

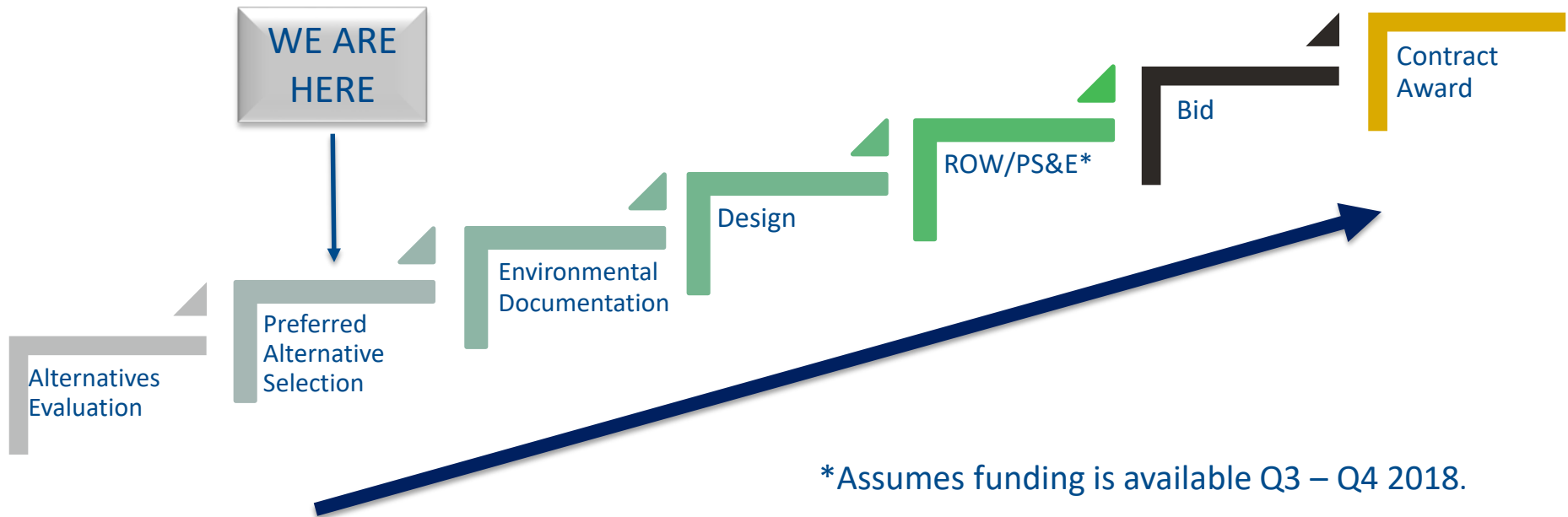
Kenai Spur Highway Re-route

June 2018

Frank T. Richards, P.E. - Senior Vice President, Program Management



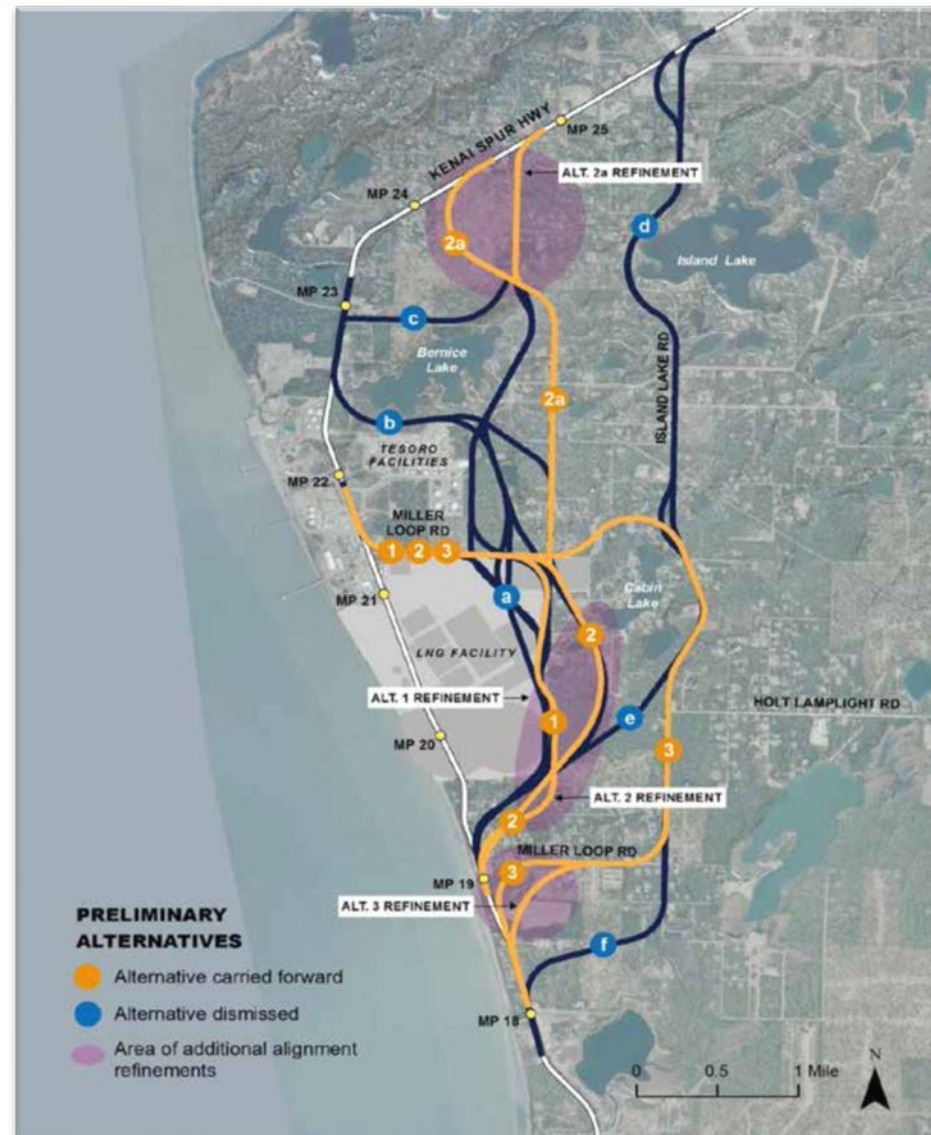
KSH Project Development



KSH – Original Options Considered

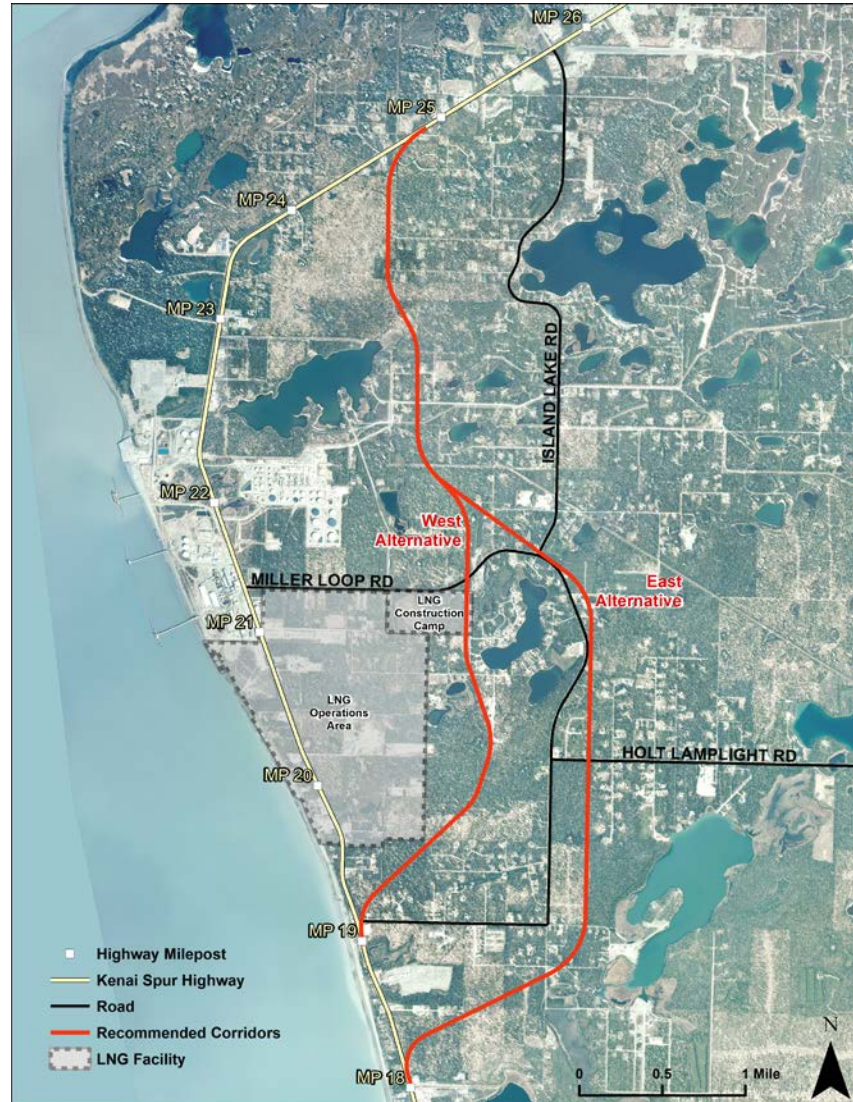
Original study considered a large number of potential alternatives:

- Some did not meet the base criteria.
- Others offered no apparent advantages over near parallel alignments.



