

DESIGNED BY LRA  
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SCALE  
N/A  
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TITLE SHEET  
DATE  
TIME  
3:23 PM  
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# STATE OF ALASKA

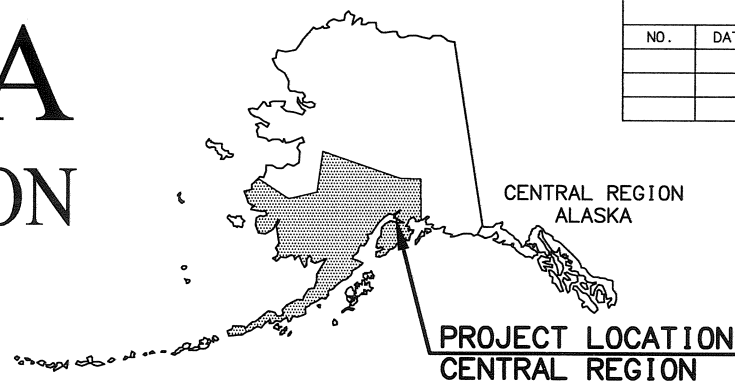
## DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

### PROPOSED HIGHWAY PROJECT

# HSIP: CR GUARDRAIL DELINEATION ENHANCEMENTS

## PROJECT NO. 0001(475)/ 55750

### DELINEATION



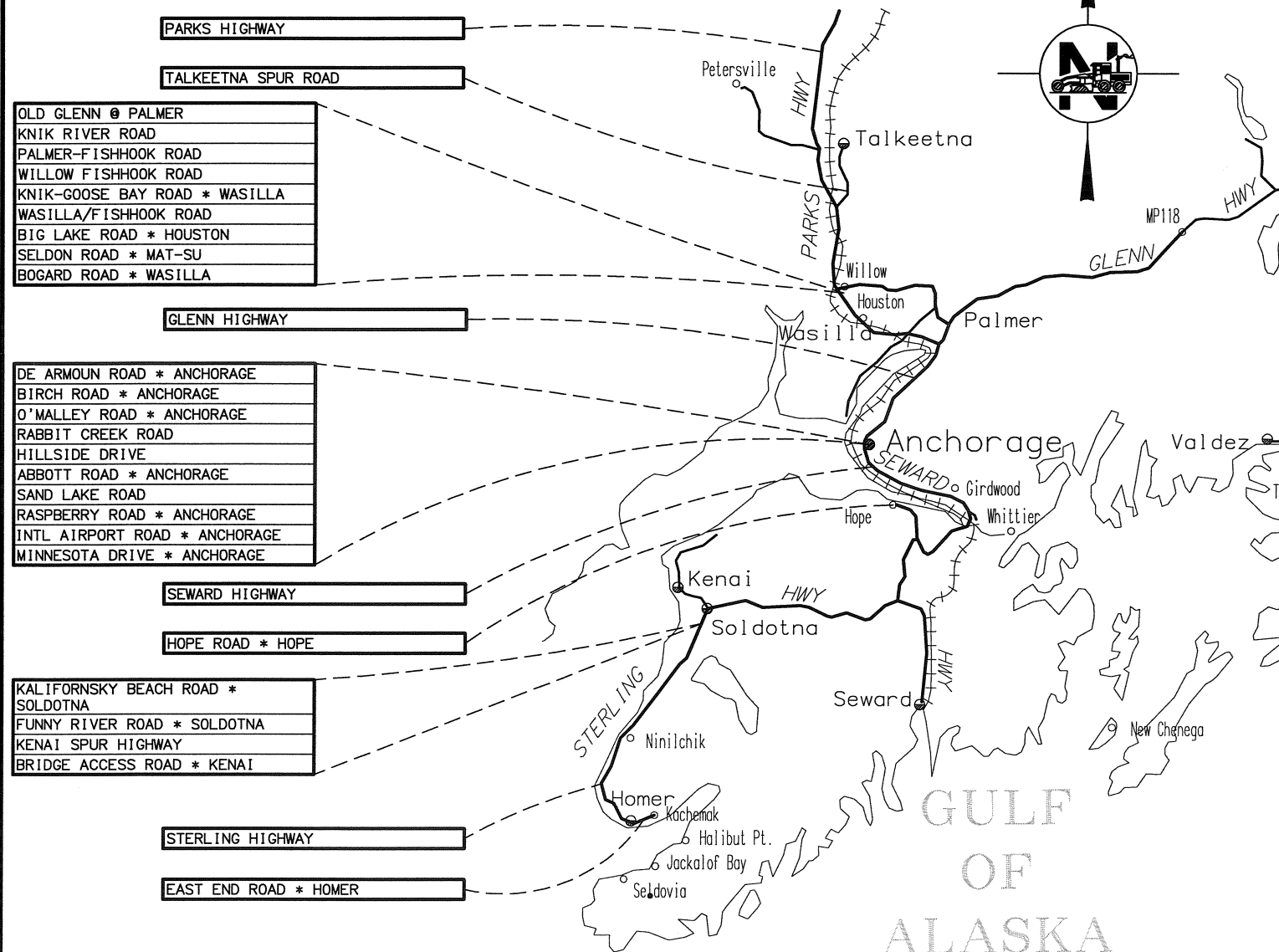
REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL 'A' SHEETS
ALASKA	0001(475)/ 55750	2013	A1	A3
			PLAN SET TOTAL	6

