	14.00	11.32	9.87	14.10	11.40	9.94
Maximum Power Voltage -Vmp(V)	41.55	38.39	41.61	41.80	38.41	41.86	42.05	38.58	42.10	42.31	38.75	42.35
Maximum Power Current -Imp(A)	13.00	10.59	9.09	13.04	10.65	9.13	13.08	10.73	9.15	13.12	10.79	9.19
Module Efficiency STC-ηm(%)	20.50			21.10			21.29			21.48		
Power Tolerance(W)							(0, +3%)					
Maximum System Voltage							1500V DC					
Maximum Series Fuse Rating							25 A					

STC: Irradiance 1000 W/m², module temperature 25°C, AM=1.5 NOCT: Irradiance 800W/m², ambient temperature 20°C, module temperature 45°C, wind speed: 1m/s Power measurement tolerance: ±1.2%

Mechanical Specifications

External Dimension	2278 x 1134 x 35 mm
Weight	27.0 kg
Solar Cells	PERC Mono 182 x 91mm(144 pcs)
Front: Glass	3.2 / mm AR coating tempered glass / low iron
Frame	Anodized aluminium alloy
Junction Box	IP68 / 3 diodes
Connector Type	QC4.10
Cable Type / Length	12 AWG PV Wire (UL) /200 mm
Mechanical Load(Front)	5400 Pa / 113 psf
Mechanical Load(Rear)	3600 Pa / 75 psf

*Refer to SEG Installation Manual for details

Packing Configuration

Container	20'GP	40'HQ
Pieces per Pallet	31	31
Pallets per Container	4	20
Pieces per Container	124	620

341kw/container

Temperature Characteristics

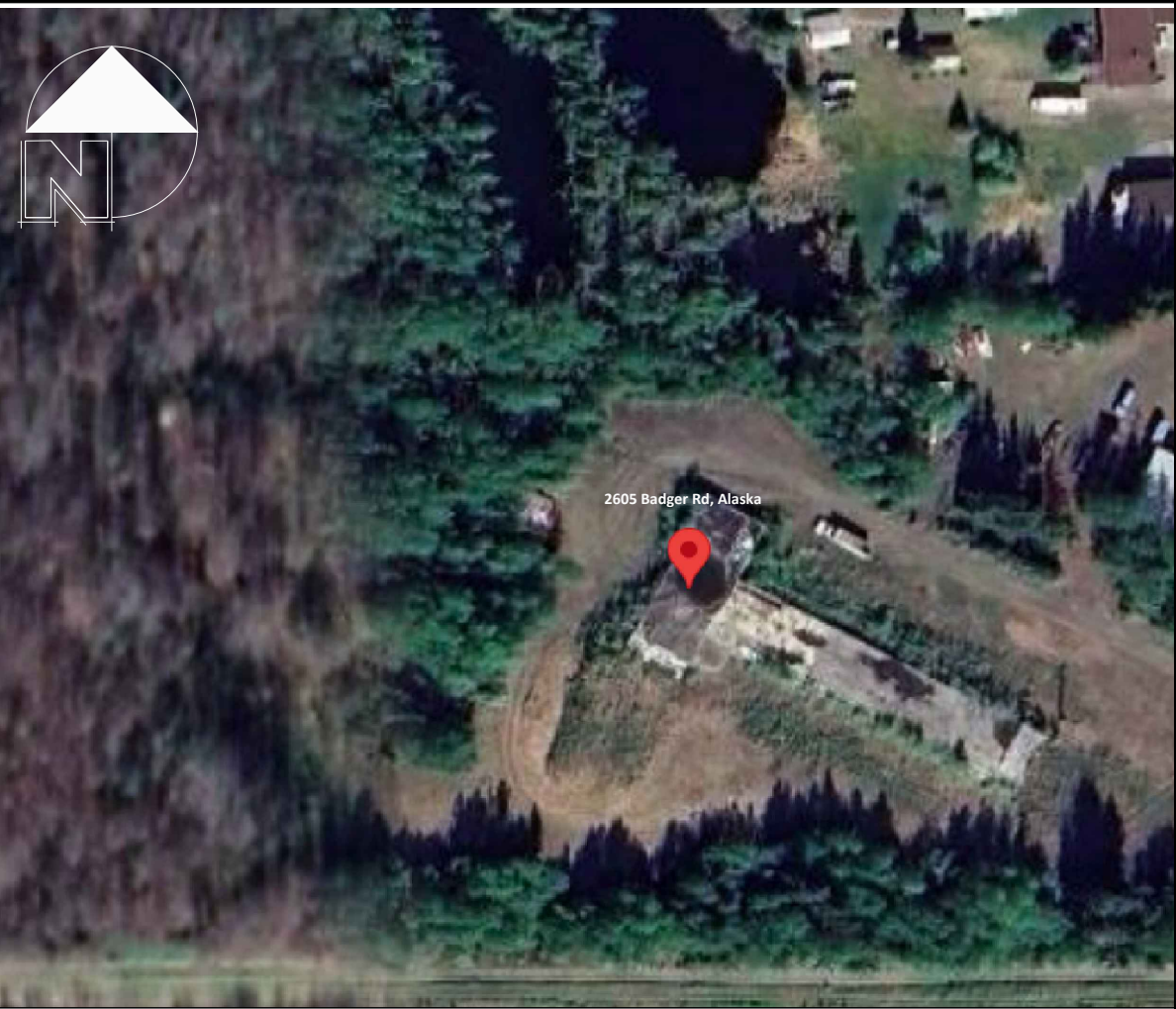
Pnax Temperature Coefficient	-0.35 %/°C
Voc Temperature Coefficient	-0.27 %/°C
Isc Temperature Coefficient	+0.05 %/°C
Operating Temperature	-40~+85 °C
Nominal Operating Cell Temperature (NOCT)	45±2 °C

Technical Drawing

I-V Curve

www.segsolar.com

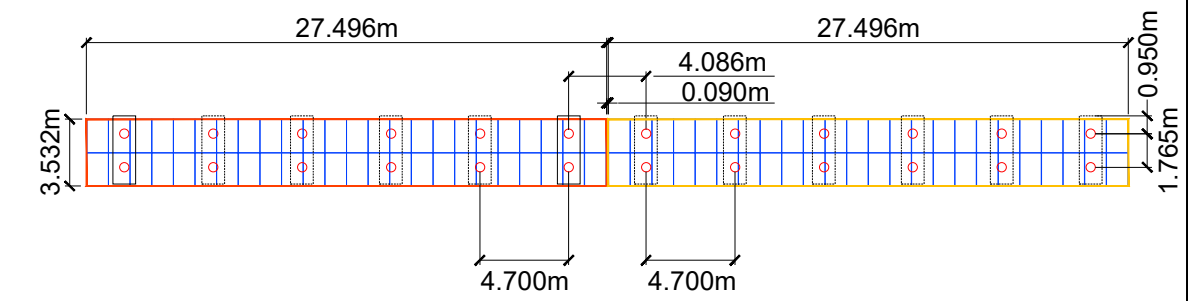
Specifications subject to technical changes © SEG_DS_2023-02_Rev01_EN



SITE LOCATION

LEGEND

	2x24 ORANGE TABLE ARRAY (14 TOTAL)		2x24 YELLOW TABLE ARRAY (31 TOTAL)
	BALLAST TYPE 1 (28 TOTAL)		BALLAST TYPE 2 (242 TOTAL)
	PILE		



DETAIL A- TABLES TOP VIEW
SCALE 1:400

TABLE TYPE	ORANGE TABLES	YELLOW TABLES	TOTAL
2x24	14	31	45
TOTALS	14	31	45

BALLAST TYPE	L(m)	W(m)	D(m)	WEIGHT / TUB (kg)
ORANGE 2x24	3.60	1.10	0.60	5108.40
YELLOW 2x24	3.60	1.10	0.436	3715.20

TUB TYPE	SYMBOL	ORANGE 2x24	YELLOW 2x24	TOTAL
TUB 1-(3.6m x 1.1m x 0.60m)		28	0	28
TUB 2-(3.6m x 1.1m x 0.436m)		56	186	242



ARRAY INFORMATION

PROPOSED DC SIZE	1.188 MW DC
ARRAY SIZE	2x24MODULES
TILT ANGLE	40°
AZIMUTH	xx°
PANEL TYPE	SEG YUKON Series 550 W
PANEL DIMS.	2278 x 1134 x 35mm
PANEL QTY: 2x24	2160
TABLE QTY. No. 2x24	45
ROW PITCH	15.724m

4	ISSUED FOR REVIEW	24MAY24
3	ISSUED FOR REVIEW	07MAY24
2	ISSUED FOR REVIEW	01MAY24
1	ISSUED FOR REVIEW	25APR24
0	ISSUED FOR REVIEW	26MAR24
REV NO.	ISSUANCE	DATE

