

SUBJECT: Approval of Change Order No. One (1) for Contract No. 22-078P(B) with The Boutet Company, Inc. for the Lakes Boulevard Upgrade project.

AGENDA OF: December 8, 2022

ASSEMBLY ACTION:

Approved under the Consent
Agenda 12-8-22 ~~BDA~~

MANAGER RECOMMENDATION: Present to the Assembly for consideration.

APPROVED BY MICHAEL BROWN, BOROUGH MANAGER: WBS

Route To:	Department/Individual	Initials	Remarks
	Originator - C. Branham	BDA 11/10/22	
	Project Management Division Manager	BDA	
	Purchasing Officer	BDA	
	Public Works Director	BDA	
	Finance Director	BDA	FOR GH
	Borough Attorney	BDA	
	Borough Clerk	BDA for SUM	

ATTACHMENT (S): Fiscal Note: Yes X No

Manager Memo (2pp)
Boutet Design memo (2pp)
Fee proposal (1pp)

SUMMARY STATEMENT: On January 17, 2022, the Matanuska-Susitna Borough (MSB) Purchasing Department issued a solicitation requesting proposals from qualified firms to design upgrades to Lakes Boulevard. The Lakes Boulevard Upgrade project, Project No. 35472-1800-1806, is part of the Transportation Infrastructure Package 2021 TIP21) approved as Proposition 1 by MSB voters in November 2021. Per Proposition 1, the purpose of the Lakes Boulevard Upgrade project was to reconstruct and repave Lakes Boulevard from Beaver Lake Road to Devils Club Place (approximately 5.25 miles).

In response to the advertisement, four proposals were received. A proposal evaluation made up of MSB Public Works staff evaluated the proposals and selected The Boutet Company (TBC) as the most qualified firm for this project.

The Purchasing Department with involvement of Public Works negotiated with TBC to develop a fee proposal for all professional services anticipated to complete the project. On March 15, 2022, Purchasing presented AM 22-018 for Assembly approval recommending award of proposal No. 22-078P(B) to TBC for the contract amount of \$626,776 to design improvements to Lakes Boulevard.

Minutes for the March 15, 2022, Assembly meeting, include a Clerk's note that indicates AM 22-018 was removed completely from the agenda at approval of the agenda and no action was taken. Therefore, the contract to TBC in the amount of \$626,776 was not awarded. Subsequently, Administration directed Public Works to revise the project limits (Beaver Lake Road to Sky Hill Road, ~1.5 miles) and renegotiate a new scope of work and fee proposal with TBC.

As requested by the Administration, Purchasing and Public Works staff renegotiated a contract amount of \$92,542 for the reduction in project limits and modification to scope of work. On May 13, 2022, Purchasing executed a Professional Service Agreement with TBC to provide preliminary engineering services. TBC completed field investigations including utility locates, aerial imagery, a culvert survey, and a geotechnical investigation. The information gathered was used to prepare a Design Memorandum (September 2022) that summarized potential utility conflicts, culvert survey findings and provided a design scope that included typical section requirements, digout locations, culvert replacements and a preliminary construction estimate.

Geotechnical borings show large areas of the pavement bearing on silty material and pockets of peat throughout the project corridor. TBC recommends raising the road profile to construct an adequate structural section sufficient for the paved roadway to provide a 20-year design life. Reconstructing the road structural section will provide a smoother driving experience, better surface drainage, enhance safety and reduce maintenance costs.

Change Order One (1) will add \$222,540 to provide design services for the improvements recommended in the Design Memorandum. These services include surveying, right-of-way mapping, geotechnical design, public involvement, plans, specifications, engineer's estimate, utility services, assistance during bidding, assistance during construction, and project closeout.

Timely approval of this Change Order is needed to complete the field survey to support design services critical to meeting the proposed construction timeline for summer 2023.

This change order modifies the total sum for all services and expenses to \$315,082. The contract expires on October 31, 2023. All other terms of the contract remain unchanged.

Administration requests approval of Change Order One (1) to Contract No. 22-078P(B) with The Boutet Company Inc. for the Lakes Boulevard Upgrade project.

RECOMMENDATION OF ADMINISTRATION: Approve this legislation.

MATANUSKA-SUSITNA BOROUGH
FISCAL NOTE

Agenda Date: November 22, 2022

SUBJECT: Approval of change order 1, for contract no. 22-078P(B), with The Boutet Company, Inc., for Lakes ^{Upgrade} Boulevard Project.

