



City Council Regular Meeting Agenda Monday, September 20, 2021, 7:00 PM REMOTE MEETING PARTICIPATION

NOTE: The City welcomes public meeting citizen participation. TTY Relay Service: 711. In compliance with the ADA, if you need special assistance to participate in a meeting, contact the City Clerk's office at (360) 834-6864, 72 hours prior to the meeting so reasonable accommodations can be made (28 CFR 35.102-35.104 ADA Title 1)

How to join meeting:

OPTION 1 -

1. Go to www.zoom.us and download the app or click "Join A Meeting" and use Meeting ID – 957 8352 2703
2. Or, from any device click <https://zoom.us/j/95783522703>

OPTION 2 - Join by phone (audio only):

1. Dial 877-853-5257 and use meeting ID# 957 8352 2703

To simply observe the meeting, go to the City's Public Meetings page - www.cityofcamas.us/meetings and click the "Watch Livestream" on the left of the page.

For Public Comment:

1. Click the raise hand icon in the app
 - By phone, hit *9 to "raise your hand"
2. Or, email to publiccomments@cityofcamas.us (400 word limit)

Emails received by one hour before the start of the meeting are emailed to Council. During public comment, the clerk will read each email's submitter name, subject, and date/time received. Emails received up to one hour after the meeting are emailed to Council and attached to meeting minutes.

CALL TO ORDER

PLEDGE OF ALLEGIANCE

ROLL CALL

PUBLIC COMMENTS

STAFF PRESENTATIONS

1. [Stormwater Management Action Plan Professional Services Agreement](#)
[Presenter: Sam Adams, Utilities Manager](#)
[Time Estimate: 5 minutes](#)

2. [Lake Management Plan - Quality Assurance Project Plan](#)
Presenter: Steve Wall, Public Works Director
Time Estimate: 10 minutes

CONSENT AGENDA

NOTE: Consent Agenda items may be removed for general discussion or action.

3. [June 14, 2021 Camas City Council Town Hall Minutes and September 7, 2021 Camas City Council Regular and Workshop Meeting Minutes](#)
4. Automated Clearing House and Claim Checks Approved by Finance Committee
5. [\\$8,840.00 DKS Associates, Citywide Traffic Signal Controller Upgrades Professional Services Agreement Supplement 2 \(Submitted by James Carothers, Engineering Manager\)](#)
6. [2021 Facility Condition Assessment Professional Services Agreement \(Submitted by Denis Ryan, Public Works Operations Supervisor\)](#)

NON-AGENDA ITEMS

7. Staff Miscellaneous Updates
Presenter: Jeff Swanson, Interim City Administrator
Time Estimate: 10 minutes
8. Council

MAYOR

9. Mayor Announcements

MEETING ITEMS

10. [Public Hearing for the 2021 Annual Comprehensive Plan Amendments](#)
Presenter: Sarah Fox, Senior Planner
Time Estimate: 15 minutes
11. [Ordinance No. 20-010 Annual Comprehensive Plan Amendments](#)
Presenter: Sarah Fox, Senior Planner
Time Estimate: 10 min.
12. [Public Hearing Regarding an Amendment to the Development Agreement for the Green Mountain PRD](#)
Presenter: Steve Wall, Public Works Director
Time Estimate: 10 min
13. [Public Hearing regarding an Amendment to the Development Agreement relating to Sewer Service for the Green Mountain PRD](#)

Presenter: Steve Wall, Public Works Director

Time Estimate: 10 min

14. Resolution No. 21-008 Amending the 2019 Water System Plan to include Green Mountain Estates Phase 4 Booster Station

Presenter: James Carothers, Engineering Manager

Time Estimate: Five minutes

PUBLIC COMMENTS

ADJOURNMENT



Staff Report

September 20, 2021 Council Workshop Meeting

Stormwater Management Action Plan Professional Services Agreement

Presenter: Sam Adams, Utilities Manager

Time Estimate: 5 minutes

Phone	Email
360.817.7003	sadams@cityofcamas.us

BACKGROUND: The Stormwater Management Action Plan (SMAP) is a planning process that will help the City determine which part of Camas will benefit the most from stormwater capital improvements and/or retrofits, short and long term. The SMAP is part of the City’s Stormwater NPDES Permit requirement.

SUMMARY: The SMAP process consists of generating a prioritized watershed inventory, development of a process that ultimately results in selection of a high priority area to implement improvements, public engagement, and development of the Stormwater Management Action Plan. A consultant will be working closely with the City to perform these tasks. The City and various stakeholders will be part of the decision making process.

The City issued a Request for Qualifications (RFQ) on April 2, 2021 to obtain Statement of Qualifications from interested consulting firms. Staff received four proposals. The proposals were reviewed and scored by three staff members based on the criteria set forth in the RFQ. After considering the proposals and scores, two firms were interviewed to obtain additional information and determine the preferred consultant. Parametrix was ultimately selected and has provided the attached scope of work and fee proposal.

EQUITY CONSIDERATIONS:

What are the desired results and outcomes for this agenda item?

- The SMAP is a planning process that will help the City determine which part of Camas will benefit the most from stormwater capital improvements and/or retrofits, short and long term.

What’s the data? What does the data tell us?

- The data developed by this project will help the City determine which area in Camas should be focused on for stormwater improvements.

How have communities been engaged? Are there opportunities to expand engagement?

- The communities have not yet been engaged but public engagement will be part of the SMAP process.

Who will benefit from, or be burdened by this agenda item?

- The City as a whole should benefit from this project.

What are the strategies to mitigate any unintended consequences?

- Strategies will be discussed as part of the SMAP process.

Does this agenda item have a differential impact on underserved populations, people living with disabilities, and/or communities of color? Please provide available data to illustrate this impact.

- N/A

Will this agenda item improve ADA accessibilities for people with disabilities?

- N/A

What potential hurdles exist in implementing this proposal (include both operational and political)?

- When the project engages the public during the SMAP process, staff may receive contradictory suggestions or ideas on where future improvements should occur.

How will you ensure accountabilities, communicate, and evaluate results?

- Staff will notify Council of all major milestones. Council will be part of the major decision-making process of the SMAP.

How does this item support a comprehensive plan goal, policy or other adopted resolution?

- This project will help the City meet the Stormwater NPDES Permit requirements.

BUDGET IMPACT: This project is partially funded by a Stormwater Financial Assistance Program grant from the Department of Ecology. The grant requires a 25% contribution (match) from the City. The consultant fees are \$130,000. A 25% contribution would result in \$32,500 expenditure from the Stormwater Fund. This was included and approved in the 2021 Spring Omnibus.

RECOMMENDATION: This item is for Council information only. Staff recommends this item be placed on the October 4, 2021 Consent Agenda for Council's consideration.

Client: City of Camas
 Project: NPDES Stormwater Management Action Plan
 Project No: P5531683808

Julie G. Brandt	Shanon L. Harris	Clara F. Olson	Paul S. Fendt	Chad L. Tinsley	Theodore B. Prince	Aaron J. Miller	Jennifer E. Murphy	Patricia E. Yi	Susan E. Swift	Debra M. Fetherston	Lori A. Gilbertson
Sr Engineer	Project Controls Specialist	Engineer III	Sr Consultant	Sr GIS Analyst	Sr Engineer	Engineer II	Design OC	Sr Graphic Designer	Technical Editor	Publications Supervisor	Sr Project Accountant
\$200.72	\$127.95	\$128.99	\$281.29	\$128.12	\$189.38	\$116.51	\$208.39	\$127.47	\$105.07	\$143.49	\$134.58

Task	Subtask	Description	Labor Dollars	Labor Hours	Julie G. Brandt	Shanon L. Harris	Clara F. Olson	Paul S. Fendt	Chad L. Tinsley	Theodore B. Prince	Aaron J. Miller	Jennifer E. Murphy	Patricia E. Yi	Susan E. Swift	Debra M. Fetherston	Lori A. Gilbertson
01A		Project Management	\$8,382.56	56	16	32	-	-	-	-	-	-	-	-	-	8
01A	01	Project Management	\$8,382.56	56	16	32										8
01B		Project Initiation and Needs Assessment	\$12,588.62	76	20	-	24	8	20	2	-	-	-	-	-	2
01B	01	City Staff Workshop	\$3,759.36	20	8		4	4	4							
01B	02	Data Collection	\$3,572.12	22	4		4	2	8	2						2
01B	03	Gap Analysis Technical Memorandum	\$5,257.14	34	8		16	2	8							
02		Receiving Water Assessment	\$16,159.16	104	18	-	32	8	32	6	8	-	-	-	-	-
02	01	Basin Boundary Check	\$1,808.64	12	2		4		4	2						
02	02	Watershed Inventory	\$8,534.28	56	8		16	4	16	4	8					
02	03	NPDES Table & Map	\$3,422.34	22	4		8	2	8							
02	04	City Check-In Meeting	\$2,393.90	14	4		4	2	4							
03		Receiving Water Prioritization	\$28,097.60	182	38	-	56	12	56	4	8	-	4	2	2	-
03	01	Watershed Prioritization	\$15,952.80	100	24		24	8	32	4	8					
03	02	City Check-In Meeting	\$2,393.90	14	4		4	2	4							
03	03	Public Engagement Support	\$2,967.32	22	2		4		16							
03	04	Prioritization Technical Memorandum	\$6,783.58	46	8		24	2	4				4	2	2	
04		Surface Water Management Action Plan	\$59,620.96	386	56	-	72	8	32	78	102	16	6	8	8	-
04	01	Action Identification	\$32,987.72	212	16		24	4	12	60	80	16				
04	02	Public Engagement and Open House	\$4,645.90	30	4		8	2	8	4	4					
04	03	SMAP Report (incl Ecology draft)	\$18,981.66	126	32		36		8	12	16		6	8	8	
04	04	City Check-In Meeting	\$3,005.68	18	4		4	2	4	2	2					
05		Contingency Effort	\$4,817.28	24	24	-	-	-	-	-	-	-	-	-	-	-
05	01	As Needed	\$4,817.28	24	24											

Labor Totals:	\$129,666.18	828	172	32	184	36	140	90	118	16	10	10	12	8
Totals:	\$129,666.18		\$34,523.84	\$4,094.40	\$23,734.16	\$10,126.44	\$17,936.80	\$17,044.20	\$13,748.18	\$3,334.24	\$1,274.70	\$1,050.70	\$1,721.88	\$1,076.64

Other Direct Expenses	
Mileage	\$250.00
Other Direct Expenses Total:	\$250.00

Project Total \$129,916.18

Parametrix Puget Sound Billing Rates - October 1, 2020 through September 30, 2021

Classification	Grade	Min/Max Rate	Classification	Grade	Min/Max Rate		
CADD Operator I	8	95	115	Jr. Planner	8	95	115
CADD Operator II	9	105	125	Planner I	10	110	130
CADD Operator III	11	120	150	Planner II	11	120	145
CADD Supervisor/Technical Lead	12	130	160	Planner III	12	125	155
CADD Services Manager	14	145	175	Planner III	13	130	160
				Planner IV	14	150	180
Jr. Designer	8	95	115	Sr. Planner	15	165	205
Designer I	10	115	135	Sr. Planner	16	180	220
Designer II	11	120	150	Sr. Planner	17	195	240
Designer III	12	130	160				
Designer III	13	140	170	Jr. Scientist/Biologist	8	95	115
Designer IV	14	150	180	Scientist/Biologist I	10	110	130
Sr. Designer	15	165	205	Scientist/Biologist II	11	120	145
Sr. Designer	16	180	220	Scientist/Biologist III	12	125	155
Sr. Designer	17	195	240	Scientist/Biologist III	13	130	160
				Scientist/Biologist III	13	130	160
				Scientist/Biologist IV	14	150	180
Jr. Engineer	8	100	120	Sr. Scientist/Biologist	15	165	205
Engineer I	10	120	145	Sr. Scientist/Biologist	16	180	220
Engineer II	11	125	150	Sr. Scientist/Biologist	17	195	240
Engineer III	12	130	160				
Engineer III	13	145	180	Environmental Technician I	7-8	95	115
Engineer IV	14	160	195	Environmental Technician II	9	105	125
Sr. Engineer	15	175	215	Environmental Technician III	10	110	130
Sr. Engineer	16	190	230				
Sr. Engineer	17	210	255	Jr. Hydrogeologist	8	95	115
Sr. Consultant	18	225	275	Hydrogeologist I	10	110	130
Sr. Consultant	19	240	295	Hydrogeologist II	11	120	145
				Hydrogeologist III	12-13	130	160
Electrical Designer I	11	120	150	Hydrogeologist IV	14	150	180
Electrical Designer II	12	135	165	Sr. Hydrogeologist	15	165	205
Electrical Designer III	13	150	180	Sr. Hydrogeologist	16	180	220
Electrical Designer IV	14	160	195	Sr. Hydrogeologist	17	195	240
Sr. Electrical Designer	15-16	185	225				
Sr. Electrical Designer	17	205	250	GIS Technician	9	105	125
Electrical Engineer I	11	120	150	GIS Analyst	10	110	130
Electrical Engineer II	12	130	160	Sr. GIS Analyst	11	120	145
Electrical Engineer III	13	145	175				
Electrical Engineer IV	14-15	165	205	Graphic Designer	10-11	120	145
Sr. Electrical Engineer	16-17	190	230	Sr. Graphic Designer	12-13	130	160
Sr. Electrical Engineer	18	220	270				
				Publications Specialist I	8	95	115
Jr. Surveyor	8	95	115	Publications Specialist II	9-10	110	130
Surveyor I	9	105	125	Sr. Publications Specialist	10-11	120	145
Surveyor II	10	110	130	Publications Supervisor	12-13	130	160
Surveyor III	11	120	150	Technical Editor	10-11	120	150
Sr. Surveyor	12	130	160	Sr. Technical Editor	12-13	130	160
Sr. Surveyor	13	160	200				
Survey Supervisor	14-16	170	210	Technical Aide	7	85	105
Survey Supervisor	17	185	225	Sr. Technical Aide	8	95	115
Survey Prevailing Wage*				Project Coordinator	9	105	125
				Sr. Project Coordinator	10	110	130
Jr. Inspector	8	95	115	Project Controls Specialist	11	120	145
Construction Inspector	10-11	115	145	Sr. Project Controls Specialist	12-13	130	160
Sr. Construction Inspector	12-13	130	160				
Resident Engineer	13	140	170	Project Accountant	9	105	125
Resident Engineer	14	150	180	Sr. Project Accountant	10-11	115	145
Construction Manager I	12-14	150	180	Accounting Specialist	9	105	125
Construction Manager II	15-17	160	200	Sr. Accounting Specialist	10-11	110	130
Sr. Construction Manager	15	170	210				
Sr. Construction Manager	16-17	190	230	Admin Assistant	7	85	105
Owner's Representative	18-19	210	260	Sr. Admin Assistant	8	95	115
				Office Administrator	10-11	115	145
Division Manager	16-17	195	240	Sr. Office Administrator	12-13	125	155
Regional Division Manager	18-19	210	260	Office Administrative Manager	14-15	150	180
Operations Manager	16-17	195	235	Business Manager	15-16	160	200
Operations Manager	18-19	225	275	Sr. Contract Administrator	10-11	130	160
Program Manager	19-20	230	280	Director of Risk Management	20	250	300
Principal Consultant	19	225	275				
Principal Consultant	20	245	300	UAV Pilot	12-13	155	190
Vice President/Sr. Vice President	18-20	245	300	Expert Witness		350	430

* Prevailing Wage Rates apply to construction surveying on all Washington Public Works Projects.



CITY OF CAMAS
PROFESSIONAL SERVICES AGREEMENT

616 NE 4th Avenue
 Camas, WA 98607

Project No. D1011.

STORMWATER MANAGEMENT ACTION PLANNING

THIS AGREEMENT is entered into between the **City of Camas**, a municipal corporation, hereinafter referred to as "the City", and Parametrix, Inc. hereinafter referred to as the "Consultant", in consideration of the mutual benefits, terms, and conditions hereinafter specified.

1. **Project Designation.** The Consultant is retained by the City to perform professional services in connection with the project designated as the **Stormwater Management Action Planning.**
2. **Scope of Services.** Consultant agrees to perform the services, identified on **Exhibit "A"** attached hereto, including the provision of all labor, materials, equipment, supplies and expenses.
3. **Time for Performance.** Consultant shall perform all services and provide all work product required pursuant to this agreement by no later than **April 30, 2023**, unless an extension of such time is granted in writing by the City, or the Agreement is terminated by the City in accordance with Section 18 of this Agreement.
4. **Payment.** The Consultant shall be paid by the City for completed work and for services rendered under this agreement as follows:
 - a. Payment for the work provided by Consultant shall be made as provided on **Exhibit "B"** attached hereto, provided that the total amount of payment to Consultant shall not exceed the amounts for each task identified in **Exhibit "A"** (Scope of Services) inclusive of labor, materials, equipment supplies and expenses. Consultant billing rates are attached as **Exhibit "C"**.
 - b. The consultant may submit vouchers to the City once per month during the progress of the work for payment for project completed to date. Vouchers submitted shall include the Project Number designated by the City and noted on this agreement. Such vouchers will be checked by the City, and upon approval thereof, payment will be made to the Consultant in the amount approved. Payment to the Consultant of partial estimates, final estimates, and retained percentages shall be subject to controlling laws.
 - c. Final payment of any balance due the Consultant of the total contract price earned will be made promptly upon its ascertainment and verification by the City after the completion of the work under this agreement and its acceptance by the City.
 - d. Payment as provided in this section shall be full compensation for work performed, services rendered and for all materials, supplies, equipment and incidentals necessary to complete the work.
 - e. The Consultant's records and accounts pertaining to this agreement are to be kept available for inspection by representatives of the City and of the State of Washington for a period of three (3) years after final payment. Copies shall be made available upon request.

- 5. Ownership and Use of Documents. All documents, drawings, specifications, electronic copies and other materials produced by the Consultant in connection with the services rendered under this Agreement shall be the property of the City whether the project for which they are made is executed or not. The Consultant shall be permitted to retain copies, including reproducible copies, of drawings and specifications for information, reference and use in connection with Consultant's endeavors.
- 6. Compliance with Laws. Consultant shall, in performing the services contemplated by this agreement, faithfully observe and comply with all federal state, and local laws, ordinances and regulations, applicable to the services to be rendered under this agreement. Compliance shall include, but not limited to, 8 CFR Part 274a – Control of Employment of Aliens, § 274a.2 Verification of identity and employment authorization.
- 7. Indemnification. Consultant shall, indemnify and hold the City of Camas, its officers, officials, and employees harmless from any and all injuries, damages, losses or suits including attorney fees, arising out of or resulting from the negligent acts, errors or omissions of the Consultant in performance of this Agreement, except for injuries and damages caused by the concurrent negligence of the City.

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 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 the 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. Consultant's Liability Insurance.
 - a. Insurance Term. The Consultant shall procure and maintain for the duration of this 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, or employees.
 - b. No Limitation. 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.
 - c. Minimum Scope of Insurance. Consultant shall obtain insurance of types and coverage described below:
 - 1. Automobile Liability insurance with a minimum combined single limit for bodily injury and property damage of \$1,000,000.00 per accident. Automobile Liability insurance covering all owned, non-owned, hired and leased vehicles. Coverage shall be at least as broad as Insurance Services Office (ISO) form CA 00 01.
 - 2. Commercial General Liability insurance shall be written with limits no less than \$2,000,000.00 each occurrence, \$2,000,000.00 general aggregate. 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 Public Entity shall be named as an additional insured under the Consultant’s Commercial General Liability insurance policy with respect to the work performed for the Public Entity using an additional insured endorsement at least as broad as ISO endorsement form CG 20 26.

3. Professional Liability insurance appropriate to the consultant's profession. Professional Liability insurance shall be written with limits no less than \$2,000,000.00 per claim and \$2,000,000.00 policy aggregate limit.
 4. Workers' Compensation coverage as required by Industrial Insurance laws of the State of Washington.
 5. Verification. 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, showing the City of Camas as a named additional insured, evidencing the Automobile Liability and Commercial General Liability of the Consultant before commencement of the work.
- d. Other Insurance Provision. The Consultant's Automobile Liability and Commercial General Liability insurance policies are to contain, or be endorsed to contain that they shall be primary insurance as respect to 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.
 - e. Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best rating of not less than A: VII.
 - f. 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 Agreement before commencement of the work.
 - g. Notice of Cancellation. The Consultant shall provide the City with written notice of any policy cancellation within two business days of their receipt of such notice.
 - h. 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 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.
 - i. 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. Independent Consultant. The Consultant and the City agree that the Consultant is an independent Consultant with respect to the services provided pursuant to this agreement. Nothing in this Agreement shall be considered to create the relationship of employer and employee between the parties hereto.

Neither Consultant nor any employee of Consultant shall be entitled to any benefits accorded City employees by virtue of the services provided under this Agreement. The City shall not be responsible for withholding or otherwise deducting federal income tax or social security or for contributing to the state industrial insurance program, otherwise assuming the duties of an employer with respect to Consultant, or any employee of Consultant.
 10. Covenant Against Contingent Fees. The Consultant warrants that he/she has not employed or retained any company or person, other than a bonafide employee working solely for the

Consultant, to solicit or secure this contract, and that he has not paid or agreed to pay any company or person, other than a bonafide employee working solely for the Consultant, any fee, commission, percentage, brokerage fee, gifts, or any other consideration contingent upon or resulting from the award or making of this contract. For breach or violation of this warranty, the City shall have the right to annul this contract without liability or, in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

11. Discrimination Prohibited. During the performance of this Agreement, the Consultant, for itself, its assignees, and successors in interest agrees to comply with the following laws and regulations:
- Title VI of the Civil Rights Act of 1964
(42 USC Chapter 21 Subchapter V Section 2000d through 2000d-4a)
 - Federal-aid Highway Act of 1973
(23 USC Chapter 3 Section 324)
 - Rehabilitation Act of 1973
(29 USC Chapter 16 Subchapter V Section 794)
 - Age Discrimination Act of 1975
(42 USC Chapter 76 Section 6101 et seq.)
 - Civil Rights Restoration Act of 1987
(Public Law 100-259)
 - Americans with Disabilities Act of 1990
(42 USC Chapter 126 Section 12101 et. seq.)
 - 49 CFR Part 21
 - 23 CFR Part 200
 - RCW 49.60.180

In relation to Title VI of the Civil Rights Act of 1964, the Consultant is bound by the provisions of **Exhibit "D"** attached hereto and by this reference made part of this Agreement, and shall include the attached **Exhibit "D"** in every sub-contract, including procurement of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto.

12. Confidentiality. The Contractor agrees that all materials containing confidential information received pursuant to this Agreement shall not be disclosed without the City's express written consent. Contractor agrees to provide the City with immediate written notification of any person seeking disclosure of any confidential information obtained for the City.
13. Work Product. All work product, including records, files, documents, plans, computer disks, magnetic media or material which may be produced or modified by the Contractor while performing the Services shall belong to the City. Upon written notice by the City during the Term of this Agreement or upon the termination or cancellation of this Agreement, the Contractor shall deliver all copies of any such work product remaining in the possession of the Contractor to the City.
14. Certification Regarding Debarment, Suspension, or Ineligibility and Voluntary Exclusion—Primary and Lower Tier Covered Transactions.
- a. The Contractor, defined as the primary participant and its principals, certifies by signing these General Terms and Conditions that to the best of its knowledge and belief that they:
 6. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal or State department or agency.
 7. Have not within a three-year period preceding this contract, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public or private

agreement or transaction, violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, receiving stolen property, making false claims, or obstruction of justice;

8. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this section; and
 9. Have not within a three-year period preceding the signing of this contract had one or more public transactions (federal, state, or local) terminated for cause of default.
- b. Where the Contractor is unable to certify to any of the statements in this contract, the Contractor shall attach an explanation to this contract.
 - c. The Contractor agrees by signing this contract that it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the BOARD.
 - d. The Contractor further agrees by signing this contract that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," as follows, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions:

Lower Tier Covered Transactions

1. The lower tier contractor certifies, by signing this contract that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
 2. Where the lower tier contractor is unable to certify to any of the statements in this contract, such contractor shall attach an explanation to this contract.
- e. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, person, primary covered transaction, principal, and voluntarily excluded, as used in this section, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the BOARD for assistance in obtaining a copy of these regulations.

15. Intellectual Property.

- a. Warranty of Non-infringement. Contractor represents and warrants that the Contractor is either the author of all deliverables to be provided under this Agreement or has obtained and holds all rights necessary to carry out this Agreement. Contractor further represents and warrants that the Services to be provided under this Agreement do not and will not infringe any copyright, patent, trademark, trade secret or other intellectual property right of any third party.
- b. Rights in Data. Unless otherwise provided, data which originates from this Agreement shall be a "work for hire" as defined by the U.S. Copyright Act of 1976 and shall be owned by the City. Data shall include, but not be limited to reports, documents, pamphlets, advertisements, books, magazines, surveys, studies, films, tapes, and sound reproductions. Ownership includes the right to copyright, patent, register, and the ability to transfer these rights.

16. Assignment. The Consultant shall not sublet or assign any of the services covered by this agreement without the express written consent of the City.

17. Non-Waiver. 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 provision.
18. Conflict of Interest. It is recognized that Contractor may or will be performing professional services during the Term for other parties; however, such performance of other services shall not conflict with or interfere with Contractor's ability to perform the Services. Contractor agrees to resolve any such conflicts of interest in favor of the City. Contractor confirms that Contractor does not have a business interest or a close family relationship with any City officer or employee who was, is, or will be involved in the Contractor's selection, negotiation, drafting, signing, administration, or evaluating the Contractor's performance.
19. City's Right to Terminate Contract. The City shall have the right at its discretion and determination to terminate the contract following ten (10) calendar days written notice. The consultant shall be entitled to payment for work thus far performed and any associated expenses, but only after the city has received to its satisfaction the work completed in connection with the services to be rendered under this agreement.
20. Notices. Notices to the City of Camas shall be sent to the following address:
 Jackie Caldwell
 City of Camas
 616 NE 4th Avenue
 Camas, WA 98607
 PH: 360-817-7388
 EMAIL: jcaldwell@cityofcamas.us
- Notices to Consultant shall be sent to the following address:
 Julie Brandt
 Parametrix, Inc.
 719 2nd Avenue. Suite 200
 Seattle, WA 98104
 PH: 206-394-3661
 FX: 855-542-6353
 EMAIL: JBrandt@parametrix.com
21. Integrated Agreement. This Agreement together with attachments or addenda, represents the entire and integrated agreement between the City and the Consultant and supersedes all prior negotiations, representations, or agreements written or oral. This agreement may be amended only by written instrument signed by both City and Consultant. Should any language in any Exhibits to this Agreement conflict with any language in this Agreement, the terms of this Agreement shall prevail. Any provision of this Agreement that is declared invalid, inoperative, null and void, or illegal shall in no way affect or invalidate any other provision herof and such other provisions shall remain in full force and effect.
22. Litigation. In the event a dispute shall arise between the parties to this Agreement, it is hereby agreed that the dispute shall be settled by litigation in Clark County, Washington.
23. Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Washington.
24. Venue. The venue for any dispute related to this Agreement or for any action to enforce any term of this Agreement shall be Clark County, Washington.
25. Remedies Cumulative. Any remedies provided for under the terms of this Agreement are not intended to be exclusive, but shall be cumulative with all other remedies available to the City at law or in equity.

26. Counterparts. Each individual executing this Agreement on behalf of the City and Consultant represents and warrants that such individual is duly authorized to execute and deliver this Agreement. This Agreement may be executed in any number of counter-parts, which counterparts shall collectively constitute the entire Agreement.

DATED this _____ day of _____, 2021.

CITY OF CAMAS:

CONSULTANT:
Authorized Representative

By _____

By Jenifer Young

Print Name _____

Print Name Jenifer Young

Title _____

Title EP&C Division Manager

EXHIBIT "A"
SCOPE OF SERVICES

EXHIBIT "B"
COSTS FOR SCOPE OF SERVICES

**EXHIBIT “C”
CONSULTANT BILLING RATES**

EXHIBIT “D”
TITLE VI ASSURANCES

During the performance of this AGREEMENT, the CONSULTANT, for itself, its assignees, and successors in interest agree as follows:

1. **Compliance with Regulations:** The CONSULTANT shall comply with the Regulations relative to non-discrimination in federally assisted programs of the AGENCY, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the “REGULATIONS”), which are herein incorporated by reference and made a part of this AGREEMENT.
2. **Equal Opportunity Employer:** The CONSULTANT, In all services, programs, activities, hiring, and employment made possible by or resulting from this Agreement or any subcontract, there shall be no discrimination by Consultant or its selection and retention of sub-consultants, including procurement of materials and leases of equipment, of any level, or any of those entities employees, agents, sub-consultants, or representatives against any person because of sex, age (except minimum age and retirement provisions), race, color, religion, creed, national origin, marital status, or the presence of any disability, including sensory, mental or physical handicaps, unless based upon a bona fide occupational qualification in relationship to hiring and employment. This requirement shall apply, but not be limited to the following: employment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. Consultant shall comply with and shall not violate any of the terms of Chapter 49.60 RCW, Title VI of the Civil Rights Act of 1964, the Americans With Disabilities Act, Section 504 of the Rehabilitation Act of 1973, 49 CFR Part 21, 21.5 and 26, or any other applicable federal, state, or local law or regulation regarding non-discrimination.
3. **Solicitations for Sub-consultants, Including Procurement of Materials and Equipment:** In all solicitations either by competitive bidding or negotiations made by the CONSULTANT for work to be performed under a sub-contract, including procurement of materials or leases of equipment, each potential sub-consultant or supplier shall be notified by the CONSULTANT of the CONSULTANT’s obligations under this AGREEMENT and the REGULATIONS relative to non-discrimination of the grounds of race, color, sex, or national origin.
4. **Information and Report:** The CONSULTANT shall provide all information and reports required by the REGULATIONS or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by AGENCY, STATE or the Federal Highway Administration (FHWA) to be pertinent to ascertain compliance with such REGULATIONS, orders and instructions. Where any information required of a CONSULTANT is in the exclusive possession of another who fails or refuses to furnish this information, the CONSULTANT shall so certify to the AGENCY, STATE or FHWA as appropriate, and shall set forth what efforts it has made to obtain the information.
5. **Sanctions for Non-compliance:** In the event of the CONSULTANT’s non-compliance with the non-discrimination provisions of this AGREEMENT, the AGENCY shall impose such AGREEMENT sanctions as it, the STATE or the FHWA may determine to be appropriate, including, but not limited to:
 - Withholding of payments to the CONSULTANT under the AGREEMENT until the CONSULTANT complies, and/or;
 - Cancellation, termination, or suspension of the AGREEMENT, in whole or in part.

6. Incorporation of Provisions: The CONSULTANT shall include the provisions of paragraphs (1) through (5) in every sub-contract, including procurement of materials and leases of equipment, unless exempt by the REGULATIONS, or directives issued pursuant thereto. The CONSULTANT shall take such action with respect to any sub-consultant or procurement as the AGENCY, STATE, or FHWA may direct as a means of enforcing such provisions including sanctions for non-compliance.

Provided, however that in the event a CONSULTANT becomes involved in, or is threatened with, litigation with a sub-consultant or supplier as a result of such direction, the CONSULTANT may request the AGENCY and the STATE enter into such litigation to protect the interests of the AGENCY and the STATE and, in addition, the CONSULTANT may request the United States enter into such litigation to protect the interests of the United States.

The United States Department of Transportation
Appendix A of the
Standard Title VI/ Non-Discrimination Assurances
DOT Order No. 1050.2A

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration (FHWA), as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin, sex, age, disability, income-level, or Limited English Proficiency (LEP) in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations as set forth in Appendix E, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 C.F.R. Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor’s obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, national origin, sex, age, disability, income-level or LEP.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the FHWA to be pertinent to ascertain compliance with such Acts, Regulations and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the FHWA, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor’s noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:
 - a. withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. cancelling, terminating, or suspending a contract, in whole or in part.

Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

The United States Department of Transportation
Appendix E of the
Standard Title VI/ Non-Discrimination Assurances
DOT Order No. 1050.2A

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees to comply with the following non-discrimination statutes and authorities, including, but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat.252), prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
 - The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
 - Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), prohibits discrimination on the basis of sex);
 - Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, prohibits discrimination on the basis of disability; and 49 CFR Part 27;
 - The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), prohibits discrimination on the basis of age);
 - Airport and Airway Improvement Act of 1982, (49 U.S.C. § 471, Section 47123, as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
 - The Civil Rights Restoration Act of 1987, (PL 100-209), Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
 - Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations 49 C.F.R. parts 37 and 38.
 - The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
 - Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
 - Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 *et seq.*)

SCOPE OF WORK

City of Camas SMAP (NPDES Stormwater Management Action Planning)

PROJECT UNDERSTANDING

The City of Camas (City) is contracting with Parametrix to develop the City’s Stormwater Management Action Plan (SMAP), which is required by the Washington State Department of Ecology (Ecology) National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit (Permit). Parametrix will apply Ecology guidance to conditions unique to the City to prepare a SMAP that is based on Permit requirements.

The project is funded by a Stormwater Financial Assistance Program (SFAP) grant from Ecology; therefore, the project schedule is based on both the grant award timeline and the Permit deadlines.

TASK 1A – PROJECT MANAGEMENT

The purpose of this task is to track, manage, document, and report on the work effort.

Approach

Parametrix will track and administer this contract with the City, including preparing monthly invoices and coordinating work efforts with the City’s project manager. Parametrix’s project manager will have routine phone and email contact with the City’s project manager as needed.

Assumptions

- Project management will extend through April 30, 2023 (23 months).
- The City will track and administer its grant contract for the SMAP with Ecology.

Deliverables

- Monthly invoices and progress reports
- QA/QC review documentation (delivered upon request)

TASK 1B – PROJECT INITIATION AND NEEDS ASSESSMENT

This purpose of this task is to define the project objectives, establish team member roles and communications, and define data gaps and needs.

Approach

City Staff Workshop: Parametrix will prepare for and facilitate a project kickoff workshop with City staff. The workshop will include introduction of the project team; definition of the project objectives; review of the scope of work and schedule milestones; describe the communications plan; and prepare the risk register.

Data Collection: The City does not have an in-house geographic information system (GIS) department, so Parametrix will collect and analyze available, public GIS data from external organizations such as Clark County, Ecology, the U.S. Geologic Service, and others to compile the basin characteristics for the SMAP. The City will provide any information it does have. Data may include but are not limited to:

- Basin hydrography/water feature mapping, including streams and lakes or other receiving waters
- Basin topography
- Aerial photos
- Watershed catchment delineations
- Drainage system maps
- Stormwater facility location and type maps
- Land cover, including soils, vegetation type, tree canopy, and condition
- Impervious surfaces
- Public rights-of-way
- Vacant land maps (if available)
- Future proposed land use (if applicable)
- Critical areas, such as wetlands, steep slopes or geologic hazards, buffers, and floodplains
- Water quality and stream conditions
- Environmental justice (using USEPA's EJ Screen, the Washington State Department of Health Washington State's Health Disparity Map, and data from local regional groups as available).

Data not available will be assessed in the data gaps analysis (see below).

Data Gap Analysis: Parametrix will prepare a data gaps summary memorandum discussing:

- Data not available,
- Quality of available data,
- Gaps recommended to be filled for the project, and

- Gaps that can be accepted and addressed through assumptions or extrapolation from other sources.

Assumptions

- Up to 3 Parametrix staff members will participate in the kickoff meeting. One 2-hour meeting is assumed.
- The City will identify and invite other City staff to participate in the workshop. The City will coordinate the kickoff meeting location and time and have key City staff at the meetings based on planned topics.
- Where available, the City will provide Parametrix with information in electronic format via email, FTP site transfer, or file a share platform hosted by Parametrix (such as OneDrive/SharePoint or Project Wise).
- If available in the City's current records, the City will provide the following information:
 - GIS data listed above
 - Most recent NPDES annual reports and stormwater management program documents
 - Water quality data from surface water or stormwater monitoring programs
 - Existing modeling data on the City's stormwater system and drainage basins within the City, if available.
 - Results of recent stormwater system needs assessment, including map of problem areas and basic project sheets developed to-date.
- The City will provide Parametrix with document review comments from all City reviewers consolidated into a single electronic file.
- Data gaps that the City chooses to be filled for the project will be addressed by the City. (Parametrix can collect certain data for additional scope and fee.)
- Data gaps that cannot be filled will be addressed through assumptions or extrapolation from other sources to the extent possible.

Deliverables

- Agenda for City Staff Workshop
- Draft Data Gaps Assessment technical memorandum for City review in Microsoft Word and PDF electronic file formats (3 to 5 pages, not including attachments)
- Final Data Gaps Assessment technical memorandum in Microsoft Word and PDF electronic file formats (3 to 5 pages, not including attachments)

TASK 2 – RECEIVING WATER ASSESSMENT

The goal of this task is to assess existing information collected in Task 2 to document relative conditions of the local receiving waters and contributing areas.

Approach

Basin Boundary Check: Parametrix will review watershed catchment delineations and potentially resize, combine, or subdivide drainage areas based on analysis units compatible with SMAP review.

Watershed Inventory: Parametrix will:

- Identify common basin characteristics for reviewing and categorizing condition and need.
- Review data gathered in Task 2 pertaining to landscape characteristics (land use and cover, road density, impervious area, stream buffers, intact floodplains, and crossings) that usually affect surface water conditions.
- Assess the relative development potential in the basin using available vacant (undeveloped parcels) and developable (non-floodplain, steep slope, or similar critical areas) land.
- Work with the City to identify water quality conditions to that may need improvement.

NPDES Table and Map: Parametrix will prepare a Watershed Inventory and accompanying web map documenting the drainage areas based on Permit requirements. The inventory will be in table format and will include:

- Each receiving water name, its total watershed area, the percent of the total watershed area that is in the Permittee's jurisdiction
- A brief description of the relative conditions of the receiving waters based on currently available basic water quality assessment information and the contributing areas condition based on current land cover and known stormwater management.
- Findings of the stormwater management influence assessment for each basin and indication of which receiving waters will be included in the S5.C.1.d.ii prioritization process.
- Parametrix will also include a web map of the delineated basins with references to the watershed inventory table. If needed, Parametrix will create a copy of the web map with select layers for the City to share with Ecology.

City Check-In Meeting: Parametrix will facilitate a meeting with City staff at the beginning of the City's review period to present the draft Watershed Inventory, answer questions, and collect preliminary comments.

Assumptions

- Parametrix will base the assessment on data collected during Task 2. No new data will be collected for this effort.
- The City will provide Parametrix with document review comments from all City reviewers consolidated into a single electronic file.
- For interim grant-required deliverables to Ecology, Parametrix will submit technical content to the City, and the City will prepare the stand-alone grant deliverables and submit them to Ecology.
- The City will take the lead on responding to all comments from Ecology, with Parametrix support on technical issues as needed.

- The schedule includes a lag of 10 business days for Ecology review of draft deliverables; however, Parametrix will continue or suspend effort on this task based on direction by the City.
- For Permit-required documents, Parametrix will submit documents to the City, and the City will submit the Permit documents to Ecology.

Deliverables

- City Draft Watershed Inventory technical memorandum for City review in Microsoft Word and PDF electronic file formats (3 to 5 pages, not including data table, map, and attachments).
- Final Watershed Inventory technical memorandum for City review in Microsoft Word and PDF electronic file formats (3 to 5 pages, not including data table, map, and attachments).

TASK 3 – RECEIVING WATER PRIORITIZATION

The purpose of this task is to establish prioritization of watershed protection needs to help identify which of the City's local receiving waters are most likely to benefit from stormwater management planning.

Approach

Watershed Prioritization: Parametrix will work with the City to prioritize watersheds using an approach based in part on the Stormwater Management Action Planning Guidance (Ecology 2019, Publication 19-10-010) and Building Cities in the Rain (Washington Department of Commerce 2016, Publication 006). Through this process, Parametrix will:

- Prepare prioritization metrics for local watersheds for review and agreement by the City.
- For each watershed and receiving water, evaluate current “treated” and “untreated” lands as defined by stormwater management system coverage.
- Identify restoration or protection goal(s) for each watershed or watershed group based on basin characteristics and protection needs.
- Evaluate current and potential opportunities to address watershed restoration and protection goals for each watershed or watershed group.
- Prioritize watersheds or watershed groups based on agreed metrics using a GIS/spreadsheet scoring tool.
- Work with the City to identify additional, non-quantifiable opportunities and constraints such as political support, funding applicability, community perception, etc. in the watershed prioritization.
- Identify a single watershed or watershed group to target for stormwater management planning in Task 4.

City Check-In Meeting: Parametrix will facilitate a meeting with City staff at the beginning of the City's review period to present the draft Watershed Prioritization, answer questions, and collect preliminary comments.

Public Engagement Support: Parametrix will prepare a web-based GIS story map suitable for distribution to the Public and for the City to share with Ecology.

Assumptions

- Parametrix will base the prioritization on data collected during Task 2. No new data will be collected for this effort.
- The City will provide Parametrix with document review comments from all City reviewers consolidated into a single electronic file.
- The City will perform all public advertisement, outreach, and distribution of the web-based GIS story map provided by Parametrix.
- For interim grant-required deliverables to Ecology, Parametrix will submit technical content to the City, and the City will prepare the stand-alone grant deliverables and submit them to Ecology.
- The City will take the lead on responding to all comments from Ecology, with Parametrix support on technical issues as needed.
- The schedule includes a lag of 10 business days for Ecology review of draft deliverables; however, Parametrix will continue or suspend effort on this task based on direction by the City.
- For Permit-required documents, Parametrix will submit documents to the City, and the City will submit the Permit documents to Ecology.

Deliverables

- Draft Receiving Water Prioritization technical memorandum for City review in Microsoft Word and PDF electronic file formats (approximately 10 pages, not including appendices)
- Final Receiving Water Prioritization technical memorandum in Microsoft Word and PDF electronic file formats (approximately 10 pages, not including appendices)
- A web-based GIS story map suitable for distribution to the public and for the City to share with Ecology

TASK 4 – STORMWATER MANAGEMENT ACTION PLAN

The goal of this task is to identify and document high-level stormwater management activities that may improve the condition of the high-priority watershed identified in Task 3.

Approach

Action Identification: Parametrix will work with the City to identify and create a list of:

- Concept-level potential stormwater facility retrofits for the area, including identification of BMP types (in broad categories such as distributed LID retrofits, regional flow control facilities, targeted water quality media filtration for particular pollutants, etc.) and preferred locations where possible (in general categories such as regional vs. site-specific facilities, retrofits in the right-of-way vs. parcels, excluded areas such as protected natural resources, etc.)
- Land management/development strategies and/or actions for water quality management
- If applicable, changes needed to local long-range plans to address SMAP priorities

- A proposed implementation schedule and budget sources for short- and long-term actions
- A process for future assessments and feedback to inform future changes

Public Engagement Support: Parametrix will:

- Support the City in preparing for a virtual/online Public Open House to present the SMAP process so far and outline the potential identified actions.
- Update the web-based GIS story map for use during the Open House and suitable for distribution to the Public afterwards to facilitate comment collection.

SMAP Report: Parametrix will develop a SMAP report that outlines the identified actions and incorporates adjustments based on public comment, as approved by the City.

City Check-In Meeting: Parametrix will facilitate a meeting with City staff at the beginning of the City's review period to present the draft SMAP Report, answer questions, and collect preliminary comments.

Assumptions

- Up to 3 Parametrix staff members will participate in the Public Open House. One 2-hour meeting is assumed.
- The City will identify and invite other City staff to participate in the Public Open House, coordinate the online platform and time, and conduct public advertising of the event leading up to it.
- Parametrix will be responsible for developing the figures which will be included in the SMAP.
- The Receiving Water Assessment and Receiving Water Prioritization technical memoranda prepared under earlier tasks will be included as appendices to the SMAP Report.
- The City will provide Parametrix with document review comments from all City reviewers consolidated into a single electronic Excel table file.
- For interim grant-required deliverables to Ecology (with the exception of the Ecology Draft SMAP), Parametrix will submit technical content to the City, and the City will prepare the stand-alone grant deliverables and submit them to Ecology.
- The City will take the lead on responding to all comments from Ecology, with Parametrix support on technical issues as needed.
- The schedule includes a lag of 10 business days for Ecology review of draft deliverables; however, Parametrix will continue or suspend effort on this task based on direction by the City.
- For Permit-required documents, Parametrix will submit documents to the City, and the City will submit the Permit documents to Ecology.

Deliverables

- An update to the public web-based GIS story map to facilitate comment collection.

- Draft list of stormwater management actions for structural retrofits and targeted areas for City review in Microsoft Word and PDF electronic file formats
- City Draft SMAP Report for one high-priority basin for City review in Microsoft Word and PDF electronic file formats, approximately 30 pages (not including appendices)
- Ecology Draft SMAP Report for one high-priority basin for City review in Microsoft Word and PDF electronic file formats, approximately 30 pages (not including appendices)
- Final SMAP Report for one high-priority basin in Microsoft Word and PDF electronic file formats, approximately 30 pages (not including appendices)

TASK 5 – CONTINGENCY SUPPORT

The purpose of this task is for Parametrix to provide general support to the City SMAP development in supplement to the above tasks on an as-needed basis beyond what is scoped in the previous sections.

Approach

For each work element under this task, the City will make a request for support and Parametrix will respond with an estimated level of effort, budget, and schedule. This task is based on allowed schedule and budget, and development of a specific number of deliverables is not determined.

Assumptions

This task scope is based on level of effort, and the budget assumes up to 24 hours of Parametrix Senior Engineer staff time.

Deliverables

- Draft tables, figures, or technical memorandums for City review in electronic Microsoft Office format (Word, Excel, PDF, etc.), as determined when the request is made.
- Final tables, figures, or technical memorandums in electronic Microsoft Office format (Word, Excel, PDF, etc.), as determined when the request is made.



Staff Report

September 7, 2021 Council Workshop Meeting

Lake Management Plan - Quality Assurance Project Plan

Presenter: Steve Wall, Public Works Director

Time Estimate: 10 minutes

Phone	Email
360.817.7899	swall@cityofcamas.us

BACKGROUND: The City entered into a professional services agreement with Geosyntec Consultants in May 2021 to assist the City in completing what has been referred to as “Phase 1” of a larger project to complete a Lake Cyanobacteria Management Plan (aka Lake Management Plan) for Lacamas, Round and Fallen Leaf Lakes. Phase 1 is intended to:

- Review background data to understand lake water quality and data gaps.
- Identify short-term actions to improve lake water quality.
- Identify funding and volunteer actions to improve lake water quality.
- Talk with stakeholders to understand concerns about the lakes.
- Plan how we’ll do the work of creating the actual Lake Management Plan.

Phase 1 is nearing completion. The next Phase of the work that has been identified through the current efforts is to develop a Quality Assurance Project Plan (QAPP). Development of the QAPP was originally anticipated to be completed with the “Field Data Collection and Analysis” shown below in Phase 2 of Figure 1; however, information obtain in the Phase 1 work efforts have pushed the project team into moving forward on the QAPP prior to starting work anticipated with the rest of Phase 2.

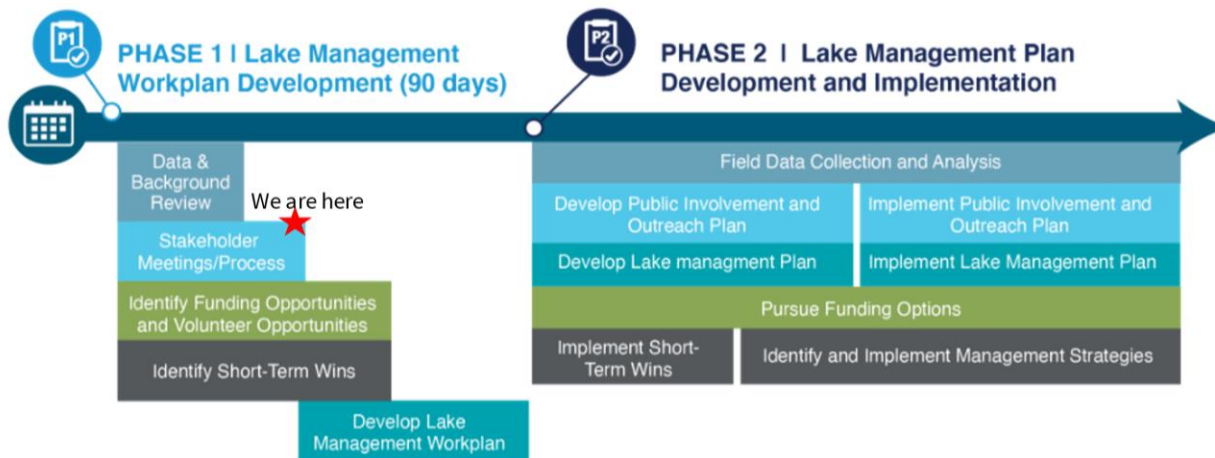


Figure 1: Lake Management Plan Development Phases

SUMMARY: The QAPP, as identified by the Department of Ecology, *"is intended to ensure that projects which collect or analyze environmental data develop plans for field, laboratory, and analytical activities that meet quality standards appropriate to the goals and scope of the project."* Prior to collecting or analyzing any data to be used in the Lake Management Plan (LMP), the City is required to develop a QAPP that will identify *"exactly what needs to be accomplished, when and how it will be done, and by whom"*. The QAPP is required to be reviewed and approved by the Department of Ecology prior to any sampling or monitoring work being completed.

Staff has worked with Geosyntec to develop the attached Scope of Work to complete a QAPP for development of an LMP. As discussed above, originally, development of the QAPP was anticipated to be completed with development of the LMP in Phase 2; however, after discussing the timelines with Ecology, staff and the consultant team are proposing to get started on the QAPP as soon as possible. Ecology staff have indicated it may take two to three months to get through their review, which doesn't start until the City's team gets a completed draft prepared. After Ecology's review, the project team anticipates additional time to make any necessary revisions and get the final document approved by Ecology.

As an additional item of interest, the project team is also working on developing the Scope of Work for the full Phase 2 effort. The scope of work for development of the LMP will be a separate, third contract amendment with Geosyntec Consultants that will be presented to Council later this fall.

EQUITY CONSIDERATIONS:

What are the desired results and outcomes for this agenda item?

- Provide information to Council regarding the level of effort and requirement needed to complete a Quality Assurance Project Plan (QAPP) associated with development of a Lake Management Plan (LMP) for Lacamas, Round and Fallen Leaf lakes.

What's the data? What does the data tell us?

- The City must complete a QAPP and have it reviewed and approved prior to collecting any data that will be used in development of an LMP.

How have communities been engaged? Are there opportunities to expand engagement?

- There are extensive community outreach efforts and opportunities during both Phase 1 and Phase 2 that are included in the City's workplan. Phase 1 has included initial outreach to potential stakeholders and a brief electronic survey. Phase 2 will include development of a full Public Involvement and Outreach Plan and significant public input.

Who will benefit from, or be burdened by this agenda item?

- N/A

What are the strategies to mitigate any unintended consequences?

- N/A

Does this agenda item have a differential impact on underserved populations, people living with disabilities, and/or communities of color? Please provide available data to illustrate this impact.

- N/A

Will this agenda item improve ADA accessibilities for people with disabilities?

- N/A

What potential hurdles exists in implementing this proposal (include both operational and political)?

- Though not a significant hurdle, based on past experience it may take significant time working with Ecology to meet all requirements of a QAPP and get it reviewed and approved by Ecology.

How will you ensure accountabilities, communicate, and evaluate results?

- The QAPP will identify how the project will ensure accountability, communicate and evaluate the technical results from the sampling, testing and monitoring that gets completed. Additionally, the City's Freshwater Algae Control Program grant funding is contingent on the City completing a QAPP.

How does this item support a comprehensive plan goal, policy or other adopted resolution?

- This item supports environmental and recreational goals and policies with the City's adopted Comprehensive Plan and adopted Parks, Recreation and Open Space Plan. Additionally, the development of an LMP supports the direction provided by Council in Resolution No. 20-016.

BUDGET IMPACT: The QAPP is estimated to cost approximately \$22,700 total, including meetings with Ecology and reasonable revisions that may be necessary after the Department of Ecology's review of the draft document.

The Phase 1 contract signed with Geosyntec Consultants includes a \$7,000 Contingency Task to collect data from the three lakes over the summer months. Since a QAPP is required to be completed prior to collecting any data, staff is proposing to use the Contingency Task to begin development of the QAPP. The remainder of the funds required to complete the work (\$15,700)

are eligible for and are anticipated to come from a portion of the \$50,000 Freshwater Algae Control Program grant funds received for the Project.

RECOMMENDATION: This item is for Council’s information only. Staff is recommending the Professional Services Contract Amendment with Geosyntec Consultants be included on the October 4, 2021 Consent Agenda for Council’s consideration.



920 SW 6th Ave, Suite 600
Portland, Oregon 97204
PH 503.222.9518
FAX 971.271.5884
www.geosyntec.com

VIA ELECTRONIC MAIL

August 23, 2021

Mr. Steve Wall, P.E.
Public Works Director
City of Camas
616 NE 4th Avenue
Camas, WA 98607

Subject: Phase 2a Scope of Work, Lake Management Planning, Quality Assurance Project Plan (QAPP) Development

Dear Mr. Wall,

On behalf of Geosyntec Consultants, Inc. (Geosyntec), we are pleased to present you with our draft scope of work for Phase 2a of the Lake Management Planning support to the City of Camas (City). This interim phase is focused on development of a Quality Assurance Project Plan (QAPP) for developing a Lake Cyanobacteria Management Plan consistent with the Washington State Department of Ecology (Ecology) guidance. Geosyntec's team with MacKay Sposito and JLA have developed this draft scope of work and budget for developing the QAPP for Lacamas, Round and Fallen Leaf Lakes.

The scope of work and budget serves as Exhibit A and B in the Professional Services Agreement between the City of Camas and Geosyntec (Project No. D-1010).

PHASE 2A SCOPE OF SERVICES

Objective

The objective of this task is to develop a QAPP for collecting field data to support a Lake Cyanobacteria Management Plan (LCMP) consistent with the Washington State Department of Ecology guidance. The format for a LCMP is sufficiently similar to the format of a Lake Management Plan previously envisioned by the City of Camas and the Geosyntec team that we recommend combining these to be consistent with the Ecology's guidelines for an LCMP.

Activities

- Hold up to 2 meetings with the City to discuss progress in developing the QAPP.

Phase 2a Scope of Work, QAPP Development
August 26, 2021
Page 2

- Hold up to 2 meetings with Ecology personnel to ask questions, seek clarifications and discuss the progress in developing the QAPP.
- Develop Draft QAPP document.
- Develop Final QAPP document to submit to Ecology after addressing City of Camas comments.
- Participate in up to 2 additional meetings with Ecology personnel to discuss Ecology comments and requests for revisions.
- Participate in 1 additional meeting with the City to discuss progress in revising the QAPP.

Deliverables

- Draft QAPP for review by the City
- Draft QAPP for submission to Ecology
- Revised QAPP based on Ecology comments

Assumptions

- City personnel will have an opportunity to provide one round of comments on the draft QAPP prior to submission to Ecology.

BUDGET

Geosyntec is pleased to provide you this quotation for the Phase 2a Scope of Work, to be completed in 30 days, on a time and materials basis of \$22,700. We recommend using the \$7,000 allocated to a Contingency Task under Phase 1 to start development of the QAPP. Therefore, an additional \$15,700 is needed to complete the QAPP. We assume that \$3,000 of this work would be conducted by MacKay Sposito and the remainder would be conducted by Geosyntec. MacKay Sposito's role would be to assist in scoping specific field studies, such as stormwater sampling and an aquatic vegetation survey. Table 1, below, shows a breakdown of hours by labor category.

Phase 2a Scope of Work, QAPP Development
 August 26, 2021
 Page 3

Table 1. Cost Estimate for Phase 2a, QAPP Development.

Description	Senior Principal	Project Professional	Professional	Senior Staff	Admin	Mackay Sposito	Cost*
Meetings and Admin	7	8			4		\$3,900
QAPP Development	6.5	18.25	20	22		20	\$15,700
Post QAPP Submission Support	3	8		4			\$3,100
Total	16.5	34.25	20	26	4	20	\$22,700

*Line-item costs used hourly bill rates and the communications fee shown in the rate schedule below. MacKay Sposito Labor would be marked up 10%.

CLOSURE

If you have any questions regarding our draft scope of work for Phase 2a, QAPP Development, please feel free to contact me at (971) 271-5906, (503) 936-0115, or by email at RAnnear@geosyntec.com.

Thank you for the opportunity to submit this draft scope of work for your consideration.

Respectfully,

Robert Annear, Ph.D., P.E. (OR, WA, ID, FL, NC)
 Senior Principal Engineer
 971.271.5906
RAnnear@geosyntec.com
 Geosyntec Consultants



City Council Town Hall Minutes - Draft
Monday, June 14, 2021, 6:30 PM
REMOTE MEETING PARTICIPATION

WELCOME!

Communications Director Bryan Rachal called the Town Hall meeting to order at 6:30 p.m.

Present: Mayor Pro Tem Ellen Burton and Council Members Greg Anderson, Bonnie Carter, Don Chaney, Steve Hogan, Shannon Roberts, and Melissa Smith

Staff: Bernie Bacon, Jennifer Gorsuch, Cathy Huber Nickerson, Mitch Lackey, Trang Lam, Robert Maul, Bryan Rachal, Nick Swinhart, Connie Urquhart and Steve Wall

Press: Kelly Moyer, Camas-Washougal Post-Record

CITIZEN ENGAGEMENT

1. Your elected representatives invite you to participate in this open public meeting in order to communicate directly with the City Council.

The following topics were discussed during the Town Hall:

- Timing of when the City facilities will be open to the public
- Housing development and the City's population and demographics
- Future Camas Mayor election and considering diversity
- Homeless population in the area
- Georgia-Pacific (GP) mill property and 20-year vision
- Discover Recovery facility location
- Council Member term limits
- Grass Valley bird sanctuary and wetlands
- Achievements and challenges as a Council Member
- Maintain hometown feel while the City grows and prospers
- Future of the City's public health, specifically to address cardiac arrest
- Lacamas Lake water quality
- Fireworks in the City
- Website's Engage Camas feedback
- Number of signs along streets and sidewalks
- Lake Road development and North Shore expansion
- City Administrator hiring process
- Camas' 10-year growth and the Asian population
- City's Equity Committee work
- Land Use Petition Act (LUPA) matter

ADJOURNMENT

The meeting adjourned at 8:19 p.m.



**City Council Workshop Minutes - Draft
Tuesday, September 07, 2021, 4:30 PM
REMOTE MEETING PARTICIPATION**

NOTE: Please see the published Agenda Packet for all item file attachments

SPECIAL MEETING

CALL TO ORDER

Mayor Ellen Burton called the meeting to order at 4:30 p.m.

ROLL CALL

Present: Council Members Greg Anderson, Bonnie Carter, Don Chaney, Melissa Smith and Steve Hogan (Due to connectivity issues, there were brief periods when Council Member Hogan was not in the meeting)

Excused: Council Member Shannon Roberts

Staff: Phil Bourquin, James Carothers, Sarah Fox, Jennifer Gorsuch, Cathy Huber Nickerson, Trang Lam, Robert Maul, Bryan Rachal, Heather Rowley, Denis Ryan, Jeff Swanson, Connie Urquhart and Steve Wall

Press: Kelly Moyer, Camas-Washougal Post-Record (4:46 p.m.)

PUBLIC COMMENTS

No one from the public wished to speak.

Public comments received via publiccomments@cityofcamas.us are attached to these minutes.

WORKSHOP TOPICS

1. Camas-Washougal Fire Department Partnership Analysis Update
Presenters: Nick Swinhart, Fire Chief; Rob Moody and Courtney Seto, Merina+CO

Moody and Seto provided an update about the Fire Department Partnership Analysis. Discussion ensued. This item will be placed on a future Council Workshop agenda for further discussion.
2. Overview of 2021 Annual Comprehensive Plan Amendment
Presenter: Sarah Fox, Senior Planner

Fox reviewed the proposed Comprehensive Plan Amendments. A public hearing will be scheduled for the September 20, 2021 Regular Meeting Agenda.
3. Citywide Traffic Signal Controller Upgrades Professional Services Contract Supplement

These materials are archived electronically by the City of Camas. DESTROY AFTER USE.

Presenter: James Carothers, Engineering Manager

This item will be placed on the September 20, 2021 Consent Agenda for Council's consideration.

4. Water System Plan Amendment, Including Green Mountain Estates Booster Station
Presenter: James Carothers, Engineering Manager

This item will be placed on the September 20, 2021 Regular Meeting Agenda for Council's consideration.

5. 2021 Facility Condition Assessment
Presenters: Denis Ryan, Public Works Operations Supervisor and Steve Wall, Public Works Director

This item will be placed on the September 20, 2021 Consent Agenda for Council's consideration.

6. Amendments to Green Mountain PRD Development Agreements
Presenter: Steve Wall, Public Works Director

A public hearing will be scheduled for the September 20, 2021 Regular Meeting Agenda.

7. Staff Miscellaneous Updates
Presenter: Jeff Swanson, Interim City Administrator

Maul commented about annual code updates. Discussion ensued.

Wall provided updates about Lacamas Lodge, the water quality advisory at Lacamas Lake, and the annual Lacamas Lake drawdown and clean-up event.

Lam commented about the end of summer rentals and the parking lot attendant at Heritage Park.

COUNCIL COMMENTS AND REPORTS

Carter, Anderson and Burton attended equity listening sessions and are preparing a presentation for a Council Workshop in November.

Carter and Hogan attended the Mayor's Meet and Greet event at the Camas Library.

Carter attended the Library Board of Trustees meeting and will attend the Meet the Mayor event at the Camas Farmers Market.

Anderson commented about the Camas-Washougal Fire Department's (CWFD) 9/11 event and will attend a C-TRAN Board meeting. Anderson requested routine Council updates about Stoel Rives' efforts, which has also been placed on the September 7, 2021 Consent Agenda.

Chaney attended the Columbia River Emergency Services Agency (CRESA) Board meeting.

Hogan will attend the CWFD 9/11 event.

Mayor commented about the Community Conversations key initiative, which includes the Camas-Washougal Chamber presentation, the Meet the Mayor events at the Camas Library and the Camas Farmers Market as well as the upcoming Town Hall.

Mayor recognized Camas Police Officer Tim McNall and commented about the upcoming the Police Activities League (PAL) fundraiser.

Mayor attended a Steigerwald Lake Wildlife Refuge tour.

PUBLIC COMMENTS

John Ley, 444 NW Fremont, Camas, commented about the Mayor's Meet and Greet at the Camas Library and the Lacamas Lake water quality.

ADJOURNMENT

The meeting adjourned at 6:08 p.m.

From: [Douglas Strabel](#)
To: [Public Comments](#)
Subject: Four (4) Items for Discussion at the 09/07/2021 CITY COUNCIL MEETING
Date: Tuesday, September 7, 2021 3:49:02 PM

WARNING: This message originated outside the City of Camas Mail system. **DO NOT CLICK** on links or open attachments unless you recognize the sender and are expecting the content. If you are unsure, click the Phish Alert button to redirect the email for ITD review.

After the CC Meeting (6/07) and the last Town Hall Meeting (6/14) it has become very apparent that YOU have decided to avoid DIRECT PUBLIC CONTACT as much as possible. Some of the responses by your selves and especially from your fire wall (Dir of Public Relations) have made that very clear. Therefore the following questions are STILL OPEN and NEED to be ADDRESSED.

We, the CITIZENS of CAMAS find it amazing that you will not address the HARD TOPICS – Such as a Solution for the FIREWORKS ISSUE and keep kicking that can down the street for another year YET you spend 15 MINUTES on the topic of PARKING TICKETS.

Four (4) Items for the 9/07/2021 CITY COUNCIL MEETING:

1. Since the City has announced TO ONCE AGAIN SHUT DOWN City Facilities effective Sept 1st 2021 on what date will the City Council Meetings move from the Zoom Format back to a face to face format with Taxpayer/Citizens in attendance? And additionally address Item #2?

2. Resolution #1252 (dtd 02/2020) states Citizens/Taxpayers are currently NOT ALLOWED to engage in a conversation, ask questions and expect a response or debate of any type. The response during the TH Meeting ONLY mentioned DEBATE. The resolution covers CONVERSATIONS, Q&A and RESPONSE also.

There needs to be a Modification, Amendment or Repeal of Sec III Note E to thereby allow Conversation, Debate or Q&A.

3. NW Lake Road and NW Sierra Street Traffic Signal:

This item has been moved again and is now listed as #8 on the City of Camas 2022-2027 Six Year Street Priorities with a schedule date of Jan 2024.

It now has a \$380K estimated cost.

This item was listed as a \$2.5M line item as part of the \$78M in the Failed Prop 2 in the 2019 Election.

Will it take a tragedy to get the project moved up in the priority list?

Why is this project LOWER than other items which have no potential for injury or death?

4. Northshore Development Phase 2 Consultant Contract:

If memory serves, the majority of Camasonians were not in favor of this project.

There are approx 25K people in Camas. Less than 1K participated in the Visioning portion of Phase 1.

When did the MAJORITY of 25,000 citizens ask for this Development?

Why are CONSULTANTS constantly being used to SELL ideas to the taxpayers/citizens?

The only winners when this is all said and done will be the Consultants (WSP), the Developers, the Contractors and those that have sold land to the city of Camas.

Not the CITIZENS.

What is the REAL PLAN for the almost 900 acres that are 25% owned by the City of Camas?

When do the citizens FIND OUT?

Douglas Strabel
4307 NW Oregon St.
Camas, WA



**City Council Regular Meeting Minutes - Draft
Tuesday, September 07, 2021, 7:00 PM
REMOTE MEETING PARTICIPATION**

NOTE: Please see the published Agenda Packet for all item file attachments

SPECIAL MEETING

CALL TO ORDER

Mayor Ellen Burton called the meeting to order at 7:00 p.m.

PLEDGE OF ALLEGIANCE

ROLL CALL

Present: Council Members Greg Anderson, Bonnie Carter, Don Chaney, Steve Hogan and Melissa Smith

Excused: Council Member Shannon Roberts

Staff: Phil Bourquin, Jennifer Gorsuch, Cathy Huber Nickerson, Trang Lam, Shawn MacPherson, Robert Maul, Bryan Rachal, Heather Rowley, Denis Ryan, Jeff Swanson, Connie Urquhart and Steve Wall

Press: No one from the press was present

PUBLIC COMMENTS

Marie Tabata-Callerame, 5724 NW El Rey Drive, Camas, commented about lake water quality.

STAFF PRESENTATIONS

1. Camas Fund Balance Presentation with ARPA and ERP Considerations
Presenter: Cathy Huber Nickerson, Finance Director
Time Estimate: 30 minutes

Huber Nickerson reviewed the presentation. Discussion ensued. This item will be placed on a future Council Workshop agenda for further discussion.

CONSENT AGENDA

NOTE: Consent Agenda items may be removed for general discussion or action.

2. August 16, 2021 City Council Regular and Workshop Meeting Minutes, and August 23, 2021 City Council Special Meeting Minutes
3. \$ 1,320,047.73 Automated Clearing House and Claim Checks Numbered 148473 to 148595; \$2,311,847.72 Automated Clearing House, Direct Deposit and Payroll Check

Numbered 7918 and Payroll Accounts Payable Checks Numbered 148464 through 148472

4. 2021 Public Works Operations Facility Site and Space Needs Analysis (Submitted by Denis Ryan, Public Works Operations Supervisor)
5. Green Mountain Master Plan Phase 1 Park Impact Fee Credits (Submitted by James Carothers, Engineering Manager)
6. Green Mountain Master Plan Phase 2 Park Impact Fee Credits (Submitted by James Carothers, Engineering Manager)
7. Stoel Rives Engagement Letter (Submitted by Jeff Swanson, Interim City Administrator)

It was moved by Anderson, and seconded, to approve the Consent Agenda. The motion carried unanimously.

NON-AGENDA ITEMS

8. Staff

Maul commented about Code Updates. Discussion ensued.

9. Council

There were no updates from Council.

MAYOR

10. Mayor Announcements

Mayor invited everyone to the Meet the Mayor event at the Camas Farmers Market.

MEETING ITEMS

11. Grass Valley Park Tennis Court Resurfacing
Presenter: Denis Ryan, Public Works Operations Supervisor

It was moved by Carter, and seconded, to approve the Agreement for the Grass Valley Park Tennis Court Resurfacing Project with Hellas Construction for \$50,811.42 and authorize the Mayor to sign. The motion carried unanimously.

12. Ordinance No. 21-009 Remote Meetings Code Update
Presenter: Jennifer Gorsuch, Administrative Services Director

It was moved by Anderson, and seconded, that Ordinance No. 21-009 be read by title only. The motion carried unanimously.

It was moved by Anderson, and seconded, that Ordinance No. 21-009 be adopted and published according to law. The motion carried unanimously.

PUBLIC COMMENTS

No one from the public wished to speak.

ADJOURNMENT

The meeting adjourned at 8:31 p.m.



Supplemental Agreement Number <u>2</u>		Organization and Address DKS Associates 720 SW Washington St. Ste. 500 Portland, OR 97205	
Original Agreement Number LA 10020		Phone: 503-243-3500	
Project Number CM-0060(002)	Execution Date	Completion Date June 30,2022	
Project Title Small Cities ATPM (T1015)	New Maximum Amount Payable \$64,090.00		
Description of Work Produce a Public Interest Finding (PIF) and associated Plans, Special Provisions, and Estimate (PS&E) revisions in order to readvertise for bid. Previous Maximum Amount Payable: \$55,250.00 Additional Amount Payable per Supplement 2: \$8,840.00			

The Local Agency of City of Camas
desires to supplement the agreement entered in to with DKS Associates
and executed on 2/18/2020 and identified as Agreement No. LA 10020

All provisions in the basic agreement remain in effect except as expressly modified by this supplement.
The changes to the agreement are described as follows:

I

Section 1, SCOPE OF WORK, is hereby changed to read:
The attached Exhibit A: Scope of Work describes the additional tasks needed to produce a Public Interest Finding (PIF) and associated Plans, Special Provisions, and Estimate (PS&E) revisions in order to readvertise for bid.

II

Section IV, TIME FOR BEGINNING AND COMPLETION, is amended to change the number of calendar days for completion of the work to read: No change

III

Section V, PAYMENT, shall be amended as follows:
No change

as set forth in the attached Exhibit A, and by this reference made a part of this supplement.
If you concur with this supplement and agree to the changes as stated above, please sign in the Appropriate spaces below and return to this office for final action.

By: _____ By: _____

Consultant Signature

Approving Authority Signature

Date

VAST Small Cities ATMS – Amendment 2

The proposed Scope of Work describes the tasks needed to produce a Public Interest Finding (PIF) and associated Plans, Special Provisions, and Estimate (PS&E) revisions in order to readvertise for bid.

Scope of Services

City of Camas (Task 2)

Task 2.3.2 - Final PS&E (REVISED)

Consultant shall develop and submit to City of Camas final PS&E package.

Consultant shall:

- Update Plans, Special Provisions, and Engineer's Cost Estimate and bid item list based on PIF.
- Prepare, stamp and sign final Plans and any necessary detail sheets.
- Prepare, stamp and sign final Special Provisions including required "Boiler Plate" updates.
- Prepare a final Engineer's Cost Estimate and bid item list.

Task 2.3.2 Deliverables:

- One set of final paper plans in 11" x 17" plan sheet format.
- Electronic files of plans in AutoCad format.
- Final bid documents consisting of one electronic set and one hard-copy set of the Project Special Provisions and Engineer's Cost Estimate.

Task 2.3.3 – Public Interest Finding (NEW)

Consultant shall develop and submit to City of Camas the Public Interest Finding form and backup material for submittal to WSDOT Local Programs.

Consultant shall:

- Complete WSDOT form 140-050 for Agency procured equipment.
- Provide and attach cost justification material in coordination with equipment providers.
- Request Buy America compliance documentation from equipment providers.
- Address and respond to comment from WSDOT Local Programs.

Task 2.3.3 Deliverables:

- Draft and Final WSDOT form 140-050 with attachments

Task 2.5 – Construction Support (NO CHANGE TO SCOPE AND FEE, REFERENCE ONLY)

Consultant shall conduct the following to support the City of Camas during construction:

- Provide answers to written questions received during the bidding process.
- Provide formal clarification of design intent and design revisions due to design errors or omissions.

- Prepare Project addenda letter(s) and addendums to plans as necessary.
- Review and comment in writing on adequacy of Construction Contractor submittals and re-submittals as required.
- Perform and provide “as constructed” drawing revisions to the portions of the project they designed. Changes will be provided by the City.

Task 2.5 Deliverables:

- Responses to Contractor questions during bidding.
- Formal clarification of design intent or design revisions due to design errors or omissions within three working days upon receipt of request from City.
- Addenda in electronic (Microsoft Word or pdf) format. Plan sheets with addenda shall be on paper and stamped and signed.
- Reviewed submittals in electronic format.
- Complete “As Constructed” drawings.

Task 2.5 Assumptions

- The level of effort is assumed to be 40 hours of consultant time.

DKS Associates
 Exhibit B - Fee Estimate
 VAST Small Cities ATMS - Amendment 2

Task #		Hours	Labor Cost	Total Cost
2	City of Camas			
2.3	Develop PS & E	46	\$ 8,840	\$ 8,840
2.3.2	<i>Final Plans</i>			
	<i>Cost Estimate</i>			
	<i>Special Provisions</i>			
2.3.3	<i>Public Interest Finding</i>			
	City of Camas Total	46	\$ 8,840.00	\$ 8,840.00



CITY OF CAMAS
PROFESSIONAL SERVICES AGREEMENT

616 NE 4th Avenue
 Camas, WA 98607

Project No. G1008

2021 Facility Condition Assessment

THIS AGREEMENT is entered into between the **City of Camas**, a municipal corporation, hereinafter referred to as "the City", and **Meng Analysis** hereinafter referred to as the "Consultant", in consideration of the mutual benefits, terms, and conditions hereinafter specified.

1. **Project Designation.** The Consultant is retained by the City to perform professional services in connection with the project designated as the **2021 Facility Condition Assessment**.
2. **Scope of Services.** Consultant agrees to perform the services, identified on **Exhibit "A"** attached hereto, including the provision of all labor, materials, equipment, supplies and expenses.
3. **Time for Performance.** Consultant shall perform all services and provide all work product required pursuant to this agreement by no later than **March 31, 2022**, unless an extension of such time is granted in writing by the City, or the Agreement is terminated by the City in accordance with Section 18 of this Agreement.
4. **Payment.** The Consultant shall be paid by the City for completed work and for services rendered under this agreement as follows:
 - a. Payment for the work provided by Consultant shall be made as provided on **Exhibit "A"** attached hereto, provided that the total amount of payment to Consultant shall not exceed the amounts for each task identified in **Exhibit "A"** (Scope of Services) inclusive of labor, materials, equipment supplies and expenses. Consultant billing rates are attached as **Exhibit "A"**.
 - b. The consultant may submit vouchers to the City once per month during the progress of the work for payment for project completed to date. Vouchers submitted shall include the Project Number designated by the City and noted on this agreement. Such vouchers will be checked by the City, and upon approval thereof, payment will be made to the Consultant in the amount approved. Payment to the Consultant of partial estimates, final estimates, and retained percentages shall be subject to controlling laws.
 - c. Final payment of any balance due the Consultant of the total contract price earned will be made promptly upon its ascertainment and verification by the City after the completion of the work under this agreement and its acceptance by the City.
 - d. Payment as provided in this section shall be full compensation for work performed, services rendered and for all materials, supplies, equipment and incidentals necessary to complete the work.
 - e. The Consultant's records and accounts pertaining to this agreement are to be kept available for inspection by representatives of the City and of the State of Washington for

a period of three (3) years after final payment. Copies shall be made available upon request.

5. Ownership and Use of Documents. All documents, drawings, specifications, electronic copies and other materials produced by the Consultant in connection with the services rendered under this Agreement shall be the property of the City whether the project for which they are made is executed or not. The Consultant shall be permitted to retain copies, including reproducible copies, of drawings and specifications for information, reference and use in connection with Consultant's endeavors.
6. Compliance with Laws. Consultant shall, in performing the services contemplated by this agreement, faithfully observe and comply with all federal state, and local laws, ordinances and regulations, applicable to the services to be rendered under this agreement. Compliance shall include, but not limited to, 8 CFR Part 274a – Control of Employment of Aliens, § 274a.2 Verification of identity and employment authorization.
7. Indemnification. Consultant shall defend, indemnify and hold the City of Camas, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including reasonable 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.

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 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 the 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. Consultant's Liability Insurance.
 - a. Insurance Term. The Consultant shall procure and maintain for the duration of this 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, or employees.
 - b. No Limitation. 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.
 - c. Minimum Scope of Insurance. Consultant shall obtain insurance of types and coverage described below:
 1. Automobile Liability insurance with a minimum combined single limit for bodily injury and property damage of \$1,000,000.00 per accident. Automobile Liability insurance covering all owned, non-owned, hired and leased vehicles. Coverage shall be at least as broad as Insurance Services Office (ISO) form CA 00 01.
 2. Commercial General Liability insurance shall be written with limits no less than \$2,000,000.00 each occurrence, \$2,000,000.00 general aggregate. 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 Public Entity shall be named as an additional insured under the Consultant's Commercial General Liability insurance policy with respect to the work performed for the Public Entity using an additional insured endorsement at least as broad as ISO endorsement form CG 20 26.

3. Professional Liability insurance appropriate to the consultant's profession. Professional Liability insurance shall be written with limits no less than \$2,000,000.00 per claim and \$2,000,000.00 policy aggregate limit.
4. Workers' Compensation coverage as required by Industrial Insurance laws of the State of Washington.
5. Verification. 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, showing the City of Camas as a named additional insured, evidencing the Automobile Liability and Commercial General Liability of the Consultant before commencement of the work.
- d. Other Insurance Provision. The Consultant's Automobile Liability and Commercial General Liability insurance policies are to contain, or be endorsed to contain that they shall be primary insurance as respect to 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.
- e. Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best rating of not less than A: VII.
- f. 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 Agreement before commencement of the work.
- g. Notice of Cancellation. The Consultant shall provide the City with written notice of any policy cancellation within two business days of their receipt of such notice.
- h. 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 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.
- i. 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. Independent Consultant. The Consultant and the City agree that the Consultant is an independent Consultant with respect to the services provided pursuant to this agreement. Nothing in this Agreement shall be considered to create the relationship of employer and employee between the parties hereto.

Neither Consultant nor any employee of Consultant shall be entitled to any benefits accorded City employees by virtue of the services provided under this Agreement. The City shall not be

responsible for withholding or otherwise deducting federal income tax or social security or for contributing to the state industrial insurance program, otherwise assuming the duties of an employer with respect to Consultant, or any employee of Consultant.

10. Covenant Against Contingent Fees. The Consultant warrants that he/she has not employed or retained any company or person, other than a bonafide employee working solely for the Consultant, to solicit or secure this contract, and that he has not paid or agreed to pay any company or person, other than a bonafide employee working solely for the Consultant, any fee, commission, percentage, brokerage fee, gifts, or any other consideration contingent upon or resulting from the award or making of this contract. For breach or violation of this warranty, the City shall have the right to annul this contract without liability or, in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.
11. Discrimination Prohibited. During the performance of this Agreement, the Consultant, for itself, its assignees, and successors in interest agrees to comply with the following laws and regulations:
- Title VI of the Civil Rights Act of 1964
(42 USC Chapter 21 Subchapter V Section 2000d through 2000d-4a)
 - Federal-aid Highway Act of 1973
(23 USC Chapter 3 Section 324)
 - Rehabilitation Act of 1973
(29 USC Chapter 16 Subchapter V Section 794)
 - Age Discrimination Act of 1975
(42 USC Chapter 76 Section 6101 et seq.)
 - Civil Rights Restoration Act of 1987
(Public Law 100-259)
 - Americans with Disabilities Act of 1990
(42 USC Chapter 126 Section 12101 et. seq.)
 - 49 CFR Part 21
 - 23 CFR Part 200
 - RCW 49.60.180

In relation to Title VI of the Civil Rights Act of 1964, the Consultant is bound by the provisions of **Exhibit "B"** attached hereto and by this reference made part of this Agreement, and shall include the attached **Exhibit "B"** in every sub-contract, including procurement of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto.

12. Confidentiality. The Contractor agrees that all materials containing confidential information received pursuant to this Agreement shall not be disclosed without the City's express written consent. Contractor agrees to provide the City with immediate written notification of any person seeking disclosure of any confidential information obtained for the City.
13. Work Product. All work product, including records, files, documents, plans, computer disks, magnetic media or material which may be produced or modified by the Contractor while performing the Services shall belong to the City. Upon written notice by the City during the Term of this Agreement or upon the termination or cancellation of this Agreement, the Contractor shall deliver all copies of any such work product remaining in the possession of the Contractor to the City.
14. Certification Regarding Debarment, Suspension, or Ineligibility and Voluntary Exclusion—Primary and Lower Tier Covered Transactions.

- a. The Contractor, defined as the primary participant and its principals, certifies by signing these General Terms and Conditions that to the best of its knowledge and belief that they:
6. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal or State department or agency.
 7. Have not within a three-year period preceding this contract, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public or private agreement or transaction, violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, receiving stolen property, making false claims, or obstruction of justice;
 8. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this section; and
 9. Have not within a three-year period preceding the signing of this contract had one or more public transactions (federal, state, or local) terminated for cause of default.
- b. Where the Contractor is unable to certify to any of the statements in this contract, the Contractor shall attach an explanation to this contract.
- c. The Contractor agrees by signing this contract that it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the BOARD.
- d. The Contractor further agrees by signing this contract that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," as follows, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions:

Lower Tier Covered Transactions

1. The lower tier contractor certifies, by signing this contract that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
 2. Where the lower tier contractor is unable to certify to any of the statements in this contract, such contractor shall attach an explanation to this contract.
- e. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, person, primary covered transaction, principal, and voluntarily excluded, as used in this section, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the BOARD for assistance in obtaining a copy of these regulations.

15. Intellectual Property.

- a. Warranty of Non-infringement. Contractor represents and warrants that the Contractor is either the author of all deliverables to be provided under this Agreement or has obtained and holds all rights necessary to carry out this Agreement. Contractor further represents and warrants that the Services to be provided under this Agreement do not and will not infringe

any copyright, patent, trademark, trade secret or other intellectual property right of any third party.

- b. Rights in Data. Unless otherwise provided, data which originates from this Agreement shall be a "work for hire" as defined by the U.S. Copyright Act of 1976 and shall be owned by the City. Data shall include, but not be limited to reports, documents, pamphlets, advertisements, books, magazines, surveys, studies, films, tapes, and sound reproductions. Ownership includes the right to copyright, patent, register, and the ability to transfer these rights.
16. Assignment. The Consultant shall not sublet or assign any of the services covered by this agreement without the express written consent of the City.
17. Non-Waiver. 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 provision.
18. Conflict of Interest. It is recognized that Contractor may or will be performing professional services during the Term for other parties; however, such performance of other services shall not conflict with or interfere with Contractor's ability to perform the Services. Contractor agrees to resolve any such conflicts of interest in favor of the City. Contractor confirms that Contractor does not have a business interest or a close family relationship with any City officer or employee who was, is, or will be involved in the Contractor's selection, negotiation, drafting, signing, administration, or evaluating the Contractor's performance.
19. City's Right to Terminate Contract. The City shall have the right at its discretion and determination to terminate the contract following ten (10) calendar days written notice. The consultant shall be entitled to payment for work thus far performed and any associated expenses, but only after the city has received to its satisfaction the work completed in connection with the services to be rendered under this agreement.
20. Notices. Notices to the City of Camas shall be sent to the following address:
 Denis Ryan
 City of Camas
 616 NE 4th Avenue
 Camas, WA 98607
 PH: 360-817-7983
 EMAIL: dryan@cityofcamas.us

Notices to Consultant shall be sent to the following address:

Sarah Partap
 Meng Analysis
 2001 Western Ave
 Suite 200
 Seattle, WA 98121
 PH: 206-838-9797
 EMAIL: sarah@menganalysis.com

21. Integrated Agreement. This Agreement together with attachments or addenda, represents the entire and integrated agreement between the City and the Consultant and supersedes all prior negotiations, representations, or agreements written or oral. This agreement may be amended only by written instrument signed by both City and Consultant. Should any language in any Exhibits to this Agreement conflict with any language in this Agreement, the terms of this Agreement shall prevail. Any provision of this Agreement that is declared invalid, inoperative,

null and void, or illegal shall in no way affect or invalidate any other provision herof and such other provisions shall remain in full force and effect.

- 22. Arbitration Clause. In the event a dispute shall arise between the parties to this Agreement, it is hereby agreed that the dispute shall be referred to the Portland USA&M office or alternate service by agreement of the parties for arbitration in accordance with the applicable United States Arbitration and Mediation Rules of Arbitration. The artibrator's decision shall be final and legally binding and judgment be entered thereon.

Each party shall be responsible for its share of the arbitration fees in accordance with the applicable Rules of Arbitration. In the event a party fails to proceed with arbitration, unsuccessfully challenges the arbitrator's award, or fails to comply with the arbitrator's award, the other party is entitled to costs of suit, including reasonable attorney's fee for having to compel arbitration or defend or enforce award.

- 23. Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Washington.

- 24. Venue. The venue for any dispute related to this Agreement or for any action to enforce any term of this Agreement shall be Clark County, Washington.

- 25. Remedies Cumulative. Any remedies provided for under the terms of this Agreement are not intended to be exclusive, but shall be cumulative with all other remedies available to the City at law or in equity.

- 26. Counterparts. Each individual executing this Agreement on behalf of the City and Consultant represents and warrants that such individual is duly authorized to execute and deliver this Agreement. This Agreement may be executed in any number of counter-parts, which counterparts shall collectively constitute the entire Agreement.

DATED this _____ day of _____, 2021.

CITY OF CAMAS:

CONSULTANT:
Authorized Representative

By _____

By _____

Print Name _____

Print Name _____

Title _____

Title _____

EXHIBIT "A"
SCOPE OF SERVICES
COSTS FOR SCOPE OF SERVICES
CONSULTANT BILLING RATES



Denis Ryan
Public Works Operations Supervisor
City of Camas
616 NE 4th Ave
Camas, WA 98607

July 19, 2021

Subject: City of Camas Facility Condition Assessment Scope & Fee Proposal

Dear Denis,
MENG Analysis is excited for the opportunity to work with the City of Camas in support of your Facility Condition Assessment (FCA) project. This proposal provides our detailed scope and cost proposal for various options and levels of service for the assessment.

Facilities

This FCA includes review and documentation of the following facilities:

FACILITY	ADDRESS	SQUARE FOOTAGE
Police Station	2100 NE 3rd Avenue	23,100
City Hall/Station 41	576 NE 4th Avenue	28,080
City Hall Annex	616 NE 4th Avenue	10,000
Public Works Operations Center	1620 SE 8th Avenue	21,190
Wastewater Treatment Plant	1129 SE Polk Street	4,250
Library	625 NE 4th Avenue	36,500
Lacamas Lake Lodge	227 NW Lake Road	4,615
Community Center	1718 SE 7th Avenue	21,420
Fire Station 42	4321 NW Parker Street	12,069
Scout Hall	621 NE 15th Avenue	1,200

Level of Effort

Our team will use a rapid visual inspection technique to assess the condition of the facilities. No destructive or invasive testing is included in this scope of work.

We will document our findings with Uniformat Level III (subsystem) descriptions and scores. (Example at right.)

Issues that require attention within the next five years (2021-2026) and with a greater direct cost for correction than \$5,000 are "deficiencies." These deficiencies will be noted individually with a photograph and rough order-of-magnitude cost estimate. We will also provide a deficiency summary report that rolls up deficiencies to the system level and applies project markups to assist in planning your budget.

Figure 1 - ASTM UNIFORMAT II Classification of Building Elements (E1557-97)		
Level 1 Major Group Elements	Level 2 Group Elements	Level 3 Individual Elements
A. SUBSTRUCTURE	A10 Foundations	A1010 Standard Foundations A1020 Special Foundations A1030 Slab on Grade
	A20 Basement Construction	A2010 Basement Excavation A2020 Basement Walls
B. SHELL	B10 Superstructure	B1010 Floor Construction B1020 Roof Construction
	B20 Exterior Closure	B2010 Exterior Walls B2020 Exterior Windows Exterior Doors
	B30 Roofing	B3010 Roof Coverings B3020 Roof Openings

Figure 1. Example Uniformat Level III Subsystems



Our team will use custom-built cost models that predict the 20-year capital renewal and replacement needs for each of the facilities, based on their current age, condition, and industry standard useful life. These long-term costs can be provided in several formats such as total by year, total by facility by year, or some configuration of system or subsystem level costs.

We will review three years of historical energy use data to calculate the energy use intensity (EUI) for each facility (where data is available). The EUI helps our team identify possible issues with HVAC systems or the building enclosure which may not be evident via the rapid visual inspection.

Our team will also document opportunities to improve energy efficiency and enhance operations. The opportunities will be documented in a report with rough order-of-magnitude cost estimates.

Deliverables

- We will provide a complete rough draft report within 30 days of the completion of field work. This report will be comprised of an Executive Summary document and a Facility Detail report. This draft will be provided to you for review and comment. We are flexible on the timing you need to complete your review comments and edits.
- We suggest a post-draft review meeting so that our team can answer questions and make sure we understand your comments and edits.
- We will incorporate your comments and edits into a final report within two weeks of receiving your complete feedback.
- Once the report is finalized, we will provide you with a Microsoft Power BI dashboard that allows you to create custom visualizations and list of deficiencies for populating your existing CMMS.

Additional Options

In addition to the basic FCA scope described above, we also offer additional related services that the City of Camas may find valuable. These include:

- Seismic analysis (via a subcontracted structural engineer)
- Infrared thermography (to review electrical loads and building envelope)
- Mechanical equipment inventory and preventative maintenance planning

Additional services are available at our standard rates. If an additional service is desired, we will provide a separate fee proposal for your approval.



Scope

Task 1. Facility Assessment Planning

1.1 Kickoff Meeting

At the kickoff meeting, we will define the parameters of the FCA, determine customized categories/departments/prioritization for your facilities, agree on the overall project timeline, select a facility for the pilot review, and identify next steps to solidify a project plan and schedule.

1.2 Review Facility Materials

We will send a list of requested background data for each facility. We use this data to set up the database and gain a baseline understanding of each facility and site. This includes floor plans, site plans, etc.

1.3 Prepare & Distribute Occupant & Facility Staff Questionnaires

We will prepare a questionnaire for facility staff (and building occupants if desired) to note known issues, concerns, or upcoming work on the facilities.

1.4 Review and Compile Questionnaire Data

We will compile the questionnaire data and look for trends or inconsistencies. Our surveyors will review these questionnaires prior to beginning the onsite assessment.

1.5 Review & Analyze Energy Use Data

We will calculate the energy use intensity (EUI) for facilities for which data is available. The EUI helps surveyors identify possible concealed issues.

1.6 Set Up Database Cost Model & Custom Deficiency Categories

We will calibrate our database to be used for data storage and future cost predictions. We will update the building cost model based on the building type and usage, and update the deficiency categories as directed by the Client.

1.7 Schedule, Access, and Logistics for Field Surveys

We will review building use to establish best dates and times to be in which areas, then confirm access procedures and logistics.

Task 2. Onsite Facility Condition Assessment

2.1 Discussion with Facility Staff

At each site during the field survey, MENG Analysis surveyors will discuss the information from the questionnaires and ask other pertinent questions to facility staff if they are available. Facility staff may disclose other information if not included on the questionnaire responses.

2.2 Pilot Assessment

The purpose of the pilot assessment is for your team to see firsthand how the assessments are conducted in order to be fully prepared for the onsite work. We also prepare a detailed facility report for your review. Your early feedback on the pilot report allows us to calibrate our reporting to ensure we are meeting your needs.

2.3 Onsite Facility Assessment

MENG Analysis staff will perform a detailed onsite assessment of the facilities listed on page one of this proposal. Building subsystems types, age, and condition will be estimated and recorded. Roof access will be required, as well as access to locked spaces such as mechanical and electrical rooms. Facility staff to provide ladders if roof access is not built into the building.



Task 3. Analysis of FCA Data

3.1 Complete Assessment Writeups & Quality Control

After the completion of the onsite assessment, surveyors will finalize their detailed writeups. The project technician and project manager will review the data for quality, consistency, and completeness.

