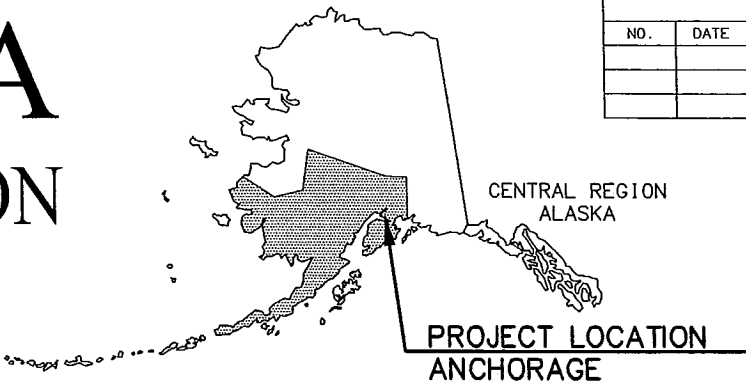


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CHECKED BY JLC
DRAFTED BY JEF
XREF'S
N/A
SCALE
N/A
LAYOUT
TITLE SHEET
DRAWING LOCATION
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DATE
TIME

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

PROPOSED HIGHWAY PROJECT
GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA
PROJECT NO. IM-0A1-6(42)/51970
CONTINUOUS ILLUMINATION

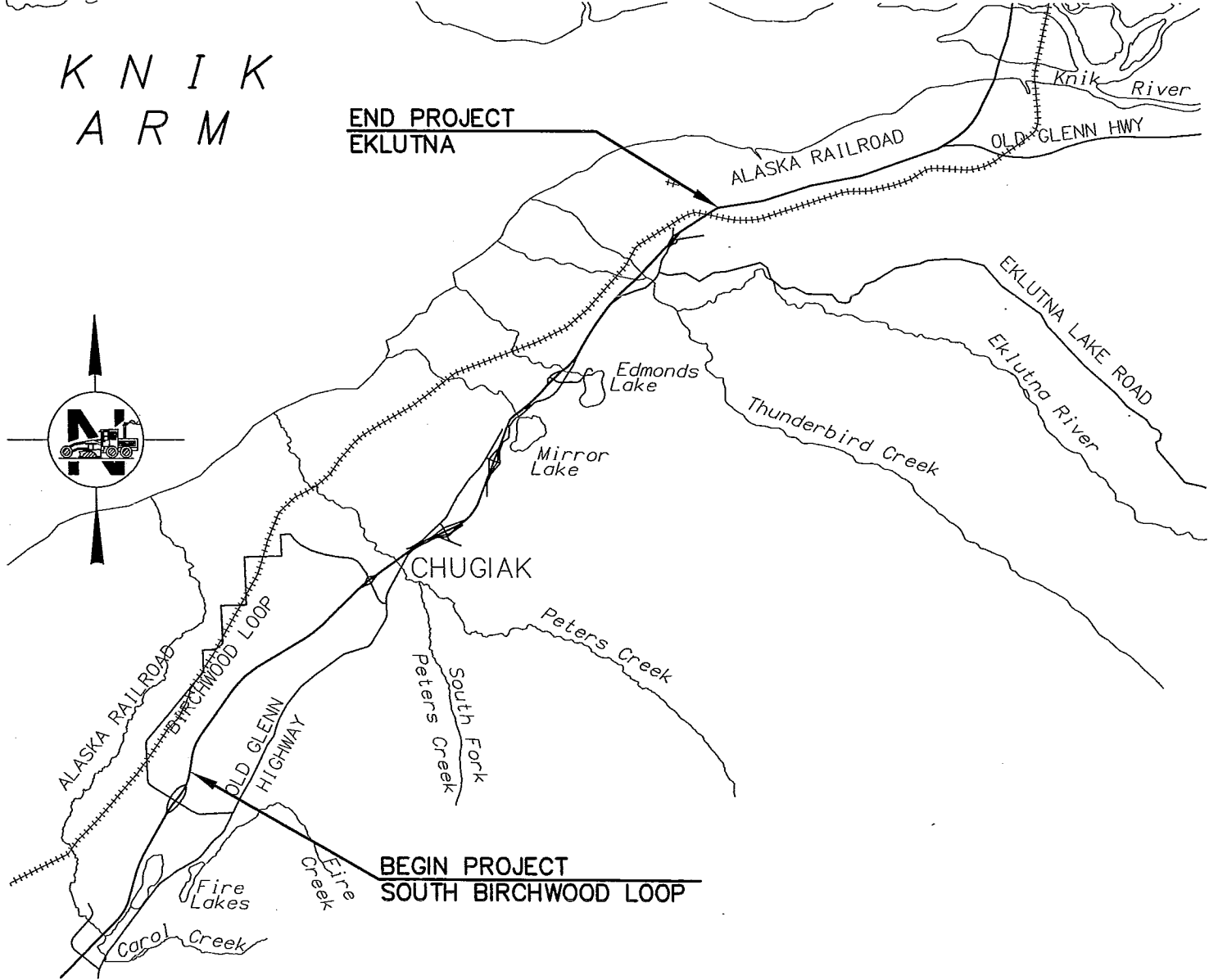


REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION	ALASKA	IM-0A1-6(42)/51970	2010	A1	A3 66
			ROUTE: 135000		MILEPOINT: 17.0 - 27.0		

INDEX	
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2	LEGEND
A3	CONTROL SHEETS
C1	ESTIMATE
D1 - D3	SUMMARY SHEETS
E1 - E3	DETAIL SHEETS
H1 - H18	TRAFFIC DESIGN
H19 - H54	ILLUMINATION PLAN SHEETS
J1 - J2	TRAFFIC CONTROL

PROJECT SUMMARY			
ROADWAY SECTION		WIDTH	LENGTH
GLENN HIGHWAY	MP 17-27.0	±110 FEET	10.0 MILES

DESIGN DESIGNATIONS		
ROADWAY SECTION	A.A.D.T. 2003	DESIGN SPEED
GLENN HIGHWAY MP 17-27.0	51350	65 MPH

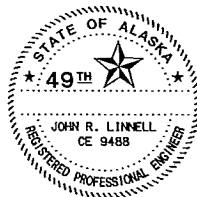
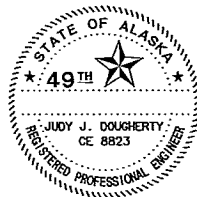


THE FOLLOWING STANDARD DRAWINGS
APPLY TO THIS PROJECT:

C-04.12, C-05.10,
D-01.02, D-04.21, D-06.10,
E-09.00,
F-01.01,
G-00.01, G-01.02, G-03.02, G-04.06S, G-04.07W,
G-09.04S, G-09.04W, G-10.01, G-13.00, G-20.10,
G-25.20W, G-27.11, G-28.00, G-46.10,
L-03.10*, L-23.01*, L- 25.00*
S-05.01, S-30.03, S-31.00, S-32.00

* AS MODIFIED HEREIN

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES



APPROVED:

REGIONAL PRE-CONSTRUCTION ENGINEER DATE

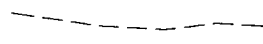
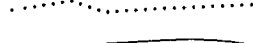
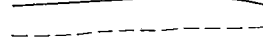
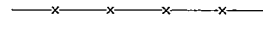
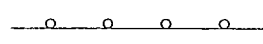
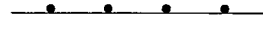
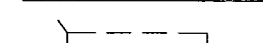
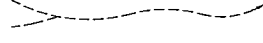
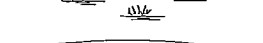
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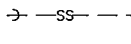
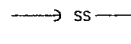
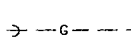
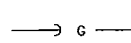
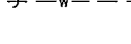
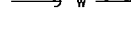
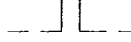
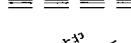
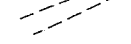
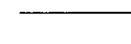
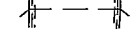
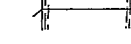
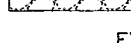
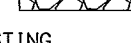
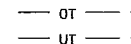
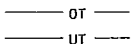
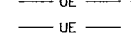
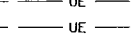
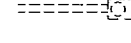
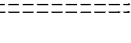
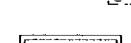
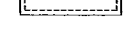
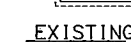
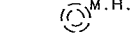
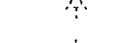
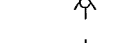
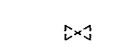
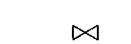
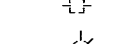
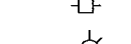
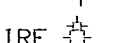
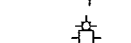
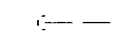
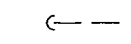
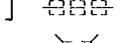
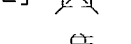
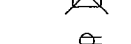
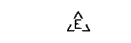
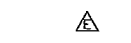
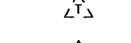
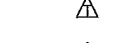
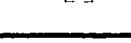
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CERTIFIED TRUE & CORRECT AS-BUILT OF ACTUAL FIELD CONDITION:

CONSTRUCTION PROJECT MANAGER DATE

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CHECKED BY: JAW/OUR
DRAFTED BY: JAW/OUR
REVISED BY: JAW/OUR
SCALE: N/A
LAYOUT: A2
DATE: 01/25/2010 9:56:31 AM AST
DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\A2 SYMBOLS.dwg

	RECOVERED	TO BE SET THIS PROJECT
GOV'T SECTION CORNER		
GOV'T 1/4 SECTION CORNER		
GOV'T 1/16 SECTION CORNER		
GOV'T SURVEY MONUMENT		
GOV'T CONTROL STA.		
PRIMARY MON. [BRASS/AL CAP]		
SECONDARY CORNER		
PRIMARY CENTERLINE MONUMENT		
SECONDARY CENTERLINE MONUMENT		
SURVEY CONTROL POINT		
SECONDARY SURVEY CONT. POINT		
GPS CONTROL POINT		
BENCH MARK		
TEMPORARY BENCH MARK		
ROCK MONUMENT		
INTERNATIONAL BOUNDARY LINE		
TOWNSHIP & RANGE LINE		
SECTION LINE		
1/4 SECTION LINE		
1/16 SECTION LINE		
CORPORATE or CITY LIMITS		
EXISTING RIGHT-OF-WAY		
RIGHT-OF-WAY REQUIRED		
PROJECT RIGHT-OF-WAY LINE		
EXISTING PROPERTY LINE		
CONTROLLED ACCESS LINE		
PERMIT LINE		
EXISTING EASEMENT LINE		
STATION EQUATION		
PROJECT CENTERLINE		
EXISTING CENTERLINE		
RAILROAD CENTERLINE		
HIGHWAY MILEPOST		
RAILROAD MILEPOST		

ROADWAY OBLITERATION	
LIMIT OF CUT SLOPE	
LIMIT OF FILL SLOPE	
PROPOSED ROADWAY	
EXISTING ROADWAY	
NOISE BARRIER	
FENCE	
STONE FENCE	
HEAD & WINGWALLS	
GUARD RAIL EXISTING	
PROPOSED	
RETAINING WALL	
TUNNEL	
INTERMITTENT DRAINAGE	
INTERCEPTOR DITCH	
MARSHLAND	
CREEK	
RIVER	
LAKE	
RESERVOIR	
CHANNEL CHANGE	
PLANTER	
VENT	
TANK VENT	
WELL	
SEPTIC	
TANKS	
Above Ground	
Below Ground	
SATELLITE DISH	
PRIVATE SIGN	
GAS PUMP	
POST	
BOULDER OR BOULDERS	
LANDSCAPE LIGHT	
DECIDUOUS TREE	
CONIFER TREE	
SHRUB OR SHRUBS	

PIPELINES:	EXISTING	PROPOSED
(BELLS INDICATE DIRECTION OF FLOW)		
SANITARY SEWER		
OIL		
GAS		
WATER		
STORM DRAIN		
SIDEWALK		
CONCRETE CURB		
CONCRETE CURB & GUTTER		
DRIVEWAY, APPROACH, & SIDEDRAIN		
BRIDGE		
RIPRAP		
TELEPHONE	(OVERHEAD) 	(OVERHEAD) 
ELECTRIC	(OVERHEAD) 	(OVERHEAD) 
FIBER OPTIC	(OVERHEAD) 	(OVERHEAD) 
CABLE TV	(OVERHEAD) 	(OVERHEAD) 
U.G. DUCT	(DIRECT BURY) 	(DIRECT BURY) 
TELEPHONE MANHOLE		
ELECTRIC MANHOLE		
FOUNDATION		
BUILDING		
MANHOLE		
FIRE HYDRANT		
METER		
VALVE		
PIPE CULVERT w/ END SECT.		
UTILITY POLE		
ELECTROLIER		
UTILITY POLE WITH LUMINAIRE		
POLE ANCHOR /w GUY		
TRANSMISSION TOWER [WOOD]		
TRANSMISSION TOWER [STEEL]		
ELECTRICAL OUTLET		
ELECTRICAL PEDESTAL		
TELEPHONE PEDESTAL		
CABLE T.V. PEDESTAL		

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	A2	A3

EXISTING

PROPOSED

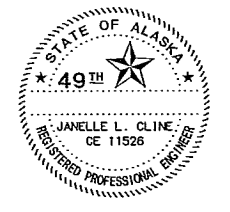
MAILBOX

SIGN (FACING →)

PROJECT SIGN POST NUMBER

DELINEATOR (FACING →)

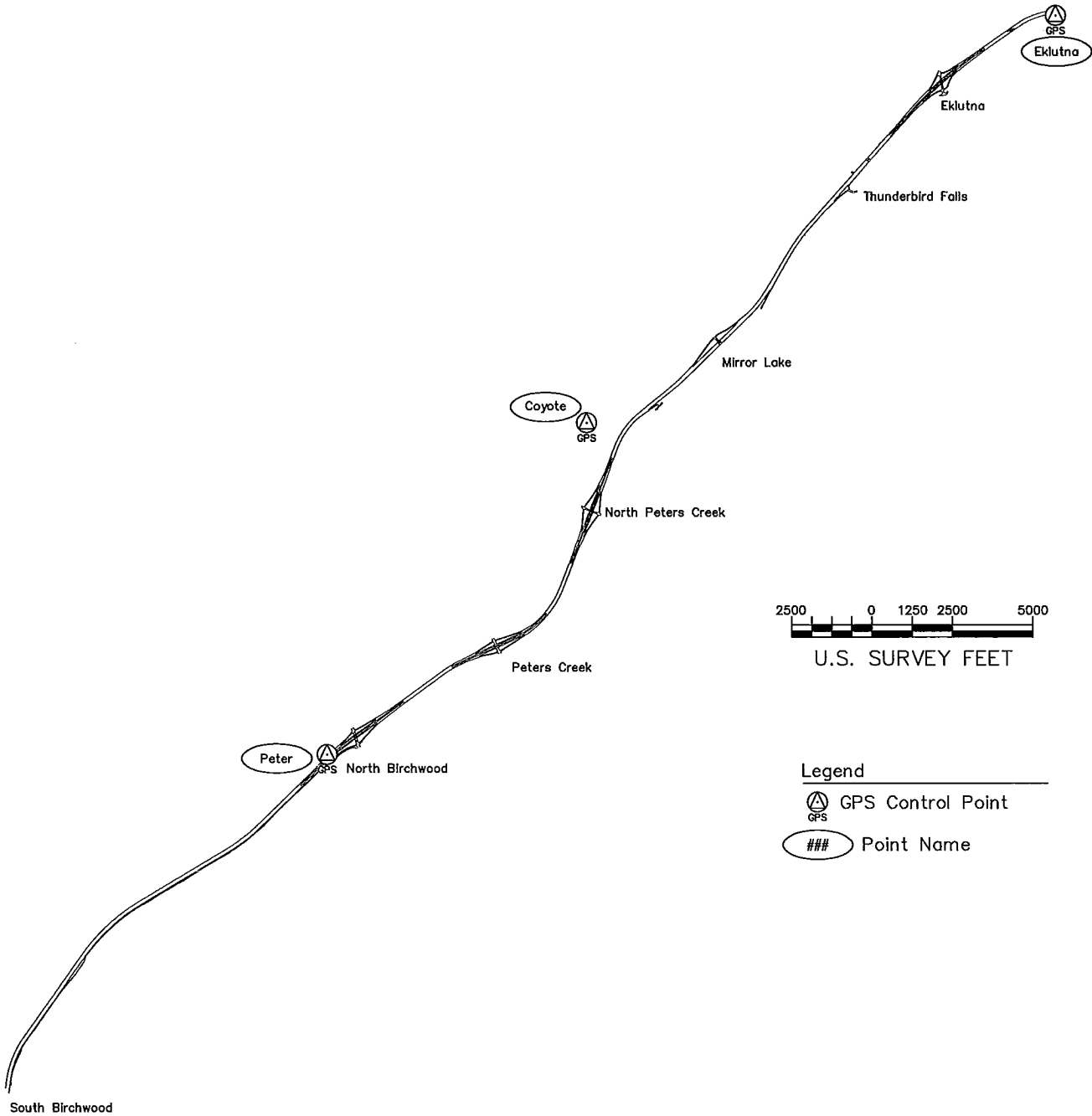
SEE SHEET H1 FOR TRAFFIC SYMBOLS AND LINETYPES



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA
JANELLE L. CLINE
REGISTERED PROFESSIONAL ENGINEER
CE 11526

LEGEND SHEET

STATE	YEAR	PROJECT DESIGNATION	SHEET NO.	TOTAL SHEETS
ALASKA	2010	IM-0A1-6(42)/51970	A3	A3



Survey Control Points				
Number	Northing	Easting	Elevation	Full Desc
604	407629.8353	420527.3776	325.56	GPS Fd BC/Rod(NGS): STA Peter GPS 1986
606	430588.4332	443317.1615	22.32	GPS Fd BC/Rod(NGS): STA Eklutna GPS 1986
607	417933.2099	428635.6925	371.28	GPS Set BC/Rod: GPS Coyote - at Mirror Lake Middle School
608	466385.5075	459061.7358	136.01	GPS Fd AM: Matanuska Reser

HORIZONTAL CONTROL STATEMENT

Coordinate System:
This project is located entirely within the Anchorage Bowl 2000 adjustment, a local surface grid coordinate system expressed in U.S. Survey feet units developed by the Alaska Department of Transportation.

Basis of Coordinates:
The Basis of Coordinates is NGS Station O'Malley, located near the intersection of the New Seward Highway and O'Malley Road. Said station has Anchorage Bowl 2000 coordinates of 303939.2310 N, 353362.5446 E. U.S. Survey Feet.

Basis of Bearings:
The Basis of Bearings is a local plane bearing between NGS Station O'Malley and NGS Station Loop 2 USE RM 3 1964. NGS Station Loop 2 USE RM 3 1964 bears N 01°43'26.4"E a distance of 49488.4476 feet from NGS Station O'Malley. NGS Station Loop 2 USE RM 3 1964 has Anchorage Bowl 2000 coordinates of 353405.2778 N, 354851.3982 E. U.S. Survey Feet.

Translation Parameters:
To convert the local coordinates to NAD83 (92) State Plane coordinates expressed in U.S. Survey Feet, translate using +2296868.6878 N usf, +1312517.4904 E usf, and scale using 0.9998910192.

VERTICAL CONTROL STATEMENT

Elevations were determined using GPS methods, holding Station Peter at 325.56 U.S. Survey Feet. All elevations should be field-verified before use.

NOTES

- 1) Project control coordinates shown on this sheet were established using Static GPS techniques.
- 2) All dimensions and coordinates shown are in U.S. Survey Feet unless otherwise noted.

Whether listed or not, ALL monuments or property markers, corners, or accessories, which will be disturbed or buried, shall be referenced and re-established in their original position (A.S. 19.10.260) and recorded (A.S. 34.65.040).

Surveyor's Certificate

I hereby certify that I am properly Registered and Licensed to practice Land Surveying in the State of Alaska, and that this drawing represents a survey made by me or under my direct supervision, and that the monuments shown hereon actually exist as described, and that all dimensions and other details are correct to the extent shown hereon.

Anthony P. Boneta *2/3/10*
Anthony P. Boneta LS-10393 Date



STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES Survey Control Sheet			
Federal Project No. IM-0A1-6(42)/51970 Glenn Highway Lighting: S. Birchwood to Eklutna			
DRAWN	RMK	DATE	Feb 2, 2010
CHECKED	APB	DATE	Feb 2, 2010
SCALE		1" = 2500'	
SHEET		1	OF 1

DESIGNED BY: FEE
CHECKED BY: JLC
DRAWN BY: TEP

XREFS
N/A

SCALE
N/A

LAYOUT
ESTIMATE

DRAWING LOCATION
T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\c1 ESTIMATE.dwg

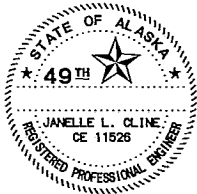
DATE
02/02/2010 9:46:37 AM AST

TIME

ESTIMATE OF QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
203(3)	UNCLASSIFIED EXCAVATION	CUBIC YARD	500
203(5A)	BORROW TYPE A	CUBIC YARD	1,000
607(3)	CHAIN LINK FENCE	LINEAR FOOT	2,970
608(7A)	ASPHALT PATHWAY	SQUARE YARD	480
618(2)	SEEDING	POUND	400
618(3)	WATER FOR SEEDING	M GAL	3,000
640(1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQ'D
641(1)	EROSION, SEDIMENT, AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQ'D
641(2)	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL	CONT SUM	ALL REQ'D
641(5)	EROSION, SEDIMENT, AND POLLUTION CONTROL PRICE ADJUSTMENT	CONT SUM	ALL REQ'D
641(6)	SWPPP MANAGER	LUMP SUM	ALL REQ'D
642(1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQ'D
642(3)	THREE PERSON SURVEY PARTY	HOURL	200
643(2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQ'D
643(3)	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQ'D
643(15)	FLAGGING	CONT SUM	ALL REQ'D
643(23)	TRAFFIC PRICE ADJUSTMENT	CONT SUM	ALL REQ'D
643(25)	TRAFFIC CONTROL	CONT SUM	ALL REQ'D
644(1)	FIELD OFFICE	LUMP SUM	ALL REQ'D
644(10)	ENGINEERING COMMUNICATIONS	LUMP SUM	ALL REQ'D
645(1)	TRAINING PROGRAM, 2 TRAINEES/APPRENTICES	LABOR HOUR	1,225
646(1)	CPM SCHEDULING	LUMP SUM	ALL REQ'D
646(2)	SCHEDULE PRICE ADJUSTMENT	CONT SUM	ALL REQ'D
660(3)	HIGHWAY LIGHTING SYSTEM COMPLETE	LUMP SUM	ALL REQ'D
660(9)	BORED CASINGS 3-INCH MINIMUM DIAMETER	LINEAR FOOT	3,820
660(13A)	SALVAGE EXISTING ELECTROLIER	EACH	83
660(22)	ILLUMINATION PRICE ADJUSTMENT	CONT SUM	ALL REQ'D
660(24D)	3-INCH POLYETHYLENE CONDUIT INCLUDING CONDUCTOR	LINEAR FOOT	91,550
660(30)	TYPE II JUNCTION BOX	EACH	75
661(2)	LOAD CENTER, TYPE 1A	EACH	10
668(1)	HIGH TOWER LIGHTING SYSTEM COMPLETE	LUMP SUM	ALL REQ'D
668(3)	HIGH TOWER LOWERING AND LIFTING PLAN	LUMP SUM	ALL REQ'D

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION					
			ALASKA	IM-0A1-6(42)/51970	2010	C1	C1

ESTIMATING FACTORS		
ITEM NO.	ITEM DESCRIPTION	ESTIMATING FACTOR
618(2)	SEEDING	1.21 LBS PER SQ FT
618(3)	WATER FOR SEEDING	1.0 GAL. PER SQ FT



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

ESTIMATE OF QUANTITIES

DESIGNED BY EEE
CHECKED BY JLC
DRAFTED BY MEF
XREFS
N/A
SCALE
N/A
LAYOUT
D1
TIME
DATE
02/02/2010 9:14:15 AM AST
DRAWING LOCATION
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660(3) ELECTROLIER SCHEDULE						
SHEET NO.	POLE NO.	NORTHING	EASTING	POLE HEIGHT	MASTARM LENGTH	REMARKS
H20	1	397665.3	410661.4	53'	15' DAVIT	
H20	2	397695.3	410506.7	46'	OFFSET	BEHIND GUARDRAIL
H20	3	397940.4	410732.5	48'	15' DAVIT	
H20	4	397986.2	410583.8	45'	OFFSET	BEHIND GUARDRAIL
H20	5	398209.2	410830.1	47'	15' DAVIT	
H20	6	398268.4	410686.8	45'	OFFSET	BEHIND GUARDRAIL
H20	7	398464.2	410956.4	47'	15' DAVIT	
H20	8	398538.3	410819.3	46'	OFFSET	BEHIND GUARDRAIL
H21	9	398703.9	411102.3	42'	15' DAVIT	
H21	10	398806.4	410954.0	49'	15' DAVIT	
H21	11	398945.5	411274.3	44'	15' DAVIT	
H21	12	399051.6	411127.0	51'	15' DAVIT	
H21	13	399189.6	411448.9	53'	15' DAVIT	
H21	14	399295.5	411301.7	56'	15' DAVIT	
H21	15	399434.2	411622.7	49'	15' DAVIT	
H21	16	399539.4	411476.3	53'	15' DAVIT	
H22	17	399677.8	411797.2	46'	15' DAVIT	
H22	18	399783.2	411651.1	43'	15' DAVIT	
H22	19	399921.2	411972.6	42'	15' DAVIT	
H22	20	400027.2	411825.7	53'	15' DAVIT	
H22	21	400165.2	412148.0	52'	15' DAVIT	
H22	22	400270.9	412000.6	55'	15' DAVIT	
H22	23	400406.3	412326.8	46'	15' DAVIT	
H22	24	400514.7	412175.5	42'	15' DAVIT	
H22	25	400653.0	412497.2	42'	15' DAVIT	
H22	26	400758.6	412350.2	41'	15' DAVIT	
H23	27	400898.1	412670.7	44'	15' DAVIT	
H23	28	401002.7	412524.5	41'	15' DAVIT	
H23	29	401142.2	412845.3	44'	15' DAVIT	
H23	30	401246.8	412698.9	45'	15' DAVIT	
H23	31	401383.4	413020.5	41'	15' DAVIT	
H23	32	401473.9	412896.5	46'	OFFSET	BEHIND GUARDRAIL
H23	33	401616.4	413197.9	53'	15' DAVIT	
H23	34	401711.6	413077.9	46'	OFFSET	BEHIND GUARDRAIL
H24	35	401838.3	413383.7	53'	15' DAVIT	
H24	36	401940.0	413270.2	46'	OFFSET	BEHIND GUARDRAIL
H24	37	402048.8	413583.2	54'	15' DAVIT	
H24	38	402157.0	413475.3	45'	OFFSET	BEHIND GUARDRAIL
H24	39	402251.7	413795.1	51'	15' DAVIT	
H24	40	402363.9	413691.2	46'	OFFSET	BEHIND GUARDRAIL
H24	41	402441.9	414013.7	49'	15' DAVIT	
H24	42	402559.5	413916.8	46'	OFFSET	BEHIND GUARDRAIL
H24	43	402619.8	414244.6	50'	15' DAVIT	
H24	44	402745.1	414152.6	47'	OFFSET	BEHIND GUARDRAIL
H25	45	402785.6	414485.8	51'	15' DAVIT	
H25	46	402916.5	414398.9	46'	OFFSET	BEHIND GUARDRAIL
H25	47	402939.4	414735.4	48'	15' DAVIT	
H25	48	403076.9	414652.5	47'	OFFSET	BEHIND GUARDRAIL
H25	49	403092.8	414992.5	47'	15' DAVIT	
H25	50	403252.9	414896.7	53'	15' DAVIT	
H25	51	403246.8	415249.9	49'	15' DAVIT	
H25	52	403406.4	415154.4	53'	15' DAVIT	
H25	53	403400.6	415507.8	50'	15' DAVIT	
H25	54	403560.4	415411.9	52'	15' DAVIT	
H26	55	403554.4	415765.3	47'	15' DAVIT	
H26	56	403714.2	415669.5	52'	15' DAVIT	
H26	57	403707.3	416022.4	45'	15' DAVIT	
H26	58	403867.6	415927.3	53'	15' DAVIT	
H26	59	403861.0	416280.3	46'	15' DAVIT	
H26	60	404021.3	416185.0	52'	15' DAVIT	
H26	61	404014.7	416538.8	50'	15' DAVIT	
H26	62	404174.6	416442.8	54'	15' DAVIT	
H27	63	404168.1	416796.5	50'	15' DAVIT	
H27	64	404328.1	416700.6	51'	15' DAVIT	
H27	65	404319.9	417051.1	50'	15' DAVIT	
H27	66	404481.6	416958.3	52'	15' DAVIT	
H27	67	404474.4	417308.4	53'	15' DAVIT	
H27	68	404633.2	417213.0	55'	15' DAVIT	
H27	69	404630.1	417565.0	50'	15' DAVIT	
H27	70	404786.8	417464.6	50'	15' DAVIT	
H27	71	404798.7	417813.6	50'	15' DAVIT	
H27	72	404949.3	417706.1	53'	15' DAVIT	
H28	73	404981.3	418052.1	49'	15' DAVIT	
H28	74	405123.9	417938.9	51'	15' DAVIT	
H28	75	405175.9	418280.5	53'	15' DAVIT	
H28	76	405310.3	418161.7	49'	15' DAVIT	

660(3) ELECTROLIER SCHEDULE						
SHEET NO.	POLE NO.	NORTHING	EASTING	POLE HEIGHT	MASTARM LENGTH	REMARKS
H28	77	405371.3	418508.4	53'	15' DAVIT	
H28	78	405512.3	418379.5	50'	15' DAVIT	
H28	79	405585.5	418719.3	48'	15' DAVIT	
H28	80	405717.6	418591.5	49'	15' DAVIT	
H29	81	405797.8	418931.3	43'	15' DAVIT	
H29	82	405926.3	418806.2	47'	15' DAVIT	
H29	83	406006.4	419146.9	41'	15' DAVIT	
H29	84	406133.8	419019.5	48'	15' DAVIT	
H29	85	406213.0	419360.2	42'	15' DAVIT	
H29	86	406342.7	419234.8	51'	15' DAVIT	
H29	87	406421.5	419574.7	46'	15' DAVIT	
H29	88	406551.7	419450.1	52'	15' DAVIT	
H29	89	406626.6	419793.7	52'	15' DAVIT	
H29	90	406759.7	419664.9	52'	15' DAVIT	
H30	91	406835.6	420009.0	54'	15' DAVIT	
H30	92	406968.0	419879.2	53'	15' DAVIT	
H30	93	407044.9	420224.0	50'	15' DAVIT	
H30	94	407177.2	420094.1	54'	15' DAVIT	
H30	95	407248.5	420444.5	44'	15' DAVIT	
H30	96	407384.8	420310.8	51'	15' DAVIT	
H32	97	408553.9	422091.0	47'	15' DAVIT	BEHIND GUARDRAIL
H32	98	408740.8	421955.7	47'	15' DAVIT	
H32	99	408717.9	422299.5	47'	15' DAVIT	
H32	100	408870.4	422189.0	47'	OFFSET	BEHIND GUARDRAIL
H32	101	408914.8	422533.1	48'	OFFSET	BEHIND GUARDRAIL
H32	102	409026.7	422452.6	46'	OFFSET	BEHIND GUARDRAIL
H32	103	409097.7	422771.3	46'	OFFSET	BEHIND GUARDRAIL
H32	104	409202.9	422695.4	46'	OFFSET	BEHIND GUARDRAIL
H32	105	409274.3	423013.8	48'	OFFSET	BEHIND GUARDRAIL
H32	106	409379.2	422938.2	46'	OFFSET	BEHIND GUARDRAIL
H33	107	409430.3	423271.0	48'	15' DAVIT	
H33	108	409554.2	423181.7	46'	OFFSET	BEHIND GUARDRAIL
H33	109	409606.8	423513.5	49'	15' DAVIT	
H33	110	409751.2	423409.5	43'	15' DAVIT	
H33	111	409782.8	423756.7	39'	15' DAVIT	
H33	112	409926.5	423652.9	46'	15' DAVIT	
H33	113	409954.6	423993.9	39'	15' DAVIT	
H33	114	410101.9	423896.3	51'	15' DAVIT	
H34	115	410128.1	424233.5	41'	15' DAVIT	
H34	116	410281.8	424136.9	52'	15' DAVIT	
H34	117	410283.1	424479.8	45'	15' DAVIT	
H34	118	410440.0	424391.8	53'	15' DAVIT	
H34	119	410410.1	424735.8	46'	15' DAVIT	
H34	120	410570.2	424662.7	50'	15' DAVIT	
H36	121	411345.0	426753.2	44'	15' DAVIT	
H36	122	411519.8	426644.2	49'	15' DAVIT	
H36	123	411531.1	426991.5	44'	15' DAVIT	
H36	124	411661.6	426887.2	48'	15' DAVIT	
H36	125	411725.0	427222.9	37'	15' DAVIT	
H36	126	411857.5	427092.9	54'	15' DAVIT	
H36	127	411950.8	427421.2	47'	15' DAVIT	
H36	128	412065.7	427285.4	40'	15' DAVIT	
H37	129	412191.1	427602.0	40'	15' DAVIT	
H37	130	412290.5	427454.5	41'	15' DAVIT	
H37	131	412448.6	427756.8	52'	15' DAVIT	
H37	132	412531.1	427600.1	52'	15' DAVIT	
H37	133	412720.5	427884.2	47'	15' DAVIT	
H37	134	412789.0	427720.7	43'	15' DAVIT	
H37	135	412999.4	427995.0	48'	15' DAVIT	
H37	136	413064.7	427830.1	51'	15' DAVIT	
H37	137	413278.3	428105.4	51'	15' DAVIT	
H37	138	413343.7	427940.2	57'	15' DAVIT	
H38	139	413557.3	428215.7	42'	15' DAVIT	
H38	140	413623.2	428049.2	48'	15' DAVIT	
H38	141	413836.5	428325.6	41'	15' DAVIT	
H38	142	413901.9	428160.1	45'	15' DAVIT	
H38	143	414104.0	428410.7	46'	OFFSET	BEHIND GUARDRAIL
H38	144	414162.3	428263.0	49'	15' DAVIT	
H38	145	414346.7	428544.6	47'	15' DAVIT	
H38	146	414419.1	428361.5	50'	15' DAVIT	
H40	147	416005.4	429183.9	50'	15' DAVIT	
H40	148	416070.9	429002.0	46'	15' DAVIT	
H40	149	416284.0	429292.2	52'	15' DAVIT	
H40	150	416345.6	429126.0	40'	15' DAVIT	
H40	151	416559.3	429407.2	47'	15' DAVIT	
H40	152	416625.6	429236.5	43'	15' DAVIT	

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION	ALASKA	IM-0A1-6(42)/51970	2010	D1	D3

NOTES:

1. INSTALL LOW MOUNT ELECTROLIERS WITH A DESIGN MOUNTING HEIGHT OF 45 FEET. SPACING WILL BE APPROXIMATELY 300 FEET OR AS INDICATED IN THE ELECTROLIER SCHEDULE. JUNCTION BOX ADJACENT TO THE POLE AND CONDUIT BETWEEN JUCTION BOX AND POLE ARE CONSIDERED PART OF EACH ELECTROLIER AND WILL NOT BE PAY SEPARATELY.
2. REPLACE THE LUMINARIES INDICATED IN THE TABLE AND PLANS USING COBRAHEAD FIXTURES ON EXISTING LIGHT POLE. THIS WORK IS SUBSIDIARY TO ITEM 660(3).
3. INSTALL HIGH TOWERS USING 150 FEET AS A DESIGN MOUNTING HEIGHT, HAVING THE LIGHTING DISTRIBUTION SHOWN ON THE LUMINAIRE PERFORMANCE CRITERIA AND TEMPLATES. INSTALL A LOWERING SYSTEM AND LUMAIRIES ON EACH POLE AS SPECIFIED BY THE MANUFACTURER. GUARDRAIL AND END TERMINALS USED IN THE PROJECT ARE ITEMS SUBSIDIARY TO 668(1).
4. REMOVE AND SALVAGE OF ALL THE ELECTROLIERS LOCATED INSIDE THE PROJECT AREA AS INDICATED BY THE SALVAGE SCHEDULE. THIS WORK IS INCIDENTAL TO 660(13A) AND INCLUDES THE REMOVAL OF POLES, FOUNDATIONS, CONDUIT, CONDUCTORS AND JUNCTION BOXES.
5. MODIFY OR REMOVE EXISTING CIRCUITS AND ELECTROLIERS LEAVING THE ELECTROLIERS INDICATED IN THE PLANS AND TABLES FULLY FUNCTIONING AND WITH NEW FIXTURES. DELIVER SALVAGED ELECTROLIERS AND 3C6 & 3C8 WIRE TO M&O,LOCATED AT 5300 EAST TUDOR ROAD. CALL 2 DAYS IN ADVANCE OF EXPECTED DELIVERY.
6. THE INSTALLATION OF LOAD CENTERS TYPE 1A INCLUDES A TYPE 11 JUNCTION BOX AS INDICATED IN THE PLANS. THE JUNCTION BOX IS SUNSIDIARY TO ITEM 661(2). LABEL ALL LOAD CENTERS "DOT/STREET LTG/480V".
7. CLEARING OF TREES AND BRUSH REQUIRED TO COMPLETE THE WORK, AS WELL AS PLACING TOPSOIL AND SEEDING, IS CONSIDERED INCIDENTAL TO ITEMS 660(3) AND 668(1). MINIMUM OF FIVE FEET RADIUS FROM THE PERIMETER OF THE LOW MOUNT ELECTROLIERS SHALL BE CLEAR OF TRESS AND BRUSH.
8. BUILT A MAINTENANCE ACCESS TO EACH HIGH TOWER AND LOAD CENTER. THIS ACCESS IS INCIDENTAL TO ITEMS 668(1) & 661(2) AND WILL NOT BE PAID BY SEPARATED.
9. LOCATIONS FOR JUNCTION BOXES ARE APPROXIMATE. FIELD ADJUST LOCATIONS AT DIRECTION OF THE PROJECT ENGINEER TO AVOID DITCH BOTTOM AND UTILITY OR RIGHT OF WAY CONFLICTS.
10. EXISTING SIGNS ON THE POLES AND SINGS BLOCKED BY THE NEW POLES MUST BE RELOCATED AS SPECIFIED IN THE PLANS. SIGNS NOT TO BE RELOCATED ON A NEW ELECTROLIER, SHALL BE INSTALLED ACCORDING TO SECTION 615 OF THE STANDARD SPECIFICATIONS 2004 EDITION AND THE STANDARD DRAWINGS AND REGIONAL DETAILS FOR SIGN INSTALLATION. SIGN RELOCATIONS ARE SUBSIDIARY TO ITEM 660(3) AND WILL NOT BE PAY SEPARATELY.



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

SUMMARY TABLES

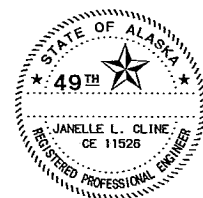
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DRAWING LOCATION
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660(3) ELECTROLIER SCHEDULE						
SHEET NO.	POLE NO.	NORTHING	EASTING	POLE HEIGHT	MASTARM LENGTH	REMARKS
H40	153	416840.6	429511.5	46'	15' DAVIT	
H40	154	416904.7	429346.6	40'	15' DAVIT	
H40	155	417119.5	429622.0	47'	15' DAVIT	
H40	156	417183.7	429456.9	41'	15' DAVIT	
H41	157	417385.6	429714.8	47'	OFFSET	BEHIND GUARDRAIL
H41	158	417456.9	429582.2	46'	15' DAVIT	
H41	159	417631.4	429862.6	48'	OFFSET	BEHIND GUARDRAIL
H41	160	417714.0	429737.3	47'	15' DAVIT	
H41	161	417855.0	430033.2	47'	OFFSET	BEHIND GUARDRAIL
H41	162	417935.0	429940.4	45'	OFFSET	BEHIND GUARDRAIL
H41	163	418038.9	430248.9	46'	15' DAVIT	
H41	164	418152.1	430148.9	45'	OFFSET	BEHIND GUARDRAIL
H42	165	418221.6	430476.1	49'	15' DAVIT	
H42	166	418365.2	430361.0	41'	15' DAVIT	
H42	167	418389.4	430725.8	48'	15' DAVIT	
H42	168	418553.3	430594.7	41'	15' DAVIT	
H42	169	418603.1	430939.6	41'	15' DAVIT	
H42	170	418741.4	430828.4	41'	15' DAVIT	
H42	171	418791.3	431173.2	45'	15' DAVIT	
H42	172	418929.0	431061.1	41'	15' DAVIT	
H42	173	418979.7	431407.1	54'	15' DAVIT	
H42	174	419116.7	431285.7	48'	15' DAVIT	
H43	175	419175.4	431634.7	44'	15' DAVIT	
H43	176	419314.7	431506.1	58'	15' DAVIT	
H43	177	419382.3	431852.0	40'	15' DAVIT	
H43	178	419502.8	431733.5	47'	OFFSET	BEHIND GUARDRAIL
H43	179	419589.8	432065.3	47'	15' DAVIT	
H43	180	419724.8	431935.9	47'	OFFSET	BEHIND GUARDRAIL
H43	181	419793.7	432275.1	45'	15' DAVIT	
H43	182	419926.6	432157.8	50'	15' DAVIT	
H44	183	420003.2	432490.3	43'	15' DAVIT	
H44	184	420136.1	432373.1	46'	15' DAVIT	
H44	185	420232.9	432687.9	46'	OFFSET	BEHIND GUARDRAIL
H44	186	420325.9	432605.8	48'	OFFSET	BEHIND GUARDRAIL
H44	187	420442.8	432902.9	45'	OFFSET	BEHIND GUARDRAIL
H44	188	420529.8	432817.2	45'	OFFSET	BEHIND GUARDRAIL
H44	189	420615.5	433119.0	50'	15' DAVIT	
H44	190	420748.0	433002.2	51'	15' DAVIT	
H44	191	420825.1	433334.1	40'	15' DAVIT	
H44	192	420985.5	433190.9	47'	15' DAVIT	
H45	193	421034.5	433549.4	39'	15' DAVIT	
H45	194	421164.3	433435.1	49'	OFFSET	BEHIND GUARDRAIL
H45	195	421243.5	433765.2	48'	15' DAVIT	
H45	196	421376.4	433648.0	57'	15' DAVIT	
H45	197	421461.3	433970.9	46'	15' DAVIT	
H45	198	421578.4	433838.0	41'	15' DAVIT	
H45	199	421681.7	434149.1	40'	15' DAVIT	
H45	200	421787.8	434008.1	41'	15' DAVIT	
H45	201	421898.2	434334.5	40'	15' DAVIT	
H45	202	422010.2	434162.4	50'	15' DAVIT	
H46	203	422157.6	434457.0	47'	OFFSET	BEHIND GUARDRAIL
H46	204	422233.8	434331.3	47'	OFFSET	BEHIND GUARDRAIL
H46	205	422403.4	434595.4	46'	OFFSET	BEHIND GUARDRAIL
H46	206	422473.2	434476.1	47'	OFFSET	BEHIND GUARDRAIL
H46	207	422631.3	434759.6	48'	15' DAVIT	
H46	208	422726.8	434597.4	55'	15' DAVIT	
H46	209	422875.9	434901.3	48'	15' DAVIT	
H46	210	422965.9	434741.9	50'	15' DAVIT	
H46	211	423114.4	435039.8	48'	15' DAVIT	
H46	212	423206.3	434887.9	45'	15' DAVIT	
H47	213	423346.3	435185.8	54'	15' DAVIT	
H47	214	423444.8	435038.2	50'	15' DAVIT	
H47	215	423571.3	435342.6	51'	15' DAVIT	
H47	216	423675.9	435199.4	44'	15' DAVIT	
H47	217	423787.9	435509.6	49'	15' DAVIT	
H47	218	423899.3	435371.8	44'	15' DAVIT	
H47	219	423997.0	435687.7	49'	15' DAVIT	
H47	220	424114.0	435554.3	53'	15' DAVIT	
H47	221	424204.0	435873.9	48'	15' DAVIT	
H47	222	424322.5	435741.9	48'	15' DAVIT	
H48	223	424411.5	436060.9	41'	15' DAVIT	
H48	224	424530.6	435929.5	42'	15' DAVIT	
H48	225	424620.6	436247.9	49'	15' DAVIT	
H48	226	424738.7	436116.6	41'	15' DAVIT	
H48	227	424812.7	436453.0	47'	15' DAVIT	
H48	228	424946.7	436304.0	41'	15' DAVIT	

660(3) ELECTROLIER SCHEDULE						
SHEET NO.	POLE NO.	NORTHING	EASTING	POLE HEIGHT	MASTARM LENGTH	REMARKS
H48	229	425001.2	436662.0	47'	15' DAVIT	
H48	230	425154.7	436491.5	42'	15' DAVIT	
H48	231	425258.5	436824.2	46'	15' DAVIT	
H48	232	425377.1	436691.7	41'	15' DAVIT	
H49	233	425469.9	437037.9	41'	15' DAVIT	
H49	234	425582.2	436912.4	47'	OFFSET	BEHIND GUARDRAIL
H49	235	425697.0	437233.9	47'	15' DAVIT	
H49	236	425805.2	437113.1	46'	OFFSET	BEHIND GUARDRAIL
H49	237	425943.7	437408.2	46'	OFFSET	BEHIND GUARDRAIL
H49	238	426028.3	437313.6	47'	OFFSET	BEHIND GUARDRAIL
H49	239	426168.4	437607.0	47'	OFFSET	BEHIND GUARDRAIL
H49	240	426251.6	437514.0	47'	OFFSET	BEHIND GUARDRAIL
H50	241	426390.6	437808.5	45'	OFFSET	BEHIND GUARDRAIL
H50	242	426491.7	437695.6	50'	15' DAVIT	
H50	243	426596.3	438028.5	43'	15' DAVIT	
H50	244	426714.7	437896.3	45'	15' DAVIT	
H50	245	426819.4	438229.1	43'	15' DAVIT	
H50	246	426937.4	438097.3	46'	15' DAVIT	
H50	247	427042.5	438429.6	44'	15' DAVIT	
H50	248	427160.2	438298.1	47'	15' DAVIT	
H50	249	427266.0	438629.7	43'	15' DAVIT	
H50	250	427383.9	438498.0	47'	15' DAVIT	
H51	251	427488.5	438831.0	41'	15' DAVIT	
H51	252	427606.9	438698.5	47'	15' DAVIT	
H51	253	427695.5	439019.6	45'	15' DAVIT	
H51	254	427815.0	438886.1	48'	15' DAVIT	
H51	255	427898.9	439242.2	47'	15' DAVIT	
H51	256	428034.7	439090.4	49'	15' DAVIT	
H52	257	428934.9	440393.6	44'	15' DAVIT	
H52	258	429093.4	440280.1	51'	15' DAVIT	
H53	259	429120.3	440629.8	51'	15' DAVIT	
H53	260	429246.2	440539.7	46'	OFFSET	BEHIND GUARDRAIL
H53	261	429294.9	440873.7	47'	15' DAVIT	
H53	262	429416.7	440786.6	47'	15' DAVIT	
H53	263	429456.5	441100.2	52'	15' DAVIT	
H53	264	429576.3	441016.7	47'	OFFSET	BEHIND GUARDRAIL
H53	265	429647.0	441333.1	48'	OFFSET	BEHIND GUARDRAIL
H53	266	429747.2	441263.2	47'	OFFSET	BEHIND GUARDRAIL
H53	267	429823.6	441588.0	45'	OFFSET	BEHIND GUARDRAIL
H53	268	429924.0	441517.9	47'	OFFSET	BEHIND GUARDRAIL
H54	269	430000.3	441842.2	46'	OFFSET	BEHIND GUARDRAIL
H54	270	430100.8	441772.4	47'	OFFSET	BEHIND GUARDRAIL
H54	271	430171.9	442089.5	47'	OFFSET	BEHIND GUARDRAIL
H54	272	430272.0	442018.8	46'	OFFSET	BEHIND GUARDRAIL
H54	273	430331.9	442330.9	47'	OFFSET	BEHIND GUARDRAIL
H54	274	430437.7	442269.1	46'	OFFSET	BEHIND GUARDRAIL
H54	275	430460.0	442584.1	48'	OFFSET	BEHIND GUARDRAIL
H54	276	430573.5	442537.2	46'	OFFSET	BEHIND GUARDRAIL
H54	277	430556.5	442854.2	48'	OFFSET	BEHIND GUARDRAIL
H54	278	430674.1	442820.2	46'	OFFSET	BEHIND GUARDRAIL
H55	279	430618.3	443133.6	47'	OFFSET	BEHIND GUARDRAIL
H55	280	430739.5	443113.6	47'	OFFSET	BEHIND GUARDRAIL
H55	281	430662.8	443410.3	46'	OFFSET	BEHIND GUARDRAIL
H55	282	430785.4	443389.8	47'	OFFSET	BEHIND GUARDRAIL
H55	283	430683.0	443690.6	45'	15' DAVIT	
H55	284	430728.2	443966.9	44'	15' DAVIT	
H55	285	430773.2	444243.3	44'	15' DAVIT	
LUMINAIRE REPLACEMENT ONLY						
H30	NB1	LOCATE IN THE FIELD				ON EXISTING POLE
H34	PC1	LOCATE IN THE FIELD				ON EXISTING POLE
H34	PC2	LOCATE IN THE FIELD				ON EXISTING POLE
H38	NP1	LOCATE IN THE FIELD				ON EXISTING POLE
H38	NP2	LOCATE IN THE FIELD				ON EXISTING POLE
H41	ML1	LOCATE IN THE FIELD				ON EXISTING POLE
H41	ML2	LOCATE IN THE FIELD				ON EXISTING POLE
H43	NM1	420521.1	432605.1			ON EXISTING POLE
H43	NM2	420562.3	432717.6			ON EXISTING POLE
H43	NM3	LOCATE IN THE FIELD				ON EXISTING POLE
H43	NM4	LOCATE IN THE FIELD				ON EXISTING POLE
H47	TB1	425158.7	436917.1			ON EXISTING POLE
H47	TB2	425148.9	437086.5			ON EXISTING POLE
H51	EK1	428117.8	439904.3			ON EXISTING POLE
H51	EK2	LOCATE IN THE FIELD				ON EXISTING POLE

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION					
			ALASKA	IM-0A1-6(42)/51970	2010	D2	D3

660(23) HIGH TOWER SCHEDULE							
SHEET NO.	POLE NO.	NORTHING	EASTING	MOUNTING HEIGHT	POLE HEIGHT	HANDHOLE ORIENTATION	NUMBER OF LUMINAIRES
H29	HT1	407703.0	420616.7	150'	155'	222°	4
H30	HT2	407930.2	421247.0	150'	135'	36°	4
H30	HT3	408339.0	421794.9	150'	145'	36°	4
H33	HT4	410783.0	425081.7	150'	155'	25°	4
H34	HT5	410864.0	425731.4	150'	160'	295°	4
H34	HT6	411329.3	426372.1	150'	155'	205°	4
H38	HT7	414905.0	428536.5	150'	145'	158°	5
H38	HT8	415518.3	429002.8	150'	155'	339°	5
H51	HT9	428237.9	439600.3	150'	140'	313°	4
H51	HT10	428764.8	439862.4	150'	140'	131°	4



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

SUMMARY TABLES

DESIGNED BY: JSE
CHECKED BY: JLC
DRAFTED BY: JEF
SCALE: N/A
LAYOUT: D3
DATE: 02/02/2010 9:14:15 AM AST
DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\LD_SUM.dwg

