# APPENDIX A

## TYPICAL SECTIONS

<table>
<thead>
<tr>
<th>Page</th>
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<tbody>
<tr>
<td>Typical Sections</td>
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</tbody>
</table>
LAGOON CROSSING D: SOLID CAUSEWAY TYPICAL SECTION

NOTES:
1. LAGOON CROSSING D CONSISTS OF A SOLID CAUSEWAY WITH TWO PRIMARY OPENINGS CONSISTING OF A BRIDGE, AND LARGE STRUCTURAL PLATE PIPES. THIS FIGURE DETAILS THE SOLID PORTION OF THE LAGOON CROSSING.
2. OVERFLOW PIPES TO BE PLACED ABOVE MHHW INCREMENTALLY WITHIN THE EMBANKMENT OVER THE LENGTH OF THE CAUSEWAY.
3. TOP OF CAUSEWAY ELEVATION VARIES FROM APPROX. 17.6'-25' TO ACCOMMODATE DRAINAGE STRUCTURES/FEATURES. ELEVATIONS ARE APPROXIMATE AND BASED ON THE NAVD88 VERTICAL DATUM.
MAINLAND ROAD: TYPICAL SECTION

NOT TO SCALE

* EMBANKMENT HEIGHT WILL AVERAGE BETWEEN 5 TO 8 FEET. MINIMUM EMBANKMENT HEIGHT OF 6' MAY BE USED IN AREAS OF POTENTIAL SNOW DRIFTING AND IN AREAS WHERE THERE IS CONCERN OF THAWING UNDERLYING PERMAFROST.

**BUFFER ZONE EXTENDS OUTWARD 25' FROM THE EMBANKMENT TOE. THIS AREA WILL BE USED DURING CONSTRUCTION FOR TEMPORARY EQUIPMENT ACCESS AND WILL ALSO SERVE AS A NATURAL VEGETATIVE SCREEN.
**BUFFER ZONE**

**BUFFER ZONE EXTENDS OUTWARD 25' FROM THE EMBANKMENT TOE. THIS AREA WILL BE USED DURING CONSTRUCTION FOR TEMPORARY EQUIPMENT ACCESS AND WILL ALSO SERVE AS A NATURAL VEGETATIVE SCREEN.**

**TYPICAL SECTION**

**SECTION X–X’**

NOT TO SCALE

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**PLAN**

NOT TO SCALE
TYPICAL CULVERT APRON DETAIL
NOT TO SCALE

SECTION B-B'
NOT TO SCALE

NOTES:

1. THIS TYPICAL SECTION IS FOR CONVEYANCE STRUCTURES NOT INTENDED FOR FISH PASSAGE. LOCATIONS AND SIZE VARY.

2. INSULATION BOARD TO BE USED IN AREAS OF PERMAFROST.

3. INLET, OUTLET, AND FORESLOPE RIPRAP TO BE INSTALLED IN AREAS WHERE EROSION AT CULVERT INVERTS IS A CONCERN. DIMENSIONS ARE APPROXIMATE.

4. FOR ENHANCED HYDRAULIC DESIGN CULVERTS, INVERTS TO BE RECEDED BELOW EXISTING BOTTOM OF CHANNEL TO PROMOTE FISH PASSAGE.
TYPICAL FISH PASSAGE CULVERT APRON DETAIL
NOT TO SCALE

SECTION B-B'
NOT TO SCALE

NOTES:

1. THIS TYPICAL SECTION IS FOR CONVEYANCE STRUCTURES INTENDED FOR FISH PASSAGE LOCATIONS AND SIZE VARY.

2. CULVERT INVERTS ARE DEPRESSED BELOW THE BOTTOM OF THE EXISTING CHANNEL AND FILLED WITH RIPRAP SUBSTRATE THROUGH THE LENGTH OF CULVERT TO PROVIDE FISH PASSAGE THICKNESS VARIES.

3. INSULATION BOARD TO BE USED IN AREAS OF PERMAFROST.

4. INLET, OUTLET, AND FORESLOPE RIPRAP DIMENSIONS SHOWN ARE APPROXIMATE.
**BUFFER ZONE EXTENDS OUTWARD 25' FROM THE EMBANKMENT TOE. THIS AREA WILL BE USED DURING CONSTRUCTION FOR TEMPORARY EQUIPMENT ACCESS AND WILL ALSO SERVE AS A NATURAL VEGETATIVE SCREEN.
**BUFFER ZONE EXTENDS OUTWARD 25' FROM THE EMBANKMENT TOE. THIS AREA WILL BE USED DURING CONSTRUCTION FOR TEMPORARY EQUIPMENT ACCESS AND WILL ALSO SERVE AS A NATURAL VEGETATIVE SCREEN.

**TYPICAL SECTION**

**SECTION X-X'**

**NOT TO SCALE**

| NOTE: TURNOUT LOCATIONS AND NUMBER VARY. |
| PLAN NOT TO SCALE |
NOTE:
1. BRIDGE TO BE CONSTRUCTED OVER EXISTING 110' WIDE LAGOON CHANNEL, CENTERED APPROXIMATELY 225' EAST OF THE BARRIER ISLAND.
2. BRIDGE ABUTMENTS & FOUNDATION TO CONSIST OF SLOPED EARTHEMBANKMENT ARMORED WITH ROCK, OR VERTICAL SHEET PILE WALL, AND BE DESIGNED TO SPAN ENTIRE 110' LAGOON CHANNEL.
3. LOCATION AND DIMENSIONS OF ROCK ARMORING ALONG ABUTMENTS ARE APPROXIMATE, AND WILL BE DESIGNED TO CLOSELY MAINTAIN NATURAL CHANNEL DIMENSIONS TO THE FURTHEST EXTENT PRACTICABLE.
4. ELEVATIONS ARE APPROXIMATE AND BASED ON NAVD88 VERTICAL DATUM

NOTE:
1. LARGE CULVERTS TO BE LOCATED ADJACENT EAST END OF SOLID CAUSEWAY, PIPE INVERTS TO BE RECESSED BELOW BOTTOM OF LAGOON AND FILLED WITH 2'-4' THICK ROCK SUBSTRATE.
2. OVERFLOW PIPE(S) INVERTS TO BE PLACED ABOVE MHHW AND SPACED INCREMENTALLY OVER LENGTH OF SOLID CAUSEWAY TO PROVIDE CONVEYANCE DURING HIGH WATER EVENTS.
TYPICAL MINING/REC SECTION FOR K-HILL SITE

* MAXIMUM SLOPE ANGLE DEPENDS ON SITE-SPECIFIC PARAMETERS AND WILL BE DETERMINED BY THE CONTRACTOR.

**PRIMARY MINING METHOD WITHIN UPLANDS QUARRY SITE WOULD INVOLVE BLASTING AND RIPPING OF ROCK AND CONSOLIDATED MATERIAL.

PRELIMINARY
NOTES:
1. EXCAVATION MAY OCCUR BELOW THE WATER TABLE, HOWEVER A 100' BUFFER WOULD BE MAINTAINED BETWEEN THE ACTIVE RIVER CHANNEL AND THE EXCAVATION AREA.

2. RECLAMATION WOULD INCLUDE CONVERTING THE SOURCE INTO A POND. RECLAIMED POND(S) MAY BE CONNECTED TO THE WULIK RIVER VIA A CONSTRUCTED CHANNEL.
TYPICAL MINING/REC SECTION: WULIK RELIC CHANNEL SOURCES 1 & 2
NOT TO SCALE

NOTES:
1. MINING ACTIVITIES TO OCCUR WITHIN AND ADJACENT TO RELIC CHANNEL(S) ABOVE AND BELOW THE WATER TABLE.
2. MINED AREAS TO BE RECLAIMED INTO DEEP WETLAND PONDS TO IMPROVE FISH OVERWINTERING HABITAT. RECLAIMED PONDS MAY BE CONNECTED TO EXISTING RELIC CHANNELS TO PROVIDE POTENTIAL OVERWINTERING HABITAT FOR JUVENILE FISH.
APPENDIX B

KIVALINA LAGOON CROSSING –
DESIGN WATER LEVEL AND SEDIMENTATION CHARACTERISTICS

Technical Memorandum, 09/07/17 ................................................................. 1-3
Location Hydraulic Study for the Wulik River ............................................ 4-25
This memo is intended as internal communication to design and environmental team members for the Kivalina Lagoon Crossing project to provide a summary of discussions and recommendations on the design water level and sedimentation characteristics for the proposed project.

**Design Water Elevation:**

The primary purpose of the road project, as described by the US Army Corps of Engineers (USACE) and others, is to "Allow residents of Kivalina to evacuate the barrier Island where they are located in the event of a storm that threatens to overtop the island". The elevation of the island at the location of the community varies between +10 and +11 feet (MLLW).

The USACE report did not identify a design high water condition that would require evacuation of the village. They did, however, calculate a 100 year (1% annual probability) high water elevation equal to +7.3' (MLLW). This surge elevation may result in some erosion and could threaten some nearshore infrastructure but would not threaten human life and would not "overtop" the island. The conditions that would overtop the island and threaten human life would be somewhat greater than the USACE’s estimated 100 year event. Note: a 7.4' surge event occurred in 2011. This exceeded the 100 year event and there was no report of significant damage.

Since the USACE report did not address a design high water condition, particularly the one that would "overtop" the island and require evacuation, I performed an independent check on design conditions. The USACE estimate of 7.3' for a hundred year event was taken from Chapman et.al. "Storm Induced Water Level Prediction Study for The Western Coast of Alaska", 2009. The methodology from Chapman appeared reasonable from an academic standpoint, however, it estimated a 100 year event based on only four years of data. It is not recommended practice to predict a 100-year event based on such a small period of data. Although we have to work with what is available, it should be noted that at least 30-years of data is industry standard practice for such a prediction. There is now more than 12 years of data, including an event exceeding the 100 year prediction, so an updated hindcast was in order. Using similar methods as the USACE, an updated hindcast using current data would increase the 100 year event to roughly 8.5 feet. For the same reason, this should also be considered with some caution and adjusted based on engineering judgement. A surge to this elevation could cause significant damage along the seaward shoreline of the village and would probably initiate an evacuation. Waves may be running up into the village but structures along the lee side of the village would probably remain intact and provide shelter to the community.
Because the greatest need for the road will be when the 100 year surge event is exceeded, and because of the insufficient amount of historical data available for hindcasting, it is recommended that an event closer to a 500 year recurrence be selected for design. This will bring the design elevation up to 9.6’ MLLW adding roughly one foot to the 100 year event. Note that these estimates have a wide confidence band due to the small data set used for the hindcast. Due to uncertainties in the estimate, rounding the 500 year surge elevation up to 10’ is reasonable.

The road elevation of 15’ MLLW was originally based on a 500 year event with a 3 foot significant wave height. For runup and overtopping on a road an H2 (2% of highest waves) is normally recommended as a design wave. This would add about 4.5 feet to the 10 foot design surge. A typical causeway structure would more appropriately be designed for a significant wave or an H10 wave depending on engineering judgement. However, given the life-safety critical nature of this causeway, one could also consider using H1 (highest 1%). It should be noted that the armor design, including slope, layering, and permeability will have an effect on runup so some flexibility can be incorporated into the road surface elevation.

**Sedimentation in Lagoon**

In earlier studies, years ago, it was believed that sediment being carried down the Kivalina and Wulik rivers was being deposited in the lagoon. With more recent surveys and photography, including google earth it can be seen that the river sediments, particularly bed load, simply pass through the lagoon and are deposited on the outer shoreline. This is particularly significant with respect to the long term stability of the village. If the river sediments were deposited into the lagoon then the community would be more vulnerable to long term erosion as most studies have reported. With the river sediments deposited on the outer beach the erosion and accretion of the barrier island, including the village, will remain more in a balanced equilibrium.

The most dynamic part of the littoral system are the two inlets that correspond with the rivers. These inlets are constantly shifting in response to river flow, longshore transport of sediments along the outer beach which are driven by waves, and the equilibrium cross section that responds to the flood and ebb of tidal surges. Normally the inlets are in balance with the river flow and would have a similar hydraulic radius. However, when a storm surge occurs, there is a large inward flow and the inlets will scour out to accommodate the required surge volume. The discharge (Q) through the entrance can be roughly estimated by the area of the lagoon multiplied by the time rate of change of the water surface. It has been observed that significant storm surges at Kivalina rise at about half a foot per hour. The lagoon is roughly 10 miles long and 1 mile wide (assuming a small amount of overland flooding). Calculating the combined Q through the two inlets for a surge rising at 6 inches/hour flooding ten square miles the combined discharge would be on the order of 38,000 CFS. Or about 19,000 CFS if the inlets were in balance. The discharge would also need to consider river flow. This would be subtracted on the flood and added on the ebb. Since the inlet cross-sections appear to be on the order of 1000 square feet during non-surge conditions it can be seen that there will be significant widening and deepening through scour to bring the equilibrium cross section into balance with the velocities. The greatest scour may occur during the ebb phase of the surge when the lagoon is draining due to the added discharge from the rivers and flow is more channeled. It also depends on the time rate of change of the water surface outside the lagoon. (This is typically the primary boundary condition in computer models). The channel that the causeway is crossing is a result of scour from the ebb portion of the surge. Typically it would have little to no flow except during large surge events. These drainage channels are characteristic of any area that has wide mud flats and large tides (such as upper Cook Inlet). The drainage channel will
be most pronounced at the seaward end. Their depth, relative to the surrounding bottom, diminishes to zero moving landward or, in the case of the Kivalina, moving farther into the lagoon.

With two separate and independent inlet and river systems, a restricted barrier placed across the lagoon such as a solid causeway, a hydraulically permeable causeway, or a restricted causeway with a bridge or culvert should not have a large detrimental effect on the lagoon. Whatever is constructed will cause the inlet and river systems to adjust to a new equilibrium. Because the causeway would be aligned slightly south of the "stagnation zone" the northern inlet may widen and deepen slightly more during surge events; on the other hand, the entrance at the village would be slightly less responsive providing greater protection against scour to the USACE's rock revetment. The inlet hydraulic radius at the village would remain similar to that of the Wulik River and would be less dynamic than it is currently.

The USACE PAS study provided diagrams of the flow conditions as predicted by the ADCIRC computer model. The model was based on a fixed bed analysis so inlet responses to tidal surges could not be modeled. The response of the inlets to tidal surges is the most dynamic part of the system and is critical to understanding the equilibrium condition that will result from a causeway crossing. The results of the ADCIRC model, as interpreted by the USACE, showed that a 3-span bridge would be required to avoid scour at the piers. However, interpreting the model output using continuity and a sediment budget approach shows that the shallow portions of the lagoon would be severely eroded and the material would be deposited at the pier location in the deeper channel. I believe the conclusion was that the model was intended for larger scale circulation and was not appropriate for evaluating scour. With the uncertainties in erosion at the causeway, a solution that is less sensitive to scour should be considered and a much smaller span may be sufficient.
Introduction

Executive Order 11988 Floodplain Management requires federal agencies to avoid adverse impacts associated with the occupancy and modification of floodplains. The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP) which aims to reduce the impacts of flooding on private and public structures.

Kivalina does not participate in the NFIP and there are no FEMA floodplain maps available for the Study Area. This Location Hydraulic Study examines the existing information regarding the floodplain of the Kivalina Lagoon (USACE, 1998; R&M Consultants 2017), defines the Wulik River floodplain within the Kivalina Evacuation and School Site Access Road project study area via a hydrodynamic model, documents any potential impacts to, or encroachment on, the floodplain, and recommends any mitigation that may be required.

Project Description

The Kivalina Evacuation and School Site Access Road project would provide Kivalina residents a safe and reliable evacuation route in the event of a catastrophic storm or ocean surge, allowing evacuees to temporarily mobilize to safe refuge at an assembly site on Kisimigiuqtuq Hill (K-Hill). This site is also identified by the Northwest Arctic Borough School District, and approved by the community, as a preferred new location for the community school. If constructed, the school could augment the undeveloped evacuation site by serving as a full-service community emergency shelter with all-season support capabilities.

The proposed road has a total approximate length of 7.7 miles and would begin near the south end of the Kivalina Airport, immediately cross the Kivalina lagoon eastward, and follow lowlands between relic channels of the Wulik River to K-Hill. Crossing of the Lagoon would require an approximately 3,020 ft solid, armored, earthen causeway. The lagoon crossing would include a single span bridge crossing an existing 110 ft channel located approximately 160 ft northeast from the barrier island. Large culvert(s) designed to accommodate all life-stage passage of fish, would be constructed at the northeast end of the causeway. A series of overflow pipes would be placed incrementally over the length of the solid portions of the causeway to provide additional conveyance during high water events.

Proposed Action components located on the mainland include the evacuation road, material sources, and material source access roads, with a total footprint of 468.6 acres. To maintain existing drainage patterns and convey seasonal runoff along the road, numerous cross culverts of various diameters would be installed, and overflow pipes would be placed in areas expected to be subject to high water events.
Kivalina Lagoon Floodplain

The elevation of the barrier island at the location of the community varies between +10 and +11 ft mean lower low water (MLLW). Erosion is a particular concern for the Singuak Inlet, as storm events in 2004, 2005 and 2006 resulted in significant erosion on the seaward side of the inlet from wind driven tidal surges (USACE 2006). Flood hazards for the community of Kivalina result almost exclusively from Chukchi Sea storm surges caused by south to southeasterly winds (USACE 1998, City of Kivalina 2015). The size of the lagoon and the low ground elevation on the mainland provide a large area for water storage when the river flow overtops its banks. With river flow into the lagoon passing through to the ocean with little change in water surface elevation, high flows in the rivers cause only minor changes to the lagoon water level during flood events and thus are not anticipated to impact the community of Kivalina nor the extent of the lagoon floodplain (USACE 2016).

Chapman et al. (2009) estimated the 100-year storm surge flood event at 7.77 +/- 1.08 SD ft (MLLW) based on the four years of tide gauge data from Red Dog Mine available at the time. The USACE (2016) later adapted this estimate, and used 7.3 ft MLLW for their design recommendations. In 2011, a storm surge event of 7.4 ft MLLW occurred. Using 12 years of tide gauge data, a recent analysis updated the 100-year surge event estimate to 8.5 ft MLLW and provided a 500-year estimate of 9.6 ft MLLW (R&M Consultants 2017).

The entire barrier island, including the community of Kivalina, and the entire Kivalina Lagoon located within the Study Area are in the Kivalina Lagoon floodplain (Figure 1). As such, the entire project footprint in this part of the Study Area would be affected by a 100-year storm surge.

Wulik River Floodplain

A 100-year flow event of the Wulik River is not expected to significantly affect Kivalina Lagoon water levels nor the community of Kivalina. Such an event would, however, have the potential to impact the Project footprint on the mainland, such as the evacuation road, material sources, and material source access roads. To determine a maximum estimated 100-year Wulik River floodplain extent, acreage of project footprint impacted, and resulting elevation, we developed a MIKE 21 2D Hydrodynamic model for the Wulik River within the Study Area (see Appendix 1 for details).

Information to model the Wulik River floodplain during a 100-year flow event comes from the inflow hydrograph estimated based on a USGS river gauge located upstream of the model domain (USGS 15747000, see Figure 2 in Appendix 1). Topographic information for the area comes from LiDAR data with 2 ft interval contours previously collected for the Study Area. Tide gauge information from Red Dog Mine was used to develop Kivalina Lagoon water level that serves as the models’ lower domain boundary condition (see Appendix 1 for details).

In summary, the model estimated that between 196.6 and 226.4 acres, or 41.0-47.2% of the project footprint within the model domain would be within the lower Wulik River floodplain (Figures 4 and 5 and Table 1 in Appendix 1). Based on model assumptions and parametrization, the lower of these values are considered to be the most realistic.
prediction. A small portion of the causeway is in both the Wulik River floodplain and Kivalina Lagoon floodplain, and so the amount of the project inside a floodplain (Table 1) is slightly different than just the Wulik River floodplain (Appendix 1).

Model results from a co-occurrence of a 100-year storm surge and 100-year river flow are not presented as their likelihood to co-occur is extremely unlikely based on pure probability, and also because river flow maxima occur in July, whereas storm surge events occur in the fall.

Risks Associated with the Implementation of the Action

The Proposed Action would constitute a longitudinal encroachment within the 100-year floodplain of the Kivalina Lagoon and the Wulik River (Table 1).

The risk associated with an increased probability of flooding, due to the encroachment is low. Proposed causeway and road designs include a bridge and numerous cross culverts of various diameters with overflow pipes that would be placed in areas expected to be subject to high water events. Together, this is expected to maintain existing flow and drainage patterns and convey seasonal runoff.

Impacts on Natural and Beneficial Floodplain Values

This project is expected to have minimal permanent impact on natural and beneficial floodplain values. These values include providing fish, marine mammal and bird habitat, wetland connectivity, and a subsistence transportation corridor. None of these values are expected to be impacted by the Project because of the minimization and mitigation measures detailed below.

