



PUBLIC WORKS DEPARTMENT – CIP ENGINEERING
525 N Third Avenue
Pasco, WA 99301
Phone 509.545.3444

REQUEST FOR QUALIFICATIONS

Engineering Services for EAST AND WEST UGA EXPANSION SEWER LID PROJECTS Projects #21295 and #21296

RESPONSE DUE: October 20th, 2021 at 2:00PM

September 2021

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1 INFORMATION AND INSTRUCTIONS

1.1 INVITATION TO PROPOSE

The City of Pasco (City), Washington, Department of Public Works – Capital Improvements Program (CIP) Engineering Division is soliciting a Statement of Qualifications (SOQ) from qualified Consultants registered in the State of Washington to provide professional engineering services for the East and West Urban Growth Area (UGA) Expansion Sewer Local Improvement District (LID), Projects #21295 and #21296. This Request for Qualifications (RFQ) is intended to provide sufficient information for qualified Consultants to submit a written SOQ demonstrating recent experience in the design of municipal sewer conveyance improvement projects financed through administration of LIDs with property owners and developers.

The Scope of Work will include, but not limited to, the following elements:

- Project Management
- LID Administration Support
- Community and Stakeholder Engagement
- Design Services
- Environmental Permitting Services
- Right-of-Way Acquisition Services
- Bidding and Construction Support

The complete RFQ and full scope of work may be obtained via the City website – <http://www.pasco-wa.gov/Bids.aspx>. It is the sole responsibility of the Consultant to obtain any RFQ updates or addenda from the City's website.

Responses shall be submitted electronically. One electronic copy, including attachments, shall be transmitted to Dustin Wittman at wittmand@pasco-wa.gov. Email Subject shall be: 'EAST AND WEST UGA EXPANSION – SEWER LID – CONSULTANT SERVICES SOQ' with a maximum size of 20mb. **The due date is October 20, 2021 no later than 2:00 pm.**

Technical questions regarding the scope of this project should be put in writing and directed to Brittany Whitfield at whitfieldb@pasco-wa.gov, no less than three working days prior to the time that submittals are due.

The City of Pasco, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises as defined at 49 CFR Part 26 will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the ground of race, color, national origin, or sex in consideration for an award.

Projects funded wholly or in part by Federal appropriations must comply with Code of Federal Regulations; 24 CFR 570.502, 24 CFR 85.36, 2 CFR 200. All federally-funded projects will be held to federal Equal Employment Opportunity (EEO) requirements. The City of Pasco is an equal opportunity and affirmative action employer. Small, minority, and women-owned businesses are encouraged to submit bids. The City of Pasco in accordance with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act (ADA), commits to nondiscrimination on the basis of disability, in all of its programs and activities. This material can be made available in an alternate format by e-mailing Dustin Wittman at wittmand@pasco-wa.gov or calling (509) 545-3447.

Those submitting Firms determined to be best qualified to undertake the services required under this Request for Qualifications (RFQ) may be invited to make a presentation to the City's interview team.

The City Council reserves the right to reject any and all responses and to waive technicalities or irregularities, and after careful consideration of all submissions and factors involved make the award to best serve the interests of the City of Pasco.

City of Pasco, Washington

Brandon Lane

Prepared by Brandon Lane, EIT, Project Manager



Reviewed by Brittany Whitfield, PE, Senior Engineer



Approved by Maria Serra, PE, CIP Manager

1.2 INTENT OF THE CITY

The objective of this RFQ is to provide sufficient information to enable qualified Consultants to submit a single, written Statement of Qualifications (SOQ). The Consultant's SOQ shall demonstrate their recent and relative Engineering services experience provided for the development/consultation of the LID and development of the sewer design plans and specifications for public agencies.

It is the City's intent to have a Consultant administer the LID and perform the complete design and bid package documents for two projects to provide sewer conveyance systems within the City's expanded UGA boundary. The selected Consultant is expected to work closely with the City's Public Works – CIP Engineering Division and Operations Division of Public Works, as well as coordinate with property owners and other stakeholders as part of the project team to successfully complete these projects.

This RFQ is not a contractual offer, nor is it a commitment to purchase services. Contents of this RFQ and the Consultant's submittal will be used as the basis to determine final contractual obligations. It is understood that this RFQ and the successful Consultant's submittal may be attached or included by reference, in part or in whole, to any agreement regarding the services included in this RFQ between the City and said Consultant.

1.3 QUESTIONS

Any explanation desired by a submitting Consultant regarding the meaning or interpretation of the RFQ, or any part thereof, must be submitted in writing (via email) and directed to Dustin Wittman at wittmand@pasco-wa.gov, no less than three working days prior to the time that submittals are due.

Any interpretation made will be in the form of an addendum to the RFQ, issued by the City and will be posted to the City Website – <http://www.pascowa.gov/Bids.aspx>. It is the sole responsibility of the Consultant to obtain any RFQ updates or addenda. Please include “**EAST AND WEST UGA EXPANSION – SEWER LID – ENGINEERING SERVICES RFQ**” in the subject line for all emails and correspondence related to these projects.

1.4 SUBMISSION PROCEDURES

For consideration, Consultants are required to submit an electronic copy of their SOQ. Failure to provide the submittal in the appropriate manner will result in disqualification. Hard-copy or fax submittals are not permitted and will not be accepted. One electronic copy, including attachments, shall be transmitted to Dustin Wittman at wittmand@pasco-wa.gov. Receipt time of submittal will be considered the time-stamp of the incoming email created automatically by the City's email server. Consultants are encouraged to submit the SOQ's with adequate time for the email to be processed by the City's email server.

Email Subject shall be: **EAST AND WEST UGA EXPANSION – SEWER LID – CONSULTANT SERVICES SOQ**
Due Date: Wednesday, October 20, 2021 at 2:00PM

1.5 LATE SUBMITTALS AND MODIFICATIONS

Submittals and modifications thereof received after the stated time of closing may be returned unopened. The City is not responsible for late deliveries. In accordance with the due date from Section 1.4 of this RFQ, the time of closing will be determined per the Pacific Time Clock at <http://www.time.gov/>.

1.6 WITHDRAWAL OF SUBMITTALS

Submittals may be withdrawn by written request up to one (1) hour after the stated time of closing, as mentioned above. Determination of the one-hour grace period shall be calculated based on the same reference as identified in Section 1.5.

1.7 CONDITIONS AFFECTING THE WORK

Before submitting a Statement of Qualifications, each submitting Consultant is advised to:

- 1) Examine this RFQ document(s) thoroughly.
- 2) Review and be familiar with the proposed LID projects concept. More information can be found in the Technical Memorandum titled *Expanded Urban Growth Area LID Breakout Analysis*, issued September 2, 2021. Included as Appendix B in this RFQ.
- 3) View the September 13, 2021 Council Workshop Meeting Item 5 (d) - Proposed UGA Sewer LIDs. <https://psctv.viebit.com/player.php?hash=xpxNMTQfKVSv>
Full agenda at: <https://bit.ly/PascoCouncil091321>
- 4) Ensure understanding of federal, state, and local laws, ordinances, rules, and regulations that may – in any manner – affect the cost, progress, or performance of the work and LID administration.
- 5) Study and carefully correlate said Consultant's observations with the RFQ response.

Failure to do so will not relieve any Consultant from any contractual obligations of the work described herein.

1.8 EXPLANATIONS FOR SUBMITTING CONSULTANTS

There are twelve (12) pages in this RFQ, including the cover sheet, table of contents and body, excluding appendices. Each is sequentially numbered at the bottom right corner of the page (Pages 1 through 12). Appendices A and B retained their independent numbering system. It is the responsibility of the submitting Consultant to ensure that all pages are included. If any pages are missing, the Consultant should immediately request a copy of the missing page(s) by emailing the request to the City Representatives listed in Section 1.9. Please write “**EAST AND WEST UGA EXPANSION – SEWER LID – ENGINEERING SERVICES RFQ**” in the subject lines. It is the responsibility of the Consultant to procure missing pages; submittals based on incomplete information will not be granted exception for any faults deriving thereof.

Any explanation desired by a submitting Consultant regarding the meaning or interpretation of the RFQ, or any part thereof, must be requested in writing (via email) and directed to all City Representatives listed in Section 1.9, no less than 72 hours prior to the time that submittals are due. Any interpretation made will be in the form of an addendum to the RFQ, issued by the City and will be posted to the City Website – <http://www.pasco-wa.gov/Bids.aspx> . It is the sole responsibility of the Consultant to obtain any RFQ updates or addenda.

