

CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Authorize the City Manager to Execute a Contract with Reid Middleton Inc. in the Amount of \$298,000 for Design of the N 160 th Street & Greenwood Avenue North/North Innis Arden Way Roundabout Project
DEPARTMENT:	Public Works
PRESENTED BY:	Tricia Juhnke, City Engineer
ACTION:	<input type="checkbox"/> Ordinance <input type="checkbox"/> Resolution <input checked="" type="checkbox"/> Motion <input type="checkbox"/> Discussion <input type="checkbox"/> Public Hearing

PROBLEM/ISSUE STATEMENT:

As an outcome of permitting for Shoreline Community College's (SCC) new residence hall constructed in 2019, SCC was required to construct traffic mitigation improvements at the intersection of 160th & Greenwood/Innis Arden. Pursuant to a 2018 Transportation Mitigation Agreement (Agreement) between SCC and the City, SCC made a \$2,083,000 payment to the City to fund a City capital improvement project to construct a roundabout at the intersection. An Agreement provision requires that construction of the intersection improvements be completed by 2025.

In August 2022, the City issued RFQ 10410 to solicit design consultant interest in final design of a roundabout at the 160th & Greenwood/Innis Arden intersection. The City received statements of qualification from four consultants and Reid Middleton was selected as the consultant most qualified to design the project. Tonight, the City Council is being requested to authorize the City Manager to execute a contract with Reid Middleton, Inc. for this design work.

RESOURCE/FINANCIAL IMPACT:

This project is fully funded by developer contributions. The following table summarizes the project budget for the design phase of the work:

EXPENDITURES

Project Administration (Staff and Other Direct Expenses)	\$118,000
Reid Middleton Design Contract	\$298,000
Construction Management	\$118,000
Right of Way	\$80,000
Construction	\$1,581,000
Public Art Funding	\$16,000
<hr/> Total	<hr/> \$2,211,000

REVENUE

Shoreline Community College Contribution	\$2,083,000
Developer Contribution	\$34,000
<hr/>	
Total	\$2,211,000

RECOMMENDATION

Staff recommends that Council authorize the City Manager to execute a contract with Reid Middleton, Inc. for \$298,000 to provide engineering design consultant services for the North 160th Street & Greenwood Avenue North/North Innis Arden Way Roundabout Project.

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

BACKGROUND

Shoreline Community College (SCC) built a new student residence hall on campus in 2019. Prior to construction of the residence hall, SCC completed a preliminary analysis for the N 160th Street & Greenwood Ave N and Innis Arden Way intersection (the Intersection) in a 2018 Transportation Technical Report. The Transportation Technical Report (TTR) showed that the City's level of service standards would not be met at the Intersection after the student residence hall is occupied. The TTR proposed to install a signal at the Intersection to comply with the City's concurrency standards. The City conducted a Concept Design and Comparison report which identified a roundabout as a preferred solution. The report can be found at: [Concept Design and Comparison Report for 160th and Greenwood/Innis Arden Intersection Design](#).

On November 5, 2018, Council authorized the City Manager to enter into a Transportation Mitigation Agreement (Agreement) with SCC. The Agreement was executed on November 8, 2018, as contract No. 9219.

DISCUSSION

Section 3 of the Agreement with SCC outlined SCC's mitigation projects, including improvements at the Intersection. The section included provisions that:

- SCC will complete mitigation improvements at the Intersection within 6 years after issuance of the Certificate of Occupancy for the student residence hall.
- The City will complete a capital improvement project to develop a preferred concept for the Intersection by September 2019.
 - The project will complete an alternatives analysis for a roundabout and traffic signal(s).
 - The preferred concept will be selected based on level of service performance, capital and operating costs, safety, and public outreach.
 - The project will provide cost estimates for the preferred concept and SCC's 2018 TTR recommendation.
 - If the cost of the preferred concept is equal to or lower than the cost of the signalized intersection concept developed by SCC, SCC shall proceed with finalizing the design and construction of the preferred concept.
 - If the cost of the preferred concept is greater than the cost of the signalized intersection concept developed by SCC, SCC will pay the City the estimated cost of their concept and the City will be responsible for finalizing the design and construction of the preferred concept within 6 years after issuance of the Certificate of Occupancy for the student resident hall.

Negotiation of the Agreement resulted in the decision to have the City construct the roundabout as a capital improvement project financed by SCC. Accordingly, a payment of \$2,083,000 was made by SCC to the City to finance construction of the roundabout.

In addition to the SCC contribution, \$34,000 in additional project funding is available resulting from a traffic mitigation requirement as an outcome of a separate development activity.

STAKEHOLDER OUTREACH

On May 8, 2019, the City and SCC held an online open house to introduce the community to the SCC campus residential expansion and the need for improvements at the 160th & Greenwood/Innis Arden intersection. The open house discussed aspects of signalized intersections as compared to roundabouts and presented several intersection treatments that were being considered.

On July 18, 2019, the City and SCC held an in-person public open house to present more detailed design concepts the City was considering and to solicit feedback.

A variety of notification and engagement tools were used to advertise the open houses and inform Shoreline residents and other stakeholders about progress on the 160th & Greenwood/Innis Arden intersection including the following:

- Project webpage
- Yard signs
- Social media
- Neighborhood alerts
- Neighborhood associations
- Highland Terrace Parent-Teacher Association outreach

ALTERNATIVES ANALYSIS

In August 2022, the City began a formal selection process when RFQ 10410 was issued to solicit design consultant interest in final design of a roundabout at the 160th & Greenwood/Innis Arden intersection. The City received statements of qualification from four consultants: Reid Middleton, Jacobs, KPFF, and Lochner.

