

Appendix A
Correspondence with Tribes



U.S. Department
of Transportation

**Federal Highway
Administration**

Western Federal Lands Highway Division
610 E. Fifth Street
Vancouver, WA 98661
Phone 360-619-7700
Fax 360-619-7846

May 6, 2016

The Honorable Reyn Leno, Tribal Council Chair
Confederated Tribes of Grand Ronde
9615 Grand Ronde Road
Grand Ronde, OR 97347

Re: Cape Meares Road Relocation Project

Dear Chairman Leno,

The Federal Highway Administration (FHWA), Western Federal Lands Highway Division (WFL), in partnership with Tillamook County is seeking comments and/or participation from the Confederated Tribes of Grand Ronde regarding the Cape Meares Road Relocation project located in Tillamook County, Oregon along Cape Meares Loop Road between Oceanside and Tillamook Bay (see attached vicinity map and preliminary area of potential effect map). The project is in the early planning phases of the National Environmental Policy Act process.

This letter is requesting government-to-government consultation with the Confederated Tribes of Grand Ronde. We would gladly meet with you to discuss the project. You may also contact us in writing or by email - contact information is included at the end of this letter. For the purpose of complying with Section 106 of the National Historic Preservation Act (Section 106), FHWA requests notification if the Confederated Tribes of Grand Ronde believe cultural resources that the Tribes attach religious and cultural significance to may be affected by the proposed project. To initiate Section 106 Tribal consultation, David Harrelson has been copied on this letter.

The purpose of the project, as currently defined, is to restore service on Cape Meares Loop Road and reopen this section of the Three Capes Scenic Route which provides visitor access to Cape Meares National Wildlife Refuge and Cape Meares State Scenic Viewpoint and Lighthouse. The project proposes to construct a bypass around a historic landslide area that closed a 1.5 mile section of Cape Meares Loop Road located between the communities of Oceanside and Cape Meares on January 11, 2013.

Cape Meares has documented ongoing landslide activity dating back to the late 1890s. The hillside is prone to rapid and significant movement, with the slide moving approximately nine feet between 2007 and 2013. An emergency bypass of the active slide area on Cape Meares Loop Road was built in 2007, but additional slide activity in early 2008 prompted the County to

complete a damage assessment. The assessment documented that the roadway had moved approximately 90 feet since the 1960s when the road was originally constructed.

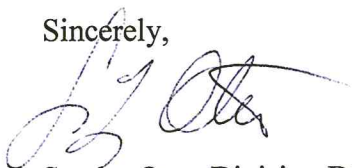
With Cape Meares Loop Road closed to through traffic, visitors and local residents may only access the wildlife refuge and lighthouse from the south. According to visitor counts in 2011 and 2013, there was approximately a 12 percent decrease in visitors to the wildlife refuge and lighthouse following the closure of Cape Meares Loop Road. Additional benefits of the project include providing a tsunami escape route for the communities of Oceanside and Cape Meares and an emergency detour route for Oceanside and Netarts when Highway 131 is closed due to slope failures. Additionally, when slides and roadway closures occur on Bay Ocean Road, the community of Cape Meares is cut off from emergency services, schools and jobs. Construction of the bypass will alleviate the concerns caused by the current roadway closure.

Please review the enclosed map and contact FHWA with any questions or concerns by June 10, 2016 or at your earliest convenience.

If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this Environmental Assessment, please contact me or Jennifer Chariarse at 360-619-7621 or jennifer.chariarse@dot.gov. A project website has been set up by Tillamook County. Additional project related information can be accessed on the website at the following link:
<http://www.co.tillamook.or.us/gov/pw/Projects.htm>.

Thank you for your cooperation and interest in this project.

Sincerely,



Sandra Otto, Division Director

Enclosures:

Project Vicinity Map
Preliminary Area of Potential Effect Map

Cc:

David Harrelson, THPO, Confederated Tribes of Grand Ronde
Mike Wilson, Natural Resources Director, Confederated Tribes of Grand Ronde
Kevin Gray, WFL Project Manager
Mike Schurke, WFL Archaeologist
Jennifer Chariarse, WFL Environmental Specialist
Liane Welch, Tillamook County, Public Works Director



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May 6, 2016

The Honorable Delores Pigsley, Tribal Chairperson
Confederated Tribes of Siletz Indians
201 SE Swan Avenue
P.O. Box 549
Siletz, OR 97380

Re: Cape Meares Road Relocation Project

Dear Chairperson Pigsley,

The Federal Highway Administration (FHWA), Western Federal Lands Highway Division (WFL), in partnership with Tillamook County is seeking comments and/or participation from the Confederated Tribes of Siletz Indians regarding the Cape Meares Road Relocation project located in Tillamook County, Oregon along Cape Meares Loop Road between Oceanside and Tillamook Bay (see attached vicinity map and preliminary area of potential effect map). The project is in the early planning phases of the National Environmental Policy Act process.