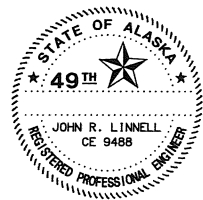
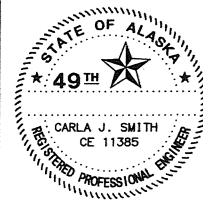
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ROUTE: 110300	MILEPOINT: 0.0 - 22.0
ROUTE: 115400	MILEPOINT: 0.0 - 22.0
ROUTE: 117300	MILEPOINT: 0.0 - 17.0
ROUTE: 117600	MILEPOINT: 0.0 - 39.0
ROUTE: 117790	MILEPOINT: 0.0 - 3.3
ROUTE: 130000	MILEPOINT: 0.0 - 120.0
ROUTE: 132000	MILEPOINT: 0.0 - 18.0
ROUTE: 133100	MILEPOINT: 0.0 - 4.0
ROUTE: 133308	MILEPOINT: 0.0 - 2.5
ROUTE: 133500	MILEPOINT: 0.0 - 3.9
ROUTE: 133710	MILEPOINT: 0.0 - 4.2
ROUTE: 133723	MILEPOINT: 0.0 - 2.8
ROUTE: 133724	MILEPOINT: 0.0 - 3.8
ROUTE: 133755	MILEPOINT: 0.0 - 1.5
ROUTE: 133765	MILEPOINT: 0.0 - 3.2
ROUTE: 133800	MILEPOINT: 0.0 - 3.7
ROUTE: 134300	MILEPOINT: 0.0 - 7.6
ROUTE: 135000	MILEPOINT: 0.0 - 110.0
ROUTE: 136000	MILEPOINT: 0.0 - 18.4
ROUTE: 136035	MILEPOINT: 0.0 - 11.2
ROUTE: 137000	MILEPOINT: 0.0 - 17.2
ROUTE: 137700	MILEPOINT: 0.0 - 31.3
ROUTE: 170000	MILEPOINT: 0.0 - 128.0
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ROUTE: 170047	MILEPOINT: 0.0 - 10.5
ROUTE: 170073	MILEPOINT: 0.0 - 9.1
ROUTE: 170088	MILEPOINT: 0.0 - 6.1
ROUTE: 170700	MILEPOINT: 0.0 - 7.4
ROUTE: 171000	MILEPOINT: 0.0 - 14.4

