



CITY OF KENNEWICK HEARING EXAMINER
Andrew Kottkamp, Hearing Examiner

AGENDA

**MONDAY, OCTOBER 10, 2022
6:00 P.M.**

**CITY OF KENNEWICK
HYBRID COUNCIL CHAMBERS & VIRTUAL MEETING
210 W. 6TH AVE, KENNEWICK, WA 99336**

Procedure for Participation

- Please register and sign in to Zoom if you wish to receive a copy of the decision when it is issued and if you plan to give testimony.
- When recognized by the Examiner, state your name, address and whether you are representing only yourself or others.
- All remarks, comments, and questions should be addressed to the Hearing Examiner and not to the audience or parties. You may offer written comments or other items (such as photographs) to the Hearing Examiner as an exhibit for the permanent record. Please provide at least three (3) copies of each item submitted: one copy for the Hearing Examiner, one for the Official Record, and one for Staff). During an Appeal Hearing, if the appellant and the applicant are different parties, then a fourth copy of all documentation is requested.

I. CALL TO ORDER

II. PROCEDURAL INFORMATION

III. PUBLIC HEARING

- A. Preliminary Plat (SUB-2022-0010), "Canal Landing" proposing to subdivide 7.78 acres into 95 lots and 1 tract. The site is generally located at 4711, 4717 and 4721 W. Canal Drive. The site is currently zoned Residential, Medium Density (RM), the Comprehensive Plan designation is Medium Density Residential. The applicant is Nathan Machiela, Knutzen Engineering, 5401 Ridgeline Drive, Suite 160, Kennewick, WA 99338 and property owner is Anthony Potts, Canal Landing Opportunity, 7511 W. Arrowhead Avenue, Unit B, Kennewick, WA 99338.

IV. ADJOURN



COMMUNITY PLANNING DEPARTMENT

STAFF REPORT AND RECOMMENDATION TO THE HEARING EXAMINER

FILE No: SUB-2022-0010

Staff Report Date:	September 29, 2022
Public Hearing Date and Location:	October 10, 2022, Hybrid Hearing
Report Prepared By:	Steve Donovan, AICP, Planning Manager
Report Reviewed By:	Matt Halitsky, AICP, Senior Planner
Summary Recommendation:	The City of Kennewick RECOMMENDS APPROVAL with conditions of Preliminary Plat SUB-2022-0010.
Summary of Proposal:	A Preliminary Plat proposed to subdivide 7.78 acres into 95 lots and 1 tract.
Proposal Location:	4711, 4717 and 4721 W Canal Drive, Parcel Numbers 1-3399-102-0017-008, 1-3399-102-0018-002 and 1-3399-102-0018-001
Legal Description:	<u>Parcel A: (1-3399-102-0017-008)</u> Tract 17, The Highlands Plat A, according to the Plat thereof recorded in Volume 2 of Plats, Page 2, records of Benton County, Washington, EXCEPT the East 251.17 feet thereof, AND EXCEPT that portion conveyed to Benton County for road purposes by deed recorded April 19, 1971, under Auditor's File No. 620648. <u>Parcel B: (1-3399-102-0018-001)</u> The East 80 feet of the North 200 feet of Tract 18, The Highlands Plat A, according to the Plat thereof recorded in Volume 2 of Plats, Page 2, records of Benton County, Washington, EXCEPT the North 5 feet as conveyed to Benton County by instrument recorded on June 14, 1971, under Auditor's File No. 622562; AND EXCEPT the South 3.6 feet of the West 67.5 feet of the East 80 feet of the South 200 feet of the North 230 feet of Tract 18, The Highlands Plat A, according to the Plat thereof recorded in Volume 2 of Plats, Page 2, records of Benton County, Washington.

Parcel C: (1-3399-102-0018-002) That portion of Tract 18, The Highlands Plat A, according to the Plat thereof recorded in Volume 2 of Plats, Page 2, records of Benton County, Washington, described as follows:

Beginning at an iron monument marking the Northeast corner of the Southeast quarter of the Northeast quarter of Section 33, Township 9 North, Range 29 East, W.M.; thence North 89°42'45" West 881.3 feet; thence South 01°38'15" West 30 feet to the True Point of Beginning;

Thence continuing South 01°38'15" West 215 feet; thence North 89°42'45" West 150 feet to the East line of Lot 2, Bugbee's Addition, according to the Plat thereof recorded in Volume 4 of Plats, Page 51, records of said county; thence South 01°38'15" West 468.77 feet along the East line of said Plat to the Southerly line of said Tract 18; thence North 68°47'15" East along said Southerly line 385.16 feet to the East line of said Tract 18; thence North 01°38'15" East along the said East line of Tract 18, to a point 230 feet South of the North line of the Southeast quarter of the Northeast quarter of said Section 33; thence North 89°42'45" West 80 feet; thence North 01°38'15" East 200 feet; thence North 89°42'45" West 125.03 feet to the True Point of Beginning;

EXCEPT that portion conveyed to Benton County by instrument recorded under Auditor's File No. 619171;

TOGETHER WITH the South 3.6 feet of the West 67.5 feet of the East 80 feet of the South 200 feet of the North 230 feet of Lot 18, The Highlands Plat A, according to the Plat thereof recorded in Volume 2 of Plats, Page 2, records of Benton County, Washington.

Property Owner(s):	Canal Landing Opportunity Attn: Anthony Potts 7511 W Arrowhead Avenue, Unit B Kennewick, WA 99336
Applicant:	Knutzen Engineering Attn: Nathan Machiela 5401 Ridgeline Drive, Suite 160 Kennewick, WA 99338
Engineer:	Knutzen Engineering Attn: Nathan Machiela 5401 Ridgeline Drive, Suite 160 Kennewick, WA 99338
Surveyor:	Rogers Surveying Attn: Dave Baalman 1455 Columbia Park Trail, Suite 201 Richland, WA 99352

Approval Criteria:

1. Comprehensive Plan – Land Use
2. Kennewick Municipal Code (KMC) Title 18 – Zoning
3. KMC Title 17 – Subdivisions
4. KMC Section 5.56 – Public Works Construction Standards
5. Washington State Environmental Policy Act

Preliminary Plat Key Application Processing Dates:

Pre-Application/Feasibility Meeting	January 22, 2020
Application Submittal	April 20, 2022
Determination of Completeness Issued	April 21, 2022
Notice of Application	April 21, 2022
Property Posting Sign	April 21, 2022
City Department Review Meeting	N/A
SEPA Threshold Determination Issued	August 24, 2022
SEPA Appeal Period Ends	September 8, 2022
Date of Published Notice of Public Hearing	September 25, 2022
Date of Mailed Notice of Public Hearing	September 22, 2022

Exhibits:

1. Staff Report
2. Preliminary Plat
3. Notice of Public Hearing, 300-ft. mailing list and mailing affidavit
4. Determination of Non-Significance ED-2022-0015
5. Traffic Impact Analysis, dated 4/15/2022
6. Memorandum – Public Works Department, dated 5/2/2022
7. Traffic Engineering division Comments, dated 8/24/2022 - 5/3/22022
8. Applicant response to first review comments, dated 7/14/2022
9. City of Kennewick Fire Department Comments, dated 8/11/2022
10. Ben-Franklin Transit Comments, dated 4/21/2022
11. Benton Public Utility District Comments, dated 5/5/2022
12. Benton-Franklin Health District Comments, dated 5/6/2022
13. Bonneville Power Administration Comments, dated 5/6/2022
14. Kennewick Irrigation District comments, dated 5/9/2022
15. Washington State Department of Ecology Comments, dated 9/8/2022
16. Kennewick School District comments, dated 9/26/2022

Staff Analysis of Proposal & Discussion:

The proposed Preliminary Plat (SUB-2022-0010) is a request for the subdivision of 7.78-acres into 95 lots and 1 tract. The proposal is located at 4711, 4717 and 4721 W Canal Drive. All of the lots have structures on them that will need to be removed prior to site development.

The site has a Comprehensive Plan Land-Use Designation of Medium Density Residential and is zoned Residential, Medium Density (RM).

A Preliminary Plat (KMC 17.10) is the first step in a subdivision process for subdivisions with more than nine (9) lots and is an approval for overall lot layout and compliance with land use regulations. A Final Plat is required to create lots for preliminary plats and is the last phase in the subdivision process, and must be recorded prior to the creation of individual lots. Final plat approval is based on the Preliminary Plat conditions of approval. A civil permit with a detailed review of street, utility and stormwater construction standards, and street and utility construction or bonding for incomplete work is required prior the final plat approval. Additionally, the City of Kennewick's Residential Design Standards apply to this project.

Property History:

The City of Kennewick annexed 4711 W Canal Drive on September 18, 1979, by Ordinance 2374. 4717 and 4721 W Canal were annexed on June 22, 1982 by Ordinance 2698. The site's current zoning was established on May 18, 2021 via Ordinance 5911. The site has been used for commercial uses and single-family residences.

Density/Lot Size:

Per the Table of Residential Development Standards (KMC 18.12.010 A.2), the RM zoning district has a maximum density of 13 units and a minimum lot size requirement of 4,000 square feet and a minimum lots size of 1,800 square feet for a Rowhouse/Townhouse. The proposed density for the entire site is 12.2 units per acre.

The proposed development has a minimum residential lot area of 2,000 square feet, a maximum residential lot area of 12,193 square feet, with an overall lot average of 7,096 square feet.

Tract A is proposed as a neighborhood park that will be dedicated to the development's Home Owner's Association.

Staff Comment: The preliminary plat as proposed meets the Residential Development Standards contained in KMC 18.12.010(A.2), and is subject to the Residential Design Standards, Single-Family.

Traffic:

The applicant submitted a Traffic Impact Analysis that has been review by the Traffic Engineering Division. The Traffic Engineering Division has approved a right-of-way deviation request for a secondary access from N Williams Place to W Canal Drive. The applicant has addressed applicable traffic comments to this point of the development.

Storm Water:

Storm water design, construction and post construction must meet the requirements of KMC Section 14.28.045 and COK Standard Specification 5-8.

Streets & Utilities:

Proposed public roads, water services and sewer services must be constructed to applicable City of Kennewick Standard Specifications and Drawings.

An access easement to the individual lot south of the site is required. Access across Lot 90 may be the most viable option.

Parks:

The proposed development is in Service Area 1. The Park Impact Fee for Service Area 1 is \$977 per Single-Family Unit. The Park Impact Fee is due prior to the City issuing the certificate of occupancy.

Critical Areas:

None designated on-site.

Schools:

The boundary schools for the proposed development are Vista Elementary (Bussing Zone), Highlands Middle School (Bussing Zone) and Kamiakin High School (Walking Zone).

The Kennewick School District has the capacity to add students at all three schools.

Surrounding Property:

The properties to the west are zoned RL and consists of a developed subdivision. Properties to the north and east are in the County and consist of single-family residences. Railroad right-of-way and an industrial property are to the south.

Provisions for Public Health, Safety, and Welfare:

The proposed development will be constructed to City of Kennewick Residential Design Standards and the applicable requirement of the Kennewick Municipal Code.

Staff Comment: It is staff's opinion that appropriate provisions have been made for, but are not limited to, the public health, safety, and general welfare, for open spaces, drainage ways, streets or roads, alleys, public sidewalks, utility easements and other public ways, transit stops, potable water supplies, sanitary wastes, parks and recreation areas, playgrounds, schools and school grounds, and the proposed subdivision has considered all other relevant facts and other planning features that assure safe walking conditions for students who walk to and from school.

Public Comments:

No submitted comments from the public.

Comprehensive Plan:

Staff is of the opinion that this request is consistent with and generally conforms to the City's Comprehensive Plan, and it will implement, goals and policies of the Comprehensive Plan.

Particularly the following:

RESIDENTIAL GOAL 1: "Provide for attractive, walkable, and well-designed residential neighborhoods, with differing densities and compatible with neighboring areas."

Staff Comment: The proposed Preliminary Plat is consistent with the Comprehensive Plan Land Use and complies with development standards for Residential, Medium Density (RM) zoning district. The applicant still intends to provide single-family residential even though the lots will be used for town homes.

RESIDENTIAL GOAL 2: "Provide appropriate public facilities supporting residential areas."

POLICY1: "Ensure provision of parks, schools, drainage, transit, water, sanitation, infrastructure and pedestrian in new residential developments."

POLICY 2: "Encourage irrigation service throughout residential areas, when available, to support and maintain healthy landscaping."

POLICY 3: "Deny residential developments if concurrency is not met for transportation, water, and sewer, or appropriately condition."

Staff Comment: The proposed development will be constructed with the required infrastructure improvements that meet applicable standards.

RESIDENTIAL GOAL 3: "Promote a variety of residential densities with a minimum density target of 3 units per acre as averaged throughout the urban areas."

POLICY 3: "Residential Medium Density: Place areas that can support high-quality, compact urban development with access to urban services, transit, and infrastructure, whether through new development or through infill.

Staff Comment: As proposed, the development meets Goal 3 and Policy 3 by providing single-family townhome lots that are adjacent to single-family residential on larger lots.

RESIDENTIAL GOAL 4: "Provide more housing opportunities near commercial, transit and employment."

Staff Comment: The proposed development will provide townhomes and traditional single-family residential. Additionally, the site is within a mile of commercial and professional services.

The City of Kennewick hereby RECOMMENDS that Preliminary Plat SUB-2022-0010 be APPROVED with the following conditions:

1. Comply with City of Kennewick regulatory controls, policies and codes, including the Residential Design Standards – Single-Family Residential.
2. A landscape plan must be submitted for approval of all common areas, open spaces and rights-of-way, listing the number, location, and species of trees, sizes of plant material, and ground cover prior to final plat approval. Street trees shall be placed at 40-foot intervals and within five feet of the back of sidewalk for curb tight sidewalks. The landscape plan shall be prepared by a licensed landscape architect or licensed landscape installer drawn to a legible scale.
3. A landscaping strip, no less than 10-feet and consisting of ground cover and street trees every 40 feet, is required along W Canal Drive.
4. Provide a bond or cash deposit for incomplete sidewalks and applicable landscaping prior to final plat approval. Trees for the individual residential lots shall be planted prior to receiving certificate of occupancy for each new home.
5. All fencing along W Canal Drive shall be a minimum of ten feet from the back of the sidewalk.
6. All fees required by the City shall be paid prior to approval of the final plat.
7. The applicant shall provide an access easement to the lot (Chervenell Property) south of Canal Landing.
8. All development of the plat shall be in conformance and consistent with the plat drawing which was admitted as Exhibit 2.
9. Comply with the Memorandum – Public Works Department. Exhibit 6
10. Comply with the Traffic Engineering Division Comments. Exhibit 7
11. Comply with the Fire Department Comments. Exhibit 9
12. Comply with the applicable requirements of Kennewick Irrigation District Comments. Exhibit 14
13. Comply with Washington State Department of Ecology Comments. Exhibit 15
14. Work with the Kennewick School District to designate a school bus pick up and drop off area.
15. Provide dust control method(s) such as hydro seeding for all areas of the site that are disturbed.
16. The applicant and/or all of its successors must execute a written agreement to the satisfaction of the City Attorney, which will allow the City to establish enforceable arrangements for maintenance of any common areas, open spaces, private roads

and common landscape areas, should the Homeowner's Association fail or refuse to maintain these areas.

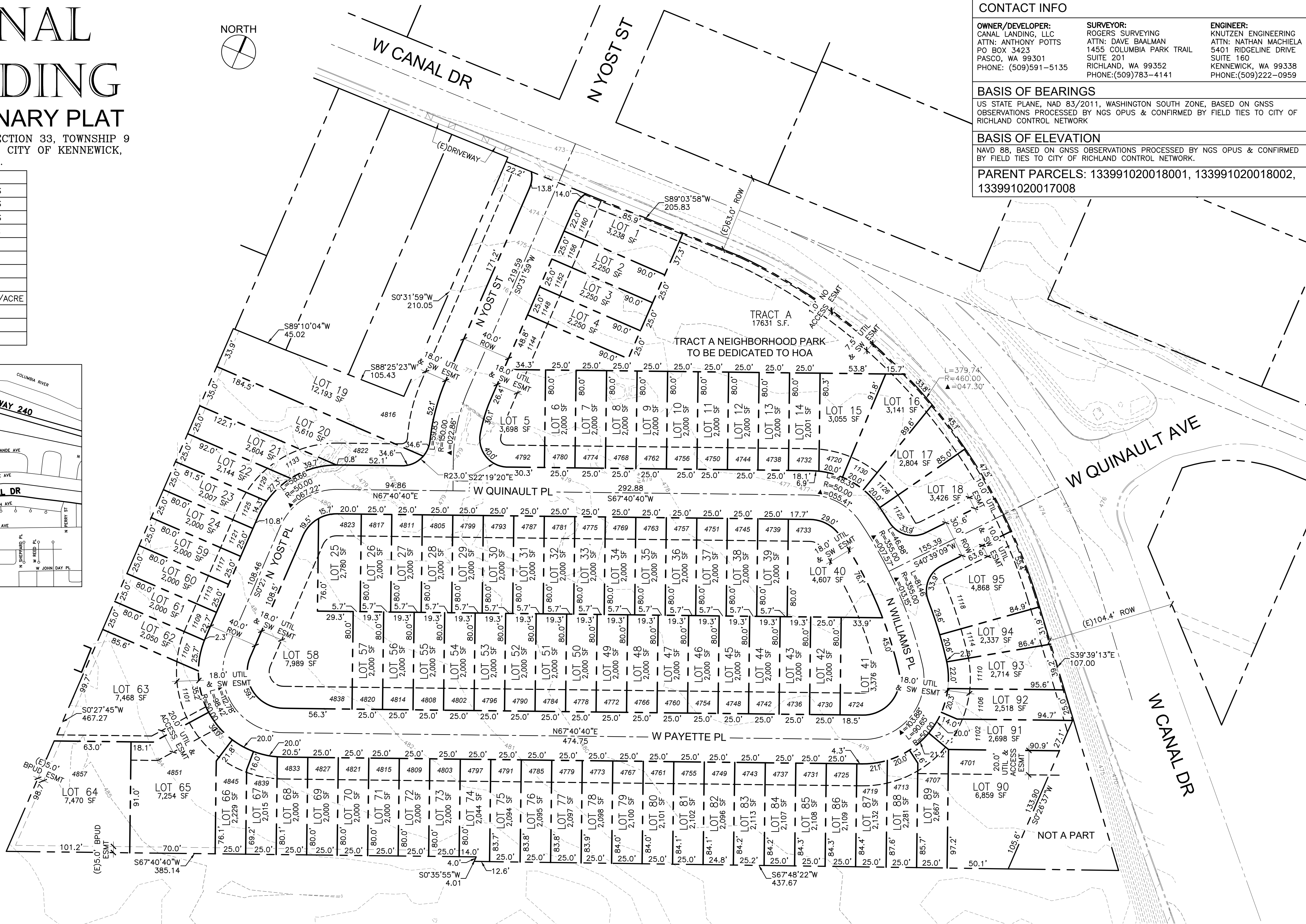
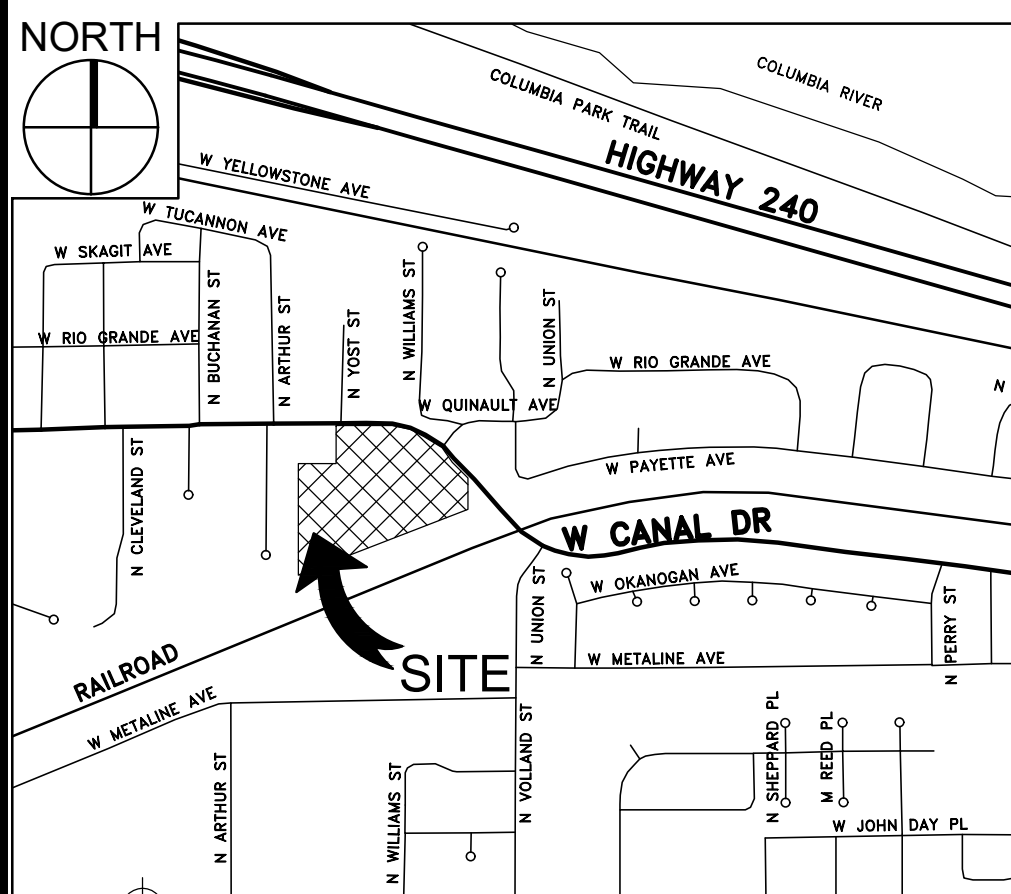
17. The Preliminary Plat (SUB-2022-0010) expires 5 years from the approval date. The City may grant an extension, but any extension application must be applied for before the approved preliminary plat expires.

