


CITY OF MARYSVILLE AGENDA BILL
EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE: September 09, 2019

AGENDA ITEM:	
Supplemental Agreement No. 1 with HDR Inc. for the 88 th Street NE Corridor Project.	
PREPARED BY:	DIRECTOR APPROVAL:
Steven Miller, Senior Project Manager	
DEPARTMENT:	
Engineering	
ATTACHMENTS:	
Supplemental Agreement No. 1	
BUDGET CODE:	AMOUNT:
30500030.563000, R1101	\$ 999,879.57
SUMMARY:	
<p>On May 14, 2018, Council approved a professional service agreement with HDR, Inc. for engineering services to complete 30% design of the 88th Street NE Corridor project between State Avenue and 67th Ave NE. The work under the current agreement has been completed and a supplement is required to continue design and permitting in advance of right-of-way acquisition.</p> <p>The attached Supplemental Agreement No. 1 with HDR, Inc. will provide engineering services to complete 60% design documents, to provide preliminary right-of-way acquisition services and to provide environmental permitting services.</p> <p>The project is funded in part by Snohomish County through an interlocal agreement for 50% of the contract cost, with matching funds to be provided by the City of Marysville. The City was also awarded a federal transportation grant in the amount of \$1.245 million for right-of-way acquisition beginning in 2021. The scope of work contained in this supplement in order to advance the project is necessary to obligate the federal funds towards right-of-way acquisition.</p>	

RECOMMENDED ACTION:
Staff recommends that Council authorize the Mayor to sign and execute the attached Supplemental Agreement No. 1 with HDR, Inc. in the amount of \$ 999,879.57.



**Washington State
Department of Transportation**

Supplemental Agreement Number 01		Organization and Address	
Original Agreement Number		929 108th Ave. NE, Suite 1300 Bellevue, WA 98005	
Project Number 10116407		Execution Date	Completion Date 09/30/2021
Project Title 88th Street NE Corridor Improvement Project		New Maximum Amount Payable \$1,999,045.20	
Description of Work See Exhibit "A", Scope of Work attached hereto and made a part of this agreement.			

The Local Agency of the City of Marysville

desires to supplement the agreement entered in to with HDR Engineering, Inc.

and executed on 05/15/2018 and identified as Agreement No. _____

All provisions in the basic agreement remain in effect except as expressly modified by this supplement.

The changes to the agreement are described as follows:

I

Section 1, SCOPE OF WORK, is hereby changed to read:

Supplemental Agreement 1 authorizes additional work necessary for successful completion of the PROJECT.

See Exhibit A for details.

II

Section IV, TIME FOR BEGINNING AND COMPLETION, is amended to change the number of calendar days for completion of the work to read: Time of completion is extended to 9/30/2021.

III

Section V, PAYMENT, shall be amended as follows:

Add \$999,879.57 to original budget. See Exhibit B for details.

as set forth in the attached Exhibit A, and by this reference made a part of this supplement.
If you concur with this supplement and agree to the changes as stated above, please sign in the Appropriate spaces below and return to this office for final action.

By: PAUL A FERRIER
Paul A Ferrier
Consultant Signature

By: _____

Approving Authority Signature

Date

**88th Street NE Corridor Improvement
Project**

(State Avenue to 67th Avenue NE)

SUPPLEMENTAL AGREEMENT NO. 1

**Scope of Services for Design, Environmental
Documentation & Permitting and Right-of-Way
Services**

September 2019

City of Marysville

Prepared by:



HDR
2707 Colby Avenue, Suite 715
Everett, WA 98201

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INTRODUCTION

During the term of this PROFESSIONAL SERVICES AGREEMENT (AGREEMENT), HDR Engineering, Inc. (CONSULTANT) shall perform professional services for the City of Marysville (CITY) in connection with the following project: **88th Street Corridor Improvement Project (State Avenue to 67th Avenue NE) (PROJECT)**.

This Supplemental Agreement No. 1 authorizes additional work necessary for the successful completion of the PROJECT, described generally as:

- Extending the design of the 88th Street corridor improvements from the 30% Design Level to the 60% Design Level, including specifications and a preliminary Engineer’s Opinion of Probable Cost Estimate;
- Preparing the right-of-way Preliminary Funding Estimate (PFE); and
- Expanding the environmental review and permitting efforts to include NEPA documentation.

Background and Project Description

The City of Marysville first identified 88th Street NE as a major arterial corridor in its 1999 Transportation Master Plan. Since then, the City has maintained a long-term vision to improve the corridor from an unimproved rural 2-Lane section to a 3-Lane Urban Arterial section. This segment will complete the corridor between Interstate 5 and State Route 9 and connect previously completed City improvements between I-5 and State Avenue, and east of 67th Avenue NE.

88th Street NE is a primary east-west arterial corridor crossing the City of Marysville. It is one of only three corridors that directly connect I-5 with SR 9. The corridor provides direct access to residential neighborhoods on either side, serves as a primary link for Marysville citizens, and is a regional link carrying traffic from Unincorporated Snohomish County, Getchell and Granite Falls to I-5 and shopping areas within the Greater Marysville Area. The current section is defined as a rural 2-lane asphalt paved roadway with varying width shoulders. Storm drainage is generally handled by sheet flow and surface runoff; although there are short sections that have been improved with curb and gutter. The corridor crosses Allen Creek atop a 15-foot high earth embankment with vegetated steep banks. Adjacent properties currently utilize the public right-of-way outside the roadway limits for parking and lawn areas. Community Transit operates a transit line (Route 222) along the corridor with bus stops located near State Avenue, 51st Avenue NE, and 57th Avenue NE (eastbound) and near 57th Avenue NE, 61st Avenue NE, and 67th Avenue NE (westbound). Traffic along the corridor is controlled primarily by stop conditions on the side-street approaches and traffic signals at State Avenue, 51st Avenue NE, 55th Avenue NE and 67th Avenue NE.

The intent of this project is to reconstruct this segment of 88th Street NE to a 3-lane urban arterial section with curb & gutter, sidewalk, landscape planters, enclosed storm drainage facilities, and illumination. The existing box culvert at Allen Creek and pipe crossing at the Unnamed Tributary will be replaced with larger fish-passable structures and reconstructed roadway embankment with retaining walls. Additional traffic

operations facilities will be evaluated to improve pedestrian and vehicle safety. To accomplish these improvements, Right-of-Way will be acquired and utility facilities will be relocated.

The Original Agreement authorized design efforts to the 30% Design Level. This Supplemental Agreement No. 1 will incorporate City review comments and further develop the corridor design to the 60% Design Level, as further detailed in the Scope of Work.

Scope of Work

The Consultant Agreement recognizes that funding availability and timing will impact the overall project schedule through the design, permitting, right-of-way acquisition, and construction phases. Funding availability and timing will also determine if construction of the corridor can be completed as one project or necessitate that the corridor be constructed in multiple packages (segments). The Consultant Agreement and this scope of work outlines and provides for the authorization of consultant services through the preparation of Ad-Ready construction packages and bidding phase services for a maximum of two (2) separate construction packages.

The overall scope of work includes roadway design, survey, geotechnical testing and evaluation, subsurface utility exploration, PS&E development, traffic engineering and analysis, surface water low impact design, retaining wall and culvert design, utility coordination and design, permitting, right of way acquisition, environmental review and documentation, critical area delineation, stream and wetland mitigation, cultural resources review, public outreach, grant application assistance, bidding phase assistance and Council reports/updates.

It is based on the assumption that the data collection, preliminary design, environmental permitting, 30% Design, 60% Design, and right-of-way acquisition efforts will be accomplished for the entire corridor. This supplemental scope of work will authorize design to the 60% Design Level, preparation of the right-of-way Project Funding Estimate (PFE), and NEPA environmental documentation.

The time of performance for this supplemental scope and budget estimate authorization is until September 2021.

Major Milestone Schedule

The following are major schedule milestones for the work of this Supplemental Agreement No. 1:

- 60% Design July 2020
- NEPA Documentation & Submittal..... January 2020
- NEPA Determination..... March 2021

Project Assumptions

General Assumptions

The General Assumptions remain unchanged except as noted below.

Design Standards and References

The PROJECT Design Standards and References remain unchanged from the original scope of services, except as noted below.

Project Tasks

The CONSULTANT shall manage the work as described within the following major Work Elements:

TASK 1. PROJECT MANAGEMENT & ADMINISTRATION

This task will be continuous throughout the duration of the 60% Design and NEPA documentation and review, which is estimated to be 24 months (OCT 2019 through SEP 2021). It will include the work to update the project plan; reconfirm and establish project-specific procedures, including communication, safety and quality control (QC) plans; project coordination with the CONSULTANT staff and SUBCONSULTANTS; management of project scope, schedule and budget; invoicing and project status reporting; and project closeout. Components of this work including planning the Project, executing the Project, managing change, and closing the Project, include:

1.1. Project FTP Site, Project Set up, Management Plan, HASP

The CONSULTANT shall update, as necessary, a project ftp site that can be accessed by the CITY and CITY authorized stakeholders.

The CONSULTANT shall revise and modify, as necessary, the Project Management Plan (Project Guide) to include the additional work efforts described in this supplement. The Project Management Plan will also include the Project Quality Assurance / Quality Control Plan and Project Health and Safety Plan.

1.2. Project Team Coordination Meetings

The CONSULTANT shall hold additional bi-weekly Project Team Coordination Meetings with key CONSULTANT team members to discuss the PROJECT status, elements of the work plan, status of action items, and to discuss progress of the design and resolve any outstanding PROJECT issues that might affect the delivery of the PROJECT. SUBCONSULTANT project managers shall also attend these meetings as requested.

