

1. Agenda

Documents:

[PWC AGENDA 03-09-2018.PDF](#)

2. Meeting Materials

Documents:

[BHC TASK ORDER FOR PIONEER HWY SEWER UPGRADES.PDF](#)
[BLUELINE GROUP TASK ORDER FOR SIDEWALK IMPROVEMENTS.PDF](#)
[RH2 TASK ORDER FOR INFLOW INFILTRATION STUDY.PDF](#)
[SIX YEAR TIP 20019-2024.PDF](#)



AGENDA

PUBLIC WORKS COMMITTEE

Monday, April 9, 2018 - 5:00 PM

Wastewater Treatment Plant – 26729 98th Drive NW

AGENDA

1. Six Year TIP 2019-2024
2. RH2 Task Order for Inflow/Infiltration Study
3. BHC Task Order for Pioneer Hwy Sewer Upgrades
4. Blueline Group Task Order for Sidewalk Improvements



**CITY OF STANWOOD
PUBLIC WORKS COMMITTEE
AGENDA STAFF REPORT**

ITEM NUMBER: 3
DATE: April 9, 2018
SUBJECT: BHC Task Order for the Pioneer Highway Sanitary Sewer Upgrades
CONTACT PERSON: Shawn Smith, Assistant Public Works Director
ATTACHMENTS: A – BHC Consultants Scope and Fee

ISSUE

The issue in front of the committee is whether or not to issue BHC a task order for consulting services to design sewer upgrades along Pioneer Highway.

SUMMARY

The city's sewer model shows that there are various locations of undersized sewer mains along Pioneer Highway. This project would provide the design plans and specifications to fix these issues.

DISCUSSION

With the construction of the new High School, they will be putting a gravity sewer line in, underneath SR 532 at 72nd Avenue. This will allow for the city to use gravity to convey its sewer, and eventually eliminate the Church Creek Estates and Cedarhome lift stations. These lift stations currently pump to the system within 272nd Street and then flow to Pioneer Highway and eventually to the treatment plant. This will save the city time and money, not needing to manage and maintain these two lift stations.

With all of this new flow now going to Pioneer Highway, this causes some of the pipe sections to be under capacity. The plan will be to get these designed this year, and start completing the construction in 2018 or 2019.

These projects are in the city's comprehensive plan and in the capital improvement plan. One of these project is currently budgeted for \$50,000. The others are not budgeted for 2018, however \$400,000 was budgeted for sewer upgrades on 271st St., however, in 2017, the city had that section of sewer main cleaned and videoed, and it was determined that the main is in good condition and not needing replacement.

FINANCIAL IMPACT

The current contract is for \$163,026. The sewer construction fund has \$50,000 currently budgeted for this project and \$400,000 budgeted for work that is no longer necessary in 2018.

Exhibit A Scope of Work

City of Stanwood Pioneer Highway Sanitary Sewer Upgrades

Statement of Understanding

The City of Stanwood (City) has identified portions of the existing sanitary sewer interceptor along Pioneer Highway from approximately 72nd Avenue NW to Triangle Drive to be capacity limited for a series of planned upstream sewer system modifications that increase flows. The alignment has been through various construction activities over the years dating from the late 1970's to the mid 1990's.

Three sewer main areas along the Pioneer Highway interceptor line have been identified by the City as capacity limited for future upstream modifications. The three segments to be upgraded include: SR-532 crossing and Pioneer Highway interceptor; Lower Pioneer Highway interceptor; and, the 72nd Avenue NW interceptor. The upgrades potentially consist of approximately 1,600, 600, and 1,400 lineal feet, respectively, of new or replaced alignments with 15-inch diameter sewer piping. The upgraded mains will continue to convey Sewer Drainage Basin 3 flows to the Sewer Drainage Basin 1 main interceptor. The flows eventually discharge to Lift Station 4 (LS4) which pumps sewage to the City's wastewater treatment plant. While the focus of this project is to increase sewer main capacity, new cost effective gravity sewer alignments and trenchless installations are to be evaluated during the preliminary alternatives analysis of options to upgrading the existing sewer system. The City has requested BHC Consultants, LLC (BHC) provide engineering and other appropriate professional assistance in developing sewer upgrades alternatives and construction documents for:

- Sewer main alignment and installation methods alternatives analysis
- Field reconnaissance
- 72nd Avenue NW Final design services (identified herein as Phase I)
- Bidding services

BHC will perform the following tasks to assist the City with development of construction documents for the replacement of the sewer mains:

1. Project Management
2. Site Investigations
3. Alternatives Analysis and Recommendations, All Three Segments
4. Phase I Design, Opinion of Probable Costs and Submittals
5. Phase I Bid Period Services

The following optional tasks consist of BHC assisting the City with development of construction documents for the replacement of the Lower Pioneer Highway interceptor (identified herein as Phase II):

- A1. Project Management
- A2. Phase II Design, Opinion of Probable Costs and Submittals
- A3. Phase II Bid Period Services

BHC will subcontract with:

- Aspect Consulting, LLC for geotechnical design services
- 1-Alliance Geomatics, LLC for land surveying services

A scope of services and fee estimate is provided herein. No work shall be accomplished on any subsequent task(s) until a scope of services and fee estimates for these tasks are developed by BHC and approved by the City pursuant to the Agreement for Services.

Exclusions

The following items are excluded from this work scope:

- Engineering services during construction and construction observation will be provided under a separate contract or amendment if requested by the City.
- Permitting services beyond those required for the field investigations that support the development of the alternatives analysis will be provided under a separate contract or amendment if requested by the City. A general construction permit for work within the right of way and Stormwater Pollution Prevention Plan will be specified as contractor responsibilities as necessary.
- Natural resource field evaluations (potential environmental permitting implications for construction of Phases II and III will be based on available existing information).
- Easement acquisition services, if identified during preliminary design, will be provided under a separate contract or amendment if requested by the City.
- Final design and bidding services for the SR532 crossing and Pioneer Highway Interceptor (identified herein as Phase III) will be provided under a separate contract or amendment if requested by the City.

Estimated Fee

The estimated fee for this work order, including BHC labor and direct costs and sub-consultant costs, is \$163,026. The estimated fee for the optional task work order, including BHC labor and direct costs, is \$39,658. Details of the estimated fee for the scope of work and optional work, broken down by task, is included in the attached Exhibit B. The City agrees to allow the Consultants to adjust those rates on an annual basis in January each year, beginning in January 2019, to address increases in labor costs, provided the overall budget is not modified.

Schedule

BHC will undertake to complete the Scope of Work within 250 working days from notice to proceed per the project schedule prepared by BHC Consultants. It is recommended that the contract duration extend to April 30, 2019 to allow bidding services to coincide with the start of the construction season. This contract duration does not account for natural resources services and permitting outside of BHC control that may delay services. BHC shall perform these services with diligence and expediency consistent with sound professional practice. This schedule shall be equitably adjusted as the project progresses, allowing for changes in scope or for delays beyond BHC's control. BHC's services described in this scope of work will occur over the following estimated schedule for the project.

- | | |
|---|-----------------------|
| • Notice to Proceed | April 2018 |
| • Alternatives Analysis Report | July 2018 |
| • 50% Design Level Plans and Specifications Submittal | September 2018 |
| • 90% Design Level Plans and Specifications Submittal | November 2018 |
| • Final Bid Ready Plans and Specifications Submittal | January 2018 |
| • Bid advertisement | January/February 2019 |
| • Recommendation for Award | March/April 2019 |

Scope of Work

Task 1 – Project Management

The design process for sewer main replacement can be complex and requires effective project coordination and product quality control. To keep the City informed and to receive City input throughout project development, periodic project meetings will also be held. This task includes the following project management components:

Receivables:

- None

Work tasks

1.1 Correspondence and Coordination with City

- Maintain regular telephone, email and other communications with City Project Manager and operations staff, as necessary to execute the work. Create electronic record of project decisions rendered through these communications.
- Prepare monthly invoicing and project status summaries.

1.2 Staff, Subconsultants and Budget Management

- Develop a consultant team project management work plan, including schedule, milestones, level of effort and deliverable expectations. Disseminate to BHC project team including subconsultants.
- Manage project staff and subconsultants to ensure compliance with project schedule and budget as well as scheduled deliverables.
- Schedule staff and subconsultant field activities in a manner convenient to the City.
- Facilitate interdisciplinary coordination to minimize conflicts during design development.

1.3 QA/QC Program

- Conduct quality control reviews of all project deliverables in adherence with company policies. The Principal-in-Charge will lead the QA/QC program, and will involve other senior staff members as needed. A record of internal redlines and resultant revisions will be maintained.

Deliverables:

- Monthly invoices with project status summaries
- Written correspondence as required
- Three (3) design team teleconferences with City Staff

Task 2 – Site Investigations

Work under this task includes field investigations to support the eventual development of design documents for all three pipeline segments. Level-of-effort estimates within this proposal are based on installation of approximately a total 3,600 linear feet of 15-inch diameter gravity sewer piping and manholes. Investigations and developed base mapping are to encompass the Pioneer Highway project areas identified by the City.

Receivables:

- None

Work Tasks:

2.1 Project Site Surveying

- Geodetic and Cadastral Survey Control. Horizontal Datum and Coordinate System – survey work shall reference the Washington State Plane Coordinate System using the NAD83 (1991) datum as established in accordance with Chapter 58.20 Revised Code of Washington and shall be in US Survey Foot units. The horizontal control to establish ties to the datum shall be shown on the plans and/or in the surveyor notes. The Vertical Datum for the survey work shall reference the North American Vertical

Datum of 1988 (NAVD 1988). The benchmark used to establish ties to the datum shall be shown on the plans and/or in the surveyor's notes.

- o Geodetic Control: This task involves the establishment of survey control at the project site for use in all phases of the project. Typically, survey control will be established using GPS together with terrestrial Total Station observations.
- o Cadastral Control: This task involves records research and the recovery and observation of cadastral monumentation for use in the resolution of the ROW and parcel boundaries.
- Mapping. The consultant shall locate and map visible features necessary for the creation of an engineering design base map as shown in the attached sub consultant documents. These features include:
 - a. Topographic and Planimetric
 - i. Roadway and pavement
 - ii. Channelization and pavement markings
 - iii. Curb and sidewalk, including curb cuts and ADA ramps
 - iv. Signs and signals
 - v. Trees and significant vegetation
 - vi. Walls, rockeries, and other structures (or faces of)
 - vii. Ground measurements will be captured sufficient to generate a digital terrain model (DTM) at one-foot contours.
 - b. Utility Mapping
 - i. Surface observable utilities, to include power poles, vaults, risers, fire hydrants, water valves, water meters, gas valves, traffic signal and traffic control boxes, and overhead utility lines.
 - ii. Stormwater structures – Catch Basins and Storm Drain Manholes. Pipe size, material, and invert elevations will be obtained, if possible, at each structure. Nearest drainage structure outside the mapping limits will also be collected.
 - iii. Sanitary sewer structures – Sewer manholes. Pipe size, material, and invert elevations will be obtained, if possible, at each structure. Nearest drainage structure outside the mapping limits will also be collected.
 - iv. Subsurface utility locates, typically by paint on the surface, if necessary.

2.2 Geotechnical Explorations

- Prepare an Exploration Program Plan based on subsurface condition informational review, exploration planning, and permitting that includes aerial image of the boring locations.
- Perform field exploration through advancement of 7 bores similarly spaced along the proposed alignment within the project area to a depth of 10 feet below existing or proposed sewer inverts, approximately 25 feet below existing grade. Due to anticipated soil conditions, a truck mounted drill rig using a sonic drilling system will be employed.
- Supervise drilling, collect soils samples and deliver to laboratory for testing (moisture content, grain size) and classification.
- Borings location surfaces to be restored per regulatory standards.
- Prepare a Geotechnical Engineering Report describing the conditions encountered in the borings that includes an assessment of open trench construction, in-situ pipe upsizing, trenchless installation options, backfill, soil reuse, restoration, and general earthwork considerations. A site plan and boring logs will be attached to the report.
- Incorporate City review comments and finalize geotechnical report.

Deliverables:

- Project Basemap at 1"=20' scale, or as requested by the City, supervised by a Land Surveyor licensed to practice in the State of Washington
- Integrated Land XML-compatible digital terrain model

- An electronic ASCII file with point numbers, coordinates, elevations, and descriptions for each survey point, with benchmarks and survey control points clearly identified.
- Right-of-way CAD file at 1" = 20' scale, or as requested by the City, using NCS standards
- Exploration Program Plan
- Draft geotechnical report in electronic PDF format.
- Final geotechnical report in electronic PDF format.

Assumptions:

- Rights of Entry for BHC team field investigations will be coordinated with the property owner by the City. It is assumed that investigations will be permitted without special conditions that result in unanticipated cost (e.g. a request for insurance coverage beyond BHC's current industry-standard levels).
- Surveying horizontal datum will be based on NAD 83/2011 Washington State Plane Coordinate System, South Zone using Washington State Reference Network (WSRN). Vertical datum will be based on NAVD 88 unless otherwise directed.
- Property corners will not be set during surveying.
- Records of survey will not be prepared.
- It is assumed that suitable information on utilities can be obtained from respective utility owners in the project area and be relied upon for purposes of design. Ground penetrating radar subsurface utility detection is excluded from this scope.
- Construction surveying and staking is excluded from this scope, but could be considered as part of a future scope to support the construction phase.
- City records and staff will be relied on to locate any subsurface non-metallic utilities that were installed without tracer wire.
- Geotechnical recommendations will be made based on maximum construction trench depths of approximately 10 feet below proposed and existing sewer inverts.
- Geotechnical investigations will not encounter contaminated soils.
- Dewatering system design will be by the contractor.

Task 3 – Alternatives Analysis

Work under this task will develop additional information that will be used to select the preferred respective interceptor upgrades. BHC will compare the capital, construction, and permitting requirements of each of the 3 interceptor alignments for discussion with the City. A preferred alternative will be identified for each alignment and documented. Task work includes the following:

Receivables:

- City review comments

Work Tasks:

- 3.1 Evaluate potential methods to replace the gravity sewer mains identified by the City. Specific activities to include;
 - Review field investigation information obtained by sub-consultants
 - Define and evaluate replacement alternatives
 - Evaluate the need to rehabilitate, modify, or replace existing sewer manholes.
 - Conduct site visit to evaluate onsite issues that may impact alternatives
 - Prepare a budgetary opinion of probable construction costs for each alternative.
- 3.2 Prepare a draft Alternatives Analysis Report of findings and recommendations based on the available data and fieldwork. The report will include:
 - Summary of evaluated alternatives associated with each interceptor segment, including alignments, installation methods, pipe and manhole materials and coatings, and opinions of probable construction costs.

- Description of recommended sewer main replacement and installation methods, referencing any relevant geotechnical, groundwater or physical site constraints that influence the recommendations.
 - Identify permitting requirements for each alternative.
- 3.3 Prepare draft Alternatives Analysis Report figures that indicate plans/profiles; new, replaced, or rehabilitated manholes; elevation information; and site restoration.
- 3.4 Attend a workshop with the City to review and discuss the draft Alternatives Analysis Report.
- 3.5 Prepare a final Alternatives Analysis Report of findings and recommendations that address City review comments and feedback.

Assumptions:

- BHC will evaluate up to five (5) installation alternatives per each interceptor segment; alternatives may include but are not limited to:
 - Pipe Bursting
 - Pipe Reaming
 - Open Trench Replacement
 - Jack and Bore
 - Pilot-tube Microtunneling
 - Horizontal Directional Drilling
- BHC will evaluate up to three (3) prospective pipeline materials and manhole coating systems, recommending final design exclude any alternatives proven not fit for project conditions or City budget.
- The Consultants will make One (1) site visit to conduct work tasks detailed above.
- The Consultants will attend One (1) Workshop with the City.
- The City will make provisions to have City staff available for project coordination and field walks as requested and scheduled by the Consultant.

Deliverables:

- Draft Alternatives Analysis Report
- Meeting minutes from the Workshop
- Final Alternatives Analysis Report

Task 4 – Phase I Design, Opinion of Costs, and Submittals

BHC will provide drawings, specifications, and opinions of probable costs for the project area along the 72nd Avenue NW Interceptor identified herein as Phase I construction activities. To expedite the schedule, it is proposed formal submittals be limited to the 50%, 90% and Final completion levels. However, to allow for City input and review at earlier levels of project development, meetings will be conducted utilizing teleconferences to the extent feasible, as described in the task below. Work under this task includes preparation of contract documents to be used for public advertisement and construction by a general contractor.

Level of effort estimates within this proposal are based on initial plan set for installation of approximately 1,400 lineal feet of 15-inch diameter gravity sewer piping and manholes. It is estimated that the set will be comprised of 4 general sheets (cover, general notes and design criteria, legend and abbreviations, site map with plan/profile key, designated staging areas, survey control and notes); 1 demolition sheet (site plan, details and notes); 1 temporary erosion and sedimentation control sheets (plan, details and notes); 5 civil sheets (3 plan/profile at 1"=20' scale, 1 project specific details, 1 City standard details); and 1 restoration sheets (site plan, details and notes). At each design milestone, project specifications and opinions of probable construction cost will also be developed and submitted to the City. Task 4 includes completion of each of the major design elements and preparation of construction bidding documents, in accordance with WAC 173-240-070, as follows:

Receivables:

- City review comments

Work Tasks:

- 4.1 Design Drawings and Specifications. This Subtask includes the effort for design of and preparation of drawings and specifications which will be used to prepare 50%, 90% and Final construction documents for the project. Included herein is the effort for BHC staff as construction document preparation responsibility, overall project management, and direct the preparation of the construction documents resides with BHC.
- 4.2 Opinions of Probable Costs. Provide an updated opinion of probable construction cost with the 50%, 90% and Final design submittals.
- 4.3 50%, 90% and Final Design Submittals.
 - Provide drawing and specification submittals at the 50%, 90% and Final design levels of completion. For the 50% and 90% submittals, one set of full-size (22"x34"), and one set of half-size (11"x17") drawings and specifications, and one electronic copy will be provided to the City for review. For the final submittal, 4 full size (22"x34") and 4 half size sets of drawings and specifications will be provided.
 - Final bid ready documents addressing City 90% design comments will contain the signature(s) of a professional engineer licensed to practice in the State of Washington.

Assumptions:

- Work to create new alignments will potentially necessitate some activities within private properties outside existing easements. BHC is not anticipating property acquisition or temporary construction easements efforts for these activities but any acquisition requirements identified during preliminary work will be addressed through an amendment if desired by the City.

Deliverables:

- 50% Design Submittal
- 90% Design Submittal
- Final Design Submittal
- Opinion of Probable Costs
- Final Design Drawings and Specification Documents in Electronic Format

Task 5 – Phase I Bid Period Services

This task will assist the City with advertising, bidding and award of the project to a Contractor.

Receivables:

- Payment for advertisement

Work Tasks:

- 5.1 Assist in Bid Advertisement. Assist the City in advertising the project in accordance with local and State bidding requirements. It is assumed that the City will pay advertising costs directly. Bid period services assume that the contract documents will be made available to Contractors by issuing the drawings and specifications through an electronic bidding service, such as Builder's Exchange and/or Western Construction Resources (at the City's discretion).
- 5.2 Attend Pre-Bid Meeting. Attend a pre-bid meeting with Contractors and vendors at City Hall or the project site to explain the project and answer questions.
- 5.3 Respond to Inquiries from Prospective Bidders. Receive and respond to questions during the bid period.
- 5.4 Prepare Addenda. Address questions that require a response or instigate a change to the project by issuing addenda through the electronic bidding service. The effort included in this scope of services is limited to preparation of no more than two (2) addenda.
- 5.5 Attend Bid Opening and Review Results. Attend the bid opening with the City, assist in reviewing the bids and make a recommendation to the City regarding award of the project.

Deliverables:

- Pre-Bid Meeting Agenda
- Bid Advertisement Text

- Addenda (if required)
- Bid Tabulation
- Recommendation for Award

OPTIONAL TASK – PHASE II

The following optional Phase II tasks will be performed only if given written approval from the City for inclusion in the original contract or by amendment. The efforts of Phase II reflect supplementing Phase I tasks above where scope of work and budget have been developed to reflect concurrent work, detailed design, and bidding services. If execution of the optional tasks below does not coincide reasonably with Phase I tasks 1, 4, & 5, BHC will need to reevaluate and potentially update the proposed scope of work and budget herein.

Task A1 – Project Management

Same as Task 1 above.

Receivables:

- None

Work tasks

A1.1 Correspondence and Coordination with City

- Maintain regular telephone, email and other communications with City Project Manager and operations staff, as necessary to execute the work. Create electronic record of project decisions rendered through these communications.
- Prepare monthly invoicing and project status summaries.

A1.2 Staff, Subconsultants and Budget Management

- Develop a consultant team project management work plan, including schedule, milestones, level of effort and deliverable expectations. Disseminate to BHC project team including subconsultants.
- Manage project staff and subconsultants to ensure compliance with project schedule and budget as well as scheduled deliverables.
- Schedule staff and subconsultant field activities in a manner convenient to the City.
- Facilitate interdisciplinary coordination to minimize conflicts during design development.

A1.3 QA/QC Program

- Conduct quality control reviews of all project deliverables in adherence with company policies. The Principal-in-Charge will lead the QA/QC program, and will involve other senior staff members as needed. A record of internal redlines and resultant revisions will be maintained.

Deliverables:

- Monthly invoices with project status summaries
- Written correspondence as required
- Two (2) design team teleconferences with City Staff

Task A2 – Phase II Design, Opinion of Costs, and Submittals

BHC will provide drawings, specifications, and opinions of probable construction costs for the project area along the Lower Pioneer Highway Interceptor identified herein as Phase II construction activities. To expedite the schedule, it is proposed formal submittals be limited to the 50%, 90% and Final completion levels. However, to allow for City input and review at earlier levels of project development, meetings will be conducted utilizing teleconferences to the extent feasible, as described in the task below. Work under this task includes preparation of contract documents to be used for public advertisement and construction by a general contractor.