660(14) SALVAGE ELECTROLIER SCHEDULE

SHEET NO.	NORTHING	EASTING	POLE TYPE
H29	407143.4	420297.4	MASTARM
H29	407253.3	420431.9	MASTARM
H29	407379.8	420326.5	MASTARM
H29	407367.8	420573.0	MASTARM
H29	407510.1	420454.2	MASTARM
H30	407877.8	421451.1	MASTARM
H30	408015.5	421485.2	MASTARM
H30	408042.9	421613.4	MASTARM
H30	408237.5	421196.9	MASTARM
H30	408292.1	421319.5	MASTARM
H30	408432.7	421351.6	MASTARM
H31	408763.1	422016.1	MASTARM
H31	408855.7	422169.0	MASTARM
H31	408949.2	422323.5	MASTARM
H31	408910.6	422526.3	MASTARM
H31	409023.2	422668.6	MASTARM
H33	410459.0	424474.6	MASTARM
H33	410542.2	424638.2	MASTARM
H33	410520.9	424921.9	MASTARM
H33	410581.1	425089.4	MASTARM
H34	410641.0	425257.4	MASTARM
H34	410742.7	425878.6	MASTARM
H34	410827.9	425958.5	MASTARM
H34	410877.9	425894.1	MASTARM
H34	411097.5	425716.4	MASTARM
H34	411137.2	425657.3	MASTARM
H34	411217.4	425735.1	MASTARM
H35	411471.1	426569.1	MASTARM
H35	411553.7	426731.4	MASTARM
H35	411645.7	426882.4	MASTARM
H35	411691.4	427149.0	MASTARM
H35	411821.3	427275.2	MASTARM
H37	413825.2	428143.9	MASTARM
H37	414014.6	428215.5	MASTARM
H37	414203.6	428283.9	MASTARM
H37	414229.5	428483.3	MASTARM
H37	414364.4	428548.8	MASTARM
H37	414495.9	428616.8	MASTARM
H38	415037.8	429060.7	MASTARM
H38	415160.9	428945.8	MASTARM
H38	415224.9	428594.9	MASTARM
H38	415354.8	428475.8	MASTARM
H38	415909.2	428923.6	MASTARM
H39	416043.7	428993.6	MASTARM
H39	416176.9	429060.6	MASTARM
H39	416184.6	429248.7	MASTARM
H39	416378.3	429320.9	MASTARM
H39	416562.1	429387.7	MASTARM
H40	418151.7	430366.5	MASTARM
H41	418236.9	430491.7	MASTARM
H41	418320.6	430616.3	MASTARM
H41	419138.0	431338.7	MASTARM
H42	419270.7	431487.7	MASTARM
H42	419409.5	431633.1	MASTARM
H43	421038.0	433269.9	MASTARM
H44	421134.1	433386.0	MASTARM
H44	421229.0	433504.9	MASTARM
H45	422442.3	434627.2	MASTARM
H45	422620.8	434729.6	MASTARM
H45	422794.1	434829.7	MASTARM
H47	424657.6	436281.2	MASTARM
H47	424760.5	436390.7	MASTARM
H47	424862.4	436498.9	MASTARM
H48	425337.5	436896.3	MASTARM
H48	425597.1	437123.1	MASTARM
H48	425748.0	437254.9	MASTARM
H48	425900.0	437382.3	MASTARM
H50	427459.2	438591.6	MASTARM
H50	427607.6	438717.3	MASTARM
H50	427792.1	439100.4	MASTARM
H50	427892.1	439214.7	MASTARM
H50	428002.1	439278.1	MASTARM
H51	428123.3	439693.8	MASTARM
H51	428186.0	439776.0	MASTARM
H51	428352.0	439805.1	MASTARM
H51	428703.2	439691.5	MASTARM
H51	428762.2	439619.1	MASTARM
H51	428846.5	439726.6	MASTARM
H51	428935.1	440139.7	MASTARM
H51	429051.9	440239.3	MASTARM
H51	429154.7	440399.0	MASTARM
H52	429162.0	440664.9	MASTARM
H52	429280.9	440824.6	MASTARM

660(30) J-BOX SCHEDULE

SHEET NO.	JUNCTION BOX	NORTHING	EASTING
H22	A1	401116.7	412632.7
H22	A2	401078.0	412682.1
H22	A3	401033.0	412740.7
H29	95A	407322.9	420371.1
H29	HT1	407688.2	420584.9
H30	HT2	407921.5	421280.9
H30	HT2A	407908.3	421329.2
H30	C1	407866.8	421340.7
H30	C2	407876.0	421450.9
H30	C3	407940.1	421527.7
H30	C4	408109.3	421673.3
H30	C5	408273.9	421821.8
H30	HT3	408304.7	421787.8
H30	C6	408414.1	421952.9
H31	97A	408635.6	422031.9
H31	97B	408694.8	421989.0
H33	119A	410491.3	424698.5
H33	120A	410688.9	424938.9
H33	HT4	410798.1	425113.8
H34	HT4A	410833.6	425174.0
H34	HT4B	410992.5	425428.7
H34	HT5	410891.5	425744.2
H34	HT5A	410953.7	425717.1
H34	HT5B	411022.0	425705.6
H34	HT5C	411100.0	425674.3
H34	D1	411176.1	425665.8
H34	D2	411211.5	425753.3
H34	D3	411283.9	426035.6
H34	D4	411374.7	426322.2
H34	HT6	411332.4	426337.3
H35	121A	411432.3	426698.9
H37	145A	414382.9	428453.2
H38	146A	414749.0	428454.6
H38	HT7	414932.5	428514.9
H38	HT7A	414936.8	428471.7
H38	HT7B	415108.4	428474.8
H38	E1	415279.6	428485.1
H38	E2	415335.3	428520.0
H38	E3	415568.8	428700.3
H38	E4	415813.9	428864.2
H38	HT8	415529.2	428972.4
H38	HT8A	415557.4	428900.4
H38	HT8B	415577.6	428848.7
H38	HT8C	415538.7	428740.9
H39	147A	415744.7	429095.2
H39	147B	415752.3	429055.2
H41	167A	418469.8	430852.9
H41	F1	418529.9	430932.8
H41	169A	418671.7	430884.0
H42	180A	419951.8	432105.8
H43	187A	420486.4	432859.5
H43	192A	420944.7	433221.2
H43	G1	420153.2	433276.8
H43	G2	420232.3	433331.0
H43	G3	420285.7	433268.3
H43	G4	420334.5	433076.0
H44	199A	421925.9	434291.2
H47	229A	425037.5	436625.5
H47	231A	425321.2	436878.3
H48	H1	425638.5	437151.7
H48	235A	425756.4	437169.0
H50	255A	427966.5	439166.6
H50	255B	428099.3	439490.7
H51	255C	428190.4	439658.2
H51	255D	428200.7	439769.0
H51	HT9	428236.6	439633.8
H51	I1	428389.5	439968.9
H51	I2	428599.0	440056.0
H51	I3	428650.3	439999.1
H51	I4	428703.3	439957.3
H51	HT10	428776.6	439896.5
H51	257A	428741.4	440172.6
H51	258A	428889.5	440056.4
H51	258B	428924.2	440033.1
H54	281A	430725.4	443399.8

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	D3	D3

660(9) BORED CASING SUMMARY

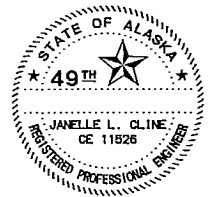
SHEET NO.	FROM J-BOX	TO J-BOX	LENGTH
H22	A1	A	77'
H22	A2	A1	64'
H22	A3	A2	73'
H29	95	95A	97'
H29	95A	96	78'
H30	HT2A	95B	43'
H30	95C	95D	100'
H30	95F	HT3	46'
H31	97	97A	94'
H31	97A	97B	73'
H31	97B	98	50'
H33	119	119A	66'
H33	119A	120	80'
H34	HT5	HT5A	68'
H34	HT5A	HT5B	70'
H34	HT5C	D1	79'
H34	D1	D2	94'
H34	D4	HT6	44'
H35	121	121A	96'
H35	121A	122.0	96'
H37	145	145A	91'
H37	145A	146	91'
H38	HT7	HT7A	43'
H38	E1	E2	66'
H38	E3	HT8C	51'
H38	HT8	HT8A	77'
H38	HT8A	HT8B	56'
H38	147A	147B	41'
H41	167A	167B	100'
H41	167B	F	64'
H41	169	169A	65'
H41	169A	170	82'
H42	180A	182	81'
H43	187	187A	69'
H43	187A	188	68'
H43	192A	192.0	44'
H43	G1	G2	96'
H43	G2	G3	82'
H44	199A	201	44'
H47	229	229A	44'
H47	231	231A	88'
H48	235	235A	64'
H48	235A	236	82'
H50	255	255A	94'
H50	255A	256	96'
H51	HT9	255C	52'
H51	255D	I	80'
H51	I2	I3	76'
H51	I3	I4	67'
H51	I4	HT10	95'
H51	258A	258B	42'
H54	281	281A	71'
H54	281A	282	69'

661(3) LOAD CENTER SCHEDULE

SHEET NO.	LOAD CENTER	NORTHING	EASTING
H22	A	401167.8	412560.4
H29	B	407640.8	420486.7
H30	C	407801.5	421353.0
H34	D	411179.0	425587.5
H38	E	415278.4	428326.4
H41	F	418481.5	430993.8
H43	G	420023.8	433233.6
H48	H	425597.4	437198.9
H51	I	428238.5	439841.9
H54	J	430734.4	444263.3

607(3) CHAIN LINK FENCE

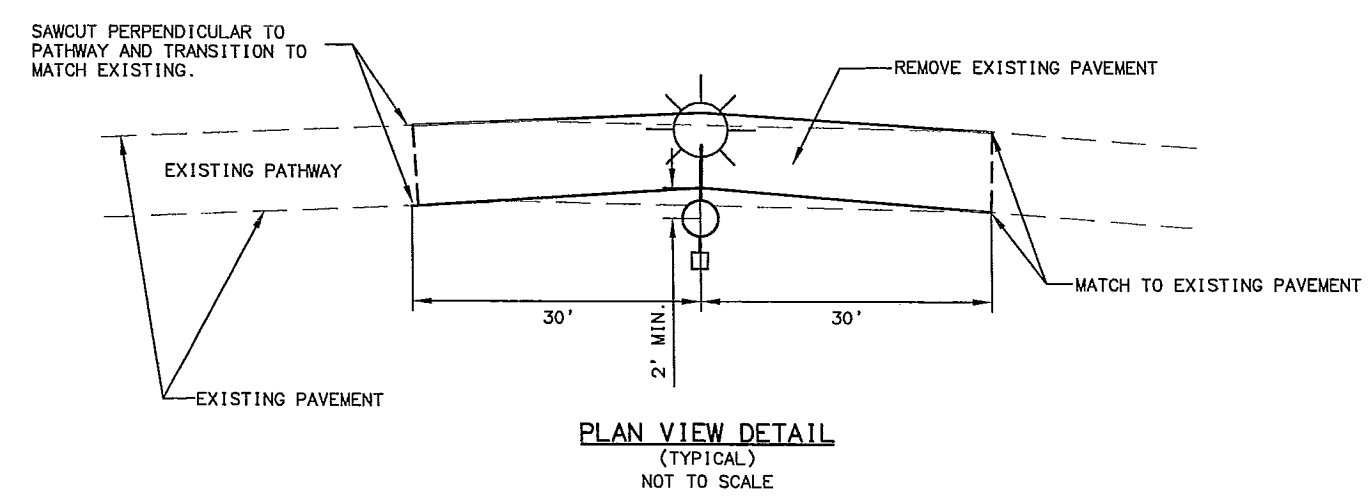
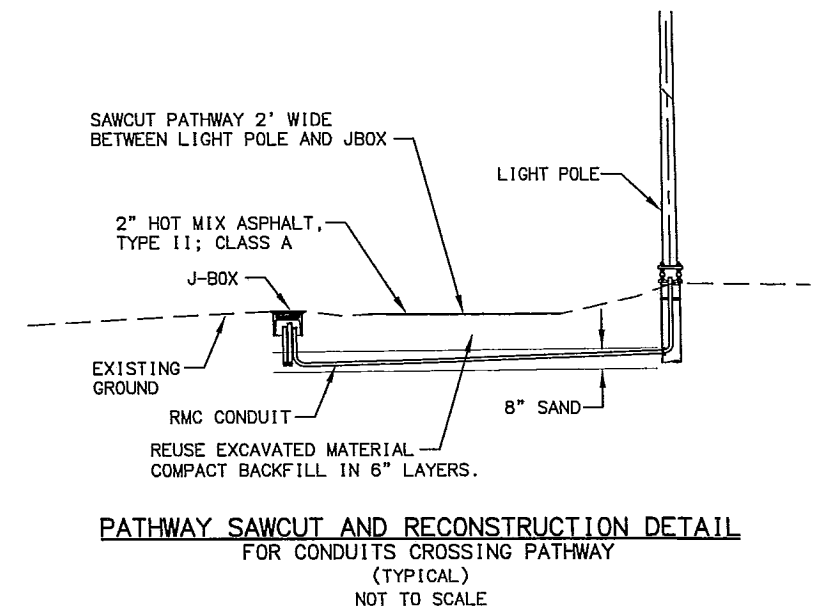
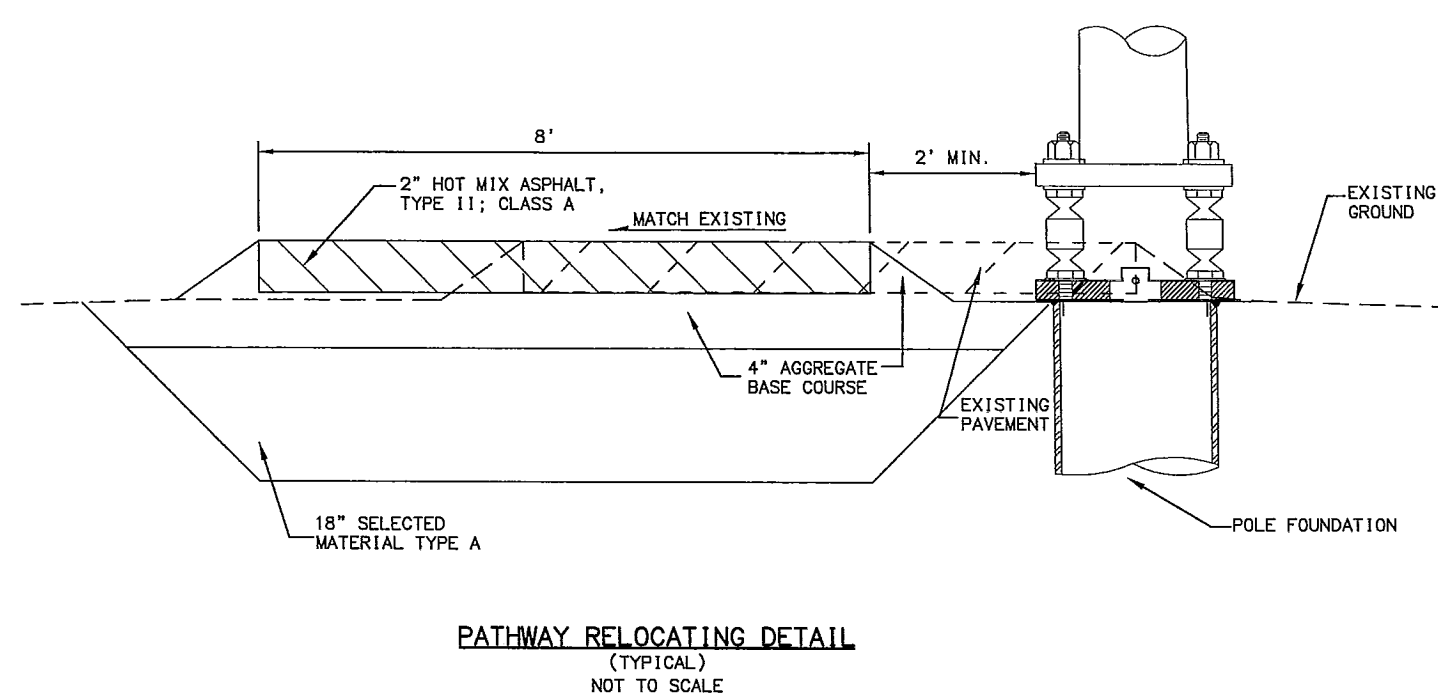
SHEET NO.	FROM	TO	LENGTH
H33 & H34	N 409713.2 E 423635.7	N 410157.4 E 424256.7	770'
H33 & H34	N 409905.2 E 423641.5	N 410306.3 E 424180.9	680'
H50 & H51	N426952.4E 438121.8	N 428085.2 E 439138.9	1520'



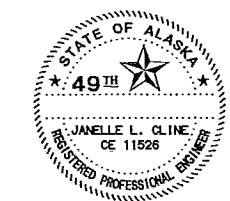
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**
SUMMARY TABLES

DESIGNED BY: JFC
CHECKED BY: JLC
DRAFTED BY: JFC
XREFS: N/A
SCALE: NOT TO SCALE
LAYOUT: E1
DATE: 02/02/2010 8:12:44 AM AST
DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\E1_PATHWAY.dwg

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION	ALASKA	IM-0A1-6(42)/51970	2010	E1	E3



- NOTES:**
1. TAPER PATHWAY TO MATCH EXISTING. PATHWAY RELOCATION AND CONDUIT CROSSING PATHWAY ARE SUBSIDIARY TO ITEM 660(3).
 2. PATHWAY ALIGNMENT IS BASED ON OFFSETS TO THE EXISTING PATHWAY. THE ACCESS TO THE PATHWAY WILL BE DETERMINATED IN THE FIELD BY THE PROJECT ENGINEER. ANY DAMAGE TO PATHWAY SHALL BE RESTORE AS INDICATED BY THE PROJECT ENGINEER.
 3. SEED ALL AREAS DISTURBED BY CONSTRUCTION.



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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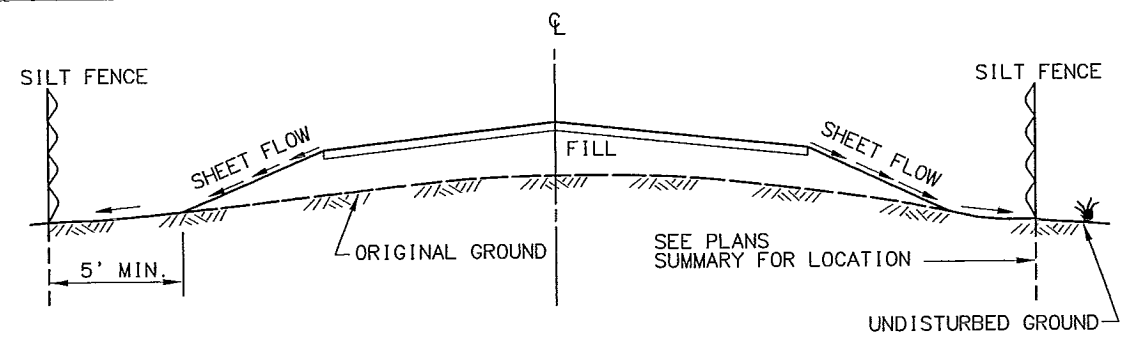
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**

**TYPICAL PATHWAY
SHIFTING DETAILS**

DESIGNED BY JSE
CHECKED BY JLC
DRAFTED BY JEF
SCALE N/A
LAYOUT SILT FENCE
DATE 02/02/2010 8:13:27 AM AST
TIME
DRAWING LOCATION
T:\Projects\anchorage\51970 - Glenn Hwy Lighting.dwg E2-E3 SEDIMENT-CONTROL-SYSTEM.dwg

REVISIONS		
NO.	DATE	DESCRIPTION

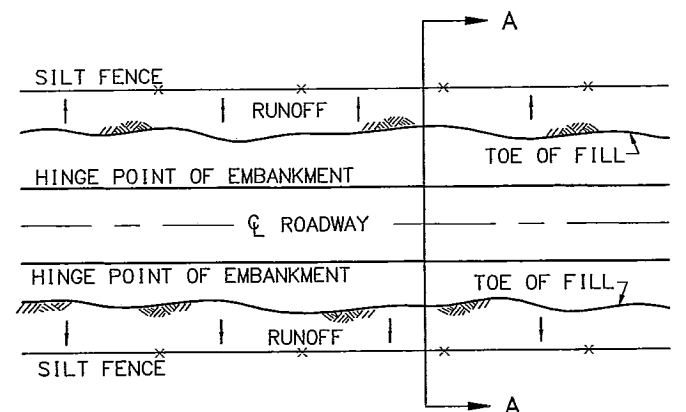
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	E2	E3



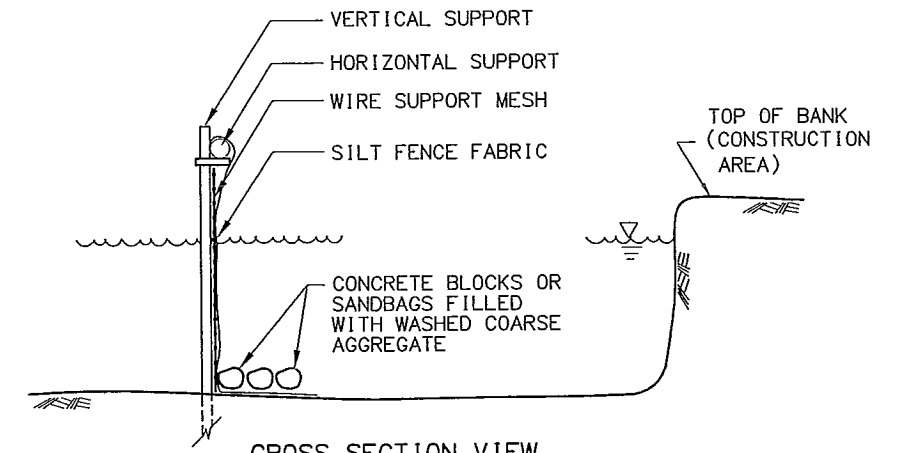
SECTION A-A

NOTES:

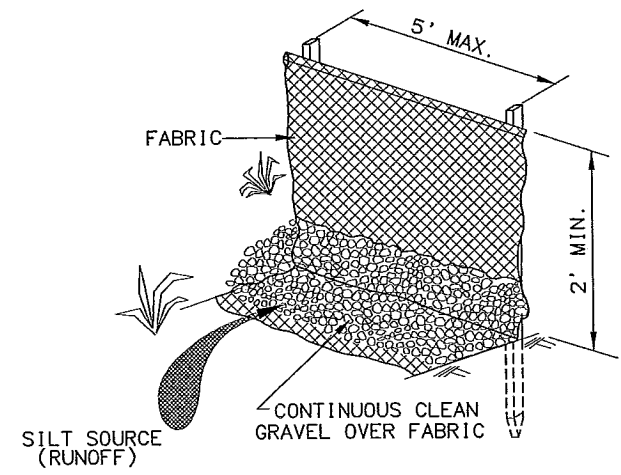
1. INSTALLATION AND APPLICATION SHALL BE IN ACCORDANCE WITH THE ADOT/PF SEDIMENT AND EROSION CONTROL MANUAL (<http://www.dot.state.ak.us>).
2. SILT FENCE FABRIC SHALL BE OVERLAPPED 6" AT FENCE SUPPORTS.
3. SILT FENCE FABRIC SHALL BE TAUT, NOT LOOSE OR FOLDED.
4. THE CONTRACTOR SHALL INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT.
5. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.



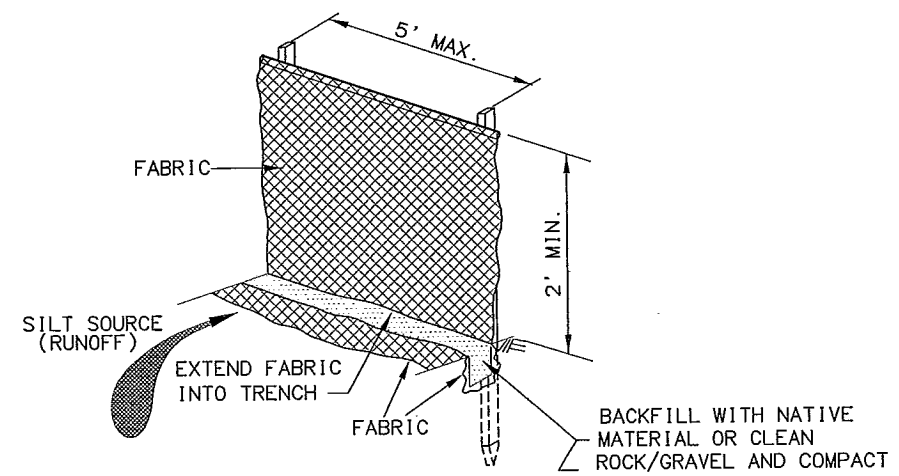
PLAN VIEW



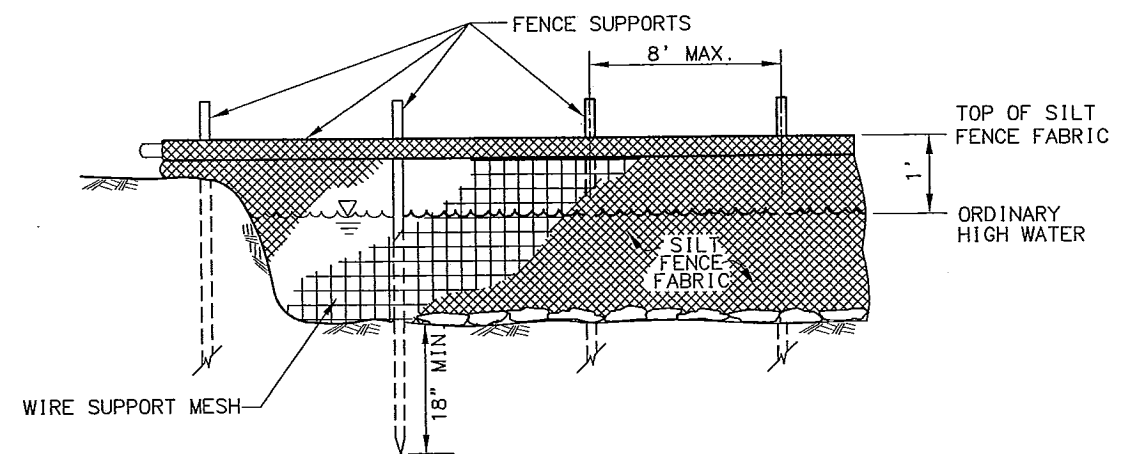
CROSS SECTION VIEW



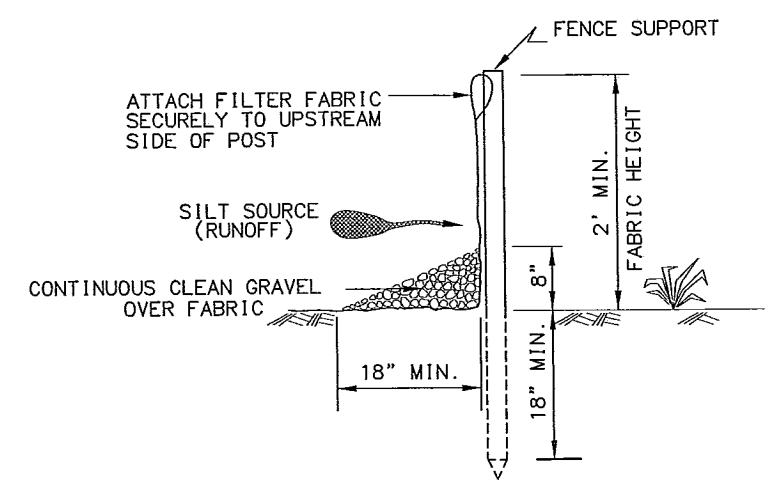
BACKFILL ALTERNATE



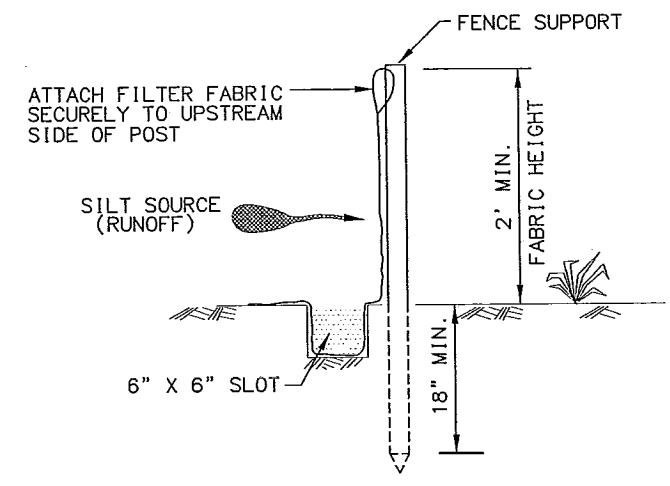
TRENCH ALTERNATE



TYPICAL



BACKFILL CROSS SECTION



TRENCH CROSS SECTION

NOTES FOR USE IN WATER:

1. SECURE THE ENDS OF SILT FENCE TO THE BANK.
2. SILT FENCE FRAMEWORK SHALL BE NOMINAL 2" X 2" WOOD, 3" DIAMETER WOOD, #6 REBAR WITH PVC SLEEVES, 3/4" IRON PIPE, OR OTHER POSTS CAPABLE OF SUPPORTING THE INSTALLATION, AS APPROVED BY THE ENGINEER.
3. THE WIRE MESH SUPPORT SHALL BE WWF 6" X 6", W1 X W1 OR AS APPROVED BY THE ENGINEER.
4. FENCE ANCHORED IN STANDING WATER SHALL HAVE THE BOTTOM ANCHORED WITH SANDBAGS OR CONCRETE BLOCKS AS DETAILED ABOVE.

THIS DRAWING REPLACES STD.DWG. E-13.00

NOTES FOR USE ON LAND:

1. FENCE SHALL BE PLACED AT LEAST 5' FROM THE TOE OF EMBANKMENT OR EXCAVATION AREAS, OR AS DIRECTED BY THE ENGINEER.
2. ACCUMULATION OF SEDIMENT BEHIND SILT FENCE SHALL BE REMOVED WHEN DEPTH REACHES 12". REMOVED SEDIMENT SHALL BE DEPOSITED IN AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

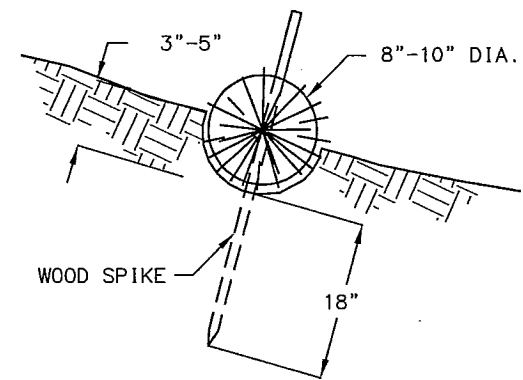
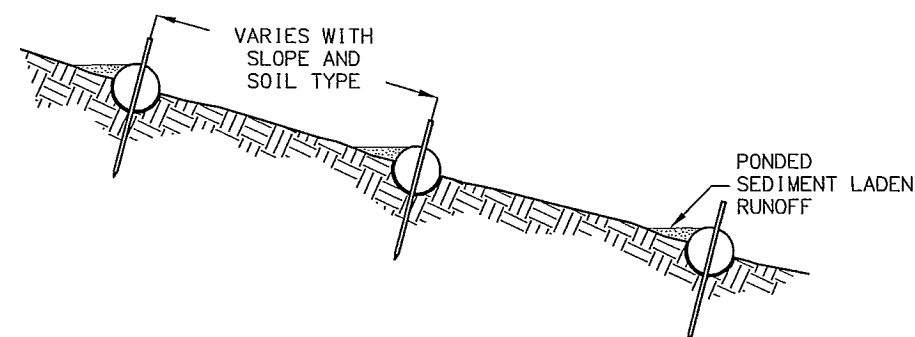


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**

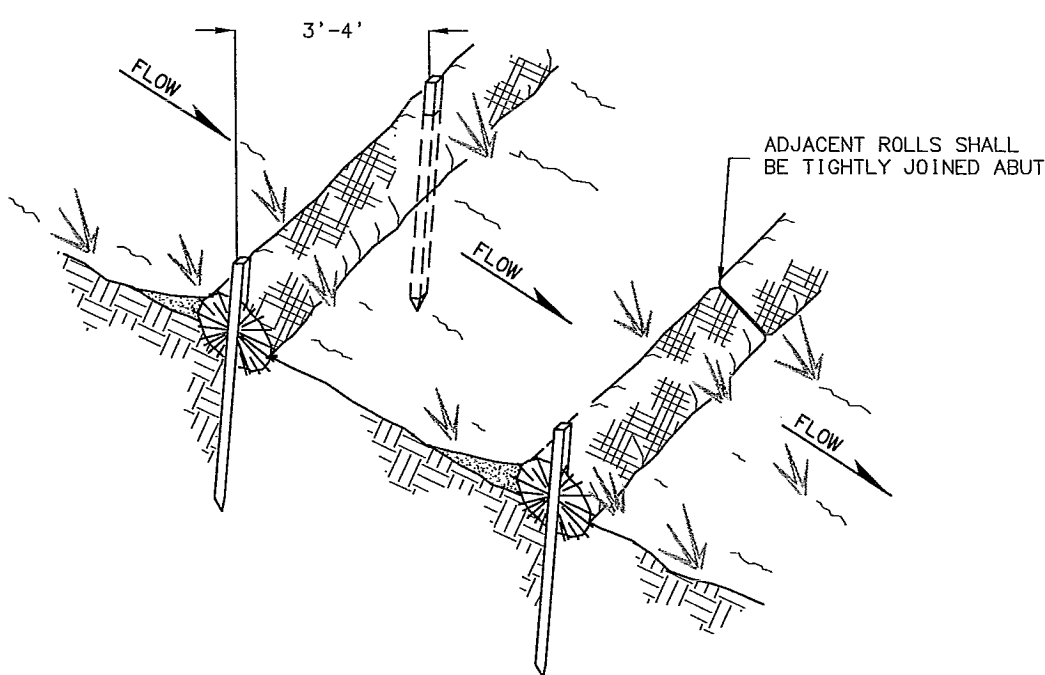
SILT FENCE DETAILS

DESIGNED BY FFE
CHECKED BY MAF
XREFS N/A
SCALE N/A
LAYOUT WATTLE & DAM
TIME 8:13:27 AM AST
DATE 02/02/2010
DRAWING LOCATION T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\E2-E3 SEDIMENT-CONTROL-SYSTEM.dwg

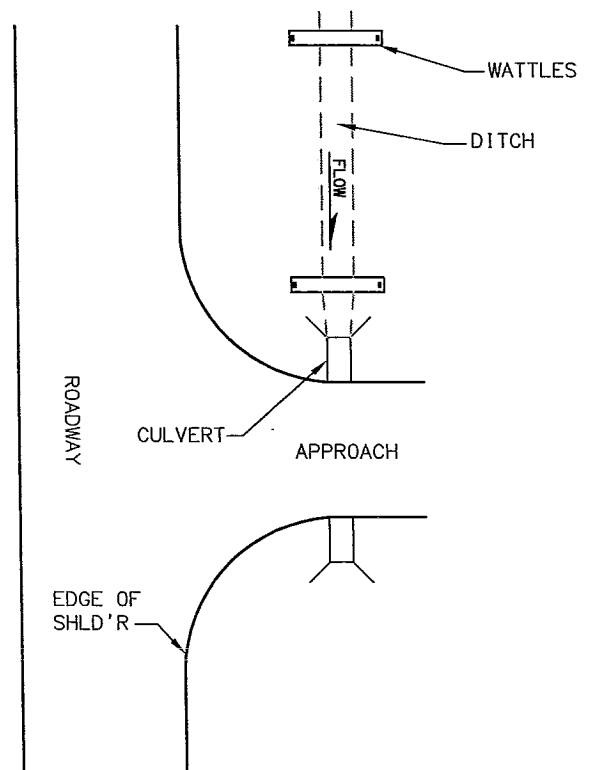
REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION	ALASKA	IM-0A1-6(42)/51970	2010	E3	E3



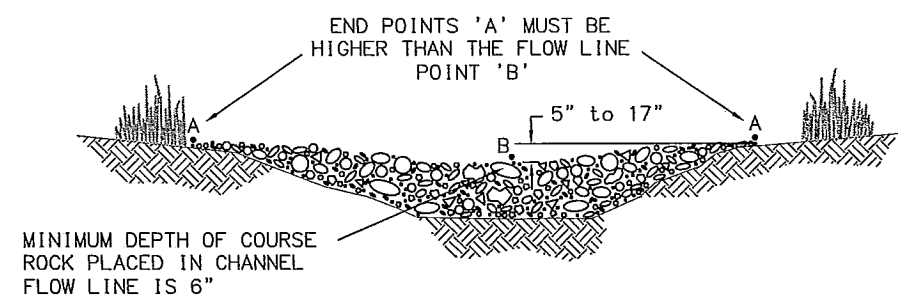
PROFILE VIEW



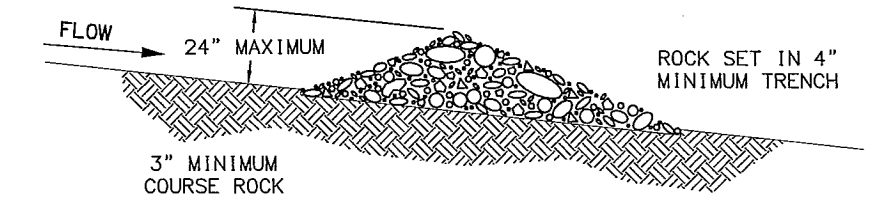
STRAW ROLL WATTLES



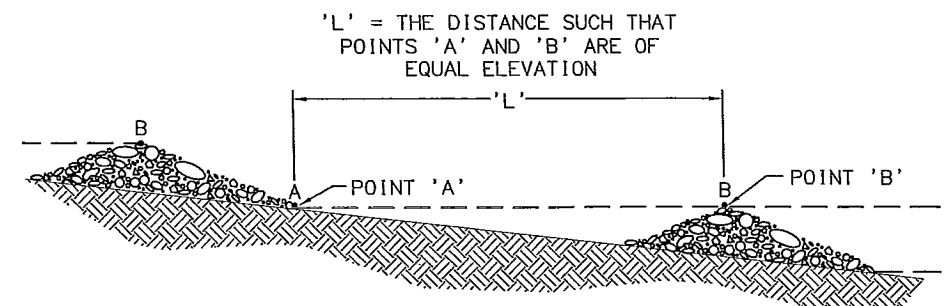
CULVERT INLET PROTECTION



VIEW LOOKING UPSTREAM



PROFILE VIEW

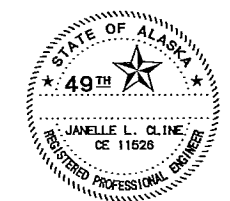


CHECK DAMS

NOTES:

1. STRAW ROLLS SHALL BE WRAPPED INSIDE A TUBULAR POLYETHYLENE NETTING MATERIAL AND TIED TOGETHER IN ACCORDANCE WITH SUBSECTION 729-2.05.
2. REMOVAL OF TRAPPED SEDIMENT TO AN AREA NOT SUBJECT TO EROSION IS REQUIRED WHEN THE SEDIMENT HAS REACHED A HEIGHT OF 6". WHEN APPROVED BY THE ENGINEER, REMOVE STAKES AND WATTLES AND DISPOSE.
3. DO NOT USE STRAWBALE BARRIERS.

THIS DRAWING REPLACES STD.DWG. E-13.00



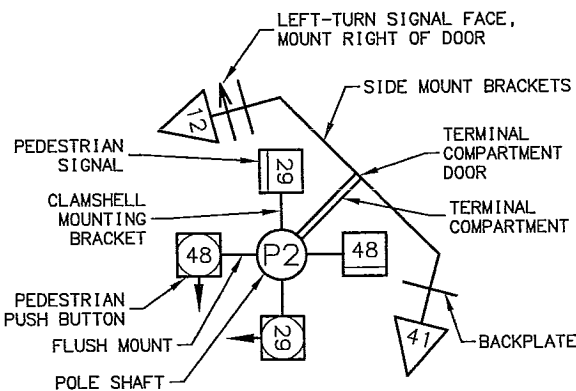
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**
**STRAW WATTLE AND CHECK DAM
DETAILS**

SYMBOL LEGEND

EXISTING	PROPOSED	
		LOAD CENTER
		UPS LOAD CENTER
		TRAFFIC CONTROLLER
		BEACON CONTROLLER
		TYPE 1A JUNCTION BOX
		TYPE 2 JUNCTION BOX
		TYPE 3 JUNCTION BOX
		TYPE 4 JUNCTION BOX
		DETECTOR LOOP
		LOOP DETECTOR CONDUIT
		SIGNAL CONDUIT
		LIGHTING CONDUIT
		SIGNAL & LIGHTING CONDUIT
		CONDUIT BORING
		RMC WITH SIZE IN INCHES
		SIGNAL POLE
		SIGNAL POLE WITH MASTARM
		PEDESTRIAN PUSH BUTTON
		PEDESTRIAN SIGNAL
		VEHICULAR SIGNAL
		VEHICULAR SIGNAL LEFT
		VEHICULAR SIGNAL RIGHT
		OPTICAL DETECTOR
		CAMERA DETECTION
		ANTENNA, YAGI OR OMNI
		ELECTROLIER
		LUMINAIRE
		SCHOOL ZONE BEACON
		RURAL BEACON
		MASTARM BEACON
		DETECTABLE WARNING TILE
		HIGHTOWER

MARKING LEGEND

PROPOSED	
	8" WHITE SOLID STRIPE
	4" WHITE SOLID STRIPE
	4" WHITE SKIP STRIPE 10' STRIPES AND 30' SPACES
	8" WHITE LANE GUIDE SKIP LANE CONTINUATION OR TURN SKIP 1' STRIPES AND 3' SPACES
	8" YELLOW SOLID STRIPE
	4" YELLOW SOLID STRIPE
	4" YELLOW SKIP STRIPE 10' STRIPES AND 30' SPACES
	STRIPING CHANGE STATION INTERVAL
	2' CROSSWALK OR STOPBAR
	LADDER CROSSWALK LAYOUT 2' WIDE RUNGS WITH 2' SPACES ALIGNED TO AVOID TIRE PATHS
	TYPICAL PAINTED MEDIAN



POLE SHAFT LEGEND

CALL BEFORE YOU DIG!

CONTRACTOR SHALL CALL A MINIMUM OF
3 DAYS IN ADVANCE OF CONSTRUCTION

ALASKA DIGLINE...907-278-3121 OR 800-478-3121

CALL OR GO TO WWW.AKONECALL.COM/STATEWIDE.HTM
FOR MEMBER LIST OF WHO WILL BE NOTIFIED

ABBREVIATIONS

SIG - SERVICE TO CONTROLLER
INTX - INTERSECTION
LTG - LIGHTING
PRE 2 - PREEMPTION #
PRE CON 2 - PREEMPTION CONTROLLER #
LC - LOAD CENTER
TC - TRAFFIC CONTROLLER
P1 - TRAFFIC SIGNAL POLE #
PEC - PHOTOELECTRIC CELL
YAGI - DIRECTIONAL ANTENNA
OMNI - OMNI DIRECTIONAL ANTENNA
HEAD - VEHICULAR SIGNAL HEAD
PED B 28 - PEDESTRIAN PUSH BUTTON #
PEDI - PEDESTRIAN SIGNAL HEAD
RMC - RIGID METAL CONDUIT
HDPE - HIGH DENSITY POLYETHYLENE CONDUIT
LFNC - LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT
INTX L - INTERSECTION LIGHTING
NB - NORTH BOUND
EB - EAST BOUND
SB - SOUTH BOUND
WB - WEST BOUND

LAST REVISION		STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
DATE	DESCRIPTION	ALASKA	IM-0A1-6(42)/51970	2010	H1	H54
01/21/2010	CENTRAL REGION DETAIL					

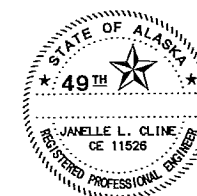
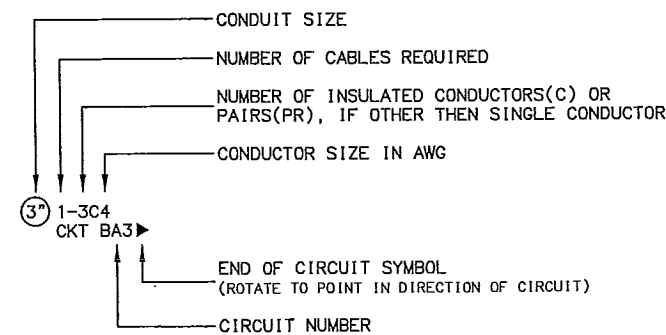
NOTES:

FOUNDATIONS NOTES:

- STATION & C.L. REFERENCE ARE TO THE CENTER OF THE STRUCTURE, EXCEPT ON LOOPS WHICH ARE TO THE CENTER OF THE TRAILING EDGE OF THE LOOP (EDGE NEAREST INTERSECTION).
- JUNCTION BOX LOCATIONS APPROXIMATE. LOCATE J-BOXES SO THAT THEY ARE LOCATED OUT OF THE PATHWAY, SIDEWALK, CURB RAMPS, AND DRAINAGE COLLECTION AREAS.
- INSTALL LOAD CENTER AND TRAFFIC CONTROLLER FOUNDATIONS WITHIN 1-DEGREE OF PLUMB.
- INSTALL ANCHOR BOLTS IN CAST FOUNDATIONS TO BE WITHIN 1:40 OF PLUMB.
- TOPSOIL AND SEED ANY DISTURBED AREAS.

SIGNAL SYSTEM NOTES:

- FURNISH THE SIGNAL AND LUMINAIRE MASTARM LENGTHS AND DIMENSIONS SPECIFIED ON THE POLE ELEVATIONS.
- INSTALL DEVICES SUCH THAT THE DIMENSIONS SHOWN TO THE BOTTOM OF THE DEVICES ON THE POLE ELEVATIONS ARE MINIMUMS. VERTICAL DIMENSIONS TO SIGNAL HEADS ARE TO BOTTOM OF THE BACK PLATE.
- INSTALL MAST ARMS PERPENDICULAR TO THE ROADWAY CENTERLINE. ACCEPTABLE VARIANCE IS +/- 1-DEGREE.
- SALVAGE SIGNAL POLE ASSEMBLIES, SIGNS, SIGNAL FACES, AND LUMINARIES AND DELIVER TO MAINTENANCE AND OPERATIONS WITHIN 48-HOURS OF DECOMMISSIONING. COMPONENTS DAMAGED WHILE IN THE CONTRACTORS CUSTODY MUST BE REPLACED AT THE CONTRACTORS EXPENSE. REMOVE AND DISPOSE OF FOUNDATIONS.
- SALVAGE EXISTING CONTROLLER CABINET AFTER NEW CONTROLLER CABINET IS IN SERVICE AND DELIVER TO MAINTENANCE AND OPERATIONS WITHIN 48-HOURS OF DECOMMISSIONING.
- VEHICLE SIGNALS AND PEDESTRIAN SIGNALS SHALL BE LED MODULES.
- REMOVE ABANDONED OR UNUSED TRAFFIC JUNCTION BOXES UNLESS OTHERWISE NOTED.
- NEW SIGNAL HEADS THAT ARE MOUNTED BUT NOT IN OPERATION SHALL BE COVERED WITH A COMMERCIALY AVAILABLE SIGNAL-SHIRT. EACH SIGNAL SHIRT SHALL FEATURE ELASTICIZED OPENINGS THAT FIT OVER THE VISORS AND AT LEAST TWO STRAPS TO SECURE IT TO THE SIGNAL. PROVIDE SHIRTS WITH A LEGEND THAT READS "OUT OF SERVICE" AND A CENTER SECTION THAT ALLOWS AN OPERATOR TO SEE THE INDICATIONS DURING SYSTEM TESTS.
- SIGNAL HEADS ARE TO BE LOCATED PER FIGURE 4D-100, TYPICAL SIGNAL HEAD LOCATIONS, PER THE ALASKA TRAFFIC MANUAL. ACCEPTABLE VARIANCE IS +/- 1-FOOT.
- AIM SIGNALS PER TABLE 660-2, THROUGH-SIGNAL AIMING POINT, OF THE SPECIAL PROVISIONS. SIGNALS SHALL ALSO BE AIMED SO AS NOT TO BE VISIBLE FROM SIDE STREET TRAFFIC. ACCEPTABLE VARIANCE IS +/- 5 DEGREES.
- EXISTING CIRCUITS LISTED ON THE LOAD CENTER SUMMARY AND PLAN SHEETS WERE OBTAINED FROM AS-BUILT INFORMATION AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO WORK INVOLVING THOSE CIRCUITS.



