



## RESOLUTION No. 2016-3260

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**A RESOLUTION TO AUTHORIZE THE CITY MANAGER PRO TEM TO ENTER INTO A PROFESSIONAL SERVICES AGREEMENT AMENDMENT WITH MURRAY SMITH AND ASSOCIATES TO PROVIDE ADDITIONAL DESIGN SERVICES FOR THE CITY'S VILLA ROAD IMPROVEMENT PROJECT IN THE AMOUNT OF \$297,555.00.**

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### RECITALS:

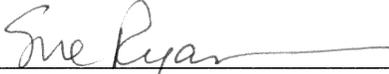
1. The City of Newberg's current transportation master plan identifies the Villa Road design and construction improvements as a capacity improving project. The stormwater master plan identifies improvements necessary for the two culverts that cross Villa Road.
2. The road improvements will provide significant mobility and safety improvements for pedestrians, bicycles, and vehicles. The culvert improvements will provide increased capacity necessary to convey storm events.
3. City Council authorized the initial contract for Murray Smith and Associates of \$520,938.00 per Resolution No. 2015-3197.
4. This amendment provides for design and construction services for two phases of construction.
5. Detailed scope changes and additions are outlined in Exhibit "A" and by this reference incorporated.

### THE CITY OF NEWBERG RESOLVES AS FOLLOWS:

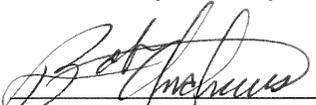
1. The City Council, acting as contract review board for the City, does hereby authorize the City Manager Pro Tem to enter into a Professional Services Agreement Amendment with Murray Smith and Associates to complete the City's Villa Road Improvement Project that includes the additional engineering design, bid and construction phase services in the amount of \$297,555.00.
2. The City Manager is authorized to amend the Professional Services Agreement up to ten (10) percent of the amended contract amount.

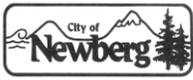
➤ **EFFECTIVE DATE** of this resolution is the day after the adoption date, which is: April 19, 2016.

**ADOPTED** by the City Council of the City of Newberg, Oregon, this 18<sup>th</sup> day of April, 2016.

  
Sue Ryan, City Recorder

**ATTEST** by the Mayor this 21<sup>st</sup> day of April, 2016.

  
Bob Andrews, Mayor



CITY OF NEWBERG

Resolution 2016-3260  
Exhibit A

Public Works Department  
Engineering Division  
414 E. First St. P.O. Box 970  
Newberg, OR 97132  
503.537.1240 Fax:503.537.1277

### CONSULTANT AMENDMENT

#### DESIGN CONSULTANT AMENDMENT

<b>Project Name:</b>	<b>Villa Road Improvement Project</b>		
<b>Project Funding Account #:</b>	<b>18-5150-702163</b>	<b>Date: 04/18/16</b>	
	<b>04-5150-717763</b>		
<b>Firm /Contractor: Murray Smith &amp; Associates</b>	<b>Amendment No. 1</b>		

This amendment separates the project into two distinct phases, with separate bid documents and associated construction schedules, adds bid support, and construction support services to complete the construction of the Villa Road Improvements. The updated scope, fee, and schedule is outlined in Attachment "A".

Contract Amendment No.	DATE OF APPROVAL = (date signed by City Manager)		
	Project Funding Account #	Council Resolution Approval	Task Order Contract Amount
1	18-5150-702163 04-5150-717763	#2016-3260	\$297,555.00

The City Council approved the original contract for \$520,938.00 per resolution #2015-3197. City Council authorized the City Manager to sign amendment #1 to provide design, bid and construction services per resolution #2016-3260 for an amount of \$297,555.00. This amendment brings the total contract amount to \$818,493.00.

Contract Time			
<b>Notice To Proceed Date</b>	<b>5/2/2016</b>	<b>Completion Date</b>	<b>12/31/2017</b>

**CITY OF NEWBERG**

**Murray, Smith & Associates, Inc.**

Prepared by: \_\_\_\_\_  
Project Manager Date

Accepted by: \_\_\_\_\_  
Please Print Date

Approved by: \_\_\_\_\_  
City Engineer Date

Signature: \_\_\_\_\_

\_\_\_\_\_  
Public Works Director Date

Title: \_\_\_\_\_

\_\_\_\_\_  
City Manager Date

**Amendment No. 1 to the  
Scope of Work Design Engineering Services for:**

City of Newberg | Project No. 702163  
Villa Road Improvements Design | Haworth to Crestview Project  
Yamhill County, Oregon

This amendment updates the previously approved Scope of Work. The format to identify alterations to the original document are as follows:

- Shaded font identifies original scope language that remains unchanged.
- ~~Strikethrough shaded font~~ identifies deleted original scope language.
- Standard font identifies added scope language.

## PROJECT BACKGROUND

The City of Newberg is located approximately 24 miles southwest of Portland, on the northeast side of Yamhill County, Oregon. Three State routes, namely Highway 99W, 219 and 240, weave through a network of City and County roads. Villa Road runs north/south between Highway 99 and Mountainview Road and is one of the City's major collector streets. This design and construction project is for improvements on Villa Road between Crestview Dr. and Haworth Ave. The total length of roadway to be improved is approximately 2,300 feet of two-way roadway with no bike lane, curb or sidewalks, and poor pavement condition.

The City's goal for the new typical roadway cross-section width is 55 feet. This includes two 11 foot travel lanes, two 6 foot bike lanes, two 5.5 foot landscaped stormwater planter strips (including curb) and two 5 foot sidewalks on both sides of the road each. A minimum 1 foot buffer is provided to the right-of-way for a minimum right-of-way width of 57 feet. The primary exceptions to this typical section will be between Haworth Avenue and North Carol Avenue due to narrow existing right-of-way and the crossing under the railroad trestle due to narrower clearance between the existing trestle superstructure.

Stormwater management techniques to capture, treat and store runoff originating from roadway within narrow right-of-way corridors presents unique design challenges. Narrow right-of-way prevents the use of curb tight stormwater planters that can manage stormwater near its point of origination. This creates conditions for regional management facilities since stormwater runoff must be sent downstream for treatment and detention.

The road alignment goes under a railroad bridge and crosses culverts at Hess Creek's main channel and a smaller tributary named the East Fork. Both of these culvert crossings will require replacement and modification under current State statutes to meet fish passage requirements.

## PURPOSE OF PROJECT

This project will widen Villa Road in accordance with the City's *Transportation System Plan* (June 2005) to accommodate two major collector standard travel lanes, bicycle lanes and sidewalk(s) between Haworth Avenue and Crestview Drive.

## THE SCOPE OF WORK

The project will be phased as shown in *Figure A* at the end of this document. Due to the availability of funding and schedule requirements associated with environmental permitting and utility relocations, two separate design packages and construction contracts will be completed. The project will be phased as follows:

- Phase 1 – Culvert replacements at Hess Creek and East Fork (2016)
- Phase 2 – Haworth Avenue to Park Lane (2017)
- Phase 3 – Park Lane to Crestview Drive (Unknown future date)

Phase 1 shall apply to the tasks necessary to achieve completion of the existing Hess Creek and East Fork culverts in 2016. Phase 2 improvements from Haworth Avenue to Park Lane will be completed in 2017 as a separate project. A timeline for Phase 3 improvements is not yet established and will be dependent on future funding. In general, Phase 2 shall include preliminary through final design, while Phase 3 shall include preliminary through 30% design. Where not specifically delineated in this Scope of Work (SOW), each task contained herein shall apply towards all three phases.

Funding for this project comes from local funds. No state or federal funds will be used. This SOW addresses the services for preliminary through final design and bid award support. Construction contract administration services (noted as *Deferred Task*) are not currently part of the proposed scope of work and have been included for discussion/check-in purposes only.

Following agreement with the City on the overall scope of services, the Consultant shall develop a fee consistent with the confirmed scope for these tasks for review and approval. Contingency Tasks noted within shall require a separate notice to proceed from the City's project manager prior to beginning work on those tasks.

Unless specifically noted under each task, all deliverables shall be provided in electronic format.

## CITY RESPONSIBILITIES

The City of Newberg will be responsible for the following tasks and activities:

- Task 1 - Project Management
  - Provide a Project Manager/Engineer responsible for the overall project management and coordination between the Consultant and the City, and with any of the City's other service providers.
  - Coordinate communication among City staff and provide a unified guidance/direction to the Consultant.

- Ensure that City staff members provide timely responses to questions, and be available for any meetings requested by the Consultant. Meetings between City staff and the Consultant take place at the Newberg City Hall Building.
- Review and process Consultant's monthly payment requests.
- Negotiate any contract amendments, as needed.
- Task 2 - Survey
  - Provide landowner, business owner and/or tenant contact information to MSA in spreadsheet format (owner name, tenant name, business name, site address, mailing addresses for each party, tax lot id, and other pertinent contact info obtained).
  - Provide available as-built information, utility mapping, existing condition surveys, topographic information, and other relevant information developed during previous City projects.
  - Make available City policies, regulations, guidelines and records such as as-built information and geographically referenced GIS maps.
  - Assemble and transfer all required information and data, both hard copy and electronic, at no charge to the Consultant.
  - Provide fee payment for filing preconstruction record of survey with the County.
  - Provide fee payment for obtaining any necessary right-of-way records.
  - **City attorney to coordinate and lead the legalization process for Villa Road, if so desired.**
- Task 3 - Stakeholder Involvement
  - Facilitate or otherwise lead the stakeholder involvement process, with support from Consultant.
  - Obtain meeting rooms for public involvement and partnering workshops.
  - Provide advertisement for public involvement meetings. Finalize, print, and distribute meeting notices.
  - Collect and transmit public comment forms and comments solicited by the project, and provide MSA with written documentation of unsolicited comments/suggestions. MSA to compile information for reference.
  - Set-up and host project webpage on City's website.
  - Provide property owner records for project area (adjacent/affected properties as well as a larger project area, for public meeting notices and informational mailings)
- Task 4 – Environmental & Permitting
  - Obtain Permits of Entry or provide access to property belonging to others.

- Pay for all permit application fees.
  - Supply report templates using City preferred formats.
  - If compensatory wetland mitigation is addressed by use of a mitigation bank, the City shall be responsible for the mitigation bank payment.
  - The City shall request signatures from all appropriate parties including applicants, landowners, and local planning officials.
  - The City shall provide the Consultant with any relevant information concerning site conditions, including environmental, geotechnical, and wetland reports.
  - Provide legal review of railroad application documentation. Obtain a signature for the application from a City authorized representative.
  - **Provide payment of \$25,000 for Union Pacific Railroad Preliminary Engineering (PE) Application.**
- Task 5 – Geotechnical
    - Review and approve traffic control plan provided by Consultant.
  - Task 6 – Utility Coordination
    - Provide available utility contact information.
  - Task 7 – Right-of-Way
    - Facilitate or otherwise lead the right-of-way process, with support from Consultant.
    - Attend one-on-one property owner meetings, if required.
    - Provide property owner information described under *Task 2*.
    - Provide payment for obtaining all title reports, property acquisition costs (including closing costs), and parcel file recording.
    - Obtain and provide payment for the services of an attorney for condemnation support, if necessary.
  - Task 8 – PS&E Delivery
    - Supply plan, specification and estimate templates using City preferred formats.
    - Provide City “front end” documents for the construction bid package including invitation to bid, instructions to bidders, bid proposal, bonds, certificates of compliance, contract, general conditions etc.
    - Coordinate staff reviews and comments for construction plans, specifications, estimates and reports. Staff review time for the 30%, 60% and 90% deliverables will be two weeks.
  - Task 9 – Bid Services

- Provide and manage bidding as primary point of contact.
- Issue bid advertisement and bid document printing services.
- Provide legal review of all contract documents.
- Task 10 – Construction Services (~~Deferred Task~~) – **New Task**
  - Provide daily site observations, general inspections, project management and overall administrative coordination during construction.
  - Setup and manage electronic plan center during construction, including posting of major construction documents, permits, contact information, and Contractor’s request for information and change orders.
  - Organize, facilitate and obtain meeting room for pre-construction meeting.
  - Monitor for erosion control issues.
  - Prepare and distribute all work change directives, change order requests, pay estimates and generate payments.
  - Review certified payrolls and cost proposals (Contractor to submit directly to the City)
  - Prepare construction correspondences including punch list, substantial completion, and final acceptance.

