



City of Sandy

Agenda

City Council Meeting

Meeting Location:

Meeting Date: Monday, March 23, 2020

Meeting Time: 6:00 PM

Page

1. ROLL CALL

- 1.1. **Note: The Council will conduct this meeting electronically** using the Zoom video conference platform.

Members of the public may listen, view, and/or participate in this meeting using Zoom. Using Zoom is free of charge. See the instructions below:

- To login to the electronic meeting online using your computer, click this link: <https://zoom.us/j/790779891>. Note: using this option may require you to download the Zoom app to your device. Downloading Zoom is free of charge.
- If you would rather access the meeting via telephone, dial 1-669-900-6833. When prompted, enter the following meeting number: 790779891.

This meeting will include a Public Comment period. If you would like to speak during this time, see the instructions below:

- If you are participating online, click the "raise hand" button and wait to be recognized during the public comment portion of the meeting.
- If you are participating via telephone, dial *9 to "raise your hand" and wait to be recognized during the public comment portion of the meeting.

If you do not have access to a computer or telephone and would like to participate in the meeting, please contact City Hall.

Thank you for your flexibility during the COVID-19 public health emergency. Please contact City Hall with any questions: (503) 668-5533.

2. CHANGES TO THE AGENDA

3. PUBLIC COMMENT

4. CONSENT AGENDA

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- 4.1. City Council Minutes 3 - 16
[City Council - 02 Mar 2020 - Minutes - Pdf](#)

5. NEW BUSINESS

- 5.1. City COVID-19 Response Update
- 5.2. Discussion of possible COVID-19 parks closure and economic relief fund.
- 5.3. Contracts for Engineering Services 17 - 69
[Contracts for Engineering Services - Pdf](#)
- 5.4. 38888 Pioneer Blvd Hold Harmless Agreement 70 - 74
[38888 Pioneer Blvd Loading Zone Hold Harmless Agreement - Pdf](#)

6. REPORT FROM THE CITY MANAGER

7. COMMITTEE /COUNCIL REPORTS

8. STAFF UPDATES

- 8.1. [Monthly Reports](#)

9. ADJOURN



MINUTES
City Council Meeting
Monday, March 2, 2020 City Hall- Council Chambers, 39250
Pioneer Blvd., Sandy, Oregon 97055 6:00 PM

COUNCIL PRESENT: Stan Pulliam, Mayor, Jeremy Pietzold, Council President, Laurie Smallwood, Councilor, Jan Lee, Councilor, Carl Exner, Councilor, and Bethany Shultz, Councilor

COUNCIL ABSENT: John Hamblin, Councilor

STAFF PRESENT: Jordan Wheeler, City Manager, Angie Welty, HR Manager, Tyler Deems, Finance Director, Jeff Aprati, City Recorder, Ernie Roberts, Police Chief, and Andi Howell, Transit Director

MEDIA PRESENT:

1. CITY COUNCIL EXECUTIVE SESSION - 6:00 PM

The Sandy City Council met in executive session pursuant to ORS 192.660(2)(d) to conduct deliberations with persons designated by the governing body to carry on labor negotiations.

2. CITY COUNCIL WORK SESSION - 6:30 PM

2.1. SAM RFP Update

11 - 14

RFP details can be found on the [Sandy Transit webpage](#).

Andi Howell, Transit Director, presented an update on the transit RFP process currently underway. Bid details and cost figures should be available by April 6; the successful firm would take over the transit contract by May 25 due to the six-month temporary employee deadline.

The City has been able to stabilize the transit staffing situation after taking over from the former contractor, and has hired several new drivers. Collaboration between SAM and Mt Hood Express will be important going forward, with operational efficiency and staffing optimization being high priorities.

Staff discussed several possible organizational models, including the option of

the City employing a fleet mechanic to service City vehicles and oversee equipment. The City could also consider the idea of maintaining direct management of drivers long-term, depending on budgetary estimates. Opportunities may exist to offset costs by contracting services for other regional entities.

[Work session charts](#)

3. CITY COUNCIL REGULAR MEETING - 7:00 PM

4. Pledge of Allegiance

5. Roll Call

6. Changes to the Agenda

7. Public Comment

Kathleen Walker expressed a desire to support agenda item 10.1 without creating ex parte contact issues. The **City Attorney** asked those testifying to contain their comments to the UBG issue itself as much as possible, rather than issues germane to the appeal on 3/16.

8. PROCLAMATIONS

8.1. Proclamation - League of Women Voters Month

Staff Report - 0235

Mayor Pulliam read the proclamation declaring League of Women Voters Month

9. Consent Agenda

9.1. City Council Minutes

Moved by Bethany Shultz, seconded by Jan Lee

Approve the consent agenda.

CARRIED.

10. Ordinances

10.1. Ordinance 2020-03: An Ordinance Adopting an Urban Growth Boundary Expansion Analysis and Comprehensive Plan Amendment for the City of Sandy

Staff Report - 0237

Mayor Pulliam opened the quasi-judicial hearing. Council members did not declare any abstentions, conflicts of interest, or ex parte contacts. No challenges to the hearing body were issued. The Mayor read the required hearing statements.

Staff Report

Kelly O'Neill, Development Services Director, introduced the staff report. The Planning Commission's previous approval of this matter was unanimous. The staff report included supplemental documents from the applicant, as well as written and verbal testimony. Staff and the Planning Commission agreed the application met all applicable land use goals and relevant statutes. Mr. O'Neill presented slides, which are attached to these minutes.

Councilor Lee asked about possible overlap with Old Barlow Road. Staff replied that Gunderson Road would likely cross the historic trail, as do many other streets in Sandy. Nothing in City plans or ordinances places requirements or conditions on crossing the old road.

Applicant's Presentation

The applicant's engineer delivered a presentation (slides attached). The applicant has been aware from the beginning that adding an access road is a priority for the city. They looked at pursuing a state goal exception, but County staff were not amenable to the idea. A neighborhood meeting was held, at which interest in avoiding traffic impacts was expressed. They also heard interest in having a park, which is now included in the proposal.

Testimony in Favor:

Erin Finley: She is in favor of the UGB expansion. Safety for the neighborhood is her top priority. Having only one access for traffic and a large increase in residents would create a scary situation.

Makoto Lane: He is in favor of the UGB expansion, and stated that there may be other places we need expansion as well. He stated the City hasn't reviewed our Comp Plan and UGB in a comprehensive manner in a long time. He stated the developer is using loopholes in the code to extort the City, and the developer did not apply for a goal exception with County. He stated the developer is extorting the City with threats of lawsuits. He encouraged the

City to look at other places we might need expansions unless we want to go through this again.

Gigi Duncan: Safety is her top priority. Many small children live in the neighborhood. They do not have a nearby park, so children play in the street. The UGB does need to expand because we need more housing, but putting so much traffic onto Dubarko is not realistic or safe. Sandy needs another traffic outlet other than the little streets, which were never designed to handle this volume of cars. Highway 211, in contrast, is a road that can handle the extra traffic.

Testimony in Opposition: none

Questions from the Audience:

Kathleen Walker: Who is paying for the road? Staff responded the City does not have clarity on that yet. Ms. Walker stated she would prefer that the developer pay. She asked about the parkland dedication policy. At the Planning Commission meeting, it was pointed out that the land in question does not meet parkland requirements in the code, and the applicant declined to seek a variance. The City Attorney said the parkland dedication issue is germane to the appeal discussion on the 16th, so it should not be considered in this decision. Ms. Walker stated that the land is wet and not ideal parkland.

Makoto Lane: Who will pay for the intersection? This is an especially important question with our taxes and fees going up.

Staff Recap

Kelly O'Neill, Development Services Director: He agreed that safety is a large concern. Staff has been pushing for a second access from the beginning for that reason. He clarified that the City did study the entire UGB in the last 5 years, but the 2011 Transportation System Plan did not properly evaluate the alignment of Gunderson Road. HB 2003 requires a housing needs update in 2024. It is true the applicant never applied for a goal exception, but County staff gave the idea a lukewarm reception. Regarding the issue of who should pay, he added that any other future developments will also benefit from this improvement, not just this developer.

Applicant Rebuttal: none

Councilor Pietzold moved to close the hearing; second by **Councilor**

Smallwood. The motion carried.

Council Discussion

Councilor Exner question about impact on the UGB balance, regarding commercial versus single family. Staff responded there would be a zero net effect.

The Council thanked attendees for their comments.

Moved by Carl Exner, seconded by Jeremy Pietzold

Approve first reading of Ordinance 2020-03.

CARRIED.

Moved by Laurie Smallwood, seconded by Bethany Shultz

Approve second reading of Ordinance 2020-03.

CARRIED.

[7107 20200302 UGB Amendment CC Hearing Presentation](#)
[CC Hearing Presentation for March 2, 2020 - UGB Expansion](#)

11. New Business

11.1. Scope of Review for the March 16 Appeal of Bailey Meadows Subdivision

The **City Attorney** stated the code allows an appeal either on the record or de novo. Historically Sandy has held de novo hearings to lessen confusion and ease management.

Michael Robinson, Applicant Attorney: Appreciates the difficulty of on the record appeals. He stated the Planning Commission held two public hearings, with substantial opportunity to give evidence. The applicant has the burden of proof, and more testimony means more burden for them. He complimented staff's efforts regarding records management, and stated this development is needed by the City. State law says there need to be clear and objective standards for decisions, but Sandy's hearing scope of review decision criteria are not clear.

Kathleen Walker: The requirement for clear and objective criteria is nothing new. Sandy's code has always been clear and served us well. The idea that

the Council's decision on scope of review is subjective is just not true. There was clearly already confusion regarding park dedication at the Planning Commission level, and a hearing on the record could create barriers to testifying about these issues.

Gigi Duncan: These matters are difficult to follow and confusing for the public, with substantial legalese. Safety needs are not subjective. This process needs flexibility for residents to come and testify, especially as people have recently learned more about subjects they didn't understand sufficiently enough to testify before.

Makoto Lane: Stated the applicant clearly doesn't want any more testimony. The public should have a voice, and the Council shouldn't take it away.

Richard Shelton: Asked about testimony that was oral rather than written at the Planning Commission, and whether it would be considered on the record. Staff stated that oral testimony would have been captured in the Commission's minutes and in the meeting recording.

Councilor Shultz wants to hear testimony again and hear directly from the people.

Councilor Lee agreed we need to hear from people on this important decision.

Councilor Exner stated the Council needs to be able to listen to the public and understand their input. He does not want to cut people off, as there may be other important issues to bring up.

Councilor Smallwood agreed.

Councilor Pietzold underlined the need to consider the City Attorney's advice, and de novo hearings are our past practice.

Mayor Pulliam agreed.

Moved by Jeremy Pietzold, seconded by Laurie Smallwood

Motion to hold a de novo appeal hearing on March 16.

CARRIED.

11.2. Intergovernmental Agreement with the City of Lake Oswego for After-Hours

Police Records Services

Staff Report - 0231

Ernie Roberts, Police Chief, stated that the Clackamas County Sheriff's Office will no longer be able to provide after-hours police records services for local cities. However, the City of Lake Oswego has agreed to step in and provide the service instead.

Councilor Pietzold asked why the County made this decision. **Chief Roberts** declined to speculate on the reason.

Councilor Exner asked how long Lake Oswego would be able to maintain this service. **Chief Roberts** stated they are confident in their ability to do so on an ongoing basis. He has a very positive working relationship with Lake Oswego.

Councilor Smallwood asked what level of service Sandy can expect compared to the previous arrangement with the County. **Chief Roberts** expects the service level to remain the same. She asked what the County previously charged for the service. The answer given was zero.

Councilor Pietzold asked about the termination date of the new agreement. It was noted this is an initial trial period to ensure the arrangement will be workable.

Moved by Carl Exner, seconded by Jan Lee

Approve the intergovernmental agreement with the City of Lake Oswego.

CARRIED.

11.3. Planning Commission Term Adjustment

Staff Report - 0234

Staff noted that a review is currently underway of boards and commissions to ensure that member terms are accurate and consistent. A review of records found that the administrative records for Planning Commission seats 4, 5, and 6 had incorrect term start and end dates. Because of this, the Council assigned an incorrect term end date when it appointed Christopher Mayton to Seat 6. Staff recommended the Council reappoint Mr. Mayton to the remainder of Seat 6's proper term, ending on 12/31/20.

Mayor Pulliam inquired about the process for removal of members from commissions. The City Attorney stated that removal of a Planning Commission member requires a show-cause hearing. **Mayor Pulliam** asked what would constitute sufficient cause for removal. Staff answered actions such as being disruptive at meetings or repeatedly not attending. Questions were raised regarding the proper process for a removing oneself from a meeting in the case of bias or conflicts of interest.

The Council emphasized its desire to ensure all board and commission seats are advertised as vacant at the expiration of their terms, and that incumbent members who wish to continue serving will reapply along with any other interested parties and go through the interview process.

Moved by Jeremy Pietzold, seconded by Carl Exner

Appoint Christopher Mayton to the remainder of Planning Commission Seat #6's term, expiring on December 31, 2020.

CARRIED.

12. Report from the City Manager

The City Manager noted that the special district polling group met recently. The group recommends including Eagle Creek, and expanding the proposal to include all recreation programming. The eastern boundary of the district will be Alder Creek. The group emphasized the need to include clear and frank language in the poll about what would happen if the proposal is rejected by voters. It will also be important to ensure that residents are not confused about which building on the campus would be developed into a community center.

The City has received a proposed scope and fee for the 362nd Drive project, which is within the anticipated range.

The City is proactively distributing information regarding COVID-19, including options for employees to work from home if possible and necessary. This is also an opportunity for the City to review continuity of operations plans, ensuring we have identified essential personnel, cross-trained staff, and confirmed continuity plans with contractors.

13. Committee /Council Reports

Councilor Shultz: The Arts Commission had a great forum over the weekend, seeking public input on art for the City. She hopes to hear good results from the parks master plan open house. She noted there has been some public confusion regarding funding

of the City versus the School District, Fire District, etc. and how different bonds would function. She suggested some explanation be included in the next city newsletter.

Councilor Exner: The Arts Commission now has two vacancies, and interviews will be scheduled soon.

Councilor Lee: The ad hoc Resiliency Action Plan committee has begun its work, which will help position the City for priority funding for transportation. The committee will begin as mostly staff oriented. If the Council wants more public involvement in the future, it could be made into a formal advisory committee at a later date.

Councilor Smallwood: The Parks and Trails Advisory Board will meet on March 11th, which will include a discussion on position terms. The recent parks planning open house was very successful, with 30-40 attendees.

Councilor Pietzold: Reminder of Tillamook County's recent cyber attack - they were without computer systems for three weeks and had to pay a ransom. Cyber-security is vitally important for the City, as small government agencies are considered attractive targets. OBAC is meeting soon to discuss installing more fiber infrastructure. Sandy's Economic Development Committee is meeting on Wednesday. SandyNet is an invaluable resource for the community that enables remote working in the case of a crisis like an epidemic.

Mayor Pulliam: Appreciates Councilor Lee working with him on C-4. Estacada's recent regional cities meeting was a success - they are accomplishing a great deal in their community with very ambitious plans. He is asking our state representatives for capital improvement funds, making sure we are at the table with a specific request and that they understand our needs. The request is \$1 million for work on the 362nd Bell St extension project. His daughter enjoyed the recent acting workshop at the Community Center. The City is in contention (with Astoria) for a grant from the Blazers and Moda for park enhancements at Tupper Park. Thanked staff for publishing information regarding the coronavirus. In the case of hearing recusals due to conflicts of interest, officials should not sit with hearing stakeholders in the audience. He is disappointed with a Planning Commissioner's recent actions in this regard.

14. Staff updates

14.1. [Monthly Reports](#)

15. Adjourn

16. CITY COUNCIL EXECUTIVE SESSION – Following Regular Meeting Adjournment

City Council
March 2, 2020

The Sandy City Council met in executive session pursuant to ORS 192.660(2)(f) to consider information or records that are exempt by law from public inspection.

