



RECORD OF REVISIONS		
No.	DATE	DESCRIPTION

JNU - FLOYD DRYDEN PEDESTRIAN  
 ACTIVATED HAWK SIGNAL  
 PROJECT NO. 79080  
 ESTIMATE OF QUANTITIES

## ESTIMATE OF QUANTITIES

ITEM NO.	PAY ITEM	PAY UNIT	QUANTITY
202 (1)	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP SUM	ALL REQUIRED
615 (1)	STANDARD SIGN	SQUARE FOOT	<del>78.5</del> 78.4
640 (1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
641 (1)	EROSION AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED
641 (3)	TEMPORARY EROSION AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED
641 (4)	TEMPORARY EROSION AND POLLUTION CONTROL AMENDMENTS	LUMP SUM	ALL REQUIRED
641 (5)	STRAW WATTLES	LINEAR FOOT	<del>115</del> 149.5
642 (1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED
643 (2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
643 (25)	TRAFFIC CONTROL	LUMP SUM	ALL REQUIRED
660 (1)	TRAFFIC SIGNAL SYSTEM, COMPLETE	LUMP SUM	ALL REQUIRED
661 (1)	LOAD CENTER, TYPE 1	EACH	1
670 (10)	METHYL METHACRYLATE PAVEMENT MARKINGS	LUMP SUM	ALL REQUIRED

660(1a) WIRE REMOVAL INVESTIGATION C.O. #1 L.S. ALL REQ'D

## BASIS OF ESTIMATE

ITEM	ESTIMATE	REMARKS
SELECT MATERIAL, TYPE A	1 TON	FOR FILLING BEHIND AND TO THE SIDE OF THE CONTROLLER CABINET AND LOAD CENTER
REMOVAL OF SIDEWALK	35 SQ YARDS	FOR CONDUIT TRENCHING AND EXCAVATION AROUND FOUNDATIONS
REMOVAL OF CURB & GUTTER	20 LINEAR FT	REPAIR FOR EXCAVATION DUE TO POLE FOUNDATION INSTALLATION
ASPHALT SIDEWALK	35 SQ YARDS	FOR CONDUIT TRENCHING AND EXCAVATION AROUND FOUNDATIONS
CURB & GUTTER	20 LINEAR FT	REPAIR FOR EXCAVATION DUE TO POLE FOUNDATION INSTALLATION
ASPHALT ROAD REPAIR	20 SQ YARDS	REPAIR FOR EXCAVATION DUE TO POLE FOUNDATION INSTALLATION
SEEDING	0.05 ACRES	SEED ALL AREAS THAT WILL DISTURB EARTH AND WILL NOT BE COVERED BY ASPHALT.

DESIGNED BY: D. FAGNANT



CHECKED BY: C. MOREHOUSE  
DRAWN/REVISED BY: D. FAGNANT

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION  
JNU - FLOYD DRYDEN  
PEDESTRIAN ACTIVATED  
HAWK SIGNAL  
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PROJECT DESIGNATION NUMBER  
79080 ~ SRTS LU20-09-0001

STATE	YEAR
ALASKA	2009
SHEET NUMBER	TOTAL SHEETS
C1	17

### SIGNAL HEAD SUMMARY TABLE

SIGNAL HEAD NO.	POLE	PHASE	CONFIG.	LENSE SIZE	MOUNTING TYPE	FACING
21	1	2	SEE NOTE 1	12"		NB
22	1	2	SEE NOTE 1	12"		NB
48	1	4	COUNT-DOWN PED		CLAMSHELL	EB
49	2	4	COUNT-DOWN PED		CLAMSHELL	WB
61	2	6	SEE NOTE 1	12"		SB
62	2	6	SEE NOTE 1	12"		SB

NOTES:

- SEE SHEET 06 FOR VEHICLE SIGNAL HEAD CONFIGURATIONS.
- FOR REFERENCE PURPOSES IN THIS TABLE, MENDENHALL LOOP ROAD IS ASSUMED TO RUN NORTH-SOUTH, WITH NORTHBOUND BEING IN THE DIRECTION OF THE MENDENHALL GLACIER AND SOUTHBOUND VEHICLES BEING IN THE DIRECTION OF EGAN DRIVE.

### LOAD SWITCH SUMMARY

LOAD SWITCH	CHANNEL	OUTPUT	REMARKS
1	1	WALK	
1	2	DON'T WALK	
1	3	RIGHT RED	
2	1	YELLOW	
2	2	LEFT RED	
2	3	-	TIE TO LOAD RESISTOR, ENERGIZE WHEN DARK

### CONTROLLER CABINET

NUMBER	STATION	OFFSET	REMARKS
1	96+02.6	51.6' LT	

### LOAD CENTER SUMMARY

LC	STATION	OFFSET	REMARKS
G	107+67.1	55.4' RT	EXISTING
H	95+97.6	51.5' LT	NEW

### JUNCTION BOX TABLE

NUMBER	STATION	OFFSET	TYPE	REMARKS
1	92+27.5	37.5' RT	1A	EXISTING J-BOX, TO REMAIN
2	93+40	41' RT	1A	EXISTING J-BOX, TO REMAIN
3	94+93.1	32.7' RT	1A	REPLACE EXISTING TYPE 1A J-BOX
4	96+34	32' RT	2	REPLACE EXISTING TYPE 1A J-BOX WITH NEW TYPE 2 J-BOX
4A	96+32	39' RT	1A	EXISTING J-BOX, TO REMAIN
5	96+27	35' LT	2	REPLACE EXISTING TYPE 1A J-BOX WITH NEW TYPE 2 J-BOX
5A	96+16	29' LT	1A	EXISTING J-BOX, TO REMAIN
6	97+30.6	32.5' LT	1A	EXISTING J-BOX, TO REMAIN
7	99+11.3	33.3' LT	1A	EXISTING J-BOX, TO REMAIN
8	100+26.9	33.1' LT	1A	EXISTING J-BOX, TO REMAIN
9	101+74.5	32.2' LT	1A	EXISTING J-BOX, TO REMAIN
10	102+95	32' LT	1A	EXISTING J-BOX, TO REMAIN
11	103+91.2	31.4' LT	1A	EXISTING J-BOX, TO REMAIN
3L	106+24.4	36.9' LT	2	EXISTING J-BOX, TO REMAIN
2L	106+21.8	35.7' RT	2	EXISTING J-BOX, TO REMAIN

NOTE: JUNCTION BOX 1, 2, AND 10 LOCATIONS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED.

### TRAFFIC SIGNAL POLE SUMMARY

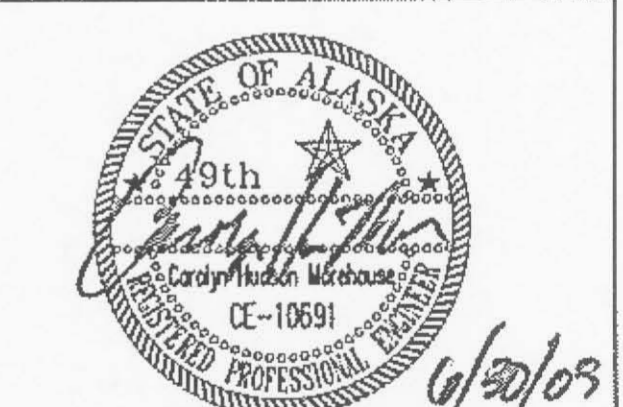
POLE NO.	STATION	OFFSET	SPECIAL FEATURES	MAST ARM LENGTH	REMARKS
1	96+09.6	33.0' RT		24'	INSTALL SALVAGED POLE AT THIS LOCATION
2	96+10.2	33.3' LT		24'	EXISTING POLE TO REMAIN

### LUMINAIRE SUMMARY

NUMBER	STATION	OFFSET	MOUNTING HEIGHT	MAST ARM	TYPE	REMARKS
1	POLE 1	-	35'	15'	400W, 240V, HPS MC3, Mag Reg	INSTALL SALVAGED LUMINAIRE
2	POLE 2	-	35'	15'	400W, 240V, HPS MC3, Mag Reg	EXISTING, DO NOT REPLACE.
3	94+88.1	32.2' RT	35'	15'	250W, 240V, HPS MC3, Mag Reg	INSTALL NEW LIGHT STANDARD WITH SALVAGED LUMINAIRE

JNU - FLOYD DRYDEN PEDESTRIAN ACTIVATED HAWK SIGNAL PROJECT NO. 79080  
**SIGNAL SUMMARIES**

DESIGNED BY: D. FAGNANT



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STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
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SIGNAL SUMMARIES	
PROJECT DESIGNATION NUMBER	
79080 ~ SRTS LU20-09-0001	
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ATTACHMENT NUMBER		
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ACTIVATED HAWK SIGNAL  
PROJECT NO. 79080

**LOAD CENTER  
SUMMARIES**

SUMMARY OF LOAD CENTER: G				
LOAD CENTER TYPE 1, EXISTING				
LOCATION DATA: 107+67.1, OFFSET 55.4' RT				
LOAD CENTER: UTILITY POLE AT 108+32, OFFSET 56' RT				
POWER SOURCE: UTILITY POLE AT 108+32, OFFSET 56' RT				
PHOTOELECTRIC CONTROL: YES, EXISTING PHOTO CELL ON LOAD CENTER				
SERVICE VOLTAGE	1 PHASE,	3-WIRE,	120/240 VOLTS,	60 Hz.
INTERRUPTING CAPACITY OF CIRCUIT BREAKERS-SERIES RATED			10,000 AIC	
PROVIDE METER SOCKET? YES			SERVICE AMPS	125A
MAIN BREAKER A:	120/240 VOLT,	2 POLE,	100 AMPERES	
CONTACTOR:	600 VOLT,	12 POLE,	30 AMPERES	
LOAD PANEL A SUMMARY				
CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER	
			AMPS	POLES
G 14,16	HIGHWAY LIGHTING CONTROL	0.10	15A	2
G 18	TRAFFIC SIGNAL CONTROLLER CABINET	3.17	50A	1
G 17	F.D. SCHOOL FLASHER (G3)	0.30	15A	1
G 6,8	HIGHWAY LIGHTING 4 (G4)	1.30	15A	2
G 9,11	HIGHWAY LIGHTING 5 (G5)	1.30	15A	2
G 2,4	HIGHWAY LIGHTING 2 (G6)	2.00	15A	2
G 5,7	HIGHWAY LIGHTING 3 (G7)	-	15A	2
G 1,3	HIGHWAY LIGHTING 1 (G8)	1.40	15A	2
G 15	CONTROLLER CABINET HEATER, LIGHT & FAN	1.44	20A	1
TOTAL DEMAND LOAD		11.01 KVA		

NOTES:

- SEE SHEET Q4 FOR LOAD CENTER WIRING DIAGRAMS.
- REMOVE CONDUCTORS FROM CIRCUIT G 5,7.

SUMMARY OF LOAD CENTER: H				
LOAD CENTER TYPE 1, NEW				
LOCATION DATA: 95+97.6, OFFSET 51.5' LT				
LOAD CENTER: UTILITY POLE AT 95+49.8, OFFSET 107.6' LT				
POWER SOURCE: UTILITY POLE AT 95+49.8, OFFSET 107.6' LT				
PHOTOELECTRIC CONTROL: YES, MOUNT NEW PHOTO CELL ON LOAD CENTER				
SERVICE VOLTAGE	1 PHASE,	3-WIRE,	120/240 VOLTS,	60 Hz.
SUPPLIED BY AEL&P				
INTERRUPTING CAPACITY OF CIRCUIT BREAKERS-SERIES RATED			10,000 AIC	
PROVIDE METER SOCKET? YES			SERVICE AMPS	100A
MAIN BREAKER A:	120/240 VOLT,	2 POLE,	100 AMPERES	
CONTACTOR:	600 VOLT,	12 POLE,	30 AMPERES	
LOAD PANEL A SUMMARY				
CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER	
			AMPS	POLES
H 1	HAWK SIGNAL CONTROLLER CABINET	0.36	20A	1
H 2	HIGHWAY LIGHTING CONTROL	0.10	20A	2
H 3	CONTROLLER CABINET HEATER, LIGHT & FAN	1.58	20A	1
H 6	CROSSWALK LIGHTING	1.05	20A	2
H 5	SPARE	-	20A	2
H 10	SPARE	-	20A	2
TOTAL DEMAND LOAD:		3.09 KVA		

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JNU - FLOYD DRYDEN  
PEDESTRIAN ACTIVATED  
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**LOAD CENTER  
SUMMARIES**

PROJECT DESIGNATION NUMBER  
79080 ~ SRTS LU20-09-0001

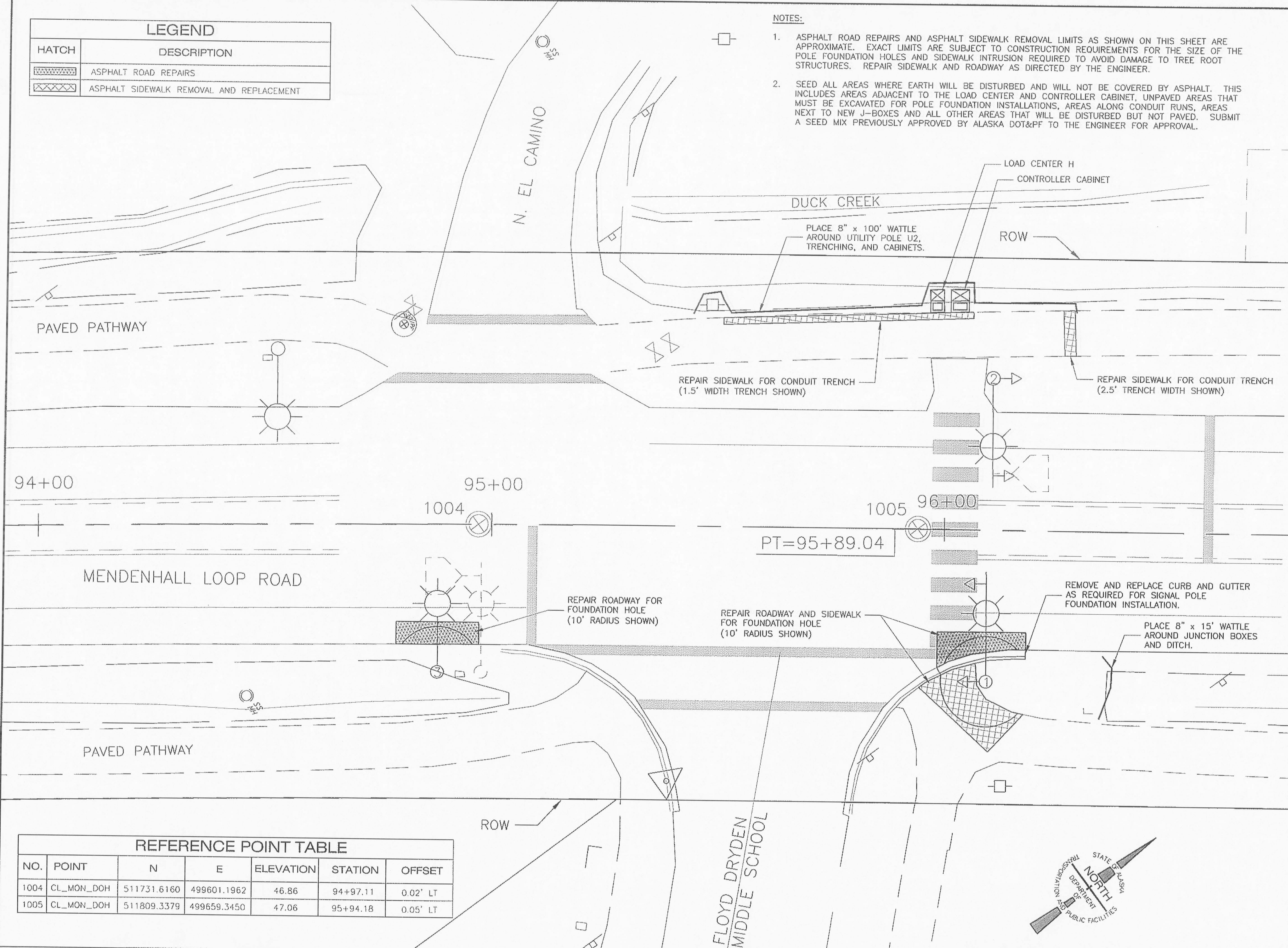
STATE	YEAR
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**CIVIL PLANVIEW**

LEGEND	
HATCH	DESCRIPTION
	ASPHALT ROAD REPAIRS
	ASPHALT SIDEWALK REMOVAL AND REPLACEMENT

- NOTES:**
- ASPHALT ROAD REPAIRS AND ASPHALT SIDEWALK REMOVAL LIMITS AS SHOWN ON THIS SHEET ARE APPROXIMATE. EXACT LIMITS ARE SUBJECT TO CONSTRUCTION REQUIREMENTS FOR THE SIZE OF THE POLE FOUNDATION HOLES AND SIDEWALK INTRUSION REQUIRED TO AVOID DAMAGE TO TREE ROOT STRUCTURES. REPAIR SIDEWALK AND ROADWAY AS DIRECTED BY THE ENGINEER.
  - SEED ALL AREAS WHERE EARTH WILL BE DISTURBED AND WILL NOT BE COVERED BY ASPHALT. THIS INCLUDES AREAS ADJACENT TO THE LOAD CENTER AND CONTROLLER CABINET, UNPAVED AREAS THAT MUST BE EXCAVATED FOR POLE FOUNDATION INSTALLATIONS, AREAS ALONG CONDUIT RUNS, AREAS NEXT TO NEW J-BOXES AND ALL OTHER AREAS THAT WILL BE DISTURBED BUT NOT PAVED. SUBMIT A SEED MIX PREVIOUSLY APPROVED BY ALASKA DOT&PF TO THE ENGINEER FOR APPROVAL.