3.2 Categorize Deficiencies & Opportunities

Deficiency and opportunity data will be reviewed, categorized, and prioritized.

3.3 Organize and Label Photos from Field Work

Any photos taken as part of the assessment will be organized and labeled. The report will include a photo of each facility and a photo of each deficiency at a minimum.

3.4 Cost Estimating

MENG Analysis will prepare costs for each deficiency and create updated cost models to estimate future capital needs over a 20-year horizon.

Task 4. Reporting

4.1 Prepare Draft Condition Assessment Report

MENG Analysis will prepare a draft Condition Assessment Report which will include a standalone Executive Summary with the intended audience of executives, board members, and other high-level and non-technical readers. We will also provide a facility detail report, intended for a technically-oriented audience which has detailed documentation of building systems, conditions, deficiencies and their estimated remediation costs, and long-term predicted costs for building maintenance.

4.2 Meeting with the Client's Staff Post-Draft

After completion of the draft Condition Assessment Report, MENG Analysis will meet with the Client staff to discuss findings and review comments or edits from the Client.

4.3 Finalize Condition Report

Any edits resulting from the post-report meeting will be incorporated into the final Condition Assessment Report.

4.4 Presentation

Formal presentation of report findings for City Council or similar (cost proposal assumes remote presentation).

4.5 Visualization Tool

We will create a custom data visualization tool showing conditions and costs across the Client's portfolio.

Task 5. Equipment Inventory & Scoring

5.1 Gather Existing Information

Request & organize any past information about major maintainable equipment. This may be from existing maintenance plans, work orders, installation receipts, etc.

5.2 On-Site Documentation

While on site, field surveyors will record detailed equipment data for major maintainable equipment. Only readily available and accessible equipment will be surveyed.

5.3 Scoring & Reporting

The list of recorded equipment will be reviewed, scored, and formatted. This data will be included in the FCA reports and in the Microsoft BI dashboard.



Task 6. Project Management & Administration

6.1 General Project Management & Admin

General project management activities including progress updates, team oversight, and communication with City of Camas.

Fee

Our proposed fee for this scope of work totals \$115,166 which includes labor, mileage, lodging, and meal expenses. This does not include an allowance for printing and mailing deliverables. This fee assumes all meetings will be remote via video conferencing and all deliverables will be electronic only.

Fee Breakdown

	Project Manager Sarah Partap	Surveyor - Civil, Structural, Architectural Timothy Buckley	Surveyor - Mechanical, Electrical, Plumbing Doug Smith	Cost Estimating Matt Lersch	Technician/Support Cam Iserl	Cost per Task
Task #1 Facility Assessment Planning	8	6	6	3	35	\$11,370
1.1 Kickoff Meeting	4	2	2	2	2	
1.2 Gather & Review Background Materials	2	1	1	1	12	
1.3 Prepare Questionnaires	0	0	0	0	1	
1.4 Review & Consolidate Questionnaire Data	0	1	1	0	2	
1.5 Review & Analyze Energy Use Data	0	0	2	0	12	
1.6 Customize Database	0	0	0	0	10	
1.7 Schedule, Access, Logistics	2	2	0	0	0	
Task #2 On-site Condition Assessment	4	102	102	4	4	\$48,240
2.1 Discussions with Facility Staff (included in survey time)	0	0	0	0	0	
2.2 Pilot Assessment	4	10	10	4	4	
2.3 Onsite Facility Examination & Write Ups	0	92	92	0	0	
Task #3 Analysis of FCA Data	8	8	8	32	38	\$18,630
3.1 QC data for accuracy & completeness	8	0	0	0	32	
3.2 Categorize Deficiencies & Opportunities	0	4	4	0	4	
3.3 Organize Photographs	0	4	4	0	2	
3.4 Cost Estimating	0	0	0	32	0	
Task #4 Reporting Tasks	16	6	6	4	20	\$10,020
4.1 Draft FCA Report	4	0	0	2	8	
4.2 Post Report Workshop	2	2	2	2	2	
4.3 Final Report	2	0	0	0	2	
4.4 Presentation to City Council (or similar)	4	4	4	0	2	
4.5 Data Management & Dashboard	4	0	0	0	8	
Task #5 Equipment Inventory	2	0	24	0	28	\$10,410
Gather Existing Information					4	
On-site Documentation			16			
Scoring, Follow Up & Reporting	2		8		24	
Task #6 Project Management & Admin	32	0	0	0	32	\$11,520
5.1 General Project Management & Admin	40				40	\$110,190
	Total Hours	70	122	146	43	161
	Hourly Rates	\$195	\$225	\$225	\$225	\$165
	Total Labor	\$110,190				
	Direct Costs	\$4,976				
	Total	\$115,166				

Direct Costs	\$4,976
Mileage (local & from Seattle)	\$992
Surveyor 1	\$784
Surveyor 2	\$198
Lodging & Meals	\$3,984
Surveyor 1	\$3,184
Surveyor 2	\$799
Assume no Printing	\$0



After reviewing this proposal, please contact me with any questions. We look forward to exceeding your expectations!

Thank you,

Sarah Partap
Principal
MENG Analysis
Mobile: 206-451-3462 (preferred)
Office: 206-838-9797

EXHIBIT "B"
TITLE VI ASSURANCES

During the performance of this AGREEMENT, the CONSULTANT, for itself, its assignees, and successors in interest agree as follows:

1. **Compliance with Regulations:** The CONSULTANT shall comply with the Regulations relative to non-discrimination in federally assisted programs of the AGENCY, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the "REGULATIONS"), which are herein incorporated by reference and made a part of this AGREEMENT.
2. **Equal Opportunity Employer:** The CONSULTANT, In all services, programs, activities, hiring, and employment made possible by or resulting from this Agreement or any subcontract, there shall be no discrimination by Consultant or its selection and retention of sub-consultants, including procurement of materials and leases of equipment, of any level, or any of those entities employees, agents, sub-consultants, or representatives against any person because of sex, age (except minimum age and retirement provisions), race, color, religion, creed, national origin, marital status, or the presence of any disability, including sensory, mental or physical handicaps, unless based upon a bona fide occupational qualification in relationship to hiring and employment. This requirement shall apply, but not be limited to the following: employment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. Consultant shall comply with and shall not violate any of the terms of Chapter 49.60 RCW, Title VI of the Civil Rights Act of 1964, the Americans With Disabilities Act, Section 504 of the Rehabilitation Act of 1973, 49 CFR Part 21, 21.5 and 26, or any other applicable federal, state, or local law or regulation regarding non-discrimination.
3. **Solicitations for Sub-consultants, Including Procurement of Materials and Equipment:** In all solicitations either by competitive bidding or negotiations made by the CONSULTANT for work to be performed under a sub-contract, including procurement of materials or leases of equipment, each potential sub-consultant or supplier shall be notified by the CONSULTANT of the CONSULTANT's obligations under this AGREEMENT and the REGULATIONS relative to non-discrimination of the grounds of race, color, sex, or national origin.
4. **Information and Report:** The CONSULTANT shall provide all information and reports required by the REGULATIONS or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by AGENCY, STATE or the Federal Highway Administration (FHWA) to be pertinent to ascertain compliance with such REGULATIONS, orders and instructions. Where any information required of a CONSULTANT is in the exclusive possession of another who fails or refuses to furnish this information, the CONSULTANT shall so certify to the AGENCY, STATE or FHWA as appropriate, and shall set forth what efforts it has made to obtain the information.
5. **Sanctions for Non-compliance:** In the event of the CONSULTANT's non-compliance with the non-discrimination provisions of this AGREEMENT, the AGENCY shall impose such AGREEMENT sanctions as it, the STATE or the FHWA may determine to be appropriate, including, but not limited to:
 - Withholding of payments to the CONSULTANT under the AGREEMENT until the CONSULTANT complies, and/or;

- Cancellation, termination, or suspension of the AGREEMENT, in whole or in part.
6. Incorporation of Provisions: The CONSULTANT shall include the provisions of paragraphs (1) through (5) in every sub-contract, including procurement of materials and leases of equipment, unless exempt by the REGULATIONS, or directives issued pursuant thereto. The CONSULTANT shall take such action with respect to any sub-consultant or procurement as the AGENCY, STATE, or FHWA may direct as a means of enforcing such provisions including sanctions for non-compliance.

Provided, however that in the event a CONSULTANT becomes involved in, or is threatened with, litigation with a sub-consultant or supplier as a result of such direction, the CONSULTANT may request the AGENCY and the STATE enter into such litigation to protect the interests of the AGENCY and the STATE and, in addition, the CONSULTANT may request the United States enter into such litigation to protect the interests of the United States.



STAFF REPORT

Annual Comprehensive Plan Amendments
City File Number: CPA21-01

TO: Mayor Burton
City Council **DATE:** September 8, 2021

FROM: Sarah Fox, Senior Planner on behalf of the Planning Commission

LOCATION: 4555 and 4615 NW Camas Drive (4.80 acres)

PUBLIC NOTICE: A public hearing notice was posted on the city's website and published in the Camas Post Record on September 9, 2021. Notices were mailed to property owners within 300-feet on September 8 and June 9.

WA Department of Commerce: Notice of intent to adopt amendments was received by the Department of Commerce on May 10, 2021 (Material ID #2021-S-2641). The 60-day notice period ended on July 5, 2021.

STATE ENVIRONMENTAL POLICY ACT (SEPA) The city issued a SEPA determination of Non-Significance Non-Project Action on July 29 with a comment period ending on August 12 (Legal Publication No. 581760). No comments were received or appeals filed.

APPLICABLE LAW: Camas Municipal Code Chapters (CMC) Chapter 18.51

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- I. COMPREHENSIVE PLAN AMENDMENT PROCESS 2
- II. BACKGROUND 2
- III. LAND INVENTORY 2
- IV. APPLICABLE COMPREHENSIVE PLAN GOALS & POLICIES 4
- V. PROPOSED AMENDMENT 5
- VI. PUBLIC COMMENT 7
- VII. STAFF RECOMMENDATION 7
- VIII. TABLE 1 –2021 COMPREHENSIVE PLAN ACREAGE (PROPOSED) 8
- IX. ZONING REGULATIONS 10
- X. DEVELOPMENT STANDARDS – CHAPTER 18.09 11

This Staff Report will:

- Analyze the City's Comprehensive Plan policies and goals
- Analyze the issues set forth in CMC 18.51

I. COMPREHENSIVE PLAN AMENDMENT PROCESS

Each year in the months leading up to January, the City announces that proposed amendments to the Comprehensive Plan will be received for 30 days. The 2021 announcement was published in the Camas Post Record and ran weekly from November 5 to December 3, 2020. The City received one application (File: CPA21-01).

Planning Commission held a public hearing on June 15 and unanimously recommended approval.

II. BACKGROUND

In 2016, the city adopted a cover to cover update to its comprehensive plan and map, titled Camas 2035 (Ord. 16-010). The city's comprehensive plan guides land use development and public facility investment decisions, consistent with the state's Growth Management Act (GMA) and Clark County's Community Framework Plan.

The plan includes six elements that work together to achieve the community's vision and long-term economic vitality. Those elements include policies and goals as follows: Land Use; Housing; Natural Environment; Transportation and Street Plans; Public Facilities, Utilities, and Services; and Economic Development.

The plan anticipated that the city would have a total population of 34,098 in 2035 and would add 11,182 new jobs. The city's population according to the 2020 Census is **26,025**, which was a 34.7% increase from the 2010 Census and a 4.3% growth from 2019.

The City must evaluate proposed comprehensive plan changes in order to provide a balance of residential and employment lands. The City must also carefully evaluate the amount of developable land for each use, after deducting for critical areas or other challenges. The following report will discuss the city's compliance with the population and employment allocations to date and provide an analysis of the proposed amendments.

III. LAND INVENTORY

EMPLOYMENT LANDS

The city's vision for economic development (Camas 2035, Section 6.1) in part reads, "In 2035, the economy has grown to attract a variety of businesses that offer stable employment opportunities and family wage jobs in the medical and high tech fields."

The City has approximately 3,398 acres designated for employment (combined commercial and industrial lands), or 33% of the overall acreage. Based on Clark County's Vacant Buildable Lands Model, it is estimated that there is 1,124 net acres of vacant and underutilized employment land in Camas. The model estimates that the city needs 337 net acres of Commercial land and 493 acres of Industrial land (total of 830 net acres) to create 11,182 additional jobs by 2035. According to the calculations, there is excess capacity of 294 net acres of employment land.

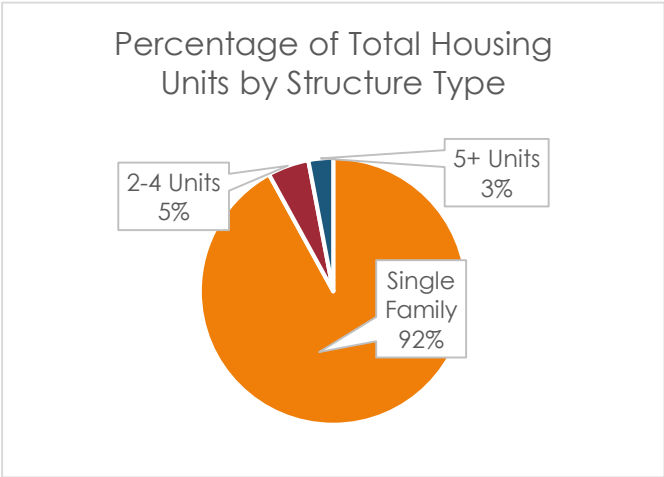
Given the high-level nature of the buildable lands analysis, there may be additional land that cannot be developed when detailed site plans are researched, or alternatively, a new employer may

exceed the estimated jobs per acre based on whether their industry can expand vertically instead of lineally.

The Industrial comprehensive plan designation is comprised of the following zones: Light Industrial (LI); Light Industrial Business Park (LI/BP); Business Park (BP); and Heavy Industrial (HI). The city's industrial lands include the top employers, some school district properties, and provide family-wage jobs. Commercially designated properties include the following zones: Regional Commercial (RC); Downtown Commercial (DC); Mixed Use (MX); Neighborhood Commercial (NC); and Community Commercial (CC). The most recent commercial developments and preliminary approvals have occurred in the city's downtown and along NW 38th Avenue.

RESIDENTIAL LANDS

The majority of land in Camas is designated for single family residential uses (45%). Together with multifamily, residentially designated lands comprise approximately 53% of total acreage. Camas 2035 states that the city must add 3,868 new residential units within residentially designated areas by 2035 to meet the growth rate of 1.26 percent population growth per year. Since adoption in 2016, there has been an average of 250 residential units built per year.



In July, the city adopted the Camas Housing Action Plan (Res. 21-006), which provides detailed background information on the city's current housing stock, and strategies to further the 2035 goals of achieving a greater mix of housing types, sizes, and affordability levels. The following chart is an excerpt from the plan. The full plan is available on the city's website at: <https://www.cityofcamas.us/com-dev/page/camas-housing-action-plan>.

Multifamily Apartment and Townhouse Developments in Camas, 2020

Development Name	Type	Year Built	NUMBER OF UNITS
Lloyd Apartments, 1022-1050 E. 1 st Avenue	Apartments	1954	8
Hill Crest Apartments, 1222 NW Couch Street	Apartments	1971	5
First Avenue Apartments, 1410 E. 1 st Avenue	Apartments	1972	11
Camas House Apartments, 1102-1138 E. 1 st Avenue	Apartments	1979	16
Crown Villa, 1529 Division Street	Apartments	1986	19
River View Apartments, 3003 NE 3 rd Avenue	Apartments	1995	60
Russell Street Townhomes, 1820 SE Seventh Ave	Townhomes	1996	9
River Place Apartments, 1718 SE 11 th Avenue	Apartments	1998	20
Third Avenue Apartments, 2615 NE 3 rd Avenue	Apartments	2000	42
Camas Ridge, 1420 NW 28 th Avenue	Apartments	2011	51
Logan Place Village, 1346 NW 25 th Avenue	Townhomes	2014	26
7 th Avenue Townhomes, 710 NW 7 th Avenue	Townhomes	2015	10
Stoneleaf Townhomes, 5843 NW 26 th Avenue	Townhomes	2015	12
Parker Village, 20 th Avenue & NW Brady Road	Townhomes	2018	60
Terrace at River Oaks, 3009 NE 3 rd Avenue	Apartments	2018	120
Clara Apartments, 608 NE Birch Street	Apartments	2020	32
Kielo at Grass Valley, 5988 NW 38 th Avenue	Apartments	2020	276
Parklands at Camas Meadows, NW Longbow Lane	Townhomes	2020	24

IV APPLICABLE COMPREHENSIVE PLAN GOALS & POLICIES

In order to support changes to the comprehensive plan, Camas 2035, the city must determine that the plan is deficient or should not continue in effect. Further, the city must agree that the proposed amendments comply with and promote the goals of the growth management act.

Commercial and industrial properties are where we focus job growth in the city. The 2035 Plan includes goals and policies for job growth within the Economic Development element of the plan (Ch. 6). The subject property is located within the "Grass Valley" area of the city, which is within an economic development target area. The applicant proposes to amend the Industrial designation to Commercial, with an associated zoning of Mixed Use.

Employment Land Use (Camas 2035, Ch. 1): "Goal LU-2: Create a diversified economy and serve Camas residents and tourists by providing sufficient land throughout the City to support a variety of business types and employment opportunities."

Housing (Camas 2035, Ch. 2): The city's housing goals and policies focus on increasing housing diversity and affordability over the next 20 years. Citywide housing goal (H-1) states, "*Maintain the strength, vitality, and stability of all neighborhoods and promote the development of a variety of housing choices that meet the needs of all members of the community.*" The following policies are particularly applicable to the proposed amendments:

H-2.3: Any comprehensive plan designation change that increases residential capacity should require a quarter (25 percent) of the new units to be affordable to households earning 50 to 80 percent of Camas' MHI at the time of development.

H-2.4: All affordable housing created in the City should remain affordable for the longest possible term, whether created with public funds, through development agreements, or by regulation.

Policy Lu-2.7: Protect employment land from conversion to residential uses in order to ensure an adequate supply of commercial and industrial land to meet 20-year employment projections.

Economic Development (Camas 2035, Ch. 6):

Grass Valley Economic Development Goal, ED 3: Promote a cooperative industrial business park in which businesses and the City share resources efficiently to achieve sustainable development, with the intention of increasing economic gains and improving environmental quality.

Policy ED-3.3: Protect employment land from conversion to residential uses by requiring an analysis of adequate buildable lands in Grass Valley to meet 20-year employment projections prior to land conversion approval.

EVALUATION CRITERIA – CMC SECTION 18.51.030 (A-D)

The application materials must include responses to eight general questions (A-H, of CMC§18.51.010).

After considering whether or not the current plan is deficient, the Planning Commission must recommend whether to support, reject or defer the amendments to City Council. The code provides the following criteria at CMC§18.51.030:

A. *Impact upon the city of Camas comprehensive plan and zoning code;*

B. Impact upon surrounding properties, if applicable;

C. Alternatives to the proposed amendment; and

D. Relevant code citations and other adopted documents that may be affected by the proposed change.

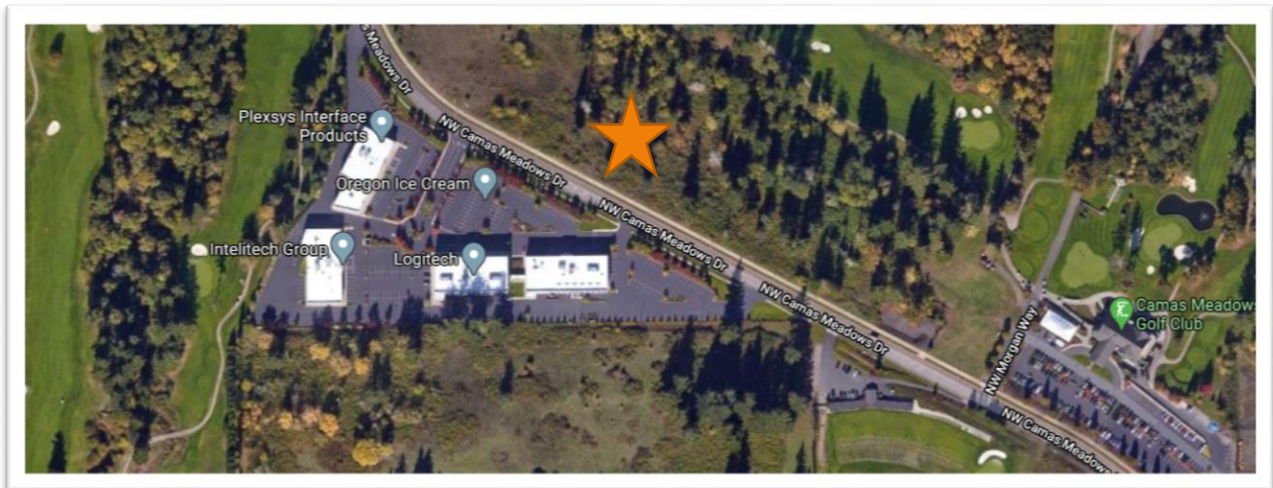
At the following section, staff will address the applicable criteria for each proposal. At Section VIII of this report, there is a summary of the proposed changes to land use acreages. There are also detailed maps of each proposal at Section X.

V. PROPOSED AMENDMENT

A. VANPORT PROPERTY (FILE #CPA21-01)

Description: Amend comprehensive plan to "Commercial" with an associated rezone to "Mixed Use" at a 4.8 acre site that is currently vacant.

Site Description: The combined 4.8 subject property is designated Industrial with a zoning of Light Industrial/Business Park (LI/BP). The site is currently vacant. The same designation lies to the north, west and south of the site. To the north is the Camas Meadows Golf Course and across the street, to the south is an industrial business park. To the east of the subject site, properties owned by Lofts at Camas Meadows were amended last year to Commercial with an concurrent rezone of Mixed Use. Further to the southeast are multifamily designated properties, with one project, the Village at Camas Meadows under construction. Another multifamily development is located north of the golf course. To the east of the golf course, there is a Business Park zone with a mixed use development planned.



Discussion: The applicant requests that the comprehensive plan designation of Industrial on the subject parcels be amended to Commercial, with a concurrent rezone to Mixed Use (MX).

In order to better evaluate the proposal, the city must consider the comprehensive plan goals and policies for the Grass Valley Area (Economic Development, Chapter 6) and the zoning regulations of the proposed Mixed Use Zone. The comprehensive plan specifically requires an analysis of buildable lands, for any proposed conversions within the Grass Valley area of the city, "**ED-3.3: Protect employment land from conversion to residential uses by requiring an analysis of adequate buildable lands in Grass Valley to meet 20-year employment projections prior to land conversion approval.**" For that reason, the applicant requested that the city include the report provided with the adjacent

property proposal (File CPA20-03)“Lands Needs Analysis for Mixed Use Development on a Site in Camas, Washington” (Johnson Economics, LLC, April 2020), which was considered with that proposal.

The analysis found (Johnson Economics, page 15) that conversion of the four acre site to a mixed use development could still provide the land necessary to achieve the city's 20-year job goals given that the 2035 Plan includes excess capacity. *“An inventory of Grass Valley industrial lands find that remaining parcels are sufficient to accommodate 69% of forecasted 20-year industrial employment (Figure 3.4), while the rest of the city could also accommodate an additional 63% of the forecast. This supports the Camas 2035 finding that there is significant overcapacity of industrial lands (132% of demand), and conversion of the subject site to a different use would not violate the policy of maintaining a 20-year supply in Grass Valley.”*

Previous to 2020, the Mixed Use Zone was found at two areas of the city—adjacent to downtown and north of the intersection of Lake Road and Everett Road. Those areas were targeted for their redevelopment potential for transit-oriented developments given the prevalence of small lots located near arterials and collectors. Those areas were also formerly designated a mix of other commercial designations that at the time prohibited new residential construction. Mixed Use and Downtown Commercial zones are the only commercial zones in the city that allow a variety of residential uses outright. Camas 2035 (“Plan”) at Section 1.4.5 states, *“Future conversion of commercial or industrial areas to MX should consider the benefits to the community, such as providing a gathering place (e.g., pocket park), housing options for a variety of income levels, and job opportunities.”* This section of the Plan includes three policies and the following goal for mixed use areas. **“LU-5: To foster economically and socially diverse mixed neighborhoods as the foundation for a healthy city, which includes meeting the multi-modal transportation, housing, employment, education, recreation, and health needs of the citizens.”**

The LI/BP Zone is almost entirely found on parcels in the northwestern section of the city. Over the past few comprehensive plan amendment cycles, properties have converted from LI/BP to either BP or RC zones due to the restrictive development standards of the LI/BP zone, which include deep building setbacks from property lines (Refer to Section XI of this report). The current zoning requires a minimum front setback of 200-feet and rear setback of 100-feet. In comparison, in the MX zone there is a *maximum* front building setback of 10-feet, meaning that a building must be established at the front property line or no further back than 10-feet.

Amendment of a comprehensive plan designation not only includes a consideration of the comprehensive plan, development standards of the zoning, but also includes a comparison of the allowed land uses within the current zone and proposed zone in order to evaluate the merits of the proposal and any unintended consequences of such change. The allowed land uses for each zone are found within the Use Authorization Table at [CMC Chapter 18.07](#). There are 73 outright allowed uses within the MX zone and of those, there are 41 uses that are not allowed (“X”) within the current zoning of the property (see list at Section XI of this report). A variety of residential uses are generally allowed in the MX zone, where they are prohibited in the LI/BP zone. The city has a level of concern that development of this site and adjacent MX properties could be entirely residential in nature, given that the MX does not mandate a mix of uses. However, there is a limit to the amount of residential development that could be built, as the MX zone includes a maximum residential density of 24 units per acre. The site would be limited to 115 units.

EVALUATION CRITERIA CMC18.51.030 (A-D) and CMC18.51.010 (C)	FINDINGS
Impact upon the city of Camas comprehensive plan and zoning code;	The amendment would decrease industrial lands and increase land for residential or mixed use development.

Impact upon surrounding properties, if applicable;	The city did not identify any detrimental effects to adjacent properties if this change was approved.
Alternatives to the proposed amendment; and	The applicant did not propose an alternative.
Relevant code citations and other adopted documents that may be affected by the proposed change.	Staff is unaware of any other city plans that would be affected if these four acres were amended.
Why the current comprehensive plan is deficient or should not continue in effect. Specifically: "Protect employment land from conversion to residential uses by requiring an analysis of adequate buildable lands in Grass Valley to meet 20-year employment projections prior to land conversion approval." – Policy ED-3.3	The neighboring site provided evidence to support the amendment. Refer to "Lands Needs Analysis for Mixed Use Development on a Site in Camas, Washington" (Johnson Economics, LLC, April 2020)

Pursuant to CMC18.51.030 a staff report "shall contain the department's recommendation on adoption, rejection or deferral of each proposed change".

Department Recommendation: To approve the proposed amendment to change the Industrial designated properties to Commercial with an associated rezone to Mixed Use (MX).

VI PUBLIC COMMENT

At the writing of this report two letters of support from the public were received and are included with the materials. Comments that were received in writing after publication of this report will be added to the record and announced at the meeting.

VII PLANNING COMMISSION RECOMMENDATION

Planning Commission rendered a decision at the conclusion of the public hearing to recommend approval of the proposed amendments, which includes designating the properties as "Commercial" with an associated rezone to Mixed Use.

VIII RECOMMENDATION

Staff recommends that Council conduct a public hearing on the proposed amendments to the Comprehensive Plan and Camas Zoning Map, deliberate and render a decision.

In accordance with CMC18.51.050, Council may move to adopt as forwarded from the Planning Commission, approve with additional conditions, modify, deny, or remand the proposal back to the planning commission for further proceedings.

If Council approves adoption, then the city's attorney has prepared an ordinance for consideration and it is provided with the meeting agenda.

IX TABLE 1 –2021 COMPREHENSIVE PLAN ACREAGE (PROPOSED)

Comprehensive Plan Designations	Current Acres	CPA21-01	Final Acres
Single Family			
· Low Density	866.86		866.86
· Medium Density	3608.65		3608.65
· High Density	437.49		437.49
Multi-Family			
· Low Density	311.01		311.01
· High Density	256.21		256.21
Commercial	974.56	4.8	979.36
Industrial	2402.00	-4.8	2418.20
Park	850.72		850.7
Open Space / Green Space	492.00		492.0
Total acreage:	10,200		10,200

Zoning**	2020	CPA21-01	Final 2021 Acreage
Parks/Open Space			
Neighborhood Park (NP)	145.14		145.14
Special Use (SU)	164.09		164.09
Open Space (OS)	421.55		421.55
Industrial			
Heavy Industrial (HI)	858.58		858.58
Light Industrial (LI)	91.83		91.83
Business Park (BP)	542.63		542.63
Light Industrial/Business Park (LI/BP)	795.55	-4.8	790.75
Residential			
Residential-15,000 (R-15)	716.30		716.30
Residential-12 (R-12)	925.43		925.43
Residential-10,000 (R-10)	989.29		989.29
Residential-7,500 (R-7.5)	1534.34		1534.34
Residential-6,000 (R-6)	191.11		191.11
Multifamily Residential-10 (MF-10)	224.39		224.39
Multifamily Residential-18 (MF-18)	312.70		312.70
Commercial			
Downtown Commercial (DC)	72.22		72.22
Mixed Use (MX)	41.86	4.8	46.66
Regional Commercial (RC)	597.93		597.93
Neighborhood Commercial (NC)	10.57		10.57
Community Commercial (CC)	237.44		237.44
Total Acres	8872.95		8872.95

**Does not include UGB areas

X ZONING REGULATIONS

USE AUTHORIZATION TABLE – CHAPTER 18.07

Comparison of land uses that are allowed ("P") in the MX Zone and uses that are prohibited ("X") in the LI/BP Zone. Residential-type uses are highlighted.

Zoning Districts	MX	LI/BP
Antique shop ⁶	P	X
Appliance sales and service ⁶	P	X
Bowling alley/billiards ⁶	P	X
Building, hardware and garden supply store ⁶	P	X
Clothing store ⁶	P	X
Department store ⁶	P	X
Furniture repair; upholstery ⁶	P	X
Furniture store ⁶	P	X
Funeral home ⁶	P	X
Grocery, large scale ⁶	P	X
Grocery, small scale ⁶	P	X
Hospital, emergency care ⁶	P	X
Hotel, motel ⁶	P	X
Household appliance repair ⁶	P	X
Laundry (self-serve)	P	X
Nursing, rest, convalescent, retirement home ⁶	P	X
Pet shops ⁶	P	X
Second-hand/consignment store ⁶	P	X
Shoe repair and sales ⁶	P	X
Theater, except drive-in ⁶	P	X
Veterinary clinic ⁶	P	X
Auditorium ⁶	P	X

Zoning Districts	MX	LI/BP
Community club ⁶	P	X
Church ⁶	P	X
Library ⁶	P	X
Museum ⁶	P	X
Sports fields ⁶	P	X
College/university ⁶	P	X
Elementary school ⁶	P	X
Junior or senior high school ⁶	P	X
Private, public or parochial school ⁶	P	X
Adult family home	P	X
Apartment, multifamily development, row houses	C	X
Assisted living	P	X
Bed and breakfast	P	X
Designated manufactured home	P	X
Duplex or two-family dwelling	P	X
Group home	P	X
Home occupation	P	X
Housing for the disabled	P	X
Residence accessory to and connected with a business	P	X
Single-family dwelling	P	X

XI DEVELOPMENT STANDARDS – CHAPTER 18.09

Comparison of development dimension standards that apply to the MX Zone and the LI/BP Zone.

	MX	LI/BP ^{Note 2}
Maximum Density (dwelling units/net acre)	24	n/a
Minimum lot area (square feet)	1,800	10 acres
Minimum lot width (feet)	None	Not specified
Minimum lot depth (feet)	None	Not specified

Setbacks: Commercial and industrial development setbacks shall be as follows, unless along a flanking street of a corner lot. If along flanking street, then the setback must be treated like a front, and provide safe sight distance.

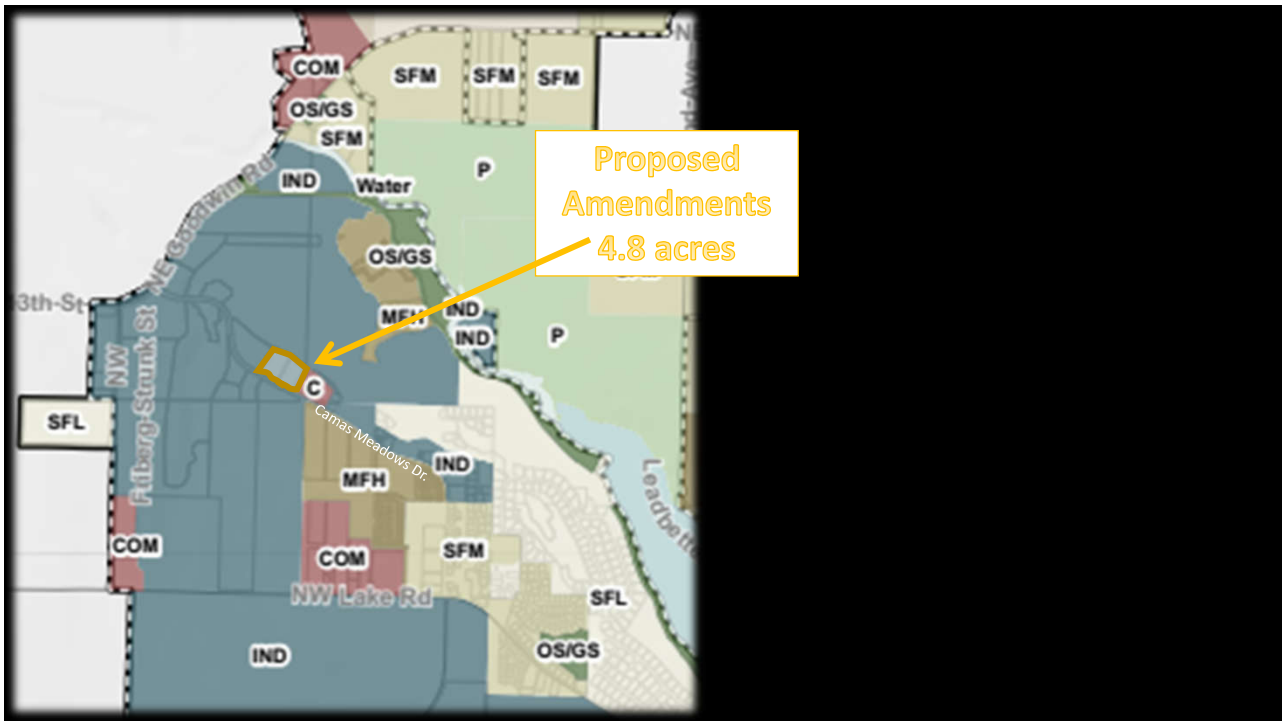
Minimum front yard (feet)	Note 3	5' per 1 foot of building height (200' minimum)
Minimum side yard (feet)	10'	100' for building; 25' for parking
Minimum rear yard (feet)	25'	100' for building; 25' for parking area
Lot Coverage: Lot coverage (percentage)	1 story (60%) 2 stories or more (50%)	1 story (30%) 2 stories (40%) 3 stories (45%)
Building Height Maximum building height (feet)	None	60

Notes:

1. If along a flanking street of corner lot.
2. The densities and dimensions in the LI/BP zone may be reduced under a planned industrial development. See Chapter 18.21 Light Industrial/Business Park.
3. Maximum setback at front building line is ten feet.
4. Residential dwelling units shall satisfy the front setbacks of CMC Section 18.09.040 Table 2, based on comparable lot size.



1

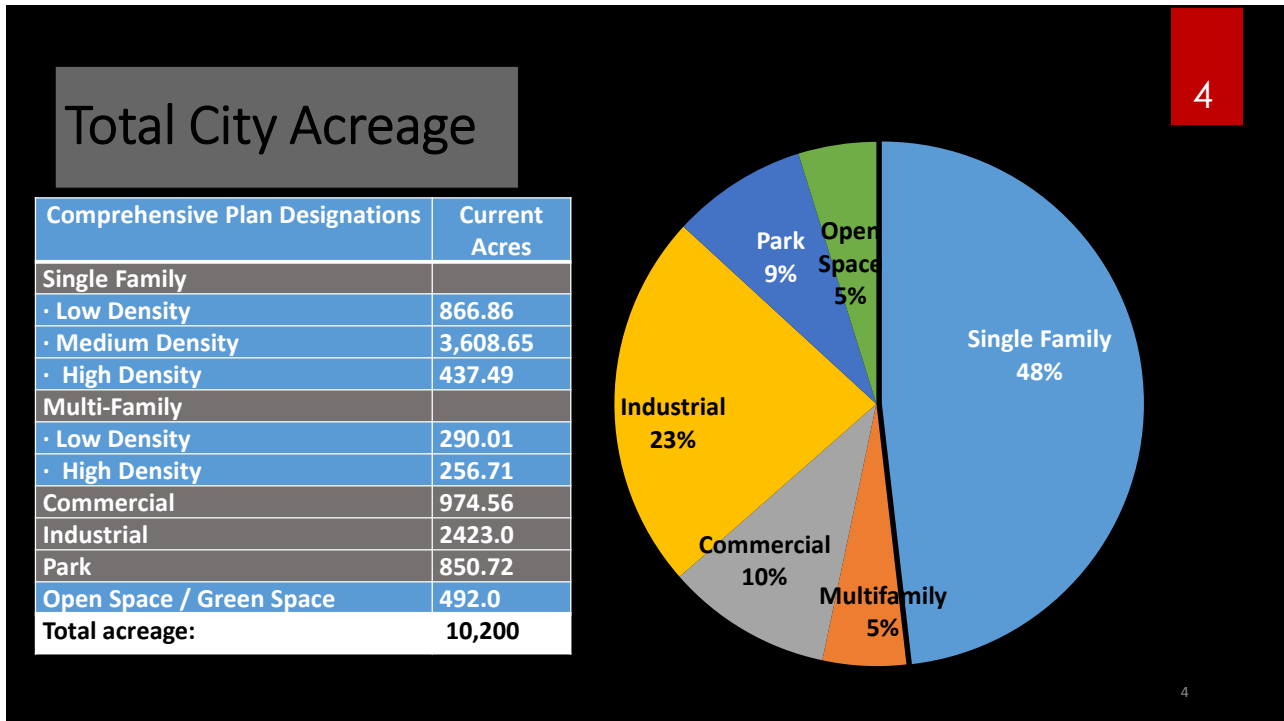


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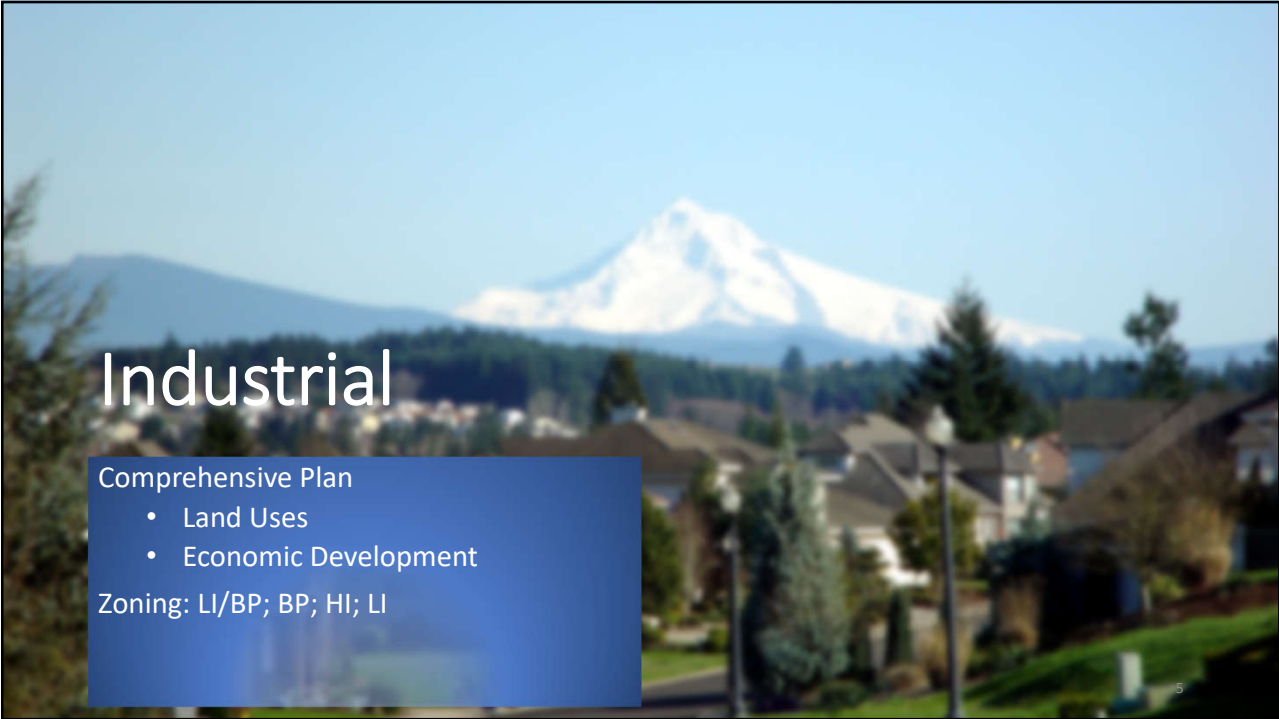


Current Comprehensive Plan Map Adopted by Ord. 20-006

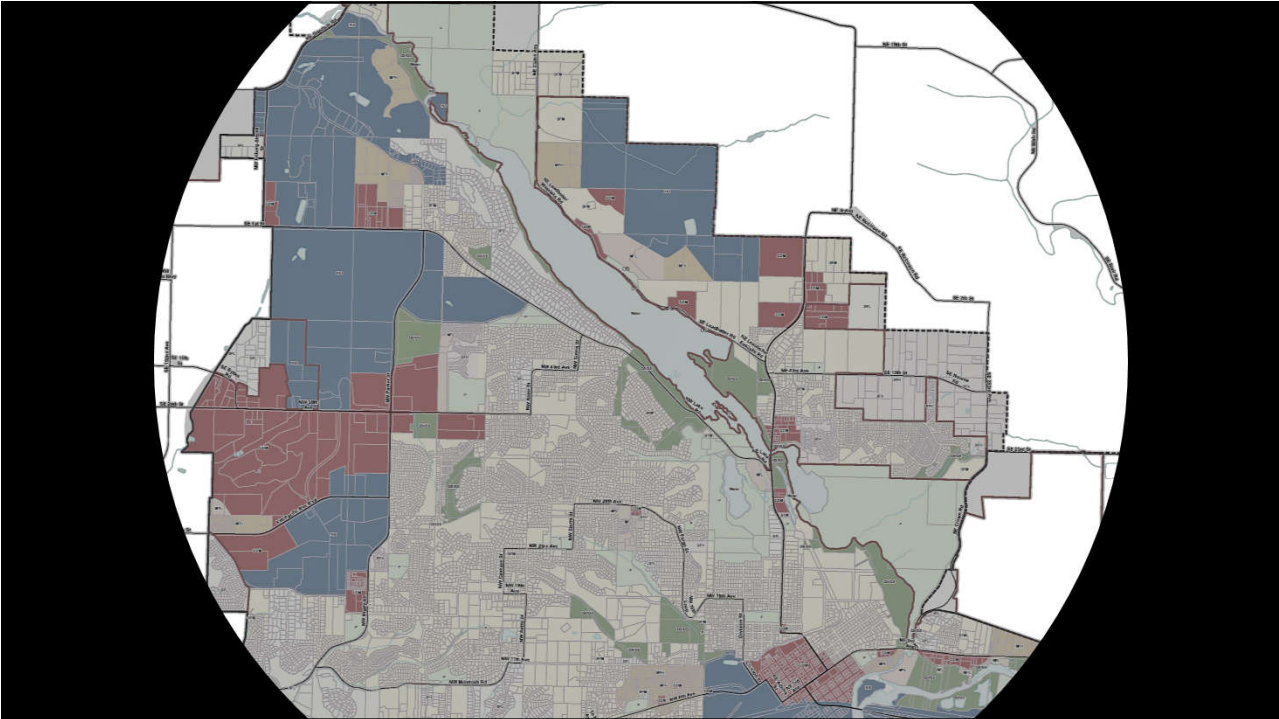
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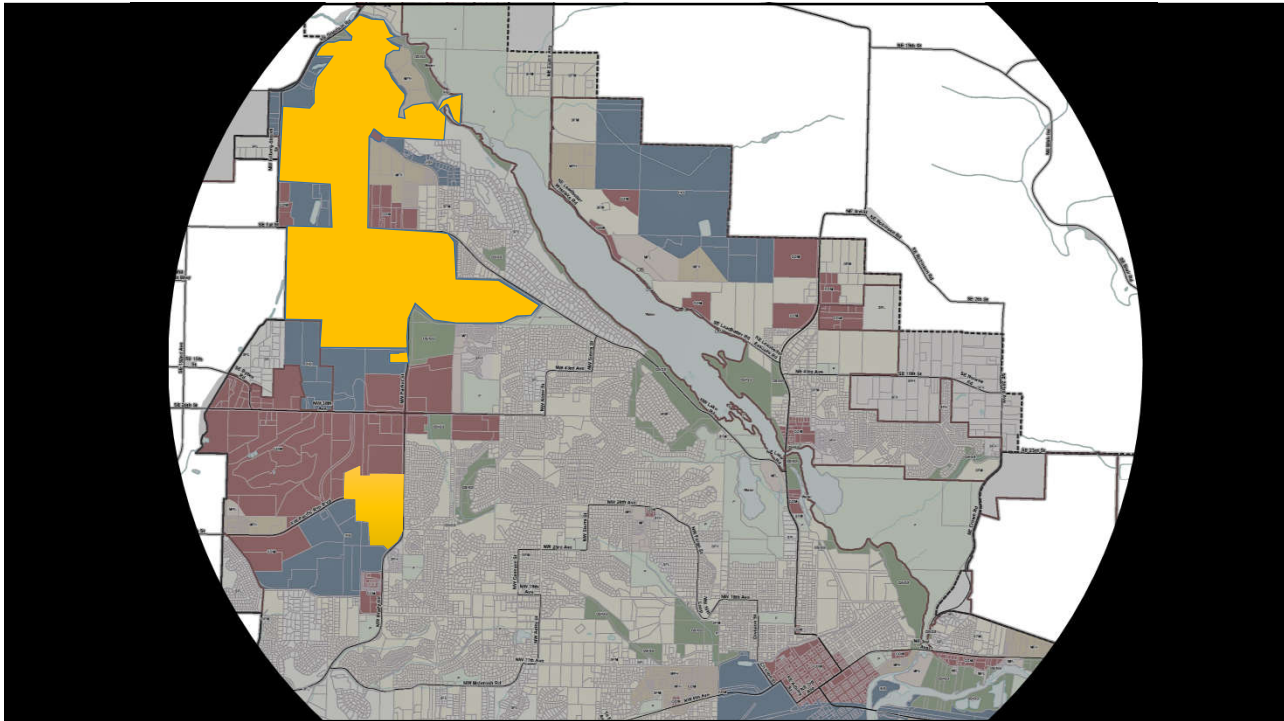
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5






6



7

Light Industrial/Business Park Zone

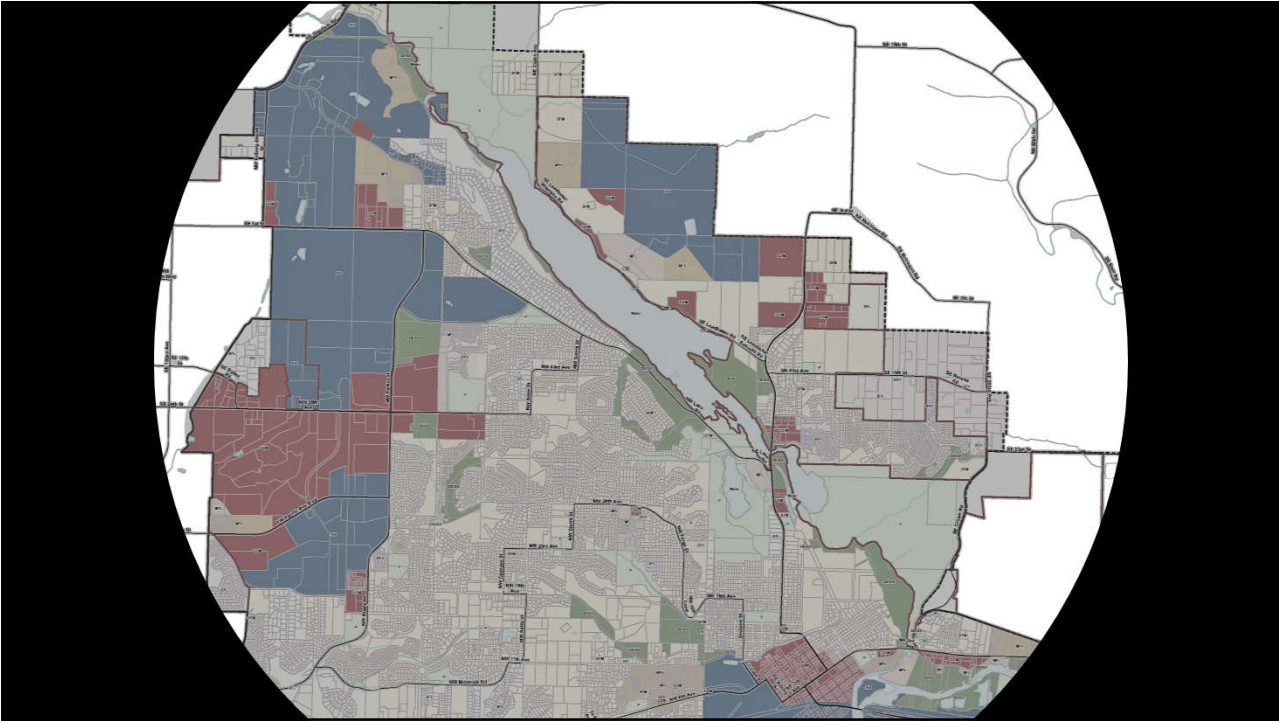




<p>Camas Meadows Dr. Plexsys Lightfeet Reality Oregon Ice Cream Logitech</p>	<p>NW Lake Road Safe Fire Almar Tools Wafer Tech Samson Sports</p>	<p>NW Pacific Rim Dr. Kärcher Furuno (West-Adjacent) Holland Shopping Center</p>
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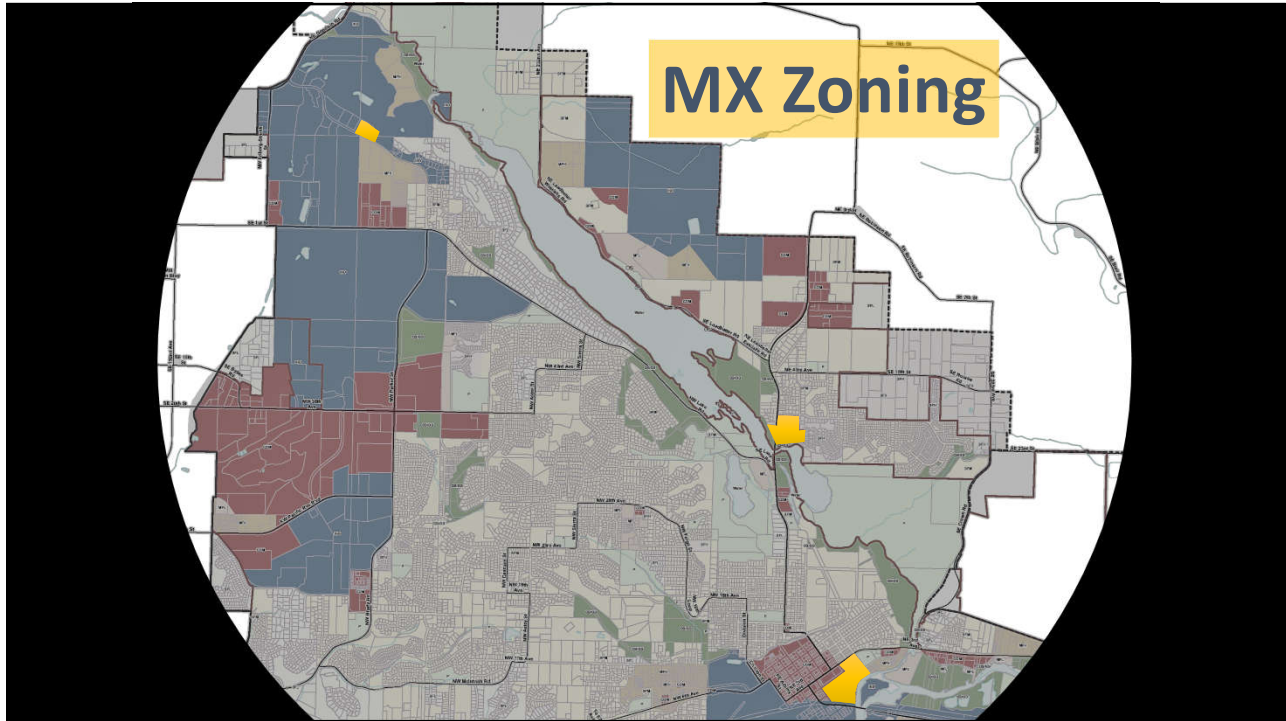
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9



10



11

Mixed Use Zone

12

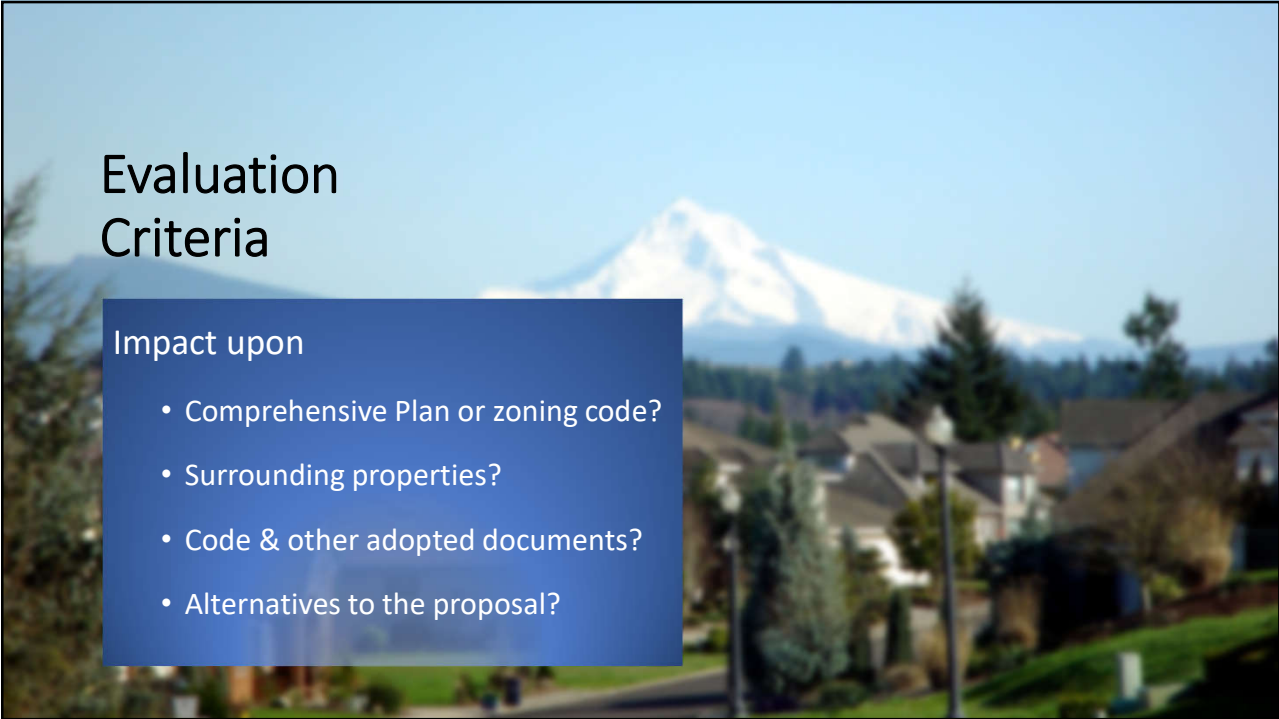
2nd Avenue

- South of Safeway
- Chiropractic clinics
- Opus Music
- School District (Life skills home)

Everett Street

- Acorn & the Oak
- Murano's Deli
- L&L Auto
- Kayak Rentals

12



13



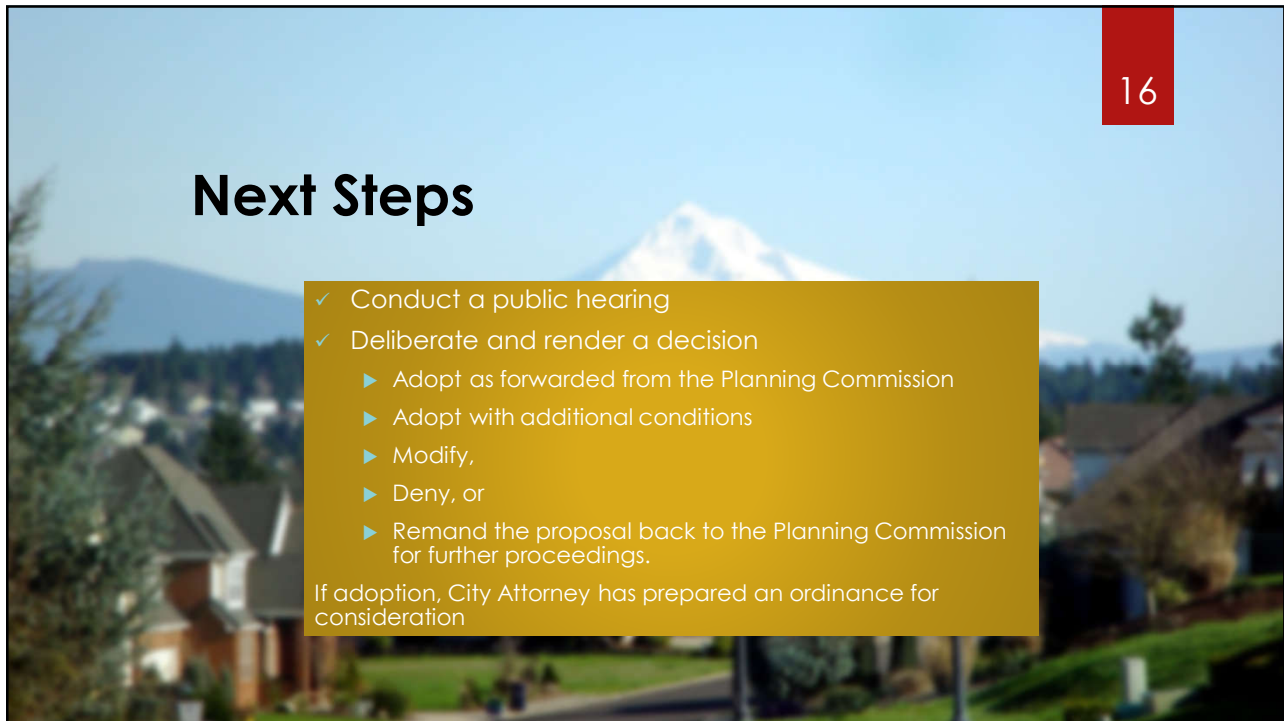
14



Vanport
#CPA21-01

Size: 4.8 acres
Current: LI/BP - Industrial
Proposed: MX - Commercial
Current Use: Vacant
Adjacent Use: Golf Course

15



Next Steps

- ✓ Conduct a public hearing
- ✓ Deliberate and render a decision
 - ▶ Adopt as forwarded from the Planning Commission
 - ▶ Adopt with additional conditions
 - ▶ Modify,
 - ▶ Deny, or
 - ▶ Remand the proposal back to the Planning Commission for further proceedings.

If adoption, City Attorney has prepared an ordinance for consideration

16



Community Development Department | Planning
616 NE Fourth Avenue | Camas, WA 98607
(360) 817-1568
Permits@CityofCamas.us

General Application Form

Case Number: PA20-45

Applicant Information

Applicant/Contact: Martin Hertrich Phone: (503) 489-1176
Address: P.O. Box 97 martin.hertrich@attglobal.net
Street Address *E-mail Address*
Boring OR 97009
City *State* *ZIP Code*

Property Information

Property Address: 4555 & 4615 NW Camas Meadows Drive 986035-733 & 172970-000
Street Address *County Assessor # / Parcel #*
Camas WA 98607
City *State* *ZIP Code*
Zoning District LI/BP Site Size 4.80 acres

Description of Project

Brief description:
Zone Change to Commercial Mixed-Use

Are you requesting a consolidated review per CMC 18.55.020(B)? YES NO
Permits Requested: Type I Type II Type III Type IV, BOA, Other

Property Owner or Contract Purchaser

Owner's Name: Vanport Manufacturing, Inc. & Hertrich Adolf Phone: (503) 489-1176
Last *First*
P.O. Box 97
Street Address *Apartment/Unit #*
E mail Address: Boring OR 97009
City *State* *Zip*

Signature

I authorize the applicant to make this application. Further, I grant permission for city staff to conduct site inspections of the property.

Signature: Martin Hertrich Date: 1/28/2021

Note: If multiple property owners are party to the application, an additional application form must be signed by each owner. If it is impractical to obtain a property owner signature, then a letter of authorization from the owner is required.

Date Submitted:	Pre-Application Date:	<input type="checkbox"/> Electronic Copy Submitted	Validation of Fees
Staff:	Related Cases #		

Application Checklist and Fees [updated on January 1, 2020]

◇ Annexation	\$849 - 10% petition; \$3,608. - 60% petition	001-00-345-890-00	\$
◇ Appeal Fee		001-00-345-810-00	\$392.00 \$
◇ Archaeological Review		001-00-345-810-00	\$135.00 \$
◇ Binding Site Plan	\$1,848. + \$24 per unit	001-00-345-810-00	\$
◇ Boundary Line Adjustment		001-00-345-810-00	\$101.00 \$
◇ Comprehensive Plan Amendment		001-00-345-810-00	\$5,729.00 \$ 5,729.00
◇ Conditional Use Permit			
Residential	\$3,360 + \$103 per unit	001-00-345-810-00	\$
Non-Residential		001-00-345-810-00	\$4,256.00 \$
◇ Continuance of Public Hearing		001-00-345-810-00	\$515.00 \$
◇ Critical or Sensitive Areas (fee per type)		001-00-345-810-00	\$762.00 \$
(wetlands, steep slopes or potentially unstable soils, streams and watercourses, vegetation removal, wildlife habitat)			
◇ Design Review			
Minor		001-00-345-810-00	\$426.00 \$
Committee		001-00-345-810-00	\$2,335.00 \$
◇ Development Agreement	\$862 first hearing; \$530 ea. add'l hearing/continuance	001-00-345-810-00	\$
◇ Engineering Department Review - <i>Fees Collected at Time of Engineering Plan Approval</i>			
Construction Plan Review & Inspection	(3% of approved estimated construction costs)		
Modification to Approved Construction Plan Review	(Fee shown for information only)		\$415.00
Single Family Residence (SFR) - Stormwater Plan Review	(Fee shown for information only)		\$205.00
Gates/Barrier on Private Street Plan Review	(Fee shown for information only)		\$1,024.00
◇ Fire Department Review			
Short Plat or other Development Construction Plan Review & Insp.		115-09-345-830-10	\$280.00 \$
Subdivision or PRD Construction Plan Review & Inspection		115-09-345-830-10	\$348.00 \$
Commercial Construction Plan Review & Inspection		115-09-345-830-10	\$416.00 \$
◇ Home Occupation			
Minor - Notification (No fee)			\$0.00
Major		001-00-321-900-00	\$68.00 \$
◇ LI/BP Development	\$4,256+ \$40.00 per 1000 sf of GFA	001-00-345-810-00	\$
◇ Minor Modifications to approved development		001-00-345-810-00	\$340.00 \$
◇ Planned Residential Development	\$34 per unit + subdivision fees	001-00-345-810-00	\$
◇ Plat, Preliminary			
Short Plat	4 lots or less: \$1,904 per lot	001-00-345-810-00	\$
Short Plat	5 lots or more: \$7,055 + \$246 per lot	001-00-345-810-00	\$
Subdivision	\$7,055 + \$246 per lot	001-00-345-810-00	\$
◇ Plat, Final:			
Short Plat		001-00-345-810-00	\$197.00 \$
Subdivision		001-00-345-810-00	\$2,335.00 \$
◇ Plat Modification/Alteration		001-00-345-810-00	\$1,176.00 \$
◇ Pre-Application (Type III or IV Permits)			
<i>No fee for Type I or II</i>			
General		001-00-345-810-00	\$348.00 \$
Subdivision (Type III or IV)		001-00-345-810-00	\$896.00 \$
◇ SEPA		001-00-345-890-00	\$796.00 \$ 796.00
◇ Shoreline Permit		001-00-345-890-00	\$1,176.00 \$
◇ Sign Permit			
General Sign Permit	(Exempt if building permit is required)	001.00.322.400.00	\$40.00 \$
Master Sign Permit		001.00.322.400.00	\$124.00 \$
◇ Site Plan Review			
Residential	\$1,132 + \$33 per unit	001-00-345-810-00	\$
Non-Residential	\$2,828 + \$67 per 1000 sf of GFA	001-00-345-810-00	\$
Mixed Residential/Non Residential	(see below)	001-00-345-810-00	\$
	\$3,987 + \$33 per res unit + \$67 per 1000 sf of GFA		
◇ Temporary Use Permit		001-00-321-990-00	\$79.00 \$
◇ Variance (Minor)		001-00-345-810-00	\$683.00 \$
◇ Variance (Major)		001-00-345-810-00	\$1,273.00 \$
◇ Zone Change (single tract)		001-00-345-810-00	\$3,289.00 \$

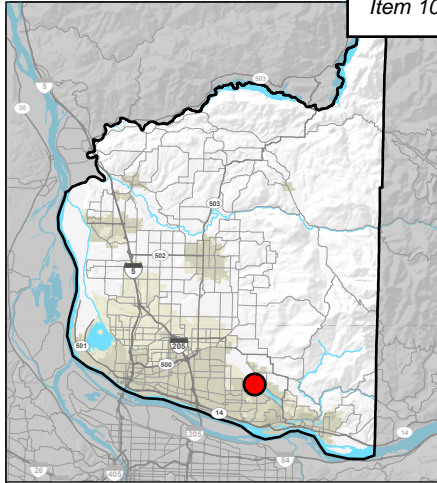
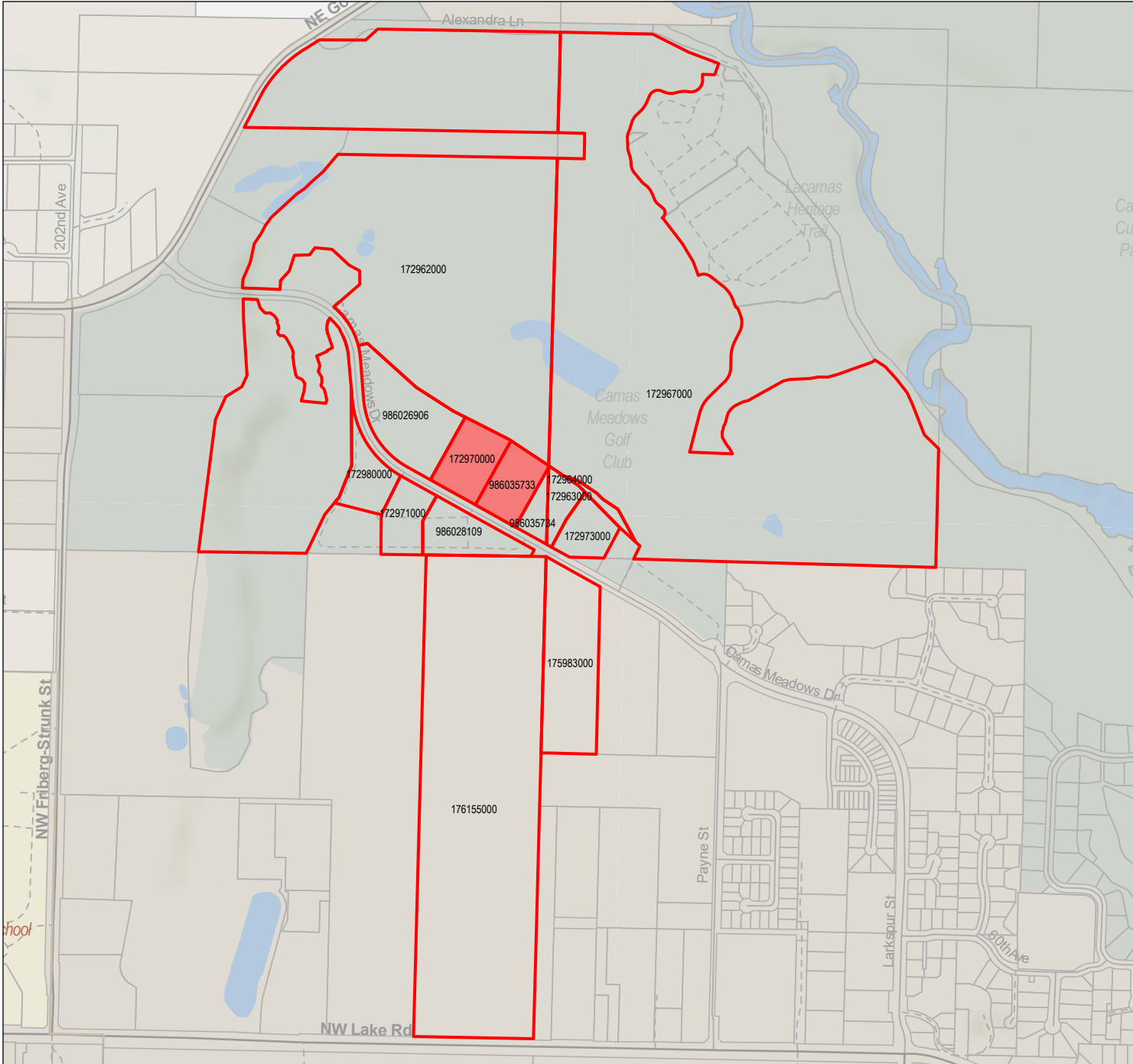
Adopted by RES 1023 AUG 2005; Revised by RES 1113 SEPT 2007; Revised by RES 1163 OCT 2009; Revised by RES 1204 NOV 2010;
Revised by RES 15-001 JAN 2015; Revised by RES 15-007 MAY 2015; Revised by RES 15-018 DEC 2015; Revised by RES 16-019 NOV 2016;
Revised by RES 17-015 NOV 2017; Revised by RES 18-003 APRIL 2018; Revised by RES 18-013 NOV 2018; Revised by RES 19-018 DEC 2019

Fees reviewed & approved by Planner:

Initial Date

For office use only

Total Fees Due: \$



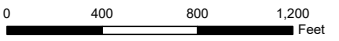
**PID(s): 986035733,
172970000,
300-Foot Buffer**

KEY

- Subject Property
- Buffer Selection
- Parcels



NOTE: Information shown on this map was collected from several sources. Clark County accepts no responsibility for any inaccuracies that may be present.



VANPORT MANUFACTURING, INC.

P.O. Box 97 ♦ 28590 SE Wally Rd. ♦ Boring, OR 97009
Phone (503)663-4447 ♦ Fax (503)663-1516

January 28, 2021

City of Camas
Community Development Department/Planning
Attn: Sarah Fox, AICP
616 NE Fourth Avenue
Camas, WA 98607

RE: Proposal Narrative for application to amend the comprehensive plan with a zone change to commercial mixed-use with response to criteria in Camas Municipal Code Section 18.51.010.

Comprehensive Plan Amendment

CMC 18.51.010 Criteria

- A. **What is proposed.** To rezone Tax Parcel Numbers 986035-733 and 172970-000 on Camas Meadows Drive having the Industrial designation with a Light Industrial/Business Park (LI/BP) zone to a Commercial designation with a Mixed-use (MX) zone.
Why? 1) To conform to the recently rezoned neighboring parcels and provide continuity in development. 2) To address the lower demand for office space caused by the recent acceleration of the trend towards “work from home”. 3) To provide a mix with nearby restaurant, retail and professional office spaces to service the residential component. 4) To allow for land use that is better suited to the sloping topography of the property as well as its location next to a golf course.
- B. **Impact.** With a total acreage of 4.8 acres, the anticipated impact will cover a relatively small area in the existing development. However, it will also be consistent with the new zoning designation on the adjacent 4 acres to the east, thus allowing for a more uniform development.
- C. **Current comprehensive plan deficiency.** The subject property is part of the Grass Valley area. The proposed change will not entirely replace the uses consistent with the Grass Valley area of the CAMAS 2035 plan. It will, however, add more versatility by addressing the projection of the previously unforeseen trend in decline in demand for business office space while also addressing housing diversity and supply. The goal and policy in the city’s comprehensive plan, Camas 2035, for Grass Valley, specifically Policy ED-3.3 for the protection of employment land from conversion to residential, is met by the limited space used for residential use under the mixed-use guidelines while at the same time serving to reduce demand on the transportation system. Relative to the service industry, fewer new jobs will be located in locations used by the industrial sector. Therefore, the proposed amendment would not affect the Grass Valley area’s ability to

meet its share of employment land demand. Likewise, Camas would still have the employment-land capacity to meet the 20-year forecast. Lastly, as stated previously, it will also be consistent with the new zone designation of the adjacent property.

- D. How the proposal complies with and promotes the goals and specific requirements of the growth management act.** As the property is part of the Camas Meadows Development, some of the specific requirements were met during its development, such as public facilities and services, preserving historic sites, environmental protection and shoreline management. The proposal is also compatible with the goal of concentrating growth and reducing sprawl. The addition of the residential component in changing the zoning to a mixed-use should serve to reduce traffic that is typical between suburbs and commercial and retail centers. In addition, it will increase the availability of housing in answer to demand in Camas, which could affect affordability in a positive manner.
- E. What changes, if any, would be required in functional plans if the proposed amendment is adopted?** The current zoning in the development is supported by the city's water, sewer, stormwater and shoreline plans and it is unlikely that the proposed amendment would require changes to the infrastructure. This also includes the transportation system which was built to accommodate the development of office space and light industry. Certain trips may be eliminated with a community commercial development where residential is supported by commercial and retail space within walking distance.
- F. What capital improvements would be needed to support the proposed change which will affect the capital facilities plans of the city?** There should be no capital improvements necessary to support the proposed change as the existing improvements under the current zoning will also support the zoning in the proposed amendment.
- G. What other changes, if any, are required in other city or county codes, plans or regulations?** A traffic impact assessment (TIA) will determine if the existing transportation infrastructure is adequate and would be done following the submission of the application as well as determining if there will be any impact on the park and trail services under the mixed-use zone compared to the light industrial and business park.

Grass Valley Comprehensive Plan Policies

As already mentioned, the subject property is part of the Grass Valley portion of the 2035 Comprehensive Plan. The goals of the Grass Valley Comprehensive Plan include high-tech industrial development, promote a cooperative industrial business park, allow businesses and City to share resources efficiently, sustainable development, increase economic gains, and improve environmental quality. With the exception of some specific uses, such as high-tech industry development on the property, the other goals can still be met under the change to commercial mixed-use.

ED-3.1 The creation and retention of industries that provide family-wage jobs

The purpose of the change in land use will not only allow for family-wage jobs to continue to occur (with the exception of those in the manufacture of high-tech goods and devices) the addition of the residential component will potentially also allow employees to live closer to their place of employment. The impact on the employment land will be minimal as the subject property is a small portion of the Grass Valley Area and larger lots in the Camas Meadows Corporate Center are still available for development for light industrial and business park use. The deficiency in the current zoning for Grass

Valley is that there are few options for employers who have employees who wish to locate housing close to the place of employment. And, as one of the purposes of mixed land use is to encourage a more compact development, the change in zoning will promote businesses that provide jobs where the employee can live closer to work, therefore promoting the growth management goal of reducing urban sprawl. And the infrastructure for a development with businesses where employees can live in walking distance from work does not require a change to the city's functional plans nor will it require additional capital improvements. With the golf course on the back side of the property, walking trails and parks, the area is already set for businesses to attract and retain employees who are looking for nearby recreation. Whether this will increase the demand for park and trail services is yet to be determined, as well as whether there will be an impact to the transportation system by businesses that have employees who live nearby, but will use the traffic infrastructure to leave the area for goods and services not available in the vicinity.

ED-3.2 Capitalize on existing facilities and infrastructure and include a mix of uses that and are trail- and transit-oriented and designed with high-quality streetscape appeal.

The purpose of the change to commercial mixed-use is compatible with policy ED-3.2, particularly with the addition of the residential component as this type of policy is commonly promoted in residential neighborhoods. Therefore, the impact is expected to be positive with respect to this policy because of this compatibility. And, by allowing for the development of a more walkable community and less reliance on a car, a commercial mixed-use zone meets part of this policy more effectively than the current zoning. Not only does the proposed zoning meet the mix of uses required by this policy by its very nature, the mix of uses also promotes a more compact design to aid in the goal of concentrating growth and controlling urban sprawl. The existing facilities and infrastructure, including the high-quality streetscape developed for the current zoning, will support a commercial mixed-use zone under this policy as well, eliminating the need for any changes to the functional plans of the city as well as the need to make additional capital improvements. The possibility of additional use of nearby trails by residents of dwellings in a mixed-use zone creating an impact to increase the need for more trail services is yet to be determined.

ED-3.3 Protecting employment land from conversion to residential uses.

Creation of employment land was one of the primary goals of the Camas Meadows Development. Commercial mixed-use includes uses that provide employment while providing additional housing in the same development and therefore this is not a full conversion to residential. The number of jobs reduced as a result of changing to commercial mixed-use, if any, will have minimal impact on this policy. Although the current zoning provides for employment land, it does not address one of the growth management goals of preventing urban sprawl as well as commercial mixed-use. The employment land is segregated under light industrial/business park zoning which encourages separate developments for housing and employment lands where the public commutes to work. And the current functional plans of the city for water, sewer and stormwater that support employment lands will not need to be changed with the inclusion of some residential. Likewise, the current capital improvements on Camas Meadows Drive that were installed to support the employments lands should be sufficient to support a mix of employment and residential uses. The existing transportation infrastructure that was designed to support the employment lands may also be sufficient but can be confirmed with a traffic impact assessment.

Respectfully submitted:

Vanport Manufacturing, Inc.

Martin Hertrich

Martin Hertrich

Pedwar Development Group, LLC

May 26, 2021

City of Camas
Attn: Sarah Fox, Senior Planner
616 NE 4th Avenue
Camas, WA 98607

RE: Rezoning of properties on Camas Meadows Drive

Dear Ms. Fox,

I am writing to express my interest and support in the rezoning of several properties to Commercial Mixed Use along the North side of NW Camas Meadows Drive. Vanport Manufacturing, owner of two parcels along this road, has applied for a rezoning application. I, on behalf of Pedwar Development Group (owners of property 986026-906), wish to support their efforts and application to rezone insofar as the Council supports rezoning our parcel as well.

The current Light Industrial zoning combined with the location of these properties restricts potential development to unique suitors. With Light Industrial businesses across the street, and new housing construction down the road, I believe the addition of a Commercial Mixed Use zone would increase the likelihood of development and provide a positive mix of development in the area.

I am kindly asking for the Council and your support.

Thank you,



Chris Williams
Managing Member
Pedwar Development Group, LLC

cc: Vanport Manufacturing, Inc.



H. Lee & Associates, PLLC

Civil Engineering, Traffic Engineering, and Planning

MEMORANDUM

To: City of Camas Staff

From: Hann Lee, P.E.

Date: March 5, 2021

Subject: Vanport Manufacturing Rezone Trip Generation Memorandum

P.O. Box 1849
Vancouver, WA 98668
Phone: (360) 727-3119



3/5/21

Page 1 of 2

INTRODUCTION

The proposed Vanport Manufacturing Rezone properties are located at 4555 and 4615 NW Camas Meadows Drive and are comprised of tax lots 172970000 and 986035733 in Camas, Washington. The existing parcels total 4.8 acres (209,088 square feet) and are zoned IL/BP. The rezone proposal is to change the existing zoning from IL/BP to MX to match the abutting parcels to the east.

The build out of the existing IL/BP zoning was based on a floor area ratio (FAR) of 0.25 of the net building area (209,088 square feet). Applying this FAR yields a build out of 52,272 square feet of IL/BP space. For trip generation purposes the build out of the existing zoning was assumed to be ITE Code 130 "Industrial Park" use.

The build out of the proposed MX zoning was based on a City of Camas Municipal Code (COCMP) Table 18.09.030 and COCMP Chapter 18.24 - Mixed Use. Based on COCMP Table 18.09.030, the maximum density for the MX zoning is 24 dwelling units per net acre. Applying the maximum density for the proposed MX zoning to the size of the project site (4.8 acres) yields a build out of 115 residential units. COCMP Chapter 18.24 - Mixed Use gives guidance for the MX zoning saying the purpose for the MX zoning is to promote new construction of multi-story structures with commercial uses on the ground floor and residential uses on the upper stories. Based on the guidance given in COCMP Chapter 18.24 - Mixed Use, HLA assumed a ground floor commercial build out of 15,000 square feet. For trip generation purposes the 115 residential units were assumed to be ITE Code 231 "Mid-Rise Residential with 1st Floor Commercial" use. For trip generation purposes the 15,000 square feet of first floor commercial was assumed to be ITE Code 820 "Shopping Center" use.

Page 2 of 2

March 5, 2021

Vanport Manufacturing Rezone Trip Generation Memorandum

TRIP GENERATION COMPARISON

Estimates of daily, A.M. peak hour, and P.M. peak hour trips generated by the build out of the existing and proposed zonings were developed from rates published in “Trip Generation, 10th Edition” (Institute of Transportation Engineers, 2017). The build out of the existing zoning is expected to generate 176 daily, 21 A.M. peak hour (2 in, 19 out), and 21 P.M. peak hour (4 in, 17 out) net new trips and is summarized in Table 1. The build out of the proposed zoning is expected to generate 943 daily, 49 A.M. peak hour (19 in, 30 out), and 79 P.M. peak hour (46 in, 33 out) net new trips and is summarized in Table 2. The proposed zoning is expected to generate 767 more daily, 28 more A.M. peak hour (17 in, 11 out), and 58 more P.M. peak hour (42 in, 16 out) net new trips. Table 3 summarizes the trip generation comparison of the existing IL/BP zoning and the proposed MX zoning.

Table 1. Trip Generation Summary for Existing IL/BP Zoning

	Amount	Average Daily	A.M. Peak			P.M. Peak		
			In	Out	Total	In	Out	Total
Existing (IL/BP) Zoning – Industrial Park (ITE Code 130)								
Rate per 1,000 square feet (ksf)		3.37	0.04	0.36	0.40	0.08	0.32	0.40
Trips	52.272 ksf	176	2	19	21	4	17	21

Table 2. Trip Generation Summary for Proposed MX Zoning

	Amount	Average Daily	A.M. Peak			P.M. Peak		
			In	Out	Total	In	Out	Total
Proposed (MX) Zoning – Mid-Rise Residential with First Floor Commercial (ITE Code 231)								
Rate per Dwelling Unit (DU)		3.44	0.08	0.22	0.30	0.25	0.11	0.36
Trips	115 units	396	10	25	35	28	13	41
Proposed (MX) Zoning – Shopping Center (ITE Code 820)								
Rate per 1,000 square feet (ksf)		37.75	0.58	0.36	0.94	1.83	1.98	3.81
Trips	15.000 ksf	566	9	5	14	27	30	57
Pass-By Trips – 34% P.M. Only		(19)	-	-	-	(9)	(10)	(19)
Net Trips for Shopping Center		547	9	5	14	18	20	38
Net Trips for Proposed MX Zoning		943	19	30	49	46	33	79

Table 3. Trip Generation Comparison for Vanport Manufacturing Rezone

	Average Daily	A.M. Peak			P.M. Peak		
		In	Out	Total	In	Out	Total
Existing (IL/BP) Zoning	176	2	19	21	4	17	21
Proposed (MX) Zoning	943	19	30	49	46	33	79
Proposed Rezone Trip Increase	767	17	11	28	42	16	58



LAND NEED ANALYSIS FOR MIXED USE DEVELOPMENT ON A SITE IN CAMAS, WASHINGTON

JOHNSON ECONOMICS, LLC
621 SW Alder St, Suite 605
Portland, Oregon 97205

**PREPARED FOR:
ICAP EQUITY
APRIL 2020**



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I. INTRODUCTION

JOHNSON ECONOMICS was retained by ICAP EQUITY to evaluate the feasibility of a mixed-use residential and commercial development on a site in northwest Camas, Washington. The site in question is currently zoned Light Industrial/Business Park (LI/BP). This report assesses the appropriateness of rezoning the land from the industrial designation to a designation that would allow for the mixed-use development. This analysis compares the suitability of the site for the two alternative uses (business park vs. mixed use) based on market and planning criteria.

JOHNSON ECONOMICS aims to inform this decision by taking the following steps:

- Review the City of Camas' current relevant planning documents and evaluate, update, and/or modify forecasts and capacity estimates based on current information;
- Discuss the relative suitability of the site for either an Industrial Business Park or Mixed Use.
- Discuss most current projections for employment land needs and land inventory based on estimates from the Camas 2035 Comp Plan and Clark County VBLM and Buildable Lands Report.
- Estimate market demand for residential and commercial uses.
- Reconcile the above to determine the "need" and suitability for additional LI/BP vs. mixed-use commercial land capacity at the subject site.

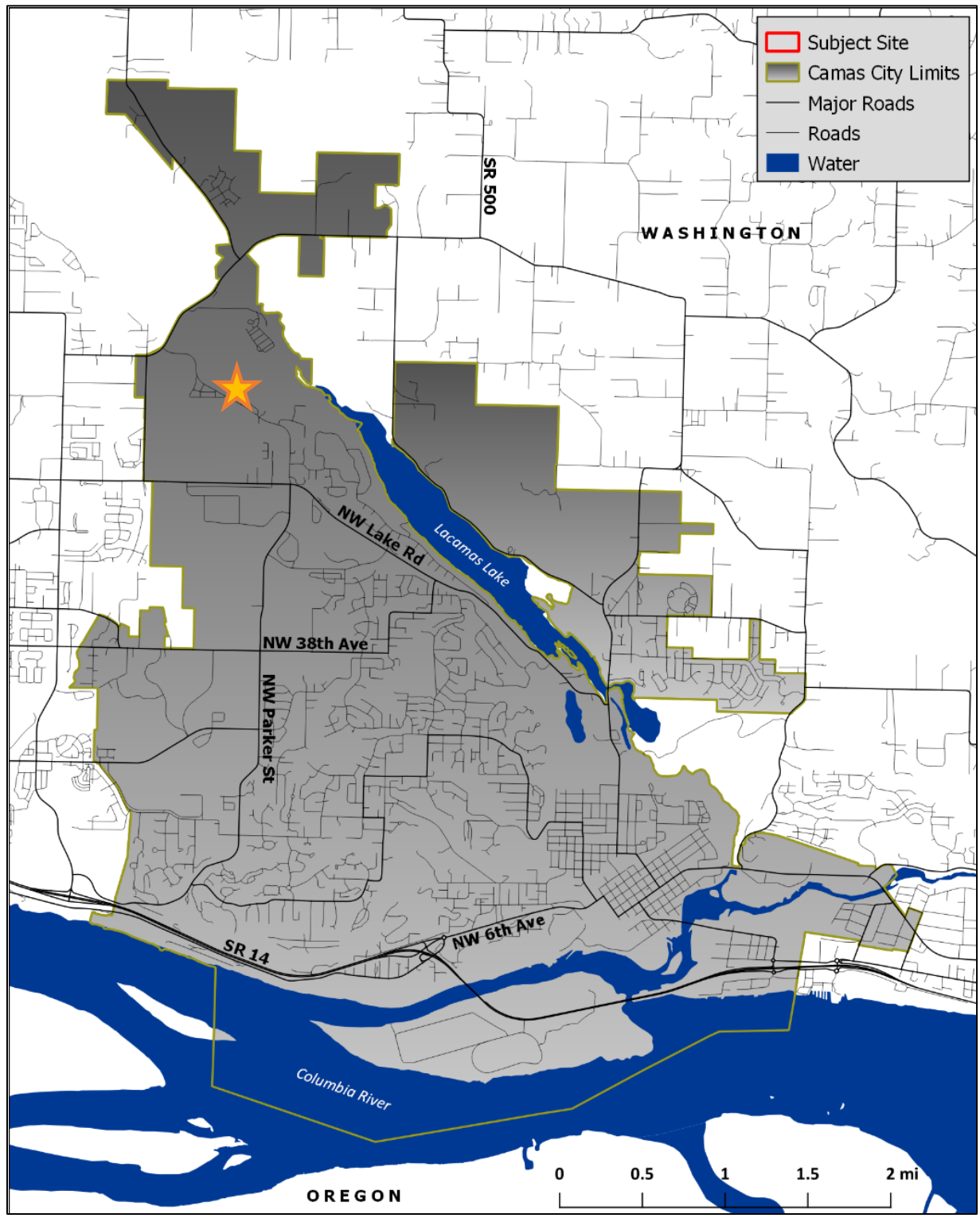
FIGURE 1.1: SITE CONTEXT



SOURCE: Bing Maps, Johnson Economics



FIGURE 1.2: SUBJECT LOCATION



Source: Johnson Economics, Clark County, US Census Bureau TIGER, Metro RLIS



II. SITE ANALYSIS

THE SUBJECT SITE

The subject site is a roughly rectangular-shaped parcel, consisting of four taxlots. In total, the parcel amounts to four acres in size. The site is currently forested and located on Camas Meadows Drive in Northwest Camas. The site features a downwards slope from the south (Camas Meadows Drive) to the north (golf course fairway). Access will be from Camas Meadows Drive, a three-lane arterial street.

Broadly speaking, the site is located near the boundary of a large area planned for light industrial or business park employment uses (to the west) and a large area planned for residential and commercial uses (to the south and east).

The site and much of the surrounding area is zoned LI/BP. However, there is multi-family zoning (MR-18) located directly to the south. There is business park zoning directly to the east, but this area is now under development as the Village at Camas Meadows, which includes multi-family and single-family residential. Therefore the site sits right at the boundary of residential and employment neighborhoods.

Surrounding Uses: The site is bordered directly to the east and north by the Camas Meadows Golf Club and to the south by the driving range. There is an existing business park development located to the south and west across Camas Meadows Drive. There are new multi-family and single-family residential subdivisions under development less than 0.25 miles southeast of the site.

There is also substantial remaining vacant land in the immediate area, mostly in the area zoned LI/BP to the west and south, but also in the MR-18 zone directly to the south.

Services: The subject site lies roughly 1.5 miles by road to the nearest concentration of shopping and commercial services on NE 192nd Avenue. Commercial tenants in the area include Costco, Walmart, JC Penny, PetSmart, Home Depot, and Lowe's, as well as a number of smaller stores, restaurants, and service providers. The site also offers good access to recreational amenities, like the Camas Meadows Golf Club, Lacamas Lake, Lacamas Heritage Trail, and Harmony Sports Complex.

There is land zoned for commercial use along Lake Road to the south, and in the Green Mountain Village area to the north, which will be somewhat closer if in eventually develops with commercial uses. The site is over 4 miles from Downtown Camas via Lake Road and Everett Street.

PROPOSED ALTERNATIVE USES

There is a proposal for change in Comp Plan designation for the subject site, from LI/BP to a commercial designation that permits mixed use. As noted, the site sits at the boundary of employment and residential neighborhoods.

The purpose of the Light Industrial/Business Park (LI/BP) zone according to the Camas Municipal Code is:

The Light Industrial/Business Park (LI/BP) district is intended to provide for employment growth in the city by protecting industrial areas for future light industrial development. Design of light industrial facilities in this district will be "campus-style," with ample landscaping, effective buffers, and architectural features compatible with, and not offensive to, surrounding uses. Commercial development in the LI/BP district is limited to those uses necessary to primarily serve the needs of the surrounding industrial area, and is restricted in size to discourage conversion of developable industrial land to commercial uses. (Chapter 18.21.010)



The mix of uses alternatively proposed at the site are likely to include multi-family residential uses and small-format commercial uses, such as convenience retail, small dining or small office uses. The commercial zones which would allow for some residential uses as part of a development are the Mixed Use Zone (MX), Community Commercial (CC), Downtown Commercial (DC) and Regional Commercial (RC). The CC, DC and RC zones placed conditions on mixed uses that are likely to make them inappropriate for the subject site. The MX zone allows mixed uses as a conditional use and provides for more flexibility in how they might be configured.

