

2020

ASCE JUNEAU BRANCH  
PROJECT OF THE YEAR

# EGAN DRIVE 10TH TO MAIN STREET IMPROVEMENTS

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*Egan Drive 10<sup>th</sup> to Main Street Reconstruction*



**WHEN** did it happen?

**WHERE** did it take place?

**WHAT** was the purpose?

**WHO** was involved?

**WHY** was it a significant?

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# The Basics

**When:** June 2019 – Spring 2021

**Where:** Downtown Juneau

**Owner:** Alaska DOT&PF

**\$ Partner:** FHWA (PODI)

**Designer:** Chuck Tripp, PE (DOT&PF)

DOT&PF Bridge Section

PDC Engineers

Stantec Consulting Services

**Construction Cost:** \$14.3 million

**Status:** 95% Complete



# The Construction Team



## CONSTRUCTION

**General Contractor: SECON**

Secon PM & Superintendent: TJ Mason

Lighting & Signals: Island Electric

Surveying: DOWL

Concrete: Southeast Concrete

Steel Erection: Carver Construction

Utilities: Arete Construction

Pile Driving: Trucano

Trucking: Alaska Juneau Construction

Trucking: Channel Construction

Bridge Rail: Roadrunner Fence Co.

Striping: Specialized Pavement Marking

Bridge Membrane: KC Corporation



## CA & INSPECTION

**DOT&PF Southcoast Region**

Construction PM: Catherine Wilkins, AIA

Prime CA Consultant: proHNS LLC

Electrical Inspection: Haight & Associates

Traffic Engineering: Kinney Engineering

Public Outreach: McDowell Group

Schedule Analysis: SGS Associates

# PROJECT SCOPE

- **Resurface and widen** Egan Drive from 10th Street to Main Street
- **Improve and add** pedestrian crossings
- **Widen** sidewalks
- **Construct** bike lanes
- **Repair** retaining wall under the Merchant's Wharf and install new wall
- **Rehabilitate** Gold Creek Bridge
- **Slip line** existing culverts
- **Remove and replace** storm drainage systems
- **Relocate** electrical and telephone utility boxes
- **Replace** luminaires and traffic signals
- **Replace** signs and install new way finding signs



# PROJECT MANAGEMENT

How do we complete the work with the least amount of impact to residents, business owners, emergency services, mass transit, commercial trucking, tour operators, and others?



# ESTABLISHING OPEN COMMUNICATION

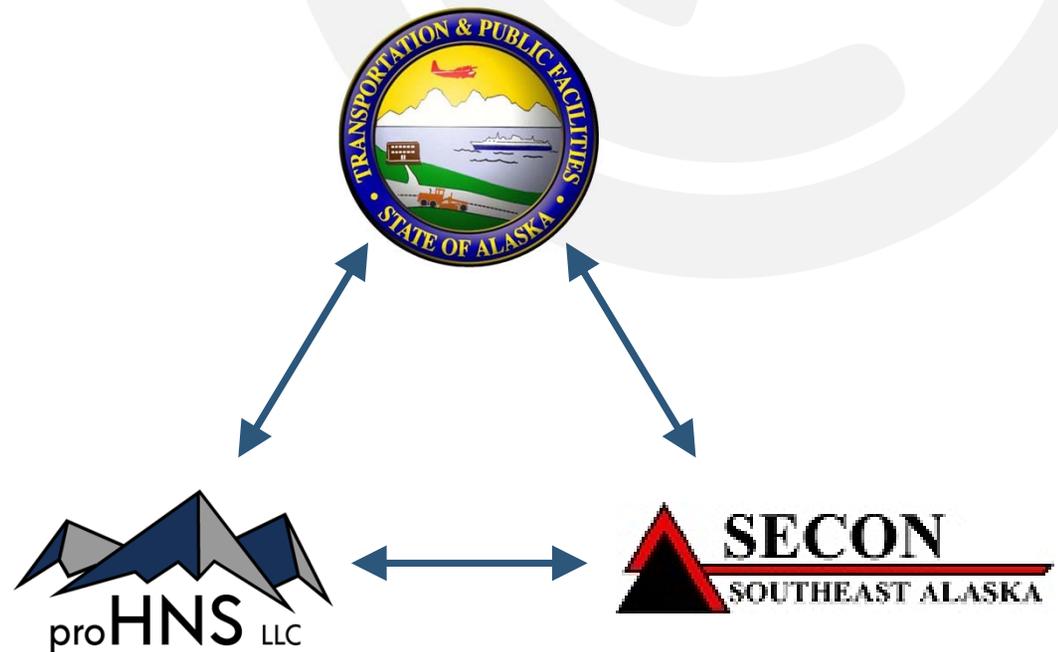
Establishing open communications between Owner, Contractor, and Owner's Representative was key to resolving construction challenges.

