

DOCKETED

Docket Number:	24-OPT-01
Project Title:	Perkins Renewable Energy Project
TN #:	254402
Document Title:	Appendix F Site Plan Part 2
Description:	Includes Project design, layout, site plans, elevations, and notes.
Filer:	Emily Capello
Organization:	Panorama Environmental, Inc.
Submitter Role:	Applicant Consultant
Submission Date:	2/11/2024 8:25:54 PM
Docketed Date:	2/12/2024

Appendix F Site Plan Part 2

PREPARED FOR:

IP PERKINS, LLC,
IP PERKINS BAAH, LLC
AND AFFILIATES

REVISIONS:

#	DATE	COMMENT	IA	SB	CN
A	01/30/2024	CEC Permit Plans			

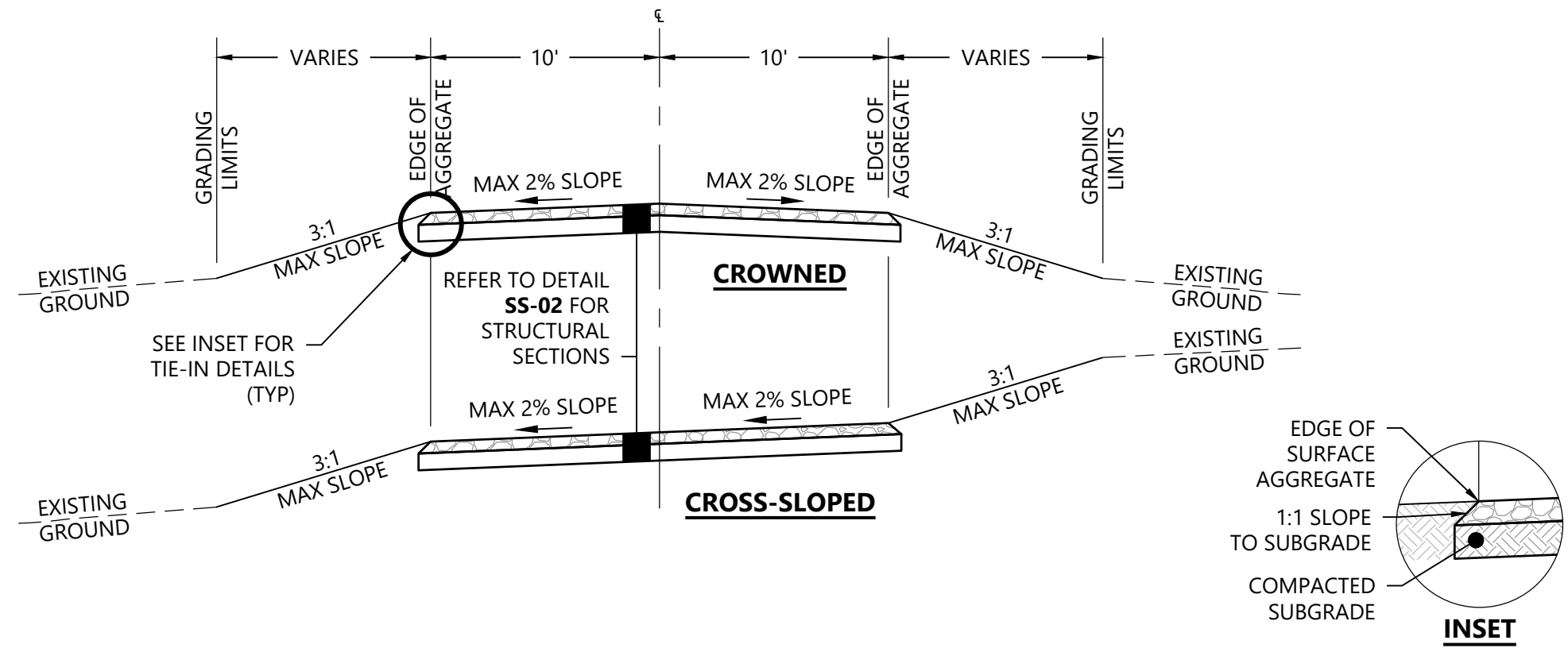
IP Perkins
Imperial County, CA

Construction Details

NOT FOR CONSTRUCTION

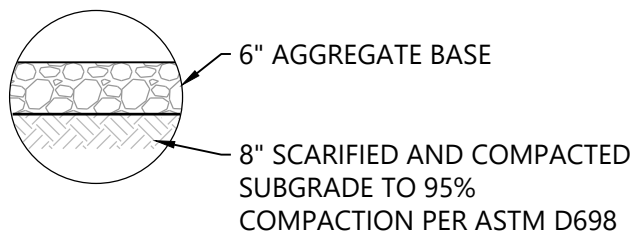
DATE: 01/30/2024

SHEET: C.400 A

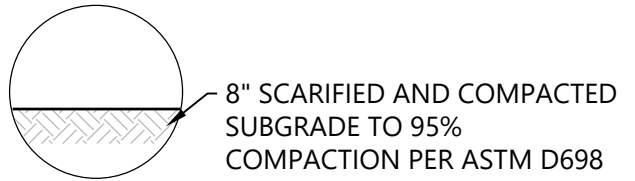


- NOTES:
1. ENSURE THAT ROADS REMAIN WELL-DRAINED.
 2. CONSTRUCT CROSS-SLOPE WHERE ROADS ARE CONSTRUCTED ON A SIDE SLOPE, AND WHERE OTHERWISE NOTED ON PLANS.
 3. SLOPES SHOWN ARE TYPICAL. SOME ROAD LOCATIONS MAY REQUIRE VARIATIONS IN SLOPE.
 4. ALL DISTURBED GROUND NOT COVERED WITH AGGREGATE SHALL BE STABILIZED PER THE NPDES PERMIT.

Westwood TYPICAL ACCESS ROAD RD-05



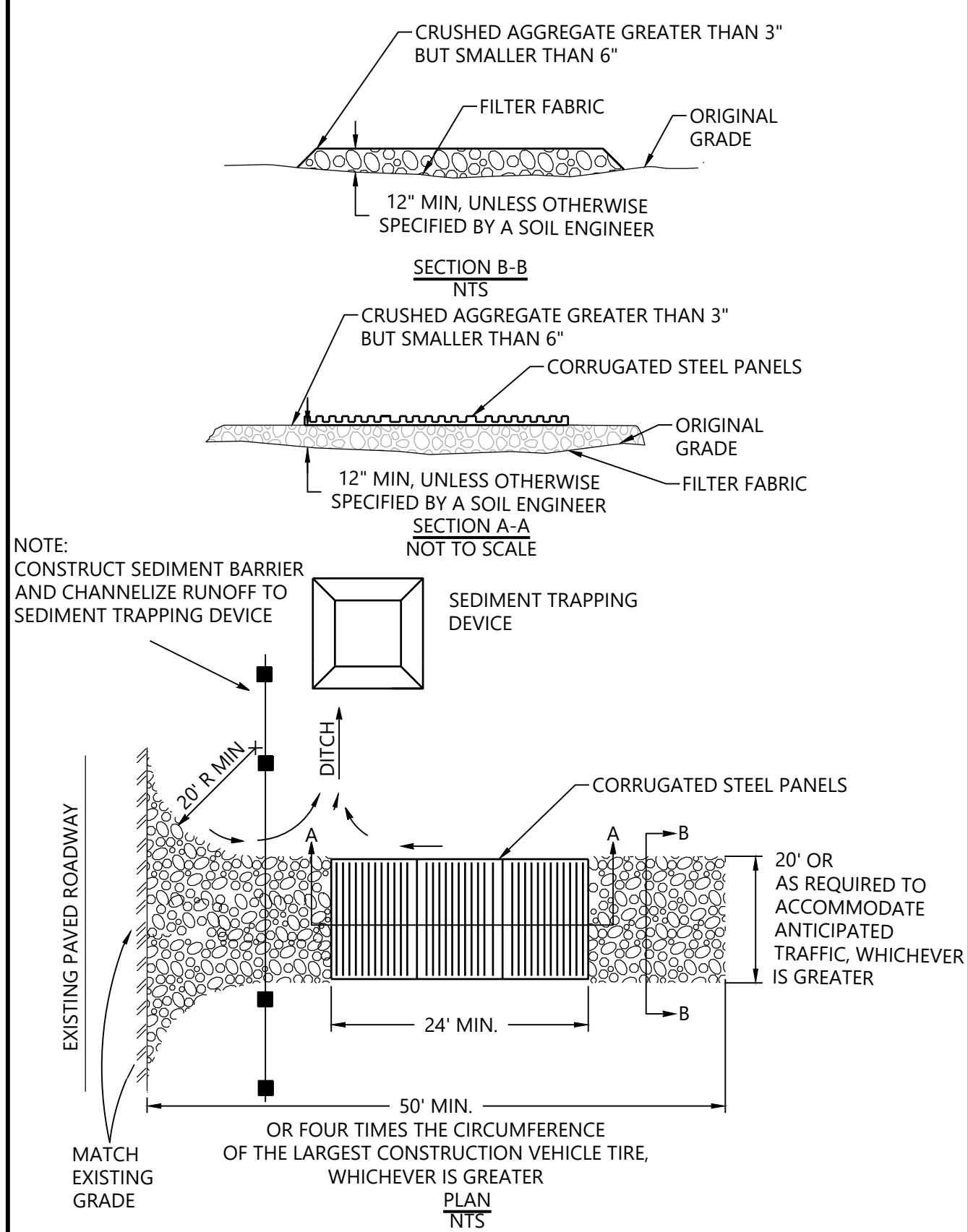
SITE ACCESS ROAD SECTION



SITE ACCESS ROAD SECTION

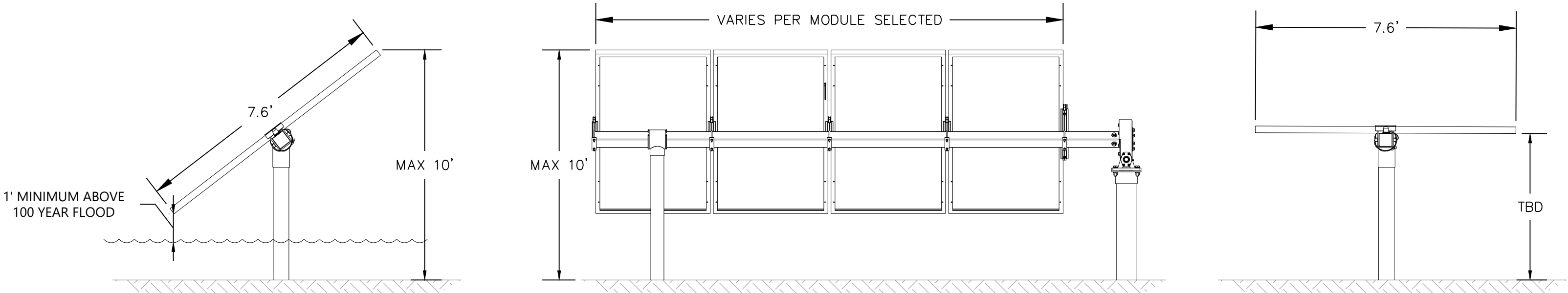
- NOTES:
1. REFER TO CONSTRUCTION SPECIFICATIONS, AGGREGATE REQUIREMENTS, AND TESTING REQUIREMENTS.
 2. STRUCTURAL SECTIONS SHOWN ARE THE MINIMUM THICKNESS DURING NORMAL FIELD CONDITIONS. THE SECTIONS MAY NEED TO BE INCREASED BASED ON ACTUAL FIELD CONDITIONS AT THE TIME OF CONSTRUCTION. CONDITIONS INCLUDE, BUT ARE NOT LIMITED TO, CONSTRUCTION DURING UNUSUALLY WET PERIODS, IN LOW/WET AREAS OR SOFT SOILS.
 3. AGGREGATE DEPTHS SPECIFIED ARE DEPTHS REMAINING AT THE END OF CONSTRUCTION.
 4. REFER TO PLANS FOR ADDITIONAL DIRECTION AND SECTION TRANSITIONS THROUGHOUT THE SITE.

Westwood STRUCTURAL CROSS SECTIONS SS-03



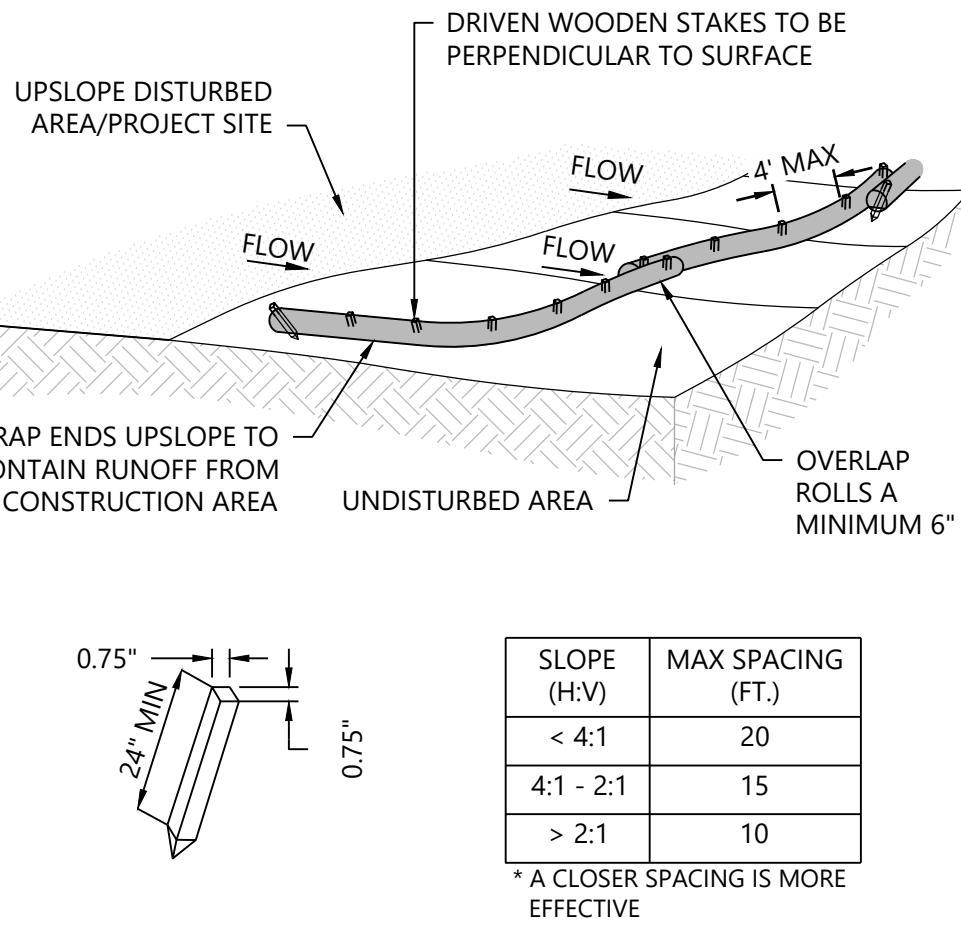
Westwood ROCK CONSTRUCTION ENTRANCE (NOT TO SCALE) LAST REVISED: 11/05/13 TC1

- NOTE:
1. DIMENSIONS MAY VARY BASED ON MODULE SELECTED.



Westwood TYPICAL TRACKER PANEL PROFILE VIEWS TRK02

- NOTES:
1. FIBER ROLLS SHALL BE INSTALLED PRIOR TO UPSLOPE DISTURBANCE ACTIVITIES COMMENCE.
 2. FIBER ROLLS SHALL BE PREFABRICATED AND MADE FROM WEED FREE RICE STRAW, FLAX, OR A SIMILAR AGRICULTURAL MATERIAL BOUND INTO A TIGHT TUBULAR ROLL BY NETTING. USE A 6" OR 12" DIA. ROLL.
 3. TRENCHES SHALL BE CREATED ALONG THE SLOPE OF THE PERIMETER. THE TRENCH DEPTH SHOULD BE 1/4 TO 1/3 OF THE THICKNESS OF THE ROLL, AND THE WIDTH SHOULD EQUAL THE ROLL DIAMETER, IN ORDER TO PROVIDE AREA TO BACKFILL THE TRENCH.
 4. STAKE FIBER ROLLS INTO THE TRENCH. DRIVE STAKES AT THE END OF EACH FIBER ROLL AND SPACED 4 FEET MAXIMUM ON CENTER. USE WOOD STAKES WITH NOMINAL CLASSIFICATION OF 0.75 IN BY 0.75 IN. AND A MINIMUM LENGTH OF 24 IN.
 5. ROLLS SHALL BE INSTALLED PERPENDICULAR TO WATER MOVEMENT, AND PARALLEL TO THE SLOPE CONTOUR.
 6. TURN THE ENDS OF THE FIBER ROLLS UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE ROLL. THE UPSLOPE POINT SHOULD BE A MINIMUM 6" HIGHER IN ELEVATION THAN THE LOW POINT.
 7. IF MORE THAN ONE FIBER ROLL IS PLACED IN A ROW, THE ROLLS SHOULD BE OVERLAPPED A MINIMUM OF 6 INCHES, NOT ABUTTED.
 8. FIBER ROLLS ENCASED WITH PLASTIC NETTING ARE USED FOR A TEMPORARY APPLICATION ONLY AND SHOULD BE REMOVED FOLLOWING STABILIZATION. FIBER ROLLS USED IN A PERMANENT APPLICATION SHALL BE ENCASED WITH A BIODEGRADABLE MATERIAL AND MAY BE LEFT IN.
 9. TEMPORARY INSTALLATIONS SHOULD ONLY BE REMOVED WHEN UP GRADIENT AREAS ARE STABILIZED PER GENERAL PERMIT REQUIREMENTS, AND/OR POLLUTANT SOURCES NO LONGER PRESENT A HAZARD. BUT, THEY SHOULD ALSO BE REMOVED BEFORE VEGETATION BECOMES TOO MATURE SO THAT THE REMOVAL PROCESS DOES NOT DISTURB MORE SOIL AND VEGETATION THAN IS NECESSARY.
 10. FIBER ROLLS MUST BE INSPECTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS FOR THE ASSOCIATED PROJECT TYPE AND RISK LEVEL. IT IS RECOMMENDED THAT AT A MINIMUM, THE BMPs BE INSPECTED WEEKLY, PRIOR TO FORECASTED RAIN EVENTS, DAILY DURING EXTENDED RAIN EVENTS, AND AFTER THE CONCLUSION OF RAIN EVENTS.
 11. REPAIR OR REPLACE SPLIT, TORN, UNRAVELING, OR SLUMPING FIBER ROLLS.
 12. SEDIMENT THAT ACCUMULATES UPSLOPE OF THE BMP SHOULD BE PERIODICALLY REMOVED IN ORDER TO MAINTAIN BMP EFFECTIVENESS. SEDIMENT SHOULD BE REMOVED WHEN SEDIMENT ACCUMULATION REACHES ONE-THIRD THE DESIGNATED SEDIMENT STORAGE DEPTH.
 13. RILLS OR GULLIES MAY BEGIN TO FORM FOLLOWING MAJOR STORM EVENTS WHERE RUNOFF HAS OVERTOPPED THE FIBER ROLLS. THESE RILLS OR GULLIES SHOULD BE PROMPTLY REPAIRED.