Presented at February 2018 Meeting

- West Alternative
- East Alternative



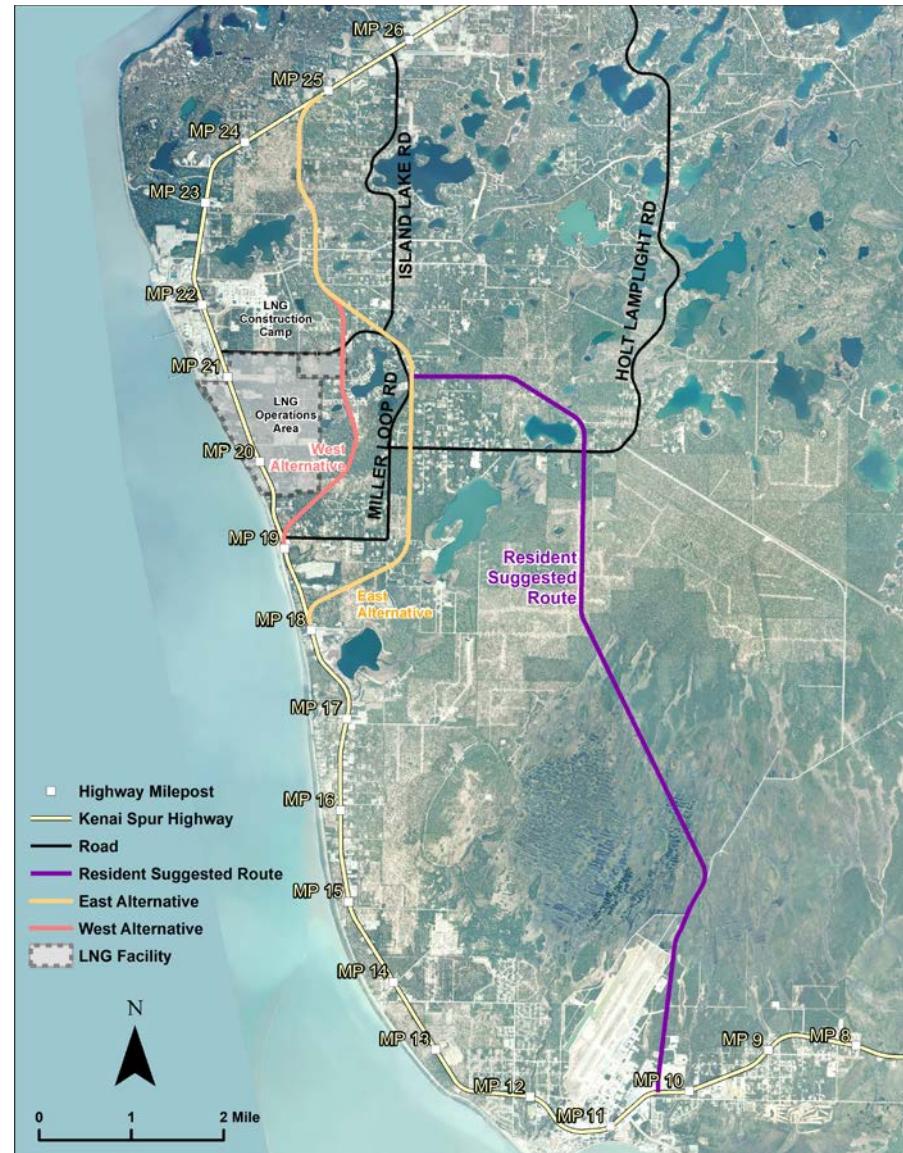
Summary of February 2018 Meeting

- 514 Postcards mailed to stakeholders within 1000' of an alternative.
- 216 Meeting attendees sign in.
- 75 comments received.
- Alternative preferred as determined by % of comments received:
 - East Alternative – 7%
 - West Alternative – 15%
 - Resident Route – 37%
 - No Alternative Identified – 36%
 - Other Alternative – 5%