#### DESIGN DESIGNATIONS/ PROJECT SUMMARY

ROADWAY SECTION	A.A.D.T. 2009	DESIGN SPEED	WIDTH	LENGTH
STERLING HIGHWAY	VARIES	VARIES	VARIES	138 MI
EAST END ROAD * HOMER	VARIES	VARIES	VARIES	22 MI
KALIFORNKY BEACH ROAD * SOLDOTNA	VARIES	VARIES	VARIES	22 MI
FUNNY RIVER ROAD * SOLDOTNA	VARIES	VARIES	VARIES	17 MI
KENAI SPUR HIGHWAY	VARIES	VARIES	VARIES	39 MI
BRIDGE ACCESS ROAD * KENAI	VARIES	VARIES	VARIES	3.3 MI
SEWARD HIGHWAY	VARIES	VARIES	VARIES	121 MI
HOPE ROAD * HOPE	VARIES	VARIES	VARIES	18 MI
DE ARMOUN ROAD * ANCHORAGE	VARIES	VARIES	VARIES	3.7 MI
BIRCH ROAD * ANCHORAGE	VARIES	VARIES	VARIES	2.5 MI
O'MALLEY ROAD * ANCHORAGE	VARIES	VARIES	VARIES	3.9 MI
RABBIT CREEK ROAD	VARIES	VARIES	VARIES	4.2 MI
HILLSIDE DRIVE	VARIES	VARIES	VARIES	2.8 MI
ABBOTT ROAD * ANCHORAGE	VARIES	VARIES	VARIES	3.8 MI
SAND LAKE ROAD	VARIES	VARIES	VARIES	1.5 MI
RASPBERRY ROAD * ANCHORAGE	VARIES	VARIES	VARIES	3.2 MI
INTL AIRPORT ROAD * ANCHORAGE	VARIES	VARIES	VARIES	3.7 MI
MINNESOTA DRIVE * ANCHORAGE	VARIES	VARIES	VARIES	7.6 MI
GLENN HIGHWAY	VARIES	VARIES	VARIES	110 MI
OLD GLENN @ PALMER	VARIES	VARIES	VARIES	18 MI
KNIK RIVER ROAD	VARIES	VARIES	VARIES	11 MI
PALMER-FISHHOOK ROAD	VARIES	VARIES	VARIES	17 MI
WILLOW FISHHOOK ROAD	VARIES	VARIES	VARIES	31 MI
PARKS HIGHWAY	VARIES	VARIES	VARIES	128 MI
KNIK-GOOSE BAY ROAD * WASILLA	VARIES	VARIES	VARIES	20 MI
WASILLA/FISHHOOK ROAD	VARIES	VARIES	VARIES	10.5 MI
BIG LAKE ROAD * HOUSTON	VARIES	VARIES	VARIES	9.1 MI
SELDON ROAD * MAT-SU	VARIES	VARIES	VARIES	6.1 MI
BOGARD ROAD * WASILLA	VARIES	VARIES	VARIES	7.4 MI
TALKEETNA SPUR ROAD	VARIES	VARIES	VARIES	14 MI



#### STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES



APPROVED:

REGIONAL PRE-CONSTRUCTION ENGINEER DATE

CONCUR:

DIRECTOR, DESIGN & CONSTRUCTION DATE  
CERTIFIED TRUE & CORRECT AS-BUILT OF ACTUAL FIELD CONDITION:

CONSTRUCTION PROJECT MANAGER DATE

DRAWING LOCATION  
T:\Projects\Regional\55750 - HSIP CR Guardrail Delineation Enhancements\Civ3D12\Planset\A1 & A2\_TITLE\_SHEET1.dwg/2013 11:34 AM

LAYOUT  
A2

SCALE  
N/A

XREFS  
X Border-Detail  
N/A

DESIGNED BY  
LRA  
CHECKED BY  
CEB  
DRAFTED BY  
MEP

GENERAL NOTES:

1. ALL CONSTRUCTION WILL BE CONTAINED WITHIN THE RIGHT-OF-WAY. NO EXCESS MATERIAL SHALL BE DISPOSED OF WITHIN THE RIGHT-OF-WAY, UNLESS SPECIFICALLY CALLED FOR IN THE PLANS OR DIRECTED BY THE ENGINEER.
2. THE EXISTING INFORMATION SHOWN IN THE PLANS IS FROM AS-BUILTS AND HAS BEEN PARTIALLY FIELD VERIFIED. FIELD CONDITIONS MAY NOT BE ACCURATELY REPRESENTED AND/OR MAY HAVE CHANGED. ADJUST INSTALLATIONS AS DIRECTED BY THE ENGINEER.

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION					
			ALASKA	0001(475)/ 55750	2013	A2	A3

INDEX	
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2	INDEX AND GENERAL NOTES
A3	LEGEND/SYMBOLS
C1	ESTIMATE OF QUANTITIES
D1	SUMMARY SHEETS
E1	DETAIL SHEETS



STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

HSIP: CR GUARDRAIL  
DELINEATION ENHANCEMENTS

INDEX AND GENERAL NOTES

DESIGNED BY LRA  
CHECKED BY CLB  
DRAFTED BY HEP  
XREFS N/A  
SCALE N/A  
LAYOUT  
DATE TIME  
DRAWING LOCATION

UTILITIES

PIPELINES:

