

## **CITY COUNCIL AGENDA ITEM**

### **CITY OF SHORELINE, WASHINGTON**

**AGENDA TITLE:** Authorizing the City Manager to Execute a Professional Services Contract with Osborn Consulting, Inc. in the Amount of \$387,824 for Design of the 10<sup>th</sup> Avenue NE Drainage Improvements Project

**DEPARTMENT:** Public Works

**PRESENTED BY:** Tricia Juhnke

**ACTION:**        ☐ Ordinance        ☐ Resolution        ☒ Motion  
                 ☐ Discussion        ☐ Public Hearing

**PROBLEM/ISSUE STATEMENT:**

The City of Shoreline has experienced recurring storm drainage problems along 10<sup>th</sup> Avenue NE between NE 175<sup>th</sup> Street and NE 165<sup>th</sup> Street. Runoff from over 20-acres of property flows into the site and additional peak flows from approximately 65-acres flow through the site via engineered flow-splitting structures located at NE 175<sup>th</sup> Street and 10<sup>th</sup> Avenue NE.

The 2019-2024 Capital Improvement Plan (CIP) includes funding to proceed with the design of a project to alleviate this drainage problem through the use of Low Impact Design techniques. Consultant services are required to provide analysis of current drainage, capacity issues and causes, and develop design to mitigate deficiencies. Osborn Consulting, Inc. has been selected as the most qualified firm to support the City with this project through the design phase. Staff have negotiated a contract for the design work to prepare bid documents for construction. Council authorization is needed to enter an agreement with Osborn Consulting, Inc.

**RESOURCE/FINANCIAL IMPACT:**

This project is fully funded in the adopted 2019-2024 CIP. The summary of funding for the design phase is as follows:

**PROJECT EXPENDITURES – DESIGN PHASE**

Staff and Other Direct Expenses	\$65,000
Design Consultant ( <i><b>This Contract</b></i> )	\$387,824
<b>Total Project Expenditures</b>	<b>\$452,824</b>

**PROJECT REVENUE – DESIGN PHASE**

Ecology Water Quality Combined Financial Assistance Grant	\$250,000
Surface Water Capital Fund	\$202,824
<b>Total Project Revenue</b>	<b>\$452,824</b>

Cost estimates for construction will be updated during the design phase. Construction is not programmed until 2023 based on the availability of surface water funds. Delaying construction until 2023 allows staff to pursue additional grant funding for construction of the project.

### **RECOMMENDATION**

Staff recommends that Council authorize the City Manager to execute a professional services contract with Osborn Consulting, Inc. in the amount of \$387,824 for 10<sup>th</sup> Avenue NE Drainage Improvements Project.

Approved By:            City Manager ***DT***    City Attorney ***MK***

## **BACKGROUND**

The City of Shoreline has experienced recurring storm drainage problems along 10<sup>th</sup> Avenue NE between NE 175<sup>th</sup> Street and NE 165<sup>th</sup> Street. Runoff from over 20-acres of property flows into the site and additional peak flows from approximately 65-acres flow through the site via engineered flow-splitting structures located at NE 175<sup>th</sup> Street and 10<sup>th</sup> Avenue NE.

The existing conveyance system is undersized for current stormwater flows. During heavy rainfall events, capacity of the conveyance system is regularly exceeded, leading to flooding of the 10<sup>th</sup> Avenue NE right-of-way, driveways, and private properties east of the roadway. In addition to flooding problems, treatment of runoff from pollution generating surfaces is not provided along the roadway corridor. Untreated runoff from the public right-of-way enters the City's stormwater system carrying contaminants into the downstream drainage system.

The 10<sup>th</sup> Avenue NE Drainage Improvements Project (Project) will construct bioretention facilities along the 10<sup>th</sup> Avenue NE right-of-way between NE 165<sup>th</sup> Street and NE 175<sup>th</sup> Street to provide stormwater pollution control and flow control treatment to stormwater runoff. A Project vicinity map is attached to this staff report as Attachment A. These facilities will encourage infiltration of stormwater runoff, which will lower peak runoff flow rates and reduce flooding. The existing stormwater conveyance system serving the new LID facilities will also be analyzed and upgraded as required to improve conveyance. Runoff captured and treated by the LID facilities originates from roadway and other pollution-generating surfaces.

The Project was selected by the Washington State Department of Ecology (Ecology) in 2015 to receive \$250,000 in grant funding. Grant funding was applied for by the City through Ecology's Water Quality Combined Funding Program. The funds are designated for pre-construction activities and do not require matching funds from the City. Ecology's Water Quality Combined Funding program is an annual single-application process to apply for funding from multiple sources (state and federal). This grant will be funded from the state Stormwater Financial Assistance Program (SFAP) grant. The SFAP is designed to fund stormwater projects and activities that have proven effective at reducing impacts from existing infrastructure and development and enhance existing stormwater programs.

