



CAPTAINS BAY ROAD CORRIDOR IMPROVEMENT PLAN

PREPARING UNALASKA FOR FUTURE DEVELOPMENT
UNALASKA, AK

CITY OF UNALASKA
NOVEMBER 10, 2022

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Summary

Unalaska, Alaska is home to Dutch Harbor and holds state, national, and international economic importance as the largest fishing port in the United States by volume caught. Much of the seafood arriving in Unalaska is transported along Captains Bay Road which is presently a 2.6-mile-long gravel road. During peak seafood seasons the roadway’s traffic counts average 1,000 vehicles per day; 75 percent are semi-trucks and other industrial vehicles that operate 24-hour-per-day, 7-day-per-week to support the seafood industry’s operations. ²

Captains Bay Road (CBR) is narrow with minimal shoulders separating it from the bay on one side and rock cliff face on the other. Regular rock falls pose hazardous risks for vehicles and people. The lack of lighting and pedestrian pathways create unsafe conditions for pedestrians and vehicles. The gravel roadway surface has poor surface drainage, sharp curves, and potholes so deep and intrusive that drivers are unable to reach the posted traffic speed of 30 mph.

In winter, CBR’s dangerous, slippery conditions lead to frequent accidents; trucks and other vehicles often slide off the road. In summer the road is often dusty on dry, windy days. The rough road conditions require the City of Unalaska (City) to grade the road twice per week. The regular maintenance also slows traffic which adds time and cost to users, but regular grading is needed otherwise the road creates high vehicle maintenance costs due to excessive wear and tear.

Alaska based company GCI is installing fiber service to Unalaska. The new fiber service is scheduled to be operational in December, 2022.

Proposed Improvements

Constraints

The CBR Corridor Improvements propose to improve roadway safety for vehicles and pedestrians, provide better access to industry via paved surface with drainage, remove the most dangerous curves and segments of roadway subject to falling and protruding rock, and extending or installing new infrastructure including water, wastewater and drainage to better accommodate industry. However, numerous constraints exist that add additional costs and time to the project.

Roadway realignments and straightening involves acquiring additional land in some places for road and pedestrian rights-of-ways and to implement proper curve radii and sight distances for safer turns and speeds. It’s also necessary to cut back some areas of tall rock and to move the roadway seaward where

City of Unalaska/Port of Dutch Harbor

City of Unalaska/Port of Dutch Harbor
Unalaska is the anchor for commercial fishing activity in the Bering Sea and the Aleutian Islands. According to National Oceanic and Atmospheric Administration’s report Fisheries of the United States 2019, ¹ Unalaska’s Port of Dutch Harbor led the nation with the greatest quantity of fish landed, a distinction held for more than 23 years; during those same years, the port was rated either first or second in value of the catch. During 2019, commercial fisherman delivered 763 million pounds of seafood at the port, valued at \$190 million, ranking the Port of Dutch Harbor second in the nation for value of the catch. Approximately 400 vessels fish the Aleutian Islands and Bering Sea for various groundfish, halibut, salmon, herring, and crab species. The fleet utilizes approximately 12,000 feet of city dock space, with an additional 10,000 feet of commercial dock space available within the community.

¹ National Marine Fisheries Service, Fisheries of the United States 2019, <https://media.fisheries.noaa.gov/2021-05/FUS2019-FINALwebready-2.3.pdf?null=>

² HDR, Unalaska Captains Bay Road Paving and Utility Extension Draft Cost-Benefit Analysis, 2022



necessary. Permitting will also require the project minimize ocean fills which can take years for approval. Last, to save money it would be best to reuse the Pyramid Creek Bridge. New road and paving design will require compliance with the Americans with Disabilities Act and where any intersections involving pedestrian ways will need accessibility ramps in place of curbing.

Access

CBR intersects with a low spot on Airport Beach Road. That segment of Airport Beach Road is also curved and is situated between the South Channel Bridge and the Unalaska Public Safety Building. The paved apron is typically covered with gravel, dirt and mud and creates a hazard tractor trailer rigs to pull out onto the roadway.

Access poses concerns further down CBR where Westward Seafoods' facilities are transected by the roadway, which is not proposed to change in this plan. However, paving, lighting, directional signage and surface drainage will minimize the most serious dangers for the company's 500 permanent and temporary employees, most of whom live across the roadway from the industrial facility.

Rights of Way

The proposed roadway improvements need additional rights-of-way. The roadway needs straightened and widened to accommodate wider lanes and new pedestrian paths and walkways. There are a few areas where private land owners and corporations own the land CBR sits on. Acquiring rights-of-way/ easements will guarantee access for everyone.

Roadway Pavement

The project proposes paving CBR between Airport Beach Road and OSI Inc. (OSI). The overall roadway width will measure 30' for about 2.6 miles. The roadway will have two 13' wide travel lanes and two - two foot (2') paved shoulders/ berms. The City has several estimates for paving CBR beyond OSI Inc.

Pedestrian Walkway

A six foot (6') wide pedestrian walkway is proposed along CBR, separated from the roadway by curb and gutter. It will connect Westward Seafoods (Westward) to Airport Beach Road. This area has the largest number of pedestrians who access the community from Westward. It's also the heaviest travelled segment of roadway.

The new walkway will continue on CBR between Westward and OSI but will be integrated with a (6') shoulder on a widened roadway and separated by a rumble strip.



Utilities

Work on CBR and utilities is ongoing. Most recent is the trenching work for the GCI Fiber Optic project that will connect businesses on CBR to internet. Work the City is proposing to undertake can be seen in Table 3: Current CBR Corridor Improvement Project Phasing & Timeline on page 11.

Drainage

One of the most significant safety improvements will be better surface drainage. Unalaska temperatures hover around freezing in winter, which makes the roadway slushy with ice and mud. The poor drainage requires significant maintenance. The City incurs significant maintenance costs grading the roadway twice per week. The City resurfaces the road with gravel once or twice per year.



Community Benefits

Improved Roadway Safety

Clearly the community will benefit from improved safety. Many of Unalaska's residents work at the processing plants, drive the tractor-trailers that deliver products from the plants to the ports, and safety affects everyone. Fewer accidents and less wear and tear on private vehicles should improve everyone's experience on the roadway.

Improved Pedestrian Safety

Extending a separated pedestrian pathway along the road will encourage more foot traffic to town and enhance the pedestrian safety and walkway experience.

