

COMMUNITY DEVELOPMENT DEPARTMENT www.friendlyfortuna.com – (707)725-7600

# CITY OF FORTUNA NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

#### **ENVIRONMENTAL REVIEW AND COMMENT PERIOD**

PUBLIC REVIEW PERIOD: September 27, 2024 to October 27, 2024

Notice is hereby given that a 30-day public review and comment period has been established pursuant to the California Environmental Quality Act (CEQA) for a Draft Mitigated Negative Declaration, which has been prepared for the proposed project as identified below and located in the City of Fortuna.

**PROJECT:** Newburg Glen Multi-Family Housing Development

PROJECT LOCATION: 1569 Newburg Road, Fortuna, CA 95540

ASSESSOR'S PARCEL NUMBER: 201-071-001

PROJECT APPLICANT: Adam's Commercial General Contracting

**PROJECT SUMMARY:** The proposed project site is an existing 4.05-acre undeveloped parcel that includes wetland and riparian habitat resources. The proposed project includes all new construction of twenty-four (24) multifamily townhome-style units consisting of six buildings, each with 4 dwelling units and attached 1-car garages. Approximately 2.7 acres would be impacted by proposed construction activities, with mitigation measures in place to protect identified resources.

**ENVIRONMENTAL STATUS:** The City has performed an Environmental Initial Study, which has determined that with mitigation measures, no significant environmental impacts would result from the proposed project. Therefore, a Mitigated Negative Declaration is recommended for adoption. The Draft Mitigated Negative Declaration is available for public review from September 27, 2024 to October 27, 2024. Written comments regarding the adequacy of the Draft Mitigated Negative Declaration must be received by the Community Development Department at the address provided below by 5:00 p.m. on October 27, 2024. A final environmental document incorporating public input will then be prepared for consideration by decision-making authorities.

**WRITTEN COMMENTS:** Written comments must be submitted to the City no later than October 27, 2024, and addressed to: Katey Schmidt, Planner II, Community Development Department; 621 11<sup>th</sup> Street; P.O. Box 545, Fortuna, CA 95540 or via email at kschmidt@ci.fortuna.ca.us.

**INFORMATION AVAILABLE:** The Draft Initial Study and Mitigated Negative Declaration may be reviewed on the City's website under <u>"Community Development Notices"</u>. Please contact Planning Division staff below to review other supporting documents and the project application.



**NEWBURG GLEN** 



CITY OF FORTUNA PUBLIC REVIEW DRAFT INITIAL STUDY PROPOSED MITIGATED NEGATIVE DECLARATION

#### **PROJECT INFORMATION**

1. Project Title: Newburg Glen Townhomes

2. Lead agency: City of Fortuna

City Hall Address: 621 11th Street, Fortuna, CA 95540

Contact person: Shari Meads, Community Development Director

Phone number: 707-725-1408 (office)
Email: smeads@ci.fortuna.ca.us

3. Applicant: Will Adams, Newburg Glen LLC

Address: 339 2<sup>nd</sup> Street, Eureka, CA 95501 Contact person: Will Adams, Raelina Kirkston

Phone number: 707-443-6000

Email: will@acgcinc.com, rae@acgcinc.com

4. Prepared, in-part by: McSorley Architecture

Address: PO Box 2472, McKinleyville, CA 95519

Contact person: Garrett McSorley Phone number: 707-633-9283

Email: garrett.mcsorley@gmail.com

Consultants:

Points West Surveying -Surveying

Kyle Wear, Biologist

- Wetland delineation & Biological Resources Assessment

Whitchurch Engineering, Inc.

- Geotechnical

Project Location: 1569 Newburg Rd, Fortuna, CA 95540

6. Assessor's Parcel Numbers: 201-071-001

General plan description: Residential High (RH)
 Zoning designation: Multifamily Residential (R-M)

9. Anticipated Approvals:

1. Mitigated Negative Declaration

2. Use Permit & Design Review (17.07 FMC)

3. Building Permits

- 10. Additional public agencies whose approval is required (e.g. permits, financial approval, or participation agreements):
  - a. Tribal Communities
  - b. California Department of Fish and Wildlife
  - c. Regional Water Quality Control Board
  - d. Army Corps of Engineers
  - e. City of Fortuna
- 11. Appendices:
  - a. Appendix A Preliminary Drawings
  - b. Appendix B Topographic Survey
  - c. Appendix C Wetland Delineation
  - d. Appendix D Biological Resources Assessment
  - e. Appendix E Soils Report
  - f. Appendix F Tribal Consultation Response
  - g. Appendix G National Flood Hazard FIRM Map
  - h. Appendix H Army Corps Response Letter

#### **CEQA REQUIREMENTS**

This project is subject to the requirements of the California Environmental Quality Act (CEQA). The lead agency is the City of Fortuna. The purpose of this Initial Study is to provide a basis for deciding whether to prepare an Environmental Impact Report, a Mitigated Negative Declaration or a Negative Declaration. This Initial Study is intended to satisfy the requirements of the California Environmental Quality Act, CEQA, (Public Resources Code, Div 13, Sec 21000-21177), and the State CEQA Guidelines (California Code of Regulations, Title 14, Sec 15000-15387). CEQA encourages lead agencies and applicants to modify their projects to avoid significant adverse impacts.

Section 15063(d) of the State CEQA Guidelines states the content requirements of an Initial Study as follows:

- 1. A description of the project including the location of the project;
- 2. An identification of the environmental setting;
- 3. An identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries;
- 4. A discussion of the ways to mitigate the significant effects identified, if any;
- 5. An examination of whether the project would be consistent with existing zoning, plans, and other applicable land use controls;
- 6. The name of the person or persons who prepared or participated in the Initial Study.

#### **OVERVIEW**

The proposed project includes all new construction of twenty-four (24) market rate townhome style multifamily dwelling units (Site Plan Sheet A1.1 in the drawings, Appendix A). The project includes 6 buildings, each with 4 dwelling units. All units include a dedicated attached 1-car garage. The buildings are constructed with concrete slab on grade per the Geotechnical Report and conventional 1-story and 2-story wood light frame structures with 2x6 exterior walls, plywood shear walls, and manufactured truss roofs in accordance with the applicable CA Residential and related Building Standards Codes, referenced standards, regulations, and City of Fortuna Zoning Code and General Plan requirements.

#### **SUMMARY**

The proposed project has been designed first to "avoid" impacts. This principle has been identified by staff at North Coast Regional Water Quality Control Board (NCRWQCB) as an approach to "avoid, minimize, mitigate," in that order. Only after impacts have been avoided are measures considered to minimize, and finally mitigate

only when warranted based on the project requirements. This has been implemented in the proposed project design, and the design has been modified and improved multiple times with both formal and informal input from city and agency staff, environmental scientists, and architect. The proposed use is principally permitted and meets all zoning and general plan requirements. Ordinarily, a categorical infill exemption would be supported by all current state regulations in support of housing project development and reducing barriers. However, as it is clear there is a possibility of significant impacts to wetland and biological resources, this Initial Study provides a characterization of the project and of all potential impacts. It is shown that by avoiding, minimizing, and mitigating the potential impacts will be less than significant and the project qualifies for a Mitigated Negative Declaration with Mitigation Monitoring for 5 years after project completion.

The project will result in impacts that are **Less than Significant with Mitigation Incorporated.** This level of significance is used for impacts that would meet or exceed the identified thresholds but would be reduced to a less-than-significant level through the implementation of mitigation measures. All other potential impacts are less than significant and do not require mitigation due to the degree of impact not meeting or exceeding the threshold of significance.

#### SURROUNDING LAND USES AND SETTING

The proposed project is located at the site of an undeveloped parcel with fully developed single-family homes on smaller parcels along the west property line. On the eastern side of the project parcel there is an existing two-story single family home along Newburg Rd, with a gate and driveway leading to the Fortuna Fire Protection District training and simulation work yard. Further north there is a shared fence between the project parcel and the materials storage yard for a local construction supplies retail facility. On the north property line there is an existing drainage ditch that is owned and maintained by the City of Fortuna, and a vacant field on the parcel to the north. There is a drainage culvert to the north of the northwest corner of the project parcel.