Assumptions:

- The initial project schedule will be updated through 60% Design and will extend through SEP 2021 to reflect environmental support and monitoring of the NEPA review.
- An additional 20 bi-weekly project team coordination meetings will be required.
- The CONSULTANT shall be responsible for agendas for the PROJECT team meetings.
- Project Team Meetings will be held at the HDR Bellevue Office, and attended by the Project Manager, Design Manager, Discipline Leads, and Subconsultant Leads, as required. Members not located in the HDR Bellevue Office may attend via conference call.

Deliverable(s):

- There are no formal deliverables for this task.

1.3. Project Schedule

The Project schedule shall be revised and updated by the CONSULTANT to include Baseline Start and Baseline Finish dates for the additional tasks and deliverables authorized under this Supplemental Agreement No. 1, and shall be submitted to the CITY for review and approval. The updated project schedule shall be developed using Microsoft Project software. The project schedule will be updated bi-monthly and submitted to the CITY. The periodic schedule updates will include Baseline, Actual and/or Projected Start and Finish dates that reflect the actual progress of the project.

Assumptions:

- 4 Bi-monthly schedule updates (once approximately every two months)

Deliverable(s):

- Updated Schedule depicting Supplemental Agreement No. 1 additional efforts
- Bi-monthly project schedule updates (to be delivered at Monthly Client Coordination Meetings)

1.4. Progress Reporting and Invoicing

The CONSULTANT shall prepare and submit a **Progress Report** with each invoice. The Progress Report shall summarize:

- Work accomplished during the billing period.
- Work to be accomplished in the next billing period.
- Billing amounts assigned to water main and stormwater retrofit design for CITY accounting and potential grant reimbursements.
- Meetings attended.
- Problems/issues encountered and actions taken for their resolution.
- Potential impacts to project schedule, budget, or scope.
- Issues requiring CITY's action, attention and resolution.

Monthly Invoices for work completed will be submitted to the CITY. Backup information such as time and expense records for the CONSULTANT and SUBCONSULTANTS shall also be submitted with each invoice. The CITY will review the work accomplished by the CONSULTANT and the percent complete assessments for each task item in the Earned Value Worksheet.

The CONSULTANT shall submit an **Earned Value Report** within the progress report to track and update progress in the project schedule, budget, actual and planned expenditures.

Project Change: The CONSULTANT shall obtain written authorization from the CITY before implementing any change to this AGREEMENT scope of work, schedule or budget.

Deliverable(s):

- Monthly Progress Reports
- Monthly Invoices
- Monthly Earned Value Reports

1.5. Subconsultant Coordination

The CONSULTANT shall not subcontract for the performance of any work under this Supplemental Agreement No. 1 without prior written permission of the CITY. Additional SUBCONSULTANT assistance will be required for obtaining additional topographical and property survey information, additional geotechnical data collection and evaluation, cultural resources assessment, and hazardous materials analysis.

The CONSULTANT shall coordinate with SUBCONSULTANTS regarding contracting procedures, shall prepare and execute contracts with individual SUBCONSULTANTS, and shall address contract-related issues with the SUBCONSULTANTS as they arise during the project.

The work of the SUBCONSULTANT shall not exceed its maximum amount payable unless the CITY has issued prior written approval. Either a percent of the SUBCONSULTANT agreement or direct labor should be noted for administrative costs in the fee estimate and invoices. Subcontracts shall contain applicable provisions of this AGREEMENT.

1.6. Project Kick-off Meeting

This Supplemental Agreement No. 1 makes no changes to this sub-task.

1.7. Project Team Management

The CONSULTANT shall provide an experienced project manager to oversee, schedule and manage the additional work of this Supplement.

1.8. Project Close-out

The CONSULTANT shall assemble project documentation and records for the additional work of this Supplemental Agreement No. 1, and prepare electronic files to be retained by the CONSULTANT and transmitted to the CITY in accordance with this AGREEMENT.

TASK 2. CLIENT COMMUNICATIONS AND COORDINATION

The CONSULTANT will extend the Client Communications Plan developed as part of the Original Agreement to include the work authorized by this Supplemental Agreement No.1. The revised Communications Plan and CONSULTANT's ongoing efforts will include:

Bi-weekly project status updates known as 5/15 Reports, delivered via email to the CITY Project Manager containing information on project issues, status and schedule, and identifying any information or decisions needed from the CITY;

Project updates regarding status, progress, issues, risks and schedule at Monthly Client Coordination Meetings.

CITY Responsibilities:

- Timely review of bi-weekly 5/15 Reports and response with any questions or concerns within 2 working days of receipt of report.
- Arrange for meeting facilities at the CITY Public Works Department Offices for Monthly Client Coordination Meetings.
- Attend and participate in the Monthly Client Coordination Meetings.

Assumption(s):

- There will be a total of 14 additional (monthly) Client Coordination Meetings, during the preparation of the 60% Level design, included in this supplement, held at the CITY Public Works Department Offices.
- There will be up to 4 additional (monthly) Client Coordination Meetings after completion of the 60% Design submittal, during the NEPA review monitoring efforts. In addition, there will be up to 6 monthly updates (written / email) providing updates as to the status of the NEPA review, in lieu of a monthly coordination meeting during this same time period.
- CONSULTANT participation will include the Project Manager, and/or Design Manager. Additional CONSULTANT staff may participate via conference call, if required.

Deliverable(s):

- Bi-weekly 5/15 Reports (52 additional)
- Monthly Client Coordination Meeting agendas and summary notes (14 additional).
- Monthly Client Coordination Status Reports (6)

TASK 3. QUALITY ASSURANCE / QUALITY CONTROL

The CONSULTANT's Quality Assurance Checklist will be completed and submitted by the CONSULTANT with each Plan submittal. Final work submitted to the CITY shall be stamped and signed by a professional engineer in the State of Washington. 60% Plans, Specs, and Estimate will not be stamped and will be marked "Not for Construction".

The CONSULTANT will upload submittals to the project FTP site. The CITY will contact PROJECT stakeholders to download and review submittals. Stakeholders may include but are not limited to CITY Departments as appropriate (e.g. Police, Fire Public Works Operations), Snohomish County Public Utility District, PSE, Frontier, Comcast, USPS, Community Transit, Tulalip Tribe, USACE, WDFW and ECOLOGY. The CITY will summarize the PROJECT stakeholder review comments of each plan submittal and transmit the comments to the CONSULTANT in a Review Ledger. The CONSULTANT will respond to the CITY's comments in the Review Ledger by indicating the actions taken on each comment, verifying that CITY comments have been addressed (or provide written response as to why the changes have not been made).

Each plan submittal will include a comment review discussion between the CITY and the CONSULTANT. This meeting will be a collaboration session to chart the path forward to the next submittal and address any concerns that were observed during submittal review.

This Supplemental Agreement No.1 includes extending the Quality Assurance efforts to include the 60% Design.

Deliverable(s):

- Agendas for Comment Review Meetings.
- Review Ledger with comment responses, for each submittal.

TASK 4. DATA COLLECTION / REVIEW OF EXISTING INFORMATION

The purpose of this task is to collect and review all available documents related to the project and identify areas where further research and mapping are needed, and summarize what additional information is needed for project development.

CONSULTANT will collect and review available documents from the CITY including:

- Previously modified and constructed designs.
- Plans and specifications for previous CITY projects within or adjacent to the expected project footprint for the PROJECT.
- Existing topographical and right-of-way survey information.
- Basin studies or flow data for the project area including Allen Creek and the unnamed tributary to Allen Creek.
- All completed and in-progress CITY utilities and street maps, plans and studies regarding the project area (including Geographic Information Systems (GIS)).
- Existing right-of-way and easement information available at the CITY.
- Agreements, franchises, licenses and other pertinent information concerning utilities providers, businesses and properties along the corridor.
- Any Critical Areas, Wetlands, and/or Stream reports related to Allen Creek and the unnamed tributary to Allen Creek within a mile of the project area.
- Agreements, licenses, easements and directives from regulatory and resource agencies applicable to the project.
- Watermain condition logs, reports, pressure test results, photographs, etc.
- Sewer CCTV reports and videos.

CONSULTANT will prepare a Data Collection Log to confirm information received from the CITY.

CONSULTANT will prepare a Data Summary Memorandum and submit to the CITY listing the information received, additional information needed including the likely source (if known) for the additional information, and noting if any items are outside this scope of services.

Assumptions:

- The CITY will provide all available information in timely fashion.
- The CITY will assist CONSULTANT in obtaining information from regulatory and resource agencies, utility providers, Tulalip Tribe, Community Transit and other CITY departments.
- All necessary information regarding location and depth of bury for underground CITY utilities is available, accurate and readily attainable from CITY records.

- Underground and overhead utilities will be marked by 811 Locate Services.
- Utilities locations obtained from CITY records and 811 locates will be used and relied upon for the design.
- CITY will provide any current design plans and details if available for the corridor and adjacent projects in preferably AutoCAD, Civil 3D format for use and coordination with this project.
- If additional utility locate information is needed through methods such as potholing, the CITY will perform that work on City utilities and provide the information to the CONSULTANT.
- CITY will perform CCTV inspection of existing sanitary sewers and provide written reports and video tapes to the CONSULTANT.

Deliverable(s):

- Data Collection Log
- Data Summary Memorandum

TASK 5. SURVEY AND MAPPING

This task involves field surveying to densify horizontal and vertical control within the project limits, collecting existing topographic features and producing a project basemap and Digital Terrain Model (DTM) to be used in design, and conducting additional survey work to supplement the basemap and DTM as the design progresses. See Exhibit A for mapping limits. This task also includes the preparation of right-of-way plans, legal descriptions and exhibits necessary to support the right-of-way acquisition process. This Supplemental Agreement No. 1 authorizes additional supplemental survey efforts to obtain information identified during the 30% Design and required to further advance the design.