CANAL LANDING PRELIMINARY PLAT

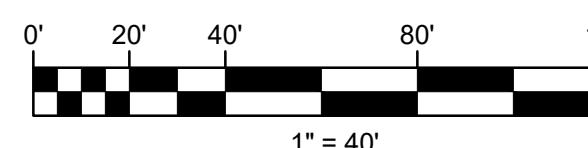
LOCATED IN A PORTION OF SECTION 33, TOWNSHIP 9
NORTH, RANGE 29 EAST, W.M., CITY OF KENNEWICK,
BENTON COUNTY, WASHINGTON.

LAND USE SUMMARY	
GROSS ACREAGE:	7.78 ACRES
NET LOT ACREAGE:	5.81 ACRES
NET TRACT ACREAGE:	0.40 ACRES
AREA OF PUBLIC ROADS:	1.57 ACRES
TOTAL NUMBER OF LOTS:	95 LOTS
AVERAGE LOT SIZE:	2,664 SF
LARGEST LOT AREA:	7,470 SF
SMALLEST LOT AREA:	2,000 SF
AVERAGE DENSITY:	12.9 UNITS/ACRE
PRESENT ZONING:	RM
TYPE OF WATER SERVICE:	CITY
TYPE OF SEWER SERVICE:	CITY

VICINITY MAP



CALL 811
2 BUSINESS DAYS
BEFORE YOU DIG



A1	PRELIMINARY PLAT
	SCALE: 1" = 40'-0"

CONTACT INFO

OWNER/DEVELOPER:
CANAL LANDING, LLC
ATTN: ANTHONY POTTS
PO BOX 3423
PASCO, WA 99301
PHONE: (509)591-5135

SURVEYOR:
ROGERS SURVEYING
ATTN: DAVE BAALMAN
1455 COLUMBIA PARK TRAIL
SUITE 201
RICHLAND, WA 99352
PHONE:(509)783-4141

ENGINEER:
KNUTZEN ENGINEERING
ATTN: NATHAN MACHIELA
5401 RIDGELINE DRIVE
SUITE 160
KENNEWICK, WA 99338
PHONE: (509) 222-0959

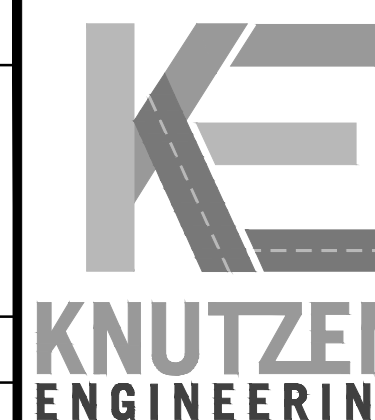
BASIS OF BEARINGS

US STATE PLANE, NAD 83/2011, WASHINGTON SOUTH ZONE, BASED ON GNSS
OBSERVATIONS PROCESSED BY NGS OPUS & CONFIRMED BY FIELD TIES TO CITY OF
RICHLAND CONTROL NETWORK

BASIS OF ELEVATION	
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
55	55
56	56
57	57
58	58
59	59
60	60
61	61
62	62
63	63
64	64
65	65
66	66
67	67
68	68
69	69
70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

NAVD 88, BASED ON GNSS OBSERVATIONS PROCESSED BY NGS OPUS & CONFIRMED BY FIELD TIES TO CITY OF RICHLAND CONTROL NETWORK.

PARENT PARCELS: 133991020018001, 133991020018002,
133991020017008



5401 RIDGELINE DR.
SUITE 160
KENNEWICK, WA 99338
1-509-222-0959
www.knutzenengineering.com

No.	REVISIONS	DATE	DESIGN	CHKD	APPD
1	QTY COMMENTS	07/09/22	RM	NJM	NJM
2	SECOND ACCESS ADDITION	08/04/22	RM	NJM	NJM

08/04/22

PRELIMINARY PLAT

CANAL LANDING OPPORTUNITY, LLC

CANAL LANDING

4711 W CANAL DR, KENNEWICK, WA 99336

APPROVAL: _____

DESIGN	RAM	03/03/22
CHECKED	NJM	03/03/22
APPROVED	NJM	03/03/22

SCALE: AS NOTED

CADFILE: 22008PP

JOB No.

22008

01

PP01



NOTICE OF PUBLIC HEARING – OCTOBER 10, 2022, 6:00 P.M.

Proposal: Knutzen Engineering, c/o Nathan Machiela submitted a preliminary plat application to subdivide 7.78-acres into 95 lots and 1 tract, located at 4711, 4717 and 4721 W Canal Drive. The Comprehensive Plan Designation for the site is Medium Density Residential. The site is zoned Residential, Medium Density (RM) and is subject to Residential Design Standards. The file number is SUB-2022-0010. **PLAT MAP ON BACK**

Open Record Hearing: The City of Kennewick Hearing Examiner will conduct an open record hearing at **6:00 p.m. on October 10, 2022 at 210 W 6th Avenue, City Hall Council Chambers**. The meeting will be conducted in a hybrid format, which allows in person or virtual participation. To participate in the meeting virtually, use the link found at www.go2kennewick.com/244/Hearing-Examiner.

Environmental Documents and/or Studies Applicable to this Proposal: A Determination of Non-significance, ED-2022-0015, was issued on August 24, 2022.

Determination of Completeness: The application was determined complete on April 21, 2022 for processing.

Project Permits Associated with this Proposal: Civil

Preliminary Determination of Regulations Used for Project Mitigation: Title 18 (Zoning), Title 17 (Subdivision), Title 4 (Administrative Procedures) of the Kennewick Municipal Code and the land use policies contained in the Kennewick Comprehensive Plan.

Estimated Date of Decision: Within 10 business days of the Hearing Date of October 10, 2022.

To Receive Notification of the Decision: Contact the Development Services Division at 210 W. 6th Avenue, Kennewick, WA 99336 or via telephone at (509) 585-4280.

Appeal: Any person aggrieved by the decision of the Kennewick Hearing Examiner on this proposal may appeal to the Superior Court of Benton County within twenty-one (21) days of the date of decision.

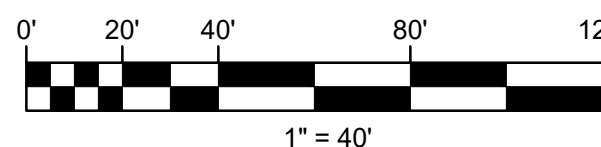
Steve Donovan, Planning Manager

The City of Kennewick welcomes full participation in public meetings by all citizens and does not discriminate on the basis of disability, pursuant to the requirements of the American with Disabilities Act of 1990, pub. L 101-336. No qualified individual with a disability shall be excluded or denied the benefit of participating in such meetings. If you wish to use auxiliary aids or require assistance to comment at this public meeting, please contact the City of Kennewick, Steve Donovan, Development Services Department at (509) 585-4361 or TDD (509) 585-4425 or through the Washington Relay Service Center TTY at #711 at least ten days prior to the date of the meeting to make arrangements for special needs.

210 W. 6th Avenue / PO Box 6108, Kennewick WA 99336

LOCATED IN A PORTION OF SECTION 33, TOWNSHIP 9
NORTH, RANGE 29 EAST, W.M., CITY OF KENNEWICK,
BENTON COUNTY, WASHINGTON.

LAND USE SUMMARY	
GROSS ACREAGE:	7.78 ACRES
NET LOT ACREAGE:	5.81 ACRES
NET TRACT ACREAGE:	0.40 ACRES
AREA OF PUBLIC ROADS:	1.57 ACRES
TOTAL NUMBER OF LOTS:	95 LOTS
AVERAGE LOT SIZE:	2,664 SF
LARGEST LOT AREA:	7,470 SF
SMALLEST LOT AREA:	2,000 SF
AVERAGE DENSITY:	12.9 UNITS/ACRE
PRESENT ZONING:	RM
TYPE OF WATER SERVICE:	CITY
TYPE OF SEWER SERVICE:	CITY



CALL 811
2 BUSINESS DAYS
BEFORE YOU DIG

OWNER/DEVELOPER:
CANAL LANDING, LLC
ATTN: ANTHONY POTTS
PO BOX 3423
PASCO, WA 99301
PHONE: (509)591-5135

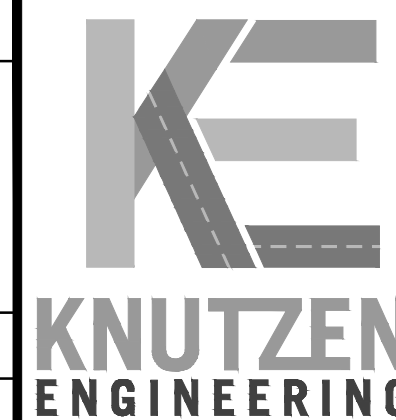
SURVEYOR:
ROGERS SURVEYING
ATTN: DAVE BAALMAN
1455 COLUMBIA PARK TRAIL
SUITE 201
RICHLAND, WA 99352
PHONE:(509)783-4141

ENGINEER:
KNUTZEN ENGINEERING
ATTN: NATHAN MACHIELA
5401 RIDGELINE DRIVE
SUITE 160
KENNEWICK, WA 99338
PHONE:(509)222-0959

US STATE PLANE, NAD 83/2011, WASHINGTON SOUTH ZONE, BASED ON GNSS
OBSERVATIONS PROCESSED BY NGS OPUS & CONFIRMED BY FIELD TIES TO CITY OF
RICHLAND CONTROL NETWORK

NAVD 88, BASED ON GNSS OBSERVATIONS PROCESSED BY NGS OPUS & CONFIRMED BY FIELD TIES TO CITY OF RICHLAND CONTROL NETWORK.

PARENT PARCELS: 133991020018001, 133991020018002,
133991020017008



5401 RIDGELINE DR.
SUITE 160
KENNEWICK, WA 99338
1-509-222-0959
www.knutzenengineering.com

No.	REVISIONS	DATE	DESIGN	CHKD	APPD
1	CITY COMMENTS	07/09/22	RAM	NUM	NUM
2	SECOND ACCESS ADDITION	08/04/22	RAM	NUM	NUM

08/04/22

PRELIMINARY PLAT

CANAL LANDING OPPORTUNITY, LLC
CANAL LANDING

4711 W CANAL DR, KENNEWICK, WA 99336

APPROVAL		
DESIGN	RAM	03/03/22
CHECKED	NJM	03/03/22
APPROVED	NJM	03/03/22

SCALE: AS NOTED

CADFILE: 22008PP0	
JOB No.	
22008	

DWG. No.

PP01



NOTICE OF MAILING

I, Steve Donovan, on September 22, 20 22
mailed 38 copies of Notice of Public Hearing
for SUB-2022-0010, Canal Landing
to property owners within 300 feet of the proposed plat.

as shown on the attached list.



Signature

EXHIBIT 3

37
TREJO JUAN HERRERA & MILLAN RAQUEL
ARTEGA
1106 N ARTHUR STREET
KENNEWICK, WA 9933

37
WASHAM RANAESE S
1130 N ARTHUR STREET
KENNEWICK, WA 99336

37
SHERMAN PAUL
4803 W CANAL DRIVE
KENNEWICK, WA 99336

37
OWENS MARK A
5918 W YELLOWSTONE AVENUE
KENNEWICK, WA 99336

37
SHORTSLE DORIS J & MATHEW J
1129 N ARTHUR STREET
KENNEWICK, WA 99336

37
HIRSCHEL DWANE C & PHYLLIS J
1113 N ARHTUR STREET
KENNEWICK, WA 99336

37
HERRERA-AYALA NORA P
4615 W QUINAULT AVENUE
KENNEWICK, WA 99336

37
REED KEITH LYNN
569 PARADISE DRIVE
BURBANK, WA 99323

37
REIBODLT BRETT D
1210 N WILLIAMS ST
KENNEWICK, WA 99336

37
PEREZ LEONARDO ROUSSEAU
1203 N WILLIAMS STREET
KENNEWICK, WA 99336

37
FARAGHER MICHAEL R & MARY JO
1110 N ARTHUR STREET
KENNEWICK, WA 99336

37
REIBOLDT ROGER C
1132 N ARTHUR STREET
KENNEWICK, WA 99336

37
HUIZAR DAVID A
4805 W CANAL DRIVE
KENNEWICK, WA 99336

37
DONELSON BUDD
1133 N ARTHUR STREET
KENNEWICK, WA 99336

37
BERG III GERALD E
1125 N ARTHUR STREET
KENNEWICK, WA 99336

37
LAHTI PAUL & TERESA LYNN
1107 N ARTHUR STREET
KENNEWICK, WA 99336

37
CORTEZ JUAN CARLOS
1123 N VOLLAND STREET
KENNEWICK, WA 99336

37
KELLEY JAMES E
4606 W QUINAULT AVENUE
KENNEWICK, WA 99336

37
ACQUAVELLA MICHELLE
1537 NW 61ST ST
SEATTLE, WA 98103

37
PURDY STEPHEN R & TARA
4718 W CANAL DRIVE
KENNEWICK, WA 99336

37
SCANTLIN HUNTER G
1128 N ARTER STREET
KENNEWICK, WA 99336

37
SEE YA LLC
58280 S DIVISION ROAD
ST HELENS, OR 97051

37
KINSEY GENE D & DUANE D
4904 W CANAL DRIVE
KENNEWICK, WA 99338

37
LEAL LINO
1131 N ARTHUR STREET
KENNEWICK, WA 99336

37
ARCEO LORENA MEJIA & ZEPEDA FABIAN
TORRES
1119 N ARTHUR STREET
KENNEWICK, WA 99336

37
CHERVENELL CONSTRUCTION CO
P.O. BOX 6935
KENNEWICK, WA 99336

37
MORALES CAMACHO MICHELLE S
4603 QUINAULT AVENUE
KENNEWICK, WA 99336

37
HANSON REAL ESTATE GROUP INC.
1202 N WILLIAMS ST
KENNEWICK, WA 99336

37
KENNEWICK RENTALS LLS
6601 POZZALLO PLACE
MYRTLE BEACH, SC 29572

37
SOLORIO ADOLFO
1212 N YOST ST
KENNEWICK, WA 99336

EXHIBIT 3

37

MANSHIP ROBERT L
1216 N YOST ST
KENNEWICK, WA 99336

37

BUSH MICHEAL V
1219 N YOST ST
KENNEWICK, WA 99336

37

MENDOZA ANTONIO
1215 N YOST ST
KENNEWICK, WA 99336

37

AYALA PEDRO
4802 W CANAL DR
KENNEWICK, WA 99336

37

ROGERS LARRY L & MARISELA C
1202 N ARTHUR ST
KENNEWICK, WA 99336

37

KROLL ANDREW CLIFFORD
1204 N ARTHUR ST
KENNEWICK, WA 99336

37

STAFFORD CARA DIANNE
1206 N ARTHUR ST
KENNEWICK, WA 99336

37

CANAL LANDING OPPURTUNITY LLC
7511 W ARROWHEAD AVENUE, STE B
KENNEWICK, WA 99336



**CITY OF KENNEWICK
DETERMINATION OF NON-SIGNIFICANCE**

FILE/PROJECT NUMBER: ED-2022-0015

DESCRIPTION OF PROPOSAL: The project consists of subdividing 7.78 acres into 96 lots.

PROPONENT: Knutzen Engineering, c/o Nathan Machiela, 5401 Ridgeline Drive, Suite 160, Kennewick, WA 99338

LOCATION OF PROPOSAL, INCLUDING STREET ADDRESS, IF ANY: 4711, 4717 and 4721 W Canal Drive

LEAD AGENCY: City of Kennewick

DETERMINATION: The City of Kennewick has determined that this proposal does not have a probable significant adverse impact on the environment. An Environmental Impact Statement (EIS) will not be required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the City. This information is available to the public on request. Application for other required permits may require further review under SEPA procedures.

☒ There is no comment period for this DNS.

☐ This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.

☐ This DNS is issued under 197-11-340(2); the City will not act on this proposal for fifteen days from the date below. Comments must be submitted by _____. After the review period has elapsed, all comments received will be evaluated and the DNS will be retained, modified, or withdrawn as required by SEPA regulations.

RESPONSIBLE OFFICIAL: Anthony Muai, AICP

POSITION/TITLE: Planning Director

ADDRESS: 210 W 6th Ave., P.O. Box 6108, Kennewick, WA 99336

PHONE: (509) 585-4386

☐ Changes, modifications and/or additions to the checklist have been made on the attached Environmental Checklist Review.

This DNS is subject to the attached conditions:

☒ No conditions.

☐ See attached condition(s).

Date: August 25, 2022

Signature: _____

Appeal: An appeal of this determination must be submitted to the Community Planning Department within fourteen (14) calendar days after the date issued and no later than 5 p.m. This appeal must be written and make specific factual objections to the City's threshold determination. Appeals shall be conducted in conformance with Section 4.12.090(9) of the Kennewick Municipal Code and the required fees pursuant to the City's adopted Fee Schedule shall be paid at time of appeal submittal.

Copies of this DNS were mailed to:

Dept. of Ecology
WA Dept. of Fish & Wildlife
WSDOT
Yakama Nation
CTUIR
ED-2022-0015 File



Expires 4/18/2023

TRAFFIC IMPACT ANALYSIS

To
City of Kennewick

For
Canal Landing Opportunity, LLC

Prepared
April 15, 2022

C&A Project Number
20220302.00

TABLE OF CONTENTS

I.	INTRODUCTION	3
	Property Description and Proposed Land Use Actions	3
	Transportation Analysis Description	3
	Analysis Scenarios	3
II.	EXISTING CONDITIONS	4
	Existing Site Conditions	4
	Roadway Facilities	4
	Safety Analysis	4
	Existing Traffic Counts	5
	Background Growth and Pre-Development Volumes	5
III.	SITE DEVELOPMENT	6
	Development Trip Generation	6
	Trip Distribution and Traffic Assignment	6
	Post-Development Volumes	6
IV.	MOTOR VEHICLE SYSTEM IMPACTS	7
	Analysis Scope	7
	Analysis Description	7
	Operations Analysis	8
	Queuing Analysis	9
	Access Analysis	9
V.	CONCLUSION	10
VI.	APPENDICES	11
A.	Figures	
B.	Agency Analysis Requirements	
C.	Crash Data	
D.	Traffic Count Summaries	
E.	Operation and Queuing Analyses	

LIST OF TABLES

Table 1 – Existing Roadway Characteristics	4
Table 2 – Intersection Crash Rates	4
Table 3 – Development Trip Generation	6
Table 4 – Intersection Operations Analysis	8
Table 5 – Intersection Queuing Analysis	9

LIST OF FIGURES

Proposed Site Plan

- 1) Site Area
- 2) Intersection Volumes - PM Peak Hour

I. INTRODUCTION

Property Description and Proposed Land Use Actions

The subject property is located south of W Canal Drive and north and west of the Tri-City & Olympia Railroad in Kennewick, Washington. The property parcel numbers are 133991020018001, 133991020018002, and 133991020017008, and the property is 7.78 acres in size. Property access is to W Canal Drive to the north. The site area is illustrated in the attached Figure 1 in Appendix A.