Benefits to City

Reduced Road Maintenance Costs

The City will spend less money on annual road maintenance costs for CBR. Annual road maintenance costs between 2016 and 2019 for CBR and Ballyhoo Road have been calculated to be \$85,000 per mile annually to maintain a gravel road versus a paved road.

Avoided Water Tank Failure

The Pyramid Water Storage Tank (WST) cannot be taken offline for extended maintenance without violating drinking water regulations. The tank is currently in critical need of cleaning, inspection, and potentially maintenance. Extending a new water main eliminates the need for a second WST and booster pump station, which would otherwise cost the City more than \$10 million.

Reduced Water Leakage

A World War II-era wood stave pipe is still in operation. The 80-year-old pipe leaks about 50 million gallons of water per year into the ground. A new water main will eliminate wood pipe and its water leakage and costs.

Increased Water Supply

Presently the City must always keep the Pyramid 2.6 million gallon water storage tank (WST) at least two-thirds full (1.7 million gallons) to insure water delivery to NPF. This restriction effectively reduces the amount of storage capacity of this water storage tank and the amount of water that can be supplied from the Pyramid water supply system. The project will extend a new water main, will increase the water supply capacity, and allow the City to keep up with peak season water demand with less reliance on the City's three wells. It will also provide a buffer for water supply during emergencies or disaster events.

Economic Development

The City's tax base will be supported by the roadway improvements. More businesses mean more product moving in and out of the ports and more port tariffs and fees; more employees working at plants will also support local businesses. More focus can be given to attracting compatible industrial development on the road and its aesthetic appearance should serve to attract additional development on its own.

Benefits to Businesses and Land Owners

Reduced Vehicle Maintenance Cost

Companies will incur significantly less costs on vehicle maintenance with a paved roadway. Dust from the gravel road surface requires frequent changes to truck air filters and leaf springs. This, combined with the rough road conditions, causes significant wear and tear to truck parts.



Travel Time Savings

Though CBR's speed limit is 30 mph, the rough road conditions mean drivers drive much slower than the designed speed limit. Driving speeds of passenger and commercial vehicles often drops to as low as 10 mph prior to grading.

Avoided Lane Closure & Injuries from Potential Rock Falls

Large rock falls have been observed once or twice per year along CBR. These can create hours of lane closures while the roadway is cleared. In addition to costing companies' time and money, the rock falls threaten vehicles, pedestrians, and bicyclists on the road.

Improved System Reliability

Certain local businesses on CBR are currently self-sufficient, with their own electricity generation. Extending utility services along CBR can serve as backup if any business' private system goes out of service and avoid any service disruptions

Utility Upgrades

The project involves primarily the extension of a City water main on CBR from Westward to NPF. It also extends City electricity in conduits that would be buried in the road; however, the major facilities along CBR already generate their own power and at this time have not shown interest in purchasing electricity from the City.

Funding and Costs

The CBR project has been on the City Capital Major Maintenance Plan (CMMP) for five years, but has been on the drawing board for over a decade. The CMMP section included below summarizes the costs over the five years the project was included in the plan. Cost estimates have ranged over the years between \$24.3M in 2017 to \$59M in 2020. The estimates change annually based on pricing fluctuations for materials, shipping, construction and labor as well as project scope modifications.

At the time of preparing this report, the CBR project has again undergone a significant change. This past year inflation has increased dramatically, supply chains have weakened as a result of two years from COVID-19's impact on world markets, and a new project has been proposed to anchor Captains Bay Road. Table 1: Project Costs by Segment, Infrastructure Type and Fiscal Year illustrates the current estimates by segment and type of infrastructure improvement including water, sewer, electric, and paving and safety improvements. These are estimated for each Segment, A through D, with the latter being an additional CBR improvement area included to support the proposed Trident project.

Table 2: CBR Paving & Utility Extension Project Scenarios, 2020 Dollars

Reference	Segment	Water	Sewer	Electric	Paving	Safety Improvements	TOTAL	YEAR	TOTAL
(millions of dollars)							(by segment)		(by FY)
ABR-WSI	A				\$ 12.9		\$ 12.9	FY23	\$ 4.9
WSI-NPF	B	\$ 3.6	\$ 4.4	\$ 1.0	\$ 10.3	\$ 4.5	\$ 23.8	FY24	\$ 4.5
NPF-OSI	C	\$ 1.0	\$ 1.3	\$ 0.3	\$ 3.1		\$ 5.7	FY25	\$ 35.0
OSI-TSI	D	\$ 3.7	\$ 4.5	\$ 7.2	\$ 10.7		\$ 26.1	FY26	\$ 24.1
	TOTAL	\$ 8.3	\$ 10.2	\$ 8.5	\$ 37.0	\$ 4.5	\$ 68.5		\$ 68.5

Table prepared by City of Unalaska Engineering Dept.

For comparison purposes, Segments A, B and C represent the previous CMMP projects. These total \$42.4M which puts the costs in the middle of past CMMP project estimates. Segment D spans from OSI to the site proposed for a new Trident Seafoods Inc. facility. It was formerly used by Bering Shai Rock & Gravel. The City estimates Segment D's total cost at \$26.1M to extend water, sewer, electric and pavement. All four segments of the CBR Corridor Improvement Plan as described herein combine for a total estimated cost of \$68.5M in today's dollars.

Table 1 also summarizes the estimated costs for each kind of infrastructure across the four phases. Road paving is the most expensive of the infrastructure at \$37M. The other estimates in descending order of estimates are sewer (\$10.2M), electric (\$8.5M), water (\$8.3M) and safety improvements (\$4.5M).

Figure 1: Project Costs by Type and Segment illustrates Table 1 using a map. Each segment is a different color and estimates by infrastructure are included with a segment total. Again costs are broken out by water, electric, sewer, paving and safety improvements. Figure 1 is on the following page.

