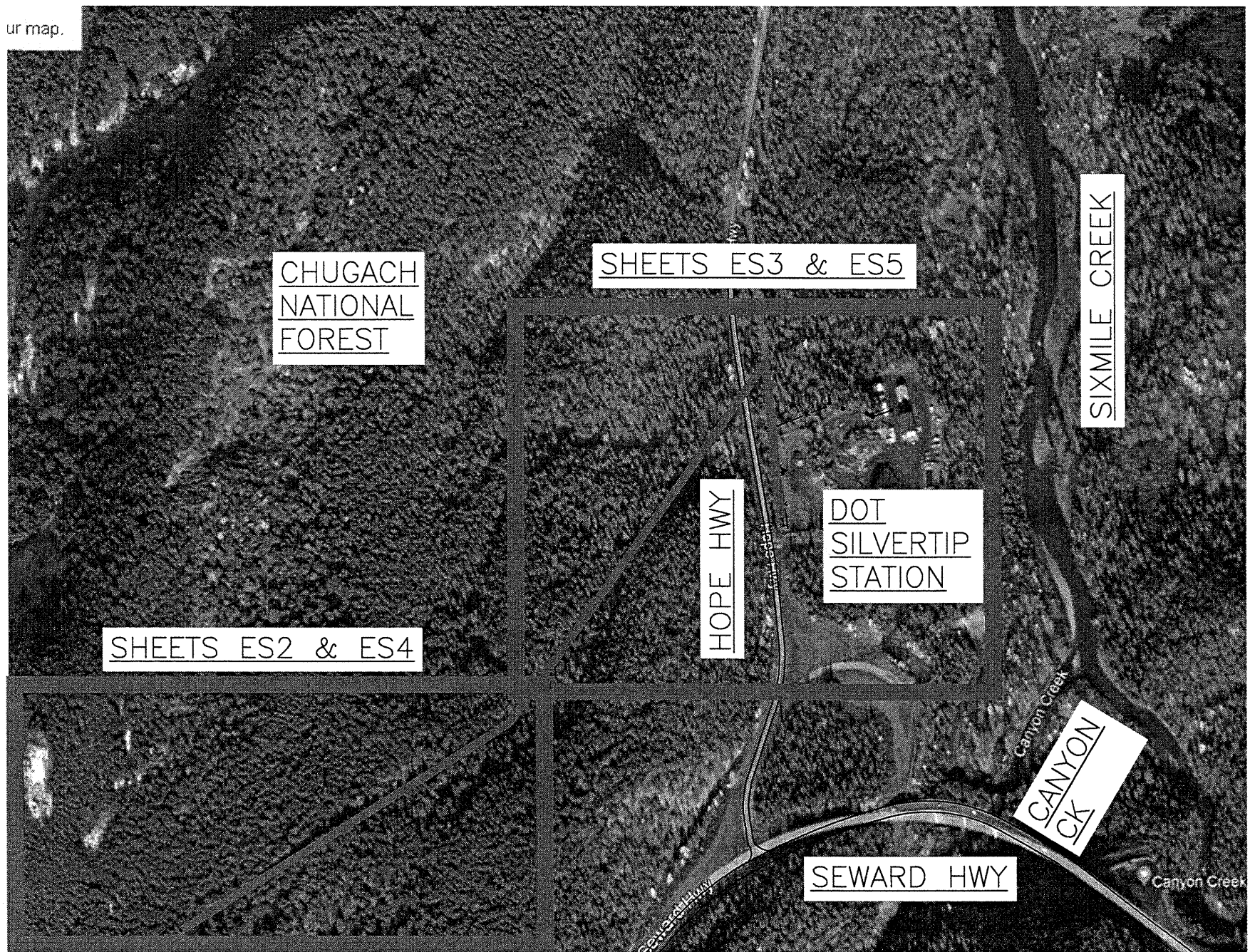


GENERAL NOTES:

1. DRAWING IS BASED ON AVAILABLE DATA AND IS NOT A SURVEY DRAWING. CONTRACTOR SHALL FIELD VERIFY ALL DISTANCES.
2. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE MOST RECENT EDITION OF THE NATIONAL ELECTRIC SAFETY CODE (NESC/IEEE C2), CHUGACH ELECTRIC ASSOCIATION, AND THE RURAL UTILITY SERVICE (RUS). WHERE STANDARDS VARY, THE MOST STRINGENT SHALL APPLY.
3. ALL FIBER OPTIC WORK SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF TELECOMMUNICATION INDUSTRY ASSOCIATION (TIA) STANDARDS.
4. SCHEDULE, SEQUENCE, AND COORDINATE CONSTRUCTION AND DEMOLITION TO MINIMIZE REQUIRED OUTAGE AND TEMPORARY FACILITIES.
5. REQUEST LOCATES PRIOR TO DIGGING.
6. SET POLE(S) AT 10% OF POLE LENGTH PLUS 3', UNLESS NOTED OTHERWISE.
7. TAMP AROUND BASE OF NEW POLE(S) TO PROVIDE REQUIRED COMPACTION.
8. TRIM BOLTS WITHIN 2" OF LOCKNUT.
9. ASSEMBLY UNITS LISTED ON DRAWINGS ARE PROVIDED FOR BASIC CONSTRUCTION ELEMENTS ONLY. SEE STAKING SHEETS FOR REQUIRED ASSEMBLY UNITS AND NOTES.

LEGEND

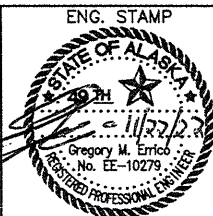
- NEW #
○ (STN #) NEW POLE
- NEW #
● (STN #) EXISTING POLE
- NEW # (EXISTING #)
- ← DOWN GUY AND ANCHOR
- X— SPAN GUY
- OH PRIMARY CONDUCTOR - 1Ø
- OH SECONDARY OR SERVICE
- OH FIBER OPTIC CABLE
- EXISTING FIBER OPTIC CONDUIT



SHEET LIST:

- SHEET ES1 KEYPLAN, SHEET LIST, GENERAL NOTES, LEGEND
- SHEET ES2 PRIMARY ELECTRIC ALIGNMENT, WEST LAYOUT
- SHEET ES3 PRIMARY ELECTRIC ALIGNMENT, EAST LAYOUT
- SHEET ES4 TELECOMMUNICATION ALIGNMENT, WEST LAYOUT
- SHEET ES5 TELECOMMUNICATION ALIGNMENT, EAST LAYOUT
- SHEET ES6 DETAILS
- SHEET ES7 DETAILS
- SHEET ES8 DETAILS