Newburg Road includes two lanes of traffic, with parallel parking on both sides. The project site will be accessed by a driveway shown in the Fire Access Plan on sheet A1.7 of the drawings in Appendix A. Vehicle turning analysis is included to demonstrate relative ease of access for a mid-size fire apparatus and trash collection vehicle.

#### PROJECT DESCRIPTION

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Bldg#	Bldg Type	1-Bedrm	2-Bedrm	3-Bedrm	Total Units
Bldg A	Type 1	1	2	1	4
Bldg B	Type 1	1	2	1	4
Bldg C	Type 2	0	3	1	4
Bldg D	Type 2	0	3	1	4
Bldg E	Type 3	1	2	1	4
Bldg F	Type 4	0	3	1	4
	Totals	3	15	6	24
		12.5%	62.5%	25.0%	100.0%

The proposed project site is an existing undeveloped parcel on a relatively flat terrace at approximately 50 feet above sea level (Appendix B, Topographic Survey). There is an existing wetland associated with the drop in elevation to the northwest, toward Rohner Creek. The area toward the south along Newburg Road is composed of existing nonnative grasses, with some older fruit trees along the eastern property line. The southern and eastern portions of the parcel are upland to the wetland resources. A Wetland Delineation and Biological Resources Assessment have been prepared, and recommendations from the Biologist Kyle Wear and California Department of Fish and Wildlife (CDFW) have been incorporated into the design. (Summary analysis of wetland and natural resources including proposed Mitigation Measures, Section 4; Appendix C, Wetland Delineation; Appendix D; Biological Report). The Army Corps of Engineers (ACOE) has determined the wetland area will not be impacted and will not result in placement of fill material within waters or wetlands subject to Corps regulation, therefore no DA permit would be required. (Sheet A1.4 of the drawings provided in the drawings of Appendix A; Appendix H). Additionally, this subject is reviewed in detail in section 4. The project will result in no impact to the wetland resources. The project does not include any grading activities within the area outlined in the project drawings which encompasses the entire wetland and buffer area. There will be no net loss of wetland resources. The project provides a wetland buffer setback area that is consistent with Fortuna General Plan, and Mitigation Measures have been identified to ensure less than significant impacts in accordance with CDFW, NCRWQCB, and USACE. Any further measures would further reduce the ability of the project to meet the housing objectives.

Per Fortuna Municipal Code Section 17.03.012, the RM zoning district is intended to be applied in areas of the city where it is reasonable to permit and protect medium-high density apartment, townhouse, and condominium development. Projects with a total of not more than five multifamily dwelling units are Principally Permitted, however projects with greater units area subject to Conditional Approval subject to securing a use permit

and design review approval per the provisions of Chapter 17.07 of the Fortuna Municipal Code.

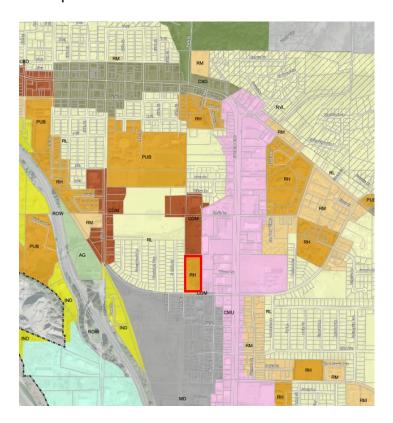


Figure 1: Zoning Code Map

The project parcel is subject to a maximum height limit of one foot in building height for every foot of setback from any property line adjacent to developed single-family areas or undeveloped single-family districts, up to a maximum of the lesser or 40 feet or three stories. Where adjacent to developed two-story single-family areas, the proposed structures are subject to two feet in building height maximum for every foot of setback. The proposed project meets these height limits. This height limit applies at Dwelling Unit A1, in Building A, which is located in the farthest southwest corner of the project parcel. That unit borders the property line with an existing 1-story residential use. The drawing in the bottom right corner of sheet A2.7 of Appendix A demonstrates compliance with this 1:1 height to setback ratio. Dwelling Unit D8 in the far southeast corner of the project parcel also complies with that standard, although the existing residential use on the adjacent parcel is 2 stories in height, so the proposed design may be lower in height than would otherwise be required.

The lot standards for the RM district includes a minimum lot area of 10,000 SF, lot width of 80 feet, lot depth of 3 times the width, and minimum yard setbacks of 20 feet on the front, 5 feet on sides, 10 feet on rear and public street yards. All of these standards are compliant in the proposed project, except a variance is requested to allow a reduced front setback of 15 feet, instead of 20 feet. This variance is requested solely based on the recommendation of CDFW to allow a greater buffer between the proposed development and adjacent wetland resources. The proposed 15 foot setback is consistent with existing development along this section Newburg Road. The intent of the

street frontage, building massing, and scale of these buildings is to be harmonious with the surrounding residential uses and to be compatible with Newburg Road as a thoroughfare.

The RM district requires a minimum of 40% of the lot area to be open space, not covered by building, parking spaces, or driveways. The proposed project includes approx. 92,421 SF of open space out of the total lot area of 171,325 SF, which is approximately 54% open space. Therefore, the proposed project complies.

The RM district also requires Covered Parking and Storage Areas in accordance with FMC 17.05.140. In lieu of covered parking, enclosed, lockable storage areas at least six feet in height may be provided. The proposed project complies with this provision by providing dedicated a 1-car garage for each dwelling unit.

Landscaping and screening is to be a minimum of 20% of the lot area. The project exceeds this amount with the landscape and wetland buffer areas. The project includes exclusively native landscape plantings that are compatible with the upland and wetland resources, including a version of a transitional ecotone. Invasive species will be removed to the degree practicable as recommended and new native plantings will be introduced in accordance with the preliminary landscape design per Sheet L1.1 of <a href="Appendix A">Appendix A</a>, which is based on recommendations from the Wetland Biologist, CA Dept of Fish & Wildlife staff, and Regional Water Quality Control Board Staff. A final Landscape Design including complete planting schedules, quantities, maintenance plan will be provided as part of the building permit application. The project is not located in the Coastal Zone. The project is not located within the 100-year flood zone. Refer to FEMA Maps on file with the City of Fortuna, and <a href="Appendix G">Appendix G</a>.

The site development includes new parking and driveway areas, new sidewalks and curb ramps, a covered trash enclosure, LID features and stormwater facilities, native landscaping, fencing, a nature-inspired playground, gazebo, nature trail, interpretive signs, and related improvements.

Off-street parking would be provided, including a 1-car garage dedicated to each dwelling unit. Each 1-bedroom unit would also have (1) additional dedicated parking space, and all 2 and 3-bedroom units would have (2) additional dedicated parking spaces. There are also additional parking spaces in a common parking area near the west property line for a grand total of (85) total parking spaces, including the (24) 1-car garages and (61) uncovered outdoor parking spaces. This is a total project parking ratio of 3.5 parking spaces per unit. Each garage will have with the capability to install dedicated electric vehicle charging device. The dwelling unit's electrical meter will include capacity for this use. Bicycle parking is facilitated at each private garage, as well as (9) common bike racks near the gazebo, trail, and basketball court.

Surrounding the parking lot areas will be new landscaped bioswales with native and locally adapted landscaping to infiltrate and filter rainwater and to provide a connection to nature. There is an existing drainage easement to the north with drainage infrastructure that is owned and maintained by the City of Fortuna. The proposed project maintains clearance from those areas. No construction is proposed at the drainage

infrastructure or wetland areas. (Sheet A1.5 of the drawings in <u>Appendix A</u>). Approximately 2.7 acres would be impacted by proposed construction activities. Therefore, the project will require a Stormwater Pollution Prevention Plan (SWPPP) for coverage under the EPA Construction General Permit to be part of the building permit application. Additionally, the project shall comply with the City of Fortuna regulations for Low Impact Development (LID), as demonstrated by Regulated Project worksheet per County of Humboldt LID Manual v3 to be submitted with Building Permit Application. Bioswales may be incorporated within the wetland buffer areas where indicated, but stormwater will not be directed into wetland areas.