1.9 CITY REPRESENTATIVES

Brittany Whitfield, PE – Senior Engineer
City of Pasco
525 N 3rd Avenue
Pasco, WA 99301
whitfieldb@pasco-wa.gov

Brandon Lane, EIT – Engineer II
City of Pasco
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Pasco, WA 99301
laneb@pasco-wa.gov

Dustin C Wittman, CPSM – Project Support Specialist
City of Pasco
525 N 3rd Avenue
Pasco, WA 99301
wittmand@pasco-wa.gov

1.10 FORMAT OF SUBMITTALS

To assist in the evaluation process, submittals shall conform to the following:

- 1) The submittal shall be limited to a maximum of 10 numbered pages (5 double-sided pages).
- 2) All pages will be counted towards the page total, except for the front cover, back cover, tab pages (if any), resumes, references, and the cover letter. The cover letter shall be limited to a maximum of 1 double-sided page.
- 3) All pages shall be printed on 8½" x 11" size paper and shall be printed double-sided.
- 4) Font shall be "Arial" no smaller than "10 point". The body of this RFQ is written in "Arial 10-point" as example.
- 5) Margins on all edges should be a minimum of 0.75-inches.

1.11 BASIS FOR SELECTION

A. GENERAL

The selection will be based on demonstrated experience and qualifications from similar sewer infrastructure projects and LID administration. For the purpose of this RFQ, similar projects shall mean the completion of design and bid documents for capital improvements for expansion of existing sewer systems. The Consultant shall demonstrate their recent experience in providing engineering services on similar projects involving design of municipal sewer systems and LID administration. Consultants must also demonstrate their ability to work closely with City Public Works staff and property owner coordination to ensure a successful completion of the project.

B. SELECTION COMMITTEE

The Selection Committee will be made up City selected individuals and may include the City Representatives listed in Section 1.9 of this RFQ.

C. EVALUATION PROCESS

The Selection Committee will review the SOQ submittal and evaluate all responses received based on the criteria listed herein. The City intends to select the Consultant who represents the most qualified team to the City and begin the negotiation and award process based on the evaluated scores. Submittals will be scored based on Evaluation Criteria from Section 3.1 of this RFQ. The City reserves the right to make a selection based solely on the information contained in the written submittal.

The City further reserves the right to either interview selected Consultants or request additional information to help in determining the most qualified Consultant. Should the City elect to conduct an interview for shortlisted candidates, interviews will be evaluated per criteria from Section 3.3 of this RFQ. The City may make a selection based on any combination of written or interview evaluations.

Selection of the committee shall be final. The selected Consultant shall be notified in writing by the City, and no other method shall be considered to be an official notification of selection by the City.

The City reserves the right to reject any or all of the submittals. If the City elects to select one of the submitting Consultants, the City will have the right to negotiate with said submitting Consultant over the final terms and conditions of the contract in the best interest of the City. The primary objective of the negotiations is to maximize the City's ability to obtain the best value, based on the requirements and evaluations relating to this RFQ. If an agreement cannot be reached, the negotiations will be terminated and similar negotiations will occur with the second-ranked submitting Consultant.

1.12 PROFESSIONAL SERVICES AGREEMENT

The successful Consultant will be required to sign the City's Professional Services Agreement, a copy of which is enclosed to this RFQ in Appendix A. Please write "EAST AND WEST UGA EXPANSION – SEWER LID – ENGINEERING SERVICES RFQ" in the subject line for all emails and correspondence related to this project. All submitting Consultants are directed to carefully review the Professional Services Agreement before preparing their submittal, as the successful Consultant will not be able to significantly modify the wording of the City's Professional Services Agreement. The successful Consultant's refusal to sign the City's Professional Services Agreement may render their submission nonresponsive, all dialogues be immediately terminated, and negotiations may begin with the second ranked submitting Consultant.

2 SCOPE OF WORK

2.1 BACKGROUND

The City of Pasco (City) has completed an addendum to its Comprehensive Sewer Plan (CSP). Included in this work is the UGA expansion Sewer LID breakout analysis which is documented in a technical memorandum titled *Expanded Urban Growth Area LID Breakout Analysis (September 2021), performed by RH2 Engineering*. The intent of this memorandum is to provide a detailed analysis of the City's expanded UGA boundary and how it might logically be broken out into future local improvement district (LID) areas based on projected growth. Figure 1 shows the areas specifically evaluated as part of this analysis, with the City's proposed 20-year Capital Improvement Program (CIP) improvements shown in the figure as well for reference. The East UGA Expansion LID includes approximate 1,000-acres east of Road 68, and approximate 150-acres adjacent to Railroad Avenue. The West UGA Expansion LID includes approximate 1,700-acres west of Road 68. The proposed sanitary sewer infrastructure improvements include lift stations, force mains, and gravity sewer trunk lines to provide the backbone infrastructure for the development of these areas.

Figure 1 below illustrates the areas of effect and the preliminary layout of gravity lines, lift stations and force mains for both sewer LID project scopes. This is also intended to identify project areas which ensure connections to existing sewer mains. Lines in green are proposed gravity mains, orange are proposed force mains, and LS are for the proposed Lift Stations.

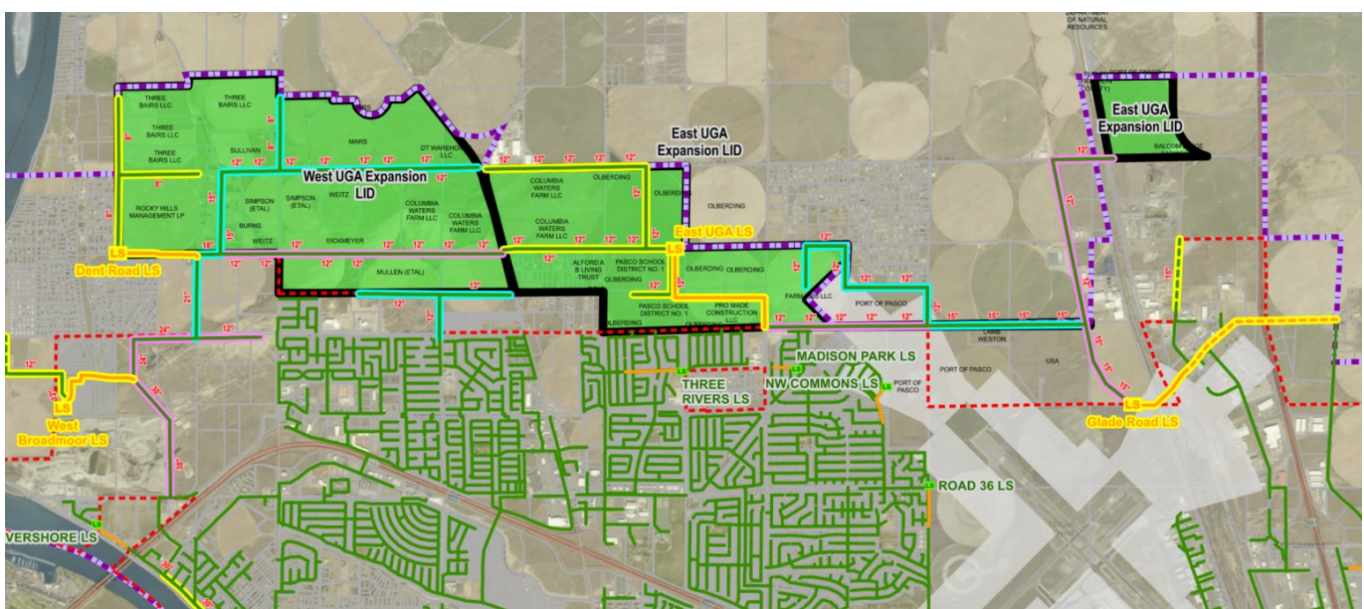


Figure 1 – UGA Expansion Overview

2.2 PURPOSE

This RFQ is issued for the purpose of soliciting qualified Consultants to perform Engineering Services for City of Pasco's East and West UGA Expansion Sewer LID projects, acting as an extension of City Staff. Work will include, but is not limited to, the services requested in Section 2.3 – Scope of Work. Consultants must be able to demonstrate experience in providing these services to a municipal agency. The selected Consultant shall be responsible for performing all tasks necessary to complete the work that will help deliver bid documents and any efforts described within this RFQ. The Engineering Services contract will ensure a successful, timely, and on-budget completion of the project. The selected Consultant shall be responsible for performing all tasks necessary to complete the work as described herein.

2.3 SCOPE OF WORK

City of Pasco staff has listed items included in the scope of work to aid the Consultant in identifying the level of service required for this contract. The following lists are not all-inclusive. The scope of work may include, but is not limited to:

PROJECT MANAGEMENT & LID ADMINISTRATION

- Monitor and track schedule and budget.
- Prepare and provide monthly invoices with progress reports.
- Provide appropriately qualified staff in support of this project. Administration of resources to ensure timely advancement of the project.
- Schedule meetings. Prepare and distribute meeting agendas and minutes, including kickoff meeting.
- Coordination with oversight agencies as needed to complete regulatory and environmental reviews.
- Provide LID administration.
- Coordination with stakeholders including property owners and developers within the LID areas.
- Prepare Special benefit analysis
- Perform preliminary assessments and final assessment roll.
- Facilitate public meetings and Council presentations

DESIGN SERVICES

- Provide topographic surveying
- Provide Geotechnical exploration
- Provide Environmental services and reports, as necessary.
- Prepare all design documentation including: Plans, Specifications, and Estimate (PS&E) necessary to conform to regulatory requirements and other standards applicable to sewer systems.
- The selected Consultant should anticipate processing any additional documentation if requested to achieve complete environmental compliance (i.e., SEPA, NEPA, etc.).
- Prepare engineering cost estimates and LID cost estimates.
- Coordination of proposed design with development plans for the area

RIGHT-OF-WAY SERVICES

- Perform acquisition of Right-of-Way (easements) as needed.