SLOPE (H:V)	MAX SPACING (FT.)
< 4:1	20
4:1 - 2:1	15
> 2:1	10

* A CLOSER SPACING IS MORE EFFECTIVE

Westwood FIBER ROLLS FOR PERIMETER CONTROL OF CONSTRUCTION AREA LIMIT SW-13

PREPARED FOR:

IP PERKINS, LLC,
IP PERKINS BAAH, LLC
AND AFFILIATES

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A	01/30/2024	CEC Permit Plans		

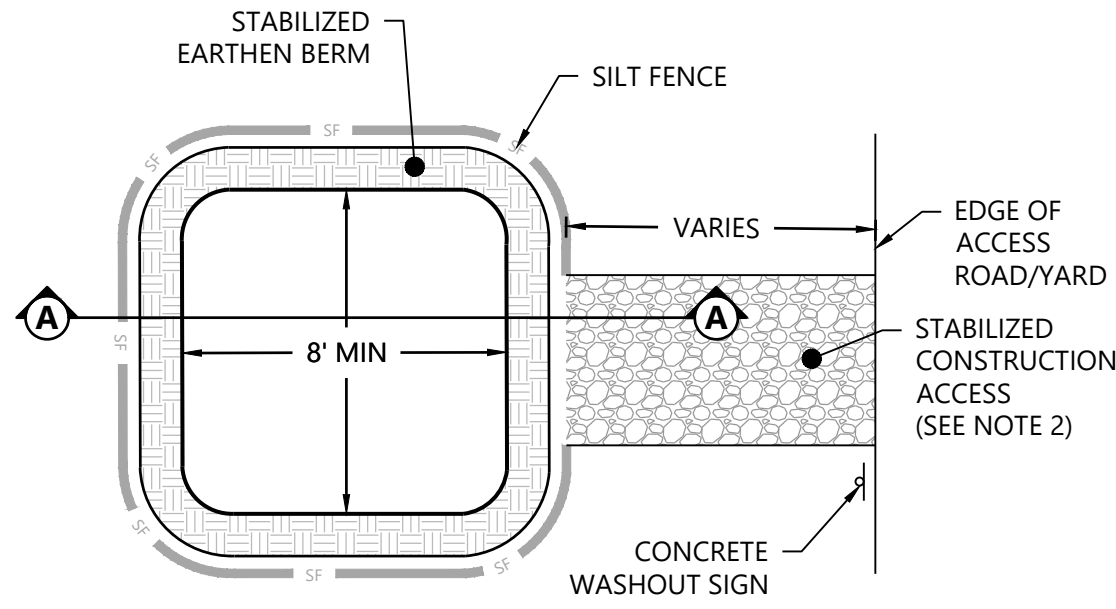
IP Perkins
Imperial County, CA

Construction Details

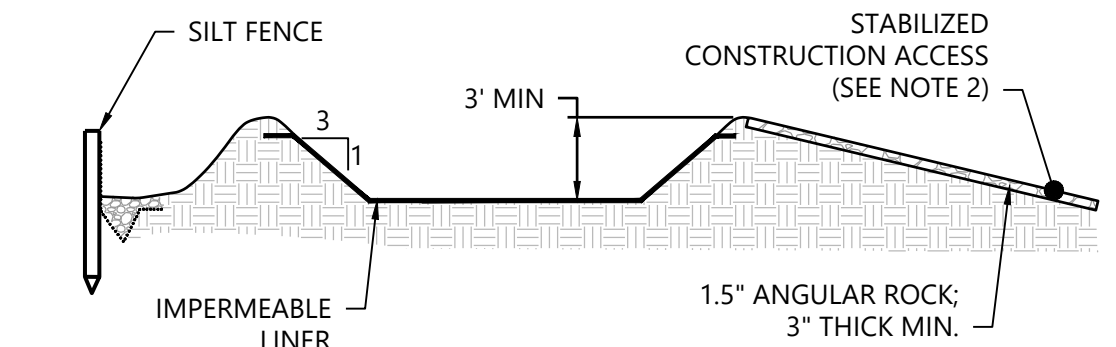
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DATE: 01/30/2024

SHEET: C.401 A



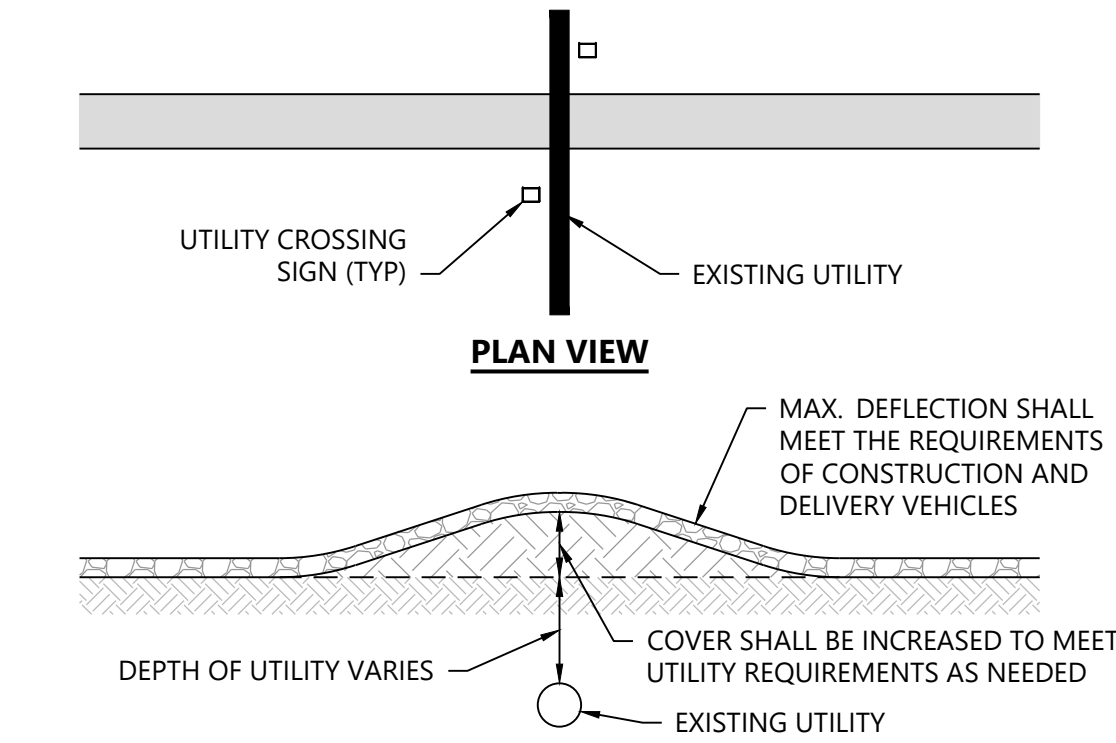
PLAN VIEW



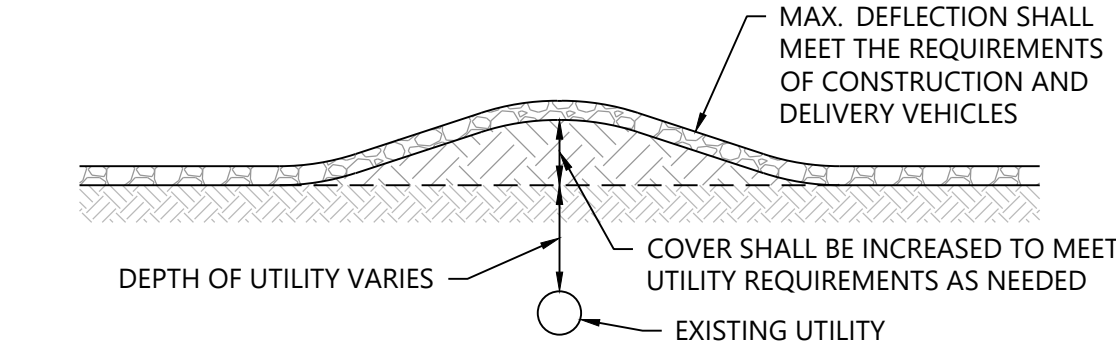
SECTION A-A

- NOTES:
- CONCRETE WASHOUT AREAS SHALL BE LINED WITH A 10 MIL PLASTIC IMPERMEABLE LINER TO PREVENT CONCRETE WASHOUT WATER FROM INFILTRATING/CONTACTING WITH SOIL.
 - PROVIDE STABILIZED CONSTRUCTION ACCESS IF SEDIMENT TRACKING CONTROLS ARE NECESSARY.
 - ALTERNATE WASHOUT SYSTEMS MAY BE USED IF APPROVED.
 - REFER TO PROJECT NPDES PERMIT FOR ADDITIONAL CONSTRUCTION, MAINTENANCE, AND REMOVAL REQUIREMENTS

Westwood	CONCRETE WASHOUT AREA	SW-60
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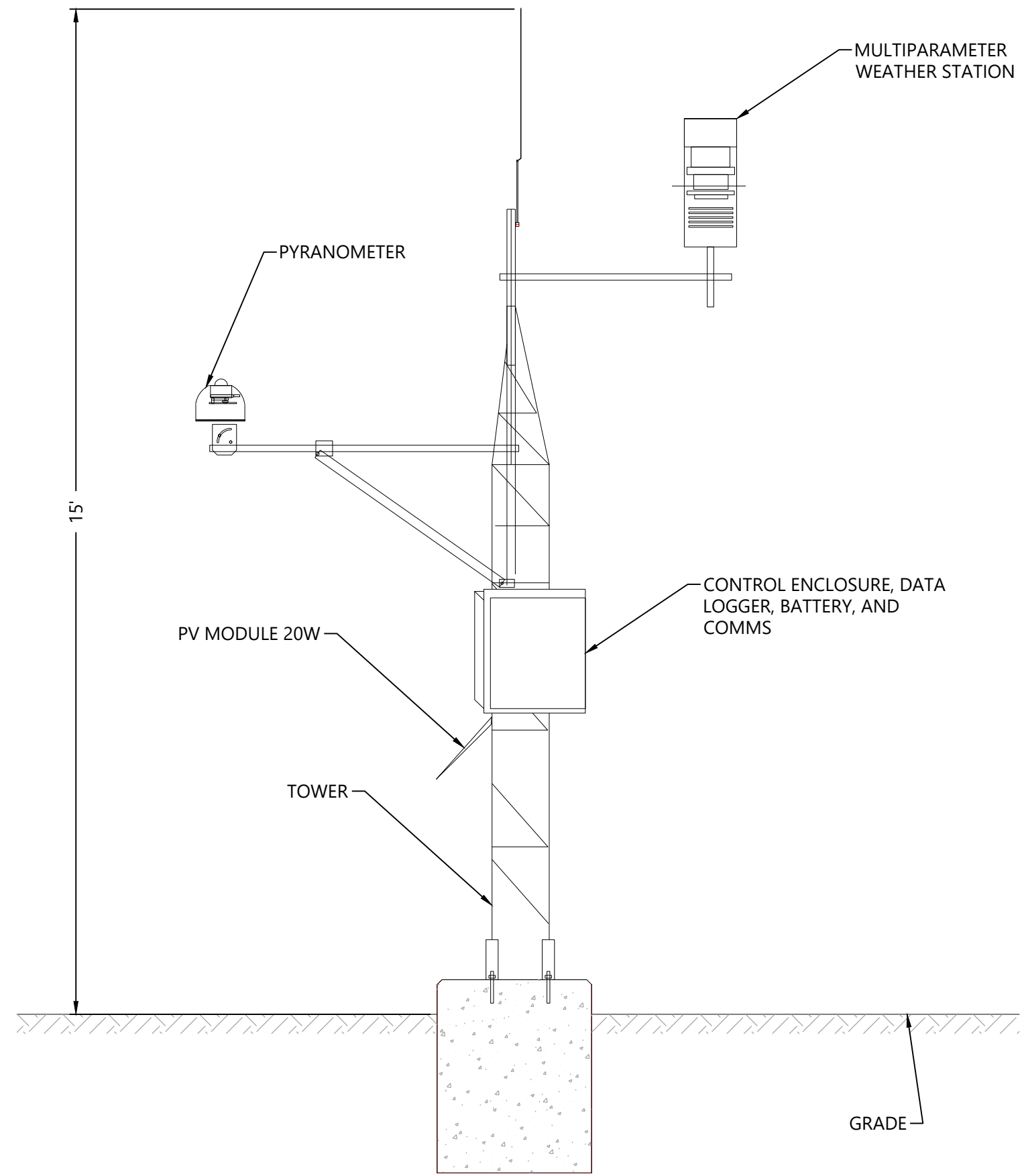
PLAN VIEW



PROFILE VIEW

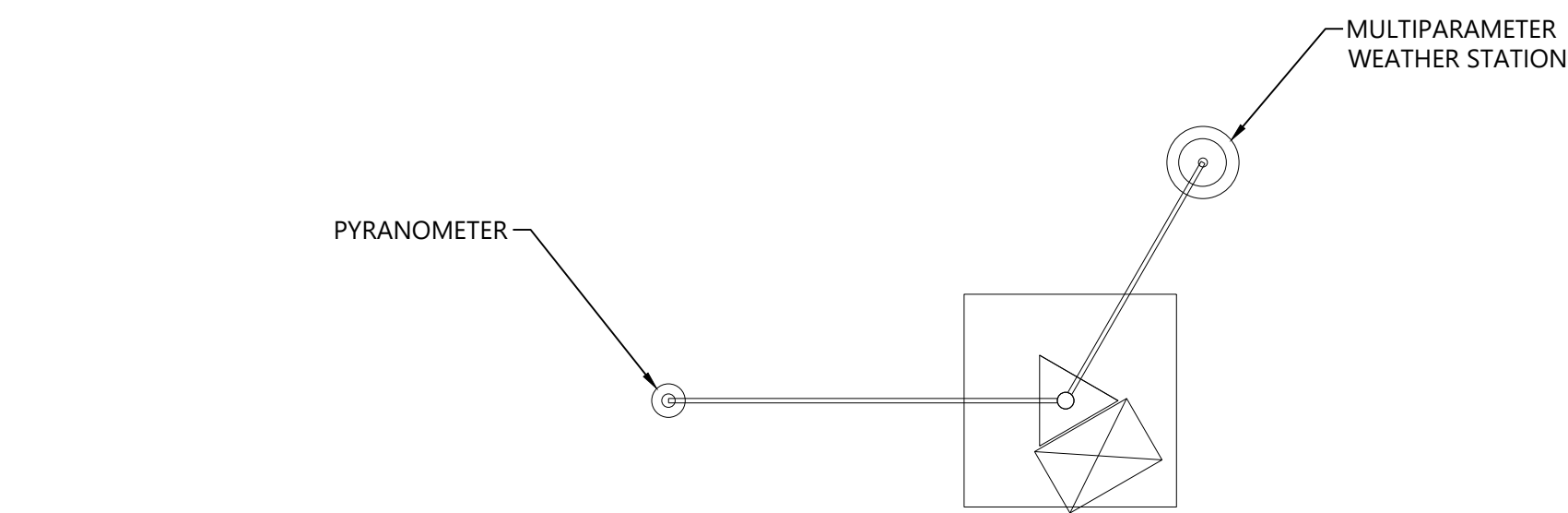
- NOTES:
- EACH CROSSING MUST BE APPROVED BY THE UTILITY OWNER PRIOR TO CROSSING ON A CASE-BY-CASE BASIS. REFER TO THE UTILITY CROSSING AGREEMENT.
 - CONTRACTOR SHALL NOTIFY UTILITY OWNER PRIOR TO CONSTRUCTION ACTIVITIES.
 - CROSSINGS SHOULD BE AT OR AS NEAR TO RIGHT ANGLES AS PRACTICAL.
 - EARTH COVER PROTECTION FOR EXISTING UTILITIES SHALL BE USED WHERE THE COVER OVER THE EXISTING UTILITY IS LESS THAN REQUIRED IN THE UTILITY CROSSING AGREEMENT.

Westwood	EARTHEN PROTECTION OVER UTILITY CROSSING - ROAD	UT-01
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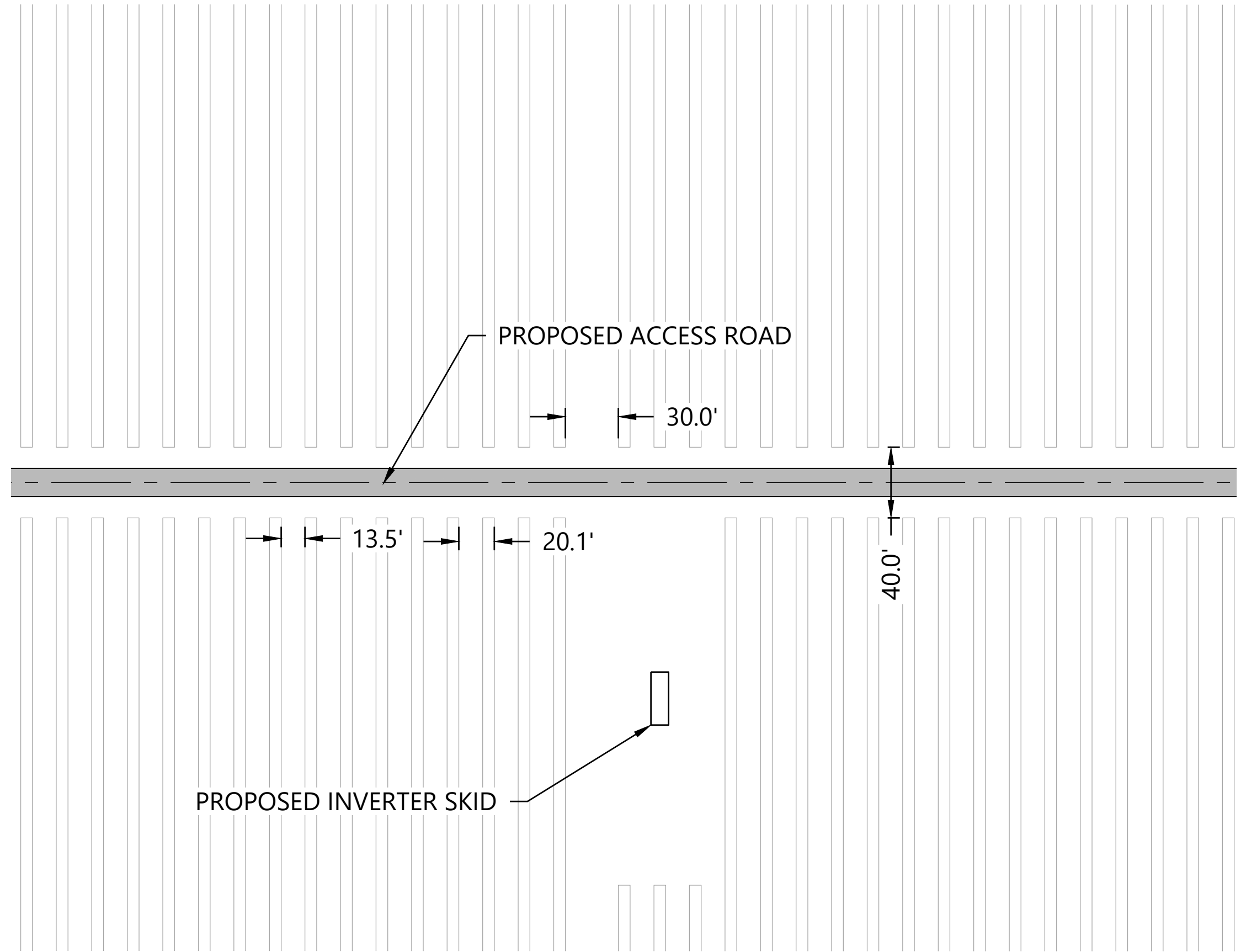
NOTE:
1. NOT TO SCALE