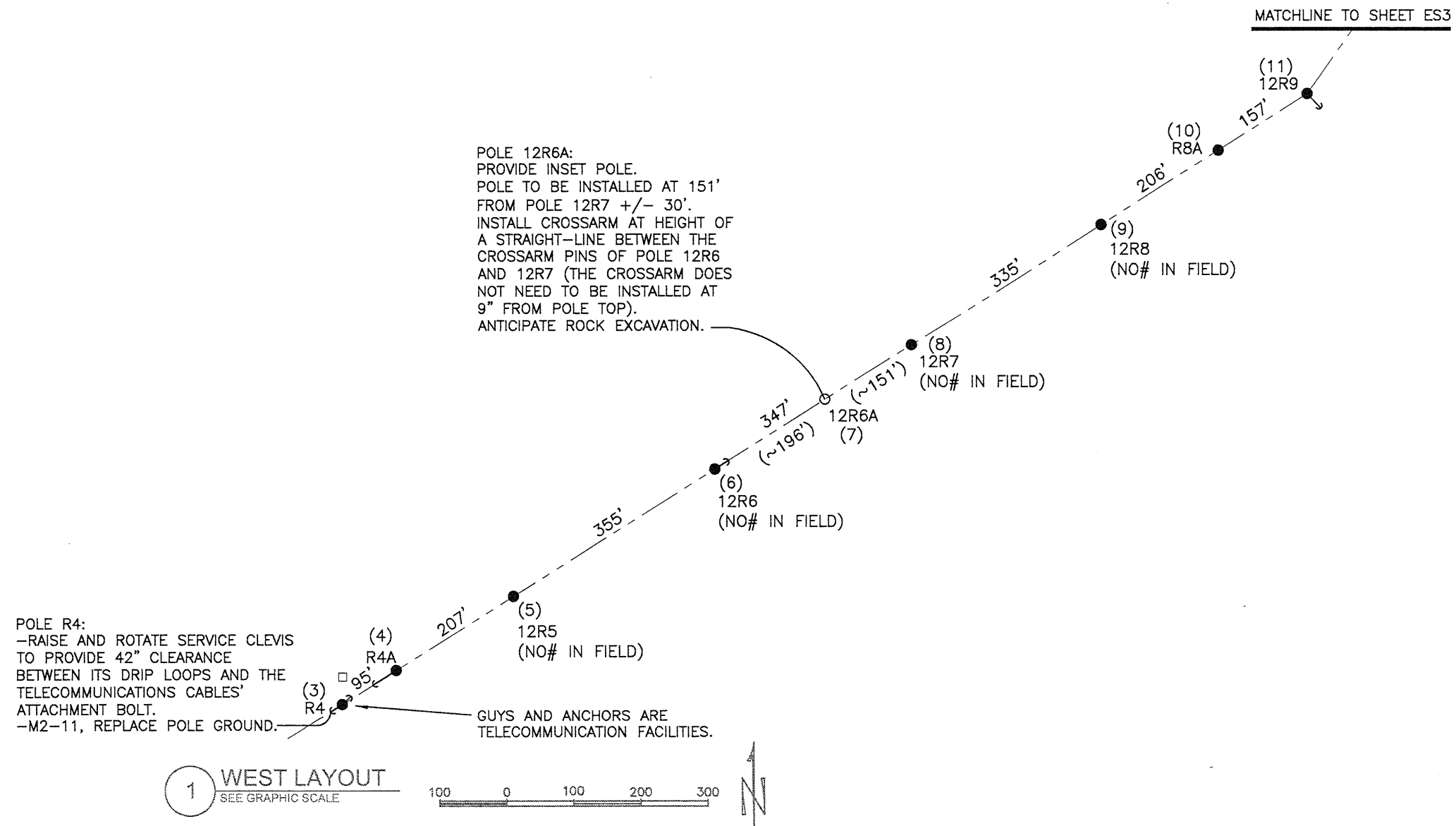
PROJECT: HOPE JUNCTION / SILVERTIP ADSS FIBER INSTALL				
DESIGNER/PROJECT ENGINEER: G. ERRICO / B. MURRAY W.O. # C2230004				
NO.	DESIGN/CONSTRUCTION/ASBUILT REVISION	DWN BY/DATE	REVIEWED (MGR/SUPV)/DATE	APPROVED (DIRECTOR)/DATE
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1	ISSUED FOR CONSTRUCTION - REV 1	GE/11-22-22		



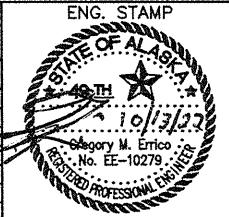
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Anchorage, Alaska 99519-6300

DRAWING NAME: HOPE JUNCTION / SILVERTIP ADSS FIBER INSTALL & DISTRIBUTION MAKE READY WORK	
KEYPLAN, SHEET LIST, GENERAL NOTES, LEGEND	
W.O. NO.:	ES1
C.W.P. REF. NO.:	SHEET 1 OF 8

SHEET NOTES:
 1. SEE GENERAL NOTES ON SHEET 1.
 2. THIS SEGMENT OF THE PROJECT IS
 IN MOUNTAINOUS TERRAIN.



PROJECT: HOPE JUNCTION / SILVERTIP ADSS FIBER INSTALL				
DESIGNER/PROJECT ENGINEER: G. ERRICO / B. MURRAY				
W.O. # C2230004				
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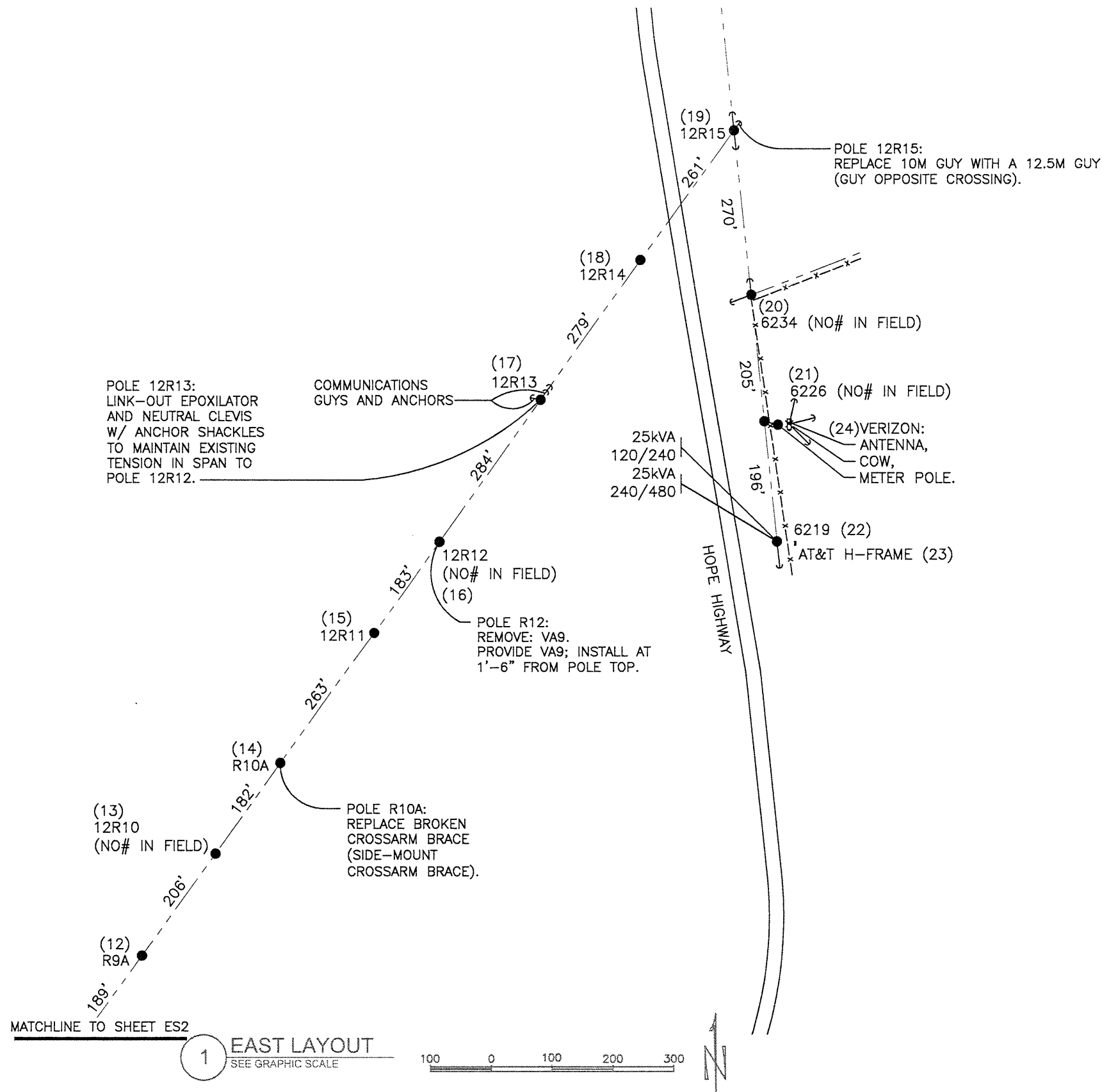


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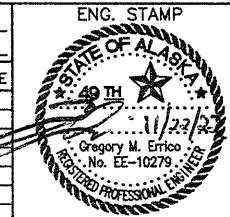
DRAWING NAME: HOPE JUNCTION / SILVERTIP ADSS FIBER INSTALL DISTRIBUTION MAKE READY	
PRIMARY ELECTRIC ALIGNMENT-WEST LAYOUT	
W.O. NO.:	ES2
C.W.P. REF. NO.:	SHEET 2 OF 8

SHEET NOTES:
 1. SEE GENERAL NOTES ON SHEET ES1.
 2. BEGINNING AT 12R13 (TO THE
 SOUTHWEST, TOWARD POLE 12R12) THE
 PROJECT ENTERS MOUNTAINOUS TERRAIN.