Figure 1: Project Costs by Type & Segment

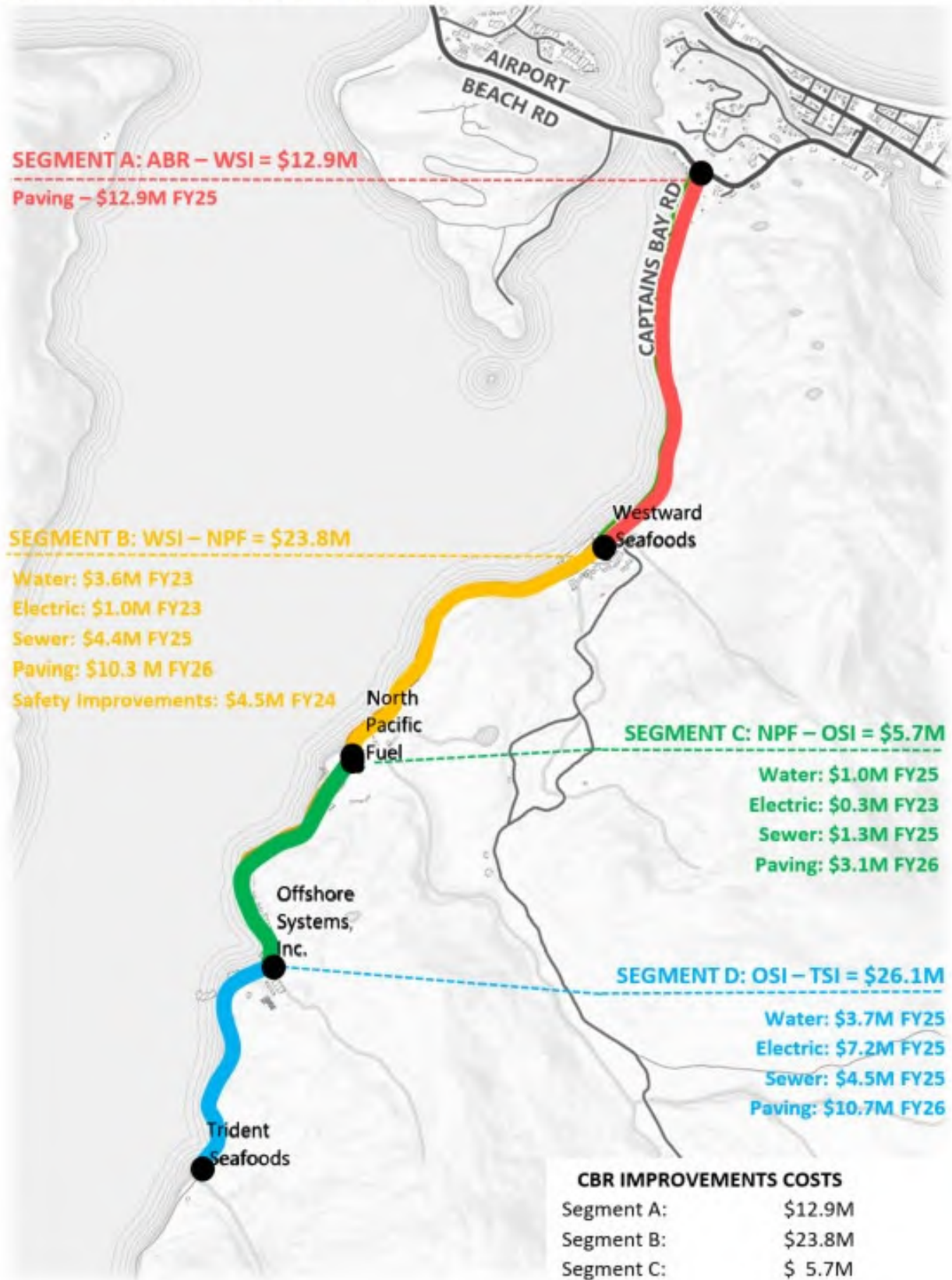


Figure prepared by City of Unalaska Planning Dept.



CMMP

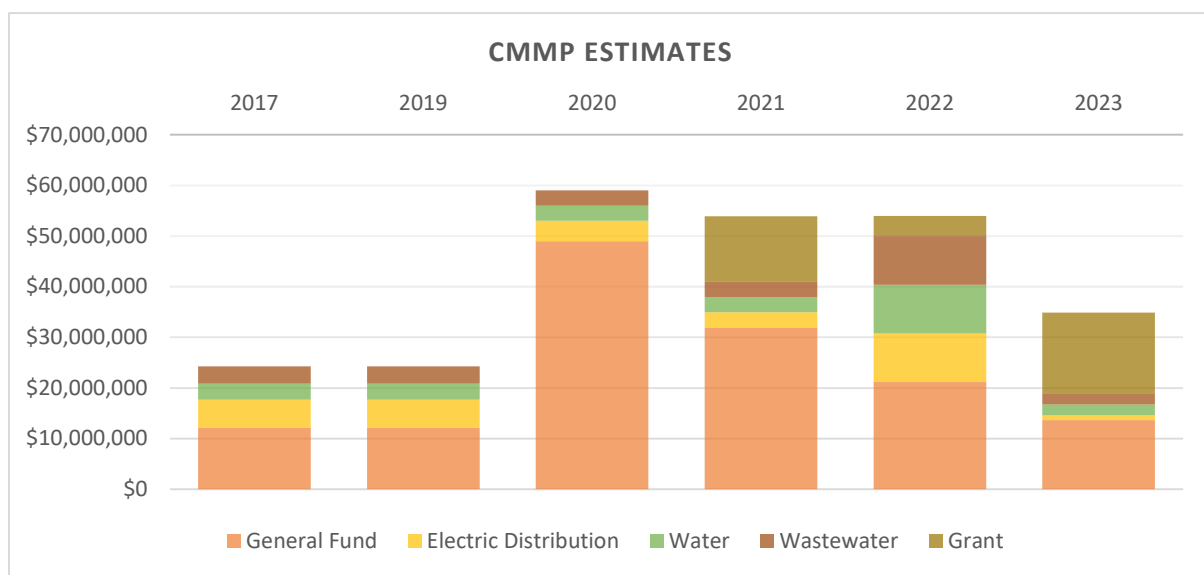
In 2016 Unalaska City Council added the CBR improvement project to its FY17-21 Capital & Major Maintenance Plan (CMMP). The plan identifies projects the Council intends to scope over the coming five year time period. Titled “Captains Bay Road & Utility Improvements”, the project was estimated to cost \$24.3 million to improve two miles of drainage from Airport Beach Road (ABR) to the Crowley Dock; pave one mile of hard surface between ABR and Westward Seafoods, and install one mile of utilities from Westward to Crowley Dock including water, sewer, and electric utility. Half of the project funding was identified to come from the city general fund; the other half was proposed to be divided among three proprietary funds including Electric Distribution, Water and Wastewater.