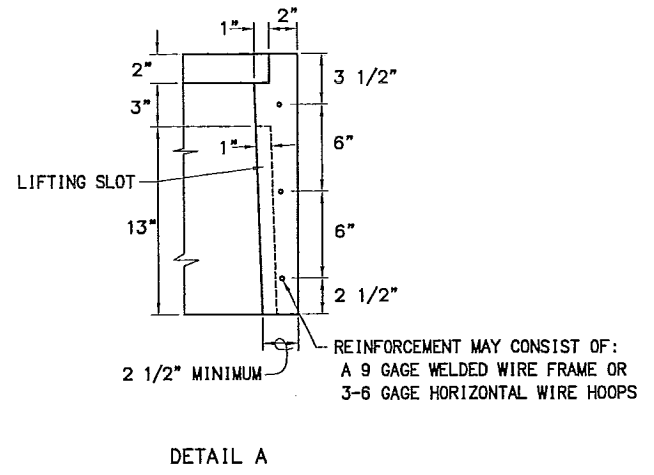
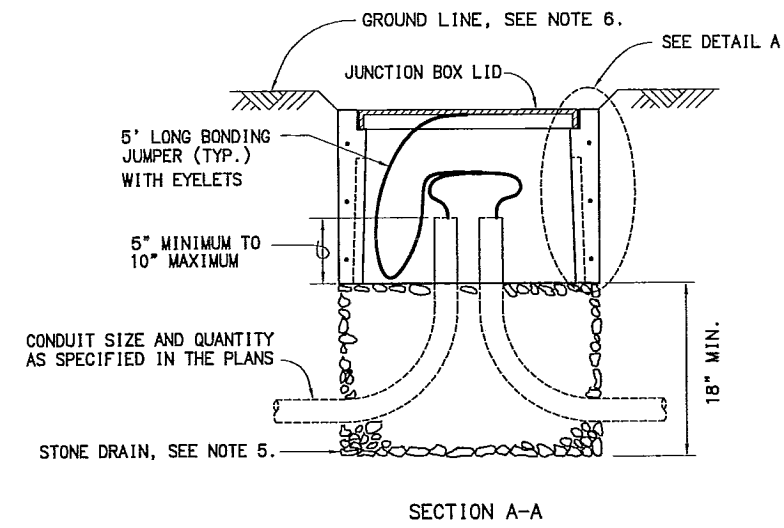
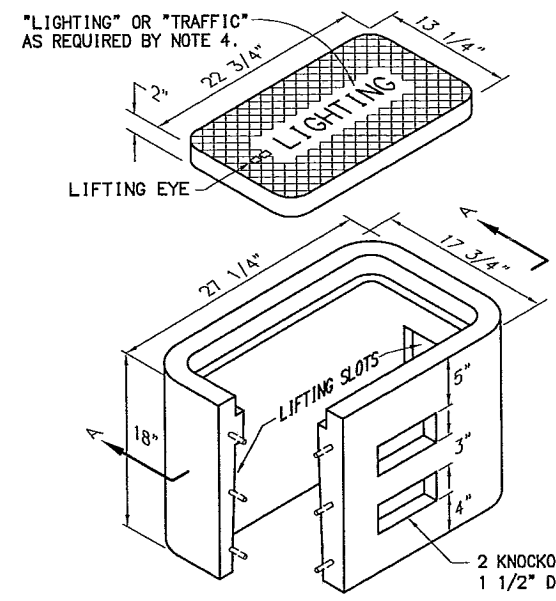
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**

TRAFFIC LEGEND AND NOTES

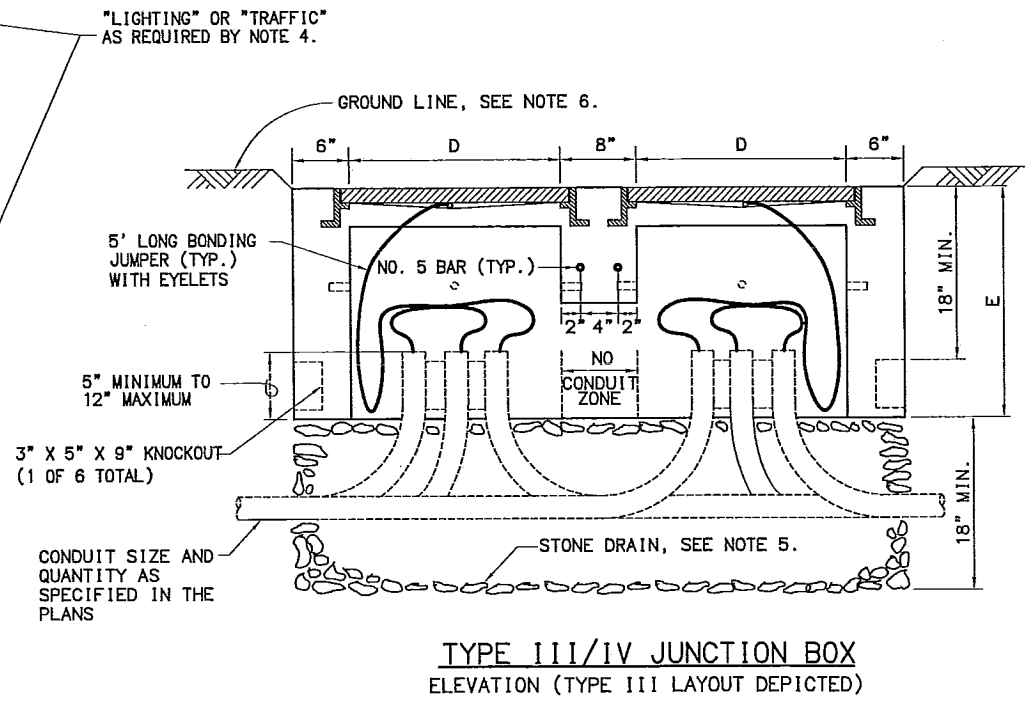
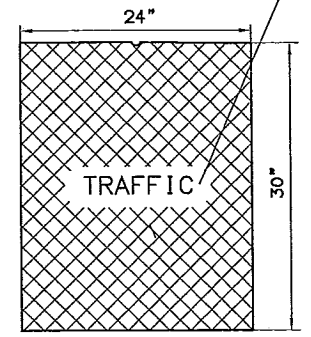
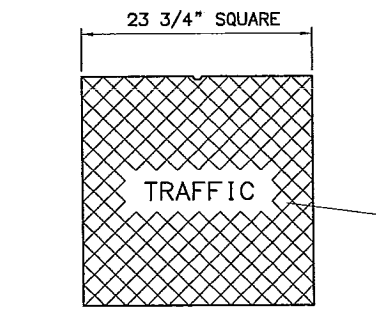
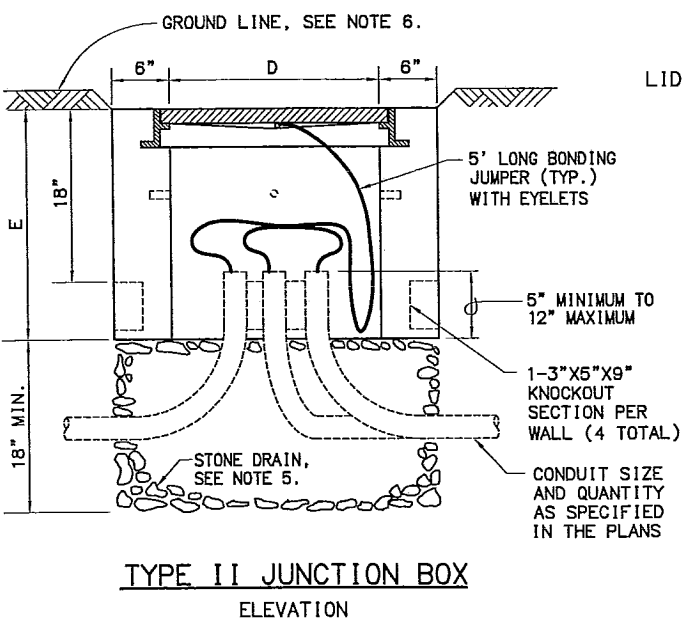
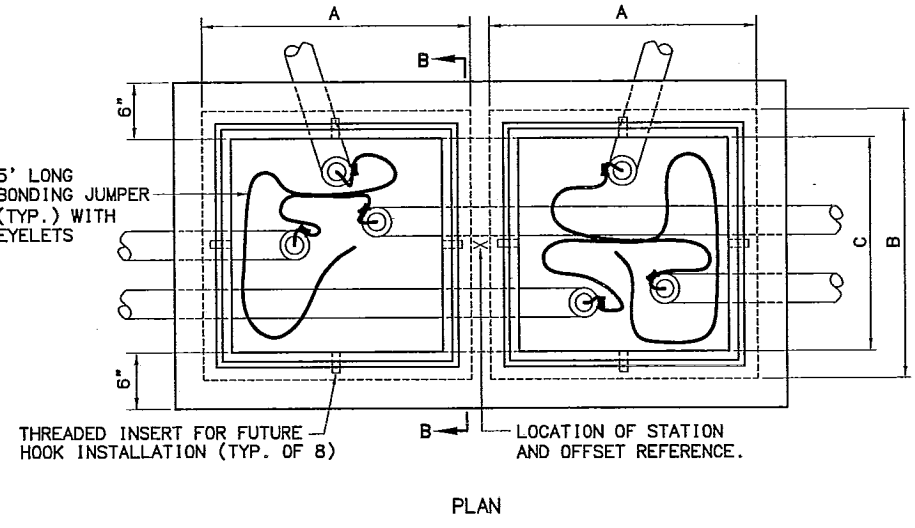
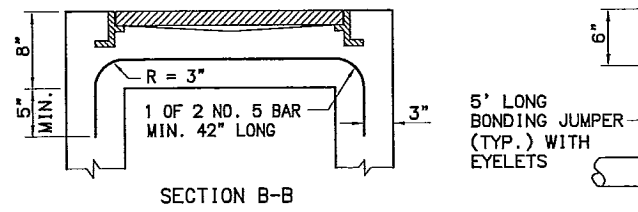
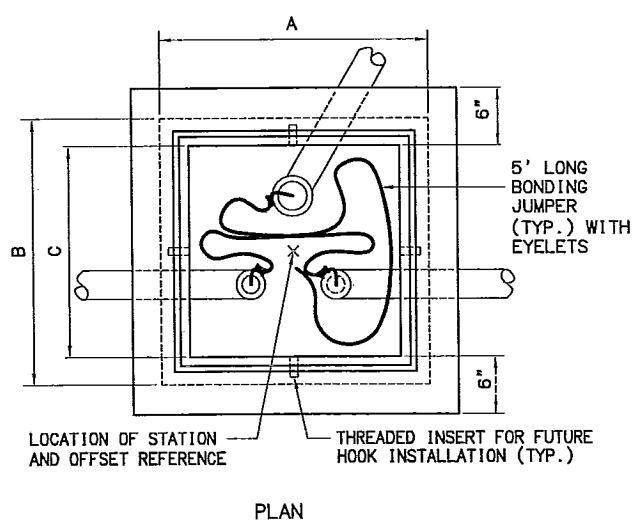
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LAST REVISION	
DATE	DESCRIPTION
09/23/2009	CENTRAL REGION DETAIL - REPLACES STD. DWG. L-23.01, T-34.01

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H3	H54



TYPE IA JUNCTION BOX



TYPE III/IV JUNCTION BOX
ELEVATION (TYPE III LAYOUT DEPICTED)

NOTES:

1. AVOID INSTALLING TYPE IA JUNCTION BOXES IN DRIVEWAYS OR IN LOCATIONS SUBJECT TO USE BY HEAVY TRUCKS. INSTALL JUNCTION BOXES ONLY AT THE LATERAL LOCATIONS ALLOWED IN SUBSECTION 660-3.04.
2. FURNISH TYPE II, III AND IV JUNCTION BOXES WITH CAST IRON FRAMES AND LIDS THAT WEIGH A MINIMUM OF 210 POUNDS AND ARE RATED FOR HEAVY TRAFFIC LOADS IN COMPLIANCE WITH AASHTO M306. FURNISH TYPE IA JUNCTION BOXES WITH CAST IRON LIDS THAT WEIGH A MINIMUM OF 50 POUNDS.
3. CONSTRUCT JUNCTION BOXES ACCORDING TO SECTION 501 USING CLASS A CONCRETE. REINFORCE TYPE IA JUNCTION BOXES AS SHOWN OR CONSTRUCT THEM WITH SYNTHETIC STRUCTURAL FIBER-REINFORCED CONCRETE THAT MEETS ASTM C 1116 AND CONTAINS FIBER IN PROPORTIONS AS RECOMMENDED BY THE FIBER MANUFACTURER.
4. FOR JUNCTION BOXES THAT CONTAIN ILLUMINATION CONDUCTORS EXCLUSIVELY, FURNISH LIDS WITH THE WORD LIGHTING INSCRIBED INTO THEM. FOR OTHER JUNCTION BOXES, FURNISH LIDS WITH THE WORD TRAFFIC INSCRIBED INTO THEM.
5. UNDER JUNCTION BOXES, INSTALL STONE DRAINS THAT CONSIST OF COARSE AGGREGATE FOR PORTLAND CEMENT CONCRETE CONFORMING TO SUBSECTION 703-2.02.
6. SET THE TOPS OF JUNCTION BOXES WITH THE FOLLOWING DIMENSIONS BELOW THE FINISHED SURROUNDING SURFACE:
 - 1" IN PAVED MEDIANS AND ADJACENT TO PEDESTRIAN FACILITIES
 - 1/4" IN PEDESTRIAN FACILITIES
 - 2" IN ALL OTHER AREAS
7. BOND JUNCTION BOX LIDS TO THE SYSTEM OF EQUIPMENT GROUNDING CONDUCTORS ACCORDING TO SUBSECTION 660-3.06. ATTACH BONDING JUMPERS TO THE JUNCTION BOX LIDS WITH BRASS OR STAINLESS STEEL HARDWARE.
8. INSTALL LOOP DETECTOR TAILS THROUGH ONE OF THE KNOCKOUTS OF TYPE IA JUNCTION BOXES. AFTER SETTING THE BOXES TO GRADE, INSTALL GROUT IN THE GAPS THAT REMAIN IN THE KNOCKOUT.
9. INSTALL A 1/2" THICK PREFORMED BITUMINOUS JOINT MATERIAL AROUND JUNCTION BOXES INSTALLED IN PORTLAND CEMENT CONCRETE WALKWAYS.
10. INSTALL AN ELECTRONIC MARKER BALL IN ALL JUNCTION BOXES PER SUBSECTION 660-3.04.
11. MARK ALL JUNCTION BOXES WITH A WIRE STAFF VINYL FLAG. THE FLAG SHALL BE RED IN COLOR AND MINIMUM 4-INCHES TALL BY 5-INCHES WIDE. THE WIRE STAFF SHALL BE 21-INCHES IN LENGTH AND CONSTRUCTED OF MINIMUM 15.5 GAUGE STEEL.

J-BOX DIMENSIONS					
J-BOX TYPE	DIMENSIONS				
	A (MAX.)	B (MAX.)	C (MIN.)	D (MIN.)	E (MIN.)
II	29 1/2"	29 1/2"	22"	22"	24"
III	29 1/2"	29 1/2"	22"	22"	24"
IV	30"	36"	30"	24"	30"



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

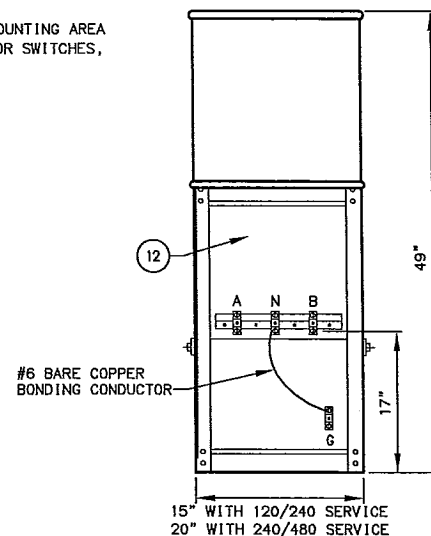
GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

JUNCTION BOX DETAILS

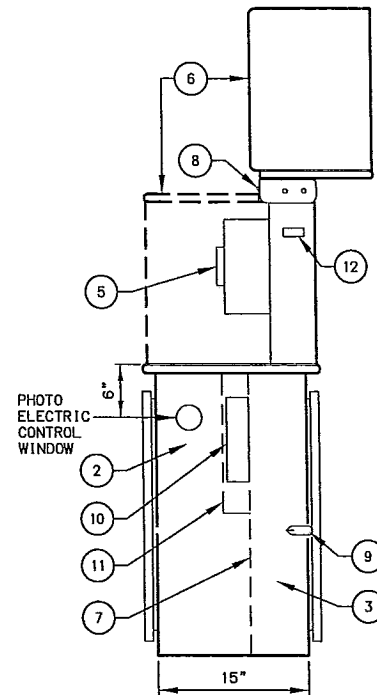
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EQUIPMENT LEGEND/DESCRIPTION

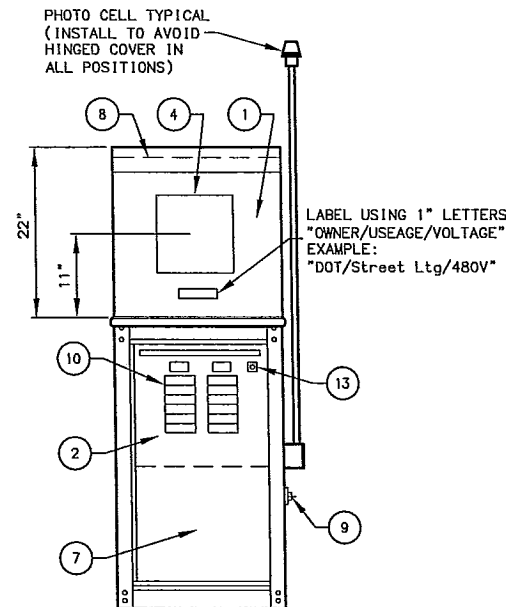
1. METERING SECTION
2. LOAD SECTION
3. UTILITY CONNECTION SECTION
4. METER READING WINDOW (8"x8")
5. METER SOCKET W/ TEST-BYPASS/DISCONNECT BLOCK AND SAFTY SOCKET FACILITIES
6. HINGED METER SECTION COVER
7. DEADFRONT
8. STAINLESS STEEL PIN HINGE
9. PADLOCKING PROVISIONS
10. DISTRIBUTION PANEL
11. ACCESSORY EQUIPMENT MOUNTING AREA FOR CONTACTOR, SELECTOR SWITCHES, TERMINAL STRIPS, ETC.
12. SERVICE PULL SECTION
13. SELECTOR SWITCH



REAR VIEW
(W/ DOOR REMOVED)

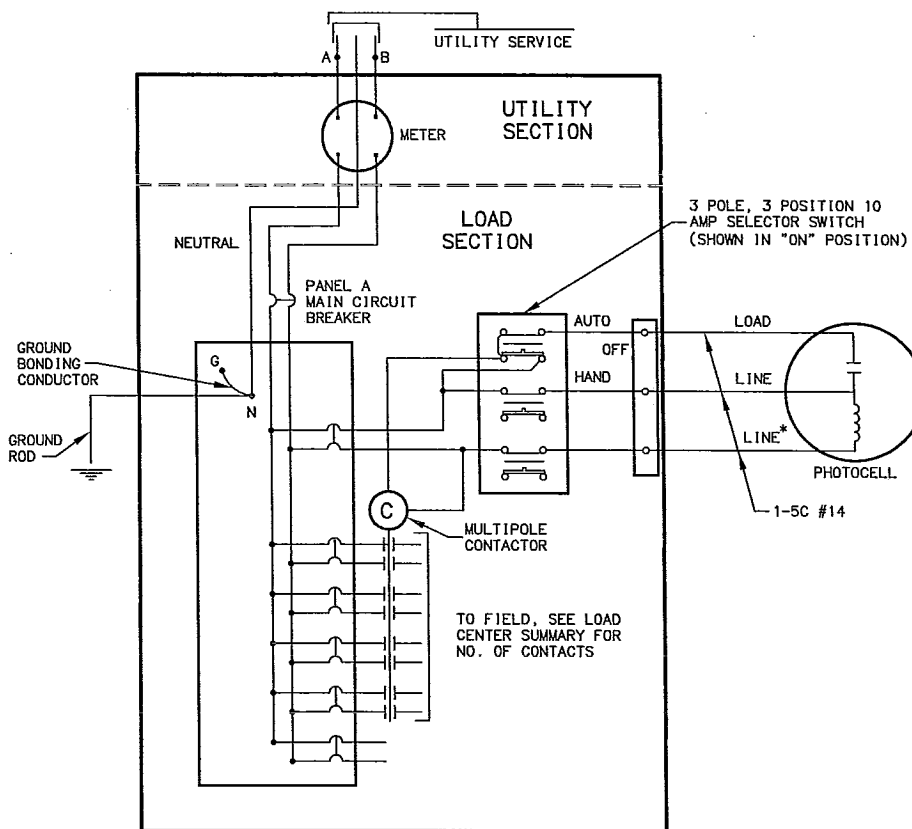


RIGHT SIDE VIEW
(W/ METER SECTION OPEN)



FRONT VIEW
(W/ DOOR REMOVED)

TYPE 1A CABINET DETAILS



LOAD CENTER ONE LINE DIAGRAM AND
SELECTOR SWITCH WIRING

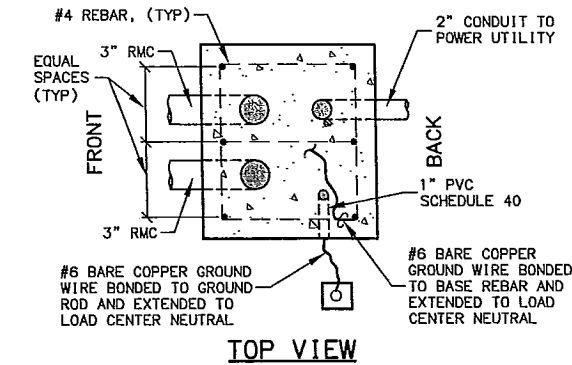
* GROUNDED NEUTRAL, IF SERVICE IS 240/480 VOLT SINGLE PHASE OR 277/480 VOLT THREE-PHASE; AND UNDERGROUND LINE, IF SERVICE IS 120/240 VOLT SINGLE PHASE.

WIRING NOTES:

1. FURNISH ALL EQUIPMENT NOTED IN THE LOAD CENTER SUMMARY, PLUS TWO 20-AMP 2-POLE SPARE CIRCUIT BREAKERS, AND SPACE FOR A MINIMUM OF TWO ADDITIONAL 2-POLE CIRCUIT BREAKERS IN EACH LOAD PANEL. SEE THE LOAD CENTER SUMMARIES FOR LOAD PANEL VOLTAGES, CURRENT RATINGS, AND THE NAME OF THE SERVING UTILITY.
2. INSTALL GROUNDING HUBS THIRD PARTY CERTIFIED FOR WET LOCATIONS (MYERS TYPE), WHEN ATTACHING CONDUITS TO THE LOAD CENTER ENCLOSURE.
3. LABEL ALL CIRCUIT BREAKERS AS TO FUNCTION AND POSITION. LABEL THE SELECTOR SWITCH "LIGHTING" AND ITS POSITIONS "ON-OFF-AUTO".
4. METER BASES SHALL NOT BE MOUNTED ON MOVABLE PANELS OR DOORS.
5. THE LENGTH AND TYPE OF SERVICE ENTRANCE CONDUIT INSTALLED BY THE CONTRACTOR VARIES BY UTILITY. REGARDLESS OF ITS LENGTH, INSTALL A PULL ROPE IN THE SERVICE CONDUIT AND A CAP ON THE BURIED END. MARK THE BURIED END WITH A 2"x 6" STAKE. SEE THE LOAD CENTER SUMMARIES FOR THE FOLLOWING INFORMATION.
 - A. STATION AND OFFSET OF THE LOAD CENTER AND POWER SOURCE.
 - B. WHERE THE CONTRACTOR TERMINATES THE SERVICE ENTRANCE CONDUIT.
 - C. THE TYPE OF SERVICE ENTRANCE CONDUIT (SUCH AS RIGID METAL CONDUIT OR LIQUID-TIGHT FLEXIBLE METAL CONDUIT).
6. STORE A SCHEMATIC DIAGRAM, A CIRCUIT DIRECTORY, AND A MATERIALS LIST THAT INCLUDES THE MANUFACTURER'S NAME AND PART/CATALOG NUMBERS, ALL LAMINATED IN PLASTIC, IN A METAL POCKET ATTACHED TO THE INSIDE OF THE LOAD CENTER. INSTALL THE POCKET ON THE LOAD CENTER DOOR, PROVIDING DRAIN HOLES TO PREVENT WATER ACCUMULATION.
7. SIZE THE DISTRIBUTION PANEL TO ACCOMMODATE THE CIRCUITS SHOWN ON THE LOAD CENTER SUMMARIES AND TWO ADDITIONAL SPARE CIRCUITS.
8. SEPARATE THE MAIN CIRCUIT BREAKER FROM THE DISTRIBUTION PANEL.

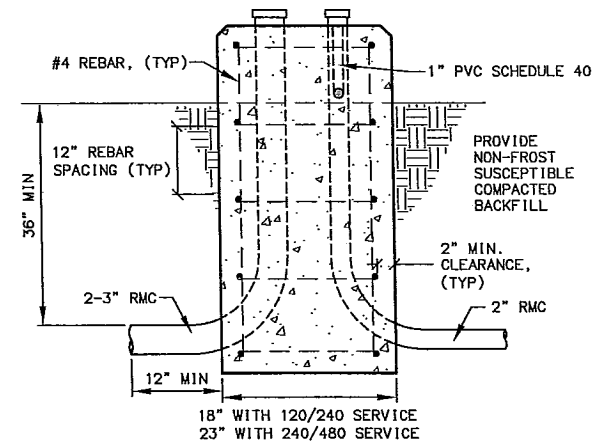
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DATE	DESCRIPTION
01/28/2010	CENTRAL REGION DETAIL - REPLACES STD. DWG. L-25.00

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H4	H54

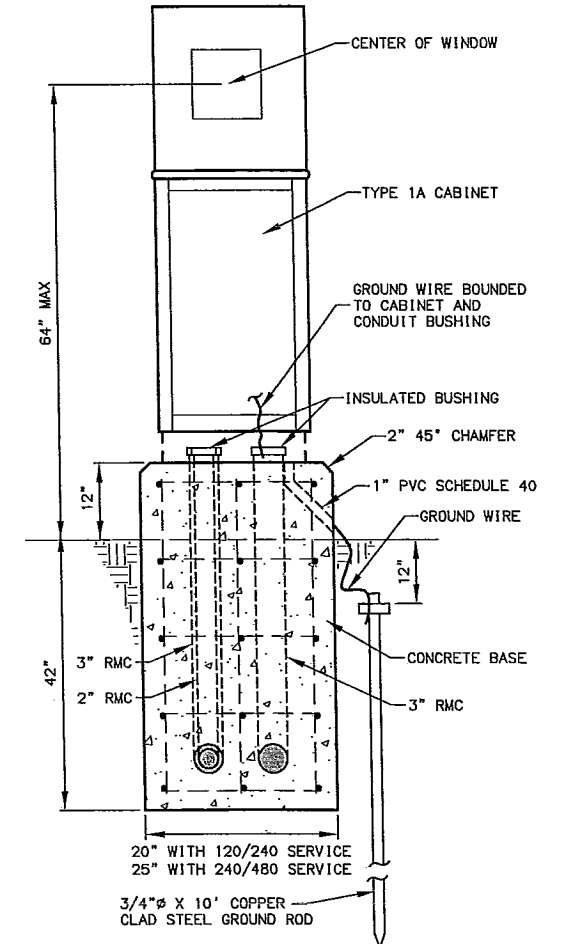


TOP VIEW

PROVIDE "J" ANCHOR BOLTS AS REQUIRED TO MOUNT LOAD CENTER CABINET IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS



RIGHT SIDE
VIEW

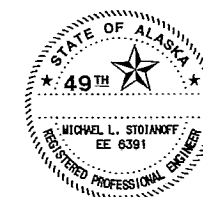


FRONT VIEW

FOUNDATION DETAILS

FOUNDATION NOTES:

1. GRADE AWAY FROM THE BASE WITH A MINIMUM SLOPE OF 3%. USE A PRE-MOULDED BITUMINOUS JOINT BETWEEN THE BASE AND CONCRETE SIDEWALK OR PAVING, WHEN ADJACENT TO A SIDEWALK OR PATHWAY.
2. PROVIDE ANCHOR BOLTS OR EXPANSION ANCHORS IN THE BASE FOR MOUNTING THE CABINET PER THE MANUFACTURER'S SHOP DRAWINGS. ANCHOR BOLTS, NUTS, AND WASHERS SHALL CONFORM TO EITHER ASTM A307 OR A449 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153.
3. USE GRADE 60 REINFORCING STEEL CONFORMING TO ASTM 615 AND CLASS "A" CONCRETE CONFORMING TO SECTION 501 OF THE SPECIFICATIONS WHEN CASTING THE BASE.
4. IF THE BASE IS PRECAST, INSTALL TWO 3/4" FERRULE LOOP INSERTS IN TWO SIDES OPPOSITE ONE ANOTHER FOR LIFTING.



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**

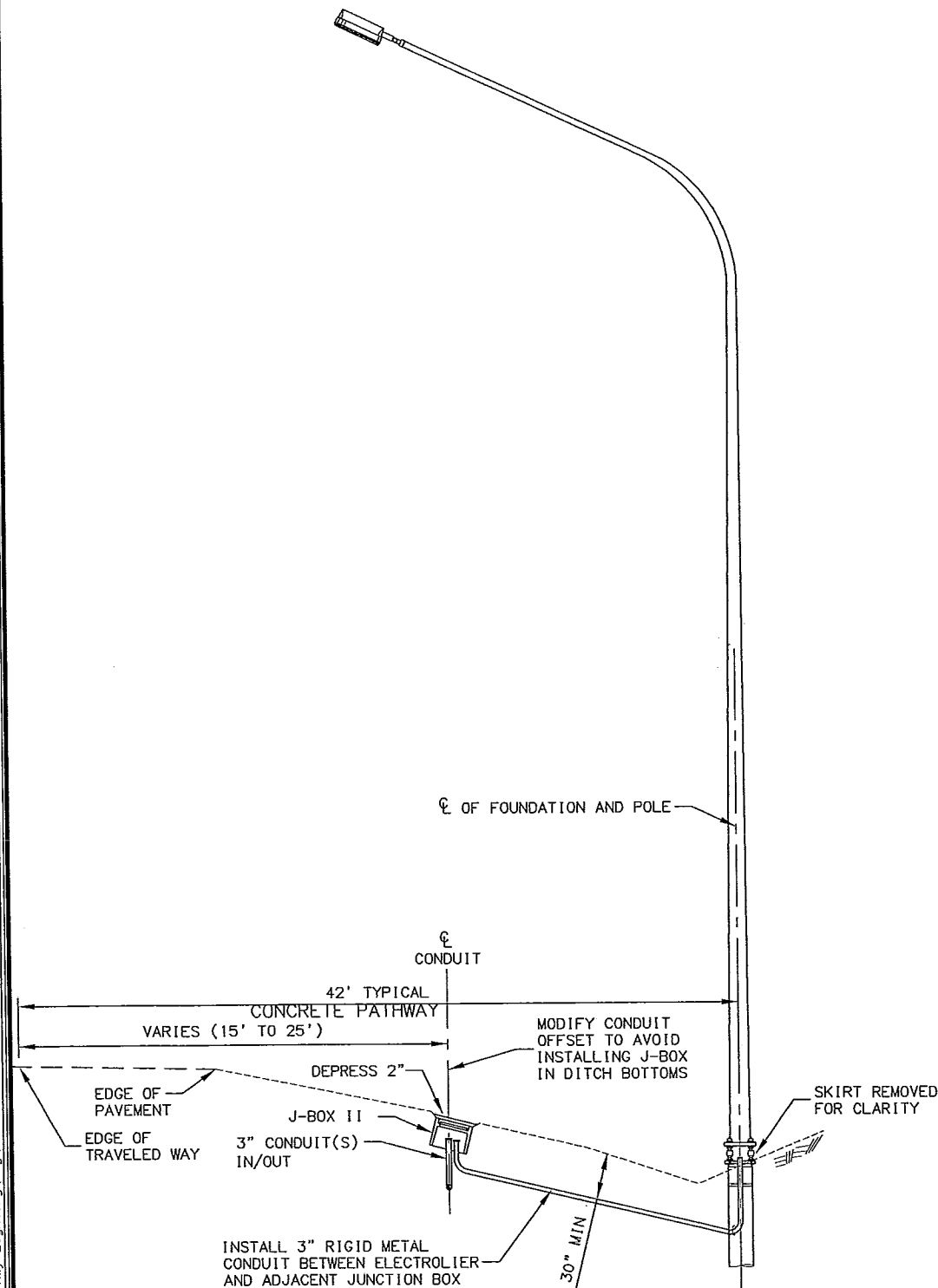
**TYPE 1A LOAD CENTER
DETAILS**

DESIGNED BY FEE
CHECKED BY JLC
DRAFTED BY JLC
XREFS
N/A
SCALE
NTS
LAYOUT
LITG INSTALL 1
TIME
DATE
02/02/2010 8:16:49 AM AST
DRAWING LOCATION
T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H5-H6 LIGHTING INSTALLATION DETAILS.dwg

REVISIONS		
NO.	DATE	DESCRIPTION

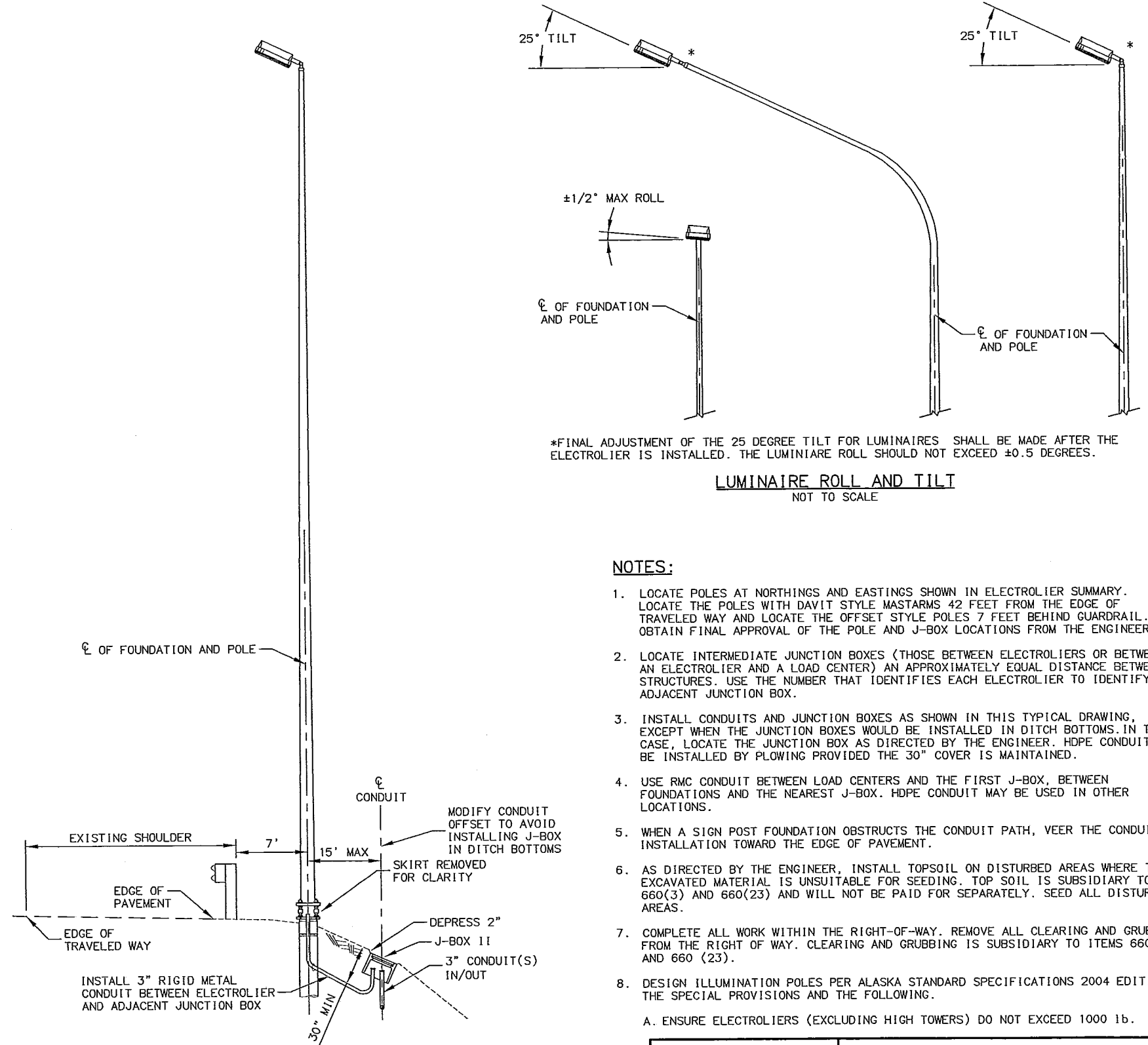
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H5	H54

TYPICAL DAVIT STYLE MASTARM POLE



TYPICAL CONDUIT AND J-BOX INSTALLATION
NOT TO SCALE

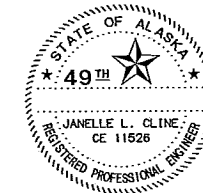
TYPICAL OFFSET STYLE POLE



TYPICAL CONDUIT & J-BOX INSTALLATION BEHIND GUARDRAIL
NOT TO SCALE

NOTES:

1. LOCATE POLES AT NORTHINGS AND EASTINGS SHOWN IN ELECTROLIER SUMMARY. LOCATE THE POLES WITH DAVIT STYLE MASTARMS 42 FEET FROM THE EDGE OF TRAVELED WAY AND LOCATE THE OFFSET STYLE POLES 7 FEET BEHIND GUARDRAIL. OBTAIN FINAL APPROVAL OF THE POLE AND J-BOX LOCATIONS FROM THE ENGINEER.
2. LOCATE INTERMEDIATE JUNCTION BOXES (THOSE BETWEEN ELECTROLIERS OR BETWEEN AN ELECTROLIER AND A LOAD CENTER) AN APPROXIMATELY EQUAL DISTANCE BETWEEN STRUCTURES. USE THE NUMBER THAT IDENTIFIES EACH ELECTROLIER TO IDENTIFY THE ADJACENT JUNCTION BOX.
3. INSTALL CONDUITS AND JUNCTION BOXES AS SHOWN IN THIS TYPICAL DRAWING, EXCEPT WHEN THE JUNCTION BOXES WOULD BE INSTALLED IN DITCH BOTTOMS. IN THIS CASE, LOCATE THE JUNCTION BOX AS DIRECTED BY THE ENGINEER. HDPE CONDUIT MAY BE INSTALLED BY PLOWING PROVIDED THE 30" COVER IS MAINTAINED.
4. USE RMC CONDUIT BETWEEN LOAD CENTERS AND THE FIRST J-BOX. BETWEEN FOUNDATIONS AND THE NEAREST J-BOX. HDPE CONDUIT MAY BE USED IN OTHER LOCATIONS.
5. WHEN A SIGN POST FOUNDATION OBSTRUCTS THE CONDUIT PATH, VEER THE CONDUIT INSTALLATION TOWARD THE EDGE OF PAVEMENT.
6. AS DIRECTED BY THE ENGINEER, INSTALL TOPSOIL ON DISTURBED AREAS WHERE THE EXCAVATED MATERIAL IS UNSUITABLE FOR SEEDING. TOP SOIL IS SUBSIDIARY TO 660(3) AND 660(23) AND WILL NOT BE PAID FOR SEPARATELY. SEED ALL DISTURBED AREAS.
7. COMPLETE ALL WORK WITHIN THE RIGHT-OF-WAY. REMOVE ALL CLEARING AND GRUBBING FROM THE RIGHT OF WAY. CLEARING AND GRUBBING IS SUBSIDIARY TO ITEMS 660 (3) AND 660 (23).
8. DESIGN ILLUMINATION POLES PER ALASKA STANDARD SPECIFICATIONS 2004 EDITION, THE SPECIAL PROVISIONS AND THE FOLLOWING.
 - A. ENSURE ELECTROLIERS (EXCLUDING HIGH TOWERS) DO NOT EXCEED 1000 lb.

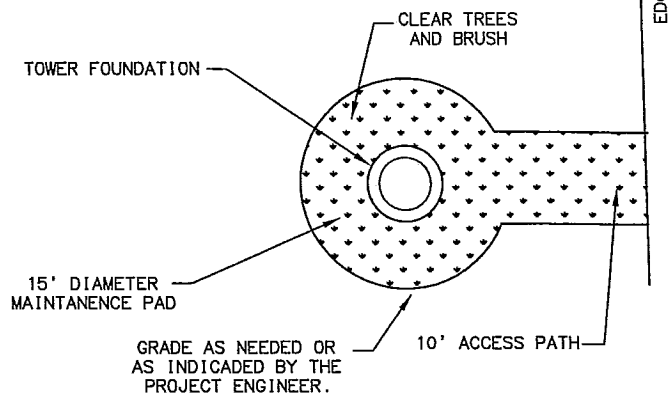
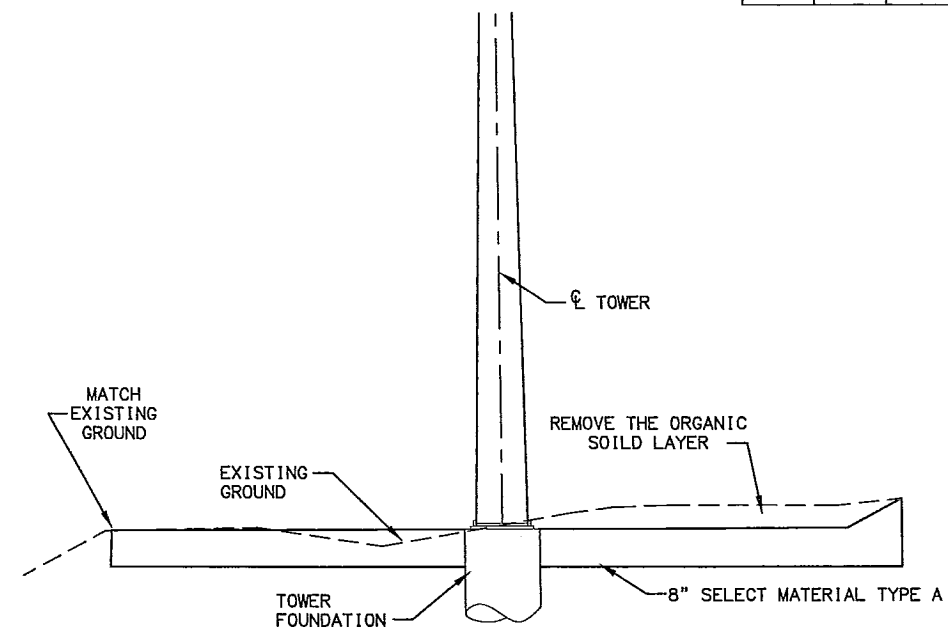
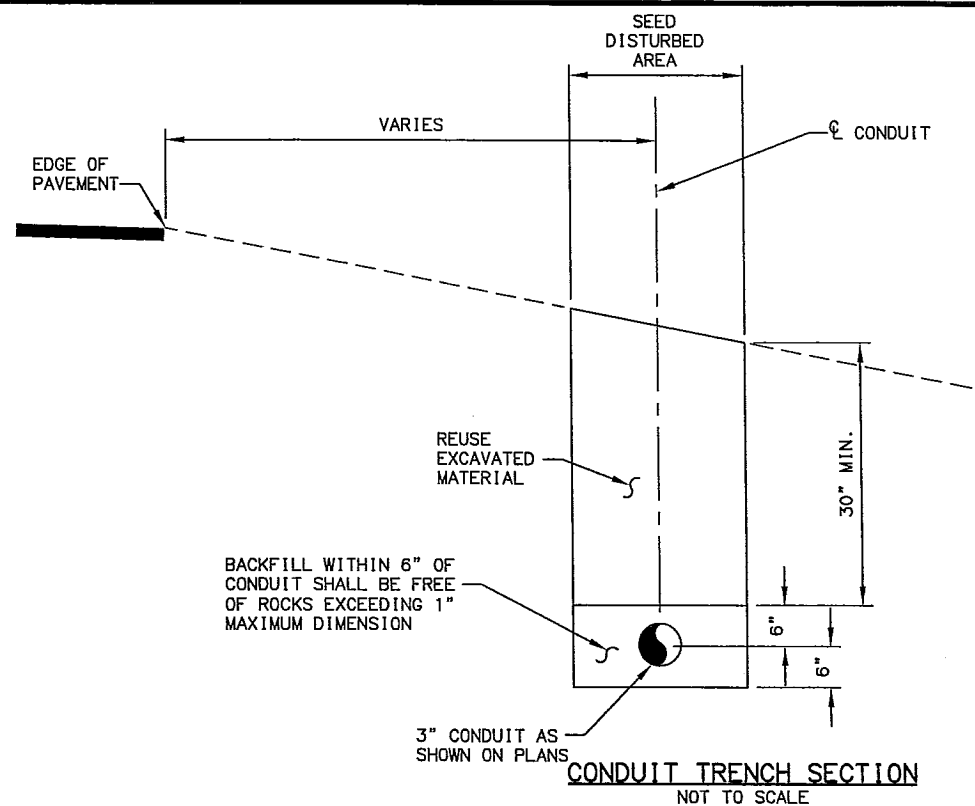


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**
**LIGHTING INSTALLATION
DETAILS**

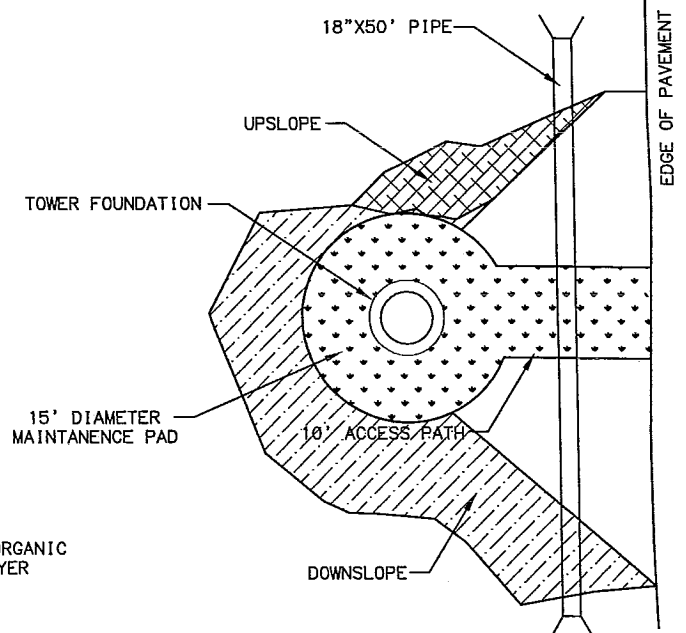
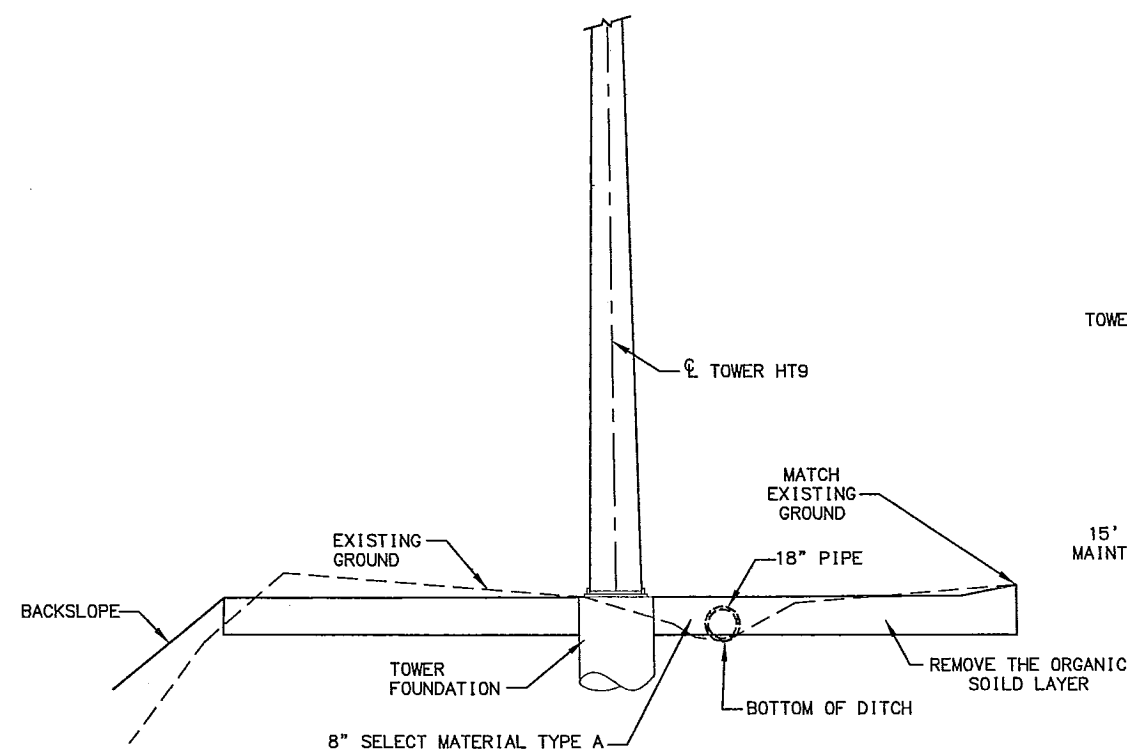
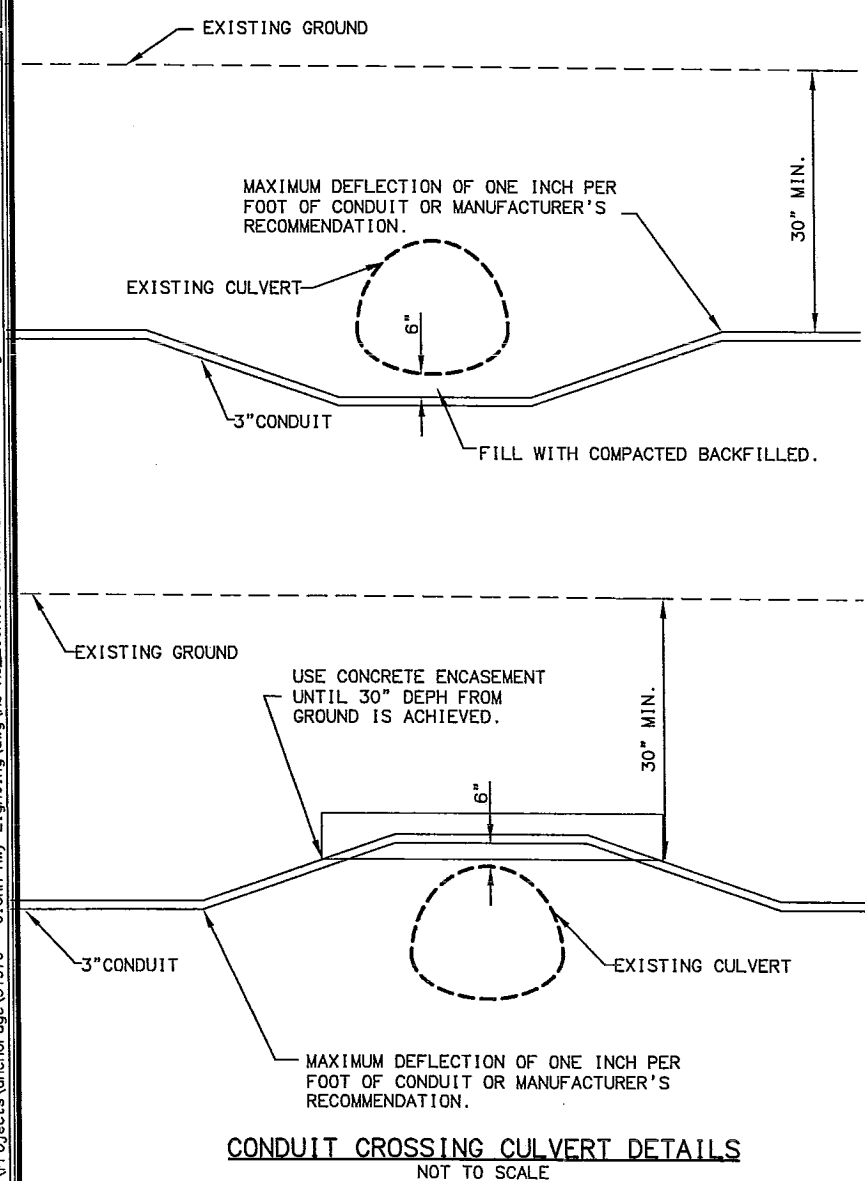
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SCALE
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TIME
02/02/2010 8:16:49 AM AST
DRAWING LOCATION
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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H6	H54

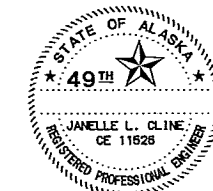


18 INCH PIPE & END SECTION				
SHEET NO.	FROM	TO	LENGTH	END SECTION
H51	N 428196.8 E 439571.7	N 428217.4 E 439617.3	50'	2



NOTES:

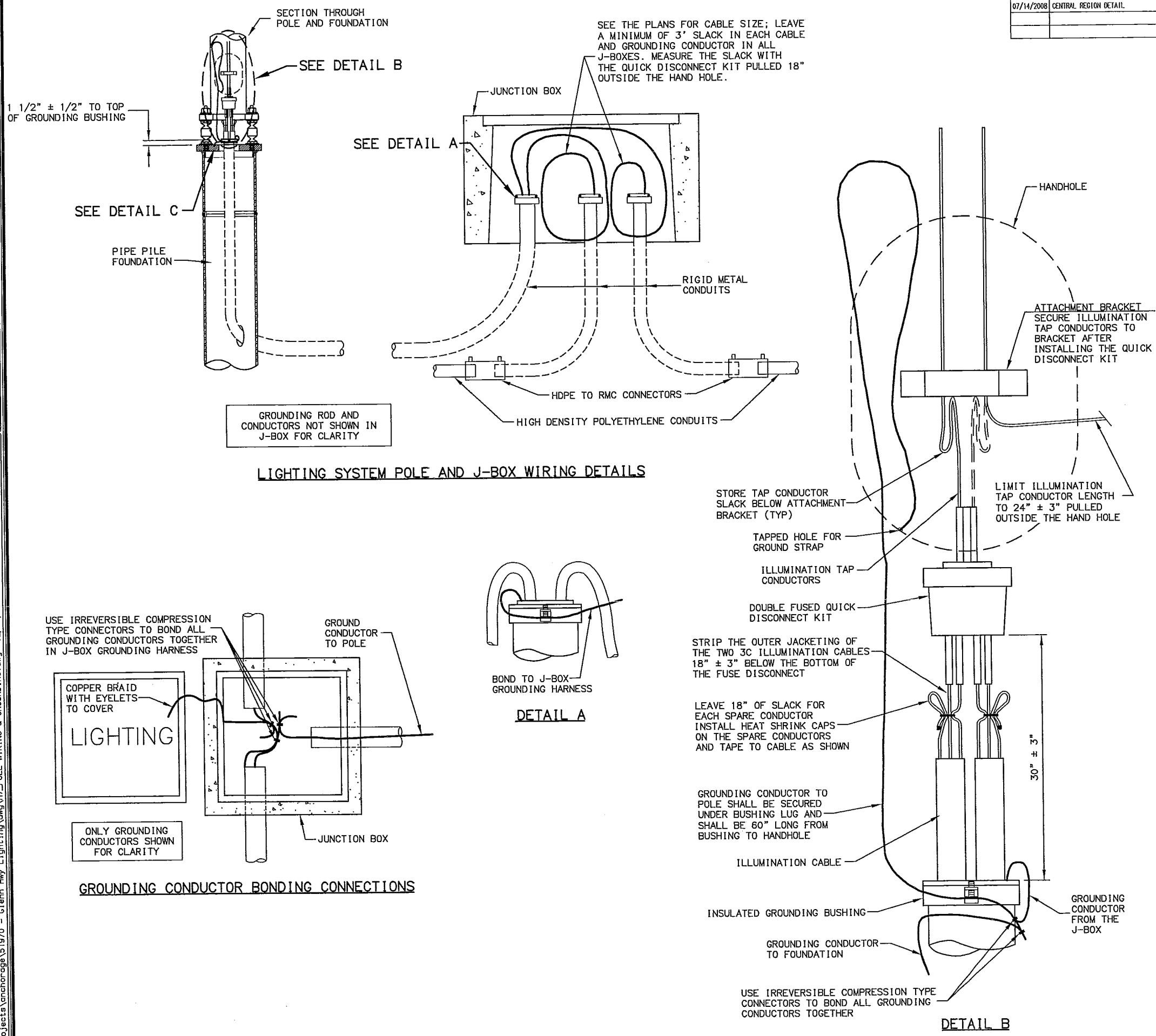
1. MATERIALS AND LABOR FOR TRENCHING WILL NOT BE CONSIDERED SEPARATELY FOR PAYMENT AND IS INCIDENTAL TO INSTALLATION OF CONDUIT 660(24D).
2. PROVIDE A CIRCULAR 15 FEET DIAMETER MAINTENANCE PAD AND ACCESS 10 FEET WIDE AROUND EACH HIGH TOWER AS PART OF ITEM 668(1).
3. 18 INCH PIPE AND END SECTIONS IS CONSIDERED SUBSIDIARY TO ITEM 668(1) AND WILL NOT BE PAY BY SEPARATELY.



