

# Alaska Department of Transportation & Public Facilities



## Sitka: Katlian Bay Road

Keith Karpstein, P.E. – Design Group Chief

March 2015



# Katlian Bay Road



**Aerial photo looking northeast**

*“Keep Alaska Moving through service and infrastructure.”*

# Project Origin & Funding

- In 2012 the Alaska State Legislature approved the *Alaska Transportation Projects Bonds Question* to be placed on the November ballot.
- The measure allowed for a general obligation bond to be issued for the purpose of transportation projects in the state.
- The bond was proposed to not exceed approximately *\$454 million*.
- Katlian Bay Road was approved for *\$14 million* of the total bond amount.
- The ballot measure was approved by voters in November 2012: *58% Yes and 42% No*.
- Data collection and preliminary reconnaissance work began in early 2013.



# Project Purpose & Need

- **Purpose:**

The purpose of the proposed Katlian Bay Road project is to provide recreational and subsistence opportunities on Baranof Island within U.S. Forest Service (USFS) Sitka Ranger District managed lands, provide access to Native Corporation (Shee Atika) lands, and provide access to potential new material sources on State, Federal and Native Corporation lands for possible future development.

- **Need:**

Sitka currently has a finite road system that provides limited passenger vehicle access for recreation and subsistence activities. Furthermore, Sitka has a shortage of developable material sources for future projects on the existing road system.



# Project Scope

## The Project would:

- Construct 9 miles of new unpaved single-lane road starting from the end of Halibut Pt. Road
- Add bridges across Katlian River and other smaller streams
- Rehabilitate portions of an existing USFS road located on Shee Atika lands
- Add intervisible road turnouts
- Add pullouts as lookouts to Katlian Bay
- Add a parking and picnic area at the trailhead to USFS lands
- Be constructed and open for year-round use
- Cross Alaska State lands, USFS-managed lands & Shee Atika lands



# Work Completed

## ➤ *Environmental Studies Completed:*

- Fisheries
- Wetlands
- Wildlife
- Visuals
- Cultural resources

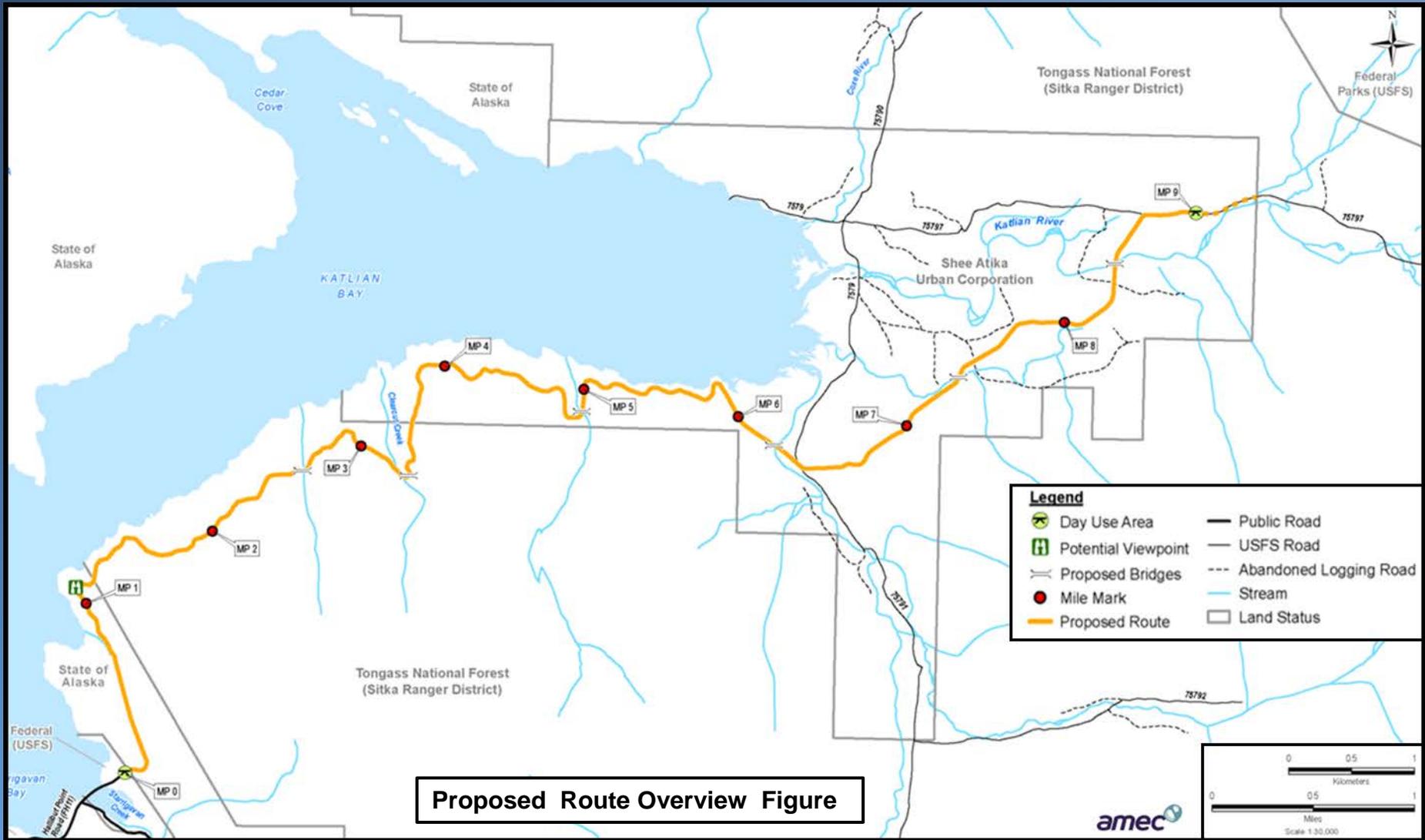
## ➤ *Engineering Activities Completed:*

- Geotechnical Field Reconnaissance
- Preliminary Hydraulic Site Recommendations
- Cross Section Survey of Proposed Route
- 35% Plan Development