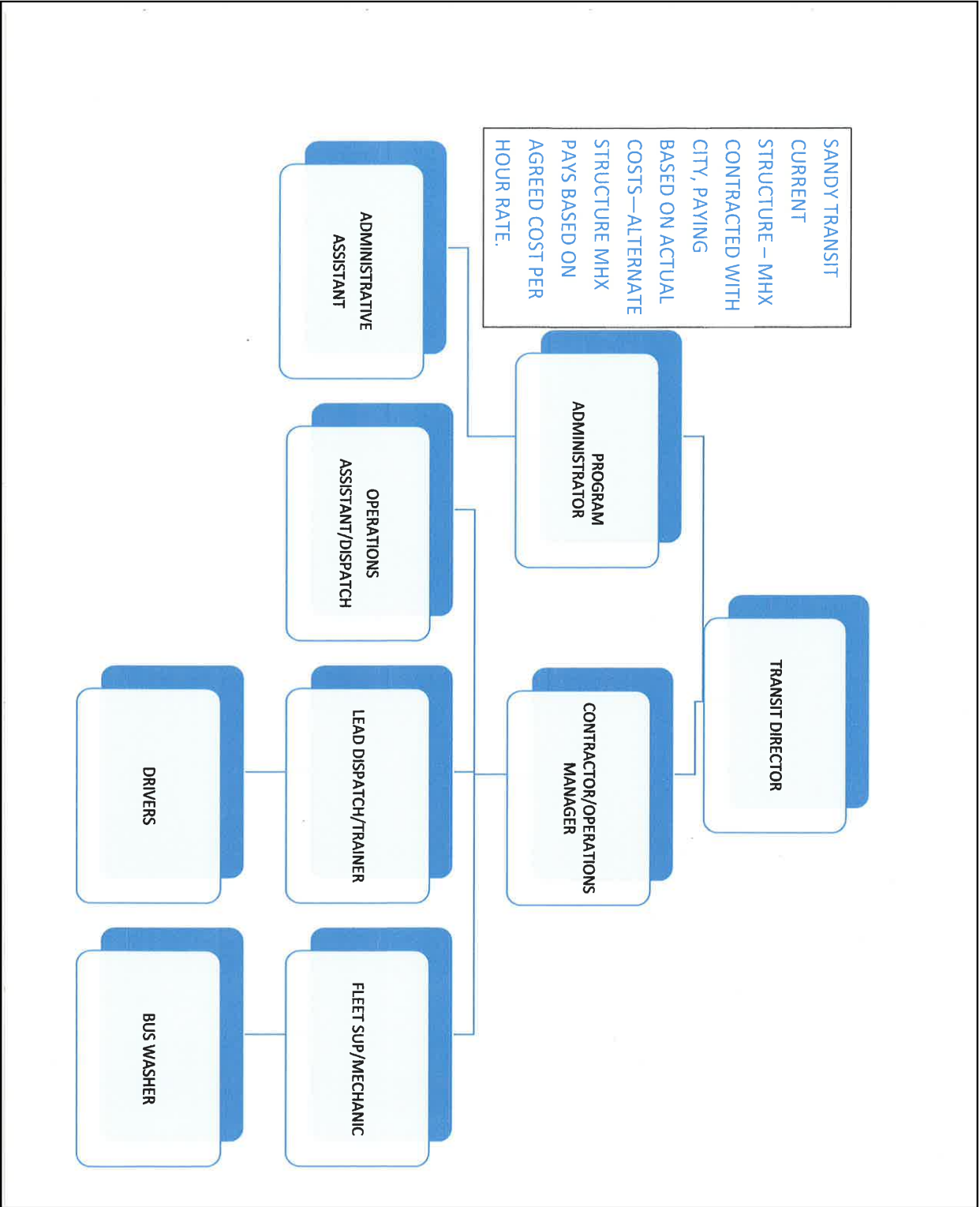


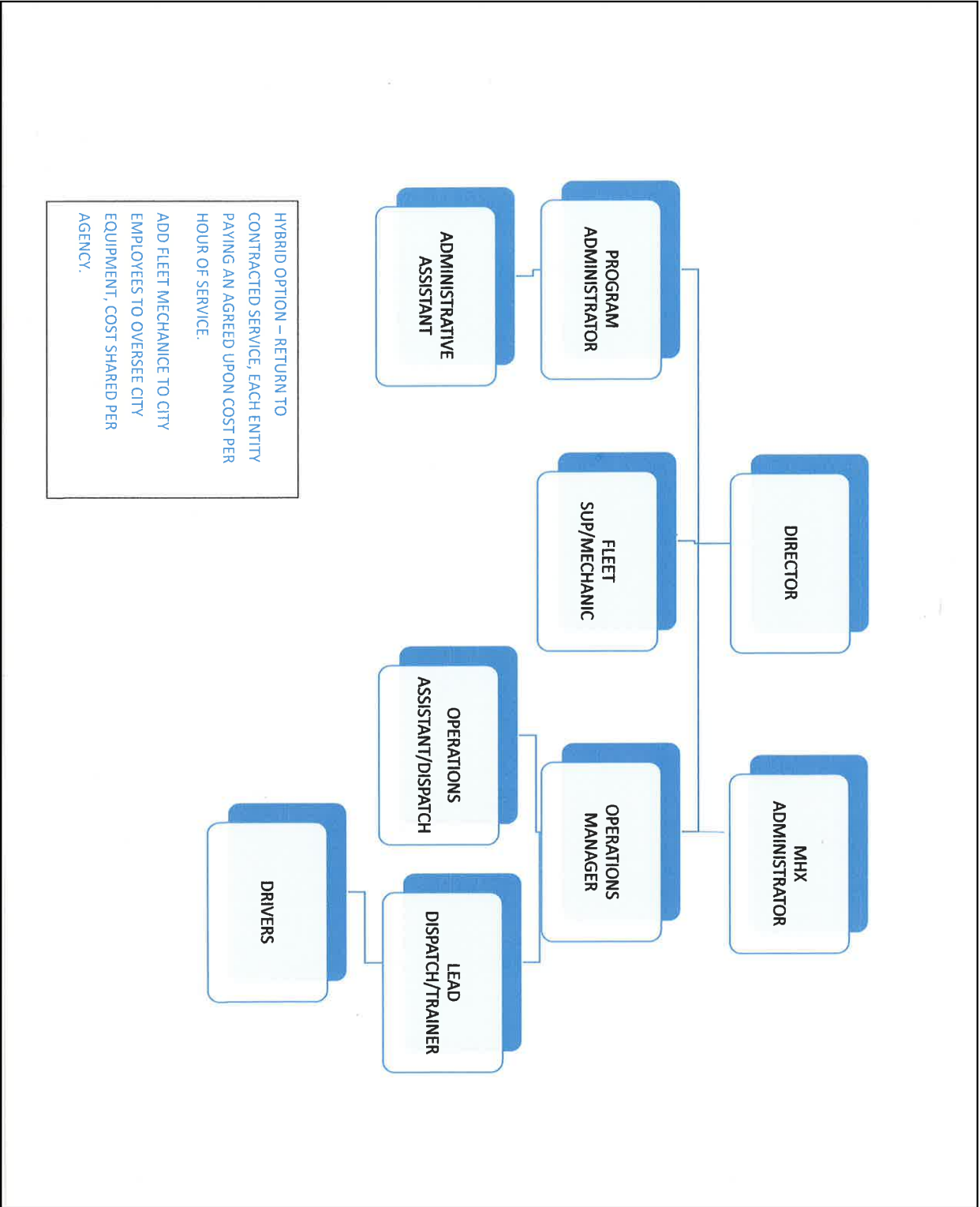
Mayor, Stan Pulliam

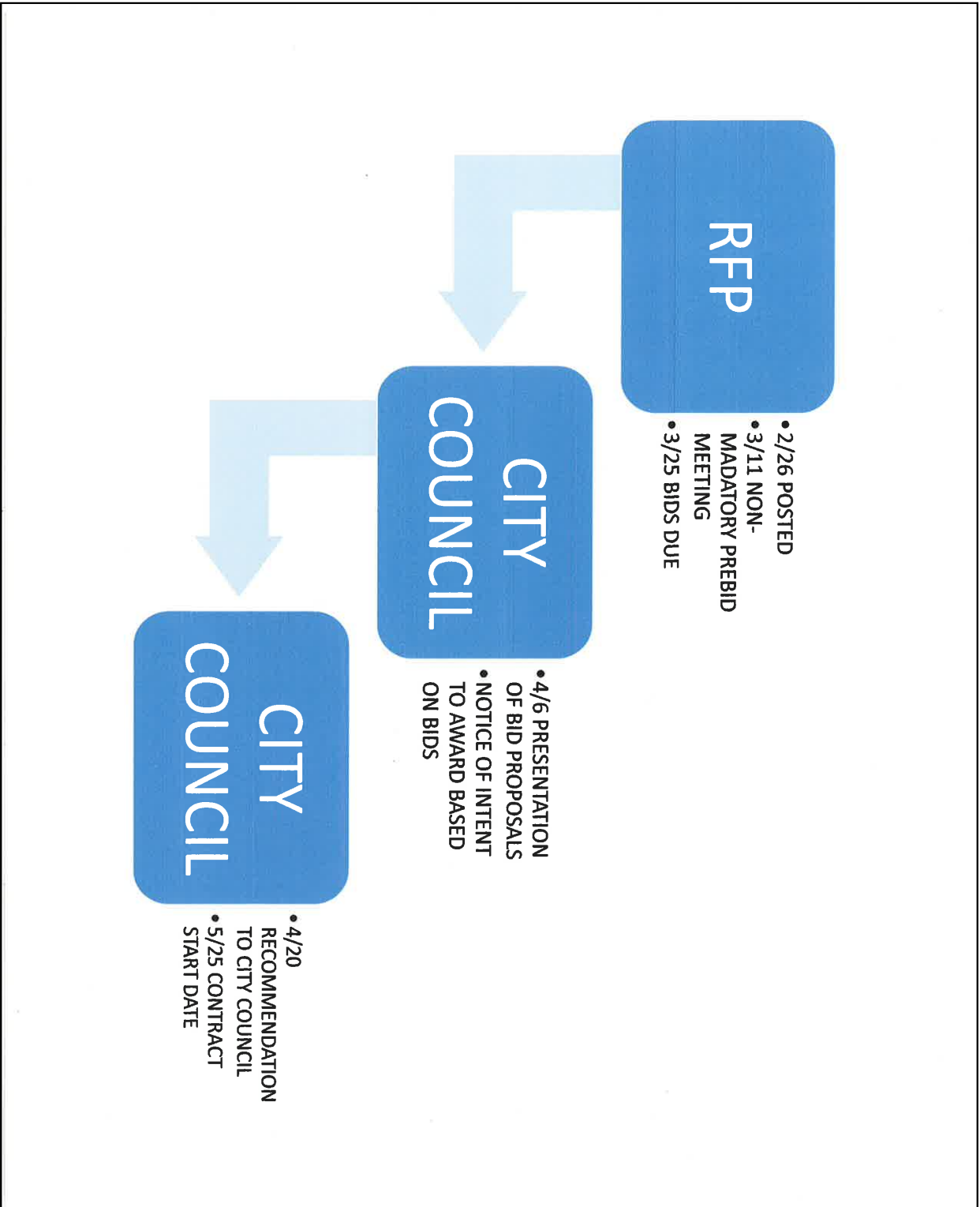


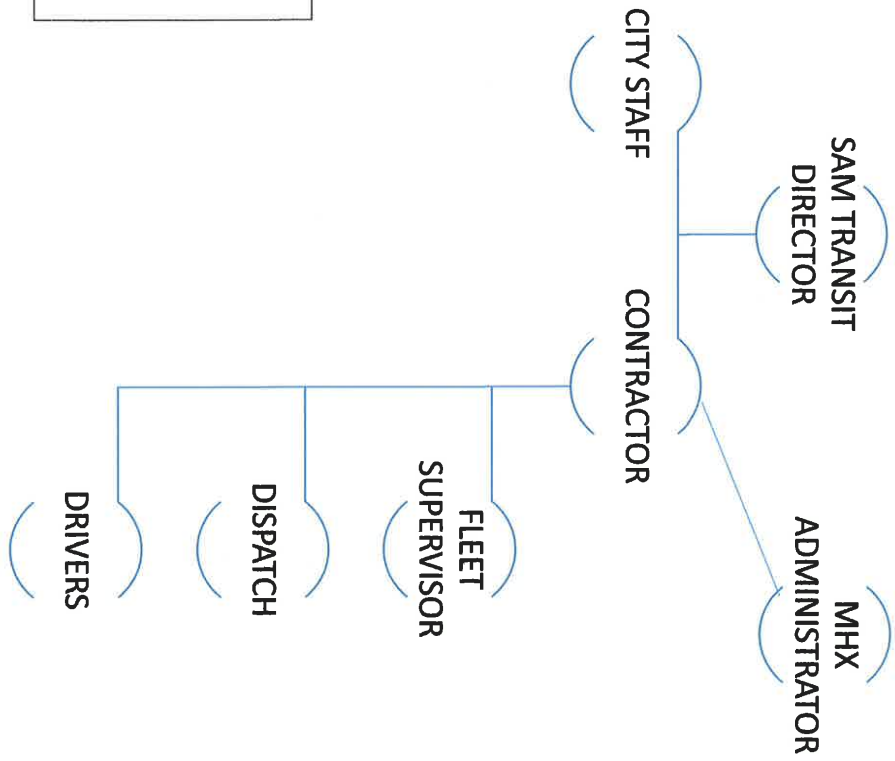
City Recorder, Jeff Aprati

Draft









SANDY TRANSIT
 HISTORICAL
 ORGANIZATION
 CHART



Staff Report

Meeting Date: March 23, 2020
From Mike Walker, Public Works Director
SUBJECT: Contracts for Engineering Services

Background:

Staff recently solicited proposals for engineering services for the Bell St. - 362nd Extension Project; the Water Master Plan Update; and Design and Construction Management services for the Collection System Rehabilitation project. In addition to these projects we asked for a proposal from Leeway Engineering to provide Owner's Representative and Project Management services for the Wastewater Facilities Plan projects. The first three projects (and the Smart Water Meter and Streetlight LED Conversion Project) are about the limit of projects we can handle with our existing staff. The contract for Owner's Rep and Project Management Services will allow us to move forward on the Wastewater Facilities Plan projects and still manage the other four projects.

Bell-362nd - We received one proposal for this project from HHPR. The City has worked with this firm in the past on several projects and we have always been pleased with their performance. The work includes survey, environmental and land use permitting, right-of-way acquisition, ODOT coordination and construction management services. The Scope of Work and Fee is attached as Exhibit A.

Water Master Plan Update - We received one proposal for this project as well from Murraysmith. In addition to the Wastewater Facilities Plan, Murraysmith has worked on several water projects for the City in the past and they are very familiar with our system. The Water Master Plan Update includes a seismic resiliency analysis of the system, an update of our distribution system hydraulic model, and a review of options for the Portland Water Bureau source. Completion of the Water Master Plan Update is one of the requirements of the Bilateral Compliance Agreement between the City and the Oregon Health Authority Drinking Water Program. The Scope of Work and Fee is attached as Exhibit B.

Recommendation:

A Motion to: "Authorize staff to enter into agreements with Murraysmith for the Water Master Plan Update and with HHPR for the Bell-362nd Project."

Budgetary Impact:

There are sufficient funds in the Water Fund budget for the Master Plan Update and in the Street Fund for design and construction management services for the Bell-362nd Extension Project.

EXHIBIT A

City of Sandy



Scope of Services

For

Bell Street and SE 362nd Avenue Extensions

3.10.2020

City of Sandy, Oregon
Engineering Department
39250 Pioneer Boulevard
Sandy, OR 97055
(503) 668-7449

Schedule

Subject to change if it is in the City's best interest.

A. Initial Submittal of Contract by HHPR	3.2.2020
B. Contract Negotiations with City	3.2.20 to 3.06.20
C. City Council Approval	3.16.2020
D. Notice of Award	3.17.2020
E. Commencement of Engineering Contract	3.31.2020
F. Begin Professional Services	4.1.2020
G. Survey, Field Investigations, and Permitting	4.1.2020 to 2.28.2021
H. Property Acquisition	4.1.2020 to 2.28.2021
I. Construction Document Preparation	5.1.2020 to 2.28.2021
J. Advertise for Bids	3.01.2021
K. Substantial Completion of Construction	10.01.2021

Introduction

The main goal of the project per the City's transportation Plan (TSP) is to provide an important roadway connection between Bell Street and SE 362nd Drive. Both Bell Street and ad SE 362nd Drive are classified as a minor arterial roadway. Bell Street is terminated approximately 700 feet west of SE Jewelberry Avenue, adjacent to Sandy High School. SE 362nd Drive will be extended to the north from the 3-way intersection at Highway 26. Bell Street will be extended west approximately 2,800 to the west and SE 362nd Drive will be extended to the north approximately 900 feet to a new, unsignalized intersection. A four-way intersection, potentially a round-a-bout, will be constructed as part of this project that will accommodate future roadway connections to Orient Drive to the west and Kelso Road to the north.

The extension of Bell Street includes will match the typical section of Bell Street at its terminus including a two-lane roadway section with center median bike lanes, planter strips, curb and sidewalk. Other critical elements for the Bell Street extension includes two seasonal, non-bearing fish stream crossings, right-of-way acquisition from 5 properties, and potential intersections at Industrial Way and Kate Schmitz Road for future roadway extensions to the south.