94+00

95+00

96+00

1004

1005

PT=95+89.04

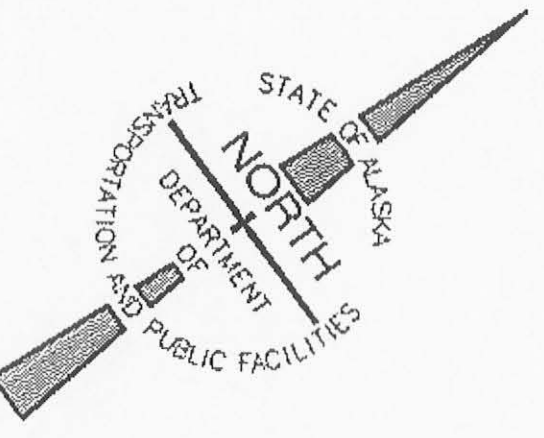
MENDENHALL LOOP ROAD

PAVED PATHWAY

ROW

FLOYD DRYDEN MIDDLE SCHOOL

REFERENCE POINT TABLE						
NO.	POINT	N	E	ELEVATION	STATION	OFFSET
1004	CL_MON_DOH	511731.6160	499601.1962	46.86	94+97.11	0.02' LT
1005	CL_MON_DOH	511809.3379	499659.3450	47.06	95+94.18	0.05' LT



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**CIVIL PLANVIEW**

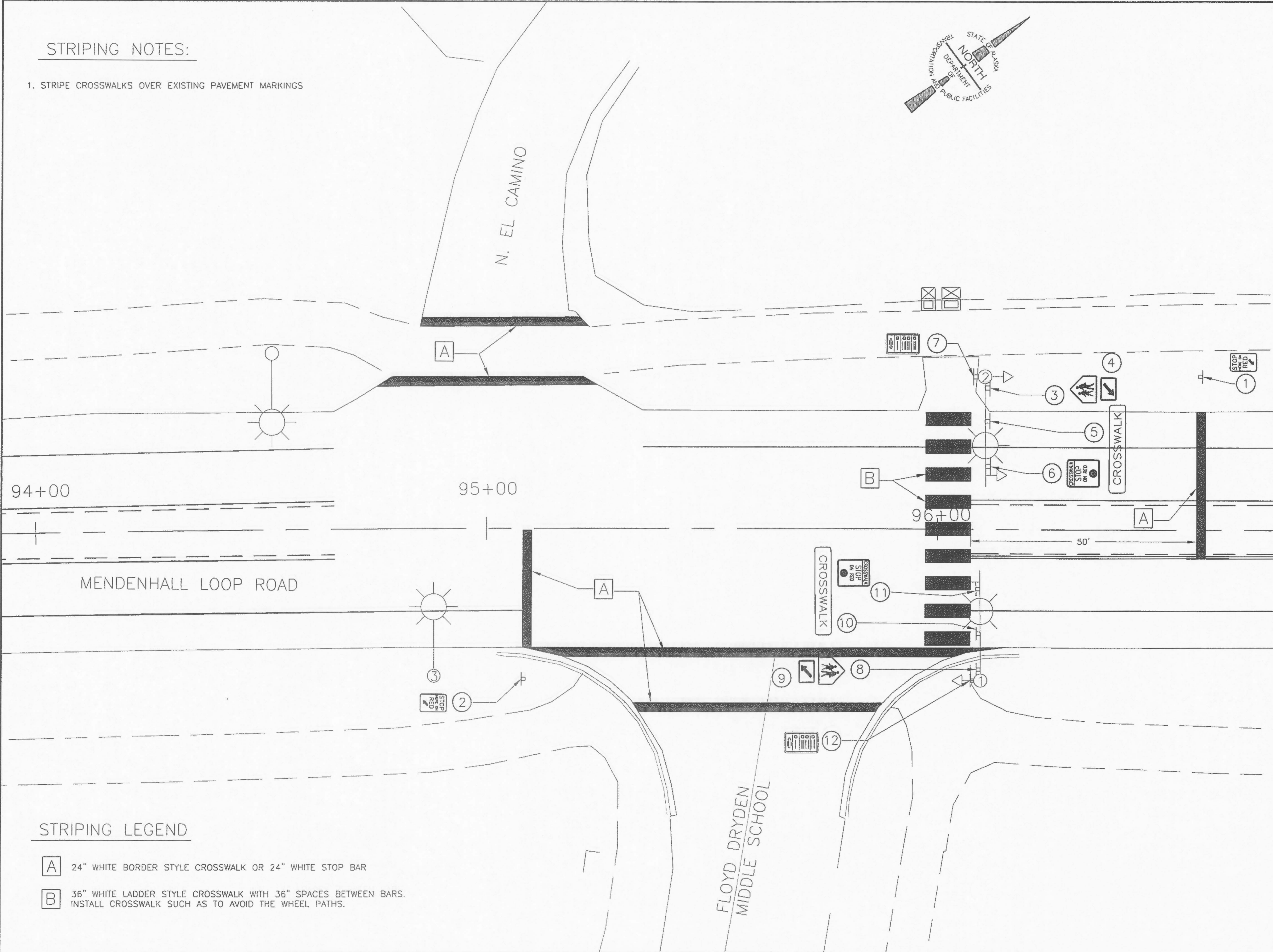
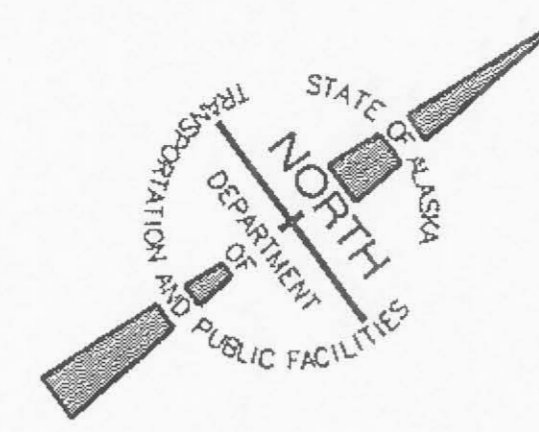
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F1	17

**STRIPING NOTES:**

1. STRIPE CROSSWALKS OVER EXISTING PAVEMENT MARKINGS



**STRIPING LEGEND**

- A** 24" WHITE BORDER STYLE CROSSWALK OR 24" WHITE STOP BAR
- B** 36" WHITE LADDER STYLE CROSSWALK WITH 36" SPACES BETWEEN BARS. INSTALL CROSSWALK SUCH AS TO AVOID THE WHEEL PATHS.

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**JNU - FLOYD DRYDEN PEDESTRIAN ACTIVATED HAWK SIGNAL**  
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**SIGNING AND STRIPING**

DESIGNED BY: D. FAGNANT



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### SIGN SUMMARY

SIGN NUMBER	LEGEND	STATION	OFFSET	ASDS CODE	WIDTH (IN)	HEIGHT (IN)	AREA (SQ FT)	POST	FACING	COMMENTS
1	STOP HERE ON RED	96+58	33' LT	R10-6	24	36	6	2.5 PST	SB	
2	STOP HERE ON RED	95+08	33' RT	R10-6	24	36	6	2.5 PST	NB	
3	ADVANCE SCHOOL CROSSING (SYMBOL)	POLE 2		S1-1	36	36	9		SB	USE FLOURESCENT YELLOW-GREEN SIGN
4	DIAGONAL DOWN ARROW PLATE	POLE 2		W16-7PL	30	18	3.75		SB	USE FLOURESCENT YELLOW-GREEN SIGN
5	CROSSWALK	POLE 2		SEE NOTE 6	18	96	12		SB	USE FLOURESCENT YELLOW-GREEN SIGN
6	CROSSWALK / STOP ON RED (BALL)	POLE 2		SEE NOTE 6	30	36	7.5		SB	
7	ED. PLAQUE FOR PED SIGNALS (COUNTDOWN)	POLE 2		R10-3E	9	15	.94		NB	
8	ADVANCE SCHOOL CROSSING (SYMBOL)	POLE 1		S1-1	36	36	9		NB	USE FLOURESCENT YELLOW-GREEN SIGN
9	DIAGONAL DOWN ARROW PLATE	POLE 1		W16-7PL	30	18	3.75		NB	USE FLOURESCENT YELLOW-GREEN SIGN
10	CROSSWALK	POLE 1		SEE NOTE 6	18	96	12		NB	USE FLOURESCENT YELLOW-GREEN SIGN
11	CROSSWALK / STOP ON RED (BALL)	POLE 1		SEE NOTE 6	30	36	7.5		NB	
12	ED. PLAQUE FOR PED SIGNALS (COUNTDOWN)	POLE 1		R10-3E	9	15	.94		NB	

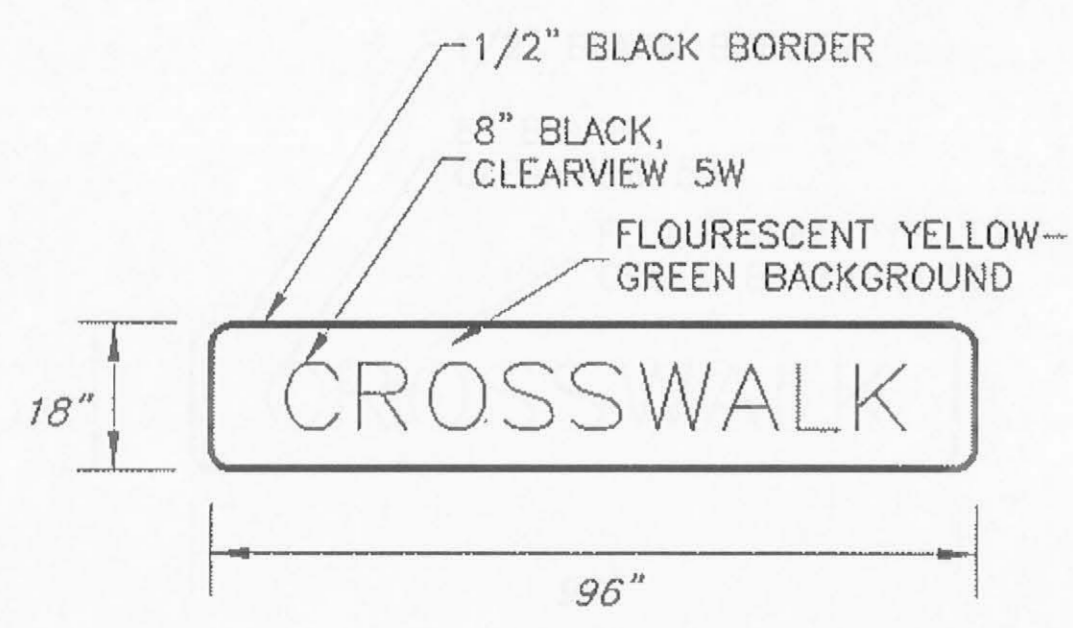
TOTAL ~~78.5~~ SQ FT  
78.4

**SIGNING NOTES:**

- SIGNS MOUNTED ON MAST ARMS SHALL USE DIAMOND GRADE SIGN SHEETING AS PER STD SPEC 615-2.01(2c)
- SIGNS SHALL BE AT LEAST 0.125" THICKNESS ALUMINUM AS PER STD DWG S-00.10.
- SEE STD DWG S-23.00 FOR MOUNTING DETAILS FOR SIGNS MOUNTED ON SIGNAL MAST ARMS.
- SEE STD DWG S-30.30 DETAIL "SLEEVE TYPE SOIL EMBEDMENT" FOR SIGNS MOUNTED ON 2.5" PST.
- FOR REFERENCE PURPOSES, MENDENHALL LOOP ROAD IS ASSUMED TO RUN NORTH - SOUTH.
- SEE DETAILS ON THIS SHEET FOR CUSTOM CROSSWALK / STOP ON RED AND CROSSWALK SIGNS.

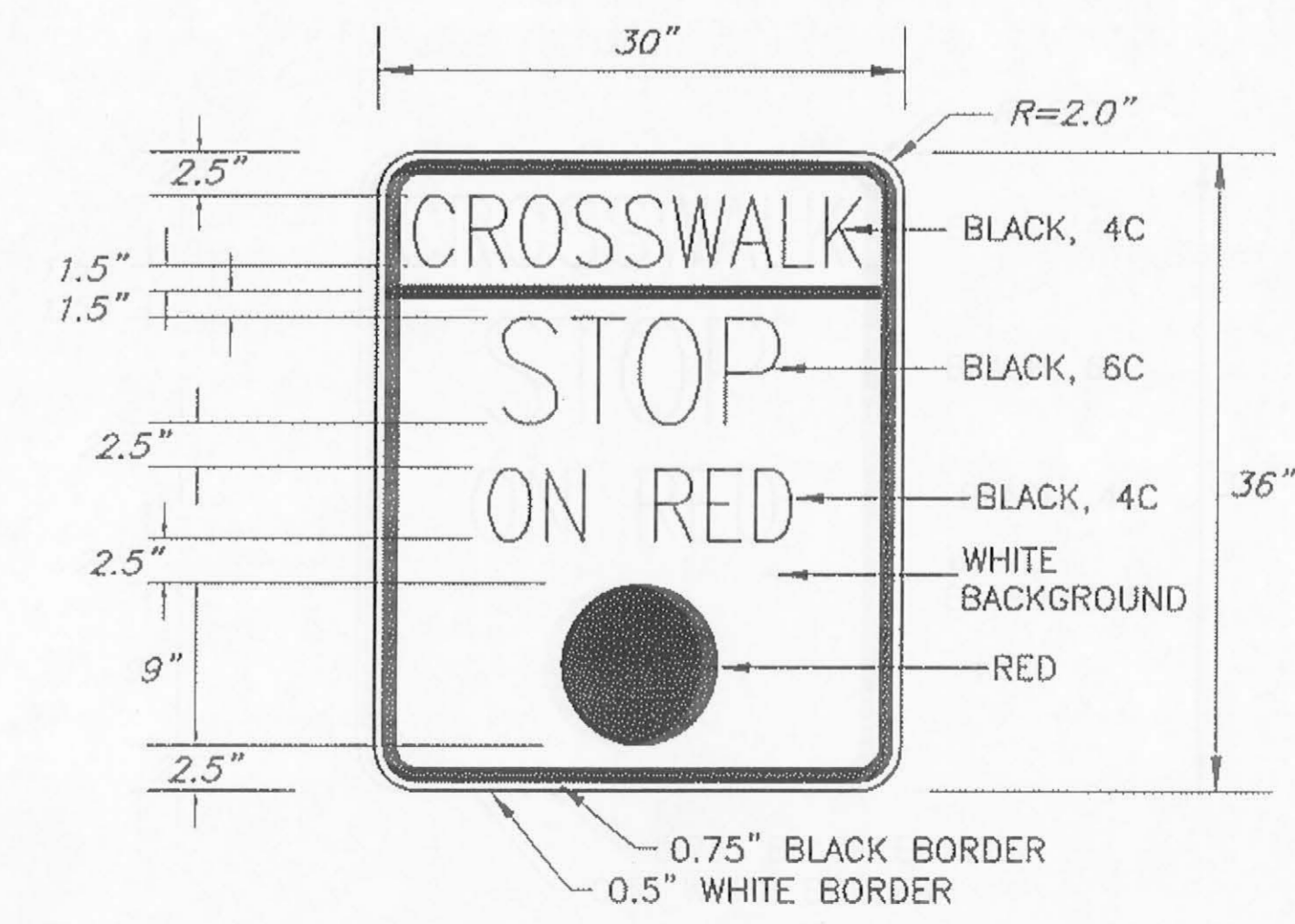
### STRIPING SUMMARY

SYMBOL	DESCRIPTION	WIDTH	LENGTH	COMMENTS
A	SOLID WHITE	24"	300'	METHYL METHACRYLATE, FOR BORDER CROSSWALK AND STOP BARS
B	SOLID WHITE	36"	10'	(9) 3'x10' BARS REQUIRED TOTAL. METHYL METHACRYLATE, FOR LADDER CROSSWALK. USE 36" SPACES BETWEEN EACH BAR.



**CUSTOM SIGN:**  
**CROSSWALK**

NOTE: THE OVERHEAD CROSSWALK SIGNS SHALL BE SIMILAR TO THE D3-1B SIGN (OVERHEAD STREET NAME SIGN) EXCEPT THE SIGN SHALL BE BLACK ON FLOURESCENT YELLOW-GREEN INSTEAD OF WHITE ON GREEN.



**CUSTOM SIGN:**  
**CROSSWALK / STOP ON RED (BALL)**

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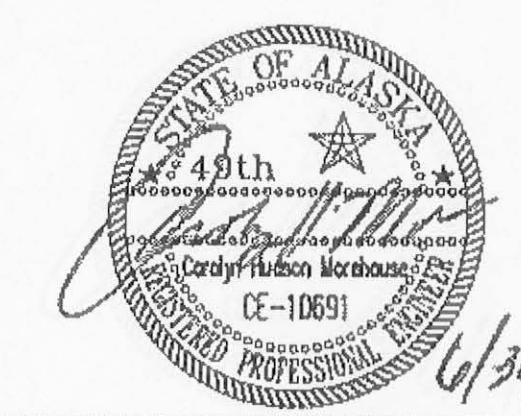
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**ELECTRICAL PLANVIEW**

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STATE OF ALASKA  
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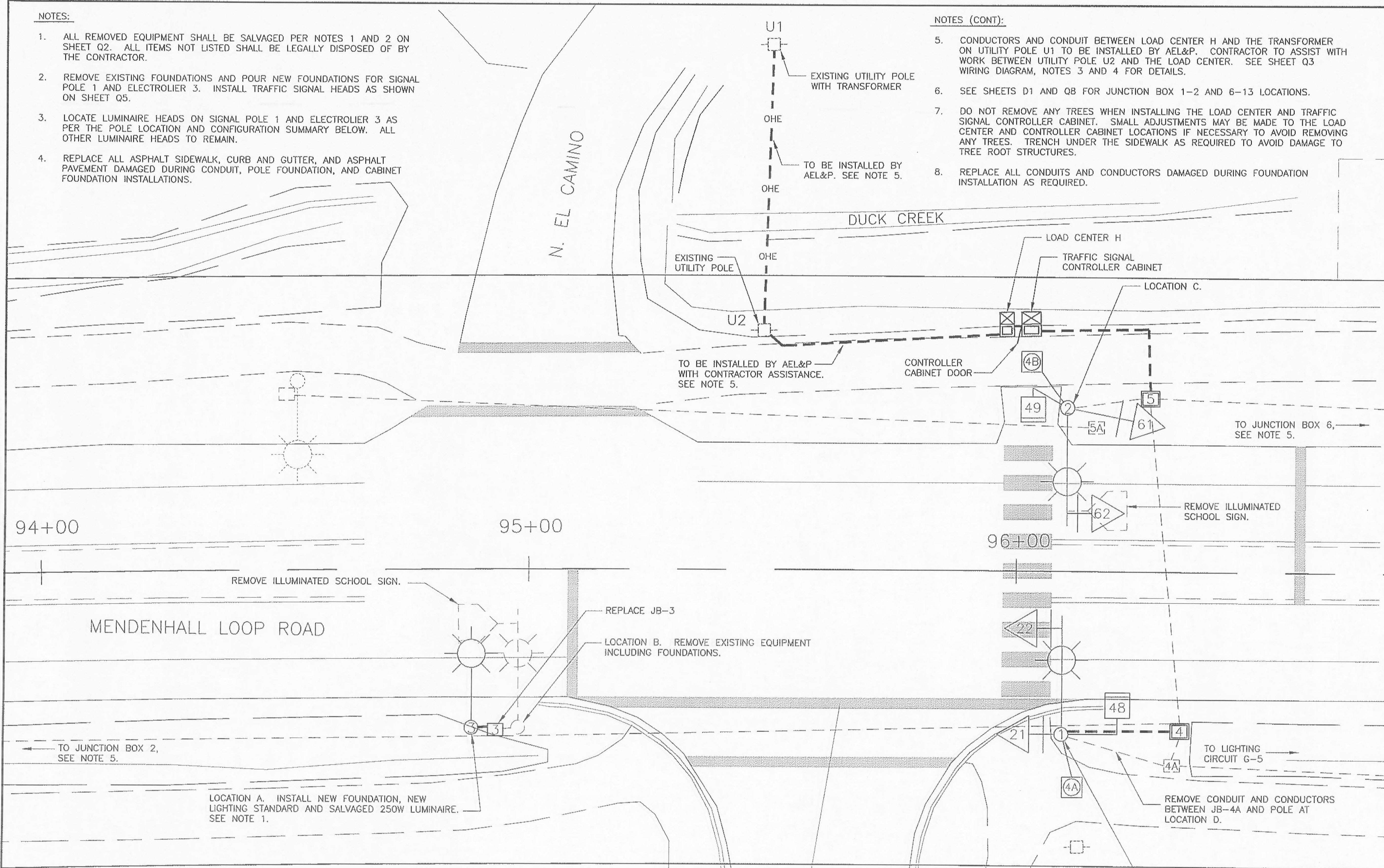
SHEET NUMBER	TOTAL SHEETS
Q1	17

**NOTES:**

- ALL REMOVED EQUIPMENT SHALL BE SALVAGED PER NOTES 1 AND 2 ON SHEET Q2. ALL ITEMS NOT LISTED SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR.
- REMOVE EXISTING FOUNDATIONS AND POUR NEW FOUNDATIONS FOR SIGNAL POLE 1 AND ELECTROLIER 3. INSTALL TRAFFIC SIGNAL HEADS AS SHOWN ON SHEET Q5.
- LOCATE LUMINAIRE HEADS ON SIGNAL POLE 1 AND ELECTROLIER 3 AS PER THE POLE LOCATION AND CONFIGURATION SUMMARY BELOW. ALL OTHER LUMINAIRE HEADS TO REMAIN.
- REPLACE ALL ASPHALT SIDEWALK, CURB AND GUTTER, AND ASPHALT PAVEMENT DAMAGED DURING CONDUIT, POLE FOUNDATION, AND CABINET FOUNDATION INSTALLATIONS.