This letter is requesting government-to-government consultation with the Confederated Tribes of Siletz Indians. We would gladly meet with you to discuss the project. You may also contact us in writing or by email - contact information is included at the end of this letter. For the purpose of complying with Section 106 of the National Historic Preservation Act (Section 106), FHWA requests notification if the Confederated Tribes of Siletz Indians believe cultural resources that the Tribes attach religious and cultural significance to may be affected by the proposed project. To initiate Section 106 Tribal consultation, Robert Kentta has been copied on this letter.

The purpose of the project, as currently defined, is to restore service on Cape Meares Loop Road and reopen this section of the Three Capes Scenic Route which provides visitor access to Cape Meares National Wildlife Refuge and Cape Meares State Scenic Viewpoint and Lighthouse. The project proposes to construct a bypass around a historic landslide area that closed a 1.5 mile section of Cape Meares Loop Road located between the communities of Oceanside and Cape Meares on January 11, 2013.

Cape Meares has documented ongoing landslide activity dating back to the late 1890s. The hillside is prone to rapid and significant movement, with the slide moving approximately nine feet between 2007 and 2013. An emergency bypass of the active slide area on Cape Meares Loop

Road was built in 2007, but additional slide activity in early 2008 prompted the County to complete a damage assessment. The assessment documented that the roadway had moved approximately 90 feet since the 1960s when the road was originally constructed.

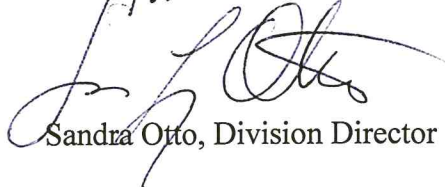
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Please review the enclosed map and contact FHWA with any questions or concerns by June 10, 2016 or at your earliest convenience.

If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this Environmental Assessment, please contact me or Jennifer Chariarse at 360-619-7621 or jennifer.chariarse@dot.gov. A project website has been set up by Tillamook County. Additional project related information can be accessed on the website at the following link:
<http://www.co.tillamook.or.us/gov/pw/Projects.htm>.

Thank you for your cooperation and interest in this project.