The four SOQs were evaluated by a three person City team and Reid Middleton was selected as the consultant most qualified to design the project. Reference checks were completed and deemed satisfactory, and the City commenced contract negotiations with Reid Middleton resulting in creation of an approved scope of work and contract amount.

There are two primary alternatives regarding the award of this contract:

1. Award the contract to the selected consultant (recommended).
2. Do not award the contract.

Awarding the contract allows the project to move forward; conversely, not awarding the contract would stop the project or significantly delay the project. Given that the City has an agreement with SCC to complete project construction by 2025, the not awarding alternative is not recommended.

The design will commence once the consultant is under contract. It is anticipated that a fully designed project, including plans, specifications, and engineer's estimate, will be complete by March 2024 and the project can be advertised for construction bids with construction occurring in 2024. The proposed consultant scope of work and budget are provided as Attachment A.

COUNCIL GOAL(S) ADDRESSED

This item address City Council Goal #2: *Continue to deliver highly-valued public services through management of the City’s infrastructure and stewardship of the natural environment.*

RESOURCE/FINANCIAL IMPACT

This project is fully funded by developer contributions. The following table summarizes the project budget for the design phase of the work:

EXPENDITURES

Project Administration (Staff and Other Direct Expenses)	\$118,000
<i>Reid Middleton Design Contract</i>	<i>\$298,000</i>
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Total	\$2,211,000

REVENUE

Shoreline Community College Contribution	\$2,083,000
Developer Contribution	\$34,000
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Total	\$2,211,000

RECOMMENDATION

Staff recommends that Council move to authorize the City Manager to execute a contract with Reid Middleton, Inc. for \$298,000 to provide engineering design consultant services for the North 160th Street & Greenwood Avenue North/North Innis Arden Way Roundabout Project.

ATTACHMENTS

- Attachment A: North 160th Street & Greenwood Avenue North/North Innis Arden Way Roundabout Project Design Scope of Work and Fee Proposal.
- Attachment B: Project Vicinity Map

Attachment A

Scope of Services

**160th & Greenwood/Innis Arden Roundabout
PS&E**

December 22, 2022

E. PROJECT UNDERSTANDING

The City of Shoreline (City) requires the services of Reid Middleton, Inc. (Consultant) to prepare Plans, Specifications, and Estimate for a single lane roundabout at the intersections of North 160th Street, Greenwood Avenue North, and North Innis Arden Way (Project).

The City shall provide support services to the Consultant as described in the following text. The Consultant will cooperate and coordinate with City staff to facilitate the project.

F. DESIGN CRITERIA

Reports prepared as part of this scope of services, to the extent feasible, will be developed in accordance with the latest edition and amendments to the following documents, as of the date this Agreement is signed:

1. WSDOT Publications
 - a. *Washington State Department of Transportation/American Public Works Association (WSDOT/APWA), Standard Specifications for Road, Bridge, and Municipal Construction*, current edition.
 - b. *WSDOT/APWA Standard Plans for Road, Bridge, and Municipal Construction*; current edition.
 - c. *WSDOT Design Manual*, current edition.
2. AASHTO Publications

A Policy on Geometric Design of Highways and Streets, 2018 edition.
3. City of Shoreline Standards
 - a. *Engineering Development Manual*, 2022 edition.
 - b. *Standard Plans and Notes* as shown on the City's website.

4. Other Standards and Publications
 - a. *FHWA Manual on Uniform Traffic Control Devices (MUTCD)*; 2009 edition.
 - b. *WSDOT Americans with Disabilities Act (ADA) guidance*.
 - c. *Washington State Department of Ecology (DOE) 2014 Stormwater Management Manual for Western Washington (SWMMWW)*.

Base map and engineering CAD work will be done in Civil 3D 2019.

G. SCOPE OF SERVICES

The Consultant will perform the following:

1. Project Management and Administration

a. Invoices, Budget Review, and Administration

Monthly invoices will be prepared according to a City-approved format.

Progress reports will include discussion of work performed and estimated percentage of work completed. Budget status including supporting documentation for direct expenses will be furnished with each invoice.

The Consultant has based the fee proposal on an eighteen-month duration to complete PS&E and bid support. Monthly project management tasks to be performed beyond the specified duration shall be considered extra work if the project duration is beyond the control of the Consultant.

Deliverables:

- Monthly Invoice and Progress Report, PDF

b. Project Schedule and Contract Administration

The Consultant will prepare a project schedule using MS Project or other City approved format to track the progress of the deliverables. The project schedule will be based on the work identified in this scope of services and will identify major and support activities including significant work elements provided by the City. The Consultant will update the schedule throughout the project to document milestone deliverables.

The City shall prepare the contract and amendments as necessary. The Consultant will provide the City with scopes of services and fee proposals as required.

Deliverables:

- Project Schedule and Updates, PDF, and MS Project copies.
- Scope of services, PDF
- Fee proposal, PDF

c. Project Management & Coordination

The Consultant will coordinate with the subconsultants, process their invoices, and disseminate information to the project team.