Conducted a formal pre-construction partnering meeting between the parties to:

- ❖ Make project team introductions
- ❖ Identify lines of communication & authority
- ❖ Discuss known project challenges
- ❖ Establish protocols for issue resolution

Open communication was critical to resolving project challenges and finding common ground.

Not all communications end in agreement, and that's okay; the project must still move ahead.



# TRAFFIC CONTROL AND PHASING PLANS

Egan Drive Improvements Main to 10th Street

## Alternate Vehicle Route

Effective April-September, 2020

Please check [www.EganDriveProject.com](http://www.EganDriveProject.com) for frequent updates

Main Street to  
Thane Road

+5-10 minute  
Commuter During  
Construction

Contract documents initially included multiple phasing and traffic control plans that were not applicable.

Parties collaborated to update these plans to fit the work and meet contract requirements.

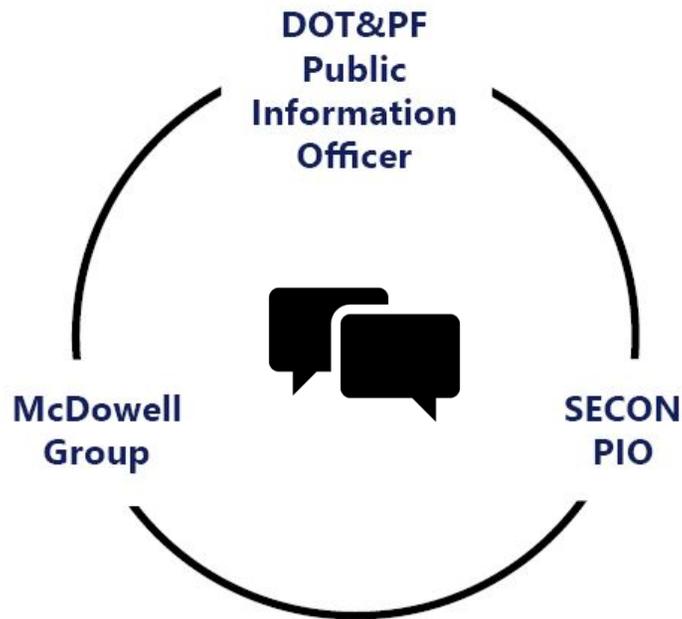
More than 50 individual traffic control/phasing plans developed for the project.

Traffic control implementation and coordination of phasing was example of successful partnering.