The property is currently undeveloped, and the proposed development includes constructing 101 single-family attached residential dwelling units (duplexes and triplexes). The proposed development is an allowed use in the Residential Medium (RM) zone designation. The proposed site plan is attached in Appendix A.

Transportation Analysis Description

Per correspondence with the City of Kennewick staff a Transportation Impact Analysis (TIA) is necessary to evaluate development impacts during the PM peak hour at the following intersections:

- W Canal Drive / N Yost Street / Site Access
- W Canal Drive / W Quinault Avenue
- W Canal Drive / N Volland Street

The following sections more specifically address the above-identified City analysis requirements, and a copy of the email correspondence is attached in Appendix B for reference.

Analysis Scenarios

The proposed development will be constructed in one phase and is anticipated to be occupied by 2024. As such, the following analysis scenarios include:

- 2024 Pre-Development Conditions
- 2024 Post-Development Conditions

II. EXISTING CONDITIONS

Existing Site Conditions

The subject property is 7.78 acres in size. Property access is to W Canal Drive to the north.

Roadway Facilities

The following table summarizes existing roadway classifications and characteristics within the study area.

TABLE 1 – EXISTING ROADWAY CHARACTERISTICS						
Roadway	Functional Classification	Lanes	Speed Limit (MPH)	Sidewalks	Bicycle Lanes	On-Street Parking
W Canal Drive	Major Arterial	4/5	35	Yes	East of Volland	No
N Yost Street	Local	2	25	No	No	Yes
W Quinalt Avenue	Local	2	25	No	No	Yes
N Volland Street	Minor Arterial	3	35	Yes	Yes	No

Safety Analysis

When evaluating roadway and intersection safety, consideration is given to the total number and types of crashes occurring, and the number of vehicles traveling on a roadway segment or entering the intersection. This leads to the concept known as “crash rate.” Specific to intersections this is typically expressed in terms of the number of crashes occurring per one million vehicles entering the intersection (crashes/mev). Crash rates close to or exceeding 1.0 crashes/mev require further analysis.

Crash data for the segment of W Canal Drive from N Edison Street to N Volland Street, including the study area intersections was obtained from the Washington Department of Transportation (WSDOT) for five years from January 1, 2017, through December 31, 2021. The following table presents the study intersection crash rates, and the crash data and crash rate calculations are included in Appendix C.

TABLE 2 – INTERSECTION CRASH RATES							
Intersection	2017	2018	2019	2020	2021	Total	Crash Rate (crashes/mev)
W Canal Drive / N Yost Street	0	0	0	0	0	0	0.000
W Canal Drive / W Quinalt Avenue	3	0	1	0	1	5	0.193
W Canal Drive / N Volland Street	2	1	0	6	2	11	0.409

All study area intersection crash rates are less than 1.0 crashes/mev; therefore, the intersections are considered relatively safe, and no further evaluation of safety deficiencies is necessary. It is further noted there are not a large number of documented crashes on the study section of W Canal Drive, also indicating the roadway corridor is considered relatively safe.

Existing Traffic Counts

Existing mid-week intersection turning movement traffic counts were obtained in March 2022 at the study intersections. Existing intersection traffic counts are illustrated in the attached Figure 2 in Appendix A and the turning movement count summaries are included in Appendix D.

Background Growth and Pre-Development Volumes

The City of Kennewick 2040 Transportation System Plan identifies a 2.4% annual traffic volume growth rate from 2016 to 2040 for the Edison Street Corridor north of Clearwater Avenue (which is near the project area). As such, a 2.4% average annual (compounded) growth rate was applied to all 2022 intersection traffic volumes to determine 2024 Pre-Development volumes which are illustrated in the attached Figure 2 in Appendix A. Detailed background growth rate calculations are included in Appendix D.

III. SITE DEVELOPMENT

Development Trip Generation

The project includes constructing 101 single-family attached residential dwelling units (duplexes and triplexes). Development trip generation was estimated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition, and practices from the ITE *Trip Generation Handbook*, 3rd Edition and is presented in the following table.

TABLE 3 – DEVELOPMENT TRIP GENERATION									
Land Use	ITE Code	Size	Daily	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
<i>Proposed Development</i>									
Single-Family Attached Housing ¹	215	101 DU	719	15	32	47	32	25	57

¹ Trip generation estimated using the *Fitted Curve* per recommended practice in the ITE *Trip Generation Handbook*, 3rd Edition.

As presented in the previous table, the proposed development generates 47 AM peak hour, 57 PM peak hour, and 719 daily new trips. It is further anticipated that the development will be constructed and occupied by 2024.

Trip Distribution and Traffic Assignment

Based on the applicant's site plan, the proposed development includes a looped roadway that will intersect W Canal Drive south of the existing N Yost Street intersection to form a standard four-legged intersection. All residences will have direct access to the new roadway.

Development trip distribution on the adjacent roadway system is based on intersection traffic volumes, surrounding land uses, and engineering judgment. Trip distribution and traffic assignment for the PM peak hour are illustrated in the attached Figure 2 in Appendix A.

Post-Development Volumes

The 2024 Post-Development traffic volumes are the sum of the 2024 Pre-Development volumes and the development volumes, and they are illustrated in the attached Figure 2 in Appendix A.

IV. MOTOR VEHICLE SYSTEM IMPACTS

The following presents an analysis of development impacts on the motor vehicle transportation system.

Analysis Scope

At the request of the City of Kennewick staff, the following intersections are analyzed:

- W Canal Drive / N Yost Street / Site Access
- W Canal Drive / W Quinault Avenue
- W Canal Drive / N Volland Street

Analysis Description

Current and future year intersection peak hour factors (PHFs) are based on the existing individual intersection PHFs.

Intersection operation characteristics are typically defined by two mobility targets: volume-to-capacity (v/c) ratio and level-of-service (LOS). At signalized intersections, the v/c ratio is a measurement of an intersection's ability to accommodate critical movements, while LOS is based on the average control delay per vehicle for the entire intersection. At unsignalized intersections, the v/c ratio and LOS are calculated for intersection approach movements yielding right-of-way.

The City of Kennewick 2040 Transportation System, Section 4.5.2 – Level-of Service Standard States:

The City typically applies the LOS standards to weekday PM peak hour conditions for its arterials and collectors within the City. However, evaluation of other time periods may be required based on the type and location of development and the existing conditions of the local transportation network. As areas are annexed, the City's standards are applied. The following summarizes the current minimum LOS standards established by the City.

- *LOS D – Major approaches at signalized intersections and roundabouts.*
- *LOS E – For all minor street approaches at unsignalized intersections or driveways.*
- *LOS F – May be acceptable at unsignalized intersections or driveways when a second access point is within ¼ mile operating at LOS D or better and which is controlled by a traffic signal or roundabout. An LOS F may also be acceptable in situations where the side street volumes are low and no adverse impact on safety is expected.*

It is noted the minimum mobility standard is not identified for major approaches at unsignalized intersections; however, for analysis purposes, it is assumed to be LOS D.

Operations Analysis

Signalized intersection operations analyses were performed per the Transportation Research Board's *Highway Capacity Manual (HCM) 2000* methodologies using Trafficware's *Synchro* software (Version 11) at the W Canal Drive/N Volland Street intersection, noting the more recent *HCM 6th Edition* methodologies do not support the N Volland Street northbound lane configuration that has exclusive and shared left-turn lanes.

Unsignalized (stop-controlled) intersection operations analyses were performed per the Transportation Research Board's *HCM 6th Edition* methodologies.

Intersection operations were evaluated for the following scenarios:

- 2024 Pre-Development Conditions
- 2024 Post-Development Conditions

The following table summarizes weekday PM peak hour operation analysis results. Data output sheets from all operations calculations are included in Appendix E.

TABLE 4 – INTERSECTION OPERATIONS ANALYSIS				
Intersection	Critical Movement Lane Group	Mobility Standard	PM Peak Hour	
			2024 Pre-Development	2024 Post-Development
W Canal Drive/ N Yost Street / Site Access	NB L/T/R	LOS E	Does Not Exist	D
	SB L/T/R	LOS E	C	C
	EB L/T	LOS D	A	A
	WB L/T	LOS D	Does Not Exist	A
W Canal Drive / W Quinalt Avenue	SB L/R	LOS E	C	C
	EB L	LOS D	A	A
W Canal Drive / N Volland Street	Intersection	LOS D	A	A

As identified in the table above, all intersections and approaches operate within agency mobility standards in all analysis scenarios. No intersection improvements are recommended or necessary to mitigate development impacts.

Queuing Analysis

Queuing analyses were performed to evaluate queue storage adequacy. 95th percentile queues were estimated using Trafficware's *SimTraffic* software (Version 11). Available storage is rounded to the nearest five feet, and queue demand is rounded to the next highest 25 feet, the average length of a queued vehicle.

The following table summarizes weekday PM peak hour queuing analysis results. Data output sheets from all queuing calculations are included in Appendix E.

TABLE 5 – INTERSECTION QUEUING ANALYSIS				
Intersection	Critical Movement Lane Group	Available Storage (Feet) ¹	PM 95 th Percentile Queue (Feet)	
			2024 Pre-Development	2024 Post-Development
W Canal Drive/ N Yost Street / Site Access	NB L/T/R	225	Does Not Exist	75
	SB L/T/R	250+	25	25
	EB L/T	250	25	25
	WB L/T	300+	Does Not Exist	50
W Canal Drive / W Quinalt Avenue	SB L/T	90	75	75
	EB L	125	50	50
W Canal Drive / N Volland Street	NB L	350+	75	100
	NB L/R	350+	175	175
	EB T/R	350+	175	175
	WB L	125	75	100
	WB T	350+	125	125

¹ Storage is measured to the upstream intersection for continuous lanes between intersections and to the end of full-width storage for turn lanes.

As identified in the table above, there is adequate queue storage capacity on all intersection approaches in all analysis scenarios.

Access Analysis

Based on the applicant's site plan, the proposed development includes a looped roadway that will intersect W Canal Drive south of the existing N Yost Street intersection to form a standard four-legged intersection. All residences will have direct access to the new roadway.

It is anticipated the proposed loop roadway will be constructed to City standards and intersection sight distance requirements will be met. All residential lots with direct access to the looped roadway will be developed to City standards and the necessary vision clearance will be provided for each access.

V. CONCLUSION

The following summary and recommendations are based on the materials contained in this analysis.

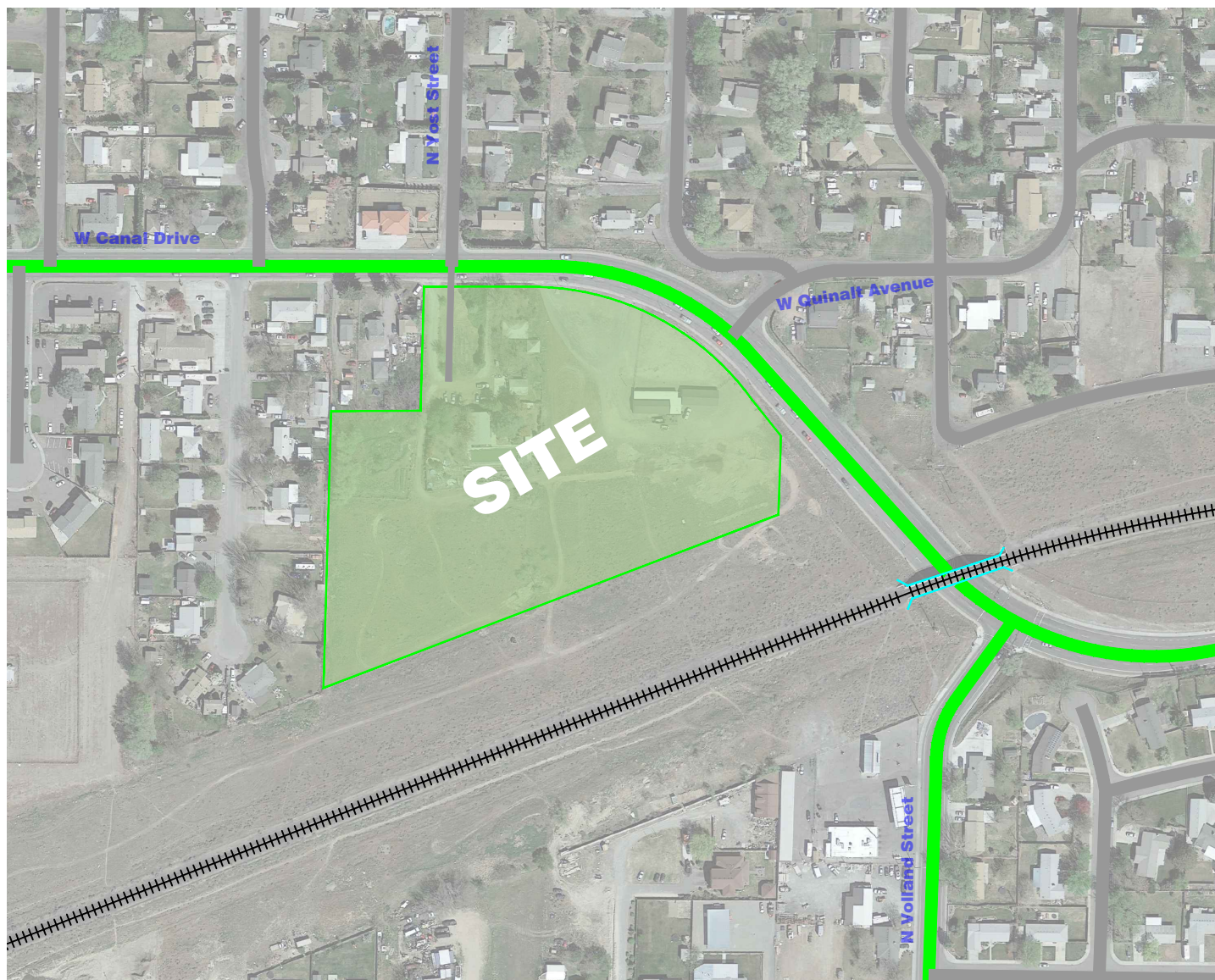
- 1) The subject property is located south of W Canal Drive and north and west of the Tri-City & Olympia Railroad in Kennewick. The property parcel numbers are 133991020018001, 133991020018002, and 133991020017008, and the property is 7.78 acres in size. Property access is to W Canal Drive to the north.
- 2) The property is currently undeveloped, and the proposed development includes constructing 101 single-family attached residential dwelling units (duplexes and triplexes). The proposed development is an allowed use in the Residential Medium (RM) zone designation.
- 3) All study area intersection crash rates are less than 1.0 crashes/mev; therefore, the intersections are considered relatively safe, and no further evaluation of safety deficiencies is necessary. It is further noted there are not a large number of documented crashes on the study section of W Canal Drive, also indicating the roadway corridor is considered relatively safe.
- 4) The proposed development generates 47 AM peak hour, 57 PM peak hour, and 719 daily new trips. It is further anticipated that the development will be constructed and occupied by 2024.
- 5) All intersections and approaches operate within agency mobility standards in all analysis scenarios. No intersection improvements are recommended or necessary to mitigate development impacts.
- 6) There is adequate queue storage capacity on all intersection approaches in all analysis scenarios.
- 7) It is anticipated the proposed loop roadway will be constructed to City standards and intersection sight distance requirements will be met. All residential lots with direct access to the looped roadway will be developed to City standards and the necessary vision clearance will be provided for each access.

VI. APPENDICES

- A. Figures**
- B. Agency Analysis Requirements**
- C. Crash Data**
- D. Traffic Count Summaries**
- E. Operation and Queuing Analyses**

Appendix A





Functional Roadway Classifications

LEGEND

- Minor Arterial
- Local



2237 NW Torrey Pines Drive
Bend, Oregon 97703
541-579-8315
cclemow@clemow-associates.com

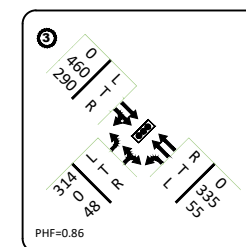
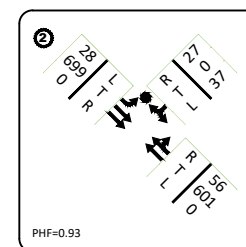
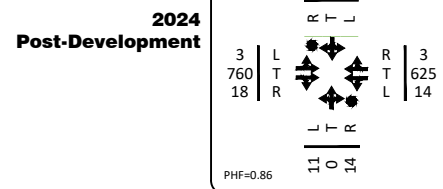
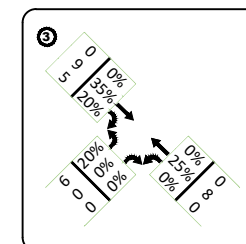
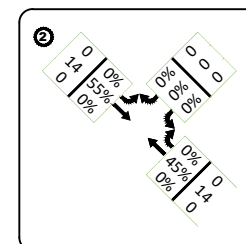
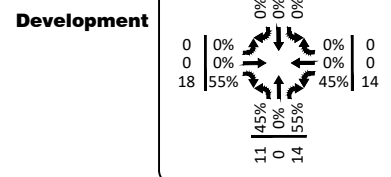
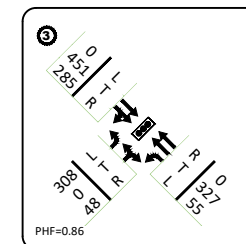
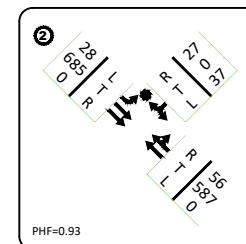
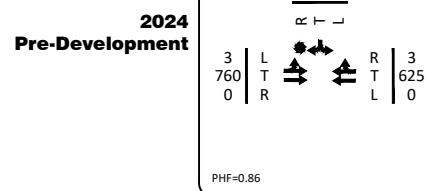
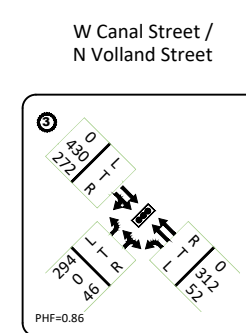
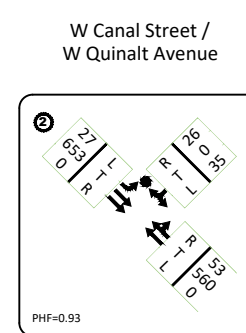
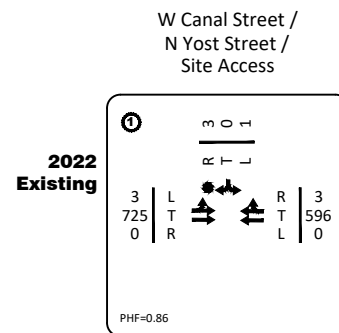
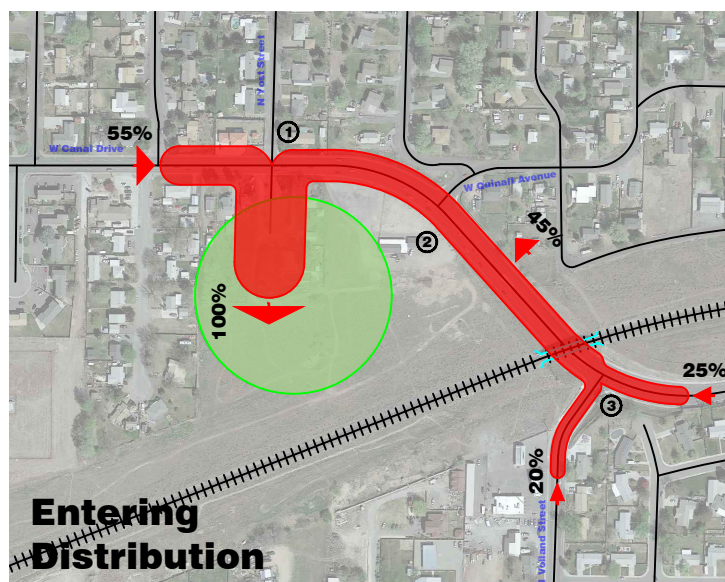
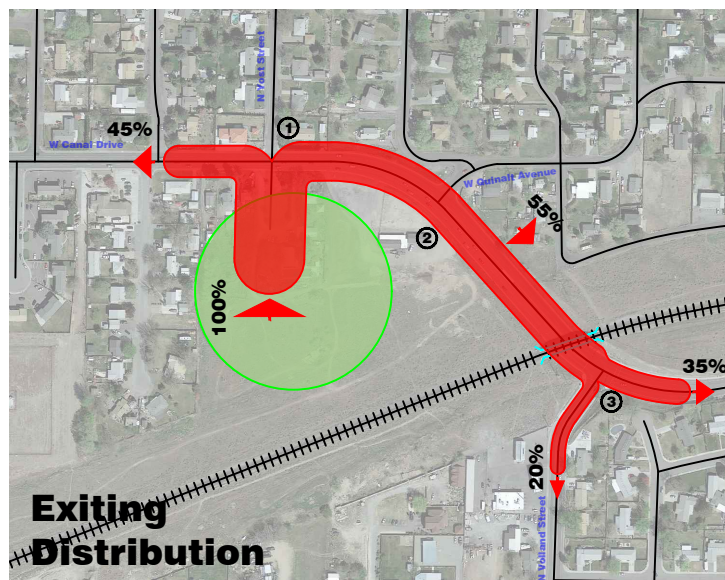
SITE AREA

Canal Landing Residential - Kennewick, Washington

C&A Project No. 20220302.00

FIGURE

1



Appendix B





Chris Clemow <clemow@clemow-associates.com>

FW: Canal Dr - Kennewick, WA - Traffic Analysis

1 message

Joe Seet <Joe.Seet@ci.kennewick.wa.us>

Thu, Mar 17, 2022 at 4:26 PM

To: "clemow@clemow-associates.com" <clemow@clemow-associates.com>

Cc: Sorin Juster <Sorin.Juster@ci.kennewick.wa.us>, Joe Seet <Joe.Seet@ci.kennewick.wa.us>

Chris: Per your conversation with Sorin Juster, Transportation Manager:

1. PM Peak analysis
2. Intersection operational analysis for the following intersections:
 - a. Canal/proposed driveway
 - b. Canal/Quinault
 - c. Canal/Volland
3. Relocate proposed driveway to align with W Quinault Ave.
4. Use background volumes as basis for volume distribution

Joe Seet, PE

509.585.4527

joe.seet@ci.kennewick.wa.us

This e-mail and your response are considered a public record and will be subject to disclosure under Washington's Public Records Disclosure Act.