Sincerely,

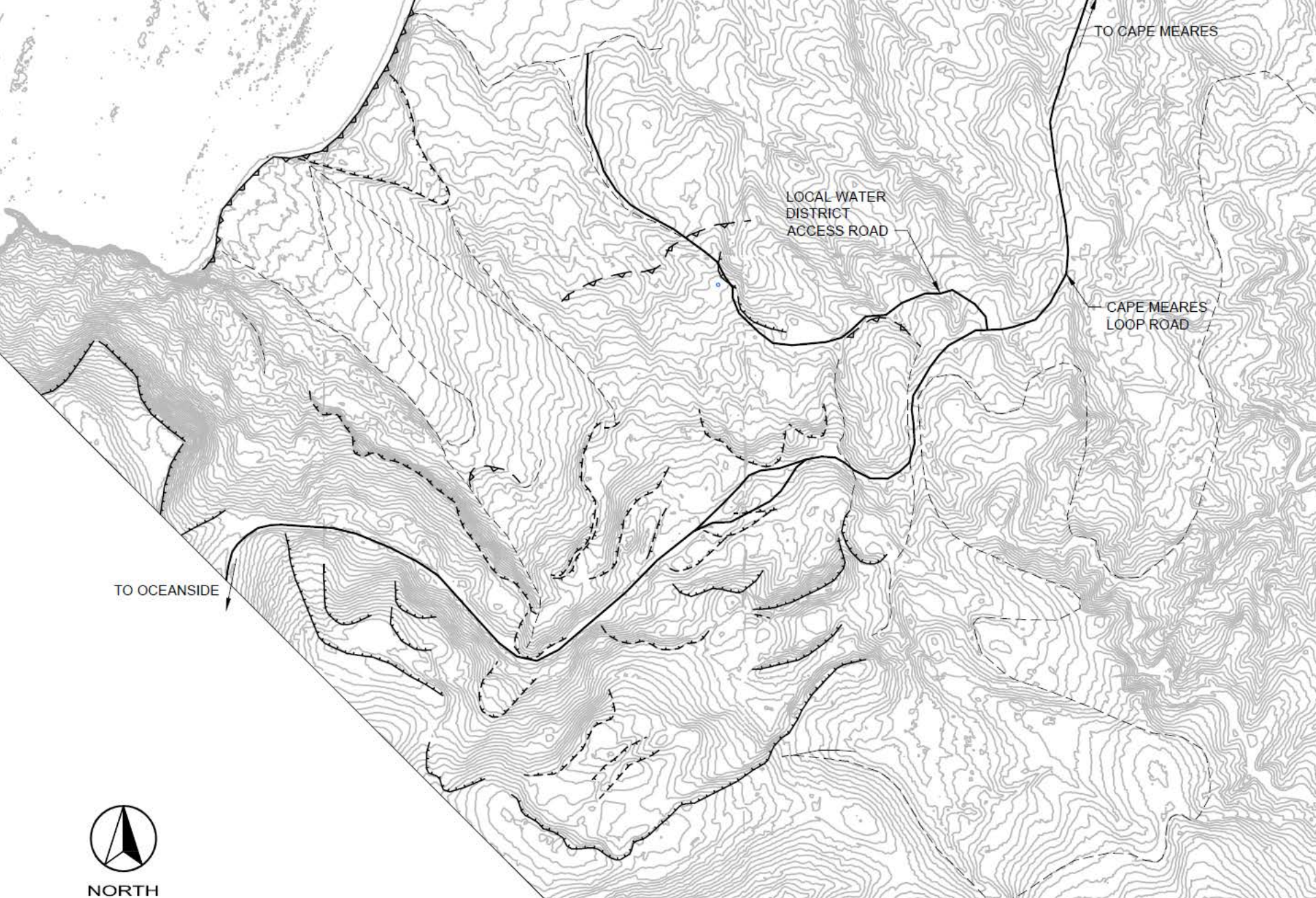


Sandra Otto, Division Director

Enclosures:
Project Vicinity Map
Preliminary Area of Potential Effect Map

Cc:
Robert Kentta, Director Cultural Resources, Confederated Tribes of Siletz Indians
Mike Kennedy, Manager Natural Resources, Confederated Tribes of Siletz Indians
Kevin Gray, WFL Project Manager
Mike Schurke, WFL Archaeologist
Jennifer Chariarse, WFL Environmental Specialist
Liane Welch, Tillamook County, Public Works Director