PROJECT: HOPE JUNCTION / SILVERTIP ADSS FIBER INSTALL
 DESIGNER/PROJECT ENGINEER: G. ERRICO / B. MURRAY W.O. #: C2230004

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1	ISSUED FOR CONSTRUCTION - REV 1	GE/11-22-22		



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DRAWING NAME:
**HOPE JUNCTION / SILVERTIP ADSS FIBER INSTALL
 DISTRIBUTION MAKE READY**

PRIMARY ELECTRIC ALIGNMENT - EAST LAYOUT

W.O. NO.: ES3
 C.W.P. REF. NO.: SHEET 3 OF 8

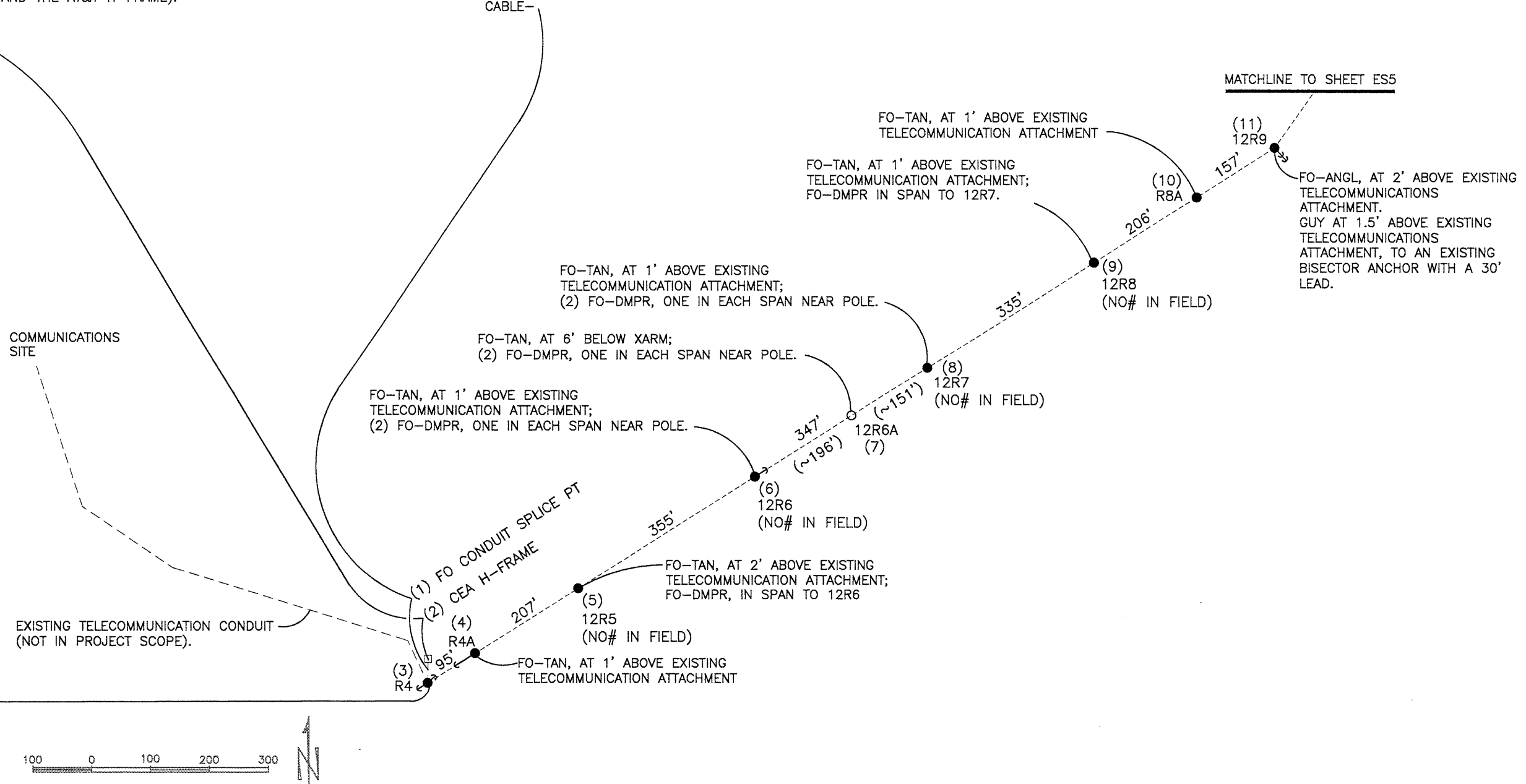
(2) CEA H-FRAME:
 LOCATE: NOT CLOSER THAN 11' FROM THE CENTERLINE OF THE OVERHEAD POWERLINE; NOT CLOSER THAN 10' FROM THE FACE OF THE PADMOUNT TRANSFORMER; AND IN A LOCATION AGREED TO, IN WRITING, FROM THE OWNER.
 THE EXISTING FO CABLE AND INNERDUCTS ARE TO BE RELOCATED/INSTALLED INTO THE ENCLOSURE WITHIN THE NEW SECTION OF 4" LIQUID-TIGHT FLEX FROM THE FO CONDUIT SPLICE PT.
 ANTICIPATE ROCK EXCAVATION.
 PROVIDE:

- QUANTITY OF 4" LIQUID-TIGHT FLEX AS REQUIRED FOR INSTALLATION (~<25').
- SUFFICIENT TRENCH TO BURY CONDUIT SPLICE AND NOT TO EXCEED LIQUID-TIGHT BEND RADII;
- INSTALLATION OF 4" LIQUID-TIGHT TO POLE R4; THIS CONDUIT WILL HAVE (3) INNERDUCTS; (1) WILL CONTAIN THE NEW ADSS TO POLE R4. (1) WILL CONTAIN THE EXISTING FO TO POLE R4.
- (4) COILS OF UN-STRIPPED EXISTING FO CABLE IN THE ENCLOSURE, FOR CIRCUIT TO MICROWAVE SITE.
- (1) COIL OF UN-STRIPPED EXISTING FO CABLE IN THE ENCLOSURE, FOR CIRCUIT TO HOPE SUBSTATION (TO POLE R4).
- (1) COIL OF UN-STRIPPED NEW ADSS CABLE IN THE ENCLOSURE.
- FO-SPLICE: PERFORM FUSION SPLICES OF (2) BUFFER TUBES (24 FIBERS) OF THE EXISTING FO CABLE (CIRCUIT BETWEEN HOPE SUBSTATION AND THE MICROWAVE SITE).
- FO-SPLICE: PERFORM FUSION SPLICES OF (2) BUFFER TUBES (24 FIBERS) OF THE EXISTING FO CABLE TO THE NEW ADSS CABLE (CIRCUIT BETWEEN THE MICROWAVE SITE AND THE AT&T H-FRAME).
- (2) FO-CASSETTE.

