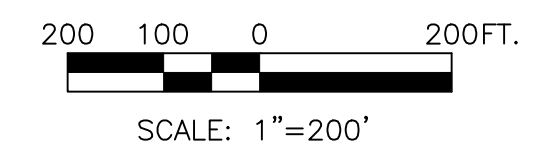
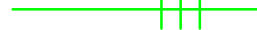




INDEX OF DRAWINGS			
TITLE	SHEET	REV.	NOTES
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SPECIFICATIONS & STRINGING	G-02	A	ISSUED FOR REVIEW – 35%
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STAKING SHEETS	G-07	C	UPDATE SERVICE TO HOMES
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DETAILS	S-01	A	ISSUED FOR REVIEW – 35%
DETAILS	S-02	A	ISSUED FOR REVIEW – 35%
DETAILS	S-03	B	ADD SERVICE TO HOMES
DETAILS	S-04	C	UPDATE SERVICE TO HOMES



LEGEND

	<u>NEW</u>	<u>EXISTING</u>	<u>RETIRE</u>
POLE			
POLE — REPLACE EXISTING IN PLACE			
ANCHOR			
FUSED CUTOUT			
SPAN GUY			
LINE CONTINUATION			
STREET LIGHT			
1PH TRANSFORMER			
3PH TRANSFORMER			
OVERHEAD SECONDARY			
OVERHEAD 3PH — 4WIRE			
OVERHEAD 3PH — 3WIRE			
OVERHEAD 1PH			

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		DRAWING NAME:

FORT YUKON
RABBIT LINE SUBDIVISION
COVER SHEET & INDEX

REF DWG(S):

FYRL-G-01

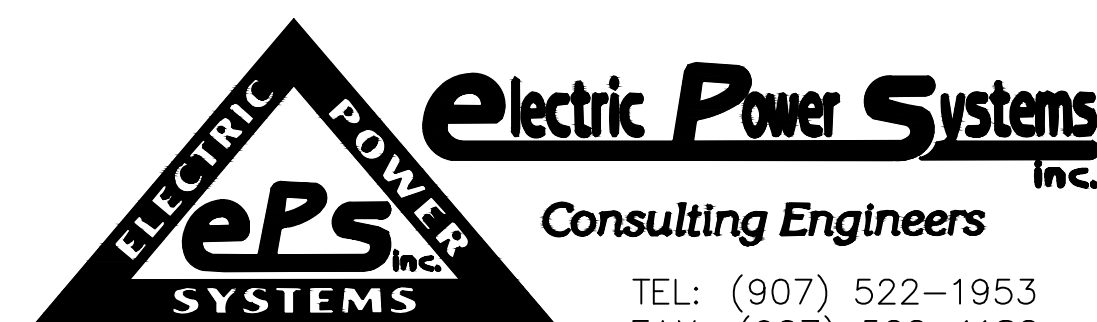
HEFT X OF X

PROJECT: FORT YUKON - RABBIT LINE SUBDIVISION

DESIGNER/PROJECT ENGINEER: ERIC D. SCHRAM/CHRISTOPHER T. DAVIS

W.O. #: 25-0053

ENG. STAMP



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DISTRIBUTION SPECIFICATIONS

A. General

All construction work shall be done in a thorough and workman-like manner in accordance with the Staking Sheets, Plans and Specification, and Construction Drawings. All work areas shall be left clean of any excess materials and garbage.

The C2-2023 Edition of the National Electric Safety Code shall be followed except where local regulations are more stringent, in which case local regulations shall govern. The design was performed per C2-2023 NESC, if construction is delayed and occurs under a later code, the design must be reviewed for the later code prior to construction.

Some of the drawings and specifications are from RUS bulletins 1728F-804 "Specifications and Drawings for 12.47/7.2 kV Construction".

B. Overhead Specifications

1. Distributing Poles:
- In distributing the poles, large, choice, close-grained poles shall be used for transformers, deadend, angle, and corner poles.
2. Pole Setting:
- The minimum depth for setting poles shall be as follows:
- | Length of Pole | Setting in Soil | Over-Embedded |
|----------------|-----------------|---------------|
| (feet) | (feet) | (feet) |
| 30 | 5.5 | 7.5 |
| 35 | 6.0 | 8.0 |
| 40 | 6.0 | 8.0 |
| 45 | 6.5 | 8.5 |
| 50 | 7.0 | 9.0 |
| 55 | 7.5 | 9.5 |
| 60 | 8.0 | 10.0 |
| 65 | 8.5 | 10.5 |
| 70 | 9.0 | 11.0 |
| 75 | 9.5 | 11.5 |
- "Setting in Soil" specifications shall apply:
- a. Where poles are to be set in soil.
- b. Where there is a layer of soil of more than two (2) feet in depth over solid rock.
- c. Where the hole in solid rock is not substantially vertical or the diameter of the hole at the surface of the rock exceeds approximately twice the diameter of the pole at the same level.

"Over-Embedded" specifications shall apply where indicated on the Drawings and Staking Sheets. In addition to the additional depth of burial, backfill for these locations shall be imported backfill, non-frost susceptible material, free of clay and organics, and without large rocks or cobbles larger than 3", i.e. "pit run" material or similar.

On sloping ground, the depth of the hole always shall be measured from the low side of the hole.

Poles shall be set so that alternate crossarm gains face in opposite directions, except at terminals and deadends where the gains of the last two (2) poles shall be on the side facing the terminal or deadend. On unusually long spans, the poles shall be set so that the crossarm comes on the side of the pole away from the long span. Where pole top pins are used, they shall be on the opposite side of the pole from the gain, with the flat side against the pole.

Poles shall be set in alignment and plumb except at corners, terminals, angles, junctions, or other points of strain, where they shall be set and raked against the strains so that the conductors shall be in line.

Poles shall be raked against the conductor strain not less than one (1) inch for each ten (10) feet of pole length nor more than two (2) inches for each ten (10) feet of pole length after conductors are installed at the required tension.

Pole backfill shall be thoroughly tamped in full depth. Excess soil shall be banked around the pole to a nominal depth of 2' and sloped to provide drainage away from the pole.

Poles which have been in storage for more than 1 year from the date of treatment shall be ground line treated when installed.

3. Grading of Line and Bolts:

There shall be no upstrain on pin-type insulators in grading the line each way to lower poles when using high poles to clear obstacles such as buildings, foreign wire crossings, railroads, etc.

All bolts employed for the mounting of hardware items on poles shall be long enough to fully engage the

nut (including locknut, where applicable) but shall not extend more than 2 in. beyond the nut after the nut is tightened. The ends of bolts shall not be cut.

4. Hardware:

All pole hardware shall be from RUS's current approved material list. All bolts, nuts, washers, and other mounting hardware shall be hot-dipped galvanized.

5. Guys and Anchors:

Guys shall be placed before the conductors are strung and shall be attached to the pole.

All anchors and rods shall be in line with the strain and shall be so installed that approximately six (6) inches of the rod remain out of the ground. In cultivated fields or other locations, as deemed necessary, the projection of the anchor rod above earth may be increased to a maximum of twelve (12) inches to prevent burial of the rod eye. The backfill of all anchor holes must be thoroughly tamped the full depth.

Power screw anchors shall be installed in accordance with manufacturer's instructions to provide the designated holding power listed on the assembly drawings. Utilize a torque measuring method (either shear pins or a torque indicator attachment) along with the manufacturer's installed torque vs. holding capacity relationship data and install anchors to required torque in order to achieve the designated holding capacity.

All guys shall be equipped with guy markers with reflective tape/material providing high visibility

6. Locknuts:

A locknut shall be installed with each nut, eyenut or other fastener on all bolts or threaded hardware such as insulator pins, upset bolts, double arming bolts, etc.

7. Conductors:

Conductors must be handled with care. Conductors shall not be tramped on or run over by vehicles. Each reel shall be examined and the wire shall be inspected for cuts, kinks, or other damaged. Damaged portions shall be cut out and the conductors spliced. The conductors shall be pulled over suitable rollers or stringing blocks properly mounted on pole or crossarm if necessary to prevent binding while stringing.

The neutral conductor shall be maintained on the road side of the pole whenever practicable.