MX Mixed Use. This zone provides for a wide range of commercial and residential uses. Compact development is encouraged that is supportive of transit and pedestrian travel. (Chapter 18.21.050)

SITE SUITABILITY FOR ALTERNATIVE USES

The following is a general discussion of the suitability for the site for the alternative uses based on market considerations, physical configuration, and access. While the site may be technically suitable for an industrial or business park use, there are multiple reasons that it is likely more suitable for a mix of commercial and residential uses.

Light Industrial/Business Park

The site would generally be physically suitable for light industrial or business park development, as evidenced by the existing business park developments along Camas Meadows Drive, but due to some site limitations and location factors is not as well suited for this use as the alternative. At four acres, it is of sufficient size to hold one or more office, industrial or “flex space” type developments.

- **Compatibility:** Some industrial and flex-space users may not be compatible with the existing golf course use to the north edge of the site. These may include businesses that create negative externalities such as noise, smoke or other fumes, excessive industrial yard machinery or storage, or heavy truck traffic. All of these factors would make an industrial user an unattractive neighbor to the golf club. At the same time, employees at the site would be unlikely to take advantage of the proximity to the golf facilities during most daylight hours, as golf tends to be more of a residential lifestyle amenity than a corporate park amenity.
- **Topography:** The sloping topography of the site might present a challenge for industrial users who prefer flat land. The preparation and grading of this land must not be cost prohibitive, because typically industrial users pay the least of the major uses for buildable land (i.e. excessive land development costs can render a site infeasible for industrial use). The topography would present less of a challenge to a business park development offering more standard office space.
- **Traffic/Access:** The area is generally accessible for campus-style employment uses via Camas Meadows Drive which is a three-lane arterial. In theory if enough of the vacant LI/BP lands in the northwest Camas area were to build out, this could eventually lead to traffic congestion at high-volume times of the day.
- **Market Conditions:** The Camas and East Vancouver submarket has seen healthy growth of industrial and office park users and new jobs during the recent economic recovery. The area has attracted multiple high-paying professional firms in recent years and remains a draw for Portland-metro business owners looking to move to a more favorable tax environment. According to data from CoStar Analytics, the strength of the local office market has fluctuated over time. While rent levels have risen steadily, vacancy has at times exceeded the 10% threshold sought in a healthy market.

Currently, there are thousands of vacant square feet of space available at the Camas Meadows Corporate Center across the street from the subject site. As discussed more in Section III of this report, there is also estimated to be an oversupply of industrial and business park land to accommodate new development. For



these reasons, Johnson Economics does not estimate that there is currently a significant shortage or even tight supply of industrial, business park or office space in the Camas area for the foreseeable future.

Commercial and Residential Mixed Use

The site would be physically suitable for a mix of commercial and residential uses and is an adequate size for such a development.

- **Compatibility:** The site is compatible for a range of small commercial users including convenience retail, small dining establishments and small office users. These uses can benefit from a location between industrial parks to the west, residential neighborhoods to the east, and traffic to and from the golf course.

Residential housing is a traditional compatible use next to a golf course, and this development would benefit from being near the clubhouse and driving range. The established neighborhoods to the east around the golf course demonstrate that this is a desirable location for residents, offering excellent access to nature, views, and livability amenities. New single-family homes in the area sell in the range of \$350,000 to well over one million dollars.

The site would be suitable for a range of residential housing types from attached multi-family apartments to townhomes to condominiums. Based on currently achievable rents and construction costs, the likely development form for housing on this site would be two-to-three story wood-frame construction.

- **Topography:** Multi-family developments are typically feasible on more uneven topography due to the ability to locate multiple buildings and parking areas at different elevations. Commercial uses at the site would need more even building sites and parking lots. However, residential and/or commercial developments can also typically afford higher cost for land preparation than industrial uses.
- **Traffic/Access:** The area is accessible via Camas Meadows Drive. The site location is somewhat distant from other commercial services. This would provide an advantage for the right mix of commercial businesses at the site, who could serve the on-site tenants, local neighborhoods, and nearby employers. NW Lake Road to the south offers access to the regional network of major arterials and highways. The quiet location is likely to be a key attractor to prospective residents at the site.
- **Market Conditions:** The subject site is a good location for small businesses, providing good access and visibility, with a built-in local customer base. The greatest concentrations of commercial shopping and service are all located more than a mile from this area. Demand for these businesses will continue to grow as Camas experiences strong residential and employment growth. As Section III of this report presents, the Camas 2035 plan forecasts strong growth in commercial jobs over coming decades, and significantly outnumbering industrial jobs.

Section IV of this report discusses estimates of demand for housing types by age and income groups. Since 2000, Camas has grown by nearly 4,000 households, or 86% growth. This translates to robust annual growth of 3.2%, in comparison to 1.4% growth in Washington State, and 0.8% in the United States. The community is forecasted to continue to add an average of roughly 200 households each year over the next five years. The housing supply for both owner and rental units must continue to increase to meet the need of these new residents.

Camas is a strong residential development market, with median sale price of homes approaching \$500,000 and 30% higher than the prior peak in 2007. Annual home sales have increased from 415 to 770 between 2007 and 2019, and housing units permitted rose from 130 to 650 per year. This pace already exceeds the forecasted growth rate of the Camas 2035 plan.



III. LAND CAPACITY VS. DEMAND (CAMAS 2035)

CAMAS 2035 FINDINGS

Figure 3.1 presents the estimated buildable acres of commercial, industrial and residential land in Camas as identified in the City’s most recently adopted Camas 2035 Comp Plan. Camas 2035 was adopted in 2016 and generally reflects the land demand and capacity estimates from 2015. The original source of the buildable land inventory was the 2015 Vacant Buildable Lands Model (VBLM) of Clark County.

The adopted Comp Plan estimated 464 net acres of buildable commercial land (generally retail and office), and an estimated 660 net acres of buildable industrial land. There was an estimated supply of 876 net buildable acres of residential land.

After the projected amount of land need over 20 years was factored, the analysis adopted in the Comp Plan finds that there is a surplus of land for all three land uses. The Comp Plan finds the narrowest 20-year surplus of commercial land (127 acres), with a larger surplus of industrial lands (167 acres), and the largest surplus of residential land (231 acres).

(The most recent 2018 VBLM finds a diminished supply of net buildable lands in all of these categories due to development over the last few years. However, the 2018 VBLM does not include a forecast of job and housing growth, making the 2015 figures the best numbers for comparison in this analysis.)

**FIGURE 3.1: ESTIMATED LAND SUPPLY AND DEMAND
CITY OF CAMAS COMPREHENSIVE PLAN (2015 – 2035)**

Land Use Category	Density	Demand (2035)			Total Land Supply / Capacity		Surplus Supply / Capacity	
		Jobs	Units	Acres	Net Acres (CP) ¹	Capacity (jobs/units)	Net Acres (CP)	Capacity (jobs/units)
Commercial	20 jobs/ac	6,744		337	464	9,280	127	2,536
Industrial	9 jobs/ac	4,438		493	660	5,940	167	1,502
	Total:	11,182		830	1,124	15,220	294	4,038
Residential	6 units/ac		3,868	645	876	5,256	231	1,388

¹ Acreage based on VBLM, but further refined by City. Finding of more net acres than in VBLM.

Source: Camas 2035, Table 1-1; Clark County Vacant Buildable Lands Model (2015)

Forecasted Job Growth (Land Demand): The Comp Plan presents a forecast of land demand for 337 commercial acres and 493 industrial acres over the planning period. However, due to the higher assumed density of jobs on commercial lands (20 jobs/ac.), this amounts to many more commercial jobs than industrial jobs (6,744 vs. 4,438 respectively).

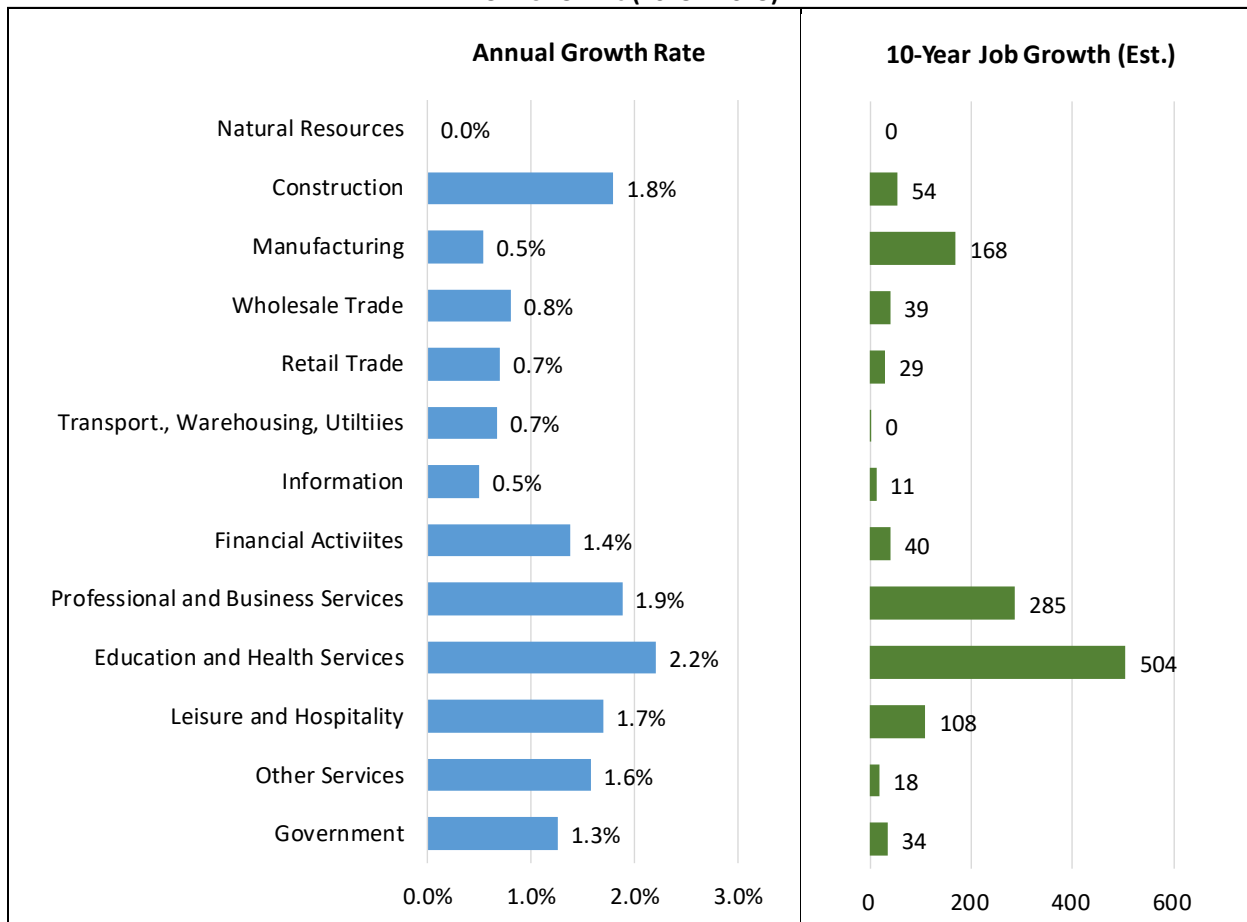
The Comprehensive Plan projects 11,182 new jobs in Camas by 2035, based on estimates from the Clark County Buildable Lands Report (2015). Given the 9,093 jobs from 2013 shown in the Comprehensive plan, this means that the city has forecasted average annual employment growth in the range of 3.7% per year.

Though average annual growth in the city was only 1.5% from 2001 to 2015, growth has been rapid since the downturn. From 2010 to 2015, the city added jobs at an average annual rate of 5.4%, and at 5.0% after 2016. These numbers are both faster than the 3.6% and 4.3% growth seen county-wide in those time frames, respectively.



Supplemental Employment Sector Analysis: JOHNSON ECONOMICS prepared additional analysis of employment growth based on the forecasted growth rate of major industry sectors in Southwest Washington. This forecast is based on 10-year growth rates prepared by the Washington State Employment Security Department (ESD) for the broader Southwest Washington region. Because the methodologies differ, the overall job growth forecast does not match that found in the Comp Plan. However, this does provide more granularity on what employment sectors are expected to grow fastest in the region, and whether or not these tend to be industrial, office or retail jobs.

**FIGURE 3.2: ALTERNATE 10-YEAR JOB GROWTH PROJECTION
CITY OF CAMAS (2015 – 2025)**



SOURCE: Washington State Employment Security Department, Johnson Economics

This analysis utilized the estimated employment base level of 9,093 as presented in the Camas 2035 plan, distributed across sectors as reported by the US Census Longitudinal Employer-Household Dynamics program. Applying the projected growth rates from the ESD, we see that the fastest growing industries are projected to be Education and Health Services (2.2% annually), Professional and Business Services (1.9%), and Construction (1.8%).

In terms of absolute growth in number of jobs, the greatest local growth is expected in Education and Health Services, and Professional and Business Services. There next highest number of jobs are in manufacturing and tourism-related sectors. (These numbers do not match the adopted forecast in the Camas 2035 Plan, and therefore should be viewed as an indicator of projected growth relative to other sectors.)

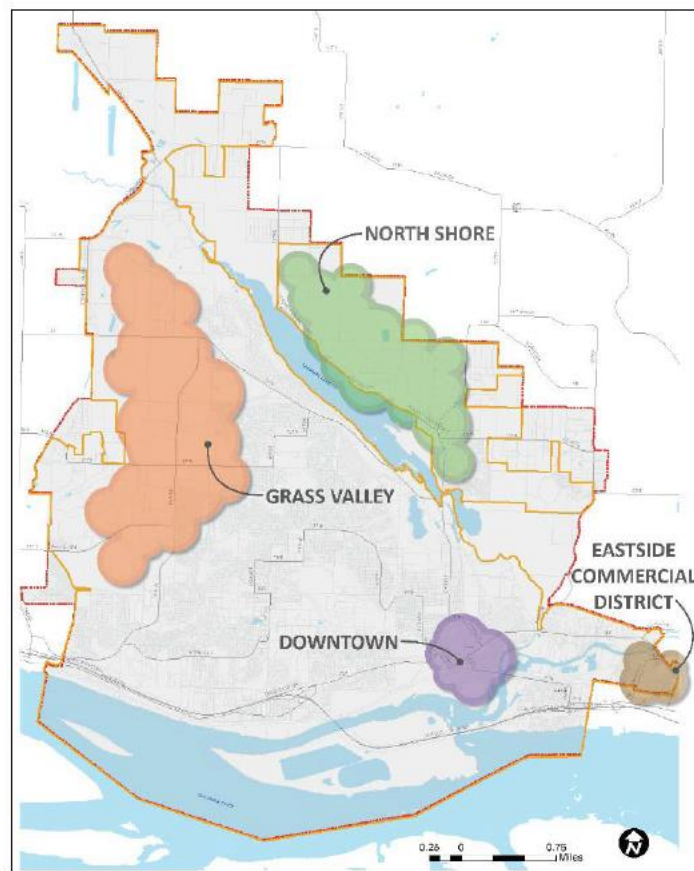


This alternate forecast suggests that the greatest number of new jobs will be found in sectors that tend to use commercial office and retail space (and land), and fewer new jobs in sectors that use industrial space. The major users of industrial space (manufacturing, transportation/warehousing, construction) are projected to make up roughly 16% of new employment under this alternative forecast. The sectors which are major users of office and retail commercial space make up an estimated 82% of new employment.

GRASS VALLEY ECONOMIC DEVELOPMENT AREA

The subject area is located in the Grass Valley Economic Development Area described in the Camas 2035 plan. The plan leaves the area vaguely defined as a large region of industrial, business park, and commercial zones on the western side of the city (Figure 3.3).

FIGURE 3.3: CAMAS ECONOMIC DEVELOPMENT AREAS



SOURCE: Camas 2035, City of Camas

The Camas 2035 Comp Plan describes the Grass Valley Economic Development Area as follows:

Grass Valley is home to several national and international technology and manufacturing firms. Land uses in Grass Valley include large technology and manufacturing campuses, surrounded by retail and commercial services and residential development. The City has invested in significant infrastructure improvements in Grass Valley in support of high-tech industrial development, which is still the focus for this area. (Camas 2035 6.4.3)



One of the underlying development policies for Grass Valley relates to maintaining adequate employment land supply to meet 20-year needs when conversion of some of the area to other uses is proposed:

ED-3.3: Protect employment land from conversion to residential uses by requiring an analysis of adequate buildable lands in Grass Valley to meet 20-year employment projections prior to land conversion approval. (Camas 2035 6.4.3)

JOHNSON ECONOMICS conducted an inventory of remaining buildable employment land in Camas as of 2019, using Clark County GIS data. We first filtered out all but commercial, industrial, and multifamily-zoned land. We then filtered out projects that are committed to being developed in the short-term. We then used the following property type descriptions to determine the amount of viable land:

- Prime Developable Ground
- Unused Land Timbered
- Unused or Vacant Land – No Improvements
- Vacant

This inventory resulted in the following estimates of buildable employment land in the Grass Valley area (supply), vs. the total demand for industrial lands forecast in the Camas 2035 Plan (demand). The estimates are presented in the following table and map (Figures 3.4 and 3.5).

**FIGURE 3.4: ESTIMATED VACANT, UNUSED AND DEVELOPABLE LANDS
GRASS VALLEY VS. CAMAS, WA (2019)**

<u>Zone</u>	<u>Parcels</u>	<u>Acreage</u>	<u>Job Capacity</u>
BP	8	94.9	854
LI	4	59.8	538
LI/BP	19	183.3	1,650
Total:	31	338.0	3,042
Indust. Demand (Camas 2035):		493.1	4,438
Grass Valley Share:		69%	69%

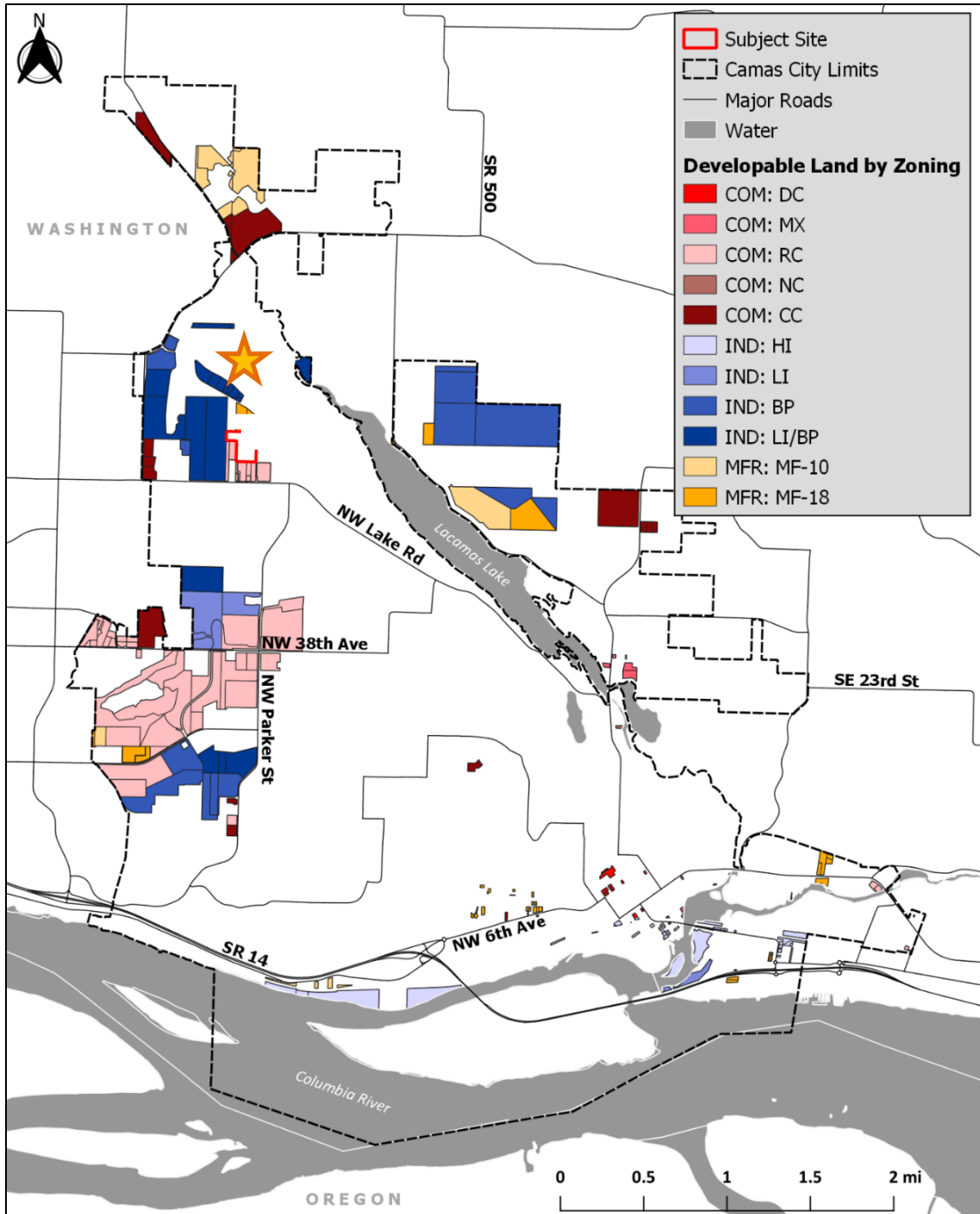
SOURCE: Clark County, Camas 2035, Johnson Economics

The inventory suggests that the Grass Valley area has sufficient available land to accommodate 69% of the total forecasted 20-year demand for industrial land in the city. A conversion of the 4-acre subject site to a different use would lower this capacity very slightly to 68% of the demand.

At the same time, the industrial areas outside of Grass Valley, most notably the Northshore area, can also accommodate a majority (63%) of the 20-year demand. These two areas alone can accommodate over 130% of forecasted need. **This indicates that if the subject site were converted to a different use, that the Grass Valley area would retain capacity to meet its share of employment land demand, while the city would maintain the capacity to meet well over 100% of the forecasted 20-year demand.**



FIGURE 3.5: VACANT, UNUSED AND DEVELOPABLE LANDS, CAMAS, WA (2019)



SOURCE: Clark County, Johnson Economics



IV. RESIDENTIAL DEMAND ANALYSIS

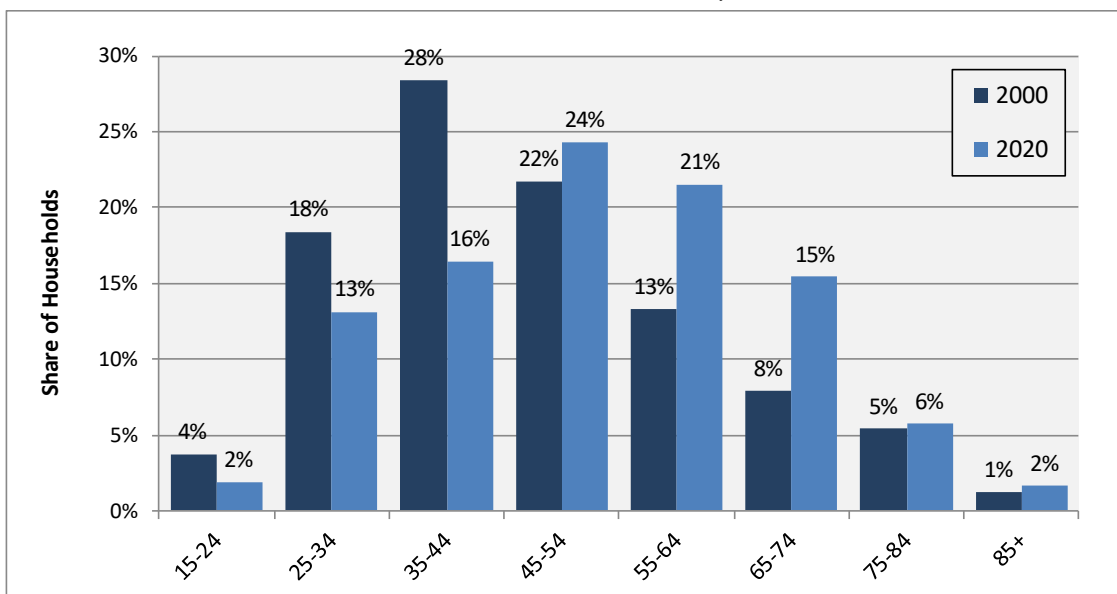
In this section, we analyze the market depth for rental apartments within the City of Camas, to determine the potential demand for housing at the subject site as part of a mixed use development. We provide estimates of turnover in the existing household base as well as estimates of current demand growth over the coming five years. The forecast supports the continued robust growth of the Camas community and need for housing.

HISTORICAL GROWTH

According to estimates from Environics and the Census, the PMA totals 8,317 households as of 2020, after adding over 3,850 households since the turn of the millennium. Over this 20-year period, this translates to an average annual growth of 3.2%, which is far above the average growth rate observed in the Portland Metro Area (1.3%). Since 2000, households in Camas have grown significantly older and wealthier on average.

Age of Householder: The following figure displays how the household growth within the market area has been distributed across age groups since 2000. The strongest growth was seen in households aged 45 to 74. All age categories except 15-24-year-olds experienced some growth in absolute terms. But in terms of share of households (%), those aged 45 to 74 grew the most.

FIGURE 4.1: AGE PROFILE OF CAMAS HOUSEHOLDS, 2000 AND 2020



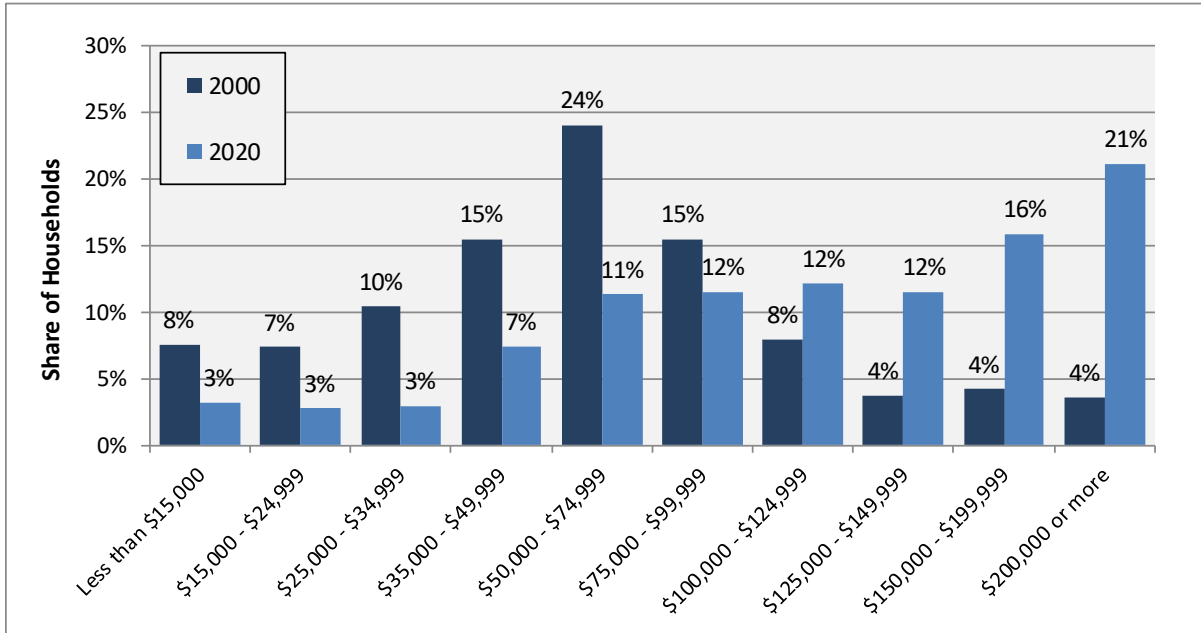
SOURCE: Environics Analytics

The largest total growth seen within an age group was in those aged 55-64. This age group increased by an estimated 1,200 households since 2000. The 45-54 age group and the 65-74-year old age group each grew by roughly 1,000 households since 2000. This group had a smaller population to begin with, however, so the increase represents a 6.8% annual growth, highest among all age groups.

Household Income: The area has become quite affluent over the last two decades, though part of the increase can be attributed to inflation. The realized growth on a net basis has been among households making at least \$75,000 per year. Growth is particularly strong among households making more than \$100,000 per year. Nearly all the positive growth came from households with incomes above this threshold. The highest-income households, making at least \$200,000 per year, increased over ten-fold over the period, faster than any other income group.



FIGURE 4.2: INCOME PROFILE OF CAMAS HOUSEHOLDS, 2000 AND 2020



SOURCE: Envirionics Analytics

DEMAND GROWTH (2020 - 2025)

JOHNSON ECONOMICS has developed a housing demand model that translates estimates of job growth and household growth into demand for housing of different forms. Our model begins with household growth estimates stratified by age and income, as these are the variables that best predict housing preferences. Our household growth estimates are based on projections by Envirionics, a third-party data provider that draws on various data sources to identify trends that impact the household base within specific geographies down to a census block group level. We adjust these estimates based on employment growth projections (by age) and migration trends. The goal is for the projections to reflect underlying demand rather than expected realized household growth, which is constrained by supply.

After developing a segmented projection of overall housing demand for the market area, we use local microdata from the U.S. Census Bureau to establish segment-specific rates of housing tenure (owners/renters) and housing type (SF detached/SF attached/multi-family), to derive assumptions of future housing propensity within the segments.

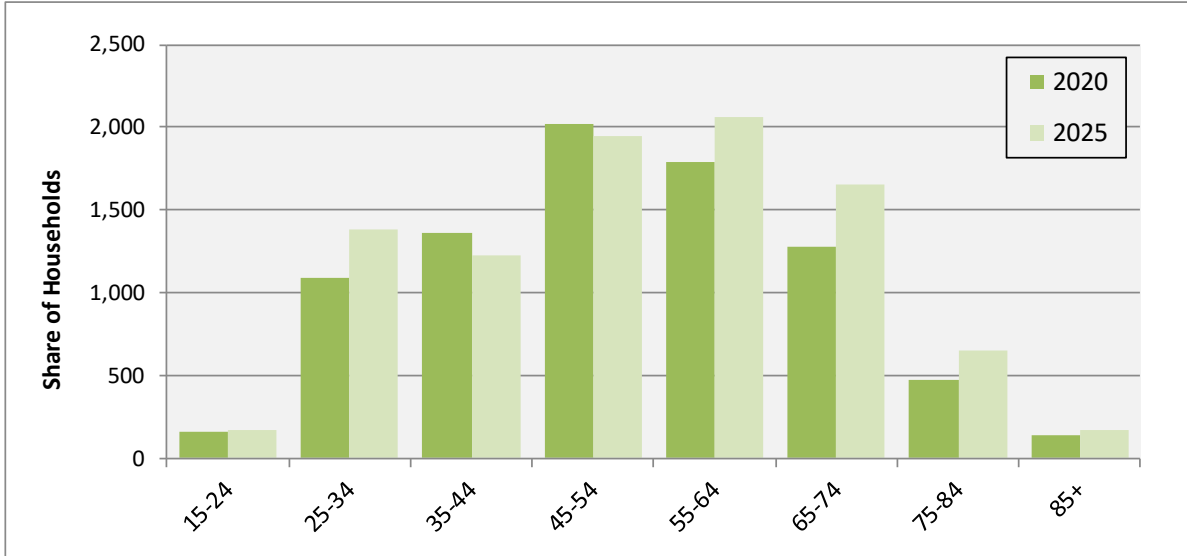
NEW HOUSEHOLD DEMAND, CAMAS

Over the coming five years, Johnson Economics projects an increase of roughly 960 households within Camas, or 190 per year. This represents annual growth of 2.2%. Note that this is based on an extrapolation of historical trends, which in turn is based on realized growth rather than underlying demand not limited by supply constraints. Taking into account job growth and migration, we believe that the household growth is likely to exceed this rate, therefore we believe this is a conservative estimate.

The following chart displays the anticipated change in the number of households by the age of the householder. The projections indicate particular demand growth among young households in the early family-stage, as well as considerable growth in empty-nester and senior segments, reflecting the aging of the baby boomers. The greatest growth is anticipated in those between 55 and 74 years of age.



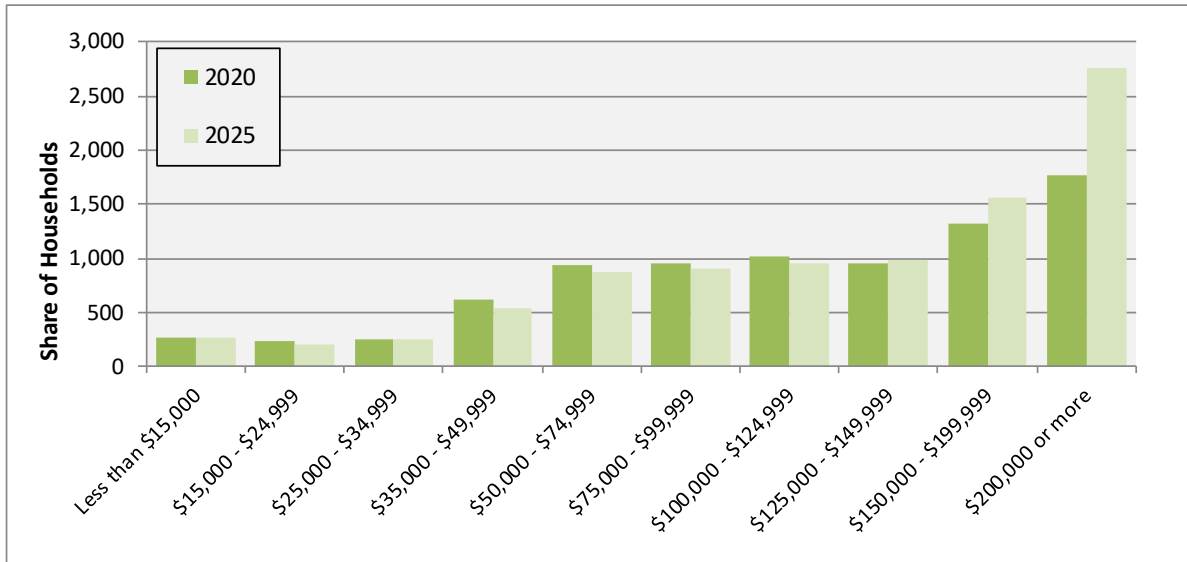
FIGURE 4.3: PROJECTED DISTRIBUTION OF HOUSEHOLDS BY AGE, CAMAS (2020-2025)



SOURCE: Envirionics, JOHNSON ECONOMICS

With respect to income, the growth is anticipated to be distributed broadly across mid- and upper-income segments, but with the greatest growth continuing to be seen in the highest income categories. The city is expected to continue to develop as an attractive middle- and upscale community for Clark County and Portland-metro workers. The affluent suburban nature of the community will enhance its attractiveness to prospective new residents.

FIGURE 4.4: PROJECTED DISTRIBUTION OF HOUSEHOLDS BY INCOME, CAMAS (2020-2025)

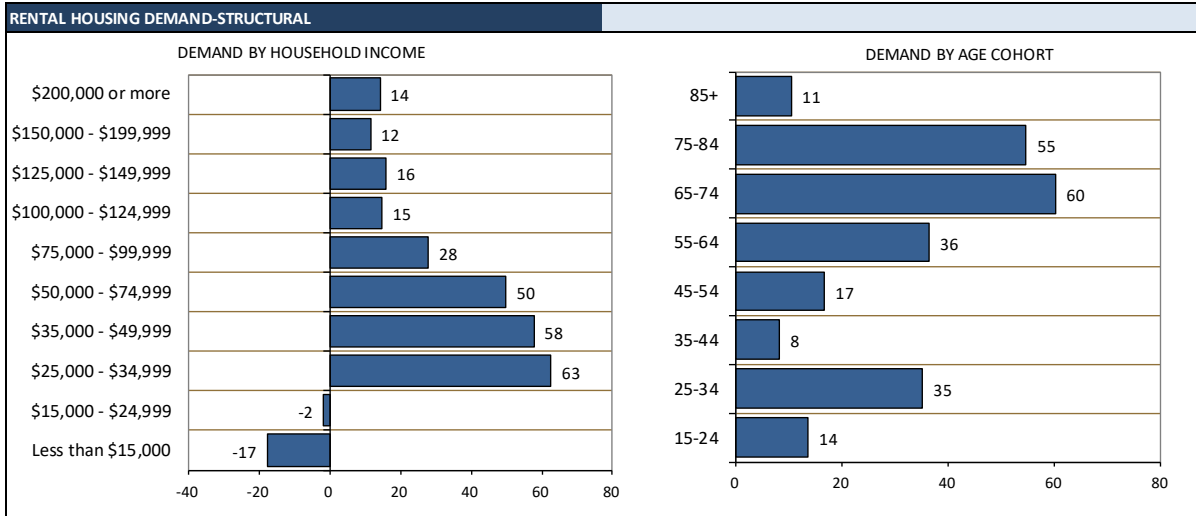


SOURCE: Envirionics, JOHNSON ECONOMICS

When we apply estimates of future tenure (rent vs. own) and housing type propensity rates to the projected demand, our model indicates that new growth alone will support roughly 240 apartment units over the coming five years, or an average of nearly 50 per year. The net new demand is projected to be concentrated among the lower- to middle-income households who are more likely to rent than own. This trend supports the need for the continued development of new housing options in coming years.



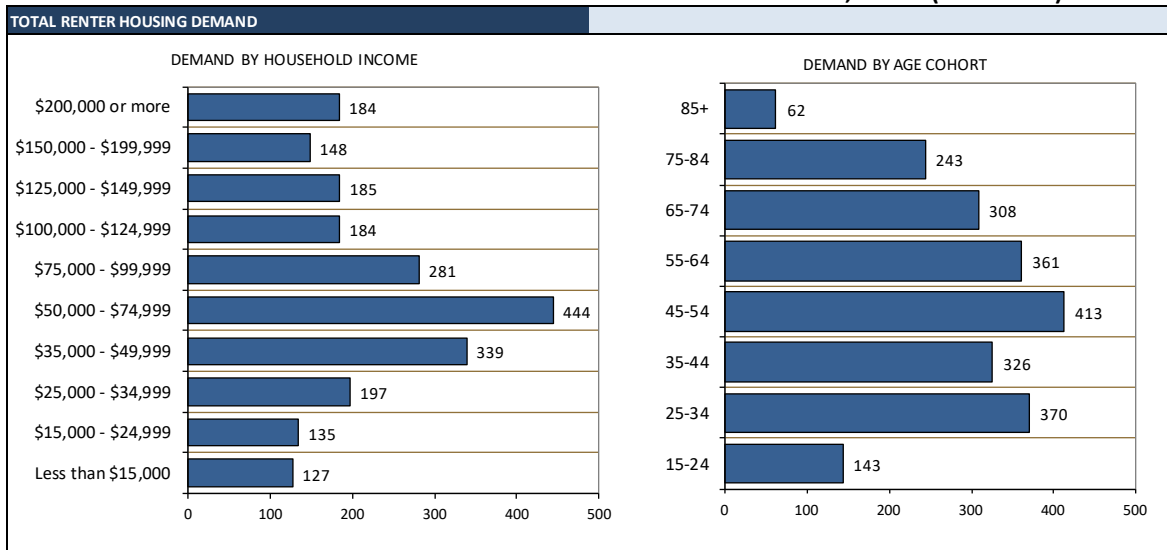
FIGURE 4.5: PROJECTED GROWTH IN DEMAND FOR RENTAL APARTMENTS, CAMAS (2020-2025)



SOURCE: *EnviroNics, JOHNSON ECONOMICS*

A secondary source of demand is turnover in the existing base of apartment households in the city. When currently renting households move out of their units, newer rental properties have the ability to compete for these renters with newer facilities and up-to-date amenities. We project around 445 rental transactions (new and turnover) per year in the Camas apartment market. These transactions are expected to represent a wider distribution across age and income categories than the net new demand.

FIGURE 4.6: PROJECTED TOTAL ANNUAL DEMAND FOR RENTAL APARTMENTS, CAMAS (2020-2025)



SOURCE: *EnviroNics, U.S. Census Bureau, JOHNSON ECONOMICS*

Though turnover represents demand for which there already is matching supply, these transactions tend to benefit the absorption of new units in the market, as existing renters “trade up” into newer units with less wear and more up-to-date features. Based on Clark County taxlot data, analyzed in GIS, the average age of existing apartment projects with at least five units in Camas is 35 years, suggesting more up-to-date properties should be able to offer a large competitive contrast. Moreover, the data indicates that the average size of these projects is 19 units. Projects of this scale rarely offer any community amenities to speak of.



V. CONCLUSIONS

ALTERNATE USES

While the subject site is generally suitable for either of the proposed uses, the prospective industrial business park development faces some disadvantages while a mixed-use development generally enjoys advantages for feasibility. These are mainly related to market forces, demand, and the topography of the site, and compatibility with surrounding uses:

- Topography:** The sloping topography of the site might present a challenge for industrial users who prefer flat land. The preparation and grading of this land must not be cost prohibitive, because typically industrial users pay the least of the major uses for buildable land (i.e. excessive land development costs can render a site infeasible for industrial use). Multi-family developments are typically feasible on more uneven topography due to the ability to locate multiple smaller buildings and parking areas at different elevations. **Higher-value residential and/or commercial developments can also typically support higher cost for land preparation than industrial uses.**
- Compatibility:** Housing is a classic compatible use next to a golf course, and this development would benefit from being near the clubhouse and driving range. The established neighborhoods to the east around the golf course demonstrate that this is a desirable location for residents, offering excellent access to nature, views, and livability amenities. The site is compatible for a range of small commercial users including convenience retail, small dining establishments and small office users. These uses can benefit from a location between industrial parks to the west, residential neighborhoods to the east, and traffic to and from the golf course.

Some industrial and flex-space users are likely to be incompatible with the existing golf course use to the north edge of the site. These include businesses that create negative externalities such as noise, smoke or other fumes, excessive industrial yard machinery or storage, or heavy truck traffic. Business Park office development may be less likely to face these issues.
- Market Conditions:** The Camas and East Vancouver submarket has seen healthy growth of industrial and office park users and new jobs during the recent economic recovery. But according to data from CoStar Analytics, the strength of the local office market has fluctuated over time. While rent levels have risen steadily, vacancy has at times exceeded the 10% threshold sought in a healthy market.

Currently, there are thousands of vacant square feet of space available at the Camas Meadows Corporate Center across the street from the subject site. As discussed more below, there is also estimated to be an oversupply of industrial and business park land to accommodate new development. For these reasons, **Johnson Economics does not estimate that there is currently a shortage or even tight supply of industrial, business park or office space in the Camas area** for the foreseeable future.

The subject site is a **good location for small commercial businesses**, providing good access and visibility, with a built-in local customer base. The greatest concentrations of commercial shopping and service are all located more than a mile from this area. Demand for these businesses will continue to grow as Camas experiences strong residential and employment growth. The Camas 2035 plan forecasts strong growth in commercial jobs over coming decades, and significantly outnumbering industrial jobs.

Since 2000, Camas has grown by nearly 4,000 households, or 86% growth. This translates to robust annual growth of 3.2%, in comparison to 1.4% growth in Washington State, and 0.8% in the United States. The community is forecasted to continue to add an average of roughly 200 households each year over the next



five years. The housing supply for both owner and rental units must continue to increase to meet the need of these new residents.

Camas is a strong residential development market, with median sale price of homes approaching \$500,000 and 30% higher than the prior peak in 2007. Annual home sales have increased from 415 to 770 between 2007 and 2019, and housing units permitted rose from 130 to 650 per year. This pace already exceeds the forecasted growth rate of the Camas 2035 plan.

- Job Capacity:** The Camas 2035, using Clark County assumptions assumes that industrial land will develop at an average of 9 jobs per acre. The amount of employment at any one LI/BP development will vary. Office space in a business park is likely to supply jobs at a higher density than a warehouse. However, it should be noted that if a greater job density is assumed, then the forecast of total needed industrial acres over 20 years should also be lower (i.e. more jobs would be accommodated on less land.) If that is the case, then this would result in an even higher surplus of industrial land in the inventory. The impact of converting a small amount of it to a different use would be even less.

Under the alternative mixed-use scenario for the site, the commercial portion is assumed to accommodate an average of 20 jobs per acre, indicating that **the transition from industrial to commercial zoning will still allow for employment growth at the subject site.**

INDUSTRIAL AND COMMERCIAL LAND SUPPLY

The Camas 2035 comparison of 20-year land need from job and household growth, with the current buildable lands, found a surplus of all the major categories of land in Camas (Figure 3.1, reproduced below). If the lands build out as projected, there will remain a surplus of 127 commercial acres, and 167 industrial acres. **These adopted figures do not present a compelling reason to protect a small amount of either of these categories of land from conversion,** all else being equal.

**FIGURE 3.1: ESTIMATED LAND SUPPLY AND DEMAND
CITY OF CAMAS COMPREHENSIVE PLAN (2015 – 2035)**

Land Use Category	Density	Demand (2035)			Total Land Supply / Capacity		Surplus Supply / Capacity	
		Jobs	Units	Acres	Net Acres (CP) ¹	Capacity (jobs/units)	Net Acres (CP)	Capacity (jobs/units)
Commercial	20 jobs/ac	6,744		337	464	9,280	127	2,536
Industrial	9 jobs/ac	4,438		493	660	5,940	167	1,502
	Total:	11,182		830	1,124	15,220	294	4,038
Residential	6 units/ac		3,868	645	876	5,256	231	1,388

¹ Acreage based on VBLM, but further refined by City. Finding of more net acres than in VBLM.

Source: Camas 2035, Table 1-1; Clark County Vacant Buildable Lands Model (2015)

An inventory of Grass Valley industrial lands find that remaining parcels are sufficient to accommodate 69% of forecasted 20-year industrial employment (Figure 3.4), while the rest of the city could also accommodate *an additional* 63% of the forecast. This supports the Camas 2035 finding that there is significant overcapacity of industrial lands (132% of demand), **and conversion of the subject site to a different use would not violate the policy of maintaining a 20-year supply in Grass Valley.**



INDUSTRIAL VS. COMMERCIAL LAND DEMAND

The Camas 2035 projects a 20-year growth of 11,182 jobs. A majority of these (60%) are forecasted to be jobs that take place in a commercial environment, and 40% in an industrial environment (Figure 3.1). Additional analysis by employment sector using state ESD forecasts supports the conclusion that, despite robust industrial job growth, a majority of new employment will be commercial jobs. **This finding is supportive of conversion of a modest amount of industrial land to commercial land on the border of the Grass Valley LI/BP area, without significantly impairing the ability to meet future industrial demand.**

RESIDENTIAL LAND DEMAND

The Camas 2035 plan likewise finds a surplus of residential lands over the planning period. Over the coming five years, Johnson Economics projects an increase of roughly 960 households within Camas, or 190 per year. This represents annual growth of 2.2%, which we consider a conservative estimate. **The demand analysis prepared by strongly supports the need for additional housing options of all types over the coming decades.**

The subject site is an appropriate location for housing as part of a mixed-use development based on physical, location and market factors.

i C A P  E Q U I T Y

May 27, 2021

City of Camas
Attn: Sarah Fox, Senior Planner
616 NE 4th Avenue
Camas, WA 98607

RE: Rezoning of properties on Camas Meadows Drive

Dear Ms. Fox,

I am writing to express my interest and support in the rezoning of several neighboring properties from Light Industrial/Business Park (LI/BP) to Commercial/Mixed-Use (MU) along the North side of NW Camas Meadows Drive. The neighboring properties consist of two parcels totaling 4.8 acres owned by Vanport Manufacturing Inc. (Martin Hertrich – parcels 986035-733 and 172970-000) and a 5-acre parcel owned by Pedwar Development Group, LLC (Chris Williams – parcel 986026-906). Vanport Manufacturing, owner of two parcels along this road, has applied for a rezoning application. I, on behalf of iCap Equity (owners of neighboring parcels: 175980-000, 172973-000, 17963-000, 986035-734), wish to support their efforts and application to rezone. Our property was successfully rezoned last year and we are excited about the opportunity to have our neighbors also seeking to rezone as we believe it will improve the neighborhood and benefit the community.

The current Light Industrial zoning combined with the location of these properties, restricts potential development to unique suitors. With Light Industrial businesses across the street, and new housing construction down the road, I believe the addition of a Commercial Mixed-Use zone would increase the likelihood of development and provide a positive mix of development in the area.

I am kindly asking for the support of you and the Council.



Jim Christensen
Manager
Lofts at Camas Meadows Phase I and II LLC
iCap Equity

Pedwar Development Group, LLC

May 26, 2021

City of Camas
Attn: Sarah Fox, Senior Planner
616 NE 4th Avenue
Camas, WA 98607

RE: Rezoning of properties on Camas Meadows Drive

Dear Ms. Fox,

I am writing to express my interest and support in the rezoning of several properties to Commercial Mixed Use along the North side of NW Camas Meadows Drive. Vanport Manufacturing, owner of two parcels along this road, has applied for a rezoning application. I, on behalf of Pedwar Development Group (owners of property 986026-906), wish to support their efforts and application to rezone insofar as the Council supports rezoning our parcel as well.

The current Light Industrial zoning combined with the location of these properties restricts potential development to unique suitors. With Light Industrial businesses across the street, and new housing construction down the road, I believe the addition of a Commercial Mixed Use zone would increase the likelihood of development and provide a positive mix of development in the area.

I am kindly asking for the Council and your support.

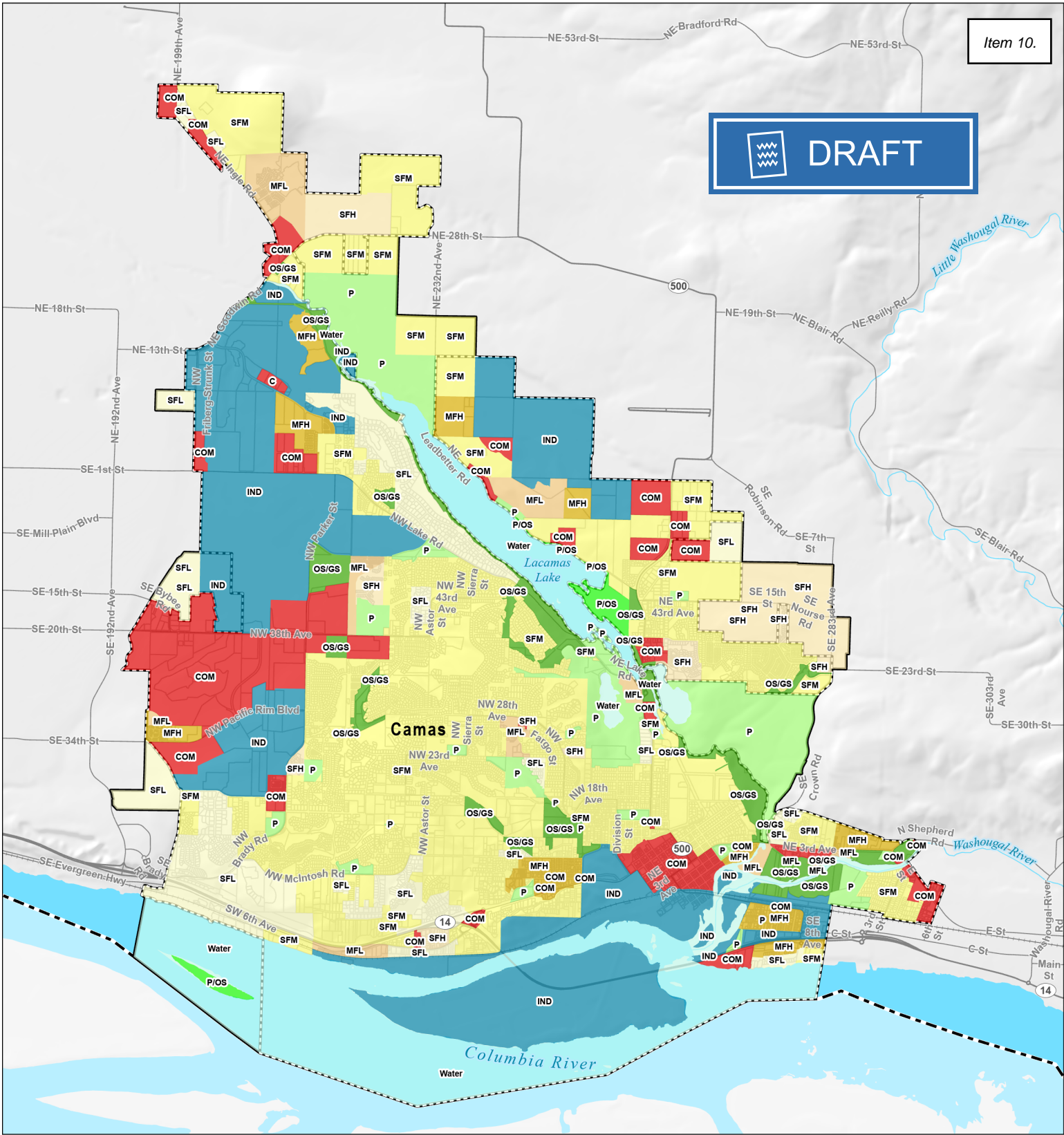
Thank you,



Chris Williams
Managing Member
Pedwar Development Group, LLC

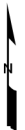
cc: Vanport Manufacturing, Inc.

 **DRAFT**



Camas Comprehensive Plan

NOTE: Information shown on this map was collected from several sources. Clark County accepts no responsibility for any inaccuracies that may be present.

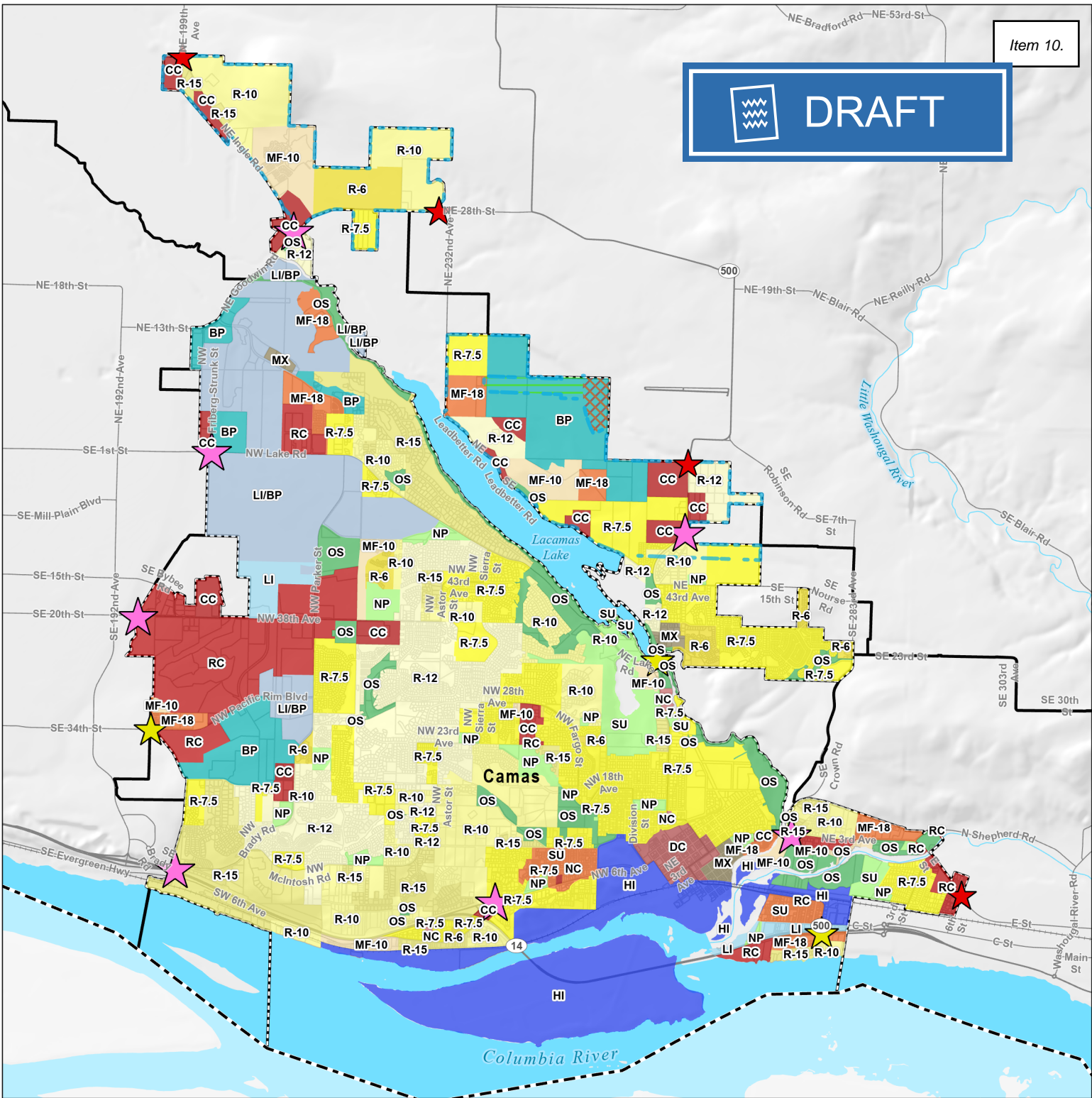


0 0.5 1 Miles

KEY

-  Single-Family_Low
-  Park
-  County Boundary
-  Single-Family_Medium
-  Open space/Green space
-  Incorporated Area
-  Single-Family_High
-  Commercial
-  Urban Growth Area
-  Multi-Family_Low
-  Industrial
-  Water
-  Multi-Family_High

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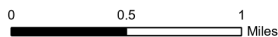


KEY

Camas Zoning

- Entry Signage
- Primary Gateways
- Secondary Gateways
- Airport Overlay - Zone A
- Airport Overlay - Zone B
- Airport Overlay - Zone C
- Single-Family residential (R-15)
- Single-Family residential - 12 (R-12)
- Single-Family residential (R-10, R10)
- Single-Family residential (R-7.5)
- Single-Family residential (R-6)
- Multi-Family (MF-18)
- Neighborhood commercial (NC)
- Community commercial (CC)
- Mixed use (MX)
- Business park (BP)
- Light industrial (LI)
- Heavy industrial (HI)
- Multi-Family (MF-10)
- Regional commercial (RC)
- Downtown commercial (DC)
- Light industrial/Business park (LI/BP)
- Park
- Open space (OS)
- County Boundary
- Incorporated Area
- Urban Growth Area

NOTE: Information shown on this map was collected from several sources. Clark County accepts no responsibility for any inaccuracies that may be present.





Staff Report – Ordinance

September 20, 2021 Council Regular Meeting

Ordinance No. 20-010 Annual Comprehensive Plan Amendments

Presenter: Sarah Fox, Senior Planner

Time Estimate: 10 min.

Phone	Email
360.817.7269	sfox@cityofcamas.us

INTRODUCTION/PURPOSE/SUMMARY: The city received a request from property owner to change the Comprehensive Plan and zoning designation for two parcels located on NW Camas Drive with a combined 4.8 acres. The request is to amend the Comprehensive Plan designation of Industrial and zoning of Light Industrial/Business Park to a Comprehensive Plan designation of Commercial with a concurrent zone change to Mixed Use.

The Planning Commission held a public hearing on June 15 and forwarded a recommendation to City Council consistent with the Camas Municipal Code Section 18.51.050(B)(3) to accept the proposed amendment.

EQUITY CONSIDERATIONS:

What are the desired results and outcomes for this agenda item? **A:** *The annual*

What’s the data? What does the data tell us? **A:** *Refer to the Staff Report dated September 8, 2021 regarding the city’s progress toward it’s comprehensive plan goals.*

How have communities been engaged? Are there opportunities to expand engagement? **A:** *The annual comprehensive plan amendment process included a workshop before both the Planning Commission and Council and subsequent public hearings. Notices to property owners were provided for both public hearings and published online and in the Camas Post Record.*

Who will benefit from, or be burdened by this agenda item? **A:** *This comprehensive plan amendment will directly benefit the property owner that made the request, however the city will benefit from new mixed use development rather than the land remaining vacant.*

What are the strategies to mitigate any unintended consequences? **A:** *The annual review process provides the city the opportunity to adjust if unintended consequences are discovered.*

Does this agenda item have a differential impact on underserved populations, people living with disabilities, and/or communities of color? Please provide available data to illustrate this impact. **A:** *This proposal does not address underserved populations.*

Will this agenda item improve ADA accessibilities for people with disabilities? **A:** *If the development includes housing, then a portion of the units will be ADA compliant in accordance with the state building codes.*

What potential hurdles exists in implementing this proposal (include both operational and political)? **A:** *The city did not identify any hurdles with implementation.*

How will you ensure accountabilities, communicate, and evaluate results? **A:** *The city will update its comprehensive plan map and zoning map, which are available online.*

How does this item support a comprehensive plan goal, policy or other adopted resolution? **A:** *The Staff Report dated September 8, 2021 provides support for the amendments.*

RECOMMENDATION: Adopt ordinance as attached consistent with the recommendation of the Planning Commission.

ORDINANCE NO. 21-010

AN ORDINANCE relating to consideration of proposed revisions to the City of Camas Comprehensive Plan and adopting revisions to the Comprehensive Plan Map and Zoning Map of the City of Camas.

WHEREAS, the City of Camas has heretofore adopted a Comprehensive Plan and Comprehensive Land Use Map as required by the provisions of RCW 36.70A, Revised Code of Washington, the Growth Management Act, and

WHEREAS, under Chapter 36.70A, Revised Code of Washington, the City is required annually to consider amendments to the land use element of the Comprehensive Plan and associated rezones, and

WHEREAS, the Planning Commission has conducted a public hearing on a request for revision submitted to the City, and has forwarded its recommendation to the City Council, and

WHEREAS, the City Council has conducted a public hearing on the request for revision,

NOW, THEREFORE, THE COUNCIL OF THE CITY OF CAMAS DO ORDAIN AS FOLLOWS:

Section I

A request from property owner to change the Comprehensive Plan and zoning designation for two parcels located on NW Camas Drive with a combined 4.8 acres. The request is to amend the Comprehensive Plan designation of Industrial and zoning of Light Industrial/Business Park to a Comprehensive Plan designation of Commercial with a concurrent zone change to Mixed Use. The Planning Commission forwarded a recommendation to City Council consistent with the Camas Municipal Code Section 18.51.050(B)(3) to accept the proposed amendment.

Section II

The City Council hereby accepts the recommendation of the Planning Commission, and directs the Community Development Director to amend the Camas Comprehensive Plan map, and to amend the Camas Zoning map consistent with the table set forth within the attached Exhibit "A".

Section III

This ordinance shall take force and be in effect five (5) days from and after its publication according to law.

PASSED BY the Council and APPROVED by the Mayor this _____ day of September, 2020.

SIGNED: _____
Mayor

ATTEST: _____
Clerk

APPROVED as to form:

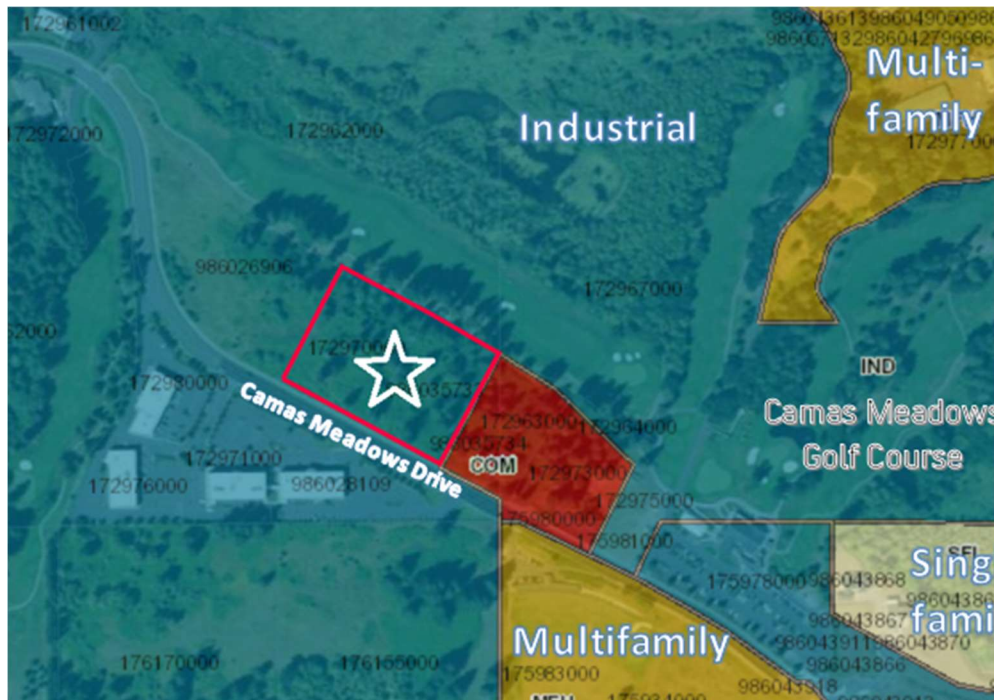
City Attorney

Exhibit A

Ordinance 21-010

The following table describes the amendments to properties owned by Vanport Manufacturing, Inc. totaling 4.8 acres located at 4555 and 4615 NW Camas Drive.

Parcel Number	Current Comprehensive Plan Designation	Current Zoning	New Comprehensive Plan Designation	New Zoning
986035-733	Industrial	Light Industrial / Business Park	<u>Commercial</u>	<u>Mixed Use</u>
172970-000	Industrial	Light Industrial / Business Park	<u>Commercial</u>	<u>Mixed Use</u>



Subject properties indicated with the ☆.



Staff Report – Public Hearing for Ordinance

September 20, 2021 Regular Meeting

Public Hearing Regarding an Amendment to the Development Agreement for the Green Mountain PRD

Presenter: Steve Wall, Public Works Director

Time Estimate: 10 min

Phone	Email
360.817.7899	swall@cityofcamas.us

INTRODUCTION/PURPOSE/SUMMARY: The City entered into a Purchase and Sale Agreement (PSA) with Terrell & Associates, LLC, et. al. effective December 1, 2020 regarding the donation of 60 acres to the City and purchase of 55 acres by the City. The parcels were originally a part of the Green Mountain Planned Residential Development (PRD) and identified as "Phase 3". The 60-acre donation of property to the City (shown below as "Parcel 1" in Figure 1) occurred in December 2020 and the PSA stipulated that the purchase of the remaining 55 acres for \$3.8 million (shown as "Parcel 2" in Figure 1) is to close no later than October 31, 2021. As a condition of closing, Section 3(j) of the PSA also requires that two existing development agreements associated with the Green Mountain PRD be amended to remove the donated and purchased parcels, and therefore the City, from any obligations associated with the Green Mountain PRD.

In accordance with CMC 18.55.340, a public hearing must be held before adopting any development agreement via ordinance or resolution. This public hearing is for an amendment to the Development Agreement between Green Mountain Land, LLC and the City recorded on January 6, 2015 under Clark County Auditor’s file number 5134733 pertaining to specific development requirements for the Green Mountain PRD.

EQUITY CONSIDERATIONS:

What are the desired results and outcomes for this agenda item?

- To hold a public hearing regarding an amendment to an existing development agreement with Green Mountain Land, LLC.

What’s the data? What does the data tell us?

- N/A

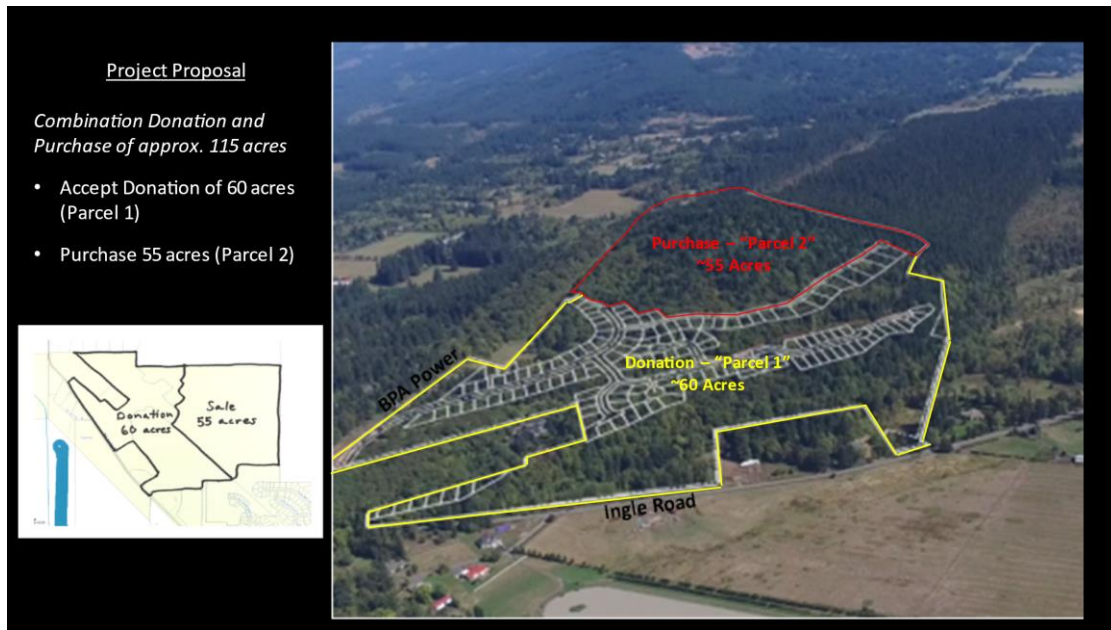


Figure 1: Green Mountain PRD Ph. 3 Donation and Purchase

How have communities been engaged? Are there opportunities to expand engagement?

- This public hearing is intended to provide opportunities for public comment and engagement on the proposed amendment.

Who will benefit from, or be burdened by this agenda item?

- The City as a whole will benefit from this agenda item as it will remove the City from any obligations placed on the Green Mountain PRD through the existing development agreement.

What are the strategies to mitigate any unintended consequences?

- Review of the PSA occurred prior to signing and a public hearing is being held to obtain public feedback.

Does this agenda item have a differential impact on underserved populations, people living with disabilities, and/or communities of color? Please provide available data to illustrate this impact.

- N/A

Will this agenda item improve ADA accessibilities for people with disabilities?

- N/A

What potential hurdles exist in implementing this proposal (include both operational and political)?

- None

How will you ensure accountabilities, communicate, and evaluate results?

- N/A

How does this item support a comprehensive plan goal, policy or other adopted resolution?

- As discussed in previous staff reports, acquiring the Green Mountain Property meets multiple goals within the City's Comprehensive Plan and PROS Plan.

RECOMMENDATION: Staff recommends holding a public hearing to receive testimony, then direct staff and the City Attorney to draft a Resolution for consideration by Council at the October 4, 2021 Regular Meeting.

When Recorded, Return to:

Shawn R. MacPherson
430 NE Everett Street
Camas, WA 98607

Parcels: Above Space for Recording Information Only

AMENDMENT TO DEVELOPMENT AGREEMENT

THIS AMENDMENT TO DEVELOPMENT AGREEMENT (the "Amendment") is made and entered into by and between the City of Camas, a Washington Municipal Corporation, ("City"); and Green Mountain Land, LLC, a Washington Limited Liability Company, ("GML").

RECITALS

WHEREAS, a Development Agreement was duly executed and recorded by and between GML and the City of Camas on January 6, 2015, under Clark County Auditor's file number 5134733; and

WHEREAS, Section 17 of the Development Agreement allows for amendment or modification by writing signed by all of the parties hereto; and

WHEREAS, the City has the authority to enter into Development Agreements pursuant to RCW 36.70B.170 and Camas Municipal Code 18.55.340; and

WHEREAS, the City is a Washington Municipal Corporation with land use planning and permitting authority over all land within its corporate limits; and

WHEREAS, GML owned or controlled certain real property located within the City's municipal boundary which became subject to the terms of the Development Agreement upon execution and recording thereof; and

WHEREAS, City has acquired or will acquire a portion of said real property otherwise subject to terms of the Development Agreement and by this Amendment the terms thereof shall

be of no further force and effect upon execution and recording of this Amendment for such area only.

NOW, THEREFORE, THE PARTIES HERETO HEREBY AMEND THE DEVELOPMENT AGREEMENT AS FOLLOWS:

- 1. The Development Agreement shall continue in full force and effect as to the terms therein, except as specifically modified by this Amendment.
- 2. The Development Agreement shall not apply or be of any force and effect as to the real property more particularly described in the attached Exhibit "A".

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed as of the dates set forth below:

CITY OF CAMAS, WASHINGTON

GREEN MOUNTAIN LAND, LLC

 By: Ellen Burton
 Title: Mayor Pro Tem

 By: _____
 Title: _____

STATE OF WASHINGTON)
) ss.
 COUNTY OF CLARK)

On this ____ day of _____, 2021, personally appeared Ellen Burton to me known to be the Mayor Pro Tem of the City of Camas, Washington Municipal Corporation, that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed, of said corporation, for the uses and purposes therein mentioned, and on oath stated that she was authorized to execute said instrument.

GIVEN under my hand and official seal this ____ day of _____, 2021.

 Notary Public in and for the State of
 Washington, residing at _____.
 My commission expires: _____.

EXHIBIT "A" LEGAL DESCRIPTION

**PARCEL 1:
171727-000**

A parcel of land located in a portion of the Thomas J. Fletcher Donation Land Claim No. 51, and the Daniel Ollis Donation Land Claim No. 52, and lying within the Northeast quarter of Section 20, and the Southeast quarter of Section 17, Township 2 North, Range 3 East of the Willamette Meridian in the City of Camas, Clark County, Washington, described as follows:

COMMENCING at the Southeast corner of said Section 17;

THENCE North 01° 45' 46" East, along the East line of said Southeast quarter, a distance of 293.65 feet to the Northeast corner of the CLB Washington Solutions I, LLC parcel described in Exhibit "D", recorded under Auditor's File No. 5550741 AMD, records of said County;

THENCE along the North line of said Exhibit "D" parcel the following courses:

THENCE North 89° 08' 23" West, parallel with the South line of said Southeast quarter, a distance of 633.51 feet;

THENCE South 01° 45' 46" West, parallel with the East line of said Southeast quarter, a distance of 180.54 feet;

THENCE South 61° 08' 05" West, a distance of 99.20 feet to the Northeast corner of the CLB Washington Solutions I, LLC parcel described in Exhibit "F", recorded under Auditor's File No. 5550741 AMD, records of said County and the TRUE POINT OF BEGINNING;

THENCE leaving said North line, North 44° 04' 38" West, a distance of 1729.40 feet;

THENCE North 87° 02' 18" West, a distance of 55.03 feet to a point on a 25.00 foot radius curve to the left;

THENCE along said 25.00 foot radius curve to the left (the long chord of which bears South 55° 08' 15" West, a distance of 30.66 feet), an arc distance of 33.01 feet;

THENCE South 17° 18' 48" West, a distance of 13.65 feet to a point on a 44.00 foot radius curve to the left;

THENCE along said 44.00 foot radius curve to the left (the long chord of which bears South 03° 00' 29" West, a distance of 21.74 feet), an arc distance of 21.97 feet;

THENCE South 78° 42' 10" West, a distance of 130.21 feet;

THENCE South 50° 22' 11" West, a distance of 40.78 feet;

THENCE South 37° 37' 52" West, a distance of 102.48 feet;

THENCE South 04° 25' 46" East, a distance of 392.13 feet to a 3/4 inch iron pipe at the Northeast corner of that parcel of land conveyed to Keith Bakker by deed recorded under Auditor's File No. G-646584, records of said County;

THENCE South 33° 49' 02" East, along the East line of said "Bakker" parcel, a distance of 667.95 feet to a

3/4 inch iron pipe, and the Southeast corner thereof;

THENCE South 49° 37' 59" West, along the South line of said "Bakker" parcel, a distance of 353.18 feet, more or less, to the centerline of NE. Ingle Road;

THENCE South 40° 25' 24" East, along said centerline, a distance of 178.15 feet to a point which bears South 06° 18' 14" West from a 1/2 inch iron pipe on an Easterly line of that parcel of land conveyed to James M. Bartmess by instrument recorded under Auditor's File No. 8911140220, records of said County;

THENCE North 06° 18' 14" East, along said Easterly line, a distance of 71.63 feet to said 1/2 inch iron pipe;

THENCE North 86° 45' 59" East, along a Southerly line of said "Bartmess" parcel, a distance of 9.94 feet to the Northwest corner of that parcel land conveyed to Ronald D. Warman and Rhonda Warman, husband and wife, by deed recorded under Auditor's File No. 9004270087, records of said County;

THENCE North 86° 58' 36" East, along the North line of said "Warman" parcel, a distance of 790.14 feet to the Northeast corner thereof, said point also being on the West line of "PARCEL 2" as described in that deed to AE Green Mountain, LLC, recorded under Auditor's File No. 5485415, records of said County;

THENCE North, 02° 04' 33" East, along the West line of said AE Green Mountain, LLC parcel, a distance of 118.49 feet to the Northwest corner thereof;

THENCE South 89° 08' 23" East, along the North line of said AE Green Mountain, LLC parcel, and the North line of said CLB Washington Solutions I, LLC parcel described in Exhibit "F", a distance of 406.50 feet to a point which bears South 61° 08' 05" West, from the TRUE POINT OF BEGINNING;

THENCE North 61° 08' 05" East, a distance of 50.20 to the TRUE POINT OF BEGINNING.

**PARCEL 2:
172341-000**

A parcel of land located in a portion of the Daniel Ollis Donation Land Claim No. 52, and lying within the South half of Section 17, Township 2 North, Range 3 East of the Willamette Meridian in the City of Camas, Clark County, Washington, described as follows:

COMMENCING at the Southeast corner of said Section 17;

THENCE North 01° 45' 46" East, along the East line of said Southeast quarter, a distance of 293.65 feet to the Northeast corner of the CLB Washington Solutions I, LLC parcel described in Exhibit "D", recorded under Auditor's File No. 5550741 AMD, records of said County;

THENCE continuing North 01° 45' 46" East, along said East line, a distance of 1668.35 to the Southeast corner of Lot 12 of the Plat of Mountain Glen, recorded in Book J of Plats, at Page 199, record of said County,

THENCE North 89° 22' 57" West, along the South line of said Lot 12, a distance of 1455.75 feet to a point which bears South 89° 22' 57" East, a distance of 730.30 feet, from the Southwest corner of said Lot 12;

THENCE leaving said South line, South 00° 37' 03" West, a distance of 143.76 feet;

THENCE South 36° 42' 34" West, a distance of 125.00 feet;

THENCE South 53° 17' 26" East, a distance of 70.00 feet;

THENCE South 36° 42' 34" West, a distance of 140.00 feet;

THENCE South 18° 34' 50" East, a distance of 39.26 feet;

THENCE South 50° 06' 38" East, a distance of 120.00 feet;

THENCE South 39° 53' 22" West, a distance of 142.06 feet to a point on a non-tangent 120.00 foot radius curve to the left;

THENCE along said 120.00 foot radius curve to the left (the long chord of which bears North 49° 16' 41" West, a distance of 3.49 feet), an arc distance of 3.49 feet;

THENCE North 50° 06' 38" West, a distance of 23.25 feet;

THENCE South 39° 53' 22" West, a distance of 89.99 feet to the TRUE POINT OF BEGINNING;

THENCE North 50° 06' 00" West, a distance of 145.05 feet;

THENCE North 34° 57' 46" West, a distance of 121.13 feet;

THENCE North 66° 10' 19" East, a distance of 14.62 feet;

THENCE North 55° 02' 14" East, a distance of 75.65 feet;

THENCE North 55° 56' 38" East, a distance of 52.01 feet;

THENCE North 44° 42' 13" East, a distance of 59.80 feet;

THENCE North 36° 42' 34" East, a distance of 16.13 feet;

THENCE North 53° 17' 26" West, a distance of 90.00 feet;

THENCE North 36° 42' 34" East, a distance of 13.20 feet;

THENCE North 53° 17' 26" West, a distance of 142.08 feet;

THENCE South 36° 28' 56" West, a distance of 26.87 feet;

THENCE South 55° 49' 34" West, a distance of 93.89 feet;

THENCE South 81° 42' 47" West, a distance of 59.99 feet;

THENCE North 67° 16' 28" West, a distance of 60.00 feet;

THENCE North 58° 13' 08" West, a distance of 63.70 feet;

THENCE North 44° 16' 44" West, a distance of 46.41 feet;

THENCE North 45° 43' 16" East, a distance of 82.68 feet to a point which bears South 44° 16' 44" East, from the Southwest corner of said Lot 12;

THENCE North 44° 16' 44" West, a distance of 196.68 feet to the Southwest corner of said Lot 12;

THENCE North 01° 45' 46" East, along the West line of said Lot 12, a distance of 256.70 feet to the Southeast corner of Lot 11 of said Plat of Mountain Glen;

THENCE North 89° 22' 57" West, along the South line of said Plat of Mountain Glen, a distance of 930.24 feet to the Northeast corner of that parcel of land conveyed to Lon and Rachele Combs, by deed recorded under Auditor's File No. 4150099 D, records of said County;

THENCE South 44° 04' 35" East, along the Northeasterly line of said "Combs" parcel, a distance of 1131.67 feet to the most Easterly Southeast corner of said "Combs" parcel;

THENCE South 45° 55' 25" West, along the Southeasterly line of said "Combs" parcel, a distance of 254.00 feet to the Southwest corner thereof;

THENCE along the Southwesterly lines of said "Combs" parcel, the following courses:

THENCE North 44° 04' 35" West, a distance of 257.24 feet to an angle point;

THENCE South 45° 55' 25" West, a distance of 60.00 feet to an angle point;

THENCE North 44° 04' 35" West, a distance of 607.89 feet to an angle point;

THENCE South 45° 55' 25" West, a distance of 132.24 feet, more or less, to the centerline of NE. Ingle Road, said point being on a non-tangent 675.00 foot radius curve to the right;

THENCE leaving said "Combs" parcel, along said 675.00 foot radius curve to the right (the long chord of which bears South 26° 56' 02" East, a distance of 55.22 feet), an arc distance of 55.23 feet;

THENCE along the centerline of said NE. Ingle Road, the following courses:

THENCE South 24° 35' 23" East, a distance of 57.61 feet to a point on a 1200.00 foot radius curve to the left;

THENCE along said 1200.00 foot radius curve to the left (the long chord of which bears South 28° 02' 22" East, a distance of 144.41 feet), an arc distance of 144.50 feet;

THENCE South 31° 29' 20" East, a distance of 190.47 feet;

THENCE South 30° 43' 55" East, a distance of 678.85 feet;

THENCE South 29° 58' 13" East, a distance of 238.24 feet to a point which bears South 59° 56' 15" West from a 1/2 inch iron pipe marking the Northwest corner of that parcel of land conveyed to Keith Bakker by deed recorded under Auditor's File No. G-646584, records of said County;

THENCE leaving said centerline, North 59° 56' 15" East, a distance of 21.66 feet to said iron pipe;

THENCE continuing North 59° 56' 15" East, along the North line of said "Bakker" parcel, a distance of 329.81 feet to a 3/4 inch iron pipe and the Northeast corner thereof;

THENCE leaving said "Bakker" parcel, North 04° 25' 46" West, a distance of 392.13 feet;

THENCE North 37° 37' 52" East, a distance of 102.48 feet;

THENCE North 50° 22' 11" East, a distance of 40.78 feet;

THENCE North 78° 42' 10" East, a distance of 130.21 feet to a point on a non-tangent 44.00 foot radius curve to the right;

THENCE along said 44.00 foot radius curve to the left (the long chord of which bears North 03° 00' 29" East, a distance of 21.74 feet), an arc distance of 21.97 feet;

THENCE North 17° 18' 48" East, a distance of 13.65 feet to a point on a 25.00 foot radius curve to the right;

THENCE along said 25.00 foot radius curve to the right (the long chord of which bears North 55° 08' 15" East, a distance of 30.66 feet), an arc distance of 33.01 feet;

THENCE South 87° 02' 18" East, a distance of 55.03 feet to a point which bears North 44° 04' 38" West

from the Northeast corner of the CLB Washington Solutions I, LLC parcel described in Exhibit "F", recorded under Auditor's File No. 5550741 AMD, records of said County;

THENCE South 44° 04' 38" East, a distance of 428.29 feet;

THENCE North 45° 55' 22" East, a distance of 77.48 feet;

THENCE North 22° 23' 48" East, a distance of 156.33 feet;

THENCE North 15° 42' 20" West, a distance of 40.03 feet;

THENCE North 32° 16' 02" West, a distance of 46.58 feet to a point which bears South 50° 06' 00" East, from the TRUE POINT OF BEGINNING;

THENCE North 50° 06' 00" West, a distance of 27.96 feet to the TRUE POINT OF BEGINNING.

**PARCEL 3:
986047280**

A parcel of land located in a portion of the Daniel Ollis Donation Land Claim No. 52, and lying within the Southeast quarter of Section 17, Township 2 North, Range 3 East of the Willamette Meridian in the City of Camas, Clark County, Washington, described as follows:

COMMENCING at the Southeast corner of said Section 17;

THENCE North 01° 45' 46" East, along the East line of said Southeast quarter, a distance of 293.65 feet to the Northeast corner of the CLB Washington Solutions I, LLC parcel described in Exhibit "D", recorded under Auditor's File No. 5550741 AMD, records of said County;

THENCE continuing North 01° 45' 46" East, along said East line, a distance of 1668.35 to the Southeast corner of Lot 12 of the Plat of Mountain Glen, recorded in Book J of Plats, at Page 199, record of said County,

THENCE North 89° 22' 57" West, along the South line of said Lot 12, a distance of 1455.75 feet to a point which bears South 89° 22' 57" East, a distance of 730.30 feet, from the Southwest corner of said Lot 12, said point being the TRUE POINT OF BEGINNING;

THENCE leaving said South line, South 00° 37' 03" West, a distance of 143.76 feet;

THENCE South 36° 42' 34" West, a distance of 125.00 feet;

THENCE South 53° 17' 26" East, a distance of 70.00 feet;

THENCE South 36° 42' 34" West, a distance of 140.00 feet;

THENCE South 18° 34' 50" East, a distance of 39.26 feet;

THENCE South 50° 06' 38" East, a distance of 120.00 feet;

THENCE South 39° 53' 22" West, a distance of 142.06 feet to a point on a non-tangent 120.00 foot radius curve to the left;

THENCE along said 120.00 foot radius curve to the left (the long chord of which bears North 49° 16' 41" West, a distance of 3.49 feet), an arc distance of 3.49 feet;

THENCE North 50° 06' 38" West, a distance of 23.25 feet;

THENCE South 39° 53' 22" West, a distance of 89.99 feet;

THENCE North 50° 06' 00" West, a distance of 145.05 feet;
THENCE North 34° 57' 46" West, a distance of 121.13 feet;
THENCE North 66° 10' 19" East, a distance of 14.62 feet;
THENCE North 55° 02' 14" East, a distance of 75.65 feet;
THENCE North 55° 56' 38" East, a distance of 52.01 feet;
THENCE North 44° 42' 13" East, a distance of 59.80 feet;
THENCE North 36° 42' 34" East, a distance of 16.13 feet;
THENCE North 53° 17' 26" West, a distance of 90.00 feet;
THENCE North 36° 42' 34" East, a distance of 13.20 feet;
THENCE North 53° 17' 26" West, a distance of 142.08 feet;
THENCE South 36° 28' 56" West, a distance of 26.87 feet;
THENCE South 55° 49' 34" West, a distance of 93.89 feet;
THENCE South 81° 42' 47" West, a distance of 59.99 feet;
THENCE North 67° 16' 28" West, a distance of 60.00 feet;
THENCE North 58° 13' 08" West, a distance of 63.70 feet;
THENCE North 44° 16' 44" West, a distance of 46.41 feet;
THENCE North 45° 43' 16" East, a distance of 82.68 feet to a
point which bears South 44° 16' 44" East, from the Southwest corner of
said Lot 12;
THENCE North 44° 16' 44" West, a distance of 196.68 feet to the
Southwest corner of said Lot 12;
THENCE South 89° 22' 57" East, along the South line of said Lot
12, a distance of 730.30 feet to the TRUE POINT OF BEGINNING.

**Parcel 4:
986047279**

A parcel of land located in a portion of the Daniel Ollis Donation Land Claim No. 52, and lying within the Southeast quarter of Section 17, Township 2 North, Range 3 East of the Willamette Meridian in the City of Camas, Clark County, Washington, described as follows:

COMMENCING at the Southeast corner of said Section 17;

THENCE North $01^{\circ} 45' 46''$ East, along the East line of said Southeast quarter, a distance of 293.65 feet to the Northeast corner of the CLB Washington Solutions I, LLC parcel described in Exhibit "D", recorded under Auditor's File No. 5550741 AMD, records of said County, and the TRUE POINT OF BEGINNING;

THENCE along the North line of said Exhibit "D" parcel the following courses:

THENCE North $89^{\circ} 08' 23''$ West, parallel with the South line of said Southeast quarter, a distance of 633.51 feet;

THENCE South $01^{\circ} 45' 46''$ West, parallel with the East line of said Southeast quarter, a distance of 180.54 feet;

THENCE South $61^{\circ} 08' 05''$ West, a distance of 99.20 feet to the Northeast corner of the CLB Washington Solutions I, LLC parcel described in Exhibit "F", recorded under Auditor's File No. 5550741 AMD, records of said County;

THENCE leaving said North line, North $44^{\circ} 04' 38''$ West, a distance of 1301.11 feet;

THENCE North $45^{\circ} 55' 22''$ East, a distance of 77.48 feet;

THENCE North $22^{\circ} 23' 48''$ East, a distance of 156.33 feet;

THENCE North $15^{\circ} 42' 20''$ West, a distance of 40.03 feet;

THENCE North $32^{\circ} 16' 02''$ West, a distance of 46.58 feet;

THENCE North $50^{\circ} 06' 00''$ West, a distance of 27.96 feet;

THENCE North $39^{\circ} 53' 22''$ East, a distance of 89.99 feet;

THENCE South $50^{\circ} 06' 38''$ East, a distance of 23.25 feet to a point on a 120.00 foot radius curve to the right;

THENCE along said 120.00 foot radius curve to the right (the long chord of which bears South $49^{\circ} 16' 41''$ East, a distance of 3.49 feet), an arc distance of 3.49 feet;

THENCE North $39^{\circ} 53' 22''$ East, a distance of 142.06 feet;

THENCE North $50^{\circ} 06' 38''$ West, a distance of 120.00 feet;

THENCE North $18^{\circ} 34' 50''$ West, a distance of 39.26 feet;

THENCE North $36^{\circ} 42' 34''$ East, a distance of 140.00 feet;

THENCE North $53^{\circ} 17' 26''$ West, a distance of 70.00 feet;

THENCE North $36^{\circ} 42' 34''$ East, a distance of 125.00 feet;

THENCE North $00^{\circ} 37' 03''$ East, a distance of 143.76 feet to a point on the South line of Lot 12 of the Plat of Mountain Glen, recorded in Book J of Plats, at Page 199, record of said County, said point bears South $89^{\circ} 22' 57''$ East, a distance of 730.30 feet from the Southwest corner of said Lot 12;

THENCE South $89^{\circ} 22' 57''$ East, along said South line, a distance of 1455.75 feet to a point on the East line of the Southeast quarter of said Section 17;

THENCE South $01^{\circ} 45' 46''$ West, along said East line, a distance of 1668.35 feet to the TRUE POINT OF BEGINNING.

5134733 AGR

RecFee - \$196.00 Pages: 75 - LANDERHOLM
Clark County, WA 01/05/2015 11:23



RETURN ADDRESS

Randall Printz
Landerholm
PO Box 1086
Vancouver, WA. 98666

Please print neatly or type information

Document Title(s)

Development Agreement

Reference Numbers(s) of related documents:

None

Additional Reference #'s on page ____

Grantor(s) (Last, First and Middle Initial)

City of Camas, Green Mountain Land LLC

Additional grantors on page ____

Grantee(s) (Last, First and Middle Initial)

City of Camas, Green Mountain Land LLC

Additional grantees on page ____

Legal Description (abbreviated form: i.e. lot, block plat or section, township, range, quarter/quarter)

Sections 17, 20 and 21 T2N, R3E

Additional legal is on page ____

Assessor's Property Tax Parcel/Account Number

172555-000, 172557-000, 172553-000, 172559-000, 173178-000
172341-000, 171727-000, 171704-000 173165-000

Additional parcel #'s on page ____

The Auditor/Recorder will rely on the information provided on this form. The staff will not read the document to verify the accuracy or completeness of the indexing information provided herein.