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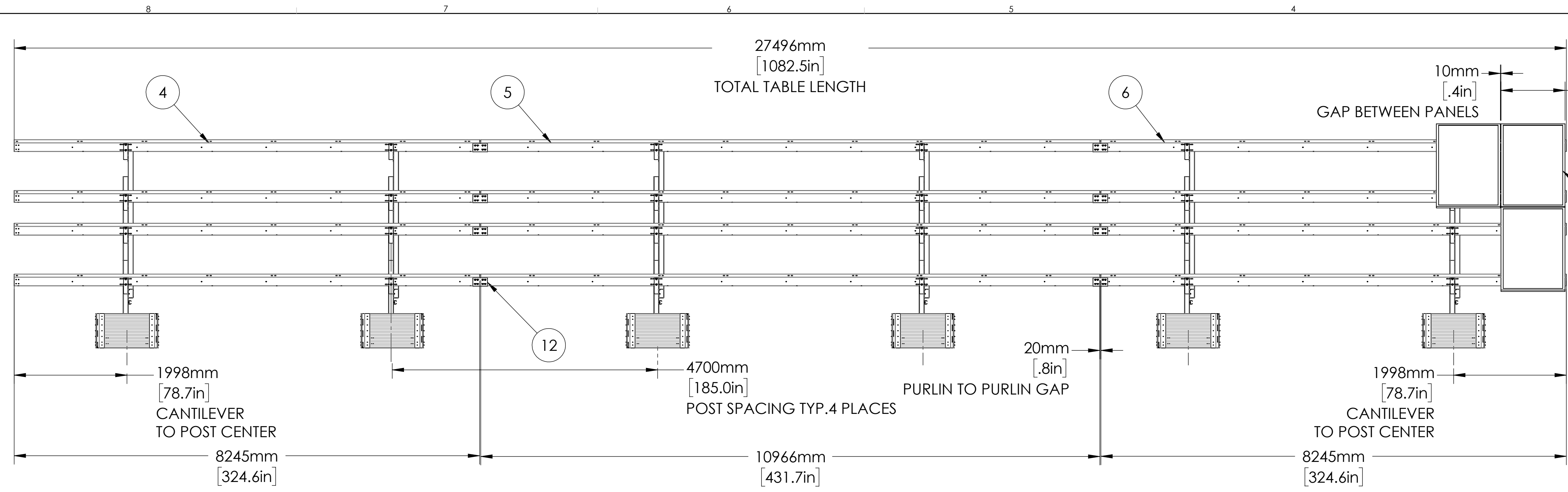
Tanana Chiefs Conference - Badger Road

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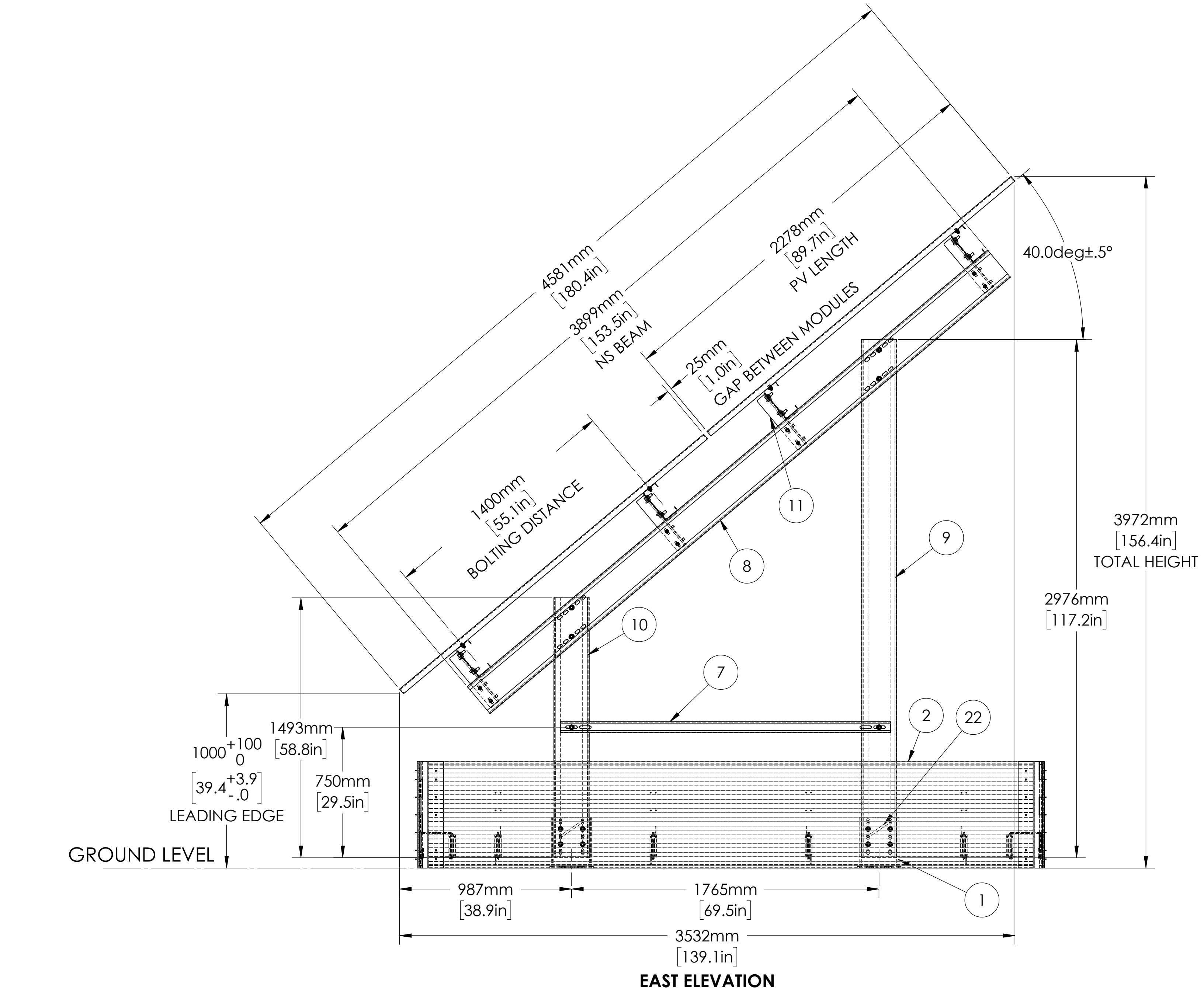
RACKING LAYOUT & DETAILS

PROJ. NO.:	DWG. BY:	CHKD. BY:	APPR. BY:
006458	AK	MG	

DRAWING NUMBER: L-01



SOUTH ELEVATION

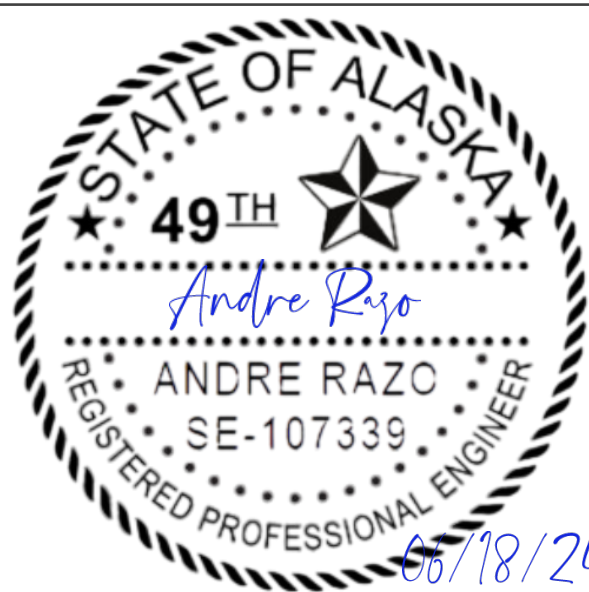


EAST ELEVATION

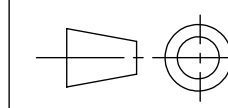
REV.		DATE	DESCRIPTION	ECO	SIGNATURE
A		14/JUNE/2024	INITIAL RELEASE	N/A	MG
B		18/JUNE/2024	LEG PROFILE AND THICKNESS UPDATED	N/A	MG



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REV.: **B**

CLIMATIC DESIGN LOADS:
- GROUND SNOW LOAD: 60 PSF
- WIND LOAD: 105 MPH

PART	MIN. THICKNESS (mm)	PROFILE (in.) Depth x Flange x Lip	MATERIAL Fy (ksi)
NORTH-SOUTH BEAM	2.50	8.0 x 3.5 x 1.0	50
EAST-WEST BEAM	1.80	8.0 x 3.5 x 1.0	50
LATERAL BRACE	2.50	2.5 x 2.0 x 0.5	50
TABLE LEG (FRONT)	2.70	8.0 x 3.5 x 1.5	50
	2.50		60
TABLE LEG (BACK)	2.70	8.0 x 3.5 x 1.5	50
	2.50		60

ARRAY INFORMATION	
PROPOSED DC SIZE	1.188 MW DC
ARRAY SIZE	2X24 MODULES
TILT ANGLE	40°
AZIMUTH	xx°
PANEL TYPE	SEG YUKON Series 550 W
PANEL DIMS.	2278 x 1134 x 35mm
PANEL QTY.	2160
TABLE QTY. NO. 2X24	45
ROW PITCH	15.724m

MAIN COMPONENTS BILL OF MATERIALS			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	900799001	Foot Bracket Assembly, 8" Beam, 4x150mm Bolt Circle, HDG	12
2	900563005	Concrete Tub, ASSY, 3600 mm x 1100 mm x 611 mm	6
3	400026XXX	PV MODULE, 2278 x 1134 x 35mm-SEG YUKON Series 550 W (Not a polar supply)	48
4	301624001	Beam, EWW, C8x3.5x1, 8245 mm, 1.8 mm THK, 50 ksi, G90, P-2X24, 6P, 1134 mm PV Width	4
5	301623001	Beam, EWC, C8x3.5x1, 10966 mm, 1.8 mm THK, 50 ksi, G90, P-2X24, 6P, 1134 mm PV Width	4
6	301622001	Beam, EWE, C8x3.5x1, 8245 mm, 1.8 mm THK, 50 ksi, G90, P-2X24, 6P, 1134 mm PV Width	4
7	301621001	Brace, Lateral, C2.5x2x0.5, 1895 mm, 2.5 mm THK, 50ksi, G90	6
8	301620001	Beam, NS, C8x3.5x1, 3899 mm, 2.5 mm THK, 50ksi, G90, P-2P, 2278 mm PV Length	6
9	301619001	Table Leg, Back, C8x3.5x1.5, 2976 mm, 2.5 mm THK, 60ksi, G90, 40° Tilt	6
10	301618001	Table Leg, Front, C8x3.5x1.5, 1493 mm, 2.5 mm THK, 60 ksi, G90, 40° Tilt	6
11	300222001	Bracket, East-West, 8" Beam, Ga10, HDG	24
12	300186002	Splice, East-West, 8" Beam, Ga10, HDG	8