The extension of SE 362nd Drive includes may consist of a five-lane roadway at the intersection of Highway 26 to allow for north and south through lanes, double east bound turn lanes and west bound right turn lane. Beyond the turn lanes to the north, SE 363nd Drive will reduce to a two-lane roadway to the new intersection of Bell Street. Both typical sections of will include bikelanes, planter strips, and sidewalks. Other critical elements for the 362nd Drive extension may include adding a west-bound right turn lane and east-bound left turn lane on Highway 26, traffic signal modifications at Highway 26, right-of-way acquisition from 2 properties (1 common property with Bell Street), and a building removal.

Additionally, both segments of roadway and intersections will include ADA compliancy, street lighting, storm water quantity/quality, landscaping, and potentially a water main extension

connecting existing water mains on Bell Street and SE 362nd Drive. It is anticipated that traffic calming devices will not be implemented.

Project Critical Path Elements

It is critical that the topographic survey, geotechnical investigation, cultural resource study, and traffic analysis will be started in April 2020 or as soon as possible after the contract is approved. This data will be necessary to determine the optimum alignment through the project corridor and at stream crossings. This will enable the preliminary 30% design to be completed. Immediately following the completion and City acceptance of the 30% design, the right-of-way acquisition and permitting process will begin with environmental agencies and ODOT. Obtaining permits and right-of-way in a timely and efficient manner is paramount as these need to be in place prior to advertising the project for bid. We are fully aware of the sensitivity of these critical path elements as they are the main driving force that will keep the project on schedule. Another critical path element is the in-water work window that will dictate the time-frame when stream crossings can be constructed.

Scope of Work

Task 1 – Project Management

A. Notice to Proceed

Once HHPR receives Notice to Proceed from the City, they will contact all subconsultants to authorize them to commence work. HHPR will prepare and execute all subconsultant contracts.

B. Project Administration

HHPR will manage the project with foresight and work closely with the City, ODOT, other permitting agencies, and utility purveyors throughout the project duration. Close and continual attention to the project's schedule and budget will be paramount and will be our team's focus to keep the project on track and to ensure a successful project outcome. Coordination and communication will take place via in-person meetings, phone conversations, e-mail, and teleconferences. HHPR will prepare monthly invoices and percentage of work tasks completed to date.

C. Kickoff Meeting and Project Overview

Initiate the project design kickoff meeting. Consultant shall prepare an agenda and materials for the kickoff meeting, invite necessary attendees, collect data, and discuss the project schedule. Initial kickoff meeting will include the City's public information consultant. Appropriate HHPR team members will be in attendance (see deliverable below).

D. Coordination Meetings

Consultant shall provide conference calls and/or meetings between the Consultant, City, and ODOT personnel to review project progress, discuss project challenges and findings, and review early study results, a minimum of every two weeks. Assume phone conference/calls will alternate with in-person meetings. Consultant shall ensure that the City personnel and Consultant team members maintain a shared understanding regarding study direction, objectives, and deliverables. HHPR will hold coordination meetings as necessary.

E. Public Involvement Meetings

The project will require public outreach. Anticipated public information meetings include one public meeting during the design phase at a time to be determined by the City and HHPR. The HHPR team will provide support via attendance and presentation materials at the open house. Appropriate HHPR team members will be in attendance.

F. Utility Coordination

Utility coordination shall begin immediately with PGE, NW Natural, and communication purveyors. Like with most roadway extensions, it is desirable for the agencies to install facilities as part of the project where existing utilities do not exist. This will be an important aspect to the project and we have identified the following tasks.

- **Utility Identification and Location.** Prepare a utility contact list and coordinate with all existing utilities to verify presence within the project area, obtain available system mapping information, and determine the need for new infrastructure throughout the project corridor. Coordinate with affected utilities to determine prior and/or future rights and utility easement limits within the project area.
- **Identify Utility Conflicts and Estimate Potential Costs.** Coordinate with the project design team to identify potential conflicts. Evaluate conflicts in light of reimbursable status and coordinate with affected utilities to estimate the potential City costs associated with required relocations. Provide a summary of utility conflicts and costs with the 30% design.
- **Utility Conflict Notification and Coordination.** Provide a Conflict Letter (1st notice) to each affected utility outlining identified conflicts and steps forward. Coordinate with the utilities and project design team to avoid conflicts or relocate utilities as necessary. Hold up to three (3) utility coordination kickoff meetings with all affected utilities at Consultants office and/or on-site. When each utility's relocation plan has been approved by the project team we will provide each utility with a Timing Requirements Letter (second notice).
- **Communication and Coordination.** Provide a complete copy of available preliminary and final plans to each utility within the project area. Coordinate with utilities to identify any changes and address any additional conflicts or necessary adjustments.
- **Illumination Coordination with PGE.** Lighting circuit power feed design to be performed by PGE. City will furnish list of approved streetlight materials (poles, luminaires, photocells, etc.) Consultant shall submit information packet to PGE and coordinate PGE plans with the project team.

Task 1 Deliverables:

- Agendas, minutes and materials for all meetings
- Attendance at meetings:
 - Initial kick-off meeting with City: HHPR Project Manager and Natural Resource Scientist, DKS Associates Project Manager, Geotechnical Lead, and EPIC Right-of-Way Lead. 3 hour duration is anticipated including travel.
 - Coordination meetings at the City of Sandy: HHPR 10, DKS Associates 5, GeoDesign 1, Epic 3. 3-hour duration is anticipated including travel.
 - Coordination meetings at the ODOT: HHPR 4, DKS 4. 2-hour duration is anticipated including travel.
 - Coordination meetings at HHPR office with Subconsultants: HHPR 5, DKS Associates 5, GeoDesign 2, Epic 3, AINW 1. 2-hour duration is anticipated including travel.
 - Phone conference every 4 weeks through 100% design (10), estimate 30 min each.
 - Public involvement meetings: HHPR and DKS Project Manager will be in attendance. 4-hour duration is anticipated including travel.
- Utility contact list and conflict list
- Provision of 1st notice and 2nd notice to affected utilities
- Coordination of and attendance at 3 utility coordination meetings, estimate 1.5 hr each.
- Materials for utility coordination meetings
- Utility plans as needed, incorporated into project plan set.
- Develop specifications for utilities

Task 2 – Design Survey and Field Investigations

A. Topographic Survey, Preconstruction Survey, and Base Map Preparation

Survey shall be commenced as soon as practical after contract is executed. The survey shall include:

- Contact Utility Notification Center of Oregon at least forty-eight (48) hours prior to surveying activities. All underground utilities within the proposed survey area shall be clearly marked.
- Coordinate with property owners to arrange access to private property.
- Survey shall reference the NAD 83 horizontal datum and NAVD 88 vertical datum in US feet for the relative zone in the appropriate State Plane coordinate system. If applicable, provide any combined scale factor and origin used to convert coordinates from grid to ground.
- Record location and description of all primary horizontal and vertical control benchmarks and provide a monument record for each one found
- Horizontal and vertical data shall be taken at all pavement edges and pads (asphalt, concrete, gravel, etc.), concrete pavement joints, pavement markings (color and width), breaklines, curbs (back, face and pan), utility lines (communications, electrical, gas, sanitary sewer, storm sewer, water, etc.), hand holes, inlet/outlet structures, hydrants, junction boxes, lights, manholes, meters, navigational aids, vaults, fence (height and type), poles/posts (height and type), reflectors, signs, drainage ditches and channels, wetlands

and riparian areas, grade breaks, walls, specific site features, etc. A sufficient number of points shall be taken along all horizontal curves to describe approximate radii. Provide structure rim or grate elevations, inverts, and pipe sizes. Points shall be taken on a 25' x 25' grid on pavements and open terrain areas. Hardscape points shall be accurate to within 0.04' and terrain points within 0.10' accuracy.

- Provide recorded information, i.e. property lines, right-of-way, easements, underground utility sizes, etc.
- Other survey work as deemed necessary to provide a complete design.
- Complete pre-construction record-of-survey and record the survey with the County Surveyor per ORS 209.155. Locate all survey monuments that are subject to disturbance or destruction as a result of roadway construction. Survey to reference existing survey monuments together with the controlling centerlines and right-of-way lines. The centerline will be recorded with the Record-of-Survey, and will be used as a basis for the preparation of legal descriptions if required for the widening.

Enhanced Survey Methods (Optional)

- Provide cost proposal for enhanced survey tools and methods that are coordinately correct and appropriate for preliminary design, corridor alternatives, public presentations:
 - LIDAR mapping
 - Project-specific Ortho-rectified aerial map, coordinately correct
 - Survey grade UAV (Drone)
 - Scanners that can collect data that traditional surveys cannot easily collect
 - Other technologies to supplement survey work

Task 2A. Deliverables:

- Field sketches and notes in PDF format
- Photos of field conditions in JPG format
- Survey data in the English system of measurement. Sheets shall be set up to print full size on ANSI D (22"x34") in landscape format. Include an electronic survey base map compatible with AutoCAD 2020 software.
- ASCII file containing all survey points in comma delimited, number, northing, easting, elevation and description format (PNEZD).
- AutoCAD release 2020 DWG format or previously released version.
- Surface entity of existing ground topography with all associated points, feature lines, 3D breaklines, etc. used in creating the surface. If the surface was created using AutoCAD Land Development Desktop, provide all points, breaklines and generated Triangulated Irregular Network TIN file.
- XML file including all alignments, points, surfaces, etc.
- Layer naming convention shall follow the National CAD Standards (NCS).
- Entities shall be separated onto specific layers. Do NOT group dissimilar items together.
- All entities drawn in model view at a scale of 1:1.
- Layer properties of all entities to be set to BYLAYER.

- Block symbols shall be to scale.
- Pre-Construction Record of Survey, recorded with Clackamas County
- Ortho-rectified aerial photo (please clarify if this is a deliverable of the Optional methods in Section C)
- Civil 3D-ready digital terrain model (please clarify if this is a deliverable of the Optional methods in Section C)

B. Right-of-Way Acquisition Legal Descriptions and Exhibits

- Develop legal descriptions as required for establishment of easements if needed, and right-of-way acquisition if required to accommodate public improvements at intersections. Right-of-way needs to be determined at 30% design review. Six (6) right-of-way files is anticipated.

Task 2B. Deliverables:

- Legal descriptions and exhibits for right-of-way acquisition.

C. Cultural Resource Survey

The project will need a permit from the USACE; therefore, the cultural resource study will be done to meet Section 106 of the National Historic Preservation Act. No federal funds or other funds from ODOT will be used by the City for the project; the project will need to address State laws addressing archaeological and historic resources. The cultural resource study will be a survey to identify archaeological and historic resources that are within the Area of Potential Effect (APE). A preliminary assessment of resource significance will be provided. The work will be directed by AINW archaeologists and architectural historians who meet the Secretary of the Interior’s Standards and Guidelines in Archaeology and Historic preservation.

The cultural resource survey will consist of:

- A background review of archaeological and historical information and research using the State Historic Preservation Office’s (SHPO) records and from other sources;
- A historic resource reconnaissance;
- A pedestrian survey by archaeologists walking 50 feet or less apart;
- Shovel testing of areas that appear most likely for an archaeological site, based on the landform, historical research, or presence of artifacts nearby;
- Delineation and recording of archaeological resources, if resources are found;
- Documenting historic resources, if historic-period buildings or structures are identified; and
- Preparation of a report meeting the federal requirements and following SHPO guidelines.

Assumptions and Project APE

The project APE will consist of the proposed road corridor and related impact area and will extend approximately 20 feet on each side beyond the proposed roadway to accommodate

potential construction impacts such as installation of silt fencing and equipment staging and laydown. The length of the new roadway is approximately 3,700 feet.

- Most of the corridor will be at least 140 feet wide.
- The APE for the extension of SE 362nd Drive north of US 26 will be 165 feet wide.
- The roundabout at the new intersection will need an APE approximately 220 x 220 feet.
- At the creek crossing near the current end of Bell Street, the APE will be approximately 170 x 170 feet.

The APE will be confirmed by the project team, and HHPR will provide the APE to AINW in GIS or CAD data/format at the start of the project.

The project APE consists of private land except at the right of way along US 26 and near the end of Bell Street.

- Permission to access private land will be obtained by HHPR.
- The project APE consists nearly entirely of private land. If shovel testing is needed on publicly-owned land, AINW will need to obtain an archaeological excavation permit from the SHPO, and this will be done as a contingency task.

Construction of the new road may remove historic resources. A farm grouping north of US 26 east of the proposed farm buildings which appear to have been constructed before 1975, the cut-off for historic/modern. AINW has assumed up to four historic resources will need to be documented. new 362nd Avenue has been previously recorded and was recommended as eligible; one of the buildings is close to the corridor, and may be in the APE. An older house fronting Royal Lane is probably in the APE, and northeast of it are

Background Review

Historic-period maps, such as early USGS quadrangles and General Land Office maps, will be reviewed. No previous cultural resources studies have been done that overlap with the project APE. The Jonsrud farmstead, consisting of a circa 1915 house at 35405 SE Hwy 26 and associated farm buildings, was documented in 1990 as part of the Clackamas County historic resource inventory and recommended to be a significant resource at that time. No other cultural resources appear to have been documented in or near the APE.

Archaeological Survey and Shovel Testing

Nearly all of the APE is undeveloped or agricultural land.

- The archaeological fieldwork will include a pedestrian survey using transects spaced 33 to 50 feet (10 to 15 meters) apart for all of the APE except paved areas, impenetrable areas, and private land where no permission has been obtained.
- Up to 30 shovel tests will be excavated along the APE. The APE is considered to be likely for an archaeological site, and surface visibility is inadequate to determine whether an archaeological site is present from surface inspection alone. The shovel tests will also be used to delineate resource boundaries, if artifacts are found.

- Shovel tests will be 12 inches in diameter (30 centimeters) at the surface and typically excavated to 20 inches (50 centimeters) deep. To extend the probe deeper where buried archaeological deposits are suspected, manually excavated augers may be used.
- Soils will be screened using 1/8-inch mesh hardware cloth; holes will be backfilled immediately upon completion.
- No artifacts will be collected.
- Up to three archaeological resources may be documented.

Historic Resource Survey

- A reconnaissance of the project APE will be performed by professionally qualified AINW architectural historians to identify and document historic resources.
- Up to four historic resources may be identified.

Cultural Resource Report

The cultural resource survey report will be prepared to meet federal review and will follow SHPO standards. The report will meet the standards for review by the Corps of Engineers.

The report will provide a project description and information on the environmental and historical/cultural setting of the project, summarize the background review and fieldwork, provide information about areas where additional survey may be needed. If resources are identified a summary of the resources will be provided in the text, and the resource forms will be appended to the report. Recommendations will be made regarding resource significance and whether additional study is needed. A preliminary Finding of Effect will be recommended. Maps will show the APE and where resources were identified, and photographs will help to describe the project setting, document shovel tests, and show resources if those are found.

If resources are found that appear to be eligible for listing in the NRHP, and if impacts or adverse effects cannot be avoided, additional study may be needed.

CONTINGENCY for Shovel Testing Under Archaeological Excavation Permit

If shovel testing on public land or public right of way will be needed to adequately complete the archaeological survey, AINW will need to obtain an archaeological excavation permit from SHPO; each owner/agency will need to have a separate permit application submitted to SHPO. Up to two permits will be prepared and submitted to SHPO and the related Tribal coordination will be done, as a contingency.

If artifacts are encountered during shovel testing under a SHPO-issued permit, they must be collected and the artifacts prepare for curation at the Oregon Museum of Natural and Cultural History. Up to 50 artifacts may be collected under up to two permits, as part of this contingency.

This shovel testing—methods and results—would be documented in the same report as the rest of the cultural resource survey.

Task 2C. Deliverables:

- Draft and final Cultural Resources report and resource forms.

D. Geotechnical Investigation/Report, Pavement Analysis

PROJECT UNDERSTANDING

The site is located on the east margin of the Portland Basin near where the basin meets the west edge of the Cascade Mountains physiographic province. The near-surface geology consists of the Springwater Formation, a conglomerate with some volcanoclastic sand, silt, and debris flows derived from the Cascade Range. The conglomerate consists of gravel, cobbles, and boulders of volcanic composition that are strongly weathered to completely decomposed and often produces a red, fine-grained soil up to 200 feet deep. Based on our prior explorations in the area, we anticipate the surface 10 to 15 feet will consist of fine-grained silts and clays and gravels will likely be encountered below (the depth varies within the Sandy area) the fine-grained soils.

Based on elevations from Google Earth, with the exception of two seasonal streams, the site grades consist of gentle rolling terrain. The larger seasonal stream on the east end is heavily wooded, with the remainder of the site (and second season stream) primarily in agricultural grass production. Preliminarily, we understand that a standard culvert may be used for the smaller stream and a box or arch culvert for the eastern stream.