ORIGINATOR: Cecilia Anastasia

FISCAL ACTION (TO BE COMPLETED BY FINANCE)	FISCAL IMPACT <u>YES</u> NO
AMOUNT REQUESTED <u>\$222,540</u>	FUNDING SOURCE <u>Capital Projects</u>
FROM ACCOUNT # <u>430.000.000 xxx.vxx</u>	PROJECT Lakes Boulevard <u>35472-1800-1800</u>
TO ACCOUNT :	PROJECT #
VERIFIED BY: <u>Christa Walker</u>	CERTIFIED BY:
DATE: <u>11-8-22</u>	DATE:

EXPENDITURES/REVENUES:

(Thousands of Dollars)

OPERATING	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026
Personnel Services						
Travel						
Contractual						
Supplies						
Equipment						
Land/Structures						
Grants, Claims						
Miscellaneous						
TOTAL OPERATING						

CAPITAL			<u>222.5</u>			
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REVENUE						
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FUNDING:

(Thousands of Dollars)

General Fund						
State/Federal Funds						
Other			<u>222.5</u>			
TOTAL			<u>222.5</u>			

POSITIONS:


Full-Time						
Part-Time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

PREPARED BY: Cherianne Oros PHONE: _____
 DEPARTMENT: _____ DATE: _____
 APPROVED BY: _____ DATE: 11/29/22

PRICE PER PHASE SUMMARY		
FIRM:	The Boutet Company	PROJECT TITLE: DATE: 11/04/22
Project No.	RFP 22-078P (B)	Lakes Boulevard Upgrade
<div style="border: 1px solid black; padding: 5px; display: inline-block;">FEE PROPOSAL</div>		
TASK	FIRM'S TOTAL PRICE	
SURVEY FOR DESIGN	\$	67,920.00
RIGHT OF WAY MAPPING	\$	22,780.00
GEOTECHNICAL INVESTIGATION	\$	6,935.00
PUBLIC INVOLVEMENT	\$	5,220.00
SCOPING MEMORANDUM (COMPLETED)		
PLANS-IN-HAND (65%)	\$	43,280.00
PRE-PS&E (95%)	\$	39,600.00
FINAL PS&E (100%)	\$	14,595.00
UTILITY SERVICES	\$	4,440.00
ASSISTANCE DURING BIDDING	\$	5,360.00
ASSISTANCE DURING DESIGN PROJECT CLOSEOUT	\$	5,610.00
ASSISTANCE DURING CONSTRUCTION	\$	6,800.00
TOTAL	\$	222,540.00

Prepared By:


 Timothy Alley, PE
 Principal/Vice President
 The Boutet Company, Inc

Date

11/4/2022

Am 22-140



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November 15, 2022

Cole Branham
Civil Construction Manager
Matanuska-Susitna Borough
Department of Public Works
350 E. Dahlia Avenue
Palmer, Alaska 99654

Regarding: MSB Project No. 22-078B
West Lakes Boulevard Upgrade
Design Memorandum – Executive Summary

1.0 INTRODUCTION

In 2021, the Matanuska-Susitna Borough (MSB) voters approved a transportation bond package to address local infrastructure. The Boutet Company was selected by the MSB to prepare preliminary design memorandum for West Lakes Boulevard (WLB), located near Big Lake, readily accessed via South Beaver Lake Road. During negotiations with MSB, the limits for this project were defined as beginning at the South Beaver Lake Road and terminating at a tributary of Meadow Creek, located approximately at milepost 2.5.

A design memorandum was created by TBC to assist the MSB in evaluating the existing WLB condition, and its purpose and need. This preliminary analysis led to the crafting of the project design criteria that would apply to the project and would ultimately be the guidelines for alternative evaluations. With the establishment of the Design Standards, major design components were assessed for essential impact to the project. These items included:

- Drainage (Hydrology, Hydraulics, Wetlands and Culverts)
- Pavement and Soils Condition
- Traffic Analysis
- Safety Improvements
- Pavement Design
- Typical Roadway Sections
- Utilities
- Right-of-Way

2.0 EXISTING CONDITIONS

WLB has been in place for several decades. In its current state, the roadway is composed of two 12-foot paved lanes, no shoulders, varying foreslopes, and dense vegetation/trees approximately 8-12 feet from the edge of travel lanes. The roadway has exceeded its service life and shows extensive signs of wear. The asphalt has substantial cracking, settlement, and a deteriorating surface.

In preparation for the preliminary design, Shannon and Wilson (S&W) was contracted to perform a geotechnical investigation for the project. S&W advanced 20 boreholes along the project corridor. In general, borings revealed a variable thickness of sand or gravel fill with variable fines content, that had been previously placed on silty material and peat. These subsurface materials are highly frost

Am 22-140



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susceptible. Due to the variability of the existing road embankment (fill) and the silty and organic underlying native soils, the road surface asphalt has experienced extreme fatigue cracking that has been repaired with rubberized crack sealant.

3.0 ALTERNATIVE COMPARISON

In discussions with MSB staff, two alternatives were developed for analysis:

1. Removal and replacement of the existing pavement, and
2. Upgrade WLB to Residential Collector Standards.

3.1 BUILD ALTERNATIVE 1 - REMOVAL AND REPLACEMENT OF PAVEMENT

The Build Alternative 1 would remove the existing, install 2-inches of D-1, and new Hot Mix Asphalt (HMA) Type II Class B would be placed for the total width and length of the project. Rotomilling the existing asphalt is not considered a viable option because the excessive crack sealant used for maintenance over the year makes the milling process difficult if not impossible. This alternative would replace existing culverts along the alignment. No earthwork would be required except to replace culverts.