From: Chris Clemow <clemow@clemow-associates.com>**Sent:** Monday, March 14, 2022 3:51 PM**To:** Joe Seet <Joe.Seet@ci.kennewick.wa.us>**Subject:** Fwd: Canal Dr - Kennewick, WA - Traffic Analysis

Joe,

We have been asked by our client to prepare a traffic analysis for the proposed Canal Landing residential development. A copy of the preliminary plat is attached, noting the development will have zero lot line lots and they are planning for 101 units.

Based on client-provided information, the City will need a traffic/study letter as stated below.

Traffic Operations

1. Provide a trip generation and distribution analysis letter. The proposed development will exceed the trip threshold limits > 30 new peak trips. Recommend the traffic consultant to contact the city's Traffic Engineer prior to the start of the analysis to discuss the trip generation rates and distribution pattern used for the analysis.

Development Level	Trip Generation ^(a)	Analysis Requirement
Level 1	≤ 30 peak hour trips	None
Level 2	>30 < 100 new peak hour trips	Trip Generation and Distribution Letter
Level 3 ^(b)	≥ 100 new peak hour trips	Traffic Impact Analysis (TIA) Study

Table 1

Based on preliminary analysis, the development will have the following trip generation:

The proposed subdivision will create zero lot line lots with 101 single-family attached residential dwellings. Development trip generation has been estimated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition, and practices from the ITE *Trip Generation Handbook*, 3rd Edition and is presented in the following table.

TABLE 1 – DEVELOPMENT TRIP GENERATION									
Land Use	ITE Code	Size	Daily	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
Single-Family Attached Housing	215	101 DU	719	15	32	47 ¹	32	25	57 ¹

¹ Trip generation estimated using the *Fitted Curve* per recommended practice in the ITE *Trip Generation Handbook*, 3rd Edition.

Please confirm the above information is correct.

What methodology do you propose we use to estimate trip distribution?

What is the study area for trip distribution and traffic assignment?

Are there existing traffic counts we should use?

Should field data be collected?

Thank you,

Chris

Christopher M. Clemow PE, PTOE

Transportation Engineer

Appendix C



EXHIBIT 5

January 1, 2017 through December 31, 2021

INTERSECTION CRASH RATES											
Intersection	Crashes						PM Entering Volume	ADT (10xPM)	AADT (365xADT)	Annual Crashes	Crash Rate (crashes/MEV)
	2017	2018	2019	2020	2021	Total					
W Canal Drive / N Yost Street	0	0	0	0	0	0	1,395	13,950	5,091,750	0.00	0.000
W Canal Drive / W Quinalt Avenue	3	0	1	0	1	5	1,420	14,200	5,183,000	1.00	0.193
W Canal Drive / N Volland Street	2	1	0	6	2	11	1,474	14,740	5,380,100	2.20	0.409

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admissible in evidence in a Federal or State court proceeding or considered for other

PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI OF REF POINT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# FATALITIES	# SERIOUS INJURIES	# PROPERTY DAMAGE	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK		VEHICLE 1 ACTION	VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

Appendix D



Intersection 1	W Canal Drive	N Yost Street
Intersection 2	W Canal Drive	W Quinalt Avenue
Intersection 3	W Canal Drive	N Volland Street
Intersection 4		
Intersection 5		
Intersection 6		
Intersection 7		
Intersection 8		
Intersection 9		
Intersection 10		
Intersection 11		
Intersection 12		
Intersection 13		
Intersection 14		
Intersection 15		
Roadway 1		Roadway 2

Master Intersection List

Intersection 1		W Canal Drive			N Yost Street			System PM peak hour 4:30-5:30										
ALL-VEHICLE VOLUMES					PHF = 0.86													
Time Period		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total	Hourly Totals	All Ints	Cells shaded this color have manual inp	
	4:00 PM	0	0	0	1	0	0	1	154	0	0	144	0	300				
	4:15 PM	0	0	0	0	0	0	1	174	0	0	146	1	322	1171	3685		
	4:30 PM	0	0	0	1	0	0	3	149	0	0	143	1	297	1181	3697		
	4:45 PM	0	0	0	0	0	0	0	164	0	0	151	0	315	1234	3836		
	5:00 PM	0	0	0	0	0	2	0	229	0	0	155	2	388	1322	4060		
	5:15 PM	0	0	0	0	0	1	0	183	0	0	147	0	331	1331	4091		
	5:30 PM	0	0	0	0	0	0	1	147	0	0	136	1	285	1319	4011		
	5:45 PM	0	0	0	0	0	0	0	135	0	0	119	0	254	1258	3863		
Base PM Vs		0	0	0	1	0	3	3	725	0	0	596	3				2022 Traffic Count Base Year	
Background Growth		0	0	0	0	0	0	0	35	0	0	29	0				2.4% Background Growth Rate	
Pre-Dev PM Vs		0	0	0	1	0	3	3	760	0	0	625	3				2024 Pre-Development Year	
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR					
Development Vs		11		14						18	14						1395 Entering Intersection Volume	
% of Dev		45%		55%						55%	45%						57 Development Trips	
Existing Vs		0	0	0	1	0	3	3	725	0	0	596	3				4% Trip Volume Increase	
Post-Dev PM Vs		11	0	14	1	0	3	3	760	18	14	625	3					
0.5488270.451173																		
Intersection 2		W Canal Drive			W Quinalt Avenue			System PM peak hour 4:30-5:30										
ALL-VEHICLE VOLUMES					PHF = 0.93													
Time Period		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total	Hourly Totals		Cells shaded this color have manual inp	
	4:00 PM	0	0	0	5	0	3	3	156	0	0	142	11	320				
	4:15 PM	0	0	0	9	0	6	7	157	0	0	146	12	337	1256			
	4:30 PM	0	0	0	8	0	6	7	142	0	0	138	17	318	1251			
	4:45 PM	0	0	0	10	0	8	9	140	0	0	150	12	329	1304			
	5:00 PM	0	0	0	9	0	9	5	191	0	0	142	9	365	1349			
	5:15 PM	0	0	0	8	0	3	6	180	0	0	130	15	342	1354			
	5:30 PM	0	0	0	8	0	12	8	126	0	0	120	11	285	1321			
	5:45 PM	0	0	0	13	0	5	11	135	0	0	111	16	291	1283			
Base PM Vs		0	0	0	35	0	26	27	653	0	0	560	53				2022 Traffic Count Base Year	
Background Growth		0	0	0	2	0	1	1	32	0	0	27	3				2.4% Background Growth Rate	
Pre-Dev PM Vs		0	0	0	37	0	27	28	685	0	0	587	56				2024 Pre-Development Year	
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR					
Development Vs									14			14					1420 Entering Intersection Volume	
% of Dev									55%			45%					28 Development Trips	
Existing Vs		0	0	0	35	0	26	27	653	0	0	560	53				2% Trip Volume Increase	
Post-Dev PM Vs		0	0	0	37	0	27	28	699	0	0	601	56					

Intersection 3		W Canal Drive			N Volland Street			System PM peak hour 4:30-5:30							
ALL-VEHICLE VOLUMES					PHF = 0.86									Total	Hourly Totals
Time Period		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total	Totals
4:00 PM		59	0	8	0	0	0	0	83	70	11	89	0	320	
4:15 PM		79	0	10	0	0	0	0	101	64	7	72	0	333	1258
4:30 PM		84	0	7	0	0	0	0	93	60	12	70	0	326	1265
4:45 PM		63	0	11	0	0	0	0	89	64	8	84	0	319	1298
5:00 PM		71	0	16	0	0	0	0	148	74	16	86	0	411	1389
5:15 PM		76	0	12	0	0	0	0	100	74	16	72	0	350	1406
5:30 PM		75	0	8	0	0	0	0	77	63	12	56	0	291	1371
5:45 PM		65	0	13	0	0	0	0	68	61	9	54	0	270	1322
Base PM Vs		294	0	46	0	0	0	0	430	272	52	312	0	2022 Traffic Count Base Year	
Background Growth		14	0	2	0	0	0	0	21	13	3	15	0	2.4% Background Growth Rate	
Pre-Dev PM Vs		308	0	48	0	0	0	0	451	285	55	327	0	2024 Pre-Development Year	
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		
Development Vs		6							9	5		8		1474 Entering Intersection Volume	
% of Dev		20%							35%	20%		25%		28 Development Trips	
Existing Vs		294	0	46	0	0	0	0	430	272	52	312	0	2% Trip Volume Increase	
Post-Dev PM Vs		314	0	48	0	0	0	0	460	290	55	335	0		



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

Location: 1 W Quinalt Ave & W Canal Dr PM

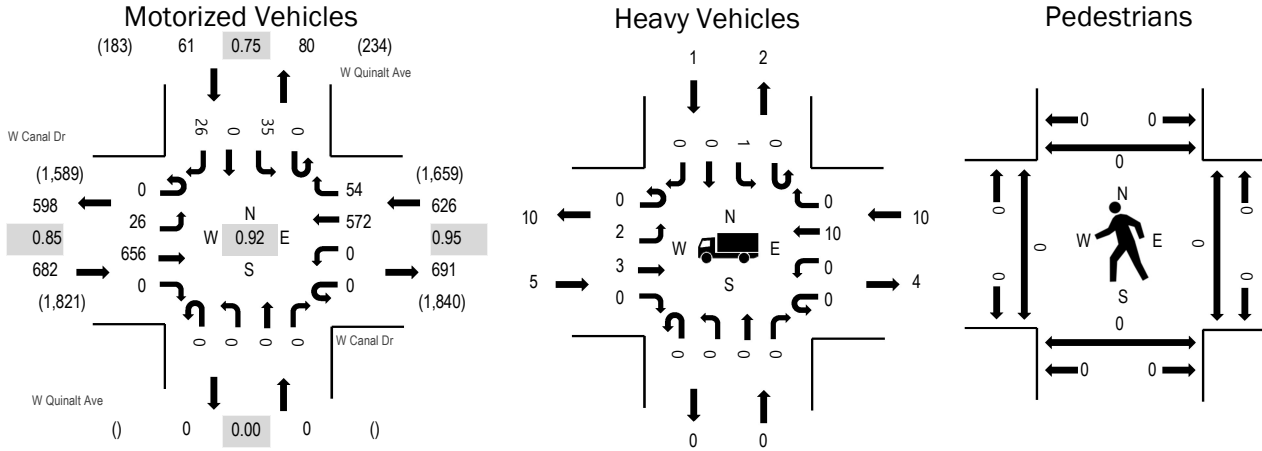
Date: Tuesday, March 22, 2022

Peak Hour: 04:25 PM - 05:25 PM

Peak 15-Minutes: 05:05 PM - 05:20 PM

EXHIBIT 5

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.7%	0.85
WB	1.6%	0.95
NB	0.0%	0.00
SB	1.6%	0.75
All	1.2%	0.92

Traffic Counts - Motorized Vehicles

Interval Start Time	W Canal Dr Eastbound				W Canal Dr Westbound				W Quinalt Ave Northbound				W Quinalt Ave Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
3:30 PM	0	0	53	0	0	0	30	5	0	0	0	0	0	4	0	1	93	1,256
3:35 PM	0	3	53	0	0	0	46	8	0	0	0	0	0	1	0	2	113	1,267
3:40 PM	0	1	60	0	0	0	40	5	0	0	0	0	0	6	0	5	117	1,269
3:45 PM	0	2	43	0	0	0	42	3	0	0	0	0	0	2	0	1	93	1,251
3:50 PM	0	4	51	0	0	0	38	3	0	0	0	0	0	1	0	2	99	1,277
3:55 PM	0	3	37	0	0	0	36	3	0	0	0	0	0	3	0	2	84	1,270
4:00 PM	0	1	55	0	0	0	52	4	0	0	0	0	0	2	0	2	116	1,304
4:05 PM	0	0	48	0	0	0	39	3	0	0	0	0	0	0	0	1	91	1,293
4:10 PM	0	2	53	0	0	0	51	4	0	0	0	0	0	3	0	0	113	1,329
4:15 PM	0	4	55	0	0	0	44	2	0	0	0	0	0	2	0	3	110	1,349
4:20 PM	0	0	45	0	0	0	48	4	0	0	0	0	0	4	0	2	103	1,351
4:25 PM	0	3	57	0	0	0	54	6	0	0	0	0	0	3	0	1	124	1,369
4:30 PM	0	3	48	0	0	0	44	5	0	0	0	0	0	2	0	2	104	1,354
4:35 PM	0	2	53	0	0	0	51	2	0	0	0	0	0	4	0	3	115	1,351
4:40 PM	0	2	41	0	0	0	43	10	0	0	0	0	0	2	0	1	99	1,329
4:45 PM	0	1	48	0	0	0	56	4	0	0	0	0	0	7	0	3	119	1,321
4:50 PM	0	2	39	0	0	0	44	3	0	0	0	0	0	2	0	2	92	1,303
4:55 PM	0	6	53	0	0	0	50	5	0	0	0	0	0	1	0	3	118	1,307
5:00 PM	0	0	57	0	0	0	38	2	0	0	0	0	0	4	0	4	105	1,283
5:05 PM	0	3	64	0	0	0	53	4	0	0	0	0	0	1	0	2	127	1,253
5:10 PM	0	2	70	0	0	0	51	3	0	0	0	0	0	4	0	3	133	1,231
5:15 PM	0	0	58	0	0	0	43	6	0	0	0	0	0	3	0	2	112	1,171
5:20 PM	0	2	68	0	0	0	45	4	0	0	0	0	0	2	0	0	121	1,145
5:25 PM	0	4	54	0	0	0	42	5	0	0	0	0	0	3	0	1	109	1,095
5:30 PM	0	3	48	0	0	0	40	6	0	0	0	0	0	2	0	2	101	1,053
5:35 PM	0	3	40	0	0	0	38	3	0	0	0	0	0	4	0	5	93	
5:40 PM	0	2	38	0	0	0	42	2	0	0	0	0	0	2	0	5	91	
5:45 PM	0	2	44	0	0	0	39	9	0	0	0	0	0	5	0	2	101	

EXHIBIT 5

Location: 1 W Quinalt Ave & W Canal Dr PM

5:50 PM	0	4	45	0	0	0	41	3	0	0	0	0	0	3	0	0	96
5:55 PM	0	5	46	0	0	0	31	4	0	0	0	0	0	5	0	3	94
6:00 PM	0	2	34	0	0	0	28	4	0	0	0	0	0	4	0	3	75
6:05 PM	0	4	47	0	0	0	46	2	0	0	0	0	0	2	0	4	105
6:10 PM	0	2	31	0	0	0	30	3	0	0	0	0	0	5	0	2	73
6:15 PM	0	3	39	0	0	0	36	6	0	0	0	0	0	2	0	0	86
6:20 PM	0	3	30	0	0	0	32	2	0	0	0	0	0	3	0	1	71
6:25 PM	0	3	30	0	0	0	28	1	0	0	0	0	0	2	0	3	67
Count Total	0	86	1,735	0	0	0	1,511	148	0	0	0	0	0	105	0	78	3,663
Peak Hour	0	26	656	0	0	0	572	54	0	0	0	0	0	35	0	26	1,369

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
3:30 PM	2	0	2	0	4	3:30 PM	0	0	0	0	0	3:30 PM	0	0	0	0	0
3:35 PM	0	0	3	0	3	3:35 PM	0	0	0	0	0	3:35 PM	0	0	0	0	0
3:40 PM	1	0	2	1	4	3:40 PM	0	0	0	0	0	3:40 PM	0	0	0	0	0
3:45 PM	0	0	2	0	2	3:45 PM	0	0	0	0	0	3:45 PM	0	0	0	0	0
3:50 PM	1	0	4	1	6	3:50 PM	0	0	0	0	0	3:50 PM	0	0	0	0	0
3:55 PM	0	0	1	1	2	3:55 PM	0	0	0	0	0	3:55 PM	0	0	0	0	0
4:00 PM	0	0	5	0	5	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	1	0	4	0	5	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	2	2
4:10 PM	0	0	6	0	6	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	0	3	0	3	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	2	0	2	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	1	0	4	0	5	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	0	1	0	1	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	0	2	1	3	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	1	0	0	0	1	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	1	0	1	0	2	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	1	0	1	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	0	0	1	0	1	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	2	0	0	0	2	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	1	0	1	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	1	0	3	1	5	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	1	0	1	0	2	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	1	0	1	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
6:00 PM	0	0	0	1	1	6:00 PM	0	0	0	0	0	6:00 PM	0	0	0	0	0
6:05 PM	0	0	1	0	1	6:05 PM	0	0	0	0	0	6:05 PM	0	0	0	1	1
6:10 PM	0	0	0	0	0	6:10 PM	0	0	0	0	0	6:10 PM	0	0	0	0	0
6:15 PM	0	0	0	0	0	6:15 PM	0	0	0	0	0	6:15 PM	0	0	0	0	0
6:20 PM	1	0	1	0	2	6:20 PM	0	0	0	0	0	6:20 PM	0	0	0	0	0
6:25 PM	0	0	1	0	1	6:25 PM	0	0	0	0	0	6:25 PM	0	0	0	0	0
Count Total	13	0	53	6	72	Count Total	0	0	0	0	0	Count Total	0	0	0	3	3
Peak Hour	5	0	10	1	16	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