STORM DRAIN STRUCTURE AND  
PIPE NUMBERS, APPLICABLE IF  
SHOWN

STORM DRAIN

MANHOLE STORM DRAIN

CURB INLET CATCH BASIN

FIELD INLET CATCH BASIN

PIPE CULVERT w/ END SECTION

CLEANOUT

SANITARY SEWER

MANHOLE SANITARY SEWER

SEPTIC VENTS

WATER

FIRE HYDRANT

WELL

VALVE OR RISER

NATURAL GAS

OIL OR GASOLINE PIPELINE

ELECTRIC  
(OVERHEAD)  
(DIRECT BURY)  
(OVERHEAD)

UTILITY POLE

UTILITY POLE WITH LUMINAIRE

GUY POLE

GUY WIRE ANCHOR

TRANSMISSION TOWER [WOOD]

TRANSMISSION TOWER [STEEL]

ELECTRICAL PEDESTAL

ELECTRICAL TRANSFORMER

ELECTRIC METER

ELECTRICAL OUTLET

ELECTRIC MANHOLE

TELEPHONE  
(OVERHEAD)  
(DIRECT BURY)  
(DIRECT BURY)

TELEPHONE PEDESTAL

TELEPHONE MANHOLE

FIBER OPTIC

FIBER OPTIC MANHOLE

CABLE TV  
(OVERHEAD)  
(DIRECT BURY)

CABLE T.V. PEDESTAL

SATELLITE DISH

U.G. DUCT (E, T, F0)

EXISTING

PROPOSED

UTILITIES

EXISTING

PROPOSED

ELECTROLIER

HIGHTOWER

SIGNAL POLE WITH MAST

PEDESTRIAN PUSH BUTTON

RURAL BEACON

SCHOOL ZONE BEACON

RIGHT OF WAY

PRIMARY CENTERLINE MONUMENT

SECONDARY CENTERLINE MONUMENT

PROJECT RIGHT-OF-WAY LINES

CONTROLLED ACCESS LINE

TEMPORARY CONSTRUCTION  
EASEMENT/PERMIT

PROJECT CENTERLINE

RAILROAD CENTERLINE

EXISTING

TO BE SET THIS  
PROJECT

ROW

C/A

27+00

EXISTING TOPOGRAPHY

CONIFER TREE OR TREES

DECIDUOUS TREE OR TREES

SHRUB OR SHRUBS

WETLANDS

CREEK

RIVER

LAKE / POND

EXISTING/PROPOSED

DRAINAGE FLOW

CONTOURS - MAJOR

CONTOURS - MINOR

MISCELLANEOUS

EXISTING

PROPOSED

BUILDING

TANKS  
ABOVE GROUND  
UNDERGROUND

PRIVATE SIGN

POST/BOLLARDS

MAILBOX

TRAFFIC SIGN

TRAFFIC SIGN POST #

VENT

REVISIONS

NO.	DATE	DESCRIPTION

STATE

PROJECT DESIGNATION

YEAR

SHEET NO.

TOTAL SHEETS

ALASKA

0001(475)/ 55750

2013

A3

A3

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

FENCE

RETAINING WALL

HEAD & WINGWALLS

GUARDRAIL

END SECTION

PARALLEL GUARDRAIL SECTION

SPECIAL DITCH

BOTTOM OF DITCH

RIPRAP

BOULDER OR BOULDERS

PAVEMENT RESURFACING AREA

ORNAMENTAL PLANTER/GARDEN

BENCH

IRRIGATION HYDRANT

IRRIGATION BACKFLOW SYSTEM

THAW WIRE LOAD CENTER

EXISTING

PROPOSED

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
  
HSIP: CR GUARDRAIL  
DELINEATION ENHANCEMENTS

LEGEND SHEET

DESIGNED BY: LRA  
CHECKED BY: CLB  
DRAFTED BY: NEF

XREFS  
N/A  
N/A

SCALE  
20

LAYOUT  
C1


DATE  
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TIME  
9:39 AM

DRAWING LOCATION  
T:\Projects\Regional\55750 - HSIP CR Guardrail Delineation Enhancements\Civ3D12\Planset\C1\_ESTIMATE.dwg

ESTIMATE OF QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL
606(19A)	GUARDRAIL REFLECTOR	EACH	21,339
606(19B)	GUARDRAIL FLEXIBLE DELINEATOR	EACH	13,132
640(1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
640(4)	WORKERS MEALS AND LODGING, OR PER DIEM	LUMP SUM	ALL REQUIRED
643(2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
643(15)	FLAGGING	HOURL	2,224
643(23)	TRAFFIC PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
643(25)	TRAFFIC CONTROL	CONTINGENT SUM	ALL REQUIRED
646(1)	CPM SCHEDULING	LUMP SUM	ALL REQUIRED