The primary geotechnical considerations are characterizing the soils to 10 to 15 feet for earthwork and utility excavation, subgrade support for pavement design, and foundation support for the seasonal stream crossings. GeoDesign also anticipates that explorations for new signals may be required at the intersection at Highway 26. We expect a relative thick stripping depth and a tilled (cultivated) zone given the agricultural use over much of the proposed alignment. In addition, the stripping and grubbing depths will likely be large in the heavily wooded portion of the (eastern) seasonal stream. Because of the low densities and soft consistencies of tilled zone material, removal or stabilization is needed to prepare the subgrade for pavement support. An alternative we have successfully used to stabilize tilled zone material with other agricultural roadway alignment projects is using cement amendment.

PROJECT APPROACH

GeoDesign proposes to explore the proposed alignment using a combination of test pits and borings. Borings will be used for design of traffic signals and foundations for stream crossing. The road will likely extend along the existing Royal Lane. While test pits will provide adequate design information for this area, borings will be much less damaging to the road and will be used along Royal Lane. Test pits will be used along the remainder of the proposed alignment. The borings will be completed by a track-mounted drill rig and a

small trackhoe will also be used to complete the test pits. Laboratory testing will focus on characterizing the tilled zone material for cement amendment stabilization as well as standard moisture content determinations for general earthwork.

SCOPE

The project includes evaluation and analysis of data derived from pavement testing and explorations to provide pavement rehabilitation or reconstruction recommendations. We completed the following specific scope of services:

- Review subsurface information from work GeoDesign has previously completed in the area.
- Provide traffic control and traffic control plans for explorations along Royal Lane and the intersection at Highway 26, as needed, through our subcontractor.
- Explore subsurface conditions and tests as follows:
- Complete up to two borings on the north side of Highway 26 in the general vicinity of new traffic lights up to 25 feet BGS or refusal if encountered at a shallower depth.
- Complete up to two borings in the general vicinity of the culvert crossings of the eastern stream up to 25 feet BGS or refusal if encountered at a shallower depth.
- Complete up to two borings in the general vicinity of the culvert crossings of the western stream up to 20 feet BGS or refusal if encountered at a shallower depth.
- Complete up to three borings along Royal Lane up to 7 feet BGS or refusal if encountered at a shallower depth.
- Complete test pit explorations along the remainder of the roadway alignment. We anticipate up to 10 test pits will be completed to depth up to 10 feet BGS.
- Complete dynamic cone penetrometer (DCP) tests at depths closely corresponding to the design subgrade at up to ten of the explorations.
- Complete infiltration tests at up to three of the explorations. Given the anticipated shallow groundwater, we assume the tests will be completed at depth equal or less than 5 feet.
- Maintain a detailed log of the explorations. Observed groundwater levels during the explorations. Collected samples of the pavement, base, and subgrade material encountered.
- Perform the following laboratory tests:
 - Up to 30 moisture content
 - Up to two direct shears
 - Up to two Atterberg limits.
 - Up to five percent passing the No. 200 sieve analysis
 - Up to four gradation tests.
- Estimate traffic loading by calculating ESALs based on traffic data provided by the others.
- Provide pavement options based on DCIP testing, subgrade conditions, soil borings, and traffic data. Provided options for asphalt concrete pavement sections based on up to two design life scenarios, including subbase, base course, and AC paving thickness.
- Provide recommendations for site preparation, grading and drainage, stripping depths, fill type for imported material, compaction criteria, trench excavation and backfill, use of on-site soil, and wet/dry weather earthwork.

- Provide recommendations for design and construction of foundation support for the culvert crossings, including allowable design bearing pressure and minimum footing depth and width.
- Provide design criteria recommendations for retaining walls, including lateral earth pressures, backfill, compaction, and drainage.
- Provide recommendations for the management of identified groundwater conditions that may affect the performance of structures or pavements.
- Provided this draft report. The final report will be based on input from the design team.
- Provided recommendations for material specifications.

Task 2D. Deliverables:

GeoDesign anticipates that the field work can be scheduled within two to three weeks of authorization to proceed and can be completed within three to four in the field days. The draft geotechnical report will be available approximately four weeks following the field explorations.

- Draft Geotechnical report within eight (8) weeks of task notice to proceed.
- Final Geotechnical report within two (2) weeks of receipt of comments.

GeoDesign anticipates that the field work can be scheduled within two to three weeks of authorization to proceed and can be completed within three to four in the field days. The draft geotechnical report will be available approximately four weeks following the field explorations.

E.1 Level 1 Hazardous Materials Corridor Study

Conduct a Level I Hazardous Materials Corridor Study (HMCS) of the Bell St. and SE 362nd Ave. Extension project in accordance with the "Hazardous Waste Guide for Project Development" (1990) by American Association of State Highway and Transportation Officials (AASHTO) Special Committee on Environment, Archaeology and Historic Preservation, and the "ODOT Hazmat Program Procedures Guidebook," (2010).

The purpose of the Level I HMCS is to review the development history and current use of properties within the project area to identify the possible presence of adverse environmental conditions that could be encountered during construction of project improvements. Properties identified adjacent to the work areas that are listed on federal, state, or local environmental records may indicate that contaminant releases from these properties have impacted soil or groundwater within the work area. The Level I HMCS report will summarize the results of the historical research and field reconnaissance. The report will also identify adjacent and nearby properties with potential environmental problems and evaluate whether releases from these sites could have impacted the project area. Although the research completed during a Level I HMCS is generally similar to the ASTM requirements for completing a Phase I Environmental Site Assessment (ESA), due to the specific requirements of a Level I HMCS, the assessment should not be considered compliant with the Phase I ESA ASTM Standard. The specific Level I HMCS scope of work is summarized below.

- Review County-provided and readily available geotechnical reports, environmental reports, or other relevant documents pertaining to environmental conditions within the project area.
- Review federal, tribal, state, and local environmental records for listings of known or suspected environmental conditions within the project area and nearby properties using 40 CFR Part 312 and ASTM Practice E 1527-13 as general guidelines.
- Review regulatory agency files for properties in the project area identified in the environmental databases if research indicates that releases of contaminants from these properties are likely to impact construction activities in the project area.
- Review historical aerial photographs, as available and appropriate, to identify development history of properties within the study area relative to the possible use, generation, storage, release, or disposal of hazardous materials.
- Conduct a well search for water supply wells located within or adjacent to the project corridor.
- Conduct a visual reconnaissance of the project area and adjacent properties for visible evidence of possible adverse environmental conditions.
- Provide a draft and final report summarizing the findings regarding the possible presence of adverse environmental conditions within the project area. Provide recommendations for avoidance, or the potential need for a Level II HMCS.

The Level I HMCS does not include preparation of project specifications, special provisions, or management plans associated with identified environmental issues, testing for lead-based paint or asbestos in project corridor structures, evaluation of the presence of radon gas, chain of title research, or an evaluation of polychlorinated biphenyls in street lamps. These services can be completed upon request.

Task 2.E.1 Deliverables:

- Draft Level I HMCS report within six (6) weeks of task notice to proceed.
- Final Level I HMCS report within two (2) weeks of receipt of comments.

E.2 Level II Hazardous Materials Corridor Study (Contingency Task)

A preliminary review of the project corridor indicated that much of the project corridor has historically been used for agricultural purposes. Pesticides and associated metals can accumulate in surface soil from routine applications of pesticides on agricultural land. Additionally, several apparent commercial structures are present within the project corridor immediately north of the US Hwy 26 and SE 362nd Drive intersection. Information provided to GeoDesign indicated that sand-blasting operations may have been conducted at this location. It is possible contaminant releases may have impacted soil and/or groundwater within the project corridor. Therefore, we have included a scope of services for conducting a Level II HMCS of the project corridor as a contingency task. The scope of services outlined below may be modified based on the results of the Level I HMCS and review of final construction plans. Based on our current project understanding, we anticipate that the following scope of services may be completed during the Level II HMCS:

- Coordinate and manage the field investigation, including public and private utility locates, scheduling of subcontractors, permitting, and coordination as necessary to conduct explorations within the properties and/or right-of-way.
- Contact the Oregon One-Call Utility Notification Center to mark the location of public utilities beneath within the proposed cut area.
- Subcontract a private utility locator to further evaluate proposed exploration locations for the possible presence of unmarked underground utilities.
- Prepare a site-specific Health and Safety Plan.
- If necessary, obtain right-of-way permits, traffic control plans and subcontract traffic control services. Access to private property will be negotiated by the Engineer or the City.
- Subcontract a drilling subcontractor for up to 2 days of direct-push explorations, including between 10 and 12 direct-push borings an estimated depth of 15 feet below ground surface (BGS) or until refusal is met.
- Collect continuous soil samples from each exploration for visual inspection and field screening for petroleum hydrocarbons using sheen testing and a hand-held photoionization detector.
- Submit one soil sample from each exploration for analysis for one or more of the following analyses based on the anticipated type of contamination:
 - Gasoline-range hydrocarbons by Method NWTPH-Gx
 - Diesel- and oil-range hydrocarbons by Method NWTPH-Dx
 - VOCs by EPA Method 8260B
 - PAHs by EPA Method 8270C-SIM
 - PCBs by EPA Method 8082
 - RCRA-8 metals by EPA 6000/7000 Series Methods
- If necessary, collect up to three groundwater samples from the direct-push borings. Submit the groundwater samples for chemical analysis of gasoline-range hydrocarbons by Method NWTPH-Gx, diesel-range hydrocarbons by Method NWTPH-Dx, VOCs by EPA Method 8260, PAHs by EPA Method 8270C-SIM, PCBs by EPA Method 8082, and/or total RCRA-8 metals by EPA 6000/7000 Series Methods.
- Divided the agricultural-use portions of the project corridor into six composite sample areas (composite sample areas Comp-1 through Comp-6).
- Advance six hand auger borings in each composite sample area to a depth of 2 feet BGS.
- Collect two discrete soil samples from each hand auger boring, including a discrete soil sample between 0 and 1 foot BGS and a discrete soil sample between 1 and 2 feet BGS.
- Submit the 72 discrete soil samples to the analytical laboratory for compositing under standard chain-of-custody procedures.
- Composite the 72 discrete soil samples into two composite soil samples from each composite sample area, including one composite sample representing soil between 0 and 1 foot BGS and one composite soil sample representing soil between 1 and 2 feet BGS.
- Analyze the 12 composite soil samples for the following:
 - 17 agricultural use total metals by EPA Methods 6020B and 7471A (ICP-MS)
 - Organochlorine pesticides by EPA Method 8081B
 - Chlorinated herbicides by EPA Method 8151A

- Summarize the results of the Level II HMCS in a report including exploration logs, laboratory reports, and a discussion of the analytical results within the context of the DEQ regulatory framework.

Assumptions:

- Field activities will be completed in a 4-day consecutive field effort.
- Soil and groundwater samples will be analyzed on a standard (5- to 10-business day) turnaround time.

E.3 Contaminated Media Management Plan (Contingency Task)

Based on the results of the Level II HMCS and at the request of the project team, a Contaminated Media Management Plan (CMMP) may be prepared for the project. The CMMP will provide the locations of known or suspected areas of contamination and information on the proper identification, handling, stockpiling, and disposal of contaminated media that could be encountered during construction activities. If dewatering will be required during excavation with contaminated areas, the CMMP will also include a generic construction dewatering plan. The information in the CMMP can be referenced and used to prepare project special provisions for hazardous materials.

Task 3 – Traffic Engineering

A. Traffic Analysis

- Collect the following traffic data:
 - a. 24 hours bi-directional data along 362nd Avenue and Bell Street
 - b. AM and PM peak hour turn movement data at US26/362nd Drive
 - c. Crash history within the study area for the past 5 years
- Develop future 2040 traffic volume forecasts at the intersections of Hwy 26/362nd Avenue and Bell Street/362nd Avenue using collected traffic data, information from the City's current TSP, and the current Metro Travel Demand Model.
- Evaluate intersection capacity and vehicle queuing at the intersections of Hwy 26/362nd Avenue and Bell Street/362nd Avenue for the Build (year of project opening) and Future (year 2040) scenarios. Synchro shall be used for capacity analysis and SimTraffic shall be used for vehicle queuing estimates. Both a roundabout and stop-controlled options will be considered at the intersection of Bell Street/362nd Avenue.
- Review and summarize crash data
- Summarize analysis results and recommendations into a technical memo.

Task 3A. Deliverables:

- Traffic data
- Draft traffic technical memo
- Final draft technical memo

B. Traffic Signal Design

- Design traffic signal modifications, including plans, specifications and a construction cost estimate (PS&E), at the intersection of US26/362nd Drive. Design will meet ODOT and MUTCD requirements.
- Prepare and submit Preliminary Signal Design Operations (PSOD) forms to ODOT Region 1 Traffic.

Task 3B. Deliverables:

- PS&E delivered at the 30%, 60%, 90%, and final levels of completion as part of Task 5D
- Draft and Final PSOD forms delivered to ODOT Region 1 Traffic

C. Permanent Signing/Striping Design

- Design permanent signing and pavement marking plans, specifications, and a construction cost estimate along the new sections of Bell Street and 362nd Drive. Signing and striping design will meet City of Sandy, ODOT, and MUTCD requirements. Signing plans shall include, but are not limited to the following: permanent signing plan, signing details, and sign/post data table. Striping plans shall include but are not limited to roadway alignment, stationing, channelization information, tapers, centerlines, lane lines, shoulder width information, and dimensions. It is anticipated that cross street approaches will require minor signing and striping modifications near the intersections. The following plan shall be prepared:
 - Signing/Striping Legend – 1 sheet
 - Signing/Striping Plans – 7 sheets (1:40 scale)
 - Sign installation details – 4 sheets
 - Striping details – 1 sheet

Task 3C. Deliverables:

- *PS&E delivered at the 30%, 60%, 90%, and final levels of completion as part of Task 5D*

D. Illumination Design

- Perform lighting analysis along the new sections of Bell Street and 362nd Drive, including intersections, using AGI. Consultant to coordinate with PGE for lighting power sources.
- Prepare roadway illumination design per IESNA or AASHTO standards for minor arterial roadways showing all underground infrastructure (light pole foundations, junction boxes, conduit) for new light poles. PGE will be responsible for energizing the lighting system. New poles will be energized via underground conduit. Illumination standard (pole and luminaire type) will be selected by the City and provided to the design team. The following plan sheets shall be prepared:
 - Illumination legend – 1 sheet
 - Illumination plans – 7 sheets (1:40 scale)
 - Illumination details – 2 sheets

Task 3D. Deliverables:

- PS&E delivered at the 30%, 60%, 90%, and final levels of completion as part of Task 6D.

E. ODOT Grant Access / Roadway Approach Permit

HHPR and DKS will coordinate with ODOT to obtain a Grant of Access and Roadway Approach Permit from ODOT for new roadway access at Highway 26 and coordinate access for two existing parcels east and west of proposed intersection.

Task 3E. Deliverables:

- ODOT permit will be delivered to the City prior to project bidding.

Task 4 – Environmental Permitting

A. Wetland and Waters Delineation

HHPR will conduct an office review and field investigation to delineate wetland boundaries, if present, and determine the Ordinary High Water Mark (OHWM) at the two stream crossings. The wetland delineation will follow the three-parameter method described in the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual (USACE 1987) including updated protocol guidance in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region (USACE 2010). The wetland report will be submitted to the Oregon Department of State Lands (DSL) for concurrence. For this task, HHPR will:

- Conduct an office review of available data for wetland, hydric soils, and streams in the vicinity of the proposed project;
- Delineate wetlands and waters of the U.S. and State within a study area that encompasses the proposed project alignment and sufficient stream length to determine Active Channel Width (ACW);
- Coordinate with the Oregon Department of Fish and Wildlife (ODFW) to determine if crossing locations are considered current or historic native migratory fish habitat;
- Determine ACW, if required by ODFW (based on coordination);
- Prepare a DSL/USACE format wetland report documenting findings;
- Submit draft report to the client for review;
- Submit report to DSL for concurrence and coordinate with the project team to provide any additional information requested by DSL during their review;
- Attend one site visit with DSL staff to review wetland boundaries.

Task 4.A Assumptions:

- Field work will be conducted when relevant indicators are present (e.g. wetland hydrology); ideally in spring (typically March – April) or in fall (typically October – December) depending on site conditions;

- The study area is accessible and safe;
- Site boundaries, where unclear will be identified by the client prior to delineation via GIS data or field demarcation;
- Boundaries of proposed project will not exceed delineated area in subsequent design iterations;
- Fieldwork can be completed in 6 days;
- Client will pay review fee;
- One site visits with DSL staff;
- No significant changes to report and no requests for additional wetland delineation by DSL.