Armor rod protection shall be used for all new main feeder line conductor, not including jumpers. Secure conductor to insulators using clamp tops, where clamp top insulators are specified, in accordance with insulator manufacturer's specifications. At other locations, pin type insulators shall be tied using factory formed ties in the top groove of the insulator on tangent poles and on the side of the insulator away from the strain at angles. Pin-type insulators shall be tight on the pins and on tangent construction the top groove must be in line with the conductors after tying in.

All conductors shall be cleaned thoroughly by wire brushing before splicing or the installation of a connector or clamp. A suitable inhibitor shall be used before splicing or applying connectors over aluminum conductor.

8. Splices and Deadends:

There shall be not more than one (1) splice per conductor in any span and splicing sleeves shall be located at least ten (10) feet from the conductor support. No splices shall be located in Grade B crossing spans and preferably not in the adjacent spans. Splices shall be installed in accordance with the manufacturer's recommendations

9. Taps and Jumpers

Jumpers and other leads shall be bare or covered copper conductor. Jumpers and other leads connected to line conductors shall have sufficient slack to allow free movement of the conductors. Where slack is not shown on the Construction Drawings it will be provided by at least two (2) bends in a vertical plane, or one (1) in a horizontal plane, or the equivalent. In areas where aeolian vibration occurs, special measures to minimize the effects of jumper breaks shall be used as specified.

Leads on equipment such as transformers, reclosers, etc. shall be minimum #4 Cu. Utilize hot-line clamps with stirrups for connection of equipment leads to line as indicated on the assembly details.

All primary jumpers shall consist of conductors matching or exceeding ampacity of the main line conductor and be insulated for bird protection where required. AMPACT or equivalent connectors suitable for bi-metallic connections shall be used for jumper connections

10. Hot-Line Clamps and Connectors

Connectors and hot-line clamps suitable for the purpose shall be installed as shown on Guide Drawings. Stirrups shall be used with all hot-line clamp installations. On all hot-line clamp installations, the clamp and jumper shall be so installed so that they are permanently bonded to the load side of the line, allowing the jumper to be de-energized when the clamp is disconnected. This applies in all cases, even where the line layout is such that the tap line is in actuality the main back to the power source.

11. Sagging of Power Conductors:

Conductors shall be sagged in accordance with the provided stringing tables. However, under no circumstances will a decrease in the specified sag be allowed. All conductors shall be sagged evenly. Stringing of conductors shall be done using travelers of proper diameter for the conductor selected. The air temperature at the time and place of sagging shall be determined by a certified etched glass thermometer. After bringing conductor to proper sag, deadends are to be secure within 2 hours. Wire must be tied to insulators within 48 hours.

12. Secondary and Service Drops:

Secondary conductors may be covered wires or multi-conductor service cable. The conductors shall be sagged in accordance with manufacturers' recommendations. Open wire secondary shall not be utilized for new installations.

Secondaries and service drops shall be so installed as not to obstruct climbing space. There shall not be more than one (1) splice per conductor in any span, and splicing sleeves shall be located at least ten (10) feet from the conductors support. Where the same covered conductors or service cables are to be used for the secondary and service drop, they may be installed in one (1) continuous run.

13. Grounds:

Ground plate shall be installed in accordance with the Construction Drawings. The staples on the ground wire shall be spaced two (2) feet apart except for a distance of eight (8) feet above the ground and eight (8) feet down from the top of the pole where they shall be six (6) inches apart.

All equipment shall have at least two (2) connections from the frame, case or tank to the multi-grounded neutral conductor.

The equipment ground, neutral wires, and lightning-protective equipment shall be interconnected and attached to a common ground wire.

14. Clearing of Right-Of-Way:

The right-of-way shall be prepared by removing trees, clearing underbrush, and trimming trees so that the right-of-way is cleared close to the ground at the width specified. Low growing shrubs which will not interfere with the operation or maintenance of the line shall be left undisturbed if so directed by the Owner. Slash may be chipped and blown on the right-of-way unless strictly prohibited by the Owner, federal, state or local laws. Trees fronting each side of the right-of-way shall be trimmed symmetrically unless otherwise specified. Dead trees beyond the right-of-way which would strike the line in falling shall be removed. Leaning trees beyond the right-of-way, which would strike the line in falling and which would require topping if not removed, shall either be removed or topped

STRINGING CHART

Ruling Span:200.00 ft				Stringing Sag Table Using Initial Sag						
Conductor: #2 AWG 7/1 ACSR "Sparate"										
Special Load Zone				Max Tension = 1339 lb						
Design:	20.0 % Ult. @ -28.0 °F,			0.00 in Ice,		0.00 lb/ft² Wind,		Final		
H Tens (lb)	697	635	572	511	452	397	348	306	270	242
Cond. Temp °F>	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0
Sag	ft-in	ft-in	ft-in	ft-in	ft-in	ft-in	ft-in	ft-in	ft-in	ft-in
Span										
200.00	0- 9	0-10	0-11	1- 1	1- 2	1- 4	1- 6	1- 9	2- 0	2- 3
225.00	1- 0	1- 1	1- 2	1- 4	1- 6	1- 8	1-11	2- 3	2- 6	2-10
250.00	1- 2	1- 4	1- 6	1- 8	1-10	2- 1	2- 5	2- 9	3- 1	3- 5

PROJECT: FORT YUKON – RABBIT LINE SUBDIVISION					ENG. STAMP	
DESIGNER/PROJECT ENGINEER: ERIC D. SCHRAM/CHRISTOPHER T. DAVIS					W.O. #: 25-0053	
NO.	DESIGN/CONSTRUCTION/ASBUILT REVISION	DWN BY/DATE	REVIEWED (MGR/SUPV)/DATE	APPROVED (DIRECTOR)/DATE		
A	ISSUED FOR REVIEW – 35%	EDS/04-04-2025	CTD/04-04-2025			



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NO.	DRAWING NO./SHEET	REFERENCE DRAWING/DETAIL/PLAN/SECTION DESCRIPTION
DRAWING NAME:		
FORT YUKON RABBIT LINE SUBDIVISION SPECIFICATIONS & STRINGING		
REF DWG(S):		
DRAWING NO.:		
FYRL-G-02		SHEET X OF X