Subconsultants are:

HWA Geosciences, Inc. (Geotechnical Investigation)
The Watershed Company (Environmental Services & Arborist)
Universal Field Services, Inc. (Right of Way)
Roundaboutix (Roundabout Geometry & Peer Review)
PRR (Public Outreach)

d. Project Meetings

The Consultant will attend multiple meetings with the City. Meetings include bi-weekly virtual meetings throughout design and a Pre-App meeting. The project kick-off meeting and other specific meetings are included in subsequent tasks.

Deliverables:

- Meeting minutes, PDF, and Word

2. Project Initiation

a. Project Kickoff Meeting

The Consultant will attend a kickoff meeting with the City. Attendees shall include the Consultant's project manager, lead designer, stormwater management engineer, environmental permitting lead, right of way lead, and City representatives. The Consultant will prepare meeting minutes. The following items will be discussed:

- (1) Project scope of services
- (2) Project background
- (3) Project objectives and constraints
- (4) Project Milestones
- (5) Required permits
- (6) Define responsibility of participants
- (7) Review material prepared to date

- (8) Confirm project schedule
- (9) Confirm design criteria

A site reconnaissance will be held in addition to the kickoff meeting. City representative(s) are encouraged to participate in the site visit and share project-relevant information and concerns.

b. Data Collection and Review

The Consultant will require the following information, including but not limited to:

- (1) Available record drawing plans within project limits.
- (2) Plans for nearby development.
- (3) Design constraints, including areas that are not to be impacted.
- (4) Design vehicle for each movement.
- (5) Available drainage information such as GIS information and drainage reports for areas in the project vicinity.
- (6) Relevant past geotechnical reports and pavement recommendations.
- (7) Traffic Data including:
 - (a) Available traffic studies for developments near and/or adjacent to this intersection.
 - (b) Existing traffic counts and collision history data.
 - (c) Future traffic volume forecasts.
- (8) City's design standards.
- (9) City's drainage standards.
- (10) City's drafting standards including Civil 3D requirements.
- (11) The City's current bid and contract documents and general conditions (project manual "front end" documents).
- (12) City's general special provisions

3. Topographic Survey

a. Utility Locates

The Consultant will mark/paint out utility lines within the project area. The project area includes the right of way and roadway approximately three hundred (300) feet from the intersection along each leg of the intersection.

b. Topographic Survey and Base Map

A complete topographic survey is needed in all five directions of the subject intersection. This survey will perform the necessary level of research and calculations to provide survey-grade right-of-way and property line locations but will not resolve potential boundary issues between private landowners, nor will there be any physical marking of the right-of-way or property lines in the field.

- (1) Limits are as described above.
- (2) The survey will reference Washington State Plane Coordinates – North Zone and NAVD88 vertical datum.
- (3) The survey will be prepared in US Survey feet units.
- (4) Survey mapping will be developed at one-foot contour intervals.
- (5) The topographic survey will include measurements and features within the survey limits as follows:
 - (a) Locations and elevations of surface types and features including road pavement, striping, high and low spots, drainage swales, top and toe of slopes, retaining walls, guard rails, and walking paths. Survey ties to wetland flags placed in the field by the environmental consultant.
 - (b) Storm system: Field survey catch basins, manholes, and culverts including pipe size, material and upstream and downstream invert elevations.
 - (c) Sanitary system: Field survey the structures with rim and invert elevations. Research records to determine location of service lines.
 - (d) Water system: Field survey surface indications of buried water lines and correlate record drawings with field

surveyed locations. If water lines are not traceable with conventional utility locating methods, record drawings will be correlated with surface features.

- (e) Surface features: Overhead utility lines and surface indications of subsurface utilities, vaults, utility poles, guy wires, walkways, signs, paths, parking stripes and parking areas, driveways, curbs, bollards, mailboxes, edges of cleared areas, signs, and fences.

(6) Mapping

- (a) Transfer field data to AutoCAD Civil 3D (or other requested format) system to create a base map and surface for the project area.

Deliverables:

- Engineering base map AutoCAD Civil 3D and surface files
- Stamped and signed hard copy of survey in PDF format (if needed)

4. Right of Way Services

a. Right-of-Way Legal Descriptions

- (1) Provide up to four (4) legal descriptions and corresponding exhibit maps for potential future easement creation and documentation.

Deliverables:

- Graphic depicting areas required for easements and right-of-way acquisition, PDF and CAD file
- Draft Right of Way Plan, PDF
- Final Right of Way Plan, PDF

b. Preliminary Right-of-Way Activities

- (1) Preparation and Administration

Right-of-Way Consultant will attend a Kick-off meeting with project team via video conference. Consultant will attend up to four (4) progress meetings which can be facilitated by video conference if preferred. Provide up to six (6) monthly progress reports indicating the work completed for the invoiced month, anticipated work for the following month, and identify issues requiring the project team's input or assistance. Consultant will provide sample acquisition documents for the City's review and approval for use. The City's pre-approved forms will be used

when provided. Prepare acquisition parcel files to include fair offer letters; recording and ancillary documents; a standard diary form indicating all contacts with owner(s); and other items necessary for negotiations.

Deliverables:

- Attend kick-off meeting
- Attend four (4) Progress Meetings
- Provide six (6) Monthly Progress Reports
- Coordinate with the City, approved Acquisition forms for project use
- Prepare parcel acquisition files

(2) Title / Ownership Review

The City will order title reports for up to four (4) parcels for confirmation of ownerships and base mapping purposes regarding encumbrances that could cause design conflicts. Upon receipt of title reports the Consultant will conduct initial reviews of each report to assess future complications during the parcel closing process. Parcel Title Summary and Risk Analysis Memos will be prepared for each of the parcels listing encumbrances and exceptions with recommendations to the City how to resolve each.