## CONSULTANT SCOPE OF SERVICES

### Task 1 - Project Management

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

#### *Task 1.1 Overall Project Management – Additional Effort (10 months)*

Consultant shall review project files, supplied technical data, City design standards, and policy and procedure manuals. Consultant shall obtain and review information provided by the developer for the Martell Commons on Villa Road Project.

Consultant shall coordinate with subconsultants, assign to and manage the appropriate level of staff expertise for the project at each phase of design, coordinate design reviews and the implementation of design review comments and perform other project coordination as required. For each submittal, all review comments provided by the City and other involved parties will be compiled, along with a proposed response to each comment received.

The project schedule anticipates that the project will be ready for advertisement in February of 2017, extending the time needed for this task by 10 months from the original SOW.

#### *Task 1.2 Project Meetings – Additional Effort*

Schedule, prepare for, and conduct a project kick-off meeting to review the purpose and scope of the project. This meeting will be an internal project team meeting with City staff. In addition to the project kickoff meeting, budget assumes up to five (5) project meetings will be required, three of which will be in Newberg and two at the Consultant office. Consultant shall schedule and lead project meetings and prepare meeting agendas and minutes. For estimating purposes, it is assumed three design team members will be present at each meeting.

Assume up to three (3) additional project meetings will be required during the design process.

***Task 1.3 Scheduling and Invoicing – Additional Effort (10 months)***

Consultant shall prepare a project design schedule detailing the design and construction phases. This schedule shall be updated monthly, as needed. Consultant shall 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.

*Schedule:*

Within 14 calendar days after receipt of Notice to Proceed (NTP) (NTP Target Date - July 15, 2015), Consultant shall submit to City for review and approval the Project Design Schedule. Invoices must be submitted on a monthly basis. Meeting agendas will be typically two (2) business days in advance of meetings and minutes typically within five (5) business days of meetings.

Consultant shall update the project design schedule detailing the design and construction phases as needed. The project schedule anticipates that the project will be ready for advertisement in February of 2017, extending the time needed for this task by 10 months from the original SOW.

**Task 2 - Topographic Surveying and Boundary Survey**

The limits of surveying for this scope of services shall include Villa Road (at least 10' beyond the existing right-of-way) from 100' south of Haworth Avenue to 100' north of E. Crestview Drive including 100' east and west along all side streets. Potentially environmentally sensitive areas along the Hess Creek main channel and fork are also included (see *Figure A* at the end of this document).

A portion of the survey (from Carol Ann to Park Lane) was completed in the fall of 2014 for the Martell Commons Project. The owner of this survey data is HDJ Design Group and has condoned the use of this information for City purposes. As a result, it will be updated, expanded, checked by MSA and used for this project. The specific surveying services to be performed are as follows:

***Task 2.1 Pre-Construction Survey – Additional effort***

Includes establishing survey control and field locating existing property/right-of-way monuments within the limits of survey, reviewing existing right-of-way records (i.e. surveys, plats, deeds and right-of-maps), determining right-of-way location from the above information and then preparing and filing a Record-of-Survey with the Yamhill County Surveyor's Office, prior to Construction.

Due to complications discovered during the pre-construction survey process with the legal road boundary, assist the City with the road legalization process. The current alignment of Villa Road through the "S" curve segment does not match the original 1879 dedicated alignment (County Road No. 230). That dedication was a 40 foot wide road centered on the DLC lines. Surveys prepared by County Surveyors (Herring, Cox and Jones), over the years, beginning as early as 1912 show the road in approximately the same location as it is today, however there is no evidence that the road was legally realigned. The existing centerline used for design is per the monuments set along the "As-Travelled" centerline by Summers in 1979 for the survey and plat of Carol Ann Subdivision. The right-of-way on the southwest side of the road (through the "S" curve) follows a slightly different alignment that was an "As-Travelled" surveyed by Mursell in 1977 with a right-of-way width of 60 feet.

*Deliverable(s):*

- Record-of-Survey

### ***Task 2.2 Topographic Survey***

Topographic survey work shall include field survey of all existing above ground features (i.e. edge of pavement, curbs, sidewalks, buildings, trees, utilities, wetland flags, drainage facilities, railroad trestle piles and decking, etc.) as well as elevations with one foot contour intervals. In-water bathymetry mapping of Hess Creek shall be provided to facilitate *Task 4*. The below ground utilities will be located from one-call locate paint marks and existing as-built maps. An existing conditions base map will be prepared using the above data at an agreed upon scale to be included with the final plan set. The Consultant shall be responsible for notifying all affected property owners of field work conducted on private property.

*Deliverable(s):*

- Existing conditions base map

### ***Task 2.3 Easements & Exhibits – Additional Effort***

Includes preparation of legal descriptions and exhibits for right-of-way takes and construction easements as required. ~~For budgeting purposes, it is assumed that up to 3 legal descriptions and exhibits shall be prepared.~~ Stakes for the proposed property locations shall be provided in the field to facilitate right-of-way acquisitions.

For budgeting purposes, it is assumed that the updated assumptions for legal descriptions and exhibits shall be prepared as shown in *Table 2.3* below.

Properties indicated as utilizing a Right-of-Entry are anticipated to address improvements on private property informally through a City led process. Consultant shall prepare non-legal 8.5" x 11" exhibits for each Right-of-Entry to illustrate general dimensions for frontage improvements. These exhibits are informational only and are to be used by the City to facilitate discussion with property owners.

<b>Table 2.3 – Easements &amp; Exhibits</b>						
<b>Property Address</b>	<b>Right-of-Way Acquisition</b>	<b>Temporary Construction Easement</b>	<b>Right-of-Entry</b>	<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>
Tax Lot 1000 Map 3 2 17CA	•				•	
Tax Lot 900 Map 3 2 17CA			•		•	
Tax Lot 200 Map 3 2 17CA			•		•	
Tax Lot 2000 Map 3 2 17BD	•	•		•		
Union Pacific Railroad		•			•	
Tax Lot 100 Map 3 2 17BD	•	•			•	
Tax Lot 1900 Map 3 2 17BD			•		•	
Tax Lot 1902 Map 3 2 17BD			•		•	
Tax Lot 1901 Map 3 2 17BD			•		•	
Tax Lot 1800 Map 3 2 17BD			•		•	
Tax Lot 200 Map 3 2 17BD			•			•
Tax Lot 2100 Map 3 2 17BA			•			•
Tax Lot 1804 Map 3 2 17BA			•			•
Tax Lot 2800 Map 3 2 17CA	•				•	
Tax Lot 3002 Map 3 2 17CA	•				•	
Tax Lot 2700 Map 3 2 17CA			•		•	
Tax Lot 2701 Map 3 2 17CA			•		•	
Tax Lot 2705 Map 3 2 17CA			•	•		
Tax Lot 800 Map 3 2 17BC	•	•		•		
Tax Lot 602 Map 3 2 17BC			•			•
Tax Lot 701 Map 3 2 17BC			•			•
Tax Lot 700 Map 3 2 17BC			•			•
Tax Lot 601 Map 3 2 17BC			•			•
Tax Lot 611 Map 3 2 17BC			•			•
Tax Lot 500 Map 3 2 17BC	•					•
Tax Lot 400 Map 3 2 17BC	•					•
Tax Lot 100 Map 3 2 17BC	•					•
<b>Totals</b>	<b>9</b>	<b>4</b>	<b>17</b>	<b>3</b>	<b>13</b>	<b>11</b>

*Deliverable(s):*

- ~~Up to 3 legal descriptions and exhibits.~~
- ~~Visual staking of right of way during property acquisition process.~~
- Up to 9 right-of-way acquisition and 4 temporary construction easement legal descriptions and exhibits associated with Phases 1 and 2 only, with visual staking of right-of-way during property acquisition process.

- Up to 9 Right-of-Entry exhibits associated with Phases 1 and 2 only.

#### *Task 2.4 Post-Construction Survey (Deferred Task) – New Task*

~~Includes setting centerline monuments along the existing alignment with references to the pre-construction survey. Record a Record of Survey with Yamhill County Surveyor's Office.~~

Includes preparation of a Record of Survey upon completion of construction activities showing the legalized centerline (assuming City proceeds with legalization process) of right-of-way, existing and acquired right-of-way lines and monuments set at P.C.'s, P.T.'s and intersections for the length of the project. The Record-of-Survey will be recorded with Yamhill County Surveyor's Office.

#### *Assumption(s):*

- The Consultant will pay the fee to record the survey with Yamhill County (Up to \$300).

#### *Deliverable(s):*

- Paper copy of filed Record of Survey.
- Civil3D drawing file.

### **Task 3 – Stakeholder Involvement**

#### *Task 3.1 Public Involvement Plan*

~~City shall lead the public outreach to be conducted throughout the project. Consultant shall provide guidance to the City during preparation of the plan. The public involvement plan will include key messages, project goals and objectives, list of stakeholders, project issues, a general schedule, and list of responsibilities.~~

#### *Assumption(s):*

- City will provide property owner records.
- The plan will be informed by interviews through team meetings and up to 6 interviews with identified stakeholders.
- City will print/mail any public information/invites mailers over duration of project
- City will set-up/host webpage on City website.

#### *Deliverable(s):*

- Basic project fact sheet/mailer that can be mailed prior to survey work, introducing project and schedule (to be printed/mailed by City)
- Basic text for project webpage (to be posted by City on Newberg website).

### *Task 3.2 Public Meetings and Outreach Support – Modified effort*

Consultant shall assist the City with the following public outreach events:

- Staffing at an early design or 30% design information booth at the Old Fashioned Festival, Farmers Market, other project open house, or community event.
- A general open house meeting at 30% to 60% design **for Phase 1 work** – Share the project area, scope, and solicit input on design considerations, safety issues, and discuss construction staging and impacts.
- An informal drop-in event to view 60% to 90% design **for Phase 1 work in 2016 and Phase 2 work in 2017 (2 total)** - Provides an opportunity for those most impacted to view project decisions, talk with design team, and provide feedback on specific project options/issues. This event targeted to directly affected stakeholders along alignment.
- A City Council meeting at 90% design **for Phase 1 work in 2016 and Phase 2 work in 2017 (2 total)** – Consultant will brief Council on the project design; it is assumed staff will provide opportunities to keep Council updated throughout design.
- Mailer sharing final plans, schedule, ways that project has adjusted over time, and upcoming construction considerations (staging, detours, and any special provisions).
- *Deferred Task* - Pre-construction open house to share project prior to traffic and other access issues.

#### *Assumption(s):*

- Attendance will include two MSA team members.
- The location of the public meetings shall be at a location of City's choice. The purpose of these meetings will be to inform the public of the project alternatives investigated, to receive and answer questions/comments about the project, and to explore and problem solve on construction challenges related to community impact.
- Poster boards for outreach needs including open houses, Old Fashioned Festival, etc., shall be made available for public events and are defined under *Task 8.1*.