I am requesting an emergency nonstandard recording for an additional fee as provided in RCW 36.18.010. I understand that the recording processing requirements may cover up or otherwise obscure some part of the text of the original document.

Stacey Shields
Signature of Requesting Party

After recording, return to:

RANDALL B. PRINTZ
Landerholm, Memovich,
Lansverk & Whitesides, P.S.
P.O. Box 1086
Vancouver, WA 98666-1086

Space Above for Recording Information Only

DEVELOPMENT AGREEMENT

This Development Agreement (the "Agreement") is made and entered into by and between the CITY OF CAMAS, a Washington Municipal Corporation (hereinafter referred to as the "City") and Green Mountain Land LLC (hereinafter referred to as the "Owner") (and collectively referred to as "Parties").

RECITALS

WHEREAS, Owner owns or controls certain real property which is located within the City's municipal boundary and which is more fully described in the attached Exhibit "A", (hereinafter referred to as the "Property"); and,

WHEREAS, the City and the Owner recognize this area will develop over a period of years and wish to provide predictability about the development standards that will apply to the Property over the course of its full development in order to increase efficient use of urban services; provide compatibility amongst the various phases of the Property as they develop; and to allow for substantial environmental review to occur prior to any development, recognizing that Washington's State Environmental Policy Act discourages piecemeal review; and,

WHEREAS, the City is a Washington Municipal Corporation with annexation powers, and land use planning and permitting authority over all land within its corporate limits; and,

WHEREAS, the Washington State Legislature has authorized the execution of Development Agreements between local governments and a person having ownership or control of real property within its jurisdiction pursuant to RCW 36.70B.170(1); and,

WHEREAS, pursuant to RCW 36.70B.170, a Development Agreement may set forth the development standards and other provisions that shall apply to, govern and vest the development, use and mitigation of the development of real property for the duration specified in the agreement; which statute provides:

(1) A local government may enter into a Development Agreement with a person having ownership or control of real property within its jurisdiction. A city may enter into a development agreement for real property outside its boundaries as part of a proposed annexation or a service agreement. A development agreement must set forth the development standards and other provisions that shall apply to and govern and vest the development, use, and mitigation of the development of the real property for the duration specified in the agreement. A development agreement shall be consistent with applicable development regulations adopted by a local government planning under chapter 36.70A RCW; and

WHEREAS, the legislative findings supporting the enactment of this section provide:

The legislature finds that the lack of certainty of the approval of development projects can result in a waste of public and private resources escalate housing costs for consumers and discourage the commitment to comprehensive planning which would make maximum efficient use of resources at the least economic cost to the public. Assurance to a development project applicant that upon government approval the project may proceed in accordance with existing policies and regulations, and subject to conditions of approval, all as set forth in a development agreement, will strengthen the public planning process, encourage private participation and comprehensive planning, and reduce the economic cost of development. Further, the lack of public facilities and services is a serious impediment to development of new housing and commercial uses. Project applicants and local governments may include provisions and agreements whereby applicants are reimbursed over time for financing public facilities. It is the intent of the legislature by RCW 36.70B.170 through 36.70B.210 to allow local governments and owners and developers of real property to enter into development agreements; and

WHEREAS, for the purposes of this Agreement, "Development Standards" includes, but is not limited to, all of the standards listed in RCW 36.70B.170(3); and,

NOW, THEREFORE, THE PARTIES HERETO AGREE AS FOLLOWS:

Section 1. Development Agreement. This Agreement is a Development Agreement to be implemented under the authority of and in accordance with RCW 36.70B.170 through RCW 36.70B.210. It shall become a contract between the Owner and the City upon its

approval by ordinance or resolution following a public hearing as provided for in RCW 36.70B.170; and upon execution by all parties.

Section 2. Term of Agreement. This Agreement shall be valid through December 31, 2029; unless extended or terminated by mutual consent of the Parties; provided however, if this Agreement or any initial land use applications related to the Property and filed within one year of the effective date of this Agreement, are appealed, the term of this Agreement shall be tolled for the time during which the appeal is pending or 18 months, whichever is less.

Section 3. Previous Agreements. The parties agree that the Pre-Annexation Agreement dated May 22, 2008 and recorded under Clark County Auditor's No. 4458438 and the Agreement dated December 21, 2009, between GM Camas LLC and the City, recorded under Clark County Auditor's No. 4636619 are intended to be completely superseded by this by this Agreement with respect to the Property and those agreements will no longer apply to the Property or be binding on the parties.

Section 4. Vesting. Any land use applications submitted with respect to the Property during the term of this Amendment, shall be vested to: (1) the following zoning, land use regulations and Development Standards in effect on the effective date of this Agreement, unless otherwise provided for in this Agreement: CMC title 13 Divisions I, II, and IV; CMC title 14.02.050 and resolution 1193 adopting the 2012 SMMWW; CMC title 16.01-16.21; CMC 16.31; CMC Title 17 and CMC Title 18. Any land use approvals affecting the Property issued after the effective date of this Agreement shall remain in effect during the term of this Agreement, regardless of the time period that they would have otherwise been valid for; provided however, that preliminary plat approvals shall be valid for a period of seven years from the date of the approval, regardless of whether the end of such seven years occurs during or after the term of this Agreement. Nothing in this section shall preclude the City from extending such preliminary plat approval beyond seven years if the City determines such act is appropriate. An archeological pre-determination report shall be required for the project with an application for a Planned Residential Development. The City, based upon review of the archeological predetermination report, may require additional surveys, studies, or mitigation. The City is currently considering amendments to its zoning code that would (a) expressly provide for commercially zoned property to be included in a Planned Residential Development under certain prescribed conditions. While nothing in this Amendment shall be construed as indicating or requiring that the City will adopt such regulations, in the event that the City does adopt such regulations, the Property may be developed utilizing those regulations without waiving any of the rights vested under this Agreement. The vesting provided for under this Agreement shall not apply to System Development Charges, Impact Fees or application or review fees.

Section 5. Master Plan. Attached as Exhibit "B" and incorporated by reference herein, is a Mixed Use Master Plan (Master Plan). The Master Plan will provide the Parties with predictability regarding the future development of the Property including any associated

offsite improvements related to transportation or utilities. Future development of the Property shall be generally consistent with the Master Plan. Planning standards that the Owner may utilize for the Master Plan are provided for in Section 5.6. The property shall be developed with a maximum of 1,300 dwelling units and reserve a net 8.8 acres of undeveloped land for construction of commercial uses within the Urban Village area. At the sole discretion of the City, for each additional full acre of net developed commercial land within the Urban Village area beyond the initial 8.8 acres, an additional residential bonus of 40 units may be granted and applied to the overall property. In no event, shall more than 1400 dwelling units be developed on the Property. It is contemplated by the parties that due to the number of years it will likely take the project to fully build out, changing market conditions, future urban growth boundary expansion considerations and other factors, the parties may wish to revisit some portions of the Master Plan, including raising the maximum number of residential units or commercial square footage. While nothing contained herein shall be construed to obligate either party to amend the Master Plan, it is recognized that future evolution of the City may warrant consideration of such issues.

Section 5.1 SEPA. Pursuant to the State Environmental Policy Act (SEPA), piecemeal environmental review is to be discouraged. As such, the Parties wish for SEPA review to be accomplished as part of the Agreement for as many of the Master Plan's potential adverse environmental impacts as can be reasonably analyzed, based upon current information submitted with this Agreement, including, but not limited to, the conceptual master plan, traffic study, tree analysis, GIS data as to the general presence of wetlands on some portions of the Property, ELS letter addressing off site impacts of storm water to surrounding plant and wetland communities. This may be done under the Consolidated Review provisions of SEPA. The SEPA checklist attendant with this Agreement identifies various potential adverse impacts including transportation, parks, trees, wetlands sewer, water and storm water. The Checklist also identifies a variety of technical reports or information that provides a basis for the proposed mitigation or partial mitigation of these impacts. It is the intent of this Agreement and its attendant SEPA process, to have the City issue a Threshold Determination (as that term is utilized in RCW 43.21C) on the identified impacts of the implementation of the Master Plan. Impacts that are identified at future stages of the development, i.e., Planned Residential Development approval or Preliminary Plat approval, that have been previously analyzed through this or other SEPA processes, shall not be re-analyzed; provided the future identified adverse impacts are substantially similar to and of the same or less intensity as those previously analyzed under this or other SEPA processes. Nothing in this Section shall preclude the City from requesting information on the potential adverse environmental impacts associated with a specific preliminary plat application that have not been previously analyzed as required under the State Environmental Policy Act.

Section 5.2 Parks. The Master Plan includes an extensive park/open space/trail network that can easily be accessed on foot, bike or by auto. This network provides developed and undeveloped areas of active and passive recreation, connected by a trail system that runs throughout the project. Attached as Exhibit "C", which is incorporated by reference

herein, is a parks/open space/trail plan and summary sheet which describes the major components of the recreational network. It is anticipated that, (assuming appropriate amendments are made to the Parks Plan and Park Impact Fee program that provides PIF credits in an amount acceptable to the Owner) future development phases of the Property shall implement the applicable parks/open space/trail portion of the Master Plan, or something substantially similar thereto. The Parties agree that a park in this area that would in whole or in part be Park Impact Fee Creditable. However, as of the date of this Agreement, specificity as to the size of the park or the extent of improvements of the park; or the amount of Park Impact Fee credits that would be available for park land dedication or construction of improvements has not yet been determined. Because of these factors, the Parties agree to work together through the Parks Plan update and Park Impact Fee program update to arrive at an agreement regarding the size and improvements of the park to be created by the Owner and the amount of Park Impact fee Credits that would be issued to the Owner for the construction and dedication of the park.

Section 5.3 Transportation. Kittelson and Associates Transportation Engineers and the City have analyzed the transportation impacts of the full development of the Property as depicted in the Master Plan. The attached analysis includes consideration of the transportation impacts of 1,300 hundred residential units. The Property at full development will increase the existing number of PM peak hour trips on the transportation system by 1,365 trips. Based upon Kittelson's and the City's analysis, the future development of the Property (PRD and Preliminary Plat approval) shall be conditioned upon the mitigation measures and timing of construction as provided for in Exhibit "D", which is attached hereto and incorporated herein. The Property shall be vested during the term of this Agreement with 1,365 PM peak hour and 13,980 average daily trips and no additional off site transportation mitigation or analysis will be required during the term of this Agreement; provided however, that in the event the Owner proposes uses or intensities of uses that would cause the total number of PM Peak or Average Daily trips to exceed the number of trips analyzed as part of this Agreement, then the City may require additional transportation analysis and lawful mitigation. The transportation vesting provided for in this Section shall be subject to the mitigation measures and the timing provided for in Exhibit "D". Some of the transportation improvements (either on Goodwin Road, Ingle Road or off site) may be on the City's Transportation Capital Facility Plan. The Owner or successor in interest to the Property, upon construction of such qualifying transportation improvement, shall receive Transportation Impact Fee Credits, but only if such improvements are eligible for Credits under the City's applicable Capital Facilities Plan and Transportation Impact Fee programs.

Section 5.4 Tree Preservation. The Property has been previously logged and portions cleared for a golf course, but there remain a large number of trees of varying species on the Property. In order to enhance the ability to preserve trees in a predictable manner, the Parties wish to provide a comprehensive tree preservation plan for the future development of the Property, rather than through a piece meal approach whereby tree preservation is determined on a phase by phase basis as the Property develops over many years. In addition to

the preservation of nearly five thousand trees, over 2,000 trees will be planted in conjunction with the development of the property consistent with the City’s landscape requirements. Attached as Exhibit “E”, which is incorporated by reference herein, is a Comprehensive Tree Preservation Plan for the Master Plan. Future development phases of the Property shall implement and be consistent with the Comprehensive Tree Preservation Plan for each tree area identified in Exhibit E, or something substantially similar thereto, as approved by the City. Compliance with the Tree Preservation Plan provided for in Exhibit “E” in a future PRD or other design or application for the development of the Property, will be deemed to satisfy the City’s tree preservation regulations for the project as whole, including CMC 17.19.030. At the time any Preliminary Plat or Site Plan Review application, is applied for, the development applicant shall provide a report from a certified arborist or biologist regarding the health of the trees to remain in the development applied for to assure that no trees will be left standing that will cause an unreasonable risk of harm to future residents of the project.

Section 5.5 Planning Standards. The Parties: in recognizing the critical area constraints on the Property, particularly slopes and wetlands; the desire to reduce impacts to those critical areas; the Property’s variety of different zoning designations, densities and uses; and, the desire to create a neighborhood environment that will offer a variety of housing types that will be functionally integrated through pedestrian, open space and trail connectivity, have created planning standards to enhance the Property’s ability to achieve these and other goals. These standards may be used in addition to those that would otherwise be available through the City’s PRD or density transfer provisions. Attached as Exhibit “F” is a set of these Planning Standards relating to various identified portions of the Conceptual Master Plan that may be used in the development of the property.

Section 5.6 Existing Covenant The parties agree the existing Conservation Covenant, recorded with the Clark County auditor under file #9608010075, shall expire and no longer apply to the Property upon approval of planned Residential Development of the entire property. Such PRD application shall be reviewed in absence of consideration of the covenant, but instead evaluate critical areas based upon current analysis and regulations. Notwithstanding the expiration of the Conservation covenant, the City may, as part of a development review process, require separate conservation covenants to be recorded as part of mitigating any critical or sensitive area impacts.

Section 6 Storm Water Regulations. With respect to Storm water Standards only, during the term of this Agreement the Property shall adhere to and be regulated by the rules and regulations and ordinances that are in effect on the date of this Agreement; specifically, CMC title 14.02.050 and resolution 1193 adopting the 2012 SMMWW. The Parties recognize that there may be opportunities for regional storm water strategies or facilities in the North Lacamas Lake area. The Parties agree to continue to explore with each other and with interested third parties options for regional storm water strategies / facilities in this area.

Section 6.1. The City shall have no liability for any damages or losses suffered by the Owner or the Owner's successors if a federal or state agency takes action that voids, nullifies or preempts the City's agreement to permit vesting under this Agreement. Owner and Owner's successors shall further indemnify and hold harmless the City of Camas from any and all liability, including third party liability, under any applicable state or federal regulations including, but not limited to, the Clean Water Act, for any actual or alleged violation of said regulations arising from the City's agreement to allow the vesting described in this Section 6.1 or in the event said third party or agency challenges the adoption of this Agreement within the applicable timeframes. In such event, the City, in its sole discretion, may require the owner or the owner successors to post a bond in an amount deemed reasonably sufficient to cover all costs and expenses associated with any claim or action for liability as described herein, including reasonable attorney's fees to be incurred by the City in defending any third party claim. Upon notice of any claim or action for liability against City relating to this Section, the City shall timely notify Owner or Owner's successors of their duties for indemnification of the City. Within ten (10) days of such notice, Owner may, at Owner's sole discretion, revoke its vested rights to the City's current storm water standards arising under this section by giving written notice of such revocation to the City. Upon such revocation, the Owner shall have no further liability to the City or obligation to indemnify the City. The Owner may choose to waive the vesting provided for in Section 6, if it notifies the City in writing. In that event, any fully complete development application submitted to the City and relating to the Property, shall vest to the storm water rules and regulations in effect at the time such application is submitted to the City. If the Owner chooses to waive the vesting provided for in Section 6, then all vested rights created in Section 6, shall become null and void, but such choice shall not affect any other provisions of this Agreement.

Section 7 Streetscape. Owner agrees to incorporate into its development application submittal package streetscape standards for primary streets within the Property addressing street specifications, tree spacing and species, sidewalk separation, trash receptacles, benches and other street amenities that will create an inviting, safe passage for not only vehicular but pedestrian traffic. Owner streetscape standards will be consistent with the streetscape standards identified in Exhibit "G" or to the adopted streetscape standards, at the City's sole discretion, at the time of development approval. At the time of application, Owner shall further be required to meet the current City minimum Street standards in CMC 17.19 and the Camas Design Standards Manual.

Section 8 Significant Views. The property includes land (Green Mountain) that is recognized as an important scenic and forested backdrop to Lacamas Lake as viewed from roads and vistas around the lake, which in turn plays a role in defining the City's character. The City's Comprehensive Plan identifies the goal of "preserving the scenic and aesthetic quality of shoreline areas and vistas to the greatest extent possible." The Comprehensive Plan also identifies as a strategies to achieve these goals: establishment and maintenance of a permanent open space network and greenways; and, preserving the visual integrity of the wooded hillsides that provide the backdrop for the City; including the preservation of natural

vegetation, minimizing disruption of soils and slopes, maintaining drainage patterns and encouraging wildlife habitats. As such, any development application under this Amendment shall comply with CMC 16.33 including any necessary mitigation plan, prepared and reviewed in accordance with CMC 16.33. Compliance with this section shall include, but not be limited to, review of any Development Application for consistency with the policies under CMC Section 16.33.010(B) and may be conditioned or denied to mitigate views impacts consistent with CMC Section 16.33.010(B)(4), (5).

Section 9 Golf Course. The parties acknowledge that a portion of the property is currently utilized as a golf course and related uses, subject to a conditional use permit. Nothing contained within this Amendment shall be construed as an indication on the part of the City that such use is prohibited or constrained in any manner and such use may continue after the execution of this Agreement.

Section 10. Remedies. Should a disagreement arise between the City and Developer regarding the interpretation and application of this Agreement, the parties agree to attempt to resolve the disagreement by first meeting and conferring. If such meeting proves unsuccessful to resolve the dispute, the disagreement may be resolved by judicial action filed in the Clark County Superior Court.

Section 11. Performance. Failure by either party at any time to require performance by the other party of any of the provisions hereof shall in no way affect the parties' rights hereunder to enforce the same, nor shall any waiver by a party of the breach hereof be held to be a waiver of any succeeding breach or a waiver of this non-waiver clause.

Section 12. Venue. This Agreement shall be construed in accordance with and, governed by, the laws of the State of Washington. The parties agree to venue in the Superior Court for Clark County, State of Washington, to resolve any disputes that may arise under this Agreement.

Section 13. Severability. If any portion of this Agreement shall be invalid or unenforceable to any extent, the validity of the remaining provisions shall not be affected thereby.

Section 14. Inconsistencies. If any provisions of the Camas Municipal Code are deemed inconsistent with the provisions of this Agreement, the provisions of this Agreement shall prevail.

Section 15. Binding on Successors and Recording. The rights and obligations created by this Agreement are assignable and shall be binding upon and inure to the benefit of Owner, the City, and their respective heirs, successors and assigns. Only Owner and the City or their assigns shall have the right to enforce the terms of this Amendment. This Agreement shall be recorded against the real property indicated on Exhibit "A" with the Clark County Auditor.

Section 16. Recitals. Each of the recitals contained herein are intended to be, and are incorporated as, covenants between the parties and shall be so construed.

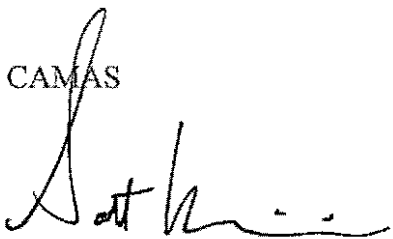
Section 17. Amendments. This Agreement may only be amended by mutual agreement of the parties. Pursuant to RCW 36.70B.170(4), the City reserves the authority to impose new or different regulations to the extent required by a serious threat to public health and safety.

Exhibits:

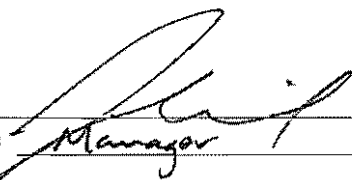
- Exhibit A: Legal Description of Property
- Exhibit B: Master Plan
- Exhibit C: Park Plan
- Exhibit D: Transportation Mitigation
- Exhibit E: Tree Plan
- Exhibit F: Planning Standards
- Exhibit G: Streetscape Standards

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed as of the dates set forth below:

CITY OF CAMAS

By 
 Title Mayor

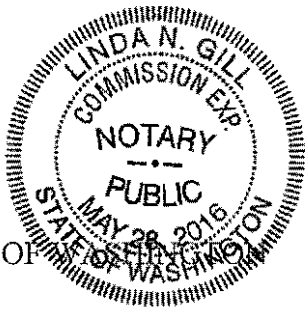
GREEN MOUNTAIN LAND LLC

By 
 Title Manager

STATE OF WASHINGTON)
) ss.
 County of Clark)

I certify that I know or have satisfactory evidence that John O'Neil is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute this instrument and acknowledged it as the Manager of GREEN MOUNTAIN LAND, LLC to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED: December 22, 2014.

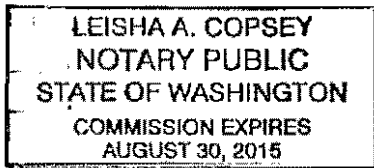


Linda N Gill
NOTARY PUBLIC for the State of Washington,
Residing in the County of Clark
My Commission Expires: 5-28-16

STATE OF _____)
County of Clark) ss.
)

I certify that I know or have satisfactory evidence that Scott Higgins is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute this instrument and acknowledged it as the Mayor of the CITY OF CAMAS, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED: December 16, 2014.



Leisha A Copsey
NOTARY PUBLIC for the State of Washington,
Residing in the County of Clark
My Commission Expires: 8/30/15



LAND SURVEYORS
ENGINEERS

(360) 695-1385
1111 Broadway
Vancouver, WA
98660

EXHIBIT A

LEGAL DESCRIPTION FOR GREEN MOUNTAIN LAND, LLC
PERIMETER

May 27, 2014

A parcel of land in the South half of Section 17, the East half of Section 20, and the West half of Section 21, all in Township 2 North, Range 3 East of the Willamette Meridian in Clark County Washington, described as follows:

BEGINNING at the Northeast corner of the Southeast quarter of said Section 17;

THENCE North 89° 22' 57" West, along the North line of the South half of said Section 17, a distance of 3514.78 feet, more or less, to the centerline of Northeast Ingle Road;

THENCE South 01° 53' 59" West, along said centerline, a distance of 477.58 feet to a point on a 335.00 foot radius curve to the left;

THENCE along said centerline, and along said 335.00 foot radius curve to the left (the long chord of which bears South 19° 58' 22" East, a distance of 249.60 feet), an arc distance of 255.77 feet;

THENCE South 41° 50' 43" East, along said centerline, a distance of 141.81 feet to a 675.00 foot radius curve to the right;

THENCE along said centerline, and along said 675.00 foot radius curve to the right (the long chord of which bears South 33° 13' 03" East, a distance of 202.52 feet), an arc distance of 203.29 feet;

THENCE South 24° 35' 23" East, along said centerline, a distance of 57.61 feet to a point on a 1200.00 foot radius curve to the left;

THENCE along said centerline, and along said 1200.00 foot radius curve to the left (the long chord of which bears South 28° 02' 22" East, a distance of 144.41 feet), an arc distance of 144.50 feet;

THENCE South 31° 29' 20" East, along said centerline, a distance of 190.47 feet;

THENCE South 30° 43' 55" East, along said centerline, a distance of 678.85 feet;



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THENCE South 29° 58' 13" East, along said centerline, a distance of 238.24 feet to a point which bears South 59° 56' 15" West from a 1/2" iron pipe marking the Northwest corner of that parcel of land conveyed to Keith and Gloria Bakker by deed recorded under Auditor's File No. G 646584, records of Clark County;

THENCE leaving said centerline, North 59° 56' 15" East, a distance of 21.66 feet to said iron pipe on the North line of said Bakker parcel;

THENCE continuing North 59° 56' 15" East, along said North line, a distance of 329.81 feet to a 3/4" iron pipe and the Northeast corner thereof;

THENCE South 33° 49' 02" East, along the East line of said Bakker parcel, a distance of 667.95 feet to a 3/4" iron pipe at the Southeast corner thereof;

THENCE South 49° 37' 59" West, along the South line of said Bakker parcel, a distance of 353.18 feet, more or less, to the centerline of Northeast Ingle Road;

THENCE South 40° 25' 24" East, along said centerline, a distance of 178.15 feet to a point which bears South 06° 18' 14" West from a 1/2" iron pipe on an Easterly line of that parcel of land conveyed to James M. Bartness by deed recorded under Auditor's File No. 8911140220, records of Clark County;

THENCE North 06° 18' 14" East, along said Easterly line, a distance of 71.63 feet to said iron pipe and to an angle point;

THENCE North 86° 45' 59" East, along the Southerly line of said Bartness tract, a distance of 9.94 feet to the Northwest corner of that parcel of land conveyed to Ronald and Rhonda Warman by deed recorded under Auditor's File No. 9004270087, records of Clark County;

THENCE North 86° 58' 36" East, along the North line of said Warman parcel, a distance of 790.14 feet to the Northeast corner thereof;

THENCE South 02° 04' 33" West, along the East line of said Warman parcel, a distance of 973.64 feet, more or less to the Northeasterly right-of-way line of Northeast Ingle Road as conveyed to Clark County by deed recorded under Auditor's File No. 4217481 D, said point being 30.00 feet from, when measured perpendicular to, the centerline of said Road;

THENCE South 40° 25' 24" East, along said right-of-way line, a distance of 353.90 feet to a point on a 2030.00 foot radius curve to the right;



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THENCE along said right-of-way, and along said 2030.00 foot radius curve to the right (the long chord of which bears South $37^{\circ} 00' 37''$ East, a distance of 241.71 feet), an arc distance of 241.85 feet;

THENCE South $33^{\circ} 35' 50''$ East, along said right-of-way, a distance of 1043.01 feet to a point on a 830.00 foot radius curve to the right;

THENCE along said right-of-way, and along said 830.00 foot radius curve to the right (the long chord of which bears South $23^{\circ} 12' 47''$ East, a distance of 299.21 feet), an arc distance of 300.85 feet;

THENCE South $12^{\circ} 49' 45''$ East, along said right-of-way, a distance of 392.70 feet to a point on a 770.00 foot radius curve to the left;

THENCE along said right-of-way, and along said 770.00 foot radius curve to the left (the long chord of which bears South $29^{\circ} 32' 51''$ East, a distance of 443.01 feet), an arc distance of 449.36 feet;

THENCE South $46^{\circ} 15' 59''$ East, along said right-of-way, and the Southerly projection thereof, a distance of 39.01 feet, more or less, to a point on the centerline of Northeast Goodwin Road;

THENCE North $43^{\circ} 58' 00''$ East, along said centerline, a distance of 494.48 feet to a point on a 955.00 foot radius curve to the right;

THENCE along said centerline, and along said 955.00 foot radius curve to the right (the long chord of which bears North $56^{\circ} 56' 15''$ East, a distance of 428.71 feet), an arc distance of 432.40 feet;

THENCE North $69^{\circ} 54' 30''$ East, along said centerline, a distance of 354.84 feet to a point on a 955.00 foot radius curve to the right;

THENCE along said centerline, and along said 955.00 foot radius curve to the right (the long chord of which bears North $80^{\circ} 35' 44''$ East, a distance of 354.20 feet), an arc distance of 356.26 feet to a point on the South line of the Northwest quarter of said Section 21;



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THENCE South 88° 43' 02" East, along said South line, a distance of 987.61 feet to the Southeast corner of said Northwest quarter;

THENCE North 01° 27' 15" East, along the East line of said Northwest quarter, a distance of 1314.56 feet to the North line of the South half of the Northwest quarter of said Section 21;

THENCE North 88° 42' 01" West, along said North line, a distance of 1800.91 feet, more or less, to the East line of the T.J. Fletcher Donation Land Claim No. 51;

THENCE North 01° 13' 25" East, along said East line, a distance of 1315.09 feet, more or less, to the North line of the Northwest quarter of said Section 21;

THENCE North 88° 40' 59" West, along said North line, a distance of 830.93 feet to the Northwest corner of said Section 21;

THENCE North 01° 45' 50" East, along the East line of the Southeast quarter of said Section 17, a distance of 2650.46 feet to the POINT OF BEGINNING.

SUBJECT TO county roads.

EXCEPT that parcel conveyed to Green Mountain Resorts, Inc. by deed recorded under Auditor's File No. 9311050364, also known as Mountain Glen Subdivision, recorded in Book "J" of Plats, at Page 199, records of Clark County.

ALSO EXCEPT that parcel of land conveyed to R. Lon and Rachelle Combs, recorded under Auditor's File No. 4150099 D, records of Clark County.




6/27/97


GREEN MOUNTAIN CONCEPTUAL PARK & OPEN SPACE PLAN

CAMAS, WASHINGTON
GREEN MOUNTAIN LAND, LLC. 11/19/14




EXHIBIT C

LEGEND

 PARKS & OPEN SPACE AREAS
(± 89 *)

 CENTRAL COMMUNITY OPEN
SPACE & PARK
(14 AC)

COMMUNITY TRAIL SYSTEM (LOCATION SHOWN IS CONCEPTUAL)

-  REGIONAL TRAIL- TYPICAL EASEMENT WIDTH 24 FEET ** PLUS SWITCHBACK AREAS
8' WIDE AT CENTRAL PARK, PAVED
6' WIDE FLAT UP TO 8% TRAIL GRADE, PAVED
4' WIDE IN STEEP TERRAIN (8% - 16% TRAIL GRADE), COMPACTED GRAVEL
-  T29 / T30 / SU14- TYPICAL EASEMENT WIDTH 24 FEET ** PLUS SWITCHBACK AREAS
6' WIDE FLAT UP TO 8% TRAIL GRADE, COMPACTED GRAVEL
4' WIDE IN STEEP TERRAIN (8% - 16% TRAIL GRADE), COMPACTED GRAVEL
-  NEIGHBORHOOD TRAILS EASEMENTS IN COMMON AREA TRACTS
6' WIDE FLAT UP TO 8% TRAIL GRADE, PAVED
4' WIDE IN STEEP TERRAIN (8% - 16% TRAIL GRADE), COMPACTED GRAVEL

** WHERE NOT ADJACENT TO A PUBLIC RIGHT OF WAY

* DOES NOT INCLUDE POCKET PARKS



Exhibit D

KITTELSON & ASSOCIATES, INC.
 TRANSPORTATION ENGINEERING / PLANNING
 610 SW Alder Street, Suite 700, Portland, OR 97205 503.228.5230 503.273.8169

MEMORANDUM

Date: November 20, 2014 Project #: 13865

To: Curleigh Carothers, P.E.; City of Camas

cc: Ryan Lopossa, P.E.; City of Vancouver
 Jeff Barsness, P.E.; Washington State Department of Transportation
 David Jardin, Clark County
 Randy Printz, Landerholm Law Firm
 John Schmidt and John O'Neil; Green Mountain Land, LLC

From: Chris Brehmer, P.E., Kelly Laustsen, and Ribeka Toda; Kittelson & Associates, Inc.

Project: Green Mountain Master Plan

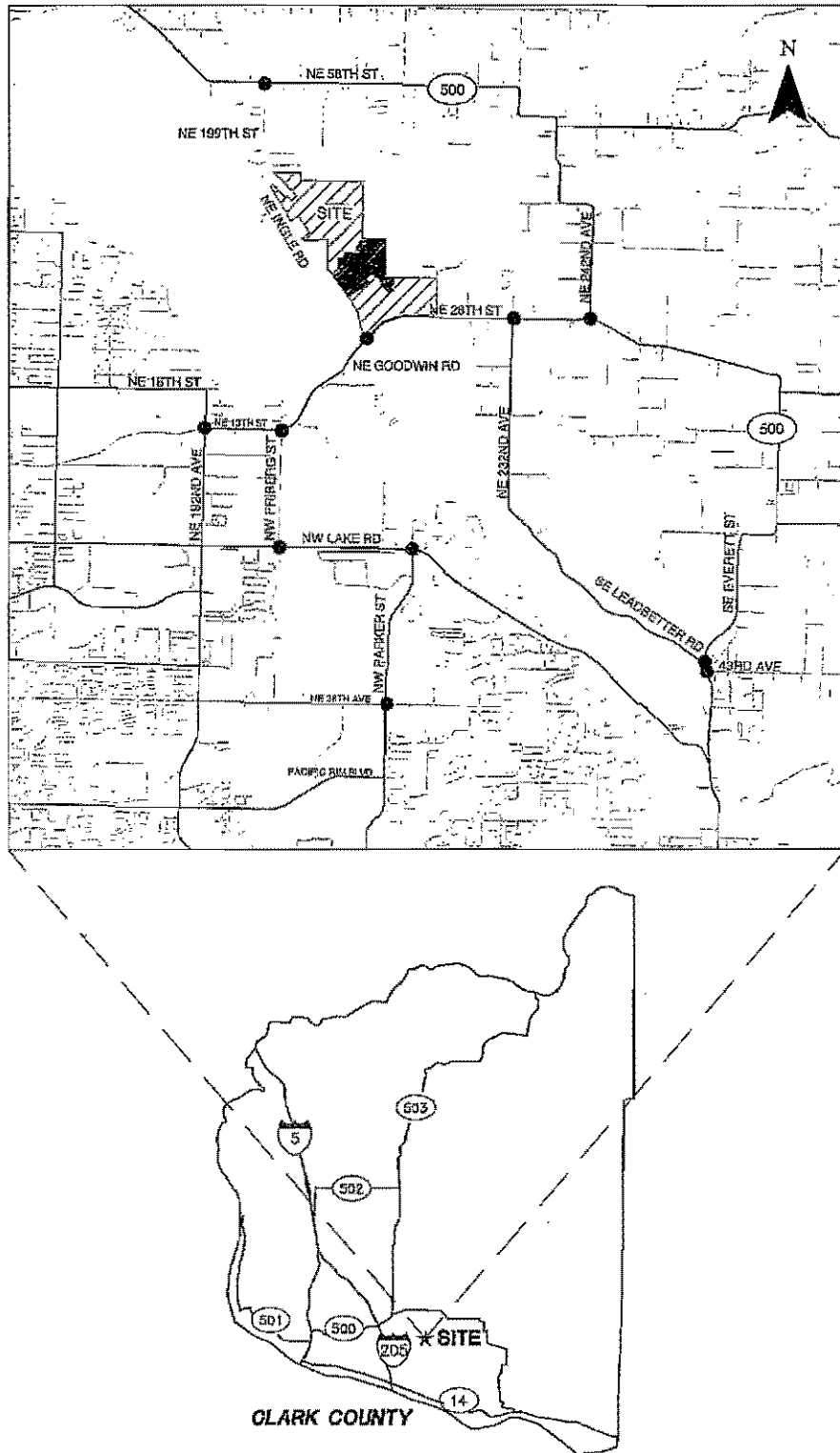
Subject: Transportation Impact Analysis

This memorandum documents the results of the transportation impact analysis prepared by Kittelson & Associates, Inc. (KAI) for the proposed Green Mountain Master Plan development to be located at the northeast corner of NE Ingle Road and NE Goodwin Road in Camas, Washington. This study concludes that Phase 1 of the site can be developed as proposed while maintaining safe and acceptable traffic operations at the study intersections assuming provision of an eastbound left-turn lane on NE Goodwin Road at NE Ingle Road. Further transportation improvements are recommended to accommodate full build-out of the proposed development. The methodology of our analysis, pertinent findings, and our recommendations are documented in this memorandum.

INTRODUCTION

Green Mountain Land, LLC is in the process of preparing a master plan to establish a mixed-use development on the 283-acre site. Green Mountain Golf Course is currently located on a large portion of the property; otherwise the site is vacant. The site is currently zoned for a mix of residential uses (R-10, MF-10 and R-6) and Community Commercial (CC). Figure 1 illustrates the site vicinity map.

The master plan proposes eight phases of development, with the sequence and timing of phases largely market dependent. It is expected that Phase 1 will be completed by 2018 and full master plan build-out will be assumed by 2029 for traffic impact assessment purposes.



● - Study Intersections

Site Vicinity
Camas, Washington

Figure
1

P:\proj\115865 - Green Mountain Master Plan\GIS\GIS15865_raffle_study - Nov update.dwg Nov 20, 2014 - 2:24pm - jhazlam Layout Tab: 1.dwg

Figure 2 illustrates a conceptual image of the master plan site vision. A mix of residential and commercial uses is planned in accordance with the zoning, with a mixed use village proposed to better integrate the commercially zoned portion of the property. The village would be located at the southwest corner of the project and will encompass approximately twenty-four acres. Further project details are provided later in this report.

SCOPE OF THE REPORT

This analysis identifies the transportation-related impacts associated with the proposed Green Mountain Master Plan development and was prepared in accordance with City of Camas transportation impact analysis requirements. The study scope and overall study area for this project were selected based on a review of the local transportation system and direction provided by City of Camas, City of Vancouver, Clark County, and Washington Department of Transportation (WSDOT) staff.

Operational analyses were performed at the following intersections:

- NE 199th Avenue/NE 58th Street (SR 500, WSDOT maintained)
- NE 192nd Avenue/NE 13th Street (City of Vancouver maintained)
- NW Friberg Street/NE Goodwin Road
- NE Ingle Road/NE Goodwin Road
- NE 232nd Avenue/NE 28th Street
- NE 242nd Avenue (SR 500)/NE 28th Street (WSDOT maintained)
- NW Friberg Street/NW Lake Road
- NW Parker Street/NW Lake Road
- NE Everett Street (SR 500)/SE Leadbetter Road
- NW Parker Street/NE 38th Avenue
- NE Everett Street (SR 500)/NE 43rd Avenue (WSDOT maintained)
- Site-Access Driveways

GREEN MOUNTAIN

CONCEPTUAL MASTER PLAN FOR A MIXED USE PRD

CAMAS, WASHINGTON
GREEN MOUNTAIN LAND, LLC. 11/19/14

EXHIBIT B

TOTAL SITE AREA 283.3 AC

SITE AREA TABLE

R10 ZONE	119.7 AC
R6 ZONE	54.8 AC
MP10 ZONE	93.0 AC
CC ZONE	15.8 AC

RESIDENTIAL DENSITY CALCULATION

R-10	119.7	50-427 ADUS - 518 UNITS
R-6	54.8	227 ADUS - 308 UNITS
MP-10	93.0	97 ADUS - 930 UNITS
TOTAL		1844 UNITS

DENSITY TABLE

POD	ACRES	APPROXIMATE LOT SIZE RANGE	MAXIMUM UNITS/LOTS
A	12.2 (A1-A3)	HD	219
B	15.5 (B1-B5)	1000-3000	217
C	11.9 (C1-C3)	3000-5000	93
D	41.3 (D1-D6)	4000-6000	309
E	26.5 (E1-E6)	4200-7200	172
F	28.6 (F1-F4)	5250-9000	157
G	30.0 (G1)*	15,000-40,000	31
H	15.4 (H)		100
TOTALS	181.4 AC		1300

*4% OF G (TOTAL 10 ACRES) TO BE PRESERVED OPEN SPACE

PARK & OPEN SPACE	85.3 ± AC
NEIGHBORHOOD CIRCULATOR	8.2 ± AC
ARTERIAL & COLLECTOR FRONTAGE DEDICATION (ROADWAY & INGLE)	1.8 ± AC

--- URBAN VILLAGE AREA (H, A1, A2, A3, B5)
A COMMERCIAL, MIXED USE AND RESIDENTIAL COMMUNITY CENTER (13.5 AC CROSS, 31.2 AC NET)

CIRCULATION COMPONENTS

- ARTERIAL
 - COLLECTOR
 - NEIGHBORHOOD CIRCULATOR
 - NEIGHBORHOOD CONNECTOR
 - COMMUNITY ENTRIES & ACCESS POINTS
- NOTE:
The plan is for a conceptual master plan and is not intended to be used for construction. It is intended to be used for planning and design purposes only. The plan is subject to change without notice.



MASTER PLAN BY WESTERN PLANNING ASSOCIATES, INC.
BASED & TOPOGRAPHY FROM OLSON ENGINEERING
WETLAND SURVEY BY ECOLOGICAL LAND SERVICES (IN PROCESS)

Plan provided by Western
Planning Associates,
11/19/14

Conceptual Master Plan
Camas, Washington

Figure
2

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As required by the City of Camas, a transportation impact study was prepared to address the following transportation issues:

- Year 2014 existing land use and transportation system conditions within the site vicinity during the weekday a.m. and p.m. peak hours;
- Planned developments and transportation improvements in the study area;
- Trip generation and distribution estimates for the proposed development;
- Forecast year 2018 background traffic conditions without the proposed development during the weekday a.m. and p.m. peak hours;
- Forecast year 2018 total traffic conditions with the completion of Phase 1 of the proposed development during the weekday a.m. and p.m. peak hours;
- Forecast year 2029 background traffic conditions without the proposed development during the weekday a.m. and p.m. peak hours;
- Forecast year 2029 total traffic conditions with full build-out and occupancy of the proposed development during the weekday a.m. and p.m. peak hours;
- Level of service analyses for the study intersections; and
- On-site access and circulation.

Conclusions and recommendations are provided following the operational analysis.

ANALYSIS METHODOLOGY

All level of service analyses described in this report were performed in accordance with the procedures stated in the *2000 Highway Capacity Manual* (Reference 1). A description of level of service and the criteria by which they are determined is presented in *Appendix "A"*. *Appendix "A"* also indicates how level of service is measured and what is generally considered the acceptable range of level of service.

To ensure that this analysis was based on a reasonable worst-case scenario, the peak 15 minute flow rate during the peak hour analysis periods was used in the evaluation of all intersection levels of service. For this reason, the analysis reflects conditions that are only likely to occur for 15 minutes out of each average peak hour. Traffic conditions during other weekday hours and throughout the weekend will likely be better than those described in this report.

At the City of Vancouver-maintained NE 192nd Avenue/NE 13th Street intersection, the peak 15-minute flow rate was assessed by applying the peak 15-minute volume across the hour and not applying a peak hour factor in accordance with guidance provided by the City.

Operating Standards

The study intersections are each operated and maintained by one of three impacted jurisdictions: WSDOT, the City of Vancouver, or the City of Camas. Each of these jurisdictions has their own operating standards. WSDOT requires LOS "E" or better for non-HSS (Highways of Statewide Significance) in urban areas, City of Vancouver requires LOS "E" or better and a v/c ratio of less than 0.95 for signalized intersections. The City of Camas requires LOS "D" or better and a v/c ratio of 0.90 or better for all intersections. Table 1 lists the study intersections, the responsible jurisdiction, and the corresponding operating standard.

Table 1: Operating Standards at Study Intersections

ID	Study Intersection	Jurisdiction	Standard
1	NE 199 th Avenue/NE 58 th Street (SR 500)	WSDOT	LOS "C" for non-HSS in rural area ¹
2	NE 192 nd Avenue/NE 13 th Street	Vancouver	LOS "E" and v/c ratio less than 0.95
3	NW Friberg Street/NE Goodwin Road	Camas	LOS "D" and v/c of 0.90 or better
4	NE Ingle Road/NE Goodwin Road	Camas	LOS "D" and v/c of 0.90 or better
5	NE 232 nd Avenue/NE 28 th Street	Camas	LOS "D" and v/c of 0.90 or better
6	NE 242 nd Avenue (SR 500)/NE 28 th Street	WSDOT	LOS "C" for non-HSS in rural area ¹
7	NW Friberg Street/NW Lake Road	Camas	LOS "D" and v/c of 0.90 or better
8	NW Parker Street/NW Lake Road	Camas	LOS "D" and v/c of 0.90 or better
9	NE Everett Street (SR 500)/SE Leadbetter Road	WSDOT	LOS "C" for non-HSS in rural area ¹
10	NW Parker Street/NE 38 th Avenue	Camas	LOS "D" and v/c of 0.90 or better
11	NE Everett Street (SR 500)/NE 43 rd Avenue	WSDOT	LOS "C" for non-HSS in rural area ¹

¹The City of Camas TIF Update applied the WSDOT standard for facilities in urban areas (LOS "E" for non-HSS in urban area). Based on conversations with WSDOT, the standard for rural areas is currently applicable to the WSDOT study intersections.

Source: City of Camas Traffic Impact Fee Update (Reference 2)

Turn Lane Guidelines

For roadways under Washington State jurisdiction, such as SR 500, WSDOT has defined traffic-volume based turn lane guidelines within the *WSDOT Design Manual* (Reference 3). Left-turn lane guidelines are provided in section 1310.04(2)(a) while right-turn lane guidelines are provided in section 1310.04(3).

EXISTING CONDITIONS

The existing conditions analysis identifies site conditions and the current operational and geometric characteristics of roadways within the study area. These conditions will be compared with future conditions later in this report.

The site of the proposed development and surrounding study area was visited and inventoried in March 2014. At that time, information was collected regarding site conditions, adjacent land uses, existing traffic operations, and transportation facilities in the study area.

Site Conditions and Adjacent Land Uses

The area encompassed by the master plan site is largely undeveloped. The southwest corner of the property is occupied by the Green Mountain Golf Course, a portion of which is proposed to remain open after completion of the Phase 1 master plan development. The areas surrounding the site are also largely undeveloped, with a few single family homes situated along NE 28th Street, NE 199th Avenue, and SR 500.

Transportation Facilities

Table 2 provides a summary of key transportation facilities in the site vicinity and Figure 3 illustrates the existing lane configurations and traffic control devices at the study intersections.

Table 2: Existing Transportation Facilities and Roadway Designations

Roadway	Classification	Cross-Section	Speed Limit (mph)	Side-Walks?	Bicycle Lanes?	Median?	On-Street Parking?
NE 13 th Street / NE Goodwin Road / NE 28 th Street	Arterial	5-lane	40	Yes	Yes	Yes	None
SR 500	Non-HSS ²	2-lane	50	None	None	None	None
NE Ingle Road / NE 199 th Avenue	Collector	2-lane	50	None	None	None	None
NE 192 nd Avenue	Arterial	2-lane	40	Partial	None	None	None
SE 192 nd Avenue	Arterial	5-lane	40	Partial	None	None	None
NW Friberg Street / NE 202 nd Avenue	Arterial	2-lane	40	Partial	None	None	None
SE 1 st Street / NW Lake Road	Arterial	5-lane	40	Yes	Yes	Yes	None
NW Parker Street	Arterial	5-lane	35	Yes	Yes	None	None
NE Everett Road	Arterial	2-lane	35	None	None	None	None
NW Pacific Rim Blvd./ SE 34 th Street	Arterial	5-lane	40	Yes	None	Yes	None

¹ Source: City of Camas Traffic Impact Fee Update (Reference 2)² HSS = Highways of Statewide Significance

Pedestrian and Bicycle Facilities

Neither sidewalks nor striped bicycle facilities are provided in the vicinity of the site on either NE Ingle Road or NE Goodwin Road/NE 28th Street.

Transit Facilities

The C-Tran *Camas Connector* Dial-A-Ride service currently operates within a portion of the study area, with a northern boundary of Lake Road, western boundary of Parker Street, and eastern boundary of SR 500. This service operates by accepting telephone calls from riders to be taken to a location inside a defined boundary. The hours of operation are Monday through Friday from 5:30 a.m. to 9:15 a.m. and 2:00 p.m. to 7:00 p.m. No service is available on holidays (Reference 4).

Crash Analysis

The crash histories of the study intersections were reviewed in an effort to identify potential intersection safety issues. Crash records were obtained from WSDOT. The data represents records between January 1, 2008 and November 30, 2013. The crash rate was calculated to determine the number of crashes per million entering vehicles (MEV). Generally speaking, a crash rate greater than 1.0 crashes per MEV suggests locations where crash patterns should be reviewed in greater detail.

A brief discussion of the crash data at key intersections is presented after Table 3. There were no fatalities reported at the study intersections during the time periods studied. *Appendix "B" contains the crash data.*

As shown in Table 3, the two intersections where the highest crash rates were observed were NE 199th Avenue/NE 58th Street and NE Ingle Road/NE Goodwin Road. At all other intersections, the observed crash rates are well below 1.0 crash per million entering vehicles.

Table 3: Intersection Crash Histories (1/1/2008 - 11/30/2013)

Intersection	Total	Collision Type						Severity		Crash Rate Crashes/ MEV ¹
		Rear End	Turn ing	Angle	Pedes- trian	Fixed Object	Road way Ditch	PDD ¹	Injury	
1. NE 199 th Ave / NE 58 th St (SR 500)	7	0	0	4	0	3	0	5	2	0.57
2. NE 192 nd Ave / NE 13 th St	8	1	6	0	0	1	0	4	4	0.27
3. NE Friberg St / NE Goodwin Rd	5	1	3	1	0	0	0	3	2	0.32
4. NE Ingle Rd / NE Goodwin Rd	16	4	0	5	1	4	2	11	5	1.03
5. NE 232 nd Ave / NE 28 th St	3	0	0	1	0	2	0	2	1	0.25
6. NE 242 nd Ave (SR 500) / NE 28 th St	4	0	0	2	0	1	1	2	2	0.30
7. NW Friberg St / NW Lake Rd	6	3	0	1	0	2	0	6	0	0.24
8. NW Parker St / NW Lake Rd	3	0	1	0	0	2	0	3	0	0.12
9. NE Everett St (SR 500) / SE Leadbetter Rd	5	0	0	0	0	3	2	2	3	0.54
10. NW Parker St / NE 35 th Ave	9	0	5	4	0	0	0	6	3	0.29
11. NE Everett St (SR 500) / NE 43 rd Ave	7	1	5	0	0	1	0	3	4	0.36

¹ PDD = Property Damage Only | ² MEV = Million Entering Vehicles

NE 199th Avenue/NE 58th Street (SR 500)

The second highest crash rate, 0.57, occurs at the intersection of NE 199th Avenue/NE 58th Street. There have been seven reported collisions, including four angle collisions and three fixed-object collisions at this intersection. The crash data was reviewed in an effort to identify potential trends. Three of the angle crashes involved vehicles making a northbound left turn from NE 199th Avenue to NE 58th Street; another involved an eastbound vehicle turning right from NE 58th Street to NE 199th Avenue. Of the three fixed object collisions, two involved utility poles and one involved a domestic animal. Collisions with domestic animals are challenging to eliminate and one of the collisions with the utility poles involved a driver asleep at the wheel. Four of the seven crashes occurred during wet road surface conditions. Given the relatively low number of reported collisions

and the unusual nature of three of the seven collisions (the three fixed-object collisions), there are no safety-based mitigation measures recommended at this intersection at this time in conjunction with site development. If an eastbound right-turn lane is added to the intersection in the future (which is currently warranted as will be described later in this report), it may provide safety benefits.

NE Ingle Road/NE Goodwin Road

The highest crash rate, 1.03, occurs at the intersection of NE Ingle Road/NE Goodwin Road. There have been reported collisions including 4 four rear-end collisions, 5 five angle collisions, 4 fixed-object collisions (involving a utility pole, a mailbox, a boulder, and a wood sign post), 2 roadway ditch collisions, and a pedestrian collision at this intersection. As discussed later in this report, the Green Mountain Master Plan proposes to construct an exclusive eastbound left-turn lane on NE Goodwin Road at NE Ingle Road in conjunction with the Phase 1 site development. Providing an eastbound left-turn lane and potential related reconfiguration of the southbound stop bar location (refer to sight distance discussion below) in conjunction with Phase 1 site development could provide a safety benefit at this intersection.

Two of the angle collisions involved vehicles exceeding reasonably safe speeds while making a westbound right-turn at the intersection. One of the recommended mitigation measures for the 2029 full build-out scenario of the proposed development is the addition of a westbound right-turn lane at this intersection, which could provide a safety benefit for turning vehicles. Additional long-term mitigation measures anticipated in conjunction with site development include constructing a three-lane roadway section on NE Goodwin Road along the site frontage and signaling the intersection when warranted.

Intersection Sight Distance

Intersection sight distance was observed at the study intersections and was found to meet applicable city or WSDOT standards, with the exception of the sight distance at the NE Ingle Road/NE Goodwin Road intersection. As shown in Exhibit 1 below, the stop bar on NE Ingle Road is set back approximately 25 feet from the edge of NE Goodwin Road.

Exhibit 1: Stop Bar on NE Ingle Road at NE Goodwin Road

Image source: Google Maps (right image)

As indicated in Exhibit 2, vehicles currently pull past the stop bar to obtain sufficient sight distance to then execute a turning maneuver. Regardless of the proposed site development, we recommend that the City of Camas consider potential improvements to enhance the intersection sight distance, such as relocating the stop bar closer to NE Goodwin Road.

Exhibit 2: Vehicle Waiting to Make Left-Turn from NE Ingle Road to NE Goodwin Road**Existing Traffic Operations**

Manual turning-movement counts were conducted at the study intersections in March and April 2014. The counts were conducted on a typical mid-week day during the morning peak period (7:00 to 9:00 a.m.) and the evening peak period (4:00 to 6:00 p.m.) per City requirements. Individual Intersection peak hours were then identified for operational analysis purposes.

Figures 4 and 5 provide a summary of the existing turning-movement counts, which are rounded to the nearest five vehicles per hour for the weekday a.m. and p.m. peak hours, respectively. *Appendix "C" contains the traffic count worksheets used in this study.*

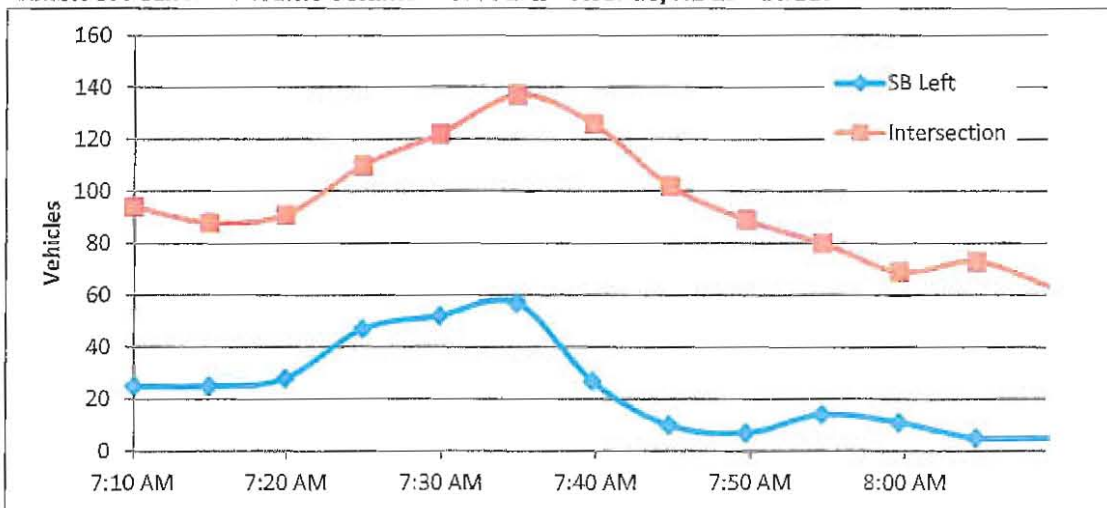
As shown in Figures 4 and 5, the study intersections operate acceptably during both study periods. *Appendix "D" contains the existing conditions traffic operations worksheets.*

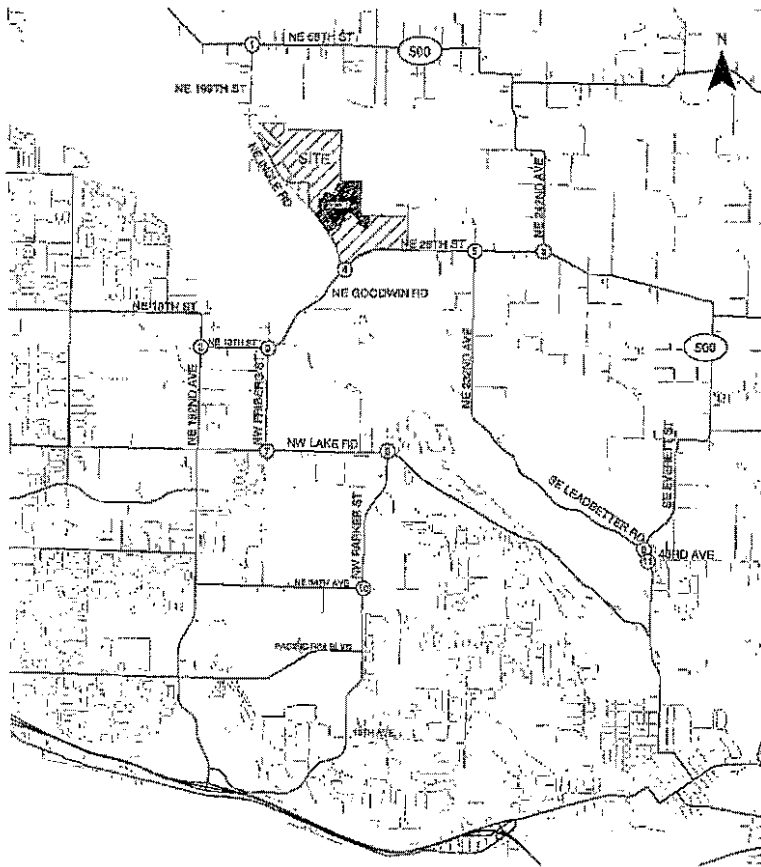
Operations at NE 192nd Avenue / NE 13th Street

As noted in the "Analysis Methodology" section, analysis of the City of Vancouver-maintained NE 192nd Avenue/NE 13th Street intersection involved application of the peak 15-minute flow rate across the hour and not applying a peak hour factor. This analysis methodology is in accordance with guidance provided by the City.

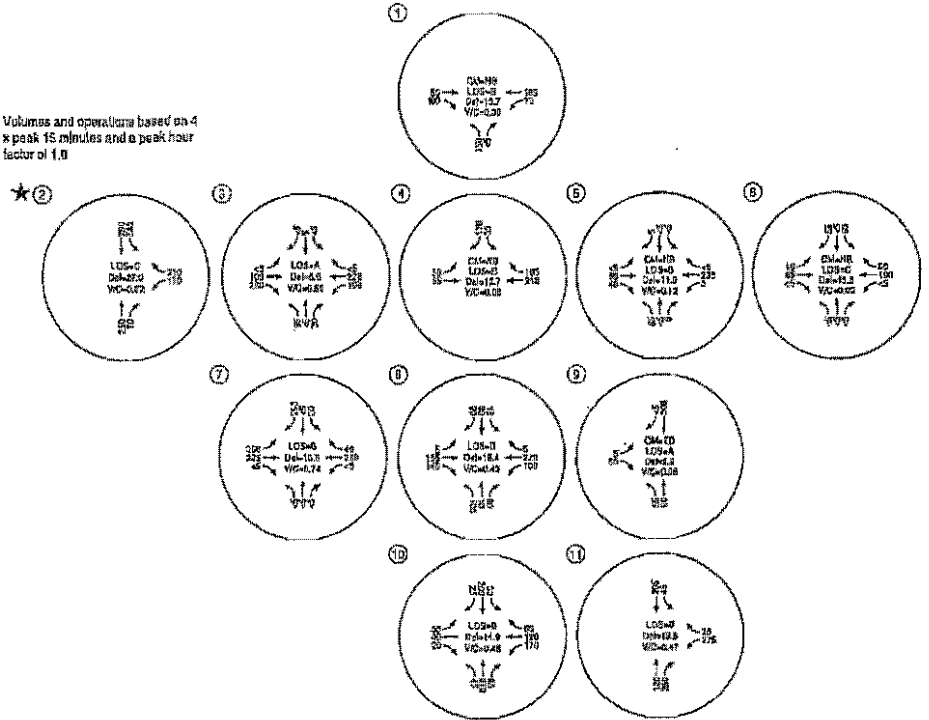
During the weekday AM peak hour, significant peaking occurs at the intersection related to vehicles accessing Union High School on NW Friberg Street. In particular, the southbound left-turning volume peaks in advance of the school start at 7:45 AM, as shown in Exhibit 3. During this "peak of the peak" period, queueing for the southbound left-turn lane sometimes exceeds the available striped storage (approximately 160 feet). Based on field observation, heightened delays and queueing for the southbound left-turn movement are contained to about fifteen minutes in advance of the school start, during which time some southbound left-turning vehicles do not clear through the intersection during each cycle. After this time, volumes decrease significantly and left-turning vehicles consistently clear through the intersection in a single cycle.

Exhibit 3: Peak Hour Traffic Volumes at NE 192nd Avenue/NE 13th Street





★ Volumes and operations based on 4
 * peak 15 minutes and a peak hour
 factor of 1.0



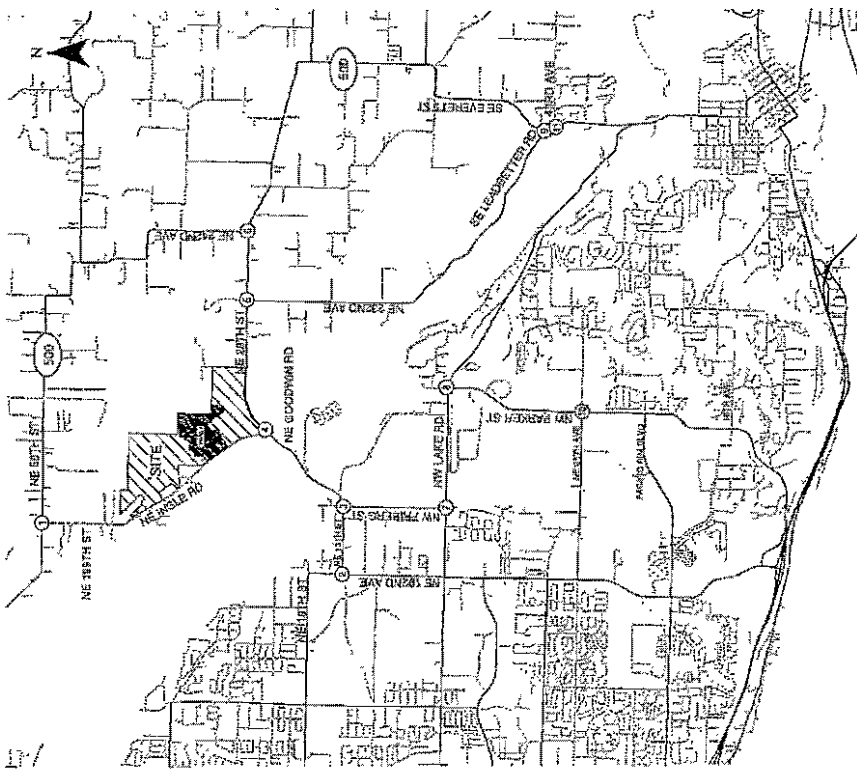
- DM -- CRITICAL MOVEMENT (TWOC)
- LOS c -- INTERSECTION LEVEL OF SERVICE (SIG)/CRITICAL MOVEMENT LEVEL OF SERVICE (TWOC)
- Vol -- INTERSECTION AVERAGE CONTROL DELAY (SIG)/CRITICAL MOVEMENT CONTROL DELAY (TWOC)
- V/C -- CRITICAL VOLUME-TO-CAPACITY RATIO
- TWOC -- TWO-WAY STOP CONTROL

Existing Intersection Operations
 Weekday AM Peak Hour
 Camas, Washington

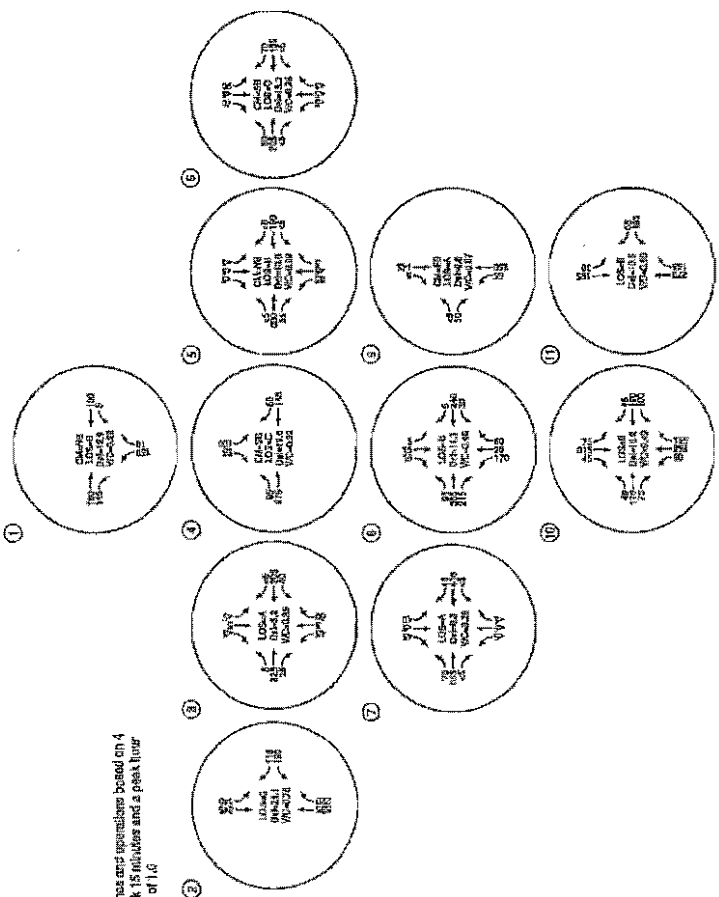
Figure
 4

November 2014

Green Mountain Master Plan



★ Volumes are operations based on 4 x peak 15 minutes and a peak hour factor of 1.6



Existing Intersection Operations
Weekday PM Peak Hour
Camas, Washington
Figure 5

CA = CRITICAL MOVEMENT (TWOC)
 LA = INTERSECTION LEVEL OF SERVICE (LOS) / CRITICAL MOVEMENT
 LE = LEVEL OF SERVICE (TWOC)
 DE = DEVELOPMENT TYPE
 DI = DEVELOPMENT TYPE
 MD = MOVEMENT CONTROL (LAWY TRUCK)
 TWOC = TRUCKWAY STOP CONTROL
 TWOC = TRUCKWAY STOP CONTROL

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERS/PLANNERS

TRAFFIC IMPACT ANALYSIS

The traffic impact analysis identifies how the study area's transportation system will operate upon phased build-out of the proposed master plan site. A horizon year of 2018 was selected to assess conditions with build-out of Phase 1 while a 15-year 2029 horizon year was assumed for site build-out. The impact of site-generated weekday a.m. and p.m. peak hour trips was examined as follows:

- Planned developments and transportation improvements in the study area were identified and accounted for;
- Trip generation and distribution estimates for the proposed development were prepared for Phase 1 and full build-out of the proposed development;
- Forecast year 2018 background traffic conditions without the proposed development were analyzed at the study intersections;
- Forecast year 2018 total traffic conditions with completion of Phase 1 of the proposed development were analyzed at the study intersections;
- Forecast year 2029 background traffic conditions without the proposed development were analyzed at the study intersections;
- Forecast year 2029 total traffic conditions with full build-out and occupancy of the proposed development were analyzed at the study intersections; and
- On-site circulation and site-access operations were evaluated.

Proposed Development Plan

Green Mountain Land, LLC is proposing to master plan the 283-acre site with mixed-use development. Green Mountain Golf Course is currently located on a large portion of the master plan property. We understand that a portion of the existing Green Mountain Golf Course may remain temporarily available for use after completion of Phase 1 site development and that, ultimately, the golf course will be closed prior to full master plan build-out. No effort has been made to account for "credit" for existing trips to and from the golf course for the purposes of this transportation impact analysis report.

The master plan proposes eight phases of development, with the sequence and timing of phases to be finalized pending market conditions. It is expected that Phase 1 will be completed by 2018 and full master plan build-out is assumed by 2029 for traffic impact assessment purposes. A mix of residential and commercial uses is planned in accordance with the zoning, with a mixed use village proposed to better integrate the commercially zoned portion of the property. The application seeks

approval of an overlay zone for a portion of the site intended for an urban village. The village would be located at the southwest corner of the project and will encompass approximately twenty-four acres.

For traffic impact study purposes, Phase 1 is assumed to consist of a residential component with 215 single-family detached homes. Full build-out of the master plan residential component assumed construction of up to 536 apartment units and 764 single-family detached homes. The retail portion of the proposed development plan was assumed to develop after Phase 1 and was assumed to be a 90,000 square-foot shopping center for trip generation purposes¹.

Access to Phase 1 development is anticipated along NE Ingle Road, with additional access added to NE Goodwin Road during later stages of the development. Final details of the number and location of site access points will be defined during preparation of individual site plan applications, therefore appropriate planning level assumptions have been made for master planning purposes. The proposed master plan anticipates two public street neighborhood circulator connections to NE Goodwin Road serving the site in conjunction with two public street neighborhood circulator connections along NE Ingle Road. The commercial site is expected to have direct driveway access to NE Ingle Road. Some residential areas (not individual residence driveways) not served by the anticipated neighborhood circulator facilities may also seek direct access to NE Ingle Road or NE Goodwin Road as appropriate.

Trip Generation

Trip generation estimates for the proposed development were generated based on information provided in the standard reference manual *Trip Generation, 9th Edition* published by the Institute of Transportation Engineers (ITE – Reference 7). The internal and pass-by trip rates applied to each land use were also determined from ITE's *Trip Generation, 9th Edition*. Table 4 summarizes the daily, weekday a.m., and weekday p.m. peak-hour trips for the Phase 1 assumed development while Table 5 summarizes the complete master plan site trip generation estimate. All daily trips have been rounded to the nearest ten and all peak hour trips have been rounded to the nearest five trips.

¹ The unit mix for phase 1 and buildout was developed based on a reasonable worst-case scenario. Final development may result in a less-intense mix of residential units.

Table 4: Trip Generation Estimate – Phase 1

Land Use	ITE Code	Size	Daily	Weekday AM Peak Hour			Weekday PM Peak Hour		
				Total	In	Out	Total	In	Out
Single-Family Detached Housing	210	215 units	2,050	160	40	120	215	135	80

Table 5: Trip Generation Estimate – Build-out (Includes Phase 1)

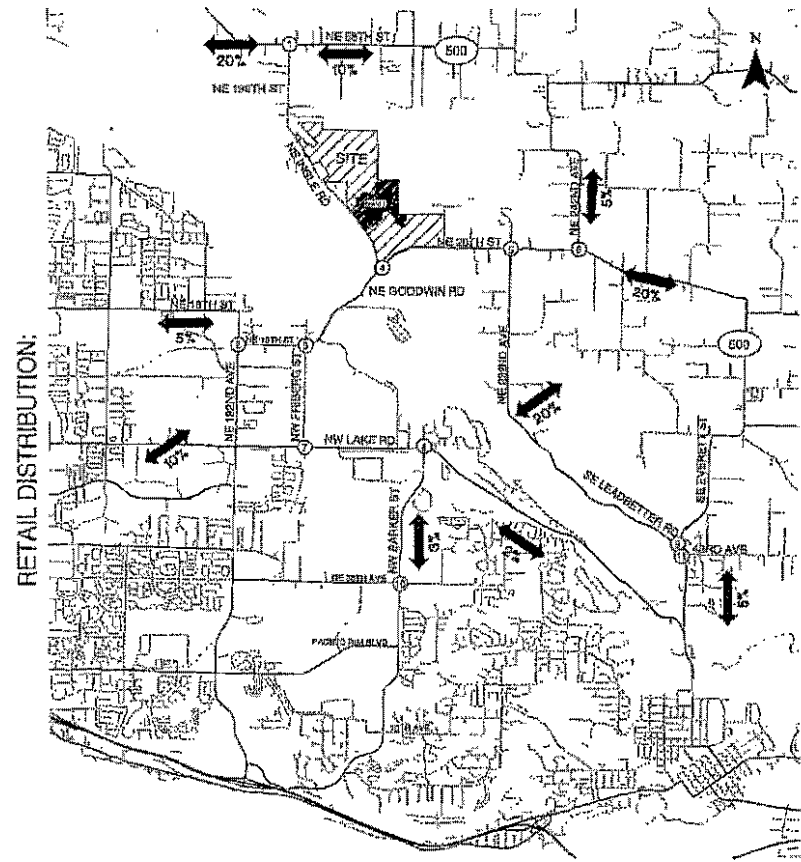
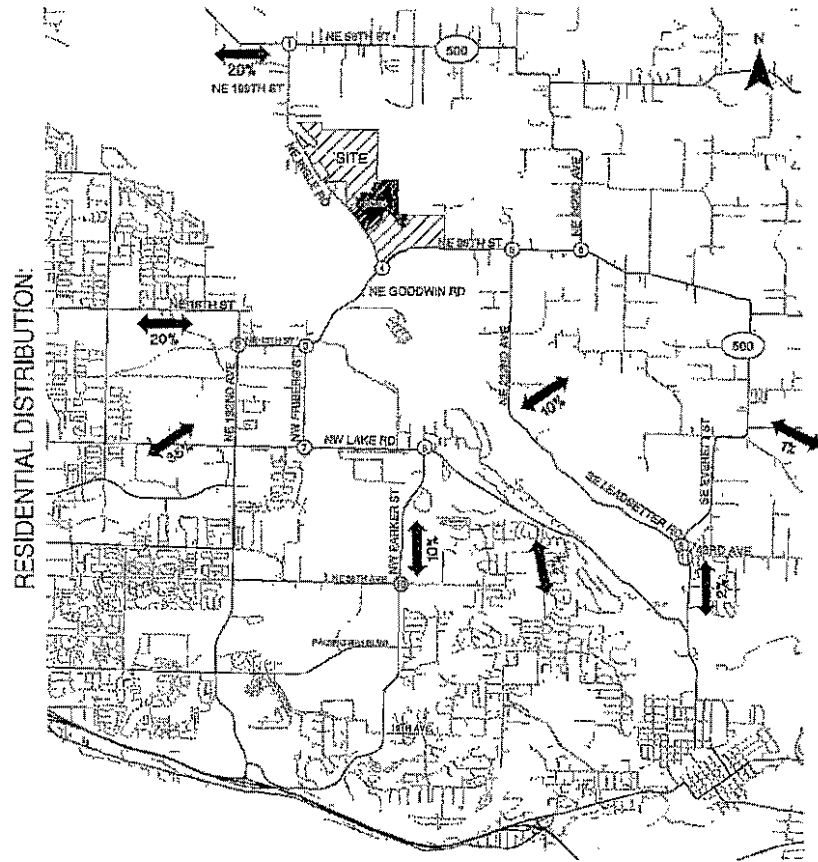
Land Use	ITE Code	Size	Daily	Weekday AM Peak Hour			Weekday PM Peak Hour			
				Total	In	Out	Total	In	Out	
Apartment	220	536 units	3,570	275	55	220	330	215	115	
Single-Family Detached Housing	210	764 units	7,270	575	145	430	765	480	285	
Total Residential (1,300 units)			10,840	850	200	650	1,095	695	400	
<i>Internalization (6% Daily, 5% PM)</i>			630	0	0	0	60	30	30	
Shopping Center	820	90,000 square feet	6,340	145	90	55	560	270	290	
<i>Internalization (10% Daily, 11% PM)</i>			630	0	0	0	60	30	30	
<i>Pass-By Trips (34%)</i>			1,940	50	25	25	170	85	85	
Total Trips			17,180	995	290	705	1,655	965	690	
<i>Less Internalization</i>			<i>1,260</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>120</i>	<i>60</i>	<i>60</i>	
<i>Less Pass-by trips</i>			<i>1,940</i>	<i>50</i>	<i>25</i>	<i>25</i>	<i>170</i>	<i>85</i>	<i>85</i>	
Net New Trips for Full Build-out			13,980	945	265	680	1,365	820	545	

Trip Distribution

The distribution of site-generated trips onto the study area roadway system was estimated based on a review of surrounding roadway characteristics, existing uses, the 2035 travel demand model maintained by the Southwest Washington Regional Transportation Council (RTC), and review agency guidance. Trip distribution patterns were developed separately for the residential and retail trips. Figure 6 illustrates the trip distribution patterns for the residential and retail trips.

Trip Assignment

The weekday a.m. and p.m. peak hour site trips shown in Tables 4 and 5 were assigned to the roadway network based on the trip distribution patterns shown in Figure 6. Figures 7 through 10 show the assignment of site-generated trips during the weekday a.m. and p.m. peak hours for Phase 1 and at Build-out. Note that the site-generated build-out volumes shown in Figures 9 and 10 include the Phase 1 site-generated trips and thus reflect the total number of trips generated. A figure showing the assignment of pass-by trips is provided in Appendix "E".

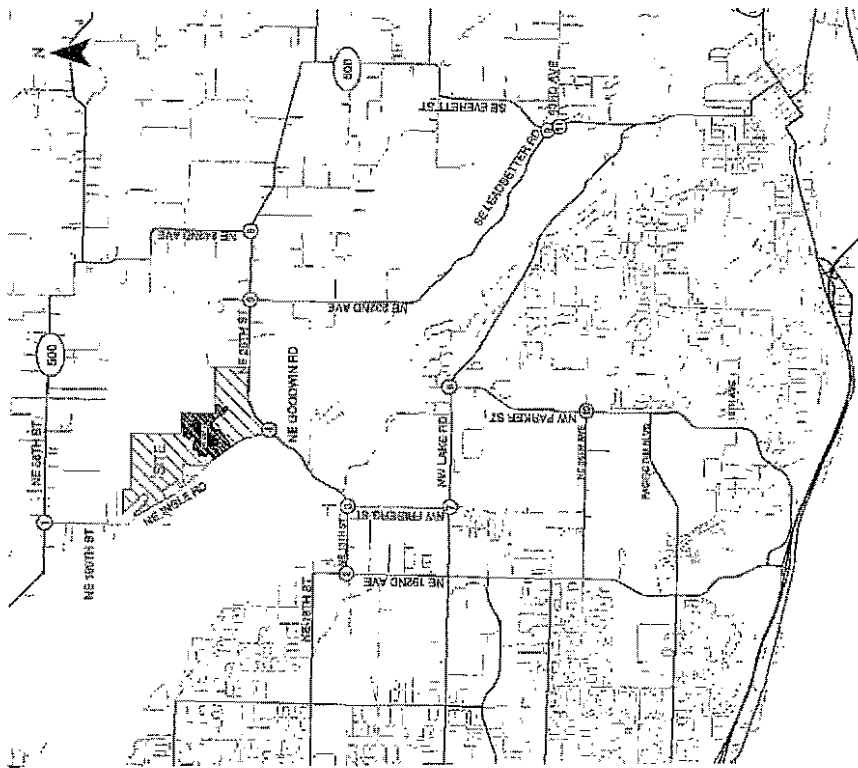


Estimated Trip Distribution Pattern
Camas, Washington

Figure
6

November 2014

Green Mountain Master Plan



Total Estimated Trip Assignment - Phase 1
Weekday AM Peak Hour
Camas, Washington

Figure
7

KIMBLE BROS. & ASSOCIATES, INC.
TRANSPORTATION ADMINISTRATION

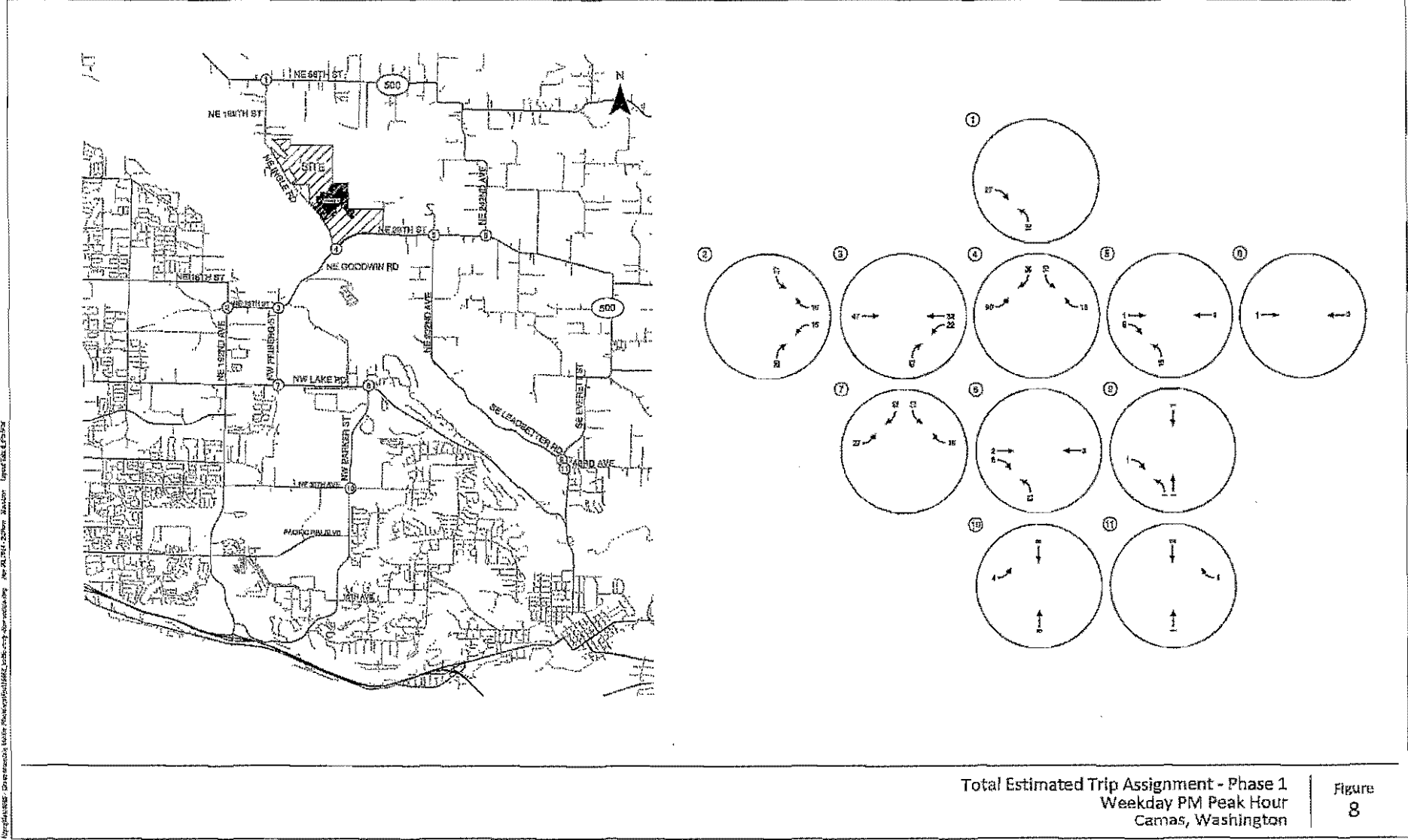
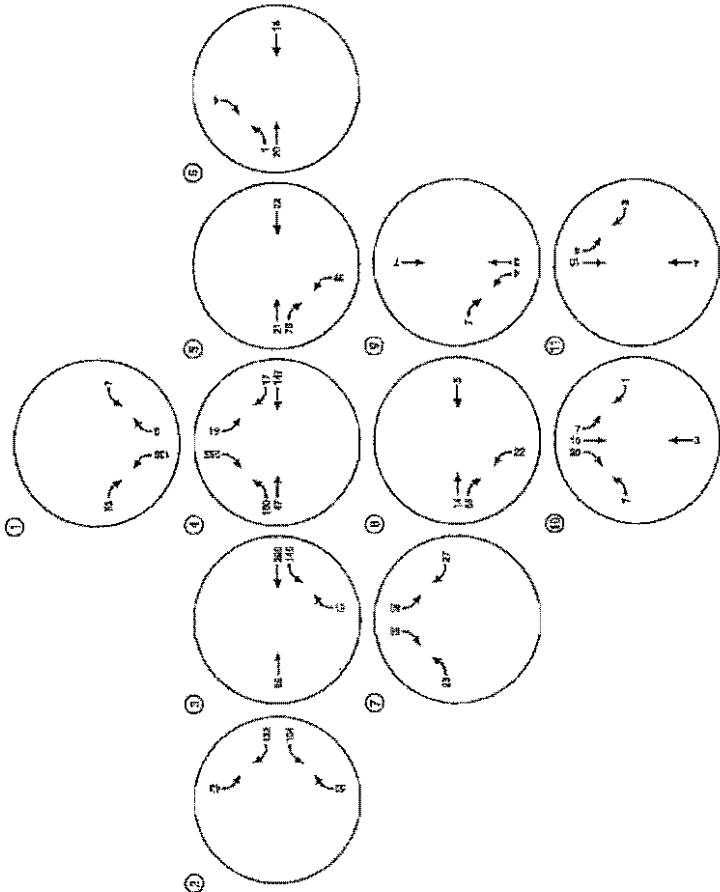
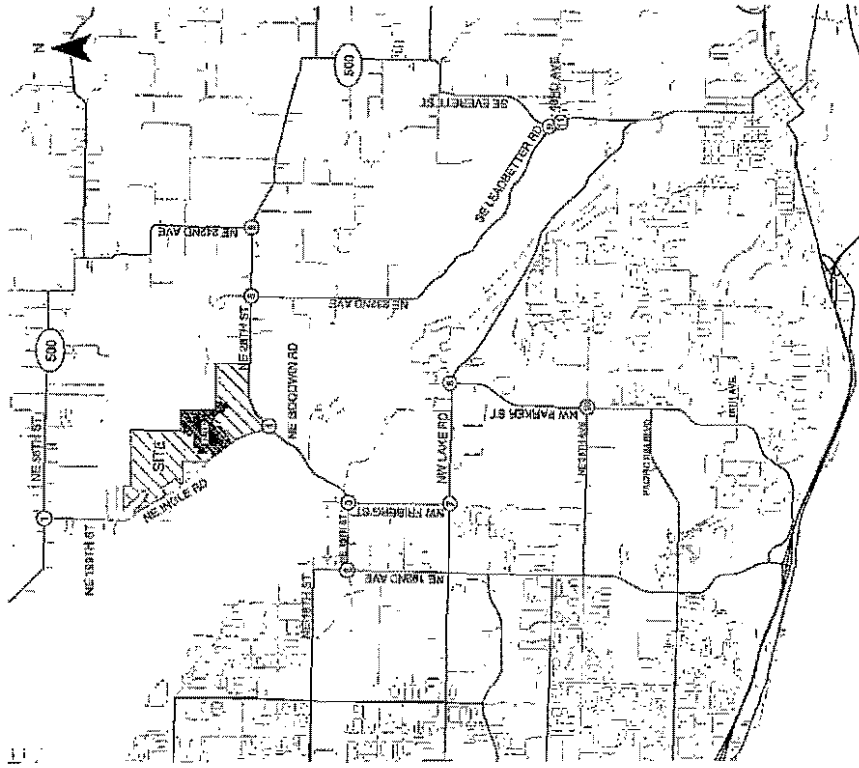


Figure 8

November 2014

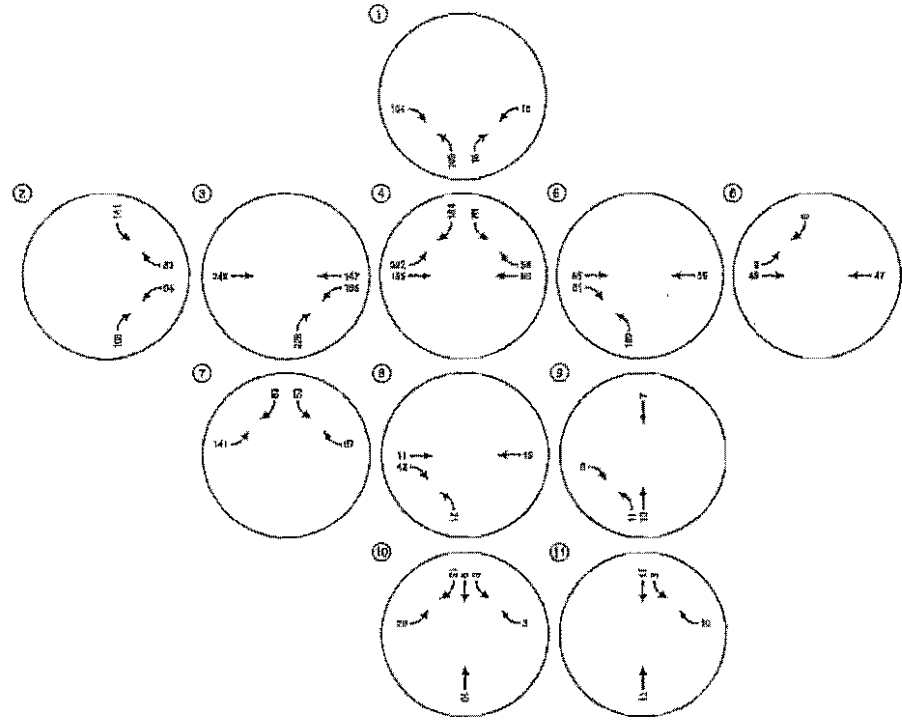
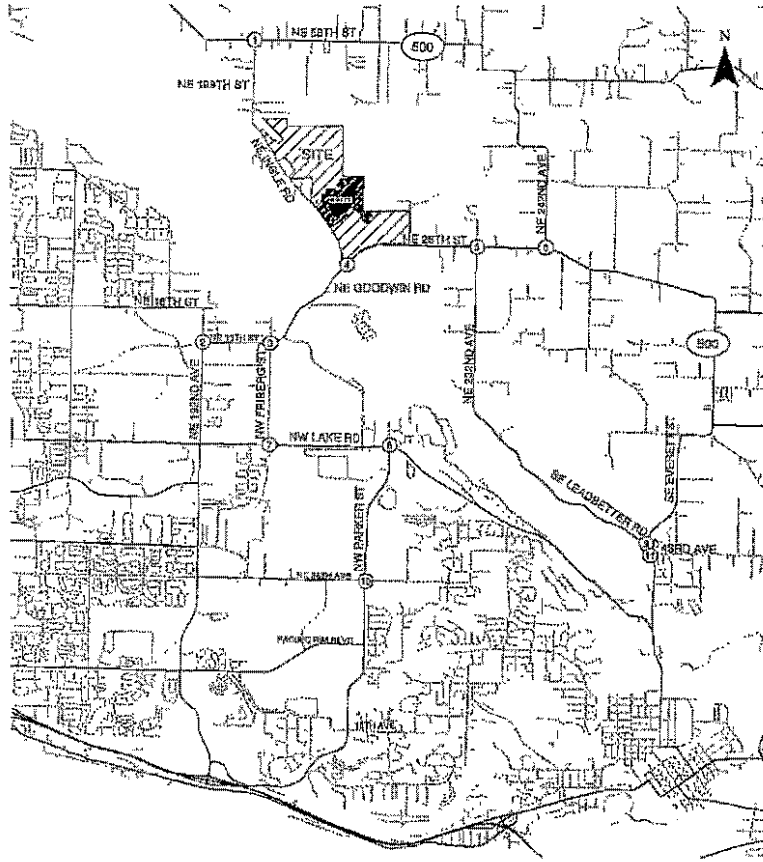
Green Mountain Master Plan



Total Estimated Trip Assignment - Full Build-Out
 Weekday AM Peak Hour
 Camas, Washington

Figure 9

HUTTON & ASSOCIATES, INC.
 TRANSPORTATION CONSULTANTS



Total Estimated Trip Assignment - Full Build-Out
Weekday PM Peak Hour
Carnas, Washington

Figure
10

2018 Background Traffic Conditions

The 2018 background traffic analysis projects how the study area's transportation system will operate during the year that Phase 1 of the proposed development is expected to be completed. This analysis includes traffic growth due to previously approved in-process developments within the study area, but does not include traffic from any of the proposed Green Master Plan development phases. Per agency direction, no growth was applied to City of Camas roadways and a 2% growth rate was applied to City of Vancouver roadways (Reference 8).

