



File No. EA2023-118

CITY OF RICHLAND
Determination of Non-Significance

Description of Proposal: This proposal consists of the construction of a Flex-Use (51% Office/49% Warehouse) PEMB's (Pre-Engineered Metal Buildings) broken out into 3 Phases. Phase 1 consists of the entire site mass grading and construction of a 57,736 SF PEMB with associated parking and R.O.W Improvements along Leslie Rd, Phase 2 will consist of the construction of a 56,613 SF PEMB with associated parking, & Phase 3 consists of the construction of a 78,400 SF PEMB with associated parking.

Mitigation for impacts to shrub-steppe habitat will occur in the form of preservation or purchasing the equivalent of 20.32 acres of shrub-steppe habitat.

Proponent: Paul Knutzen
5401 Ridgeline Dr Suite 160
Kennewick, WA 99338

Location of Proposal: The main lot is located on 4401 Leslie Road in Richland, WA 99352. Parcel # 111881012147003 according to the Benton County GIS.

Lead Agency: City of Richland

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not 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 lead agency. This information is available to the public on request.

() There is no comment for the DNS.

(X) This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for fourteen days from the date of issuance.

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

Responsible Official: Mike Stevens

Position/Title: Planning Manager

Address: 625 Swift Blvd., MS #35, Richland, WA 99352

Date: July 25, 2023

Comments Due: August 9, 2023

Signature  _____

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background [\[HELP\]](#)

1. Name of proposed project, if applicable: ***Leslie Rd Richland Flex Space***
2. Name of applicant: ***Paul Knutzen (Knutzen Engineering)***
3. Address and phone number of applicant and contact person: ***5401 Ridgeline Drive Suite 160, Kennewick, WA 99338***

4. Date checklist prepared: **06/08/23**
5. Agency requesting checklist: **City of Richland**
6. Proposed timing or schedule (including phasing, if applicable):
Permitting for Phase 1 to begin in the Summer of 2023, Construction to end in the Spring of 2024. Anticipated for Phase 2 to begin in the Summer of 2024 and end in the Winter of 2024. Anticipated for Phase 3 to begin in the spring of 2025 and end in the Fall of 2025. Mass grading for the whole site will occur in Phase 1.
7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. **This project will be done in 3 Phases. No further action is expected after construction of Phase 3.**
8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. **A stormwater report will be prepared to address storm water runoff, a Critical Area Report addressing Critical Habitats has also been prepared.**
9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. **None.**
10. List any government approvals or permits that will be needed for your proposal, if known.
A Building Permit & ROW Permit will be required by the City of Richland. A land use application will be required with the BPA. There will need to be a Plat Amendment to revise the configuration of the lots and Ecology will need a Construction Stormwater Permit since the site is over 5-acres and an Erosivity Waiver will not apply in this case.
11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.) **This proposal consists of the construction of a 3 Flex-Use (51% Office / 49% Warehouse) PEMB's (Pre-Engineered Metal Buildings) broken out into 3 Phases. Phase 1 consists of the entire site mass grading and construction of a 57,736 SF PEMB with associated parking and R.O.W Improvements along Leslie Rd, Phase 2 will consist of the construction of a 56,613 SF PEMB with associated parking, & Phase 3 consists of the construction of a 78,400 SF PEMB with associated parking.**
12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. **The main lot is located on 4401 Leslie Road in Richland, WA 99352. Parcel # 111881012147003 according to the Benton County GIS**

B. Environmental Elements [\[HELP\]](#)

1. **Earth** [\[help\]](#)

a. General description of the site: (circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____

b. What is the steepest slope on the site (approximate percent slope)? **The site is relatively flat for the**

most part and on the south side of the property it starts to slope down at approximately 10% slope according to our survey.

- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.
There is loamy fine sand as well as silt loam according to the NRCS Web Soil Survey.
- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.
No indication of unstable soils.
- e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.
Design isn't completed yet, and while we will try to balance the site to not have any import or export required, for purposes of SEPA we would like to note that the final site design may require export (or import) of up to 15,000 CY.
- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
Erosion could occur on this site but will be minimized through implementation of BMP's during construction, including silt fencing, construction entrance, ground cover, waddles, site watering for dust control, catch basin inserts and protection. All storm water runoff will be contained and managed on site.
- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? **Approximately 90% of the site will be impervious.**
- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
Standard erosion control methods will be used such as catch basin protection (Witch Hats), Silt fencing, and stabilized construction entrances. Dust during construction will be controlled by a water truck as necessary.

2. Air [\[help\]](#)

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known. **During construction, minor amounts of dust and exhaust from equipment activity may occur. The completed project will not affect air quality.**
- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. **None known**
- c. Proposed measures to reduce or control emissions or other impacts to air, if any: **Dust control measures will be implemented in accordance with recommendations by the DoE, which include, but are not limited to, watering, lowering speed, limiting construction vehicles, and reducing the amount of dust-generating activities on windy days.**

3. Water [\[help\]](#)

a. Surface Water: [\[help\]](#)

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

The Columbia river is approximately 3.25 miles south of the project site. The KID

recognizes the East Badger Drain on the south of the property and is sometimes wet.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans. **The project will be within this distance of the East Badger Drain and a site plan is attached.**
- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. **None**
- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. **No**
- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
No
- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. **No**

b. Ground Water: [\[help\]](#)

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.
No groundwater will be used, City water is currently available at the site
- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. **None**

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. **The new impervious area on-site will generate stormwater runoff. The stormwater system will consist of surface infiltration and all be managed on-site**
- 2) Could waste materials enter ground or surface waters? If so, generally describe. **No**
- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe. **No, all run-off will be retained on-site**

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any: **All runoff will be retained on-site and stormwater facilities will be chosen to ensure predicted pollutants will be properly filtered**

4. **Plants** [\[help\]](#)

- a. Check the types of vegetation found on the site:
- deciduous tree: alder, maple, aspen, other
 - evergreen tree: fir, cedar, pine, other
 - shrubs
 - grass
 - pasture
 - crop or grain
 - Orchards, vineyards or other permanent crops.
 - wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
 - water plants: water lily, eelgrass, milfoil, other
 - other types of vegetation
- b. What kind and amount of vegetation will be removed or altered? **All existing vegetation will be removed.**
- c. List threatened and endangered species known to be on or near the site. **None known**
- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: **Landscaping will be done per City of Richland Municipal Code**
- e. List all noxious weeds and invasive species known to be on or near the site. **None**

5. **Animals** [\[help\]](#)

- a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

Examples include:

birds: hawk, heron, eagle, songbirds, other:

mammals: deer, bear, elk, beaver, other:

fish: bass, salmon, trout, herring, shellfish, other _____

- b. List any threatened and endangered species known to be on or near the site.
The Ferruginous Hawk & Townsend's Ground Squirrel has been seen at or near by the site according to the Washington State Department of Fish and Wildlife. While this is listed by WDFW, the area has been developed for years and likely hasn't been a suitable habitat since development.
- c. Is the site part of a migration route? If so, explain.
Richland is part of the Pacific Flyway

- d. Proposed measures to preserve or enhance wildlife, if any: **None**
- e. List any invasive animal species known to be on or near the site. **None**

6. Energy and Natural Resources [\[help\]](#)

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Electrical power will be used for equipment and heating

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. **No**

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

The proposed structures will meet current building codes and comply with Washington State Non-Residential Energy Code

7. Environmental Health [\[help\]](#)

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. **None known**

- 1) Describe any known or possible contamination at the site from present or past uses.
None known
- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity. **None known**
- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project. **Fuel for construction may be stored on-site and is already stored for current uses on the north side of the site.**
- 4) Describe special emergency services that might be required.
The site will use the typical emergency services provided through the City of Richland.
- 5) Proposed measures to reduce or control environmental health hazards, if any:
Fuel for construction vehicles will be handled properly to prevent spills.

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? **Normal vehicle noise from E Reata Road and Leslie Road. This will not impact the project.**

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site. **Short Term construction noises (7am -4pm)
Long Term traffic noise from large trucks (7 am – 9pm)**

3) Proposed measures to reduce or control noise impacts, if any: **none purposed**

8. Land and Shoreline Use [\[help\]](#)

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. **The site is currently undeveloped. Nearby sites include other commercial properties including but not limited to Reata Storage, Eagle Rock, and Badger Mountain Mini-Storage. All adjacent uses are General Commercial type uses.**
- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? **No**
- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversized equipment access, the application of pesticides, tilling, and harvesting? If so, how: **No**
- c. Describe any structures on the site. **None**
- d. Will any structures be demolished? If so, what? **No**
- e. What is the current zoning classification of the site? **C-3 (General Commercial)**
- f. What is the current comprehensive plan designation of the site? **Commercial**
- g. If applicable, what is the current shoreline master program designation of the site? **N/A**
- h. Has any part of the site been classified as a critical area by the city or county? If so, specify. **No**
- i. Approximately how many people would reside or work in the completed project? **None would reside. Number of employees is determined based off the businesses that rent the suites out. Theoretically, in the 3 finished buildings there will be anywhere from 120-160**
- j. Approximately how many people would the completed project displace? **None**
- k. Proposed measures to avoid or reduce displacement impacts, if any: **None**
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: **The project will be permitted through the local jurisdictions with all applicable zoning ordinances.**
- m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any: **N/A**

9. Housing [\[help\]](#)

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. **N/A**

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. **N/A**
- c. Proposed measures to reduce or control housing impacts, if any: **None**

10. Aesthetics [\[help\]](#)

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? **The highest point of the roof is approximately 26' tall. The building will be constructed out of steel.**
- b. What views in the immediate vicinity would be altered or obstructed? **None**
- c. Proposed measures to reduce or control aesthetic impacts, if any: **Landscaping, setbacks, and façade requirements.**

11. Light and Glare [\[help\]](#)

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur? **Parking and Building lighting would be proposed for late evening and nighttime.**
- b. Could light or glare from the finished project be a safety hazard or interfere with views? **No**
- c. What existing off-site sources of light or glare may affect your proposal? **No**
- d. Proposed measures to reduce or control light and glare impacts, if any: **All outdoor lighting will be in conformance with City of Richland Standards.**

12. Recreation [\[help\]](#)

- a. What designated and informal recreational opportunities are in the immediate vicinity? **None are in the immediate proximity to the project.**
- b. Would the proposed project displace any existing recreational uses? If so, describe. **No**
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: **None needed**

13. Historic and cultural preservation [\[help\]](#)

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe. **None per the Department of Archaeology and Historic preservation WISAARD system.**
- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. **This site is considered an area of interest for Yakima Nation, Confederated Tribes of the Warm Spring, and Umatilla Tribe according to the WISAARD system of the DAHP. No evidence of artifacts has been found to our knowledge. A cultural resource study has been commissioned by the owners and is expected to be completed in early July.**

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. **The WISAARD system of the DAHP was used to assess potential impacts.**
- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required. **Upon any discovery of potential or known archaeological resources at the property prior to or during on-site construction, the developer, contractor, and/or any other parties involved in construction shall immediately cease all on-site construction, shall act to protect the potential or known historical and cultural resources area from outside intrusion, and shall notify City of Richland officials of said discovery within a maximum period of twenty-four hours from the time of discovery.**

14. Transportation [\[help\]](#)

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. **This site currently has one source of access off Reata Rd. We will install an ADA compliant driveway to fulfill the need for additional access to this lot along Leslie Rd.**
- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? **The site is currently not served by public transit. The closest bus stop is located on Leslie Rd and Gage Blvd (Bus ID RC262)**
- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? **Project will add 530 parking spaces**
- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). **None.**
- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. **No**
- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates? **See attached Trip Generation Document for Trip counts per day.**
- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe. **No**
- h. Proposed measures to reduce or control transportation impacts, if any: **None at this time.**

15. Public Services [\[help\]](#)

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. **Yes, site will utilize fire and police protection.**

- b. Proposed measures to reduce or control direct impacts on public services, if any.
The completed project will provide additional tax revenue for the City and will pay any impact fees that may be required by the City.

16. Utilities [\[help\]](#)

- a. Circle utilities currently available at the site:
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system,
other _____
- b. Describe the utilities that are proposed for the project, the utility providing the service,
and the general construction activities on the site or in the immediate vicinity which might
be needed.
Phone / Internet – Ziplly
Water/Sewer - City of Richland
Electricity - Richland Energy Services
Cable – Charter

c. Signature [\[HELP\]](#)

The above answers are true and complete to the best of my knowledge. I understand that the
lead agency is relying on them to make its decision.

Signature: Paul Knutzen

Name of signee **Paul Knutzen**

Position and Agency/Organization **Principal Engineer, Knutzen Engineering**

Date Submitted: **06/08/2023**



June 7, 2023

Ben Matson
Matson Development LLC
253 Jackrabbit Lane
Kennewick, Washington 99338

Via email: ben@matson-llc.com

Regarding: Trip Generation and Distribution Letter
Leslie Road Flex Space
4401 Leslie Road
Richland, Washington 99352
Tax lot 111881012147003, 111881012147002, and 111881012147001
PBS Project 78092.000

Dear Mr. Matson:

This trip generation and distribution letter has been prepared to support the proposed development of the Leslie Road Flex Space building and parking lot in the City of Richland (City). The letter is prepared for submission to the City of Richland (City).

PROJECT DESCRIPTION

This project includes the addition of 192,000 square feet of floor area across three buildings, including approximately 169,152 square feet (85%) of Warehousing space and 22,848 square feet (15%) of General Light Industrial. Paved parking areas, sidewalks, and associated utilities on site are also proposed. The project is expected to be completed by 2025. See Figure 1 for the vicinity map and Figure 2 for the site plan.