#### *Deliverable(s):*

- ~~Mailings/web info available for the following meetings, see invites in parenthesis~~
- MSA notes and summaries for the following meetings:
  - ~~Information table set up at key location to share information and hear what people are interested in (draft and final basic project info sheet/initial mailer)~~
  - ~~30-60% open house (draft and final mailer with graphics)~~
  - ~~60% targeted stakeholder meeting (draft and final letter to property owners/renters/campus facilities managers, etc., inviting to meeting or seeking specific input)~~

- Council briefing (provide any information/schedule at meeting – no letter to be distributed)
- ~~Draft and final newsletter sharing final plans/schedule/council update~~

### **Task 3.3 Individual Stakeholder Outreach – Reduced effort**

The project team will identify areas that may require discussions with private properties regarding potential impacts, project trade-offs, access issues. The consultant will arrange for up to ~~12~~ **3** meetings to discuss issues with individuals or area specific issues. This will likely occur during 60% design as issues are explored.

#### *Assumption(s):*

- Attendance will include one MSA team members at 5 meetings.
- No more than ~~5~~ **3** meetings will be held. They will likely be with individuals/groups regarding one location.

#### *Deliverable(s):*

- Meeting notes and summaries to share with City

### **Task 4 – Environmental Coordination & Permitting**

Consultant shall conduct research, field studies, and analysis to document the environmental consequences of the Project. Work will be documented in a series of technical reports and memoranda intended to support development of the project designs and document potential regulatory requirements.

#### **Task 4.1 Wetland Delineation and Reporting – Additional effort**

Preliminary review of available environmental data indicates the presence of Hess Creek and an unnamed tributary to Hess Creek along with areas of wetlands and roadside drainage ditches within the area of potential impact (API) for the project. To comply with the Oregon Removal-Fill Law and the Federal Clean Water Act Section 404, a delineation of wetland and waters features within the API and documentation of the boundaries will be required. The limits of the API are described in *Figure A*.

Consultant shall delineate all wetlands, streams, and roadside ditches within the API with all applicable codes and standards. Consultant shall also review the site for potential listed plant and wildlife habitat and determine the average active channel width and D<sub>100</sub> gravel sizes of both creeks during this field effort in support of *Task 4.6*.

Consultant shall prepare a wetland delineation report, and shall submit the draft wetland delineation report for preliminary review by the City. Consultant shall also prepare an Oregon Department of State Lands (DSL) Wetlands Delineation/Determination Report Cover Form before submission of the final report to the U.S. Army Corps of Engineers (USACE) and DSL. Consultant shall submit the final draft report to the DSL electronically and to the USACE via hard copy.

Consultant will prepare and resubmit an additional wetland delineation report following 30% PS&E to capture roadway improvements extending outside the initially assumed API. Reporting effort will include additional delineation, and wetland boundary definition using GPS. Consultant (MSA and MB&G) will meet with regulatory agencies on-site to review areas of concern and explain how the project is dealing with impacts, minimization, mitigation, and other issues to help minimize back-and-forth in the permit review process.

*Assumption(s):*

- Project API, design elements, construction staging areas, or other areas of impact will not change after completion of the wetland delineation fieldwork.
- No hydrologic or groundwater monitoring is included in this task. The ordinary high water mark of both creeks will be determined based on field indicators.
- Consultant will spend up to four (4) person days conducting the wetland/waters delineation.
- Consultant will act as authorized agent on behalf of City for submitting the wetland delineation report to the USACE and DSL for review and concurrence.
- City shall provide review comments on draft wetland delineation report to Consultant within ten (10) business days.
- Topographic survey of all wetland/waters delineation flags shall be accomplished under *Task 2*.
- A site visit with the DSL and/or USACE to review wetland/waters boundaries is not included.
- The Consultant shall pay the DSL review fee (up to \$406).

*Deliverable(s):*

- Draft and Final Wetland Delineation Report
- DSL Wetland Delineation/Determination Report Cover Form and cover letter text for City signature (MS Word format); one (1) hard copy for submittal to the USACE.
- Consultant shall submit final wetland report to DSL (one (1) electronic (PDF) version) and to USACE (one (1) hard copy).
- USACE/DSL field visit meeting notes.

*Task 4.2      Endangered Species Act Compliance*

Endangered Species Act (ESA)-listed fish are known to occur in the Willamette River; 3.5 river miles downstream and in Hess Creek 2.0 river miles downstream of the project. As such, stormwater runoff from new impervious surfaces within the project may affect downstream listed fish species including Chinook salmon of the Upper Willamette River Essential Salmonid Unit. Consultant will prepare compliance documentation for the project's anticipated effects utilizing the USACE's Standard Local Operating Procedures for Endangered Species (SLOPES) V Biological Opinion (BO) from the National Marine Fisheries Service (NMFS).

Consultant shall prepare a SLOPES V Compliance Report that documents potential impacts to downstream federally-listed fish species and/or designated critical habitat and outlines appropriate conservation measures and best management practices. Consultant shall provide the draft SLOPES V Compliance Report to City for review. Consultant shall revise the draft SLOPES V Compliance Report once following review comments and prepare the final fish passage plan for submittal to the USACE with the JPA package.

*Assumption(s):*

- ESA consultation for federally-listed wildlife and plants will not be required. If listed plant or wildlife habitat is observed during *Task 4.1*, additional surveys may be required to document presence or absence of listed species, requiring an amendment to this SOW.
- Additional fieldwork beyond *Task 4.1* will not be required for this task. All existing or proposed riprap for the project will be vegetated with large wood.
- The new culverts will avoid elements within 1.5 times the average active channel width and will be below and outside of the scour prism and embedment depths. Stormwater management for the project will meet SLOPES V requirements. If the Project does not meet these or other terms and conditions of the SLOPES V Programmatic BO, preparation of a Biological Assessment (BA) will be required, which would require an amendment to this SOW.

*Deliverable(s):*

- Draft and Final ESA Compliance Documentation

**Task 4.3**      *Cultural Resource Analysis*

Because of the federal permitting with the USACE, the cultural resource work will be done to meet compliance under Section 106 of the National Historic Preservation Act of 1966 (as amended), and its implementing regulations under 36CFR800. The cultural resource work will also comply with SHPO guidelines for archaeology and historic resources, and state and local laws and regulations that protect archaeological and historic resources on public lands (ORS358.910 and 358.653).

Consultant shall conduct a literature search and background review of archival sources, historical maps, books, online information, and other sources. Previous surveys and previously recorded archaeological sites and historic resources would be researched on

databases maintained by the State Historic Preservation Office (SHPO). This background review will determine the potential for cultural resources within the project API. The trestle is a historic structure that will not be structurally modified, and thus not physically impacted by the project. The railroad trestle shall be researched to assist in determining significance and to provide context for recording the trestle during the survey phase.

Consultant shall conduct a reconnaissance/windshield survey to document existing conditions in order to make recommendations if additional field work is needed. The survey shall note whether intact landforms are present that may be likely for archaeological sites. The amount of fill or disturbance at the trestle and the potential for archaeological resources along the creek banks and areas near older oak trees within the API will also be noted.

*Assumption(s):*

- The existing culverts are dual 60-inch diameter structures and are assumed to be modern.
- The railroad trestle is at least 45 years in age and is in the API. The trestle will need to be evaluated to determine whether it is eligible for listing in the National Register of Historic Places (NRHP).
- The cultural resource report will be reviewed by the USACE and submitted to SHPO and the Tribes by the USACE.

*Deliverable(s):*

- Draft cultural resource memo report in electronic format summarizing the results of the background review and reconnaissance within 3 weeks from NTP. The memo information will be included in the cultural resource survey report that is a deliverable under *Task 4.4*.

***Task 4.4 Archaeological and Historical Survey and Reporting (Contingency Task) – Additional Effort***

Consultant shall investigate, document, and submit memorandum regarding any potential cultural and historic resources within the Project API. This information will be used to satisfy the requirements of Section 106 of the federal Historic Preservation Act and will be required to be included in the JPA under *Task 4.5*.

The USACE may require an archaeological pedestrian survey and shovel testing within the API outside of the road prism based on the results of the reconnaissance/windshield survey, literature search, and background review. **The Consultant shall complete an archaeological pedestrian survey and shovel testing within the API outside of the road prism based on the results of the reconnaissance/windshield survey, literature search, and background review.** An archaeological pedestrian survey identifies resources on the surface and notes areas of moderate to high probability for containing buried archaeological resources.

A historic resource survey identifies buildings and structures within the API that are 45 years in age or older that will be affected by the project. The trestle's close proximity to the

improvements warrants documentation under Section 106 in case minor effects may occur. The trestle is the only historic resource in the APE that will be entered into the SHPO Oregon Historic Sites Database. The report will include the database form and recommendations for the resources that may meet eligibility criteria for listing in the NRHP that may be affected by the project.

*Assumption(s):*

- The trestle is the only archaeological site within the API and one site form will be prepared.
- Archaeological shovel testing is ~~not~~ included in this scope of work.
- Up to 1 historic resource will be recorded.

*Deliverable(s):*

- Draft and Final Cultural Resource Report

***Task 4.5 Joint Permit Application Preparation – Additional effort***

Impacts to wetlands and waters delineated under *Task 4.1* are expected for the proposed project. As such, authorizations for removal/fill activities in compliance with the Federal Clean Water Act Section 404 and State Removal/Fill Law will be required. Consultant shall prepare a draft and final Joint Permit Application (JPA) for an USACE Nationwide Permit (NWP) and a DSL General Removal-Fill Permit (GP). Preparation of the JPA may include correspondence in the form of telephone calls, letters, and memorandums to document permit needs. Consultant shall also prepare brief narratives and descriptions on project purpose and need, potential impacts, and project alternatives to complete the JPA.

Consultant shall provide pre-submittal coordination with representatives of the USACE and DSL to confirm permitting requirements and application procedures. This coordination shall include pre-application correspondence. Consultant shall ensure that features and impacts are correctly identified for the permit applications. Consultant shall prepare all necessary narratives, drawings, calculations, maps, and photographs for inclusion in the permit application. During the development of the permit application, Consultant shall evaluate potential wetland impacts and methods for avoidance or minimization measures.

Following the submission of the JPA, Consultant shall respond to questions or comments raised by the agencies during their review of the permit application. Consultant shall assist the City in developing appropriate responses to questions regarding the information submitted to the agencies on this project. This task may include correspondence and clarification of the JPA and related tasks as necessary to clarify regulatory agency concerns and to facilitate the issuance of USACE's and DSL's permits for this Project.

**Consultant will update documentation following 30% PS&E to capture roadway improvements extending outside the initially assumed API.**

*Assumption(s):*

- Project-related impacts will be permitted under the existing NWP Program administered by the USACE and GP administered by DSL. An Individual Wetland Fill Permit will not be required from either the USACE or DSL. This scope does not include the additional effort of preparing an Individual Wetland Fill permit application (if it is later determined that the project cannot be permitted under a NWP or GP).
- The JPA shall be prepared in accordance with requirements set forth in OAR 141-085-0025 (which is assumed to satisfy both DSL and USACE permit application requirements). USACE permit and DSL permit will be applied for concurrently through a JPA.
- The project will not affect any plant or wildlife species listed or proposed for listing under the state and federal Endangered Species Acts (ESA). Effects to listed fish species are covered under *Task 4.2*.
- Waters mitigation will be provided through a combination of fish passage improvements, water quality management, and riparian plantings and will be documented in a compensatory non-wetland mitigation plan and best professional judgement function and value assessment, included in this task per OAR 141-085-0765 (3 and 4). Financial security and administrative protection will not be required.
- All fieldwork for this task is included in *Task 4.1*.
- Wetland mitigation will be provided solely at a wetland mitigation bank. A principal objective analysis for use of bank credits and one (1) Oregon Rapid Wetland Assessment Protocol function and value assessment is included in this task. The City will be responsible for all wetland mitigation bank fees.
- Preparation of a formal compensatory wetland mitigation plan and locating offsite mitigation sites for the project is not covered under this SOW. Should the USACE or DSL require direct mitigation and a formal compensatory wetland mitigation plan to mitigate for proposed wetland or waters impacts, an amendment to the SOW would be required.
- USACE/DSL/DEQ permit conditions will not change during the application phase.
- Up to ten (10) hours of pre- and post-submittal coordination with the DSL and USACE are included in this task.
- The Consultant shall pay the DSL review fee (Up to \$1,155).
- Phase 2 of the project API does not appear to contain environmentally sensitive areas. In the event that *Task 4.1* thru *Task 4.4* encounter environmentally sensitive areas within Phase 2, the permitting effort necessary would require an amendment to this SOW.