A revenue shortfall for the State's Model Toxics Control Act (MTCA) in 2016 caused Ecology to indefinitely delay funding for many grants, including the pre-construction grant for this project. While consultant selection for the Project was completed and a contract was awarded in March 2016, when staff was notified that Ecology planned to delay grant funding, execution of the contract was placed on hold.

## **DISCUSSION**

In March 2018, the City was notified by Ecology that grant funding would become available in 2018. After a three-year delay, the original consultant selection process was considered expired and a new consultant selection process was initiated in 2019.

In February 2019, the City re-advertised a Request for Qualifications for the design of the Project. Statements of Qualifications (SOQs) were received from five consultant teams. The selection committee reviewed the SOQs and selected Osborn Consulting, Inc. as most qualified for the Project. Staff negotiated with Osborn Consulting, Inc resulting in the scope of work, which is attached to this staff report as Attachment B.

If this contract is awarded, the design of the Project must be substantially complete by the middle of next year. The Ecology Water Quality Combined Financial Assistance Grant requires completion of 90% design by June 30th, 2021. As noted above, construction is scheduled for 2023.

### **ALTERNATIVE ANALYSIS**

Awarding this contract allows the Project to move forward. Alternatively, Council could not award this contract which would halt the project. This would result in a loss of the Ecology Water Quality Grant and the drainage problems along 10<sup>th</sup> Avenue NE would continue. Staff does not recommend this alternative.

### **COUNCIL GOAL(S) ADDRESSED**

This project addresses Goal 2, Improve Shoreline's utility, transportation, and environmental infrastructure.

### **RESOURCE/FINANCIAL IMPACT**

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### **RECOMMENDATION**

Staff recommends that Council authorize the City Manager to execute a professional services contract with Osborn Consulting, Inc. in the amount of \$387,824 for 10<sup>th</sup> Avenue NE Drainage Improvements Project.

### **ATTACHMENTS**

Attachment A – 10<sup>th</sup> Avenue NE Drainage Improvements Project Vicinity Map  
Attachment B – Osborn Consulting, Inc. Professional Services Contract Scope of Work