# PUBLIC OUTREACH

- Multiple PIOs
- Social media
- Project website



## Secon- Egan Drive Improvements- Main Street to 10th Street

June 1, 2020 · 🌐

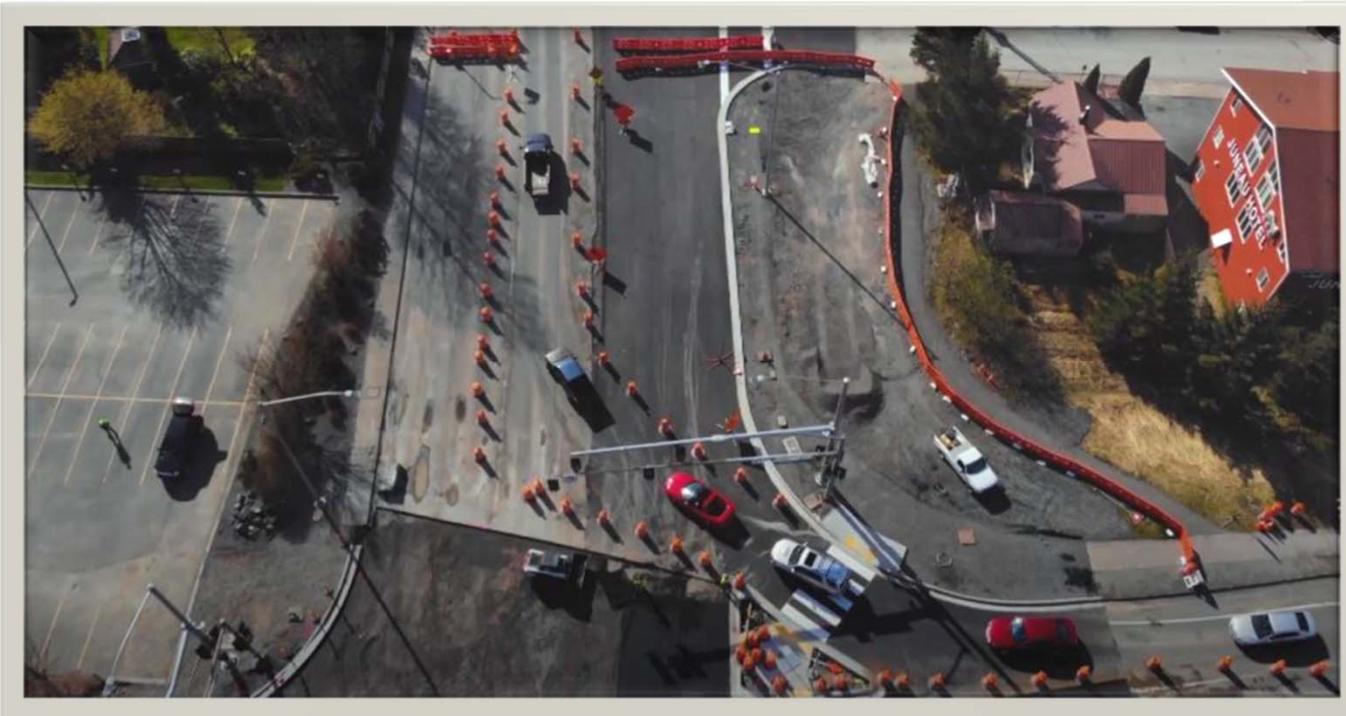
Capital Transit has resumed service to Willoughby Avenue.



# STAKEHOLDER INVOLVEMENT

*Multiple meetings with...*

City and Borough of Juneau, Capital Transit, Capital City Fire and Rescue, Alaska Marine Lines, tour bus operators, shuttle operators, and more...



**TBMP**  
Tourism Best Management Practices  
Making Tourism Work for Juneau

On behalf of all the members of Tourism Best Management Practices, we applaud everyone from the Alaska DOT, SECON, proHNS, and all of the subcontractors for their diligent work on the Egan Drive Project. Your hard-working employees, community outreach and regular communications throughout the summer truly helped minimize the impacts of this project on the day-to-day traffic into and out of downtown Juneau.