Westwood	TYPICAL WEATHER STATION ELEVATION	MET02
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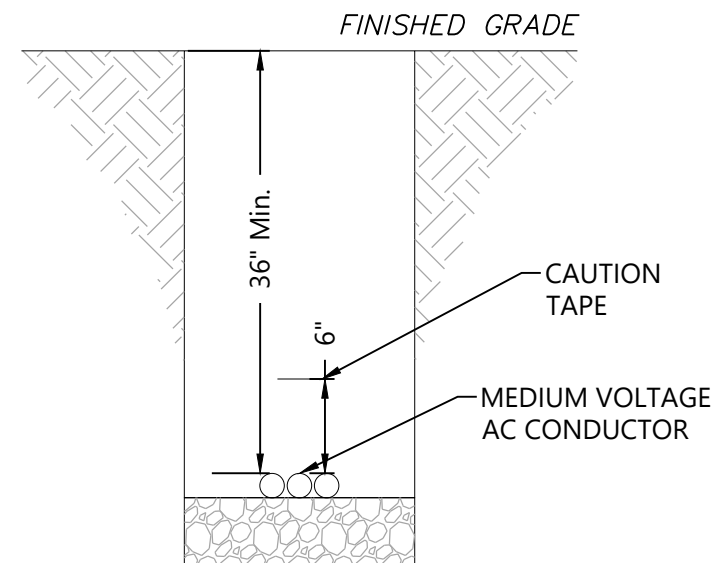


NOTE:
1. NOT TO SCALE

Westwood	TYPICAL WEATHER STATION ELEVATION	MET01
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Westwood	TYPICAL PV ARRAY BLOCK	MET03
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NOTE:
1. NOT TO SCALE

Westwood	TYPICAL AC TRENCH ELEVATION	TCH01
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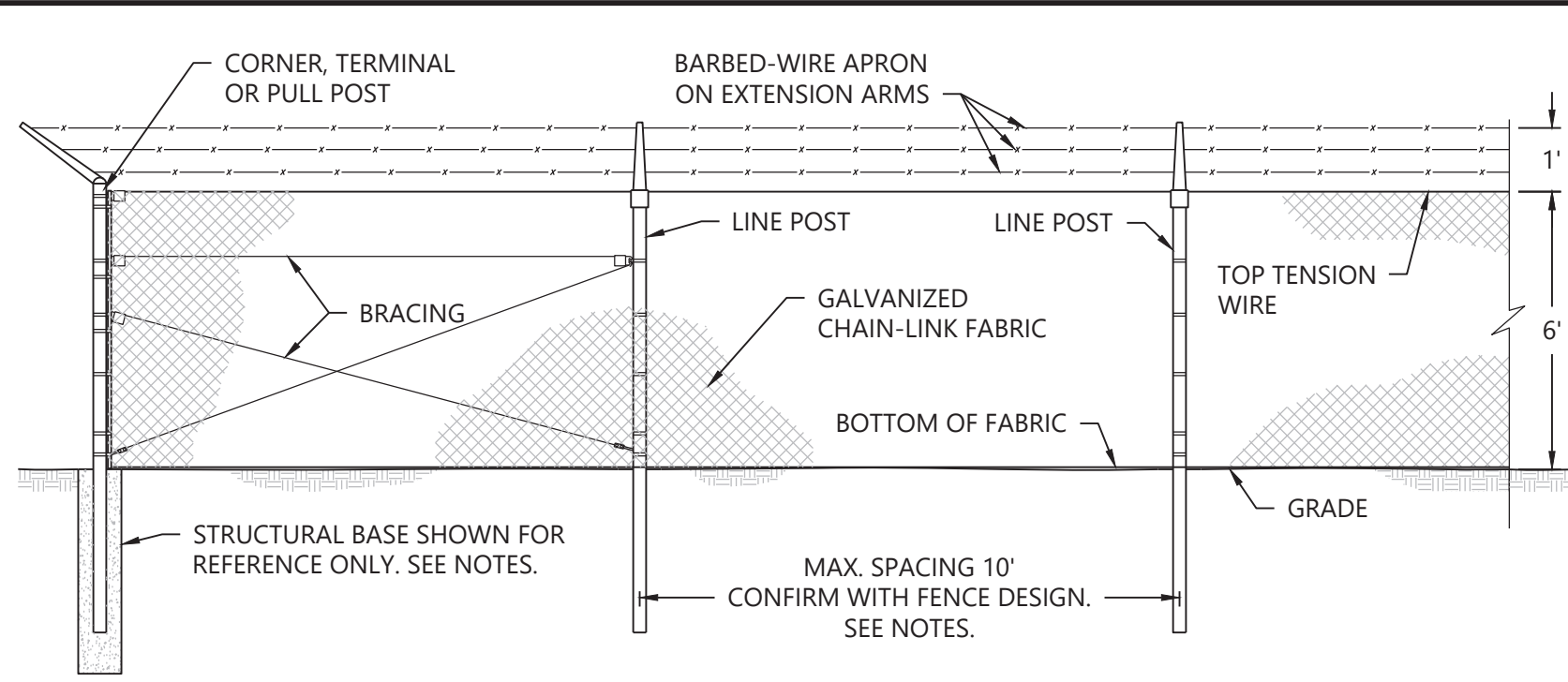
IP Perkins
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Construction Details

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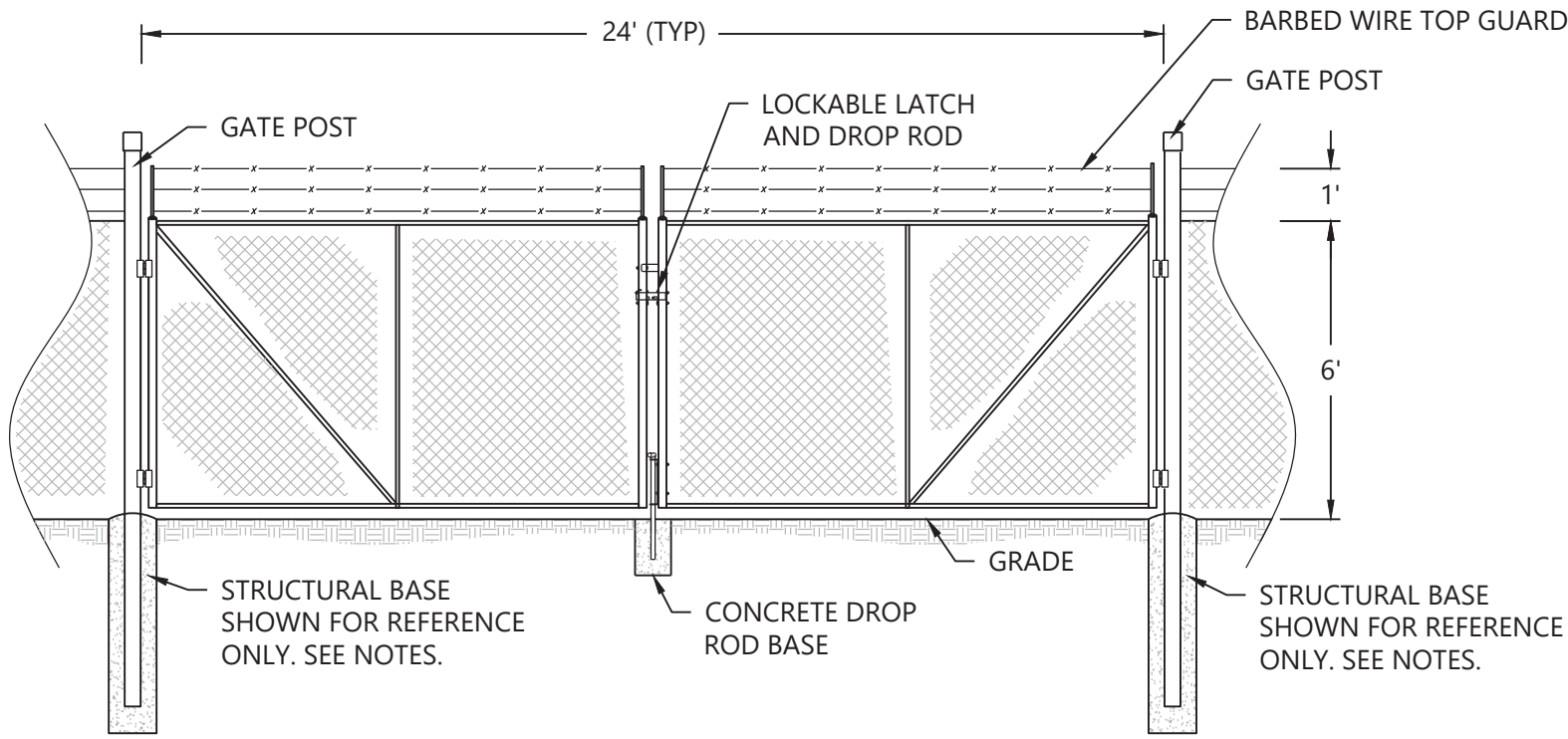
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SHEET: C.402 A



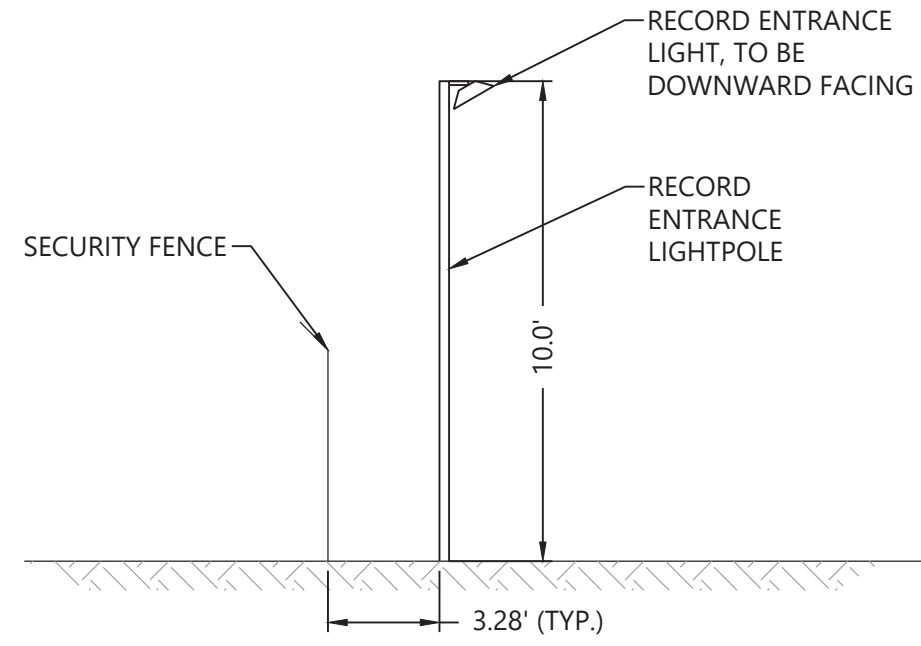
- NOTES:
1. TYPICAL FENCE AND GATE INFORMATION SHOWN IS INTENDED FOR PLANNING PURPOSES. ACTUAL DIMENSIONS AND INFORMATION TO BE PROVIDED BY FENCE SUPPLIER.
 2. REFER TO FENCE SUPPLIER SPECIFICATIONS AND DETAILS.
 3. STRUCTURAL DESIGN OF FENCE POSTS AND FOUNDATIONS TO BE PROVIDED BY FENCE SUPPLIER. STRUCTURAL PLANS AND FENCE SUPPLIER DRAWINGS SHALL SUPERSEDE THIS DETAIL IF CONFLICTS ARE PRESENT.
 4. FENCE AND GATE TYPE TO BE APPROVED BY OWNER PRIOR TO CONSTRUCTION.

Westwood CHAIN-LINK SECURITY FENCE NOT TO SCALE FN-01



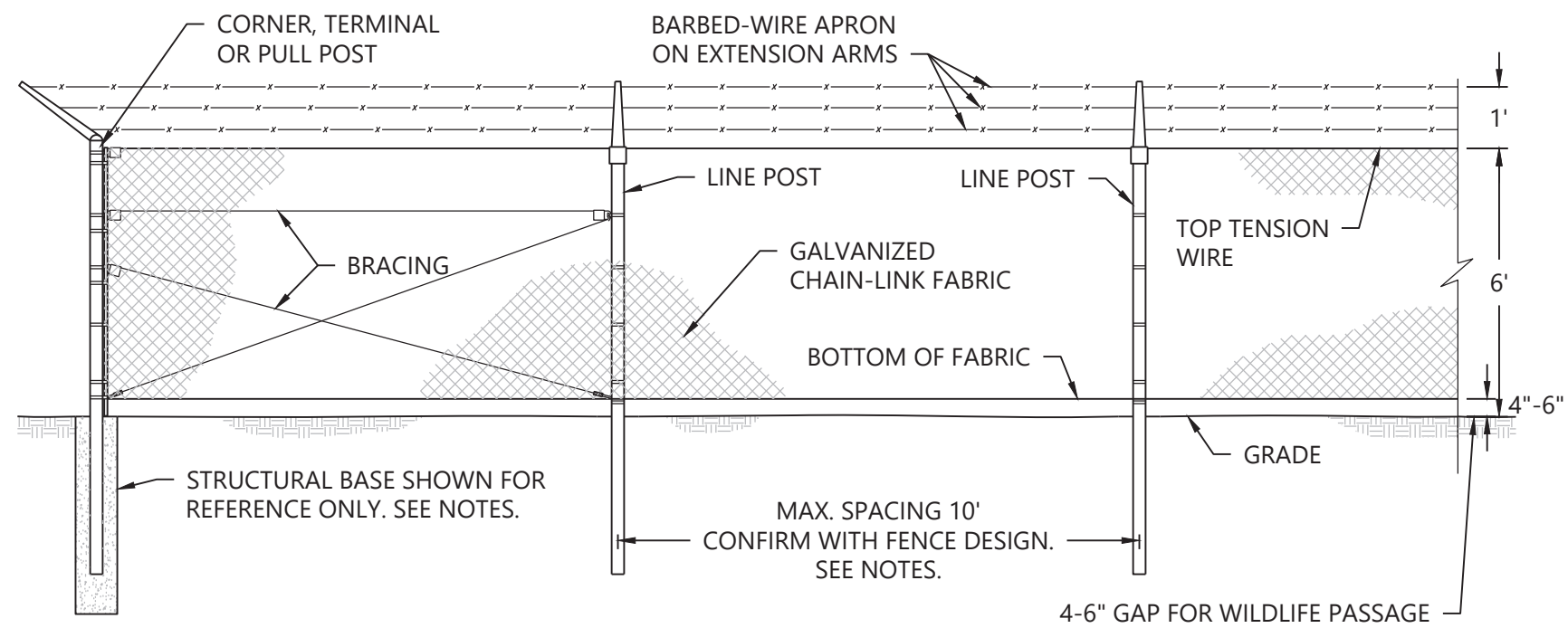
- NOTES:
1. SEE NOTES ON DETAIL FN-01.

Westwood CHAIN-LINK SECURITY VEHICLE GATE NOT TO SCALE FN-02



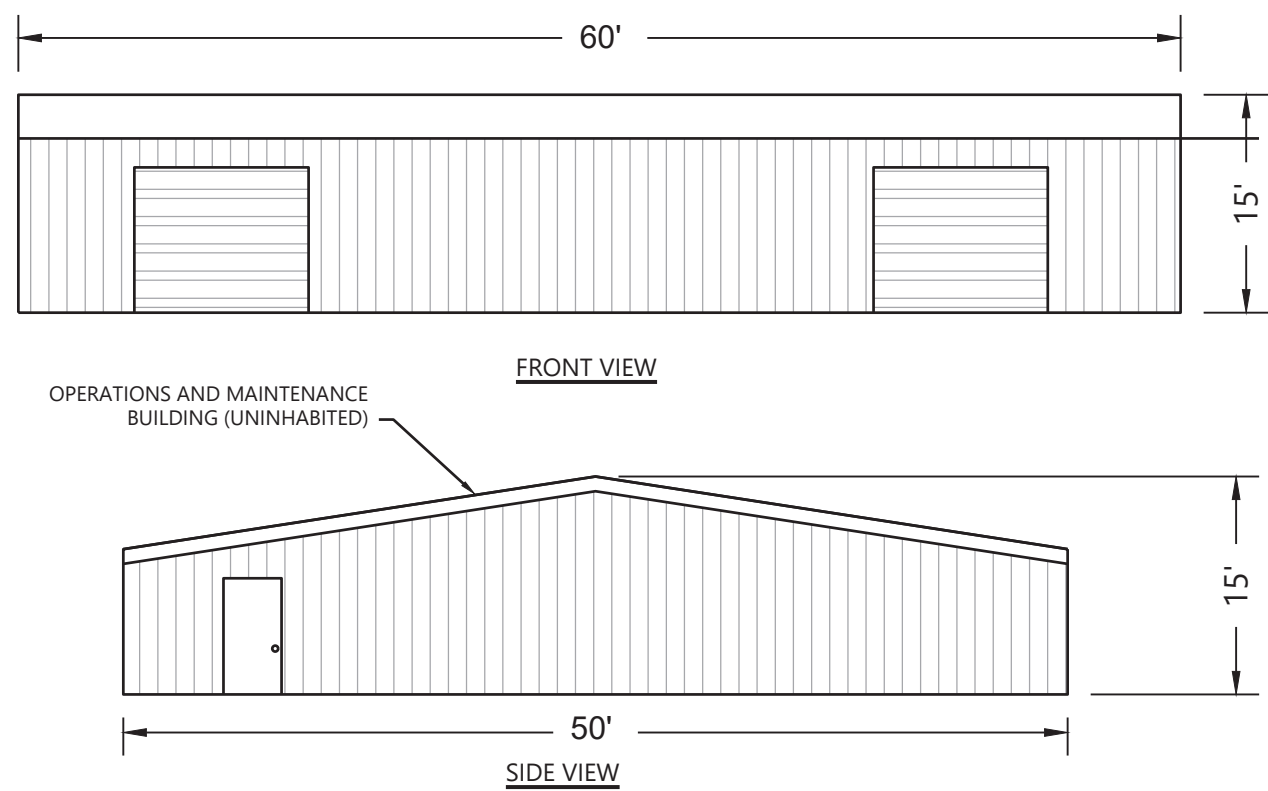
- NOTES:
1. TYPICAL HEIGHT OF POLE WILL BE 10.0'
 2. BRIGHTNESS OF LIGHT SHALL PROVIDE 2.0 FOOT CANDLES
 3. LIGHT ACTIVATION SHALL BE MANUAL AND AUTOMATIC BY THE SECURITY SYSTEM IN CASE OF AN INTRUSION (NON-MOTION ACTIVATED)
 4. LIGHT POLE SHALL BE PLACE APPROXIMATELY 3.28' INSIDE OF FENCE
 5. LIGHTING SHALL BE DIRECTED DOWNWARD AND INWARD AWAY FROM PROPERTY LINE