5.1. Research and Existing Data Compilation

This Supplemental Agreement No. 1 makes no changes to this sub-task.

5.2. Survey and Construction Geodetic and Cadastral Control

CONSULTANT will recover, maintain and utilize existing survey control monumentation recovered and established during prior project efforts. This Supplemental Agreement No. 1 makes no changes to this sub-task.

5.3. Field Surveying and Base Mapping

This Supplemental Agreement No. 1 adds the following work to this sub-task.

- Obtain topographic features consisting of existing traffic channelization and curb line / edge of pavement along 88th Street NE, east of the 67th Avenue NE intersection for a distance of up to 1,000 linear feet.
- Obtain additional pickups on existing stormwater facilities near 45th Drive NE and 61st Drive NE to facilitate the stormwater design and coordination of adjacent stormwater facilities with the main system along 88th.
- Obtain additional information regarding the existing stormwater facilities in front of Cedarcrest Middle School and its discharge into Allen Creek.

5.4. Right-of-Way and Parcel Resolution, Easements, Exhibits, and Legal Descriptions – to be scoped by future supplement

The scope of work for preparation of legal descriptions and exhibits will be reviewed and modified at completion of 30% Design, once the corridor footprint is identified and property impacts can be assessed. The associated budget for these efforts will be developed / revised and authorized by supplemental agreement.

5.5. Right-of-Way Plans

A general layout of proposed right-of-way lines will be prepared such that property impacts may be identified. The scope and budget for revisions to the Right-of-Way Plans for the purposes of defining the actual property impacts and acquiring right-of-way will be included and authorized by supplemental agreement at completion of 30% Design.

5.6. Office Processing and Deliverable

This task includes the office processing of the surveyed data sets, the extraction of the data required for deliverables, field book note reductions, CADD drafting, and other duties required to supplement the existing project basemap.

This task also includes the processing of the data collected for use in determining the right-of-way and the creation of the topographic mapping deliverable.

5.7. Supplemental Surveys

It is assumed that during the design phase, some level of supplemental survey may be necessary, and for purposes such as private property match/conforms, utility features, structure elevations, or features requiring more definition for design purposes. For budgeting purposes this task item has been estimated not to exceed 60-field crew hours. Any costs for performing additional survey beyond 60-field crew hours, may be adjusted accordingly and approved by the CITY via a written amendment before commencement of field activities.

CONSULTANT will process the supplemental field survey data and update the existing basemap to include the supplemental data.

Assumptions:

This Supplemental Agreement No. 1 makes no changes to the original assumptions, except as noted below.

- Traffic control will not be required for the additional work.
- The additional work does not include the setting of property corners or filing a Record of Survey.

Deliverable(s):

- Supplemental survey and corresponding Base Map updates.

TASK 6. GEOTECHNICAL ENGINEERING

CONSULTANT will provide geotechnical engineering services needed to support development of contract documents for the construction of retaining walls, culvert design, utilities, stormwater ponds, signal pole foundations, and other road improvements associated with the project. CONSULTANT services include:

6.1. Project Setup:

This Supplemental Agreement No. 1 makes no changes to this sub-task.

6.2. Subsurface Explorations and Laboratory Testing:

Plan the Geotechnical Field Exploration Program: The CONSULTANT will plan a three-phased geotechnical exploration program for the project. Phase 1 of the exploration program will consist of conducting limited access geotechnical borings within the ravines, up-stream and down-stream of the proposed culvert crossings. Phase 2 of the exploration program will consist of installing a series of borehole infiltration test wells along the corridor. Phase 3 will consist of conducting borehole infiltration testing within the phase 2 borehole infiltration test wells.

Conduct Utility Locates: Prior to conducting the subsurface exploration program, the CONSULTANT will mark the proposed exploration locations in the field and arrange for utility locates using the Utilities Underground Location Center (UULC). A second site visit will be made to verify utility locations and exploration clearances.

Generate Phase 1 through Phase 3 Exploration Work Plan Memo: The CONSULTANT will prepare a Geotechnical Work Plan Memorandum for the proposed phase 1 through phase 3 exploration programs. The work plan will be submitted to the design team and the City for review and approval. The work plan will detail the type, location, and extent of proposed field explorations along with logistics necessary to perform the work such as traffic control plans and staging areas. The work plan will also be used for utility locating clearances and for permitting that may be necessary to access the exploration locations. We assume the CITY or HDR, in support of this project, will acquire and provide any required permits or right of entries at no cost to the CONSUTLANT.

(Phase 1) Conduct Limited Access Geotechnical Borings: The CONSULTANT will conduct two days of limited access drilling in the vicinity of the Allan Creek culvert crossing and one day of limited access drilling in the vicinity of the tributary culvert crossing. The proposed explorations will be drilled with a limited access, hand portable, drill rig capable of drilling along the steep slopes and within the ravines, up-stream and down-stream of the proposed culvert replacements. The soil and groundwater information obtained from these explorations will be used to refine the analysis of proposed culverts, lateral spreading mitigation measures, and associated retaining walls.

The CONSULTANT expects that each of the limited access borings will be accessed from the public right of way but will be drilled within private property, at the base of the associated ravines. The CONSUTLANT

assumes that the City of Marysville will obtain rights of entry to access up and down stream of both the Allan Creek Culvert and the tributary creek culvert, for the geotechnical explorations.

Each geotechnical boring will be drilled to a depth of 20 to 30 feet below ground surface or practical refusal, whichever is shallower. In-situ testing using a Standard Penetration Test (SPT) will occur in the borings at 2.5-foot intervals to 20 feet and at 5-foot intervals thereafter. SPT samples will be collected and returned to the CONSULTANTs geotechnical laboratory for testing. No groundwater monitoring wells will be installed within the borings.

(Phase 2) Install Borehole Infiltration Test Wells. The CONSULTANT will contract with a local driller or vactor truck operator to install up to 8 borehole infiltration test wells along the project corridor. If subsurface utilities allow for the use of a drill rig, SPT samples will be obtained at 2.5-foot intervals during drilling of the test wells. If subsurface utilities do not allow for the use of a drill rig, a vactor truck will be used to install the wells. Each test well will be installed to a depth of 5 to 10 feet below ground surface, depending on the depth of the proposed infiltration facility, and consist of a six-inch diameter PVC pipe with an open bottom. Each well will be installed within the right of way and capped with a locking monument cover.

(Phase 3) Conduct Borehole Infiltration Testing: The CONSULTANT will conduct borehole infiltration testing in general accordance with the EPA falling head procedure. The CONSULTANT assumes that completion of the borehole infiltration testing will take three working days to complete.

Generate Boring Logs and Assign Laboratory Testing: The CONSULTANT will prepare summary boring and perform laboratory testing to evaluate relevant physical properties of the site soils. Laboratory testing would include moisture content, hydrometers, grain-size distribution, and Atterberg Limits as appropriate.

6.3. Geotechnical Design Services:

The CONSULTANT will develop geotechnical recommendations for the design and construction of the roadway improvements and structure alternatives. Anticipated geotechnical design services include the following:

Update Geologic Profiles: The CONSULTANT will update geologic profiles based on the soil and groundwater data obtained from the phase 1 geotechnical borings. The geologic profiles will be included in the geotechnical engineering report.

Update Soil Properties: The CONSULTANT will update estimates of the soil strength and other properties needed to evaluate the effects that the subsurface conditions will have on the proposed improvements.

Update Liquefaction and Lateral Spread Analysis: The CONSULTANT will evaluate the risk of liquefaction in the vicinity of the phase 1 explorations and update the lateral spread evaluation based on the data obtained from the limited access explorations.

Culvert Design Recommendations: The CONSULTANT will provide geotechnical recommendations for designing the two replacement culverts. Geotechnical evaluations and recommendations for cast in place box culverts and precast culvert systems will be provided. Bearing capacity recommendations and lateral earth pressures/resistances, and seismic design recommendations will be provided for the chosen culvert systems.

Evaluate FWD Data and Develop Pavement Design: The CONSULTANT will evaluate the FWD and pavement core data and develop overlay and new pavement design recommendations using traffic information for the corridor provided by the City.

Update SEW Design Recommendations: The CONSULTANT will update geotechnical recommendations for designing the SEWs. Recommendations will include soil parameters for design, bearing capacity, structural backfill requirements, drainage recommendations, minimum wall embedment and minimum reinforcement lengths based on global stability. The global stability analysis will consider static, seismic, and post-seismic load cases. The CONSULTANT will also estimate the anticipated settlement of the proposed roadway embankment fill at the two creek crossings.

Update Temporary Soldier Pile Design Recommendations: The CONSULTANT will update geotechnical recommendations for designing temporary soldier pile walls along the corridor, as needed. Recommendations will include lateral earth pressure diagrams for static, pseudo-static and post liquefaction conditions.

Update Gravity Block Wall Design Recommendations: The CONSULTANT will update geotechnical recommendations for designing the gravity block walls. Recommendations will include soil parameters for design, bearing capacity, structural backfill requirements, drainage recommendations, minimum wall embedment and minimum reinforcement lengths based on global stability. The global stability analysis will consider static, seismic, and post-seismic load cases. Lateral earth pressure design recommendations and backfill requirements will consider and account for lightweight backfill alternatives.

Reinforced Concrete Wall and Culvert Wing Wall Design Recommendations: The CONSULTANT will provide geotechnical design recommendations for designing cast-in-place reinforced concrete walls. Recommendations will include soil parameters for design, bearing capacity, structural backfill requirements, drainage recommendations, minimum wall embedment and any over excavation requirements. The design analysis will consider static, seismic, and post-seismic load cases. Reinforced concrete wall design recommendations will consider and account for light weight backfill alternatives.