**NOTES (CONT):**

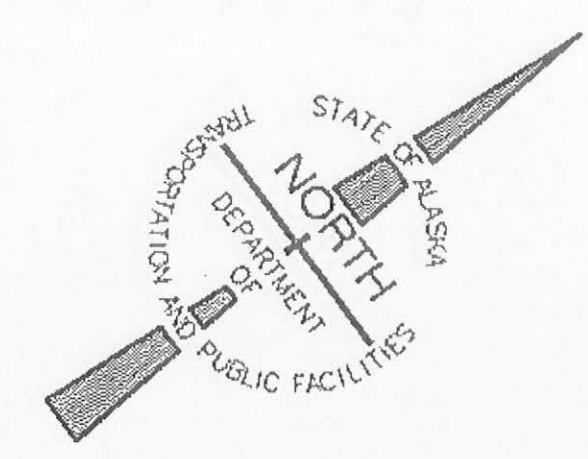
- CONDUCTORS AND CONDUIT BETWEEN LOAD CENTER H AND THE TRANSFORMER ON UTILITY POLE U1 TO BE INSTALLED BY AEL&P. CONTRACTOR TO ASSIST WITH WORK BETWEEN UTILITY POLE U2 AND THE LOAD CENTER. SEE SHEET Q3 WIRING DIAGRAM, NOTES 3 AND 4 FOR DETAILS.
- SEE SHEETS D1 AND Q8 FOR JUNCTION BOX 1-2 AND 6-13 LOCATIONS.
- DO NOT REMOVE ANY TREES WHEN INSTALLING THE LOAD CENTER AND TRAFFIC SIGNAL CONTROLLER CABINET. SMALL ADJUSTMENTS MAY BE MADE TO THE LOAD CENTER AND CONTROLLER CABINET LOCATIONS IF NECESSARY TO AVOID REMOVING ANY TREES. TRENCH UNDER THE SIDEWALK AS REQUIRED TO AVOID DAMAGE TO TREE ROOT STRUCTURES.
- REPLACE ALL CONDUITS AND CONDUCTORS DAMAGED DURING FOUNDATION INSTALLATION AS REQUIRED.

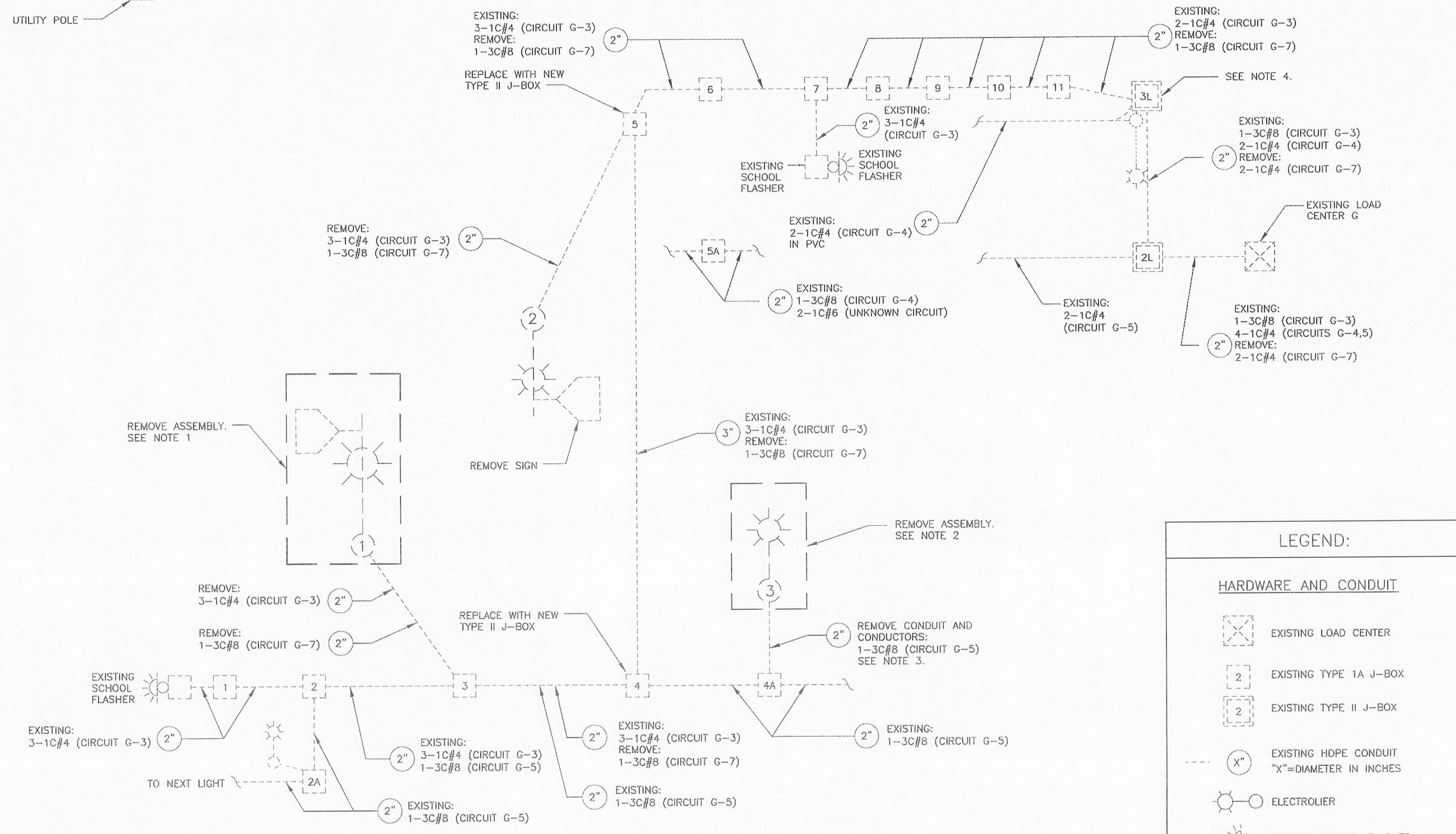
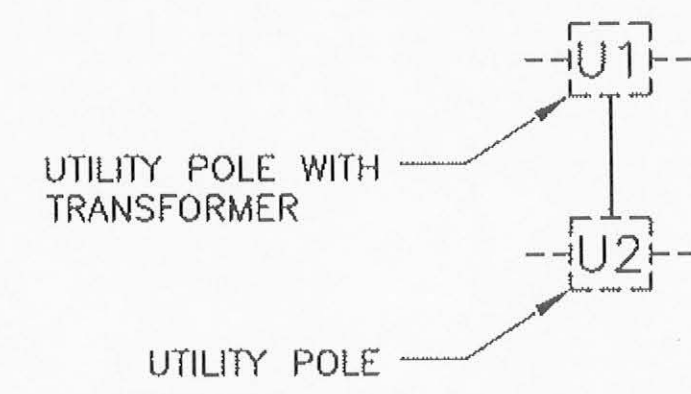


POLE LOCATION AND CONFIGURATION SUMMARY

LOCATION	STATION	OFFSET	EXISTING POLE	NEW POLE*	EXISTING LUMINAIRE	NEW LUMINAIRE*
A	94+88.1	32.2' RT	-	ELECTROLIER	-	250W
B	94+97.8	32.2' RT	SIGNAL	-	250W	-
C	96+10.2	33.3' LT	SIGNAL	SIGNAL	400W	400W
D	96+09.6	33.0' RT	ELECTROLIER	SIGNAL	400W	400W

\* NEW POLES AND NEW LUMINAIRES IN THE ABOVE TABLE REFER TO THE NEW CONFIGURATION THAT WILL EXIST AT THE PROJECT'S COMPLETION, NOT NECESSARILY THE INSTALLATION OF NEW EQUIPMENT.





**NOTES:**

- REMOVE ALL EQUIPMENT INCLUDING CONDUIT AND CONDUCTORS FROM POLE 1 TO J-BOX 3. SALVAGE THE FOLLOWING ITEMS FOR RE-USE AS SHOWN ON THE PLANS: SIGNAL POLE, 250W LUMINAIRE AND LUMINAIRE MAST ARM, SIGNAL MAST ARM. DISPOSE OF ALL OTHER ITEMS, INCLUDING THE FOUNDATION.
- REMOVE ALL EQUIPMENT INCLUDING CONDUIT AND CONDUCTORS FROM POLE 3 TO J-BOX 4A. SALVAGE THE FOLLOWING ITEMS FOR RE-USE AS SHOWN ON THE PLANS: 400W LUMINAIRE AND LUMINAIRE MAST ARM. SALVAGE THE LIGHTING STANDARD AND RETURN IT TO THE DOT MAINTENANCE YARD. DISPOSE OF ALL OTHER ITEMS, INCLUDING THE FOUNDATION.
- RECONNECT CIRCUIT G-5 AFTER REMOVING ELECTROLIER 3 FROM THE CIRCUIT TO MAINTAIN POWER SUPPLY TO ALL ELECTROLIERS SOUTH OF ELECTROLIER 3.
- IN JB-3L CIRCUIT G-3 IS SPLICED FROM A 3C#8 CABLE TO 2-1C#4 CONDUCTORS AND CIRCUIT G-7 IS SPLICED FROM 2-1C#4 CONDUCTORS TO A 3C#8 CABLE.
- FOR ANY EXISTING J-BOX THAT IS OPENED AND DOES NOT CONTAIN A COPPER GROUNDING BRAID ATTACHED TO THE LID, INSTALL ONE. FOR ANY EXISTING J-BOX THAT IS OPENED AND THE GROUNDING BRAID IS NOT ATTACHED FROM THE LID TO GROUND, COMPLETE THE CONNECTION. SEE STD DWG T-34.01, NOTE 4.

**LEGEND:**

**HARDWARE AND CONDUIT**

- EXISTING LOAD CENTER
- EXISTING TYPE 1A J-BOX
- EXISTING TYPE II J-BOX
- EXISTING HOPE CONDUIT  
"X"=DIAMETER IN INCHES
- ELECTROLIER
- EXISTING SCHOOL FLASHER
- EXISTING UTILITY POLE

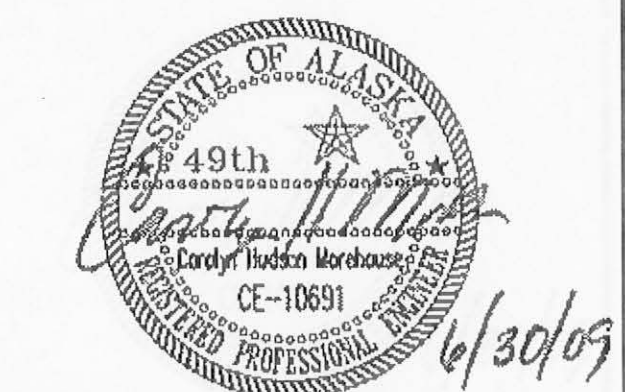
**CONDUCTORS**

- 3C#8 SIGNAL POWER, SCHOOL ZONE FLASHER, OR G ILLUMINATION CIRCUIT
- 2-1C#4 G ILLUMINATION CIRCUIT, SCHOOL ZONE FLASHER
- 5C TRAFFIC SIGNAL OR PEDESTRIAN SIGNAL INDICATION
- 2C PEDESTRIAN PUSH BUTTON

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION

JNU - FLOYD DRYDEN PEDESTRIAN ACTIVATED HAWK SIGNAL PROJECT NO. 79080  
**WIRING DEMOLITION DIAGRAM**

DESIGNED BY: D. FAGNANT



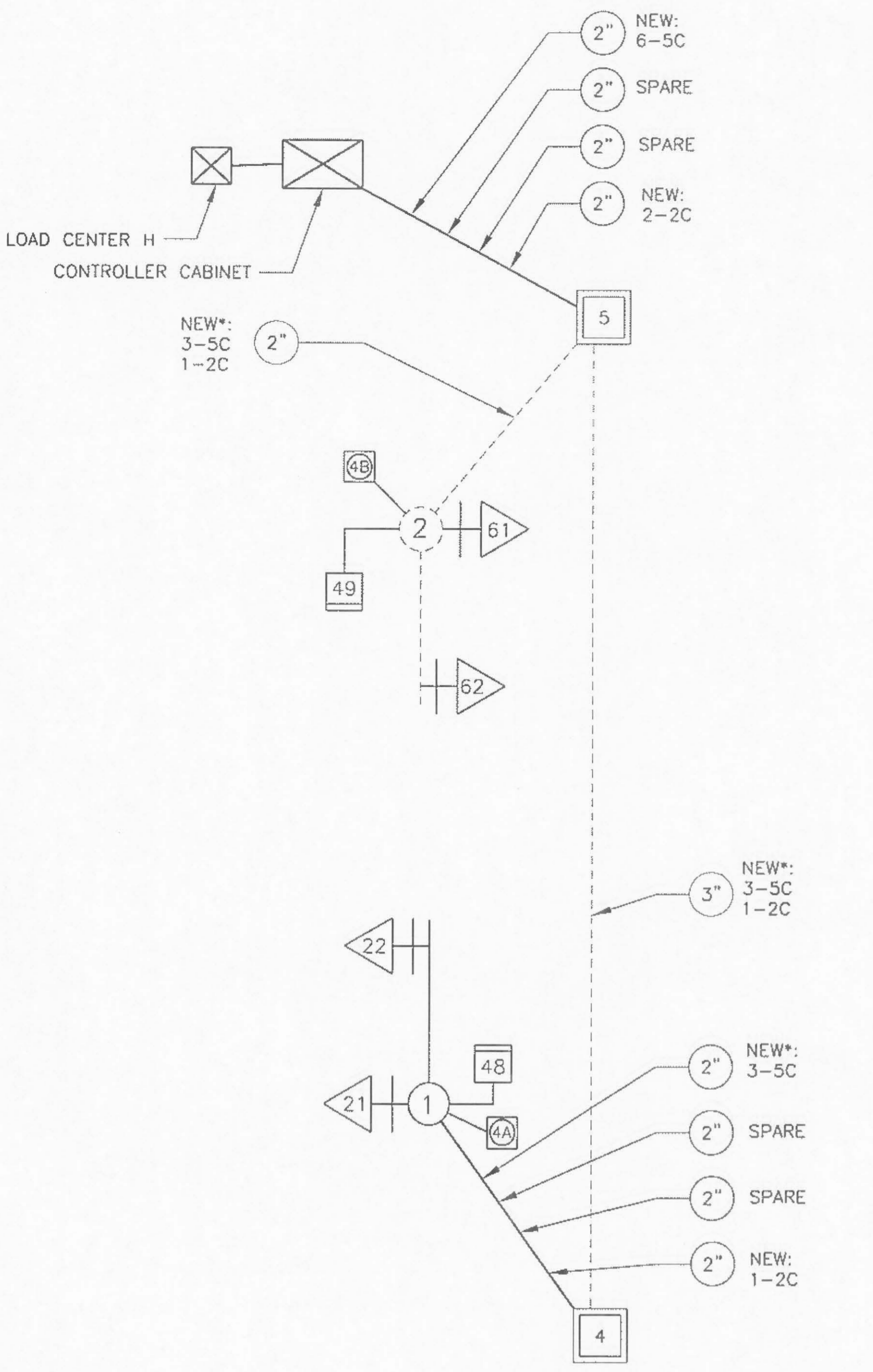
CHECKED BY: C. MOREHOUSE  
DRAWN/REVISED BY: D. FAGNANT

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION  
JNU - FLOYD DRYDEN PEDESTRIAN ACTIVATED HAWK SIGNAL  
PROJECT NO. 79080

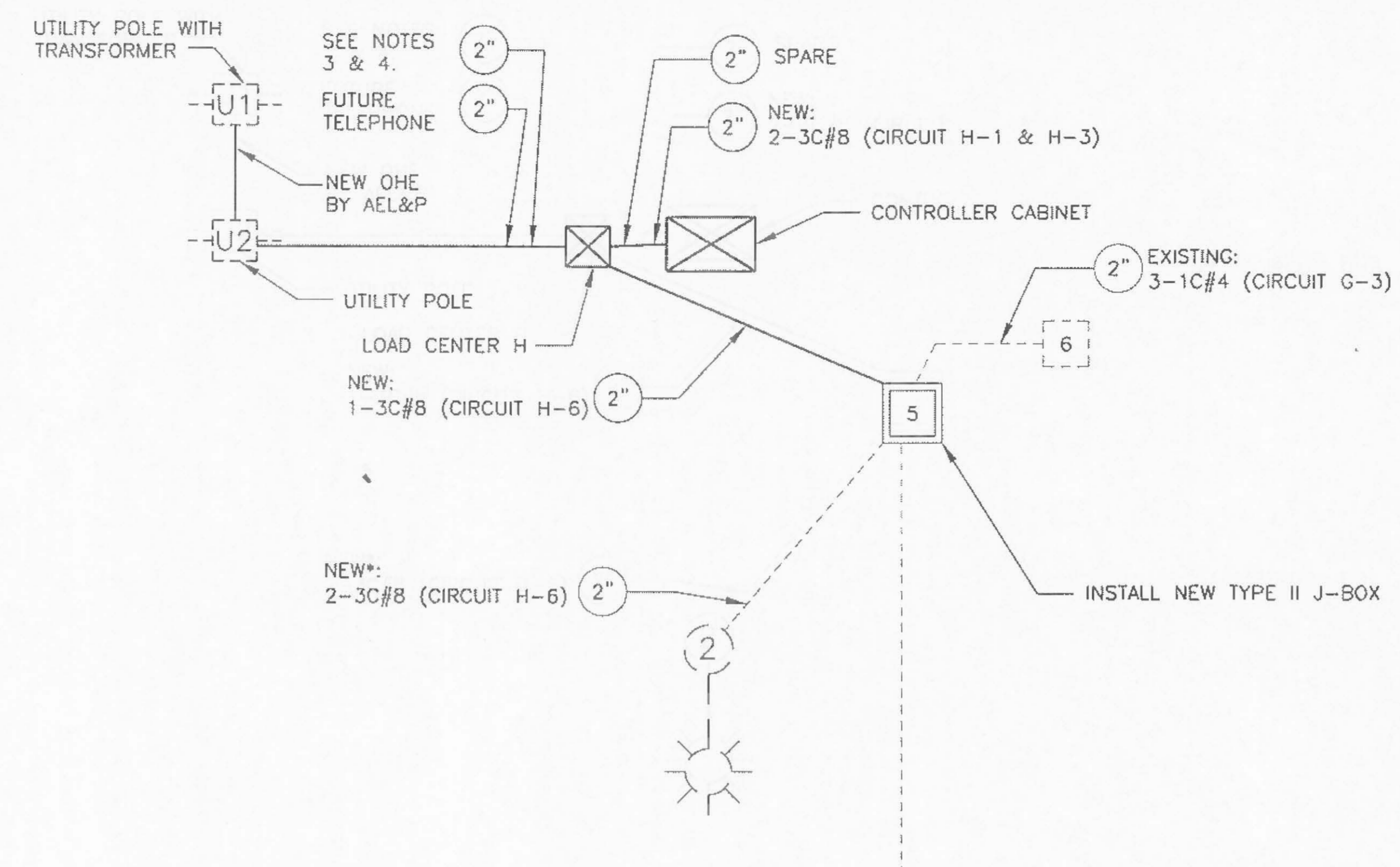
**WIRING DEMOLITION DIAGRAM**

PROJECT DESIGNATION NUMBER  
79080 ~ SRTS LU20-09-0001

STATE	YEAR
ALASKA	2009
SHEET NUMBER	TOTAL SHEETS
Q2	17



SIGNAL WIRING DIAGRAM



POWER WIRING DIAGRAM

NOTES:

1. INSTALL A NEW SIGNAL POLE FOUNDATION. PROVIDE NEW ACCESSORIES AS NEEDED TO RE-INSTALL THE FOLLOWING SALVAGED ITEMS: SIGNAL POLE, 400W LUMINAIRE AND MAST ARMS.
2. INSTALL NEW LIGHTING STANDARD AND LIGHTING STANDARD FOUNDATION. PROVIDE NEW ACCESSORIES AS NEEDED TO RE-INSTALL THE FOLLOWING SALVAGED ITEMS: 250W LUMINAIRE AND MAST ARM. CONNECT TO EXISTING CIRCUIT G-5 ON THE EAST SIDE OF MENDENHALL LOOP ROAD. INSTALL NEW CONDUIT EXTENSIONS AND / OR CONDUCTORS FOR THE CONNECTION AS REQUIRED.
3. DIG A TRENCH BETWEEN THE LOAD CENTER AND UTILITY POLE U2. INSTALL TWO 2" GALVANIZED RMC 90 DEGREE SWEEPS FROM THE LOAD CENTER INTO THE TRENCH. AEL&P WILL INSTALL TWO NEW CONDUITS BETWEEN UTILITY POLE U2 AND THE CONDUIT SWEEPS. AEL&P WILL INSTALL CONDUCTORS FROM UTILITY POLE U1 WITH THE TRANSFORMER TO THE LOAD CENTER. THE OTHER CONDUIT WILL BE CAPPED AT THE UTILITY POLE FOR FUTURE PHONE. BACKFILL ALONG THE TRENCH AFTER CONDUIT AND CONDUCTORS HAVE BEEN INSTALLED BY AEL&P. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE TYPE 1 LOAD CENTER BID ITEM 661 (1).
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION OF WORK WITH AEL&P.
5. SPLICE INTO EXISTING CIRCUIT G-5 IN J-BOX 3 TO SERVE THE LUMINAIRE MOUNTED ON POLE 3.
6. USE A WATERPROOF FRESIN FILLED SPLICE KIT FOR ALL SPLICES IN JUNCTION BOXES.