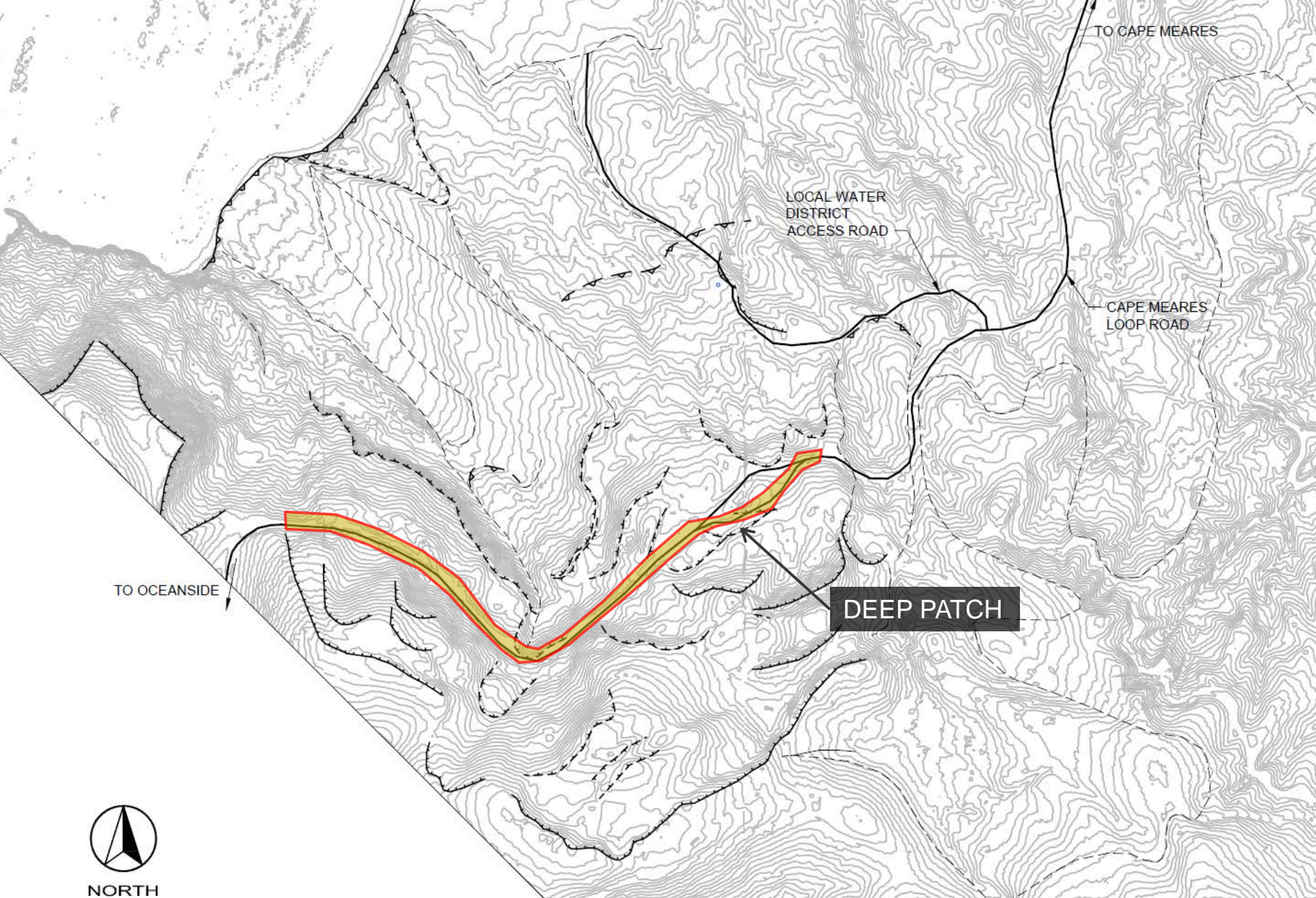
Appendix B
2014 Conceptual Alternatives



NORTH



MITIGATION ALTERNATIVES



TO OCEANSIDE

LOCAL WATER DISTRICT ACCESS ROAD

TO CAPE MEARES

CAPE MEARES LOOP ROAD

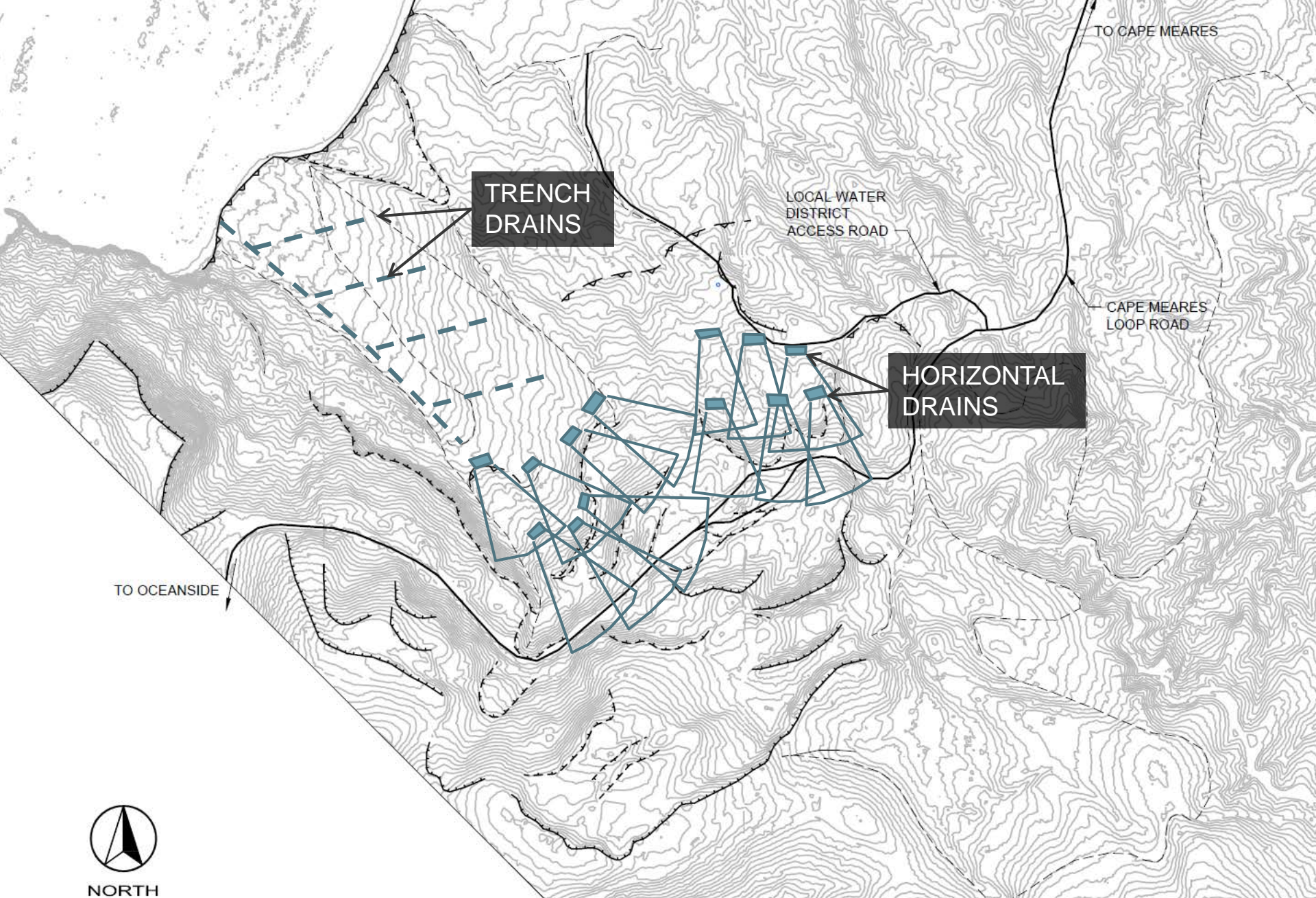
DEEP PATCH



NORTH



DEEP PATCH



**TRENCH
DRAINS**

LOCAL WATER
DISTRICT
ACCESS ROAD

TO CAPE MEARES

CAPE MEARES
LOOP ROAD

**HORIZONTAL
DRAINS**

TO OCEANSIDE



NORTH

0 600 1,200

SCALE IN FEET

DRAINAGE MEASURES

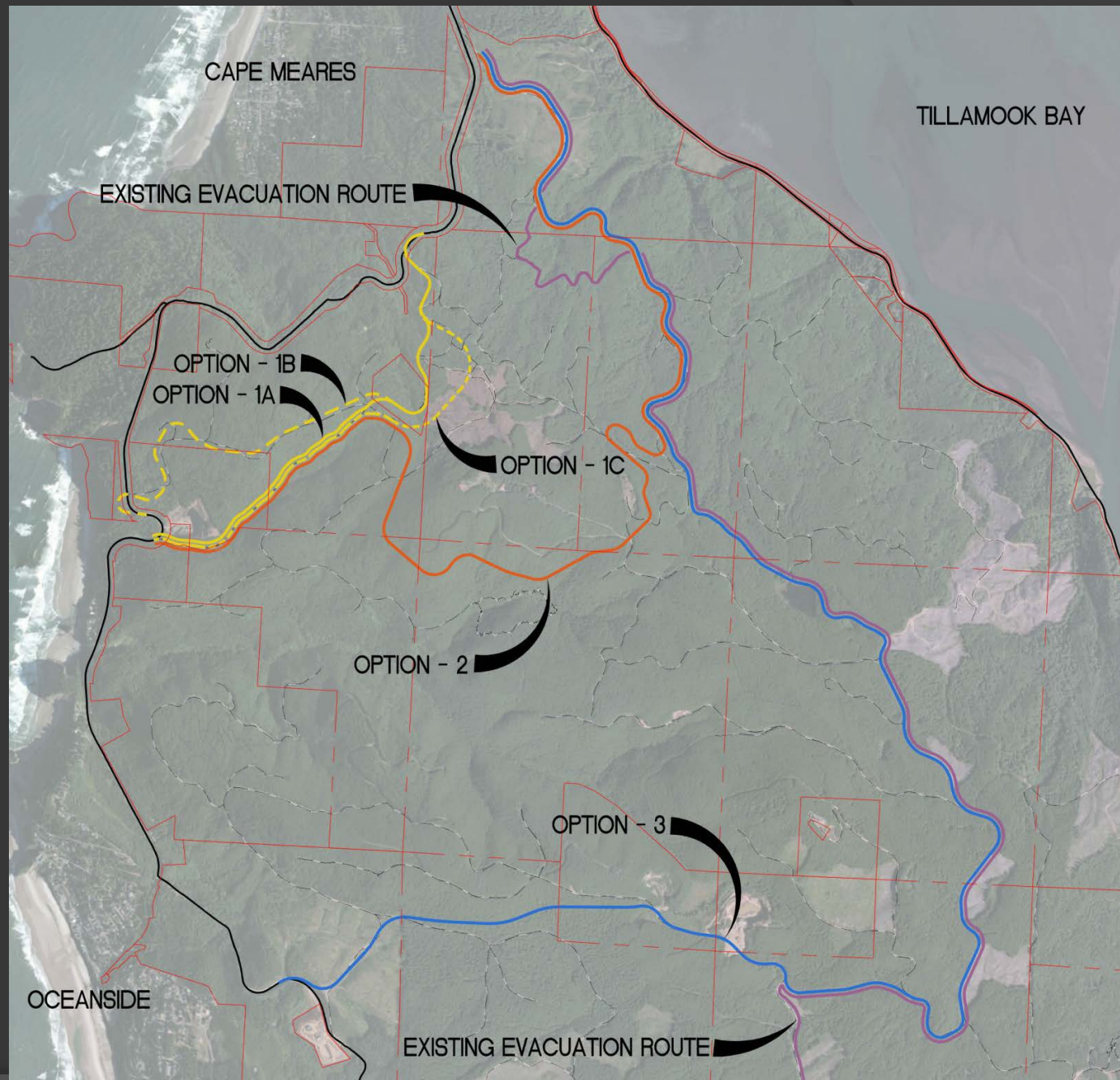


NORTH



EARTHWORK - BUTTRESSES

Roadway Alternatives



Alternatives Analysis – Risk Matrix

Cape Meares Geotechnical and Alternate Route Study
Tillamook County, Oregon
Risk Analysis Matrix

Design Alternative	Traveling Public Safety	Life Cycle Risk (Longevity of Solution)	Constructability Concerns	Potential for Community Isolation