This project is for the development of three parcels (assessor's parcel numbers 111881012147003, 111881012147002, and 111881012147001 addressed as 4401 Leslie Road), located within the city limits of Richland, Washington. The site is zoned C-3 (General Business).

TRIP GENERATION

Trip generation estimates for the proposed Leslie Road Flex Space are based on "Warehousing" (land use code [LUC] 150) and "General Light Industrial" (LUC 110) in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition (2021). The trip generation for Warehousing (LUC 150) and General Light Industrial (LUC 110) was calculated using ITE fitted curve equations. The details are attached for reference.

There were no adjustments made for transit, pedestrian, internal capture trips, pass-by trips, or diverted linked trips. Table 1 presents the trip generation estimates for the proposed Leslie Road Flex Space.

Table 1. ITE Trip Generation for Leslie Road Flex Space

Land Use (ITE Code)	Warehousing (150)			General Light Industrial (110)			Total Trips		
	Independent Variable			1,000 sf GFA					
Size	169,152			22,848			192,000		
Time Period	Average Daily Trips	AM Peak Hour	PM Peak Hour	Average Daily Trips	AM Peak Hour	PM Peak Hour	Average Daily Trips	AM Peak Hour	PM Peak Hour
In	153	34	13	68	17	2	221	51	15
Out	153	10	34	68	2	12	221	12	46
Total Trips	306	44	47	136	19	14	442	63	61

sf GFA = square feet of gross floor area

The Leslie Road Flex Space is expected to generate 442 new trips during a typical weekday, including 63 trips during the AM peak hour and 61 trips during the PM peak hour.

SITE ACCESS AND PARKING

The development proposes two site accesses, one on Leslie Road and one on Reata Road. Both the site access driveways are 30 feet wide. There are no existing driveways or intersections within 300 feet of the proposed Leslie Road driveway. There is one existing driveway across from the proposed driveway on Reata Road. It has an approximate offset of 50 feet but it provides access to a electric substation that is gated with very little volume in and out.

The site accesses on Leslie Road and Reata Road were reviewed graphically. Both roadways have a posted speed of 40 miles per hour (mph). Based on Chapter 9.5.3 of the American Association of State Highway and Transportation Officials (AASHTO) policy,¹ and the 40-mph speed, the accesses must have at least 445 feet of intersection sight distance (ISD) for vehicles making a left-turn from stop and at least 385 feet of ISD for vehicles making a right-turn from stop to meet the AASHTO recommendations. Both accesses appear to meet the AASHTO recommendations for intersection sight distance.

Parking counts have been estimated based on the assumed number of employees on site for Warehousing (LUC 150) and General Light Industrial (LUC 110) uses per the warehousing parking use code standard in Richland Municipal Code Section 23.54.020(D)(5). The site requires a total of 135 stalls, including 85 stalls for Warehousing use and 50 stalls for General Light Industrial use. A total of 530 stalls are provided on site, including 19 Americans with Disabilities Act (ADA) compliant stalls. Sufficient parking is in place to meet project capacity.

TRIP DISTRIBUTION

The trips are based on engineering judgement and proximity to Interstate 82 (I-82) and land density. The two land uses should have different distribution with the General Light Industrial trips weighted more towards I-82 and the Warehouse trips more to the surrounding land uses. This assumes the General Light Industrial trips will travel from

¹ AASHTO (American Association of State Highway and Transportation Officials). (2018). *A Policy on the Geometric Design of Highways and Streets*, 7th Edition.

greater distances to and from the site and warehouse users will live/work in closer proximity. The trip distribution percentages of the total trips are shown on Figure 3 and are a combination of both land uses.

TRAFFIC IMPACT FEE

The project site is in Zone 1 of the South Richland Traffic Impact Fee (TIF) area. PBS estimated the TIF for the project based upon net new PM Peak Hour Trips using the ITE *Trip Generation Manual*, 11th Edition (2021) average rate. The estimated TIF is summarized in Table 2. The official fee shall be calculated by the City Traffic Engineer based upon the final project submittal.

Table 2. Traffic Impact Fee Estimate for Leslie Road Flex Space

Land Use Category	ITE Average PM Peak Hour Trip Rate (1)	New Trip % (2)	Net New PM Peak Hour Trip Rate (3)	TIF (Per New PM Peak Hour Trip) (4)	Impact Fee Per Unit of Development (5)	# Units of Development* (6)	Traffic Impact Fee**
Warehousing (150)	0.18	100%	0.18	\$1991.25	\$358.43	169.15	\$60,627.59
General Light Industrial (110)	0.65	100%	0.65	\$1991.25	\$1,294.31	22.85	\$29,575.04
Total							\$90,202.63

* Unit: 1,000 square feet of Gross Floor Area (SF GFA)
 ** Traffic Impact Fee Formula: (1)*(2)=(3), (3)*(4)=(5), (5)*(6)=TIF

PEDESTRIAN AND TRAFFIC SAFETY MEASURES

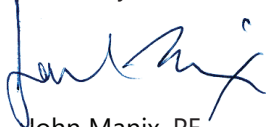
Frontage improvements that include sidewalks and streetlights are recommended along the frontage of the site. Existing sidewalks and streetlights are readily available along the frontage of Leslie Road. PBS recommends that the proposed development construct sidewalks and streetlights along the frontage of Reata Road. Internal sidewalks will be provided throughout the development.

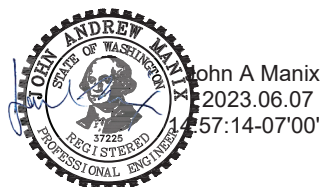
Bicycle lanes are not available in the vicinity of the site. Transit service in the region is provided by Ben Franklin Transit but there is no bus stop near the site. The nearest bus stop is located 2 miles north at Gage Boulevard and Peach Tree Lane via Ben Franklin Transit bus route 123.

CLOSING

Please feel free to contact me at 360.607.1854 or john.manix@pbsusa.com with any questions or comments.

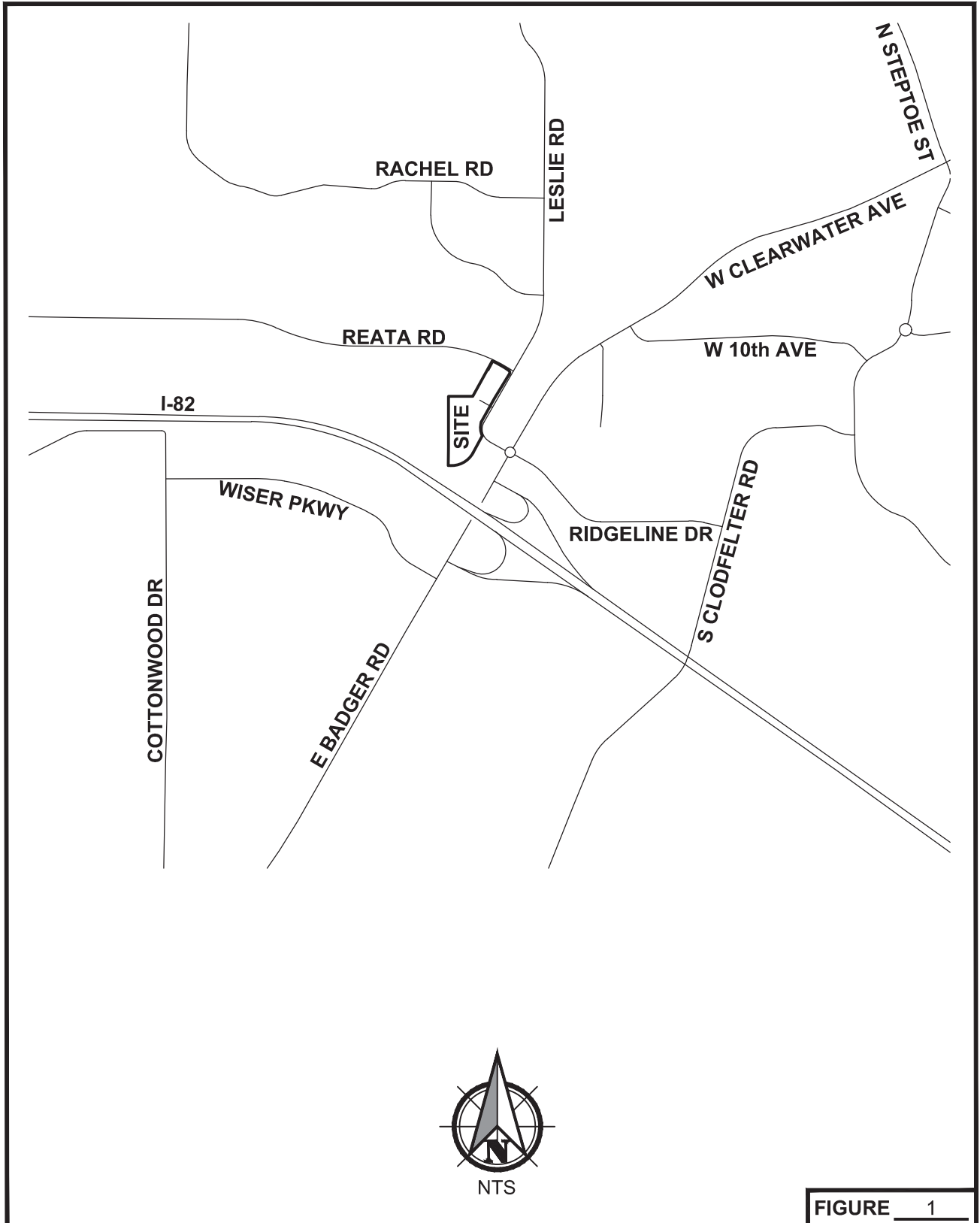
Sincerely,


 John Manix, PE
 Senior Traffic Engineer



Attachment: Figure 1 – Vicinity Map
Figure 2 – Site Map
Figure 3 – Trip Distribution and Assignment
Trip Generation Calculations