BIDDING SUPPORT

- Assist in answering prospective bidder questions.
- Prepare addenda for issuance.
- Review of bids and other documentation.

CONSTRUCTION SUPPORT

- Construction observation and/or inspection, if needed
- Preparation of construction related permit applications, if needed.
- Answer Requests for Information (RFIs).
- Review of submittals.

- Provide construction support and/or management services, as determined necessary, including record management.

2.4 PROJECT SCHEDULE

It is the City's intention to commence formation of the LIDs with coordination with property Owners and other stakeholders anticipated in the last quarter of 2021. The City anticipates moving forward with design and subsequent phases of the projects with no delay after consultant selection. Both projects may not advance at the same time or pace. East UGA expansion Sewer LID is anticipated to need to be operational by mid-2023.

NOTE: Schedule may be impacted by Appeal to County's approval of the City of Pasco's Urban Growth Area Expansion.

2.5 CITY RESPONSIBILITIES

City staff will assist the selected Consultant where possible but said Consultant should anticipate and be prepared to be completely self-reliant in accomplishing the tasks associated with this RFQ. The City will provide, when available, historical information and any other associated documents.

3 SELECTION CRITERIA

3.1 SUBMITTAL REQUIREMENTS

At a minimum, the following items shall be included in the Statement of Qualifications (SOQ) submittal. The Selection Committee will perform a review of submitted SOQs based on the point distribution provided in this section.

After the Due Date, submittals received by the City will be provided to the Selection Committee for evaluation. Each submittal will be reviewed by the Selection Committee and scored based upon requirements set forth in this Section. Those requirements, and the scoring below, establish the evaluation criteria herein.

1) EXPERIENCE & QUALIFICATIONS

A. Proposed Staff, Qualifications (30 Points Possible)

In a narrative, identify the proposed staff member(s) for these services (include working titles, degrees, certificates, and licenses) describe the roles and responsibility of each team member and why each member is critical to the success of the overall contract. Experience will be evaluated on two criteria (a) LID administration and (b) Sewer System design, including large diameter gravity conveyance system and lift station and force main systems

Describe the individual's experience and capacity for providing the services being requested in this RFQ. Identify key members by name, position, discipline, and firm, as well as key back up personnel. Key back up personnel shall be provided for all staff in the org chart.

- Resume of Consultant's key individual(s) and back up personnel are to be included as an appendix. Resume length shall not exceed one page per team member. DO NOT submit resumes of employees who will not actively work on this project. Note that changing key personnel after the contract has been awarded will be subject to the review and approval of the City. On each key individual's resume, provide a list of all LID projects and/or sewer projects completed in the last 5 years by this individual, and a description of the key individual's role in several key projects, including each of the projects shown in the project history matrix this staff member participated in. Teams demonstrating positive previous collaboration in similar roles on the same types of projects, are preferred.

- Provide the forecasted availability of key member(s) to work on this project in average hours per week over the duration of the contract period.

B. Project History Summary & Matrix (15 Points Possible)

- Provide description of previous experience, including a summarized Project History Matrix. Indicate what services the proposed firm rendered for each project referenced. At a minimum, provide a list of five (5) recent sewer design contracts/projects the Consultant has completed in the last 10 years. LID projects will be considered a plus. Include a point of contact for each one, contact information (phone and email), a brief description of the services provided.
- Provide a matrix listing the same projects, and the team the Consultant proposed for this project to show the extent to which the proposed team has worked on these projects. Note that only projects completed by key members of the project team will be considered. For each of the listed projects, provide the following information:
 - i. A detailed description of the project scope and the role of the Consultant on the project.
 - ii. Awarded construction contract value.
 - iii. Final construction value (after change orders).

C. References (5 Points Possible)

Provide the contact information (to include names, phone numbers, and email) for a minimum of three references for the key consultant and their sub-consultants. References should have direct experience with the Project Manager and other proposed key team members on services of similar characteristics.

2) SCOPE UNDERSTANDING & APPROACH

A. Understanding of Requested Services (25 points Possible)

Describe the Consultant's understanding of:

- Local Improvement District (LID) processes in accordance with applicable RCW
- Project objectives and timelines
- Project schedule requirements by providing a proposed project schedule to demonstrate Consultant's approach to meeting Section 2.4 – Project Schedule.
- Effective project management methodologies, techniques, and tools, along with possible pitfalls associated with this work. The Consultant's approach to implementing strategies to advance projects effectively and minimize risks.
- Stakeholder engagement and coordination

B. Description of Approach (20 points Possible)

Describe how the Consultant's team will:

- Manage and coordinate the necessary disciplines required for accomplishing the services requested.
- Lead the project in a way that will result in full compliance with regulatory and funding methodology requirements.
- Approach the gathering of required data and strategies to filling any anticipated gaps.
- Coordinate with City staff, funding and oversight agencies, and stakeholders.
- Approach working during the ongoing COVID-19 protective measures, and accomplishing tasks within the mandated timeframe, should these measures be reenacted.

3) PRESENTATION, ORGANIZATION AND CLARITY OF SOQ SUBMITTAL

A. Formatting, Document Clarity (5 Points Possible)

- Consultant's SOQ shall follow formatting requirements as set forth in Section 1.10 of this RFQ. Organization of the SOQ, and the manner in which information is presented, should promote the Consultant's ability to assemble clear and concise documentation.

3.2 CONSULTANT QUALIFICATIONS

The required minimum qualifications for submitting Consultants are as follows:

- 1) Staff shown in the organization chart should currently possess all applicable certifications and licensing from the State of Washington required to complete the project.
- 2) Knowledge of all applicable Federal, State, and local regulations and standards.
- 3) Minimum of 5 years of experience in providing Architectural & Engineering services for public agencies, specifically related to engineering design services for Capital Improvement Projects to sewer systems.

3.3 INTERVIEW PROCESS

Should the City elect to conduct interviews with short-listed candidates, Consultants should plan for the following:

- 1) Interview format (if used): The City may elect to conduct a phone interview without the requirement of a presentation.
 - A. Approximately 30-minute presentation.
 - B. Approximately 30 minutes for questions and answers.
 - C. The Consultant's proposed Project Manager shall lead the presentation.
 - D. The City may elect to conduct a phone (or telecommunications) interview without the requirement of a presentation.
- 2) Presentation: The objective of the interview will be to clearly demonstrate the Consultant's qualifications to complete the project to the satisfaction of the City. The presentation shall be brief and concise and shall include but shall not be limited to:
 - A. Team Organization and Qualifications
 - B. Project History
 - C. Project Understanding
 - D. Description of Approach
 - E. A discussion of how the team proposes to manage this project and successfully keep it on schedule and within budget, including a discussion of the proposed project schedule.
 - F. A description of how the Project Manager and the team propose to work and communicate with the City and the public throughout the project.

Following a review of the submitted SOQ's, the City may establish specific requirements and content for the interview to further aid in the determination of the Consultant's qualifications. The selection team may prepare a list of standard questions for the interview. Additional questions may be developed based on the Consultant's Statement of Qualifications to clarify information submitted.

Following selection of a Consultant, the City will then negotiate a specific scope of services, fees, and schedule with the selected Consultant. If an agreement cannot be reached with the first selected Consultant, the City will terminate negotiations with said Consultant and open negotiations with the second ranked Consultant. The compensation discussed with one Consultant is confidential and will not be discussed or disclosed with others.

APPENDIX A: PROFESSIONAL SERVICES AGREEMENT

{PROJECT NAME}
Agreement No. XXXXX

THIS AGREEMENT is made and entered into between the City of Pasco, a Washington Municipal Corporation, hereinafter referred to as "City", and **{CONSULTANT}**, hereinafter referred to as "Consultant," on the _____ day of _____, 2021.

RECITALS

WHEREAS, the City desires to have certain services and/or tasks performed as set forth below requiring specialized skills, training, equipment, and other supportive capabilities; and

WHEREAS, the Consultant represents that it is qualified and possesses sufficient skills, experience, equipment, and necessary capabilities, including: technical and professional expertise, when required, to perform the services and/or tasks as set forth in this Agreement upon which the City is relying.