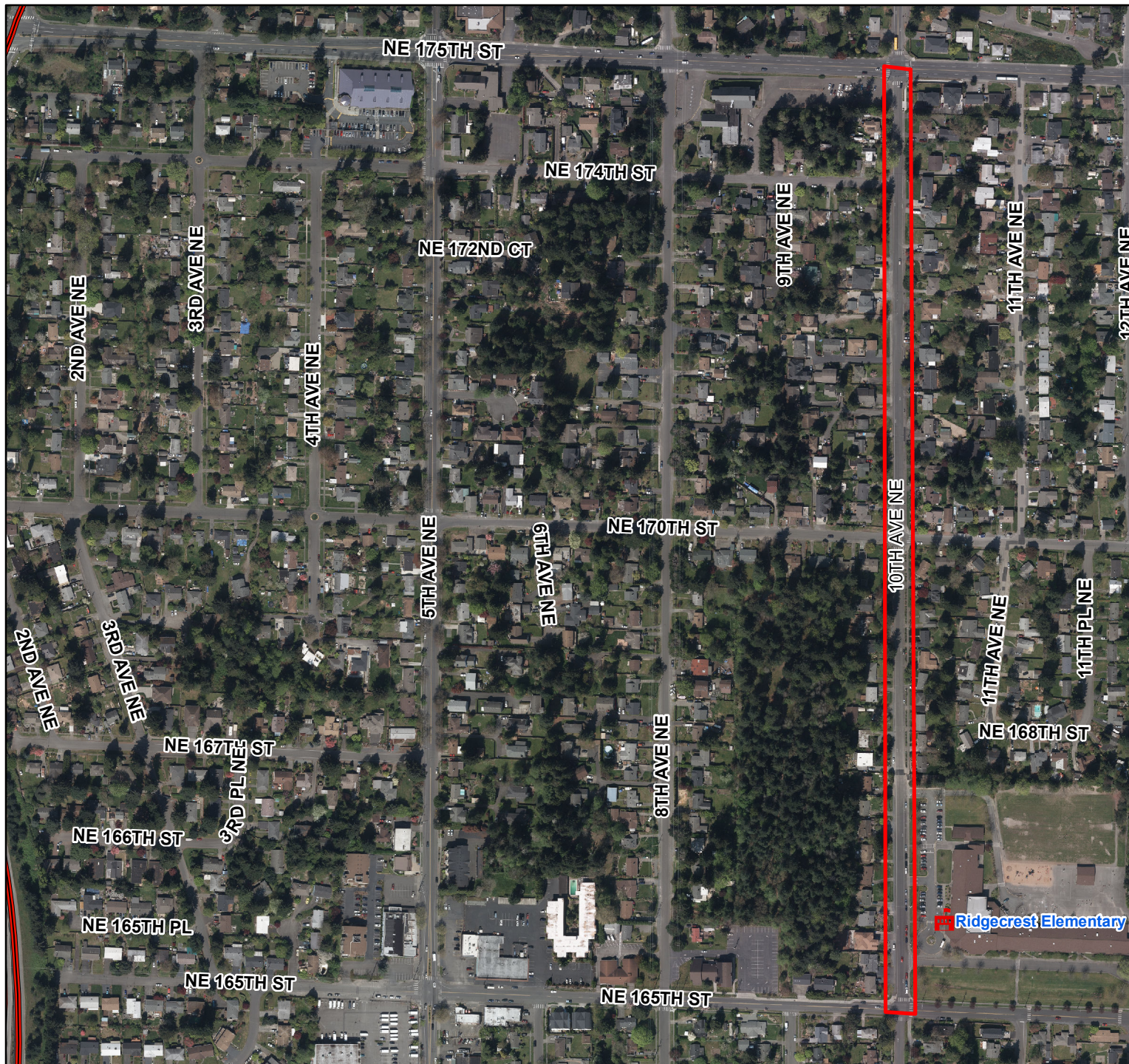
# Attachment A

SHORELINE

Geographic Information System

## Vicinity Map

10th Ave NE  
Stormwater Project:  
NE 165th St - NE 175th St



1 inch = 400 feet

0 100 200 400 Feet

No warranties of any sort, including accuracy, fitness, or merchantability, accompany this product.





## SCOPE OF WORK

<b>Project: 10<sup>th</sup> Avenue NE Drainage Improvements</b>	
PRIME Consultant:	<b>Osborn Consulting, Inc.</b>
Contract No.:	

### Background

The Project will construct stormwater system improvements along 10th Avenue NE between NE 165th Street and NE 175th Street. Improvements will include bioretention facilities, infiltration retrofits and stormwater conveyance capacity upgrades.

The City of Shoreline (City) has experienced recurring drainage issues along 10th Avenue NE between NE 175th Street and NE 165th Street. Average slope of the project site is under 1% with an undersized stormwater conveyance system known to frequently surcharge. System capacity is regularly exceeded, leading to flooding of the 10th Avenue NE right-of-way, driveways, and some private properties east of the project. Over 20-acres of runoff is tributary to the site while peak flows from an additional (approximately) 65-acres flow through the site via flow-splitting structures at NE 175th St and 10th Ave NE.

The project is located within the headwaters of Little's Creek. No existing flow control or water quality treatment is known to exist within the subbasin and Little's Creek is a tributary to 303d-listed Thornton Creek.

To address these drainage issues, the 2009 Thornton Creek Watershed Plan recommended larger-scale detention and conveyance improvements, which were not implemented due to expected high costs. Survey of the site was completed in 2014 and a consultant developed several recommendations to improve drainage, including resolving negative slope issues and adding infiltration capacity. Following up on these recommendations, the City applied for and received a 2016 Washington State Department of Ecology (Ecology) water quality stormwater pre-construction grant, which is expected to fund design of this Project.

Design will be completed in accordance with the Ecology Stormwater Management Manual for Western Washington or other Ecology guidance. The primary approach will design retrofits to existing roadside ditches within the 10th Avenue NE system for conversion to bioretention systems and swales. The Project may utilize other Ecology-approved drainage features where feasible.

Geotechnical investigation will be required to ensure suitability for bioretention and infiltration facilities (expected soils in the Project area include advance outwash and glacial till, according to the Washington Interactive Geologic Map). The public right-of-way is 70 feet wide along 10th Avenue NE between NE 165th St and NE 175th St with an almost 30-foot width west of existing edge of pavement potentially available for siting Project improvements.

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### Task 1 – Project Management

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Monitoring and communicating the status of the scope, schedule, and budget of this work assignment and providing monthly reporting to the City.

### Consultant Services

1. Prepare status reports describing the following:
  - a. Services completed during the month.
  - b. Outstanding issues (if any).
  - c. Scope/schedule/budget status.
  - d. A financial summary.
2. Prepare and manage Project Schedule
3. Attend one project kickoff meeting with Shoreline staff.
4. Attend one project closure meeting with Shoreline staff.
5. Bi-weekly PM Check Ins via web/phone
6. Manage Issue Log for City and all team members.
7. Manage Risk Register to identify and document project risks and mitigation strategies.