Task 4.A Deliverables:

- DSL-format wetland report (one draft provided electronically to the client, one final for submittal)
- ACW determination communicated to the team via email (if required by ODFW)

B. Joint Fill/Removal Permit

Work within wetland boundaries or below the ordinary high water mark of the streams will require permit approval from USACE, the Oregon Department of Environmental Quality (DEQ) and, if greater than 50 cubic yards of cumulative removal and fill, from DSL. Application to these agencies will be submitted via a Joint Permit Application (JPA). For this task HHPR will:

- Prepare a Joint Permit Application (JPA) for a US Army Corps of Engineers (USACE) Clean Water Act §404 permit, an Oregon Department of Environmental Quality Clean Water Act §401 Water Quality Certification, and an Oregon Department of State Lands (DSL) Fill/Removal permit.
- Complete a wetland functional assessment using the latest ORWAP protocol required by DSL;
- Complete a stream functional assessment using the latest SFAM protocol required by DSL;
- Coordinate with DSL and USACE regarding mitigation requirements and prepare a mitigation plan consisting on on-site restoration;
- Staff will coordinate with agencies prior to submittal and during review.

Task 4.B Assumptions:

- The project will qualify for a Nationwide Permit (NWP), likely a *NWP 14 Linear Transportation Projects*, from USACE;
- The project will quality for a Nationwide Water Quality Certification from DEQ;
- The project will require an Individual Permit (IP) from DSL;

- ;
- Fieldwork for the stream assessment can be completed in 2 days by a 2 person crew;
- Wetland and stream mitigation consisting of a combination of fee-lieu and on site restoration (e.g. noxious weed control and plantings along stream) will be acceptable to the client and all reviewing agencies;
- No Endangered Species Act (ESA) listed fish species are present at the stream crossings and National Marine Fisheries Service (NMFS) fish passage standards will not apply to the project;
- Potential impacts to ESA-listed fish species downstream of project crossings will be addressed via compliance with Standard Local Operating Procedures for Endangered Species for Stormwater, Transportation or Utilities (SLOPES V) stormwater standards;
- No other ESA-listed or State-listed Threatened, Endangered, or candidate species or habitat are present in the project area of potential impact;
- The JPA will be based on the 60% design—subsequent changes to the project design will not necessitate significant changes to the JPA;
- The JPA submittal to USACE will include the results of a cultural resources investigation conducted by AINW;
- One meeting with the project team;
- One field meeting with DSL and/or USACE;
- Comments by agency staff will be minor in extent, editorial in nature, and not require additional field work or analysis; and
- Client will pay permit and mitigation fee.

Task 4.B Deliverables:

- Joint Permit Application (one draft provided electronically to the client, one final for submittal)

C. Creek Crossing Structures and Foundations

HHRP structural department will prepare plans, specifications, and calculation for all structural components relating to the proposed creek crossing structures.

Task 4.C Deliverable:

- PS&E delivered at the 30%, 60%, 90%, and final levels of completion as part of Task 6D.

D. Flood, Slope, and Hazard Overlay Application (Type II Planning Commission)

HHRP land use planner will prepare application and submittal requirements per City Development Code 17.60.

Task 4.D Deliverable:

- Application and submittal requirement materials will be provided to the City for approval

D.1 Type III Planning Commission Approval (Contingency)

HHRP land use planner and project engineer will prepare Type III and attend City Planning Commission meeting.

Task 4.D.1 Deliverable:

- Application and submittal requirement materials will be provided to the City for approval

E. Fish Passage Plan (Contingency)

New crossings are a regulatory trigger for Oregon fish passage law (OAR 635-412-0005 to 625-412-0040). If HHRP ODFW determines that either or both streams contain current or historic native migratory fish habitat, a Fish Passage Plan, Exemption, or Waiver will be required for the applicable crossing(s). In this case, HHRP will:

- Work with the design team to achieve compliance with fish passage laws;
- Coordinate with ODFW biologists regarding passage requirements and design;
- Prepare a Fish Passage Plan and submit to ODFW for approval;
- Include the approved Fish Passage Plan in the JPA submittal package;
- Work with the design team to ensure that the final project plans are consistent with the approved Fish Passage Plan.

Task 4.E Assumptions:

- This task will be completed for both streams
- Fish Passage Law requirements will be met via compliance with ODFW fish passage standards;
- Any in-water work will be completed during the ODFW in-water work window, as determined during coordination with ODFW.

Task 4.E Deliverable:

- Draft and Final Fish Passage Plan.

Task 5– Property Acquisition

A. Title Examination and Clearance

Upon NTP, Epic staff will order title reports for all 6 affected files. Epic has relationships with several local title companies, making ordering title reports and conducting follow up a streamlined process. Once title reports are received, Epic's in-house title reviewer will review all vestings and exceptions so that the Project Manager can communicate any potential title problems to HHPR and the City early.

Task 5A. Deliverables:

- Preliminary Title Reports
- Title Review Reports

B. Appraisal/Appraisal Review

Using the parcel information, Epic will send General Information Notices to all property owners from which the City will be acquiring property rights and start the appraisal process. Once a preliminary agreement has been reached with property owners, Epic will begin the appraisal process. Epic utilizes in-house appraisers, expediting the project timeline by eliminating the need to contract with a subcontractor. Epic ROW Agents will attend appraisal inspections with the appraiser so that rapport can be established between the ROW agent and the property owners early. During this time, the Epic Project Manager will coordinate services for a third-party appraisal reviewer. Once appraisals are completed, Epic will coordinate the appraisal review process for the City to establish Just Compensation for the properties.

Task 5B. Deliverables:

- Appraisals
- Appraisal Reviews
- Memorandum of Just Compensation for City Approval

C. Offers and Negotiation

While appraisals are being completed, Epic staff will work to draft offer packages and conveyance documents for the City's approval. By doing this, Epic ROW Agents will be prepared to immediately make offers as soon as the appraisal reviews are complete. Epic ROW Agents will attempt to meet with all property owners in person but will mail offers via Certified Mail if a face-to-face appointment is not scheduled within a week of offer preparation. As property owner issues and questions arise, the Project Manager will work closely with the City to obtain answers and solve problems in order to obtain property owner signatures.

Task 5C. Deliverables:

- Offer Package Preparation
- Present Written Purchase Offers
- Good Faith Negotiation Recommendations and Counteroffers
- Fair Settlement

D. Closing Files

Epic shall assist with closing activities while coordinating closing with the title company. Closing activities include clearing title, requesting title insurance on behalf of the City if directed, and closing all files. Ideally, these issues will be addressed early in the project, if they arise at all. Epic will work with HHPR's and the City's Project Managers and legal department early in case of any title concerns that could delay closing.

Task 5D. Deliverables:

- Completed Right-of-Way Files

Task 6 – Design Development

A. Roadway Alignment Analysis

The horizontal and vertical alignment of SE 362nd Avenue and Bell Street will be analyzed to provide the optimum configuration that minimizes impacts to sensitive environmental areas and habitat, impacts to private properties, earthwork quantities, retaining walls, and to provide safe vehicular and pedestrian traffic throughout the project corridor. The alignment of the segments where stream crossings exist will be carefully analyzed to minimize culvert and/or 3-sided bridge lengths and widths. We will provide an alignment that minimizes construction costs and accelerates construction to accommodate the limited in-water work period.

Task 6A. Deliverables:

- The roadway alignment analysis will be included in the Design Report submitted at the 30% review stage.

B. Storm Drainage Alternatives

Storm drainage management is a key component of the project and treatment and detention of the storm drain runoff throughout the project corridor will be required. The storm water will need to be collected, treated, and detained prior to discharge into one of the seasonal streams and/or wetlands, preferably through the use of biofiltration and infiltration. Storm drainage measures will need to be part of the permit applications.

Task 6B. Deliverables:

- Alternatives for storm drainage will be included in the Design Report submitted at the 30% review stage.
- Storm Drainage Report

C. Utility Extensions

Based on discussion with the City at the pre-proposal meeting that the only public utilities that may be extended thought the project corridor is a domestic water main. A new main would connect existing water mains at the existing Bell street terminus and Highway 26. This will be evaluated in more detail at the project's design inception.

Task 6C. Deliverables:

- The need for a water main extension will be included in the Design Report submitted at the 30% review stage.
- Plans and specifications will be provided as required as part of the construction documents submittals at 30%, 60% 90% and 100% stages.

D. Construction Documents

- Prepare preliminary (30%, 60%) and final (90%, 100% Final) project designs, drawings, and specifications based upon City of Sandy and ODOT Standards, including preparing supplemental general conditions and special provisions. Prepare engineers estimates and bid documents.

- Draft construction bid documents on behalf of the City. City's standard template and EJCDC General Conditions shall be utilized for creating the bid plan set. Sheets in the plan set shall include, but are not limited to:
 - Cover sheet and sheet index.
 - Existing condition plan.
 - Demolition plan.
 - Erosion control plan.
 - Roadway geometry plan.
 - Typical roadway sections including pavement sections.
 - Plan and profile views along roadway centerline with construction notes.
 - Intersection grading and details.
 - Detailed ADA ramp design at each intersection.
 - Plan, profile, and details for stormwater mains.
 - Plan and details for water quality/detention facilities.
 - Plan and details for creek crossing structures.
 - Retaining wall plan and profiles.
 - Water main plan and profile.
 - Landscape/irrigation plans.
 - Wetland mitigation plans.
 - Traffic signal plans.
 - Roadway illumination plan.
 - Signing/striping plan and details.
 - City and/or ODOT standard details.
 - General notes.

Task 6D. Deliverables:

- 30% Design
 - Preliminary plans or strip map
 - Design report
 - Determination of right-of-way needs
 - Schedule revised as needed to accommodate R/W acquisition phase

- Determination of easement needs
- Summary and cost of utility conflict resolution
- Preliminary reports and calculations as they progress
- 60% Design
 - Plan set, DWG and PDF
 - Cost estimate
 - Preliminary reports and calculations they progress
 - Design alternatives as they progress
 - Outline of specifications
- 90% Design
 - Plan set, DWG and PDF
 - Cost estimate
 - Specifications
 - Other bid documents
- 100% Final Design
 - All final documents, drawings, reports, calculations. DWG, PDF, DOC format as appropriate

E. City / ODOT Review of Construction Documents

The City and ODOT will be allowed 2 weeks to complete reviews of the 30%, 60%, 90% and final PS&E Packages. HHPR and DKS will meet with the City and ODOT to discuss comments from each submittal.

Task 6E. Deliverables:

- Completed comments logs addressing reviewing agencies comments with the 60%, 90% and final Submittal.

Task 7 – Construction Phase Services

A. Advertise for Bids

HHPR will assist the City with advertisement of the project. HHPR will prepare the advertisement and ensure the necessary organizations and job centers receive the bid documents.

Task 7A. Deliverables:

- Completed advertisement for bids to City and job centers.

B. Bid Assistance

HHPR will assist the City as required during the bidding process. This includes attending a pre-bid conference, answer contractor questions during the bid process, and issue addenda as required.

Task 7B. Deliverables:

- Completed log of questions and/or issues by contractor.

- Provide addenda to the City, potential bidders, and plan centers.

C. Bid Opening

HHPR will attend the bid opening at the City. All bids will be tabulated and checked for accuracy.

Task 7C. Deliverables:

- Completed log of questions and/or issues by contractor.
- Completed bid tabulation

D. Contract Award

Once a successful low bidder has been identified, HHPR will prepare Notice of award to Contractor. HHPR will schedule and attend a Pre-Construction Conference prior to commencement of work.

Task 7D. Deliverables:

- Notice of Award
- HHPR will prepare preconstruction conference agenda and meetings noted for distribution.

E. Construction Survey

HHPR will provide construction staking services to facilitate the construction of the proposed improvements. Consultant will coordinate with City and their selected contractor to provide industry standard staking to include, but not limited to, the following items:

- Survey control
- Erosion control measures
- Roadway centerline, curb, intersections, pedestrian ramps, and sidewalk
- Storm lines and structures, including creek crossing structures
- Waterline
- Retaining wall
- Traffic signal and roadway lighting
- Provide survey services for setting monumentation of centerline and new right-of-way.

Task 7E. Deliverables:

- HHPR will prepare and file a Post-Construction Survey with the Clackamas County Surveyor's Office in compliance with ORS 209.155.

F. Construction Management and Observation

The HHPR team will provide construction management and field observation as outlined below:

- Coordination with the Project Engineers: HHPR will work closely with the design engineer, City staff, and ODOT, and private property owners to ensure that what is constructed continues to meet the intent of the design.

- **Material Submittal and RFI Review:** HHPR will provide timely review and response For materials submittals RFI's and general construction issues that arise prior to, or during construction. HHPR takes this task as a priority as to ensure that construction is kept on schedule and that potential cost implication are minimized.
- **Change Order Review:** HHPRs' Project Manager/Engineer, Construction Manager and/or inspector will carefully review Change Order requests for need, validity and related costs. Ideally, unit prices from the contractor's bid can be extended to avoid change orders. However, if a change order is needed, establishing a fair cost for both the City and the Contractor, avoids potential claims.
- **Quality Observation:** Observing the methods of construction, quality of installation, and conformance with construction documents is a critical element to quality inspection. Equally important is adequate documentation of construction activities. HHPR inspectors take detailed daily notes of activities, personnel, and site conditions and maintain a photographic record of construction activities.
- **Quantity Verification and Pay Requests:** Each HHPR inspector is issued a set of inspection tools to be used for field verification of construction quantities. Getting accurate and detailed descriptions of quantities installed is critical in ensuring that the City is getting the product specified in the plans and the product they paid for. HHPR will provide recommendations for payment to the City's Project Manager.

It is assumed that this will include approximately 24 hours a week by the Field Inspector and 16 hours a week for construction manager over a period of six months. Additionally, approximately 2 hours a week for Project Engineers and geotechnical monitoring.

Task 7F. Deliverables:

- Change orders as needed for City approval.
- Formal RFI responses and/or work directives will be prepared for distribution.
- Monthly pay requests.
- Daily Inspection Reports
- Quantity and quality documents following completion of the project.
- HHPR inspector(s) will provide copy of plans showing construction modification for inclusion in as-built drawings.

G. Geotechnical Construction Management and Observation

The purpose of our geotechnical construction observation services is to support HHPR and the city if construction-related issues arise. We assume that the daily materials testing will be completed by others and that our role will be to address special geotechnical issues that arise during construction and to evaluate contractor-submitted requests for information (RFI). Lastly, give the soils conditions expected, additional field testing is anticipated associated with cement

amending to stabilize the subgrade, or incorporating cement amended subbase into the pavement section. To the extent requested by the construction team, our specific scope of services will include the following:

- Evaluate subgrade preparation after clearing/stripping/demolition and before placing fill material by either probing or observing proof rolling. Provide recommendations for the remediation of identified unsuitable areas or disturbed subgrade material.
- We assume that the evaluation of the placement and compaction of fill material will be completed by others, but GeoDesign may be asked to review results.
- We assume that the evaluation of trench bedding and backfill will be completed by others, but GeoDesign may be asked to review results.
- We assume that the evaluation of the placement and compaction of the aggregate base and asphalt concrete pavement will be completed by others, but GeoDesign may be asked to review results.
- We assume that the laboratory testing will be completed by others with the exception that some testing of cement amended soils will be requested as follows:
- Unconfined compression tests on the cement-amended soil will be performed during cement amendment. We have assumed up to one test per day that cement amendment is conducted, and a maximum of eight tests.
- Perform project management tasks, including reviewing field reports by others as well as email and telephone correspondence.
- Attend up to three project meetings at the site.
- Prepare field reports summarizing our observations following each site visit and provide copies to members of the design and construction teams as required. The number of site visit assumed are as follows:
- Prepare up to five correspondence items addressing construction activities, responding to requests for information, or providing summary letters for the project.

It is difficult to accurately estimate our time involvement with the project because it will depend on the rate at which construction proceeds, weather conditions, and number of site visits requested. For budgeting purposes, we made the following assumptions:

- Up to six part-time site visits will be requested. We assume that each part-time site visit (including travel, site time, and field report preparation) will require approximately five hours.
- Up to eight full-time site visits will be requested. We assume that each full-time site visit (including travel, site time, and field report preparation) will require approximately eleven hours.
- Active project management will be required over a period of approximately 12 weeks, with the average project management cost will be approximately \$400 per week.
- Up to five written correspondence can be issued for approximately \$550 (each).

H. Remediation Oversight (Contingency Task)

If the results of the Level II HMCS indicate that remedial activities will be required prior to or during construction, environmental observation and documentation will also likely be

required to minimize the likelihood of improper management of contaminated media and to document appropriate remedial activities. We anticipate that these activities will include the following:

- Field screen soil during earthwork to assist the earthwork contractor in the proper management, segregation, and disposal of soil. Soil field screening will include visual and olfactory indicators, headspace vapor screening using a hand-held photoionization detector, and water sheen testing.
- If required, collect waste characterization soil samples to evaluate disposal options or to confirm the limits of a remedial excavation and contaminated soil.
- Document the removal and final disposition (as appropriate) of contaminated soil exported from the project corridor.
- If required, collect confirmation soil samples from the limits of remedial excavations.
- Prepare and provide daily environmental field reports to project team members.
- Prepare a construction completion report that documents remedial actions conducted during project construction and media management.