*Deliverable(s):*

- Draft and Final Joint Permit Application

**Task 4.6 Fish Passage Plan – Additional effort**

The twin Hess Creek culverts and East Fork culvert under Villa Road must be upgraded to address fish passage since they are within/below the channel, native migratory fish were historically present at the location, and over 50% of the roadway will be modified by the project. ~~The Hess Creek tributary culvert replacement identified in the City's CIP may not have the historical fish triggers for a passage plan.~~

Consultant shall prepare and submit a fish passage plan required under *Task 4.2* to the Oregon Department of Fish and Wildlife (ODFW) for both Hess Creek and the **East Fork.** ~~unnamed tributary of Hess Creek, if applicable.~~

*Assumption(s):*

- All in-water-work will be conducted within the in-water-work window (July 15-September 30). An extension request will not be required.
- The new culverts shall be designed to meet stream simulation requirements.
- All fieldwork for this task is included in *Task 4.1*.
- Consultant shall submit the final fish passage plan to ODFW on behalf of the City.

*Deliverable(s):*

- Draft and Final Fish Passage Plans

**Task 4.7 Level I Hazardous Materials Site Assessment – Deferred Task**

~~Consultant shall prepare a Level I Hazardous Materials Site Assessment (HMSA) for the Project in accordance with applicable industry standards. The assessment will be conducted to identify potential sources of contamination that could impact the Project, thereby reducing the City's risk for schedule delays and increased costs during design and construction.~~

**Task 4.8 Stormwater Analysis and Reporting – Additional effort**

Consultant shall prepare a Stormwater Management Report providing stormwater management strategies and engineering recommendations in support of obtaining the necessary permits and clearances. Work at this level will be equivalent to approximately 30% design. A preliminary drainage design will be developed, sufficient to determine general drainage patterns, changes to the drainage basin and identify additional right-of-way required for storm conveyance systems and water quality/quantity facilities.

Consultant shall:

- Use the City's Public Works Standards as a basis for the analysis.
- Identify preliminary stormwater conveyance size and general location. Profiles, catch basin spacing analysis and manhole locations will not be included.

- Identify approximate locations of the stormwater outfalls so as to avoid sensitive areas (wetlands, historic and/or archaeological sites etc.)
- Describe the existing contributing impervious area and proposed contributing impervious area.
- Conduct a downstream analysis of Hess Creek including rainfall research as required by regulatory agencies and develop upstream tributary areas for high flow assessment and fish passage design of culverts under Villa Road.
- Evaluate and recommend stormwater management needs for the Project including rough size and location of stormwater quality Low Impact Development Approaches (LIDA), based on the preferred alternative established under *Task 8.1*. Include preliminary design for a Regional Stormwater Facility to manage runoff originating outside of the Villa Road right-of-way in meeting with USACE and DSL permit requirements.

*Deliverable(s):*

- Draft and Final Stormwater Management Report

***Task 4.9 Railroad Coordination and Permitting – Additional effort***

Any alterations to the roadway under the trestle will involve coordination and approval from the Portland and Western Railroad, Union Pacific Railroad, and the ODOT Rail Division. Prior to 1977, the Villa Road crossing was a single lane crossing that went between the bents of the existing timber trestle. In 1977, an additional lane was constructed and the City assumed responsibility for any costs associated with damage to the structure caused by motor vehicle traffic on the roadway. In 1998, the railroad removed 4 timber bents and installed the steel span in existence today. Each of these alterations have ODOT Rail Orders associated with the changes.

The consultant shall coordinate the proposed designs with both railroads and ODOT Rail until consensus is reached. At about the 60% design stage, the ODOT Application will be prepared and transmitted to the City for signature. The Consultant shall submit the signed application to ODOT Rail. This process takes approximately 3-6 months following the application submittal to ODOT Rail. By reaching consensus prior to submittal of the application, the application review may be closer to the 3 month time frame. Also, the Consultant shall work with the City during the application development process to allow the City Attorney to review concurrently with the initial railroad reviews so that there is not additional time required after the application is prepared and prior to submission.

In addition, any alterations will need to be reviewed by the railroad's Bridge Department to determine if there are impacts to the existing structure and to determine the level of protection required. This will involve preparation and submittal of a PE Application before any of the City's design concepts are reviewed for initial comment. The pedestrian undercrossing of the existing trestle will require a Trail Protection Review. It is assumed that designs for pedestrian safety enhancements required by the railroad can be provided without impacting the existing trestle structure, therefore a Structural Review will not be required. A

chain link safety structural is assumed that will not require the services of a structural engineer for design. Initial submittals at the preliminary (30%) level as well as submission of calculations and plans at the 60, 90 and 100% level, ~~if~~ shall be provided as required. Typically, each railroad review will take 30-45 days.

Consultant shall:

- Review the existing ODOT Orders dating back to 1977
- Prepare concept plans that limit the impacts to the trestle and structure.
- Coordinate with the railroads and ODOT Rail to determine condition of existing trestle and requirements for alteration of the roadway.
- Coordinate two meetings with the two railroads and ODOT Rail to review the concepts and develop a consensus on the planned approach.
- Develop a Draft ODOT Rail Application.
- Review the Draft ODOT Rail Application with ODOT Rail and the two railroads prior to submission by the City.
- **Develop and submit a Union Pacific Railroad PE Application.**
- Coordinate the submission of structure and trail protection reviews with the railroad Bridge Department.

*Assumption(s):*

- Structural modifications to the existing trestle will not be required.
- Structurally designed impact walls to protect the trestle bents will not be required. Jersey barriers are assumed to be sufficient.
- Road profile changes will not have significant impacts to settlement on the trestle.
- The railroads and ODOT Rail are in general consensus that the proposed alterations are required by the public for safety, necessity, convenience and general welfare.

*Deliverable(s):*

- Draft and Final ODOT Rail Application
- **Union Pacific Railroad PE Application**

## **Task 5 – Geotechnical**

Consultant shall conduct geotechnical field investigations to explore the subsurface conditions of the proposed culvert replacement, LIDA stormwater facilities, and the existing roadway and widening areas and provide a report which summarizes and presents the results of the investigation, analyses, and recommendations.

### ***Task 5.1 Data Review and Site Reconnaissance***

Consultant shall review available existing information such as City and Country records, previous reports, as-built plans, and maintenance records to evaluate the geologic conditions and hazards along the proposed project alignment, such as geologic units, historic land use, and fill materials.

Consultant shall review the proposed plans and design narratives of all structures and earthwork within the project area. Consultant shall then determine the geotechnical impacts to the proposed project with respect to the performance of the proposed structures and earthwork based on the collected site history, records, geology, and geography.

Consultant shall conduct a geologic reconnaissance of the site, and identify the geologic conditions, any geologic hazards present and their impacts to the proposed project elements. Consultant shall identify the exploration locations in the field during the reconnaissance.

The reconnaissance shall include the following work:

- Observe surface conditions indicative of subsurface conditions as well as past or ongoing geologic processes (e.g., areas of seeps or springs, erosion, unstable slopes, shallow groundwater, roadway settlement, offsets and depressions, existing earthwork performance, exposed soil and bedrock units).
- Identify site constraints, staging concerns (for exploration and construction), and environmental issues (including wetland locations).
- Observe and identify the existing pavement conditions.
- Identify potential exploration and/or monitoring locations.

The reconnaissance shall facilitate understanding of the site constraints for field explorations, construction, and traffic staging. Proposed exploration locations will be staked or painted on the ground during this site visit.

Consultant shall perform visual pavement assessment in accordance with the ODOT's Good-Fair-Poor (GFP) Pavement Condition Rating Manual. The primary goal shall be to identify and map areas of severely distressed existing pavement to determine the cause of the distresses and to determine potential mitigation strategies. Mapping will identify surface manifestation of weak, poor, or failing subgrade, and locations of pavement failure such as longitudinal cracking or raveling; in addition, subsurface drainage conditions shall be assessed. The mapped locations shall be identified using project stationing. The proposed exploration locations will be located based on the results of the pavement conditions assessment.

*Deliverable(s):*

- Deliverables for this task are detailed in deliverables for *Task 5.5*.

## **5.2 Field Explorations and Traffic Control Plan**

Consultant shall prepare a site plan showing the proposed exploration locations and traffic control plan prior to beginning the work. No fieldwork is to be performed under this task,

until the traffic control plan is reviewed and approved by City. Consultant shall perform exploration work in accordance with all Federal, State, and Local regulations.

Consultant shall perform geotechnical field explorations for structures to determine the subsurface conditions for the purpose of characterizing subsurface conditions along the project limits and determining the foundation recommendations for new culverts, and a sign structure. Up to 2 borings will be provided and depths between 20 and 30 feet.

Consultant shall conduct field investigation work for pavement rehabilitation areas in accordance with the ODOT Pavement Design Guide. Consultant shall perform pavement explorations along Villa Road to determine the subgrade conditions for the new roadway and widening alignments and the condition of the existing pavement. The field exploration for pavement will include up to 5 pavement corings and shallow borings up to 10 feet depth, and up to 11 Dynamic Cone Penetrometer (DCP) tests. The field explorations for pavement shall be performed in conjunction with the field explorations for structures detailed in above.

**Consultant shall also perform one boring near the proposed fill roadway area to obtain a relatively undisturbed soil sample at a depth below 5 feet to perform a laboratory consolidation test to estimate the magnitude and the rate of settlement. In addition, a bulk sample will be collected for laboratory Proctor testing.**

One infiltration test will be performed at up to 10 proposed LIDA facility locations at depths between 3 and 4 feet below ground surface. The infiltration tests will be performed in general accordance with the Encased Falling Head technique in the City of Portland, 2014 Portland Stormwater Management Manual.

Consultant shall provide an experienced engineer or geologist to supervise the field operations, observe infiltration tests, log the borings and DCP tests, and conduct a detailed visual pavement condition survey to identify the type, extent and severity of the distress present.

*Assumption(s):*

- A Work Plan for Field Exploration and Testing is not included in this SOW.
- No drilling permit is required from the City of Newberg.
- Drilling will be completed on weekdays, between the times of 0800 to 1700 hours.
- Rock coring is not anticipated for the project.
- Temporary traffic control will be required for single closure.
- The subsurface material is not contaminated and no testing will be performed to investigate the possible presence of toxic or hazardous materials and petroleum products.
- The drill cuttings will be collected in sealable steel drums and removed from the site.
- The borings will be abandoned and backfilled according to Oregon Department of Water Resources regulations.

- All boring through pavement will be patched with cold patch asphalt emulsion, or quick set PCC as appropriate.
- Core samples of the asphalt concrete must be retrieved using a diamond bit core drill.
- Asphalt concrete cores must be logged according to the ODOT Pavement Design Guide and photographed for inclusion in the report.
- Ground water mounding analysis for LIDA facility performance will not be required.

*Deliverable(s):*

- Deliverables for this task detailed in deliverables from *Task 5.5*.