All major utilities are present at the existing street frontage on Newburg Road. PG&E three phase power is available from existing overhead powerlines, with a new underground service to a pad-mount transformer and electric meters at dwelling units, as well as one additional house meter for common loads including site lighting. The project is designed to be all electric with no natural gas meters on site.

Domestic and Fire Protection Water is available in sufficient size and capacity at existing fire lines in Newburg Road and in a north-south section of water main piping approx. 40 feet to the east of the project parcel. The new dwelling units will be fully fire sprinklered in accordance with CA Fire Code and NFPA 13R or 13D. There will be new fire hydrants to be installed in accordance with City Standard Details and NFPA 24 in the locations identified on sheet A1.7 Fire Access Plan of Appendix A. These locations are to be verified and approved by the Fortuna Fire Protection District and Building Official. Existing hydrants must be tested for pressures and calculations by a qualified professional demonstrating compliance with Fire shall be submitted with the Building Permit application.

The City of Fortuna municipal water system, as stated in recent city publications, provides water to approximately 12,000 people and over 4,500 service connections. Water quality is regulated by the State Water Board and regular testing standards are maintained. The City's distribution system includes 40 miles of pipeline, 4 reservoirs comprising over 8 million gallons of water, and 8 booster pump stations, including 3 hydro-pneumatic stations. The City's water originates from groundwater sources; pumps are located on Eel River Drive between Drake Hill Road and Kenmar Road. The City has 5 wells at this location. In 2019 the city produced approximately 463 million gallons of drinking water. The existing infrastructure is capable of supplying the volume and rate of water needs for the proposed project. In order to ensure sufficient pressure and redundancy, there should be a looped connection with the existing water line in Newburg Road and at the water main that runs parallel to the eastern boundary line in the fire department parcel.

Wastewater from the project would be to be delivered via sanitary sewer piping system to the existing Fortuna Wastewater Treatment Plant (WWTP). The City's WWTP is designed for and is fully capable of treating the potential wastewater discharge from the proposed project. A hydraulic analysis shall be provided as part of the building permit application to demonstrate the proposed Drainage Fixture Units will not negatively impact existing infrastructure.

The project's water supply fixture units and drainage fixture units are provided in the

following table by building type:

Bldg Type: Bldg #'s:	Type 1 Bldg A & B	Type 2 Bldg C & D	Type3 Bldg E	Type 4 Bldg F	PROJECT TOTALS:	
WATER: WSFU's PER CPC T610.3:	94	97.5	94	97.5	574.5	WSFU's
WASTE: DFU's PER CPC T702.1	64	68	64	68	396	DFU's

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Fixtures	ner	виш	aına	ivne

Lavatory
Bath/Shower
Water closet
Kitchen Sink
Hose Bibb
Dishwasher
Clothes washer

				Total by fixture type:
8	9	8	9	34
6	6	6	6	24
8	9	8	9	34
4	4	4	4	16
8	8	8	8	32
4	4	4	4	16
4	4	4	4	16

#### **ENVIRONMENTAL FACTORS REVIEWED IN CHECKLIST:**

- 1. Aesthetics
- 2. Agriculture and Forestry
- 3. Air Quality
- 4. Biological Resources
- 5. Cultural Resources
- 6. Energy
- 7. Geology/Soils
- 8. Greenhouse Gas Emissions
- 9. Hazards and Hazardous Materials
- 10. Hydrology/Water Quality
- 11. Land Use/Planning
- 12. Mineral Resources
- 13. Noise
- 14. Population/Housing
- 15. Public Services
- 16. Recreation
- 17. Transportation
- 18. Tribal Cultural Resources
- 19. Utilities/Service Systems
- 20. Wildfire
- 21. Mandatory Findings of Significance

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

#### 1. AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:

Question	CEQA Determination
a) Have a substantial adverse effect on a scenic vista?	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No Impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	No Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less Than Significant Impact

#### Discussion:

The proposed project is not within a scenic view area. Significant scenic trees and other natural areas are not changed. There are no historic buildings or scenic highways. The project is within an existing urbanized area. The project is compatible and harmonious with the public views of the existing urbanized areas and includes no conflict with applicable zoning or other regulations governing scenic quality.

The project will have new outdoor lighting to illuminate parking, walkways, and building entrances. All outdoor lighting, including sign lighting, shall be dark sky compliant, controlled to be turned to the lowest recommended light levels for the use, and shall have a 3,000 Kelvin maximum color temperature. All outdoor lighting will comply with the current CA Energy Code and Cal Green. These measures shall be specified in the construction documents and verified through inspection. The project will result in less than significant impact regarding creating substantial light or glare. (Preliminary site lighting and photometric study on sheet A1.8 of Appendix A).

Mitigation measures are not required as the project already incorporates design features which avoid and minimize any potential impacts from lighting and glare. Fortuna General Plan and Building Codes already include provisions ensuring compliance. The proposed site plan design already incorporates these measures and the photometric plan demonstrated compliance without the need for any further mitigation measures. A final photometric plan will be required as part of the Building Permit application.

Mitigation: None.

# 2. AGRICULTURE AND FOREST RESOURCES

In evaluation of potential impacts to agricultural resources, would the project:

Question	CEQA Determination
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	No Impact

#### Discussion:

The project would have no impact on agricultural resources. According to the mapping of soils and timberland resources as part of the Fortuna General Plan 2030, the proposed project site is outside of any identified resource areas. The project is not part of a cumulative impact scenario regarding agricultural or forest resources. The proposed project includes removal of a few non-native cypress trees, and small diameter trees and fruit trees as identified on the site plan. A few specific existing trees identified to remain on the site plan and are to be protected in-place with only light trimming as necessary. Root zones are protected based on nearest proposed grading activity. The existing upland area around the wetland resources are not part of a large forested area, but the trees and forest habitat provided will remain in the entire wetland area and buffer area. The project as designed avoids any loss of forest land or conversion of forest land to non-forest use. There are no other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

Mitigation: None.

#### 3. AIR QUALITY

In regard to local and regional air quality, and project operations, would the project:

Question	<b>CEQA Determination</b>
a) Conflict with or obstruct implementation of the applicable air quality plan?	No Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	No Impact

#### Discussion:

The proposed project would not conflict with the General Plan provisions or the North Coast Air Quality Management District (NCUAQMD) efforts to achieve state air quality standards. As established, the District has not "formally adopted significance thresholds, but rather utilizes the Best Available Control Technology (BACT) emission rates for stationary sources as defined and listed in the NCUAQMD Rule and Regulations, Rule 110 - New Source Review (NSR) And Prevention of Significant Deterioration (PSD), Section 5.1 - BACT (pages 8-9).

During construction, the project will create short-term particulate emissions from sources including dust, vehicle emissions, equipment emissions during earthwork, paving, and landscaping phases. These construction phase activities are limited to the project area and are subject to City regulations to as related to the Fortuna General Plan, in its Health and Safety Element, includes policies to maintain compliance with PM10 particulate matter, to control greenhouse gas emissions, and to require emissions reductions as part of construction activities. Standard dust control and construction equipment operation best management practices will avoid any significant impacts.

The proposed residential use would not create a substantial increase in long term PM10 or other emissions. The proposed project includes all-electric construction with no natural gas or other fuels. The project includes the capability to install electric vehicle chargers for each dwelling unit. The project is also located at an infill location of the City with walking distance to basic services and transportation system.

The project will not cause long term objectionable odors. During the temporary construction phase there may be local odors associated with diesel equipment. There are existing single family dwelling units on the west, east, and to the south of the project site. The distance is sufficient that regular air dispersal will minimize the concentration of odors from construction activities. However, in the event of windy conditions that would direct concentrated exhaust directly toward a residential area the construction

vehicle must be turned off. These requirements are to be included on the Building Permit application. No mitigation measure required.