Westwood TYPICAL ENTRANCE LIGHTING LAST REVISED: 10/22/15 LP01



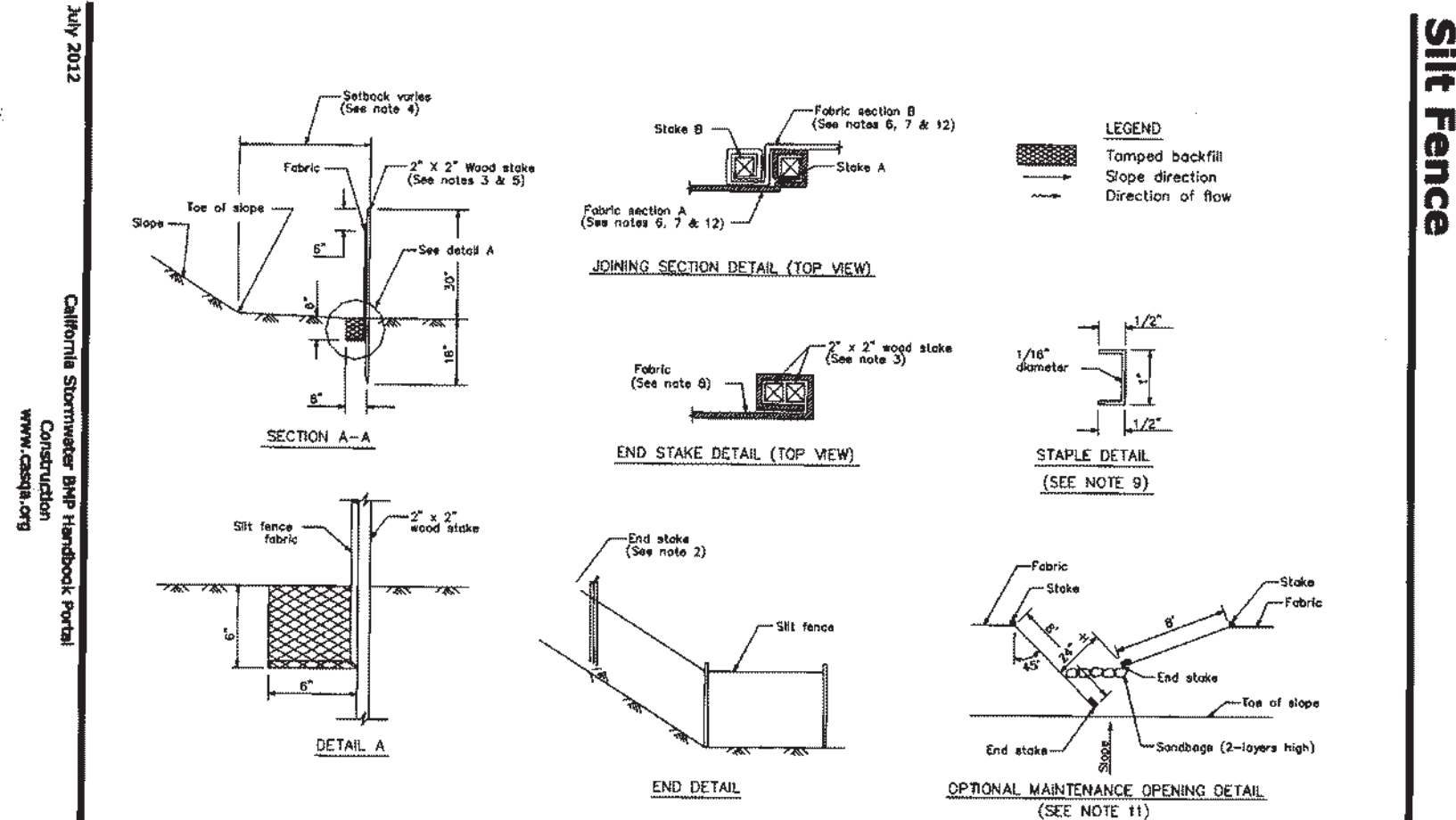
- NOTES:
1. TYPICAL FENCE AND GATE INFORMATION SHOWN IS INTENDED FOR PLANNING PURPOSES. ACTUAL DIMENSIONS AND INFORMATION TO BE PROVIDED BY FENCE SUPPLIER.
 2. REFER TO FENCE SUPPLIER SPECIFICATIONS AND DETAILS.
 3. STRUCTURAL DESIGN OF FENCE POSTS AND FOUNDATIONS TO BE PROVIDED BY FENCE SUPPLIER. STRUCTURAL PLANS AND FENCE SUPPLIER DRAWINGS SHALL SUPERSEDE THIS DETAIL IF CONFLICTS ARE PRESENT.
 4. FENCE AND GATE TYPE TO BE APPROVED BY OWNER PRIOR TO CONSTRUCTION.

Westwood CHAIN-LINK SECURITY FENCE (WILDLIFE FRIENDLY OPTION) NOT TO SCALE FN-10



NOTE: UP TO TWO (2) OF THESE BUILDINGS, OR THE EQUIVALENT SQUARE FOOTAGE, MAY BE REQUIRED FOR THE PROJECT.

Westwood TYPICAL O&M BUILDING NTS BD01



- NOTE:
1. CONSTRUCT THE LENGTH OF EACH REACH SO THAT THE CHANGE IN BASE ELEVATION ALONG THE REACH DOES NOT EXCEED 1/3 THE HEIGHT OF THE LINEAR BARRIER. IN NO CASE SHALL THE REACH LENGTH EXCEED 500'.
 2. THE LAST 8'-0" OF FENCE SHALL BE TURNED UP SLOPE.
 3. STAKE DIMENSIONS ARE NOMINAL.
 4. DIMENSION MAY VARY TO FIT FIELD CONDITION.
 5. STAKES SHALL BE SPACED AT 8'-0" MAXIMUM AND SHALL BE POSITIONED ON DOWNSTREAM SIDE OF FENCE.
 6. STAKES TO OVERLAP AND FENCE FABRIC TO FOLD AROUND THE TWO STAKES ONE FULL TURN AND SECURED WITH 4 STAPLES.
 7. STAKES SHALL BE DRIVEN TIGHTLY TOGETHER TO PREVENT POTENTIAL FLOW-THROUGH OF SEDIMENT AT JOINT. THE TOPS OF THE STAKES SHALL BE SECURED WITH WIRE.
 8. FOR END STAKE, FENCE FABRIC SHALL BE FOLDED AROUND TWO STAKES ONE FULL TURN AND SECURED WITH 4 STAPLES.
 9. MINIMUM 4 STAPLES PER STAKE. DIMENSIONS SHOWN ARE TYPICAL.
 10. CROSS BARRIERS SHALL BE A MINIMUM OF 1/3 AND A MAXIMUM 1/2 THE HEIGHT OF THE LINEAR BARRIER.
 11. MAINTENANCE OPENINGS SHALL BE CONSTRUCTED IN A MANNER TO ENSURE SEDIMENT REMAINS BEHIND SILT FENCE.
 12. JOINING SECTIONS SHALL NOT BE PLACED AT SUMP LOCATIONS.

Westwood SILT FENCE SE-1

PREPARED FOR:

IP PERKINS, LLC,
IP PERKINS BAAH, LLC
AND AFFILIATES

REVISIONS:

#	DATE	COMMENT	BY	CHK	APR
A	01/30/2024	CEC Permit Plans	IA	SB	CN



IP Perkins

Imperial County, CA

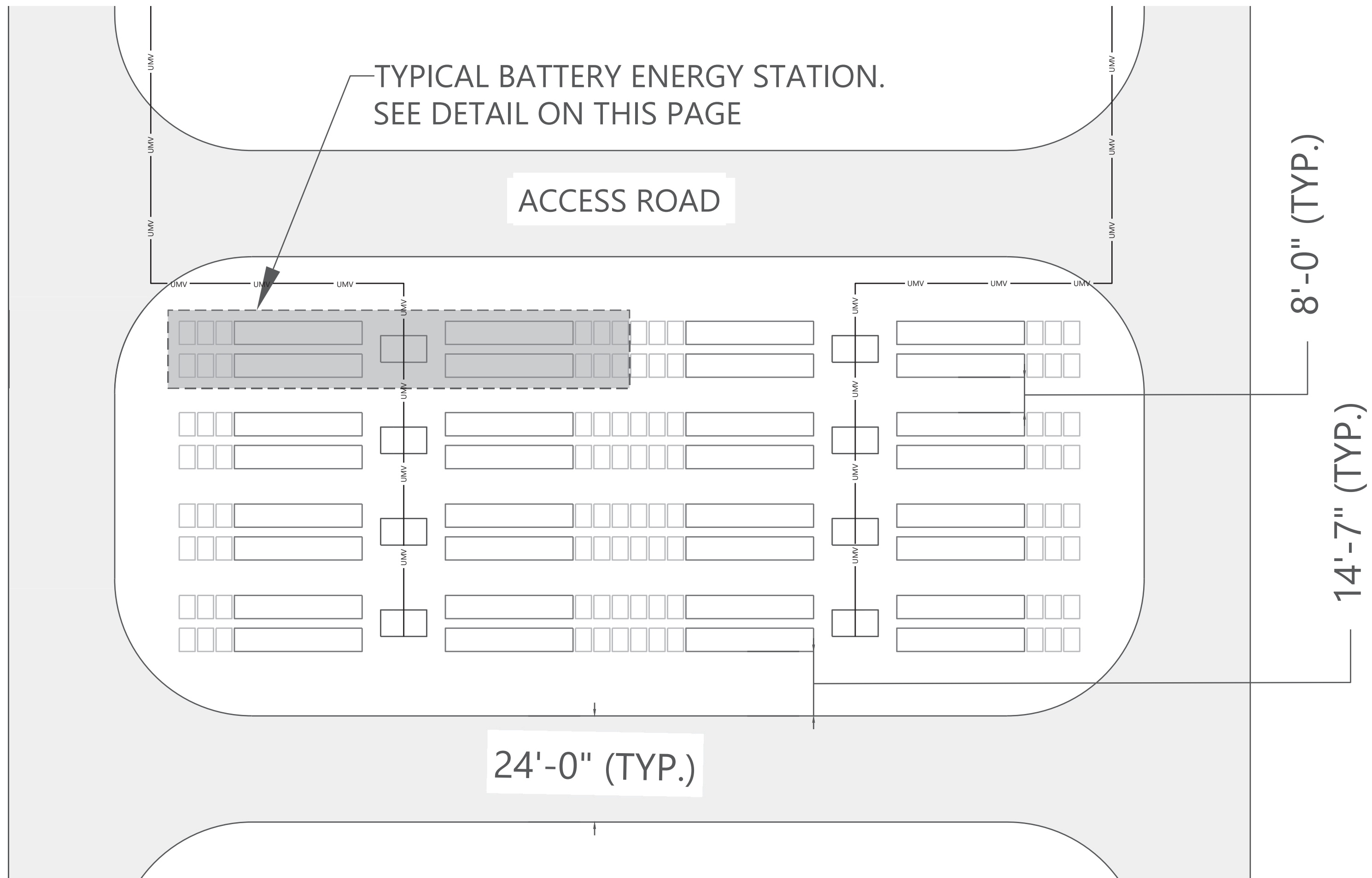
Typical BESS Detail

NOT FOR CONSTRUCTION

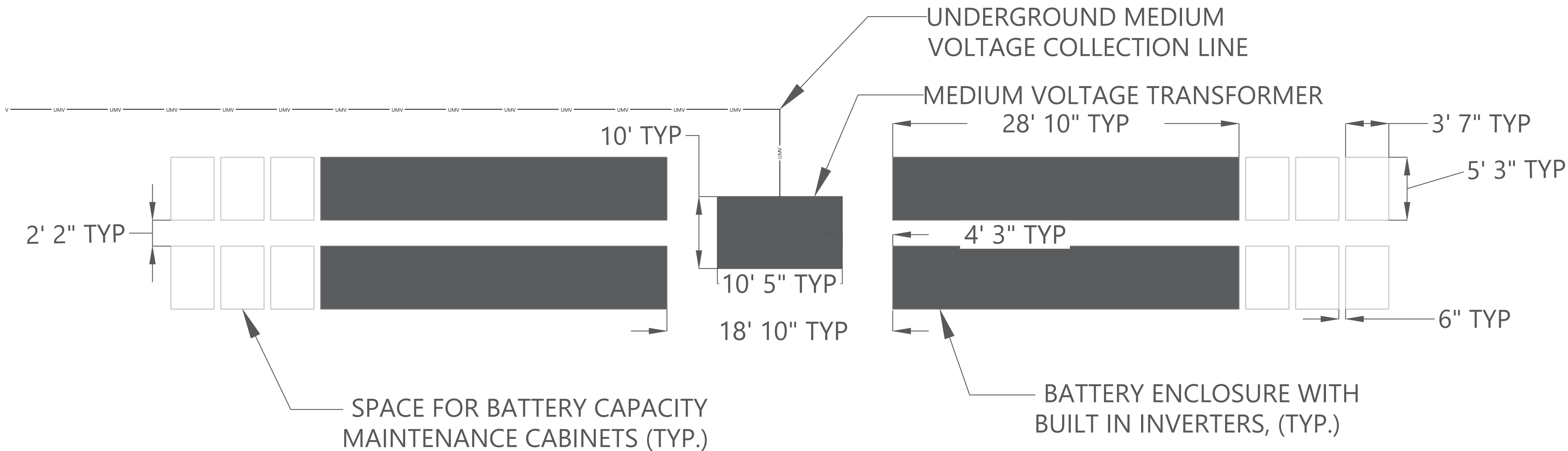
DATE: 01/30/2024

SHEET: C.403

REV: A



TYPICAL BATTERY ENERGY LAYOUT



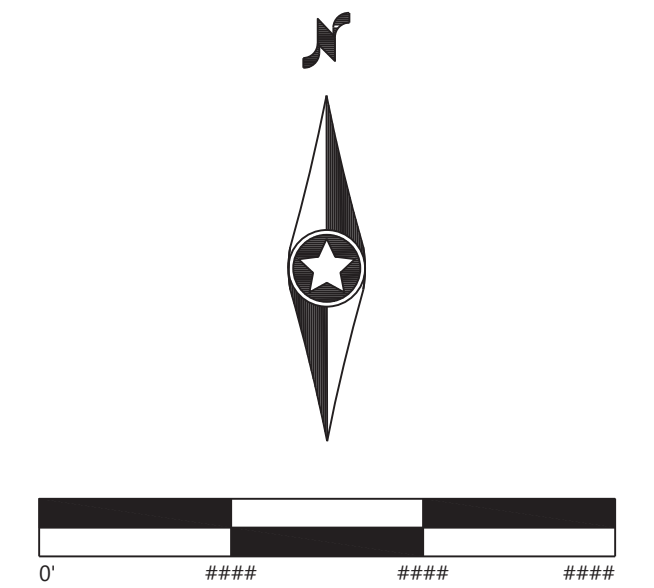
TYPICAL BATTERY ENERGY STATION (APPROX. 4MWac)

PREPARED FOR:

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IP PERKINS BAAH, LLC
AND AFFILIATES

REVISIONS:

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A	01/30/2024	CEC Permit Plans	IA	SB	CN



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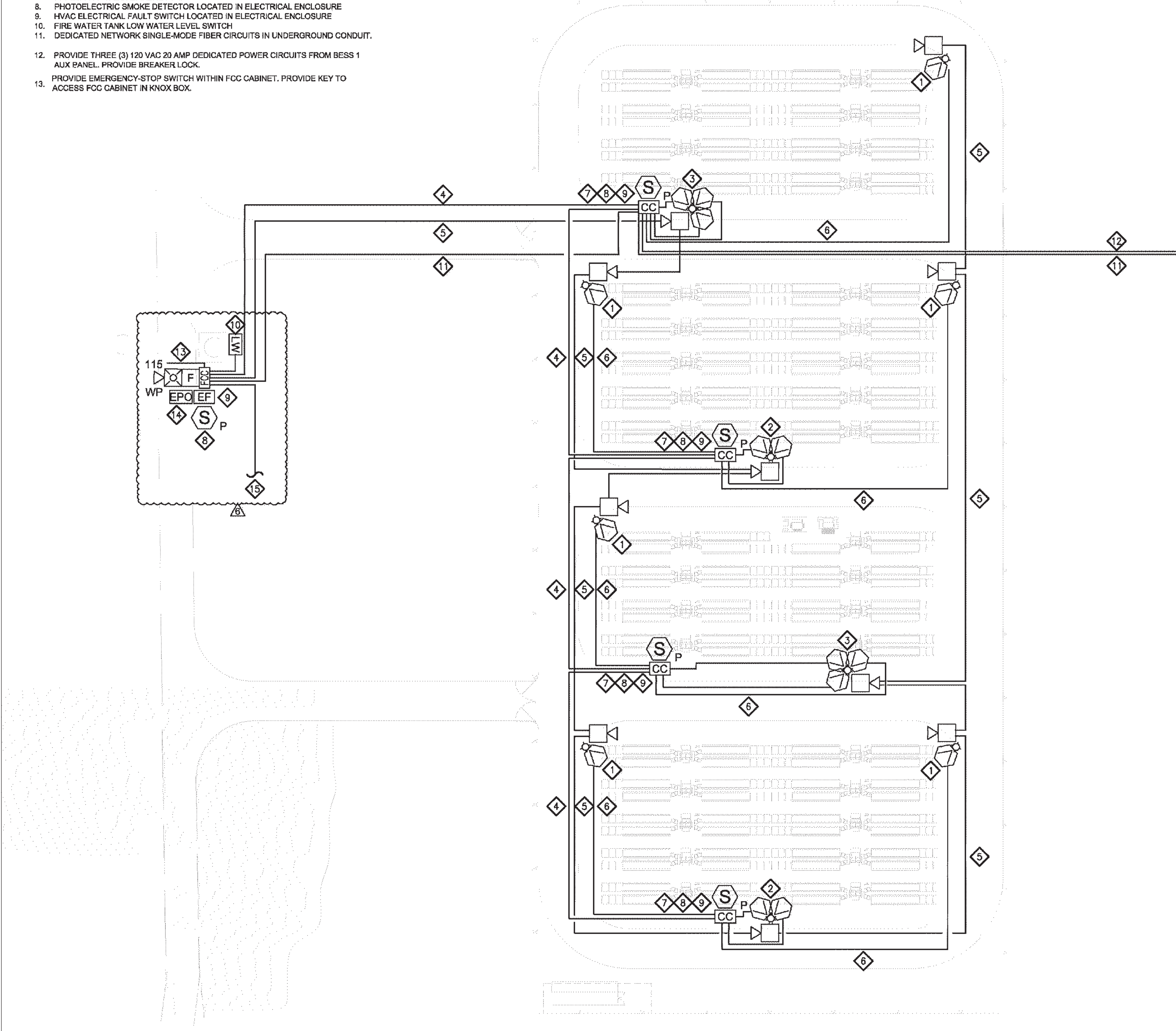
Sample BESS Fire
Protection Plan