**Shoreline's Responsibilities**

1. Attend project kickoff and closure meetings (in-person or via teleconference)
2. Discuss project task status.
3. Review and approve invoices.
4. Review and comment on submittals within the schedule

**Assumptions**

1. Project duration will be approximately 48 months
2. There will be one project kickoff meeting attended by three (3) Consultant team members and Shoreline staff. Kickoff meeting to be held at Shoreline City Hall.
3. There will be one project closure meeting attended by two (2) Consultant team members and Shoreline staff. Closure meeting to be held at Shoreline City Hall.

**Deliverables**

1. Project kickoff meeting and closure meeting, with meeting minutes.
2. Project schedule, update to be provided with monthly status reports.
3. Issue Log and Risk Register to be provided at each deliverable.
4. Bi-weekly check-in (as necessary and determined by City Project Manager prior to each week).
5. Monthly status reports (one hardcopy with invoice).

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**Task 2A – Data Collection, Consolidation, & Review - General**


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The Consultant will review available existing site plans, studies, documents, models, and complete a field visit. From this review the consultant will compile a list of missing data needed for this project.

Consultant team will complete a cultural resources review per Executive Order (05-05) cultural resources review requirements including:

1. Complete an Ecology 05-05/106 MHPA Project Review form, conforming to the Washington State Standards for Cultural Resource Reporting (DAHP February 2014).
2. Completion of EZ-1 Form
3. Coordination with Tribes as part of the Ecology 05-05/106 MHPA Project Review Form.
4. Complete an Inadvertent Discovery Plan (IDP) and provide to geotechnical and utility pothole vendor prior to them working on-site.

**Assumptions:**

1. City will provide all available data for this project.
2. City will arrange for site access of Consultant Team personnel.
3. Wetland delineation and other environmental investigations are not included in this scope of work.

**Deliverables:**

1. Provide a list of reviewed data and what data is missing
2. Ecology 05-05/106 Form
3. Inadvertent Discovery Plan
4. EZ-1 Form
5. Record of Coordination with Tribes documented in the Ecology 05-05/106 Form final determination.

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**Task 2B – Data Collection, Consolidation, & Review – Topographical Survey**


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The City will provide survey for the corridor, Consultant will review survey in the field to verify that no major changes have occurred since the survey.



**Shoreline's Responsibilities**

1. City will provide existing survey basemaps and As-built information for the storm drain conveyance and detention systems in the project area, if available.

**Assumptions:**

1. The City's survey will be adequate for design.
2. Survey will be based on the City of Shoreline's horizontal and vertical datum.
3. Any additional survey to update and/or expand the currently surveyed area provided by the City will be completed using the Management Reserve, Task 10.
4. This scope does not include the resolution of physical encroachments and occupation that may be disclosed during the course of the project.
5. Wetland delineation and other environmental investigations are not included in this scope of work.
6. City of Shoreline Drafting Standards will be used

**Deliverables:**

- A list of items missing from the City's provided survey.

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**Task 2C.1 – Data Collection, Consolidation, & Review – Initial Geotechnical Investigations**


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The Consultant will coordinate and provide geotechnical investigations for the project.

Consultant team will provide the following geotechnical services:

1. Project Management and Correspondence: As needed to complete geotechnical work.
2. Investigation Borings:
  - a. Review existing subsurface data in the project vicinity to provide preliminary recommendations for infiltration feasibility within the project area. Existing subsurface data will also be used to help target subsurface investigations.
  - b. Complete an initial screening-level subsurface investigation program consisting of four (4) soil borings to identify the geology in the areas where infiltration is being considered within the project area. Up to two (2) of the borings will be completed as a standpipe piezometer to monitor the seasonal high groundwater elevation at the potential infiltration site.
  - c. Conduct geotechnical laboratory testing on selected soil samples retrieved from the soil borings. Laboratory tests will include natural moisture content and grain size distribution.
3. Preliminary Stormwater Feasibility:
  - a. Evaluate stormwater infiltration feasibility and potential locations for Pilot Infiltration Testing (PIT) to be completed under Task 2C.2
4. Preliminary Stormwater Feasibility Reporting:
  - a. Preliminary report documenting feasibility of stormwater infiltration based upon the Investigation Borings and analysis completed under Task 2C.1.

**Assumptions:**

1. Subsurface explorations will be completed within City right-of-way.
2. Subcontracted traffic control will include a partial lane closure for borings.
3. No ROW permit is needed for geotechnical work in support of a City CIP.
4. Four borings will be completed to a maximum depth of 20-ft.
5. Up to two borings will be completed as groundwater monitoring wells, to evaluate seasonal high groundwater elevation.
6. Explorations elevations will be surveyed. Piezometer readings will be conducted once a month for up to four (4) months. Alternatively, data loggers may be installed which will be downloaded quarterly.