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STATUS	STRUCTURE NUMBER	STATION NUMBER	SHEET NUMBER	BACK SPAN	LINE ANGLE	PRIMARY						GUY			ANCHOR		SECONDARY AND SERVICE			MISCELLANEOUS		METER	REMARKS
						CONDUCTOR		POLE or TRENCH	POLE TOP/ UG NO. UNIT	TRANSFORMER UNIT	GROUND UNIT	NO.	UNIT	LEAD (ft)	NO.	UNIT	WIRE SIZE	NO.	UNIT				
						NO.	TYPE																
E	SE41-9-23			102		3	#4 ACSR	40/4	1	C1.11							1		COMM				
E				102		1	#2 ACSR																
E	SE41-9-24			270		3	#4 ACSR	40/4	1	C1.11							1		COMM				
E				270		1	#2 ACSR																
E				96		3	#4 ACSR																
E				96		1	#2 ACSR															USE EXISTING CONDUCTOR FOR INSET POLE	
I	SE41-9-24A			0		2	#2 ACSR	40/4	1	C1.11 A5.2		H1.1	1	E2.1X	15	1	F3.18X	1	COMM	1	S1.01		
I																							
I	SE41-9-24A-1			82		2	#2 ACSR	40/4	1	A1.1													
I				35				M1.20G															
I	SE41-9-24A-2			200		2	#2 ACSR	40/4	1	A1.1													
I				200				M1.20G															
I	SE41-9-24A-3			200		2	#2 ACSR	40/4	1	A1.1													
I				200				M1.20G															
I	SE41-9-24A-4			200		2	#2 ACSR	40/4	1	A1.1													
I				200				M1.20G															
I				0							G1.4-15-A	H1.1	1	E1.1X	8	1	F3.8X	1	J3.1	#2 TPX		COIL 15' SECONDARY FOR FUTURE CONNECTION	
I	HOUSE			170													1	K3.1	#2 TPX			SEE K4.2G. COIL 15' SECONDARY FOR FUTURE	
REPEAT	SE41-9-24A-4																						
I	SE41-9-24A-5			237		2	#2 ACSR	40/4	1	A1.1													
I				207				M1.20G															
I	SE41-9-24A-6			163		2	#2 ACSR	40/4	1	A1.1													
I				163				M1.20G															
I	SE41-9-24A-7			200		2	#2 ACSR	40/4	1	A1.1													
I				200				M1.20G															
I	SE41-9-24A-8			200		2	#2 ACSR	40/4	1	A1.1													
I				200				M1.20G															
I	SE41-9-24A-9			187		2	#2 ACSR	40/4	1	A5.1		H1.1	1	E2.1X	15	1	F3.18X						
I				187				M1.20G															
REPEAT	SE41-9-24A																						
E	SE41-9-25			149		3	#4 ACSR	40/4	1	C1.11							1		COMM				
E				149		1	#2 ACSR																
E	SE41-9-26			230		3	#4 ACSR	40/4	1	C1.11							1		COMM				
E				230		1	#2 ACSR																
E	SE41-9-26A			72		3	#4 ACSR	40/4	1	C1.11		H1.1				1	F3.18X	1	COMM			REUSE EXISTING ANCHOR	
E				72		1	#2 ACSR						1	E1.1X	10	1	F3.18X					GUY BACKING COMM	
E				0		1	#4 ACSR			A5.1													
E				0		1	#2 ACSR																
R													2	E1.1X	15								
I													2	E2.1X	15					1	S1.01		
E	SE41-9-26A-1			168		1	#4 ACSR	40/4	1	A1.1													
E				168		1	#2 ACSR																
E	SE41-9-26A-2			267		1	#4 ACSR	40/4	1	A1.1		G1.4-15-A	H1.1										
E				267		1	#2 ACSR																
E	SE41-9-26A-3			217		1	#4 ACSR	40/4	1	A1.1									TPX				
E				217		1	#2 ACSR																
E	SE41-9-26A-4			144		1	#4 ACSR	40/4	1	A5.1		G1.4-15-A	H1.1	2	E1.1X	10	2	F3.18X					
R				144		1	#2 ACSR						1	E1.1X	10							RETIRE TOP GUY BACKING PRIMARY	
I				0		2	#2 ACSR			A5.01													
I										N5.2													

NO.	DRAWING NO./SHEET	REFERENCE DRAWING/DETAIL/PLAN/SECTION DESCRIPTION

DRAWING NAME:

**FORT YUKON
RABBIT LINE SUBDIVISION
STAKING SHEETS**

REF DWG(S):

DRAWING NO.:
FYRL-G-04

SHEET **X** OF **X**

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PROJECT: <u>FORT YUKON - RABBIT LINE SUBDIVISION</u>				
DESIGNER/PROJECT ENGINEER: <u>ERIC D. SCHRAM/CHRISTOPHER T. DAVIS</u>			W.O. #: <u>25-0053</u>	
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C	UPDATE SERVICE TO HOMES	EDS/05-02-2025	CTD/05-02-2025	



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FORT YUKON
RABBIT LINE SUBDIVISION
STAKING SHEETS

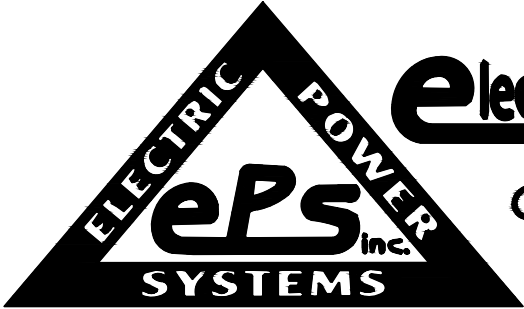
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LEGEND			
	NEW	EXISTING	RETIRE
POLE			
POLE — REPLACE EXISTING IN PLACE			
ANCHOR			
FUSED CUTOUT			
SPAN GUY			
LINE CONTINUATION			
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3PH TRANSFORMER			
OVERHEAD SECONDARY			
OVERHEAD 3PH — 4WIRE			
OVERHEAD 3PH — 3WIRE			
OVERHEAD 1PH			

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NO.	DRAWING NO./SHEET	REFERENCE DRAWING/DETAIL/PLAN/SECTION DESCRIPTION
DRAWING NAME: FORT YUKON RABBIT LINE SUBDIVISION DISTRIBUTION PLANS		
REF DWG(S):		
DRAWING NO.: FYRL-P-01		SHEET X OF X

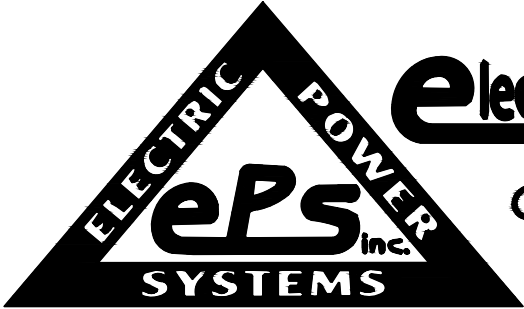


LEGEND			
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POLE			
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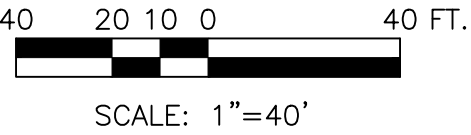
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DRAWING NAME:		FORT YUKON RABBIT LINE SUBDIVISION DISTRIBUTION PLANS	
REF DWG(S):			
DRAWING NO.:		FYRL-P-02	
		SHEET <u> X </u> OF <u> X </u>	



LEGEND

	NEW	EXISTING	RETIRE
POLE			
POLE - REPLACE			
EXISTING IN PLACE			
ANCHOR			
FUSED CUTOUT			
SPAN GUY			
LINE CONTINUATION			
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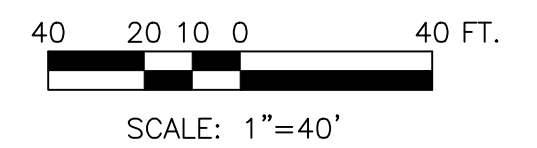
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DRAWING NAME:		FORT YUKON RABBIT LINE SUBDIVISION DISTRIBUTION PLANS		
REF DWG(S):				
DRAWING NO.:		FYRL-P-05		
				SHEET <u> X </u> OF <u> X </u>



LEGEND

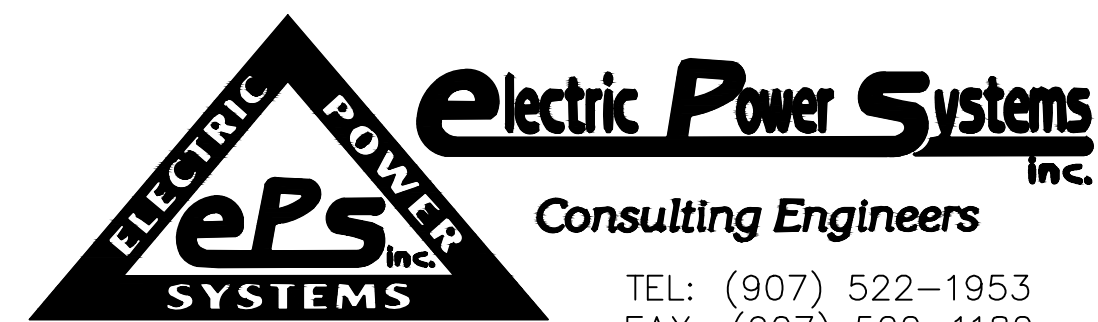
	<u>NEW</u>	<u>EXISTING</u>	<u>RETIRE</u>
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3PH TRANSFORMER			
OVERHEAD SECONDARY			
OVERHEAD 3PH — 4WIRE			
OVERHEAD 3PH — 3WIRE			
OVERHEAD 1PH			

[illegible]

PROJECT: **FORT YUKON - RABBIT LINE SUBDIVISION**
 DESIGNER/PROJECT ENGINEER: **ERIC D. SCHRAM/CHRISTOPHER T. DAVIS** W.O. #: **25-0053**