HARDWARE BILL OF MATERIALS			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
13	100103001	Washer, External Tooth Lock, M8, 18-8 SS	48
14	100064008	Bolt, Hex Flange, Serrated, 5/16"-18 x 1", 18-8 SS, ASTM F593C	192
15	100064002	Bolt, Hex Flange, Serrated, 1/2"-13 x 1-1/2", Gr. 5, Magni 565	132
16	100063008	Nut, Hex Flange, Serrated, 5/16"-18, 18-8 SS, ASTM F594C	192
17	100063002	Nut, Hex Flange, Serrated, 1/2"-13, Gr. 5, Magni 565	132
18	100063001	Nut, Hex Flange, Serrated, 3/8"-16, Gr. 5, Magni 565	112
19	100045009	Bolt, Carriage, 3/8"-16 x 1", Gr. 5, Magni 565	112
20	100033019	Washer, Split Lock, 3/8", 18-8 SS	192
21	100011016	Washer, Flat, 3/8" x 1" OD, 18-8 SS	192
22	100XXXXXX	10M REBAR OR EQUIVALENT (SUPPLIED BY CONTRACTOR)	12

PROJECT NAME:
TANANA CHIEFS CONFERENCE -
BADGER ROAD

TITLE:
RACKING ASSEMBLY DETAILS, 2X24
DUAL-LEG ORANGE/YELLOW TABLE

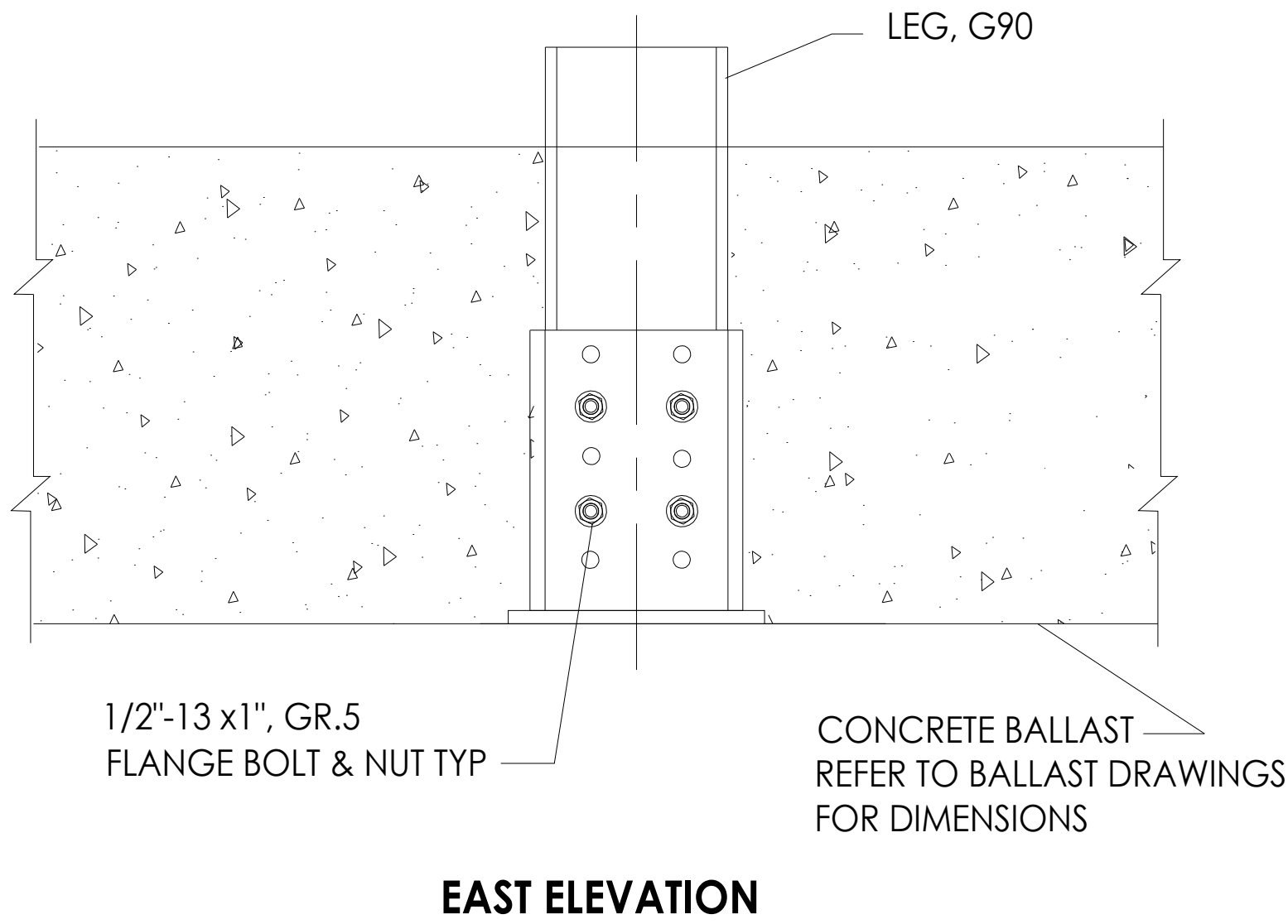
PROJ. NO.: 006458	DWG. BY: AK	CHECKED. BY: MG	SCALE: NTS
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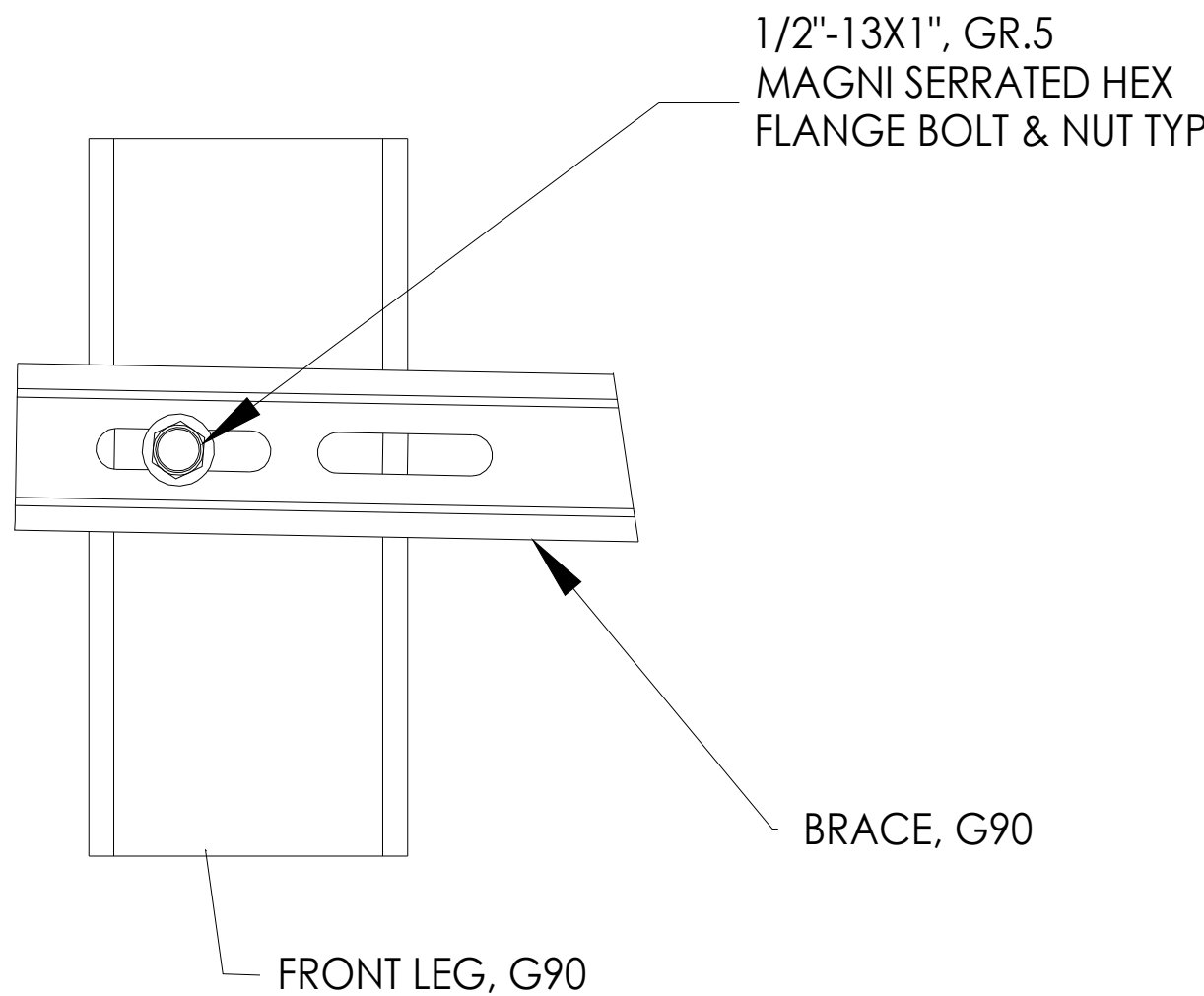
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ASSEMBLY NUMBER: 901115001