Deliverables:

- Prepare four (4) Parcel Title Summary and Risk Analysis Memos.

(3) Right-of-Way Planning & Outreach

Assist the City in preparation of a boilerplate “Introduction / Informational Letter” for the City’s delivery on City letterhead to all impacted property owners. Letter to include the purpose of the project, the project schedule, and an introduction of the City’s Project Team. Consultant will schedule and attend early “one on one” meetings with owners of three separate tax parcels. These meetings are intended as part of a public outreach vetting process to gauge project acceptance, willingness to convey needed real property rights and to share property owner concerns with the Project Team.

Deliverables:

- Boilerplate “Introduction / Informational letter” for the City’s delivery on City letterhead.

- Attend early “one on one” meetings, once with owners of affected parcels.
- Summarize owner concerns in writing for design team use.

(4) Right of Entry Agreements

Consultant will provide sample boilerplate ROE Agreements for the City’s review. The City shall provide and approve special use language for each ROE prior to the Consultant contacting each property owner.

Deliverables:

- ROE Agreements from four (4) owner(s).

(5) Preliminary Right of Way Funding Estimate

Consultant to prepare “Right of Way Funding Estimate” WSDOT Form LPA-005b.

Assumption:

- One (1) parcel will require ROW acquisition.

Deliverables:

- Right-of-way Funding Estimate / WSDOT Form LPA-005b.

c. Right of Way Acquisition

Based on the preliminary discussions with City staff, it is assumed the project will require a partial acquisition and a temporary easement for construction from one (1) separate tax parcel of real property. This scope of work includes Administration, Ownership and Title Report Review(s), Appraisal and Appraisal Review and Acquisition Negotiations services for one (1) parcel.

Any additional Right of Way services will require an amendment to this Scope of Work and associated Fee Estimate.

(1) Title and Ownership Review

Consultant shall update the ownership information provided in section b. (1) above to identify any changes in title conditions, if any.

Assumptions:

- One (1) parcel will be impacted by the project.

Deliverables:

- One (1) Updated Title Review Summary Memo.
- (2) Appraisal and Appraisal Review
CONSULTANT will subcontract and manage the Appraisal and Appraisal Review process with appraisal firms previously qualified by WSDOT and certified by the State of Washington. Appraisal content and related expenses for specialty studies of hazardous materials (ESA Phase 1, 2, or 3), etc. are excluded. It is assumed properties to be appraised are clean of hazardous materials.

Assumptions:

- One (1) Appraisal and one (1) Appraisal Review report will be required on this project.

Deliverables:

- One (1) appraisal report
 - One (1) appraisal review report
- (3) Acquisition Negotiation
The Appraisal and Appraisal Review completed in Subtask (2) above will be submitted to the City for written approval establishing the amount of Just Compensation to the property owner. Upon written approval from the City, Consultant will prepare the offer package(s) and promptly submit offer packages to the City for their review. When approved, Consultant will present offers to purchase all the required real property interests and negotiate in good faith to reach a settlement with the property owner. The offer will be presented in person when at all possible.

Consultant will acquire a partial fee acquisition and a temporary easement for construction from one (1) separate tax parcel. Additional parcels or real property rights other than those shown here will require an amendment to this Scope of Work and related Fee Estimate.

Negotiations will be conducted in accordance with statutory and regulatory requirements and will include coordination of administrative settlement approvals with the City; negotiating as necessary with lien holders; assisting escrow in the closing process; preparing and maintaining a parcel file to include fair offer letters and acquisition documents; a standard diary form indicating all contacts with the owners; and other items necessary for negotiations.

Negotiations shall not be deemed to have failed until at least three significant meaningful contacts have been made and documented with the owner and/or their representative through direct personal contacts.

If negotiations reach an impasse, UFS will provide the City with written notification. The filing and cost of condemnation proceedings shall be the responsibility of the City.

Deliverables:

- Acquisition Negotiation services with the owner of one (1) separate tax parcel.
- Completed parcel files, including necessary records of all Right-of-Way Acquisition services.

(4) Parcel Closeout – Escrow Closing

As part of Task (3) above and upon securing required acquisition agreements, UFS will submit the necessary acquisition documents and closing instructions to the designated Title/Escrow Company. UFS will work with the title/escrow company in order to obtain release documentation from the encumbrance(s) of public record that are not acceptable to the City in order to provide clear title to the property being acquired, subject to the City's title clearing guidelines. The escrow company shall prepare and obtain the owner's signatures on the necessary closing documents. UFS will coordinate signatures on closing documents for submittal to the City and payment(s) to the owner, and coordinate with the escrow/title company in filing documents with King County.

Deliverables:

- Deliver completed original Acquisition parcel file to the City

5. Arborist Services

The Consultant will conduct an inventory of significant trees within the project area. Trees will be tagged with a 1-1/4" aluminum tag with a unique identification number on the trunk. Attribute information to be collected will include species, general tree health, diameter at breast height (DBH), canopy radius (i.e., drip line) and height. All trees will be visually assessed using current Level I ISA standards to evaluate current condition.

The Consultant will review proposed design to assess impacts to trees and provide recommendations for tree removal or retention. The Consultant will summarize the findings of the tree inventory efforts and design recommendations in a letter-style report.