EHLM:JM:tl



Vicinity Map
Leslie Road Flex Space

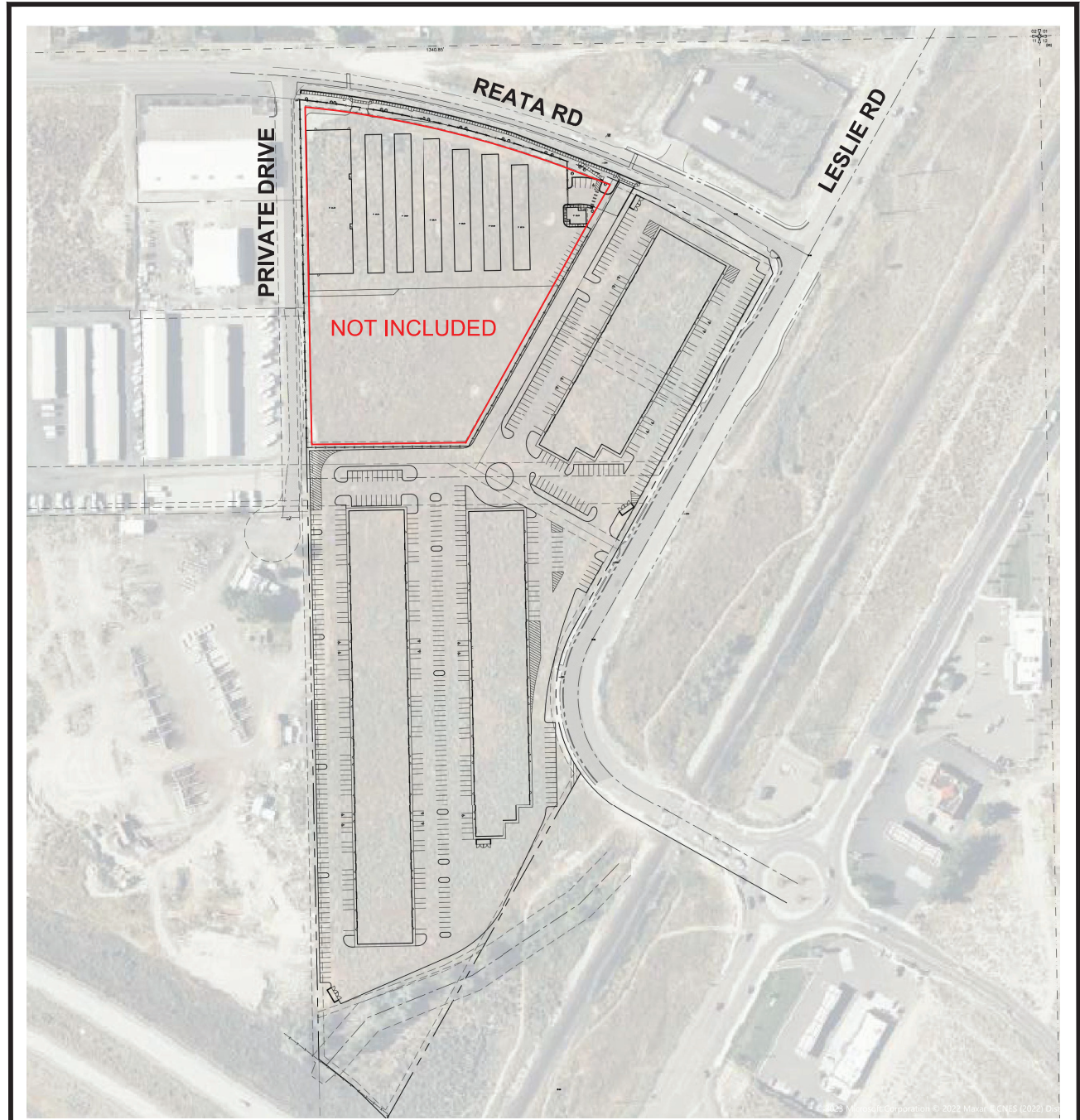
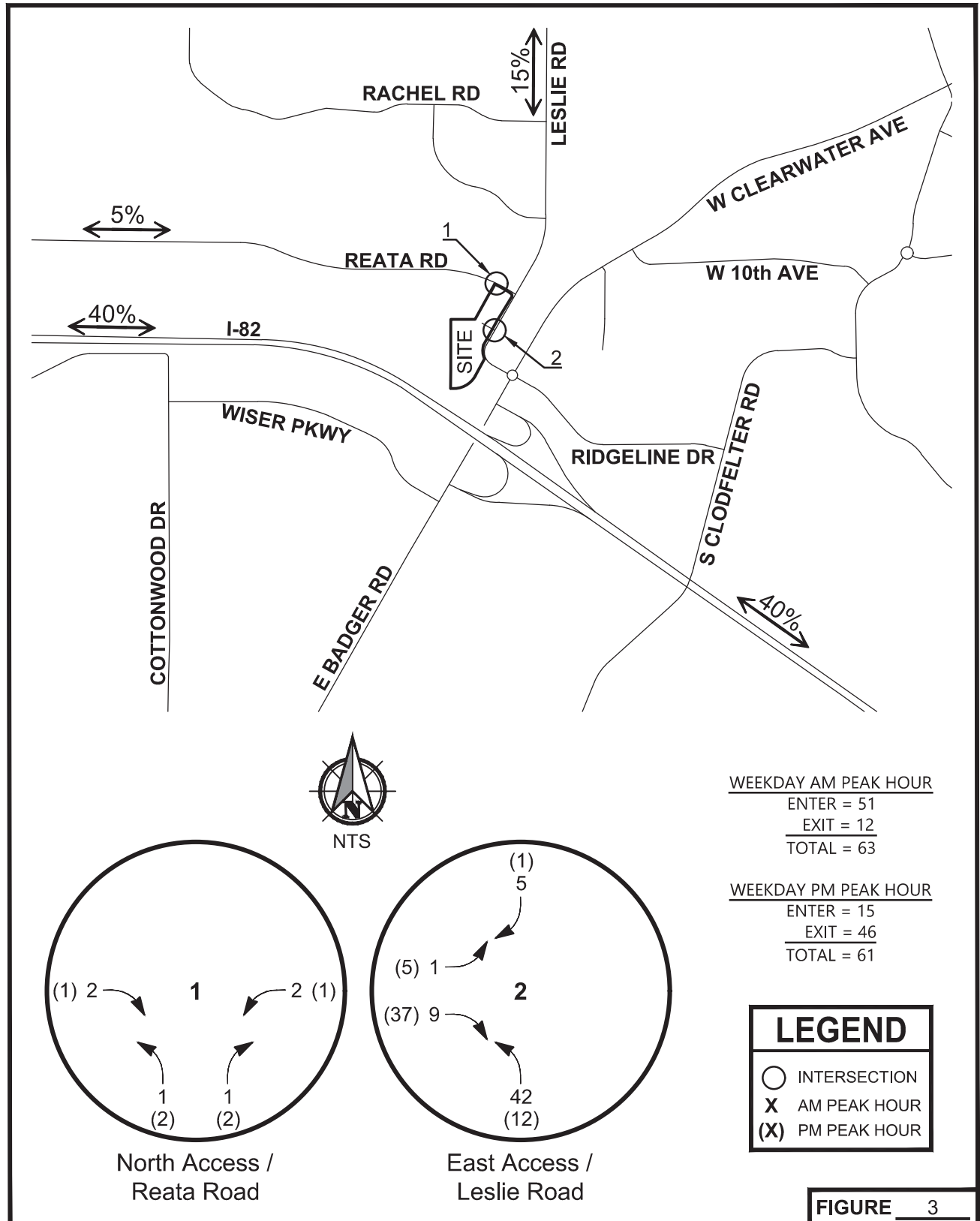


FIGURE 2

Site Plan

Leslie Road Flex Space



Trip Distribution and Assignment Leslie Road Flex Space

PROJECT DETAILS									
Project Name: 78092.000 Leslie Road Flex Space					Type of Project:				
Project No:					City:				
Country:					Built-up Area(Sq.ft):				
Analyst Name: Bhauvesh Jaya					Clients Name:				
Date: 5/12/2023					ZIP/Postal Code:				
State/Province:					No. of Scenarios: 3				
Analysis Region:									
SCENARIO SUMMARY									
Scenarios	Name	No. of Land Uses	Phases of Development	No. of Years to Project Traffic	User Group	Estimated New Vehicle Trips			
						Entry	Exit	Total	
Scenario - 1	Weekday	2	1	0		221	221	442	
Scenario - 2	Weekday AM Peak Hour	2	1	0		51	12	63	
Scenario - 3	Weekday PM Peak Hour	2	1	0		15	46	61	

Scenario - 1

Scenario Name: Weekday User Group:
 Dev. phase: 1 No. of Years to Project: 0
 Analyst Note: Traffic:

Warning:

Land Use & Data Source	Location	IV	Size	Time Period	Method Rate/Equation	Entry Split%	Exit Split%	Total
150 - Warehousing	General Urban/Suburban	1000 Sq. Ft. GFA	169.15	Weekday	Best Fit (LIN)	153	153	306
Data Source: Trip Generation Manual, 11th Ed					T = 1.58(X) + 38.29	50%	50%	
110 - General Light Industrial	General Urban/Suburban	1000 Sq. Ft. GFA	22.85	Weekday	Best Fit (LIN)	68	68	136
Data Source: Trip Generation Manual, 11th Ed					T = 3.76(X) + 50.47	50%	50%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry (%)	Exit (%)	Entry (%)	Exit (%)
150 - Warehousing	100	100	1.3	1.3	50	50
110 - General Light Industrial	100	100	1.3	1.3	50	50

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
150 - Warehousing	199	199	0	0	199	199
	398		0		398	
110 - General Light Industrial	89	89	0	0	89	89
	178		0		178	

INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group
150 - Warehousing	Others
110 - General Light Industrial	Others

BALANCED PERSON TRIPS:

150 - Warehousing				110 - General Light Industrial			
Persons Exit	PAF	UIPTC	Unconstrained Demand	Persons Entry	PAF	UIPTC	Unconstrained Demand
199	1	0	0	89	1	0	0
====> BALANCED <====				====> BALANCED <====			
Persons Entry	PAF	UIPTC	Unconstrained Demand	Persons Exit	PAF	UIPTC	Unconstrained Demand
199	1	0	0	89	1	0	0

INTERNAL PERSON TRIPS:

Land Use	Entry	Exit	Total
150 - Warehousing	0	0	0
110 - General Light Industrial	0	0	0
Total Internal Person Trips	0	0	0

INTERNAL VEHICLE TRIPS AND CAPTURE:

Land Use	Entry	Exit	Total
150 - Warehousing	0	0	0
110 - General Light Industrial	0	0	0
Total Internal Person Trips	0	0	0

Land Use	Vehicle Mode Share	Vehicle Occupancy	Total Vehicle Internal Trips	Total External Vehicle Trips	Internal Vehicle Trip Capture
150 - Warehousing	100%	1.00	0	153	0%
110 - General Light Industrial	100%	1.00	0	68	0%
Total	100%	1.00	0	221	0%

PASS-BY VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
150 - Warehousing	153	153	0.00%	0.00%	0	0
110 - General Light Industrial	68	68	0.00%	0.00%	0	0

DIVERTED VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
150 - Warehousing	153	153	0.00%	0.00%	0	0
110 - General Light Industrial	68	68	0.00%	0.00%	0	0

EXTRA VEHICLE TRIP REDUCTION

Land Use	[External - (Pass-by + Diverted)] Vehicle Trips		Extra Vehicle Trip Reduction %		Extra Reduced Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
150 - Warehousing	153	153	0.00%	0.00%	0	0
110 - General Light Industrial	68	68	0.00%	0.00%	0	0

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
150 - Warehousing	153	153	306
110 - General Light Industrial	68	68	136

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	221	221	442
Internal Vehicle Trips	0	0	0
External Vehicle Trips	221	221	442
Internal Vehicle Trip Capture	0%	0%	0%
Pass-by Vehicle Trips	0	0	0
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	221	221	442

Scenario - 2
 Scenario Name: Weekday AM Peak Hour
 Dev. phase: 1
 Analyst Note:
 User Group:
 No. of Years to Project: 0
 Traffic:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
150 - Warehousing	General Urban/Suburban	1000 Sq. Ft. GFA	169.15	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN)	34	10	44
Data Source: Trip Generation Manual, 11th Ed					T = 0.12(X) + 23.62	77%	23%	
110 - General Light Industrial	General Urban/Suburban	1000 Sq. Ft. GFA	22.85	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN)	17	2	19
Data Source: Trip Generation Manual, 11th Ed					T = 0.68(X) + 3.81	88%	12%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry (%)	Exit (%)	Entry (%)	Exit (%)
150 - Warehousing	100	100	1.3	1.3	77	23
110 - General Light Industrial	100	100	1.3	1.3	88	12

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
150 - Warehousing	44	13	0	0	44	13
		57		0		57
110 - General Light Industrial	22	3	0	0	22	3
		25		0		25

INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group
150 - Warehousing	Others
110 - General Light Industrial	Others

BALANCED PERSON TRIPS:

150 - Warehousing				110 - General Light Industrial			
Persons Exit	PAF	UIPTC	Unconstrained Demand	Persons Entry	PAF	UIPTC	Unconstrained Demand
13	1	0	0	22	1	0	0
Persons Entry	PAF	UIPTC	Unconstrained Demand	Persons Exit	PAF	UIPTC	Unconstrained Demand
44	1	0	0	3	1	0	0

INTERNAL PERSON TRIPS:

Land Use	Internal Person Trips From	Entry	Exit	Total
150 - Warehousing	Internal Person Trips From	0	0	0
110 - General Light Industrial	Internal Person Trips From	0	0	0
Total Internal Person Trips		0	0	0

Land Use	Internal Person Trips From	Entry	Exit	Total
150 - Warehousing	Internal Person Trips From	0	0	0
110 - General Light Industrial	Internal Person Trips From	0	0	0
Total Internal Person Trips		0	0	0

INTERNAL VEHICLE TRIPS AND CAPTURE:

Land Use	Total Internal Person Trips	Vehicle Mode Share	Vehicle Occupancy	Total External Vehicle Trips	Internal Vehicle Trip Capture
150 - Warehousing	0	100%	1.00	34	0%
110 - General Light Industrial	0	100%	1.00	17	0%

PASS-BY VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
150 - Warehousing	34	10	0.00%	0.00%	0	0
110 - General Light Industrial	17	2	0.00%	0.00%	0	0

DIVERTED VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
150 - Warehousing	34	10	0.00%	0.00%	0	0
110 - General Light Industrial	17	2	0.00%	0.00%	0	0

EXTRA VEHICLE TRIP REDUCTION

Land Use	[External - (Pass-by + Diverted)] Vehicle Trips		Extra Vehicle Trip Reduction %		Extra Reduced Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
150 - Warehousing	34	10	0.00%	0.00%	0	0
110 - General Light Industrial	17	2	0.00%	0.00%	0	0

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
150 - Warehousing	34	10	44
110 - General Light Industrial	17	2	19

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	51	12	63
Internal Vehicle Trips	0	0	0
External Vehicle Trips	51	12	63
Internal Vehicle Trip Capture	0%	0%	0%
Pass-by Vehicle Trips	0	0	0
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	51	12	63

Scenario - 3
 Scenario Name: Weekday PM Peak Hour
 Dev. phase: 1
 Analyst Note:
 User Group:
 No. of Years to Project: 0
 Traffic:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
150 - Warehousing	General Urban/Suburban	1000 Sq. Ft. GFA	169.15	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LIN)	13	34	47
Data Source: Trip Generation Manual, 11th Ed					$T = 0.12(X) + 26.48$	28%	72%	
110 - General Light Industrial	General Urban/Suburban	1000 Sq. Ft. GFA	22.85	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG)	2	12	14
Data Source: Trip Generation Manual, 11th Ed					$\ln(T) = 0.72\ln(X) + 0.38$	14%	86%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
150 - Warehousing	100	100	1.3	1.3	28	72
110 - General Light Industrial	100	100	1.3	1.3	14	86

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
150 - Warehousing	17	44	0	0	17	44
		61		0		61
110 - General Light Industrial	3	16	0	0	3	16
		19		0		19

INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group
150 - Warehousing	Others
110 - General Light Industrial	Others

BALANCED PERSON TRIPS:

150 - Warehousing				110 - General Light Industrial			
Persons Exit	PAF	UIPTC	Unconstrained Demand	Persons Entry	PAF	UIPTC	Unconstrained Demand
44	1	0	0	3	1	0	0
Persons Entry	PAF	UIPTC	Unconstrained Demand	Persons Exit	PAF	UIPTC	Unconstrained Demand
17	1	0	0	16	1	0	0

INTERNAL PERSON TRIPS:

Land Use	Internal Person Trips From	Entry	Exit	Total
150 - Warehousing	Internal Person Trips From	0	0	0
110 - General Light Industrial	Internal Person Trips From	0	0	0
Total Internal Person Trips		0	0	0

INTERNAL VEHICLE TRIPS AND CAPTURE:

150 - Warehousing

Category	Entry	Exit	Total
Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	0	0	0
Total External Vehicle Trips	13	34	47
Internal Vehicle Trip Capture	0%	0%	0%

110 - General Light Industrial

Category	Entry	Exit	Total
Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	0	0	0
Total External Vehicle Trips	2	12	14
Internal Vehicle Trip Capture	0%	0%	0%

PASS-BY VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
150 - Warehousing	13	34	0.00%	0.00%	0	0
110 - General Light Industrial	2	12	0.00%	0.00%	0	0

DIVERTED VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
150 - Warehousing	13	34	0.00%	0.00%	0	0
110 - General Light Industrial	2	12	0.00%	0.00%	0	0

EXTRA VEHICLE TRIP REDUCTION

Land Use	[External - (Pass-by + Diverted)] Vehicle Trips		Extra Vehicle Trip Reduction %		Extra Reduced Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
150 - Warehousing	13	34	0.00%	0.00%	0	0
110 - General Light Industrial	2	12	0.00%	0.00%	0	0

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
150 - Warehousing	13	34	47
110 - General Light Industrial	2	12	14

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	15	46	61
Internal Vehicle Trips	0	0	0
External Vehicle Trips	15	46	61
Internal Vehicle Trip Capture	0%	0%	0%
Pass-by Vehicle Trips	0	0	0
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	15	46	61

Critical Areas Report

Leslie Road Flex Space Project
City of Richland, Washington

Prepared for:
Matson Development, LLC
253 Jackrabbit Lane
Kennewick, WA 99338

May 15, 2023
PBS Project 78095.000



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SUPPORTING DATA

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Table 1. Precipitation Data for the Preceding 3 Months

FIGURES

- Figure 1. Location Map
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APPENDICES

- Appendix A: Precipitation Records**
- Appendix B: PHS Report**
- Appendix C: Site Photographs**
- Appendix D: KID Amon Basin Map**

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1. INTRODUCTION

PBS Engineering and Environmental Inc. (PBS) was contracted by Matson Development LLC to conduct a critical areas assessment in anticipation of development of three contiguous parcels.

The study area is located immediately adjacent to Leslie Road within the City of Richland, Washington (Figure 1). The 14.05-acre study area comprises tax parcels 11881012147001, 11881012147002, and 11881012147003. The purpose of the critical areas assessment was to determine the presence and extent of regulated critical areas including fish and wildlife habitat conservation areas (HWCAs) and wetlands. The assessment fieldwork was completed on May 3, 2023 by Brian Bieger, Professional Wetland Scientist and PBS Senior Scientist.

Through the course of the assessment, priority habitat in the form of shrub-steppe habitat was identified and delineated. Wetland sample plots revealed that there are no wetlands occurring on the property. Lastly, the mapped waterway that crosses the southern extent of the property represents an artificial drainage managed by the Kennewick Irrigation District (KID) and is therefore not subject to regulation under the City of Richland's Critical Areas ordinance (CAO).

The proposed development will result in unavoidable impacts to shrub-steppe habitat within the project area. In accordance with the City's CAO, the applicant is proposing to complete payment-in-lieu mitigation to offset these impacts.

2. METHODS

Wetland boundaries were delineated using the routine approach of the US Army Corps of Engineers (USACE) *Wetlands Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement* (Version 2.0) (Supplement) (USACE, 2010). Soils, vegetation, and indicators of hydrology were recorded at three sample plot locations on standard wetland determination data forms (Appendix A). Wetland plant ratings were assigned based on the *2016 National Wetland Plant List* (Lichvar et al., 2016). No modification of the standard methodologies was necessary during the delineation. Sample plot locations were recorded in the field using a Trimble DA2 RTK handheld GPS unit with an accuracy of ± 2 feet.

The following information was reviewed prior to the field study:

- Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS, 2023) soils map of the study area, included as Figure 3.
- US Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) (USFWS, 2023) wetland polygons, included as Figure 4.
- Aerial photographs, included as the background to Figure 5 and 6 (Google Earth, 2023).
- Washington Department of Fish and Wildlife (WDFW) Priority Habitat and Species Maps (WDFW, 2023).

3. BACKGROUND INVESTIGATION

3.1. Landscape Position

The site is located within the Pleistocene Lake Basin level IV ecoregion within the Columbia Plateau ecoregion. This area is characterized by level to undulating lake plain that historically contained Pleistocene lakes following flooding from glacier lakes Missoula and Columbia. This area has one of the driest climates within the Columbia Plateau with annual precipitation averaging between 7 to 10 inches. The present-day landscape

is characterized by sagebrush steppe grasslands in addition to irrigated agriculture lands and to a much smaller extent, developed urban lands.

The landscape surrounding the project site is dominated by high-intensity land uses. Interstate 84 is located directly south of the site; high-density single family residential developments are located north of the site and commercial developments are located west of the site.

3.2. Topography

The topography of the project site ranges from flat to gently sloping (Figure 2). The site gently slopes to the southeast towards a drainage feature located in the extreme southern end of the project area. There are short, steep slopes along the edges of this drainage. The topography does not indicate large scale past disturbances.

3.3. Soils

According to the NRCS soil survey (NRCS, 2023) there are a total of four separate soil units within the project area (Figure 3). None of these soils are listed as hydric in the Benton County soil survey. Descriptions of these soil units as generated by the NRCS soil reports are detailed below.

HeD—Hezel loamy fine sand, 2 to 15 percent slopes. The Hezel component makes up 100 percent of the map unit. Slopes are 2 to 15 percent. This component is on hummocky or dunelike terraces. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. This soil does not meet hydric criteria.

KeA—Kennewick silt loam, 0 to 2 percent slopes. The Kennewick component makes up 100 percent of the map unit. Slopes are 0 to 2 percent. This component is on terraces. The parent material consists of lacustrine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This soil does not meet hydric criteria.

QuD—Quincy loamy sand, 2 to 15 percent slopes. The Quincy component makes up 100 percent of the map unit. Slopes are 2 to 15 percent. This component is on hummocky or dunelike terraces. The parent material consists of eolian sands. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This soil does not meet hydric criteria.

WfB2—Warden very fine sandy loam, 2 to 8 percent slopes, eroded. The Warden component makes up 100 percent of the map unit. Slopes are 2 to 8 percent. This component is on terraces. The parent material consists of loess over lacustrine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation

within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This soil does not meet hydric criteria.

3.4. Hydrology

Climate records were downloaded and reviewed prior to completion of the on-site field visit. The closest WETS climate station with a similar elevation as the study area is the Kennewick, Washington, station (NRCS, 2023b). Table 1 presents precipitation recorded for the three months prior to the site visit. Precipitation records are included in Appendix A.

Table 1. Precipitation Data for the Preceding 3 Months

Prior Month	WETS Rainfall Percentile (in.)		Measured Rainfall (in.)	Condition: Dry, Wet, Normal	Condition Value: (1=dry, 2=normal, or 3=wet)	Month Weight	Multiply Previous Two Columns
	30th	70th					
April	.27	.67	.73	Wet	3	3	9
March	.40	.90	.49	Normal	2	2	4
February	.43	.93	.25	Dry	1	1	1
						Sum	14
Rainfall of prior period was: drier than normal (sum is 6–9), normal (sum is 10–14), wetter than normal (sum is 15–18).							Normal
WETS Station: Kennewick, WA Range 1981–2011							
Measured Rainfall: Kennewick, WA February- April 2023							
Data From: http://agacis.rcc-acis.org/?fips=53005							

Precipitation for the three months prior to the field visit was within normal ranges. A total of 0.02 inches of precipitation was recorded for the two weeks prior to the site visit. The WETS tables indicate that the majority of the annual precipitation for the area falls between November and March. Given this timing it was believed that primary indicators of wetland hydrology would still be visible at the time of the site visit.

3.5. Existing Wetland Mapping

NWI maps for the area indicate a riverine, intermittent, streambed, seasonally flooded wetland in the southern portion of the study area (Figure 4). This wetland corresponds with the Amon drainage canal. It should be noted that NWI maps are generated through remote observations of aerial photography and are not intended to represent the extent of jurisdictional wetlands. Lastly, most riverine wetlands are regulated as streams and not wetlands.

3.6. Mapped Fish and Wildlife Habitat Conservation Areas

FWHCAs are defined in Section 22.10.185 of the CAO to include: Fish and wildlife habitat conservation areas include the following:

1. Areas where state or federal designated endangered, threatened, and sensitive species have a primary association.

- a. Federal designated endangered and threatened species are those fish, wildlife and plant species identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or threatened to become endangered. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted as necessary for current listing status.
 - b. State designated endangered, threatened and sensitive species are those fish, wildlife and plant species native to the state of Washington identified by the State Department of Fish and Wildlife and/or State of Washington Natural Heritage Program that are in danger of extinction, threatened to become endangered, vulnerable, or declining and are likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats. The state of Washington's Department of Fish and Wildlife and/or Natural Heritage Program maintains the most current listings and should be consulted as necessary for current state listing status;
2. State priority habitats and areas associated with state priority species.
- a. State of Washington priority habitats and species are considered priorities for conservation and management. The state of Washington's Department of Fish and Wildlife should be consulted for current listing of priority habitats and species;
3. Habitats and species of local importance. The city of Richland hereby adopts by reference those priority habitats and species considered priorities for conservation and management identified by the State Department of Fish and Wildlife and State of Washington Natural Heritage Program as now exist or as may be amended;

The WDFW PHS maps were downloaded to investigate which species are mapped as having a potential to occur within the project area. Three separate PHS were mapped on the site. These PHS are shrub-steppe habitats, Townsends ground squirrel, Ferruginous Hawks. The detailed WDFW PHS report is located in Appendix B. In addition to those habitats and species identified on the WDFW website, discussions with WDFW biologist revealed that black-tailed jackrabbits are known to occur in the general area. A description of shrub-steppe habitats, Ferruginous hawk, Townsend's ground squirrel, and black-tailed jackrabbit habitat requirements are detailed below.

Shrub-Steppe Habitat

The WDFW definition of shrub-steppe habitat is extremely broad and does not include a particular size threshold. Shrub-steppe is defined by the WDFW as (Azarrad, 2011):

"A non-forested vegetation type consisting of one or more layers of perennial bunchgrasses and a conspicuous but discontinuous layer of shrubs. Although big sagebrush is the most widespread shrubsteppe shrub, other dominant (or codominant) shrubs include antelope bitterbrush, three-tip sagebrush, scabland sagebrush, and dwarf sagebrush. Dominant bunchgrasses include (but are not limited to) Idaho fescue, bluebunch wheatgrass, Sandberg bluegrass, Thurber's needlegrass, and needle-and thread. Sites can also have a layer of algae, mosses, or lichens. In areas with greater precipitation or on soils with higher moisture-holding capacity, shrubsteppe can also support a dense layer of forbs (i.e., broadleaf herbaceous flora). Shrubsteppe contains various habitat features, including diverse topography, riparian areas, and canyons. Another important component is habitat quality (i.e., degree to which a tract resembles a site potential natural community), which may be influenced by soil condition and erosion; and the distribution, coverage, and vigor of native shrubs, forbs, and grasses. At some more disturbed sites, non-natives such as cheatgrass or crested wheatgrass may be co-

dominant species. Fire disturbance is an ecological component of shrubsteppe. Shrubsteppe disturbed by fire may lack the aforementioned habitat components during periods of post-fire recovery”.

Ferruginous hawk (*Buteo regalis*):

This species is uncommon, local, and declining in steppe vegetation of south-central Washington and east along the Snake River. Nests on cliffs, high bluffs, utility towers, trees, or on the ground. Ferruginous hawks inhabit dry open country of the plains, grasslands, and shrub-steppe habitats of Eastern Washington during the breeding season which runs from roughly March 1 through August 15. In these areas they typically construct nests on cliffs, rock outcrops, small trees, transmission line towers, and artificial platforms far from human disturbance. Ferruginous hawks nest farther away from human disturbance zones than other raptor species and often have more than a single nest within a range to allow for relocation if a particular nest is threatened during nesting season. This is apparently an adaptive strategy since Ferruginous hawks are very sensitive to disturbance during the nesting season and do not become acclimatized to repeated disturbance like many wildlife species (White and Thurow, 1985).

Ferruginous hawks are strongly associated with undisturbed areas. The hawks avoid cropland, and it was found that populations decline consistently once cultivated land makes up 30% of a particular areas land use (Schmutz 1987, 1989). The diet of Ferruginous hawks includes mostly small and medium sized mammals with a preference for northern pocket gophers in Washington (WDFW, 1996). The major limiting factors for viable Ferruginous hawks in Washington state is the availability of adequate prey populations and undisturbed habitat (Schmutz, 1984, 1987).

This species is apparently declining throughout Washington. They have been reported as nesting as far north as Chelan, though recent records are limited to Kittitas, Yakima, Douglas, Grant, Benton, Klickitat, Lincoln, Adams, Franklin, Walla Walla, Whitman and Columbia Counties. Serious declines have occurred recently in Washington. For example, five pairs were seen in Yakima County in 1985, but these had been reduced to only one nesting pair by 1995. In fact, this species has also declined across North America in recent years, possibly a permanent trend due to increased human presence in its range, or possibly a temporary fluctuation in its relation to prey variability, or both. 72.8% of the nests surveyed for this Hawk were more than 1.25 miles from roads or areas with people, a testament to the need of disturbance-free areas for the conservation of this species (Schmutz, 1987). Temporal fluctuations in nest-site use and the decline of this species overall will affect the current distribution, which is probably smaller than that shown. Where it overlaps with the Swainson's Hawk, the Ferruginous Hawk generally nests on the ground or lower than the Swainson's, though Ferruginous Hawks are more likely to utilize utility towers where they are available.