NO.	DESIGN/CONSTRUCTION/ASBUILT REVISION	DWN BY/DATE	REVIEWED (MGR/SUPV)/DATE	APPROVED (DIRECTOR)/DATE
A	ISSUED FOR REVIEW - 35%	EDS/04-04-2025	CTD/04-04-2025	
B	ADD SERVICE TO HOMES	EDS/04-25-2025	CTD/04-25-2025	
C	UPDATE SERVICE TO HOMES	EDS/05-02-2025	CTD/05-02-2025	

ENG. STAMP



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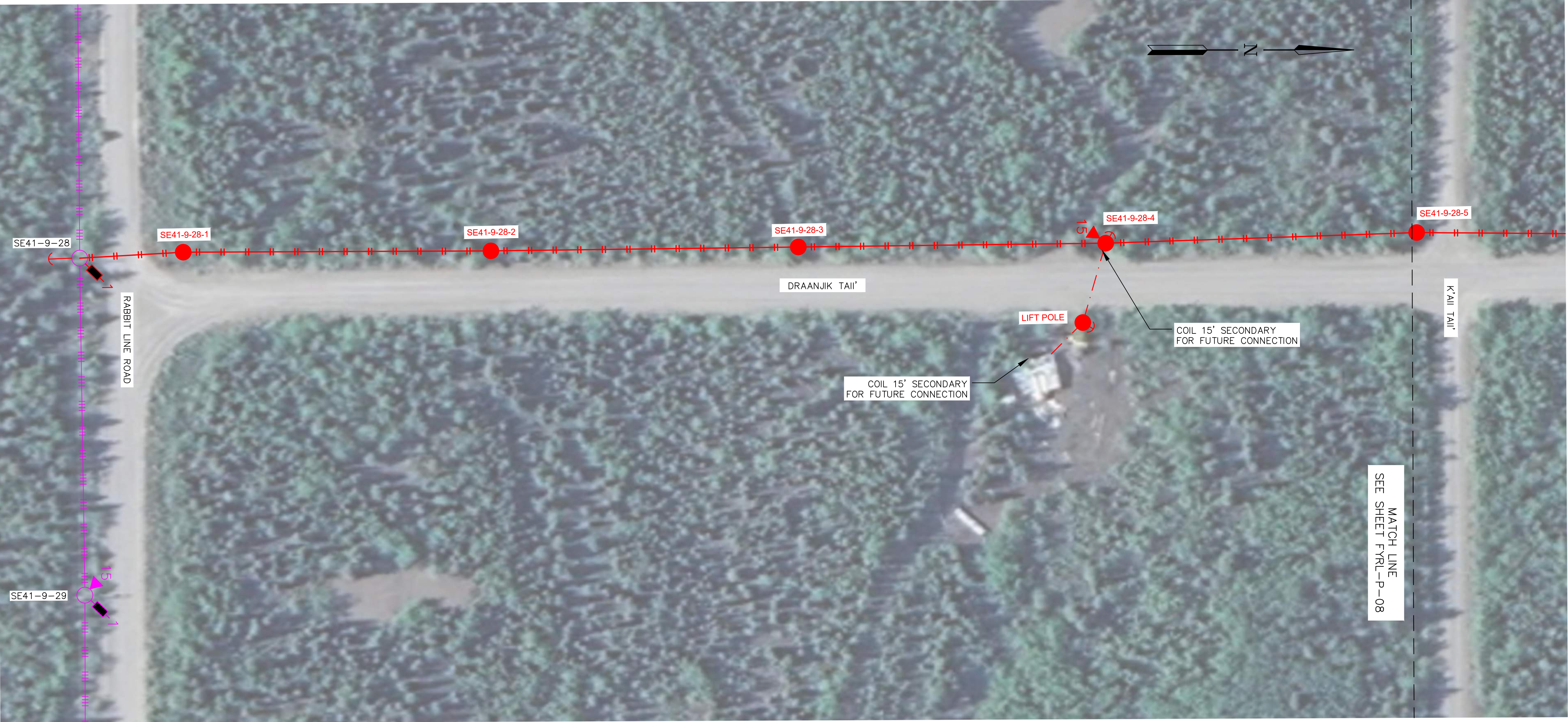
		DRAWING NAME:

FORT YUKON
RABBIT LINE SUBDIVISION
DISTRIBUTION PLANS

REF DWG(S):

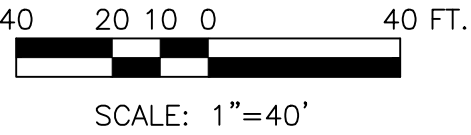
FYRL-P-06

HEFT X OF X



LEGEND

	NEW	EXISTING	RETIRE
POLE			
POLE - REPLACE EXISTING IN PLACE			
ANCHOR			
FUSED CUTOUT			
SPAN GUY			
LINE CONTINUATION			
STREET LIGHT			
1PH TRANSFORMER			
3PH TRANSFORMER			
OVERHEAD SECONDARY			
OVERHEAD 3PH - 4WIRE			
OVERHEAD 3PH - 3WIRE			
OVERHEAD 1PH			



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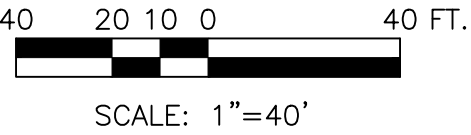


NO.	DRAWING NO./SHEET	REFERENCE DRAWING/DETAIL/PLAN/SECTION DESCRIPTION
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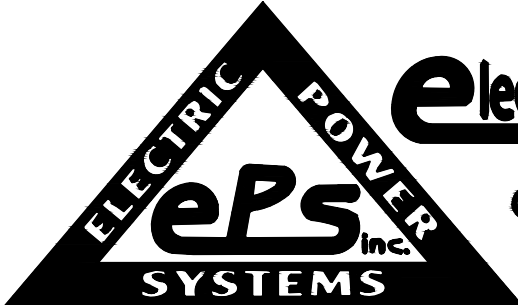
LEGEND

	NEW	EXISTING	RETIRE
POLE			
POLE - REPLACE EXISTING IN PLACE			
ANCHOR			
FUSED CUTOUT			
SPAN GUY			
LINE CONTINUATION			
STREET LIGHT			
1PH TRANSFORMER			
3PH TRANSFORMER			
OVERHEAD SECONDARY			
OVERHEAD 3PH - 4WIRE			
OVERHEAD 3PH - 3WIRE			
OVERHEAD 1PH			



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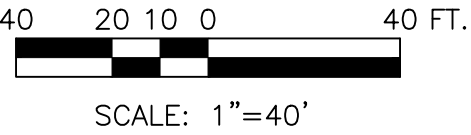
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REF DWG(S):		
DRAWING NO.:		FYRL-P-08
		SHEET <u> X </u> OF <u> X </u>



LEGEND

	NEW	EXISTING	RETIRE
POLE			
POLE - REPLACE EXISTING IN PLACE			
ANCHOR			
FUSED CUTOUT			
SPAN GUY			
LINE CONTINUATION			
STREET LIGHT			
1PH TRANSFORMER			
3PH TRANSFORMER			
OVERHEAD SECONDARY			
OVERHEAD 3PH - 4WIRE			
OVERHEAD 3PH - 3WIRE			
OVERHEAD 1PH			



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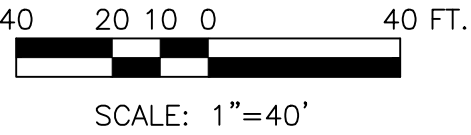
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LEGEND

	NEW	EXISTING	RETIRE
POLE			
POLE - REPLACE EXISTING IN PLACE			
ANCHOR			
FUSED CUTOUT			
SPAN GUY			
LINE CONTINUATION			
STREET LIGHT			
1PH TRANSFORMER			
3PH TRANSFORMER			
OVERHEAD SECONDARY			
OVERHEAD 3PH - 4WIRE			
OVERHEAD 3PH - 3WIRE			
OVERHEAD 1PH			



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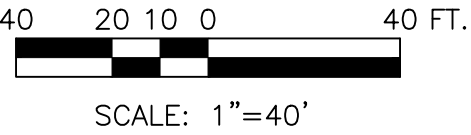
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REF DWG(S):		
DRAWING NO.: FYRL-P-11		SHEET X OF X