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**
**LIGHTING INSTALLATION
DETAILS**

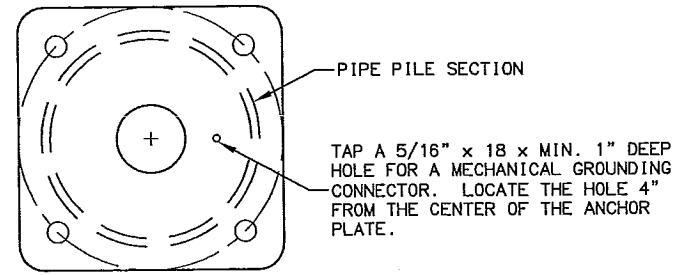
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SCALE: N/A LAYOUT: PIPE PILE
DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H7_POLE WIRING & GROUNDING.dwg

LAST REVISION		STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
DATE	DESCRIPTION	ALASKA	IM-0A1-6(42)/51970	2010	H7	H54
07/14/2008	CENTRAL REGION DETAIL					



NOTES:

1. APPLICATION FOR SLIP BASE IS THE SAME EXCEPT FOR BONDING. SEE SUBSECTION 660-3.06 FOR BONDING.
2. LABEL ALL CABLES AND CONDUCTORS IN POLE BASE AND J-BOX. SEE SUBSECTION 660-3.05.
3. MAKE ALL GROUNDING AND BONDING WIRE #8 AWG, EXCEPT IN THOSE CONDUITS THAT CONTAIN CIRCUIT CONDUCTORS LARGER THAN #8 AWG. IN THIS CASE USE WIRE EQUAL IN SIZE TO THE LARGEST CONDUCTOR. THE GROUNDING CONDUCTOR TO THE FOUNDATION SHALL BE #4 AWG.
4. USE LISTED IRREVERSIBLE COMPRESSION TYPE CONNECTORS SIZED FOR EACH APPLICATION AND INSTALLED PER MANUFACTURERS SPECIFICATIONS.



DETAIL C

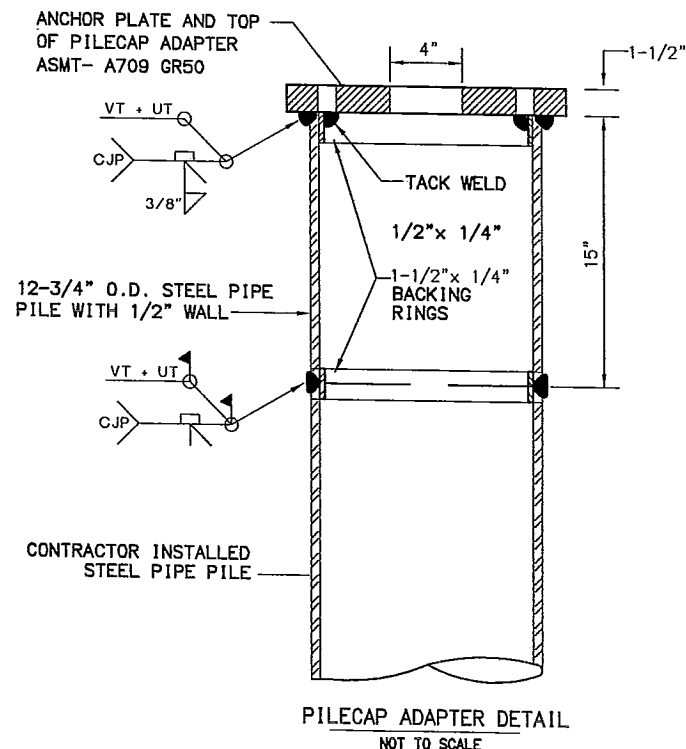
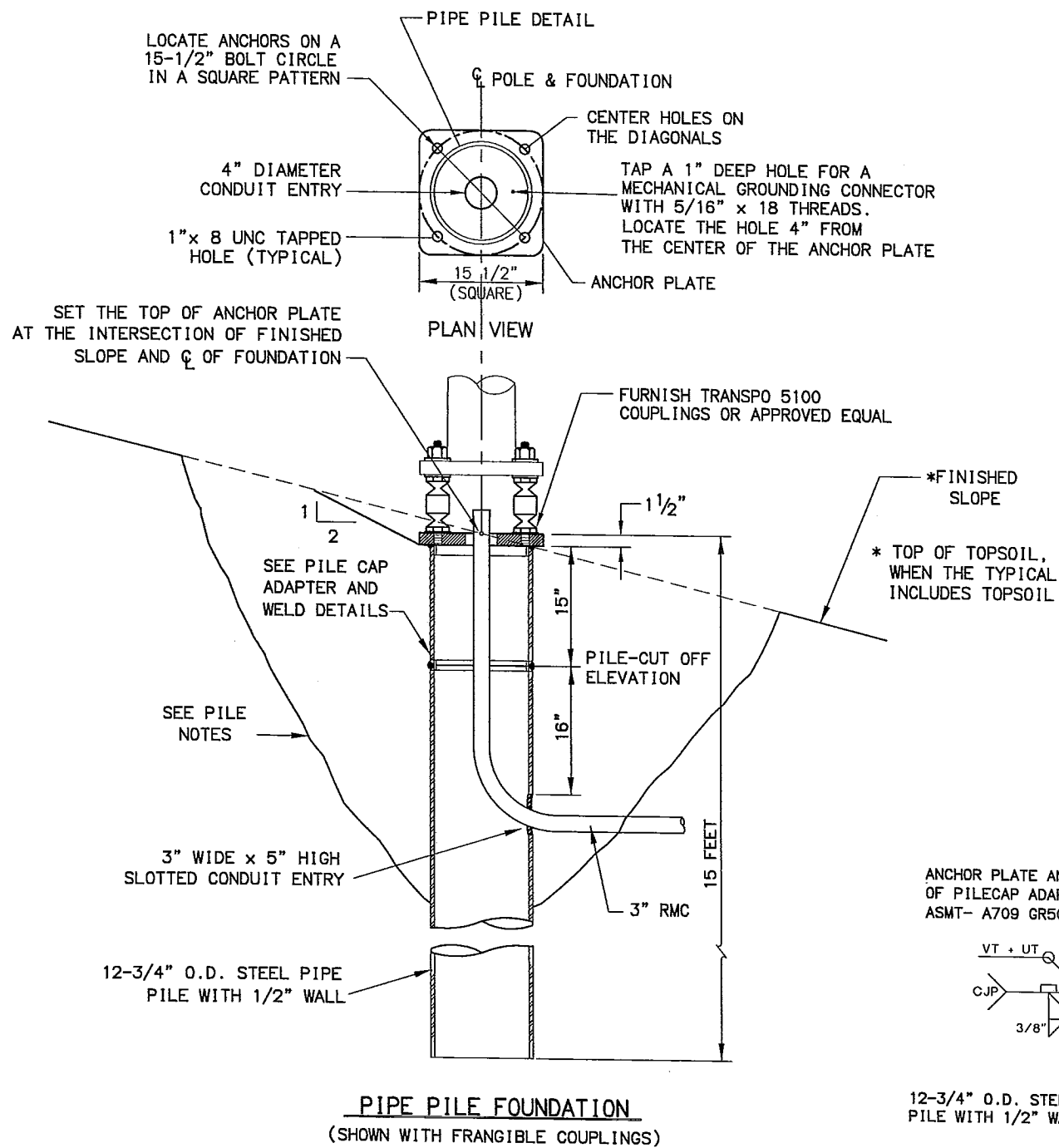


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**

**WIRING & GROUNDING
PIPE PILE FOUNDATION**

DESIGNED BY: LSW
DRAWN BY: JEF
SCALE: N/A
LAYOUT: PIPE PILE FOUNDATION
DATE: 02/02/2010 8:17:49 AM AST
DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H8_PIPE-PILE-FOUNDATION.dwg



PIPECAP ADAPTER AND WELD DETAILS (FABRICATED BY THE POLE MANUFACTURER)

LAST REVISION		STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DESCRIPTION					
09/23/2009	CENTRAL REGION DETAIL	ALASKA	IM-0A1-6(42)/51970	2010	H8	H54

DESIGN NOTES:

DESIGN STANDARD: 2001 STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS WITH 2006 INTERIM.

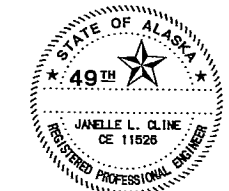
DESIGN LOADS: 5-KIPS AXIAL, 7.5-KIPS SHEAR, 40-KIP-FT MOMENT.

CONSTRUCTION STANDARD: STATE OF ALASKA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2004 ENGLISH EDITION WITH SPECIAL PROVISIONS.

MATERIAL REQUIREMENTS		
STRUCTURAL STEEL PLATE	ASTM A709 GRADE 50	Fy = 50 ksi
STEEL PIPE PILE	ASTM A709, GRADE 50 T3	Fy = 50 ksi
	API 5L GRADE X 42	Fy = 42 ksi

NOTES:

- FURNISH STEEL PIPE PILES THAT CONFORM TO THE MATERIAL REQUIREMENTS AND SECTION 660, 715 AND 740 OF THE SPECIFICATIONS. NO SPLICES ARE ALLOWED BELOW THE PILECAP ADAPTER.
- DRIVE PILES OPEN ENDED. COMPLETE PILE WORK ACCORDING TO SECTIONS 505, 660 AND 715 OF THE SPECIFICATIONS. REMOVE AND REINSTALL PILES OUT OF PLUMB MORE THAN 1:40.
- FRESH HEAD THE TOP OF PILES IN A LEVEL PLANE AND CUT THE CONDUIT ENTRANCE HOLE AFTER DRIVING THE PILE. NOTE; ONLY MECHANICAL OR PLASMA CUTTER MEANS ARE PERMITTED. OXY-FUEL CUTTING IS PROHIBITED.
- FURNISH ONLY SHOP FABRICATED PILECAP ADAPTERS. INCLUDE STAMPED ENGINEERING CALCULATIONS, DRAWINGS, MILL CERTIFICATIONS AND WELDING PLANS FOR PILECAP ADAPTERS AND THE PILECAP ADAPTER TO PILE WELD. WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE AWS D1.1, STRUCTURAL WELDING CODE-STEEL AND THE SPECIFICATIONS.
- AT EACH FOUNDATION, EXCAVATE A CONE SHAPED WORK HOLE 6.5' DIAMETER AT THE SURFACE DOWN TO 1 FOOT BELOW THE CONDUIT HOLE SUBJECT TO THE REQUIREMENTS AND RESTRICTIONS OF OSHA 1926.652. AFTER CUTTING THE CONDUIT ENTRANCE HOLE AND WELDING ON THE PILECAP ADAPTER, BACKFILL AND COMPACT THE WORK HOLE IN 8" LIFTS WITH A SOIL-CEMENT MIXTURE, CONSISTING OF 2 SACKS OF PORTLAND CEMENT PER CUBIC YARD OF SOIL. SUFFICIENT COMPACTIVE EFFORT WILL BE DETERMINED BY THE ENGINEER.
- WAIT AT LEAST 3 DAYS AFTER BACKFILLING THE WORK HOLE BEFORE ERECTING THE LUMINAIRE POLE.
- TERMINATE CONDUIT(S) 3" ABOVE THE TOP OF THE ANCHOR PLATE. INSTALL A GROUNDING BUSHING ON THE END OF THE RIGID METAL CONDUIT AND ESTABLISH A BOND WITH THE ANCHOR PLATE.

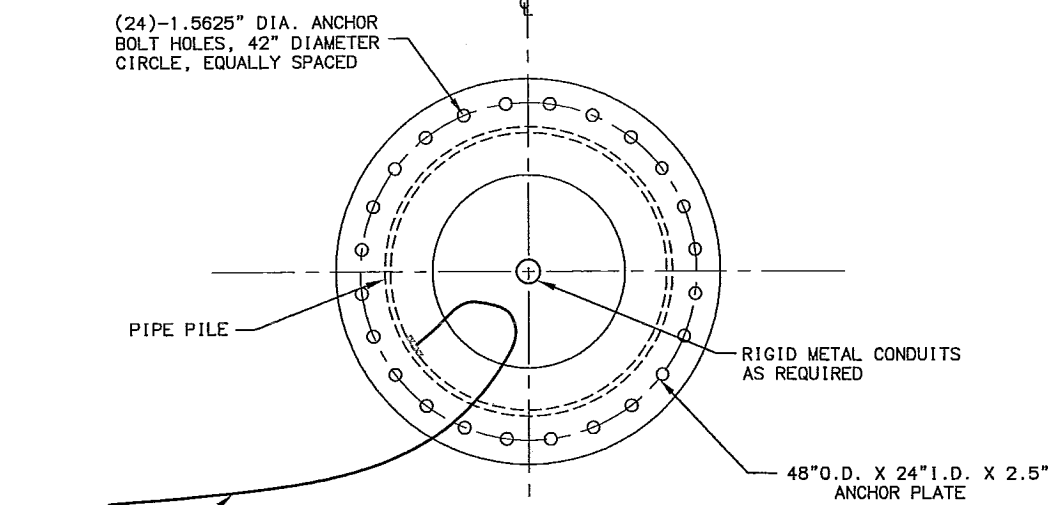


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

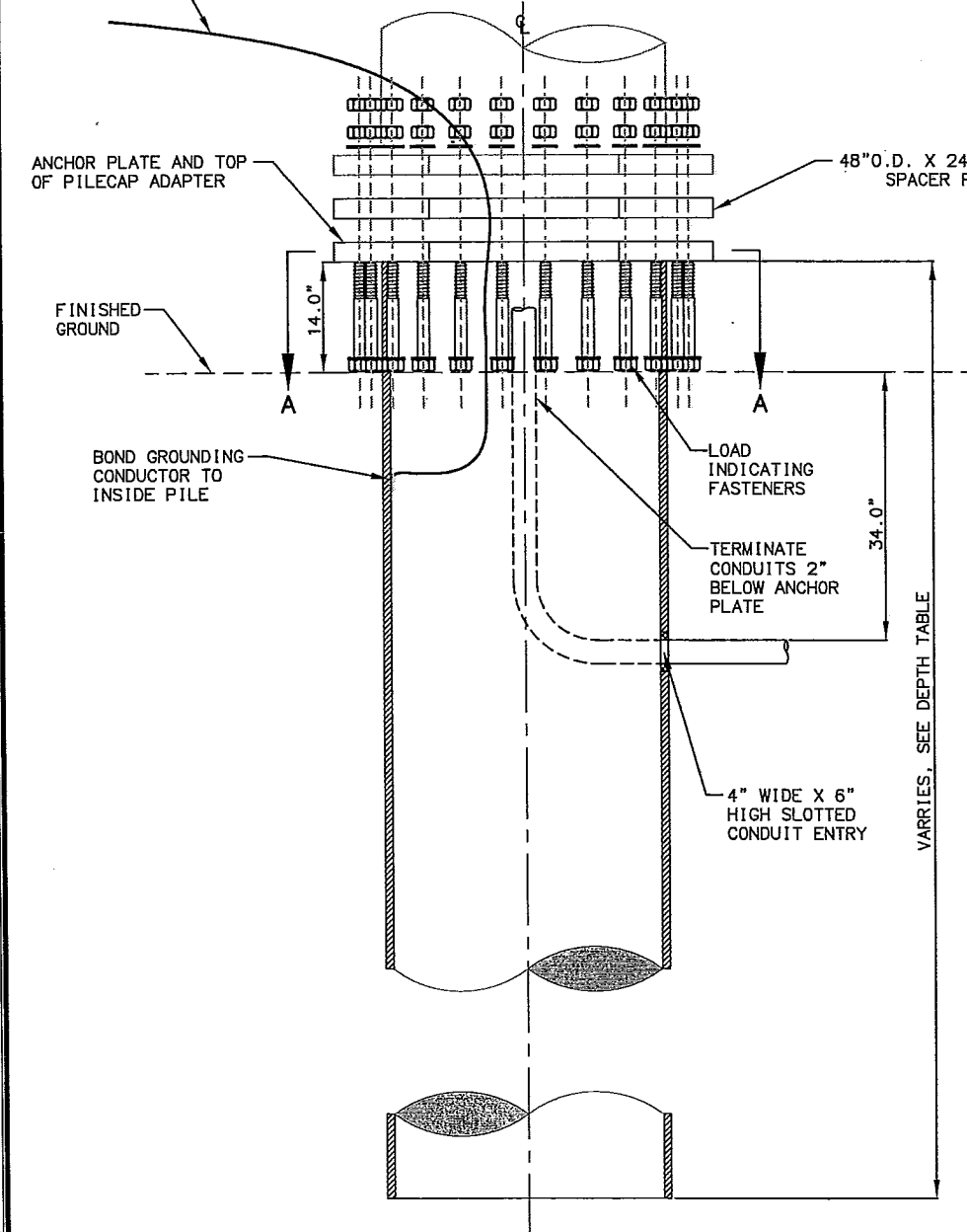
GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

PILE FOUNDATION DETAILS
FOR LIGHT POLES WITH POLE
SAFE BREAKAWAY SUPPORTS

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION					
			ALASKA	IM-0A1-6(42)51970	2010	H9	H54



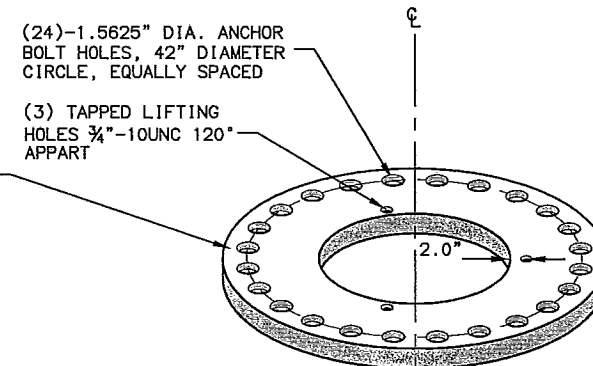
VIEW A-A
NTS



FOUNDATION DETAILS

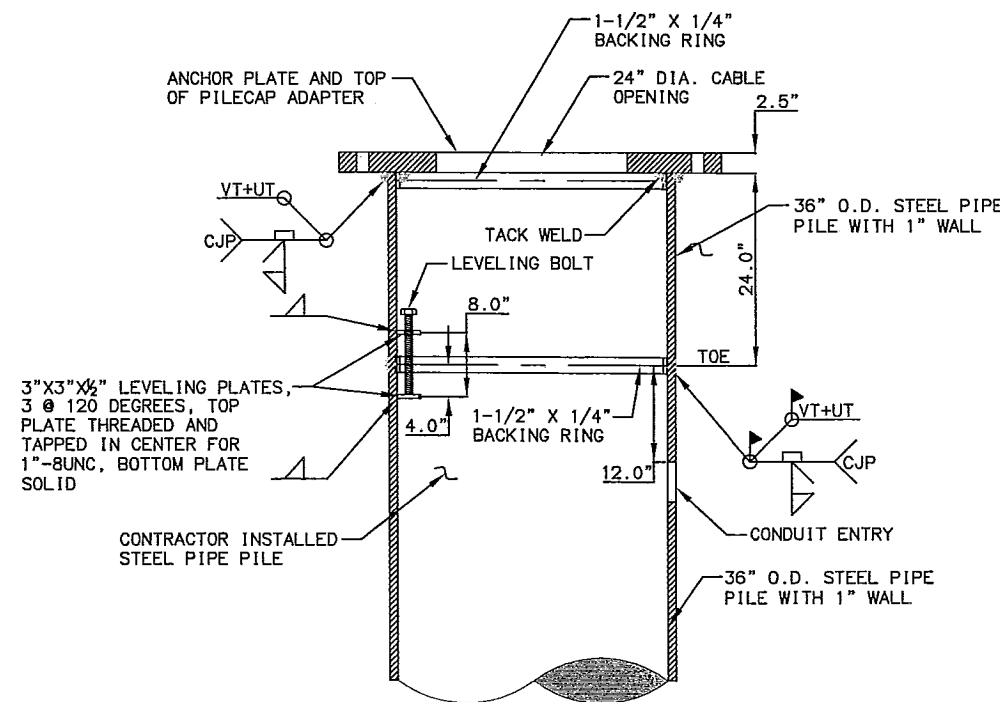
NTS

MATERIAL PROPERTIES		
LOAD INDICATING FASTENERS	SEE LOAD INDICATING FASTENER DET	
FINISH	AASHTO M232	
ANCHOR & SPACER PLATES	AASHTO M270 F3	GR 50
PIPE PILE	API 5L	GR 50
CONDUIT	SCH 40	RMC
LEVELING BOLT 1"-12UNF, 10" LONG	AASHTO M164	
LEVELING PLATES	AASHTO M270	GR 36
GROUND WIRE		#6 AWG.



SPACER PLATE DETAILS

NTS



PILECAP ADAPTER DETAILS

NTS

DESIGN NOTES:

DESIGN: 2001 STANDARD SPECIFICATIONS FOR STRUCTURAL
SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND
TRAFFIC SIGNALS WITH 2006 INTERIM.

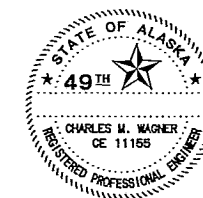
DESIGN LOAD: 25,000 LBS. SHEAR, 1,000 KIP-FT MOMENT.

CONSTRUCTION STANDARD: STATE OF ALASKA STANDARD SPECIFICATIONS FOR
HIGHWAY CONSTRUCTION, 2004 ENGLISH EDITION WITH
SPECIAL PROVISIONS.

NOTES:

1. DRIVE ALL PILES OPEN ENDED. COMPLETE PILE WORK ACCORDING TO SECTIONS 505, 660, AND 715 OF THE STANDARD SPECIFICATIONS. INSTALL PILES TO BE WITHIN $\frac{1}{4}$ " PER FOOT OF PLUMB. PILES OUT OF PLUMB MUST BE REMOVED AND REINSTALLED. CUT OFF PILE TO ACHIEVE PROPER ELEVATION. THE RESULTING BUTT JOINT ALIGNMENT SHALL MEET THE REQUIREMENTS OF AWS D1.15.22.3.
2. POLE MANUFACTURER IS TO PROVIDE THE REQUIRED PILE CAP ADAPTER. DRY FIT AT PLACE OF MANUFACTURE THE PILE CAP ADAPTER, SPACER AND POLE BASE TO ENSURE PROPER BOLT FIT, FLATNESS AND, ALIGNMENT. HOT DIP GALVANIZE THE PILE CAP ADAPTER TO WITHIN 6-INCHES OF THE TOE +/- 3-INCHES. DELIVER THE PILE CAP ADAPTER ATTACHED TO THE POLE BASE WITH ALL BOLTS TIGHTENED TO A SNUG TIGHT CONDITION.
3. MACHINE OR PLASMA CUT ANY PENETRATION IN THE POLE, PILE CAP ADAPTER OR FOUNDATION. NOTE: OXY-FUEL CUTTING IS PROHIBITED.
4. ALL WELDS ARE TO BE SIZED BY THE MANUFACTURER. PROVIDE 100% VT AND UT INSPECTION FOR ALL CJP WELDS. SUBMIT WRITTEN RECORD OF TEST TO THE PROJECT ENGINEER.
5. MANUFACTURE HIGH TOWER BASE PLATE AND FOUNDATION COMPONENTS FROM STEEL MEETING THE REQUIREMENTS OF ASTM A6 AND THE FOLLOWING; THE PERMISSIBLE BOW AND SWEEP OF THE BASE PLATE, SPACER, AND ANCHOR PLATE ARE TO BE LIMITED TO 1/32-INCH AND, FLATNESS OF THE FAYING SURFACES OF INCHES OVERALL AFTER FABRICATION. PRIOR TO HOT DIP GALVANIZATION, WILL ANY SURFACE NOT MEETING THIS SPECIFICATION.
6. CONNECT THE GROUND WIRE TO THE PIPE PILE ON THE INSIDE. GROUND WIRE SHALL BE BARE SOLID, STRANDED OR, BRAIDED COPPER.
7. INSTALL THE PILE CAP ADAPTER TO WITHIN 0.1-DEGREES OF PLUMB. USE HIGH PRECISION LEVEL AND/OR INCLINOMETER TO ACHIEVE REQUIRED TOLERANCE.
8. PROVIDE ANCHOR BOLTS MEETING THE REQUIREMENTS OF THE ANCHOR BOLT DETAIL. TIGHTEN ANCHOR BOLTS USING HYDRAULIC WRENCH AS DETAILED IN THE SPECIFICATIONS.
9. BACKFILL AND COMPACT ACCORDING TO SECTION 205 AND, SUBSECTIONS 203-3.04 AND 660-3.01 OF THE SPECIFICATIONS. USE SELECT ONLY TYPE A MATERIAL AS BACKFILL.

POLE #	NORTHING	EASTING	PILE LENGTH
HT1	407703.0	420616.7	40'
HT2	407930.2	421247.0	40'
HT3	408339.0	421794.9	40'
HT4	410771.6	425038.5	40'
HT5	410863.8	425731.4	45'
HT6	411329.3	426372.1	40'
HT7	414905.2	428536.6	40'
HT8	415518.3	429002.8	45'
HT9	428237.9	439600.3	40'
HT10	428764.8	439862.4	40'



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

HIGH TOWER FOUNDATION DETAIL

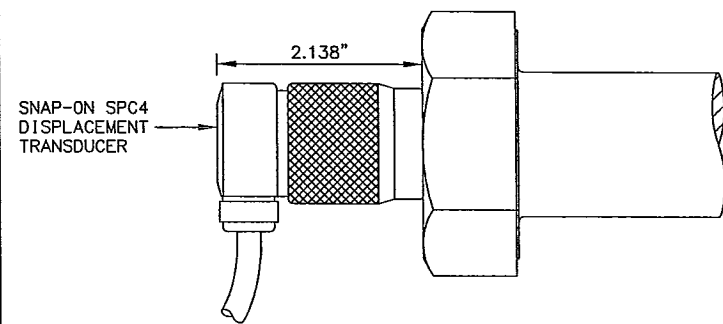
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SCALE: NTS
LAYOUT: LOAD INDICATING BOLT
TIME: 8:18:48 AM AST

LAST REVISION		STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
DATE	DESCRIPTION	ALASKA	IM-0A1-6(42)51970	2010	H10	H54
12/2/2009	CENTRAL REGION DETAIL					

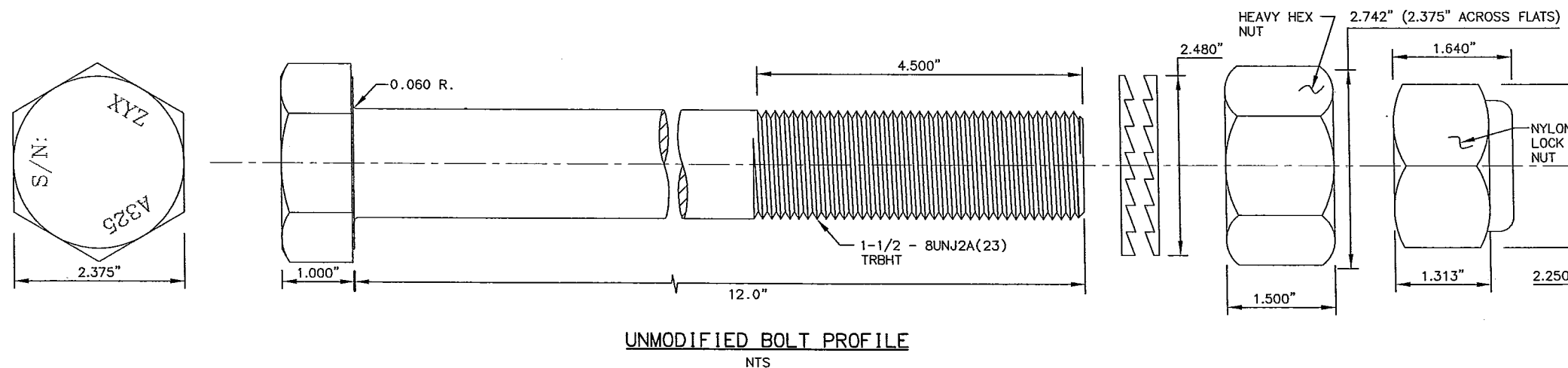
MATERIAL PROPERTIES	
LOAD INDICATING FASTENER (LIF)	VALLEY FORGE SPC4 OR EQUAL
BASE BOLT SPECIFICATION	ASTM A325 OR A449
LIF SPECIFICATION	ASTM F2498 TYPE (ET)
MONITOR	SPC-420
TESTING REQUIREMENTS	ASTM F2498 CHARPY V-NOTCH
IDENTIFICATION	S2 & S3
COATING	DACROMET 500
NUTS	AASHTO M292-2H
LOCK NUTS	
WASHERS	NORD-LOCK NL42 OR EQUAL

DESIGN NOTES:

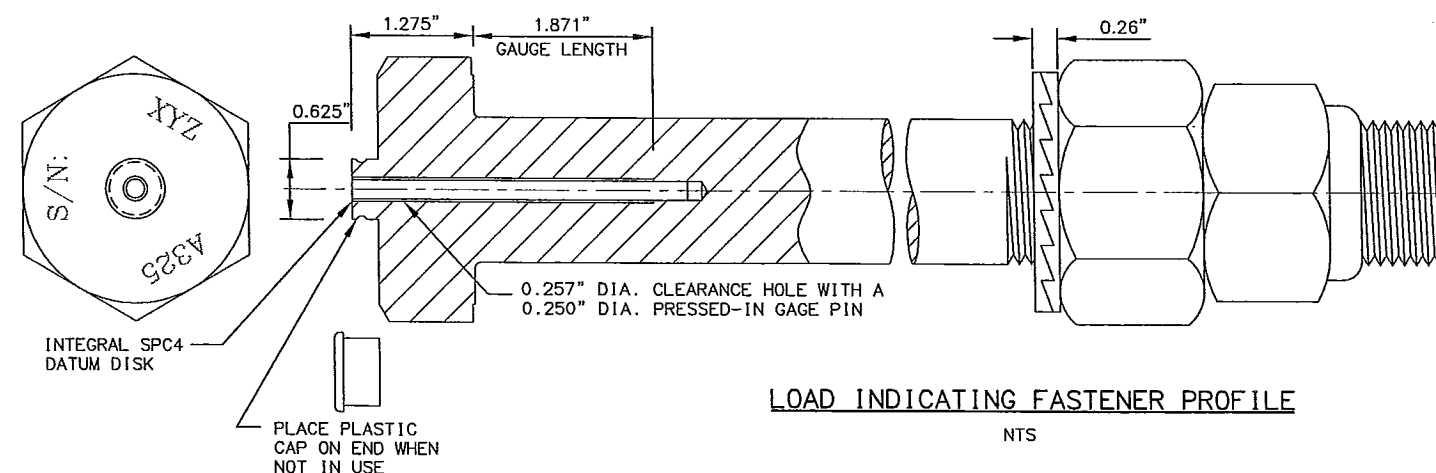
1. PROVIDE ELECTRONIC TYPE (ET) LOAD-INDICATING EXTERNALLY THREADED FASTENERS (ANCHOR BOLT) DESIGNED IN ACCORDANCE WITH ASTM F2498. CALIBRATE LOAD-INDICATING FASTENERS AS A PERCENTAGE OF YIELD STRENGTH WITH THE YIELD POINT BEING DESIGNATED 100%.
2. PROVIDE TWO MONITORS DESIGNED TO WORK WITH THE LOAD-INDICATING FASTENERS PROVIDED. THE MONITOR SHALL BE CAPABLE OF CONNECTING TO A POWER TIGHTENING TOOL AND TERMINATING TIGHTENING AT A PREDETERMINED POINT.
3. PERMANENTLY MARK LOAD-INDICATING FASTENERS WITH MANUFACTURER IDENTIFICATION AND GRADE.
4. FIRM CONTACT OF THE FAYING SURFACES OF THE BASE PLATE, SPACER, ANCHOR PLATE AND, BOLT HARDWARE IS ESSENTIAL. REMOVE ANY VISIBLE DIRT, BURRS OR, MILL SCALE THAT MAY CAUSE MISSALIGNMENT.
5. FACE ALL NUTS AND BOLT HEADS TO WITHIN 0.003-INCHES OF PERPENDICULAR TO THE BOLT SHAFT.
6. TIGHTEN BOLTS USING THE TYPE 'A' HYDRAULIC TIGHTENING METHOD AS DETAILED IN THE SPECIFICATIONS. PROVIDE 24-HOUR NOTICE TO CENTRAL REGION TRAFFIC DESIGN ENGINEER PRIOR TO TIGHTENING BOLTS.
7. PROVIDE MATERIAL CERTIFICATIONS FOR LOAD-INDICATING FASTENERS, NUTS AND, WASHERS AND TEST RESULTS TO THE PROJECT ENGINEER PRIOR TO INSTALLATION.
8. WELDING THE BOLT, NUT OR WASHER IS PROHIBITED.



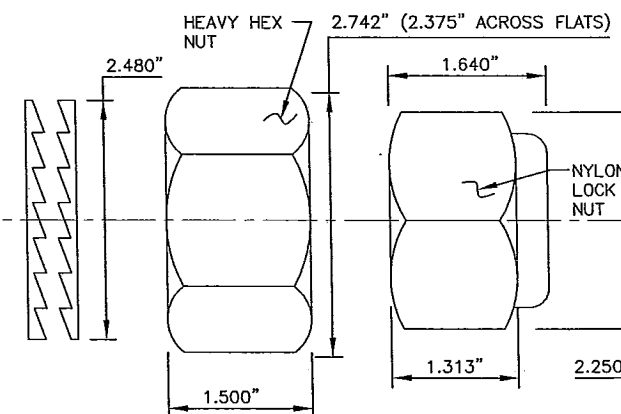
TRANSDUCER CONNECTION
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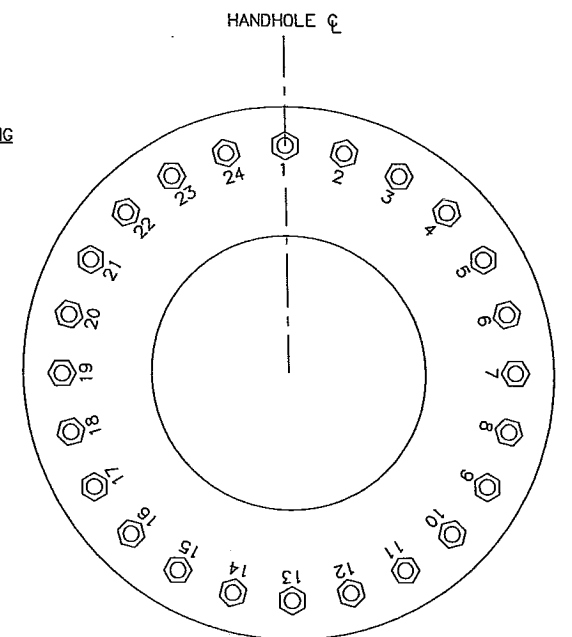
UNMODIFIED BOLT PROFILE
NTS



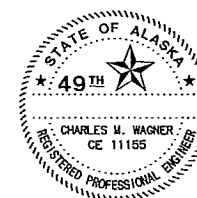
LOAD INDICATING FASTENER PROFILE
NTS



BOLT TIGHTENING SEQUENCE
1
13
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BOLT TIGHTENING SEQUENCE
NTS



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

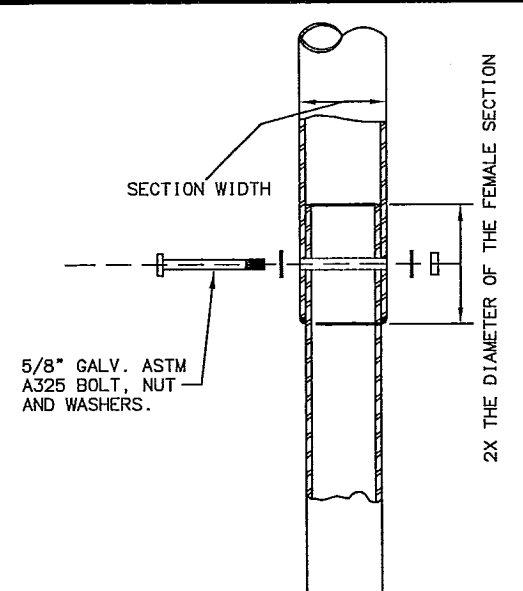
GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

LOAD INDICATING
FASTENER DETAIL

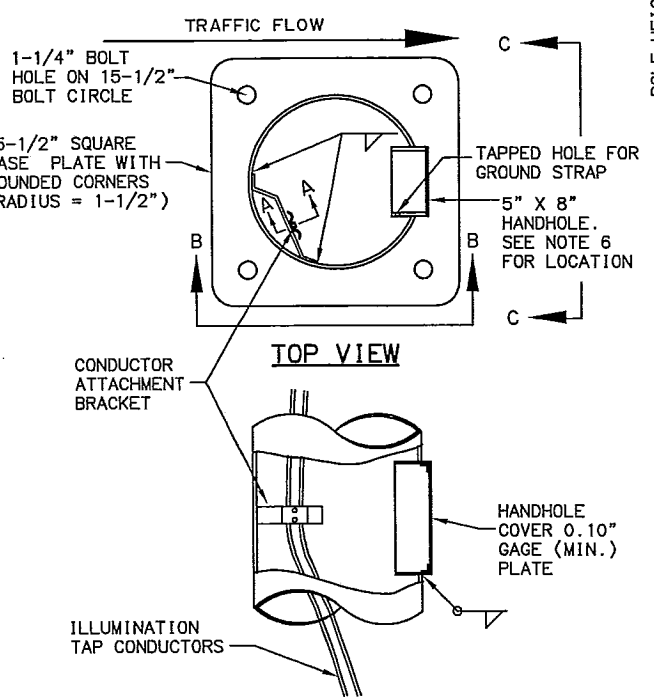
DESIGNED BY: GLENN
CHECKED BY: GLENN
DATE: 07/14/2008
SCALE: N/A
LAYOUT: LIGHTING STANDARD
TIME: 8:19:19 AM AST
DATE: 02/02/2010
DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H11.LIGHTING-STANDARD-2.dwg

LAST REVISION	
DATE	DESCRIPTION
07/14/2008	CENTRAL REGION DETAIL

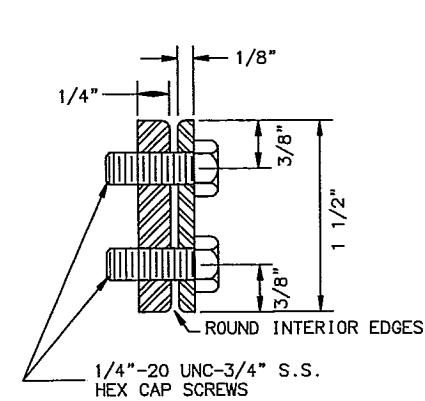
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H11	H54



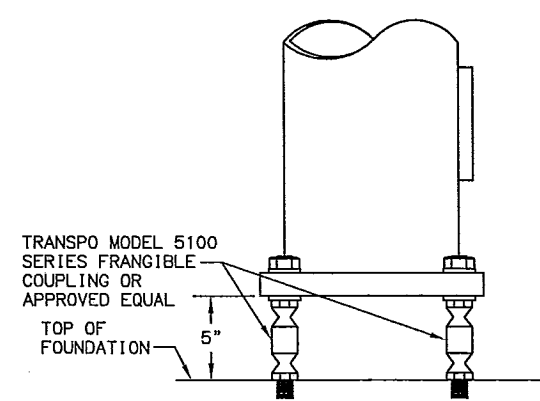
POLE CONNECTION DETAIL



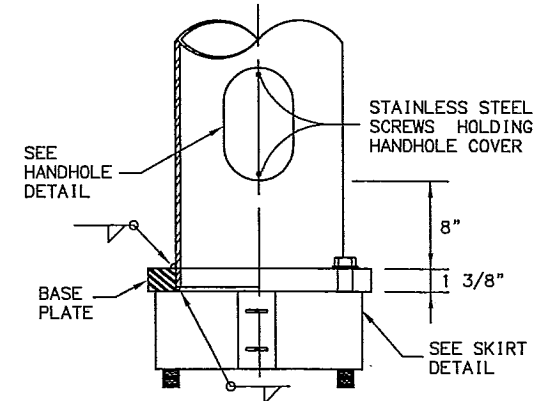
BASE PLATE AND HAND HOLE DETAIL



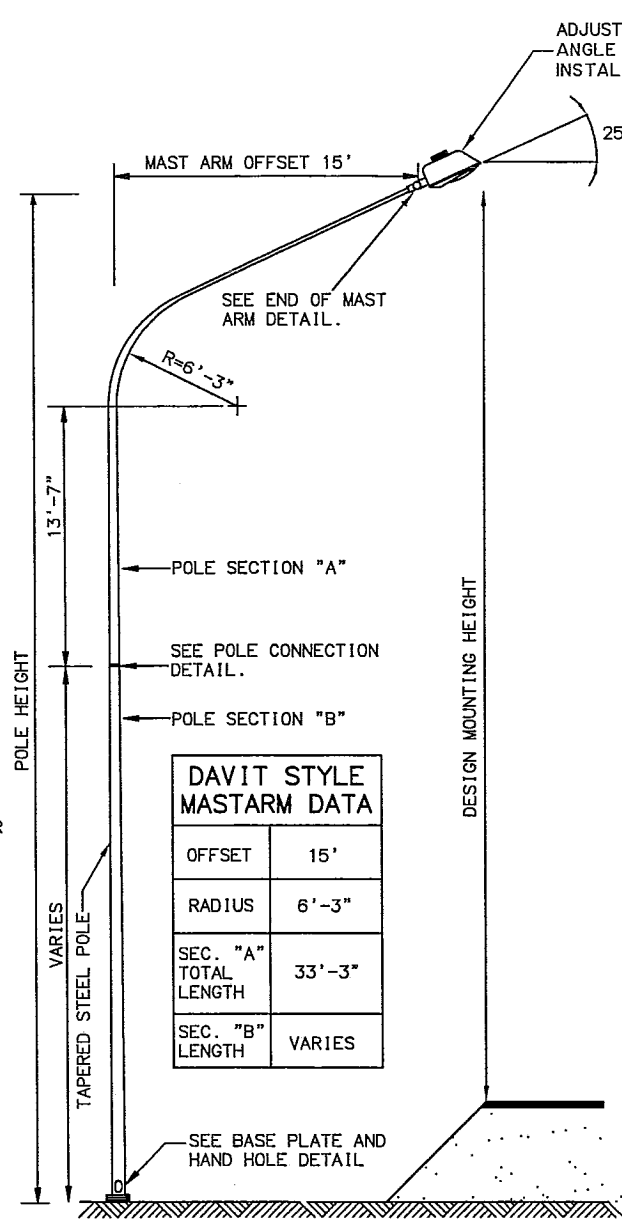
SECTION A-A



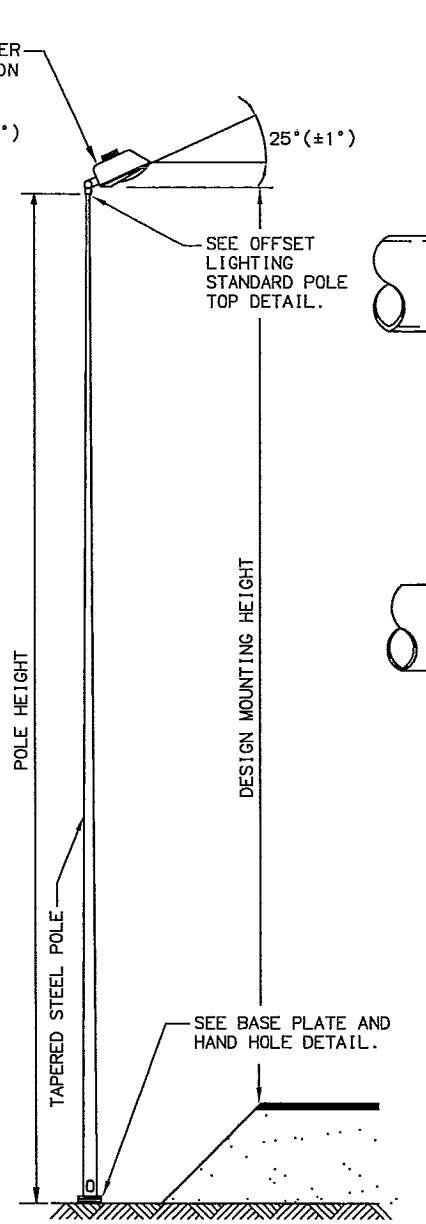
VIEW B-B



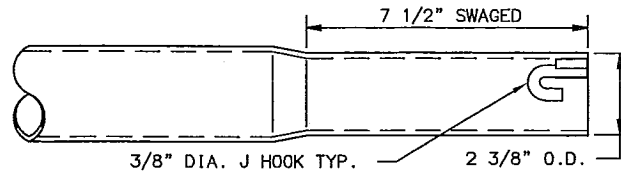
VIEW C-C



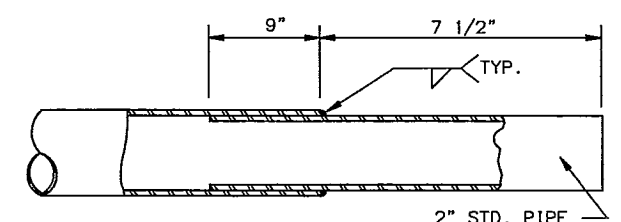
ELECTROLIER ELEVATION
DAVIT TYPE



ELECTROLIER ELEVATION
OFFSET TYPE

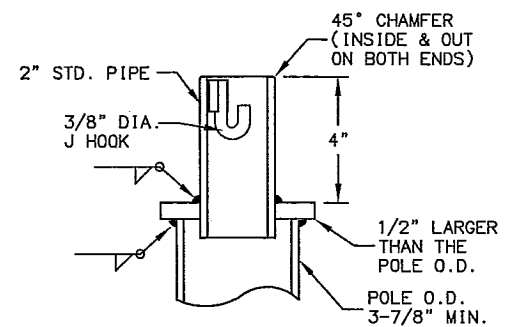


OPTIONAL SWAGED TENON

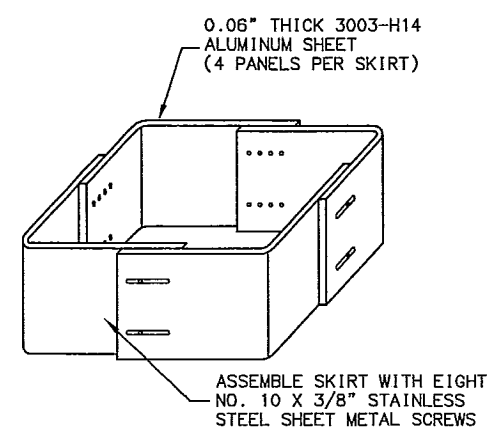


TENON

END OF MASTARM DETAIL



OFFSET LIGHTING
STANDARD POLE TOP DETAIL
(CUTAWAY FOR CLARITY)

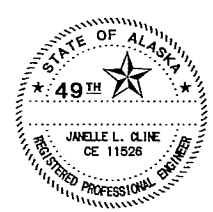


SKIRT DETAIL

NOTES:

1. FOR DAVIT TYPE POLES, SECTION "A" IS CONSTRUCTED AS SHOWN AND SECTION "B" VARIES IN LENGTH. SECURE THE SLIP FIT CONNECTIONS BETWEEN THOSE SECTIONS WITH A 5/8" THROUGH BOLT AND SELF LOCKING NUT.
2. ASSUME EACH OFFSET FIXTURE WEIGHS 60 LBS. AND HAS AN EFFECTIVE PROJECTED AREA OF 2.8 SF. WITH THIS DEAD LOAD, LIMIT THE ANGULAR ROTATION OF THE POLE TOP TO 1" 40' MAXIMUM.
3. WELD SIZE TO BE DETERMINED BY MANUFACTURER.
4. MINIMUM OUTSIDE DIAMETER AT THE TOP OF THE OFFSET POLE EQUALS 3-7/8" AND FOR THE DAVIT TYPE POLE USE 2-3/8". POLE DIAMETER SHALL TAPER UNIFORMLY FROM THE TOP OF POLE TO THE BASE PLATE, WITH A MAXIMUM TAPER RATE OF 0.14" PER FOOT.
5. MAST ARM ANGLE MUST NOT VARY MORE THAN $\pm 1^\circ$ FROM THE 25° SPECIFIED.
6. LOCATE THE HANDHOLE AT 90 DEGREES TO THE MAST ARM ON THE SIDE OF POLE DOWNSTREAM FROM TRAFFIC FLOW.
7. FURNISH ALL POLES WITH A J-HOOK TO SUPPORT THE ILLUMINATION TAP CONDUCTORS. FURNISH ALL MAST ARM POLES WITH A REMOVABLE RAINLIGHT CAP.
8. FRANGIBLE COUPLINGS SHALL BE NCHRP 350, TEST LEVEL 3 COMPLIANT AND HAVE NO MEASURED TORQUE REQUIREMENT.
9. FRANGIBLE COUPLINGS SHALL BE INSTALLED INTO FLUSH MOUNTED FEMALE ANCHORS SO THAT NO FIXED HARDWARE EXTENDS ABOVE THE FOUNDATION TOP.
10. INSTALL ALL COMPONENTS OF THE BREAKAWAY SUPPORT SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
11. FABRICATE THE SKIRT FROM FOUR PIECES OF 0.06" THICK 3003 H-14 ALUMINUM SHEET. BEND EACH PLATE TO PROVIDE CORNERS WITH A 3/4" RADIUS. ASSEMBLE THE SKIRT WITH #10 X 3/8" SELF TAPPING STAINLESS SCREWS OR POP RIVETS. THE ASSEMBLED SKIRT MEASURES ABOUT 12-7/8" SQUARE.