### **5.3 Laboratory Testing**

Consultant shall perform laboratory tests on disturbed and undisturbed soil samples obtained from the explorations to characterize the subgrade soils and to develop engineering soil parameters for foundations, embankments, and pavement design, and assist with determining engineering geologic unit boundaries. The laboratory tests will be used to confirm soil descriptions for preparation of the final computer-generated boring logs (gINT logs). The laboratory testing program shall consist of some or all of the following tests:

- Moisture content;
- Atterberg Limits; and
- Gradation.

**Consolidation testing and optimum moisture content from the Proctor testing will be completed from the additional samples.**

*Deliverable(s):*

- Deliverables for this task are detailed in deliverables for *Task 5.5*.

### **5.4 Geotechnical Engineering Analysis and Pavement Design**

Consultant shall perform a geotechnical analysis of the field and laboratory test data to develop design recommendations for the project. Consultant's geotechnical analysis shall include:

- Review of available existing geotechnical data including geology, soil maps, seismicity and previous borings.
- Evaluation of seismic hazards, including liquefaction potential, settlement, lateral spreading, and slope instability at structure and/or culvert locations.
- Provide bearing resistance for spread footings, estimate consolidation settlement, lateral earth pressures (both dynamic and static), and sliding coefficient for structures, and/or culverts.

- Stability of embankment slopes and recommendations for short term (construction), and long term consideration.
- Recommendations for subgrade and embankment benching preparation for new pavement areas if needed.
- Foundation design recommendations for one sign (kiosk) structure.
- Review of the anticipated excavation conditions and cut slope recommendations.
- Mitigation of deleterious soil or fill conditions, if appropriate.
- Construction considerations, excluding shoring and dewatering design.
- Unfactored infiltration rates, based on infiltration testing.

Consultant shall develop a pavement design criteria, design parameters, and pavement sections for an acceptable pavement design to be used in this application. It is assumed that up to four (4) pavement sections will be designed, including new pavement for widening areas and inlay, overlay, and reconstruction sections for existing roadway travel lanes. Pavement section design will be performed in accordance with the current ODOT Pavement Design Guide, AASHTO Guide for Design of Pavement Structures, and applicable city and county requirements.

*Assumption(s):*

- Seismic mitigation ground improvement evaluation is not included in the scope of work.
- Pavement life cycle analysis is not included.
- Portland Cement Concrete (PCC) pavement design is not included.
- Consultant will use traffic counts and traffic growth rate to compute the equivalent 18-kip single axle loads (ESALs) within the project limits as required for the pavement design analysis.
- Groundwater mounding analysis for LIDA facilities will not be required.
- Excluding culvert headwalls, structurally designed retaining walls will not be required for this project. The Martell Commons on Villa Road project will be responsible for the design and construction of any retaining wall needed to accommodate public improvements.

*Deliverable(s):*

- Deliverables for this task are detailed in deliverables for *Task 5.5*.

### ***5.5 Geotechnical Design Report and Foundation Data Sheets***

Consultant shall prepare a draft Geotechnical Design Report. An evaluation of alternative foundation systems must be included to document the reasoning behind the preferred foundation type. Consultant's draft Foundation Report shall:

- Summarize the results of field and laboratory testing, engineering analyses and boring logs.
- Summarize the results of the engineering analysis.
- Summarize the design and construction recommendations.
- Identify general specification criteria for the construction documents and provide recommendations for special provisions.

Consultant shall prepare up to two (2) Foundation Data Sheets for the **Hess Creek and East Fork** culverts ~~and kiosk structures~~ that include detailed boring logs. Consultant shall prepare the draft Foundation Data Sheet for City review with the draft Geotechnical Design Report. Consultant shall finalize the Foundation Data Sheet following review by City. Consultant shall incorporate City review comments into the final Geotechnical Design Report.

The report will be updated to include the results of the additional sampling and analysis. The report will describe the magnitude and rate of potential settlement. It will also contain information about optimum vs. natural moisture content to allow the contractor to determine how much drying will be needed or if it will be necessary to add lime to reduce moisture content of the soils for compaction or import granular fill materials.

*Deliverable(s):*

- Draft and Final Geotechnical Design Report including test results.

## **Task 6 – Utility Coordination**

The Consultant will perform utility coordination work related to all private and public utilities that may be present within the project limits. The public utilities may include water, irrigation, sanitary sewer and storm sewer facilities throughout the project area. Consultant shall identify utilities within the project limits, evaluate undergrounding of aerial facilities, potential utility conflicts and coordinate utility efforts for relocation of impacted facilities.

### ***Task 6.1 Impact Assessment and Notifications – Additional Effort***

Consultant shall identify utilities within the project limits and determine possible conflicts with the proposed project. Consultant shall:

- Develop a utility contact information list and mail project information letters to all utility companies involved to explain nature of the work.
- Provide **preliminary project 30% Phase I1 and 2 plans** to each utility, and coordinate with each provider for a phased approach to construction.
- Maintain a record of correspondence with utility companies.
- Obtain utility-provided as-built and system mapping information.
- Compare utility provided information with project base-mapping and field verify the location of utility facilities.

- Identify potential design conflicts (conflicts to be identified on plan sheets) and develop an itemized conflict list.
- Issue conflict notices to impacted utilities.
- Inform franchise utility companies to relocate their facilities, if required.

*Assumption(s):*

- Task 6.1 shall apply to Phase ~~1~~ and 2 only.

*Deliverable(s):*

- Utility contact list
- Utility conflict plan sheets and spreadsheet

***Task 6.2      Coordinate and Review Utility Relocation Designs – Additional Effort***

Consultant shall receive and review utility relocation plans from utilities within the Phase ~~1~~ and 2 project areas. Consultant shall provide comments regarding proposed plan locations and scheduling to achieve relocations prior to roadway construction, and coordinate a phased approach to construction with each utility provider.

*Assumption(s):*

- Task 6.2 shall apply to Phase ~~1~~ and 2 only.

*Deliverables:*

- Mark-ups of utility relocation plans with appropriate comments and recommendations to achieve relocated facilities consistent with proposed roadway project.

***Task 6.3      Utility Undergrounding Feasibility Study***

In addition to the review of available utility information described above, Consultant shall perform the following specifically in regards to utility undergrounding feasibility:

- Identify and classify required meter conversions:
  - Field identify classification ratings for each meter to facilitate overhead to underground conversion cost estimates.
  - Classify each meter conversion using a rating as to difficulty of conversion.
- Create spreadsheet with meter type and conversion requirements

Consultant shall coordinate with impacted utilities to address and review conceptual utility undergrounding designs, potential conflicts, and key design issues. Work elements must include:

- Developing utility undergrounding corridor alternatives utilizing information collected during utility mapping review to determine potential corridors (“utilidors”) for utility undergrounding placement
- Recommending relocation design concepts for utility undergrounding based on identified viable corridors
- Coordinating with Utilities. Review conceptual designs and cost estimates with utility companies, identifying approximate number and size of conduits, number and size of vaults, and number and location of commercial and residential service connections. Coordinate and obtain utility design standards and material lists from each respective utility. Coordinate with the power company for service conversion details and other system details.
- Identifying cost sharing provisions of franchise agreements between City and Utility Owners.
- Preparing cost estimates to reflect relocation design concepts, meter conversion classifications, and utility company input.

Results shall be incorporated into draft and final Undergrounding Feasibility Report. Consultant shall develop a draft report summarizing utility relocation design concepts, cost estimates, benefits, and possible conflicts.

Consultant shall submit a Final Undergrounding Feasibility Report, integrating City recommendations and comments from the Draft Undergrounding Feasibility Report review.

*Assumption(s):*

- Task 6.3 shall apply to Phase ~~1~~ **2** only.
- A maximum of two potential utilidors will be developed.
- Undergrounding designs will be limited to conduit and vaults that can be placed within the right of way.
- The utilities and City will negotiate a cost sharing agreement for the work.
- Utility undergrounding designs shall be incorporated into the 90% and Final design submittals if undergrounding is approved by the City.

*Deliverable(s):*

- Spreadsheet with meter type and conversion requirements submitted with Undergrounding Feasibility Report
- Draft Undergrounding Feasibility Report
- Final Undergrounding Feasibility Report

***Task 6.4 Utility Coordination Meetings***

Consultant shall coordinate, attend and conduct a group utility meeting to discuss ~~30%~~ Phase ~~1~~ **1 and 2** design plans, identify potential utility conflicts to be resolved and discuss the project schedule.

*Deliverable(s):*

- Meeting agenda and minutes for group utility meeting for up to 2 meetings.

**Task 6.5**      *Supplemental Potholes (Contingency Task)*

Consultant shall complete up to ten (10) individual utility potholes to a depth of four feet on an as-needed basis to determine existing utility locations.

*Assumption(s):*

- The City of Newberg will review and approve pothole locations and traffic control plan.
- Potholing will be completed on weekdays, between the times of 0800 to 1700 hours.
- Temporary traffic control will be required for single closure.
- The subsurface material is not contaminated and no testing will be performed to investigate the possible presence of toxic or hazardous materials and petroleum products.
- Any excavated material from potholes will be removed from the site.
- The potholes will be abandoned and backfilled according to Oregon Department of Water Resources regulations. All potholes through pavement will be patched with cold patch asphalt emulsion, or quick set PCC as appropriate.

*Deliverable(s):*

- Field report and field measurement data.

**Task 7 – Right-of-Way**

R/W activities shall conform to the standards contained in the Uniform Act of 1970 and amendments, the laws of the State of Oregon and the policies and procedures of the City.

**Task 7.1**      *Property Owner Meetings and Public Meetings*

An MSA representative shall be present at all property owner and public meetings described under *Task 3* to explain the right of way acquisition process and answer general questions.

An MSA representative shall accompany the City at one-on-one property owner meetings to discuss the project and address concerns property owners may have regarding impacts. These meetings are not a federal or state requirement, however, they typically give the City and Consultant an opportunity to begin the establishment of a positive working relationship with the property owners by answering their questions regarding the acquisition process.

Consultant shall research real estate market and provide City with a range of land values for the types of properties impacted by the project. Values will be for the City's use in preparing valuation determinations of the land being acquired.

*Deliverable(s):*

- Consultant will provide City with notes for each meeting with a list of issues and/or action items.

*Task 7.2 Title Reports – Deferred Task*

~~Consultant shall be responsible for ordering of preliminary title reports as needed. Preliminary title reports may be needed for development of the legal descriptions and may need to be ordered prior to the preparation of legal descriptions.~~

*Task 7.3 Appraisals/Appraisal Review (Deferred Task) – (Contingency Task)*

~~Consultant shall obtain the services of Oregon state-certified appraisers to estimate land valuations used in the right-of-way acquisition process. Consultant shall provide one real estate appraisal for each ownership from which a property interest is to be acquired. Real estate appraisals shall conform to State standards and be in conformance with the Uniform Standards of Appraisal Practice (USPAP).~~

Consultant shall provide not fewer than fifteen (15) days written notice to owners of a planned appraisal inspection and shall provide any property owner or designated representative an invitation to accompany the appraiser on the property inspection for appraisal purposes.

*Assumptions*

- No specialty reports for signs, fixtures, equipment, timber, etc., will be required.
- Services for an arborist to establish property valuations are not needed for this project
- No expert witness fees for trial preparation and testimony are included in this scope.