Level of effort estimates within this proposal are based on initial plan set for installation of approximately 600 lineal feet of 15-inch diameter gravity sewer piping and manholes Supplemental sheets to be prepared under Phase I are anticipated to include 1 demolition sheet (site plan, details and notes); 1 temporary erosion and sedimentation control sheet (plan, details and notes); 3 civil sheets (2 plan/profile at 1"=20' scale, 1 project specific details); and 1 restoration sheet (site plan, details, and notes). At each design milestone, project specifications and opinions of probable construction cost will also be developed and submitted to the City. Task A4 includes completion of each of the major design elements and preparation of construction documents, in accordance with WAC 173-240-070, as follows:

Receivables:

- City review comments

Work Tasks:

- A2.1 Design Drawings and Specifications. This Subtask includes the effort for design of and preparation of drawings and specifications which will be used to prepare 50%, 90% and Final construction documents for the project. Included herein is the effort for BHC staff as construction document preparation responsibility, overall project management, and direct the preparation of the construction documents resides with BHC.
- A2.2 Opinions of Probable Costs. Provide an updated opinion of probable construction cost with the 50%, 90% and Final design submittals.
- A2.3 50%, 90% and Final Design Submittals.
 - Provide drawing and specification submittals at the 50%, 90% and Final design levels of completion. For the 50% and 90% submittals, one set of full-size (22"x34"), and one set of half-size (11"x17") drawings and specifications, and one electronic copy will be provided to the City for review. For the final submittal, 4 full size (22"x34") and 4 half size sets of drawings and specifications will be provided.
 - Final bid ready documents addressing City 90% design comments will contain the signature(s) of a professional engineer licensed to practice in the State of Washington.

Assumptions:

- Work to create new alignments will potentially necessitate some activities within private properties outside existing easements. BHC is not anticipating property acquisition or temporary construction easements efforts for these activities but any acquisition requirements identified during preliminary work will be addressed through an amendment if desired by the City.

Deliverables:

- 50% Design Submittal
- 90% Design Submittal
- Final Design Submittal
- Opinion of Probably Costs
- Final Design Drawings and Specification Documents in Electronic Format

Task A3 – Phase II Bid Period Services

This task will assist the City with advertising, bidding and award of the project to a Contractor.

Receivables:

- Payment for advertisement

Work Tasks:

- A3.1 Respond to Inquiries from Prospective Bidders. Receive and respond to questions during the bid period.
- A3.2 Prepare Addenda. Address questions that require a response or instigate a change to the project by issuing addenda through the electronic bidding service. The effort included in this scope of services is

limited to preparation of no more than two (2) addenda.

Deliverables:

- Pre-Bid Meeting Agenda
- Bid Advertisement Text
- Addenda (if required)
- Bid Tabulation
- Recommendation for Award

EXHIBIT B
PHASE I PROJECT BUDGET

City of Stanwood
Pioneer Highway Sanitary Sewer Upgrades - Phase I
Project Budget
Date: March 2018

2018 Billing Rate	Principal in Charge <i>Dorn</i>		Project Manager <i>Kelsey</i>		Project Engineer/ Design Lead <i>Gray</i>		Civil Engineer <i>Maturi</i>		Staff Engineer <i>Love/Miller</i>		CAD Drafter <i>Cariaso</i>		Admin/Clerical Support <i>Sifferman</i>		Accounting <i>Pierson</i>		BHC Total		Subconsultants				Budget	
	\$230.00		\$212.00		\$138.00		\$147.00		\$108.00		\$110.00		\$90.00		\$111.00		hours	cost	1Alliance	Aspect	BHC Markup	Total	Cost	
	hours	cost	hours	cost	hours	cost	hours	cost	hours	cost	hours	cost	hours	cost	hours	cost								
Task 1: Project Management																								
1. Correspondence and Coordination with City			\$0	16	\$3,392	8	\$1,104		\$0		\$0		\$0		\$0		\$0	24	\$4,496			\$0	\$0	\$4,496
2. Staff, Subconsultants and Budget Management			\$0	16	\$3,392	8	\$1,104		\$0		\$0		\$0		\$0	7	\$777	31	\$5,273			\$0	\$0	\$5,273
3. QA/QC Measures		15	\$3,450		\$0		\$0		\$0		\$0		\$0		\$0		\$0	15	\$3,450			\$0	\$0	\$3,450
Subtotal		15	\$3,450	32	\$6,784	16	\$2,208	0	\$0	0	\$0	0	\$0	0	\$0	7	\$777	70	\$13,219	\$0	\$0	\$0	\$0	\$13,219
Task 2: Site Investigation																								
1. Project Site Surveying			\$0	2	\$424	6	\$828		\$0		\$0		\$0		\$0		\$0	8	\$1,252	\$34,917		\$3,492	\$38,409	\$39,661
2. Geotechnical Explorations			\$0	2	\$424	6	\$828		\$0		\$0		\$0		\$0		\$0	8	\$1,252	\$29,200		\$2,920	\$32,120	\$33,372
Subtotal		0	\$0	4	\$848	12	\$1,656	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0	16	\$2,504	\$64,117	\$0	\$6,412	\$70,529	\$73,033
Task 3: Alternatives Analysis																								
1. Evaluate potential pipe replacement methods			\$0	2	\$424	8	\$1,104		\$0		\$0		\$0		\$0		\$0	10	\$1,528			\$0	\$0	\$1,528
2. Evaluate pipe materials and manhole coating systems			\$0	2	\$424	4	\$552		\$0	2	\$216		\$0		\$0		\$0	8	\$1,192			\$0	\$0	\$1,192
3. Draft Alternatives Analysis Report			\$0	10	\$2,120	28	\$3,864		\$0	16	\$1,728		\$0	8	\$720		\$0	62	\$8,432			\$0	\$0	\$8,432
4. Alternatives analysis figures			\$0	1	\$212	8	\$1,104		\$0	4	\$432	16	\$1,760		\$0		\$0	29	\$3,508			\$0	\$0	\$3,508
5. Workshop			\$0	4	\$848	4	\$552		\$0		\$0		\$0		\$0		\$0	8	\$1,400			\$0	\$0	\$1,400
6. Final Alternatives Analysis Report			\$0	2	\$424	8	\$1,104		\$0	2	\$216		\$0	2	\$180		\$0	14	\$1,924			\$0	\$0	\$1,924
Subtotal		0	\$0	21	\$4,452	60	\$8,280	0	\$0	24	\$2,592	16	\$1,760	10	\$900	0	\$0	131	\$17,984	\$0	\$0	\$0	\$0	\$17,984
Task 4: Phase I - Detailed Design, Opinion of Costs, and Submittals																								
1. Final Detailed Design Drawings and Specifications			\$0	23	\$4,876	80	\$11,040	17	\$2,499	46	\$4,968	144	\$15,840	19	\$1,710		\$0	329	\$40,933			\$0	\$0	\$40,933
2. Opinions of Probable Construction Costs			\$0	2	\$424	12	\$1,656	2	\$294	12	\$1,296		\$0	1	\$90		\$0	29	\$3,760			\$0	\$0	\$3,760
3. 50%, 90%, and Final Design Submittals			\$0	4	\$848	16	\$2,208		\$0	6	\$648	8	\$880	8	\$720		\$0	42	\$5,304			\$0	\$0	\$5,304
Subtotal		0	\$0	29	\$6,148	108	\$14,904	19	\$2,793	64	\$6,912	152	\$16,720	28	\$2,520	0	\$0	400	\$49,997	\$0	\$0	\$0	\$0	\$49,997
Task 5: Phase I - Bid Period Services																								
1. Assist in bid advertisement			\$0	1	\$212	2	\$276		\$0		\$0		\$0	4	\$360		\$0	7	\$848			\$0	\$0	\$848
2. Attend pre-bid meeting			\$0	4	\$848	4	\$552		\$0		\$0		\$0		\$0		\$0	8	\$1,400			\$0	\$0	\$1,400
3. Respond to inquiries from prospective bidders			\$0	1	\$212	4	\$552		\$0	4	\$432		\$0		\$0		\$0	9	\$1,196			\$0	\$0	\$1,196
4. Prepare Addenda			\$0	1	\$212	4	\$552		\$0		\$0		\$0	2	\$180		\$0	7	\$944			\$0	\$0	\$944
5. Attend opening, review results, and recommendation			\$0	1	\$212	2	\$276		\$0		\$0		\$0		\$0		\$0	3	\$488			\$0	\$0	\$488
Subtotal		0	\$0	8	\$1,696	16	\$2,208	0	\$0	4	\$432	0	\$0	6	\$540	0	\$0	34	\$4,876	\$0	\$0	\$0	\$0	\$4,876
Total Direct Labor		15	\$3,450	94	\$19,928	212	\$29,256	19	\$2,793	92	\$9,936	168	\$18,480	44	\$3,960	7	\$777	651	\$88,580	\$64,117	\$0	\$6,412	\$70,529	\$159,109
Other Direct Costs																								
Printing																						\$	756	
Communications (3% of BHC Total Direct Labor)																						\$	2,657	
Travel Costs - 6 trips x 150 miles average																						\$	504	
Subtotal																						\$	3,917	
GRAND TOTAL																						\$	163,026	

EXHIBIT B
PHASE II PROJECT BUDGET

City of Stanwood
Pioneer Highway Sanitary Sewer Upgrades - Phase II
Project Budget
Date: March 2019

2017 Billing Rate	Principal in Charge <i>Dorn</i>		Project Manager <i>Kelsey</i>		Project Engineer/ Design Lead <i>Gray</i>		Civil Engineer <i>Maturi</i>		Staff Engineer <i>Love/Miller</i>		CAD Drafter <i>Cariaso</i>		Admin/Clerical Support <i>Sifferman</i>		Accounting <i>Pierson</i>		BHC Total		Subconsultants				Budget		
	\$230.00		\$212.00		\$138.00		\$147.00		\$108.00		\$110.00		\$90.00		\$111.00		hours	cost	1Alliance	Aspect	BHC Markup	Total	Cost		
	hours	cost	hours	cost	hours	cost	hours	cost	hours	cost	hours	cost	hours	cost	hours	cost									
Task A1: Project Management																									
1. Correspondence and Coordination with City			\$0	6	\$1,272	4	\$552		\$0		\$0		\$0		\$0		\$0	10	\$1,824			\$0	\$0	\$1,824	
2. Staff, Subconsultants and Budget Management			\$0	4	\$848	4	\$552		\$0		\$0		\$0		\$0	4	\$444	12	\$1,844			\$0	\$0	\$1,844	
3. QA/QC Measures		7	\$1,610		\$0		\$0		\$0		\$0		\$0		\$0		\$0	7	\$1,610			\$0	\$0	\$1,610	
Subtotal		7	\$1,610	10	\$2,120	8	\$1,104	0	\$0	0	\$0	0	\$0	0	\$0	4	\$444	29	\$5,278	\$0	\$0	\$0	\$0	\$5,278	
Task A2: Phase I - Detailed Design, Opinion of Costs, and Submittals																									
1. Final Detailed Design Drawings and Specifications			\$0	12	\$2,544	47	\$6,486	12	\$1,764	26	\$2,808	98	\$10,780	4	\$360		\$0	199	\$24,742			\$0	\$0	\$24,742	
2. Opinions of Probable Construction Costs			\$0	2	\$424	8	\$1,104	2	\$294	8	\$864		\$0	1	\$90		\$0	21	\$2,776			\$0	\$0	\$2,776	
3. 50%, 90%, and Final Design Submittals			\$0	2	\$424	8	\$1,104		\$0	4	\$432	8	\$880	4	\$360		\$0	26	\$3,200			\$0	\$0	\$3,200	
Subtotal		0	\$0	16	\$3,392	63	\$8,694	14	\$2,058	38	\$4,104	106	\$11,660	9	\$810	0	\$0	246	\$30,718	\$0	\$0	\$0	\$0	\$30,718	
Task A3: Phase I - Bid Period Services																									
3. Respond to inquiries from prospective bidders			\$0	1	\$212	4	\$552		\$0	4	\$432		\$0		\$0		\$0	9	\$1,196			\$0	\$0	\$1,196	
4. Prepare Addenda			\$0	1	\$212	4	\$552		\$0		\$0		\$0	2	\$180		\$0	7	\$944			\$0	\$0	\$944	
Subtotal		0	\$0	2	\$424	8	\$1,104	0	\$0	4	\$432	0	\$0	2	\$180	0	\$0	16	\$2,140	\$0	\$0	\$0	\$0	\$2,140	
Total Direct Labor		7	\$1,610	28	\$5,936	79	\$10,902	14	\$2,058	42	\$4,536	106	\$11,660	11	\$990	4	\$444	291	\$38,136	\$0	\$0	\$0	\$0	\$38,136	
Other Direct Costs																									
Printing																								\$	378
Communications (3% of BHC Total Direct Labor)																								\$	1,144
Subtotal																								\$	1,522
GRAND TOTAL																								\$	39,658

Exhibit C

Schedule of Non-Labor Charges

January 1, 2018

Non-Labor Charges	Description	Fee
Reproduction		
<i>In-House Reproduction</i>		
<i>B&W Print</i>	8.5" x 11"	\$0.15/Copy
<i>B&W Print</i>	11" x 17"	\$0.30/Copy
<i>B&W Plot (Line Drawings)</i>	up to 6 sq. ft.	\$2.00/Copy
<i>B&W Plot (Line Drawings)</i>	Large Format Plot (> 6 sq. ft.)	\$0.33/Sq. Ft.
<i>B&W Mylar</i>	up to 6 sq. ft.	\$14.00/Copy
<i>Color Plot (Color Graphics)</i>	up to 6 sq. ft.	\$12.00/Copy
<i>Color Plot (Color Graphics)</i>	Large Format Plot (> 6 sq. ft.)	\$2.00/Sq. Ft.
<i>Color Print</i>	8.5" x 11"	\$1.00/Copy
<i>Color Print</i>	11" x 17"	\$2.00/Copy
<i>External Reproductions</i>		Cost + 10%
Subconsultants & Contractors		Cost + 10%
Transportation & Travel		
<i>Airfare</i>		Cost
<i>Lodging</i>		Cost
<i>Meals</i>		Cost
<i>Vehicle Rental & Gas</i>		Cost
<i>Public Transportation & Taxis</i>		Cost
<i>Parking</i>		Cost
<i>Mileage</i>		IRS Rate
Telecommunication, Faxes, Standard U.S. Mail, Mobile Phones, Internet Access and Hardware		Cost + 10%
Express Mail & Courier		Cost + 10%
Special Fees, Insurance, Permits, and Licenses		Cost + 10%
Software & Equipment		Cost + 10%

Exhibit C
2018 Schedule of Charges



Billing Title	Hourly Billing Rates
Principal Engineer	\$220 - \$255
Senior Structural Engineer	\$160 - \$230
Senior Electrical Engineer	\$160 - \$230
Senior Engineer	\$160 - \$225
Project Engineer	\$130 - \$180
Staff Engineer	\$100 - \$120
Engineering Technician*	\$75 - \$110
Planning Manager	\$165 - \$220
Senior Planner	\$125 - \$165
Planner	\$100 - \$125
GIS Specialist*	\$100 - \$110
Sr. Field Inspector*	\$120- \$160
Field Inspector & Building Inspectors*	\$90 - \$120
Building Code Compliance Review	\$90 - \$230
CAD Manager*	\$140 - \$165
Draftsperson*	\$100 - \$120
Project Administrator*	\$90 - \$120
Project Assistant/Word Processor*	\$90 - \$120

Professional Reimbursement:

The hourly billing rates include the cost of salaries of the BHC employees, plus paid sick and safe leave, vacation, holiday, other fringe benefits, indirect overhead and fee. All employees classified as “non-exempt” (billing category denoted with *) by the U.S. Department of Labor will be compensated at 1-1/2 times salary for overtime hours, as per State and Federal wage and hour laws. Billing rates will be calculated accordingly for these overtime hours.

Communication Fee:

Project Labor times 3.0% which includes telecommunications, faxes, standard U.S. Mail, mobile phones, and internet access.

Direct Expenses:

Reimbursement for direct expenses incurred in connection with the work, will be at cost plus ten percent. See **Schedule of Non-Labor Charges** for detail.

The foregoing Schedule of Charges is incorporated into the agreement for the services provided, effective January 1, 2018 through December 31, 2018, and will be adjusted thereafter.



22 March 2018
18-093

Kenneth Gray
BHC Consultants, LLC
1601 Fifth Avenue, Suite 500
Seattle, WA 98101
Kenneth.Gray@bhccconsultants.com

Subject: **Professional Surveying Services Proposal
Pioneer Highway Sewer Upgrades**

Dear Kenneth,

1 Alliance is pleased to provide this proposal for professional surveying services in support of BHC's efforts for the Pioneer Highway Sewer Upgrades Project in Stanwood.

In addition to being a leading provider of professional surveying services, 1 Alliance is also a Washington State Certified MBE (#M4M0022928), and Federally Certified DBE (#D4M0022928).

Scope of Services

The consultant shall provide topographic surveying and mapping within the area outlined in the proposed survey limits exhibit. Surveying shall be performed under the direction of a land surveyor licensed in the State of Washington. Consultant shall coordinate with and conform to City of Stanwood requirements for traffic control and Street Use Permits for work under this Contract if needed.

1. Geodetic and Cadastral Survey Control

Horizontal Datum and Coordinate System – survey work shall reference the Washington State Plane Coordinate System using the NAD83 (1991) datum as established in accordance with Chapter 58.20 Revised Code of Washington and shall be in US Survey Foot units. The horizontal control to establish ties to the datum shall be shown on the plans and/or in the surveyor notes. The Vertical Datum for the survey work shall reference the North American Vertical Datum of 1988 (NAVD 1988). The benchmark used to establish ties to the datum shall be shown on the plans and/or in the surveyor's notes.

- **Geodetic Control:** This task involves the establishment of survey control at the project site for use in all phases of the project. Typically, survey control will be established using GPS together with terrestrial Total Station observations.
- **Cadastral Control:** This task involves records research and the recovery and observation of cadastral monumentation for use in the resolution of the ROW and parcel boundaries.

2. Mapping

The consultant shall locate and map visible features necessary for the creation of an engineering design base map as shown in **Exhibit A**. These features include:

- a. Topographic and Planimetric
 - i. Roadway and pavement
 - ii. Channelization and pavement markings
 - iii. Curb and sidewalk, including curb cuts and ADA ramps
 - iv. Signs and signals
 - v. Trees and significant vegetation
 - vi. Walls, rockeries, and other structures (or faces of)
 - vii. Ground measurements will be captured sufficient to generate a digital terrain model (DTM) at one-foot contours.
- b. Utility Mapping
 - i. Surface observable utilities, to include power poles, vaults, risers, fire hydrants, water valves, water meters, gas valves, traffic signal and traffic control boxes, and overhead utility lines.
 - ii. Stormwater structures – Catch Basins and Storm Drain Manholes. Pipe size, material, and invert elevations will be obtained, if possible, at each structure. Nearest drainage structure outside the mapping limits will also be collected.
 - iii. Sanitary sewer structures – Sewer manholes. Pipe size, material, and invert elevations will be obtained, if possible, at each structure. Nearest drainage structure outside the mapping limits will also be collected.
 - iv. Subsurface utility locates, typically by paint on the surface, if necessary.

3. Project Limits

- a. Area 1
 - i. Full Right-of-Way along Pioneer Highway from the northwesterly edge of the crosswalk located at the northerly side of the intersection of Pioneer Highway and 272nd St. NW. From the southwesterly projection of the crosswalk to the approximate southwesterly Right-of-Way margin of Triangle Dr. The southerly

limits will extend approximately 65 feet south of the intersection of Pioneer Highway and 267th Pl. NW.

b. Area 2

- i. Full Right-of-Way along Pioneer Highway from the 25 feet northerly from house 8088 262nd St. NW to the southeasterly property line, and it's southwesterly projection, of house 7996 262nd St. NW. The easterly limits will be the west 20 feet of the properties.

c. Area 3

- i. Full Right-of-Way along Pioneer Highway extending 1000 feet northwesterly from the intersection with 72nd Ave NE. Full Right-of-Way 72nd Ave NE beginning 35 feet north of the intersection with 261st St. NW to the intersection with Pioneer Highway.

4. Survey Quality Control

The consultant shall designate a Survey Quality Leader for the project. This person will be the primary point of contact for the project team for quality-related activities with respect to surveying and mapping. This Survey Quality Leader will be charged with providing and documenting that the work done for each project segment has been performed in accordance with the prescribed QA/QC procedures. The Survey Quality Leader is also responsible for instituting specific procedures for the quality control checking of specialized work in addition to maintaining and archiving the appropriate QA/QC documentation. The Survey Quality Leader will confirm that QA/QC measures were executed and documented for the work done under their direction.

Deliverables

1. Project Basemap at 1" = 20' scale, or as requested by The Client, supervised by a Land Surveyor licensed to practice in the State of Washington.
2. Integrated Land XML-compatible digital terrain model.
3. An electronic ASCII file with point numbers, coordinates, elevations, and descriptions for each survey point, with benchmarks and survey control points clearly identified.
4. Right-of-way CAD file at 1" = 20' scale, or as requested by The Client, using NCS standards.

Assumptions

- Right-of-Entry (ROE) to adjacent properties, if required, to be obtained by the CLIENT.
- GIS to be used for the approximate Right-of-Way and parcel lines.
- Traffic control, if necessary, provided by 1Alliance Geomatics and will be a uniformed police officer.
- Boundary and parcel resolution is not a part of these services.
- Property corners will not be set in conjunction with this survey.



- Trees 8" or greater measured 4 feet above grade will be located.
- Measurement of tree driplines/canopies are not a part of these services.
- 1 Alliance will notify The CLIENT of any unsafe working conditions so that they may be fixed.
- 1 Alliance is not responsible for any delays due to unsafe conditions.

Sincerely,

1 Alliance Geomatics, LLC

A handwritten signature in blue ink that reads 'Mark Groot'.