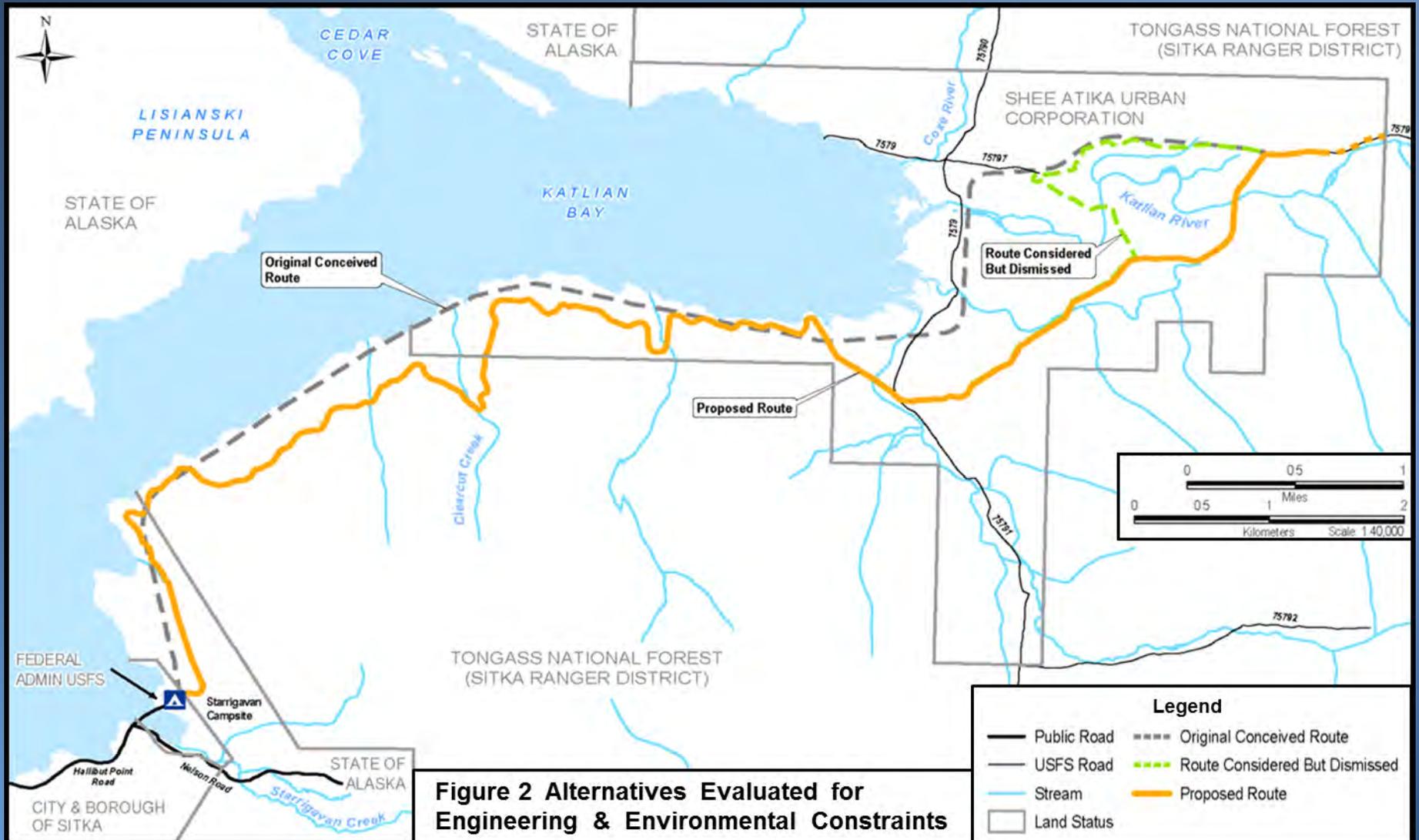
# Proposed Alignment



*"Keep Alaska Moving through service and infrastructure."*



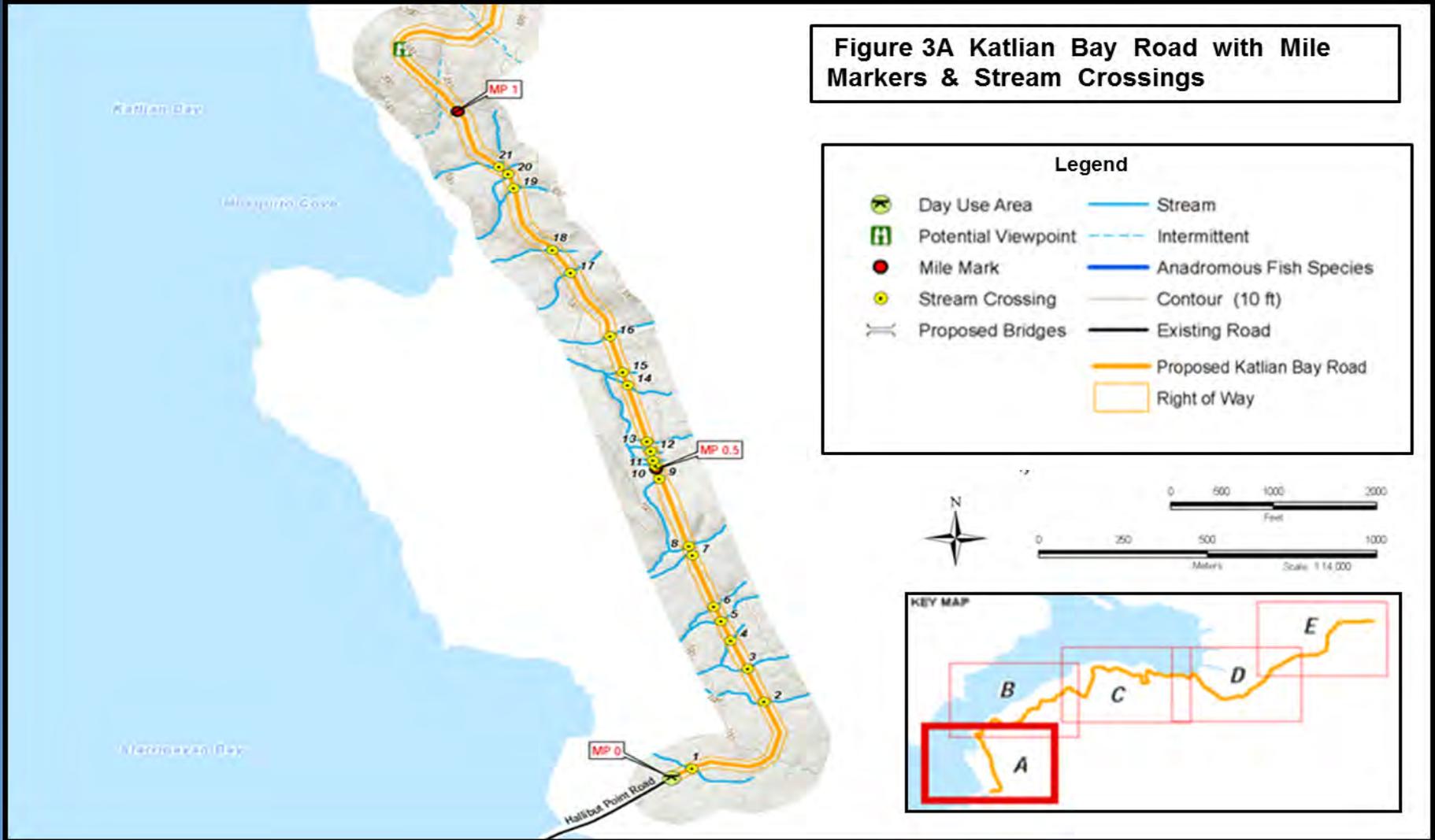
# Proposed Alignment (Cont'd)



*“Keep Alaska Moving through service and infrastructure.”*



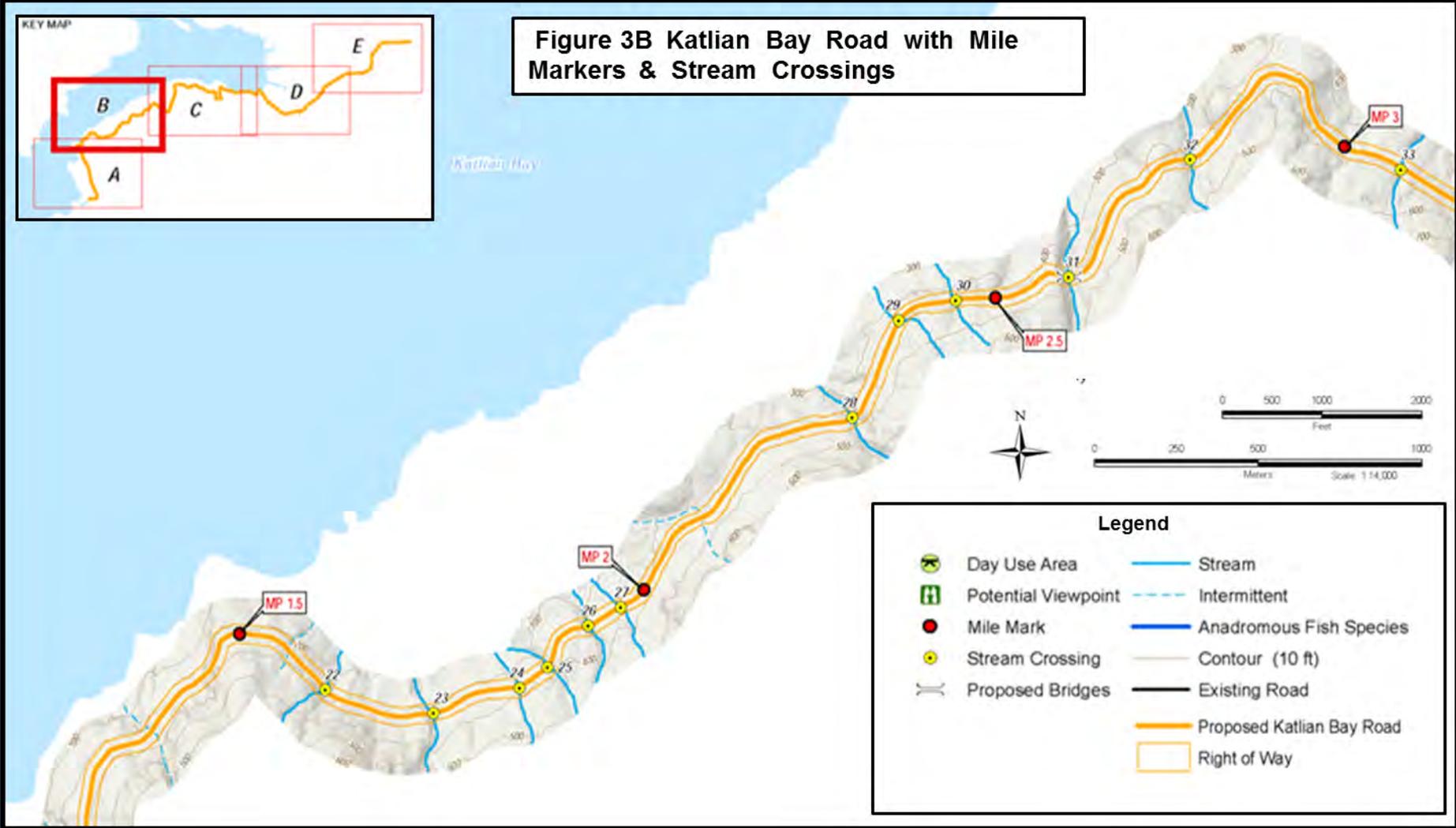
# Proposed Alignment (Cont'd)