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION					
			ALASKA	0001(475)/ 55750	2013	C1	C1



STATE OF ALASKA  
49<sup>TH</sup>  
CHRISTOPHER L. BENTZ  
REGISTERED PROFESSIONAL ENGINEER  
CE # 12821

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

HSIP: CR GUARDRAIL  
DELINEATION ENHANCEMENTS

ESTIMATE OF QUANTITIES

DESIGNED BY LRA

CHECKED BY GLEB

DRAFTED BY NEF

REFS

N/A

N/A

SCALE

20

LAYOUT

D1

DATE

TIME

7/16/2013 8:19 AM

DRAWING LOCATION

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REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION					
			ALASKA	0001(475)/ 55750	2013	D1	D1

606(19A)	GUARDRAIL REFLECTOR		
ROADWAY SECTION	BEGIN	END	# GUARDRAIL TAB REFLECTOR
STERLING HIGHWAY	MP 37	MP 179 END OF HOMER SPIT	2883
EAST END ROAD * HOMER	ENTIRE ROAD		175
KALIFORNSKY BEACH ROAD * SOLDOTNA	ENTIRE ROAD		54
FUNNY RIVER ROAD * SOLDOTNA	ENTIRE ROAD		131
KENAI SPUR HIGHWAY	ENTIRE ROAD		429
BRIDGE ACCESS ROAD * KENAI	ENTIRE ROAD		24
SEWARD HIGHWAY	MP 0	MP 120	8619
HOPE ROAD * HOPE	ENTIRE ROAD		734
DE ARMOUN ROAD * ANCHORAGE	ENTIRE ROAD		36
BIRCH ROAD * ANCHORAGE	ENTIRE ROAD		46
O'MALLEY ROAD * ANCHORAGE	ENTIRE ROAD		94
RABBIT CREEK ROAD	ENTIRE ROAD		106
HILLSIDE DRIVE	ENTIRE ROAD		44
ABBOTT ROAD * ANCHORAGE	ENTIRE ROAD		61
SAND LAKE ROAD	ENTIRE ROAD		9
RASPBERRY ROAD * ANCHORAGE	INT. W/ SAND LAKE RD.	CROSS STREET (CHANGEPOINT DR.)	13
INTL AIRPORT ROAD * ANCHORAGE	ENTIRE ROAD		100
MINNESOTA DRIVE * ANCHORAGE	ENTIRE ROAD		351
GLENN HIGHWAY	MP 0	MP 118	4047
OLD GLENN @ PALMER	ENTIRE HIGHWAY		1027
KNIK RIVER ROAD	ENTIRE ROAD		81
PALMER-FISHHOOK ROAD	ENTIRE ROAD		281
WILLOW FISHHOOK ROAD	ENTIRE ROAD		161
PARKS HIGHWAY	MP 35 PARKS SB- GLENN WB RAMP	MP 163.3	1196
KNIK-GOOSE BAY ROAD * WASILLA	ENTIRE ROAD		175
WASILLA/FISHHOOK ROAD	ENTIRE ROAD		198
BIG LAKE ROAD * HOUSTON	ENTIRE ROAD		83
SELDON ROAD * MAT-SU	ENTIRE ROAD		56
BOGARD ROAD * WASILLA	ENTIRE ROAD		90
TALKEETNA SPUR ROAD	ENTIRE ROAD		35
TOTAL			21339