## THANK YOU!

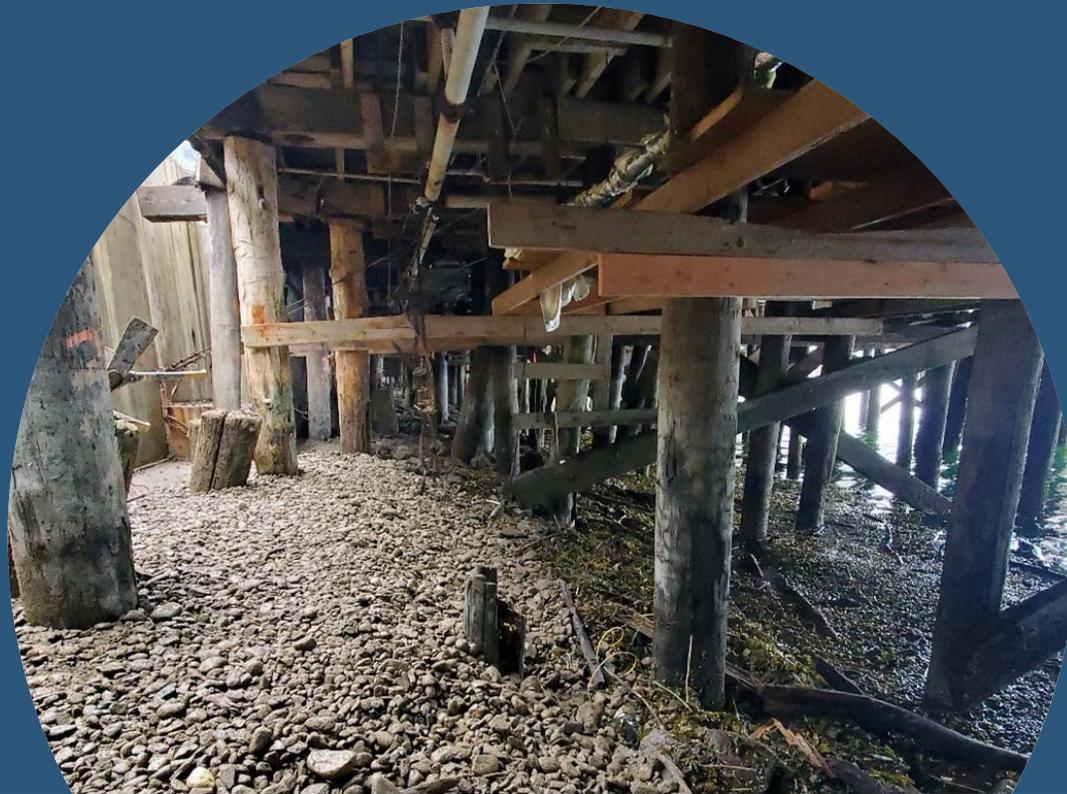


The CJU Assembly recognizes all who contribute to the success of this program. For details about Tourism Best Management Practices Program, please visit [www.juneau.org/tourism](http://www.juneau.org/tourism) or [www.tbmp.info](http://www.tbmp.info).  
TBMP Hotline 586-6774  
[hotline@traveljuneau.com](mailto:hotline@traveljuneau.com)



# INNOVATION

How do you repair a concrete retaining wall that cannot be replaced or reasonably accessed, and whose footing has been undermined by tidal erosion?



*The 'beach' below  
Merchant's Wharf*

# REPAIRING MERCHANT'S WHARF RETAINING WALL

## Challenge #1 Accessing the Work

- 40 plus year-old concrete retaining wall
- Street-level sidewalk adjacent to Merchant's Wharf supported by corrugated steel pans and structural steel bracing attached to the face of the wall



By removing sidewalk, Contractor gained a 26-36 inch gap between the wall's face and Merchant's Wharf through which they could lower materials to laborers below.

# REPAIRING MERCHANT'S WHARF RETAINING WALL

## Challenge #2 Stabilizing the Footing

- Footing undermined by years of tidal erosion
- Scour voids extended several feet under the footing and beyond the limits that could be visually inspected
- Forming a challenge, as it had to be keyed into and braced against AJ cobbles



Limited pour length and quantity placement to minimize wet load on the forms and reduce the risk of blowout or failure.

By placing the CLSM in multiple lifts separated by brief cure periods, Contractor was able to successfully fill all scour voids and stabilize the wall footing after placing just over 40 CY of CLSM.

# VALUE ENGINEERING

Providing cost-effective alternatives without sacrificing functionality.



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# CULVERT SLIP-LINING

Designers identified several existing storm drain culverts that could be incorporated into the new storm drain system layout; however, they were in poor condition and replacement would require major impacts to the traveling public.



Rather than require closures of Egan Drive to replace these culverts, **slip-lining** methods were proposed to rehabilitate existing culverts.



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# CULVERT SLIP-LINING

140 feet of 72" diameter liner used for a rotten CMP culvert crossing under Egan Drive near Foodland IGA.



Culvert not only collected stormwater from the Foodland IGA parking lot but was used as an overflow for the old Gold Creek powerhouse.



Complete replacement would have been significantly more expensive, especially considering the additional effort needed to implement road closures, detours, and mitigate travel impacts.



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# GOLD CREEK BRIDGE

- Cross slopes of the existing sidewalks along Gold Creek Bridge exceeded 3% and were not ADA-compliant; this was corrected in 2020.
- Reduced width of downstream sidewalk to allow for bike lane.
- Installed new stamped concrete median, curbs, and bridge rails.
- Work could not be completed due to specialty subcontractor COVID-19 travel restrictions.
- Parties agreed to push remaining work to Spring 2021.
- Will replace temporary pavement on Gold Creek Bridge (approx. 180 tons) after installing a new waterproofing membrane this year.