(303) 216-2439

(303) 216-2439

www.alltrafficdata.net

Location: 3 N Yost St & W Canal Dr PM

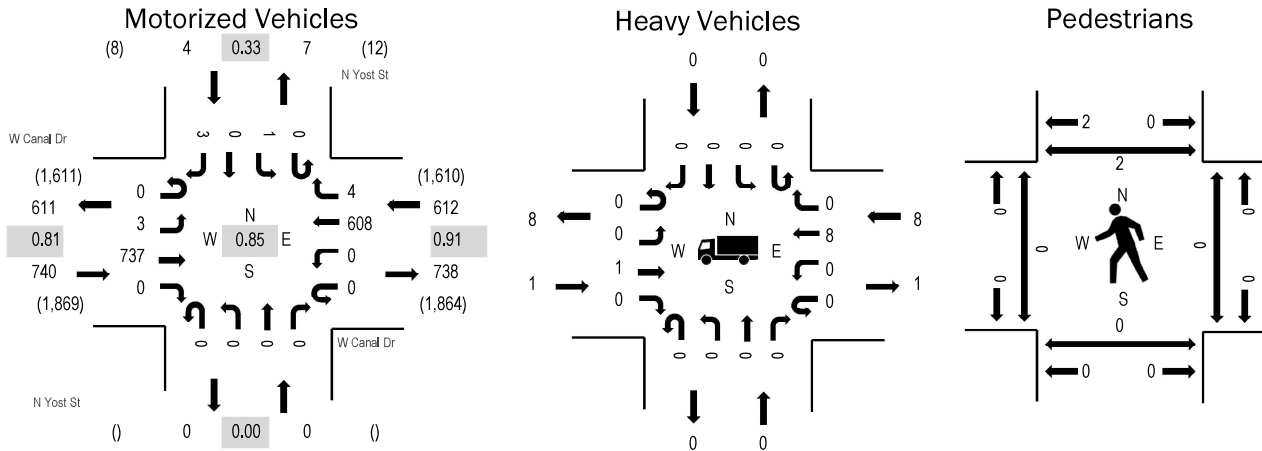
Date: Tuesday, March 22, 2022

Peak Hour: 04:35 PM - 05:35 PM

Peak 15-Minutes: 05:05 PM - 05:20 PM

EXHIBIT 5

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.1%	0.81
WB	1.3%	0.91
NB	0.0%	0.00
SB	0.0%	0.33
All	0.7%	0.85

Traffic Counts - Motorized Vehicles

[illegible]

EXHIBIT 5

Location: 3 N Yost St & W Canal Dr PM

5:50 PM	0	0	48	0	0	0	32	0	0	0	0	0	0	0	0	0	80
5:55 PM	0	0	42	0	0	0	46	0	0	0	0	0	0	0	0	0	88
6:00 PM	0	0	41	0	0	0	37	0	0	0	0	0	0	0	0	1	79
6:05 PM	0	0	35	0	0	0	33	0	0	0	0	0	0	0	0	0	68
6:10 PM	0	0	41	0	0	0	39	0	0	0	0	0	0	0	0	0	80
6:15 PM	0	0	48	0	0	0	37	0	0	0	0	0	0	0	0	0	85
6:20 PM	0	0	33	0	0	0	28	0	0	0	0	0	0	0	0	0	61
6:25 PM	0	0	36	0	0	0	37	0	0	0	0	0	0	0	0	0	73
Count Total	0	7	1,862	0	0	0	1,605	5	0	0	0	0	0	2	0	6	3,487
Peak Hour	0	3	737	0	0	0	608	4	0	0	0	0	0	1	0	3	1,356

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
3:30 PM	1	0	1	0	2	3:30 PM	0	0	0	0	0	3:30 PM	0	0	0	0	0
3:35 PM	3	0	4	0	7	3:35 PM	0	0	0	0	0	3:35 PM	0	0	0	0	0
3:40 PM	1	0	2	0	3	3:40 PM	0	0	0	0	0	3:40 PM	0	0	0	0	0
3:45 PM	0	0	1	0	1	3:45 PM	0	0	0	0	0	3:45 PM	0	0	0	0	0
3:50 PM	0	0	3	0	3	3:50 PM	0	0	0	0	0	3:50 PM	0	0	0	0	0
3:55 PM	2	0	3	0	5	3:55 PM	0	0	0	0	0	3:55 PM	0	0	0	0	0
4:00 PM	0	0	3	0	3	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	1	0	6	0	7	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	1	0	8	0	9	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	1	0	3	0	4	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	5	0	5	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	0	1	0	1	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	0	1	0	1	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	1	1
4:45 PM	0	0	2	0	2	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	0	1	0	1	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	1	0	1	0	2	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	1	1
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	0	0	1	0	1	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	0	1	0	1	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	1	0	1	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	2	0	2	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	1	0	0	0	1	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	2	0	2	5:55 PM	0	0	1	0	1	5:55 PM	0	0	0	0	0
6:00 PM	0	0	0	0	0	6:00 PM	0	0	0	1	1	6:00 PM	0	0	0	0	0
6:05 PM	0	0	1	0	1	6:05 PM	0	0	0	0	0	6:05 PM	0	0	0	0	0
6:10 PM	0	0	0	0	0	6:10 PM	0	0	0	0	0	6:10 PM	0	0	0	0	0
6:15 PM	0	0	1	0	1	6:15 PM	0	0	0	0	0	6:15 PM	0	0	0	0	0
6:20 PM	1	0	1	0	2	6:20 PM	0	0	0	0	0	6:20 PM	0	0	0	0	0
6:25 PM	0	0	0	0	0	6:25 PM	0	0	0	0	0	6:25 PM	0	0	0	0	0
Count Total	13	0	55	0	68	Count Total	0	0	1	1	2	Count Total	0	0	0	2	2
Peak Hour	1	0	8	0	9	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	2	2



(303) 216-2439
www.alltrafficdata.net

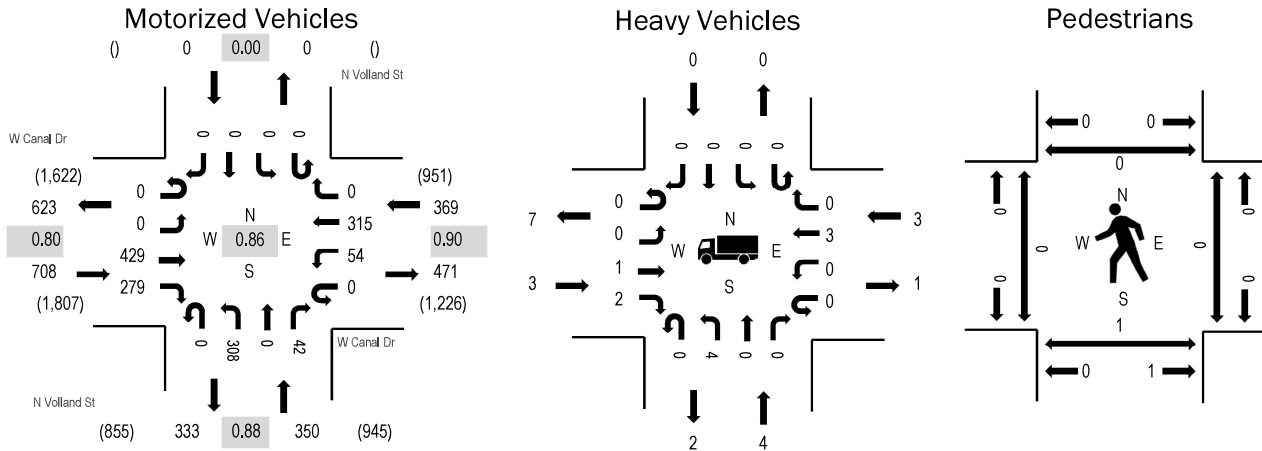
Location: 2 N Volland St & W Canal Dr PM

Date: Tuesday, March 22, 2022

Peak Hour: 04:35 PM - 05:35 PM

Peak 15-Minutes: 05:05 PM - 05:20 PM

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.4%	0.80
WB	0.8%	0.90
NB	1.1%	0.88
SB	0.0%	0.00
All	0.7%	0.86

Traffic Counts - Motorized Vehicles

Interval Start Time	W Canal Dr Eastbound				W Canal Dr Westbound				N Volland St Northbound				N Volland St Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
3:30 PM	0	0	19	11	0	3	20	0	0	14	0	5	0	0	0	0	72	1,258
3:35 PM	0	0	43	21	0	2	20	0	0	27	0	7	0	0	0	0	120	1,274
3:40 PM	0	0	49	20	0	3	24	0	0	20	0	11	0	0	0	0	127	1,266
3:45 PM	0	0	26	17	0	4	26	0	0	14	0	9	0	0	0	0	96	1,265
3:50 PM	0	0	24	15	0	4	24	0	0	26	0	1	0	0	0	0	94	1,281
3:55 PM	0	0	27	19	0	2	27	0	0	14	0	7	0	0	0	0	96	1,293
4:00 PM	0	0	19	23	0	4	26	0	0	13	0	3	0	0	0	0	88	1,298
4:05 PM	0	0	29	22	0	2	34	0	0	25	0	2	0	0	0	0	114	1,309
4:10 PM	0	0	35	25	0	5	29	0	0	21	0	3	0	0	0	0	118	1,348
4:15 PM	0	0	26	20	0	2	19	0	0	34	0	1	0	0	0	0	102	1,389
4:20 PM	0	0	42	25	0	3	34	0	0	20	0	3	0	0	0	0	127	1,391
4:25 PM	0	0	33	19	0	2	19	0	0	25	0	6	0	0	0	0	104	1,390
4:30 PM	0	0	27	14	0	6	18	0	0	18	0	5	0	0	0	0	88	1,406
4:35 PM	0	0	30	22	0	2	24	0	0	32	0	2	0	0	0	0	112	1,427
4:40 PM	0	0	36	24	0	4	28	0	0	34	0	0	0	0	0	0	126	1,409
4:45 PM	0	0	36	20	0	1	30	0	0	21	0	4	0	0	0	0	112	1,371
4:50 PM	0	0	30	24	0	4	24	0	0	22	0	2	0	0	0	0	106	1,356
4:55 PM	0	0	23	20	0	3	30	0	0	20	0	5	0	0	0	0	101	1,338
5:00 PM	0	0	37	16	0	5	22	0	0	14	0	5	0	0	0	0	99	1,322
5:05 PM	0	0	58	32	0	4	29	0	0	26	0	4	0	0	0	0	153	1,311
5:10 PM	0	0	53	26	0	7	35	0	0	31	0	7	0	0	0	0	159	1,238
5:15 PM	0	0	25	21	0	3	23	0	0	26	0	6	0	0	0	0	104	1,160
5:20 PM	0	0	42	27	0	6	24	0	0	24	0	3	0	0	0	0	126	1,151
5:25 PM	0	0	33	26	0	7	25	0	0	26	0	3	0	0	0	0	120	1,078
5:30 PM	0	0	26	21	0	8	21	0	0	32	0	1	0	0	0	0	109	1,039
5:35 PM	0	0	28	22	0	4	19	0	0	16	0	5	0	0	0	0	94	
5:40 PM	0	0	23	20	0	0	16	0	0	27	0	2	0	0	0	0	88	

EXHIBIT 5

Location: 2 N Volland St & W Canal Dr PM

5:45 PM	0	0	24	23	0	3	24	0	0	19	0	4	0	0	0	0	97
5:50 PM	0	0	23	20	0	4	16	0	0	19	0	6	0	0	0	0	88
5:55 PM	0	0	21	18	0	2	14	0	0	27	0	3	0	0	0	0	85
6:00 PM	0	0	24	17	0	3	18	0	0	24	0	2	0	0	0	0	88
6:05 PM	0	0	16	19	0	0	16	0	0	24	0	5	0	0	0	0	80
6:10 PM	0	0	27	14	0	1	20	0	0	14	0	5	0	0	0	0	81
6:15 PM	0	0	27	20	0	7	20	0	0	18	0	3	0	0	0	0	95
6:20 PM	0	0	18	12	0	0	9	0	0	11	0	3	0	0	0	0	53
6:25 PM	0	0	20	13	0	7	17	0	0	20	0	4	0	0	0	0	81
Count Total	0	0	1,079	728	0	127	824	0	0	798	0	147	0	0	0	0	3,703
Peak Hour	0	0	429	279	0	54	315	0	0	308	0	42	0	0	0	0	1,427

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
3:30 PM	1	1	0	0	2	3:30 PM	0	0	0	0	0	3:30 PM	0	0	0	0	0
3:35 PM	1	3	3	0	7	3:35 PM	0	0	0	0	0	3:35 PM	0	0	0	0	0
3:40 PM	2	0	2	0	4	3:40 PM	0	0	0	0	0	3:40 PM	0	0	0	0	0
3:45 PM	0	2	1	0	3	3:45 PM	0	0	0	0	0	3:45 PM	0	0	0	0	0
3:50 PM	0	1	1	0	2	3:50 PM	0	0	0	0	0	3:50 PM	0	0	0	0	0
3:55 PM	0	1	2	0	3	3:55 PM	0	0	0	0	0	3:55 PM	0	0	0	0	0
4:00 PM	0	0	4	0	4	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	2	4	0	6	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	1	1	5	0	7	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	0	2	0	2	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	4	0	4	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	1	0	0	1	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	1	0	0	1	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0	4:40 PM	0	1	0	0	1
4:45 PM	1	0	1	0	2	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	0	1	0	1	4:50 PM	0	1	0	0	1	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	0	0	1	0	1	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	2	0	0	2	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	2	0	0	0	2	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	1	0	0	1	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	1	0	0	1	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	1	0	1	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	1	0	0	0	1	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	1	0	1	5:55 PM	0	0	1	0	1	5:55 PM	0	0	0	0	0
6:00 PM	0	0	1	0	1	6:00 PM	1	0	0	0	1	6:00 PM	0	0	0	0	0
6:05 PM	0	0	0	0	0	6:05 PM	0	0	0	0	0	6:05 PM	0	0	0	0	0
6:10 PM	0	0	0	0	0	6:10 PM	0	0	0	0	0	6:10 PM	0	0	0	0	0
6:15 PM	0	0	2	0	2	6:15 PM	0	0	0	0	0	6:15 PM	0	0	0	0	0
6:20 PM	1	0	0	0	1	6:20 PM	0	0	0	0	0	6:20 PM	0	0	0	0	0
6:25 PM	0	0	0	0	0	6:25 PM	0	0	0	0	0	6:25 PM	0	0	0	0	0
Count Total	10	17	36	0	63	Count Total	1	1	1	0	3	Count Total	0	1	0	0	1
Peak Hour	3	4	3	0	10	Peak Hour	0	1	0	0	1	Peak Hour	0	1	0	0	1

Appendix E



HCM 6th TWSC

1: Site Access/N Yost Street & W Canal Drive

04/13/2022

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	760	0	0	625	3	0	0	0	1	0	3
Future Vol, veh/h	3	760	0	0	625	3	0	0	0	1	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	884	0	0	727	3	0	0	0	1	0	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	730	0	0	884	0	0	1254	1620	442	1177	1619	365
Stage 1	-	-	-	-	-	-	890	890	-	729	729	-
Stage 2	-	-	-	-	-	-	364	730	-	448	890	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	870	-	-	761	-	-	128	102	563	146	102	632
Stage 1	-	-	-	-	-	-	304	359	-	380	426	-
Stage 2	-	-	-	-	-	-	627	426	-	560	359	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	870	-	-	761	-	-	127	101	563	145	101	632
Mov Cap-2 Maneuver	-	-	-	-	-	-	127	101	-	145	101	-
Stage 1	-	-	-	-	-	-	302	356	-	377	426	-
Stage 2	-	-	-	-	-	-	624	426	-	556	356	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			0			15.6		
HCM LOS							A			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	-	870	-	-	761	-	-	344				
HCM Lane V/C Ratio	-	0.004	-	-	-	-	-	0.014				
HCM Control Delay (s)	0	9.2	0	-	0	-	-	15.6				
HCM Lane LOS	A	A	A	-	A	-	-	C				
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0				

HCM 6th TWSC

2: W Canal Drive & W Quinalt Avenue

04/13/2022

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	28	685	587	56	37	27
Future Vol, veh/h	28	685	587	56	37	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	737	631	60	40	29
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	691	0	-	0	1090	346
Stage 1	-	-	-	-	661	-
Stage 2	-	-	-	-	429	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	900	-	-	-	210	650
Stage 1	-	-	-	-	475	-
Stage 2	-	-	-	-	624	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	900	-	-	-	203	650
Mov Cap-2 Maneuver	-	-	-	-	203	-
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	624	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		21.5		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	900	-	-	-	286	
HCM Lane V/C Ratio	0.033	-	-	-	0.241	
HCM Control Delay (s)	9.1	-	-	-	21.5	
HCM Lane LOS	A	-	-	-	C	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9	

HCM Signalized Intersection Capacity Analysis

3: N Volland Street & W Canal Drive

04/13/2022

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	451	285	55	327	308	48
Future Volume (vph)	451	285	55	327	308	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00	0.95	0.97	
Frt	0.94		1.00	1.00	0.98	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	3334		1770	3539	3394	
Flt Permitted	1.00		0.36	1.00	0.96	
Satd. Flow (perm)	3334		677	3539	3394	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	524	331	64	380	358	56
RTOR Reduction (vph)	187	0	0	0	25	0
Lane Group Flow (vph)	668	0	64	380	389	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	8			4	6	
Permitted Phases			4			
Actuated Green, G (s)	11.0		11.0	11.0	8.3	
Effective Green, g (s)	11.0		11.0	11.0	8.3	
Actuated g/C Ratio	0.40		0.40	0.40	0.30	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	2.5		2.5	2.5	2.5	
Lane Grp Cap (vph)	1343		272	1425	1031	
v/s Ratio Prot	c0.20			0.11	c0.11	
v/s Ratio Perm			0.09			
v/c Ratio	0.50		0.24	0.27	0.38	
Uniform Delay, d1	6.1		5.4	5.5	7.5	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.2		0.3	0.1	0.2	
Delay (s)	6.3		5.7	5.5	7.6	
Level of Service	A		A	A	A	
Approach Delay (s)	6.3			5.6	7.6	
Approach LOS	A			A	A	
Intersection Summary						
HCM 2000 Control Delay			6.4		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.45			
Actuated Cycle Length (s)			27.3		Sum of lost time (s)	8.0
Intersection Capacity Utilization			45.2%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th TWSC

1: Site Access/N Yost Street & W Canal Drive

04/13/2022

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	760	18	14	625	3	11	0	14	1	0	3
Future Vol, veh/h	3	760	18	14	625	3	11	0	14	1	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	884	21	16	727	3	13	0	16	1	0	3
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	730	0	0	905	0	0	1297	1663	453	1209	1672	365
Stage 1	-	-	-	-	-	-	901	901	-	761	761	-
Stage 2	-	-	-	-	-	-	396	762	-	448	911	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	870	-	-	747	-	-	119	96	554	139	95	632
Stage 1	-	-	-	-	-	-	299	355	-	364	412	-
Stage 2	-	-	-	-	-	-	601	412	-	560	351	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	870	-	-	747	-	-	114	92	554	131	91	632
Mov Cap-2 Maneuver	-	-	-	-	-	-	114	92	-	131	91	-
Stage 1	-	-	-	-	-	-	297	353	-	361	397	-
Stage 2	-	-	-	-	-	-	576	397	-	540	349	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0		0.4		25.4		16.3					
HCM LOS					D		C					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	205	870	-	-	747	-	-	323				
HCM Lane V/C Ratio	0.142	0.004	-	-	0.022	-	-	0.014				
HCM Control Delay (s)	25.4	9.2	0	-	9.9	0.2	-	16.3				
HCM Lane LOS	D	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0				

HCM 6th TWSC

2: W Canal Drive & W Quinalt Avenue

04/13/2022

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	28	699	601	56	37	27
Future Vol, veh/h	28	699	601	56	37	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	115	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	752	646	60	40	29
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	706	0	-	0	1112	353
Stage 1	-	-	-	-	676	-
Stage 2	-	-	-	-	436	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	888	-	-	-	203	643
Stage 1	-	-	-	-	467	-
Stage 2	-	-	-	-	619	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	888	-	-	-	196	643
Mov Cap-2 Maneuver	-	-	-	-	196	-
Stage 1	-	-	-	-	451	-
Stage 2	-	-	-	-	619	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		22.2		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	888	-	-	-	277	
HCM Lane V/C Ratio	0.034	-	-	-	0.248	
HCM Control Delay (s)	9.2	-	-	-	22.2	
HCM Lane LOS	A	-	-	-	C	
HCM 95th %tile Q(veh)	0.1	-	-	-	1	

HCM Signalized Intersection Capacity Analysis

3: N Volland Street & W Canal Drive

04/13/2022

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↔	↑↑	↔	
Traffic Volume (vph)	460	290	55	335	314	48
Future Volume (vph)	460	290	55	335	314	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00	0.95	0.97	
Frt	0.94		1.00	1.00	0.98	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	3334		1770	3539	3394	
Flt Permitted	1.00		0.35	1.00	0.96	
Satd. Flow (perm)	3334		659	3539	3394	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	535	337	64	390	365	56
RTOR Reduction (vph)	184	0	0	0	24	0
Lane Group Flow (vph)	688	0	64	390	397	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	8			4	6	
Permitted Phases			4			
Actuated Green, G (s)	11.3		11.3	11.3	8.4	
Effective Green, g (s)	11.3		11.3	11.3	8.4	
Actuated g/C Ratio	0.41		0.41	0.41	0.30	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	2.5		2.5	2.5	2.5	
Lane Grp Cap (vph)	1360		268	1443	1029	
v/s Ratio Prot	c0.21			0.11	c0.12	
v/s Ratio Perm			0.10			
v/c Ratio	0.51		0.24	0.27	0.39	
Uniform Delay, d1	6.1		5.4	5.5	7.6	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.2		0.3	0.1	0.2	
Delay (s)	6.3		5.7	5.5	7.8	
Level of Service	A		A	A	A	
Approach Delay (s)	6.3			5.6	7.8	
Approach LOS	A			A	A	
Intersection Summary						
HCM 2000 Control Delay			6.5		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.45			
Actuated Cycle Length (s)			27.7		Sum of lost time (s)	8.0
Intersection Capacity Utilization			45.8%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