**Deliverables (Task 2C.1):**

1. Preliminary geotechnical memorandum for stormwater infiltration feasibility shall consist of:
  - a. Summary of the explorations and findings in the above testing.
  - b. Preliminary data for groundwater monitoring will be provided relative to the estimate for seasonal high groundwater elevation
  - c. Preliminary recommendations will be provided for infiltration rates based on grain size analysis and groundwater monitoring. Design rates will be evaluated under Task 2C.2

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**Task 2C.2 – Data Collection, Consolidation, & Review – Optional Services Geotechnical Stormwater Design Investigations**


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The Consultant will provide the following services only as directed by the City. The Consultant will coordinate and provide geotechnical additional investigations for the project as required by Ecology grant requirements.

If the initial field screening determination of Task 2C.1 indicates that stormwater infiltration appears feasible, the consultant team will provide the following geotechnical services:

1. Investigation, Test Pits Pilot Infiltration Testing:
  - a. Perform up to six (6) Pilot Infiltration Tests (PIT's) to develop long term design infiltration rates at potential shallow infiltration facilities.
  - b. The PIT's will be completed in unpaved areas, and when testing is completed the excavations will backfilled with excavated soils. Materials for Site restoration including crushed rock surfacing are not included but can be added for additional cost on a time and materials basis for approximately \$700 per test pit.
  - c. Conduct geotechnical laboratory testing on selected soil samples retrieved from the test pits. Laboratory tests will include natural moisture content, grain size analysis, and cation exchange capacity.
2. Design Infiltration Analysis:
  - a. PIT data reduction to determine design stormwater infiltration rate.
3. Infiltration Design Reporting:
  - a. Infiltration Design report documenting finding of the investigation, testing and stormwater infiltration rates

**Assumptions:**

1. Subsurface explorations will be completed within City right-of-way.
2. PIT locations will be determined following selection of preferred alternative in Task 3.
3. We anticipate that PIT will use a subcontracted water truck and rubber-tire backhoe. We note that water may be available from nearby on-site fire hydrants that may provide savings to the project especially if hydrant permitting fees can be waived by the City.
4. Subcontracted traffic control will include a partial lane closure. If the City could provide traffic control it could provide costs savings to the project.
5. We expect that two (2) PIT's can be completed per day, and a total of six (6) PIT will be sufficient for the project based upon the Western Washington Stormwater Design Manual (2014), Volume V, Page 7-14: "Approximately 1 small-scale PIT per 200 feet of swale, and within each length of road with significant differences in subsurface characteristics."
6. The design infiltration depth will maintain 5-feet of vertical separation from seasonal high groundwater as required by the Western Washington Stormwater Design Manual (2014). If a separation depth less than 5-feet is desired a mounding analysis may be required that is not included in the current scope of work.
7. Wetland delineation and other environmental investigations are not included in this scope of work.

**Deliverables (Task 2C.2):**

1. Geotechnical design report for stormwater infiltration shall consist of the following:
  - a. Characterization of site geology and subsurface conditions across the site.
  - b. Logs of boring and test pits and figures 7b-10

- c. Laboratory testing for grain size analysis and cation exchange capacity.
- d. Results of groundwater monitoring and estimated seasonal high groundwater elevation.
- e. Results of PIT test and computation of a design infiltration rate.
- f. Conclusions and recommendations for site development, grading and reuse of on-site soil for structural fill for construction of bio-infiltration swales along the corridor.

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### **Task 2D – Data Collection & Review – Utility Potholing**

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Based on the City’s preferred design after the 30% Design review, the Consultant will identify potholing needs and coordinate potholing to be provided by a potholing vendor. Pothole locations will be documented.

#### **Assumptions:**

- 1. Budget assumes up to seven (7) potholes at \$1,000 each, plus \$1,000 for traffic control.
- 2. Pothole vendor will obtain required permits prior to performing their work. The City will facilitate a quick permit review of right-of-way use permits.
- 3. Pothole vendor will provide their own traffic control.