Planned Developments and Transportation Improvements

City of Camas staff identified 13 local development projects that are approved but not yet occupied. These in-process developments include:

- Lake Hills
- Two Creeks
- The Summit at Columbia Vista
- Parker Village
- The Hills at Round Lake
- North Hills Subdivision
- Brady Road Subdivision
- Deerhaven Subdivision
- Hadley's Glen
- Millshore Downs
- Fisher Creek Campus
- Lacamas Prairie
- 192nd Plaza West

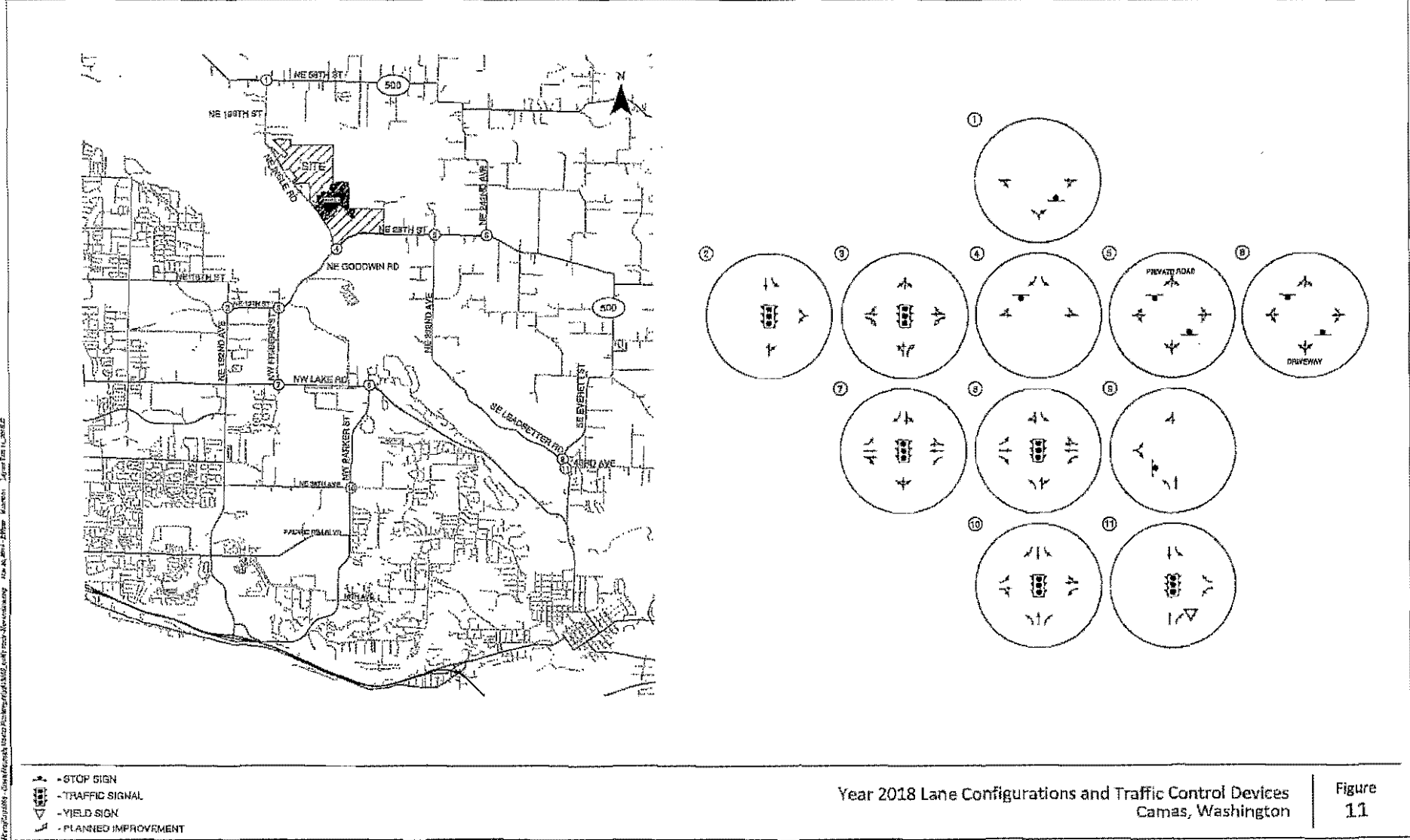
Appendix "F" contains the data received pertaining to the in-process trips.

Planned and funded transportation improvements within the study area include the widening of NW Friberg Street (between Lake Road and NE 13th Street) and the addition of a westbound left-turn lane, northbound right-turn lane, and eastbound right-turn lane at the NW Friberg Street/NE Goodwin Road intersection. Figure 11 shows the lane configuration and traffic control devices assumed in the 2018 analysis.

Traffic Operations

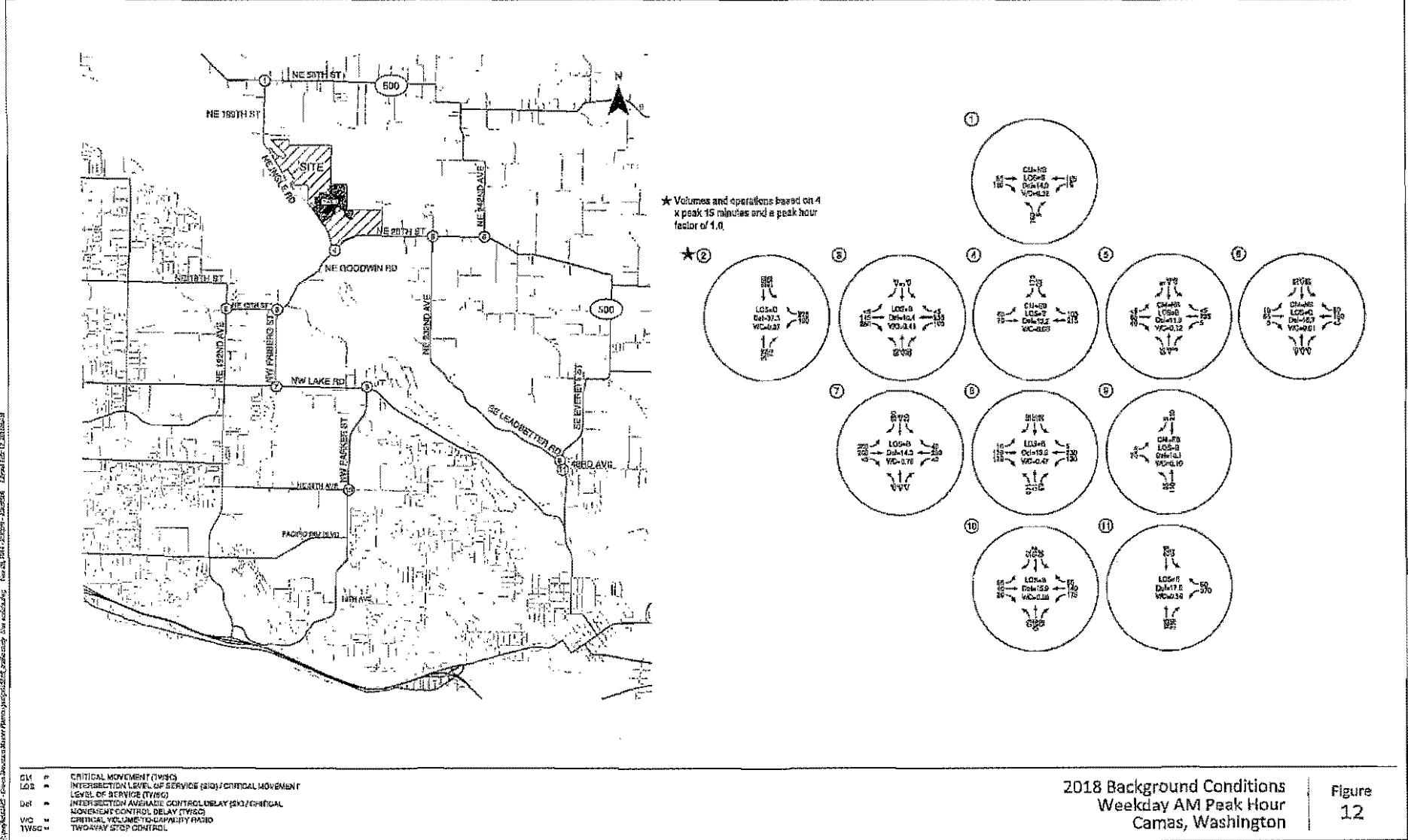
Figures 12 and 13 summarize the year 2018 background traffic operations analysis results at the study intersections for the weekday a.m. and weekday p.m. peak-hours, respectively. The projected turning movement counts are rounded to the nearest five vehicles per hour. As shown, the study intersections operate acceptably during the weekday a.m. and weekday p.m. peak periods in the 2018 background conditions.

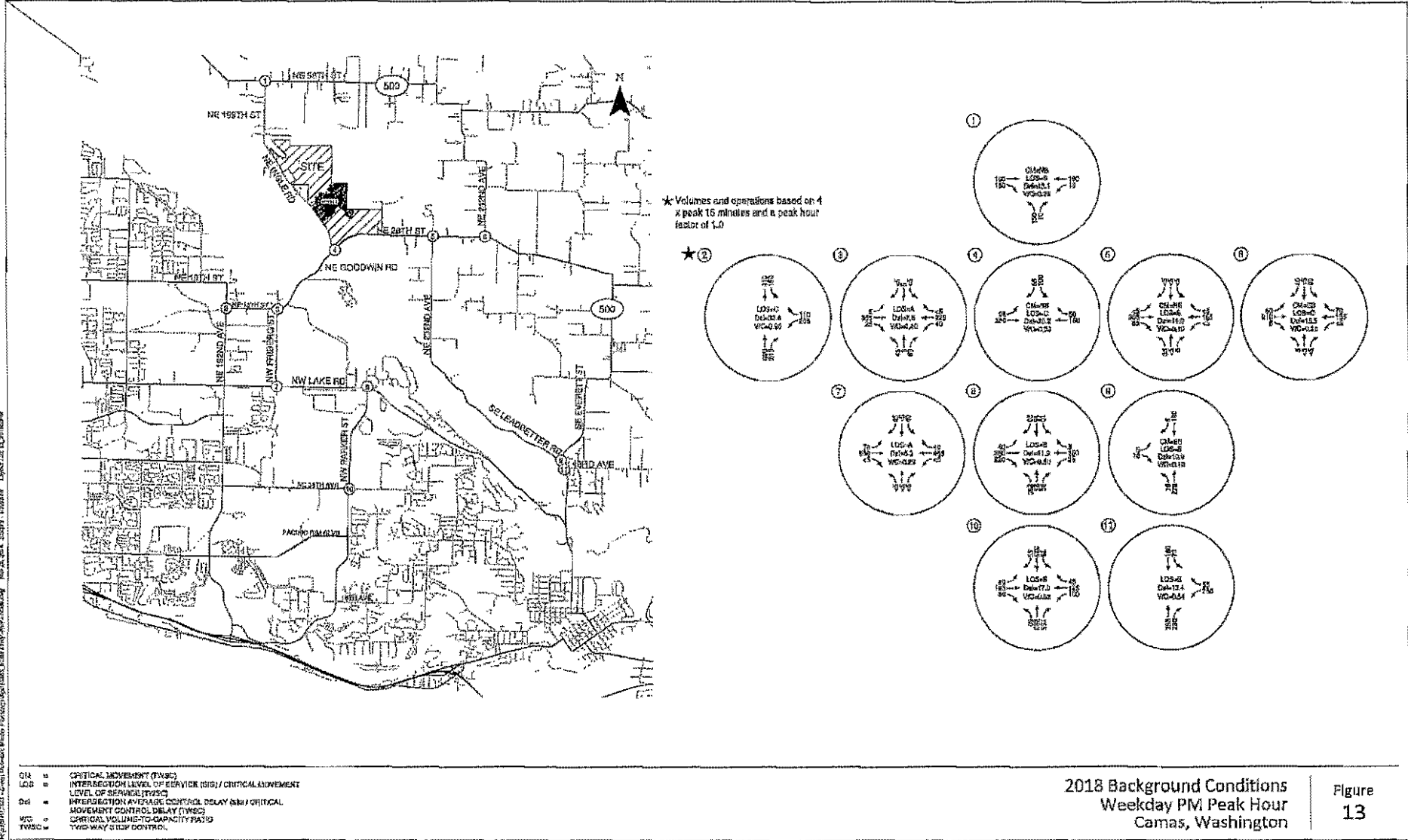
Appendix "G" contains the 2018 background conditions traffic operations worksheets.



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LANDSCAPE ARCHITECTURE ENGINEERING PLANNING





2018 Background Conditions
Weekday PM Peak Hour
Camas, Washington

Figure
13

2018 Total Traffic Conditions

The year 2018 total traffic analysis forecasts how the study area’s transportation system will operate with the addition of traffic from Phase 1 of the proposed development. Phase 1 site-generated trips were added to the 2018 background traffic volumes at the study intersections to arrive at the total traffic volumes.

All lane configurations are consistent with background conditions with the exception of the intersection of NE Ingle Road/NE Goodwin Road. The developer proposes to construct an exclusive eastbound left-turn lane on NE Goodwin Road at NE Ingle Road in conjunction with the Phase 1 site development. Consequently, provision of the turn lane was assumed for the total traffic analysis.

Traffic Operations

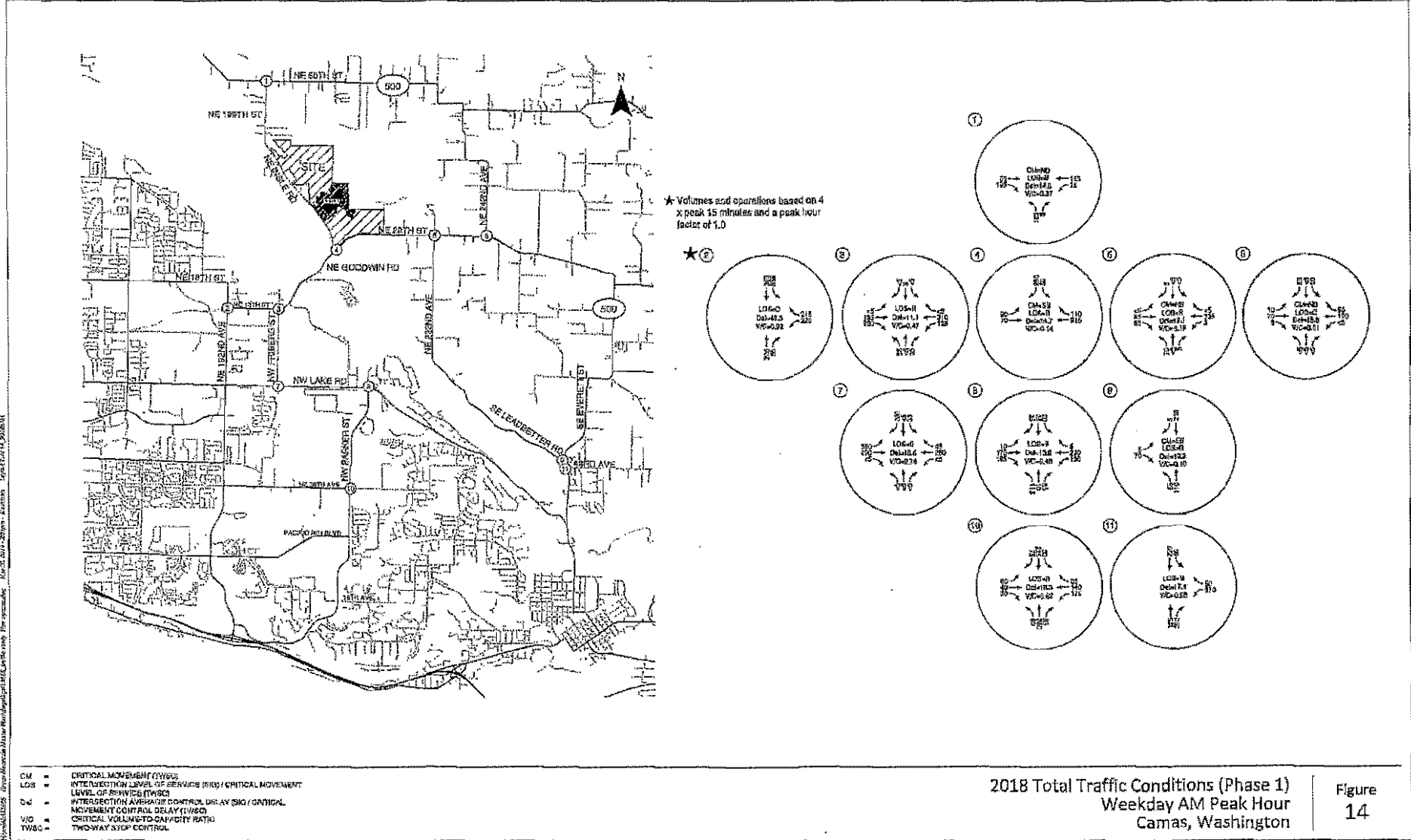
Figures 14 and 15 summarize the year 2018 total traffic operations analysis results at the study intersections for the weekday a.m. and weekday p.m. peak-hours, respectively. The projected turning movement counts are rounded to the nearest five vehicles per hour. As shown, all but one of the study intersections are forecast to operate acceptably during the weekday a.m. and p.m. peak periods under 2018 total traffic conditions. The southbound movement at the intersection of NE Ingle Road/NE Goodwin Road is anticipated to operate at a LOS E during the weekday p.m. peak hour. Operations at this intersection could be mitigated with the addition of an eastbound right-turn lane. Based on a sensitivity analysis, this mitigation is triggered by the 203rd unit to be constructed. Up until this point, the southbound left-turn lane is forecast to operate at a LOS D. Table 6 provides the operations at NE Ingle Road/NE Goodwin Road during the weekday PM peak hour supporting the sensitivity analysis.

Table 6: NE Ingle Road/NE Goodwin Road Operations Assessment – weekday PM peak hour

Scenario	Critical Movement	LOS	v/c ratio
2018 Background Conditions	SBL	C	0.99
2018 Background + 200 Homes	SBL	D	0.52
2018 Background + 203 homes	SBL	E	0.53
2018 Total Traffic (215 homes)	SBL	E	0.53
2018 Total Traffic (2015 homes) – mitigated ¹	SBL	D	0.51

Notes: LOS = Level of Service; v/c ratio = volume-to-capacity ratio
¹Mitigation includes provision of westbound right-turn lane

Appendix “H” contains the 2018 total traffic conditions traffic operations worksheets. Appendix “I” contains the traffic operations worksheets supporting the sensitivity analysis at NE Ingle Road/NE Goodwin Road.



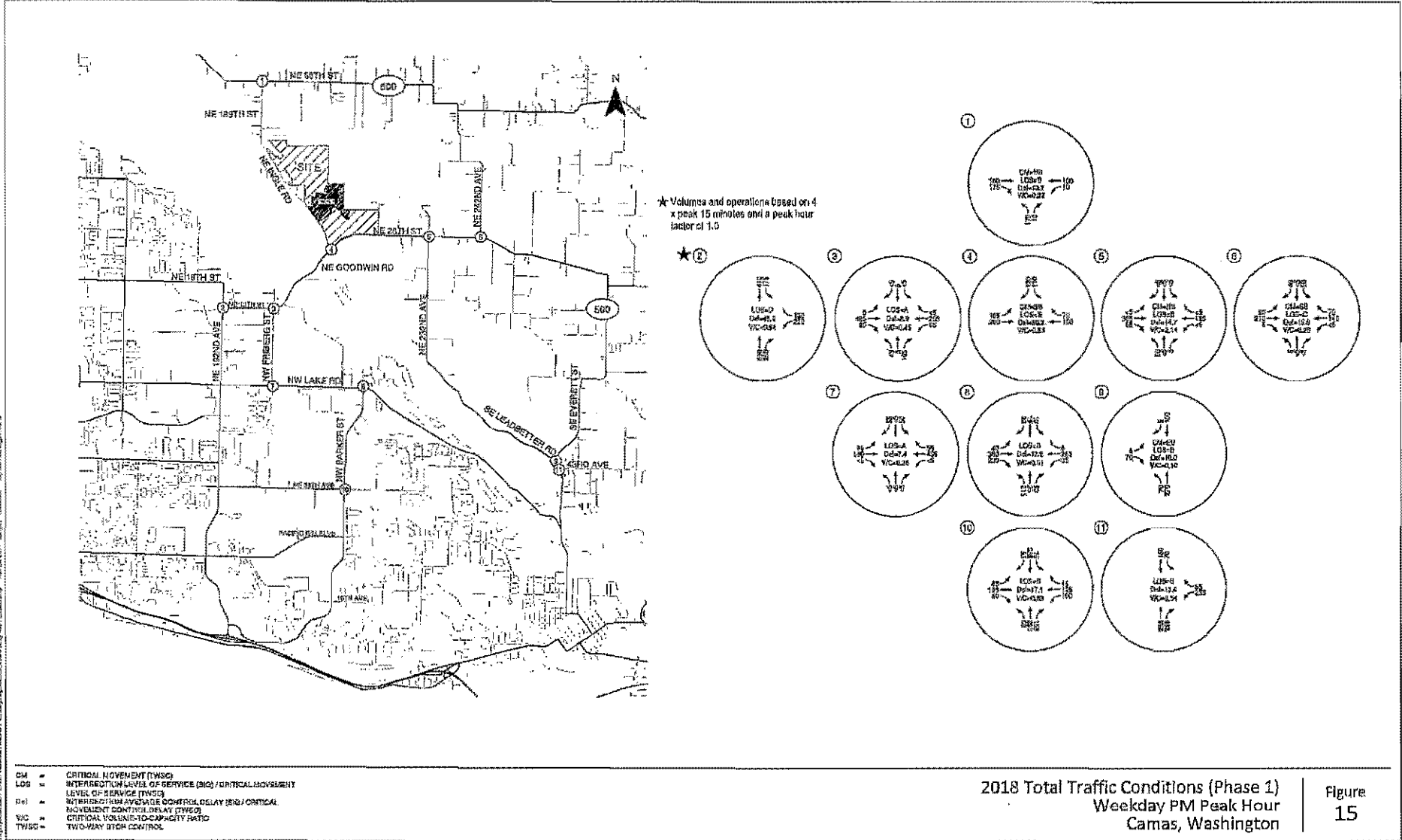
PROJECT: Green Mountain Master Plan/Phase 1/2014/11/14/2014
 DATE: 11/14/2014
 TIME: 10:00 AM
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 SCALE: [Scale]

- CM = CRITICAL MOVEMENT (TWBC)
- LOS = INTERSECTION LEVEL OF SERVICE (SIG) / CRITICAL MOVEMENT LEVEL OF SERVICE (TWBC)
- C4 = INTERSECTION AVERAGE CONTROL DELAY (SIG) / CRITICAL MOVEMENT CONTROL DELAY (TWBC)
- V/C = CRITICAL VOLUME-TO-CAPACITY RATIO
- TWBC = TWO-WAY STOP CONTROL

2018 Total Traffic Conditions (Phase 1)
 Weekday AM Peak Hour
 Camas, Washington

Figure
 14

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 TRANSPORTATION ENGINEERING/PLANNING



K:\Projects\2014\Green Mountain Master Plan\2018 Traffic Conditions\2018 Traffic Conditions - Weekday PM Peak Hour - Camas, Washington - 11/11/14.dwg

- CM = CRITICAL MOVEMENT (TWSS)
- LOS = INTERSECTION LEVEL OF SERVICE (B/C) / CRITICAL MOVEMENT
- D = LEVEL OF SERVICE (TWSS)
- D = INTERSECTION AVERAGE CONTROL DELAY (SEC) / CRITICAL
- VC = MOVEMENT CONTROL DELAY (TWSS)
- VC = CRITICAL VOLUME-TO-CAPACITY RATIO
- TWSS = TWO-WAY STOP CONTROL

2018 Total Traffic Conditions (Phase 1)
Weekday PM Peak Hour
Camas, Washington

Figure
15

KITTELSON & ASSOCIATES, INC.

2029 Background Traffic Conditions

The 2029 background traffic analysis identifies how the study area's transportation system will operate with regional growth, including completion of Phase 1 development. No further funded transportation improvement projects were identified at the study intersections that would be in place prior to the year 2029. In addition to the previously described in-process development, a one percent annual growth rate was applied to the 2018 background traffic volumes on City of Camas roadways to account for regional growth in the area per staff direction. Continued use of a two percent annual growth rate was assumed to the City of Vancouver roadways (NE 192nd Avenue).

The same lane configurations used in the 2018 analysis were assumed, with the exception of the configuration at NE Ingle Road/NE Goodwin Road. As previously noted, the developer proposes to construct an exclusive eastbound left-turn lane at the intersection in conjunction with the Phase 1 site development so this turn lane was assumed for the 2029 analysis. Signal timings were optimized with the assumption that signals in the area will be re-timed in the next fifteen years. In addition, some peak hour factors (PHF) were increased to account for future traffic changes, including:

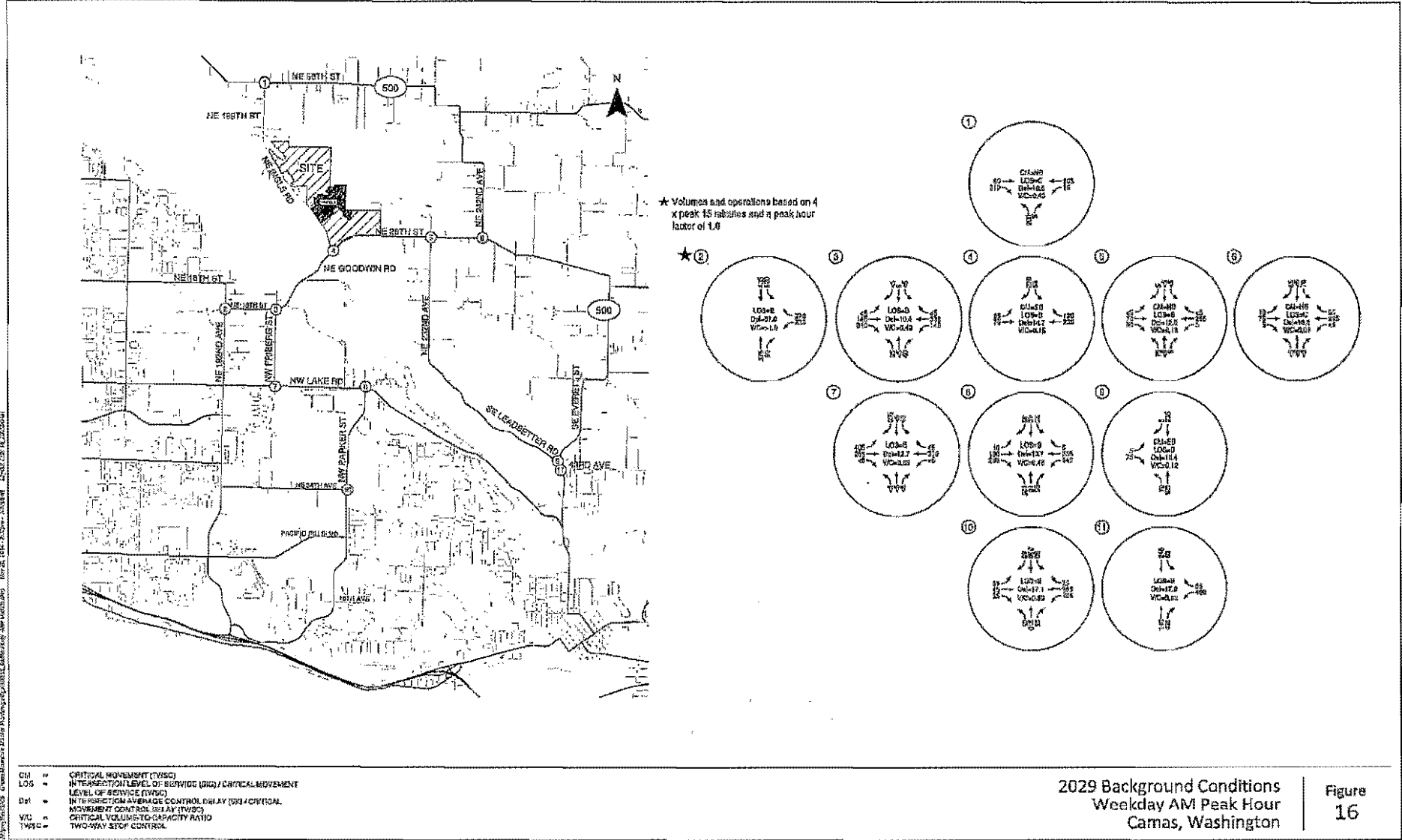
- PHF increased to 0.80 in the a.m. peak hour at NW Friberg Street/NE Goodwin Road and NE 242nd Avenue/NE 28th Street
- PHF increased to 0.75 in the a.m. peak hour at NW Friberg Street/NW Lake Road; NW Parker Street/NW Lake Road; and NW Parker Street/NE 38th Avenue

Traffic Operations

Figures 16 and 17 summarize the year 2029 background traffic operations analysis results at the study intersections for the weekday a.m. and weekday p.m. peak-hours, respectively. As illustrated in the figures, all but two of the study intersections are forecast to operate acceptably:

- The intersection of NE 192nd Avenue/NE 13th Street is projected to operate at a LOS E and over-capacity during the weekday a.m. peak hour and LOS F and over-capacity during the p.m. peak hour.
- The southbound approach to the intersection of NE Ingle Road/NE Goodwin Road is projected to operate at a LOS E during the weekday p.m. peak hour (with provision of the westbound right-turn lane recommended in conjunction with Phase 1 site development).

Appendix "J" contains the 2029 background conditions traffic operations worksheets.



2029 Total Traffic Conditions

The year 2029 total traffic analysis forecasts how the study area's transportation system will operate with full build-out of the proposed master plan development. The year 2029 background traffic volumes were added to the full build-out site-generated traffic to arrive at the total traffic volumes.

Traffic Operations

Figures 18 and 19 summarize the year 2029 total traffic operations analysis results at the study intersections for the weekday a.m. and weekday p.m. peak-hours, respectively. The projected turning movement counts are rounded to the nearest five vehicles per hour. As shown, the following study intersections do not meet standards during either the weekday a.m. or p.m. peak periods:

- NE 199th Avenue/NE 58th Street (SR 500) (weekday a.m. and p.m. peak hours)
- NE 192nd Avenue/NE 13th Street (weekday a.m. and p.m. peak hours, previously was falling during background a.m. and p.m. peak hours)
- NE Ingle Road/NE Goodwin Road (weekday a.m. and p.m. peak hours, previously was falling during background p.m. peak hour)

Potential mitigation measures for these intersections are discussed later in the report.

Appendix "K" contains the 2029 total traffic conditions traffic operations worksheets.

Turn-Lane Considerations

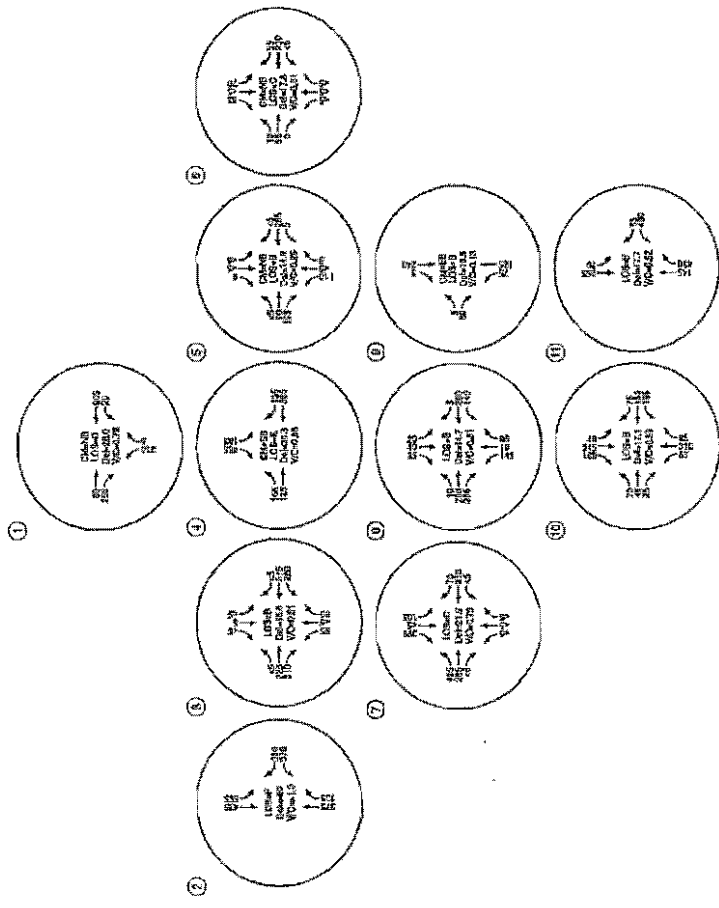
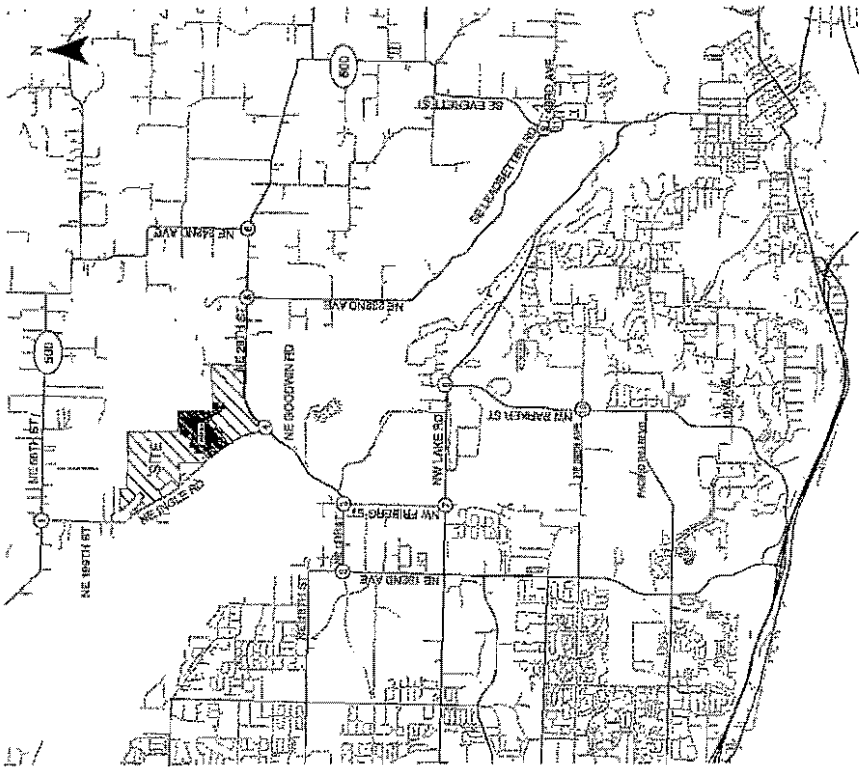
As referenced under the "Analysis Methodology," roadways under Washington State jurisdiction are subject to the turn lane guidelines contained in the *WSDOT Design Manual* (Reference 3). The potential need for turn-lanes at each study intersection was reviewed for the analysis scenarios. Intersections that meet turn-lane guidelines are further discussed below.

NE 199th Avenue/NE 58th Street (SR 500)

Traffic volumes at the intersection of NE 199th Avenue/NE 58th Street (SR 500) meet WSDOT's guidelines for an eastbound right-turn lane on NE 58th Street under existing conditions and all future scenarios during both the weekday a.m. and p.m. peak hour. Construction of a right-turn lane could require right-of-way acquisition and will likely impact one or more private driveways along NE 58th Street (depending on the length of the deceleration lane constructed).

April 2014

Green Mountain Master Plan



2029 Total Traffic Conditions (Build Out)
Weekday AM Peak Hour
Camas, Washington

Figure 18

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The table below assesses volumes at the intersection for various horizon year scenarios and the impact of the proposed development.

Table 7: NE 199th Avenue/NE 58th Street (SR 500) Eastbound Right-Turn Lane Assessment

Scenario	Eastbound Right-Turn (EBRT) Volume	Meets Guideline?	Development-Added EBRT Trips	Impact of Development
2014 Existing Traffic – AM Peak	180	Yes		
2014 Existing Traffic – PM Peak	145	Yes		
2018 Background Traffic – AM Peak	180	Yes	8 (Phase 1)	4%
2018 Background Traffic – PM Peak	150	Yes	27 (Phase 1)	18%
2029 Background Traffic – AM Peak	210	Yes	45 (Build-out)	21%
2029 Background Traffic – PM Peak	190	Yes	138 (Build-out)	73%

The recorded crash history at the intersection was reviewed to identify potential safety issues that an eastbound right-turn lane might address. No crashes were reported involving vehicles making an eastbound right-turn. Given the lack of crash history and the relatively small impact of Phase 1, no improvements are recommended in conjunction with Phase 1. Nonetheless, given the amount of site-generated traffic that will be added to the eastbound right-turn movement as future phases of the master plan build-out, if right turn crashes materially increased, it is possible that a nexus could be established between requiring construction of an eastbound right-turn lane and traffic volume increases attributable to master plan trip development. Accordingly, we recommend that future site plan applications prepared subsequent to Phase 1 provide an updated assessment as to the potential need for providing a right-turn taper or lane at the intersection.

NE 242nd Avenue (SR 500)/NE 28th Street

Traffic volumes at the intersection of NE 242nd Avenue (SR 500)/NE 28th Street meet WSDOT’s guidelines for a left-turn lane on the eastbound approach under existing conditions and all future scenarios during the weekday p.m. peak hour. The table below assesses volumes at the intersection for each horizon year scenario and the impact of the proposed development. *As shown in the table, the Phase 1 development does not add any trips to the eastbound left-turn lane.* The trips generated by build-out of the master plan development are from the retail component and total less than 10.

Table 8: NE 242nd Avenue (SR 500)/NE 28th Street Eastbound Left-Turn Lane Assessment

Scenario	Eastbound Left-Turn Volume	Meets Guidelines? (Recommended Storage)	Development-Added Trips	Impact of Development
2014 Existing Traffic – AM Peak	10	No		
2014 Existing Traffic – PM Peak	80	Yes (100 feet)		
2018 Background Traffic – AM Peak	10	No	0 (Phase 1)	0%
2018 Background Traffic – PM Peak	80	Yes (100 feet)	0 (Phase 1)	0%
2029 Background Traffic – AM Peak	10	No	2 (Build-out)	20%
2029 Background Traffic – PM Peak	90	Yes (100 feet)	9 (Build-out)	10%

The recorded crash history at the intersection was reviewed to identify potential safety issues that an eastbound left-turn lane might address. While two angle crashes were reported from vehicles making a southbound left-turn, no crashes were reported involving vehicles making an eastbound left-turn.

Based on our review of the information provided above, we find no basis for recommending improvements to the NE 242nd Avenue (SR 500)/NE 28th Street intersection in conjunction with Phase 1 site development. We base this conclusion on the proposed development adding no trips to the left-turn movement in question, the lack of crash history related to left-turns, and the general lack of a nexus given the small trip impact of the proposed Phase 1 development at this location.

Planned Future Intersection Improvements

The 2012 *City of Camas Traffic Impact Fee Update Report* (Reference 2) identifies the future need to widen NE 28th Street to have a center left-turn lane from Ingle Road to NE 242nd Avenue. A related project would create a new NE 242nd Avenue extension south of NE 28th Street. Given the City's planned improvements, we recommend the City of Camas make a finding that the traffic impact fee payments made by the master plan for Phase 1 and future phases of the project mitigate development impacts at the intersection, and therefore require no additional mitigation.

Recommended Mitigations

As discussed above, all study intersections meet operating standards under existing and 2018 background and total traffic conditions for both the weekday a.m. and p.m. peak hours. Four intersections do not meet operating standards in 2029 under background and/or total traffic conditions; each is discussed below.

NE 199th Avenue/NE 58th Street (SR 500)

The minor street northbound left-turn at the intersection of NE 199th Avenue/NE 58th Street (SR 500) is projected to not meet current WSDOT standards in the 2029 total traffic conditions during the weekday a.m. and p.m. peak hours. The intersection is projected to operate at a volume-to-capacity (v/c) ratio of 0.72 and LOS D during the a.m. peak hour and v/c ratio of 0.70 and LOS D during the p.m. peak hour. It is therefore not within WSDOT's LOS requirement (LOS C) for non-HSS facilities in rural areas. The intersection is three-legged and stop-controlled on the northbound approach. The northbound left-turn is the critical movement at the intersection, with all other movements operating at a LOS A and well under capacity. During both the weekday a.m. and p.m. peak hours, the northbound left-turn is 3 seconds or less over the delay threshold between LOS C and LOS D. In the event that the area around the intersection urbanizes before build-out, the WSDOT performance standard will shift to LOS E and the intersection would operate within WSDOT standards.

As discussed in the *Turn-Lane Considerations* section above, the intersection currently meets warrants for an eastbound right-turn lane, which would improve operations for northbound left-turning vehicles to a LOS C during the 2029 total traffic conditions. As also discussed above, it is expected that a nexus might ultimately be established between requiring construction of an eastbound right-turn lane and traffic volume increases attributable to master plan trip development, based on LOS and delay at the intersection. Accordingly, we recommend that future site plan applications prepared subsequent to Phase 1 provide an updated assessment as to the potential need for providing a right-turn taper or lane at the intersection, considering both the need for a right-turn taper or lane and delay with the northbound left-turn.

Appendix "I." contains the traffic operations worksheets supporting the potential mitigations at NE 199th Avenue/NE 58th Street (SR 500).

NE 192nd Avenue/NE 13th Street

The intersection of NE 192nd Avenue/NE 13th Street is projected to not meet standards in the 2029 background conditions and the 2029 total traffic conditions during both the weekday a.m. and p.m. peak hours. The intersection operates over-capacity in all four of these scenarios and at a LOS F during the weekday p.m. peak hour in the background conditions and weekday a.m. and p.m. peak hours in the total traffic scenarios.

Potential Future City of Vancouver Improvements

The City of Vancouver has identified NE 192nd Avenue as ultimately requiring five travel lanes (two southbound through lanes, a center left-turn lane, and two northbound through lanes) and includes

the widening on the City's Traffic Impact Fee (TIF) program project list. Because no near-term funding has been programmed for the future five-lane section, the existing section was assumed to be in place in 2029 for the purposes of this traffic study. Widening by the City of Vancouver or others in the interim would add capacity and change the intersection operations.

In the event that NE 192nd Avenue is widened to five lanes through the NE 13th Street intersection, the intersection is projected to meet City of Vancouver intersection operating standards under 2029 background conditions. To mitigate total traffic conditions, a westbound right-turn lane would also be required. In the event that 192nd Avenue is not widened, a northbound right-turn lane and westbound right-turn lane would be sufficient to mitigate 2029 total traffic conditions (mitigation assumes maintaining operations equivalent to or better than those experienced under 2029 background conditions with site build-out but does not fully accommodate forecast queuing).

Potential Master Plan Development Mitigation Options

As noted above, the provision of a northbound right-turn lane and westbound right-turn lane would offer more than sufficient capacity to mitigate the impact of the master plan site build-out while also providing additional capacity to allow for future growth and development. Therefore, we recommend the Green Mountain Master Plan provide a proportionate share contribution towards the construction of a northbound right-turn lane and a westbound right-turn lane on NE 13th Avenue. The City of Vancouver has successfully administered pro-rata share contribution collection systems at other intersections, allowing each development impacting a failing intersection to contribute a "fair-share" of the mitigation cost.

Appendix "M" identifies a proposed proportionate cost sharing methodology. Under this methodology, each trip would be assessed a fee of \$391. Therefore the Green Mountain development contribution at full build-out would be approximately \$123,600. Details of the cost estimate, capacity generated by the improvements, and impact of the proposed development supporting the proportionate share calculations are provided in Appendix "M."

It should be noted that the NE 192nd Avenue/NE 13th Street intersection is listed on the City of Vancouver's TIF program project list. In the case of the Green Mountain Master plan, any TIF credits issued by the City of Vancouver would only be redeemable for development impacts in Vancouver (not Camas).

NE Ingle Road/NE Goodwin Road

The intersection of NE Ingle Road/NE Goodwin Road is projected to not meet City of Camas intersection operating standards in the 2029 background conditions during the weekday p.m. peak

hour and the 2029 total traffic conditions during both the weekday a.m. and p.m. peak hours. In order to mitigate 2029 background conditions, a two-way left-turn lane could potentially be provided east of the intersection to facilitate southbound left-turns, which are the critical movement at the intersection.

The City's long-term plans anticipate significant reconstruction of the intersection and the approaching roadways as recorded in the 2012 *City of Camas Traffic Impact Fee Update* (Reference 2). Identified improvement needs include:

- Installation of a traffic signal at NE Ingle Road/NE Goodwin Road;
- The extension of a new collector roadway from NE Ingle Road south to NE 232nd Avenue;
- Widening of NE Goodwin Road from two to three lanes between NE Ingle Road and NE 232nd Avenue; and
- Widening of NE Goodwin Road from two to five lanes NE between Friberg Street and NE Ingle Road.

Considering the Green Mountain Master Plan project location and traffic impacts at the intersection, we recommend the following series of mitigations in conjunction with the proposed development:

- Construct an eastbound left-turn lane on NE Goodwin Road at NE Ingle Road with the first Phase 1 trip.
- Construct a westbound right-turn lane on NE Goodwin Road at NE Ingle Road with the 203rd Phase 1 trip (prior to occupancy of 203rd single family home on site). The right-turn lane should provide at least 100 feet of storage. (Note, in the long-term future, the City could consider restriping the right-turn lane to a shared through/right lane when widening of NE Goodwin Road west of NE Ingle Road develops two westbound receiving lanes).
- Construct a three-lane roadway section (with center two-way left-turn lane) on NE Goodwin Road along the site frontage in conjunction with standard frontage improvements as adjacent development occurs.
- Upon completion of Phase 1 site development (including construction of the eastbound left-turn lane and westbound right-turn lane on NE Goodwin Road at NE Ingle Road with Phase 1), the developer shall monitor the need for installation of a traffic signal with each future site plan application at the intersection and construct a traffic signal when the intersection no longer satisfies City of Camas performance standard (LOS "D" and v/c of 0.90 or better) and the intersection volumes meet traffic signal warrants (subject to direction from the City of Camas).

- The monitoring effort is recommended to require preparation of then-current traffic counts, assessment of traffic signal warrants based on build-out of the then-current site plan application (and all other approved development), and a summary report prepared by a licensed professional engineer. The study should consider potential turn movement re-routing that is expected to occur at the NE Goodwin Road/NE Ingle Road intersection as new connections to the master plan site are made to NE Goodwin Road east of NE Ingle Road.

On-site Circulation and Operations

We recommend that a detailed review of on-site circulation and operations be prepared in conjunction with each future site plan application. This review will provide an opportunity to consider site-specific details when they become available and should include consideration of vehicular, pedestrian, and delivery vehicle paths.

On-site landscaping, signage and any above-ground utilities should be provided appropriately to ensure that adequate sight distance is provided and maintained and should be considered as part of future site plan applications.

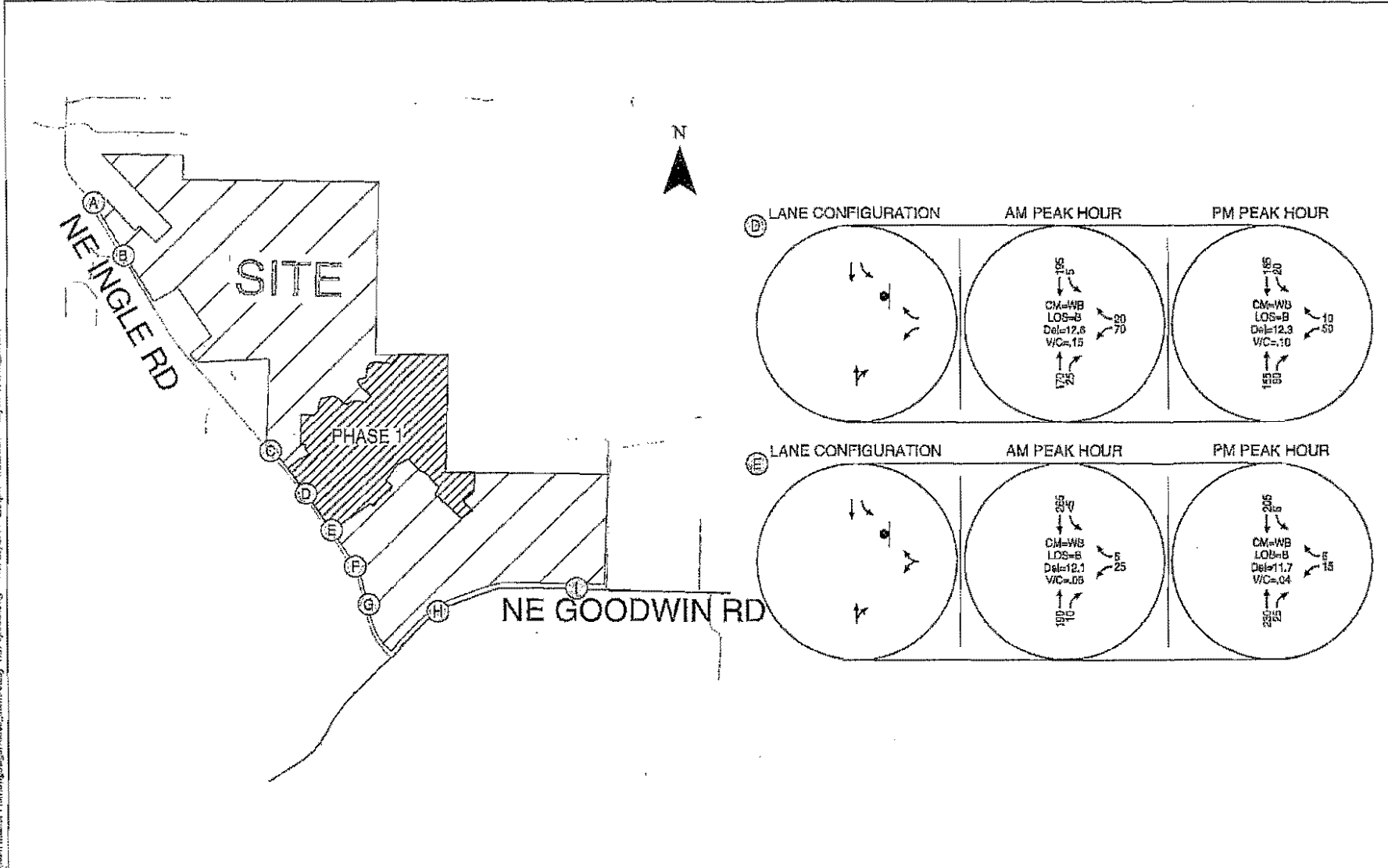
Access Requirements

The City of Camas requires a minimum intersection spacing of 330 feet on three lane collector streets. This spacing should be maintained with the proposed development.

Phase 1 Access Operations

The portion of the site that will be developed with Phase 1 is noted in Figure 2. As seen, two access points are proposed for the Phase 1 development. The proposed lane configuration at these accesses and operations is shown in Figure 20. The developer has proposed to maintain access to the existing golf course in conjunction with the Phase 1 development. The existing gravel maintenance only access will be improved to provide an interim main access to the remaining portion of the golf course (reduced to eight holes). The proposed interim golf course access is located approximately 400 feet south of the proposed southern access, which meets the City's intersection spacing requirements for a collector street noted above.

Appendix "N" contains the traffic operations worksheets for the Phase 1 access operations.



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- STOP SIGN
- CM = CRITICAL MOVEMENT (TWSC)
- LOS = INTERSECTION LEVEL OF SERVICE (SIG) / CRITICAL MOVEMENT LEVEL OF SERVICE (TWSC)
- Del = INTERSECTION AVERAGE CONTROL DELAY (SIG / CRITICAL MOVEMENT CONTROL DELAY (TWSC))
- V/C = CRITICAL VOLUME-TO-CAPACITY RATIO
- TWSC = TWO-WAY STOP CONTROL

2018 Site Access Lane Configurations and Operations (Phase 1)
Camas, Washington

Figure 20

Build-out Access Operations

An additional five access points on NE Ingle Road and two access points on NE Goodwin Road are anticipated with full build-out of the development. The exact location of the access points may change as the plans for the development are refined. We assessed operations at these access points assuming the lane configuration shown in Figure 21. As seen in the figure, we expect NE Ingle Road will be developed with a center two-way left-turn lane (TWLTL) through access "C" and NE Goodwin Road will be developed with a TWLTL along the site frontage. Operations at the site accesses for the weekday a.m. and p.m. peak hours are shown in Figures 22 and 23. As seen in the figures, all access points operate at a LOS "C" or better, with the exception of the eastern access on NE Goodwin Road. The southbound left-turn movement at this intersection operates at a LOS D during the weekday p.m. peak hour.

We recommend further evaluation of potential right-turn deceleration lane needs be considered at the time of site plan application. This evaluation should consider the potential need for southbound left-turn lanes or northbound right-turn lanes along NE Ingle Road at the remaining access points as well as corresponding turn lane queue storage requirements. *Appendix "O" contains the traffic operations worksheets for the full build-out access operations.*

November 2014

Green Mountain Master Plan

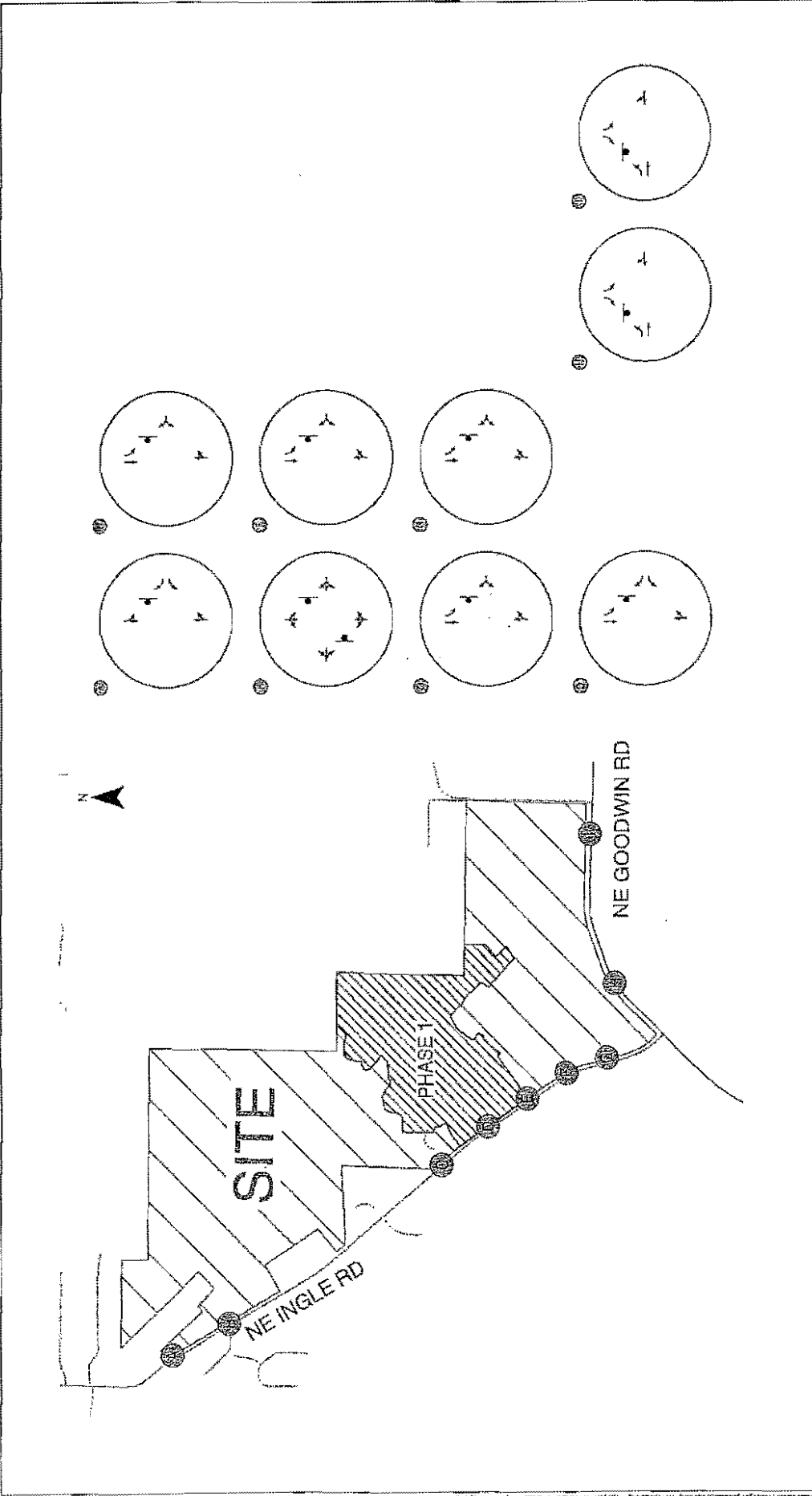
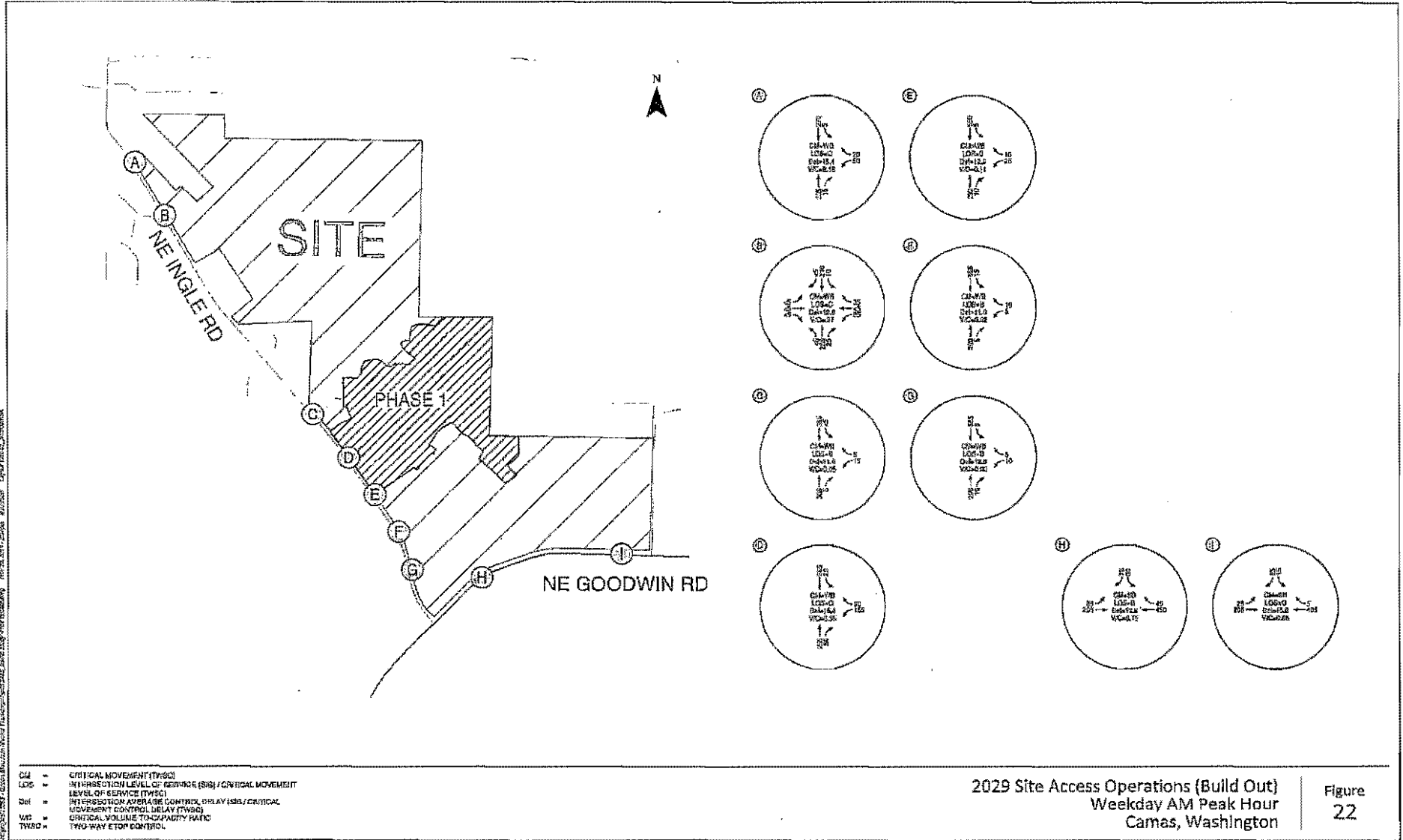


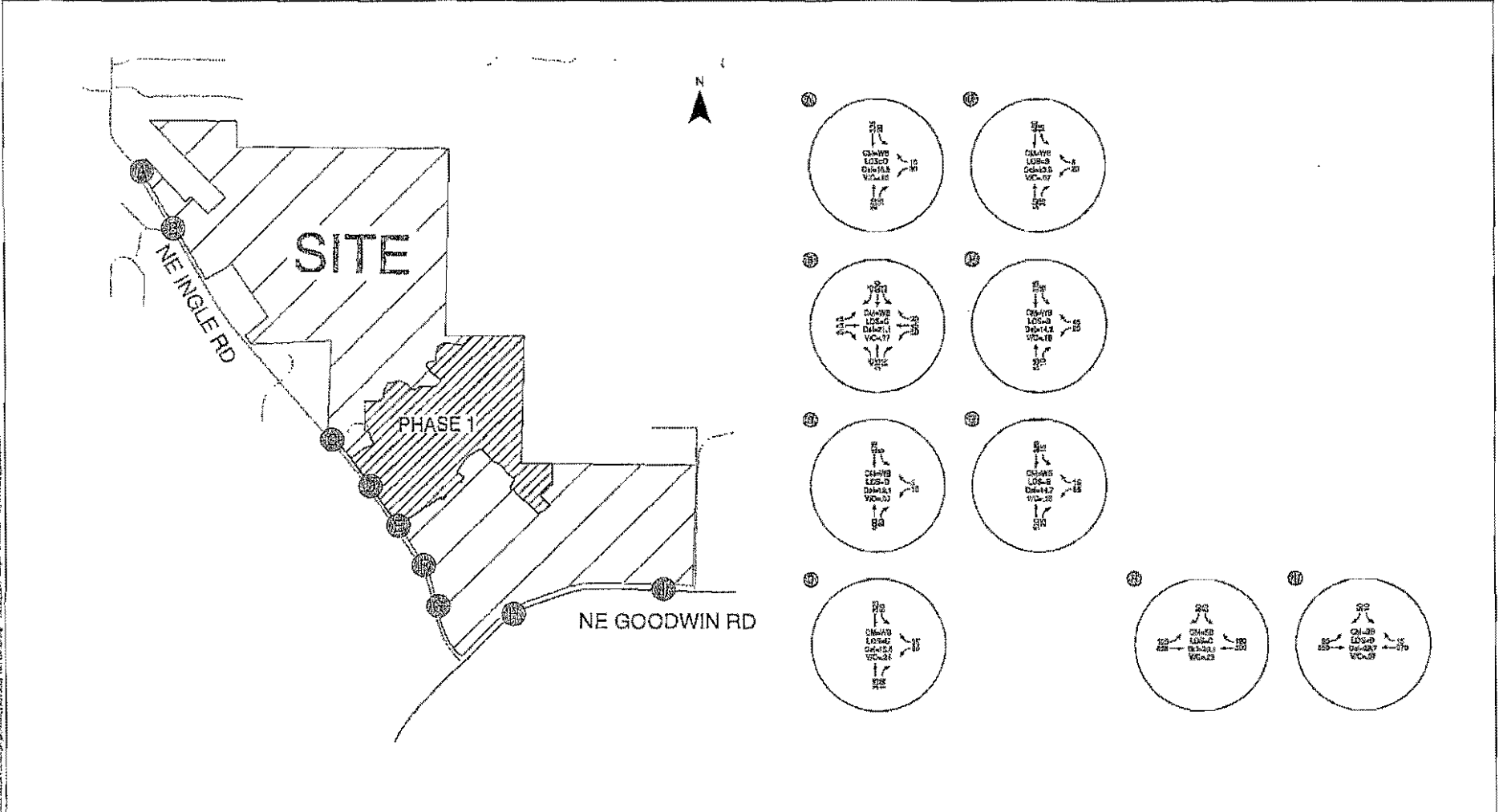
Figure 2.1
Site Access Lane Configurations and Traffic Control Devices (Buildout)
Carnas, Washington

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CM = CRITICAL MOVEMENT (TWSC)
 LOS = INTERSECTION LEVEL OF SERVICE (SIGNAL/CRITICAL MOVEMENT)
 Dc = INTERSECTION AVERAGE CONTROL DELAY (SIGNAL/CRITICAL MOVEMENT CONTROL DELAY (TWSC))
 V/C = CRITICAL VOLUME TO CAPACITY RATIO
 TWSC = TWO-WAY STOP CONTROL

2029 Site Access Operations (Build Out)
 Weekday PM Peak Hour
 Camas, Washington

Figure 23

TRANSPORTATION COMPLIANCE LETTER

This master plan traffic study documents the transportation implications of the proposed development at build-out. There are on-site access, circulation, turn lane, and driveway location and design considerations that will need to be addressed when specific site plan applications are made. Further, the phasing and timing of master plan build-out is likely to evolve over time to adapt to market conditions. Accordingly, it is recommended that a transportation compliance letter be prepared for each preliminary plat or site plan application to address on-site transportation, access and pedestrian standards and to ensure that the mitigation measures provided for in this report are applied at the appropriate phase of development. The transportation compliance letter should also document the trip generation of each phase of development to ensure that the total number of trips generated from future development does not exceed the number of trips vested under the Development Agreement.

We recommend each transportation compliance letter could document:

- The number of site-generated trips (daily, weekday a.m. peak hour, weekday p.m. peak hour) estimated to be used by the then-current proposed site development application.
- The number of site-generated trips (daily, weekday a.m. peak hour, weekday p.m. peak hour) previously used by approved site development applications on the master plan site.
- An accounting of the number of site-generated trips (daily, weekday a.m. peak hour, weekday p.m. peak hour) remaining assuming approval of the then-current site plan application.
 - Note: In the event that a future site plan application is projected to use more trips than were previously assumed through the master plan, additional traffic capacity/concurrency analysis would be triggered (unless a traffic count cordon-study of the master plan campus demonstrates the number of trips generated by the site is less than projected by standard ITE trip rates and thus the overall development impact actually is less than or equal to the number of trips assumed by the master plan).
- Evaluation of outstanding mitigation needs (as appropriate consistent with the Master Plan recommendations) at the intersections of:
 - Need for an eastbound right-turn lane at NE 199th Avenue/NE 58th Street (SR 500)
 - NE Ingle Road/NE Goodwin Road (including traffic signal warrant analysis)

FINDINGS AND RECOMMENDATIONS

Based on the results of the transportation impact analysis, Phase 1 of the Green Mountain Master Plan (estimated to generate 2,050 daily trips and 215 net new p.m. peak hour trips) can be developed while maintaining acceptable levels of service and safety at the study intersections without any required off-site mitigations. The primary findings and recommendations of this study are summarized below.

Existing Conditions

- All of the study intersections currently operate acceptably during the weekday a.m. and p.m. peak hours.

Proposed Development Activities

- Phase 1 site development includes 215 residential units. It is estimated to generate 160 net new a.m. peak hour trips (40 in and 120 out) and 215 net new p.m. peak hour trips (135 in and 80 out).
- Build-out of the site development includes 1,300 residential units and 90,000 square feet of retail use. Build-out (including Phase 1) is collectively estimated to generate a total of 995 net new a.m. peak hour trips (290 in and 705 out) and 1,655 net new p.m. peak hour trips (965 in and 690 out).
- Access to Phase 1 of the site will be provided via two full movement driveways on NW Ingle Road. In the future when the site is built out, access will be provided on both NW Ingle Road and NW Goodwin Road.

Year 2018 Background Traffic Conditions

- Year 2018 background conditions (without construction of the Green Mountain mixed-use development) were estimated assuming completion of approved in-process developments within the study area and an annual 2% growth rate on City of Vancouver roadways.
- Operational analyses indicate that the study intersections are forecast to continue to operate acceptably.

Year 2018 Total Traffic Conditions

- Year 2018 total traffic conditions were estimated assuming completion of approved in-process developments within the study area plus Phase 1 of the proposed development.
- Operational analyses indicate that the study intersections are forecast to continue to operate acceptably under 2018 total traffic conditions with one exception:
 - The southbound movement at the intersection of NE Ingle Road/NE Goodwin Road is projected to operate at a LOS E during the weekday p.m. peak hour. This failure is triggered by the 203rd single family residential unit in Phase 1 of the development.

Year 2029 Background Traffic Conditions

- Year 2029 background conditions (with construction of only Phase 1 of proposed development but no further phases) were estimated assuming the same in-process developments included in the 2018 analysis as well as a one percent growth rate on City of Camas roadways and two percent growth rate on City of Vancouver roadways.
- Operational analyses indicate that the study intersections are forecast to continue to operate acceptably under year 2029 background traffic conditions with two exceptions:
 - The intersection of NE 192nd Avenue/NE 13th Street is projected to operate at a LOS E and over-capacity during the weekday a.m. peak hour and LOS F and over-capacity during the weekday p.m. peak hour,
 - The southbound approach to the intersection of NE Ingle Road/NE Goodwin Road is projected to operate at a LOS F during the weekday p.m. peak hour.

Year 2029 Total Traffic Conditions

- Year 2029 total traffic conditions were estimated assuming year 2029 background traffic and complete build-out of the proposed Green Mountain development.
- Operational analyses indicate that the study intersections are forecast to continue to operate acceptably under year 2029 total traffic conditions, with the exception of:
 - NE 199th Avenue/NE 58th Street (SR 500) (weekday a.m. and p.m.)
 - NE 192nd Avenue/NE 13th Street (weekday a.m. and p.m.)
 - NE Ingle Road/NE Goodwin Road (weekday a.m. and p.m.)

Turn-Lane Considerations

- An assessment of turn-lane need was conducted for each study intersection.
- The intersection of NE 199th Avenue/NE 58th Street (SR 500) meets WSDOT's guidelines for a right-turn lane on the eastbound approach under existing conditions and all future scenarios during both the weekday a.m. and p.m. peak hour.
 - The crash history indicates that no crashes were recorded between 2008-2013 involving vehicles making an eastbound right-turn.
 - Given the lack of crash history related to eastbound right-turns and the relatively small impact of Phase 1 (eight eastbound right-turn trips during the weekday a.m. peak hour, 27 eastbound right-turn trips during the weekday p.m. peak hour), no improvements are recommended in conjunction with Phase 1.
 - In the future, the provision of a right-turn taper or lane could be considered if suggested by the crash history at the intersection.
- The intersection of NE 242nd Avenue (SR 500)/NE 28th Street meets WSDOT's guidelines for a left-turn lane on the eastbound approach under existing conditions and all future scenarios during the weekday p.m. peak hour.
 - The crash history indicates that no crashes were recorded between 2008-2013 involving vehicles making an eastbound left-turn.
 - The City's long-term plans include a traffic signal and southbound left-turn lane at NE 242nd Avenue (SR 500)/NE 28th Street.
 - Given the lack of recorded crash history, the small impact of the proposed development (no Phase 1 eastbound left-turns and less than 10 at master plan build-out), and future improvement plans at this intersection, no turn-lane improvements are recommended with Phase 1 site development.

Recommendations

- Regardless of the proposed master plan application, we recommend that the City of Camas consider potential improvements to the intersection of NE Ingle Road/NE Goodwin Road to address intersection sight distance limitations associated with the location of the stop bar, such as relocating the stop bar.
- The following improvements should be provided in conjunction with site development:
 - Phase 1 Site Development

- An eastbound left-turn lane with 100 feet of storage should be provided at NE Ingle Road/NE Goodwin Road.
 - A westbound right-turn lane on NE Goodwin Road at NE Ingle Road prior to occupancy of the 203rd single family home in Phase 1. The right-turn lane should provide at least 100 feet of storage.
 - On-site and off-site landscaping and any above ground utilities at the site-access driveways and internal roadways should be provided appropriately to ensure that adequate sight-distance is maintained.
- For Phase 1 and all future phases, a Transportation Compliance Letter as described above should be prepared by a licensed professional engineer and submitted with the then-current site plan application.
 - Full Build-Out of Site Development (items to be assessed in Transportation Compliance Letter unless otherwise mitigated):
 - Future site plan applications should provide an updated assessment as to the potential need for providing an eastbound right-turn taper or lane at the 199th Avenue (SR 500)/NE 58th Street intersection unless otherwise deemed mitigated by the project or others.
 - Pay a proportionate “fair-share” financial contribution towards capacity mitigations at the intersection of NE 192nd Avenue/NE 13th Street. This contribution would partially fund the eventual construction of a northbound right-turn lane on NE 192nd Avenue and a westbound right-turn lane on NE 13th Avenue.
 - Mitigations will be needed to improve NE Ingle Road/NE Goodwin Road in 2029. We recommend the following:
 - The applicant construct a three-lane section (with center two-way left-turn lane) on NE Goodwin Road along the site frontage.
 - The applicant assess traffic volumes and signal warrants at NE Ingle Road/NE Goodwin Road with each phase of development and construct a traffic signal and related appurtenances when the intersection no longer satisfies City of Camas performance standard (LOS “D” and v/c of 0.90 or better) and intersection volumes meet traffic signal warrants.

- On-site and off-site landscaping and any above ground utilities at the site-access driveways and internal roadways should be provided appropriately to ensure that adequate sight-distance is maintained.

We trust this letter adequately addresses the traffic impacts associated with the proposed Green Mountain Master Plan development. Please contact us if you have any questions or comments regarding the contents of this report or the analysis performed.

REFERENCES

1. Transportation Research Board 2000. Highway Capacity Manual. 2000.
2. DKS Associates. *City of Camas Traffic Impact Fee Update*. May 2012.
3. Washington State Department of Transportation. *Design Manual*. July 2013.
4. C-Tran. <http://www.c-tran.com>. May 2014.
5. Oregon Department of Transportation Research Section. *SPR 667 Assessment of Statewide Intersection Safety Performance*. June 2011.
6. American Association of State Highway and Transportation Officials. *Highway Safety Manual*. 2010.
7. Institute of Transportation Engineers. *Trip Generation Manual*, 9th Edition. 2012.
8. City of Vancouver. *Traffic Study Guidelines*. December 2013.

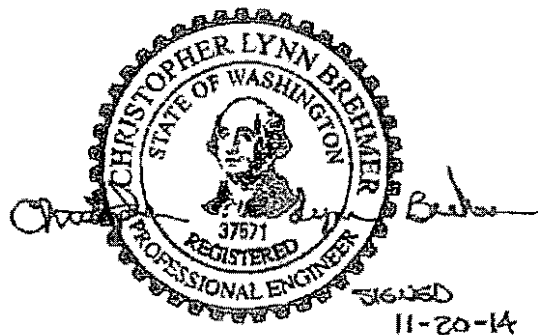
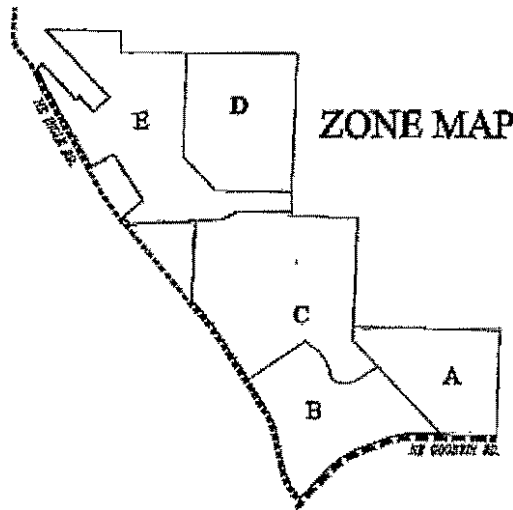


EXHIBIT E

Tree Preservation Plan

Zone	Pods Included in Zone	Total Trees in Zone	Trees Preserved	Percentage of Trees Preserved
Zone A (Southeast)	D4, D5, D6 E2, E3	170	90	39%
Zone B (South)	H (CC), A1, A2, A3, B5	342	265	77%
Zone C (Central)	B1, B2, B3, C1, C2, D1, D2, D3, E1	1,454	488	34%
Zone D (Northeast)	G	3,524	2,345	67%
Zone E (Northwest)	B4, E4, F1, F2, F3, F4	4,040	1,571	39%
Total Site		9,589	4,759	50%



The Tree Preservation Plan is based on a complete tree survey of the entire Property. This survey finds that nearly 9,600 trees are present on the property. The Property has been divided into five "zones" that identify five distinct areas of future development. The zones were established to assure that acceptable numbers of trees were preserved throughout the Property, not just in one isolated area rendering the remaining portions of the site bare of trees. The percentage of trees protected in a given zone varies from 34% to 77%, with the net result being that at least 50% of the existing trees on the Property will be preserved.

Compliance with the Tree Preservation Plan will take place with each future development application (Preliminary Plat or Site Plan Review), at which time the applicant will demonstrate that the number of trees protected will meet or exceed the amount listed in the "Trees Preserved" column in the above

table. In the event that a given development application covers only part of a zone, the applicant shall demonstrate that the current development application will not preclude the preservation of the minimum number of trees required to be preserved for that zone when the zone is fully developed. In addition to the trees that will be preserved, thousands of trees will be planted as part of the development's landscape requirements, including in parks, open spaces, streetscapes, and residential areas.

Consistent with Camas City code, Oregon White Oak trees over 20" dbh are considered habitats of local importance, as well as Oregon White Oaks that form a grove of one acre or larger. Such oaks shall be considered jurisdictional for the purposes of this Tree Preservation Plan. Any jurisdictional Oregon White Oak trees shall be mitigated for at a 2:1 stem count ratio and installed within an appropriate area on site. Oregon white oak trees installed as mitigation will be 1.5" caliper at a minimum. Where possible, oaks will be planted within vegetation voids associated with riparian corridors, oak groves and green space to increase oak habitat connectivity across the site. The location of oak plantings shall be at the direction of a professional biologist or certified arborist.

EXHIBIT F

URBAN VILLAGE AREA - Mixed Use, Community Commercial, A and B PODs

Urban Village Area	Minimum of 8.8 acres with ground floor Employment/Commercial Use (as provided for in 18.07.030 Table 1). Allow horizontal and vertical Mixed Use PODs H, A1, A2, A3, B5 and 100 Units at the Village Center
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DENSITY and DIMENSIONS - Camas MF zones and Green Mountain C, B and A PODs

The bold, italic and underlined standards are the Density, Dimension and use standards for the Green Mountain Project C, B and A pods.

C Pod - 6-10 units/acre - 3000-5000 SF lots

B Pod - 6-18 units/acre - 1000-3000 SF lots

A Pod - 12-24 units/acre

	MF-10	C PODs	MF-18	B PODs	MF-24	A PODs
DENSITY						
Max. du/gac	10	10	18	18	24	24
Min. du/gac	6	6	6	6	6	12
STANDARD LOTS						
Min. lot SF	3,000	3,000 <i>[a]</i>	2,100	<u>1,000</u> <i>[a]</i>	1,800	<u>1,000</u> <i>[a]</i>
Min. lot width	30	30	20	20	20	20
Min. lot depth	70	70	60	<u>50</u>	60	<u>50</u>
Max. Floor Area per du	No Max	No Max	No Max	No Max	No Max	No Max
SETBACKS						
Min. front/at garage	15/18	<u>10/18</u>	10/18	<u>6/3@05/18</u>	10/18	<i>None</i>
Min. side	3 [1]	3	3 [1]	3	3 [1]	
Min. side Flanking Street	15	<u>10</u>	15	<u>10</u>	15	<i>None [d]</i>
Min. rear <i>[garage @alley]</i>	10	<u>10</u> <i>[b][c]</i>	10	<u>10</u> <i>[b][c]</i>	10	<i>None [c]</i>
LOT COVERAGE, Max.	55%	55%	65%	<i>None</i>	75%	<i>None</i>
BUILDING HEIGHT, Max.	35 [2]	35	45 [2]	45	45 [2]	<u>60</u>

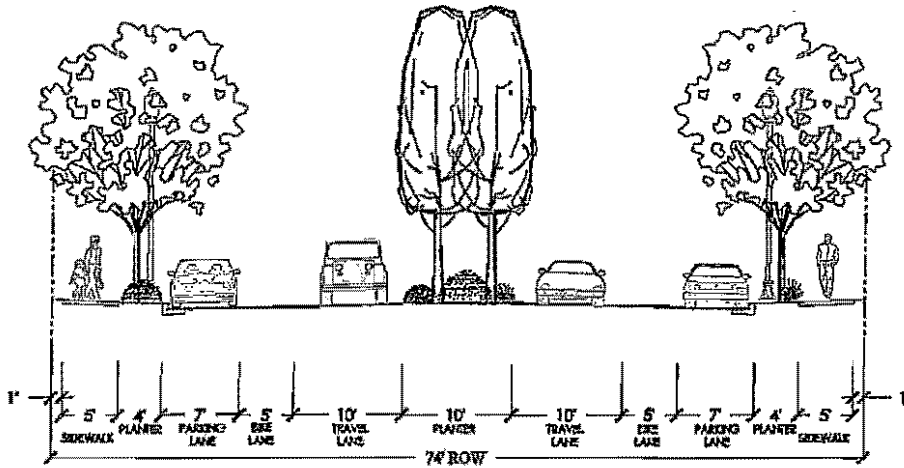
a. Single Family Detached homes to be permitted. For SFD in A POD apply setbacks in B POD.

b. 10 feet for front access garage.

c. Minimum rear yard for alley accessed garage is either 3' or 18'.

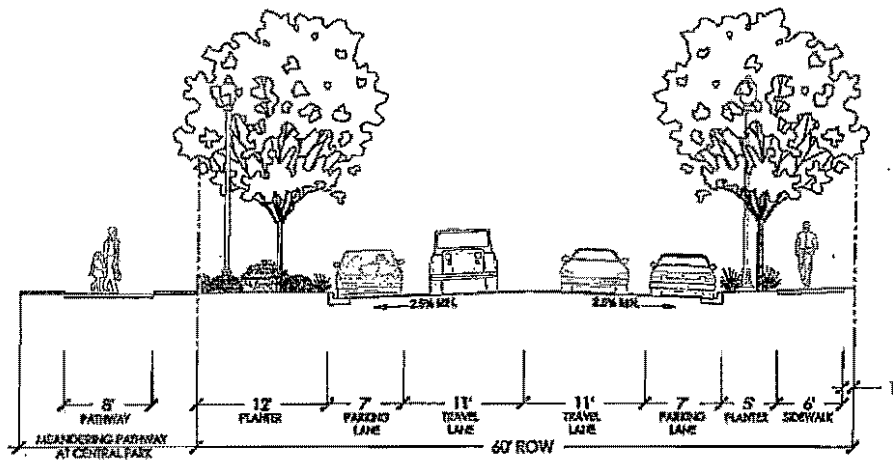
d. Franchise utilities to be located in front or side yard easements abutting right of way.

1. The non-attached side of a dwelling unit shall be three feet, otherwise a zero-lot line is assumed.
2. Maximum building height: three stories and a basement but not to exceed maximum building height.



NOTE: REPLACE PARKING WITH LANDSCAPED CURB EXTENSION AT SELECT INTERSECTIONS

ENTRY BOULEVARD

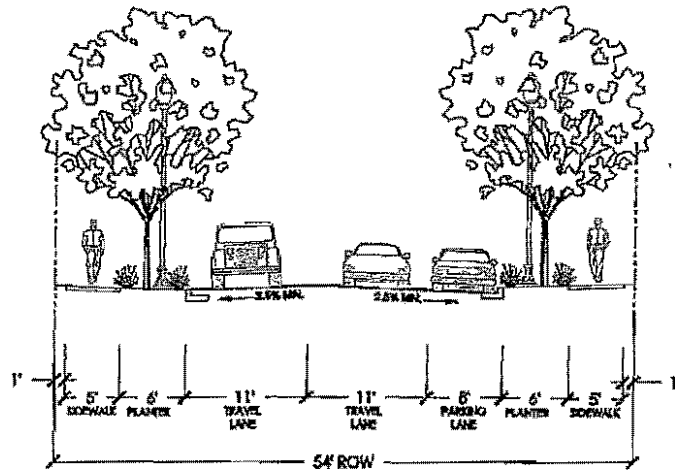


CIRCULATOR STREET AT CENTRAL PARK

EXHIBIT G

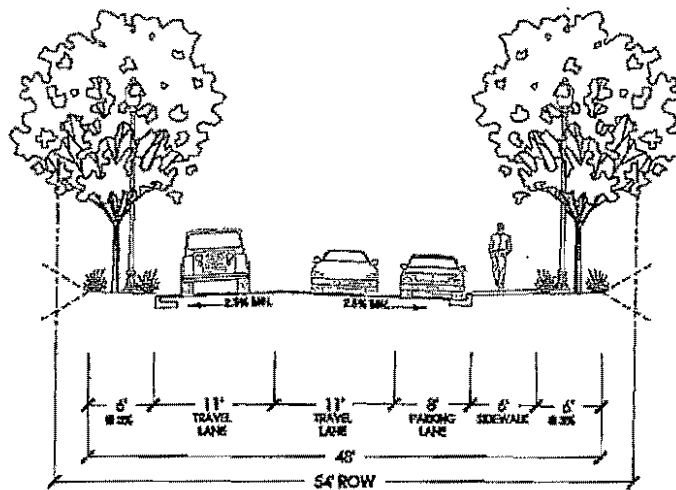
11/14/14

1 OF 2



CIRCULATOR STREET

AT D & E PODS



CIRCULATOR STREET

**AT ENVIRONMENTALLY SENSITIVE FRONTAGE OR CROSSING &
AT STREET GRADES GREATER THAN 12%**

EXHIBIT G

11/14/14

2 OF 2



Staff Report – Public Hearing for Ordinance

September 20, 2021 Regular Meeting

Public Hearing regarding an Amendment to the Development Agreement relating to Sewer Service for the Green Mountain PRD

Presenter: Steve Wall, Public Works Director

Time Estimate: 10 min

Phone	Email
360.817.7899	swall@cityofcamas.us

INTRODUCTION/PURPOSE/SUMMARY: The City entered into a Purchase and Sale Agreement (PSA) with Terrell & Associates, LLC, et. al. effective December 1, 2020 regarding the donation of 60 acres to the City and purchase of 55 acres by the City. The parcels were originally a part of the Green Mountain Planned Residential Development (PRD) and identified as "Phase 3". The 60-acre donation of property to the City (shown below as "Parcel 1" in Figure 1) occurred in December 2020 and the PSA stipulated that the purchase of the remaining 55 acres for \$3.8 million (shown as "Parcel 2" in Figure 1) is to close no later than October 31, 2021. As a condition of closing, Section 3(j) of the PSA also requires that two existing development agreements associated with the Green Mountain PRD be amended to remove the donated and purchased parcels, and therefore the City, from any obligations associated with the Green Mountain PRD.

In accordance with CMC 18.55.340, a public hearing must be held before adopting any development agreement via ordinance or resolution. This public hearing is for an amendment to the Development Agreement between Green Mountain Land, LLC and the City recorded on February 5, 2016 under Clark County Auditor’s file number 5254840 pertaining to the provisions for sewer service to the Green Mountain PRD.

EQUITY CONSIDERATIONS:

What are the desired results and outcomes for this agenda item?

- To hold a public hearing regarding an amendment to an existing development agreement with Green Mountain Land, LLC.

What’s the data? What does the data tell us?

- N/A

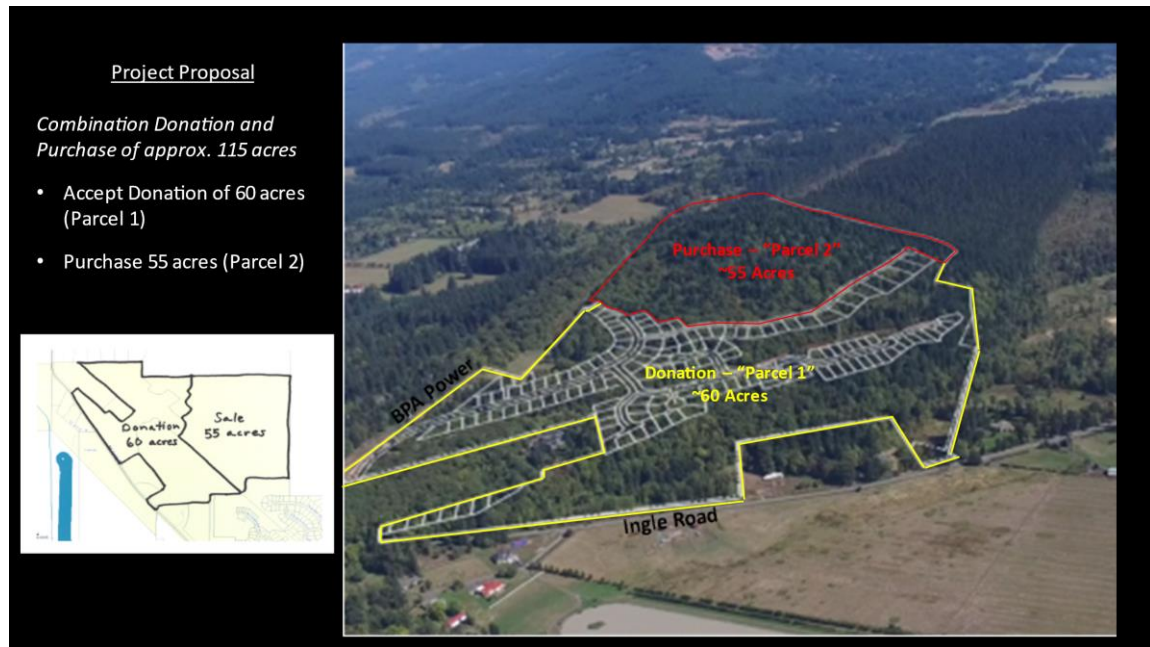


Figure 1: Green Mountain PRD Ph. 3 Donation and Purchase

How have communities been engaged? Are there opportunities to expand engagement?

- This public hearing is intended to provide opportunities for public comment and engagement on the proposed amendment.

Who will benefit from sale, or be burdened by this agenda item?

- The City as a whole will benefit from this agenda item as it will remove the City from any obligations placed on the Green Mountain PRD through the existing development agreement.

What are the strategies to mitigate any unintended consequences?

- Review of the PSA occurred prior to signing and a public hearing is being held to obtain public feedback.

Does this agenda item have a differential impact on underserved populations, people living with disabilities, and/or communities of color? Please provide available data to illustrate this impact.

- N/A

Will this agenda item improve ADA accessibilities for people with disabilities?

- N/A

What potential hurdles exist in implementing this proposal (include both operational and political)?

- None

How will you ensure accountabilities, communicate, and evaluate results?

- N/A

How does this item support a comprehensive plan goal, policy or other adopted resolution?

- As discussed in previous staff reports, acquiring the Green Mountain Property meets multiple goals within the City's Comprehensive Plan and PROS Plan.

RECOMMENDATION: Staff recommends holding a public hearing to receive testimony, then direct staff and the City Attorney to draft a Resolution for consideration by Council at the October 4, 2021 Regular Meeting.

When Recorded, Return to:

Shawn R. MacPherson
430 NE Everett Street
Camas, WA 98607

Parcels: Above Space for Recording Information Only

AMENDMENT TO DEVELOPMENT AGREEMENT

THIS AMENDMENT TO DEVELOPMENT AGREEMENT (the "Amendment") is made and entered into by and between the City of Camas, a Washington Municipal Corporation, ("City"); and Green Mountain Land, LLC, a Washington Limited Liability Company, ("GML").

RECITALS

WHEREAS, a Development Agreement was duly executed and recorded by and between GML and the City of Camas on February 5, 2016, under Clark County Auditor's file number 5254840; and

WHEREAS, Section 14 of the Development Agreement allows for amendment or modification by writing signed by all of the parties hereto; and

WHEREAS, the City has the authority to enter into Development Agreements pursuant to RCW 36.70B.170 and Camas Municipal Code 18.55.340; and

WHEREAS, the City is a Washington Municipal Corporation with land use planning and permitting authority over all land within its corporate limits; and

WHEREAS, GML owned or controlled certain real property located within the City's municipal boundary which became subject to the terms of the Development Agreement upon execution and recording thereof; and

WHEREAS, City has acquired or will acquire a portion of said real property otherwise subject to terms of the Development Agreement and by this Amendment the terms thereof shall

STATE OF WASHINGTON)
) ss.
COUNTY OF CLARK)

On this ____ day of _____, 2021, personally appeared _____, to me known to be the _____ of Green Mountain Land, LLC, a Washington Limited Liability Company, that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed, of said corporation, for the uses and purposes therein mentioned, and on oath stated that he/she was authorized to execute said instrument.

GIVEN under my hand and official seal this ____ day of _____, 2021.

Notary Public in and for the State of
Washington, residing at _____.
My commission expires: _____.