Added Resident Alternative

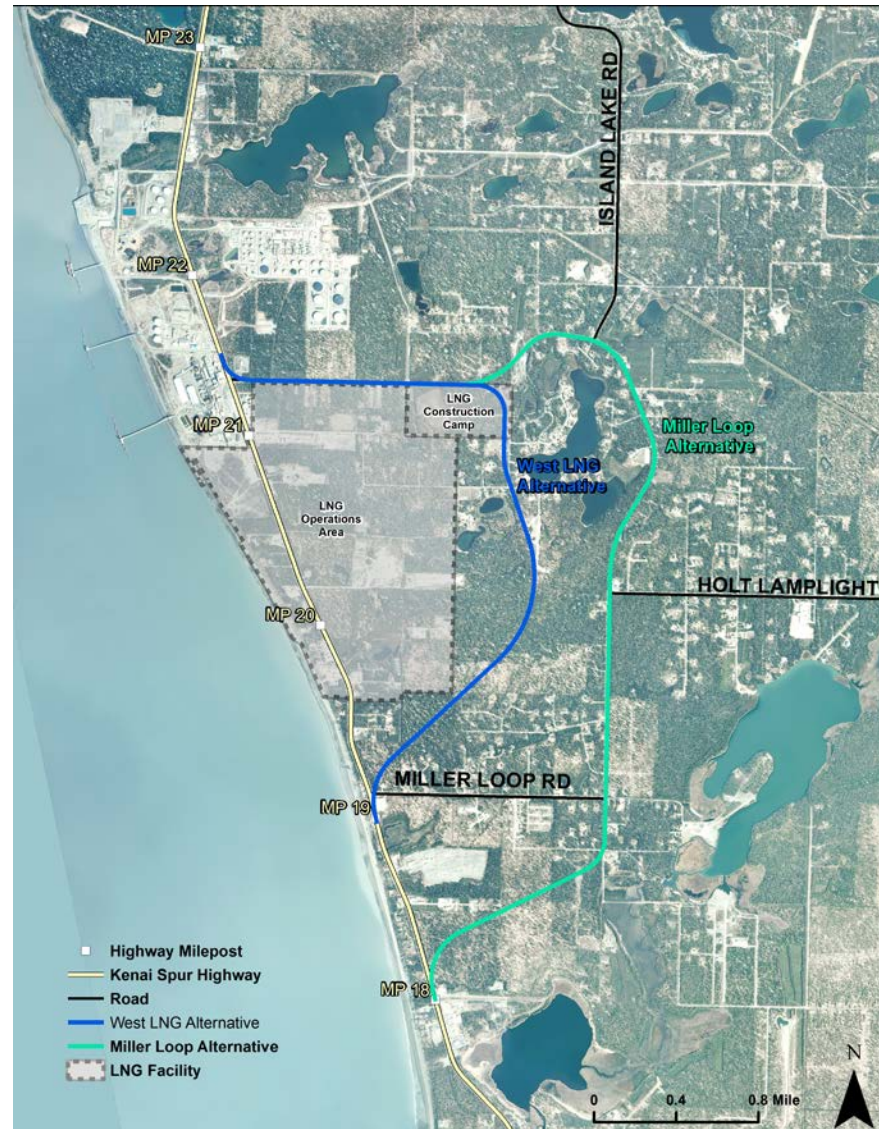
Resident Suggested Route
added based on Feb 2018
meeting and comments.



Reformulated Alternatives

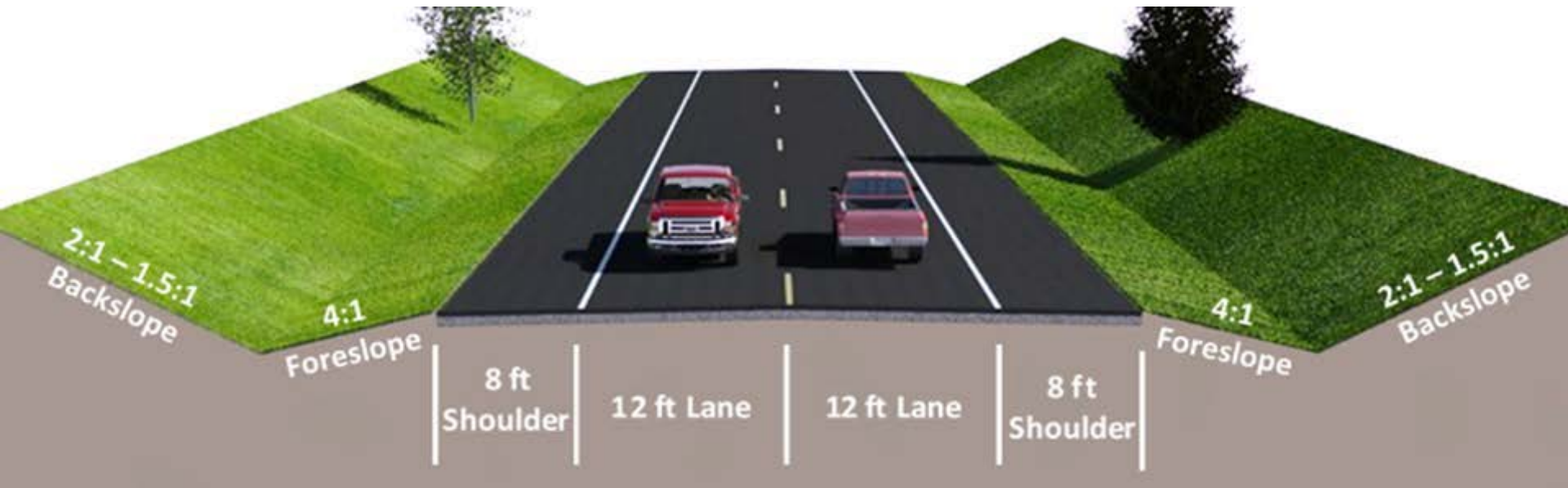
New routes added for consideration that utilize North Miller Loop.

- Additional considerations to facilitate construction.
- Requires adding dedicated lane for module traffic from Rig Tenders during early construction.