(1) FO CONDUIT SPLICE PT:
 ANTICIPATE ROCK EXCAVATION.
 THE EXISTING FO CABLE IS TO BE CUT AND BOTH ENDS FUSION SPLICED WITHIN THE ENCLOSURE ON THE CEA H-FRAME. THE EXISTING (3) INNERDUCTS IN THE 4" HDPE ARE TO BE CUT AND ALL THREE EXTENDED INTO THE ENCLOSURE ON THE H-FRAME. THE EXISTING FO CABLE WAS INSTALLED IN ONE OF THE THREE INNERDUCTS INSIDE THE EXISTING 4" HDPE CONDUIT. THE 4" HDPE CONDUIT IS TO BE SPLICED TO 4" LIQUID-TIGHT FLEX (INSTALLED OVER/AROUND THE EXISTING INNERDUCTS) WITH AN RGS NIPPLE (HDPE-RGS-SPL), SEE DETAIL. RETIRE EXISTING HDPE4 AS REQUIRED. THE THREE INNERDUCTS ARE TO BE ROUTED THROUGH THE NEW 4" LIQUID-TIGHT FLEX, AND TRIMMED TO EXTEND 6" INTO THE ENCLOSURE ON THE H-FRAME.
 -CAREFULLY PROTECT THE EXISTING FIBER OPTIC CABLE-

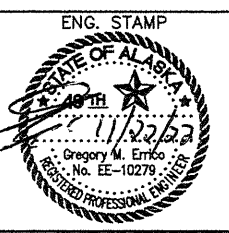
SHEET NOTES:
 1. SEE GENERAL NOTES ON SHEET ES1.
 2. THIS SEGMENT OF THE PROJECT IS IN MOUNTAINOUS TERRAIN.
 3. INSTALL 48 COUNT COUNT ADSS CABLE BETWEEN POLES R4 AND 12R9.
 4. SAG ADSS CABLE TO MATCH NEUTRAL'S SAG SAG.

(3) R4:
 REMOVE:
 -TELECOMMUNICATION ATTACHMENT FROM EYE-NUT (EYE-NUT ON BACKSIDE OF EXISTING ADSS BOLT)
 -ANCHOR TO THE SOUTHWEST (EXISTING ANCHOR WITH ROD 5.7' OUT-OF-GROUND). UNSCREW ROD OR CUT TO 12" BELOW GRADE.
 -GUYS TO THE SOUTHWEST AND NORTHEAST.
 -GUY ATTACHMENT (BOLT AND RAMS HEAD TO THE NORTHEAST).
 -FO-RISER (CAREFULLY PROTECTING EXISTING FO-CABLE)
 PROVIDE:
 -THIMBLE-EYE BOLT ~12" BELOW EXISTING ADSS BOLT AND REATTACH EXISTING TELECOMMUNICATIONS CABLE TO THE NORTHEAST TO IT.
 -INSTALL FO-DE ASSEMBLY ON VACATED BOLT.
 -SF-4P TO THE SOUTHWEST 20' OR GREATER LEAD; ANTICIPATE ROCK EXCAVATION.
 -SE1-4 GUY TO THE SOUTHWEST, ON EXISTING RAMS HEAD, TO REPLACEMENT ANCHOR.
 -SE1-4 GUY TO THE NORTHEAST TO EXISTING ANCHOR AND NEW BOLT WITH RAMS HEAD AT 18" BELOW EXISTING ADSS BOLT.
 -(25') LQDTFL4.
 -(125') HDPE1.25.
 -(15') SUR2-NT (24" EMBEDMENT; ANTICIPATE ROCK EXCAVATION).
 -FO-RISER-1; PROVIDE (3) INNERDUCTS (HDPE1.25) IN 4" CONDUIT AND RISER. INSTALL EXISTING FO-CABLE AND NEW ADSS IN SEPARATE INNERDUCTS.
 -INSTALL U-GUARD RISER CONDUIT ON POLE TO BELOW GRADE, OVER EXISTING UNSECURED TELECOMMUNICATIONS CABLE.
 -INSTALL 150' OF ADSS STORAGE ON EXISTING STORAGE BRACKET.
 -SEGREGATE EXISTING STORAGE COILS FROM NEW STORAGE COILS, MAKING THEM BOTH ACCESSIBLE.



1 WEST LAYOUT
 SEE GRAPHIC SCALE

PROJECT: HOPE JUNCTION / SILVERTIP ADSS FIBER INSTALL				
DESIGNER/PROJECT ENGINEER: G. ERRICO / B. MURRAY				
W.O. #: C2230004				
NO.	DESIGN/CONSTRUCTION/ASBUILT REVISION	DWN BY/DATE	REVIEWED (MGR/SUPV)/DATE	APPROVED (DIRECTOR)/DATE
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DRAWING NAME: HOPE JUNCTION / SILVERTIP ADSS FIBER INSTALL	
TELECOMMUNICATION ALIGNMENT - WEST LAYOUT	
W.O. NO.:	ES4
C.W.P. REF. NO.:	SHEET 4 OF 8

SAG ADSS PER CHART PROVIDED TO ASSURE REQUIRED CLEARANCES ARE PROVIDED AT HOPE HIGHWAY CROSSING.

12R14:
 -FO-DE (ATTACHMENT TO SOUTHWEST), ATTACH AT 60" BELOW ϕ OF CROSSARMS.
 -TRANSITION FIBER INSTALLATION FROM TELECOMMUNICATION SPACE TO SUPPLY SPACE.
 -FO-DE (ATTACHMENT TO NORTHEAST/XING), ATTACH AT 39" BELOW CENTERLINE OF CROSSARMS.
 -FO-STORAGE.
 -(3) FO-DL-CLAMP.

EXISTING COMMUNICATIONS CIRCUIT LEAVES POWER ALIGNMENT.

(2) FO-DE (BACK-TO-BACK), AT 1' ABOVE EXISTING TELECOMMUNICATION ATTACHMENT

25kVA
 120/240
 25kVA
 240/480

FO-TAN, AT 6' BELOW RAISED CROSSARMS

FO-TAN, AT 1' ABOVE EXISTING TELECOMMUNICATION ATTACHMENT

FO-TAN, AT 1' ABOVE EXISTING TELECOMMUNICATION ATTACHMENT

FO-TAN, AT 1' ABOVE EXISTING TELECOMMUNICATION ATTACHMENT

(2) FO-DE, AT 1' ABOVE EXISTING TELECOMMUNICATION ATTACHMENT; FO-STORAGE;
 (3) FO-DL-CLAMP

12R15:
 -FO-DE (TO SOUTHWEST/XING), ATTACH AT 39" BELOW ϕ OF LOWER CROSSARM.
 -FO-DE (TO SOUTH), ATTACH AT 45" BELOW ϕ OF LOWER CROSSARM.
 -(2) GUYS.
 -ANCHOR (NORTH 30' L.).
 -AUX-ANC-EYE (EXISTING ANCHOR TO NE).
 -(2) FO-DL-CLAMP.
 -(2) WARNING SIGNS.

6234:
 -FO-DE (TO NORTH & SOUTH), ATTACH BACK-TO-BACK AT 42" BELOW ϕ OF LOWER CROSSARM.
 -FO-STORAGE
 -(3) FO-DL-CLAMP
 -(2) WARNING SIGNS.