NOW, THEREFORE, in consideration of the mutual covenants, and performances contained herein, the parties agree as follows:

1. **Scope of Services.** The Consultant shall perform such services and accomplish such tasks, including the furnishing of all labor, materials, facilities and equipment necessary for full performance thereof, as identified and designated as Consultant's Responsibilities throughout this Agreement, and as more particularly described in Scope of Work detailed in **{Exhibit No./Letter}**, attached hereto and incorporated herein (the "Project").
2. **Term.** This Project shall begin on the execution date listed above and promptly be completed by **XXXXXX**.
3. **Compensation and Payment.**
 - 3.1 Payment for services provided hereunder shall be made following the performance of such services. Such payment shall be full compensation for work performed or services rendered, and for all labor, materials, supplies, equipment, and incidentals necessary to complete the Project.
 - 3.2 No payment shall be made for any services rendered by the Consultant except for services identified and set forth in this Agreement except as may be authorized by a written supplemental agreement approved by the City.
 - 3.3 The City shall pay the Consultant for work performed under this Agreement upon timely submitted invoices detailing work performed and expenses for which reimbursement is sought. The City shall approve all invoices before payment is issued. Payment shall occur within thirty (30) days of receipt and approval of an invoice.
 - 3.4 The City shall pay the Consultant for all work performed and expenses incurred under this Agreement, as follows.
 - ☐ Hourly (Single Rate): \$_____ per hour plus actual expenses incurred as provided under this Agreement, but not to exceed a total of \$_____ without prior written authorization by the City; or
 - ☐ Hourly (Multiple Rate): Such rates as identified on **{Exhibit No./Letter}**, plus actual expenses incurred as provided under this Agreement, but not to exceed a total of \$_____ without the prior written authorization by the City; or
 - ☐ Fixed Sum: A total of \$_____; or
 - ☐ Other: _____

4. Reports and Inspections.

- 4.1 The Consultant at such times and in such forms as the City may require, shall furnish to the City such statements, records, studies, surveys, reports, data, and information as the City may request pertaining to matters covered by this Agreement.
- 4.2 The Consultant shall, at any time during normal business hours and as often as the City or the Washington State Auditor may reasonably deem necessary, make available for examination all of its records and data with respect to all matters covered, directly or indirectly, by this Agreement and shall permit the City, or its designated authorized representative to audit and inspect other data relating to all matters covered by this Agreement. The City shall receive a copy of all audit reports made by the agency or Consultant as to the Consultant's activities. The City may, at its discretion, conduct an audit at its expense, using its own or outside auditors, of the Consultant's activities which relate, directly or indirectly, to this Agreement. Consultant shall be provided a copy of such reports.
- 4.3 The Consultant, during the term of this Agreement, shall obtain all permits and registration documents necessary for the performance of its work and for the execution of services at its own expense, and shall maintain its validity. Upon request, the Consultant shall deliver to the City copies of these licenses, registration documents, and permits or proof of their issuance or renewal.
- 4.4 Consultant shall maintain books, records and documents, which sufficiently and properly reflect all direct and indirect costs related to the performance of this Agreement, and shall maintain such accounting procedures and practices as may be necessary to assure proper accounting of all funds paid pursuant to this Agreement. These records shall be subject, at all reasonable times, to inspection, review, or audit as provided above.
- 4.5 The Consultant shall retain all books, records, documents or other material relevant to this Agreement for three (3) years after its expiration. Consultant agrees that the City, or its designee, shall have full access and right to examine any of said materials at all reasonable times during this period.

5. Ownership and Use of Documents.

- 5.1 All research, tests, surveys, preliminary data, information, drawings and documents made, collected, or prepared by the Consultant for performing the services subject to this Agreement, as well as any final product, collectively referred to as "work product," shall be deemed as the exclusive property of the City, including copyright as secured thereon. Consultant may not use them except in connection with the performance of the services under this Agreement or with the prior written consent of the City. Any prior copyrighted materials owned by the Consultant and utilized in the performance of the services under this Agreement, or embedded in with the materials, products and services provided thereunder, shall remain the property of the Consultant subject to a license granted to the City for their continued use of the products and services provided under this Agreement. Any work product used by the Consultant in the performance of these services which it deems as "confidential," "proprietary," or a "trade secret" shall be conspicuously designated as such.
- 5.2 In the event of Consultant's default, or in the event that this Agreement is terminated prior to its completion, the work product of the Consultant, along with a summary of the services performed to date of default or termination, shall become the property of the City, and tender of the work product and summary shall be a prerequisite to final payment under this Agreement. The summary of services provided shall be prepared at no additional cost, if the Agreement is terminated through default by the Consultant. If the Agreement is terminated through convenience by the City, the City agrees to pay Consultant for the preparation of the summary of services provided.

6. Public Records.

- 6.1 Consultant acknowledges that the City is an agency subject to Chapter 42.56 RCW "Public Records Act." All preliminary drafts or notes prepared or gathered by the Consultant, and recommendations of the Consultant are exempt prior to the acceptance by the City or public citation by the City in connection with City action.
- 6.2 If the Consultant becomes a custodian of public records of the City and request for such records is received by the City, the Consultant shall respond to the request by the City for such records within five (5) business days by either providing the records, or by identifying in writing the additional time necessary to provide the records with a description of the reasons why additional time is needed. Such additional time shall not exceed twenty (20) business days unless extraordinary good cause is shown.
- 6.3 In the event the City receives a public records request for protected work product of the Consultant within its possession, the City shall, prior to the release of any protected work product or as a result of a public records request or subpoena, provide Consultant at least ten (10) business days prior written notice of the pending release and to reasonably cooperate with any legal action which may be initiated by the Consultant to enjoin or otherwise prevent such release.

7. Independent Contractor Relationship.

- 7.1 The parties intend that an independent contractor relationship is created by this Agreement. The City is interested primarily in the results to be achieved; subject to the scope of services and the specific requirements of this Agreement, the implementation of services will lie solely with the discretion of the Consultant. No agent, employee, officer or representative of the Consultant shall be deemed to be an employee, agent, officer, or representative of the City for any purpose, and the employees of the Consultant are not entitled to any of the benefits or privileges the City provides for its employees. The Consultant will be solely and entirely responsible for its acts and for the acts of its agents, employees, officers, subcontractors or representatives during the performance of this Agreement.
- 7.2 In the performance of the services provided in this Agreement, Consultant is an independent contractor with full authority to control and direct the performance of the details of the work, however, the results of the work contemplated herein must meet the approval of the City and shall be subject to the City's general rights of inspection and review to secure the satisfactory completion thereof.
- 7.3 The Consultant shall comply with all State and Federal laws including, but not limited to:
- 7.3.1 The definition requirements of RCW 50.04.140 (Employment Security).
- 7.3.2 RCW 51.08.195 (Industrial Insurance).
- 7.3.3 Obtain a City of Pasco business license.
- 7.4 The City may, at its sole discretion, require the Consultant to remove any employee, agent or servant from employment on this Project who, in the City's sole discretion, may be detrimental to the City's interest.

8. Indemnification.

- 8.1 The Consultant shall defend, indemnify, and hold harmless the City, its officers, officials, employees, and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising out of or resulting from the acts, errors or omissions of the Consultant in performance of this Agreement, except for injuries and damages caused by the sole negligence of the City.
- 8.2 However, should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Consultant, and the City, its

EAST AND WEST UGA EXPANSION SEWER LID (#21295 & #21296)– Engineering Services RFQ
 officers, officials, employees, and volunteers, the Consultant's liability, including the duty and cost to defend, hereunder shall be only to the extent of the Consultant's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the Consultant's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

- 8.3 No liability shall attach to the City by reason of entering into this Agreement except as expressly provided herein.
- 8.4 This indemnification shall include damages, penalties and attorney fees sustained as a result of Consultant's delayed or failed performance of Section 6 above.

9. **Insurance.** The Consultant shall procure and maintain for the duration of the Agreement, insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Consultant, its agents, representatives, employees, or subcontractors. The Consultant's maintenance of insurance as required by the Agreement shall not be construed to limit the liability of the Consultant to the coverage provided by such insurance, or otherwise limit the City's recourse to any remedy available at law or in equity.

- 9.1 **Minimum Scope of Insurance.** Consultant shall obtain insurance of the types described below:

- 9.1.1. Automobile Liability insurance covering all owned, non-owned, hired and leased vehicles. Coverage shall be written on Insurance Services Office (ISO) form CA 00 01.
- 9.1.2. Commercial General Liability insurance shall be at least as broad as ISO occurrence form CG 00 01 and shall cover liability arising from premises, operations, stop-gap independent contractors and personal injury and advertising injury. The City shall be named as an additional insured under the Consultant's Commercial General Liability insurance policy with respect to the work performed for the City using an additional insured endorsement at least as broad as ISO endorsement form CG 20 26.
- 9.1.3. Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington.
- 9.1.4. Professional Liability insurance appropriate to the Consultant's profession.

- 9.2 **Minimum Amounts of Insurance.** Consultant shall maintain the following insurance limits:

- 9.2.1. Automobile Liability insurance with a minimum combined single limit for bodily injury and property damage of \$1,000,000 per accident.
- 9.2.2. Commercial General Liability insurance shall be written with limits no less than:
- ☐ \$2,000,000 each occurrence;
 - ☐ \$2,000,000 general aggregate; or
 - ☐ \$_____ each occurrence; and \$_____ general aggregate
- 9.2.3. Professional Liability insurance shall be written with limits no less than:
- ☐ \$2,000,000 per claim;
 - ☐ \$2,000,000 policy aggregate limit; or
 - ☐ \$_____ per claim; and \$_____ per policy aggregate limit

- 9.3 **Other Insurance Provisions.** The Consultant's Automobile Liability, Professional Liability, and Commercial General Liability insurance policies are to contain, or be endorsed to contain that they shall be primary insurance as respect the City. Any insurance, self-insurance, or self-insured pool coverage maintained by the City shall be excess of the Consultant's insurance and shall not contribute with it.