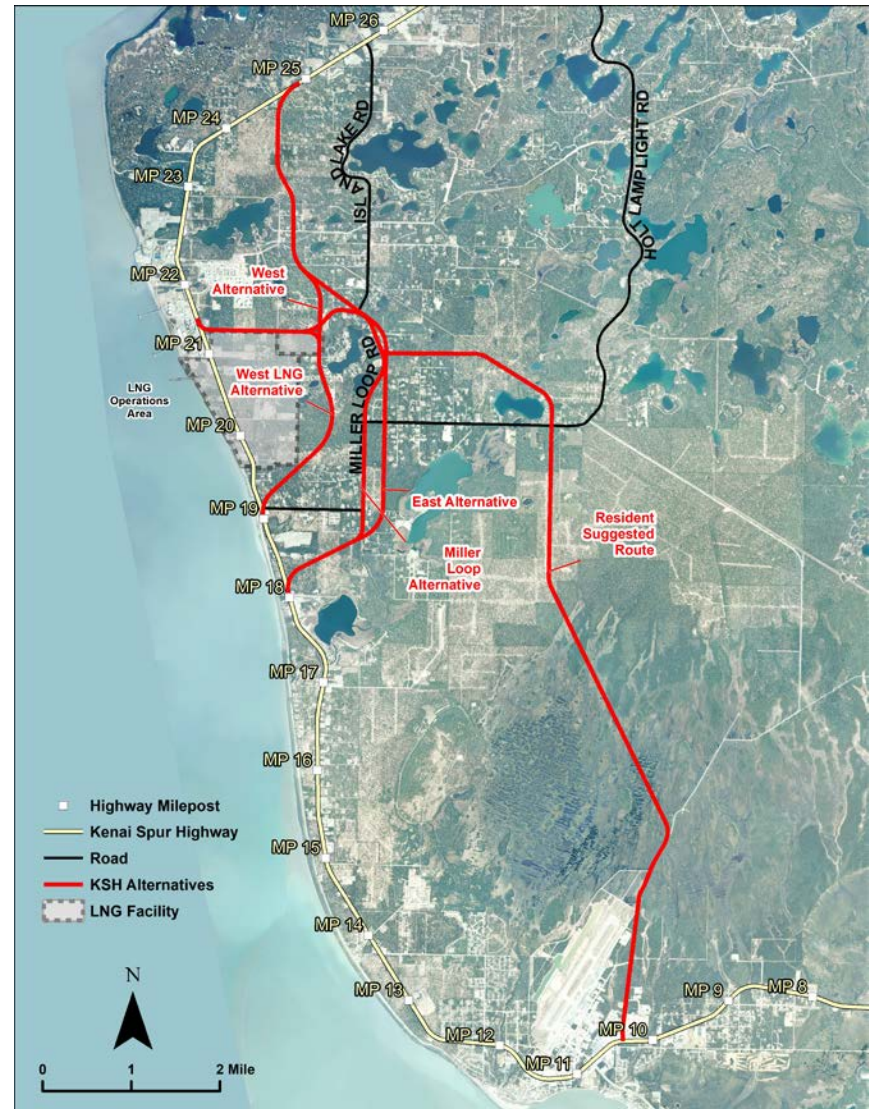
KSH Design Criteria (All Alternatives)

- National Highway System design standards.
- Two lane roadway accommodates projected traffic.
- 55 mph speed limit, 60 mph design speed.
- 200 foot Right-of-Way width.
- 8-foot shoulder to accommodate bicycle and pedestrian traffic.



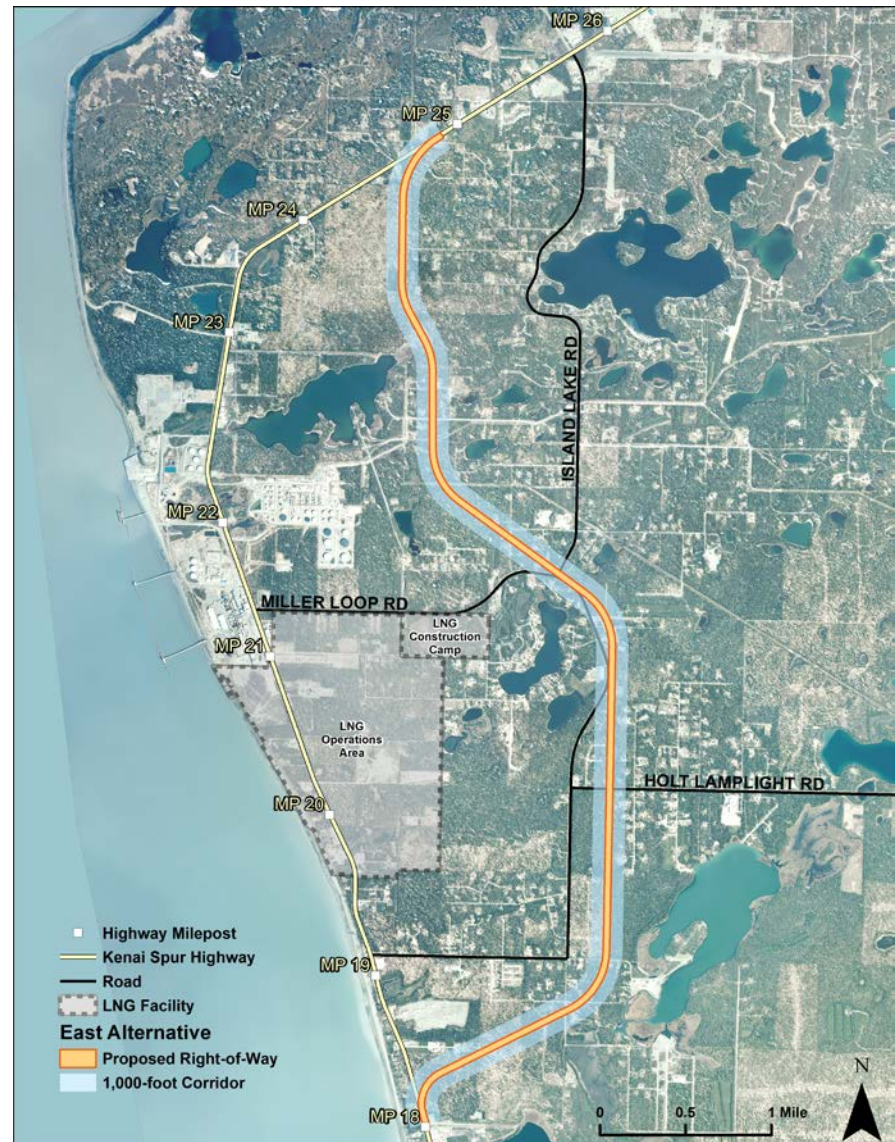
KSH Ranking Criteria

- Each alternative was evaluated based on:
 - Environmental.
 - Community.
 - Right of Way.
 - Utilities.
 - Geotechnical.
 - Design/Traffic.
 - Construction.
 - Maintenance.
 - Cost.
 - Schedule.