606(19B)	GUARDRAIL FLEXIBLE DELINEATOR		
ROADWAY SECTION	BEGIN	END	# GUARDRAIL FLEXIBLE DELINEATOR
STERLING HIGHWAY	MP 37	MP 179 END OF HOMER SPIT	1773
EAST END ROAD * HOMER	ENTIRE ROAD		175
KALIFORNSKY BEACH ROAD * SOLDOTNA	ENTIRE ROAD		54
FUNNY RIVER ROAD * SOLDOTNA	ENTIRE ROAD		131
KENAI SPUR HIGHWAY	ENTIRE ROAD		429
BRIDGE ACCESS ROAD * KENAI	ENTIRE ROAD		24
SEWARD HIGHWAY	MP 0 MP 75	MP 7 MP 120	3988
HOPE ROAD * HOPE	MP 10.3	MP 17	435
SAND LAKE ROAD	ENTIRE ROAD		9
RASPBERRY ROAD * ANCHORAGE	INT. W/ SAND LAKE RD.	CROSS STREET (CHANGEPOINT DR.)	13
INTL AIRPORT ROAD * ANCHORAGE	ENTIRE ROAD		100
MINNESOTA DRIVE * ANCHORAGE	ENTIRE ROAD		351
GLENN HIGHWAY	MP 0	MP 78	2783
OLD GLENN @ PALMER	ENTIRE HIGHWAY		1027
KNIK RIVER ROAD	ENTIRE ROAD		81
PALMER-FISHHOOK ROAD	ENTIRE ROAD		281
PARKS HIGHWAY	MP 35 PARKS SB- GLENN WB RAMP	MP 72	841
KNIK-GOOSE BAY ROAD * WASILLA	ENTIRE ROAD		175
WASILLA/FISHHOOK ROAD	ENTIRE ROAD		198
BIG LAKE ROAD * HOUSTON	ENTIRE ROAD		83
SELDON ROAD * MAT-SU	ENTIRE ROAD		56
BOGARD ROAD * WASILLA	ENTIRE ROAD		90
TALKEETNA SPUR ROAD	ENTIRE ROAD		35
TOTAL			13132

- NOTES:
1. INSTALL GUARDRAIL REFLECTORS EVERY 50 FEET ON ALL EXISTING SECTIONS OF GUARDRAIL ON ROADWAYS AS SHOWN IN TABLE. REFLECTORS SHALL BE PLACED BETWEEN EXISTING GUARDRAIL REFLECTORS. IF EXISTING REFLECTORS ARE MISSING, REPLACE TO BE IN CONFORMANCE WITH STANDARD DRAWINGS LISTED ON A2. WHEN PRESENT, ON/OFF RAMP FROM LISTED ROADWAYS SHALL BE INCLUDED TO TOP/BOTTOM OF RAMP.
  2. INSTALL GUARDRAIL FLEXIBLE DELINEATORS EVERY 50 FEET ON TOP OF ALL EXISTING SECTIONS OF GUARDRAIL ON ROADWAYS SHOWN IN TABLE. INSTALL FLEXIBLE DELINEATORS ON THE TRAILING SIDE OF THE GUARDRAIL POST TOP.
  3. GUARDRAIL REFLECTORS & DELINEATORS ARE TO BE INSTALLED ONLY ON SECTIONS CONTAINED WITHIN STATE ROW. APPROACH ROAD/DRIVEWAY SECTIONS SHALL BE INCLUDED UP TO 50 FEET BEYOND MAINLINE OR TO ROW, WHICHEVER IS LESS.
  4. IF SIGNIFICANTLY DAMAGED SECTIONS OF GUARDRAIL ARE ENCOUNTERED THAT PROHIBIT INSTALLATION, THE ENGINEER CAN INSPECT AND GIVE A WAIVER FOR THAT SECTION. A CREDIT MAY BE REQUIRED.



STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

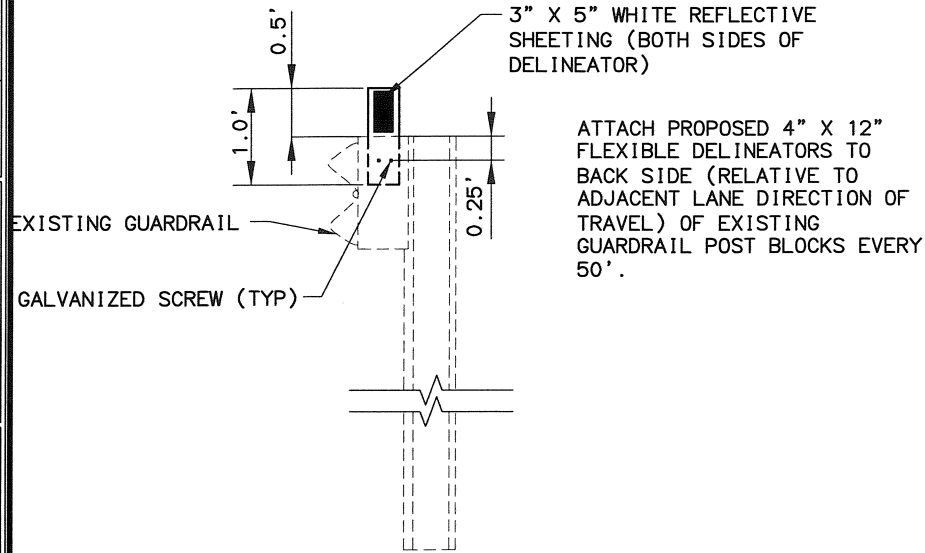
HSIP: CR GUARDRAIL  
DELINEATION ENHANCEMENTS