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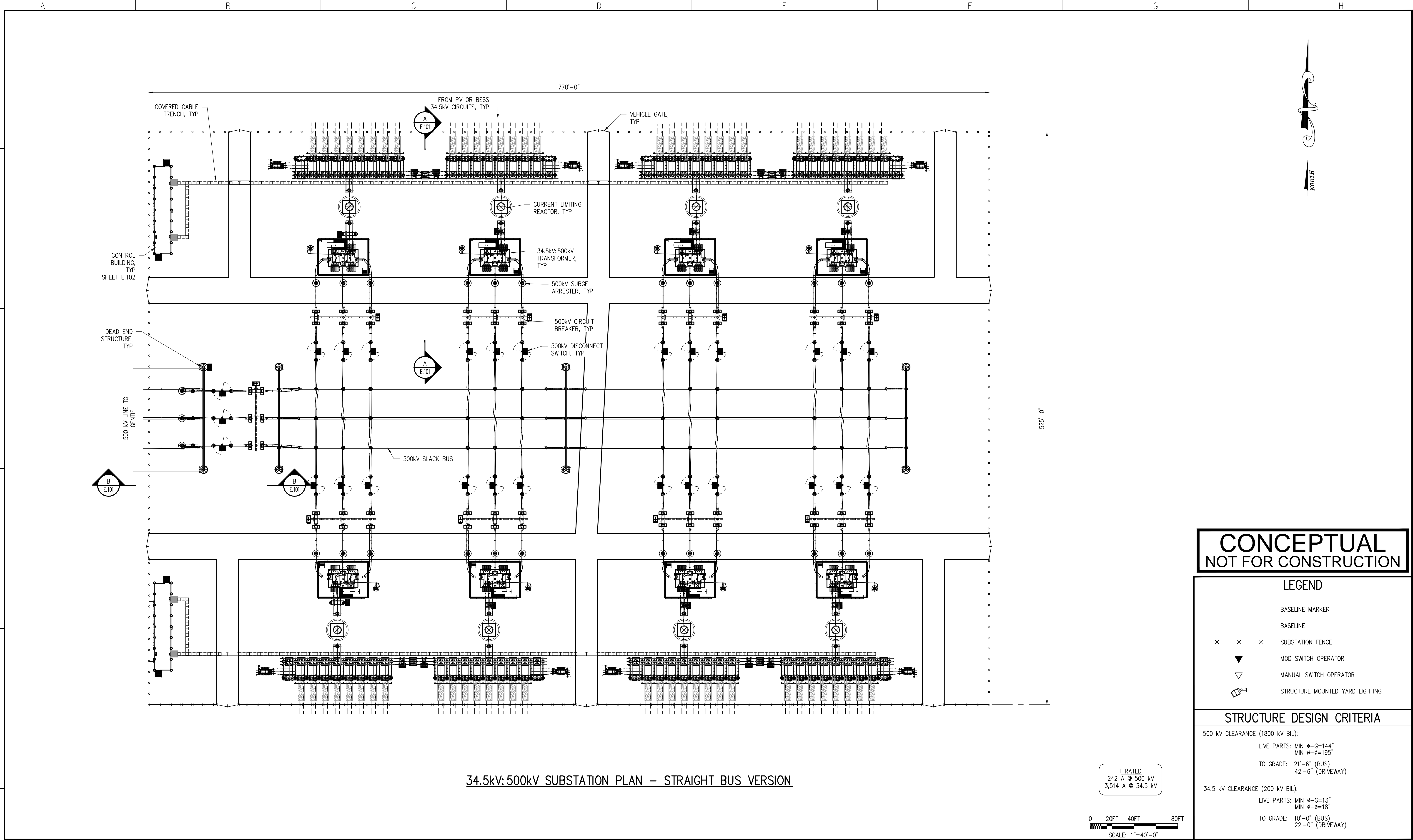
DATE: 01/30/2024
SHEET: C.404
REV: A

KEYNOTES:

- (1) POLE-MOUNTED THERMAL CAMERA AND (1) HORN (TYPICAL).
- (2) POLE-MOUNTED THERMAL CAMERA AND (1) HORN (TYPICAL).
- (3) POLE-MOUNTED THERMAL CAMERA AND (1) HORN (TYPICAL).
- SIGNALING LINE CIRCUITS AND ETHERNET CIRCUITS IN UNDERGROUND CONDUIT. ROUTING IS CONCEPTUAL.
- NAC CIRCUITS IN UNDERGROUND CONDUIT. ROUTING IS CONCEPTUAL.
- INDICATING DEVICE AND POWER CIRCUITS IN UNDERGROUND CONDUIT. ROUTING IS CONCEPTUAL.
- PROVIDE TWO (2) 120 VAC 20 AMP DEDICATED POWER CIRCUITS FROM BESS 1 AUX PANEL. PROVIDE BREAKER LOCK.
- PHOTOELECTRIC SMOKE DETECTOR LOCATED IN ELECTRICAL ENCLOSURE
- HVAC ELECTRICAL FAULT SWITCH LOCATED IN ELECTRICAL ENCLOSURE
- FIRE WATER TANK LOW WATER LEVEL SWITCH
- DEDICATED NETWORK SINGLE-MODE FIBER CIRCUITS IN UNDERGROUND CONDUIT.
- PROVIDE THREE (3) 120 VAC 20 AMP DEDICATED POWER CIRCUITS FROM BESS 1 AUX PANEL. PROVIDE BREAKER LOCK.
- PROVIDE EMERGENCY-STOP SWITCH WITHIN FCC CABINET. PROVIDE KEY TO ACCESS FCC CABINET IN KNOX BOX.



SAMPLE BESS FIRE PROTECTION PLAN



FILE LOCATION: N:\SHARED\01 ECI\INTERSECT POWER\02 PROJECTS\IP-00X DARDEN 500KV\100 CADD\110 WORKING\111 PHYSICAL\CEC DRAWINGS\E.100.1 & 2.DWG LAST SAVED BY: JCVanek 10/11/2023 2:22 PM PLOTTED BY: John C. Vanek 10/11/2023 3:04 PM Tab:E.100.1



**ELECTRICAL
CONSULTANTS, INC.**
BILLINGS, MONTANA

0	ISSUED FOR CEC SUBMITTAL	10/16/23	JCV	MAG
A	PRELIMINARY	09/29/23	JCV	MAG
NO	REVISION	DATE	BY	APR

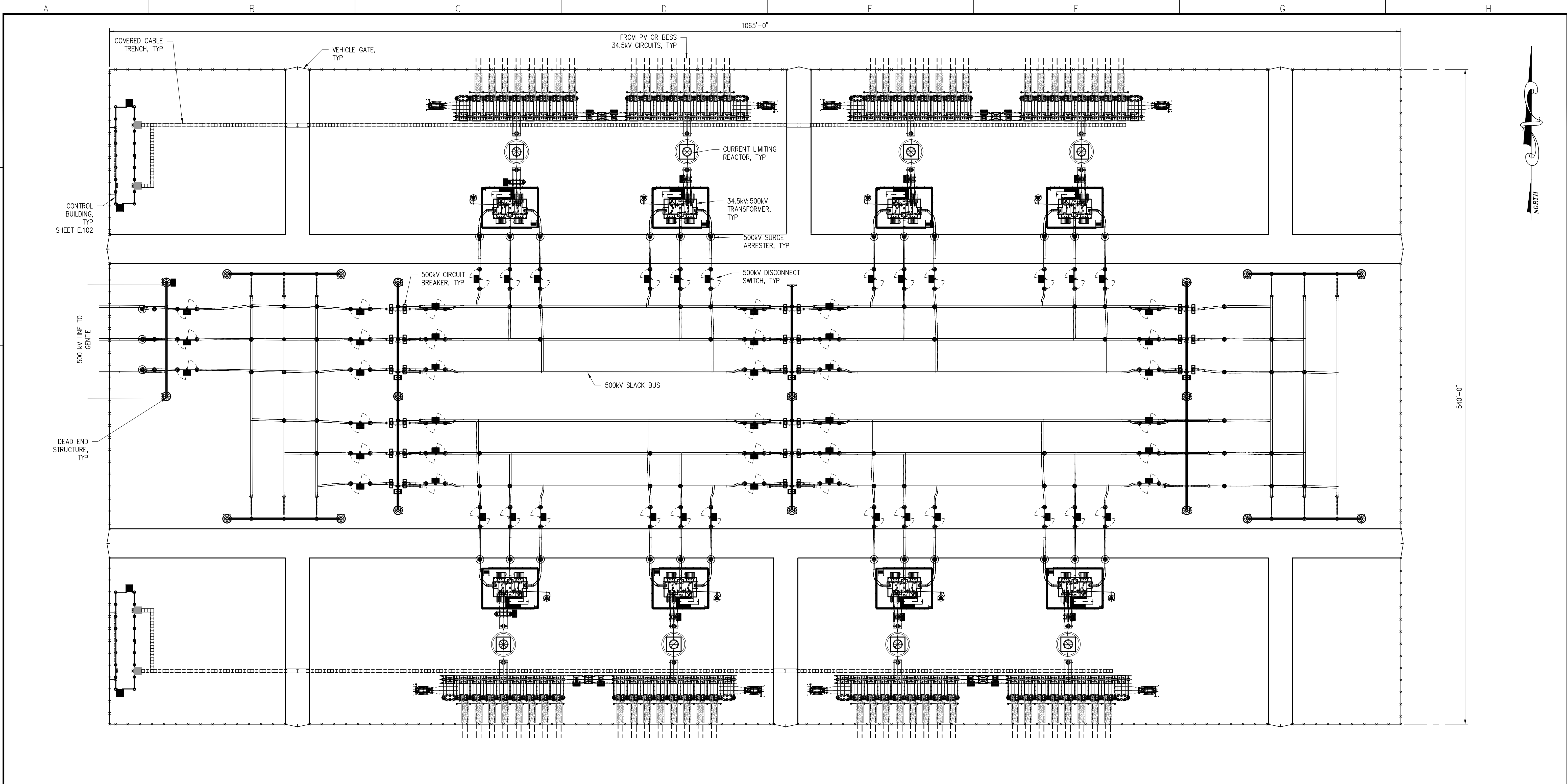


ENGINEERING RECORD		DATE
DRAWN	VANEK	09/23
DESIGNED	GROFF	09/23
CHECKED		
APPROVED		
DWG SCALE: 1"=40'-0"		PLT SCALE: 1:1

PERKINS PROJECT
34.5 - 500 kV SUBSTATION
STRAIGHT BUS VERSION - PLAN

DWG. NAME: E.100.1

REVISION NO : 0



34.5kV:500kV SUBSTATION PLAN – RING BUS VERSION

0 20FT 40FT 80FT
SCALE: 1"=40'-0"

1. RATED
242 A @ 500 kV
3,514 A @ 34.5 kV

CONCEPTUAL
NOT FOR CONSTRUCTION

LEGEND

- BASLINE MARKER
- BASLINE
- SUBSTATION FENCE
- MOD SWITCH OPERATOR
- MANUAL SWITCH OPERATOR
- STRUCTURE MOUNTED YARD LIGHTING

STRUCTURE DESIGN CRITERIA

500 kV CLEARANCE (1800 kV BIL):
LIVE PARTS: MIN $\phi-G=144"$
MIN $\phi=195"$
TO GRADE: 21'-6" (BUS)
42'-6" (DRIVEWAY)

34.5 kV CLEARANCE (200 kV BIL):
LIVE PARTS: MIN $\phi-G=13"$
MIN $\phi=18"$
TO GRADE: 10'-0" (BUS)
22'-0" (DRIVEWAY)

FILE LOCATION: N:\SHARED\01 ECI\INTERSECT POWER\02 PROJECTS\IP-00X DARDEN 500KV\100 CADD\110 WORKING\111 PHYSICAL\CEC DRAWINGS\E.100.1 & 2.DWG LAST SAVED BY: JCVanek 10/11/2023 2:22 PM PLOTTED BY: John C. Vanek 10/11/2023 3:03 PM Tab:E.100.2



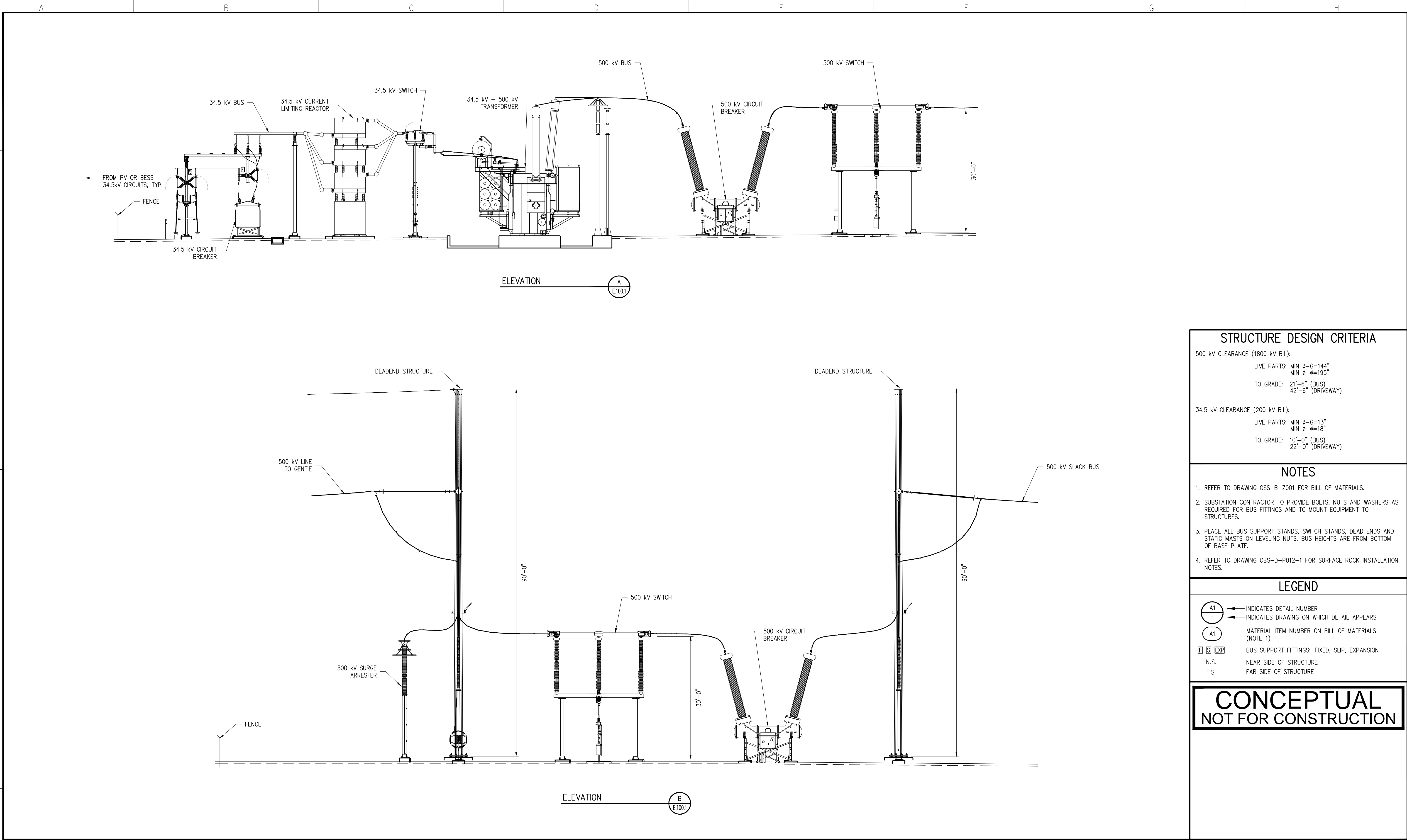
ELECTRICAL CONSULTANTS, INC.
BILLINGS, MONTANA

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A	PRELIMINARY	09/29/23	JCV	MAG
NO	REVISION	DATE	BY	APR



ENGINEERING RECORD		DATE
DRAWN	VANEK	09/23
DESIGNED	GROFF	09/23
CHECKED		
APPROVED		
DWG SCALE: 1"=40'-0"	PLT SCALE: 1:1	

PERKINS PROJECT 34.5 – 500 kV SUBSTATION RING BUS VERSION – PLAN	
DWG. NAME: E.100.2	REVISION NO : 0



STRUCTURE DESIGN CRITERIA

- 500 kV CLEARANCE (1800 kV BIL):
- LIVE PARTS: MIN $\phi-G=144"$
MIN $\phi=195"$
 - TO GRADE: 21'-6" (BUS)
42'-6" (DRIVEWAY)
- 34.5 kV CLEARANCE (200 kV BIL):
- LIVE PARTS: MIN $\phi-G=13"$
MIN $\phi=18"$
 - TO GRADE: 10'-0" (BUS)
22'-0" (DRIVEWAY)

NOTES

- REFER TO DRAWING OSS-B-2001 FOR BILL OF MATERIALS.
- SUBSTATION CONTRACTOR TO PROVIDE BOLTS, NUTS AND WASHERS AS REQUIRED FOR BUS FITTINGS AND TO MOUNT EQUIPMENT TO STRUCTURES.
- PLACE ALL BUS SUPPORT STANDS, SWITCH STANDS, DEAD ENDS AND STATIC MASTS ON LEVELING NUTS. BUS HEIGHTS ARE FROM BOTTOM OF BASE PLATE.
- REFER TO DRAWING OBS-D-P012-1 FOR SURFACE ROCK INSTALLATION NOTES.

LEGEND

- \bigcirc A1 - INDICATES DETAIL NUMBER
 \leftarrow INDICATES DRAWING ON WHICH DETAIL APPEARS
- \bigcirc A1 MATERIAL ITEM NUMBER ON BILL OF MATERIALS (NOTE 1)
- \boxed{F} \boxed{S} \boxed{EXP} BUS SUPPORT FITTINGS: FIXED, SLIP, EXPANSION
- N.S. NEAR SIDE OF STRUCTURE
F.S. FAR SIDE OF STRUCTURE

CONCEPTUAL
NOT FOR CONSTRUCTION

FILE LOCATION: N:\SHARED\01 ECI\INTERSECT POWER\02 PROJECTS\IP-00X DARDEN 500KV\100 CADD\110 WORKING\111 PHYSICAL\CEC DRAWINGS\E.101 & 2.DWG LAST SAVED BY: JCVanek 10/11/2023 2:52 PM PLOTTED BY: John C. Vanek 10/11/2023 2:52 PM Tab:E.101



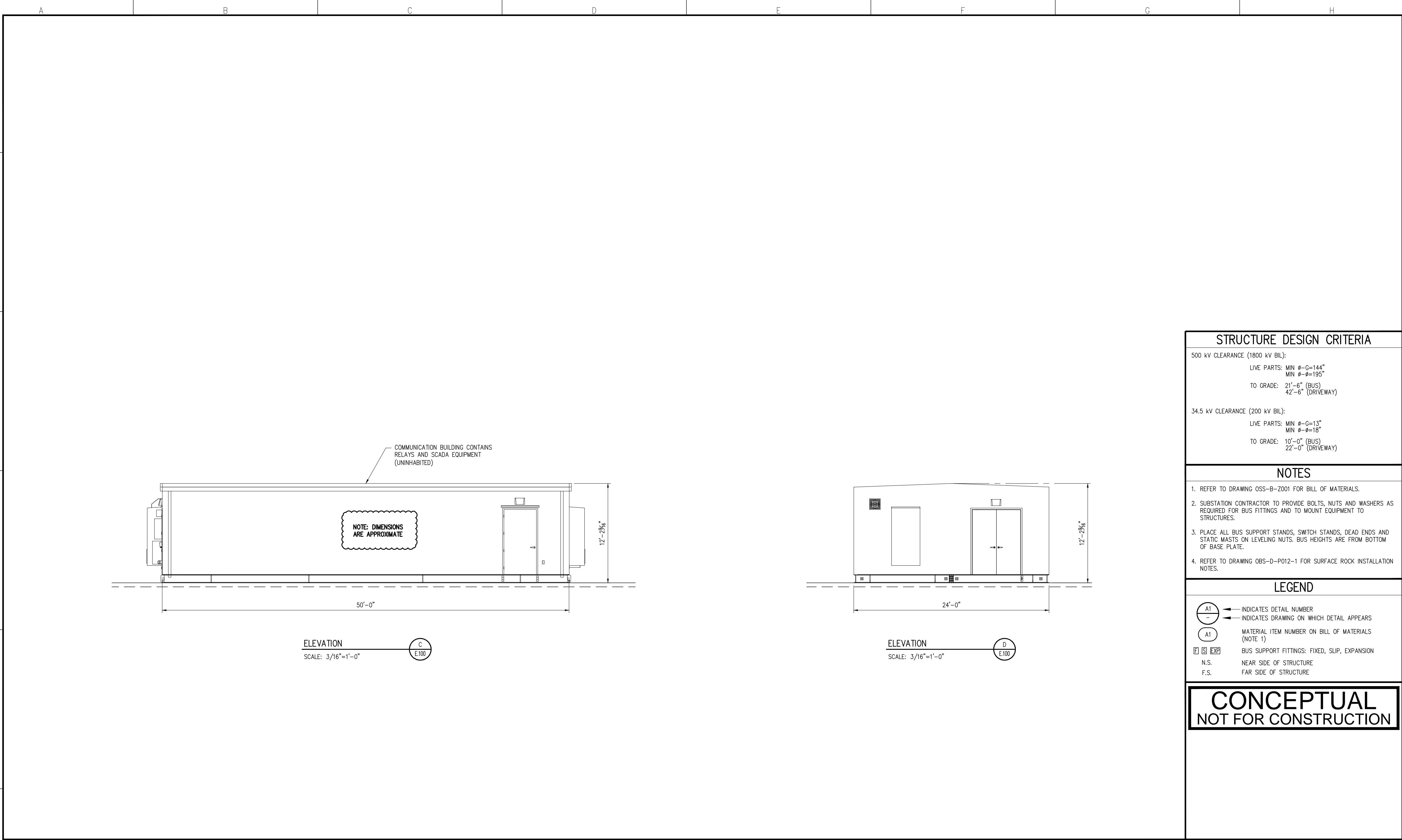
**ELECTRICAL
CONSULTANTS, INC.**
BILLINGS, MONTANA