Mark Groot, PLS
Project Manager

EXHIBIT A

Area 1

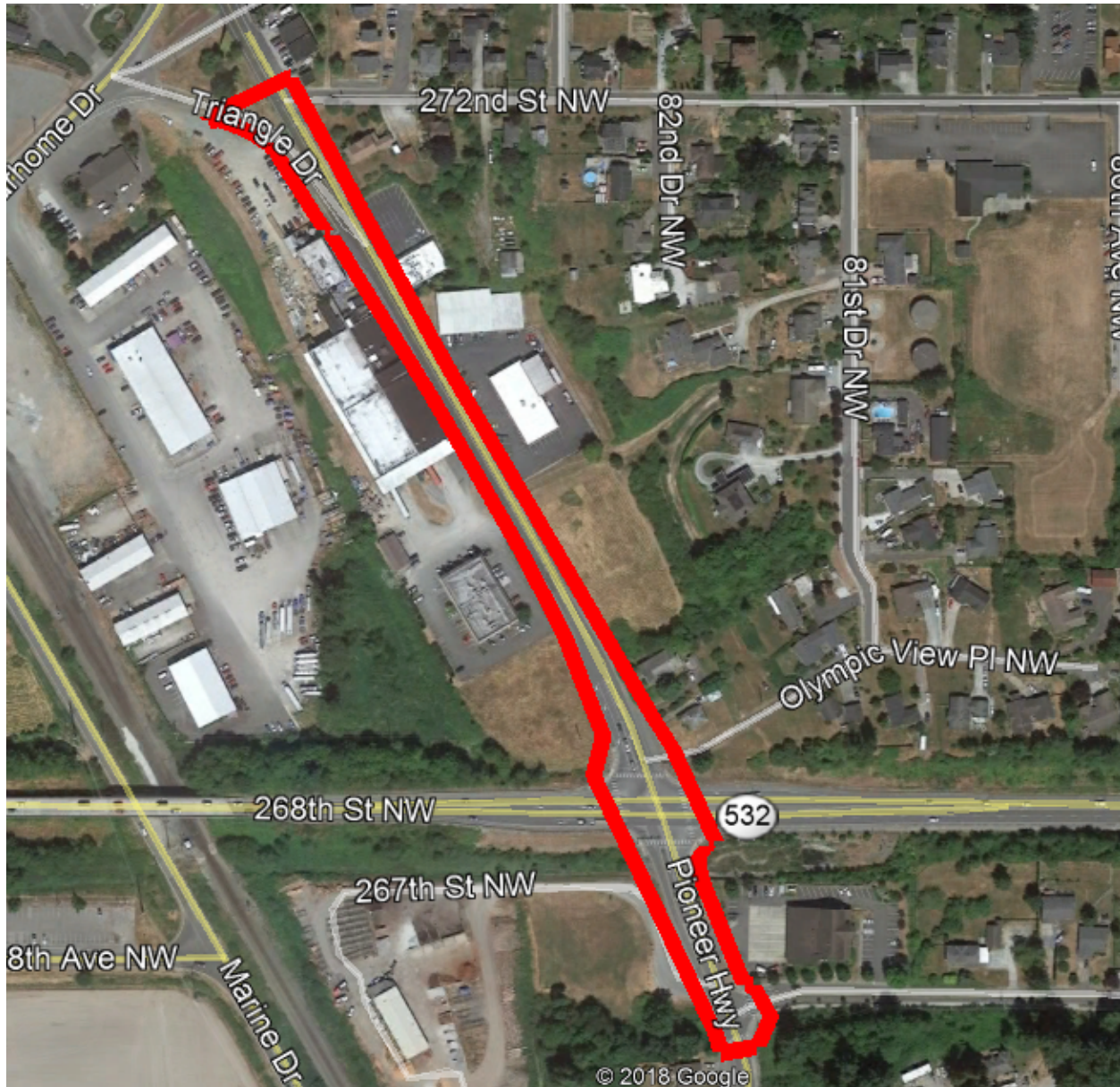


EXHIBIT A (cont.)

Area 2

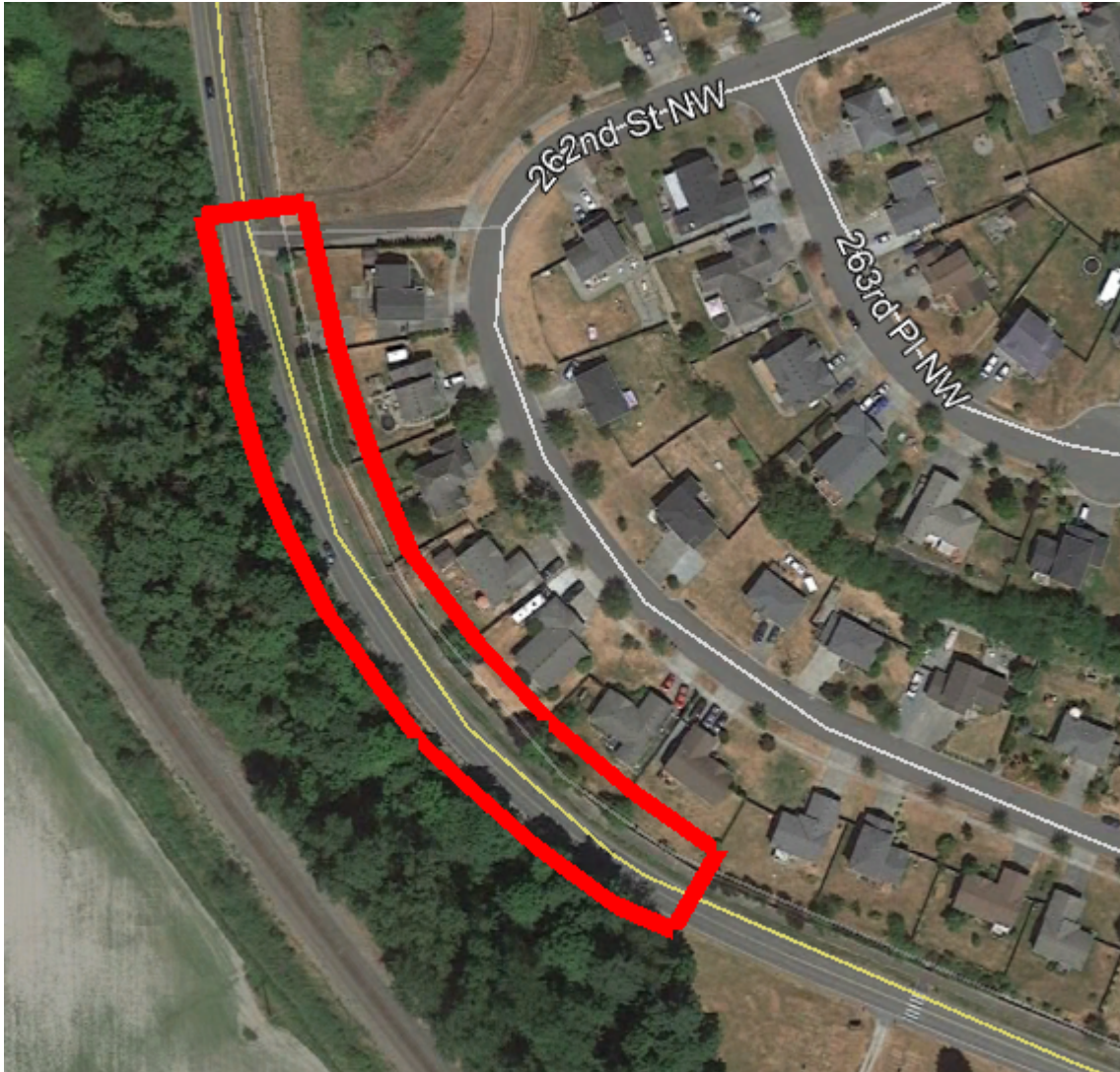
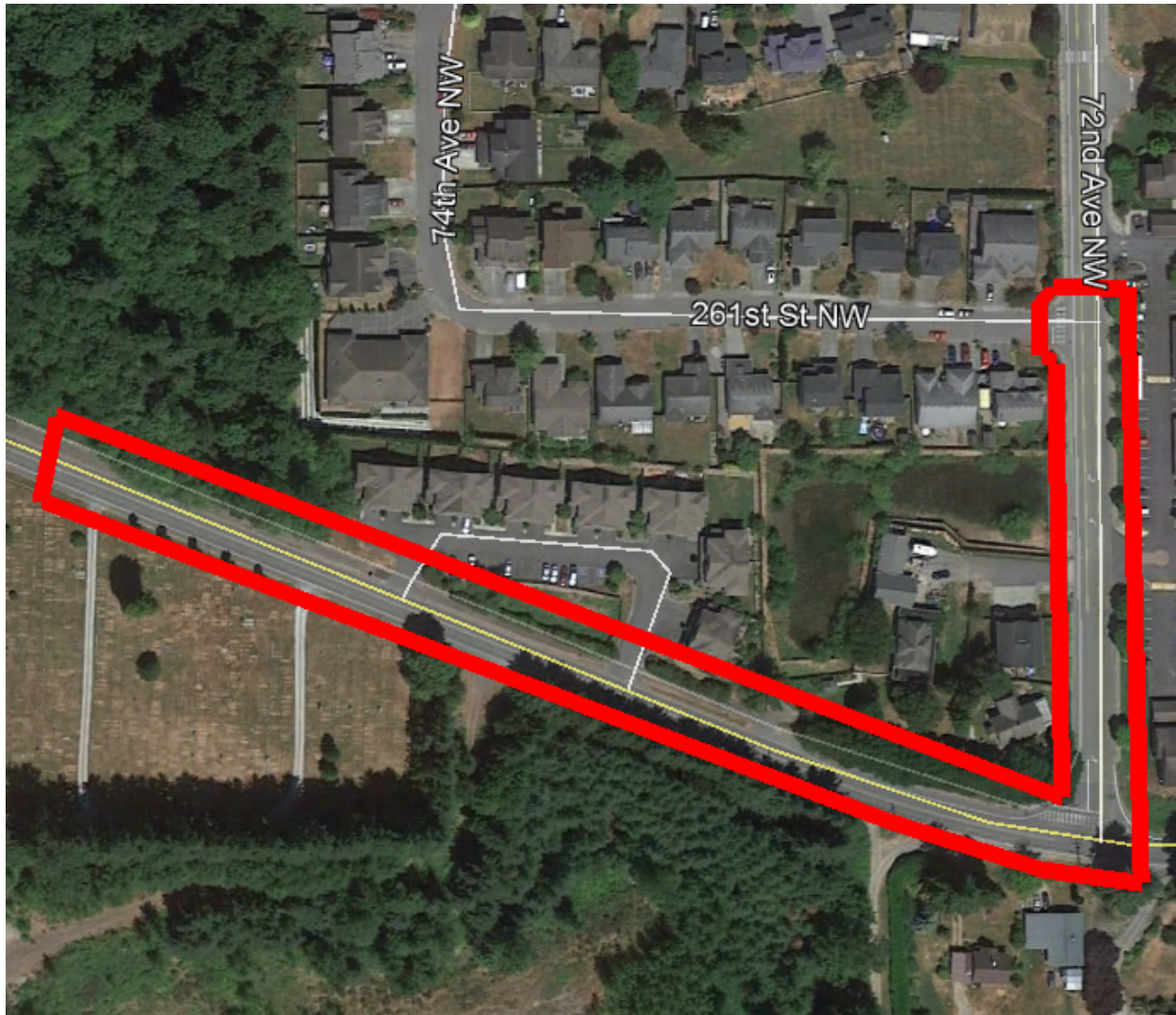


EXHIBIT A (cont.)

Area 3



PROJECT	NUMBER	BHCC18-093
	NAME	Pioneer Hwy Sewer
	CLIENT	BHC Consultants
	OWNER	Stanwood, City of



1 ALLIANCE
GEOMATICS
 SURVEYING & MAPPING

TASK			Principal	PM	A. PM	CADD 5	CADD 3	Tech 5	Tech 3	Tech 1	FEE
			\$ 224.25	\$ 137.61	\$ 79.00	\$ 104.48	\$ 85.37	\$ 117.22	\$ 81.55	\$ 68.80	
NUMBER	DESCRIPTION	HOURS									TASK
1	1.2.00 Mapping	203	1	2				80	120		\$ 19,663
2	2.2.00 Office CAD and QA/QC	104	2	16	4	2	80				\$ 10,005
3		0									\$ -
4		0									\$ -
5		0									\$ -
6		0									\$ -
7		0									\$ -
TOTAL HOURS		307	3	18	4	2	80	80	120	0	
			\$ 672.75	\$ 2,476.98	\$ 316.00	\$ 208.96	\$ 6,829.60	\$ 9,377.60	\$ 9,786.00	\$ -	
TOTAL DIRECT BURDENED SALARY COSTS											\$ 29,668
OTHER DIRECT COSTS											
MILEAGE		(ONE WAY)	55	MILEAGE (TOTAL MILES)		1100					\$ 600
number of field days		10	PER DIEM (DAYS)				\$ -				
NOTES			LODGING (DAYS)				\$ -				
			MATERIALS & SUPPLIES							\$ -	
			OTHER (DESCRIBE)				Traffic Control: Police Detail 8 hours at \$150/hr			\$ 600	
			SUE LOCATES				Underground Utility Locates by Sub-Consultant			\$ 4,050	
TOTAL OTHER DIRECT COSTS											\$ 5,250
GRAND TOTAL FEE ESTIMATE											\$ 34,917

\$ 29,668



March 28, 2018

Kenneth Gray, PE, Project Engineer
BHC Consultants
1601 Fifth Avenue, Suite 500
Seattle, Washington 98101

Via email: Kenneth.Gray@bhccconsultants.com

Re: Proposal for Geotechnical Engineering Services

City of Stanwood Sewer Line Replacement
CIP 17 – Pioneer Highway NW between Triangle Drive and 267th street NW;
CIP 18 – Pioneer Highway NW between Private Drive and Turnaround Loop; AND
CIP 19 – Pioneer Highway NW and 72nd Avenue NW between 7325 Pioneer Highway NW
and 261st Street NE
City of Stanwood, Washington
Project No. 180154

Dear Mr. Gray:

As requested, Aspect Consulting, LLC (Aspect) has prepared this proposal for BHC Consulting (BHC) for the City of Stanwood's (City) Sewer Line Replacement Project. This proposal includes our project understanding, scope of work, and cost estimate for the project.

Project Understanding and Aspect's Related Experience

The City plans to install new/enlarged sewer line, or possibly perform in-place upsizing (such as pipe ramming or bursting), at three areas, which are described below.

- CIP 17 – Pioneer Highway NW between Triangle Drive and 267th street NW (Labels: P-707, P-709, P-713, P-714, P-840, and P-842). The CIP 17 project will replace approximately 1,900 linear feet of existing 10-inch concrete with 15-inch sewer pipe. The southern approximately 300-foot segment of this area passes under Department of Transportation (WSDOT) State Route (SR) 532. Trenchless construction methods are anticipated under SR532.
- CIP 18 – Pioneer Highway NW between Private Drive and Turnaround Loop (Labels: P-826, P-828, P-832). This section will upsize approximately 700 feet of 8-inch polyvinyl chloride (PVC) with 15-inch sewer pipe.
- CIP 19 – Pioneer Highway NW and 72nd Avenue NW between 7325 Pioneer Highway NW and 261st Street NE (New Sewer Line Pipe, No Labels). In this area, approximately 1,500 linear feet of new 15-inch sewer line will be installed (none currently exists along this section).

The work also includes installation of manholes and related appurtenances and surface restoration.



Subsurface Conditions and Construction Considerations

Based on our review of site geology¹ the pipelines will likely be constructed within existing roadway or utility trench fill, and/or older alluvium (Qoal). The older alluvium form terraces north of the Stillaguamish River and appear to be parts of coalescing fans, and channel and deltaic deposits related to both the Stillaguamish River and Church Creek drainage areas. The sediments are well-bedded to lensing sand and gravel grading up into fine flood-plain sand, silt, and clay. The older alluvium is as thick as 60 feet and underlain by the adjacent older glacial units. Large volumes of sand and gravel from this unit have been used for fill and road material.

Depending on sewer invert depths and local topography, open trench construction may extend below groundwater. However, in our experience we believe that conventional open-cut installation techniques will be feasible using temporary shoring and construction dewatering methods where required. Existing fine-grained alluvium is moisture sensitive and will be difficult to reuse as structural backfill. Imported trench zone backfill will likely be needed for at least some portions of the project. The geotechnical study proposed below will provide the right information to inform these decisions.

Proposed Scope of Work

The purpose of our geotechnical study is to evaluate subsurface soil and groundwater conditions as a basis for providing geotechnical engineering recommendations for the design and construction. Our proposed work scope includes these tasks:

Task 1 – Literature Review

We will review relevant and available geologic maps of the project areas, existing construction data, and available geotechnical reports in our files and those provided by the City for information regarding subsurface conditions.

Task 2 – Exploration Planning and Permitting

We will visit the project areas, meet with BHC and/or City utility personnel, to discuss the proposed exploration locations, and adjust conflicts based on utility mark-outs. We will then submit an *Exploration Program Plan*. The plan will include details pertaining to:

- Field work and schedules
- Aerial images showing the boring locations and sections of street parking areas that will need to be restricted during explorations
- Completed City of Stanwood Public Works Right-of-Way Use Permit
- Drilling equipment and method (with equipment photos)
- Site restoration complying with City Standards
- Utility notification tickets
- Traffic control plans per the MUTCD and include detailed restoration
- Safety plan and emergency response
- Contact information for Aspect's key personnel and subcontractors

¹ Minard, J.P., 1985, Geologic map of the Stanwood Quadrangle, Snohomish County, Washington, US Geological Survey, Miscellaneous Field Studies Map 1741, 1: 24,000.

We anticipate traffic control will require single-lane closures in portions of the three project areas during drilling. The City will be notified in advance with the time and dates, and no explorations will be performed less than 48 hours prior.

Task 3 – Exploration Program and Soil Testing

A local geotechnical driller will be subcontracted to advance borings along the proposed pipeline alignments. The recommended number of borings to provide subsurface data are shown in the table below:

Project Area	Installation Segment	Explorations
CIP 17	Open-cut	2 borings
	Trenchless	2 borings
CIP18	Open-cut	1 borings
CIP 19	Open-cut	2 borings

A truck-or trailer-mounted drill rig will be used to advance hollow stem auger (HSA) borings, and soil samples will be obtained in accordance with standard penetration test (SPT) methods at 2½-foot intervals down to sewer invert elevation, and 5-foot intervals to up to 10 feet below sewer invert – generally between 20 to 25 feet bgs. In up to three of the borings, if groundwater is noted, we will install 2-inch standpipe piezometers to facilitate groundwater monitoring. The monitoring wells will be capped with traffic-rated, flush-mounted monument covers, set in concrete. In street sections, the borings will be backfilled and finished with quick-curing, ready-mix concrete and capped with black dye to approximately the existing pavement surface. In un-paved areas, borings will be restored with gravel at the surface. All drill cuttings generated during drilling will be drummed and removed from the site.

Explorations will be logged, groundwater conditions noted, and representative soil samples collected by a member of Aspect’s geotechnical staff. Soil samples will be returned to our office for further examination, and selected samples will be submitted for geotechnical laboratory testing to determine index and engineering properties. Tests may include moisture content, grain-size distribution, and moisture density.

Task 4 – Deliverables and Geotechnical Design

A *Draft* and a *Final* geotechnical engineering report will be prepared containing the results of our services, including the following information:

- A Site Plan showing the explorations locations with assigned stationing
- Exploration logs and a summary table of pertinent data
- Laboratory test results
- Groundwater considerations
- Design and construction considerations, including:

- An assessment of the suitability of in-situ pipe upsizing methods (such as pipe bursting);
- Open trench pipe construction including excavations, temporary shoring, and construction dewatering (if required);
- Feasible trenchless pipe installation methods for the SR 532 undercrossing;
- Pipe zone bedding, backfill requirements, and suitability of soil reuse as trench backfill;
- General earthwork considerations including structural fill material and preparation, subgrade preparation, wet weather earthwork, and temporary erosion control; and
- Pavement section design and restoration.

We will address BHC's and the City's review comments or questions on the *Draft* and issue a *Final* geotechnical engineering report, sealed by a licensed professional engineer from Aspect.

Budget

We propose to complete this scope of work for an estimated cost of **\$29,200** on a lump sum basis. A breakdown of our estimated costs is provided below.

<u>Scope</u>	<u>Fee</u>
Aspect Labor	\$16,300
Laboratory Testing	\$2,000
Miscellaneous Expenses	\$400
Subcontractor Fees (Driller and Traffic Control)*.....	<u>\$10,500</u>
Total (Lump Sum).....	\$29,200

This scope of services does not include geotechnical engineering assistance during detailed plan and specification preparation, nor does this include services during construction. Aspect is available to provide additional services upon request. Additional requested services would be billed on a time and materials basis in accordance with our standard Schedule of Charges (attached).

Schedule

We are prepared to begin work immediately. Depending on our drilling subcontractor's availability, field explorations can be completed within 3 weeks of notice to proceed. We can provide a summary of our preliminary findings within 1 week after the field work, and our final stamped report will be submitted within 5 weeks of completion of the field work.

Assumptions

Soil samples collected during the investigation will be stored for a minimum of 60 days after the completion of the subsurface exploration; however, storage beyond that date is not guaranteed.

Aspect will complete a "one-call" public utility notification prior to beginning our field explorations. All reasonable efforts will be made not to damage any existing underground utilities. However, our office will not be responsible for the costs of repairs associated with any damage to such utilities.

Environmental services are not included in this proposal. If environmental contamination is encountered during the field work, you will be notified immediately. Aspect can provide services to respond to these conditions, as requested.

Closure

As discussed above, our scope of services will be billed on a lump-sum basis. We will notify you and obtain your authorization if additional effort above and beyond the estimated scope of this work is required. We will use a Contract Change Form to request your authorization for any changes to this scope of services. This cost proposal is valid for 90 days unless extended in writing by Aspect Consulting.

Aspect Consulting's services will be provided in accordance with the attached Terms and Conditions. This proposal and the attached Terms and Conditions, together, constitute the Agreement between Aspect Consulting and BHC Consultants (Client). Your signature below represents acceptance of this Agreement, and provides written authorization to proceed. Please return one signed copy of this Agreement to Aspect Consulting, and retain a signed copy for your records.

In closing, we again thank you for the opportunity to present this proposal. Please contact Erik Andersen at 360.746.8964 if you have any questions or would like to discuss any changes to our proposed scope of work.

Sincerely,

Aspect consulting, LLC



Mark Swank, LG, LEG
Senior Engineering Geologist
mswank@aspectconsulting.com



Erik O. Andersen, P.E.
Senior Associate Geotechnical Engineer
eandersen@aspectconsulting.com

Client Representative

Date

Attachments: Terms and Conditions
Schedule of Charges

V:\180154 Pioneer Highway Sanitary Sewer Upgrades\Contracts\Proposal Material\180154_GeoPrpsl_20180328.docx

Aspect Consulting, LLC

Terms and Conditions

1. RIGHT OF ENTRY AND PROPERTY RESPONSIBILITY

The Client will obtain right of entry to the property where the Services are to be performed ("Property"). The right of entry shall allow Aspect and its subcontractors to enter the Property to perform the Services, which may require repeated visits to the Property for on-site monitoring if included in the description of Services. Aspect is responsible for its own activities, but has no responsibility for the Property, for third party safety precautions, or for the safety or control of third parties.