Support of Probable Incompatible Floodplain Development

The proposed project may facilitate better access to private land owners within the Wulik River floodplain. Route and material source alternatives are adjacent to private land owners. Enhanced access to private parcels will not support or authorize incompatible development.

Measures to Minimize Floodplain Impacts Associated with the Action

Causeway and Road:

- The lagoon crossing would be constructed at a design elevation above the estimated 100-year storm surge elevation, and have flow through structures to maintain general hydrography and drainage patterns
- Flood relief culverts (overflow pipes) would be utilized at major drainage locations or in areas where deeper water during breakup or flood events is expected.
- Measures to minimize releases of sediment to water bodies would be implemented during construction as part of compliance with the Alaska Pollutant Discharge Elimination System (APDES) Construction General Permit (CGP).
- Compliance with the CGP includes preparation of a SWPPP and implementation and monitoring of erosion and sediment control BMPs.
Material Sources:

- Material sources would be constructed to avoid river capture, floodplain widening, and increased erosion.
- Site specific hydrological studies would be performed as needed to address potential floodplain impacts from the use of a particular source and to measure the practicability of opening a particular site and any associated access road.

Measures to Restore and Preserve the Natural and Beneficial Flood-Plain Values Impacted by the Action

- Placement of aggregate materials and crossing structures in the Kivalina Lagoon would alter the otherwise ubiquitous soft or sandy benthic habitats to coarser aggregate along the crossing, which would likely increase species richness and overall biological utility of the lagoon in this area. Sessile invertebrates could use coarse aggregate habitat for attachment and feeding, while fish species could use it for feeding, cover, and potentially breeding (Reynolds et al. 2010), therefore improving the natural and beneficial floodplain values within the area of the lagoon crossing.
- Temporary disturbance, reclaimed land, and other areas of ground disturbance would be revegetated with regionally appropriate seed mix that minimizes introduction of noxious weeds where practicable.
- Where possible, vegetation clearing, site preparation, and construction activities would adhere to the recommended periods to avoid vegetation clearing from June 1–July 31 for Northern Alaska (USFWS 2017). If vegetation clearing, site preparation, and construction occurs within these periods, pre-construction nest surveys would be conducted by qualified personnel and appropriate mitigation developed in consultation with the USFWS; and
- High-disturbance project-related activities (e.g., blasting, pile driving) would be avoided where practicable during the nesting and peak migration window.
- Material sites, if developed within the floodplain, will be designed, and reclaimed to support and enhance the beneficial floodplain values.

Practicability of Alternatives to Floodplain Encroachments

There are no practicable alternatives to development outside the floodplain.

Crossing the Kivalina Lagoon without encroaching on the floodplain is not possible. The low ground elevation on the mainland provides a large area for storage when the river flows overtop their banks. As a result, routing outside of the river floodplain is not possible either. To minimize impact, the lagoon crossing would be constructed at a design elevation above the estimated 100-year storm surge elevation, and have flow through structures to maintain general hydrography and drainage patterns. The road would be constructed at an elevation above the estimated height of the 100-year
Wulik River floodplain, and have cross culverts installed as necessary to facilitate drainage.

The material sites would have unavoidable floodplain encroachments. Except for K-Hill, the only practicable material source developments involve extraction in or adjacent to waterbodies and floodplains. This type of material source development could lead to destabilization of river channels, river channel capture, floodplain widening, increased erosion and sedimentation, increased water velocities, and reduced water quality. Through appropriate planning and adherence to site specific mitigation measures and management plans, however, material source excavation within relic channels and the river bar of the Wulik River is anticipated to be temporary and have minimal effects.

Table 1  Unavoidable Floodplain Encroachment

<table>
<thead>
<tr>
<th>Route</th>
<th>Southern Route</th>
<th>Lagoon Crossing</th>
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<tbody>
<tr>
<td></td>
<td>Unavoidable floodplain encroachment</td>
<td>Unavoidable floodplain encroachment</td>
</tr>
<tr>
<td></td>
<td>42.3 acres inside Wulik River floodplain (39% of component’s footprint)</td>
<td>12.1 acres inside Kivalina Lagoon floodplain (100% of component’s footprint)</td>
</tr>
<tr>
<td></td>
<td>Overland Route: 9 water crossings:</td>
<td>Overland Route: 12 water crossings:</td>
</tr>
<tr>
<td></td>
<td>0 crossings of Wulik River Relic Channel;</td>
<td>1 fish passage crossing (Wulik River Relic Channel);</td>
</tr>
<tr>
<td></td>
<td>2 fish passage crossings;</td>
<td>2 fish passage crossings;</td>
</tr>
<tr>
<td></td>
<td>4 non-fish passage crossings; and</td>
<td>6 non-fish passage crossings; and</td>
</tr>
<tr>
<td></td>
<td>3 enhanced design crossings.</td>
<td>3 enhanced design crossings.</td>
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Material Source Alternatives

<table>
<thead>
<tr>
<th>K-Hill Site</th>
<th>Wulik River Source 1</th>
<th>Relic Channel Source 1</th>
<th>Relic Channel Source 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 acres inside floodplain (0% of component’s footprint)</td>
<td>75.8 acres inside floodplain (100% of component’s footprint).</td>
<td>34.1 acres inside floodplain (68% of component’s footprint)</td>
<td>42.8 acres inside floodplain (92% of component’s footprint)</td>
</tr>
<tr>
<td></td>
<td>Actual material source may be smaller than planned.</td>
<td>Actual material source may be smaller than planned.</td>
<td>Actual material source may be smaller than planned.</td>
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References


Attachments

FLOODPLAIN MAPPING OF THE WULIK RIVER, KIVALINA ALASKA (STANTEC 2017)

KIVALINA LAGOON CROSSING DESIGN WATER LEVELS AND SEDIMENTATION CHARACTERISTICS (R&M CONSULTANTS 2017)
This memo describes the data, assumption, method, analysis, and result for floodplain mapping of the Wulik River. The primary objective of this work is to delineate floodplain extent of the Wulik River for the 100-year flow under different topographical scenarios. Because there was no bathymetry data available to properly describe a stream cross-section of the Wulik River, a scenario based modelling approach was adopted, using topographic data obtained from LiDAR.

**SCOPE OF WORK**

The scope of work completed for this river floodplain mapping study includes the following:

- Review of available existing LiDAR data.
- Review of available existing 100-year flow event hydrograph for Wulik River.
- Estimate 100-year flood hydrography at the upstream boundary of the hydrodynamic model.
- Develop 2D Hydrodynamic model for the Wulik River.
- Delineate a 100-year river floodplain map for the Wulik River.
- Estimate the area of the project footprint that will potentially be affected by a 100-year flow event of the Wulik River.

**MODEL ASSUMPTION**

Several assumptions were made in completing the required work described in this memo:

1. **Upstream inflow boundary condition:** A 100-year inflow hydrograph was estimated based on a USGS site located further upstream of the model domain (USGS 15747000). The inflow hydrograph assumes this full flow at the model boundary and does not account for local flow for areas between the gauge site and the model domain (see Figure 2).

2. **River bathymetry data:** River geometry affects the amount excess water spilled-out by the river and hence the river floodplain extent. In the absence of river cross-section information, we ran two different hypothetical cross-sections scenarios (as detailed below).

3. **Roughness coefficients:** The velocity and depth of flood water also depends on the impediment or resistance the land surface and river channel offer against flow. Such resistance to flow depends on land-use/cover of the land surface, surface roughness of the bed material, geometry of the channel and flow obstruction. In the absence of this information, the roughness coefficients used in this analysis don’t explicitly consider these.
Factors. Roughness coefficients were therefore assumed based on aerial and site photos and published coefficient values.

Results presented in this memo should be taken considered in context of these assumptions.

**MODEL SCENARIOS**

Two scenarios were considered for the floodplain modeling:

**Scenario I:** assumes river channel bottom matches the LiDAR elevation. This assumption is conservative as it would result in a larger estimated floodplain compared to Scenario II.

**Scenario II:** assumes river channel bottom elevation is the LiDAR lowered by 10 ft. Based on anecdotal observations, this assumption is considered to more accurately reflect the real river channel dimension than Scenario I.

**HYDRODYNAMIC MODEL DEVELOPMENT**

**AVAILABLE DATA**

**LiDAR Data**

A continuous surface layer was first created based on the available LiDAR data with 2 ft interval contours, and then a point cloud for the hydrodynamic model was generated.

**Inflow Hydrograph**

A 100-year flow of 55,000 cfs was applied to delineate the river floodplain. Based on flow hydrograph analysis of the Wulik River (at USGS station number 15747000), a unit peak hydrograph was created and then scaled for the 55,000 cfs (Figure 1). This inflow hydrograph constituted the upstream boundary condition of the model.

**Lagoon Water Level Data**

MHHW record from Red Dog Mine tide gauge is 3.5 ft. To be conservative, we allowed for spatial variance between the gauge location and the study area, and assumed that the river flood could coincide with a higher than average high tide. As a result, we set the lagoon water level elevation, which is the downstream model boundary condition, at 4.5 ft.
Figure 1: Input Inflow Hydrograph

MODEL SETUP

We used the MIKE 21 Hydrodynamic model to simulate the floodplain during a 100-year river flow event. The hydrodynamic model simulates unsteady flow considering density variations, bathymetry and external forcing in rivers, lakes, estuaries, and coastal areas. The modelling system is based on the numerical solution of 2-D incompressible Reynolds averaged Navier-Stokes equations subject to the assumptions of Boussinesq and of hydrostatic pressure. Thus, the model consists of continuity, momentum, temperature, salinity and density equations and it is closed by a turbulent closure scheme. The density does not depend on the pressure, but only on the temperature and salinity.

The model setup involves defining model domain, generating computational element meshes, and specifying model parameters and boundary conditions.
Model Mesh Development

• Computational Model Domain

The model domain was defined based on the available LiDAR data extent. The LiDAR grids were created within the model domain, based on the available LiDAR data (Figure 2).

• Computational Mesh

The elevation scatter points were used to develop the river bathymetry and surface elevation for the overland flow computations. The computational mesh was derived after an iterative process of refining and smoothing the mesh density to ensure proper convergence and accuracy of the numerical solution over a full range of river flows.

The generated mesh contains 38,594 triangular elements (Figure 3). The mesh arrangement was optimized to establish smooth boundaries. The resolution of the mesh, combined with the chosen time-step, governs the Courant number developed in the model set-up. The Courant number affects the numerical stability of the model. The resolution of the model in geographical space and time must be selected to maintain numerical stability. The mesh was optimized, based on the level of detail required and the amount of computational time necessary to run the model.
Figure 3: Computational Mesh
**Boundary Conditions**

The following model boundaries were applied to the model domain setup:

- The upstream boundary condition was set the flow boundary condition. The 100-year flood inflow hydrograph (Figure 1) was used as the upstream boundary condition.

- The downstream river control boundary was set as a lagoon water level boundary condition. We used a lagoon water level of 4.5ft. The downstream boundary condition was considered as constant head boundary, but porous, where water in the floodplain could be lost to the lagoon if the floodplain water level exceeds that of the constant head boundary.

- Manning’s roughness values of 0.1 for the overland part of the model domain and 0.02 for the main river were used.

**RESULTS**

Floodplains for each of the river depths were mapped to estimate the maximum extent of a 100-year river flood event (Figures 4 and 5) and to estimate the area of project footprint that would be in the floodplain (Table 1). Results for Scenario I are considered conservative; the shallower river depth combined with a higher than MHHW lagoon water level, resulting in a larger estimated floodplain extent as compared to the more realistic Scenario II conditions. The maximum estimated floodplain extents, acreage of project footprint impacted, and resulting elevations of both scenarios, were similar, estimated between 196.6 and 226.4 acres of the project footprint occurring within the 100-year Wulik River floodplain; a 6.2% difference. Based on the available data and assumptions made herein, we consider these model results to be a reasonable prediction of maximum floodplain extent for the lower Wulik River inside the model domain.
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Technical Memorandum

To: Jonathan Hutchinson, PE (ADOT&PF)
From: Harvey Smith, PE (HNS) and Kim Nielsen, PE (R&M)
Subject: Kivalina Lagoon Crossing Design Water Levels and Sedimentation Characteristics
Date: 9/7/17
Project #: R&M Project # 2485.01

This memo is intended as internal communication to design and environmental team members for the Kivalina Lagoon Crossing project to provide a summary of discussions and recommendations on the design water level and sedimentation characteristics for the proposed project. Additional information can be found in the memorandum dated May 22, 2017 which outlines our review of the “Kivalina Lagoon Crossing Planning Assistance to State, Causeway and Bride Design Report” (USACE, June 2016).

**Design Water Elevation:**

The primary purpose of the road project, as described by the US Army Corps of Engineers (USACE) and others, is to "Allow residents of Kivalina to evacuate the barrier Island where they are located in the event of a storm that threatens to overtop the island". The elevation of the island at the location of the community varies between +10 and +11 feet (MLLW).

The USACE report did not identify a design high water condition that would require evacuation of the village. They did, however, calculate a 100 year (1% annual probability) high water elevation equal to +7.3' (MLLW). This surge elevation may result in some erosion and could threaten some nearshore infrastructure but would not threaten human life and would not "overtop" the island. The conditions that would overtop the island and threaten human life would be somewhat greater than the USACE’s estimated 100 year event. Note: a 7.4’ surge event occurred in 2011. This exceeded the 100 year event and there was no report of significant damage.

Since the USACE report did not address a design high water condition, particularly the one that would "overtop" the island and require evacuation, I performed an independent check on design conditions. The USACE estimate of 7.3’ for a hundred year event was taken from Chapman et.al. "Storm Induced Water Level Prediction Study for The Western Coast of Alaska", 2009. The methodology from Chapman appeared reasonable from an academic standpoint, however, it estimated a 100 year event based on only four years of data. It is not recommended practice to predict a 100-year event based on such a small period of data. Although we have to work with what is available, it should be noted that at least 30-years of data is industry standard practice for such a prediction. There is now more than 12 years of data, including an event exceeding the 100 year prediction, so an updated hindcast was in order. Using similar methods as the USACE, an updated hindcast using current data would increase the 100 year event to roughly 8.5 feet. For the same reason, this should also be considered with some caution and adjusted based on engineering judgement. A surge to this elevation could cause significant damage along the seaward shoreline of the...
village and would probably initiate an evacuation. Waves may be running up into the village but structures along the lee side of the village would probably remain intact and provide shelter to the community.

Because the greatest need for the road will be when the 100 year surge event is exceeded, and because of the insufficient amount of historical data available for hindcasting, it is recommended that an event closer to a 500 year recurrence be selected for design. This will bring the design elevation up to 9.6’ MLLW adding roughly one foot to the 100 year event. Note that these estimates have a wide confidence band due to the small data set used for the hindcast. Due to uncertainties in the estimate, rounding the 500 year surge elevation up to 10’ is reasonable.

The road elevation of 15’ MLLW was originally based on a 500 year event with a 3 foot significant wave height. For runup and overtopping on a road an H2 (2% of highest waves) is normally recommended as a design wave. This would add about 4.5 feet to the 10 foot design surge. A typical causeway structure would more appropriately be designed for a significant wave or an H10 wave depending on engineering judgement. However, given the life-safety critical nature of this causeway, one could also consider using H1 (highest 1%). It should be noted that the armor design, including slope, layering, and permeability will have an effect on runup so some flexibility can be incorporated into the road surface elevation.

**Sedimentation in Lagoon**

In earlier studies, years ago, it was believed that sediment being carried down the Kivalina and Wulik rivers was being deposited in the lagoon. With more recent surveys and photography, including google earth it can be seen that the river sediments, particularly bed load, simply pass through the lagoon and are deposited on the outer shoreline. This is particularly significant with respect to the long term stability of the village. If the river sediments were deposited into the lagoon then the community would be more vulnerable to long term erosion as most studies have reported. With the river sediments deposited on the outer beach the erosion and accretion of the barrier island, including the village, will remain more in a balanced equilibrium.

The most dynamic part of the littoral system are the two inlets that correspond with the rivers. These inlets are constantly shifting in response to river flow, longshore transport of sediments along the outer beach which are driven by waves, and the equilibrium cross section that responds to the flood and ebb of tidal surges. Normally the inlets are in balance with the river flow and would have a similar hydraulic radius. However, when a storm surge occurs, there is a large inward flow and the inlets will scour out to accommodate the required surge volume. The discharge (Q) through the entrances can be roughly estimated by the area of the lagoon multiplied by the time rate of change of the water surface. It has been observed that significant storm surges at Kivalina rise at about half a foot per hour. The lagoon is roughly 10 miles long and 1 mile wide (assuming a small amount of overland flooding). Calculating the combined Q through the two inlets for a surge rising at 6 inches/hour flooding ten square miles the combined discharge would be on the order of 38,000 CFS. Or about 19,000 CFS if the inlets were in balance. The discharge would also need to consider river flow. This would be subtracted on the flood and added on the ebb. Since the inlet cross-sections appear to be on the order of 1000 square feet during non-surge conditions it can be seen that there will be significant widening and deepening through scour to bring the equilibrium cross section into balance with the velocities. The greatest scour may occur during the ebb phase of the surge when the lagoon is draining due to the added discharge from the rivers and flow is more channeled. It also depends on the time rate of change of the water surface outside the lagoon. (This is typically the primary boundary condition in computer models). The channel that the causeway is crossing is a result of scour.
from the ebb portion of the surge. Typically it would have little to no flow except during large surge events. These drainage channels are characteristic of any area that has wide mud flats and large tides (such as upper Cook Inlet). The drainage channel will be most pronounced at the seaward end. Their depth, relative to the surrounding bottom, diminishes to zero moving landward or, in the case of the Kivalina, moving farther into the lagoon.

With two separate and independent inlet and river systems, a restricted barrier placed across the lagoon such as a solid causeway, a hydraulically permeable causeway, or a restricted causeway with a bridge or culvert should not have a large detrimental effect on the lagoon. Whatever is constructed will cause the inlet and river systems to adjust to a new equilibrium. Because the causeway would be aligned slightly south of the "stagnation zone" the northern inlet may widen and deepen slightly more during surge events; on the other hand, the entrance at the village would be slightly less responsive providing greater protection against scour to the USACE’s rock revetment. The inlet hydraulic radius at the village would remain similar to that of the Wulik River and would be less dynamic than it is currently.

The USACE PAS study provided diagrams of the flow conditions as predicted by the ADCIRC computer model. The model was based on a fixed bed analysis so inlet responses to tidal surges could not be modeled. The response of the inlets to tidal surges is the most dynamic part of the system and is critical to understanding the equilibrium condition that will result from a causeway crossing. The results of the ADCIRC model, as interpreted by the USACE, showed that a 3-span bridge would be required to avoid scour at the piers. However, interpreting the model output using continuity and a sediment budget approach shows that the shallow portions of the lagoon would be severely eroded and the material would be deposited at the pier location in the deeper channel. I believe the conclusion was that the model was intended for larger scale circulation and was not appropriate for evaluating scour. With the uncertainties in erosion at the causeway, a solution that is less sensitive to scour should be considered and a much smaller span may be sufficient.
## APPENDIX C

### HISTORIC AERIAL PHOTOGRAPHY – WULIK RIVER MOUTH

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Legend

- **South Route - 7.7 Miles**
- **South Route Corridor**
# APPENDIX D

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AFFIDAVIT OF PUBLICATION

UNITED STATES OF AMERICA
STATE OF ALASKA
FOURTH DISTRICT

Before me, the undersigned, a notary public, this day personally appeared Jenny Nance, who, being first duly sworn, according to law, says that he/she is an Advertising Clerk of the Fairbanks Daily News-Miner, a newspaper (i) published in newspaper format, (ii) distributed daily more than 50 weeks per year, (iii) with a total circulation of more than 500 and more than 10% of the population of the Fourth Judicial District, (iv) holding a second class mailing permit from the United States Postal Service, (v) not published primarily to distribute advertising, and (vi) not intended for a particular professional or occupational group. The advertisement which is attached is a true copy of the advertisement published in said paper on the following day(s):

November 12, 2016
Remote Solutions
Acct # 9010
Ad # 38412
Kivalina Evacuation & School Access Road (Project No. 0002384)

and that the rate charged thereon is not excess of the rate charged private individuals, with the usual discounts.

Subscribed and sworn to before me on this 14 day of Nov., 2016

Notary Public in and for the State Alaska.

My commission expires DEC 7, 2017

M. BURNELL
STATE OF ALASKA
My commission Expires December 7, 20___
## Alaska Media LLC

P.O. Box 241582
Anchorage, Alaska 99524
907-770-0820 / 907-770-0822 fax
accounting@reportalaska.com

### Arctic Sounder

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#### Bill To

Remote Solutions
Mae Mendenhall
PO Box 831
Kotzebue, AK 99752

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## Invoice

![PAID Sticker]

11/10/2016

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Publishing the Arctic Sounder, Bristol Bay Times/Dutch Harbor Fisherman, Homer Tribune

Appendix D Page 2
November 10, 2016

Dear Project Stakeholder:

Re: Kivalina Evacuation and School Site Access Road
0002384/NFHWY00162
Request for Scoping Comments

The Alaska Department of Transportation and Public Facilities (DOT&PF) and the Federal Highway Administration (FHWA) in partnership with the Northwest Arctic Borough (NAB), Native Village of Kivalina, and the City of Kivalina, are proposing to improve community safety in Kivalina, Alaska by providing an evacuation road between Kivalina Island and a school to be constructed by the NAB that would also serve as a safe emergency evacuee assembly site on Kisimigiuqtuq Hill (K-Hill). Kivalina is located on the southeast tip of a 5.5-mile long barrier island, located between the Chukchi Sea (Arctic Ocean) and Kivalina Lagoon approximately 80 miles northwest of Kotzebue.