9.3.1. The Consultant's insurance shall be endorsed to state that coverage shall not be cancelled by either party, except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City.

9.4 Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best rating of not less than A:VII.

9.5 Verification of Coverage. Consultant shall furnish the City with original certificates and a copy of the amendatory endorsements, including, but not necessarily limited to, the additional insured endorsement evidencing the insurance requirements of the Consultant before commencement of the work.

9.6 Notice of Cancellation. The Consultant shall provide the City with written notice of any policy cancellation within two (2) business days of their receipt of such notice.

9.7 City Full Availability of Consultant Limits. If the Consultant maintains higher insurance limits than the minimums shown above, the City shall be insured for the full available limits of Commercial General and Excess or Umbrella liability maintained by the Consultant, irrespective of whether such limits maintained by the Consultant are greater than those required by this Agreement or whether any certificate of insurance furnished to the City evidences limits of liability lower than those maintained by the Consultant.

9.8 Failure to Maintain Insurance. Failure on the part of the Consultant to maintain the insurance as required shall constitute a material breach of contract, upon which the City may, after giving five (5) business days notice to the Consultant to correct the breach, immediately terminate the Agreement or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the City on demand, or at the sole discretion of the City, offset against funds due the Consultant from the City.

10. **Nondiscrimination.** In the performance of this Agreement, the Consultant will not discriminate against any employee or applicant for employment on the grounds of race, creed, color, national origin, sex, marital status, age or the presence of any sensory, mental or physical handicap; provided that the prohibition against discrimination in employment because of handicap shall not apply if the particular disability prevents the proper performance of the particular worker involved. The Consultant shall ensure that applicants are employed, and that employees are treated during employment in the performance of this Agreement without discrimination because of their race, creed, color, national origin, sex, marital status, age or the presence of any sensory, mental or physical handicap. Consultant shall take such action with respect to this Agreement as may be required to ensure full compliance with local, State and Federal laws prohibiting discrimination in employment.

11. **Covenant Against Contingent Fees.** The Consultant warrants that it has not employed nor retained any company, firm, or person, other than a bona fide employee working exclusively for the Consultant, to solicit or secure this Agreement; and that it has not paid or agreed to pay any company, person or firm, other than a bona fide employee working exclusively for the Consultant, any fee, commission, percentage, brokerage fee, gift, or other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, the City shall have the right to terminate this Agreement.

12. **Assignment and Subcontracting.**

12.1 The City has awarded this Agreement to the Consultant due to its unique qualifications to perform these services. The Consultant shall not assign (or subcontract other than as specifically identified in Exhibit A) its performance under this Agreement or any portions of this Agreement without the prior written consent of the City, which consent must be sought at least thirty (30) days prior to the date of any proposed assignment.

EAST AND WEST UGA EXPANSION SEWER LID (#21295 & #21296)– Engineering Services RFQ

- 12.2 Any work or services assigned or subcontracted hereunder shall be subject to each provision of this Agreement including Section 6, Public Records; Section 10, Nondiscrimination; proper bidding procedures where applicable; and all local, State and Federal statutes, ordinances and guidelines..
- 12.3 Any technical or professional service subcontract not listed in this Agreement, must have prior written approval by the City.

13. Termination.

- 13.1 Termination for Convenience. Either party may terminate this Agreement for any reason upon giving the other party no less than ten (10) business day's written notice in advance of the effective date of such termination.
- 13.2 Termination for Cause. If the Consultant fails to perform in the manner called for in this Agreement, or if the Consultant fails to comply with any other provisions of this Agreement and fails to correct such noncompliance within five (5) business days of written notice thereof, the City may terminate this Agreement for cause. Termination shall be effected by serving a notice of termination on the Consultant setting forth the manner in which the Consultant is in default. The Consultant will only be paid for services and expenses complying with the terms of this Agreement, incurred prior to termination

14. General Provisions.

- 14.1 For the purpose of this Agreement, time is of the essence.
- 14.2 Notice. Notice provided for in this Agreement shall be sent by:
- 14.2.1. Personal service upon the Project Administrators; or
- 14.2.2. Certified mail to the physical address of the parties, or by electronic transmission to the e-mail addresses designated for the parties below.
- 14.3 The Project Administrator for the purpose of this Agreement shall be:
- 14.3.1. For the City:
- Steve M. Worley, P.E., or his/her designee
Public Works Director
525 North 3rd
PO Box 293
Pasco WA 99301
WorleyS@pasco-wa.gov (e-mail address)
- 14.3.2. For the Consultant:
- XXXXXXXXXX, or his/her designee
XXXXXXXXXX
XXXXXXXXXX
XXXXXXXXXX
XXXXXXXXXX
[XXXXXXXXXX](#)

15. Dispute Resolution.

- 15.1 This Agreement has been and shall be construed as having been made and entered into and delivered within the State of Washington and it is agreed by each party hereto that this Agreement shall be governed by the laws of the State of Washington.
- 15.2 In the event of a dispute regarding the enforcement, breach, default, or interpretation of this Agreement, the Project Administrators, or their designees, shall first meet in a good faith effort to resolve such dispute. In the event the dispute cannot be resolved by agreement of the parties, said dispute shall be

EAST AND WEST UGA EXPANSION SEWER LID (#21295 & #21296)– Engineering Services RFQ resolved by arbitration pursuant to RCW 7.04A, as amended, with both parties waiving the right of a jury trial upon trial de novo, with venue placed in Pasco, Franklin County, Washington. The substantially prevailing party shall be entitled to its reasonable attorney fees and costs as additional award and judgment against the other.

16. **Nonwaiver.** Waiver by the City of any provision of this Agreement or any time limitation provided for in this Agreement shall not constitute a waiver of any other similar event or other provision of this Agreement.
17. **Integration.** This Agreement between the parties consists in its entirety of this document and any exhibits, schedules or attachments. Any modification of this Agreement or change order affecting this Agreement shall be in writing and signed by both parties.
18. **Authorization.** By signature below, each party warrants that they are authorized and empowered to execute this Agreement binding the City and the Consultant respectively.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed on the date first written above.

CITY OF PASCO, WASHINGTON

CONSULTANT

Dave Zabell, City Manager (> \$50,000)
Steve M. Worley, Public Works Director (<\$50,000)

{Consultant}

ATTEST:

Debra C. Barham, City Clerk

APPROVED AS TO FORM:

Kerr Ferguson Law, PLLC, City Attorney

RH2 TECHNICAL MEMORANDUM

Client:	City of Pasco		
Project:	Addendum to the Comprehensive Sewer Plan		
Project File:	PSC 719.106.01.0113	Project Manager:	Ryan Withers, PE
Composed by:	Ryan Withers, PE		
Reviewed by:	Paul Cross, PE		
Subject:	Expanded Urban Growth Area LID Breakout Analysis		
Date:	September 2, 2021		



Signed: 09/02/2021



Signed: 09/02/2021

Background

The City of Pasco (City) has retained RH2 Engineering, Inc., (RH2) to complete an addendum to its Comprehensive Sewer Plan (CSP). The City requested RH2 prepare a technical memorandum to supplement the CSP that provides a detailed analysis of the City's expanded Urban Growth Area (UGA) boundary and how it might logically be broken out into future local improvement district (LID) areas based on projected growth. **Figure 1** shows the areas specifically evaluated as part of this analysis, with the City's proposed 20-year Capital Improvement Program (CIP) improvements shown in the figure as well for reference.

LID Delineation

The areas shown in **Figure 1** were evaluated based on a variety of factors, including topography, property ownership, and proximity to existing sewer infrastructure to identify two future LID areas. These LID areas are shown in **Figures 2 and 3**, and are summarized as follows.

West UGA Expansion LID

The West UGA Expansion LID includes an approximate 1,700-acre area west of Road 68. Development within the West UGA Expansion LID is anticipated to require gravity main as large as 18-inch diameter at the downstream extent of the LID area, with 8-, 12-, and 15-inch-diameter gravity sewer also planned within the LID area, as shown in **Figures 1** and **2**. A lift station is anticipated to be required in the southwest portion of the area to pump wastewater from the western portion of this LID area to the east to 21-inch-diameter gravity main proposed to be installed as part of the development in the Barker Ranch property. The majority of the West UGA Expansion LID area is anticipated to flow via gravity to 12- and 21-inch-diameter gravity main proposed to be installed as part of the development in the Barker Ranch property.

East UGA Expansion LID

The East UGA Expansion LID includes an approximate 1,000-acre area east of Road 68, and an approximate 150-acre area adjacent to Railroad Avenue.

The majority of this LID area, and specifically the west and central portions of this LID area, are anticipated to require 12-inch-diameter gravity sewer main to convey wastewater to a proposed East UGA Lift Station as shown in **Figures 1** and **3**. The entirety of the East UGA Lift Station flow is planned to be conveyed to the east to Glade Road via 12- and 15-inch-diameter gravity sewer, as shown in **Figures 1** and **3**. Analyses were performed to determine if this portion of the East UGA Expansion LID area could be conveyed into the City's existing collection system between Road 36 and Road 68, but the collection system's downstream capacity is not sufficient to accommodate the flows from this area.