EXHIBIT "A" LEGAL DESCRIPTION

**PARCEL 1:
171727-000**

A parcel of land located in a portion of the Thomas J. Fletcher Donation Land Claim No. 51, and the Daniel Ollis Donation Land Claim No. 52, and lying within the Northeast quarter of Section 20, and the Southeast quarter of Section 17, Township 2 North, Range 3 East of the Willamette Meridian in the City of Camas, Clark County, Washington, described as follows:

COMMENCING at the Southeast corner of said Section 17;

THENCE North 01° 45' 46" East, along the East line of said Southeast quarter, a distance of 293.65 feet to the Northeast corner of the CLB Washington Solutions I, LLC parcel described in Exhibit "D", recorded under Auditor's File No. 5550741 AMD, records of said County;

THENCE along the North line of said Exhibit "D" parcel the following courses:

THENCE North 89° 08' 23" West, parallel with the South line of said Southeast quarter, a distance of 633.51 feet;

THENCE South 01° 45' 46" West, parallel with the East line of said Southeast quarter, a distance of 180.54 feet;

THENCE South 61° 08' 05" West, a distance of 99.20 feet to the Northeast corner of the CLB Washington Solutions I, LLC parcel described in Exhibit "F", recorded under Auditor's File No. 5550741 AMD, records of said County and the TRUE POINT OF BEGINNING;

THENCE leaving said North line, North 44° 04' 38" West, a distance of 1729.40 feet;

THENCE North 87° 02' 18" West, a distance of 55.03 feet to a point on a 25.00 foot radius curve to the left;

THENCE along said 25.00 foot radius curve to the left (the long chord of which bears South 55° 08' 15" West, a distance of 30.66 feet), an arc distance of 33.01 feet;

THENCE South 17° 18' 48" West, a distance of 13.65 feet to a point on a 44.00 foot radius curve to the left;

THENCE along said 44.00 foot radius curve to the left (the long chord of which bears South 03° 00' 29" West, a distance of 21.74 feet), an arc distance of 21.97 feet;

THENCE South 78° 42' 10" West, a distance of 130.21 feet;

THENCE South 50° 22' 11" West, a distance of 40.78 feet;

THENCE South 37° 37' 52" West, a distance of 102.48 feet;

THENCE South 04° 25' 46" East, a distance of 392.13 feet to a 3/4 inch iron pipe at the Northeast corner of that parcel of land conveyed to Keith Bakker by deed recorded under Auditor's File No. G-646584, records of said County;

THENCE South 33° 49' 02" East, along the East line of said "Bakker" parcel, a distance of 667.95 feet to a

3/4 inch iron pipe, and the Southeast corner thereof;

THENCE South 49° 37' 59" West, along the South line of said "Bakker" parcel, a distance of 353.18 feet, more or less, to the centerline of NE. Ingle Road;

THENCE South 40° 25' 24" East, along said centerline, a distance of 178.15 feet to a point which bears South 06° 18' 14" West from a 1/2 inch iron pipe on an Easterly line of that parcel of land conveyed to James M. Bartmess by instrument recorded under Auditor's File No. 8911140220, records of said County;

THENCE North 06° 18' 14" East, along said Easterly line, a distance of 71.63 feet to said 1/2 inch iron pipe;

THENCE North 86° 45' 59" East, along a Southerly line of said "Bartmess" parcel, a distance of 9.94 feet to the Northwest corner of that parcel land conveyed to Ronald D. Warman and Rhonda Warman, husband and wife, by deed recorded under Auditor's File No. 9004270087, records of said County;

THENCE North 86° 58' 36" East, along the North line of said "Warman" parcel, a distance of 790.14 feet to the Northeast corner thereof, said point also being on the West line of "PARCEL 2" as described in that deed to AE Green Mountain, LLC, recorded under Auditor's File No. 5485415, records of said County;

THENCE North, 02° 04' 33" East, along the West line of said AE Green Mountain, LLC parcel, a distance of 118.49 feet to the Northwest corner thereof;

THENCE South 89° 08' 23" East, along the North line of said AE Green Mountain, LLC parcel, and the North line of said CLB Washington Solutions I, LLC parcel described in Exhibit "F", a distance of 406.50 feet to a point which bears South 61° 08' 05" West, from the TRUE POINT OF BEGINNING;

THENCE North 61° 08' 05" East, a distance of 50.20 to the TRUE POINT OF BEGINNING.

**PARCEL 2:
172341-000**

A parcel of land located in a portion of the Daniel Ollis Donation Land Claim No. 52, and lying within the South half of Section 17, Township 2 North, Range 3 East of the Willamette Meridian in the City of Camas, Clark County, Washington, described as follows:

COMMENCING at the Southeast corner of said Section 17;

THENCE North 01° 45' 46" East, along the East line of said Southeast quarter, a distance of 293.65 feet to the Northeast corner of the CLB Washington Solutions I, LLC parcel described in Exhibit "D", recorded under Auditor's File No. 5550741 AMD, records of said County;

THENCE continuing North 01° 45' 46" East, along said East line, a distance of 1668.35 to the Southeast corner of Lot 12 of the Plat of Mountain Glen, recorded in Book J of Plats, at Page 199, record of said County,

THENCE North 89° 22' 57" West, along the South line of said Lot 12, a distance of 1455.75 feet to a point which bears South 89° 22' 57" East, a distance of 730.30 feet, from the Southwest corner of said Lot 12;

THENCE leaving said South line, South 00° 37' 03" West, a distance of 143.76 feet;

THENCE South 36° 42' 34" West, a distance of 125.00 feet;

THENCE South 53° 17' 26" East, a distance of 70.00 feet;

THENCE South 36° 42' 34" West, a distance of 140.00 feet;

THENCE South 18° 34' 50" East, a distance of 39.26 feet;

THENCE South 50° 06' 38" East, a distance of 120.00 feet;

THENCE South 39° 53' 22" West, a distance of 142.06 feet to a point on a non-tangent 120.00 foot radius curve to the left;

THENCE along said 120.00 foot radius curve to the left (the long chord of which bears North 49° 16' 41" West, a distance of 3.49 feet), an arc distance of 3.49 feet;

THENCE North 50° 06' 38" West, a distance of 23.25 feet;

THENCE South 39° 53' 22" West, a distance of 89.99 feet to the TRUE POINT OF BEGINNING;

THENCE North 50° 06' 00" West, a distance of 145.05 feet;

THENCE North 34° 57' 46" West, a distance of 121.13 feet;

THENCE North 66° 10' 19" East, a distance of 14.62 feet;

THENCE North 55° 02' 14" East, a distance of 75.65 feet;

THENCE North 55° 56' 38" East, a distance of 52.01 feet;

THENCE North 44° 42' 13" East, a distance of 59.80 feet;

THENCE North 36° 42' 34" East, a distance of 16.13 feet;

THENCE North 53° 17' 26" West, a distance of 90.00 feet;

THENCE North 36° 42' 34" East, a distance of 13.20 feet;

THENCE North 53° 17' 26" West, a distance of 142.08 feet;

THENCE South 36° 28' 56" West, a distance of 26.87 feet;

THENCE South 55° 49' 34" West, a distance of 93.89 feet;

THENCE South 81° 42' 47" West, a distance of 59.99 feet;

THENCE North 67° 16' 28" West, a distance of 60.00 feet;

THENCE North 58° 13' 08" West, a distance of 63.70 feet;

THENCE North 44° 16' 44" West, a distance of 46.41 feet;

THENCE North 45° 43' 16" East, a distance of 82.68 feet to a point which bears South 44° 16' 44" East, from the Southwest corner of said Lot 12;

THENCE North 44° 16' 44" West, a distance of 196.68 feet to the Southwest corner of said Lot 12;

THENCE North 01° 45' 46" East, along the West line of said Lot 12, a distance of 256.70 feet to the Southeast corner of Lot 11 of said Plat of Mountain Glen;

THENCE North 89° 22' 57" West, along the South line of said Plat of Mountain Glen, a distance of 930.24 feet to the Northeast corner of that parcel of land conveyed to Lon and Rachelle Combs, by deed recorded under Auditor's File No. 4150099 D, records of said County;

THENCE South 44° 04' 35" East, along the Northeasterly line of said "Combs" parcel, a distance of 1131.67 feet to the most Easterly Southeast corner of said "Combs" parcel;

THENCE South 45° 55' 25" West, along the Southeasterly line of said "Combs" parcel, a distance of 254.00 feet to the Southwest corner thereof;

THENCE along the Southwesterly lines of said "Combs" parcel, the following courses:

THENCE North 44° 04' 35" West, a distance of 257.24 feet to an angle point;

THENCE South 45° 55' 25" West, a distance of 60.00 feet to an angle point;

THENCE North 44° 04' 35" West, a distance of 607.89 feet to an angle point;

THENCE South 45° 55' 25" West, a distance of 132.24 feet, more or less, to the centerline of NE. Ingle Road, said point being on a non-tangent 675.00 foot radius curve to the right;

THENCE leaving said "Combs" parcel, along said 675.00 foot radius curve to the right (the long chord of which bears South 26° 56' 02" East, a distance of 55.22 feet), an arc distance of 55.23 feet;

THENCE along the centerline of said NE. Ingle Road, the following courses:

THENCE South 24° 35' 23" East, a distance of 57.61 feet to a point on a 1200.00 foot radius curve to the left;

THENCE along said 1200.00 foot radius curve to the left (the long chord of which bears South 28° 02' 22" East, a distance of 144.41 feet), an arc distance of 144.50 feet;

THENCE South 31° 29' 20" East, a distance of 190.47 feet;

THENCE South 30° 43' 55" East, a distance of 678.85 feet;

THENCE South 29° 58' 13" East, a distance of 238.24 feet to a point which bears South 59° 56' 15" West from a 1/2 inch iron pipe marking the Northwest corner of that parcel of land conveyed to Keith Bakker by deed recorded under Auditor's File No. G-646584, records of said County;

THENCE leaving said centerline, North 59° 56' 15" East, a distance of 21.66 feet to said iron pipe;

THENCE continuing North 59° 56' 15" East, along the North line of said "Bakker" parcel, a distance of 329.81 feet to a 3/4 inch iron pipe and the Northeast corner thereof;

THENCE leaving said "Bakker" parcel, North 04° 25' 46" West, a distance of 392.13 feet;

THENCE North 37° 37' 52" East, a distance of 102.48 feet;

THENCE North 50° 22' 11" East, a distance of 40.78 feet;

THENCE North 78° 42' 10" East, a distance of 130.21 feet to a point on a non-tangent 44.00 foot radius curve to the right;

THENCE along said 44.00 foot radius curve to the left (the long chord of which bears North 03° 00' 29" East, a distance of 21.74 feet), an arc distance of 21.97 feet;

THENCE North 17° 18' 48" East, a distance of 13.65 feet to a point on a 25.00 foot radius curve to the right;

THENCE along said 25.00 foot radius curve to the right (the long chord of which bears North 55° 08' 15" East, a distance of 30.66 feet), an arc distance of 33.01 feet;

THENCE South 87° 02' 18" East, a distance of 55.03 feet to a point which bears North 44° 04' 38" West

from the Northeast corner of the CLB Washington Solutions I, LLC parcel described in Exhibit "F", recorded under Auditor's File No. 5550741 AMD, records of said County;

THENCE South 44° 04' 38" East, a distance of 428.29 feet;

THENCE North 45° 55' 22" East, a distance of 77.48 feet;

THENCE North 22° 23' 48" East, a distance of 156.33 feet;

THENCE North 15° 42' 20" West, a distance of 40.03 feet;

THENCE North 32° 16' 02" West, a distance of 46.58 feet to a point which bears South 50° 06' 00" East, from the TRUE POINT OF BEGINNING;

THENCE North 50° 06' 00" West, a distance of 27.96 feet to the TRUE POINT OF BEGINNING.

**PARCEL 3:
986047280**

A parcel of land located in a portion of the Daniel Ollis Donation Land Claim No. 52, and lying within the Southeast quarter of Section 17, Township 2 North, Range 3 East of the Willamette Meridian in the City of Camas, Clark County, Washington, described as follows:

COMMENCING at the Southeast corner of said Section 17;

THENCE North 01° 45' 46" East, along the East line of said Southeast quarter, a distance of 293.65 feet to the Northeast corner of the CLB Washington Solutions I, LLC parcel described in Exhibit "D", recorded under Auditor's File No. 5550741 AMD, records of said County;

THENCE continuing North 01° 45' 46" East, along said East line, a distance of 1668.35 to the Southeast corner of Lot 12 of the Plat of Mountain Glen, recorded in Book J of Plats, at Page 199, record of said County,

THENCE North 89° 22' 57" West, along the South line of said Lot 12, a distance of 1455.75 feet to a point which bears South 89° 22' 57" East, a distance of 730.30 feet, from the Southwest corner of said Lot 12, said point being the TRUE POINT OF BEGINNING;

THENCE leaving said South line, South 00° 37' 03" West, a distance of 143.76 feet;

THENCE South 36° 42' 34" West, a distance of 125.00 feet;

THENCE South 53° 17' 26" East, a distance of 70.00 feet;

THENCE South 36° 42' 34" West, a distance of 140.00 feet;

THENCE South 18° 34' 50" East, a distance of 39.26 feet;

THENCE South 50° 06' 38" East, a distance of 120.00 feet;

THENCE South 39° 53' 22" West, a distance of 142.06 feet to a point on a non-tangent 120.00 foot radius curve to the left;

THENCE along said 120.00 foot radius curve to the left (the long chord of which bears North 49° 16' 41" West, a distance of 3.49 feet), an arc distance of 3.49 feet;

THENCE North 50° 06' 38" West, a distance of 23.25 feet;

THENCE South 39° 53' 22" West, a distance of 89.99 feet;

THENCE North 50° 06' 00" West, a distance of 145.05 feet;
THENCE North 34° 57' 46" West, a distance of 121.13 feet;
THENCE North 66° 10' 19" East, a distance of 14.62 feet;
THENCE North 55° 02' 14" East, a distance of 75.65 feet;
THENCE North 55° 56' 38" East, a distance of 52.01 feet;
THENCE North 44° 42' 13" East, a distance of 59.80 feet;
THENCE North 36° 42' 34" East, a distance of 16.13 feet;
THENCE North 53° 17' 26" West, a distance of 90.00 feet;
THENCE North 36° 42' 34" East, a distance of 13.20 feet;
THENCE North 53° 17' 26" West, a distance of 142.08 feet;
THENCE South 36° 28' 56" West, a distance of 26.87 feet;
THENCE South 55° 49' 34" West, a distance of 93.89 feet;
THENCE South 81° 42' 47" West, a distance of 59.99 feet;
THENCE North 67° 16' 28" West, a distance of 60.00 feet;
THENCE North 58° 13' 08" West, a distance of 63.70 feet;
THENCE North 44° 16' 44" West, a distance of 46.41 feet;
THENCE North 45° 43' 16" East, a distance of 82.68 feet to a
point which bears South 44° 16' 44" East, from the Southwest corner of
said Lot 12;
THENCE North 44° 16' 44" West, a distance of 196.68 feet to the
Southwest corner of said Lot 12;
THENCE South 89° 22' 57" East, along the South line of said Lot
12, a distance of 730.30 feet to the TRUE POINT OF BEGINNING.

**Parcel 4:
986047279**

A parcel of land located in a portion of the Daniel Ollis Donatton Land Claim No. 52, and lying within the Southeast quarter of Section 17, Township 2 North, Range 3 East of the Willamette Meridian in the City of Camas, Clark County, Washington, described as follows:

COMMENCING at the Southeast corner of said Section 17;

THENCE North $01^{\circ} 45' 46''$ East, along the East line of said Southeast quarter, a distance of 293.65 feet to the Northeast corner of the CLB Washington Solutions I, LLC parcel described in Exhibit "D", recorded under Auditor's File No. 5550741 AMD, records of said County, and the TRUE POINT OF BEGINNING;

THENCE along the North line of said Exhibit "D" parcel the following courses:

THENCE North $89^{\circ} 08' 23''$ West, parallel with the South line of said Southeast quarter, a distance of 633.51 feet;

THENCE South $01^{\circ} 45' 46''$ West, parallel with the East line of said Southeast quarter, a distance of 180.54 feet;

THENCE South $61^{\circ} 08' 05''$ West, a distance of 99.20 feet to the Northeast corner of the CLB Washington Solutions I, LLC parcel described in Exhibit "T", recorded under Auditor's File No. 5550741 AMD, records of said County;

THENCE leaving said North line, North $44^{\circ} 04' 38''$ West, a distance of 1301.11 feet;

THENCE North $45^{\circ} 55' 22''$ East, a distance of 77.48 feet;

THENCE North $22^{\circ} 23' 48''$ East, a distance of 156.33 feet;

THENCE North $15^{\circ} 42' 20''$ West, a distance of 40.03 feet;

THENCE North $32^{\circ} 16' 02''$ West, a distance of 46.58 feet;

THENCE North $50^{\circ} 06' 00''$ West, a distance of 27.96 feet;

THENCE North $39^{\circ} 53' 22''$ East, a distance of 89.99 feet;

THENCE South $50^{\circ} 06' 38''$ East, a distance of 23.25 feet to a point on a 120.00 foot radius curve to the right;

THENCE along said 120.00 foot radius curve to the right (the long chord of which bears South $49^{\circ} 16' 41''$ East, a distance of 3.49 feet), an arc distance of 3.49 feet;

THENCE North $39^{\circ} 53' 22''$ East, a distance of 142.06 feet;

THENCE North $50^{\circ} 06' 38''$ West, a distance of 120.00 feet;

THENCE North $18^{\circ} 34' 50''$ West, a distance of 39.26 feet;

THENCE North $36^{\circ} 42' 34''$ East, a distance of 140.00 feet;

THENCE North $53^{\circ} 17' 26''$ West, a distance of 70.00 feet;

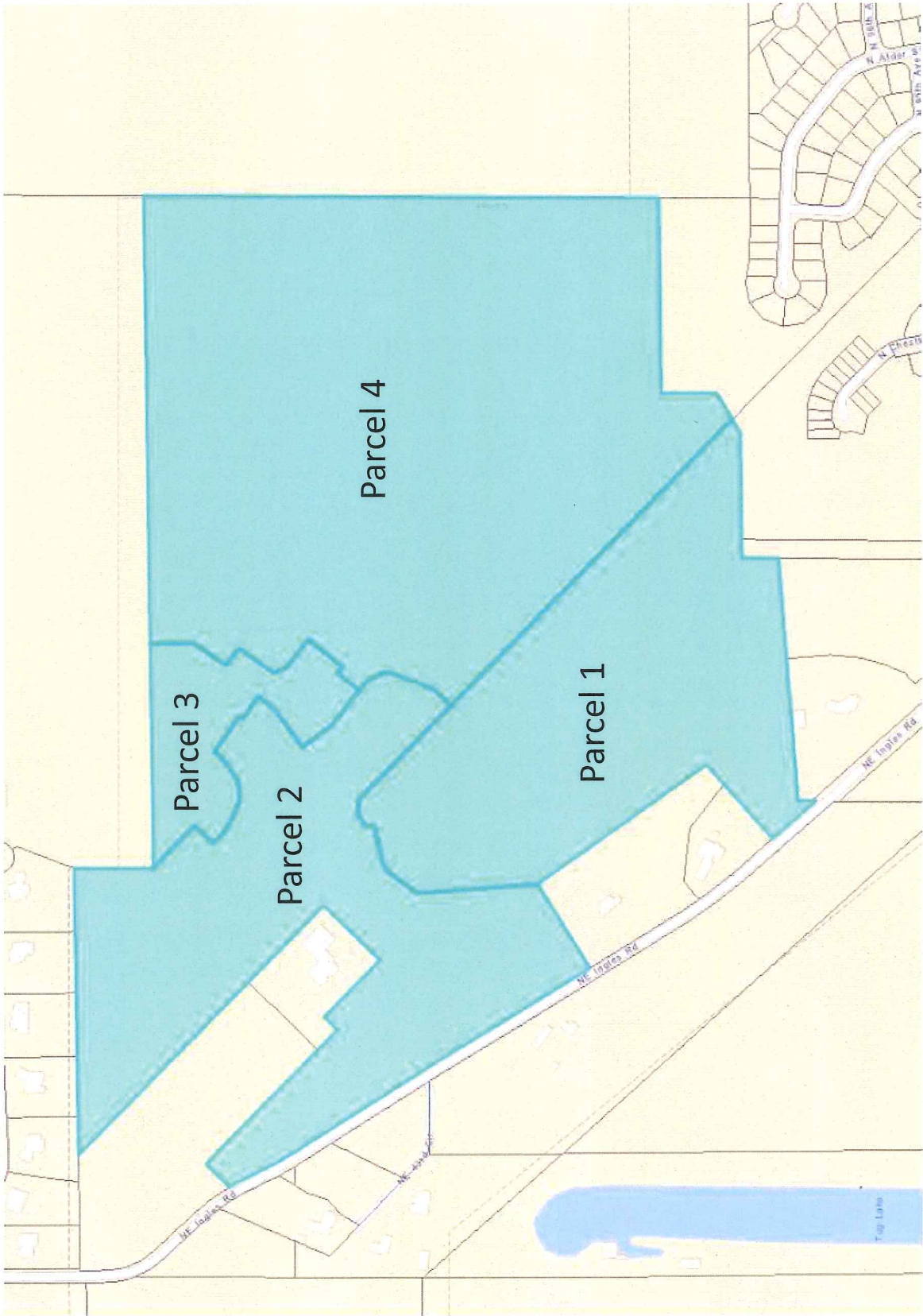
THENCE North $36^{\circ} 42' 34''$ East, a distance of 125.00 feet;

THENCE North $00^{\circ} 37' 03''$ East, a distance of 143.76 feet to a point on the South line of Lot 12 of the Plat of Mountain Glen, recorded in Book J of Plats, at Page 199, record of said County, said point bears South $89^{\circ} 22' 57''$ East, a distance of 730.30 feet from the Southwest corner of said Lot 12;

THENCE South $89^{\circ} 22' 57''$ East, along said South line, a distance of 1455.75 feet to a point on the East line of the Southeast quarter of said Section 17;

THENCE South $01^{\circ} 45' 46''$ West, along said East line, a distance of 1668.35 feet to the TRUE POINT OF BEGINNING.

Parcel Map



5254840 AGR 02/05/2016 02:43 PM
Total Pages: 19 Rec Fee: \$91.00
STEWART TITLE - VANCOUVER MAIN
SIMPLIFILE LC E-RECORDING
eRecorded in Clark County, WA

After recording, return to:

RANDALL B. PRINTZ
Landerholm, Memovich,
Lansverk & Whitesides, P.S.
P.O. Box 1086
Vancouver, WA 98666-1086

171727000	172553000	Space Above for Recording Information Only
172341000	173178000	
171704000	172559000	
172555000	DEVELOPMENT AGREEMENT	
172557000	986037308	986037307
	986037306	986037656

This Development Agreement (the "Agreement") is made and entered into by and between the CITY OF CAMAS, a Washington Municipal Corporation (hereinafter referred to as the "City") and Green Mountain Land LLC (hereinafter referred to as the "Owner") (and collectively referred to as "Parties").

RECITALS

WHEREAS, Owner owns or controls certain real property which is located within the City's municipal boundary and which is more fully described in the attached Exhibit "A", (hereinafter referred to as the "Property"); and,

WHEREAS, the City and the Owner recognize the area of the City known as the North Urban Growth Area ("NUGA"), will develop over a period of many years; and,

WHEREAS, the Owner has applied to the City for a Planned Residential Development for the Property which is located within the NUGA and will require significant investment in sewer infrastructure to develop the Property; and,

WHEREAS, it is anticipated that certain conditions in the approved Planned Residential Development for the Property will require the Owner to complete specific sewer improvements which will be considered together with this Agreement; and

WHEREAS, the City and the Owner wish to provide predictability and efficiency about the design, cost and delivery of sewer service to the Property and other properties in NUGA; and,

Abr. Legal: Section 17, 20, 21 T2N R3EWM

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WHEREAS, the City intends to construct trunk line sewer improvements identified in the City's Capital Facilities Plan ("the Phase B Improvements") across the NUGA to provide a more efficient and less costly way to maintain sewer system; the improvements are identified on Exhibit B, which is attached hereto and incorporated by reference herein; and

WHEREAS, the City intends to issue Water and Sewer Revenue Bonds ("Bonds") to finance design and construction of the Phase B Improvements; and

WHEREAS, the City and the Owner recognize that financial contributions from the Owner to the City will benefit not only the Property, but also other properties in the NUGA served by the Phase B Improvements to be constructed by the City; and,

WHEREAS, the City is a Washington Municipal Corporation with annexation powers, and land use planning and permitting authority over all land within its corporate limits; and,

WHEREAS, the Washington State Legislature has authorized the execution of Development Agreements between local governments and a person having ownership or control of real property within its jurisdiction pursuant to RCW 36.70B.170(1); and,

WHEREAS, pursuant to RCW 36.70B.170, a Development Agreement may set forth the development standards and other provisions that shall apply to, govern and vest the development, use and mitigation of the development of real property for the duration specified in the agreement; which statute provides:

(1) A local government may enter into a Development Agreement with a person having ownership or control of real property within its jurisdiction. A city may enter into a development agreement for real property outside its boundaries as part of a proposed annexation or a service agreement. A development agreement must set forth the development standards and other provisions that shall apply to and govern and vest the development, use, and mitigation of the development of the real property for the duration specified in the agreement. A development agreement shall be consistent with applicable development regulations adopted by a local government planning under chapter 36.70A RCW; and

WHEREAS, the legislative findings supporting the enactment of this section provide:

The legislature finds that the lack of certainty of the approval of development projects can result in a waste of public and private resources escalate housing costs for consumers and discourage the commitment to comprehensive planning which would make maximum efficient use of resources at the least economic cost to the public. Assurance to a development project applicant that upon government approval the project may proceed in accordance with existing policies and regulations, and subject to conditions of approval, all as

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set forth in a development agreement, will strengthen the public planning process, encourage private participation and comprehensive planning, and reduce the economic cost of development. Further, the lack of public facilities and services is a serious impediment to development of new housing and commercial uses. Project applicants and local governments may include provisions and agreements whereby applicants are reimbursed over time for financing public facilities. It is the intent of the legislature by RCW 36.70B.170 through 36.70B.210 to allow local governments and owners and developers of real property to enter into development agreements; and

WHEREAS, for the purposes of this Agreement, "Development Standards" includes, but is not limited to, all of the standards listed in RCW 36.70B.170(3); and,

NOW, THEREFORE, THE PARTIES HERETO AGREE AS FOLLOWS:

Section 1. Development Agreement. This Agreement is a Development Agreement to be implemented under the authority of and in accordance with RCW 36.70B.170 through RCW 36.70B.210. It shall become a contract between the Owner and the City upon its approval by ordinance or resolution following a public hearing as provided for in RCW 36.70B.170; and upon recording of the Agreement, as set forth in Section 12 herein.

Section 2. Term of Agreement. This Agreement shall commence upon the Effective Date, and shall be valid for a period of fifteen (15) years; unless extended or terminated by mutual consent of the Parties.

Section 3. As soon as reasonably practical, the City shall begin the process to fund, design, permit, publically bid and construct the Phase B Improvements shown in Exhibit B. The City will exercise its best efforts to complete construction of the Phase B Improvements by September 30th, 2017 and to complete any sewer improvements "down stream" of Phase B (Down Stream Improvements"), at the time when such sewer services are needed to provide sufficient capacity for the full build out of the currently approved Green Mountain PRD. In the event the City fails to have the Phase B Improvements constructed such that the Property may be connected to the Phase B Improvements for sewer service by September 30, 2019, or the Down Stream Improvements at the time when needed for the continued build out of the Green Mountain PRD as currently approved, then the Owner shall have the right to suspend payment of the Annual Payment, until such time as the Phase B or Down Stream Improvements are operational and available for use by the Property. Any Annual Payments that had not been paid would then be due prior to Owner's connection to the Phase B Improvements or the Down Stream Improvements. In the event that the City does not complete the Phase B Improvements by December 31, 2021, then the Owner shall have no further obligation to make any remaining Annual Payments under this Agreement and the City shall refund all Annual Payments made to date and release to the Owner, any security provided for under this Agreement.

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Section 4. In lieu of the Owner constructing all of the Phase B Improvements (which are provided for in the City's Capital Facilities Plan to serve the North Urban Growth Area), the City shall be paid by the Owner the amounts provided for in Exhibit C at the times provided for in Exhibit C (the "Annual Payments").

Section 5. In order to secure Owner's Annual Payments under this Agreement, Owner agrees to provide security to the City (the "Security") in the amount of a minimum of two Annual Payments as shown on Exhibit C. The Security may be in one of the following forms: (1) cash deposited into a segregated sub-account with a bank designated by the City with escrow provisions mutually agreeable to the Parties; (2) a surety bond from a company acceptable to the City, or (3) an irrevocable letter of credit. The City shall be the beneficiary of any Security and the City may draw on the security in the amount of any Annual Payment or portion of any Annual Payment not paid by the Owner by its due date upon receipt by the bank or issuer of the Security of a written certificate of the City Finance Director demanding payment of the sum identified in the certificate. The City may make consecutive demands for payment under the Security until its entire principal balance has been paid to the City. If the surety bond is for a term less than 15 years, the surety bond shall provide that the City may draw on the surety bond 30 days prior to its expiration if the Owner has not provided a substitute surety bond or other acceptable security prior to the termination of the letter of credit. If the letter of credit is for a term less than 15 years, the letter of credit shall provide that the City may draw on the letter of credit 30 days prior to its expiration if the Owner has not provided a substitute letter of credit or other acceptable security prior to the termination of the letter of credit. Security in the form of cash may be invested by the City in any permitted investments for City funds and interest earnings shall be retained by the City. Any cash remaining in this sub account at the termination of this Agreement shall be returned to Owner.

Any of the Annual Payment amounts not secured as provided for in the preceding paragraph, shall be secured by Owner granting the City a first lien position on a portion of the Property legally described in Exhibit D under the terms and conditions of Exhibit D (the "Initially Liened Property"). The Initially Liened Property shall have a 2015 assessed value, or appraised value based on an appraisal acceptable to the City (where such acceptance shall not be unreasonably withheld), whichever is greater, not less than \$3,724,948.50 (which upon execution of this Agreement will be approximately equal to 175% of 13 estimated Annual Payments as shown on Exhibit C). Periodically, the Owner may substitute a different portion of the Property at Owners discretion, to replace the Initially Liened Property then subject to the lien ("Substituted Liened Property"). The Substituted Liened Property must have an assessed or appraised value based on an appraisal acceptable to the City, (where such Acceptance shall not be unreasonably withheld) of at least 175% of the Annual Payments remaining to be paid minus two payments (the "Remaining Payments"). For example, if there are ten Annual Payments remaining to be paid, the Substituted Liened Property must have an appraised or assessed value of 175% of eight (8) Annual Payments. Upon the Owner identifying any Substituted Liened Property and once the City deems the appraisal acceptable, the City shall release the Initially Liened Property from the lien and deed of trust; and shall

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Green Mountain Land, LLC Page - 4 - 1062002

replace it with the Substituted Liened Property. The Owner shall be responsible for any costs associated with the substitution of any security under this section. The City will not consent to release any Liened Property if the Owner is in default of any obligations under this Agreement.

At any time during this Agreement, the Owner shall have the right to prepay any or all of the Annual Payments remaining to be paid, under this Agreement.

The City shall provide the Owner with notice of default and an opportunity to cure a default under this Section in the following manner: City shall provide written notice to the Owner of the amount and type of any default under this Section. Upon receipt of such notice of default by the Owner under this Section, the Owner shall within 30 days cure such default, subject to a late payment charge of 9% per annum on any Annual Payment amount unpaid as of the due date thereof.

Section 6. The Owner intends (but is not required) to construct interim sewer improvements on Goodwin Road to provide service to the Property until such time that Phase B improvements are completed ("Phase A Improvements"). These Phase A improvements are also identified on Exhibit B. The approximate capacity of the Phase A Improvements is 350 Equivalent Residential Dwelling Units ("ERUs"). The City agrees that the Owner may utilize the capacity in the Phase A Improvements or the City may allow others ("Latecomers") to utilize the remaining actual capacity above 201 ERU's until such time that the permanent Phase B improvements are completed. The Owner may request and apply to the City for a Latecomer Agreement which would obligate the City to collect from the Latecomer a latecomers fee that is equal to the cost of the design, permitting and construction of the Phase A Improvements multiplied by the percentage of 350 ERUs utilized by the Latecomer. Should the Owner apply for a Latecomer Agreement, it will be considered separately by the City from this Agreement.

In the event that the City has not completed construction of the Phase B Improvements prior to the exhaustion of the capacity in the Phase A Improvements, the Owner shall have ability at its sole cost and expense, to construct and utilize any additional, lawfully available capacity in the Phase A system ("Additional Phase A Improvements") utilizing a reasonable design approved by the City. The Owner shall be responsible for completing all analyses and investigations to document that there is available capacity in the Phase A system and the City will need to approve all analyses prior to the Owner starting design on any Additional Phase A Improvements.

If Additional Phase A Improvements are constructed by the Owner and the City allows such capacity to be used to serve property other than Owners Property, the Owner may request and apply to the City for a Latecomer Agreement which would obligate the City to collect from the Latecomer a latecomers fee that is equal to the pro rata share of the cost of the design, permitting and construction of the Additional Phase A Improvements based upon the

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percentage of capacity of the Additional Phase A improvements utilized by the Latecomer. Should the Owner apply for a Latecomer Agreement, it will be considered separately by the City from this Agreement.

The Owner shall design and construct all temporary Phase A Improvements, Additional Phase A Improvements and all temporary sewer improvements on the Property such that they can be properly decommissioned or abandoned once the permanent Phase B Improvements are completed. Additionally, the Owner shall be responsible for decommissioning or abandoning all temporary improvements on the Property once the permanent Phase B improvements are completed.

The City shall issue to the Owner, Sewer System Development Charge Credits (SDC Credits) in an amount equal to thirty-three percent (33%) of the Annual Payment amount paid by the Owner under Exhibit "C". In the event the Owner constructs any portion of the Phase B Improvements, in addition to any SDC credits authorized to be paid to Owner under this section, the Owner shall be entitled to thirty-three percent (33%) of the cost of the Phase B Improvements constructed by the Owner as estimated in the City's Capital Facilities Plan in effect on the date of this Agreement. .

Section 7. Remedies. Should a disagreement arise between the City and Developer regarding the interpretation and application of this Agreement, the parties agree to attempt to resolve the disagreement by first meeting and conferring. If such meeting proves unsuccessful to resolve the dispute, the disagreement may be resolved by judicial action filed in the Clark County Superior Court. The remedies provided for in Section 3, shall be in addition to any other remedies the Owner may have for failing to construct the Phase B or Down Stream Improvements.

Section 8. Performance. Failure by either party at any time to require performance by the other party of any of the provisions hereof shall in no way affect the parties' rights hereunder to enforce the same, nor shall any waiver by a party of the breach hereof be held to be a waiver of any succeeding breach or a waiver of this non-waiver clause.

Section 9. Venue. This Agreement shall be construed in accordance with and, governed by, the laws of the State of Washington. The parties agree to venue in the Superior Court for Clark County, State of Washington, to resolve any disputes that may arise under this Agreement.

Section 10. Severability. If any portion of this Agreement shall be invalid or unenforceable to any extent, the validity of the remaining provisions shall not be affected thereby.

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Section 11. Inconsistencies. If any provisions of the Camas Municipal Code are deemed inconsistent with the provisions of this Agreement, the provisions of this Agreement shall prevail.

Section 12. Binding on Successors and Recording. The rights and obligations created by this Agreement are assignable and shall be binding upon and inure to the benefit of Owner, the City, and their respective heirs, successors and assigns, with the exception that any assignment by Owner shall be consented to by the City, which consent shall not be unreasonably withheld. If Owner properly assigns its rights and obligations under this Agreement and no longer owns any portion of the Property, the City shall release Owner from any further obligation or liability under this Agreement. The rights and obligations created by this Agreement shall also run with the land, but only with respect to those portions of the Property that have not received final plat approval for a subdivision or Site Plan approval for a commercial or multi family development. Only Owner and the City or their assigns shall have the right to enforce the terms of this Amendment. This Agreement shall be recorded against the real property indicated on Exhibit "A" with the Clark County Auditor, which date shall act as the Effective Date as set forth in Section 2 herein.

Section 13. Recitals. Each of the recitals contained herein are intended to be, and are incorporated as, covenants between the parties and shall be so construed.

Section 14. Amendments. This Agreement may only be amended by mutual agreement of the parties. Pursuant to RCW 36.70B.170(4), the City reserves the authority to impose new or different regulations to the extent required by a serious threat to public health and safety.

Exhibits:

Exhibit "A": Legal Description of Property

Exhibit "B": Phase B Improvements to be constructed by the City and Phase A Improvements to be constructed by Owner.

Exhibit "C": Annual Payment Schedule

Exhibit "D": Legal Description of Initially Liened Property.

DEVELOPMENT AGREEMENT
Green Mountain Land, LLC Page - 7 - 1062002

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed as of the dates set forth below:

CITY OF CAMAS

GREEN MOUNTAIN LAND LLC

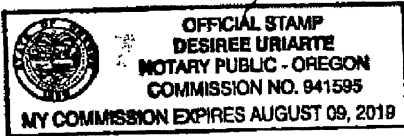
By [Signature]
Title Mayor

By [Signature]
Title Manager

STATE OF WASHINGTON)
Oregon) ss.
County of Clark Washington)

I certify that I know or have satisfactory evidence that John O'Neil is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute this instrument and acknowledged it as the Manager of GREEN MOUNTAIN LAND, LLC to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED: February 5th, 2015.

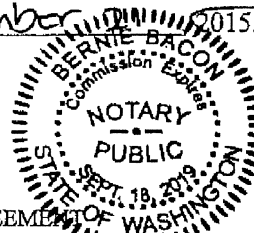


[Signature]
NOTARY PUBLIC for the State of Washington, Oregon
Residing in the County of Clark Washington
My Commission Expires: Aug. 9, 2019

STATE OF WASHINGTON)
County of Clark) ss.
)

I certify that I know or have satisfactory evidence that Scott Higgins is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute this instrument and acknowledged it as the Mayor of the CITY OF CAMAS, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED: December 11th, 2015.



[Signature]
NOTARY PUBLIC for the State of Washington,
Residing in the County of Clark
My Commission Expires: 9/18/2019

Exhibit "A"



LAND SURVEYORS
ENGINEERS

(360) 695-1385
1111 Broadway
Vancouver, WA
98660

LEGAL DESCRIPTION FOR GREEN MOUNTAIN LAND, LLC
PERIMETER

May 27, 2014

A parcel of land in the South half of Section 17, the East half of Section 20, and the West half of Section 21, all in Township 2 North, Range 3 East of the Willamette Meridian in Clark County Washington, described as follows:

BEGINNING at the Northeast corner of the Southeast quarter of said Section 17;

THENCE North 89° 22' 57" West, along the North line of the South half of said Section 17, a distance of 3514.78 feet, more or less, to the centerline of Northeast Ingle Road;

THENCE South 01° 53' 59" West, along said centerline, a distance of 477.58 feet to a point on a 335.00 foot radius curve to the left;

THENCE along said centerline, and along said 335.00 foot radius curve to the left (the long chord of which bears South 19° 58' 22" East, a distance of 249.60 feet), an arc distance of 255.77 feet;

THENCE South 41° 50' 43" East, along said centerline, a distance of 141.81 feet to a 675.00 foot radius curve to the right;

THENCE along said centerline, and along said 675.00 foot radius curve to the right (the long chord of which bears South 33° 13' 03" East, a distance of 202.52 feet), an arc distance of 203.29 feet;

THENCE South 24° 35' 23" East, along said centerline, a distance of 57.61 feet to a point on a 1200.00 foot radius curve to the left;

THENCE along said centerline, and along said 1200.00 foot radius curve to the left (the long chord of which bears South 28° 02' 22" East, a distance of 144.41 feet), an arc distance of 144.50 feet;

THENCE South 31° 29' 20" East, along said centerline, a distance of 190.47 feet;

THENCE South 30° 43' 55" East, along said centerline, a distance of 678.85 feet;



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THENCE South 29° 58' 13" East, along said centerline, a distance of 238.24 feet to a point which bears South 59° 56' 15" West from a 1/2" iron pipe marking the Northwest corner of that parcel of land conveyed to Keith and Gloria Bakker by deed recorded under Auditor's File No. G 646584, records of Clark County;

THENCE leaving said centerline, North 59° 56' 15" East, a distance of 21.66 feet to said iron pipe on the North line of said Bakker parcel;

THENCE continuing North 59° 56' 15" East, along said North line, a distance of 329.81 feet to a 3/4" iron pipe and the Northeast corner thereof;

THENCE South 33° 49' 02" East, along the East line of said Bakker parcel, a distance of 667.95 feet to a 3/4" iron pipe at the Southeast corner thereof;

THENCE South 49° 37' 59" West, along the South line of said Bakker parcel, a distance of 353.18 feet, more or less, to the centerline of Northeast Ingle Road;

THENCE South 40° 25' 24" East, along said centerline, a distance of 178.15 feet to a point which bears South 06° 18' 14" West from a 1/2" iron pipe on an Easterly line of that parcel of land conveyed to James M. Bartmess by deed recorded under Auditor's File No. 8911140220, records of Clark County;

THENCE North 06° 18' 14" East, along said Easterly line, a distance of 71.63 feet to said iron pipe and to an angle point;

THENCE North 86° 45' 59" East, along the Southerly line of said Bartmess tract, a distance of 9.94 feet to the Northwest corner of that parcel of land conveyed to Ronald and Rhonda Warman by deed recorded under Auditor's File No. 9004270087, records of Clark County;

THENCE North 86° 58' 36" East, along the North line of said Warman parcel, a distance of 790.14 feet to the Northeast corner thereof;

THENCE South 02° 04' 33" West, along the East line of said Warman parcel, a distance of 973.64 feet, more or less to the Northeasterly right-of-way line of Northeast Ingle Road as conveyed to Clark County by deed recorded under Auditor's File No. 4217481 D, said point being 30.00 feet from, when measured perpendicular to, the centerline of said Road;

THENCE South 40° 25' 24" East, along said right-of-way line, a distance of 353.90 feet to a point on a 2030.00 foot radius curve to the right;

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THENCE along said right-of-way, and along said 2030.00 foot radius curve to the right (the long chord of which bears South 37° 00' 37" East, a distance of 241.71 feet), an arc distance of 241.85 feet;

THENCE South 33° 35' 50" East, along said right-of-way, a distance of 1043.01 feet to a point on a 830.00 foot radius curve to the right;

THENCE along said right-of-way, and along said 830.00 foot radius curve to the right (the long chord of which bears South 23° 12' 47" East, a distance of 299.21 feet), an arc distance of 300.85 feet;

THENCE South 12° 49' 45" East, along said right-of-way, a distance of 392.70 feet to a point on a 770.00 foot radius curve to the left;

THENCE along said right-of-way, and along said 770.00 foot radius curve to the left (the long chord of which bears South 29° 32' 51" East, a distance of 443.01 feet), an arc distance of 449.36 feet;

THENCE South 46° 15' 59" East, along said right-of-way, and the Southerly projection thereof, a distance of 39.01 feet, more or less, to a point on the centerline of Northeast Goodwin Road;

THENCE North 43° 58' 00" East, along said centerline, a distance of 494.48 feet to a point on a 955.00 foot radius curve to the right;

THENCE along said centerline, and along said 955.00 foot radius curve to the right (the long chord of which bears North 56° 56' 15" East, a distance of 428.71 feet), an arc distance of 432.40 feet;

THENCE North 69° 54' 30" East, along said centerline, a distance of 354.84 feet to a point on a 955.00 foot radius curve to the right;

THENCE along said centerline, and along said 955.00 foot radius curve to the right (the long chord of which bears North 80° 35' 44" East, a distance of 354.20 feet), an arc distance of 356.26 feet to a point on the South line of the Northwest quarter of said Section 21;

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THENCE South 88° 43' 02" East, along said South line, a distance of 987.61 feet to the Southeast corner of said Northwest quarter;

THENCE North 01° 27' 15" East, along the East line of said Northwest quarter, a distance of 1314.56 feet to the North line of the South half of the Northwest quarter of said Section 21;

THENCE North 88° 42' 01" West, along said North line, a distance of 1800.91 feet, more or less, to the East line of the T.J. Fletcher Donation Land Claim No. 51;

THENCE North 01° 13' 25" East, along said East line, a distance of 1315.09 feet, more or less, to the North line of the Northwest quarter of said Section 21;

THENCE North 88° 40' 59" West, along said North line, a distance of 830.93 feet to the Northwest corner of said Section 21;

THENCE North 01° 45' 50" East, along the East line of the Southeast quarter of said Section 17, a distance of 2650.46 feet to the POINT OF BEGINNING.

SUBJECT TO county roads.

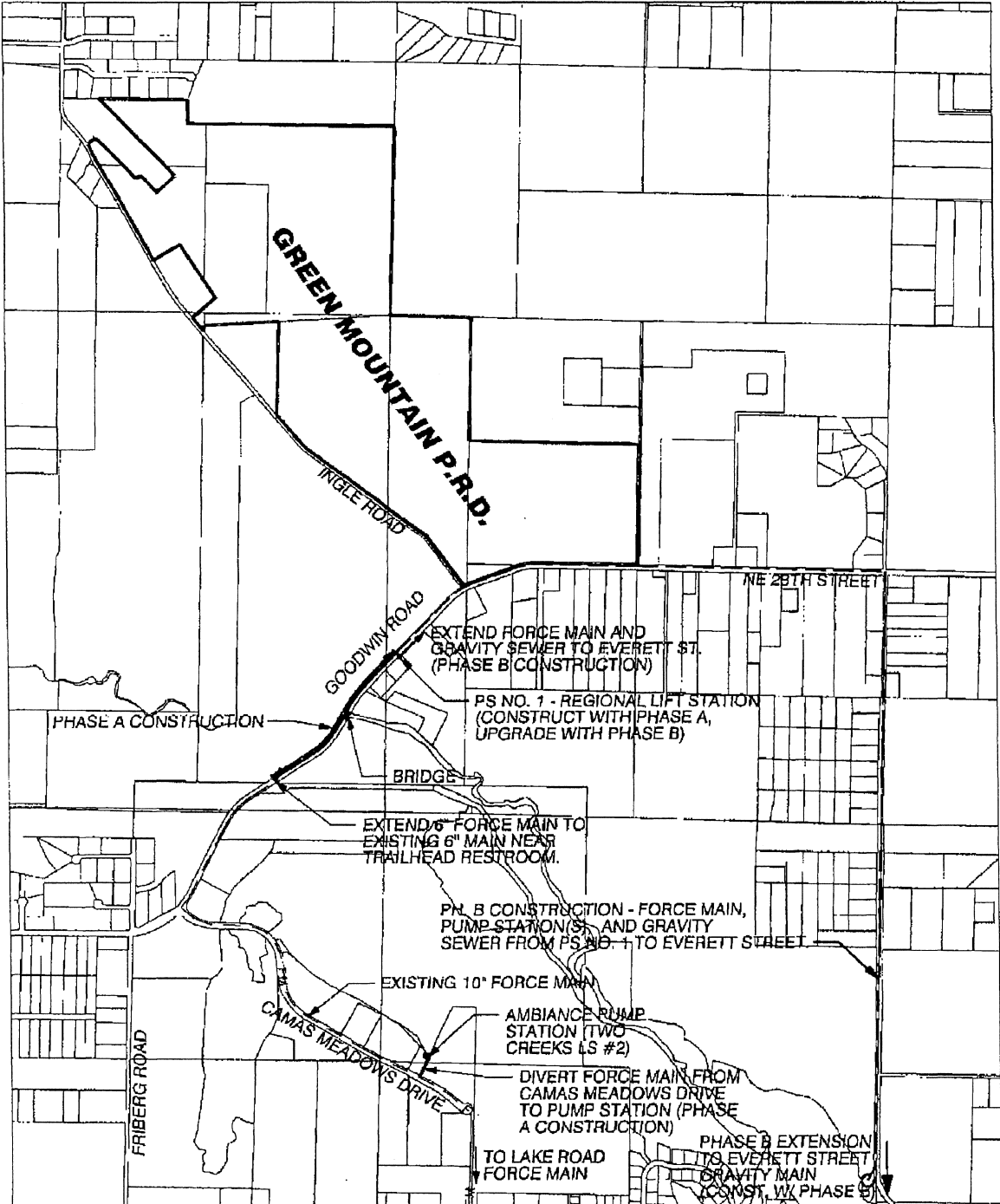
EXCEPT that parcel conveyed to Green Mountain Resorts, Inc. by deed recorded under Auditor's File No. 9311050364, also known as Mountain Glen Subdivision, recorded in Book "J" of Plats, at Page 199, records of Clark County.

ALSO EXCEPT that parcel of land conveyed to R. Lon and Rachelle Combs, recorded under Auditor's File No. 4150099 D, records of Clark County.



05/29/14

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PHASE A & B PUMP STATION IMPROVEMENT PLAN FOR: <h2 style="text-align: center;">GREEN MOUNTAIN DEVELOPMENT</h2>		SCALE: NTS DATE: 08/28/15 ISSUED BY: CEM
OLSON LAND SURVEYORS ENGINEERS <small>200-690-1585 602-543-0538</small> ENGINEERING INC. 222 E. EVERGREEN BLVD., VANCOUVER, WA 98660	Exhibit "B"	JOB NO. 8398.01.C1 DWG. NO.

EXHIBIT C

**City of Camas, Washington
Water and Sewer Revenue Bonds, 2015
Bond Debt Service Breakdown (FINAL)**

Total Project Fund:	\$	17,000,000	100.00%
City Funded Portion:	\$	15,100,000	88.82%
Developer Funded Portion:	\$	1,900,000	11.18%

All in TIC of Debt 3.4861%
of Pmts 30

	<u>New Money Portion of Bonds</u>		<u>Developer Portion</u>	
	<u>Total Debt Service</u>	<u>Annual Debt Service</u>	<u>Semiannual PMT</u>	<u>Annual PMT</u>
12/1/2015	\$ 158,237	\$ 158,237		
6/1/2016	351,638		\$81,867	
12/1/2016	351,638	\$703,275	81,867	163,734
6/1/2017	351,638		81,867	
12/1/2017	761,638	\$1,113,275	81,867	163,734
6/1/2018	347,538		81,867	
12/1/2018	767,538	\$1,115,075	81,867	163,734
6/1/2019	343,338		81,867	
12/1/2019	768,338	\$1,111,675	81,867	163,734
6/1/2020	339,088		81,867	
12/1/2020	769,088	\$1,108,175	81,867	163,734
6/1/2021	332,838		81,867	
12/1/2021	777,638	\$1,110,275	81,867	163,734
6/1/2022	325,963		81,867	
12/1/2022	785,963	\$1,111,925	81,867	163,734
6/1/2023	318,763		81,867	
12/1/2023	796,763	\$1,113,525	81,867	163,734
6/1/2024	304,763		81,867	
12/1/2024	804,763	\$1,109,525	81,867	163,734
6/1/2025	292,263		81,867	
12/1/2025	822,263	\$1,114,525	81,867	163,734
6/1/2026	279,013		81,867	
12/1/2026	834,013	\$1,113,025	81,867	163,734
6/1/2027	265,138		81,867	
12/1/2027	1,265,138	\$1,530,275	81,867	163,734
6/1/2028	240,138		81,867	
12/1/2028	1,290,138	\$1,530,275	81,867	163,734
6/1/2029	219,138		81,867	
12/1/2029	1,314,138	\$1,533,275	81,867	163,734
6/1/2030	194,500		81,867	
12/1/2030	1,339,500	\$1,534,000	81,867	163,734
6/1/2031	165,875			
12/1/2031	1,365,875	\$1,531,750		
6/1/2032	135,875			
12/1/2032	1,395,875	\$1,531,750		
6/1/2033	104,375			
12/1/2033	1,429,375	\$1,533,750		
6/1/2034	71,250			
12/1/2034	1,461,250	\$1,532,500		
6/1/2035	36,500			
12/1/2035	1,496,500	\$1,533,000		
	\$ 25,773,087	\$ 25,773,087	\$ 2,456,008	\$ 2,456,008

Payments shall be made either annually or semi annually as provided for above.



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EXHIBIT D

LEGAL DESCRIPTION FOR GREEN MOUNTAIN LAND LLC
INITIALLY LIENED PROPERTY

December 18, 2015

A parcel of land in the Thomas J. Fletcher Donation Land Claim No. 51 and the East half of Section 20, and the West half of Section 21 all in Township 2 North, Range 3 East of the Willamette Meridian in Clark County, Washington, described as follows:

COMMENCING at the Northwest corner of said Section 21;

THENCE South 88° 40' 59" East, along the North line of the Northwest quarter of said Section 21, a distance of 830.93 feet to the East line of the Thomas J. Fletcher Donation Land Claim No. 51;

THENCE South 01° 13' 25" West, along said East line, a distance of 1315.09 feet to the North line of the South half of said Northwest quarter;

THENCE South 88° 42' 01" East, along said North line, a distance of 180.00 feet to the TRUE POINT OF BEGINNING;

THENCE South 01° 17' 59" West, leaving said North line, a distance of 214.50 feet;

THENCE South 43° 42' 01" East, a distance of 97.00 feet;

THENCE South 46° 17' 59" West, a distance of 217.43 feet;

THENCE North 43° 42' 01" West, a distance of 217.20 feet;

THENCE North 01° 17' 59" East, a distance of 209.50 feet;

THENCE North 44° 04' 38" West, a distance of 10.00 feet;

THENCE South 45° 55' 22" West, a distance of 18.00 feet;



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THENCE North 44° 04' 38" West, a distance of 45.00 feet;

THENCE South 45° 55' 22" West, a distance of 25.00 feet;

THENCE North 44° 04' 38" West, a distance of 293.00 feet;

THENCE South 64° 48' 03" West, a distance of 119.90 feet to a point of a 325.00 foot radius curve to the left;

THENCE along said 325.00 foot radius curve to the left (the long chord of which bears South 50° 35' 01" West, a distance of 159.64 feet), an arc distance of 161.29 feet;

THENCE South 36° 21' 59" West, a distance of 152.00 feet;

THENCE South 53° 38' 01" East, a distance of 82.00 feet;

THENCE South 36° 21' 59" West, a distance of 60.08 feet to a point on a 25.00 foot radius non-tangent curve to the left;

THENCE along said 25.00 foot radius non-tangent curve to the left (the long chord of which bears South 79° 04' 29" West, a distance of 33.91 feet), an arc distance of 37.27 feet;

THENCE South 36° 21' 59" West, a distance of 10.37 feet to a point on a 226.00 foot radius curve to the right;

THENCE along said 226.00 foot radius curve to the right (the long chord of which bears South 40° 24' 28" West, a distance of 31.86 feet), an arc distance of 31.88 feet;

THENCE South 44° 26' 57" West, a distance of 116.20 feet to a point on a 25.00 foot radius curve to the left;

THENCE along said 25.00 radius curve to the left (the long chord of which bears South 10° 50' 12" West, a distance of 27.68 feet), an arc distance of 29.33 feet;

THENCE South 52° 11' 03" West, a distance of 52.78 feet to a point on a 174.00 foot radius non-tangent curve to the left;



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THENCE along said 174.00 foot radius non-tangent curve to the left (the long chord of which bears North 41° 41' 00" West, a distance of 23.47 feet), an arc distance of 23.49 feet;

THENCE North 45° 33' 03" West, a distance of 41.94 feet;

THENCE South 56° 38' 34" West, a distance of 154.02 feet;

THENCE North 33° 21' 26" West, a distance of 10.00 feet;

THENCE South 56° 38' 34" West, a distance of 384.01 feet to the Northeasterly right-of-way line of Northeast Ingle Road as conveyed to Clark County by deed recorded under Auditor's File Number 4217481 D, said point being 30.00 from, when measured perpendicular to, the centerline of said Road;

THENCE South 33° 35' 50" East, along said right-of-way line, a distance of 334.36 feet;

THENCE North 56° 24' 10" East, leaving said right-of-way line, a distance of 337.32 feet;

THENCE South 33° 35' 50" East, a distance of 116.84 feet;

THENCE North 60° 11' 05" East, a distance of 517.11 feet;

THENCE South 18° 43' 16" East, a distance of 40.08 feet to a point on a 180.00 foot radius curve to the left;

THENCE along said 180.00 foot radius curve to the left (the long chord of which bears South 44° 53' 37" East, a distance of 158.79 feet), an arc distance of 164.45 feet to a point of compound curvature with a 330.00 foot radius curve to the left;

THENCE along said 330.00 foot radius curve to the left (the long chord of which bears North 83° 01' 06" East, a distance of 288.45 feet), an arc distance of 298.52 feet;

THENCE North 57° 06' 11" East, a distance of 219.78 feet;

THENCE South 44° 04' 38" East, a distance of 645.44 feet;



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THENCE South 01° 37' 56" West, a distance of 296.43 feet to a point on the centerline of Northeast Goodwin Road, said point being a point on a 955.00 foot radius non-tangent curve to the right;

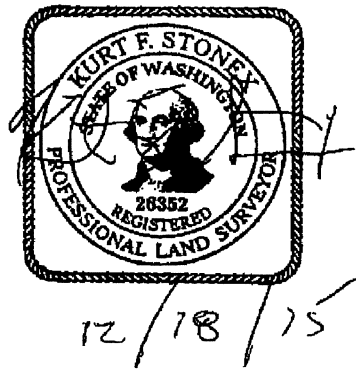
THENCE along said centerline, and along 955.00 foot radius non-tangent curve to the right (the long chord of which bears North 88° 56' 49" East, a distance of 77.84 feet), an arc distance of 77.87 feet to a point on the South line of said Northwest quarter;

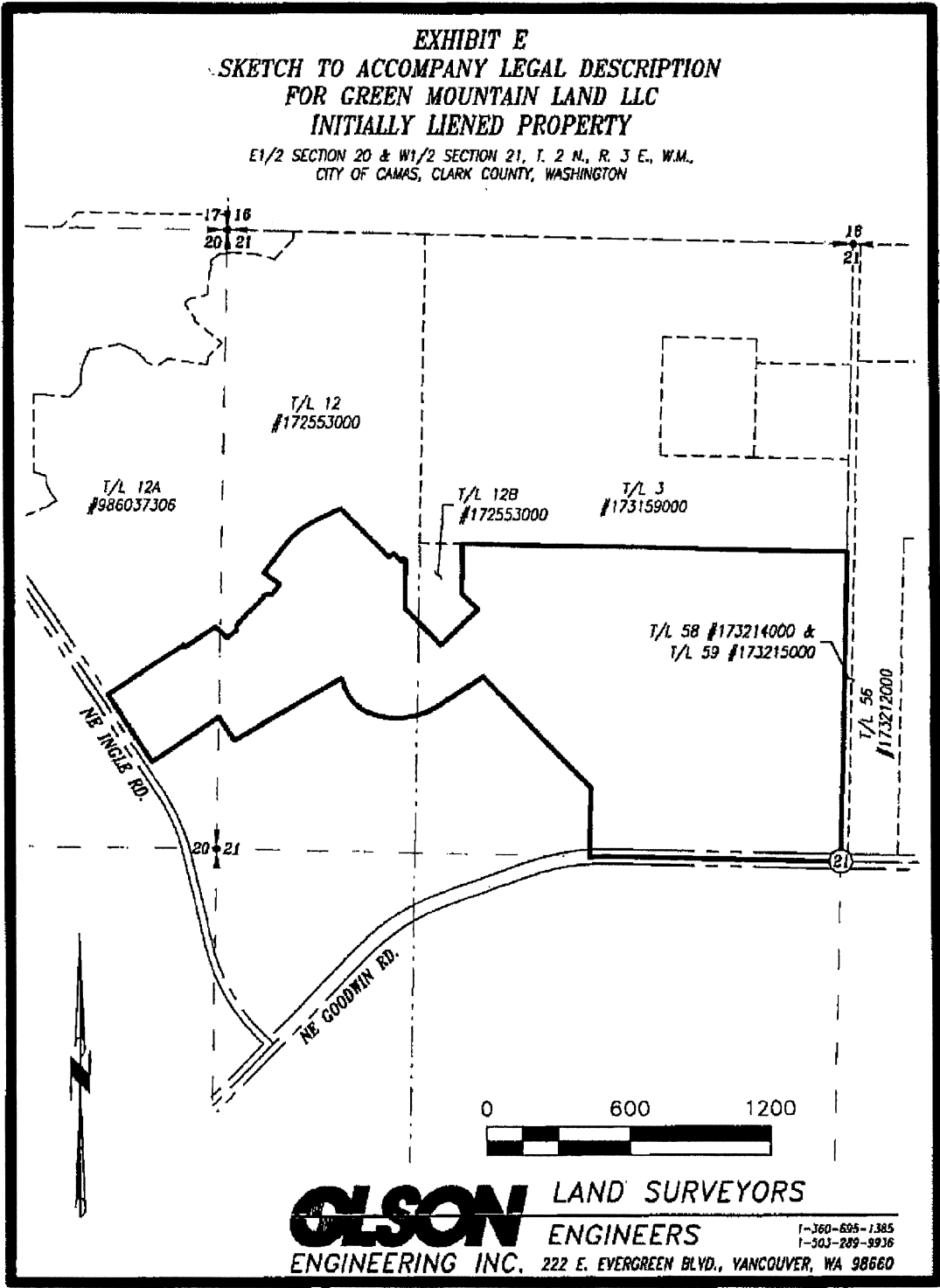
THENCE South 88° 43' 02" East, along said South line, a distance of 987.61 feet to the Southeast corner of said Northwest quarter;

THENCE North 01° 27' 15" East, along the East line of said Northwest quarter, a distance of 1314.56 feet to the North line of the South half of said Northwest quarter;

THENCE North 88° 42' 01" West, along said North line, a distance of 1620.91 feet to the TRUE POINT OF BEGINNING.

Contains 58.64 Acres, more or less.





RESOLUTION NO. 21-008

A RESOLUTION amending the 2019 Water System Plan of the City of Camas to include the Green Mountain Estates Phase 4 Booster Pump Station and Related Report and Appendices.

WHEREAS, City of Camas has heretofore adopted the 2019 Water System Plan pursuant to Resolution 19-014; and

WHEREAS, in accordance with the terms of the Final Order SUB 15-02 for the Green Mountain Estates subdivision, the applicant is required to design, fund, and build a water booster station to serve certain lots within said subdivision, all as subject to the conditions of the Final Order and the provisions of CMC Chapter 17.21; and

WHEREAS, said booster station has been approved pursuant to order issued under City Case File No. SPRV21-02; and

WHEREAS, said booster station is not currently included within the 2019 Water System Plan as adopted; and

WHEREAS, the Council desires to include said booster station in the current Water System Plan of the City of Camas;

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF CAMAS AS FOLLOWS:

Section I

The Council of the City of Camas hereby amends the 2019 Water System Plan to include the Green Mountain Estates Phase 4 Booster Station and related report and appendices, subject to revisions by City staff and the Washington State Department of Health.

ADOPTED by the Council at a regular meeting this _____ day of September, 2021.

SIGNED: _____
Mayor

ATTEST: _____
Clerk

APPROVED as to form:

City Attorney

CITY OF CAMAS

GREEN MOUNTAIN ESTATES PH 4
BOOSTER STATION REPORT

JOB # 9595.01.01

DRAFT

BY: PETER TUCK, P.E.



Booster Pump Station Report

Green Mountain Estates Phase 4

PROJECT NO. 9595.01.01



June 22, 2021

By Peter Tuck, P.E.

Olson Engineering, Inc.
222 E Evergreen Blvd
Vancouver, WA 98660
(360) 695-1385

REVISION	BY	DATE	COMMENTS

PROJECT REPORT NARRATIVE FOR: Green Mountain Estates Phase 4 Booster Station

A) Background/General Project Information:

The project is to construct a booster pump station to serve 228 lots within the current City of Camas UGA. Checklist from the Water System Design manual used for this report are (Included in Appendix B):

- General Project report Checklist
- Booster Pump Station Checklist with elements from the Hydraulic Analysis Checklist
- Pressure Tank Checklist

Green Mountain Estates Subdivision (GMES) is located within the northern limits of the City of Camas. See Figure 2.1 Service Area from the City's Water System Plan (See Appendix D).

Green Mountain Estates Subdivision (City File # SUB15-02 is a 346-lot single family development on 98.37 combined acres. The property is located north of NE 28th Street and east of NE 222nd Avenue. The subdivision received preliminary land use approval on June 24, 2016. (See Appendix A for a copy of the Notice of Decision.

The portion of GMES above elevation 370 is Phases 4, 5 and 6 and totals 228-lots of the approved 346-lot subdivision. See layout of Phases 4-6 on topographic survey. The options to serve this area with water are with a standalone booster station or with a booster station and a reservoir. The feasibility of installing a reservoir was researched, however it was found to be infeasible based on location, cost of installation, environmental impacts, and maintenance costs.

Camas Water System Plan

In 2016 the GMES went through a public hearing and SEPA review. During the hearing and SEPA review process, a booster station for the upper lots was addressed. As part of the Final Order, Condition 21 states; *Prior to final plat approval of any phase, the applicant shall identify an appropriate lot(s) or approved tract for the developer funded water booster identified in the City's June 2010 WSP Chap 8 to serve lots located above an elevation of 370 feet.*

When the City's WSP was revised in 2019, reference to a booster station on Green Mountain was omitted. To add the booster station to the latest WSP, there are five (5) steps that are required. The following details each step and how they have or will be addressed:

- SEPA Review to be completed addressing the new Booster Pump Station. This was already covered by the SEPA review completed by the GMES.
- Submit Project Report to WSDOE project – Once completed, the project report will be submitted to WSDOE. Since the proposed project is not changing water rights or system capacity, no comment is expected.

- Local Government Consistency – A Local Government Consistency form has been filled out and signed by the relevant official at the City of Camas. A copy of the form is included in Appendix B (To be provided).
- Approval by city council – The proposed Booster Pump Station was submitted to the City Council and was approved on (To be determined). A copy of the approved docket item is included in Appendix B. (To be provided)
- Meeting of consumers – A public review element is required to add the Booster Pump Station to the WSP through addendum. Since the GMES went through a public hearing, this element has already been satisfied.

Since the above elements have been satisfied, the booster pump station will be added to the 2019 WSP as an addendum once the Booster Station Report is approved by WSDOH with this submittal.

Schedule of Construction.

The Schedule for construction of the GMES Phase 4 is the summer of 2021 with the booster station to be constructed during the same period beginning October 2021. The Booster station construction should be completed in 2022.

Cost and Financing.

Total cost of the Booster Pump Station including but not limited to: Building, pumps and fittings, control system, site improvements, generator and pressure tank is approximately \$1,100,000 and is being privately funded by the developer of the GMES.

Capacity Analysis.

Since the area to be served is within the UGA, the connections to be served by the Booster Pump Station are already included within the existing WSP. No capacity analysis is required to address this item. A capacity and hydraulic analysis addressing design flows for the Booster Pump Station and the station's ability to supply minimum pressures during peak flows and fire events is covered in Section C.

System Protection.

To prevent vandalism a 6-foot fence is to be installed around the facility. In addition, action sensor lights are being installed around the building. Issues with access through maintenance roof hatches on other facilities has precluded their use on this facility. Instead, an internal gantry and crane system is being installed to enable pumps to be removed for maintenance purposes.

Disinfection Protocol.

The 8-inch ductile iron water main pipes will be installed up through the floor elevation of the booster station and capped with 8 x 2 inch tapped blind flanges to allow disinfection and testing with the rest of the subdivision water main per AWWA standards.

The booster station pump skid and surge tank will be isolated by capping both the inlet and outlet, making it a closed system. It will then be filled with sodium hypochlorite solution and allowed to sit for 24 hours per AWWA standards.

The booster station system will be flushed using a 2-inch hose fitted with dechlorinating diffuser containing dechlorinating tablets. The treated water will be direct to the storm drains or diffused over nearby green space.

Once acceptable bacteria tests are obtained, the booster station system will be connected to the subdivision system using approved AWWA methods.

As part of the Booster Pump Station development, a maintenance and operations manual will be developed detailing pump start up, exercising procedures for fire pumps and generator. All controls will be tied into the City's remote system with all aspects of the station online and remotely accessed. Details of the controls are provided in Section G and H.

Maintenance.

Maintenance and operation of the Booster Pump Station will be by the City of Camas operations Department. This station will be added to the eight Booster Pump Stations they are currently operating.

B) Booster Station Location

As previously mentioned, Green Mountain Estates Subdivision (GMES) is located within the northern limits of the City of Camas. See Figure 2.1 Service Area from the City's Water System Plan.

GMES is in the north corner of the City's 544ft pressure zone. Calculations by the City's water system consultant required all lots above elevation 370 to be served by a booster pump station. For this development, all lots above the 370ft elevation are located within Phases 4, 5 and 6.

There are two roads that access the upper lots. One runs up the central ridge and provides direct access to Phase 4 and 5. The other access runs up the west property line and will not be installed until Phase 6. Based on timing and location, the central road is the better option for a booster station. On review of the geotechnical exploration completed for the GMES by Redmond Geotechnical Services dated 3/28/14 they found that there are no ancient or active landslides and that the risks for potential geological hazards are low to moderate based on the Landslide Hazard Map. The report states that improvements required for a subdivision located on the slopes in the north portion of the site can be constructed safely if completed based on the recommendations in the report. Currently all construction documents are based on these recommendations.

Open Space tracts exist along both sides of the road with the first lot approximately 150ft further up the hill from where the booster station will be located. This will provide a buffer between the station and adjacent lots to help mitigate any noise.

Other noise mitigation efforts include:

The Pumps that were originally specified were centrifugal. At the pressure required, 1800rpm pumps had very poor efficiency with large motors. 3600 rpm pumps provided lower motor size and much better efficiency, however due to potential noise concerns, the high rpm pumps were not approved by City staff. To address this issue, the pump type was switched to vertical turbines running at 1800rpm with smaller HP motors.

To reduce electrical harmonics concerns from the large fire flow pumps, they are being designed with soft starts and pump control valves with the ability to exercise them by running in a throttled condition.

The generator is being installed within a sound enclosure to reduce the noise when it is operating.

C) Booster Station Sizing:

The GMES Booster Station will eventually be serving 228 residential lots. Completion of the residential lots will be over a 3-year time frame. Construction of Phase 4 with 87 lots will be completed late 2021 with house construction over 2022. Phase 5 will add another 98 lots and will be constructed in 2022 with house construction in 2023. Phase 6 will add the remaining 43 lots in 2023 with house construction in 2024.

In the Water System Design Manual (WSDM) Section 3.1 Demand versus Consumption, the lower limit for the ERU to be used to determine Maximum Daily Demand is 350 gpd unless there are records to support a value that is less. Within the City of Camas approved 2019 WSP, water use per Average Daily Demand ERU has been determined for low, medium, and high projections based on average water use per ERU over the last three years. The historical ERU's per account by customer class were used to project future demands. These ERU per Account values were based on the 75th percentile of the historical data and a water use per ERU value of 315 gpd/ERU to be conservative. (Taken from Section 5.6.1 of the 2019 WSP – See Appendix B for copy of section). Use of this value was confirmed by both Carollo and City Staff.

To obtain the Maximum Daily Demand ERU (ERU_{MDD}), the Average Daily Demand ERU (ERU_{ADD}) is multiplied by a peaking factor. The peaking factor to be applied to the ERU_{ADD} is 2.95 as detailed in Section 5.6.1 of the 2019 WSP and confirmed by Carollo who developed the plan and City Staff. Based on a 2.95 Peaking Factor, ERU_{MDD} is 929gpd.

Since the booster station is only serving residential lots, Equations 3-1 is being used to calculate the Peak Hour Demand (PHD) per Section 3.4.2 of the WSDM.

$$PHD = (ERU_{MDD}/1440) [(C)(N) + F] + 18$$

Where:

- PHD = Peak Hour Demand, total system (gpm)

- C = Coefficient Associated with Ranges of ERU's
- N = Number of ERU's based on MDD
- F = Factor Associated with Ranges of ERU's
- ERU_{MDD} = Maximum day Demand per ERU (gpm)

From Table 3-1 from the WSDM provides the following values for C and F for 228 residential lots.

- C = 2.0
- F = 75

Based on these values PHD for the system is 361 gpm.

Since all residences within Phases 4, 5 and 6 are required to have Low Flow Life Safety Residential Fire Sprinklers, Fire Flow for this area has been reduced to 500gpm by the Fire Marshall.

The service area of the booster station is considered a closed system with the booster station providing the only point of supply. In addition, no reservoir exists within the proposed service area. Due to this, pump discharge at the booster station is to be MDD + FF. See Section 8.1.2 Closed System Booster Pump Station Sizing Guidelines of the WSDM. For this situation, the total of the two flows is 861gpm.

To meet the flow requirements, three 20HP duty pumps will be installed that are sized to provide 180gpm per pump of flow at 129.1psi. This will provide the required Maximum Hour flow of 360gpm.

In addition to the duty pumps, two 75hp fire pumps (lead + backup configuration) will be installed capable of providing 680gpm per pump of flow. To provide the required 860gpm maximum of flow during a fire event, one fire pump and one duty pump will be operating together. The pumps have been sized to provide a minimum of 30psi at the high point in the system which exceeds the minimum required pressure of 20psi.

D) Buildout of Booster Station Service Area

As previously mentioned, the service area of the booster station will be constructed in phases over several years. The impact on the booster station is that the PHD for the station will not be reached for at least 4 years. This will result in low flows when the booster station is first brought online. Projected flows required at the booster station are as follows:

- Phase 4 – 87 lots total – 2021 to end of 2022 – Up to Peak hour Flow of 181gpm.
- Phase 5 – 185 lots total – 2022 to end of 2023 – Up to Peak Hour Flow of 305gpm.
- Phase 6 – 228 lots total – End 2024 Full Buildout. – Up to Peak Hour Flow of 361gpm.

The surge analysis by Carollo (See Appendix C) requires installation of a 3,000gal hydro-pneumatic tank. The active volume within the tank provides low flow volume preventing the

need for a jockey pump for low nighttime flows. Since the initial flow requirements are for a peak flow of 181gpm, only two of the duty pumps are needed, however all three duty pumps will be installed with the construction of the BPS.

E) Hydraulic Analysis.

The suction side of the booster station is within the City's 544ft pressure zone. See Figure 9.1 Service Areas from the City's 2019 WSP in Appendix D. Since the booster station is at the extreme end of the 544ft zone, Carollo completed a pressure analysis of the system using their Hydraulic Model of the Camas Water System. See Carollo Project Memorandum – Green Mountain Estates Phase 3 Development BPS – Hydraulic Modelling Results in Appendix C. This analysis determined the range of pressures on the suction side of the pumps.

Based on this analysis, the following pressures at the proposed booster station site were determined:

Scenario	Pressure at Proposed BPS Location
2025 ADD	74psi
2025 PHD	41psi
2025 MDD + FF at BPS Location	40psi
2025 MDD + FF at Other Location	31psi
2035 MDD + FF at BPS Location	51psi

Carollo Hydraulic Model Results.

The proposed BPS is located at elevation 370ft. The elevation of the highest point to be serviced by the BPS is 550ft and is approximately 2,700ft from the station. For the duty point pumps it is assumed that the working pressure at the high point will be 50psi. For the fire pumps, it is assumed that the working pressure can drop to 30psi.

The water system between the BPS and the high point in the system consists of a single run of 8" Ductile Iron Class 52 pipe that is approximately 700ft long followed by a looped system consisting of multiple loops of 8" Ductile Iron Class 52 pipe that conveys the water the remaining 2,000ft. To calculate the losses in the pipes, the Hazen-Williams Equation was used with the following assumptions:

- C for DIP ranges from 145 for new to 130 for old. A value of 130 was used.
- 8" Ductile Iron Class 52 pipe has an outside diameter of 9.05" and wall thickness of 0.33". Inside diameter is 8.39".
- Maximum Daily Flow at farthest limit of the system will be considerably lower than 360gpm, however that value was used and will result in slightly higher calculated loss than actually occurs. Since losses for maximum day flow are minimal, this does not impact the pump design.
- Fire Flow + Maximum Daily Flow assumed as 860gpm. As with above, maximum daily flow will be less than in this calculation, however resultant impact on head loss is

minimal. Resultant pressure at fire flow in top end of system will be slightly higher than 30psi.

Based on the above assumptions, the calculated head loss in the pipe from the BPS to the highpoint results and the associated total head at the BPS for each flow is as follows:

Flow (GPM)	Head Loss (FT)	With 50psi at High Point		With 30psi at High Point	
		Total Head (FT)	Total Head (psi)	Total Head (FT)	Total Head (psi)
0	0.0	295.5	127.9	249.3	107.9
50	0.1	295.6	128.0	249.4	108.0
100	0.3	295.8	128.0	249.6	108.0
150	0.5	296.0	128.2	249.8	108.2
180	0.8	296.3	128.3	250.1	108.3
200	0.9	296.4	128.3	250.2	108.3
250	1.4	296.9	128.5	250.7	108.5
300	2.0	297.5	128.8	251.3	108.8
350	2.6	298.1	129.1	251.9	109.1
360	2.8	298.3	129.1	252.1	109.1
400	3.4	298.9	129.4	252.7	109.4
450	4.2	299.7	129.7	253.5	109.7
500	5.1	300.6	130.1	254.4	110.1
550	6.0	301.5	130.5	255.3	110.5
600	7.1	302.6	131.0	256.4	111.0
650	8.2	303.7	131.5	257.5	111.5
700	9.4	304.9	132.0	258.7	112.0
750	10.7	306.2	132.6	260.0	112.6
800	12.1	307.6	133.2	261.4	113.2
850	13.5	309.0	133.8	262.8	113.8
860	13.8	309.3	133.9	263.1	113.9
900	15.0	310.5	134.4	264.3	114.4

Pressures at BPS based on 50psi and 30psi at high point in system.

The surge system includes a hydro-pneumatic tank and a PRV. The PRV is designed to discharge water from the discharge line to the suction line in the BPS. Since this is within the closed system, there is no external discharge from the system.

F) Electrical Power

During construction of the initial three phases of GMES, 480V 3 Phase power was run to the edge of Phase 4. Clark Public Utilities (CPU) is designing the extension of this line to the BPS. In talking to CPU, power reliability in the Green Mountain area is high with an average of only 1.4 outages per year.

Due to the location of the booster station and the fact that it is the sole source for GMES Phases 4 to 6, a generator will be installed as part of the station. The booster pump station electrical system is designed to support all connected loads however the actual usage will be less because only one high service pump will only be used in emergencies. The generator is sized to support one 75hp pump, one 20hp pump, one 5hp air compressor and station ancillary loads, suitable to meet the operating needs defined in this report. Startup of motors following a loss in power is controlled by the pump station automation system which sequences motors online following standby generator startup of the lighting loads and provides any required load shedding. The prescriptive sequence starts the lead 20hp pump, then the air compressor if needed followed by the 75hp high service pump if needed. If two 20hp VFDs are in operation and the 75hp pump is required, the automation system will first drop power to the lag 20hp pump and then energize the lead high service pump starter. Maximum use will be 90% of the generator capacity during the high service pump start cycle with a 16% voltage drop. Once started under its maximum design load, the generator uses 70% of available kW capacity. The automation system monitors connected loads and provides algorithms to prevent overloading the generator. Detailed Sizing Calculations are provided in Appendix C.

G) Automated Control System

The Station is automatically controlled to meet flow and pressure requirements by a programmable logic controller (PLC) based automation system. The automation system is designed to communicate with the City of Camas' central Supervisory Control and Data Acquisition (SCADA) computer system located at the City Shops for remote monitoring and management functions via a cellular connection. The cellular connection is fully encrypted for the highest level of security.

The PLC based automation system contains input/output modules to provide control and monitoring for the site. Pressures and flows are transmitted to the SCADA system along with status of the generator, ATS, doors, valves, and pneumatic tank.

The PLC controls the pump motors by means of Process Field network (Profinet) connections that provide a complete array of energy and performance parameters to the automation system. Using setpoints entered by the operator on either the station's graphical user interface screen or from the SCADA computers, pump speeds will modulate to meet pressure setpoint requirements. The network connections to the PLC provide all information pertinent to the operation and alarm status of each connected motor starter unit.

The station's operator interface panel has all these values displayed on a color graphic screen. In addition, the unit is programmed to display trends of all analog values to facilitate tuning of the process and provide date/time stamped diagnostic information for historical events and alarms. The graphic unit has multiple screens including a process overview screen showing the reservoirs and pumps with levels, flow, pressures, and pump status simultaneously. Detailed information is shown in 'daughter' screens that includes 1 - Power information, 2 - pump

controller parameters, 3 - settings for alarms and shutdown conditions, 4- trending for all analog variables, 5- system overview information showing 544' supply reservoir level, 6 - RTU/PLC communication data, 7- intrusion system entry/exit setup, 8 - detailed information on each motor, status, alarms, etc. The PLC programming has features to detect various abnormal operating conditions and take corrective action. Alarms detected at the station may be viewed locally on a graphic panel or viewed at the headquarters location. Average update from the station to the central SCADA requires about 6 seconds.

The central station location includes graphical user interface computers for system-wide monitoring and control. Pump status, control settings, alarm setpoints and station alarms and status are all viewed from this computer. Trending and data archiving are also accomplished with this computer. Off-duty alarm notification is provided for the station's alarm conditions via Win911 alarm software and sent to operators via SMS messages.

H) Booster Pump Control

Up to three variable speed duty pumps and one high service pump are designed into the control algorithm to boost water to the 695' distribution zone from the 554' zone when operating on utility power. When operating under standby power the pump operation is limited to one duty pump and one high service pump as described previously. The 75hp pumps are configured as primary and standby, with a maximum of one high service pump operating at any time. A failure of the selected primary 75hp pump is met immediately by the automation system changing primary/standby assignments and starting the replacement pump. The maximum hour daily flows are met by two 20hp pumps and fire flow met by one 75hp fire pump and one 20hp duty pump. The additional 20hp and 75hp pumps are standby units that provide resiliency. Pumps may be selected to alternate by runtime or duty cycle.

Flow demand in the 695' zone manifests itself in the form of zone pressure drop and discharge pressure is the main variable for the station control algorithm. Two pressure transmitters are used for resiliency purposes to ensure this critical measurement is provided. The discharge setpoint can be adjusted at the Pump Station and the automation logic will sequence between pumps with increasing or decreasing demand periods, adjusting speeds as necessary to maintain a steady pressure with varying flows. The system is sensitive to the suction side pressure and will take corrective action to decrease the pump output should it drop below a critical threshold that would damage the pumping units by cavitation. Pump operation is automatically reset upon suction pressure recovery. Pump motor power usage is monitored for determining pumping efficiency.

Low to moderate flow rates are met by the lead 20hp booster pump and capacity within the hydro-pneumatic tank. Moderate to maximum hour flows are met by lead + lag 20hp pump operation. Flow is measured by the 4" discharge flowmeter. The meter accuracy is excellent with flows greater than 20gpm and functional down to about 8gpm. Very low flows are satisfied by the hydro-pneumatic tank capacity. When the tank level drops to the start setting,

a 20hp pump will cycle up to meet demand plus refill the tank before stopping when pressure is satisfied, and tank level rises to the stop level setting. The air compressor is used to add air to the tank as the volume slowly decreases when the pumps are off. The air vent solenoid opens when the pressure setting is satisfied, but the tank level is below the stop level. This tank exercise is intended for very low flow time periods and is also important for water quality purposes to change over water inside the tank daily. The lag 20hp pump is configured to work with the lead 20hp pump for flows that exceed the lead pump maximum capacity. The 20hp motors work with alternation such that a failure of a selected pump immediately alternates to a functional replacement 20hp pump.

When two 20hp pumps are unable to maintain the pressure setpoint and are running at full operating speed, the selected primary high service pump is called to operate to meet high service flows. One duty pump may remain online to meet the anticipated fire flow plus domestic flow requirement. As flows decrease to a flow range that can be met by the 20hp pumps, the high service pump will be commanded to close and the 20hp pumps started. The pump control valves on the discharge side of the 75hp pumps are configured to modulate slowly to the fully closed position to allow the pressure to transition smoothly between the large, fixed speed and variable speed duty pumps.

The large pump control logic includes the ability to cycle the pump on a scheduled exercise basis to keep the motor and pump bearings regularly used. During the cycle, the pump will run against its closed pump control valve for one minute and the valve allowed to briefly start opening to refresh the pump line water before returning closed and the motor stopping.

I) Surge Control

As described above the pump start controls are designed to cycle pumps on and off smoothly without pressure surges. In addition to pump start up and shut down, the potential for a surge exists during a power outage prior to when the generator turns on or when a valve is shut incorrectly. To address these potential issues a transient (surge) analysis to assess potential for damaging transient pressure waves has been performed by Carollo for the GME Phase 4 BPS and is included in Appendix C. The analysis determined that a 3,000gal hydro-pneumatic surge tank was required to address the impact of potential transients and mitigate the impacts of potential surges.

J) Hydro-pneumatic Tank.

A 3,000gal hydro-pneumatic steel pressure tank is being installed with the project to mitigate the impacts of potential surges. The tank will be externally located and is proposed to be 5ft diameter and 23ft long.

The proposed tank to have the following:

- Manway at one end.
- Tank water level sensor and transmitter providing 4-20mA signal

- Tank Pressure sensor and transmitter providing 4-20mA signal
- Visual liquid level gauge
- 1/2" NPT safety valve per ASME Section VIII.
- Two 1/2" NPT air-line solenoid valves
- 1/2" NPT ball and check valves for air flow control
- 4 1/2" DIA dial pressure gauge
- Air bleed muffler.

The tank is manufactured with support saddles that sit on 2.5ft x 6.0ft reinforced concrete pads. Exact depth of pads will be designed to provide the required anchorage.

A 5hp oil-less air compressor system with its own integral control / motor starter panel to be installed in the BPS building. A 5hp dual stage compressor associated with the control system is being installed in the building as needed to provide the pressure operation for the hydro-pneumatic tank. The system for controlling the compressor is addressed in Section H above. Intake for compressor to be protected by an air filter.

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- Appendix A** Green Mountain Estates Subdivision – Final Order
- Appendix B** City of Camas Water System Plan (WSP) – Water System Design Criteria
Water System Design Manual Checklists
Local Government Consistency Form
City Council Minutes
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Booster Station Building Plans
Booster Station Skid layout

Technical Appendix

Appendix A

- Green Mountain Estates Subdivision – Final Order

Appendix B

- City of Camas Water System Plan (WSP) – Water System Design Criteria
- Water System Design Manual Checklists
- Local Government Consistency Form
- City Council Meeting Minutes.

Appendix C

- Carollo Hydraulic Modelling Results – Booster Station Suction Pressures.
- Carollo Surge Analysis
- Generator Detailed Sizing

Appendix D

- City of Camas Service Area. WSP Fig. 2.1
- City of Camas Physical Environment. WSP Fig. 2.2
- City of Camas Comprehensive Plan. WSP Fig. 5.6
- City of Camas Water Service Area. WSP Fig. 9.1

Appendix E

- Booster Station Site Plan
- Booster Station Building Plans
- Booster Station Skid Layout

RECEIVED
JUN 27 2016



NOTICE of DECISION
Green Mountain Estates Subdivision (file# SUB15-02)
 Effective Date of Decision: **June 24, 2016**

Applicant: Green Mountain Estates, LLC
 2300 East 3rd Loop, Suite 100
 Vancouver, WA 98651

THIS IS TO SERVE AS NOTICE that a decision of **APPROVAL** with conditions has been rendered for Green Mountain Estates Subdivision (SUB15-02), a 346-lot single-family development on 98.37 combined acres. The property is located north of NE 28th Street and east of NE 222nd Avenue, which is also described as Tax Parcels: 173158-000, 173193-00, 173212-000, 173213-000, 173214-000 & 173215-000.

The final order of the Hearings Examiner is attached to this notice.

RECONSIDERATION PROCEDURES:

Any party of record believing that a decision of the hearings examiner is based on erroneous procedures, errors of law or fact, or the discovery of new evidence which could not be reasonably available at the public hearing, may make a written request to the examiner, filed with the city clerk (**Municipal Center, 616 NE 4th Ave., Camas**), to be accompanied by an appeal fee of \$350, for reconsideration by the examiner.

- A. Time Frame. The request for reconsideration shall be filed within fourteen calendar days of the date the decision was rendered. **Deadline for filing a reconsideration request is July 1, at 5:00 p.m.**
- B. Content. The request for reconsideration shall contain the following:
1. The case number designated by the city and the name of the applicant;
 2. The name and signature of each petitioner;
 3. The specific aspect(s) of the decision being appealed, the reasons why each aspect is in error as a matter of fact or law and the evidence relied on to prove the error. If the petitioner wants to introduce new evidence in support of the appeal, the written appeal must explain why such evidence should be considered.
- C. The hearings examiner may, after review of the materials submitted in conjunction with the reconsideration request, and review of the open record hearing transcript, take further action as he or she deems proper; including, but not limited to, denying the request, modifying the decision, or affirming the decision.
- D. The hearings examiner shall issue a decision on a request for reconsideration within forty-five (45) days of the filing of the request for reconsideration. When a request for reconsideration has been timely filed, any appeal to Clark County Superior Court under the Land Use Petition Act shall be filed within twenty-one (21) days after a hearings examiner issues its decision on the request for reconsideration.

QUESTIONS: For further information regarding this specific application, Hearing Examiner action in this matter, or planning issues in general, please contact Sarah Fox, Senior Planner, by email at communitydevelopment@cityofcamas.us, or by phone at (360) 817-1568 ext. 4269.

**BEFORE THE LAND USE HEARING EXAMINER
FOR THE CITY OF CAMAS, WASHINGTON**

Regarding an application by Green Mountain Estates LLC) **FINAL ORDER**
for approval of a preliminary plat to divide 98.37 acres into)
346 lots in the R-6 & R-10 zones north of NE 28th Street and) **Casefile No. SUB15-02**
east of NE 222nd Avenue, in the City of Camas, Washington) **(Green Mountain Estates)**

A. SUMMARY

1. The applicant, Green Mountain Estates LLC, requests approval to divide the 98.37-acre site into 346 lots and stormwater and open space tracts. The applicant proposed to develop the site in five phases. The site is located at the northeast corner of the intersection of NE 222nd Avenue and NE 28th Street. The legal description of the site is tax parcels 173158-000, 173193-000, 173212-000, 173213-000 & 173214-000, Section 21, Township 2 North, Range 3 East, Willamette Meridian (WM), Camas, Washington (the "site").

a. The southwest portion of the site and abutting properties to the west are zoned R-6 (Single Family Residential, 6,000 square foot average lot size). The southeast corner and northern portion of the site, and abutting properties to the east of the southern portion of the site, are zoned R-10 (Single Family Residential, 10,000 square foot average lot size). Properties to the southwest, across NE 28th Street, are zoned R-7.5 (Single Family Residential, 7,500 square foot average lot size). All other abutting properties are located in unincorporated Clark County. Properties to the east and west of the northern portion of the site are zoned FR-40 (Forest, 40-acre minimum lot size). Properties abutting the northern portion of the site and to the north and southeast are zoned AG-20 (Agriculture, 20-acre minimum lot size). Properties to the south, across NE 28th Street, are zoned R-12 (Residential, 12-units per acre)

b. The site is currently developed with three single-family residences and associated accessory structures. The applicant proposed to remove all but one of the existing structures on the site. The applicant will retain an existing residence in the southeast corner of the site, on proposed Lot 25. The applicant will construct a new single-family detached dwelling on each of the remaining proposed lots. All proposed lots will comply with the minimum dimensional standards for the applicable zone as modified by the density transfer ordinance.

c. Domestic water and sanitary sewer service will be supplied by the City of Camas. The applicant will collect stormwater from impervious areas on the site and convey it to proposed stormwater facilities in the southwest corner of the site for treatment, detention, and discharge into the onsite wetlands.

2. The City issued a Mitigated Determination of Nonsignificance ("MDNS") for the subdivision pursuant to the State Environmental Policy Act ("SEPA") on March 15, 2016. The SEPA determination was not appealed and is now final.

3. City of Camas Land Use Hearing Examiner Joe Turner held a duly noticed public hearing to receive public testimony and evidence regarding the application. City staff recommended the examiner approve the preliminary plat subject to conditions. See the City of Camas Staff Report to the Hearing Examiner dated March 23, 2016 (the "Staff Report"). The applicant accepted those findings and conditions, as amended at the hearing and during the open record period, with certain exceptions. Two persons testified orally in opposition to the application. Other persons testified in writing. Contested issues in the case include:

- a. Whether the applicant is required to provide larger lots along the boundaries of the site;
- b. Whether the proposed development will be adversely impacted by air traffic from the Grove Field airport;
- c. Whether an exception to the off-street parking requirements of CMC 17.19.040.B(10)(c) is warranted;
- d. Whether the applicant is required to retain the existing driveway apron at the southeast corner of the site to facilitate access to the adjacent property;
- e. Whether the applicant is required to dedicate right-of-way for a bike lane on the south side of NE 28th Street;
- f. Whether traffic from the proposed development, as mitigated, will exceed the capacity of area streets or create or exacerbate a hazard.