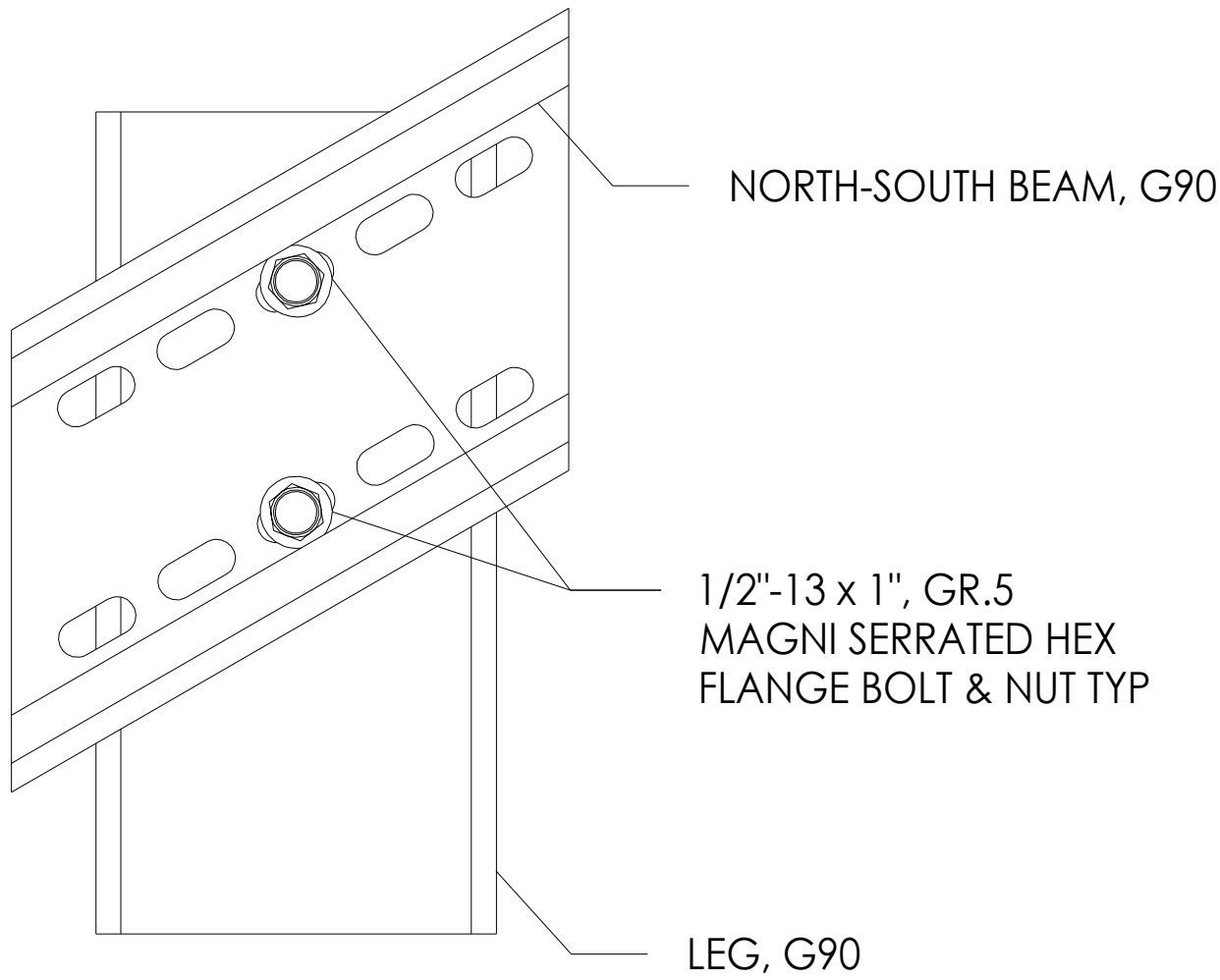
DETAIL A: FOOT BRACKET TO LEG



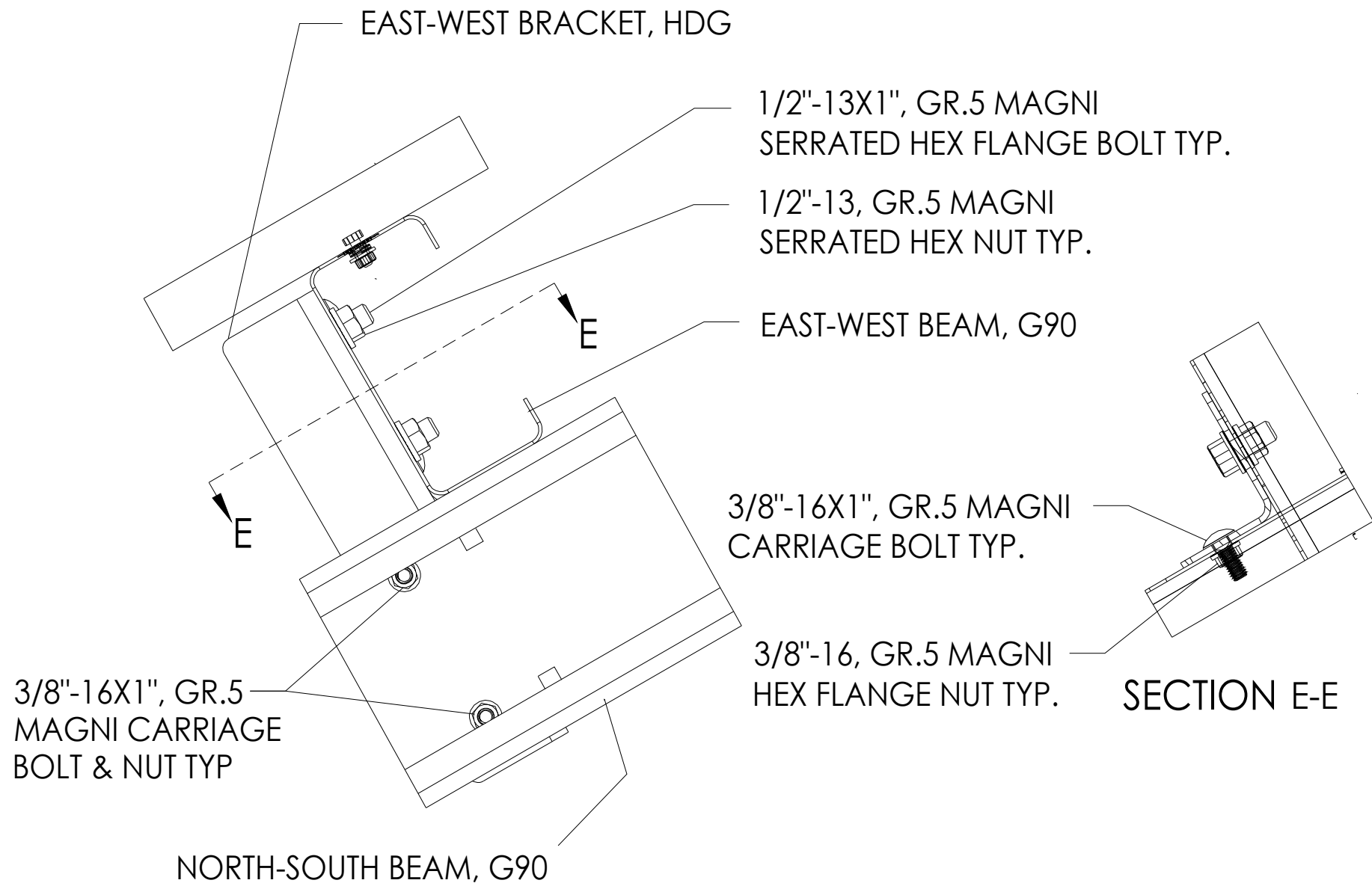
DETAIL B: BRACE TO LEG



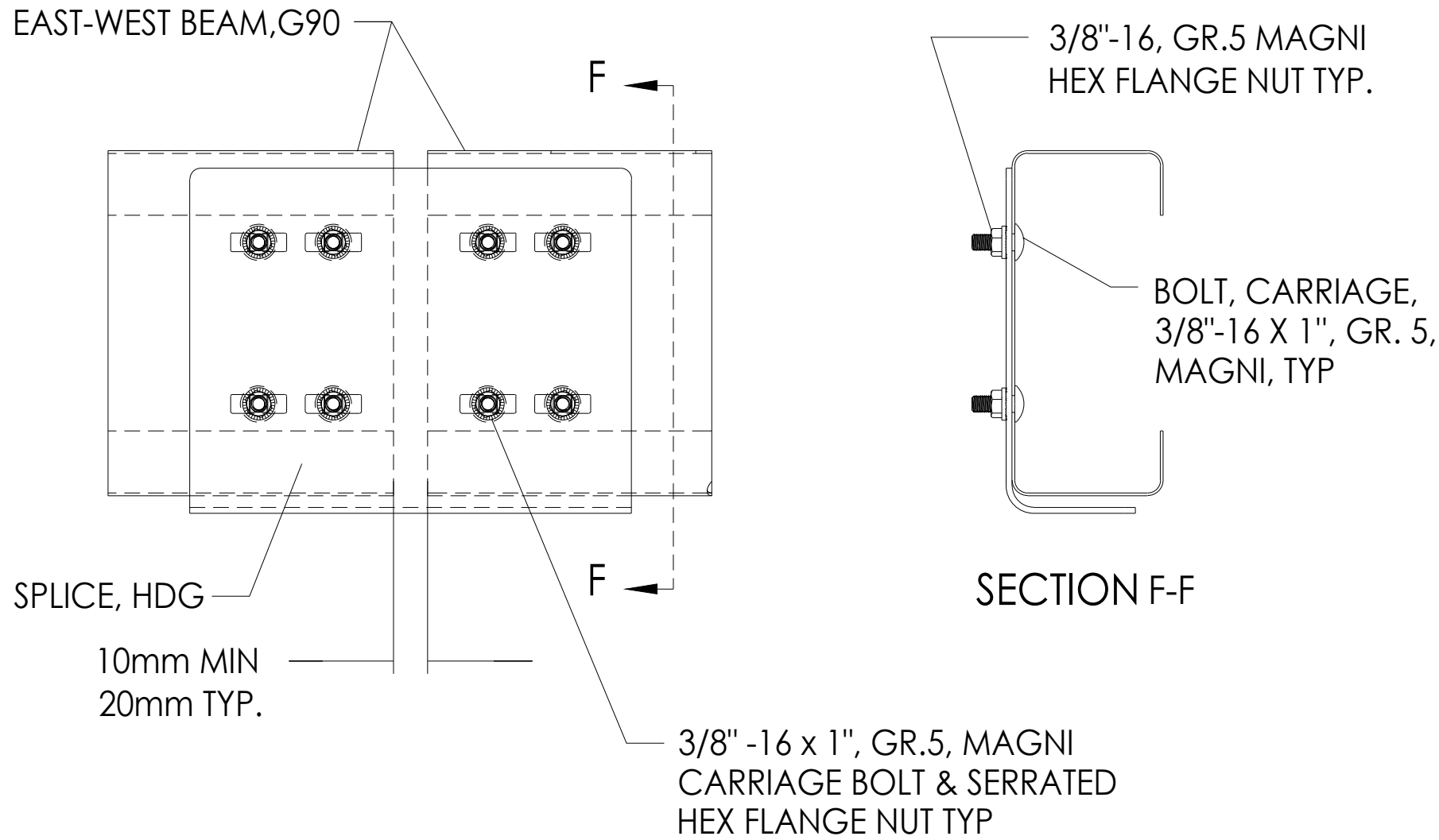
DETAIL C: NORTH-SOUTH BEAM TO LEG



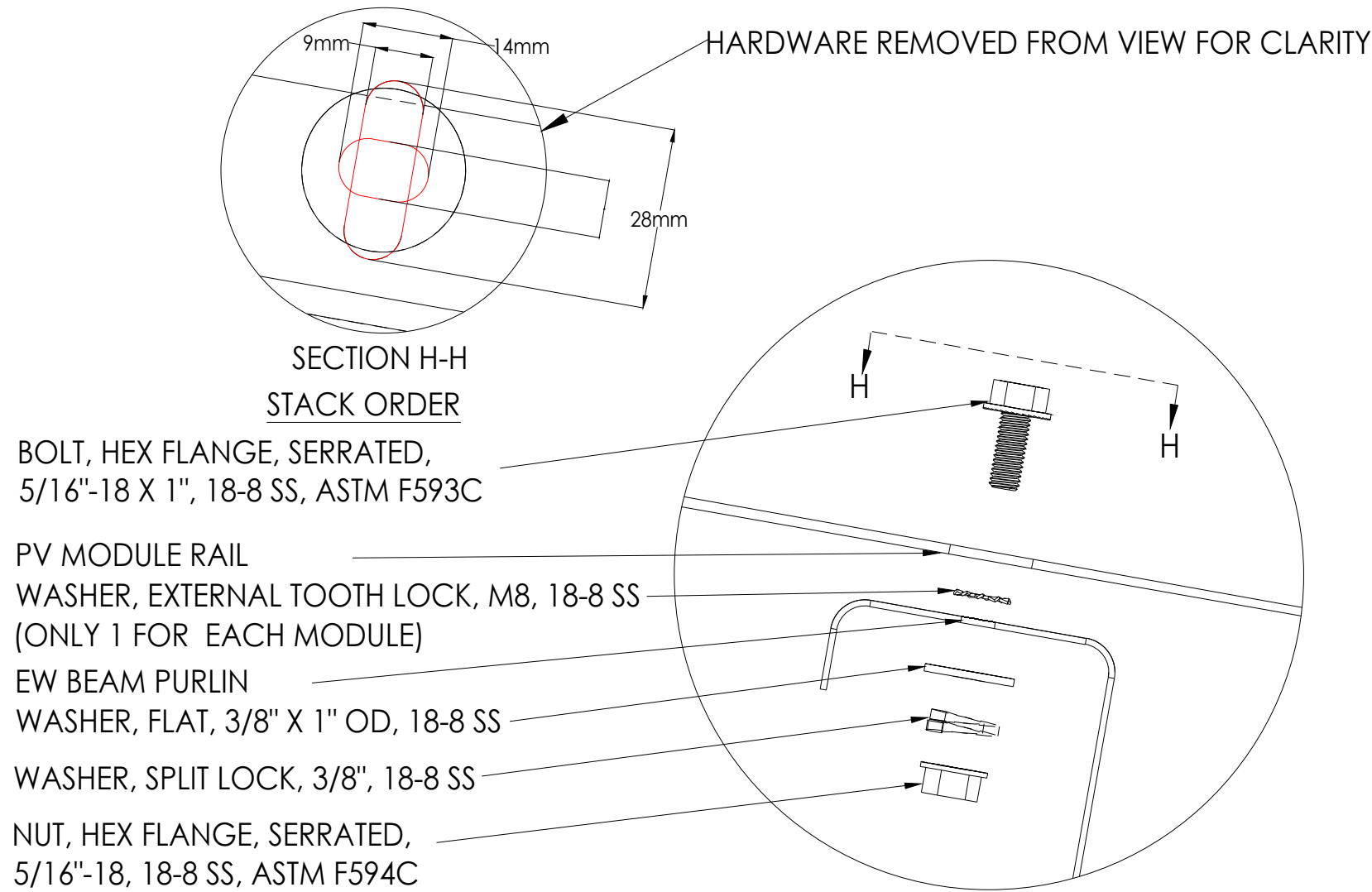
DETAIL D: EAST-WEST BRACKET TO NORTH-SOUTH AND EAST-WEST BEAM



DETAIL E: SPLICE TO EAST-WEST BEAMS