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NO	REVISION	DATE	BY	APR



ENGINEERING RECORD		DATE
DRAWN	VANEK	10/23
DESIGNED	GROFF	10/23
CHECKED		
APPROVED		
DWG SCALE: NTS	PLT SCALE: 1:1	

PERKINS PROJECT 34.5 - 500 kV SUBSTATION ELEVATIONS	
DWG. NAME: E.101	REVISION NO : 0



FILE LOCATION: N:\SHARED\01 ECI\INTERSECT POWER\02 PROJECTS\IP-00X DARDEN 500KV\100 CADD\110 WORKING\111 PHYSICAL\CEC DRAWINGS\E.101 & 2.DWG LAST SAVED BY: JCVanek 10/11/2023 2:52 PM PLOTTED BY: John C. Vaneck 10/11/2023 3:02 PM Tab:E.102

Engineering with Distinction™

ECI ELECTRICAL CONSULTANTS, INC.
BILLINGS, MONTANA

0	ISSUED FOR CEC SUBMITTAL	10/16/23	JCV	MAG
NO	REVISION	DATE	BY	APR



Intersect
Power

ENGINEERING RECORD		DATE
DRAWN	VANEK	10/23
DESIGNED	GROFF	10/23
CHECKED		
APPROVED		
DWG SCALE: AS NOTED	PLT SCALE: 1:1	

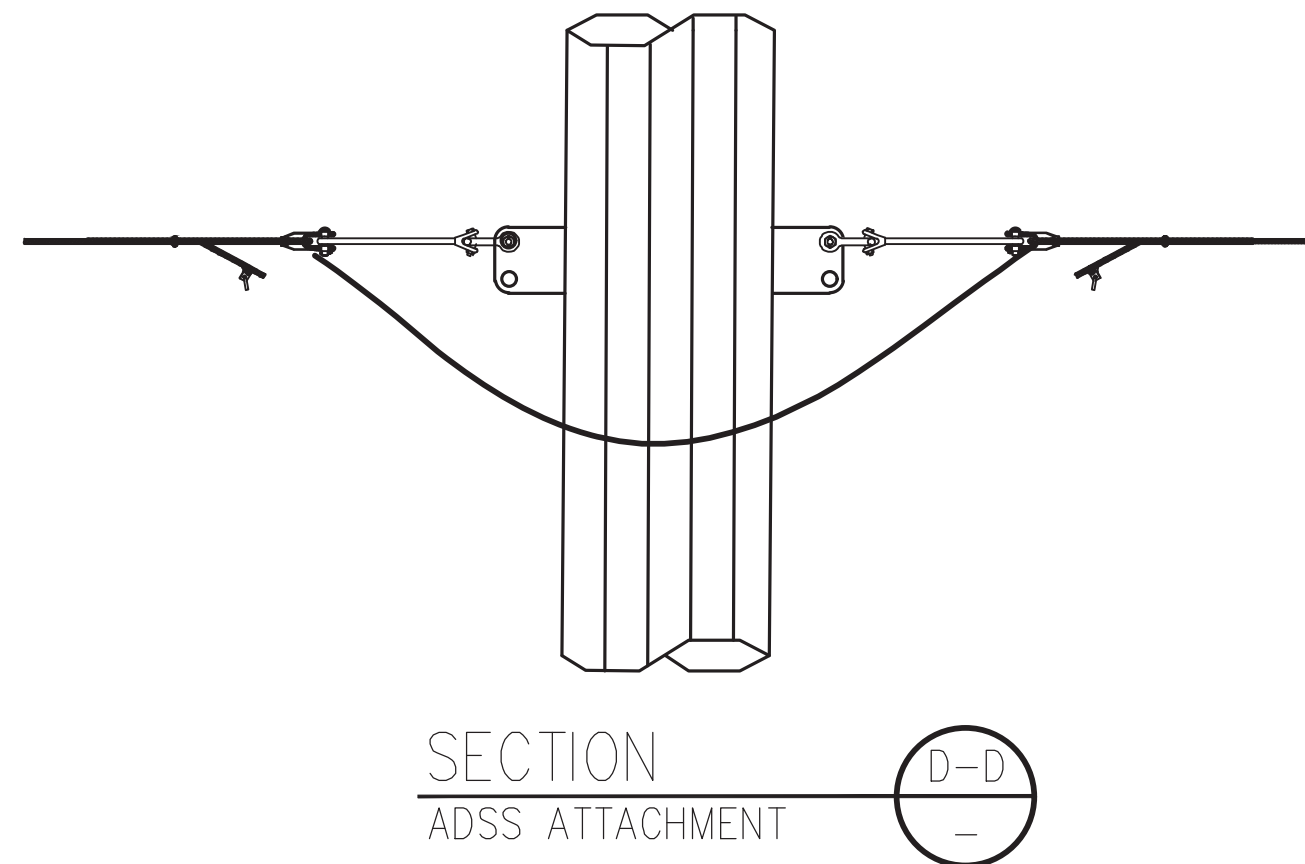
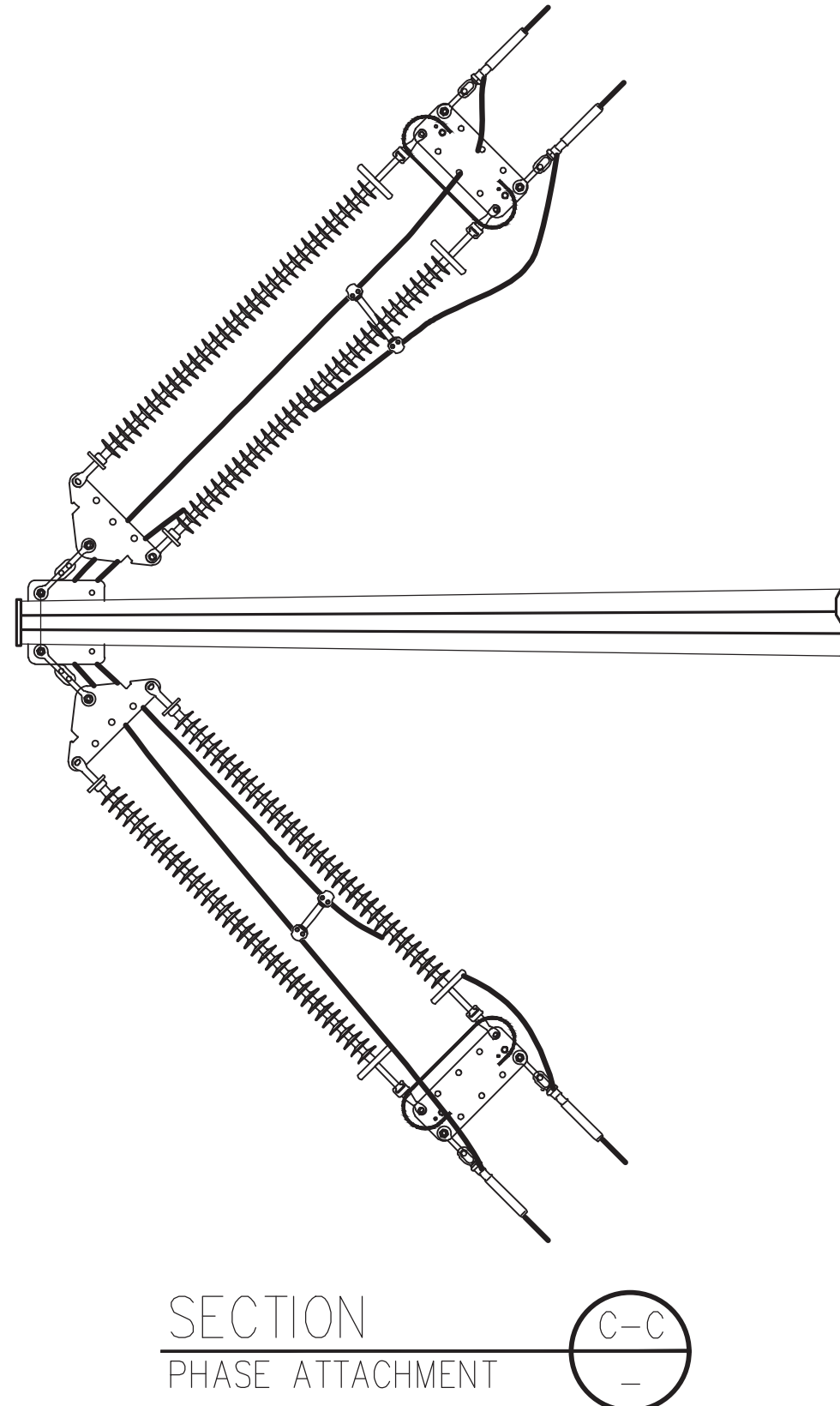
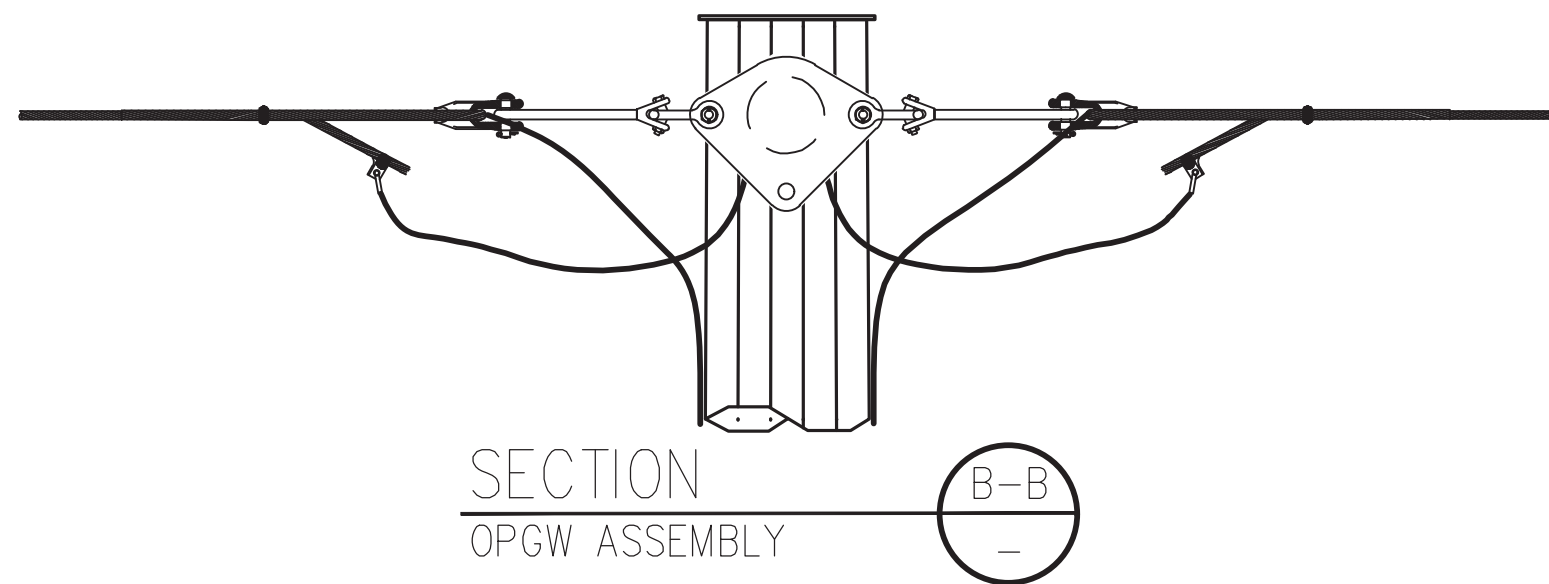
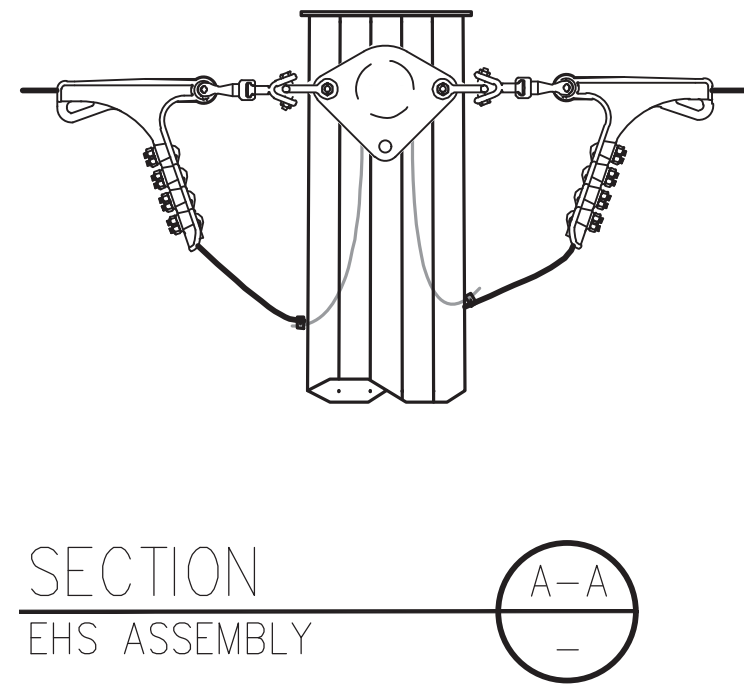
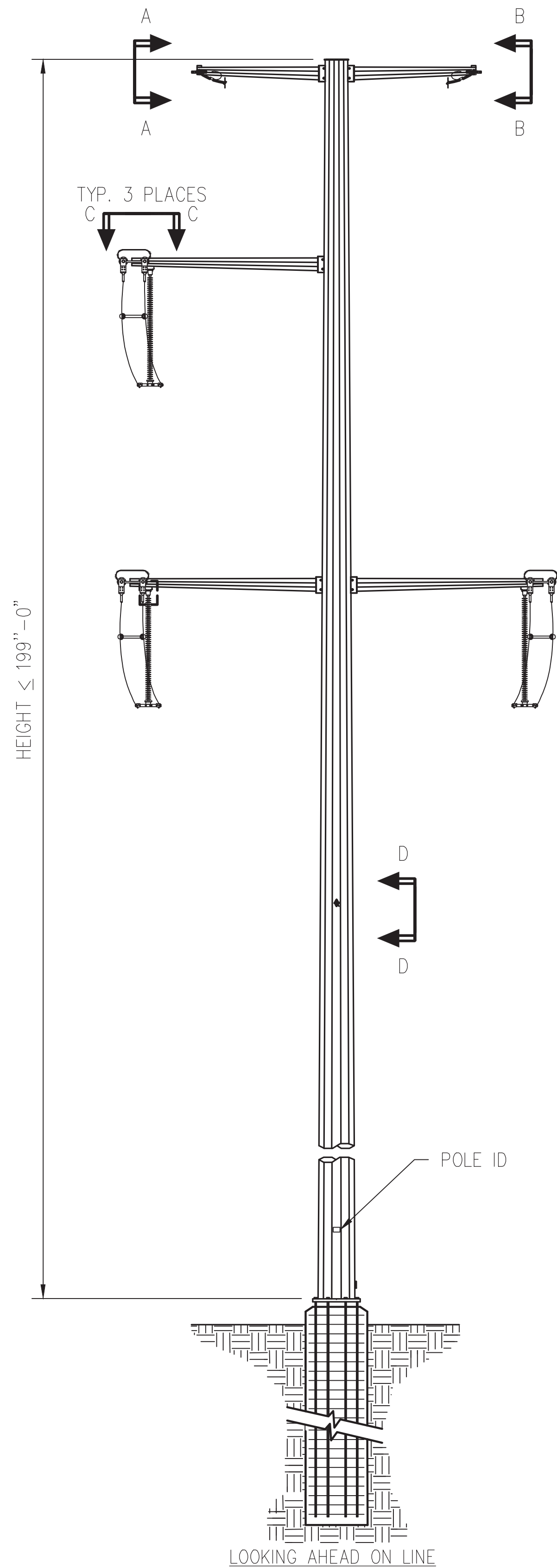
PERKINS PROJECT

34.5 – 500 kV SUBSTATION

ELEVATIONS – CONTROL BUILDING

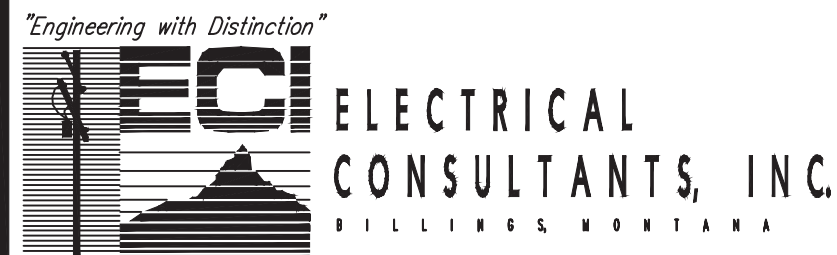
DWG. NAME: E.102

REVISION NO : 0



PRELIMINARY
NOT FOR CONSTRUCTION

FILE LOCATION: N:\SHARED\01 ECI\INTERSECT POWER\02 PROJECTS\IP-005 PERKINS\040 TRANSMISSION\100 CADD\110 WORKING\1121 MISCELLANEOUS\FRAMING CONCEPT\PKN-B-T010-1-A.DWG LAST SAVED BY: djweir 1/25/2024 2:59 PM PLOTTED BY: David J. Weir 1/29/2024 8:11 AM Tab:TVUDE-345DCS-J