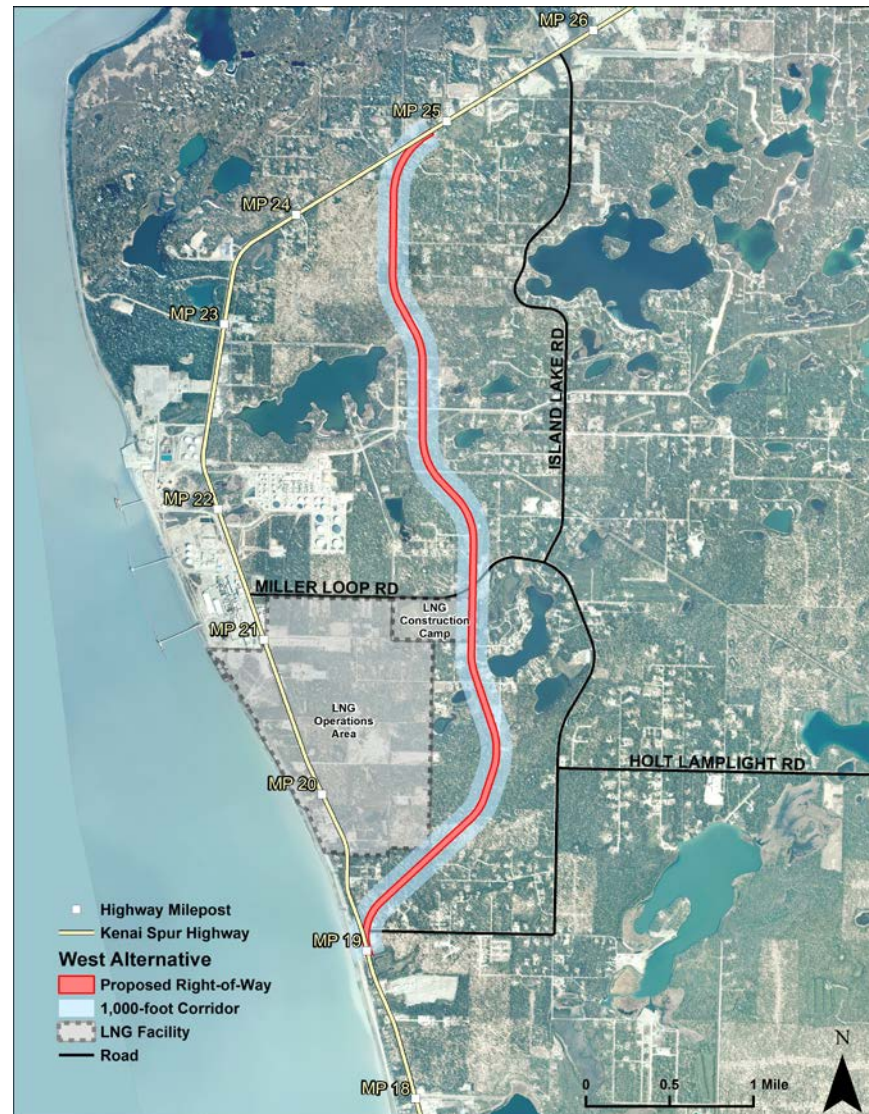
East Alternative - Highlights

- New roadway length of 7 miles.
- 116 Parcels affected by 200' ROW, with a potential of 30 relocations.
- Annual maintenance cost of \$156,000.
- Construction cost estimate of \$39 million (does not include ROW acquisition costs).



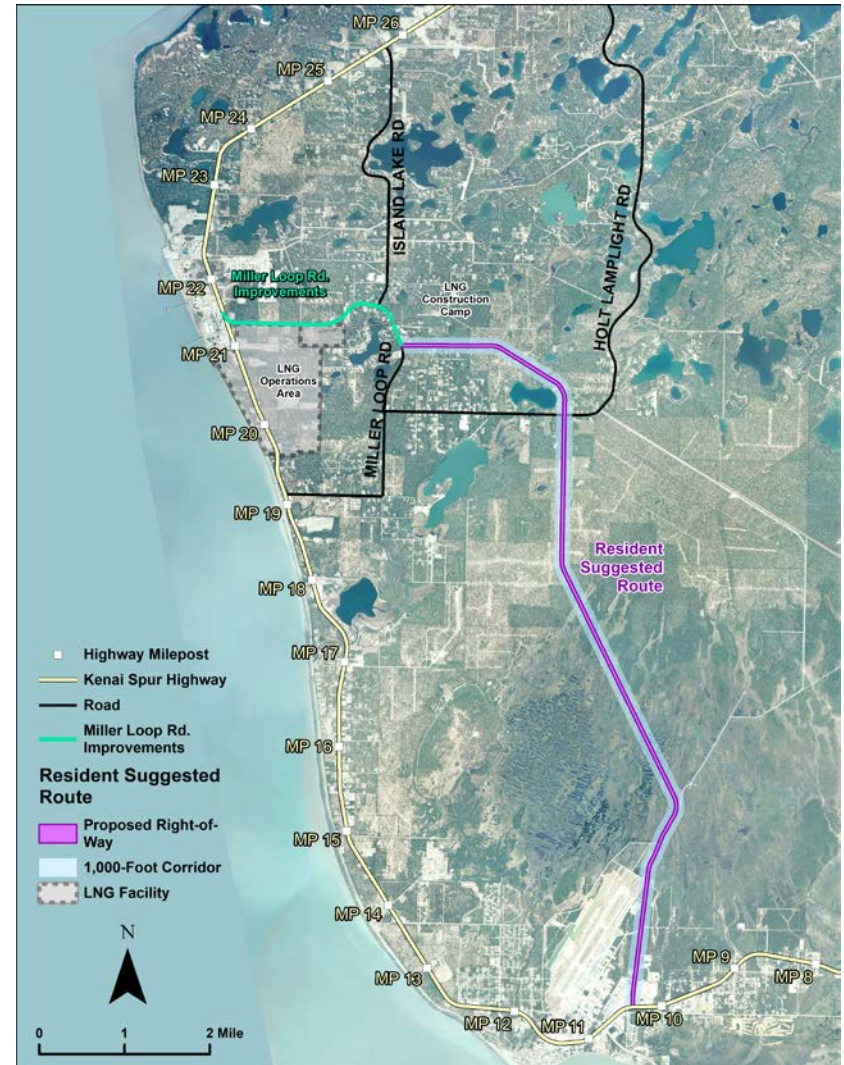
West Alternative - Highlights

- New roadway length of 5.4 miles.
- 76 Parcels affected by 200' ROW, with a potential of 16 relocations.
- Annual maintenance cost of \$116,000.
- Construction cost estimate of \$31 million (does not include ROW acquisition costs).