Deliverables:

- Draft Arborist Report, PDF
- Final Arborist Report, PDF

Assumptions:

- Level II or III ISA assessment of trees will not occur.
- Assumes up to 60 trees to be inventoried.
- All inventoried trees will be surveyed by a professional surveyor.
- Changes in the project area following fieldwork may result in additional fees.
- Tree removal/retention and protection details will be incorporated into the engineering plan set. Separate tree-specific plan sheets will not be prepared.
- Construction observation/monitoring is not included.

6. Geotechnical Investigation and Analysis

The Consultant will perform the following:

- a. Coordinate locations of two drilled borings and five pavement cores with the Client/City. Locate two drilled borings and five pavement cores in the field and arrange for utility locates using the 1-call service. This assumes boreholes and pavement cores will be located within the roadway and will require flaggers.
- b. Subcontract development of traffic control plans for pavement cores and boreholes and submit to City for approval.
- c. Subcontract traffic control for explorations. The Consultant anticipates flaggers will be required.
- d. Log the drilling of two boreholes using a licensed driller under subcontract to HWA. Perform pavement cores and shallow explorations at five locations. Pavement cores will be backfilled with compacted gravel and patched with Aquaphalt cold patch.
- e. Evaluate pertinent physical and engineering characteristics of the site soils from laboratory tests performed on samples obtained from the explorations, including natural moisture contents, grain size analyses and Atterberg limits.
- f. Provide recommendations for earthwork and subgrade preparation including excavation, placement and compaction of roadway fill and trench backfill, and preparation of pavement subgrade soils. This will also include pavement design recommendations and evaluation of the effects of weather and/or construction equipment on site soils.
- g. Provide foundation design considerations for the luminaires in accordance with WSDOT design procedures.

- h. Provide recommendations for drainage and on-site disposal of stormwater. Evaluate stormwater infiltration options with design team based on the soil and groundwater conditions encountered, laboratory results, field testing, and stormwater best practices.
- (1) Preliminary recommended infiltration rates will be determined based on the SWMMWW using ASTM grain-size analysis and/or the United States Department of Agriculture textural classification as appropriate to the native materials encountered. It is possible that this preliminary evaluation will determine that infiltration at the site is infeasible; however additional field testing may be required.
- i. Provide a draft geotechnical report with our conclusions and recommendations. Exploration logs, a site plan, and any supporting test data will be included along with ESAL value used for pavement design recommendations. The report will be finalized in response to comments provided by the project team.

Deliverables:

- Draft geotechnical report, PDF
- Final geotechnical report, PDF

7. Environmental Services

Based upon existing mapping, the project does not appear to be located within wetlands or streams, or their respective buffers. Consultant will conduct field work and prepare limited environmental documents to support the project.

The scope of work includes field investigations, preparation of a critical areas memo and preparation of a SEPA checklist.

a. Field Investigation

The project area is mostly developed, primarily consisting of paved right-of-way and residential development. No wetlands or streams are mapped within the project area.

The Consultant will investigate the project limits for the presence of wetlands and streams, including regulated buffers.

Deliverables:

- Wetland and stream sketch map (to be used for professional land survey).

Assumptions:

- Consultant will complete 2014 Ecology Rating Forms and Figures for up to two wetlands.
- Rights of access will be provided by the City in writing prior to issuance of a notice to proceed with the field delineation.

b. Critical Area Memorandum

The Consultant will prepare a critical area memorandum to document the results of the wetlands and streams field investigation. The Consultant will reference information regarding elements of construction activity including limits of clearing and grading and other engineering information as necessary to assess the extent of construction along the proposed alignment.

Deliverables:

- Draft Critical Area Memorandum (provided electronically in MSWord format).
- Final Critical Area Memorandum – (provided electronically in Adobe PDF format) includes edits based on one round of review comments. All comment/edits made to the Word document will be provided in track changes mode.

Assumptions:

- The Critical Areas Memorandum will address up to two critical areas: wetlands and streams. It is assumed that analysis of geologically hazardous areas and critical aquifer recharge areas are either not required or will be conducted by others.
- It is assumed that regulated wetlands, streams, or their respective buffers will not be impacted by the project. Therefore, no mitigation plan will be prepared as part of the Critical Areas Memorandum.

c. SEPA Checklist

The Consultant will prepare a Draft and Draft Final SEPA Checklist for the project. For purposes of this scope of services, it is assumed that the City shall be the SEPA lead agency and that they will issue a SEPA determination consistent with their SEPA rules. The City shall be responsible for finalizing the checklist and responding to public and agency comments. At this time, it is reasonable to assume that no additional studies would be necessary to complete the checklist.

Deliverables:

- Draft SEPA Checklist (provided electronically in MSWord format).
- Draft final SEPA Checklist – (provided electronically in Adobe PDF format) includes edits based on one round of review comments. All comment/edits made to the Word document will be provided in track changes mode.

Assumptions:

- This task anticipates that the City shall be the sole SEPA Lead Agency. Should cooperating agencies be determined to be the SEPA lead agency or co-lead agencies for this project, additional coordination and document preparation may be required and will be negotiated separately under an amendment to this SOW.
- The checklist will be based on about 30 percent design level project plans.
- The City shall be responsible for any publication fees.

8. Stormwater Analysis

The City shall provide the Consultant all available drainage information upon Notice to Proceed. The Consultant will visit the site to determine the existing drainage system and outfalls.

The Consultant will prepare a draft stormwater report in accordance with the City's standards. The Consultant will finalize the stormwater report in response to City comments.

The Consultant will develop a concept drainage plan to accompany the conceptual design alternatives. The City shall provide comments and the Consultant will proceed with design based on City guidance.