2. SUBSURFACE RISKS AND SITE DAMAGES

Client recognizes special risks exist whenever professional consulting services are employed to determine the composition of a site's subsurface or to determine the existence or non-existence of any man-made or natural subsurface features, including, but not limited to, hazardous substances. Client shall disclose to Aspect all known conditions, substances, or features in writing or in maps, plans or drawings. Even with adequate disclosure by Client, Client acknowledges that the use of exploration and testing equipment may unavoidably damage or alter the Property surface or subsurface and Client accepts this risk. Client assumes responsibility for claims and/or damages arising from changed or differing site conditions or to subsurface structures, including buried utility lines, pipes, tanks, tunnels, or other conditions and agrees to hold harmless, defend and indemnify Aspect and its subcontractors from any such claims and/or damages, including attorney fees, except to the extent directly caused by the negligence of Aspect or its subcontractors.

3. HAZARDOUS SUBSTANCES

Client shall provide Aspect with all information available to Client concerning past and present use of the Property and the nature and extent of any known or suspected hazardous substances or conditions, prior to Aspect performing the Services. Unless expressly stated otherwise in the Agreement, Client acknowledges that Aspect has no liability as a generator, operator, transporter, disposer, or arranger of the transportation and/or disposal of hazardous substances from the Property. Client agrees to hold harmless, defend and indemnify Aspect and its subcontractors from any claims and/or damages, including attorney fees, arising out of the presence, release, or threatened release of hazardous substances on or from the Property, except to the extent directly caused by the negligence of Aspect or its subcontractors.

4. SLOPE STABILITY

Client recognizes risks are inherent with any site involving slopes. Client accepts full responsibility for these risks. Client acknowledges that the information obtained or recommendations made by Aspect may help to reduce Client's risk but no amount of engineering or geologic analysis can assure slope stability. Therefore, Client agrees to hold harmless, defend and indemnify Aspect and its subcontractors from any claims and/or damages, including attorney fees, arising out of or related to slope movement, except to the extent directly caused by the negligence of Aspect or its subcontractors.

5. SAMPLE DISPOSAL / WELL DECOMMISSIONING

5.1 Aspect may dispose of any samples obtained from the Property 30 calendar days after the issuance of any document that includes the data obtained from the sample, unless other arrangements are mutually agreed upon in writing.

Unless expressly stated otherwise in the description of Services, the disposal cost for samples is not included in any cost estimate for the Services. Client acknowledges the difficulty in determining disposal costs in advance and authorizes Aspect to bill Client for expenses incurred in disposing of samples obtained from the Property.

5.2 Any wells installed as part of Aspect's work may later need to be properly decommissioned and recorded in accordance with applicable law. Unless expressly stated otherwise in the description of Services, well decommissioning and recording are not included in the Services to be performed by Aspect.

6. OWNERSHIP OF DOCUMENTS / WORK PRODUCT

6.1 Data, reports or information provided by Aspect under this Agreement shall only become the property of Client upon full payment for the Services. After full payment, Aspect shall retain joint ownership of all such information. Aspect shall retain copies of the original electronic files and/or hardcopy versions of information provided by Aspect or by Client. Aspect's originals shall govern in the event of any dispute regarding the content of electronic media furnished to others.

6.2 All reports prepared by Aspect under this Agreement are intended solely for the Client and apply only to the Services. Any use or reuse by Client for purposes outside of this Agreement is at the sole risk of Client and without liability to Aspect. Aspect shall not be liable for any third parties' use of the deliverables provided by Aspect.

6.3 Aspect is entitled to rely upon the completeness and accuracy of reports, documents, drawings, plans and other information furnished by Client concerning the Property or the project that is the subject of this Agreement.

6.4 In the event Aspect is required to respond to legal process related to the Services for Client, Client agrees to reimburse Aspect its current hourly charges for personnel involved in the response and attorney fees reasonably incurred in obtaining advice concerning the response, preparation to testify, and appearances related to the legal process, travel and all reasonable expenses associated with the litigation.

6.5 Unless a different time period is stated in the Agreement, Aspect shall retain records in accordance with Aspect's records retention policy.

7. PAYMENT TERMS

Invoices shall be submitted to Client upon completion of the Services, or if Services extend beyond 30 days, on a monthly basis for the preceding months work. Billing corrections must be requested within 30 days of invoice date. Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an additional interest and service charge of one and one-half percent (1.5%) (or the maximum rate permissible by law, whichever is lesser) per month or portion thereof from the due date until the date of payment. All fees will be charged or billed directly to Client. Aspect will not bill a third party without a statement, signed by the third party, accepting payment responsibility. In the event a third party fails to pay, Client shall remain liable for all unpaid invoices for the Services. Aspect may suspend work and/or withhold delivery of data for Services in the event Client fails to pay its invoices. Client shall be responsible for all costs and expenses of collection including reasonable attorney's fees.

8. PERFORMANCE AND WARRANTY LIMITATION

Aspect will perform all Services consistent with recognized standards of professionals in the same locality and involving similar conditions. **ASPECT MAKES NO OTHER WARRANTIES OR GUARANTEES OF ANY KIND, EXPRESS OR IMPLIED, IN CONNECTION WITH THE SERVICES.** No representative of Aspect is authorized to give or make any other representation or warranty in any way, in connection with the Services. Aspect shall not be liable for any failure or delay in performance by Aspect resulting, in whole or in part, from any cause beyond the reasonable control of Aspect.

9. INSURANCE / LIMITATION OF LIABILITY

9.1 Aspect maintains primary General Liability Insurance for bodily injury and property damage with a limit of \$1,000,000 per occurrence and \$2,000,000 aggregate. Aspect maintains Professional Liability insurance to provide coverage for liability resulting from professional errors and omissions.

9.2 Aspect's liability to Client for bodily injury or property damage covered by Aspect's General Liability Insurance policy shall be limited to the proceeds available from the primary General Liability Insurance policy. The liability of Aspect, its manager, members, professionals, employees, and subcontractors to the Client for damages, including attorney fees, resulting from an act, error or omission in providing or failing to provide professional services, whether based in tort or in contract, shall be limited to the greater of \$50,000 or the amount of compensation paid to Aspect under this Agreement, unless higher limits are agreed upon in writing. In no event shall either party be liable to the other party, for any consequential or incidental damages, including, without limitation, damages for loss of income, loss of profits and/or loss or restriction of use of the Property.

10. TERMINATION

Suspension or termination of all or any part of the Services may be initiated by Client; however Client shall be responsible for all fees owed Aspect for Services performed by Aspect, including all direct costs and all expenses incurred or committed that cannot be cancelled without penalty as well as reasonable termination expenses, prior to Aspect's receipt of written notice from Client. Either party may terminate this Agreement for cause in the event of the other party's substantial or material failure to perform in accordance with the terms hereof, through no fault of the terminating party. Except for termination arising out of delinquency in payment, a termination for cause shall not be effective unless: (i) not less than seven days' written notice of intent to terminate has been provided; (ii) the notice specifies all reasons for the termination; and (iii) the notified party is given an opportunity to consult with the terminating party to discuss the termination and to cure the substantial failure before the expiration of the period specified in the written notice.

11. MISCELLANEOUS PROVISIONS

11.1 These Terms and Conditions, together with the Agreement, the Schedule of Charges, and any additions or revisions agreed upon in writing by the parties, form the entire Agreement and control over all previous communications, representations, or agreements, either verbal or written, between Client and Aspect.

11.2 Aspect may assign work included under the Agreement to subcontractors.

11.3 Client and Aspect agree to use their best efforts to resolve any disputes, claims or other matters in controversy arising under or related to this Agreement.

11.4 These Terms and Conditions shall be governed by the laws of the State of Washington. The sole venue for any legal action related to this Agreement shall be King County, Washington.

11.5 The unenforceability of any term or condition herein shall not affect the validity or enforceability of the remainder to these Terms and Conditions; the intent of the parties being the provisions be severable. The section headings of these Terms and Conditions are intended solely for convenience and do not define or affect these Terms and Conditions or their interpretation. No waiver by either party of any provision, term or condition hereof or of any obligation of the other party hereunder shall constitute a waiver of any subsequent breach or other obligation.

Unless otherwise stated in the proposal or services agreement, current rates are as follows:

PERSONNEL CHARGES: ENGINEERS, SCIENTISTS, AND ANALYSTS	Hourly Rate
<i>Principals and Associates</i>	
Principal Scientist/Engineer/Analyst 2	\$244
Principal Scientist/Engineer/Analyst 1	\$231
Sr. Associate Scientist/Engineer/Analyst	\$214
Associate Scientist/Engineer/Analyst	\$200
<i>Technical Professionals</i>	
Senior Scientist/Engineer/Analyst 3	\$200
Senior Scientist/Engineer/Analyst 2	\$189
Senior Scientist/Engineer/Analyst 1	\$176
Project Scientist/Engineer/Analyst 3	\$162
Project Scientist/Engineer/Analyst 2	\$150
Project Scientist/Engineer/Analyst 1	\$139
Staff Scientist/Engineer/Analyst 3	\$129
Staff Scientist/Engineer/Analyst 2	\$117
Staff Scientist/Engineer/Analyst 1	\$109

PERSONNEL CHARGES: TECHNICAL AND PROJECT SUPPORT STAFF	Hourly Rate
<i>Field/Construction Staff</i>	
Field/Construction Supervisor	\$118
Field Technician 2	\$98
Field Technician 1	\$90
<i>Design, CAD, and Graphics Staff</i>	
Engineering Designer	\$140
Sr. CAD Technician/Specialist	\$125
CAD Technician	\$110
<i>Technical Editing and Project Operations</i>	
Sr. Technical Editor	\$111
Technical Editor	\$100
Project Coordinator 2	\$95
Project Coordinator 1	\$90

PERSONNEL CHARGES: TECHNOLOGY AND SOFTWARE DEVELOPMENT	Hourly Rate
Sr. Technology Project Manager	\$210
Technology Project Manager	\$195
Senior Software/Database Architect/ Developer	\$200
Software/Database Architect/Developer	\$175

OTHER DISBURSEMENT CHARGES

Legal Testimony (4-hour minimum)	\$350/hr
Mileage	Federal Gov Rate Plus 15%
Subcontractors and Miscellaneous Expenses	Cost Plus 15%
Other equipment, rentals, and expenses will be provided on a per job basis.	

Client acknowledges that Aspect will adjust the Schedule of Charges annually, and that the Agreement will remain valid for any and all annually adjusted Schedule of Charges.



**CITY OF STANWOOD
PUBLIC WORKS COMMITTEE
AGENDA STAFF REPORT**

ITEM NUMBER: 4

DATE: April 9, 2018

SUBJECT: Blueline Group Task Order for Various Sidewalk Projects

CONTACT PERSON: Shawn Smith, Assistant Public Works Director

ATTACHMENTS: A – Blueline Group Scope and Fee
B – Geotechnical Report

ISSUE

The issue in front of the committee is whether or not to issue a task order to The Blueline Group for services to design various section of sidewalk within the Non-Motorized Transportation Plan (NMTP).

SUMMARY

The city completed the NMTP in 2016 which listed several streets that have inadequate sidewalks. This would be another step in implementing these improvements. The locations are 92nd Avenue bowling alley, 276th St. from 70th to 72nd, and 72nd from the Housing Hope to 272nd to the High School.

DISCUSSION

In 2016, when the city was working on the NMTP, it was a requirement that staff would implement this plan, not just 'put it on a shelf'. This project will continue the implementation work that began in 2017. The projects selected have been determined to be high priority. The projects are:

- 92nd Avenue, from 271st St. to the Heritage Park trail. The majority of this work will be in front of the bowling alley. This project will make a connection from the Heritage Park trail to downtown, allowing pedestrians and cyclists to loop from the park to Main Street and back to the trail.
- 276th St., from 70th Ave. to 72nd Ave. This will provide sidewalk connections from Cedarhome elementary to Cedarhome Drive. Also, in conjunction with the next project, it will connect sidewalks from Copper Station to the High School.
- 72nd Ave./272nd St., from Housing Hope to 272nd Ave. and then to the High School. This will provide continuous sidewalk from the High School to the North end of town near 68th St.

These projects are in the city's NMTP and the capital improvement plan. 72nd Ave. sidewalk and 92nd Ave. sidewalk are both in the 2018 budget. There is also \$70,000 in the 2018 budget for new sidewalk/trail installation.

FINANCIAL IMPACT

The current contract is for \$141,000. There is \$533,587 budgeted for these projects in 2018.

**Exhibit "A" to the City of Stanwood Agreement for Services
between The City of Stanwood and The Blueline Group, LLC
for the Stanwood Sidewalk Improvement Projects dated April 3, 2018**

PROJECT DESCRIPTION

The Blueline Group, LLC ("Blueline") will provide design plans, specifications, and estimates ("PS&E") for the City of Stanwood's Sidewalk Improvement Projects ("Project") generally consisting of sidewalk, curb, gutter and ADA curb ramp improvements in the following areas of the City (As identified by the City of Stanwood):

- **92nd AVE NW:** Approximately 350 lineal feet along the Westerly half of 92nd Ave NW from approximately 125' North of the intersection with 271st St NW to the intersection with 272nd St NW.
- **72nd AVE NW:** Approximately 1,400 lineal feet along the Northerly half of 272nd St NW and the Westerly half of 72nd Ave NW from the intersection with Stadium Drive on the West to the intersection with Tyler Place NW on the North.
- **276th ST NW:** Approximately 850 lineal feet along the Northerly half of 276th St NW from approximately 175' West of the intersection with 72nd AVE NW to the intersection with 70th Ave NW.

TASK SUMMARY

Task 001	PROJECT MANAGEMENT
Task 002	SURVEY & BASE MAPPING
Task 003	GEOTECHNICAL ENGINEERING SERVICES
Task 004	OVERALL PRELIMINARY DESIGN
Task 005	92 ND AVE NW PS&E
Task 006	72 ND AVE NW PS&E
Task 007	276 TH ST NW PS&E
Task 008	UNASSIGNED SERVICES RESERVE

PROJECT SCHEDULE

Blueline shall begin work immediately upon receipt of Notice-to-Proceed from the City and proceed according to the following general Project Schedule. This schedule reflects the City's desire to complete design in 2018 with construction in early 2019. This schedule is very flexible and can be adjusted as needed. Key dates include:

Notice to Proceed.....	late April 2018
Survey & Information Gathering.....	May 2018
Overall Preliminary Design	June/July 2018
60% Design Submittals	July/August 2018
Project Walk-Through	August 2018
90% Design Submittals	late 2018/early 2019
Final Design Submittals.....	Spring 2019
Bid and Award	Spring 2019
Construction	late Spring 2019

SCOPE OF WORK

Blueline's scope of work for the Project is included on the following pages.

**Exhibit "A" to the City of Stanwood Agreement for Services
between The City of Stanwood and The Blueline Group, LLC
for the Stanwood Sidewalk Improvement Projects dated April 3, 2018**

Task 001: PROJECT MANAGEMENT Hourly Not to Exceed: \$8,700

This task is for general coordination and meetings on the project, including coordination with the City, internal plan review/discussion meetings, subconsultant coordination, and in-house quality assurance. Blueline will prepare monthly invoices for work performed during the previous month. Included with the invoices will be pertinent backup materials and progress reports of the project to date.

Deliverables: *Monthly Invoices, Progress Reports.*

Task 002 – SURVEY & BASE MAPPING Fixed Fee: \$26,500

Under this task, Axis Survey and Mapping will prepare base mapping for the right-of-ways of the public roads specified in the Project Description above, including approximately 50' into abutting right-of-ways.

An Autocad drawing will be prepared at a scale of 1" = 30', or as required by the design engineer or the District before drafting commences. Existing Aerial and/or LIDAR mapping sources may be utilized either directly or as a basis for verification. This task includes:

- Control survey in NAD 83/91 Horizontal Datum, with all elevations derived from and checked to NAVD '88 Vertical Datum.
- Retrieve, interpret, and include existing as-builts as available from local agencies and purveyors.
- Establish right-of-ways and roadway centerlines within above-described area as available from recorded plats and public records further compared to the Snohomish County Parcel GIS lines.
- Set additional benchmarks at least 1 per 1000' of route mapping.
- Coordinate and hire as a subcontractor C-n-I Locates, Inc. to provide utility locate services for underground utilities including: power, gas, cable, fiber optics and telecommunications.
- Depict hard and soft surfaces on individual layers per accepted APWA standards.
- Show and dimension located topographic features and contours at 2' intervals along subject area.
- Show and label all control points with elevations and point numbers.
- Show known utilities by surface evidence, utility pre-painting, or as-built location.

Deliverables: *AutoCAD 2016 drawing file with point database and dtm files*

Assumptions: *The City will provide all necessary right of entry into private property and notice to landowners along the route of mapping activity. The City will provide a copy of the notice to be presented to landowners by Axis Survey Crews.*

Task 003: GEOTECHNICAL ENGINEERING SERVICES Fixed Fee: \$15,900

Per the attached "Scope of Work and Cost Estimate", AESI will conduct subsurface exploration for the project. This will include:

- Design recommendations along the west side of 72nd Ave Northwest regarding subgrade, retaining walls and structural fill.
- An optional task to investigate and provide recommendations for sidewalk construction on the south side of 276th St NW between the Senior Center and the Housing Hope development.

Deliverables: *Geotechnical Engineering Services as outlined above and in Exhibit C.*

**Exhibit "A" to the City of Stanwood Agreement for Services
between The City of Stanwood and The Blueline Group, LLC
for the Stanwood Sidewalk Improvement Projects dated April 3, 2018**

Task 004: OVERALL PRELIMINARY DESIGN..... Hourly Not to Exceed: \$5,000

Using the survey and geotechnical recommendations prepared in Tasks 002 and 003, Blueline will prepare an Overall Preliminary Design for the project. The services under this task will include:

- Attending an Initial Kick-off meeting with the city.
- Determining the approximate project limits based on condition of sidewalks and ADA ramps.
- Approximate project timeline for construction services.
- Engineers Estimate for the completion of all work areas.

Deliverables: *Overall Preliminary Design Report*

Task 005: 92ND AVE NW PS&E Hourly Not to Exceed: \$21,000

Blueline will provide the City with three stages of Design PS&E including:

- Conducting a site visit with the City to confirm the exact project locations and desired improvements.
- General temporary erosion and sedimentation control notes and details as necessary.
- Plans prepared as follows:
 - Proposed sidewalks shown in plan and profile per City standards.
 - City standard details cross-referenced where applicable and specialized details developed as necessary.
 - 22"x34" sheets with roughly an 18"x28" drawing area.
 - 1"=20' horizontal scale and 1"=5' vertical scale.
- Technical specifications, including Proposal, Contract Forms, General Conditions, and Measurement and Payment in WSDOT format, using City-provided standard specifications when available.
- Engineer's Estimate of probable construction costs.
- 60%, 90%, and Final Design stage submittals.
- A site walk with the City after the 60% design submittal.
- Review of comments with City staff at each stage of design and incorporation of City comments into the subsequent submittal.

Deliverables: *60% PS&E (Hard copies or electronic copies, as specified by the City).*
 Design memo accompanying the submittal that outlines assumptions,
 questions, and recommendations (1 hard copy).
 90% PS&E (Hard copies or electronic copies, as specified by the City).
 Final PS&E (Hard copies or electronic copies, as specified by the City).

Task 006: 72ND AVE NW PS&E Hourly Not to Exceed: \$26,200

Blueline will provide the City with three stages of Design PS&E including:

- Conducting a site visit with the City to confirm the exact project locations and desired improvements.
- General temporary erosion and sedimentation control notes and details as necessary.
- Plans prepared as follows:
 - Proposed sidewalks shown in plan and profile per City standards.
 - City standard details cross-referenced where applicable and specialized details developed as necessary.

**Exhibit "A" to the City of Stanwood Agreement for Services
between The City of Stanwood and The Blueline Group, LLC
for the Stanwood Sidewalk Improvement Projects dated April 3, 2018**

- 22"x34" sheets with roughly an 18"x28" drawing area.
- 1"=20' horizontal scale and 1"=5' vertical scale.
- Technical specifications, including Proposal, Contract Forms, General Conditions, and Measurement and Payment in WSDOT format, using City-provided standard specifications when available.
- Engineer's Estimate of probable construction costs.
- 60%, 90%, and Final Design stage submittals.
- A site walk with the City after the 60% design submittal.
- Review of comments with City staff at each stage of design and incorporation of City comments into the subsequent submittal.

Deliverables: 60% PS&E (Hard copies or electronic copies, as specified by the City).
 Design memo accompanying the submittal that outlines assumptions,
 questions, and recommendations (1 hard copy).
 90% PS&E (Hard copies or electronic copies, as specified by the City).
 Final PS&E (Hard copies or electronic copies, as specified by the City).

Task 007: 276TH ST NW PS&E Hourly Not to Exceed: \$23,900

Blueline will provide the City with three stages of Design PS&E including:

- Conducting a site visit with the City to confirm the exact project locations and desired improvements.
- General temporary erosion and sedimentation control notes and details as necessary.
- Plans prepared as follows:
 - Proposed sidewalks shown in plan and profile per City standards.
 - City standard details cross-referenced where applicable and specialized details developed as necessary.
 - 22"x34" sheets with roughly an 18"x28" drawing area.
 - 1"=20' horizontal scale and 1"=5' vertical scale.
- Technical specifications, including Proposal, Contract Forms, General Conditions, and Measurement and Payment in WSDOT format, using City-provided standard specifications when available.
- Engineer's Estimate of probable construction costs.
- 60%, 90%, and Final Design stage submittals.
- A site walk with the City after the 60% design submittal.
- Review of comments with City staff at each stage of design and incorporation of City comments into the subsequent submittal.

Deliverables: 60% PS&E (Hard copies or electronic copies, as specified by the City).
 Design memo accompanying the submittal that outlines assumptions,
 questions, and recommendations (1 hard copy).
 90% PS&E (Hard copies or electronic copies, as specified by the City).
 Final PS&E (Hard copies or electronic copies, as specified by the City).

Exhibit "A" to the City of Stanwood Agreement for Services
between The City of Stanwood and The Blueline Group, LLC
for the Stanwood Sidewalk Improvement Projects dated April 3, 2018

Task 008: UNASSIGNED SERVICES RESERVE Not to Exceed: \$12,700

This task provides for unanticipated services deemed to be necessary during the course of the Project that are not specifically identified in the scope of work tasks defined above. Any additional work or funds under this item are not to be used unless explicitly authorized by the City.