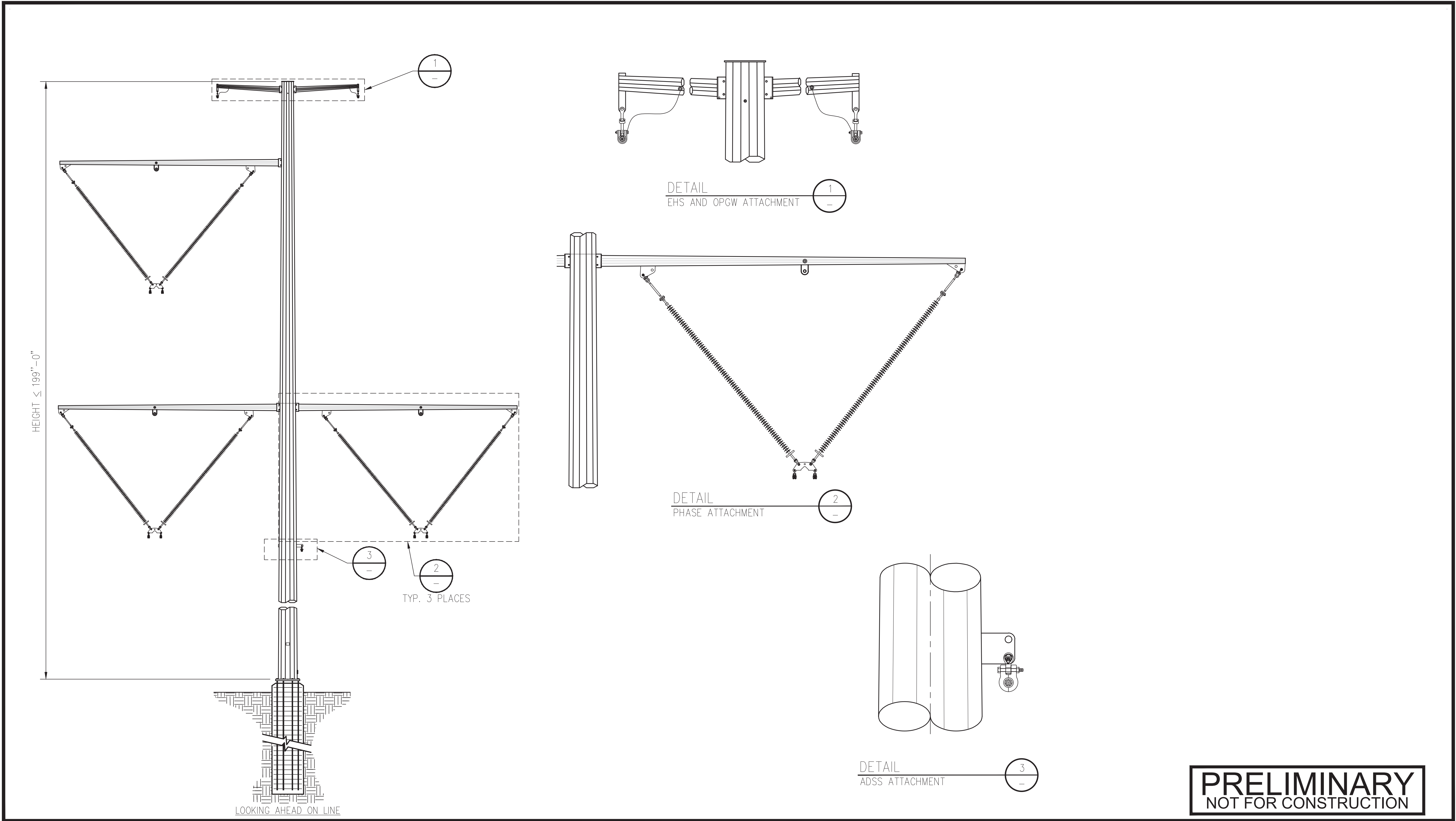


A	ISSUED FOR PERMITTING	01/29/24	KWV	AJM
NO	REVISION	DATE	BY	APR



ENGINEERING RECORD		DATE
DRAWN	DJW	01/29/24
DESIGNED	KWV	01/29/24
CHECKED	KWV	01/29/24
APPROVED	AJM	01/29/24
DWG SCALE: NONE	PLT SCALE: 1:1	

PERKINS 500 kV TRANSMISSION LINE STEEL MONOPOLE DEADEND/STRAIN STRUCTURE		
DWG. NAME: E.200	PKN-B-T010-1	REVISION NO : A



PRELIMINARY
NOT FOR CONSTRUCTION

FILE LOCATION: N:\SHARED\01 EQ\INTERSECT POWER\02 PROJECTS\IP-005 PERKINS\040 TRANSMISSION\100 CADD\110 WORKING\1121 MISCELLANEOUS\FRAMING CONCEPT\PKN-B-T010-2-A.DWG LAST SAVED BY: d\weir 1/25/2024 2:41 PM PLOTTED BY: David J. Weir 1/29/2024 8:17 AM Tab:TDVS-500S



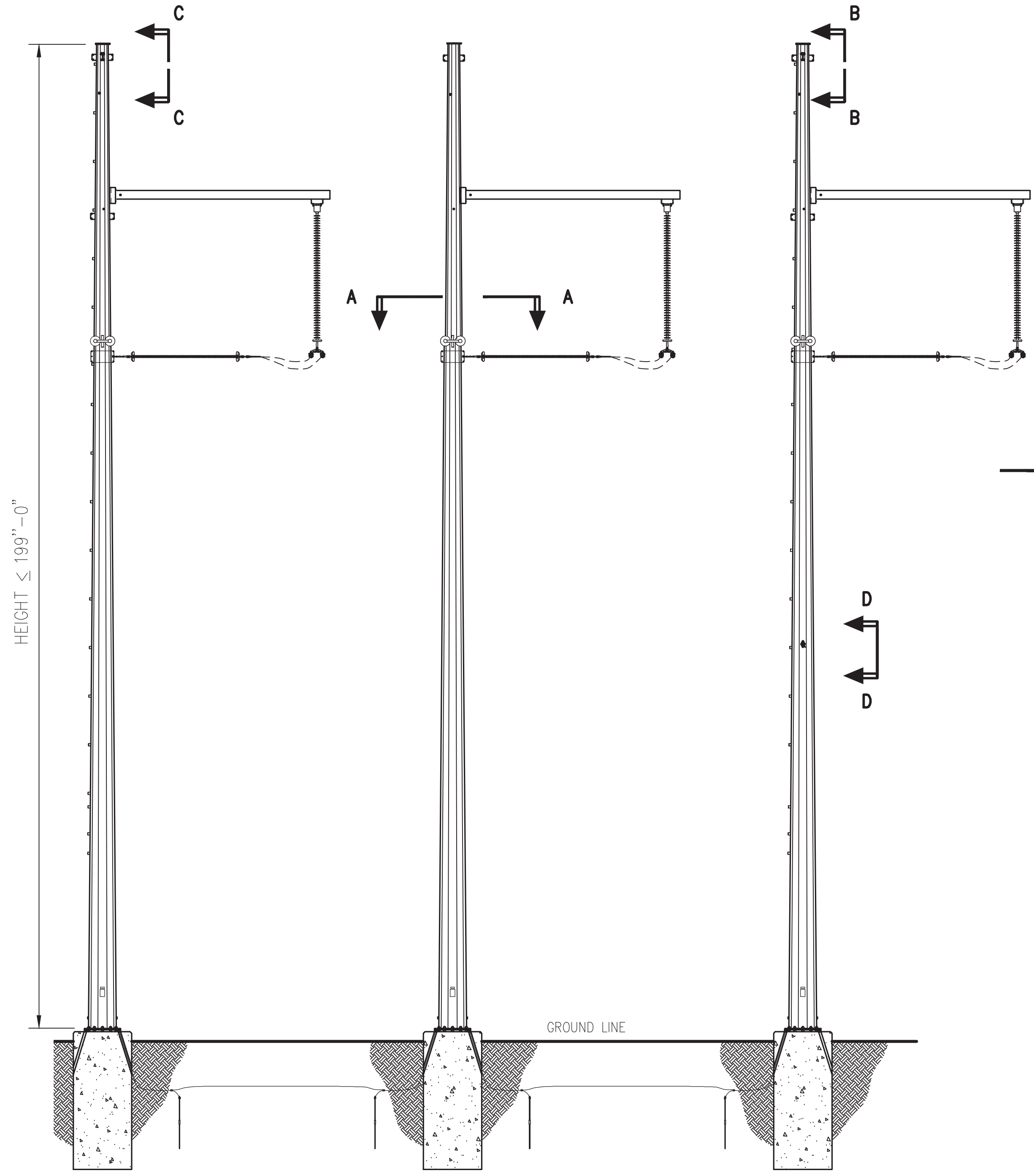
ECCI
ELECTRICAL
CONSULTANTS, INC.
BILLINGS, MONTANA

A	ISSUED FOR PERMITTING	01/29/24	KWV	AJM
NO	REVISION	DATE	BY	APR

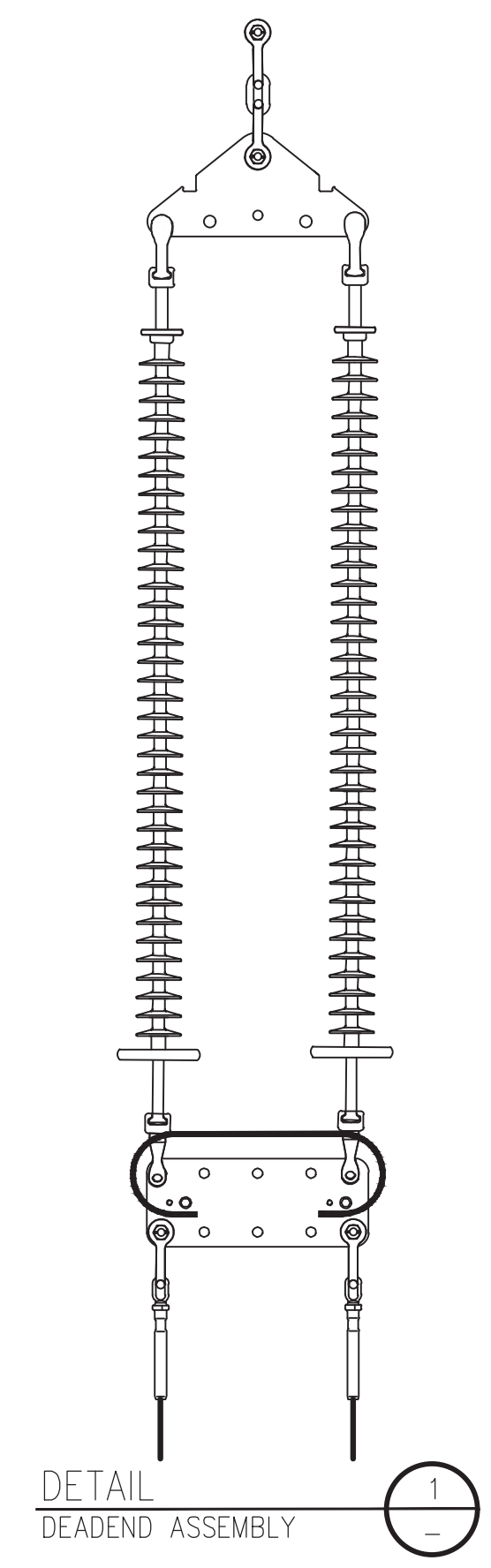
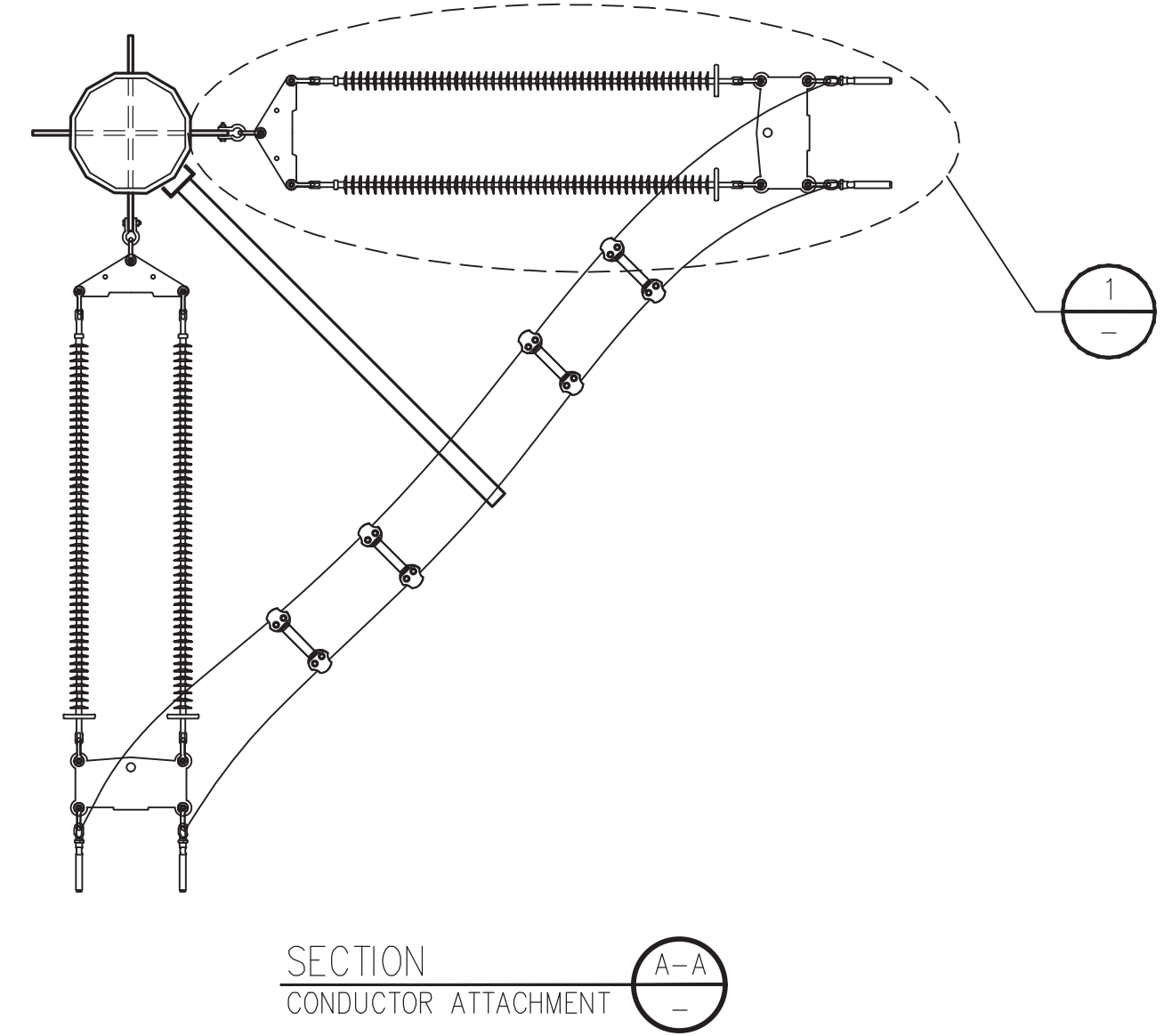
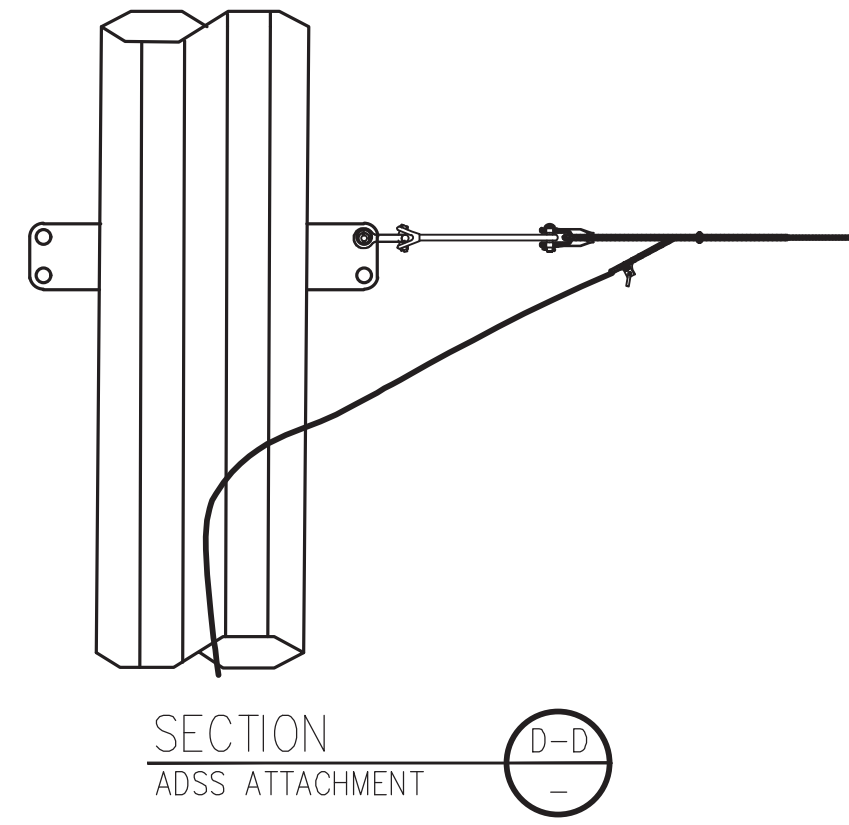
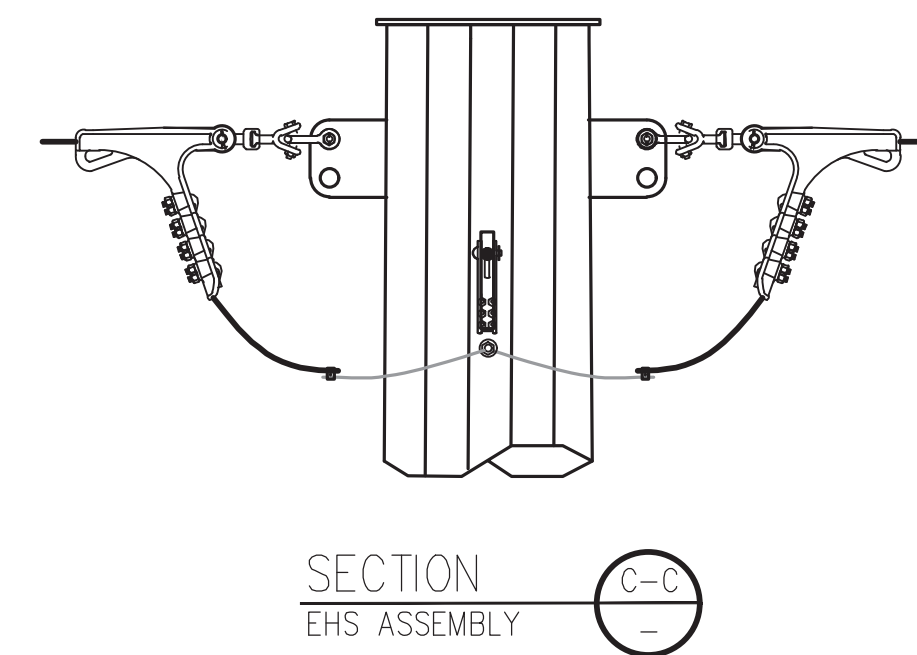
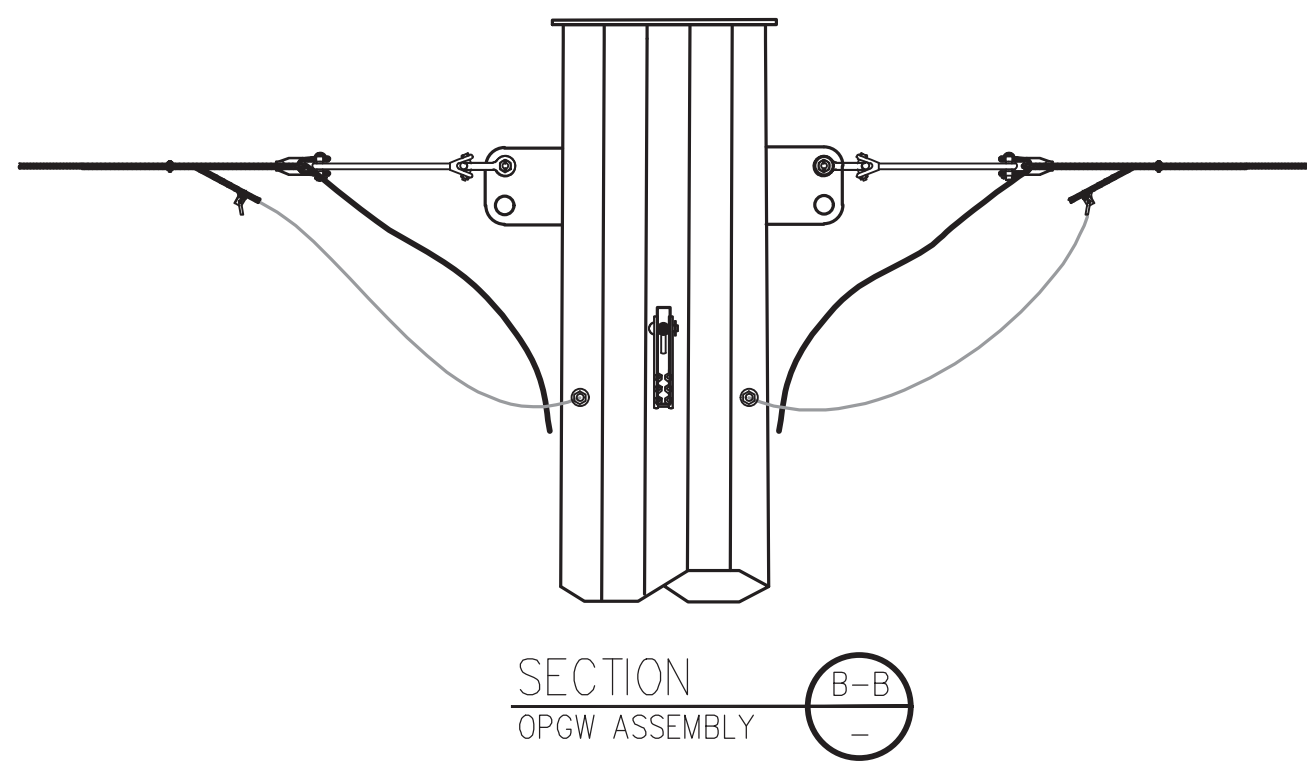