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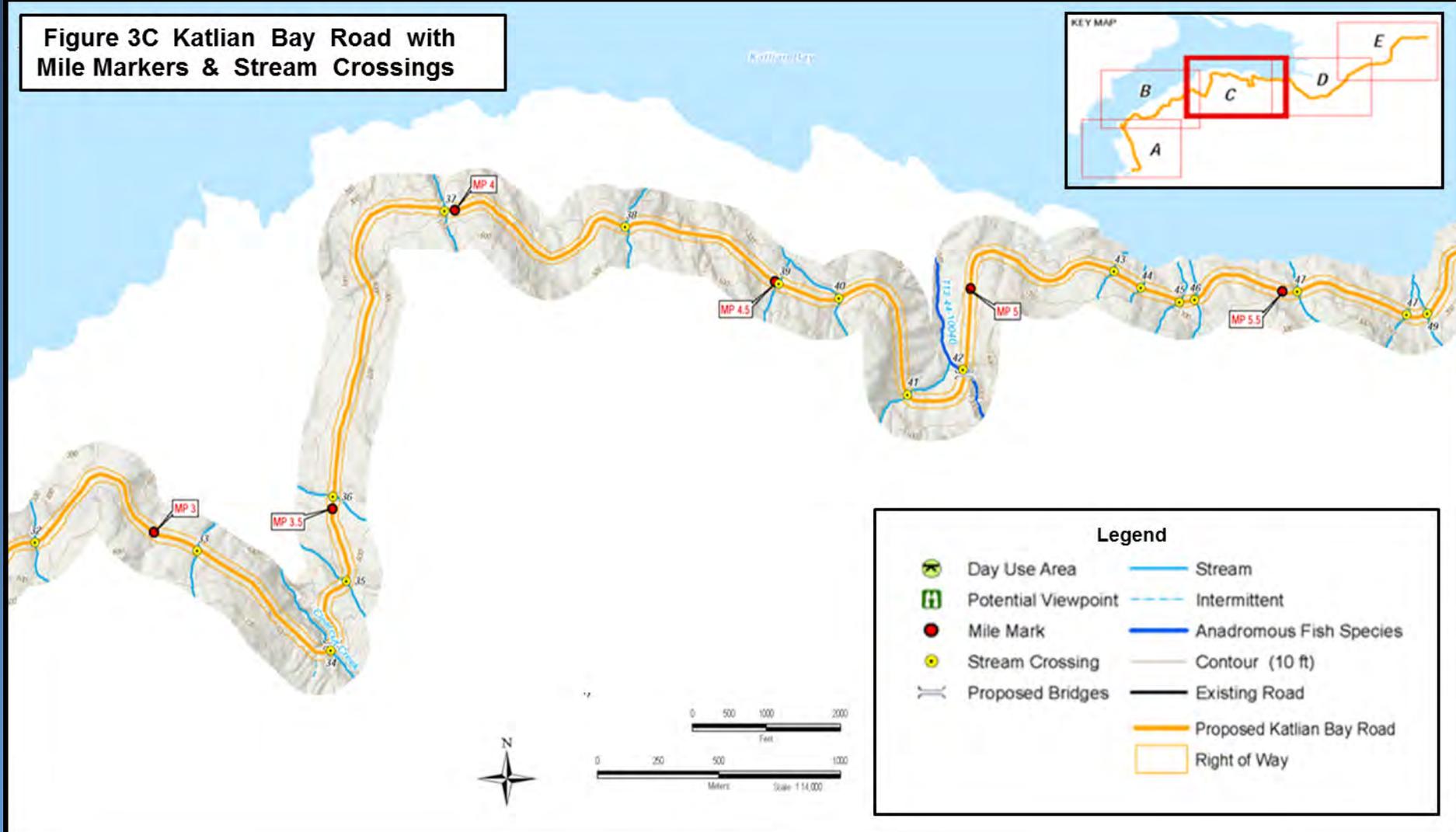
# Proposed Alignment (Cont'd)





# Proposed Alignment (Cont'd)

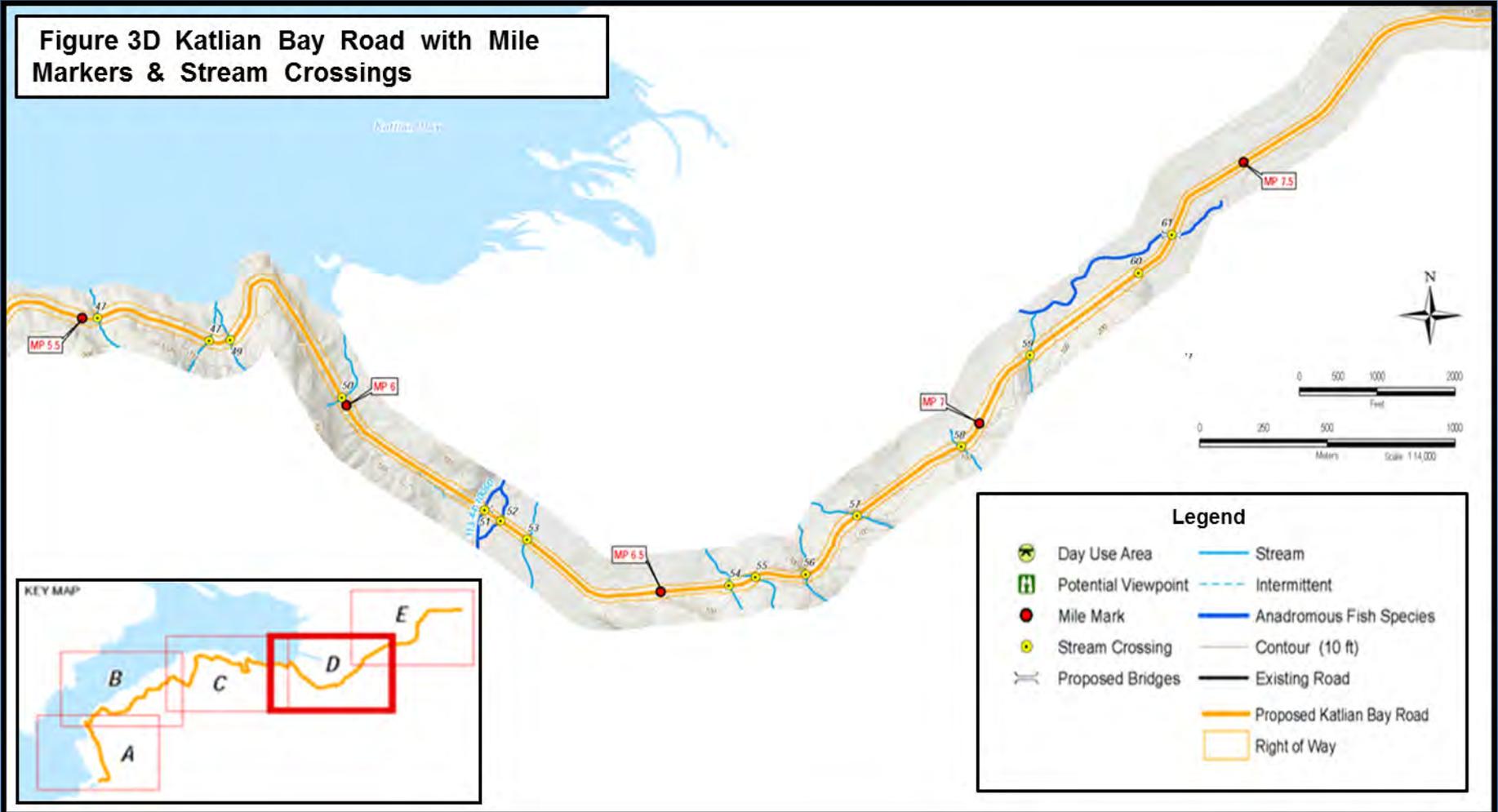
Figure 3C Katlian Bay Road with Mile Markers & Stream Crossings





# Proposed Alignment (Cont'd)

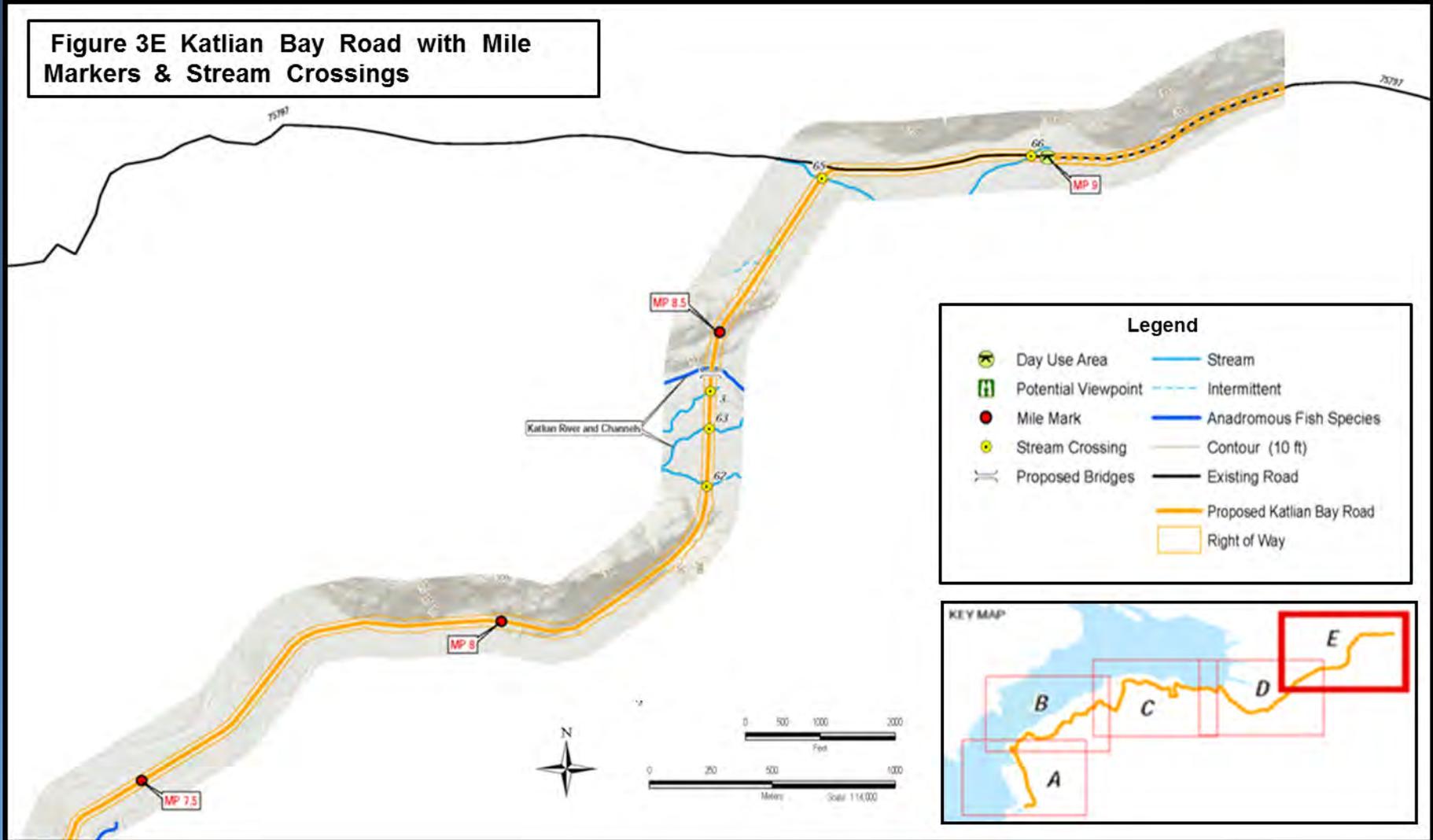
Figure 3D Katlian Bay Road with Mile Markers & Stream Crossings