SUMMARY SHEET

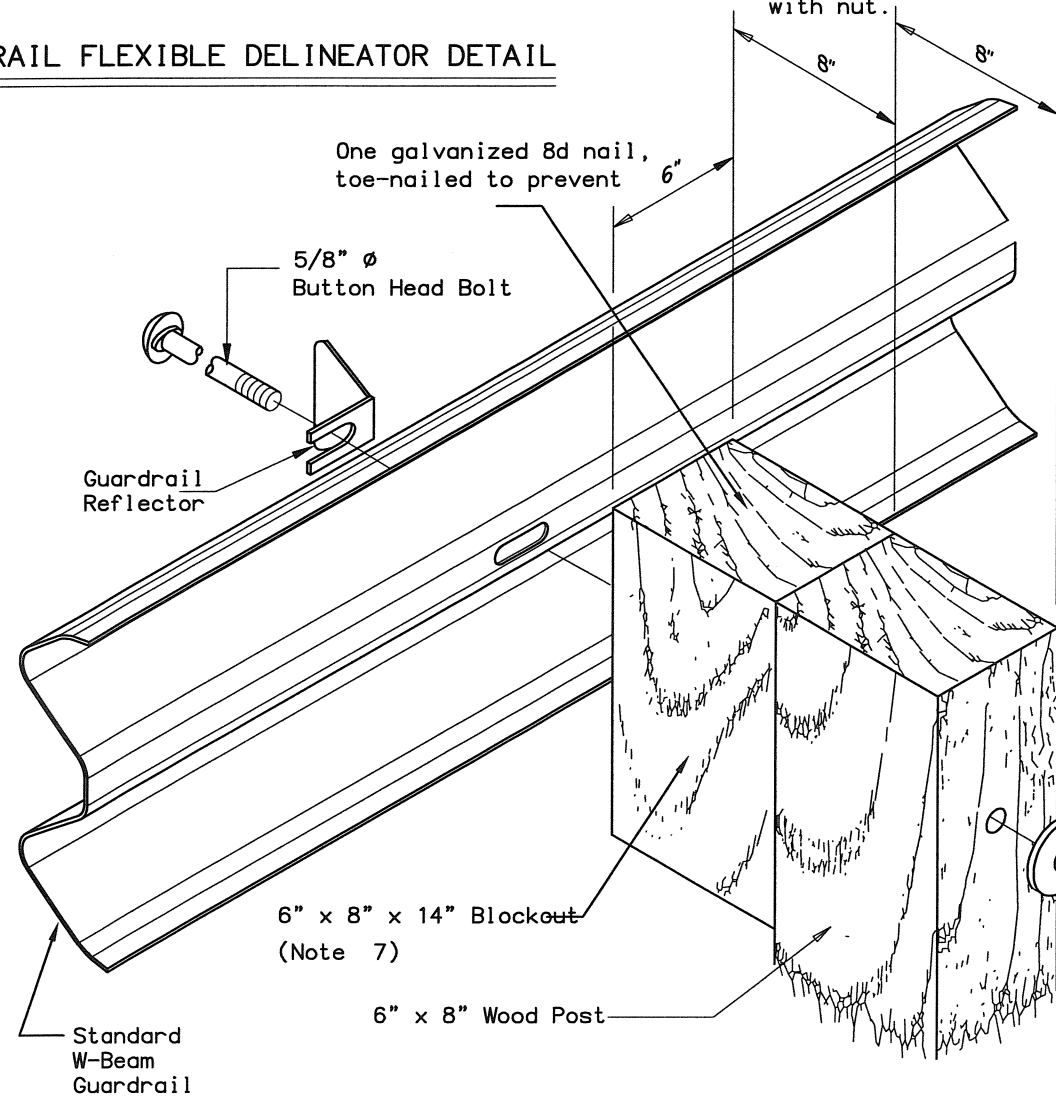
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REVISIONS		
NO.	DATE	DESCRIPTION