No-Build	High	High	Low	High
Deep Patch (Maintenance)	Medium	High	Low	High
Horizontal Drains	Low	Medium	Medium	Medium
Earthwork/Buttress	Medium	Medium	High	Medium
Alternate Route 1A	Low	Low	Medium	Low
Alternate Route 1B	Low	Low	Low	Low
Alternate Route 1C	Low	Low	Medium	Low
Alternate Route 2	Low	Medium	Medium	Low
Alternate Route 3	Low	Medium	Medium	Low

Risk Category	Risk Ranking	Description
Traveling Public Safety	High	Likely to cause injury due to uncontrolled deformation of slide without warning
	Medium	Potential for injury due to slow moving slide creating hazardous driving conditions
	Low	Low slide deformation potential, not likely to cause hazardous driving conditions
Life Cycle Risk (Longevity of Solution)	High	Significant potential for roadway failure within 15 years
	Medium	Moderate risk of slide movement and on-going maintenance during life of roadway
	Low	Standard life expectancy for county road, routine maintenance expected
Constructability Concerns	High	Significant environmental or geotechnical uncertainty that could impact design and construction
	Medium	Moderate environmental or geotechnical uncertainty that could impact design and construction
	Low	Little environmental or geotechnical uncertainty
Potential for Community Isolation	High	High likelihood of community isolation; no alternate route if either Hwy 131 or Ocean Beach Highway has a closure
	Medium	Possibility of community isolation; no alternate route if either Hwy 131 or Ocean Beach Highway has a closure
	Low	Low likelihood of community isolation; creates alternate route if either Hwy 131 or Ocean Beach Highway has a closure