THIS SHEET REPLACES STD. DWG. L-03.10



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**

LIGHTING STANDARD

DESIGNED BY: GWM
CHECKED BY: GWM
DRAFTED BY: GWM
REVISED BY: GWM
SCALE: NTS
LAYOUT: HIGH TOWER 1
DATE: 02/02/2010 8:19:44 AM AST
TIME: 8:19:44 AM AST
DRAWING LOCATION: T:\Projects\anchorage\151970 - Glenn Hwy Lighting\dwg\H12_JT-POLE-DESIGN.dwg

LAST REVISION		STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
DATE	DESCRIPTION	ALASKA	IM-0A1-6(42)/51970	2010	H12	H54
03/07/2008	CENTRAL REGION DETAIL - REPLACES STD. DWG. T-52.15					

MATERIAL REQUIREMENTS	
ALL ASSEMBLIES	
MATERIALS THROUGH 3/16"	ASTM A1011 OR A595
MATERIALS THROUGH 1/2"	ASTM A572
MATERIALS OVER 1/2"	AASHTO M270 F3
FINISH	AASHTO M111 & M232
ANCHOR BOLTS	SEE LOAD INDICATING FASTENER DETAIL
POLE SECTION	
DESIGN LENGTH	125'-165'
SECTION SHAPE	ROUND/16 SIDED
FIXED END DIAMETER	SEE POLE DATA
TAPER	0.14"/FT
TUBE THICKNESS	SEE POLE DATA
BASE PLATE	48" X2.5"
BOLT CIRCLE	42"
TOP PLATE THICKNESS	1.0" MIN.
HANDHOLE COVER THICKNESS	0.25"

POLE DATA					
POLE HEIGHT (FT)	SECTION	LENGTH (FT)	BASE DIA. (IN)	TOP DIA. (IN)	THICKNESS (IN)
125.0	A	40	27.000	21.400	0.5000
	B	35	22.925	18.025	0.3125
	C	30	19.300	15.125	0.2500
	D	30	16.200	12.000	0.1875
130.0	A	40	27.700	21.400	0.5000
	B	35	23.625	18.725	0.3125
	C	35	20.000	15.125	0.2500
	D	30	16.200	12.000	0.1875
135.0	A	40	28.400	22.800	0.5000
	B	35	24.325	19.425	0.3125
	C	35	20.700	15.825	0.2500
	D	35	16.900	12.000	0.1875
140.0	A	40	29.050	23.450	0.5000
	B	40	25.025	19.425	0.3125
	C	35	20.700	15.825	0.2500
	D	35	16.900	12.000	0.1875
145.0	A	40	29.700	24.100	0.5000
	B	40	25.675	20.075	0.3125
	C	40	21.400	15.825	0.2500
	D	35	16.900	12.000	0.1875
150.0	A	40	30.350	24.750	0.5000
	B	40	26.325	20.725	0.3125
	C	40	22.100	16.475	0.2500
	D	40	17.600	12.000	0.1875
155.0	A	40	31.000	25.400	0.5000
	B	45	27.025	20.725	0.3125
	C	40	22.100	16.475	0.2500
	D	40	17.600	12.000	0.1875
160.0	A	40	31.650	26.050	0.5000
	B	45	27.675	21.375	0.3125
	C	45	22.800	16.475	0.2500
	D	40	17.600	12.000	0.1875
165.0	A	40	32.350	26.750	0.5000
	B	45	28.375	22.075	0.3125
	C	45	23.500	17.175	0.2500
	D	45	18.300	12.000	0.1875

NOTES:

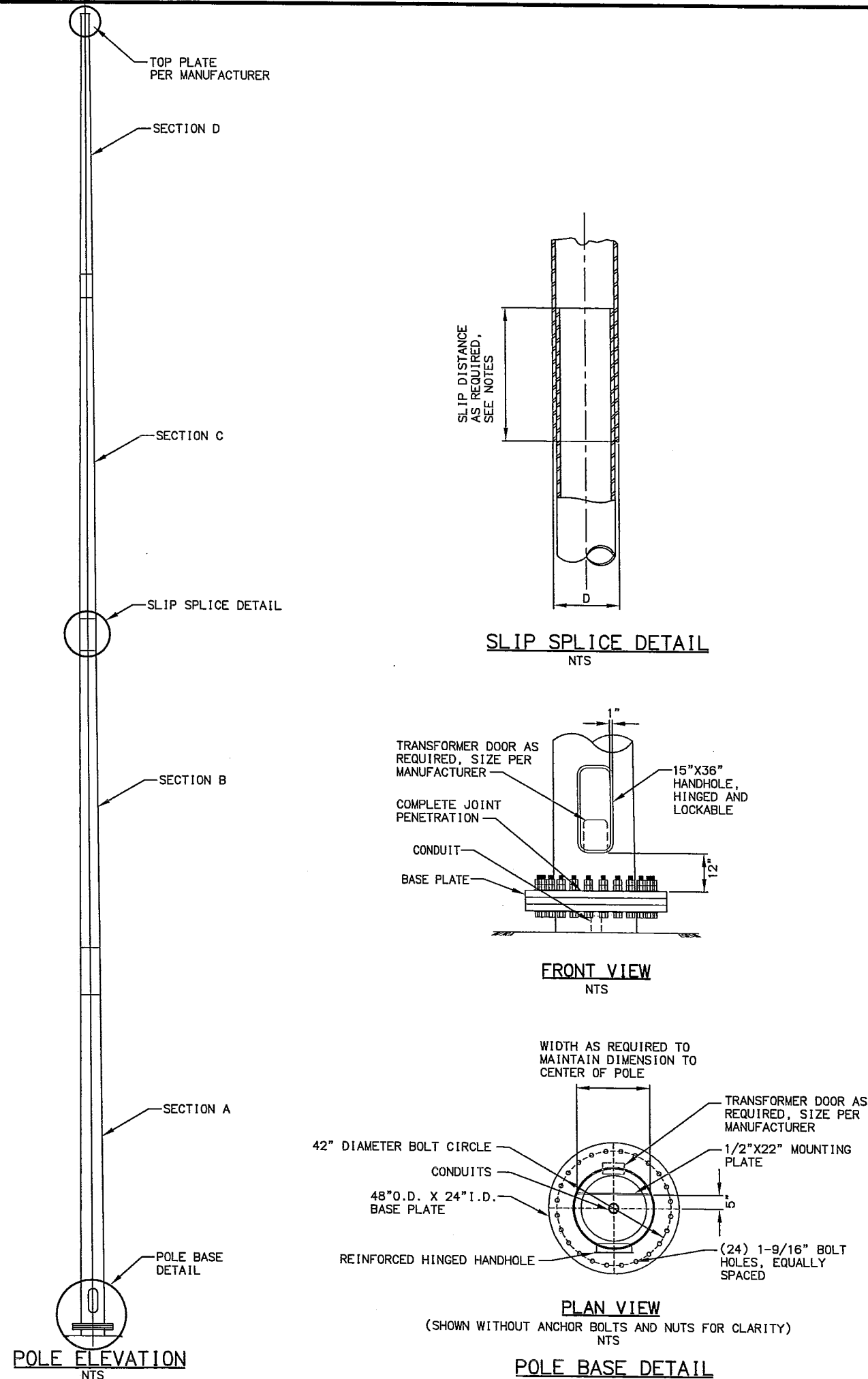
- DESIGN, FABRICATE AND INSTALL HIGH TOWER POLE ASSEMBLIES TO MEET THE REQUIREMENTS OF THE 2001 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, THE ALASKA STANDARD SPECIFICATIONS, STANDARD MODIFICATIONS, SPECIAL PROVISIONS AND THESE PLANS. DESIGN FOR A BASIC WIND SPEED OF 100 MPH, FATIGUE CATEGORY I AND THE LOADS SPECIFIED IN 668-3.06 OF THE SPECIFICATIONS.
- POLES SHALL BE DESIGNED AND FABRICATED TO INCORPORATE ALL MATERIAL REQUIREMENTS. ANY COMPONENTS NOT INCLUDED IN THE MATERIAL REQUIREMENTS TABLE SHALL BE CONSTRUCTED OF PREQUALIFIED STEEL AS DEFINED IN THE AWS D1.1:2008.
- DESIGN AND FABRICATE TUBES FROM NO MORE THAN 2 PIECES OF STEEL. WHEN USING 2 PIECES, PLACE THE LONGITUDINAL WELDED SEAMS DIRECTLY OPPOSITE ONE ANOTHER. PLACE THE WELDED SEAMS ON ADJACENT SECTIONS OF THE POLE TO FORM CONTINUOUS STRAIGHT SEAMS.
- MANUFACTURE HIGH TOWER BASE PLATE AND FOUNDATION COMPONENTS FROM STEEL MEETING THE REQUIREMENTS OF ASTM A 6 AND THE FOLLOWING; THE PERMISSIBLE BOW AND/OR SWEEP OF THE BASE PLATE, SPACER, AND ANCHOR PLATE ARE TO BE LIMITED TO 1/32-INCH. PRIOR TO HOT DIP GALVANIZATION, MILL ANY SURFACE NOT MEETING THIS SPECIFICATION.
- THE MINIMUM LENGTH OF ANY SLIP TYPE SPLICE SHALL BE 1.5 TIMES THE INSIDE DIAMETER OF THE EXPOSED END OF THE FEMALE SECTION.
- THE DIAMETER OF ROUND AND TAPERED STEEL TUBE MEMBERS OR THE DIMENSION ACROSS THE FLAT OF MULTISIDED STRAIGHT OR TAPERED STEEL TUBING MEMBERS SHALL NOT VARY MORE THAN TWO PERCENT FROM SPECIFIED DEMENSIONS.
- THE DEPARTMENT WILL REJECT DAMAGED OR DEFECTIVE POLES FOR ANY OF THE FOLLOWING, INCLUDING BUT NOT LIMITED TO;
 - VARIANCES FROM APPROVED SHOP DRAWINGS
 - VARIANCES FROM MATERIAL REQUIREMENTS
 - OUT OF ROUND. SECTIONS ARE OUT OF ROUND WHEN THE DIAMETERS OF ROUND MEMBERS EXCEED 2-PERCENT OF THE SPECIFIED DIMENSION
 - BOWED WITH SWEEPS EXCEEDING 3/4-INCHES OVER THE LENGTH OF THE SEGMENT
 - DAMAGED OR DENTED FINISHES
- THE POLE MANUFACTURER IS TO PROVIDE THE REQUIRED PILE CAP ADAPTER. DRY FIT AT PLACE OF MANUFACTURE THE PILE CAP ADAPTER, SPACER AND POLE BASE TO ENSURE PROPER BOLT FIT, FLATNESS AND, ALIGNMENT. DELIVER THE PILE CAP ADAPTER ATTACHED TO THE POLE BASE WITH ALL BOLTS TIGHTENED TO A SNUG-TIGHT CONDITION.
- MACHINE OR PLASMA CUT ANY PENETRATION IN THE POLE, PILE CAP ADAPTER OR FOUNDATION. NOTE: OXY-FUEL CUTTING IS PROHIBITED.
- WELDS SIZES ARE TO BE DETERMINED BY THE MANUFACTURER. PROVIDE 100% VISUAL INSPECTION OF ALL WELDS, A RANDOM 25% OF PARTIAL JOINT PENETRATION LONGITUDINAL SEAM WELDS AND 100% OF ALL FILLET WELDS SHALL BE MAGNETIC PARTIAL TESTED AND 100% OF ALL COMPLETE JOINT PENETRATION WELDS SHALL BE ULTRASONIC TESTED. SUBMIT WRITTEN RECORD OF ALL COMPLETE JOINT PENETRATION WELD TEST TO THE PROJECT ENGINEER.
- PROVIDE PERMANENT TAGS ON EACH POLE SECTION PER SECTION 740 TABLE 740-1 OF THE SPECIFICATIONS.



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**

**CENTRAL REGION
HIGH TOWER POLE DETAIL**



DESIGNED BY: PSE
CHECKED BY: JLC
DATE: 02/02/2010 8:20:18 AM AST
SCALE: N/A
LAYOUT: LC SUM 1
TIME: 8:20:18 AM AST
DATE: 02/02/2010 8:20:18 AM AST
DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting.dwg\H13-H14-LOADCENTER SUMMARIES.dwg

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION	ALASKA	IM-0A1-6(42)/51970	2010	H13	H54

SUMMARY OF LOAD CENTER A				
LOAD CENTER TYPE: 1A (NEW)				
SERVING UTILITY: MATANUSKA ELECTRIC ASSOCIATION				
SERVICE CONDUIT TYPE: RIGID METAL CONDUIT				
LOCATION DATA				
LOAD CENTER: N 401167.8, E 412560.4				
POWER SOURCE: EXISTING				
PHOTOELECTRIC CONTROL: YES				
SERVICE VOLTAGE: 1 PHASE, 3 WIRE, 240/480 VOLTS AC WITH GROUNDED NEUTRAL				
PROVIDE METER SOCKET? YES				
MAIN BREAKER A: 480 VOLT, 2 POLE, 100 AMPERES				
CONTACTOR: **600 VOLT, 16 POLE, 30 AMPERES				
PANEL A				
CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER	
			AMPS	POLES
AA1	P.E. CELL	0.1	15	1
AA2*	LUMINAIRES 1,3,5,7,9,11	2.9	20	2
AA3*	LUMINAIRES 2,4,6,8,10,12	2.9	20	2
AA4*	LUMINAIRES 13,15,17,19,21,23,25,27	3.8	20	2
AA5*	LUMINAIRES 14,16,18,20,22,24,26,28	3.8	20	2
AA6*	LUMINAIRES 29,31,33,35,37,39,41,43	3.8	20	2
AA7*	LUMINAIRES 30,32,34,36,38,40,42,44	3.8	20	2
AA8*	LUMINAIRES 45,47,49,51,53,55	2.9	20	2
AA9*	LUMINAIRES 46,48,50,52,54,56	2.9	20	2
TOTAL KVA LOAD FOR PANELS		27.0		
* CIRCUIT THROUGH CONTACTOR				
** PROVIDE CONTACTORS AS REQUIRED				

SUMMARY OF LOAD CENTER B				
LOAD CENTER TYPE: 1A (NEW)				
SERVING UTILITY: MATANUSKA ELECTRIC ASSOCIATION				
SERVICE CONDUIT TYPE: RIGID METAL CONDUIT				
LOCATION DATA				
LOAD CENTER: N 407640.8, E 420486.7				
POWER SOURCE: EXISTING				
PHOTOELECTRIC CONTROL: YES				
SERVICE VOLTAGE: 1 PHASE, 3 WIRE, 240/480 VOLTS AC WITH GROUNDED NEUTRAL				
PROVIDE METER SOCKET? YES				
MAIN BREAKER A: 480 VOLT, 2 POLE, 100 AMPERES				
CONTACTOR: **600 VOLT, 14 POLE, 30 AMPERES				
PANEL A				
CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER	
			AMPS	POLES
BA1	P.E. CELL	0.1	15	1
BA2*	LUMINAIRES 57,59,61,63,65	2.4	20	2
BA3*	LUMINAIRES 58,60,62,64,66	2.4	20	2
BA4*	LUMINAIRES 67,69,71,73,75,77,79	3.4	20	2
BA5*	LUMINAIRES 68,70,72,74,76,78,80	3.4	20	2
BA6*	LUMINAIRES 81,83,85,87,89,91,93,95	3.9	20	2
BA7*	LUMINAIRES 82,84,86,88,90,92,94,96	3.9	20	2
BA8*	HT1	4.8	20	2
TOTAL KVA LOAD FOR PANELS		24.3		
* CIRCUIT THROUGH CONTACTOR				
** PROVIDE CONTACTORS AS REQUIRED				

NOTES:

- NORTHING & EASTING REFERENCE ARE TO THE CENTER OF THE STRUCTURE, INSTALL A TYPE II JUNCTION BOX ADJACENT TO EVERY LOAD CENTER.
- LOCATE LOAD CENTERS SO THAT THEY ARE OUTSIDE CONTROLLED ACCESS, WITH IN THE RIGHT OF WAY AND AVOIDING UTILITY CONFLICTS. INSTALL LOAD CENTER FOUNDATIONS WITHIN 1-DEGREE OF PLUMB.
- LOADS BASED ON PANELS WITH SPACE FOR 18 SINGLE POLE CIRCUIT BREAKERS & NON-BACK FED MAIN CIRCUIT BREAKERS.

SUMMARY OF LOAD CENTER C				
LOAD CENTER TYPE: 1A (NEW)				
SERVING UTILITY: MATANUSKA ELECTRIC ASSOCIATION				
SERVICE CONDUIT TYPE: RIGID METAL CONDUIT				
LOCATION DATA				
LOAD CENTER: N 407801.5, E 421353.0				
POWER SOURCE: EXISTING				
PHOTOELECTRIC CONTROL: YES				
SERVICE VOLTAGE: 1 PHASE, 3 WIRE, 240/480 VOLTS AC WITH GROUNDED NEUTRAL				
PROVIDE METER SOCKET? EXISTING				
MAIN BREAKER A: 480 VOLT, 2 POLE, 100 AMPERES				
CONTACTOR: 600 VOLT, 12 POLE, 30 AMPERES				
PANEL A				
CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER	
			AMPS	POLES
CA1	P.E. CELL	0.1	15	1
CA2*	HT2	4.8	20	2
CA3*	HT3	4.8	20	2
CA4*	LUMINAIRES 97,99,101,103	2.0	20	2
CA5*	LUMINAIRES 98,100,102,104	2.0	20	2
CA6*	LUMINAIRES EXISTING NB1	0.5	20	2
CA7*	SPARE	0.0	20	2
TOTAL KVA LOAD FOR PANELS		14.2		
* CIRCUIT THROUGH CONTACTOR				

SUMMARY OF LOAD CENTER D				
LOAD CENTER TYPE: 1A (NEW)				
SERVING UTILITY: MATANUSKA ELECTRIC ASSOCIATION				
SERVICE CONDUIT TYPE: RIGID METAL CONDUIT				
LOCATION DATA				
LOAD CENTER: N 411179.0, E 425587.5				
POWER SOURCE: EXISTING				
PHOTOELECTRIC CONTROL: YES				
SERVICE VOLTAGE: 1 PHASE, 3 WIRE, 240/480 VOLTS AC WITH GROUNDED NEUTRAL				
PROVIDE METER SOCKET? EXISTING				
MAIN BREAKER A: 480 VOLT, 2 POLE, 100 AMPERES				
CONTACTOR: **600 VOLT, 16 POLE, 30 AMPERES				
PANEL A				
CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER	
			AMPS	POLES
DA1	P.E. CELL	0.1	15	1
DA2*	LUMINAIRES 105,107,109,111,113,115,117,119	3.9	20	2
DA3*	LUMINAIRES 106,108,110,112,114,116,118,120	3.9	20	2
DA4*	HT4	4.8	20	2
DA5*	HT5	4.8	20	2
DA6*	HT6	4.8	20	2
DA7*	LUMINAIRES 121,123,125,127,129,131	2.9	20	2
DA7*	LUMINAIRES 122,124,126,128,130,132	2.9	20	2
DA9*	LUMINAIRES EXISTING PC1, PC2	1.0	20	2
TOTAL KVA LOAD FOR PANELS		29.1		
* CIRCUIT THROUGH CONTACTOR				
** PROVIDE CONTACTORS AS REQUIRED				

SUMMARY OF LOAD CENTER E				
LOAD CENTER TYPE: 1A (NEW)				
SERVING UTILITY: MATANUSKA ELECTRIC ASSOCIATION				
SERVICE CONDUIT TYPE: RIGID METAL CONDUIT				
LOCATION DATA				
LOAD CENTER: N 415278.4, E 428326.4				
POWER SOURCE: EXISTING				
PHOTOELECTRIC CONTROL: YES				
SERVICE VOLTAGE: 1 PHASE, 3 WIRE, 240/480 VOLTS AC WITH GROUNDED NEUTRAL				
PROVIDE METER SOCKET? EXISTING				
MAIN BREAKER A: 480 VOLT, 2 POLE, 100 AMPERES				
CONTACTOR: **600 VOLT, 16 POLE, 30 AMPERES				
PANEL A				
CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER	
			AMPS	POLES
EA1	P.E. CELL	0.1	15	1
EA2*	LUMINAIRES 133,135,137,139,141,143,145	3.4	20	2
EA3*	LUMINAIRES 134,136,138,140,142,144,146	3.4	20	2
EA4*	HT7	6.0	20	2
EA5*	HT8	6.0	20	2
EA6*	LUMINAIRES EXISTING NP1, NP2	1.0	20	2
EA7*	LUMINAIRES 147,149,151,153,155	2.4	20	2
EA8*	LUMINAIRES 148,150,152,154,156	2.4	20	2
TOTAL KVA LOAD FOR PANELS		24.7		
* CIRCUIT THROUGH CONTACTOR				
** PROVIDE CONTACTORS AS REQUIRED				



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

LOAD CENTER SUMMARIES

DESIGNED BY TFE
CHECKED BY JLC
DATE 02/02/2010 8:20:18 AM AST
XREFS
SCALE
LAYOUT
DATE
TIME
DRAWING LOCATION
T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H13-H14_LOADCENTER SUMMARIES.dwg

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION					
			ALASKA	IM-0A1-6(42)/51970	2010	H14	H54

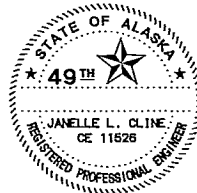
SUMMARY OF LOAD CENTER F					
LOAD CENTER TYPE: 1A (NEW)					
SERVING UTILITY: MATANUSKA ELECTRIC ASSOCIATION					
SERVICE CONDUIT TYPE: RIGID METAL CONDUIT					
LOCATION DATA					
LOAD CENTER: N 418481.5, E 430993.8					
POWER SOURCE: EXISTING					
PHOTOELECTRIC CONTROL: YES					
SERVICE VOLTAGE: 1 PHASE, 3 WIRE, 240/480 VOLTS AC WITH GROUNDED NEUTRAL					
PROVIDE METER SOCKET? EXISTING					
MAIN BREAKER A: 480 VOLT, 2 POLE, 100 AMPERES					
CONTACTOR: 600 VOLT, 12 POLE, 30 AMPERES					
PANEL A					
CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER		
			AMPS	POLES	
FA1	P.E. CELL	0.1	15	1	
FA2*	LUMINAIRES 157,159,161,163,165,167	2.4	20	2	
FA3*	LUMINAIRES 158,160,162,164,166,168,170	2.9	20	2	
FA4*	LUMINAIRES 169,171,173,175,177,179,181,183,185	4.4	20	2	
FA5*	LUMINAIRES 172,174,176,178,180,182,184,186	3.9	20	2	
FA6*	LUMINAIRES EXISTING ML1, ML2	1.0	20	2	
FA7*	SPARE	0.0	20	2	
TOTAL KVA LOAD FOR PANELS		14.7			
* CIRCUIT THROUGH CONTACTOR					

SUMMARY OF LOAD CENTER G					
LOAD CENTER TYPE: 1A (NEW)					
SERVING UTILITY: MATANUSKA ELECTRIC ASSOCIATION					
SERVICE CONDUIT TYPE: RIGID METAL CONDUIT					
LOCATION DATA					
LOAD CENTER: N 420023.8, E 433233.6					
POWER SOURCE: EXISTING					
PHOTOELECTRIC CONTROL: YES					
SERVICE VOLTAGE: 1 PHASE, 3 WIRE, 240/480 VOLTS AC WITH GROUNDED NEUTRAL					
PROVIDE METER SOCKET? EXISTING					
MAIN BREAKER A: 480 VOLT, 2 POLE, 100 AMPERES					
CONTACTOR: 600 VOLT, 12 POLE, 30 AMPERES					
PANEL A					
CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER		
			AMPS	POLES	
GA1	P.E. CELL	0.1	15	1	
GA2*	LUMINAIRES 187,189,191,193,195,197,199,201,203	4.4	20	2	
GA3*	LUMINAIRES 188,190,192,194,196,198,200,202,204	4.4	20	2	
GA4*	LUMINAIRES 205,207,209,211,213,215	2.9	20	2	
GA5*	LUMINAIRES 206,208,210,212,214,216	2.9	20	2	
GA4*	LUMINAIRES EXISTING NM1, NM2, NM3, NM4	2.0	20	2	
GA5*	SPARE	0.0	20	2	
TOTAL KVA LOAD FOR PANELS		16.7			
* CIRCUIT THROUGH CONTACTOR					

SUMMARY OF LOAD CENTER H					
LOAD CENTER TYPE: 1A (NEW)					
SERVING UTILITY: MATANUSKA ELECTRIC ASSOCIATION					
SERVICE CONDUIT TYPE: RIGID METAL CONDUIT					
LOCATION DATA					
LOAD CENTER: N 425597.4, E 437198.9					
POWER SOURCE: EXISTING					
PHOTOELECTRIC CONTROL: YES					
SERVICE VOLTAGE: 1 PHASE, 3 WIRE, 240/480 VOLTS AC WITH GROUNDED NEUTRAL					
PROVIDE METER SOCKET? EXISTING					
MAIN BREAKER A: 480 VOLT, 2 POLE, 100 AMPERES					
CONTACTOR: 600 VOLT, 12 POLE, 30 AMPERES					
PANEL A					
CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER		
			AMPS	POLES	
HA1	P.E. CELL	0.1	15	1	
HA2*	LUMINAIRES 217,219,221,223,225,227,229,231,233	4.4	20	2	
HA3*	LUMINAIRES 218,220,222,224,226,228,230,232,234	4.4	20	2	
HA4*	LUMINAIRES 235,237	1.0	20	2	
HA5*	LUMINAIRES 236,238	1.0	20	2	
HA6*	LUMINAIRES EXISTING TB1, TB2	1.0	20	2	
HA7*	SPARE	0.0	20	2	
TOTAL KVA LOAD FOR PANELS		11.9			
* CIRCUIT THROUGH CONTACTOR					

SUMMARY OF LOAD CENTER I					
LOAD CENTER TYPE: 1A (NEW)					
SERVING UTILITY: MATANUSKA ELECTRIC ASSOCIATION					
SERVICE CONDUIT TYPE: RIGID METAL CONDUIT					
LOCATION DATA					
LOAD CENTER: N 428238.5, E 439841.9					
POWER SOURCE: EXISTING					
PHOTOELECTRIC CONTROL: YES					
SERVICE VOLTAGE: 1 PHASE, 3 WIRE, 240/480 VOLTS AC WITH GROUNDED NEUTRAL					
PROVIDE METER SOCKET? EXISTING					
MAIN BREAKER A: 480 VOLT, 2 POLE, 100 AMPERES					
CONTACTOR: **600 VOLT, 16 POLE, 30 AMPERES					
PANEL A					
CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER		
			AMPS	POLES	
IA1	P.E. CELL	0.1	15	1	
IA2*	LUMINAIRES 239,241,243,245,247,249,251,253,255	4.4	20	2	
IA3*	LUMINAIRES 240,242,244,246,248,250,252,254,256	4.4	20	2	
IA4*	HT9	4.8	20	2	
IA5*	HT10	4.8	20	2	
IA6*	LUMINAIRES 257,259,261,263,265,267,269	3.4	20	2	
IA7*	LUMINAIRES 258,260,262,264,266,268,270	3.4	20	2	
IA8*	LUMINAIRES EXISTING EK1	0.5	20	2	
IA9*	LUMINAIRES EXISTING EK2	0.5	20	2	
TOTAL KVA LOAD FOR PANELS		26.3			
* CIRCUIT THROUGH CONTACTOR					
** PROVIDE CONTACTORS AS REQUIRED					

SUMMARY OF LOAD CENTER J					
LOAD CENTER TYPE: 1A (NEW)					
SERVING UTILITY: MATANUSKA ELECTRIC ASSOCIATION					
SERVICE CONDUIT TYPE: RIGID METAL CONDUIT					
LOCATION DATA					
LOAD CENTER: N 430734.4, E 444263.3					
POWER SOURCE: EXISTING					
PHOTOELECTRIC CONTROL: YES					
SERVICE VOLTAGE: 1 PHASE, 3 WIRE, 240/480 VOLTS AC WITH GROUNDED NEUTRAL					
PROVIDE METER SOCKET? EXISTING					
MAIN BREAKER A: 480 VOLT, 2 POLE, 100 AMPERES					
CONTACTOR: 600 VOLT, 8 POLE, 30 AMPERES					
PANEL A					
CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER		
			AMPS	POLES	
JA1	P.E. CELL	0.1	15	1	
JA2*	LUMINAIRES 271,273,275,277,279,281,283,284,285	4.4	20	2	
JA3*	LUMINAIRES 272,274,276,278,280,282	2.9	20	2	
JA4*	SPARE	0.0	20	2	
JA5*	SPARE	0.0	20	2	
TOTAL KVA LOAD FOR PANELS		7.4			
* CIRCUIT THROUGH CONTACTOR					



STATE OF ALASKA
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AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

LOAD CENTERS SUMMARIES

DESIGNED BY: JFC
CHECKED BY: JFC
SCALE: N/A
LAYOUT: LUM PERFORMANCE
DATE: 02/02/2010 8:21:25 AM AST
DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H15-H16_LUMINAIRE PERFORMANCE CRITERIA.dwg

LOW MOUNT LUMINAIRE PERFORMANCE CRITERIA	
ROADWAY CHARACTERISTICS	
TRAFFIC FLOW	2 WAY
LANE WIDTH	12 FEET
NO. OF LANES RIGHT OF MEDIAN	2
MEDIAN WIDTH	50 FEET
NO. OF LANES LEFT OF MEDIAN	2
PAVEMENT TYPE	R3
ROADWAY LIGHTING STANDARD	IESNA RP-8-00
ROAD CLASSIFICATION	FREEWAY CLASS B
IES FILE	452910 IES
ROADWAY LUMINAIRE	
LAMP DESCRIPTION	400W HPS CLEAR ED18 HORIZ. DUAL ARC TUBE
LAMP LUMENS	47500
LIGHT LOSS FACTOR	0.72
WATTAGE	400W
TILT	25 DEGREES
LIGHT DISTRIBUTION	MC3
POLE CHARACTERISTICS	
MOUNTING HEIGHT	45 FEET
LUMINAIRE SETBACK	42 FEET
ARM LENGTH	15 FEET
LUMINANCE CRITERIA	
ROADWAY LUMINANCE AVG.	0.40 CD/SQ M
ROADWAY LUMINANCE MIN.	0.30 CD/SQ M
ROADWAY LUMINANCE (AVG/MIN.)	1.33
ROADWAY LUMINANCE (MAX/MIN.)	3.00
VEILING LUMINANCE RATIO (MAX)	0.34
POLE SPACING	300 FEET

REPLACEMENT LUMINAIRE SCHEDULE	
MANUFACTURER	GE OR APPROVED EQUAL
MODEL	M400A-PLUS OR APPROVED EQUAL
WATTAGE	400
LIGHT SOURCE	HPS
VOLTAGE	480
BALLAST TYPE	MAG-REG
PE CONTROL	NONE
IGNITOR MOUNTING	PLUG-IN
LENS TYPE	FLAT GLASS
IES DISTRIBUTION TYPE	MC3
FILTER	CHARCOAL W/ ELASTOMER GASKET
UL LISTED	YES

REPLACEMENT LAMP SCHEDULE	
MANUFACTURER	SYLVANIA OR APPROVED EQUAL
MODEL	400W HPS CLEAR ED18 HORIZ. DUAL ARC TUBE
BULB	ET18
BASE	E39
ANSI SPEC NUMBER	S51
LAMP FINISH	CLEAR
OPERATING POSITION	UNIVERSAL
AVERAGE RATED LIFE	40000 HOURS
INITIAL LUMENS	47500
MEAN LUMENS	40000
CRI	22
CCT	2100

HIGH TOWER LUMINAIRE PERFORMANCE CRITERIA			
LUMINAIRE TYPE	ENCLOSED HIGH TOWER		
LIGHT DISTRIBUTION	MC2 & MC 3		
LAMP WATTS	1000		
LIGHT SOURCE	HIGH PRESSURE SODIUM		
NUMBER OF LAMPS	4&5		
MOUNTING HEIGHT	150 FEET		
	X (FEET)	Y (FEET)	INITIAL ILLUMINANCE
UNSHIELDED ASYMMETRIC (4)	-588,588	-351,300	0.10 fc
HIGH TOWERS 2,3,4,5,6,9,10			
SHIELDED ASYMMETRIC (4)	-450,450	-142,345	0.10 fc
HIGH TOWERS 1			
UNSHIELDED ASYMMETRIC (5)	-608,608	-374,328	0.10 fc
HIGH TOWERS 7,8			

NOTES:

- ADJUST THE LUMINAIRE REFLECTORS ON THE HIGH TOWER POLES AS SHOW IN THE AIMING PARAMETERS AND AS INSTRUCTED BY THE MANUFACTURER. SHIELD FOR HIGH TOWER 1 ARE 15" LIGHT SHIELD (ELS-HMAA060) AND WILL BE FACING AGAINST THE ROAD OR 132°.
- FURNISH EACH HIGH TOWER LUMINAIRE WITH 1000 WATT HIGH PRESSURE SODIUM LAMPS AND 480 VOLT AUTOREGULATOR BALLASTS, RATED TO 24,000 HOUR LIFE EXPECTANCY.
- PROVIDE AN ANSI-IES RP-8-00 MC2 & MC3 DISTRIBUTION, AND THE LIGHT LEVELS LISTED IN THE LUMINAIRE PERFORMANCE CRITERIA AND TEMPLATES. THE LIGHT LEVELS SPECIFIED ARE ON A LEVEL PLANE AT THE LOCATIONS INDICATED. THE ORIENTATION PLACES THE POSITIVE "X" AXIS DUE EAST AT ZERO DEGREES AND TURNS CLOCKWISE.
- LUMINAIRES FOR CONTINUOUS LIGHTING SHALL HAVE 480 VOLT MAGNETIC REGULATOR BALLASTS. THESE LUMINAIRES SHALL PROVIDE THE UNIFORMITIES AND AVERAGE INITIAL LUMINANCE SPECIFIED IN THE PERFORMANCE CRITERIA SCHEDULES. UNIFORMITY SHALL BE CALCULATED USING THE MANUFACTURER'S CURRENT PUBLISHED PHOTOMETRIC CHARTS.
- COBRAHEAD LUMINARIES SHALL BE INSTALLED ACCORDING TO THE REPLACEMET LUMINARIES SCHEDULE AND USING THE SAME MASTARM LENGHT AS THE EXISTING.

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H15	H54

HIGH TOWER AIMING PARAMETERS				
HIGH TOWER NO. 1				
LUMINAIRE	ORIENT	TILT	ROLL	SPIN
1	312°	0	0	87°
2	312°	0	0	177°
3	312°	0	0	267°
4	312°	0	0	357°
HIGH TOWER NO. 2				
LUMINAIRE	ORIENT	TILT	ROLL	SPIN
1	179°	0	0	81°
2	179°	0	0	171°
3	179°	0	0	261°
4	179°	0	0	351°
HIGH TOWER NO. 3				
LUMINAIRE	ORIENT	TILT	ROLL	SPIN
1	126°	0	0	81°
2	126°	0	0	171°
3	126°	0	0	261°
4	126°	0	0	351°
HIGH TOWER NO. 4				
LUMINAIRE	ORIENT	TILT	ROLL	SPIN
1	295°	0	0	70°
2	295°	0	0	160°
3	295°	0	0	250°
4	295°	0	0	340°
HIGH TOWER NO. 5				
LUMINAIRE	ORIENT	TILT	ROLL	SPIN
1	19°	0	0	70°
2	19°	0	0	160°
3	19°	0	0	250°
4	19°	0	0	340°
HIGH TOWER NO. 6				
LUMINAIRE	ORIENT	TILT	ROLL	SPIN
1	295°	0	0	70°
2	295°	0	0	160°
3	295°	0	0	250°
4	295°	0	0	340°
HIGH TOWER NO. 7				
LUMINAIRE	ORIENT	TILT	ROLL	SPIN
1	338°	0	0	50°
2	338°	0	0	122°
3	338°	0	0	194°
4	338°	0	0	266°
5	338°	0	0	338°
HIGH TOWER NO. 8				
LUMINAIRE	ORIENT	TILT	ROLL	SPIN
1	159°	0	0	15°
2	159°	0	0	87°
3	159°	0	0	159°
4	159°	0	0	231°
5	159°	0	0	303°
HIGH TOWER NO. 9				
LUMINAIRE	ORIENT	TILT	ROLL	SPIN
1	133°	0	0	88°
2	133°	0	0	178°
3	133°	0	0	268°
4	133°	0	0	358°
HIGH TOWER NO. 10				
LUMINAIRE	ORIENT	TILT	ROLL	SPIN
1	310°	0	0	86°
2	310°	0	0	176°
3	310°	0	0	266°
4	310°	0	0	356°



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DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

LUMINAIRE PERFORMANCE
CRITERIA

DESIGNED BY FSE
CHECKED BY JLC
DRAFTED BY MEF

XREF'S
N/A

SCALE
N/A

LAYOUT
LUM TEMPLATES

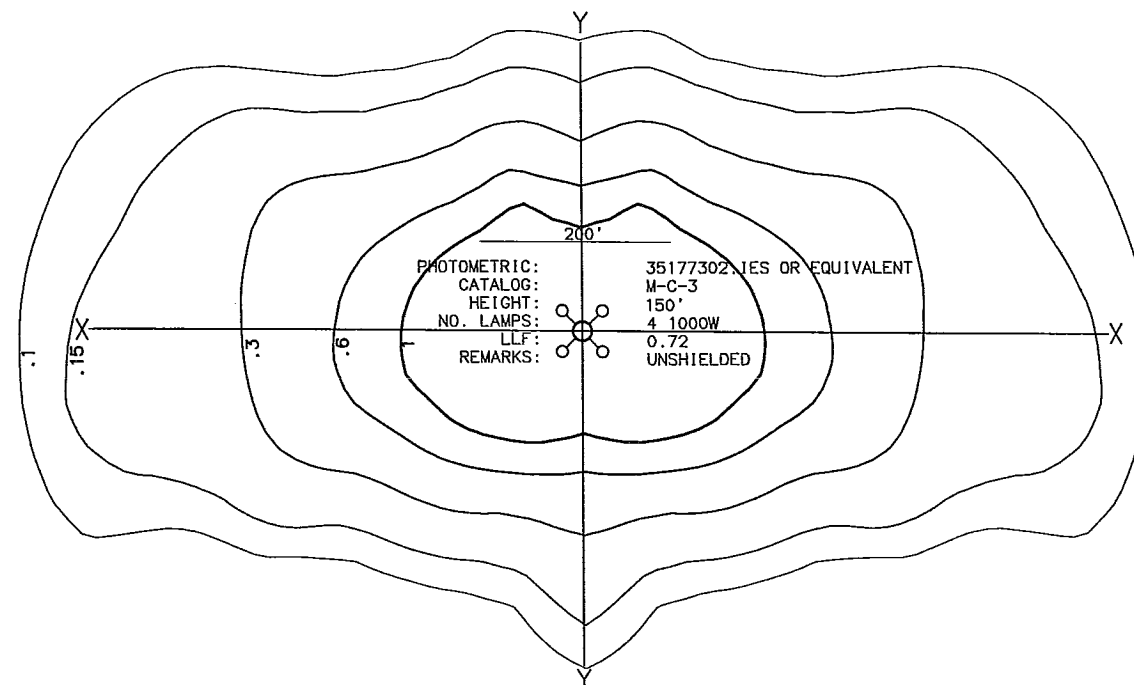
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02/02/2010 8:21:25 AM AST

TIME

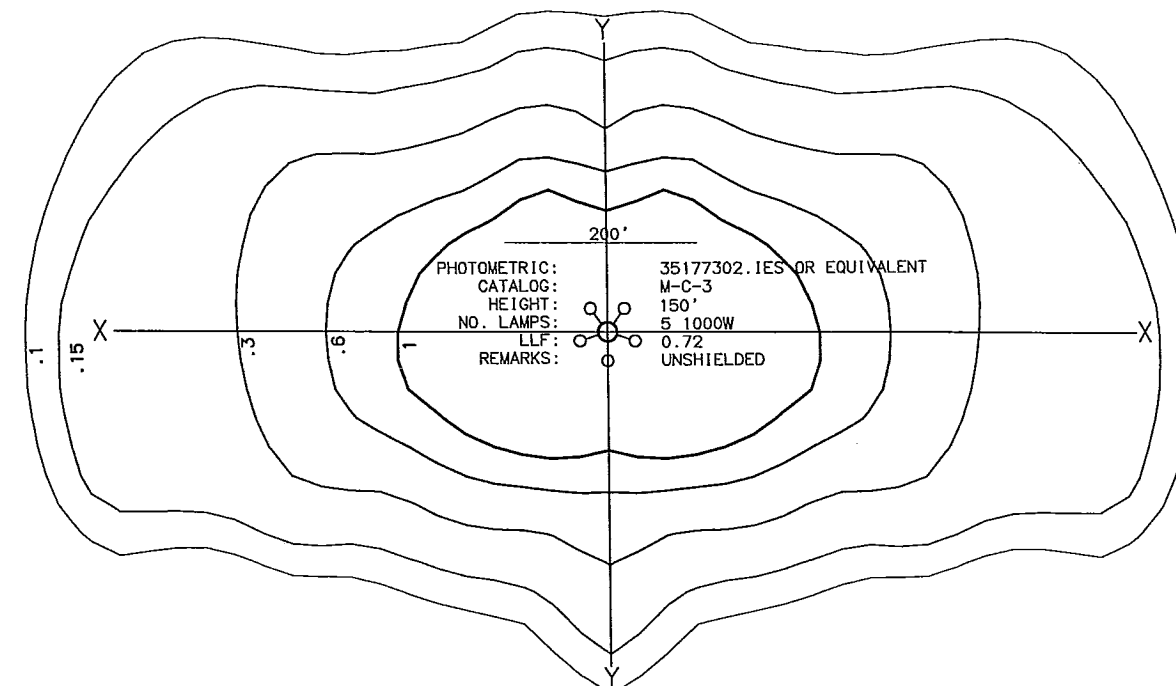
DRAWING LOCATION
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REVISIONS		
NO.	DATE	DESCRIPTION

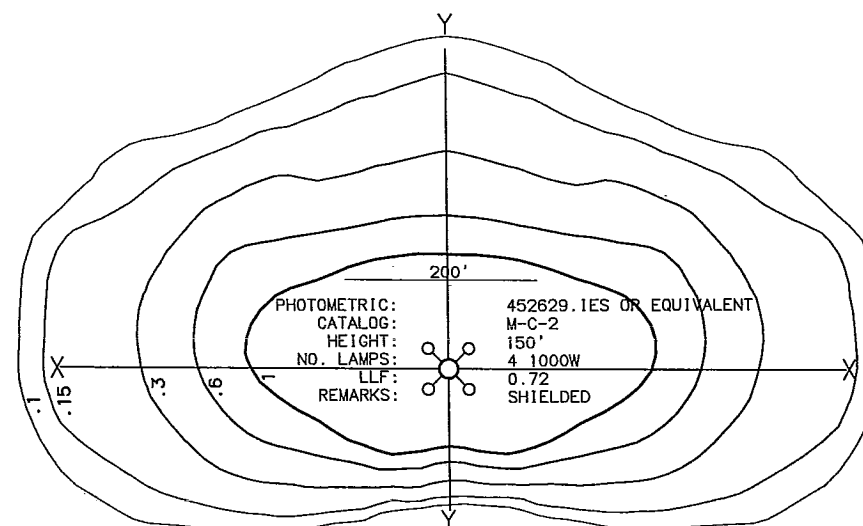
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H16	H54



UNSHIELDED ASYMMETRIC
NOT TO SCALE

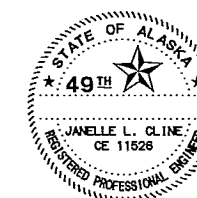


UNSHIELDED ASYMMETRIC
NOT TO SCALE



SHIELDED ASYMMETRIC
NOT TO SCALE

TYPICAL HIGH TOWER LUMINAIRE TEMPLATES



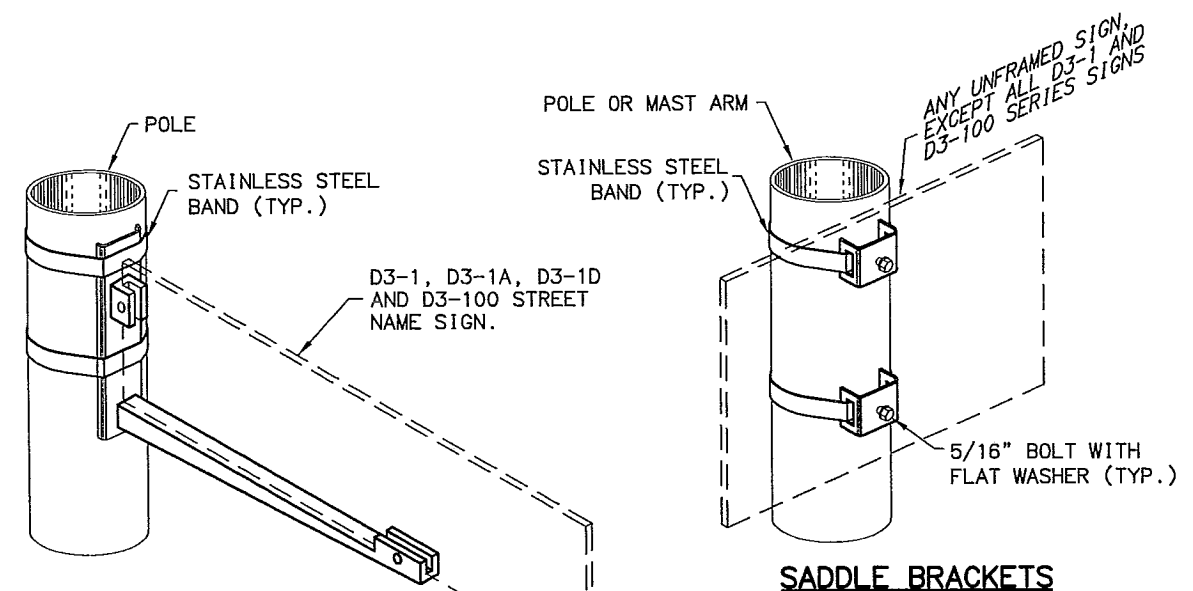
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

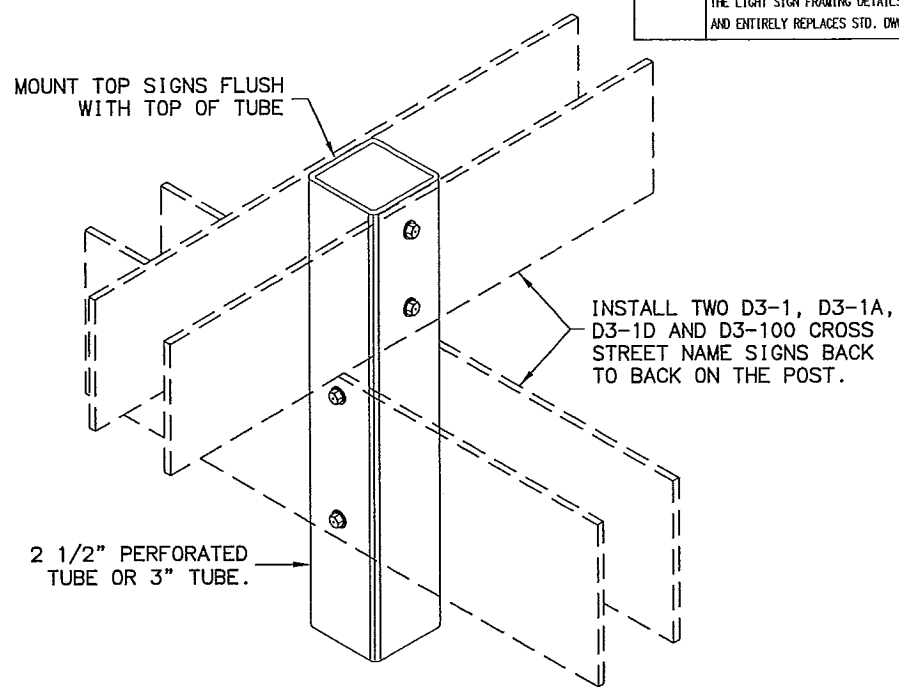
LUMINAIRE PERFORMANCE
CRITERIA

DESIGNED BY CWA/CSB
CHECKED BY CWA/CSB
DATE 01/29/2010 7:36:03 AM AST
SCALE N/A
LAYOUT SIGN ATTACHMENT
DRAWING LOCATION T:\Projects\anchorage\51970 - Glenn Hwy Lighting.dwg
DATE 01/29/2010 7:36:03 AM AST
TIME 7:36:03 AM AST
XREF'S N/A

LAST REVISION		STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
DATE	DESCRIPTION	ALASKA	IM-0A1-6(42)/51970	2010	H17	H54
08/03/2009	CENTRAL REGION DETAIL - RUESBACUSTATDS DWGSE00.001.Y THE LIGHT SIGN FRAMING DETAILS ON STD. DWG. S-00.10 AND ENTIRELY REPLACES STD. DWG. S-01.00					



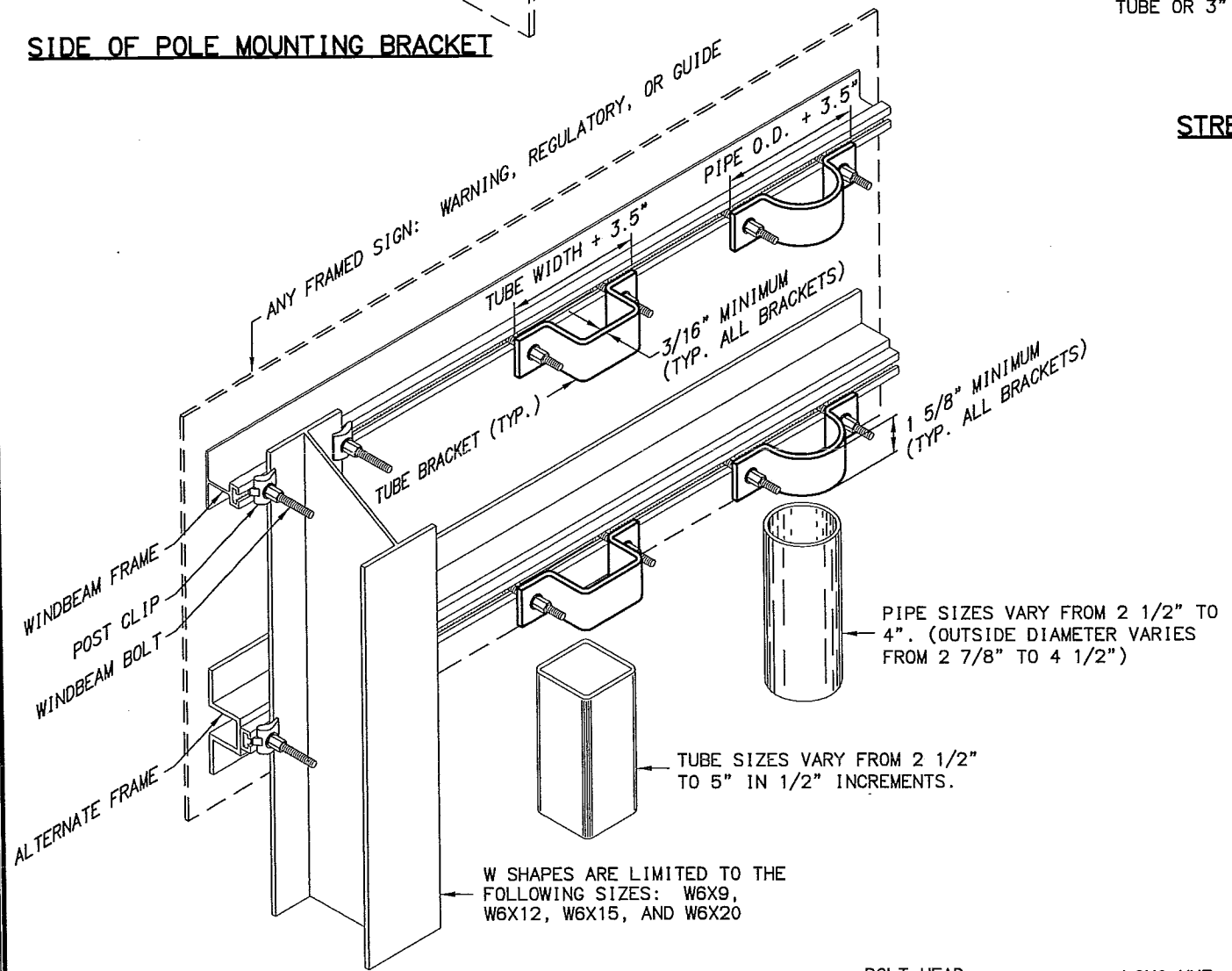
SIDE OF POLE MOUNTING BRACKET



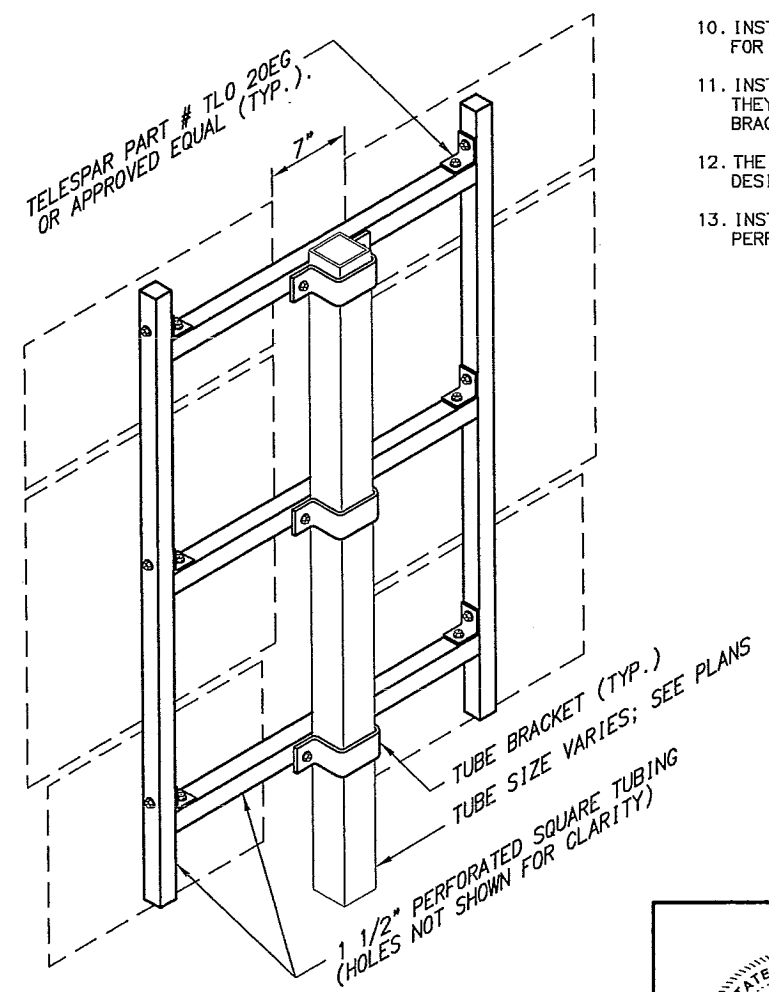
STREET NAME SIGN INSTALLATION

NOTES:

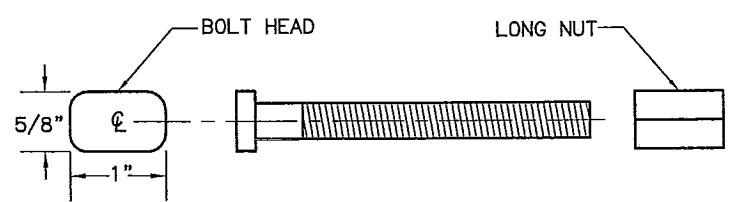
1. EXCEPT FOR POLES AND MAST ARMS, ONLY USE TUBES TO SUPPORT SIGNS MOUNTED ON ONE POST.
2. ATTACH SIGNS, FRAMED AND UNFRAMED TO THEIR SUPPORTS WITH ZINC PLATED 3/8" BOLTS, EXCEPT ATTACH UNFRAMED SIGNS TO PERFORATED TUBES WITH ACCESSORY DRIVE RIVETS AND TO SADDLES WITH 5/16" BOLTS.
3. BOLT UNFRAMED SIGNS DIRECTLY TO TUBES, AND ATTACH THEM TO POLES AND MAST ARMS WITH TWO SADDLES.
4. ATTACH BRACKETS TO POLES AND MAST ARMS WITH DOUBLE WRAPS OF 3/4" WIDE BY 0.020" THICK STAINLESS STEEL BANDING MATERIAL. TIGHTEN EACH BAND UNTIL IT STOPS MOVING THROUGH THE BUCKLE.
5. ATTACH FRAMED SIGNS TO POSTS WHEREVER THE FRAMES CROSS THE POSTS. AT EACH CROSSING, ATTACH THE SIGN USING TWO POST CLIPS ON W-SHAPE POSTS, A U-SHAPED BRACKET ON PIPES, AND A BRACKET WITH SQUARE CORNERS ON TUBES.
6. THE TUBE BRACKETS USED ON EVEN INCH SIZE TUBES MAY ALSO BE USED ON TUBES 1/2" SMALLER IN SIZE.
7. ONLY USE THE SPECIAL WINDBEAM BOLTS TO ATTACH SIGNS FRAMED WITH THE WINDBEAM FRAMING MATERIAL.
8. ATTACH FRAMED SIGNS TO POLES AND MAST ARMS USING POLE PLATES INSTALLED ACCORDING TO STANDARD DRAWING S-23.00
9. FOR ROUTE MARKER TREES, CUT PERFORATED TUBES TO ENSURE TIGHT FITTING JOINTS. ASSEMBLE THE PIECES WITH ACCESSORY ELL-SHAPED ANGLE BRACKETS.
10. INSTALL THE TOP EDGE OF SIGNS 1" ABOVE THE TOPS OF POSTS, EXCEPT FOR THE D3-1, D3-1A, D3-1D AND D3-100 STREET NAME SIGNS.
11. INSTALL THE TOP EDGE OF SIGNS 3" BELOW THE TOP OF POST, WHENEVER THEY ARE MOUNTED BELOW SIGNS SECURED BY POST TOP MOUNTING BRACKETS.
12. THE BRACKET DETAILS SHOWN INDICATE GENERAL DESIGNS ONLY. DESIGNS MAY VARY BY MANUFACTURER.
13. INSTALL WEATHER TIGHT CAPS ON ALL PIPE AND TUBE POSTS, EXCEPT PERFORATED TUBING.