Townsend's Ground Squirrel (*Spermophilus townsendii*)

The Townsend's ground squirrel is a small burrowing ground squirrel found only in Washington State in the Columbia Basin west of the Columbia River in Klickitat, Benton, Yakima, and Kittitas counties. This species typically inhabits low elevation shrub-steppe, native grasslands, pastures, orchards, vineyards, highway margins, vacant lots, and banks of irrigation canals (WDFW 2013). Their diet is largely composed of green vegetation, with Sandberg's bluegrass (*Poa secunda*), western tansy mustard (*Descurainia pinnata*), lupine (*Lupinus laxiflorus*) and woollypod milkvetch (*Astragalus purshii*) occurring most frequently in the diet. Reasons for species decline includes habitat fragmentation, past and current pest control programs (poisoning and shooting) where the squirrel may be an intended or unintended target, and reduction of food sources due to habitat conversion. Habitat disturbance typically reduces forb diversity of arid landscapes, converting sites to shrub-steppe with cheatgrass and other non-native forb dominance. Cheatgrass tends to outcompete native forbs and is not a reliable food source for small wildlife such as ground squirrels.

Townsend's Ground Squirrel WDFW Priority Habitats and Species (PHS) data indicates that the Townsend's ground squirrel is documented to occur within the vicinity at the Township level, PBS biologists are not aware of any surveys that have been conducted on the project area for presence/absence verification.

Black-tailed jackrabbit (*Lepus californicus*)

The black-tailed jackrabbit is a species of hare found in North America. It has specific habitat requirements to meet its needs. Black-tailed jackrabbits can be found throughout the western United States, parts of Canada, and northern Mexico. They inhabit various ecosystems, including grasslands, shrublands, deserts, and agricultural areas. Jackrabbits prefer areas with a mix of open grassy areas and shrubs. They are well adapted to arid environments and can be found in habitats with sparse vegetation. They require suitable shelter to escape predators and extreme weather conditions. They use burrows, depressions, and dense vegetation for cover and protection. Dense shrubs, thickets, and tall grasses offer hiding places, while burrows or shallow scrapes in the ground provide refuge.

East of the Cascade Mountains in Washington, black-tailed jackrabbit distribution is concentrated in the semi-arid Columbia Plateau shrubsteppe and grassland habitats. Areas used include sagebrush and rabbitbrush (*Chrysothamnus* sp.) dominated habitats, as well as areas of mixed grassland and shrub. Black-tailed jackrabbits tend to occupy areas with more shrubs and less grass than white-tailed jackrabbits. Black-tailed jackrabbits are generally nocturnal and solitary. Like white-tailed jackrabbits, around daylight they retire to resting sites in taller vegetation. The rabbit's diet varies seasonally, consisting of a higher percentage of shrubs in winter, "forbs" (non-woody flowering plants) in spring, and mostly grasses with almost no shrub ingestion in summer (WDFW, 2023b).

Because of their advanced sense of smell, large rotating ears, and eyes set far back on their heads, black-tailed jackrabbits are superbly adapted to life in open areas. Ever alert, jackrabbits rest in shallow depressions beneath small trees or shrubs during the day. They only leave their hiding places toward evening. Predators known to prey on black-tailed jackrabbits include coyotes, badgers, bobcats, golden eagles, several species of hawk, owls, rattlesnakes, and gopher snakes.

The major habitat connectivity threats to jackrabbits are alteration and removal of habitat, development, roads and traffic, fire, energy development, irrigation and its infrastructure, and the presence of people and domestic animals. From many of these same factors jackrabbits also face increased mortality e.g., persecution from farmers, harassment by pets—especially domestic dogs, and increased predation by both native and non-native predators (Ferguson, H.L. and Atamian M. 2012).

4. RESULTS

4.1. Site Conditions

The project area exists as undeveloped vacant land dominated by shrubs and grasses. Outside of the areas associated with the Amon Drainage vegetation on the site is relatively homogenous. Shrub layer vegetation is dominated by big sagebrush (*Purshia tridentata*) and scattered yellow rabbit brush (*Chrysothamnus viscidiflorus*) and wormwood (*Artemisia absinthium*). The herbaceous vegetation on the site is dominated by invasive, non-native, cheatgrass (*Bromus tectorum*). Other species observed include Russia thistle (*Salsola tragus*), rush skeleton weed (*Chondrilla juncea*), spotted knapweed (*Centaurea stoebe*), western tansy mustard (*Descurainia pinnata*), gray's biscuitroot (*Lomatium grayi*), spiny hopsage (*Grayia spinosa*), tall yarrow (*Achillea distans*), and Menzies' fiddleneck (*Amsinckia menziesii*). Photographs of the site taken with a Mavic 3E Pro drone of the vegetation patterns are included in Appendix C.

4.2. Shrub-steppe

The majority of the project area is currently vegetated with a mixture of shrubs and grasses/forbs that meets the current WDFW definition of shrub-steppe. ESRI base aerial photographs from 2021 as well as high definition photographs captured by drone were analyzed to determine the extent of shrub-steppe within the project area. Except for a small swath of area in the northwest portion of the site and disturbed areas around East Badger Drain, most areas would be classified as shrub-steppe. It was determined that the site contains a total of 10.37-acres of regulated shrub steppe.

4.3. Wildlife Evidence

North-south oriented transects approximately 30-feet apart were walked throughout the entire project site to observe direct or indirect evidence of wildlife usage. Common indicators are tracks, scat, ground burrows, vegetation damage, and trails through vegetation. There were several small ground burrows that based on the size would likely be utilized by mice or snakes. There were mice droppings found in several locations throughout the site. Additionally, there were several wildlife "runs" observed through the grassy portions of the site (Photo Sheet). There were no burrows of any size suitable for usage by jack rabbits, ground squirrels, or burrowing owls.

The potential for individual listed wildlife species to be actively utilizing the site is described below.

Ferruginous Hawks- Based on the lack of suitable perching or nesting habitat and the proximity of the site to high-intensity human uses, it is safe to assume that the site is not being utilized by ferruginous hawks.

Townsend's ground squirrel - While the site contains suitable habitat for Townsend's ground squirrels the habitat is in a degraded state from the prevalence of cheatgrass which displaces grasses and forbs more palatable to ground squirrels. Additionally, no burrows that could be utilized for ground squirrels were identified on the property. Since ground squirrels typically exist in small to fairly large colonies, it stands to reason that if they were utilizing the site that at least one burrow would have been identified. Lastly, the site visit was completed at a time when ground squirrels would be active (Generally February-May) and no signs of current activity (feces, active burrows) were identified. Therefore, there is nothing to suggest that Townsend's ground squirrels are currently inhabiting the site.

Black-tailed Jackrabbit – The jackrabbit and ground squirrel utilize the same types of habitat and as such, the site does contain habitats that could be utilized by jack rabbits. While evidence of black-tailed jack rabbits in the form of tracks or droppings were not identified, the WDFW has reports of jack rabbit sighting in the general area. Brian Bieger did identify a jack rabbit by sight during a recent site visit on a parcel approximately 300-feet from the project area. As such, it is likely that black-tailed jack rabbits are utilizing the project area.

4.4. Wetlands

The NWI map indicates a riverine wetland in the southern portion of the project area. This channel drains towards regulated wetlands within the Amon Basin Preserve located approximately 0.5 mile north of the project area. This channel is part of the Kennewick Irrigation District System and is known as the East Badger Drain (see KID Map in Appendix D). As this channel was artificially constructed and utilized as an irrigation water management feature it would not be subject to regulation as a critical area under the CAO. If however, the channel contains wetlands as defined by the USACE, these wetlands would be subject to regulation.

The channel was completely dry at the time of the site visit and evidence of recently flowing water such as drift lines or debris racking was absent. The drainage was sparsely vegetated by predominantly upland plants including Russian thistle, cheatgrass, and aster (*Soldago sp.*). There were small pockets of facultative and

facultative wetland species including Russian olive (*Elaeagnus angustifolia*), black cottonwood (*Populus trichocarpa*), and common reed (*Phragmites australis*).

A total of three wetland sample plots were established within the lowest portions of the channel (Figure 5). None of the sample plots met all three wetland criteria (vegetation, soils, and hydrology). One of the sample plots did meet the vegetation criteria but this is the lowest bar so to speak in terms of determining if wetlands are present. Soils consisted of sands and sandy loams with high chroma colors (2.5YR 4/3) with no redoximorphic features present. There were no primary indicators and only one secondary indicator of wetland hydrology within the test pits. Based on the results of the investigation, the portions of East Badger Drainage within the project area do not contain wetlands.

5. PROPOSED PROEJCT

The applicant is proposing to develop most of this commercially zoned property. The proposed development will consist of missed use warehouses that will support local businesses and contractors. The proposed development includes three freestanding units, associated parking spaces and circulation roads.

5.1. Avoidance and minimization.

The CAO dictates that any project that proposes to impact fish and wildlife habitat areas shall be mitigated to the extent feasible and reasonable. The mitigation sequencing is listed in 22.10.220. The sequencing and the applicant's response to the mitigation steps are detailed below.

(1) Avoiding the impact altogether by not taking a certain action or parts of actions;

Total avoidance of shrub-steppe habitats is not possible for this project as the shrub-steppe covers the vast majority of the project area. As the proposed project is a commercial development, there are minimum size requirements to make a development economically viable. The costs associated with development of the site are essentially spread out over all of the rental units and the marketability of the warehouses may drop if there are size limitations for potential clients. Lastly, fire access, traffic management, and parking requirements play a factor in the overall layout and resulting impacts. The applicant is avoiding the shrub-steppe habitat located in the southern portion of the project area. While this area does represent a small fraction of the shrub-steppe on the site, it is connected to shrub-steppe habitats that continue off-site.

(2) Minimizing impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology and engineering, or by taking affirmative steps to avoid or reduce adverse impacts;

The factors discussed above limit the degree to which the magnitude of the project can be reduced. Storm water systems will be utilized to manage and handle storm water generated by the site and reduce the potential for indirect impacts to remaining habitats on the site.

(3) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

As the development will permanently eliminate shrub-steppe within the project area, repair, rehabilitation or restoration is not feasible.

4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;

The impacts will result from construction, not operation. Therefore, preservation and maintenance

operations would not limit impacts.

5. Compensating for the impact by replacing, enhancing, or providing similar substitute resources or environments. Preference shall be given to measures that replace the impacted functions on site or in the immediate vicinity of the impact;

The applicant is proposing to mitigate the proposed impacts through the completion of compensatory mitigation measures which are outlined below.

6. Monitoring the impact over time and taking corrective measures to minimize additional impacts.

Not applicable to this project. Operation of the proposed development will not impact the remaining shrub-steppe on the property.

5.2. Project Impacts

The clearing, grading, and construction of the proposed development will result in 10.16-acres of shrub-steppe habitats (Figure 6).

5.3. Mitigation Measures

The following mitigation measures will be implanted to limit indirect impacts to remaining habitat on or directly adjacent to the project site.

1. Pre-construction survey – If construction occurs between February 1 and July 31, a nesting bird survey will be completed within a one-week window prior to construction activities.

2. Erosion control BMP's- all suitable construction BMP's will be implemented during construction these include the following:

- Marked clearing limits
- Installation of silt fence
- Utilization of dust control measures.
- Work limited to daylight hours.

3. To limit the potential for indirect impacts to the remaining shrub-steppe on the project site, fence will be constructed along the southern boundary of the formal development. This fence will limit human entry to the remaining habitats on the site and reduce the potential for degradation.

4. Off-site Mitigation. The WDFW currently accepts that placing equivalent off-site shrub-steppe habitat within a conservation covenant is an acceptable mitigation for shrub-steppe impacts. The generally accepted mitigation ratio is 2 acres of conservation land for every acre of impact. Therefore, the proposed development is proposing to conserve 20.32 acre of shrub-steppe habitat. An alternative to locating suitable habitat off-site and placing it in a covenant is the purchase of shrub-steppe "credits" from an impartial local agency. The Benton County Conservation District is currently in the process of developing a system where they can accept mitigation payments from private citizens and utilizing these funds for the purchase, restoration, or enhancement of an equivalent amount of shrub-steppe habitat. Details on this method of mitigation are forthcoming and would be subject to review and approval by the City.

6. SUMMARY

PBS completed a critical areas assessment for a proposed project on 15.05 acres within the City of Richland. Through the course of the assessment it was found that the site contains 10.6-acres of shrub-steppe habitat that is likely being utilized by black-tailed jack rabbits. The proposed project will result in unavoidable impacts to 10.16 acres of shrub-steppe habitat. In addition to mitigation measures that will be employed to prevent indirect impacts to remaining habitats on the site, the applicant will preserve or purchase the equivalent of 20.32 acres of shrub-steppe habitat.

7. DISCLAIMER

This report is based on observations of vegetation, soils, and hydrology at the time of the study. Changing environmental conditions or human activities may alter those parameters which may change the conclusions presented in this report. The conclusions in this report represent the investigator's interpretation of the specified technical manuals and best available science and may not correspond with observations or conclusions of others, including government agencies.

This report was prepared to meet current local, state, and federal regulations. PBS is not responsible for changes made to regulations and reporting requirements after the report has been completed. Final authority regarding jurisdiction and permitting requirements rests with the appropriate federal, state, and local agencies.