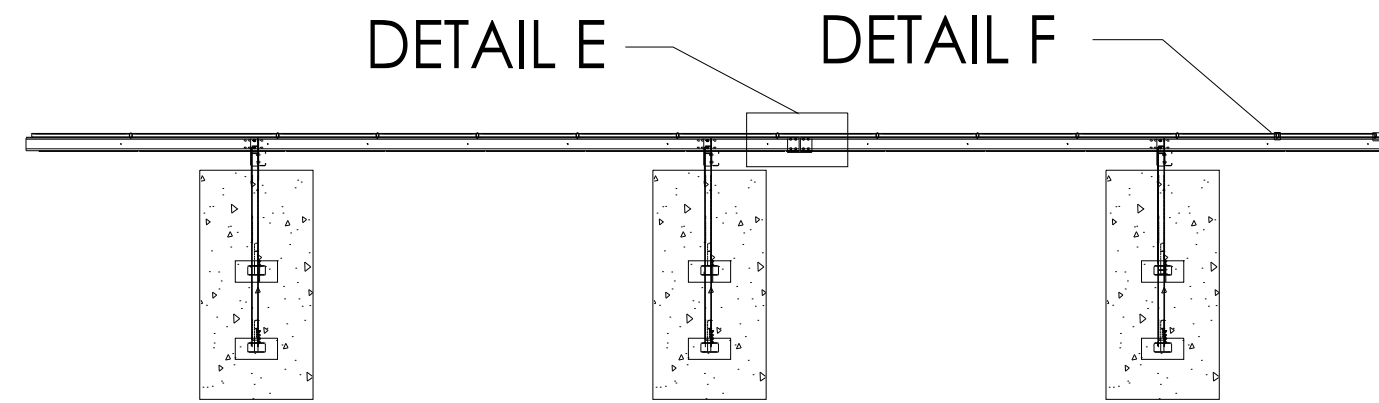
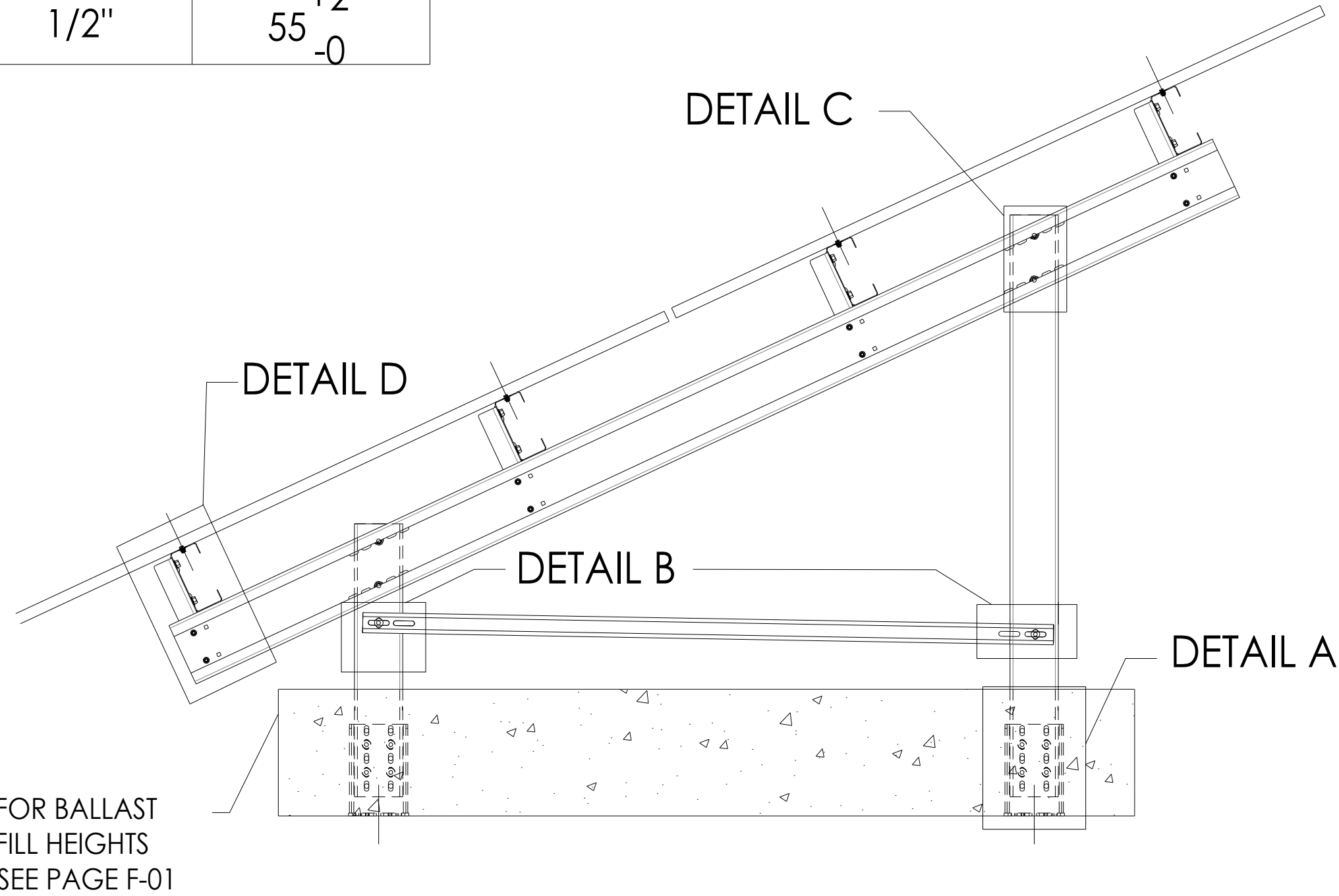


DETAIL F: DIRECT BOLTING TO PV PANELS



FASTENERS TORQUE

FASTENER SIZE	TIGHTENING TORQUE (ft-lb)
5/16"	13±1
3/8"	26±1
1/2"	55 ⁺² ₋₀

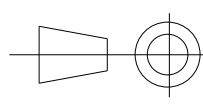


NOTE: - THIS ELEVATION IS ONLY FOR REFERENCE. REFER TOP LEVEL DRAWING FOR EXACT MODEL.