FRAMED SIGN ATTACHMENT BRACKETS

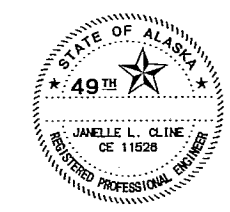


ROUTE MARKER TREE



3/8" WINDBEAM BOLT AND LONG NUT

FASTENER SPECIFICATION TABLE		
FASTENERS	STEEL	STAINLESS STEEL
BOLTS	ASTM A 307	ASTM F 593
NUTS	REGULAR LOCK	ASTM A 563 ASTM F 594
WASHERS	ASTM A 36	ASTM A 480
POST CLIPS		



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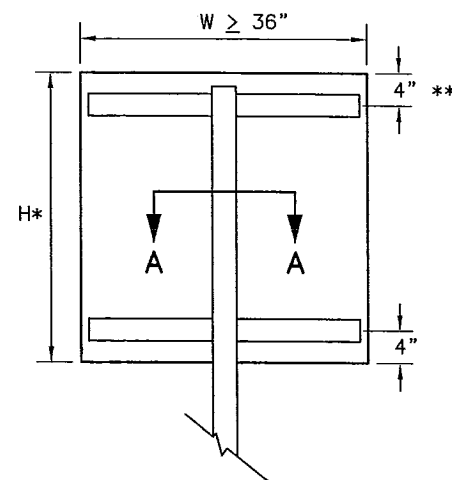
GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

SIGN ATTACHMENT DETAILS

DRAWING LOCATION
T:\Projects\Anchorage\51970 - Glenn Hwy Lighting\dwg\H17-H18_SIGN_ATTACHMENT_DETAILS.dwg 01/29/2010 7:36:03 AM AST
DESIGNED BY
CHECKED BY
SCALE
N/A
LAYOUT
LIGHT SIGN FRAME
TIME
DATE

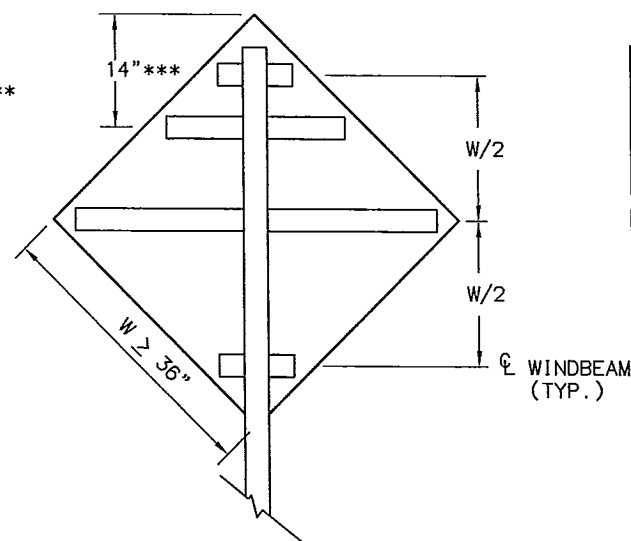
LAST REVISION	
DATE	DESCRIPTION
09/23/2009	CENTRAL REGION DETAIL - THESE DETAILS SUPERSEDE ONLY THE LIGHT SIGN FRAMING DETAILS ON STD. DWG. S-00.10 AND ENTIRELY REPLACES STD. DWG. S-01.00

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H18	H54

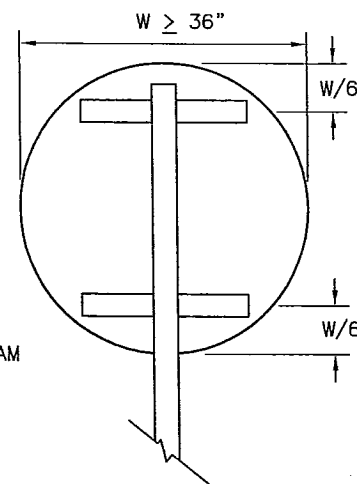


RECTANGLES AND TRAPEZOIDS

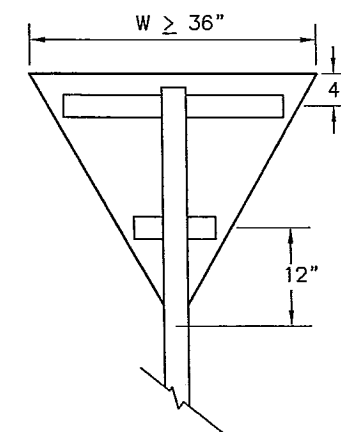
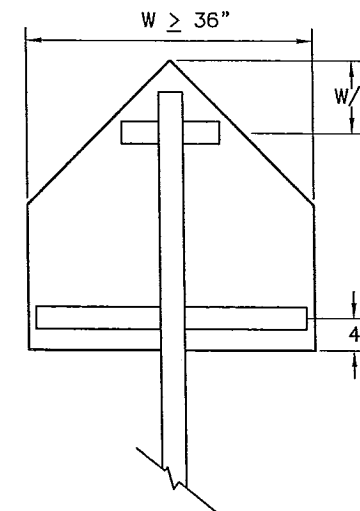
* WHEN $H > 42$ INCHES, INSTALL A 3RD WINDBEAM CENTERED ON THE SIGN.
** FOR S5-1 SIGNS MOUNTED ON FLASHING BEACON POSTS, USE A 10" OFFSET. OTHERWISE, USE 4".



*** FOR WARNING SIGNS MOUNTED ON FLASHING BEACON POSTS, USE THE 14" OFFSET. OTHERWISE, USE $W/2$.

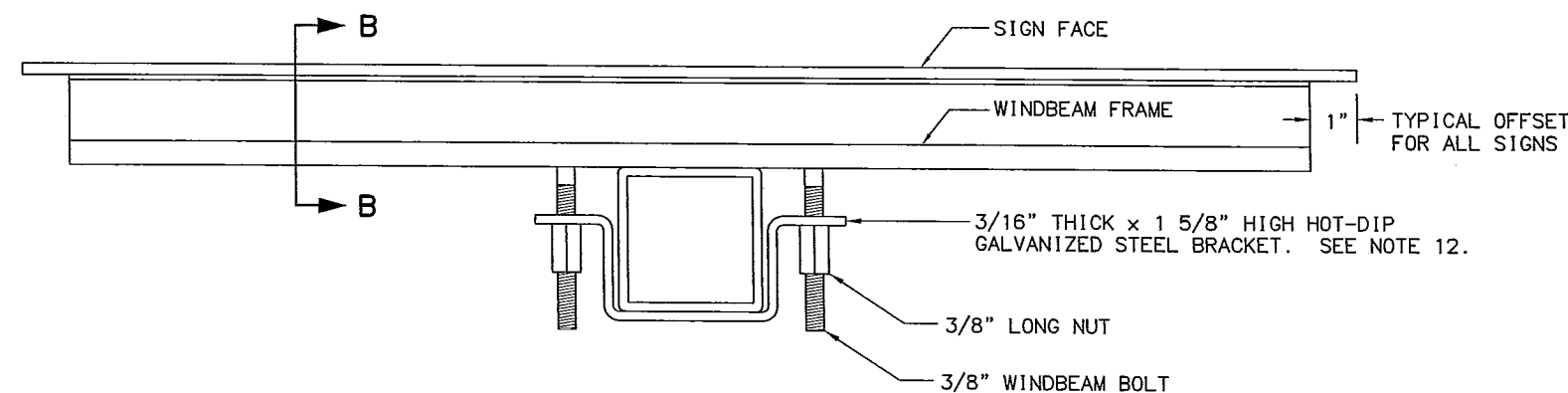


ROUNDS AND OCTAGONS

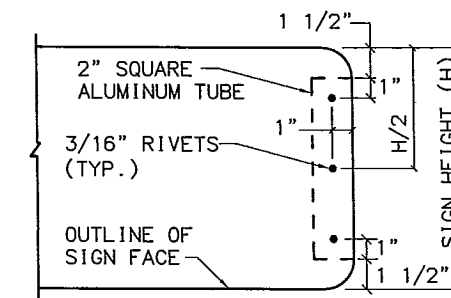


WINDBEAM LOCATIONS FOR EACH SIGN SHAPE

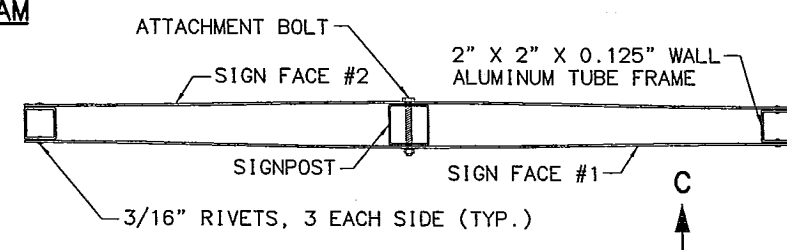
ELEVATION VIEW



SECTION A - A TYPICAL SIGN ATTACHMENT DETAILS AT EACH WINDBEAM

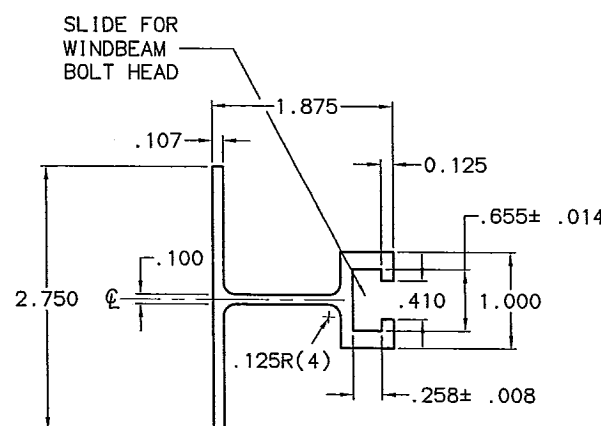


VIEW C - C

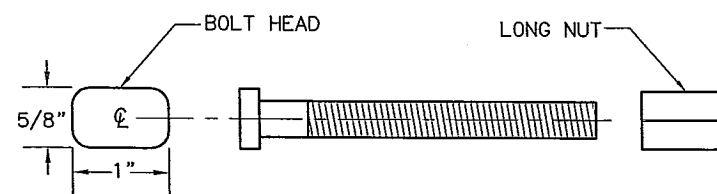


D3-1*, D3-1A, D3-1D* AND D3-100 STREET NAME SIGN FRAMING DETAIL

*THOSE WITH 6-INCH LETTERING ONLY
PLAN VIEW



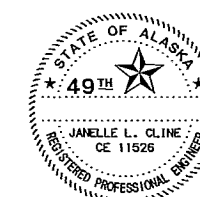
SECTION B - B WINDBEAM CROSS SECTION



3/8" WINDBEAM BOLT AND LONG NUT

NOTES:

- EXCEPT FOR POLES AND MAST ARMS, ONLY USE SQUARE STEEL TUBES TO SUPPORT SIGNS MOUNTED ON SINGLE POSTS.
- INSTALL WINDBEAM SHAPED FRAMING MEMBERS ON DIAMOND SHAPED SIGNS 36 INCHES AND LONGER ON A SIDE AND ON OTHER SIGNS 36 INCHES WIDE AND WIDER.
- IN HIGH WIND AREAS, THE PLANS MAY REQUIRE SIGNS SMALLER THAN THOSE LISTED IN NOTE 2 BE FRAMED AS SHOWN HEREON.
- THE ENGINEER MAY APPROVE OTHER FRAMING MEMBERS. SUBMIT DOCUMENTS THAT DETAIL THE FRAME'S CROSS SECTION AND STRENGTH, AND METHOD OF ATTACHING THE FRAME TO A POST.
 - THE CLEANING AND HANDLING OF THE SIGN PANELS AND FRAMING MEMBERS.
 - THE APPLICATION OF THE ADHESIVE TAPE.
- USE FRAMING MEMBERS MADE FROM ALUMINUM ALLOY 6061-T6.
- EACH FRAMING MEMBER SHALL BE ONE CONTINUOUS PIECE.
- ATTACH FRAMING MEMBERS TO THE SIGN PANELS WITH RIVETS OR AN ENGINEER APPROVED, DOUBLE SIDED, HIGH STRENGTH, ADHESIVE TAPE.
- WITH THE ADHESIVE TAPE, INSTALL TWO RIVETS IN BOTH ENDS OF EACH FRAMING MEMBER, AND ATTACH THE FRAMING MEMBERS TO THE SIGN PANELS ACCORDING TO THE TAPE MANUFACTURER'S WRITTEN INSTRUCTIONS, INCLUDING:
 - THE CLEANING AND HANDLING OF THE SIGN PANELS AND FRAMING MEMBERS.
 - THE APPLICATION OF THE ADHESIVE TAPE.
- WHEN RIVETS ARE USED TO ATTACH FRAMING MEMBERS, INSTALL 2 RIVETS IN EACH END AND THE BALANCE ON 8" MAXIMUM CENTERS.
- USE 3/16" DIAMETER RIVETS CONFORMING TO ALUMINUM ALLOY 6061-T6 FOR COLD DRIVEN RIVETS, OR ALUMINUM ALLOY 6061-T43 FOR HOT DRIVEN RIVETS.
- THE BRACKETS USED ON EVEN INCH SIZE TUBES MAY ALSO BE USED ON TUBES 1/2" SMALLER IN SIZE.



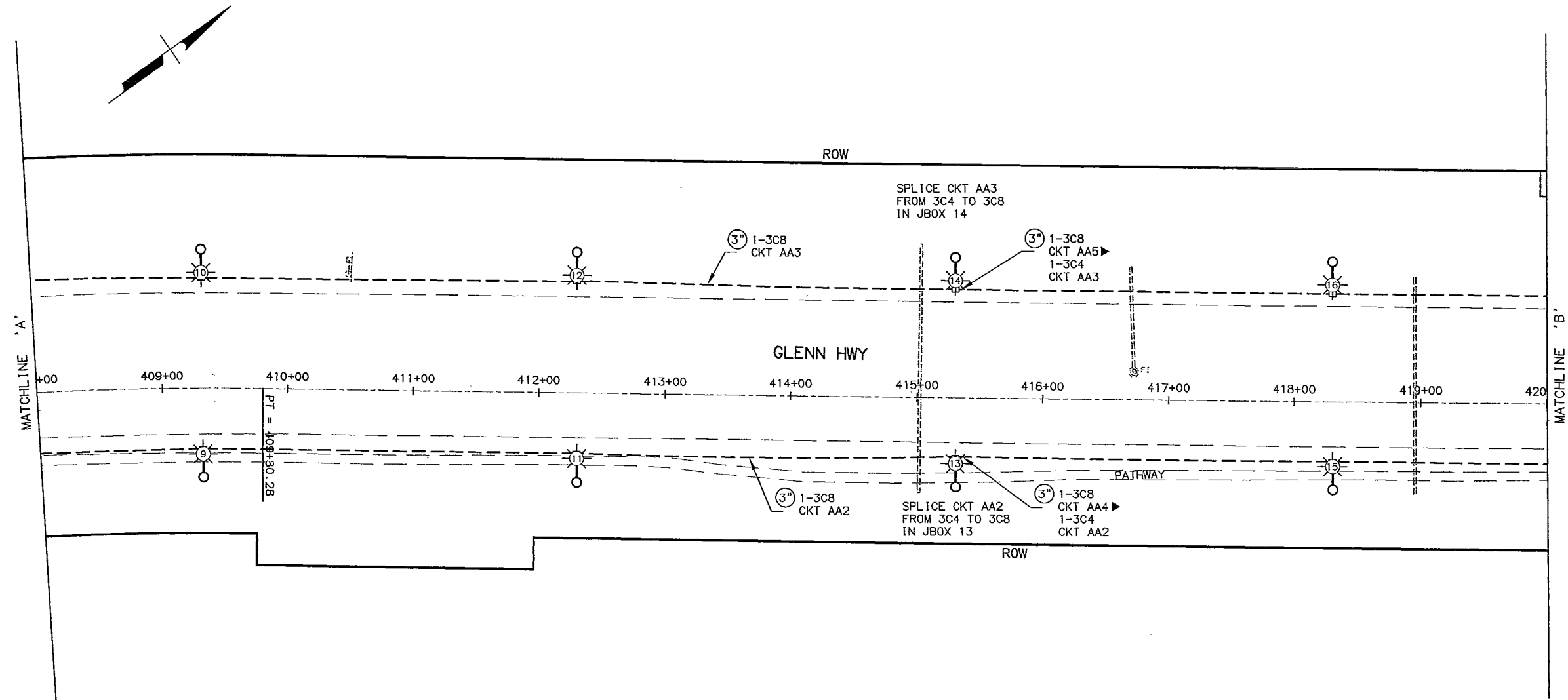
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

LIGHT SIGN FRAMING AND
ATTACHMENT DETAILS

DESIGNED BY: JSE
CHECKED BY: JSE
DRAFTED BY: JSE
XREFS
BASE
SCALE
1:50
LAYOUT
PLAN 2
DATE
02/02/2010
TIME
3:56:34 PM AST
DRAWING LOCATION
T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H19_H54_ILLUMINATION PLAN.dwg

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION					
			ALASKA	IM-0A1-6(42)/51970	2010	H20	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

ILLUMINATION PLAN

DESIGNED BY: FSE
CHECKED BY: JLC
DRAFTED BY: MEF

XREFS
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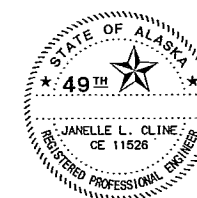
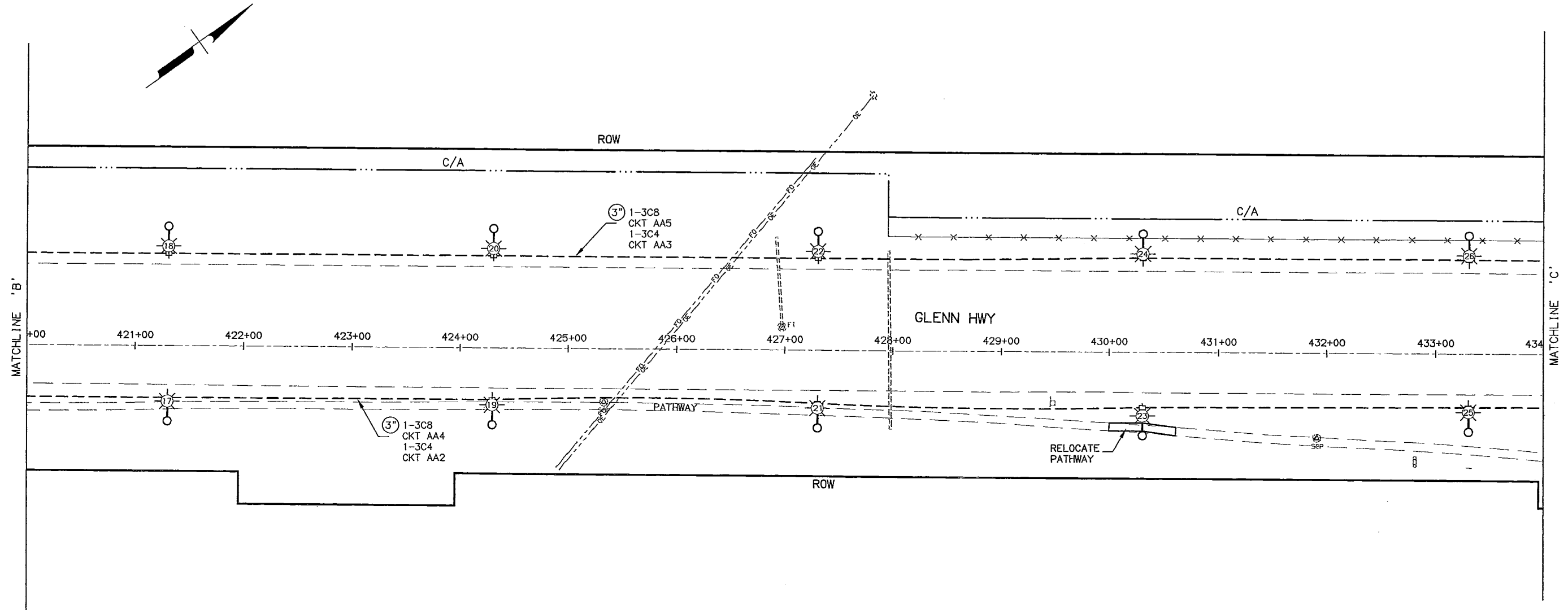
LAYOUT
PLAN 3

DATE
02/02/2010 3:56:34 PM AST

DRAWING LOCATION
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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	1M-0A1-6(42)/51970	2010	H21	H54



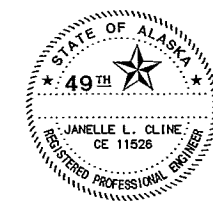
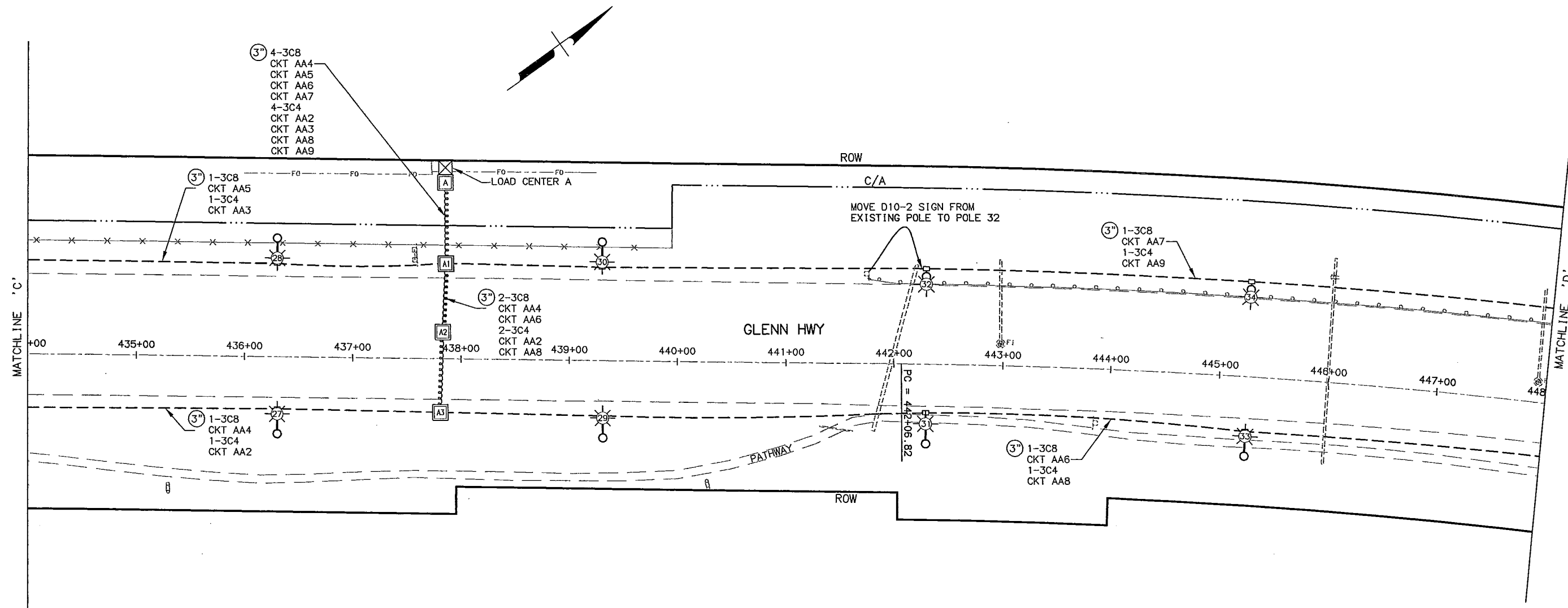
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

ILLUMINATION PLAN

DESIGNED BY FSE
CHECKED BY JLF
DRAWN BY JLF
SCALE 1:50
LAYOUT PLAN 4
TIME 3:56:34 PM AST
DATE 02/02/2010
DRAWING LOCATION T:\Projects\anchorage\1970 - Glenn Hwy Lighting\dwg\19_H54_ILLUMINATION PLAN.dwg

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION					
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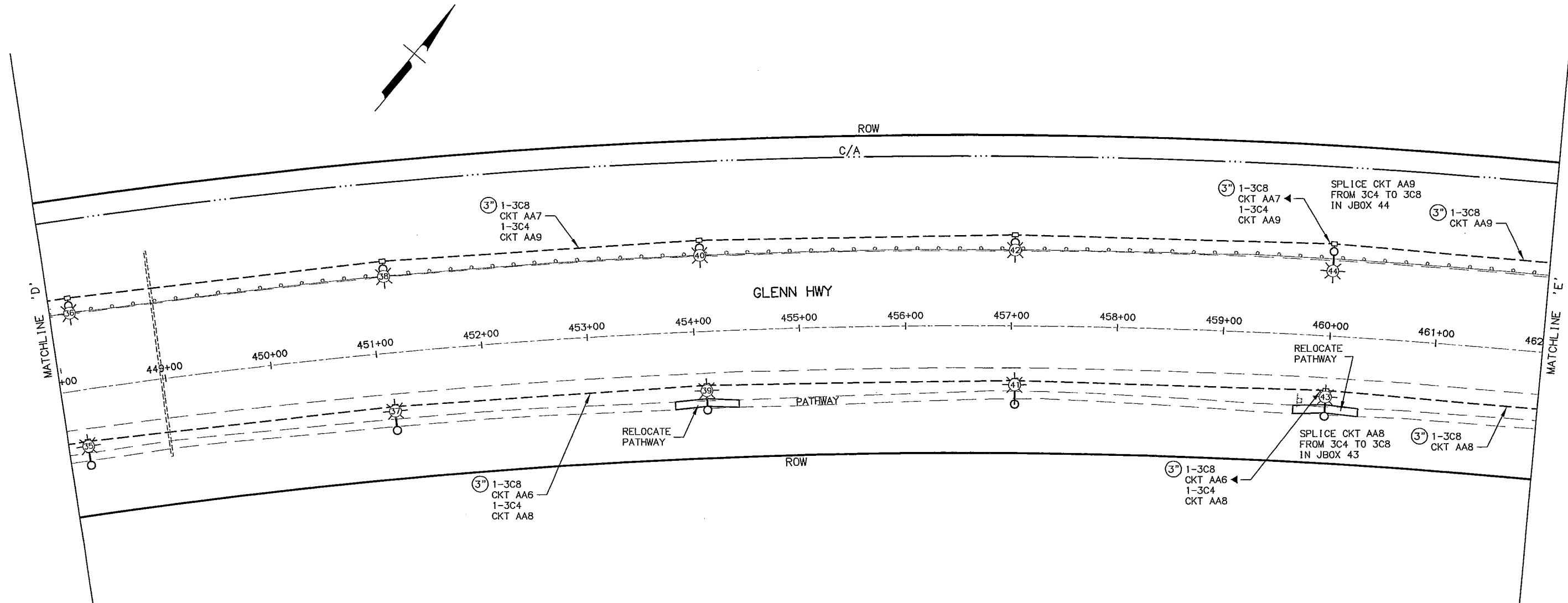
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**

ILLUMINATION PLAN

DESIGNED BY: FSE
CHECKED BY: JLC
DRAWN BY: JLC
XREFS
BASE
SCALE
1:50
LAYOUT
PLAN 5
DATE
TIME
02/02/2010 3:56:34 PM AST
DRAWING LOCATION
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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H23	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**
ILLUMINATION PLAN

DESIGNED BY FSE
CHECKED BY JLC
DRAFTED BY MEF

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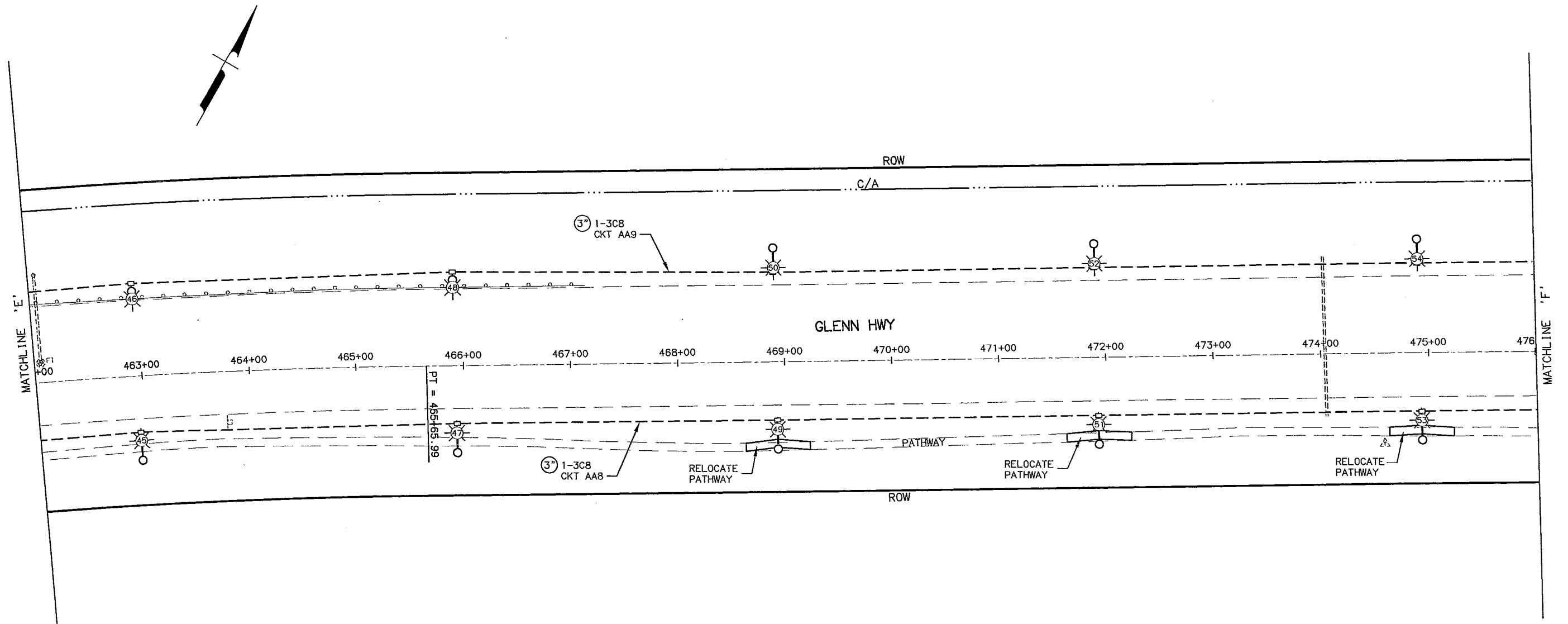
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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H24	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

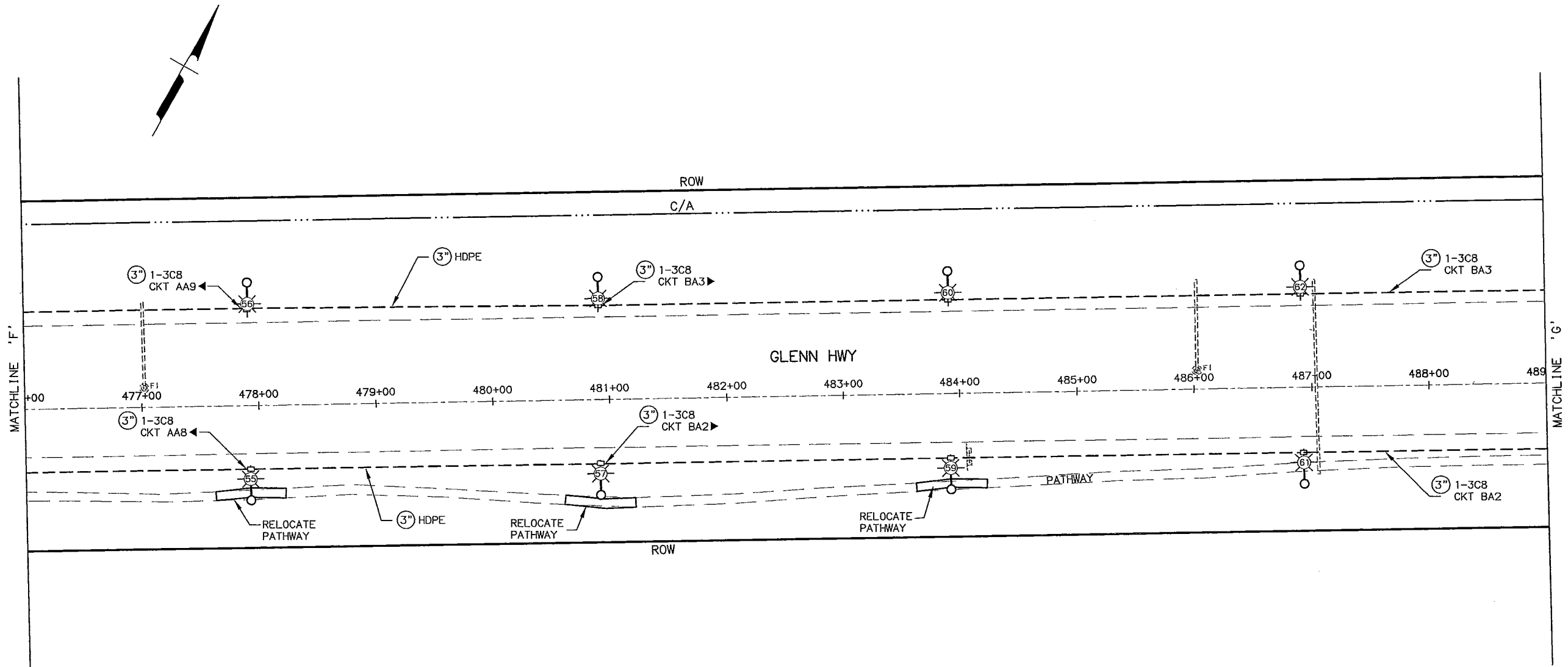
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**

ILLUMINATION PLAN

DESIGNED BY: FSC
CHECKED BY: JAZ
DRAFTED BY: JAZ
XREFS: BASE
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DATE: 02/02/2010
TIME: 3:56:34 PM AST
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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H25	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**
ILLUMINATION PLAN

DESIGNED BY TFE
CHECKED BY JLC
DRAFTED BY MEF

XREFS
BASE

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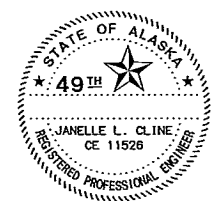
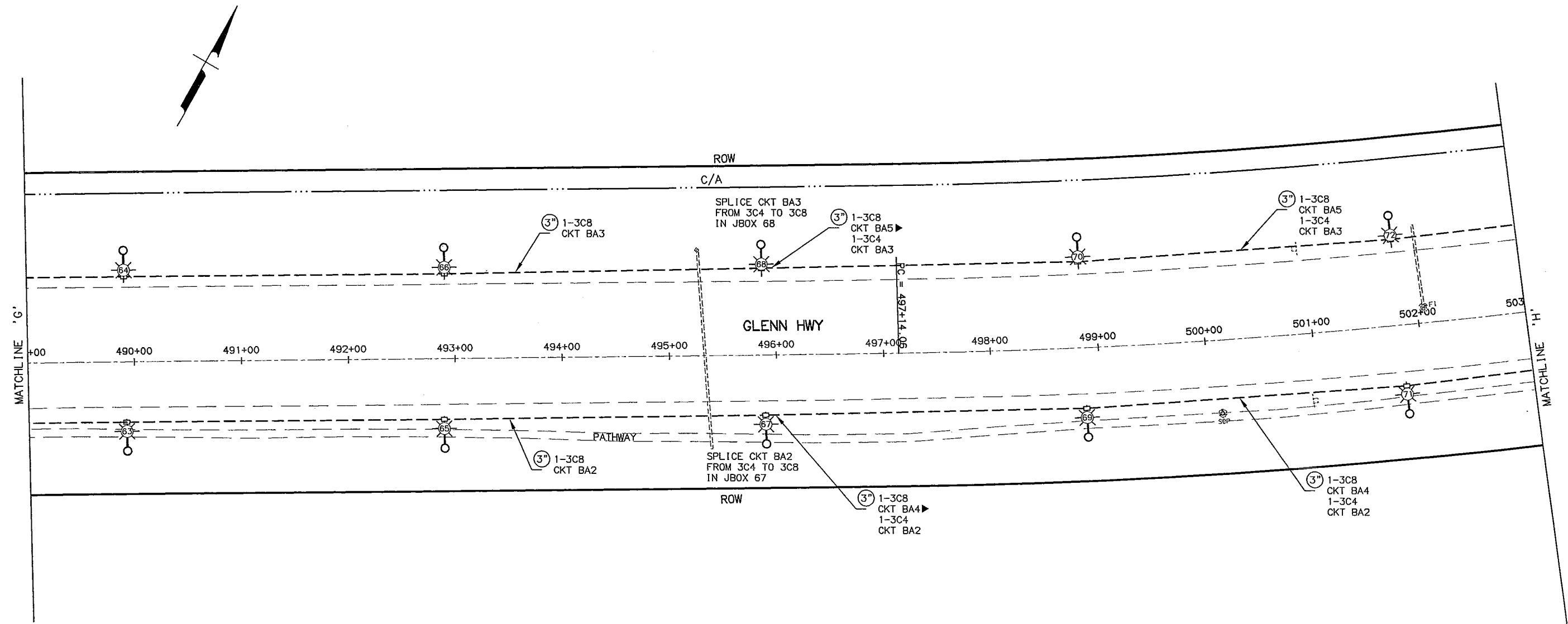
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TIME
DATE 02/02/2010 3:56:34 PM AST

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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H26	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

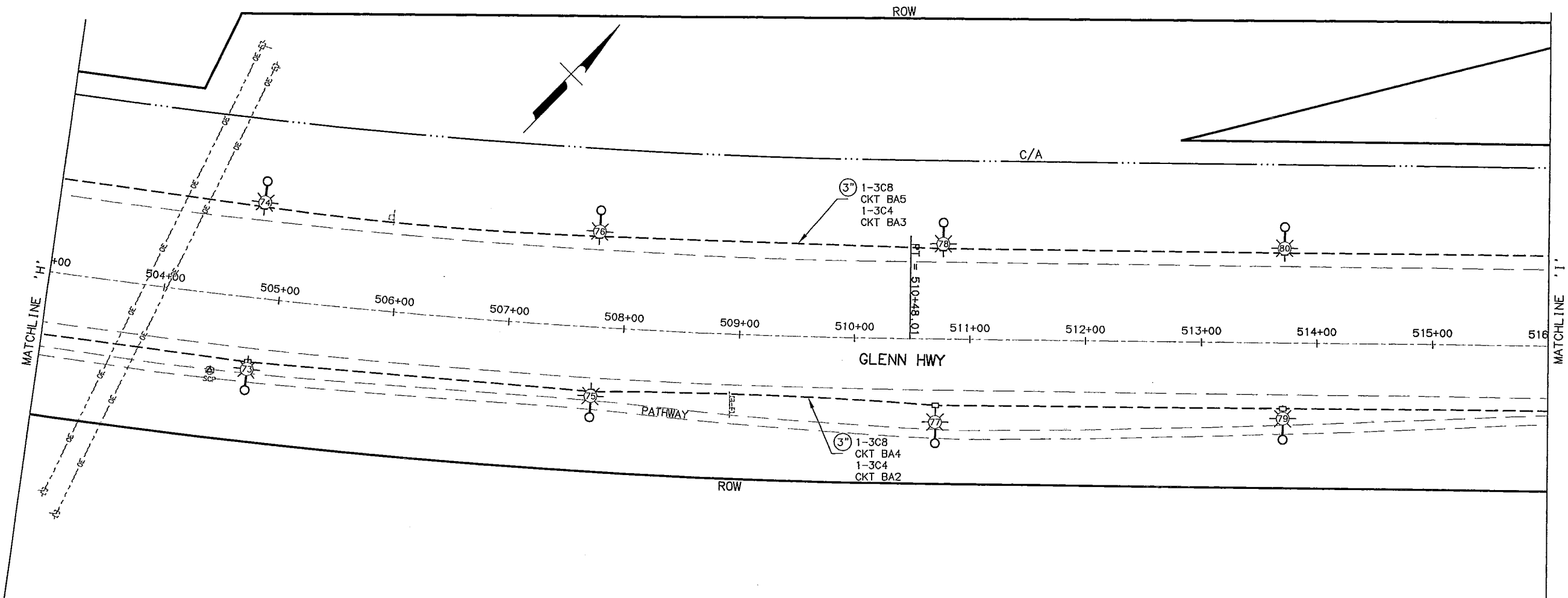
GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

ILLUMINATION PLAN

DRAWING LOCATION
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DATE
02/02/2010
TIME
3:56:34 PM AST
LAYOUT
PLAN 9
SCALE
1:50
XREFS
BASE
DESIGNED BY
FSE
CHECKED BY
JLC
DRAWN BY
JEF

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H27	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

ILLUMINATION PLAN

DESIGNED BY FSE
CHECKED BY JLC
DRAFTED BY MEF

XREFS
BASE

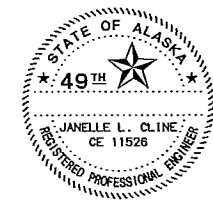
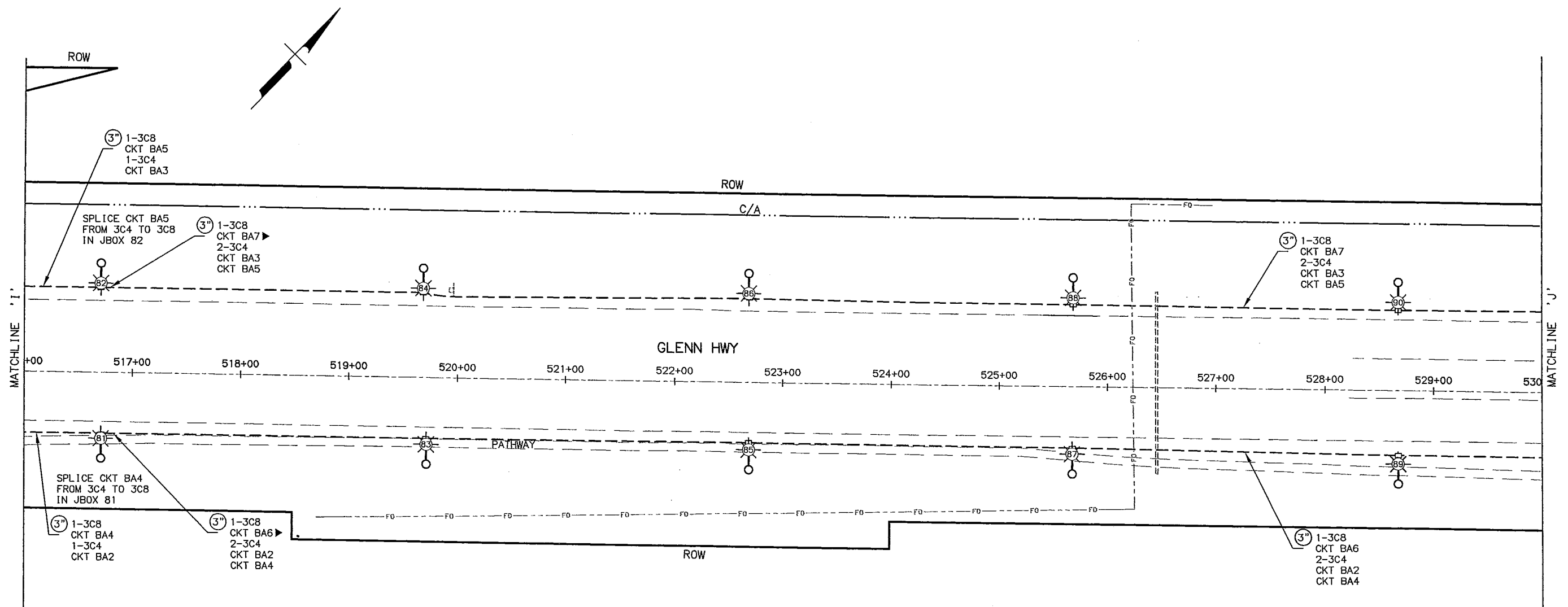
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LAYOUT
PLAN 10

TIME
DATE 02/02/2010 3:56:34 PM AST

DRAWING LOCATION
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REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION	ALASKA	IM-0A1-6(42)/51970	2010	H28	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**

ILLUMINATION PLAN

DESIGNED BY: FSE
CHECKED BY: JLC
DRAFTED BY: JRP

CREFS
BASE

SCALE
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LAYOUT
PLAN 11

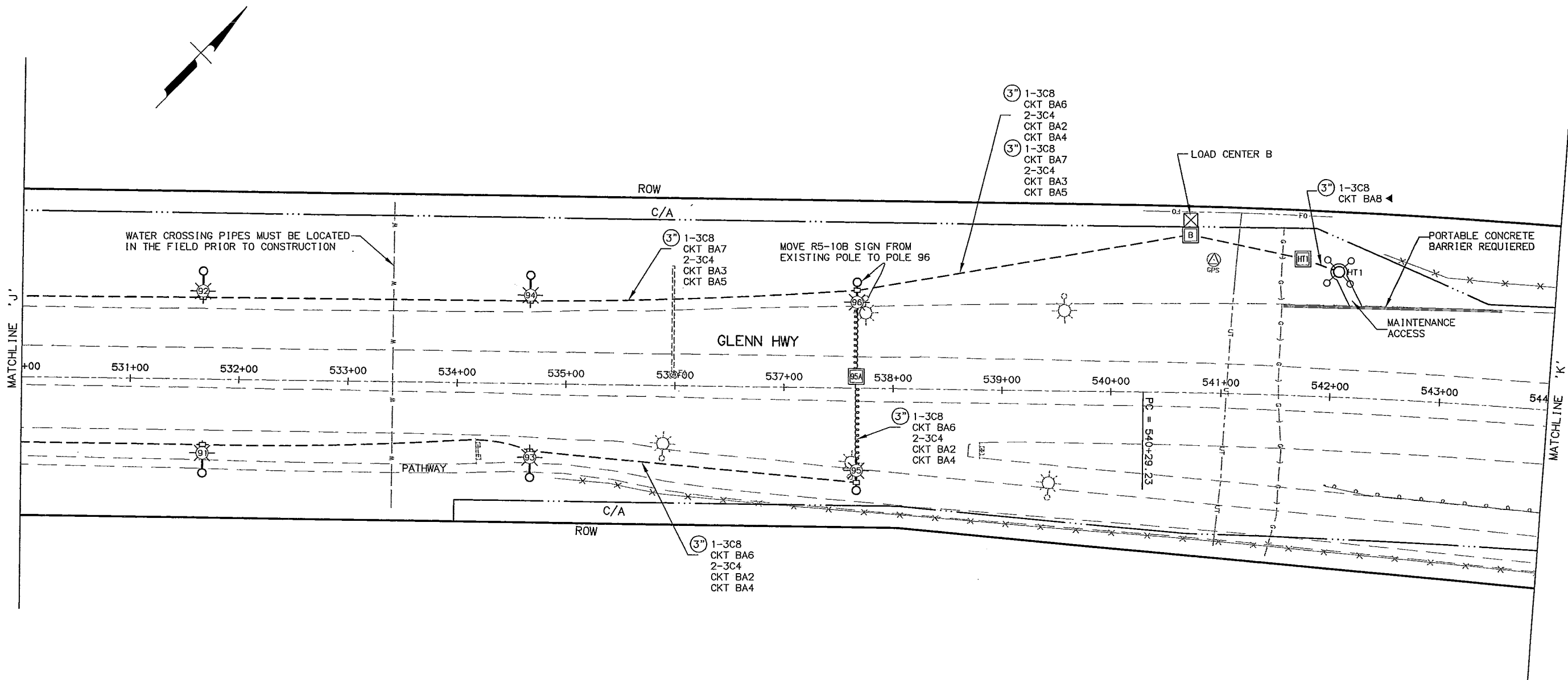
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DATE
02/02/2010

TIME
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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H29	H54



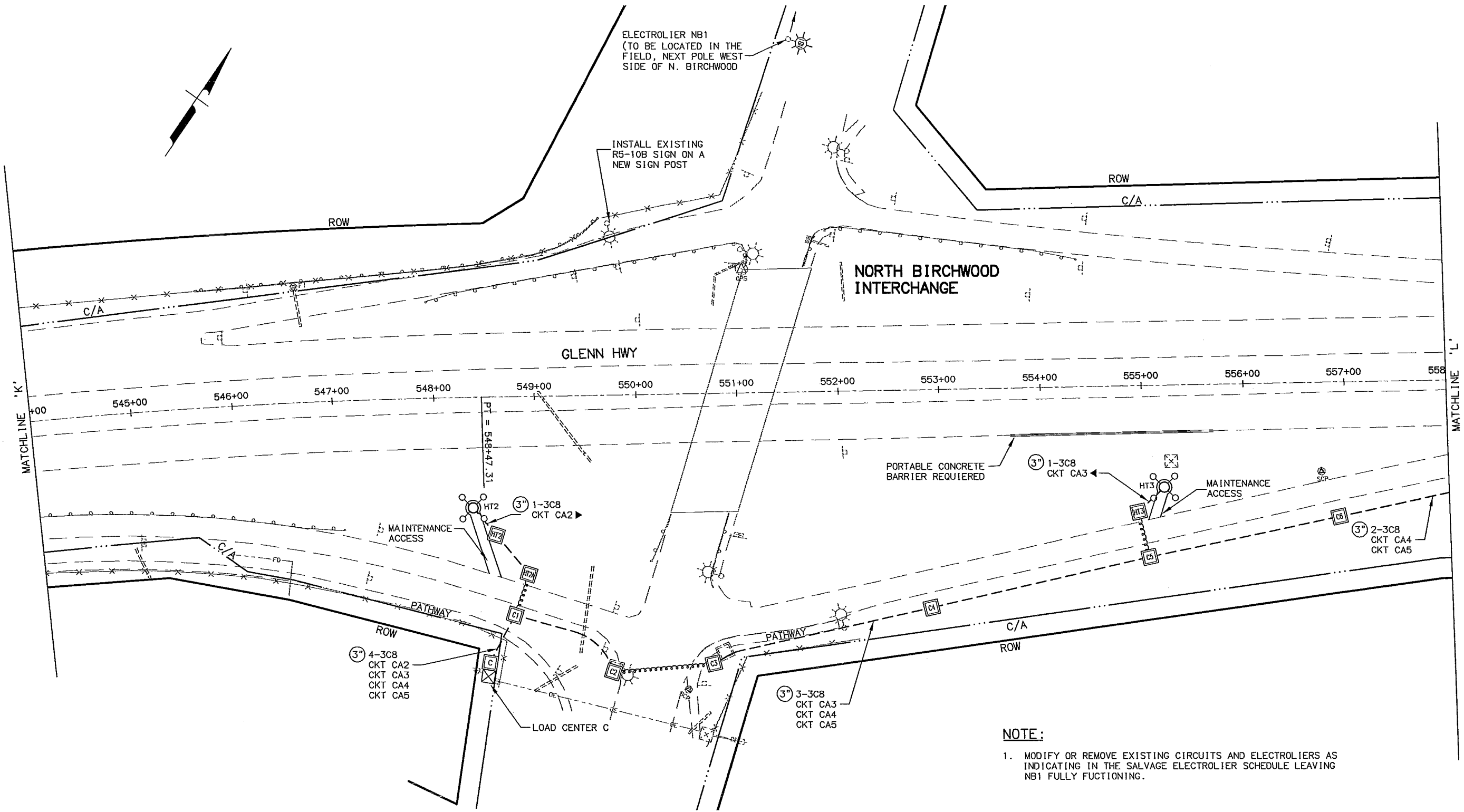
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

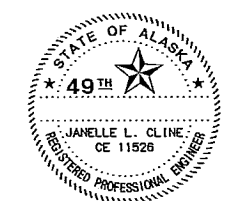
ILLUMINATION PLAN

DESIGNED BY: FSE
CHECKED BY: JLC
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DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H19_JH54_ILLUMINATION PLAN.dwg

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION					
			ALASKA	IM-0A1-6(42)/51970	2010	H30	H54



NOTE:
1. MODIFY OR REMOVE EXISTING CIRCUITS AND ELECTROLIERS AS INDICATING IN THE SALVAGE ELECTROLIER SCHEDULE LEAVING NB1 FULLY FUCTIONING.