6226:
 -FO-TAN AT 24" BELOW CROSSARMS.
 -(2) WARNING SIGNS

6219:
 -FO-DE ATTACH AT 24" BELOW LINE CROSSARMS.
 -EXT-RSR EXTEND TELECOMMUNICATION RISER TO 9" BELOW CUT-OUT CROSSARM.
 -GUY TO EXISTING ANCHOR (SOUTH 43' LEAD), ATTACH ON BACKSIDE OF FO-DE.
 -(2) WARNING SIGN.

(23) AT&T H-FRAME:
 THE EXISTING FO-ENCLOSURE IS LABELED, "CHUGACH FIBER SLACK BOX" IN THE FIELD. PROVIDE:
 -(70) HDPE1.25
 -FO-RSR-2
 -(24) FO-PIGTAIL
 -FO-PATCH-PNL
 -OTDR-TEST
 -ATTN-TEST
 -5 FULL COILS OF UN-STRIPPED CABLE IN ENCLOSURE.
 -TERMINATE (2) BUFFERS (24 FIBERS) OF NEW ADSS WITH 6' FUSION PIGTAILS.
 -OTDR-TEST: TEST ALL 24 TERMINATED FIBERS USING OPTICAL TIME DOMAIN REFLECTOMETER TO INDUSTRY STANDARDS.
 -ATTN-TEST: TEST ALL 24 TERMINATED FIBERS, END-TO-END, USING A NANOMETER LIGHT SOURCE AT ONE END AND AN OPTICAL POWER METER ON OTHER END TO INDUSTRY STANDARDS.

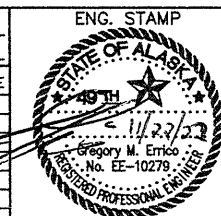
SHEET NOTES:
 1. SEE GENERAL NOTES ON SHEET ES1.
 2. BEGINNING AT 12R13 (TO THE SOUTHWEST, TOWARD POLE 12R12) THE PROJECT ENTERS MOUNTAINOUS TERRAIN.
 3. INSTALL 48 COUNT ADSS CABLE BETWEEN POLES 12R9 AND 6219.
 4. INSTALL 48 COUNT ADSS CABLE BETWEEN POLE 6219 AND CEA ENCLOSURE ON AT&T H-FRAME.
 5. BETWEEN POLE R9 AND POLE 12R14, SAG ADSS CABLE TO MATCH NEUTRAL'S SAG.
 6. BETWEEN POLES: 12R14 & 12R15, 12R15 & 6234, AND BETWEEN 6234 & 6219 SAG CABLE PER SAG CHARTS PROVIDED TO ASSURE REQUIRED CLEARANCES WILL BE MAINTAINED IN CROSSING AND STATE DOT R-O-W UNDER ICING CONDITIONS.

MATCHLINE TO SHEET ES4

1 EAST LAYOUT
 SEE GRAPHIC SCALE

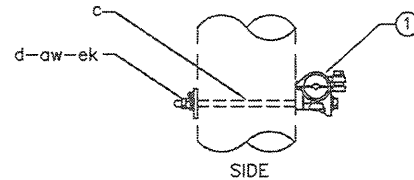
100 0 100 200 300

PROJECT: HOPE JUNCTION / SILVERTIP ADSS FIBER INSTALL				
DESIGNER/PROJECT ENGINEER: G. ERRICO / B. MURRAY			W.O. # C2230004	
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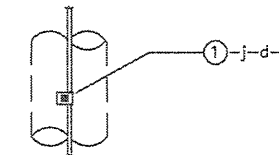
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DRAWING NAME:
 HOPE JUNCTION / SILVERTIP ADSS FIBER INSTALL
 TELECOMMUNICATION ALIGNMENT - EAST LAYOUT



MATERIAL LIST		
NO.	Qty.	DESCRIPTION
-	1	VIBRATION DAMPER, SPIRAL, FOR ADSS: AFL #AVD564/770

4 FO-DMPR
NOT TO SCALE

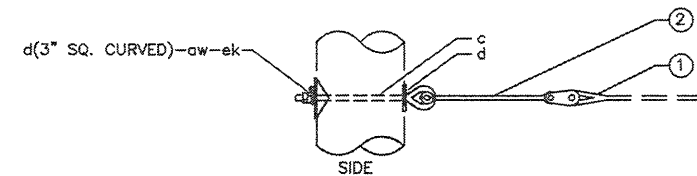


MATERIAL LIST		
Item	QTY	DESCRIPTION
1	1	DOWNLEAD CLAMP FOR ADSS, 0.50" TO 0.625", HUBBELL PART# PSE4040217
j	1	5/16" LAG BOLT x 4" LONG
d	1	WASHER, ROUND, 1" W/ 7/16" HOLE
d	1	WASHER, SQUARE, 2" W/ 9/16" HOLE

6 FO-DL CLAMP
NOT TO SCALE

MATERIAL LIST		
Item	QTY	DESCRIPTION
1	1	CLAMP, TRUNNION, SINGLE, 0.526" TO 0.575", PREFORMED # 4450101
c	1	BOLT, MACHINE, 5/8", x REQUIRED LENGTH
d	1	WASHER, STEEL, 2-1/4" SQUARE, STEEL, 11/16" HOLE, 3/16" THICK
aw	1	WASHER, SPRING, 5/8"
ek	-	LOCKNUT, 5/8", QTY. AS REQUIRED

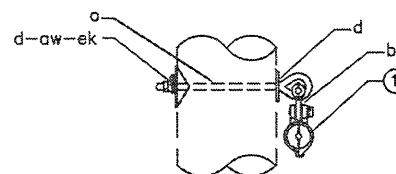
2 FO-TAN
NOT TO SCALE



MATERIAL LIST		
Item	QTY	DESCRIPTION
1	1	CLAMP, DE, FORMED WIRE, 0.543" TO 0.577", WITH REINFORCED RODS, PREFORMED PART# 2872006
2	1	THIMBLE CLEVIS, EXTENSION LINK, 5/8" EYE-NUT
c	1	BOLT, MACHINE, 5/8", x REQUIRED LENGTH
o	1	BOLT, OVAL-EYE, 5/8", x REQUIRED LENGTH
d	1	WASHER, STEEL, 3" SQUARE, CURVED, STEEL, 11/16" HOLE, 1/4" THICK
d	1	WASHER, STEEL, 2-1/4" SQUARE, STEEL, 11/16" HOLE, 3/16" THICK
aw	1	WASHER, SPRING, 5/8"
ek	-	LOCKNUT, 5/8", QTY. AS REQUIRED

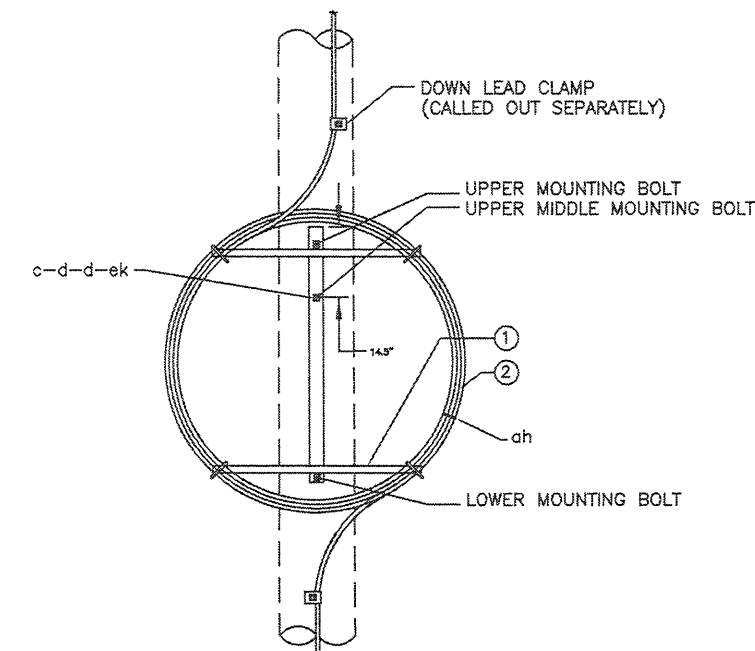
* SUBSTITUTE OVAL-EYE BOLT FOR MACHINE BOLT, WHEN INSTALLED BACK-TO-BACK.