***Deliverables:** None yet identified.*

GENERAL ASSUMPTIONS & NOTES

- Scope and fees outlined above are based on the following information (any changes to these documents may result in changes to the fees):
 - o Email correspondence with the City of Stanwood in March 2018.
 - o Site visit with the City on March 1, 2018.
- This scope and fee proposal assumes that all three project segments included in the Project Description above are designed concurrently, as on set of contract documents. A separate fee proposal – or the Unassigned Services Reserve task if authorized by the City – may be needed for separate bid sets of contract documents.
- This proposal does not include any of the following:
 - o Traffic Engineering.
 - o Grading permit.
 - o ROW acquisition or offsite easements.
 - o Utility improvements other than storm drainage improvements.
 - o Drainage calculations or Drainage report.
 - o Environmental Evaluation or Assessments, SEPA, NPDES, or SWPPP (not anticipated necessary).
 - o Dry Utility or Gas design or coordination.
 - o Power pole relocation coordination.
 - o Community Involvement, Bidding Assistance, or Construction Administration, Staking, or Inspection Services (a separate fee proposal can be provided upon request).
- Agency fees (if any) are not included as part of the fees outlined above.
- The fees stated above do not include reimbursable expenses such as large format copies (larger than letter/legal size), mileage, and plots. These items will be billed under a separate task called Expenses. **Estimate: \$1,100.**
- Project stops/starts and significant changes to the Project Schedule may result in changes to the fees provided above and a separate fee proposal will be provided.
- These fees stated above are valid if accepted within 30 days of the date of the proposal.

Exhibit "B" to the City of Stanwood Agreement for Services
between The City of Stanwood and The Blueline Group, LLC
for the Stanwood Sidewalk Improvement Projects dated April 3, 2018

City of Stanwood - Stanwood Sidewalk Improvements

Job Number: 18-104
Date: April 3, 2018

Prepared By: Ken Lauzen
Checked By: Rob Dahn

Task #	Task Description	Principal		Project Engineer		CAD Drafter				
		\$200/hr		\$164/hr		\$128/hr		Total Hours	Total Cost	Total Cost (Rounded)
		Hours	\$	Hours	\$	Hours	\$			
001	Project Management	24	\$ 4,800	24	\$ 3,936	0	\$ -	48	\$ 8,736	\$ 8,700
002	Survey & Base Mapping								\$ 26,500	\$ 26,500
003	Geotechnical Engineering Services								\$ 15,900	\$ 15,900
004	Overall Preliminary Design	6	\$ 1,200	12	\$ 1,968	14	\$ 1,792	32	\$ 4,960	\$ 5,000
005	92nd Ave NW PS&E	16	\$ 3,200	68	\$ 11,152	52	\$ 6,656	136	\$ 21,008	\$ 21,000
006	72nd Ave NW PS&E	16	\$ 3,200	84	\$ 13,776	72	\$ 9,216	172	\$ 26,192	\$ 26,200
007	276th St NW PS&E	16	\$ 3,200	76	\$ 12,464	64	\$ 8,192	156	\$ 23,856	\$ 23,900
008	Unassigned Services Reserve								\$ 12,715	\$ 12,700
	Expenses								\$ 1,100	\$ 1,100
TOTAL		78	\$ 15,600	264	\$ 43,296	202	\$ 25,856	544	\$ 140,967	\$ 141,000

City of Stanwood - Stanwood Sidewalk Improvements

001 Project Management		Principal		Project Engineer		CAD Drafter			
Item #	Description	\$200/hr		\$164/hr		\$128/hr		TOTAL	TOTAL
		HRS	FEE	HRS	FEE	HRS	FEE	HRS	FEE
1	Project Meetings	8.0	\$ 1,600	12.0	\$ 1,968	0.0	\$ -	20.0	\$ 3,568
2	Monthly Invoices / Progress Reports	4.0	\$ 800	0.0	\$ -	0.0	\$ -	4.0	\$ 800
3	QA /QC	8.0	\$ 1,600	0.0	\$ -	0.0	\$ -	8.0	\$ 1,600
4	General Project Coordination	2.0	\$ 400	6.0	\$ 984	0.0	\$ -		\$ 1,384
5	Subconsultant Coordination	2.0	\$ 400	6.0	\$ 984	0.0	\$ -	8.0	\$ 1,384
Total		24.0	\$ 4,800	24.0	\$ 3,936	0.0	\$ -	40.0	\$ 8,736
001 HNTE:								\$ 8,700	

002 Survey & Base Mapping			Total Cost (Per Axis)	Blueline Markup		
Item #	Description			15%		TOTAL
			Fixed Fee	Lump Sum		FEE
1	Survey & Base Mapping		\$ 23,020	\$ 3,453		\$ 26,473
Total						\$ -
002 Fixed Fee						\$ 26,500

003 Geotechnical Engineering Services			Total Cost (Per AESI)	Blueline Markup		
Item #	Description			15%		TOTAL
			Fixed Fee	Lump Sum		FEE
1	Geotechniical Services		\$ 13,800	\$ 2,070		\$ 15,870
Total						\$ -
003 Fixed Fee						\$ 15,900

004 Overall Preliminary Design		Principal		Project Engineer		CAD Drafter			
Item #	Description	\$200/hr		\$164/hr		\$128/hr		TOTAL	TOTAL
		HRS	FEE	HRS	FEE	HRS	FEE	HRS	FEE
1	Kick-off Meeting	4.0	\$ 800	4.0	\$ 656	6.0	\$ 768	14.0	\$ 2,224
2	Preliminary Design Report	2.0	\$ 400	8.0	\$ 1,312	8.0	\$ 1,024	18.0	\$ 2,736
Total		6.0	\$ 1,200	12.0	\$ 1,968	14.0	\$ 1,792	32.0	\$ 4,960
004 HNTE:								\$ 5,000	

City of Stanwood - Stanwood Sidewalk Improvements

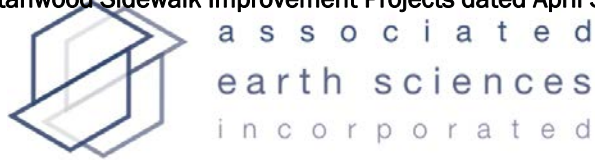
005 92nd Ave NW PS&E		Principal		Project Engineer		CAD Drafter			
Item #	Description	\$200/hr		\$164/hr		\$128/hr		TOTAL	TOTAL
		HRS	FEE	HRS	FEE	HRS	FEE	HRS	FEE
1	60% Plans	2.0	\$ 400	16.0	\$ 2,624	16.0	\$ 2,048	34.0	\$ 5,072
2	60% Specifications	2.0	\$ 400	6.0	\$ 984	0.0	\$ -	8.0	\$ 1,384
3	60% Estimates	2.0	\$ 400	8.0	\$ 1,312	0.0	\$ -	10.0	\$ 1,712
4	60% Site Walk	2.0	\$ 400	2.0	\$ 328	0.0	\$ -	4.0	\$ 728
5	90% Plans	2.0	\$ 400	12.0	\$ 1,968	24.0	\$ 3,072	38.0	\$ 5,440
6	90% Specifications	1.0	\$ 200	4.0	\$ 656	0.0	\$ -	5.0	\$ 856
7	90% Estimates	1.0	\$ 200	6.0	\$ 984	0.0	\$ -	7.0	\$ 1,184
8	Final Plans	2.0	\$ 400	8.0	\$ 1,312	12.0	\$ 1,536	22.0	\$ 3,248
9	Final Specifications	1.0	\$ 200	4.0	\$ 656	0.0	\$ -	5.0	\$ 856
10	Final Estimates	1.0	\$ 200	2.0	\$ 328	0.0	\$ -	3.0	\$ 528
Total		16.0	\$ 3,200	68.0	\$ 11,152	52.0	\$ 6,656	136.0	\$ 21,008
005 HNTE:									\$ 21,000

006 72nd Ave NW PS&E		Principal		Project Engineer		CAD Drafter			
Item #	Description	\$200/hr		\$164/hr		\$128/hr		TOTAL	TOTAL
		HRS	FEE	HRS	FEE	HRS	FEE	HRS	FEE
1	60% Plans	2.0	\$ 400	24.0	\$ 3,936	24.0	\$ 3,072	50.0	\$ 7,408
2	60% Specifications	2.0	\$ 400	6.0	\$ 984	0.0	\$ -	8.0	\$ 1,384
3	60% Estimates	2.0	\$ 400	8.0	\$ 1,312	0.0	\$ -	10.0	\$ 1,712
4	60% Site Walk	2.0	\$ 400	2.0	\$ 328	0.0	\$ -	4.0	\$ 728
5	90% Plans	2.0	\$ 400	16.0	\$ 2,624	32.0	\$ 4,096	50.0	\$ 7,120
6	90% Specifications	1.0	\$ 200	4.0	\$ 656	0.0	\$ -	5.0	\$ 856
7	90% Estimates	1.0	\$ 200	6.0	\$ 984	0.0	\$ -	7.0	\$ 1,184
8	Final Plans	2.0	\$ 400	12.0	\$ 1,968	16.0	\$ 2,048	30.0	\$ 4,416
9	Final Specifications	1.0	\$ 200	4.0	\$ 656	0.0	\$ -	5.0	\$ 856
10	Final Estimates	1.0	\$ 200	2.0	\$ 328	0.0	\$ -	3.0	\$ 528
Total		16.0	\$ 3,200	84.0	\$ 13,776	72.0	\$ 9,216	172.0	\$ 26,192
006 HNTE:									\$ 26,200

City of Stanwood - Stanwood Sidewalk Improvements

007 276th St NW PS&E		Principal		Project Engineer		CAD Drafter			
Item #	Description	\$200/hr		\$164/hr		\$128/hr		TOTAL	TOTAL
		HRS	FEE	HRS	FEE	HRS	FEE	HRS	FEE
1	60% Plans	2.0	\$ 400	20.0	\$ 3,280	20.0	\$ 2,560	42.0	\$ 6,240
2	60% Specifications	2.0	\$ 400	6.0	\$ 984	0.0	\$ -	8.0	\$ 1,384
3	60% Estimates	2.0	\$ 400	8.0	\$ 1,312	0.0	\$ -	10.0	\$ 1,712
4	60% Site Walk	2.0	\$ 400	2.0	\$ 328	0.0	\$ -	4.0	\$ 728
5	90% Plans	2.0	\$ 400	16.0	\$ 2,624	28.0	\$ 3,584	46.0	\$ 6,608
6	90% Specifications	1.0	\$ 200	4.0	\$ 656	0.0	\$ -	5.0	\$ 856
7	90% Estimates	1.0	\$ 200	6.0	\$ 984	0.0	\$ -	7.0	\$ 1,184
8	Final Plans	2.0	\$ 400	8.0	\$ 1,312	16.0	\$ 2,048	26.0	\$ 3,760
9	Final Specifications	1.0	\$ 200	4.0	\$ 656	0.0	\$ -	5.0	\$ 856
10	Final Estimates	1.0	\$ 200	2.0	\$ 328	0.0	\$ -	3.0	\$ 528
Total		16.0	\$ 3,200	76.0	\$ 12,464	64.0	\$ 8,192	\$ 156	\$ 23,856
007 HNTE:									\$ 23,900

008 Unassigned Services Reserve				Total Cost (±10% of 001-007)		
Item #	Description			10%		TOTAL
				As Needed		FEE
1	Unassigned Services Reserve			\$ 12,715		\$ 12,715
Total				\$ 12,715		\$ 12,715
008 NTE						\$ 12,700



March 28, 2018
Project No. 180166E001

The Blueline Group
25 Central Way, Suite 400
Kirkland, Washington 98033

Attention: Mr. Robert Dahn

Subject: Scope of Work and Cost Estimate
Geotechnical Engineering Services
City of Stanwood Sidewalk Improvements
Stanwood, Washington

Dear Mr. Dahn:

Thank you for the opportunity to present our proposal to conduct a subsurface exploration and geotechnical engineering study for the above-referenced project. This proposal is based on written information provided by you, review of geologic information, and previous experience on similar projects.

SITE AND PROJECT DESCRIPTION

The project site flanks single-family and multi-family developments within the City of Stanwood, and presently consists of the unimproved easement to 272nd Street NW, 72nd Avenue NW, and 276th Street NW. The site slopes very gently to the south, with overall gradients generally less than 10 percent in the northern half of the project area, and less than 5 percent in the southern half.

Review of geologic maps indicates the entire project is underlain by glaciomarine sediments consisting of sand, silt, and clay.

Based on email communications and a site map provided by you, we understand that the project will involve sidewalk improvements and associated grading and/or low-height retaining walls along 272nd Street NW, and 72nd Avenue NW (Area 1) and along 276th Street NW (Area 2). The scope and cost for the two areas are separated out per your request.

The following is a summary of the proposed construction:

Area 1 Improvements

- Construction of a new sidewalk on the north side of 272nd Street NW between Stadium Drive and 72nd Avenue NW, and on the west side of 72nd Avenue NW between 272nd Street NW and Tyler Place NW (approximately 1,400 lineal feet).
- Grading of the slope and/or construction of a low-height retaining wall on the west side of 72nd Avenue NW from the intersection of 272nd Street NW to approximately 650 feet north.

Area 2 Improvements

- Construction of a new sidewalk on the north side of 276th Street NW from approximately 150 feet west of 72nd Avenue NW to 70th Avenue NW (approximately 750 lineal feet).
- Grading of the slope and/or construction of a retaining wall on the south side of 276th Street NW at 73rd Avenue NW between Lincoln Hill Village Apartments and Stanwood Senior Center (Approximately 225 lineal feet)

SCOPE OF WORK

Subsurface Explorations

We propose to advance up to three borings in the proposed sidewalk area along 272nd Street NW and approximately five borings in the proposed sidewalk and retaining wall areas along 72nd Avenue NW, to depths of approximately 5 to 10 feet, to characterize the soil and groundwater conditions beneath the proposed improvements. If the sidewalk improvements along 276th Street NW (Area 2) are pursued, we would excavate five additional borings in the proposed area of improvements. To minimize the area within the roadways needing to be blocked off, and considering that overhead powerlines run along the existing roadway in the approximate area of the proposed improvements, we propose advancing the borings using a subcontracted small mini-track drill rig with a low operating mast height. It is assumed that a temporary street use permit will not be required. If a street use permit is required, we have assumed that the City of Stanwood will provide the permit at no cost. Fieldwork should be

completed during 1 to 2 days provided there are no special limitations on hours when work can occur.

During drilling, soil samples would be collected using the Standard Penetration Test (SPT) procedure. Sampling would generally be conducted at depth intervals of 2½ to 5 feet. The recovered samples would be returned to our laboratory for further classification and laboratory testing as appropriate. All cuttings (soil) generated during drilling will be disposed of offsite.

Laboratory testing is expected to include limited grain-size analysis of selected samples, and Proctor testing.

AESI will work with the City of Stanwood to locate buried utilities in advance of our explorations and will notify the mandatory “one-call” utility location service.

Geotechnical Engineering Report

Based on our findings in the field, we will complete a geotechnical engineering report. The following is a summary of the major report sections to be addressed:

- Project and site description, including a site plan showing the approximate exploration locations.
- Subsurface soil and shallow groundwater conditions, including interpretive logs of our explorations with depths to shallow groundwater.
- Laboratory testing results.
- Our preliminary conclusions and geotechnical engineering recommendations.
- Design recommendations for low-height retaining walls.
- Subgrade preparation and structural fill recommendations.
- Recommendations for further study, if required.

Estimated Fees and Schedule

Estimated fees for the scope of work described in this proposal are presented in Tables 1 and 2. We are prepared to mobilize to the site for subsurface exploration within 2 weeks of your written authorization to proceed subject to subcontractor availability. We expect that a report could be issued within 2 weeks of completing fieldwork.

Table 1
Estimated Fees for Area 1

Task	Estimated Costs	
	Subcontractor Costs	AESI Fees
Project coordination, review and preliminary site visit		\$1,100
Subsurface explorations (8 borings, 5 to 15 feet deep)	\$3,500	\$2,000
Laboratory testing		\$600
Engineering analysis and report preparation		\$3,000
Traffic control*	TBD	
Total Budget	\$10,200	

*If required, traffic control can be provided at an additional cost.

Table 2
Estimated Additional Fees for Optional Area 2

Task	Estimated Costs	
	Subcontractor Costs	AESI Fees
Additional project coordination		\$200
Subsurface explorations (5 borings, 5 to 15 feet deep)	\$1,500	\$1,200
Laboratory testing		\$300
Engineering analysis and report preparation		\$400
Total Budget	\$3,600*	

*Estimated fee for Area 2 assumes field activities occur concurrently with Area 1 field activities, and that both areas are reported in a single comprehensive report. If the Area 2 exploration occurs at a later date, additional site visits, travel time, equipment mobilization and report preparation would be required.

The above estimate does not include future costs such as plan review, ongoing consultation, and construction monitoring. A cost estimate for construction monitoring services can be prepared once a contractor's schedule has been developed, upon request.

It should be understood that the above-anticipated costs are estimates based on similar work performed for previous projects. Each project presents unique and often unforeseen challenges. All services will be performed on a time and materials basis. If unusual or unanticipated conditions are encountered that would require additional field exploration or analysis, we would notify you immediately to discuss modification of the study. Additional authorized services would be provided separately, as outlined on the current Schedule of Charges and General Conditions, copies of which are attached.

CLOSURE

We appreciate the opportunity to submit this proposal and hope that it meets your needs. If you approve of our scope of work and would like for us to proceed, please provide a signed copy of this proposal or subconsultant agreement to our Kirkland office address (AESI, 911 5th Avenue, Kirkland, Washington 98033) to authorize our services. If you have any questions, please do not hesitate to call.

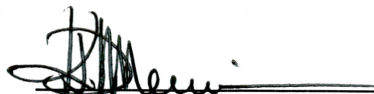
Sincerely,
ASSOCIATED EARTH SCIENCES, INC.
Kirkland, Washington

The undersigned has reviewed and accepts the
attached General Conditions.



Gary P. Mozingo, L.G., L.E.G.
Associate Engineering Geologist

Client Date
Authorized Representative Signature



Kurt D. Merriman, P.E.
Senior Principal Engineer

Client (please print name)

Attachments: Schedule of Charges
General Conditions

AESI offers paperless invoicing as an emailed PDF document to your accounts payable department/representative. By providing an email address, you will receive emailed PDF versions of your invoices (no copies will be mailed).
Please provide the appropriate email address here:

ASSOCIATED EARTH SCIENCES, INC.
SCHEDULE OF CHARGES

Our compensation will be determined on the basis of time and expenses in accordance with the following schedule unless a lump sum amount is so indicated in the proposal or services agreement. Current rates are as follows:

Personnel Charges - Engineers, Hydrogeologists, Geologists, Scientists, and Technicians

Sr. Principal.....	\$230.00/hour
Principal.....	\$200.00/hour
Sr. Associate	\$175.00/hour
Associate	\$165.00/hour
Senior	\$155.00/hour
Sr. Project	\$145.00/hour
Project	\$130.00/hour
Sr. Staff	\$110.00/hour
Staff	\$90.00/hour
Legal Testimony (4 hour minimum).....	\$400.00/hour

Other Personnel and Disbursement Charges

CAD Operator and Workstation	\$100.00/hour
Geographic Information Services (GIS).....	\$100.00/hour
Prints – Sizes A and B.....	\$2.00/each
Prints – Sizes C, D, E, and F	\$5.00/each
Project Assistant.....	\$75.00/hour
Laboratory Technician.....	\$90.00/hour
Clerical, Word Processing, etc.	\$60.00/hour
Mileage.....	Federal Reimbursable Rate + 15%
Per Diem	To be established on a project basis
Subcontractors and Miscellaneous Expenses.....	cost plus 15%
Water Level Data Logger	\$50.00/month
Barometer Data Logger	\$40.00/month

Laboratory Charges

Atterberg Limit	\$110.00/test
Consolidation.....	\$385.00/test
Constant Head Permeability (ASTM:D2434-68)	\$385.00/test
Direct Shear	\$385.00/3 point test
Ethylene Glycol Test (3 rock minimum).....	\$115.00
Fractured Face Count (AASHTO T-335).....	\$80.00/test
Hydrometer	\$200.00/test
Moisture Content	\$25.00/test
Organic Content	\$70.00/test
Percent Passing #200.....	\$100.00/test
Permeability (Falling Head)	\$225.00/test
Proctor ASTM:D-1557 and ASTM:D-698.....	\$250.00/test
Sand Equivalent	\$110.00/test
Sieve with Wash #200	\$200.00/test
Specific Gravity + #4	\$65.00/test
Specific Gravity - #4	\$70.00/test

Other laboratory tests and equipment rental will be provided on a per job basis.

**ASSOCIATED EARTH SCIENCES, INC.
GENERAL CONDITIONS**

911 - 5th Avenue, Suite 100
Kirkland, Washington 98033
(425) 827-7701 | FAX (425) 827-5424

2911 ½ Hewitt Avenue, Suite 2
Everett, Washington 98201
(425) 259-0522 | FAX (425) 827-5424

1552 Commerce Street, Suite 102
Tacoma, Washington 98402
(253) 722-2992 | FAX (253) 722-2993

Right of Entry

The Client shall provide AESI legal access to and/or obtain permission for AESI to enter on all property, whether or not owned by Client, as necessary for AESI to perform and complete its work. Client is responsible to provide, by map or drawing, a description of the property, its location and the location of any buried utilities or structures, including but not limited to, underground storage tanks. Any damage that results to a buried utility, or to Associated Earth Sciences, Inc. (AESI) or subcontractor equipment, will be the responsibility of the client. Also, any additional charges for exploratory work, due to encountering the utility, will be the responsibility of the client. We will take reasonable precautions to minimize damage from use of equipment, but have not included in our fee the cost for restoration of damage which may result from our operations.

Hazardous Substances & Drill Cuttings

Client warrants that, prior to AESI beginning work, it will provide AESI with all information known, or which reasonably could be known by Client concerning the past or present use of the property and the nature and existence of any hazardous conditions or materials, on, in, under, adjacent to or near the property. When hazardous substances are known, assumed or suspected to exist at a site, AESI is required to take appropriate precautions to protect the health and safety of its personnel, to comply with applicable laws and regulations, and to follow procedures that AESI deems prudent to minimize physical risks to its personnel and the public. Hazardous substances may exist at a site where there is no reason to believe they could or should be present. AESI and Client agree that the discovery of unanticipated hazardous substances constitutes a changed condition mandating a renegotiation of the scope of work or termination of services. AESI and Client also agree that the discovery of unanticipated hazardous substances may make it necessary for AESI to take immediate measures to protect human health and safety, and/or the environment. AESI agrees to notify Client as soon as practically possible should unanticipated hazardous substances or suspected hazardous substances be encountered. Client encourages AESI to take any and all measures that in AESI's professional opinion are justified to preserve and protect the health and safety of AESI's personnel and the public, and/or the environment, and Client agrees to compensate AESI for the additional cost of such work. In addition, Client waives any claim against AESI, and agrees to indemnify, defend and hold AESI harmless from any claim or liability for injury or loss arising from AESI's encountering of unanticipated hazardous substances or suspected hazardous substances. Client also agrees to compensate AESI for work performed in defense of any such claim, with such compensation to be based upon AESI's prevailing fee schedule and expense reimbursement policy.