The CBR project has been on the City’s CMMP every year since FY17 with the exception of FY18. As the project has grown and contracted in scope, project estimates have changed accordingly. At its peak the CBR project was estimated to cost \$59 million in the FY20 CMMP. The most recent estimate is \$34.9 million in the FY23 CMMP.³ The oscillating estimates are due primarily to a changing scope of work, changes in material and labor costs. The project team also amends design elements in preparation of potential funding applications when sources may or may not pay for part or all of some improvements. Chart 1: CBR Corridor Improvements CMMP Estimates illustrates the estimates by CMMP year and funding source.

Design changes have also been made as cost saving measures. Examples include less cutting into the rock face for roadway straightening; less fill into the bay for roadway alignment; changes to pedestrian ways and amenities such as lighting and signage; and the resulting reduction/increases in roadway and utility line extensions/installations. Past CMMP Project Summary Sheets are included in the Appendix.

Chart 1: CMMP Estimates FY2017 - 2023



³ The City of Unalaska switched from a 5 to a 10 year CMMP starting in FY22, Unalaska Planning Department



Benefit Cost Analysis

In June, 2022 the City received a Benefit Cost Analysis (BCA) prepared by HDR of Anchorage, Alaska. HDR utilized estimates prepared by HDL Engineering Consultants and estimated costs for roadway realignment; water, sewer and electrical utility extensions; separated pedestrian facilities; and curbs, gutters, and storm drains. The study addressed Dead Man’s Curve (including rock fall issues) but it excluded costs for acquiring rights-of-way. The analysis assumed a three (3) year construction period and the period of analysis used to estimate the benefits and costs corresponds to 33 years (including the construction period).

The BCA report analyzed seven development scenarios for Segments A, B and C and are summarized in Table 2: CBR Paving & Utility Extension Project Scenarios. Projects need to score a positive benefit cost ratio (BCR) of 1.0 or higher to compete well for U.S. Department of Transportation (USDOT) discretionary grant funds. Scenario 7 titled ‘Basic Roadway Paving’ was the only scenario that resulted in a BCR of 1.0 or higher at an estimated cost of \$19.7M.

Scenario 1 titled ‘Full Design’ was estimated to cost \$61.2M in 2020 dollars. Scenario 1’s analysis resulted in “a benefit-cost ratio (BCR) of less than 1, indicating that the benefits do not exceed costs over the life of the project.”⁴

Table 2: CBR Paving & Utility Extension Project Scenarios, 2020 Dollars

Scenario	Scope: Assuming 3-year Construction Program	Segment A Costs	Segment B Costs	Segment C Costs	Total ^a
1. Base Case HDL Full Design	Realignment, utilities extension, separated pedestrian facilities, roadway lighting, Dead Man’s Curve rock cut, design speed 45 mph	\$30.5 M	\$23.7 M	\$7.0 M	\$61.2 M
2. HDL Baseline with Reduced Utilities	Same as Scenario 1, except no sewer to Segments B and C and no water to Segment C	\$30.1 M	\$21.8 M	\$5.5 M	\$57.4 M
3. Existing Alignment with Reduced Utilities	Maintains current alignment and 30-mph design speed; same utility reductions as in Scenario 2; no rock cuts; separated pathway and roadway lighting included	\$16.6 M	\$12.1 M	\$3.3 M	\$32.1 M
4. Existing Alignment with Slope Work	Like Scenario 3, with the addition of selective bluff sloping between Dead Man’s Curve and Pyramid Creek	\$16.6 M	\$16.7 M	\$3.3 M	\$36.6 M
5. Combination of Scenarios 2 and 3	Segment A, Scenario 3; Segments B and C, Scenario 2	\$16.6 M	\$21.8 M	\$5.5 M	\$43.9 M
6. Roadway Paving and Selective Slope Work	Scenario 4, with all utility improvements eliminated; pedestrian pathway and storm drains included	\$10.5 M	\$11.7 M	\$2.0 M	\$24.3 M
7. Basic Roadway Paving	Scenario 3, excluding water and sewer utilities; pedestrian facilities and storm drains included	\$10.5 M	\$7.2 M	\$2.0 M	\$19.7 M

Note: M = million

^a Total costs include design, construction, surveying, construction management, and contingencies.

Table from HDR Report, Summary

⁴ HDR, Unalaska Captains Bay Road Paving and Utility Extension Draft Cost-Benefit Analysis, 2022

⁵ Ibid

The City also applied to the Denali Commission for a grant to help design the project. In August the City received notice of an award in the amount of \$386,400. Details of the award and a grant agreement are still being worked out.

Special Assessment Districts

The City is able to make special assessments to help fund capital improvements. An improvement proposal can be initiated by the City Council or a petition to the City Council by the owners of one-half of the property to be benefited. An assessment district can be created to fund roadway improvements, drainage systems, sewers, water supply systems, and extensions of City-owned electric transmission and distribution systems.