4. Based on the findings provided or incorporated herein, the examiner approves the preliminary plat subject to the conditions at the end of this final order.

B. HEARING AND RECORD HIGHLIGHTS

1. The examiner received testimony at a public hearing about this application on March 30, 2016. All exhibits and records of testimony are filed at the City of Camas. At the beginning of the hearing, the examiner described how the hearing would be conducted and how interested persons could participate. The examiner disclaimed any *ex parte* contacts, bias or conflicts of interest. The following is a summary by the examiner of selected testimony and evidence offered at the public hearing.

2. City planner Sarah Fox summarized the Staff Report and the exhibits received since the Staff Report was issued.

- a. The site is zoned R-6 and R-10. The R-6 zone allows lot sizes between 4,200 and 7,200 square feet. The R-10 zone allows lot sizes between 7,000 and 12,000 square feet.
- b. The City supports the applicant's proposal for off-street parking, Exhibit 26. However some adjustments may be needed during final review.
- c. The applicant will need to provide a separate tract for the water booster pump station that Mr. Adams noted will be needed to supply water to lots above 370 feet in elevation.
- e. The Grove Field airport is located southeast of the site. Although the airport is outside of the City limits, the flight pattern for the airport extends over the site. The applicant should be required to notify the future residents of the site about the potential for noise and other impacts from airplanes using this airport and to provide an aviation easement allowing air traffic at 500 feet above the site.
- f. She requested the examiner adopt certain amendments to the findings and conditions in the Staff Report.
- i. A condition is warranted requiring Oregon white oak trees planted to mitigate trees removed from the site be two-inch caliper trees spaced ten feet apart, consistent with the recommendation of Washington Department of Fish and Wildlife ("WDFW").
- ii. Staff supports a condition requiring the applicant install a fence along the southeastern boundary of the site, where the site abuts larger lots in the Country Estates development.
- iii. The City supports the additional conditions proposed by Mr. Printz in Exhibit 31 regarding sewer and water.

3. City utilities manager Sam Adams noted that the applicant is required to replace the existing 8-inch diameter water main in Goodman Road with a 12-inch diameter main between the bridge crossing Lacamas Creek and NE Ingle Road. The applicant must install a 24-inch diameter water main in Goodman from the Ingle Road intersection through the site. In addition, the applicant will be required to install a booster station to serve areas of the site above 370 feet in elevation.

a. The applicant proposed to provide four stormwater treatment and detention facilities in the flatter, southern, portion of the site. The applicant requested exceptions to the 30-foot setback requirement from the right-of-way for three of the four facilities. City staff support the proposed exception.

b. There is no existing public sanitary sewer service in this area. The City's General Sewer Plan Amendment of April 2010 (Sewer Plan) provides a plan on how the North Urban Growth Area ("NUGA") will be served. The NUGA is divided into six basins served by multiple regional pump stations and major force main and gravity piping systems. The Sewer Plan, calls for traditional gravity sewer flows (including solids) from all six basins to be directed south and east along the north side of Lacamas Lake. Sewer service for the NUGA is currently in the design phase and construction should be completed in early 2018. The applicant will pay a proportionate share of the planned sanitary sewer improvements for the area, the NUGA Sewer Transmission System ("NUGA-STS"). The applicant will also be required to construct gravity sewer improvements that are necessary to connect to the proposed subdivision to the planned pump system and to provide for future upstream connections to the north and east. The applicant will size the facilities to serve properties upstream and downstream of the site. There is a STEP force main southwest of the site. The applicant may be able to utilize this existing system for interim sanitary sewer service. The applicant will be required to pay for all improvements needed to utilize the STEP system and demonstrate that adequate capacity exists to serve this site. The applicant will be required to connect to the NUGA-STS once it is completed.

c. He requested the examiner modify condition 3 to require construction of the 24-inch diameter water main in 28th Street prior to final plat approval for any lots abutting NE 28th Street.

4. City engineer James Carouthers responded to Mr. Printz's traffic comments on behalf of the Green Mountain PRD development, Exhibit 31. He agreed that the Green Mountain PRD is vested for full buildout, 1,365 pm peak hour trips. The applicant's traffic study should have considered all of the projected vehicle trips generated by full buildout of the approved Green Mountain PRD development.

5. City project manager Wes Heigh testified that the applicant will be required to construct left-turn pockets as part of the initial construction of the site access to NE 28th Street, prior to occupancy of any homes on the site. A center turn lane will replace the left turn pockets when NE 28th Street is fully improved. He noted that the north-south section of Tract E, the private road providing access to Lots 1-4, should be improved with a minimum 20-foot paved width and the east-west portion should be improved with a minimum 25-foot paved width to allow vehicles to maneuver in and out of the proposed lots. Condition of approval 17 should be modified to that effect.

a. He requested the examiner modify condition 5 to require proper abandonment of existing septic systems as well as groundwater wells on the site.

b. Condition of approval 29 should be modified to allow gates in the fence along the north boundary of the site to allow public access to the abutting County property. Private access from individual lots should be prohibited.

c. Condition 36 should be modified to require fire sprinklers for homes on lots served by dead-end streets longer than 400 feet.

6. Planner Andrew Gunther, attorney Jamie Howsley, and Dean Kirkland, chairman of Kirkland Development, testified on behalf of the applicant, Green Mountain Estates, LLC.

a. Mr. Gunther summarized the proposed development and responded to the issues raised in oral and written testimony.

i. The applicant is working with the developer of the adjacent property regarding sharing the cost of improvements necessary to access the existing STEP sewer system and sharing the capacity of that system.

ii. The applicant should not be required to construct a bike lane on the south side of NE 28th Street. There is no nexus between this off-site improvement and the impacts of the development. This condition would create an isolated section of bike lane along the site's frontage with no connection to other bike lanes to the east or west. The remainder of NE 28th Street is a narrow County road with no shoulders. A bike lane in this area is unlikely to be extended and connect to other sections for many years. Lands to the west of the site are zoned Urban Holding and lands to the east are zoned Rural. In addition, construction of a bike lane on the south side of NE 28th Street would likely impact fences, ditches, driveways and other existing improvements. The Code only requires half-width street improvements. In addition, improvements to NE 28th Street between Camas Meadows Drive and 232nd Avenue are included in the City's six-year capital improvement plan. Condition 12 should be modified to require a 38-foot paved width with a single five-foot bike lane along the site's frontage.

iii. The applicant submitted a modified plan that includes off-street parking required by the Code. However the applicant continues to request approval of an exception to the parking requirement. The proposed development will provide significant opportunities for on-street parking throughout the development. The development will provide more than 5,000 lineal feet of curb line with no abutting lots or driveways, where roads abut open space tracts, and unrestricted on-street parking will be available on one side of these street sections. Although the requirement to preserve open space is not exceptional, the amount of curb line available for parking on this site is exceptional. In addition, the proposed lots are only slightly smaller than the 7,400 square foot standard where no off-street parking is required. There are smaller, 50-foot wide, lots in the southern portion of the site, south of the wetland. Only five of the remaining 300 lots are smaller than 60 feet in width. Many lots exceed 70 feet in width, which provide substantial opportunities for on-street parking and room for three-car garages and driveways.

iv. He requested the examiner modify condition 21 to allow the applicant to locate the booster pump station on a tract rather than a lot, provided the applicant demonstrates no reduction in the amount of open space on the site.

v. The applicant will revise the setbacks to comply with Code requirements.

vi. The applicant may eliminate Tract N. Therefore condition 35 should be modified to require access for maintenance only if this Tract is included in the final plat.

vii. The existing driveway serving the residence in the southeast corner of the site, in combination with Mr. Gilmore's adjacent driveway, creates a wider driveway apron that may make it more convenient for Mr. Gilmore to maneuver large trucks and trailers onto his property. However the applicant is required to construct sidewalk and other improvements along the site's entire frontage on NE 28th Street, which will eliminate the existing on-site driveway and reduce the effective driveway apron used by Mr. Gilmore. Mr. Gilmore does not have an easement or other legal right to use the existing driveway on the site. However Mr. Gilmore will still have full access to his existing driveway and the center left turn planned for NE 28th Street will facilitate access to Mr. Gilmore's driveway.

viii. The applicant is not required to provide larger lots abutting the Country Estates development. The beveling standard of CMC 18.09.080.B only applies to residential lots. The Country Estates development is located in the rural area and zoned AG-20 (Agriculture, 20-acre minimum lot size). Clark County approved the Country Estates development as a cluster subdivision.

ix. The applicant will construct a center turn lane on the section of NE 28th Street abutting the site and left-turn lanes on Goodwin at NE Ingle Road, which will mitigate some of the traffic concerns raised by area residents.

x. He agreed to the conditions proposed by staff regarding potential impacts from the airport. The applicant will put a note on the plat informing future residents about potential noise and other impacts from airport traffic. The applicant is also willing to provide an aviation easement allowing air traffic at 500 feet above the site.

xi. The applicant is willing to review the potential to preserve trees along the boundary of the site. However the applicant will not preserve trees that pose a potential hazard to the future residents based on tree health, wind throw potential, grading and infrastructure needs, and similar issues.

xii. He agreed to a condition of approval requiring a fence on the south boundary of Lots 139-148, abutting the Country Estates development prior to final occupancy of the first home in that series of lots.

xiii. He agreed to the additional conditions proposed by Mr. Printz regarding sanitary sewer improvements and a potential future water reservoir on the site.

b. Mr. Kirkland argued that the applicant was aware of this development and could have sought approval of a latecomers agreement for sewer improvements earlier. The applicant can negotiate an agreement with Green Mountain PRD regarding the traffic from this development during the open record period.

c. Mr. Howsley requested the examiner hold the record open to allow all parties an opportunity to address the issues raised at the hearing.

4. Area resident Ken Miles argued that the applicant should be required to provide 12,000 square foot lots, the maximum size allowed by the R-10 zone, along the boundary of the site abutting the Country Estates development in order to comply with section LU-4 of the comprehensive plan and CMC 18.09.080.B and be compatible with the existing one-acre lots in the Country Estates development.

a. He testified that there have been numerous accidents at the intersection of NE 232nd Avenue and NE 28th Street. Many accidents, especially single vehicle accidents, go unreported and therefore are not included in the WSDOT database noted in the applicant's traffic study. Traffic generated by the proposed development will increase this existing hazard.

b. He objected to any access between the site and the Country Estates development.

5. Attorney Randy Printz appeared on behalf of the Green Mountain PRD development and summarized his memorandum, Exhibit 31. The Green Mountain PRD is a 1,300 lot master planned development, including 8.8 acres of commercial development and a variety of single- and multi-family residential development.

a. The Green Mountain PRD developer is required to contribute funds to the City to fund a portion of the planned sanitary sewer improvements for the NUGA. The applicant for this development, Green Mountain Estates, should be required to pay a pro-rata share of the NUGA improvements.

b. The Green Mountain PRD will build interim sanitary sewer improvements that will allow use of the City's existing STEP sewer system. The capacity of the STEP system is limited to approximately 350 Equivalent Residential Units ("ERUs"). The development agreement with the City reserves 201 ERUs of the capacity for Green Mountain PRD. If this development utilizes the STEP sewer improvements in excess of the 201 ERUs reserved to Green Mountain PRD, it should be required to reimburse Green Mountain PRD for its share of the cost of the interim improvements through a latecomers agreement.

c. Traffic from the Green Mountain PRD development is vested at full buildout and for all mitigation improvements required to support that full buildout. In addition, the development agreement requires the Green Mountain PRD developer to monitor certain intersections and provide additional mitigation if they reach a specified level of service. However the applicant's traffic study did not include all traffic from the Green Mountain PRD development. Therefore, traffic from this development, in combination with approved traffic from the Green Mountain PRD, could cause intersections to fail or to require mitigation that would not be required, or would not be required as soon, without traffic from this development.

d. The applicant should be subject to a condition of approval regarding the potential need for a water reservoir on the site, similar to the condition imposed on the Green Mountain PRD.

6. At the conclusion of the public hearing, the hearings officer ordered the record held open for one week, until April 8, 2016, for new evidence from all parties regarding the traffic impacts of this development; for a second week, until April 15, 2016, for a response to that new evidence from all parties; and for a third week, until April 22, 2016, for a closing argument by the applicant. By Orders dated April 18 and May 9, 2016 the examiner extended the initial open record period until May 19, 2016, the response period until May 23 and the applicant's closing argument until May 30, 2016. The record in this case closed at 5:00 p.m. on May 31, 2016, due to a holiday on the 30th.

C. DISCUSSION

1. City staff recommended approval of the preliminary subdivision plat, based on the affirmative findings and subject to conditions of approval in the Staff Report, as modified at the hearing and during the open record period. The applicant accepted those findings and conditions, as modified, with certain exceptions.

2. The examiner concludes that the affirmative findings in the Staff Report, as modified, show that the proposed preliminary plat does or can comply with the applicable standards of the Camas Municipal Code (the "CMC") and Revised Code of Washington, provided that the applicant complies with recommended conditions of approval as modified herein. The examiner adopts the affirmative findings in the Staff Report as his own, except to the extent they are inconsistent with the following findings.

3. The City cannot require the applicant to develop the site with larger lots. The proposed lots comply with the dimensional requirements for the R-6 and R-10 zoning that applies to the site, as modified by the density transfer provisions of CMC 18.090.060.

a. CMC 18.09.080.B requires that lots on the perimeter of a subdivision must be the maximum lot size allowed by the applicable zoning where adjacent to a greater density residential zone.

i. The northern portion of the site is zoned R-10. There is additional R-10 zoned land to the south of this portion of the site. CMC 18.09.080.B does not apply to this zoning boundary, because the properties are in the same zone. Properties abutting the south of the eastern end of the R-10 zoned portion of the site, the Country Estates subdivision, and properties abutting the north boundary are zoned AG-20 (Agriculture, 20-acre minimum lot size). Properties abutting the northwest and east boundaries are zoned FR-40 (Forest, 40-acre minimum lot size). The AG-20 and the FR-40 zones are not “residential” zones. Therefore CMC 18.09.080.B is inapplicable to lots abutting those boundaries of the site.

ii. The southwest corner of the site is zoned R-6. Abutting properties to the west are also zoned R-6. Properties to the southwest, across NE 28th Street, are zoned R-7.5 and R-12. However they do “abut” the site. They are separated by a public right-of-way.

iii. The R-6 zoned portion of the site abuts R-10 zoning to the north and west. The northern zoning boundary is located within the development site. Therefore CMC 18.09.080.B is inapplicable. The R-10 zoned properties to the east are not included in this development. Therefore CMC 18.09.080.B requires that lots abutting this boundary must be developed with 7,200 square foot lots, the maximum lot size allowed in the R-6 zone. With the exception of proposed Lot 26, all of the lots on this boundary are 7,200 square feet. Lot 26 is 7,163 square feet. The applicant should be required to modify this lot to provide 7,200 square feet as required by CMC 18.09.080.B. A condition of approval is warranted to that effect.

b. As Mr. Miles noted, Land Use Policy LU-4 of the Camas Comprehensive Plan provides, “Maintain compatible use and design with the surrounding built and natural environment when considering new development or redevelopment.” The examiner finds that CMC 18.09.080.B implements this policy by requiring larger lots along the boundaries of different residential zones. This Policy does not expand the scope of CMC 18.09.080.B to require larger lots abutting agricultural zoned lands. Although the proposed lots are smaller than adjacent lots, the uses are not incompatible. The applicant is proposing to provide single-family detached residences adjacent to existing single-family development. Even if the proposed subdivision will have an adverse impact on property value --- and there is no substantial evidence to that effect in the record --- protection of property value is not relevant to the applicable State or City standards. The examiner must base the decision on the laws of the City of Camas and Washington State.

c. The applicant agreed to provide a fence along the southern boundary of the lots abutting the Country Estates subdivision, proposed lots 139-148. The applicant also agreed to preserve existing trees within ten feet of the southern boundary of these lots, provided the trees are healthy, wind-firm, and will not be impacted by planned grading on the site. The proposed fence and tree retention will provide separation and a

buffer between the existing and proposed lots. Conditions of approval are warranted to that effect.

4. The site is located within the flight pattern for the Grove Field airport. The applicant agreed to include a plat note advising future homeowners of the potential for noise and other impacts from air traffic. The applicant also agreed to a condition of approval requiring dedication of an air navigation easement 500 feet above the site. Conditions of approval are warranted to that effect.

5. The applicant requested an exception to the off-street parking requirements of CMC 17.19.040.B(10)(c).

a. CMC 17.19.040.B(10)(c) provides:

When the proposed development's average lot size is seven thousand four hundred square feet or less, one additional off-street parking space shall be required for every five units, notwithstanding the requirements of CMC Chapter 18.11. These spaces are intended to be located within a common tract.

The average lot size proposed on this site is 7,065 square feet. Therefore CMC 17.19.040.B(10)(c) requires the applicant provide 69 off-street parking spaces.

b. CMC 17.23.010.A(1) authorizes exceptions where an applicant demonstrates that strict compliance with the Code will create an “undue hardship” and:

- a. There are special physical circumstances or conditions affecting the property, such that the strict application of the provisions of this code would deprive the applicant of the reasonable use or development of his land;
- b. The exception is necessary to insure such property rights and privileges as are enjoyed by other properties in the vicinity and under similar circumstances; and
- c. The granting of the exception will not be detrimental to the public welfare or injurious to other property in the vicinity.

c. The applicant argued that there is no need for off-street parking on this site. The wider lots and extensive open space areas on the site provide substantial opportunities for on-street parking throughout the site. That may be true, but it is not relevant to the applicable standards for an exception. The examiner finds that the applicant failed to demonstrate compliance with the approval criteria in CMC 17.23.010.A(1). There is no evidence that compliance with the off-street parking requirements will create an undue hardship for the applicant. The applicant demonstrated

in Exhibit 26 that it is feasible to comply with this requirement. In addition, the applicant failed to demonstrate compliance with the remaining criteria in CMC 17.23.010.A(1)(a) and (b).

i. The applicant failed to identify any special physical circumstances or conditions affecting the property. CMC 17.23.010.A(1)(a). The site contains sensitive lands (wetlands and steep slopes). However such conditions are not unique to this site. Many developments in the City are subject to similar constraints. There is no evidence that these development constraints will deprive the applicant of the reasonable use or development of its land. To the contrary, Exhibit 26 demonstrates that it is feasible to develop the site in compliance with this requirement.

ii. The applicant failed to demonstrate that the exception is necessary to insure such property rights and privileges as are enjoyed by other properties in the vicinity and under similar circumstances. CMC 17.23.010.A(1)(b). As noted above, the existence of sensitive lands on this site is not unique. Other properties in the City are subject to the same constraints. Compliance with the off-street parking requirement will not preclude the applicant from developing the site consistent with applicable zoning or otherwise deprive the applicant of rights and privileges as are enjoyed by other properties in the vicinity.

iii. The examiner finds that the granting of the exception will not be detrimental to the public welfare or injurious to other property in the vicinity. CMC 17.23.010.A(1)(c). As the applicant noted, the proposed development will provide ample opportunities for on-street parking. The 5,000 lineal feet of unrestricted curb line will allow up to 250 on-street parking spaces, assuming 20 lineal feet per parking space. In addition, the larger and wider lots in the northern portion of the site provide additional opportunities for on- and off-street parking. However the Code does not require a minimum amount of on- and/or off-street parking. The Code requires off-street parking based on the average lot size proposed and the applicant failed to demonstrate compliance with the remaining approval criteria for an exception to the off-street parking requirement. Therefore the applicant must be required to provide 69 off-street parking spaces on this site.

6. Mr. Gilmore objected to the elimination of the driveway serving the existing residence in the southeast corner of the site. The examiner understands that this existing driveway, in combination with Mr. Gilmore's adjacent driveway, makes it easier for Mr. Gilmore to maneuver his large vehicle and trailer in and out of his property. However there is no evidence that Mr. Gilmore has an easement or legal right to continue using this existing driveway. The applicant is required to remove the portion of the driveway access located on the site and construct frontage improvements along the site's entire 28th Street frontage. Mr. Gilmore can expand his own driveway on his property to provide a wider driveway apron if he feels it is necessary to maintain safe access to his property. In addition, right-of-way and frontage improvements provided by this development will provide a wider paved section and may provide adequate pavement width to allow

striping of a center left turn lane along the site's frontage, which may facilitate access to Mr. Gilmore's property, allowing him to maneuver his vehicle out of the through traffic lane while waiting to turn left into his property.

7. The applicant objected to the requirement to provide a five-foot bike lane on the south side of NE 28th Avenue, arguing that there is no essential nexus between the impact of this development and the need for this bike lane. However, based on the conditions proposed by staff and the requirements of CMC 17.9.040.B(1), the applicant is only required to dedicate and improve half-width improvements. The applicant is not required to construct a bike lane or other improvements on the south side of NE 28th Street. Condition of approval 12 should be modified to clarify that requirement.

8. The examiner finds that traffic from this development will not exceed the capacity of area streets or cause or exacerbate a hazard, provided the applicant provides certain mitigation measures identified by the City in Exhibit 57.

a. The applicant's traffic study analyzed the crash history as obtained from WSDOT. The crash rates for all identified intersections are well below 1 accident per million entering vehicles, the City's action rate for accidents. The action rate is based on reported accidents. As noted in the testimony and Exhibit 45, some accidents are not reported. Therefore the accident history may not reflect all of the accidents in the area. However the action rate of 1 accident per million entering vehicles is generally based on reported accidents. There is no substantial evidence that this location experiences an unusually high number of unreported accidents. Mr. Miles submitted evidence of numerous 911 calls regarding accidents in the area. However the 911 records do not provide sufficient information to determine the cause of the majority of accidents reported. The applicant can only be required to address accidents caused by engineering and road conditions. The applicant cannot mitigate for accidents caused by distracted or impaired drivers, excessive speed, and similar causes. The examiner finds that the WSDOT accident history is the best evidence available regarding the accident history for this area.

i. The applicant will provide left turn pockets at both of the proposed intersections on NE 28th Street and the NE Goodwin/Ingle Road intersection, which will allow drivers waiting to turn left at these intersection to move out of the eastbound through lane, reducing the potential for rear-end collisions. In addition, the applicant will be required to modify the intersection of NE 28th Street and NE 232nd Avenue to maintain LOS D and install turn lanes and a traffic signal at the NE Goodwin/Ingle Road intersection prior to construction of the 181st home on the site.

b. The applicant proposed alternatives to the conditions recommended by the City (Exhibit 54). However, as noted by the City, the examiner has no authority to impose additional conditions on the previously approved Green Mountain PRD or require the City to enter into a covenant or other agreement with the applicant. In addition, there is no evidence that the mitigation specific measures proposed by the applicant at certain

intersections will prevent the expected failure of these intersections. In order to approve this development, the examiner must find that all affected intersections will operate at acceptable levels of service. Therefore conditions of approval are warranted that ensure mitigation necessary to maintain acceptable levels of service will be provided. The applicant may be able to reach agreements with the City and other developers regarding cost sharing and timing of the required mitigation measures. This application cannot be approved unless the applicant is conditioned to provide all necessary mitigation.

D. CONCLUSION

Based on the above findings and discussion, the examiner concludes that FILE# SUB15-02 (Green Mountain Estates) should be approved, because it does or can comply with the applicable standards of the Camas Municipal Code and the Revised Code of the State of Washington, subject to conditions of approval necessary to ensure the final plat and resulting development will comply with the Code.

E. DECISION

Based on the findings, discussion, and conclusions provided or incorporated herein and the public record in this case, the examiner hereby approves FILE# SUB15-02 (Green Mountain Estates), subject to the following conditions of approval. Unless waived or modified in this decision, the development must comply with the minimum requirements of the Camas Municipal Code.

CONDITIONS OF APPROVAL

Engineering Division

1. Prior to final engineering plan approval for any phase that includes segments of Road A and/or Road D, the applicant shall include and install acceptable traffic calming elements in the number, type and location deemed necessary by the City Engineer.
2. Prior to final plat approval for any phase, if not already completed by others, the applicant shall be conditioned to install a 12-inch diameter waterline on Goodwin Road from Lacamas Creek to Ingle Road.
3. Prior to final plat approval for any lots abutting NE 28th Street, the applicant shall be conditioned to design and construct the 24-inch diameter transmission main in Goodwin Road/NE 28th Street (T-7) per the Camas Water System Plan. Construction of the transmission main shall be completed prior to final plat approval of the phase(s) the main is located in, or adjacent to.
4. Prior to final plat approval of any phase that includes a lot sited above the 370-foot elevation, the applicant shall be conditioned to construct a booster pump station to meet minimum domestic and fire flow requirements.
5. Existing water wells and on-site septic systems shall be properly abandoned in accordance with State and County guidelines prior to final plat approval for the

particular phase that it will be located in. Additionally, any water rights associated with the abandoned water wells shall be transferred to the City.

6. Prior to final engineering plan approval for any phase, the applicant shall provide enhanced landscaping, screening and fencing acceptable to the city for the detention/wetpond facility in the southern portion of Tract D, the large detention facility located in the northwest corner of Tract D and the detention facility proposed in Tract A.
7. Prior to final engineering plan approval, the applicant shall design the proposed stormwater detention facility located in the northeastern portion of Tract D to meet the minimum 30-foot setback requirement of CMC 17.19.030 (F6).
8. Prior to final engineering approval, the applicant shall place the stormwater facilities in separate tracts from critical areas, and provide fencing around the perimeter of each facility. Fencing shall be installed as part of the construction of the facility.
9. Prior to building permit issuance, the Applicant is conditioned to provide a proportionate share payment of the NUGA-STS necessary to serve the site.
10. Prior to final engineering plan approval, the Applicant is conditioned to provide calculations confirming the off-site gravity sewer facilities on NE 28th Street and Goodwin Road from the easterly edge of the subdivision to Pump Station No. 1 are sized appropriately to serve properties upstream and downstream of the Applicant's subdivision. Prior to final plat approval of any phase, the Applicant shall be required to construct all on- and off-site sanitary sewer improvements necessary to serve that phase.
11. The applicant intends (but is not required) to construct interim sewer improvements to provide service to the Property until such time that the city completes Phase B permanent improvements ("Phase A Interim Improvements"). The approximate capacity of the Phase A Interim Improvements is 350 Equivalent Residential Dwelling Units ("ERUs"), of which 201 ERUs are vested to the Green Mountain PRD development. The City agrees that the Owner may enter into a Latecomers to utilize the remaining actual capacity above 201 ERUs until such time that the permanent Phase B improvements are completed.

If Additional Phase A Improvements are constructed by the Owner, and the City allows such capacity to be used to serve property other than Owners Property, the Owner may request and apply to the City for a Latecomer Agreement which would obligate the City to collect from the Latecomer a latecomers fee that is equal to the pro rata share of the cost of the design, permitting and construction of the Additional Phase A Improvements based upon the percentage of capacity of the Additional Phase A improvements utilized by the Latecomer. Should the Owner apply for a Latecomer Agreement, it will be considered separately by the City from this decision.

In this scenario, the applicant is conditioned to design, construct, permit and abandon/decommission all temporary improvements associated with STEP system once the permanent NUGA-STS improvements are completed, including on-site

individual or community solids storage septic tanks. Prior to final engineering plan approval of any phase the applicant is conditioned to submit tank sizing and anti-buoyance calculations and appropriate odor control designs acceptable to the city. The entire temporary system shall be designed and constructed such that the individual septic tanks or large community STEF tank(s) may be abandoned or removed by the developer once the subdivision can be served via a conventional gravity system. Because the solids storage system will provide only a temporary service, the applicant is conditioned to maintain all tanks according to the manufacturer's recommendations and City standards.

12. Prior to Final Plat Approval, the Applicant is conditioned to dedicate right-of-way (ROW) along NE 28th Street of sufficient width to provide for a minimum 37 foot half-width right-of-way.
13. Final platting of an accumulation of more than 200 lots shall not occur until such time as a left turn refuge is installed on NE Goodwin Road/NE 28th Street east of NE Ingle Road.
14. Prior to final acceptance of any phase, the applicant is conditioned to install eastbound left turn lanes in NE 28th Street
15. Half width street improvements across the applicant's entire frontage on NE 28th Street shall be completed prior to final platting of an accumulation of 150 lots or more.
16. The applicant shall provide a minimum of 69 off-street parking spots located in a common tract maintained by the HOA at locations acceptable to the city.
17. The applicant shall pave the entire width of Joint Access Tract E (20 feet of paved width on the north-south section and 25-feet of paved width on the east-west section) and shall install residential fire sprinklers systems in accordance with the requirements of NFPA 13D or 13R in all lots accessed by this tract and shall install an acceptable address monument signage where Tract E leaves the public street.
18. Lots 7 & 8 shall be rear-loaded lots and prohibited from accessing Road K.
19. The applicant shall pave the entire 20-foot width of Joint Access Tract F and shall install residential fire sprinkler systems in accordance with the requirement of NFPA 13D or 13R in lots 5, 6, 7 and 8 that are accessed by Tract F and shall install acceptable address monument signage where Tract F leaves the public street.
20. Prior to final engineering plan approval for any phase the applicant is conditioned to complete a landscaping plan that details the location, number, plant species proposed, planting notes, fencing notes and associated details.
21. Prior to final plat approval of any phase, the applicant shall identify an appropriate lot(s) or approved tract for the developer funded water booster station identified in the city's June, 2010 Water System Plan at Chapter 8 to serve lots located above an elevation of 370 feet.

- a. Should it later be determined that a water booster station has previously been installed by other developers or is no longer needed to provide adequate domestic and fire flows to lots above the 370 foot elevation, this area could be converted back to a residential lot.
 - b. The booster station shall require Site Plan and Design Review permits. The design of the booster station shall be similar to that of the adjacent residential structures in style (exterior materials, roofing, roof pitch, windows) and landscaping.
 - c. Any tract needed for the booster station shall not reduce the available open space on the site.
22. Prior to construction of the 181st house, or upon documented failure of the Goodwin and Ingle intersection based on GML's monitoring, whichever is earlier, the applicant shall identify, design and construct corrective measures to mitigate the following intersections to Level of Service (LOS) D or better and receive concurrence from the City of Camas and Clark County, as applicable:
- a. NE Goodwin & Camas Meadows Drive
 - b. NE Goodwin & Alexandra Lane
 - c. NE 28th Street & NE 232nd Avenue
23. The traffic signal at NE Goodwin Road and NE Ingle Road shall be installed prior to construction of the 181st lot. If at any time monitoring of the intersection indicates that signal warrants are met prior to the construction of the 181st house, the applicant shall construct the signal at that time.
24. The applicant shall pay to the City of Vancouver a proportionate share contribution towards the construction of a northbound right turn lane on NE 192nd Avenue and a westbound right turn lane on 13th Avenue. The timing of payments shall be determined with the City of Vancouver prior to final plat approval of any phase.
25. Prior to final engineering the City and the applicant will determine the sizing and location of water facilities and any needed land for dedication for a reservoir.

Planning Division

26. Five (5) phases are approved with this decision. Modifications to the phasing plan will require approval of a modification pursuant to CMC§18.55.270-Plat amendments and plat alterations.
27. The applicant shall revise the preliminary plat to ensure that side lot lines are at right angles to the street (or radial to a curve) as practical per CMC§17.19.030 (D)(2) and (3).
28. The applicant will revise lot areas to meet the dimensional requirements of the respective zoning unless specifically modified in these conditions. An exception is not granted to exceed the dimensional standards of the zone for Lots 110 to 115, or Lots 44 to 56. Lot 26 shall be modified to provide 7,200 square feet of area as required by CMC 17.19.040.B(10)(c)

29. Proposed Lot 25 has an existing home that will remain. The lot exceeds the dimensional standards for the R-6 zone, which is permitted, as it is consistent with CMC§18.09.040, Table 2, Note 4.
- a. Any future division of Lot 25, five years after final platting, will comply with R-6 zoning.
 - b. Setbacks from NE 28th Street and to the lots west of Lot 25 will be a minimum of 20-feet.
 - c. Future homes will be oriented with fronts toward NE 28th Street if lot(s) are adjacent.
30. The applicant shall revise and remove double-frontage lots throughout the subdivision, specifically Lots 28, 29, and Lots 218 to 226. The city will accept the revisions as suggested in this report, or a substantially similar remedy. Revisions must be approved by the City prior to engineering construction plan approval of first phase.
31. A single sales office in a model home for purposes of selling lots within the development may be located within each phase, and remain until 50% of lots are sold in that phase or two years after Certificate of Occupancy is issued for the model home or trailer, whichever is less. After such time, the sales office in the home or the trailer must be removed.
32. If a sales office is proposed in a trailer, then a site plan must be approved by the City, including landscaping along the street frontage and base of trailer, and off-street parking per CMC 18.11 Parking.
33. The applicant shall construct a permanent physical barrier consisting of a six-foot high fence that adequately prevents human entry into the Clark County owned conservations lands and priority habitat areas known as Green Mountain along the entire north side of the Green Mountain Estates Subdivision. Gate or openings may be provided at approved public access points, i.e., the vehicle access at the northeast corner of the site and approved public trails. The fence shall be constructed prior to occupancy of individual home sites. Entrance into Clark County's conservation lands from individual lots shall be strictly prohibited without first obtaining an access agreement from Clark County.
34. Signs shall be posted and maintained along Clark County's conservation lands property boundary at an interval of one (1) per lot and shall read substantially as follows: "Conservation Area - Please retain in a natural state."
35. Wetlands, streams and associated buffers shall be clearly marked on the final plat.
36. Tree retention zones within Tracts I and J shall be clearly marked on the final plat. Tree topping is not permitted, nor removal of more than 20 percent of a tree's canopy. A note to this effect shall be added to the plat.
37. The location of the T-29 trail shall be clearly labeled on the final plat.
38. Prior to final plat approval of any phase, the applicant shall provide a copy of the private covenants intended to be recorded with the plat, which will include provisions for maintenance of all required improvements, such as storm or sewage facilities,

open space areas, access tracts, private parking enforcement provisions acceptable to the fire marshal, etc.

39. The applicant shall provide access acceptable to the city for maintenance of all tracts included in the final plat. Access could include a road, access tract, or recorded agreement with owners to the south. Annual maintenance of all tracts shall be included with the HOA CC&R's, for removal of invasive species.
40. The final tree mitigation plan shall include the dimensions of all Oregon White Oak trees (retained and removed) and an analysis of the health of the trees.
41. Oregon White Oak mitigation trees must be planted every 10 feet from each other, which will be shown on mitigation construction plans.
42. The applicant shall record an avigation (aviation) easement that runs with the property, which provides a right-of-way for the unrestricted passage and flight of aircraft above 500- foot ground level.
43. The applicant shall install uniform, continuous fencing at the rear of Lots 139-148 (abutting lots in the Country Estates development) prior to issuance of a certificate of occupancy for the first home in this series.
44. The applicant shall analyze the health of the trees within 10 feet of the rear of Lots 139-150. If trees are deemed healthy by the project's arborist, and the trees will not be impacted by site grading, then the trees will not be removed. Trees shall remain within subject lots until occupancy.

Fire Department

45. Low Flow Life Safety Residential Fire Sprinklers (NFPA 13D) required in all new dwellings served by dead end roads longer than 400 feet. CMC (Camas Municipal Code) 17.19.040.14, CMC 17.19.030.D.5.d
46. Low Flow Life Safety Residential Fire Sprinklers are required where structure(s) are accessed by a flag lot, access tract, or private road. CMC 17.19.030.D.5.c, 17.19.040.A.7
47. Low Flow Life Safety Residential Fire Sprinklers that comply with 13D or 13R are required in all buildings abutting a street designed and constructed with less than 36 feet of pavement width. CMC Table 17.19.040-2
48. If a lot is not required to have residential sprinklers, any new single-family residence or duplex to **be used as a model home or home sales office** shall have Low Flow Life Safety Residential Fire Sprinklers installed. CMC 15.17.050
49. The distance from a required fire hydrant may be doubled when Low Flow Life Safety Residential Fire Sprinklers are installed throughout a fully sprinklered subdivision. CMC 17.19.040.C.4.a.
50. Establishing Hydrant Flow Tests per NFPA 24 (National Fire Protection Association) utilizing a Washington State Licensed Fire Sprinkler Contractor may be waived when Low Flow Life Safety Residential Fire Sprinklers are installed throughout a fully sprinklered subdivision. 17.15.030.D.C

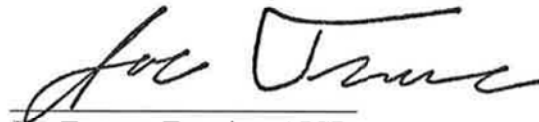
51. Low Flow Life Safety Residential Fire Sprinklers are required where minimum hydrant water flow from the closest hydrant is not met. CMC 17.19.040.C.4.a, CMC 15.04.010.D (IFC Appendix B, Fire Flow) A Washington State Licensed Fire Sprinkler Contractor meeting NFPA 24 Fire Flow guidelines may be hired to establish the gallons per minute (fire flow). A permit is required with the fire marshal's office prior to the flow test.
52. An approved address sign, in accordance with the Camas Municipal Code, must be posted for each residence where the flag lot leaves the public road or access tract prior to final plat approval of each phase. CMC 17.19.030.D.5.d
53. When access grades exceed those specified in CMC 17.19.040.12.b, Low Flow Life Safety Residential Fire Sprinklers are required to be installed. CMC 17.19.040.12.b.iii.
54. Underground oil tank removal requires a permit with the fire marshal's office following IFC (International Fire Code) 3404.2.14
55. Any existing structures that are scheduled to be torn down may be considered for fire department training.
56. Any blasting that may be needed for this location is required to follow the CMC Blasting Code and requires a permit with the fire marshal's office. CMC 15.40
57. Any gates serving two or more homes is required to follow the gate code CMC 12.36
58. Gated access to two or more homes is required to have Low Flow Life Safety Residential Fire Sprinklers installed CMC 12.36.040.J
59. Private Streets require a plan for access obstruction per CMC, 17.19.040.A.9
60. All new street signage shall include the hundred block designation.

Final Plat Notes [SEPA15-05 also included plat notes]

1. A homeowners association (HOA) will be required for this development. Copies of the C.C. & R's shall be submitted and on file with the City of Camas.
2. Building permits will not be issued by the Building Department until all subdivision improvements are completed and Final Acceptance has been issued by the City.
3. This plat is located adjacent to Clark County conservation land managed for sustainable forestry on which a variety of forestry operations may occur that may not be compatible with residential development for certain periods of limited duration. Potential discomforts or inconveniences may include, but are not limited to: noise, odors, fumes, dust or operation of machinery during any twenty-four (24) hour period.
4. Entrance into Clark County's conservation lands from individual lots shall be strictly prohibited without first obtaining an access agreement from Clark County.

5. Maximum building lot coverage for this subdivision is 40%.
6. The lots in this subdivision are subject to traffic impact fees, school impact fees, fire impact fees and park/open space impact fees. Each new dwelling will be subject to the payment of appropriate impact fees at the time of building permit issuance.
7. Wetlands, streams and associated buffers shall be maintained in their natural state as described in the Final Wetland Mitigation Plan (Note: add date after approval) that is recorded with this plat by the HOA. Any modifications to critical areas and buffers must be approved in writing by the City after submittal of a revised critical area report.
8. Tree topping is not permitted within this development, nor removal of more than 20 percent of a tree's canopy. Trees that are determined to be hazardous by a licensed arborist may be removed after approval by the City. Required street trees and backyard trees shall be promptly replaced with an approved species.
9. The Green Meadows subdivision is under a flight corridor for Grove Airfield; aircraft noise is to be expected.

DATED this 24th day of June 2016.



Joe Turner, Esquire, AICP
City of Camas Land Use Hearing Examiner

5.6 PROJECTED WATER DEMAND

Projecting future water demand is one of the key elements of the water system planning process. Identification of system improvements such as supply, pumping, storage, and piping requirements are all related to demand projections. This section summarizes the ERU, ADD, and MDD projections, as well as the potential range in future demands associated with various factors, such as water use per ERU, DSL, and demographic growth rate.

5.6.1 Potential Range in Future Water Demand

Numerous factors and assumptions affect the accuracy of projected future water demands. Recognizing that certain assumptions built into the demand projections will vary in the future, the projections were developed for low, medium, and high demand scenarios to provide a range in demands that may be experienced in the future.

The variables considered in developing the range of demand projections are summarized in Table 5.8 and are discussed below.

- **Future Water Accounts:** The future water accounts are presented in Table 5.7 and were used for their corresponding demand scenario (low, medium, and high).
- **Water Use per ERU:** Water use per ERU for the low and medium demand projections are based on the average water use per ERU over the last three years (2013 to 2015), 260 gallons per day per equivalent residential unit (gpd/ERU), and reflect the City's conservation goals. The high demand projection was based on 75th percentile of the historical data presented in Table 5.3, which equals 315 gpd/ERU.
- **ERUs per Account:** The historical ERUs per account by customer class presented in Table 5.3 were used to project the future demands. These ERU per Account values were based on the 75th percentile of the historical data and a water use per ERU value of 315 gpd/ERU to be conservative.
- **Distribution System Leakage:** DSL varied between 5.6 and 13.3 percent of the City's total production between 2008 and 2015. For the low and medium demand scenarios, a DSL of 10 percent was selected to represent the City's conservation goals. For the high demand scenario, the average DSL observed from 2008 to 2015 of 10.3 percent was used.
- **Maximum Day/Average Day Peaking Factor:** Due to the high projected demands for the City's largest water users (described in the following section), and the lack of summer peaking of industrial users (which comprise most Large Users), the MDD/ADD peaking factor was not applied to Large Users to avoid overly conservative demand projections. Therefore, MDD/ADD peaking factors were developed for all customers excluding the largest users from the historical data to be used for the

demand projections herein. The MDD/ADD peaking factor for all customers excluding Large Users varied from 2.48 to 3.58 between 2008 and 2015. For the low demand projection, the average peaking factor over the most recent three year period (2013 to 2015) of 2.74 was used. For the medium demand projection, the average peaking factor observed from 2008 to 2015, 2.95, was used. For the high demand projection, the 75th percentile peaking factor from 2008 to 2015, 3.43, was used.

Large Users were based on individual demand projections that are presented in the following sections.

Table 5.8 Demand Projection Parameters Water System Plan Update City of Camas				
Demand Scenario	Demographic Growth Scenario	Water Use per ERU (gpd/ERU)	Distribution System Leakage (%)	Maximum Day Peaking Factor
Low	Low	260	10.0%	2.74
Medium	Average of High and Low	260	10.0%	2.95
High	High	315	10.3%	3.43

5.6.2 Large Users Demand Forecast

The City's top 10 water users, or Large Users, were identified by the City as presented in Section 5.1.1. Low, medium, and high demand forecasts were created for each Large User based on historical water use data from 2008 through 2015.

The low demand scenario projections assume that each Large User's annual water demand is held constant over the entire planning period at the maximum demand observed by the user during the 2008 to 2015 period. The Large Users high demand scenario projections assume that each user's demands increased at a constant rate equal to that user's average rate of annual increase in demand over the most recent three year period (2013 to 2015). The medium demand scenario is an average of the low and high demand projections.

Notably, demand projections for some Large Users were developed differently. Wafertech Industries and Linear Technologies are not expected to expand and subsequently increase demand, per City staff. Similarly, recent budget cuts applied to the City of Camas and Camas School District limit the amount of water to be used for irrigation purposes in the future. Consequently, the demand projections for these four Large Users calculated under the low demand scenario were used for all demand scenarios, as significant increases in water demand are not expected over the planning period. Additionally, SE Incorporated did not contribute any water demand until 2013, so limited data is available for establishing demand projections. In this case, annual increases in water demand were assumed to match the annual rate of increase in demand over the most recent three year period (2013

Appendix A.3.1 General Project Report Checklist

Include the following information in the project report, as applicable to the project and water system's planning status. See Chapter 2, including the project development flowcharts therein, and WAC 246-290-110 and -120 for further design guidance and requirements.

- The signed and dated stamp of a Washington state-licensed professional engineer. Federal facilities can have a PE from any state, but still must have a PE stamp.
- Narrative discussion that establishes the need for the project. It should include a construction schedule for the recommended alternative, project cost, and method of financing. Also, indicate the relationship of the project to the currently approved water system plan or one in the process of being prepared or updated.
- Alternatives analysis and rationale for selecting the proposed project. It should include an evaluation of life cycle costs, including initial capital costs and on-going operations and maintenance costs.
- Appropriate planning elements: Cite appropriate reference in an approved water system plan, prepare an amended water system plan, or include as part of the project report.
- Capacity analysis if seeking a change in the number of approved service connections. Include rationale and calculations to justify total number of service connections and equivalent residential units (ERUs). The analysis should identify the number of residential, industrial, commercial, and municipal connections the water system now serves. If the water system seeks to increase its approved number of connections through construction of new facilities, document water system plan approval status.
- Water Right Self-Assessment Form* must be completed for new sources and all projects that increase the approved number of connections.
- Hydraulic analysis that demonstrates the ability of the project to supply minimum pressure requirements during peak flows and fire events. The analysis should include a narrative discussion that describes the hydraulic analysis method, explains critical assumptions, and summarizes the effect of the proposed expansion on the existing water system.
- Measures to protect against vandalism.
- Disinfection procedures according to AWWA or APWA/WSDOT standards and a narrative discussion on how the project will be disinfected and tested prior to use.
- Provisions to discharge water to waste including description of how wastewater is disposed, and documentation that procedures are acceptable to the Department of Ecology and local authorities.
- Routine and preventive operations and maintenance tasks and their frequency, and the role of a certified operator in completing them.

Appendix A.3.6 Booster Pump Station Checklist

Address these design elements in booster pump station project report and construction document submittals. Refer to Chapter 8 and WAC 246-290-230 for further guidance and requirements.

Project Report

- Sizing analysis, including pumping system discharge capacity requirements, and fire-flow requirements, if any.
- Flow and pressure control.
- Alarm conditions.
- Hydraulic analysis that demonstrates the ability of the project to meet minimum pressure requirements during peak hourly demands and maximum day demands plus fire flow. The analysis should include a narrative description of the hydraulic analysis method, explain critical assumptions, and summarize the effect of the proposed demands on the existing system (see Checklist A. 3.4 Hydraulic Analysis for details).
- Service area map for the zone(s) to be served.
- Site feasibility considerations:
 - Location and site considerations (see Section 8.2).
 - Natural hazards analysis (see Section 8.2.1).
 - Noise from the pumps and equipment, and any need for noise mitigation.
- Assess capacity of each reservoir overflow to safely discharge the total possible flow to the reservoir (all sources, booster pump station discharges and flow through PRVs) to ensure the structural integrity of each reservoir in the event of control system failure.
- Assess potential for damaging transient pressure wave during pump start up and abrupt pump station shutdown.
- Electrical power issues including:
 - Supply: voltage, quality, and desired phase configuration.
 - Reliability: frequency of power outages.
 - Assessing the need for backup power.

Construction Documents

- Map of the site and vicinity drawn to scale, including the pump station structure, water lines, site topography, roadways, and all above and underground utilities.

- Pump station details including security measures, slab elevation, ventilation, and electrical connections allowing the use of emergency power.
- Building equipment and instrument layout demonstrating adequate clearance to safely enter, operate, and maintain all pump station components.
- Pumping equipment specifications including:
 - Horsepower, flow rate (gpm), head, pump controls, and alarm system.
 - The specific pump curve used and operation range of head and flow conditions.
- Flow and pressure control and instrumentation specifications.
- Site piping plans including:
 - Sample tap(s).
 - Isolation valves on the suction and discharge sides.
 - Flexible couplings.
 - Check valves on the discharge side.
 - Surge anticipation valves, as needed.
 - Suction side pressure gauge(s).
- Pump station start-up task including:
 - Field-testing pumps for output, efficiency and vibration.
 - Disinfecting piping.
 - Pressure, leakage, and bacteriological testing.
- General facility considerations including:
 - Security measures.
 - Special anchoring or support requirements for equipment and piping.
 - Heating, cooling and humidity control for equipment protection and operator comfort.

Appendix A.3.7 Pressure Tank Checklist

Address these design elements in pressure tank project report and construction document submittals. Refer to Chapter 9 (Pressure Tanks), Appendix B.2 (Cycle Control Valves), and Appendix B.3 (Variable Frequency Drives) for further design guidance.

Project Report

- Sizing analysis, pump protection, and pump discharge control.
- Pressure settings. Include a narrative justification of water system hydraulics and operating pressure range.

Construction Documents

- Pressure relief valves:
 - Specify an ASME Section VIII pressure-relief valve installed between a pressure tank greater than 37.5 gallons gross volume and the tank isolation valve.
 - Specify a properly sized pressure relief valve manufactured according to a recognized national standard installed between a pressure tank equal to or smaller than 37.5 gallons gross volume and the tank isolation valve.
 - Pressure relief valve capacity.
 - See [DOH 331-429](#)
- Isolation valve for each pressure tank.
- Site piping plans including location, size, type, and class of pipe.
- Clearance provided around each tank adequate for operations and maintenance.
- Bladder tanks only:
 - Pre-charged pressure
- Hydropneumatic tanks only:
 - Confirmation of oil-less or food-grade oil lubricated air compressor.
 - Air filter.
 - Access hatch with minimum 5-foot clearance.
 - Level control.
 - Sight glass.
 - Structural support and earthquake resiliency or bracing.

PROJECT MEMORANDUM

ON-CALL TASK ORDER 8 – GREEN MOUNTAIN ESTATES PHASE 3 DEVELOPMENT BPS

Date: January 25, 2021
Project No.: 11151J00

City of Camas

Prepared By: Natalie Reilly, PE (WA pending)
Reviewed By: Matt Huang, PE
Subject: Hydraulic Modeling Results

Purpose

The purpose of this Task Order is to provide hydraulic criteria for the design of the Green Mountain Estates Phase 3 Development booster pump station (BPS) in the northwest corner of the Camas Water System.

The Green Mountain Estates Phase 3 Development will require a BPS to serve customers at high elevations. The Developer will design and construct the BPS based on City criteria and standards. The purpose of this task order is to provide a range of suction pressures at the BPS under multiple conditions, including fire flows, using the City’s hydraulic model.

Model Updates

The City’s most recent InfoWater Pro hydraulic model was updated as part of Task Order 9 to include the latest capital improvement program (CIP) projects, including the new 544 Zone 2-MG Reservoir (18th Avenue Reservoir). This updated model was used to perform Task Order 8.

The hydraulic model was also updated to match the pipes for the Green Mountain Estates Development per the following drawings:

- “8938.e.design final.Ph2 A-F”: received via email from Olson Engineering on December 9, 2020.
- “GME 1-3 Cover Page Water layout”: received via email from Olson Engineering on December 9, 2020.

The Green Mountain Estates Development pipelines are shown on Figure 1.

Demands were allocated to the Green Mountain Estates Development based on the total number of lots in the development per the drawings (734 lot) and the assumed average day demand (ADD) of 500 gallons per day (gpd) per lot. To convert from ADD to maximum day demand (MDD), the MDD/ADD peaking factor of 2.95 was applied. This factor was developed as part of the 2016 Water System Plan. The diurnal curve developed as part of the 2016 Water System Plan was used to determine the peak hour demands (PHD).

In addition to these changes, the diameter for the pipe on Goodwin Rd from Lacamas Creek to Ingle Rd in the model was updated from 8-inch to 12-inch, per confirmation from the City.

PROJECT MEMORANDUM

Hydraulic Model Scenarios

To determine the system pressures at the proposed BPS to the Green Mountain Estates Phase 3 Development, the following model scenarios were run:

- Scenario A: 2025 ADD:
 - The reservoirs were assumed to be at the bottom of the operational level.
- Scenario B: 2025 PHD:
 - The reservoirs were assumed to be at the bottom of the equalizing level.
- Scenario C: 2025 MDD plus Fire Flow at BPS Location:
 - This scenario was run with a fire flow requirement of 500 gpm at the BPS location. The reservoirs were assumed to be at the bottom of the fire pool.
- Scenario D: 2025 MDD plus Fire Flow at Other Location:
 - This scenario was run with a fire flow requirement of 1,000 gpm at a different location in the Green Mountain Estates Development (north end of N Woodland St). The reservoirs were assumed to be at the bottom of the fire pool.
- Scenario E: 2035 MDD plus Fire Flow at BPS Location:
 - This scenario was run with a fire flow requirement of 500 gpm at the BPS location. The reservoirs were assumed to be at the bottom of the fire pool. The additional looping in the North Shore was assumed to be online.

The assumed BPS ground elevation is 367 feet based on the information provided by Olson Engineering.

Hydraulic Model Results

Table 1 summarizes the pressure at the proposed BPS location for the five scenarios run. These results represent the range of pressures at the BPS under multiple conditions.

Table 1 **Hydraulic Model Results**

Scenario	Pressure at Proposed BPS Location
Scenario A: 2025 ADD	74 psi
Scenario B: 2025 PHD	41 psi
Scenario C: 2025 MDD Plus FF at BPS Location	40 psi
Scenario D: 2025 MDD Plus FF at Other Location	31 psi
Scenario E: 2035 MDD Plus FF at BPS Location	51 psi

Conclusion

Based on the hydraulic modeling, the expected range of pressures at the BPS location will range between 31 psi and 74 psi.

NR:kh



Reviewed by:

Matthew M. Huang, PE



City of Camas
Green Mountain Estates Phase 4 Booster Pump
Station

Technical Memorandum SURGE ANALYSIS

FINAL | August 2021





City of Camas
Green Mountain Estates Phase 4 Booster Pump Station

Technical Memorandum
SURGE ANALYSIS

FINAL | August 2021

Digitally signed by Matthew M. Huang
Contact Info: Carollo Engineers, Inc.
Date: 2021.08.24 10:54:04-07'00'



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Abbreviations

DIP	ductile iron pipe
ft	feet
ft/s	feet per second
gpm	gallons per minute
hp	horsepower
lbs/ft ²	pounds per square foot
psi	pounds per square inch
rpm	revolutions per minute
TDH	total dynamic head
WSDM	Washington Water System Design Manual

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Technical Memorandum

SURGE ANALYSIS

1.1 Background

A developer plans to construct an inline Green Mountain Estates Booster Pump Station for the City of Camas along the 8-inch diameter water pipeline which serves Green Mountain Estates Phases 4, 5 and 6. Green Mountain Estates Pump Station will serve 228 lots in the northeast corner of the Camas water system which are at high elevations.

The surge analysis was conducted to determine the maximum and minimum surge pressures that could occur in the 8-inch diameter pipeline at Green Mountain Estates, and to recommend surge mitigation measures to prevent undesirable surge pressures. This report documents the results for the surge analysis and is intended to meet the requirements of Washington Water System Design Manual (WSDM) Section 6.1, requiring a hydraulic model evaluation of hydraulic transients (water hammer). This report is divided into the following sections:

1. Introduction.
2. Green Mountain Estates Pump Station Delivery System Description – Provides a physical description of the system that was modeled.
3. Hydraulic Transient Phenomenon – Explains various causes of hydraulic transient events in this pipeline system.
4. Surge Vessel as Surge Protection – Provides a general description of the surge protection devices considered for this study.
5. Hydraulic Modeling Approach - Describes the model setup and the acceptance criteria used for this analysis.
6. Model Scenarios Description and Results - Describes the scenarios simulated for this analysis.
7. Simulation Results Summary - Summarizes model-predicted results for the scenarios.
8. Recommendations – Provides recommendations for the study.

1.2 Green Mountain Estates Pump Station Delivery System Description

This section describes the physical characteristics of Green Mountain Estates water system. Green Mountain Estates are located at the northeast corner of city of Camas with high elevations ranging from 340 feet (ft) to 549 ft. There will be 228 lots within Green Mountain Estates with a peak hour demand of 361 gallons per minute (gpm) in accordance with information provided by Olson Engineering and the Washington WSDM Equation 3-1. A maximum day demand of 207 gpm was calculated using a peak hour demand to maximum day demand factor of 1.74 based on the diurnal pattern in the Infowater hydraulic model.

Green Mountain transmission mains are 8-inch diameter pipes. The 8-inch diameter pipe on NE 22nd Ave connects the existing Camas water distribution system with Green Mountain Estates pipelines. Two tanks in the City of Camas' 544 pressure zone, approximately 7 to 9 miles from Green Mountain Estates, function as discharge site supplying water to Green Mountain Estates Phases 4 to 6.

In order to meet the water demand in Green Mountain Estates Phases 4 to 6, an inline booster station named Green Mountain Estates Pump Station was proposed to lift water from the existing water system to satisfy the pressure criteria within Green Mountain Estates. The Green Mountain Estates Pump Station is located at the east of NE 22nd Ave. The pipeline configuration in Green Mountain Estates is a loop, however, the pipeline far end located west of NE 22nd Ave is closed in operation. The Green Mountain Estates Pump Station includes two 75 horsepower (hp) fire pumps with a design flow of 680 gpm for each, and three 20 hp duty pumps (two duty, one standby) with a design flow of 180 gpm for each. Figure 1 represents a plan view of the Green Mountain Pump Station delivery system.

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The Camas Green Mountain Estates Surge Analysis InfoWater Pro Model was used to determine the elevation profile of the Green Mountain Estates 8-inch diameter pipeline. Figure 2 represents a profile view of the transmission from the Green Mountain Estates Pump Station to the far end located west of NE 232nd Ave. The high point is located at northeast corner of Green Mountain Estates, around 2,961 ft downstream of the pump station. The 8-inch diameter pipe material is ductile iron pipe (DIP). Therefore, 4,287 feet per second (ft/s) was calculated as the 8-inch diameter pipe wave speed.

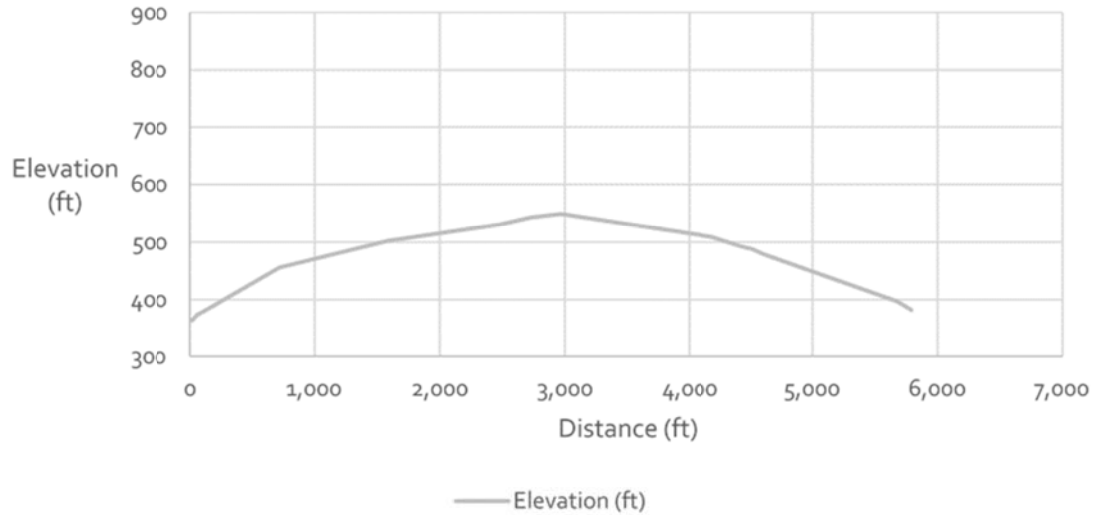


Figure 2 Transmission Main Profile from the Green Mountain Estates Pump Station to the Far End

The fire pump and duty pump curves were provided to describe the Green Mountain Estates pump characteristics. In the surge simulations, two duty pumps are operating during peak hour demand, while one duty pump and one fire pump are operating during maximum day demand plus 500 gpm fire flow. Table 1 presents the design parameters of the duty pumps and fire pumps in Green Mountain Estates Pump Station.

Table 1 Green Mountain Pump Station Duty and Fire Pump Characteristics

Pump Type	Numbers	Pump Design Flow Rate (gpm)	TDH (ft)	Rating (hp)	Speed (rpm)	Moment of Inertia (lb/ft ²)	Stages
Duty Pump	3	180	290	20	1,750	4,803	9
Fire Pump	2	680	290	75	1,760	25,283	4

Notes:

(1) Abbreviations: pounds per square foot (lb/ft²), revolutions per minute (rpm); total dynamic head (TDH)

1.3 Hydraulic Transient Phenomenon

Undesirable surge pressures are caused by sudden changes in water velocity in a pipeline. These changes in velocity are most commonly caused by pump station power failure events. Following a pump station power failure, a low-pressure wave begins at the pump station and travels down the pipeline to the end of the pipeline. This low-pressure wave works to dissipate the forward momentum of the water in the pipeline. Then a high-pressure wave travels back from the end of the pipeline to the pump station, causing high pressures. This pressure wave travels back and forth along the pipeline for several cycles until the energy in the system is dissipated.

Undesirable surge pressures can also be caused by vapor cavity formation and collapse, also referred to as column separation. When the initial low-pressure wave travels down the pipeline, pressures can become negative and even drop to vapor pressure. At an intermediate break in the grade of the pipe, or at an intermediate high point, the forward momentum of the water in the pipeline downstream of the high point is great enough that low pressures down to vapor pressure are not sufficient to stop the water column and water column separation occurs. The pressure at the intermediate high point or break in grade remains at vapor pressure while the water column is separated. The downstream water column slows down and then reverses because of the differential hydraulic grade line between the end of the pipeline and vapor pressure at the intermediate high point. The water column then moves toward the vapor cavity. At the instant the cavity collapses, the water column must come to an abrupt stop, which results in a sudden, high-pressure spike that travels along the pipeline.

Pressures down to vapor pressure are commonly predicted in transmission mains following pump failure events. However, just because pressures drop to vapor pressure does not automatically mean that column separation will occur with the resulting high-pressure spikes. Column separation occurs when the forward momentum of the water column is great enough that the water column cannot be stopped merely because the pressure drops to vapor pressure. The risk associated with column separation is due to high pressures that occur when the vapor cavity collapses. The repeated rapid change in pressure caused by a cavity collapsing can, over time, contribute to wear on pipe (and/or associated linings), gaskets, and joints. As a definitive computation of high pressures associated with the vapor cavity collapse can be uncertain, it is common practice to eliminate the potential of vapor pressure to mitigate the risk altogether.

Surge events including column separation are governed by the laws of physics, specifically the momentum and continuity equations. Computer models can predict the magnitude of surge pressures and are useful to design pipelines and pump stations to withstand pressures as predicted by the model. The model can also be used to iteratively select surge protection devices to obtain solutions that are appropriate for each pipeline. Models tend to be conservative in their predictions because the models use steady-state energy equations (Hazen-Williams, Darcy-Weisbach) to predict energy dissipation in a pipeline during a surge event. However, the rate of energy dissipation during a transient event is usually greater than these equations predict. For this reason, models often show more pressure wave cycles than occur in the physical system.

1.4 Surge Vessel as Surge Protection

A surge vessel provides surge protection by gradually slowing down water velocities in pipelines following a pump trip or other surge-causing event. This is done by allowing water in the surge vessel to enter the pipeline following a down surge caused by a pump trip. Pressures at the surge

vessel decrease gradually, causing the water column in the pipeline to slow down gradually. When the water column reverses, water begins to fill the tank, which increases the pressure at a gradual rate and slows down the water column moving back towards the surge vessel. These oscillations continue for several cycles until the energy in the system is dissipated.

1.5 Hydraulic Modeling Approach

1.5.1 Model Setup

Bentley's OpenFlows HAMMER modeling software was used to perform this surge analysis. A hydraulic InfoWater Pro model of the Camas water system was adapted for this study. The surge model includes Green Mountain Estates water system and Zone 544 water system. Table 2 presents the steady-state conditions established in the model.

Table 2 Steady-State Flow and Pressure Conditions at the Green Mountain Estates Pump Station

Green Mountain Estates Delivery Pipeline Diameter (inch)	Demand Condition	Green Mountain Estates Pump Station Flow (gpm)	Green Mountain Estates Pump Station Discharge Pressure (psi)	Green Mountain Estates Pump Station Suction Pressure (psi)
8	Peak Hour Demand	361	174	47
8	Maximum Day Demand Plus 500 gpm Fire Flow	707	184	51

Notes:

(1) Abbreviation: pounds per square inch (psi).

1.5.2 Acceptance Criteria

Surge pressures were evaluated against the following criteria:

1. Pressures throughout the transmission main must be within the pipe maximum allowable pressure. For Class 200 DIP pipe, the maximum operating pressure needs to be less than 200 psi plus 100-psi surge allowance.
2. Vapor pressure should be prevented from occurring along the transmission main where possible.

1.6 Model Scenarios Description and Results

Surge events are most commonly caused by pump station power failure, pump start-up, or rapid valve opening or closing events.

The following water hammer inducing events were simulated for the analysis:

- During peak hour demand, two duty pumps trip followed by start-up at the pump station, with and without surge protection.
- During maximum day demand plus fire flow, fire hydrant abrupt closure, with and without surge protection.

Table 3 presents the detailed settings of simulations runs.

Table 3 Simulation Run Settings

Run No.	Water Demand	Transient Event	Surge protection	Surge Vessel size (gallons)	Surge Vessel Inlet Diameter (inch)
1	Peak Hour	Two duty pumps trip followed by start-up	None	N/A	N/A
2	Peak Hour	Two duty pumps trip followed by start-up	With surge vessel	5,000	4
3	Peak Hour	Two duty pumps trip followed by start-up	With surge vessel	3,000	4
4	Peak Hour	Two duty pumps trip followed by start-up	With surge vessel	2,000	4
5	Max Day Plus 500 gpm Fire Flow	Fire hydrant abrupt closure	None	N/A	N/A
6	Max Day Plus 500 gpm Fire Flow	Fire hydrant abrupt closure	With surge vessel	3,000	4

1.7 Model Scenarios Description and Results

A surge vessel was modeled downstream of Green Mountain Estates Pump Station. In this study, three different surge vessel sizes, 5,000 gallon, 3,000 gallon and 2,000 gallon surge vessels were evaluated. Surge vessel connection diameter was set as 4-inch.

1.7.1 Run 1: Two duty pumps trip followed by start-up – no surge vessel, peak hour demand

The purpose of Run 1 is to determine the undesirable surge pressures that may occur with no surge protection, so that the need for surge mitigation measures can be established. In this simulation, during peak hour demand, two duty pumps trip followed by start-up without any surge protection. Following the power failure event, a low-pressure wave travels down the transmission main, and the forward momentum of the water column decreases. The pressure-waves travel back and forth until the pumps start back up. The check valve downstream of each pump closes rapidly upon flow reversal. Figure 3 and Figure 4 show the time graph of the model-predicted discharge and suction pressures at the Green Mountain Estates Pump Station. The model predicts the maximum pump discharge pressure is 182 psi, and the maximum suction pressure is 99 psi. Figure 5 shows the time graph of the high point pressures in Green Mountain Estates. The surge pressures at the high point are close to steady state pressure, which are around 93 psi.

Figure 6 shows the steady state, maximum, minimum, and vapor pressure along the pipeline starting at the Green Mountain Estates Pump Station. Figure 7 shows the vapor cavity volume along the transmission main for the duration of the simulation. The model predicts vapor pressure conditions occurring along the transmission main. Vapor cavities are predicted at intermediate high points.

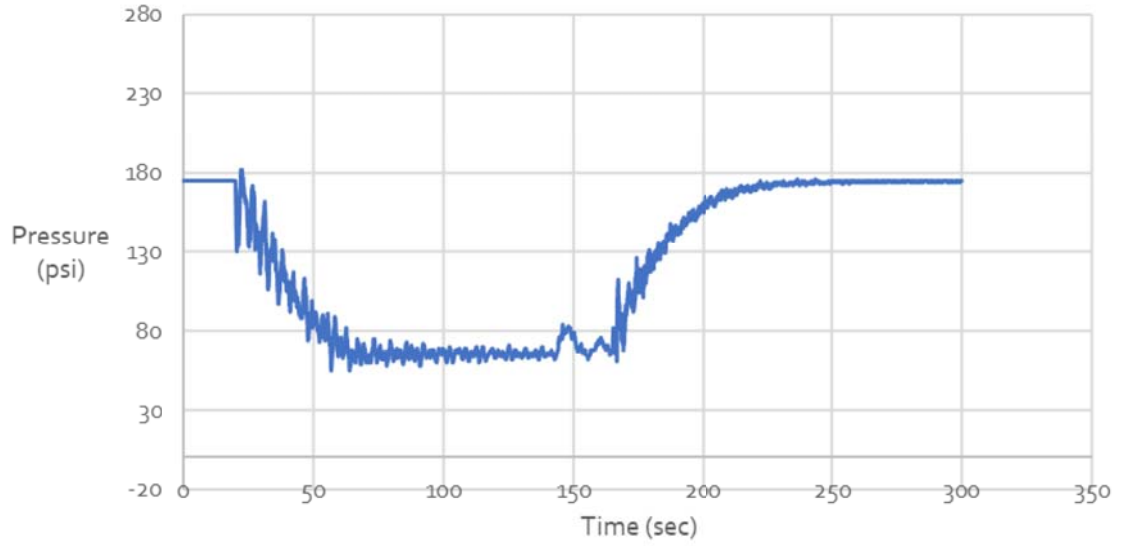


Figure 3 Run 1: Green Mountain Estates Pump Station Discharge Pressure

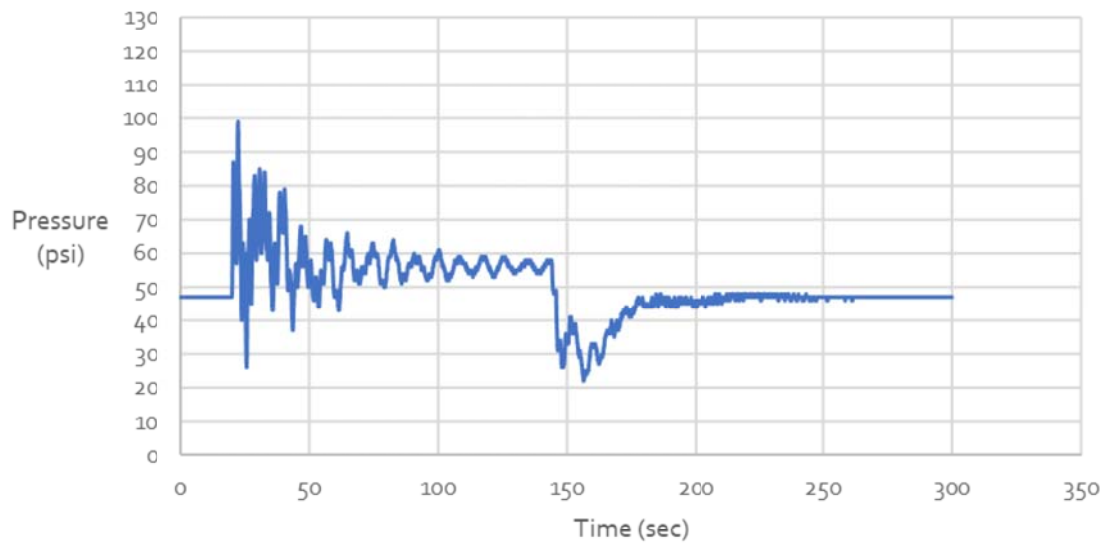


Figure 4 Run 1: Green Mountain Estates Pump Station Suction Pressure

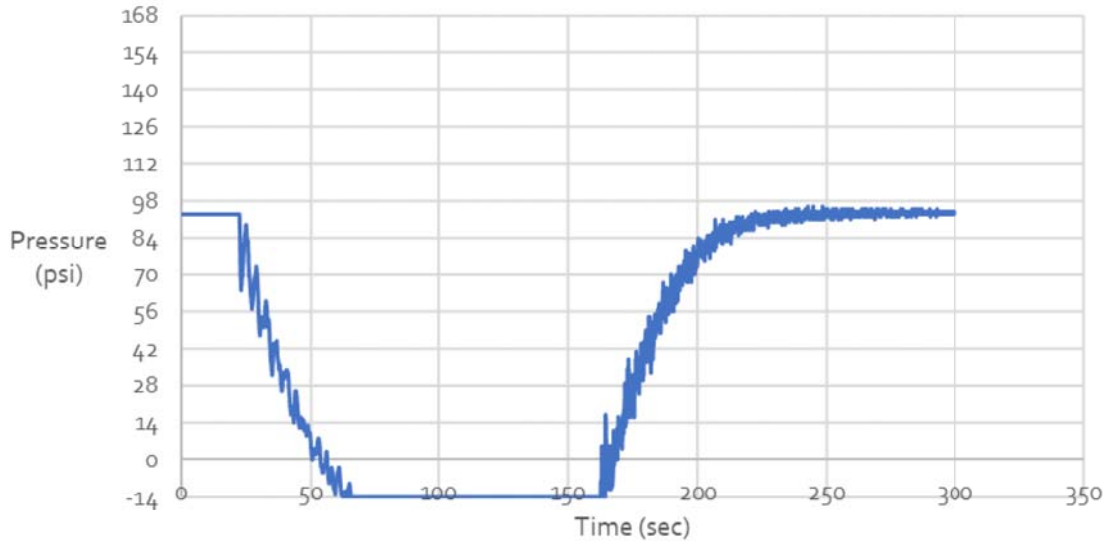


Figure 5 Run 1: Green Mountain Estates High Point Pressure

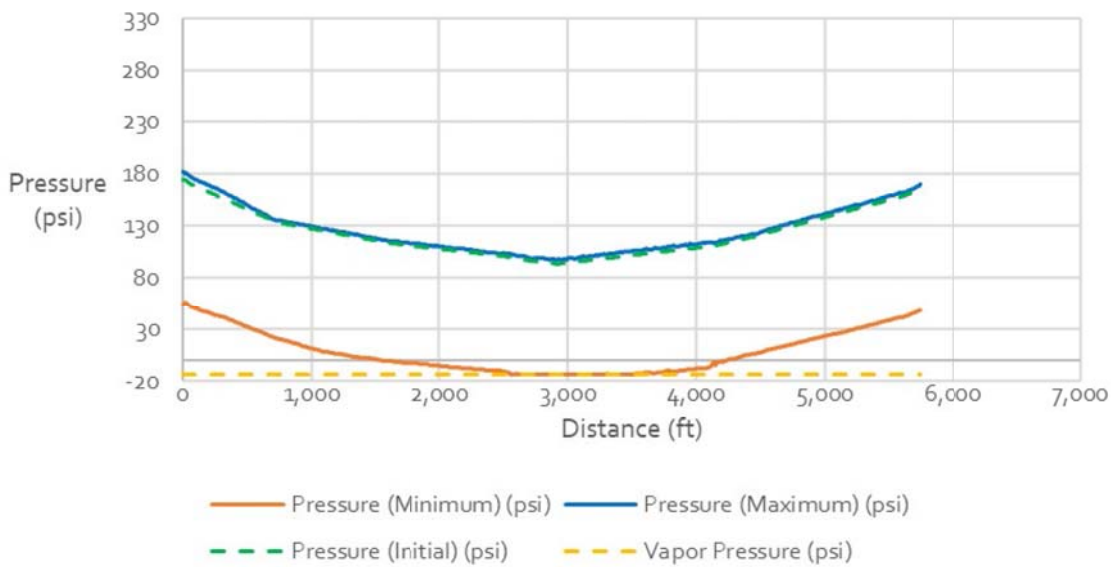


Figure 6 Run 1: Pressure Profile Along the 8-inch Diameter Transmission Main Starting From the Green Mountain Estates Pump Station

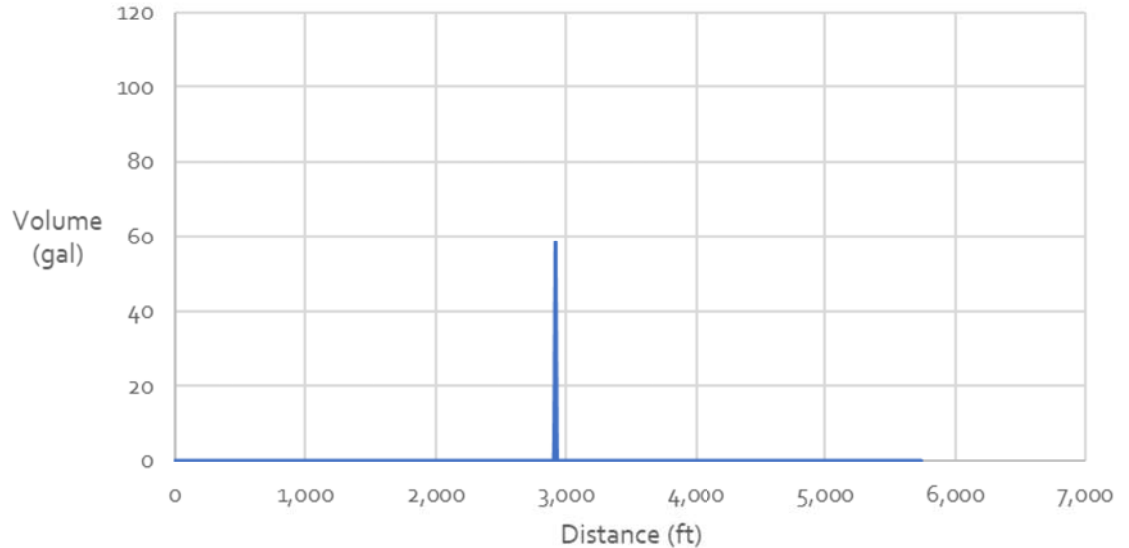


Figure 7 Run 1: Vapor Cavity Volume Along the 8-inch Diameter Transmission Main From the Green Mountain Estates Pump Station

1.7.2 Run 2: Two duty pumps trip followed by start-up – 5,000 gallon surge vessel, peak hour demand

This run includes a 5,000 gallon surge vessel at Green Mountain Estates Pump Station. In this simulation, during peak hour demand, two duty pumps trip followed by start-up with a 5,000 gallon surge vessel. Following the power failure event, a low-pressure wave travels down the transmission main, the water from the surge vessel enters the pipeline and the pressure at the pump station decreases gradually. When the water column reverses, water fills the tank causing the pressure to increase at a gradual rate. Figure 8 and Figure 9 show the time graph of the model-predicted discharge and suction pressures at the Green Mountain Estates Pump Station. The model predicts the maximum pump discharge pressure is 207 psi, and the maximum suction pressure is 104 psi. Figure 10 shows the time graph of the high point pressures in Green Mountain Estates. After the pump station power failure, the high point pressure drops to 51 psi instead of vapor pressure with a 5,000 gallon surge vessel.

Figure 11 shows the steady state, maximum, minimum, and vapor pressure along the pipeline starting at the Green Mountain Estates Pump Station. The model predicts that the 5,000-gallon surge vessel prevents vapor pressure from occurring along the entire length of the transmission main. The surge vessel air volume is shown on Figure 12.

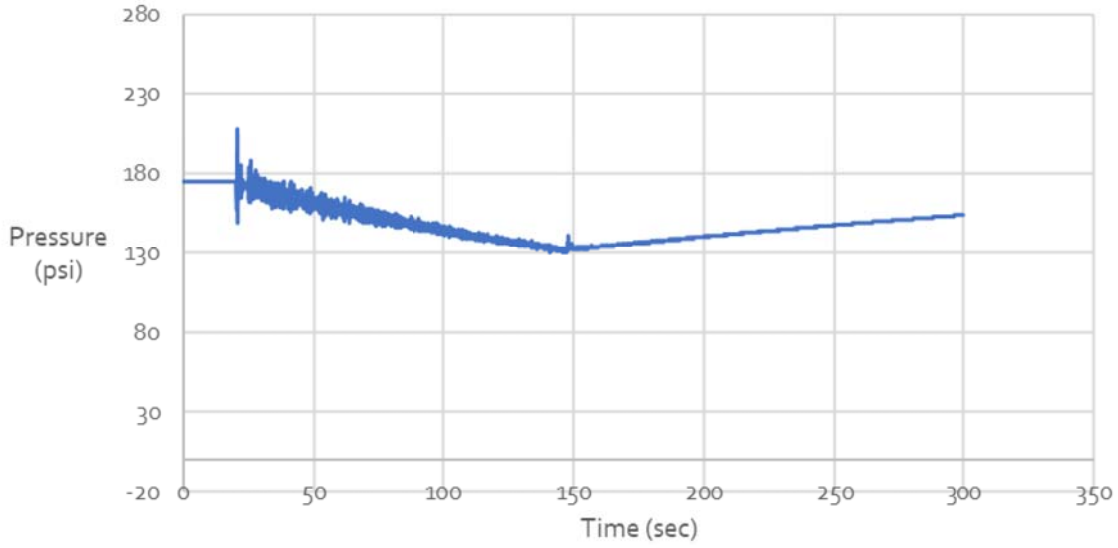


Figure 8 Run 2: Green Mountain Estates Pump Station Discharge Pressure

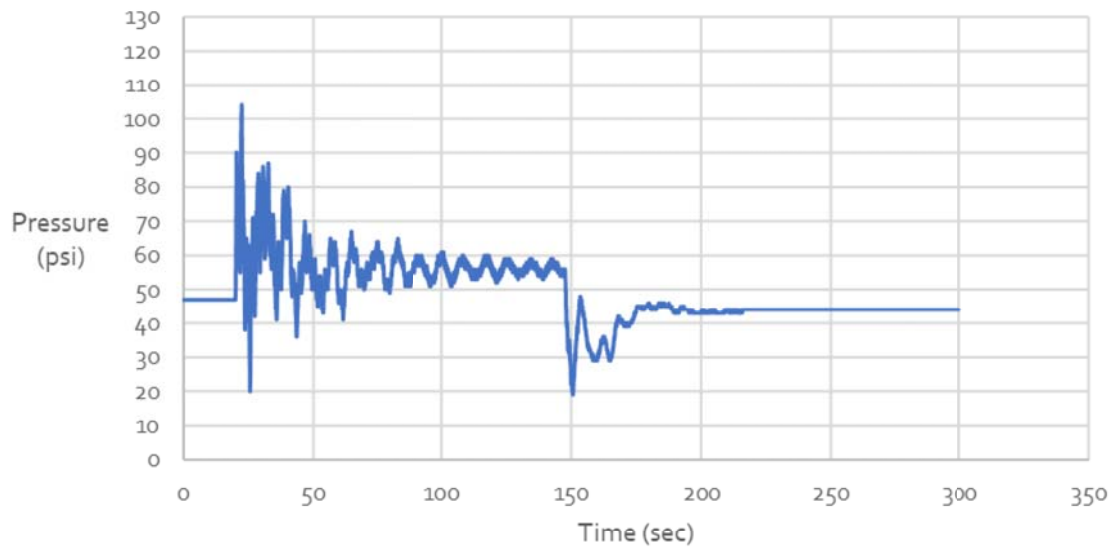


Figure 9 Run 2: Green Mountain Estates Pump Station Suction Pressure

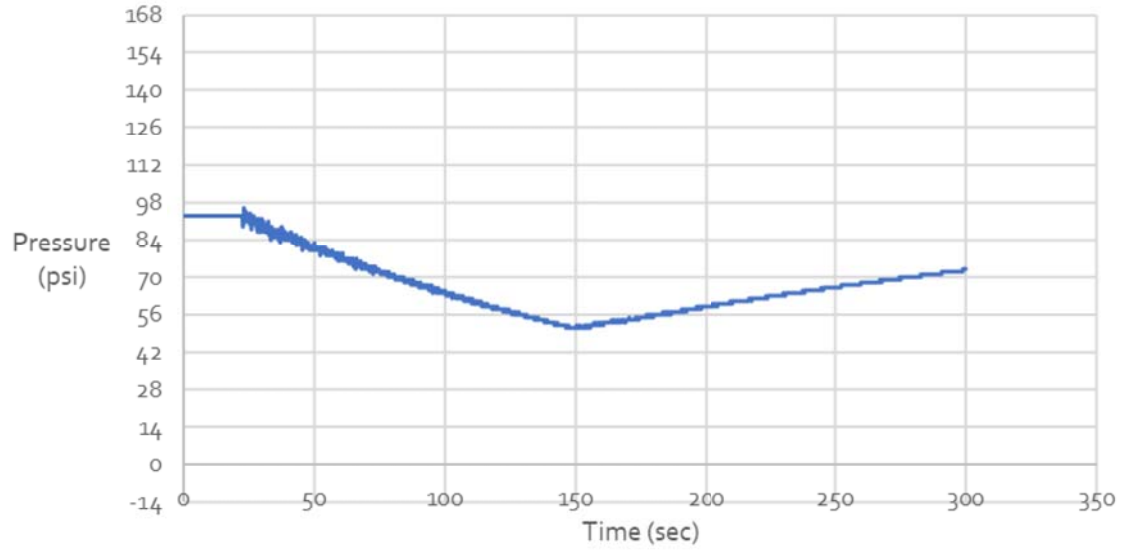


Figure 10 Run 2: Green Mountain Estates High Point Pressure

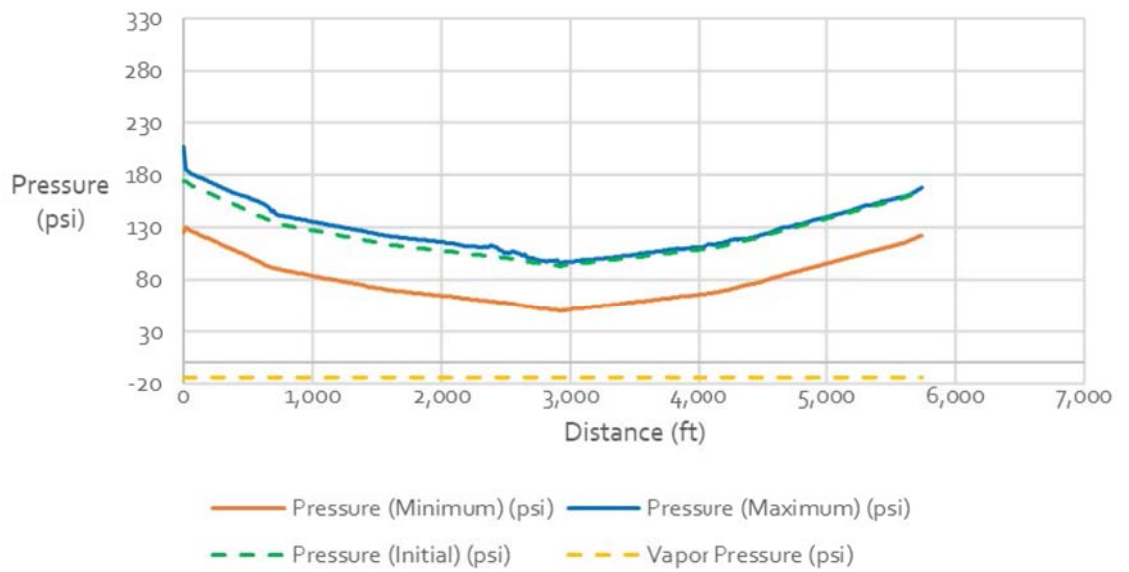


Figure 11 Run 2: Pressure Profile Along the 8-inch Diameter Transmission Main Starting From the Green Mountain Estates Pump Station

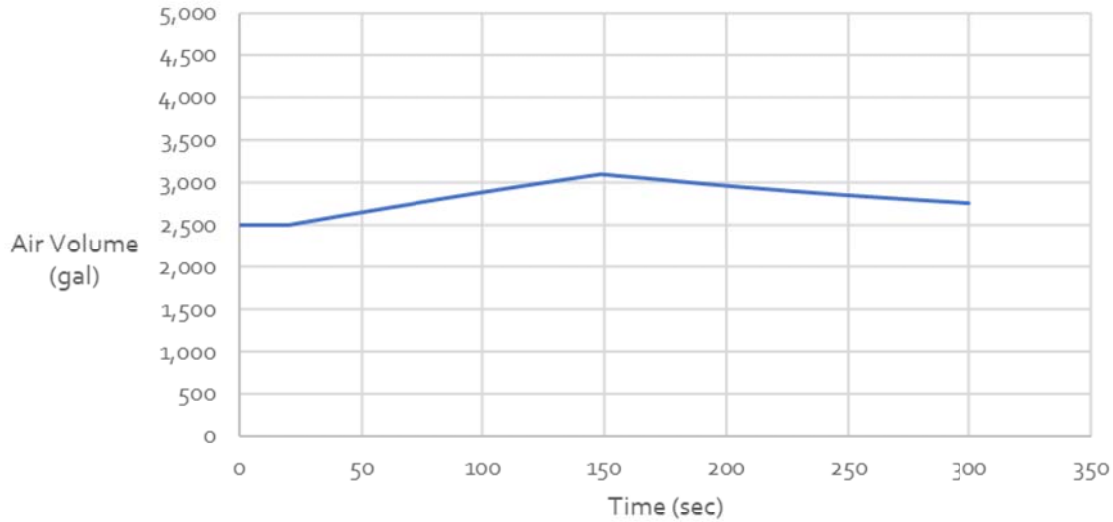


Figure 12 Run 2: Surge Vessel Air Volume

1.7.3 Run 3: Two duty pumps trip followed by start-up – 3,000 gallon surge vessel, peak hour demand

This run includes a 3,000-gallon surge vessel at Green Mountain Estates Pump Station. In this simulation, during peak hour demand, two duty pumps trip followed by start-up with a 3,000 gallon surge vessel. Figure 13 and Figure 14 show the time graph of the model-predicted discharge and suction pressures at Green Mountain Estates Pump Station. The model predicts the maximum pump discharge surge pressure is 207 psi, and the maximum suction pressure is 104 psi. Figure 15 shows the time graph of the high point pressures in Green Mountain Estates. After the pump station power failure, the high point pressure drops to 35 psi.

Figure 16 shows the steady state, maximum, minimum, and vapor pressure along the pipeline starting at the Green Mountain Estates Pump Station. The model predicts that the 3,000-gallon surge vessel is sufficient to prevent vapor pressure from occurring along the entire length of the transmission main. The surge vessel air volume is shown on Figure 17.

A surge vessel will also be used to minimize pump cycling during low demand times. A surge vessel is normally filled 50% full under normal pumping conditions. If the surge vessel water volume can vary between 40% and 50% full, then the pump cycle times can be calculated under minimum demand conditions of 46 gpm at night. Each duty pump has a design flow of 180 gpm. Therefore, the duty pump will need to turn on 5 to 7 times/ hour.