Mitigation: None.

# 4. **BIOLOGICAL RESOURCES**

Would the project:

Question	<b>CEQA Determination</b>
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?	Less Than Significant with Mitigation Incorporated
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Less Than Significant with Mitigation Incorporated
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Less Than Significant with Mitigation Incorporated
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact

#### Discussion:

A seasonally appropriate floristic survey of the property has been prepared by a qualified biologist. This study was prepared in accordance with CDFW's March 2018 Protocols for Surveying and Evaluating impacts to Special Status Native Plant Populations and Natural Communities. A complete assessment of impacts to special status wildlife species that may exist within the project site and surrounding area has been prepared.

The project site includes rich wetland and riparian habitat resources. Recommendations from the project Biologist, CDFW, and NCRWQCB have been incorporated into the design (<u>Appendix C</u>, Wetland Delineation, and <u>Appendix D</u>, Biological Report). The Army Corps of Engineers has determined the wetland area is not being impacted and will not result in placement of fill material within waters or wetlands subject to Corps regulation, therefore no DA permit would be required. (Sheet A1.4 of the drawings provided in the drawings of <u>Appendix A</u>, and the full letter in <u>Appendix H</u>).

The Biological Report, Appendix D, states regarding Special Status Plants:

"The parcel has relatively low potential for special status plants. The site appears to have a history of disturbance and includes a mix of native and non-native plants as described in Section 3.3. Most of the special status plants on the scoping list occur in coastal dunes, salt marshes, along streams, and more natural coniferous forests and grasslands. Except for bristle- stalked sedge (Carex leptalea), and potentially other rare sedges that could occur in the wetland, no other plants listed under the ESA, CESA, or plants with CRPRs of 1 or 2 were considered to have at least moderate potential to occur on the parcel. Several plants with CRPRs of 4 on the scoping list have more potential, but these taxa are relatively common in Humboldt County and would not warrant special consideration under CEQA Guideline §15380 (d)."

The report also looks at Special Status Natural Communities:

"The vegetation in the open parts of the wetland is generally consistent with Slough sedge - Water-parsley - Small-fruited bulrush marsh (*Carex obnupta - Oenanthe sarmentosa - Scirpus microcarpus* Herbaceous Alliance), G4 S3. This community is considered special status because it has a S Rank of 3 and because it is wetland. The stands of willow are generally consistent with Arroyo willow thickets (*Salix lasiolepis* Shrubland Alliance), G4 S4."

And finally, regarding Special Status Wildlife:

"The wetland is potential habitat for northern red-legged frog (*Rana aurora*), which could also use the upland areas on the parcel. There is also potential nesting habitat for birds protected by the MBTA in the trees and shrubs in the wetland and upland habitat."

The assessment includes recommendations for design measures to avoid and minimize impacts, as well as mitigation measures which have been incorporated. These include

1. Silt fencing and orange construction fencing should be placed between the development and the 25-foot wetland buffer during construction. This will provide a visual barrier between the development and wetland buffer and reduce potential delivery of sediment from bare soil during construction and pollutants from equipment of construction.

- 2. The wetland buffer should remain completely undisturbed during construction. There should be no parking equipment or storage of material in the wetland buffer. Construction personnel should be made aware of the buffer and restrictions within it.
- 3. Pre-construction migratory bird surveys should be conducted prior to removal of trees or other major vegetation clearing if it is done during the nesting season, which is from February through August. The surveys are not necessary if the work occurs outside the nesting season.
- 4. Pre-construction Northern red-legged surveys should be conducted by a qualified wildlife biologist prior to major vegetation removal. The survey should occur regardless of the time of year the work is done.

The site plan drawings have been prepared based on the topographic survey and surveyed points depicting the wetland delineation as flagged in the field by the Biologist. There were approximately 23,366 SF of wetland area (approx. 0.54 AC). Note this is a few hundred more square feet than listed in the Wetland Delineation, but is how it measures in the official CAD file. The report provides a characterization of the Palustrine Emergent Wetland, Palustrine Scrub Wetland, and Upland areas. Per the report, the project site includes:

"Approximately 23,009 square feet (0.528 acres) of wetland were identified on the parcel. This includes 16,284 square feet of Palustrine Scrub-Shrub wetland with a canopy of willows and 6,876 square feet of more open Palustrine Emergent wetland that generally lacks a woody canopy. The wetland is associated with the lower swale-like topography in the northwest part of the parcel. There is an existing municipal drainage ditch just north of the parcel that carries runoff from Fortuna Blvd. to Rohner Creek. The open ditch potentially has surface water connection with adjacent wetland in periods of flooding heavy rainfall."

The City of Fortuna General Plan requires "at least 50 feet around jurisdictional wetlands, unless a biological report indicates that such Wetland Buffer Areas are not required." The wetland and biological reports state that "a smaller setback would not impact the wetland." The CDFW typically would begin with a 100 foot buffer, and consider a reduction to 50 feet based on the "avoid, minimize, mitigate" approach. The site plan includes a 50 foot wetland buffer setback line showing the relationship between the wetland boundary and the proposed development. There are only minor inclusions into the 50 foot buffer. These occur on a few outdoor private residential decks at Buildings E and F, approximately 12 square feet of building area at Building E, and approximately 577 square feet of buffer area near the fire access driveway that is near the southern end of the wetland resource area. This driveway is required for fire safety and municipal services (garbage, recycling). See Sheet A1.5 and Sheet A1.7 for related information demonstrating compliance. The project includes a proposed variance which allows the front setback to be reduced at the Newburg Road frontage in order to minimize the inclusion in the wetland buffer. The areas that the buffer area are encroached are mitigated through the mitigation measures listed below, by providing additional buffer area beyond the 50 feet to include a large area to the west of the

wetland area. That area will be improved with appropriate removal of invasive plants, planting of new native species, installing interpretive signage, and limiting vegetation removal to occur outside of nesting season, or if not feasible to have a qualified biologist provide field survey immediately prior to any clearing activities.

City of Fortuna includes an array of natural resource areas and this wetland area is significant not only to the plant and animal species, but in terms of the multiple agencies responsible for protecting environmental resources. The City of Fortuna General Plan addresses compliance with water resource protection. Specifically General Plan Policies NCR-2.10, NCR-15, and PROX-3.6 are applicable to this project.

#### General Plan Policies:

NCR-2.10 Wetland Identification and Protection. In considering new development projects, the City shall conduct an initial screening, as described in Policy NCR-2.6 in order to determine whether the proposal would have the potential to impact wetlands. If the initial screening indicates the potential presence of wetlands, a wetland assessment/ delineation shall be prepared to determine the presence of jurisdictional wetlands. The assessment/delineation, with proposed mitigation, shall be submitted to the City, and appropriate state and federal agencies for concurrence prior to permitting. Mitigation may include, but may not be limited to, avoidance, minimization of impacts, restoration, off-site replacement, and/or the use of buffers.

**NCR-2.13 Watercourse, Wetland and Riparian Buffers.** The City shall require appropriate watercourse, wetland, and riparian area buffers to protect water quality and biologic values.

**NCR-15.** The City shall prepare a streamside management/ wetland protection ordinance, following collaboration with resource agencies, establishing setback recommendations for perennial and intermittent streams, wetlands, and riparian corridors. At a minimum, the City shall implement the following watercourse, wetland and riparian area protection measures:

#### Wetlands:

- (a) The City shall maintain Wetland Buffer Areas of at least 50 feet around jurisdictional wetlands, unless a biological report indicates that such Wetland Buffer Areas are not required;
- 2. (b) New development within Wetland Buffer Areas shall be limited to: fish and wildlife management; wetland restoration; removal of trees for disease control and public safety; and new fencing so long as it does not impede drainage or wildlife movement;
- 3. (c) No new development shall be permitted in Wetland Buffer Areas which degrades the wetland; and

4. (d) Wetland Buffer Areas disturbed by permitted activities shall be restored to the original contours and promptly replanted with native riparian vegetation.