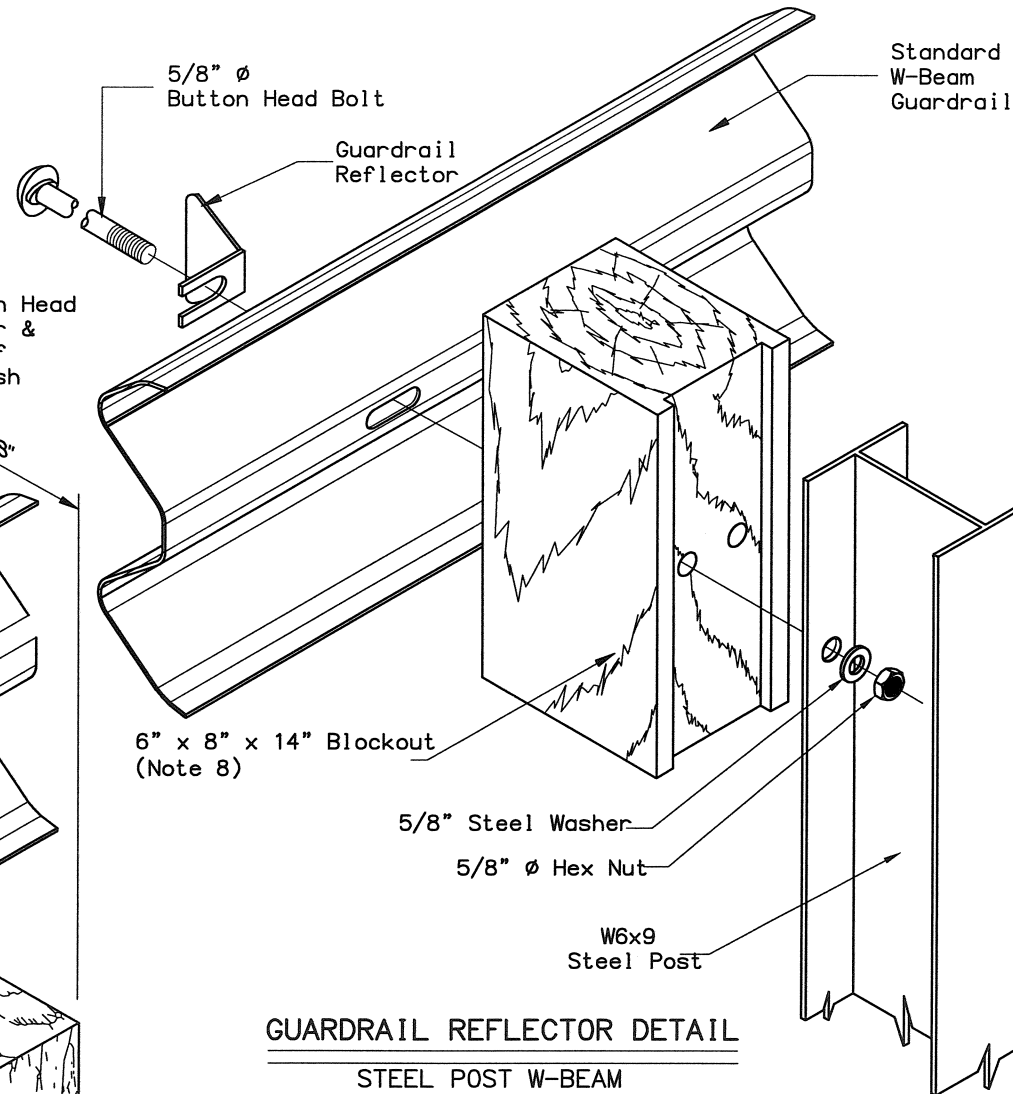
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001(475)/ 55750	2013	E1	E1



### GUARDRAIL FLEXIBLE DELINEATOR DETAIL



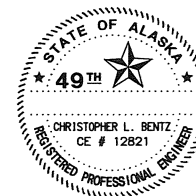
### GUARDRAIL REFLECTOR DETAIL WOOD POST W-BEAM



### GUARDRAIL REFLECTOR DETAIL STEEL POST W-BEAM

### GENERAL NOTES:

1. ATTACH GUARDRAIL REFLECTORS AT 50' CENTERS BEGINNING WITH THE FIRST POST. USE TYPE A REFLECTORS UNLESS SPECIFIED OTHERWISE.
2. FOR THRIE BEAM GUARDRAIL THE GUARDRAIL REFLECTORS SHALL BE MOUNTED AT 50 FOOT CENTERS AND PLACED IN THE UPPER INDENTATION OF THE RAIL PANEL BEGINNING WITH THE FIRST GUARDRAIL POST.



STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

**HSIP: CR GUARDRAIL  
DELINEATION ENHANCEMENTS**

**GUARDRAIL  
DELINEATOR & REFLECTOR  
DETAIL**