#### **Deliverables:**

- 1. Results of Potholing – Field Notes (PDF)
- 2. Updated Survey base map (in AutoCAD Civil3D format)

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### **Task 3 – Project Planning & Design Report (30% Design)**

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The Project Planning task will be integrated with Tasks 4 and 5 and will guide the design. Project Planning will follow these steps:

- 1. Develop a Problem Definition and document Project Constraints based on data gathered from Task 2A. This will require working with City staff to confirm and document the existing and desired level of service, design criteria, and project goals and drivers.
- 2. Identify a maximum of three alternatives, which could include a combination of unlined bioretention cells, lined bioretention cells, and deep infiltration bioretention cells. Each alternative will be graphically described on a 50-scale aerial plan.
- 3. Analyze the drainage basin to confirm existing hydrology and possible hydraulic performance of the alternatives.
- 4. Prepare high-level cost estimates for each alternative.
- 5. Develop a matrix to assess and rate the benefits and cost of each alternative. Review the matrix with the City and other stakeholders for project consensus.
- 6. With the preferred alternative, complete necessary field work (topographical survey, geotechnical, and groundwater data – See Task 2B and 2C) to allow creation of Preliminary Plans (30% PS&E) of the preferred alternative to refine costs, confirm schedule, and finalize permitting needs.

This information for the preferred alternative will be used in creating the Design Report for Ecology’s review and acceptance prior to start of 60% PS&E. The Design Report will consist of the following elements per Ecology’s “Design Deliverables for Stormwater Projects with Ecology Funding”:

- 1. Introduction
- 2. Basin Description
- 3. Site Description
- 4. Minimum Requirement/Core Element Analysis
- 5. Alternatives Considered
- 6. Design Analysis
- 7. Quantify the Water Quality Benefit
- 8. Engineer’s Opinion of Probable Cost
- 9. Proposed Schedule
- 10. Preliminary (AKA 30%) Plans for the preferred alternative and other Attachments

**Shoreline's Responsibilities**

1. The City of Shoreline will provide any comments on the draft pre-design report within 20 business days.

**Assumptions:**

1. A maximum of three alternatives will be evaluated.
2. The three alternatives will include space allowance to accommodate a future sidewalk.
3. The Ecology Design Report will be approximately fifteen (15) pages plus appendices. The Appendices will include the modeling results and the 30% level plan sheets showing the preferred alternative.
4. The Preliminary (AKA 30%) plan sheets will include six (6) plan and profile sheets and two (2) detail sheets for a total of eight (8) sheets. These sheets will include proposed storm drainage system, limits of disturbance, approximate proposed paving, identification of utilities that might require relocation.
5. The stormwater design and modeling shall be in accordance with the Stormwater Management Manual for Western Washington.
6. If needed, modeling of the conveyance systems shall be conducted using PCSWMM.

**Deliverables:**

1. Alternatives Layout (each on a 50-scale aerial plan)
2. Matrix of the three evaluated alternatives to assess and rate the benefits and costs.
3. Draft Design Report (PDF), includes up to eight (8) 30% level plan sheets
4. Final Design Report (PDF), includes up to eight (8) 30% level plan sheets

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**Task 4 – Permitting and Environmental Review**


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For the project the OCI Team will reach out to permitting agencies (Ecology, Tribes via Cultural Resources, North City Water District, Ronald Wastewater District, other utility providers, etc.) to initiate permitting and identify potential issues. Their responses will be incorporated into the development of alternatives evaluated as part of Task 3. This will help ensure efficiency as the preferred alternative that should meet expectations and have minimal review comments. Likely permits include:

1. Clearing and Grading Permit from City of Shoreline
2. Utility Provider Permitting
3. SEPA Review
4. Construction Stormwater General Permit

**Shoreline's Responsibilities**

1. Review and provide input on SEPA documentation.
2. Provide a list of Utility Provider contacts.

**Assumptions:**

1. Consultant to prepare and submit SEPA and other required permits as noted above
2. The SEPA process will be:
  - a. pre-application meeting with City staff
  - b. Holding a neighborhood meeting (as part of the open house in Task 5)
  - c. Completing the SEPA Checklist
3. The SEPA will obtain a DNS.
4. As part of Utility Permitting, Consultant to coordinate with utility provider via phone/email to verify if the utility provider has any plans for utility work along the project corridor. No in person meetings are included.
5. Consultant to complete the Ecology 05-05/106 Form and Inadvertent Discovery Plan under Task 2A.

**Deliverables:**

1. Completed applications for SEPA and required permits.

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**Task 5 – Stakeholder Coordination**


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The City will lead community outreach and stakeholder coordination efforts. Consultant will support the City by attending one (1) community open house and two (2) graphical renderings of the proposed project.

**Shoreline’s Responsibilities**

1. All community outreach and stakeholder coordination efforts.
2. Notifying the consultant when stakeholder coordination is needed.

**Assumptions:**

1. Stakeholder coordination will be limited to:
  - a. Attendance at one (1) open house, two consultants, 3 hours each. Consultant will review and provide comments on open house minutes.
  - b. Two (2) graphical renderings of the proposed project. Renderings will not be photorealistic.