1 FO-DE
NOT TO SCALE



MATERIAL LIST		
Item	QTY	DESCRIPTION
1	1	CLAMP, ADSS SUSPENSION UNIT, 0.526" TO 0.575", PREFORMED# 4450201
o	1	BOLT, OVAL-EYE, 5/8", x REQUIRED LENGTH
bo	1	SHACKLE, ANCHOR, 5/8" PIN
d	1	WASHER, STEEL, 3" SQUARE, CURVED, STEEL, 11/16" HOLE, 1/4" THICK
d	1	WASHER, STEEL, 2-1/4" SQUARE, STEEL, 11/16" HOLE, 3/16" THICK
aw	1	WASHER, SPRING, 5/8"
ek	-	LOCKNUT, 5/8", QTY. AS REQUIRED

3 FO-ANGL
NOT TO SCALE



NOTES:

- INSTALL BRACKET WITH UPPER MIDDLE MOUNTING BOLT, AT 4' BELOW LOWER ADSS LINE ATTACHMENT.
- INSTALL 3" SQUARE-CURVED WASHERS ON POLE SIDE OF BOLTS; INSTALL 2-1/4" SQUARE WASHERS BETWEEN BOLT HEADS AND BRACKET.

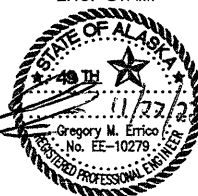
MATERIAL LIST		
Item	QTY	DESCRIPTION
1	1	EXTERNAL COIL BRACKET, AFL PART# CB-44-3AL
2	150'	ADSS FO CABLE
c	3	BOLT, MACHINE, 5/8", x REQUIRED LENGTH
d	3	WASHER, STEEL, 2-1/4" SQUARE, STEEL, 11/16" HOLE, 3/16" THICK
aw	3	WASHER, SPRING, 5/8"
ek	-	LOCKNUT, 5/8", QTY. AS REQUIRED
ah	-	TIE, WIRE, UV EXPOSURE RATED, HEAVY DUTY, QTY. AS REQUIRED TO SECURELY MAINTAIN COIL ON BRACKET

* CALLED OUT SEPARATELY IN STAKING SHEETS.

5 FO-STORAGE
NOT TO SCALE

PROJECT: HOPE JUNCTION / SILVERTIP ADSS FIBER INSTALL				
DESIGNER/PROJECT ENGINEER: G. ERRICO / B. MURRAY				
W.O. #: C2230004				
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ENG. STAMP



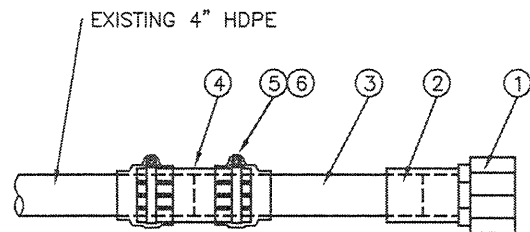
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DRAWING NAME: HOPE JUNCTION / SILVERTIP ADSS FIBER INSTALL

DETAILS

W.O. NO.:
C.W.P. REF. NO.:

ES6



NOTES:
1. SEAL OVER BOTH ENDS OF SHUR-LOCK COUPLING WITH WRAP OF OVERLAPPING AND TAPE OVER MASTIC WITH (7) WRAPS OF TAPE.

MATERIAL LIST		
NO.	Qty.	DESCRIPTION
1	1	CONNECTOR, 4", STEEL, STRAIGHT, INSULATED, LIQUIDTIGHT
2	1	COUPLING, RGS, 4"
3	1	CONDUIT NIPPLE, 4", SCH 40, RGS, 24" LENGTH
4	1	COUPLING, 4", SHUR-LOCK II, DURA-LINE
5	-	MASTIC, 3M #2210
6	-	TAPE, ELECTRIC, 3M #SUPER 88

2 HDPE-RGS-SPL
NOT TO SCALE

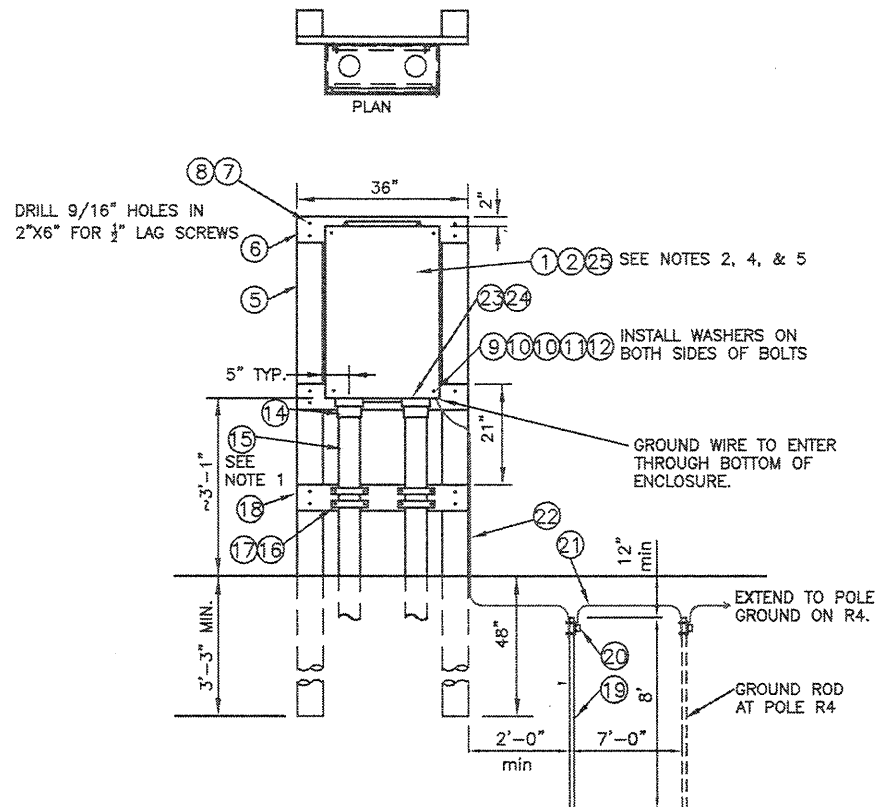


ws, SUBMIT 6" x 10" SIGN FOR APPROVAL

NOTE: MOUNT 4' BELOW CENTERLINE OF LOWEST DISTRIBUTION CROSSARM, OR LOWEST SECONDARY FACILITY.