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**
ILLUMINATION PLAN

DESIGNED BY JFC
CHECKED BY JFC
DRAFTED BY JFC

SCALE 1:50

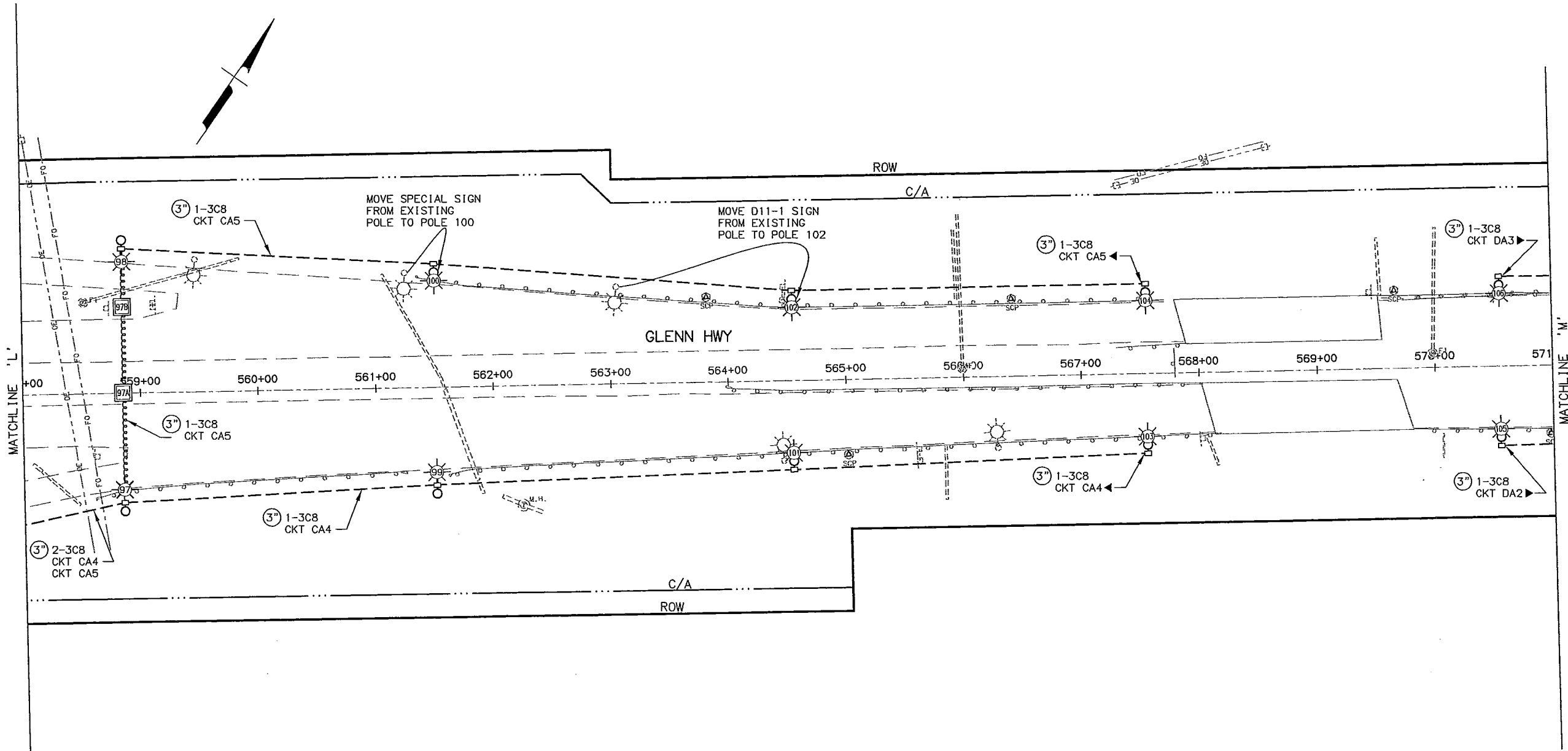
LAYOUT PLAN 13

DATE 02/02/2010 3:56:34 PM AST

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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H31	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

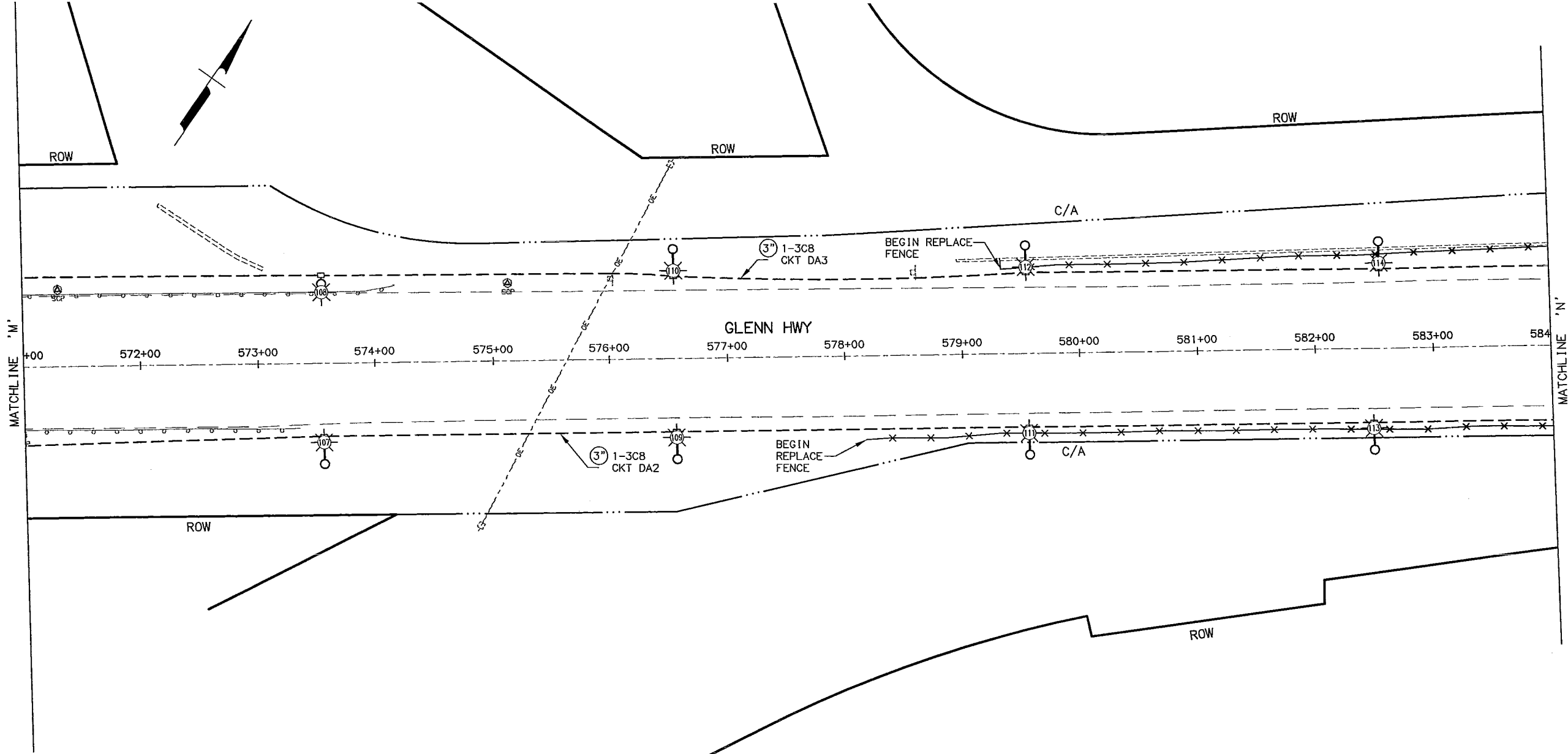
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**

ILLUMINATION PLAN

DESIGNED BY: FSE
CHECKED BY: JLC
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BASE
SCALE: 1:50
LAYOUT: PLAN 14
TIME: 3:56:34 PM AST
DATE: 02/02/2010
DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H19_H54_ILLUMINATION PLAN.dwg

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H32	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

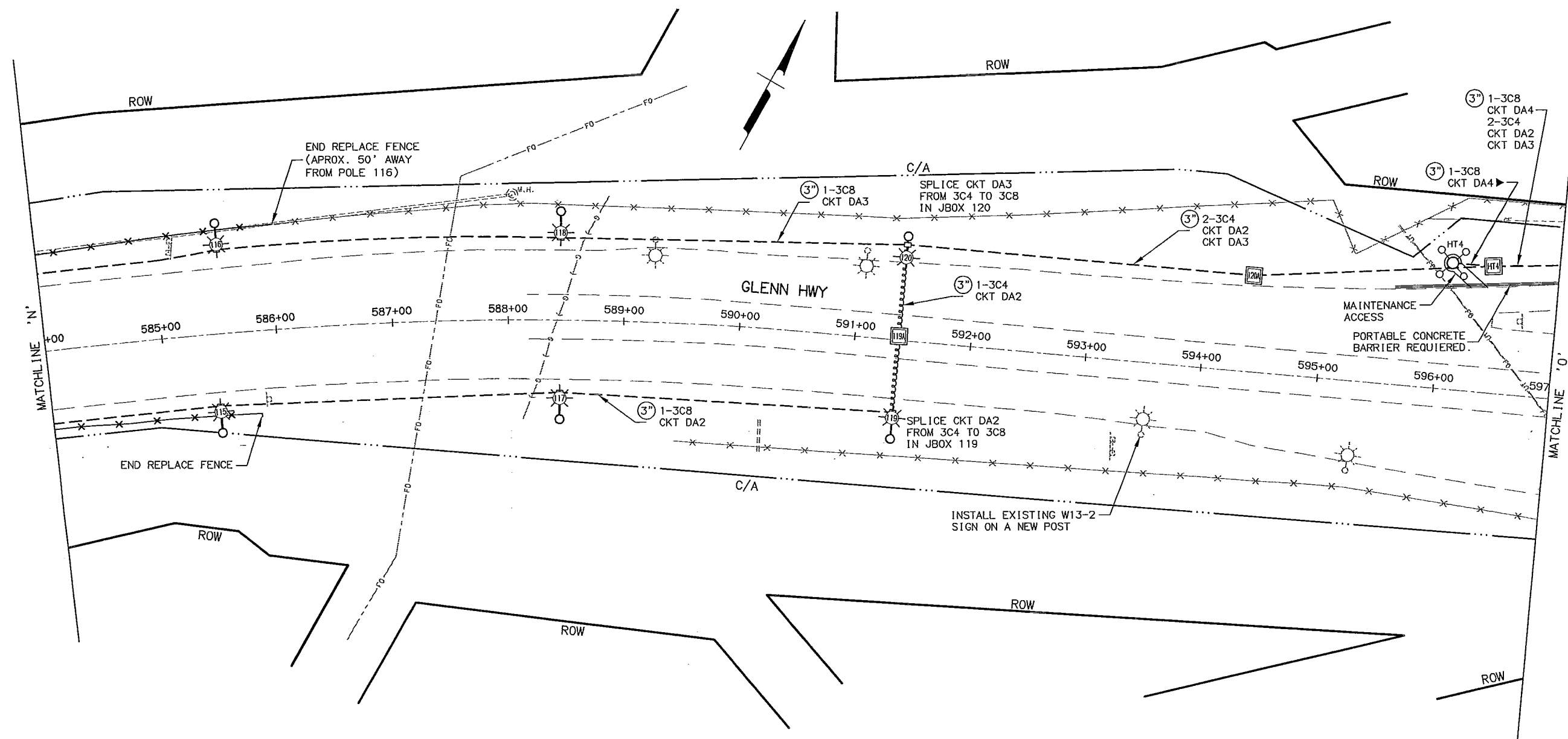
GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

ILLUMINATION PLAN

DESIGNED BY: JSC
CHECKED BY: JSC
DRAFTED BY: JSC
AREAS: BASE
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LAYOUT: PLAN 15
TIME: 3:56:34 PM AST
DATE: 02/02/2010
DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\19_H54_ILLUMINATION PLAN.dwg

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H33	H54

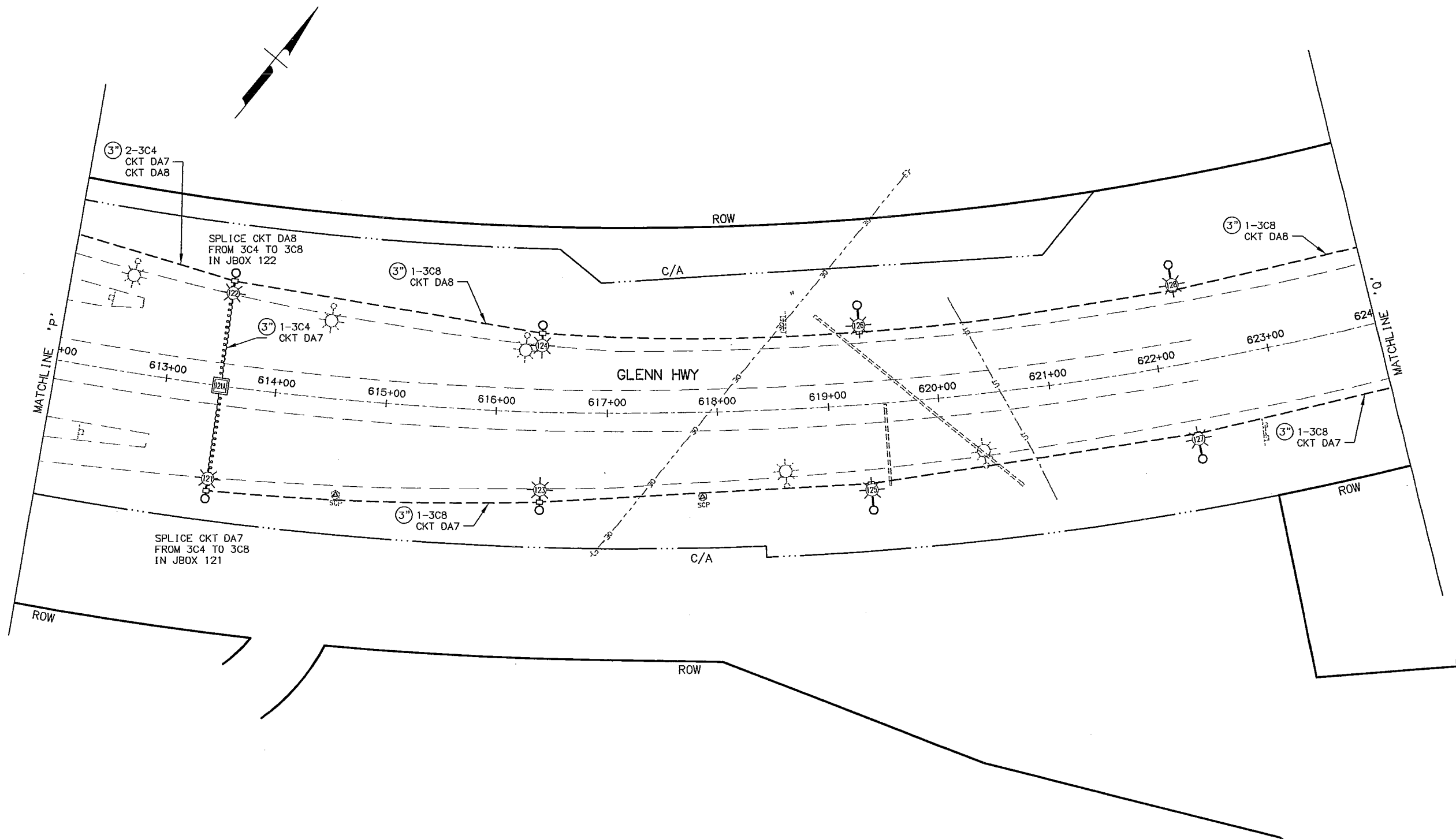


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**
ILLUMINATION PLAN

DESIGNED BY: FSE
CHECKED BY: JLC
DRAFTED BY: JLC
REFS: BASE
SCALE: 1:50
LAYOUT: PLAN 17
TIME: 3:56:34 PM AST
DATE: 02/02/2010
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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H35	H54

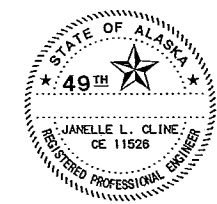
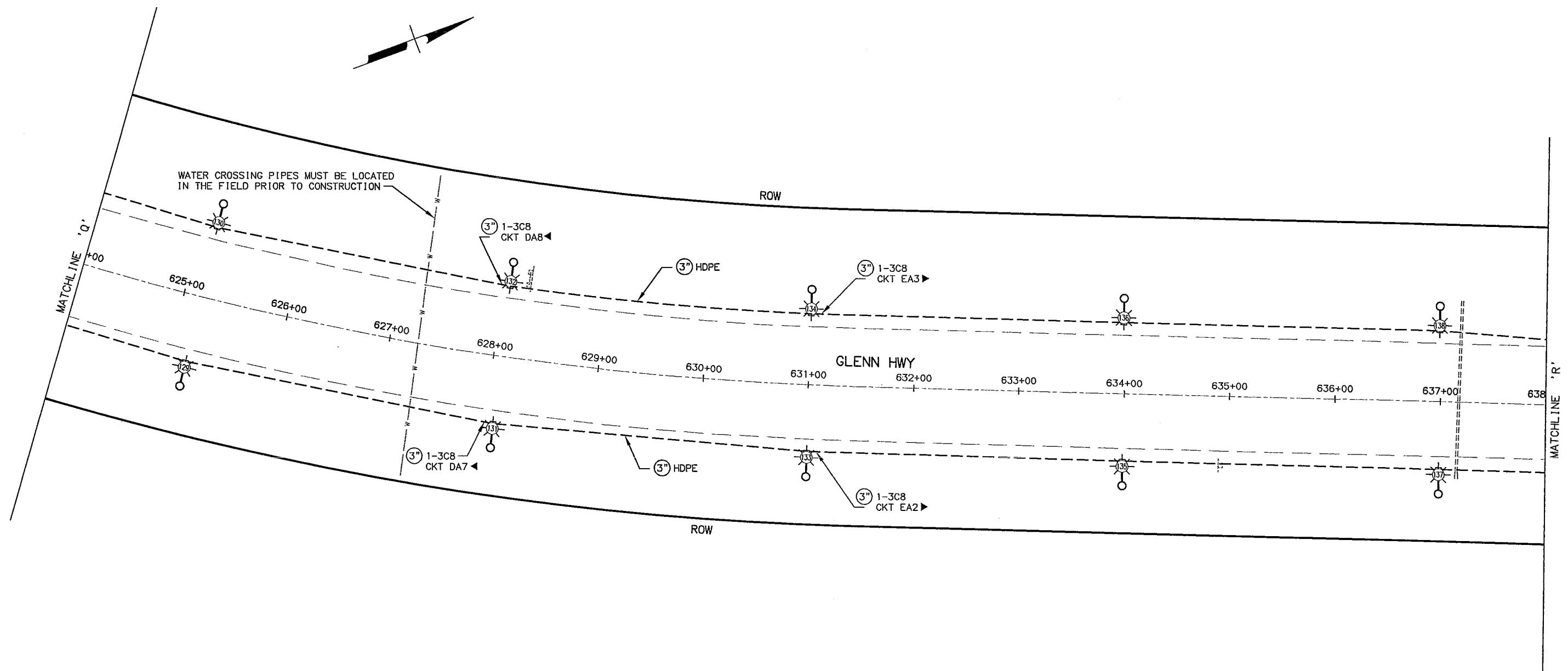


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**
ILLUMINATION PLAN

DESIGNED BY FSE
CHECKED BY JLC
DRAWN BY JLC
DATE 02/02/2010 3:56:34 PM AST
SCALE 1:50
LAYOUT PLAN 18
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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H36	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

ILLUMINATION PLAN

DESIGNED BY: JSC
CHECKED BY: JLC
DRAFTED BY: INF

SCALE: 1:50

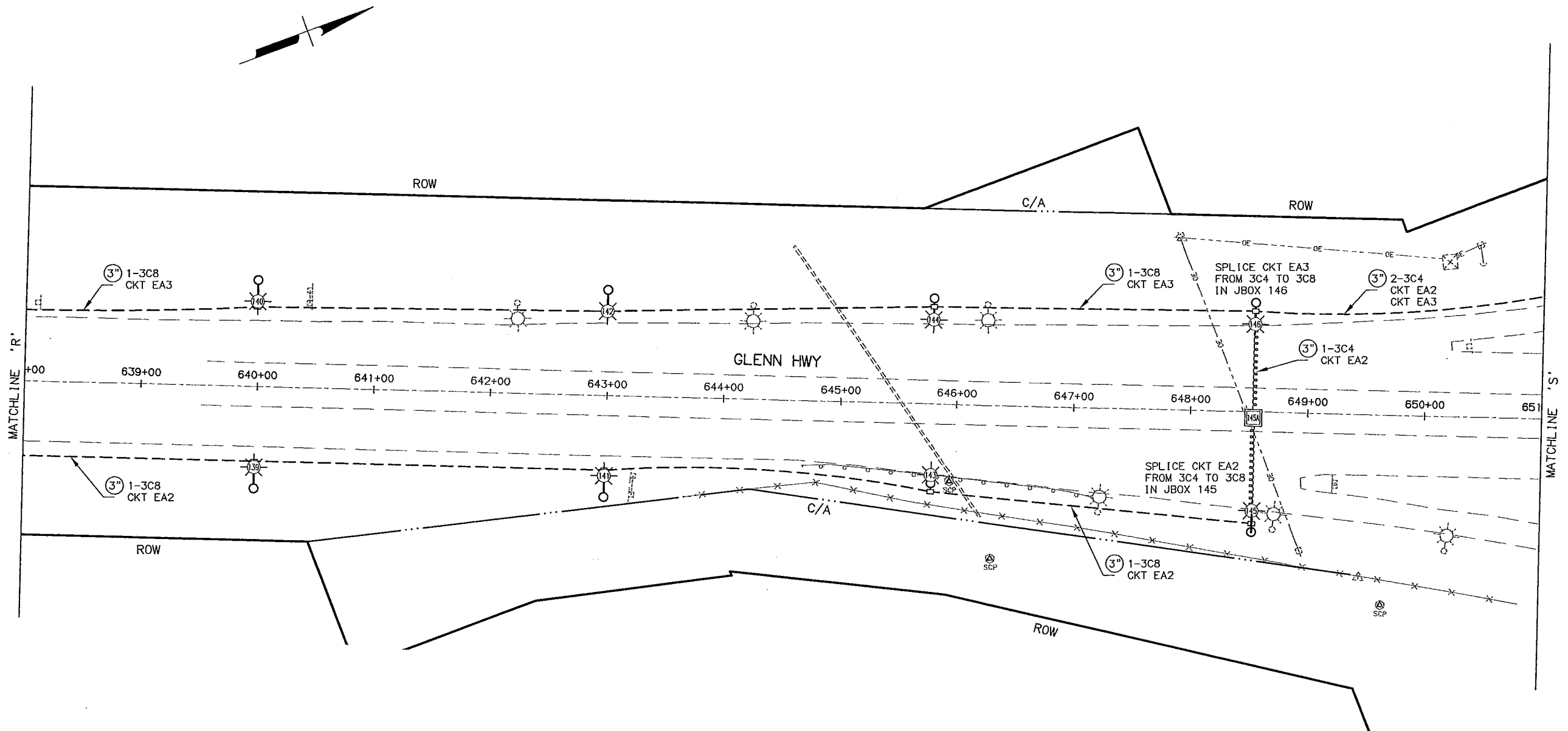
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DATE: 02/02/2010 3:56:34 PM AST

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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H37	H54



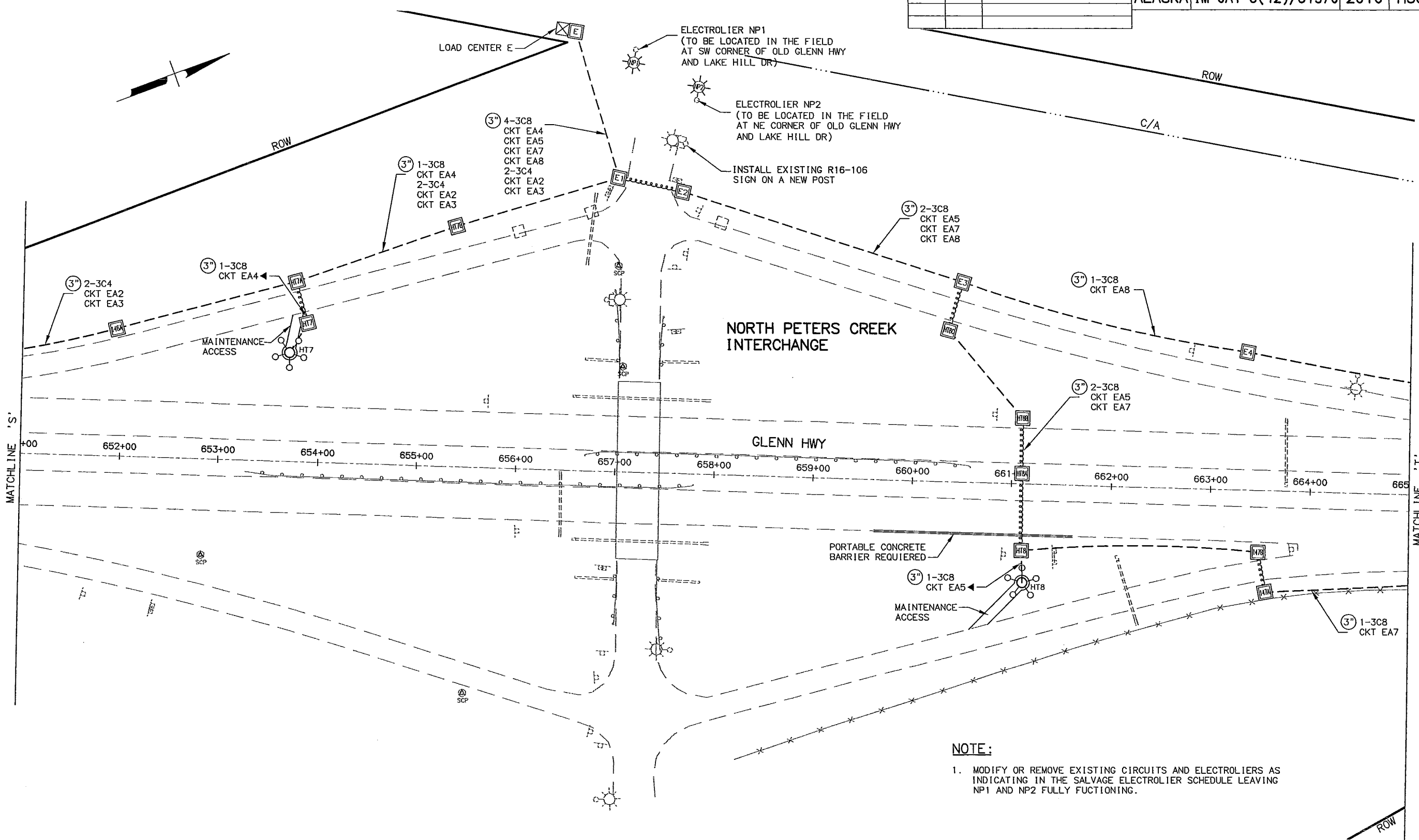
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**

ILLUMINATION PLAN

DESIGNED BY: FSC
CHECKED BY: JAC
DATE: 02/02/2010 3:56:34 PM AST
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LAYOUT: PLAN 20
DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H19_H54_ILLUMINATION PLAN.dwg

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION	ALASKA	IM-0A1-6(42)/51970	2010	H38	H54



NOTE:
1. MODIFY OR REMOVE EXISTING CIRCUITS AND ELECTROLIERS AS INDICATING IN THE SALVAGE ELECTROLIER SCHEDULE LEAVING NP1 AND NP2 FULLY FUCTIONING.



STATE OF ALASKA
49TH
JANELLE L. CLINE
CE 11526
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

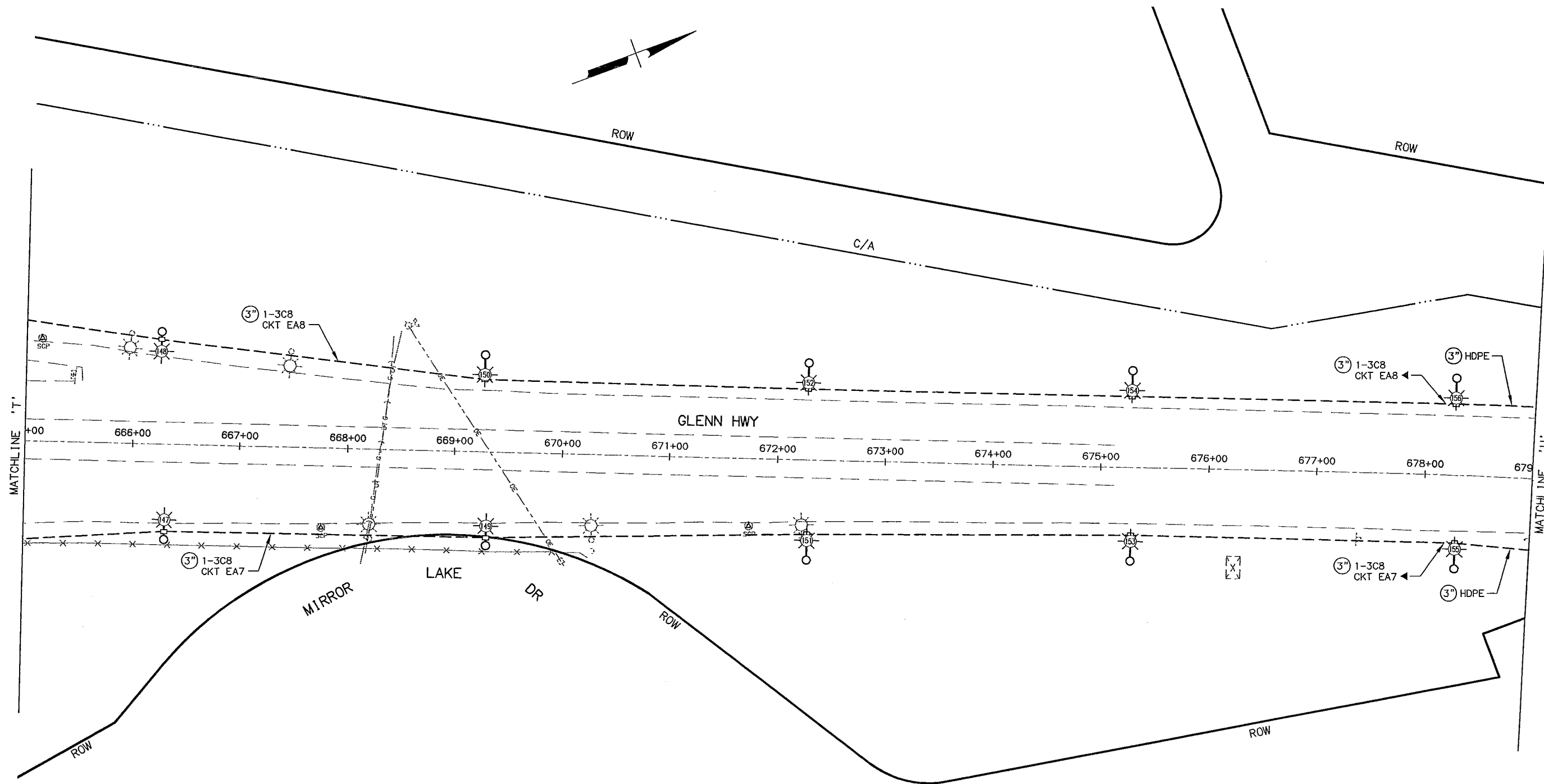
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**

ILLUMINATION PLAN

DESIGNED BY: JFC
CHECKED BY: JLC
DRAWN BY: JLC
DATE: 02/02/2010
TIME: 3:56:34 PM AST
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LAYOUT: PLAN 21
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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H39	H54

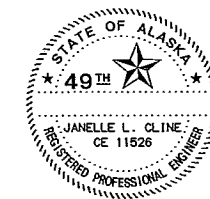
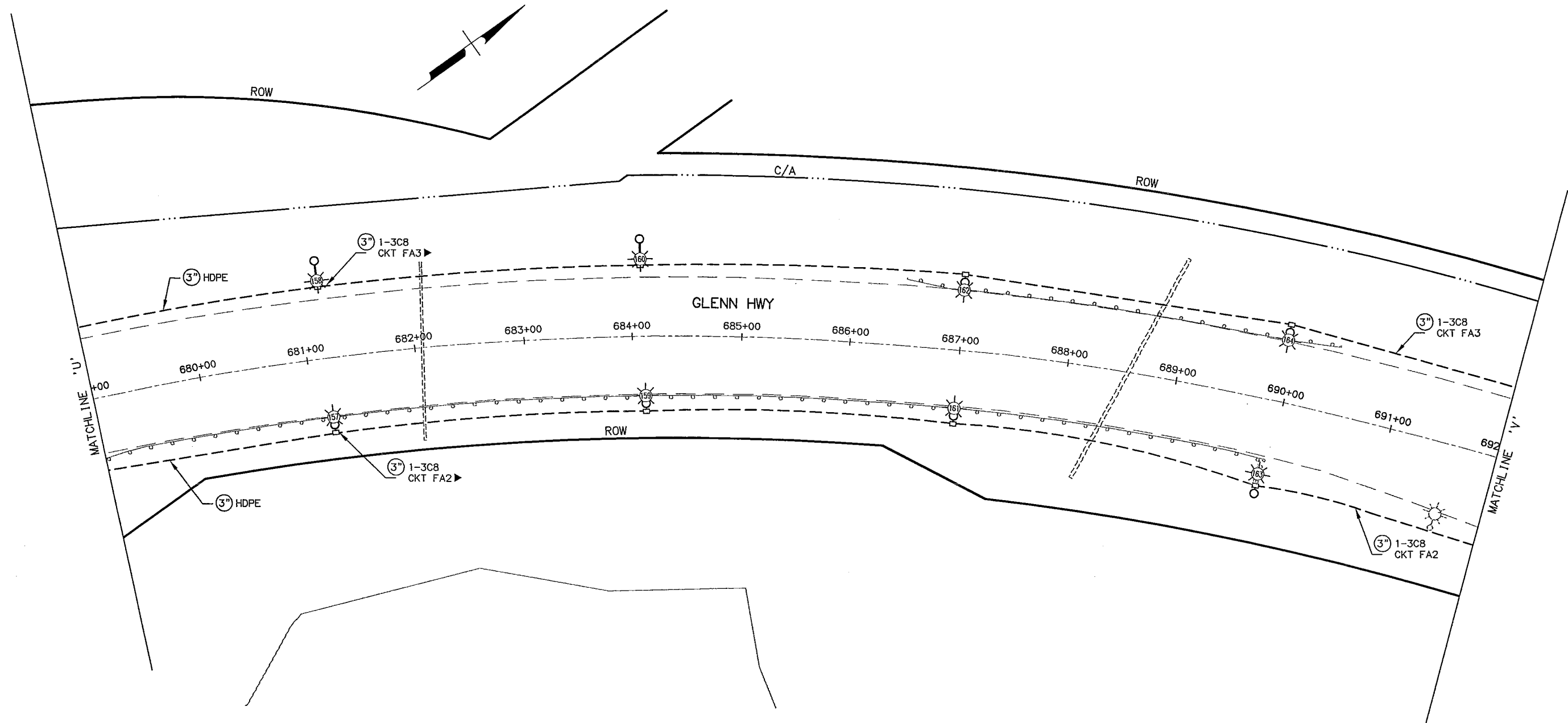


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**
ILLUMINATION PLAN

DESIGNED BY PRE
CHECKED BY JLE
DRAWN BY JEF
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LAYOUT
PLAN 22
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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H40	H54

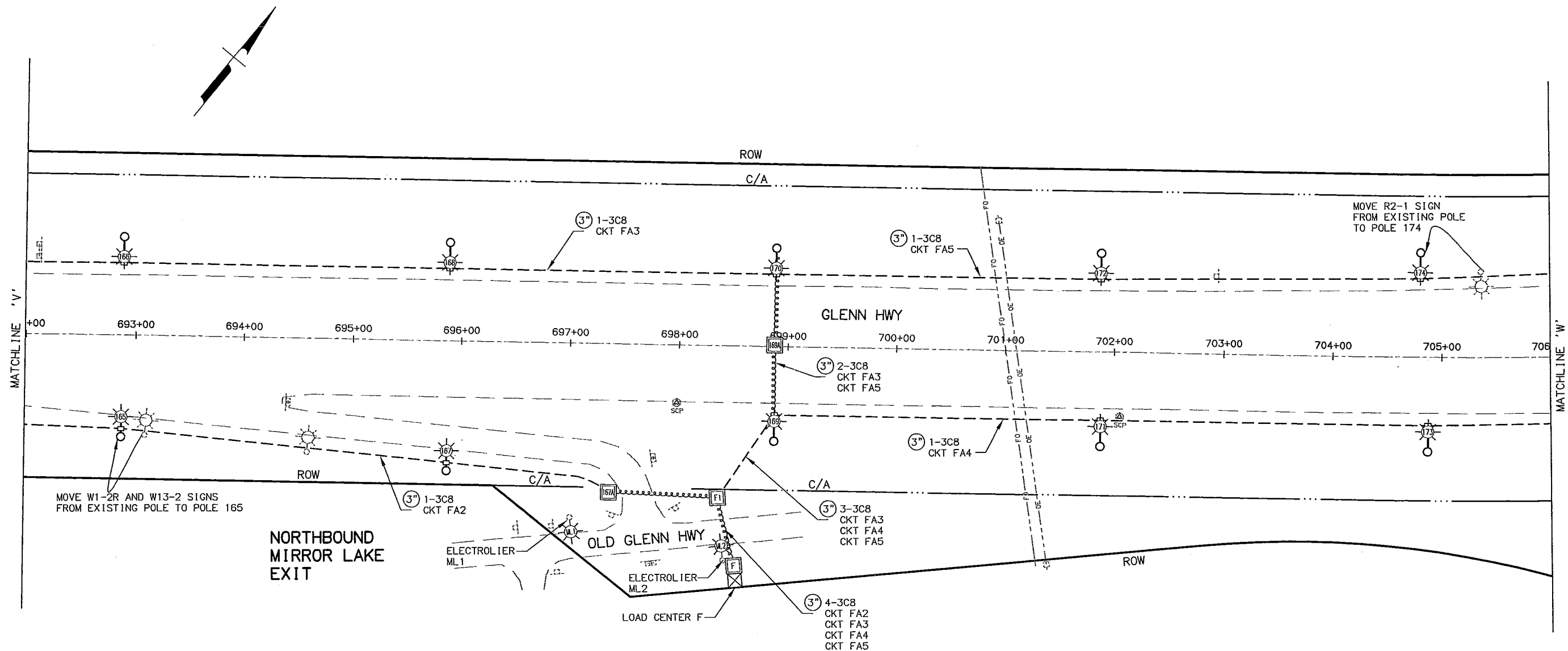


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**
ILLUMINATION PLAN

DESIGNED BY: JSC
CHECKED BY: JLC
DATE: 02/02/2010
TIME: 3:56:34 PM AST
SCALE: 1:50
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DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H19_H54_ILLUMINATION PLAN.dwg

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H41	H54



NOTE:
1. MODIFY OR REMOVE EXISTING CIRCUITS AND ELECTROLIERS AS INDICATING IN THE SALVAGE ELECTROLIER SCHEDULE LEAVING ML1 AND ML2 FULLY FUCTIONING.

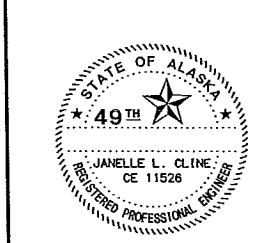
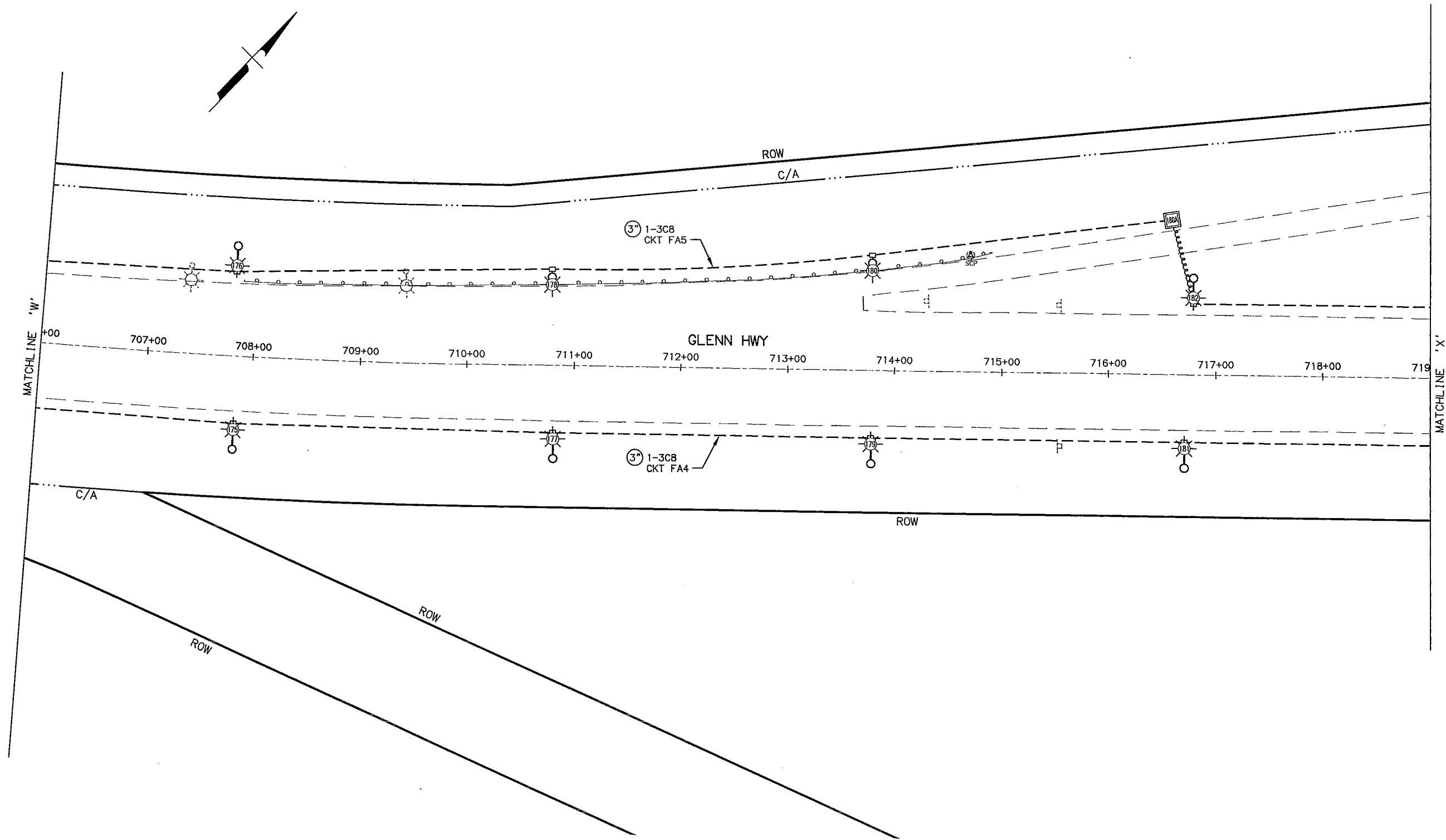


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**
ILLUMINATION PLAN

DESIGNED BY: JSE
CHECKED BY: JSE
DATE: 02/02/2010
TIME: 3:56:34 PM AST
SCALE: 1:50
LAYOUT: PLAN 24
DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H54_H54_ILLUMINATION PLAN.dwg

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H42	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

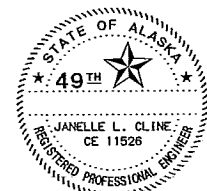
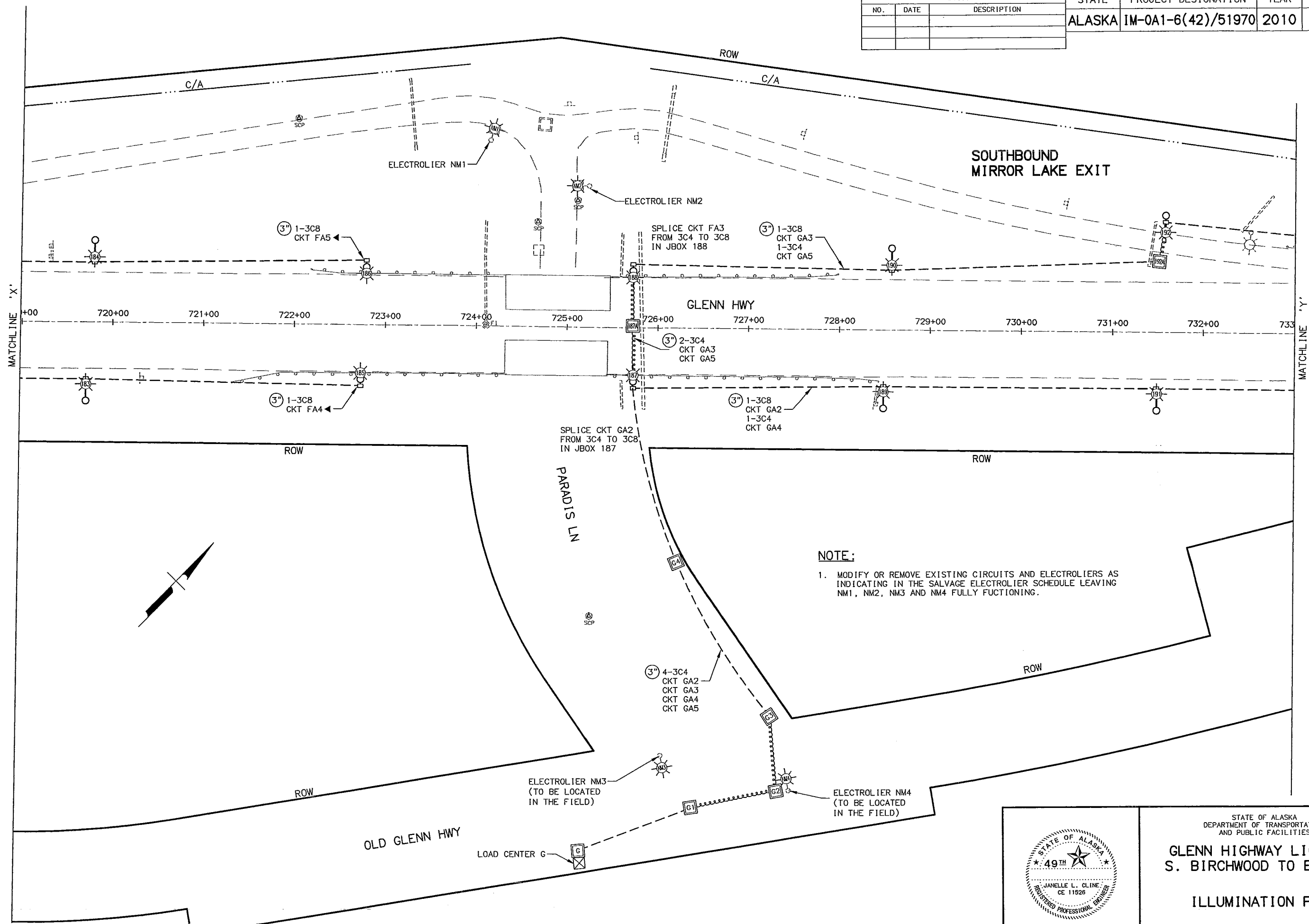
GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

ILLUMINATION PLAN

DESIGNED BY: TSC
CHECKED BY: JLC
DATE: 02/02/2010
TIME: 3:56:34 PM AST
SCALE: 1:50
LAYOUT: PLAN 25
DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H19_H54_ILLUMINATION PLAN.dwg

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H43	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**
ILLUMINATION PLAN

DESIGNED BY: FSE
CHECKED BY: JLC
DRAFTED BY: MEF

SCALE: 1"=50'

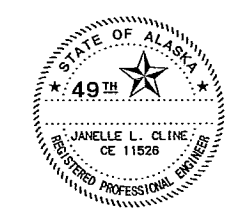
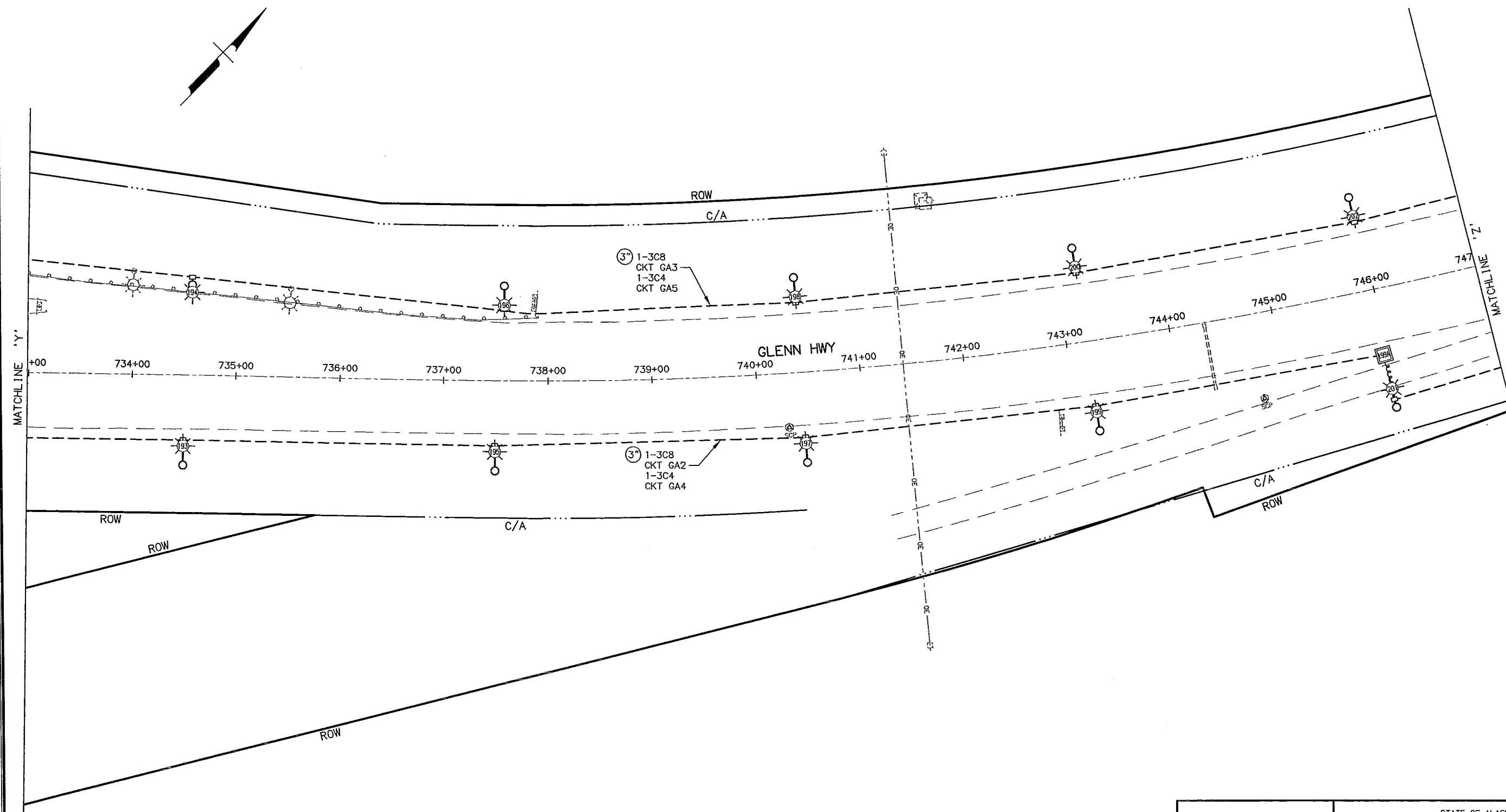
LAYOUT: PLAN 26