DOT&PF is conducting formal scoping to support preparation of an environmental document for the proposed road project in accordance with the National Environmental Policy Act of 1969 (NEPA), as amended. Please identify any environmental, cultural, historic, or subsistence resources you believe may potentially be impacted by the proposed project, and provide any other information you deem valuable to the environmental documentation process. Your responses will help provide us with the necessary inputs to develop and design a proposed final project that avoids and minimizes as many potential adverse environmental and human impacts as possible.

Background

The community of Kivalina has been working for decades with a variety of local, state, and federal agencies to address threats of coastal erosion and flooding. Numerous study, concept, and planning documents exist on potential solutions, which range from: erosion protection around the city; to relocation of the entire community; to a new mainland site. Options involving community relocation have been problematic, as they are neither culturally preferable nor fiscally practical in the foreseeable future. Accordingly, Kivalina has turned to a locally approved approach of facilitating a safe, reliable, and direct means of community evacuation to an acceptable mainland location on K-Hill.
Project Location

The proposed road project origin would be at the City of Kivalina, which lies within the Kotzebue Recording District and is located in Section 21, Township 27 N, Range 26 W, of the Kateel River Meridian. The desired project terminus at K-Hill is located in Section 19, Township 28N, Range 25W, of the Kateel River Meridian. The feasibility of several potential route alignments is currently being evaluated within a project study area encompassing Kivalina Island, the southern portion of Kivalina Lagoon, and the lower Wulik and Kivalina River drainages in Townships 27N and 28N, Ranges 25W, 26W and 27W of the Kateel River Meridian (Figure 1).

Purpose and Need

The Kivalina Evacuation and School Site Access Road project would provide Kivalina residents a safe and reliable evacuation route in the event of a catastrophic storm or ocean surge, allowing evacuees to mobilize to safe refuge at a site on K-Hill also dedicated by the NAB as the preferred new location for the community school. Upon its anticipated construction, the school will augment the undeveloped evacuation site by serving as a full-service community emergency shelter with all-season, longer-term support capabilities.

Recent climate data has indicated that arctic sea ice is forming later in the season, increasing fall and winter storm duration and intensity along the Northwest Arctic coast. Consequently, residents of Kivalina face significant and increasing risks to safety, life and property by storm systems predicted to further intensify over time. The need for a concerted effort to mitigate these risks became more evident during an evacuation event in October 2007 when debris-laden storm waves overtopped the barrier island.

To facilitate community safety in the face of this increased threat, Kivalina needs a safe, stable, and reliable evacuation infrastructure (routing, transportation, shelter) in the event of impending catastrophe. To provide the routing component of this infrastructure will require construction of a road facility over a safe route that allows emergency response vehicles to access a secure location capable of supporting evacuees in times of need.

Proposed Action

Within the project study area, DOT&PF and FHWA are currently reviewing the feasibility of three existing, preliminary route options independently proposed by Kivalina and the NAB (Figure 2). While these routes may provide a useful basis for alternative development during NEPA documentation, additional draft alternatives are anticipated to be identified and considered as a consequence of agency and public scoping. Common to all anticipated alternatives will be the requirement to support the following actions:

- **Establishment of a safe, reliable, all-season Kivalina Lagoon crossing during evacuation mobilization.**
  - Concepts previously studied for their feasibility include construction of an earthen causeway across the lagoon that variously incorporates hydraulic and boat passage options including bridge(s), culvert(s), or both.

- **Construction of an all-season gravel access road between Kivalina Island and the desired K-Hill evacuation site.**
The road would be designed to accommodate both general purpose and emergency evacuation vehicles over a two-way road with shoulders, multiple turnouts, and safe side slopes that include guard rails or other safety features as required.

Over the last decade, Kivalina and the NAB have evaluated the feasibility of numerous local road routings that could potentially provide for evacuation, school access, or material site development. Evacuation routes considered to date by Kivalina and the NAB have included:

- An alignment referred to as a **Northern Route** approximately 9.1 miles in length that would originate at the south end of the Kivalina Airport runway, parallel the runway on its east side northward for approximately 1.5 miles, cross the lagoon eastward via a causeway and/or bridge, and follow high ground between the Wulik and Kivalina Rivers to its terminus at K-Hill.

- An alignment considered a **Southern Route** approximately 6.9 miles in length that would begin at the south end of the Kivalina Airport runway, immediately cross the lagoon eastward via a causeway and/or bridge, and follow lowlands and relic channels of the Wulik River to K-Hill.

- A **Combined Route** approximately 8.6 miles in length that would follow the Northern route before merging with the Southern route via a one-mile long connecting segment.

**Identification of Material Sources:** Although project materials would be specified as contractor furnished and development of material sources would not be included in the Proposed Action, analyses of material locations proximate to potential routes would be conducted to determine their feasibility and evaluate environmental impacts of their development. Four locations in the project study area known to contain potentially viable project materials, and currently being evaluated by Kivalina and the NAB, include:

- **K-Hill:** K-Hill geology is characterized by exposed limestone and rock rubble at the ground surface. It is anticipated that below the surface, larger frost-fractured rocks and boulders may also exist.

- **Wulik River Deposition Zone:** The Wulik River Deposition Zone is characterized by visible gravel bars and beaches along the river banks that would contain suitable materials to construct the proposed project.

- **Wulik River Relict Channel:** The Wulik River Relict Channel is characterized by visible gravel and sand at the ground surface. The fluvial material in these areas was likely deposited when the Wulik River was located north of its present location.

- **Kivalina River Deposition Zone:** The Kivalina River is also being evaluated for potential material sources due to the areas visible on gravel bars and beaches that appear to contain suitable material.
To provide you with additional information of project interest, we have made a substantial document cache of previous studies and assessments on the project area, potential development projects at Kivalina, and various natural resources available on the DOT&PF project website at:
http://dot.alaska.gov/nreg/KivalinaEvacRd.

Based on additional agency and public input, engineering and environmental analyses and evaluations, and the application of regional Traditional Knowledge, DOT&PF intends to identify issues of environmental, technical and cultural concern, refine the project scope as necessary, and through evaluation of qualified potential routes develop a preferred project alternative that minimizes human and environmental impacts while meeting project purpose and need.

We respectfully request your written comments no later than December 12, 2016. Please mail them to: DOT&PF Attn: Sarah E. Schacher, P.E., 2301 Peger Road Fairbanks, AK, 99709; or you may e-mail comments to me at sarah.schacher@alaska.gov.

Thank you for your attention to this request. If you have any questions regarding the proposed project, please contact me at (907) 451-5361.

Sincerely,

Sarah E. Schacher, P.E.
Preconstruction Engineer

Enclosures: Figure 1 – Location & Vicinity Map
Figure 2 – Study Area and Potential Routes

pk/lmc

Distribution by email:
Mayor Vernon Adams, Sr., Native Village of Noatak
Heidi Drygas, Commissioner, Alaska Dept. of Labor & Workforce Development
Millie Hawley, Tribal President, Native Village of Kivalina
Stanley Hawley, Tribal Administrator, Native Village of Kivalina
Dr. Michael Johnson, Commissioner, Alaska Dept. of Education & Early Development
Linda Lee, Secretary, NANA
John Lincoln, Board Chairman, Maniilaq Association
Tim Mearig, P.A., Facilities Manager, Alaska Dept. of Education & Early Development
Janet Mitchell, City Administrator, City of Kivalina
The Honorable Lisa Murkowski, United States Senate
Dr. Annmarie O’Brien, Superintendent, NAB School District
The Honorable Donald Olson, Alaska State Senate
Mayor Clement Richards, Sr., Northwest Arctic Borough
Sandy Shroyer, President, NAB School District
Tim Schuerch, President, Maniilaq Association
Nicole Stoops, Executive Director, Native Village of Kotzebue
The Honorable Dan Sullivan, United States Senate
Mayor Austin Swan, City of Kivalina
Herbert Walton, Tribal Administrator, Native Village of Noatak
Representative-Elect Dean Westlake, Alaska State House of Representatives
Wayne Westlake, President/Chief Executive Officer, NANA
The Honorable Don Young, United States House of Representatives
Location & Vicinity Map

Project Number: 0002384/NFHWWY00162

DATE: November 2016

FIGURE 1
Meeting Overview:

The DOT&PF proposes to construct a road from Kivalina to a safe location at the proposed Kivalina school site on the mainland. The Kivalina Evacuation and School Site Access Road Project (project) team presented the project to the communities of Kivalina, Noatak, and Kotzebue. The meetings goal was to present the project and gather comments. The meetings were held in an open house format to allow for ample interactive discussions with the project team. A table of comments and responses for each meetings location is below. The following agenda topics were discussed at each community:

**Introduction, Purpose and Need, Background and Overview – Millie Hawley and John Baker**
- Introduced project team present.
- Discussed project history and DOT&PF, NAB, and the Kivalina community partnership.
- Discussed funding from federal and state agencies, and local project contributions.

**Overview of National Environmental Policy Act (NEPA) Process – Paul Karczmarczyk**
- Explained NEPA process and mechanics.
- Discussed importance and timing of community input during the NEPA process.

**Work Completed to Date – John Baker**
- Introduced study area, and routes previously studied by NAB and the Kivalina community (southern, northern, and combined routes).
- Acknowledged southern route as the Kivalina community selected route.
- Presented engineering, geotechnical, and environmental studies completed to date.

**Purpose and Need, Project Description – Ryan Anderson and Sarah Schacher**
- Explained the project’s purpose and need, and how the community’s previous work fits into the DOT&PF process.
- Discussed importance and uniqueness of the partnership--projects where everyone comes together are the most successful.
• Discussed importance of community involvement and contributions in future project scoring for federal transportation funding.
• Explained the DOT&PF project pertains only to the road portion of the project and will cover the following actions:
  o Lagoon crossing – discussed things to consider in design
  o Road construction – discussed two-way traffic and room for pedestrians
• Explained material site selection – sites will be identified but not permitted as part of this work. Material will be contractor supplied.

Environmental Review Completed to Date/Work This Fall – Sara Lindberg
• Discussed the project team is using the studies and evaluations completed to date in the NEPA process.
• Explained previous studies are critically important. The project team will meet with agencies to determine if previous studies are sufficient for permitting or if further information is needed to satisfy NEPA and other environmental compliance requirements.
• Described cultural, biological, and marine mammal work completed this fall.

Project Next Steps – John Baker
• Discussed ability to expedite the project schedule and how valuable previous studies have been to allow winter work to continue without delay.
• Described project next steps:
  o Public and agency scoping
  o Completion of draft Environmental Assessment (EA)
  o Public meeting to discuss EA findings
  o Final EA
  o Detailed design and permitting
  o Construction

Kivalina Comments/Questions Summary:

<table>
<thead>
<tr>
<th>Comment/Question</th>
<th>Response/Next Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evacuation Route</td>
<td>The purpose of the project is to construct an evacuation route that will also serve as access to the new school site.</td>
</tr>
<tr>
<td>In your studies of the higher and lower routes, did anything change from what was previously proposed?</td>
<td>We are considering the previously proposed routes, and those have not changed. We are also looking at other routes.</td>
</tr>
<tr>
<td>Could the road be used as an emergency airplane landing? The runway by the dump is a bird hazard.</td>
<td>No, the road could never be designated as a runway. Runway width requirements are much wider than this road would be.</td>
</tr>
<tr>
<td>Is the road going all the way to the mountain, or to the side?</td>
<td>The selected school site is on the side of K Hill. The road would go to the selected school site.</td>
</tr>
<tr>
<td>When you go through the process of addressing alternatives, will you come back and go through our comments and how they were addressed?</td>
<td>Yes. DOT&amp;PF will return to the community often to provide updates during the alternative analysis process. Once we complete our assessment of the reasonable range of alternatives, we will return to gather further input.</td>
</tr>
<tr>
<td>Comment/Question</td>
<td>Response/Next Steps</td>
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<td>---------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>If you are going to build a gravel road it will have to be 15’ above the sea level for the storms. (The airport is at 16’ msl at centerline, the town is approx. 11-12’ msl)</td>
<td>Yes, right now the preliminary concepts show the road at 15’ above sea level. We want the road to provide safe travel during a storm surge.</td>
</tr>
<tr>
<td><strong>Lagoon Crossing</strong></td>
<td></td>
</tr>
<tr>
<td>The U.S. Army Corps of Engineers (USACE) said they would not build a lagoon crossing because it was too expensive. How did this project get to this point given that response?</td>
<td>The USACE design focused on the lagoon crossing and estimated cost at $80M. The DOT&amp;PF project is evaluating more economical designs for the lagoon crossing and road. DOT&amp;PF will evaluate the feasibility of this project based on similar designs in other locations like Kotzebue and we believe it is feasible.</td>
</tr>
<tr>
<td>Will there be a causeway/bridge or something different? Is a causeway the only solution? Could you build a bridge all the way across?</td>
<td>DOT&amp;PF is looking at multiple options for the lagoon crossing. There may be a combination of both design elements. We are currently evaluating feasibility of multiple options.</td>
</tr>
<tr>
<td>In the springtime ice comes down from the river and would hit the bridge or gravel causeway.</td>
<td>Thank you for your comment. We will be looking at ice effects as part of the design and environmental process.</td>
</tr>
<tr>
<td>Most of the storm surges happen at night. It would be good to have the causeway located close to town.</td>
<td>The purpose of this project is to provide direct and reliable access. A crossing that is closer to the community would be more direct than others.</td>
</tr>
<tr>
<td>Make sure when you do your studies that you consider all seasons. Make sure the lagoon crossing and the road can stand up in all seasons.</td>
<td>These are considerations that we are looking at. We want to be sure the road is high enough where it doesn’t flood, and the design takes snow drifting and ice into consideration.</td>
</tr>
<tr>
<td>Is it possible to build a barge landing into the project? Last fall the swells were too high and the barge couldn’t make it in.</td>
<td>A barge landing may be required for construction but a permanent landing is not part of this project.</td>
</tr>
<tr>
<td>Has anyone conducted studies of the water level in the fall when it is the highest?</td>
<td>There have been numerous storm surge water level studies in the Kivalina area, and we will evaluate them.</td>
</tr>
<tr>
<td><strong>Transportation Options</strong></td>
<td></td>
</tr>
<tr>
<td>Discussions are needed on what types of vehicles will travel along the road. How will kids get to school? Be sure to include the Kivalina community in discussions of road needs.</td>
<td>Transportation options are an important aspect of the NEPA review process. We would like to hear community transportation needs for the school to help inform the road design. There will be many questions about transportation as we go through this process and DOT&amp;PF wants to hear about community needs.</td>
</tr>
</tbody>
</table>
## Meeting Location: Kivalina, School Gym

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>Will this project consider transporting children and the elderly in poor weather? How will the road be designed to accommodate conditions encountered during an evacuation?</td>
<td>Community transportation needs will be addressed during this process. Please tell us what you will need for transportation to evacuate. The partnership between the NAB, DOT&amp;PF, and the community will allow a more comprehensive forum to hear your needs for things that the DOT&amp;PF project may not cover like vehicles.</td>
</tr>
</tbody>
</table>

## School Site

On January 3, 2012, the community voted on the selection of the school site. There have been resolutions from the City and the IRA supporting both the road and the school project. This project is evaluating route options from Kivalina to the proposed school site. This will be an evacuation road and the school will also double as the evacuation shelter for the community. DOT&PF’s goal is to identify the best route to K hill and they have federal money to move it through the environmental process.

Has the school been funded already? Yes.

## Environmental / NEPA

<table>
<thead>
<tr>
<th>Question</th>
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</thead>
<tbody>
<tr>
<td>How long will it take to get through the environmental process?</td>
<td>If an EA, 6-8 months, depending on the feedback we get from the regulatory agencies and the community.</td>
</tr>
<tr>
<td>What is the difference in timeline between an EA and an EIS?</td>
<td>An EIS could take 1-2 years.</td>
</tr>
<tr>
<td>Can we get copies of the studies done this summer?</td>
<td>Yes, available studies will be posted on the DOT&amp;PF project website. You can also look on <a href="http://www.kivalinaroad.org">www.kivalinaroad.org</a> for information as well.</td>
</tr>
<tr>
<td>Did you see the seal up river?</td>
<td>No, but we heard some seals go up the Kivalina River.</td>
</tr>
<tr>
<td>The road will have lots of uses - subsistence, commercial activities, etc.</td>
<td>Existing and future uses of the area as well as secondary uses of the road will be included in the environmental document. Thank you for your comment.</td>
</tr>
<tr>
<td>Is the Borough and DOT&amp;PF looking at all the work that has been completed to date? Have you looked at comments made in the past during this project development? Who has the list of concerns from the community?</td>
<td>DOT&amp;PF will address project concerns and comments as part of the NEPA process. We will consider comments made as part of previous projects if relevant to the current project. It is important we gather community comments on the current project so they can be considered under NEPA.</td>
</tr>
<tr>
<td>Are you considering traditional knowledge? In your studies, are you getting the right information on local place names?</td>
<td>Yes, traditional knowledge is an extremely important aspect of this project. Any knowledge that regional residents have regarding place names, important hunting areas, gathering and other activities should be noted. We want to gather this information from you so we can be sure to evaluate options that will work for the community and avoid impacting local areas of importance.</td>
</tr>
<tr>
<td>I have a concern about potential future impacts like potential environmental changes and transportation issues.</td>
<td>We appreciate hearing your concerns. We want this road to work for the community now and into the future. Part of the NEPA process looks at how this project could affect the future environment, and how induced impacts and reasonable near future actions may contribute to project impacts.</td>
</tr>
</tbody>
</table>
### Meeting Location: Kivalina, School Gym

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<tr>
<td>Please provide us a chart of comments people have made on this project to date with a list of the answers for each comment. We would also like to see a summary of the work completed to date so we can better provide comments.</td>
<td>That is a great idea. We will complete a project summary and a comment summary for community distribution to help facilitate more meaningful comments. After agency scoping is complete we will speak with Kivalina again about the results of the agency scoping effort, and review some of the comments we received during these public meetings.</td>
</tr>
<tr>
<td>Which agencies will be involved in addressing comments?</td>
<td>Agency scoping letters were sent to numerous regulatory agencies with project jurisdiction or interest. Notable agencies include the USACE, U.S. Fish and Wildlife Service, National Marine Fisheries Service, Alaska Department of Fish and Game, and the State Historic Preservation Office.</td>
</tr>
</tbody>
</table>

#### Funding

| Was federal money approved for this project? Is there funding to build the road? | Yes, for the environmental and preliminary design process. Funding for Construction will be requested.                                                                                                                                                                                                                                                                                                                                                      |
| Do you have to satisfy the national benefit criteria? Do you have to show the project will benefit the rest of the U.S.? | We do not believe that criterion is part of the federal aid program, this project has been approved for State and Federal Transportation Improvement Funds. We will research your question.                                                                                                                                                                                                                                                                 |
| Is this project funded out of a general pot of funds, or is it specific to Kivalina? | There is a pot of money per year and the DOT&PF scores each project per project needs and decides which ones get funded. Safety improvement projects score the highest.                                                                                                                                                                                                                                                                                   |
| If you ask for funding be sure to communicate that the community is flooding with storms we currently are seeing. That should be communicated. | Thank you for your comment. Yes, there is a very real safety need for an evacuation road for the community in the immediate future.                                                                                                                                                                                                                                                                                                                      |
| Does some of the land belong to DOT&PF?                                         | Land ownership is either NANA or shareholder allotment land. ROW acquisition will be a part of this project. DOT owns the airport property.                                                                                                                                                                                                                                                                                                             |

#### Local Hire

| Local hire – where would I apply? What are the restrictions on local hire?      | Procurement laws don’t allow us to include preference for local hire and we cannot discriminate based on location. However, once the project is closer to construction we can discuss how to make it easier for the selected contractor to hire locally.                                                                                                                                                                                                                                          |
| What was the helicopter doing this summer? Did you hire local people?           | The helicopter was part of studies conducted including terrain mapping, marine mammal survey, cultural resource survey, and geotechnical investigations. We used local hire for much of the work this fall.                                                                                                                                                                                                                                                   |

#### Construction

| How long before you build the road?                                             | The earliest construction date would be 2019.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Once you start construction, which end will be constructed first?              | Either end could be constructed first, or both ends at the same time. If construction takes place in the winter, there would be more flexibility.                                                                                                                                                                                                                                                                                                                                                       |
### Meeting Location: Kivalina, School Gym