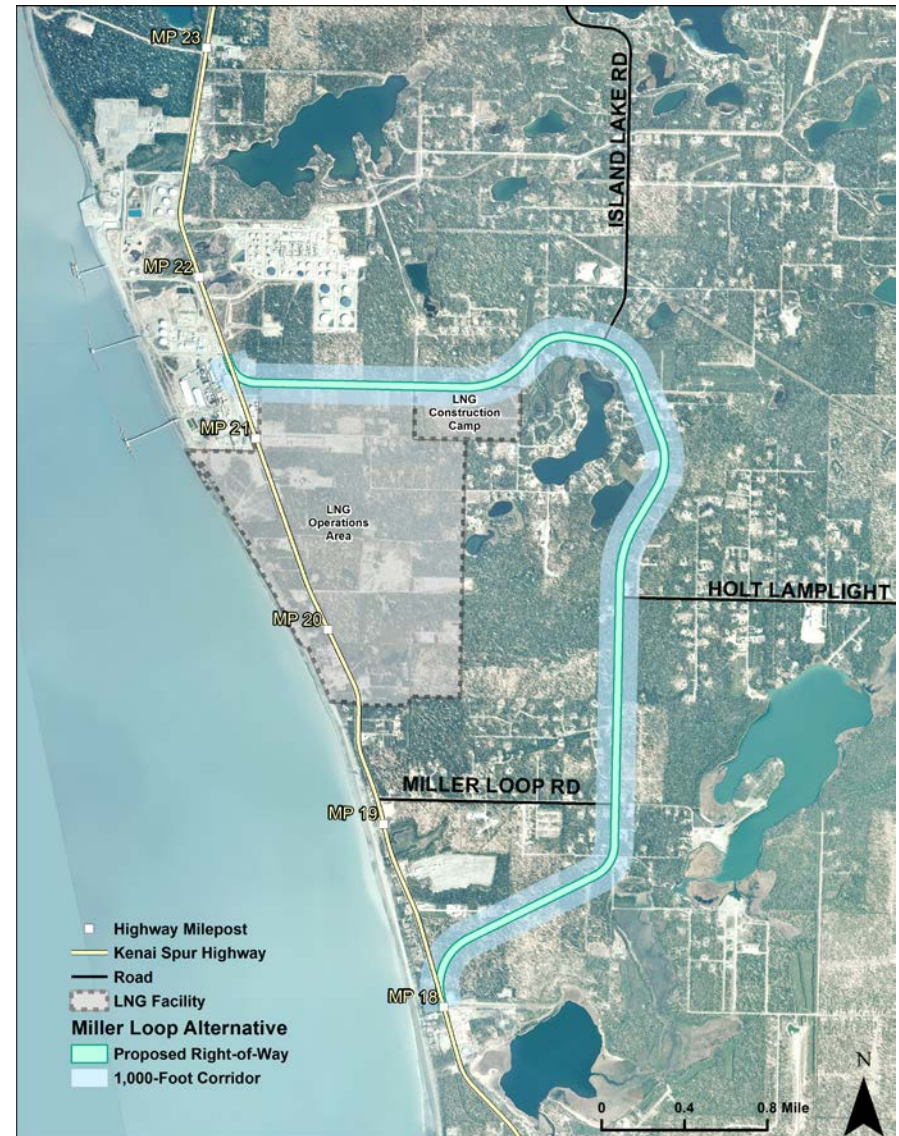
Residents Suggested Route - Highlights

- Roadway length of 9.7 miles (With Miller Loop 12.1).
- 57 Parcels affected by 200' ROW, with a potential of 3 relocations (With Miller Loop 99 and 7 respectively).
- Annual maintenance cost of \$228,000 (With Miller Loop \$253,000).
- Construction cost estimate of \$72 million (With Miller Loop \$85M) Note: does not include ROW acquisition costs.
- Substantial wetland impacts.
- Poor soils.
- Impacts to bypassed KSH businesses (MP11-19).