**Deliverables:**

1. Comments on meeting minutes.
2. Two (2) graphical renderings of the proposed project.

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**Task 6 – 60% PS&E**


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Upon receipt of an Ecology Design Report Acceptance Letter, the Consultant shall prepare 60% level plans, special provisions, estimate of probable cost, and an update of the project construction schedule for City review

**Subtasks:**

Progress the Design Report to 60% by addressing the following and in accordance with the general assumptions listed below:

1. Respond to the City’s and Ecology’s comments provided on the Design Report. Update 60% plans per these comments.
2. Update the Engineer’s estimate of probable cost to match the 60% design.
3. Using the City’s standard specifications, develop 60% special provisions to include the following specifications:
  - Division 8-02 Roadside Restoration
    - 8-02 Bioretention Area
4. 60% Plans in PDF. Plans shall include the following sheets:
  - G1            Cover Sheet and Vicinity Map
  - G2 – G3     Legend and General Notes
  - G4 – G6     Existing Conditions
  - C7 – C11    TESC/Demolition
  - C12 – C16   10<sup>th</sup> Avenue NE Plan and Profile Sheets
  - C17          NE 170<sup>th</sup> Street Plan and Profile Sheets
  - C18          NE 174<sup>th</sup> Street Plan and Profile Sheets
  - C19 – C20   Drainage Details including Bioretention Sections and Details
  - C21          Paving Details
  - L22 – L26   Landscape Sheets
  - L27 – L28   Landscape Details

**Deliverables:**



1. 30% Ecology comment response in MS Word document
2. 60% Civil Plans (PDF)
3. 60% Special Provisions (PDF and MS Word document)
4. Engineer's 60% Construction Estimate of Probable Cost (PDF and Excel Spreadsheet)
5. 60% Project Schedule
6. SWPPP, using the short form.

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**Task 7 – 90% PS&E**


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Upon receipt of 60% review comments from the City, the Consultant shall prepare 90% level plans for Ecology, special provisions, estimate of probable cost, and an update of the project construction schedule.

**Subtasks:**

Progress the PS&E by addressing the following and in accordance with the general assumptions listed below:

1. Respond to the City's comments. Update 90% plans per these comments.
2. Update the Engineer's estimate of probable cost to match the 90% design.
3. Using the City's standard specifications, develop 90% special provisions to include the following specifications:
  - o Division 8-02 Roadside Restoration
    - 8-02 Bioretention Area
4. 90% Plans in PDF. Plans shall include the following sheets:
  - G1 Cover Sheet and Vicinity Map
  - G2 – G3 Legend and General Notes
  - G4 – G6 Existing Conditions
  - C7 – C11 TESC/Demolition
  - C12 – C16 10<sup>th</sup> Avenue NE Plan and Profile Sheets
  - C17 NE 170<sup>th</sup> Street Plan and Profile Sheets
  - C18 NE 174<sup>th</sup> Street Plan and Profile Sheets
  - C19 – C20 Drainage Details including bioretention Sections and Details
  - C21 Paving Details
  - L22 – L26 Landscape Sheets
  - L27 – L28 Landscape Details

**Deliverables:**

1. 60% City comment response in MS Word document
2. 90% Civil Plans (PDF) – Draft and Final
3. 90% Special Provisions (PDF and MS Word document)
4. Engineer's 90% Construction Estimate of Probable Cost (PDF and Excel Spreadsheet)
5. 90% Project Schedule
6. Revised Calculation of Water Quality Benefit
7. SWPPP, using the short form.

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**Task 8 – 100%/Bid PS&E - Optional**


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Upon approval from the City, the Consultant shall prepare 100%/Bid level plans, special provisions, estimate of probable cost, and an update of the project construction schedule for bidding.

**Subtasks:**

Progress the PS&E by addressing the following and in accordance with the general assumptions listed below:

1. Respond to the City's 90% comments. Update plans per these comments.
2. Update the Engineer's estimate of probable cost to match the 100% design.
3. Using the City's standard specifications, complete special provisions to include the following specifications:
  - o Division 8-02 Roadside Restoration
    - 8-02 Bioretention Area
4. 100% and Bid Plans in PDF. Plans shall include the following sheets:
  - G1 Cover Sheet and Vicinity Map
  - G2 – G3 Legend and General Notes
  - G4 – G6 Existing Conditions
  - C7 – C11 TESC/Demolition
  - C12 – C16 10<sup>th</sup> Avenue NE Plan and Profile Sheets
  - C17 NE 170<sup>th</sup> Street Plan and Profile Sheets
  - C18 NE 174<sup>th</sup> Street Plan and Profile Sheets
  - C19 – C20 Drainage Details including bioretention Sections and Details
  - C21 Paving Details
  - L22 – L26 Landscape Sheets
  - L27 – L28 Landscape Details