The estimated Cost for Build Alternative 1 is \$1,046,000.

3.2 BUILD ALTERNATIVE 2 – UPGRADE TO RESIDENTIAL COLLECTOR STANDARDS

The Build Alternative 2 follows the existing centerline to the extent practicable, while raising the profile of the roadway to construct an adequate structural section. S&W through their investigation prepared the following recommend structural section:

- 2-inches of HMA, Type II, Class B
- 2-inches of D-1 Base Course
- 36-inches of Selected Material Type A.

Culverts recommended for replacement would be removed and replaced.

The estimated Cost for Build Alternative 2 is \$2,688,000.

4.0 PREFERRED ALTERNATIVE

While Build Alternative 1 is more cost considerate it is considered a temporary fix and does not meet the project goal or rehabilitating the roadway. Due to the previously described subsurface conditions, it may only extend the service life of the roadway by 10-years. Additionally, this alternative does not address any of the other infrastructure concerns, i.e. roadway safety, fish passage culverts, etc.

Build Alternative 2 is considered the Preferred Alternative per the following reasoning:

- Provides a 20-year service life.
- Creates a roadway that is closer to complying with MSB Residential Collector standards.
- Widens the roadway through the addition of shoulders and clear zone enhancements.
- Provide safety and vehicle capacity improvements.
- Reduces MSB maintenance costs.



MATANUSKA-SUSITNA BOROUGH
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Memorandum

TO: Mike Brown, Borough Manager

THROUGH: Tom Adams, PE, Public Works Director Digitally signed by Tom Adams
Date: 2022.11.16 08:27:53
+09'00' Tom Adams

FROM: Cole Branham, EIT, Civil Construction Manager Digitally signed by Cole Branham
Date: 2022.11.16 08:29:00 Cole Branham

DATE: November 16, 2022

SUBJECT: West Lakes Boulevard Upgrade – Preferred Alternative Recommendation

The Matanuska-Susitna Borough (MSB) has experienced substantial and sustained growth for the last decade resulting in increased traffic volumes, congestion, and safety issues on the existing road network. In November 2021, MSB voters passed Proposition 1 for the Transportation 2021 Infrastructure Package (TIP21) to prioritize improvement projects that meet community demands.

West Lakes Boulevard Upgrade is one of the projects identified in the TIP21 package. The proposed project, as presented on Proposition 1, was to reconstruct and repave Lakes Boulevard from Beaver Lake Road to Devils Club Place, which is approximately 5.25 miles. However, after approval of TIP21, MSB Administration directed Public Works to revise the project limits to Beaver Lake Road to Sky Hill Road, which is approximately 1.5 miles. The project budget is \$2.5M, including design, utility relocations, right-of-way acquisition, and construction.

The purpose of the project is to provide a roadway that accommodates 20-year traffic volumes, improves road facilities, reduces maintenance costs, and enhances safety. The need for this project is that the pavement is beyond its service life, and the road does not meet its functional class standards.

The Boutet Company (TBC) completed preliminary engineering services for the West Lakes Boulevard Upgrade project. The field information gathered was used to prepare a Design Memorandum that summarized potential utility conflicts, culvert survey findings and provided a design scope that included typical section requirements, digout locations, culvert replacements, and a preliminary construction estimate. The executive summary for the Design Memorandum is attached.

Two build alternatives have been identified 1) Remove and Replacement of Pavement and 2) Upgrade to Residential Collector Standards. Alternative 1 – Remove and Replacement of Pavement is considered a temporary fix as it will only extend the road service life by 10 years and does not resolve the issues with the subgrade material. Rotomilling the existing asphalt is not feasible because of the excessive crack sealant on the road. Therefore, all of the existing asphalt would have to be removed. The estimated construction cost of Alternative 1 is \$1,046,000.

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Alternative 2 – Upgrade to Residential Collector Standards will include improving the structural section and widening the road, improving safety and capacity. Geotechnical borings show large pavement areas bearing on silty material and peat sections throughout the project corridor. TBC recommends raising the road profile to construct an adequate structural section for the paved roadway to provide a 20-year design life. Reconstructing the road structural section will provide a smoother driving experience, better surface drainage, enhance safety and reduce maintenance costs. The estimated construction cost of Alternative 2 is \$2,688,000.

Public Work's recommendation is Alternative 2 – Upgrade to Residential Collector Standards. Alternative 2 meets the purpose and need of the project. Public Works recognizes that the cost exceeds the proposed budget in the 2021 Transportation Infrastructure package.

Attachment(s):

West Lakes Boulevard Upgrade Design Memorandum – Executive Summary

Am 22-140