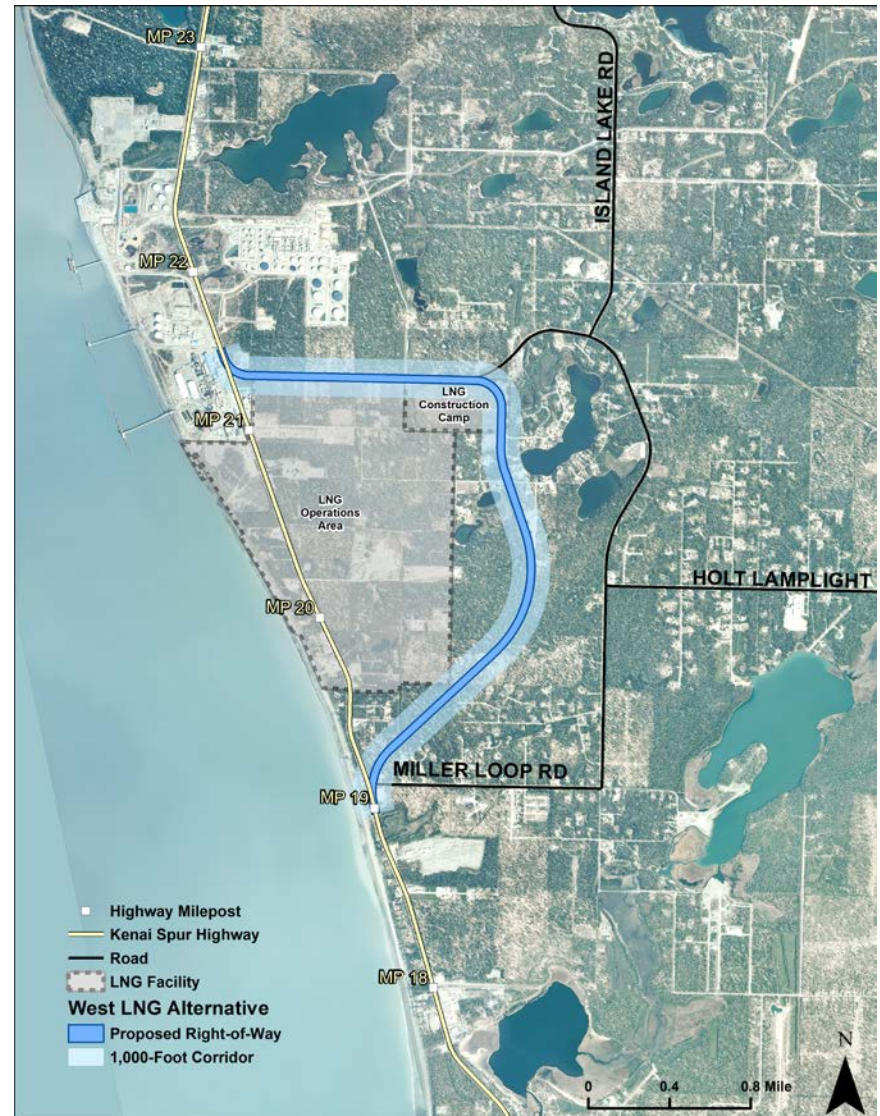
Miller Loop - Highlights

- Roadway length of 5.9 miles.
- 104 Parcels affected by 200' ROW, with a potential of 7 relocations.
- Annual maintenance cost of \$59,000.
- Construction cost estimate of \$33 million (does not include ROW acquisition costs).



West LNG- Highlights

- Roadway length of 3.4 miles.
- 34 Parcels affected by 200' ROW, with a potential of 7 relocations.
- Annual maintenance cost of \$42,000.
- Construction cost estimate of \$20 million (does not include ROW acquisition costs).

