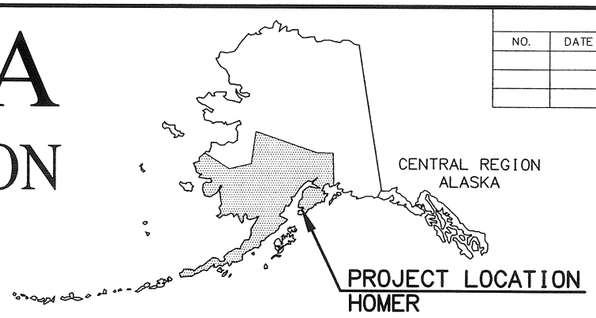
STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES



REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL "AC" SHEETS
NO.	DATE	DESCRIPTION					
			ALASKA	0211(061)/56176 0211(059)/55260	2014	AC1	AC1

CENTRAL REGION
AS-ADVERTISED
APRIL 2014

PROPOSED HIGHWAY PROJECT

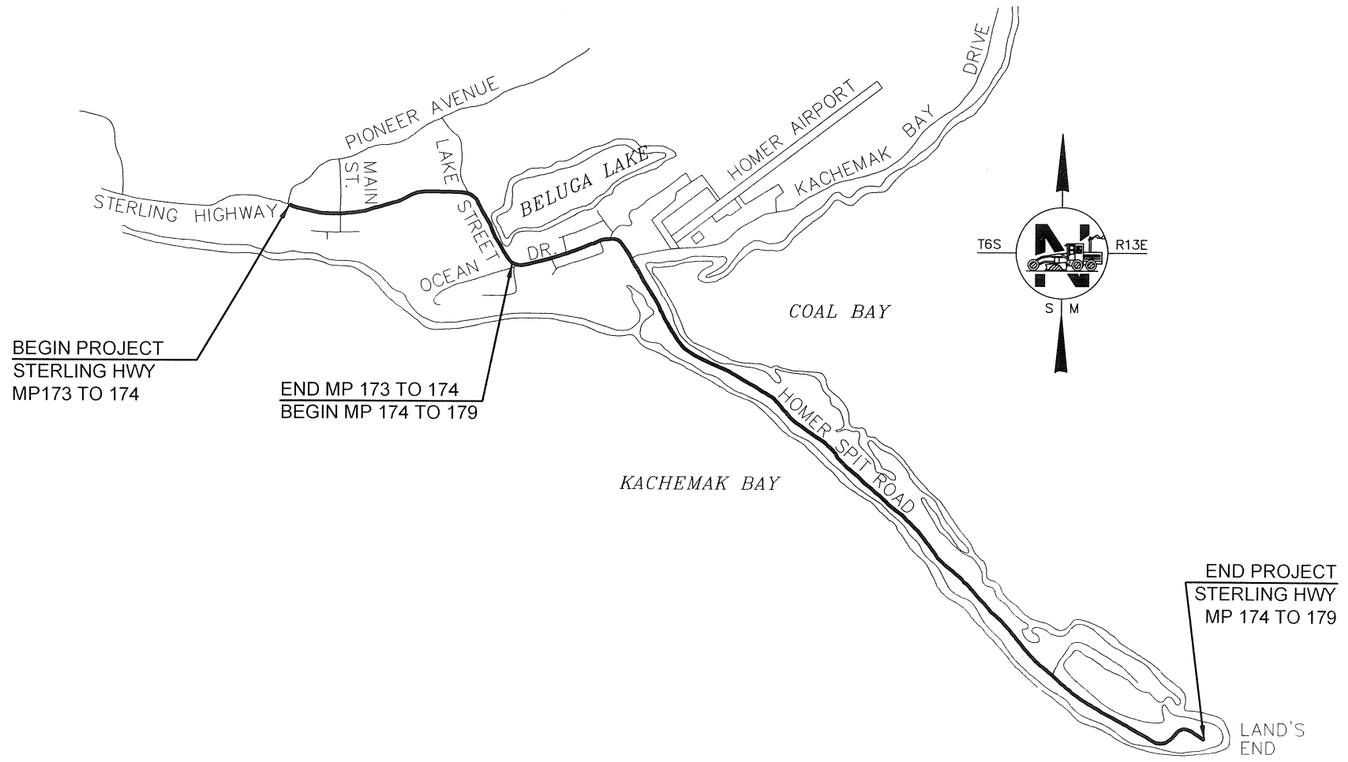
STERLING HIGHWAY MP 173 TO 174 PAVEMENT PRESERVATION
PROJECT NO. 0211(061)/56176

PLANING, PAVING, GUARDRAIL,
DRAINAGE, SIGNING & STRIPING

STERLING HIGHWAY MP 174 - 179 PAVEMENT PRESERVATION
PROJECT NO. 0211(059)/55260

PAVING, GUARDRAIL, DRAINAGE,
SIGNING & STRIPING

VOLUME 2 OF 2



DESIGNED BY | DESIGNED BY
CHECKED BY | CHECKED BY
DRAFTED BY | DRAFTED BY
XREFS
XREF1
XREF2
SCALE | SCALE
LAYOUT | AC1
DATE TIME | 3/19/2014 9:05 AM
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CHECKED BY	--
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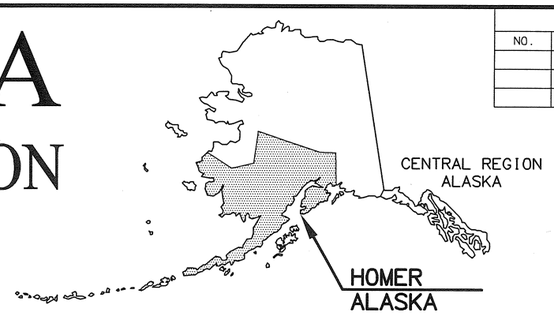
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A1

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STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES



REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL 'A' SHEETS
ALASKA	0211(059)/55260	2014	A1	A9
			PLAN SET TOTAL	47
ROUTE: 110000			MILEPOINT (CDS)	
			133.33 - 138.24	

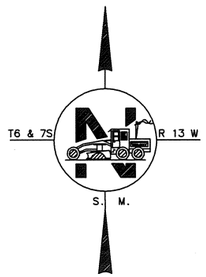
PROPOSED HIGHWAY PROJECT

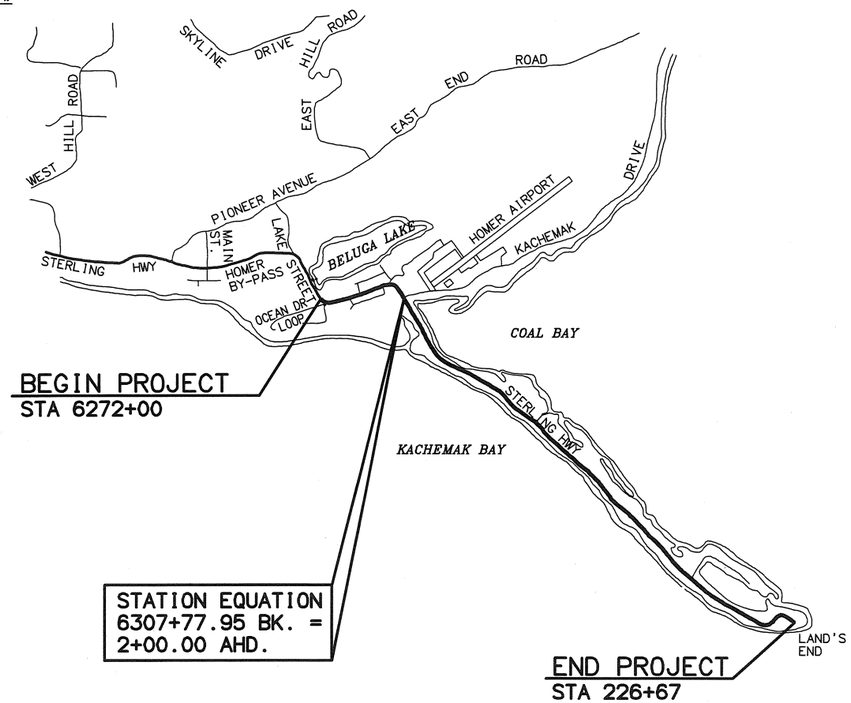
STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION PROJECT NO. 0211(059)/55260

PAVING, SIGNING AND STRIPING, GUARDRAIL, DRAINAGE

DESIGN DESIGNATIONS				
ROADWAY SECTION	FUNCTIONAL CLASS	MILEPOINT	A.A.D.T. 2011	DESIGN SPEED
STERLING HWY	RURAL PRINCIPAL ARTERIAL	133.33 - 133.85	7,075	40 MPH
STERLING HWY	RURAL PRINCIPAL ARTERIAL	133.85 - 138.24	3,861	VARIES

PROJECT SUMMARY	
ROADWAY SECTION	WIDTH
STERLING HWY MP 133.33 - 133.85	36'
STERLING HWY MP 133.85 - 138.24	36'





STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES

STATE OF ALASKA — 49TH — REGISTERED PROFESSIONAL ENGINEER — WILLIAM A. WEBB — 3/25/2014 — CE 12023

STATE OF ALASKA — 49TH — REGISTERED PROFESSIONAL ENGINEER — STEVEN M. KARI — No. CE 9203 — 3-25-14

PLANS DEVELOPED BY: USKH INC

APPROVED: 3/26/2014
REGIONAL PRE-CONSTRUCTION ENGINEER DATE

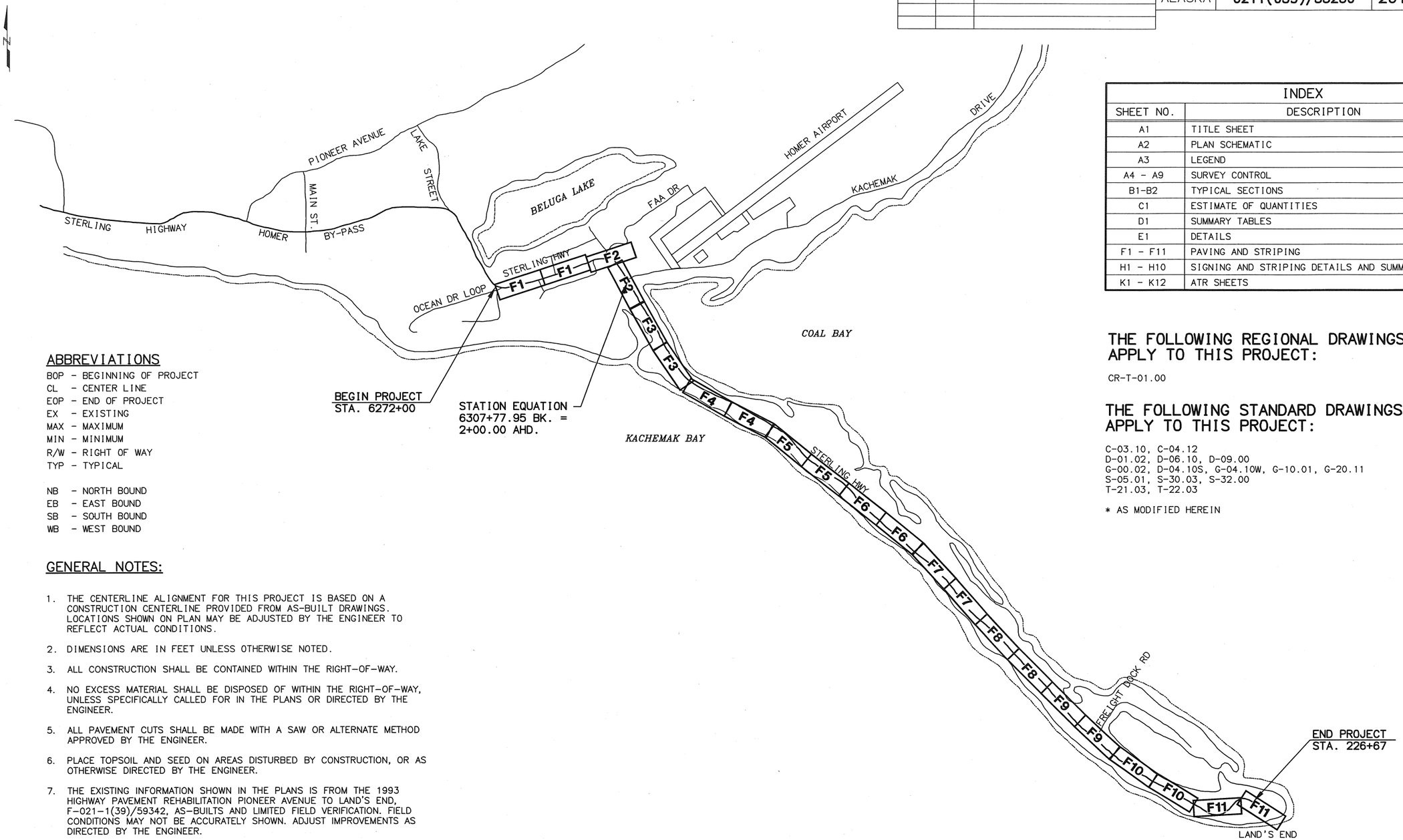
CONCUR: 3/27/2014
DIRECTOR, CONSTRUCTION & OPERATIONS DATE

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

CONSTRUCTION PROJECT MANAGER DATE

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	A2	A9



INDEX	
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2	PLAN SCHEMATIC
A3	LEGEND
A4 - A9	SURVEY CONTROL
B1-B2	TYPICAL SECTIONS
C1	ESTIMATE OF QUANTITIES
D1	SUMMARY TABLES
E1	DETAILS
F1 - F11	PAVING AND STRIPING
H1 - H10	SIGNING AND STRIPING DETAILS AND SUMMARIES
K1 - K12	ATR SHEETS

THE FOLLOWING REGIONAL DRAWINGS APPLY TO THIS PROJECT:

CR-T-01.00

THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:

C-03.10, C-04.12
D-01.02, D-06.10, D-09.00
G-00.02, D-04.10S, G-04.10W, G-10.01, G-20.11
S-05.01, S-30.03, S-32.00
T-21.03, T-22.03

* AS MODIFIED HEREIN

ABBREVIATIONS

BOP - BEGINNING OF PROJECT
CL - CENTER LINE
EOP - END OF PROJECT
EX - EXISTING
MAX - MAXIMUM
MIN - MINIMUM
R/W - RIGHT OF WAY
TYP - TYPICAL

NB - NORTH BOUND
EB - EAST BOUND
SB - SOUTH BOUND
WB - WEST BOUND

GENERAL NOTES:

1. THE CENTERLINE ALIGNMENT FOR THIS PROJECT IS BASED ON A CONSTRUCTION CENTERLINE PROVIDED FROM AS-BUILT DRAWINGS. LOCATIONS SHOWN ON PLAN MAY BE ADJUSTED BY THE ENGINEER TO REFLECT ACTUAL CONDITIONS.
2. DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
3. ALL CONSTRUCTION SHALL BE CONTAINED WITHIN THE RIGHT-OF-WAY.
4. NO EXCESS MATERIAL SHALL BE DISPOSED OF WITHIN THE RIGHT-OF-WAY, UNLESS SPECIFICALLY CALLED FOR IN THE PLANS OR DIRECTED BY THE ENGINEER.
5. ALL PAVEMENT CUTS SHALL BE MADE WITH A SAW OR ALTERNATE METHOD APPROVED BY THE ENGINEER.
6. PLACE TOPSOIL AND SEED ON AREAS DISTURBED BY CONSTRUCTION, OR AS OTHERWISE DIRECTED BY THE ENGINEER.
7. THE EXISTING INFORMATION SHOWN IN THE PLANS IS FROM THE 1993 HIGHWAY PAVEMENT REHABILITATION PIONEER AVENUE TO LAND'S END, F-021-1(39)/59342, AS-BUILTS AND LIMITED FIELD VERIFICATION. FIELD CONDITIONS MAY NOT BE ACCURATELY SHOWN. ADJUST IMPROVEMENTS AS DIRECTED BY THE ENGINEER.

CALL BEFORE YOU DIG!

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

ALASKA DIGLINE....811 OR 800-478-3121

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

STATE OF ALASKA
WILLIAM A. WEBB
4/9/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: USKH INC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION

PLAN SCHEMATIC

DESIGNED BY
CHECKED BY
DRAFTED BY

XREFS

SCALE

LAYOUT
A2

DATE TIME
4/9/2014 3:42 PM

DRAWING LOCATION
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DESIGNED BY
CHECKED BY
DRAFTED BY

XREFS

SCALE

LAYOUT
A3

DATE TIME
8/8/2013 9:31 AM

DRAWING LOCATION
I:\1387701\Dwgs\C\Sheets\1387701_A3.dwg

UTILITIES

	EXISTING	PROPOSED
PIPELINES:		
STORM DRAIN STRUCTURE AND PIPE NUMBERS, APPLICABLE IF SHOWN	S1-1, S1-2, P1-1, P1-2	
STORM DRAIN	SD	
MANHOLE STORM DRAIN	SD	SD
CURB INLET CATCH BASIN		
FIELD INLET CATCH BASIN	FI	FI
PIPE CULVERT w/ END SECTION		
CLEANOUT	CO	CO
SANITARY SEWER	SS	SS
MANHOLE SANITARY SEWER	SS	SS
SEPTIC VENTS	S	
WATER	W	W
FIRE HYDRANT		
WELL	W	
VALVE OR RISER		
NATURAL GAS	G	G
OIL OR GASOLINE PIPELINE	O	O
ELECTRIC (OVERHEAD)	OE	OE
ELECTRIC (DIRECT BURY)	UE	UE
ELECTRIC (OVERHEAD)	OE&OT	
UTILITY POLE		
UTILITY POLE WITH LUMINAIRE		
GUY POLE	GP	
GUY WIRE ANCHOR		
TRANSMISSION TOWER (WOOD)		
TRANSMISSION TOWER (STEEL)		
ELECTRICAL PEDESTAL	E	
ELECTRICAL TRANSFORMER	E	
ELECTRIC METER		
ELECTRICAL OUTLET		
ELECTRIC MANHOLE	E	
TELEPHONE (OVERHEAD)	OT	
TELEPHONE (DIRECT BURY)	UT	
TELEPHONE (DIRECT BURY)	UT&TV	
TELEPHONE PEDESTAL	T	
TELEPHONE MANHOLE	T	
FIBER OPTIC	FO	
FIBER OPTIC MANHOLE	FO	
CABLE TV (OVERHEAD)	OTV	
CABLE TV (DIRECT BURY)	UTV	
CABLE T.V. PEDESTAL	TV	
SATELLITE DISH		
U.G. DUCT (E, T, FO)		

UTILITIES

	EXISTING	PROPOSED
ELECTROLIER		
HIGHTOWER		
SIGNAL POLE WITH MAST		
PEDESTRIAN PUSH BUTTON		
RURAL BEACON		
SCHOOL ZONE BEACON		

RIGHT OF WAY

	EXISTING	PROPOSED
PRIMARY CENTERLINE MONUMENT		
SECONDARY CENTERLINE MONUMENT		
PROJECT RIGHT-OF-WAY LINES		ROW
CONTROLLED ACCESS LINE		C/A
TEMPORARY CONSTRUCTION EASEMENT/PERMIT		
PROJECT CENTERLINE	27+00	
RAILROAD CENTERLINE		

EXISTING TOPOGRAPHY

CONIFER TREE OR TREES		
DECIDUOUS TREE OR TREES		
SHRUB OR SHRUBS		
WETLANDS		
CREEK		
RIVER		
LAKE / POND	LAKE	POND

EXISTING/PROPOSED

DRAINAGE FLOW	
CONTOURS - MAJOR	515
CONTOURS - MINOR	

MISCELLANEOUS

	EXISTING	PROPOSED
BUILDING		
TANKS ABOVE GROUND		
TANKS UNDERGROUND	U	
PRIVATE SIGN		
POST/BOLLARDS		
MAILBOX	MB	MB
TRAFFIC SIGN		
TRAFFIC SIGN POST #		##
VENT		

ROADWAY

	EXISTING	PROPOSED
ROADWAY OBLITERATION		
LIMIT OF CUT SLOPE		
LIMIT OF FILL SLOPE		
EDGE OF PAVEMENT		
CONCRETE CURB		
CONCRETE CURB & GUTTER		
CONCRETE CURB CUT		
SIDEWALK		
CURB RAMPS		
PARALLEL CURB RAMP		
PERPENDICULAR CURB RAMP		
MID-BLOCK CURB RAMP		
UNIDIRECTIONAL CURB RAMP		
DETECTABLE WARNING TILES		
DRIVEWAY APPROACH		
GRAVEL EDGE		
PATH / TRAIL		
BRIDGE		
TUNNEL		
NOISE BARRIER	X	X
FENCE	X	X
RETAINING WALL		
HEAD & WINGWALLS		
GUARDRAIL		
END SECTION		
PARALLEL GUARDRAIL SECTION		
SPECIAL DITCH		
BOTTOM OF DITCH		
RIPRAP		
BOULDER OR BOULDERS		

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	A3	A9

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STERLING HIGHWAY:
MP 174-179
PAVEMENT PRESERVATION

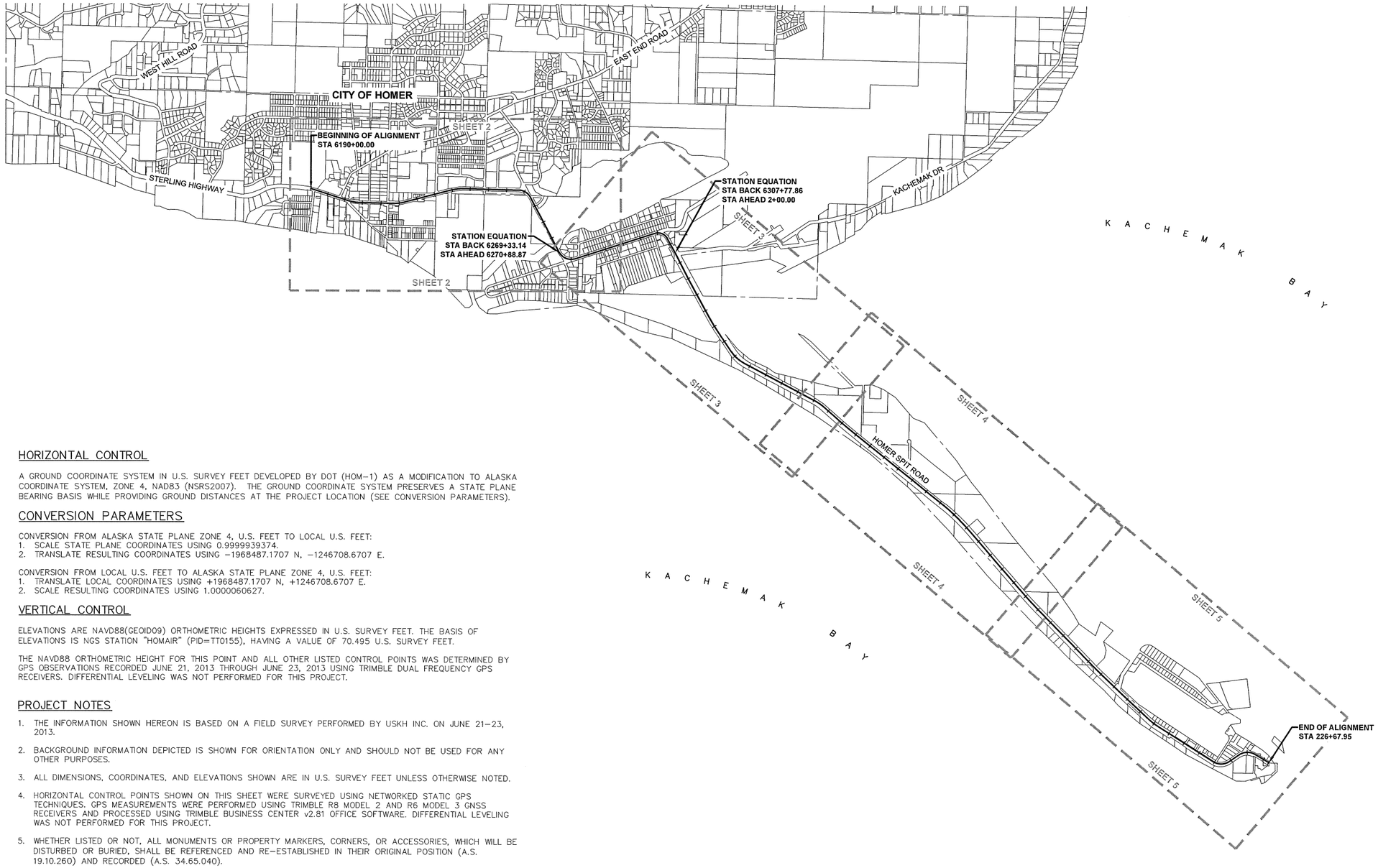
LEGEND

STATE OF ALASKA
WILLIAM A. WEBB
4/3/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED
BY: USKH INC

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	NH-0211(059)/55260	2014	A4	A9



1500 0 750 1500
U.S. SURVEY FEET

LEGEND

PROJECT ALIGNMENT

PROPERTY/LOT LINES

HORIZONTAL CONTROL

A GROUND COORDINATE SYSTEM IN U.S. SURVEY FEET DEVELOPED BY DOT (HOM-1) AS A MODIFICATION TO ALASKA COORDINATE SYSTEM, ZONE 4, NAD83 (NSRS2007). THE GROUND COORDINATE SYSTEM PRESERVES A STATE PLANE BEARING BASIS WHILE PROVIDING GROUND DISTANCES AT THE PROJECT LOCATION (SEE CONVERSION PARAMETERS).

CONVERSION PARAMETERS

CONVERSION FROM ALASKA STATE PLANE ZONE 4, U.S. FEET TO LOCAL U.S. FEET:
1. SCALE STATE PLANE COORDINATES USING 0.9999939374.
2. TRANSLATE RESULTING COORDINATES USING -1968487.1707 N, -1246708.6707 E.

CONVERSION FROM LOCAL U.S. FEET TO ALASKA STATE PLANE ZONE 4, U.S. FEET:
1. TRANSLATE LOCAL COORDINATES USING +1968487.1707 N, +1246708.6707 E.
2. SCALE RESULTING COORDINATES USING 1.0000060627.

VERTICAL CONTROL

ELEVATIONS ARE NAVD88(GEOID09) ORTHOMETRIC HEIGHTS EXPRESSED IN U.S. SURVEY FEET. THE BASIS OF ELEVATIONS IS NGS STATION "HOMAIR" (PID=TT0155), HAVING A VALUE OF 70.495 U.S. SURVEY FEET.

THE NAVD88 ORTHOMETRIC HEIGHT FOR THIS POINT AND ALL OTHER LISTED CONTROL POINTS WAS DETERMINED BY GPS OBSERVATIONS RECORDED JUNE 21, 2013 THROUGH JUNE 23, 2013 USING TRIMBLE DUAL FREQUENCY GPS RECEIVERS. DIFFERENTIAL LEVELING WAS NOT PERFORMED FOR THIS PROJECT.

PROJECT NOTES

1. THE INFORMATION SHOWN HEREON IS BASED ON A FIELD SURVEY PERFORMED BY USKH INC. ON JUNE 21-23, 2013.
2. BACKGROUND INFORMATION DEPICTED IS SHOWN FOR ORIENTATION ONLY AND SHOULD NOT BE USED FOR ANY OTHER PURPOSES.
3. ALL DIMENSIONS, COORDINATES, AND ELEVATIONS SHOWN ARE IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.
4. HORIZONTAL CONTROL POINTS SHOWN ON THIS SHEET WERE SURVEYED USING NETWORKED STATIC GPS TECHNIQUES. GPS MEASUREMENTS WERE PERFORMED USING TRIMBLE R8 MODEL 2 AND R6 MODEL 3 GNSS RECEIVERS AND PROCESSED USING TRIMBLE BUSINESS CENTER v2.81 OFFICE SOFTWARE. DIFFERENTIAL LEVELING WAS NOT PERFORMED FOR THIS PROJECT.
5. 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).
6. MONUMENTS AND MONUMENT CASES EXISTING IN THE ROAD ARE NOT TO BE DISTURBED DURING CONSTRUCTION.
7. ALL MONUMENT CASES WILL HAVE A PERMANENT RISER ADDED AT A SUFFICIENT HEIGHT SO THAT THE TOP OF THE MONUMENT LID MATCHES FINISHED GRADE.
8. IT IS THE PROJECT ENGINEER'S RESPONSIBILITY TO NOTIFY THE DEPARTMENT'S SURVEY MANAGER BEFORE TERMINATION OF TRAFFIC CONTROL TO ALLOW DEPARTMENT SURVEYORS TO SAFELY CHECK AND/OR RESET ANY SURVEY MONUMENTS THAT MAY HAVE BEEN DISTURBED.
9. PLEASE REFERENCE "STERLING HIGHWAY MP 173-179 PAVEMENT PRESERVATION," A RECORD OF SURVEY, RECORDED UNDER PLAT 2013-38, HOMER RECORDING DISTRICT, FOR ADDITIONAL INFORMATION.

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.

JACOB M. GERONDALE LS-11758 4/7/14 DATE

STATE OF ALASKA 49TH
Jacob Gerondale
LS-11758
4/7/14
REGISTERED PROFESSIONAL LAND SURVEYOR

PLANS DEVELOPED BY: USKH INC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION

SURVEY CONTROL SHEET

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	NH-0211(059)/55260	2014	A5	A9



POINTS SHOWN THIS SHEET								
	LOCAL COORDINATES		GRID COORDINATES					
POINT	NORTHING	EASTING	NORTHING	EASTING	ELEVATION	STATION	OFFSET	DESCRIPTION
11	95812.1582	106572.9178	2064311.8440	1353289.7930	100.11	6197+51.70	36.50 Rt.	Found BC/Bx[DOT]: MP 172.8 2012
12	95644.2072	107744.9147	2064143.8920	1354461.7970	79.88	6209+34.91	34.94 Rt.	Found BC/Bx[DOT]: MP 173.0 2012
805	95355.7240	112176.1769	2063855.4072	1358893.0858	22.94	6257+87.07	2.16 Rt.	Found BC/Bx[DOT]: PC CL 2004
806	94301.0174	112731.5625	2062800.6943	1359448.4747	33.41	6271+34.50	3.46 Rt.	Found Bx: Case for Center Line Mon

ALIGNMENT LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	S 72° 19' 43" E	1,083.98
L2	S 88° 33' 47" E	909.70
L3	N 75° 21' 43" E	1,299.54
L4	S 88° 38' 48" E	1,494.37
L5	S 27° 42' 03" E	1,693.32

ALIGNMENT CURVE TABLE					
CURVE #	RADIUS	LENGTH	DELTA ANGLE	CHORD DIRECTION	CHORD LENGTH
C1	1145.89	324.68	16°14'04"	S 80° 26' 44.97" E	323.60
C2	1145.89	321.49	16°04'30"	N 83° 23' 58.07" E	320.44
C3	1432.36	399.78	15°59'29"	N 83° 21' 27.45" E	398.48
C4	381.96	406.30	60°56'45"	S 58° 10' 25.52" E	387.41
C5	381.96	534.62	80°11'41"	S 67° 47' 53.45" E	492.04

STATE OF ALASKA
49TH
Jacob Gerondale
LS-11758
REGISTERED PROFESSIONAL LAND SURVEYOR
4/7/14

PLANS DEVELOPED BY: USKH INC

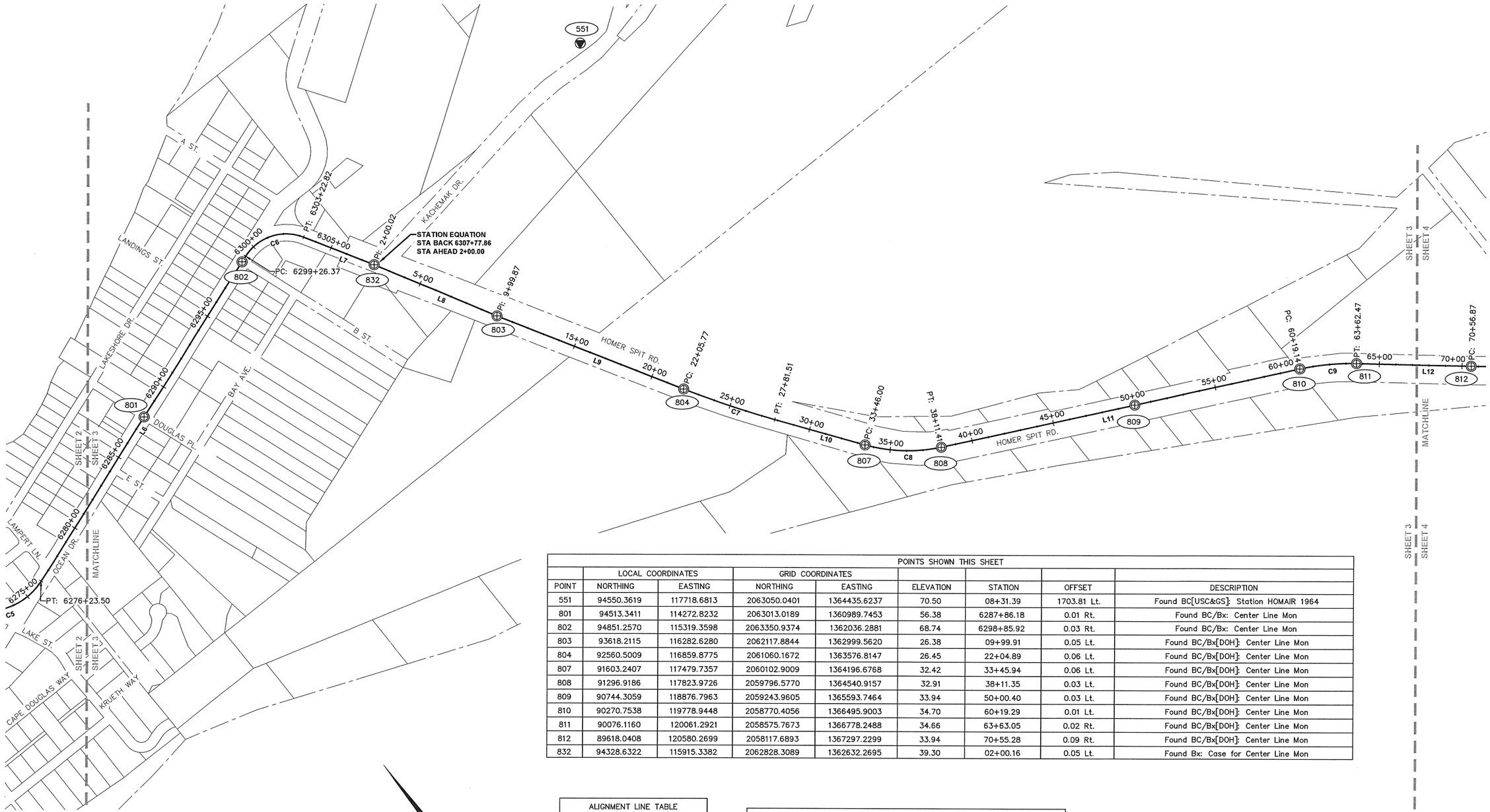
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION

SURVEY CONTROL SHEET

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	NH-0211(059)/55260	2014	A6	A9



POINTS SHOWN THIS SHEET								
	LOCAL COORDINATES		GRID COORDINATES					
POINT	NORTHING	EASTING	NORTHING	EASTING	ELEVATION	STATION	OFFSET	DESCRIPTION
551	94550.3619	117718.6813	2063050.0401	1364435.6237	70.50	08+31.39	1703.81 Lt.	Found BC[USC&GS]: Station HOMAIR 1964
801	94513.3411	114272.8232	2063013.0189	1360989.7453	56.38	6287+86.18	0.01 Rt.	Found BC/Bx: Center Line Mon
802	94851.2570	115319.3598	2063350.9374	1362036.2881	68.74	6298+85.92	0.03 Rt.	Found BC/Bx: Center Line Mon
803	93618.2115	116282.6280	2062117.8844	1362999.5620	26.38	09+99.91	0.05 Lt.	Found BC/Bx[DOH]: Center Line Mon
804	92560.5009	116859.8775	2061060.1672	1363576.8147	26.45	22+04.89	0.06 Lt.	Found BC/Bx[DOH]: Center Line Mon
807	91603.2407	117479.7357	2060102.9009	1364196.6768	32.42	33+45.94	0.06 Lt.	Found BC/Bx[DOH]: Center Line Mon
808	91296.9186	117823.9726	2059796.5770	1364540.9157	32.91	38+11.35	0.03 Lt.	Found BC/Bx[DOH]: Center Line Mon
809	90744.3059	118876.7963	2059243.9605	1365593.7464	33.94	50+00.40	0.03 Lt.	Found BC/Bx[DOH]: Center Line Mon
810	90270.7538	119778.9448	2058770.4056	1366495.9003	34.70	60+19.29	0.01 Lt.	Found BC/Bx[DOH]: Center Line Mon
811	90076.1160	120061.2921	2058575.7673	1366778.2488	34.66	63+63.05	0.02 Rt.	Found BC/Bx[DOH]: Center Line Mon
812	89618.0408	120580.2699	2058117.6893	1367297.2299	33.94	70+55.28	0.09 Rt.	Found BC/Bx[DOH]: Center Line Mon
832	94328.6322	115915.3382	2062828.3089	1362632.2695	39.30	02+00.16	0.05 Lt.	Found Bx: Case for Center Line Mon

LEGEND

- FOUND GOVERNMENT CONTROL
- CENTER LINE MONUMENT
- XXX POINT NUMBER
- HIGHWAY CENTERLINE ALIGNMENT
- PROPERTY/LOT LINES

300 0 150 300

U.S. SURVEY FEET

ALIGNMENT LINE TABLE		
LINE #	DIRECTION	LENGTH
L6	N 72° 06' 16" E	2,302.87
L7	S 28° 36' 13" E	455.06
L8	S 27° 20' 20" E	799.85
L9	S 28° 37' 24" E	1,205.90
L10	S 34° 22' 51" E	564.50
L11	S 62° 18' 20" E	2,207.74
L12	S 48° 34' 20" E	694.40

ALIGNMENT CURVE TABLE					
CURVE #	RADIUS	LENGTH	DELTA ANGLE	CHORD DIRECTION	CHORD LENGTH
C5	381.96	534.62	80°11'41"	S 67° 47' 53.45" E	492.04
C6	286.47	396.45	79°17'31"	S 68° 14' 58.37" E	365.56
C7	5729.45	575.73	05°45'27"	S 31° 30' 07.46" E	575.49
C8	954.91	465.40	27°55'29"	S 48° 20' 35.42" E	460.81
C9	1432.36	343.33	13°44'00"	S 55° 26' 19.95" E	342.50

STATE OF ALASKA
49TH
Jacob Gerondale
LS-11758
REGISTERED PROFESSIONAL LAND SURVEYOR

PLANS DEVELOPED BY: USKH INC

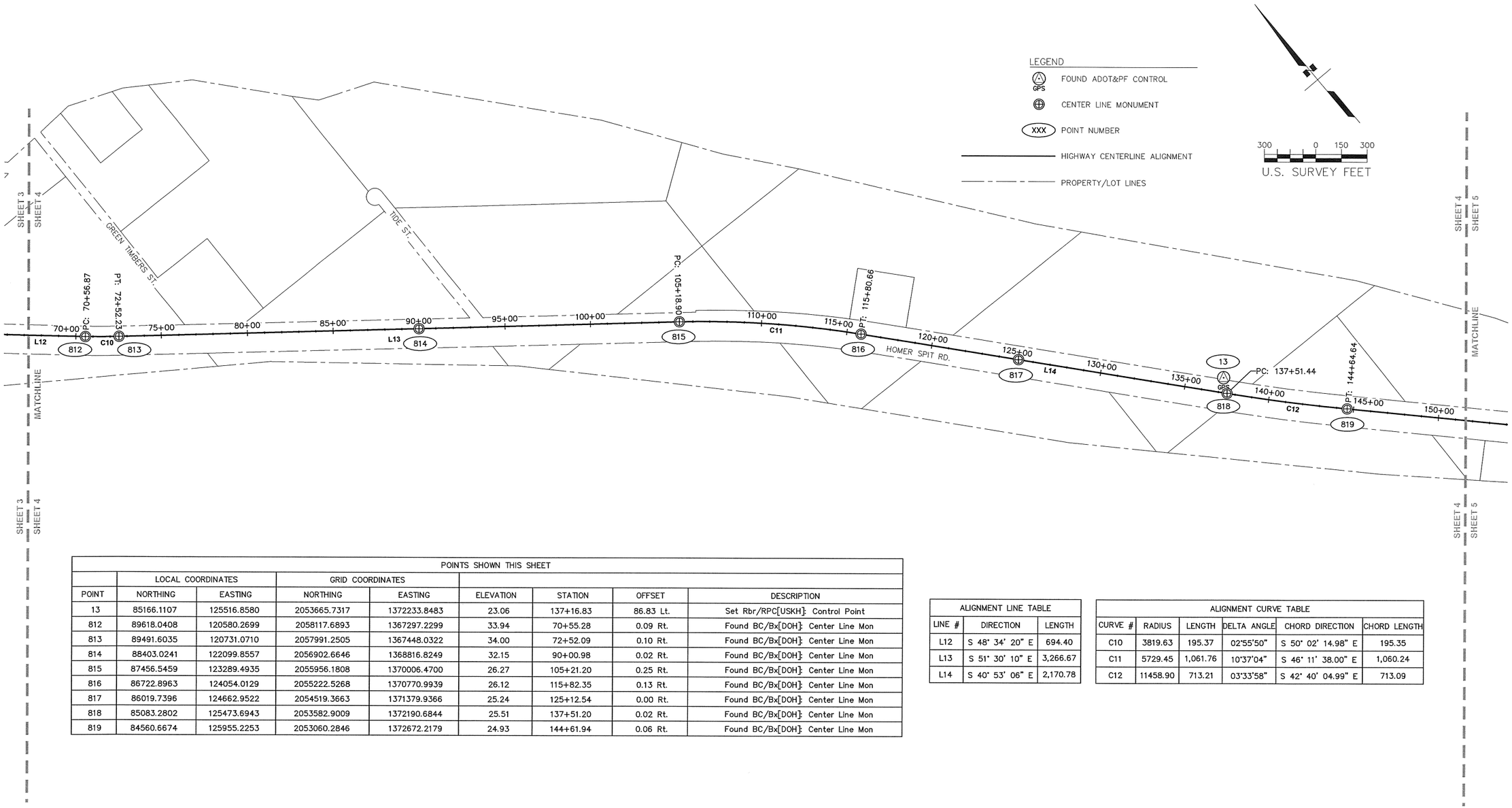
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION

SURVEY CONTROL SHEET

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	NH-0211(059)/55260	2014	A7	A9



POINTS SHOWN THIS SHEET								
	LOCAL COORDINATES		GRID COORDINATES					
POINT	NORTHING	EASTING	NORTHING	EASTING	ELEVATION	STATION	OFFSET	DESCRIPTION
13	85166.1107	125516.8580	2053665.7317	1372233.8483	23.06	137+16.83	86.83 Lt.	Set Rbr/RPC[USKH]: Control Point
812	89618.0408	120580.2699	2058117.6893	1367297.2299	33.94	70+55.28	0.09 Rt.	Found BC/Bx[DOH]: Center Line Mon
813	89491.6035	120731.0710	2057991.2505	1367448.0322	34.00	72+52.09	0.10 Rt.	Found BC/Bx[DOH]: Center Line Mon
814	88403.0241	122099.8557	2056902.6646	1368816.8249	32.15	90+00.98	0.02 Rt.	Found BC/Bx[DOH]: Center Line Mon
815	87456.5459	123289.4935	2055956.1808	1370006.4700	26.27	105+21.20	0.25 Rt.	Found BC/Bx[DOH]: Center Line Mon
816	86722.8963	124054.0129	2055222.5268	1370770.9939	26.12	115+82.35	0.13 Rt.	Found BC/Bx[DOH]: Center Line Mon
817	86019.7396	124662.9522	2054519.3663	1371379.9366	25.24	125+12.54	0.00 Rt.	Found BC/Bx[DOH]: Center Line Mon
818	85083.2802	125473.6943	2053582.9009	1372190.6844	25.51	137+51.20	0.02 Rt.	Found BC/Bx[DOH]: Center Line Mon
819	84560.6674	125955.2253	2053060.2846	1372672.2179	24.93	144+61.94	0.06 Rt.	Found BC/Bx[DOH]: Center Line Mon

ALIGNMENT LINE TABLE		
LINE #	DIRECTION	LENGTH
L12	S 48° 34' 20" E	694.40
L13	S 51° 30' 10" E	3,266.67
L14	S 40° 53' 06" E	2,170.78

ALIGNMENT CURVE TABLE					
CURVE #	RADIUS	LENGTH	DELTA ANGLE	CHORD DIRECTION	CHORD LENGTH
C10	3819.63	195.37	02°55'50"	S 50° 02' 14.98" E	195.35
C11	5729.45	1,061.76	10°37'04"	S 46° 11' 38.00" E	1,060.24
C12	11458.90	713.21	03°33'58"	S 42° 40' 04.99" E	713.09



PLANS DEVELOPED BY: USKH INC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION

SURVEY CONTROL SHEET

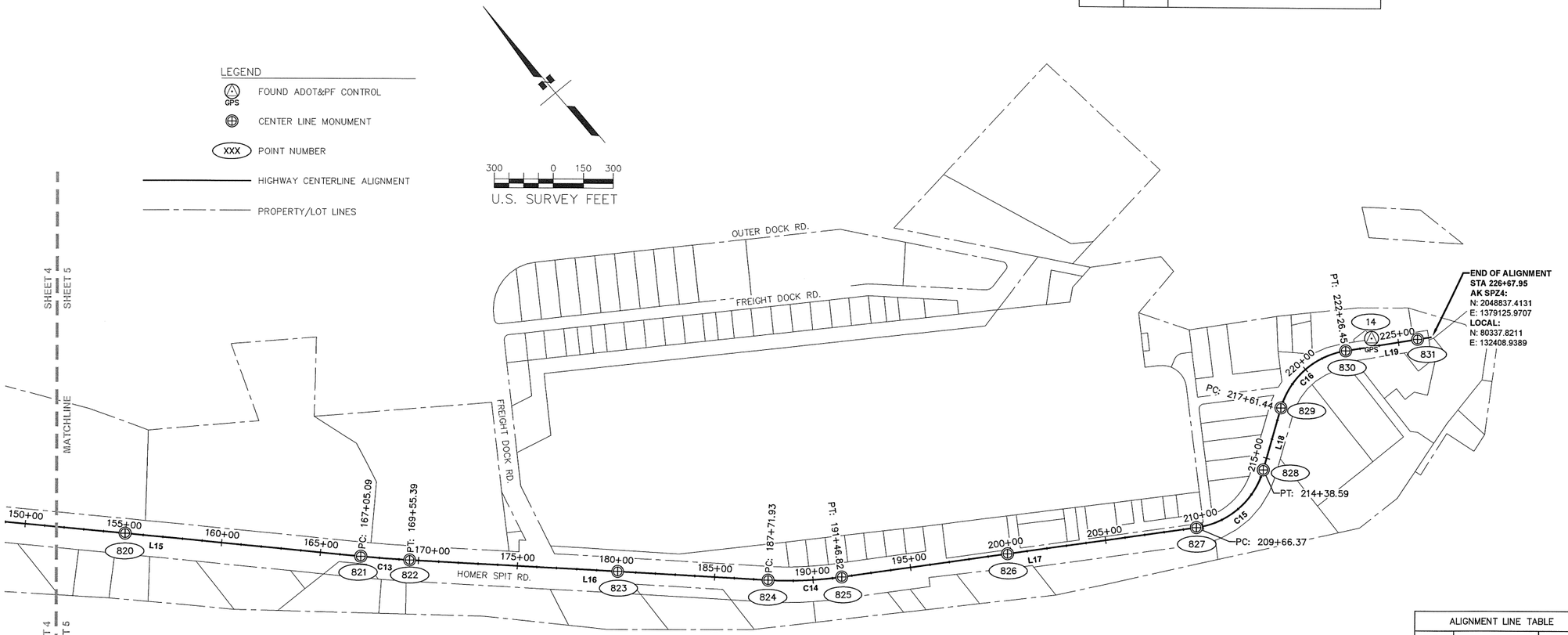
REVISIONS		
NO.	DATE	DESCRIPTION

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ALASKA	NH-0211(059)/55260	2014	A8	A9

LEGEND

- FOUND ADOT&PF CONTROL (GPS)
- CENTER LINE MONUMENT
- XXX POINT NUMBER
- HIGHWAY CENTERLINE ALIGNMENT
- PROPERTY/LOT LINES

300 0 150 300
U.S. SURVEY FEET



ALIGNMENT LINE TABLE		
LINE #	DIRECTION	LENGTH
L15	S 44° 27' 04" E	2,240.45
L16	S 46° 57' 15" E	1,816.54
L17	S 58° 12' 04" E	1,819.55
L18	N 55° 41' 13" E	322.85
L19	S 59° 12' 36" E	441.50

ALIGNMENT CURVE TABLE					
CURVE #	RADIUS	LENGTH	DELTA ANGLE	CHORD DIRECTION	CHORD LENGTH
C13	5729.45	250.30	02°30'11"	S 45° 42' 09.49" E	250.28
C14	1909.82	374.89	11°14'49"	S 52° 34' 39.50" E	374.29
C15	409.25	472.22	66°06'43"	N 88° 44' 34.56" E	446.45
C16	409.25	465.01	65°06'11"	N 88° 14' 18.57" E	440.40

POINTS SHOWN THIS SHEET								
	LOCAL COORDINATES		GRID COORDINATES					
POINT	NORTHING	EASTING	NORTHING	EASTING	ELEVATION	STATION	OFFSET	DESCRIPTION
14	80527.6369	132171.1147	2049027.2295	1378888.1448	24.78	223+66.48	41.32 Lt.	Set Spike: Survey Mark
820	83814.1239	126687.6089	2052313.7374	1373404.6063	24.80	155+07.76	0.05 Rt.	Found BC/Bx[DOH]: Center Line Mon
821	82959.8141	127525.8678	2051459.4219	1374242.8695	25.40	167+04.65	0.06 Lt.	Found BC/Bx[DOH]: Center Line Mon
822	82785.5672	127704.4407	2051285.1739	1374421.4441	25.46	169+54.17	0.10 Lt.	Found BC/Bx[DOH]: Center Line Mon
823	82066.8425	128473.9761	2050566.4452	1375190.9838	25.56	180+07.15	0.12 Lt.	Found BC/Bx[DOH]: Center Line Mon
824	81544.6397	129033.0387	2050044.2385	1375750.0503	26.29	187+72.17	0.10 Lt.	Found BC/Bx[DOH]: Center Line Mon
825	81317.2981	129330.1869	2049816.8961	1376047.2003	26.32	191+46.93	0.09 Lt.	Found BC/Bx[DOH]: Center Line Mon
826	80868.3828	130054.1595	2049367.9777	1376771.1771	27.31	199+98.79	0.04 Lt.	Found BC/Bx[DOH]: Center Line Mon
827	80358.4099	130876.5205	2048858.0019	1377593.5432	27.90	209+66.45	0.05 Rt.	Found BC/Bx[DOH]: Center Line Mon
828	80368.2058	131322.7178	2048867.7984	1378039.7431	27.72	214+38.45	0.01 Rt.	Found BC/Bx[DOH]: Center Line Mon
829	80551.8437	131591.8122	2049051.4373	1378308.8394	26.83	217+64.24	0.01 Rt.	Found BC/Bx[DOH]: Center Line Mon
830	80563.6976	132030.0125	2049063.2910	1378747.0415	24.25	222+26.80	0.07 Lt.	Found BC/Bx[DOH]: Center Line Mon
831	80373.4248	132349.3376	2048873.0173	1379066.3692	22.54	225+98.52	0.08 Lt.	Found BC/Bx[DOH]: Center Line Mon



PLANS DEVELOPED
BY: USKH INC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STERLING HIGHWAY:
MP 174-179
PAVEMENT PRESERVATION

SURVEY CONTROL SHEET

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11



FD 9/16" STAINLESS DRIVE ROD
W/ 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

12



FD 9/16" STAINLESS DRIVE ROD
W/ 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

13



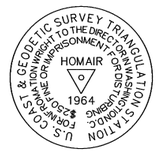
SET 5/8" X 30" REBAR
WITH 1-1/4" RPC
0.2' BELOW GROUND