Based on our experience at similar sites, we anticipate that GeoDesign will provide various levels of technical support and coordination during construction, including but not limited to participation in a project meeting, correspondence, and requests for information by project team members. The estimated costs assume no more than five 8-hour days of environmental field observation services will be required.

I. Final Notice of Acceptability of Work

HHPR construction manager, field inspector, and other appropriate team members will lead the initial project walk-through with the City, ODOT, and the Contractor. Based on their findings, HHPR will prepare a punchlist for required remedial work. Following completion of remedial work, a final walk-through be performed for punchlist verification. Following successful completion of all punchlist items, HHPR will prepare a final notice of acceptability and recommend project closeout.

Task 7I. Deliverables:

- Provide punchlist to City and Contractor
- Provide notice that the work is generally in accordance with the contract documents and recommend for or against final payment.

HHPR will provide the City with copies of all project files including record drawings.

Task 8 – Other Services as Directed by City (Contingency Task)

The purpose of this contingency task is to have an allowance fee for project components that have not been identified at the time of preparing this fee proposal. Having an allowance fee, whether it is utilized or not, provides benefit to the City as the HHPR team can provide immediate attention to unknown components without having to get City Council approval.

Harper Houf Peterson Righellis Inc.
Fee Schedule
Bell Street and SE 362nd Avenue Extension
March 10, 2020 (Revision #1)

	EPIC							AINW										TOTAL BY TASK	
	Project Manager	Senior ROW Agent	ROW Agent	Administrative Assistant	Budget and Financial Controls	Technician Support	Expenses	Subtotal	PIPM/Senior Archaeologist	Senior Architect Historian	Architect Historian	Supervising Archaeologist II	Supervising Archaeologist I	Staff Archaeologist	Graphics - GIS	Project Administration	Expenses		Subtotal
Task 1: Project Management																			
A. Notice to Proceed								\$ -											\$ -
B. Project Administration								\$ -											\$ -
C. Kick-off Meeting and Project Overview								\$ -											\$ -
D. Coordination Meetings								\$ -											\$ -
E. Public Involvement Meetings								\$ -											\$ -
F. Utility Coordination								\$ -											\$ -
Task 1: Project Management Subtotal								\$ -											\$ -
Task 2: Design Survey and Field Investigations																			
A. Topographic Survey, Preconstruction Survey, and Base Map Preparation								\$ -											\$ -
B. Right-of-Way Acquisition Legal Descriptions and Exhibits								\$ -											\$ -
C. Cultural Resource Survey								\$ -	17	15	68.5	94	32	40	15	10	\$406	\$ 28,561.13	
D. Geotechnical Investigation/Report, Pavement Analysis								\$ -											\$ -
E.1 Level I Hazardous Materials Corridor Study								\$ -											\$ -
Task 2: Design Survey and Field Investigations Subtotal								\$ -											\$ 28,561.13
Task 3: Traffic Engineering																			
A. Traffic Analysis								\$ -											\$ -
B. Traffic Signal Design								\$ -											\$ -
C. Permanent Signing/Striping Design								\$ -											\$ -
D. Illumination Design								\$ -											\$ -
E. ODOT Grant of Access / Roadway Approach Permit								\$ -											\$ -
Task 3: Traffic Engineering Subtotal								\$ -											\$ -
Task 4: Environmental Permitting																			
A. Wetland and Waters Delineation								\$ -											\$ -
B. Joint Permit Application								\$ -											\$ -
C. Creek Crossing Structures and Foundations								\$ -											\$ -
D. Flood, Slope, and Hazard Overlay Application (Type II Planning Commission)								\$ -											\$ -
Task 4: Environmental Permitting Subtotal								\$ -											\$ -
Task 5: Property Acquisition																			
A. Title Examination and Clearance	10		10		1	1	\$2,100.00	\$ 4,740.00											\$ -
B. Appraisal/Appraisal Review	10						\$34,200.00	\$ 35,650.00											\$ -
C. Offers and Negotiations	60	10	165	5	3		\$883.00	\$ 27,398.00											\$ -
D. Closing Files	10		15	5				\$ 3,275.00											\$ -
Task 5: Property Acquisition Subtotal								\$71,063.00											\$ -
Task 6: Design Development																			
A. Roadway Alignment Analysis								\$ -											\$ -
B. Storm Drainage Alternatives								\$ -											\$ -
1. Storm Drainage Report								\$ -											\$ -
C. Utility Extensions								\$ -											\$ -
D. Construction Documents								\$ -											\$ -
1. 30% Plan Set								\$ -											\$ -
2. 30% Design Report								\$ -											\$ -
3. 60% Plan Set								\$ -											\$ -
4. 60% Cost Estimate								\$ -											\$ -
5. 60% Specifications								\$ -											\$ -
6. 90% Plan Set								\$ -											\$ -
7. 90% Cost Estimate								\$ -											\$ -
8. 90% Specifications								\$ -											\$ -
9. 100% Plan Set								\$ -											\$ -
10. 100% Cost Estimate								\$ -											\$ -
11. 100% Specifications								\$ -											\$ -
E. City / ODOT Review of Construction Documents								\$ -											\$ -
Task 6: Design Development Subtotal								\$ -											\$ -
Task 7: Construction Phase Services																			
A. Advertise for Bids								\$ -											\$ -
B. Bid Assistance								\$ -											\$ -
C. Bid Opening								\$ -											\$ -
D. Contract Award								\$ -											\$ -
E. Construction Survey								\$ -											\$ -
F. Construction Management and Observation								\$ -											\$ -
G. Geotechnical Construction Management and Observation								\$ -											\$ -
I. Final Notice of Acceptability of Work								\$ -											\$ -
Task 7: Construction Phase Services Subtotal								\$ -											\$ -
	90	10	190	10	4	1	\$37,183.00		17	15	68.5	94	32	40	15	10	\$405.70		
Hourly Rate	\$145	\$135	\$95	\$80	\$130	\$110			\$190	\$140	\$93	\$93	\$80	\$74	\$93	\$81			

\$ 71,063.00

\$ 28,561.13

\$ 1,036,745.13 Total Base Contract

Contingency Tasks	Fee
2.C.1. SHPO Permit and Collecting Artifacts under Permit	\$8,913.60
2.E.2. Level II Hazardous Materials Corridor Study	\$34,438.00
2.E.3. Contaminated Media Management Plan	\$5,225.00
4.D.1 Level III Planning Commission Approval	\$3,160.00
4.E. Fish Passage Plan	\$5,280.00
7.H Remediation Oversight	\$16,085.00
8. Other Services as Directed	\$100,000.00
TOTAL Contingencies	\$173,101.60
BASE Contract	\$ 1,036,745.13
Total Base Contract plus Contingencies	\$1,209,846.73

EXHIBIT B

SCOPE OF WORK WATER MASTER PLAN UPDATE CITY OF SANDY

Introduction

This scope of work details services to be provided to the City of Sandy (City) by Murraysmith with sub-consultants Peterson Structural Engineers (PSE) and Shannon & Wilson, Inc. to complete a Water System Master Plan Update (WSMPU) which complies with Oregon Health Authority, OAR 333, Division 61 requirements for water master plans.

Scope of Services

Murraysmith (Consultant) will perform the following services.

Task 1 - Project Management

Provide overall management and coordination for the project, including the following subtasks:

Task 1.1 - Overall Project Management

Act as a manager of the project team, including all Subconsultants. Provide overall management and coordination for the project.

- Project meetings - schedule, prepare for, and conduct project kick-off meeting and up to three (3) additional meetings, as required, with City staff.
 - For estimating purposes, it is assumed all meetings will be held in Sandy. Two (2) Murraysmith project staff are assumed to be present at each meeting.
- Project schedule and budget management
- Quality control/quality assurance (QA/QC) of deliverables
- Project team communication and progress reporting
- Prepare and submit monthly invoices

Task 1.2 - Monthly Invoicing and Progress Reporting

Monitor project scope, schedule and budget on a monthly basis. Invoices will be submitted on a monthly basis to the City's project manager. Issues potentially affecting scope, schedule or budget will be identified.

Task 1.3 - Quality Assurance/Quality Control

The QA/QC process will include a check list that identifies who will be performing reviews and when these will be performed. It is anticipated redlined comments from the City will be addressed with plan revisions. QA/QC reviews will be conducted at all major deliverable milestones prior to submitting review packages to the City.

Task 2 – Data Collection and Review

Provide the City with a written data request, review items provided and request clarification of relevant details. Items requested are anticipated to include:

- Documentation of existing water facility locations, functions and key hydraulic parameters such as overflow elevations and level set points
- Current hydraulic model
- GIS-based water facility inventory (treatment facilities, reservoirs, pump stations, pipelines, source water connections, etc.)
- GIS-based parcel, topographic, road, stream and other base mapping data
- GIS-based zoning and land use data
- Existing planning documents related to water system facilities or anticipated growth within the utility service area, including, and previous water master plan(s).
- Water production and customer billing data
- Overview of current operating procedures and routine maintenance schedule

Task 3 – Water System Description

This task is intended to set the context for the subsequent water system analysis. The water system facilities will be described to include capacities and conditions. Anticipated facilities include, at a minimum:

- Current and future water service area description and boundary definition
- Existing and future service level boundary definitions

- Inventory of existing facilities (supply, reservoirs, pump stations, pressure reducing valves, transmission and distribution piping, and hydrants)

Task 4 – Analysis of Seismic Resiliency

Task 4.1 - Identification of Critical Water Supply Infrastructure

In collaboration with City staff, develop a map illustrating critical water supply facilities and customers. This mapping will include key water supply points, interties, reservoirs, and pump stations. In addition, this mapping will identify the major transmission and distribution piping backbone of the City’s water system. Critical water supply locations, such as hospitals, emergency shelters, anticipated emergency water supply distribution sites, and other essential facilities will be identified on the developed map.

Task 4.2 - Develop Level of Service Goals

Review level of service goals with City staff to develop a basis for analysis of water system performance under various conditions. It is anticipated that these goals will include desired supply availability (capacity and percent of distribution system) under various conditions: normal operation, minor unplanned disruption of one source, and a major seismic event.

Task 4.3 - Identification of Seismic Geohazards

Compile and review existing geologic/geotechnical and seismic data around the City of Sandy to develop preliminary understanding of subsurface conditions and potential seismic hazards. Information sources will include:

- Local and regional geologic publications and maps,
- DOGAMI Seismic Hazard Maps
- LiDar topographic images
- Available City and County’s geotechnical boring information and reports
- Foundation design drawings of the critical facilities of the City’s water system

Conduct a probabilistic seismic hazard assessment to evaluate the regional and local seismic hazard contribution, and potential earthquake sources and scenarios. Verify and update the regional seismic hazard maps. The maps will be adjusted and revised to identify potential soil liquefaction zones, seismic landslide zones, lateral spreading zones, and critical transition zones between non-liquefiable and liquefiable soils/rock. The results of this review and seismic evaluation will be documented in a seismic hazard technical memorandum.

Task 4.4 - Evaluate Pipeline Fragility

Identify pipes in areas subject to Geohazards such as strong ground shaking, liquefaction, and landslides, and assign the probability of occurrence for peak ground velocity and permanent ground deformation hazards to the water distribution system. Pipeline fragilities will be assigned using published guidelines given pipe material, age and assumed joint type.

For the purposes of this analysis, the fragility of backbone piping identified in Task 4.2 will be evaluated. Broader analysis of the full distribution system is beyond the scope of this assessment.

Task 4.5 - Develop Preliminary Assessment of Facility Risk

A preliminary assessment of seismic risk to City water system facilities, including pump stations and reservoirs, will be conducted based on documented data regarding the age and condition of these facilities. This preliminary assessment will not include site visits or detailed structural analysis. The purpose of this task is to prioritize future structural evaluations based on the highest anticipated risk due to construction methods and/or mapped geohazards.

Task 4.6 - Seismic Design Standards for New Construction

Present recommendations to be incorporated into the City's design standards for seismic resiliency of transmission and distribution piping, and piping connections to other water system facilities.

Task 4.7 - Seismic Resiliency Workshop

Conduct a workshop with City staff to review the various elements of the seismic resiliency evaluation. It is anticipated that this workshop will focus on defining further seismic resiliency study needs and confirming recommended improvements to be included in the CIP for this Water System Master Plan document.

Task 5 – Update Hydraulic Model

The existing EPANET hydraulic model will be updated and integrated into the City's ArcGIS 10.4 water system data. The model will be calibrated to fire hydrant flow test results in order to more accurately approximate observed operating conditions.

Task 5.1 – Model Update

Review and update existing City water system hydraulic model, including:

- perform database updates for compatibility with latest modeling software
- add water facilities constructed since the last model update

- verify physical water facility parameters, such as, pipe sizes and reservoir dimensions
- verify average operating parameters and seasonal variations, such as, reservoir level set points for pump stations

Task 5.2 – Develop Analysis Criteria

Develop capacity and performance criteria for evaluating source and distribution facilities including:

- Source capacity, redundancy, and quality
- Storage capacity
- Booster pumping capacity and redundancy
- Service pressure ranges under normal and emergency conditions
- Required fire flow capacity

Task 5.3 – Water Demand Projections and Fire Flow Assignment

Develop existing and projected future water demand geographic distributions in the hydraulic model based on existing City data.

Summarize current water capacity requirements based on available water production and customer billing data. Forecast future water requirements at 5, 10, 20, and 50 years, based on available land use information and current water use by customer type. Fifty-year projections are intended to inform long-range supply planning only. Review projected future water requirements for consistency with other City planning documents and anticipated development timelines for expansion and redevelopment areas.

Assign geographic fire flow demand distributions in the hydraulic model based on land use consistent with criteria developed in Task 5.2.

Task 5.4 - Fire Hydrant Flow Testing

Provide support, oversight, and flow testing equipment to conduct fire hydrant flow testing at approximately 20 locations throughout the Sandy distribution system.

Work under this task includes:

- Identifying optimal locations for model calibration flow testing and verify available drainage capacity with City staff
- Developing mapping and field data sheets

- Providing two staff and one field vehicle for flow testing
- Taking measurements during flow testing and compile results

It is assumed that the City will provide:

- Input on flow testing location selection and potential drainage issues
- Communication and notification of emergency responders, critical facilities and customers at the City's discretion
- One field vehicle and two City staff members with appropriate tools to operate hydrants
- Water system operating parameters within +/- five minutes of the time of each flow test including reservoir levels and WTP flow rate

Task 5.5 – Hydraulic Model Calibration

Perform model calibration, according to AWWA guidelines, using field measurements gathered in Task 5.4 to confirm accurate simulation of actual water system conditions to the extent possible with available operating data. Develop and document criteria for evaluating calibration confidence levels.

Task 6 – Distribution System Analysis

Apply analysis criteria and water requirements to evaluate water system performance. The water system will be evaluated under existing, projected 20-year, and build-out water demand conditions.

Task 6.1 – Distribution System Hydraulic Analysis

The existing water distribution piping will be analyzed using steady-state hydraulics under peak demand and fire flow conditions. Each demand condition will be evaluated against the pressure and velocity criteria developed in Task 5.2 using the calibrated hydraulic model developed in Task 5.5 to identify system deficiencies.

Task 6.2 – Storage and Pumping Capacity

Evaluate finished water storage and booster pumping capacity based on criteria established in Task 5.2 and requirements developed in Task 5.3.

Task 6.3 – Water Quality

Review and summarize water quality regulatory requirements and City compliance within the distribution system. Identify areas of concern, if any, for water quality compliance in the distribution system and describe conceptual-level improvement alternatives.

Task 6.4 – Capital Improvement Plan Development

Develop prioritized list of capital improvement projects to address deficiencies identified in analysis Tasks 6 and 8 and plan for future growth. The CIP will include estimated planning-level costs for each recommended project and suggested timeframe for construction. CIP projects will be illustrated on a water system map.

A second project list, the SDC list, will include the CIP information described above and a percent allocation of project costs to future customers to be used by the City in a system development charge (SDC) analysis which is outside of the scope of this project. SDC cost allocations to growth will be based on the City's adopted SDC methodology.

Task 7 – Not Used

Task 8 - Water Supply Analysis

The City of Sandy receives supplemental supply from the City of Portland through a connection to the Portland Water Bureau conduits transmitting water from the Bull Run watershed to Portland's distribution system. Portland is currently in the process of developing a water treatment plant (WTP), to be on-line by 2026. The City's supply connection is located upstream of the water treatment plant, meaning that the City connection point will receive untreated water. In order to address this issue, there are 3 options available to the City:

1. Relocate the connection point to downstream of the WTP.
2. Construct a treatment facility to treat water from the existing connection point.
3. Transmit the untreated water supply to the City's WTP.

Murraysmith will perform an analysis of these three alternatives, preparing conceptual design concepts; project cost estimates; and evaluating regulatory, monitoring, operational complexity and technical considerations. A preferred alternative will be identified along with a strategy to implement the selected approach.