DATE: 02/02/2010 3:56:34 PM AST

DRAWING LOCATION: T:\Projects\ancharge\51970 - Glenn Hwy Lighting\dwg\H19_H54_ILLUMINATION PLAN.dwg

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H44	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

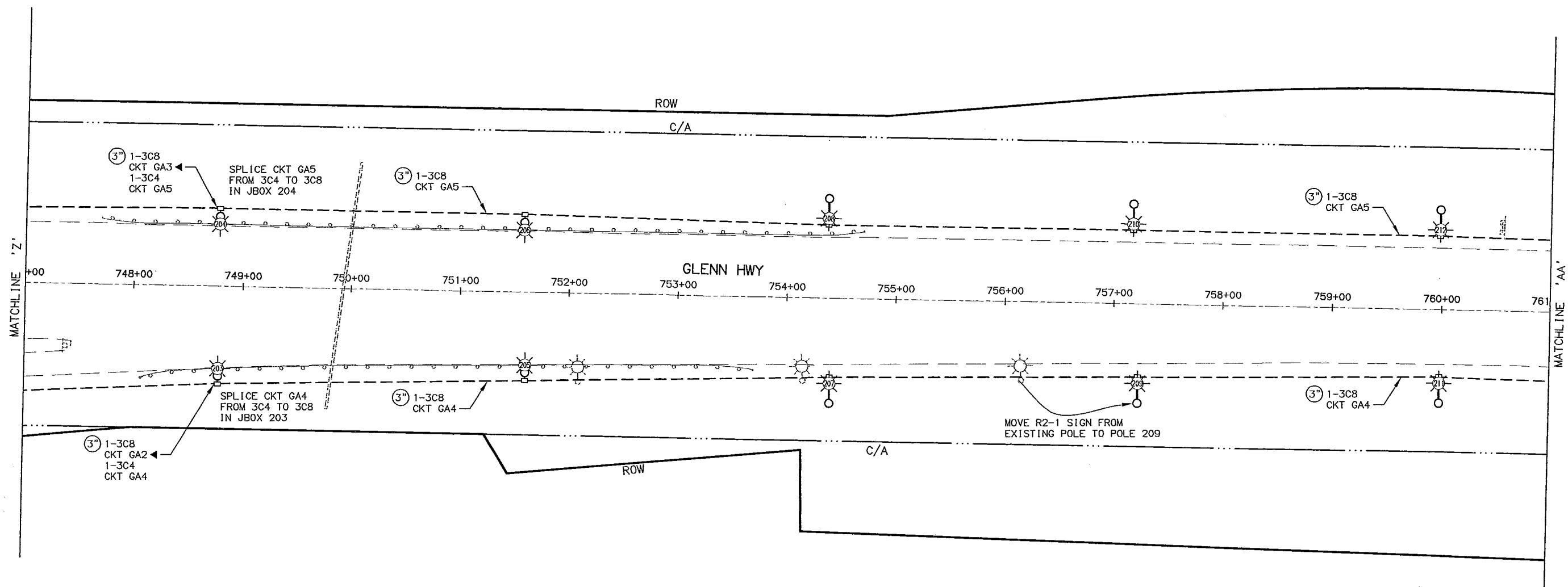
GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

ILLUMINATION PLAN

DESIGNED BY: FSE
CHECKED BY: JLC
DATE: 02/02/2010 3:56:34 PM AST
SCALE: 1:50
LAYOUT: PLAN 27
DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H19_H54_ILLUMINATION PLAN.dwg

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H45	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**
ILLUMINATION PLAN

DESIGNED BY: FBE
CHECKED BY: JLC
DRAFTED BY: LWF

XREFS:
BASE

SCALE: 1:50

LAYOUT: PLAN 28

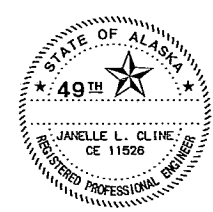
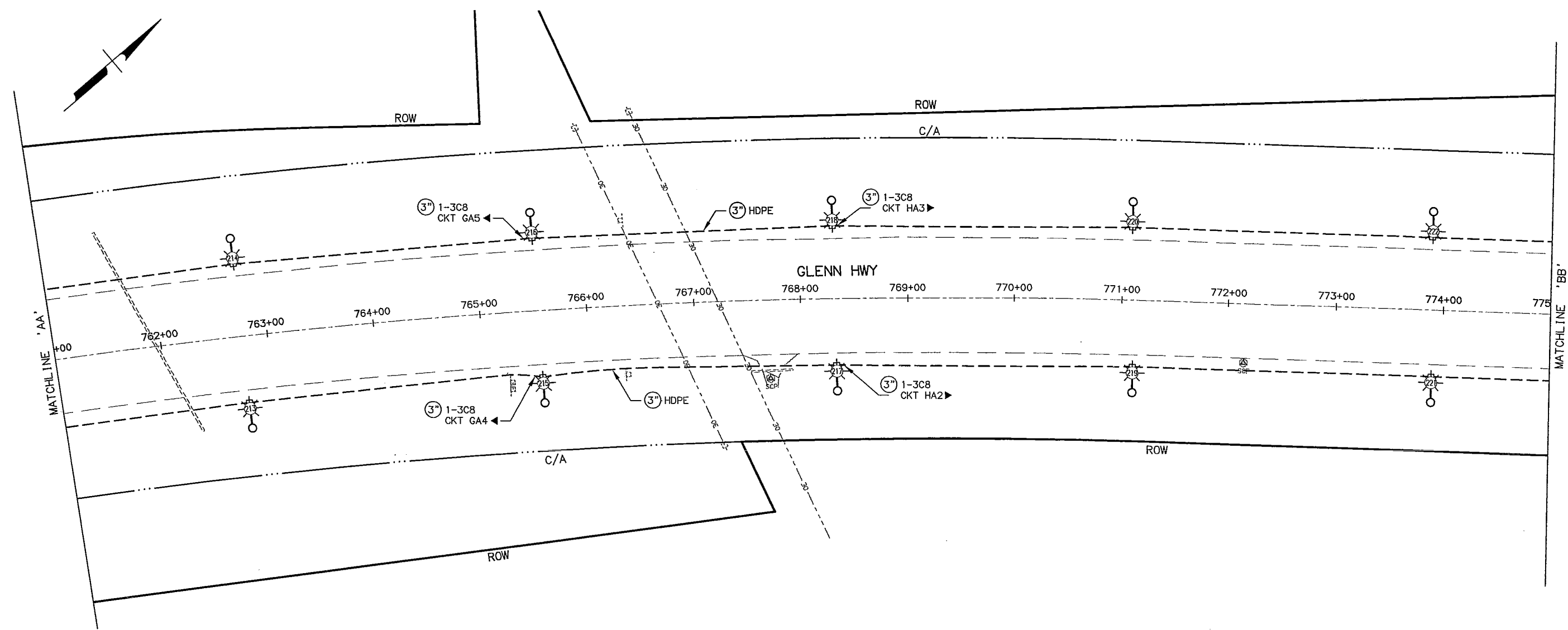
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DATE: 02/02/2010

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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H46	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

ILLUMINATION PLAN

DRAWING LOCATION
T:\Projects\Anchorage\51970 - Glenn Hwy Lighting\dwg\H19_H54_ILLUMINATION PLAN.dwg 02/02/2010 3:56:34 PM AST

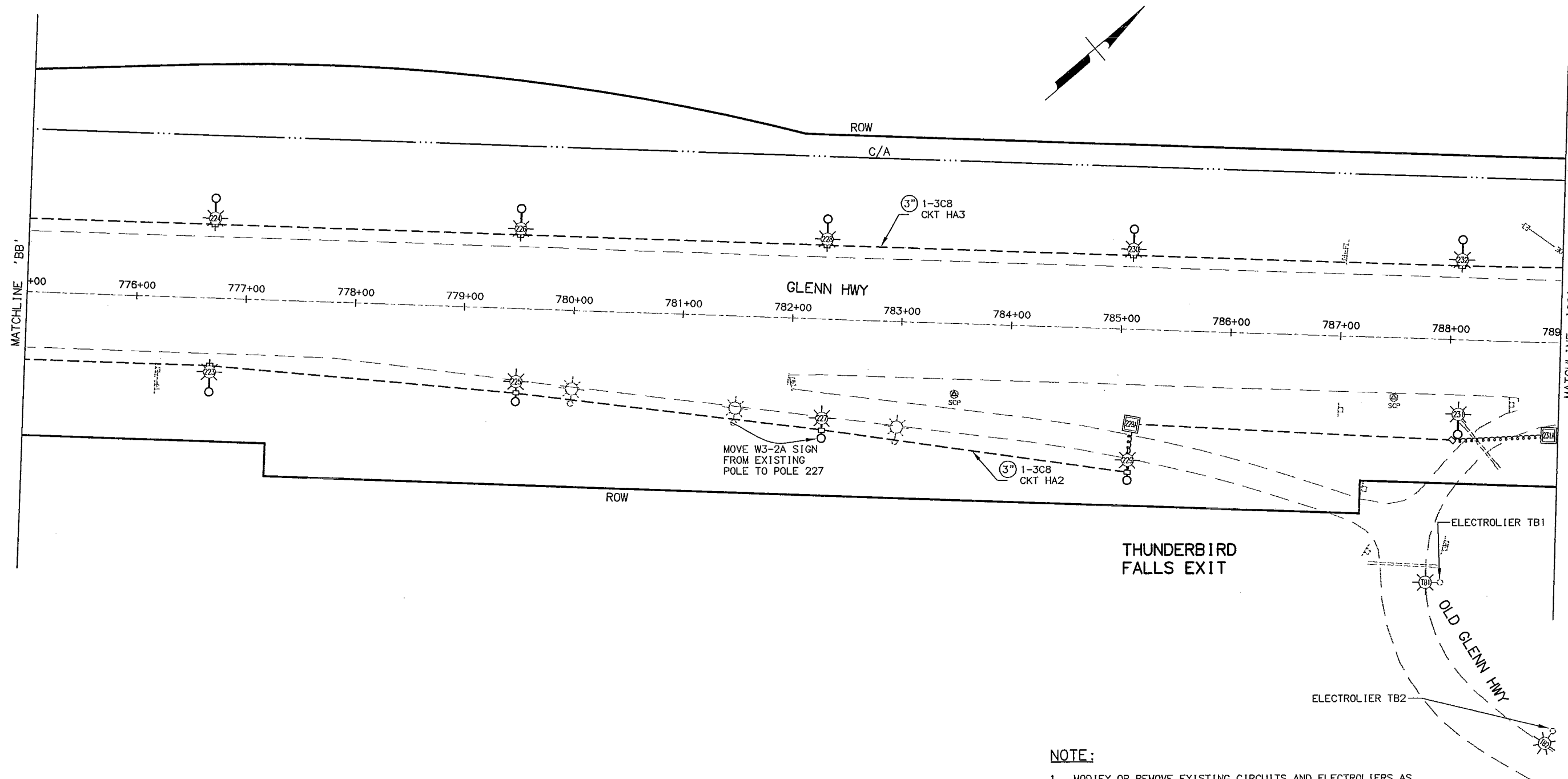
DESIGNED BY: FSE
CHECKED BY: ALC
DRAFTED BY: MEF

SCALE
1:50

LAYOUT
PLAN 29

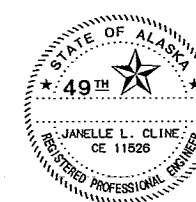
REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H47	H54



NOTE:

1. MODIFY OR REMOVE EXISTING CIRCUITS AND ELECTROLIERS AS INDICATING IN THE SALVAGE ELECTROLIER SCHEDULE LEAVING TB1 AND TB2 FULLY FUNCTIONING.



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

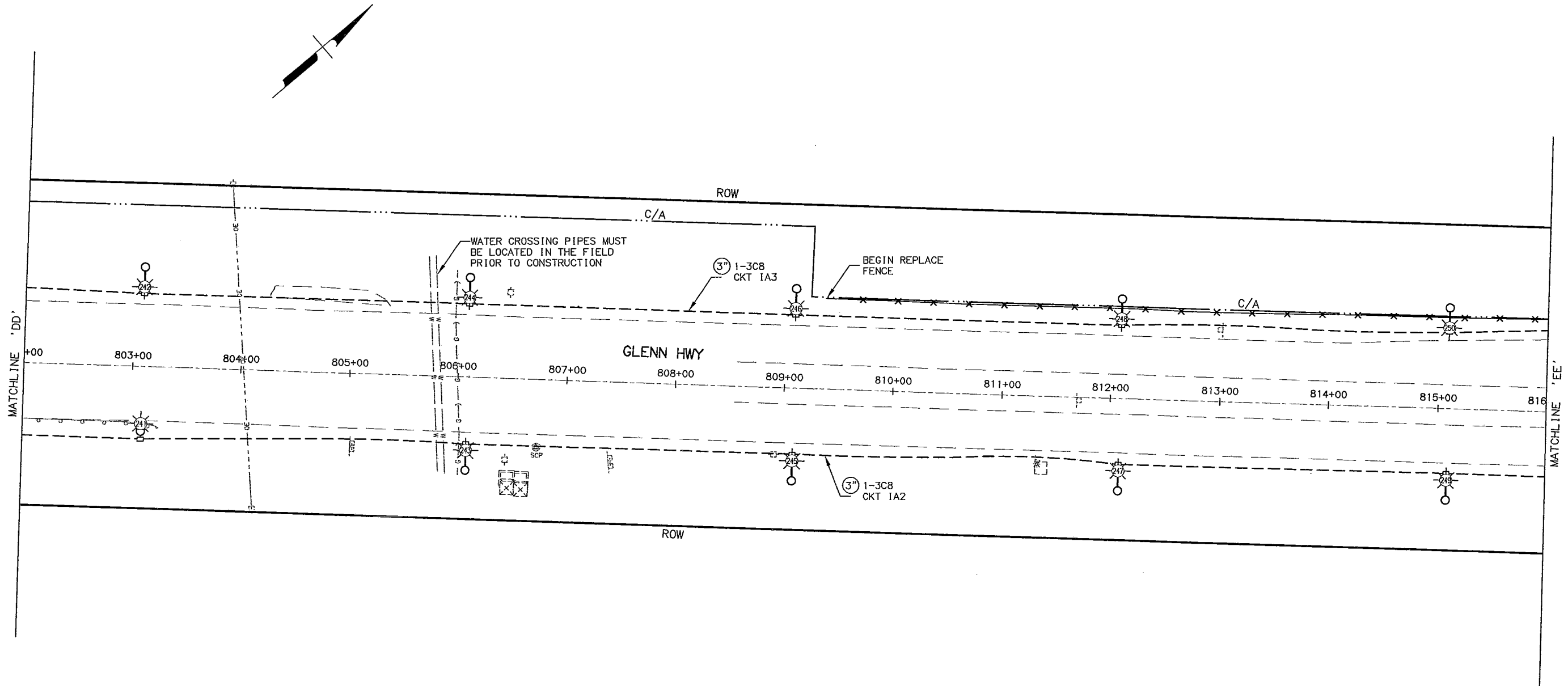
GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

ILLUMINATION PLAN

DESIGNED BY FSE
CHECKED BY JLC
DATE 02/02/2010
SCALE 1:50
LAYOUT PLAN 31
TIME 3:56:34 PM AST
DATE 02/02/2010
DRAWING LOCATION
T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H19_H54_ILLUMINATION PLAN.dwg

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H49	H54



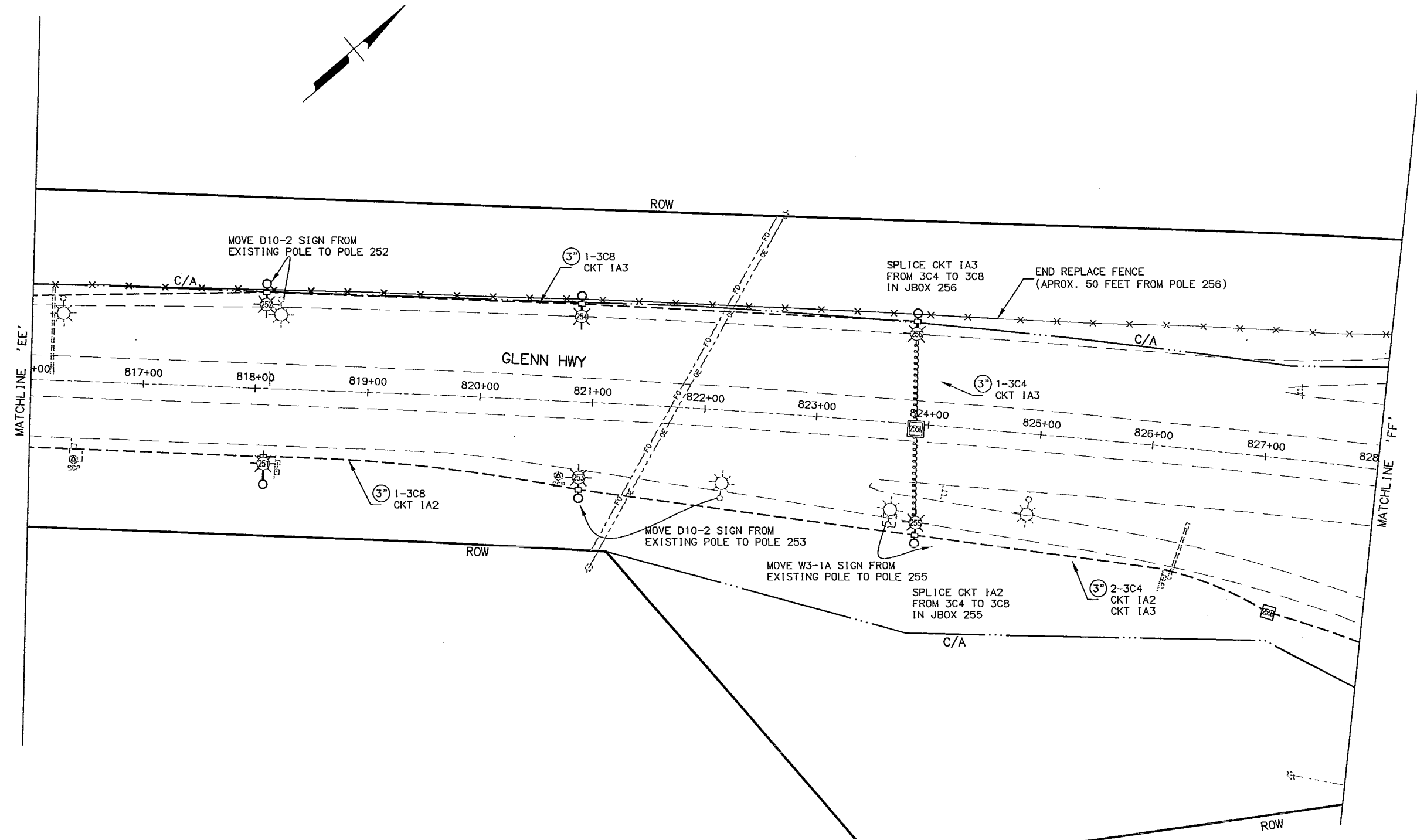
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

ILLUMINATION PLAN

DRAWING LOCATION
T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H18_H54_ILLUMINATION PLAN.dwg
DATE
02/02/2010
TIME
3:56:34 PM AST
LAYOUT
PLAN 32
SCALE
1:50
XREFS
BASE
DESIGNED BY
PSE
CHECKED BY
JFC
DRAFTED BY
JFC

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION					
			ALASKA	IM-0A1-6(42)/51970	2010	H50	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

ILLUMINATION PLAN

DESIGNED BY JFE
CHECKED BY JLC
DRAFTED BY JFE

SCALE 1:50

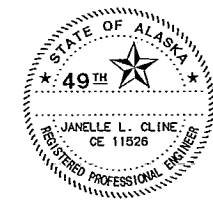
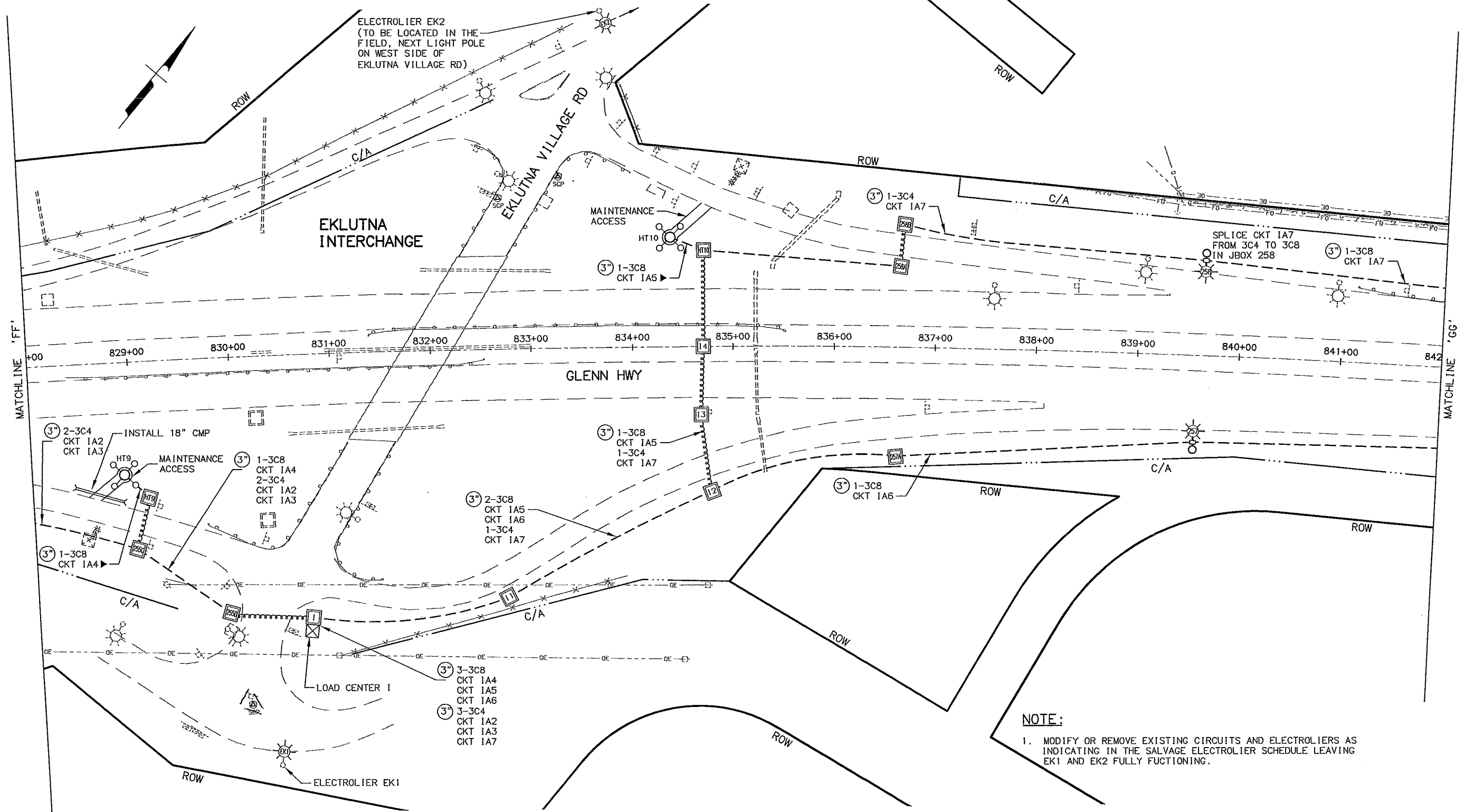
LAYOUT PLAN 33

DATE 02/02/2010 3:55:34 PM AST

DRAWING LOCATION
T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H18_H54_ILLUMINATION PLAN.dwg

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H51	H54



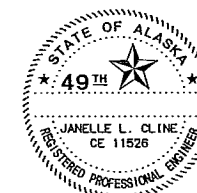
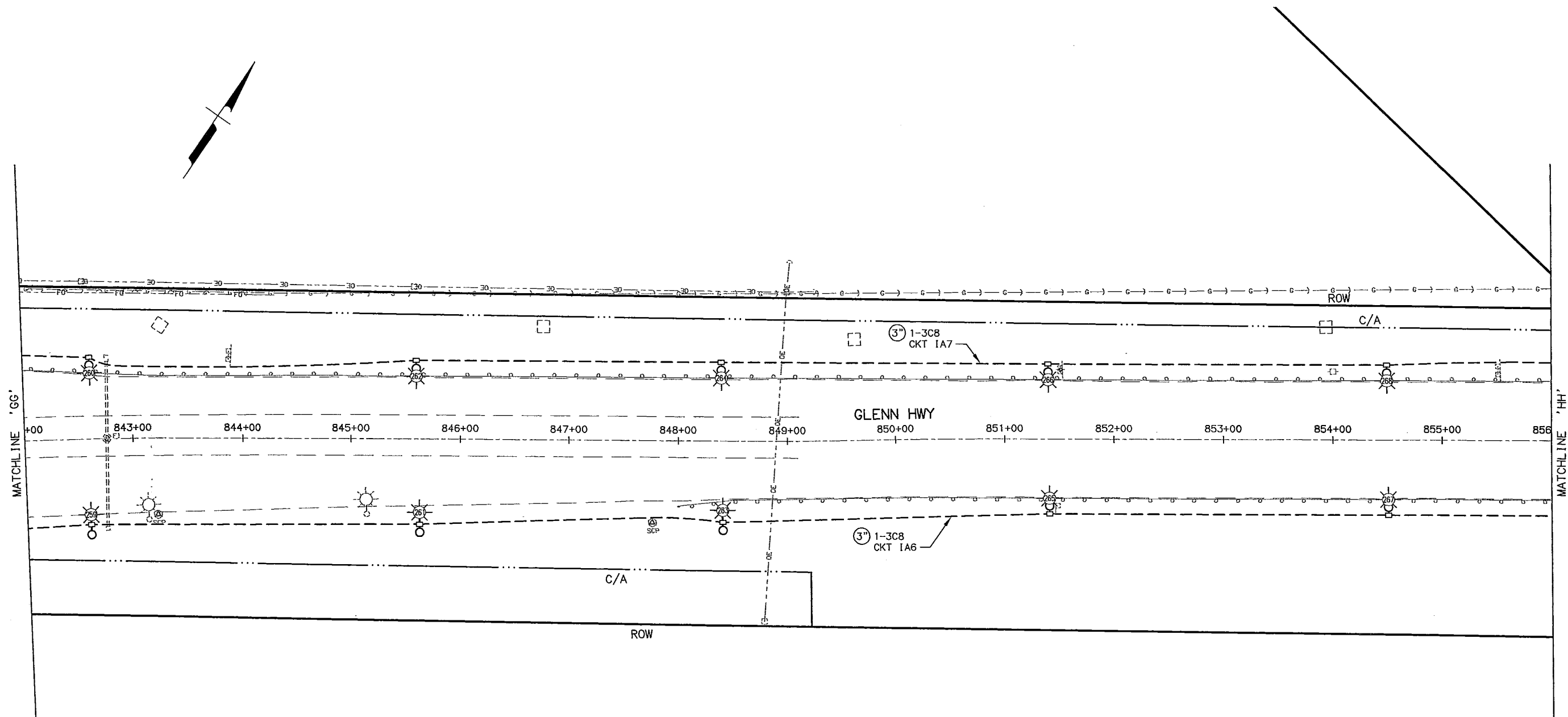
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

ILLUMINATION PLAN

DESIGNED BY: JSE
CHECKED BY: JLC
DRAFTED BY: JEF
VIEWS: BASE
SCALE: 1:50
LAYOUT: PLAN 34
DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H54_ILLUMINATION PLAN.dwg
DATE: 02/02/2010
TIME: 3:56:34 PM AST

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION					
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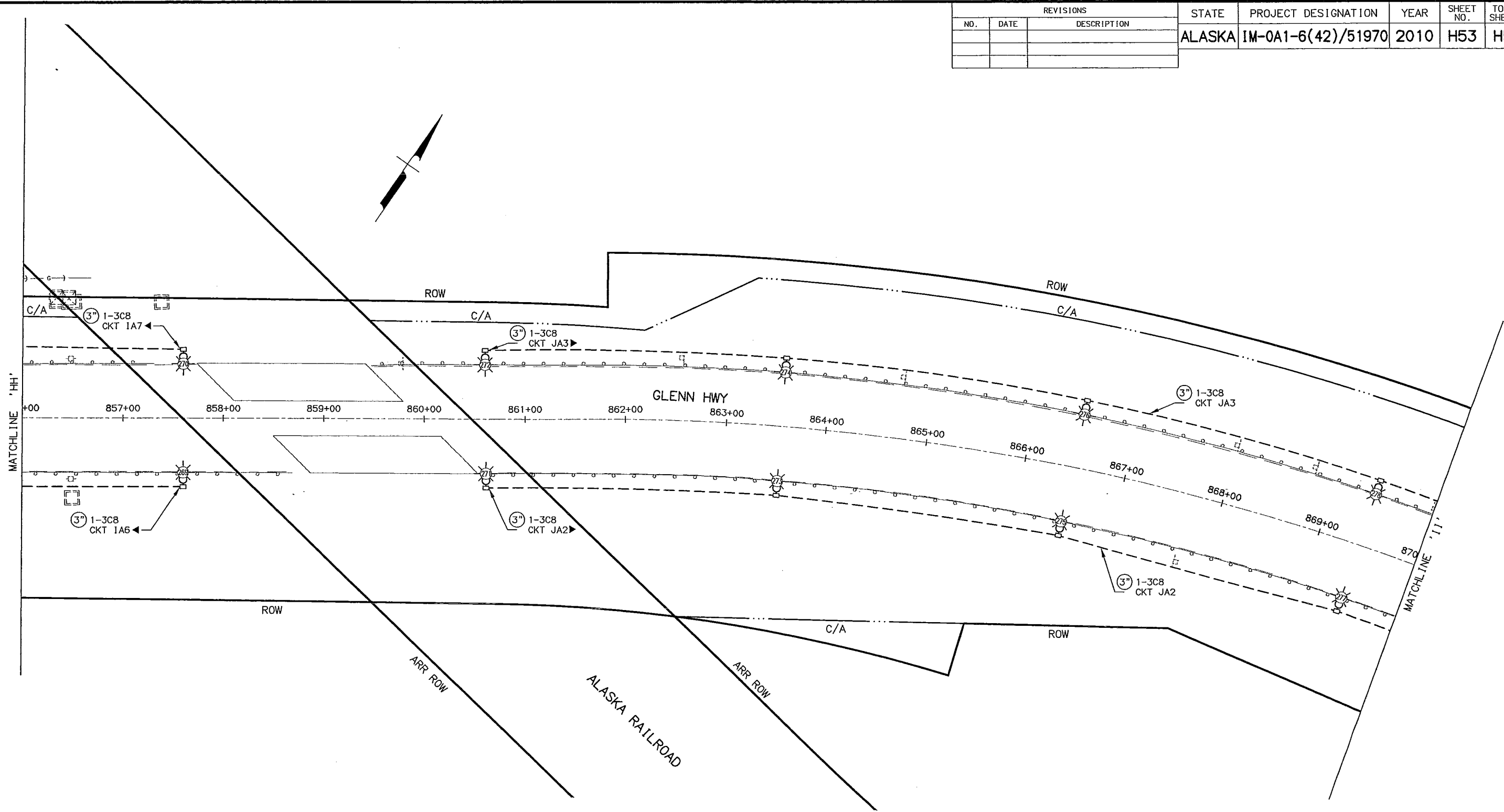


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**
ILLUMINATION PLAN

DESIGNED BY: JFC
CHECKED BY: JLC
DATE: 02/02/2010 3:56:34 PM AST
SCALE: 1:50
LAYOUT: PLAN 35
DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\H19_H54_ILLUMINATION PLAN.dwg

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H53	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

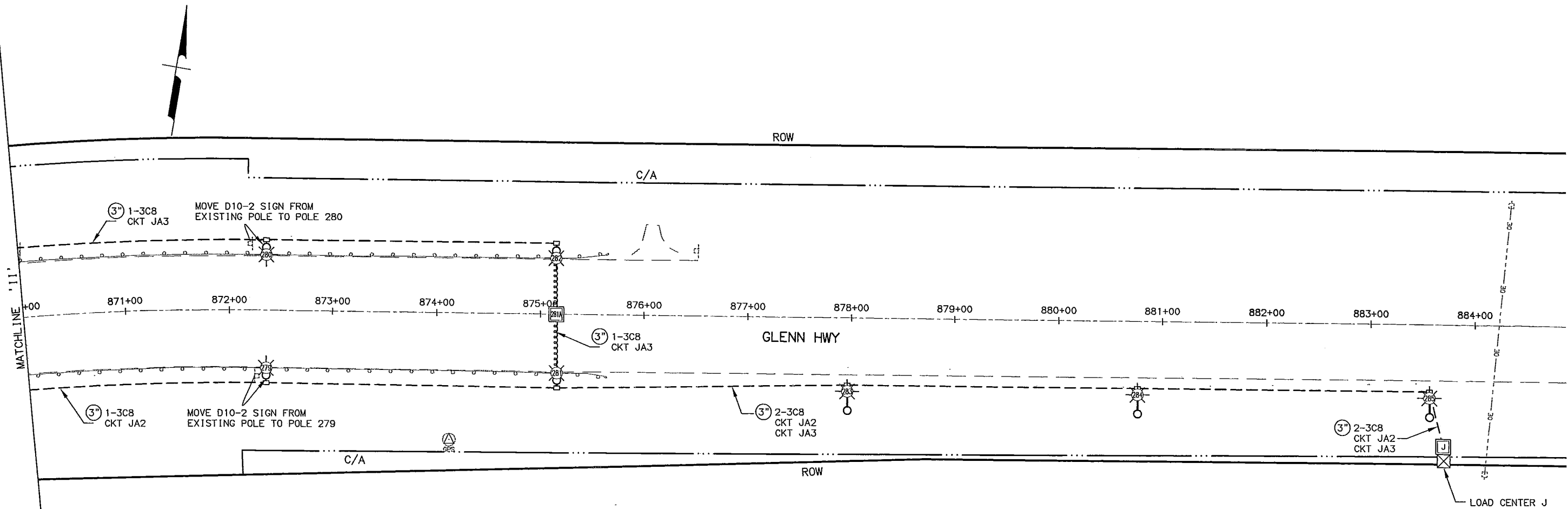
GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA

ILLUMINATION PLAN

DESIGNED BY FSE
CHECKED BY JLC
DRAFTED BY JEP
XREF'S
BASE
SCALE 1:50
LAYOUT PLAN 36
TIME
DATE 02/02/2010 3:58:34 PM AST
DRAWING LOCATION
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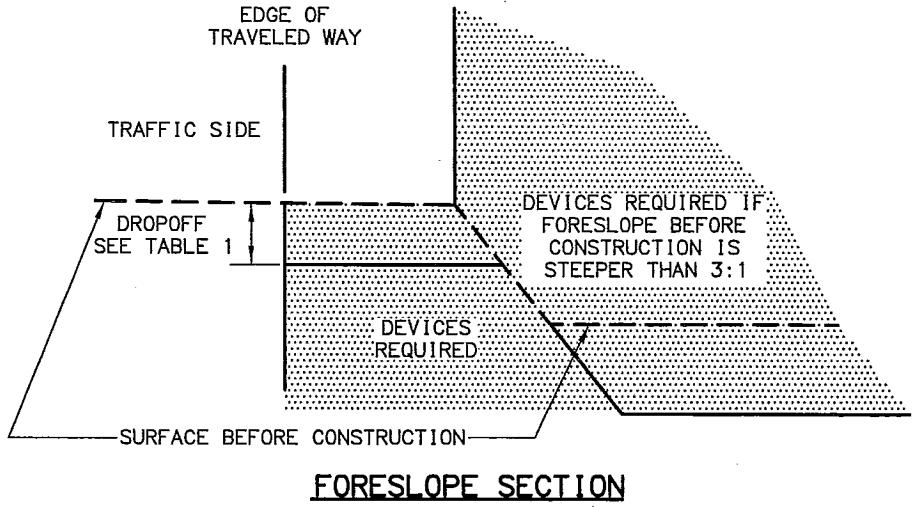
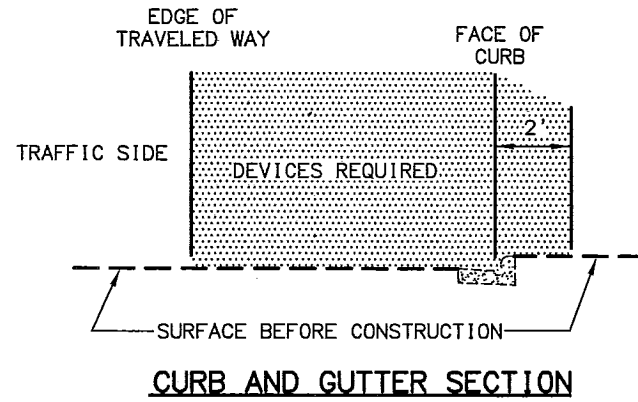
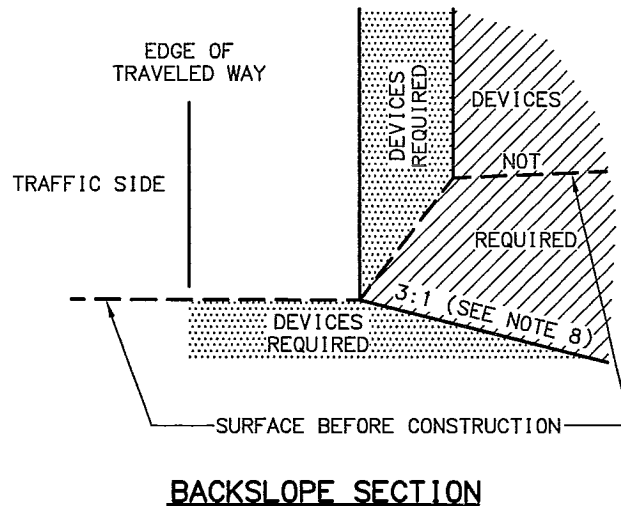
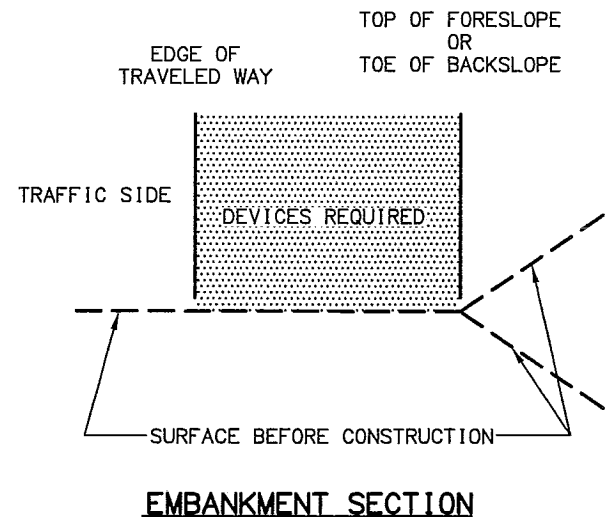
REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-0A1-6(42)/51970	2010	H54	H54



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**
ILLUMINATION PLAN

DESIGNED BY: BFA/AL
DRAWN BY: BFA/AL
XREFS: N/A
SCALE: N/A
LAYOUT: TCD
DATE: 01/25/2010 8:28:44 AM AST
DRAWING LOCATION: T:\Projects\anchorage\51970 - Glenn Hwy Lighting.dwg\1_TCDDEVICE.dwg



LEGEND

- WORK AREA WHERE TRAFFIC CONTROL DEVICES ARE REQUIRED
- WORK AREA WHERE TRAFFIC CONTROL DEVICES ARE NOT REQUIRED
- SURFACE BEFORE CONSTRUCTION
- CONSTRUCTION AREA BOUNDARY

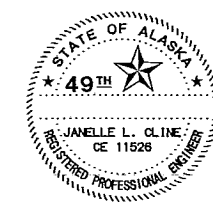
TABLE 1 TRAFFIC CONTROL DEVICES REQUIRED FOR VERTICAL DROPOFFS ≤ 4 FEET FROM TRAVELED WAY*			
ROADWAY TYPE	DROPOFF ≤ 2"	2" < DROPOFF ≤ 12"	DROPOFF ≥ 12"
AVERAGE DAILY TRAFFIC > 4000 OR SPEED > 40 MPH	TAPER ASPHALT AT 1:1 OR ~45°	TYPE II BARRICADES OR DRUMS	TEMPORARY PORTABLE CONCRETE BARRIER OR TEMPORARY GUARDRAIL
ALL OTHER ROADWAYS	NONE REQUIRED	TUBULAR CANDLES OR DELINEATORS	TYPE II BARRICADES OR DRUMS

* SPACE THE DEVICES IN ACCORDANCE WITH REQUIREMENTS FOR SPACING TYPE II BARRICADES AND DRUMS SET FORTH IN THE ALASKA TRAFFIC MANUAL.

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION	ALASKA	IM-0A1-6(42)/51970	2010	J1	J2

NOTES:

1. TRAFFIC CONTROL DEVICES REQUIRED BY THE GUIDELINES ON THIS SHEET ARE INTENDED FOR CONDITIONS WHICH WILL BE IN PLACE LONGER THAN ONE CONTINUOUS WORK SHIFT. AN APPROVED TRAFFIC CONTROL PLAN IS REQUIRED PRIOR TO BEGINNING WORK.
2. THE GROUND CROSS SECTION AT A LOCATION BEFORE CONSTRUCTION DETERMINES WHETHER TRAFFIC CONTROL DEVICES ARE NEEDED AT THE SAME LOCATION DURING CONSTRUCTION.
3. GUARDRAIL EXISTING AT A LOCATION BEFORE CONSTRUCTION SHALL REMAIN IN PLACE DURING CONSTRUCTION OR APPROVED ALTERNATE DEVICES INSTALLED.
4. INSTALL TRAFFIC CONTROL DEVICES BETWEEN THE EDGE OF TRAVELED WAY AND THE WORK AREA ON ANY ROADWAY OPENED TO TRAFFIC WHEN REQUIRED BY THIS DRAWING.
5. EXISTING ROADWAY ALIGNMENTS INSTALL TRAFFIC CONTROL DEVICES WHEN WORK OCCURS IN THE DEVICES REQUIRED AREAS SHOWN ON THIS DRAWING.
6. DETOURS, TEMPORARY ROADWAYS, OR NEW ROADWAYS NOT YET COMPLETE: INSTALL TRAFFIC CONTROL DEVICES WHEN ANY OF THE FOLLOWING CONDITIONS EXIST:
 - A. THE HORIZONTAL OR VERTICAL CURVATURE IS MORE SEVERE THAN BEFORE CONSTRUCTION BEGAN.
 - B. THE ROADWAY OR SHOULDER WIDTH IS LESS THAN BEFORE CONSTRUCTION BEGAN.
 - C. THE BACKSLOPE OR FORESLOPE IS STEEPER THAN BEFORE CONSTRUCTION BEGAN.
 - D. THE HEIGHT OF THE FORESLOPE IS GREATER THAN BEFORE CONSTRUCTION BEGAN.
7. DROPOFFS: INSTALL TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE FORESLOPE SECTION DETAIL AND TABLE 1.
8. ON ANY NEWLY CONSTRUCTED SLOPE STEEPER THAN 4:1 TO 3:1 PROVIDE A TEN FOOT FLAT RECOVERY AREA AT THE TOE OF SLOPE OR INSTALL TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE FORESLOPE SECTION DETAIL.
9. TRAFFIC CONTROL DEVICE REQUIREMENTS:
 - A. ON ROADWAYS WITH A SPEED LIMIT GREATER THAN 40 MILES PER HOUR OR AVERAGE DAILY TRAFFIC VOLUME GREATER THAN 4000 VEHICLES PER DAY INSTALL TEMPORARY PORTABLE CONCRETE BARRIER OR TEMPORARY GUARDRAIL. ON MULTI-LANE ROADWAYS CLOSE THE LANE CLOSEST TO THE WORK AREA AND INSTALL DRUMS.TERMINATE RUNS OF TEMPORARY PORTABLE CONCRETE BARRIER USING ONE OF THE FOLLOWING THREE METHODS:
 - I. TEMPORARY CRASH ATTENUATOR.
 - II. RIGID TO SEMI-RIGID GUARDRAIL TRANSITION WITH SLOTTED RAIL TERMINAL OR OTHER APPROVED CRASHWORTHY END TREATMENT.
 - III. FLARE THE ENDS OF THE TEMPORARY BARRIER AWAY FROM THE ROADWAY AT A RATE OF 15:1 ON A TRANSVERSE SLOPE OF 10:1 OR FLATTER TO THE OUTSIDE EDGE OF THE CLEAR ZONE AND INSTALL A SLOPING END TREATMENT, PER STANDARD DRAWING G-46.10.TERMINATE RUNS OF TEMPORARY GUARDRAIL USING EITHER OF THE FOLLOWING TWO METHODS:
 - I. SLOTTED RAIL TERMINAL OR OTHER APPROVED CRASHWORTHY END TREATMENT.
 - II. FLARE THE ENDS OF THE TEMPORARY GUARDRAIL AWAY FROM THE ROADWAY AT A RATE OF 15:1 ON A TRANSVERSE SLOPE OF 10:1 OR FLATTER TO THE OUTSIDE EDGE OF THE CLEAR ZONE.
 - B. ON ALL OTHER ROADWAYS INSTALL TYPE II BARRICADES, DRUMS OR DELINEATORS WHEN DEVICES ARE REQUIRED. SPACE THE DEVICES IN ACCORDANCE WITH THE REQUIREMENTS FOR SPACING TYPE II BARRICADES AND DRUMS SET FORTH IN THE ALASKA TRAFFIC MANUAL.
10. DO NOT CONSTRUCT VERTICAL DROPOFFS GREATER THAN 1.5" WITHIN THE TRAFFIC LANE OR ACTIVE WHEEL TRACK. PROVIDE 2' OF SHY DISTANCE FROM EDGE OF ALL TRAFFIC CONTROL DEVICES TO THE EDGE OF THE TRAVELED WAY.



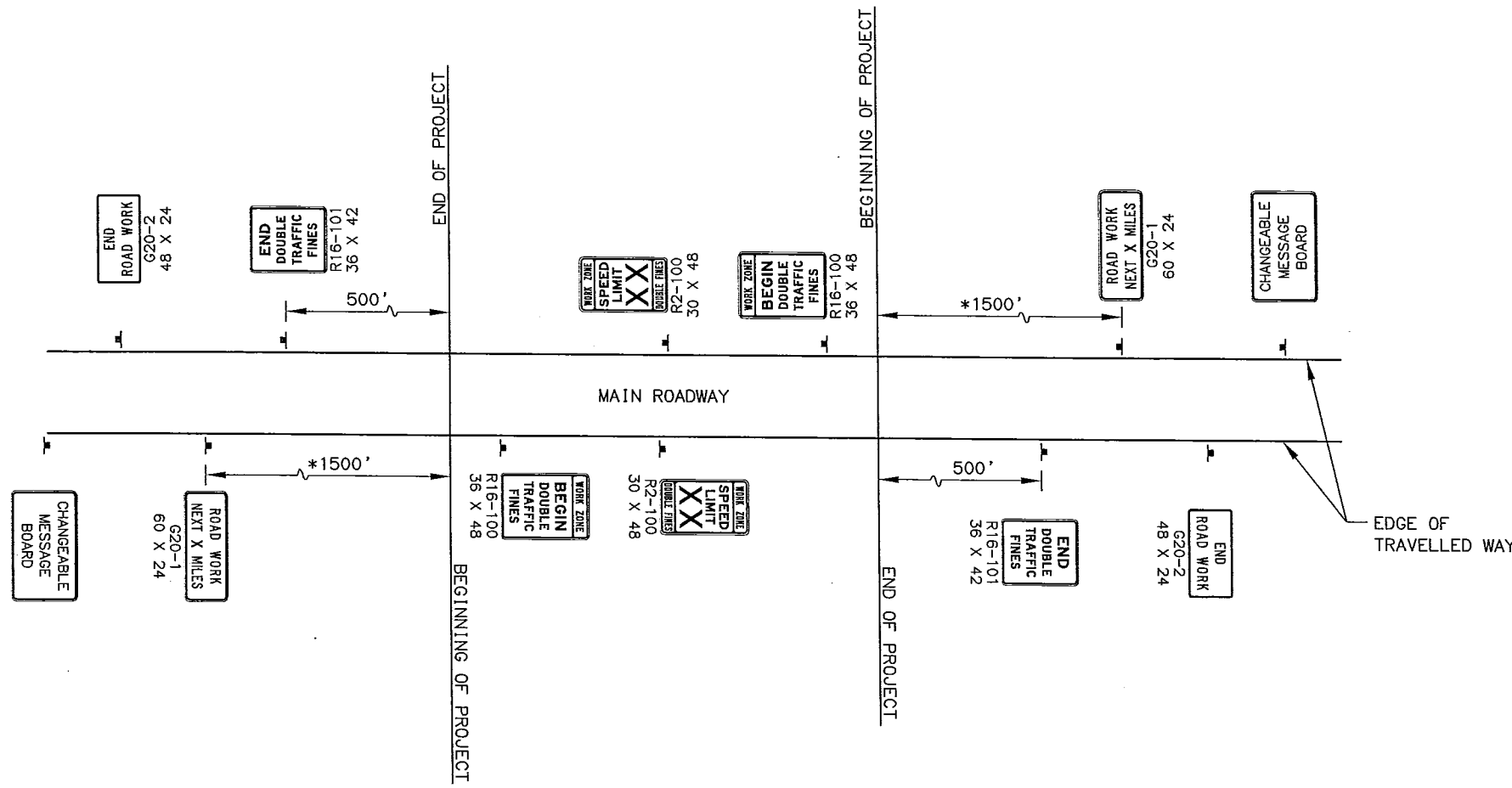
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**

**TRAFFIC CONTROL DEVICES
FOR ROADSIDES**

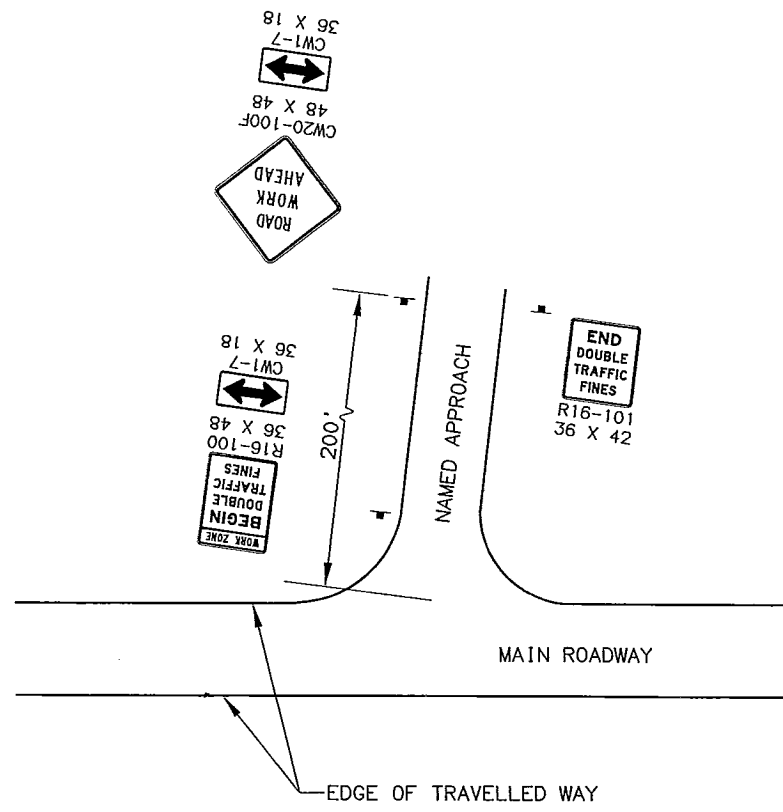
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CHECKED BY JLC
DRAFTED BY JEF
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SCALE N/A
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TIME 8:15:06 AM AST
DATE 01/25/2010
DRAWING LOCATION T:\Projects\anchorage\51970 - Glenn Hwy Lighting\dwg\J2 CONSIGN.dwg

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION					
			ALASKA	IM-0A1-6(42)/51970	2010	J2	J2



PERMANENT CONSTRUCTION SIGNING

* LOCATION TO BE DETERMINED BY PROJECT ENGINEER.



**PERMANENT CONSTRUCTION SIGNING
SIDE STREETS**

NOTES:

1. SPEED LIMIT TO BE DETERMINED BY THE PROJECT ENGINEER.
2. SEE STANDARD DRAWING C-04.12 FOR SPACING OF DOUBLE FINE SIGNS AND SPEED LIMIT SIGNS.
3. CHANGEABLE MESSAGE BOARD SHALL BE USED FOR ADVANCED NOTIFICATION UPON ENGINEERS APPROVAL. LOCATION OF CHANGEABLE MESSAGE BOARDS SHALL BE DETERMINED BY THE ENGINEER.



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**GLENN HIGHWAY LIGHTING
S. BIRCHWOOD TO EKLUTNA**
**PERMANENT CONSTRUCTION
SIGN DETAIL
WITH MESSAGE BOARD**