14



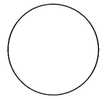
SET MAGNETIC NAIL
FLUSH WITH ASPHALT

551



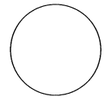
FD 3-1/4" BRASS CAP
IN CONCRETE, FLUSH WITH GROUND
FAIR CONDITION

801



FD 1-1/2" BRASS CAP
IN MONUMENT CASE
SCARRED, NO MARKINGS
FAIR CONDITION

802



FD 1-1/2" BRASS CAP
IN MONUMENT CASE
SCARRED, NO MARKINGS
FAIR CONDITION

803



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

804



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

805



FD 2-1/2" ALUMINUM CAP
IN MONUMENT CASE
GOOD CONDITION

806



FD MONUMENT CASE
LID FUSED ONTO CASE
UNABLE TO OPEN

807



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

808



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

809



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

810



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

811



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

812



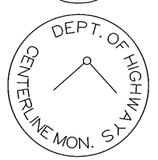
FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

813



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

814



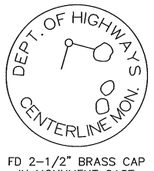
FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

815



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
FAIR CONDITION

816



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

817



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

818



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

819



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

820



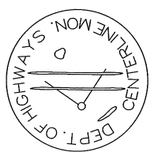
FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

821



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

822



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
FAIR CONDITION

823



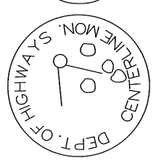
FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

824



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
FAIR CONDITION

825



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
FAIR CONDITION

826



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
FAIR CONDITION

827



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
FAIR CONDITION

828



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
GOOD CONDITION

829



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
FAIR CONDITION

830



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
FAIR CONDITION

831



FD 2-1/2" BRASS CAP
IN MONUMENT CASE
FAIR CONDITION

832



FD MONUMENT CASE
LID FUSED ONTO CASE
UNABLE TO OPEN



PLANS DEVELOPED
BY: USKH INC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STERLING HIGHWAY:
MP 174-179
PAVEMENT PRESERVATION

SURVEY CONTROL SHEET

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	B1	B2

DESIGNED BY
CHECKED BY
DRAFTED BY

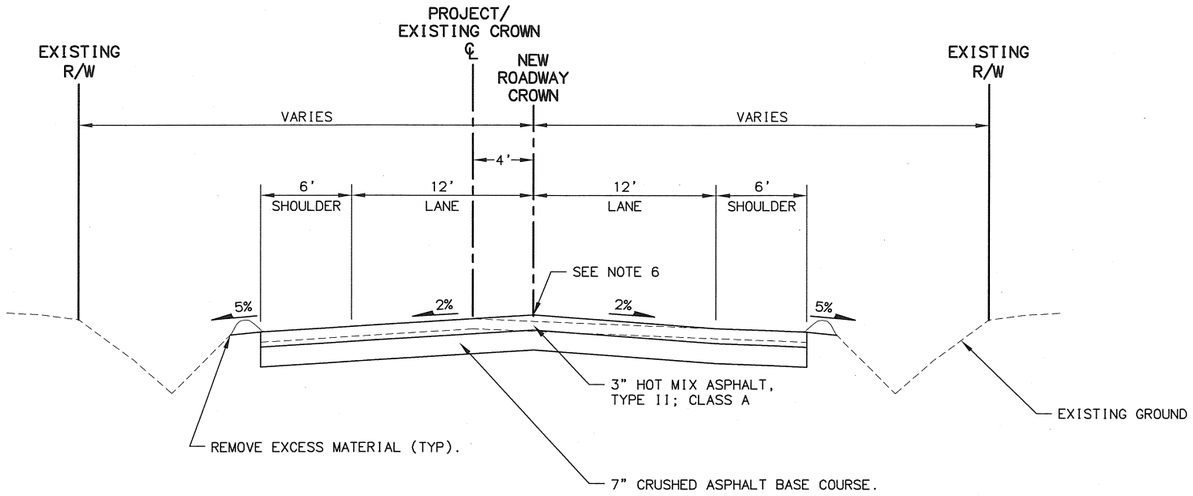
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B1

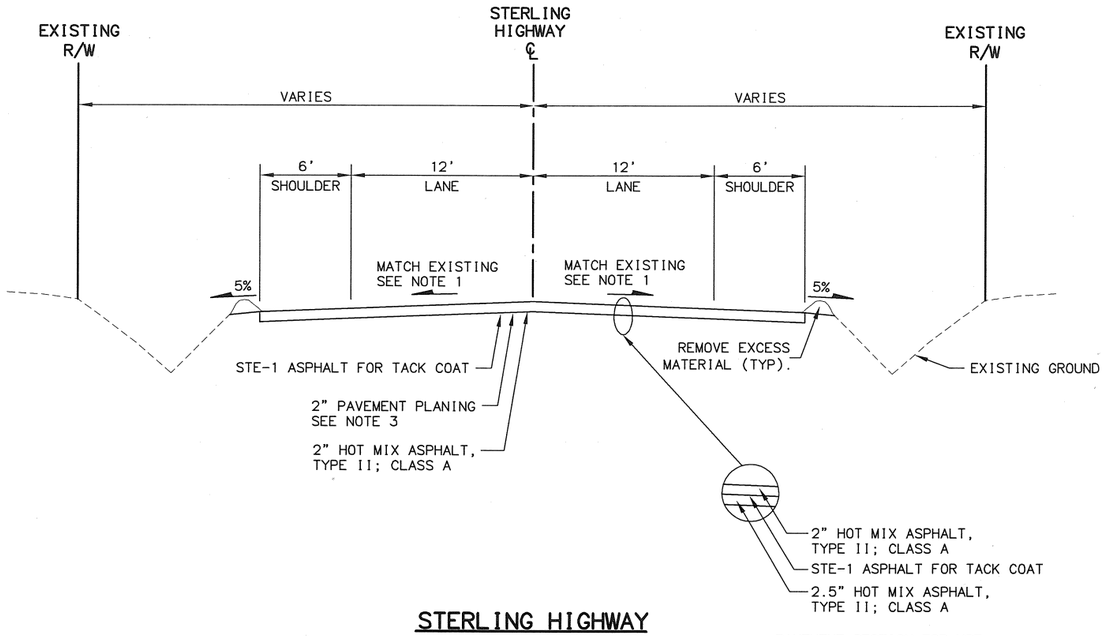
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STERLING HIGHWAY

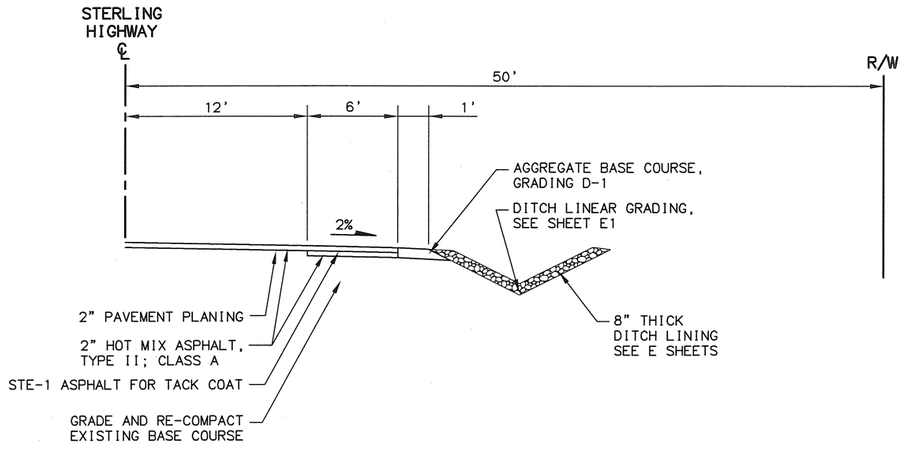
STA. 6272+00 TO STA. 6297+00



STERLING HIGHWAY

STA. 6297+00 TO STA. 6307+78
STA. 2+00 TO STA. 226+67

PAVEMENT SECTION FOR USE AT ATR LOCATION



SHOULDER REPAIR

STA. 6303+50 TO STA. 6304+75

NOTES:

1. FINISHED ROADWAY CROSS SLOPES SHALL MATCH EXISTING AND BE CONSISTENT ACROSS THE ROADWAY'S HALF WIDTH IN SUPERELEVATED SECTIONS, CROWNED AT 2% IN TANGENT SECTIONS, OR AS DIRECTED BY THE ENGINEER.
2. FOLLOWING PULVERIZING AND MIXING THE EXISTING ASPHALT PAVEMENT AND BASE, REMOVE APPROXIMATELY 3 INCHES OF BLENDED MATERIAL, GRADE AND COMPACT REMAINING CRUSHED ASPHALT BASE COARSE MATERIAL NECESSARY TO OBTAIN THE MINIMUM THICKNESS AS SHOWN ON THE TYPICAL SECTION OR AS DIRECTED BY THE ENGINEER PRIOR TO PLACING HOT MIX ASPHALT.
3. IF PLANING OPERATIONS BREAK THROUGH ASPHALT, REPAIR SECTION BY SAWCUTTING A RECTANGULAR PATCH AROUND THE BREAK THROUGH AREA. EXCAVATE 1 INCH OF BASE COURSE AND CONSTRUCT A 1 INCH LIFT OF HOT MIX ASPHALT, TYPE II, CLASS A LEVEL WITH THE PLANED ROAD SURFACE.
4. CONSTRUCT HOT MIX ASPHALT ACROSS THE FULL WIDTH OF LANE AND SHOULDER.
5. SHAPE AGGREGATE BASE COURSE, GRADING D-1 AT THE EDGE OF PAVEMENT TO ENSURE THERE IS NO DROP AT THE PAVEMENT'S EDGE WITHIN 48 HOURS AFTER PLACING PAVEMENT.
6. CONDUCT PRECONSTRUCTION SURVEY TO IDENTIFY EXISTING ROAD ELEVATION. IF EXISTING EDGES OF PAVEMENT ARE AT SAME ELEVATION, DETERMINE NEW CENTERLINE ELEVATION FROM EDGE OF PAVEMENT ELEVATIONS. OTHERWISE, MATCH NEW CENTERLINE ELEVATION TO EXISTING AND ADJUST CROSS SLOPES AS NECESSARY TO MATCH EXISTING EDGE OF PAVEMENT ELEVATIONS AT DRIVEWAYS AND APPROACHES.
7. REMOVE EXISTING MATERIAL FROM ROAD SHOULDERS TO FACILITATE DRAINAGE FROM ROAD SURFACE. PAID FOR AS "RECONDITIONING", "DITCH LINEAR GRADING" OR "REMOVE FUGITIVE MATERIALS". SEE D SHEETS FOR LIMITS.
8. AS-BUILTS INDICATE EXISTING PAVEMENT DEPTHS AS FOLLOWS:

   6272+00 TO 6298+30 - 3" AC OVER 10" AGGREGATE BASE COURSE
   6298+30 TO 226+68 - 4.5" AC OVER VARYING DEPTH AGGREGATE BASE COURSE

GENERAL TYPICAL SECTION NOTES:

1. APPLY STE-1 ASPHALT FOR TACK COAT TO VERTICAL SURFACES AND EXISTING ASPHALT PRIOR TO PAVING OR OVERLAYING.
2. CRUSHED ASPHALT BASE COURSE (CABC) MATERIAL MEETING 301(1) SPECIFICATION IS CONSIDERED ACCEPTABLE FOR SHOULDERING, AS APPROVED BY THE ENGINEER. NO ADDITIONAL PAYMENT WILL BE MADE FOR CABC AS 301(1).

STATE OF ALASKA
4978
WILLIAM A. WEBB
4/4/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED
BY: USKH INC

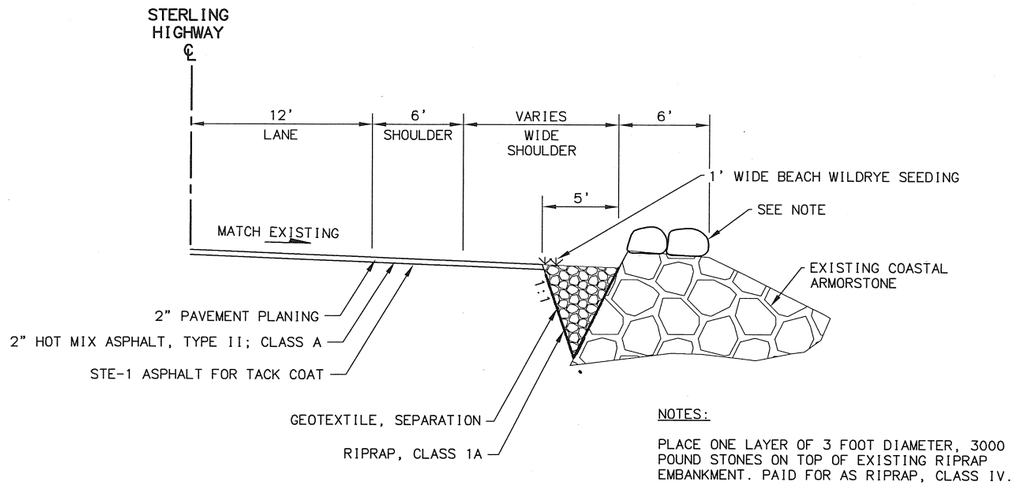
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STERLING HIGHWAY:
MP 174-179
PAVEMENT PRESERVATION

TYPICAL SECTION

REVISIONS		
NO.	DATE	DESCRIPTION

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ALASKA	0211(059)/55260	2014	B2	B2

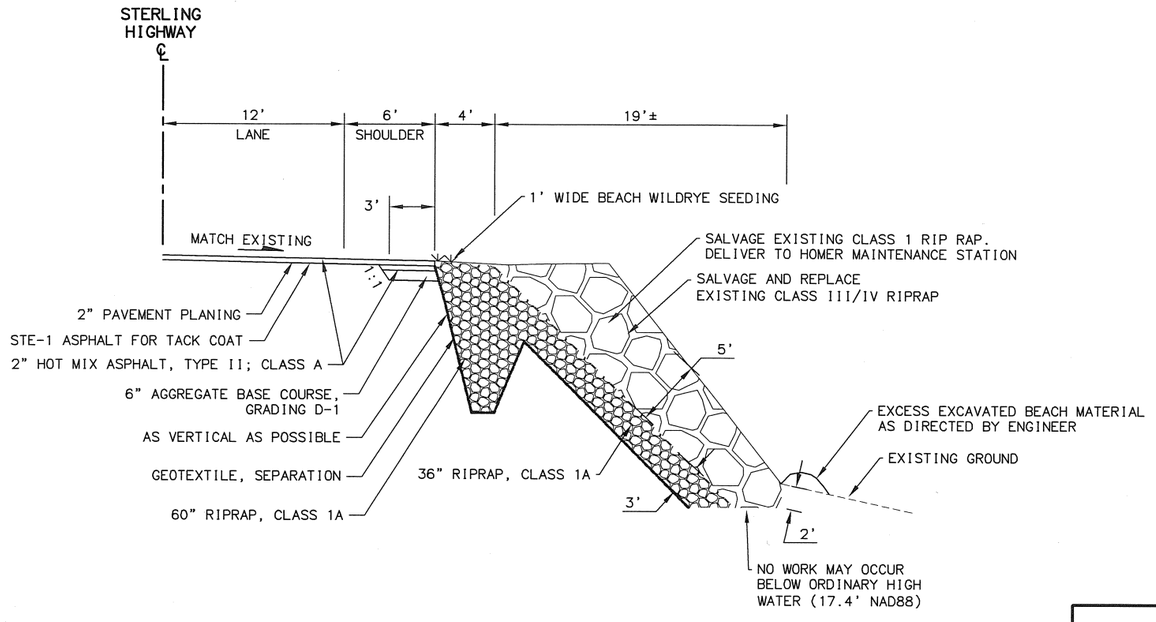


NOTES:

PLACE ONE LAYER OF 3 FOOT DIAMETER, 3000 POUND STONES ON TOP OF EXISTING RIPRAP EMBANKMENT. PAID FOR AS RIPRAP, CLASS IV.

TIDAL EROSION REPAIR - WIDE SHOULDER

STA. 109+00 TO STA. 146+00



TIDAL EROSION REPAIR - NORMAL SHOULDER

STA. 146+00 TO STA. 151+00

STATE OF ALASKA
WILLIAM A. WEBB
4/3/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: USKH INC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION

TYPICAL SECTION

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CHECKED BY
DRAFTED BY

XREFS

SCALE

LAYOUT
B2

DATE TIME
4/3/2014 11:20 AM

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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	C1	C1

DESIGNED BY
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DRAFTED BY

XREFS

SCALE

LAYOUT
C1

DATE TIME
4/4/2014 4:25 PM

DRAWING LOCATION
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ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
201(1B)	CLEARING	LUMP SUM	ALL REQ'D
202(2)	REMOVAL OF PAVEMENT	SQUARE YARD	10,100
202(15)	PAVEMENT PLANING	SQUARE YARD	93,830
202(40)	REMOVE FUGITIVE MATERIALS	LINEAR FOOT	11,463
203(3)	UNCLASSIFIED EXCAVATION	CUBIC YARD	300
203(6A)	BORROW, TYPE A	TON	120
203(27)	DITCH LINEAR GRADING	STATION	29
301(1)	AGGREGATE BASE COURSE, GRADING D-1	TON	90
308(1)	CRUSHED ASPHALT BASE COURSE	SQUARE YARD	11,000
401(1A)	HOT MIX ASPHALT, TYPE II, CLASS A	TON	12,059
401(2)	ASPHALT CEMENT, GRADE PG 58-34	TON	664
401(6)	ASPHALT PRICE ADJUSTMENT - QUALITY	CONTINGENT SUM	ALL REQ'D
401(10)	ASPHALT MATERIAL PRICE ADJUSTMENT - UNIT PRICE	CONTINGENT SUM	ALL REQ'D
603(1-18)	18 INCH CSP	LINEAR FOOT	10
603(1-24)	24 INCH CSP	LINEAR FOOT	10
603(3-18)	END SECTION FOR 18 INCH CSP	EACH	1
603(3-24)	END SECTION FOR 24 INCH CSP	EACH	1
603(22)	CULVERT CLEANING	LINEAR FOOT	726
606(6)	REMOVING AND DISPOSING OF GUARDRAIL	LINEAR FOOT	500
606(13)	PARALLEL GUARDRAIL TERMINAL	EACH	10
608(10)	DETECTABLE WARNING TILES	SQUARE FOOT	80
610(2)	DITCH LINING	TON	660
611(1A)	RIP RAP, CLASS 1A	CUBIC YARD	3,155
611(1B)	RIP RAP, CLASS IV	CUBIC YARD	2,445
611(3)	SALVAGE AND REPLACE EXISTING ARMOR STONE	STATION	5
615(1)	STANDARD SIGN	SQUARE FOOT	900
618(2)	SEEDING	POUND	30
618(3)	WATER FOR SEEDING	MGAL	21
620(1)	TOPSOIL	SQUARE YARD	2,400
630(1)	GEOTEXTILE SEPARATION	SQUARE YARD	4,690
640(1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQ'D
640(4)	WORKER MEALS AND LODGING, OR PER DIEM	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	CONTINGENT SUM	ALL REQ'D
641(6)	WITHHOLDING	CONTINGENT SUM	ALL REQ'D
641(7)	SWPPP MANAGER	LUMP SUM	ALL REQ'D

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
642(1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQ'D
642(3)	THREE PERSON SURVEY PARTY	HOUR	50
642(16)	PASSING SIGHT DISTANCE MEASUREMENT	STATION	448
643(2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQ'D
643(3)	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQ'D
643(15)	FLAGGING	CONTINGENT SUM	ALL REQ'D
643(23)	TRAFFIC PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQ'D
643(25)	TRAFFIC CONTROL	CONTINGENT SUM	ALL REQ'D
644(1)	FIELD OFFICE	LUMP SUM	ALL REQ'D
644(10)	ENGINEERING COMMUNICATIONS	CONTINGENT SUM	ALL REQ'D
645(1)	TRAINING PROGRAM, 1 TRAINEES/APPRENTICES	LABOR HOUR	*
646(1)	CPM SCHEDULING	LUMP SUM	ALL REQ'D
646(2)	SCHEDULE PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQ'D
647(5)	BACKHOE, 4WD, 1 CY BUCKET, 75 HP, 15 FT DEPTH	CONTINGENT SUM	ALL REQ'D
651(1)	EAGLE MONITORING	CONTINGENT SUM	ALL REQ'D
669(4-H3)	AUTOMATED TRAFFIC RECORDERS - SITE H3	LUMP SUM	ALL REQ'D
669(4-H4)	AUTOMATED TRAFFIC RECORDERS - SITE H4	LUMP SUM	ALL REQ'D
670(10A)	MMA PAVEMENT MARKINGS, LONGITUDINAL SURFACE APPLIED	LINEAR FOOT	75,200
670(10B)	MMA PAVEMENT MARKINGS, SYMBOLS AND ARROW(S) SURFACE APPLIED	EACH	12
670(10C)	MMA PAVEMENT MARKINGS, TRANSVERSE AND GORE SURFACE APPLIED	LINEAR FOOT	1,630
670(10F)	MMA PAVEMENT MARKINGS, TRANSVERSE AND GORE INLAID	LINEAR FOOT	840

* ITEM 645(1) TRAINING QUANTITY IS FOR THE TOTAL CONTRACT COMPRISED OF BOTH STERLING HIGHWAY MP 173 TO 174 PAVEMENT PRESERVATION AND STERLING HIGHWAY MP 174 TO 179 PAVEMENT PRESERVATION PROJECTS. LABOR HOURS MAY BE ACCRUED THROUGH EITHER PROJECT.

TABLE OF ESTIMATING FACTORS

ITEM NO.	ITEM DESCRIPTION	ESTIMATING FACTOR
203(6A)	BORROW, TYPE A	145 LB/CU FT
301(1)	AGGREGATE BASE COURSE, GRADING D-1	148 LB/CU FT
401(1A)	HOT MIX ASPHALT, TYPE II, CLASS A	150 LB/CU FT
401(2)	ASPHALT CEMENT, TYPE PG 58-34	5.5 % OF 401(1A)
402(1)	STE-1 ASPHALT FOR TACK COAT	0.000316 TON/SY
610(2)	DITCH LINING	108 LB/CU FT
618(2)	SEEDING	60 LB/ACRE
618(3)	WATER FOR SEEDING	1.0 GAL/SF

STATE OF ALASKA
49TH
WILLIAM A. WEBB
4/9/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED
BY: USKH INC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STERLING HIGHWAY:
MP 174-179
PAVEMENT PRESERVATION

ESTIMATE OF QUANTITIES

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	D1	D1

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DATE TIME
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201(1B) CLEARING - LUMP SUM

	BEGIN		END		AREA	
SHEET	STATION	OFFSET	STATION	OFFSET	(SF)	REMARKS
F1	6273+50	LT	6277+00	LT	18,900	OCEAN DRIVE
				TOTAL	18,900	

202(40) REMOVE FUGITIVE MATERIALS - LINEAR FOOT

SHEET	BEGIN	OFFSET	END	OFFSET	QUANTITY	REMARKS
F3	26+08	18 LT	48+21	18 LT	2213	
F3	29+93	20 RT	104+86	20 RT	7493	
F4	48+92	18 LT	51+05	18 LT	213	
F4	51+73	18 LT	67+17	20 LT	1544	
				TOTAL	11,463	

203(27) DITCH LINEAR GRADING - STATION

SHEET	BEGIN	END	OFFSET	QUANTITY	REMARKS
F1	6279+50	6295+50	RT	13	QUANTITY DOES NOT INCLUDE DRIVEWAYS
F2	6295+50	6307+50	RT	12	
F11	222+00	226+00	LT	4	CLEAN ASPHALT DITCH
			TOTAL	29	

603(1-18) 18 INCH CSP - LINEAR FOOT

SHEET	STATION	OFFSET	QUANTITY	REMARKS
F1	6286+79	33 RT	10	CULVERT FOR DRIVEWAY REPAIR
		TOTAL	10	

603(1-24) 24 INCH CSP - LINEAR FOOT

SHEET	STATION	OFFSET	QUANTITY	REMARKS
F1	6273+50	32 RT	10	CULVERT FOR LAKE STREET REPAIR
		TOTAL	10	

603(3-18) END SECTION FOR 18 INCH CSP - EACH

SHEET	STATION	OFFSET	QUANTITY	REMARKS
F1	6286+79	33 RT	1	CULVERT FOR DRIVEWAY REPAIR
		TOTAL	1	

603(3-24) END SECTION FOR 24 INCH CSP - EACH

SHEET	STATION	OFFSET	QUANTITY	REMARKS
F1	6273+50	32 RT	1	CULVERT FOR LAKE STREET REPAIR
		TOTAL	1	

603(22) CULVERT CLEANING - LINEAR FOOT

SHEET	STATION	OFFSET	QUANTITY	REMARKS
F1	6273+69	32 RT	61	
F1	6275+18	56 RT	89	
F1	6278+30	26 LT	40	
F1	6279+91	26 LT	40	
F1	6281+53	38 RT	46	
F1	6282+37	2 RT	61	
F1	6282+76	39 RT	25	
F1	6283+71	37 RT	44	
F1	6284+13	36 RT	41	
F1	6284+85	37 RT	44	
F1	6285+86	33 RT	44	
F1	6286+81	34 RT	41	
F1	6287+73	33 RT	45	
F1	6290+90	3 RT	60	
F1	6295+17	36 RT	45	
		TOTAL	726	

606(13) PARALLEL GUARDRAIL TERMINAL - EACH

SHEET	STATION	OFFSET	QUANTITY	REMARKS
F3	26+10	19 LT	1	
F3	29+43	19 LT	1	
F3	29+95	22 RT	1	
F3	30+19	19 LT	1	
F4	48+20	19 LT	1	
F4	48+93	20 LT	1	
F4	51+04	19 LT	1	
F4	51+74	19 LT	1	
F5	67+16	21 LT	1	
F6	104+85	25 RT	1	
		TOTAL	10	
INSTALL GUARDRAIL TERMINALS WITH A 1 FOOT OFFSET				

608(10) DETECTABLE WARNING TILES - SQUARE FOOT

SHEET	STATION	OFFSET	QUANTITY	REMARKS
F1	6273+38	20 RT	20	
F2	2+42	23 LT	20	
F2	3+00	20 LT	20	
F11	210+70	26 LT	20	
		TOTAL	80	

610(2) DITCH LINING - TON

SHEET	BEGIN	END	OFFSET	QUANTITY	REMARKS
F1	6279+50	6295+50	RT	343	QUANTITY DOES NOT INCLUDE DRIVEWAYS
F2	6295+50	6307+50	RT	317	
			TOTAL	660	

611(1A) RIP RAP, CLASS 1A - CUBIC YARD

SHEET	BEGIN	OFFSET	END	OFFSET	QUANTITY	REMARKS
F7-F8	109+00	33 RT	146+00	33 RT	2085	TIDAL EROSION REPAIR - WIDE SHOULDER
F8-F9	146+00	41 RT	151+00	41 RT	1070	TIDAL EROSION REPAIR - NORMAL SHOULDER
				TOTAL	3,155	

611(1B) RIP RAP, CLASS IV - CUBIC YARD

SHEET	BEGIN	OFFSET	END	OFFSET	QUANTITY	REMARKS
F7-F8	109+00	33 RT	146+00	33 RT	2445	TIDAL EROSION REPAIR - WIDE SHOULDER
				TOTAL	2,445	

611(3) SALVAGE AND REPLACE EXISTING ARMOR STONE - STATION

SHEET	BEGIN	OFFSET	END	OFFSET	QUANTITY	REMARKS
F7-F8	146+00	33 RT	151+00	33 RT	5	TIDAL EROSION REPAIR - NORMAL SHOULDER
				TOTAL	5	

630(1) GEOTEXTILE SEPARATION - SQUARE YARD

SHEET	BEGIN	OFFSET	END	OFFSET	QUANTITY	REMARKS
F6-F8	109+00	27 RT	146+00	21 RT	4134	
F8-F9	146+00	18 RT	151+00	22 RT	556	
				TOTAL	4,690	

642(16) PASSING SIGHT DISTANCE MEASUREMENT - STATION

SHEET	BEGIN	END	QUANTITY	REMARKS
F2-F11	2+00	226+00	448	
		TOTAL	448	

STATE OF ALASKA
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WILLIAM A. WEBB
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49TH

PLANS DEVELOPED
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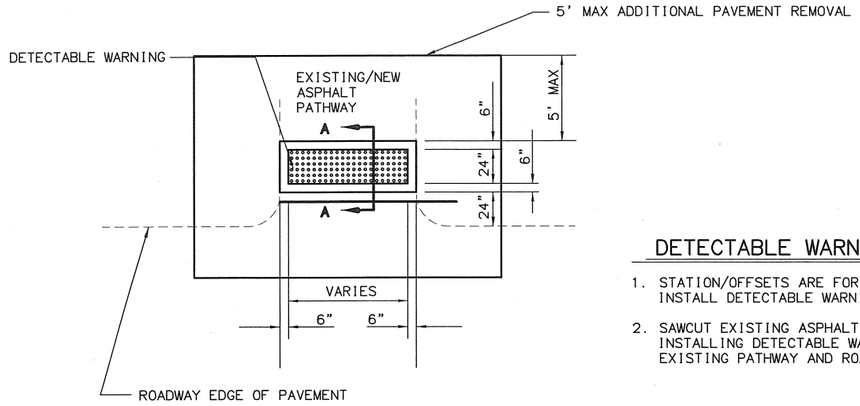
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STERLING HIGHWAY:
MP 174-179
PAVEMENT PRESERVATION

SUMMARY TABLES

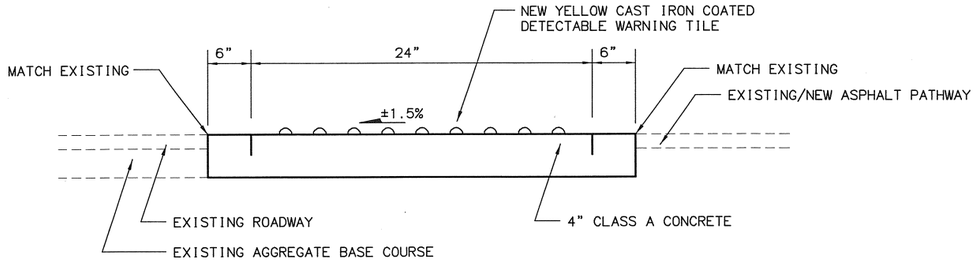
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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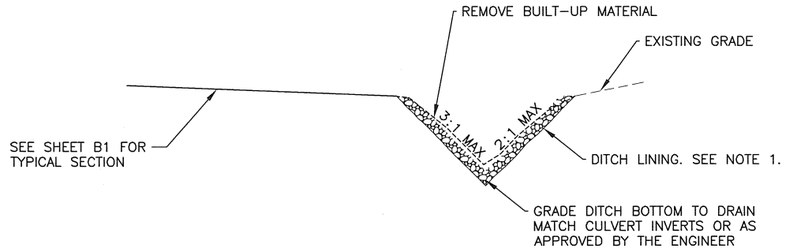
DETECTABLE WARNING NOTES

1. STATION/OFFSETS ARE FOR REFERENCE ONLY. INSTALL DETECTABLE WARNING TILE PER DETAIL.
2. SAWCUT EXISTING ASPHALTIC SURFACES WHEN INSTALLING DETECTABLE WARNING TILES AT EXISTING PATHWAY AND ROADWAY CROSSINGS.



SECTION A-A

ASPHALT PATHWAY DETECTABLE WARNING DETAIL



DITCH LINEAR GRADING

NOTES:

1. LINE DITCH WITH AN 8" LIFT CONSISTING OF ANGULAR CRUSHED STONE AND CONSISTENT WITH SECTION 610.

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DRAFTED BY

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E1

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WILLIAM A. WEBB
4/3/2014
CE 12023
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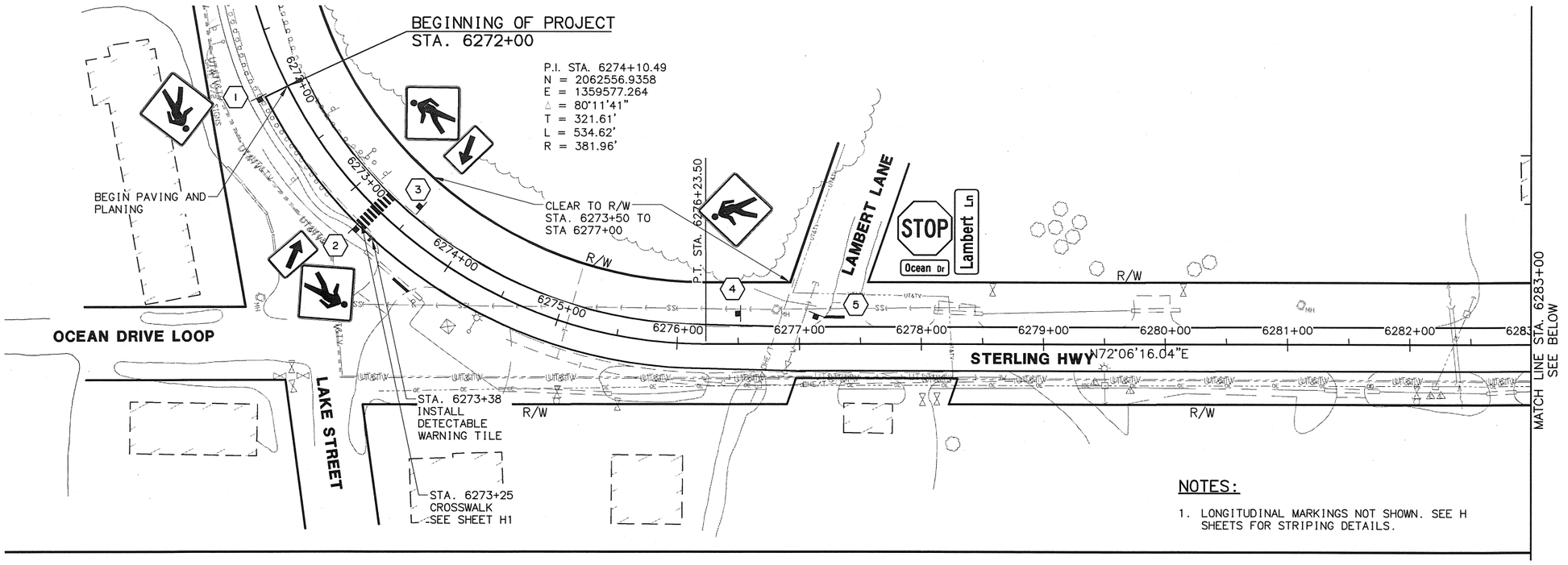
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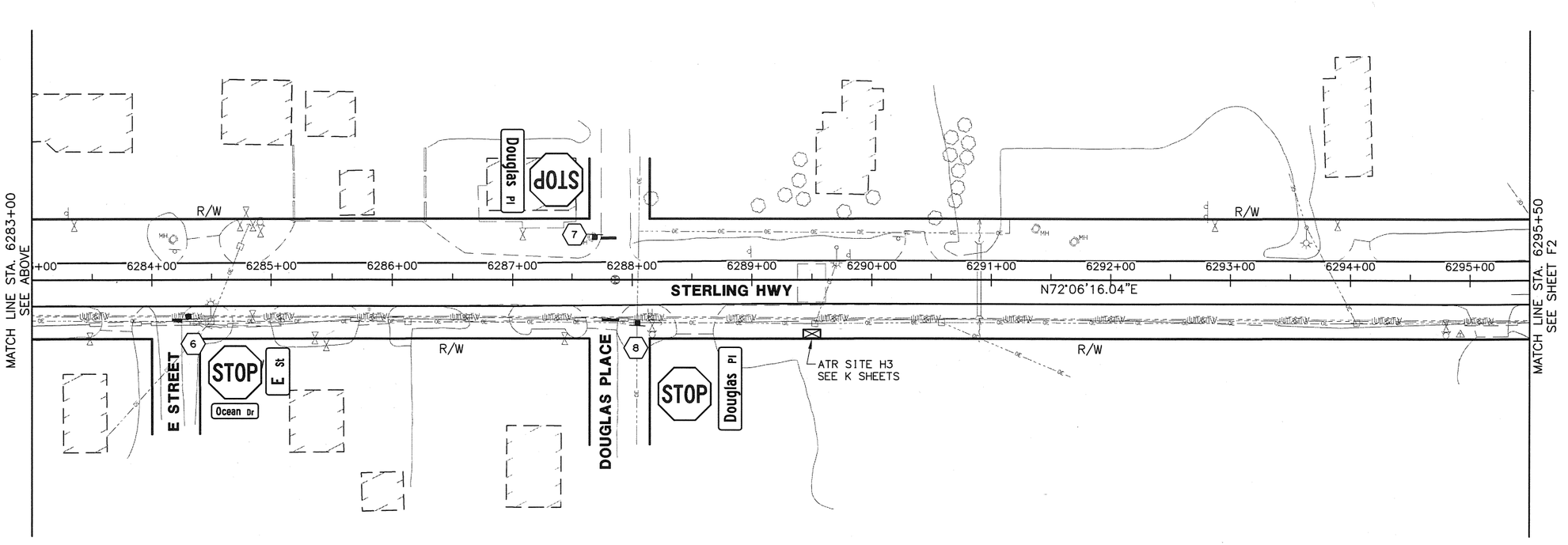
STATE OF ALASKA
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STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION

DETAILS

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Apr 04, 2014





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ALASKA	2014

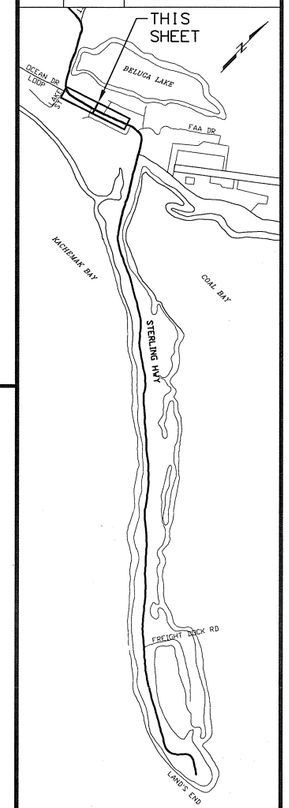
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0211(059)/55260

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REVISIONS

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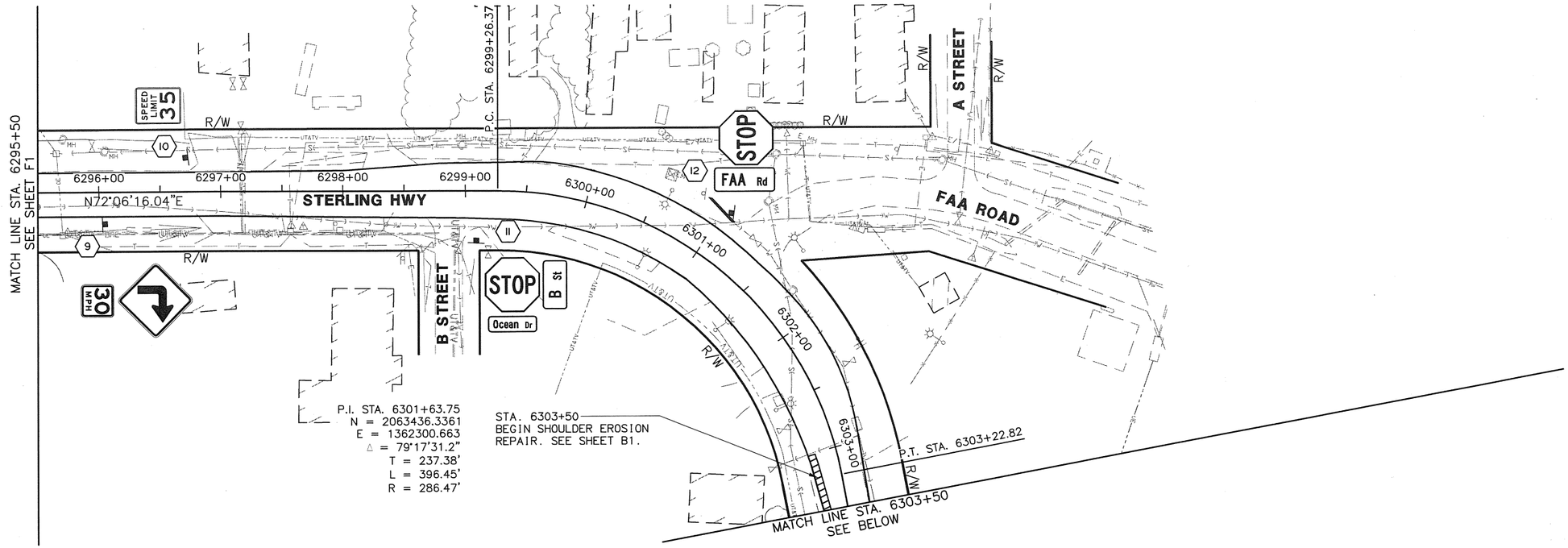
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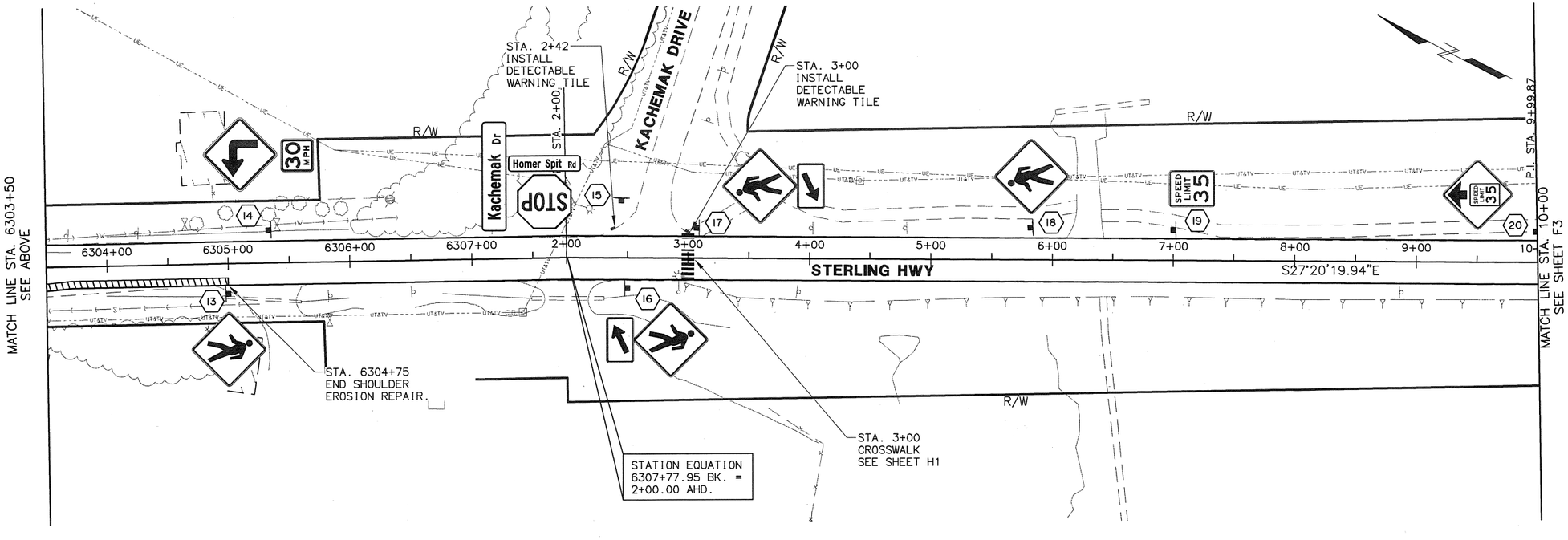
STATE OF ALASKA
49TH
WILLIAM A. WEBB
4/4/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

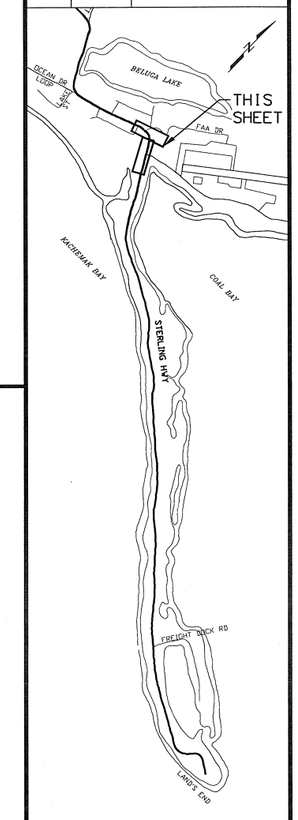
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STERLING HIGHWAY
MP 174 - 179
PAVEMENT PRESERVATION

PAVING PLAN
B.O.P. TO STA.
6295+50







SHEET NO.	TOTAL SHEETS
F2	F11
STATE	YEAR
ALASKA	2014

PROJECT DESIGNATION
0211(059)/55260

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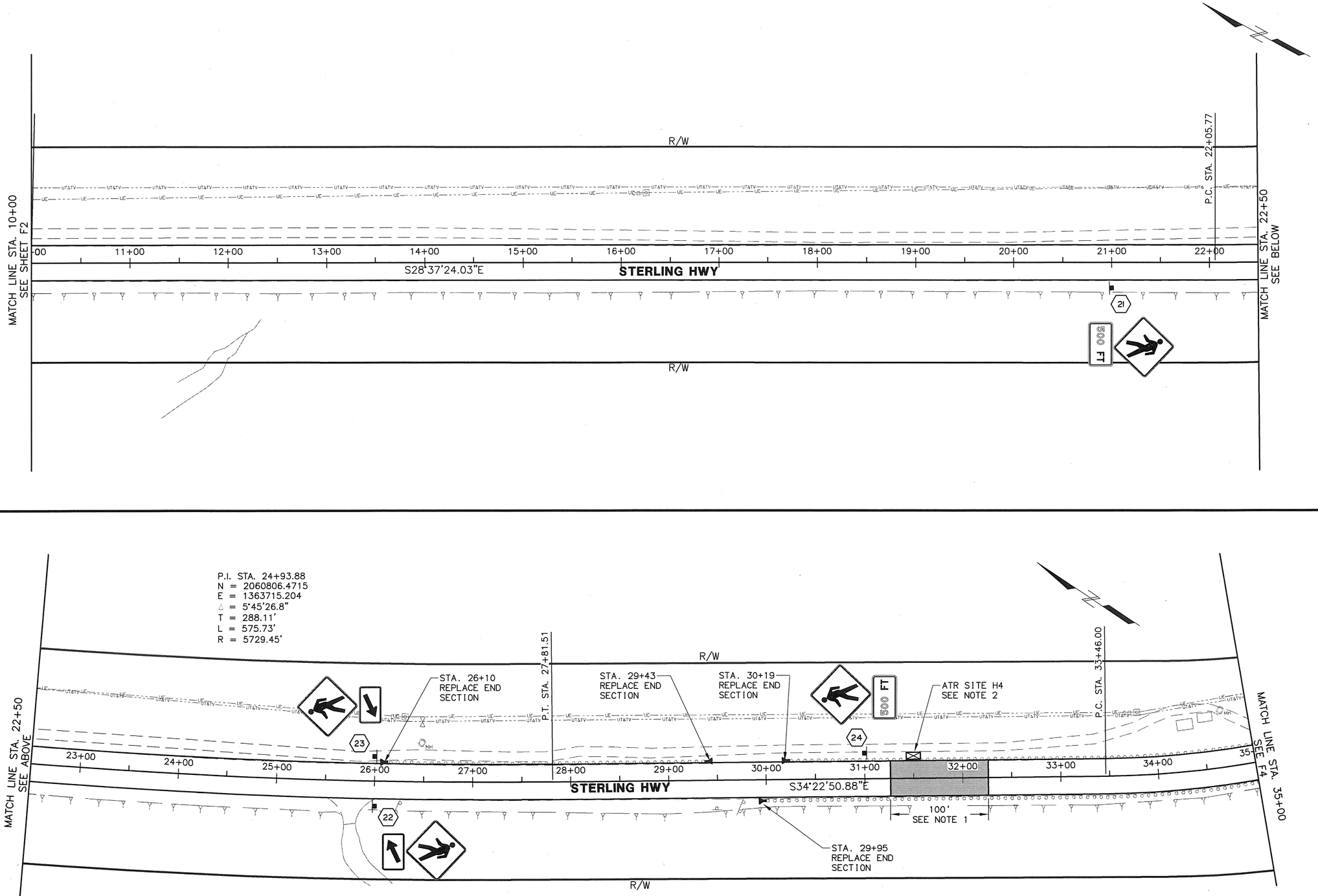
STATE OF ALASKA
WILLIAM A. WEBB
4/3/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STERLING HIGHWAY
MP 174 - 179
PAVEMENT PRESERVATION

PAVING PLAN
STA. 6295+50 TO
STA. 10+00

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Plotted by: wwebb
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Apr 03, 2014



NOTES:

1. REMOVE PAVEMENT TO ACCOMMODATE ATR WORK. ADJUST LOCATION OF REMOVAL TO CORRESPOND TO ATR LOOP LOCATION. SEE B SHEETS FOR PAVEMENT REPLACEMENT SECTION. PRESERVE EXISTING GUARDRAIL.
2. SEE K SHEETS FOR ATR AND SNOW SHEILD DETAILS.