SimTraffic Simulation Summary

Baseline

04/13/2022

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:50	4:50	4:50	4:50	4:50	4:50
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	1638	1652	1608	1615	1612	1624
Vehs Exited	1641	1655	1603	1625	1624	1630
Starting Vehs	30	33	27	37	41	32
Ending Vehs	27	30	32	27	29	28
Travel Distance (mi)	802	806	782	789	798	795
Travel Time (hr)	32.4	33.0	31.5	32.0	32.1	32.2
Total Delay (hr)	4.8	5.2	4.6	4.7	4.7	4.8
Total Stops	865	874	835	862	838	855
Fuel Used (gal)	27.1	27.5	26.5	26.8	27.0	27.0

Interval #0 Information Seeding

Start Time	4:50
End Time	5:00
Total Time (min)	10
Volumes adjusted by PHF, Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording1

Start Time	5:00
End Time	5:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	469	516	457	499	473	482
Vehs Exited	466	498	446	502	474	478
Starting Vehs	30	33	27	37	41	32
Ending Vehs	33	51	38	34	40	39
Travel Distance (mi)	215	233	209	238	224	224
Travel Time (hr)	8.8	9.8	8.4	9.8	9.3	9.2
Total Delay (hr)	1.4	1.7	1.3	1.6	1.5	1.5
Total Stops	249	264	234	277	243	251
Fuel Used (gal)	7.3	8.1	7.2	8.3	7.7	7.7

SimTraffic Simulation Summary

Baseline

04/13/2022

Interval #2 Information Recording2

Start Time 5:15

End Time 6:00

Total Time (min) 45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1169	1136	1151	1116	1139	1141
Vehs Exited	1175	1157	1157	1123	1150	1153
Starting Vehs	33	51	38	34	40	39
Ending Vehs	27	30	32	27	29	28
Travel Distance (mi)	586	573	573	551	574	571
Travel Time (hr)	23.6	23.2	23.0	22.2	22.9	23.0
Total Delay (hr)	3.4	3.5	3.3	3.1	3.1	3.3
Total Stops	616	610	601	585	595	601
Fuel Used (gal)	19.8	19.5	19.3	18.5	19.3	19.3

Queuing and Blocking Report

Baseline

04/13/2022

Intersection: 1: Site Access/N Yost Street & W Canal Drive

Movement	EB	SB
Directions Served	LT	LTR
Maximum Queue (ft)	39	35
Average Queue (ft)	3	5
95th Queue (ft)	18	26
Link Distance (ft)	838	388
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: W Canal Drive & W Quinalt Avenue

Movement	EB	WB	SB
Directions Served	L	TR	LR
Maximum Queue (ft)	50	5	75
Average Queue (ft)	12	0	38
95th Queue (ft)	41	4	69
Link Distance (ft)		586	462
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	115		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: N Volland Street & W Canal Drive

Movement	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	TR	L	T	T	L	LR
Maximum Queue (ft)	146	204	85	133	87	151	188
Average Queue (ft)	69	92	39	65	33	18	95
95th Queue (ft)	118	156	75	112	77	77	154
Link Distance (ft)	586	586		911	911		701
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			135			150	
Storage Blk Time (%)				0		0	1
Queuing Penalty (veh)				0		0	1

Network Summary

Network wide Queuing Penalty: 2

SimTraffic Simulation Summary

04/13/2022

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:50	4:50	4:50	4:50	4:50	4:50
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	1685	1652	1705	1750	1689	1694
Vehs Exited	1695	1674	1700	1735	1689	1698
Starting Vehs	37	53	29	30	36	37
Ending Vehs	27	31	34	45	36	33
Travel Distance (mi)	811	794	822	843	810	816
Travel Time (hr)	33.0	32.0	33.4	34.2	32.8	33.1
Total Delay (hr)	5.1	4.8	5.1	5.2	4.8	5.0
Total Stops	922	881	900	928	875	900
Fuel Used (gal)	28.0	27.4	27.9	28.7	27.4	27.9

Interval #0 Information Seeding

Start Time	4:50
End Time	5:00
Total Time (min)	10
Volumes adjusted by PHF, Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording1

Start Time	5:00
End Time	5:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	527	521	482	527	501	509
Vehs Exited	517	521	473	525	494	505
Starting Vehs	37	53	29	30	36	37
Ending Vehs	47	53	38	32	43	40
Travel Distance (mi)	237	234	219	241	230	232
Travel Time (hr)	9.8	9.7	9.0	9.9	9.5	9.6
Total Delay (hr)	1.7	1.7	1.5	1.6	1.6	1.6
Total Stops	278	293	236	270	268	268
Fuel Used (gal)	8.3	8.2	7.5	8.3	7.8	8.0

SimTraffic Simulation Summary

04/13/2022

Interval #2 Information Recording2

Start Time 5:15

End Time 6:00

Total Time (min) 45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1158	1131	1223	1223	1188	1184
Vehs Exited	1178	1153	1227	1210	1195	1192
Starting Vehs	47	53	38	32	43	40
Ending Vehs	27	31	34	45	36	33
Travel Distance (mi)	574	560	604	602	581	584
Travel Time (hr)	23.2	22.3	24.4	24.3	23.3	23.5
Total Delay (hr)	3.4	3.1	3.6	3.5	3.2	3.4
Total Stops	644	588	664	658	607	633
Fuel Used (gal)	19.7	19.2	20.4	20.4	19.6	19.9

Queuing and Blocking Report

04/13/2022

Intersection: 1: Site Access/N Yost Street & W Canal Drive

Movement	EB	WB	WB	NB	SB
Directions Served	LT	LT	TR	LTR	LTR
Maximum Queue (ft)	27	40	12	54	35
Average Queue (ft)	1	9	0	24	4
95th Queue (ft)	11	34	8	54	23
Link Distance (ft)	838	465	465	415	388
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: W Canal Drive & W Quinalt Avenue

Movement	EB	WB	SB
Directions Served	L	TR	LR
Maximum Queue (ft)	52	6	104
Average Queue (ft)	14	0	42
95th Queue (ft)	43	4	77
Link Distance (ft)		586	462
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	115		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: N Volland Street & W Canal Drive

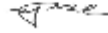
Movement	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	TR	L	T	T	L	LR
Maximum Queue (ft)	146	191	102	138	88	174	216
Average Queue (ft)	68	93	36	61	35	27	103
95th Queue (ft)	116	154	80	108	76	102	177
Link Distance (ft)	586	586		911	911		701
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			135			150	
Storage Blk Time (%)			0	0		0	1
Queuing Penalty (veh)			0	0		0	2

Network Summary

Network wide Queuing Penalty: 2

**Memorandum**
Public Works*Leading the Way*

To: Community Planning Department

From: Martin Nelson, Public Works Development Review Supervisor 

Date: May 2, 2022

Re: Public Works Utility Comments

Project: SUB-2022-0010 Canal Landing

After a review of the materials submitted with this application, the Public Works Department has the following comments.

1. Developer will be required to provide construction of public roads, sidewalks, streetlights, storm drainage and designate sidewalk and utility easements per latest City of Kennewick (COK) and Specifications and Kennewick Municipal Code (KMC) Section 5.56.
2. Sidewalks shall be widened an additional 18-inches when adjoining a wall, or fence, per COK detail 2-10, sheet 1 of 8, note 4.
3. Existing water fed by Water Pressure Zone 1: There is an active $\frac{3}{4}$ inch service for the dwelling at 4717 W. Canal Dr. There is a $\frac{3}{4}$ inch service for the dwelling at 4721 W. Canal Dr. There is $\frac{3}{4}$ inch water service line and 8-inch waterline stubbed to the north side of 4711 W. Canal Dr. There is a fire hydrant lateral fed off of that 8 inch stub.
4. Existing water fed by Water Pressure Zone 2: There is a pressure Zone 2, 12 inch water mainline stubbed to the east side of 4615 W Canal Dr. See Record Drawing A1054.
5. Water can be served by either zone:
 - a. Zone 2 at 657 HWL, minus average site elevation of 480 feet – providing a maximum of 76 psi or
 - b. Zone 1.5 via PRVs at 610 HGL, minus average site elevation of 480 feet – providing approximately 56 psi.
 - c. For a MF development staff recommends Zone 2, but either may work – engineer to evaluate.
6. Water and sewer services to be constructed per COK Detail 3-6.
7. The Developer shall provide and install one metered water service for each proposed dwelling at their own expense per COK Standard Detail 3-6. The meter shall be placed as close to the main line as possible (not in a driveway or parking area) per KMC 14.12.080.
8. All extensions must conform to an overall program for a grid system, with provisions made for extensions or looping for circulation where at all possible. In addition, extensions shall pass through or around the benefiting property owners' property to adjacent property boundaries as required by the Public Works Director to affect the orderly and efficient extension of the City's domestic water system. Per KMC 14.10.030

PUBLIC WORKS

9. Water, sewer and storm mainlines must be installed in the public right of way or easement within private streets. Where mains are allowed outside of the street, they shall be in a 15 foot wide, tract dedicated to the City.
10. A water system hydraulic analysis may be required to model proposed water main system.
11. Design fire line connections serving commercial buildings per COK Standard Drawing 4-25 as required by Building and Fire codes to meet fire protection.
12. Provide a "fire flow requirement" signature block to the master utility sheet on Civil Drawings (or other sheet where water related infrastructure is shown). The signature block will call out the type of building construction material, the required fire flow and duration based on that type of construction, a fire sprinkler indication, any reduction in fire flow as allowed by the UFC, and the net required fire flow remaining.
13. Submit a Comprehensive Water Plan for the Subdivision on the plans meeting KMC 14.10.010 for review and approval before submitting civil drawing for review. Hydraulic analysis will be required to ensure adequate fire protection for the proposed development.
14. Potable water is not available for irrigation purposes. Provide irrigation water to irrigate the proposed plat.
15. There are no existing sewer connections to these parcels. Sewer will likely need to be chased back to existing manhole at Canal & N Cleveland with 8" SS (record drawing E1098) in order to have enough depth for gravity.
16. COK KMC Chapter 5.60 offers the option for the Developer to apply for Latecomers Reimbursement Agreement. No Late Comers Agreement shall extend for a period longer than 20 years for any utility water, sewer or Storm drainage).
17. Provide a Sewer Comprehensive Plan with for the subdivision meeting KMC 14.22.040.
18. All plans showing existing utilities shall call out the Record Drawing set number that installed the utilities. All plans need to clearly identify the size and type of water/sewer utility that is being proposed or connected to (i.e. "Existing 8-inch Water" or similar). Label private lines "Private".
19. Water, Sewer and Storm Comprehensive plans shall include pipe size on their proposal.
20. Provide a Comprehensive Stormwater plan for the subdivision per KMC 14.28.045, City Standard Specifications Section 5-8 and Storm Management Manual of Eastern Washington (SMMEW). Design must include erosion control and conveyance of the upstream storm flow through the site as well as overflows at low points and the effect on downstream capacity.
21. Infiltration tests are required at the location and depth of the planned infiltration structures along with a soils log to 5 feet below that point. All underground infiltration structures must meet the Washington State Underground Injection Control (UIC) Rule. Provide an assessment of the design against the UIC pretreatment requirements. Provide UIC registration numbers on the plans prior seeking the City's signature.

22. As part of all residential development construction plans, there shall be a separate schematic drawing which at a minimum, shows the power source(s), wiring diagram street light pole spacing and street permanent signing per COK Standard Specifications 6-02 and Specifications 7-10. Combine Signing, Striping, and Illumination Plans onto the same drawing with other elements left off.
23. This site requires a Public Works Construction Permit. You may apply for this by submitting the information below for Civil Plan Review through Kennewick's Self Service Portal at https://selfservice.ci.kennewick.wa.us/EnerGov_Prod/SelfService#/home:
 - a. PDF copy of the Application for Civil Review and Storm Calculations, if required to retain the Stormwater on site.
 - b. One full size (24"x36") PDF copy of the construction plans.
24. Construct all projects using current City Survey Data. After project completion, Record Drawings showing improvements made on the property will be required prior to acceptance of the construction permit(s). For detailed information on Kennewick Survey Data and Record Drawings go to COK website at <https://www.go2kennewick.com/314/Civil-Plan-Review>.

From: [Joe Seet](#)
To: [Steve Donovan](#)
Cc: ["Nathan Machiela"](#); [Sorin Juster](#)
Subject: RE: 22008 Canal Landing - Secondary Access
Date: Wednesday, August 24, 2022 1:45:01 PM
Attachments: [Cross Section.pdf](#)
[Canal Landing - ROW Deviation.pdf](#)

Steve – The Traffic Engineer has approved the reduced right of way deviation request which is limited to 84 lineal feet of the secondary access starting at Canal Drive and terminating at N. Williams PL.

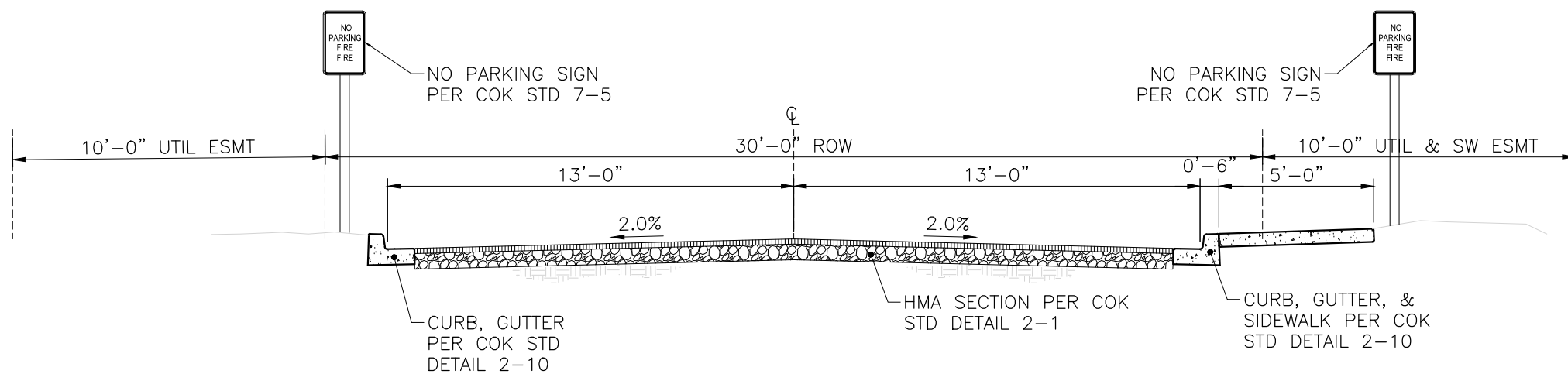
The Traffic Engineer has conditionally approved the right-in/right-out secondary access pending final approval of the civil design of the physical barrier to enforce right-in/right-out movements at the access. Applicant is to submit civil design to Traffic for review.

Joe Seet, PE

509.585.4527

joe.seet@ci.kennewick.wa.us

This e-mail and your response are considered a public record and will be subject to disclosure under Washington's Public Records Disclosure Act.





August 18, 2022

Joe Seet
City of Kennewick
1010 E Chemical Dr
Kennewick, WA 99338

RE: SUB-2022-0010 / Secondary Access ROW Deviation

Dear Mr. Seet,

The intent of this letter is to propose a modified cross section for the recently requested secondary access to the Canal Landing residential development. The access connects W Canal Dr to N Williams Pl, in alignment with W Quinault Ave. (As shown in the attached preliminary plat.)

We propose reducing the normal residential 40-foot wide ROW / 36-foot curb to curb section to a 30-foot wide ROW / 26-foot wide curb to curb section. In addition, we propose a 5-foot sidewalk, per COK standards, on only one side of the street, covered by a 10.0-foot utility and sidewalk easement. A 10.0-foot utility easement would be provided on the other side. We also propose adding no-parking signage along both sides of the road from W Canal Dr to N Williams place. All other facets will comply with typical COK standards, including vision triangles, curb returns, lighting, signage, and ADA ramps. (See attached section image.)

We do not expect any reduction of safety or traffic quality as a result of the modified section. We are providing a 26-foot-wide drive aisle by restricting parking on either side of the road, whereas the City's standard roadway section is reduced to approximately a 20-foot-wide drive aisle with curbside parking on both sides of the road. On-street parking normally occupies approximately 16-feet of residential roads, which is two times the width of a city standard parallel parking stall. (8-feet per KMC 18.36) We find it necessary to restrict parking along the proposed secondary access even if the City's standard roadway is used, given the short distance between intersections and anticipated stop signs. The distance is approximately 130-feet from intersection to intersection along the proposed secondary access. A reduced road width is safer in this situation, as drivers will be less inclined to park on the street, even without no-parking signs.

We ask that the City approve the proposed modified cross section as shown in the attached image, enabling the development of the property as shown on the attached preliminary plat. We are aware of other developments in the City of Kennewick that have had similar road sections approved. To clarify, we intend the roadway to be dedicated as public ROW, rather than a private road. The City has communicated the importance of a secondary access and it is more certain that it will be properly maintained by the City than a neighborhood HOA.

If the reduced ROW is not approved, then at a minimum, a lot will be lost from the development, reducing the development's density below the max allowed by the property's zoning. Because the development proposes duplex units, the loss of a lot may consequentially mean losing two lots (a single duplex unit), unless the developer pays for the design of a tri-plex unit. The loss of lots will reduce the developer's profit and the number of housing units to be added to the market.

My email address is: robertmcleod@knutzenengineering.com and my mailing address is listed at the footing of this letter. Please feel free to let me know if you have any questions. I can be reached at (509) 222-0959.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert McLeod". The signature is fluid and cursive, with the first name "Robert" and last name "McLeod" clearly distinguishable.

Robert McLeod
Junior Engineer

Attachments: *Preliminary Plat*
Proposed Cross Section

From: [Joe Seet](#)
To: [Steve Donovan](#); [Brian Ellis](#)
Subject: RE: SUB-2022-0010
Date: Thursday, August 11, 2022 2:09:36 PM
Attachments: [image001.png](#)
[image003.png](#)

Steve – For Traffic to approve, Traffic will need a design standard variance request approved by Sorin and concurrence from KFD.

Joe Seet, PE

509.585.4527

joe.seet@ci.kennewick.wa.us

This e-mail and your response are considered a public record and will be subject to disclosure under Washington's Public Records Disclosure Act.

From: Steve Donovan <Steve.Donovan@ci.kennewick.wa.us>

Sent: Thursday, August 11, 2022 1:55 PM

To: Joe Seet <Joe.Seet@ci.kennewick.wa.us>; Brian Ellis <Brian.Ellis@ci.kennewick.wa.us>

Subject: SUB-2022-0010

I have uploaded a revised plat and road cross section for the Canal Landing Preliminary Plat.

A second access point has been added.

Please take a look at it in blue beam. Let me know if you have any questions.

Steve

Steve Donovan, AICP

City of Kennewick

Community Planning/Planning Manager

O: 509.585.4361

Steve.Donovan@ci.kennewick.wa.us



MEMORANDUM

Traffic Engineering Division

To: Steve Donovan, Planning Manager

From: Joe Seet, Assistant Traffic Engineer

Date: May 3, 2022

Re: Traffic Engineering Comments for 4711 W Canal Dr. 96 Lot Residential Long Plat

Project: SUB-2022-0010

Project Description

96 Lot Residential Long Plat.

KMC 13.16 Transportation Impact Fees

1. The Transportation Impact Fee (TIF) is a one-time charge for direct impacts caused by the traffic generated from the proposed development and used to pay for transportation projects needed to address said impacts. The TIF amendment on June 5 2018 (effective June 14 2018) created Traffic Impact Fee Districts, which allows fees be remitted to projects congruent with the area where the impact is realized.
2. The 2022 District 3 TIF is \$1,077/Dwelling Unit(DU):

Use	Land Use Category	Prop	Basis	Cost / Basis	Total
Single-Family Detached Housing	Single-Family Detached Housing	96	DU	\$1,077	\$103,392
Single-Family Detached Housing	Single-Family Detached Housing	2	DU	\$1,077	(\$2,154)**
					\$101,238

** - Credit for prior land use

3. TIF assessed at building permit issuance is due prior to Certificate of Occupancy issuance.

Traffic Operations

1. A Traffic Impact Analysis (TIA) Study may be required. See table below. Please contact the City's Traffic Engineer, Sorin Juster, PE, PTOE, to discuss the scope of the TIA.
2. Per KMC 17.20.010(2)(a), streets greater than 1,200 feet in continuous uninterrupted length will need traffic calming measure.
3. Per KMC 17.20.010(3)(b), streets greater than 600 feet in continuous uninterrupted length will need mid-block pedestrian crosswalks with shoulder mounted signs for the street.