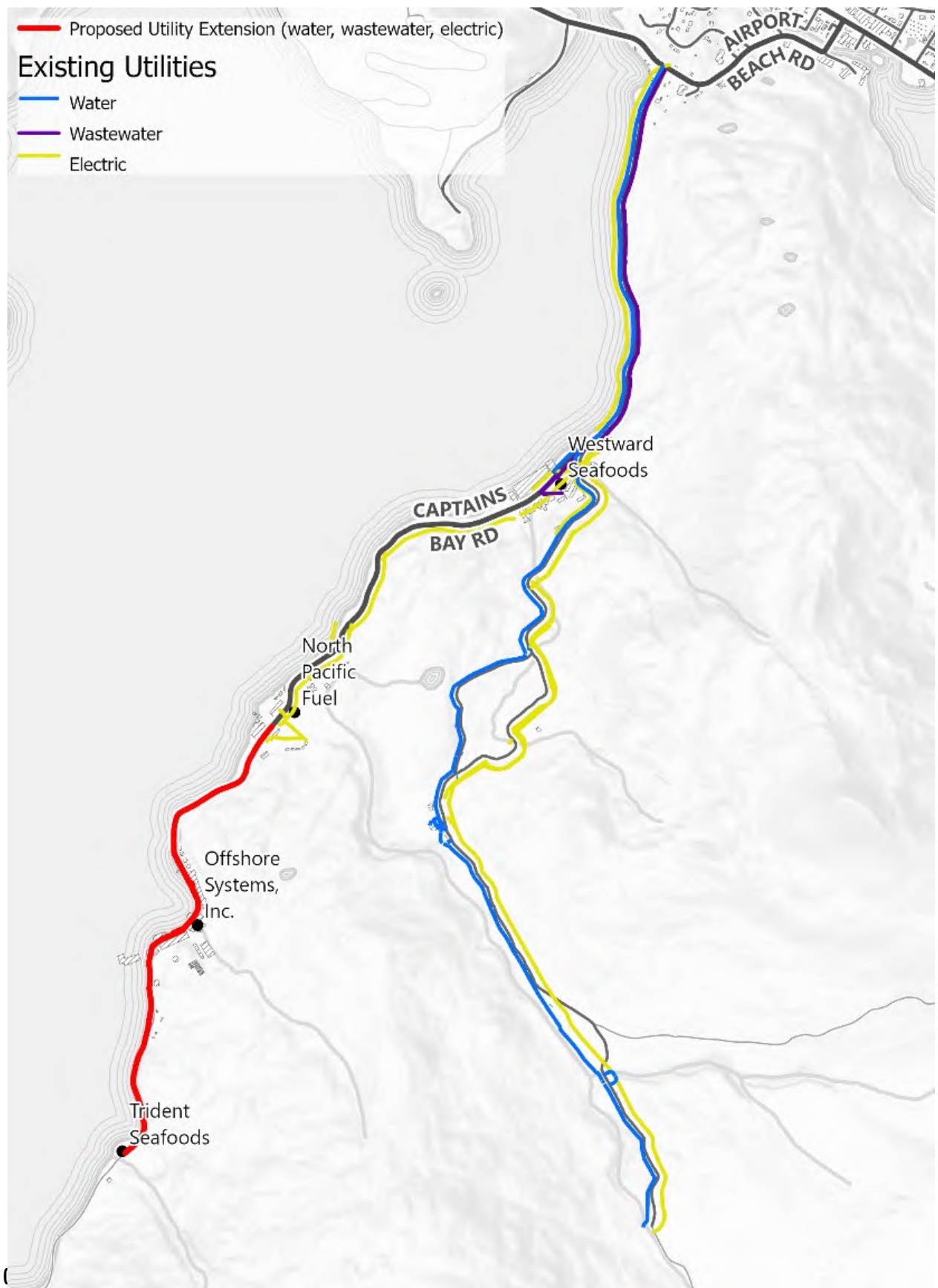


Timeline

Table 3: CBR Corridor Improvement Project Timeline is included below. It shows project in terms of the phases and fiscal year for each segment. Phases 5, 6, 7, 8 and 10 address the proposed Trident project while the others address the original CBR CMMP project. The table's description column shows more details about each phase and its related fiscal year and component.

Phase	FY	Component	Description
1	23	Electrical Extension	from Westward to OSI installing new conduit and vaults on current alignment
2	23	Waterline Extension	Westward to NPF - to replace failing wood stave pipe and allow additional operational capabilities
3	24	Safety Improvements	slope rock on Dead Man's Curve & straighten from Dead Man's Curve to Pyramid Creek (grant dependent)
4	25	Paving Segment A	Airport Beach Road to Westward paving including separated walking path and storm drains (grant dependent)
5	25	Waterline Extension*	*If Trident requires City water, extend water main from NPF to Trident
6	25	Sewer Extension*	*If Trident required City sewer service, extend sewer main from Trident to Westward
7	25	Electrical Extension*	*If Trident requires City electrical service, trench and install new vaults for electrical service
8	25	Electrical Upgrades*	*If Trident requires City electrical service, install upgraded electrical conductor, transformers, etc. from Westward to Trident
9	26	Paving Segment B&C**	**if utility extensions are complete, the proceed to paving Westward to OSI with widened shoulder and storm drainage improvements (grant dependent)
10	26	Paving Segment D***	*** If funding can be secured, paving from Northern boundary of OSI to Trident

Figure 1 Existing Utilities Map



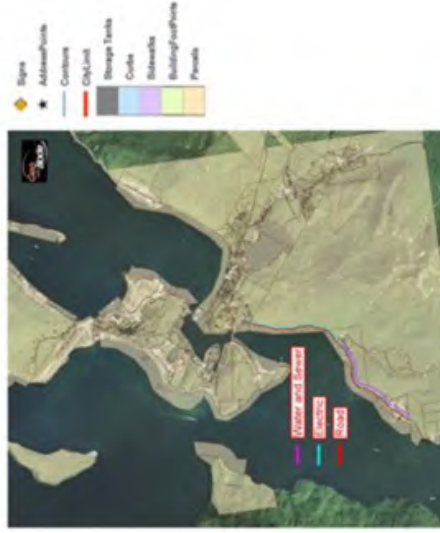
APPENDIX – CMMP Project Summaries

FY23-32 CMMP

Captains Bay Road & Utility Improvements Public Works

Estimated Project & Purchase Timeline
 Pre Design: **FY20**
 Engineering/Design: **FY21**
 Purchase/Construction: **FY23**

Captains Bay Road and Utilities



Project Description: This project will provide important safety improvements, construct drainage, utilities, and pavement out Captains Bay Road to the entrance of Offshore Systems, Inc. (OSI). This work will construct approximately 2.5 miles of drainage improvements from Airport Beach Road to OSI, 0.2 miles of rock cliff sloping and road realignment (Safety Improvements), 2.5 miles of paving/walkways/lighting from Airport Beach Road to OSI, and 1.3 miles of electric utility extensions from Westward Seafood Processors to OSI, and 1 mile of waterline extension from Westward to North Pacific Fuel along Captains Bay Road.

Project Need: Captains Bay Road is the logical location for future commercial and residential expansion for the community of Unalaska. Captains Bay has the docking facilities and space for equipment storage to accommodate this and other industrial growth. Oil companies have expressed interest in Unalaska's deep-water port as a resupply port for their northern seas oil exploration and drilling operations. Construction of the road and utility improvements needs to begin now so Unalaska can meet the current and future needs of the community.

Development Plan & Status : In 2017, the City upgraded the electrical service on the first mile of Captains Bay Road to 35 KV from Airport Beach Road to Westward Seafoods. An additional 2 miles of upgrades are required to extend the 35 KV to Offshore Systems, Inc. This final section of the electrical service line is 30 years old and is at its maximum capacity. This project will replace the 15 KV primary electrical line with 2 miles of 35 KV primary electrical line from Westward Seafoods to Offshore Systems, Inc.

Captains Bay Road currently has water and sewer line services from the intersection of Airport Beach Road to Westward Seafoods, a distance of one mile. This project will install a new waterline from Westward Seafoods to North Pacific Fuel to replace the old, failing wood-stave waterline.