SHEET NO.	TOTAL SHEETS
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STATE	YEAR
ALASKA	2014

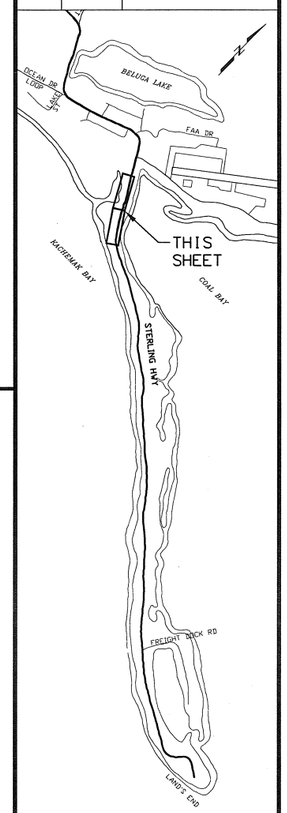
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0211(059)/55260

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REVISIONS

NO.	DATE	DESCRIPTION



PLANS DEVELOPED BY: USKH INC

STATE OF ALASKA
WILLIAM A. WEBB
4/4/2014
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STATE OF ALASKA
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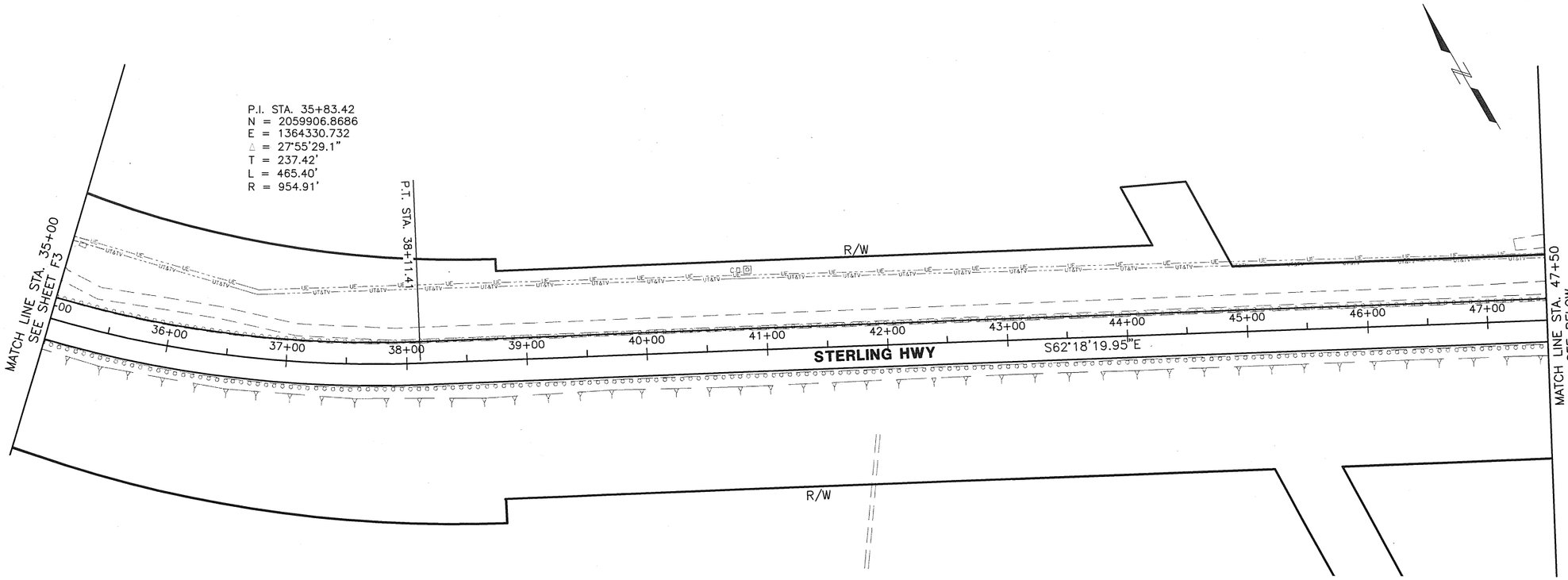
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MP 174 - 179
PAVEMENT PRESERVATION

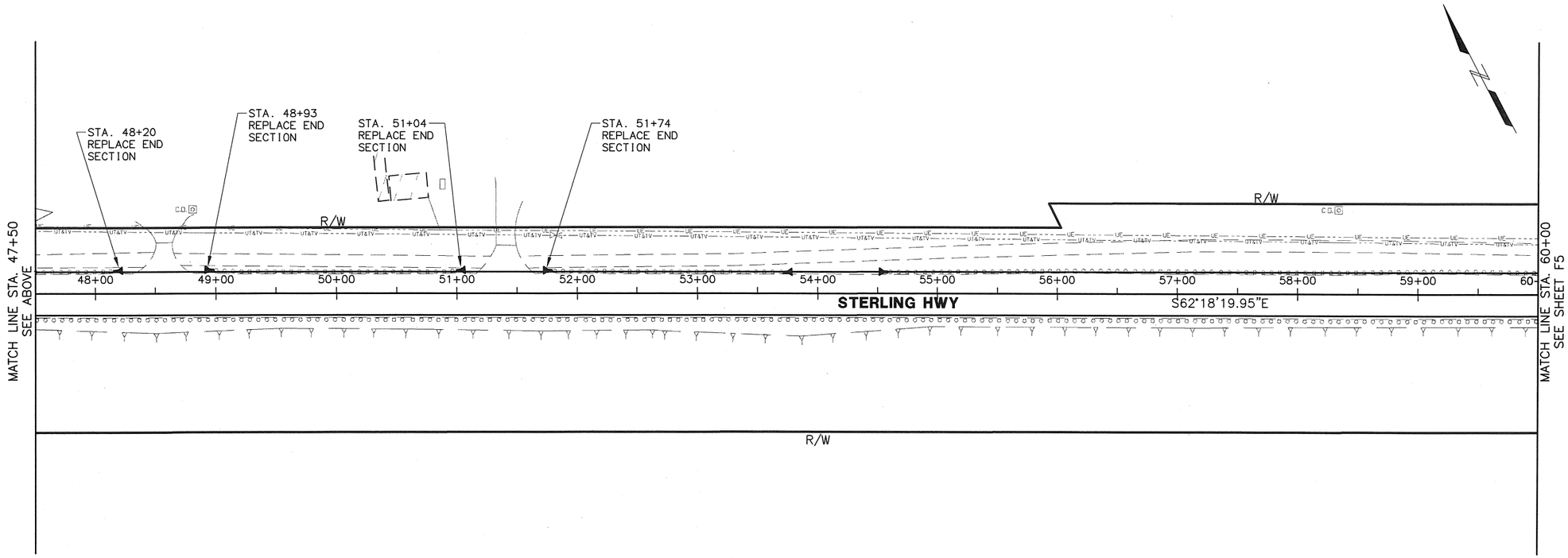
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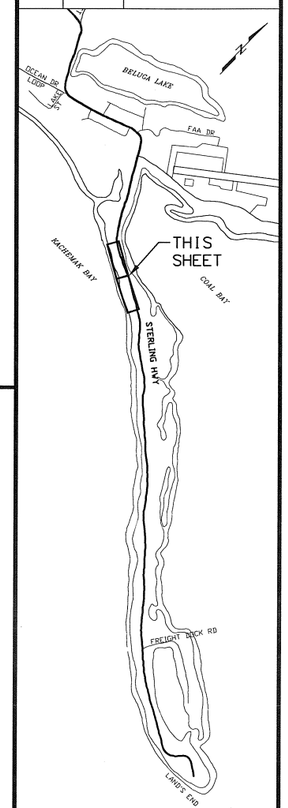




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ALASKA	2014
PROJECT DESIGNATION	
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ATTACHMENT NO.	

REVISIONS

NO.	DATE	DESCRIPTION



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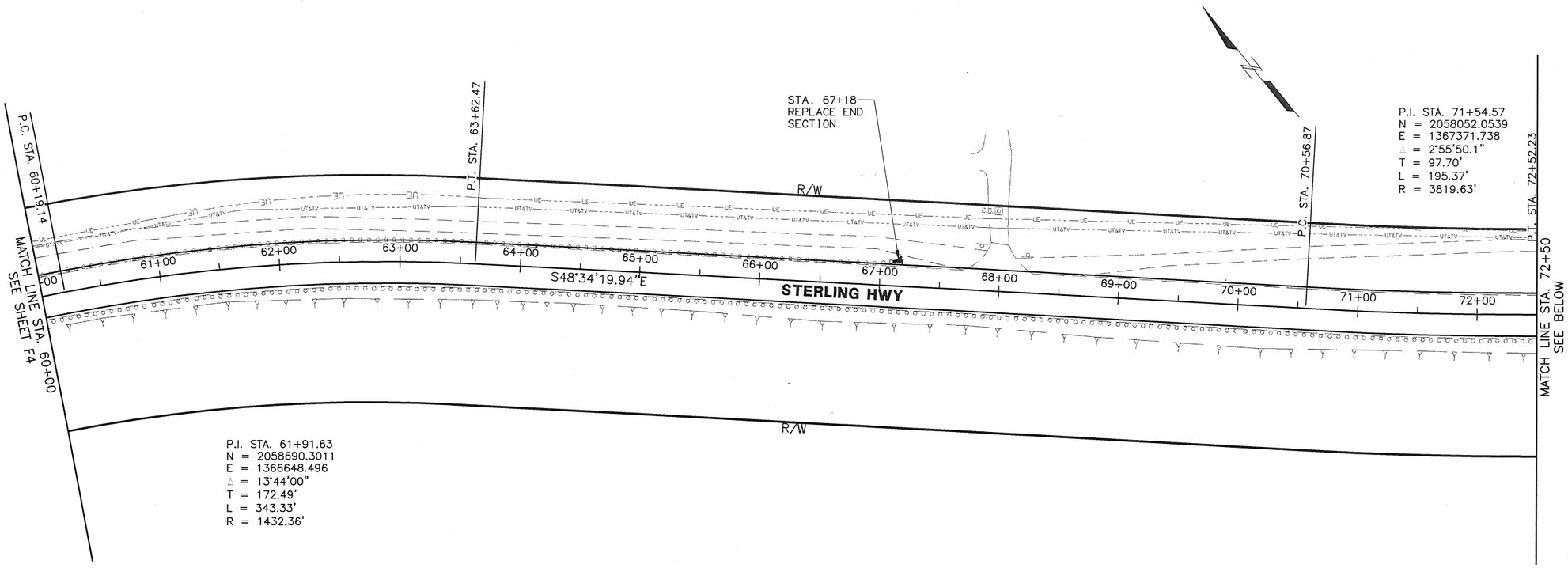
STATE OF ALASKA
WILLIAM A. WEBB
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STATE OF ALASKA
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AND PUBLIC FACILITIES

STERLING HIGHWAY
MP 174 - 179
PAVEMENT PRESERVATION

PAVING PLAN
STA. 35+00 TO STA. 60+00

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ALASKA	2014

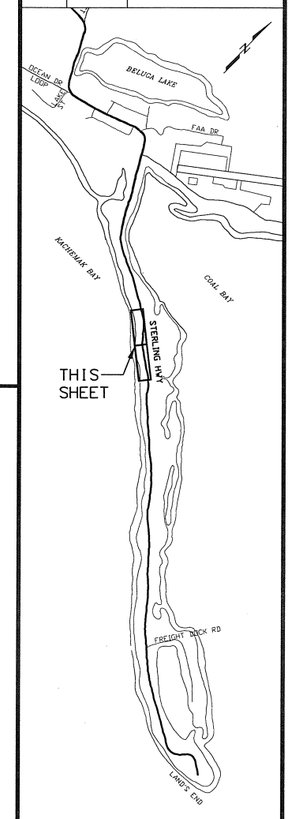
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ATTACHMENT NO.

REVISIONS

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PLANS DEVELOPED BY: USKH INC

STATE OF ALASKA
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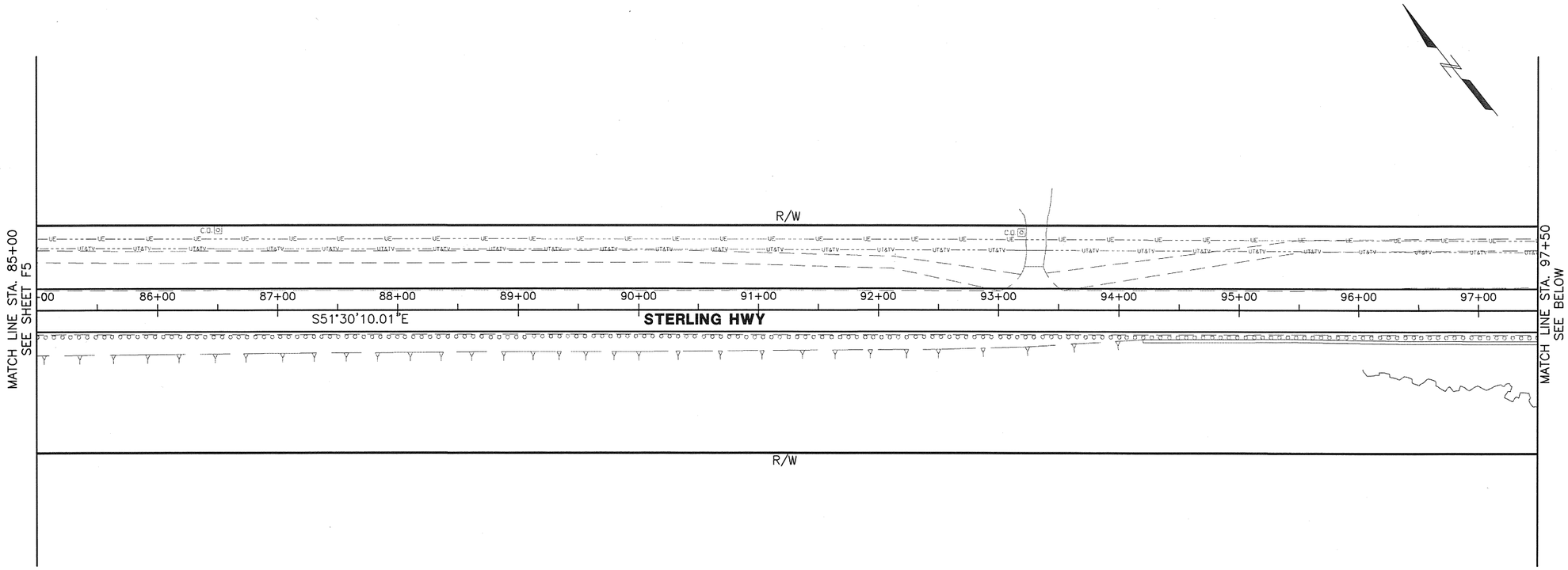
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MP 174 - 179
PAVEMENT PRESERVATION

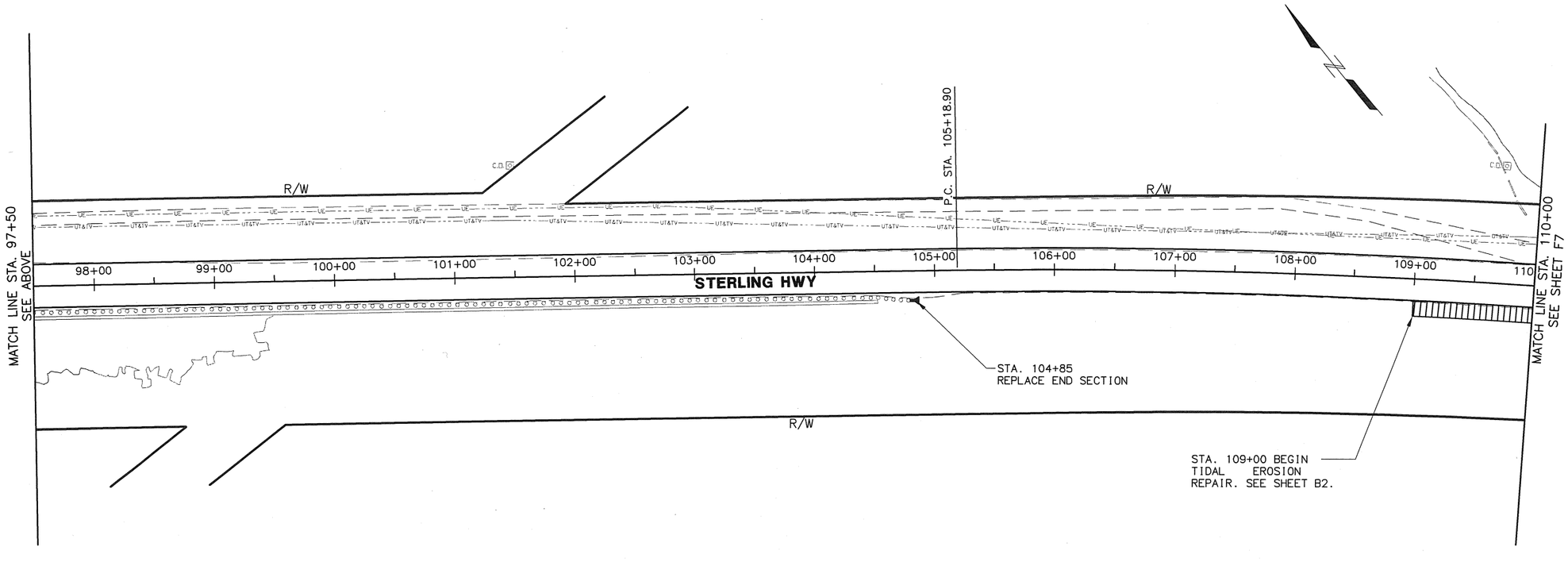
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ALASKA	2014

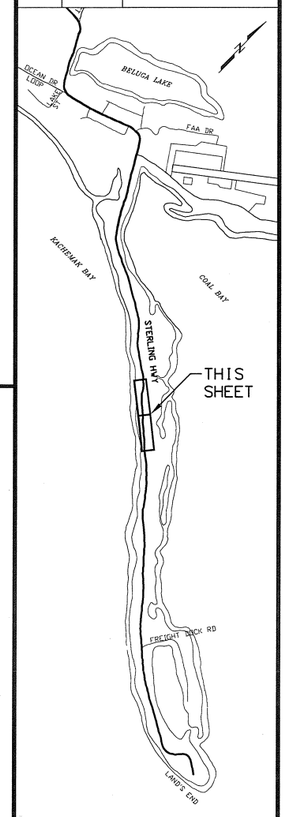
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PLANS DEVELOPED BY: USKH INC

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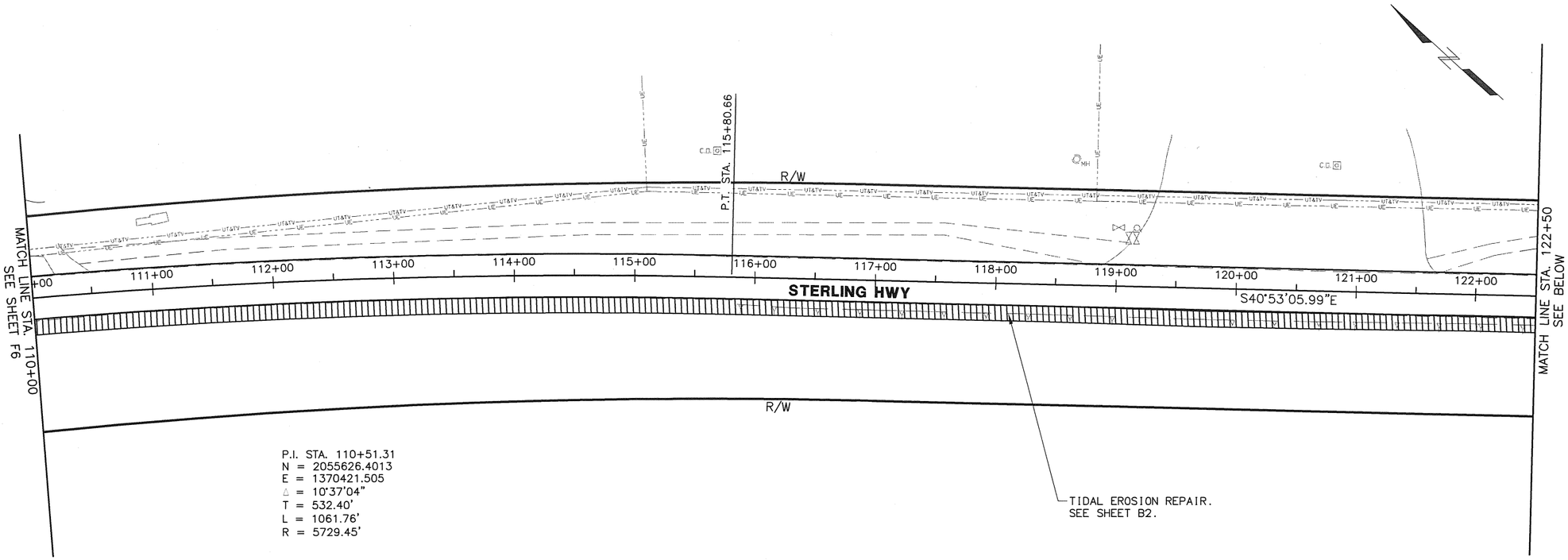
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MP 174 - 179
PAVEMENT PRESERVATION

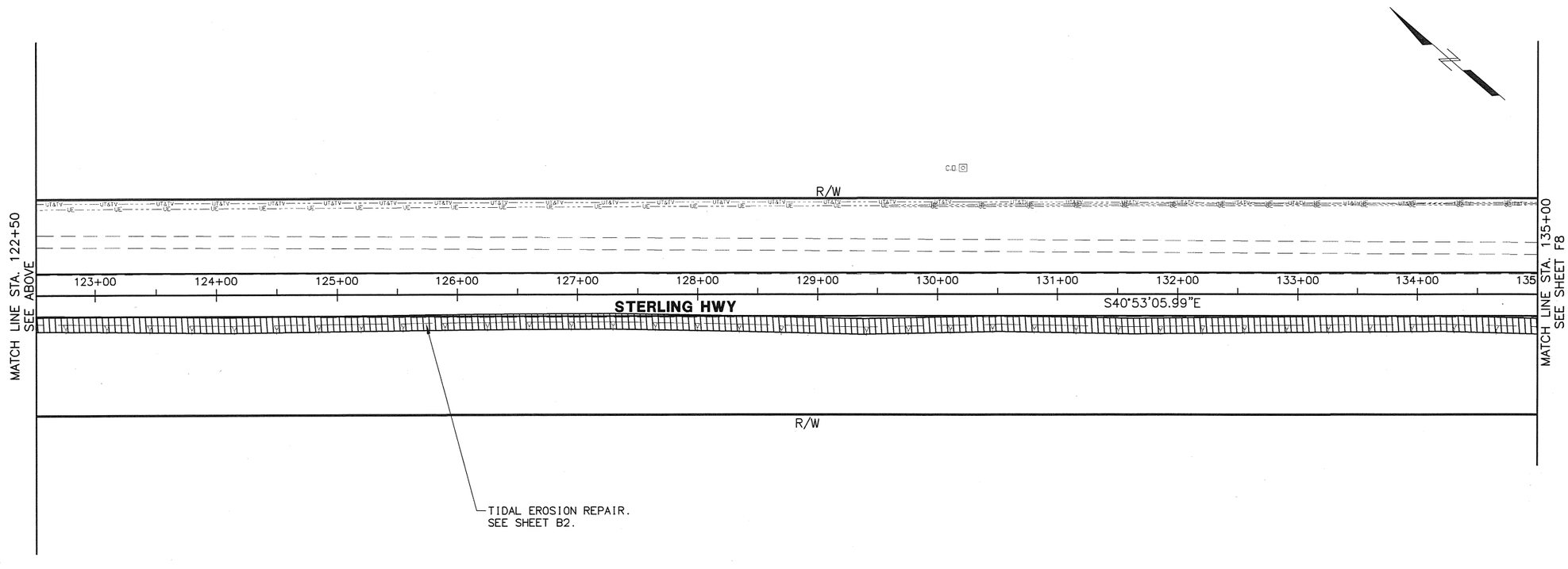
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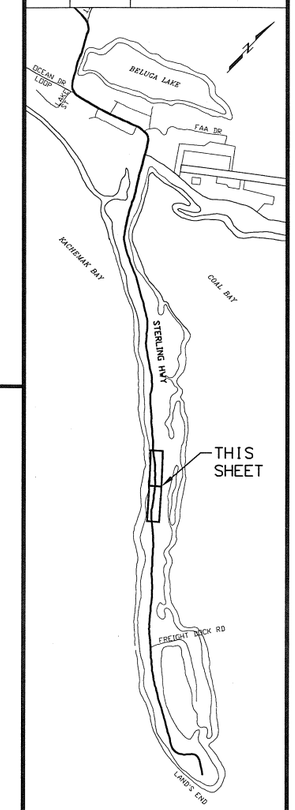
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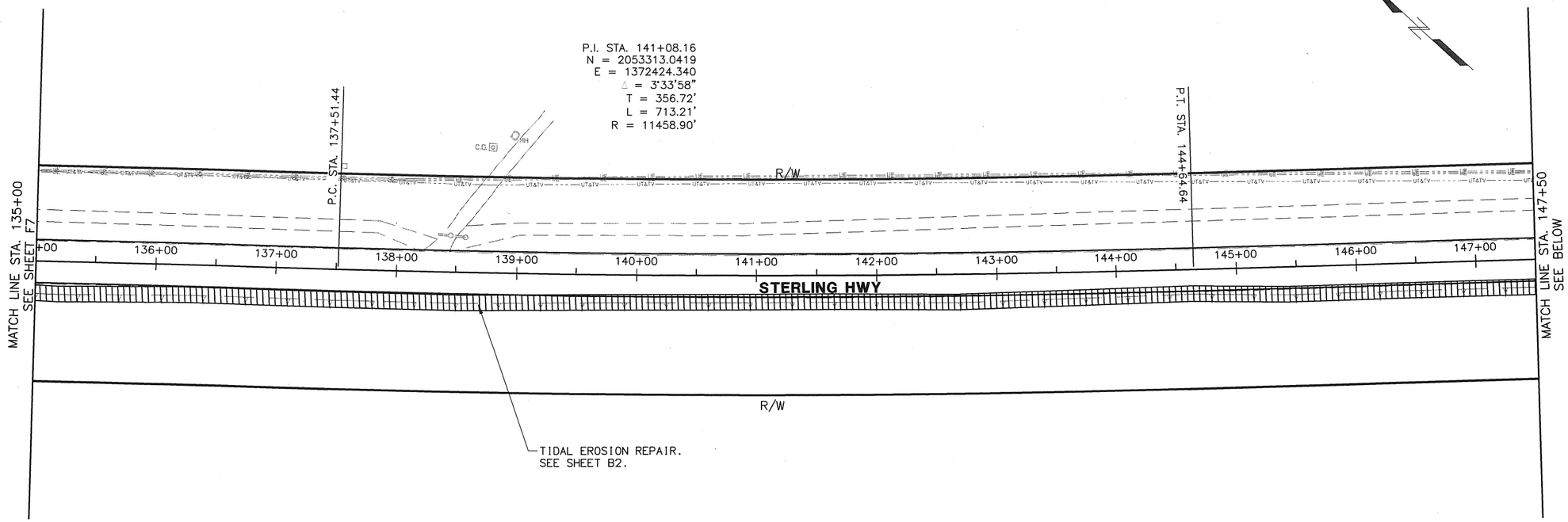
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DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

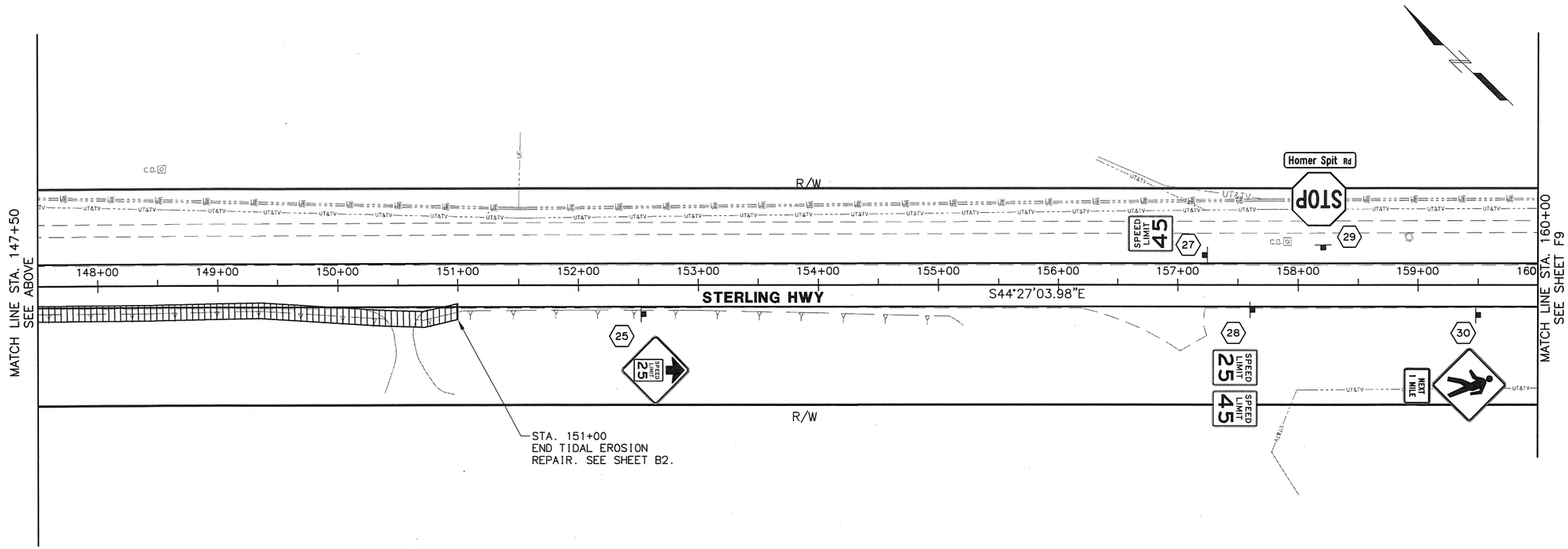
STERLING HIGHWAY
MP 174 - 179
PAVEMENT PRESERVATION

PAVING PLAN
STA. 110+00 TO
STA. 135+00

Plotted by: wwebb Plotted: Apr 03, 2014, 12:52pm

DESIGNED BY	Apr 03, 2014
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SHEET NO.	TOTAL SHEETS
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STATE	YEAR
ALASKA	2014

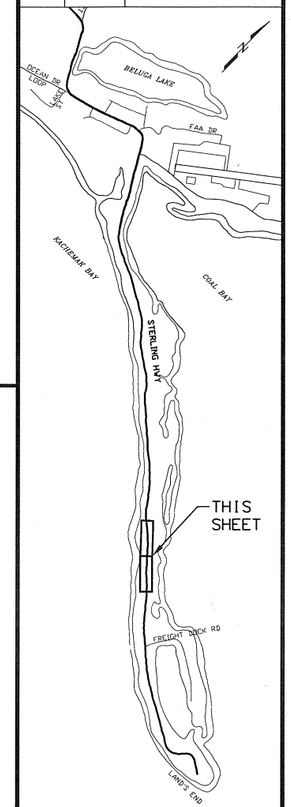
PROJECT DESIGNATION
0211(059)/55260

ADDENDUM NO.

ATTACHMENT NO.

REVISIONS

NO.	DATE	DESCRIPTION



PLANS DEVELOPED BY: USKH INC

STATE OF ALASKA
49TH
WILLIAM A. WEBB
4/3/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STERLING HIGHWAY
MP 174 - 179
PAVEMENT PRESERVATION

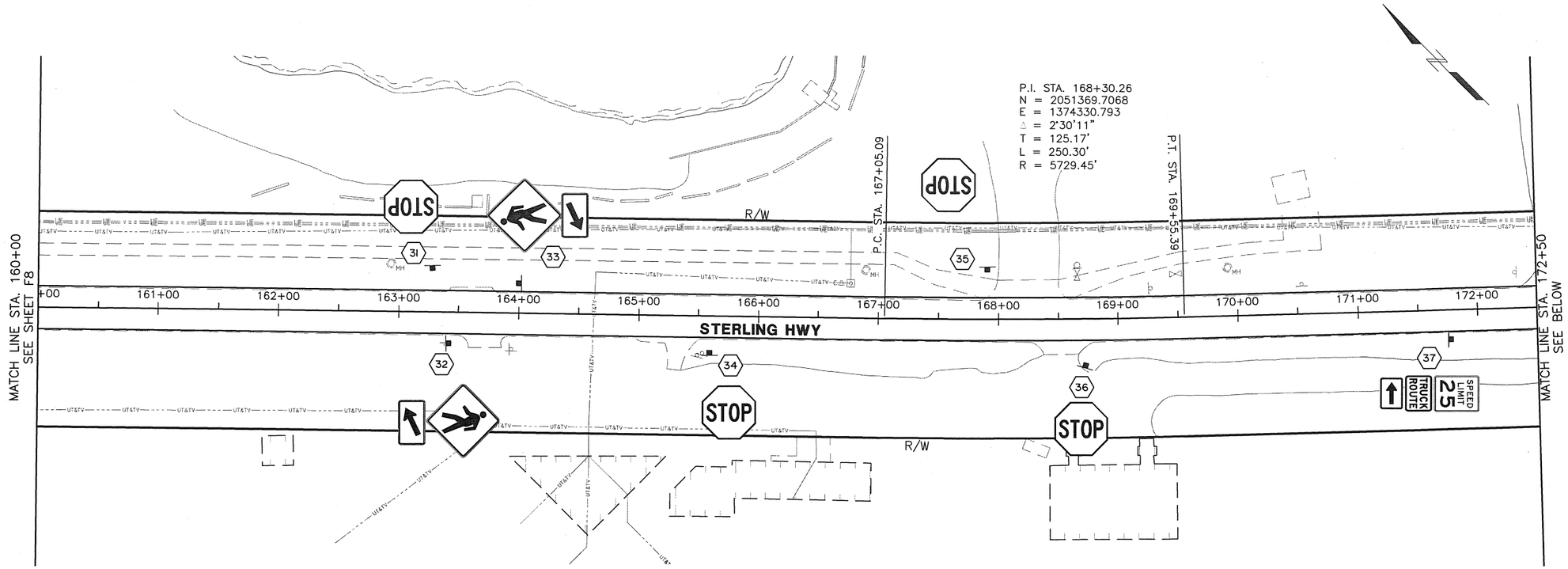
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STA. 160+00

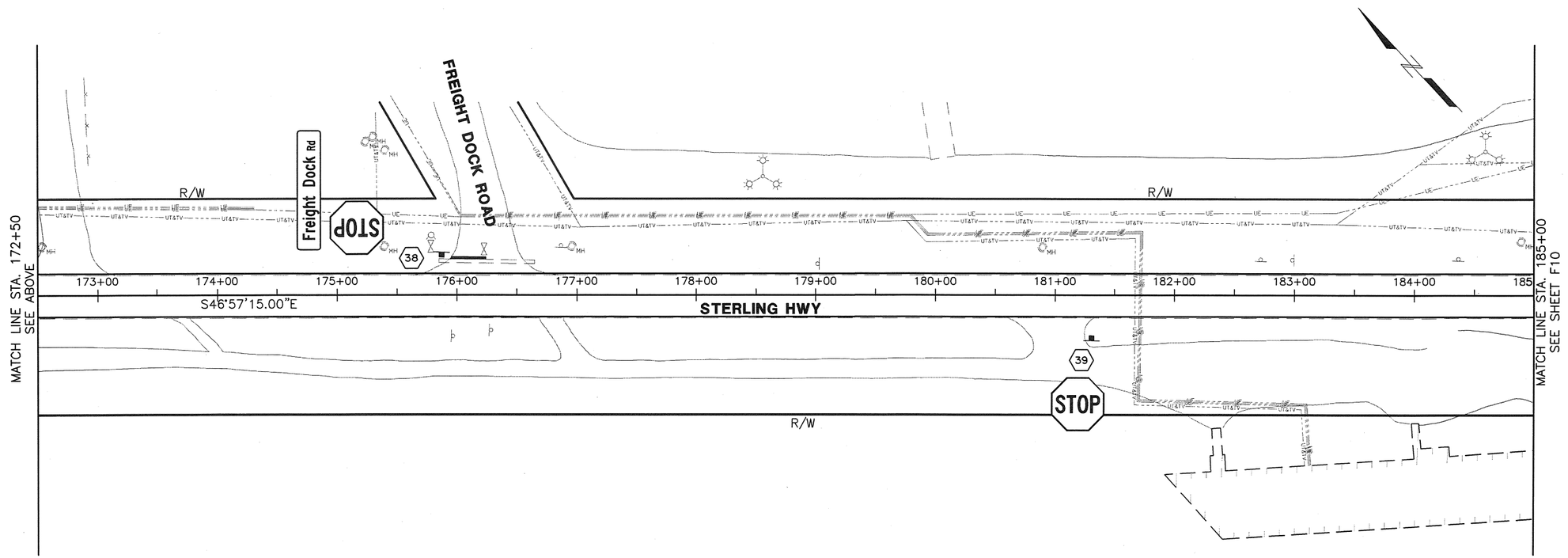
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SHEET NO.	TOTAL SHEETS
F9	F11
STATE	YEAR
ALASKA	2014

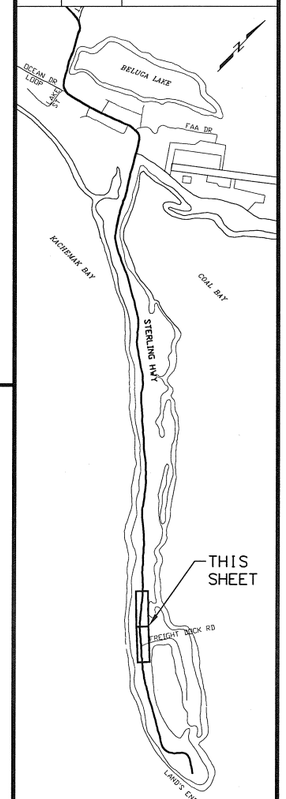
PROJECT DESIGNATION
0211(059)/55260

ADDENDUM NO.

ATTACHMENT NO.

REVISIONS

NO.	DATE	DESCRIPTION



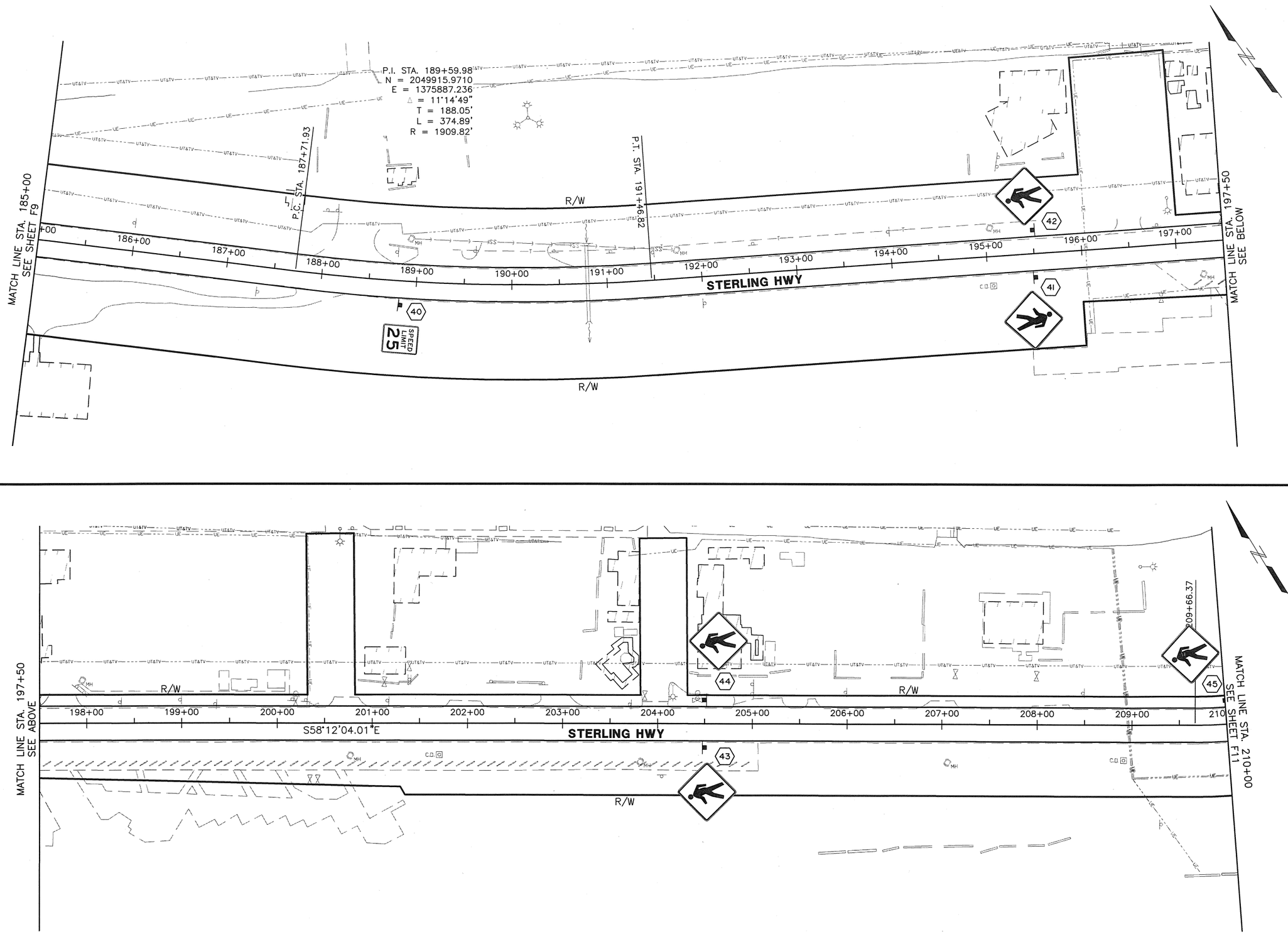
PLANS DEVELOPED BY: USKH INC

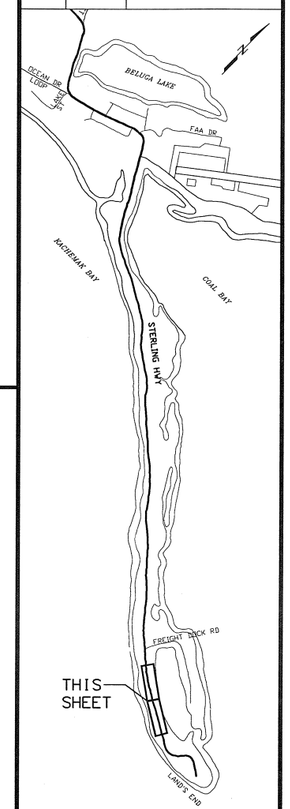
STATE OF ALASKA
WILLIAM A. WEBB
4/3/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STERLING HIGHWAY
MP 174 - 179
PAVEMENT PRESERVATION

PAVING PLAN
STA. 160+00 TO
STA. 185+00





SHEET NO.	TOTAL SHEETS
F10	F11
STATE	YEAR
ALASKA	2014

PROJECT DESIGNATION
0211(059)/55260

ADDENDUM NO.

ATTACHMENT NO.

REVISIONS

NO.	DATE	DESCRIPTION

PLANS DEVELOPED BY: USKH INC

STATE OF ALASKA
WILLIAM A. WEBB
4/3/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

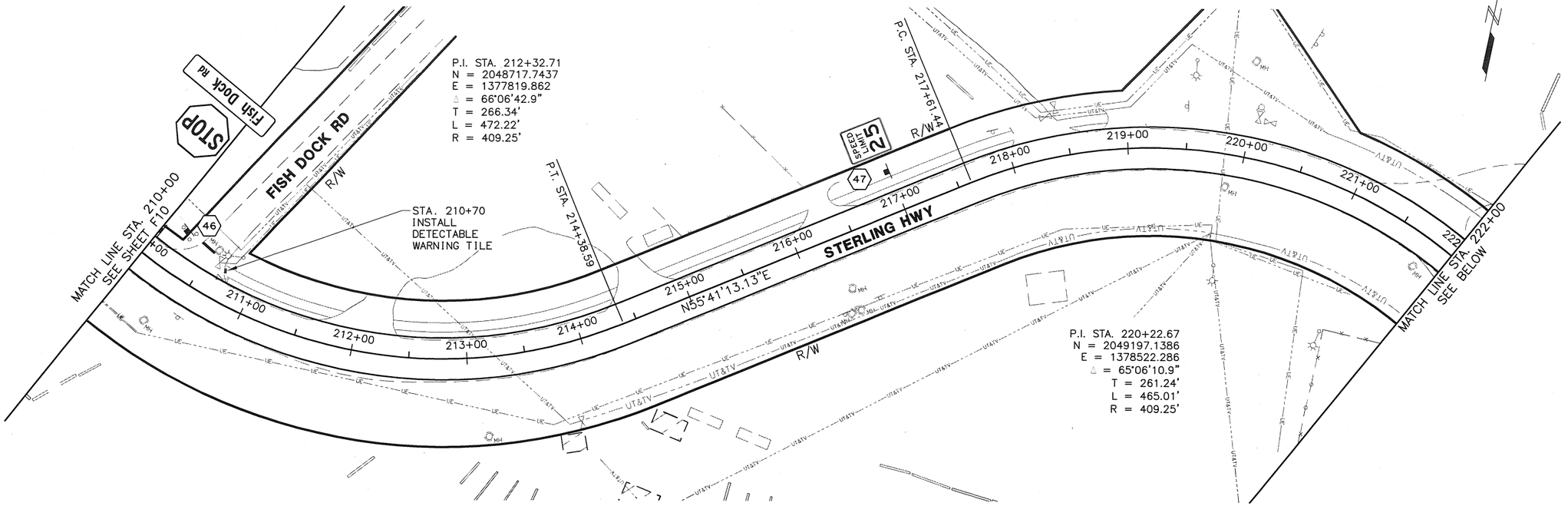
STERLING HIGHWAY
MP 174 - 179
PAVEMENT PRESERVATION

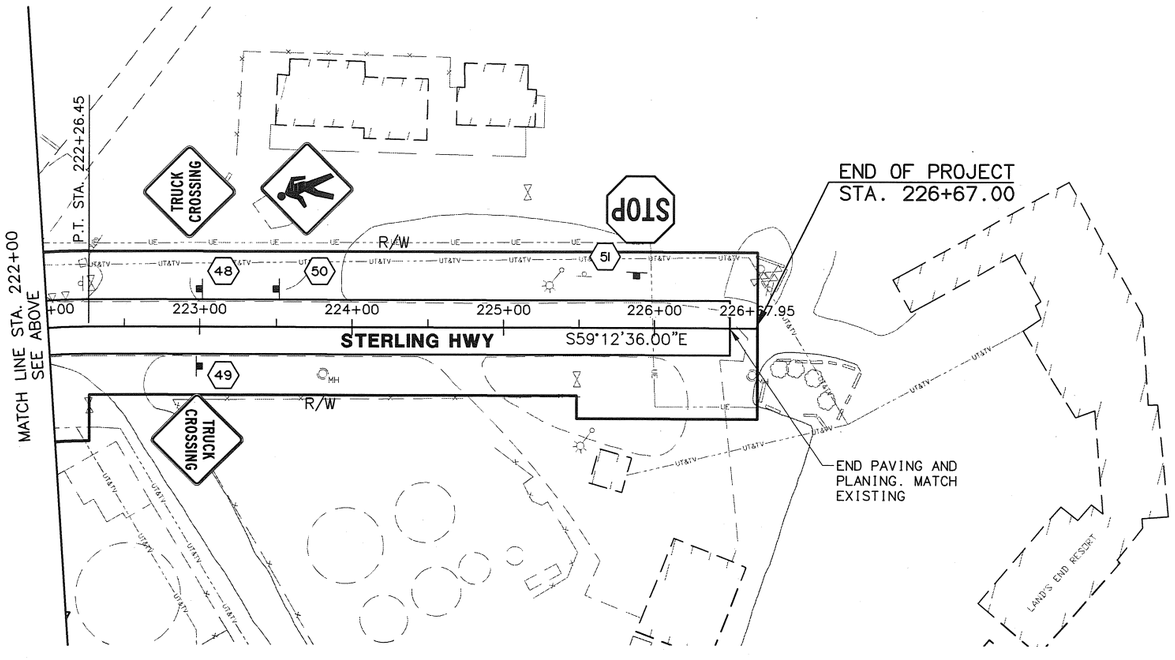
PAVING PLAN
STA. 185+00 TO
STA. 210+00

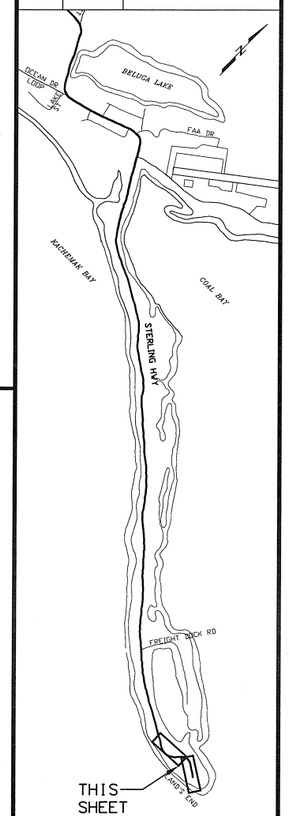
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SHEET NO.	TOTAL SHEETS
F11	F11
STATE	YEAR
ALASKA	2014

PROJECT DESIGNATION
0211(059)/55260

ADDENDUM NO.

ATTACHMENT NO.

REVISIONS

NO.	DATE	DESCRIPTION

PLANS DEVELOPED BY: USKH INC

STATE OF ALASKA
WILLIAM A. WEBB
4/4/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STERLING HIGHWAY
MP 174 - 179
PAVEMENT PRESERVATION

PAVING PLAN
STA. 210+00 TO
E.O.P.

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DRAFTED BY			

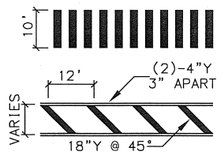
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SYMBOL LEGEND

EXISTING	PROPOSED	
		LOAD CENTER
		UPS LOAD CENTER
		TRAFFIC CONTROLLER ACCESS HATCH SHOWN TO BOTTOM
		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
		CONDUIT SPLICE
(2")	(2")	RMC WITH SIZE IN INCHES
		DETECTABLE WARNING TILE

MARKING LEGEND

PROPOSED	
8"W	8" WHITE SOLID STRIPE
4"W	4" WHITE SOLID STRIPE
4"Y	4" YELLOW SOLID STRIPE
4"Y SKIP	4" YELLOW SKIP STRIPE 10' STRIPES AND 30' SPACES
+20	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



ABBREVIATIONS

SIG - SERVICE TO CONTROLLER
LTG - LIGHTING
LC - LOAD CENTER
RMC - RIGID METAL CONDUIT
PE - POLYETHYLENE CONDUIT
LFNC - LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT
NB - NORTH BOUND
EB - EAST BOUND
SB - SOUTH BOUND
WB - WEST BOUND

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	H1	H10

NOTES:

SIGNING AND STRIPING NOTES:

1. ALL PROPOSED SIGN POST LOCATIONS AND PERMANENT MARKINGS SHALL BE IN ACCORDANCE WITH STATE OF ALASKA STANDARD DRAWINGS S-05.01, T-20.02 AND T-21.02 OR AS DIRECTED BY THE ENGINEER.
2. LANE WIDTH DIMENSIONS REFERENCE FACE OF CURB, CENTER OF STRIPE OR EDGE OF PAVEMENT.
3. IF THE NEW AND EXISTING LONGITUDINAL PAVEMENT MARKINGS ARE NOT ALIGNED AT THE MATCH LINE TRANSITION BETWEEN THE TWO USING A 100:1 TAPER ON THE NEW PAVEMENT.
4. PAVEMENT MARKINGS SHALL BE 60 MIL METHYLMETHACRYLATE.
5. CROSSWALK MARKINGS SHALL BE 250 MIL INLAID METHYLMETHACRYLATE.

SIGNING NOTES

1. INSTALL STOP-SIGN POSTS AT THE LOCATIONS PROVIDED IN THE UNSIGNALIZED SIDE STREET INTERSECTION DETAIL SHEET.
2. USE THE FOLLOWING DEFINITIONS TO DECIPHER THE ABBREVIATED SIGNPOST TYPES IN THE SIGN SUMMARY SHEET.
   A. PT MEANS A PERFORATED STEEL TUBE.
   B. T MEANS A SQUARE STEEL TUBE.
   C. P MEANS A ROUND STEEL PIPE.
   D. W MEANS A WIDE FLANGE BEAM.
   E. POPL MEANS A POLE PLATE INSTALLED PER STANDARD DRAWING S-23.00.
3. FABRICATE SIGNPOSTS LONG ENOUGH TO PROVIDE ALL OF THE FOLLOWING MINIMUM CLEARANCES.
   A. SEVEN FEET BETWEEN THE BOTTOM OF SIGN OR HINGE ON W SHAPE POSTS AND THE EDGE OF THE SHOULDER.
   B. SEVEN FEET BETWEEN THE BOTTOM OF SIGN OR HINGE AND THE GROUND AT THE SHORTEST POST.
   C. THREE FEET BETWEEN THE BOTTOM OF SIGN OR HINGE AND THE GROUND AT THE SHORTEST POST IN A CUT SECTION.
   D. NINE FEET BETWEEN THE TOP OF SIGN AND THE GROUND AT THE SHORTEST POST.
   E. EIGHT FEET BETWEEN THE BOTTOM OF SIGN AND A PEDESTRIAN FACILITY, WHENEVER THE EDGE OF SIGN IS WITHIN TWO HORIZONTAL FEET OF THE ACILITY.
4. INSTALL THE TOP EDGE OF ALL SIGN PANELS ABOVE AND WITHIN 1" OF THE TOP(S) OF SIGN POST(S), EXCEPT WHEN D3-1 STREET NAME SIGNS ARE TO BE INSTALLED.
5. FOR SIGNS SUPPORTED BY MULTIPLE POSTS, FABRICATE THE POSTS WITH THEIR TOPS LEVEL WITH ONE ANOTHER.
6. FABRICATE GUIDE SIGNS ACCORDING TO THE SHOP DRAWINGS INCLUDED IN THE APPENDICES OF PART 4, CONTRACT PROVISIONS AND SPECIAL PROVISIONS. TRIM THE CORNERS OF ALL SIGNS TO THE RADIUS SHOWN ON EACH SHOP DRAWING.
7. ATTACH SIGNS TO THEIR SUPPORT POSTS AT ALL LOCATIONS WHERE THE WIND BEAMS CROSS EACH POST.
8. WHERE CALLED FOR:
   A. D3-1 SHALL BE MOUNTED ON TOP OF POSTS.
   B. R6-1 SHALL BE NEXT.
   C. FOLLOWD BY STOP SIGNS.
   D. OBJECT MARKERS SHALL BE INSTALLED BELOW ALL OTHER SIGNS.
9. PROVIDE 2' OF CLEARANCE BETWEEN THE EDGE OF PATHWAYS AND EDGE OF SIGNS. FOR TRAPEZOIDAL SIGN ENDS OVER A PATHWAY, PROVIDE THE 2' OF CLEARANCE TO AT LEAST 8' ABOVE THE PATHWAY.
10. EXCEPT AS NOTED ABOVE, POST-MOUNTED SIGN HEIGHT SHALL BE IN ACCORDANCE WITH THE URBAN ROADWAY CLASSIFICATION GIVEN ON STANDARD DRAWING S-05.01.
11. SOME SIGNS ARE NOTED AS SEASONAL. COORDINATE WITH THE ENGINEER ON WHETHER TO INSTALL THE SEASONAL SIGNS OR TO DELIVER THEM TO THE CITY OF HOMER PUBLIC WORKS DEPARTMENT. UNLESS OTHERWISE NOTED, SIGN BASES FOR SEASONAL SIGNS SHALL BE INSTALLED EVEN IF THE SIGNS ARE NOT INSTALLED.