This report is for the exclusive use of the Client for design of the development and is not to be relied upon by other parties. It is not to be photographed, photocopied, or similarly reproduced, in total or in part, without the expressed written consent of the Client and PBS.

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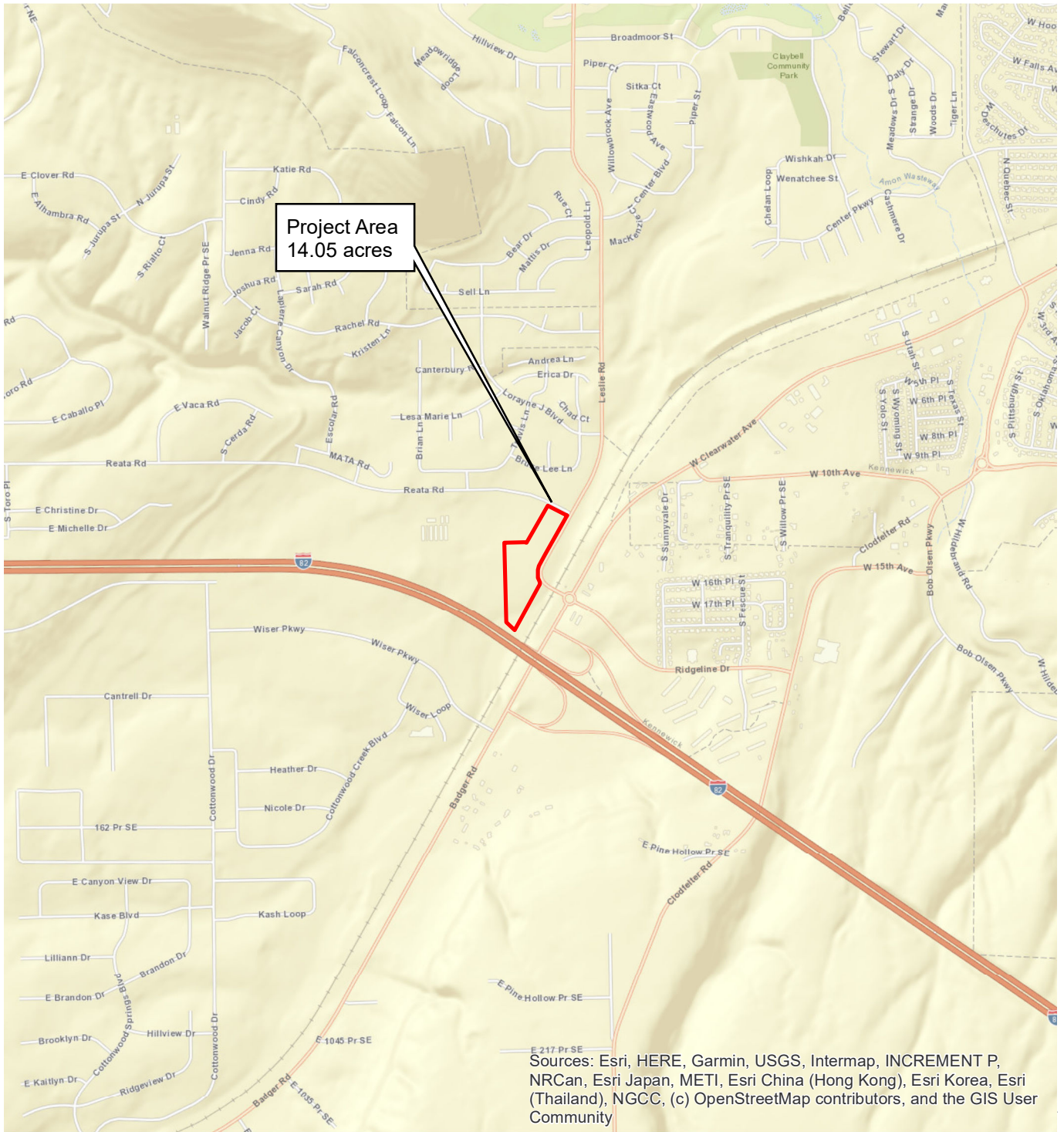
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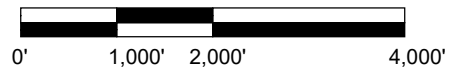
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Figures



SCALE: 1" = 2,000'



PREPARED FOR: Matson Development LLC.

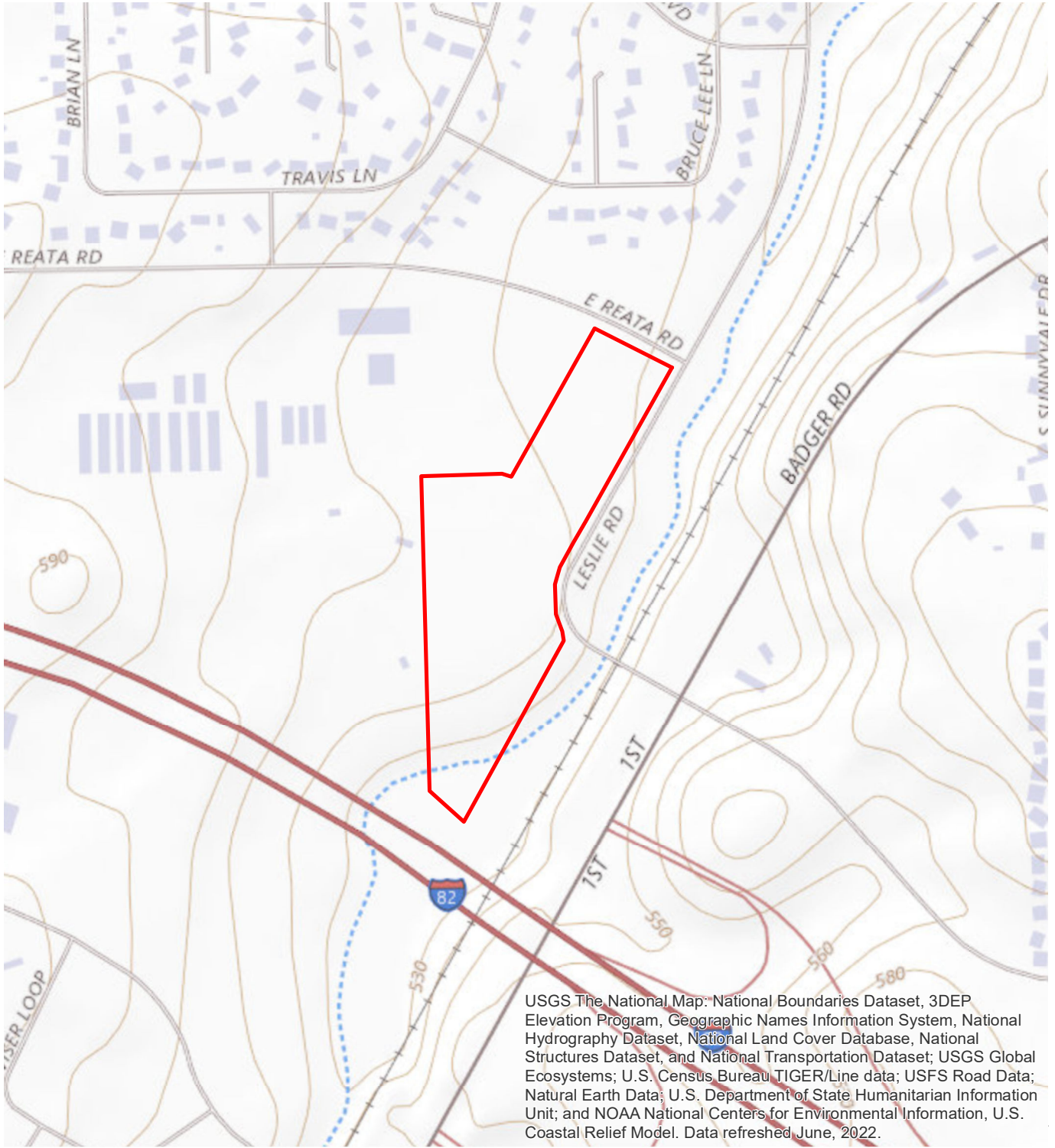


Location Map
Critical Areas Assessment
City of Richland, Washington

May 2023
78095.000

FIGURE

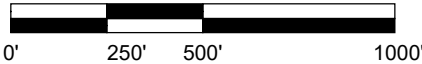
1



USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed June, 2022.



SCALE: 1" = 500'



PREPARED FOR: Matson Development LLC.

Legend

Project area



Topographic Map
 Critical Areas Assessment
 City of Richland, Washington

MAY 2023 78095.000
FIGURE
2

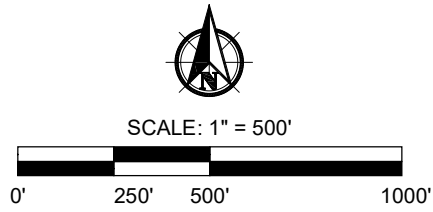


NRCS Soil Key
 HeD - Hezel fine sandy loam, 2-15% slopes
 KeA - Kennebec silt loam, 0 to 2 percent slopes
 QuD- Quincy loamy sand, 2 to 15 percent slopes
 WfB2—Warden very fine sandy loam, 2 to 8 percent slopes, eroded

ronics, and the GIS User

Legend

- Project area
- NRCS Soil Polygons



PREPARED FOR: Matson Development LLC.



NRCS Soil Map
 Critical Areas Assessment
 City of Richland, Washington



MAY 2023 78095.000
FIGURE
3



NWI KEY
 R4SBC - Riverine, Intermittent, Streambed, Seasonally flooded

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Legend

-  Project area
-  NWI Wetland Polygons



SCALE: 1" = 500'



PREPARED FOR: Matson Development LLC.

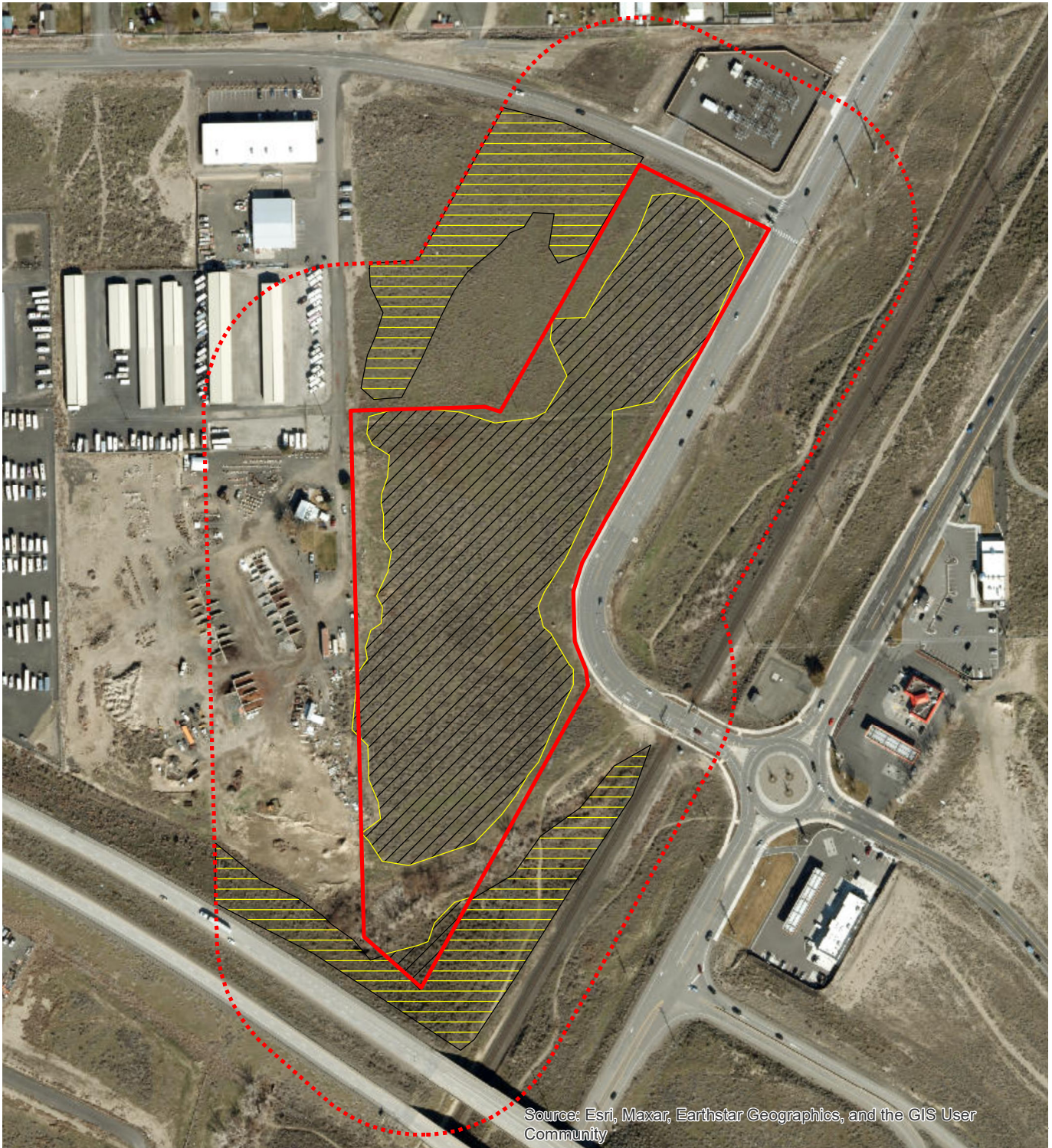


NWI Map
 Critical Areas Assessment
 City of Richland, Washington

May 2023
 78095.000





FIGURE

4



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Legend

-  300-foot buffer
-  Project area
-  Shrub-Steppe Habitat -10.37 acres
-  Off-site Shrub Steppe



SCALE: 1" = 300'



PREPARED FOR: Matson Development LLC.