HDR Engineering performed a Cost-Benefit Analysis (CBA) of the proposed Captains Bay Road Paving and Utilities Upgrade Project. The purpose of the CBA is to justify project costs to support funding requests to extend utilities. The range of project benefits includes reduced road maintenance costs, reduced vehicle maintenance costs, reduced vehicle emissions, improved safety, travel time savings, avoided road closures (rock slides, avalanches, accidents). The project is at 65% design and broken into 3 segments over 3 years. The CBA compares project costs against project benefits by segment and by phase to enable decisions to be made regarding the best approach going forward.

Cost Assumptions

Engineering, Design, Const Admin	2,966,147
Other Professional Services	2,966,147
Construction Services	23,729,179
Machinery & Equipment	
Subtotal	29,661,474
Contingency (15%)	5,234,378
TOTAL	34,895,851

Source	Appropriated	FY23	FY24	FY25	FY26	FY27	FY28	Total
General Fund	2,000,000	564,556	6,052,582	5,012,551				13,629,689
Grant - CAPSIS		4,000,000						4,000,000
Grant - ARPA			894,688					894,688
Grant - STIP			6,052,582	5,012,551				11,065,133
Electric Capital Fund	972,277							972,277
Electric Proprietary Fund			2,161,823					2,161,823
Water Proprietary Fund			2,172,242					2,172,242
Total	2,972,277	4,564,556	17,333,917	10,025,102				34,895,852



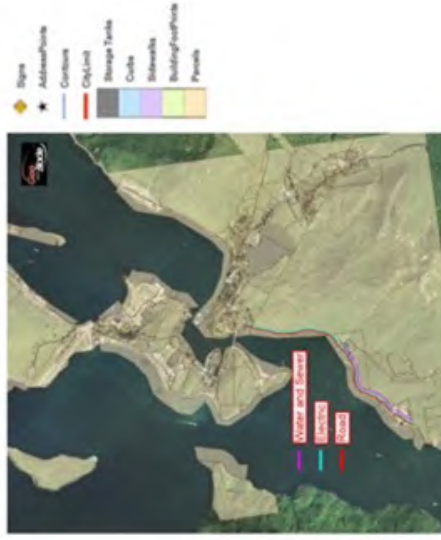
FY22-31 CMMP

Captains Bay Road & Utility Improvements Public Works

Estimated Project & Purchase Timeline

Pre Design: FY20
Engineering/Design: FY21
Purchase/Construction: FY23

Captains Bay Road and Utilities



Project Description: This major infrastructure improvement project constructs drainage, utilities, and pavement out Captains Bay Road to the entrance of Offshore Systems, Inc. (OSI). The work spans approximately 2.5 miles of drainage improvements from Airport Beach Road to OSI, 2.5 miles of road realignment/paving/walkways/lighting from Airport Beach Road to OSI, and 1.3 miles of water/sewer/electric utility extensions from Westward to OSI.

Project Need: Captains Bay Road is a primary transportation route for Westward Seafoods, North Pacific Fuel, Northland Services, Offshore Systems Inc., and several small businesses as well as residential areas. The road facilitates high traffic for heavy vehicles used by the fishing and support industries vital to the community's economy. In 2011 the City held public meetings regarding the Road Improvement Master Plan. Residents and industry representatives discussed Captains Bay Road and hazards its high road crown creates. The crown is needed for adequate drainage. There was strong support for improvements to Captains Bay Road. Captains Bay Road also presents future growth opportunities for the community as identified in the City's Comprehensive Plan.

Development Plan & Status : This project is grant dependent. Drainage and paving estimates are based on the Ballyhoo Road Drainage & Electrical Upgrades Project. The utility expansion estimate is based on the Henry Swanson Drive Road & Utilities Project's utility construction costs, and other recent materials and equipment costs. These are rough estimates that will be refined as the project commencement approaches. As of April 10,

2020, the State did not award grant funds via the STIP / CTP. Additional grant opportunities will be sought out. A \$4,000,000 Legislative request was submitted via CAPSIS in February 2021. Preliminary Estimate by HDL Engineering for total project costs = \$53,700,000

Cost Assumptions	
Engineering, Design, Construction Admin	\$5,370,000
Other Professional Services	\$300,000
Construction Services	\$35,637,692
Machinery & Equipment	
Subtotal	\$41,307,692
Contingency (30%)	\$12,392,308
Total Funding Request	\$53,700,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Electric Proprietary Fund	0	0	0	9,600,000	0	0	0	0	0	0	0	9,600,000
General Fund	2,000,000	0	0	0	0	9,600,000	9,600,000	0	0	0	0	21,200,000
Grant	0	4,000,000	0	0	0	0	0	0	0	0	0	4,000,000
Wastewater Proprietary Fund	0	0	0	0	9,600,000	0	0	0	0	0	0	9,600,000
Water Proprietary Fund	0	0	9,600,000	0	0	0	0	0	0	0	0	9,600,000
Total	2,000,000	4,000,000	9,600,000	9,600,000	9,600,000	9,600,000	9,600,000	0	0	0	0	54,000,000





FY21-25 CMMP

CAPTAINS BAY ROAD & UTILITY IMPROVEMENTS | DPW

PW19A | CAPITAL PROJECT

ESTIMATED PROJECT & PURCHASE TIMELINE

Pre Design: FY 2020
Engineering/Design: FY 2021
Purchase/Construction: FY 2022

Captains Bay Road and Utilities



PROJECT DESCRIPTION: This project will construct drainage, utilities, and pavement out Captains Bay Road to the entrance of the Offshore Systems, Inc. (OSI). This will involve approximately 2.5 miles of drainage improvements from Airport Beach Road to OSI, 2.5 miles of road realignment/paving/walkways/lighting from Airport Beach Road to OSI, and 1.3 miles of water/sewer/electric utility extensions from Westward to OSI.

PROJECT NEED: Captains Bay Road serves as a primary transportation route for Westward Seafoods, Crowley Marine Transportation, North Pacific Fuel, Northland Services, Offshore Systems Inc., and several smaller businesses as well as residential homes. The section of road making up this project is a high traffic area of heavy vehicles which are used by the fishing and support industries which are vital to the community's economic welfare. During the public meetings regarding the Road Improvement Master Plan recommendations in September 2011, residents and industry representatives discussed the hazards that the high road crown, which is needed for adequate drainage, creates for the large trucks and school buses traveling the road. There was strong support from the public for improvements to Captain's Bay Road. The area of Captains Bay Road is also an area of potential growth in the community as identified in the Comprehensive Plan.

DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS): This project is grant dependent. Drainage and paving estimates are based on the Ballyhoo Road Drainage & Electrical Upgrades Project. The utility expansion estimate is based on the Henry Swanson Drive Road & Utilities Project's utility construction costs, and other recent materials and equipment costs. These are still very rough estimates that will be refined as the project commencement approaches. Costs are split between Grant Funding and General Fund for the paving and drainage portion and the three utility funds based on the costs for each of those portions. As of April 10, 2020, the State did not award grant funds via the STIP / CTP. Additional grant opportunities will be sought out.

Cost Assumptions

Engineering, Design, Const Admin	5,370,000
Other Professional Services	300,000
Construction Services	35,800,000
Machinery & Equipment	0
Subtotal	41,470,000
Contingency (set at 30%)	12,441,000
TOTAL	53,911,000

Preliminary Estimate by HDL Engineering for total project costs = \$53,911,000

COST & FINANCING DATA:

Less Other Funding Sources (Grants, etc)

Total Funding Request 53,911,000

REVENUE SOURCE	APPROPRIATED FUNDS	FISCAL YEAR FUNDING REQUESTS					Total
		FY21	FY22	FY23	FY24	FY25	
General Fund Grant	2,000,000		12,977,750	9,977,750	9,977,750	9,977,750	31,933,250
Electric Proprietary Fund				3,000,000			3,000,000
Water Proprietary Fund					3,000,000		3,000,000
Wastewater Proprietary Fund						3,000,000	3,000,000
TOTALS \$	2,000,000		12,977,750	12,977,750	12,977,750	12,977,750	53,911,000

Requested Funds:



Project Description: This project will construct drainage, utilities, and pavement out Captains Bay Road to the entrance of the Offshore Systems, Inc. (OSI). This will involve approximately 2.5 miles of drainage improvements from Airport Beach Road to OSI, 2.5 miles of road realignment/paving/walkways/lighting from Airport Beach Road to OSI, and 1.3 miles of water/sewer/electric utility extensions from Westward to OSI.

Project Need: Captains Bay Road serves as a primary transportation route for Westward Seafoods, North Pacific Fuel, Northland Services, Offshore Systems Inc., and several smaller businesses as well as residential homes. The section of road making up this project is a high traffic area of heavy vehicles which are used by the fishing and support industries which are vital to the community's economic welfare. In September 2011 residents and industry representatives discussed the hazards at public meetings about the Road Improvement Master Plan. Although the road's high crown is needed for adequate drainage, it also creates a safety hazard for the large trucks and school buses traveling the road. The public expressed strong support for improvements to Captains Bay Road. The area of Captains Bay Road is also an area of potential growth in the community as identified in the Comprehensive Plan.

Development Plan & Status (Include Permit and Utility Requirements): Preliminary cost estimates have been provided by HDL Engineering and Regan Engineering based on recent materials and construction costs in Unalaska. These are still very rough estimates that will be refined as the project commencement approaches. Costs are split between the General Fund for the paving and drainage portion and the three utility funds based on the costs for each of those portions. Predesign and Permitting started in FY19 helped define scope, the road realignment, utility needs, and permitting requirements. An aggressive schedule has full design, permitting and ROW realignments concluded during FY20-FY21 with construction spread over 2.5 seasons from FY22-FY24.

Cost & Financing Data: HDL Engineering provided a preliminary cost estimate to City Council in February 2019. City Council supported proceeding with full design using the general fund. In the mean time, the City Manager and DPW are investigating funding sources for full construction, such as the STIP and BUILD grant programs.

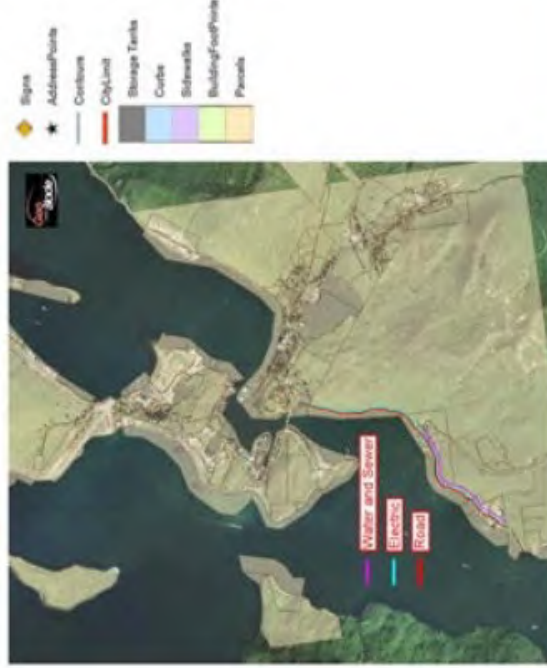
Cost Assumptions		
Engineering, Design, Const Admin	4,238,461	
Other Professional Services	300,000	
Construction Services	40,846,154	
Machinery & Equipment	-	
	Subtotal	45,384,615
Contingency (set at 30%)	13,615,385	
	TOTAL	59,000,000
Less Other Funding Sources (Grants, etc.)	-	
	Total Funding Request \$	59,000,000

FY20-24 CMMP

Captains Bay Rd & Utility Improvements | DPW / DPU

Estimated Project & Purchase Timeline
 Pre Design: FY 2019
 Engineering/Design: FY 2020
 Purchase/Construction: FY 2022 & 2024

Captains Bay Road and Utilities



Revenue Source	Fiscal Year Funding Requests					Total
	FY20	FY21	FY22	FY23	FY24	
General Fund (DEPT)	750,000	-	22,000,000	-	25,000,000	49,000,000
1% Sales Tax	-	-	-	-	-	-
Grant	-	-	-	-	-	-
Proprietary Fund	-	-	10,000,000	-	-	10,000,000
TOTALS \$	750,000	-	32,000,000	-	25,000,000	59,000,000
Requested Funds:						



PROJECT DESCRIPTION: This project will construct drainage, utilities, and pavement out Captains Bay Road to the vicinity of the North Pacific Fuel operations (former Crowley dock). This will involve approximately 2 miles of drainage improvements from Airport Beach Road to North Pacific Fuel (NPF), 1 mile of paving from Airport Beach Road to Westward, and 1 mile of water/sewer/electric utility extensions from Westward to NPF. For the electric utility, this will be an extension of the FY17 project to upgrade electric service to Westward.