Deliverables:

- Draft Stormwater Report, PDF
- Final Stormwater Report, PDF

The Consultant will prepare the permit applications listed below. The City shall pay all permit fees.

a. SWPPP

The Consultant will prepare a draft General Construction Stormwater Pollution Prevention Plan (SWPPP). The draft SWPPP will be provided

to the Contractor, who will prepare the final SWPPP. The Consultant assumes the final construction documents will be used for this permit submittal.

Deliverables:

- SWPPP, PDF

9. Conceptual Design

The Consultant will perform roundabout analysis and develop exhibits for up to three (3) alternatives. The analysis will consider the design vehicle, collision data, traffic volumes and the conceptual design work completed to date.

a. Roundabout Criteria and Analyses

During the kickoff meeting the Consultant will discuss design constraints and expectations with City staff prior to refinement of the conceptual design which was developed in response to the City's Request for Qualifications.

(1) Geometric Layout

The Consultant will develop conceptual layouts based on operational analysis and site constraints. The design and figures will include the following:

- (a) Natural path analysis.
- (b) Fastest path analysis.
- (c) Sight-distance and visibility analysis.
- (d) Design vehicle turning movement analysis.

b. Conceptual Alternatives

The Consultant will meet with City staff via conference call or virtual meeting to discuss the final conceptual design, incorporation of design criteria, and roundabout impacts.

Deliverables:

- Conceptual Roundabout Layouts, PDF

c. Roundabout Validation Report (RVR)

(1) Preliminary RVR

The Consultant will present the analyses and figures of the conceptual design in a report for review and acceptance by the City.

The RVR will contain:

- (a) A discussion of existing conditions to include existing intersection controls, collision history, existing capacity, heavy vehicle usage, pedestrian and bicycle usage, impervious areas, and storm water management.
- (b) Comparison to existing configuration operation and roundabout.
- (c) Conceptual design roundabout geometrics.
- (d) Supporting tables, figures, and appendices.

(2) Final RVR

The Consultant will finalize the RVR based on comments received from the City. The Consultant will prepare a geometric design approval letter for submittal with the final RVR, indicating the City's acceptance of the final roundabout geometrics. The City shall sign and return the geometric approval letter prior to the Consultant beginning the 30 percent design.

Deliverables:

- Preliminary RVR, PDF
- Final RVR bearing engineer's stamp and signature with geometric approval letter; PDF

d. Sight Lines Exhibit for Landscape Design

The Consultant will provide a sight line exhibit depicting where high and low plantings can be used. This can be used in the future if plantings are added to the center island.

Deliverables:

- Landscaping Exhibit, PDF, and Civil 3D

10. Utility Coordination

a. Coordination with Utility Agencies

- (1) The Consultant will coordinate with the various utility agencies, including both franchise utilities and City-owned, regarding the relocation of existing facilities and provisions of new facilities within the project limits. Coordination with the utilities will include the following:
- (2) Provide the utility agencies with a copy of the completed base map for verification of their facilities.
- (3) Initiate and maintain a utility contact database to log all correspondence (mail, e-mail, and phone logs) with all the utility agencies.
- (4) Provide the utility agencies with a copy of the preliminary and final design drawings and anticipated construction schedule.

11. Public Outreach

a. Public Meeting

- (1) The Consultant will plan and facilitate a virtual meeting (webinar) with the public, including a presentation and Q&A session with City of Shoreline and Consultant staff. Assumptions include:
 - The City mail the notification postcard to properties within 500 feet of the intersection and implement web and social media updates.
 - The City will determine languages for materials translation and interpretation; Spanish and Korean recommended
 - The meeting will take place over Zoom or MS Teams, using the Consultant's Zoom Meetings account and last no longer than two and a half hours, including 30 minutes for set up.
 - Up to five Consultant staff will attend the meeting to facilitate, take notes, and offer tech support
 - The Consultant can provide simulcast interpretation of the public meeting in Spanish
 - The Consultant will coordinate up to two presentation/meeting practice sessions, including one with IT support

Deliverables

- Draft and final meeting plan
- Up to three original graphics depicting the location and use of the roundabout and the changes that can be expected to the intersection.
- Draft and final postcard
- Draft and final fact sheet
- Draft and final web and social media copy

- Translations of postcard, fact sheet, and web copy in up to two languages other than English
 - Draft and final PowerPoint presentation
 - Draft and final summary of event
- b. Stakeholder Briefings
- (1) The Consultant will participate in the planning and facilitation of up to two (2) virtual meetings with key stakeholders to share information on the project and get feedback/answer questions.

Assumptions include:

- Up to two meetings, virtual via MS Teams or other platform.

DESIGN MILESTONES

The following elements are included in the design milestones described below and will be performed at each of the following submittals:

- Design Development Phase (60 percent)
- Final Design Development (90 percent)
- Construction Documents (final)

a. Opinion of Probable Construction Costs

The Consultant will calculate bid item quantities and prepare an opinion of probable construction costs based on each design phase. The opinion will include appropriate contingencies, and waste and compaction factors.

b. Special Provisions

The Consultant will prepare the special provisions based on the *WSDOT Standard Specifications for Road, Bridge, and Municipal Construction*. The contents will include the City's general conditions, supplemental general conditions, amendments to the standard specifications, special provisions, and standard plans. The Special Provisions will address items of work which are not addressed by the APWA and Washington State Standard Specifications as may be required to properly cover the work contemplated by the drawings.