# Proposed Alignment (Cont'd)

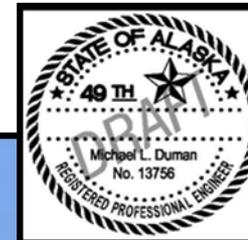
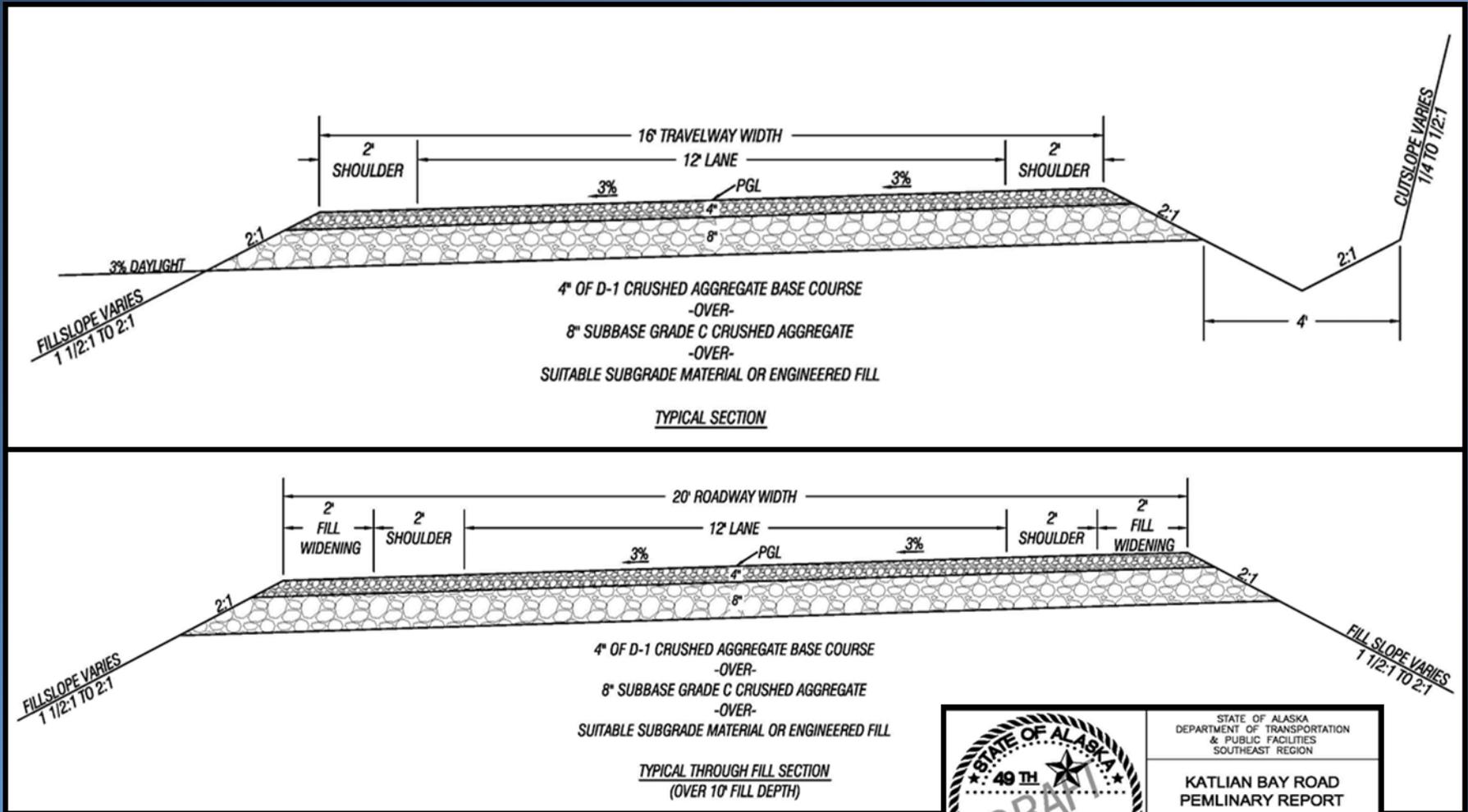
Figure 3E Katlian Bay Road with Mile Markers & Stream Crossings



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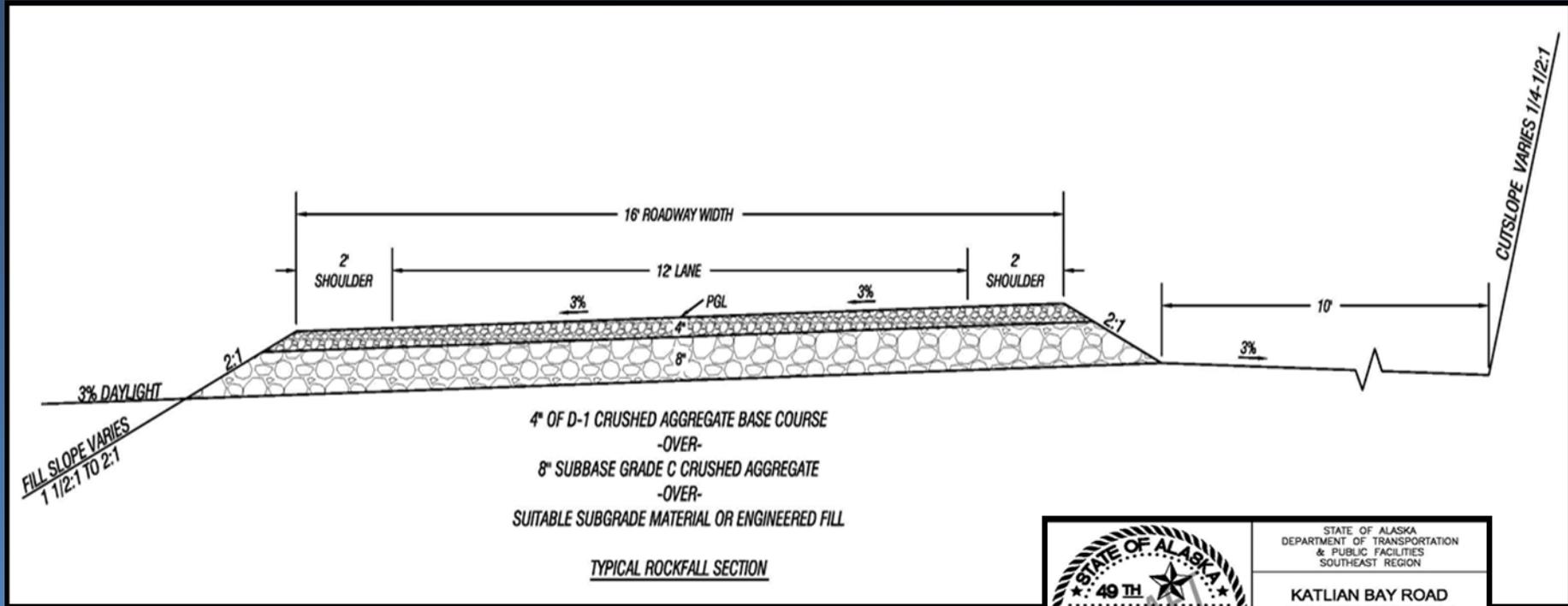
# Roadway Typical Sections



STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES SOUTHEAST REGION			
KATLIAN BAY ROAD PEMLINARY REPORT			
FIGURE A-2			
PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
67672	2015	-	-



# Roadway Typical Sections (Cont'd)



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DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION

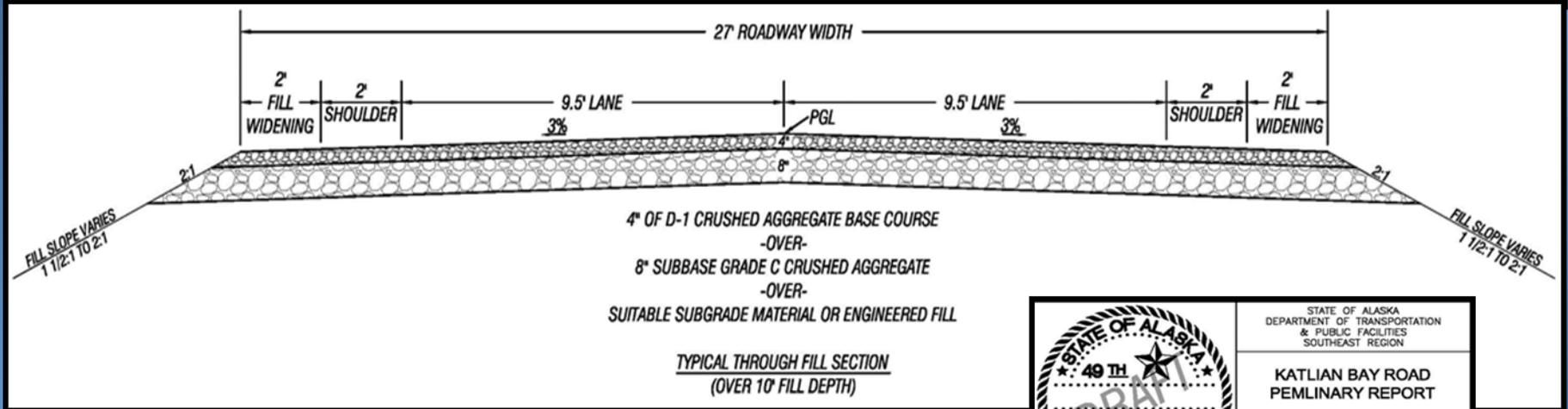
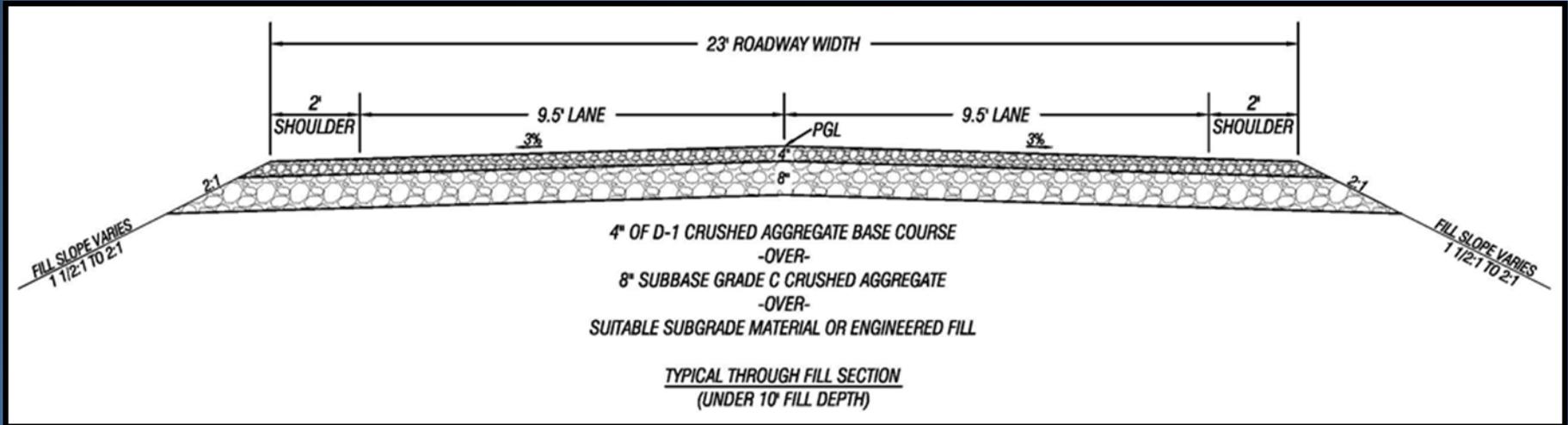
**KATLIAN BAY ROAD  
PEMLINARY REPORT**

**FIGURE A-3**

PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
67672	2015	-	-



# Roadway Typical Sections (Cont'd)



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SOUTHEAST REGION

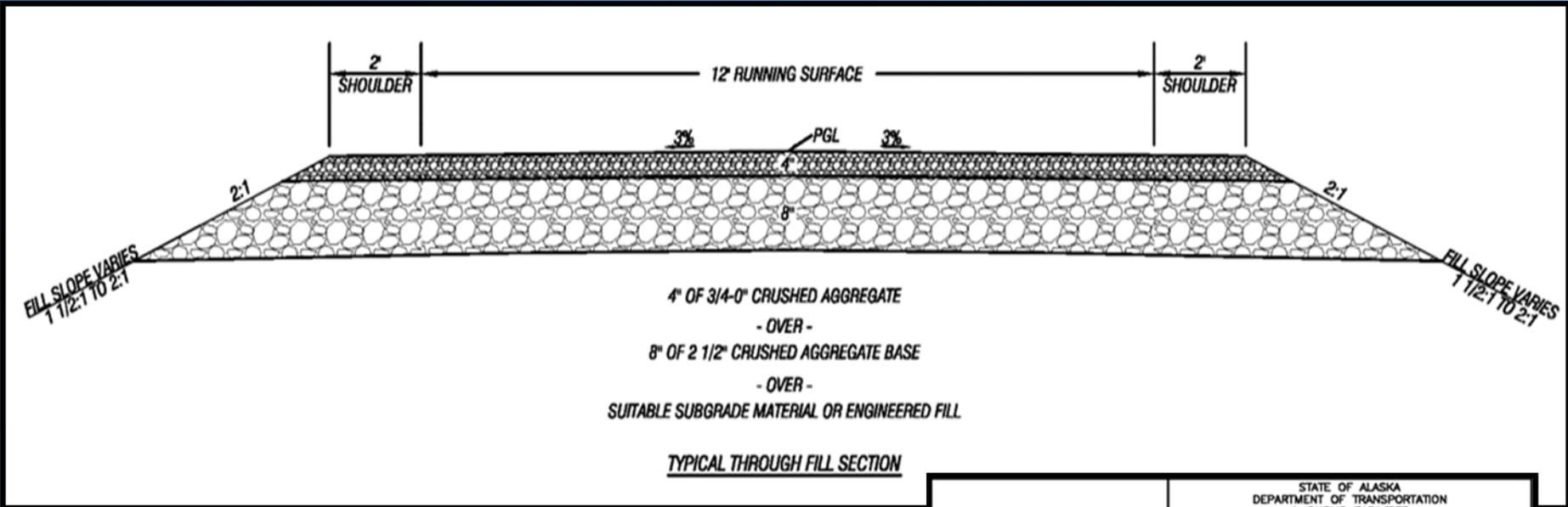
KATLIAN BAY ROAD  
PEMLINARY REPORT

FIGURE A-4

PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
67672	2015	-	-



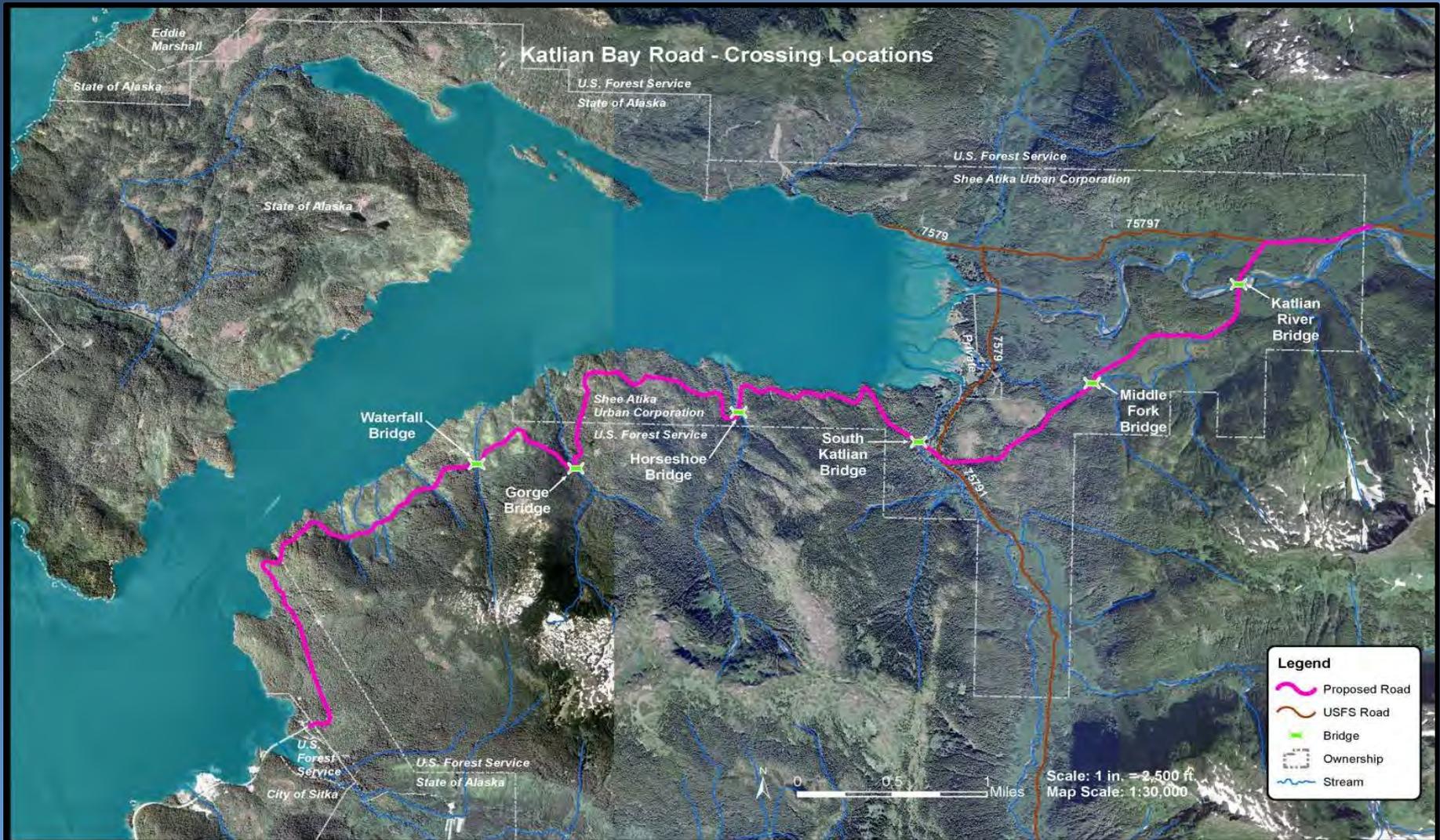
# Roadway Typical Sections (Cont'd)