STATE OF ALASKA
49TH
WILLIAM A. WEBB
4/3/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: USKH INC

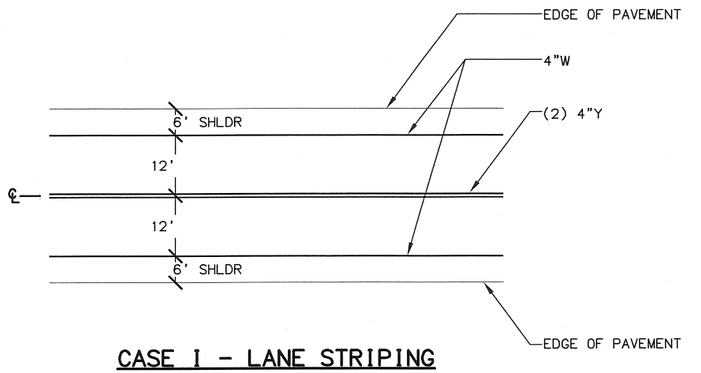
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION

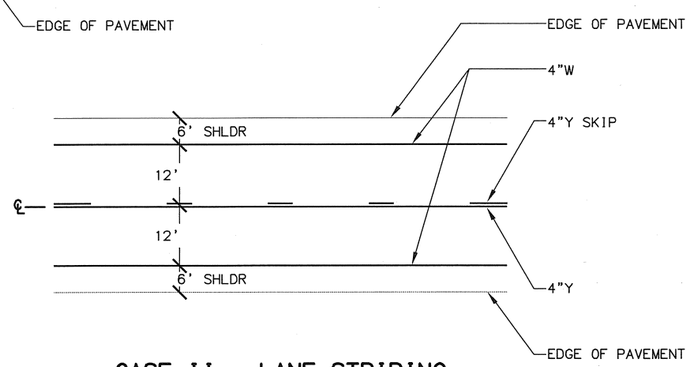
TRAFFIC LEGEND AND NOTES

REVISIONS		
NO.	DATE	DESCRIPTION

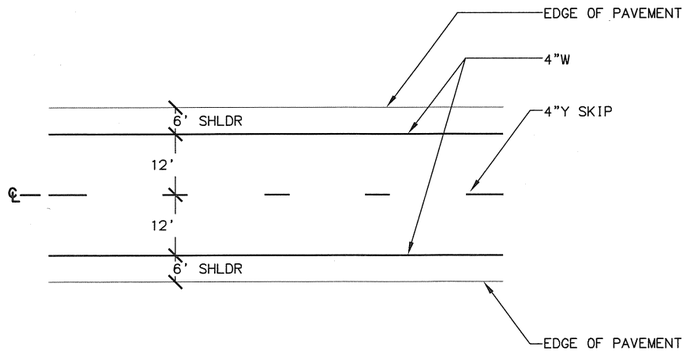
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	H2	H10



CASE I - LANE STRIPING PASSING PROHIBITED



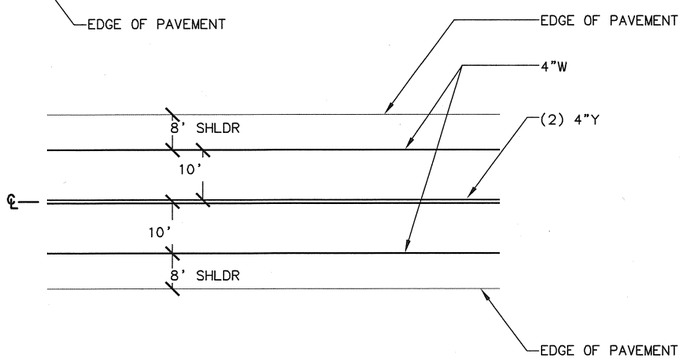
CASE II - LANE STRIPING SOUTHBOUND LANE PASSING PROHIBITED



CASE III - LANE STRIPING PASSING ALLOWED

NOTES:

1. TRANSITION LANES FROM 12' TO 10' WIDE OVER 25' ENDING AT 196+00.
2. TRANSITION LANES FROM 10' TO 12' WIDE OVER 25' STARTING AT 210+50.

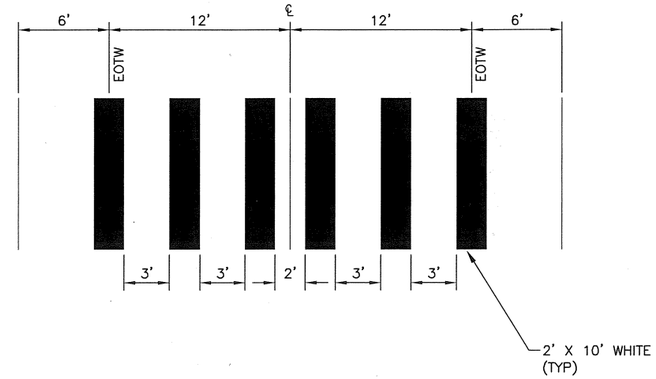


CASE IV - LANE STRIPING REDUCED LANES PASSING PROHIBITED

STRIPING TABLE

CASE I		CASE II		CASE III		CASE IV	
BEGIN STATION	END STATION	BEGIN STATION	END STATION	BEGIN STATION	END STATION	BEGIN STATION	END STATION
6272+93	6298+30 *						
6303+70 *	2+87						
		2+87	8+00				
				8+00	32+00		
32+00	38+00						
				38+00	196+00		
						196+00	210+50
210+50	226+67						

* SEE SHEET H3 FOR 6298+30 – 6303+70 STRIPING DETAIL.



CROSSWALK DETAIL

CROSSWALK LOCATIONS	
SHEET	STATION
F1	6273+25
F2	3+00

NOTES:

1. ADJUST WIDTH OF GAPS SO STRIPES ARE NOT IN WHEEL PATHS

STATE OF ALASKA
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DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION

SIGNING AND STRIPING DETAILS

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DRAFTED BY

XREFS

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LAYOUT
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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	H3	H10

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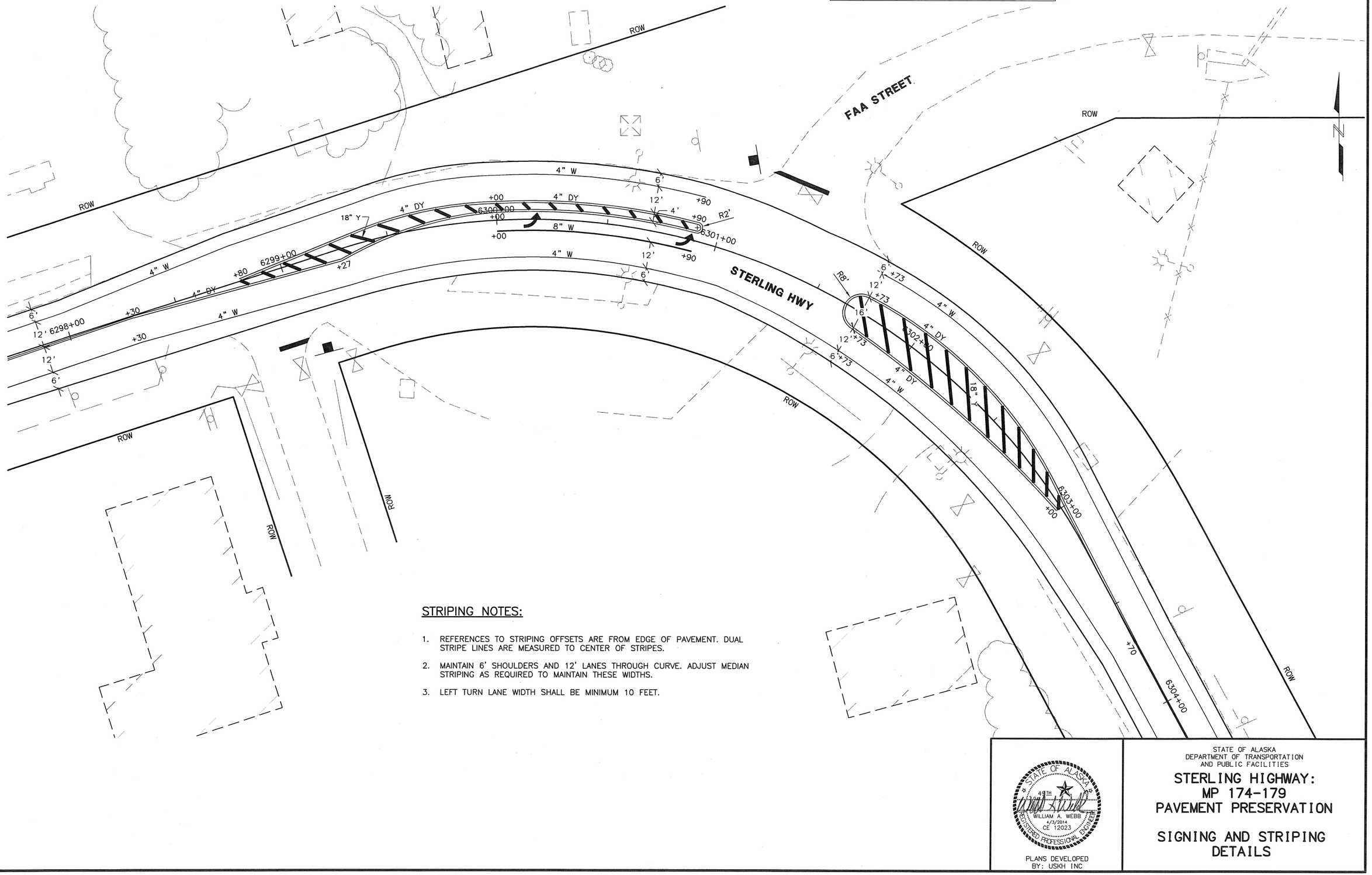
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STRIPING NOTES:

1. REFERENCES TO STRIPING OFFSETS ARE FROM EDGE OF PAVEMENT. DUAL STRIPE LINES ARE MEASURED TO CENTER OF STRIPES.
2. MAINTAIN 6' SHOULDERS AND 12' LANES THROUGH CURVE. ADJUST MEDIAN STRIPING AS REQUIRED TO MAINTAIN THESE WIDTHS.
3. LEFT TURN LANE WIDTH SHALL BE MINIMUM 10 FEET.

STATE OF ALASKA
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STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION

SIGNING AND STRIPING DETAILS

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SCALE

LAYOUT
H4

DATE TIME
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SIGN SUMMARY

SHEET NO.	POST NO.	STATION	CL REF	TYPE	LEGEND	SIZE (ft) WIDTH	SIZE (ft) HEIGHT	AREA SQ FT	SIGN FACES	POSTS NO., SIZE, & TYPE	THICKNESS (in) FRAMED YES	THICKNESS (in) FRAMED NO	REMARKS
F1	1	6272+00	25' RT	W11-2		3.0	3.0	9.00	W	1-2.5" PT	0.125		
F1	2	6273+25	25' RT	W11-2		3.0	3.0	9.00	W	1-2.5" PT	0.125		
				W16-7P(L)		2.5	1.5	3.75	W				
F1	3	6273+50	25' LT	W11-2		3.0	3.0	9.00	E	1-2.5" PT	0.125		
				W16-7P(L)		2.5	1.5	3.75	E				
F1	4	6276+50	25' LT	W11-2		3.0	3.0	9.00	E	1-2.5" PT	0.125		
F1	5	6277+14	24' LT	R1-1	STOP	3.0	3.0	9.00	N	1-2.5" PT	0.125		
				D3-1	Lambert Ln	3.5	1.0	7.00	E/W				MOUNT TWO SIGNS BACK TO BACK
				D3-1	Ocean Dr	2.0	.67	2.68	N/S				MOUNT TWO SIGNS BACK TO BACK
F1	6	6284+31	33' RT	R1-1	STOP	3.0	3.0	9.00	S	1-2.5" PT	0.125		
				D3-1	E St	2.0	1.0	4.00	N/S				MOUNT TWO SIGNS BACK TO BACK
				D3-1	Ocean Dr	2.0	.67	2.68	E/W				MOUNT TWO SIGNS BACK TO BACK
F1	7	6287+69	38' LT	R1-1	STOP	3.0	3.0	9.00	N	1-2.5" PT	0.125		
				D3-1	Douglas Pl	3.5	1.0	7.00	E/W				MOUNT TWO SIGNS BACK TO BACK
F1	8	6288+04	38' RT	R1-1	STOP	3.0	3.0	9.00	S	1-2.5" PT	0.125		
				D3-1	Douglas Pl	3.5	1.0	7.00	E/W				MOUNT TWO SIGNS BACK TO BACK
F2	9	6296+03	26' RT	W1-1R		3.0	3.0	9.00	W	1-2.5" PT	0.125		
				W13-1P	30 MPH	1.5	1.5	2.25	W				
F2	10	6296+73	29' LT	R2-1	SPEED LIMIT 35	2.0	2.5	5.00	E	1-2.5" PT	0.125		
F2	11	6299+09	43' RT	R1-1	STOP	3.0	3.0	9.00	S	1-2.5" PT	0.125		
				D3-1	B St	2.0	1.0	4.00	N/S				MOUNT TWO SIGNS BACK TO BACK
				D3-1	Ocean Dr	2.0	.67	2.68	E/W				MOUNT TWO SIGNS BACK TO BACK
F2	12	6300+82	45' LT	R1-1	STOP	3.0	3.0	9.00	E	1-2.5" PT	0.125		
				D3-1	FAA Rd	2.5	1.0	5.00	N/S				MOUNT TWO SIGNS BACK TO BACK

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	H4	H10

SIGNING NOTES:

1. R1-6 SIGNS ARE INTENDED TO BE MOUNTED TO THE ROAD SURFACE AT THE CENTER OF THE ROAD USING BUTYL ADHESIVE. FURNISH MATERIAL NECESSARY TO INSTALL THESE SIGNS, BUT DO NOT INSTALL THEM. DELIVER SIGNS AND MOUNTING MATERIAL TO THE CITY OF HOMER PUBLIC WORKS DEPARTMENT.
2. SEASONAL SIGN POSTS AND PANELS MAY NEED TO BE DELIVERED TO THE CITY OF HOMER PUBLIC WORKS DEPARTMENT DEPENDING ON TIME OF YEAR SIGN INSTALLATIONS ARE COMPLETED. VERIFY WITH THE ENGINEER. INSTALL FOUNDATIONS FOR SEASONAL SIGNS REGARDLESS OF IF THE SIGNS ARE INSTALLED.

STATE OF ALASKA
WILLIAM A. WEBB
4/3/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED
BY: USKH INC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STERLING HIGHWAY:
MP 174-179
PAVEMENT PRESERVATION

SIGN SUMMARY

DESIGNED BY
CHECKED BY
DRAFTED BY

XREFS

SCALE

LAYOUT
H5

DATE TIME
12/2/2013 11:02 AM

DRAWING LOCATION
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SIGN SUMMARY

SHEET NO.	POST NO.	STATION	CL REF	TYPE	LEGEND	SIZE (ft) WIDTH	SIZE (ft) HEIGHT	AREA SQ FT	SIGN FACES	POSTS NO., SIZE, & TYPE	THICKNESS (in) FRAMED YES	THICKNESS (in) FRAMED NO	REMARKS
F2	13	6305+00	25' RT	W11-2		3.0	3.0	9.00	W	1-2.5" PT	0.125		
F2	14	6305+36	27' LT	W1-1L		3.0	3.0	9.00	S	1-2.5" PT	0.125		
				W13-1P	30 MPH	1.5	1.5	2.25	S				
F2	15	2+45	47' LT	R1-1	STOP	3.0	3.0	9.00	E	1-2.5" PT	0.125		
				D3-1	Homer Spit Rd	3.0	.67	4.02	E/W				MOUNT TWO SIGNS BACK TO BACK
				D3-1	Kachemak Dr	4.5	1.0	9.00	N/S				MOUNT TWO SIGNS BACK TO BACK
F2	16	2+50	25' RT	W11-2		3.0	3.0	9.00	W	1-2.5" PT	0.125		
				W16-7P(L)		2.5	1.5	3.75	W				
F2	17	3+05	25' LT	W11-2		3.0	3.0	9.00	E	1-2.5" PT	0.125		
				W16-7P(L)		2.5	1.5	3.75	E				
F2	18	5+85	LT	W11-2		3.0	3.0	9.00	E	1-2.5" PT	0.125		
F2	19	7+00	LT	R2-1	SPEED LIMIT 35	2.0	2.5	5.00	E	1-2.5" PT	0.125		
F2	20	10+00	LT	W3-5	SPEED LIMIT 35	3.0	3.0	9.00	E	1-2.5" PT	0.125		
F3	21	21+00	26' RT	W11-2		3.0	3.0	9.00	N	1-2.5" PT	0.125		
				W16-2aP	500 FT	1.0	2.0	2.00	N				
F3	22	26+00	23' RT	W11-2		3.0	3.0	9.00	N	1-2.5" PT	0.125		
				W16-7P(L)		2.5	1.5	3.75	N				
F3	23	26+00	25' LT	W11-2		3.0	3.0	9.00	S	1-2.5" PT	0.125		
				W16-7P(L)		2.5	1.5	3.75	S				
F3	24	31+00	26' RT	W11-2		3.0	3.0	9.00	S	1-2.5" PT	0.125		
				W16-2aP	500 FT	1.0	2.0	2.00	S				
F8	25	152+52	24' RT	W3-5	SPEED LIMIT 25	3.0	3.0	9.00	N	1-2.5" PT	0.125		

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	H5	H10

STATE OF ALASKA
WILLIAM A. WEBB
4/3/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED
BY: USKH INC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STERLING HIGHWAY:
MP 174-179
PAVEMENT PRESERVATION

SIGN SUMMARY

SIGN SUMMARY

SHEET NO.	POST NO.	STATION	CL REF	TYPE	LEGEND	SIZE (ft) WIDTH	SIZE (ft) HEIGHT	AREA SQ FT	SIGN FACES	POSTS NO., SIZE, & TYPE	THICKNESS (in) FRAMED YES	THICKNESS (in) FRAMED NO	REMARKS
	26												NOT USED
F8	27	157+25	25' LT	R2-1	SPEED LIMIT 45	2.0	2.5	5.00	S	1-2.5" PT	0.125		
F8	28	157+60	20' RT	R2-1	SPEED LIMIT 25	2.0	2.5	5.00	N	1-2.5" PT	0.125		SEASONAL. INSTALL ONE OF THE SPEED LIMIT SIGNS AND DELIVER OTHER TO CITY OF HOMER PUBLIC WORKS
				R2-1	SPEED LIMIT 45	2.0	2.5	5.00	N	1-2.5" PT	0.125		SEASONAL. INSTALL ONE OF THE SPEED LIMIT SIGNS AND DELIVER OTHER TO CITY OF HOMER PUBLIC WORKS
F8	29	158+21	33 LT	R1-1	STOP	3.0	3.0	9.00	E	1-2.5" PT	0.125		
				D3-1	Homer Spit Rd	3.0	.67	2.01	E/W				MOUNT TWO SIGNS BACK TO BACK
F8	30	159+50	25' RT	W11-2		3.0	3.0	9.00	N	1-2.5" PT	0.125		
				W7-3A	NEXT 1 MILE	1.5	2.0	3.00	N				
F9	31	163+28	38' LT	R1-1	STOP	3.0	3.0	9.00	E	1-2.5" PT	0.125		
F9	32	163+40	26' RT	W11-2		3.0	3.0	9.00	N	1-2.5" PT	0.125		SEASONAL
				W16-7P(L)		2.5	1.5	3.75	N				SEASONAL
F9	33	164+00	26' LT	W11-2		3.0	3.0	9.00	S	1-2.5" PT	0.125		SEASONAL
				W16-7P(L)		2.5	1.5	3.75	S				SEASONAL
F9	34	165+60	33' RT	R1-1	STOP	3.0	3.0	9.00	W	1-2.5" PT	0.125		
F9	35	167+91	44' LT	R1-1	STOP	3.0	3.0	9.00	E	1-2.5" PT	0.125		
F9	36	168+72	41' RT	R1-1	STOP	3.0	3.0	9.00	W	1-2.5" PT	0.125		
F9	37	171+78	25' RT	R2-1	SPEED LIMIT 25	2.0	2.5	5.00	N	1-2.5" PT	0.125		
				R14-1	TRUCK ROUTE	2.0	1.5	3.00	N				
				M6-1		1.75	1.25	2.19	N				
F9	38	175+88	36' LT	R1-1	STOP	3.0	3.0	9.00	E	1-2.5" PT	0.125		
				D3-1	Freight Dock Rd	5.0	1.0	10.00	N/S				MOUNT TWO SIGNS BACK TO BACK

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	H6	H10

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STATE OF ALASKA
WILLIAM A. WEBB
4/3/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: USKH INC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STERLING HIGHWAY:
MP 174-179
PAVEMENT PRESERVATION

SIGN SUMMARY

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SIGN SUMMARY

SHEET NO.	POST NO.	STATION	CL REF	TYPE	LEGEND	SIZE (ft) WIDTH	SIZE (ft) HEIGHT	AREA SQ FT	SIGN FACES	POSTS NO., SIZE, & TYPE	THICKNESS (in) FRAMED YES	THICKNESS (in) FRAMED NO	REMARKS
F9	39	181+31	38' RT	R1-1	STOP	3.0	3.0	9.00	W	1-2.5" PT	0.125		
F10	40	188+85	25' RT	R2-1	SPEED LIMIT 25	2.0	2.5	5.00	w	1-2.5" PT	0.125		
F10	41	195+50	25' RT	W11-2		3.0	3.0	9.00	W	1-2.5" PT	0.125		SEASONAL
F10	42	195+50	25' LT	W11-2		3.0	3.0	9.00	E	1-2.5" PT	0.125		SEASONAL
F10	43	204+50	25' RT	W11-2		3.0	3.0	9.00	W	1-2.5" PT	0.125		SEASONAL
F10	44	204+50	25' LT	W11-2		3.0	3.0	9.00	E	1-2.5" PT	0.125		SEASONAL
F10	45	210+00	25' LT	W11-2		3.0	3.0	9.00	E	1-2.5" PT	0.125		SEASONAL
F11	46	210+22	40' LT	R1-1	STOP	3.0	3.0	9.00	E	1-2.5" PT	0.125		
				D3-1	Fish Dock Rd	4.5	1.0	9.00	N/S				MOUNT TWO SIGNS BACK TO BACK
F11	47	217+00	36' LT	R2-1	SPEED LIMIT 25	2.0	2.5	5.00	E	1-2.5" PT	0.125		
F11	48	223+00	25' LT	CW8-6	TRUCK CROSSING	3.0	3.0	9.00	E	1-2.5" PT	0.125		
F11	49	223+00	25' RT	CW8-6	TRUCK CROSSING	3.0	3.0	9.00	W	1-2.5" PT	0.125		
F11	50	223+50	25' LT	W11-2		3.0	3.0	9.00	E	1-2.5" PT	0.125		
F11	51	225+89	37' LT	R1-1	STOP	3.0	3.0	9.00	N	1-2.5" PT	0.125		
				R1-6	STATE LAW YIELD TO WITHIN CROSSWALK	3.0	1.0	15.00					SEASONAL, TO BE INSTALLED BY CITY OF HOMER. DELIVER SIGNS, GROUND MOUNT BASES, AND MOUNTING MATERIALS TO CITY OF HOMER PUBLIC WORKS. FURNISH 5 SIGN ASSEMBLIES.

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	H7	H10

STATE OF ALASKA
WILLIAM A. WEBB
4/3/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: USKH INC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION

SIGN SUMMARY

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	H8	H10

SALVAGE SIGNS

SHEET	STATION	OFFSET	QUANTITY	SIGN TYPE
F1	6275+40	46 RT	2	D11-1 (2)
F1	6275+58	23 LT	5	R1-1, D3-1 (4)
F1	6280+42	27 RT	2	D11-1 (2)
F1	6282+75	31 RT	5	R1-1, D3-1 (4)
F1	6284+76	27 RT	2	D11-1 (2)
F1	6286+13	36 LT	3	R1-1, D3-1 (2)
F1	6286+59	29 RT	4	D9-301 (2), D3-1 (2)
F1	6290+66	27 RT	2	D11-1 (2)
F1	6294+49	25 RT	2	W1-1R, W13-1
F2	6296+38	27 RT	2	D11-1 (2)
F2	6296+79	27 RT	1	I-5
F2	6297+53	41 RT	5	R1-1, D3-1 (4)
F2	6299+25	44 LT	3	R1-1, D3-1 (2)
F2	6300+01	39 RT	2	D11-1 (2), M4-101
F2	6300+04	58 LT	1	I-5
F2	6302+11	26 LT	2	D9-2 (2)
F2	6306+67	47 LT	6	R1-6, R1-1, D3-1 (4)
F2	3+91	27 RT	1	R2-1
F2	4+01	25 LT	1	R2-5C
F3	29+49	29 RT	1	R1-1
F3	29+77	23 RT	2	W11-2, W16-7PL
F8	152+54	24 RT	1	R2-5C
F8	157+23	25 LT	4	D9-301, D9-2 (2), R2-1
F8	157+62	21 RT	1	R2-1
F8	158+21	26 LT	3	R1-1, D3-1 (2)
F9	163+28	32 LT	1	R1-1
F9	163+40	27 RT	2	W16-7PL, W11-2
F9	164+66	25 LT	2	W16-7PL, W11-2
F9	165+60	31 RT	1	R1-1
F9	167+87	26 LT	3	R1-1, D3-1 (2)
F9	168+72	39 RT	1	R1-1
F9	171+78	25 RT	3	M6-1, R2-1, R14-1
F9	175+87	34 LT	4	D9-301, R1-1, D3-1 (2)
F9	181+31	36 RT	1	R1-1
F10	188+84	25 RT	1	R2-1
F11	210+22	38 LT	3	R1-1, D3-1 (2)
F11	216+99	36 LT	1	R1-1
F11	225+89	38 LT	1	R1-1
		TOTAL	87	

DESIGNED BY
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STATE OF ALASKA
49TH
WILLIAM A. WEBB
4/3/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED
BY: USKH INC

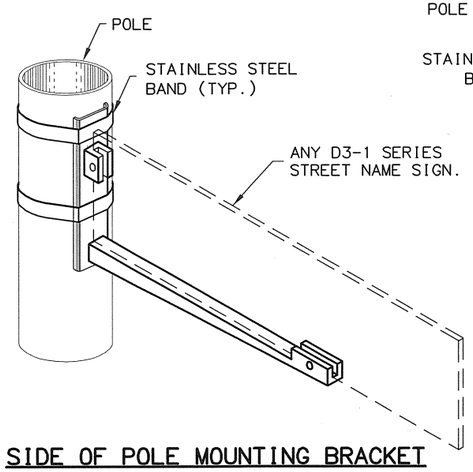
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STERLING HIGHWAY:
MP 174-179
PAVEMENT PRESERVATION

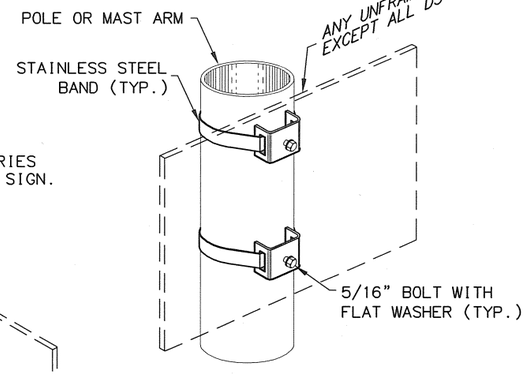
SALVAGE SIGNS
SUMMARIES

REVISIONS		
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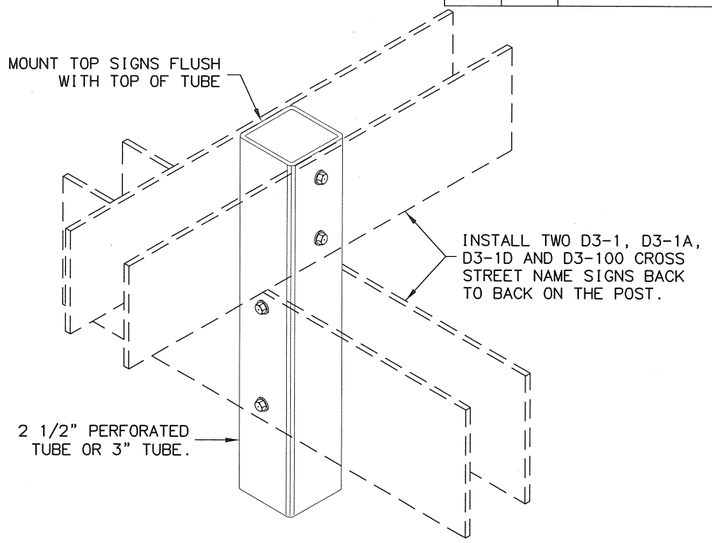
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	H9	H10



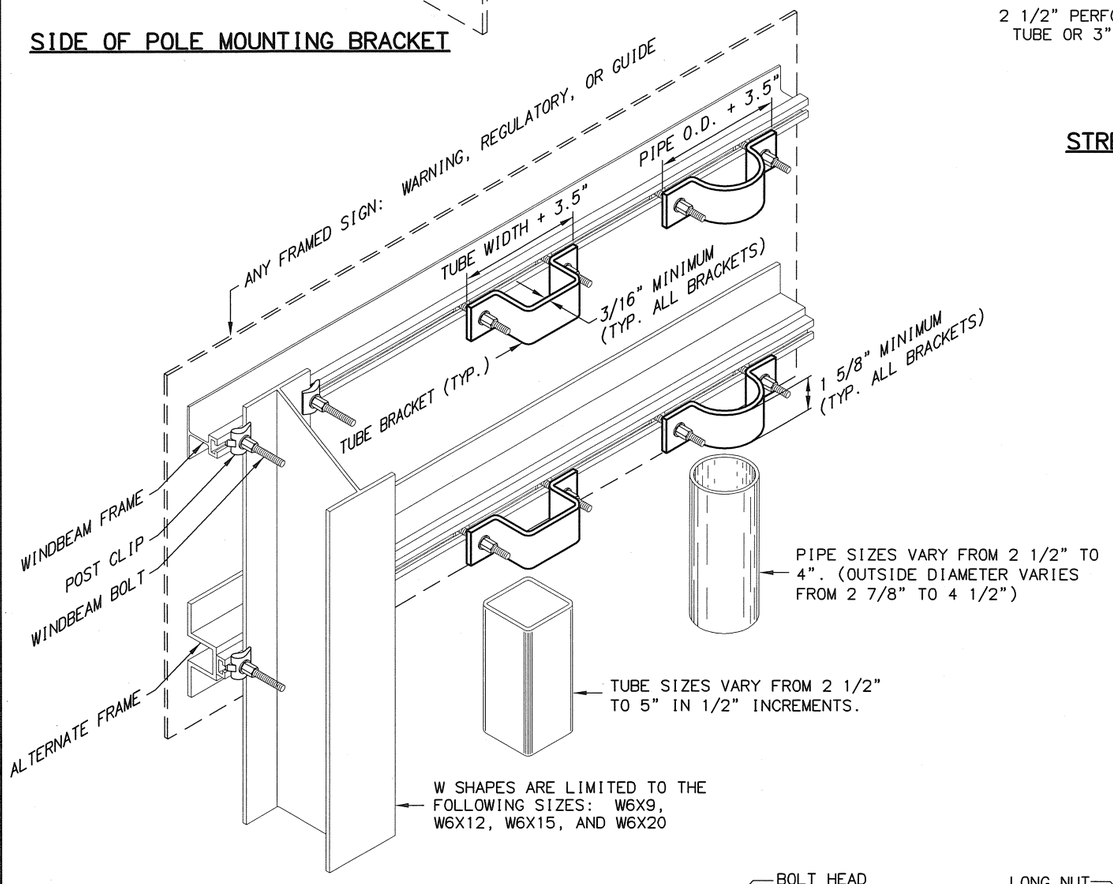
SIDE OF POLE MOUNTING BRACKET



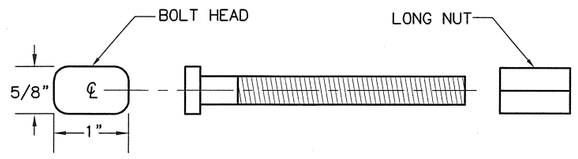
SADDLE BRACKETS



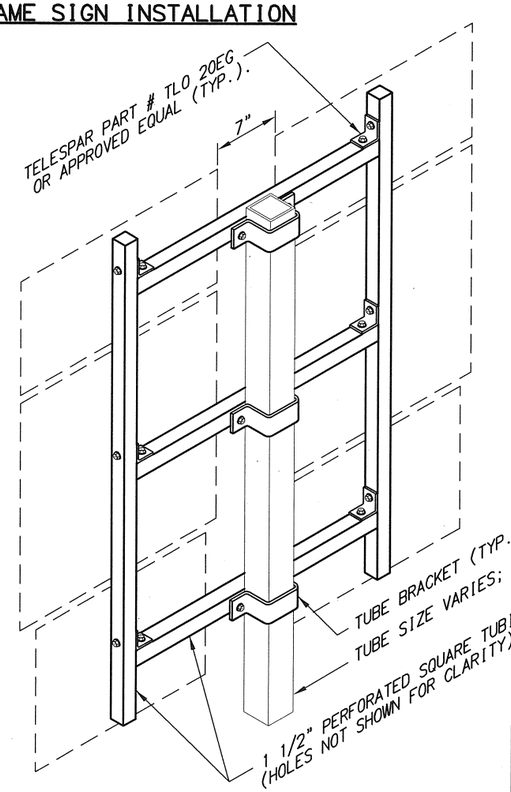
STREET NAME SIGN INSTALLATION



FRAMED SIGN ATTACHMENT BRACKETS



3/8" WINDBEAM BOLT AND LONG NUT



ROUTE MARKER TREE

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 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.

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



PLANS DEVELOPED BY: USKH INC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION

SIGN ATTACHMENT DETAILS

DESIGNED BY
CHECKED BY
DRAFTED BY MEF

XREFS

SCALE N/A

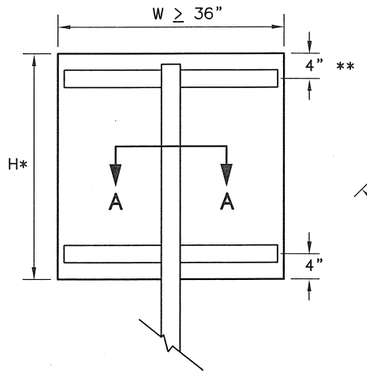
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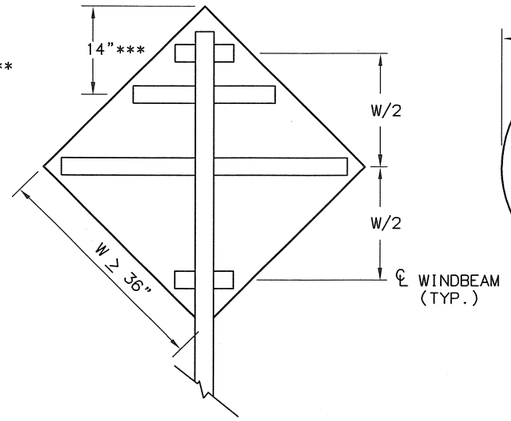
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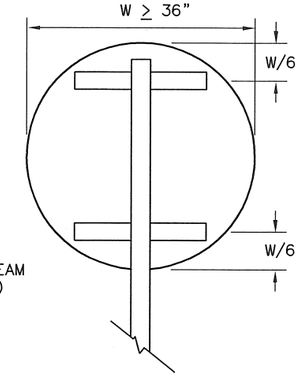
REVISIONS		
NO.	DATE	DESCRIPTION
	06/26/2013	CENTRAL REGION DETAIL - THESE DETAILS SUPERSEDE ONLY
		THE LIGHT SIGNS FRAMING DETAILS ON STD. DWG. S-00.11
		AND ENTIRELY REPLACES STD. DWG. S-01.00

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	H10	H10

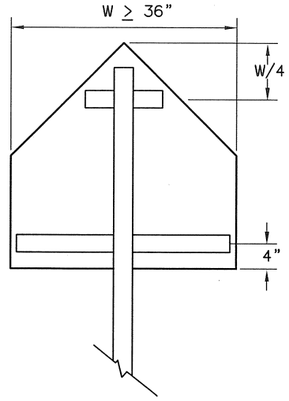


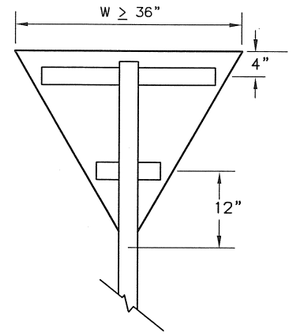
RECTANGLES AND TRAPEZOIDS





ROUNDS AND OCTAGONS





* 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".

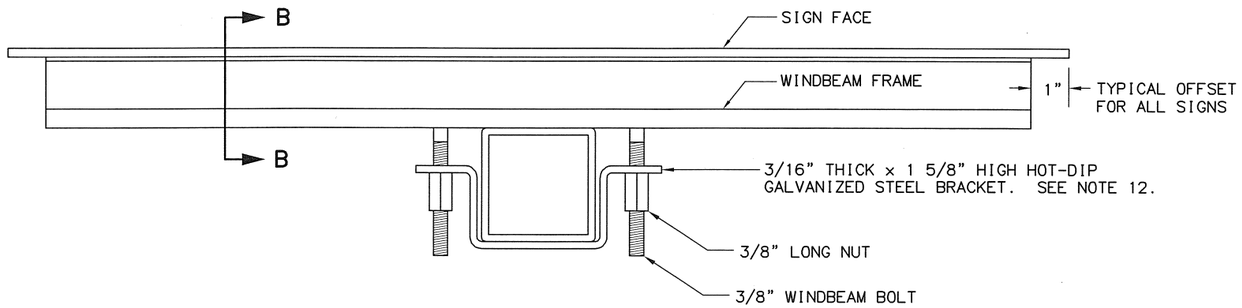
*** FOR WARNING SIGNS MOUNTED ON FLASHING BEACON POSTS, USE THE 14" OFFSET. OTHERWISE, USE W/2.

NOTES:

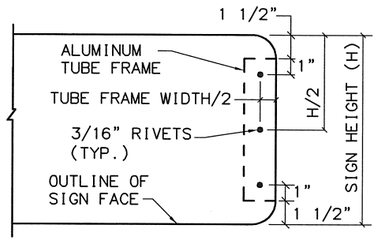
1. EXCEPT FOR POLES AND MAST ARMS, ONLY USE SQUARE STEEL TUBES TO SUPPORT SIGNS MOUNTED ON SINGLE POSTS.
2. INSTALL WINDBEAM OR ZEE SHAPED FRAMING MEMBERS ON DIAMOND SHAPED SIGNS 36 INCHES AND LONGER ON A SIDE AND ON OTHER SIGNS 36 INCHES WIDE AND WIDER.
3. IN HIGH WIND AREAS, THE PLANS MAY REQUIRE SIGNS SMALLER THAN THOSE LISTED IN NOTE 2 BE FRAMED AS SHOWN HEREON.
4. THIS DRAWING DEPICTS THE WINDBEAM FRAMING AND ATTACHMENT SYSTEM. ATTACH SIGNS FRAMED WITH ZEE SHAPED FRAMING ACCORDING TO REGIONAL DRAWING "SIGN ATTACHMENT DETAILS", USING "U" SHAPED BRACKETS AND TWO BOLTSWITH NUTS.
5. 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.
6. USE FRAMING MEMBERS MADE FROM ALUMINUM ALLOY 6061-T6.
7. EACH FRAMING MEMBER SHALL BE ONE CONTINUOUS PIECE.
8. ATTACH FRAMING MEMBERS TO THE SIGN PANELS WITH RIVETS OR AN ENGINEER APPROVED, DOUBLE SIDED, HIGH STRENGTH, ADHESIVE TAPE.
9. 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:
   A. THE CLEANING AND HANDLING OF THE SIGN PANELS AND FRAMING MEMBERS.
   B. THE APPLICATION OF THE ADHESIVE TAPE.
10. WHEN RIVETS ARE USED TO ATTACH FRAMING MEMBERS, INSTALL 2 RIVETS IN EACH END AND THE BALANCE ON 8" MAXIMUM CENTERS.
11. USE 3/16" DIAMETER RIVETS CONFORMING TO ALUMINUM ALLOY 6061-T6 FOR COLD DRIVEN RIVETS, OR ALUMINUM ALLOY 6061-T43 FOR HOT DRIVEN RIVETS.
12. THE BRACKETS USED ON EVEN INCH SIZE TUBES MAY ALSO BE USED ON TUBES 1/2" SMALLER IN SIZE.

WINDBEAM LOCATIONS FOR EACH SIGN SHAPE

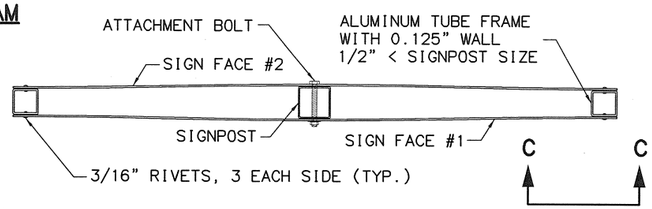
ELEVATION VIEW



SECTION A - A TYPICAL SIGN ATTACHMENT DETAILS AT EACH WINDBEAM

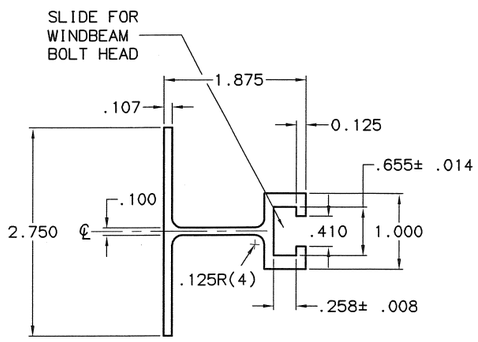


VIEW C - C

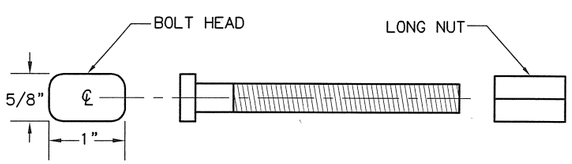


D3-1, D3-1A, D3-1D STREET NAME SIGN FRAMING DETAIL

PLAN VIEW



SECTION B - B WINDBEAM CROSS SECTION



3/8" WINDBEAM BOLT AND LONG NUT

DESIGNED BY: WEF
CHECKED BY:
DRAFTED BY:
XREFS:
SCALE: N/A
LAYOUT: LIGHT SIGN FRAME
DATE TIME: 8/7/2013 10:18 AM
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION

LIGHT SIGN FRAMING AND ATTACHMENT DETAILS

STATE OF ALASKA
WILLIAM A. WEBB
4/3/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: USKH INC

REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	K1	K12

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CHECKED BY
DRAFTED BY

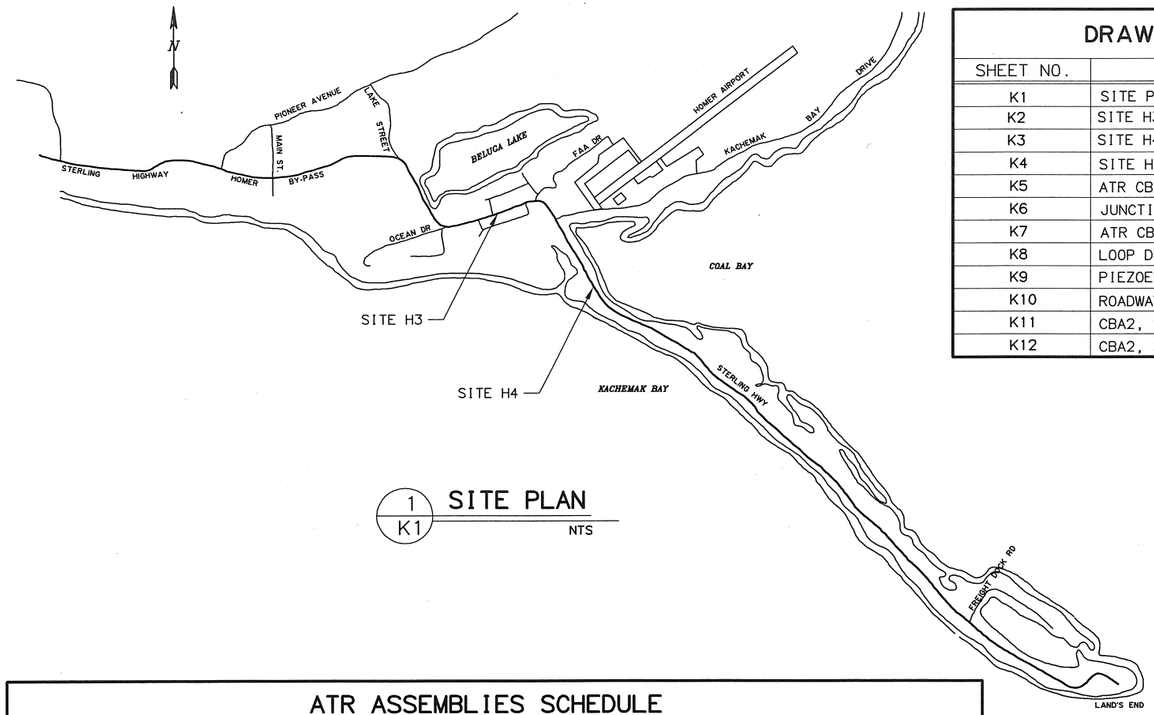
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1 / K1 SITE PLAN
NTS

DRAWING SHEET INDEX

SHEET NO.	DESCRIPTION
K1	SITE PLAN, ATR NOTES, LABELS AND INDEX
K2	SITE H3 LAYOUT, SCHEDULE AND WIRING DIAGRAM
K3	SITE H4 LAYOUT
K4	SITE H4 CONDUIT, CONDUCTOR AND WIRING DIAGRAM
K5	ATR CBA1 CABINET DETAILS
K6	JUNCTION BOX DETAILS
K7	ATR CBA2 CABINET DETAILS
K8	LOOP DETECTOR DETAILS
K9	PIEZOELECTRIC SENSOR DETAILS
K10	ROADWAY TEMPERATURE PROBE DETAILS
K11	CBA2, SNOW SHIELD & PEDESTAL DETAILS
K12	CBA2, SNOW SHIELD & PEDESTAL DETAILS

ATR ASSEMBLIES SCHEDULE

RECORDER NUMBER	STATION	COUNT SITE NUMBER	CABINET OFFSET <1>	CABINET ASSEMBLY STYLE	INDUCTIVE LOOPS (QTY.)	LOAD CENTER	PIEZO SENSORS	TYPE 1A JBOXES	TYPE II JBOXES
H3	6289+50	51008000	45 RT	CBA1	2	NONE	NONE	1	NONE
H4	31+50	10300021	45 LT	CBA2	4	EXISTING	4	NONE	4

<1> CABINET OFFSET AS MEASURED FROM THE CENTERLINE, TO FIELD ADJUSTED, USE THIS VALUE FOR BID PURPOSES.

INDUCTIVE LOOPS

ALL INDUCTIVE LOOPS SHALL BE WOUND IN THE SAME DIRECTION WITH THE STARTING LEAD MARKED "S" PER SECTION 660-3.05.13.

LEAD-IN WIRES FOR EACH LOOP SHALL BE IN SEPARATE CONDUITS TO THE FIRST JUNCTION BOX. THESE CONDUITS SHALL BE SEPARATED FROM OTHER LOOPS BY A MINIMUM OF 12 INCHES.

INDUCTIVE LOOPS SHALL BE INSTALLED IMMEDIATELY PRIOR TO PAVING THIS SECTION OF ROADWAY. FINAL LIFT ASPHALT PAVEMENT SHALL BE SMOOTH OVER ALL INDUCTIVE LOOPS AND WITHOUT TRANSVERSE SEAMS, JOINTS, OR ROUGHNESS WITHIN 50 FEET. OF THE LOOPS.

GENERAL NOTES

1. INSTALLATION OF EQUIPMENT AND MATERIALS SHALL CONFORM TO APPLICABLE REQUIREMENTS OF THE CURRENT NATIONAL ELECTRICAL CODE, ALASKA DOTPF STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND LOCAL AMENDMENTS.
2. EVERY EFFORT HAS BEEN MADE TO MAKE THE INFORMATION CONTAINED IN THESE DOCUMENTS COMPLETE AND ACCURATE. HOWEVER THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS AND DIMENSIONS.
3. PVC FROM JUNCTION BOXES TO TRAFFIC LOOPS IS NOT ALLOWED. USE ONLY RMC OR IMC.
4. SUPPLIED BY STATE OF ALASKA - DATA COLLECTION SECTION - CONTACT HOWARD HELKENN, MANAGER, (907) 269-0876
5. SALVAGE EXISTING ATR EQUIPMENT. DISPOSE OF MATERIALS NOT WANTED BY THE DEPARTMENT.

REFERENCE SPECIFICATIONS

ALL WIRING SHALL BE CONSTRUCTED PER SPECIFICATION SECTION 660 SIGNALS AND LIGHTING, EXCEPT WHERE NOTED ON THE PLANS OR IN THE SPECIAL PROVISIONS. ALL CONSTRUCTION SHALL CONFORM TO SPECIFICATION SECTIONS 660-3.03 CONDUIT, 660-3.04 JUNCTION BOXES, 660-3.05 WIRING, 660-3.06 BONDING AND GROUNDING, AND 660-3.01.7 FIELD TESTS, EXCEPT AS MODIFIED BY SECTION 669 AUTOMATED TRAFFIC RECORDERS.

LABELS

ALL CABLES SHALL BE LABELED AT BOTH ENDS AND AT EVERY JUNCTION BOX THROUGH WHICH THE CABLES PASS, PER SPECIFICATION SECTION 660-3.05.13.

ALL WIRE PAIRS SHALL BE LABELED AT THE TERMINAL BLOCK AND AT ANY LOOSE ENDS.

THE FOLLOWING CONVENTIONS SHALL APPLY TO DESIGNATING AND LABELING CABLES AND WIRE PAIRS:

LANES: TRAFFIC LANES AND THEIR RESPECTIVE LOOPS AND SENSORS SHALL BE LABELED FROM THE OUTSIDE EDGE OF THE ROAD TOWARD THE CENTER AS FOLLOWS:

A	B	C	D		D	C	B	A

TERMINAL BLOCKS: WIRES FROM SENSORS PLACED IN LANES WHICH ARE CLOSEST TO THE CONTROL BOX SHALL BE PLACED AT THE LEFT OR AT THE TOP OF THE TERMINAL BLOCK, DEPENDING ON ORIENTATION.