The 150-acre area adjacent to Railroad Avenue is anticipated to require gravity main extending from the southwest corner of the area, beneath the Burlington Northern Santa Fe Railroad, and south on Glade Road to a proposed Glade Road Lift Station that is also necessary for the 1,000-acre area between Road 36 and Road 68.

The force main downstream of the Glade Road Lift Station is anticipated to be conveyed to the east beneath the Burlington Northern Santa Fe Railroad with at least two long-term connections to the City's existing gravity collection system. A maximum of approximately 1,440 gpm (approximately 2.1 million gallons per day [MGD]) on a PHF basis can be conveyed within the existing Industrial Way gravity sewer main without causing significant downstream capacity deficiencies. Flows in excess of approximately 1,440 gpm on a PHF basis are recommended to be conveyed east of US 395 along the alternate force main location shown in **Figures 1** and **3**. The easterly force main connection at Capitol Avenue is capable of conveying approximately 545 gpm on a PHF basis without the need for downstream gravity main or Capitol Lift Station capacity improvements.

Flow Projections

The flows projected within each of the LID areas are shown in **Table 1** for the City's 10-year, 20-year, and build-out planning periods. **Table 1** also summarizes the approximate year(s) that development within each LID area may begin to occur based on City and RH2 conversations with developers and landowners. The 10- and 20-year ERU and flow projections shown in **Table 1** are

consistent with the City's 2021 CSP. Build-out projections in the West UGA Expansion LID are based on an additional 20-percent growth beyond the City's 20-year planning period for residential areas. Build-out projections in the East UGA Expansion LID are based on a combined 3.0 MGD, consistent with the downstream capacity of the existing gravity main in Industrial Way and Capitol Avenue.

Table 1: Expanded UGA LID Area Flow Projections

LID Area	Area (acres)	Approximate Year of Development	10-Year Projections			20-Year Projections			Build-Out Projections		
			ERUs	ADF (gpm)	PHF (gpm)	ERUs	ADF (gpm)	PHF (gpm)	ERUs	ADF (gpm)	PHF (gpm)
West UGA Expansion LID	1,350	2023 to 2024	1,203	208	466	4,305	743	1,666	5,166	892	2,000
East UGA Expansion LID	1,150	2023 to 2024	1,710	295	662	3,771	651	1,460	5,382	929	2,083

Proposed Wastewater Infrastructure

Future wastewater infrastructure within each of the expanded UGA LID areas that is recommended to be considered for incorporation into a future LID is summarized in the following sections.

West UGA Expansion LID

Figure 2 shows the proposed West UGA Expansion LID infrastructure locations and invert elevations, as well as the area within the LID capable of flowing into the proposed improvements via gravity to the proposed Dent Road Lift Station or directly to the Barker property, based on existing ground elevations. A summary of the proposed infrastructure is as follows.

- **Gravity Collection System:** Primarily 12 and 15 inches in diameter with slopes between 0.22 and 0.90 percent for the proposed gravity main shown in **Figure 2**. Gravity main within future development that is not shown in **Figure 2** is recommended to be 8 inches in diameter with slopes between 0.60 and 1.00 percent. Gravity main upstream of the Dent Road Lift Station is recommended to be 8-inch diameter with slopes between 0.50 and 1.10 percent.
- **Lift Station:** Duplex lift station with 300 gpm firm capacity (based on approximately 600 ERUs upstream of the lift station).
- **Force Main:** 6-inch diameter (approximately 3.4 fps based on 300 gpm firm capacity).
- **Phasing:** Unlikely to be applicable within the LID area flowing via gravity through the Barker property. For the area upstream of the Dent Road Lift Station, if 200 or more homes are planned for development as part of initial construction, no significant phasing is recommended. If less than 200 homes are anticipated for an extended period of time following construction of the Dent Road Lift Station, the City is recommended to evaluate installing pumps with a reduced capacity to be utilized until more development occurs.

East UGA Expansion LID

Figure 3 shows the proposed East UGA Expansion LID infrastructure locations and invert elevations, as well as the area within the LID capable of flowing into the proposed improvements via gravity based on existing ground elevations. A summary of the proposed infrastructure is as follows.

- **Gravity Collection System:** 12- and 15-inch diameter with slopes between 0.40 and 1.25 percent for the proposed gravity main shown in **Figure 3**. Gravity main within future development that is not shown in **Figure 3** is recommended to be 8 or 12 inches in diameter with slopes between 0.60 and 1.00 percent (as needed for individual buildings or facilities within the development). Portions of the LID area are anticipated to be capable of flow by gravity directly to the Glade Road Lift Station, and the eastern portion of the LID area is anticipated to be pumped by the East UGA Lift Station, upstream of the Glade Road Lift Station. This area is shown with bright green fill in **Figure 3**. The area shown in blue in **Figure 3** represents area that may be capable of flowing by gravity to either the East UGA or the Glade Road Lift Stations depending on proposed grading, phasing, or timing of development within this LID. Some gravity main shown in this LID area, and specifically the gravity main outside of the City's UGA boundary near Roberta Road and Road 36, may be eliminated pending proposed grading of future development in the property currently owned by Farm 2005, LLC, as shown in **Figure 3**.
- **Lift Station:**
 - The East UGA Lift Station is recommended to be a duplex or triplex lift station with approximately 500 to 700 gpm firm capacity (20-year capacity), based on approximately two-thirds of the East UGA Expansion LID flowing by gravity to the proposed lift station. Capacity of the lift station is dependent on proposed grading within the development area, and is recommended to be re-evaluated during the platting process and predesign phase for the future development. A phased approach to gradually increase pumping capacity of the lift station may be necessary based on the timing of development within the LID.
 - The Glade Road Lift Station is recommended to be a triplex or quadplex lift station. The near-to-medium-term firm capacity requirement of this lift station is approximately 2.0 MGD, inclusive of approximately 1.1 MGD from the development in the bright green, dark green, and blue filled areas shown in **Figure 3**, and approximately 0.9 MGD from the development in the orange filled area shown in **Figure 3**. If the areas west of the Glade Road Lift Station are anticipated to convey significant flows to the lift station within approximately 1 year of lift station construction completion, either three 1.0 MGD pumps are recommended for installation or two 1.5 MGD pumps. In either case, provisions are recommended to be installed for one additional identical pump to be installed within the wet well in the future as necessitated by future flows.

If timing of the areas west of the Glade Road Lift Station anticipated to be more than 1 year beyond the completion of the proposed Glade Road Lift Station, the

original construction of the lift station is recommended to include two 1.0 to 1.2 MGD pumps with provisions for two additional 1.0 MGD pumps in the future, or one 1.5 MGD pump with provisions for two additional 1.5 MGD pumps in the future.

The Glade Road Lift Station is recommended to be designed to accommodate a future firm pumping capacity of 3.0 MGD, consistent with the downstream capacity remaining in the gravity main within Industrial Way and Capitol Avenue.

- **Force Main:**

- For the East UGA Lift Station with up to a 700 gpm firm capacity, an 8-inch-diameter force main is recommended (approximately 4.5 fps). Based on proposed grading and development density, the proposed lift station may serve 1,300 ERUs (500 gpm) or less, resulting in a 6-inch-diameter force main being sufficient. Force main sizing is recommended to be confirmed during the platting process and predesign phase for the future development as additional information regarding the lift station capacity is known. No temporary connection of the East UGA Lift Station is recommended in the vicinity of the City's Three Rivers or Madison Park Lift Station basins.
- Two parallel force mains are likely necessary downstream of the Glade Road Lift Station, with sizing depending on the timing and phasing of the upstream developments. Viable force main combinations include parallel 8- and 12-inch-diameter force mains, or two parallel 10-inch-diameter force mains. Force main sizing is recommended to be confirmed during the platting process and predesign phase for the future development as additional information regarding the lift station capacity and development timing is known.

- **Phasing:** A phased improvement approach may be recommended for this LID, depending on the timing of development for properties within the lift station basin. Coordination with landowners and developers is recommended during the platting process and predesign phase of this development to identify the phased approach best suited for this LID.

ESTIMATING COSTS OF IMPROVEMENTS

Project costs for the proposed improvements were estimated based on costs of similar recently constructed sewer projects in the Pacific Northwest and are presented in 2021 dollars. The unit costs for each pipe size are based on estimates of construction-related improvements, such as materials and labor for installation, services, manholes, connections to the existing system, trench restoration, asphalt surface restoration, and other work for a complete installation. Project cost estimates for sewer pipe projects were determined from the unit costs (i.e., cost per foot-length) shown in **Tables 2** and **3**, and the proposed diameter and approximate length of each improvement. The gravity sewer main costs shown in **Tables 2** and **3** include a reduction of costs from those shown in the City's CSP to remove significant roadway-related construction that is not anticipated in the majority of the largely undeveloped (or

underdeveloped) LID areas analyzed in this technical memorandum. The reduction in unit costs compared to the City's CSP include reduced select backfill, no asphalt overlay, no crushed surfacing top course, reduced traffic control, and a reduced number of sewer laterals given that the gravity main shown in this analysis is primarily trunk main. The indirect costs shown in **Tables 2** and **3** are estimated at 35 percent of the construction cost for engineering preliminary design, final design, construction contract administration, project administration, permitting, and legal and administrative services, consistent with the indirect cost calculations in the City's 2021 CSP.