CONDUCTORS

3C#8	SIGNAL POWER, SCHOOL ZONE FLASHER, OR H ILLUMINATION CIRCUIT
2-1C#4	G ILLUMINATION CIRCUIT, SCHOOL ZONE FLASHER
5C	TRAFFIC SIGNAL OR PEDESTRIAN SIGNAL INDICATION
2C	PEDESTRIAN PUSH BUTTON
*	INDICATES CONDUIT WITH SHARED SIGNAL AND POWER CONDUCTORS

LEGEND:

HARDWARE AND CONDUIT

	NEW TRAFFIC SIGNAL CABINET
	NEW LOAD CENTER
	EXISTING LOAD CENTER
	NEW TYPE 1A J-BOX
	NEW TYPE II J-BOX
	EXISTING TYPE 1A J-BOX
	EXISTING TYPE II J-BOX
	NEW RMC CONDUIT "X"=DIAMETER IN INCHES
	EXISTING HDPE CONDUIT "X"=DIAMETER IN INCHES
	LUMINAIRE
	EXISTING SCHOOL FLASHER
	EXISTING UTILITY POLE

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

JNU - FLOYD DRYDEN PEDESTRIAN ACTIVATED HAWK SIGNAL PROJECT NO. 79080

NEW WIRING DIAGRAM

DESIGNED BY: D. FAGNANT



CHECKED BY: C. MOREHOUSE  
DRAWN/REVISED BY: D. FAGNANT

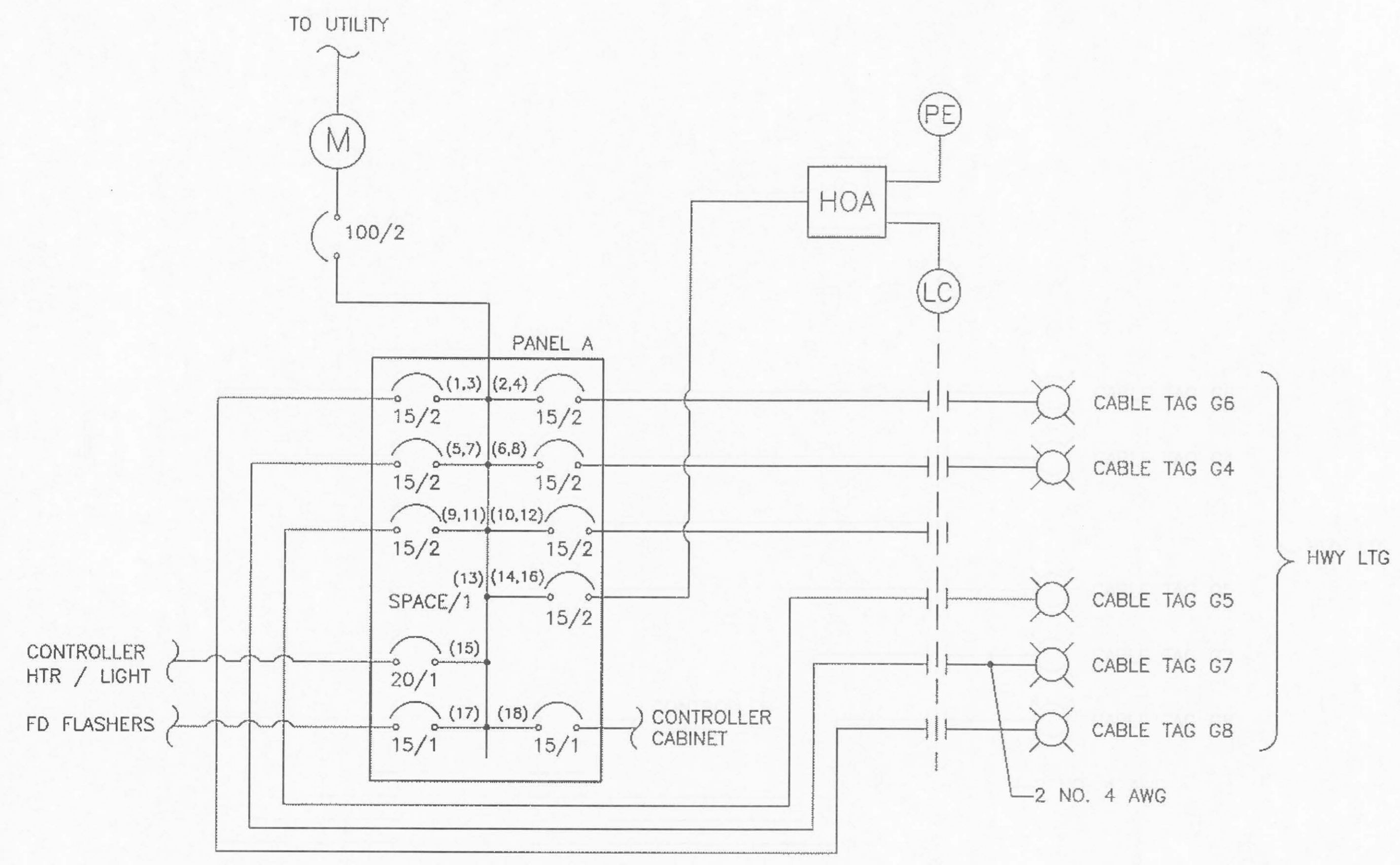
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION  
JNU - FLOYD DRYDEN PEDESTRIAN ACTIVATED HAWK SIGNAL PROJECT NO. 79080

NEW WIRING DIAGRAM

PROJECT DESIGNATION NUMBER  
79080 ~ SRTS LU20-09-0001

STATE	YEAR
ALASKA	2009
SHEET NUMBER	TOTAL SHEETS
Q3	17

JNU - FLOYD DRYDEN PEDESTRIAN ACTIVATED HAWK SIGNAL PROJECT NO. 79080  
**LOAD CENTER SINGLE LINE DIAGRAMS**

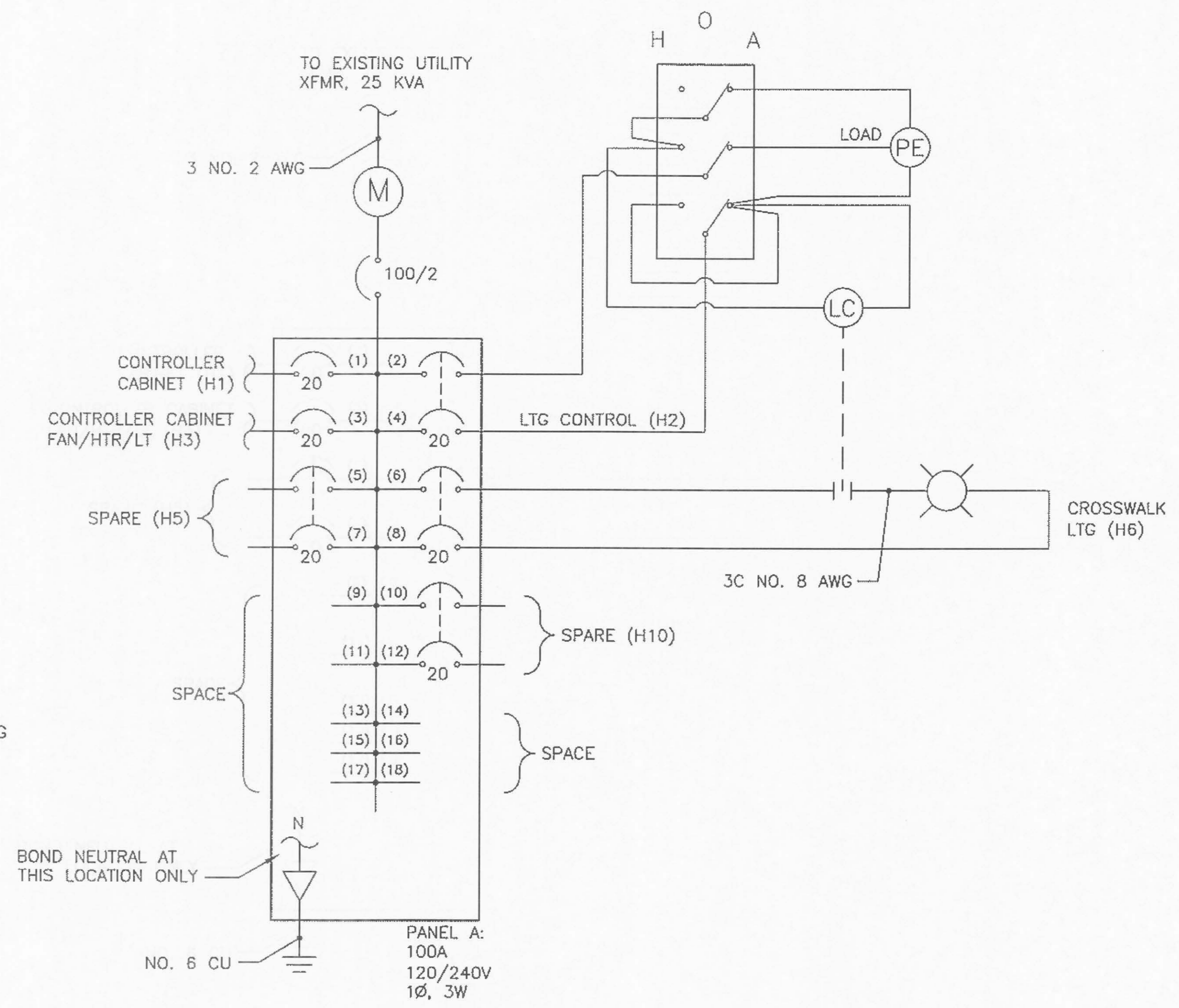


**SINGLE LINE DIAGRAM - LOAD CENTER G**  
 EXISTING, NO SCALE

NOTES:

- REMOVE CABLE G-7 (2 NO. 4) AT LIGHTING CONTACTOR. REMOVED CONDUCTOR BECOMES PROPERTY OF THE CONTRACTOR.
- REMOVE NAMEPLATE "LTG 3" ADJACENT TO CIRCUIT BREAKERS 5,7.
- REPLACE PANEL SCHEDULE IN DOOR AS FOLLOWS:
 

1,3 HWY LTG 1 (CABLE G8)	2,4 HWY LTG 2 (CABLE G6)
5,7 SPARE	6,8 HWY LTG 4 (CABLE G4)
9,11 HWY LTG 5 (CABLE G5)	10,12 SPARE
13 SPACE	14,16 LIGHTING CONTROL
15 CONTROLLER CABINET HEATER	18 TRAFFIC SIGNAL CONTROLLER CABINET
17 F.D. SCHOOL FLASHER	



**SINGLE LINE DIAGRAM - LOAD CENTER H**  
 NEW, NO SCALE

DESIGNED BY: M. HANSEN

CHECKED BY: C. MOREHOUSE  
 DRAWN/REVISED BY: D. FAGNANT

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
 STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION  
 JNU - FLOYD DRYDEN PEDESTRIAN ACTIVATED (HAWK) SIGNAL  
 PROJECT NO. 79080

**LOAD CENTER SINGLE LINE DIAGRAMS**

PROJECT DESIGNATION NUMBER  
 79080 - SRTS LU20-09-0001

STATE	YEAR
ALASKA	2009
SHEET NUMBER	TOTAL SHEETS
Q4	17

JNU - FLOYD DRYDEN PEDESTRIAN  
ACTIVATED HAWK SIGNAL  
PROJECT NO. 79080

# HAWK SIGNAL POLE DETAILS

DESIGNED BY: D. FAGNANT

CHECKED BY: C. MOREHOUSE

DRAWN/REVISED BY: D. FAGNANT

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
STATEWIDE DESIGN & ENGINEERING  
SERVICES DIVISION

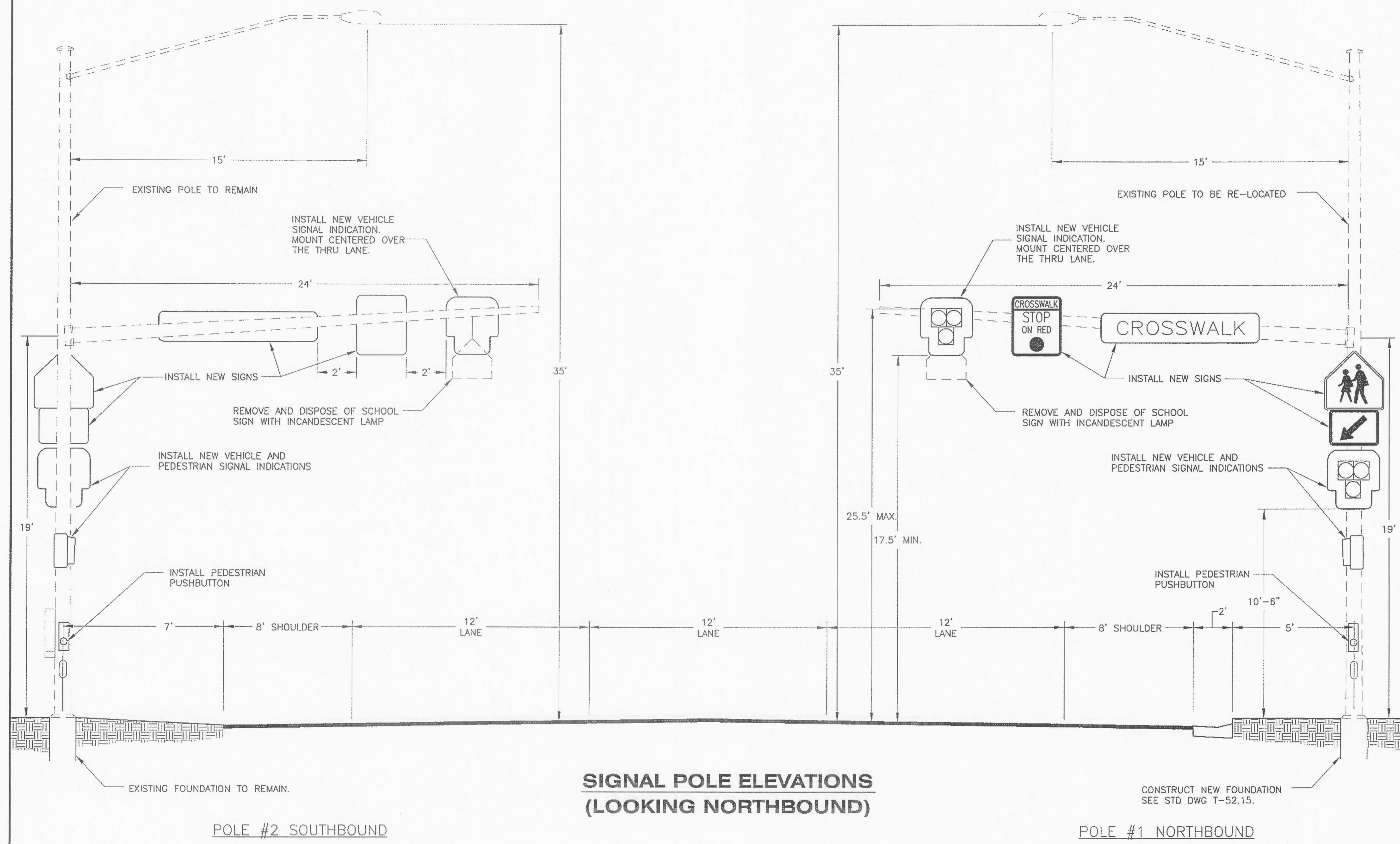
JNU - FLOYD DRYDEN  
PEDESTRIAN ACTIVATED  
HAWK SIGNAL  
PROJECT NO. 79080

**HAWK SIGNAL  
POLE DETAILS**

PROJECT DESIGNATION NUMBER  
79080 ~ SRTS LU20-09-0001

STATE	YEAR
ALASKA	2009

SHEET NUMBER	TOTAL SHEETS
Q5	17



- NOTES:
1. VEHICLE SIGNAL INDICATIONS, SIGNING, DIMENSIONS, AND LAYOUT FOR VEHICLE INDICATIONS AND SIGNING SHALL BE THE SAME ON SIGNAL POLES 1 AND 2.

JNU - FLOYD DRYDEN PEDESTRIAN ACTIVATED HAWK SIGNAL PROJECT NO. 79080

HAWK SIGNAL DETAILS

DESIGNED BY: D. FAGNANT



CHECKED BY: C. MOREHOUSE

DRAWN/REVISED BY: D. FAGNANT

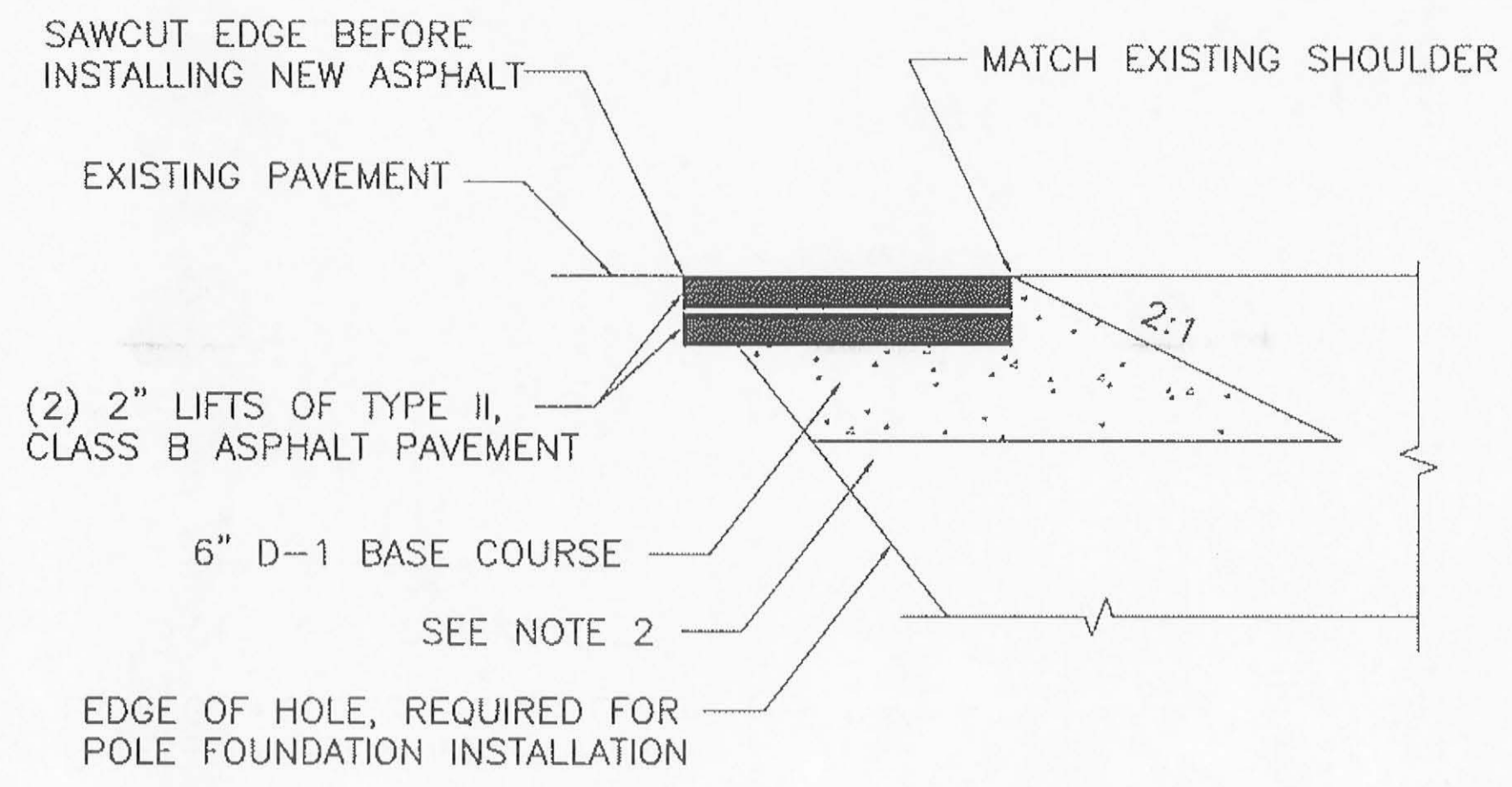
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
 STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