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REV.:

A

ARRAY INFORMATION

PROPOSED DC SIZE	1.188 MW DC
ARRAY SIZE	2X24 MODULES
TILT ANGLE	40°
AZIMUTH	XX°
PANEL TYPE	SEG YUKON Series 550 W
PANEL DIMS.	2278 x 1134 x 35mm
PANEL QTY. 2X24	2160
TABLE QTY.	45
ROW PITCH	15.724m

A	ISSUED FOR REVIEW	26APR24
REV NO.	ISSUANCE	DATE



PROJECT NAME:
Tanana Chiefs Conference
- Badger Road

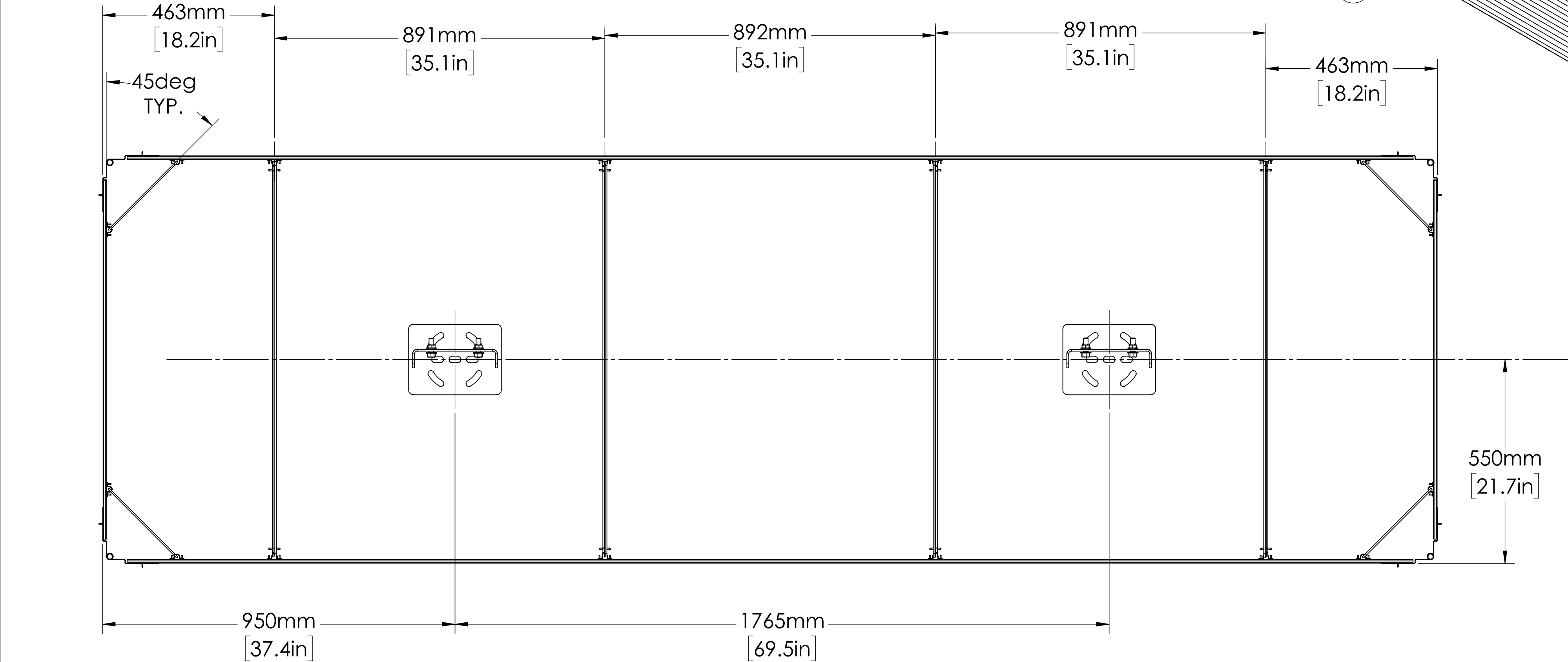
TITLE:
RACKING CONNECTION DETAILS

PROJ. NO.:	DWG. BY:	CHKD. BY:	SCALE:
006458	AM	MG	NTS

CUSTOMER DRAWING NUMBER:

DRAWING NUMBER: S-02

MAIN COMPONENTS BILL OF MATERIALS			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	300599004	PRU, Concrete Tub, Long Side Panel, Ga 28, 3468 mm x 611 mm	2
2	300598003	PRU, Concrete Tub, Short Side Panel, Ga 28, 968 mm L x 611 mm H	2
3	100106001	Domed Head 4mm Diameter 18-8 Stainless Steel Blind Rivets	120
4	301256001	CONCRETE TUB MIDDLE HINGE BRACKET	16
5	300597003	Rod, Stiffener, U-Shape, 4.5 mm DIA, 1065 mm L	8
6	301255001	Rod, Stiffener, U-Shape, 4.5mm DIA, 258 mm L (CORNER)	4



TOP VIEW
SCALE1:8

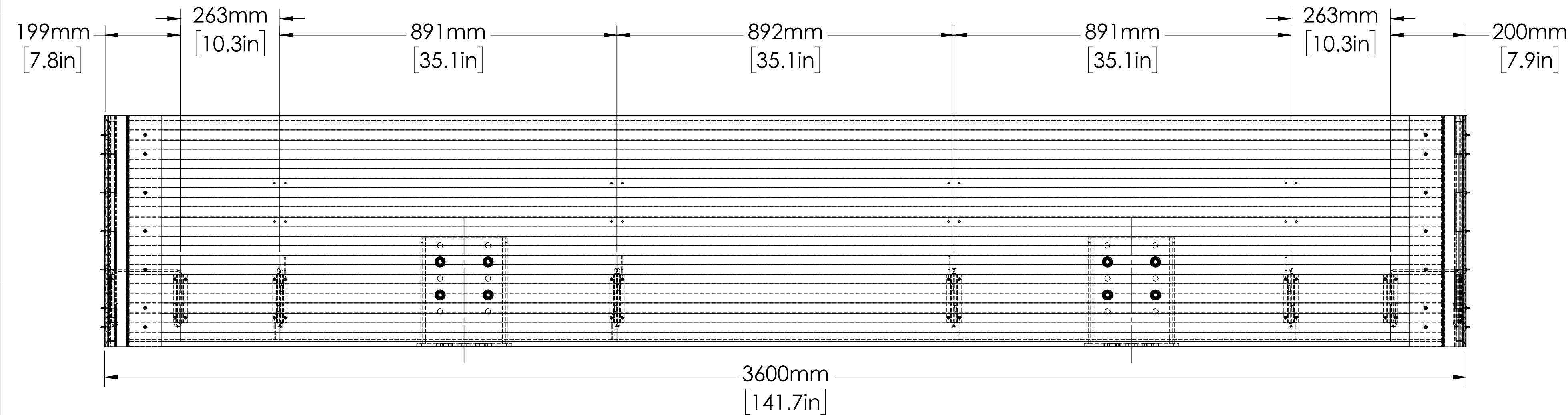
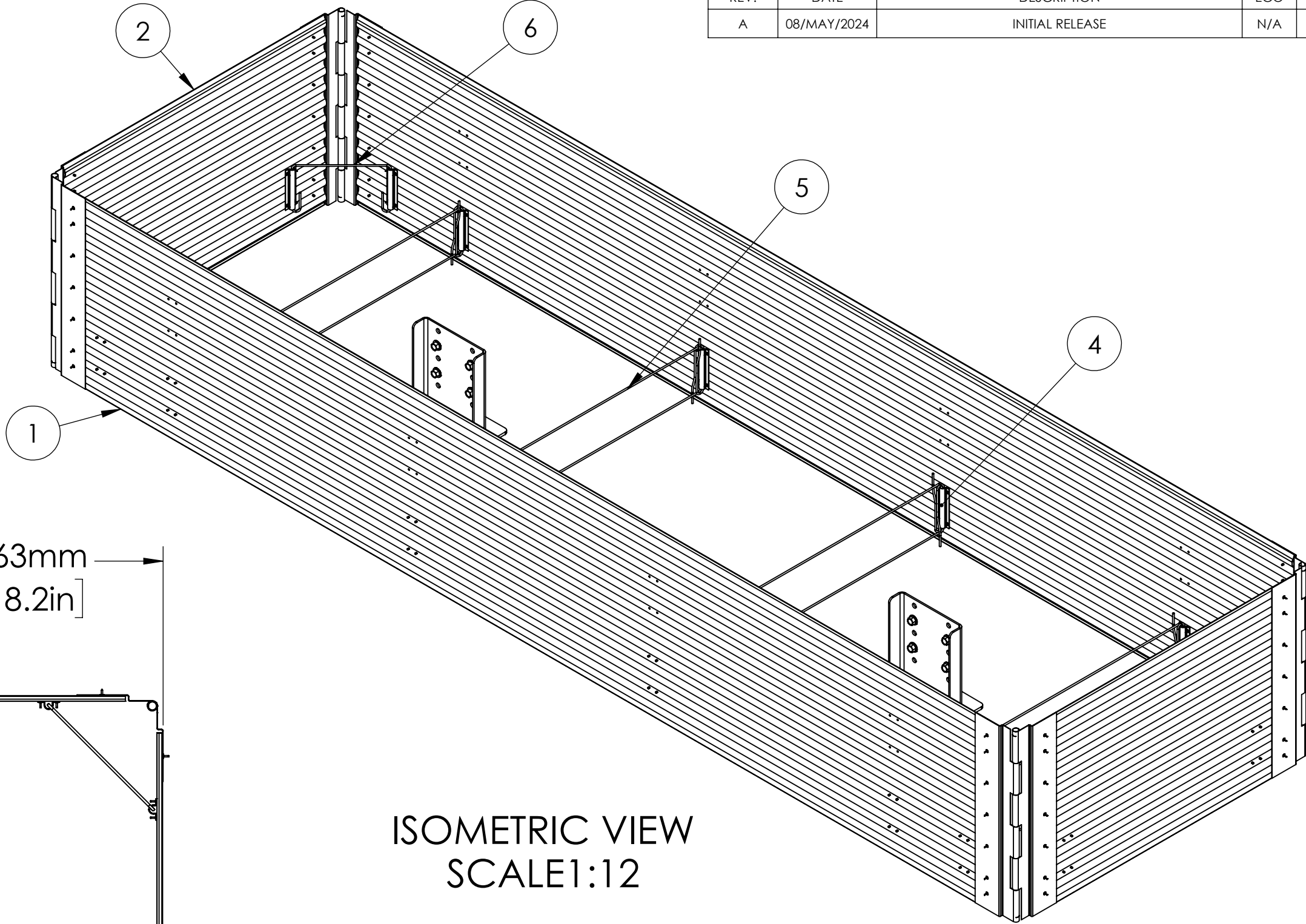