Table 2
Gravity Sewer Pipe Unit Costs

Sewer Main Diameter (inches)	Construction Cost per Linear Foot (2021 \$ per LF)	Indirect Cost per Linear Foot (2021 \$ per LF)	Project Cost per Linear Foot (2021 \$ per LF)
8	\$206	\$72	\$278
12	\$237	\$83	\$320
15	\$243	\$85	\$327
18	\$276	\$96	\$372

Table 3
Force Main Unit Costs

Force Main Diameter (inches)	Construction Cost per Linear Foot (2021 \$ per LF)	Indirect Cost per Linear Foot (2021 \$ per LF)	Project Cost per Linear Foot (2021 \$ per LF)
6	\$81	\$28	\$109
8	\$89	\$31	\$121
10	\$98	\$34	\$133
12	\$108	\$38	\$145

The cost estimates presented in this section include the estimated project cost of the improvement, including 8.6 percent sales tax. The cost estimates do not include costs associated with ROW or easement acquisition.

Planning-level project cost estimates for the wastewater system improvements in each LID are summarized in **Table 4**. For LIDs recommended to have phased improvements, the project cost estimates are based on the final phase of improvements, representing the recommended capacity of the improvements at or beyond the City's 20-year planning period.

Table 4
LID Project Cost Estimates

LID Area	Description	Quantity	Units	Unit Cost	Total Project Cost
West UGA Expansion LID	8-inch Gravity Sewer	10,060	LF	\$278	\$2,798,692
	12-inch Gravity Sewer	17,650	LF	\$320	\$5,640,940
	15-inch Gravity Sewer	2,690	LF	\$327	\$880,706
	18-inch Gravity Sewer	785	LF	\$372	\$292,020
	Duplex Lift Station (500 gpm) ¹	1	LS	\$1,206,000	\$1,206,000
	6-inch Force Main	2,620	LF	\$109	\$286,104
	Rounded Totals	---	---	---	\$11,105,000
East UGA Expansion LID	12-inch Gravity Sewer	36,725	LF	\$320	\$11,737,310
	15-inch Gravity Sewer	8,355	LF	\$327	\$2,735,427
	East UGA Duplex Lift Station (700 gpm) ¹	1	LS	\$1,765,000	\$1,765,000
	Glade Road Triplex Lift Station (2,100 gpm) ¹	1	LS	\$2,324,000	\$2,324,000
	8-inch Force Main	8090	LF	\$121	\$976,139
	12-inch Force Main	2,490	LF	\$145	\$361,866
	Rounded Totals	---	---	---	\$19,900,000

(1) Firm capacity.

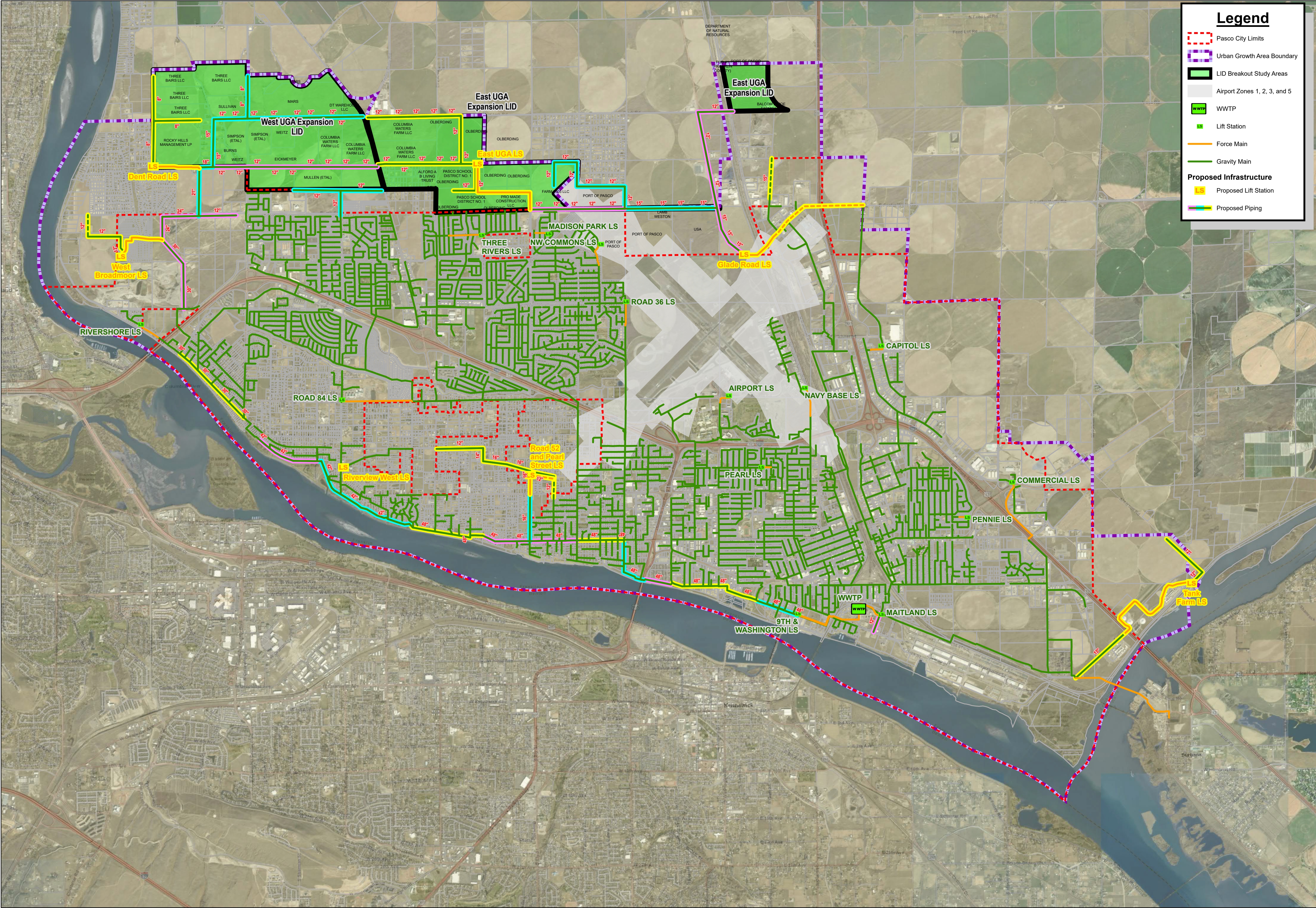
Attachments:

Figure 1 – UGA Expansion Landowner Overview

Figure 2 – Gravity Sewer Contribution Basins West UGA Expansion LID

Figure 3 – Gravity Sewer Contribution Basins East UGA Expansion LID

Figures



Legend

Pasco City Limits

Urban Growth Area Boundary

LID Breakout Study Areas

Airport Zones 1, 2, 3, and 5

WWTP

Lift Station

Force Main

Gravity Main

Proposed Infrastructure

Proposed Lift Station

Proposed Piping

This map is a graphic representation derived from the City of Pasco Geographic Information System. It was designed and intended for City of Pasco staff use only; it is not guaranteed to survey accuracy. This map is based on the best information available on the date shown on this map.