MATERIAL LIST		
NO.	QTY.	DESCRIPTION
ws	1	WARNING SIGN, SIGNAL WORD AND SYMBOL IN BLACK ON ORANGE STRIPE, TEXT IN BLACK ON WHITE BACKGROUND; ALUMINUM SIGN FOR EXTERIOR APPLICATION
-	6	NAILS, ROOFING, GALVANIZED, 1-1/2" LONG

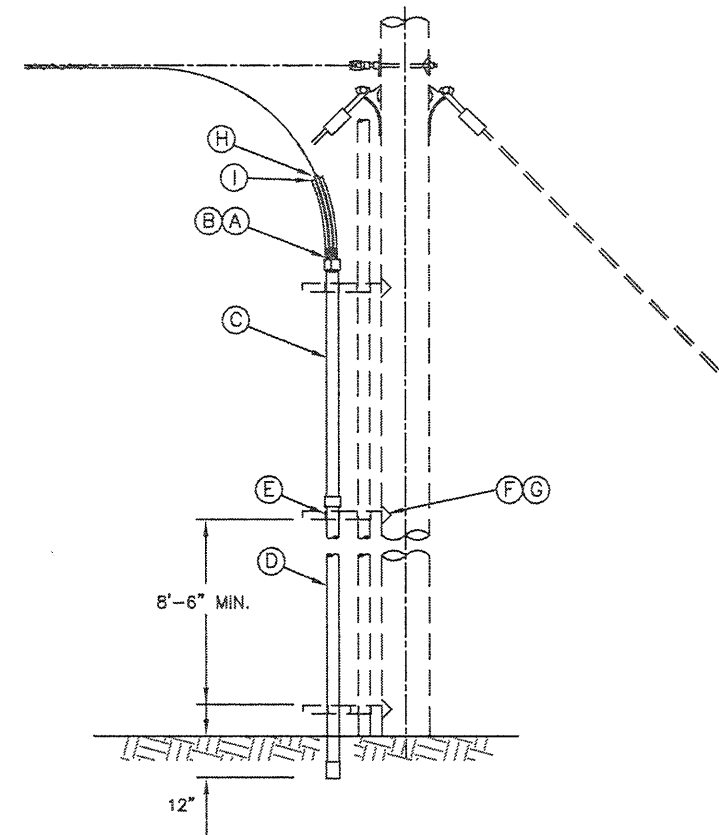
1 FO-WARNING
NOT TO SCALE



NOTES:
1. INSTALL 1-1/4" HDPE DUCT IN 4" LIQUIDTITE FLEXIBLE CONDUITS AND EXTEND THEM INTO THE ENCLOSURE. HDPE1.25 CALLED OUT SEPARATELY.
2. INSTALL WEATHER SEALING TAPE (ITEM #25) AROUND OPENING TO MAKE THE ENCLOSURE RESISTANT TO WIND DRIVEN RAIN OR SNOW.
3. TREAT ALL CUT WOOD CUT SURFACES WITH COPPER NAPHTHENATE SOLUTION.
4. THIS DETAIL INDICATES THE MECHANICAL ASPECTS OF THE H-FRAME. IT DOES NOT SHOW/LIST THE REQUIRED FIBER-OPTIC EQUIPMENT, FIBER-OPTIC TERMINATIONS, AND OTHER FIBER-OPTIC APPURTENANCES WITHIN THE ENCLOSURE.
5. REQUEST CLARIFICATION FROM THE OWNER OF THE REQUIRED FIBER-OPTIC EQUIPMENT, FIBER-OPTIC SPLICES, AND OTHER FIBER-OPTIC APPURTENANCES TO BE INSTALLED IN ENCLOSURE.

MATERIAL LIST		
No.	Qty.	DESCRIPTION
1	1	ENCLOSURE, NEMA 3R, LOCKABLE, WEATHER RESISTANT, HOFFMAN, 36"x24"x10"
2	1	GROUND CONNECTOR (ENCLOSURE GROUND)
5	2	LUMBER, 6" x 6" x 10" LONG, PRESSURE TREATED
6	3	LUMBER, 2" x 6" x LENGTH REQUIRED (36" MIN.), PRESSURE TREATED
7	12	SCREW, LAG, 1/2" X 4-1/2"
8	12	WASHER, 1-3/8" ROUND WITH 9/16" HOLE
9	4	BOLT, MACHINE, 1/4-20 x 3" LONG, HOT-DIPPED GALVANIZED
10	8	WASHER, ROUND, 1" DIA., 5/16" HOLE, HOT-DIPPED GALVANIZED
11	4	1/4" LOCK NUT, HOT-DIPPED GALVANIZED
12	4	1/4" FULL NUT, HOT-DIPPED GALVANIZED
14	2	CONNECTOR, STRAIGHT, LIQUIDTIGHT, 4"
15	-	4" LIQUID TIGHT FLEX. CNDT. (SHOWN FOR COORDINATION, CALLED-OUT SEPARATELY)
16	4	STRAP, 2-HOLE, 4", HOT-DIPPED GALVANIZED, 9/32" HOLES
17	8	SCREW, LAG, 1/4" X 1-1/2", HOT-DIPPED GALVANIZED
18	-	COPPER NAPHTHENATE SOLUTION, AS REQUIRED
19	1	ROD, GROUND, COPPER CLAD, 5/8"x8"
20	1	CLAMP, GROUND ROD
21	-	#6 BARE SOLID COPPER
22	-	COPPER CLAD STAPLES, AS REQUIRED
23	2	WASHER, CONDUIT, LOCKNUT, 4"
24	2	BUSHING, INSULATED, GROUNDING, 4"
25	-	TAPE, SELF-ADHESIVE, WEATHER SEALING

3 CEA-FO-H-FRAME
NOT TO SCALE

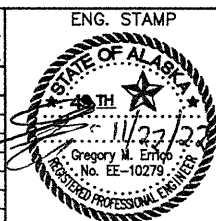


NOTES:
1. INSTALL 1-1/4" HDPE DUCTS IN RISER (3 DUCTS REQUIRED) AND EXTEND THEM ~2' OUT-OF-TOP OF RISER.
2. SEAL BETWEEN 1-1/4" HDPE DUCTS AND 4" PVC WITH DUCT SEAL.
3. SEAL 1-1/4" HDPE DUCTS WITH PLUGS.
4. 1-1/4" HDPE CALLED OUT SEPARATELY (HDPE1.25).

MATERIAL LIST		
Item	Qty.	DESCRIPTION
A	-	DUCT SEAL, AS REQUIRED, ~2 LBS.
B	1	CONDUIT, BELL END, 4", PVC
C	-	CONDUIT, PVC, 4" SCHEDULE 40, AS REQUIRED
D	1	CONDUIT, RGS, 4", SCHEDULE 40, 10' LENGTH. W/ COUPLING
E	-	CLAMP, PIPE, 4", PLATED, AS REQUIRED
F	-	BRACKET, STAND-OFF, 12", AS REQUIRED
G	-	SCREW, LAG, 1/2" X 4-1/2", AS REQUIRED
H	2	PLUG, CONDUIT, 1.25 O.D. NOMINAL, 0.570 HOLE NOMINAL
I	1	PLUG, CONDUIT, 1.25 O.D. NOMINAL, SOLID
J	1	CONNECTOR, 4", STEEL, STRAIGHT, INSULATED, LIQUIDTIGHT

4 FO-RISER-1
NOT TO SCALE

PROJECT: HOPE JUNCTION / SILVERTIP ADSS FIBER INSTALL				
DESIGNER/PROJECT ENGINEER: G. ERRICO / B. MURRAY			W.O. #: C2230004	
NO.	DESIGN/CONSTRUCTION/ASBUILT REVISION	DWN BY/DATE	REVIEWED (MGR/SUPV)/DATE	APPROVED (DIRECTOR)/DATE
0	ISSUED FOR CONSTRUCTION	GE/10-13-22		
1	ISSUED FOR CONSTRUCTION - REV 1	GE/11-22-22		