The Consultant will prepare the following:

- (1) Amendments
- (2) Special Provisions based on the *WSDOT Standard Specifications for Road, Bridge, and Municipal Construction* plus APWA Supplement (English Version)

- (3) Standard plans
- (4) Addenda (if any)
- (5) Project plans

The City shall provide the Consultant with bidding requirements, advertisement for bid, and contract documents.

The 60 percent submittal will include special provisions only.

c. Quality Control Review

The Consultant will conduct quality control reviews by selected senior staff members with appropriate experience and expertise. In the review, the staff will scrutinize and question the major elements of the design for adequacy of response to the major design challenges and conformance to the accepted design practices.

d. Submit Documents to City for Review

The Consultant will provide the following at each review submittal unless otherwise noted:

Deliverables:

- Plans, 11" x 17" PDF
- Opinion of probable construction costs, Excel
- Special Provisions, Word and PDF

e. Annotate Review Comments

The City shall provide electronic review comments for each submittal in a mutually acceptable format, such as Bluebeam. The City shall consolidate the review comments into a single document that shall be reviewed by the City's Project Manager in order to provide consistent direction to the Consultant and avoid duplicate comments.

The Consultant will provide written responses to comments provided by the City.

Deliverables:

- Annotated review comments, mutually accepted format

f. Meet with City to Review Submittal

The Consultant will meet with the City for each submittal to discuss each

review submittal. Review meetings for the concept designs and preferred alternative will be via conference call. Review meeting for the 60 percent and 90 percent submittals will be at the City's office.

12. Design Development (60 percent)

a. 60 Percent Plans

The 60 Percent design development submittal package will contain the following plans (number of sheets shown is approximate):

- (1) Cover Sheet; 1 sheet
- (2) General Notes, Abbreviations, and Existing Legend; 1 sheet
- (3) Existing Conditions Plan; 1 sheet
- (4) Survey Control Plan; 1 sheet
- (5) Alignment Plan; 1 sheet
- (6) Construction Phasing Sketches; 3 sheets
- (7) Temporary Erosion and Sedimentation Control (TESC) Plan and Details; 2 sheets
- (8) Site Preparation Plan; 2 sheets
- (9) Typical Cross Sections; 3 sheets
- (10) Grading Plan; 2 sheets
- (11) Grading Details; 2 sheets
- (12) Storm Drainage Plan; 2 sheets
- (13) Storm Drainage Profiles; 2 sheets
- (14) Illumination Plan; 1 sheet
- (15) Paving Plan; 2 sheets
- (16) Miscellaneous Details; 2 sheets
- (17) Channelization Plan and Details; 3 sheets
- (18) Signing Plan and Details; 3 sheets
- (19) Traffic Control Plans (2 sheets)
- (20) Pedestrian Control Plans (1 sheet)

b. Field Verify Design

The Consultant will visit the site with the City's Project Manager to check the design against site conditions. The examination will include checks for accuracy, constructability, and conflicts.

13. Final Design Development (90 Percent)

a. 90 Percent Plans

The 90 Percent final design development submittal package will contain the following plans (number of sheets shown is approximate):

- (1) Cover Sheet; 1 sheet

The cover sheet will include the following:

- (a) Project title and project number
- (b) Vicinity map
- (c) Drawing index

- (2) General Notes, Abbreviations, and Existing Legend; 1 sheet

This sheet will include the following:

- (a) City's General Notes
- (b) Abbreviations
- (c) Existing Legend

- (3) Existing Conditions Plan; 1 sheet

This sheet will show the existing conditions at the project site.

- (4) Survey Control Plan; 1 sheet

The Consultant will prepare a survey control plan to identify control points used in the design.

- (5) Alignment Plan; 1 sheet

The Consultant will prepare an alignment plan to present the construction alignments of the project. The drawings will include:

- (a) Construction limits
- (b) Curve data for construction centerlines
- (c) Survey notes
- (d) Survey control
- (e) Project benchmarks
- (f) Quarter section, township, and range

- (6) Concept Construction Phasing Plan; 4 sheets

Concept construction phasing plans will be provided, based on the assumption that the intersection is to remain open at all times.

- (7) Temporary Erosion and Sedimentation Control (TESC) Plan and Details; 2 sheets

The Consultant will prepare TESC plan and details of the erosion control design to meet site conditions. The TESC plan will

incorporate current Best Management Practices (BMPs).

(8) Site Preparation Plan; 2 sheets

The Consultant will prepare a site preparation plan that will denote the limits of clearing and grubbing, removal or relocation of obstructions, utilities, pavement, and striping removal.

(9) Typical Cross Sections; 3 sheets

The Consultant will prepare drawings of typical roundabout cross sections. The pavement section will be based on the City's standard section. The drawings will include:

- (a) Key map to show cross section locations
- (b) Pavement layer types and depths
- (c) Curb types
- (d) Material types for non-motorized facilities
- (e) General cross section notes

(10) Grading Plan; 2 sheets

The Consultant will prepare grading plan to present the vertical design elements. The plan will include:

- (a) Right-of-way, easements, and property lines
- (b) Construction centerlines
- (c) Cut and fill slope limits
- (d) Grading and paving limits
- (e) Construction notes
- (f) General grading notes
- (g) Curve and alignment data
- (h) Final spot elevations

(11) Grading Details; 2 sheets

The Consultant will prepare curb ramp grading details. The details will include dimensions and maximum allowable slopes.