Task 9 – Prepare Water System Master Plan Report

Prepare draft and final master plan documents to include addressing interim and final review comments from City staff, stakeholders, City Council, and Oregon Health Authority, Drinking Water Services (OHA-DWS).

Task 9.1 - Draft Document – Staff Review

Combine work products and findings from previous tasks into a cohesive water system master plan which meets Oregon Administrative Rule requirements for Water System Master Plans. The Plan is anticipated to include the following major chapters:

1. Introduction and Existing System
2. Water Requirements
3. Analysis Criteria
4. Seismic Resiliency
5. Water System Analysis
6. Flushing Program
7. Water Supply Alternatives Analysis
8. Capital Improvement Plan
9. Appendix

Draft reports will be in electronic format, except where requested by the City. If printed versions are required, up to 5 hard copies will be produced.

Task 9.2 - Draft Document – Public Review

Comments from City staff review will be incorporated into the draft document. A revised draft Water System Master Plan will be developed for use in public and policy maker review and approval.

Draft reports will be in electronic format, except where requested by the City. If printed versions are required, up to 8 hard copies will be produced.

Task 9.3 - OHA-DWS Plan Review

Coordinate delivery of draft plan to OHA-DWS for review including addressing review comments and follow-up correspondence, as required. The City will pay the OHA-DWS plan review fee.

Task 9.4 - Final Document

Prepare final document that incorporates all City (staff, stakeholder advisory committees, Planning Commission and City Council) and OHA-DWS review comments and submit to City staff.

Final reports will be in electronic format, except where requested by the City and OHA-DWS. If printed versions are required, up to 5 hard copies will be produced.

Task 9.5 - Presentations and Public Meetings

Murraysmith will prepare for and attend up to 4 public meetings including open houses, City Council work sessions or regular meetings, Planning Commission meetings, or other public meetings, as requested by the City.

Budget

Payment will be made at the Billing rates for personnel working directly on the project, which will be made at the Consultant's Hourly Rates, plus Direct Expenses incurred. Billing rates and Direct Expenses are as shown in the attached Schedule of Charges. Billing rates will be adjusted each calendar year. Subconsultants, when required by the Consultant, will be charged at actual costs plus a 10 percent fee to cover administration and overhead. Direct expenses will be paid at the rates shown in the table below.



2020 SCHEDULE OF CHARGES

Personnel:

Labor will be invoiced by staff classification at the following hourly rates, which are valid from January 1, 2020 through December 31, 2020. After this period, the rates are subject to adjustment.

<u>Billing Classifications</u>	<u>2020 Rates</u>	<u>Billing Classifications</u>	
Principal Engineer VI	\$270	Construction Manager VIII	\$227
Principal Engineer V	\$260	Construction Manager VII	\$219
Principal Engineer IV	\$250	Construction Manager VI	\$203
Principal Engineer III	\$239	Construction Manager V	\$188
Principal Engineer II	\$230	Construction Manager IV	\$178
Principal Engineer I	\$222	Construction Manager III	\$162
Professional Engineer IX	\$212	Construction Manager II	\$150
Engineering Designer IX	\$204	Construction Manager I	\$133
Professional Engineer VIII	\$202	Inspector VII	\$188
Engineering Designer VIII	\$193	Inspector VI	\$172
Professional Engineer VII	\$191	Inspector V	\$156
Engineering Designer VII	\$184	Inspector IV	\$145
Professional Engineer VI	\$182	Inspector III	\$129
Engineering Designer VI	\$175	Inspector II	\$117
Professional Engineer V	\$171	Inspector I	\$100
Engineering Designer V	\$164	Technician IV	\$155
Professional Engineer IV	\$161	Technician III	\$139
Engineering Designer IV	\$161	Technician II	\$120
Professional Engineer III	\$157	Technician I	\$101
Engineering Designer III	\$157	Administrative III	\$110
Engineering Designer II	\$143	Administrative II	\$101
Engineering Designer I	\$132	Administrative I	\$89

Project Expenses:

Expenses incurred that are directly attributable to the project will be invoiced at actual cost. These expenses include the following:

CADD Hardware/Software	\$18.00/hour
Modeling and GIS Hardware/Software	\$10.00/hour
Mileage	Then-current IRS Rate
Postage and Delivery Services	At Cost
Printing and Reproduction	At Cost
Travel, Lodging, and Subsistence	At Cost

Outside Services:

Outside technical, professional, and other services will be invoiced at actual cost-plus 10 percent to cover administration and overhead.

Water System Master Plan
City of Sandy
PROPOSED FEE ESTIMATE

	Principal Engineer IV	Principal Engineer III	Engineering Designer VIII	Professional Engineer III	Professional Engineer III	Technician IV	Admin. II	Hours	Labor	Subconsultants		Subconsultant Multiplier	Subconsultant Total with Markup	Expenses	GIS Units \$10/hr	Total
	\$250	\$239	\$193	\$157	\$157	\$155	\$101			Shannon & Wilson	PSE					
	Ginter	Scroggs	Springer	Im	Kosaka	Harjala	Pitts									
Task 1 - Project Management																
Task 1.1 - Overall Project Management	8	24					4	36	\$ 8,140			1.1	\$ -	\$ -	\$ -	\$ 8,140
Task 1.2 - Monthly Invoicing and Progress Reporting	4	12					24	40	\$ 6,292			1.1	\$ -	\$ -	\$ -	\$ 6,292
Task 1.3 - Quality Assurance/Quality Control	3	2	16					21	\$ 4,316			1.1	\$ -	\$ -	\$ -	\$ 4,316
Task 1 Subtotal	15	38	16	0	0	0	28	97	\$ 18,748	\$ -	\$ -		\$ -	\$ -	\$ -	\$ 18,748
Task 2 - Data Collection and Review																
Task 2.1 - Data Collection	2	4		10				16	\$ 3,026			1.1	\$ -	\$ -	\$ -	\$ 3,026
Task 2 Subtotal	2	4	0	10	0	0	0	16	\$ 3,026	\$ -	\$ -		\$ -	\$ -	\$ -	\$ 3,026
Task 3 - Existing System																
Task 3.1 - System Review	4	12	1	40		8		65	\$ 11,581			1.1	\$ -	\$ -	\$ 180	\$ 11,761
Task 3 Subtotal	4	12	1	40	0	8	0	65	\$ 11,581	\$ -	\$ -		\$ -	\$ -	\$ 180	\$ 11,761
Task 4 - Analysis of Seismic Resiliency																
Task 4.1 - Identification of Critical Water Supply Infrastructure	1	4	1	16		8		30	\$ 5,151			1.1	\$ -	\$ -	\$ -	\$ 5,151
Task 4.2 - Develop Level of Service Goals	2	2	1	8				13	\$ 2,427			1.1	\$ -	\$ -	\$ -	\$ 2,427
Task 4.3 - Identification of Seismic Geohazards	1	1	1	4		4		11	\$ 1,930	\$ 26,000		1.1	\$ 28,600	\$ -	\$ -	\$ 30,530
Task 4.4 - Evaluate Pipeline Fragility	1	4	1	2	20			28	\$ 4,853			1.1	\$ -	\$ -	\$ -	\$ 4,853
Task 4.5 - Develop Preliminary Assessment of Facility Risk	4	12		8				24	\$ 5,124	\$ 14,000		1.1	\$ 15,400	\$ -	\$ -	\$ 20,524
Task 4.6 - Seismic Design Standards for New Construction	2	2		8				12	\$ 2,234			1.1	\$ -	\$ -	\$ -	\$ 2,234
Task 4.7 - Seismic Resilience Workshop	4	8		10			2	24	\$ 4,684			1.1	\$ -	\$ 100	\$ -	\$ 4,784
Task 4 Subtotal	15	33	4	56	20	12	2	142	\$ 26,403	\$ 26,000	\$ 14,000		\$ 44,000	\$ 100	\$ -	\$ 70,503
Task 5 - Update Existing Hydraulic Model																
Task 5.1 - Model Update	2	2			54	2		60	\$ 9,766			1.1	\$ -	\$ -	\$ 540	\$ 10,306
Task 5.2 - Develop Analysis Criteria	2	8	1	16				27	\$ 5,117			1.1	\$ -	\$ -	\$ -	\$ 5,117
Task 5.3 - Water Demand and Fire Flow Assignment	2	8	2	40	24			76	\$ 12,846			1.1	\$ -	\$ -	\$ -	\$ 12,846
Task 5.4 - Fire Hydrant Flow Testing	1	1	2	20	24	4		52	\$ 8,403			1.1	\$ -	\$ 250	\$ -	\$ 8,653
Task 5.5 - Hydraulic Model Calibration	2	1		48				51	\$ 8,275			1.1	\$ -	\$ 50	\$ -	\$ 8,325
Task 5 Subtotal	9	20	5	76	150	6	0	266	\$ 44,407	\$ -	\$ -		\$ -	\$ 300	\$ 540	\$ 45,247
Task 6 - Distribution System Analysis and CIP Development																
Task 6.1 - Distribution System Hydraulic Analysis	2	4			54	4		64	\$ 10,554			1.1	\$ -	\$ -	\$ 580	\$ 11,134
Task 6.2 - Storage and Pumping Capacity	1	4	1	16				22	\$ 3,911			1.1	\$ -	\$ -	\$ -	\$ 3,911
Task 6.3 - Water Quality	6	4		8				18	\$ 3,712			1.1	\$ -	\$ -	\$ -	\$ 3,712
Task 6.4 - Capital Improvement Plan Development	8	6	1	30	8	8		61	\$ 10,833			1.1	\$ -	\$ 50	\$ -	\$ 10,883
Task 6 Subtotal	17	18	2	54	62	12	0	165	\$ 29,010	\$ -	\$ -		\$ -	\$ 50	\$ 580	\$ 29,640
Task 7 - Not Used																
Task 7 Subtotal	0	0	0	0	0	0	0	0	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	\$ -
Task 8 - Water Supply Analysis																
Task 8.1 - Water Supply Analysis	24	12		60	12	8		116	\$ 21,412			1.1	\$ -	\$ -	\$ 80	\$ 21,492
Task 8 Subtotal	24	12	0	60	12	8	0	116	\$ 21,412	\$ -	\$ -		\$ -	\$ -	\$ 80	\$ 21,492
Task 9 - Prepare Water System Master Plan Report																
Task 9.1 - Draft Document - Staff Review	2	16	1	40	8	8	10	85	\$ 14,303			1.1	\$ -	\$ 250	\$ -	\$ 14,553
Task 9.2 - Draft Document - Public Review	2	12	1	16	4	4	8	47	\$ 8,129			1.1	\$ -	\$ 250	\$ -	\$ 8,379
Task 9.3 - OHA-DWS Plan Review	1	4	1	4			1	11	\$ 2,128			1.1	\$ -	\$ 50	\$ -	\$ 2,178
Task 9.4 - Final Document	1	4		8	4	4	4	25	\$ 4,114			1.1	\$ -	\$ 500	\$ -	\$ 4,614
Task 9.5 - Presentations and Public Meetings	12	12		8	4	4	10	50	\$ 9,382			1.1	\$ -	\$ 100	\$ -	\$ 9,482
Task 9 Subtotal	18	48	3	76	20	20	33	218	\$ 38,056	\$ -	\$ -		\$ -	\$ 1,150	\$ -	\$ 39,206
TOTAL - ALL TASKS	104	185	31	372	264	66	63	1085	\$ 192,643	\$ 26,000	\$ 14,000		\$ 44,000	\$ 1,600	\$ 1,380	\$ 239,623

EXHIBIT C

Attachment A

Scope of Services

City of Sandy, Oregon

Wastewater Program, Collection System Design Services

The City of Sandy (City) is beginning a large program to address needed improvements in their wastewater collection, conveyance, and treatment system. The City is seeking to specific assistance to develop solutions regarding the needs in the City's collection system.

Leeway Engineering Solutions, LLC (LW) will provide the City with programmatic and design services related specifically to the collection system. The following phases outline the general scope of services that will be provided.

Phase 1. Project Management

Objective: Provide and perform project administration and management activities.

Activities: This phase includes technical and financial management, including the following::

- Track and manage LW's project scope, schedule, and budget
- Prepare monthly progress reports to be submitted with invoices. Monthly progress reports will include task level budget status.
- Monthly progress calls with the City

Deliverables: Progress updates, project status reports, variance reports, and monthly invoices

Assumptions: This phase assumes the following assumptions:

- Project duration of eight months
- Monthly check-in calls, 1 hour per call

Phase 2. Code Review and Revisions

Objective: Review City Code regarding City-mandated work on the collection system, including private laterals.

Activities: This phase includes the following activities:

- Present possible approaches for addressing I/I from private sources, including models being used by other communities (both nationally and in Oregon)
- Review City Code regarding City legal options
- Make recommendations regarding best approach for the City and associated needed Code revisions
- Presentation and workshop with City Council

Deliverables: Workshop presentation and minutes, Code revision recommendations

Phase 3. Collection System Predesign and Construction Contracting

Objective: Develop Predesign-level (30%) documents for the collection system rehabilitation in Basins 2 and 8 and provide guidance to the City regarding contracting options for the collection system construction work.

Activities: Tasks include:

- Clarifying City, City consultants, and DEQ WW program regarding schedule requirements and I/I targets
- Develop Basins 2 and 8 collection system design up to 30% level, including extent of private source I/I work and rehabilitation technologies
- Development of 3 contracting options based on recommended with their individual benefits and drawbacks
- Contractor outreach to determine availability for contracting options
- Develop draft public outreach plan regarding private source I/I work
- Participation at 1 predesign public meeting regarding impact to property owners in Basins 2 and 8
- TM and presentation to the City regarding recommended contracting option

Deliverables: Deliverables developed under this phase shall include:

- Deliverables as required by DEQ
- Public Outreach Plan
- 30% Plans, Specifications (Table of Contents), and Engineer's Estimate (PSE)

Assumptions: This phase assumes the following:

- City to provide all CCTV of the sewer mains in Basins 2 and 8
- Pump station work will not be included as part of the project
- City Operations staff to assist with all field inspections (e.g., site visits, manhole inspections) and provide all traffic control
- No survey or geotechnical investigations will be conducted during predesign phase
- City to implement public outreach plan, including individual notifications to homeowners

Phase 4. Collection System Detailed Design

Objective: To develop detailed design for the collection system through any contracting option (design-bid-build, CM/GC, or Design-Build).

Activities: Tasks include:

- Development of 60%, 90%, and Final PSE for Basins 2 and 8 collection system work
- Identify easements needed to complete the project
- Provide assistance obtaining easements, including Metes and Bounds surveys, valuations, and legal descriptions
- Participation in a final design public meeting

Deliverables: Deliverables developed under this phase shall include:

- 60%, 90%, and Final PSE

Assumptions: This phase assumes the following:

- City to obtain any temporary construction and permanent easements needed for the project
- 6 TCE's or PE's required
- City to contract directly with topographic survey and geotechnical firms; assume topographic survey of 30% of the project area, utility survey of 50% of the project area, and 12 geotechnical borings
- City to implement public outreach plan, including individual notifications to homeowners

Phase 5. Services During Bidding and Construction

Objective: Provide services during bidding and construction of the collection system construction project.

Activities: Tasks include:

- Provide construction management for the collection system project, including preparing agendas, reviewing and approving pay requests, reviewing and approving change orders and field work directives, conducting a general preconstruction meeting and regular progress meetings, review of construction contractor's payroll to ensure compliance with prevailing wage rates, coordinating public engagement efforts, and coordinating with the construction contractor the development of Record Drawings.
- Monitor construction schedule and construction milestones.
- Provide daily inspection and documentation of construction, including enforcing City-requirements for the construction contractor to maintain daily logs.
- Performing City-related project management services such as invoice review and schedule management.
- Review and approval of shop drawings, product data, and other submittals.
- Monitor and observe the testing and start-up of all systems and equipment and review test reports.
- Complete the final close-out of each construction project, including gathering all required approvals; obtaining all warranties, guarantees, bonds, manuals, and insurance certificates; obtaining all affidavits, waivers, and releases; analyzing all claims; representing the City at all meetings and inspections; and providing certificates of Substantial and Final Completion

Deliverables: Deliverables developed under this phase shall include:

- Construction management templates and completed forms
- All other construction-related documents referenced in the above activities

Level of Effort Estimate

LW proposes to complete this work as detailed above on a time and expenses basis summarized on the attached Level of Effort estimate. This “not-to-exceed” amount is based on this scope of work and will not be exceeded without approval and written authorization by the City.