Combined Watercourses/Riparian Areas and Wetlands:

- (a) Storm water runoff to watercourses and wetlands shall not exceed the existing rate of storm runoff for a 50 year storm of 10 minute duration;
- (b) Sediment in storm water runoff draining to watercourses and wetlands shall be minimized through the use of sediment basins, seeding or replacing bare soil, diversion of runoff away from graded areas and areas heavily used during construction, and limiting grading in buffer areas to the dry season (May through October); (c) Stormwater outfalls, culverts, gutters, and other similar facilities draining to watercourses and wetlands shall be dissipated; and (d) Sentic systems shall not be permitted within wetland buffer.
- (d) Septic systems shall not be permitted within wetland buffer areas. Adjacent to these areas, septic systems shall meet County Health Department and RWQCB standards.

# Mitigation:

BR-1: Pre-construction survey for northern red-legged frogs, regardless of the time of year, prior to any clearing of vegetation.

Current frog surveys conducted by a qualified biologist not more than 14 days prior to the work and must be submitted to City staff for concurrence with not less than 3 business day notice prior to any related tree removal or major vegetation clearing. If the City staff has any question as to the findings of the surveys, they shall be forwarded to the appropriate staff at CDFW for further evaluation prior to the work proceeding. This mitigation measure is ongoing throughout the construction process and must be documented prior to any removal of trees or major vegetation clearing.

BR-2: Pre-construction surveys for nesting migratory birds, if tree removal or major vegetation clearing is proposed during the nesting season February 1<sup>st</sup> through August 31st.

Pre-construction surveys for nesting migratory birds are not necessary if the work occurs outside the nesting season. Surveys that are provided must be conducted not more than 14 days prior to the work and must be submitted to City staff for concurrence with not less than 3 business day notice prior to any related tree removal or major vegetation clearing. If the City staff has any question as to the findings of the surveys, they shall be forwarded to the appropriate staff at CDFW for further evaluation prior to the work proceeding. This mitigation measure is ongoing throughout the construction process.

BR-2: Provide additional wetland buffer area to the west of the existing wetland beyond the 50 foot setback and extending to the western property boundary.

In addition to avoiding development of structures in the area to the west of the wetland area, provide removal of invasive plant species and plant new native plants that support the riparian habitat associated with the wetland and adjacent upland land areas. This area is to be fenced off with a split rail type fence to limit people from entering the this additional buffer area without restricting access by animals. This area would be approximately 10,176 square feet in area of additional wetland buffer area beyond the prescribed 50 foot buffer. This mitigation measure more than alleviates any potential impact as may occur from the slight incursion areas of less than 600 square feet of development in the specific areas identified in the proposed site plan drawings. Extend riparian native plantings and place logs and boulders to provide enhancement of habitat value. A small interpretive trail may be placed in this area, without encroaching into the 50 foot buffer. The is trail would provide opportunities for enjoyment of the wetland resource and would encompass an area of wood chips at a natureinspired playground. This mitigation measure should be verified that it is incorporated into the building permit application.

# BR-3: Provide construction phase monitoring to ensure adequate measures are implemented to prevent impacts to wetland and wetland buffer areas.

Maintain records of compliance demonstrating that construction activities are prevented from impacting the wetland resources. Inspections by the Contractor's identified representative may be conducted in conjunction with the site inspections for stormwater measures as prescribed by the SWPPP and the qualified QSD/QSP. The wetland buffer should remain completely undisturbed during construction. There should be no parking equipment or storage of material in the wetland buffer. Construction personnel should be made aware of the buffer and restrictions within it. This mitigation measure shall be ongoing year-round throughout the entirety of construction, regardless of during the rainy season.

#### BR-4: Install wetland resources interpretive signage.

Install not less than (3) signs measuring not less than 18"x30" in size constructed of durable material mounted on a sturdy permanent mounting post at key locations near the wetland buffer boundary. The signs may be incorporated into the split rail fence layout. See the proposed site plan for locations. Signage graphics must be included to provide general information related to wetland resources. The final design is to be approved by City staff to determine appropriateness to the intent of this measure. The intention is to support the mission of the CDFW regarding management of California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public. The interpretive signage may contribute to the public's further enjoyment of this particular resource.

#### 5. CULTURAL RESOURCES

Would the project:

Question	CEQA Determination
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	No Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	Less Than Significant with Mitigation Incorporated

#### Discussion:

The project is not located in an area with known historical resources. There are no known archeological resources or human remains. The City of Fortuna General Plan NCR-36 states that "Decisions regarding the stewardship and disposition of any Native American cultural resources discovered during the planning and implementation of development projects under the proposed General Plan shall be made in consultation with the appropriate culturally affiliated tribal representatives." This has been incorporated as an official Mitigation Measure C-1, below, which serves as one mitigation measure for Cultural, Tribal Cultural, and Historic Resources combined.

<u>Mitigation</u>: See related Mitigation C-1 Inadvertent Discovery of Cultural Resources, below under section 18 Tribal Cultural Resources.

# 6. ENERGY

Would the project:

Question	CEQA Determination
a) Result in potentially significant environmental impact due	No Impact
to wasteful, inefficient, or unnecessary consumption of	
energy resources, during project construction or	
operation?	
b) Conflict with or obstruct a state or local plan for	No Impact
renewable energy or energy efficiency?	

#### Discussion:

The project is subject to compliance with the 2022 CA Energy Code. There will be no natural gas installed. The dwelling units will be all-electric and each include electric vehicle charger hook-ups and solar photovoltaic array. California Building Code includes provisions which reduce any potential impacts to less than significant.

During construction, the project will include short-term energy consumption from vehicles and equipment. These construction phase activities are limited to the project area and are subject to City regulations to as related to the Fortuna General Plan, in its Health and Safety Element, includes policies to maintain compliance with PM10 particulate matter, to control greenhouse gas emissions, and to require emissions

reductions as part of construction activities. Standard dust control and construction equipment operation best management practices will avoid any significant impacts.

Mitigation: None.

# 7. GEOLOGY AND SOILS

Would the project:

Question	CEQA Determination
<ul> <li>a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:</li> </ul>	No Impact
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	
ii) Strong seismic ground shaking?	Less Than Significant Impact
iii) Seismic-related ground failure, including liquefaction?	No Impact
iv) Landslides?	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	Less Than Significant Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less Than Significant Impact

#### Discussion:

In accordance with the R-2 Soils Report, by Whitchurch Engineering, the project site has been evaluated for potential risks to hazards associated with geotechnical issues, <u>Appendix E</u>. The report includes study of fault maps and on-site investigations in accordance with engineering standards. The report includes recommendations for preparation of foundations, excavations, building drainage, surface drainage, pavements, and utility trenches that are similar to conventional measures in the region.

The site is flat and not subject to landslides or related issues. There are no on-site wastewater disposal systems, and no known paleontological or geologic resources.

California Building Code already includes necessary provisions to avoid impacts due to the potential for strong seismic ground shaking. The engineer who prepared the soils report will review the construction documents for general conformance with their recommendations.

The potential for substantial soil erosion or the loss of topsoil is avoided already as part of the project SWPPP, which takes these issues into account and includes regulatory process and inspections to ensure compliance.

There are no known unique paleontological resource or site or unique geologic features at the project site.

Mitigation: None.

#### 8. GREENHOUSE GAS EMISSIONS

Would the project:

Question	CEQA Determination
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the	No Impact
environment? b) Conflict with an applicable plan, policy or regulation	No Impact
adopted for the purpose of reducing the emissions of greenhouse gases?	,

#### Discussion:

The proposed project does not represent a significant increase in internal combustion vehicle traffic that would rise to a threshold of green house gas emissions impacts. The proposed project will include electric vehicle charging hookups at each private garage. GHG emissions are calculated using CalEEMod analysis. GHG emissions based on short-term construction activities and long-term project is not required for this otherwise principally permitted use.