WIRES FOR INDUCTIVE LOOPS, SENSORS AND RESERVES ARE LABELED AS FOLLOWS:

PnDLc

WHERE:

P IS THE PREFIX:
- V TRAFFIC VOLUME LOOP
- H VEHICLE CLASSIFICATION / SPEED LOOP
- GL AUTOMATIC VEHICLE CLASSIFICATION (AVC) LOOP
- GP AUTOMATIC VEHICLE CLASSIFICATION PIEZO

n NUMBER SUFFIX FOR MULTIPLE LOOPS IN THE SAME LANE

D DIRECTION (N,S,E,W, NE,SE,SW,NW)

L IS THE PREFIX FOR ROAD DESIGNATION
- L - LANE*
- R - RAMP**
- SR - SPUR RAMP**
- LP - LOOP**
- LR - LOOP RAMP**
- * ROADS AND HIGHWAYS
- ** - INTERCHANGES

c IS THE SUFFIX FOR LANE DESIGNATION (A, B, C, D)

(X) CONDUIT REFERENCE NUMBER

[X] NOTE REFERENCE NUMBER

RMC RIGID METAL CONDUIT, GALVANIZED

IMC INTERMEDIATE METAL CONDUIT

(#/F#) - DETAIL NO. / DRAWN ON SHEET #

(TG) GROUND TEMPERATURE PROBE - SEE NOTE 4

(TA) AMBIENT AIR TEMPERATURE SENSOR - SEE NOTE 4

STATE OF ALASKA
49TH
WILLIAM A. WEBB
4/3/2014
CE 12023
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: USKH INC

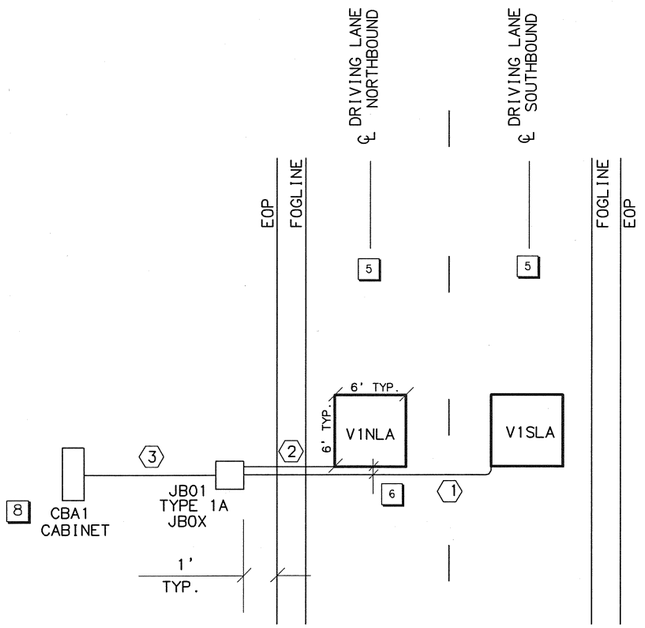
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION

SITE PLAN, ATR NOTES, LABELS AND INDEX

REVISIONS		
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	K2	K12



1 SENSOR, J-BOX AND CABINET LAYOUT - SITE H3

NOT TO SCALE

LAYOUT NOTES

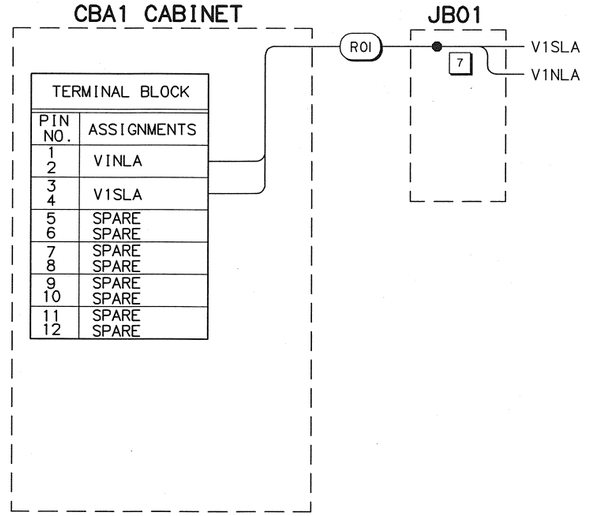
1. ALL PVC CONDUIT AND FITTINGS SHALL BE 1 INCH SCHEDULE 80.
2. INSTALL 1/2 INCH PREFORMED BITUMINOUS JOINT MATERIAL BETWEEN JBOX AND PAVEMENT WHEN JBOXES ARE LOCATED IMMEDIATLEY ADJACENT TO A SIDEWALK OR ROAD SURFACE.
3. PROVIDE GROUNDING BUSHINGS ON ALL CONDUITS. GROUND WITH A MINIMUM #6 BARE CU.
4. INSTALL ALL LOOP DETECTORS PRIOR TO OVERLAYING PAVEMENT.

[5] LOOPS TO BE CENTERED IN LANE.

[6] MINIMUM SPACING BETWEEN TAIL AND LOOP OR PIEZO IS 1 FOOT. SENSOR TAILS SHALL NOT CROSS EACH OTHER.

[7] SPLICE LOOP WIRING TO MULTI-PAIR CABLE USING NONREENTERABLE, WET LOCATION SPLICE. SEE DETAIL ON K10.

[8] CABINET DOOR TO OPEN AWAY FROM ROADWAY.



CONDUIT AND CONDUCTOR SCHEDULE

⬡ CONDUIT NO.	SIZE (INCHES)	FROM	TO	CABLE		
				QTY.	TYPE	NUMBER
1	1	JB01	V1SLA	1	1 PR. #14	
2	1	JB01	V1NLA	1	1 PR. #14	
3	2	JB01	CBA1	1	3 PR. #18	R01

STATE OF ALASKA
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION

SITE H3 LAYOUT, SCHEDULE AND WIRING DIAGRAM

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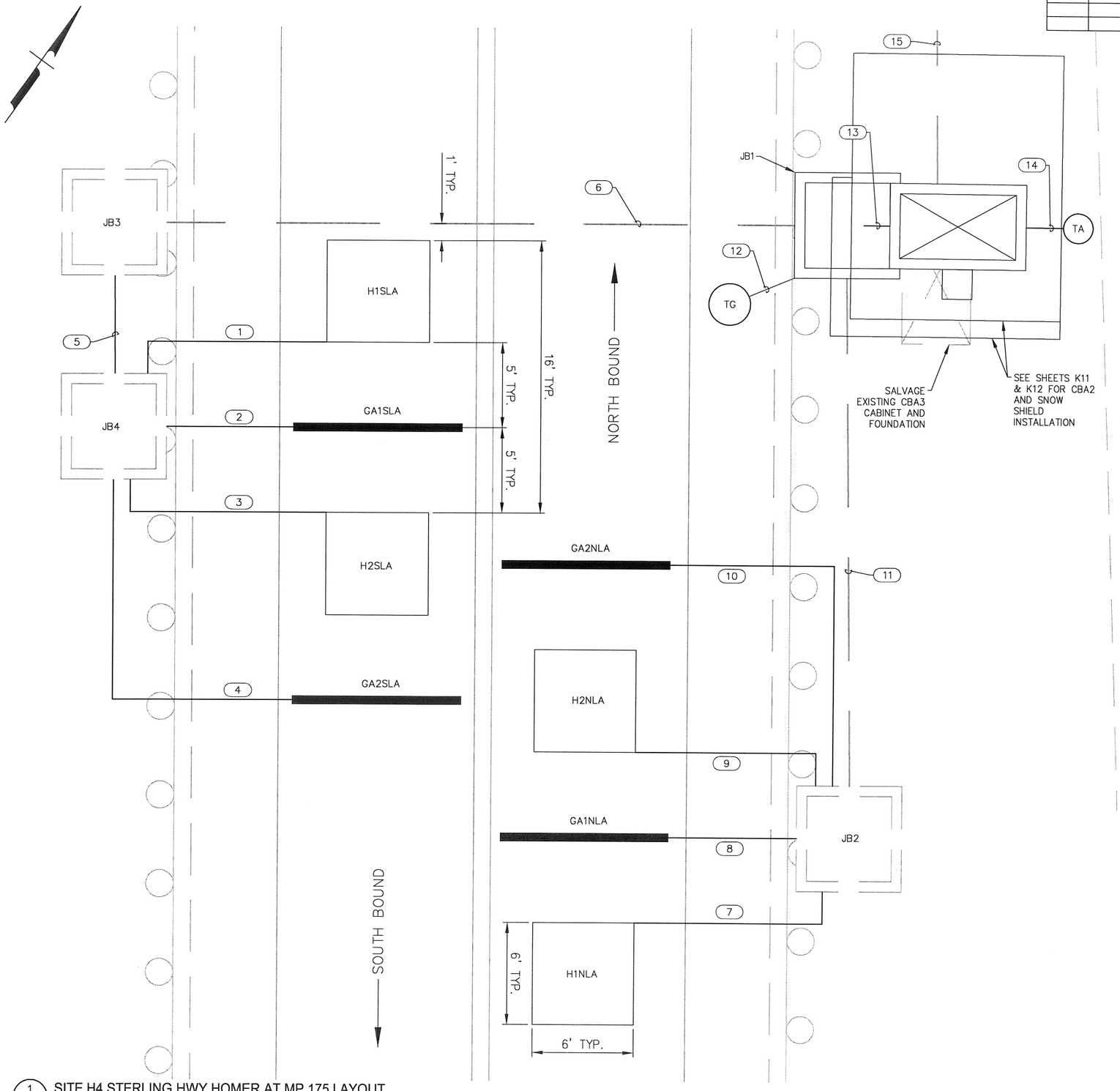
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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	NH-0211(059)/55260	2014	K3	K12



SCOPE OF SERVICES

1. CDS ROUTE 110000, CDS MILE POINT 134.58, N59°37.879', W151° 29.580'; THE CONTRACTOR SHALL SALVAGE THE EXISTING CBA-3 CABINET AND FOUNDATION. THE CONTRACTOR SHALL REMOVE AND SALVAGE EXISTING TEMPERATURE DATA PROBE (TDP). THE CONTRACTOR SHALL REMOVE AND REPLACE PAVEMENT AS SHOWN ON THE CONSTRUCTION PLANS, TO BE FIELD VERIFIED BY THE ENGINEER. THE CONTRACTOR SHALL REMOVE EXISTING INDUCTIVE LOOP PRESENCE SENSORS BENEATH THE PAVING LIMITS AND INSTALL NEW AS SHOWN ON THE PLANS. ANY CONDUIT AND SENSORS OUTSIDE OF THE CONSTRUCTION LIMITS SHALL BE ABANDONED IN PLACE. THE CONTRACTOR SHALL INSTALL PIEZOELECTRIC SENSORS IN THE SURFACE OF THE NEW PAVEMENT BY SAW CUTTING AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL INSTALL NEW DEPARTMENT-SUPPLIED ENVIRONMENTAL SENSORS (SURFACE AND AMBIENT AIR SENSORS) AND SUBSURFACE TEMPERATURE DATA PROBE. THE CONTRACTOR SHALL ATTEMPT TO USE EXISTING JUNCTION BOXES AND CONNECTING CONDUIT FOR CONSTRUCTION OF THIS ATR SITE. EXISTING JUNCTION BOXES AND CONNECTING CONDUIT FOUND TO BE DAMAGED SHALL BE REPLACED WITH NEW. THE CONTRACTOR SHALL REPLACE THE EXISTING CABINET WITH A CBA-2 CABINET.

NOTES

1. DEMOLISH EXISTING LOOP DETECTORS AND PIEZO SENSORS AND PROVIDE NEW AS SHOWN.
2. REUSE EXISTING CONDUIT, WITH THE EXCEPTION OF LOOP AND SENSOR TAILS. REMOVE EXISTING CONDUCTORS AND CABLE. INSTALL NEW CONDUCTORS AND CABLE.
3. REUSE EXISTING J-BOXES.
4. SALVAGE EXISTING CABINET AND DELIVER TO HIGHWAY DATA. SALVAGE FOUNDATION. MAINTENANCE AND OPERATIONS RETAINS THE OPTION OF RECEIVING FOUNDATION, OTHERWISE DISPOSE. INSTALL A NEW CBA2 CABINET.
5. PROVIDE A NEW DOT TYPE 2 J-BOX AT THE EDGE OF ROAD ADJACENT TO CABINET.
6. INSTALL "SNOW SHIELD" AND "PEDESTAL" SEE K11-K12.
7. PROTECT IN PLACE EXISTING GUARDRAIL.
8. CABINET DOOR SHALL OPEN AWAY FROM ROADWAY.
9. REUSE EXISTING POWER CONDUIT AND CABLES.
10. INSTALL THE FOLLOWING OWNER-FURNISHED EQUIPMENT:
    - TEMPERATURE DATA PROBE
    - SURFACE TEMPERATURE SENSOR
    - AMBIENT AIR TEMPERATURE SENSOR
    - DSL MODEM

CONDUIT SCHEDULE

TAG	CONDUIT SIZE (RMC)	NEW/ EXISTING	FROM	TO	CABLE TYPE	CABLE NUMBER
1	1"	NEW	H1SLA	JB4	1-1PR#14	
2	1"	NEW	GA1SLA	JB4	RG58 COAX	CO1
3	1"	NEW	H2SLA	JB4	1-1PR#14	
4	1"	NEW	GA2SLA	JB4	RG58 COAX	CO2
5	2"	EXISTING	JB4	JB3	1-3PR#18 2-RG58 COAX	RO1 CO1,CO2
6	2"	EXISTING	JB3	JB1	1-3PR#18 2-RG58 COAX	RO1 CO1,CO2
7	1"	NEW	H1NLA	JB2	1-1PR#14	
8	1"	NEW	GA1NLA	JB2	RG58 COAX	CO3
9	1"	NEW	H2NLA	JB2	1-1PR#14	
10	1"	NEW	GA2NLA	JB2	RG58 COAX	CO4
11	2"	EXISTING	JB2	JB1	1-3PR#18 2-RG58 COAX	RO2 CO3,CO4
12	1"	NEW	TG, TS	JB1	2-2C#18	TO1,TO2
13	2"	EXISTING	JB1	CBA2	2-3PR#18 4-RG58 COAX 2-2C#18	RO1,RO2 CO1-CO4 TO1,TO2
14	1"	NEW	TA	CBA2	1-2C#18	TO3
15	2"	EXISTING	LC-A	CBA2	1-3C#8	

1 / K3 SITE H4 STERLING HWY HOMER AT MP 175 LAYOUT
SCALE: NTS

STATE OF ALASKA
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STERLING HWY:
MP 174 - 179
PAVEMENT PRESERVATION

SITE H4 STERLING HWY HOMER AT MP 175 LAYOUT

STATE OF ALASKA · 49TH · Roy N. Pace · EE 12053 · REGISTERED PROFESSIONAL ENGINEER

EDC, INC

4/2/2014

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SCALE
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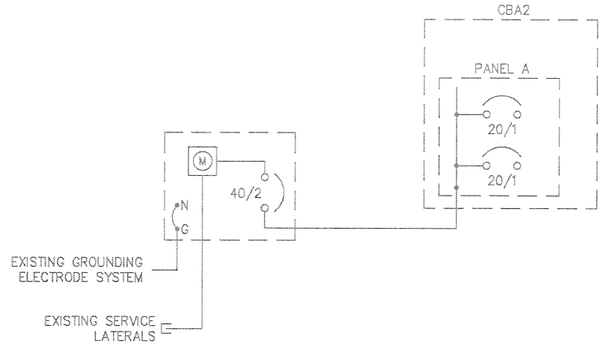
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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	NH-0211(059)/55260	2014	K4	K12

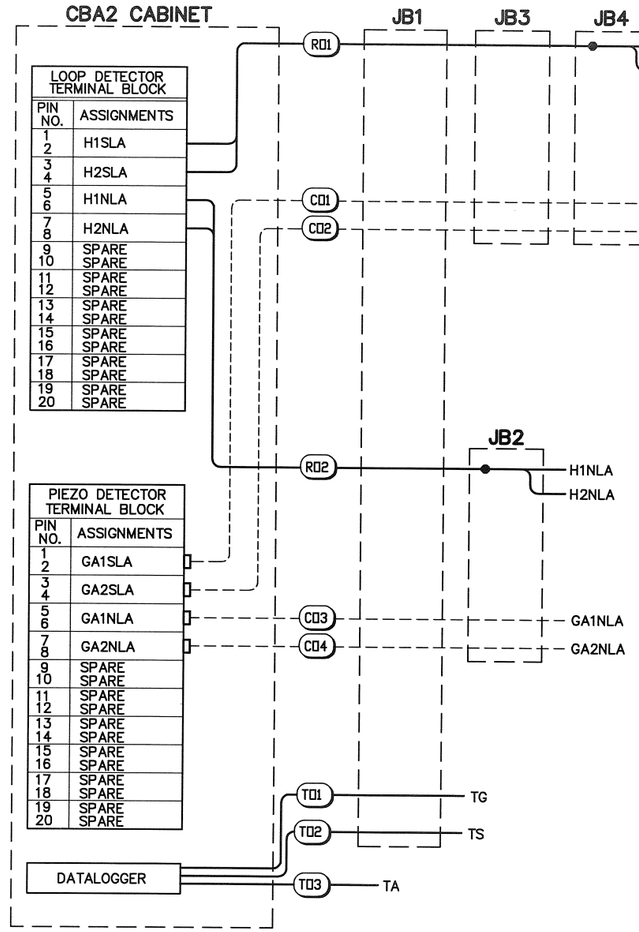


EXISTING LOAD CENTER "A" ONE LINE

NTS

LOAD CENTER NOTES:

1. DETAIL SHOWN FOR INFORMATION ONLY. NO WORK REQUIRED.
2. LOAD CENTER "A", 120/240-VOLT, 1-PHASE, 3 WIRE.
3. ELECTRIC UTILITY: HOMER ELECTRIC ASSOCIATION
4. LOAD CENTER IS LOCATED 300FT NORTH OF TRAFFIC RECORDER



TERMINAL BLOCK WIRING DIAGRAM

NTS

NOTES

1. SPLICE LOOP WIRING TO MULTI-PAIR CABLE USING NONREENTERABLE, WET LOCATION SPLICE. SEE DETAIL ON K10.
2. COAX CABLE FOR PIEZO SENSORS TO BE RUN WITHOUT SPLICES TO "F" CONNECTOR AT TERMINAL BLOCK IN CABINET.

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STATE OF ALASKA
49TH
Roy N. Pace
EE 12053
REGISTERED PROFESSIONAL ENGINEER
4/2/2014

EDC, INC

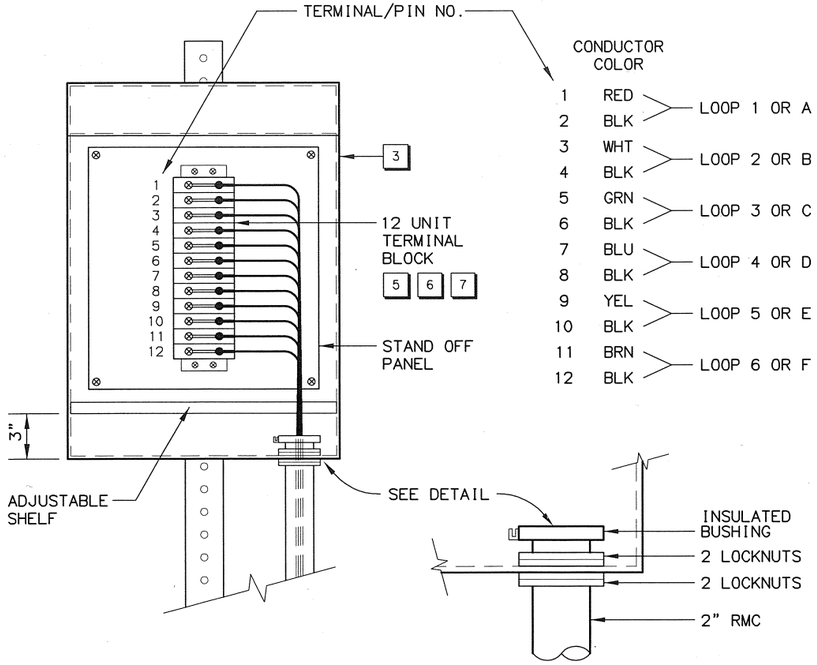
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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STERLING HWY:
MP 174 – 179
PAVEMENT PRESERVATION

SITE H4 STERLING HWY HOMER AT MP 175 WIRING DIAGRAM

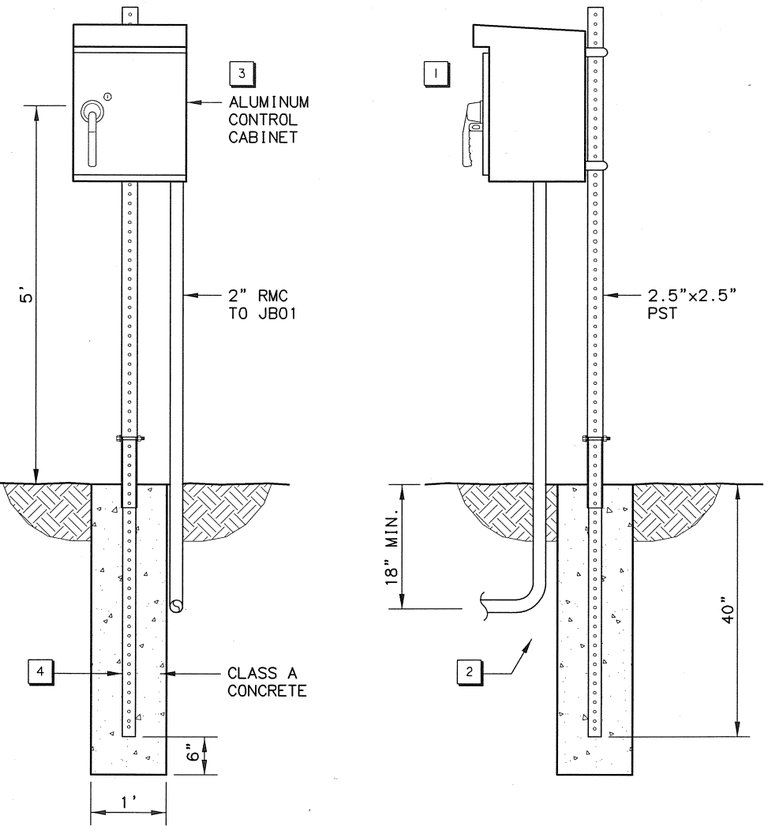
REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	K5	K12



1 / K20 **CABINET TYPE CBA1**

FRONT VIEW, DOOR OPEN



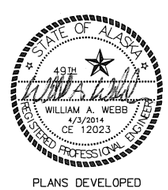
FRONT ELEVATION

SIDE ELEVATION

2 / K20 **CABINET TYPE CBA1 DETAIL**

NOTES:

1. CONTROLLER CABINET DOOR TO OPEN AWAY FROM THE ROADWAY.
2. INSTALL FOUNDATION IN SELECT MATERIAL, TYPE A. THE CONTRACTOR SHALL EXCAVATE AND BACKFILL WITH GRAVEL 2 FEET BELOW AND SURROUNDING THE FOUNDATION.
3. CABINET TO BE EQUAL TO OR BETTER THAN HOFFMAN SINGLE DOOR ALUMINUM ENCLOSURE: CATALOG NUMBER 131JF (20 IN x 17 IN x 16 IN) WITH NEMA 3R RATING, CORBIN LOCK, EQUIPMENT MOUNTING PANEL AND ADJUSTING SHELF.
4. SLEEVE TYPE CONCRETE FOUNDATION. SEE STANDARD DRAWING S-30.03, PERFORATED STEEL TUBE (PST) POST.
5. TERMINATE ALL CONDUCTORS TO TERMINAL BLOCK. TERMINATE ALL CONDUCTORS WITH CRIMPED AND SOLDERED SPADE TYPE TERMINALS.
6. TY-RAPS TO PROVIDE STRAIN RELIEF FOR INCOMING CONDUCTORS.
7. LABEL SENSOR LEADS:
   USE THE INDUCTIVE LOOP DESIGNATION FOR IDENTIFICATION, SUCH AS "VISLA"



PLANS DEVELOPED BY: USKH INC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION

ATR CBA1 CABINET DETAILS

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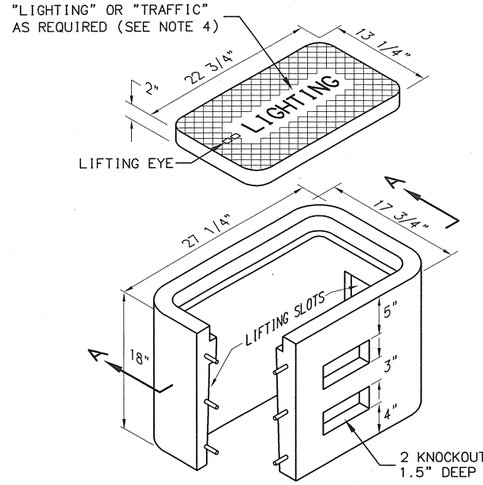
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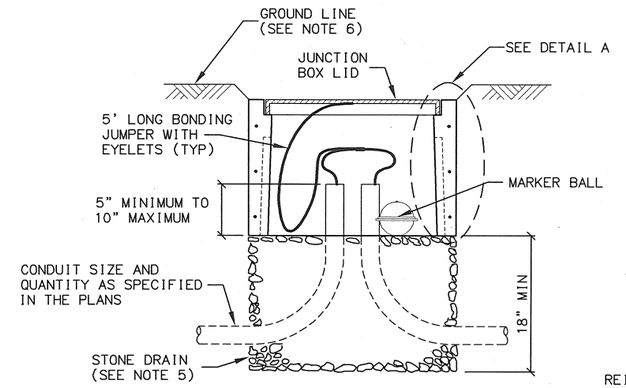
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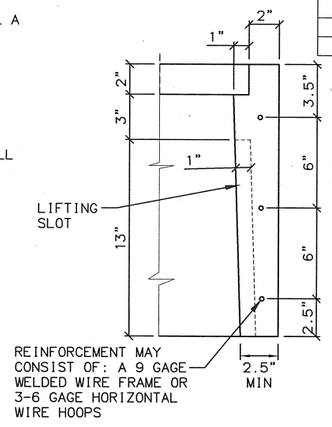
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	K6	K12



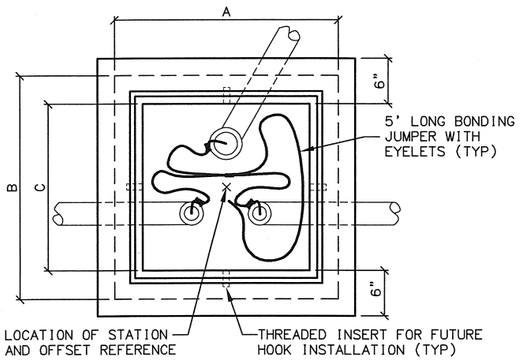


SECTION A-A

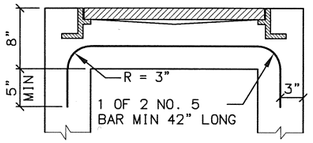


DETAIL A

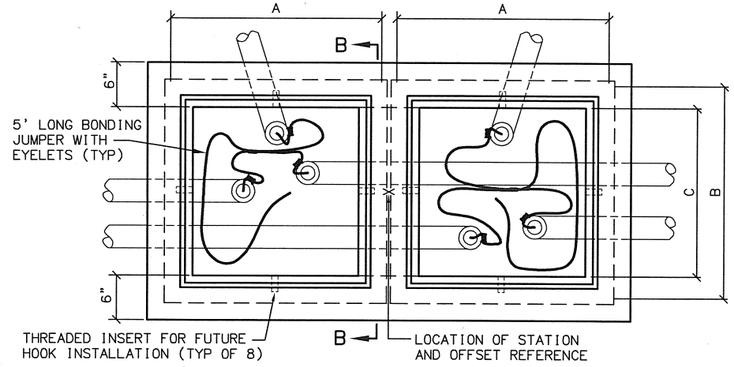
TYPE IA JUNCTION BOX



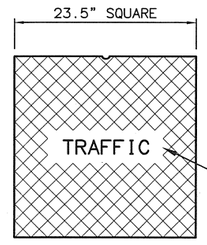
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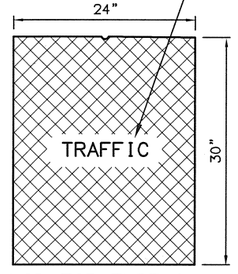
SECTION B-B



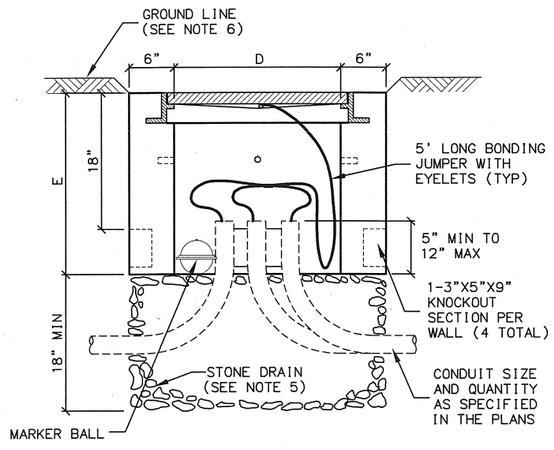
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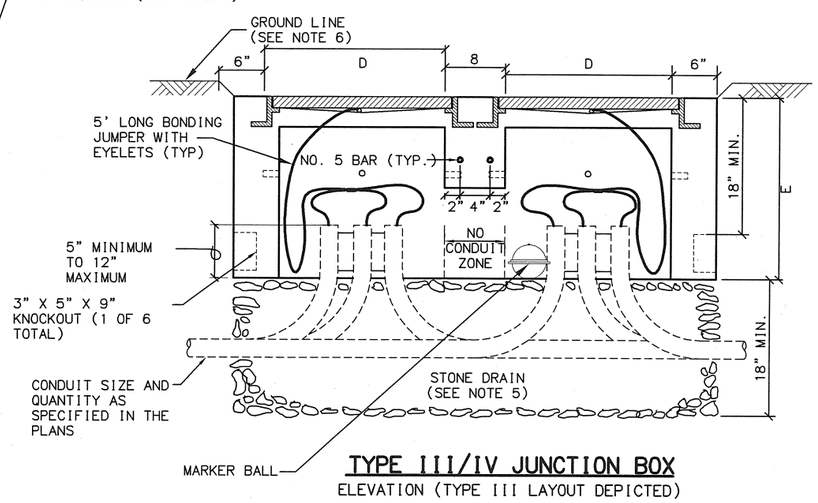
LID FOR TYPE II & III J-BOXES



LID FOR TYPE IV J-BOXES



TYPE II JUNCTION BOX
ELEVATION



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. SYNTHETIC STRUCTURAL FIBER-REINFORCED CONCRETE THAT MEETS ASTM C 1116 AND CONTAINS FIBER IN PROPORTIONS AS RECOMMENDED BY THE FIBER MANUFACTURER MAY BE ADDED FOR STRENGTH.
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 POROUS BACKFILL MATERIAL CONFORMING TO SUBSECTION 703-2.10.
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 1A 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. PRIOR TO INSTALLATION MARK ALL JUNCTION BOX LOCATIONS 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
4/3/2014
WILLIAM A. WEBB
CE 12023
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: USKH INC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STERLING HIGHWAY: MP 174-179 PAVEMENT PRESERVATION

JUNCTION BOX DETAILS

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CHECKED BY
DRAFTED BY
XREFS
SCALE
LAYOUT K9
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REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	NH-0211(059)/55260	2014	K7	K12

DESIGNED BY MEF
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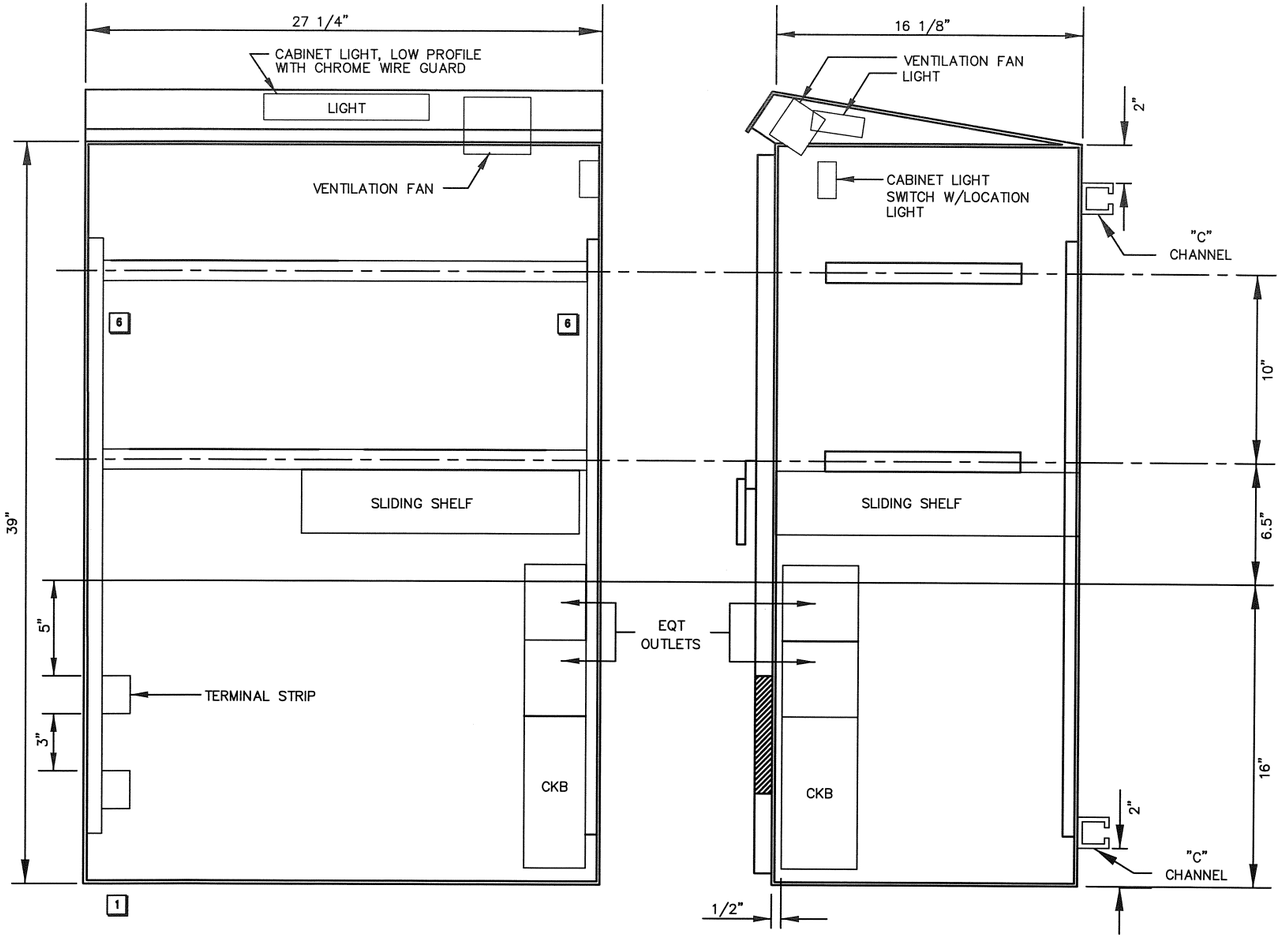
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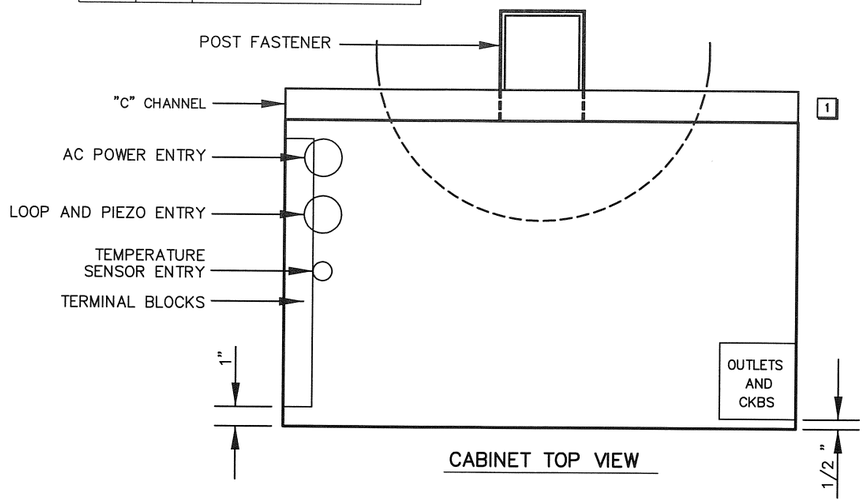
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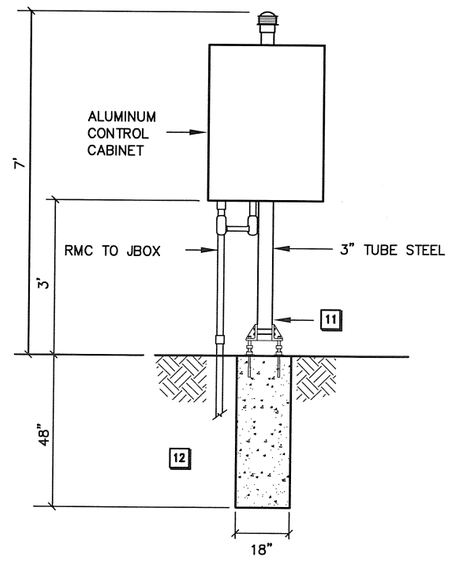
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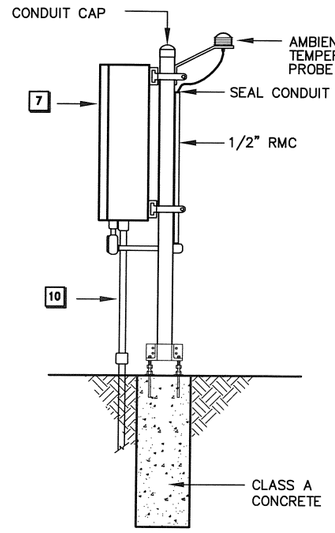
CBA2 CABINET DETAILS



CABINET TOP VIEW



FRONT ELEVATION



SIDE ELEVATION

CABINET TYPE CBA2

NOTES

1. USE CONDUIT HUBS IN BOTTOM OF CABINET, MYERS OR EQUAL. USE HUBS WITH NEOPRENE SEAL AND INSULATED THROAT FOR NON-POWER CONDUITS WITH DETECTOR LEAD-IN CABLES AND TELEPHONE SERVICE. USE HUBS FOR SERVICE ENTRANCE CONDUIT AND CONNECT FLEXIBLE METAL CONDUIT TO CB PANEL INSIDE CABINET.
2. PROVIDE VOLTAGE SURGE PROTECTION IN CB PANEL.
3. ALL 120V WIRING, INCLUDING THAT FOR PANELBOARD, LIGHT, FAN, AND THERMOSTATS TO BE IN FLEXIBLE METAL CONDUIT WITH EXCEPTION OF CORD CONNECTED ELECTRONIC EQUIPMENT.
4. CABINET TO BE CERTIFIED BY NATIONALLY RECOGNIZED INDEPENDENT THIRD PARTY TESTING AGENCY (UL, CSA, FM, ETC.).
5. ALL EQUIPMENT INSIDE CABINET TO BE FASTENED TO RAILS WITH NO SCREW PENETRATIONS OF THE CABINET SURFACE.
6. SIDE RAILS TO BE INSTALLED TO PERMIT HORIZONTAL ADJUSTMENT OF VERTICAL RAILS.
7. CONTROLLER CABINET DOORS TO OPEN AWAY FROM ROADWAY.
8. USE FACTORY 90° ELBOWS TO/FROM J-BOXES ON ALL CONDUITS LARGER THAN 1 INCH.
9. ALL CONDUIT SHALL BE RMC UNLESS NOTED OTHERWISE. SEE SCHEDULE FOR SIZE.
10. NOT ALL CONDUITS SHOWN IN DETAIL. ADD OTHERS AS REQUIRED.
11. PROVIDE FLANGE, FRANGIBLE COUPLING AND FOUNDATION PER DOT STANDARD DETAIL S-31.01.
12. INSTALL FOUNDATION IN SELECT MATERIAL, TYPE A. THE CONTRACTOR SHALL EXCAVATE AND BACKFILL WITH GRAVEL 2 FEET BELOW AND SURROUNDING THE FOUNDATION.
13. LOCKS SHALL BE CORBIN NO. 2, AND SHALL BE COMPATIBLE WITH EXISTING LOCKS.

STATE OF ALASKA
49TH
Roy N. Pace
EE 12053
REGISTERED PROFESSIONAL ENGINEER

EDC, INC
4/2/2014

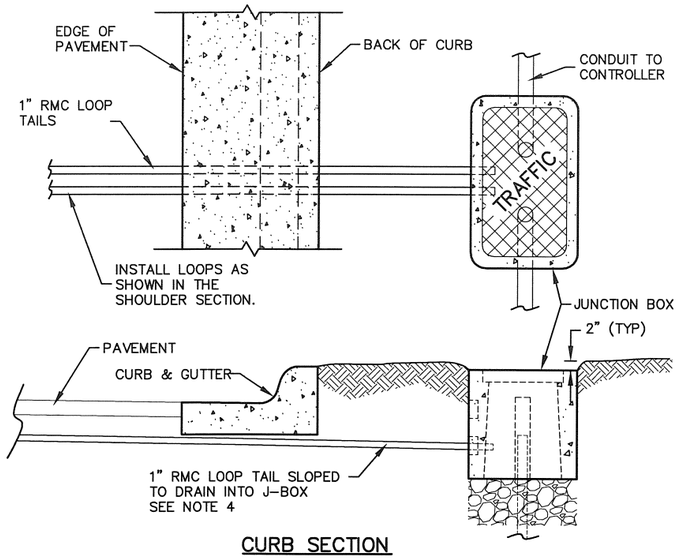
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STERLING HWY:
MP 174 – 179
PAVEMENT PRESERVATION

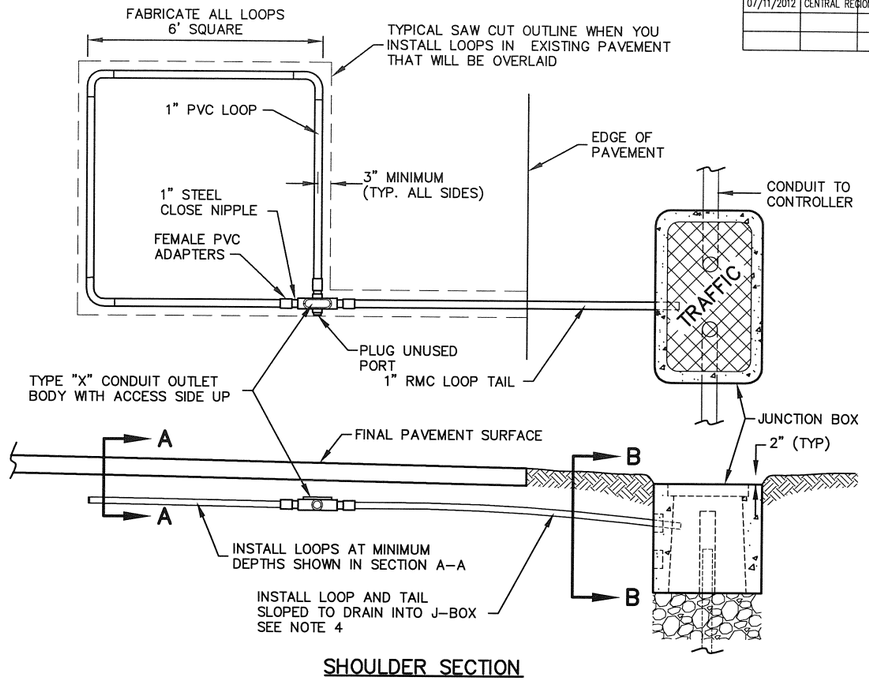
ATR CBA2 CABINET DETAILS

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NO.	DATE	DESCRIPTION
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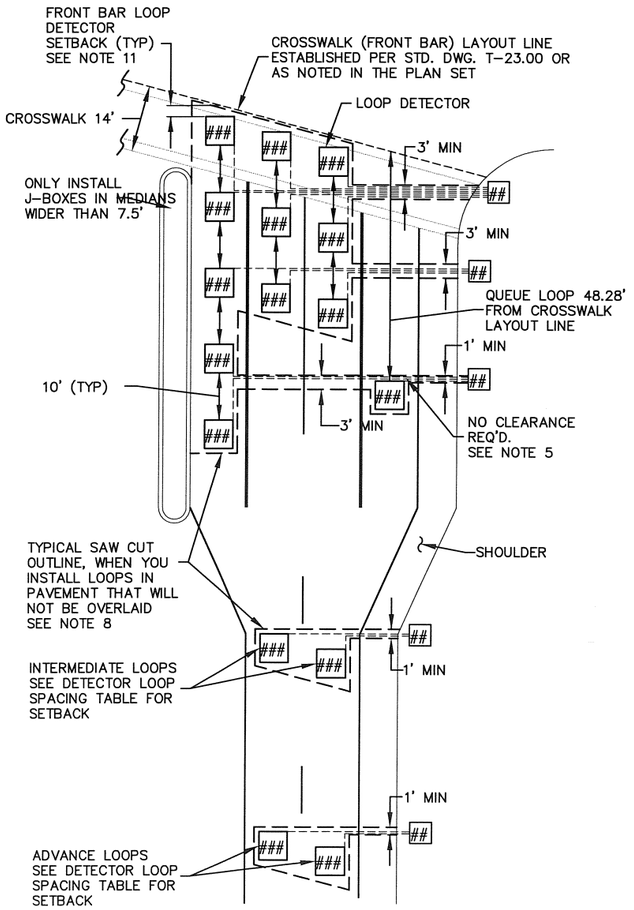
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ALASKA	NH-0211(059)/55260	2014	K8	K12



CURB SECTION

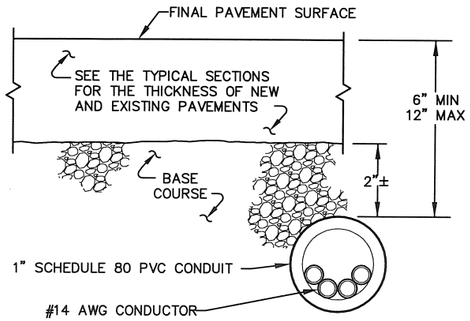


SHOULDER SECTION

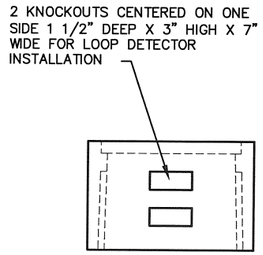


TYPICAL LOOP SETBACKS

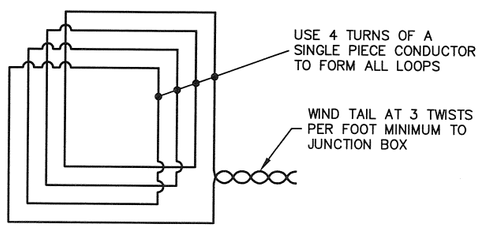
MEASURE THE SETBACKS FROM THE CROSSWALK LAYOUT LINE ALONG THE CENTER OF EACH LANE



SECTION A-A



SECTION B-B



6'X6' LOOP WIRING DETAIL

TYPICAL PVC CONDUIT ENCASED LOOP DETECTOR INSTALLATION

NOTES:

1. EACH LOOP DETECTOR SHALL CONSIST OF A SINGLE PIECE OF #14 AWG CONDUCTOR INSTALLED IN ONE INCH SCHEDULE 80 PVC CONDUIT. BUILD ALL LOOPS 6.0 FEET SQUARE, SOLVENT WELDING ALL PVC TO PVC JOINTS. USE TYPE X OUTLET BODIES MADE OF HOT DIP GALVANIZED STEEL TO JOIN THE LOOPS AND TAILS.
2. INSTALL 4 TURNS OF CONDUCTOR IN ALL LOOPS AND PROVIDE TAILS THAT EXTEND TO THE JUNCTION BOX SPECIFIED ON THE PLANS. USE #14 AWG CONDUCTOR IN A POLYETHYLENE TUBE CONFORMING TO IMSA SPECIFICATION 51-5. WIND THE TAIL CONDUCTORS TOGETHER AT A RATE OF 3 TWISTS PER FOOT.
3. INSTALL ALL LOOP DETECTORS BEFORE OVERLAYING THE EXISTING PAVEMENT OR PAVING THE NEW ROADWAY.
4. INSTALL ALL LOOP DETECTORS SLOPED TO DRAIN INTO THE JUNCTION BOX THE LOOP TAIL ENTERS. IF YOU CAN NOT INSTALL THE LOOP TO DRAIN INTO THE J-BOX, DRILL FIVE 1/4" WEEP HOLES ON 1 FOOT CENTERS IN THE UNDERSIDE OF THE CONDUIT AT THE LOW SPOT.
5. YOU MAY INSTALL A LOOP TAIL IMMEDIATELY ADJACENT TO A LOOP AND OTHER LOOP TAILS. LOOP TAILS SHALL NOT CROSS LOOP CONDUITS.
6. TEST ALL LOOP DETECTORS FOR CONTINUITY AND INSULATION INTEGRITY BEFORE SEALING THE LOOPS UNDER THE FINAL LIFT OF ASPHALT. PROVIDE THE ENGINEER A WRITTEN RECORD OF FIELD TESTING INCLUDING; CONTINUITY, INSULATION RESISTANCE AND INDUCTANCE TESTS AS REQUIRED IN SECTION 660-3.01(7) OF THE STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION.