LEGEND

	NEW	EXISTING	RETIRE
POLE			
POLE - REPLACE EXISTING IN PLACE			
ANCHOR			
FUSED CUTOUT			
SPAN GUY			
LINE CONTINUATION			
STREET LIGHT			
1PH TRANSFORMER			
3PH TRANSFORMER			
OVERHEAD SECONDARY			
OVERHEAD 3PH - 4WIRE			
OVERHEAD 3PH - 3WIRE			
OVERHEAD 1PH			



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REF DWG(S):		
DRAWING NO.: FYRL-P-12		SHEET X OF X

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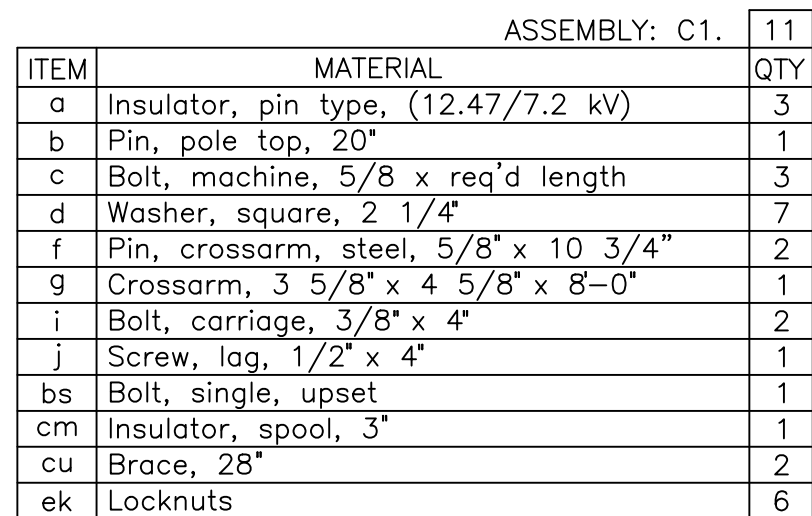


Figure 1: Plan view of the test rig. The diagram shows a horizontal beam with three rollers (k) at 6-inch intervals. A central vertical member (j) is connected to the beam at a point labeled "Position of Guy" (o-d-ek) and "Position of Neutral". The beam is supported by a base (g) and has a central support (i-ek) and a central member (cu). The overall dimensions are 6 inches, 3'-6 inches, 3'-6 inches, and 6 inches. The vertical dimensions are 1'-6 inches, 3'-6 inches, and 3'-6 inches. The beam is labeled "GUY" and "n-d-ek".

ITEM	QTY	MATERIAL
d	1	Washer, square, 3", curved
d	10	Washer, square, 2 1/4"
g	2	Crossarm, 3 5/8" x 4 5/8" x 8'-0"
i	4	Bolt, carriage, 3/8" x 4 1/2"
j	2	Screw, lag, 1/2" x 4"
k	6	Insulator, suspension, 4 1/4"
n	3	Bolt,double arming,5/8" x req'd length
o	1	Bolt, eye, 5/8" x req'd length
aa	3	Nut, eye, 5/8"
cu	4	Brace, 28"
ek	18	Locknuts

1. Double arming eye bolt, item "dy," may be used instead of double arming bolt, item n, and eye nut, item "aa."

ITEM	QTY	MATERIAL
d	2	Washer, square, 3", curved
d	10	Washer, square, 2 1/4"
g	2	Crossarm, 3 5/8" x 4 5/8" x 8'-0"
i	4	Bolt, carriage, 3/8" x 4 1/2"
j	2	Screw, lag, 1/2" x 4"
k	12	Insulator, suspension, 4 1/4"
n	4	Bolt,double arming,5/8" x req'd length
o	2	Bolt, eye, 5/8" x req'd length
p		Connectors, as req'd
aa	8	Nut, eye, 5/8"
av		Jumpers, as req'd
bo	2	Shackle, anchor
cu	4	Brace, 28"
ek	26	Locknuts

1. Double arming bolt, item "n," and eye nut, item "aa," may be replaced with double arming eye bolt, item "dy."
2. Maximum line angle may be increased to 15° by installing anchor shackles, item "bo," to (horizontal) eye nuts and installing side guys as req'd.

Jumper through fused cutout "S1.01"

ITEM	QTY	MATERIAL
	1	"C1.11" Primary Assembly
	1	"A5.2" Primary Assembly
P		Connectors, as req'd
av		Jumpers, as req'd

The diagram illustrates the installation of a ground wire on a utility pole. The left side shows a perspective view of a pole with a ground wire attached to a crossarm. The right side shows a top-down view of the pole with labels for various components: "fv" (vertical wire), "ci" (crossing insulator), "y" (wire), "u" (wire), "c-d-el" (crossing insulator), "av" (vertical wire), "p" (pole), and a note "CONNECT TO NEUTRAL CONDUCTOR AND GROUND WIRE WHEN PRESENT".

1) SHARE BOLTS ON GUY STUB POLE
WITH DOWN GUY ATTACHMENTS
WHERE POSSIBLE.

ITEM	QTY.	MATERIAL
c	4	Bolt, machine, 3/4" x req'd length
d	4	Washer, square, 4", curved, w/ 13/16" Hole
p		Connectors, guy bond and as req'd
u	2	Deadend, preformed, guy, heavy duty
y		Guy wire, as req'd (3/8" EHS)
al		Staples, ground wire, as req'd
av		Jumpers, as req'd
ci	2	Clevis, thimble, 5/8", (20,000 lb.)
dp	1	Clamp, ground wire, 3/4", with nut
ek	4	Locknuts, 3/4"
fv	2	Guy attachment (3/4" bolt, 4" spacing) (15,000 lb min @ 45°)

ASSEMBLY: S		1.07
ITEM	MATERIAL	QTY
p	Connector, as req'd	
af	Cutout (10A), dist., open (15 kV)	1
av	Jumpers, as req'd	

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FORT YUKON
RABBIT LINE SUBDIVISION
DETAILS

FYRL-S-02

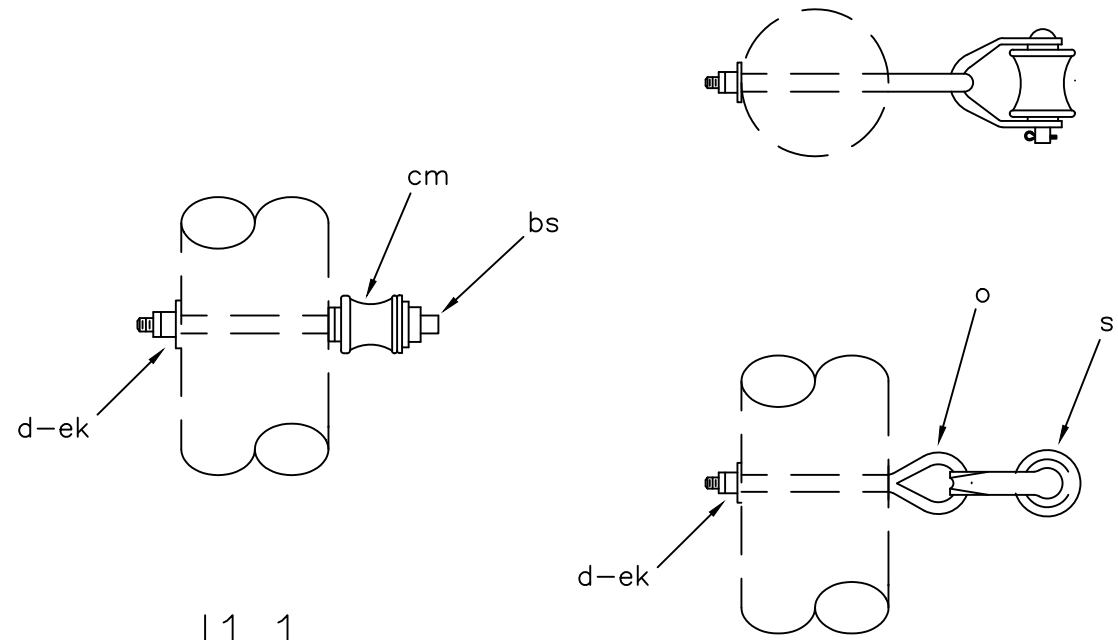
SHEET X OF X

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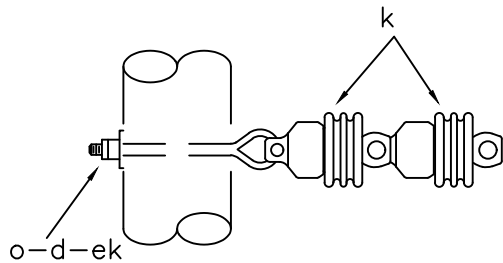
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J3.1