Signal Pole and Luminaire Design Recommendations: The CONSULTANT will evaluate the lateral bearing pressures of the soil at the boring locations and provide geotechnical recommendations for signal pole and luminaire foundations based on WSDOT standard plans and procedures. The CONSULTANT assumes that signalization improvements will include: upgrades to the intersections of 88th Street NE with 51st Avenue NE and 55th Avenue NE; a new signal installation at the intersection of 88th Street NE and 60th Drive NE; and two

(2) Rectangular Rapid Flashing Beacon (RRFB) Signals along 88th Street NE near 46th Avenue NE and 61st Drive NE. The CONSULTANT also assumes that the geotechnical data used to design the recent intersection upgrades at the 51st Avenue NE intersection will be provided by the City. The CONSULTANT will provide luminaire foundation design recommendations for luminaire foundations to be founded within light weight cellular concrete.

Cellular Concrete Design Recommendations: The CONSULTANT will provide final design recommendations for cellular concrete to be used as a lateral spread mitigation measure in the vicinity of the culvert crossings.

Infiltration Analysis: The CONSULTANT will evaluate the data obtained from the Phase 3 explorations and determine appropriate short and long-term infiltration rates for use in design of potential infiltration facilities.

Quality Assurance / Quality Control (QA/QC): The CONSULTANT will have the design calculations, recommendations, and reports reviewed in accordance with its QA/QC plan.

Update Geotechnical Engineering Report: The CONSULTANT will update the draft geotechnical engineering report for the project. This updated report will contain the results of the additional subsurface exploration program, including logs, laboratory test results, and a description of the subsurface conditions; a site plan showing exploration locations and other pertinent features; and geotechnical engineering recommendations for the design and construction of the proposed roadway improvements.

Miscellaneous Geotechnical Coordination and Analysis: The CONSULTANT will provide up to 20 hours of miscellaneous geotechnical coordination and analysis after updating of our draft geotechnical report. This effort will address question and changes to the design that have geotechnical implications and occur between publishing of our updated draft report and final report.

Plan and Specification Review: The CONSULTANT will conduct a review of the project plans at the 60% milestone submittal to ensure that the geotechnical aspects of the project have been incorporated into the project documents.

Project Coordination Meetings: The CONSULTANT will attend up to four (4) project coordination meetings. The CONSULTANT's attendance will be used to convey the geotechnical considerations of the site to the City and the design team.

Geotechnical Task Management: The CONSULTANT will provide geotechnical task management to all geotechnical related aspects of the project. The CONSULTANT will correspond with the City and the design team in the form of emails, fax, and telephone calls, as necessary.

Assumption(s):

- The CONSULTANT will be responsible for preparing traffic control plans. All required street use and right-of-way permits will be secured and provided by the CITY at no cost to the CONSULTANT.
- No geotechnical explorations will be completed within the cemetery property

- Access and right-of-entry to the limited access explorations locations will be provided by the CITY.
- Minor vegetation clearing may be required to access the limited access exploration locations. Vegetation clearing will be completed by the CONSULTANT with hand equipment.
- The CONSULTANT will contract with a subcontractor to perform the borings. The borings will be conducted during workday hours with no work hour restrictions.
- Saw cutting of the pavement at the exploration locations will not be required at the borehole infiltration test wells.
- The spoils from the subsurface explorations will not be characterized as hazardous waste.
- Spoils from the borings will be drummed on site and transported off site for disposal by the drilling subcontractor.
- The subsurface explorations will not be used to assess site environmental conditions. However, visual and/or olfactory observations regarding potential contamination will be noted. Analysis, testing, storage, and handling of potentially contaminated soil and groundwater (either sampled or spoils from drilling) are beyond this scope of services. If contaminated soils and/or ground water are encountered, the material will be properly contained on-site for disposal as mutually agreed upon without additional cost to the CONSULTANT.
- The subsurface exploration locations will be surveyed by others if needed
- Design for the geotechnical engineering analyses will be based on 2015 WSDOT Geotechnical Design Manual and 2017 AASHTO LRFD design criteria. Design of the stormwater water infiltration rates will be based on the Department of Ecology 2012 Stormwater Management Manual for Western Washington for non-glacially consolidated soils (i.e., grain size method), and the results of the on-site infiltration testing.
- The SEWs, gravity block walls, and temporary soldier pile walls will be designed by the contractor. Internal stability and facing analyses will not be performed as part of this AGREEMENT.
- This contract only goes through 60 percent design.
- The final geotechnical report will be completed as part of a future contract.
- Temporary groundwater control during construction, where required, will be designed by the contractor and will not be performed as part of this AGREEMENT.

Deliverable(s):

- Geotechnical Work Plan Memo
- Updated Draft Geotechnical Engineering Report (Electronic copy as Adobe PDF)
- Plans and Specification markups (Comments and edits to Adobe PDF or Microsoft Word document)

TASK 7. WATERMAIN & SANITARY SEWER EVALUATION AND DESIGN

The objective of this task is to evaluate the existing infrastructure and develop recommendations for portions of these systems to be retained, replaced, or supplemented, and incorporate the recommendations into a preferred alternative for the corridor.

Design efforts authorized by this Supplemental Agreement No. 1 will advance based on the result of 30% Design with updates as required to address design development for other elements of the corridor such as stormwater, franchise utilities, and culvert replacement structures; further advancing the utility design to 60% Design.

7.1. Conditions and Capacity Analysis

This Supplemental Agreement No. 1 makes no changes to this sub-task.

7.2. 30% Submittal

This Supplemental Agreement No. 1 makes no changes to this sub-task.

7.3. 60% Submittal

The CONSULTANT will further develop the 30% plans, including City Review Comments, to the 60% Design Level including the sheets listed in the Submittal Sheet List, shown in Task 14. The CONSULTANT will coordinate with franchise utilities regarding the protection or location of proposed utility relocation within the right-of-way.

Assumptions(s):

- Relocation of franchise utilities such as gas, telecommunications, and electrical utilities and associated appurtenances will be designed by others.
- Profiles of relocated franchise utilities such as gas, telecommunications, and electrical utilities will not be shown as part of the 60% design submittal as this will be currently under design by others.
- Horizontal location of water, sewer, and franchise relocations within the right-of-way will be based on 30% plans and City Review Comments. Modifications to the horizontal alignment of any of these utilities beyond those noted in the City Review Comments will be considered Additional Services.
- All parcels adjacent to the 88th Street NE Corridor are currently served by City of Marysville water and sewer; and no new side services are required.

Deliverable(s):

- 60% Utility Plans, Utility Profiles, and Utility Details (incorporated into the overall 60% Plans).

7.4. 90% Submittals – To be scoped in future supplement

7.5. Ad-Ready Submittal – To be scoped in future supplement

TASK 8. TRAFFIC ANALYSIS

This Supplemental Agreement No. 1 makes no changes to this task.

TASK 9. PRELIMINARY ENGINEERING

This Supplemental Agreement No. 1 makes no changes to this task.

TASK 10. DESIGN REPORT

The CONSULTANT shall prepare a Design Report to document the basis of design, coordination with stakeholders, site conditions, and other information supporting the development of the corridor design. This Supplemental Agreement No. 1 provides for an update to the Design Report to include the 60% Design.

10.1. Design Report – 30% Submittal

This Supplemental Agreement No. 1 makes no changes to this sub-task.

10.2. 60% Design Report Update

The CONSULTANT will compile notable documentation for the 60% Submittal which builds upon the comprehensive Design Report submitted at 30%. This document will include but is not limited to:

- VE Study Report
- Final Geotechnical Engineering Report
- Draft Drainage Design Report
- Draft Hydraulics Report
- 30% Comment Responses

10.2.1. Drainage Design Report

CONSULTANT shall prepare a Drainage Design Report in accordance with the requirements of the City of Marysville's municipal code and by reference the 2012 WA State Department of Ecology (ECOLOGY) Storm Water Management Manual for Western Washington. The Drainage Design Report will document the minimum stormwater management requirements that apply to the project; BMP selection; calculations to support complete BMP and conveyance sizing; and a summary of long-term operations and maintenances plan components.

CONSULTANT will evaluate and select Best Management Practices (BMPs) to provide permanent stormwater management for the project in accordance with the CITY requirements. Where feasible, LID techniques that promote stormwater infiltration will be used. LID techniques will be the preferred BMPs to provide on-site stormwater flow control and water quality treatment. In areas of poorly drained soils or where full infiltration is not feasible, partial infiltrating BMPs that utilize under drains may be used. Traditional flow control and water quality treatment BMPs, such as surface detention ponds or flow-through cartridge treatment devices, will also be considered where full infiltration is not feasible.

BMP selection will be based on infiltration capacity, topography, the amount of space available within the right of way, life-cycle cost and aesthetic considerations, and the CITY's overall sustainability goals for the project.

Hydrologic modeling will be performed using an Ecology approved continuous simulation hydrologic model to size BMPs and evaluate the expected performance of each in terms of meeting Minimum Requirements from the ECOLOGY Manual, as they apply to the project. Results from the modeling will be used to evaluate design parameters, such as the amount of flow to divert to each BMP; and preliminary facility depths, surface areas, and slopes needed to meet the applicable minimum requirements.