JNU - FLOYD DRYDEN PEDESTRIAN ACTIVATED HAWK SIGNAL PROJECT NO. 79080

**HAWK SIGNAL DETAILS**

PROJECT DESIGNATION NUMBER  
 79080 ~ SRTS LU20-09-0001

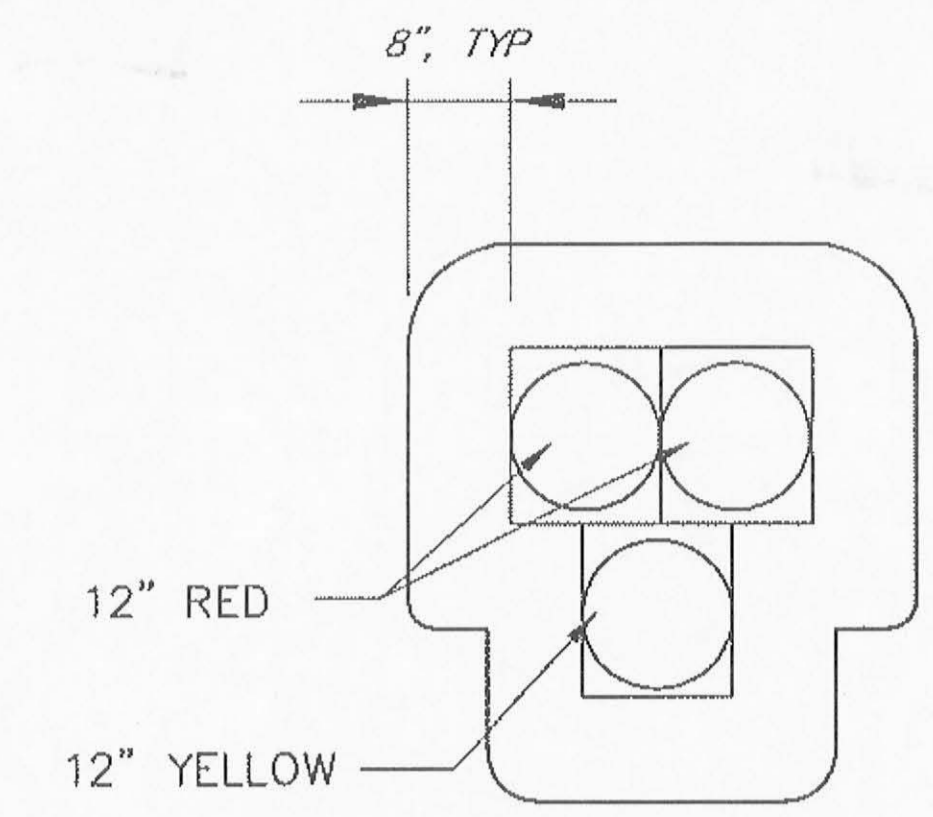
STATE	YEAR
ALASKA	2009
SHEET NUMBER	TOTAL SHEETS
Q6	17



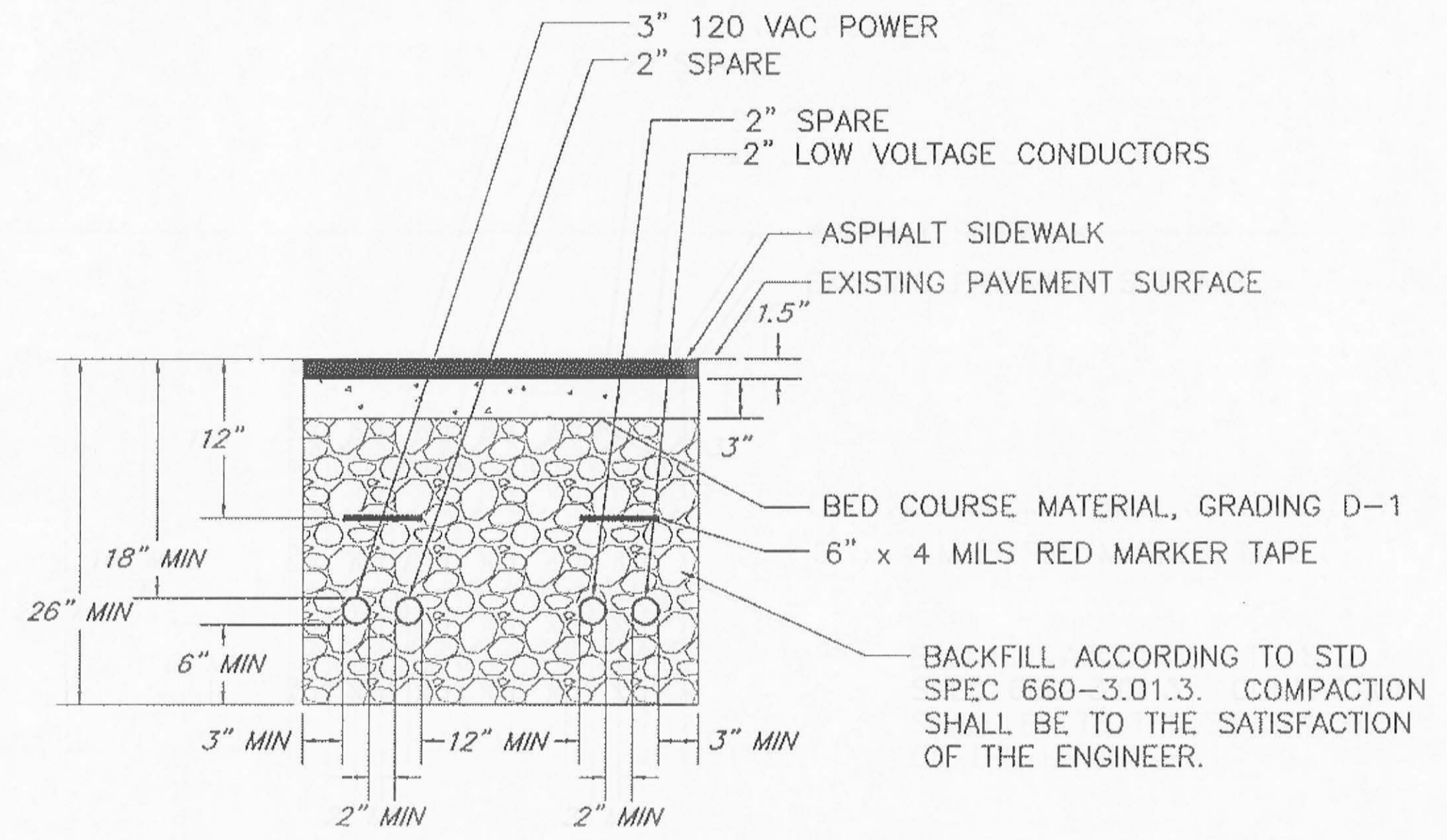
ASPHALT ROAD REPAIR DETAIL

ASPHALT ROAD REPAIR NOTES:

1. USE TYPE II, CLASS B ASPHALT PAVEMENT. USE A MIX DESIGN PREVIOUSLY APPROVED ON A PAVING PROJECT BY ALASKA DOT&PF.
2. BACKFILL USING MATERIAL EXCAVATED FROM HOLE FOR FOUNDATION INSTALLATION.
3. EXCAVATION, BACKFILL, D-1 BASECOURSE, ASPHALT PAVEMENT REMOVAL AND ASPHALT PAVEMENT FOR ASPHALT ROAD REPAIRS SHALL BE CONSIDERED SUBSIDIARY TO BID ITEM 660(1).



VEHICLE SIGNAL HEAD



CONDUIT TRENCH DETAIL

CONDUIT TRENCH NOTES:

1. USE TYPE II, CLASS B ASPHALT PAVEMENT WHEN PATCHING OVER MULTI-USE PATH. USE A MIX DESIGN APPROVED ON A PREVIOUS PAVING PROJECT BY ALASKA DOT&PF.
2. EXISTING BED COURSE MATERIAL MAY BE REUSED WITH THE APPROVAL OF THE ENGINEER.
3. THIS DETAIL ILLUSTRATES THE CROSSING WITH THE GREATEST NUMBER OF CONDUITS. ADJUST THE TRENCH AS REQUIRED FOR CROSSINGS WITH FEWER CONDUITS.
4. WHEN BACKFILLING ALONG CONDUIT RUNS, EXISTING MATERIAL MAY BE USED IF IT MEETS THE REQUIREMENTS LISTED IN SECTION 703-2.03. ALL IMPORTED MATERIAL REQUIRED FOR BACKFILL SHALL BE AGGREGATE BASE COURSE, GRADING D-1.
5. BACKFILL, BEDCOURSE, ASPHALT SIDEWALK REMOVAL AND ASPHALT SIDEWALK FOR CONDUIT TRENCHING SHALL BE CONSIDERED SUBSIDIARY TO BID ITEM 660(1).
6. ASPHALT SIDEWALK AND BED COURSE MATERIAL ONLY REQUIRED WHEN PATCHING SIDEWALK. FOR ALL OTHER TRENCHING, BACKFILL ACCORDING TO 660-3.01.3.
7. SEED ALL AREAS WITH GRASS SEED FOR LOCATIONS THAT ARE NOT COVERED BY THE ASPHALT SIDEWALK MULTI-USE PATH. USE A SEED MIX DESIGN PREVIOUSLY APPROVED BY ALASKA DOT&PF. SEE SECTION 618 OF THE SPECIFICATIONS. ALL SEEDING SHALL BE CONSIDERED SUBSIDIARY TO BID ITEM 660(1).

<i>SIGNAL SEQUENCING OPERATION</i>				
STEP	VEHICLE SIGNAL	PED SIGNAL	TIME (s)	REMARKS
1		SOLID HAND	-	DARK UNTIL ACTIVATED
2		SOLID HAND	3	FLASHING YELLOW UPON ACTIVATION
3		SOLID HAND	3	SOLID YELLOW VEHICLE CLEARANCE
4		PEDESTRIAN WALK INTERVAL	7	SOLID DOUBLE RED
5		PEDESTRIAN CLEARANCE INTERVAL	20	ALTERNATE FLASHING DOUBLE RED
6		SOLID HAND	60	DARK AGAIN UNTIL ACTIVATED, MIN TIME UNTIL NEXT ACTIVATION

NOTE:

1. IF THE HYBRID PEDESTRIAN TRAFFIC SIGNAL GOES INTO FLASH, THE PEDESTRIAN INDICATIONS SHALL GO DARK AND THE VEHICLE INDICATIONS SHALL FLASH YELLOW IN BOTH DIRECTIONS.

No.	DATE	DESCRIPTION

JNU - FLOYD DRYDEN PEDESTRIAN  
ACTIVATED HAWK SIGNAL  
PROJECT NO. 79080

HAWK SIGNAL DETAILS

DESIGNED BY: D. FAGNANT



CHECKED BY: C. MOREHOUSE

DRAWN/REVISED BY: D. FAGNANT

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
STATEWIDE DESIGN & ENGINEERING  
SERVICES DIVISION

JNU - FLOYD DRYDEN  
PEDESTRIAN ACTIVATED  
HAWK SIGNAL  
PROJECT NO. 79080

**HAWK SIGNAL  
DETAILS**

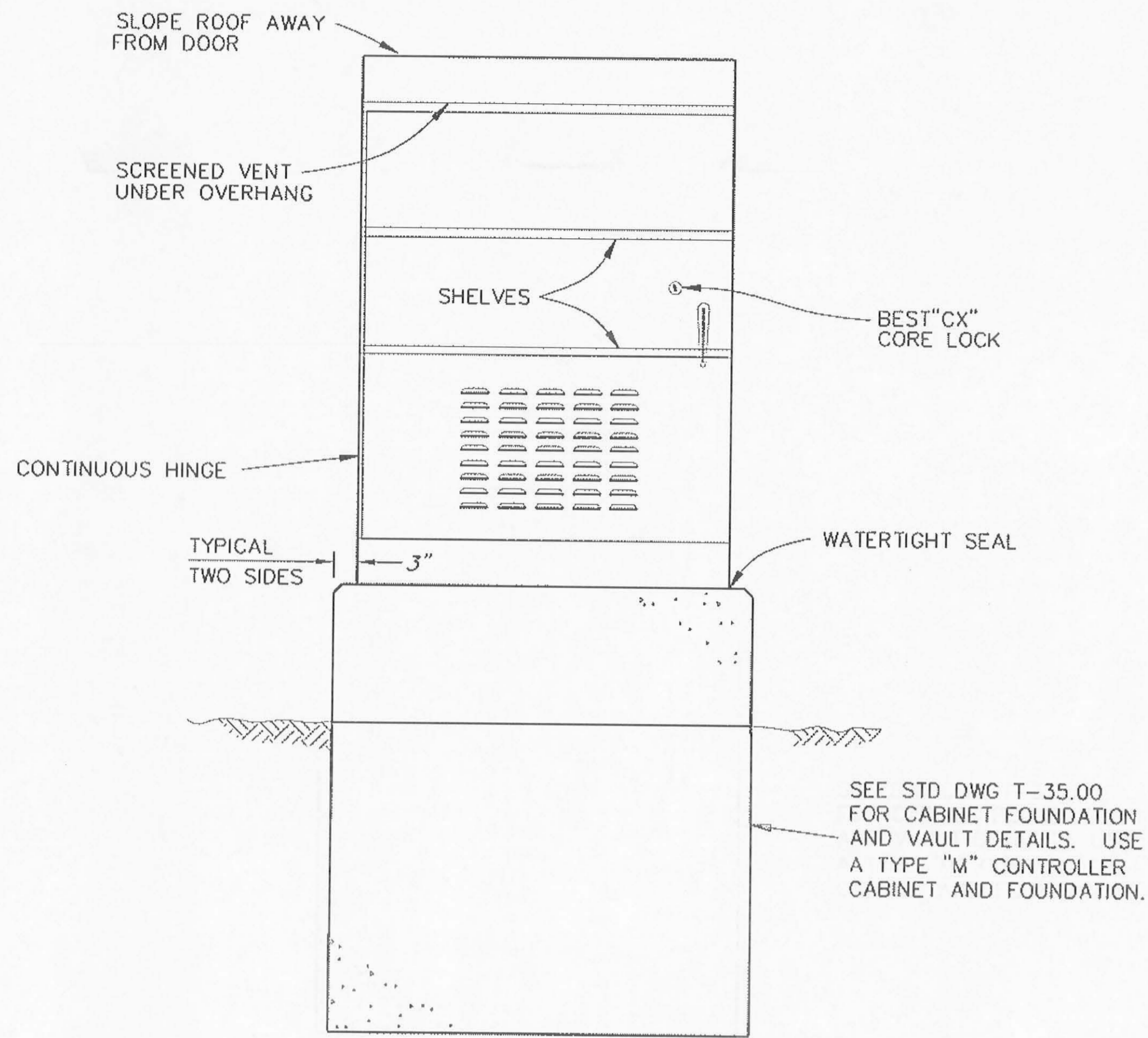
PROJECT DESIGNATION NUMBER  
79080 ~ SRTS LU20-09-0001

STATE ALASKA YEAR 2009

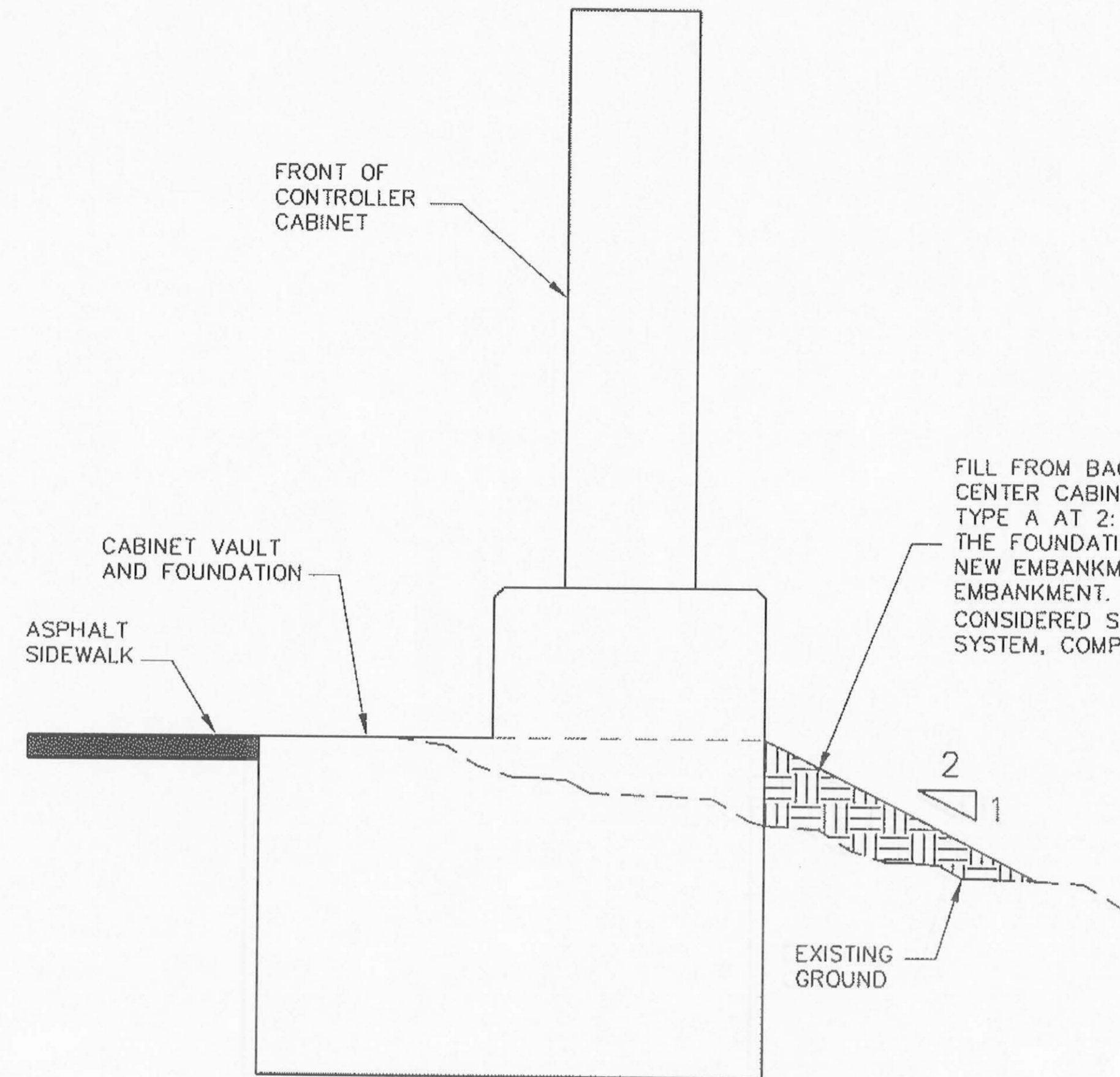
SHEET NUMBER 07 TOTAL SHEETS 17

NOTES:

- DO NOT REMOVE ANY TREES WHEN INSTALLING THE TRAFFIC SIGNAL CONTROLLER CABINET LOAD CENTER FOUNDATIONS OR WHEN INSTALLING CONDUIT.
- USE A SEED MIX DESIGN PREVIOUSLY APPROVED BY DOT FOR SEEDING IN BACK OF THE CONTROLLER CABINETS, ON AREAS DISTURBED DURING POLE FOUNDATION INSTALLATION, AND ALONG AREAS DISTURBED DURING TRENCHING.
- ALL SEEDING SHALL BE CONSIDERED SUBSIDIARY TO BID ITEM 660 (1).