*Deliverables*

- Up to 1 real estate appraisals

*Task 7.4 Acquisition (Deferred Task) – (Contingency Task)*

~~The Consultant shall assist conduct property acquisition negotiations conducted by on behalf of the City, and shall inform property owners in writing those considering a donation of their right to just compensation. Consultant shall compile and/or prepare all essential documents submitted to property owners. These may include project information letters, acquisition and relocation brochures, offer-benefit letters, acquisition summary statements, property valuations, acquisition maps, and instruments of conveyance as the City's budget allows.~~

*Task 7.5 Closing – Deferred Task*

~~Consultant will review the preliminary title report and identify issues with the title that need to be cleared at the start of the project. Once negotiations with the property owner have been completed and acquisition documents have been signed, the closing process will conclude.~~

### *Task 7.6 Condemnation Support – Deferred Task*

~~Consultant shall provide support to the City on any parcel that can't be resolved through acquisition and must start the court process. Consultant support involves providing copies of the complete right of way parcel file to be delivered to the City's attorney, providing any right of way research requested by the attorney, attending meetings as requested for preparation of mediation and/or settlement conferences.~~

### *Task 7.7 Record Keeping – Deferred Task*

~~Consultant shall provide the City with records and documentation of all property owners at the closing of each acquisition. Copies of all documents shall be retained by the Consultant for seven years.~~

## **Task 8 – PS&E Delivery**

The project will be phased as shown in *Figure 4 A* at the end of this document. Phase 1 limits are within the immediate vicinity of the Hess Creek and East Fork culverts. Phase 2 limits are from Haworth Avenue to Park Lane, and Phase 3 limits are from Park Lane to Crestview Drive. In general, Phase 1 and 2 shall include preliminary through final design. Phase 3 shall include preliminary through 30% design., however pavement rehabilitation and striping along this corridor will be incorporated into the project construction documents.

### *Task 8.1 30% Design – Phases 2 and 3 – Additional Effort*

Consultant shall develop an alternatives evaluation regarding impacts to the project through the placement of sidewalk on one or both sides of Villa Road. This analysis shall be documented in a memorandum, and include the following:

- Descriptions of the alternatives considered and the conceptual design elements for each alternative
- Environmental impacts and potential permits (scoping level) for each alternative
- Geotechnical and structural considerations for each alternative
- Utility conflicts (scoping level)
- Placement of LIDA facilities and schematic sizing for each alternative
- Discussion of the potential safety benefits of proposed alternatives
- Conceptual-level cost estimates for each alternative
- Recommendations for the preferred design alternative

Consultant shall develop a 30% design for the footprint and basic layout of the project based on the preferred alternative described above and obtain concurrence from the City prior to proceeding with the development of the 30% Plans. Consultant shall work with the City to refine the project footprint to minimize the ROW impacts to the extent feasible.

Consultant shall develop 30% plans with sufficient detail to identify impacts and estimate construction quantities. Horizontal alignments will be refined and vertical profiles developed, with a review of earthwork impacts, match points and driveway connections. Consultant shall obtain the services of an arborist to evaluate proposed impacts to any trees of concern identified by the City.

Roadway templates will be run with curb and sidewalk limits to determine impacts and identify limits for the proposed edge of road and additional right-of-way required. A Regional Stormwater Facility shall be located to collect drainage from off-site impervious surfaces tributary to the project area. In addition to the already planned Hess Creek culvert replacement with a fish friendly design, Consultant shall also design a fish friendly culvert design for the East Fork tributary to Hess Creek. Consultant shall prepare a conceptual-level cost estimate. Cost estimates must include cost of construction, right-of-way (if any), reimbursable utility relocations to be paid by City (if any), and other associated costs for the conceptual design, with a 30% contingency factor.

*Assumption(s):*

- Specification outline to be provided at 60% Design.
- The City is the floodplain administrator for the site, and can approve cut/fill work within the Hess Creek corridor. Involvement with FEMA will not be necessary for this project.

*Deliverable(s):*

- ~~One (1) precedence board illustrating options for LIDA facilities, informational kiosk, and site furnishings.~~
- One (1) conceptual perspective view at the railroad trestle undercrossing and one (1) roll map for public meeting purposes.
- ~~One (1) conceptual layout plan for Interpretative Area.~~
- ~~Up to 20 PowerPoint slides of design elements for use at public meeting(s).~~
- Draft and final Alternatives Analysis memorandum in electronic format.
- Draft and final Design Criteria Summary memorandum in electronic format.
- Draft and final 30% Design cost estimate in electronic format.
- 30% Plans (see *Tables 1A and 2B* at the end of this document) and Construction Estimate. Additional sheets (erosion control plans and details; structural plans; signing and striping plans and details; construction staging etc.) will be developed and provided after the 30% Design stage.

***Task 8.2      60% Design – Phases 1 and 2 – Additional Effort***

The 60% design submittal shall be advanced from the 30% submittal, incorporating all review comments, and includes:

- Preparing separate procurement packages for Phases 1 and 2 improvements.

- Developing additional design and cost information for Phase 3 to determine if interim shoulder widening and bike lanes could be installed as an extension of Phase 2 work.
- Conducting a computerized photometric analysis to determine a conceptual-level light-emitting diode (LED) street light pole layout. The results of the lighting analysis will be summarized in table format and provided to the City.
- Verifying that the proposed design conforms to the right-of-way, slope, utility and drainage easements (if any) identified in the 30 percent design, and identifying additional property acquisition needs if necessary.
- ~~Provide structural analysis of the proposed kiosk and culvert wing walls to generate foundation loads and develop a preliminary foundation configuration drawings.~~
- Providing a preliminary Engineer's construction cost estimate based on itemized quantity estimate, with appropriate contingencies.
- Completing a field evaluation of existing signs to determine which signs should be replaced or relocated, and development of signing and striping plans.
- Preparing and submitting 60% plans to the City's project manager for review.

*Assumption(s):*

- No formal Street Lighting Analysis Memorandum will be prepared for the project.
- Signing and striping will be combined on the same plan sheets.
- Specification outline to be submitted at this stage, with full specifications provided during the 90% Design submittal.

*Deliverable(s):*

- Street Lighting Analysis Summary Table.
- Phases 1 and 2 60% Plans (see *Tables A and B* at the end of this document), Specifications Outline and Construction Estimate.

***Task 8.3 90% Design –Phases 1 and 2 – Additional Effort***

The 90% design for Phases 1 and 2 submittals shall be advanced from the 60% submittal, incorporating all review comments, and includes:

- Plans, profiles and construction notes including typical sections and/or details for all work shown on plan sheets.
- Designs for Rectangular Rapid Flashing Beacons and Speed Feedback signs for traffic control during Phase 2.
- Planting mitigation plans per the City's Type II Process for Stream Corridor Overlay Zones during Phase 2.
- Restoration and Mitigation Planting Plans for Phase 1.

- Incorporate utility undergrounding designs received from utility providers into submittal materials.
- Special Provisions supplementing the 2015 Oregon Standard Specifications for Construction (Oregon Department of Transportation/APWA) including any unique Special Provisions required, and revisions to the Special Provisions based on comments received during reviews. Special provisions shall address key construction issues, technical construction requirements, permit requirements, environmental protection restrictions, utility coordination requirements, and any other construction management and coordination activities.
- Cost estimate and bid schedule, including verification of description and method of payment for all items of work.
- Construction schedule, in MS Project, showing a ~~six~~ 12 month construction period starting in July 2016 for Phase 1 improvements and April 2017 for Phase 2 improvements.
- ~~Provide final structural calculations for each element identified at 60% design for use in permitting, signed by a registered Oregon Structural Engineer.~~

Consultant shall participate in a site visit with the City's project manager to review plans and specifications in detail relative to existing field conditions.

*Deliverable(s):*

- 90% Plans (see *Tables A and B* at the end of this document), Specifications and Construction Estimate
- Bid Schedule
- Construction Schedules

**Task 8.4 Final Design –Phases 1 and 2 – Additional Effort**

The final design submittal for Phases 1 and 2 improvements shall be advanced from the 90% submittal, incorporating utility and City review comments as necessary.

*Assumption(s):*

- Design drawings will contain the same sheet count as the 90% Design submittal.

*Deliverable(s):*

- Final Plans (see *Tables A and B* at the end of this document), Specifications and Construction Estimate
- Bid Schedule
- Construction Schedule

**Task 9 – Bid Services**

The City will lead the advertisement and bid administration. Consultant shall assist the City with the following items:

**Task 9.1 Questions During Bidding –Phases 1 and 2 – Additional Effort**

- Respond to bidder inquiries during the bid period in a manner assuring no bidder or supplier is provided with information not in the bid documents and that could provide a bidding advantage or disadvantage.
- Provide a written log on a daily basis documenting questions asked by bidders/suppliers and responses provided by Consultant.

*Deliverable(s):*

- Written log of conversations, questions and answers.

**Task 9.2 Addenda to Bid Documents –Phases 1 and 2 (Contingency Task) – Additional Effort**

If necessary, prepare up to one bid addendum to clarify contract documents if necessary and requested by City.

*Deliverable(s):*

- Addendum documents.

**Task 10 – Construction Services (~~Deferred Task~~) – New Task**

As described above, the City will lead the construction administration and management for Phases 1 and 2. The construction contractor will provide their own surveying. Consultant shall provide supplemental construction support services during. The following consultant services will be provided as requested:

- Provide on-call construction inspection and associated documentation.
- Ensure project is constructed as intended per the design and meets standards and specifications.
- Address design questions and resolve issues, manage design changes and maintain current and accurate design plans.
- Provide construction management support to include attendance at meetings throughout the duration of the project through final acceptance by the City.
- Organize and deliver files to City for project completion, including final punch list and as-built drawings.

**Task 10.1 Meetings**

- Attend two (2) pre-construction conferences for Phases 1 and 2 respectively.
- Attend progress meetings during construction at the request of the City (assume

attendance at ten (10) total meetings).

- Lead up to four (4) utility/service provider coordination meetings (franchise utilities, railroad, garbage/recycling, postal).
- Lead up to two (2) railroad coordination meetings as necessary.

*Deliverable(s):*

- Meeting notes and records from pre-construction conference and periodic progress meetings.
- Meeting agenda, notes and records from Consultant lead coordination meetings.

***Task 10.2 Consultation During Construction***

- Assist the City in responding to Requests For Information (RFI's) and issuing Clarifications, Work Change Directives (WCD), and Change Orders (CCO's).
- Coordinate and complete up to four (4) design modifications.
- Attend two (2) substantial completion walk-throughs and prepare punchlist (includes memo).
- Attend two (2) final punchlist inspection walk-throughs (includes memo).

*Deliverable(s):*

- RFI responses.
- Up to four (4) design modifications.
- Substantial completion and final punchlist comments.

***Task 10.3 Construction Inspection Services***

- Provide up to four (4) total street light and special geotechnical subgrade inspections as needed.
- Conduct site visits as necessary (assume ten (10) total site visits).

*Deliverable(s):*

- Special inspection reports with photographs for each occurrence.

***Task 10.4 Submittals & Processing***

- Assist the City's review and approval of material submittals, shop drawings, mock ups, and coordinate design changes (includes review by subconsultants and assumes up to 20 total submittals).

***Task 10.5 Record Drawings***

- Utilize Contractor and City provided construction documentation information to complete electronic record drawings to be delivered to the City after Phases 1 and 2 project completion (1 half size paper, 1 full size paper and electronic CAD and PDF files).