Assumption(s):

- The Draft Drainage Design Report prepared under this task will correspond to the 60% complete designs.
- The 60% DRAFT will be approximately 20 pages in length. The DRAFT Report will include graphics which document analysis and assumptions.
- There will be only be two versions of the Drainage Design Report for 60%. An initial 60% draft report, and a final 60% report incorporating city review comments.
- The 60% Draft Drainage Design Report will be subject to one round of CITY review. The CITY will provide one consolidated set of comments on the draft memorandum to the CONSULTANT. The CONSULTANT will incorporate the CITY's comments, as applicable, in the Final Drainage Design Report submitted during 60% and 90% Design Submittals.
- Western Washington Hydrology Model (WWHM) or MGS Flood modeling software will be used.
- The default rainfall gage with a site specific correction factor and model parameters will be used.
- Model calibration or validation will not be performed.
- CONSULTANT will evaluate the nine Minimum Requirements of the SWMMWW.
- Conveyance Facilities will be evaluated for the 25-year storm event using WWHM.
- Long-term design infiltration rates from the geotechnical report will be used for modeling infiltrating BMPs.
- The Final Drainage Design Report will be submitted with the 90% design (by future supplement).

Deliverable(s):

- The Draft 60% Drainage Design Report will be submitted with the 60% design submittal (PDF format).
- The Final 60% Drainage Design Report (PDF format).

10.2.2. Draft Hydraulics Report

CONSULTANT shall prepare a Draft Hydraulics Report to be used in the permitting process. It will include a summary of the existing conditions and hydrology, a summary of the hydraulic modeling results and assumptions, design criteria, and the proposed design information.

Assumption(s):

- The Draft Hydraulics Report prepared under this task will correspond to the 60% complete designs.
- There will be only one Draft and one Final version each of a Draft Hydraulics Report and Final Hydraulics Report.
- The 60% Draft Hydraulics Report will be subject to one round of CITY review. The CITY will provide one consolidated set of comments on the draft report to the CONSULTANT.

Deliverable(s):

- The Draft 60% Hydraulics Report will be submitted with the 60% design submittal (PDF format).
- The Final 60% Hydraulics Report (PDF format).

10.3. Final Design - To be scoped in future supplement

TASK 11. 30% DESIGN

This Supplemental Agreement No. 1 makes no changes to this task.

TASK 12. VALUE ENGINEERING STUDY - TO BE AUTHORIZED BY FUTURE SUPPLEMENT

This Supplemental Agreement No. 1 makes no changes to the scope definition contained in the Original Agreement.

TASK 13. ENVIRONMENTAL DOCUMENTATION & PERMITTING

The purpose of this task is to engage the regulatory agencies, conduct fieldwork, prepare documentation, and prepare NEPA/SEPA, City, and JARPA permit application packages. Because the project is not scheduled to commence construction until 2023, several permits will be deferred to a subsequent Supplemental Agreement to minimize need for permit revisions or re-approvals. This Supplemental Agreement No. 1 will finalize NEPA submittals and NEPA Categorical Exclusion acquisition.

13.1. Organize an Environmental Kick-off meeting and site visit.

This Supplemental Agreement No. 1 makes no changes to this sub-task.

13.2. NEPA/SEPA/Permitting Stakeholder Meetings and Agency Coordination

This Supplemental Agreement No. 1 makes no changes to this sub-task.

13.3. Wetlands, Streams, Fish, Wildlife & Habitat Baseline Fieldwork

This Supplemental Agreement No. 1 makes no changes to this sub-task.

13.4. Wetland and Stream Delineation Report Preparation

This Supplemental Agreement No. 1 makes no changes to this sub-task.

13.5. Cultural Resources Assessment

In support of NEPA and Clean Water Act Permitting with the US Army Corp of Engineers (USACE), as related to wetlands and work below the Ordinary High Water Mark (OHWM), this work would include the preparation of a Cultural Resources Assessment Report in accordance with the published Department of Archaeology and Historic Preservation (DAHP) standards and guidelines, as well as those of the Secretary of the Interior.

13.5.1. Preliminary Review

- The CONSULTANT will conduct background research using the DAHP's WISAARD database as well as other relevant documents, as needed, pertaining to sites and cultural resources surveys previously recorded in (and in the vicinity of) the project area. Background research will also address ethnographic information regarding Tribal affiliations (for use in determining Traditional Cultural Property [TCP] likelihood).
- A Washington DAHP EZ1 Form will be completed for submittal as part of the EO 05-05 process to inquiry as to whether additional work will be mandated (there is a potential that this would limit or eliminate further work).

- Provide an APE document with maps and project description to H&LP so they can initiate consultation with the SHPO and all concerned parties. Based on comments and the FHWA determination of whether it will have the potential to effect historic properties proceed to Step 2, Research and Field Investigation.

13.5.2. Research and Field Investigation

- The CONSULTANT will conduct background research and then a field investigation consisting of a pedestrian reconnaissance to evaluate the area and to record historic property information for all structures 45 years of age or older. Above-ground inspection will consist of identifying any historic-aged resources located in and/or immediately adjacent to the project area that have not yet been inventoried. If necessary, up to three (3) structures will be evaluated for listing on the National Register of Historic Places (NRHP).
- Shovel probes will be excavated within the project corridor at 30-meter intervals, as feasible.
- Photographs will be taken of the project area, shovel probes, cultural materials and/or other areas of interest. Description/details of the photos will be entered in a photo log.
- As necessary, maps will be produced to show the location of the observed resources with reference to surrounding natural and human-built features.

13.5.3. Monitoring (if required)

- The CONSULTANT will monitor any geotechnical testing of soils in the project area to determine whether buried historic or pre-contact materials are present in returned soils or if profiles (as exposed) contain archaeological material or the potential for locating them.
- If monitoring of soil testing is mandated or requested those data would be included in any reporting documentation, hence task item 2 (above) reporting would not take place until all field work was completed.

13.5.4. Reporting

Consultant will prepare a cultural resources assessment report detailing the results of research and fieldwork. This report will include eligibility assessments, and recommendations for avoidance or mitigation for any resources identified

Assumption(s)

- All review comments will be received in accordance with the project schedule. Delays and/or revisions to complete design due to receipt of untimely review comments and directions will be considered extra work.
- Changes to the project description and/or project area may necessitate modifications to this scope of services; such changes will be considered as Extra Work.
- If cultural resources are located in the project area, an Archaeological Site Inventory Form will be required by DAHP; preparation of this form is not included in this scope of services.

13.6. Endangered Species Act Compliance – Biological Assessment Preparation

This Supplemental Agreement No. 1 makes no changes to this sub-task.

13.7. Critical Area Report Preparation

The preparation of the Critical Area Report will be fully scoped, budgeted and authorized by future supplement after completion of 60% design.

The Critical Area Report (CAR) documents impacts and identify mitigation in compliance with the City Critical Areas Ordinance. The CAR builds upon information already developed for the Wetland and Stream Delineation Report, Geotechnical Report and Biological Assessment.

The CAR will be developed to address the best available science requirements. The report will identify the general extent and location of PROJECT critical areas as defined by the CITY including wetlands, streams, geologic hazard areas, habitat areas and their buffers in the study area. The Critical Areas Report will incorporate information from Task 6 – Geotechnical Engineering - to address Geologic Hazard Areas.

Upon authorization, the CONSULTANT will work with CITY planners to develop up to three mitigation options for consideration. The options will be developed in GIS and will be supplemented with a brief narrative describing the concept pros and cons to facilitate the screening to a preferred option.

A general description of the mitigation required and the preferred conceptual level mitigation option will be presented in the CAR.

13.8. Prepare a noise assessment to meet FHWA and WSDOT requirements

This Supplemental Agreement No. 1 makes no changes to this sub-task.

13.9. Prepare an Air Quality Assessment to meet FHWA and WSDOT requirements.

This Supplemental Agreement No. 1 eliminates the need for completion of this work effort and deletes this Task from the overall contract.

13.10. Prepare Environmental Justice documentation required by FHWA and WSDOT to document presence of minority and/or low-income populations within 0.5 miles of the project corridor.

This Supplemental Agreement No. 1 includes additional efforts for the preparation of NEPA documentation:

- Finalize Environmental Justice memo started under the original Scope of Work

13.11. NEPA Documentation and Approval

This Supplemental Agreement No. 1 includes additional efforts for the preparation of NEPA documentation:

- Finalize and submit NEPA Environmental Classification Summary Form started under the original Scope of Work
- Documented Categorical Exclusion acquisition support

13.12. Hazardous Materials

This Supplemental Agreement No. 1 makes no changes to this sub-task

13.13. SEPA checklist preparation

- The preparation of the SEPA Checklist will be fully scoped, budgeted and authorized by future supplement, after 60% design is complete.

13.14. Permit Support

Additional permit support will be fully scoped, budgeted and authorized by a future supplement, after 60% design is complete. Anticipated future efforts include:

- The PROJECT is likely to trigger a US Army Corps of Engineers permit and a Hydraulic Permit Application (HPA) for wetland impacts, stream impacts, and work below the OHWM. The CONSULTANT will prepare a Joint Aquatic Resource Protection Application (JARPA) for review and signature by the City.
- THE CONSULTANT will prepare up to 10 JARPA specific graphics using CADD and GIS to support the application package and submittal to Corps and Ecology.
- Prepare on behalf of the CITY the WDFW on-line JARPA (APPS) form.
- Prepare following permit applications:
 - a. Clear and Grade Permit
 - b. Right-of-Way Permit
 - c. NPDES Notice of Intent
- Coordinate with the agency permit reviewers to facilitate review and comments for permit acquisition.

CITY Responsibilities:

City responsibilities as defined in the original scope of services remain unchanged except as noted herein.