Client recognizes that, when it is known, assumed or suspected that hazardous substances exist beneath the surface of the project site, certain waste materials, such as drill cuttings and drilling fluids, should be handled as if contaminated. Accordingly, to protect human health and safety as well as the environment, AESI will appropriately contain and label such materials; will promptly inform Client that such containerization and labeling has been performed, and will leave the containers on site for proper, lawful removal, transport and disposal by Client. Client waives any claim against AESI and/or its professional staff, and agrees to defend, indemnify and hold AESI and/or its professional staff harmless from any claim or liability for injury or loss which may arise as a result of the drill cuttings, drilling fluids or other assumed hazardous substances being left on site after their containerization by AESI. Client also agrees to compensate AESI for any time spent and expenses incurred by AESI in defense of any such claim, with such compensation to be based upon AESI's prevailing fee schedule and expense reimbursement policy. AESI will act on behalf of Client to arrange for lawful removal, transport and disposal of hazardous substances and potentially contaminated drill cuttings, drilling fluids and wash water, if Client so requests, and Client agrees to compensate AESI based upon AESI's prevailing fee schedule and expense reimbursement.

Soil, rock, water and/or other samples obtained from the project site are held by AESI for no longer than 30 calendar days after the issuance of any document that includes the data obtained from them, unless other arrangements are mutually agreed upon in writing. Should any of these samples be contaminated by hazardous substances or suspected hazardous substances, it is Client's responsibility to select and arrange for lawful disposal procedures, that is, procedures which encompass removing the contaminated samples from AESI's custody and transporting them to an authorized disposal site. Client is advised that, in all cases, prudence and good judgment should be applied in selecting and arranging for lawful disposal procedures. AESI will act on behalf of Client to arrange for lawful removal, transport and disposal of hazardous substances if Client so requests, and Client agrees to compensate AESI based upon AESI's prevailing fee schedule and expense reimbursement.

Due to the risks to which AESI is exposed, Client agrees to waive any claim against AESI and/or its personnel, and to defend, indemnify and hold AESI and/or its personnel harmless from any claim or liability for injury or loss arising from AESI's containing, labeling, transporting, testing, storing or other handling of contaminated samples. Client also agrees to compensate AESI for any time spent and expenses incurred by AESI in defense of any such claim, with such compensation to be based upon AESI's prevailing fee schedule and expense reimbursement policy.

Aquifer Contamination

Subsurface drilling and sampling may result in unavoidable contamination of certain subsurface areas, as when a probe or boring device moves through a contaminated area, linking it to an aquifer, underground stream, or other hydrous body not previously contaminated and capable of spreading hazardous substances off-site. Because subsurface sampling is a necessary aspect of the work which AESI will perform on Client's behalf, Client waives any claim against AESI and/or its personnel, and agrees to defend, indemnify and hold AESI and/or its personnel harmless from any claim or liability for injury or loss which may arise as a result of alleged cross-contamination caused by drilling or sampling. Client further agrees to compensate AESI for any time spent or expenses incurred by AESI in defense of any such claim, in accordance with AESI's prevailing fee schedule and expense reimbursement policy.

Ownership of Documents

All designs, drawings, specifications, notes, data, sample materials (exclusive of hazardous substances), report reproducibles and other work developed by AESI are instruments of service and as such remain the property of Associated Earth Sciences, Inc.

Third Parties

All services performed by AESI and/or its personnel under this agreement are intended solely for the benefit of the client. Nothing contained herein shall confer any rights upon or create any duties on the part of AESI and/or its personnel toward any person or persons not a party to this agreement including, but not limited to any contractor, subcontractor, supplier, or the agents, officers, employees, insurers, or sureties of any of the above.

AESI shall not be responsible for the means, methods, or procedures of construction, nor for safety on the job site, nor for the contractor's failure to carry out the work in accordance with the contract documents.

Insurance

Associated Earth Sciences, Inc. maintains General Liability Insurance for bodily injury and property damage with an aggregate limit of \$1,000,000 per occurrence and we will furnish certificates of such insurance upon written request. Our liability to the Client for bodily injury or property damage arising out of work performed for the Client for which legal liability may be found to rest upon us, other than for professional errors and omissions, will be limited to our General Liability Insurance coverage. AESI also maintains professional errors and omissions insurance. We will furnish certificates of such insurance upon written request. No provision contained in the agreement between AESI and Client shall be construed to void, vitiate or adversely affect any insurance coverage held by AESI.

Standard of Care

Services performed by AESI under this agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation, express or implied, and no warranty or guarantee is included or intended in this agreement or in any report, opinion, and document or otherwise.

Limitation of Liability

To the fullest extent permitted by law, the total liability of AESI and its principals, personnel and employees, to Client and anyone claiming by, through or under Client, for any and all claims, losses, costs or damages whatsoever arising out of, resulting from or in any way related to the Project or this Agreement from any cause or causes, including but not limited to the negligence, professional errors or omissions, strict liability, breach of contract or breach of warranty express or implied of AESI or its principals, employees or personnel shall not exceed \$50,000 or the total compensation received by AESI under this Agreement, whichever is less.

The Client further agrees to require the contractor and its subcontractors to execute an identical limitation of AESI's and/or its personnel's liability for damages suffered by the contractor or subcontractors arising from the professional acts, errors, or omissions of AESI and/or its personnel. Increased liability limits may be negotiated upon Client's written request, prior to commencement of services, and upon Client's agreement to pay an additional fee commensurate with the increased risk. Any such increased limit of liability shall be established by written agreement signed by Client and AESI. As used in this section, the term "liability" means liability of any kind, whether in contract, tort, strict liability or otherwise, for any and all injuries, claims, losses, expenses, or damages arising out of or in any way related to services provided by or through AESI.

Waiver of Consequential Damages

Client expressly waives as to AESI all claims for lost profit or any other indirect, incidental or consequential damages of any nature.

Indemnification

Client shall indemnify, defend, and hold AESI and/or its personnel harmless against all claims, damages, losses, and expenses, including but not limited to attorney's fees and court costs arising out of or in any way related to the services provided by or through AESI; provided that such defense and indemnification obligations shall not apply to claims, damages, losses or expenses that arise out of bodily injury to persons or damage to property to the extent caused by AESI's sole negligence; provided further that Client shall indemnify AESI against liability for damages, losses, or expenses arising out of bodily injury to persons or damage to property and caused by or resulting from the concurrent negligence of Client, its agents or employees and AESI, only to the extent of the negligence of parties other than AESI.

CLIENT AND AESI AGREE THAT THE PRECEDING PARAGRAPHS RELATING TO LIMITATIONS OF LIABILITY, WAIVER OF CONSEQUENTIAL DAMAGES AND INDEMNIFICATION WERE MUTUALLY NEGOTIATED AND THAT BUT FOR THE INCLUSION OF THOSE PROVISIONS AESI WOULD NOT HAVE ENTERED INTO THIS AGREEMENT, OR AESI'S COMPENSATION UNDER THIS AGREEMENT WOULD HAVE BEEN HIGHER.

Stability of Slopes

The Client also recognizes that risk is inherent with any site involving slopes and Client agrees to accept full responsibility for these risks. Client states that he understands that the information obtained or recommendations made may help to reduce the Client's risks and that no amount of engineering or geologic analysis can yield a guarantee of stable slopes. Therefore, in cases where there is no fault (i.e. no professional errors, omissions or negligence), Client agrees to hold harmless, defend, and indemnify AESI and/or its professional staff for claims from any source in the event of slope movement and any damage resulting.

Billing

Invoices will be submitted once per month and are payable upon receipt. Interest of 1-1/2% per month (but not exceeding the maximum rate allowable by law) will be added to any account not paid within 30 days.

Termination

In the event that the Client requests termination of the work prior to completion, we reserve the right to complete such analyses and records as required to place our files in order as we consider necessary to protect our professional reputation. At our discretion, a termination charge may also be made to cover our proposal and administrative costs relating to the project.

Integration

These General Conditions along with AESI's proposal letter constitute the agreement between AESI and Client, contain the entire understanding between the parties in connection with the subject matter, and supersede and replace all prior negotiations, agreements or representations, whether oral or written. These General Conditions take priority over any conflicting provisions contained within AESI's proposal. No modifications or changes to the agreement shall be effective or binding unless affirmed in writing by the party sought to be bound by the change or modification.



**CITY OF STANWOOD
PUBLIC WORKS COMMITTEE
AGENDA STAFF REPORT**

ITEM NUMBER: 2
DATE: April 9, 2018
SUBJECT: RH2 Task Order for Inflow & Infiltration (I&I) Study
CONTACT PERSON: Shawn Smith, Assistant Public Works Director
ATTACHMENTS: A – RH2 Scope and Fee

ISSUE

The issue in front of the committee is whether or not to issue a task order to RH2 for professional consulting services for the Inflow and Infiltration (I&I) study.

SUMMARY

The I&I study is a requirement of our Wastewater Treatment Plant permit through the Department of Ecology. The study is required to be completed by January 31, 2019.

DISCUSSION

The purpose of an I&I study is to find out if and where ground water or other sources of storm water are getting into the sewer system. When ground water or other storm water gets into the sewer system, it takes up volume in the treatment plant that is available for future sanitary sewer needs.

This study requires the city to install several flow monitors throughout the sewer system and record data. This data, along with collected rainfall data is then used to narrow down the areas that have the most I&I issues. RH2 has been the city's consultant for operating the software to read the data that the flow monitors are receiving. They also are very familiar with our system and have tabulated some of this data in the past, so they appear to be the most qualified to complete this study for the city.

While this study is being completed as a permit requirement, city staff sees great benefit in doing it. The treatment plant only has so much capacity, and it is clear by the volume increase during storm events, that there is a significant volume being taken up by I&I issues. This project will be the first phase in the process. It should provide us some specific locations to concentrate on. Staff will be coming back to council to request additional funding for a second phase of this project to pin point specific areas that can be addressed.

This project is in the city's comprehensive plan, in the capital improvement plan, and in the 2018 budget.

FINANCIAL IMPACT

The current contract is for \$88,514.00. The sewer construction fund has \$300,000 budgeted for 2018.

EXHIBIT A
Scope of Work
City of Stanwood
Infiltration and Inflow Evaluation
March 2018

Background

The City of Stanwood's (City) wastewater collection system is experiencing infiltration and inflow (I/I) from groundwater and rainfall events. The I/I takes up capacity in the wastewater collection system, pumping facilities, and the WWTP, increasing operating costs to the system that are passed on to customers.

The City received directive from the Department of Ecology (Ecology) to conduct an I/I evaluation and prepare an evaluation report. This scope of work details how RH2 Engineering, Inc. (RH2) will conduct an I/I evaluation to locate the sources of I/I, develop solutions, and prepare a schedule of recommended repairs or replacements. RH2 will then prepare a written report summarizing the evaluation, findings, and results according to Ecology's requirement for the I/I evaluation and evaluation report.

Task 1 – Data Collection and Flow Monitoring

Objective:

To review and evaluate existing sewer flow meter data transmitted by DVD from the City to RH2 at the March 6, 2018 meeting with City staff. Provide the City with a plan for additional sewer flow monitoring.

Approach:

- 1.1 Review the data files provided by the City for completeness and correlate to manholes in the City's wastewater collection system based on file naming developed by the City.
- 1.2 Prepare a map showing the locations of sewer flow monitoring conducted by the City.
- 1.3 Develop a plan identifying locations for additional sewer flow monitoring and provide the City with a map of manholes and pipes in which flow monitors should be installed. *Meters will be installed, adjusted, and monitored by the City.*
- 1.4 Review rainfall data to be collected by the City during the flow monitoring period(s).

Assumptions:

- *RH2 will rely on the accuracy of the existing manhole naming and data provided by the City, as well as any data obtained during additional flow monitoring.*
- *Flow monitoring shall occur during July and August to capture dry weather sewer flows, and flow monitoring shall occur continuously October to December to capture sewer flows during as many rain events as possible.*
- *The basins to be studied for flow monitoring will follow the Sewer Basins identified in the February 2015 Comprehensive Sewer System Plan.*

Provided by City:

- City has already provided RH2 a copy of existing flow monitoring data.
- Six (6) existing City-owned sewer flow meters. *Meters will be installed, adjusted, downloaded bi-weekly and monitored by the City at locations identified by RH2. The flow meters will be moved as necessary to focus analysis on areas most likely to be the source of I&I.*
- Manhole cleaning as needed prior to flow meter installation to facilitate accurate meter readings.
- Manual flow level measurement using a portable weir for comparing with each flow meters' measurements. This shall be done at least once for each meter to confirm accuracy of the meters prior to collecting all flow data. The quality of the analysis performed by RH2 will depend on the accuracy and the quality of the City-collected flow data.
- Data downloads from flow meters into a Microsoft Excel or Access database format. Data points shall be collected at 5-minute intervals.
- Visual inspection of the sewer flows during three (3) storm events to assist in locating recommended flow monitoring locations.
- Observe and document groundwater levels and inflow at manholes that are monitored for flow (i.e., observe the manholes for moisture to gauge adjacent groundwater levels and influences) each time manholes are visited for data downloads. City will provide all daily reports to RH2.
- Graphic or GIS information showing all manhole lids that have multiple holes that could be a source of inflow.
- Rain gauge (rent or purchase) that will be installed within old Stanwood.
- Revisions to the sewer system that have occurred since RH2 prepared the February 2015 Comprehensive Sewer System Plan.

RH2 Deliverables:

- Summary of data completeness of existing flow monitoring to use in the I/I study in portable document file (PDF) or electronic email format.
- Map of flow monitoring locations in PDF format.

Task 2 – Analyze System for I/I and Prepare Report

Objective:

Using the Task 1 collected flow monitoring data, analyze the collection system for I/I and prepare a report summarizing the analysis and results.

Approach:

- 2.1 Analyze flow monitoring and rainfall data collected by the City.
- 2.2 Utilize the flow monitoring data from dry days to calibrate the City's existing sewer model.
- 2.3 Estimate rainfall induced I/I by comparing flow monitoring data to estimated sanitary flows from the calibrated model.

- 2.4 Summarize pipes by study basin and identify age, length, and material, which may help locate I/I sources.
- 2.5 Quantify and identify I/I areas in the collection system and prepare map to summarize results.
- 2.6 Using the I/I study results, identify basins that may require further study to isolate I/I sources.
- 2.7 Meet with City to discuss I/I study results and basins that may require further future study and inspections (e.g. video inspection, smoke testing, and/or dye testing), which can be conducted using an amendment to this scope of work.
- 2.8 Using the I/I study results, prepare a schedule for further collection system study and inspections to locate leaks not specifically identified/pinpointed from the initial I/I study.
- 2.9 Prepare a tentative schedule of recommended collection system repairs based on the analysis and results of the I/I study.
- 2.10 Summarize and list routine inspections conducted and collection system repairs performed in the last five (5) years, using information provided by the City.
- 2.11 Prepare maps showing the following: all flow monitoring locations; flow information from in-stream flow monitoring data from City; manhole lid replacement program; regions requiring further analysis; pipe age; pipe material;
- 2.12 Prepare Draft I/I Evaluation Report summarizing study, inspections, analyses, results, and recommendations.
- 2.13 Perform in-house quality assurance/quality control (QA/QC) review of the Draft I/I Evaluation Report completed by an experienced RH2 engineer. Revise the Draft I/I Evaluation Report based on the QA/QC review.
- 2.14 Prepare a portable document file (PDF) of the Draft I/I Evaluation Report and deliver electronically to the City for review and comment.
- 2.15 Meet with the City to discuss review and comments on the Draft I/I Evaluation Report.
- 2.16 Revise the Draft I/I Evaluation Report based on City review and comments. Prepare PDF of the Final I/I Evaluation Report for the City's use in submitting to Ecology.
- 2.17 Prepare revisions to the I/I Evaluation Report based on comments received from Ecology's review of the report.

Assumptions:

- *RH2 will rely on the accuracy of the data provide by the City or others in relation to this work.*

Provided by City:

- Flow monitoring and rainfall data collected in Task 1.
- Current sewer model if different than the copy RH2 possesses locally. It will be the responsibility of the City to determine if the sewer models are different (e.g., identify if the City or City's consultant revised the sewer model that RH2 previously provided to the City).

- Geographic information system (GIS) map and data for the sewer system containing pipes' age, length and material.
- A list of routine inspections and maintenance conducted in the last five (5) years
- A list of collection system repairs performed in the last five (5) years.
- Attendance at meetings and meeting room.
- Review and comment on the Draft I/I Evaluation Report.

RH2 Deliverables:

- Attendance at two (2) meetings.
- Draft I/I Evaluation Report in electronic PDF format.
- Final I/I Evaluation Report in electronic PDF format for submittal to Ecology for review and comment.
- Final I/I Evaluation Report in electronic PDF format that has been updated per Ecology's review and comments.

Task 3 – Project Administration

Objective:

Administer, manage, and monitor the project team, resources, communications, scope progress, budget, and files and records.

Approach:

- 3.1 Review and monitor project progress/schedule, scope, and budget.
- 3.2 Manage the project team and resources.
- 3.3 Provide monthly invoices with progress report documenting work performed and budget status.
- 3.4 Communication with the City regarding project progress, invoicing, and schedule.
- 3.5 Maintain project files and records in electronic format.

RH2 Deliverables:

- Schedule, scope, and budget administration and management.
- Project team and resource management.
- Monthly invoices with progress reporting.
- Communication with the City.

Additional Work and Phases

During execution of this Scope of Work, additional work or phases may be identified as desired or needed by the City to meet Ecology's requirements for the I/I evaluation and report due January 31, 2019. The City may consider amending the Agreement with RH2 for additional work or phases.

Schedule

It is the goal of all parties that the work for this project shall be fully completed by January 31, 2019. The schedule for this Scope of Work may be modified as mutually agreeable to RH2 and the City.

EXHIBIT B**City of Stanwood****Infiltration and Inflow Evaluation****Fee Estimate**

Description Classification		Total Hours	Total Labor	Total Subconsultant	Total Expense	Total Cost
Task 1	Data Collection and Flow Monitoring	59	\$ 11,020	\$ -	\$ 807	\$ 11,827
Task 2	Analyze System for I/I and Prepare Report	317	\$ 58,936	\$ -	\$ 4,258	\$ 63,194
Task 3	Project Administration	66	\$ 12,976	\$ -	\$ 517	\$ 13,493
PROJECT TOTAL		442	\$ 82,932	\$ -	\$ 5,582	\$ 88,514

EXHIBIT C
RH2 ENGINEERING, INC.
2018 SCHEDULE OF RATES AND CHARGES

RATE LIST	RATE	UNIT
Professional I	\$144	\$/hr
Professional II	\$157	\$/hr
Professional III	\$170	\$/hr
Professional IV	\$180	\$/hr
Professional V	\$197	\$/hr
Professional VI	\$209	\$/hr
Professional VII	\$227	\$/hr
Professional VIII	\$236	\$/hr
Professional IX	\$236	\$/hr
Technician I	\$104	\$/hr
Technician II	\$110	\$/hr
Technician III	\$136	\$/hr
Technician IV	\$145	\$/hr
Administrative I	\$71	\$/hr
Administrative II	\$83	\$/hr
Administrative III	\$99	\$/hr
Administrative IV	\$117	\$/hr
Administrative V	\$135	\$/hr
CAD/GIS System	\$27.50	\$/hr
CAD Plots - Half Size	\$2.50	price per plot
CAD Plots - Full Size	\$10.00	price per plot
CAD Plots - Large	\$25.00	price per plot
Copies (bw) 8.5" X 11"	\$0.09	price per copy
Copies (bw) 8.5" X 14"	\$0.14	price per copy
Copies (bw) 11" X 17"	\$0.20	price per copy
Copies (color) 8.5" X 11"	\$0.90	price per copy
Copies (color) 8.5" X 14"	\$1.20	price per copy
Copies (color) 11" X 17"	\$2.00	price per copy
Technology Charge	2.50%	% of Direct Labor
Mileage	\$0.545	price per mile (or Current IRS Rate)
Subconsultants	15%	Cost +
Outside Services	at cost	

Rates listed are adjusted annually.



**CITY OF STANWOOD
PUBLIC WORKS COMMITTEE
AGENDA STAFF REPORT**

ITEM: 1

DATE: May 1, 2017

SUBJECT: Six-Year Transportation Improvement Plan (TIP) 2019-2024

CONTACT PERSON: Kevin Hushagen, Public Works Director

ATTACHMENTS: A – RCW 35.77.010
B – Map of Projects
C – Project Cost Spreadsheet
D – CIP 2018-2023 - DRAFT
E – 20 year Comp Plan Transportation Cost Estimates

ISSUE

The issue in front of the public works committee is to review the proposed Six-Year TIP 2019-2024 for consistency with the Comprehensive Plan and recommend any changes.

SUMMARY STATEMENT

As required by RCW 35.77.010 the City of Stanwood is required to prepare and adopt a comprehensive transportation improvement plan (TIP) by July of each year for the ensuing six calendar years. In addition, the City of Stanwood's Six-Year TIP is required to be consistent with the adopted comprehensive plan and shall be filed with the Washington Department of Transportation as well as the Puget Sound Regional Council.

The purpose of the comprehensive transportation improvement plan is to assure that each city and town shall perpetually have available advanced plans looking to the future for not less than six years as a guide in carrying out a coordinated transportation program. The approved plan may at any time be revised by a majority vote of the council, but only after a public hearing(s) have been notice and held.

DISCUSSION

In 2015, the city comprehensive plan was adopted; Transpo Group developed the transportation element of the plan. As part of the transportation element a 20 year look ahead and forecast is made and adopted in that plan. The 6 year TIP is to create a more defined and attainable 6 year plan for adoption annually to be in line with finances and needs of the City while being consistent with the comprehensive plan. Projects seeking grant or outside funding need to be identified on the 6 year TIP.

Most of the projects listed on the TIP were identified previously. Last year, sidewalk improvements and trails that were identified by the Non-motorized Transportation Plan were added to the TIP. The following table is a summary of project status, additional changes will be added to the table after the committee has reviewed the TIP on April 9, 2018.