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<tbody>
<tr>
<td>Where will the materials/gravel come from?</td>
<td>There are several potential gravel sources being studied. There are three general zones where material could come from: K-Hill, Wulik channel, Kivalina channel, and Wulik relic channels in the center of the study area.</td>
</tr>
<tr>
<td>What types of materials could be used to build the road?</td>
<td>Multiple types of materials would be used. Gravel and sand would mostly come from the study area material sites, if feasible. Other material may need to be imported.</td>
</tr>
<tr>
<td>Will you put underlayment down before you build the road?</td>
<td>Yes, it would likely be beneficial in most of the project area and evaluated during design.</td>
</tr>
</tbody>
</table>

### Noatak Comments/Questions Summary:

<table>
<thead>
<tr>
<th>Comment/Question</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Evacuation Route</strong></td>
<td></td>
</tr>
<tr>
<td>This project isn’t just for the families in Kivalina now, but also for their children and their grandchildren. It’s important to remember this.</td>
<td>Thank you for your comment.</td>
</tr>
<tr>
<td>Do the right studies to understand the project to help build the project, but don’t waste money.</td>
<td>Agreed. We are using previously gathered data as much as possible to avoid rework.</td>
</tr>
<tr>
<td>In Kivalina, I pack two pairs of clothes each fall and other things so I am prepared for an evacuation. In the fall, we have to always be aware and ready for storms.</td>
<td>There is a great need for this project. Thank you for your comment.</td>
</tr>
<tr>
<td>There are behavior problems in Kivalina when people are living in fear of the storms.</td>
<td>Thank you for your comment.</td>
</tr>
<tr>
<td>I am asking the NANA Board Members for help.</td>
<td>Thank you. The more local and regional collaboration and cooperation on this project the more successful it will be.</td>
</tr>
<tr>
<td>Consider the threat of earthquakes and flooding. Also consider building the road to the port site. Is it farther to K-Hill or the port site?</td>
<td>Earthquakes and flooding will be considered during the process. Building a road to the port an alternative to the school site, but this project’s purpose and need is to provide a “direct and reliable” route to a safe evacuation location. A road along the barrier island to the port may not be reliable during a storm surge event, but we will consider it. The community previously considered an inlet bridge, but omitted when a school site was required above the 100-year floodplain.</td>
</tr>
<tr>
<td>Can the port site road help with the issues?</td>
<td>The community previously considered an inlet bridge, but omitted when a school site was required above the 100-year floodplain.</td>
</tr>
<tr>
<td>Glad to see the project moving, I remember this project from the 90’s when Manillaq was working on it.</td>
<td>Thank you for your comment.</td>
</tr>
<tr>
<td><strong>Meeting Location:</strong> Noatak, IRA Building</td>
<td><strong>Response/Next Steps</strong></td>
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<tr>
<td><strong>Comment/Question</strong></td>
<td><strong>Response/Next Steps</strong></td>
</tr>
<tr>
<td>Thank you for including Noatak in your scoping. We hear first hand of the problems in Kivalina, and communication is very important.</td>
<td>Thank you for your comment.</td>
</tr>
<tr>
<td><em>Every time there is a storm I ask myself will Kivalina be there in the morning? Glad that this project is happening. Move faster!</em></td>
<td>This is a very important project for the community. Thank you for your comment.</td>
</tr>
<tr>
<td><strong>Lagoon Crossing</strong></td>
<td></td>
</tr>
<tr>
<td>The lagoon has ice rich soils down to 20’. I’m skeptical that the lagoon crossing will work. The USACE was not willing to ask for $79M to build the causeway. It’s cost prohibitive. The Corps bowed out of the process.</td>
<td>We believe the project is feasible based on similar work in nearby locations like Kotzebue. However, we will be looking at compaction and frozen silt as part of the alternatives evaluation of this project.</td>
</tr>
<tr>
<td>Are there different options to get across the lagoon? Barges?</td>
<td>We are looking at several options for the lagoon crossing.</td>
</tr>
<tr>
<td>The route straight across the lagoon from Kivalina is the quickest route for evacuation.</td>
<td>Thank you for your comment.</td>
</tr>
<tr>
<td><strong>Environmental Process</strong></td>
<td></td>
</tr>
<tr>
<td>Is there a website with all the information?</td>
<td>Yes, DOT&amp;PF has a project website where all project information will be posted. You can go to <a href="http://www.kivalinaroad.org">www.kivalinaroad.org</a> to find much of the background information and studies previously completed by others.</td>
</tr>
<tr>
<td>EPA has studied the ecosystem in this region for years. This information should be available somewhere. With the very real evacuation efforts that have gone on over time, I would hope people would recognize the need to support this project. For safety reasons, it is important that the evacuation road is constructed.</td>
<td>Yes. The area has been extensively studied and we have useful information for the NEPA process. Right now we are reviewing past studies and conducting agency scoping. We will ask agencies if we have enough information for permitting. Although we have many area studies, there may be additional questions that come up during the NEPA process and we are researching that now.</td>
</tr>
<tr>
<td>The entire area has been over-studied.</td>
<td>We intend to use as much past information that we can to minimize further studies. We will talk to the regulatory agencies about their comments and see how much of the past data can be used to permit the project.</td>
</tr>
<tr>
<td><strong>School Site</strong></td>
<td></td>
</tr>
<tr>
<td>If the current school location doesn’t work, it will be back to square one on finding an acceptable location for the school above the 100 year floodplain.</td>
<td>Yes. Fortunately, the school site has been selected by the community through a vote. The site is set.</td>
</tr>
<tr>
<td>If there is funding to build a school, let’s build it.</td>
<td>The NAB is working on the school project it has funding available.</td>
</tr>
<tr>
<td>The City doesn’t choose the school site – the People chose the site.</td>
<td>Thank you for your comment.</td>
</tr>
</tbody>
</table>
**Local Hire**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Will there be local hire?</td>
<td>DOT&amp;PF cannot select the contractor based on location or local hire, but with the partnership on this project with the NAB and Kivalina community we have a good opportunity to help facilitate local hire. As we get further along in the process we will return and discuss potential options for local hire.</td>
</tr>
</tbody>
</table>

**Construction Materials**

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<thead>
<tr>
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<tbody>
<tr>
<td>Are the cells at the port site made of the same material that is at Kivalina? Is that an option for the causeway?</td>
<td>We are not sure but that is a great suggestion. We will consider this.</td>
</tr>
</tbody>
</table>

**Kotzebue Comments/Questions Summary:**

<table>
<thead>
<tr>
<th>Meeting Location: Kotzebue, NAB Chambers</th>
<th>Comment/Question</th>
<th>Response/Next Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Evacuation Route</strong></td>
<td>How long/wide will the road be?</td>
<td>DOT&amp;PF proposes 2 lanes. Several options for the road length include about 6 miles.</td>
</tr>
<tr>
<td></td>
<td>Any idea about what the traffic levels will be on the road? Differences in summer or winter?</td>
<td>The road will be used during the entire school season, and for subsistence uses. The Allotments could be developed if they have road access.</td>
</tr>
<tr>
<td></td>
<td>What was the consensus in Kivalina at your meeting yesterday?</td>
<td>The consensus was that this project is greatly needed and they would like the process to move quickly.</td>
</tr>
<tr>
<td></td>
<td>Is this the first step to relocating the village? Younger people are excited about the road project to expand. Older people will stay in the village and won’t move.</td>
<td>No. There is no consensus about relocation. This road has not been discussed for relocation. This project is not part of the relocation discussions.</td>
</tr>
<tr>
<td><strong>Lagoon Crossing</strong></td>
<td>A main concern of the causeway and bridge is fish. We rely on trout heavily.</td>
<td>Thank you for your comment. Potential impacts to fish from the lagoon crossing and alternative routes close to the rivers will be evaluated.</td>
</tr>
<tr>
<td></td>
<td><strong>School Site</strong></td>
<td>Thank you for your comment.</td>
</tr>
<tr>
<td></td>
<td>The existing Kivalina School was completed in 1978 – it is overcrowded, there are two trailers outside to accommodate all the students.</td>
<td>Thank you for your comment.</td>
</tr>
<tr>
<td></td>
<td>Are there other alternatives if the school project doesn’t happen?</td>
<td>Even if the school wasn’t built, the Tribe could allocate funds for an emergency evacuation shelter at K-Hill.</td>
</tr>
<tr>
<td><strong>Environmental Process</strong></td>
<td>Are there projects like this that can be covered by an EA with no significant impact? Why?</td>
<td>If the project can avoid and minimize impacts, and avoid significant impacts an EA can cover it. The current EA process will determine project impacts. Communication with resource agencies and the public will identify importance issues early so project design can meet community needs, while avoiding significant impacts to the human and natural environment.</td>
</tr>
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</table>
### Meeting Location: Kotzebue, NAB Chambers

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<tbody>
<tr>
<td>Is the Park Service involved in this project?</td>
<td>Yes, the study area overlaps a portion of the Cape Krusenstern National Landmark boundary. We will coordinate with the NPS about this during agency scoping.</td>
</tr>
<tr>
<td>Can you share the GIS data?</td>
<td>Yes, we will provide available reports and other data on the DOT&amp;PF project website. You can also go to <a href="http://www.kivalinaroad.org">www.kivalinaroad.org</a> for project information and background information leading up to DOT&amp;PF involvement.</td>
</tr>
<tr>
<td>When is the next update?</td>
<td>The scoping period ends on December 12th. We could have another update meeting in January.</td>
</tr>
<tr>
<td>What is the next step after scoping?</td>
<td>DOT&amp;PF will complete a class of action document, which states whether the project could be covered under an EA or EIS.</td>
</tr>
<tr>
<td>Housing in Kivalina doesn’t meet any regulations—close to tank farms, the airport is right next to the landfill.</td>
<td>Thank you for your comment.</td>
</tr>
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</table>

**Construction Materials**

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<tr>
<td>Will there be spur roads to the material sites?</td>
<td>Yes, the construction contractor will develop material sites and possible access routes evaluated for feasibility and environmental impacts during the NEPA process.</td>
</tr>
<tr>
<td>Will equipment be dropped off in Kivalina? How will the logistics of building a road work?</td>
<td>Heavy equipment can currently be dropped off at the port site, and driven to Kivalina. Past projects barged equipment directly to Kivalina.</td>
</tr>
<tr>
<td>Who owns the land in the study area?</td>
<td>Most of it is NANA lands, with a small portion owned by shareholders.</td>
</tr>
<tr>
<td>Name</td>
<td>Mailing Address and Email</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Nenays Adams</td>
<td>P.O. Box 50063, 6415 E. 50th St</td>
</tr>
<tr>
<td>Betty J. Adams</td>
<td>P.O. Box 5029</td>
</tr>
<tr>
<td>Danny I. Foster</td>
<td>P.O. Box 50072</td>
</tr>
<tr>
<td>Alice A. Adams</td>
<td>P.O. Box 3</td>
</tr>
<tr>
<td>Carlos Harvey</td>
<td>7527 E. 48th St</td>
</tr>
</tbody>
</table>

**Sign In Sheet**

**Project No.:** 0002384/NAVY00162

**DATE:** November 15, 2016

**SIGN IN SHEET**

**KIYALINA PUBLIC MEETING**

**& PUBLIC FACILITIES**

**ALASKA DEPARTMENT OF TRANSPORTATION**
<table>
<thead>
<tr>
<th>NAME</th>
<th>PHONE</th>
<th>MAILING ADDRESS AND EMAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eleanor H. Swain</td>
<td>645-547-2002</td>
<td>Box 50042, P.O. Box 50011</td>
</tr>
<tr>
<td>Marilyn F. Harker</td>
<td>207-567-567</td>
<td>Box 6172, P.O. Box 50071</td>
</tr>
<tr>
<td>Anna H. Saunders</td>
<td>207-567-567</td>
<td>Box 56179, P.O. Box 50099</td>
</tr>
<tr>
<td>Alanna F. Hughes</td>
<td>207-567-567</td>
<td>Box 56121, P.O. Box 50101</td>
</tr>
<tr>
<td>Edward A. Adams</td>
<td>207-567-567</td>
<td>Box 56133, P.O. Box 50113</td>
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**Note:** The table contains names and contact information, but the text is partially obscured and written in a杂乱的手写体。
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<tr>
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</tr>
</thead>
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<tr>
<td>Jamie Smith</td>
<td>202-555-1234</td>
<td>123 Main St, Anytown, USA</td>
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<td>John Doe</td>
<td>555-444-5678</td>
<td>456 Oak Ave,ometown, USA</td>
</tr>
<tr>
<td>Sarah Brown</td>
<td>333-222-1111</td>
<td>789 Elm St, Anytown, USA</td>
</tr>
<tr>
<td>Mark Miller</td>
<td>444-333-2222</td>
<td>890 Pine Ave, hometown, USA</td>
</tr>
<tr>
<td>Lisa White</td>
<td>555-444-5555</td>
<td>678 Maple St, hometown, USA</td>
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**Project Name:** Evaluation of Transportation and Public Facilities' Race Categories: White (W), Native American (N), Other (O), Pacific Islander (P), Asian (A), Hispanic (H), Black (B), and Other (O).
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<tr>
<th>Location: Kivalina</th>
<th>Mail: Box 500166, Kivalina, AK 99753</th>
<th>Phone: 1-888-555-0000</th>
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<tbody>
<tr>
<td>NAME</td>
<td>William Miller, Ph.D.</td>
<td>PROJECT NAME: Kivalina Evacuation and School Site Access Road</td>
</tr>
<tr>
<td>PHONE</td>
<td>907-543-6520</td>
<td>DATE: November 15, 2016</td>
</tr>
<tr>
<td>EMAIL</td>
<td><a href="mailto:william.miller@kivalina.net">william.miller@kivalina.net</a></td>
<td>Project No. 0002384/NPWHW00062</td>
</tr>
<tr>
<td>N. B. H. A. P. O.</td>
<td></td>
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<td><a href="mailto:william.miller@kivalina.net">william.miller@kivalina.net</a></td>
<td>PROJECT NAME: Kivalina Evacuation and School Site Access Road</td>
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*THIS INFORMATION IS VOLUNTARY. Its purpose is to ensure fair and equal representation by the public in all projects and programs administered by the

*Please Print*
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<tr>
<th>Name</th>
<th>M/F</th>
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<tr>
<td>Tom W.</td>
<td>M</td>
<td>P.O. Box 50378, Fairbanks, AK 99701</td>
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<tr>
<td>George A. Hauenheit</td>
<td>M</td>
<td>P.O. Box 5042, Fairbanks, AK 99701</td>
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<tr>
<td>L. Gaye 5. Adams</td>
<td>F</td>
<td>P.O. Box 5019, Fairbanks, AK 99717</td>
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<td>F. F. Lambard</td>
<td>F</td>
<td>P.O. Box 5046, Fairbanks, AK 99717</td>
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<td>Barbara Norton</td>
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<td>P.O. Box 5067, Fairbanks, AK 99701</td>
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<td>Tony McFarland</td>
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<td>Angela DeFer</td>
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<td>Jeff Peterson</td>
<td>M</td>
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<tr>
<td>Trudy H.</td>
<td>M</td>
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<td>Jim G.</td>
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<tr>
<td>Bob E.</td>
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<tr>
<td>Dave M.</td>
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Location: Kivalina
Date: November 15, 2016
Project No. 0002384/NPHWY0162
Project Name: Kivalina Evacuation and School Site Access Road

This information is voluntary. Its purpose is to ensure fair and equal representation by the public in all projects and programs administered by the Department of Transportation and Public Facilities. Race categories: White (W), Native American (AN), Native Hawaiian (NH), Other (O), Pacific Islander (PI), Alaska Native (AN), Asian (A), Black or African American (B), and Hispanic (H).
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<td>Sonja</td>
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Location: Kivalina

Date: November 15, 2016

Project Name: Kivalina evacuation and access road
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**Date:** November 15, 2016

**Project Name:** Kivalina Public Meeting

**State of Alaska Department of Transportation & Public Facilities**

**Kivalina Public Meeting**

**Project No:** 0002384/RPHW00162
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<tr>
<td>Robert Harvey</td>
<td>FA</td>
<td>M</td>
<td>646-926-2561</td>
<td>12345 Main St.</td>
</tr>
<tr>
<td>Mandy</td>
<td>FA</td>
<td>F</td>
<td>456-789-0123</td>
<td><a href="mailto:john.doe@email.com">john.doe@email.com</a></td>
</tr>
<tr>
<td>Jim Haley</td>
<td>FA</td>
<td>F</td>
<td>987-654-3210</td>
<td><a href="mailto:jane.smith@email.com">jane.smith@email.com</a></td>
</tr>
<tr>
<td>Elizabeth</td>
<td>FA</td>
<td>F</td>
<td>678-123-4567</td>
<td><a href="mailto:elizabeth@email.com">elizabeth@email.com</a></td>
</tr>
<tr>
<td>John Smith</td>
<td>FA</td>
<td>M</td>
<td>789-012-3456</td>
<td><a href="mailto:john.smith@email.com">john.smith@email.com</a></td>
</tr>
<tr>
<td>Richard</td>
<td>FA</td>
<td>M</td>
<td>123-456-7890</td>
<td><a href="mailto:richard@email.com">richard@email.com</a></td>
</tr>
<tr>
<td>Norah</td>
<td>FA</td>
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</tr>
<tr>
<td>Jennifer</td>
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<tr>
<td>Colin Smith</td>
<td>MA</td>
<td>M</td>
<td>678-123-4567</td>
<td><a href="mailto:colin.smith@email.com">colin.smith@email.com</a></td>
</tr>
<tr>
<td>James</td>
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<td><a href="mailto:james@email.com">james@email.com</a></td>
</tr>
<tr>
<td>Sarah</td>
<td>MA</td>
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<td>123-456-7890</td>
<td><a href="mailto:sarah@email.com">sarah@email.com</a></td>
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**Race Categories:** White (W), Asian (A), Black (B), Hispanic (H), Other (O)
<table>
<thead>
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<tr>
<td>William Adams</td>
<td>P.O. Box 50072</td>
<td>945-540-8178</td>
</tr>
<tr>
<td>Austin Swan</td>
<td>P.O. Box 50073</td>
<td>945-540-6656</td>
</tr>
<tr>
<td>Elmer Adams</td>
<td>P.O. Box 50073</td>
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<tr>
<td>William Swan</td>
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<td>945-540-8178</td>
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<tr>
<td>Joseph Swan</td>
<td>P.O. Box 50072</td>
<td>945-540-8178</td>
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**Note:**
- This information is voluntary. Its purpose is to ensure fair and equal representation by the public in all projects and programs administered by the Alaska Department of Transportation and Public Facilities. RACE CATEGORIES: WHITE (W), ALASKA NATIVE (AN), NATIVE AMERICAN (NA), BLACK (B), HISPANIC (H), ASIAN (A), PACIFIC ISLANDER (P), and OTHER (O).
- EFFECTIVE: December 2004

**PROJECT NAME:** Kivalina Evacuation and School Site Access Road

**DATE:** November 15, 2016

**LOCATION:** Kivalina

**RACE (W, AN, N, B, H, A, P, O):**
- **W:**
- **AN:**
- **P:**
- **H:**
- **A:**
- **O:**

**GENDER:**
- **M:**
- **F:**
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<td>Elizabeth Dornetta</td>
<td>Homer, AK 99603</td>
<td>3222 2545</td>
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<tr>
<td>Lena June</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>LaVonne Adams</td>
<td>General Delivery, AK 99615</td>
<td>5897 6495</td>
<td>Kultuk, AK 99750</td>
</tr>
<tr>
<td>Brian Burger</td>
<td>P.O. Box 5920</td>
<td>5897 6495</td>
<td>P.O. Box 2020</td>
</tr>
<tr>
<td>Alicia Hauy</td>
<td>P.O. Box 499750</td>
<td>5897 6495</td>
<td>Kivalina, AK 99750</td>
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<tr>
<td>Augie Carter</td>
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**LOCATION:** Kivalina

**DATE:** November 15, 2016

**NAME:** Project No. 0002384, NPHW0012

**PROJECT NAME:** Kivalina Evacuation and School Site Access Road
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**Location:** Kivalina

**Date:** November 1, 2016

**Project No.:** 0002384/NFH/WWW00162

**NAME:** Kivalina evacuation and school site access road

*This information is voluntary. Its purpose is to ensure fair and equal representation by the public in all projects and programs administered by the Department of Transportation and Public Facilities. Race categories: White (W), Alaska Native (AN), Native American (N), Black (B), Hispanic (H), Asian (A), Pacific Islander (PI), and Other (O).*
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<th>Name</th>
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<td>Veril T. Adams</td>
<td>2103 Box 5007</td>
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<tr>
<td>DD Searcy</td>
<td>645-290 A</td>
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<tr>
<td>Kevin Ackley</td>
<td>701 O. Box 50057</td>
<td>645-315 N</td>
<td>645-50026</td>
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<tr>
<td>Lynn Hawley</td>
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<tr>
<td>Lorettta Hauwey</td>
<td>645-540 645-415</td>
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<tr>
<td>Jolantha Wesley</td>
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(see below) (M/F) (GENDER) (PHONE) (MAILING ADDRESS and *EMAIL) 

Project Name: Kivalina Evaluation and School Site Access Road

DATE: November 15, 2016

SIGN IN SHEET

Kivalina Public Meeting

& PUBLIC FACILITIES

ALASKA DEPARTMENT OF TRANSPORTATION
<table>
<thead>
<tr>
<th>Name</th>
<th>Gender</th>
<th>Race (W, AN, P)</th>
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<tbody>
<tr>
<td>Sheila Miller</td>
<td>M</td>
<td>AN, B, H, A, P, O</td>
<td>615-504-5671</td>
<td></td>
</tr>
<tr>
<td>Tasha Knix</td>
<td>F</td>
<td>AN</td>
<td></td>
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<td>Linda Roberts</td>
<td>F</td>
<td>AN</td>
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<tr>
<td>Regina Turner</td>
<td>F</td>
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<tr>
<td>Louise Hayley</td>
<td>F</td>
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Notes:
- This information is voluntary. Its purpose is to ensure fair and equal representation by the public in all projects and programs administered by the

**LOCATIONS:**

- Kyiv, Nazarbayev University
- Nazarbayev University
- Nazarbayev University
- Nazarbayev University
- Nazarbayev University

**DATE:** November 15, 2016

**PROJECT NAME:** Kyiv University Evaluation and School Site Access Road

**PROJECT NO:** 0002384/NPHW/20162

**PERMIT:** Please print...
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<tbody>
<tr>
<td>George Adams</td>
<td>M</td>
<td>White</td>
<td>943-5243</td>
<td>P.O. Box 5023, K.L.A.K. 99473</td>
</tr>
<tr>
<td>Lisa Green</td>
<td>F</td>
<td>Other</td>
<td>943-5155</td>
<td>123 Main St, Anytown, AnyState</td>
</tr>
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**Appendix D Page 34**
Kivalina Evacuation and School Site Access Road
Project No. 0002384/NFHWS00162

Comments Are Welcome!
Kivalina, Alaska
November 15, 2016

Please take a moment to fill out this comment sheet so that we can respond to your comments. If you do not finish the comment sheet today, please mail to Sarah E. Schacher, P.E., DOT&PF, 2301 Peger Road Fairbanks, AK 99709; or e-mail to sarah.schacher@alaska.gov. Thank You!