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Vicinity Map

Figure 1

UGA Expansion

Landowner Overview

City of Pasco

Addendum to the CSP

1 inch : 2,500 Feet

0

1,250

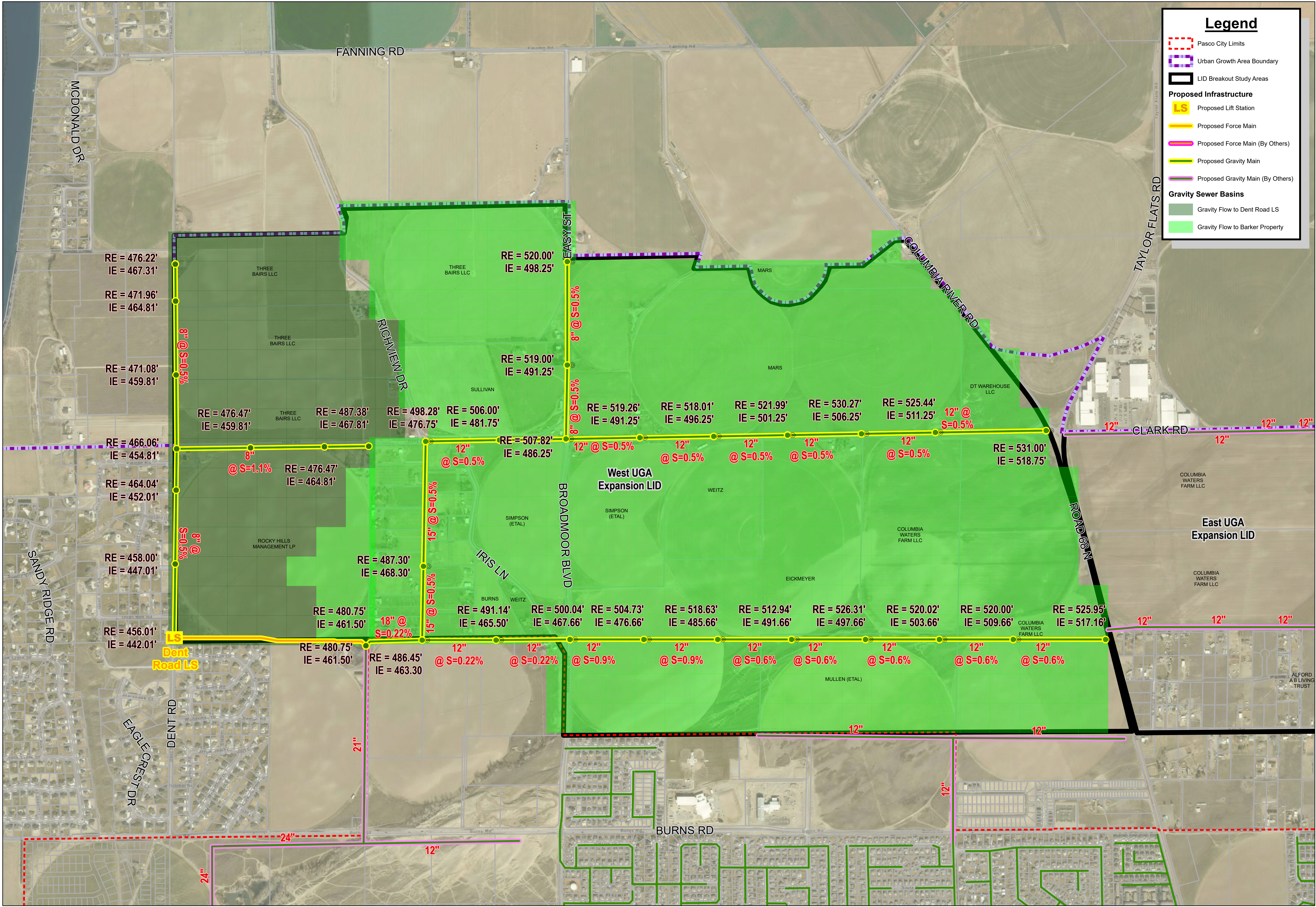
2,500

5,000

Feet

DRAWING IS FULL SCALE
WHEN BAR MEASURES 2"

J:\DATA\PC719-106\GIS\MAP\IPSC CSP - GISPRO10- AND 20-YEAR DEVELOPMENTS.APRX BY: APELLETIER PLOT DATE: SEP 2, 2021 COORDINATE SYSTEM:



Legend

- Pasco City Limits
- Urban Growth Area Boundary
- LID Breakout Study Areas
- Proposed Infrastructure**
 - Proposed Lift Station
 - Proposed Force Main
 - Proposed Force Main (By Others)
 - Proposed Gravity Main
 - Proposed Gravity Main (By Others)
- Gravity Sewer Basins**
 - Gravity Flow to Dent Road LS
 - Gravity Flow to Barker Property

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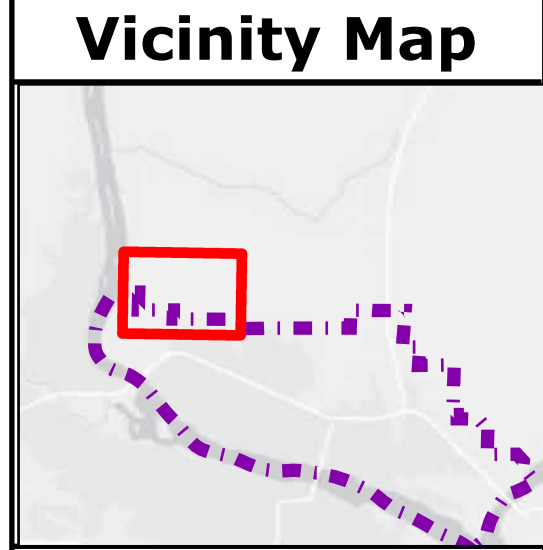


Figure 2

Gravity Sewer Contribution Basins

West UGA Expansion LID

City of Pasco

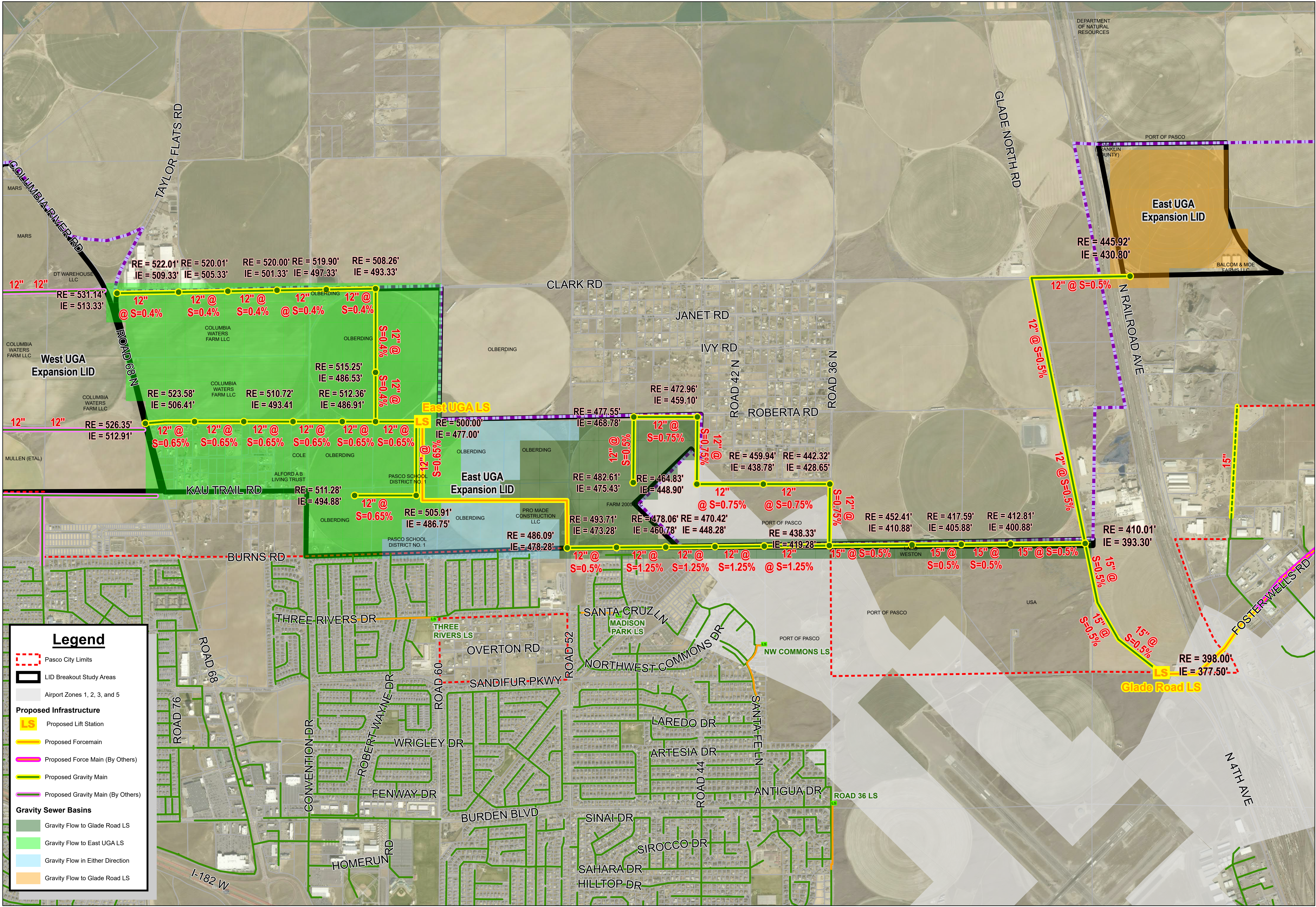
Addendum to the CSP

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1 inch : 600 Feet

0 300 600 1,200 Feet

DRAWING IS FULL SCALE WHEN BAR MEASURES 2"



Legend

Pasco City Limits

LID Breakout Study Areas

Airport Zones 1, 2, 3, and 5

Proposed Infrastructure

LS

Proposed Lift Station

Proposed Force Main

Proposed Force Main (By Others)

Proposed Gravity Main

Proposed Gravity Main (By Others)

Gravity Sewer Basins

Gravity Flow to Glade Road LS

Gravity Flow to East UGA LS

Gravity Flow in Either Direction

Gravity Flow to Glade Road LS

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Vicinity Map

Figure 3
Gravity Sewer Contribution Basins
East UGA Expansion LID
City of Pasco
Addendum to the CSP

1 inch : 900 Feet

DRAWING IS FULL SCALE WHEN BAR MEASURES 2"

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