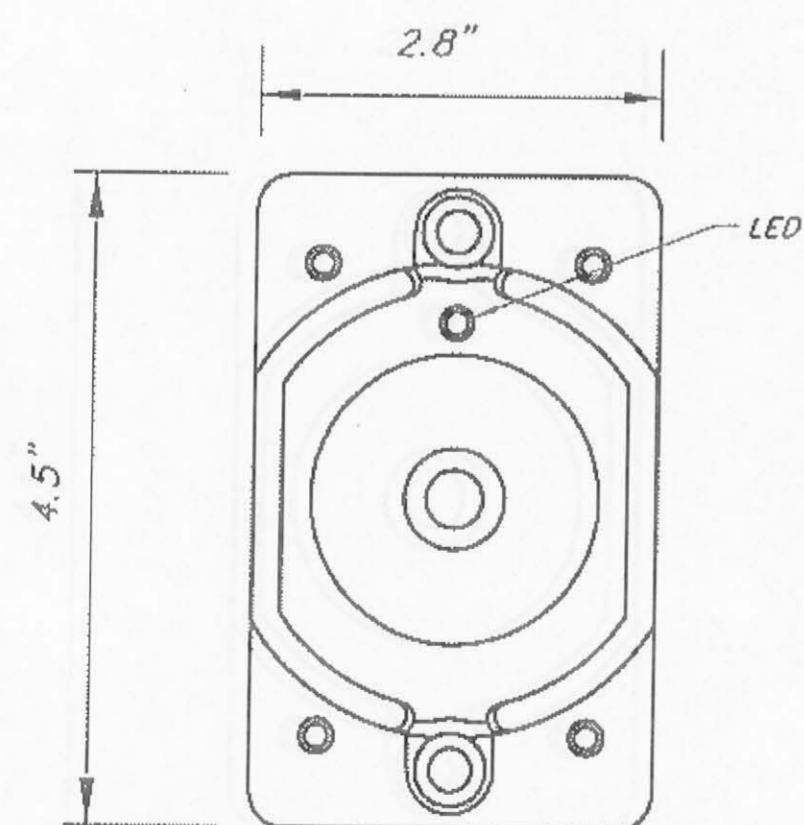
CONTROLLER CABINET ELEVATION



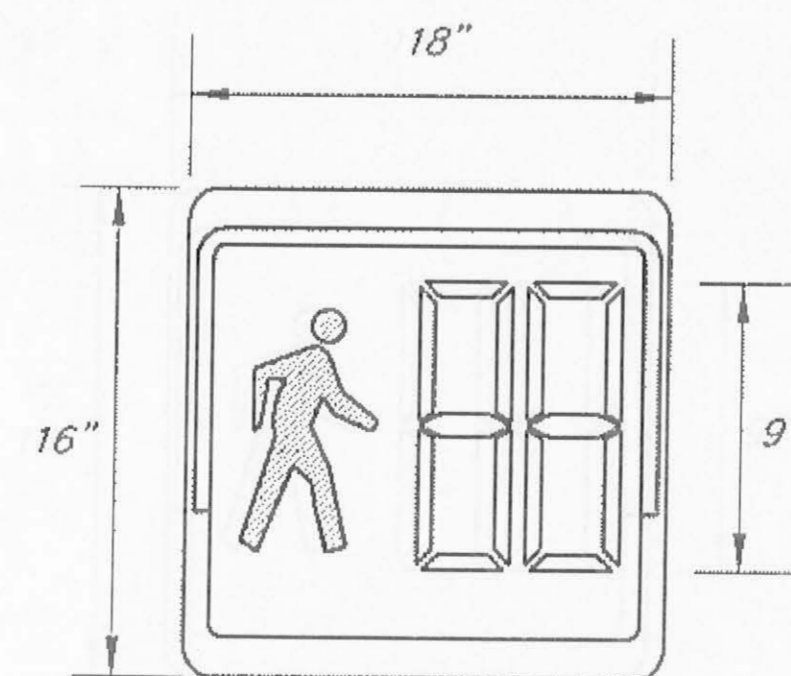
CONTROLLER CABINET SIDE VIEW

NOTE:

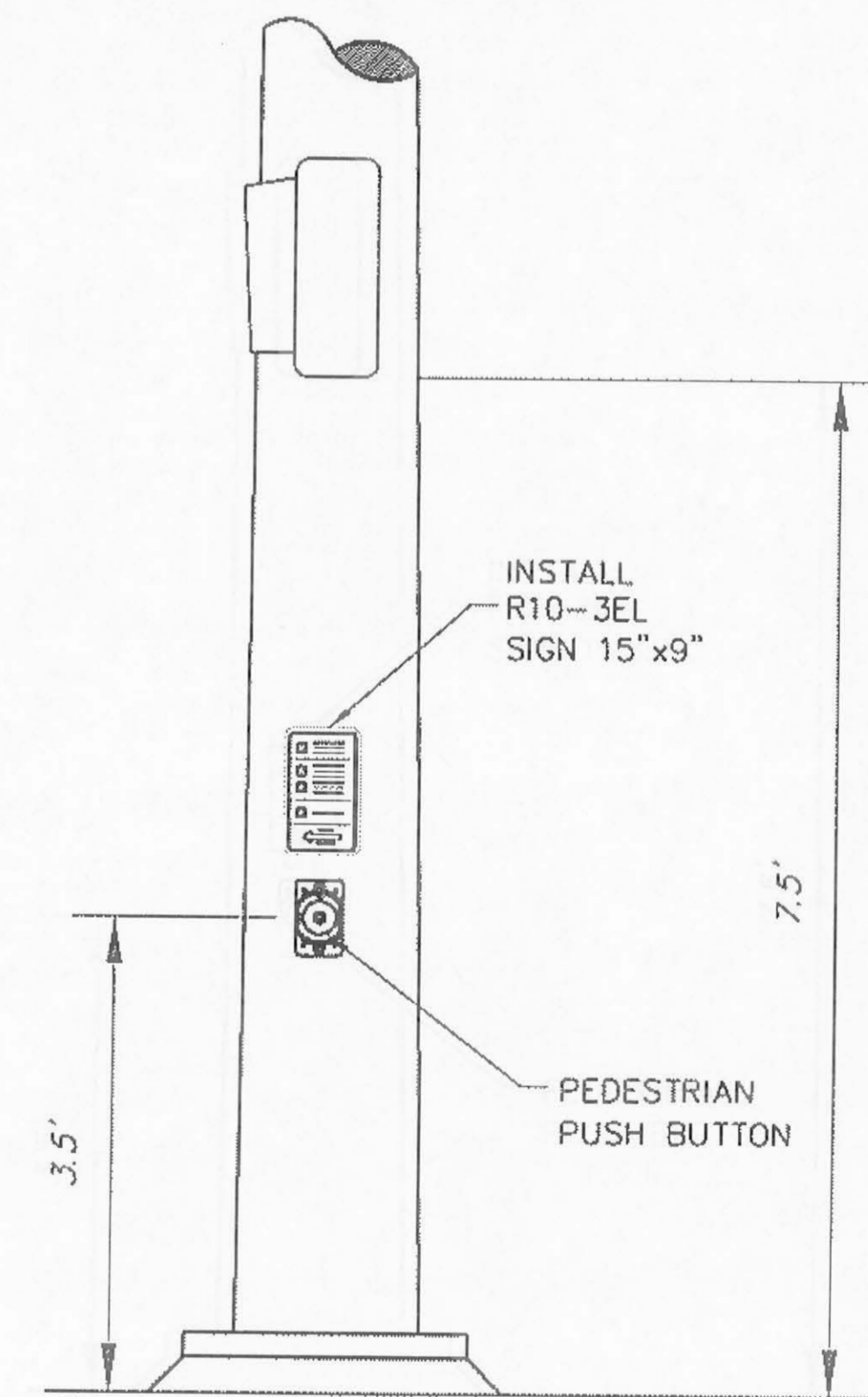
FILL, SEED, AND APPLY JUTE CLOTH BEHIND THE LOAD CENTER, SIMILAR TO THE CONTROLLER CABINET SHOWN IN THIS DETAIL. THIS SHALL BE CONSIDERED SUBSIDIARY TO BID ITEM 661(1).



PEDESTRIAN PUSHBUTTON



COUNTDOWN PEDESTRIAN SIGNAL



PEDESTRIAN HARDWARE  
SIGNAL POLE 1

(LOOKING NORTH)

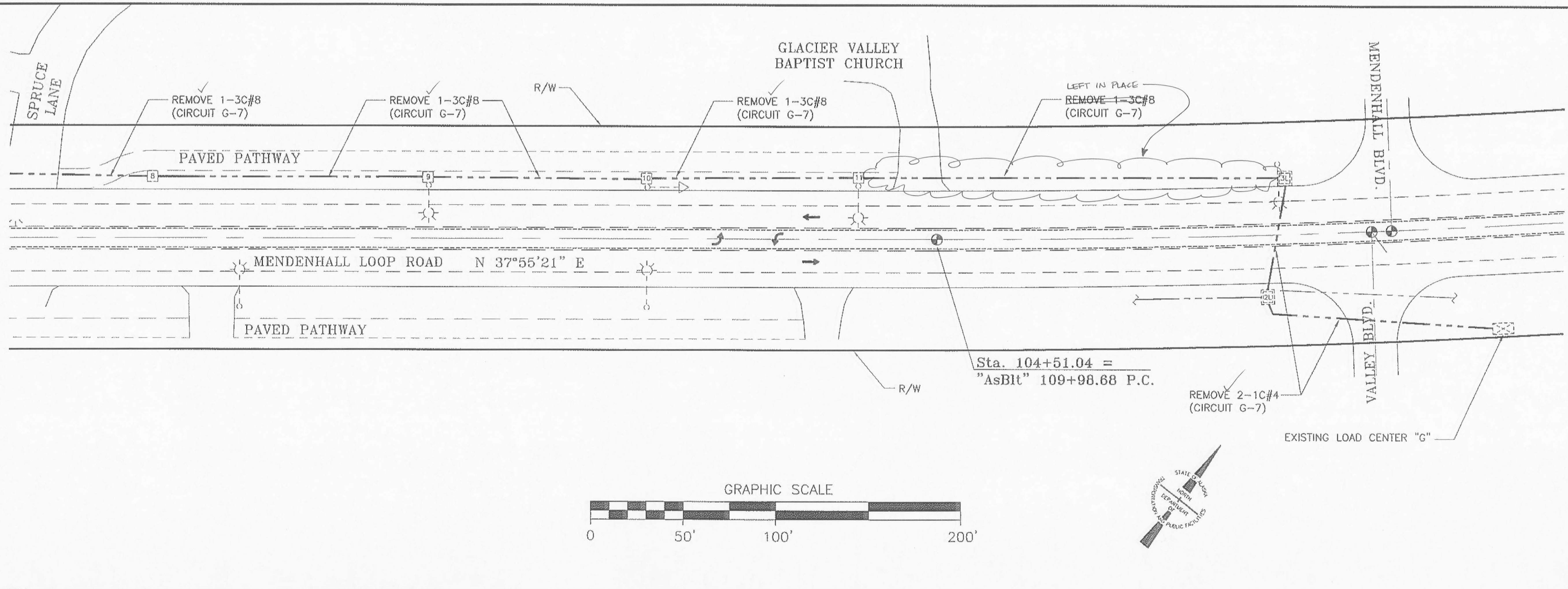
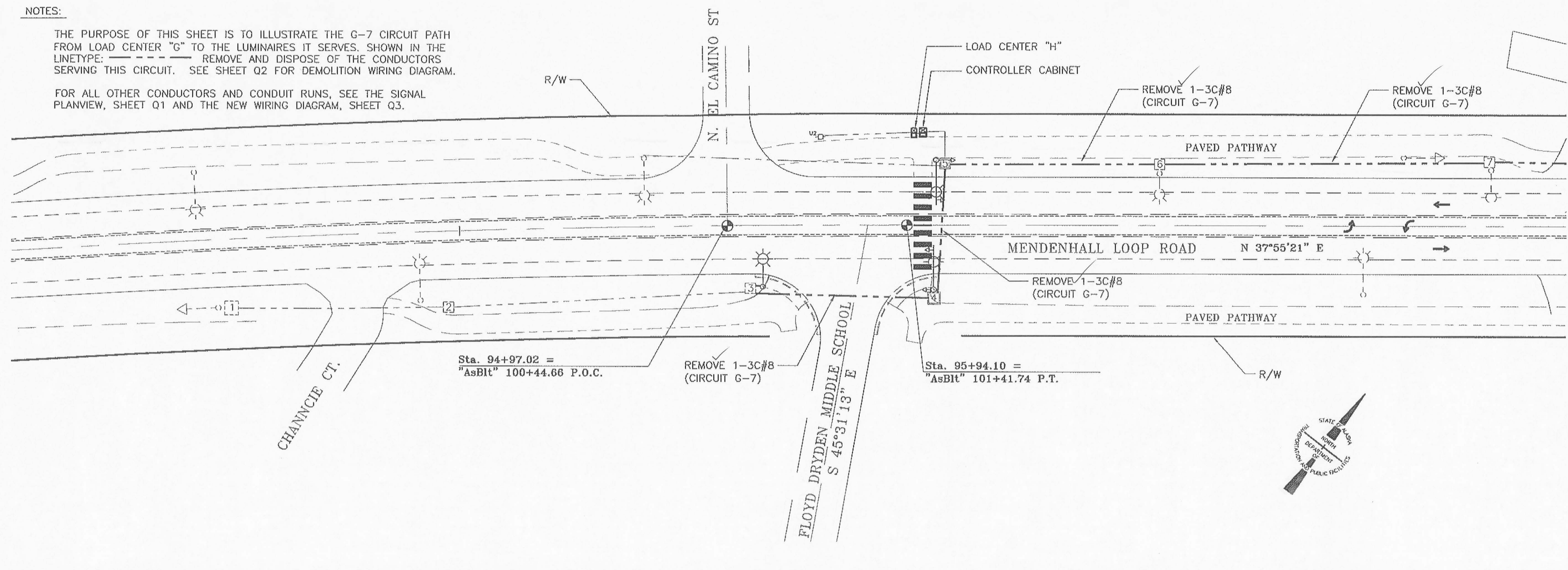
NOTE: USE THE SAME PEDESTRIAN HARDWARE SIGNAL POLE 2, EXCEPT USE A R10-3ER SIGN.

NOTES: BEEPER TO SOUND SIMULTANEOUSLY WITH LED FLASH. THE PUSHBUTTON SHALL USE A PIEZO ELECTRIC SENSOR. USE POLARA BULLDOG PUSHBUTTON OR ENGINEER APPROVED EQUAL.

**NOTES:**

THE PURPOSE OF THIS SHEET IS TO ILLUSTRATE THE G-7 CIRCUIT PATH FROM LOAD CENTER "G" TO THE LUMINAIRES IT SERVES, SHOWN IN THE LINETYPE:          REMOVE AND DISPOSE OF THE CONDUCTORS SERVING THIS CIRCUIT. SEE SHEET Q2 FOR DEMOLITION WIRING DIAGRAM.

FOR ALL OTHER CONDUCTORS AND CONDUIT RUNS, SEE THE SIGNAL PLANVIEW, SHEET Q1 AND THE NEW WIRING DIAGRAM, SHEET Q3.



PATH: Q:\JNU\6597\TRIG8 CONDUIT TO LOAD CENTER.DWG

DJFAGNANT  
TAB: Q8 Tuesday, June 30, 2009 2:13:22 PM

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

JNU - FLOYD DRYDEN PEDESTRIAN ACTIVATED HAWK SIGNAL  
PROJECT NO. 79080

**CONDUIT TO LOAD CENTER "G"**

DESIGNED BY: D. FAGNANT



CHECKED BY: C. MOREHOUSE

DRAWN/REVISED BY: D. FAGNANT

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION

JNU - FLOYD DRYDEN PEDESTRIAN ACTIVATED HAWK SIGNAL  
PROJECT NO. 79080

**CONDUIT TO LOAD CENTER**

PROJECT DESIGNATION NUMBER

79080 ~ SRTS LU20-09-0001

STATE	YEAR
ALASKA	2009
SHEET NUMBER	TOTAL SHEETS
Q8	17

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION

JNU - FLOYD DRYDEN PEDESTRIAN  
 ACTIVATED HAWK SIGNAL  
 PROJECT NO. 79080

ILLUMINATION DETAILS

DESIGNED BY: D. FAGNANT

CHECKED BY: C. MOREHOUSE  
 DRAWN/REVISED BY: D. FAGNANT

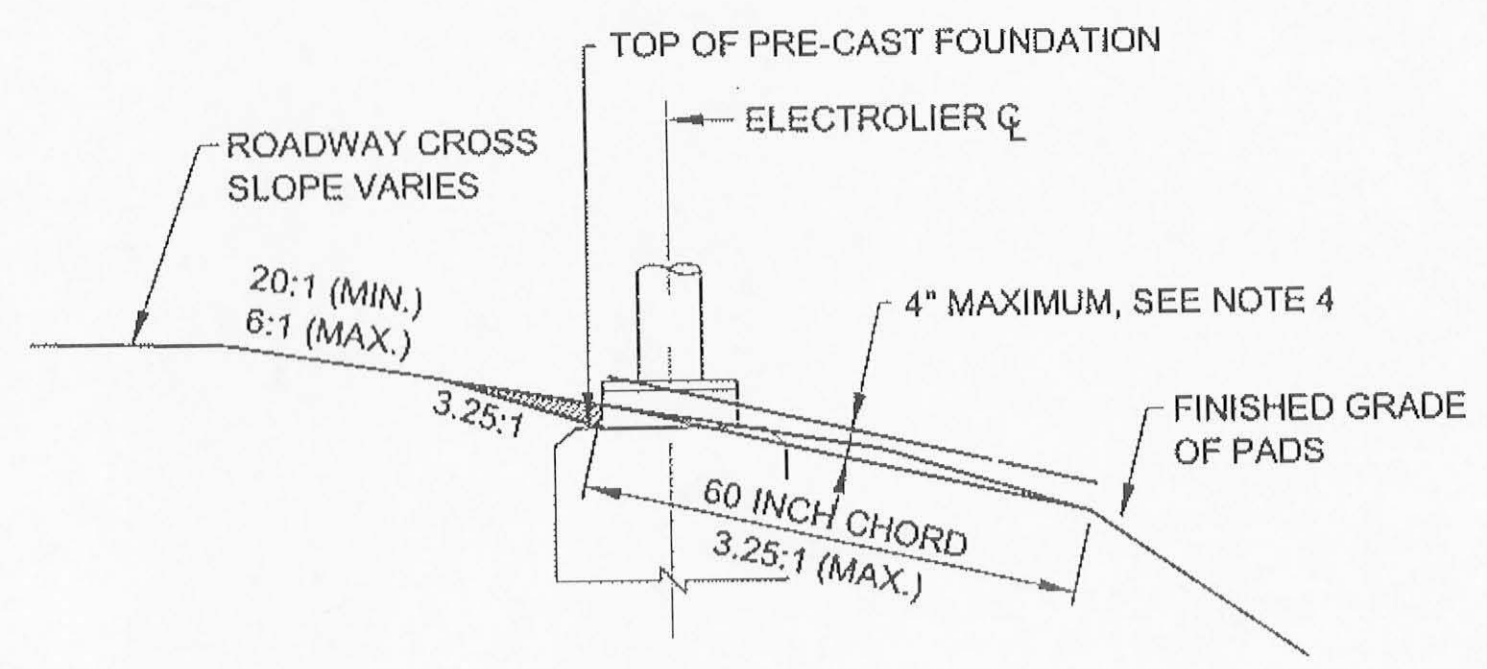
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES  
 STATEWIDE DESIGN & ENGINEERING  
 SERVICES DIVISION