	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES SOUTHEAST REGION			
	KATLIAN BAY ROAD ROAD IMPROVEMENTS PRELIMINARY DESIGN <b>FIGURE 4</b>			
PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS	
53-01	2015	X	X	



# Structure Locations



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# Proposed Structures

	<b>Waterfall</b>	<b>Gorge</b>	<b>Horseshoe</b>	<b>South Katlian</b>	<b>Middle Fork</b>	<b>Katlian River</b>
Length	24	85	95	105	40	150
Width	16	32	16	16	16	16
Type	Structural Plate Arch	Concrete Girder, Steel Girder or Flat Truss	Concrete Girder, Steel Girder or Flat Truss	Concrete Girder, Steel Girder or Flat Truss	Beam Bridge or Structural Plate Pipe Arch	Concrete Girder, Steel Girder or Flat Truss





# Structure Examples



**Flat Truss Bridge**

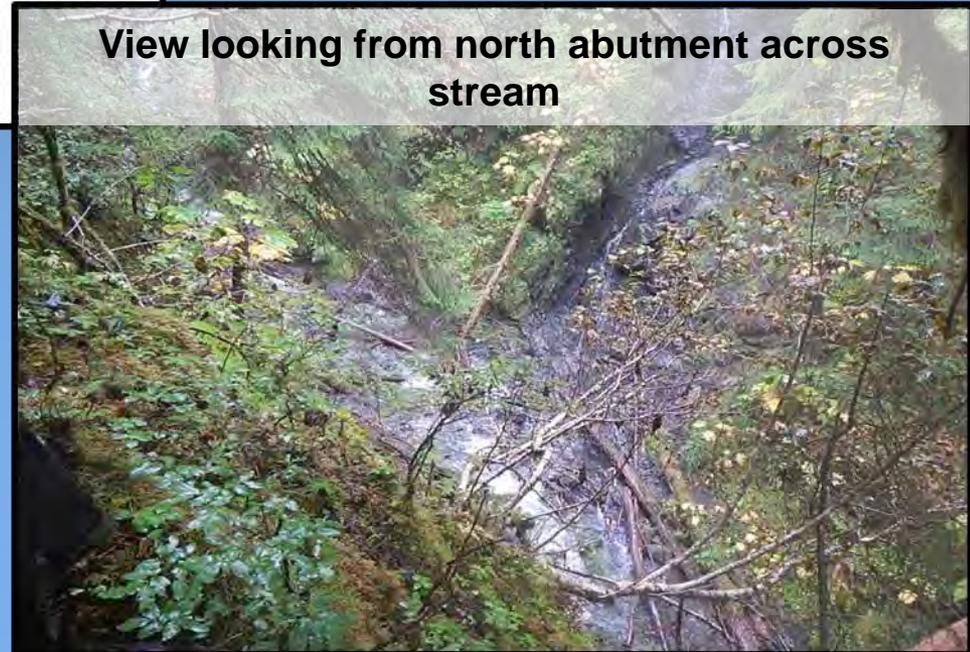
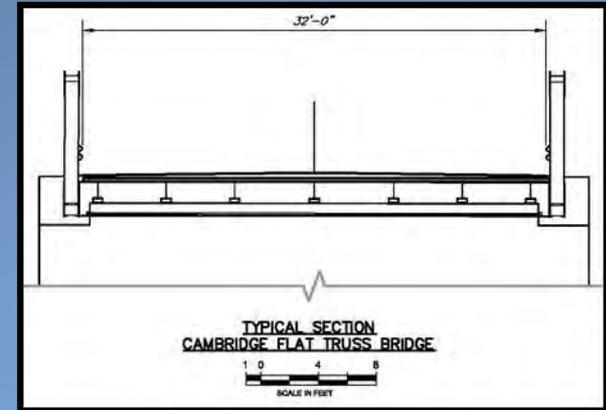
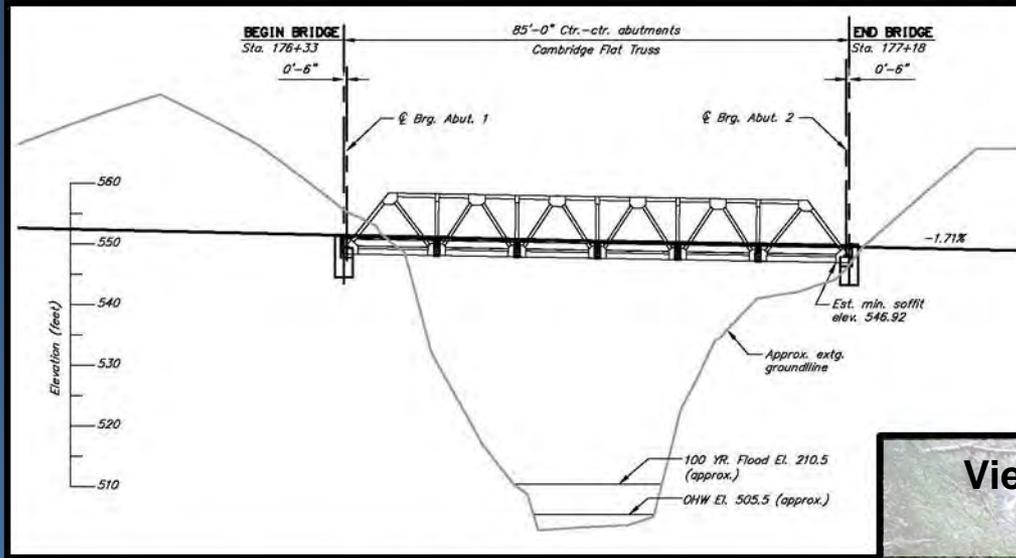