Assumption(s):

- The assumptions as defined in the original scope of services remain unchanged except as noted herein. Submittal milestones are as follows:
 - a. NEPA ECS and supporting documentation: January 2020
 - b. Critical Area report: June 2021
 - c. SEPA Checklist: September 2021
 - d. City Permits: October 2022

e. WDFW HPA application: June 2022

Deliverable(s):

- Draft and Final Wetland and Stream Delineation Report (electronic WORD and PDF).
- Draft and Final Cultural Resources Assessment Report (electronic PDF).
- Draft and Final Biological Assessment (electronic WORD and PDF).
- Draft and Final Noise Assessment (electronic WORD and PDF).
- Draft and Final EJ Evaluation (electronic WORD and PDF).
- Draft and Final ECS form (electronic format).
- Draft and Final Hazardous Material Report (electronic WORD and PDF).

Deliverable(s) to be authorized by future Supplemental Agreement:

- Draft and Final Critical Areas Report
- Draft and Final SEPA Checklist.
- Draft and Final JARPA for Corps/Ecology.
- Draft On-Line JARPA for WDFW (APPS).
- Draft and Final City and NPDES Permits.

TASK 14. 60% DESIGN

14.1. 60% Design

The CONSULTANT shall follow the guidelines set forth in the CITY's Design Standards and Plans Preparation Manual when preparing the 60% plans, specifications, and estimate.

Assumption(s):

- The level of effort and fee estimate for this task is based on the number of sheets for each discipline as shown in the sheet list provided. The sheet list was prepared based on CONSULTANT's current knowledge of the project scope and anticipated work elements.
- CONSULTANT shall consult with the CITY prior to developing any sheets if the actual number of required sheets varies from the original sheet count estimate. If the CITY and CONSULTANT concur that total number of sheets required to detail the project exceeds the original estimate, the budget for this task may be amended.
- The 60% design will include the full project corridor and will not separate the project into separate phased segments.
- The 60% Design will be based on the assumption that a full closure(s) of 88th Street will be allowed for the purposes of construction of the Allen Creek and Unnamed Tributary stream crossings. Detour Plans will be developed during the 90% Design effort. No temporary access roads for stream crossing access will be identified or detailed.
- Any design to accommodate partial road closures, phased culvert and road widening construction will be considered Extra Work to be authorized by future supplement.

14.2. 60% Plans

The CONSULTANT will further develop the 30% plans to a 60% plan level including the sheets listed in the following table.

The anticipated sheet list for 60% design includes:

Submittal Sheet List for 60% Design

Sheet Description	60%
Cover Sheet with Vicinity Map and Index	2
Legend, General Notes, Abbreviations, and Project Key Map	2
Roadway Typical Sections	5
Alignment, Profile, and ROW Plans	24
Right-of-Way Acquisition Plans	20
Site Preparation Plans	21
TESC Notes and Details	3
Temporary Erosion and Sedimentation Control (TESC) Plans	21
Roadway Base and Light-weight Fill Details	2
Paving Plans	20
Paving Details	14
Intersection and Curb Ramp Grading	22
Driveway Plan and Profiles	75
Drainage Plans	20
Drainage Profiles	20
Drainage Details	7
Fish Passage Culvert Structure Notes & Key Plan	2
Fish Passage Culvert Plan, Profiles & Typical Sections	4
Fish Passage Culvert Details	9
Retaining Wall Structure Notes, Key Plan and Sequencing Plan	3
Retaining Wall Plan and Profiles	11
Retaining Wall Details	10
Stream Restoration Details	3
Pavement Marking and Signing Plans	21
Signing Schedule and Details	4
Signals, Illumination and ITS Plans	14
Signal and ITS Details (3 Intersections + 2 RRFBs)	12
Illumination Schedule and Details	2
Landscaping Plans	14
Landscaping Details	5
Water Plans and Profiles	20
Sanitary Sewer Plans and Profiles	20
Water and Sanitary Sewer Details	8
Staging and Traffic Control Sequencing Notes	1
Staging and Traffic Control Plans	20
Total # Sheets	461

14.2.1. General Sheets

CONSULTANT will prepare the contract drawings in accordance with the CITY's design standards. Unless otherwise noted or directed by the CITY, CONSULTANT will prepare plan view sheets at a 1" = 20' scale (full size) and 1" = 40' scale (half size).

CONSULTANT will prepare a cover sheet including an index of drawings. The list of plan sheet titles in the indices will exactly match the titles as they appear on the plan sheets.

CONSULTANT will prepare a vicinity map showing the project limits. The vicinity map will include the beginning and ending of construction, stations, major cross streets, waterways, and critical areas.

CONSULTANT will prepare a sheet layout index for each scale used showing the sheet layout for the various disciplines. CONSULTANT will prepare general notes, abbreviations, and symbols sheet.

14.2.2. Roadway Design

Roadway Typical Sections

Roadway sections will be developed for 88th Street NE denoting roadway widths, right-of-way widths, sidewalks, bike lanes, landscaping, pavement design, wall locations, and traffic lanes. It is assumed that all cross street work will be minor and will be able to be built using plan and detail sheets only – no roadway sections will be required. The typical sections cover typical work throughout sections of the project and will not include every minor change in section dimensions and features. Where there are anomalies the appropriate discipline plans will be referenced.

At the creek crossing, sections will account for excavation and lightweight backfill requirements to ensure stability of the embankments.

Alignment, Profile, and ROW Plans

CONSULTANT will prepare a set of alignment tables and plan sheets for survey control, monumentation, and roadway alignments. The alignment tables and plan sheets will list necessary curve details for proposed centerline alignments, horizontal and vertical control data, existing right-of-way information based on CITY-provided title reports, and reference-level proposed right-of-way information such as proposed right-of-way and preliminary temporary construction easement limits.

Right-of-Way Acquisition Plans

CONSULTANT will prepare a set of right-of-way acquisition and easement plan sheets depicting necessary information and detail to identify acquisition and easement limits and quantities. Plan sheet information will include alignment references; existing right-of-way; proposed right-of-way; proposed easements; and property information including ownership, parcel number, parcel area, acquisition area, permanent easement area, temporary construction easement area and parcel remainder area.

Site Preparation Plans

CONSULTANT will define the site preparation and demolition activities, including items to be abandoned, salvaged, recycled or removed, and identify facilities and environmentally sensitive areas that need to be protected during construction. Site Prep plans will include surface feature items, such as pavements (by type), sidewalk, curbs, walls, and miscellaneous structures. Demolition required for utilities, drainage features, signing, signalization and illumination will not be included in these drawings and will be shown on the relevant discipline drawings. Cut/fill lines will be shown on the site preparation plans.

Paving Plans and Details

CONSULTANT will prepare roadway paving plans that will show paving extents, pavement material types, curb and gutter, raised medians, sidewalks/shared pathways, and bike lanes. The plans will also show curb returns, tapers, intersection layouts, proposed driveway accesses, and other pertinent surface features. The paving details will include some design details for atypical curbs, paving, and layout of flatwork features not captured by the standard plans.

Intersection and Curb Ramp Grading

CONSULTANT will design intersection grading to tie into the existing cross street's existing terrain. Intersection curb radii will be designed including curb radii tables with locations and elevations for PC, PT, quarter points, low points, and curvature staking information including radius, length of curve, tangent, and delta. Curb ramps will be located at each intersection corner, up to two Cedarcrest Middle School driveways, and up to two mid-block crossings. Bike ramps are assumed to be limited to on-street bike lane transitions near 67th Ave NE. Preliminary ramp grading information will be provided for 60% Design with full grading information at ramps and adjacent areas at 90% Design. Curb ramps will be designed in accordance with ADA and PROWAG requirements:

INTERSECTION	# CURB RAMPS	# BIKE RAMPS
STATE AVENUE	--	--
44TH DR NE	8	--
45TH DR NE	8	--
MID-BLOCK CROSSING #1	2	--
46TH DR NE	4	--
47TH DR NE	4	--
48TH DR NE	8	--
49TH DR NE	4	--
51ST AVE NE	8	2
52ND AVE NE	4	--
52ND DR NE	4	--
55TH AVE NE	8	--
57TH DR NE	4	--
58 TH DR NE	4	--
59TH DR NE	8	--
60TH DR NE	8	--
61ST DR NE	4	--
MID-BLOCK CROSSING #2	2	--
CEDARCREST DRIVE – WEST	2	--
CEDARCREST DRIVE –EAST	1	1
67TH AVE NE	--	1

For 60% design, ramp types and limited grading points may be provided for pedestrian curb ramps and bike ramps.

It is assumed that the need for ADA Maximum Extent Feasible (MEF) documentation will be minimal on this Project due to relatively flat grading in existing conditions. It is assumed that up to 6 ramps will require the documentation.

Driveway Plan and Profiles

CONSULTANT will design grading to tie into the existing terrain at private properties adjacent to the corridor. This includes driveway grading to match into existing properties. Additional property interface elements such as modifications to existing parking layouts or walkway connections will be noted. Relocations of mailboxes will be shown on the plan. Profiles will be created for each of these driveway locations with accompanying plan view at a scale of 1"=5'. Driveway limits for the 60% design level will typically depict the length behind sidewalk to match back to existing driveway surfacing at a width matching to the driveway entrance width at the roadway. Each sheet will provide design information for roughly 1 property and up to 2 driveway profiles.

Pavement Marking and Signing

CONSULTANT will prepare plans and details for the channelization, including lane and edge stripes, stop bars, pavement markings, crosswalks, and geometry of striped medians and turn pockets. Limits of channelization will typically match paving limits. Additional channelization will be shown east of 67th Avenue NE to support new on-street bike lanes to connect the shared pathway facilities on 88th Street NE with the existing bike lanes on Ingraham Blvd. Signing will show the location of new signs and will conform to the current edition of the MUTCD and the CITY's signing guidelines. Sign schedules will be provided for both the existing corridor signage and the proposed signing with location information, mounting/installation guidance, and associated sign design details.