JNU - FLOYD DRYDEN  
 PEDESTRIAN ACTIVATED  
 HAWK SIGNAL  
 PROJECT NO. 79080

**ILLUMINATION DETAILS**

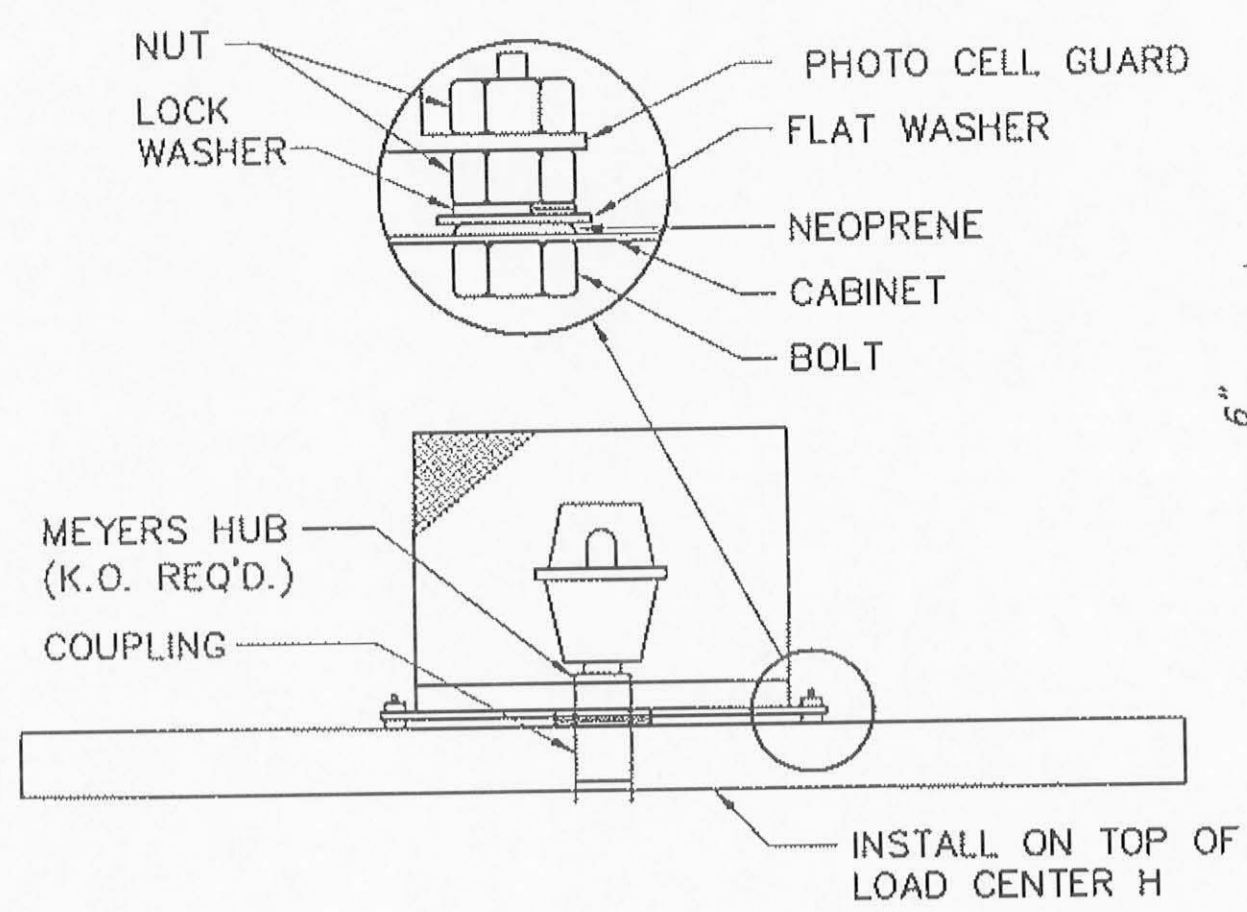
PROJECT DESIGNATION NUMBER  
 79080 ~ SRTS LU20-09-0001

STATE	YEAR
ALASKA	2009
SHEET NUMBER	TOTAL SHEETS
Q9	17

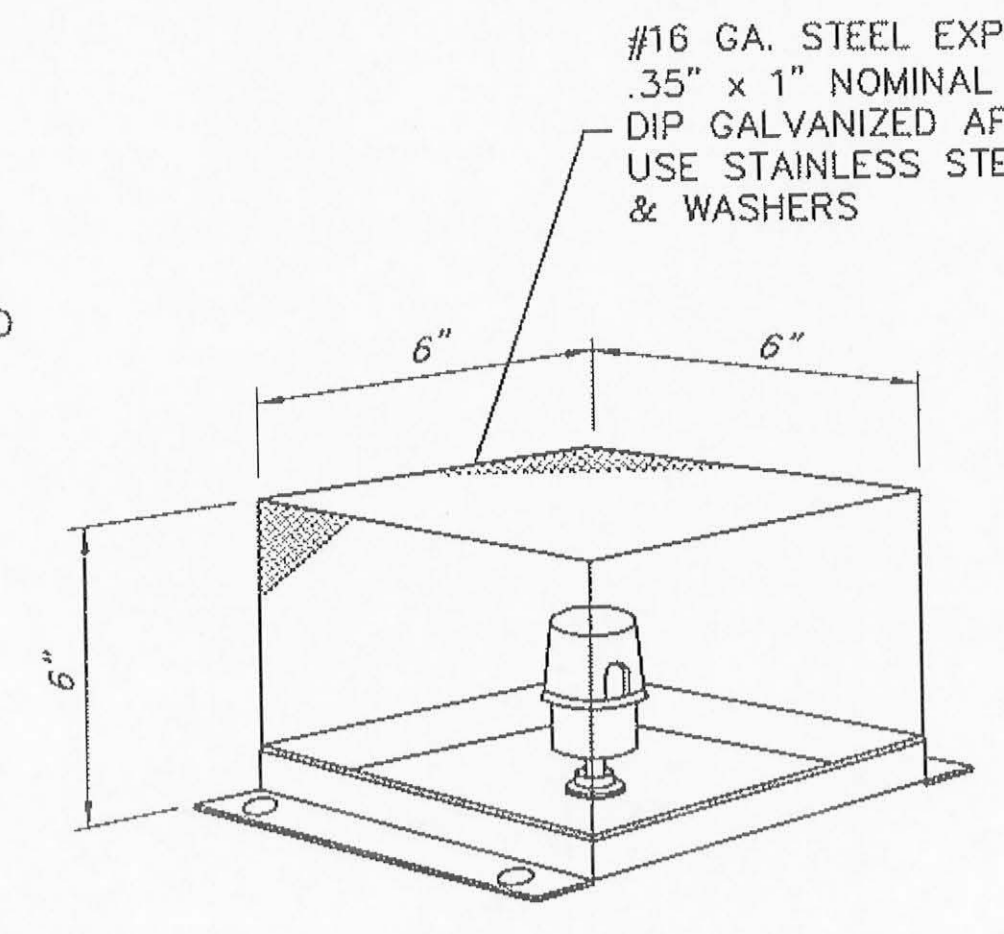


**FOUNDATION GRADING DETAIL**

INDICATES EMBANKMENT MATERIAL TO BE REMOVED FROM AROUND BREAKAWAY SKIRTS

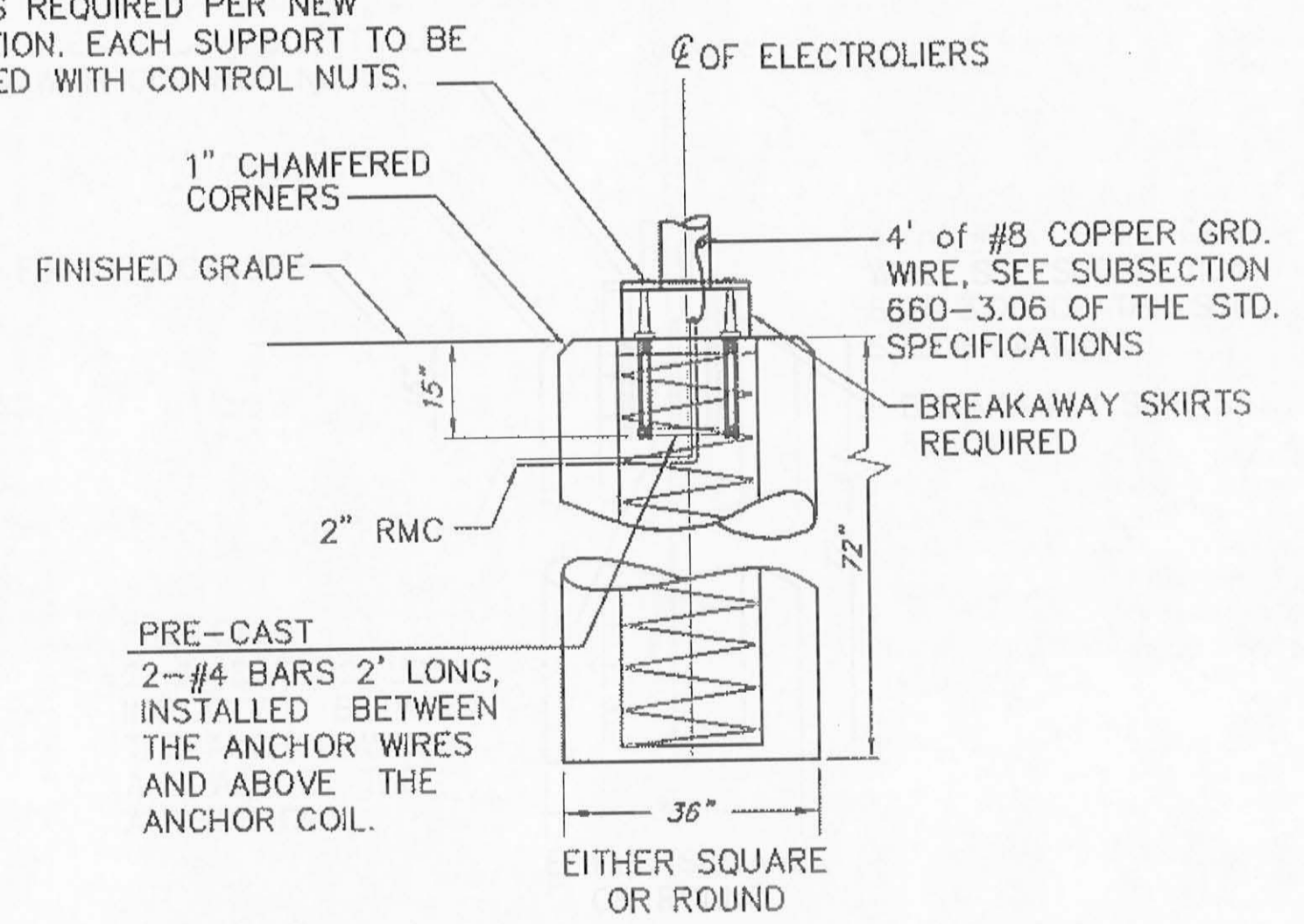


**PHOTO CELL GUARD**



**ANCHOR BASE DETAIL**

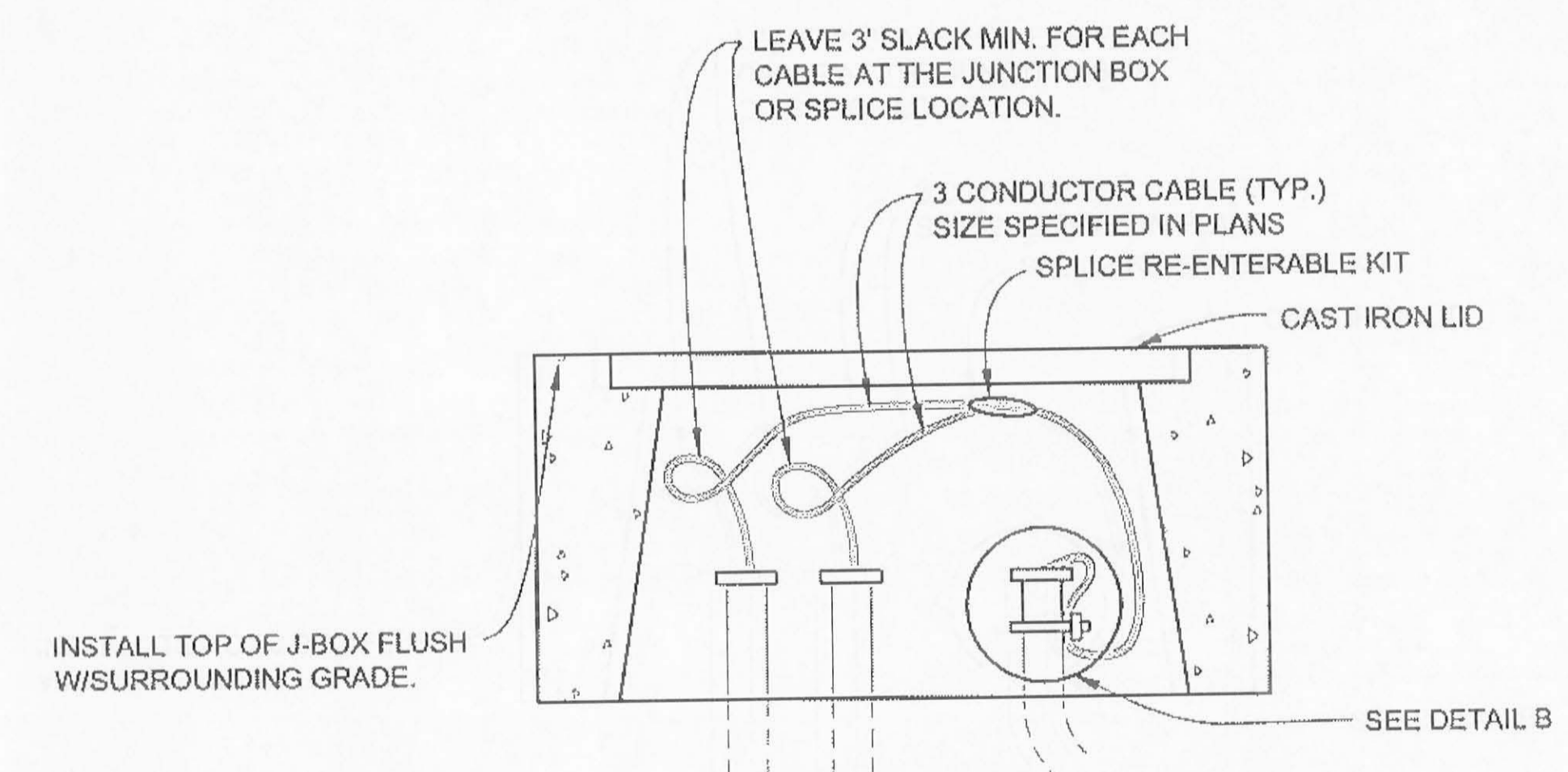
4-1" MULTI-DIRECTIONAL BREAKAWAY COUPLINGS AND FEMALE CONCRETE ANCHORS REQUIRED PER NEW FOUNDATION. EACH SUPPORT TO BE FURNISHED WITH CONTROL NUTS.



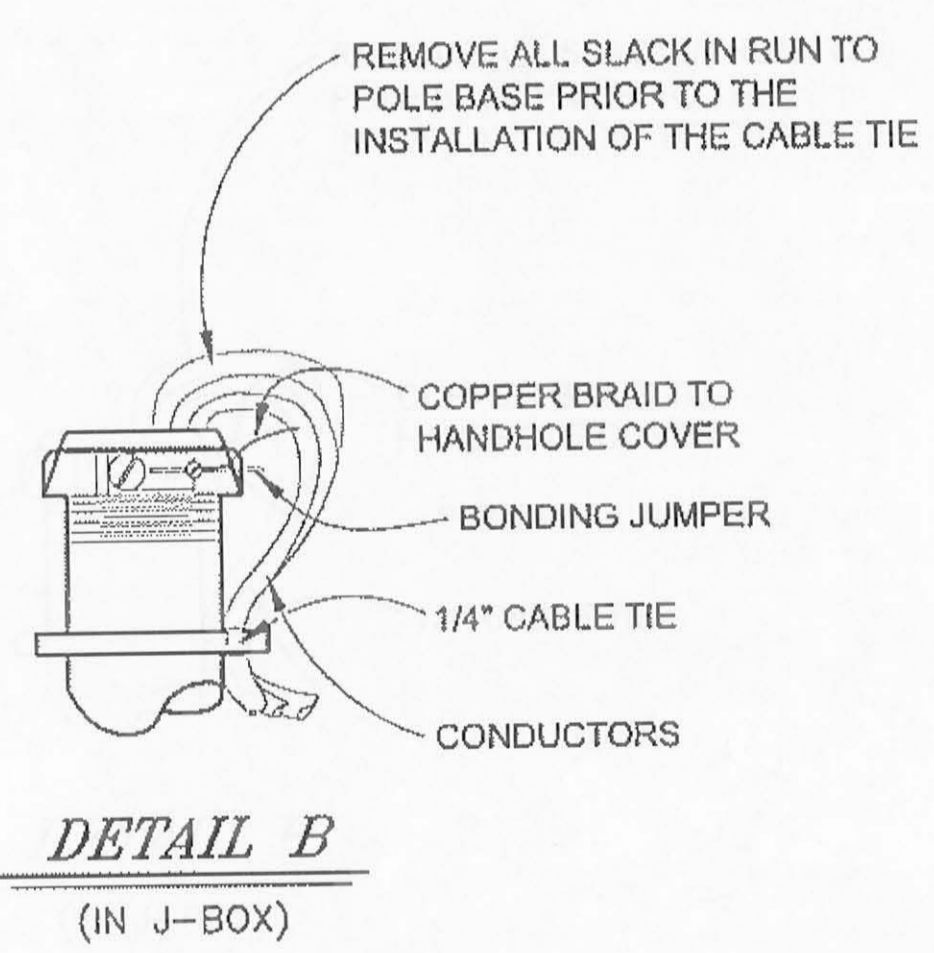
**FOUNDATION WITH BREAKAWAY COUPLINGS**

**ILLUMINATION GENERAL NOTES:**

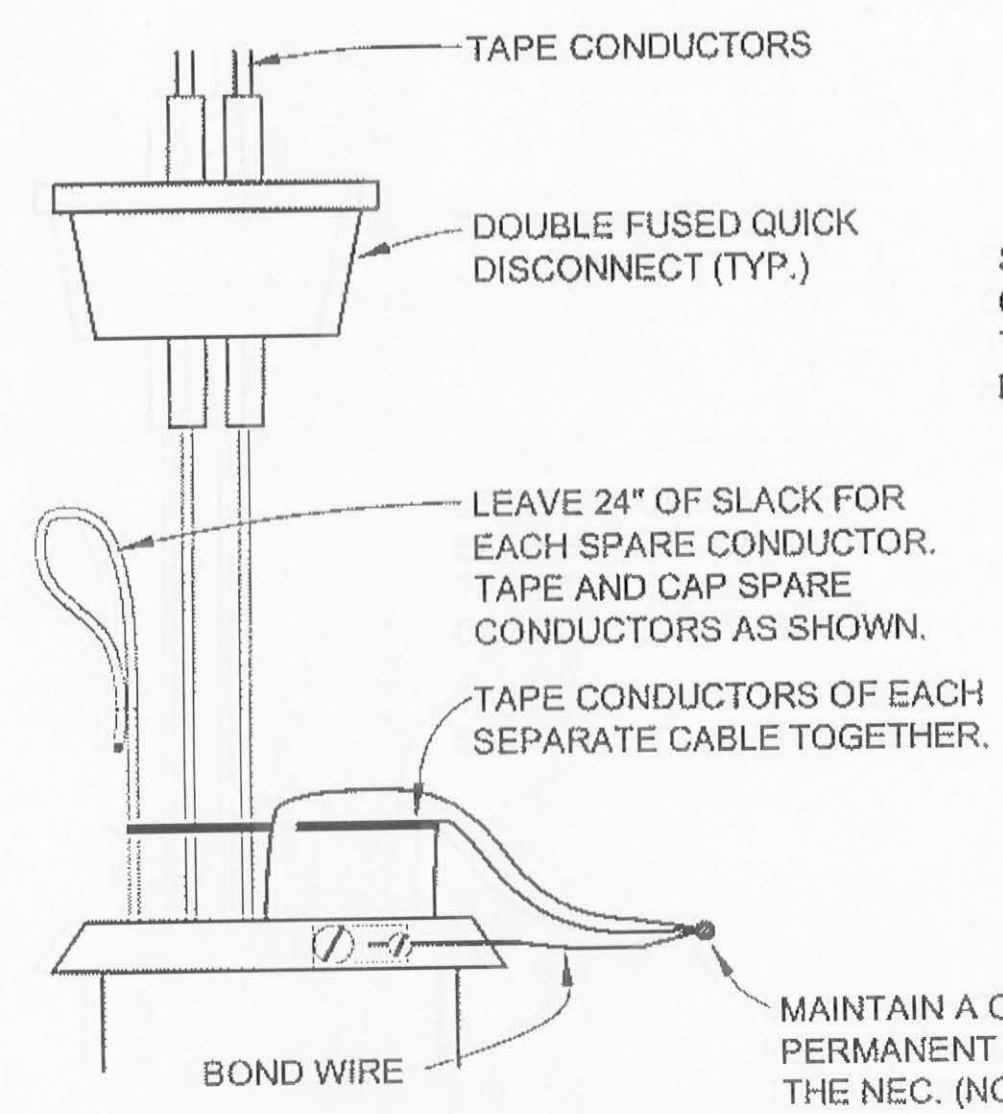
- NEW FOUNDATIONS SHALL BE PRE-CAST. PRE-CAST FOUNDATIONS SHALL BE LIFTED AND TRANSPORTED USING A DEVICE THAT DISTRIBUTES THE LOAD EVENLY BETWEEN THE ANCHOR BOLTS.
- INSTALL THE PHOTOELECTRIC CELL ON LOAD CENTER H.
- RE-USE EXISTING LUMINAIRES ON EXISTING POLES. MOVE LUMINAIRE HEADS AS NOTED ON SHEETS D1 AND Q1.
- NON-BREAKAWAY PORTIONS OF FOUNDATIONS SHALL NOT PROTRUDE MORE THAN 4" ABOVE ANY 5' CHORD STARTING AND ENDING ON THE FINISHED GRADE OF THE ELECTROLIER PADS.
- THE CENTER OF THE LUMINAIRE HEAD SHALL BE DIRECTLY ABOVE THE FOGLINE.