Compliance with the CA Energy Code at the time of building permit application will provide sufficient evidence of compliance with the intent of this section to evaluate potential project Greenhouse Gas Emissions.

Mitigation: None.

#### 9. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

Question	<b>CEQA Determination</b>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No Impact

#### Discussion:

The proposed project will not pose any significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. It will not result in a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Control of potential hazards from construction phase equipment is part of the SWPPP. The project will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. It is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.

The project site is not located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the

project area. The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The project is not within a high fire severity zone and the provisions of CBC Chapter 7A are not required. The project will not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. The buildings will be fire sprinklered in accordance with California Building and Fire Codes. There will be 1-hour fire resistive rated construction assemblies between dwelling units. There is sufficient driveway access for emergency service vehicles.

There is no recorded historical use of the property that would indicate the need for a Phase I Environmental Site Assessment Process (ASTM E 1527-13). The record search for historical use was completed by City of Fortuna staff, and includes, but is not limited to review of historic documents, city records, observation, and GeoTracker which is the Water Boards' data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater. GeoTracker contains records for sites that require cleanup, such as Leaking Underground Storage Tank (LUST) Sites, Department of Defense Sites, and Cleanup Program Sites. GeoTracker also contains records for various unregulated projects as well as permitted facilities including: Irrigated Lands, Oil and Gas production, operating Permitted USTs, and Land Disposal Sites. There is no indication that any such issue exists or is associated with the proposed project site. If any were to be discovered, inadvertent discovery protocols are already part of the City of Fortuna's standard conditions of approval, therefore a project specific Mitigation Measure is not required.

Mitigation: None.

# 10. HYDROLOGY AND WATER QUALITY

#### Would the project:

Question	CEQA Determination
<ul> <li>a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?</li> </ul>	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	No Impact
(i) result in substantial erosion or siltation on- or off-site;	
<ul><li>(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;</li></ul>	No Impact

Question	<b>CEQA Determination</b>
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	No Impact
(iv) impede or redirect flood flows?	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact

#### Discussion:

The existing site is undeveloped. The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.

The proposed project includes the construction of bioswales which will increase on-site infiltration and increase overall stormwater quality. There would be no substantial modification of hydrological flow or drainage patterns, except for the benefits that the bioswales would provide. The project does not include any known wells, septic systems, tanks, or other impacts to groundwater resources.

The City of Fortuna's Stormwater Control Standard is for no net increase for the 25-year 24-hour storm event. A drainage report with calculations is required at the time of building permit application. The project design already includes new landscaped bioswales with native and locally adapted landscaping to infiltrate and filter rainwater. There is an existing drainage easement to the north with drainage infrastructure that is owned and maintained by the City of Fortuna. The proposed project maintains clearance from those areas. No construction is proposed at that existing drainage infrastructure or wetland areas. (Sheet A1.5 of the drawings in Appendix A). Approximately 2.7 acres would be impacted by proposed construction activities. Therefore, the project will require a Stormwater Pollution Prevention Plan (SWPPP) for coverage under the EPA Construction General Permit to be part of the building permit application. Additionally, the project shall comply with the City of Fortuna regulations for Low Impact Development (LID), as demonstrated by Regulated Project worksheet per County of Humboldt LID Manual v3 to be submitted with Building Permit Application. Bioswales may be incorporated within the wetland buffer areas where indicated, but stormwater will not be directed into wetland areas.

The project site is not within a regulated FEMA high risk zone. A flood elevation certificate and Flood Certificate Map are not required. The proposed project will also not cause displacement of earth in ways that would impact flooding potential on adjacent properties or resources. There are no tsunami hazards, seiche zones, risk release of pollutants due to project inundation. The project does not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

FEMA and related City regulations already provide necessary provisions to ensure compliance. Per state regulations the project is already required to submit SWPPP for approval prior to any construction activities and maintain compliance with all weather monitoring and inspections. These measures may all be captured in the City of Fortuna's standard Conditions of Approval for a development of this type and do not require a specific mitigation measure be established. Along with Building Permit application submit copy of calculations and compliance documentation for City's Flood Control Standard (no net increase for the 25—year 24-hour storm), LID manual compliance, and FEMA regulations. These are standard elements of a building permit application along with the WDID number from Water Quality prior to construction.

Mitigation: None.

#### 11. LAND USE AND PLANNING

#### Would the project:

Question	CEQA Determination
a) Physically divide an established community?	No Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	No Impact

# Discussion:

The proposed project is compatible with the adopted City of Fortuna General Plan and Zoning Code. The project does not physically divide the established community.

The project includes the protection and enhancement of wetland resources, including mitigation measures to avoid or mitigate an environmental effect. There are no known land use policies or regulations created to bypass environmental protections.

Mitigation: None.

#### 12. MINERAL RESOURCES

# Would the project:

Question	CEQA Determination
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No Impact
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	No Impact

#### Discussion:

There are no known mineral resources impacted by the proposed project.

Mitigation: None.

# 13. **NOISE**

Would the project result in:

Question	<b>CEQA Determination</b>
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Less Than Significant Impact
b) Generation of excessive groundborne vibration or groundborne noise levels?	Less Than Significant Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No Impact

# **Discussion**:

The proposed project is not a significant source of noise. The project is not located near an airport use. The City General Plan strives to limit exterior noise levels for existing and future dwellings in residential areas to levels of 60 dBA Ldn and interior noise levels of 45 dBA Ldn. These levels are achievable with standard construction assemblies. In addition to exterior walls, windows, and doors being in compliance with sound rating standards, all interior walls and floor/ceiling assemblies which separate dwelling units from each other and from common areas are in compliance with noise attenuation standards with high STC ratings. Common walls between units includes staggered stud assemblies and resilient channels per the approved details. While the design of the building envelope assemblies has a major impact on the performance of the building to reduce noise levels, the construction practices also have a significant role. The buildings are specified to comply with the California requirements for air sealing and insulation uniformity and installation standards. All gaps in building intersections with adjacent materials are to be fully sealed. These construction standards reduce airborne noise transmission.

It is estimated that the proposed design will be able to reduce exterior noise levels by approximately 25 dBA. Therefore, the proposed project is designed to comply with the requirement for a maximum 45 dBA Ldn level even if the noise levels outside were as high as 70 dBA at the project location. It is highly unlikely that this level of noise would

be generated in the project vicinity. Noise barriers such as block walls are not necessary.

Temporary noise during the period of construction activities is regulated by the City of Fortuna Municipal Code. The City shall limit the hours and days of major construction activities throughout the city to the hours between 7:00 a.m. to 8:00 p.m., Monday through Saturday, except for emergencies and other special permitted circumstances. Compliance with this standard is already part of the City of Fortuna's standard conditions of approval, therefore a project specific mitigation measure is not required.

Mitigation: None.

#### 14. POPULATION AND HOUSING

Would the project:

Question	CEQA Determination
a) Induce substantial unplanned population growth in an	No Impact
area, either directly (for example, by proposing new	
homes and businesses) or indirectly (for example,	
through extension of roads or other infrastructure)?	
b) Displace substantial numbers of existing people or	No Impact
housing, necessitating the construction of replacement	
housing elsewhere?	

#### Discussion:

The proposed project does not include negative impacts to population growth or housing resources. The project is consistent with the City of Fortuna's General Plan and Zoning Code with regard to housing resources.

Mitigation: None.

#### 15. PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

Question	CEQA Determination
a) Fire protection?	No Impact
b) Police protection?	No Impact
c) Schools?	No Impact
d) Parks?	No Impact
e) Other public facilities?	No Impact

# **Discussion**:

The proposed project does not include any impact to the listed public services. The project is consistent and compatible with the surrounding location and all necessary services are available. The project does not represent a threat to public safety or security and does not impact schools or parks. Any impacts would be positive impacts through increased "eyes on the street" and increase in the children to support local schools and within close proximity to urban resources.

Mitigation: None.