SUMMARY OF CHANGES FOR 2019-2024

STREET PROJECTS	UPDATE	REASON
Cedarhome Drive Grind and Overlay Railroad Tracks to 80th Ave	REMOVED	Project Completed
SIDEWALK PROJECTS	UPDATE	REASON
276th Street NW Between 70 th and 73rd	REMOVE ROW Phase	Completed in 2018
98th Dr NW East Side between SR532 (268 th St) and 270 th	Changed project area from west side to east side	Correction
90th Ave NW West Side between north of 271 st and 272 nd	*Removed PE phase *Split out costs for ROW and CN	Completed in 2018 ROW - \$50K CN - \$100K
284th St NW West of 68 th St to 69 th St	Changed project area from North Side between 68 th St and east of 72 nd St	Correction
272nd St NW North Side between 72 nd Ave and West of 76 th Dr	REMOVE PE Phase	Completed in 2018
72nd Ave NW West Side between 272 nd and 276 th	Changed area from east side to west side, & from 268 th to 276 th .	?
TRAIL PROJECTS	UPDATE	REASON

RCW 35.77.010

Perpetual advanced six-year plans for coordinated transportation program expenditures — Non-motorized transportation — Railroad right-of-way.

(1) The legislative body of each city and town, pursuant to one or more public hearings thereon, shall prepare and adopt a comprehensive transportation program for the ensuing six calendar years. If the city or town has adopted a comprehensive plan pursuant to chapter [35.63](#) or [35A.63](#) RCW, the inherent authority of a first-class city derived from its charter, or chapter [36.70A](#) RCW, the program shall be consistent with this comprehensive plan. The program shall include any new or enhanced bicycle or pedestrian facilities identified pursuant to RCW [36.70A.070](#)(6) or other applicable changes that promote non-motorized transit.

The program shall be filed with the secretary of transportation not more than thirty days after its adoption. Annually thereafter the legislative body of each city and town shall review the work accomplished under the program and determine current city transportation needs. Based on these findings each such legislative body shall prepare and after public hearings thereon adopt a revised and extended comprehensive transportation program before July 1st of each year, and each one-year extension and revision shall be filed with the secretary of transportation not more than thirty days after its adoption. The purpose of this section is to assure that each city and town shall perpetually have available advanced plans looking to the future for not less than six years as a guide in carrying out a coordinated transportation program. The program may at any time be revised by a majority of the legislative body of a city or town, but only after a public hearing.

The six-year plan for each city or town shall specifically set forth those projects and programs of regional significance for inclusion in the transportation improvement program within that region.

(2) Each six-year transportation program forwarded to the secretary in compliance with subsection (1) of this section shall contain information as to how a city or town will expend its moneys, including funds made available pursuant to chapter [47.30](#) RCW, for non-motorized transportation purposes.

(3) Each six-year transportation program forwarded to the secretary in compliance with subsection (1) of this section shall contain information as to how a city or town shall act to preserve railroad right-of-way in the event the railroad ceases to operate in the city's or town's jurisdiction.

[2005 c 360 § 4. Prior: 1994 c 179 § 1; 1994 c 158 § 7; 1990 1st ex.s. c 17 § 59; 1988 c 167 § 6; 1984 c 7 § 23; 1977 ex.s. c 317 § 7; 1975 1st ex.s. c 215 § 1; 1967 ex.s. c 83 § 27; 1965 c 7 § [35.77.010](#); prior: 1961 c 195 § 2.]

STREET PROJECTS - CIP

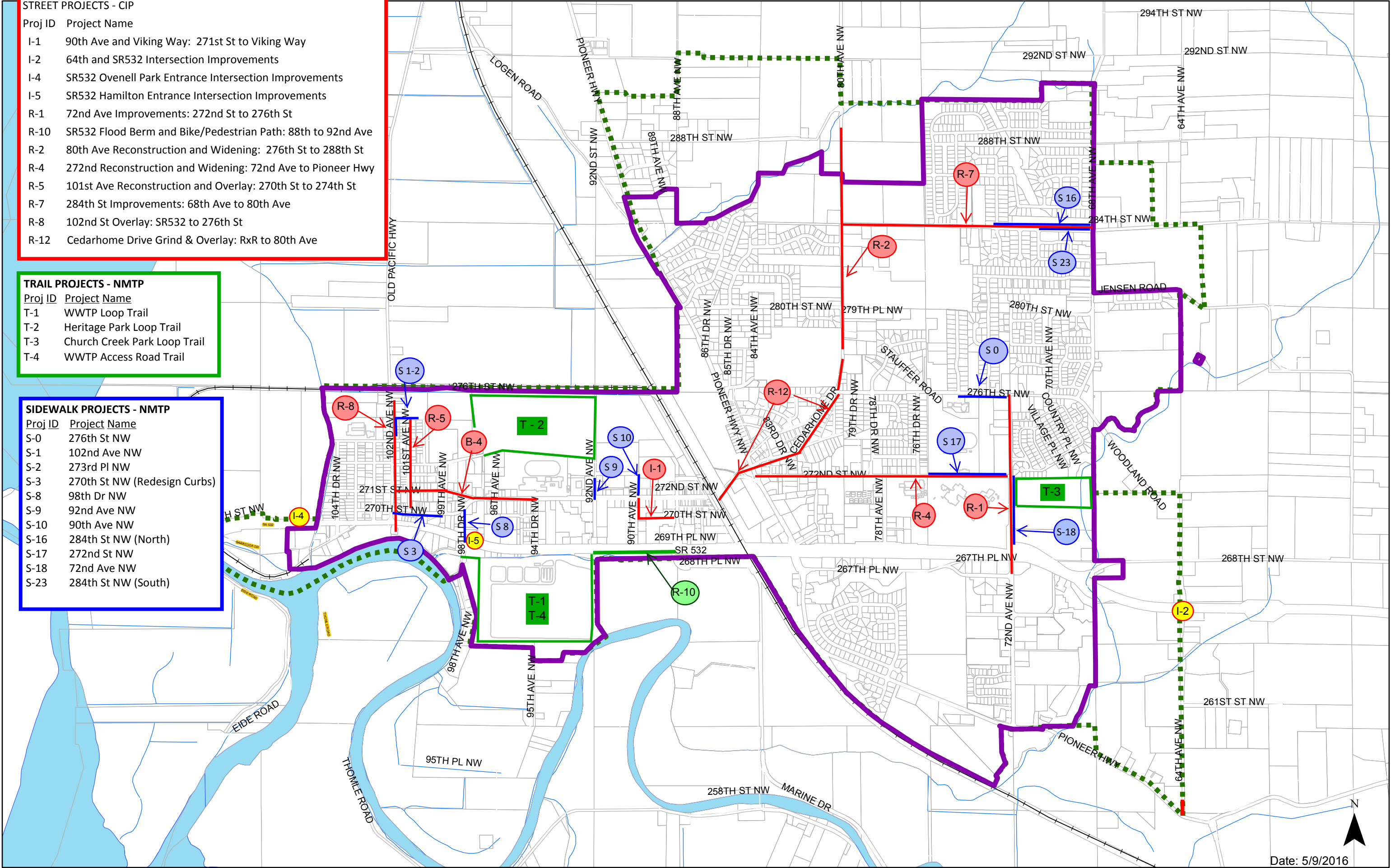
Proj ID	Project Name
I-1	90th Ave and Viking Way: 271st St to Viking Way
I-2	64th and SR532 Intersection Improvements
I-4	SR532 Ovenell Park Entrance Intersection Improvements
I-5	SR532 Hamilton Entrance Intersection Improvements
R-1	72nd Ave Improvements: 272nd St to 276th St
R-10	SR532 Flood Berm and Bike/Pedestrian Path: 88th to 92nd Ave
R-2	80th Ave Reconstruction and Widening: 276th St to 288th St
R-4	272nd Reconstruction and Widening: 72nd Ave to Pioneer Hwy
R-5	101st Ave Reconstruction and Overlay: 270th St to 274th St
R-7	284th St Improvements: 68th Ave to 80th Ave
R-8	102nd St Overlay: SR532 to 276th St
R-12	Cedarhome Drive Grind & Overlay: RxR to 80th Ave

TRAIL PROJECTS - NMTP

Proj ID	Project Name
T-1	WWTP Loop Trail
T-2	Heritage Park Loop Trail
T-3	Church Creek Park Loop Trail
T-4	WWTP Access Road Trail

SIDEWALK PROJECTS - NMTP

Proj ID	Project Name
S-0	276th St NW
S-1	102nd Ave NW
S-2	273rd Pl NW
S-3	270th St NW (Redesign Curbs)
S-8	98th Dr NW
S-9	92nd Ave NW
S-10	90th Ave NW
S-16	284th St NW (North)
S-17	272nd St NW
S-18	72nd Ave NW
S-23	284th St NW (South)



City of Stanwood Six Year Transportation Improvement Plan (2019-2024)

Priority No. / Proj No.	Transportation Capital Project		Funding	2019	2020	2021	2022	2023	2024	Fund Total
1	SR532 Corridor Study		Other Grant Funding	\$ 350,000						\$ 350,000
	PE	\$ 350,000	TBD Funds							\$ -
	ROW	\$ -	WSDOT Funds							\$ -
	CN	\$ -	TIB Grant Funding							\$ -
	TOTAL	\$ 350,000	PSRC/STP Funding							\$ -
	Comments:		Developer Funded							\$ -
Local - City									\$ -	
SUBTOTAL THIS PROJECT			\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 350,000	
2	Sidewalk: 102nd Ave NW		Other Grant Funding							\$ -
S-1	PE	\$ 11,098	TBD Funds							\$ -
	ROW	\$ 40,360	WSDOT Funds							\$ -
	CN	\$ 55,490	TIB Grant Funding							\$ -
	TOTAL	\$ 106,948	PSRC/STP Funding							\$ -
	Comments: West side between 272nd and 276th St		Developer Funded							\$ -
			Local - City	\$ 106,948						\$ 106,948
			SUBTOTAL THIS PROJECT	\$ 106,948	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 106,948
3	102nd St NW Overlay		Other Grant Funding							\$ -
R-8	PE	\$ 60,000	TBD Funds							\$ -
	ROW	\$ -	WSDOT Funds							\$ -
	CN	\$ 330,000	TIB Grant Funding	\$ 330,000						\$ 330,000
	TOTAL	\$ 390,000	PSRC/STP Funding							\$ -
	Comments: Overlay 102nd St between SR532 and 276th St		Developer Funded							\$ -
			Local - City	\$ 60,000						\$ 60,000
			SUBTOTAL THIS PROJECT	\$ 390,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 390,000
4	284th St Improvements		Other Grant Funding			\$ 744,000	\$ 622,000			\$ 1,366,000
R-7	PE	\$ 1,244,000	TBD Funds							\$ -
	ROW	\$ 622,000	WSDOT Funds							\$ -
	CN	\$ 4,354,000	TIB Grant Funding							\$ -
	TOTAL	\$ 6,220,000	PSRC/STP Funding							\$ -
	Comments: Reconstruction and widen 284th St between approx. 68th Ave NW & 80th St.		Developer Funded	\$ 500,000				\$ 3,854,000		\$ 4,354,000
			Local - City				\$ 500,000		\$ 500,000	
			SUBTOTAL THIS PROJECT	\$ 500,000	\$ -	\$ 744,000	\$ 622,000	\$ 4,354,000	\$ -	\$ 6,220,000
5	SR532 Ovenell Park Entrance Intersection		Other Grant Funding			\$ 700,000	\$ 2,470,000			\$ 3,170,000
I-4	PE	\$ 330,000	TBD Funds							\$ -
	ROW	\$ 700,000	WSDOT Funds							\$ -
	CN	\$ 2,470,000	TIB Grant Funding							\$ -
	TOTAL	\$ 3,500,000	PSRC/STP Funding		\$ 330,000					\$ 330,000
	Comments: SR532 to 270th St		Developer Funded							\$ -
			Local - City							\$ -
			SUBTOTAL THIS PROJECT	\$ -	\$ 330,000	\$ 700,000	\$ 2,470,000	\$ -	\$ -	\$ 3,500,000
6	92nd Ave NW		Other Grant Funding							\$ -
S-9	PE	\$ -	TBD Funds							\$ -
	ROW	\$ 50,000	WSDOT Funds							\$ -
	CN	\$ 100,000	TIB Grant Funding							\$ -
	TOTAL	\$ 150,000	PSRC/STP Funding							\$ -
	Comments: West side between north of 271st and 272nd		Developer Funded							\$ -
			Local - City	\$ 150,000						\$ 150,000
			SUBTOTAL THIS PROJECT	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 150,000

City of Stanwood Six Year Transportation Improvement Plan (2019-2024)

Priority No. / Proj No.	Transportation Capital Project		Funding	2019	2020	2021	2022	2023	2024	Fund Total
7	Sidewalk: 72nd Ave NW		Other Grant Funding							\$ -
S-18	PE	\$ -	TBD Funds							\$ -
	ROW	\$ 20,000	WSDOT Funds							\$ -
	CN	\$ 250,000	TIB Grant Funding							\$ -
	TOTAL	\$ 270,000	PSRC/STP Funding							\$ -
	Comments: West side between 268th St and 276th St		Developer Funded							\$ -
			Local - City	\$ 20,000	\$ 250,000					\$ 270,000
			SUBTOTAL THIS PROJECT	\$ 20,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ 270,000
8	90th Ave NW and Viking Way		Other Grant Funding	\$ 1,426,250						\$ 1,426,250
I-1	PE		TBD Funds							\$ -
	ROW		WSDOT Funds							\$ -
	CN	\$ 2,926,250	TIB Grant Funding							\$ -
	TOTAL	\$ 2,926,250	PSRC/STP Funding	\$ 500,000						\$ 500,000
	Comments: 90th Ave and Viking Way		Developer Funded							\$ -
	Viking Way to 271st St		Local - City	\$ 1,000,000						\$ 1,000,000
			SUBTOTAL THIS PROJECT	\$ 2,926,250	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,926,250
9	Sidewalk: 273rd Pl NW		Other Grant Funding							\$ -
S-2	PE	\$ 28,742	TBD Funds							\$ -
	ROW	\$ 60,510	WSDOT Funds							\$ -
	CN	\$ 83,200	TIB Grant Funding							\$ -
	TOTAL	\$ 172,452	PSRC/STP Funding							\$ -
	Comments: North side between 100th and 102nd		Developer Funded							\$ -
			Local - City		\$ 172,452					\$ 172,452
			SUBTOTAL THIS PROJECT	\$ -	\$ 172,452	\$ -	\$ -	\$ -	\$ -	\$ 172,452
10	101st Ave Reconstruction & Overlay		Other Grant Funding - CDBG		\$ 660,000	\$ 132,000	\$ 1,848,000			\$ 2,640,000
R-5	PE	\$ 660,000	TBD Funds							\$ -
	ROW	\$ 132,000	WSDOT Funds							\$ -
	CN	\$ 1,848,000	TIB Grant Funding							\$ -
	TOTAL	\$ 2,640,000	PSRC/STP Funding							\$ -
	Comments: 101st Ave between approx. 270th St and 274th St.		Developer Funded							\$ -
			Local - City							\$ -
			SUBTOTAL THIS PROJECT	\$ -	\$ 660,000	\$ 132,000	\$ 1,848,000	\$ -	\$ -	\$ 2,640,000
11	72nd Ave Improvements		Other Grant Funding - SRTS				\$ 1,000,000			\$ 1,000,000
R-1	PE	\$ 200,000	TBD Funds							\$ -
	ROW	\$ 528,000	WSDOT Funds							\$ -
	CN	\$ 1,000,000	TIB Grant Funding							\$ -
	TOTAL	\$ 1,728,000	PSRC/STP Funding							\$ -
	Comments: Construct 72nd Ave between approx. 272nd NW and 276th St		Developer Funded		\$ 200,000	\$ 528,000				\$ 728,000
			Local - City				\$ 1,000,000			\$ 1,000,000
			SUBTOTAL THIS PROJECT	\$ -	\$ 200,000	\$ 528,000	\$ 2,000,000	\$ -	\$ -	\$ 2,728,000
12	272nd St Reconstruction & Widening		Other Grant Funding - SRTS/CDBG						\$ 2,000,000	\$ 2,000,000
R-4	PE	\$ 800,000	TBD Funds							\$ -
	ROW	\$ 400,000	WSDOT Funds							\$ -
	CN	\$ 2,800,000	TIB Grant Funding							\$ -
	TOTAL	\$ 4,000,000	PSRC/STP Funding							\$ -
	Comments: 272nd St from 72nd Ave to Pioneer Hwy including ROW acquisition.		Developer Funded							\$ -
			Local - City		\$ 2,000,000					\$ 2,000,000
			SUBTOTAL THIS PROJECT	\$ -	\$ 2,000,000	\$ -	\$ -	\$ -	\$ 2,000,000	\$ 4,000,000

City of Stanwood Six Year Transportation Improvement Plan (2019-2024)

Priority No. / Proj No.	Transportation Capital Project		Funding	2019	2020	2021	2022	2023	2024	Fund Total
13	SR532 Hamilton Entrance Intersection		Other Grant Funding		\$ 525,000	\$ 700,000	\$ 2,275,000			\$ 3,500,000
I-5	PE	\$ 525,000	TBD Funds							\$ -
	ROW	\$ 700,000	WSDOT Funds							\$ -
	CN	\$ 2,275,000	TIB Grant Funding							\$ -
	TOTAL	\$ 3,500,000	PSRC/STP Funding							\$ -
	Comments: Sr532 to 98th Dr.		Developer Funded							\$ -
			Local - City							\$ -
			SUBTOTAL THIS PROJECT	\$ -	\$ 525,000	\$ 700,000	\$ 2,275,000	\$ -	\$ -	\$ 3,500,000
14	SR532 Flood Berm & Bike/Pedestrian Path		Other Grant Funding - Commerce		\$ 1,112,000					\$ 1,112,000
R-10	PE - DONE \$186,000		TBD Funds							\$ -
	ROW		WSDOT Funds							\$ -
	CN	\$ 1,112,000	TIB Grant Funding							\$ -
	TOTAL	\$ 1,112,000	PSRC/STP Funding							\$ -
	Comments: 88th Ave to 92nd Ave		Developer Funded							\$ -
			Local - City							\$ -
			SUBTOTAL THIS PROJECT	\$ -	\$ 1,112,000	\$ -	\$ -	\$ -	\$ -	\$ 1,112,000
15	90th Ave NW		Other Grant Funding							\$ -
S-10	PE	\$ 20,814	TBD Funds							\$ -
	ROW	\$ 43,820	WSDOT Funds							\$ -
	CN	\$ 60,250	TIB Grant Funding							\$ -
	TOTAL	\$ 124,884	PSRC/STP Funding							\$ -
	Comments: West side between north of 271st and 272nd		Developer Funded							\$ -
			Local - City		\$ 124,884					\$ 124,884
			SUBTOTAL THIS PROJECT	\$ -	\$ 124,884	\$ -	\$ -	\$ -	\$ -	\$ 124,884
16	80th Ave Reconstruction & Widening		Other Grant Funding							\$ -
R-2	PE	\$ 1,406,000	TBD Funds							\$ -
	ROW	\$ 703,000	WSDOT Funds							\$ -
	CN	\$ 4,921,000	TIB Grant Funding							\$ -
	TOTAL	\$ 7,030,000	PSRC/STP Funding							\$ -
	Comments: between aprox. 276th St and 288th St		Developer Funded			\$ 2,109,000	\$ 4,921,000			\$ 7,030,000
			Local - City							\$ -
			SUBTOTAL THIS PROJECT	\$ -	\$ -	\$ 2,109,000	\$ 4,921,000	\$ -	\$ -	\$ 7,030,000
17	64th and SR532 Intersection		Other Grant Funding							\$ -
I-2	PE	\$ 525,000	TBD Funds							\$ -
	ROW		WSDOT Funds			\$ 3,500,000				\$ 3,500,000
	CN	\$ 2,975,000	TIB Grant Funding							\$ -
	TOTAL	\$ 3,500,000	PSRC/STP Funding							\$ -
	Comments: 64th & SR532		Developer Funded							\$ -
			Local - City							\$ -
			SUBTOTAL THIS PROJECT	\$ -	\$ -	\$ 3,500,000	\$ -	\$ -	\$ -	\$ 3,500,000
18	Sidewalk: 284th St NW		Other Grant Funding							\$ -
S-16	PE	\$ 30,980	TBD Funds							\$ -
	ROW	\$ 65,220	WSDOT Funds							\$ -
	CN	\$ 89,680	TIB Grant Funding							\$ -
	TOTAL	\$ 185,880	PSRC/STP Funding							\$ -
	Comments: West side between 68th St to 69th St		Developer Funded							\$ -
			Local - City		\$ 185,880	\$ -				\$ 185,880
			SUBTOTAL THIS PROJECT	\$ -	\$ 185,880	\$ -	\$ -	\$ -	\$ -	\$ 185,880

City of Stanwood Six Year Transportation Improvement Plan (2019-2024)