**WASTEWATER PROGRAM, COLLECTION SYSTEM DESIGN SERVICES
CITY OF SANDY, OREGON
PROPOSED LEVEL OF EFFORT***

	LEEWAY ENGINEERING SOLUTIONS LABOR CLASSIFICATION (HOURS)				Estimated Fees		Subconsultant Multiplier	Subconsultant Total with Markup	Expenses	Total
	Principal Engineer	Project / Construction Manager	Staff Engineer / Inspector	Hours	Labor	Subconsultants i-Ten (CADD)				
	\$205.00	\$161.00	\$98.00							
Phase 1 - Project Management	24	16		40	\$ 7,496		1.05	\$ -	\$ 193	\$ 7,689
Phase 1 Subtotal	24	16	0	40	\$ 7,496	\$ -		\$ -	\$ 193	\$ 7,689
Phase 2 - Code Review and Revisions	16	24		40	\$ 7,144		1.05	\$ -	\$ 64	\$ 7,208
Phase 2 Subtotal	16	24	0	40	\$ 7,144	\$ -		\$ -	\$ 64	\$ 7,208
Phase 3 - Collection System Predesign and Contracting Options	32	50	96	178	\$ 24,018	\$ 8,000	1.05	\$ 8,400	\$ 52	\$ 32,470
Phase 3 Subtotal	32	50	96	178	\$ 24,018	\$ 8,000		\$ 8,400	\$ 52	\$ 32,470
Phase 4 - Collection System Detailed Design	68	84	120	272	\$ 39,224	\$ 12,000	1.05	\$ 12,600	\$ 129	\$ 51,953
Phase 4 Subtotal	68	84	120	272	\$ 39,224	\$ 12,000		\$ 12,600	\$ 129	\$ 51,953
Phase 5 - Construction Phase Services (NOT INCLUDED)				0	\$ -		1.05	\$ -	\$ -	\$ -
Phase 5 Subtotal	0	0	0	0	\$ -	\$ -		\$ -	\$ -	\$ -
TOTAL - ALL PHASES	140	174	216	530	\$ 77,882	\$ 20,000		\$ 21,000	\$ 438	\$ 99,320

*Hours per phase are approximate. The Level of Effort Estimate indicates billing rates and approximate distribution of work across labor classifications. Leeway will track and provide the City with monthly updates. Leeway will not exceed the total budget without written City authorization.

EXHIBIT D

Attachment A

Scope of Services

City of Sandy, Oregon

Owner's Representative, Wastewater Program Support

The City of Sandy (City) is beginning a large program to address needed improvements in their wastewater collection, conveyance, and treatment system. The City is seeking to retain an Owner's Representative (ORep) to assist with the wastewater program.

Leeway Engineering Solutions, LLC (LW) will provide ORep services to the City. The ORep will coordinate all Project matters. The scope of work will be limited to the actual services performed as approved by the City under the contract limit. The following scope of services are generally anticipated.

Phase 1. Program Management and Consultant Management

Objective: Provide and perform program administration and management activities, and provide consultant management on the City's behalf.

Activities: This phase includes technical and financial management, including the following::

- Track and manage LW's project scope, schedule, and budget
- Prepare monthly progress reports to be submitted with invoices. Monthly progress reports will include task level budget status.
- Monthly progress calls with the City
- Provide consultant project management on behalf of the City, including providing monthly reports of each consultant project reporting budget and progress status, change management, and work in progress.
- Review invoices from City consultants and develop variance reports.

Deliverables: Progress updates, project status reports, variance reports, and monthly invoices

Assumptions: This phase assumes the following assumptions:

- Project duration of eight months
- Monthly check-in calls, 1 hour per call

Phase 2. WW Program Workplan

Objective: Review all WW Program background data, develop a Program workplan, and maintain an overall Program Schedule with integrated individual projects.

Activities: This phase includes the following activities:

- A kickoff meeting to formalize the Program Schedule and coordinate and track individual project schedules that will be integrated into the overall program.
- Update schedule on a quarterly basis

- Coordinate with the City to prepare long-term cash flow projects and assist the City and City consultants with the development of a funding strategy
- Develop and keep current a programmatic org chart and develop a Roles and Responsibility Matrix.
- Develop a document maintenance system
- Coordinate with other City consultants and provide a 30-day look ahead task schedule for each project and on a continuous basis
- Identify opportunities for immediate (summer 2020) implementation

Deliverables: Program charter, master schedule, org chart and roles/responsibility matrix

Assumptions: This phase assumes the following assumptions:

- One 2-hour workshop will be held to review the master schedule with City staff and other consultants (as invited by the City).

Phase 3. DEQ MAO Renegotiation and CWSRF support

Objective: Provide assistance renegotiating the DEQ Mutual Agreement and Order.

Activities: Tasks include:

- Coordination with City and City-consultant staff
- Providing technical justification for schedule and scope changes
- Attendance at DEQ negotiation meetings
- Document technical approaches to renegotiating MAO
- Provide Clean Water State Revolving Fund (CWSRF) loan application support

Deliverables: Deliverables developed under this phase shall include:

- Deliverables as required by DEQ
- SRF Exhibits, as required

Assumptions: This phase assumes the following assumptions:

- Access to other City-consultants

Phase 4. City Meetings

Objective: Participation and support for WW Program-related City meetings.

Activities: Tasks include:

- Participation and support for City meetings with other consultants and contractors.
- Coordination and technical support for public or other 3rd party stakeholder meetings.
- Easement acquisition strategy meetings
- Participation at City Council work sessions and meetings

Deliverables: Deliverables developed under this phase shall include:

- Meeting agendas and minutes for all meetings

Phase 5. Technical Support

Objective: Provide required technical and bidding support for the WW Program.

Activities: Tasks include:

- Developing flow monitoring installation, maintenance, and data review Standard Operating Procedures (SOPs)
- Conduct flow monitoring data analysis and determine need for additional modeling calibration and updates
- Identify opportunities for alternate delivery contracting
- Provide assistance to the City on development of Requests for Proposals and selection of consultants or alternative delivery teams
- Review and provide independent comment on all technical reports, drawings, and specifications for each project, as they prepared by other City consultants
- Advise the City if construction cost estimates exceed the latest approved budget. In consultation with the City consultants, provide value engineering and recommending alternative solutions that reduce City costs
- Provide recommendations for value-based requirements, such as prequalification of contractors or early materials/equipment procurement
- Conduct outreach to consultants and contractors to encourage competition and highest value to the City
- Act as the City's representative in coordinating and assisting the City consultants in preparation of bid documents
- Provide bid assistance to the City, including coordinating the bidding process, participating in pre-bid conferences, review bids and make recommendations for award, and assist with contracting requirements such as insurance, bonds, and other financial and legal requirements.

Deliverables: Deliverables developed under this phase shall include:

- SOPs
- Flow data analysis findings
- Review comment logs
- Technical memorandums regarding contracting, alternative delivery, bidding

Phase 6. Services During Construction

Objective: Provide services during construction of the wastewater program construction projects.

Activities: Tasks include:

- Provide construction management for the wastewater treatment improvement projects, including preparing agendas, reviewing and approving pay requests, reviewing and approving change orders and field work directives, conducting a general preconstruction meeting and regular progress meetings, review of construction contractor's payroll to ensure compliance with prevailing wage rates, coordinating public engagement efforts, and coordinating with the construction contractor the development of Record Drawings.

- Monitor construction schedule and construction milestones.
- Provide daily inspection and documentation of construction, including enforcing City-requirements for the construction contractor to maintain daily logs.
- Coordination with the City's design consultant(s), including performing City-related project management services such as invoice review and schedule management.
- Coordinate with the City's design consultant(s) for review and approval of shop drawings, product data, and other submittals.
- In conjunction with the City's design consultant(s), monitor and observe the testing and start-up of all systems and equipment and review test reports.
- Complete the final close-out of each construction project, including gathering all required approvals; obtaining all warranties, guarantees, bonds, manuals, and insurance certificates; obtaining all affidavits, waivers, and releases; analyzing all claims; representing the City at all meetings and inspections; and providing certificates of Substantial and Final Completion

Deliverables: Deliverables developed under this phase shall include:

- Construction management templates and completed forms
- All other construction-related documents referenced in the above activities

Level of Effort Estimate

LW proposes to complete this work as detailed above on a time and expenses basis summarized on the attached Level of Effort estimate. This "not-to-exceed" amount is based on this scope of work and will not be exceeded without approval and written authorization by WES.

**WASTEWATER PROGRAM, OWNER'S REPRESENTATIVE SERVICES (2020)
CITY OF SANDY, OREGON
PROPOSED LEVEL OF EFFORT***

	LEEWAY ENGINEERING SOLUTIONS LABOR CLASSIFICATION (HOURS)				Estimated Fees			
	Principal Engineer \$205.00	Project / Construction Manager \$161.00	Project Engineer / Field Supervisor \$146.00	Staff Engineer / Inspector \$98.00	Hours	Labor	Expenses	Total
Phase 1 - Program Management and Consultant Management	40	20			60	\$ 11,420	\$ 193	\$ 11,613
Phase 1 Subtotal	40	20	0	0	60	\$ 11,420	\$ 193	\$ 11,613
Phase 2 - WW Program Workplan	32	20			52	\$ 9,780	\$ 64	\$ 9,844
Phase 2 Subtotal	32	20	0	0	52	\$ 9,780	\$ 64	\$ 9,844
Phase 3 - DEQ MAO Renegotiation and CWSRF Support	40	14			54	\$ 10,454	\$ 52	\$ 10,506
Phase 3 Subtotal	40	14	0	0	54	\$ 10,454	\$ 52	\$ 10,506
Phase 4 - City Meetings	40	20		36	96	\$ 14,948	\$ 129	\$ 15,077
Phase 4 Subtotal	40	20	0	36	96	\$ 14,948	\$ 129	\$ 15,077
Phase 5 - Technical Support	160	80	20	40	300	\$ 52,520	\$ 193	\$ 52,713
Phase 5 Subtotal	160	80	20	40	300	\$ 52,520	\$ 193	\$ 52,713
Phase 6 - Construction Phase Services (NOT INCLUDED)					0	\$ -	\$ -	\$ -
Task 6 Subtotal	0	0	0	0	0	\$ -	\$ -	\$ -
TOTAL - ALL PHASES	312	154	20	76	562	\$ 99,122	\$ 631	\$ 99,753

*Hours per phase are approximate. The Level of Effort Estimate indicates billing rates and approximate distribution of work across labor classifications. Leeway will track and provide the City will monthly updates. Leeway will not exceed the total budget without written City authorization.



Staff Report

Meeting Date: March 23, 2020

From Kelly O'Neill, Development Services Director

SUBJECT: 38888 Pioneer Blvd Loading Zone Hold Harmless Agreement

Background:

The city has been working with the planned tenant and property owner at 38888 Pioneer Blvd to establish a child care facility (Grandma's House). The tenant would like to use Strauss Avenue for a loading zone for the day care which requires city and council approval. The attached hold harmless agreement outlines the standards and considerations for the use of the right of way for the loading zone.

Recommendation:

Authorize the City Manager to execute the Grandma's House Loading Zone Hold Harmless Agreement.

Grandma's House Loading Zone Hold Harmless Agreement

The parties to this Agreement (the "Parties" or a "Party") are:

- Gary A. Lamb Trustee ("Owners")
- Julie Littlepage ("Tenant")
- The Sandy Urban Renewal Agency ("SURA") and the City of Sandy, Oregon ("City")

For good and valuable consideration, the Parties enter into this Agreement on the Effective Date defined below.

RECITALS

- A. The Owners own property located at 38888 Pioneer Blvd. in Sandy, Oregon ("the Property"). The Property is improved and includes a building. A day care facility, Grandma's House (the "Day Care"), is proposed to operate within the building.
- B. Tenant leases the building from Owners and Tenant owns and operates the Day Care.
- C. Tenant wants to use the public right-of-way of Strauss Avenue for a loading zone for the Day Care.
- D. The City wants to set standards for use of the Strauss Avenue right-of-way prior to the loading zone being permitted.
- E. The Owner and Tenant acknowledge and accept that City may in the future make improvements to Strauss Avenue that would limit or eliminate the loading zone. City will notify Owner and Tenant at least 180 days in advance of any right-of-way improvements that would limit or eliminate the loading zone.

AGREEMENT

1. Loading Zone on Strauss Avenue. Beginning on the Effective Date of this Agreement, City will permit a loading zone on Strauss Avenue if the Owners and Tenant meet the following requirements:
 - 1.1. Install a landing at the building entrance on Strauss Avenue and a ADA compliant path to the sidewalk on Pioneer Blvd., cost covered by SURA.
 - 1.2. Install required bathroom fixtures after obtaining a building permit and plumbing permit from the City.
 - 1.3. Install other building and site requirements per the City Building Official and per the State of Oregon childcare licensing requirements.
 - 1.4. Submit proof of licensing from the State of Oregon to the City.
 - 1.5. Obtain business license from the City.
2. Loading Zone Area. Owners and Tenant shall maintain adequate queuing distance for the loading zone, which includes not blocking the crosswalk at Strauss Avenue and Pioneer Blvd., not blocking travel on Pioneer Blvd., and providing area for motorists to maneuver around the loading zone on Strauss Avenue.
3. Facade Grant and Public Infrastructure assistance from the Sandy Urban Renewal Agency. Owners and Tenant may utilize facade grant funding as detailed in the facade grant program as previously approved by SURA". Transfer of the grant dollars to the Owner or Tenant will occur in accordance with SURA's procedures regarding such transfers. SURA will hire the contractor and pay for the

landing and ADA compliant path on Strauss Avenue. Owner or Tenant may request additional grant dollars from SURA in accordance with SURA's procedures regarding such requests.

4. Future Improvements to Strauss Avenue Right-of-Way. A portion of the loading area and other improvements City authorizes in this Agreement are within public right-of-way. The City may in the future decide to make improvements to Strauss Avenue that would limit or potentially eliminate the portion of the loading area within the Strauss Avenue right-of-way. Before making any such improvements, the City will give Owner and Tenant at least 180 days prior written notice of the improvements and the effect the improvements will have on the loading zone. City will attempt to incorporate the loading zone into any such improvements to Strauss Avenue in order to minimize the impact the improvements will have on the loading zone.
5. Indemnity. Owners and Tenant acknowledge that City is willing to allow a loading zone in the Strauss Avenue right-of-way. Owners and Tenant acknowledge that City is making no representation or warranty that the loading zone in Strauss Avenue is safe. In addition to Owners and Tenant acknowledging they are proceeding at their sole risk and sole liability with respect to using Strauss Avenue as a loading zone, Owners and Tenant, jointly and severally, will indemnify, defend and hold harmless City and SURA and their officials, employees, agents and insurers from and against all claims, actions, liability, damages, settlements, losses, costs, or expenses (including attorney fees and other costs of defense) in connection with any action, suit, or claim arising out of, related to or resulting from (or allegedly arising out of, related to or resulting from) use of Strauss Avenue for a loading zone. This acceptance of risk, assumption of liability and duty to indemnify, defend and hold harmless City and SURA is to be broadly construed and survives a breach of this Agreement by Owners or Tenant.
6. Independent Examination. The Parties represent and warrant that each has relied upon their own independent judgment, belief and knowledge in entering into this Agreement and that they have obtained (or have had the opportunity to obtain) whatever advice and consultations they deemed necessary in this matter, including legal advice, prior to signing this Agreement.
7. Capacity. The individuals executing this Agreement on behalf of their respective Party each represent and warrant that they have the full authority to bind their respective Party to this Agreement and the rights and obligations contained within it.
8. Third-Party Beneficiaries. SURA is an intended third-party beneficiary of this Agreement. No other person or entity is a third-party beneficiary of this Agreement and there are no other parties to this Agreement except the Owners, the Tenant and the City.
9. Waiver. A waiver of any provision of this Agreement will be effective only if it is made in writing and signed by the waiving Party. The failure of any Party to require the performance of any term or condition of this Agreement, or the waiver by any Party of any breach of this Agreement, shall not prevent any subsequent enforcement of such term or obligation or be deemed a waiver of any subsequent breach.

10. Recitals. The recitals listed above are made a part of this Agreement.
11. Governing Law and Venue. Oregon law governs this Agreement without respect to conflict of laws principles. The Parties submit to the exclusive jurisdiction of the Clackamas County Circuit Court and agree that any legal action or proceeding relating to this Agreement must be brought in that court.
12. Construction. The negotiation of this Agreement has been undertaken by all of the Parties. Therefore, this Agreement will be deemed to have been drafted jointly by all of the Parties with no presumption in favor of one Party over another in the event of any ambiguity.
13. Effective Date. This Agreement is effective when all the Parties have signed it. The date indicated under the signature of the last Party to sign it will be deemed the date of this Agreement (the "Effective Date").
14. Entire Agreement. This Agreement represents the entire agreement between the Parties and the terms and conditions contained in it are contractual. The Agreement is binding on the heirs, representatives, successors and assigns of the Parties.

[SIGNATURES ON FOLLOWING PAGE]

For Owners:

Name

Title

Date

For Tenant:

Name

Title

Date

For City:

Name

Title

Date

DRAFT