		J1.1	J3.1
ITEM	MATERIAL	QTY	QTY
d	Washer, 2 1/4" square	1	1
o	Bolt, eye, 5/8" x req'd length		1
s	Clevis, secondary, swinging, insulated		1
bs	Bolt, single upset	1	
cm	Insulator, spool	1	
ek	Locknuts	1	1

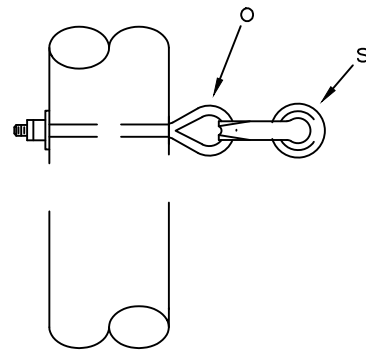
J1.1 & J3.1, SECONDARY ASSEMBLIES



NOTE: When connecting to existing bolt end, use eyenut "aa" and locknut "ek" instead of eyebolt subassembly "o-d-ek".

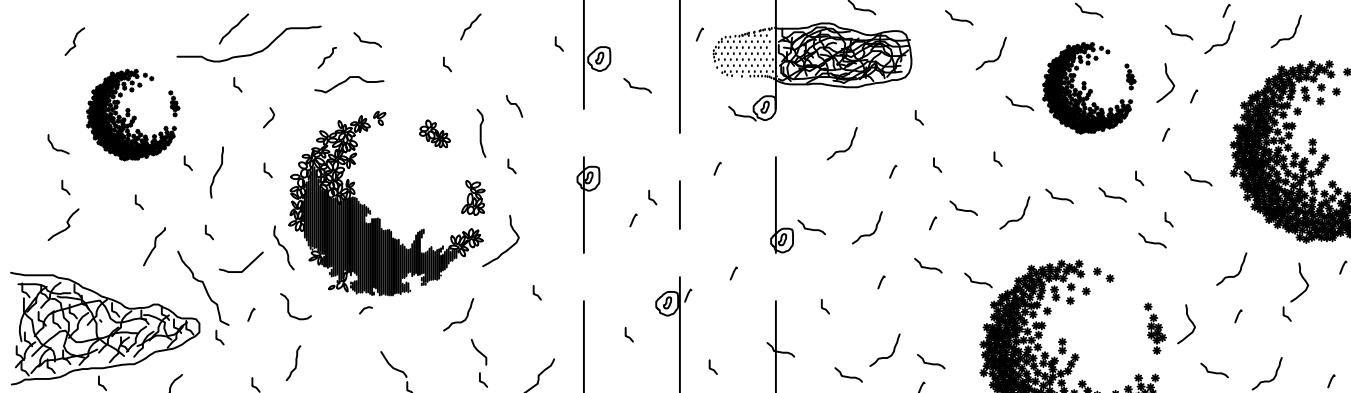
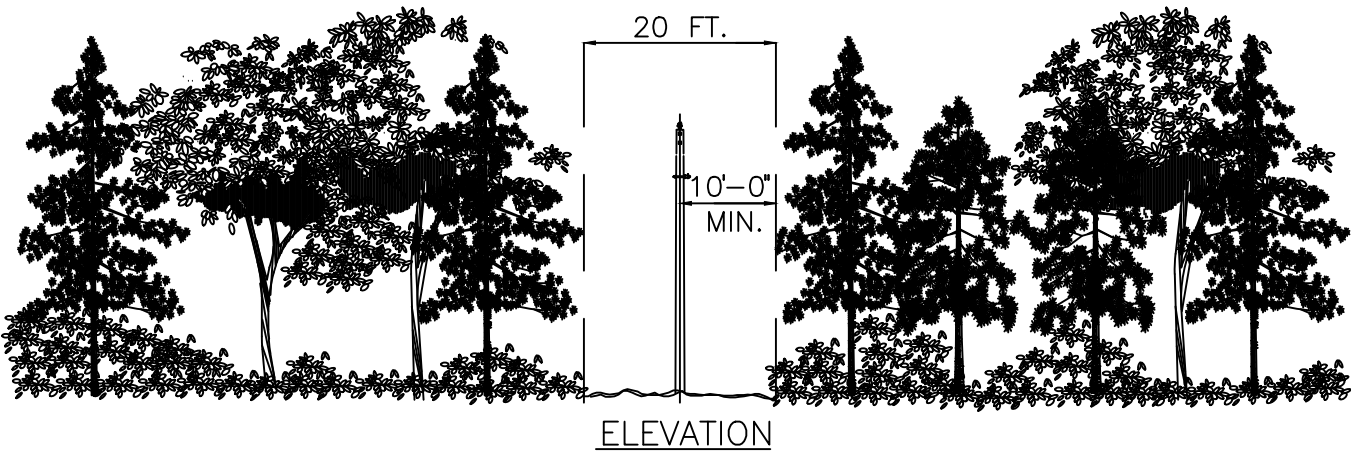
		ASSEMBLY: A5	.01
ITEM	MATERIAL	QTY	
d	Washer, square, 3", curved	1	
k	Insulator, suspension, 4 1/4"	2	
o	Bolt, eye, 5/8"x req'd length	1	
ek	Locknuts	1	

A5.01, SINGLE DEADEND

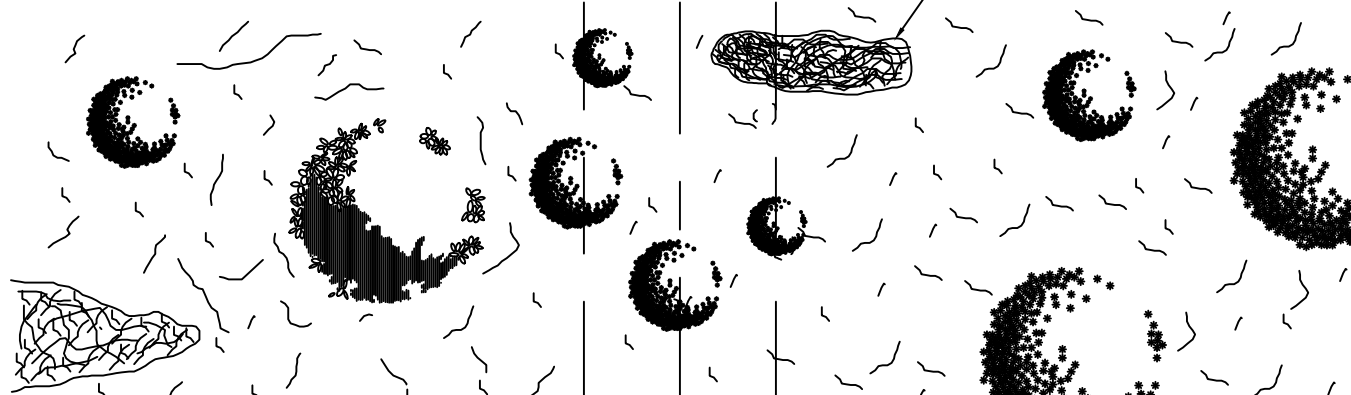


		ASSEMBLY: N5	.2
ITEM	MATERIAL	QTY	
d	Washer, square 3" curved	1	
o	Bolt, eye, 5/8 X req'd length	1	
s	Clevis, secondary, swinging, insulated	1	
ek	Locknuts	1	

N5.2, NEUTRAL ASSEMBLY

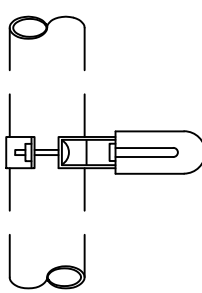
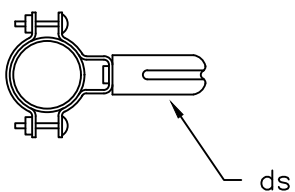