ENGINEERING RECORD		DATE
DRAWN	DJW	01/29/24
DESIGNED	KWV	01/29/24
CHECKED	KWV	01/29/24
APPROVED	AJM	01/29/24
DWG SCALE: NONE	PLT SCALE: 1:1	

PERKINS 500 kV TRANSMISSION LINE STEEL MONOPOLE TANGENT		
DWG. NAME: E.201	PKN-B-T010-2	REVISION NO : A



ELEVATION
(LOOKING AHEAD ON LINE)
RIGHT TURNING STRUCTURE SHOWN



PRELIMINARY
NOT FOR CONSTRUCTION

FILE LOCATION: N:\SHARED\01 ECI\INTERSECT POWER\02 PROJECTS\IP-005 PERKINS\040 TRANSMISSION\100 CADD\110 WORKING\1121 MISCELLANEOUS\FRAMING CONCEPT\PKN-B-T010-3-A.DWG LAST SAVED BY: dweir 1/25/2024 2:53 PM PLOTTED BY: David J. Weir 1/29/2024 8:14 AM Tab: TVSP-230DCS



**ELECTRICAL
CONSULTANTS, INC.**
BILLINGS MONTANA

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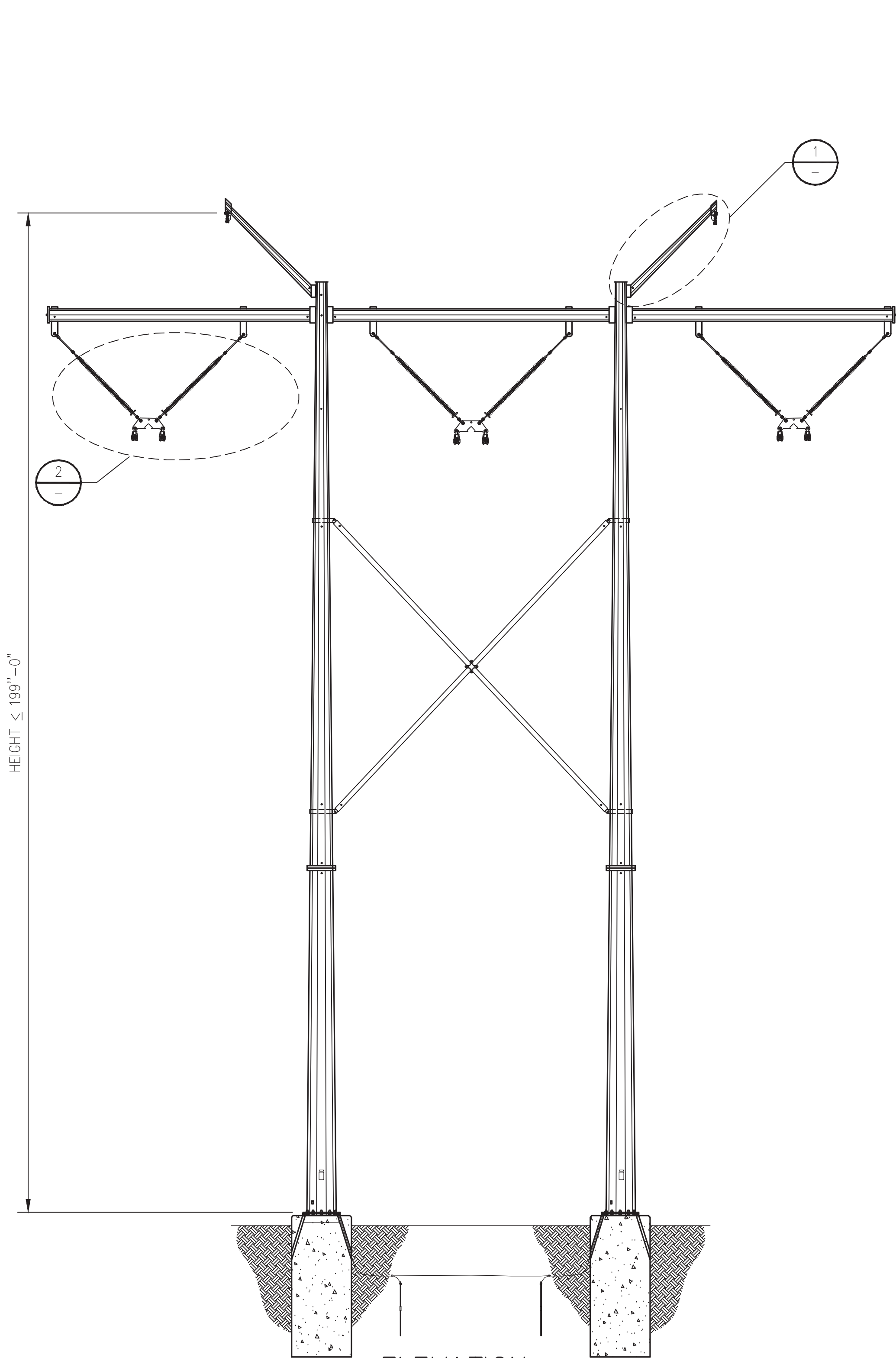
A	ISSUED FOR PERMITTING	01/29/24	KWV	AJM	
NO	REVISION	DATE	BY	APR	



**Intersect
Power**

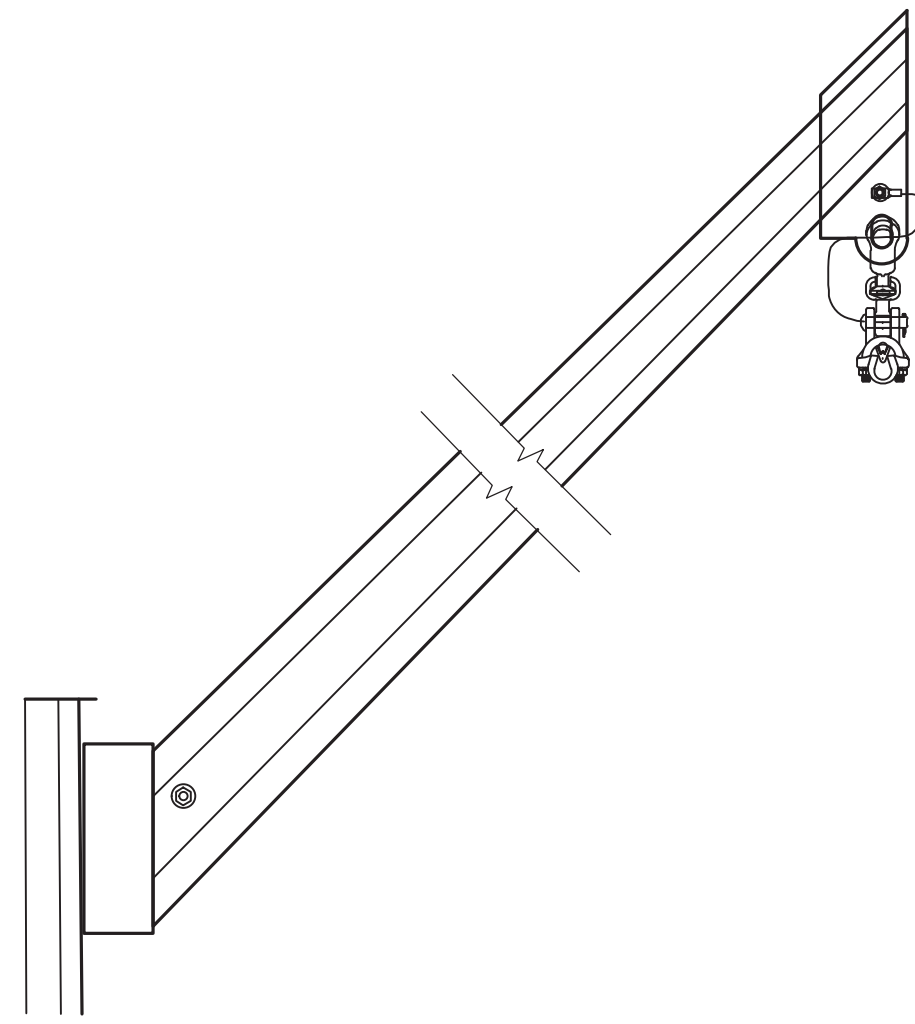
ENGINEERING RECORD		DATE
DRAWN	DJW	01/29/24
DESIGNED	KWV	01/29/24
CHECKED	KWV	01/29/24
APPROVED	AJM	01/29/24
DWG SCALE: NONE		PLT SCALE: 1:1

PERKINS 500 kV TRANSMISSION LINE 3-POLE DEADEND STRUCTURES		
DWG. NAME:	E.202	PKN-B-T010-3
REVISION NO. :	A	

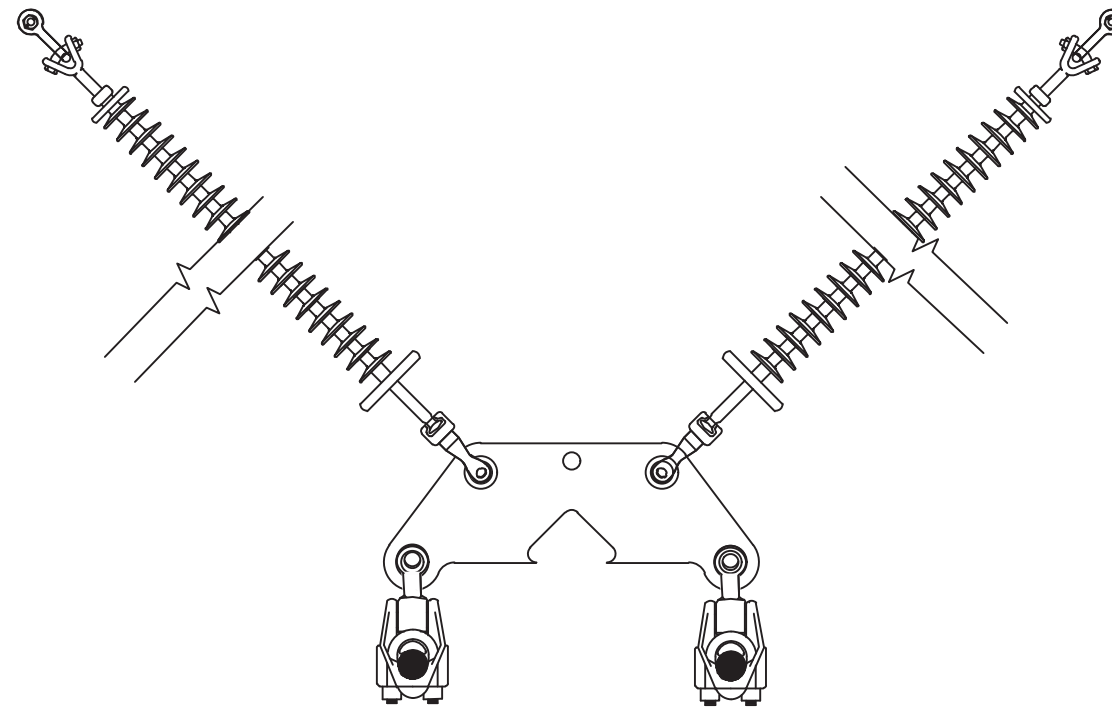


HEIGHT ≤ 199'-0"

ELEVATION
(LOOKING AHEAD ON LINE)



DETAIL
OPGW VANG
TYP. BOTH POLES



DETAIL
V-STRING ASSEMBLY

PRELIMINARY
NOT FOR CONSTRUCTION

FILE LOCATION: N:\SHARED\01 ECI\INTERSECT POWER\02 PROJECTS\IP-005 PERKINS\040 TRANSMISSION\100 CADD\110 WORKING\1121 MISCELLANEOUS\FRAMING CONCEPT\PKN-B-T010-4-A.DWG LAST SAVED BY: d\weir 1/25/2024 1:51 PM PLOTTED BY: David J. Weir 1/29/2024 8:20 AM Tab: TVSP-230DCS



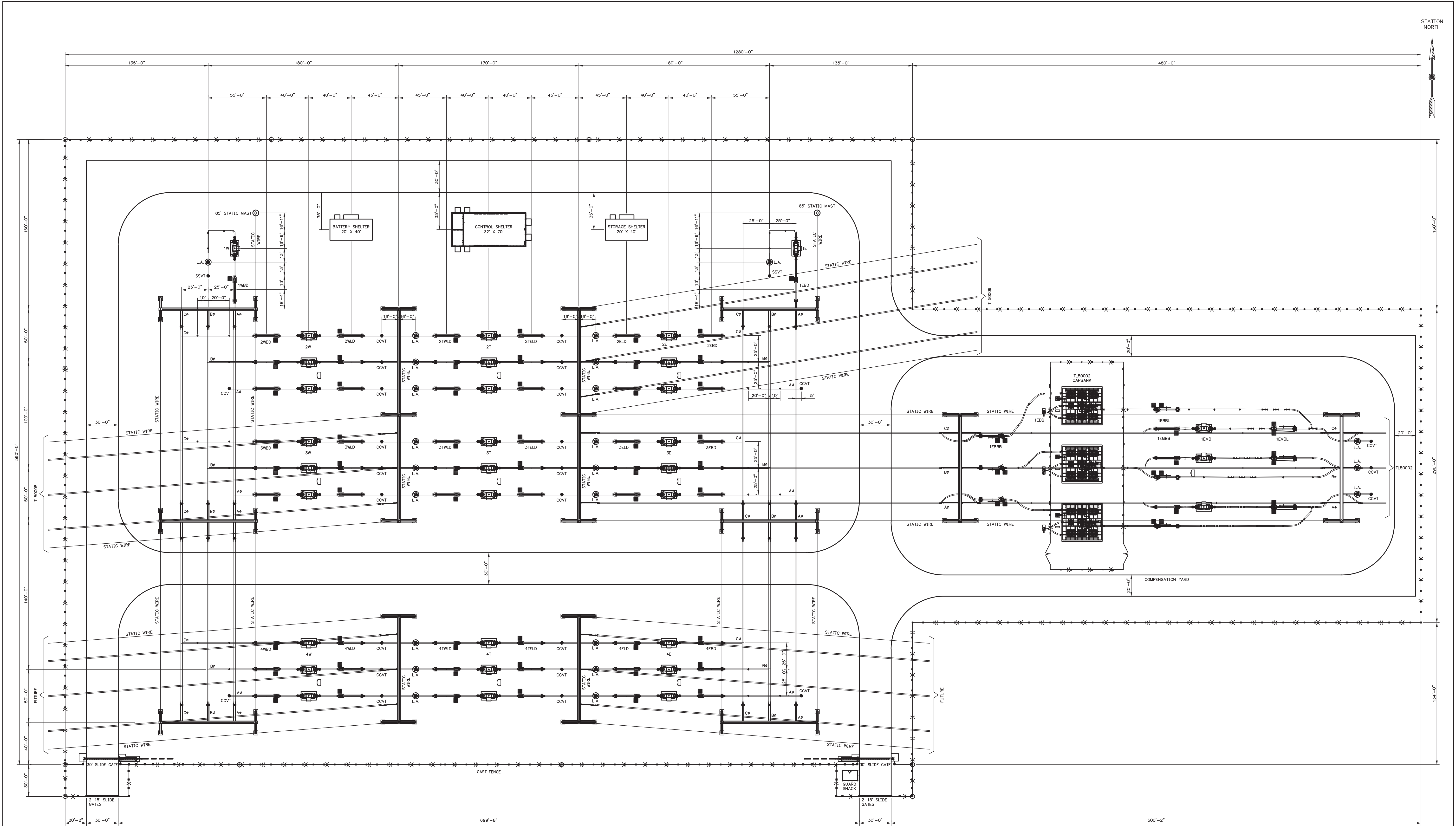
**ELECTRICAL
CONSULTANTS, INC.**
BILLINGS, MONTANA

A	ISSUED FOR PERMITTING	01/29/24	KWV	AJM	
NO	REVISION	DATE	BY	APR	



ENGINEERING RECORD		DATE
DRAWN	DJW	01/29/24
DESIGNED	KWV	01/29/24
CHECKED	KWV	01/29/24
APPROVED	AJM	01/29/24
DWG SCALE: NONE		PLT SCALE: 1:1

PERKINS 500 kV TRANSMISSION LINE STEEL H-FRAME TANGENT STRUCTURE		
DWG. NAME: E.203	PKN-B-T010-4	REVISION NO.: A



CONCEPTUAL
NOT FOR CONSTRUCTION

REVISIONS

NO.	WORK DONE	DATE:	BY:	APP'D:	NO.	WORK DONE	DATE:	BY:	APP'D:	NO.	WORK DONE	DATE:	BY:	APP'D:	NO.	WORK DONE	DATE:	BY:	APP'D:

SAN DIEGO GAS & ELECTRIC COMPANY
SAN DIEGO, CALIFORNIA
GLAMIS SWITCHYARD
ULTIMATE ARRANGEMENT

DRAWN BY: REP	DATE: 9/11/23	SCALE: 1"=40'	W.D.:	REV: 0
CHECKED BY: YR	DATE: 9/11/23	ECI		
APPROVED BY:	DATE:	INT W.D.:		
CAD NO.: GLMS500	PLOT SCALE: 1 = 1			

E.300