**Beam Bridge**

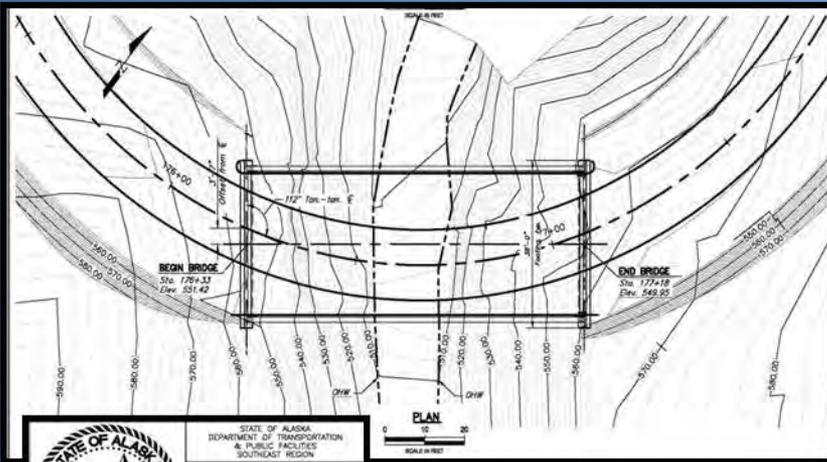




# Gorge Crossing



View looking from north abutment across stream



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FIGURE A-6

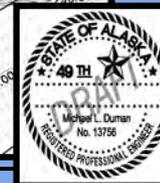
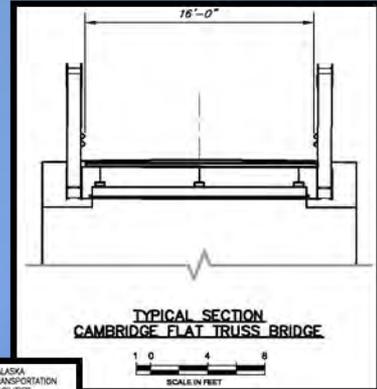
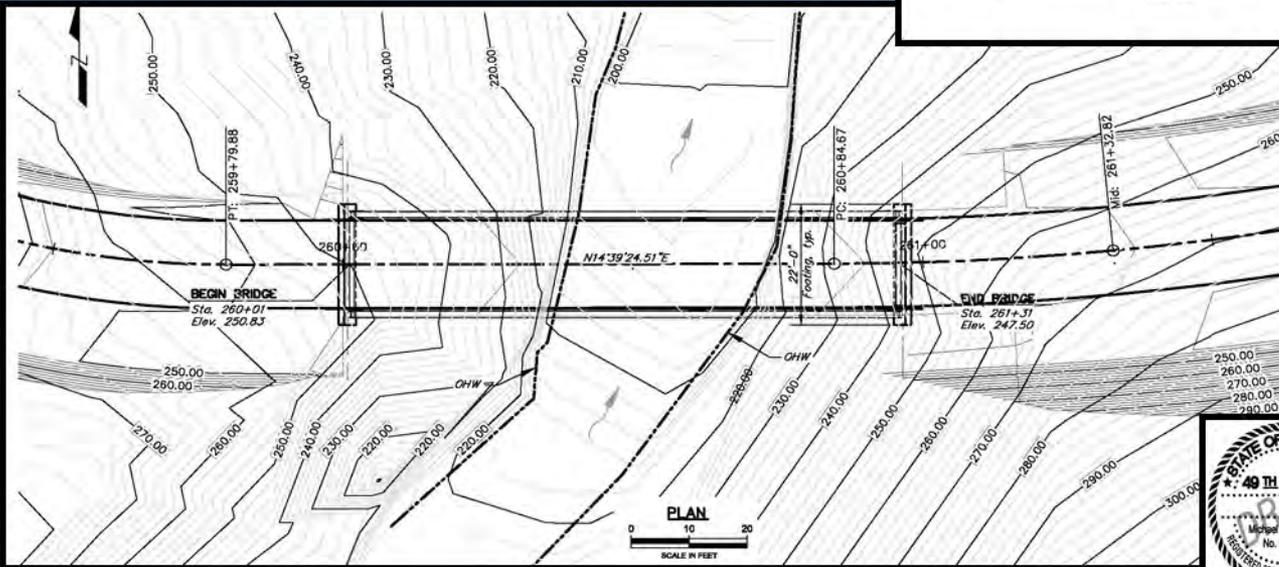
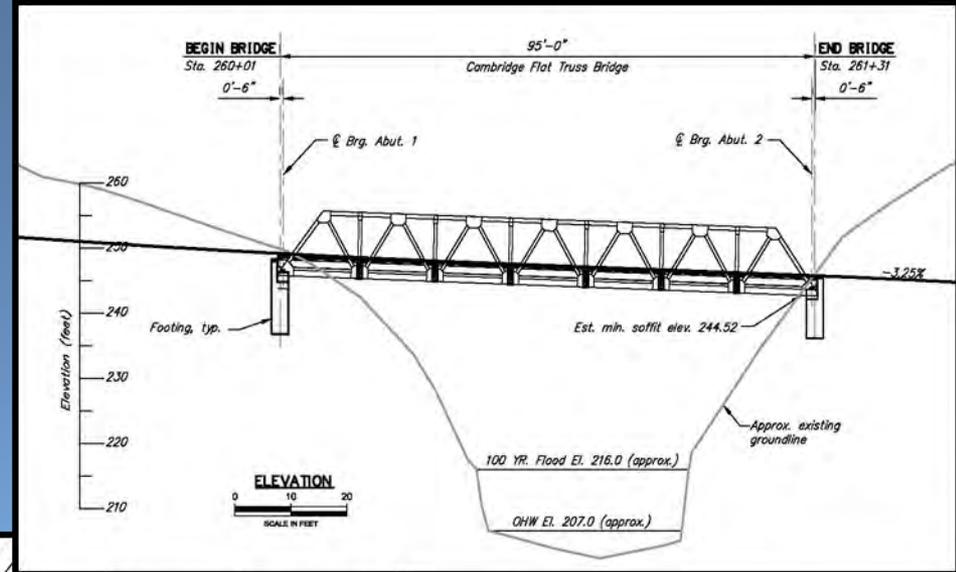
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
67672	2015	N2	

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# Horseshoe Crossing

View looking downstream from crossing



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FIGURE A-7

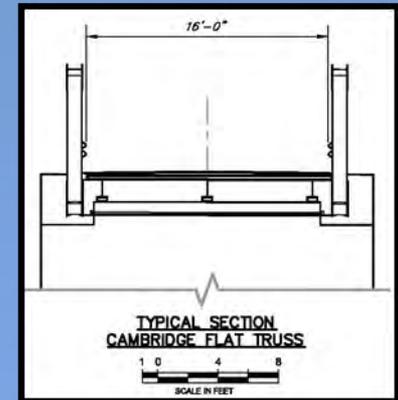
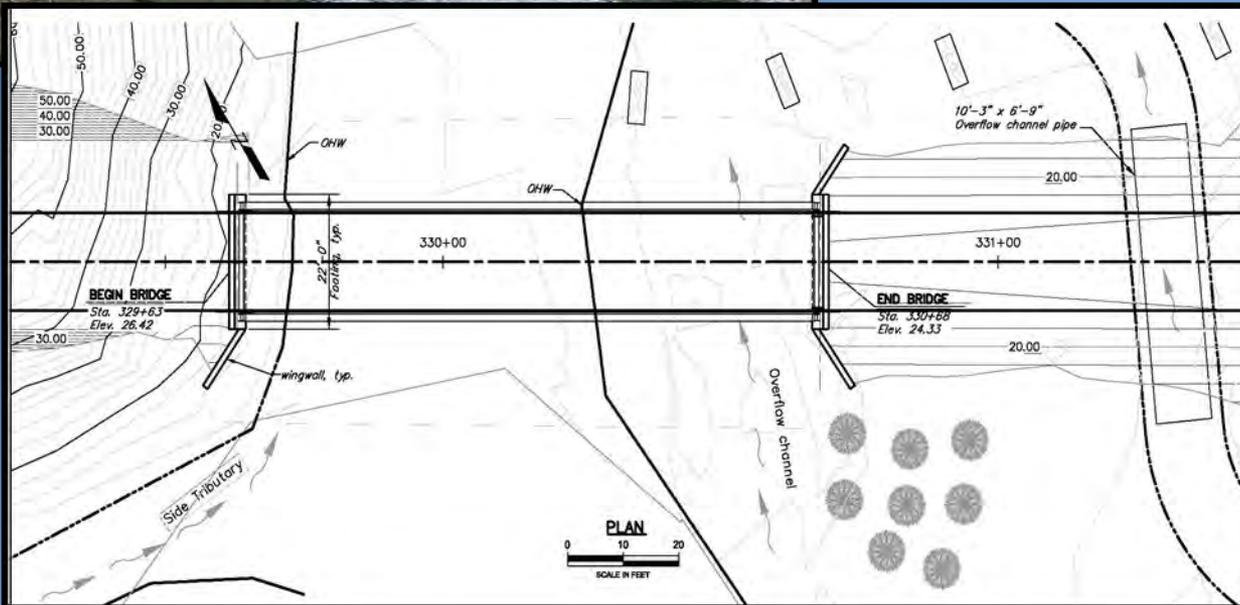
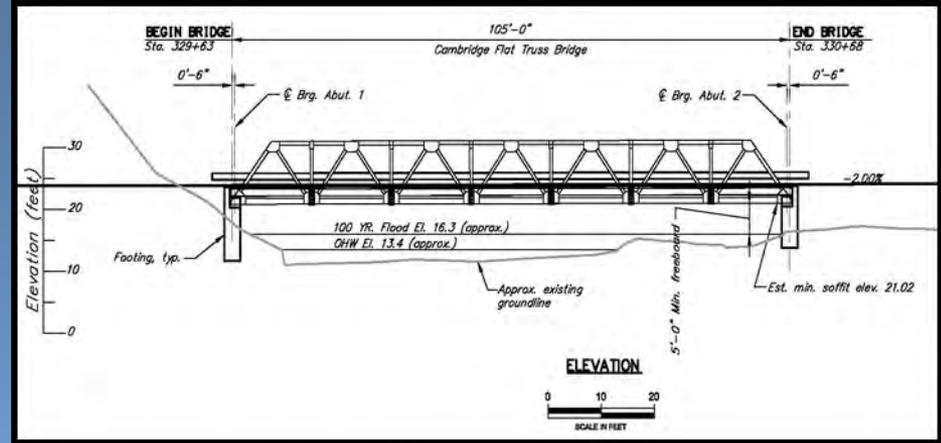
PROJECT DESIGNATION: 67672  
YEAR: 2015  
SHEET: N3  
TOTAL SHEETS: 3

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# South Katlian Crossing

View looking downstream at crossing

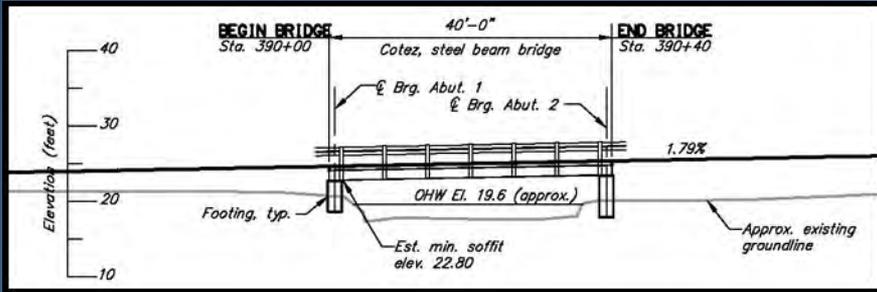


	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES SOUTHEAST REGION		
	KATLIAN BAY ROAD PEMLINARY REPORT		
	FIGURE A-8		
PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
67672	2015	N4	