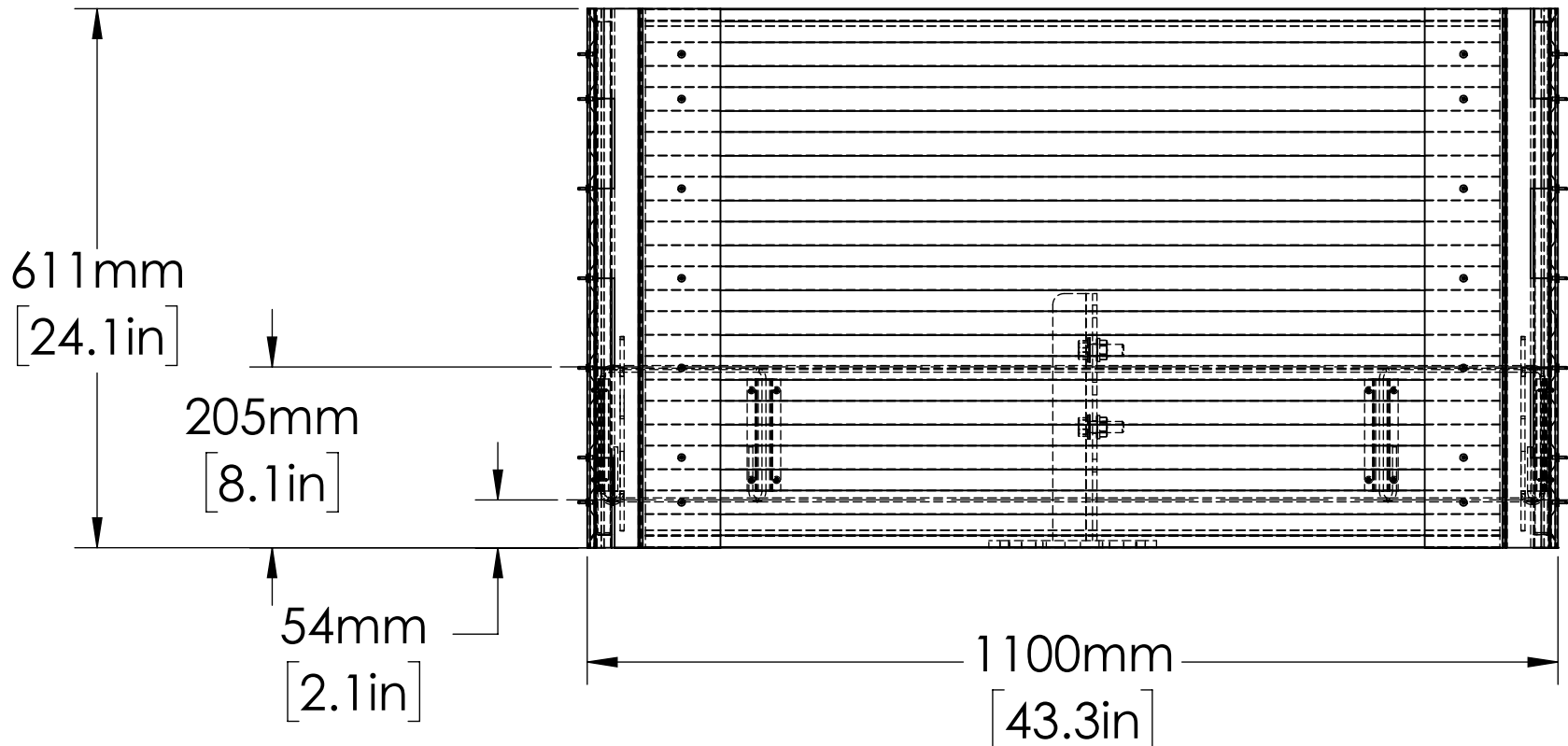
TABLE 1-PRU, CONCRETE TUB ASSEMBLY

900563005	Concrete Tub, Assembly, 3600 mm x 1100 mm x 611 mm
ASSY#	DESCRIPTION
CONFIGURATION TABLE	

FRONT VIEW
SCALE1:8




ISOMETRIC VIEW
SCALE1:12




SIDE VIEW
SCALE1:8

REVISIONS				
REV.	DATE	DESCRIPTION	ECO	SIGNATURE
A	08/MAY/2024	INITIAL RELEASE	N/A	MG



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6/18/24

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REV.: **A**

CLIMATIC DESIGN LOADS:
- GROUND SNOW LOAD: 60 PSF
- WIND LOAD: 105MPH

ARRAY INFORMATION

RACK TYPE	PRU-P FIXED
ARRAY SIZE	2x24
TILT ANGLE	40°
MODULE TYPE	SEG YUKON Series 550 W
MODULE DIMS.	2278 x 1134 x 35mm
PAPER SIZE	D

PROJECT NAME:
TANANA CHIEFS CONFERENCE -
BADGER ROAD

TITLE:
ASSEMBLY DETAILS
PRUP-DUAL LEG WITH CIP CONCRETE TUB

PROJ. NO.: 006458	DWG. BY: AK	CHECKED. BY: MG	SCALE: NTS
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CUSTOMER DRAWING NUMBER:

DRAWING NUMBER: S-03

ASSEMBLY NUMBER: NA

GENERAL NOTES:

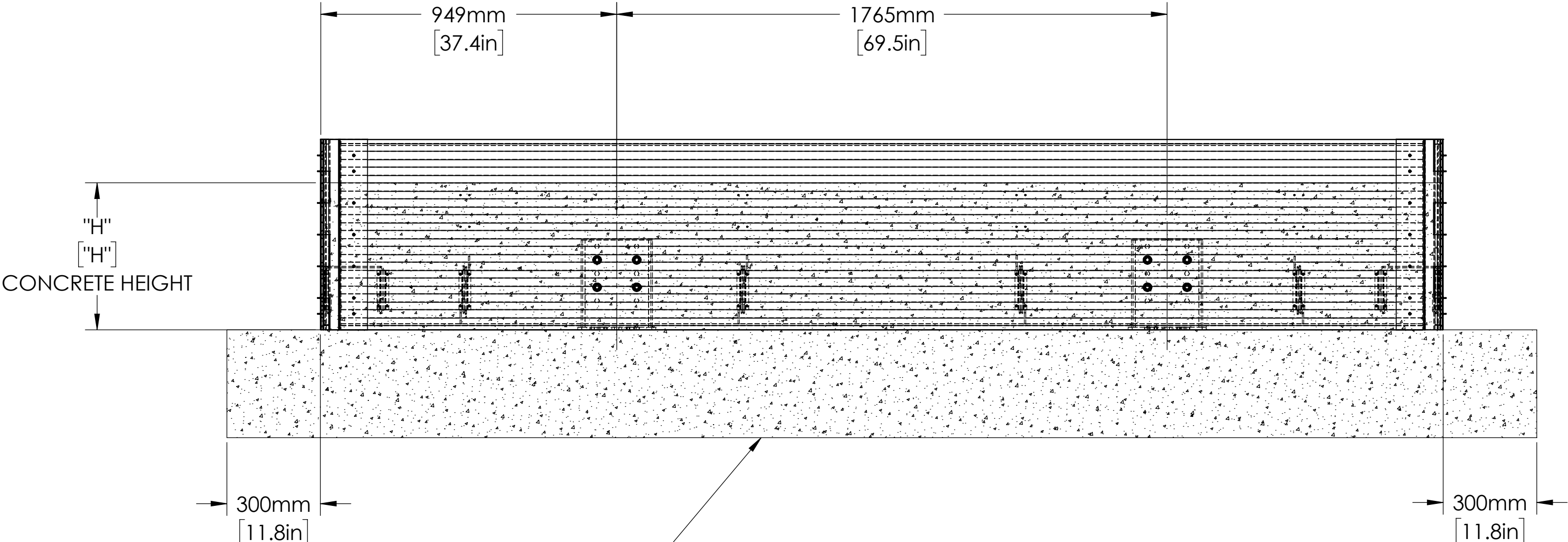
1. READ ALL DRAWINGS IN CONJUNCTION WITH OTHER DISCIPLINES AND SPECIFICATIONS, REPORT ANY DISCREPANCIES TO THE ENGINEER.
2. ALL CONCRETE WORK SHALL CONFORM TO ACI 318-14.
3. ALL DIMENSIONS SHOWN IN THE DRAWING ARE IN MILIMETER AND SHALL NOT BE SCALED.
4. CONTRACTORS AND TRADES SHALL BE EXPERIENCED IN THE WORK REQUIRED, WORK SHALL BE COMPLETED IN ACCORDANCE WITH ACCEPTED CONSTRUCTION PRACTICE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL SITE CONDITIONS AND MEASUREMENTS AND REPORT ANY DISCREPANCIES OR UNSATISFACTORY CONDITIONS IMMEDIATELY TO THE ENGINEER, WHICH MAY ADVERSELY AFFECT THE PROPER COMPLETION OF THE JOB BEFORE PROCEEDING WITH THE WORK.
6. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND SERVICES BEFORE EXCAVATION AND SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGED SERVICES.
7. ENGINEER MUST BE NOTIFIED IN WRITING OF ANY CHANGES OR DEVIATION FROM THE DRAWING.
8. FEATURES OF CONSTRUCTION NOT FULLY SHOWN ARE OF SAME CHARACTER AS THOSE NOTED FOR SIMILAR CONDITIONS