## PROJECT SCHEDULE

The anticipated project delivery timeline for work through final plans is as follows:

- ~~30% Plans by October 2015~~
- ~~60% Plans by February 2016~~
- ~~90% Plans by April 2016~~
- ~~Final Plans by May 2016~~
- ~~Ready to advertise by June 2016~~
- 30% Plans for Phases 2 and 3 by October 2015
- 60% Plans for Phase 1 by December 2015
- 90% Plans for Phase 1 by mid-February 2016
- Final Plans for Phase 1 by end-of-March 2016
- Ready to advertise Phase 1 by end-of-March 2016
- 60% Plans for Phase 2 by October 2016
- 90% Plans for Phase 2 by December 2016
- Final Plans for Phase 2 by mid-January 2017
- Ready to advertise Phase 2 in March 2017

Table 1 – Drawing Submittal List   Phase I					
Sheet Name	Sheet Count	PS&E Submittal Milestone			
		30%	60%	90%	Final
Cover Sheet	1	•	•	•	•
General Notes	1	•	•	•	•
Legend & Abbreviations	1	•	•	•	•
Sheet Map & Horizontal Control	1	•	•	•	•
Typical Sections <sup>2</sup>	2	•	•	•	•
Details <sup>2</sup>	3		•	•	•
General Structural Notes	1		•	•	•
Structural QA/QC Plan	1		•	•	•
Culvert 1 Wingwall Plans & Details	4		•	•	•
Culvert 2 Wingwall Plans & Details	4		•	•	•
Temp. Water Management Plan	1	•	•	•	•
Alignment & Grading Plan <sup>1</sup>	5	•	•	•	•
Street Plan <sup>1,2</sup>	5	•	•	•	•
Utility & Drainage Plan <sup>1</sup>	5	•	•	•	•
Utility Undergrounding Plan <sup>1</sup>	5			•	•
Profiles	5	•	•	•	•
Esc Cover	1		•	•	•
Esc Notes	1		•	•	•
Esc Plan <sup>1</sup>	5		•	•	•
Esc Details	2		•	•	•
Staging Plan	2	•	•	•	•
Detour Plan	2	•	•	•	•
Illumination Legend	1		•	•	•
Illumination Plans <sup>3</sup>	3		•	•	•
Illumination Details	1		•	•	•
Signing & Striping Plans <sup>2</sup>	3		•	•	•
Signing & Striping Details	1		•	•	•
Sign & Post Data Table	1		•	•	•
Planting Plan <sup>4</sup>	2		•	•	•
Planting Details	2		•	•	•
Plaza Plan	1		•	•	•
Plaza Details	1		•	•	•
Kiosk Plan & Sections	1		•	•	•
Kiosk Details	1		•	•	•
<b>Total Sheets</b>	<b>76</b>	<b>37</b>	<b>71</b>	<b>76</b>	<b>76</b>

<sup>1</sup> 22x34 sheet size; 1"=20'

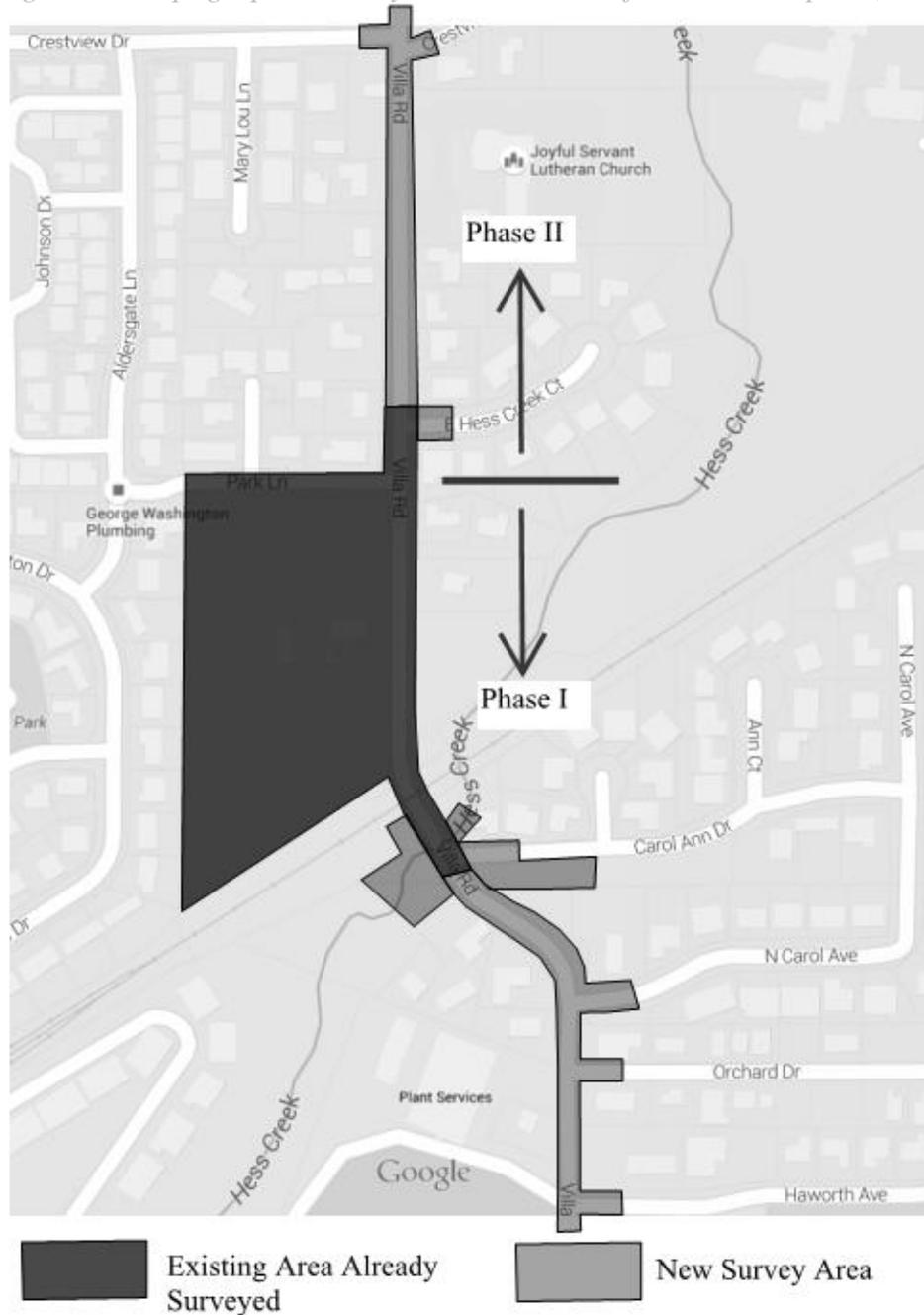
<sup>2</sup> Street plan and associated details, sections, etc., to include pavement rehabilitation within Phase II limits.

<sup>3</sup> 22x34 sheet size; 1"=40'

<sup>4</sup> An irrigation plan is excluded, therefore either the City or Contractor shall be responsible for plant establishment.

Table 2 - Drawing Submittal List   Phase II					
Sheet Name	Sheet Count	PS&E Submittal Milestone			
		30%	60%	90%	Final
Alignment & Grading Plan <sup>1</sup>	2	•			
Street Plan <sup>5</sup>	2	•	•	•	•
Utility & Drainage Plan <sup>1</sup>	2	•			
Profiles	2	•			
Signing & Striping Plan <sup>4</sup>	2		•	•	•
<b>Total Sheets</b>	<b>8</b>	<b>8</b>	<b>4</b>	<b>4</b>	<b>4</b>

Figure 1 – Topographic Survey Limits & Area of Potential Impact (API)



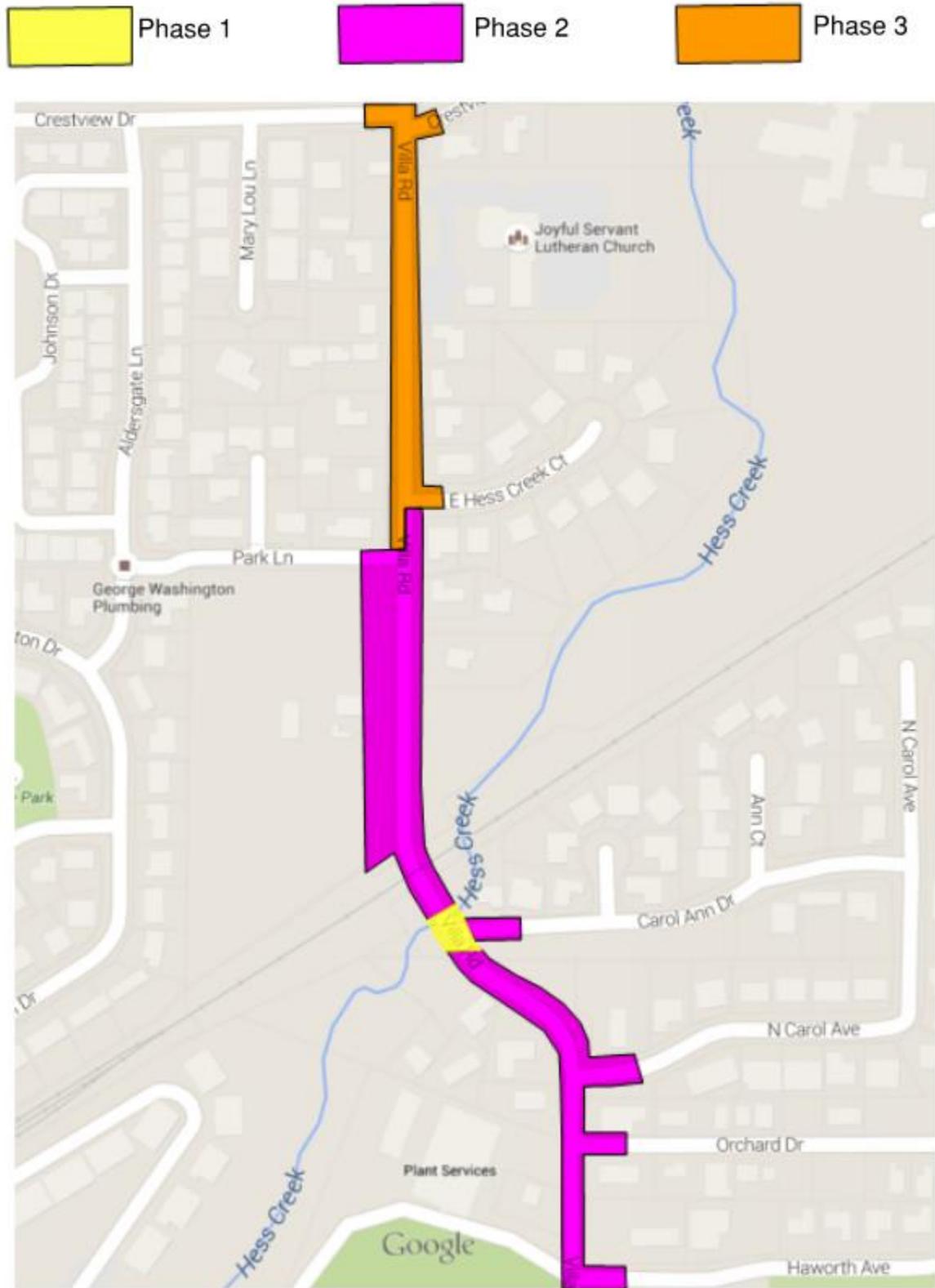
<sup>5</sup>-Street Plan and Striping Plan for Phase II will address pavement rehabilitation.