#### 16. RECREATION

Question	CEQA Determination
a) Would the project increase the use of existing	No Impact
neighborhood and regional parks or other recreational	
facilities such that substantial physical deterioration of	
the facility would occur or be accelerated?	
b) Does the project include recreational facilities or require	No Impact
the construction or expansion of recreational facilities	
which might have an adverse physical effect on the	
environment?	

#### **Discussion**:

The project would not impact recreational resources. A playground and a basketball court are included in the project development for residents, and all related parks fees will be paid.

Mitigation: None.

# 17. TRANSPORTATION

Would the project:

Question	CEQA Determination
a) Conflict with a program, plan, ordinance, or policy	No Impact
addressing the circulation system, including transit,	
roadway, bicycle and pedestrian facilities?	
b) Would the project conflict or be inconsistent with CEQA	No Impact
Guidelines section 15064.3, subdivision (b)?	
c) Substantially increase hazards due to a geometric	No Impact
design feature (e.g., sharp curves or dangerous	
intersections) or incompatible uses (e.g., farm	
equipment)?	
d) Result in inadequate emergency access?	No Impact

#### Discussion:

The proposed project is consistent with the Fortuna General Plan. A construction phase traffic control plan will be a required condition of approval, to be submitted by the Contractor, as part of any work within the public right of way and other encroachments. This is a standard condition of approval and would not need a project specific mitigation measure.

Mitigation: None.

#### 18. TRIBAL CULTURAL RESOURCES

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Question	CEQA Determination
a) Listed or eligible for listing in the California Register of	No Impact
Historical Resources, or in a local register of historical	
resources as defined in Public Resources Code section	
5020.1(k), or	
b) A resource determined by the lead agency, in its	No Impact
discretion and supported by substantial evidence, to be	
significant pursuant to criteria set forth in subdivision (c)	
of Public Resources Code Section 5024.1. In applying	
the criteria set forth in subdivision (c) of Public Resource	
Code Section 5024.1, the lead agency shall consider the	
significance of the resource to a California Native	
American tribe.	

#### Discussion:

The City of Fortuna General Plan NCR-36 states that "Decisions regarding the stewardship and disposition of any Native American cultural resources discovered during the planning and implementation of development projects under the proposed General Plan shall be made in consultation with the appropriate culturally affiliated tribal representatives."

The project site is not listed as a Historical Resource, and is not in the local register of historical resources. Tribal consultation regarding the proposed project was conducted by City of Fortuna Staff. The comments received do not indicate any known resources. The Wiyot Tribe and the Bear River Band of the Rohnerville Rancheria have requested to include Inadvertent Discovery Protocols in place prior to any activity on the property. (Appendix F – Tribal Consultation Response). This has been incorporated as an official Mitigation Measure C-1, below, which serves as one mitigation measure for Cultural, Tribal Cultural, and Historic Resources combined.

# Mitigation:

# Mitigation C-1: Inadvertent Discovery of Cultural Resources

The Owner and Contractor shall be required to comply with the following measures as well as all provisions of the City of Fortuna General Plan. The Construction Documents shall also include the following statement in a clearly visible and legible location. This applies to all Cultural, Tribal Cultural, and Historic Resources.

If cultural resources are encountered during construction activities, all onsite work shall cease in the immediate area and within a 50 foot buffer of the discovery location.

A qualified archaeologist will be retained to evaluate and assess the significance of the discovery, and develop and implement an avoidance or mitigation plan, as appropriate. For discoveries known or likely to be associated with Native American heritage (prehistoric sites and select historic period sites), the Bear River Band of the Rohnerville Rancheria and Wivot Tribe should also be contacted immediately to evaluate the discovery and, in consultation with the project proponent, the County, and consulting archaeologist, develop a treatment plan in any instance where significant impacts cannot be avoided. Prehistoric materials which could be encountered include obsidian and chert debitage or formal tools, grinding implements, (e.g., pestles, handstones, bowl mortars, slabs), locally darkened midden, deposits of shell, faunal remains, and human burials. Historic archaeological discoveries may include nineteenth century or early twentieth century farming machinery, building foundations, structural remains, or concentrations of artifacts made of glass, ceramics, metal or other materials found in buried pits, wells or privies. Discovery of human remain shall also include immediate notification to the coroner and all regulations and procedures shall be maintained.

#### 19. UTILITIES AND SERVICE SYSTEMS

#### Would the project:

Question	CEQA Determination
a) Require or result in the relocation or construction of new	No Impact
or expanded water, wastewater treatment or storm water	
drainage, electric power, natural gas, or	
telecommunications facilities, the construction or	
relocation of which could cause significant environmental	
effects?	
b) Have sufficient water supplies available to serve the	No Impact
project and reasonably foreseeable future development	
during normal, dry and multiple dry years?	

Question	<b>CEQA Determination</b>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	No Impact
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact

# **Discussion**:

All major utilities including water, wastewater, stormwater drainage, electric power, natural gas, and telecommunications facilities are available immediately within the project area. New utility connections may be made without extensive off-site construction activities.

Water supplies as provided by the municipal system operated by the City of Fortuna are fully capable of serving the project and foreseeable future development during normal, dry, and multiple dry years as discussed in previously.

The proposed project will not discharge effluent that may cause damage to the existing wastewater treatment facility. The Municipal Code provides applicable criteria for evaluation. A hydraulic analysis would be provided as part of the building permit application.

# 20. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

Question	CEQA Determination
a) Substantially impair an adopted emergency response	No Impact
plan or emergency evacuation plan?	
b) Due to slope, prevailing winds, and other factors,	No Impact
exacerbate wildfire risks, and thereby expose project	
occupants to, pollutant concentrations from a wildfire or	
the uncontrolled spread of a wildfire?	
c) Require the installation or maintenance of associated	No Impact
infrastructure (such as roads, fuel breaks, emergency	
water sources, power lines or other utilities) that may	
exacerbate fire risk or that may result in temporary or	
ongoing impacts to the environment?	

Question	<b>CEQA Determination</b>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	No Impact

#### Discussion:

The proposed project is not within a high fire severity zone, and does not present any unique features which would impact emergency response services or infrastructure.

Mitigation: None.

#### 21. MANDATORY FINDINGS OF SIGNIFICANCE

Question	<b>CEQA Determination</b>
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	No Impact

<u>Discussion:</u> There are no sources of potential contamination that could harm the Rohner Creek or Eel River or the associated habitat areas. There are no cumulative impacts that the project would be contributing to, and the proposed uses are compatible with the land use designations in accordance with the City of Fortuna Zoning Code and General Plan.

The lead agency finds that the project will not have a significant effect on the environment and thereby require an EIR to be prepared for the project.

There is not substantial evidence, in light of the whole record, that any of the following conditions may occur: (1) The project has the potential to substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species;

cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare or threatened species; or eliminate important examples of the major periods of California history or prehistory.(2) The project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.(3) The project has possible environmental effects that are individually limited but cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.(4) The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.

The project will result in impacts that are **Less than Significant with Mitigation Incorporated.** This level of significance is used for impacts that would meet or exceed the identified thresholds but would be reduced to a less-than-significant level through the implementation of mitigation measures. All other potential impacts are less than significant and do not require mitigation due to the degree of impact not meeting or exceeding the threshold of significance.

# **Mitigations Summary:**

Mitigation BR-1: Pre-construction survey for northern red-legged frogs, regardless of the time of year, prior to any clearing of vegetation.

Current frog surveys conducted by a qualified biologist not more than 14 days prior to the work and must be submitted to City staff for concurrence with not less than 3 business day notice prior to any related tree removal or major vegetation clearing. If the City staff has any question as to the findings of the surveys, they shall be forwarded to the appropriate staff at CDFW for further evaluation prior to the work proceeding. This mitigation measure is ongoing throughout the construction process and must be documented prior to any removal of trees or major vegetation clearing.

<u>Mitigation BR-2</u>: Pre-construction surveys for nesting migratory birds, if tree removal or major vegetation clearing is proposed during the nesting season February 1<sup>st</sup> through August 31st.