MATERIALS

9. ALL CONCRETE SHALL CONFORM TO CSA STANDARD A23.1 WITH THE FOLLOWING SPECIFICATIONS AT TIME OF PLACING:
- 9.1.1. EXPOSURE CLASS AS PER LOCAL BUILDING CODE
- 9.1.2. MINIMUM 28 days STRENGTH, f'c=25MPa
- 9.1.3. MAXIMUM SLUMP = 100±20mm [4"±.785"]
- 9.1.4. AIR CONTENT = 4%-7%
10. FOOT BRACKET STEEL PLATE TO CONFORM TO ASTM A572, Gr. 50, MINIMUM YIELD, Fy=50ksi, OR EQUIVALENT.
11. CONCRETE FOOTING TO BE PLACED ON SOIL WITH MINIMUM BEARING CAPACITY OF 100 kPa (SLs).
12. IF GRADING IS REQUIRED IN LOCATIONS WHERE RACKING IS TO BE PLACED, COMPACTION OF SITE MATERIALS (PRESSUMED TO BE COBBLES AND BOULDERS WITH SAND) TO BE PLACED WITH AN APPROVED, NON-ORGANIC MATERIAL IN MAXIMUM 500 mm LIFTS AND COMPACTED A MINIMUM OF 6 PASSES WITH A DYNAMIC PACKER WITH A MINIMUM OPERATING MASS OF 8,000 kg AND MINIMUM OPERATING DYNAMIC FORCE OF 150 kN.
13. FOOT BRACKET TO BE HOT DIPPED GALVANIZED PER ASTM A123 AFTER FABRICATION.
14. ALL REINFORCEMENT MUST BE DEFORMED BARS WITH MINIMUM YIELD STRENGTH OF 260 MPa AND MUST SATISFY THE ACI STANDARD.
15. A MINIMUM CLEAR COVER OF 50 mm HAS TO BE PROVIDED TO ALL REINFORCEMENTS.
- DESIGN SPECIFICATIONS
16. CONCRETE DENSITY: 2,150kg/m ' (135 pct).
17. FOR LOCATION AND PLAN DETAILS AND DIMENSIONS AND ALL OTHER STRUCTURAL DETAILS AND DIMENSIONS NOT INDICATED, REFER TO SITE LAYOUT DRAWINGS BY OTHERS.
18. A-FRAMES & E-W BEAMS
- 18.1. REFER TO THE DUAL LEG RACK INSTALLATION MANUAL FOR INSTALLATION PROCEDURES.

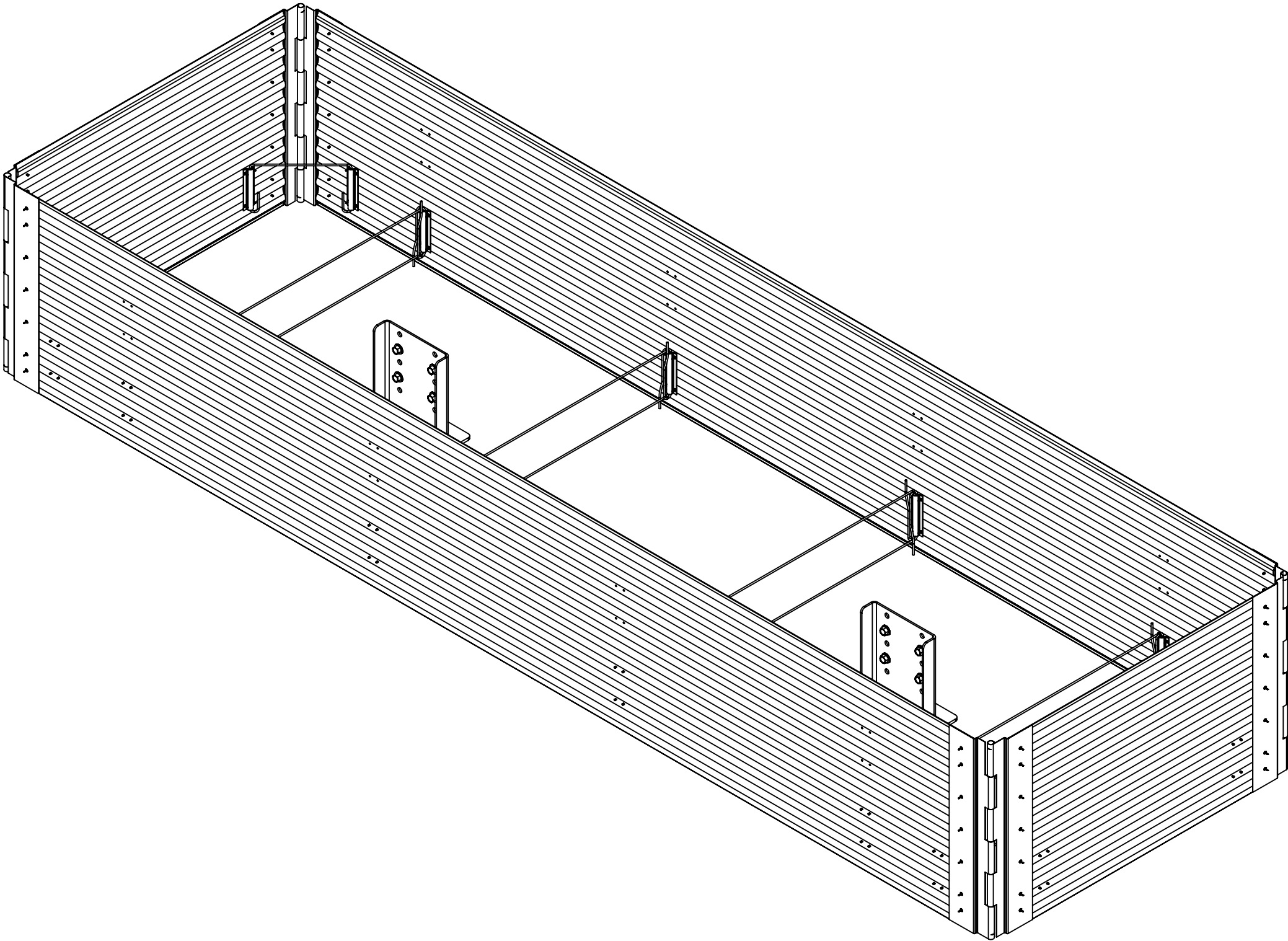
CONCRETE FOUNDAION HEIGHTS (CONCRETE FILL)

S.NO	TABLE TYPE	"LENGTH"mm[in]	"WIDTH"mm[in]	BALAST HEIGHT "H"mm[in]	Concrete/Tub (m3)	Concrete Density(kg/m3)
1	ORANGE TABLE	3600[141.7]	1100[43.30]	600[23.62]	2.376	2150
2	YELLOW TABLE	3600[141.7]	1100[43.30]	436[17.16]	1.728	2150




SIDE VIEW
SCALE 1:12

MDOT TYPE A GRAVEL - 703.06 GRANULAR A or CRUSHED STONE-3/4" MATERIAL TO ACCOMMODATE MAXIMUM 3% NORTH-SOUTH SLOPE BENEATH THE FOUNDATION AND EXTENDING 0.5 M FROM EACH SIDE. SEE NOTE 12 FOR PLACEMENT AND COMPACTION REQUIREMENTS




ISOMETRIC VIEW
SCALE 1:12

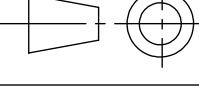
REVISIONS				
REV.	DATE	DESCRIPTION	ECO	SIGNATURE
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REV.:
A

CLIMATIC DESIGN LOADS:

- GROUND SNOW LOAD: 60 PSF
- WIND LOAD: 105 MPH

ARRAY INFORMATION

RACK TYPE	PRU-P FIXED
ARRAY SIZE	2X24
TILT ANGLE	40°
MODULE TYPE	SEG YUKON Series 550 W
MODULE DIMS.	2278 x 1134 x 35mm
PAPER SIZE	D

PROJECT NAME:
TANANA CHIEFS CONFERENCE -
BADGER ROAD

TITLE:
BALLAST FOUNDATION DESIGN

PROJ. NO.: 006458	DWG. BY: AK	CHECKED. BY: MG	SCALE: NTS
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CUSTOMER DRAWING NUMBER:

DRAWING NUMBER: S-04

ASSEMBLY NUMBER: X900452002