Underbrush



BEFORE CLEARING

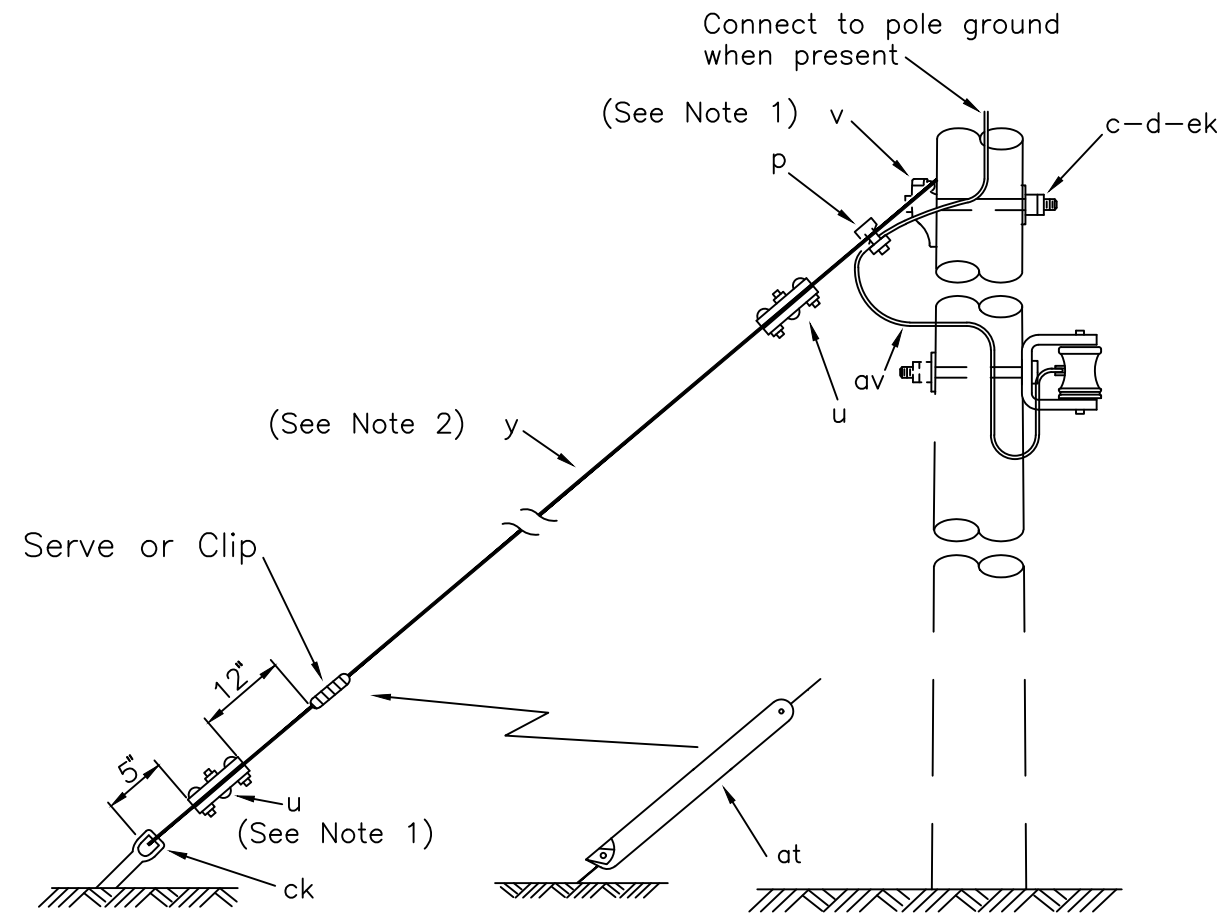
M1.20G, RIGHT-OF-WAY CLEARING GUIDE



K3.1

		ASSEMBLY: K3	.1
ITEM	MATERIAL	QTY	
ds	Wireholder, conduit	1	

K3.1, SERVICE ASSEMBLIES (MAST TYPE)



- NOTES:
- Other accepted and equivalent guy deadend (item "u") and attachment (item "v") material may be substituted for the ones shown.
 - Some types of guy attachments use 2 bolts and washer or lag screw (item "j"), change materials accordingly.
 - Specify guy wire size, type and required length.

ITEM	QTY	MATERIAL
c	1	Bolt, machine, 5/8" x req'd length
d	1	Washer, 3" square, curved
p		Connectors, guy band and as req'd
u	2	Deadend for guy strand (See Note 1)
v	1	Guy attachment (See Note 1)
y		Guy wire, as req'd (See Note 3)
at	1	Guy marker
av		Jumpers, as req'd
ck	1	Clamp, anchor bonding
ek	1	Locknuts

E1.1X, SINGLE DOWN GUY (THROUGH BOLT TYPE)