Proposed Driveway(s)

1. Please refer to the table below for the design rate of vertical curvature, K, values for vertical curves at the proposed roadway design speed.

Table 3-34. Design Controls for Crest Vertical Curves Based on Stopping Sight Distance

Design Speed (km/h)	Metric		U.S. Customary			
	Stopping Sight Distance (m)	Rate of Vertical Curvature, K ^a		Design Speed (mph)	Rate of Vertical Curvature, K ^a	
		Calculated	Design		Calculated	Design
20	20	0.6	1	15	80	3.0
30	35	1.9	2	20	115	6.1
40	50	3.8	4	25	155	11.1
50	65	6.4	7	30	200	18.5
60	85	11.0	11	35	250	29.0
70	105	16.8	17	40	305	43.1
80	130	25.7	26	45	360	60.1
90	160	38.9	39	50	425	83.7
100	185	52.0	52	55	495	113.5
110	220	73.6	74	60	570	150.6
120	250	95.0	95	65	645	192.8
130	285	123.4	124	70	730	246.9
				75	820	311.6
				80	910	383.7

^a Rate of vertical curvature, K, is the length of curve per percent algebraic difference in intersecting grades (A). $K = L/A$.

Table 3-36. Design Controls for Sag Vertical Curves

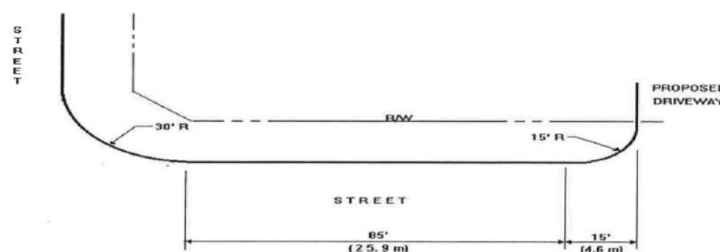
Design Speed (km/h)	Metric		U.S. Customary			
	Stopping Sight Distance (m)	Rate of Vertical Curvature, K ^a		Design Speed (mph)	Rate of Vertical Curvature, K ^a	
		Calculated	Design		Calculated	Design
20	20	2.1	3	15	80	9.4
30	35	5.1	6	20	115	16.5
40	50	8.5	9	25	155	25.5
50	65	12.2	13	30	200	36.4
60	85	17.3	18	35	250	49.0
70	105	22.6	23	40	305	63.4
80	130	29.4	30	45	360	78.1
90	160	37.6	38	50	425	95.7
100	185	44.6	45	55	495	114.9
110	220	54.4	55	60	570	135.7
120	250	62.8	63	65	645	156.5
130	285	72.7	73	70	730	180.3
				75	820	205.6
				80	910	231.0

^a Rate of vertical curvature, K, is the length of curve (m) per percent algebraic difference intersecting grades (A). $K = L/A$.

2. Corner parcels at public roadway intersections will need to meet minimum Corner Clearance requirements per KAC 13-46-110.

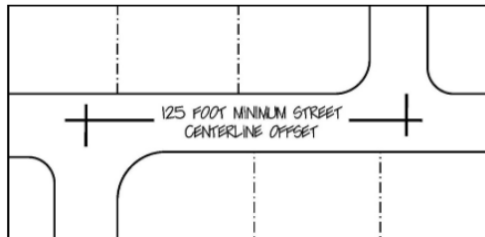
13-46-110: Corner Clearance: All direct access driveways shall be constructed such that the point of tangency of the curb radius return closest to a signalized or stop-sign controlled intersection be at least 100 feet (30.5 m) from the corner right-of-way of the intersecting street (see figure 10). Access driveway(s), if approved by the Traffic Engineer, that are within 350 feet (107 m) of an existing or planned signalized intersection, or the intersection of arterial and/or collector streets, or major traffic generating access (over 1,000 vehicle per day) may require restricted vehicle movements as documented in a traffic impact study and as determined by the Traffic Engineer.

Figure 10
Minimum Corner Clearance



3. Per KMC 13.04.010, minor/principal arterials/collector have controlled driveway spacing requirement. The minimum spacing for W Canal Dr. per KAC 13-46.120 is 150' between adjacent driveways.
4. Please note that proposed driveways are to align with opposing existing intersections or meet minimum separation between the proposed and existing intersections. The minimum intersection separation for W Canal Dr. is 300' per KMC 17.20.010(3)(I).

(I) Residential streets shall be aligned at the centerline or be offset a minimum of 125 feet while intersections with arterial or collector streets shall have a minimum centerline offset of 300 feet, unless specifically waived by the City Traffic Engineer;



5. Provide plan profile for the proposed SEVA to determine accessibility onto W Canal Dr.

Right of Way and Easement

1. W Canal Dr. is functionally classified Minor Arterial.
2. Record 7.5' public sidewalk, utility and irrigation easement along the proposed development's frontages on W Canal Dr.
3. Record 1' No Driveway Access easement along the proposed development's frontage along W Canal Dr. except for defined access openings.
4. The Civil plans will need to include a signing and striping plan.

American Disability Act (ADA) Compliance

1. All proposed pedestrian facilities within the public right of way and easement, including but not limited to driveways, sidewalks, curb ramps, etc., shall be ADA compliant to maintain Pedestrian Accessibility Route (PAR) accessibility, continuity and connectivity.

Street Lights

1. Per KMC 5.53, Public Works Construction Standard Chapter 6, design and install one streetlight per City of Kennewick Standard Drawings 6-1 and 6-2 on W Canal Dr.

2. Upgrade 3 existing street light heads along W Canal Dr. 30BLEDE10 (110W) per City of Kennewick Standard Drawings 6-2. Provide callout for luminaire head upgrade(s) in Civil Drawings.
3. Roadway lighting plan sheet. – Per CoK Standard Specifications 6-1.02, the plan needs to include call-outs for the power source, meter locations, junction boxes, conduits and conduits.



July 14, 2022

Stephen Donovan
City of Kennewick
Development Services Division
Community Planning
210 W 6th Ave
Kennewick, WA 99336

RE: First Review Comments for Preliminary Plat SUB-2022-0010

Dear Mr. Donovan;

Thank you for the review comments, dated May 10, 2022 for the proposed Preliminary Plat, SUB-2022-0010. We have made corrections as you have requested, my responses to your comments are provided below:

Community Planning Division Comments:

1. How is access being maintained for the Chervenell Property that is south of the proposal?

Response: A 20.0' access / utility easement has been added, extending to the Chervenell property.

2. The proposed secondary emergency vehicle access (SEVA) cannot be used as permanent access to the subdivision. A second city standard street must provide access to the proposed development, per KMC 17.20.010(2)(c)(i).

Response: Due to an inability to meet intersection sight distance requirements, it is not feasible to provide a second public street to the property at this time. We acknowledge that the single access may trigger additional fire safety requirements on the proposed buildings, which we expect to receive as a condition of approval.

Public Works Development Comments:

Response: We acknowledge all Public Works development comments. The project will be designed per City of Kennewick standards and specifications. We will incorporate the comments when developing construction documents for the project.

Traffic Engineering Comments:**KMC 13.16 Transportation Impact Fees**

1. The Transportation Impact Fee (TIF) is a one-time charge for direct impacts caused by the traffic generated from the proposed development and used to pay for transportation projects needed to address said impacts. The TIF amendment on June 5 2018 (effective June 14 2018) created Traffic Impact Fee Districts, which allows fees be remitted to projects congruent with the area where the impact is realized.

Response: Acknowledged.

2. The 2022 District 3 TIF is \$1,077/Dwelling Unit(DU):

Response: Acknowledged.

3. TIF assessed at building permit issuance is due prior to Certificate of Occupancy issuance.

Response: Acknowledged.

Traffic Operations

1. A Traffic Impact Analysis (TIA) Study may be required. See table below. Please contact the City's Traffic Engineer, Sorin Juster, PE, PTOE, to discuss the scope of the TIA.

Response: A TIA was prepared for the project and was submitted with the preliminary plat for the City's review.

2. Per KMC 17.20.010(2)(a), streets greater than 1,200 feet in continuous uninterrupted length will need traffic calming measures.

Response: Acknowledged. The calming measures will be addressed in future construction documents.

3. Per KMC 17.20.010(3)(b), streets greater than 600 feet in continuous uninterrupted length will need mid-block pedestrian crosswalks with shoulder mounted signs for the street.

Response: Acknowledged. Pedestrian cross walks will be addressed in future construction documents.

Proposed Driveway(s)

1. Please refer to the table below for the design rate of vertical curvature, K, values for vertical curves at the proposed roadway design speed.

Response: Acknowledged.

2. Corner parcels at public roadway intersections will need to meet minimum Corner Clearance requirements per KAC 13-46-110.

Response Acknowledged.

3. Per KMC 13.04.010, minor/principal arterials/collector have controlled driveway spacing requirement. The minimum spacing for W Canal Dr. per KAC 13-46.120 is 150' between adjacent driveways.

Response: Acknowledged. The propoposed intersection with W Canal Dr is shown aligned with N Yost St. It is not feasible to provide 150.0' driveway separation from the interesection to existing driveways on W Canal Dr, due to the necessity to align the intersection with Yost St. Proposing an intersection aligned with W Quinault Ave is unfeasible due to the inability to meet sight distance requirements.

4. Please note that proposed driveways are to align with opposing existing intersections or meet minimum separation between the proposed and existing intersections. The minimum intersection separation for W Canal Dr. is 300' per KMC 17.20.010(3)(l).

Response: The preliminary plat has been modified to show nearby driveways and opposing interesections. The propoposed intersection with W Canal Dr is shown aligned with N Yost St. The proposed SEVA (Tract B) has been relocated to align with W Quinault Ave. No other driveways are proposed off W Canal Dr with the development.

5. Provide plan profile for the proposed SEVA to determine accessibility onto W Canal Dr.

Response: Grading details will be provided with future construction documents. We anticipate that providing a SEVA will be added as a condition of approval for the development. We will coordinate with the fire and traffic departments to ensure that the proposed SEVA design is safe and accessible for the City's emergency vehicles.

Right of Way and Easement

1. W Canal Dr. is functionally classified Minor Arterial.

Response: Acknowledged.

2. Record 7.5' public sidewalk, utility and irrigation easement along the proposed development's frontages on W Canal Dr.

Response: The requested easement has been shown on the preliminary plat as requested.

3. Record 1' No Driveway Access easement along the proposed development's frontage along W Canal Dr. except for defined access openings.

Response: The requested easement has been shown on the preliminary plat as requested.

4. The Civil plans will need to include a signing and striping plan.

Response: Acknowledged.

American Disability Act (ADA) Compliance

1. All proposed pedestrian facilities within the public right of way and easement, including but not limited to driveways, sidewalks, curb ramps, etc., shall be ADA compliant to maintain Pedestrian Accessibility Route (PAR) accessibility, continuity and connectivity.

Response: Acknowledged.

Street Lights

1. Per KMC 5.53, Public Works Construction Standard Chapter 6, design and install one streetlight per City of Kennewick Standard Drawings 6-1 and 6-2 on W Canal Dr.

Response: Acknowledged.

2. Upgrade 3 existing street light heads along W Canal Dr. 30BLEDE10 (110W) per City of Kennewick Standard Drawings 6-2. Provide callout for luminaire head upgrade(s) in Civil Drawings.

Response: Acknowledged.

3. Roadway lighting plan sheet. – Per CoK Standard Specifications 6-1.02, the plan needs to include call-outs for the power source, meter locations, junction boxes, conduits and conduits.

Response: Acknowledged.

Sincerely,



Nathan Machiela, PE
Principal Engineer

Attachments: Updated Preliminary Plat

From: [Brian Ellis](#)
To: [Joe Seet](#); [Steve Donovan](#)
Subject: RE: SUB-2022-0010
Date: Thursday, August 11, 2022 3:07:36 PM
Attachments: [image002.png](#)
[image004.png](#)
[image005.png](#)

Steve,

30 Feet width would be large enough, and with the addition of no-parking signage on both sides Fire would approve. Having said that, I do want to voice my concern on the fact that this location coming out onto canal and used as an access may create issues with vehicles moving eastbound around that corner and not being able to see vehicles coming out.

Is this to be a secondary access which is just to be used by emergency vehicles, or will it be a “right in-right out” type of access?

Respectfully,



Captain Brian Ellis

Deputy Fire Marshal
 Kennewick Fire Department
brian.ellis@ci.kennewick.wa.us
 Direct Office: (509) 585-4563

Fire Prevention Division

FirePrevention@ci.kennewick.wa.us
 (509) 585-4352

This communication (and any reply) is subject to the Public Records Act, RCW 42.56. The City of Kennewick is committed to transparency in government and we will provide our customers the fullest assistance possible when they request access to public records. Individuals wishing to obtain public records shall submit their requests in accordance with the City's Public Records Policy which is available by visiting [this link](#).

From: Joe Seet <Joe.Seet@ci.kennewick.wa.us>
Sent: Thursday, August 11, 2022 2:10 PM
To: Steve Donovan <Steve.Donovan@ci.kennewick.wa.us>; Brian Ellis <Brian.Ellis@ci.kennewick.wa.us>
Subject: RE: SUB-2022-0010

Steve – For Traffic to approve, Traffic will need a design standard variance request approved by Sorin and concurrence from KFD.

Joe Seet, PE
 509.585.4527

joe.seet@ci.kennewick.wa.us

This e-mail and your response are considered a public record and will be subject to disclosure under Washington's Public Records Disclosure Act.

From: Steve Donovan <Steve.Donovan@ci.kennewick.wa.us>

Sent: Thursday, August 11, 2022 1:55 PM

To: Joe Seet <Joe.Seet@ci.kennewick.wa.us>; Brian Ellis <Brian.Ellis@ci.kennewick.wa.us>

Subject: SUB-2022-0010

I have uploaded a revised plat and road cross section for the Canal Landing Preliminary Plat.

A second access point has been added.

Please take a look at it in blue beam. Let me know if you have any questions.

Steve

Steve Donovan, AICP

City of Kennewick

Community Planning/Planning Manager

O: 509.585.4361

Steve.Donovan@ci.kennewick.wa.us

From: [Bill Barlow](#)
To: [Steve Donovan](#)
Subject: RE: SUB-2022-0010 and ED-2022-0015
Date: Thursday, April 21, 2022 7:35:10 PM
Attachments: [image001.png](#)
[image003.png](#)

Pls. send me a more detailed TIA – what 101 unit single family housing complex only generates 32 outbound trips in am and pm peak hours??

Cheers, Bill

Bill Barlow

Planning and Service Development
 Ben Franklin Transit
 1000 Columbia Park Trail | Richland, WA 99352
 O: 509.734.5104

Email to and from this address may be subject to public disclosure under the Washington State Public Records Act (RCW 42.56)

From: Steve Donovan <Steve.Donovan@ci.kennewick.wa.us>

Sent: Thursday, April 21, 2022 9:17 AM

To: Ashley M. Morton <AshleyMorton@ctuir.org>; Bill Barlow <BBarlow@bft.org>; Kevin Sliger <KSliger@bft.org>; Benton Clean Air Authority - Rob Rodger <rob.rodger@bentoncleanair.org>; Benton Clean Air Authority - Tyler Thompson <tyler.thompson@bentoncleanair.org>; Benton Clean Air John Lyle <john.lyle@bentoncleanair.org>; Benton County Assessor - Segregations <Segregations@co.benton.wa.us>; Benton Franklin Health Dept - Rick Dawson <rickd@bfhd.wa.gov>; Benton PUD - engineering services <engservice@bentonpud.org>; Benton PUD - Jeff Vosahlo <vosahloj@bentonpud.org>; Benton PUD Chad Brooks <brooksc@bentonpud.org>; Benton PUD Mike Irving <irvingm@bentonpud.org>; Benton PUD Shanna Everson <eversons@bentonpud.org>; Benton PUD Tina Glines <glinest@bentonpud.org>; BPA - Deborah Rodgers <dxrodders@bpa.gov>; BPA - Joe Cottrell <jecottrell@bpa.gov>; BPA - Mike Deklyen <mjdeklyen@bpa.gov>; Cascade Gas James Thomas <james.thomas@cngc.com>; Cascade Natural Gas - Sara Pineda <sara.pineda@cngc.com>; Casey Barney <Casey_Barney@Yakama.com>; Charter - Junior Campos <junior.campos@charter.com>; Charter - Ryan Sams <ryan.sams@charter.com>; Columbia Irrigation District <cid@columbiairrigation.com>; Dept of Archaeology and Historic Preservation (sepa@dahp.wa.gov) <sepa@dahp.wa.gov>; Dustin Fisk - Kennewick School District (dustin.fisk@ksd.org) <dustin.fisk@ksd.org>; Greg Wendt (Greg.Wendt@co.benton.wa.us) <Greg.Wendt@co.benton.wa.us>; Jessica Lally <Jessica_Lally@Yakama.com>; KID Development <development@kid.org>; Kyle McCauley <Kyle.McCauley@cngc.com>; Michael Ritter <michael.ritter@dfw.wa.gov>; Michelle Cooke <Michelle.Cooke@co.benton.wa.us>; Mike Stevens - (mstevens@ci.richland.wa.us) <mstevens@ci.richland.wa.us>; Noah Oliver <Noah_Oliver@Yakama.com>; US Army Corps of Engineers <CENWW-RE@usace.army.mil>; Williams Pipeline - Audie Neuson <audie.neuson@williams.com>; WSDOT <scplanning@wsdot.wa.gov>; Yakama Nation - Thalia Sachtelban <enviroreview@yakama.com>; Ziply Fiber Christy Ross <christy.ross@ziply.com>

Subject: SUB-2022-0010 and ED-2022-0015

EXTERNAL: This email originated from outside of Ben Franklin Transit. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Attached is a proposed Preliminary Plat and SEPA Checklist.

Let me know if you have any questions.

Steve

Steve Donovan, AICP

City of Kennewick

Community Planning/Planning Manager

O: 509.585.4361

Steve.Donovan@ci.kennewick.wa.us

From: [Shanna Everson](#)
To: [Steve Donovan](#)
Subject: RE: [E] SUB-2022-0010 and ED-2022-0015
Date: Thursday, May 5, 2022 7:26:06 AM
Attachments: [image003.png](#)
[image004.png](#)
[image005.png](#)

I need the engineers info on this please so that I can get the CAD file and get it in our maps. I will need an easement on the west side somewhere going through one of the lots but I don't know where yet.