STATE OF ALASKA
49TH
Roy N. Pace
EE 12053
REGISTERED PROFESSIONAL ENGINEER
4/2/2014

EDC, INC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

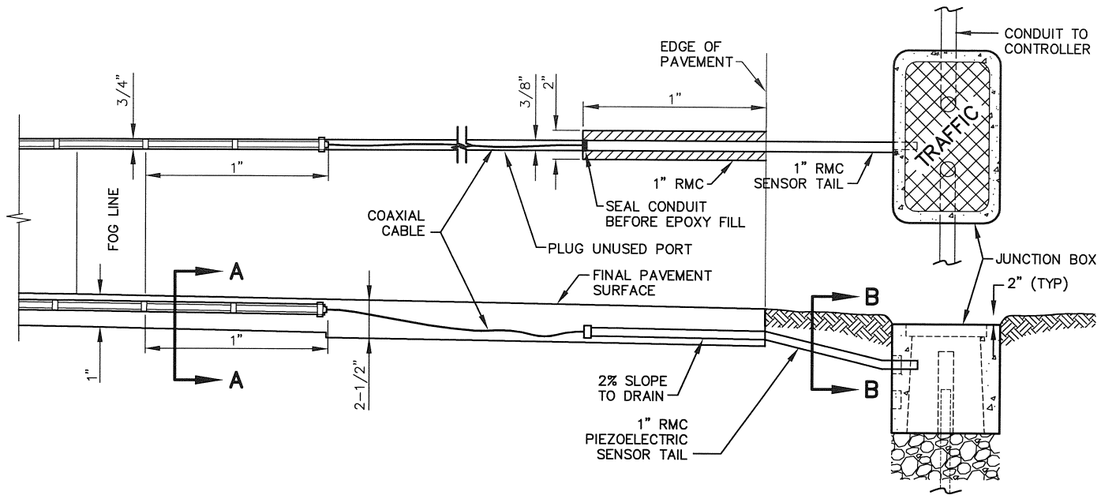
STERLING HWY: MP 174 – 179 PAVEMENT PRESERVATION

LOOP DETECTOR DETAILS

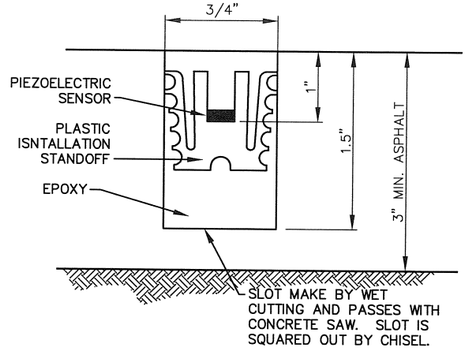
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NO.	DATE	DESCRIPTION

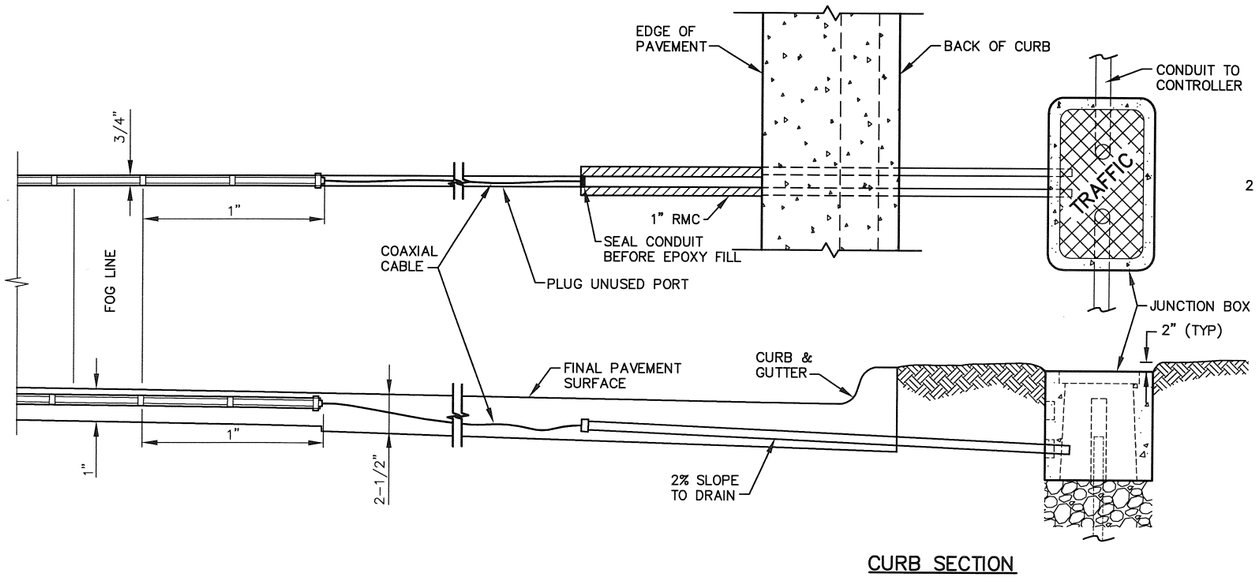
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ALASKA	NH-0211(059)/55260	2014	K9	K12



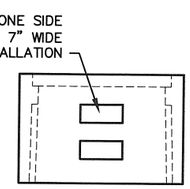
SHOULDER SECTION



SECTION A-A



CURB SECTION



SECTION B-B

TYPICAL PIEZOELECTRIC SENSOR DETAILS

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DRAFTED BY MEF

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STATE OF ALASKA
49TH
Roy N. Pace
EE 12053
REGISTERED PROFESSIONAL ENGINEER
4/2/2014

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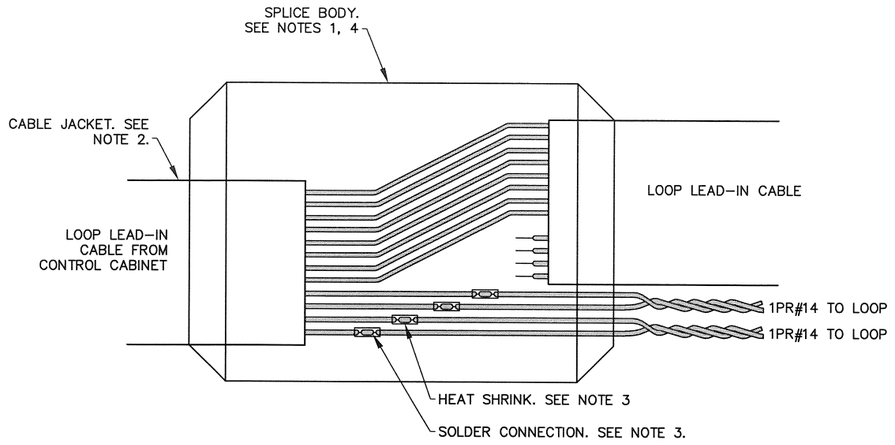
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

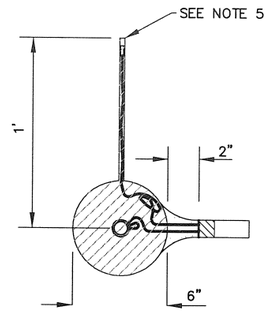
STERLING HWY:
MP 174 - 179
PAVEMENT PRESERVATION

PIEZOELECTRIC SENSOR DETAILS

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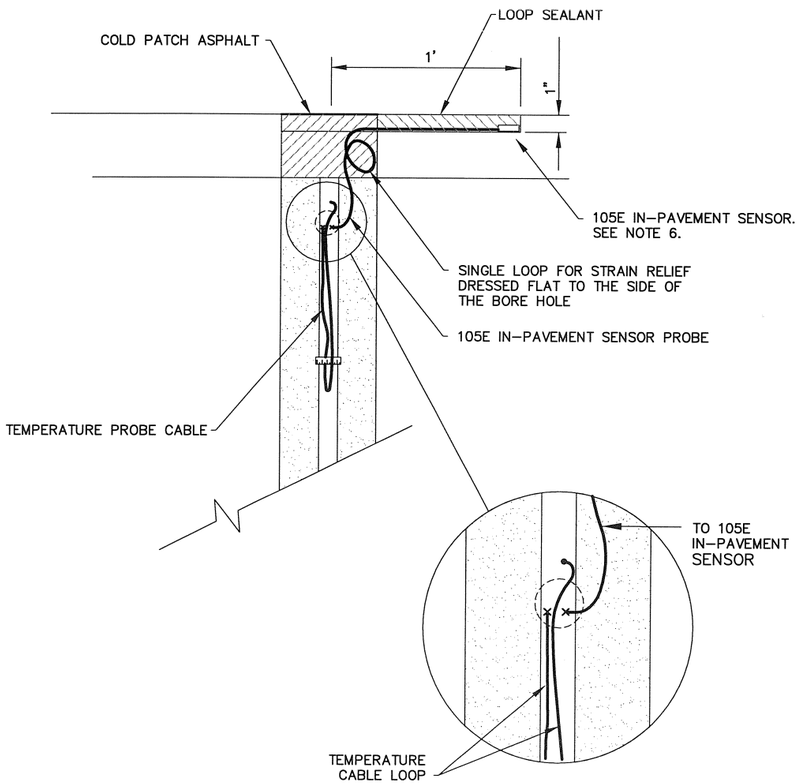
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ALASKA	NH-0211(059)/55260	2014	K10	K12



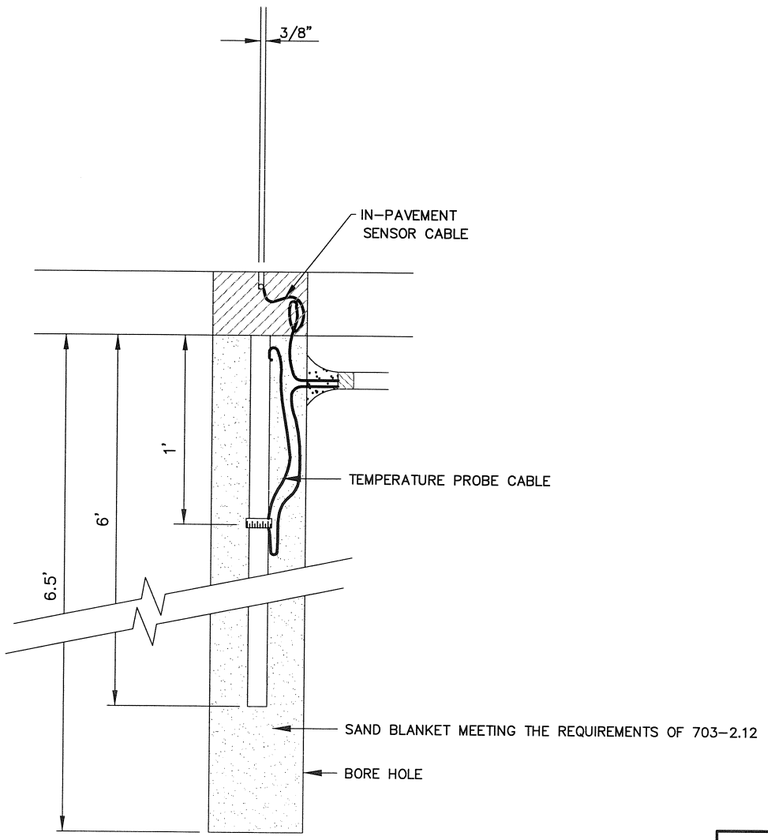


TYPICAL SPLICE DETAIL
NTS

NOTES
1. TERMINATE ALL SPARES WITHIN THE SPLICE BODY.
2. SPLICE BODY TO ENCLOSE ALL CABLE JACKETS.
3. STAGGER SPLICE POINTS. SOLDER CONNECTIONS. ENCLOSE EXPOSED CONDUCTORS IN ADHESIVE WALL HEAT SHRINK TUBING.
4. USE A NON-REENTERABLE, WET LOCATION, COMMERCIAL SPLICE KIT 3M TYPE 82-A1, 82-A2, OR APPROVED EQUAL.
5. SLOT FOR IN-PAVEMENT SENSORS SHALL BE PARALLEL TO THE DIRECTION OF TRAVELED WAY.
6. INSTALL NEW AMBIENT TEMPERATURE PROBE AND ASSOCIATED HARDWARE AS SHOWN.



TEMPERATURE SENSOR DETAILS
NTS



STATE OF ALASKA
49TH
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4/2/2014

EDC, INC

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STERLING HWY:
MP 174 - 179
PAVEMENT PRESERVATION

TEMPERATURE PROBE

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DRAFTED BY MEF

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LAYOUT
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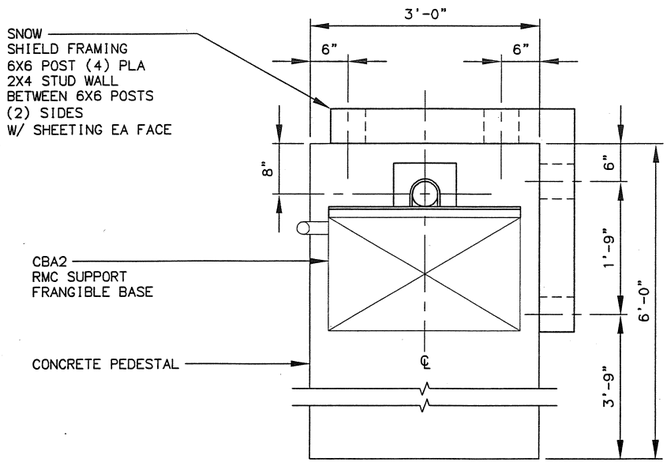
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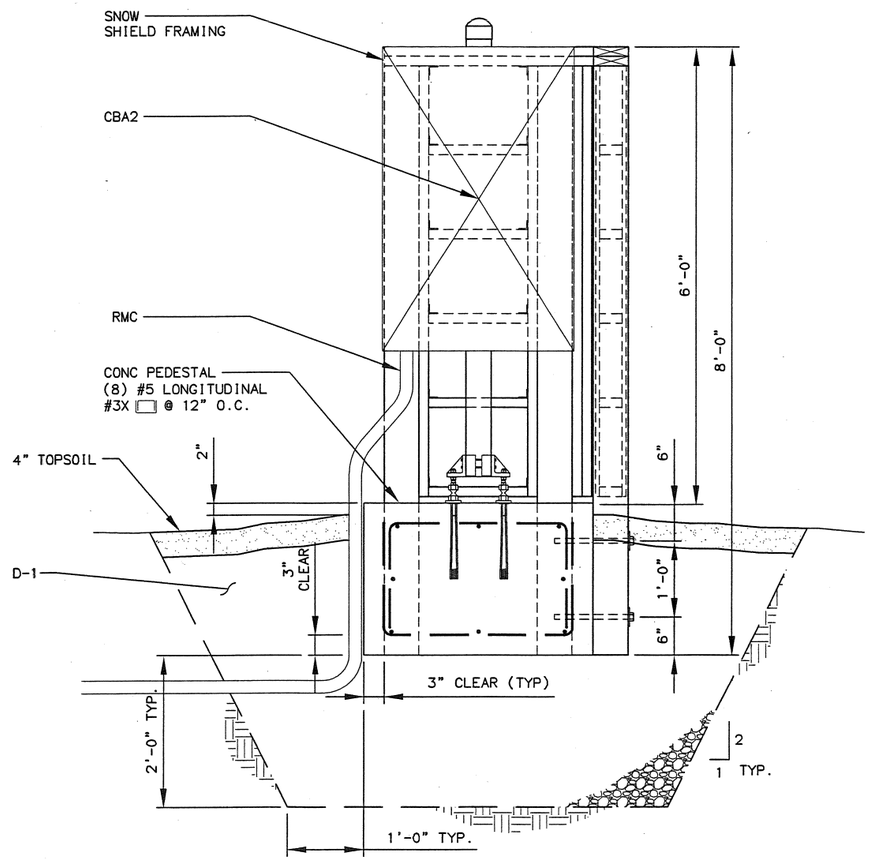
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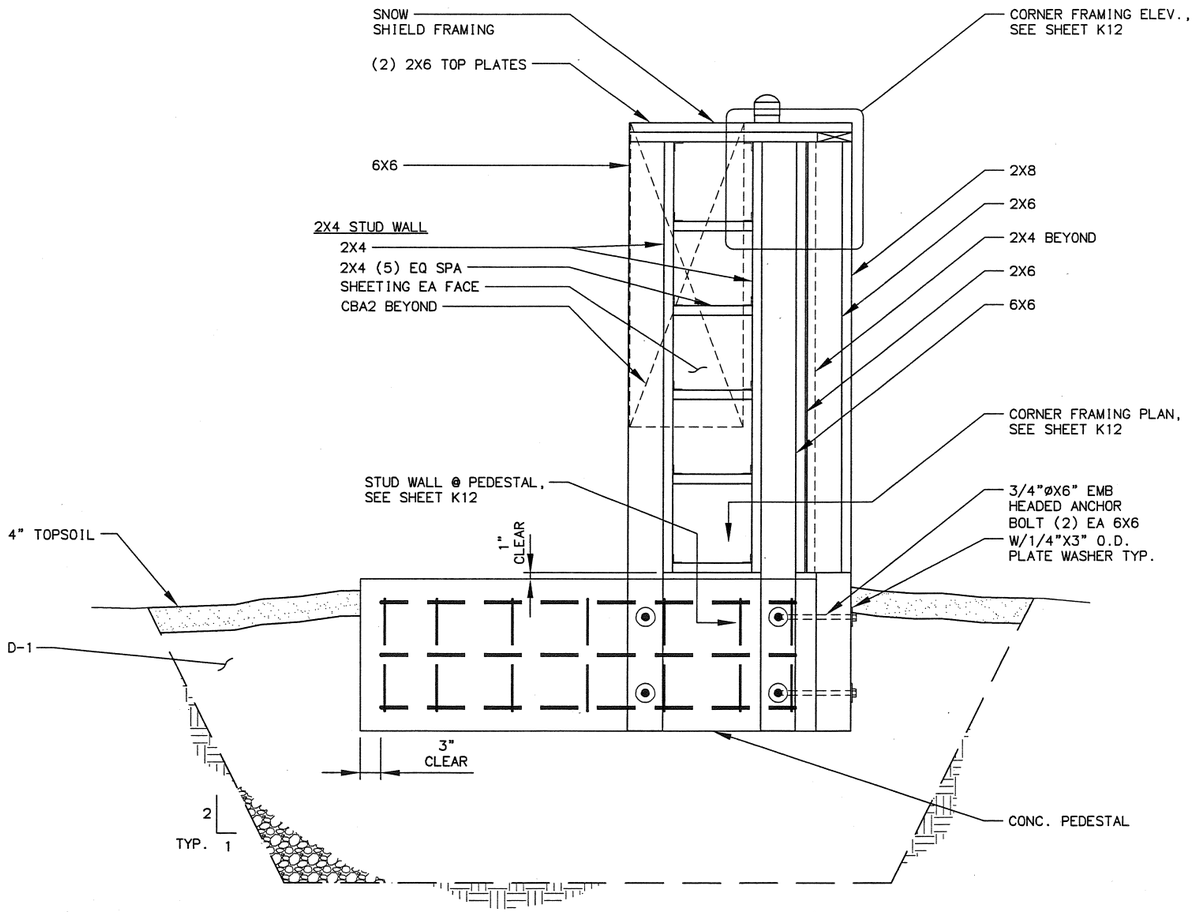
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CBA2, SNOW SHIELD & PEDESTAL - PLAN



CBA2, SNOW SHIELD & PEDESTAL - NORTH ELEVATION



CBA2, SNOW SHIELD & PEDESTAL - WEST ELEVATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

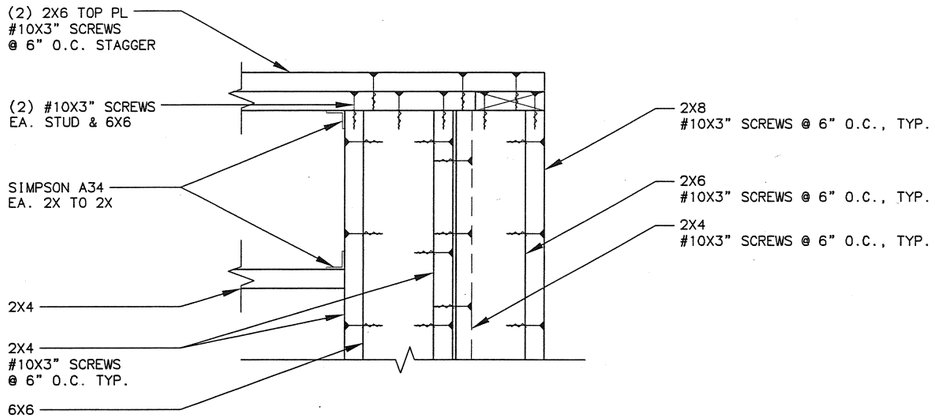
STERLING HIGHWAY:
MP 174-179
PAVEMENT PRESERVATION

CBA2, SNOW SHIELD &
PEDESTAL DETAILS

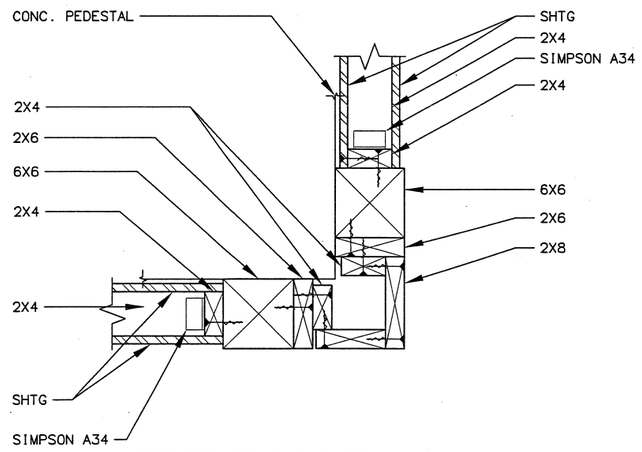
STATE OF ALASKA
49TH
FRED C. PARK
CE, 7548
REGISTERED PROFESSIONAL ENGINEER

REVISIONS		
NO.	DATE	DESCRIPTION

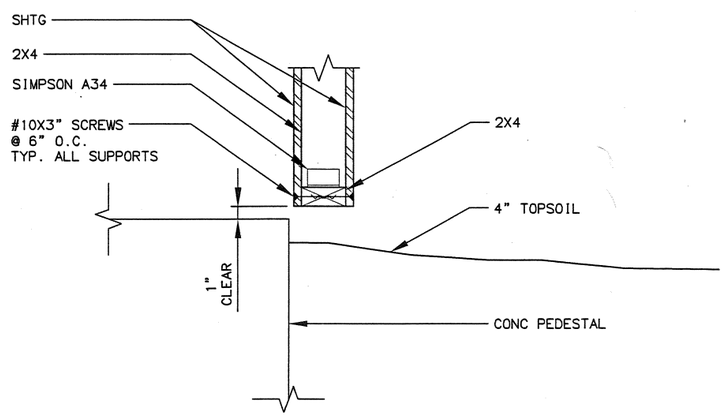
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0211(059)/55260	2014	K12	K12



CORNER FRAMING ELEVATION



CORNER FRAMING PLAN



STUD WALL @ PEDESTAL

SNOW SHIELD NOTES:

CONSTRUCTION. CONSTRUCT IN ACCORDANCE WITH THE SSHC. COORDINATE THE CONCRETE PEDESTAL PLAN AND ELEVATION AND THE CBA2 CABINET AND SUPPORT WITH THE PLANS AND SPECIFICATIONS. SUBMIT SHOP DRAWINGS AND MATERIAL CERTIFICATIONS AND RECEIVE SATISFACTORY REVIEW FROM THE ENGINEER PRIOR TO FABRICATION. PROVIDE THE ENGINEER 48 HOURS NOTIFICATION FOR INSPECTIONS.

FOUNDATION. CAST CONCRETE PEDESTAL ON D-1 AS SHOWN IN DRAWINGS. COMPACT FILL TO 95% DRY DENSITY PER ASTM D1557. BACKFILL WITH D-1 IN 1'-0" MAXIMUM LIFTS. CAP FILL WITH TOPSOIL. SEED THE TOPSOIL.

CONCRETE. CLASS A.

REINFORCING. A615.

ANCHOR BOLTS. SET ALL ANCHOR BOLTS BY TEMPLATE.
ANCHOR OPTIONS:
ANCHOR BOLTS: ASTM A307, HEADED.
DRILL-IN ADHESIVE ANCHOR SYSTEM: "HIT HY150" ADHESIVE ANCHOR SYSTEM FOR SOLID MASONRY OR BRICK, BY HILTI FASTENING SYSTEMS, OR APPROVED EQUAL. ICC CERTIFICATION REQUIRED.

STRUCTURAL SAWN LUMBER. LUMBER VISUALLY GRADED AND STAMPED PER WWPA OR WCLIB STANDARD GRADING RULES. MOISTURE CONTENT OF LUMBER 2 INCHES OR LESS IN THICKNESS, 19% MAXIMUM.

STRUCTURAL FRAMING (ALL FRAMING EXCEPT AS OTHERWISE NOTED): HEM-FIR SPECIES, NO. 2 GRADE OR BETTER.
POSTS: HEM-FIR, NO. 1 GRADE.

EXCEPT WHERE NOTED OTHERWISE, USE COMMON NAILS ONLY. USE MILD STEEL ¼" PLATE WASHERS AT ALL BOLT HEADS AND NUTS. USE NUTS THAT ARE REMOVABLE PREVENTATIVE, LOCKING TYPE. USE FRAMING HARDWARE MANUFACTURED BY SIMPSON COMPANY OR APPROVED EQUAL, FILL ALL NAIL HOLES.

STRUCTURAL SHEATHING. SHEATHING GRADE – APA GRADE TRADEMARK, 5/8 INCH PERFORMANCE CATEGORY APA RATED SIDING 303 ROUGH SAWN, 24 INCH ON CENTER, EXTERIOR, 48 INCH X 96 INCH, LAID FACE GRAIN PERPENDICULAR TO SUPPORT (LONG DIMENSION VERTICAL).

PRESERVATIVE TREATMENT. PRESERVATIVE TREAT ALL WOOD MATERIALS PER AMERICAN WOOD PRESERVER'S ASSOCIATION (AWPA) STANDARD U1 WITH PENTA IN LIGHT SOLVENTS OR WATERBORNE PRESERVATIVES AS REQUIRED FOR ABOVE GROUND AND GROUND CONTACT, MARINE SALT WATER SPLASH EXPOSURE, COLOR LIGHT BROWN/TAN (UC4B). MARK PRESERVATIVE TREATED MATERIALS BY AN APPROVED INSPECTION AGENCY CERTIFIED TO INSPECT PRESERVATIVE-TREATED WOOD INDICATING COMPLIANCE WITH THE TREATING, DRYING, RETENTION AND PENETRATION REQUIREMENTS OF APPLICABLE AWPA STANDARDS OR EQUIVALENT CODE APPROVED PRESERVATIVE-TREATING AND QUALITY CONTROL REQUIREMENTS. FIELD TREAT CUTS PER AWPA M4.

FASTENERS AND FRAMING HARDWARE. HOT DIP GALVANIZE ALL STEEL, INCLUDING NAILS, SCREWS, BOLTS/ANCHOR BOLTS, WASHERS, NUTS, AND FRAMING HARDWARE PER ASTM A123, A153, AND A653. REPAIR DAMAGED GALVANIZING PER ASTM A780.

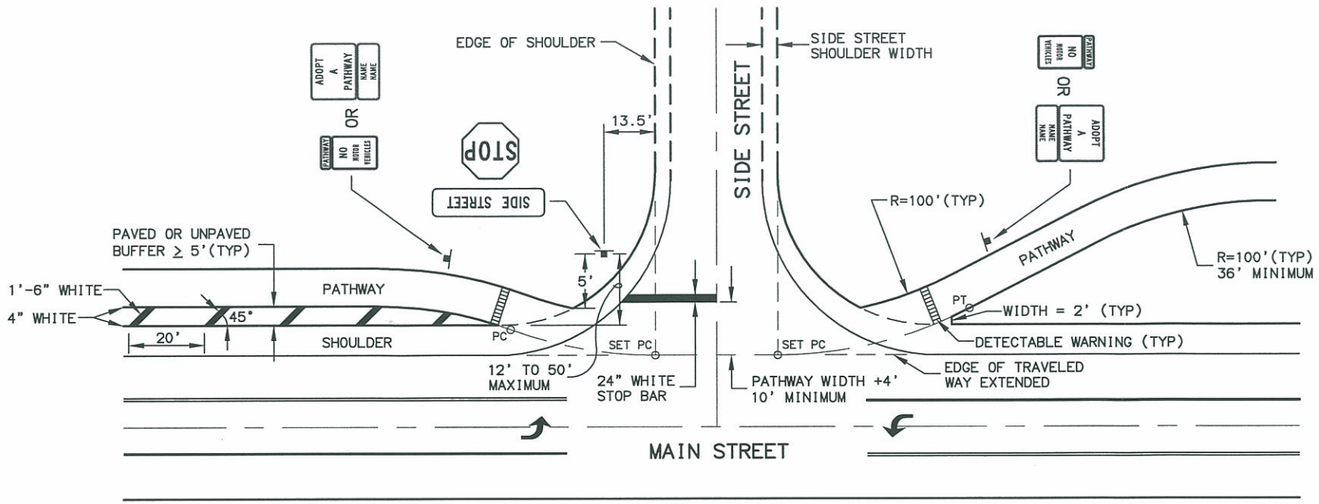
STATE OF ALASKA
FRED C. PARK
CE 7548
REGISTERED PROFESSIONAL ENGINEER
49TH

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

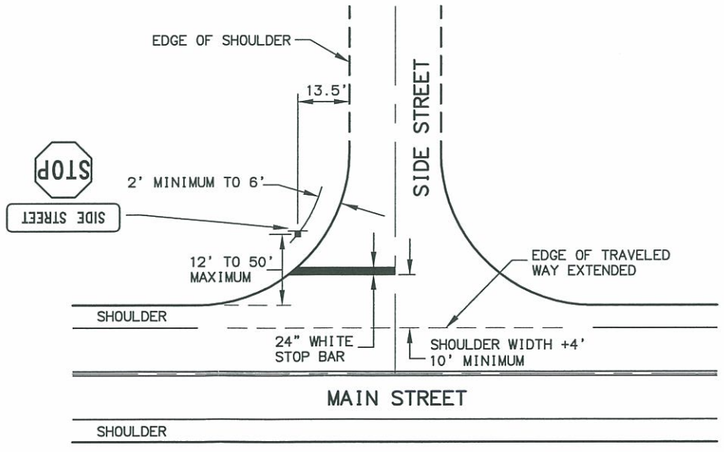
STERLING HIGHWAY:
MP 174-179
PAVEMENT PRESERVATION

CBA2, SNOW SHIELD &
PEDESTAL DETAILS

DESIGNED BY
CHECKED BY
DRAFTED BY
XREFS
SCALE
LAYOUT K12
DATE TIME 2/14/2014 3:26 PM
DRAWING LOCATION I:\1387701\Dwgs\C\Sheets\1387701_K11-K12.dwg



TYPICAL UNCURBED RETURN WITH PATHWAY



TYPICAL UNCURBED RETURN WITHOUT PATHWAY

UNCURBED INTERSECTION NOTES:

1. LOCATE STOP SIGNS SO THEY ARE:
   A) VISIBLE TO APPROACHING TRAFFIC
   B) AS NEAR TO THE STOP BAR AS PRACTICABLE.
   C) REDUCE THE STOP SIGN OFFSET TO FIT THE SIGN WITHIN THE RIGHT OF WAY.
2. AVOID JUNCTIONS BOXES, STORM DRAIN INLETS, AND MANHOLE FRAMES WITHIN THE RAMPS AND LANDINGS. ADJUST JUNCTION BOXES LOCATED WITHIN RAMPS AND LANDINGS FLUSH WITH FINISHED SURROUNDING SLOPE.
3. SEE PLANS FOR WHEN PATHWAY SIGNING IS REQUIRED AT SIDE STREETS.
4. BREAK CENTERLINE STRIPING FOR DEDICATED LEFT TURN BAYS. CONTINUE CENTERLINE STRIPING FOR CENTER TWO-WAY LEFT TURN LANES AND WHEN THERE ARE NO LEFT TURN LANES.
5. "NO MOTOR VEHICLES" SIGNS ARE NOT REQUIRED WITHIN THE MUNICIPALITY OF ANCHORAGE.
6. STOP BARS ARE NOT REQUIRED WHEN NO PATHWAY OR SIDEWALK IS PRESENT, UNLESS SHOWN IN PLANS.

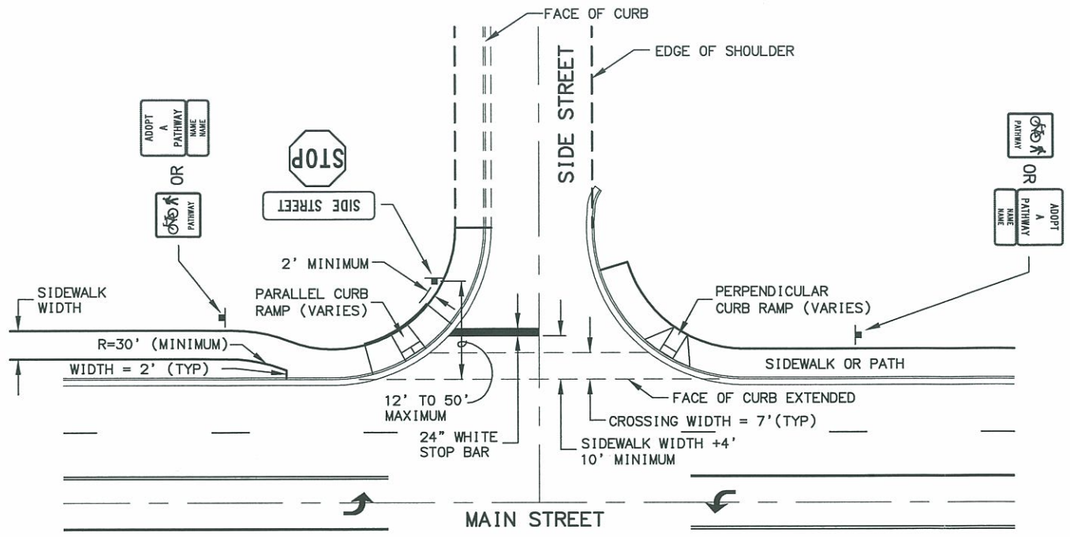
REVISIONS		
Date	Description	By
01/17/13	SHEET NUMBER & DRAWING	SET
09/16/13	NOTE 6 ADDED	SET

SHEET 1 OF 2

State of Alaska
Department of Transportation
& Public Facilities

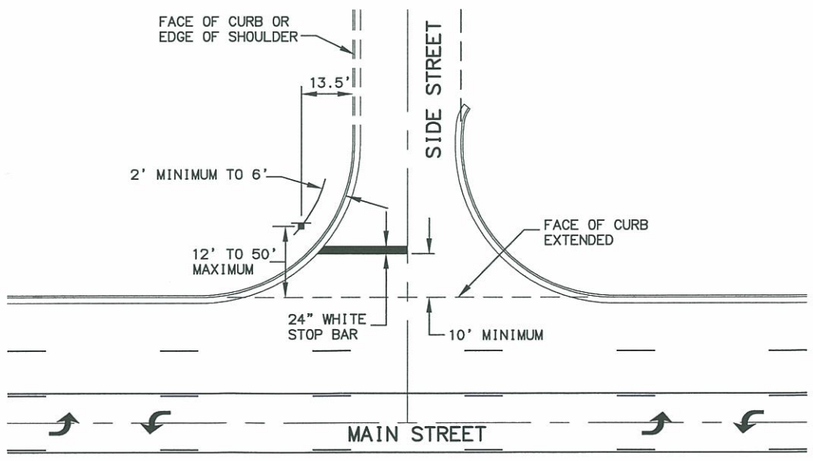
UNSIGNALIZED INTERSECTION
STOP AND CROSSING

APPROVED
STATE OF ALASKA 49TH
SCOTT E. THOMAS CE 8602
REGISTERED PROFESSIONAL ENGINEER
Date 09/16/13



TYPICAL CURBED RETURN WITH SIDEWALK

(CURB RADIUS > 20 FEET)



TYPICAL CURBED RETURN WITHOUT SIDEWALK

CURBED INTERSECTION NOTES:

1. LOCATE STOP SIGNS SO THEY ARE:
   A) VISIBLE TO APPROACHING TRAFFIC
   B) AS NEAR TO THE STOP BAR AS PRACTICABLE.
   C) REDUCE THE STOP SIGN OFFSET TO FIT THE SIGN WITHIN THE RIGHT OF WAY.
2. AVOID JUNCTION BOXES, STORM, DRAIN INLETS, AND MANHOLE FRAMES WITHIN THE RAMPS AND LANDINGS. ADJUST JUNCTION BOXES LOCATED WITHIN RAMPS AND LANDINGS FLUSH WITH THE FINISHED SURROUNDING SLOPE.
3. SEE PLANS FOR WHEN PATHWAY SIGNING IS REQUIRED AT SIDE STREETS.
4. BREAK CENTERLINE STRIPING FOR DEDICATED LEFT TURN BAYS. CONTINUE CENTERLINE STRIPING FOR CENTER TWO-WAY LEFT TURN LANES AND WHEN THERE ARE NO LEFT TURN LANES.
5. "NO MOTOR VEHICLES" SIGNS ARE NOT REQUIRED BEHIND CURB & GUTTER, UNLESS SHOWN IN PLANS.
6. STOP BARS ARE NOT REQUIRED WHEN NO PATHWAY OR SIDEWALK IS PRESENT, UNLESS SHOWN IN PLANS.

REVISIONS		
Date	Description	By
01/17/13	SHEET NUMBER AND DRAWING	SET
09/16/13	NOTES 5 & 6 ADDED	SET

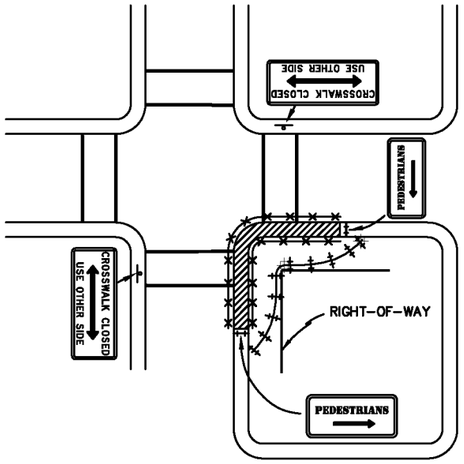
SHEET 2 OF 2

State of Alaska
Department of Transportation
& Public Facilities

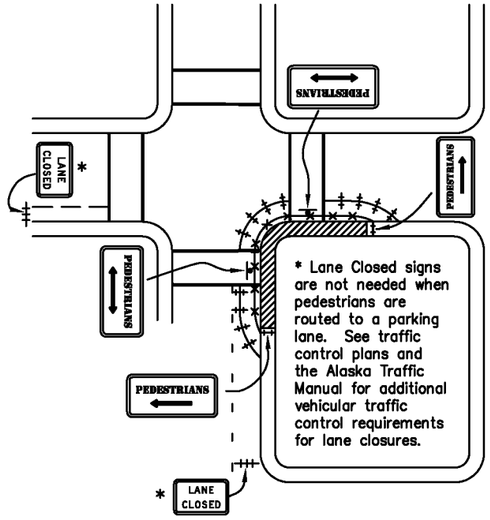
UNSIGNALIZED INTERSECTION
STOP AND CROSSING

APPROVED
STATE OF ALASKA 49TH
SCOTT E. THOMAS
CE 8602
REGISTERED PROFESSIONAL ENGINEER

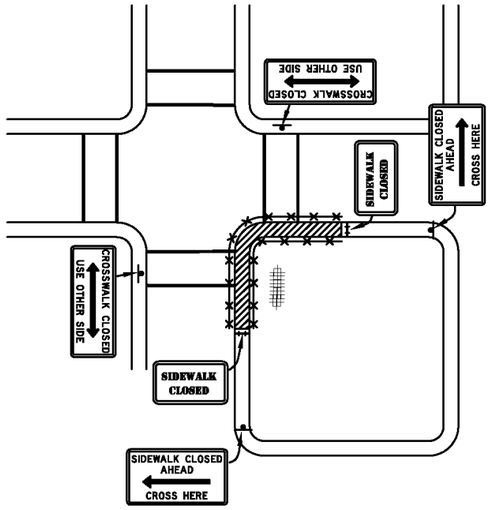
Date 09/16/13



A. Detour Away From Road



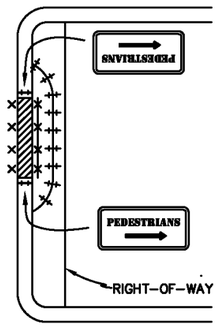
B. Detour to Closed Parking or Travel Lane



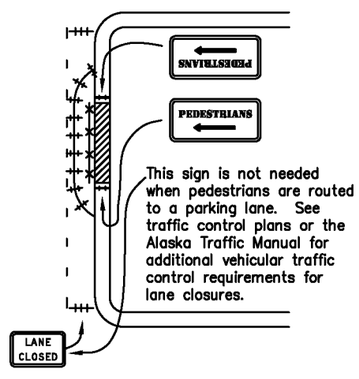
C. Detour to Other Side

INTERSECTION SIDEWALK PATHWAY OR SHOULDER CLOSURE

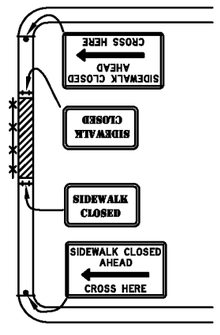
A to C In Order of Preference



D. Detour Away From Road



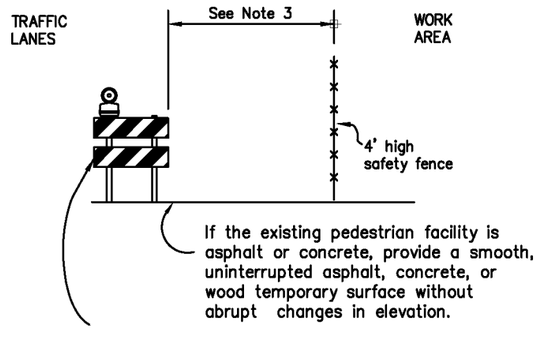
E. Detour to Closed Parking or Travel Lane



F. Detour to Other Side

MID-BLOCK SIDEWALK PATHWAY OR SHOULDER CLOSURE

D to F In Order of Preference



Type II barricades or tubular markers with flagger tape strung between them. A 4' high safety fence may be used instead of tape when greater control of pedestrian routing is desirable.

PEDESTRIAN DETOUR TYPICAL SECTION

NOTES.

1. Provide pedestrian traffic control devices when sidewalks or pathways are closed to pedestrians and where required by the Plans or Specifications.

2. Avoid routing pedestrians across roads unnecessarily. Use detail C or F only when it is not practical to use detail A, B, D, or E.

3. Maintain a minimum pedestrian facility width of 5 feet or the width of the facility that existed before construction, whichever is less.

4. Where the posted speed limit exceeds 45 MPH, separate pedestrians from roadway edge of pavement or face of curb by at least 5'. Where that is not feasible, install portable concrete barrier between pedestrians and the road.

5. When pedestrian traffic control devices required by the current traffic control plan are not in place or are temporarily removed, provide a worker to direct pedestrians through the work area.

6. Cover pedestrian traffic signal displays controlling closed crosswalks.

7. This sheet focuses on traffic control devices for pedestrians. Look elsewhere for vehicular traffic control requirements.

8. When using details C and F, route pedestrians to the best crossing point near the work area.

LEGEND:

- Type II Barricade or Tubular Marker
- Type III Barricade
- Safety Fence
- Sign
- Work Area

REVISIONS		
Date	Description	By

Sheet 1 of 1

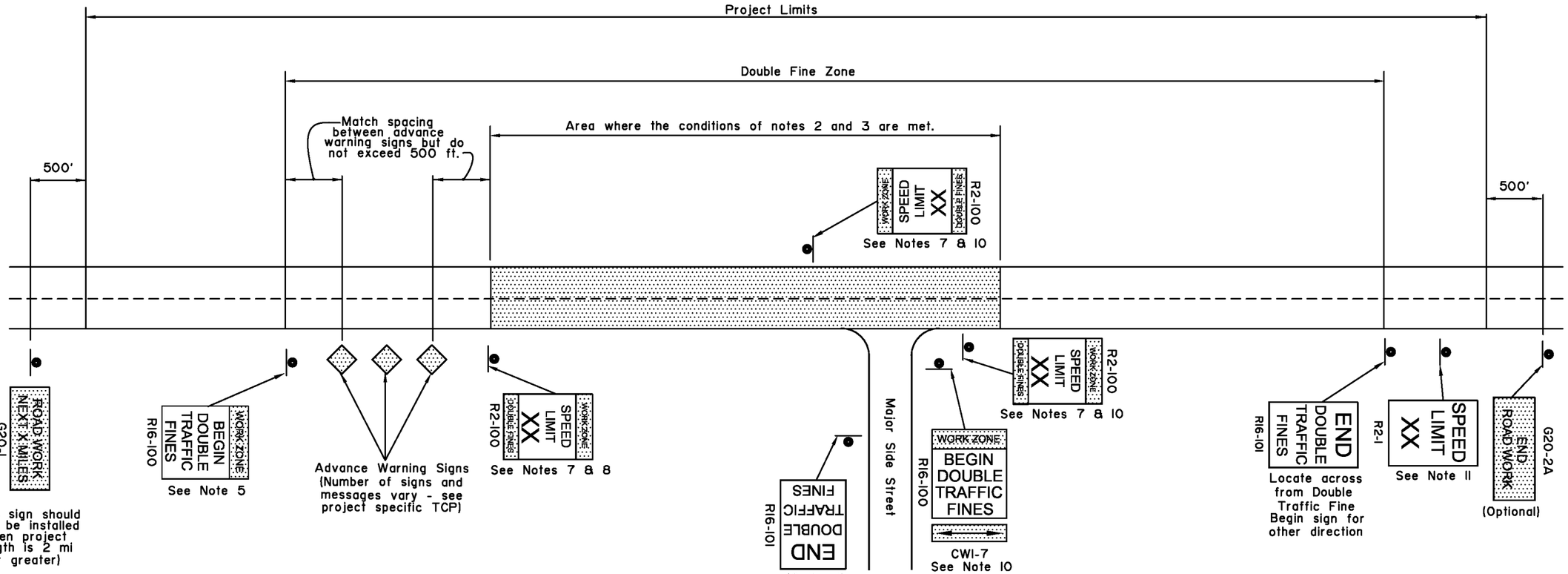
State of Alaska
Department of Transportation
& Public Facilities

PEDESTRIAN TRAFFIC CONTROL

APPROVED



Date 5/15/01



GENERAL NOTES

1. Signs are shown for one direction only (with one exception). Signs for the other direction mirror those shown.

2. Double fine signs shall be used only where one or more of the following conditions exist:
   a. Active work areas (where road workers and/or machines are presently working on or adjacent to a road)
   b. Detours on new temporary roads built for that purpose (this does not include detours on existing streets)
   c. Sections of paved roads where pavement has been removed.
   d. Roads being paved where unmatched asphalt lifts result in a vertical lip between lanes.

3. Double fine signs shall be confined to the areas where the above conditions exist, with the following exceptions:
   a. If the project is 2 miles or shorter in length, the entire project may be posted for double fines when the above conditions exist on any part of the project.
   b. When the above conditions exist at multiple locations separated by less than 2 miles, the locations and the intervening segments may be posted as a single double fine zone.

4. Double fine signs shall be removed or covered when work activity ceases for more than two days and conditions b, c, or d of note 2 are not met.

5. The R16-100 "BEGIN" sign may be used in place of the first advance warning sign. However, when this is done, the appropriate advance warning sign must be reinstalled when the double fine sign is taken down or covered.

6. When a double fine zone is longer than 2 miles, work zone speed limit signs shall be posted at spacings not greater than 2 miles within the double fine zone.

7. "Work zone speed limit signs", as used here, refer either to 1) R2-100 signs or 2) standard R2-1 regulatory speed limit signs with CW20-102 "DOUBLE FINES" plates mounted below.

8. The limit shown on work zone speed limit signs shall be either the existing limit before construction or, if a work zone speed limit order has been approved in accordance with ADOT&PF Procedure 05.05.020 PDR, a reduced limit.

9. All existing regulatory speed limit signs within double fine zones shall either be replaced with R2-100 signs or supplemented with CW20-102 plates.

10. Signs shall be installed at major intersections within the double fine zone to warn entering drivers of double fines. This may be done with a R16-100 sign with a CWI-7 arrow panel on the side street or with two work zone speed limit signs on the main street on either side of the intersection. Use of R16-100 signs on side streets eliminates the need for "Road Work Ahead" signs on those streets. If the speed limit has been reduced, the two work zone speed limit signs are mandatory.

11. At the end of each double fine zone, install an R2-1 sign showing the speed limit for the road beyond the double fine zone.

REVISIONS		
Date	Description	By
6/11/99	Revised Notes	KJS
2/28/03	Rev. Notes & Sign No's	KJS

State of Alaska
Department of Transportation
& Public Facilities

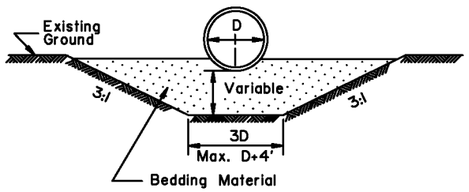
LOCATION OF DOUBLE TRAFFIC FINE SIGNS

APPROVED
Date 3/31/99

C-04.12

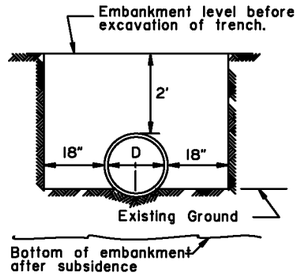
D-01.02

SHEET 1 of 1

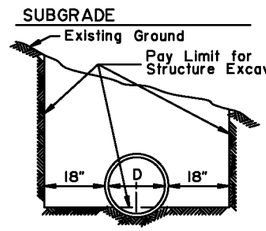


TYPE "A"
FOUNDATION STABILIZATION

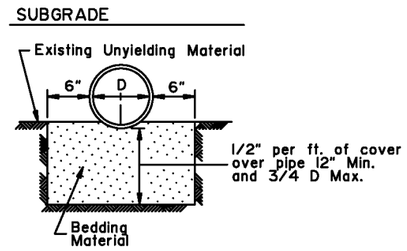
To be used in unstable areas as directed by the Engineer.



TYPE "B"



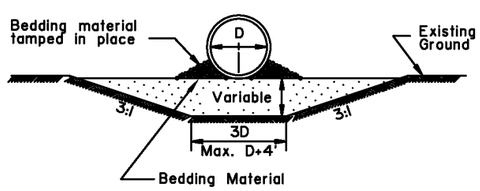
TYPE "C"



TYPE "D"
ROCK OR UNYIELDING MATERIAL

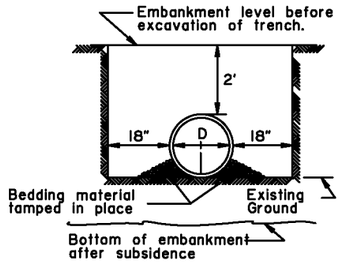
GENERAL NOTES:

1. Sidefill shall be placed and compacted with care under haunches of pipe and shall be brought up evenly and simultaneously on both sides of pipe to 1 foot above the top of the full length of the pipe.
2. Alternate installation methods may only be used when specified or approved by the Engineer.

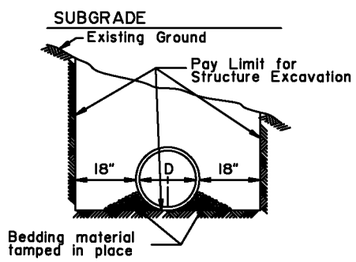


'ALTERNATE'
TYPE "A"
FOUNDATION STABILIZATION

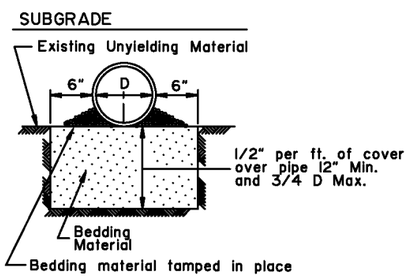
To be used in unstable areas as directed by the Engineer.



'ALTERNATE'
TYPE "B"

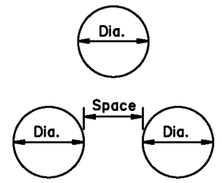


'ALTERNATE'
TYPE "C"



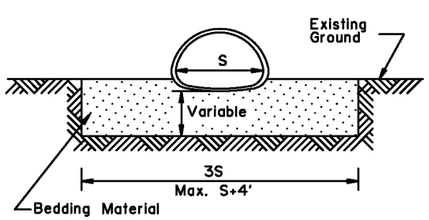
'ALTERNATE' TYPE "D"
ROCK OR UNYIELDING MATERIAL

D = Nominal Pipe Diameter



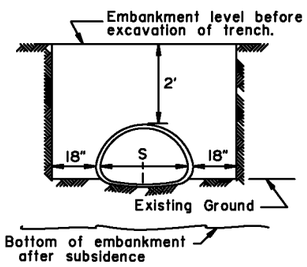
MULTIPLE INSTALLATIONS	
Dia.	Minimum Space Between Pipes
0" - 42"	24"
48" & Over	1/2 Dia. of pipe or 3', whichever is less.

CULVERT PIPE

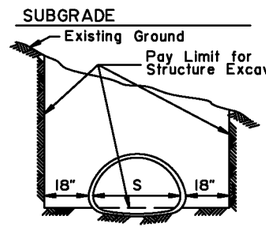


TYPE "A"
FOUNDATION STABILIZATION

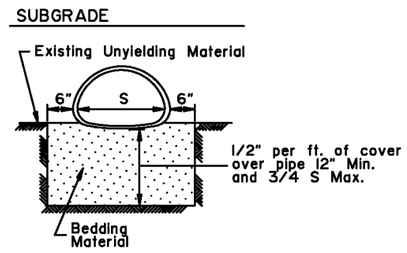
To be used in unstable areas as directed by the Engineer.



TYPE "B"

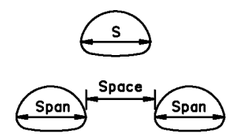


TYPE "C"



TYPE "D"
ROCK OR UNYIELDING MATERIAL

S = Nominal Pipe Arch Span



MULTIPLE INSTALLATIONS	
Dia.	Minimum Space Between Pipes
0" - 42"	24"
48" & Over	1/2 Span of pipe arch or 3', whichever is less.