PROJECT NEED: Captains Bay Road serves as a primary transportation route for Westward Seafoods, North Pacific Fuel, Northland Services, Offshore Systems Inc., and several smaller businesses as well as residential homes. The section of road making up this project is a high traffic area of heavy vehicles which are used by the fishing and support industries which are vital to the community's economic welfare. In September 2011 residents and industry representatives discussed the hazards at public meetings about the Road Improvement Master Plan. Although the road's high crown is needed for adequate drainage, it also creates a safety hazard for the large trucks and school buses traveling the road. The public expressed strong support for improvements to Captains Bay Road. The area of Captains Bay Road is also an area of potential growth in the community as identified in the Comprehensive Plan.

COST AND MAINTENANCE: Drainage and paving estimates are based on the Bailyhoo Road Drainage & Electrical Upgrades Project. The utility expansion estimate is based on the Henry Swanson Drive Road & Utilities Project's utility construction costs, and other recent materials and equipment costs. These are still very rough estimates that will be refined as the project commences.

Cost Assumptions

Pre-design and Permitting	250,000
Engineering Services	2,250,000
Other Professional Services	300,000
Machinery and Equipment	TBD
Construction Services	16,000,000
Subtotal	18,800,000
Contingency	5,500,000
Total \$	24,300,000

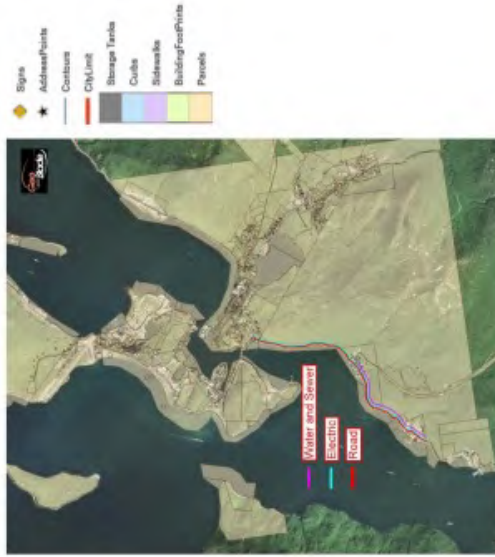
FY19-23 CMMP

CAPTAINS BAY ROAD & UTILITY IMPROVEMENTS | GENERAL FUND

ESTIMATED PROJECT & PURCHASE TIMELINE

Pre Design: FY 2019
Engineering/Design: FY 2021
Purchase/Construction: FY 2022

Captains Bay Road and Utilities



REVENUE SOURCE	APPROPRIATED FUNDS				FISCAL YEAR FUNDING REQUESTS			Total
	FY19	FY20	FY21	FY22	FY23	Total		
General Fund	250,000	500,000		11,400,000		12,150,000		
Proprietary Fund (Electric-Distribution)			250,000	5,300,000		5,550,000		
Proprietary Fund (Water)			250,000	2,900,000		3,150,000		
Proprietary Fund (Wastewater)			250,000	3,200,000		3,450,000		
TOTALS \$	250,000	500,000	750,000	22,800,000		24,300,000		

Requested Funds: Engineering and Construction Services



FY17-21 CMMP

CAPTAINS BAY ROAD & UTILITY IMPROVEMENTS | GENERAL FUND

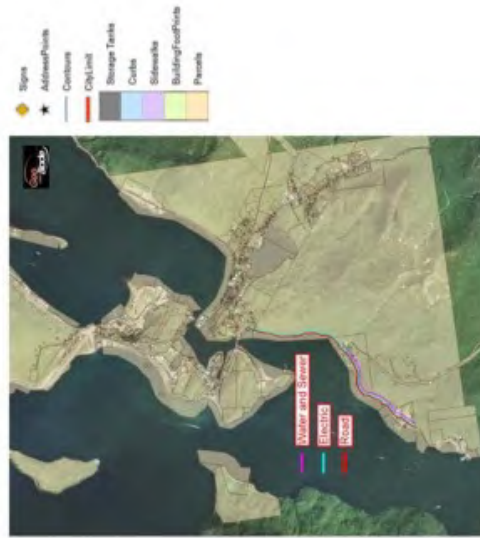
PROJECT DESCRIPTION: This project will construct paved road, drainage, and utilities down Captains Bay Road to the vicinity of the Crowley dock. This will involve approximately 2 miles of drainage improvements from Airport Beach Road to Crowley, 1 mile of paving from Airport Beach Road to Westward, and 1 mile of water/sewer/electric utility extensions from Westward to Crowley. For the electric utility, this will be an extension of the FY17 project to upgrade electric service to Westward.

PROJECT NEED: Captains Bay Road serves as a primary transportation route for Westward Seafoods, Crowley Marine Transportation, North Pacific Fuel, Northland Services, Off-shore Systems Inc., and several smaller businesses as well as residential homes. The section of road making up this project is a high traffic area of heavy vehicles which are used by the fishing and support industries which are vital to the community's economic welfare. During the public meetings regarding the Road Improvement Master Plan recommendations in September 2011, residents and industry representatives discussed the hazards that the high road crown, which is needed for adequate drainage, creates for the large trucks and school buses traveling the road. There was strong support from the public for improvements to Captain's Bay Road. The area of Captains Bay Road is also an area of potential growth in the community as identified in the Comprehensive Plan.

COST AND MAINTENANCE: Drainage and paving estimates are based on the Ballyhoo Road Drainage & Electrical Upgrades Project. The utility expansion estimate is based on the Henry Swanson Drive Road & Utilities Project's utility construction costs, and other recent materials and equipment costs. These are still very rough estimates that will be refined as the project commencement approaches. Costs are split between the General Fund for the paving and drainage portion and the three utility funds based on the costs for each of those portions.

ESTIMATED PROJECT & PURCHASE TIMELINE
 Inception/Concept: n/a
 Pre Design: n/a
 Engineering/Design: FY 2020
 Construction: FY 2021

Captains Bay Road and Utilities



REVENUE SOURCE	FISCAL YEAR FUNDING REQUESTS					Total
	FY17	FY18	FY19	FY20	FY21	
General Fund				\$ 750,000	\$ 11,400,000	\$ 12,150,000
Proprietary Fund (Electric-Distribution)				\$ 250,000	\$ 5,300,000	\$ 5,550,000
Proprietary Fund (Water)				\$ 250,000	\$ 2,900,000	\$ 3,150,000
Proprietary Fund (Wastewater)				\$ 250,000	\$ 3,200,000	\$ 3,450,000
TOTALS				\$ 1,500,000	\$ 22,800,000	\$ 24,300,000
Requested Funds: Engineering and Construction Services						