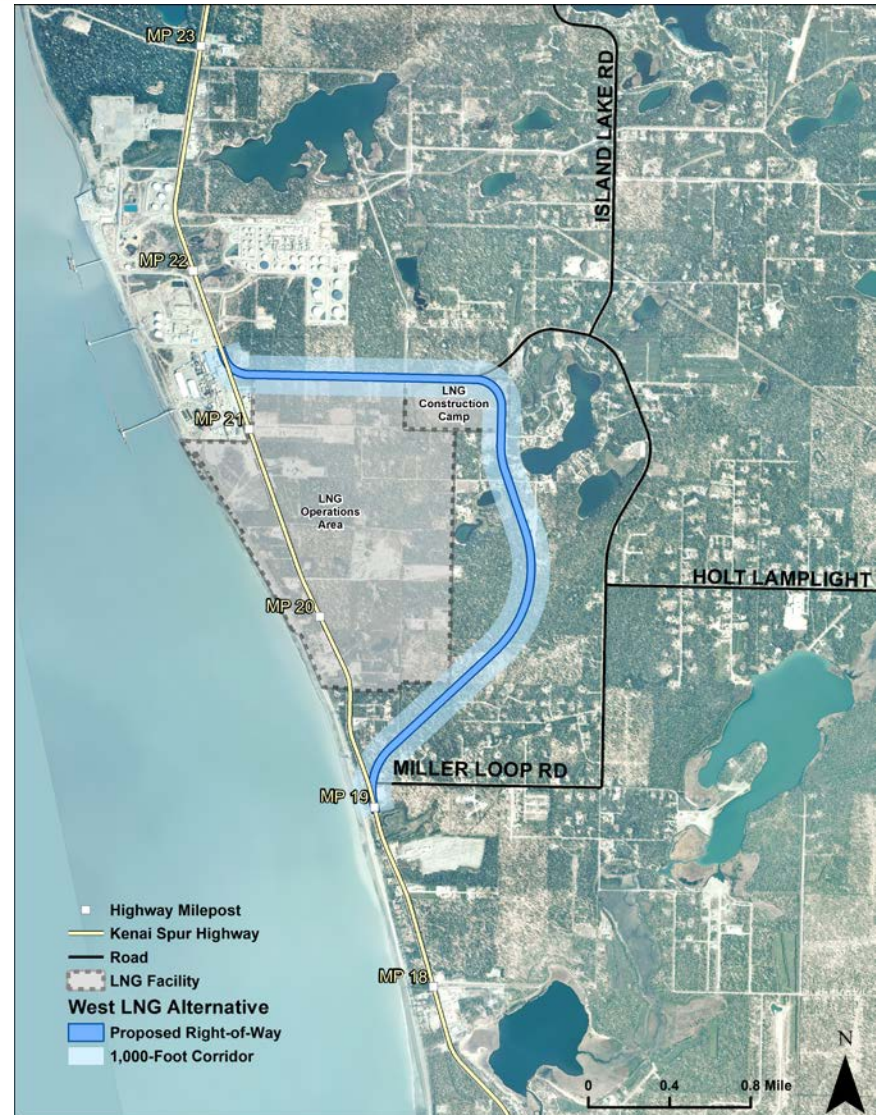


Evaluation of Alternatives - Summary

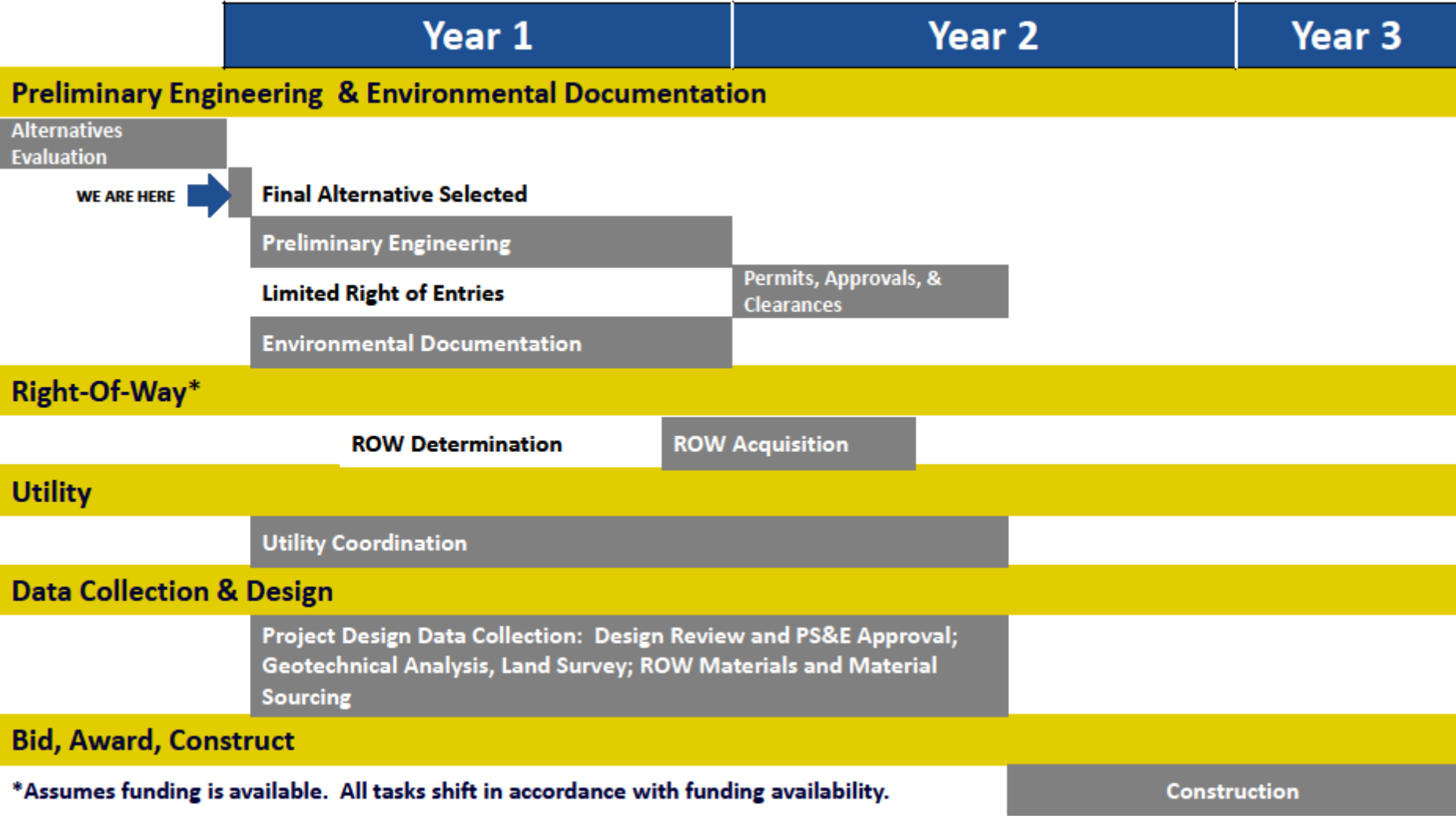
	East Alternative	West Alternative	Resident Suggested*	Resident Suggested w/ Miller Loop Improvements	Miller Loop	West LNG
Total Length (miles)	7	5.4	9.7	12.1	5.9	3.4
Wetlands within 200' Construction Allowance Corridor (acres)	0	0	126	126	0	0
Construction Along Existing Roads (miles)	0	0	3	5.4	4.4	1
Length of existing KSH bypassed (miles)	6.7	5.8	11	11	3.4	2.5
Total Number of Parcels Affected	116	76	57	99	104	34
Number of Full Acquisition Parcels	41	20	5	7	7	7
Collector/Arterial crossings (not counting KSH)	5	3	4	6	5	3
Additional Annual Cost to Maintain	\$156,000	\$116,000	\$228,000	\$253,000	\$59,000	\$42,000
Construction Cost (millions)	\$39	\$31	\$72	\$85	\$33	\$20
*Numbers do not reflect improvements needed along Miller Loop Road to provide access back to KSH						

Final Selection – West LNG

- Highest scored.
- Shortest and least costly by 50%.
- Least number of parcels impacted.
- Least impact away from LNG site.



Schedule



*Assumes funding is available. All tasks shift in accordance with funding availability.

- **February 12, 2018:**
 - Nikiski Community Meeting.
- **March 31, 2018:**
 - Deadline for public comments.
- **June 1, 2018:**
 - Alternatives Analysis Completed.
- **June 20, 2018:**
 - Community meeting to present selected alternative.
- **Summer 2018:**
 - Begin Permitting and Design.

- The Kenai Spur Highway re-route is a priority for AGDC.
- Based on alternative analysis study, and several additional considerations after Community meeting, a final route was selected.
- Next step is permitting and design for the selected route.

- **AGDC Corporate Activities:**

- **Hosted Joint Development Agreement (JDA) Work Team:**

- ❖ 38 Member delegation with representatives from Sinopec, China Investment Corporation, and Bank of China.
- ❖ Executives met with: Alaska Dept. of Natural Resources; Dept. of Revenue, Dept. of Commerce, Community, and Economic Development; Alaska Native Corporations; local industry groups; and State and local elected officials.
- ❖ Toured Prudhoe Bay facilities and infrastructure, Kenai LNG Plant, and ship simulators at the Alaska's Institute of Technology (AVTEC) in Seward.



- Financial Advisors Selected: Goldman Sachs and Bank of China.
- Advancing Development Agreement with Sinopec.
- Operating funds approved by legislature; no additional funds appropriated.
- AGDC Receipt Authority.

- **Commercial Activities:**

- Gas Sales Precedent Agreement (GSA) with B.P. – May 4th, 2018.
- AGDC continues negotiations of Gas Sales Precedent Agreements with other North Slope lease holders.
- Commercial discussions continue with in-state gas users to advance commercial agreements for gas purchases through AGDC's in-state aggregator.

- **Program Management & Engineering:**

- Toured 4 Chinese steel and pipe mills.
- Revisited pipeline steel specifications and preparing for welding trials and full scale validation testing.
- Toured Flour's module fabrication yard.
- Finalized Alaska LNG Construction Execution Plan (CEP).



- **FERC**
 - FERC Section 3 Application submitted – April 14, 2017.
 - FERC initiated the process of formal data requests starting July 5, 2017.
 - To date, AGDC has responded to 1375 requests. **(95% of existing requests)**
 - FERC published the Notice of Schedule in the Federal Register – March 21, 2018.
 - FERC is drafting the Preliminary Administrative Environmental Impact Statement.
- **FERC EIS schedule:**
 - March 2019 – Draft Environmental Impact Statement released.
 - December 2019 – Final Environmental Impact Statement available.
 - March 2020 – FERC Authorization.

Questions?

**Alaska Gasline
Development Corporation**
agdc.us

Alaska LNG Project
alaska-lng.com

Get Involved.

Get Ready.

Get Engaged.



agdc.us

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