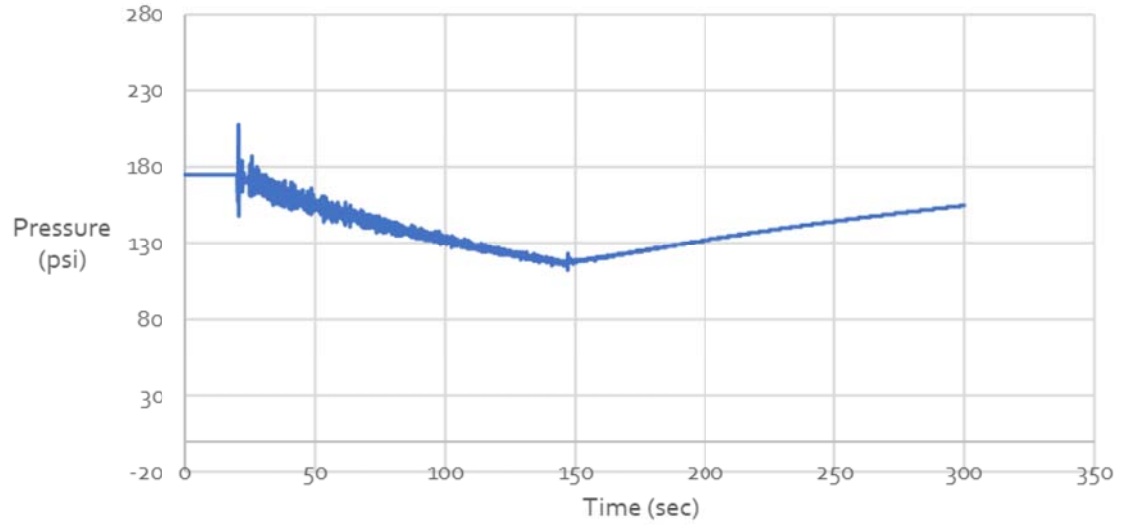


Figure 13 Run 3: Green Mountain Estates Pump Station Discharge Pressure

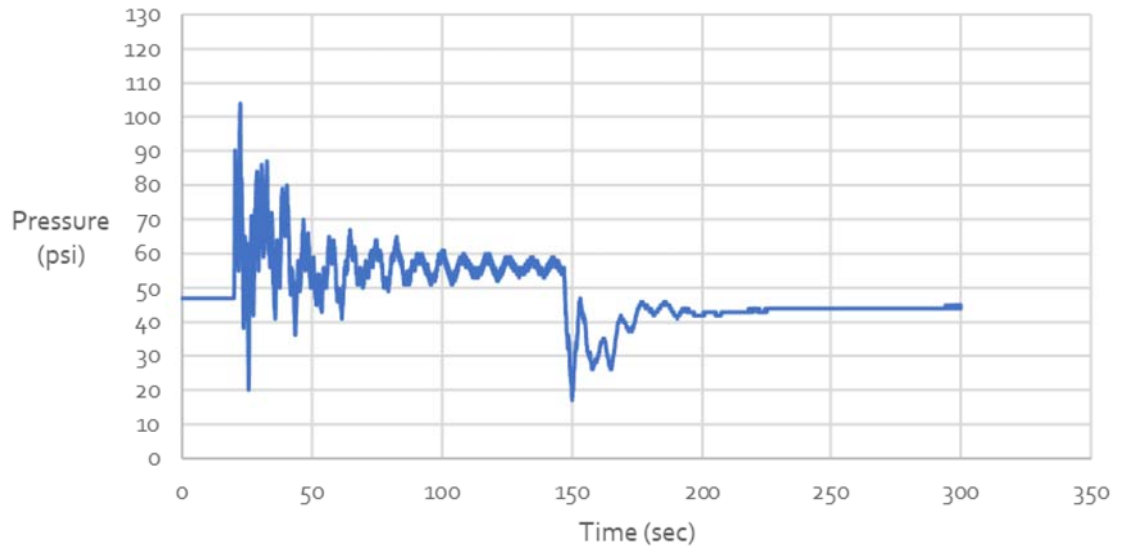


Figure 14 Run 3: Green Mountain Estates Pump Station Suction Pressure

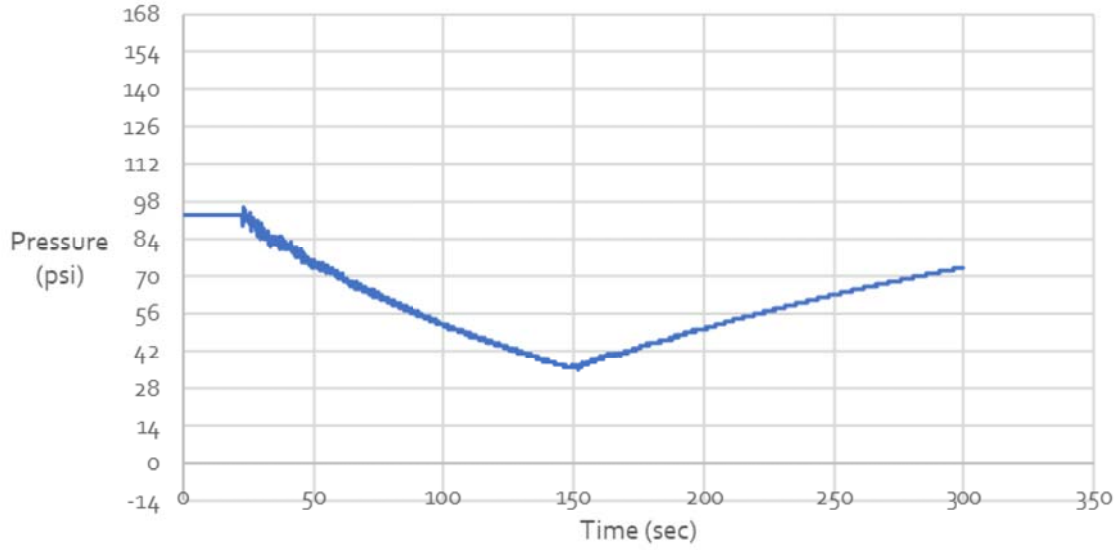


Figure 15 Run 3: Green Mountain Estates High Point Pressure

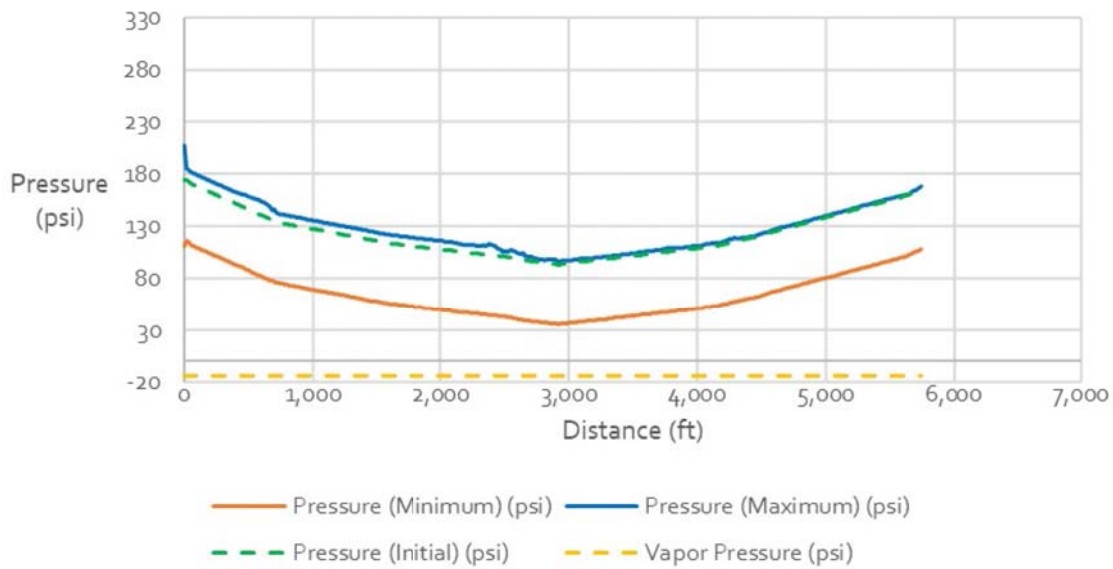


Figure 16 Run 3: Pressure Profile Along the 8-inch Diameter Transmission Main Starting From the Green Mountain Estates Pump Station

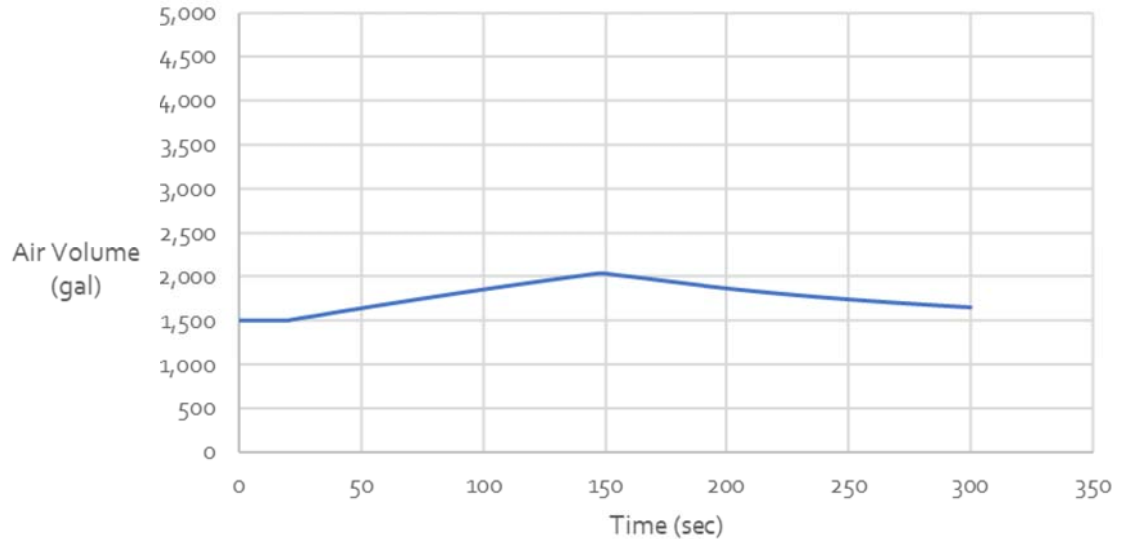


Figure 17 Run 3: Surge Vessel Air Volume

1.7.4 Run 4: Two duty pumps trip followed by start-up – 2,000 gallon surge vessel, peak hour demand

This run includes a 2,000-gallon surge vessel at Green Mountain Estates Pump Station. In this simulation, during peak hour demand, two duty pumps trip followed by start-up with a 2,000 gallon surge vessel. Figure 18 and Figure 19 show the time graph of the model-predicted discharge and suction pressures at Green Mountain Estates Pump Station. The model predicts the maximum pump discharge pressure is 207 psi, and the maximum suction pressure is 104 psi. Figure 20 shows the time graph of the high point pressures in Green Mountain Estates. After the pump station power failure, the high point pressure drops to 23 psi.

Figure 21 shows the steady state, maximum, minimum, and vapor pressure along the pipeline starting at the Green Mountain Estates Pump Station. The surge vessel air volume is shown on Figure 22. The model predicts that the 2,000-gallon surge vessel is able to prevent vapor pressure from occurring along the entire length of the transmission main, but provide less cushion than 3,000 gallon surge vessel.

A surge vessel will also be used to minimize pump cycling during low demand times. A surge vessel is normally filled 50% full under normal pumping conditions. If the surge vessel water volume can vary between 40% and 60% full, then the pump cycle times can be calculated under minimum demand conditions of 46 gpm at night. Each duty pump has a design flow of 180 gpm. Therefore, the duty pump will need to turn on 7 to 10 times/ hour.

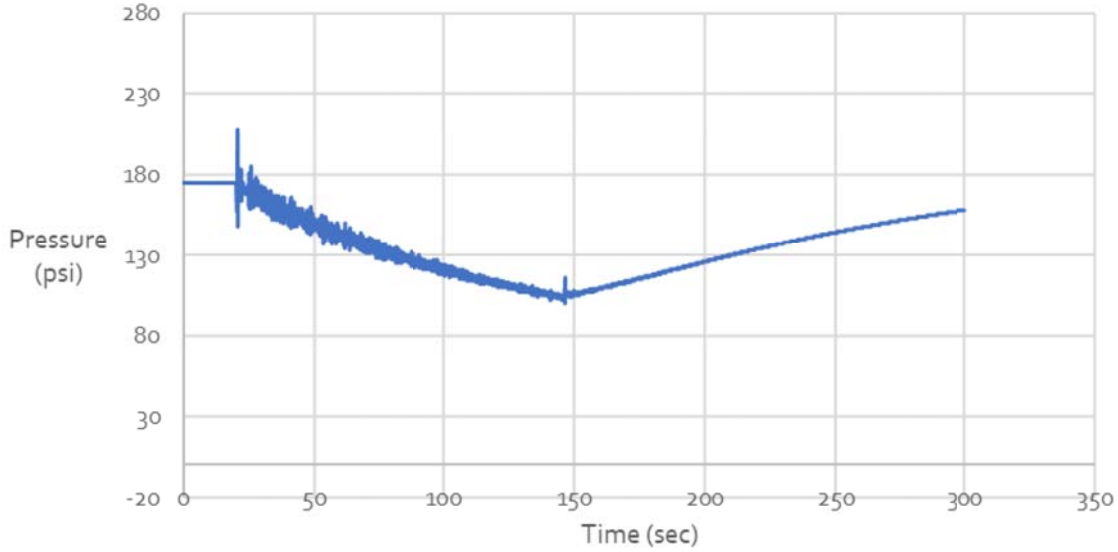


Figure 18 Run 4: Green Mountain Estates Pump Station Discharge Pressure

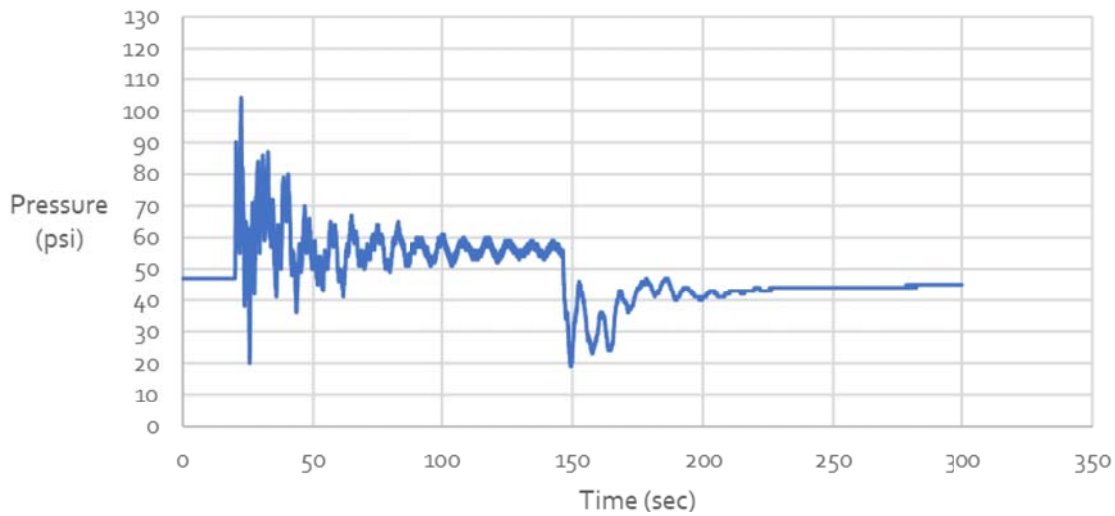


Figure 19 Run 4: Green Mountain Estates Pump Station Suction Pressure

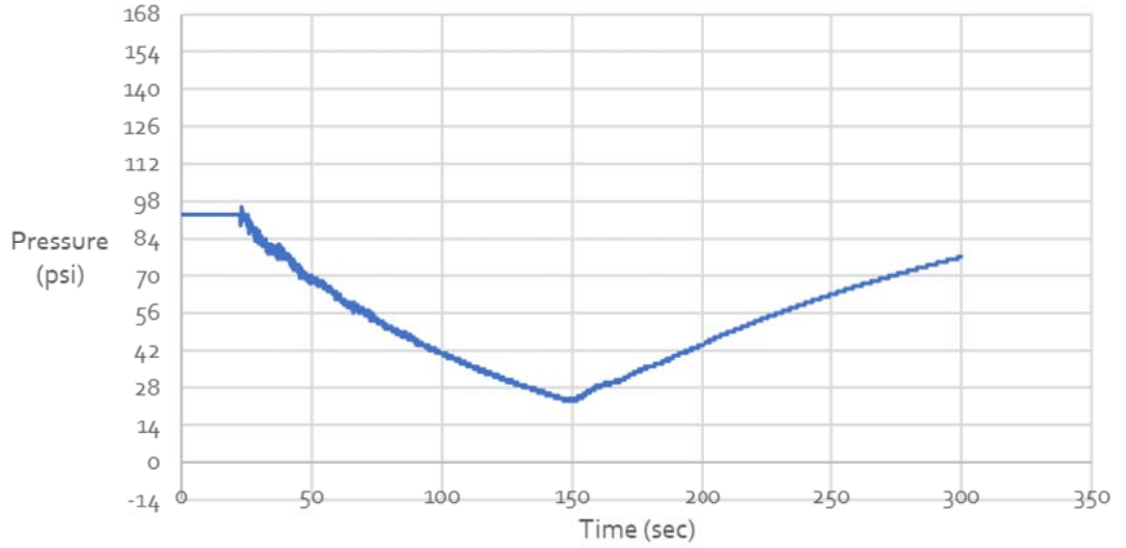


Figure 20 Run 4: Green Mountain Estates High Point Pressure

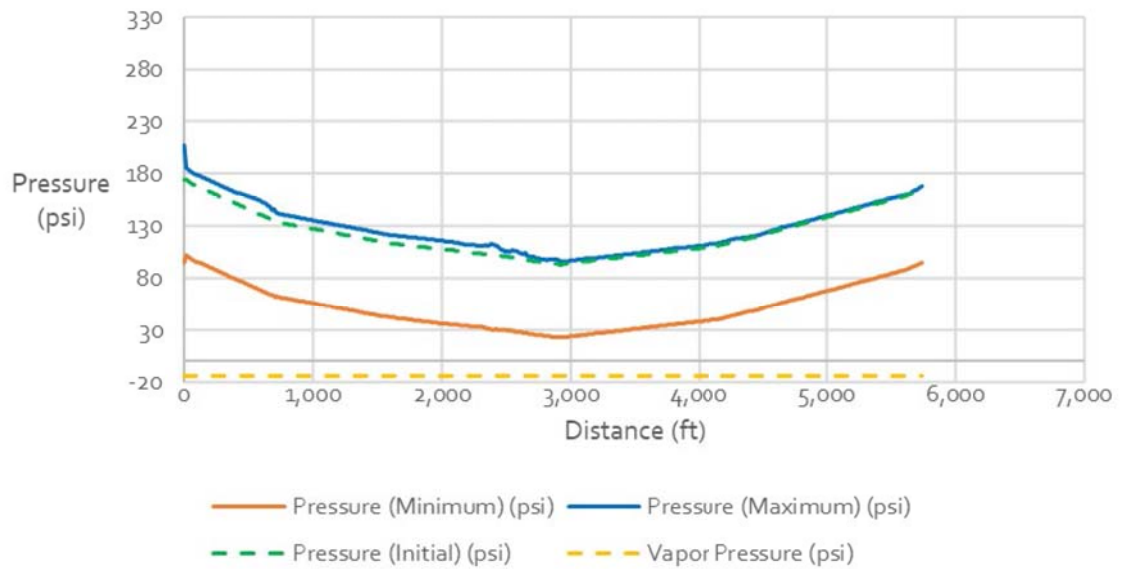


Figure 21 Run 4: Pressure Profile Along the 8-inch Diameter Transmission Main Starting From the Green Mountain Estates Pump Station

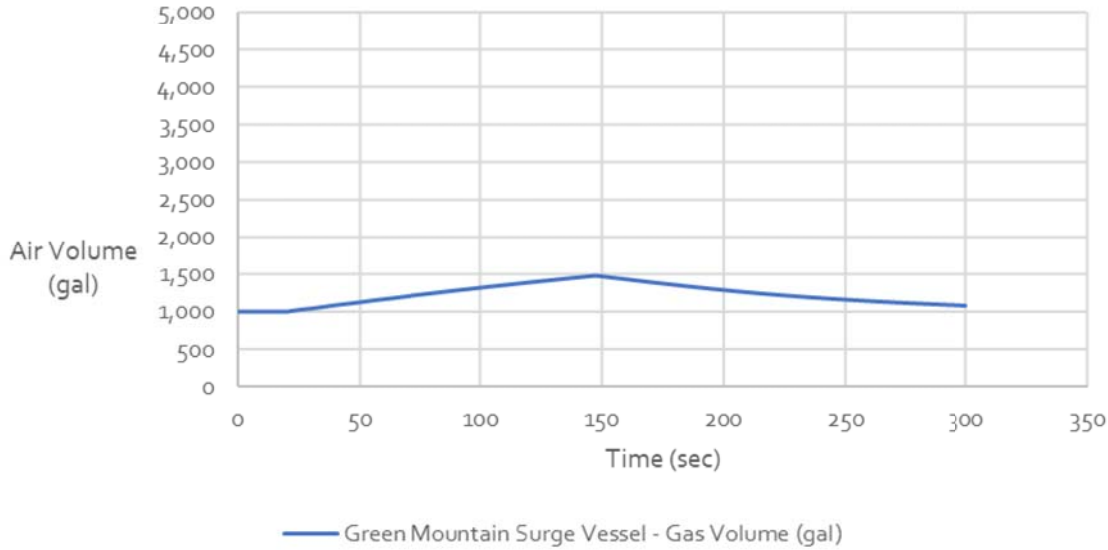


Figure 22 Run 4: Surge Vessel Air Volume

1.7.5 Run 5: Fire hydrant abrupt closure – no surge vessel, maximum day demand plus 500 gpm fire flow

The purpose of this run is to determine the undesirable surge pressures that may occur with no surge protection when fire hydrant closes abruptly, so that appropriate surge mitigation measures can be established. In this simulation, during maximum day demand plus 500 gpm fire flow, one duty pump and one fire pump are operating. When the fire hydrant located at the high point closes abruptly, the fire pump shuts down after filling in the hydropneumatic tank for some time. Figure 23 and Figure 24 show the time graph of the model-predicted discharge and suction pressures at Green Mountain Estates Pump Station. The model predicts the maximum pump discharge pressure is 200 psi, and the maximum suction pressure is 84 psi. Figure 25 shows the time graph of the high point pressures in Green Mountain Estates. The pressures at the high point range from 58 psi to 130 psi.

Figure 26 shows the steady state, maximum, minimum, and vapor pressure along the pipeline starting at the Green Mountain Estates Pump Station. The model predicts that minimum pressures along the entire length of the transmission main are above 0 psi, and the maximum pressure is 208 psi.

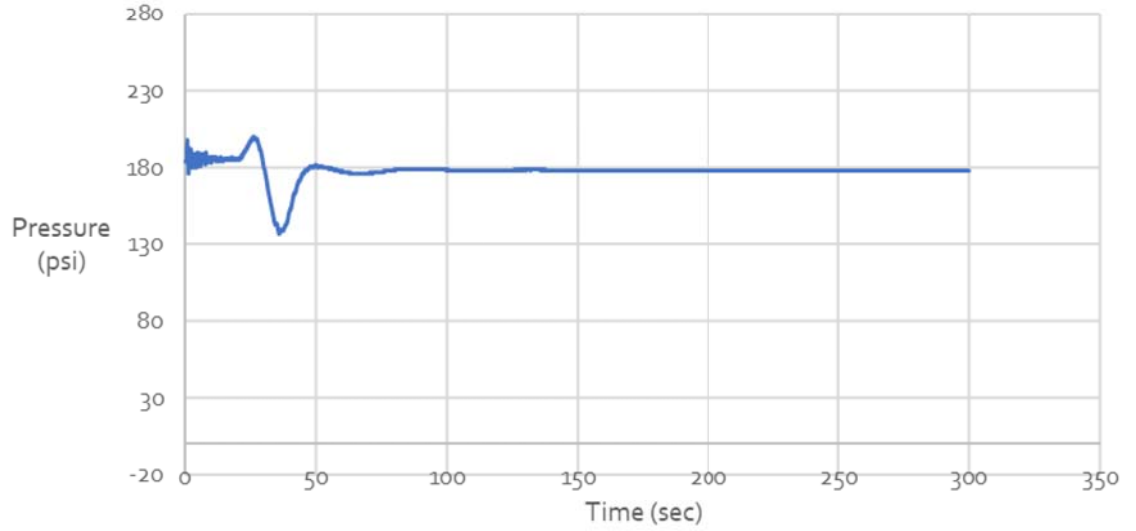


Figure 23 Run 5: Green Mountain Estates Pump Station Discharge Pressure

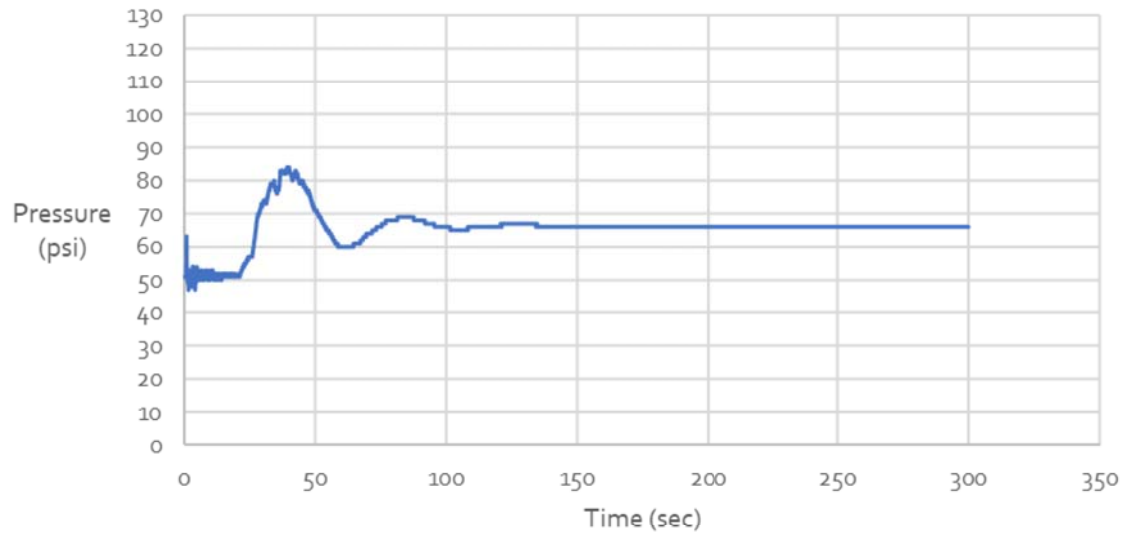


Figure 24 Run 5: Green Mountain Estates Pump Station Suction Pressure

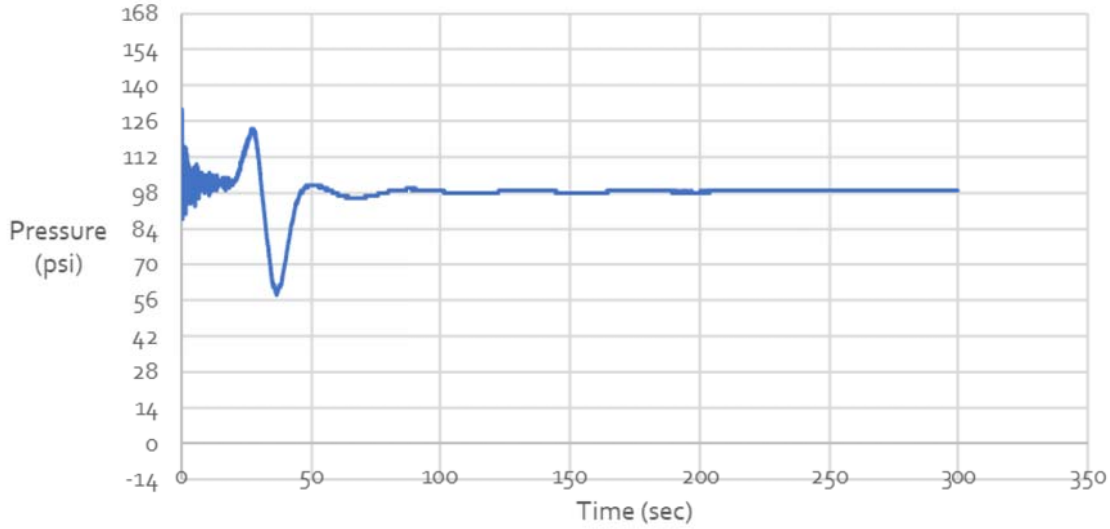


Figure 25 Run 5: Green Mountain Estates High Point Pressure

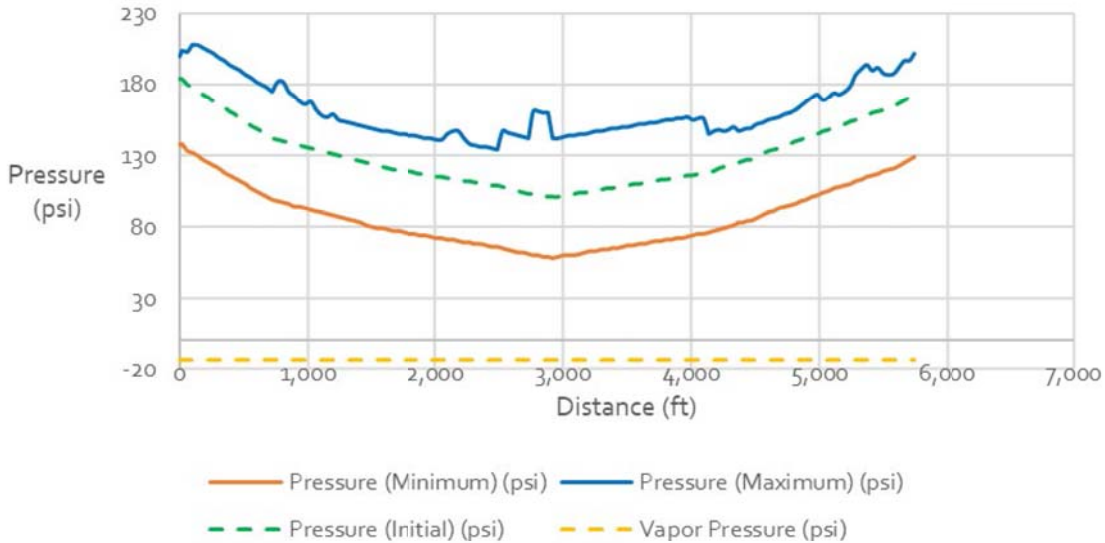


Figure 26 Run 5: Pressure Profile Along the 8-inch Diameter Transmission Main Starting From the Green Mountain Estates Pump Station

1.7.6 Run 6: Fire hydrant abrupt closure – 3,000 gallon surge vessel, maximum day demand plus 500 gpm fire flow

For the transient condition of fire hydrant abrupt closure, various sizes of surge vessel were evaluated, including 2,000 gallon, 3,000 gallon, and 5,000 gallon surge vessels. The model results show all these three size surge vessels have similar surge results. Along the 8-inch diameter transmission main, the surge pressures range between 70 psi and 219 psi. All these three size surge vessels have little effect in mitigating surge maximum pressures.

Considering 3,000 gallon is sufficient and the most economic efficient among these three sizes regarding surge protection during a peak hour demand pump trip, only 3,000 gallon surge vessel analysis is reported here for fire hydrant abrupt closure scenario. In this simulation, during

maximum day demand plus 500 gpm fire flow, the fire hydrant closes abruptly with 3,000 gallon surge protection. Figure 27 and Figure 28 show the time graph of the model-predicted discharge and suction pressures at Green Mountain Estates Pump Station. The model predicts the maximum pump discharge pressure is 191 psi, and the maximum suction pressure is 90 psi. Figure 29 shows the time graph of the high point pressures in Green Mountain Estates. The high point minimum pressure is 130 psi.

Figure 30 shows the steady state, maximum, minimum, and vapor pressure along the pipeline starting at the Green Mountain Estates Pump Station. The model predicts pressures as high as 206 psi along the transmission main. The surge vessel air volume is shown on Figure 31.

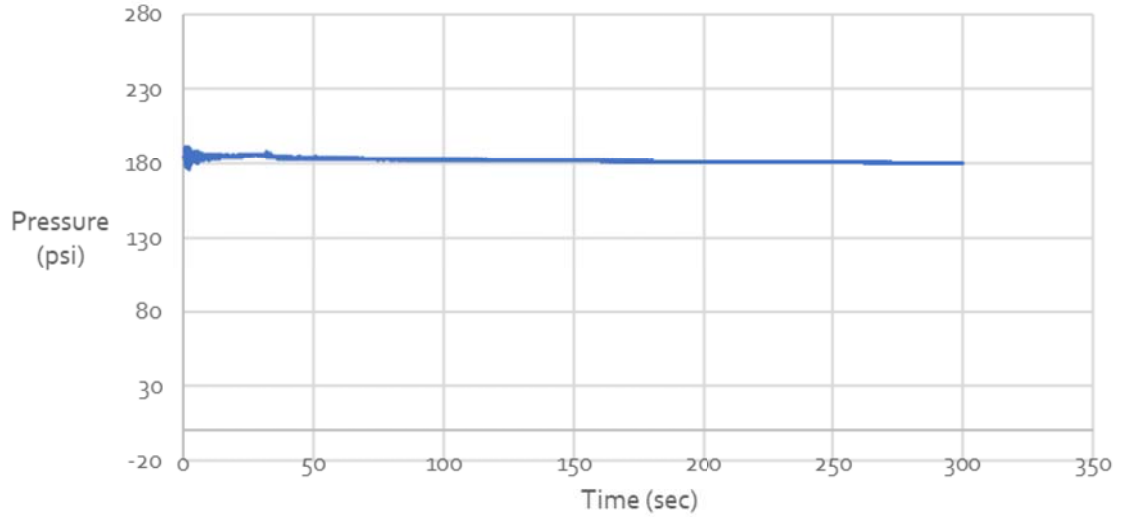


Figure 27 Run 6: Green Mountain Estates Pump Station Discharge Pressure

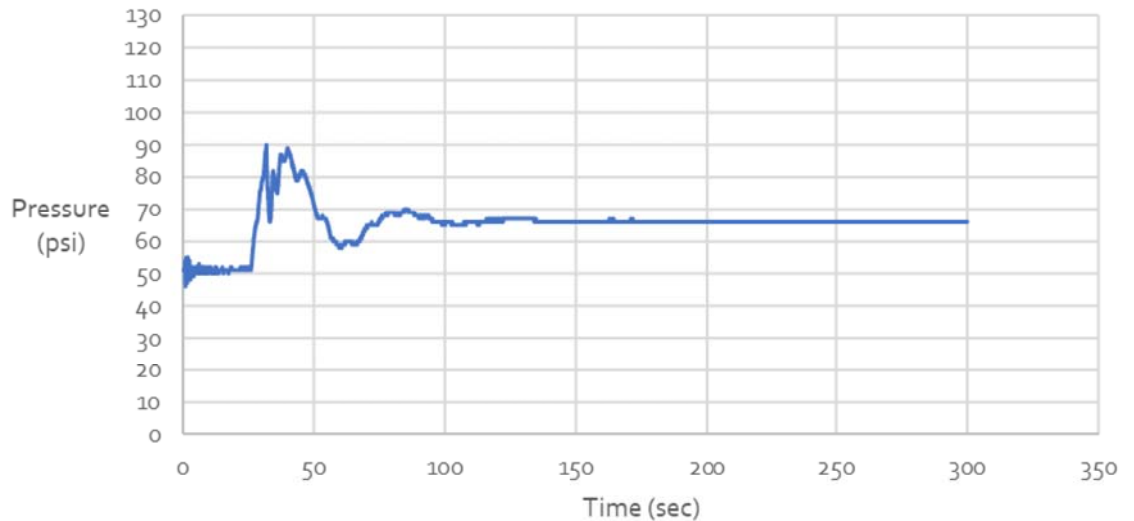


Figure 28 Run 6: Green Mountain Estates Pump Station Suction Pressure

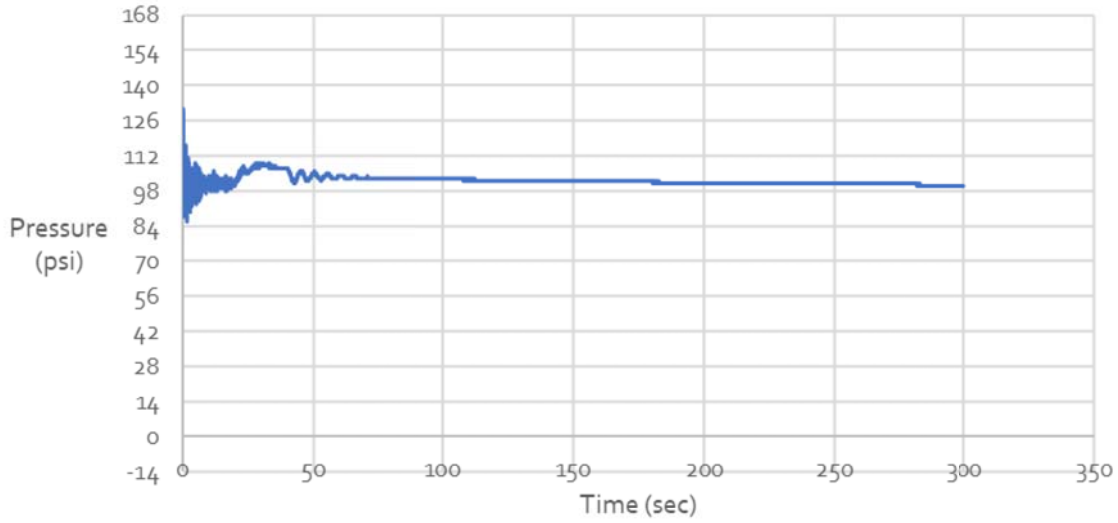


Figure 29 Run 6: Green Mountain Estates High Point Pressure

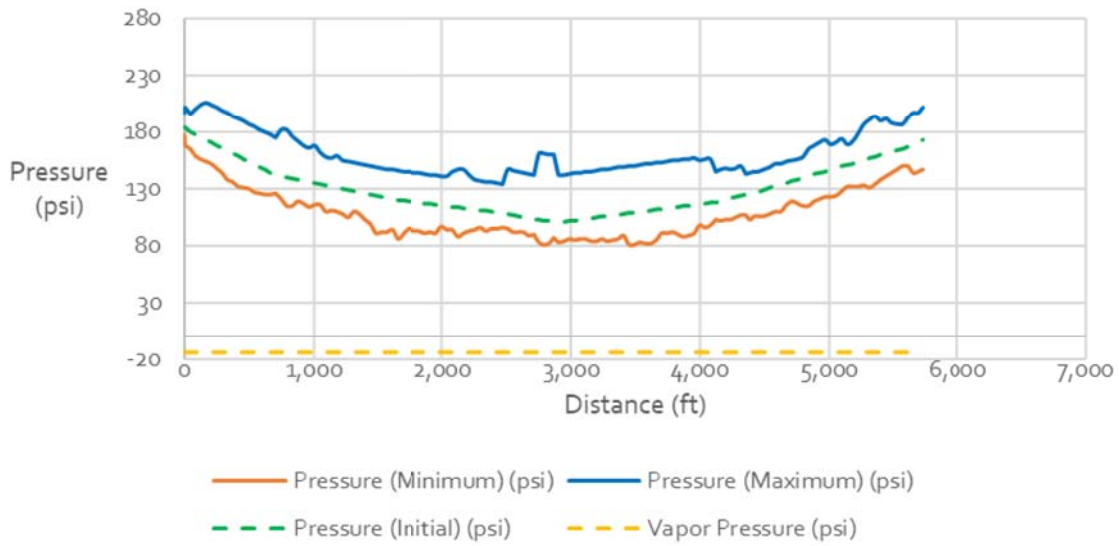


Figure 30 Run 6: Pressure Profile Along the 8-inch Diameter Transmission Main Starting From the Green Mountain Estates Pump Station

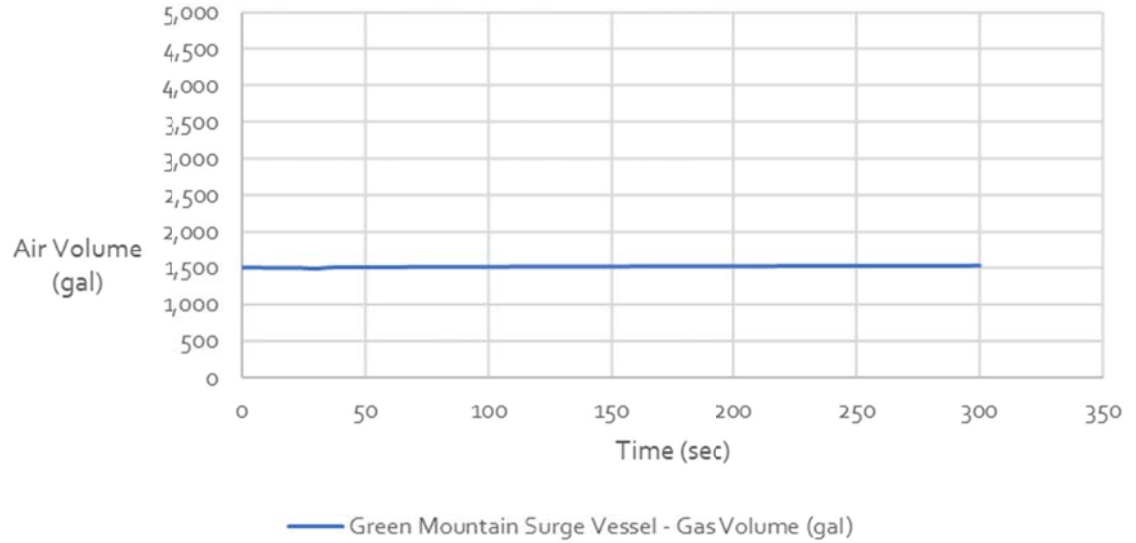


Figure 31 Run 6: Surge Vessel Air Volume

1.8 Summary of Simulation Results

Table 4 summarizes the model-predicted maximum and minimum pressures along the transmission main, maximum discharge pressure and maximum suction pressure at the Green Mountain Estates Pump Station.

Table 4 Model Simulation Summary

Run No.	Demand	Description	Surge Protection Device	Pressure Along the Transmission Main		Maximum Discharge Pressure at Green Mountain Estates Pump Station (psi)	Maximum Suction Pressure at Green Mountain Estates Pump Station (psi)
				Maximum Pressure (psi)	Minimum Pressure (psi)		
1	Peak Hour	Two duty pumps trip followed by start-up	None	182	Vapor Pressure	182	99
2	Peak Hour	Two duty pumps trip followed by start-up	5,000-gallon surge vessel	207	50	207	104
3	Peak Hour	Two duty pumps trip followed by start-up	3,000-gallon surge vessel	207	35	207	104

Run No.	Demand	Description	Surge Protection Device	Pressure Along the Transmission Main		Maximum Discharge Pressure at Green Mountain Estates Pump Station (psi)	Maximum Suction Pressure at Green Mountain Estates Pump Station (psi)
				Maximum Pressure (psi)	Minimum Pressure (psi)		
4	Peak Hour	Two duty pumps trip followed by start-up	2,000-gallon surge vessel	207	23	207	104
5	Maximum Day Plus 500 gpm Fire Flow	Fire hydrant abrupt closure	None	208	58	200	84
6	Maximum Day Plus 500 gpm Fire Flow	Fire hydrant abrupt closure	3,000-gallon surge vessel	206	81	191	90

1.9 Recommendations

Both 2,000 gallon and 3,000 gallon surge vessels are able to eliminate vapor pressure and vapor cavity along the 8-inch diameter transmission main. During the minimum demand in the day, extra pump flow out of the demand would discharge to surge vessel as storage. With a 40 to 60 percent water volume 2,000 gallon surge vessel, the pump station needs approximately 7 to 10 cycle times per hour to not overflow the surge vessel. With a 40 to 60 percent water volume 3,000 gallon surge vessel, the pump station needs approximately 5 to 7 cycle times per hour. According to Washington WSDM Section 7.1.1.1, the maximum pump cycle times is 6 times per hour. The 3,000 gallon surge vessel meets the pump cycle times requirements. Therefore, a 3,000 gallon surge vessel at the Green Mountain Estates Pump Station is recommended. Table 5 provides details of the proposed surge vessel.

Table 5 Surge Vessel Details Recommendations

Surge Vessel at Green Mountain Estates Pump Station	Recommendations
Surge Vessel Type	Hydropneumatic tank, with a compressor to maintain the desired air volume in the tank
Tank Volume (gallons)	3,000
Initial Air Volume (gallons)	1,500
Tank Dimension	Not critical, so use a standard size
Orientation	Horizontal is preferred
Pressure Rating (psi)	200 psi (plus 100 psi surge allowance)
Pipe Inlet/Outlet Size (inch)	4
Pump Discharge Valve	Check valve with the ability to close quickly upon reverse flow

Project information

Project name: green mounitian estates
 Customer's name: Rotschy
 Customer contact: Daniel Massie

Site requirements

Voltage:	277/480
Phase:	3
Frequency:	60Hz
Alt. Temp. Rise Duty:	130°C Standby @40C
Qty of Gensets:	1
Fuel type:	Diesel
Country :	United States

Application:	Construction
Emissions Requirement:	Stationary emergency (US EPA)
Altitude:	500 Feet
Max. Ambient Temp.:	77 Degrees F
Min. Genset Loading :	25 %
Max. Genset Loading :	90 %

Site load requirements summary

Running kW:	89.65
Running kVA:	100.77
Running P.F.:	0.89

Max. Starting kW:	58.91 in step 2
Max. Starting kVA:	178.50 in step 2

Generator selection

Genset Model:	125RE0ZJG	Alternator:	4R13X	Rated kW :	128.00
Engine:	4045HF285	Alternator Leads:	12	Site Alt / Temp De- Rated kW :	128.00
Emission level:	EPA Tier 3	Alt. Starting kVA at 35% V dip:	540.00	Seismic Certified	
BHP:	197.00	Cal Alt Temp rise with site loads:	80C	UL 2200 Certified	
Displacement:	276.00	Excitation System :	PMG		
RPM:	1800				

Generator Performance Summary

Voltage Dip Limit:	30.00 %	Calculated Voltage Dip:	14.97 %
Frequency Dip Limit:	10.00 %	Calculated Frequency Dip:	4.14 %
Harmonic Distortion Limit:	10.00 %	Calculated Harmonic Distortion:	2.81 %
		Calculated Genset % Loaded:	70.04 %

Report prepared by: vincent biggart

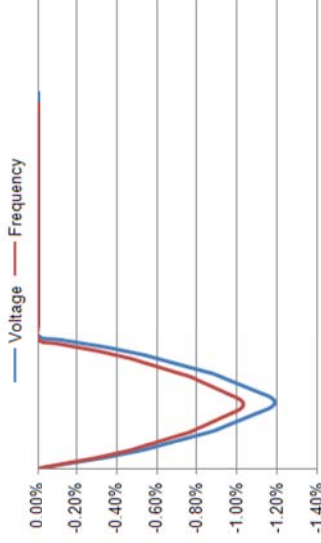
TOTAL SYSTEM INTEGRATION
 GENERATORS | TRANSFER SWITCHES | SWITCHGEAR | CONTROLS

The analysis provided from Power Solutions Center are for reference only. The installer must work with the local distributor and technician to confirm actual requirements when planning the installation. Kohler Co. reserves the right to change design or specifications without notice and without any obligation or liability whatsoever. Kohler Co. expressly disclaims any responsibility for consequential damages.

Model : 125REOZJG, Alternator : 4R13X

Load Profile

Step # 1	Qty	Run			Start			Volt Dip %	Freq Dip %	Volt. Dist. %
		kW	kVA	PF	kW	kVA	PF			
Lighting	1	10.00	10.00	1.00	10.00	10.00	1.00			
Evenly distributed Incandescent										
Step Total		10.00	10.00	1.00	10.00	10.00	1.00	1.19	1.03	0.00
Cum.Total		10.00	10.00	1.00						



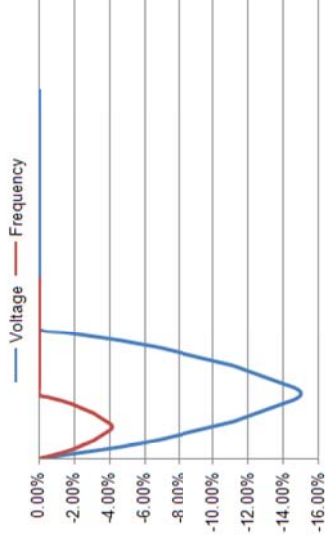
Report prepared by: vincent biggart

TOTAL SYSTEM INTEGRATION
GENERATORS | TRANSFER SWITCHES | SWITCHGEAR | CONTROLS

The analysis provided from Power Solutions Center are for reference only. The installer must work with the local distributor and technician to confirm actual requirements when planning the installation. Kohler Co. reserves the right to change design or specifications without notice and without any obligation or liability whatsoever. Kohler Co. expressly disclaims any responsibility for consequential damages.

Software version: 1.0041.7.5

Step # 2	Qty	Run			Start			Volt Dip %	Freq Dip %	Volt. Dist. %
		kW	kVA	PF	kW	kVA	PF			
Motor pump 4 75.00 HP 3 Phase Motor code : G Loaded NEMA Design soft start with ramp	1	60.82	71.13	0.86	58.91	178.50	0.33			
Step Total		60.82	71.13	0.86	58.91	178.50	0.33	14.97	4.14	0.00
Cum.Total		70.82	79.85	0.89						



Report prepared by: vincent biggart

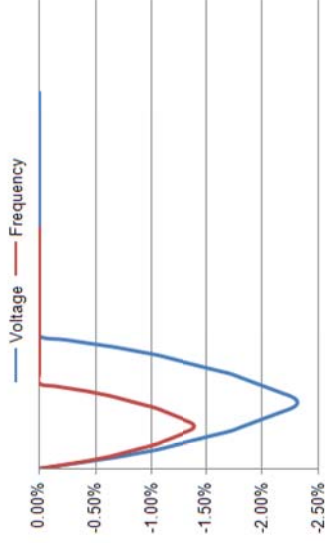
TOTAL SYSTEM INTEGRATION
GENERATORS | TRANSFER SWITCHES | SWITCHGEAR | CONTROLS

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Software version: 1.0041.7.5

Thursday, June 17, 2021

Step # 3	Qty	Run			Start			Volt Dip %	Freq Dip %	Volt. Dist. %
		kW	kVA	PF	kW	kVA	PF			
Motor pump 2 20.00 HP 3 Phase Motor code : G Loaded NEMA Design VFD	1	18.84	20.93	0.90	18.84	20.93	0.90			
Step Total		18.84	20.93	0.90	18.84	20.93	0.90	2.31	1.39	2.81
Cum.Total		89.65	100.77	0.89						
Grand Total		89.65	100.77	0.89			14.97	4.14	2.81	

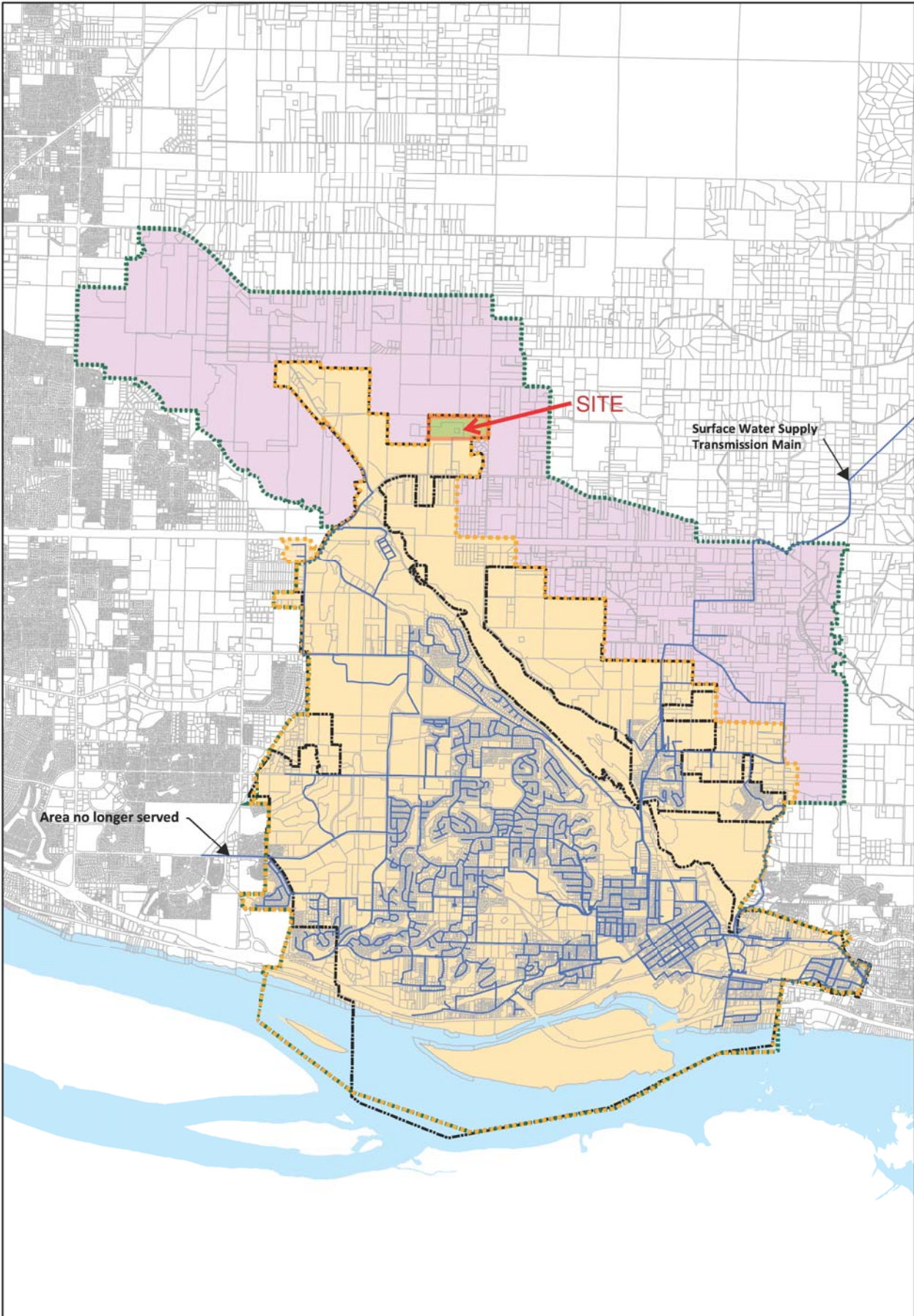


Report prepared by: vincent biggart

TOTAL SYSTEM INTEGRATION
GENERATORS | TRANSFER SWITCHES | SWITCHGEAR | CONTROLS

The analysis provided from Power Solutions Center are for reference only. The installer must work with the local distributor and technician to confirm actual requirements when planning the installation. Kohler Co. reserves the right to change design or specifications without notice and without any obligation or liability whatsoever. Kohler Co. expressly disclaims any responsibility for consequential damages.

Software version: 1.0041.7.5



Legend

- Existing Water Main
- Retail Water Service Boundary
- Future Water Service Boundary
- City Limits
- Retail Water Service Area
- Coordinated Water System Boundary/Future Water Service Area/Service Area
- Parcels
- Waterbody

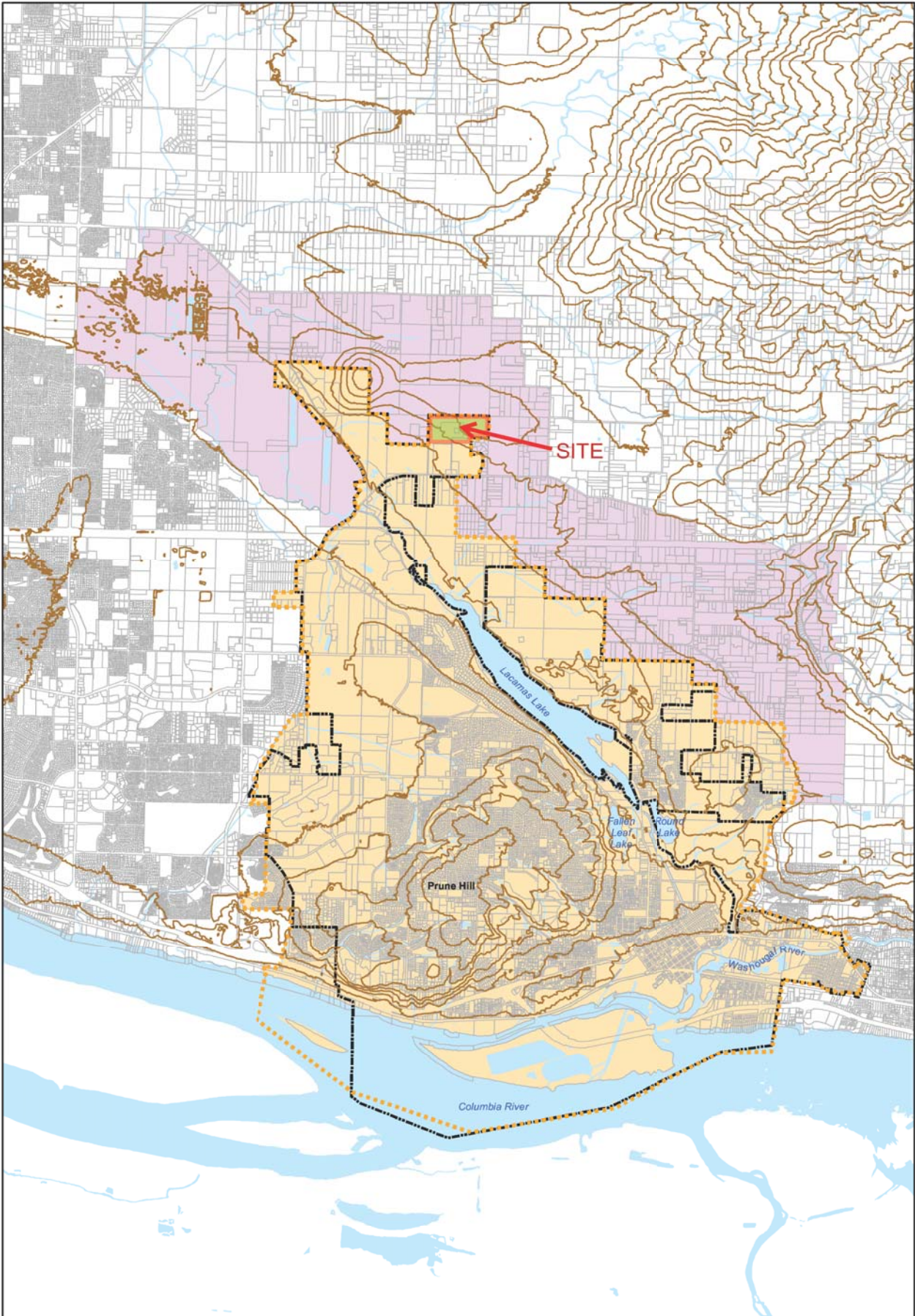


SERVICE AREA

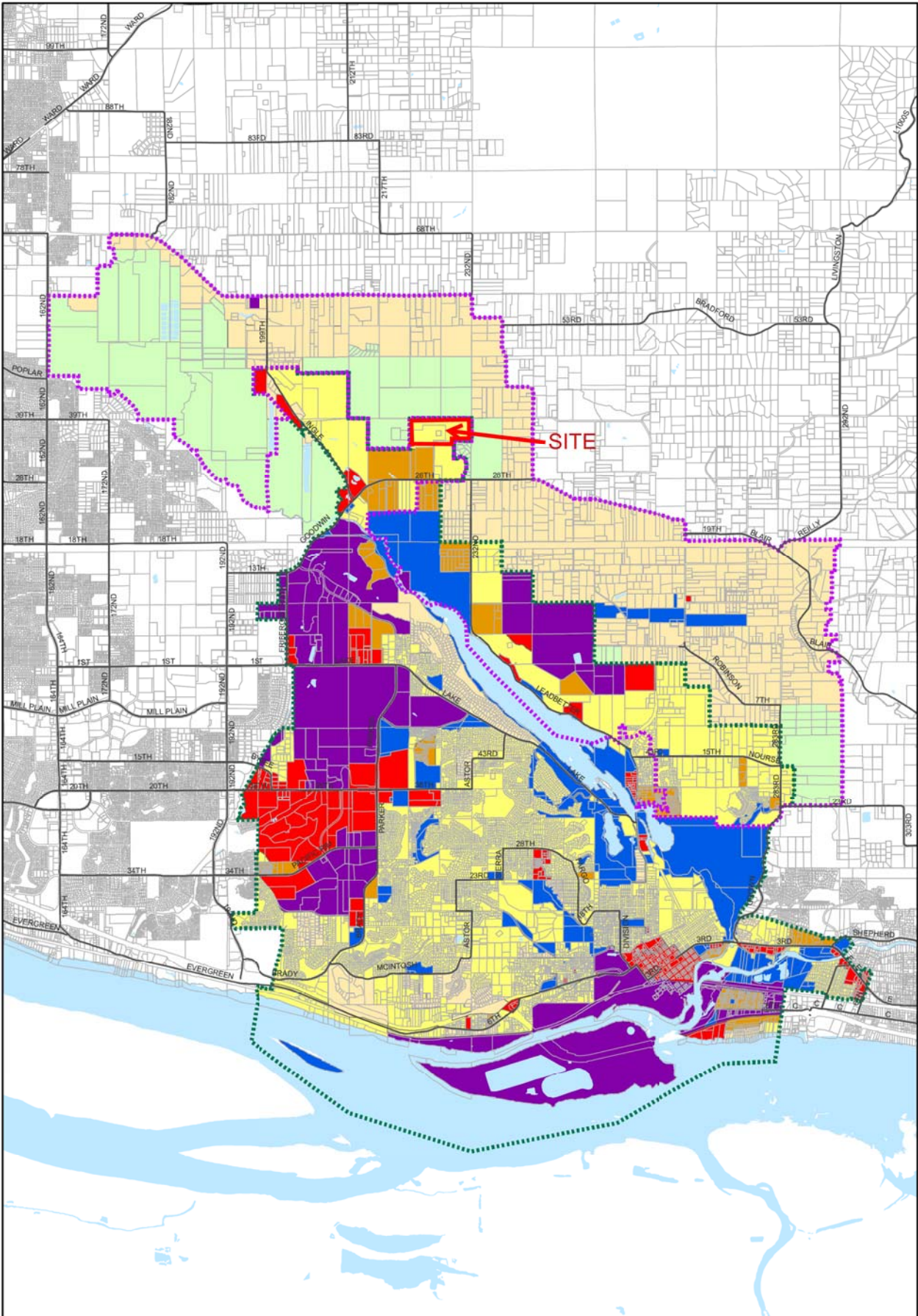
FIGURE 2.1

CITY OF CAMAS
WATER SYSTEM PLAN UPDATE





PHYSICAL ENVIRONMENT
FIGURE 2.2
CITY OF CAMAS
WATER SYSTEM PLAN UPDATE



Legend

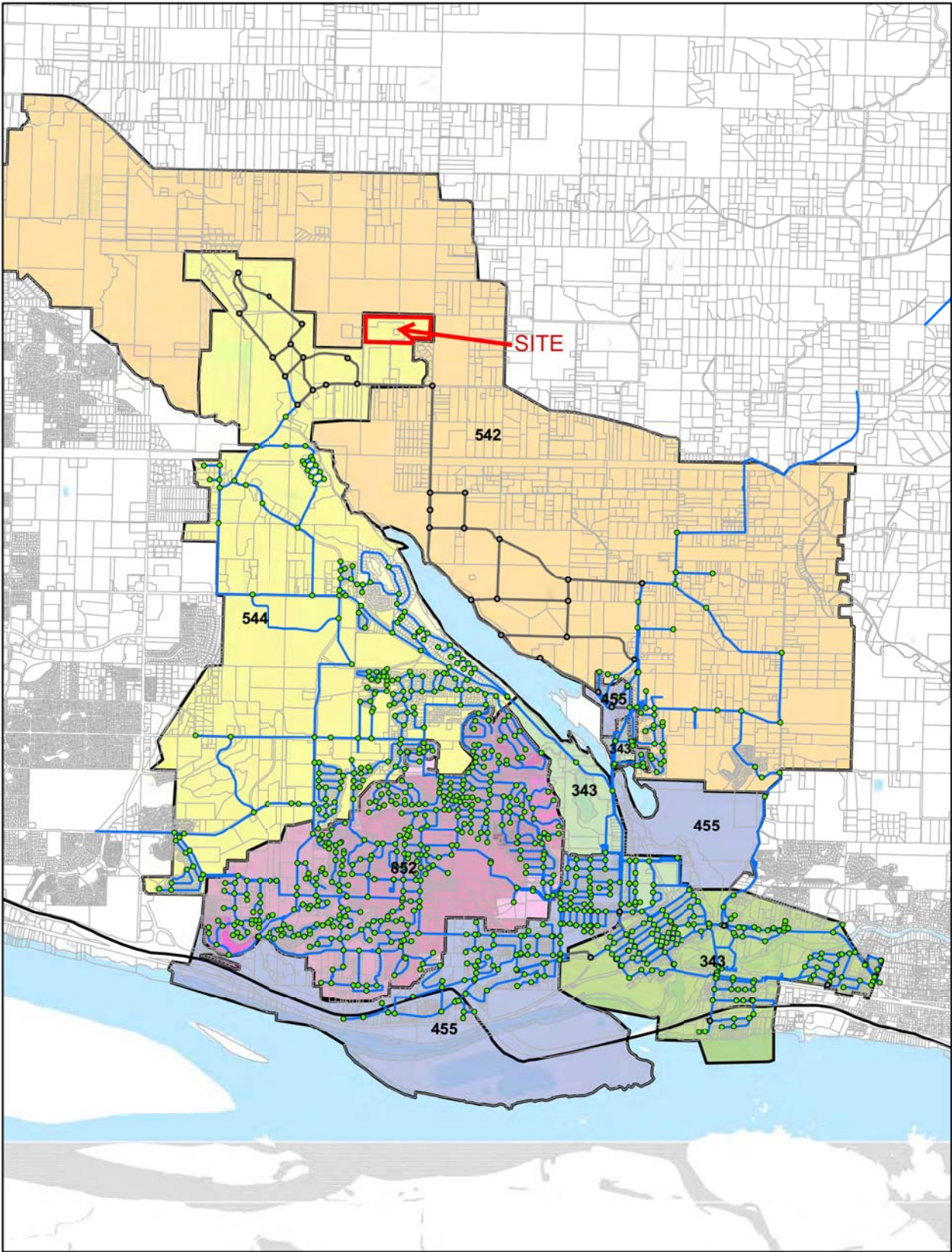
- Roads
 - ▭ Parcels
 - ▭ Retail Water Service Area
 - ▭ North Shore Urban Growth Area
 - ▭ Water
- | | | | | |
|-------------------------------|--------------------|----------------------|-------------------|--------------|
| Comprehensive Land Use | ▭ Residential High | ▭ Residential Medium | ▭ Residential Low | ▭ Commercial |
| ▭ Public/Institutional | ▭ Industrial | ▭ Forest/Ag | ▭ Mixed Use | |

FUTURE LAND USE PER COMPREHENSIVE PLAN

FIGURE 5.6

CITY OF CAMAS
WATER SYSTEM PLAN UPDATE

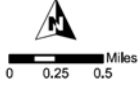




Legend

- Highway 14
- ▭ Parcels
- Waterbody
- Existing Water Main
- Future Pipelines
- Existing Junction
- Future Junctions

- ▭ Service Area
- Pressure Zones**
- 343
- 455
- 542
- 544
- 852



SERVICE AREAS

FIGURE 9.1

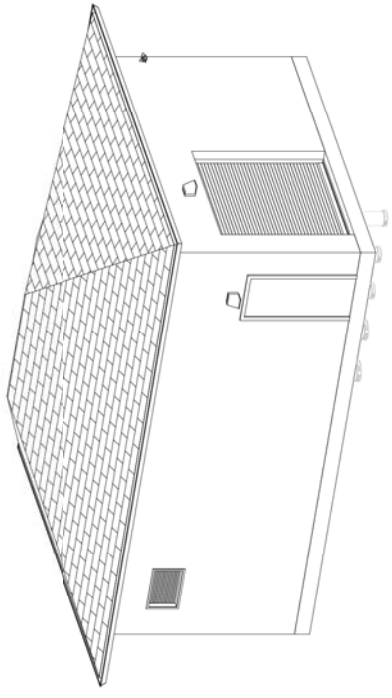
CITY OF CAMAS
WATER SYSTEM PLAN UPDATE





GREEN MOUNTAIN ESTATES PHASE 4

BOOSTER PUMP STATION BUILDING



BOOSTER PUMP STATION BUILDING
 GREEN MOUNTAIN ESTATES PH. 4
 CAMAS, WA

PROJECT NO: 2112
 DATE: 8/13/2021
 DESIGN: SAH
 DRAWN: MEH

REVISION SCHEDULE
 Description
 Date

SHEET NO.	SHEET TITLE
A1	COVER
A2	FLOOR PLAN
A3	ELEVATIONS
A4	SECTIONS
A5	INTERIOR ELEVATIONS
S1	STRUCTURAL NOTES
S2	FOUND/FRAM/G PLAN
S3	FOUND/FRAM/G DETAILS
S4	CRANE PLAN & DETAILS



VICINITY MAP

COVER

A1 Item 14.



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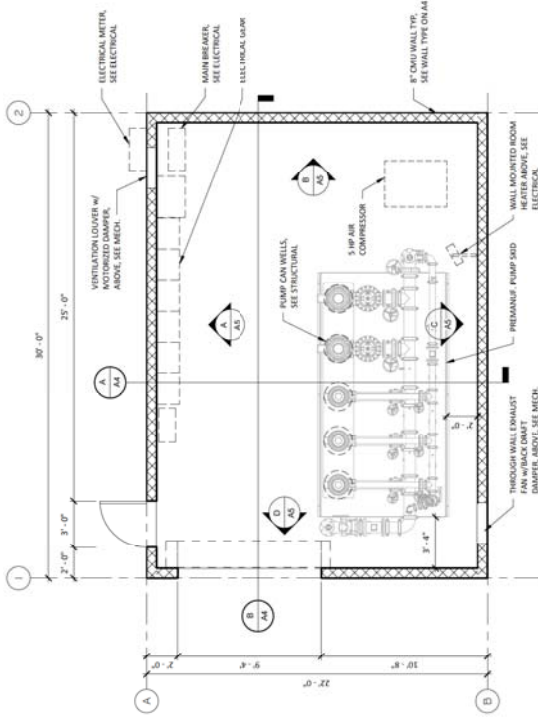
REVISION SCHEDULE

No.

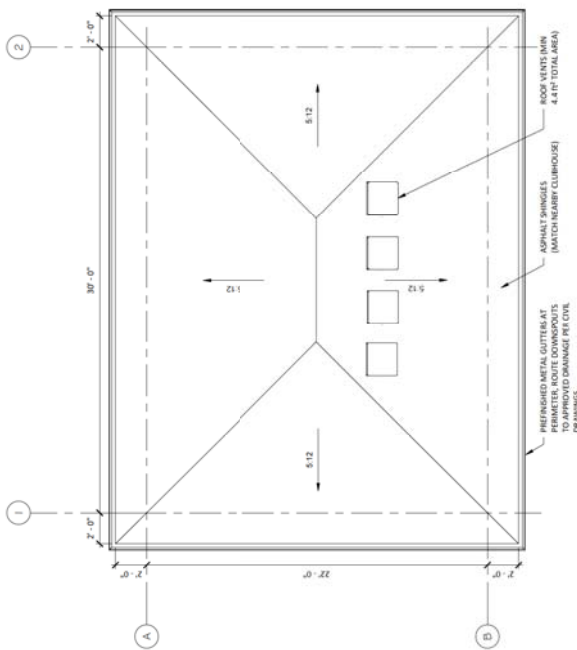
FLOOR PLAN

A2

Item 14.



(A) FLOOR PLAN
1/4" = 1'-0"



(B) ROOF PLAN
1/4" = 1'-0"

CODE SUMMARY

2018 INTERNATIONAL BUILDING CODE WITH WASHINGTON STATE AMENDMENTS
CONSTRUCTION TYPE: NB
OCCUPANCY CLASSIFICATION: U
PROPOSED BUILDING AREA: 660 SQ FT
PROPOSED MAX BUILDING HEIGHT: 17'-11"

WASHINGTON STATE ENERGY CODE NOTES:

CELS 3 COMPLIANCE DOCUMENTATION: ALL ENERGY CODE COMPLIANCE FORMS AND CALCULATIONS SHALL BE DELIVERED IN ONE DOCUMENT TO THE BUILDING OWNER AS PART OF THE PROJECT RECORD DOCUMENT OF MANUALS, OR AS A STANDALONE DOCUMENT. THIS DOCUMENT SHALL BE A SEPARATE LIST OF TOTAL AREA FOR EACH MECH. CERTIFICATE, THE INTERIOR LIGHTING POWER COMPLIANCE PATH (BUILDING AREA, SPACE BY SPACE) USED TO CALCULATE THE LIGHTING POWER ALLOWANCE.

- 1. THE ENVELOPE INSULATION COMPLIANCE PATH (PRESCRIPTIVE OR COMPONENT PERFORMANCE)
- 2. ALL ENERGY CODE CALCULATIONS INCLUDING, BUT NOT LIMITED TO, THOSE REQUIRED BY SECTIONS E403.1.5, E403.2.1.1, E403.4 AND E403.5.

CELS 6 OPERATING OWNER TRAINING:

- 1. THE TRAINING OF THE MAINTENANCE STAFF FOR EQUIPMENT INCLUDED IN THE MANUALS REQUIRED BY SECTION C603.2 SHALL INCLUDE AT A MINIMUM:
- 2. HANDS-ON DEMONSTRATION OF ALL NORMAL MAINTENANCE PROCEDURES, NORMAL OPERATING MODES, AND ALL EMERGENCY PROCEDURES
- 3. TRAINING COMPLETION REPORT

CELS 5.2 WEATHERTEST: THE COMPLETE BUILDING SHALL BE TESTED AND THE AIR LEAKAGE RATE OF THE BUILDING ENVELOPE SHALL NOT EXCEED 0.25 CHAS/QT AT A PRESSURE DIFFERENTIAL OF 0.3 INCHES WATER GAUGE (2.0 L/S X SQM AT 75 PA) AT THE UPPER 95 PERCENT CONFIDENCE INTERVAL IN ACCORDANCE WITH ASTM E 779 OR EQUIVALENT METHOD APPROVED BY THE CODE OFFICIAL. A REPORT THAT MEETS THE REQUIREMENTS OF SECTION C503.2 SHALL BE SUBMITTED TO THE BUILDING OWNER AND THE CODE OFFICIAL. IF THE TESTED RATE EXCEEDS THAT DERIVED HERE BY UP TO 0.15 CHAS/QT, A VISUAL INSPECTION OF THE AIR BARRIER SHALL BE CONDUCTED AND ANY LEAKS NOTED SHALL BE SEALED TO THE EXTENT PRACTICABLE. AN ADDITIONAL REPORT MEETING THE REQUIREMENTS OF SECTION C503.2 SHALL BE SUBMITTED TO THE BUILDING OWNER AND THE CODE OFFICIAL. IF THE TESTED RATE EXCEEDS 0.40 CHAS/QT, CORRECTIVE ACTIONS MUST BE MADE AND THE TEST COMPLETED AGAIN. A TEST ABOVE 0.40 CHAS/QT WILL NOT BE ACCEPTED. THE TEST REPORT SHALL BE SUBMITTED TO THE BUILDING OWNER AND THE CODE OFFICIAL. THE TEST RESULTS SHALL BE PLOTTED AGAINST THE CORRECT P FOR PRESSURIZATION IN ACCORDANCE WITH SECTION 9.4 OF ASTM E 779.

- 1. THE TEST PRESSURE RANGE SHALL BE FROM 25 IN TO 80 IN PER SECTION 8.0 OF ASTM E 779, BUT THE UPPER LIMIT SHALL NOT BE GREATER THAN 75 IN.
- 2. IF THE PRESSURE EXHONENT "N" IS LESS THAN 0.5 OR GREATER THAN 0.85 PER SECTION 9.4.2 OF ASTM E 779, THE TEST SHALL BE RE-RUN WITH ADDITIONAL READINGS OVER A LONGER TIME INTERVAL.



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BOOSTER PUMP STATION BUILDING

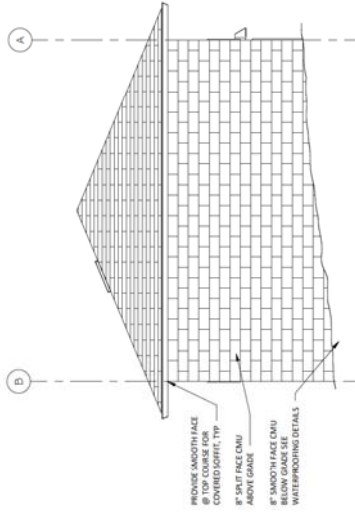
GREEN MOUNTAIN ESTATES PH. 4
CAMAS, WA

PROJECT NO: 2112
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DRAWN: MEH

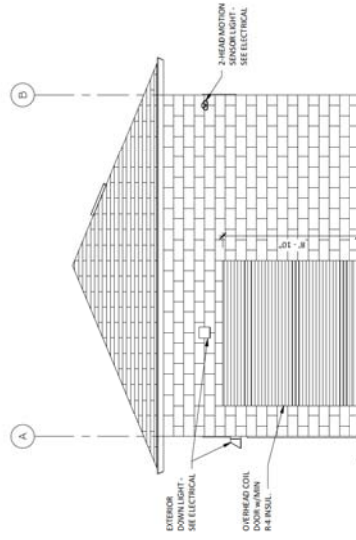
Date _____
Description _____
REVISION SCHEDULE

No. _____
ELEVATIONS

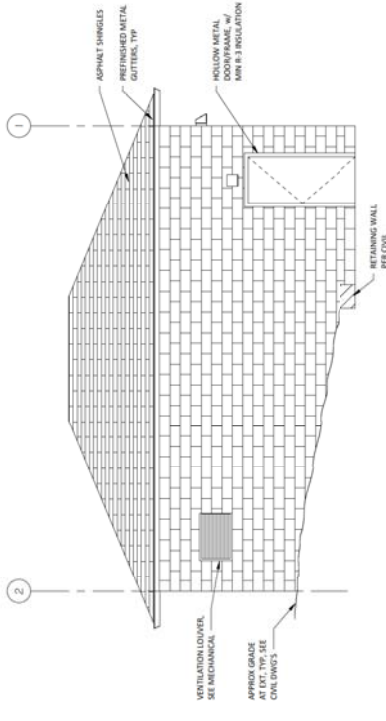
A3
Item 14.



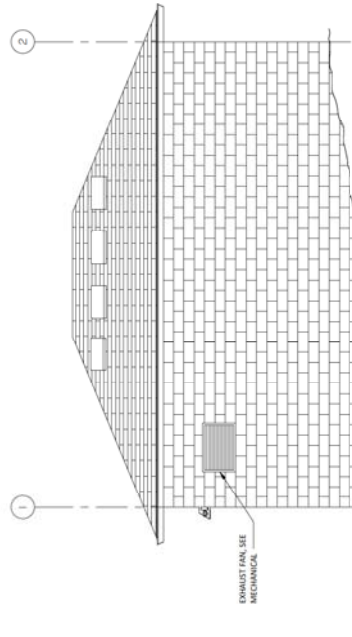
B EAST ELEVATION
1/4" = 1'-0"



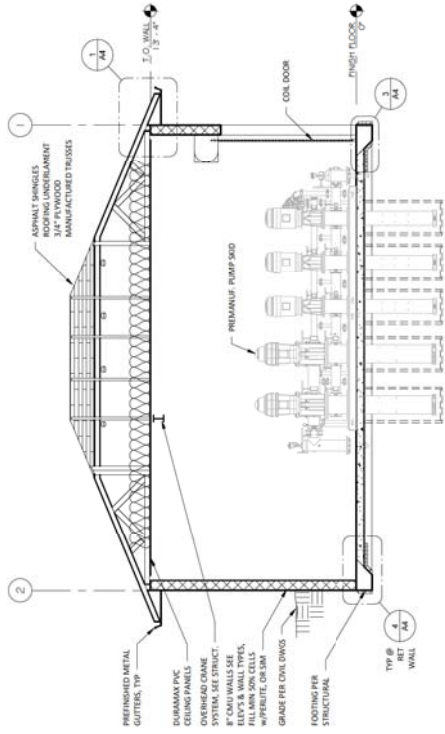
D WEST ELEVATION
1/4" = 1'-0"



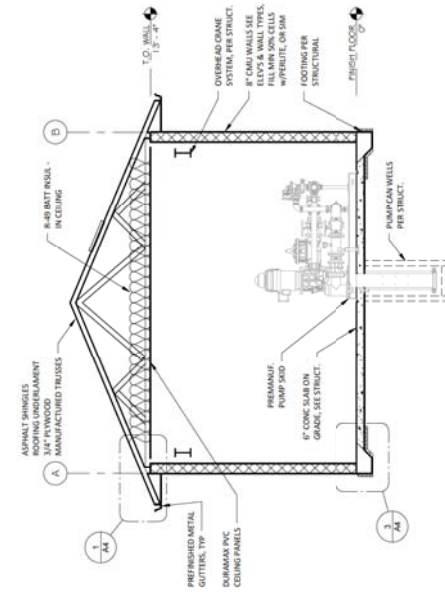
A NORTH ELEVATION
1/4" = 1'-0"



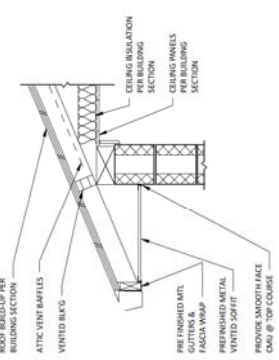
C SOUTH ELEVATION
1/4" = 1'-0"



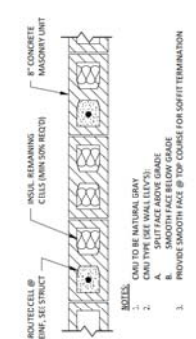
SECTION 1
 1/4" = 1'-0"



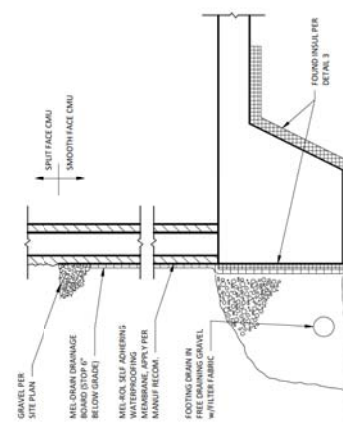
SECTION 2
 1/4" = 1'-0"



SOFFIT/EAWE DETAIL
 1" = 1'-0"



CAU WALL WATERPROOFING DETAIL
 1" = 1'-0"



SLAB EDGE INSUL DETAIL
 1" = 1'-0"



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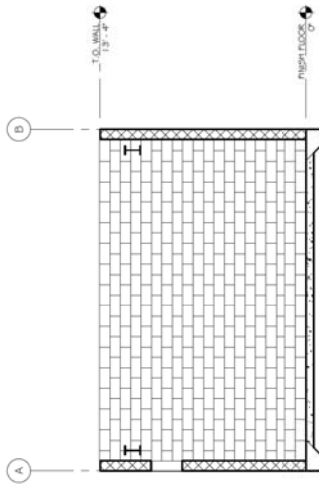
Date _____
Description _____
REVISION SCHEDULE

No. _____

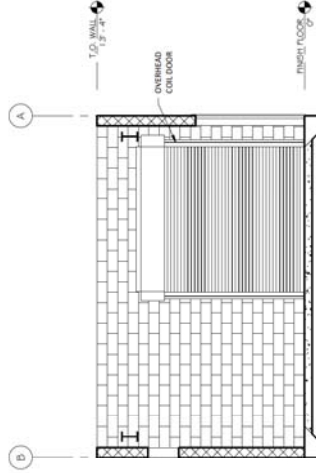
INTERIOR
ELEVATIONS

A5

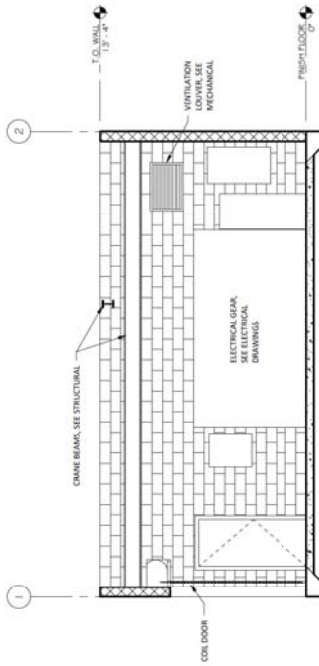
Item 14.



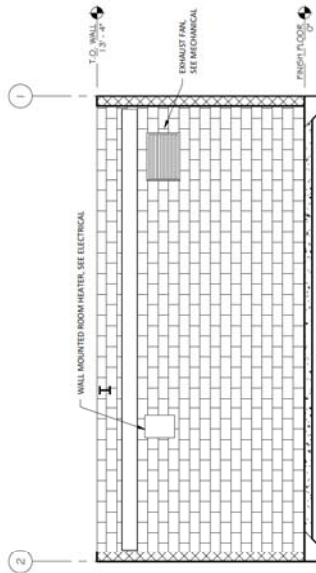
② EAST INTERIOR
1/4" = 1'-0"



③ WEST INTERIOR
1/4" = 1'-0"



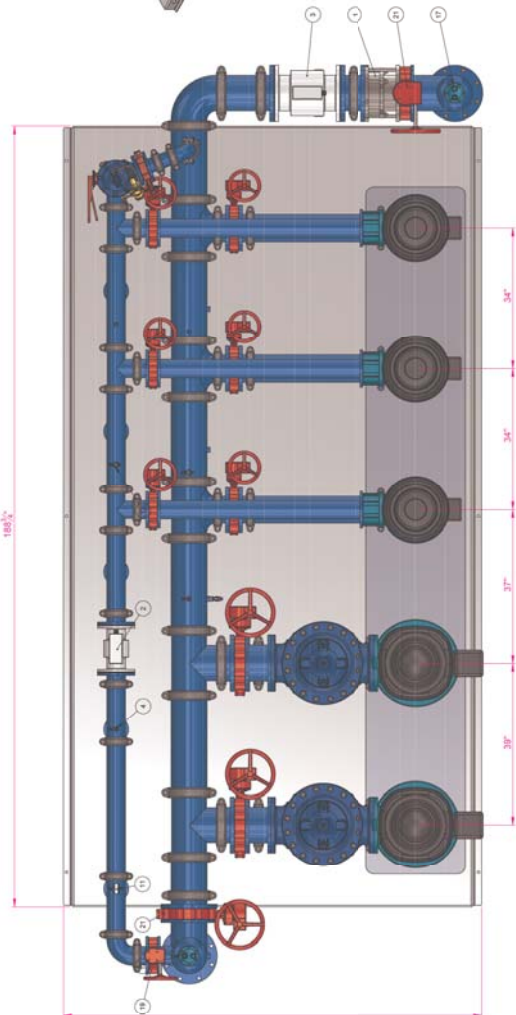
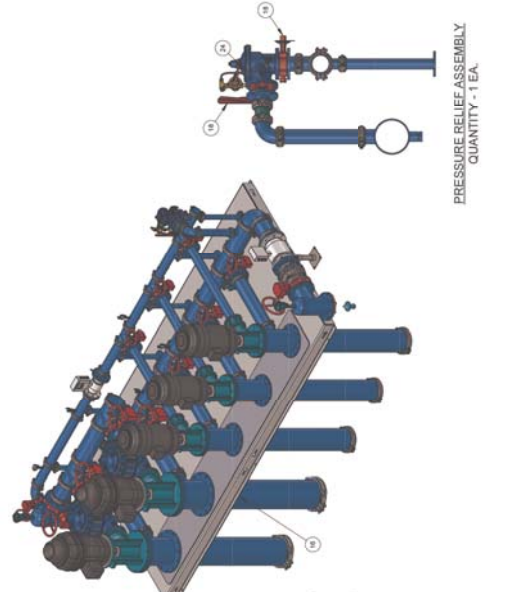
① NORTH INTERIOR
1/4" = 1'-0"



④ SOUTH INTERIOR
1/4" = 1'-0"

DESIGN SPECIFICATIONS

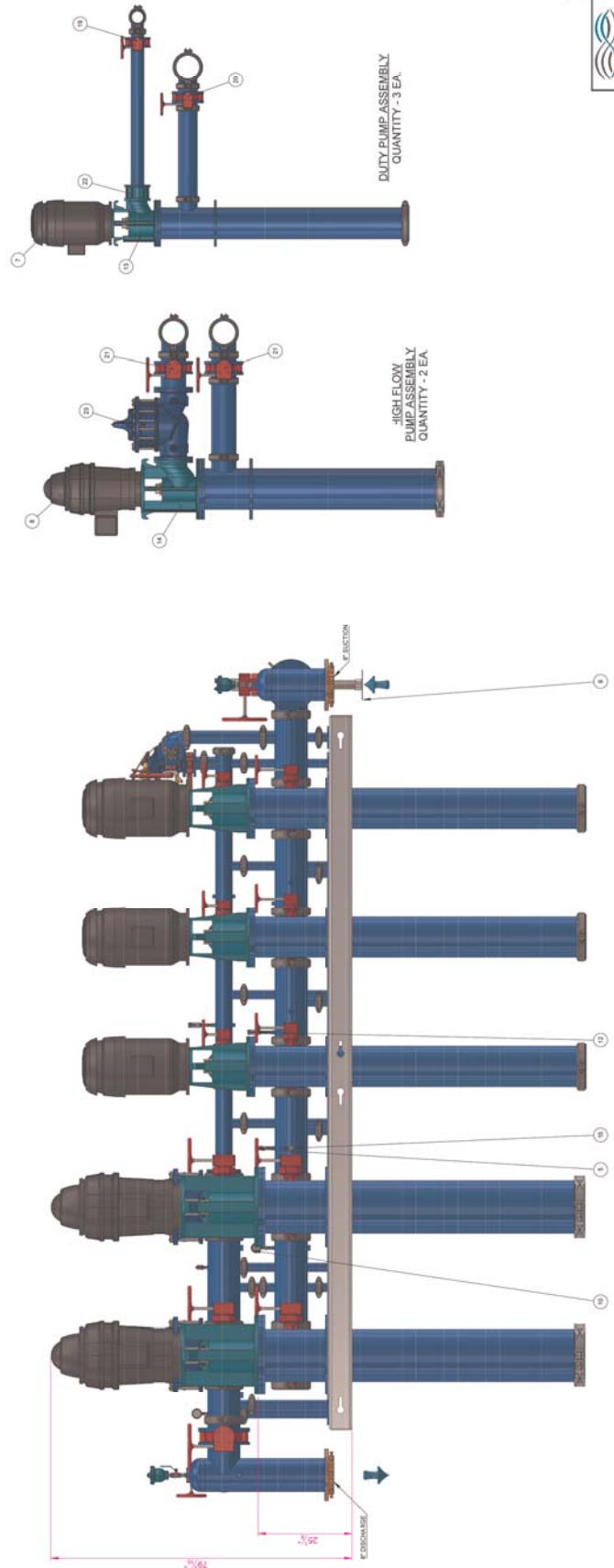
Design Point 1:	300 GPM @ 127 PSI		
Design Point 2:	1300 GPM @ 127 PSI		
Intake Pressure:	31 PSI		
Duty Pump Details:	20 HPP/Pump @ 150 GPM @ 200 TDH		
PM Pump Details:	7.5HP/Pump @ 40 GPM @ 200 TDH		
High Flow Pump Details:	75 HPP/Pump @ 650 GPM @ 200 TDH		
Minimum Power:	480 Volt / 3 Phase		
Model #	T#CCT0200000300-127XXKB483AS-8		
ITEM NO.	DESCRIPTION	Size	QTY.
1	DISMANTLING JOINT	8"	1
2	FLOW METER BOGGER	8"	1
3	FLOW METER BOGGER	8"	1
4	LOW PRESSURE SWITCH	1/4"	1
5	HIGH PRESSURE SWITCH	1/4"	1
6	NOT USED	N/A	N/A
7	MOTOR	20 HP	3
8	MOTOR	75 HP	2
9	PIPE SADDLE SUPPORT, 10"	10"	1
10	PRESSURE GAUGE, 30PSI	2-1/2"	1
11	PRESSURE GAUGE, 100PSI	2-1/2"	1
12	PRESSURE TRANSDUCER, -14.5, 14PSI, NSF	1/4"	2
13	PUMP TURBINE, DI HEAD	8"	3
14	PUMP, VERTICAL, TURBINE, LI	8"	2
15	SOFT START	75 HP	1
16	SOFT START	20 HP	1
17	VALVE AIR RELIEF	3/4"	2
18	VALVE BUTTERFLY, LUG, LEVER, 175 PSI	3"	2
19	VALVE BUTTERFLY, LUG, 175 PSI	4"	4
20	VALVE BUTTERFLY, LUG, 175 PSI	6"	3
21	VALVE BUTTERFLY, LUG, 175 PSI	8"	6
22	VALVE CHECK, SILENT	4"	3
23	VALVE CONTROL, 60-11	8"	2
24	VALVE PRESSURE RELIEF, ANGLED	3"	1



PRESSURE RELIEF ASSEMBLY
QUANTITY - 1 EA.

DUTY PUMP ASSEMBLY
QUANTITY - 3 EA.

HIGH FLOW
PUMP ASSEMBLY
QUANTITY - 2 EA.



REV.	DESCRIPTION	DATE	APP'D
<p>REVISIONS</p>			
<p>TITLE: BOOSTER SYSTEM PUMP STATION</p>		<p>PROJECT: GREEN MOUNTAIN ESTATES</p>	
<p>DRAWN: [Name]</p>		<p>SCALE: 3/8" = 1'-0"</p>	
<p>CHECKED: [Name]</p>		<p>DATE: 2/18/2016</p>	
<p>DESIGNED: [Name]</p>		<p>JOB NO: D-10000</p>	



POTABLE
NOT FOR FABRICATION

Item 14.