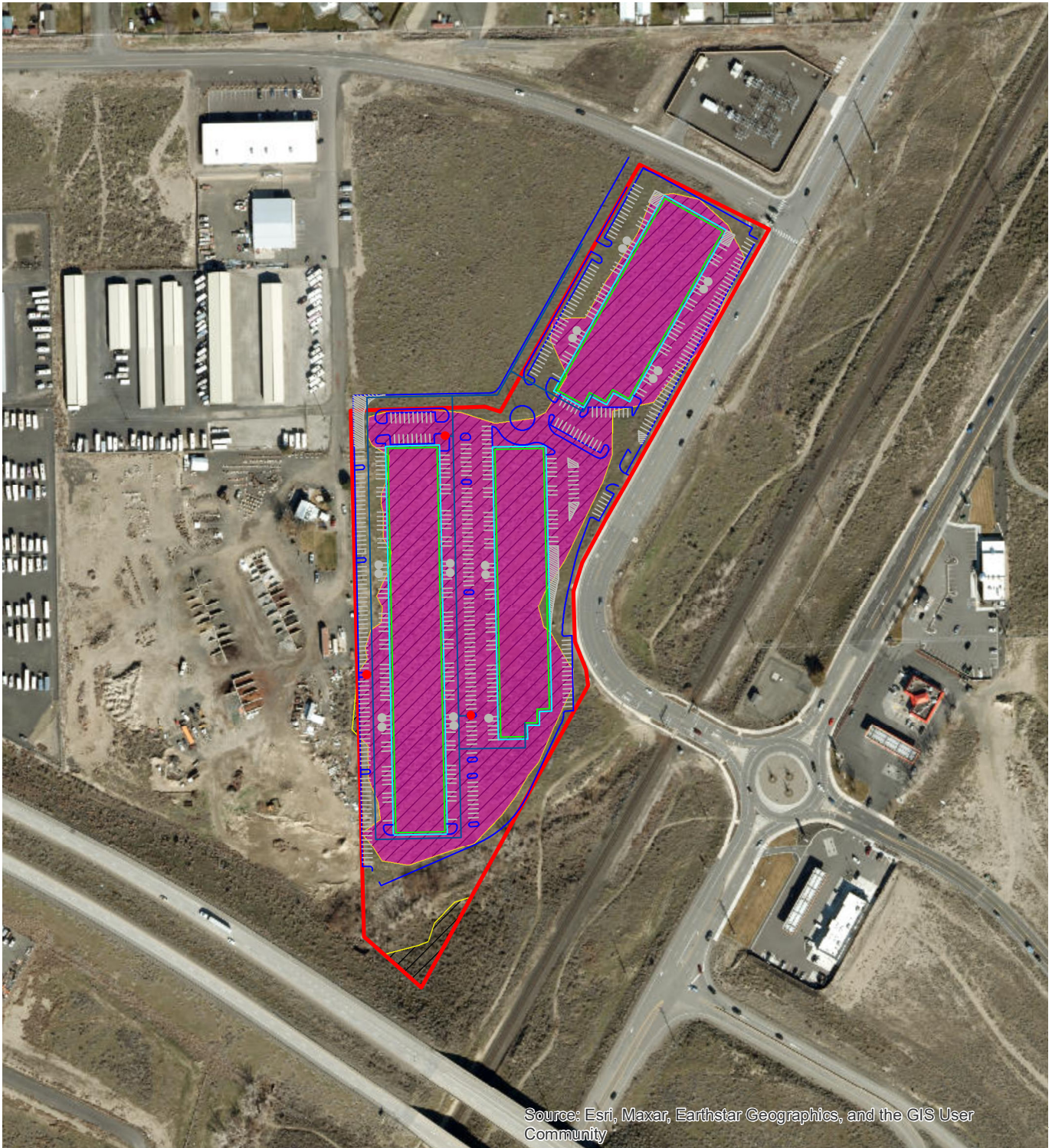
Aerial Photograph

Critical Areas Assessment
City of Richland, Washington

MAY 2023
78095.000

FIGURE

5

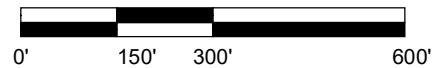


Legend

- Project area
- Shrub-steppe Impacts - 10.16 acre
- Shrub-Steppe Habitat -10.37 acres



SCALE: 1" = 300'



PREPARED FOR: Matson Development LLC.



Project Impacts

Critical Areas Assessment
City of Richland, Washington

MAY 2023
78095.000

FIGURE

6

Appendix A

Precipitation Data

WETS Station: KENNEWICK, WA

Requested years: 1981 - 2011

Month	Temperature (°F)			Precipitation (inches)				
	Avg daily max	Avg daily min	Avg daily mean	Avg	30% chance will have		Avg number of days with 0.10 inch or more	Average total snowfall
					less than	more than		
Jan	41.9	29.2	35.6	1.06	0.69	1.27	4	0.7
Feb	48.2	30.2	39.2	0.76	0.43	0.93	3	0.0
Mar	58.6	36.1	47.4	0.74	0.40	0.90	3	0.0
Apr	66.4	41.9	54.1	0.55	0.27	0.67	2	0.0
May	74.6	49.1	61.8	0.66	0.37	0.80	2	0.0
Jun	81.9	55.7	68.8	0.51	0.26	0.60	2	0.0
Jul	90.4	61.3	75.8	0.19	0.05	0.19	1	0.0
Aug	89.6	60.6	75.1	0.18	0.07	0.19	1	0.0
Sep	80.2	52.1	66.1	0.29	0.12	0.31	1	0.0
Oct	66.1	42.2	54.1	0.58	0.29	0.70	2	0.0
Nov	50.0	35.1	42.0	0.86	0.55	1.17	3	0.0

Climatological Data for KENNEWICK, WA - February 2023

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2023-02-01	31	26	28.5	0	0	0.00	0.0	0
2023-02-02	37	22	29.5	0	0	0.00	0.0	0
2023-02-03	41	22	31.5	0	0	0.00	0.0	0
2023-02-04	40	27	33.5	0	0	0.00	0.0	0
2023-02-05	52	37	44.5	5	0	0.05	0.0	0
2023-02-06	49	38	43.5	4	0	0.18	0.0	0
2023-02-07	54	41	47.5	8	0	0.01	0.0	0
2023-02-08	53	38	45.5	6	0	T	0.0	0
2023-02-09	54	30	42.0	2	0	0.00	0.0	0
2023-02-10	52	30	41.0	1	0	0.00	0.0	0
2023-02-11	47	25	36.0	0	0	0.00	0.0	0
2023-02-12	50	26	38.0	0	0	0.00	0.0	0
2023-02-13	55	28	41.5	2	0	0.00	0.0	0
2023-02-14	52	34	43.0	3	0	T	0.0	0
2023-02-15	51	25	38.0	0	0	0.00	0.0	0
2023-02-16	50	26	38.0	0	0	0.00	0.0	0
2023-02-17	48	26	37.0	0	0	0.00	0.0	0
2023-02-18	55	40	47.5	8	0	0.00	0.0	0
2023-02-19	57	41	49.0	9	0	0.00	0.0	0
2023-02-20	54	41	47.5	8	0	0.00	0.0	0
2023-02-21	M	M	M	M	M	0.00	0.0	0
2023-02-22	53	27	40.0	0	0	T	T	T
2023-02-23	29	18	23.5	0	0	0.01	T	T
2023-02-24	27	13	20.0	0	0	T	T	T
2023-02-25	31	13	22.0	0	0	0.00	0.0	M
2023-02-26	35	13	24.0	0	0	0.00	0.0	M
2023-02-27	M	M	M	M	M	M	M	M
2023-02-28	46	28	37.0	0	0	T	T	T
Average Sum	46.3	28.3	37.3	56	0	0.25	T	0.0

Climatological Data for KENNEWICK, WA - March 2023

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2023-03-01	49	31	40.0	0	0	T	T	T
2023-03-02	50	31	40.5	1	0	0.00	0.0	0
2023-03-03	54	36	45.0	5	0	0.00	0.0	0
2023-03-04	52	28	40.0	0	0	0.00	0.0	0
2023-03-05	52	29	40.5	1	0	0.00	0.0	0
2023-03-06	55	34	44.5	5	0	0.00	0.0	0
2023-03-07	53	27	40.0	0	0	0.00	0.0	0
2023-03-08	53	27	40.0	0	0	0.00	0.0	0
2023-03-09	48	27	37.5	0	0	0.00	0.0	0
2023-03-10	53	29	41.0	1	0	0.29	0.0	0
2023-03-11	53	29	41.0	1	0	0.01	0.0	0
2023-03-12	55	32	43.5	4	0	0.00	0.0	0
2023-03-13	50	31	40.5	1	0	0.02	0.0	0
2023-03-14	65	36	50.5	11	1	0.01	0.0	0
2023-03-15	50	35	42.5	3	0	T	0.0	0
2023-03-16	58	29	43.5	4	0	0.00	0.0	0
2023-03-17	58	29	43.5	4	0	0.00	0.0	0
2023-03-18	59	31	45.0	5	0	0.00	0.0	0
2023-03-19	64	35	49.5	10	0	0.00	0.0	0
2023-03-20	58	38	48.0	8	0	0.08	0.0	0
2023-03-21	52	43	47.5	8	0	0.02	0.0	0
2023-03-22	61	35	48.0	8	0	0.00	0.0	0
2023-03-23	63	35	49.0	9	0	0.00	0.0	0
2023-03-24	63	35	49.0	9	0	0.00	0.0	0
2023-03-25	55	36	45.5	6	0	0.00	0.0	0
2023-03-26	55	35	45.0	5	0	0.00	0.0	0
2023-03-27	56	33	44.5	5	0	0.00	0.0	0
2023-03-28	58	33	45.5	6	0	0.00	0.0	0
2023-03-29	55	43	49.0	9	0	0.06	0.0	0
2023-03-30	51	44	47.5	8	0	T	0.0	0
2023-03-31	62	42	52.0	12	2	0.00	0.0	0
Average Sum	55.5	33.5	44.5	149	3	0.49	T	0.0

Climatological Data for KENNEWICK, WA - April 2023

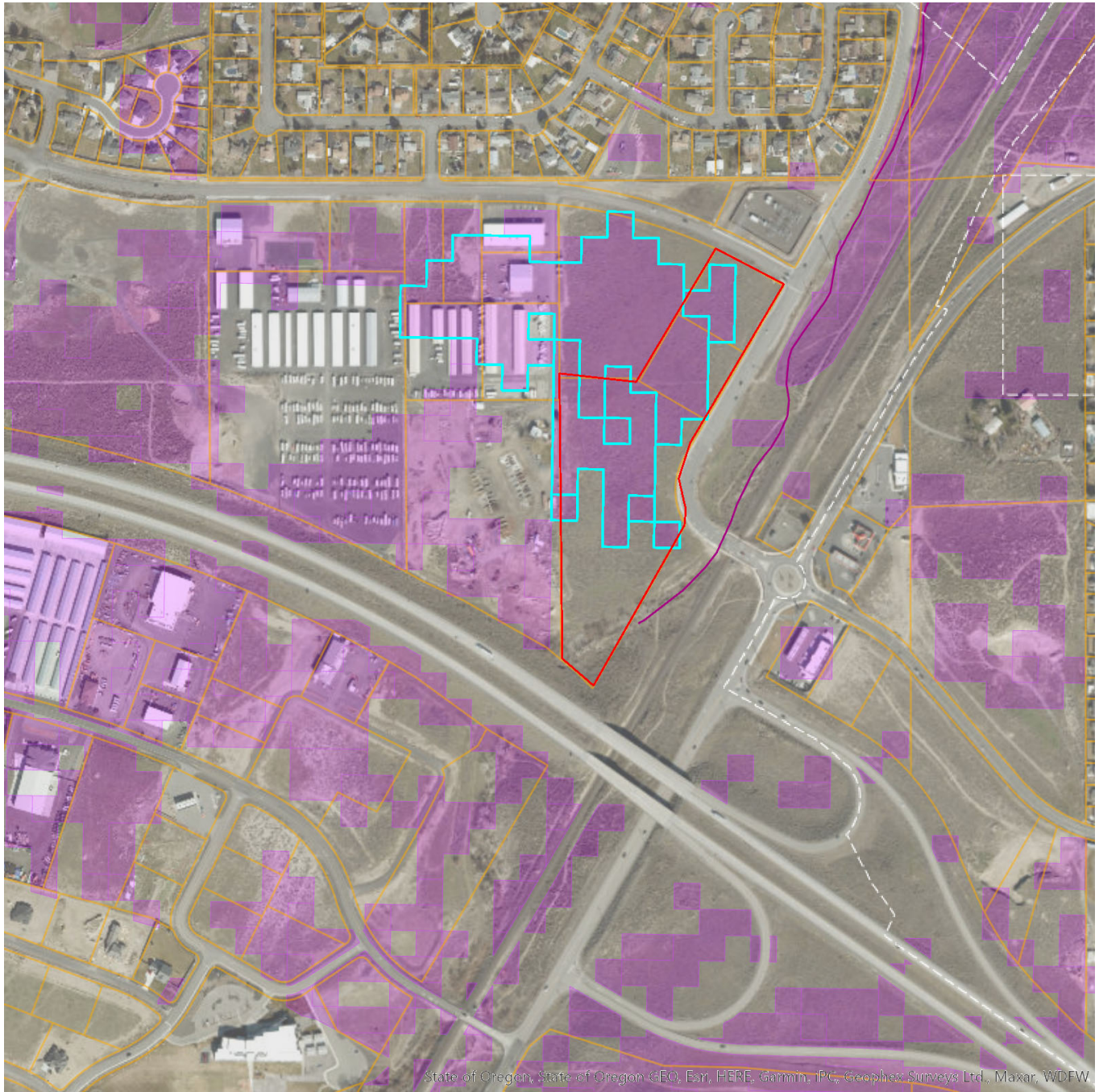
Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2023-04-01	56	42	49.0	9	0	0.01	0.0	0
2023-04-02	59	38	48.5	9	0	0.00	0.0	0
2023-04-03	56	34	45.0	5	0	0.23	0.0	0
2023-04-04	51	34	42.5	3	0	0.10	0.0	0
2023-04-05	55	35	45.0	5	0	0.00	0.0	0
2023-04-06	59	38	48.5	9	0	0.00	0.0	0
2023-04-07	64	42	53.0	13	3	0.02	0.0	0
2023-04-08	64	44	54.0	14	4	T	0.0	0
2023-04-09	64	44	54.0	14	4	0.00	0.0	0
2023-04-10	67	45	56.0	16	6	0.07	0.0	0
2023-04-11	59	46	52.5	13	3	0.17	0.0	0
2023-04-12	61	37	49.0	9	0	T	0.0	0
2023-04-13	56	35	45.5	6	0	0.00	0.0	0
2023-04-14	59	41	50.0	10	0	0.00	0.0	0
2023-04-15	61	36	48.5	9	0	0.00	0.0	0
2023-04-16	65	45	55.0	15	5	0.00	0.0	0
2023-04-17	64	40	52.0	12	2	0.01	0.0	0
2023-04-18	60	41	50.5	11	1	0.09	0.0	0
2023-04-19	59	37	48.0	8	0	0.00	0.0	0
2023-04-20	59	39	49.0	9	0	0.00	0.0	0
2023-04-21	56	42	49.0	9	0	0.01	0.0	0
2023-04-22	60	43	51.5	12	2	0.00	0.0	0
2023-04-23	67	47	57.0	17	7	T	0.0	0
2023-04-24	73	49	61.0	21	11	0.02	0.0	0
2023-04-25	68	43	55.5	16	6	0.00	0.0	0
2023-04-26	71	43	57.0	17	7	0.00	0.0	0
2023-04-27	80	46	63.0	23	13	0.00	0.0	0
2023-04-28	76	44	60.0	20	10	0.00	0.0	0
2023-04-29	83	47	65.0	25	15	0.00	0.0	0
2023-04-30	87	55	71.0	31	21	0.00	0.0	0
Average Sum	64.0	41.7	52.9	390	120	0.73	0.0	0.0