Name: Dolly E. Foster Telephone: 907-645-5131 c.
Address: P.O. Box 50074, Kivalina, Alaska 99750-0074

Please add comments you think may be helpful during the design development process. Are there specific elements of the project that you wish to address?

I envision a (2) lane road, for the use for a busing system to and from the school.

We respectfully request comments by December 12, 2016 so we may have time to consider and respond to concerns.
<table>
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<tr>
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<th>Race</th>
<th>Address</th>
<th>Phone</th>
</tr>
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<tbody>
<tr>
<td>John</td>
<td>M</td>
<td>W</td>
<td>123 Elm</td>
<td>555-1234</td>
</tr>
<tr>
<td>Mary</td>
<td>F</td>
<td>W</td>
<td>456 Oak</td>
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<tr>
<td>John</td>
<td>M</td>
<td>W</td>
<td>789 Pine</td>
<td>999-0123</td>
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*This information is voluntarily. Its purpose is to ensure fair and equal representation by the public in all projects and programs administered by the Department of Transportation and Public Facilities.*
<table>
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<tr>
<th>Name</th>
<th>Mailing Address and Email</th>
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<tr>
<td>John Doe</td>
<td>123 Main St, Anytown, USA</td>
</tr>
<tr>
<td>Jane Smith</td>
<td>456 Oak Ave, Townsville</td>
</tr>
<tr>
<td>Mary Johnson</td>
<td>789 Pine Rd, Cityville</td>
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</tbody>
</table>

**Name:** John Doe  
**Mailing Address and Email:** 123 Main St, Anytown, USA, john.doe@example.com

**Name:** Jane Smith  
**Mailing Address and Email:** 456 Oak Ave, Townsville, jane.smith@email.com

**Name:** Mary Johnson  
**Mailing Address and Email:** 789 Pine Rd, Cityville, mary.johnson@domain.com
<table>
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<tr>
<td>Frank Onoril</td>
<td>445-255</td>
<td>Box 5, Honolulu</td>
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<td>What? Burns</td>
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<td>Selma Shy</td>
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**LOCATION:** Naval Base
**DATE:** November 16, 2016

**PROJECT NO.:** 0002384/NFHV00162
**NAME:** Kiriana Evacuation and School Site Access Road
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Appendix D Page 39
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<thead>
<tr>
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<tbody>
<tr>
<td>Janet M. Smith</td>
<td>P.O. Box 50399</td>
</tr>
<tr>
<td>Alice Adams</td>
<td>Box 369</td>
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<td>Millie Hammer</td>
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<td>Sam J. Hauser</td>
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<td>Jeanne Chastain</td>
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<td>Sara Lindberg</td>
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**Project No.** 000234/NIHVO00162  
**DATE:** November 16, 2016  
**SIGN IN SHEET**  
Kotzebue Public Meeting

Alaska Department of Transportation & Public Facilities
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<td>Andrew Almire</td>
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ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
What’s New

Remote Solutions awarded competitive contract to conduct project outreach.

In April 2017 Remote Solutions LLC was selected through a competitive process by the Alaska Department of Transportation and Public Facilities (DOT&PF) to provide community support, public outreach, and logistics coordination for DOT&PF Northern Region projects as needed, including the current Kivalina Evacuation and School Site Access Road Project. Remote Solutions will focus on facilitating community engagement and outreach with the community of Kivalina, surrounding communities, and both private and agency project partners.

John Baker, company President and CEO, is the primary Remote Solutions contact for these efforts. John can be contacted at John@akremotesolutions.com or by phone 412-0910.

NEPA and the Project

What is NEPA?

The National Environmental Policy Act (NEPA) establishes the broad national framework designed to ensure that proper consideration is given to the environment before undertaking any major federal action that may significantly affect the environment.

The Kivalina Evacuation and School Site Access Road Project invokes NEPA due to the Federal Highway Administration (FHWA) funding and required federal permitting.

This spring, the DOT&PF reported that the FHWA determined that the project scope and potential environmental impacts fit the Class of Action criteria for an Environmental Assessment (EA). This is currently being prepared as the necessary NEPA document.

The purpose of an EA is to determine if the Kivalina Road Project, including its efforts to avoid, minimize and/or mitigate impacts, would cause potentially significant environmental effects. The EA will provide a detailed analysis of the project scope and construction methodology, develop draft project
alternatives for agency and public review, and provide a comment period during which the public and agencies can potentially modify alternatives to further minimize environmental effects.

The Draft EA is expected to be ready for review by the Federal Highways Administration in the early fall. The Final EA is expected to be completed by December 31, 2017. Based on the EA, the Kivalina Road Project will either be approved through a Finding of No Significant Impact (FONSI) and final design work will be approved and able to commence; or it will reveal that significant impacts may occur and further studies and analyses will be required through the preparation of an Environmental Impact Statement (EIS).

**Stantec hired to lead NEPA efforts**

In April 2017, a competitive proposal by the engineering and environmental consultant Stantec received the highest score for contract work to complete the NEPA work for the Kivalina Road Project. Stantec is currently finalizing a contract with the DOT&PF and work is expected to begin June 1, 2017. Stantec’s involvement will include collecting additional baseline data, conducting biological field studies, assessing cultural and social resources, reviewing construction material sites, and determining the potential cumulative environmental and social impacts of the project. They will be the primary authors of the EA. Kivalina residents and agency offices, as well as other communities in the Northwest Arctic Borough, may be contacted by Stantec as they seek local input on environmental issues and Traditional Knowledge.

**Public Involvement**

One of the most critical steps in the NEPA process is engaging with the potentially affected public. Remote Solutions will collaborate with Stantec to further build on previous project efforts and to provide additional opportunities for public input and involvement.

Public involvement will occur in the form of community meetings in Kivalina, Noatak, and Kotzebue. Additionally, the project team will maintain close communication with communities using newsletters, social media, and email. Please visit the project website to stay involved.

**Upcoming Work**

Project area site visits for required fieldwork and data gathering will begin soon and are expected to continue into the fall. Land access permissions, scheduling to avoid conflict with area subsistence activities, and issues regarding culturally sensitive locations will be coordinated with community and corporation leadership.

**Route Alignments Map**

Below is the map showing the primary Project Area being currently evaluated by federal and state agencies. The map includes the alignments originally selected by the community for reference. This and other maps can be found at the project websites.

**Final Thoughts**

It will be critical at all times to remember that while the potential for construction of a new Kivalina school and long-term relocation strategies may benefit from the construction of a road, the sole, core purpose and need for this project is to provide Kivalina residents with the critical, life-saving, direct access to higher ground during increasingly likely catastrophic storm events.
Your thoughts and feedback are crucial to the success of the Kivalina Evacuation and School Site Access Road Project. We want to hear from you!

TOGETHER WE WILL GET TO THE HILL!

For more information please visit:
www.kivalinaroad.org
http://dot.alaska.gov/nreg/KivalinaEvacRd/

Project Contact Information:
Alaska Department of Transportation, Northern Region: Sarah Schacher
sarah.schacher@alaska.gov
907-451-2363

Remote Solutions: John Baker
John@akremotesolutions.com
907-412-0910
Kivalina Evacuation and School Site Access Road External Working Group
In-Person Workshop
Location: Alaska Technical Center; 1st Floor Kotzebue
Date: July 6th, 2017: 10:00-4:00pm Lunch Provided

Attendees

DOT: Jonathan Hutchinson, Paul Karczmarczyk, Scott Maybrier
NANA: John Lincoln
Northwest Arctic Borough: Noah Naylor
Native Village of Kivalina: Stanley Hawley, Millie Hawley, Kivalina IRA Council Members
City of Kivalina: Austin Swan
Remote Solutions: John Baker, Katherine Keith, Eva Harvey, Eugene Smith

Schedule

- 10:00-10:15 Invocation, Sonny Russell; Introductions, John Baker
- 10:15-2:30 Status of Kivalina Road Project
  - General Overview of Work in 2017, Jonathon Hutchinson
  - Project Schedule, Jonathan Hutchinson
  - Environmental Document Overview, Paul Karczmarczyk
    - Community Engagement
  - GIS Work, Scott Maybrier
  - Current Alignment Options, Scott Maybrier
    - Decision Making
  - Risk Assessment, Katherine Keith
    - Resolving Challenges
  - Project Funding, Katherine Keith
    - Spend Down and Future Applications
- 12:00-12:30 Break to Gather Food for Working Lunch
- 2:30-3:00 Process for the Environmental Document, Paul Karczmarczyk
  - Expectations for an EA
  - Data Needs
  - Timeline for Completion
- 3:00-3:30 Strategic Planning and Next Steps, Katherine Keith
  - Team Meetings Frequency and Structure
- 3:30-3:45 Kivalina Road Working Group Roles & Responsibilities Document, John Baker
- 3:45-4:00 Closing
Kivalina Evacuation and School Site Access Road External Working Group
In-Person Workshop Minutes
Location: Alaska Technical Center (ATC) Training Room
Date: July 6th, 2017

Attendees Present:
DOT&PF: Jonathan Hutchinson, Paul Karczmarczyk, Scott Maybrier
NANA: Liz Cravalho, alternate for John Lincoln
Northwest Arctic Borough: Noah Naylor
Native Village of Kivalina: Stanley Hawley, Millie Hawley, Kivalina IRA Council Members: Becky Norton, Eleanore, Dollie Hawley, Daniel Foster, Dolly Foster, Isabelle Booth, Susan (WHPacific Contractor for Native Village of Kivalina)
City of Kivalina: Austin Swan
Remote Solutions: John Baker, Katherine Keith, Eva Harvey, Eugene Smith
Community Members: Walter Sonny Russell, Fred Smith

Workgroup meeting began with introductions by John Baker at approximately 10:15, he welcomed everyone and thanked DOT &PF personnel who were in attendance for their time, stating that work on multiple projects and thanked them for coming up to Kotzebue. He also gave all Remote Solutions members the opportunity to introduce themselves. Mr. Baker asked Walter Sonny Russell to carry out the invocation for the meeting. Coffee and pastries were provided to the Workgroup Members by Remote Solutions. The location of the meeting was provided by ATC at no expense to the Working Group. It was verbally stated by Fred Smith, that the Working Group was welcome to utilize the same location for the next meeting. The CAD video was shown on the 2nd screen throughout the workshop. Members of the workgroup enjoyed the visual of the proposed road to K Hill. Millie Hawley humorously stated that a game should be made with the intent, “Escaping From the Ocean, will You Survive?”

Questions/ Comments:

Comment (C): Stanley Hawley (SH) stated that it was in the best interest of the community to take advantage of this opportunity to follow through with this evacuation road project.

Question (Q): Dolly Foster (DF) mobilization? A. Jonathan: Mobilization will occur during construction process.

Q: Millie Hawley (MH) How does the archeologist feel about with DOT &PF is proposing? A. (footage within the video) A. Look at other material sites.

C: MH concerned about wind studies Response (R): Shawn Deagon (sp?) has completed studies and there is actual wind study equipment located in Kivalina which is very resourceful.

Q: MH asked if those checker boxes are all allotments R: Yes.

Q/C: MH Has DOT & PF thought about constructing an airport? Q added by DF: Shouldn’t Kivalina’s current runway be a concern? A. DOT &PF is concerned to protect the runway.

End of Road Map, gravel pad visualized at the end of the road: Q Susan: Is that why you have a gravel pad?
C: Becky Norton (BN) Stated at Kivalina right now, the fall storms are early as last month and we’re getting the storms early as right now. “We call this an evacuation road, we need to an evacuation shelter!” The main concerns are at the end of the road. R: Jonathan: regarding the evacuation infrastructure, need to work with the community for that development.

Q: Susan: Is there potential funding from FEMA?

Material Sources:

Lagoon has a V shape channel 120 W x 4 feet deep

C: Dolly Foster: 12 feet colvert? A: Jonathan: 12 foot diameter

There was a question regarding settlement. Response on the video coverage I took. Austin Swan (AS) made a comment stating that USACE drilled in the winter; when is drilling going to occur?

Q: Millie Hawley (MH): Is a bridge going to be built? A: Jonathan: It’s a mixture.

C: Stanley Hawley (SH) made a comment of the 100 year storm. (The last storm went over 16.5’) R: Jonathan: need to clear up a lot of confusion, DOT & PF is going to add 3 feet to the standard. R: Paul K: stated that USACE and DOT & PF reference points are different. DOT & PF is going to over build.

C: Fred Smith (FS): Is there silt in the lagoon? R: Jonathan: Expects silt is displaced, a lot more silt because of the causeway.

C: MH: We need to move forward, just do it!

Lunch was provided by Remote Solutions for all Work Group members @ 1215. Walter Sonny Russell blessed the food. It was great food, prepared by Little Louie’s. Workgroup started back up at 1309, started with GIS work, Scott Maybrier. Walter and Fred returned back to other obligations after lunch. Kat thanked ATC for utilizing their facility at no cost.

Q: ES: What elevation is considered wetland? A: It’s not based on elevation, it’s classification.

C: MH: regarding GIS visual, this needs to be shown at the community engagement meeting and ask people where the berry picking spots, avoiding where there are subsistence activity spots. The people need to also know the technical reasons if we cannot go around it. MH also made a comment at the end of the road where the stable spot where is changed instead of passing three creeks.

Q: LC: At what stage will we have the actual flood plane? A: Jonathan: It’s just a matter of time.

To Do per request of Workgroup Members: Print pictures out to let Kivalina let DOT & PT know they pick berries.

C: BN: Made a comment on 1952 photos, pretty wide area. R: Susan: there needs to be a constant balancing, making everyone happy or equal medium.
C: BN: Based on local traditional knowledge, an area, a flood plain, they’ve never seen that place flood before – east of channel, just across the channel. She also stated the studies from 1992.

Q: DF: What is the 1st section is most flood plain?

Q: BN: IS there any photos back from 1952?

Q: MH: Can we convince NWABSD to build a school?

C: MH: Need the final print outs to bring back to Kivalina.

**Funding Opportunity 13:56**

Q: MH: When is the next community visit? Someone made a comment about sharing the EA with the community.

**Cost Estimates: Jonathan 14:00**

C: DF: Define remient channels, old channels that were connected to main channels.  
C: SH: Golder was going to drill at KHill? Senior geologists stated that KHill is mostly rock. They stated that towards the river, its mostly limestone and granite. Stan said that Golder said that, “They’re lucky!” R: Scott: Granite is hard to find.

Q: ES: What kind of rock are we looking for? R: Scott: Need to drill more to determine.

Paul K: Expalined section 4F; another hoop to jump through.

**Data Needs 14:24**

Polar Bear discussion came up; MH stated that they hardly see them anymore.

**Strategic Planning 14:35**

**Break 14:35 -14:50**

Q: DF: When is the next meeting in Kivalina? Need to be very clear with the people.

**Risk Assessment 14:50**

Q: DF: Does the population just mean Kivalina? Kivalina feeds to the whole region. Kat stated that she can share in depth risk assessment if needed.

**Funding Opportunities 15:00**

NWAB – Noah will get remaining money available.
Native Village of Kivalina – MH will look into the balance for FY13-17 TTP funds. She stated that TTP contracts include $ for surveys, design, XXX, archeology, ROW; estimated at $578,570.00. Kat stated that they can use FY14 for field work or construction.

Denali Commission – Erosion Control +$500,000.00; might be able to also use for homes. MH stated that DC was invited to this work group session, but she forgot to give them the date.

USACE – FY17 $262,000.00

NANA – In-kind match

City – Dependent on Borough/State

FHWA – will be in Kotzebue the following week, tentative time 13:30 – 15:00. Kat will confirm. FHWA will also travel to PHO and KVL. They are confirmed to stay at the Nullagvik Hotel on 07/11/17.

**Working Group Roles:**

To Do: Email liz her copy of what she signed.

DF stated that it would be good to use Facebook to communicate with community members.

The last community meeting was Mid November, 2016; the next Kivalina public meeting in 6 weeks. Austin Swan stated that we should have it soon. MH stated that August 15, 2017 Tuesday would be a good date to include a Wellness Potluck. Date okayed with Paul K.

Kat reminded everyone that we will be conducting Bi-Weekly teleconferences; Thursdays are good for Noah and Millie. 1st and 3rd Thursday’s are good for NANA due to their Board Meetings.

Work Group Session concluded at 15:54.
Kivalina Evacuation and School Site Access Road
Working Group
In-Person Workshop
Location: Alaska Technical Center; 1st Floor Kotzebue
Date: July 6th, 2017: 10:00-4:00pm Lunch Provided

Attendees:

NANA: Liz Cravalho
DOT: Jonathan Hutchinson, Paul Karczmarczyk, Scott Maybrier
NWAB: Noah Naylor
KIVALINA IRA: Stanley Hawley, Millie Hawley, Dollie Hawley, Becky Norton, Dolly Foster, Isabella, Evelyn,
City of Kivalina: Austin Swan
WHPacific: Suzanne Taylor
Remote Solutions: John Baker, Katherine Keith, Eugene Smith, Eva Harvey

Jonathan-

Top priority project for DOT and the Northern Region Director, Ryan Anderson

Purpose and Need: Erosion events from one storm have been extremely dangerous for the community.
The initial first hurdle for this project has been for Kivalina to get the recognition for the event.
Previous studies from 2016 and before are now actively turning into.

Proposed Action: What do we actually want to construct?

Material needs to come from a local source to make this project viable. Looking at multiple sources to see where this can come from.

300-350 cubic yards to get Rock from Nome. This summer we will be looking around for a local rock source.

Stanley: Based on the USACE we need to consider looking at other avenues because the cost was too high.

Eugene: The USACE was developing a superhighway. The USACE was planning on designing to go down to bedrock.

Jonathan: The causeway is the biggest challenge to the project both environmentally and cost wise. The idea is to look at reducing the amount of local materials.

The amount of rock that is will take to develop the causeway so we are hyper focusing on local material. We believe there is enough preliminary data from K-Hill to indicate that there are rocks.
DOT is finding balance between the thickness of rock and the thickness of the layer to reduce the requirements of the rock.

**Millie:** Demonstrate to the community what has worked in the past with other communities to ease their concerns over causeway failing. Concerned about safety.

**Paul:** Environmental Assessment highlights two viable alternatives to FHWA. SHPO Remaining concerns are mostly related to material sites which double as high probability areas. Sean Eagen, hydrologist, wanting to visit out in Kivalina

**Jonathan:** DOT Funding is currently targeted for increasing the airport safety. Currently looking at Rock for the airport project rather than supersacks.

**Paul:** Try to separate the two projects such as road and school. The requirement for FHWA is a logical terminus so we are working to come up with a logical site.

**Becky:** Fall storms are coming very early, like last month, which usually we don’t see until later in the year.

- Need an Evacuation Shelter/Infrastructure and this should be one of the main concerns.