# BENEFIT TO THE COMMUNITY

Improved pedestrian crossings, bicycle access, wayfinding signage, and overall safety throughout the project corridor.



*Widened sidewalk  
and ADA-compliant  
curb ramp in front of  
Merchant's Wharf*

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# BENEFITS TO MOTORIZED AND NONMOTORIZED USERS

## Pedestrian and Cyclist Access



Widened sidewalks as much as 7-1/2'



Added 4-1/2' bike lanes between 10<sup>th</sup> and Main



Removed confusing Seward Avenue crosswalk



Added pedestrian crossings at  
Whittier and Glacier Avenues



## Roadway Improvements

Removed potholes infamous for blowing tires  
and damaging suspensions



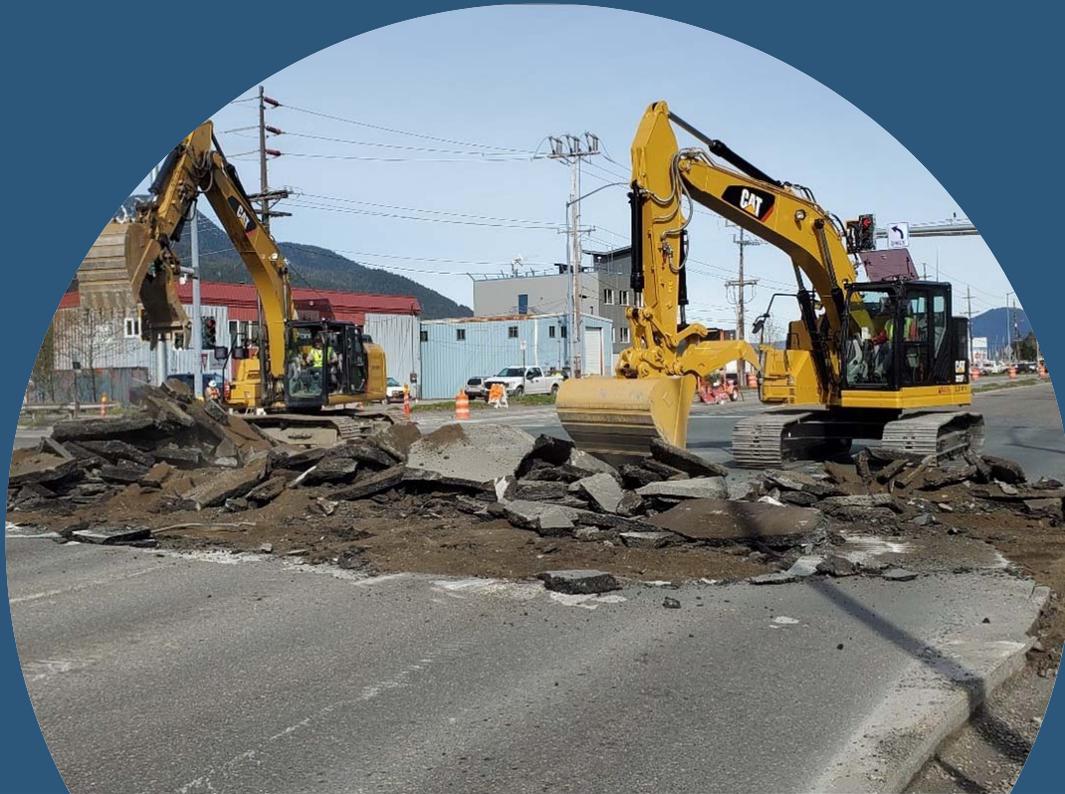
Widened lanes



Used a Superpave mix design that required the  
use of hard aggregates, the highest quality  
asphalt mix specified for DOT&PF projects to  
ensure the longest lifespan

# SO WHY DOES EGAN DRIVE DESERVE RECOGNITION AS PROJECT OF THE YEAR?

Few were excited about this project due to anticipated headaches and public complaints. It was ultimately relatively smooth in comparison to expectations with minimal major impacts.



*Tearing up the Egan  
Drive/10<sup>th</sup> Street  
intersection at the  
bottom of Juneau-  
Douglas Bridge in May  
2020*



Best with sound ON

# Questions?

# THANK YOU!



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[www.proHNS.com](http://www.proHNS.com)