Priority No. / Proj No.	Transportation Capital Project		Funding	2019	2020	2021	2022	2023	2024	Fund Total
19	98th Dr. NW		Other Grant Funding							\$ -
S-8	PE	\$ 20,540	TBD Funds							\$ -
	ROW	\$ 43,240	WSDOT Funds							\$ -
	CN	\$ 59,460	TIB Grant Funding							\$ -
	TOTAL	\$ 123,240	PSRC/STP Funding							\$ -
	Comments: East side between SR532 and 270th St		Developer Funded							\$ -
			Local - City			\$ 123,240				\$ 123,240
			SUBTOTAL THIS PROJECT	\$ -	\$ -	\$ 123,240	\$ -	\$ -	\$ -	\$ 123,240
20	Sidewalk: 284th St NW		Other Grant Funding							\$ -
S-23	PE	\$ 30,980	TBD Funds							\$ -
	ROW	\$ 65,220	WSDOT Funds							\$ -
	CN	\$ 89,680	TIB Grant Funding							\$ -
	TOTAL	\$ 185,880	PSRC/STP Funding							\$ -
	Comments: South side between 68th and east of 70th Ave		Developer Funded							\$ -
			Local - City			\$ 185,880				\$ 185,880
			SUBTOTAL THIS PROJECT	\$ -	\$ -	\$ 185,880	\$ -	\$ -	\$ -	\$ 185,880
21	270th St NW Redesign Curbs		Other Grant Funding					\$ 735,828		\$ 735,828
S-3	PE	\$ 122,638	TBD Funds							\$ -
	ROW		WSDOT Funds							\$ -
	CN	\$ 613,190	TIB Grant Funding							\$ -
	TOTAL	\$ 735,828	PSRC/STP Funding							\$ -
	Comments: East of 98th and 102nd		Developer Funded							\$ -
			Local - City							\$ -
			SUBTOTAL THIS PROJECT	\$ -	\$ -	\$ -	\$ -	\$ 735,828	\$ -	\$ 735,828
22	Sidewalk: 272nd St NW		Other Grant Funding		\$ 533,436					\$ 533,436
S-17	PE	\$ 88,906	TBD Funds							\$ -
	ROW	\$ 187,170	WSDOT Funds							\$ -
	CN	\$ 257,360	TIB Grant Funding							\$ -
	TOTAL	\$ 533,436	PSRC/STP Funding							\$ -
	Comments: North side between 72nd Ave and West of 76th Dr.		Developer Funded							\$ -
			Local - City							\$ -
			SUBTOTAL THIS PROJECT	\$ -	\$ 533,436	\$ -	\$ -	\$ -	\$ -	\$ 533,436
23	Sidewalk: 276th St NW		Other Grant Funding		\$ 898,125					\$ 898,125
S-0	PE	\$ 150,000	TBD Funds							\$ -
	ROW	\$ 90,000	WSDOT Funds							\$ -
	CN	\$ 658,125	TIB Grant Funding							\$ -
	TOTAL	\$ 898,125	PSRC/STP Funding							\$ -
	Comments: between 70th and 73rd		Developer Funded							\$ -
			Local - City							\$ -
			SUBTOTAL THIS PROJECT	\$ -	\$ 898,125	\$ -	\$ -	\$ -	\$ -	\$ 898,125
24	Sidewalk: Cedarhome Drive NW		Other Grant Funding						\$ 714,612	\$ 714,612
	PE	\$ 119,102	TBD Funds							\$ -
	ROW	\$ 250,740	WSDOT Funds							\$ -
	CN	\$ 344,770	TIB Grant Funding							\$ -
	TOTAL	\$ 714,612	PSRC/STP Funding							\$ -
	Comments: South Side between 271st St and 276th St		Developer Funded							\$ -
			Local - City							\$ -
			SUBTOTAL THIS PROJECT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 714,612	\$ 714,612

City of Stanwood Six Year Transportation Improvement Plan (2019-2024)

Priority No. / Proj No.	Transportation Capital Project	Funding	2019	2020	2021	2022	2023	2024	Fund Total
25	Trails: WWTP Loop Trail	Other Grant Funding					\$ 2,772,500		\$ 2,772,500
T-1	PE \$ 554,500	TBD Funds							\$ -
	ROW	WSDOT Funds							\$ -
	CN \$ 2,218,000	TIB Grant Funding							\$ -
	TOTAL \$ 2,772,500	PSRC/STP Funding							\$ -
	Comments:	Developer Funded							\$ -
		Local - City							\$ -
		SUBTOTAL THIS PROJECT	\$ -	\$ -	\$ -	\$ -	\$ 2,772,500	\$ -	\$ 2,772,500
26	Trails: Heritage Park Loop Trail	Other Grant Funding						\$ 535,000	\$ 535,000
T-2	PE \$ 107,000	TBD Funds							\$ -
	ROW	WSDOT Funds							\$ -
	CN \$ 428,000	TIB Grant Funding							\$ -
	TOTAL \$ 535,000	PSRC/STP Funding							\$ -
	Comments: Trail system around Heritage Park	Developer Funded							\$ -
		Local - City							\$ -
		SUBTOTAL THIS PROJECT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 535,000	\$ 535,000
27	Trails: Church Creek Park Loop Trail	Other Grant Funding						\$ 411,750	\$ 411,750
T-3	PE \$ 82,350	TBD Funds							\$ -
	ROW	WSDOT Funds							\$ -
	CN \$ 329,400	TIB Grant Funding							\$ -
	TOTAL \$ 411,750	PSRC/STP Funding							\$ -
	Comments: Trail system around Church Creek Park	Developer Funded							\$ -
		Local - City							\$ -
		SUBTOTAL THIS PROJECT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 411,750	\$ 411,750
28	Trails: WWTP Access Road Trail	Other Grant Funding						\$ 402,000	\$ 402,000
T-4	PE \$ 80,400	TBD Funds							\$ -
	ROW	WSDOT Funds							\$ -
	CN \$ 321,600	TIB Grant Funding							\$ -
	TOTAL \$ 402,000	PSRC/STP Funding							\$ -
	Comments: Trail system parallel to SR532 on the south side of Irvine Slough	Developer Funded							\$ -
		Local - City							\$ -
		SUBTOTAL THIS PROJECT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 402,000	\$ 402,000
TOTAL PROJECT COST ESTIMATE			\$ 4,443,198	\$ 6,991,777	\$ 8,722,120	\$ 14,136,000	\$ 7,862,328	\$ 4,063,362	\$ 46,218,785

Other Grant Funding	\$ 1,776,250	\$ 3,728,561	\$ 2,276,000	\$ 8,215,000	\$ 3,508,328	\$ 4,063,362	\$ 23,567,501
TBD Funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
WSDOT Funds	\$ -	\$ -	\$ 3,500,000	\$ -	\$ -	\$ -	\$ 3,500,000
TIB Grant Funding	\$ 330,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 330,000
PSRC/STP Funding	\$ 500,000	\$ 330,000	\$ -	\$ -	\$ -	\$ -	\$ 830,000
Developer Funded	\$ 500,000	\$ 200,000	\$ 2,637,000	\$ 4,921,000	\$ 3,854,000	\$ -	\$ 12,112,000
Federal Funding							\$ -
Local - City	\$ 1,336,948	\$ 2,733,216	\$ 309,120	\$ 1,000,000	\$ 500,000	\$ -	\$ 5,879,284
TOTAL PROJECT COST ESTIMATE	\$ 4,443,198	\$ 6,991,777	\$ 8,722,120	\$ 14,136,000	\$ 7,862,328	\$ 4,063,362	\$ 46,218,785

CIP 2019-2024 DRAFT UPDATE FOR TIP ELEMENTS

Street (Funds 102/103/108)		Budget					
		2019	2020	2021	2022	2023	2024
		20	22	22	20	20	20
Project ID	Beginning Cash & Investments	\$1,514,610	-\$1,189,888	\$3,930,151	\$5,668,925	\$2,222,761	\$2,813,787
	Revenues						
	Impact Fees	\$70,460	\$77,506	\$77,506	\$70,460	\$70,460	\$70,460
	Transfer in LID closeout						
	Developer Funding		\$1,056,000	\$2,637,000	\$4,921,000	\$3,854,000	
	Bond Proceeds						
	WSDOT/Safe Routes to School	\$93,250		\$3,500,000			
	DOC/Safe Routes to School	\$316,370					
	FHWA - STP						
	Bond Proceeds / Debt						
	Grants	\$1,175,000	\$9,458,000	\$4,046,000	\$5,745,000	\$1,700,000	\$3,260,000
	Transportation Sales Tax	\$292,900	\$295,830	\$298,788	\$301,776	\$304,794	\$307,842
	Interest	\$1,600	\$1,600	\$1,600	\$1,600	\$1,600	\$1,600
	Total Resources (includes BNC)	\$45,524,612	\$3,464,190	\$9,699,048	\$14,491,045	\$16,708,761	\$8,153,615
	Total						
I-1 I-2 I-4 I-5 R-1 R-2 R-4 R-5 R-7 R-8 ? S 0-23 S 0-23	Expenditures:	Proj Cost					
	Viking Way / 90th	\$2,926,250	\$2,926,250				
	64th and SR532 Intersection Improvement	\$3,500,000		\$3,500,000			
	SR532/Ovenell Access	\$3,500,000	\$330,000	\$700,000	\$2,470,000		
	SR532/98th Hamilton Access	\$3,500,000	\$525,000	\$700,000	\$2,275,000		
	72nd (272nd - 276th)	\$1,728,000	\$200,000	\$528,000	\$2,000,000		
	80th Reconstruction (276th - 288th)	\$7,030,000		\$2,109,000	\$4,921,000		
	272nd Reconstruction and Widening: 72nd Ave to Pioneer Hwy	\$4,000,000	\$2,000,000				\$2,000,000
	101st Ave Reconstruction and Overlay: 270th St to 274th St	\$2,640,000	\$660,000	\$132,000	\$1,848,000		
	284th St Improvements: 68th Ave to 80th Ave	\$6,220,000	\$500,000	\$744,000	\$622,000	\$4,354,000	
	102nd St NW Overlay	\$390,000	\$390,000				
	SR532 Corridor Study	\$350,000	\$350,000				
	Sidewalks	\$2,073,321	\$205,880	\$1,681,561	\$185,880		
	Downtown Sidewalk Imprv.	\$1,413,352	\$256,948	\$297,336	\$123,240	\$735,828	
	Miscellaneous	\$50,000	\$25,000	\$25,000			
	Pavement Inventory	\$50,000	\$50,000				
	Viaduct Roundabout - Fund 108	\$350,000		\$100,000	\$250,000		
	80th (276th - Cedarhome Round - Fund 108	\$350,000			\$100,000	\$250,000	
	Total Expenditures	\$40,070,923	\$4,654,078	\$5,768,897	\$8,822,120	\$14,486,000	\$5,339,828
	Ending Cash & Investments	\$5,453,689	-\$1,189,888	\$3,930,151	\$5,668,925	\$2,222,761	\$4,453,689

Parks (104/106/120/121)		Budget 2019	2020	2021	2022	2023	2024
	SFR Building Permits	20	22	22	20	20	20
Beginning Cash & Investments		\$1,262,609	\$1,201,675	\$1,007,023	\$842,370	\$326,436	\$460,502
Revenues							
Impact Fees		\$12,816	\$14,098	\$14,098	\$12,816	\$12,816	\$12,816
REET 1 Transfer-In		\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000
Bond Proceeds / Debt							
Grant Proceeds			\$0	\$0	\$0	\$400,000	\$4,371,250
Ovenell							
Hamilton (WWRP/ALEA			\$250,000	\$250,000	\$2,250,000		
Johnson (Floodplains by Design			\$1,600,000				
Interest		\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250
Total Resources (includes BNC)	\$11,190,818	\$1,396,675	\$3,187,023	\$1,392,370	\$3,226,436	\$860,502	\$4,965,818
Expenditures:	Total Proj Cost						
Ovenell Property	\$225,000	\$170,000	\$55,000				
Heritage Park - 4th Field & Trail	\$820,000			\$20,000	\$400,000	\$400,000	
Hamilton Property	\$2,800,000	\$25,000	\$275,000	\$250,000	\$2,250,000		
T 1-4 Trail Plan Implementation	\$4,871,250		\$250,000	\$250,000	\$250,000		\$4,121,250
Farmland Acquisition	\$1,600,000		\$1,600,000				
New Neighborhood Park	\$280,000			\$30,000			\$250,000
Total Expenditures	\$10,596,250	\$195,000	\$2,180,000	\$550,000	\$2,900,000	\$400,000	\$4,371,250
Ending Cash & Investments	\$594,568	\$1,201,675	\$1,007,023	\$842,370	\$326,436	\$460,502	\$594,568

Drainage (411/412)		Budget 2019	2020	2021	2022	2023	2024
	SFR Building Permits	20	22	22	20	20	20
Beginning Cash & Investments	Fees	\$62,862	\$123,252	\$80,646	\$278,040	\$859,130	\$890,185
Revenues							
Plant Investment Fees		\$16,040	\$17,644	\$17,644	\$16,040	\$16,040	\$16,040
Drainage Connection Fees		\$4,000	\$4,400	\$4,400	\$4,000	\$4,000	\$4,000
Transfer-In from Drainage Operating		\$0	\$0	\$0	\$0	\$0	\$0
Bond Proceeds / Debt							
Grant Proceeds		\$490,000	\$1,362,000	\$500,000	\$1,500,000	\$2,000,000	\$6,000,000
Interest		\$350	\$350	\$350	\$350	\$350	\$350
Total Resources (includes BNC)	\$12,041,210	\$573,252	\$1,507,646	\$603,040	\$1,798,430	\$2,879,520	\$6,910,575
(CIP#) Expenditures	Total Proj Cost						
(-) Drainage Rate Study	\$65,000		\$65,000				
(-) Retention Pond Improvements	\$100,000			\$25,000	\$25,000	\$25,000	\$25,000
(10) 85th Ave N Runoff	\$738,635			\$50,000	\$344,300	\$344,335	
(1) Irvine Slough Stormwater Separation	\$450,000	\$450,000					
R-10 (11) SR532 Flood Berm	\$1,112,000		\$1,112,000				
Muscle Walls	\$250,000		\$250,000				
(7) 101st, 102nd, 103rd Replacement	\$2,112,000			\$250,000	\$250,000	\$1,000,000	\$612,000
(2) 92nd Ave (271st-SR532)	\$640,000				\$120,000	\$520,000	
(3) 271st (101st-102nd)	\$500,000					\$100,000	\$400,000
(12) Sheetpile Walls WWTP (Note 1)	\$4,700,000				\$200,000		\$4,500,000
(4) 276th PI Pioneer Hwy Drainage Imp	\$58,791						\$58,791
(6) Augusta St. Pipe Upsize	\$292,915						\$292,915
(8) 271st St. NW @ Florence Rd Upsize	\$158,642						\$158,642
Total Expenditures	\$11,177,983	\$450,000	\$1,427,000	\$325,000	\$939,300	\$1,989,335	\$6,047,348
Ending Cash & Investments	\$863,227	\$123,252	\$80,646	\$278,040	\$859,130	\$890,185	\$863,227

Table 8. Transportation Improvement Projects and Programs

Type	Project ID	Project Name	Total Cost Estimate	TIF Eligible?	TIF Eligible Percent ⁽¹⁾	TIF Eligible Cost	Potential Grant Percent ⁽²⁾	Potential Grants	General City Transportation Funds Percent	General City Transportation Funds Cost	Relative Priority	Time Frame
Intersection / Operations	I-1	Viking Way / 90th Avenue NW Intersection	\$ 970,000	Partial	75%	\$727,500	0%	\$0	25%	\$242,500	High	Short
Intersection / Operations	I-2	SR 532 / 64th Ave N Intersection	\$ 1,160,000	Partial	50%	\$580,000	0%	\$0	50%	\$580,000	Medium	Mid
Intersection / Operations	I-3	272nd Street NW / 72nd Ave N (Lindstrom Road) Intersection	\$ 360,000	No	0%	\$0	0%	\$0	100%	\$360,000	High	Short
Intersection / Operations	I-4	SR 532 / 270th Street NW Intersection	\$ 110,000	Partial	50%	\$55,000	0%	\$0	50%	\$55,000	Medium	Mid
Intersection / Operations	I-5	SR 532 / 98th Drive NW Intersection	\$ 1,400,000	Partial	50%	\$700,000	0%	\$0	50%	\$700,000	Medium	Mid
Widening / Reconstruction	R-1	72nd Avenue NW Improvements 268th Street NW to 276th Street NW	\$ 5,280,000	Partial	30%	\$1,584,000	50%	\$2,640,000	20%	\$1,056,000	High	Short
Widening / Reconstruction	R-2	80th Avenue NW Improvements 276th Street NW to 288th Street NW	\$ 7,030,000	Partial	30%	\$2,109,000	50%	\$3,515,000	20%	\$1,406,000	High	Short
Widening / Reconstruction	R-3	68th Avenue Reconstruction 280th Street to 288th Street	\$ 4,300,000	Partial	30%	\$1,290,000	50%	\$2,150,000	20%	\$860,000	High	Short
Widening / Reconstruction	R-4	272nd Street NW Reconstruction 72nd Avenue NW to Pioneer Highway	\$ 8,820,000	Partial	30%	\$2,646,000	50%	\$4,410,000	20%	\$1,764,000	High	Short
Widening / Reconstruction	R-5	101st Avenue NW Reconstruction 270th Street NW to 274th Place NW	\$ 2,640,000	Partial	30%	\$792,000	0%	\$0	70%	\$1,848,000	Medium	Short
Widening / Reconstruction	R-6	270th Street NW Reconstruction 102nd Avenue NW to Camano Street	\$ 12,360,000	Partial	30%	\$3,708,000	50%	\$6,180,000	20%	\$2,472,000	Medium	Short
Widening / Reconstruction	R-7	284th Street NW Improvements 68th Avenue NW to 80th Avenue NW	\$ 6,220,000	Partial	30%	\$1,866,000	50%	\$3,110,000	20%	\$1,244,000	Medium	Short
Widening / Reconstruction	R-8	102nd Avenue NW Overlay SR 532 to 276th Street NW	\$ 310,000	Partial	30%	\$93,000	0%	\$0	70%	\$217,000	Medium	Short
Widening / Reconstruction	R-9	98th Drive NW Reconstruction 268th Street NW to 271st Street NW	\$ 1,920,000	Partial	30%	\$576,000	0%	\$0	70%	\$1,344,000	Low	Long
Widening / Reconstruction	R-10	SR 532 Flood Berm Marine Drive and 92nd Avenue NW	\$ 2,700,000	No	0%	\$0	50%	\$1,350,000	50%	\$1,350,000	High	Short
Widening / Reconstruction	R-11	Pioneer Highway Slide REET 1	\$ 50,000	No	0%	\$0	0%	\$0	100%	\$50,000	Low	Short
Widening / Reconstruction	R-12	Cedarhome Drive Improvements Triangle Drive to 276th Street NW	\$ 250,000	Partial	30%	\$75,000	30%	\$75,000	40%	\$100,000	Low	Mid
Widening / Reconstruction	R-13	288th Street NW Reconstruction 80th Avenue NW to Pioneer Highway	\$ 7,250,000	Partial	30%	\$2,175,000	0%	\$0	70%	\$5,075,000	Low	Mid
Widening / Reconstruction	R-14	64th Avenue NW / Woodland Road SR 532 to 68th Ave NW	\$ 7,250,000	Partial	30%	\$2,175,000	0%	\$0	70%	\$5,075,000	Low	Mid
Widening / Reconstruction	R-15	64th Avenue SR 532 to Pioneer Hwy	\$ 5,720,000	Partial	30%	\$1,716,000	0%	\$0	70%	\$4,004,000	Low	Long

Type	Project ID	Project Name	Total Cost Estimate	TIF Eligible?	TIF Eligible Percent ⁽¹⁾	TIF Eligible Cost	Potential Grant Percent ⁽²⁾	Potential Grants	General City Transportation Funds Percent	General City Transportation Funds Cost	Relative Priority	Time Frame
New Roadway	N-1	Viking Way 88th Avenue NW to 92nd Avenue NW	\$ 5,580,000	Partial	50%	\$2,790,000	50%	\$2,790,000	0%	\$0	High	Short
New Roadway	N-2	90th Avenue NW SR 532 to 271st Street NW	\$ 5,410,000	Partial	50%	\$2,705,000	50%	\$2,705,000	0%	\$0	High	Short
New Roadway	N-3	Downtown to East Residential Connectors	\$ 80,000	Yes	100%	\$80,000	0%	\$0	0%	\$0	Medium	Short
Pedestrian Network	P-1	Camano Street SR 532 to 271st Street NW	\$ 380,000	Partial	10%	\$38,000	0%	\$0	90%	\$342,000	High	Mid
Pedestrian Network	P-2	276th Street NW 76th Drive NW to 68th Avenue NW	\$ 780,000	Partial	10%	\$78,000	0%	\$0	90%	\$702,000	Medium	Long
Pedestrian Network	P-3	102nd Avenue NW 276th Street NW to SR 532	\$ 470,000	Partial	10%	\$47,000	0%	\$0	90%	\$423,000	Medium	Long
Pedestrian Network	P-4	Cedarhome South 276th Street NW to Florence Road	\$ 400,000	Partial	10%	\$40,000	0%	\$0	90%	\$360,000	Medium	Long
Pedestrian Network	P-5	276th Street NW (Lover's Lane) 92nd Avenue NW to 102nd Avenue NW	\$ 510,000	Partial	10%	\$51,000	0%	\$0	90%	\$459,000	Medium	Long
Bicycle Network	B-1	Pioneer Highway 288th Street NW to 72nd Avenue NW (Lindstrom Road)	\$ 5,200,000	Partial	10%	\$520,000	20%	\$1,040,000	70%	\$3,640,000	Medium	Mid
Bicycle Network	B-2	267th Street NW / 268th Street NW Pioneer Highway to 72nd Avenue NW (Lindstrom Road)	\$ 6,290,000	Partial	10%	\$629,000	20%	\$1,258,000	70%	\$4,403,000	Medium	Long
Bicycle Network	B-3	Cedarhome Drive 88th Avenue NW to 276th Street NW	\$ 3,460,000	Partial	10%	\$346,000	20%	\$692,000	70%	\$2,422,000	Medium	Long
Bicycle Network	B-4	271st St NW SR 532 (270th Street NW) to 88th Avenue NW	\$ 320,000	Partial	10%	\$32,000	0%	\$0	90%	\$288,000	Medium	Long
Bicycle Network	B-5	92nd Avenue NW SR 532 to 276th Street NW	\$ 2,660,000	Partial	10%	\$266,000	20%	\$532,000	70%	\$1,862,000	Medium	Long
Bicycle Network	B-6	276th Street NW (Lover's Lane) 92nd Avenue NW to 102nd Avenue NW	\$ 3,120,000	Partial	10%	\$312,000	0%	\$0	90%	\$2,808,000	Medium	Long
Bicycle Network	B-7	Rails to Trails Railroad line - Saratoga Dr to Lane Rd	\$ 1,110,000	Partial	10%	\$111,000	0%	\$0	90%	\$999,000	Medium	Long
Other Agency Improvements	O-1	Old Pacific Highway	n/a	No	0%	-	0%	-	0%		n/a	n/a
Other Agency Improvements	O-2	Pioneer Highway North	n/a	No	0%	-	0%	-	0%		n/a	n/a
Other Agency Improvements	O-3	268th Street NW	n/a	No	0%	-	0%	-	0%		n/a	n/a
Other Agency Improvements	O-4	Pioneer Highway South	n/a	No	0%	-	0%	-	0%		n/a	n/a
Other Agency Improvements	O-5	Marine Drive	n/a	No	0%	-	0%	-	0%		n/a	n/a
Citywide Programs	C-1	Small Capital Projects	\$ 2,050,000	No	0%	\$0	0%	\$0	100%	\$2,050,000	High	Ongoing
Citywide Programs	C-2	Maintenance & Operations	\$ 10,025,000	No	0%	\$0	0%	\$0	100%	\$10,025,000	High	Ongoing