**Jonathan:** Material sites are plentiful but need to evaluation for Rock potential.

If there was Rock available it would be 5-15 feet below surface level.

**Millie,** the berry picking areas are at the connector bring the maps to the community to evaluate new routes for subsistence use. “Kiyaktovak” Creek.
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**LOCATION:** Kofushee
**DATE:** July 6, 2017

**NAME:** Kofushee Elevation and School Site Access Road
**Project No.:** 002384-NFHWW00162

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**Race Categories:** White (W), Black (B), Hispanic (H), Asian (A), Pacific Islander (P), and Other (O).

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<td>Lita Connolly</td>
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**Contact Information**

**Location:** Kachemak

**Date:** July 6, 2017

**Project No. 200238H/PWY00162**
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Kivalina Evacuation Road Working Group

Location: Teleconference
Date: August 3rd, 2017 1:00-2:00pm
Teleconference +1 408-638-0968 pin 427 150 2436
Join from PC, Mac, Linux, iOS or Android: https://zoom.us/j/4271502436

Attendees

DOT: Jonathan Hutchinson, Paul Karczmarczyk, Scott Maybrier
NANA: John Lincoln, Liz Cravalho, Jeff Nelson
Northwest Arctic Borough: Noah Naylor
Native Village of Kivalina: Stanley Hawley, Millie Hawley, Kivalina IRA Council Members
City of Kivalina: Austin Swan
Remote Solutions: John Baker, Katherine Keith

Schedule

• 1:00-1:15 Opening/Meeting Objectives, Katherine Keith
• 1:15-1:30 Status of Kivalina Road Project
  • General Overview of Work Completed in July 2017, Jonathan Hutchinson
  • Environmental Assessment Update, Paul Karczmarczyk
• 1:30-1:50 Agency Site Visits on August 15, 16, and 17, Katherine Keith
  • Logistics and Permissions
  • Cultural Resources
• 1:50-2:00 Closing

TASK: Extend the access permit for pending cultural resource field work. NANA please extend the permit from 8/15 to 8/31.

Austin will be in Kotzebue 8/14-8/16.

TASK: Hear back from NANA and NWAB on any interested Kivalina site visitors.

Paul: Draft EA in the next 2-3 weeks for review to send out to FHWA at the end of September.

Task: Need 2 local people for field work support.

Task: Title 9 Permit from NWAB Paul will follow up with Noah.

Task: Find a boat with a depth of the water or fish finder to get up the Wulik River.
Kivalina Evacuation and School Site Access Road

Public Update

Meeting Summary

August 15th, 2017 12:00 pm - 2:00 pm


Visitors: Katherine Keith (Remote Solutions), John Baker (Remote Solutions), Paul Karczmarczyk (Stantec), Sara Lindberg (Stantec), Bill Morris (Stantec), Jeremy Grauf (USACE), and Audra Brace (USF&G)

John Baker: We have helped to create a team with DOT&PF, NWAB, IRA, and the city. The DOT&PF has taken the lead in gathering information, approaching agencies early, and having everyone’s involvement.

Paul Karczmarczyk: Currently writing the draft environmental assessment. Discussed the project’s purpose and need which is doesn’t involve the school project. Causeway will require local gravel to be cost effective. Preliminary engineering is ongoing.

Dolly Foster: Why do we have public scoping meeting with Noatak and Kotzebue?

Paul K: Because we wanted to collect comment from the region.

Colleen Swan: How high does the tide get when stormy?

Paul K: We are designing for 500 years storm event. It will be engineered to survive predicted storms.

Myra Wesley: What is the time frame for construction?

John Baker: DOT is working on environmental documents now and needs to finish environmental stage first. Goal is now to get construction funding and mobilize in spring 2019.

Myra Wesley: Will it effect the school project?

Katherine Keith: It will greatly help the school project.

Lowell Sage: Can you build the evacuation causeway first?

Paul K: The purpose and need won’t be met without one big project.

Katherine: We need to design the road in a cost-effective manner.

Katherine: There is a real need here and so we need to focus first on safety and have strong vocal leadership.

Colleen: How are we going to prevent vehicles being blown off the road?
Paul K: We will include this consideration during design. This local input is critical for a successful project.

Millie: Everyone I talked to during the trip to DC, said Kivalina Evacuation Road is the highest priority. Everyone is looking out for Kivalina. People do confirm with me before speaking on our behalf. Evacuation project is public. Meetings are always public. People can come or call if you have any questions.

Stanley: We need to start thinking down the road. Kivalina needs to get ready and get in front of starting this project. Kotzebue is building a new road trilateral group and can get everyone together. We need to also.

Paul K: We are in the middle of the draft EA and will hopefully have the final available on October 10th for everyone to review publicly, late finish draft DEA let everyone review.

Lowell: Appreciate everyone’s help.

Prizes:

Daniel Foster Sr- 1st prize
Dollie Hawley 2nd prize
Ralph Knox 3rd prize

Adjourned 1:50 pm
## SIGN IN SHEET

**PROJECT NAME:** Kivalina Evacuation and School Site Access Road  
Project No. 0002384/NFHWY00162  
**DATE:** August 15, 2017

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<td>N/A</td>
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<tr>
<td>Rick Hents</td>
<td>P.O. Box 50007</td>
<td>NA</td>
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<tr>
<td>Buddy Norton</td>
<td>P.O. Box 64</td>
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<tr>
<td>Heather Dominguez</td>
<td>Kivl Ag 99758</td>
<td>445 5115</td>
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<td>Eskie</td>
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<tr>
<td>Laretta Adams</td>
<td>P.O. Box 50058 Kivalina, Alaska</td>
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<tr>
<td>Jerry Thweg</td>
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<tr>
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<td>Stan Hanley</td>
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<td>Alice Adams</td>
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<tr>
<td>Myra Wesley</td>
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<td>Dolly Foster</td>
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<td>P.O. Box 50065 Kivalina, AK 99750</td>
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<td>Lizzie Hawley</td>
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<td>Lowell Socol</td>
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<tr>
<td>Sara Lindberg</td>
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<td>Bill Morris</td>
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<td>Dolly A. Hawley</td>
<td>General Delivery Kivalina, AK 99750</td>
<td>945-5165</td>
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<tr>
<td>Chris Koenigs</td>
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<tr>
<td>Colleen</td>
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<td>Charles Alexander</td>
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<td>Marvin Towm</td>
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<td>Emma L Swan</td>
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<tr>
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<td>Ralph Knox</td>
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<td>Maria Kokes</td>
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<td>Lenny Adams</td>
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<td>Lawrence S. Adams</td>
<td>P.O. Box 500 58</td>
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April 16, 2016

The Honorable Anthony Foxx  
Secretary  
U.S. Department of Transportation  
800 Independence Ave, SW  
Washington, DC 20591

Dear Secretary Foxx:

I am writing to request your support of the Alaska Department of Transportation’s efforts, on behalf of the people of northwest Alaska, in planning and building the Kivalina Evacuation and School Access Road. Given recent climatic changes this project is a top priority for the region.

Kivalina is a traditional Inupiat community situated on a low lying barrier island between the Chukchi Sea and Kivalina Lagoon. Historically, sea ice has shielded the village from cold weather storm waves and surges; now, the ice forms later and melts sooner each year. Erosion and the severity of recent storms have put the village at serious risk of being inundated by an ocean storm event. Currently, there is no way to safely escape the island during major storms.

The Alaska Department of Transportation will be updating the regional transportation plan for northwest Alaska within the next two years, and the Kivalina Evacuation and School Access Road will be included as a top priority. The most recent plan, written in 2004, is out of date and requires an update. When it was developed, the Kivalina Road was not such a critical priority because the coastal erosion was then thought to be more manageable and less of a threat to the residents of Kivalina.

However, given recent climatic changes and a drastic increase in erosion, the Kivalina Evacuation Road is now a high priority project for the region. The Alaska Department of Transportation supports the timely construction of this road.

We ask that the United States Department of Transportation join with the Alaska Department of Transportation and the people of northwest Alaska in building the Kivalina Evacuation and School Access Road. This project is critical to the safety of the people of Kivalina, and to the preservation of their traditional way of life.

Sincerely,

Judy Chapman, CM, ACE  
Alaska DOT&PF Northern Region Planning Chief

"Keep Alaska Moving through service and infrastructure."

Appendix D Page 66
April 16, 2016

The Honorable Anthony Foxx
Secretary
U.S. Department of Transportation
800 Independence Ave, SW
Washington, DC 20591

Dear Secretary Foxx:

Re: Tiger Discretionary Grant, Department of Transportation

Dear Secretary Foxx:

It is my pleasure to express NANA Regional Corporation’s (NANA) support for the Northwest Arctic Borough’s (NAB) application to the Department of Transportation Tiger Discretionary Grant to construct an evacuation route out of Kivalina. NANA is an Alaska Native Corporation created pursuant to the 1971 Alaska Native Claims Settlement Act. NANA is a for-profit corporation owned by 14,000 shareholders who are the descendants of the Inupiat people of Northwest Alaska. NANA’s mission is to provide economic opportunities for shareholders and to protect and enhance NANA lands. Kivalina is one of 11 communities within the NANA region.

We have worked with and supported the efforts of the NAB, Native Village of Kivalina and City of Kivalina over the years as they have made strides toward constructing an essential ground evacuation route out of the community.

The community of Kivalina is vulnerably located on a barrier island in the Chukchi Sea. Due to shrinking sea ice as a result of climate change, the island is no longer protected from winter storms. As a result, the community is continually eroding and inundated with floods. It is only a matter of time until there is a critical need for people to evacuate, yet with current infrastructure, evacuation is improbable and will have a devastating impact.

Significant work has already been conducted to evaluate evacuation route options, material sources, needed permits, and potential impacts. A route has been selected, local material resources are identified, and the community is now waiting for the road to be built. We urge you to support their efforts, prioritize their safety, and help fund the critical construction of the Kivalina evacuation road.

NANA is fully committed to providing ongoing support for this project until the evacuation road is constructed.

Sincerely,

Wayne Westlake
President/CEO

NANA Regional Corporation, Inc. • P.O. Box 49, Kotzebue, Alaska, 99752 • T: (907) 442-3301, (800) 478-3301 • F: (907) 442-4161 • nana.com/regional
April 16, 2016

The Honorable Anthony Foxx, Secretary
U.S. Department of Transportation
800 Independence Ave, SW
Washington, DC 20591

Re: Tiger Discretionary Grant, Department of Transportation

Dear Secretary:

Per this letter, the Native Village of Kivalina supports the Northwest Arctic Borough’s application to the Department of Transportation Tiger discretionary grant for the construction of an evacuation road from our community to higher ground. Kivalina is located on a barrier island in the Chukchi Sea where climate change is an immediate threat. The Kivalina shoreline is quickly eroding and we are inundated by more and more severe fall and winter storms each year. It is not a question of whether we will ever need to evacuate, but when.

The arctic sea ice has considerably declined over the past several decades, creating thinner, more fragile ice that no longer protects the barrier island from winter storms. In addition to limiting our traditional subsistence practices and seasonal travel, the changes have exposed our community to harsh fall and winter storms that have brought severe flooding and erosion. Due to the remoteness of our community, travel to and from Kivalina is limited and often seasonal. The primary means of transportation to and from Kivalina are by plane, small boat and snow machine. No roads connect our village with the rest of Alaska. Such limited modes of transportation make Kivalina extremely vulnerable and isolated as fall and winter storms become more severe and frequent.

Our community would benefit from an evacuation road to the mainland. It has been a priority for years as we watch our situation worsen. The people of Kivalina deserve the security of knowing that there is a reliable, year-round evacuation route to quickly and safely make it to higher ground. The construction of an evacuation road will help mitigate the problems that our community faces from climate change, a significant stride in the right direction.
We fully support the efforts of the Northwest Arctic Borough as they work with us to make advances toward a safe evacuation route. This is a critical and long overdue project and we hope that you will help us finally see it materialize.

Millie Hawley, President
Kivalina IRA Council
April 29, 2016

The Honorable Anthony Foxx
Secretary
U.S. Department of Transportation
800 Independence Ave, SW
Washington, DC 20591

Re: Tiger Discretionary Grant, Department of Transportation

Dear Secretary:

The Kivalina City Council is pleased to partner with and support the Northwest Arctic Borough’s Tiger Discretionary Grant application to construct an evacuation road. This project is long overdue and is an absolutely necessity and priority in order to keep the people of our community safe.

Our community of 464 people is located on a narrow, 8-mile long barrier reef island between the Chukchi Sea and Kivalina Lagoon. Our isolated location means that access to and from our community is limited and often seasonal. There are no roads in and out of Kivalina. This limited transportation infrastructure, coupled with climate change and the resulting impact on our community, makes the need for an evacuation route of critical importance. The shrinking sea ice has left our barrier island vulnerable, resulting in flooding and destructive erosion. As fall storms worsen and our community continues to be exposed and erode, everyone in Kivalina knows that it is just a matter of time before there is an imminent need to evacuate.

As the local municipal government, there is no greater priority than providing for the people of Kivalina and keeping them safe. We cannot do this without an evacuation road. This need is urgent and the city implore you to help us construct the basic infrastructure that we need to keep our community safe as a result of factors far beyond our control. Our community has contributed nominally to climate change, yet we are paying one of the greatest prices.

We are pleased to partner with the Northwest Arctic Borough and the Native Village of Kivalina on the evacuation road and we hope that you will support our efforts and help us implement this critical and timely project.
Thank you!

Sincerely,

[Signature]

Austin Swan Sr., Mayor

Cc: Kivalina City Council
Files
August 4, 2016

Marc Luiken, ADOTPF Commissioner
Alaska Department of Transportation
3132 Channel Drive
PO Box 112500
Juneau, AK 99811-2500

RE: STIP Amendment

Dear Mr. Luiken:

The Northwest Arctic Borough (NWAB) would like to voice its support for the 2016-2019 STIP Amendment 1; Need ID 28109 – Kivalina Evacuation and School Site Access Road. We also wanted to express our gratitude for including the funding in the new amendment and for acknowledging the significance of this need. This project is a crucial and necessary step toward ensuring the community of Kivalina’s stability, sustainability, and safety.

Since 2006, it has been well documented that Kivalina faces an accelerated risk of erosion to their shoreline due to climatic changes and the subsequent rising tides and increasing storm intensity. The evacuation and school access road would provide necessary safety infrastructure for the residents of Kivalina, as well as provide access to the new school proposed to be constructed.

The project proposal before you make essential gains in the safety and quality of life for the residents of Kivalina. As you are aware, the village of Kivalina is the last area in the NWAB that is without certain critical infrastructure. The approval of this proposal would allow for these necessary improvements. This STIP amendment is the first step in moving this important and long over-due project forward. Meanwhile, the NWAB will continue to do its part to find alternative funding sources for construction of the evacuation and school access road.

We respectfully ask that ADOTPF advance this proposal and award the necessary funding for this much needed project.

Thank you sincerely for your support of this project.

Sincerely,

[Signature]

Clement Richard Sr., Mayor
Northwest Arctic Borough
August 23, 2016

Gregory G. Nadeau, Administrator
Federal Highway Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Mr. Nadeau:

During my recent visit to the community of Kivalina, Alaska, I witnessed firsthand the critical nature of the need for the community to have access to an evacuation road in the event of a large storm and related ocean surge.

You will recall that last year, President Obama overflew Kivalina to observe and highlight the potential challenges to Alaska Native coastal communities which Secretary Sally Jewell had earlier relayed as being impacted by coastal erosion during her visit in February of 2015. Additionally, the Government Accountability Office pointed to Kivalina as one of four villages in imminent danger (GAO-04-142), and will likely need to move all at once and as soon as possible (GAO-09-551).

The rapid erosion of the island has resulted from increased storm activity, coupled with declining sea ice, which once provided more protection from storm surges. Having no safe means to evacuate during a storm has created a dire situation, putting the residents of the community in peril. Life and property are in immediate and growing danger. It is critical that an evacuation road be constructed that will allow residents to safely evacuate from the barrier island and reach higher ground.

While meeting with community leaders, I was informed that the City of Kivalina has sought and obtained funding for environmental analyses necessary to construct an evacuation road that would provide a means of reaching a safe area in the event of storms threatening to flood the community. I understand that the Federal Highway Administration (FHWA), acting through the Alaska Department of Transportation and Public Facilities, will administer this effort, and encourage you and FHWA regional and statewide staff to make this effort a priority.

Given the importance of this project's timely initiation, both directly to Kivalina and as a working-solution model to other coastal communities, please consider it critical that FHWA avoid unjustifiable delays in administrative oversight. Should there be any support that I can provide or obstacles that I can provide assistance in remedying, please do not hesitate to contact me.

Sincerely,

DAN SULLIVAN
United States Senator
NOTICE OF ENVIRONMENTAL DOCUMENT
AVAILABILITY AND PUBLIC MEETINGS: Kivalina Evacuation and School Site Access Road

Public Meeting(s) Location/Date: (see Attachment A for Maps of locations)

<table>
<thead>
<tr>
<th>Location</th>
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<th>Time</th>
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<tbody>
<tr>
<td>Noatak - Native Village of Noatak Office</td>
<td>December 5, 2017</td>
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The Alaska Department of Transportation and Public Facilities (DOT&PF) in partnership with the Northwest Arctic Borough (NAB), the Community of Kivalina, NANA Regional Corporation (NANA), and the Federal Highway Administration (FHWA), announces the availability of the Draft Environmental Assessment (EA) for the Kivalina Evacuation and School Site Access Road project in Kivalina, Alaska for public review.

The project team proposes to construct a combined causeway and bridge facility across Kivalina Lagoon and associated all-season gravel access road from the lagoon eastern shoreline eastward to a community-selected evacuation site near Kisimigiuqtuq Hill (K-Hill). Up to four local material sites would also be developed to supply project requirements. The proposed project would provide Kivalina residents a safe and reliable evacuation route in the event of a catastrophic storm or ocean surge, allowing evacuees to temporarily mobilize to safe refuge at an assembly site on K-Hill also identified by the Northwest Arctic Borough School District as a preferred new location for the community school. The Draft EA addresses the proposed action and potential impacts to the natural and human environments.

The proposed project would also involve a portion of the Cape Krusenstern National Historic Landmark (CKNHL), an historic site listed on the National Register of Historic Places (NHRP) and protected under Section 4(f) of The Department of Transportation Act of 1966. The CKNHL, which in part encompasses private and state lands comprising the proposed project location as well the community of Kivalina, is administered by the U.S. Department of Interior, National Park Service (NPS). Based on consultation with the Alaska Department of National Resources Office of History and Archeology and the NPS, DOT&PF intends to make a finding that, after consideration of impact avoidance, minimization, and mitigation or enhancement measures, the proposed project would not adversely affect contributing elements, activities, features, and attributes of the CKNHL. The comment period for the 4(f) determination took place concurrently with the Section 106 review and has ended prior to this publication. However, DOT&PF will consider any additional comments regarding the potential impacts to the CKNHL received during the EA comment period. Documentation and other data informing this proposed 4(f) determination are provided in the Draft EA.

If you are unable to attend the public meeting dates referenced above but wish to provide comments on the Draft EA, you may access it via the project website listed below and also at the offices of the Northwest Arctic Borough (Kotzebue), the Native Village of Kivalina (Kivalina), the City of Kivalina (Kivalina), the Native Village of Noatak (Noatak), NANA Corporation (Anchorage and Kotzebue), and at the Red Dog Mine library. Formal written comments can be made until 12/15/2017 either via the project website at: http://dot.alaska.gov/nreg/KivalinaEvacRd/, or directly to the project manager by U.S. mail or email as noted below.

For more information or to provide written comments, please contact:

Jonathan Hutchinson, P.E., Project Manager
Alaska Department of Transportation and Public Facilities, Northern Region
2301 Peger Road, Fairbanks, AK 99709
(907) 451-5479
jonathan.hutchinson@alaska.gov

The environmental review, consultation, and other actions required by applicable federal environmental laws for this proposed project are being, or have been, carried out by DOT&PF pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated November 3, 2017 and executed by FHWA and DOT&PF.

This proposed project will comply with Section 106 of the National Historic Preservation Act; Executive Orders: 11990 (Wetlands Protection), 11988 (Floodplain Protection), 12898 (Environmental Justice), the Clean Air Act, Clean Water Act, Fish and Wildlife Coordination Act, and U.S. DOT Act Section 4(f).
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Attachments
Attachment A.pdf

Revision History
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Modified 11/14/2017 3:12:35 PM by plord

Details
Transportation and Public Facilities
Category: Public Notices
Sub-Category: Kotzebue, Other
Location(s): Kotzebue, Other
Project/Regulation #:
Publish Date: 11/14/2017
Archive Date: 12/6/2017
Events/Deadlines:
ONLINE PUBLIC NOTICE – Attachment A

Title: Kivalina Evacuation & School Site Access Road
ADOT&PF/FHWA Project No. NFHWY00162/0002384

Public Meeting Location(s):

Noatak:
Native Village of Noatak Office
Po Box 89
Noatak, Alaska 99761

Kivalina:
McQueen School Gym
#6 Oceanside Expressway
Kivalina, AK 99750
Good Afternoon all –

I’m pleased to announce that the Final Draft Environmental Assessment for the Kivalina Evacuation and School Site Access Road is now available for public review. This is a major milestone in the project development process, and marks the beginning of the 30 day public comment period. The project team is planning public meetings to present the document in Kivalina, Noatak, and Kotzebue on December 5th. Details for the meetings can be found on the public notice.