Appendix B

PHS Report



Priority Habitats and Species on the Web



State of Oregon, State of Oregon GEO, Esri, HERE, Garmin, IPC, Geophex Surveys Ltd., Maxar, WDFW

Report Date: 05/17/2023

PHS Species/Habitats Overview:

Occurrence Name	Federal Status	State Status	Sensitive Location
Shrubsteppe	N/A	N/A	No
Townsend's Ground Squirrel - townsendii	N/A	Candidate	Yes
Ferruginous hawk	N/A	Threatened	Yes

PHS Species/Habitats Details:

Shrubsteppe	
Priority Area	Habitat Feature
Site Name	Benton County Presumptive Shrubsteppe
Accuracy	NA
Notes	General location of Shrubsteppe. Confirm or refute with site-scale info. WDFW recommends using site-scale info to inform site-scale land use decisions. Expect that on-the-ground conditions (e.g., boundaries) will vary from the map.
Source Record	920858
Source Name	Keith Folkerts, WDFW
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
Geometry Type	Polygons

Shrubsteppe	
Priority Area	Habitat Feature
Site Name	Benton County Presumptive Shrubsteppe
Accuracy	NA
Notes	General location of Shrubsteppe. Confirm or refute with site-scale info. WDFW recommends using site-scale info to inform site-scale land use decisions. Expect that on-the-ground conditions (e.g., boundaries) will vary from the map.
Source Record	920858
Source Name	Keith Folkerts, WDFW
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
Geometry Type	Polygons

Shrubsteppe	
Priority Area	Habitat Feature
Site Name	Benton County Shrubsteppe
Accuracy	NA
Notes	General location of Shrubsteppe. Confirm or refute with site-scale info. WDFW recommends using site-scale info to inform site-scale land use decisions. Expect that on-the-ground conditions (e.g., boundaries) will vary from the map.
Source Record	920859
Source Name	Keith Folkerts, WDFW
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
Geometry Type	Polygons

Shrubsteppe	
Priority Area	Habitat Feature
Site Name	Benton County Shrubsteppe
Accuracy	NA
Notes	General location of Shrubsteppe. Confirm or refute with site-scale info. WDFW recommends using site-scale info to inform site-scale land use decisions. Expect that on-the-ground conditions (e.g., boundaries) will vary from the map.
Source Record	920859
Source Name	Keith Folkerts, WDFW
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
Geometry Type	Polygons

Shrubsteppe	
Priority Area	Habitat Feature
Site Name	Benton County Shrubsteppe
Accuracy	NA
Notes	General location of Shrubsteppe. Confirm or refute with site-scale info. WDFW recommends using site-scale info to inform site-scale land use decisions. Expect that on-the-ground conditions (e.g., boundaries) will vary from the map.
Source Record	920859
Source Name	Keith Folkerts, WDFW
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
Geometry Type	Polygons

Shrubsteppe	
Priority Area	Habitat Feature
Site Name	Benton County Shrubsteppe
Accuracy	NA
Notes	General location of Shrubsteppe. Confirm or refute with site-scale info. WDFW recommends using site-scale info to inform site-scale land use decisions. Expect that on-the-ground conditions (e.g., boundaries) will vary from the map.
Source Record	920859
Source Name	Keith Folkerts, WDFW
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
Geometry Type	Polygons

Shrubsteppe	
Priority Area	Habitat Feature
Site Name	Benton County Shrubsteppe
Accuracy	NA
Notes	General location of Shrubsteppe. Confirm or refute with site-scale info. WDFW recommends using site-scale info to inform site-scale land use decisions. Expect that on-the-ground conditions (e.g., boundaries) will vary from the map.
Source Record	920859
Source Name	Keith Folkerts, WDFW
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
Geometry Type	Polygons

Townsend's Ground Squirrel - townsendii	
Scientific Name	<i>Urocitellus townsendii townsendii</i>
Notes	This polygon mask represents one or more records of the above species or habitat occurrence. Contact PHS Data Release at p hsproducts@dfw.wa.gov for obtaining information about masked sensitive species and habitats.
Federal Status	N/A
State Status	Candidate
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	Y
SGCN	Y
Display Resolution	QTR-TWP

Ferruginous hawk	
Scientific Name	<i>Buteo regalis</i>
Notes	This polygon mask represents one or more records of the above species or habitat occurrence. Contact PHS Data Release at p hsproducts@dfw.wa.gov for obtaining information about masked sensitive species and habitats.
State Status	Threatened
PHS Listing Status	PHS Listed Occurrence
Sensitive	Y
SGCN	Y
Display Resolution	TOWNSHIP
ManagementRecommendations	http://wdfw.wa.gov/publications/pub.php?id=00026

DISCLAIMER. This report includes information that the Washington Department of Fish and Wildlife (WDFW) maintains in a central computer database. It is not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife. This information only documents the location of fish and wildlife resources to the best of our knowledge. It is not a complete inventory and it is important to note that fish and wildlife resources may occur in areas not currently known to WDFW biologists, or in areas for which comprehensive

surveys have not been conducted. Site specific surveys are frequently necessary to rule out the presence of priority resources. Locations of fish and wildlife resources are subject to variation caused by disturbance, changes in season and weather, and other factors. WDFW does not recommend using reports more than six months old.

Appendix C

Site Photographs



Photo 1. Northern portion of project area (facing east)



Photo 2. Central portion of project area showing area of low shrub coverage (Facing south)

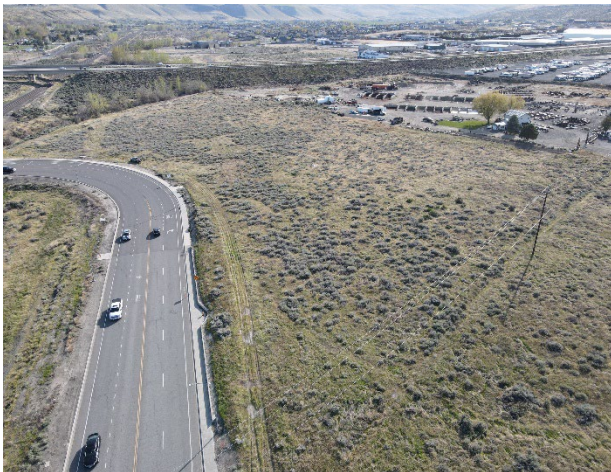


Photo 3. Entire southern portion (Facing southwest)



Photo 4. Southern portion (facing south)



Photo 5. Wildlife corridor.



Photo 6. East Badger drain typical condition



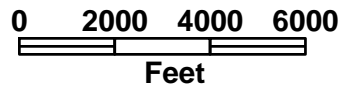
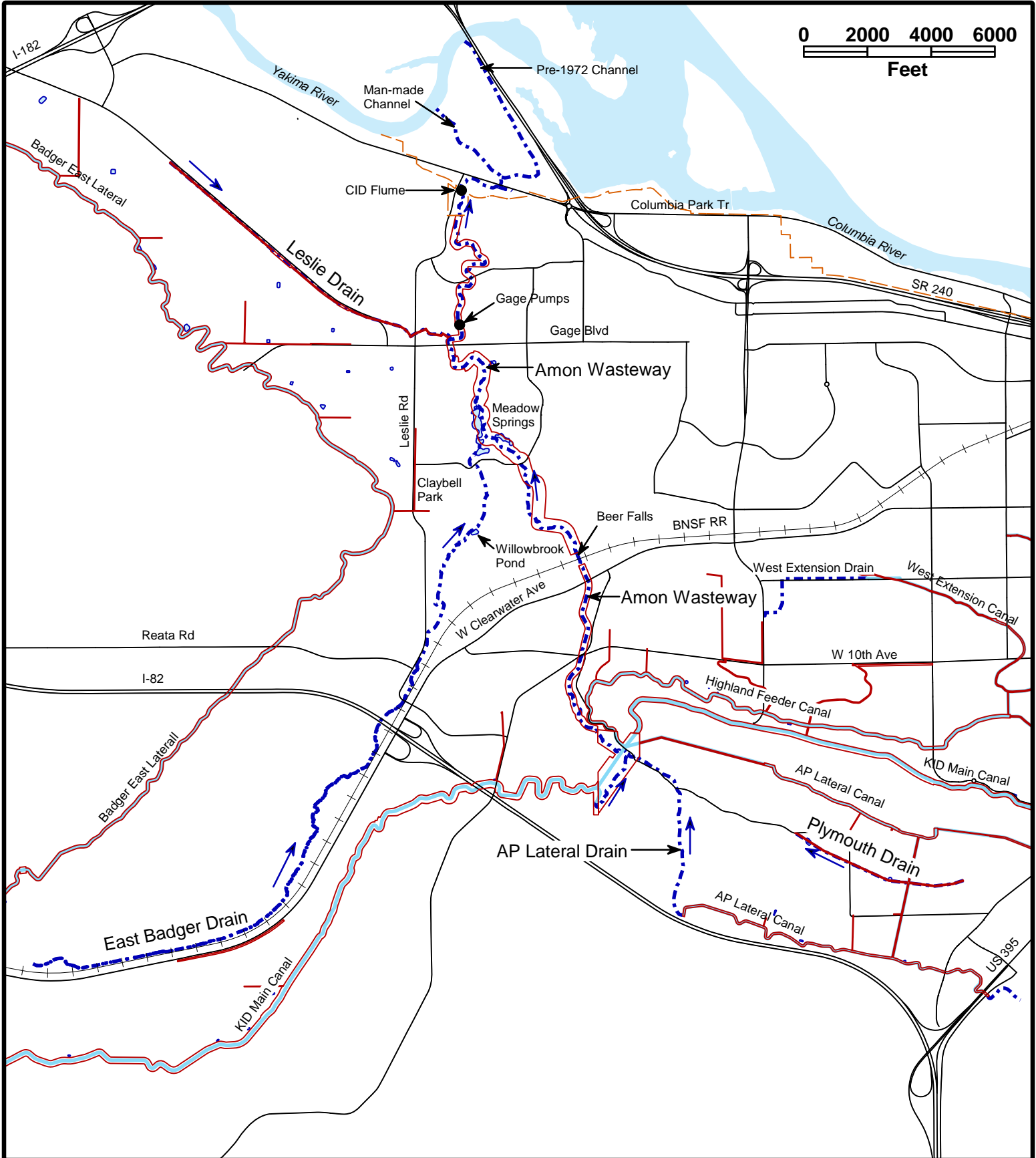
Photo 7. East Badger Drain culvert under I-84



Photo 8. East Badger Drain (facing east)

Appendix D

KID Amon Basin Map



Amon Wasteway and Drain System

Legend

- Canals
- Drains
- USACE Taking Line
- Canal R/W
- Major Roads



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