**Deliverables:**

1. 90% City comment response in MS Word document
2. 100% Civil Plans (PDF)
3. 100% Special Provisions (PDF and MS Word document)
4. Engineer's 100% Construction Estimate of Probable Cost (PDF and Excel Spreadsheet)
5. SWPPP, using the short form.
6. Bid Civil Plans (PDF)

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**Task 9 – Construction Support - Optional**


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The Consultant will provide the following services only as directed by the City. The Consultant will provide limited engineering services during construction support for the Project. These services are expected to be:

1. Provide bidding support.
2. Review of contractor submittals.
3. Response to contractors RFI's.
4. Site visit to review unforeseen conditions.
5. Site visit to review installed plantings.

**Assumptions:**

1. City will review all submittals for standard items.
2. Only non-standard items will be reviewed by the consultant.
  - a. Only complete submittals will be reviewed.
  - b. It will take on average 2 reviews per submittal
3. Respond to a maximum of 10 RFI's.
4. Consultant will visit the site a maximum of 2 times to review unforeseen conditions.

5. Consultant will visit the site a maximum of 2 times to review plantings.
6. No geotechnical support will be required.

**Deliverables:**

1. Submittal review comments (PDF).
2. Responses to RFI's (PDF).
3. Finding from site visit (PDF).

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**Task 10 – Management Reserve - Optional**

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The objective of this work element is to provide budget for additional services, not included in this scope of work, identified by the City's Project Manager during the course of the project. This may include updates to the survey, additional support on grant applications, additional water quality alternatives, or changes in design or permitting assumptions. Written direction from the City is required to proceed with this work element.

**Schedule for Deliverables:**

- |   |                |
|---|----------------|
| • 30% Submittal to City                     | June, 2020     |
| • City - Design Report Submittal to Ecology | August, 2020   |
| • 60% Submittal to City                     | October, 2020  |
| • 90% PS&E Submittal to City                | January, 2021  |
| • City - Submittal to Ecology               | February, 2021 |
| • 100% PS&E Submittal to City               | TBD            |
| • Bid PS&E Submittal to City                | TBD            |

**Shoreline Responsibilities**

1. All of City's requests, update to design and other requirements will be discussed and finalized before proceeding with the 90% design approach.

**General Assumptions**

1. All coordination with property owners will be handled by the City.
2. The proposed improvements will be located within the City right-of-way or within existing City easements.
3. The City Project Manager will provide necessary information and data to proceed with the planning, design, coordination, and completion of the work.
4. Easement coordination and execution will be completed by the City as required. Writing of legal descriptions and legal exhibits is not included in this scope.
5. Planting plans for the bid set will consist of a hatch pattern which defines plant species and planting requirements. Plantings will be consistent with the City's approved list of plants for use for bioretention within the public right-of-way. No irrigation design is included.
6. All utilities (power, telecom, fiber, optic, gas or other dry utilities) and facilities (fire hydrant, mailboxes, guardrails, utility vaults, junction boxes etc.) will be noted on the plans. Depth of crossing utilities will be determined when possible with potholing per Task 2D. Any relocation of these utilities and facilities if needed will be noted on the plans. Coordination and design plans for utility relocation is not included in the 90% design scope of work.
7. Project will be located on just the west side of the street. No sidewalk design is included. City will coordinate with any future sidewalk plans for the west side of the street and provide this information to the consultant team.

8. *WSDOT Standard Specifications for Road, Bridge, and Municipal Construction 2018* and *WSDOT General Special Provisions* will be used to the extent practical. The non-standard specification required for the project will be provided in the special provisions.
9. The 90% design report will be approximately ten (10) pages plus appendices. The Appendices will include the modeling results and design calculations.
10. The stormwater design and modeling shall be in accordance with the 2014 Ecology Stormwater Management Manual for Western Washington.
11. The following items are not included in this scope of work:
  - Right of way services
  - Traffic Control plans
  - Additional geotechnical investigation, beyond what is listed in Task 2C
  - Relocation plan and coordination of utilities and facilities to be relocated
  - Bid set
12. Update to 30% design concept or plans is not included in this scope. The 30% comments from Ecology will be resolved and the comments will be updated in the 90% Plans and reports.
13. The City will review a 90% DRAFT submittal of plans, reports and special provisions. The City will provide a consolidated list of comments within the timeframe shown on the project schedule.
14. A meeting to discuss comments/redlines will be conducted with OCI staff and the City.
15. OCI will update plans and address City review comments prior to producing the final 90% submittal documents.
16. Bid Ready documents not included in this scope.