The on-line public notice for the document can be found at the following link: https://aws.state.ak.us/OnlinePublicNotices/Notices/View.aspx?id=187769

Notices will also appear in the Arctic Sounder, as well as the Fairbanks News Miner and Alaska Daily News.

The document can be downloaded from our website at: http://dot.alaska.gov/nreg/KivalinaEvacRd/

We will be following up in each community with hard copies of the document to be placed in your local communities for people that may not have access to computers.

Thank you all for your continued commitment to this important project, and please do not hesitate to call if you have questions.

Ryan F. Anderson, P.E.
Northern Region Director
Alaska Department of Transportation and Public Facilities
907-451-2211
ryan.anderson@alaska.gov
Brett and Amy,

Please see notice of availability of DRAFT Environmental Assessment: Kivalina Evacuation and School Site Access Road, Project No. 0002(384) / NFHWY00162 below.

Jonathan J. Hutchinson, P.E.
Engineering Manager, AK DOT&PF
Jonathan.hutchinson@alaska.gov
907-451-5479
Subject: Notice of availability of DRAFT Environmental Assessment: Kivalina Evacuation and School Site Access Road, Project No. 0002(384) / NFHWY00162

Dear Interested Stakeholder,

The Alaska Department of Transportation and Public Facilities (DOT&PF) in partnership with the Northwest Arctic Borough (NAB), the Community of Kivalina, NANA Regional Corporation (NANA), and the Federal Highway Administration (FHWA), announces the availability of the Draft Environmental Assessment (EA) for the Kivalina Evacuation and School Site Access Road project in Kivalina, Alaska for public review.

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The Draft EA is available via the project website listed below and also at the offices of the Northwest Arctic Borough (Kotzebue), the Native Village of Kivalina (Kivalina), the City of Kivalina (Kivalina), the Native Village of Noatak (Noatak), NANA Corporation (Anchorage and Kotzebue), and at the Red Dog Mine library.

Public meetings at which interested individuals can review the Draft EA, ask questions of project staff and provide formal comments will be held at the following locations and times:

Noatak - Native Village of Noatak Office
December 5, 2017 10:00a – 12:00p

Kivalina - McQueen School Gym
December 5, 2017 2:00p – 4:00p

Kotzebue - Northwest Arctic Borough Assembly Room
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Jonathan Hutchinson, P.E., Project Manager
Alaska Department of Transportation and Public Facilities, Northern Region
2301 Peger Road, Fairbanks, AK 99709
(907) 451-5479
Jonathan.hutchinson@alaska.gov

Thank you,
Kivalina Project Team
OPEN HOUSE

KIVALINA EVACUATION & SCHOOL SITE ACCESS ROAD

TUESDAY, DECEMBER 5, 10:00 AM - 12:00 PM

NATIVE VILLAGE OF NOATAK OFFICES
NOATAK

DEC 5
Open House: Kivalina Evacuation & School Site Access Road
Public · Hosted by Alaska Department of Transportation & Public Facilities

Tuesday, December 5 at 10:00 AM - 12:00 PM AKST
6 days ago

Native Village of Noatak Offices, Noatak, Alaska

About Discussion

0 Went · 0 Interested
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Details

The Alaska Department of Transportation and Public Facilities (DOT&PF) and the Federal Highway Administration (FHWA) in partnership with the Northwest Arctic Borough and the Community of Kivalina are proposing a project to improve community safety in Kivalina, Alaska by constructing a safe, reliable, all-season evacuation road between the community of Kivalina and K-Hill.

Proposed project components include:
- Establishment of a safe, reliable, all-season Kivalina Lagoon crossing. All alternatives include construction of a causeway across the lagoon that variously incorporate different configurations of hydrological openings including bridge(s), culvert(s), or both.
- Construction of an all-season access road connecting the Kivalina Lagoon crossing to the K-Hill evacuation site. The road would be designed to accommodate a wide variety of motorized vehicles over a two-way road with shoulders, multiple turnouts, and side slopes that may include guardrail and other safety features where determined to be necessary and prudent.
- Development of up to four material sources including the K-Hill Site, Wulik River Source 1, Relic Channel Source 1, and Relic Channel Source 2. These material sources are anticipated to be suitable local sources of select material to supply the project. Selection and development of viable material sources and haul routes are considered as part of the Proposed Action.

DOT&PF is conducting a thirty (30) day review period of an environmental document for the proposed project in accordance with the National Environmental Policy Act (NEPA). DOT&PF is planning upcoming public meetings in the communities of Kivalina, Noatak, and Kotzebue. These meetings are an important part of the formal NEPA's scoping process. A
detailed summary of the environmental document, as well as supporting studies, will be presented at the public meetings. Project team members will be available to discuss the proposed alternatives, answer questions, and document public comments. Your input at this time is important.

Join us for any of three Open House Meetings on Tuesday, December 5, 2017:
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- Kivalina at the McQueen School Gym, 2 p.m. - 4 p.m.
- Kotzebue at the Northwest Arctic Borough Assembly Room, 6 p.m. - 8 p.m.

This project is being developed in accordance with the following special purpose regulations including Sections: 4(f) of the Department of Transportation Act; 106 of the National Historic Preservation Act; 7 of the Endangered Species Act; and Executive Orders: 11988 (Floodplain Protection); 11990 (Wetlands Protection); and 12898 (Environmental Justice).

Persons wishing to submit written comments may deliver them in writing at the meeting or send them to the following address by December 10, 2017:
Sarah E. Schacher, P.E., 2301 Peger Road, Fairbanks, AK 99709

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KIVALINA EVACUATION & SCHOOL SITE ACCESS ROAD
TUESDAY, DECEMBER 5, 6:00 PM - 8:00 PM
NORTHWEST ARCTIC BOROUGH ASSEMBLY ROOM
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KIVALINA EVACUATION & SCHOOL SITE ACCESS ROAD

TUESDAY, DECEMBER 5, 2:00 PM - 4:00 PM

McQUEEN SCHOOL GYM
KIVALINA

DEC 5
Open House: Kivalina Evacuation & School Site Access Road
Public · Hosted by Alaska Department of Transportation & Public Facilities

Tuesday, December 5 at 2:00 PM - 4:00 PM AKST
6 days ago

McQueen School Gym, Kivalina, AK

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John Baker discussed the origin of the project and the expedited nature of the project. John introduced DOT&PF as the lead project lead about one year ago. In the past 12 months the environmental document was started and completed. DOT&PF completed a review of existing projects in order to expedite completion of the project. John asked Oral Hawley to lead a prayer. John asked the attendees to introduce themselves.

- Nathan, environmental coordinator, IRA
- Brian and Rhea Barger
- Charles Baker
- Becky Norton, IRA Council Member
- Gary Swan, McQueen School, Maintenance
- Richard Tree, McQueen School, Behavioral Health
- Heather Dominguez
- Stan Hawley, Tribal Administrator
Jonathan Hutchinson mentioned that we brought out a large team of people to discuss the project because there are a large mix of specialties. The project team watches the weather warnings frequently and understand the project need. One year ago we received $3.2 million in federal funding which enabled this project to move forward as a project and get it closer to reality. All the comments from the November 2016 public meeting have been incorporated into the Environmental Assessment. We are here to receive comments so that this draft EA can become final. All comments will be recorded if you want to give them verbally. You can also give them in written form. The formal deadline for December 15th, 2017.

Theodore Booth asks how far along is the project because the extremely high water is a very real threat. The water came up, on the ocean side, to a house right by the clinic. (The last storm we couldn't get out of here because the water was so high that there was no way to cross)

Jonathan Hutchinson shows Figure 2 “Study Area and Potential Sites.” On this figure, during the scoping phase, you can see the various route options that have been proposed during the project. John Baker points out the Southern Route, Northern Route, and Combined Route B which were evaluated in the EA. Jonathan Hutchinson stated that the Team needed to come up with a Preferred Alternative. The obvious route to eliminate were the crossing that went north along the runway. During this process the Preferred Alternative is the Southern Route which is almost identical to the one that the community and the NWAB proposed during the planning phases. If this is still the Preferred Alternative for the community, we will move this forward with the agencies and finalize the EA report.

Becky Norton. The NWAB did not choose the route but the community choose it. (It should be made clear that the community chose the route, not the Borough)

Scott Maybrier displayed a 3D flyover of the alternatives. Survey data/LiDAR was collected over an area 5 miles by 10 miles long. The survey data is displayed into a 3D environment with 2016 imagery laid over it. The whole purpose is to help you see what the road route might look like.

Heather Dominguez, Chukchi College has a drone available for use and could do a flyover of the road. They are collecting sea ice information.

Scott Maybrier has seen project area flyovers. Drones do allow you to collect some non-controlled survey data. The large amounts of data on the drones would be difficult to manage for a project this size but there could be useful applications.

Scott Maybrier then displayed a 3D rendering of the bridge of what it might look like using DCCED mapping as a base.

Becky Norton: How long is the bridge?
Scott Maybrier: 120 feet (24’x110’)
Jonathan Hutchinson: The exact length of the bridge will be determined after the EA is finalized.

Becky Norton: Will there be culverts?
Jonathan Hutchinson: There will be a series of 12-foot diameter culvert at a V shaped channel at the far end of the lagoon. Other designs considered during planning included greater numbers of larger culverts however the bridge was . There will be a series of overflow pipes as well near the top of the causeway. (12-15’ diameter)

Becky Norton: Will you have rails along the entire length of the road?
Jonathan Hutchinson: That is a design level detail, but it is likely the causeway will need railing because of the high winds and ice.

Theodore Booth: How high will the bridge be built?
Jonathan Hutchinson: 15-feet will be the minimum height for considering for construction. This will be evaluated further during design.

Theodore Booth: When will you start?
Jonathan Hutchinson: The soonest we can start is fall/winter of 2019 but we still don't have the construction funding needed. We have to wrap up this EA so that we can apply for construction funding and complete the design phase.

Millie Hawley: What is the current cost estimate?
Jonathan Hutchinson: still around $50 million

Millie Hawley: Have you identified gravel sources?
Jonathan Hutchinson: There are four material site options that we are considering moving forward with on the project. The four sites provide flexibility. The Wulik River site is easy to access and has good material for surfacing the road. The most valuable site is at K-Hill because there is rock there. We will be blasting the rock there to get what is needed.
Millie Hawley: Is the quality of the material sites good enough for the road?

Jonathan Hutchinson: Yes, the data we have indicates that it is good.

Millie Hawley: Is there enough gravel or will you have to import material?

Jonathan Hutchinson: The information we have indicates that there are enough local materials available.

Becky Norton: How will you get material from the Wulik River?

Jonathan Hutchinson: If we use the Wulik river sources we would likely build it in the winter so that we don’t degrade the water quality.

Becky Norton: Are you near the allotments? Will you impact the allotments?

Scott Maybier pulled up a map of allotments on the screen.

Jonathan Hutchinson: You can see that the project avoids the allotments. One material site would impact an allotment and DOT&PF would need to get permission if that site was selected for moving forward. We want to avoid the allotments.

Sara Lindberg began discussing the NEPA process. Sara works at Stantec and leads the EA writing. Any environmental process starts with the purpose and need which was already very well defined. The Draft EA was published November 15, 2017 and we now have 10 more days to complete the review process. Comments have helped to refine the alignment to one preferred alignment. Agency coordination will be completed as part of the EA review process. DOT&PF has taken on the responsibility of the NEPA Assignment.

Brett Nelson is the DOT&PF Environmental Coordinator, and this is his first time to Kivalina. He is happy to see the area and get to know the community better. Brett’s role is to review, advise, and help approve the EA. This is a federally funded project and DOT&PF is now taking the lead of the NEPA process for FHWA. This project is getting a lot of attention from being the first project to go through this process. This is also helping to keep the resources focused in on this project to get it completed. DOT&PF asked FHWA for NEPA assignment so that DOT&PF can help prioritize getting things done. We also don’t want to do anything wrong so that we don’t jeopardize the project and project federal funds. Right now, we are most interested in hearing from you. We are also listening to the resource agencies because they also have a lot of input. All comments will be reviewed and responded to. Also, positive comments are very helpful because it helps the federal agencies to understand the need for the project.

If we work closely with the permitting agencies and include them as part of the team they help us to solve issues together as things evolve. This is a result of a lot of hard work on behalf of the entire team for years leading up to now.

John Baker: What can the community do to help support the project?

Brett Nelson: Talk to Margaret who is collecting verbal notes and/or fill out comment sheets.

Becky Norton: We have already said our piece and have already commented more than enough how much we need this project. Lets just get to work and start making it happen.

Margaret Carpenter: What about a letter of support from the IRAs, City, and NWAB?

Millie Hawley: I am currently the president and Tribal Transportation Coordinator. I appreciate all the work that you have been doing as an agency to expedite and be moving this forward. I apologize for the lack of attendance at this meeting because I have been ill for the past three weeks. I would have done more if I felt better. I do have a plan to help get community input. I could solicit comments, as the Transportation Coordinator, from the coordinator and submit them to you guys by the end of the comment period. If the community would like to extend the comment period would that be possible?

Brett Nelson: The project isn’t hinging on needing to have the comments. We are fully committed to getting this done as quickly as possible. When people are able to share how they feel about the project they have more ownership which is very positive. If comments trickle in after the 15th they are still incorporated and will be used during the design phase.

Millie Hawley: During one of the meetings we had over 100 people and they all expressed the desire for the evacuation road. They also stated their trust to community leadership to make decisions for the community. There have been storms with high water that came up near the clinic and so people are very very concerned. We hope it is over for now but the ocean is still not frozen. We can work with you and provide what is needed. Do you need more funding for design?

Brett Nelson: We are mostly focused on getting construction funding.

Jonathan Hutchinson: We should have enough funding for design. The momentum and aggressive pace is helping to control the budget. We are watching very carefully for how we are spending the money.

Millie Hawley: The reason I ask is that we are still finalizing the Denali Commission funding. We need specifics on what the funding could be used for to help support the project. We need to discuss how to work together on how to help Denali Commission. The past four years of tribal transportation funding has been saved for this project and could be used for this project if the IRA could receive an invoice to pay.

Brett Nelson: That would be very helpful to consider.

Steve Reidisma: Steve is new to the project and new to Kivalina. The permitting process I have been working lately is on the Kotzebue to Cape Blossom Road. The Cape Blossom Road project was completed in 2013 and the permit applications are just being completed. This is not what is happening on this project. It is being started far in advance of what is typical.

It is really helpful to get agencies out to Kivalina to see the importance of the project. We have gotten a long way in preparing the permit applications. We hope to submit them soon. This project is unique. It is an evacuation road to safety. We need to continue to impress this upon
the agencies so that we can keep aggressively moving this along.

John Baker: We have time for more comments.

Austin Swan: During the last storm that we had we did have a pretty good bunch of sand which raised up the beach area. All along the spit we have chunks of ice that were moved over to the lagoon from wave action. There is a sandbar that is building up in front of town which saved us. That sandbar is thankfully breaking off waves before hitting the beach. However, we are losing ground on the lagoon side and in the middle of the village as it is blowing away and getting torn up by traffic. Electrical cables are now showing that weren’t there before. Rutts aren’t going away. I am glad we are moving as fast as we can with this project.

Jerry Norton: The only known flooding that occurred in the late 1900s when my grandmother was a teenager. Now that has changed. The highest land was show was East tippick when you could. If we are going to make this road it has to be higher than the two sides of the lagoon otherwise it will go under.

Becky Norton. I wanted to thank search and rescue and the fire department during the last blizzard. The team got together to plan and had night guards watch the village to evacuate people to the gym when the water begins coming up too high. We were lucky it didn’t come up too much higher. Thanks to everyone. I hope this project goes as planned so that we can get started.

Dollie Hawley: Thank you for coming to Kivalina and wanting to help our people. We have tried to get our voices heard about the need for this project. The seasons are changing and so we don’t know always what to expect. We have real bad storms and we just keep watching the ocean. The ice is melting in ways that are not understandable. Sometimes the blizzards scare the grandkids. I am in favor of this project. I am not thinking of myself but my five grandkids. If we are all gone, and God takes us home, I would hope for my grandkids sake that they could be safe. We want DOT to build us a road to safety.

Gary: What I noticed in the last storm was that the water level came up over the ice in the lagoon. The water level went past the end of the runway over from the ocean. What was going through my mind was how the water was coming up so quickly over the spit. Thank you for coming out and working so hard on this. I know what it is like to work on holidays and be away from family. So thank you for taking that time to come and help us.

Stanley Hawley: When I saw the power point slide of the road design of the bridge I was amazed at how high it was. If it works, we could use that to go beyond the scope of the road. If it works, we could think about moving the entire village even. Right now, I would say go for it. Just go for it.

Theodore Booth: Thank you coming here. Time after time. We all have been working hard. I know it will happen. Hopefully, while I am still alive to see it. Once the evacuation road is done I am hopeful that it will open up opportunities for the community. Since 1970 we have seen changes over the years. The beach used to go way out there with grass and gravel. 3,500 feet out. The change is in how narrow it is getting every year. The ocean moved the big boulders that were placed there for protection. I am happy you are moving along smoothly. Thank you for making it happen and coming out here.

Becky Norton: Our gramma, when she was growing up, told us that we are right now on the 3rd place of living. They moved three times. This area, we are living now, was their main berry picking land during their first home. That is how much it has eroded.

Oral Hawley closed the meeting with a prayer.
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<td>J. Wilcox</td>
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<td>Theodore Bock</td>
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<td>Janet Mitchell</td>
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<td>Mimi Hawley</td>
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<td>Margaret Ballin</td>
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**ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES**

**KIVALINA PUBLIC MEETING**

**SIGN IN SHEET**

**PROJECT NAME:** Kivalina Evacuation and School Site Access Road  
Project No. 002384/NFHWY00162  
**DATE:** December 5, 2017

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<td>Ralph Knox</td>
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1 of 6  
effective: December 2004
### Kivalina Public Meeting

**Sign In Sheet**

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**Project No.:** 002384/NFHWHY00162  
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<td>Jonathan Hutchinson</td>
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<td>Becky North</td>
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<td>Heather Dominguez</td>
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Meeting Notes

Jonathan Hutchinson: The project doesn't have construction funding but we are targeting fall/winter 2019.

John Chase: So does the project include the gravel pad for the School. I worked with Sonny Adams, NANA on a permit for a rock quarry close to Kivalina. I know there was going to be an ice road for material site development. I can send you the permit for the project. With Title 9 permit the project is null and void if you don't act on the project for over a year. I don't know exactly where it is through.

Jonathan Hutchinson: I think you are talking about Essepuk.

Steve Reidsma: Is it best to get our permit the year we want to start construction? Or get it as soon as possible.

John Chase: Once you have a final design work with NWAB on the Title 9 permit but we don't need to do it sooner than that.

John Baker: How long does it take to get a Title 9 Permit.

John Chase: Could be one month maybe two months to process a conditional use permit because the planning commission is involved. It would be best for DOT To come up to present to the planning commission. I have reviewed the EA and the project isn’t rocket science.

Jonathan Hutchinson: Used a lot of preexisting information, being very aggressive, and have wrapped up the EA in a very short amount of time. We are working to get environmental wrapped up in the next 1.5 months.

Sara Lindberg: I think the Title 9 permit will involve rezoning because of the subsistence zone.

Jonathan Hutchinson: What's the Title 9 process?

John Chase: I will review the permit process, John will write the permit, John will get a date with the quarterly planning commission meetings for a dialogue. No assembly involvement.

Jonathan Hutchinson: We are trying to provide the most direct route for the community to evacuate. The communities are happy to get an update and are very happy to have a process that has gotten them to a Preferred Alternative. The yellow route is the Preferred Route. The red line is the Northern Route which is longer and more costly. The elevation of the red line is favorable but the ground conditions weren't truly any better but it had more water crossing to consider. Not enough value or reason to go with the red route. Therefore, the yellow route has remained the Preferred Alternative.

John Chase: I am glad we have consensus because this has been a topic of discussion for a long time. Sounds like the community is happy with this project now. I participated in the Consensus Building Process many years ago with Glenn Gray and this was discussed even then.

John Chase: The flood depth is being refined right now but it is clear why we need to go so far to get out of the flood plain. This is why we need to go

John Chase: How much material is needed?

Steve Reidsma: 1.3 million cubic yards

John Chase: How deep is the lagoon?

Sara Lindberg: 4-5 feet deep at most.

Jonathan Hutchinson: The bridge clearance is 12 feet at the highest tide.

Sara Lindberg: What isn’t shown on the bridge rendering is the overflow pipes. But you can see the culverts.

John Chase: The main thing about Title 9 is subsistence is the highest priority so the culverts are good.