Thanks,

Shanna Everson
 Distribution Design Tech 2
 509-585-5367



From: Steve Donovan <Steve.Donovan@ci.kennewick.wa.us>
Sent: Thursday, April 21, 2022 9:17 AM
To: Ashley M. Morton <AshleyMorton@ctuir.org>; Ben Franklin Transit - Bill Barlow <bbarlow@bft.org>; Ben Franklin Transit - Kevin Sliger <ksliger@bft.org>; Benton Clean Air Authority - Rob Rodger <rob.rodger@bentoncleanair.org>; Benton Clean Air Authority - Tyler Thompson <tyler.thompson@bentoncleanair.org>; Benton Clean Air John Lyle <john.lyle@bentoncleanair.org>; Benton County Assessor - Segregations <Segregations@co.benton.wa.us>; Benton Franklin Health Dept - Rick Dawson <rickd@bfhd.wa.gov>; EngService <EngService@bentonpud.org>; Jeff Vosahlo <vosahloj@bentonpud.org>; Chad Brooks <brooksc@bentonpud.org>; Mike Irving <irvingm@bentonpud.org>; Shanna Everson <eversons@bentonpud.org>; Tina Glines <glinest@bentonpud.org>; BPA - Deborah Rodgers <dxrodgers@bpa.gov>; BPA - Joe Cottrell <jecottrell@bpa.gov>; BPA - Mike Deklyen <mjdeklyen@bpa.gov>; Cascade Gas James Thomas <james.thomas@cngc.com>; Cascade Natural Gas - Sara Pineda <sara.pineda@cngc.com>; Casey Barney <Casey_Barney@Yakama.com>; Charter - Junior Campos <junior.campos@charter.com>; Charter - Ryan Sams <ryan.sams@charter.com>; Columbia Irrigation District <cid@columbiairrigation.com>; Dept of Archaeology and Historic Preservation (sepa@dahp.wa.gov) <sepa@dahp.wa.gov>; Dustin Fisk - Kennewick School District (dustin.fisk@ksd.org) <dustin.fisk@ksd.org>; Greg Wendt (Greg.Wendt@co.benton.wa.us) <Greg.Wendt@co.benton.wa.us>; Jessica Lally <Jessica_Lally@Yakama.com>; KID Development <development@kid.org>; Kyle McCauley <Kyle.McCauley@cngc.com>; Michael Ritter <michael.ritter@dfw.wa.gov>; Michelle Cooke <Michelle.Cooke@co.benton.wa.us>; Mike Stevens - (mstevens@ci.richland.wa.us) <mstevens@ci.richland.wa.us>; Noah Oliver <Noah_Oliver@Yakama.com>; US Army Corps of Engineers <CENWW-RE@usace.army.mil>; Williams Pipeline - Audie Neuson <audie.neuson@williams.com>; WSDOT <scplanning@wsdot.wa.gov>; Yakama Nation - Thalia Sachtleban <enviroreview@yakama.com>; Ziplly Fiber Christy Ross

<christy.ross@ziply.com>

Subject: [E] SUB-2022-0010 and ED-2022-0015

[EXTERNAL EMAIL]

Attached is a proposed Preliminary Plat and SEPA Checklist.

Let me know if you have any questions.

Steve

Steve Donovan, AICP

City of Kennewick

Community Planning/Planning Manager

O: 509.585.4361

Steve.Donovan@ci.kennewick.wa.us

From: [Rebecca Warrington](#)
To: [Steve Donovan](#)
Subject: RE: SUB-2022-0010 and ED-2022-0015
Date: Friday, May 6, 2022 4:06:25 PM
Attachments: [image002.png](#)
[image010.png](#)
[image011.png](#)
[image012.png](#)
[image013.png](#)
[image015.png](#)
[image016.png](#)
[image017.png](#)
[image018.png](#)
[image003.png](#)

Good afternoon Steve,

This office has reviewed the above referenced proposal and has no objections provided:

Municipal services, such as sewer and water, are provided to the proposed lots.

If you have any questions, please call me at the Benton-Franklin Health Department at 460-4335.

Rebecca Warrington

Environmental Health Specialist
Land Use, Sewage and Water Section

Benton-Franklin Health District

7102 W. Okanogan Place
Kennewick, WA 99336
p: 509.460.4335
www.bfhd.wa.gov rebeccaw@bfhd.wa.gov



Follow us on   

*NEW! I would appreciate your feedback on my service today. Please complete a [brief survey](#).
Thank you!*

From: Rick Dawson <Rickd@bfhd.wa.gov>
Sent: Monday, May 2, 2022 10:26 AM
To: Rebecca Warrington <rebeccaw@bfhd.wa.gov>
Subject: FW: SUB-2022-0010 and ED-2022-0015

James R.(Rick) Dawson

Sr. Manager – Surveillance & Investigation

Benton-Franklin Health District

7102 W. Okanogan Place,
Kennewick, WA 99336

p: 509.460.4313

f: 509.585.1537

Pronouns; he/him

www.bfhd.wa.gov rickd@bfhd.wa.gov



Follow us on   

*NEW! I would appreciate your feedback on my service today. Please complete a [brief survey](#).
Thank you!*

From: Steve Donovan <Steve.Donovan@ci.kennewick.wa.us>

Sent: Thursday, April 21, 2022 9:17 AM

To: Ashley M. Morton <AshleyMorton@ctuir.org>; Ben Franklin Transit - Bill Barlow <bbarlow@bft.org>; Ben Franklin Transit - Kevin Sliger <ksliger@bft.org>; Benton Clean Air Authority - Rob Rodger <rob.rodger@bentoncleanair.org>; Benton Clean Air Authority - Tyler Thompson <tyler.thompson@bentoncleanair.org>; Benton Clean Air John Lyle <john.lyle@bentoncleanair.org>; Benton County Assessor - Segregations <Segregations@co.benton.wa.us>; Rick Dawson <Rickd@bfhd.wa.gov>; Benton PUD - engineering services <engservice@bentonpud.org>; Benton PUD - Jeff Vosahlo <vosahloj@bentonpud.org>; Benton PUD Chad Brooks <brooksc@bentonpud.org>; Benton PUD Mike Irving <irvingm@bentonpud.org>; Benton PUD Shanna Everson <eversons@bentonpud.org>; Benton PUD Tina Glines <glinest@bentonpud.org>; BPA - Deborah Rodgers <dxrodgers@bpa.gov>; BPA - Joe Cottrell <jecottrell@bpa.gov>; BPA - Mike Deklyen <mjdeklyen@bpa.gov>; Cascade Gas James Thomas <james.thomas@cngc.com>; Cascade Natural Gas - Sara Pineda <sara.pineda@cngc.com>; Casey Barney <Casey_Barney@Yakama.com>; Charter - Junior Campos <junior.campos@charter.com>; Charter - Ryan Sams <ryan.sams@charter.com>; Columbia Irrigation District <cid@columbiairrigation.com>; Dept of Archaeology and Historic Preservation (sepa@dahp.wa.gov) <sepa@dahp.wa.gov>; Dustin Fisk - Kennewick School District (<dustin.fisk@ksd.org>) <dustin.fisk@ksd.org>; Greg Wendt (<Greg.Wendt@co.benton.wa.us>) <Greg.Wendt@co.benton.wa.us>; Jessica Lally <Jessica_Lally@Yakama.com>; KID Development <development@kid.org>; Kyle McCauley <Kyle.McCauley@cngc.com>; Michael Ritter <michael.ritter@dfw.wa.gov>; Michelle Cooke <Michelle.Cooke@co.benton.wa.us>; Mike Stevens - (<mstevens@ci.richland.wa.us>) <mstevens@ci.richland.wa.us>; Noah Oliver <Noah_Oliver@Yakama.com>; US Army Corps of Engineers <CENWW-RE@usace.army.mil>; Williams Pipeline - Audie Neuson <audie.neuson@williams.com>; WSDOT <scplanning@wsdot.wa.gov>; Yakama Nation - Thalia Sachtleban <enviroreview@yakama.com>; Ziply Fiber Christy Ross <christy.ross@ziply.com>

Subject: SUB-2022-0010 and ED-2022-0015

Attached is a proposed Preliminary Plat and SEPA Checklist.

Let me know if you have any questions.

Steve

Steve Donovan, AICP

City of Kennewick

Community Planning/Planning Manager

O: 509.585.4361

Steve.Donovan@ci.kennewick.wa.us

****This email was sent from outside the BFHD Network****

IMPORTANT: Email coming & going from our agency is not protected, thus client information can not be shared in this format. Please use voicemail or fax for client communication. The contents of this email and any attachments are confidential. They are intended for the named recipient(s) only. If you have received this email in error, please notify the system manager or the sender immediately and do not disclose the contents to anyone or make copies thereof.



Department of Energy

Bonneville Power Administration
2211 North Commercial Avenue
Pasco, WA 99301

TRANSMISSION SERVICES

May 6, 2022

In reply refer to: Canal Landing Preliminary Plat, Sub-2022-0010 and SEPA ED-2022-0015
Located within a Portion of Section 33, Township 9 North,
Range 29 East, W.M., Benton County, Washington

Steve Donovan, Senior Planner
City of Kennewick
Community Planning/Planner
210 W. 6th Avenue - PO Box 6108
Kennewick, WA 99336

Dear Steve:

Bonneville Power Administration (BPA) has had the opportunity to review Canal Landing Preliminary Plat, Sub-2022-0010 and SEPA ED-2022-0015. The application is to subdivided 7.78 acres into 96 lots. The property is located at 4711, 4717 and 4721 W Canal Drive in Kennewick, WA.

In researching our records, we have found that this proposal will not directly impact BPA facilities approximately 1.8 miles south of the subject property. BPA does not have any objections to the approval of this request at this time.

Thank you for the opportunity to review this application. If you have any questions regarding this request or need additional information, please feel free to contact a BPA representative at (509) 544-4747 or by email at jecottrell@bpa.gov.

Sincerely,

A handwritten signature in blue ink that reads "Joseph E. Cottrell II".

Joseph E. Cottrell
Realty Specialist



2015 South Ely Street
Kennewick, WA 99337
Customer Service 509-586-9111
Business 509-586-6012
FAX 509-586-7663
www.kid.org

May 9, 2022

Steve Donovan, AICP, Planning Manager
City of Kennewick - Development Services Division
PO Box 6108
Kennewick, WA 99336

Subject: Final Review Comments for Canal Landing Preliminary Plat (SUB-2022-0010)

Dear Mr. Donovan:

This letter provides Kennewick Irrigation District (KID) final review comments on the Canal Landing Preliminary Plat (SUB-2022-0010) submitted by Canal Landing, LLC ("Applicant"¹). This letter supersedes the preliminary review comment letter dated 5/4/2022. The plat proposes 96 new lots and one tract on approximately 7.78 acres. The properties are generally located at 4711 West Canal Drive, Kennewick, WA, in Section 33, Township 9 North, Range 29 East, W.M., and includes the following parcels:

- 133991020017008 (2.39 **irrigable** acres, 1.11 **non-irrigable** acres)]
- 133991020018001 (0.36 **irrigable** acres)
- 133991020018002 (3.44 **irrigable** acres)

The properties identified on the proposed preliminary plat are located within KID boundaries. The properties within this preliminary plat are classified as irrigable land and consist of a total of 6.19 irrigable acres, and 1.11 non-irrigable acres. Accordingly, KID provides the following comments to be included as required conditions of approval by the legislative authority under RCW 58.17.310(2):

- 1) The plat shall include the following irrigation easements consistent with KID requirements:
 - a. Dedicate to KID an irrigation easement 10 feet in width via a recorded deed to match irrigation system components, centered on an irrigation pipeline.
 - b. On all lots within the plat, dedicate to KID an irrigation easement 10 feet in width, or five (5) feet in width if adjacent to a utility easement, located along the road frontage of each lot. An irrigation easement may be included within the

¹ Reference to the "Applicant" throughout this comment letter shall refer to the property owner and/or developer of the proposed plat.

'sidewalk and utility' easement if one is proposed, denoting the easement as a "Sidewalk, Utility, and Irrigation Easement."

- 2) The Applicant is required to install an irrigation system that conforms to the most recent edition of the KID Standard Specifications pursuant to Resolution 86-15-A. This includes providing distribution pipelines adequate to provide individual pressurized irrigation services to the lots according to KID's standards. This system will be dedicated to KID upon completion, at the time of final plat.
 - a. Connection points will be the existing KID 8-inch PVC mainline in Canal Drive and the existing 6-inch steel mainline along the south line of the subject property, with new infrastructure installed between the two connection points to provide system interconnection for adequate service to the subdivision.
 - b. KID Standard Specifications require a pump station facility be constructed and sized appropriately for this plat application.
 - c. **As an alternative** to a pump station, and other "on-site" construction requirements per KID Standards Specifications, the Applicant and KID may mutually agree that it is in each of their best interests that other "off-site" improvements may be made to allow for the delivery of pressurized irrigation water to the plat. The other improvements would be proportionate and equal to the "on-site" requirements and may include:
 - i. Contributions made towards a regional pump facility.
 - ii. The installation of pipelines off site.
- 3) Design of the required irrigation system must be approved by KID prior to installation. The Applicant is required to submit an irrigation plan designed by a professional engineer for review and approval by KID. The plan may be hand drawn or computer drafted. The plan shall be accurate and to a scale not to exceed one (1) inch = 50 feet. This is a vital step of the approval process. In addition to compliance with condition 2 above, the plan must ensure all reasonable measures are taken to protect any easements, rights-of-way, and facilities. Please contact Daniel Tissell at 586-6012 for more information regarding this irrigation plan.
- 4) Completion of all the facilities, consistent with an irrigation plan approved by KID, is required prior to KID signature on the final plat.
 - a. In the event any KID facilities are damaged during construction, the damage must be fully repaired to KID's then-existing standards.
 - b. For each phase of the plat, KID review and approval of construction and grading plans is required to allow KID to assure all reasonable measures to protect any easements and rights-of-way. Such review and approval will be coordinated as part of City review and the final plat approval process.
 - c. KID must inspect any new irrigation system installations or modifications. The Applicant shall contact KID to arrange an inspection at least 48 hours in advance of the desired inspection date.

- d. As an alternative to immediate construction prior to approval of the final plat, the Applicant may choose to delay installation of the irrigation system by entering into a facilities installation agreement with KID. The Applicant must still provide KID with an irrigation system design that conforms to the most recent addition of the KID standard specifications. This irrigation system may be bonded and delayed up to five years. The facility installation agreement charge is \$350.00. The Applicant must establish an approved bonding mechanism with KID in an amount approved by KID.

Finally, KID requests the following additional conditions of final plat approval:

- 5) Prior to approval of each phase, the current year's assessment must be paid. If the final plat is submitted for review after May 31st of a given year or submitted for review prior to May 31st but not submitted for final approval prior to June 15th, the next year's estimated assessment (125% of the current year's assessment) must be paid prior to plat approval.
- 6) Prior to approval of the first phase, the USBR construction loan for **all parcels** owned by the property owner within the boundaries of KID must be paid. According to KID records, the subject property is the only property owned by the property owner at this time.
 - a. The current construction loan payoff rates provided by the USBR is \$12.01/acre (old lands). The total construction loan payoff amount for this project is **\$87.67**.
- 7) The review and inspection fees in place at the time of each review request must be paid. At the time of application the review fees are as follows:
 - a. A preliminary plat review fee of **\$825.00** which must be paid prior to scheduling for final plat approval at a KID Board meeting for the first phase.
 - b. For each phase an inspection fee of **\$350** for the first 20 service connections plus **\$25** per service connection after 20 service connections.
 - c. Final plat review fee for each phase of **\$225.00**.
- 8) Per KID Policy 4.17, "Irrigable Land Recalibration Principles," as land within the plat is subdivided or developed, KID will remove the irrigation water allocation from the impermeable surfaces, such as streets, from the plats.
- 9) In order to receive KID irrigation water delivery, a water master (or point of contact) for the subdivision must be appointed. This water master can be appointed by the Homeowners Association (or similar organization) officers or must be elected from among the property owners within the boundary of this proposed subdivision. If no HOA (or similar organization) is organized, then an election method similar to the attached document is required.

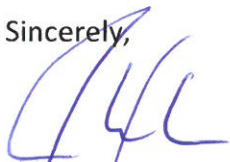
- 10) Prior to approval of each phase, an electronic file (AutoCAD 2004 format or later) and hard copy (6-mil mylar, sealed by a professional engineer) of construction as-builts must be provided to KID.
- 11) All subdivisions of land are required to be approved by the KID Board of Directors during a KID board meeting. KID board meetings are regularly scheduled on the first and third Tuesdays of each month. All conditions must be completed prior to submittal to KID for final approval. The submittal for final approval must be received by KID a minimum of two weeks prior to a regularly scheduled board meeting to be considered at that meeting.

KID reserves the following rights regarding future review of the plat:

- 12) KID reserves the right to provide review comments under RCW 58.17.330(1) and RCW 58.17.330(2) in response to future design submittals by the Applicant prior to final plat approval. The scope of these reviews will be limited to phases that are adjacent to the District's ROW. KID review of construction plans will be consistent with the City's plan review timelines.
- 13) KID reserves the right to review and comment on the Applicant's plat line revisions for potential additional revisions to protect KID system components for phases that are adjacent to KID's easements or ROW.
- 14) KID reserves the right to review and comment on the Applicant's covenants, conditions, and restrictions to evaluate whether they should include any terms regarding protection of KID system components after construction and fencing requirements.
- 15) KID reserves the right to submit additional comments during the City's review process under the State Environmental Policy Act (SEPA).

Please provide notice to KID of any public meeting or hearing where this project will be an agenda item. If you have any questions regarding these comments, please contact me at the address/phone number listed below.

Sincerely,



Jason McShane, P.E.
Engineering/Operations Manager

Enc: Sample Water Master Information

cc: LB\correspondence\File: [33-9-29]

From: [Casique, Hector \(ECY\)](#)
To: [Steve Donovan](#)
Subject: SEPA 202204286 Soil Testing
Date: Thursday, September 8, 2022 7:39:50 AM

Hi Steve,

I hope today finds you well.

I wanted to reach out regarding a proposed project in Kennewick Washington (SEPA 202204286) that is located on former orchard land. This project will subdivide 7.78 acres into 96 lots. I have attached Ecology's comment below but, please, feel free to call or email me if you have any questions.

Thank you for the opportunity to comment on your proposed project.

Historical aerial photos indicate a portion of your property was occupied by orchard during the time period when lead arsenate was applied as a pesticide, often resulting in shallow soil contamination from lead and/or arsenic. Under the Model Toxics Control Act (Chapter 173-340 WAC), your project is **required to conduct soil sampling**. Results should be submitted to Ecology at: formerorchards@ecy.wa.gov.

If sampling indicates elevated levels of lead and arsenic, cleanup will be required prior to occupancy. The Department of Ecology has created Model Remedies for lead and arsenic pesticide contamination in historical orchards of Central Washington. A Focus Sheet on the Model Remedies can be found at <https://apps.ecology.wa.gov/publications/documents/2109007.pdf>

Compliance with a Model Remedy ensures your project meets the minimum standards of the Model Toxics Control Act, and if implemented as described, your property will be successfully cleaned up to Washington State standards.

Ecology can provide free initial sampling, as well as free technical assistance for your project.

Please contact Hector Casique, Project Manager, at (509) 208-1288 or email hector.casique@ecy.wa.gov, for further information or to schedule your initial sampling.

Thank you for working with Ecology Steve,

Hector Casique (He/Him)
Washington State Department of Ecology
Central Region Office | 1250 West Alder Street | Union Gap, WA 98903
Hector.Casique@ecy.wa.gov | (509) 208-1288



RYAN JONES • CAPITAL PROJECTS MANAGER
5501 W. METALINE AVE. ▪ KENNEWICK, WA 99336
P: (509) 222-6810 ▪ F: (509) 222-5057
RYAN.JONES@KSD.ORG ▪ WWW.KSD.ORG

EXHIBIT 16

September 26, 2022

Steve Donovan, AICP
Community Planning/Senior Planner
City of Kennewick

Re: Canal Landing Preliminary Plat, SUB-2022-0010

Mr. Donovan,

This memo is written in regard to your request for the Kennewick School District #17 to submit comments on the following:

Canal Landing Preliminary Plat, SUB-2022-0010
Parent Parcels 133991020018001, 133991020018002, 133991020017008

The boundary schools for this development are Vista Elementary (Bussing Zone), Highlands Middle School (Bussing Zone) and Kamiakin High School (Walking Zone).

The Kennewick School District has a Ten-Year Plan in place that forecasts future growth. It is impossible to know exactly where pockets of growth may occur, but the district works closely with the City of Kennewick and Benton County to make sure that we own property near projected areas of growth. Having property near potential growth areas allows us to add schools where the students are living, and to avoid additional bussing or redistricting of our boundaries. That being said, we do occasionally have to redistrict to keep our schools within our preferred enrollment numbers.

The Kennewick School District has the capacity to add students at all levels and at the three schools mentioned in this letter. Forecasted growth in additional boundary areas of the Kennewick School District makes it difficult to know if any redistricting could result because of this proposed development.

Residential development has had a significant impact on public utility capacity (i.e. City of Kennewick, Kennewick Irrigation District, etc.), roads, and traffic. The impact on utility and road infrastructure directly and indirectly affect our schools and students. The District expects the level of current utility capacity to be maintained to District facilities. We request the city to ensure that developers are contributing toward utility infrastructure development and upgrades, safe walking routes, safe crosswalks, including flashing beacons, etc. Given the number of lots in this development, the likelihood of elementary/middle school age children, and that it falls in a bussing zone for two of the three schools, the Kennewick School District would like to request that considerations be made for designated school bus pick up and drop off area.

Sincerely,

Ryan Jones