ARCH

REVISIONS		
Date	Description	By
12/1/87	Delete ref. to Specs.	Gdo
4/1/93	Delete Alt. Arch	Gdo

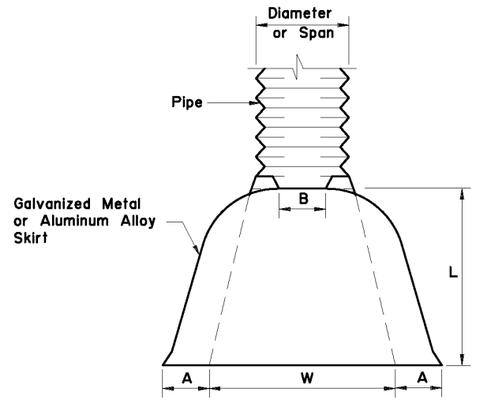
State of Alaska
Department of Transportation & Public Facilities

CULVERT PIPE & ARCH INSTALLATION DETAILS

APPROVED
Date 7/15/82

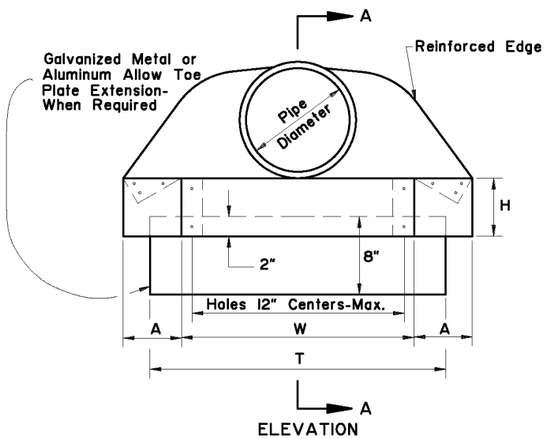
D-01.02

D-06.10



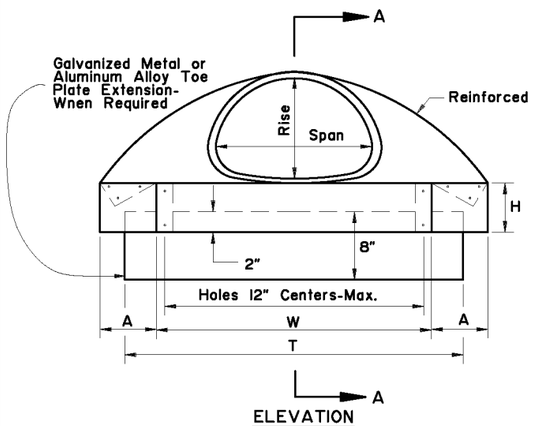
PLAN

ROUND AND PIPE ARCH



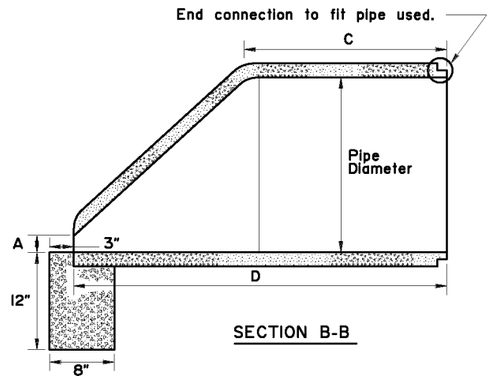
ELEVATION

ROUND PIPE



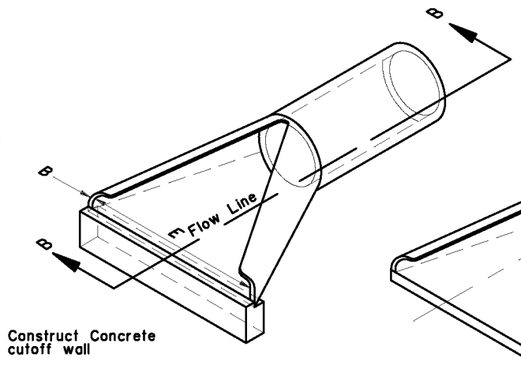
ELEVATION

PIPE ARCH

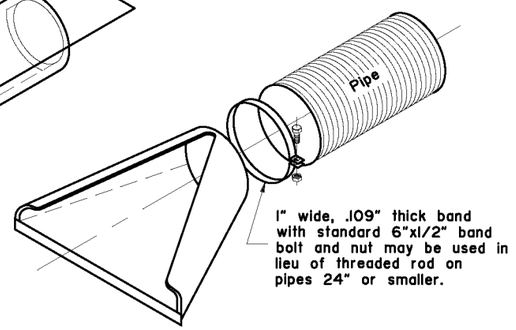


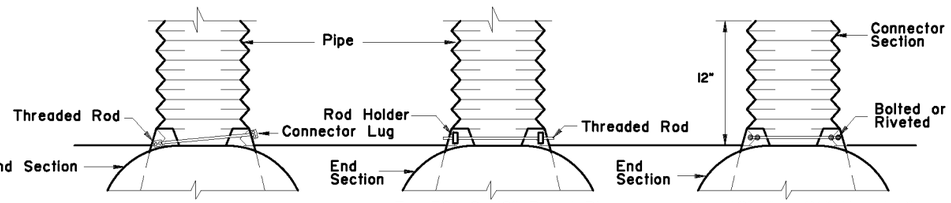
SECTION B-B

MINIMUM DIMENSIONS					
Pipe Diameter	A	B	C	D	E
12"	4"	1 3/4"	24"	46"	24"
18"	9"	2"	25"	50"	36"
24"	9 1/2"	2 1/2"	30"	72"	48"
30"	12"	3"	20"	73"	60"
36"	15"	3 3/8"	35"	97"	72"
42"	21"	3 3/4"	35"	98"	78"
48"	24"	4 1/4"	26"	98"	84"
54"	27"	4 5/8"	33"	99"	82"



PRECAST CONCRETE END SECTION



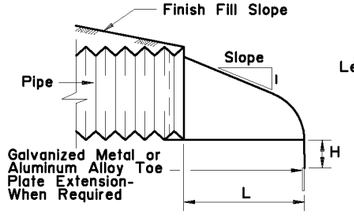


For 12" thru 24" Round Pipe with Annular Corrugations

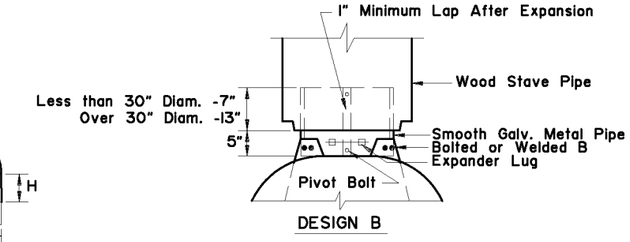
For 30" & 36" Round Pipe and 18"x11" thru 58"x36" Pipe Arch with Annular Corrugations.

For 42" thru 84" Round Pipe and 65"x40" thru 85"x54" Pipe Arch with Annular Corrugations and All Helically Corrugated Pipe and Pipe Arch.

DESIGN A



SECTION A-A



DESIGN B

METAL END SECTION CONNECTED TO WOOD STAVE PIPE

ROUND PIPE									
Pipe Diam. Inches	Thickness For Aluminum	Thk. for Galv. Metal	Dimension Inches A 1" Tol.	B Max.	H 1" Tol.	L 1 1/2" Tol.	W 2" Tol.	T 2" Tol.	Skirt	Approx. Slope
12"	0.060	0.064	6"	6"	6"	21"	24"	34"	1 Pc.	2 1/2
15"	0.060	0.064	7"	8"	6"	26"	30"	40"	1 Pc.	2 1/2
18"	0.060	0.064	8"	10"	6"	31"	36"	46"	1 Pc.	2 1/2
21"	0.060	0.064	9"	12"	6"	36"	42"	52"	1 Pc.	2 1/2
24"	0.075	0.064	10"	13"	6"	41"	48"	58"	1 Pc.	2 1/2
30"	0.075	0.079	12"	16"	8"	51"	60"	70"	1 Pc.	2 1/2
36"	0.105	0.079	14"	19"	9"	60"	72"	94"	2 Pc.	2 1/2
42"	0.105	0.109	16"	22"	11"	69"	84"	106"	2 Pc.	2 1/2
48"	0.105	0.109	18"	27"	12"	78"	90"	112"	2 Pc.	2 1/4
54"	0.105	0.109	18"	30"	12"	84"	102"	122"	2 Pc.	2 1/4
60"	0.135	0.109	18"	33"	12"	87"	114"	134"	3 Pc.	2 1/4
66"	0.135	0.109	18"	36"	12"	87"	120"	142"	3 Pc.	2 1/4
72"	0.135	0.109	18"	39"	12"	87"	126"	146"	3 Pc.	2 1/4
78"	— —	0.109	18"	42"	12"	87"	132"	152"	3 Pc.	1 1/4
84"	— —	0.109	18"	45"	12"	87"	138"	158"	3 Pc.	1 1/6

PIPE-ARCH											
Pipe-Arch Dimension Inches		Thickness for Aluminum	Thk. for Galv. Metal	Dimension Inches A 1" Tol.	B Max.	H 1" Tol.	L 1 1/2" Tol.	W 2" Tol.	T 2" Tol.	Skirt	Approx. Slope
Span	Rise										
17"	13"	0.060	0.064	7"	9"	6"	19"	30"	40"	1 Pc.	2 1/2
21"	15"	0.060	0.064	7"	10"	6"	23"	36"	46"	1 Pc.	2 1/2
24"	18"	0.060	0.064	8"	12"	6"	28"	42"	52"	1 Pc.	2 1/2
28"	20"	0.075	0.064	9"	14"	6"	32"	48"	58"	1 Pc.	2 1/2
35"	24"	0.075	0.079	10"	16"	6"	39"	60"	70"	1 Pc.	2 1/2
42"	29"	0.105	0.079	12"	18"	8"	46"	75"	85"	1 Pc.	2 1/2
49"	33"	0.105	0.109	13"	21"	9"	53"	85"	103"	2 Pc.	2 1/2
57"	38"	0.105	0.109	18"	26"	12"	63"	90"	114"	2 Pc.	2 1/2
64"	43"	0.105	0.109	18"	30"	12"	70"	102"	130"	2 Pc.	2 1/4
71"	47"	0.135	0.109	18"	33"	12"	77"	114"	144"	3 Pc.	2 1/4
77"	52"	0.135	0.109	18"	36"	12"	84"	120"	158"	3 Pc.	2 1/4
83"	57"	0.135	0.109	18"	39"	12"	90"	126"	170"	3 Pc.	2 1/4

GENERAL NOTES:

1. Toe plate extensions will be required only when provided for on the plans. When required, the toe plate extensions shall be punched with holes to match those in lip of skirt and fastened with 3/8 inch or larger galvanized nuts and bolts and shall be the same gage as the end section.
2. Galvanized Metal or Aluminum Alloy End Sections may be used on Wood Stave and Plastic Pipe.
3. All 3 piece bodies shall have 12 gage sides and 10 gage center panels. Multiple panel bodies shall have lap seams which are to be tightly joined by 3/8" galvanized rivets or bolts.

REVISIONS		
Date	Description	By
3/1/83	Arch Dimensions	WJF/HK
8/10/00	Note 2	DFD

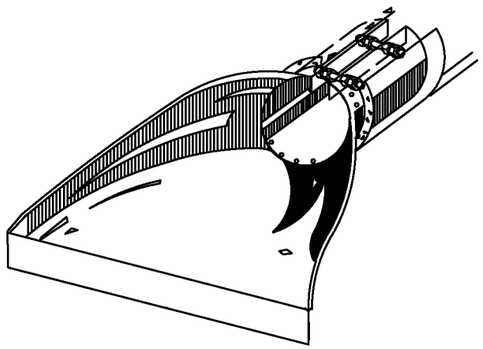
Sheet 1 of 3

State of Alaska
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& Public Facilities

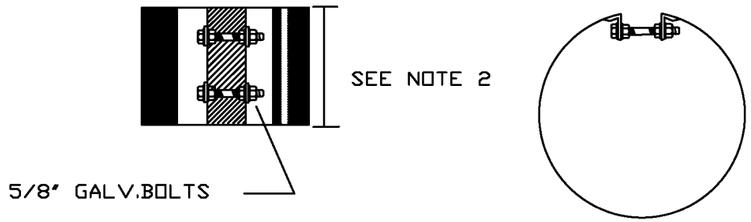
CULVERT END SECTIONS

APPROVED
Date 7/15/82

D-06.10



FOR CONNECTING CONCRETE PIPE OR CORRUGATED POLYETHYLENE PIPE TO METAL END SECTION.



GENERAL NOTES

1. See general notes on sheet 1 of 3.
2. See sheet 1 of 3 for metal end section dimensions.
3. Insert bolts, washers and rivets shall be galvanized. Insert thickness is the same as the end section.
4. Use culvert inserts only at inlet.

METAL INSERTS FOR USE WITH CORRUGATED PLASTIC PIPE AND METAL END SECTIONS

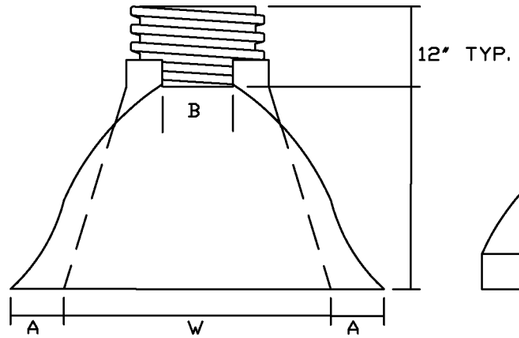
REVISIONS		
Date	Description	By

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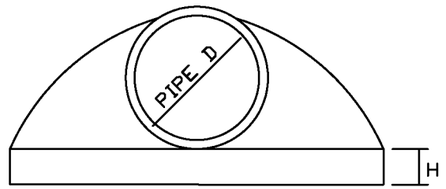
CULVERT END SECTIONS

APPROVED
Date 5/15/01

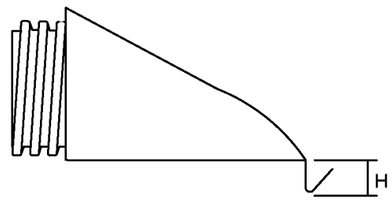
D-06.10



TOP VIEW



END VIEW



SIDE VIEW

PIPE DIAMETER	DIMENSIONS IN MILLIMETERS				
	A(1"±)	B MAX	H(1"±)	L(1/2"±)	W(2"±)
12" and 15"	6 1/2"	10"	6 1/2"	25"	29"
18"	7 1/2"	15"	6 1/2"	32"	35"
24"	7 1/2"	18"	6 1/2"	36"	45"
30"	10 1/2"	N/A	7"	53"	68"
36"	10 1/2"	N/A	7"	53"	68"

PLASTIC END SECTION FOR CORRUGATED PLASTIC PIPE

GENERAL NOTES

1. Plastic flared end sections may be used with HDPE corrugated culvert pipes where noted in project plans or approved by project engineer.
2. Consult manufacturer's recommendations for proper sizing and coupling devices. Recommended fasteners may include connecting bands or cinch ties. Fittings across dimension B may include threaded rods with wing nuts or bolts and washers. plastic welds may be recommended.
3. Align coupling to accomodate pipe corrugations.
4. Metal components e.g. bolts or washers must be galvanized.
5. Attachment of end section should preserve culvert alignment and not impair pipe function. Use end sections only on culvert inlet.
6. Toe plate extensions will be required only when designated on the plans.
7. End sections will not be used on HDPE culvert pipes larger than 36" unless indicated by project plans or approved by the Engineer.

REVISIONS		
Date	Description	By

Sheet 3 of 3

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CULVERT END SECTIONS

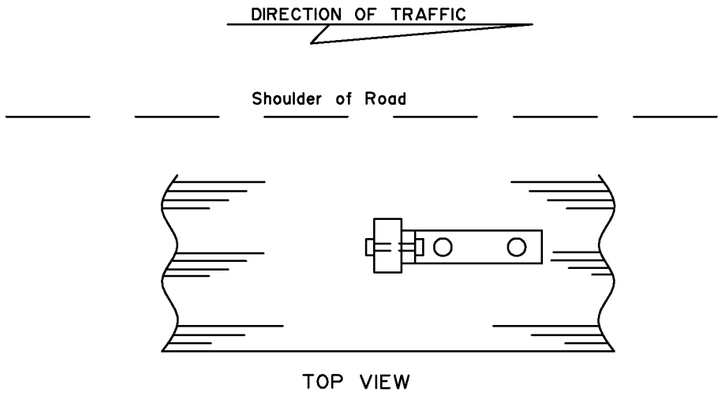
APPROVED

Date 5/15/01

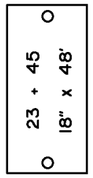
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D-09.00

SHEET | of |



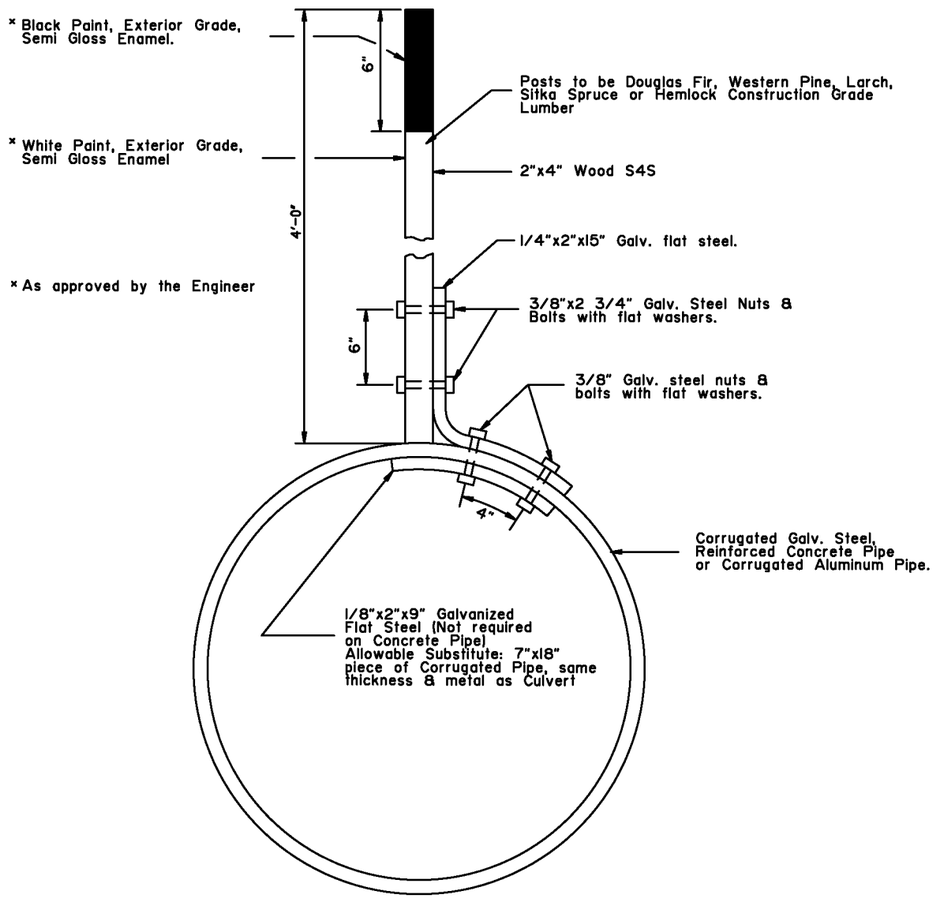
TOP VIEW



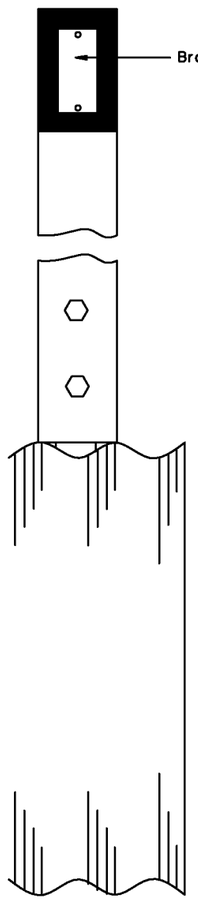
Sta. and size of Culvert to be stamped into a 2"x4"x0.064" thick brass plate, fastened, with No. 8 round head brass screws, to the marker post as shown. Plate to be on side of post facing traffic.

GENERAL NOTES:

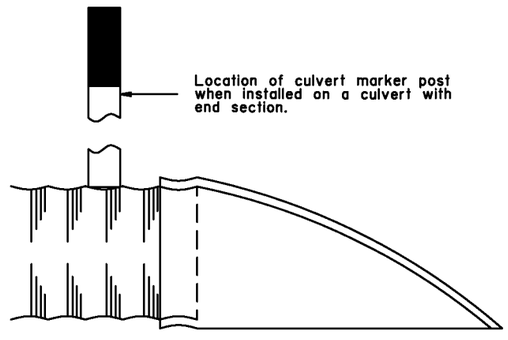
1. Culvert marker post shall be installed with galvanized steel hardware meeting the following requirements: Galvanizing for nuts and washers shall meet the requirements of ASTM A-153, Class C. Galvanizing for steel mounting supports shall meet the requirements of MIL-P-26915A, or ASTM A-153, Class C.



END VIEW



SIDE VIEW



END SECTION SIDE VIEW

REVISIONS		
Date	Description	By

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CULVERT MARKER POST

APPROVED

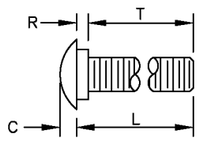
Date 7/15/82

D-09.00

G-00.02

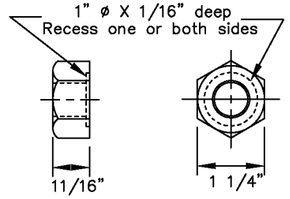
GENERAL NOTES:

1. All covered hardware shall comply with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware", latest edition.

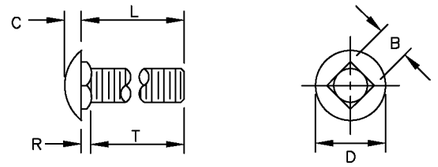


B	C	D	L (Length)	R	T (Thread Length)
15/16"	5/16"	1 5/16" or 1 7/16"	As Required	7/32"	As Required

5/8" BUTTONHEAD BOLT

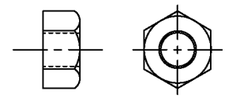


5/8" Dia. RECESSED HEX NUT

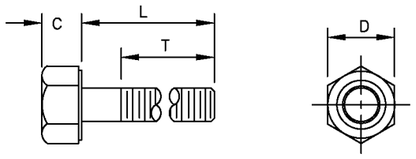


B	C	D	L (Length)	R	T (Thread Length)
5/8"	5/16"	1 5/16"	As Required	3/16"	As Required

5/8" Dia. CARRIAGE BOLT

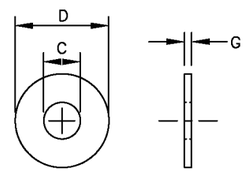


STANDARD HEX NUT



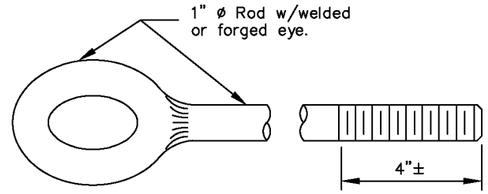
Bolt Size	C	D	L (Length)	T (Thread Length)
5/16"	——	——	1 1/2"	7/8"
5/16"	——	——	1"	1"
3/8"	——	——	7 1/2"	1 1/2"
1/2"	——	——	1 1/2"	1 1/2"
1/2"	——	——	1 1/4"	1 1/4"
5/8" H.S.	5/16"	7/8"	8"	1 1/2"
5/8"–11	——	——	1 1/2"	1 1/2"
3/4"	——	——	1 1/2"	1 1/2"
3/4"	——	——	As Required	2"
3/4" H.S.	15/32"	1 1/4"	2"	1 1/2"

STANDARD HEX BOLTS

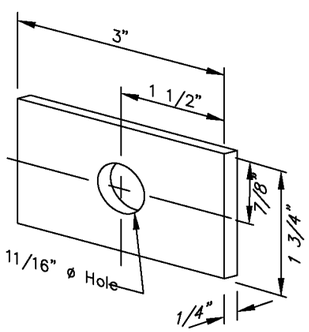


For Bolt ø	C	D	G
3/8"	7/16"	1"	5/64"
1/2"	17/32"	1 1/16"	3/32"
1/2" H.S.	17/32"	1 1/16"	3/32"
5/8"	11/16"	1 3/4"	9/64"
3/4"	13/16"	1 15/32"	9/64"
3/4" H.S.	13/16"	2"	5/32"
1"	1 1/16"	2"	9/64"

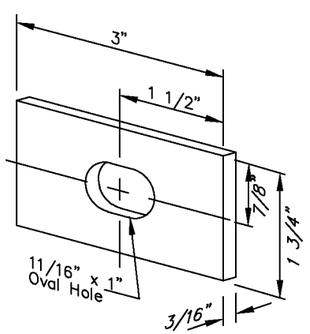
STANDARD STEEL WASHERS



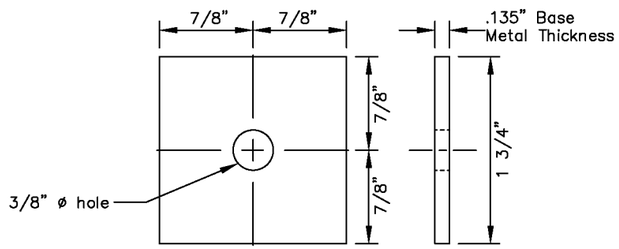
EYE BOLT



FLAT PLATE WASHER



RECTANGULAR POST BOLT WASHER



SQUARE STEEL WASHER

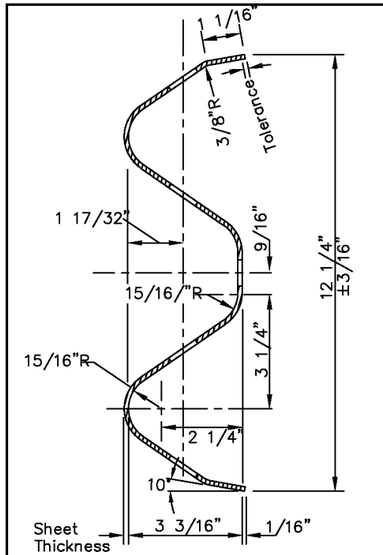
REVISIONS		
Date	Description	By
3/15/99	Delete BCT Hardware	KJS

State of Alaska
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& Public Facilities

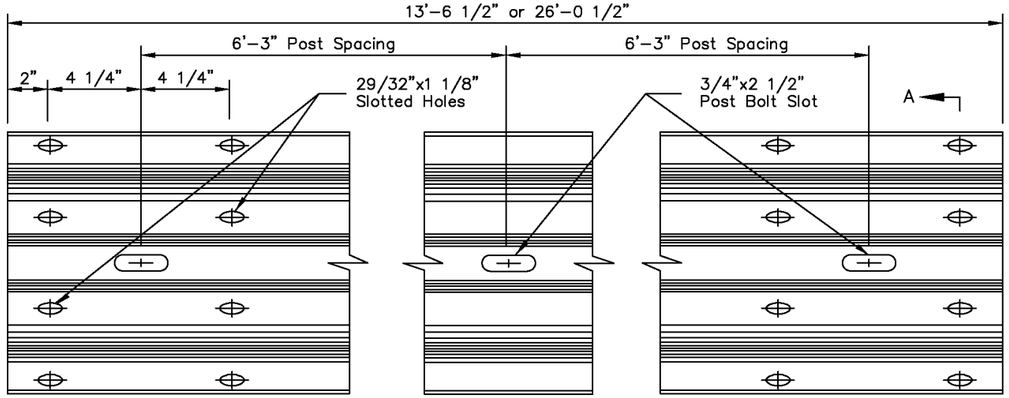
STANDARD GUARDRAIL HARDWARE
(NUTS, BOLTS, WASHERS)

APPROVED
Date 5/31/12

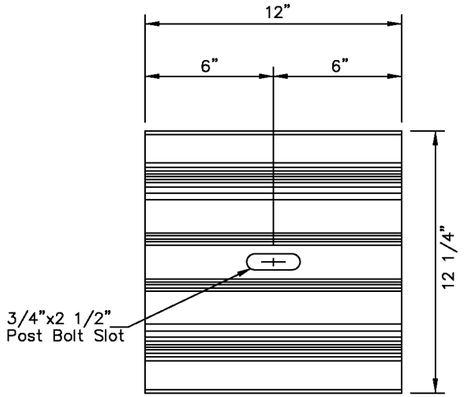
G-00.02



SECTION A–A



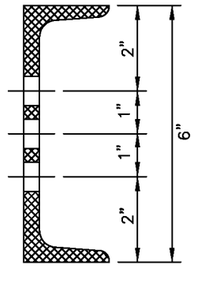
STANDARD W–BEAM PANEL



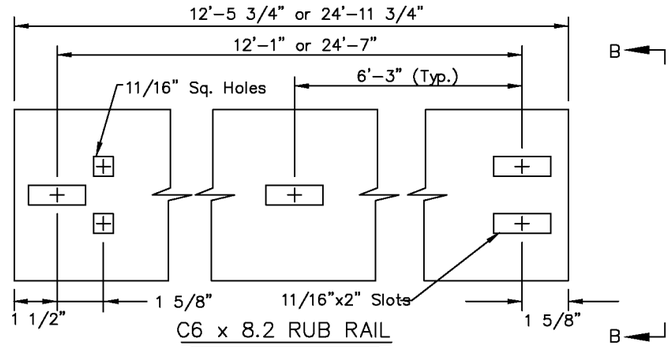
W–BEAM BACKUP PLATE

GENERAL NOTES:

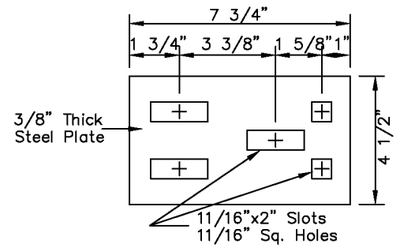
1. Provide hardware compliant with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware, latest edition.
2. Install back–up plates between blockouts and w–beam or thrie–beam rail at intermediate (non–splice) posts when steel blockouts are used but not with wood, rubber, plastic, or other approved blockouts.
3. Provide Thrie beam and W–beam compliant with AASHTO M180A. Use 12 gauge (0.105") thick steel for both.



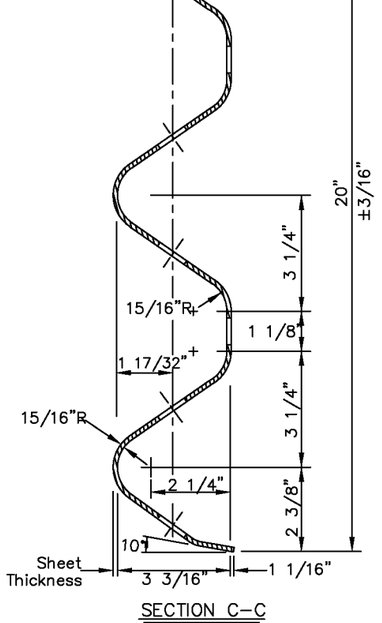
SECTION B–B



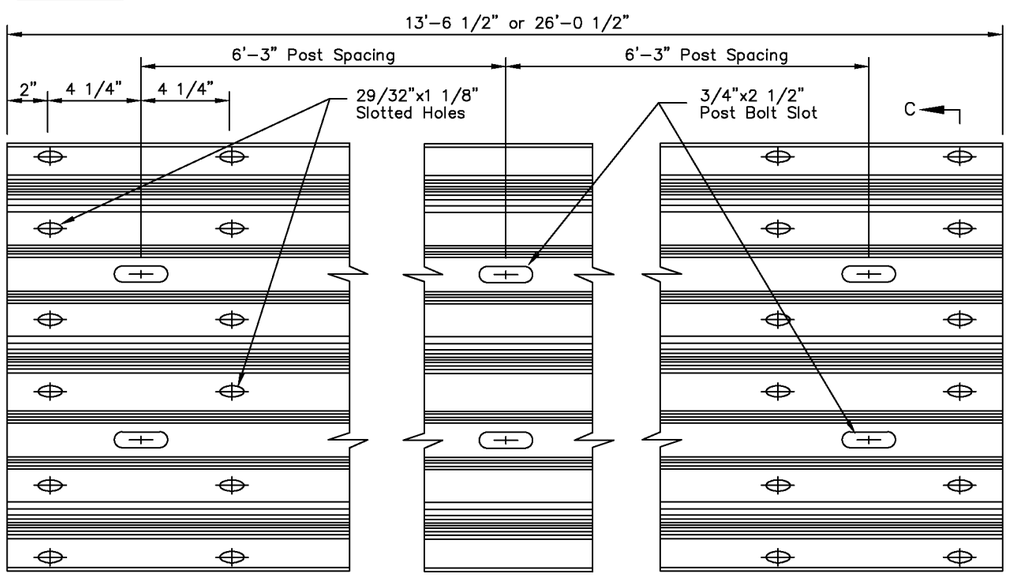
C6 x 8.2 RUB RAIL
ASTM A36 STEEL



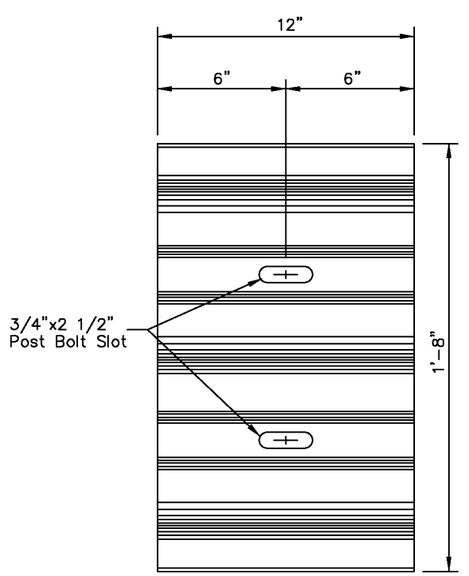
SPLICE PLATE
ASTM A36 STEEL



SECTION C–C



STANDARD THRIE BEAM PANEL



THRIE BEAM BACKUP PLATE

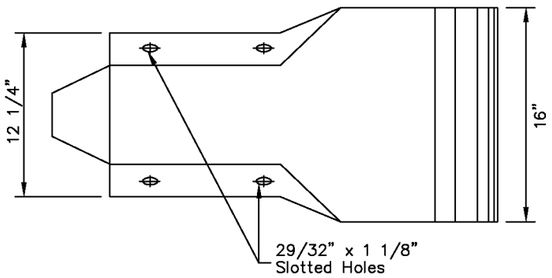
REVISIONS		
Date	Description	By
4/28/10	Revise General Notes	KJS

State of Alaska
Department of Transportation
& Public Facilities

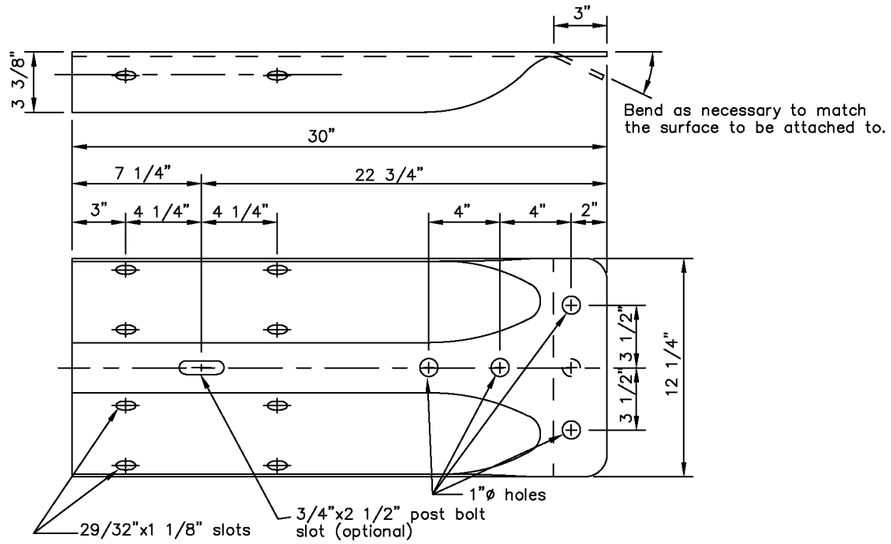
STANDARD GUARDRAIL HARDWARE (RAILS AND SPLICES)

APPROVED
49TH STATE OF ALASKA
Kurtis J. Smith
CE–7347
4/28/10
Date 5/31/12

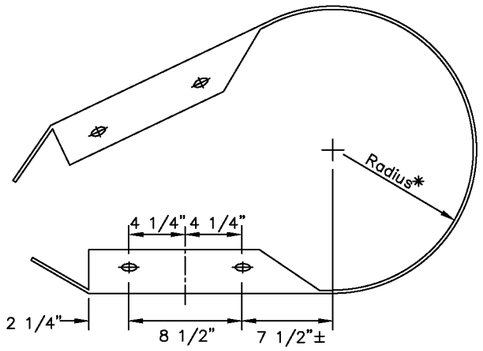
G–00.02



PROFILE



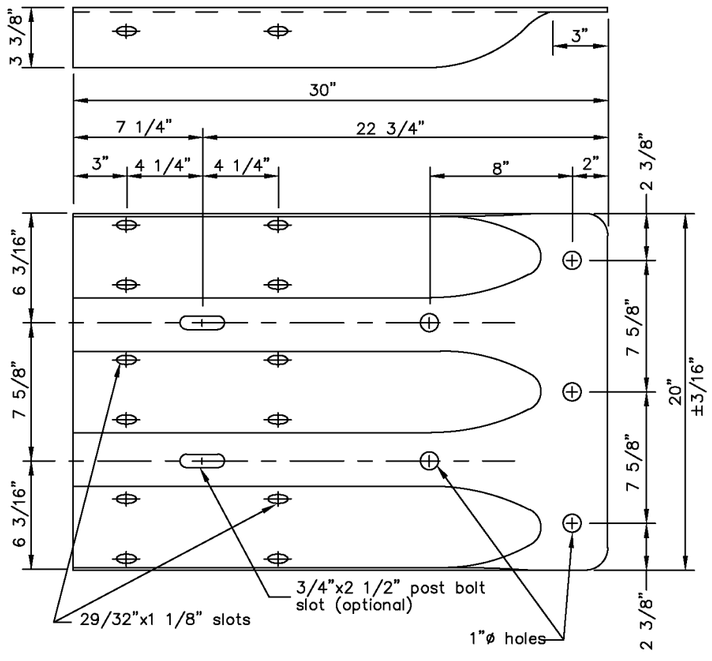
STANDARD W-BEAM TERMINAL CONNECTOR



W-BEAM PLAN VIEW

*Radius to be specified on the plans

STANDARD W-BEAM END SECTION



STANDARD THRIE BEAM TERMINAL CONNECTOR

GENERAL NOTES:

1. W-Beam and Thrie Beam Terminal Connectors shall conform to AASHTO M180, Class B, Type 2.
2. W-Beam end sections shall conform to AASHTO M180, Class A, Type 2.
3. All covered hardware shall comply with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware", latest edition.

REVISIONS		
Date	Description	By
3/15/99	Delete Thrie End Sect.	KJS

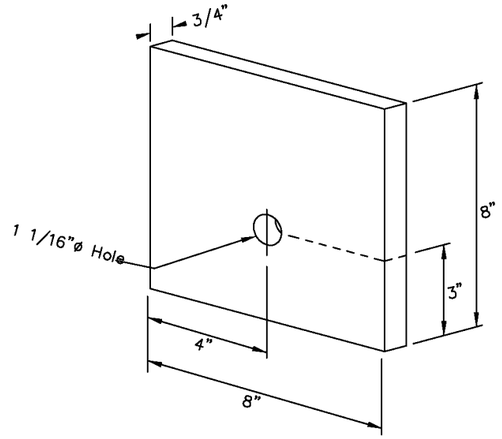
State of Alaska
Department of Transportation
& Public Facilities

STANDARD GUARDRAIL HARDWARE (TERMINAL CONNECTORS)

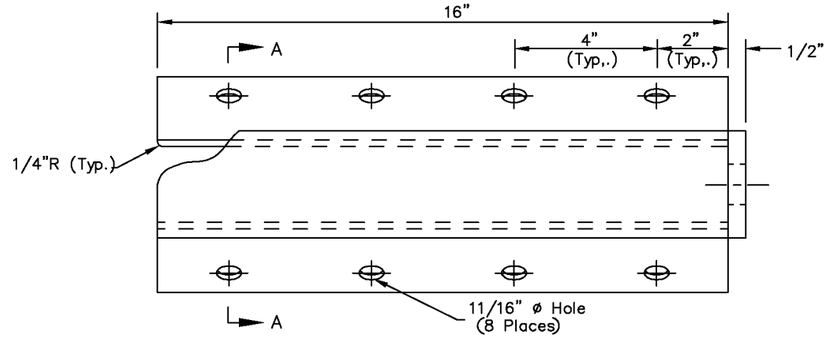
APPROVED
Date 5/31/12

4/28/10

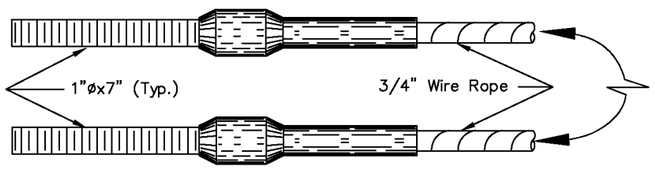
G-00.02



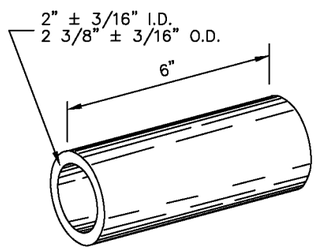
BEARING PLATE for CRT TERMINAL ANCHOR



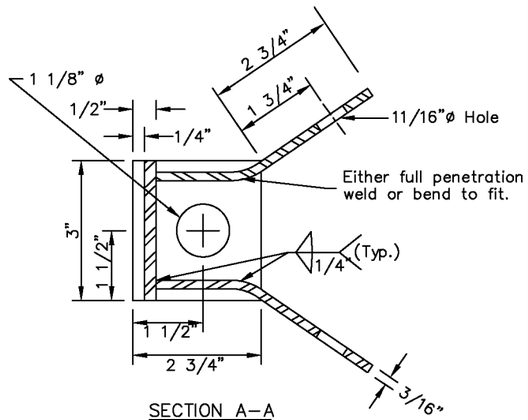
CABLE ANCHOR PLATE



SWAGED FITTING DETAIL



SLEEVE DETAIL

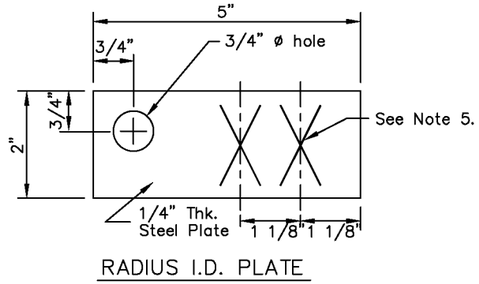


SECTION A–A

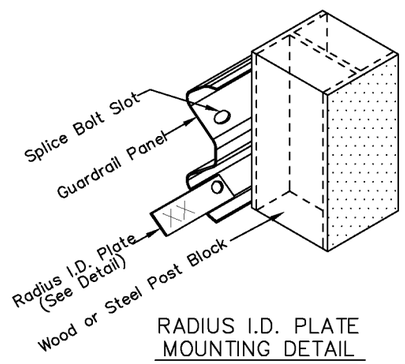
CONTROLLED RELEASE TERMINAL HARDWARE DETAILS

GENERAL NOTES:

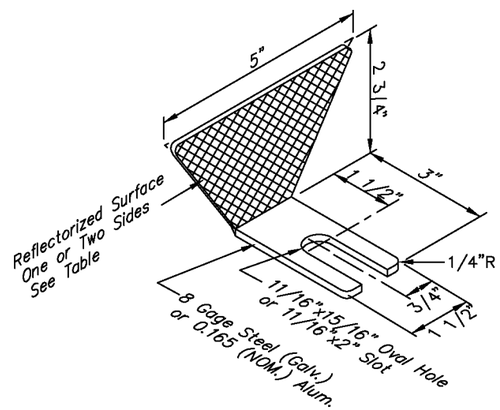
1. Cable Anchor Plate may be formed in single unit or welded fabrication.
2. Anchor Cable Assembly shall conform to AASHTO M–30 with Type II Wire Rope.
3. Sleeve for Wood Posts shall conform to the requirements of ASTM A120 and shall be of 2–inch galvanized standard pipe. Sleeve shall be a tight, pressed fit in post.
4. Bolts, nuts and washers shall conform to ASTM A–325 and galvanized in accordance with ASTM A–153.
5. Radius ID plates shall be attached to all shop–bent guardrail sections. They shall be bolted to the back side of the guardrail panel with the lower splice bolt nearest the P.C. of the radius.
6. Rail bend radius in feet shall be shown as "XX" on the radius ID plate. Digits shall be etched or stamped and have a min. height of 1 1/2" and a max. width of 3/4". The plate shall be galvanized after digits are marked.
7. All covered hardware shall comply with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware", latest edition.



RADIUS I.D. PLATE



RADIUS I.D. PLATE MOUNTING DETAIL



GUARDRAIL REFLECTOR

Guardrail Reflectors

Type	Color	Reflectorized
A	White	Front & Rear
B	White	Front
C	Yellow	Front
D	Yellow	Front & Rear

REVISIONS		
Date	Description	By
3/15/99	Delete BCT Hardware	KJS

State of Alaska
Department of Transportation & Public Facilities

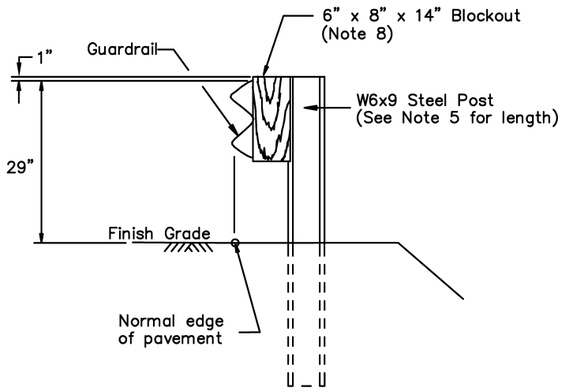
STANDARD GUARDRAIL HARDWARE (MISCELLANEOUS)

APPROVED
Date 5/31/12

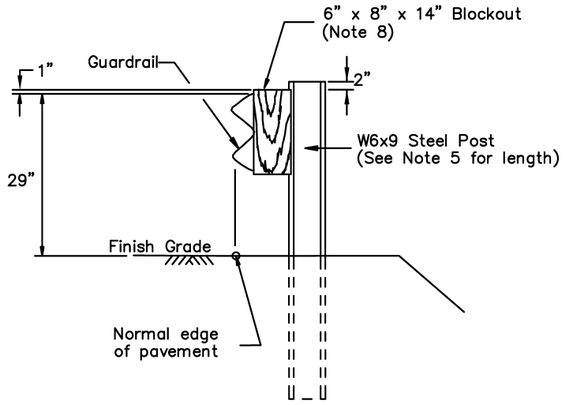
G–00.02

G-04.10S

SHEET 1 of 1

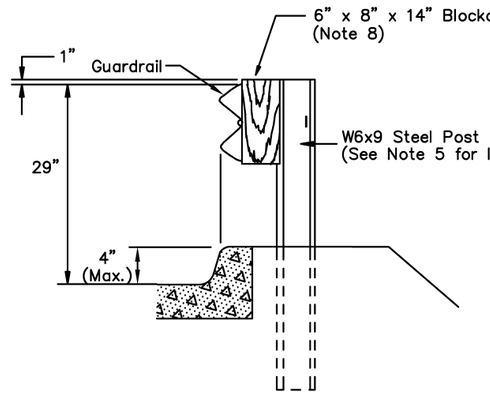


TYPE I POST INSTALLATION



TYPE II POST INSTALLATION

(Facilitates raising rail for future overlays.)



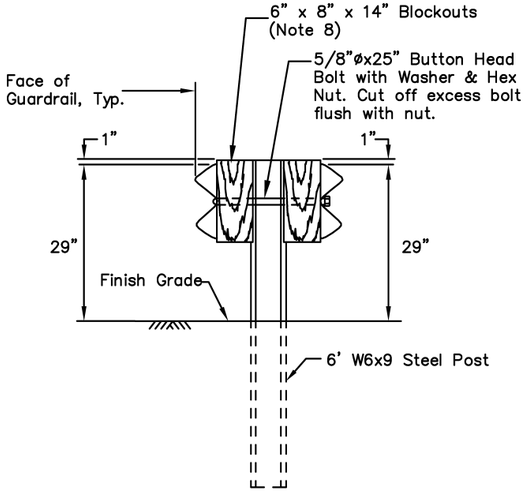
CURB DETAIL

TYPE III POST INSTALLATION

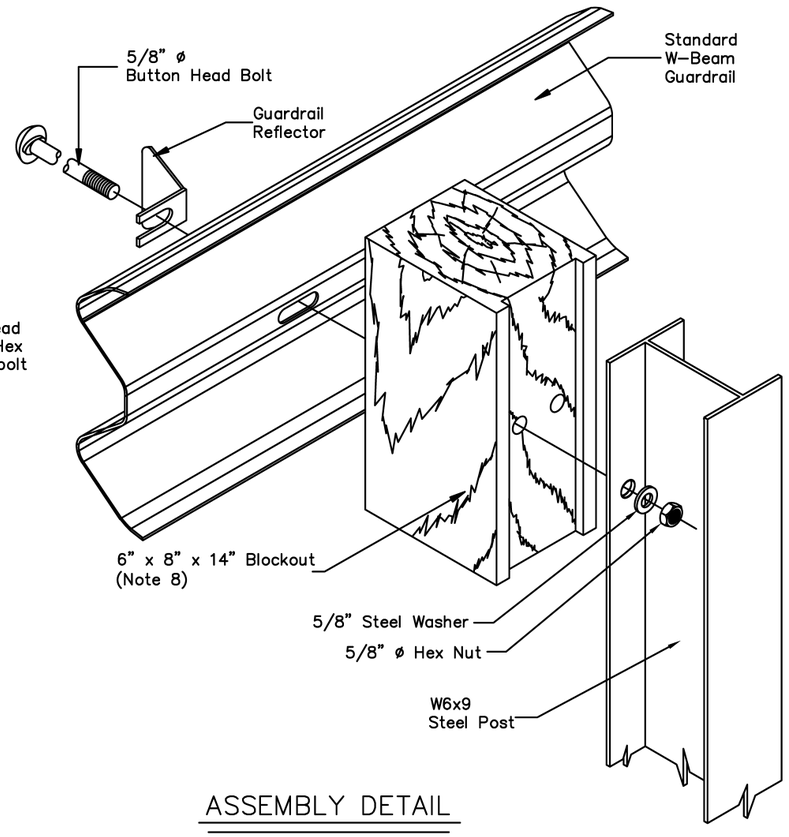
NOTE: Curb should not be installed with guardrail when the speed limit exceeds 40 mph.

GENERAL NOTES:

1. Attach guardrail reflectors at 50' centers beginning with the first post. Use Type A reflectors unless specified otherwise.
2. Provide hardware compliant with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware," latest edition.
3. See Standard Drawing G–00 for hardware details.
4. Mount rail to block with bolt on approaching traffic side of block web.
5. See Standard Drawing G–10 for post lengths corresponding to different combinations of slope and behind–post embankment width.
6. Typical post spacing is 6'–3" center to center.
7. This barrier is acceptable under NCHRP 350, TL–3.
8. Use wood, rubber, plastic, or other NCHRP 350 or MASH approved blockouts designed to be used with steel posts
9. Use 25 linear foot transition to match height of existing or new rail elements and end treatments.
10. W6x8.5 steel post may be substituted for W6x9 steel post.

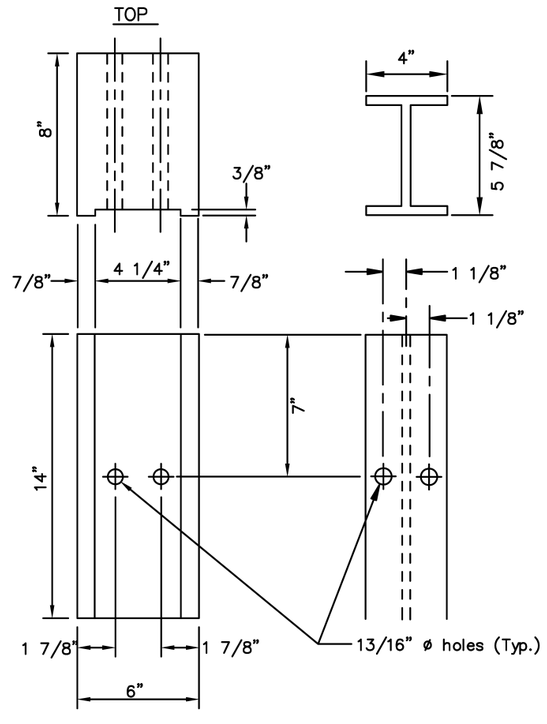


TYPE IV DOUBLE SIDED INSTALLATION



ASSEMBLY DETAIL

(Type I post shown)



BACK

6" x 8"
WOOD BLOCK

FACE

W6x9
STEEL POST

REVISIONS		
Date	Description	By
3/1/83	Revised gen. notes	Gdo
1/1/86	Revised hanger detail	Gdo
3/15/99	Block and post length	KJS
4/1/13	Add double–sided detail and increase g.r. height	JCJ

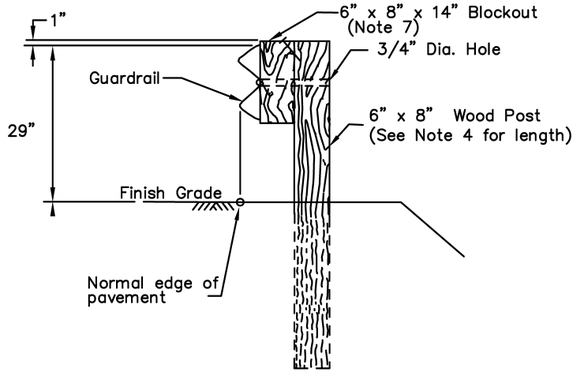
State of Alaska
Department of Transportation
& Public Facilities

STEEL POST
W–BEAM GUARDRAIL

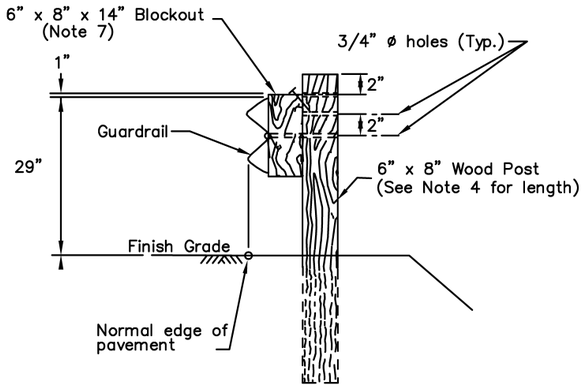
APPROVED
Jefferson G. Jeffers
CE 12295
4/1/13
REGISTERED PROFESSIONAL ENGINEER
STATE OF ALASKA 49TH

Date 05/15/13

G–04.10S

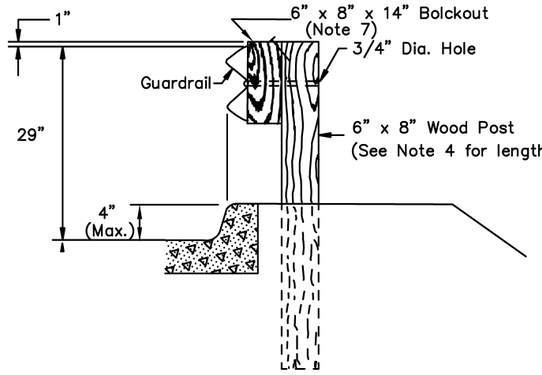


TYPE I POST INSTALLATION



TYPE II POST INSTALLATION

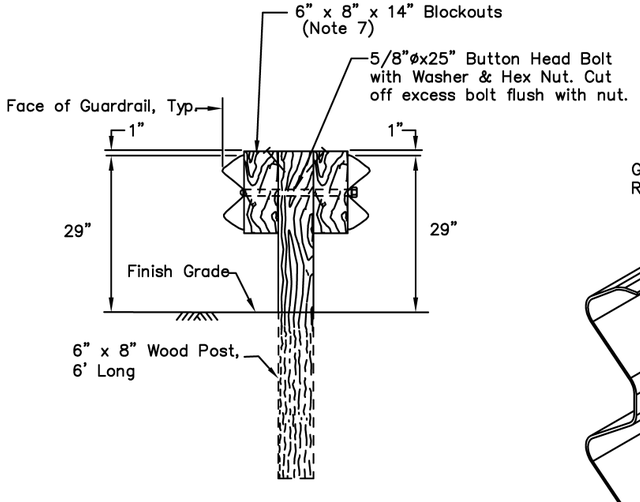
(Facilitates raising rail for future overlays.)