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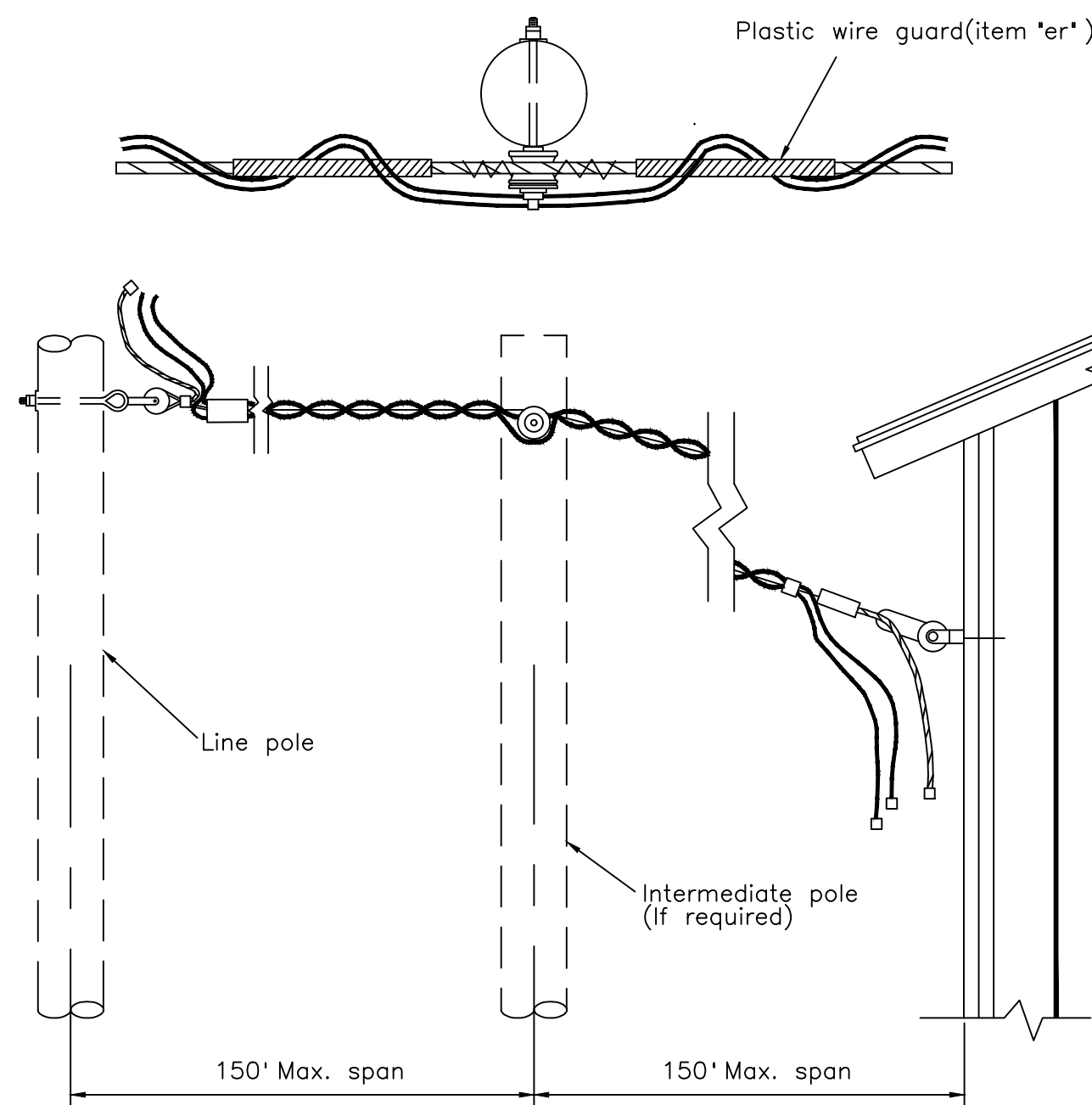
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REF DWG(S):		
DRAWING NO.: FYRL-S-03		
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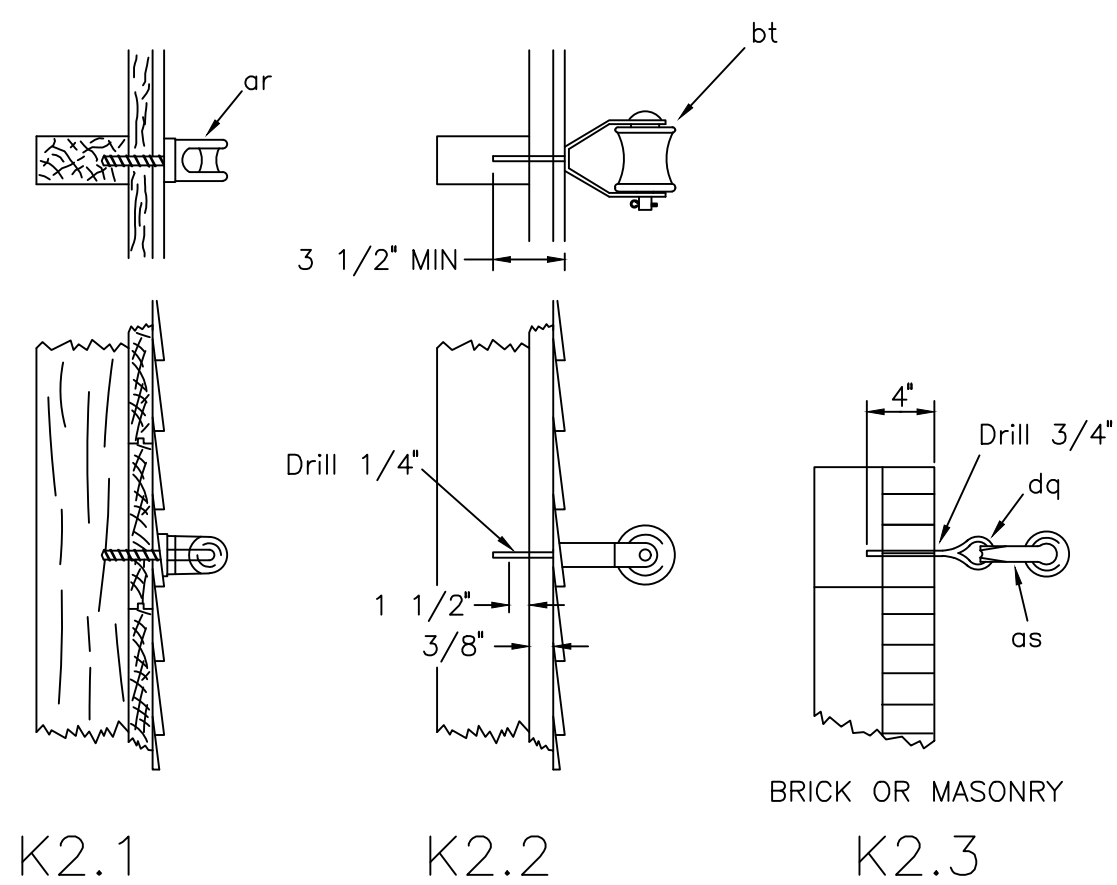
ASSEMBLY: G1			.4
ITEM	MATERIAL		QTY
c	Bolt, machine, 5/8" x req'd length		2
d	Washer, square, 2 1/4"		2
p	Connectors, as req'd		
ae	Arrester, surge (9 kV)		1
af	Cutout, dist., open (15 kV)		1
an	Transformer, 12.47 kV, conventional		1

ASSEMBLY: G1		.4
ITEM	MATERIAL	QTY
ap	Clamp, hot line	1
av	Jumpers, stranded, as req'd	
bv	Rod, armor, as req'd	
ek	Locknuts,	2
fn	Bracket, extension	



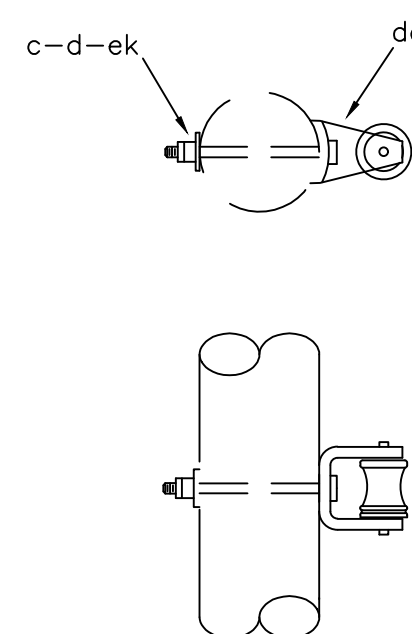
NOTES:

1. Services as short as possible are preferred.
2. See NESC Table 232-1 for minimum ground clearances.
3. Refer to secondary and service assemblies for construction details.
4. Service connectors to be insulated compression type.



NOTE: Assembly K2.1 not suitable for large conductors or cable services.

ASSEMBLY: K2		.1	.2	.3
ITEM	MATERIAL	QTY	QTY	QTY
ar	Wireholder	1		
as	Clevis, secondary, swinging, insulated			1
bt	Wireholder, clevis type insulated, #24 Woodscrew		1	
dq	Eye, screw, elliptical, 1/2" X 6" 3/4" x 3 1/2" expansion shield			1



J2.1

ITEM	MATERIAL	QTY
c	Bolt, machine, 5/8" x Req'd length	1
d	Washer, 2 1/4" square	1
da	Bracket, insulated	1
ek	Locknuts	1

Weatherhead

(See K3.2)

Service mast

Not over 3'-6"

2' x 4' blocking solidly installed between rafters.

Conduit

Pipe strap

Reducer, as required, to size of meter socket.

Meter

Ground wire to ground rod.

Clearance - See Note 1

NOTES:

1. All clearances to be in conformance to the most stringent requirements of the NESC, NEC or other codes of governmental or regulating authorities as applicable.
2. If length of conduit exceeds 10 feet, coupling is permitted on end adjacent to meter.

K4.2G, MAST TYPE CABLE SERVICE ASSEMBLY GUIDE

[illegible]

DRAWING NAME:

FORT YUKON
RABBIT LINE SUBDIVISION
DETAILS

REF DWG(S):

FYRL-S-04

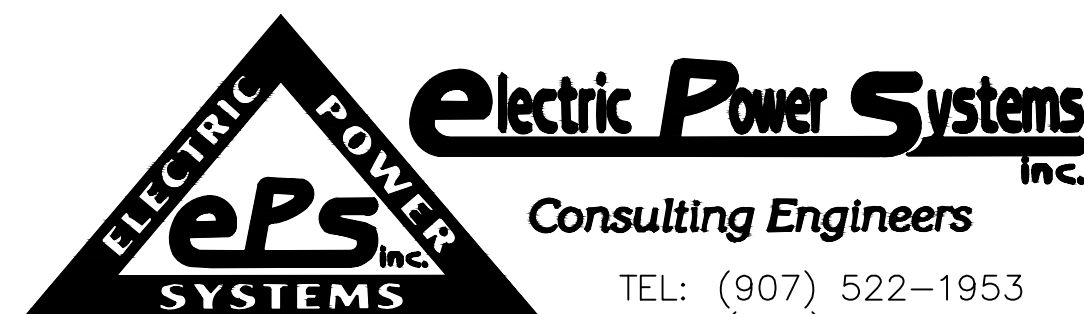
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