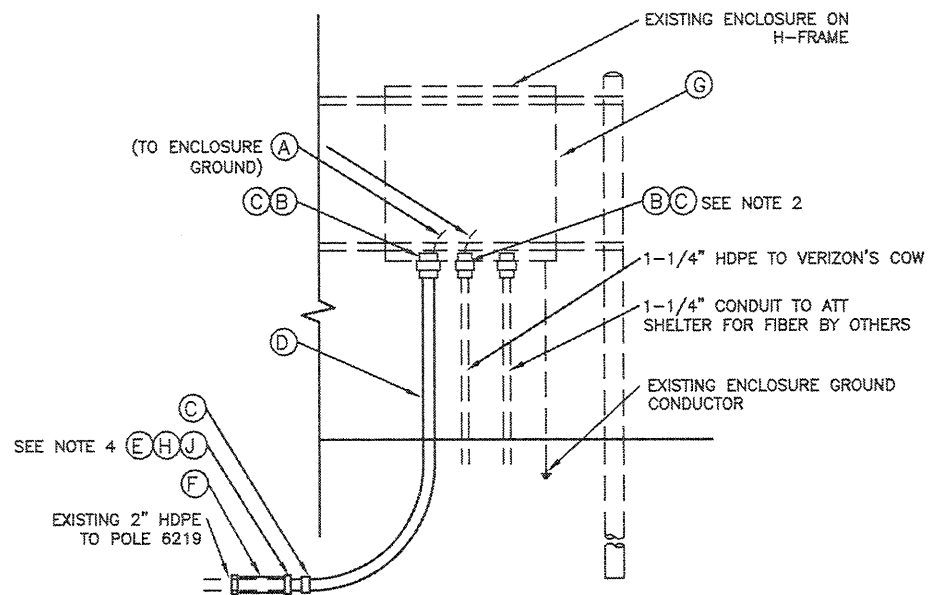
Chugach Electric Association, Inc.
5601 Minnesota Drive - P.O. Box 196300
Anchorage, Alaska 99519-6300

DRAWING NAME: HOPE JUNCTION / SILVERTIP ADSS FIBER INSTALL

DETAILS

W.O. NO.:
C.W.P. REF. NO.:

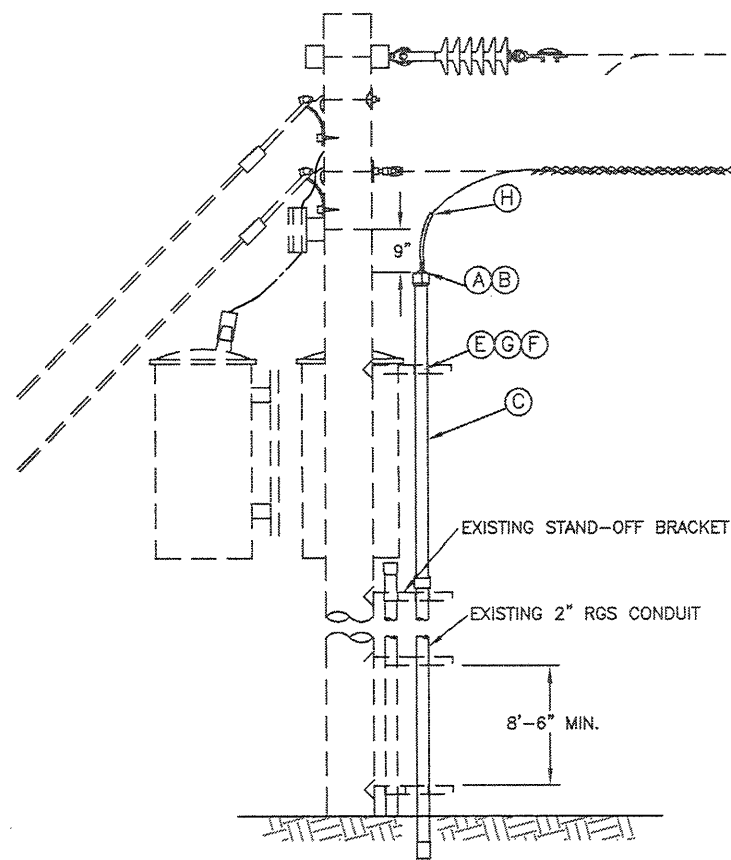
ES7



- NOTES:**
1. INSTALL 1-1/4" HDPE DUCT IN 2" LIQUIDTITE FLEXIBLE CONDUIT AND EXTEND IT INTO THE ENCLOSURE. HDPE1.25 CALLED OUT SEPARATELY.
 2. INSTALL 1-1/4" HDPE (TEMPORARY HDPE TO VERIZON'S COW) THROUGH A STRAIGHT LIQUIDTIGHT CONNECTOR INTO ENCLOSURE, AND SECURED INSIDE TO PREVENT IT PULLING OUT.
 3. INSTALL WEATHER SEALING TAPE (ITEM G) AROUND OPENING TO MAKE THE ENCLOSURE RESISTANT TO WIND DRIVEN RAIN OR SNOW.
 4. SEAL OVER BOTH ENDS OF SHUR-LOCK COUPLING WITH WRAP OF OVERLAPPING MASTIC, AND TAPE OVER MASTIC WITH (7) WRAPS OF TAPE.

MATERIAL LIST		
No.	Qty.	DESCRIPTION
A	-	#6 BARE SOLID COPPER
B	2	BUSHING, INSULATED, GROUNDING, 2"
C	3	CONNECTOR, STRAIGHT, LIQUIDTIGHT, 2"
D	-	CONDUIT, FLEXIBLE, METALLIC, LIQUIDTIGHT, 2" x REQUIRED LENGTH
E	1	CONDUIT NIPPLE, 2", SCH 40, RGS, 12" LENGTH
F	1	COUPLING, 2", SHUR-LOCK II, DURA-LINE
G	-	TAPE, SELF-ADHESIVE, WEATHER SEALING
H	-	MASTIC, 3M #2210
J	-	TAPE, ELECTRIC, 3M #SUPER88

1 FO-RISER-2 (AT EXISTING AT&T H-FRAME)
NOT TO SCALE



- NOTES:**
1. INSTALL 1-1/4" HDPE DUCT IN RISER AND EXTEND IT 6" TO 12" OUT-OF-TOP OF RISER.
 2. SEAL BETWEEN 1-1/4" HDPE DUCT AND 2" PVC WITH DUCT SEAL.
 3. SEAL BETWEEN 1-1/4" HDPE DUCT AND FO CABLE WITH PLUG.
 4. 1-1/4" HDPE CALLED OUT SEPARATELY (HDPE1.25).

MATERIAL LIST		
Item	Qty.	DESCRIPTION
A	-	DUCT SEAL, AS REQUIRED, ~2 LBS.
B	1	CONDUIT, BELL END, 2", PVC
C	-	CONDUIT, PVC, 2" SCHEDULE 40, AS REQUIRED
D	-	NOT USED
E	-	CLAMP, PIPE, 2", PLATED, AS REQUIRED
F	-	BRACKET, STAND-OFF, 12", AS REQUIRED
G	-	SCREW, LAG, 1/2" X 4-1/2", AS REQUIRED
H	1	PLUG, CONDUIT, 1.25 O.D. NOMINAL, 0.570 HOLE NOMINAL

2 EXT-RSR
NOT TO SCALE

PROJECT: HOPE JUNCTION / SILVERTIP ADSS FIBER INSTALL				
DESIGNER/PROJECT ENGINEER: G. ERRICO / B. MURRAY			W.O. #: C2230004	
NO.	DESIGN/CONSTRUCTION/ASBUILT REVISION	DWN BY/DATE	REVIEWED (MGR/SUPV)/DATE	APPROVED (DIRECTOR)/DATE
0	ISSUED FOR CONSTRUCTION	GE/10-13-22		
1	ISSUED FOR CONSTRUCTION - REV 1	GE/11-22-22		

ENG. STAMP



CHUGACH
POWERING ALASKA'S FUTURE

Chugach Electric Association, Inc.
5601 Minnesota Drive - P.O. Box 196300
Anchorage, Alaska 99519-6300

DRAWING NAME: HOPE JUNCTION / SILVERTIP ADSS FIBER INSTALL

DETAILS

W.O. NO.:
C.W.P. REF. NO.:

ES8

SHEET 8 OF 8