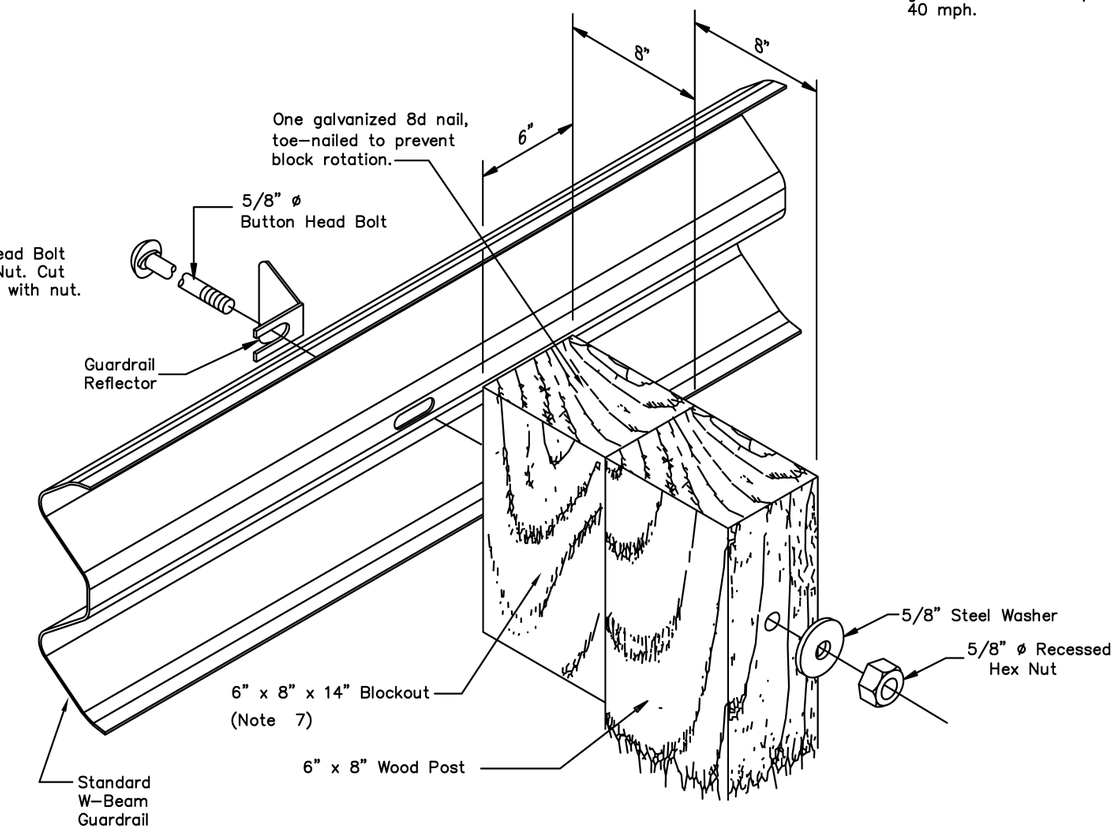
CURB DETAIL

TYPE III POST INSTALLATION

NOTE: Curb should not be installed with guardrail when the speed limit exceeds 40 mph.



TYPE IV DOUBLE SIDED INSTALLATION



ASSEMBLY DETAIL

(Type I post shown)

GENERAL NOTES:

1. Attach guardrail reflectors at 50' centers beginning with the first post. Use Type A reflectors unless specified otherwise.
2. Provide hardware compliant with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware," latest edition.
3. See Standard Drawing G-00 for hardware details.
4. See Standard Drawing G-10 for post lengths corresponding to different combinations of slope and behind-post embankment width.
5. Typical post spacing is 6'-3" center to center.
6. This barrier is acceptable under NCHRP 350, TL-3.
7. Use wood, rubber, plastic, or other NCHRP 350 or MASH approved blockouts designed to be used with wood posts.
8. Use 25 linear foot transition to match height of existing or new rail elements and end treatments.

REVISIONS		
Date	Description	By
12/1/87	2'-0" behind post	Gdo
5/15/89	Ref S4S to rough sawn	Gdo
4/1/93	Hinge point note	Gdo
1/1/96	Del. hardware/ add type II	Gdo
3/15/99	Post length and misc	Gdo
4/1/13	Double-sided detail and increase g.r. height	JCJ

State of Alaska
Department of Transportation
& Public Facilities

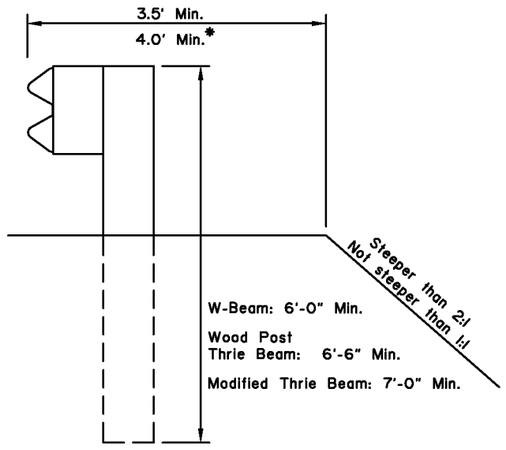
WOOD POST W-BEAM GUARDRAIL

APPROVED
Jefferson C. Jeffers
CE 12295
4/1/13
Date 05/15/13

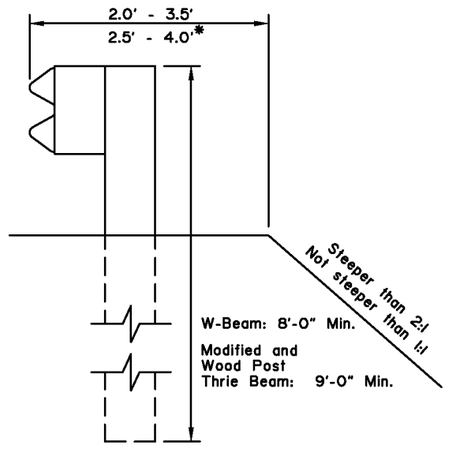
G-04.10W

GENERAL NOTES:

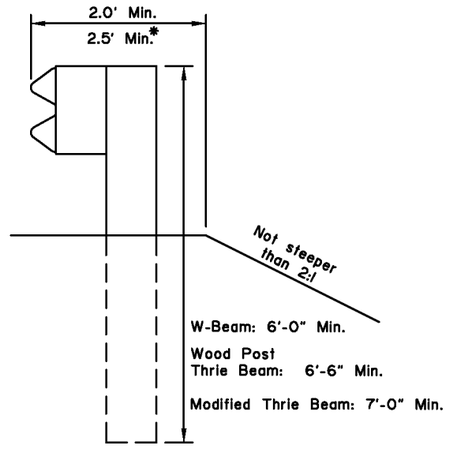
1. This drawing is to be used for post length determination only. See the plans for slopes and behind-post embankment widths.
2. To determine post length, identify the case that matches site conditions and read the length corresponding to the pertinent guardrail type.
3. These dimensions apply to both curbed and uncurbed sections.



CASE 1



CASE 2



CASE 3

* with Modified Thrie Beam'

REVISIONS		
Date	Description	By
12/2/99	Delete Case 4,5, and 6	KJS

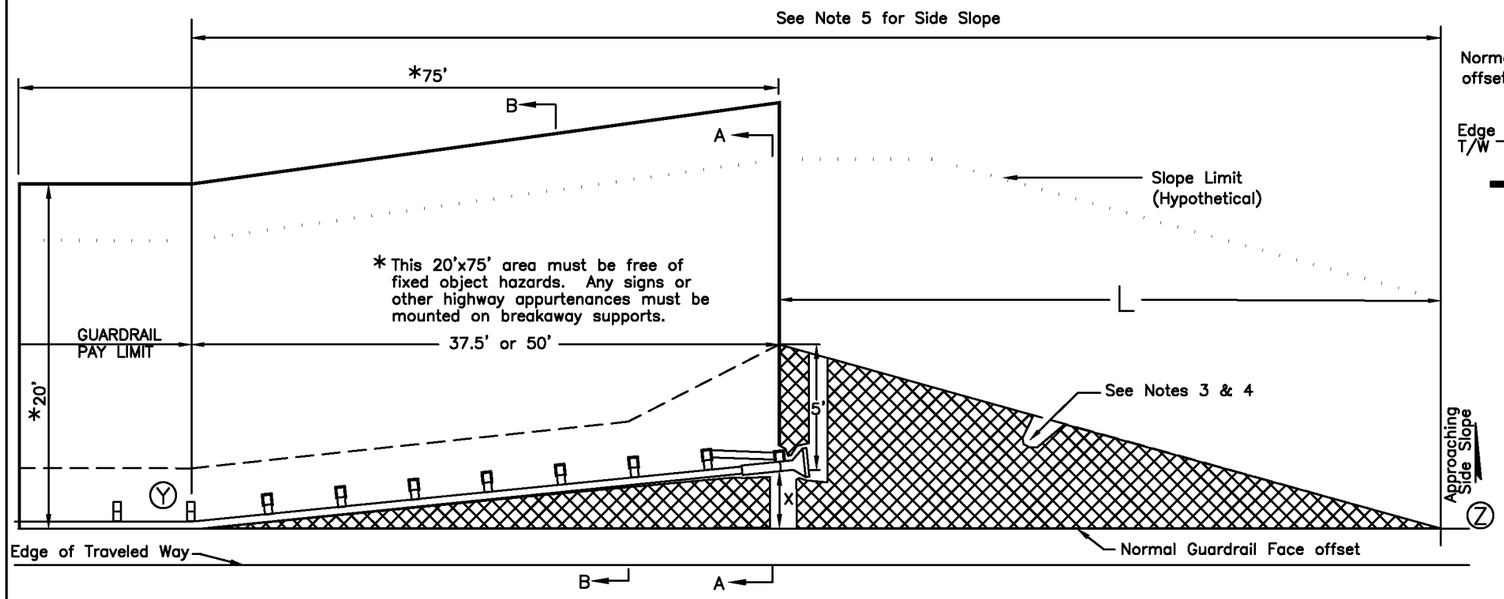
State of Alaska
Department of Transportation
& Public Facilities

BEAM GUARDRAIL POST INSTALLATION

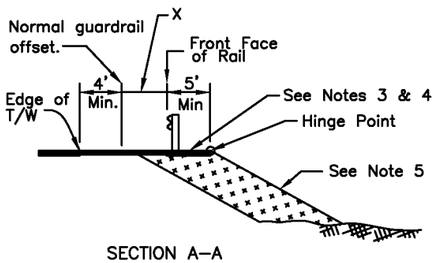
APPROVED
Date 3/15/99

G-10.01

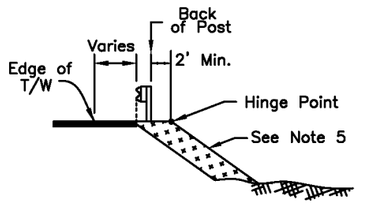
G-20.11



STANDARD GUARDRAIL TERMINAL WIDENING DETAIL



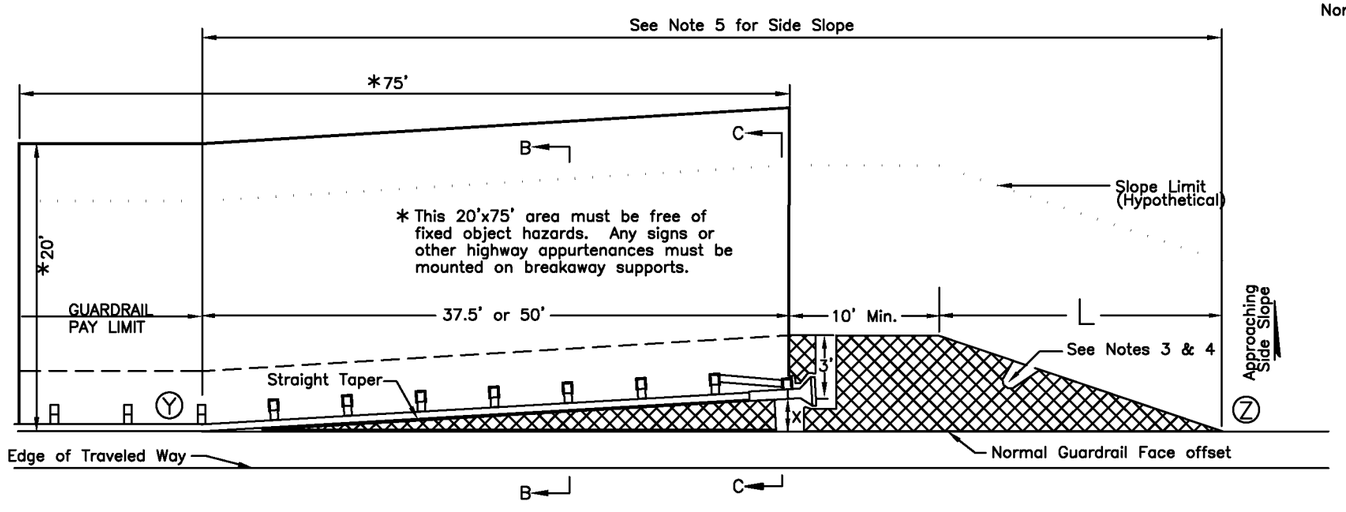
SECTION A–A



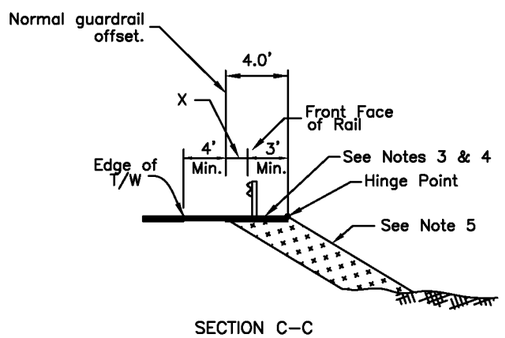
SECTION B–B
(Applies to both drawings)

GENERAL NOTES:

1. The standard detail applies to all approved guardrail terminals, including those with parabolic flares. The alternate detail may only be used with straight terminals. The terminal details shown are for illustration only – see manufacturer's drawings for actual post, rail, etc. drawings.
2. Use the standard detail for all terminals except when upgrading existing non–NCHRP 350 or MASH compliant terminals to NCHRP 350 or MASH compliant terminals where site conditions make the use of the standard detail infeasible. In that case, use the alternate detail.
3. Construct the hatched areas to match the slope of the adjacent shoulder to a maximum slope of 10:1. Maintain 10:1 for steeper shoulders. Match the slope when the shoulder slopes toward the road as well as away from the road.
4. On paved roads, the hatched areas shall be paved. On gravel roads, surface the hatched areas with the same materials used to surface the travel lanes.
5. From point Ⓨ to point Ⓩ make the side slope match the approaching side slope except where it is flatter than 4:1. In that case, the slope may be steepened to 4:1.
6. Attach a flexible marker to the first point (where the flare begins) and the end post of each terminal.
7. The maximum allowable height for foundation tubes or other steel components of terminal post breakaway systems is 4 inches above the surrounding grade.
8. The details on this sheet do not apply to Controlled Release Terminals (G–25) or Downstream End Anchors (G–13).
9. On two–way undivided roads, the details on this sheet do apply to NCHRP 350 or MASH compliant guardrail terminals on both the approach and downstream ends.



ALTERNATE GUARDRAIL TERMINAL WIDENING DETAIL



SECTION C–C

X: End offset. See manufacturer's information for the range of acceptable (NCHRP 350 or MASH compliant) end offsets for each terminal.

Taper Lengths (L) for Common End Offsets (X)		
End Offset	Standard Detail	Alternate Detail
0'	15.0'	10.0'
1'	17.0'	10.0'
1.5'	20.0'	15.0'
2'	22.0'	15.0'
2.5'	25.0'	15.0'
4'	30.0'	20.0'
Interpolate if the end offset falls between table values		

REVISIONS		
Date	Description	By
3/6/02	Change ET Offset	KJS
2/28/03	Major Revisions	KJS
4/28/10	Revise General Notes	KJS

Sheet 1 of 1

State of Alaska
Department of Transportation
& Public Facilities

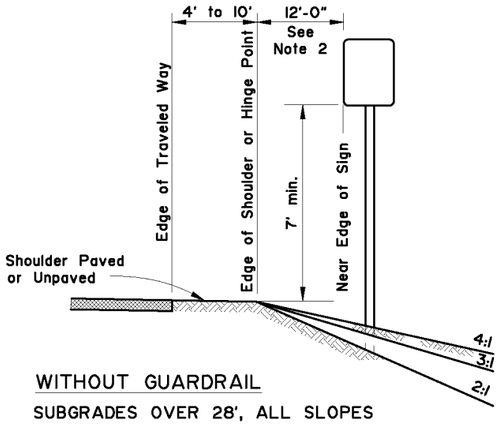
WIDENING FOR GUARDRAIL END TERMINALS

APPROVED 49th Chief Engineer 4/28/10

Date 5/31/12

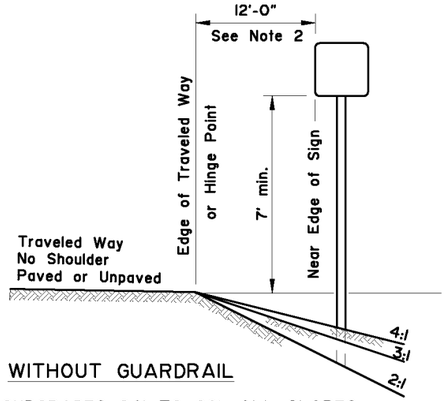
G–20.11

S-05.01



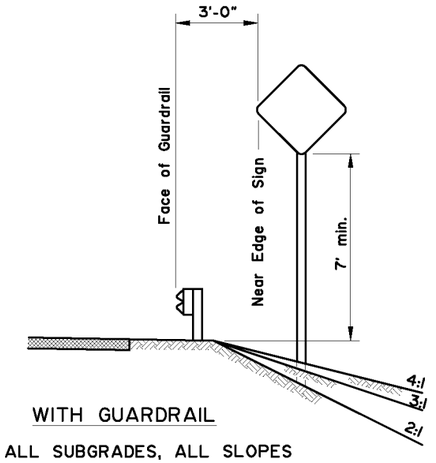
WITHOUT GUARDRAIL

SUBGRADES OVER 28', ALL SLOPES



WITHOUT GUARDRAIL

SUBGRADES 24' TO 28', ALL SLOPES

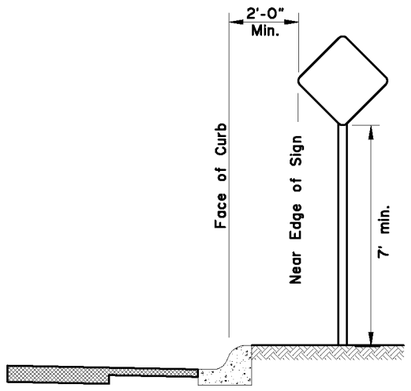


WITH GUARDRAIL

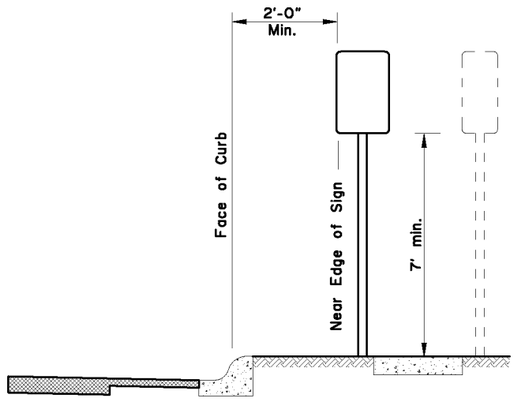
ALL SUBGRADES, ALL SLOPES

GENERAL NOTES

1. Unless shown otherwise on the plans, the standard sign offset is 12'. The minimum is 6'.
2. If signs extend over sidewalks, the minimum vertical clearance is 7'-0".
3. Add 6" to mounting height on unpaved roads.
4. If signs extend over bike paths, the minimum vertical clearance is 8' 0".
5. When signs are placed 30' or more from the edge of traveled way, mount them with the bottom of the sign at least 5' above the road surface at the near edge of the road.
6. When multiple hinged sign supports are used, mount hinges at least 7' above the ground.

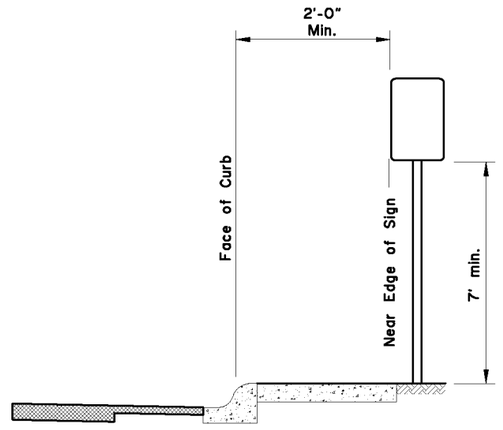


CURB WITHOUT SIDEWALK

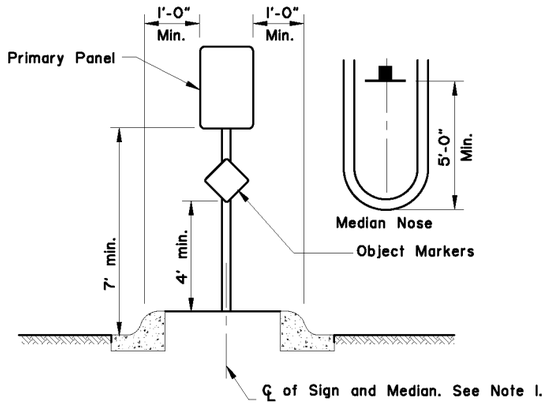


CURB WITH PARKWAY AND SIDEWALK

(If R/W width permits, signs should be placed behind sidewalk.)

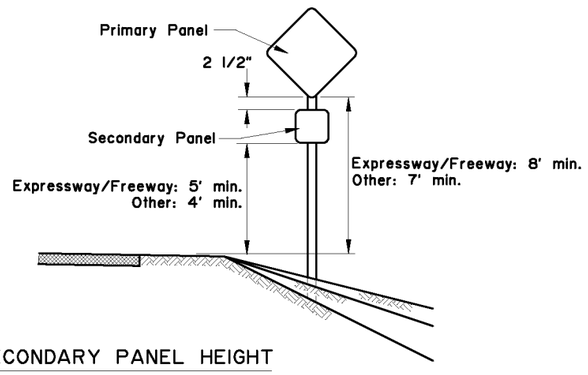


CURB WITH SIDEWALK WITHOUT PARKWAY



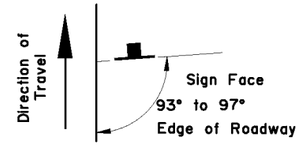
RAISED MEDIANS

Minimum 4' Width for Signing



SECONDARY PANEL HEIGHT

ALL TWO PANEL MOUNTING



SIGN POSITIONING

REVISIONS		
Date	Description	By
4/3/01	Revised Sign Heights	KJS

Sheet 1 of 1

State of Alaska
Department of Transportation
& Public Facilities

POST MOUNTED SIGN OFFSET AND HEIGHT

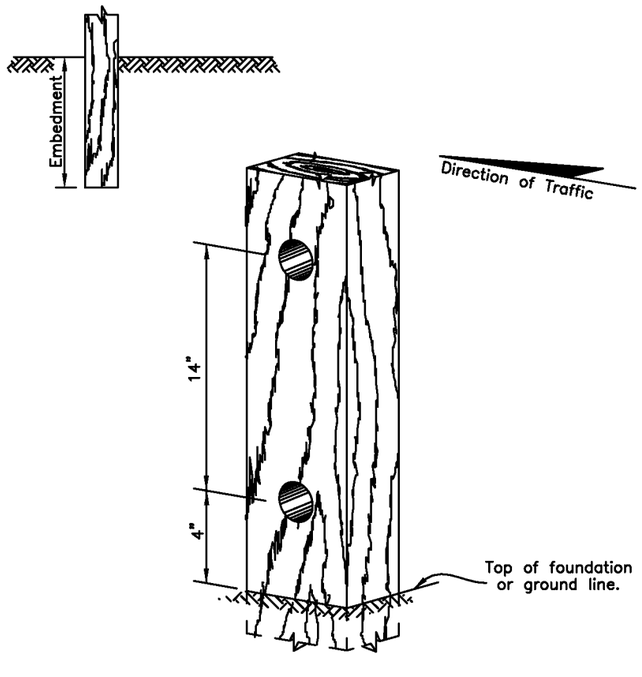
APPROVED

Curtis J. Smith
CC-7337

Date 7/15/82

S-05.01

S-30.03

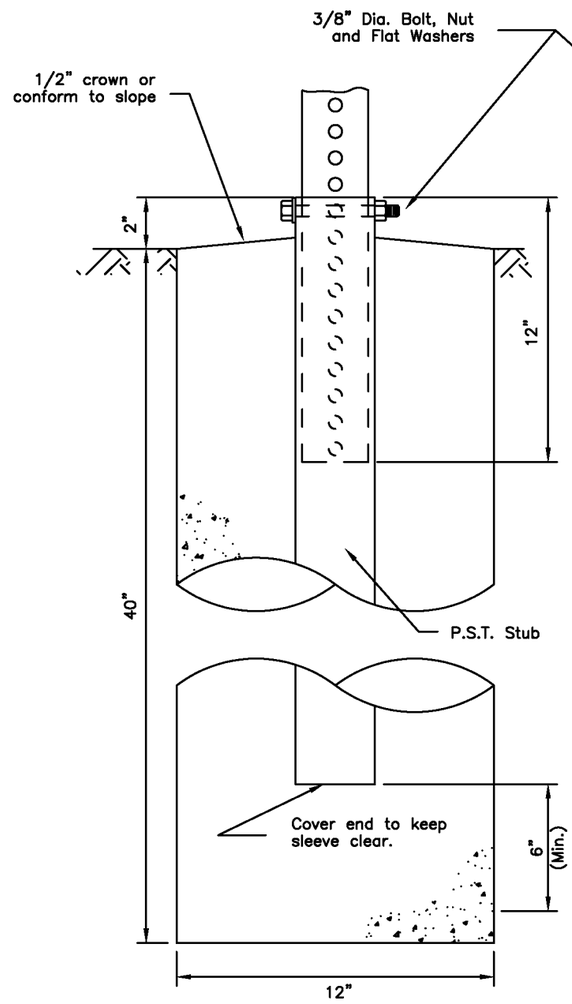


Note: If holes are field drilled after post has been treated, the holes shall be thoroughly swabbed with a 5% solution of pentachlorophenol and mineral spirits.

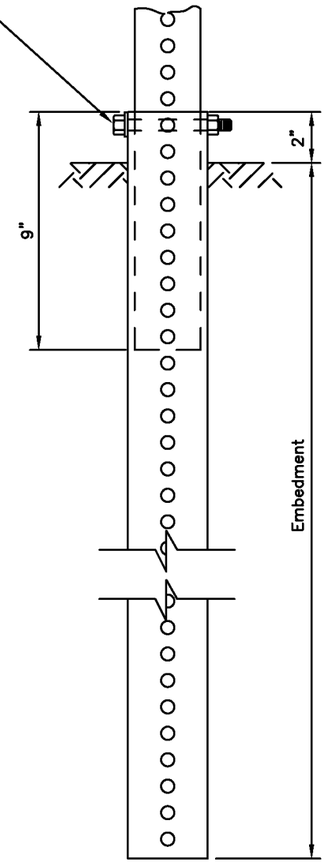
WOOD POSTS			
SIZE	HOLE DIA.	EMBEDMENT*	NUMBER OF POSTS WITHIN 7 Ft. PATH
4"x4"	NONE	36"	2
4"x6"	1 1/2"	36"	2
6"x6"	1 1/2"	40"	1
6"x8"	3"	48"	1

* Embedment depth applies in both strong and weak soil.

WOOD POSTS



SLEEVE TYPE
–CONCRETE FOUNDATION–



SLEEVE TYPE *
–SOIL EMBEDMENT–

PERFORATED STEEL TUBES (P.S.T.) (12 ga. – .105" Wall Thickness)		
POST SIZE (inch)	Embedment Depth	No. of P.S.T.s permitted within 7 ft path
1 1/2" x 1 1/2"	3'–0"	2
1 3/4" x 1 3/4"	3'–0"	2
2" x 2"	3'–6"	2
2 1/4" x 2 1/4"	4'–0"	1
2 1/2" x 2 1/2"	4'–6"	1

* Use 3"x3"x3/16" Stub for 2 1/2"x2 1/2" PST Applications.

PERFORATED STEEL TUBE (PST) POSTS

GENERAL NOTES:

1. Refer to Standard Drawing "Sheet Aluminum Sign and Framing" for light sign details.
2. See plans for type of post, size and embedment type.
3. To maintain crashworthiness, install no more than the number of P.S.T.s or wood posts specified in the tables within 7' of each other.
4. Do not install wood posts larger than 6"x8".
5. Use larger posts than shown on this sheet, with hinges, for multiple support signs where the supports are separated by more than 7 feet.

REVISIONS		
Date	Description	By
1/1/85	Redraft–Delete Post	Gdo
4/2/01	Revised PST table	Kjs
	Added note 3	
2/12/02	Revised Wood Posts	Kjs

Sheet 1 of 1

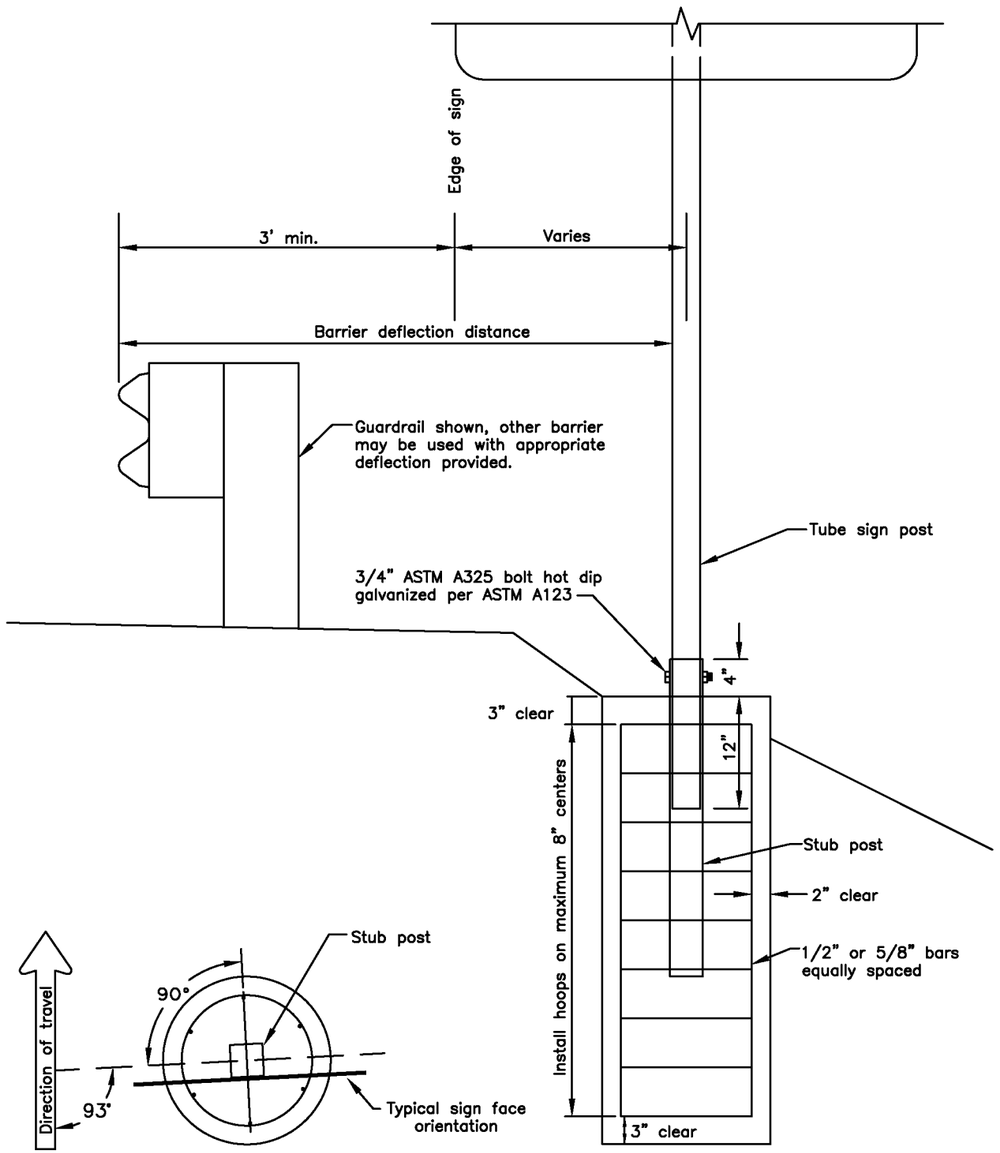
State of Alaska
Department of Transportation
& Public Facilities

LIGHT SIGN
STRUCTURE POST
EMBEDMENT

APPROVED
Kurtis J. Smith
CE-7347
REGISTERED PROFESSIONAL ENGINEER
Date 7/15/82

S-30.03

S-32.00



SIGN POST FOUNDATION
(Plan view)

SIGN POST FOUNDATION
See table for depth and diameter

GENERAL NOTES

1. This is a non-crashworthy sign support. It may only be used at locations shielded by a guardrail, barrier, or wall. It may not be used if the sign post is within 20' of the rail and is closer than 75' from the guardrail end post (measured along the rail). For this case use a breakaway sign support. See Standard Drawing G-20.
2. Furnish steel tube sign post and stub post that conform to ASTM A500, grade B, and meet ASTM A123 for hot dip galvanizing.
3. Install tubes and stub post with a 0.1875" wall thickness.
4. For Perforated Tubes use Standard Drawing S-30.
5. Spiral reinforcing steel may be substited for hoops in concrete foundation. Spiral option shall consist of No. 3 plain spiral with 6" pitch with three flat turns at the top and one flat turn at the bottom.

POST SIZE & TYPE	FOUNDATION *			REINFORCEMENT					STUB POST	
	DIA.	MIN. DEPTH	C.Y. CONC.	VERTICAL BARS QTY.	SIZE	LGTH.	HOOPS SIZE	DIA.	SLEEVE SIZE	LGTH.
2 1/2" TUBE	1'-0"	4'-6"	0.13	6	1/2"	4'-0"	1/2"	8"	3"	3'
3" TUBE	1'-6"	4'-0"	0.25	6	1/2"	3'-6"	1/2"	1'-2"	3 1/2"	3'
3 1/2" TUBE	1'-6"	4'-6"	0.27	6	1/2"	4'-0"	1/2"	1'-2"	4"	3'
4" TUBE	2'-6"	4'-0"	0.69	7	5/8"	3'-6"	1/2"	2'-2"	4 1/2"	3'
4 1/2" TUBE	2'-6"	4'-6"	0.78	7	5/8"	4'-0"	1/2"	2'-2"	5"	3'

* Foundation sized for use where there are no loose, high moisture, or fine grained soil.

REVISIONS		
Date	Description	By

Sheet 1 of 1

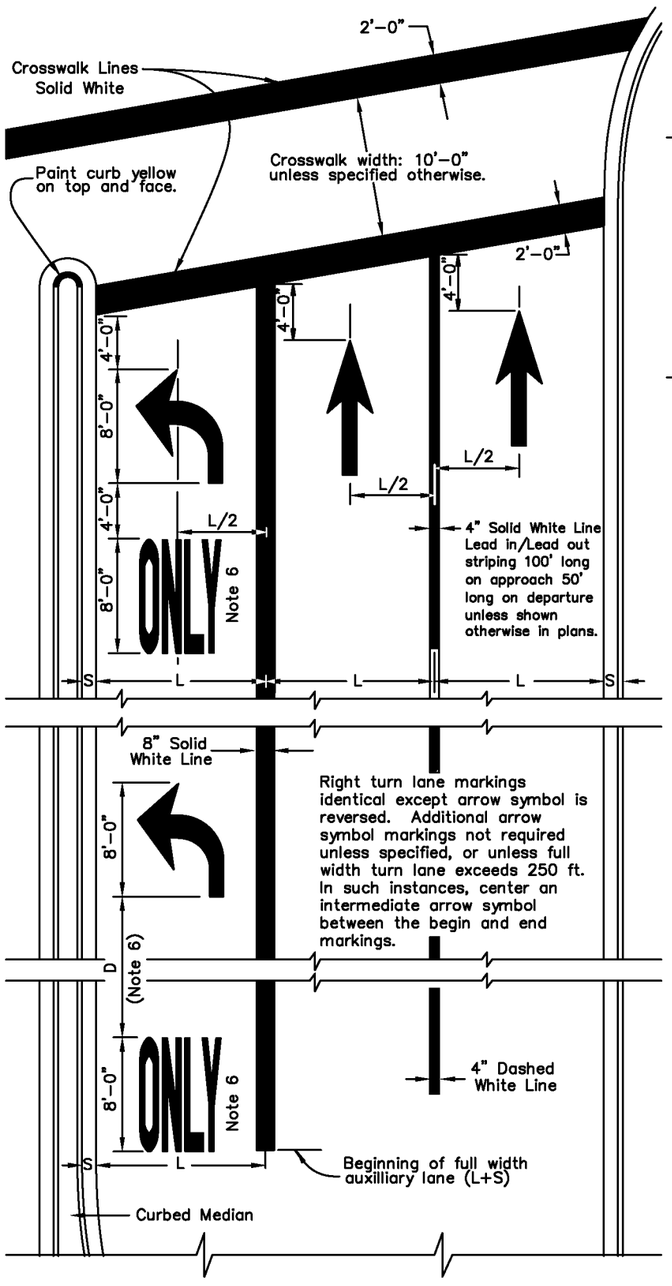
State of Alaska
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SIGN POST BASE AND FOUNDATION BEHIND BARRIER

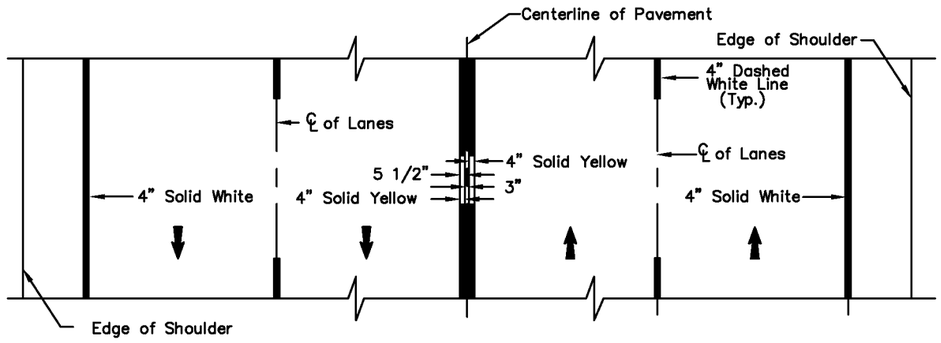
APPROVED

Date 2/28/03

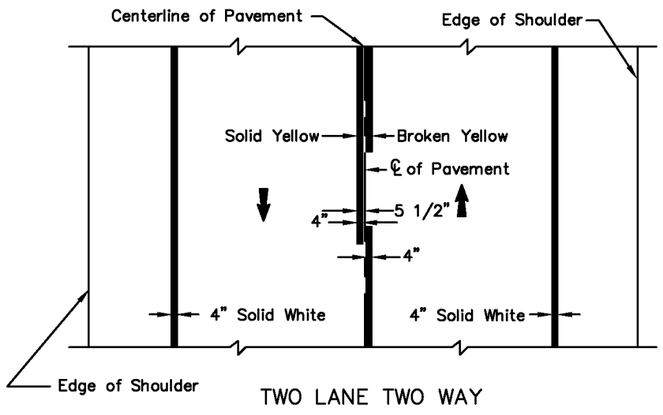
S-32.00



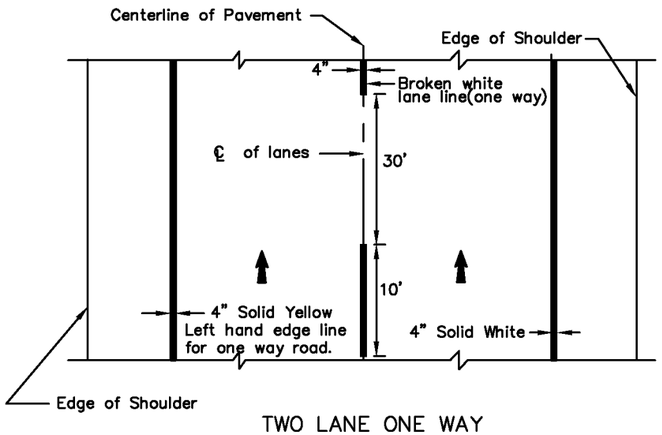
APPROACH TO INTERSECTION



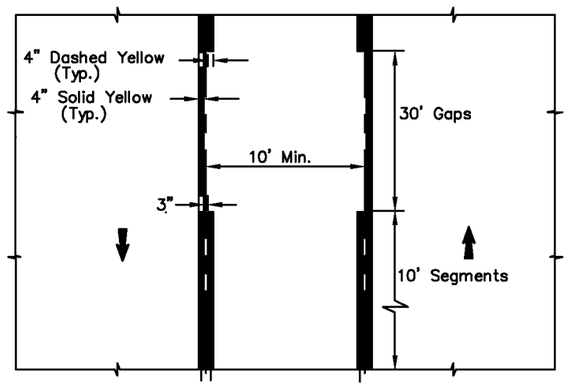
FOUR LANE TWO WAY



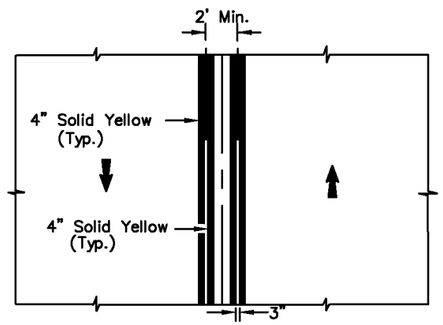
TWO LANE TWO WAY



TWO LANE ONE WAY



TWO-WAY LEFT TURN LANE



STRIPED MEDIAN

GENERAL NOTES:

1. All markings white unless indicated otherwise.
2. Lengths of stripe and gap for lane and center lines identical.
3. Lane lines for auxiliary lanes are unbroken solid lines.
4. "L" = driving lane width.
5. "S" = shy distance as shown on plans, otherwise 1 to 2 feet.
6. ONLY markings are required where through lanes change to turn lanes. In other cases, apply ONLY markings as indicated on plans.
7. See ALASKA TRAFFIC MANUAL for additional instruction on the use of TRAFFIC CONTROL DEVICES.
8. 6. Adjust distance D between ONLY and Turn Arrow based on SPEED vs. D table.

SPEED	D
25 or less	35'
30	45'
35	50'
40	60'
45	65'
50	75'
55 or more	80'

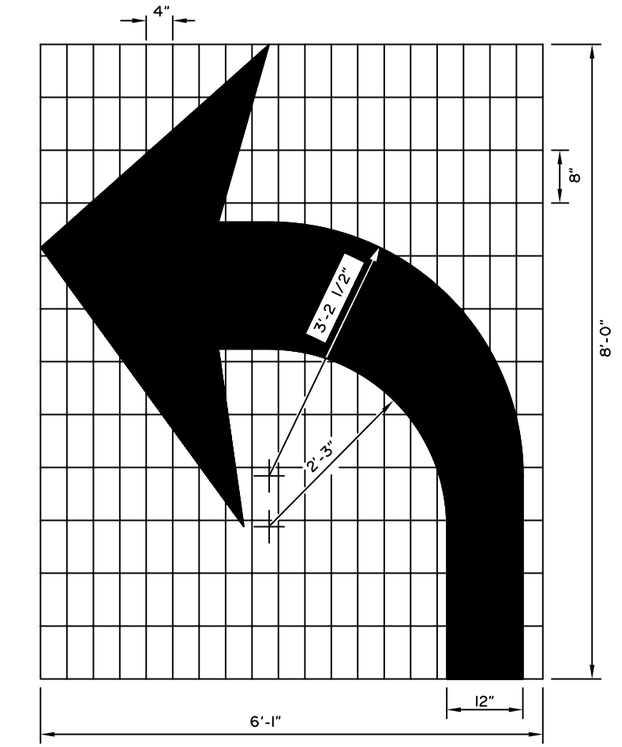
REVISIONS		
Date	Description	By
1/1/86	Arrow Dimension	Cdo
1/1/96	Intersect. Note	Cdo
4/28/10	Details, labels, notes	KJS

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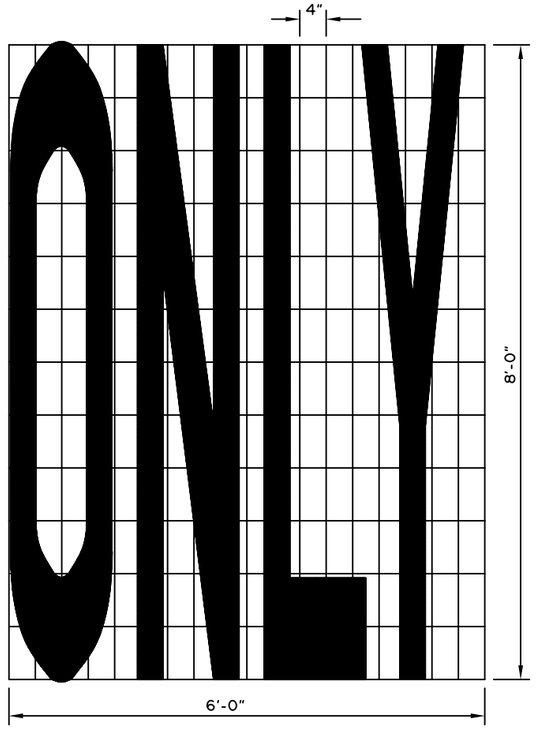
PAVEMENT MARKING APPLICATIONS

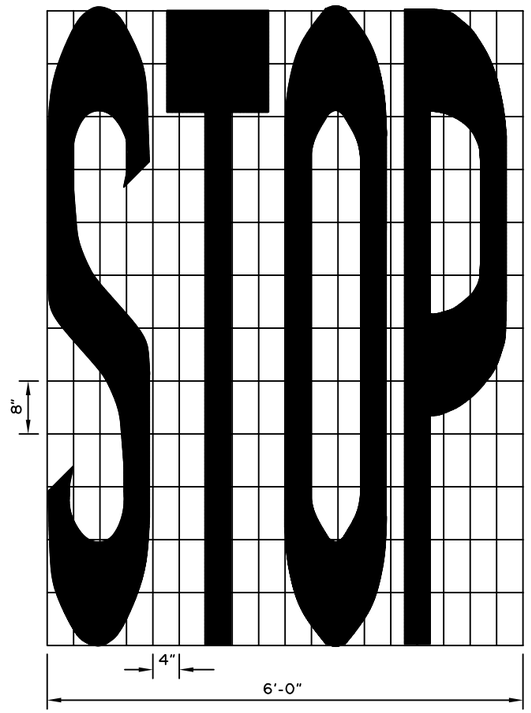
APPROVED
Date 5/31/12

T-21.03



Right turn auxilliary lane usage markings identical except arrow symbol is reversed.

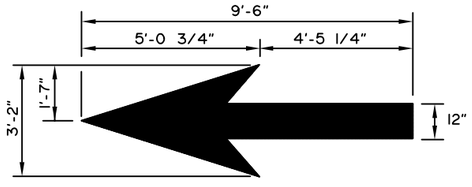




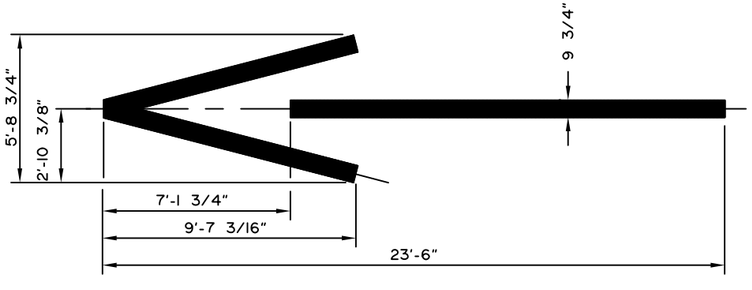
LAYOUT TEMPLATES FOR STENCILS

GENERAL NOTES:

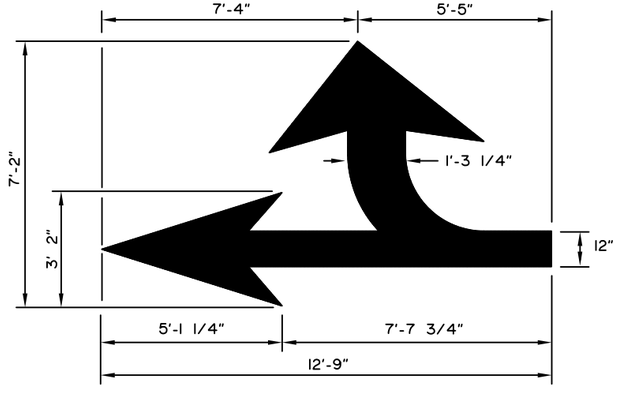
1. All symbols shown shall be white and reflectorized in accordance with the Special Provisions.
2. See "Standard Alphabets for Highway Signs and Pavement Marking" for letter layout.



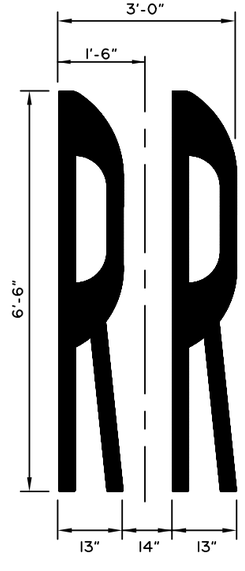
STRAIGHT AHEAD ARROW



WRONG WAY ARROW



COMBINATION ARROW



RAILROAD SYMBOL

REVISIONS		
Date	Description	By
1/1/86	Redraft Arrow Dim.	Gdo
4/1/93	Revise Arrow Markings	Gdo
2/15/00	Revise RR Symbol	KJS

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PAVEMENT MARKING SYMBOL DIMENSIONS

APPROVED
Date 1/1/86

T-22.03