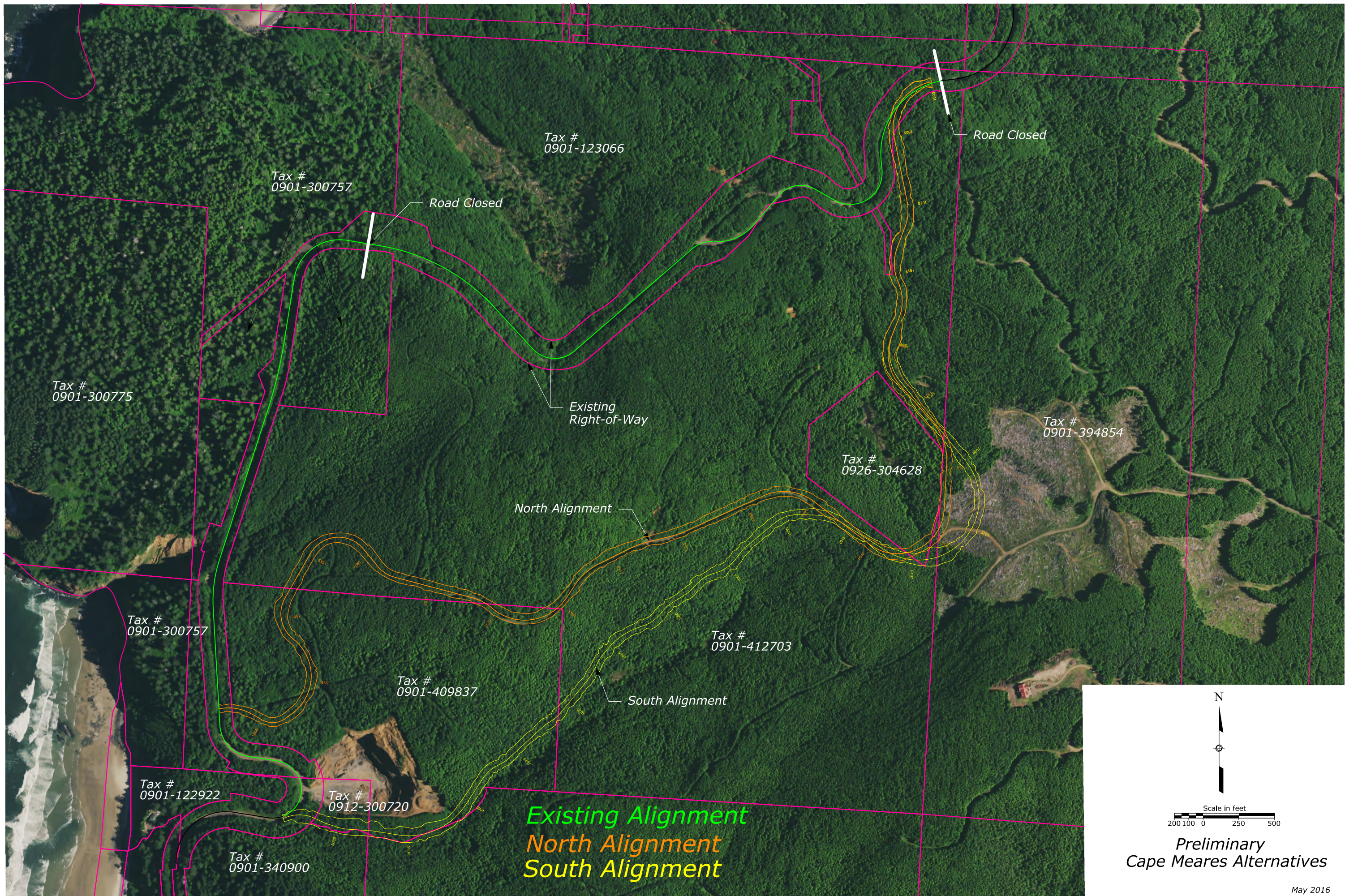
Conceptual Cost Estimates

Bid Tabulations -

6/24/2014

Cape Meares Conceptual Cost Estimation			6/24/2014 Otak Project # 16924								
Construction Cost Estimate			Engineer's Estimate								
Item No.	Item Description	Unit	Unit Price	Total Price	Total Price	Total Price	Total Price	Total Price	Total Price	Total Price	Total Price
PART 00200 - TEMPORARY FEATURES AND APPURTENANCES			Deep Patch	Drainage	Buttress	1a	1b	1c	2	3	
1	Mobilization (8%)	LS	LS	\$120,000.00	\$718,000.00	\$832,000.00	\$816,000.00	\$864,000.00	\$720,000.00	\$2,476,000.00	\$2,568,000.00
2	Erosion Prevention and Sediment Control (3%)	LS	LS	\$45,000.00	\$269,000.00	\$312,000.00	\$306,000.00	\$324,000.00	\$270,000.00	\$929,000.00	\$963,000.00
PART 00300 - ROADWORK											
3	Removal of Structures and Obstructions (3%)	LS	LS	\$45,000.00	\$269,000.00	\$312,000.00	\$306,000.00	\$324,000.00	\$270,000.00	\$929,000.00	\$963,000.00
4	Rock Excavation (5%)	LS	LS	\$0.00	\$0.00	\$0.00	\$510,000.00	\$540,000.00	\$450,000.00	\$1,548,000.00	\$1,605,000.00
5	Clearing and Grubbing	AC	\$15,000.00	\$0.00	\$15,000.00	\$24,000.00	\$255,000.00	\$195,000.00	\$225,000.00	\$495,000.00	\$615,000.00
6	Stripping	CY	\$7.00	\$0.00	\$10,500.00	\$42,000.00	\$378,000.00	\$301,000.00	\$336,000.00	\$756,000.00	\$931,000.00
7	Excavation	CY	\$12.00	\$204,000.00	\$78,000.00	\$1,080,000.00	\$834,000.00	\$732,000.00	\$384,000.00	\$3,744,000.00	\$2,079,600.00
8	Geogrid	SY	\$6.00	\$288,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
9	Riprap Geotextile	SY	\$2.50	\$25,000.00	\$16,250.00	\$67,500.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10	Stone Embankment	CY	\$32.00	\$0.00	\$217,600.00	\$8,640,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11	Embankment in place	CY	\$12.00	\$0.00	\$0.00	\$0.00	\$2,292,000.00	\$540,000.00	\$1,680,000.00	\$5,078,244.00	\$1,728,000.00
12	Over Excavation	CY	\$12.00	\$0.00	\$0.00	\$0.00	\$78,000.00	\$96,000.00	\$90,000.00	\$216,000.00	\$312,000.00
PART 00400 - DRAINAGE											
13	Large Culverts (8-ft)	LF	\$180.00	\$0.00	\$0.00	\$0.00	\$144,000.00	\$360,000.00	\$126,000.00	\$450,000.00	\$630,000.00
14	Small Culverts (18-in)	LF	\$60.00	\$8,300.00	\$4,200.00	\$4,200.00	\$66,000.00	\$72,000.00	\$60,000.00	\$156,000.00	\$216,000.00
15	Horizontal Drains	LF	\$25.00	\$0.00	\$6,825,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