(12) Grading Contour Plan; 1 sheet

The Consultant will prepare a plan sheet to show existing and future contours. This sheet shows grading in a graphical format and is informational only and not be used for construction.

(13) Storm Drainage Plan; 2 sheets

The Consultant will prepare storm drainage plan for the intersection. The Consultant will provide stormwater collection, conveyance, water quality, and flow control within the project limits. The plan will include:

- (a) Right-of-way, easements, and property lines
- (b) Existing utilities
- (c) Construction centerline
- (d) Construction notes
- (e) General storm drainage notes
- (f) Utility adjustments and modifications
- (g) Proposed storm drainage system structures
- (h) Water quality treatment system
- (i) Flow control system

(14) Storm Drainage Profiles; 2 sheets

The Consultant will provide storm drainage profiles to include proposed storm drainage system structures with their corresponding rim and invert elevations, connecting pipes annotated with their length, slopes, and diameters, and crossings with existing and proposed utilities.

(15) Illumination Plan; 1 sheet

The Consultant will prepare the illumination modeling and design using AGI 32 software to examine light levels and uniformity ratios. The lighting level will be in accordance with standards as directed by the City. It is assumed that decorative poles will not be used.

The plan will include:

- (a) Right-of-way, easements, and property lines
- (b) Existing utilities
- (c) Construction notes
- (d) General illumination notes
- (e) Proposed illumination pole locations
- (f) Illumination pole schedule
- (g) Conduit and wiring schedule

(16) Paving Plan; 2 sheets

The Consultant will prepare a paving plan. The plan will include:

- (a) Right-of-way, easements, and property lines
- (b) Construction centerlines
- (c) Pavement and hard feature dimensions
- (d) Paving limits
- (e) Construction notes
- (f) General paving notes

(17) Miscellaneous Details; 2 sheets

The Consultant will include details as necessary. These details will include modifications to standard details for items such as curb ramps, curb types, and utility structures.

(18) Channelization Plan and Details; 3 sheets

The Consultant will prepare a channelization plan and details.

The plan will include:

- (a) Pavement striping and markings and locations
- (b) Dimensions of lanes and shoulders
- (c) General channelization notes
- (d) Construction notes
- (e) Channelization details

(19) Signing Plan and Details; 3 sheets

The Consultant will prepare a signing plan and details.

The plan will include:

- (a) Sign locations
- (b) General signing notes
- (c) Construction notes
- (d) Size and location of signs
- (e) Signing details

(20) Traffic Control Plans; 2 sheets

The Consultant will include traffic control plans for the intersection including details as necessary.

(21) Pedestrian Control Plans; 1 sheet

The Consultant will include pedestrian control plans for the intersection including details as necessary.

b. Field Verify Design

The Consultant will examine the project site to verify the design development drawings. The examination will include checks for accuracy, constructability, and conflicts.

14. Finalize PS&E

a. Construction Documents (Final)

The Consultant will finalize the plans, project manual and opinion of probable construction costs in response to the City's comments. The Consultant will present a final submittal of the PS&E to the City for approval.

Deliverables:

- 1 copy of Final Plans bearing the engineer's stamp and signature, full size (22" x 34") bound hard copy on paper
- 2 copies of Final Plans bearing the engineer's stamp and signature, half size (11" x 17") bound hard copy on paper
- Final Plans (unsigned), half-size, PDF and Civil 3D with external references bound
- Final Opinion of Probable Cost, electronic Excel
- 2 copies of Final Project Manual bearing the engineer's stamp and signature, bound hard copy
- Final Project Manual, electronic Word and PDF

b. Civil 3D Information

The Consultant will use Civil 3D to generate a landxml file which will be used for information only. The information contained in this file shall not supersede any information shown on the plans. The project shall be constructed according to the stamped and signed PS&E package. The landxml file will contain surface, alignment, profile, and pipe network information.

Deliverables:

- PDF, landxml file

15. Bid Assistance

The City shall be responsible for distributing electronic and hard copies of the bid package.

The Consultant will respond to questions regarding the construction documents during the bid process, and assist in the preparation of City initiated addenda up to the hours shown in the fee proposal.

16. Management Reserve (Optional)

This task and budget is a reserve fund for minor changes in scope which may occur during the project and will be used to facilitate additional work as needed. These funds may be utilized for work only as authorized by the City, without requiring a contract amendment. Based on discussions with Shoreline the management reserve has been set at \$20,000.

D. SERVICES PROVIDED BY THE CITY

The City shall provide the following information or services not included elsewhere in this scope of services:

1. Bid, ad, and award administration.
2. Rights of entry for survey, geotechnical explorations, environmental, cultural resources, and general engineering reconnaissance.
3. Construction management.
4. Right-of-way appraisal and acquisition services.
5. Payment of applicable review and/or permit fees.
6. Maintenance of project website as applicable.

E. ASSUMPTIONS

1. The Consultant with prior City approval reserves the opportunity to shift budget between work tasks and subconsultants.
2. The Spill Prevention Control and Countermeasures Plan (SPCC) and final Stormwater Pollution Prevention Plan (SWPPP) shall be prepared by the construction contractor.
3. No structural walls will be provided.
4. The Consultant will not provide conformance documents.
5. Public art selection, incorporation, design, and construction is not included in this scope of services.
6. The Consultant will not prepare an electrical service permit.



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N 160TH ST & GREENWOOD/INNIS ARDEN -ROUNDBOUT

City of Shoreline, WA

August 2022