14.2.3. Stormwater Design

Temporary Erosion Control

CONSULTANT will prepare temporary erosion control details which show erosion and sedimentation controls measures to be used for this project. Cut/Fill lines will be shown on the TESC plans.

The TESC drawings will be prepared in accordance with the CITY requirements and by reference the requirements written in the 2012 ECOLOGY Stormwater Management Manual for Western Washington.

Drainage Plans, Profiles, and Details

CONSULTANT will prepare plans and details for the LID and gravity drainage design, including plan views of drainage pipes and structures, LID features, connections to the existing stormwater systems, and nonstandard drainage details. These storm system layouts will include catch basin and manhole locations, and the details required to describe the stormwater facilities. Stormwater detention and treatment facilities on the City Maintenance Site will be included in the stormwater plans and details.

These plans will include profiles for the storm drains required within the project limits. All pipe invert elevations, size, length, and type as well as drainage structure sizes and types will be included. Profiles of the stormwater facilities will also be included. Existing and proposed utility crossings will be depicted based on pothole data and utility profiles.

14.2.4. Fish Passage Crossing and Structural Design

Culvert Plan, Profiles, Sections and Details

The CONSULTANT will prepare plans, sections and details for each culvert replacement structure and upstream and downstream of the structure where grading is required to match the existing channel. The plans will include typical sections of the channel within the reach, the depth and placement of the streambed material, and placement and details of wood within the reach. The new fish passable structures will be designed to meet the structural requirements of the AASHTO LRFD.

Retaining Walls

The CONSULTANT will use the 30% design plans and review comments and advance the design to a 60% design and plan level. This task involves advancing the design and preparation of contract documents for permanent and temporary retaining walls and other miscellaneous structures. Plan, profiles and details will be included in the plans, including the excavation limits required to construct each of the structures. Retaining wall systems that are proprietary products or will be used as temporary structures will be evaluated for feasibility and constructability; however, final design of these walls will be the responsibility of and completed by the Contractor.

The CONSULTANT will prepare a proposed structure construction sequence. Construction sequence shown will prioritize the feasibility and constructability of the project and may not necessarily depict the shortest construction method or the least costly method. Temporary retaining walls required to facilitate the proposed construction sequence will be identified at this time.

Stream Restoration

The CONSULTANT will prepare plan sheets showing limits of work at each creek crossing and associated areas for restoration with planting and material information.

14.2.5. Signal, Illumination, and ITS Plans and Details

The CONSULTANT will use the 30% design plans and review comments to advance the design to 60% Design. This task involves advancing the design and preparation of contract documents for signal, illumination, RRFB crossings, and ITS work elements.

CONSULTANT will include ITS elements per direction from CITY staff and CITY standards. The CITY will provide standard details and specifications for the ITS system components. The CONSULTANT will design interconnect along the corridor which is future compatible to providing a fiber connection between State Avenue and 67th Avenue NE.

14.2.6. Traffic and MOT Design

Staging, Traffic Control, and Detour Plans

CONSULTANT will develop basic traffic control narrative and sequencing plan for construction of roadway, utility, and stream crossing improvements utilizing lane closures along with a full roadway closure during the fish windows to support culvert removal and installation at the Unnamed Tributary and Allen Creek crossings. Staging plans will provide a potential approach for constructing walls and installing culvert structures at each creek crossing. Detour plans will be developed for the 90% Design submittal once project phasing and timing is determined.

14.2.7. Landscaping Design

Landscape Plans and Details

CONSULTANT will develop landscaping plans based on CITY's direction and input to select appropriate plantings within the right-of-way to provide a consistent look and feel of the corridor.

Landscape plans shall include tree placement, size and species, areas where shrubs and groundcover shall be planted, stormwater facilities, slope stabilization measures and on-site environmentally sensitive restoration/mitigation, where applicable. Details and schedules for planting shall be included.

Where focused areas of planting occur, and irrigation is directed by the CITY to be provided, the CONSULTANT shall prepare a draft performance based special provision for a contractor designed and constructed system. The CONSULTANT shall identify irrigation meter location/type/size, and power source within the appropriate plan series.

14.2.8. Utility Design

Utility Plans, Profiles, and Details

Utility design shall be advanced based upon limits identified from the 30% Design for initial limits of existing utility infrastructure to be retained and existing utility infrastructure to be replaced. As part of the 30% Design, a utility corridor plan was developed to identify potential utility conflict locations.

CONSULTANT will develop a potholing program to verify existing utility location, depth and size. Critical pothole locations will be determined during the design phase and coordinated with the various utility owners. Documentation will consist of pothole locations shown on plan drawings with additional information in tabular form. Tabular information will include utility type, size, location, depth and additional detail as determined. It is assumed that the City and franchise utilities will perform the potholing of utilities and provide detailed size, type and location information to the CONSULTANT. The CONSULTANT will perform a field survey location check of the pothole locations. A maximum of 20 pothole locations is included in this scope of work.

Potholing will be performed at the start of 60% Design efforts. Utility information either gathered from pothole data or from utility as-built plans will be 3D modeled and used to identify conflict locations as well as shown in the drainage and retaining wall profiles. Utility data and any franchise utility relocations will be incorporated into the 60% plans and profiles. All utility design work will be done by the affected utility owners.

Franchise Utilities Coordination

CONSULTANT will coordinate with affected utilities to identify type, size and location of future utilities. CONSULTANT will work with the Franchises to locate their proposed facilities but will not design their work. Franchise Utility design will be completed by the Franchises.

Assumption(s):

- CONSULTANT's franchise utilities coordination efforts will include up to 3 Joint Franchise Utilities Coordination Meetings, each lasting a maximum of 2 hours; and phone / email correspondence with individual utilities (total maximum of 16 hours). The Joint Franchise Utilities Coordination Meetings will be held at Marysville Public Works and scheduled / organized by the CITY.

- Non-CITY Utilities may include:
 - Puget Sound Energy – Natural Gas Main
 - Snohomish PUD – Transmission and Distribution Power
 - Comcast – Cable TV / Fiber Optics
 - Century Link – Telephone Communications/Fiber Optic
 - Frontier – Telephone Communications/Fiber Optic

- CITY Utilities include:
 - Water Main
 - Sanitary Sewer
 - Storm Water (See Stormwater Design)
 - Traffic and Illumination Conduit / Fiber (See Traffic Design)

14.3. 60% Specifications

The CITY will supply the CONSULTANT with the current version of the CITY's Special Provisions. The CITY's boilerplate up front and division 1 specifications will be supplied in a Microsoft Word format. CONSULTANT will be required to create a "run-list" and edit the boilerplate version by supplementing project specific information. The CONSULTANT shall keep a current project "run-list" and rerun the batch program prior to submittal.

14.4. 60% Estimate

CONSULTANT's Engineer's Estimate shall develop an opinion of cost and document the estimate with backup quantity calculations. Backup calculations shall specifically include items measured by the appropriate unit. The Engineer's Estimate will include an itemized list in tabular form, describing; section, item, and number of units (quantity), estimated unit costs, and total cost, with the understanding that any cost opinion or Engineer's Estimate provided by the CONSULTANT will be on the basis of experience and judgment. The estimate shall be prepared using standard unit costs and lump sum prices. Ott- Sakai subconsultants will provide recommendations for unit costs and of estimate items. The 60% opinion of probable cost shall include contingencies for elements not yet fully defined. The "Bid Proposal" within the boilerplate specifications shall be prepared from this information by the CONSULTANT.

14.5. 60% Submittal

CONSULTANT shall provide all documents for the 60% Design PS&E submittal to the CITY electronically.

Deliverable(s):

- 60% Plans
- 60% Specifications
- 60% Engineer's Opinion of Probable Cost Estimate
- 60% Design Report Update
- Project Corridor Roll Plot

TASK 15. FINAL DESIGN PACKAGES – SEGMENT DESIGN - TO BE SCOPED IN FUTURE SUPPLEMENT

The scope of work for 90% Design, and Ad-Ready Construction Packages will be reviewed and modified as construction funding is secured and the schedule is identified. Associated budgets for these efforts will be developed and authorized by supplemental agreement(s).

TASK 16. CONSTRUCTABILITY ANALYSIS / MOCK BID EXERCISE – TO BE SCOPED IN A FUTURE SUPPLEMENT

This Supplemental Agreement No. 1 does not include a constructability review at the 60% Design Level.

The CONSULTANT shall provide constructability input and review of the culvert and wall construction, and proposed maintenance of traffic (MOT) plans, for the 90% Design submittal.

The Constructability Analysis and Mock Bid Exercise for the 90% Design packages will be scoped and authorized by future supplement.

Assumption(s):

- Current Project schedules to remain as assumed at beginning of contract.

Deliverable(s):

- No deliverables at 60% Design.

TASK 17. REAL ESTATE SERVICES

This Supplemental Agreement No. 1 authorizes preliminary Real Estate Services efforts for the purposes of developing a Preliminary Funding Estimate (PFE) for the CITY's use in obligating federal funding for right-of-way acquisition. A PFE is a detailed parcel-by-parcel estimate of total expected right of way acquisition costs.

The overall scope of work for Real Estate Services Design will be reviewed and modified at completion of 60% Design, once the corridor footprint is identified and property impacts can be assessed; or when funding for this task becomes available. Associated budgets for these efforts will be developed / revised and authorized by supplemental agreement(s).

17.1. Preliminary Funding Estimate – Right of Way

The CONSULTANT will manage the appraisal process for up to eighty (80) properties. As part of the appraisal process, HDR's appraiser shall complete a PFE. HDR's appraiser shall meet all requirements set forth in 49 CFR 24.103. HDR will perform the following work:

1. Prepare one (1) PFE including spreadsheet and worksheets.
2. Assemble all needed appraisal data and appraisal scope for each assigned parcel.
3. Manage delivery of appraisal services.