16	Trench Drains	LF	\$200.00	\$0.00	\$1,300,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PART 00500 - Bridges											
17	Walls	SF	\$65.00	\$0.00	\$0.00	\$0.00	\$4,030,000.00	\$6,110,000.00	\$3,900,000.00	\$14,430,000.00	\$17,940,000.00
18	Guardrail	LF	\$30.00	\$0.00	\$0.00	\$0.00	\$336,000.00	\$255,000.00	\$348,000.00	\$678,000.00	\$969,000.00
PART 00600 - BASES											
19	Aggregate Base (1.5'-0)	CY	\$35.00	\$682,500.00	\$98,000.00	\$98,000.00	\$350,000.00	\$420,000.00	\$378,000.00	\$962,500.00	\$1,375,500.00
20	Aggregate Base (For Over Excavation, 5"-3")	CY	\$35.00	\$0.00	\$0.00	\$0.00	\$227,500.00	\$276,500.00	\$248,500.00	\$630,000.00	\$910,000.00
PART 00700 - WEARING SURFACES											
21	Level 3 AC	TN	\$100.00	\$240,000.00	\$140,000.00	\$140,000.00	\$800,000.00	\$950,000.00	\$850,000.00	\$2,150,000.00	\$3,050,000.00
PART 01100 - RIGHT-OF-WAY DEVELOPMENT AND CONTROL											
22	Landscape (3%)	LS	EST	\$44,000.00	\$262,000.00	\$303,000.00	\$298,000.00	\$315,000.00	\$263,000.00	\$902,000.00	\$935,000.00
23	Water Quality Facilities	LS	EST	\$0.00	\$0.00	\$0.00	\$110,000.00	\$170,000.00	\$110,000.00	\$300,000.00	\$400,000.00
Subtotal				\$1,489,800.00	\$8,966,550.00	\$10,398,700.00	\$10,198,500.00	\$10,792,500.00	\$8,998,500.00	\$30,947,744.00	\$32,091,100.00
SUBTOTAL CONSTRUCTION ITEMS				\$1,489,800.00	\$8,966,550.00	\$10,398,700.00	\$10,198,500.00	\$10,792,500.00	\$8,998,500.00	\$30,947,744.00	\$32,091,100.00
CONTINGENCIES (30%)				\$446,940.00	\$2,689,965.00	\$3,119,610.00	\$3,059,550.00	\$3,237,750.00	\$2,699,550.00	\$9,284,323.20	\$9,627,330.00
CONSTRUCTION TOTAL				\$1,936,740.00	\$11,656,515.00	\$13,518,310.00	\$13,258,050.00	\$14,030,250.00	\$11,698,050.00	\$40,232,067.20	\$41,718,430.00
ROW COST (@ \$40,000/acre)				\$0.00	\$0.00	\$0.00	\$520,000.00	\$640,000.00	\$560,000.00	\$1,400,000.00	\$2,000,000.00
PRELIMINARY ENGINEERING (15%)				\$290,511.00	\$1,748,477.25	\$2,027,746.50	\$1,988,707.50	\$2,104,537.50	\$1,754,707.50	\$6,034,810.08	\$6,257,764.50
CONSTRUCTION ENGINEERING (10%)				\$193,674.00	\$1,165,651.50	\$1,351,831.00	\$1,325,805.00	\$1,403,025.00	\$1,169,805.00	\$4,023,206.72	\$4,171,843.00
GRAND TOTAL				\$2,420,925.00	\$14,570,643.75	\$16,897,887.50	\$17,092,562.50	\$18,177,812.50	\$15,182,562.50	\$51,690,084.00	\$54,148,037.50

Appendix C
Map of Preliminary Alternatives



N

Scale in feet
200 100 0 250 500

*Preliminary
Cape Meares Alternatives*