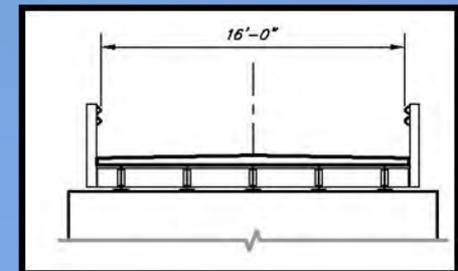
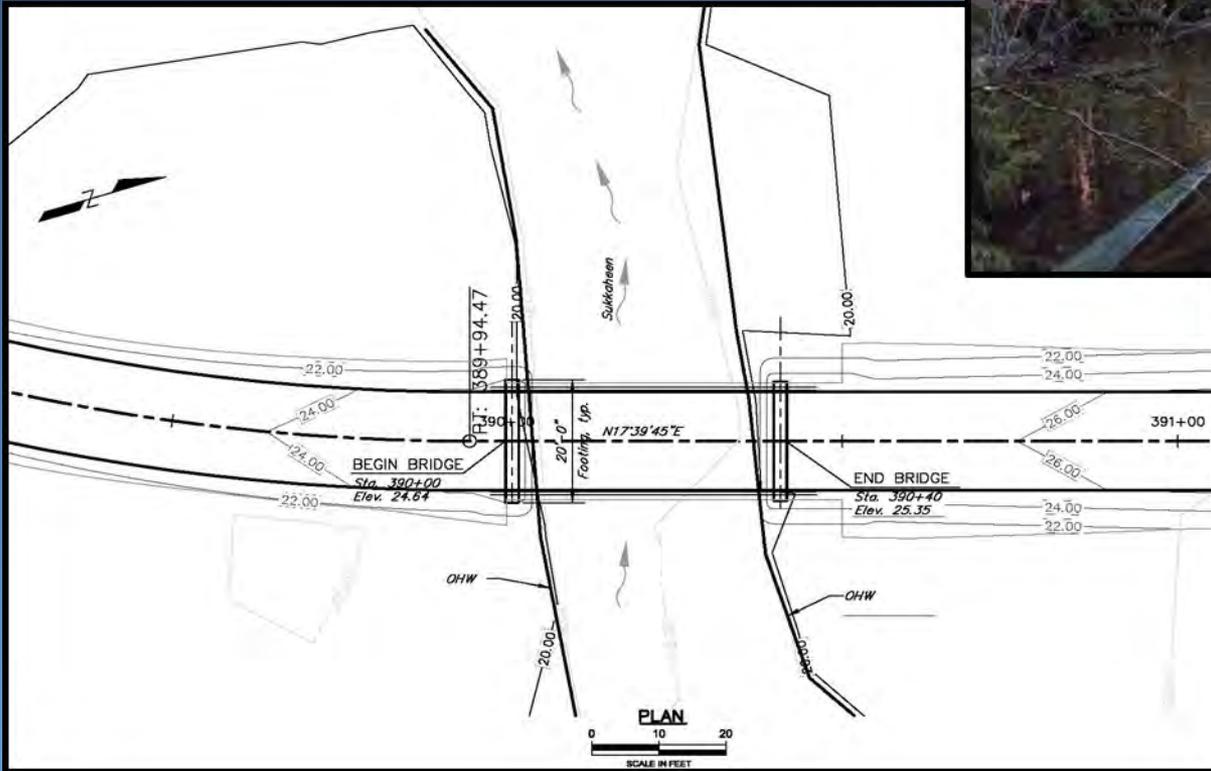
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# Middle Fork Crossing



View looking downstream at crossing



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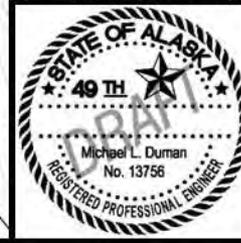
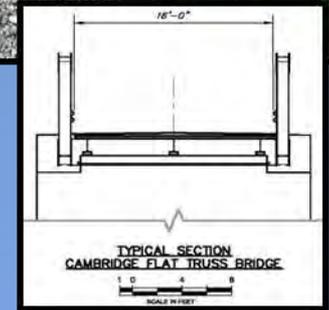
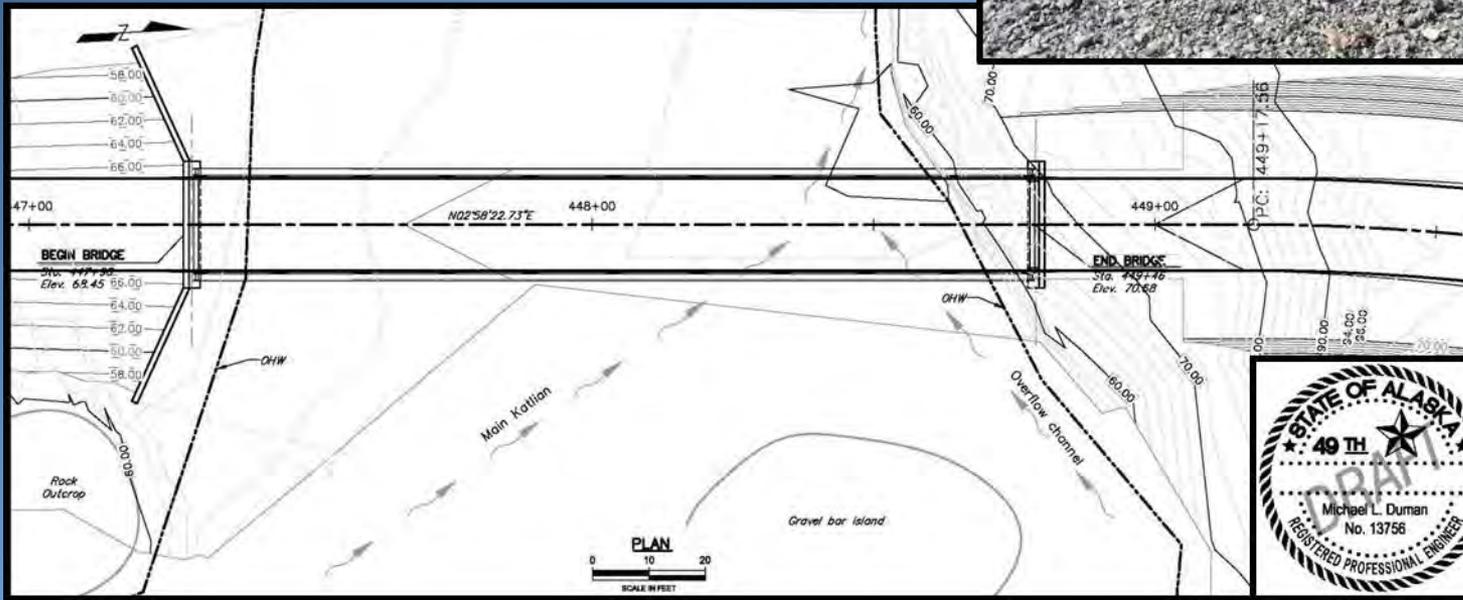
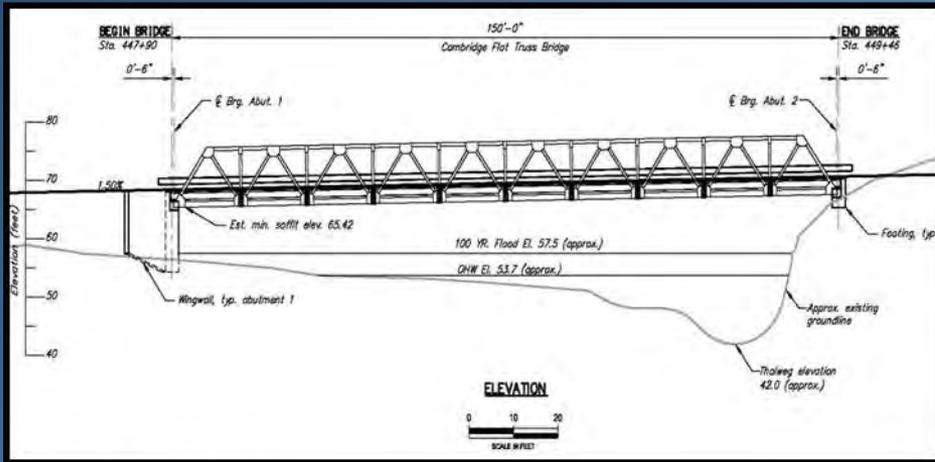
**FIGURE A-9**

PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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# Katlian River Crossing



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PEMLINARY REPORT**

**FIGURE A-11**

PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
67672	2015	N7	

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# Day Use Area – Near End of Project



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# Estimated Impacts

	Proposed Alignment
Total length	9
Total area impacted (acres)	97
Wetland acres impacted	12
# of cataloged anadromous stream crossings	4
Presence of eagle nests	2 eagle nests are within 330 feet of the proposed work



# Estimated Project Costs

- **Engineering and Environmental Activities:**
  - Approximately \$3.5 million
- **Mitigation:**
  - Approximately \$500,000
- **Construction Engineering & ICAP:**
  - Approximately \$2 million
- **Construction:**
  - Approximately \$10 million
- **Total Project Cost:**
  - *Approximately \$16 million*



# Project Schedule

## ➤ Continued Engineering and Bridge Design

- April 2015 - June 2016

## ➤ Further Environmental Studies

- April 2015 - July 2015
  - Geotechnical
  - Fisheries
  - Wetlands
  - Wildlife



# Project Schedule

- **Complete environmental activities & NEPA documentation for USFS & USACE Permitting**
  - August 2015
- **Advertise for Construction**
  - June 2016