City Responsibilities:

- Review and approve the PFE.

Assumption(s):

- CITY shall provide all information to HDR that is required to complete the assignment.
 - It is anticipated there will be a total of one hundred sixty (160) parcel valuations impacting eighty (80) properties.
 - All valuation services will be performed by a WSDOT certified independent appraiser to WSDOT LAG manual standards.
 - Comparable sales will be researched for four land use types: commercial, SFR, multifamily, industrial.
 - The estimated delivery schedule for the PFE is 45 days following Notice to Proceed (NTP).
6. NTP for the appraiser will be the date sufficient right of way plans or exhibits are provided with title reports.

Deliverable(s):

- PFE, PFE spreadsheet, and worksheets

TASK 18. FUNDING SUPPORT - TO BE AUTHORIZED
BY FUTURE SUPPLEMENT

This Supplemental Agreement No. 1 does not include additional CONSULTANT efforts to assist the CITY with obtaining potential grant funding.

TASK 19. BIDDING PHASE ASSISTANCE - TO BE SCOPED IN FUTURE SUPPLEMENT

The scope of work for Bidding Phase Services will be reviewed and modified as construction funding is secured and the schedule is identified. Associated budgets for these efforts will be developed and authorized by supplemental agreement(s).

TASK 20. PUBLIC INVOLVEMENT - TO BE SCOPED IN FUTURE SUPPLEMENT

Due to the uncertainty of project funding availability and timing of funds, the detailed scope for this Task and its associated budget will be developed and authorized by future supplemental agreement.

B
 Exhibit "~~A~~"
 Summary of Payments

	Basic Agreement	Supplement #1	Total
Direct Salary Cost	\$217,199.55	\$270,670.51	\$487,870.06
Overhead (Including Payroll Additives)	\$340,634.05	\$422,218.92	\$762,852.97
Direct Non-Salary Costs	\$376,172.18	\$225,789.00	\$601,961.18
Fixed Fee	\$65,159.85	\$81,201.14	\$146,360.99
Total	\$999,165.63	\$999,879.57	\$1,999,045.20

EXPENSES

Exhibit B

City of Marysville: 88th Street NE Corridor Improvement Project - St Ave to 67th Ave NE

	H2R	Airport Parking/day	HDR Owned Vehicle Mileage/mile	Tolls	Office Supplies-Misc.	Copies/Page 8.5x11 B&W	Copies/Page 8.5x11 Color	Copies/Page 11x17 B&W	Copies/Page 11x17 Color	CD - 1st CD \$20, each add. Copy \$10	Express Mail	Total ODC
		Travel	Travel	Travel	Office Expenses	Office Expenses	Office Expenses	Office Expenses	Office Expenses	Office Expenses	Office Expenses	
OTHER DIRECT COSTS		Each	Each	Each	Each	Each	Each	Each	Each	Each	Each	
	Unit Cost	\$20.00	\$0.75	\$5.00	\$25.00	\$0.05	\$0.45	\$0.09	\$0.90	\$20.00	\$25.00	
1	Task 1 - Project Management & Administration											
	Quantity	26	1950	26	20	500	250	500	100	0	0	
	Task Total	\$520.00	\$1,462.50	\$130.00	\$500.00	\$25.00	\$112.50	\$45.00	\$90.00	\$0.00	\$0.00	\$2,885.00
2	Task 2 - Client Communications & Coordination											
	Quantity	0	1200	0	0	200	200	100	100	0	0	
	Task Total	\$0.00	\$900.00	\$0.00	\$0.00	\$10.00	\$90.00	\$9.00	\$90.00	\$0.00	\$0.00	\$1,099.00
3	Task 3 - Quality Assurance / Quality Control											
	Quantity	0	0	0	0	100	0	1500	500	0	0	
	Task Total	\$0.00	\$0.00	\$0.00	\$0.00	\$5.00	\$0.00	\$135.00	\$450.00	\$0.00	\$0.00	\$590.00
7	Task 7 - Watermain & Sanitary Sewer											
	Quantity	0	500	0	0	250	100	200	0	0	0	
	Task Total	\$0.00	\$375.00	\$0.00	\$0.00	\$12.50	\$45.00	\$18.00	\$0.00	\$0.00	\$0.00	\$450.50
10	Task 10 - Design Report											
	Quantity	0	0	0	0	200	100	50	50	0	0	
	Task Total	\$0.00	\$0.00	\$0.00	\$0.00	\$10.00	\$45.00	\$4.50	\$45.00	\$0.00	\$0.00	\$104.50
13	Task 13 - Environmental Documentation & Permitting											
	Quantity	0	1200	0	0	500	500	200	200	0	0	
	Task Total	\$0.00	\$900.00	\$0.00	\$0.00	\$25.00	\$225.00	\$18.00	\$180.00	\$0.00	\$0.00	\$1,348.00
14	Task 14 - 60% Design											
	Quantity	0	1150	0	20	1000	500	4500	500	5	5	
	Task Total	\$0.00	\$862.50	\$0.00	\$500.00	\$50.00	\$225.00	\$405.00	\$450.00	\$100.00	\$125.00	\$2,717.50
17	Task 17 - Real Estate Services											
	Quantity	0	400	0	0	700	250	100	50	0	0	
	Task Total	\$0.00	\$300.00	\$0.00	\$0.00	\$35.00	\$112.50	\$9.00	\$45.00	\$0.00	\$0.00	\$501.50
Total ODC		\$ 520.00	\$ 4,800.00	\$ 130.00	\$ 1,000.00	\$ 172.50	\$ 855.00	\$ 643.50	\$ 1,350.00	\$ 100.00	\$ 125.00	\$ 9,696.00

Exhibit B

SUBCONSULTANTS

City of Marysville: 88th Street NE Corridor Improvement Project - St Ave to 67th Ave NE


		1-Alliance Geomatics	HWA Geosciences	Tierra ROW Services	Appraisal Group of the NW	Total Subconsultants
SUBCONSULTANTS						
5	Task 5 - Survey & Mapping					
	Task Total	\$29,947.00	\$0.00	\$0.00	\$0.00	\$29,947.00
6	Task 6 - Geotechnical Engineering					
	Task Total	\$0.00	\$91,089.00	\$0.00	\$0.00	\$91,089.00
13	Task 13 - Environmental Documentation & Permitting					
	Task Total	\$0.00	\$0.00	\$15,057.00	\$0.00	\$15,057.00
17	Task 17 - Real Estate Services					
	Task Total	\$0.00	\$0.00	\$0.00	\$80,000.00	\$80,000.00
Total Subconsultants		\$ 29,947.00	\$ 91,089.00	\$ 15,057.00	\$ 80,000.00	\$ 216,093.00

Exhibit B

FEE ESTIMATE

City of Marysville: 88th Street NE Corridor Improvement Project - St Ave to 67th Ave NE



Task #	Task Description	Total Labor	Total Escalation	Total Expenses	Total Subconsultants	Total From Spreadsheet	Total For Proposal
1	Task 1 - Project Management & Administration	\$ 43,850.44	\$ 1,151.07	\$ 2,885.00	\$ -	\$ 47,886.51	
2	Task 2 - Client Communications & Coordination	\$ 36,349.92	\$ 954.19	\$ 1,099.00	\$ -	\$ 38,403.11	
3	Task 3 - Quality Assurance / Quality Control	\$ 24,222.74	\$ 635.85	\$ 590.00	\$ -	\$ 25,448.59	
4	Task 4 - Data Collection / Review Information	\$ 3,049.08	\$ 80.04	\$ -	\$ -	\$ 3,129.12	
5	Task 5 - Survey & Mapping	\$ 2,388.36	\$ 62.69	\$ -	\$ 29,947.00	\$ 32,398.05	
6	Task 6 - Geotechnical Engineering	\$ 5,101.74	\$ 133.92	\$ -	\$ 91,089.00	\$ 96,324.66	
7	Task 7 - Watermain & Sanitary Sewer	\$ 29,198.46	\$ 766.46	\$ 450.50	\$ -	\$ 30,415.42	
8	Task 8 - Traffic Analysis	\$ -	\$ -	\$ -	\$ -	\$ -	
9	Task 9 - Preliminary Design	\$ -	\$ -	\$ -	\$ -	\$ -	
10	Task 10 - Design Report	\$ 28,088.52	\$ 737.32	\$ 104.50	\$ -	\$ 28,930.34	
11	Task 11 - 30% Design	\$ -	\$ -	\$ -	\$ -	\$ -	
12	Task 12 - Value Engineering Study	\$ -	\$ -	\$ -	\$ -	\$ -	
13	Task 13 - Environmental Documentation & Permittin	\$ 16,183.06	\$ 424.81	\$ 1,348.00	\$ 15,057.00	\$ 33,012.87	
14	Task 14 - 60% Design	\$ 560,898.24	\$ 14,723.58	\$ 2,717.50	\$ -	\$ 578,339.32	
15	Task 15 - Final Design Packages - Segment Design	\$ -	\$ -	\$ -	\$ -	\$ -	
16	Task 16 - Constructability Analysis & Mock Bid	\$ -	\$ -	\$ -	\$ -	\$ -	
17	Task 17 - Real Estate Services	\$ 4,959.88	\$ 130.20	\$ 501.50	\$ 80,000.00	\$ 85,591.58	
18	Task 18 - Funding Support	\$ -	\$ -	\$ -	\$ -	\$ -	
19	Task 19 Bidding Phase Assistance	\$ -	\$ -	\$ -	\$ -	\$ -	
20	Task 20 - Public Involvement	\$ -	\$ -	\$ -	\$ -	\$ -	
						\$ 999,879.57	\$ -