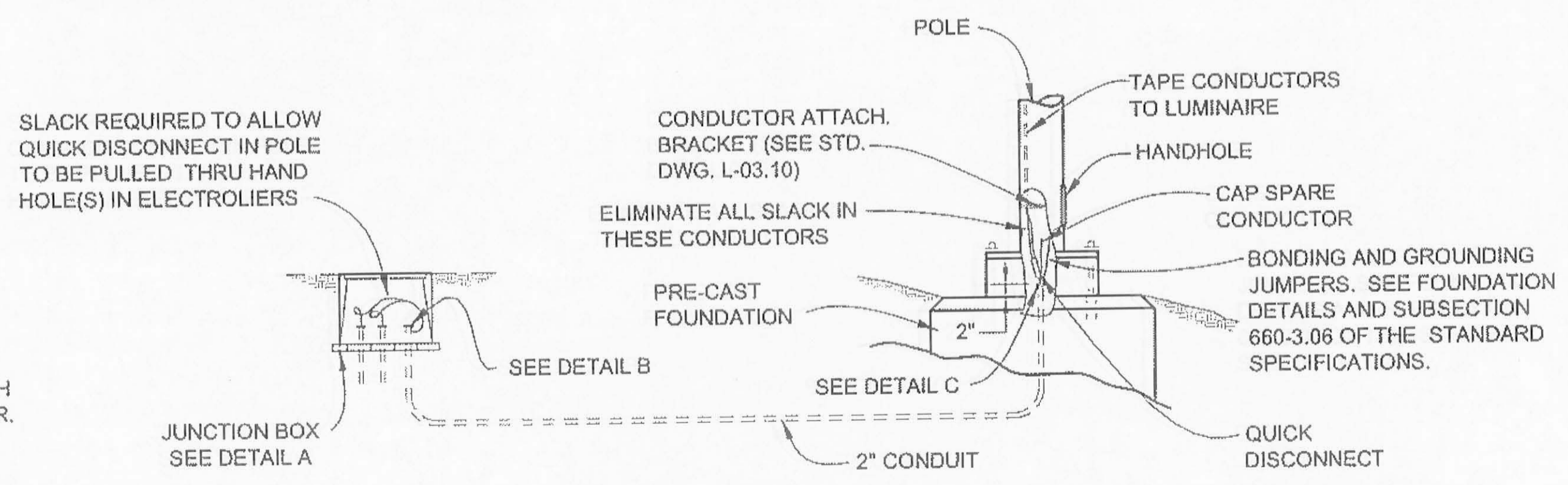
**DETAIL A**



**DETAIL B**  
 (IN J-BOX)



**DETAIL C**  
 (IN POLE BASE)

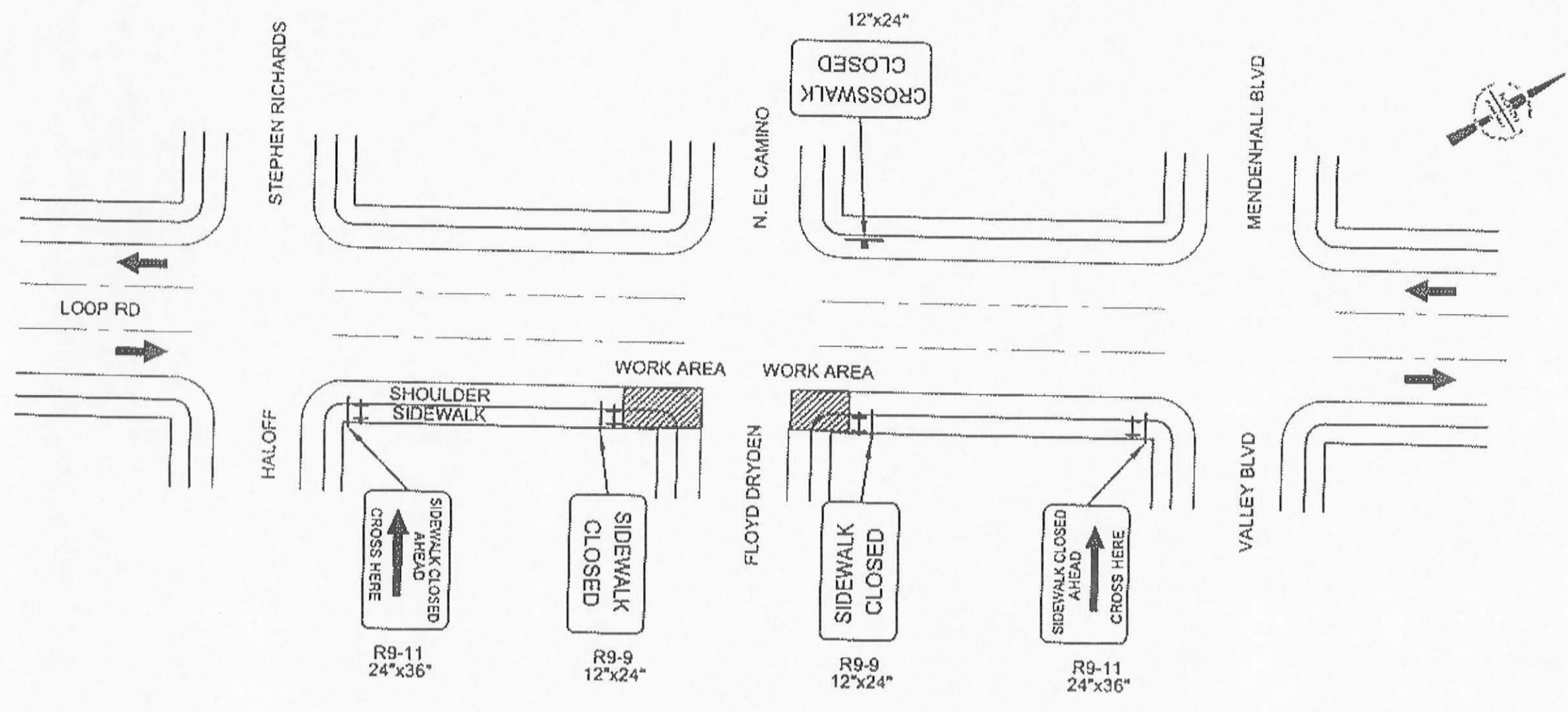


**LIGHTING SYSTEM POLE AND J-BOX WIRING DETAILS**

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION

JNU - FLOYD DRYDEN PEDESTRIAN  
 ACTIVATED HAWK SIGNAL  
 PROJECT NO. 79080

**TRAFFIC CONTROL PLAN**

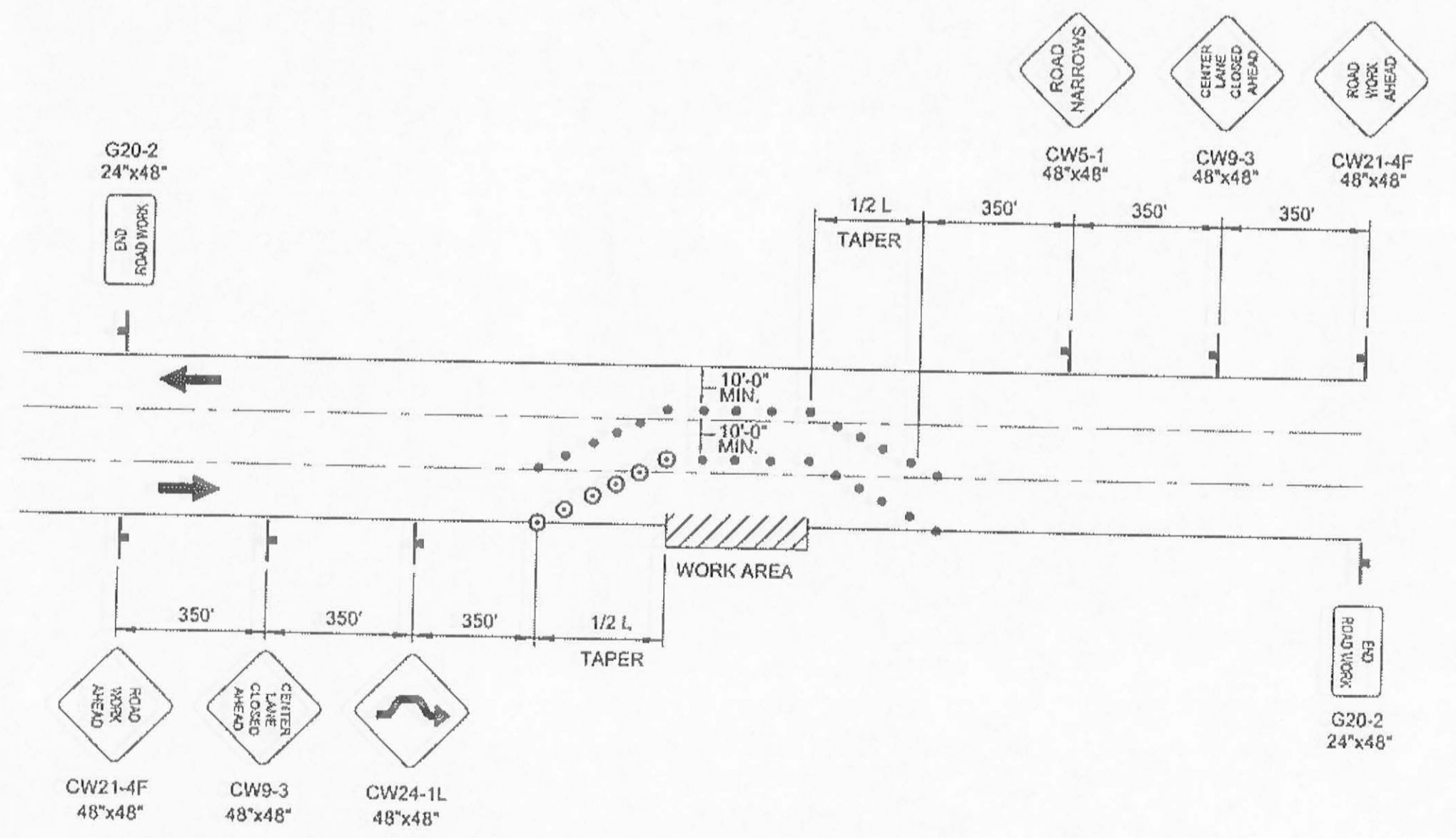


**SIDEWALK DETOUR, TYP**

NOTE: THIS SIDEWALK DETOUR DETAIL SHOWS THE FLOYD DRYDEN-SIDE (EAST) SIDEWALK CLOSURE ONLY. USE A SIMILAR SIDEWALK DETOUR FOR THE N. EL CAMINO-SIDE (WEST) SIDEWALK CLOSURE AS REQUIRED. FOR THE WEST SIDE SIDEWALK DETOUR, PLACE BOTH BARRIERS WITH THE SIDEWALK CLOSED SIGNS ON THE NORTH SIDE OF THE INTERSECTION.

**GENERAL TRAFFIC CONTROL NOTES**

- IT IS THE INTENT OF THIS TRAFFIC CONTROL PLAN (TCP) TO ILLUSTRATE SOME BUT NOT ALL OF THE TRAFFIC CONTROL CONFIGURATIONS THAT WILL BE REQUIRED BY THIS PROJECT. TRAFFIC CONTROL PLANS FOR CONFIGURATIONS NOT COVERED BY THIS TCP SHALL BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO USE. ALL TRAFFIC CONTROL PLANS SUBMITTED BY THE CONTRACTOR SHALL BE NUMBERED. ALL TRAFFIC CONTROL PLANS THAT USE A TYPICAL APPLICATION AS DESCRIBED IN THE MUTCD SHALL REFERENCE THE TYPICAL APPLICATION. EXAMPLE: TCP 3, MUTCD TA-10.
- ORANGE CONSTRUCTION SIGNS SHALL USE TYPE VIII OR IX FLOURESCENT SHEETING AS DETAILED IN SECTION 615-2.01.
- TRAFFIC LANES SHALL BE A MINIMUM OF 10' WIDE.
- CONTACT THE SOUTHEAST REGION DOT TRAFFIC ENGINEER (465-4234) A MINIMUM OF 1 WEEK BEFORE ANTICIPATED SIGNAL TURNON.
- THE CONTRACTOR SHALL MAINTAIN TWO LANES OF THRU TRAFFIC ON MENDENHALL LOOP ROAD AT ALL TIMES UNLESS APPROVED BY THE ENGINEER.
- ALL IN-GROUND WORK SHALL BE COMPLETED BY SEPTEMBER 30TH, 2009. THE PEDESTRIAN ACTIVATED HAWK SIGNAL SHALL BE COMPLETED AND IN OPERATION BY OCTOBER 30TH, 2009.
- PLACE A CW3-3 SIGN (SIGNAL AHEAD) WITH A CW3-3P PLATE (NEW SIGNAL) 350 FEET IN ADVANCE OF THE HAWK SIGNAL IN EACH DIRECTION 3 DAYS BEFORE TURNING THE SIGNAL ON. REMOVE THE SIGNS AFTER SEVEN DAYS OF ACTIVE SIGNAL OPERATION. DO NOT LEAVE ANY HOLES UNCOVERED OVERNIGHT.



**LANE SHIFT, ONE LANE CLOSURE**

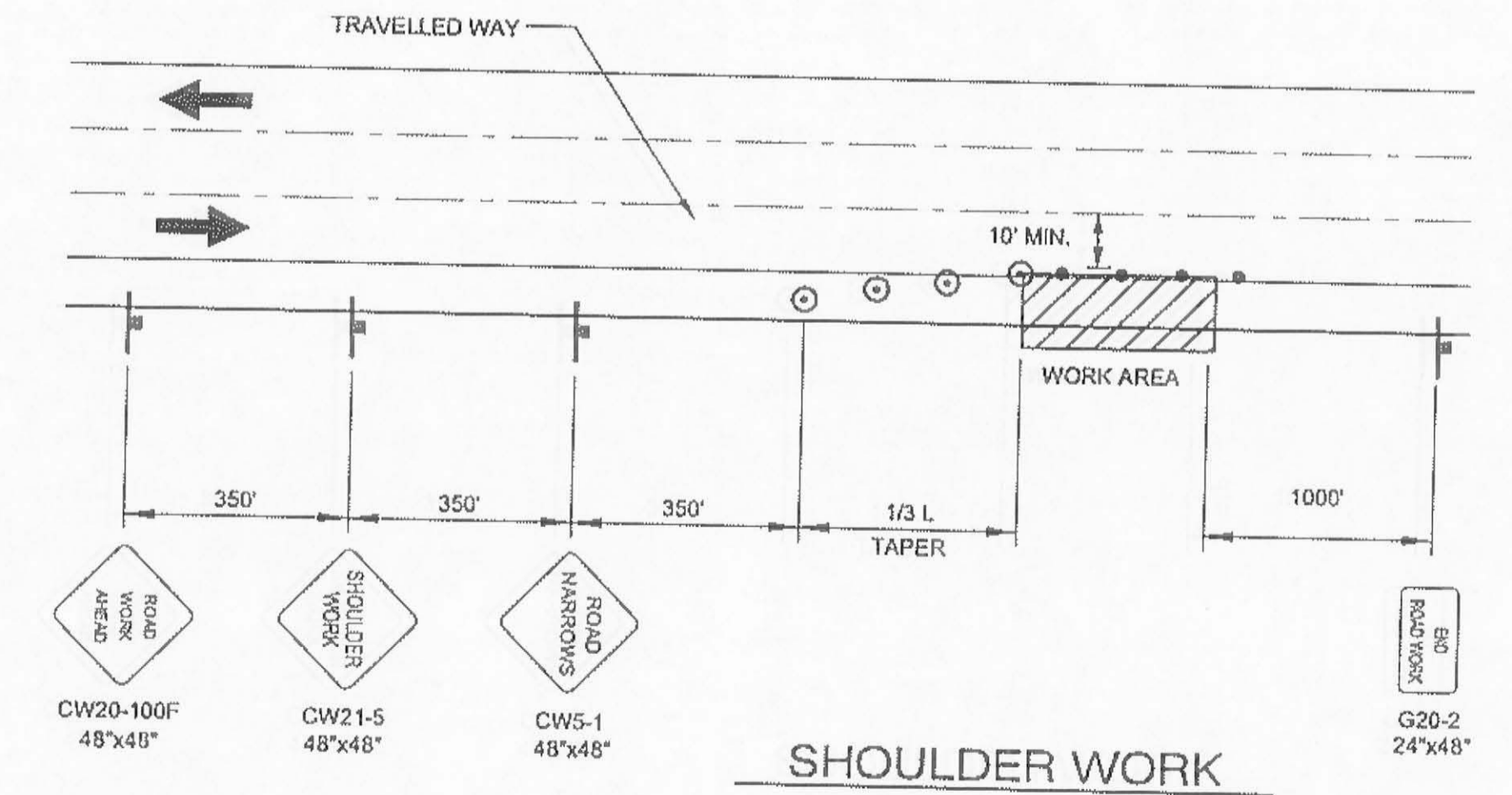
**LEGEND**

- SIGN
- CONE
- DRUM
- ⊕ TYPE II BARRICADE

$$L = \frac{WS^2}{60}$$

WHERE:  
 L = LENGTH OF TAPER (FT)  
 W = WIDTH OF OFFSET (FT)  
 S = SPEED (MPH)

ON MENDENHALL LOOP ROAD:  
 L = 80' FOR EVERY 3' OFFSET  
 MAX CONE SPACING IS:  
 40 FT ON TAPERS  
 80 FT ON TANGENTS



**SHOULDER WORK**

DESIGNED BY: D. FAGNANT



CHECKED BY: C. MOREHOUSE

DRAWN/REVISED BY: D. FAGNANT

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES  
 STATEWIDE DESIGN & ENGINEERING  
 SERVICES DIVISION

JNU - FLOYD DRYDEN  
 PEDESTRIAN ACTIVATED  
 HAWK SIGNAL  
 PROJECT NO. 79080

**TRAFFIC CONTROL PLAN**

PROJECT DESIGNATION NUMBER  
 79080 ~ SRTS LU20-09-0001

STATE	YEAR
ALASKA	2009
SHEET NUMBER	TOTAL SHEETS

6/30/09  
 D. Fagnant