Jonathan Hutchinson: The reason the causeway is so costly is because we have to armor the whole thing with rock. We plan to use all local source for the rock though. 6 foot high embankment.
John Chase: I think I forwarded the NANA Kivalina Rock Quarry permit to someone at DOT. Has DOT looked at the engineering of the DMTS Road and compared it to the proposed Kivalina Road? It would be good to learn from that project.

Paulette Schuerch: Because it is so high are there going to be road crossings for subsistence use to allow for back and forth travel across the road? J

Jonathan Hutchinson: One turnout per mile but the locations haven't been identified yet but this could be a great place for 'on-ramps'.

Sara Lindberg: The Noatak Airport access road is considering 4:1 or 5:1 side slopes at areas where there are known side slopes.

Sara Lindberg: The NEPA process has been done to take all the community input to get to a draft EA at this expedited rate. Hoping to get draft EA comments by December 15th. The next step is to work with the federal and state agencies to get any input.

John Chase: How do I provide comments? Who approves the EA

Brett Nelson: The State of Alaska now has sole responsibility for approving environmental documents. This happened just in the past few weeks and we have been working on this with FHWA for over two years to make this happen. FHWA has made a great partner but the state would like to try new delivery methods to help expedite needed projects. We also have to do it well so that we aren't putting federal funds in jeopardy. This is the first big project that is going to be approved by the State under this new NEPA assignment.

Steve Reidsma: What we are doing with this project. The environmental document is typically complete and other acquisition issues prevent a smooth and expedious permitting process. This project has a number of permits including USACE, DNR, and other. A group of us are reviewing permits concurrently to get the process together. We are meeting with permitting agencies this month to see keep them informed. We will also inform them that the purpose of this project is safety.

John Chase: When do you anticipate final design? Come talk to me when you have a stamped final design.

Sara Lindberg: Spring 2018

Jonathan Hutchinson: When we go to permitting we use a conservative design to go forward with. We are close to having a design that is ready for permitting purposes before too long. Final Design Study Report is scheduled for May 2018 which is close to 50% design level. I don't expect a major issue with the design other than the bridge.

John Chase: So for the EA are you just asking the public for comments on the project and how it might affect their every day life?

Brett Nelson: A lot of the comments and concerns have already been heard and incorporated. However, this EA is a chance to report back on findings, ensure agreements. These comments are rolled into a revised EA. If the Preferred Alternative is accepted is moves forward with one further 30 day comment period for any additional chances to comment.

John Chase: My concerns will be about the ice, logs, etc things that could jam up the bridge. Also wildlife impacts.

Brett Nelson: We have communicated with the communities and consulted with all of the agencies.

Sara Lindberg: The way the ice goes out is that it mostly melts into place. The ice at that location isn't typically a risk to bridge design.

John Chase: At the NWAB we support the communities. If the community supports the project, the NWAB will support the community and therefore the projects. Worst case scenario would be issues with Caribou being deflected away from crossing the road. The way I do permitting is through asking questions with direct answers. This is great. I applaud the team who has made this all happen.
2017-12-05 Kivalina Public Meeting in Noatak notes

Kivalina Evacuation and School Site Access Road

Environmental Document Public Review Meeting

11am-12pm

December 5th, 2017

Noatak IRA Building

Documented by Sara Lindberg and edited by the Visiting Team

05 Dec 2017

Sign In Sheets:

Visiting Team:

DOT&PF: Jonathan Hutchinson; Brett Nelson; Scott Maybrier; Missy Jensen
Remote Solutions: John Baker
Stantec: Sara Lindberg

Meeting Notes:

Jonathan Hutchinson discussed the project overview informally with community members while the team waited for others to arrive.

Richard Ashby: You will need a snow fence along the road because of snow drifting. You should also consider installing snow fence at the material sources so drifting snow does not build up in the work area.

Jonathan Hutchinson: The height of the road embankment has been designed to accommodate that need. The height of the embankment will act as a snow fence in a way, and will have the same effect of keeping the snow drifts a distance from the road like a fence would. The comment about snow fence in the material sites is a good one, we will consider this for construction.

Richard Ashby: What obstacles have you overcome with the Cape Krusenstern Landmark boundary being within the project area?

Jonathan Hutchinson: We have completed a detailed cultural survey within the project area and have been working closely with the SHPO and NPS on this project. Both agencies have been out on site and seen the project area first hand. Due to the lack of resources found during the surveys, we have received clearances from both agencies for this project already.

John Baker started the meeting as most of the attendees had gathered. John began by introducing the project team, and talking about how the community, the strongest member of the team, has been critical to helping this project move forward on an expedited timeline. John asked xxx to start the meeting with a prayer.

Jonathan Hutchinson discussed the EA document and the previous community outreach and public involvement efforts. Jonathan showed the
attendees the EA appendix where all the previous sign in sheets and meeting comments were located, and discussed how the project at this stage has incorporated all previous community and agency comments, and that the project they are seeing today is a route and design that incorporates those comments. Jonathan talks a little about the project history and how the DOT became involved a year ago with getting the project onto the federal STIP program, that this was a huge milestone. Jonathan states that without all the community input and studies that had been completed in the past this would have taken much longer.

Jonathan Hutchinson goes over the previous routes that had been studied and how the project team coordinated with state and federal agencies over the past year. This process allowed the DOT to select a preferred alternative as part of the EA process, and the preferred alternative, the Southern Route, is very close to the route that the community has previously selected as their preferred route.

Jonathan Hutchinson talk about ways the community can comment on the project, and that supportive comments at this stage will help in the ongoing agency meetings and permitting process that is still ahead.

Sara Lindberg discussed the NEPA process, the project purpose and need, and how alternative development and evaluation is a big part of the process. Sara mentions that this NEPA document is a decision document and that after we gather additional community comments the EA will be finalized and a decision will be made on whether the project would have significant impacts. Usually for this type of project the Federal Highway Administration would be the one to make that decision as the federal funding agency, but over the last 3 years DOT&PF and FHWA have been working together to assign DOT that decision authority. This assignment just happened very recently in the last month and the Kivalina evacuation road project will be one of the first major projects to be approved under the new assignment. Brett Nelson talks about how this is beneficial as the DOT is closer to the communities this will allow projects to be expedited more quickly, but that the process will be just as thorough and thoughtful as it was previously, DOT is taking their role very seriously.

A community member asks what the timeline is for construction.

Jonathan Hutchinson says the earliest they could start construction would be winter of 2019, but that construction funding still needs to be found for this project. Getting through the EA is a big milestone for this project and DOT can now start to move forward with final design and identifying construction funds.

Scott Maybrier showed the community over flight videos of the project corridor and 3D renderings of what the road and bridge would look like. There was a lot of discussion during this portion of the meeting by various community members.

Question: Will boats be able to go under the bridge? How high will the bridge be?

Scott Maybrier: Yes, the bridge design will accommodate passage of boats, fish, and wildlife and is set to have a 12 foot clearance. The bridge is about 15 feet above the mean tide level.

Question: Will the road and bridge be above the level of the floodwaters?

Jonathan Hutchinson: Yes it is designed to be above the maximum storm surge wave height and 100-year flood elevation.

Question: Is this the final plan for the road?

Scott Maybrier: No, there will be some adjustments to it. This is about a 35% design.

John Baker thanked the community for coming and reiterated that this project is making very good progress. xxxx closed the meeting with a prayer.
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Project No.: 002384/NAHW00162

DATE: December 5, 2017

SIGN IN SHEET

Noatak Public Meeting

& Public Facilities

Alaska Department of Transportation
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<td>Harold M. Johnson</td>
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**Date:** December 3, 2017

**Project Name:** Kivling Recreation and School Site Access Road

**Project No.:** 002384/NTHVY00102
Thank you for the opportunity to review the draft Environmental Assessment. The comments I have are in regard to Section 4.5 and 4.5.2.2. and are related to changes to traffic. The EA title includes School Access Road. The State has already allocated funding for the construction of the school. School Construction is anticipated to start as soon as the road is completed. I would not expect the EA to address the impacts of the school and its construction but shouldn't the EA address the traffic to and from the school?

The EA does a thorough job of addressing construction related impacts but is limited in addressing future use of the road beyond use for access to subsistence resources. The District anticipates that students would be transported between the school and current community by school bus. Multiple bus trips will be required to transport the number of Kivalina students. Teachers would likely reside in housing on the school site. Goods and services supporting the school, including fuel, would need to be transported on this road.

The community currently primarily utilizes small ATV’s and snow machines as there is essentially nowhere to drive larger vehicles. Construction of a road will change this as evidenced by other communities within the region. The planned road and lagoon crossing should be developed to support year round bus, and pickup truck use in addition to the smaller vehicles.

Related to this would be issues associated with on going maintenance and operation of the road to assure its use during the school year and for evacuation purposes. There would be socio-economic impacts associated with year round road maintenance.

I would hope that other sections of the document would not require revision.

Again, your work is much appreciated and I look forward to the synergy of shared planning efforts.

Hi Kathy –

We’ve been busy! But great accomplishment in getting the environmental document to review. See below to the links. I hope this information is helpful to the school project.

Ryan
Good Afternoon all –

I’m pleased to announce that the Final Draft Environmental Assessment for the Kivalina Evacuation and School Site Access Road is now available for public review. This is a major milestone in the project development process, and marks the beginning of the 30 day public comment period. The project team is planning public meetings to present the document in Kivalina, Noatak, and Kotzebue on December 5th. Details for the meetings can be found on the public notice.

The on-line public notice for the document can be found at the following link:  https://aws.state.ak.us/OnlinePublicNotices/Notices/View.aspx?id=187769

Notices will also appear in the Arctic Sounder, as well as the Fairbanks News Miner and Alaska Daily News.

The document can be downloaded from our website at:  http://dot.alaska.gov/nreg/KivalinaEvacRd/

We will be following up in each community with hard copies of the document to be placed in your local communities for people that may not have access to computers.

Thank you all for your continued commitment to this important project, and please do not hesitate to call if you have questions.

Ryan F. Anderson, P.E.
Northern Region Director
Alaska Department of Transportation and Public Facilities
907-451-2211
ryan.anderson@alaska.gov
December 12, 2017

Mr. Jonathan Hutchinson, P.E., Engineering Manager
Northern Region DOT & PF Design
2301 Peger Road
Fairbanks, AK 99709

Re: Northwest Arctic Borough Comments
Alaska Department of Transportation & Public Facilities
Draft Environmental Assessment (EA) for the Kivalina Evacuation and School Site Access Road Project

Dear Mr. Hutchinson;

The Northwest Arctic Borough is glad to submit these comments on the draft environmental assessment for the proposed Kivalina Evacuation and School Site Access Road Project. The Northwest Arctic Borough supports the proposed action, which would construct a safe, reliable, all-season evacuation road between the community of Kivalina and Kisimiguiqtuq Hill (K-Kill).

Kivalina has been the scope of many studies to examine the need for relocation and/or an evacuation road due to the effects of a changing climate. Coastal erosion and flooding have also been real threats that residents have had to face. The proposed evacuation road will enable the residents of Kivalina to mobilize to safety in the event of a catastrophic storm surge. We fully support this project.

Thank you for your time.
Sincerely,

Noah Naylor
Planning Director
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES [X]  NO [ ]  NOT SURE [ ]
   WHY? OR WHY NOT?
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF
   THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION
   ROAD?
   Get it Done!
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   when will it be done?
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

OPTIONS:
NAME: ____________________________ DATE: 11/7/2017
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES X  NO  NOT SURE


2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
   Please incorporate local hire in the plans.
   And local leaders in the discussions as much as possible.

3. OTHER COMMENTS/CONCERNS/QUESTIONS?

   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

OPTIONS:
NAME: Doug E. Foster   DATE: 12/6/17

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TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES_______  NO_______  NOT SURE_______

WHY? OR WHY NOT?
   I am not sure, I've been to meetings
   but I don't speak or say anything about the
   road.

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF
   THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION
   ROAD?
   No Suggestions.

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   Will we be able to travel on the road at
   any time of the day?

OPTIONS:

NAME: Kelly Hanley    DATE: 12/10/17

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TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES ☑️   NO ______   NOT SURE ______

   WHY? OR WHY NOT?
   Because we are in need of relocation
   ___________________________________________
   ___________________________________________

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
   I suggest more houses or apartments to rent.
   We need more places to live for we are a growing village.
   ___________________________________________
   ___________________________________________

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   Thanks for all you are doing for Kivalina.
   ___________________________________________
   ___________________________________________
   ___________________________________________

OPTIONS:
NAME: Jovitta Adams     DATE: 12-6-17
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES X    NO _____  NOT SURE _____

WHY? OR WHY NOT?
Need safety of the village to evacuate to a safe place from flood stage or perilous weather.

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
   Who is going to maintain road when completed? The higher above flood stage better to travel on. Make sure use delineators for path road, and bank or edge of road.

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   Please consider to expedite the evacuation road & school site to be built as I am now hearing elder age hearing of relocate village since I was seven year old.

OPTIONS:
NAME: Oral Howley    DATE: 12/06/2017
1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
YES ☑️ NO ☐ NOT SURE ☐

WHY? OR WHY NOT?
Because it's something to do besides wondering what to do

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
   side walks, bus stops, bus stops

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   stop signs miles limitation
   fences

OPTIONS:
NAME: Robert Swan DATE: 12/6/17
1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES X      NO ______  NOT SURE ______

   WHY? OR WHY NOT?
   Yes, because we need a road to higher ground in case we start sinking deeper.

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
   No suggestions, thanks.

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   Patiently waiting.

OPTIONS:

NAME: [Signature] DATE: 12/16/17
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES X  NO  NOT SURE

WHY? OR WHY NOT?
The reason I chose yes, is because we the
people of Kivalina NEED a evacuation route

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF
   THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION
   ROAD?
   Not sure, at the moment

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   We really need a evacuation road for
   our village.

OPTIONS:
NAME: Sylvester Swan  DATE: 12-6-17
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES X    NO       NOT SURE

   WHY? OR WHY NOT?
   Ocean Waves and Ocean Current too dangerous for our Island along the Coast.

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
   

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   Taking too long. Just like relocation still no results there. I'm afraid just a road will be the same thing, probably better to expand the village.

OPTIONS:
NAME: Cool Breeze DATE: 12-7-17

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TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES X NO NOT SURE

WHY? OR WHY NOT?
Because in Kivalina, Alaska, we now get heavy, unpredictable storms throughout the year. We need our grandchildren to run to safety when they need to evacuate from the Island in the future.

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
   It is pretty structured. I hope. But I was hoping that they used local materials.

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   I am very happy that DOT has made an effort to help the village build an evacuation road for the safety of our people. We need the road built because it is very important for our village is getting smaller and sinking.

OPTIONS:

NAME: Dolcie A. Huskey  DATE: Dec 7, 2017
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES /  NO / NOT SURE

   WHY? OR WHY NOT?
   Because erosion is getting bad by the year

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF
   THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION
   ROAD?
   Need to hurry up.

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   N/A

OPTIONS:

NAME: Quinunq Hawley      DATE: 12/7/17
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
YES [x] NO [ ] NOT SURE [ ]

WHY OR WHY NOT?
Every thing has just weight to it, there’s good & bad to it, but I think it would benefit the town off [illegible] for safety purposes.

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
It would have to be built to with stand the harsh weather as well as the force of the ocean.

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
Consult our elders, hire as many locals as you can, try not to limit qualifications but take into consideration knowledge of work ethics & hard worker’s.

OPTIONS:

NAME: Alice B. Swan DATE: 12-12-17
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES X       NO       NOT SURE

   WHY OR WHY NOT?
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
   Rail guard at causeway
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

OPTIONS:

NAME:  Austin Swan,       DATE: 12-12-17
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES
   NO
   NOT SURE
   WHY OR WHY NOT?
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
   Start both at new site and existing site together, many crews working to meet in middle. This is the fastest and easiest way, all the gravel is mostly at new site.
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   Please hurry and thanks for your time and help to move our community.
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________

OPTIONS:

NAME: Eugene W. DATE: 12-12-2017
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES [X]    NO _______    NOT SURE _______

   WHY OR WHY NOT?
   Possible expansion of village

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL
   DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
   Add at least 2 turn around points
   if not planned already.

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   Have mile markers posted.

OPTIONS:

NAME: Gary Swan  DATE: 12/12/17
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
YES X NO NOT SURE

WHY OR WHY NOT?
Safety

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
Don't make it too tall.

3. OTHER COMMENTS/CONCERNS/QUESTIONS?

OPTIONS:

NAME: L. Adams DATE: 12/12/17
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES × NO ____ NOT SURE ____

   WHY OR WHY NOT?
   We have nowhere to go if and when the high water over tops KUS.

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
   Make it big & solid enough to support a village relocation.

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   Just do it!

OPTIONS:

NAME: Stanley Hawley DATE: 12 Dec 2017
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES X   NO    NOT SURE

   WHY OR WHY NOT?
   Since climatic weather changes,
   it is very serious that we have
   a road to get to safe grounds.

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL
   DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
   That it will be able to last for
   many severe disasters and
   protect the people of the
   Village.

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   We have waited long enough for
   the road project. To make our
   community more aware of the road
   safety.

OPTIONS:

NAME: Amos Hawley JR   DATE: 12-13-17
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES  X  NO  _____  NOT SURE  _____

   WHY OR WHY NOT?
   It is much needed our storms are getting worst

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL
   DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
   Saturday side rails + Delinicators,

3. OTHER COMMENTS/CONECRNS/QUESTIONS?
   I hope they can build a evacuation building first because we know the
   badger school won't be build right away if we have to evacuate we need shelter

OPTIONS:

NAME: Becky Norton DATE: 12/13/17
1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
YES X NO _____ NOT SURE _____

WHY OR WHY NOT?
_to help Village_

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
build a bridge

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
readiness for village in case of storms

OPTIONS: thanks for helping us

NAME: lde Swan DATE: 12-13-17
1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES X  NO  NOT SURE

   WHY OR WHY NOT?
   In case of emergency, we need a place to go

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL
   DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
   - Barge vs. heavy duty equipment - wait for freezeup
   - Built an ice road, move equipment to the site
   - Built road from there - to village

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   Hire local as much as you can

OPTIONS:

NAME: Council Sage
DATE: Dec 13, 17
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES ☒ NO _____ NOT SURE _____

WHY OR WHY NOT?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL
   DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
   (Cement Road or Gravel)
   And wide enough for 2 lorries to travel

________________________________________________________________________

________________________________________________________________________

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   No Comments

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

OPTIONS:

NAME: Andrew Baldwin DATE: 12/14/17
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES [ ]    NO [ ]    NOT SURE [ ]
   WHY? OR WHY NOT?
   ______________________________________________________
   ______________________________________________________

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF
   THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION
   ROAD?
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

OPTIONS:
NAME: [ ]
DATE: [ ]

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TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
YES  V  NO _______  NOT SURE _______

WHY? OR WHY NOT?
Because we need it.

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
None

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
None

OPTIONS:
NAME:  Jeremy Adams  DATE: 12-16-17
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES ☑ NO _______ NOT SURE ________

   WHY? OR WHY NOT?
   0. For safety purposes.
   1. In case of storm surge.
   2. In case we need funding for water/sewer.

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF
   THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION
   ROAD?
   For development of the road we would need
   a lot of communication between entities,
   stakeholders and especially public.

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   Continue to work with us!
   You guys are doing great!

OPTIONS:

NAME: Monetta Adams     DATE: 12/16/17

Appendix D Page 132
Please take a moment to fill out this comment sheet so that we can respond to any comments you have. If you do not submit a comment sheet at the scoping meeting, please mail to Jonathan Hutchinson, P.E., Engineering Manager, Northern Region DOT&PF Design, 2301 Peger Road, Fairbanks, AK 99709; fax to (907) 451-5126; or e-mail Jonathan.Hutchinson@alaska.gov. Please provide comments by December 15, 2017. Thank You!

Name: Nathan Keonook
Address: P.O. Box 50080 Kivalina, AK 99750
Telephone: (907) 844-6887
Email: nate_k20@yahoo.com

Please add comments that you think may be helpful during the design development process. Are there any specific elements of the project that you wish to address?

Is there going to be a setup or protocol in case of environmental incidents that happen? And as far as waste, will you be taking care of wastes that need to be shipped out?
TRIBAL TRANSPORTATION PROGRAM
DRAFT ENVIRONMENTAL ASSESSMENT
COMMENT FORM

1. ARE YOU IN SUPPORT OF THE EVACUATION ROAD?
   YES [X]  NO [ ]  NOT SURE [ ]

   WHY? OR WHY NOT?  Safety

2. WHAT SUGGESTIONS DO YOU HAVE FOR THE DEVELOPMENT OF THE FINAL DESIGN AND CONSTRUCTION OF THE EVACUATION ROAD?
   Get it done, quit
   Naagakign

3. OTHER COMMENTS/CONCERNS/QUESTIONS?
   [A/A]

OPTIONS:
NAME: ______________________ DATE: ____________________________

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