<b>Table A - Drawing Submittal List   Phase 1</b>				
<b>Sheet Name</b>	<b>Sheet Count</b>	<b>PS&amp;E Submittal Milestone</b>		
		<b>60%</b>	<b>90%</b>	<b>Final</b>
Cover Sheet	1	•	•	•
General Notes	1	•	•	•
Legend & Abbreviations	1	•	•	•
Existing Conditions Plan	1		•	•
Phasing Plan	1	•	•	•
Temporary Water Management Plan	1	•	•	•
Culvert A Plan & Profile	1	•	•	•
Culvert A Upstream Grading	1	•	•	•
Culvert A Downstream Grading	1	•	•	•
Culvert B Plan & Profile	1	•	•	•
Culvert B Upstream Grading	1	•	•	•
Culvert B Downstream Grading	1	•	•	•
Composite Utility Plan	1	•	•	•
Details	4	• (3)	•	•
Erosion Control Plan	1	•	•	•
Detour Plan	1	•	•	•
<b>Total Sheets</b>		<b>17</b>	<b>19</b>	<b>19</b>

Table B - Drawing Submittal List   Phases 2 and 3 <sup>6</sup>					
Sheet Name	Sheet Count	PS&E Submittal Milestone			
		30%	60%	90%	Final
Cover Sheet	1	●	●	●	●
General Notes	1	●	●	●	●
Legend & Abbreviations	1	●	●	●	●
Sheet Map & Horizontal Control	1	●	●	●	●
Typical Sections	2	●	●	●	●
Roadway Cross Sections	2	●	●	●	●
Details	6		●	●	●
Alignment and Street Plan	6	●	●(5)	●(5)	●(5)
Grading and Storm Plan & Profile	6	●	●(5)	●(5)	●(5)
Utilities Plan & Profile	6	●	●(5)	●(5)	●(5)
Utility Undergrounding Plan	6			●	●
Esc Cover	1		●	●	●
Esc Notes	1		●	●	●
Esc Plan	4		●	●	●
Esc Details	2		●	●	●
Staging Plan	9	●	●(4)	●(4)	●(4)
Detour Plan	1	●	●	●	●
Illumination Legend	1		●	●	●
Illumination Plans	4		●	●	●
Illumination Details	1		●	●	●
Signing & Striping Plans	4		●	●	●
Signing & Striping Details	2		●	●	●
Sign & Post Data Table	1		●	●	●
Planting Legend and Notes	1		●	●	●
Planting Plan	4		●	●	●
Planting Details	2		●	●	●
Planting Mitigation Plan	1		●	●	●
<b>Total Sheets</b>		<b>36</b>	<b>66</b>	<b>72</b>	<b>72</b>

<sup>6</sup> Phase 3 to be developed to 30% design level.

Figure A – Topographic Survey Limits & Area of Potential Impact (API)



**VILLA ROAD IMPROVEMENTS DESIGN - HAWORTH TO CRESTVIEW  
CITY OF NEWBERG  
PROPOSED FEE ESTIMATE - AMENDMENT NO. 1**

	ESTIMATED FEES			
	MSA Labor	MSA Expenses	Subconsultant Fees & Expenses	Total
<b>Task 1 - Project Management</b>				
Task 1.1 - Overall Project Management	\$ 9,060	\$ 91	\$ -	\$ 9,151
Task 1.2 - Project Meetings	\$ 4,608	\$ 46	\$ -	\$ 4,654
Task 1.3 - Scheduling and Invoicing	\$ 4,730	\$ 47	\$ -	\$ 4,777
<b>Task 1 Subtotal</b>	<b>\$ 18,398</b>	<b>\$ 184</b>	<b>\$ -</b>	<b>\$ 18,582</b>
<b>Task 2 - Topographic Surveying and Boundary Survey</b>				
Task 2.1 - Pre-Construction Survey	\$ -	\$ -	\$ 6,600	\$ 6,600
Task 2.3 - Easements & Exhibits	\$ 1,552	\$ 160	\$ 6,600	\$ 8,312
Task 2.4 - Post-Construction Survey - New Task	\$ -	\$ -	\$ 5,280	\$ 5,280
<b>Task 2 Subtotal</b>	<b>\$ 1,552</b>	<b>\$ 160</b>	<b>\$ 18,480</b>	<b>\$ 20,192</b>
<b>Task 3 - Stakeholder Involvement</b>				
Task 3.3 - Individual Stakeholder Outreach	\$ (2,208)	\$ (22)	\$ -	\$ (2,230)
<b>Task 3 Subtotal</b>	<b>\$ (2,208)</b>	<b>\$ (22)</b>	<b>\$ -</b>	<b>\$ (2,230)</b>
<b>Task 4 - Environmental Coordination &amp; Permitting</b>				
Task 4.1 - Wetland Delineation and Reporting	\$ 1,104	\$ 11	\$ 8,969	\$ 10,084
Task 4.4 - Arch. & Historical Survey & Report <i>(Contingency Task)</i>	\$ -	\$ -	\$ 1,088	\$ 1,088
Task 4.5 - Joint Permit Application Preparation	\$ 1,264	\$ 85	\$ 4,476	\$ 5,825
Task 4.6 - Fish Passage Plan	\$ 1,656	\$ 17	\$ -	\$ 1,673
Task 4.8 - Stormwater Analysis and Reporting	\$ 12,858	\$ 309	\$ -	\$ 13,167

**VILLA ROAD IMPROVEMENTS DESIGN - HAWORTH TO CRESTVIEW  
CITY OF NEWBERG  
PROPOSED FEE ESTIMATE - AMENDMENT NO. 1**

	ESTIMATED FEES			
	MSA Labor	MSA Expenses	Subconsultant Fees & Expenses	Total
<b>Task 4.9 - Railroad Coordination and Permitting</b>	\$ 1,964	\$ 20	\$ 1,918	\$ 3,902
<b>Task 4 Subtotal</b>	<b>\$ 18,846</b>	<b>\$ 440</b>	<b>\$ 16,452</b>	<b>\$ 35,738</b>
<b>Task 5 - Geotechnical</b>				
<b>Task 5.2 - Field Explorations and Traffic Control Plan</b>	\$ -	\$ -	\$ 3,300	\$ 3,300
<b>Task 5.3 - Laboratory Testing</b>	\$ -	\$ -	\$ 1,100	\$ 1,100
<b>Task 5.5 - Geotech. Design Report and Foundation Data Sheets</b>	\$ -	\$ -	\$ 4,400	\$ 4,400
<b>Task 5 Subtotal</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 8,800</b>	<b>\$ 8,800</b>
<b>Task 6 - Utility Coordination</b>				
<b>Task 6.1 - Impact Assessment and Notifications</b>	\$ 3,852	\$ 39	\$ -	\$ 3,891
<b>Task 6.2 - Coordinate and Review Utility Relocation Designs</b>	\$ 2,876	\$ 29	\$ -	\$ 2,905
<b>Task 6 Subtotal</b>	<b>\$ 6,728</b>	<b>\$ 67</b>	<b>\$ -</b>	<b>\$ 6,795</b>
<b>Task 7 - Right-of-Way</b>				
<b>Task 7.3 - Appraisals/Appraisal Review (Contingency Task)</b>	\$ 276	\$ 3	\$ 4,873	\$ 5,152
<b>Task 7.4 - Acquisition (Contingency Task)</b>	\$ 276	\$ 3	\$ 2,069	\$ 2,348
<b>Task 7 Subtotal</b>	<b>\$ 552</b>	<b>\$ 6</b>	<b>\$ 6,942</b>	<b>\$ 7,500</b>
<b>Task 8 - PS&amp;E Delivery</b>				
<b>Task 8.1-4 30% - Final Design, Phase 2 &amp; 3 - Kiosk &amp; Arborist</b>	\$ -	\$ (2,000)	\$ (13,466)	\$ (15,466)
<b>Task 8.1 - 30% Design, Phase 1</b>	\$ 23,974	\$ 1,284	\$ -	\$ 25,258
<b>Task 8.2 - 60% Design, Phase 1</b>	\$ 28,944	\$ 1,801	\$ -	\$ 30,745

**VILLA ROAD IMPROVEMENTS DESIGN - HAWORTH TO CRESTVIEW  
CITY OF NEWBERG  
PROPOSED FEE ESTIMATE - AMENDMENT NO. 1**

	ESTIMATED FEES			
	MSA Labor	MSA Expenses	Subconsultant Fees & Expenses	Total
<b>Task 8.3 - 90% Design, Phase 1</b>	\$ 24,852	\$ 1,329	\$ -	\$ 26,181
<b>Task 8.4 - Final Design, Phase 1</b>	\$ 8,060	\$ 369	\$ -	\$ 8,429
<b>Task 8.1 - 30% Design, Phase 2 &amp; 3</b>	\$ -	\$ -	\$ -	\$ -
<b>Task 8.2 - 60% Design, Phase 2</b>	\$ 10,588	\$ 538	\$ 3,062	\$ 14,188
<b>Task 8.2 - 60% Design, Phase 3 (no deliverable)</b>	\$ 4,864	\$ 265	\$ -	\$ 5,129
<b>Task 8.3 - 90% Design, Phase 2</b>	\$ -	\$ -	\$ 2,457	\$ 2,457
<b>Task 8.4 - Final Design, Phase 2</b>	\$ -	\$ -	\$ 2,045	\$ 2,045
<b>Task 8 Subtotal</b>	<b>\$ 101,282</b>	<b>\$ 3,585</b>	<b>\$ (5,902)</b>	<b>\$ 98,965</b>
<b>Task 9 - Bid Services</b>				
<b>Task 9.1 - Questions During Bidding, Phase 1</b>	\$ 1,836	\$ 18	\$ -	\$ 1,854
<b>Task 9.2 - Addenda to Bid Documents, Phase 1 (Contingency Task)</b>	\$ 2,480	\$ 97	\$ -	\$ 2,577
<b>Task 9.1 - Questions During Bidding, Phase 2</b>	\$ -	\$ -	\$ -	\$ -
<b>Task 9.2 - Addenda to Bid Documents, Phase 2 (Contingency Task)</b>	\$ -	\$ -	\$ -	\$ -
<b>Task 9 Subtotal</b>	<b>\$ 4,316</b>	<b>\$ 115</b>	<b>\$ -</b>	<b>\$ 4,431</b>
<b>Task 10 - Construction Services - New Task</b>	\$ -	\$ -	\$ -	\$ -
<b>Task 10.1 - Meetings, Phase 1</b>	\$ 13,408	\$ 134	\$ 528	\$ 14,070
<b>Task 10.2 - Consultation During Construction, Phase 1</b>	\$ 10,756	\$ 468	\$ 352	\$ 11,576
<b>Task 10.3 - Construction Inspection Services, Phase 1</b>	\$ 4,032	\$ 40	\$ 682	\$ 4,754
<b>Task 10.4 - Submittals &amp; Processing, Phase 1</b>	\$ 2,992	\$ 30	\$ 528	\$ 3,550
<b>Task 10.5 - Record Drawings, Phase 1</b>	\$ 3,528	\$ 323	\$ -	\$ 3,851
<b>Task 10.1 - Meetings, Phase 2</b>	\$ 15,616	\$ 156	\$ 7,638	\$ 23,411

**VILLA ROAD IMPROVEMENTS DESIGN - HAWORTH TO CRESTVIEW  
CITY OF NEWBERG  
PROPOSED FEE ESTIMATE - AMENDMENT NO. 1**

	ESTIMATED FEES			
	MSA Labor	MSA Expenses	Subconsultant Fees & Expenses	Total
<b>Task 10.2</b> - Consultation During Construction, Phase 2	\$ 10,756	\$ 468	\$ 2,605	\$ 13,828
<b>Task 10.3</b> - Construction Inspection Services, Phase 2	\$ 4,032	\$ 40	\$ 3,447	\$ 7,520
<b>Task 10.4</b> - Submittals & Processing, Phase 2	\$ 2,992	\$ 30	\$ 6,573	\$ 9,594
<b>Task 10.5</b> - Record Drawings, Phase 2	\$ 3,528	\$ 323	\$ 2,776	\$ 6,628
<b>Task 10 Subtotal</b>	\$ 71,640	\$ 2,012	\$ 25,130	\$ 98,782
<b>TOTAL - ALL TASKS</b>	\$ 221,106	\$ 6,547	\$ 69,902	\$ 297,555