Pre-construction surveys for nesting migratory birds are not necessary if the work occurs outside the nesting season. Surveys that are provided must be conducted not more than 14 days prior to the work and must be submitted to City staff for concurrence with not less than 3 business day notice prior to any related tree removal or major vegetation clearing. If the City staff has any question as to the findings of the surveys, they shall be forwarded to the appropriate staff at CDFW for further evaluation prior to the work proceeding. This mitigation measure is ongoing throughout the construction process.

<u>Mitigation BR-2</u>: Provide additional wetland buffer area to the west of the existing wetland beyond the 50 foot setback and extending to the western property boundary.

In addition to avoiding development of structures in the area to the west of the wetland area, provide removal of invasive plant species and plant new native plants that support the riparian habitat associated with the wetland and adjacent upland land areas. This area is to be fenced off with a split rail type fence to limit people from entering the this additional buffer area without restricting access by animals. This area would be approximately 10,176 square feet in area of additional wetland buffer area beyond the prescribed 50 foot buffer. This mitigation measure more than alleviates any potential impact as may occur from the slight incursion areas of less than 600 square feet of development in the specific areas identified in the proposed site plan drawings. Extend riparian native plantings and place logs and boulders to provide enhancement of habitat value. A small interpretive trail may be placed in this area, without encroaching into the 50 foot buffer. The is trail would provide opportunities for enjoyment of the wetland resource and would encompass an area of wood chips at a natureinspired playground. This mitigation measure should be verified that it is incorporated into the building permit application.

# <u>Mitigation BR-3</u>: Provide construction phase monitoring to ensure adequate measures are implemented to prevent impacts to wetland and wetland buffer areas.

Maintain records of compliance demonstrating that construction activities are prevented from impacting the wetland resources. Inspections by the Contractor's identified representative may be conducted in conjunction with the site inspections for stormwater measures as prescribed by the SWPPP and the qualified QSD/QSP. The wetland buffer should remain completely undisturbed during construction. There should be no parking equipment or storage of material in the wetland buffer. Construction personnel should be made aware of the buffer and restrictions within it. This mitigation measure shall be ongoing year-round throughout the entirety of construction, regardless of during the rainy season.

# <u>Mitigation BR-4</u>: Install wetland resources interpretive signage.

Install not less than (3) signs measuring not less than 18"x30" in size constructed of durable material mounted on a sturdy permanent mounting post at key locations near the wetland buffer boundary. The signs may be incorporated into the split rail fence layout. See the proposed site plan for locations. Signage graphics must be included to provide general information related to wetland resources. The final design is to be approved by City staff to determine appropriateness to the intent of this measure. The intention is to support the mission of the CDFW regarding management of California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public. The interpretive signage may contribute to the public's further enjoyment of this particular resource.

# Mitigation C-1: Inadvertent Discovery of Cultural Resources

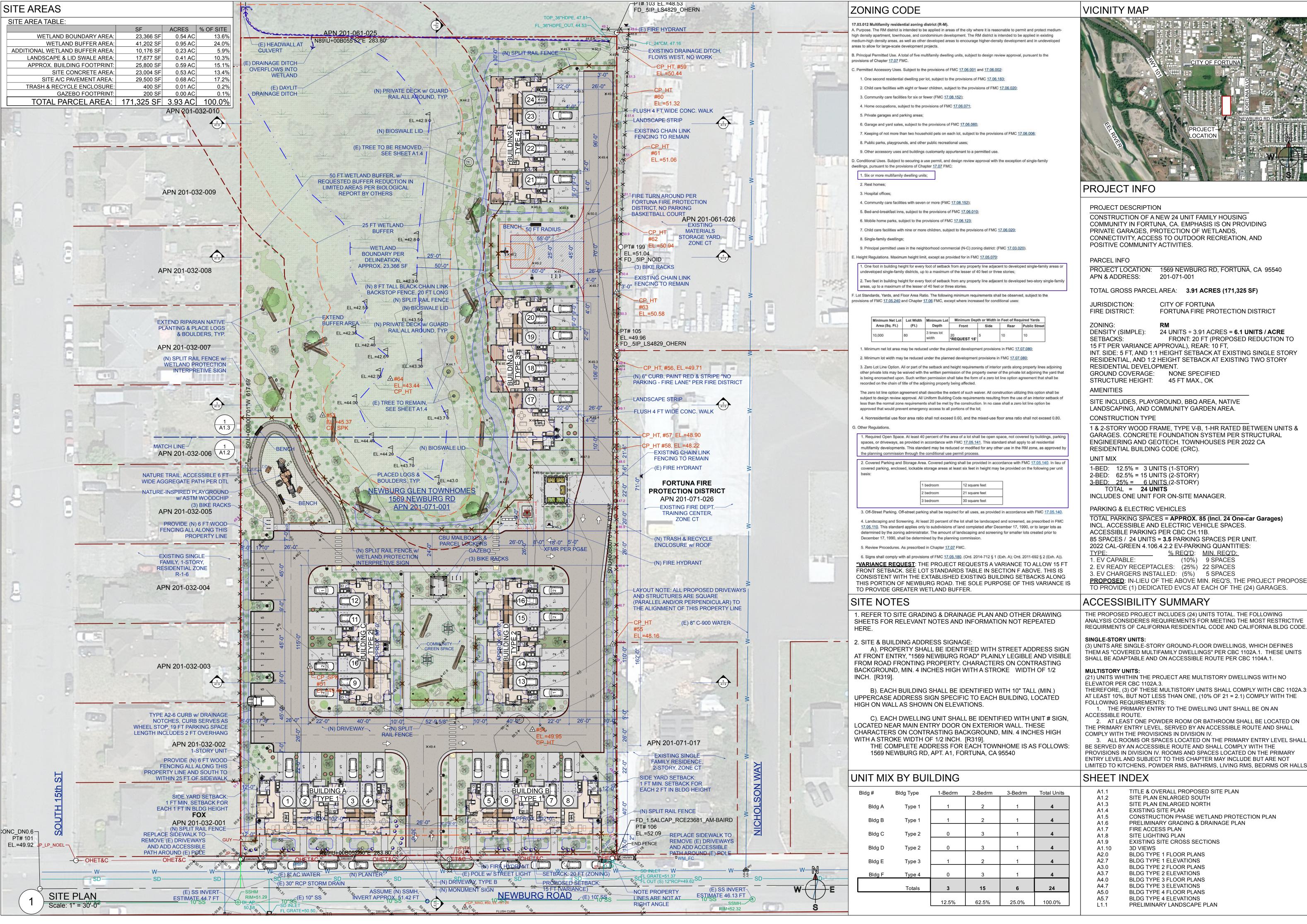
The Owner and Contractor shall be required to comply with the following measures as well as all provisions of the City of Fortuna General Plan. The Construction Documents shall also include the following statement in a clearly visible and legible location. This applies to all Cultural, Tribal Cultural, and Historic Resources.

If cultural resources are encountered during construction activities, all onsite work shall cease in the immediate area and within a 50 foot buffer of the discovery location.

A qualified archaeologist will be retained to evaluate and assess the significance of the discovery, and develop and implement an avoidance or mitigation plan, as appropriate. For discoveries known or likely to be associated with Native American heritage (prehistoric sites and select historic period sites), the Bear River Band of the Rohnerville Rancheria and Wiyot Tribe should also be contacted immediately to evaluate the discovery and, in consultation with the project proponent, the County, and consulting archaeologist, develop a treatment plan in any instance where significant impacts cannot be avoided. Prehistoric materials which could be encountered include obsidian and chert debitage or formal tools, grinding implements, (e.g., pestles, handstones, bowl mortars, slabs), locally darkened midden, deposits of shell, faunal remains, and human burials. Historic archaeological discoveries may include nineteenth century or early twentieth century farming machinery, building foundations, structural remains, or concentrations of artifacts made of glass, ceramics, metal or other materials found in buried pits, wells or privies. Discovery of human remain shall also include immediate notification to the coroner and all regulations and procedures shall be maintained.

DETERMINATION (To be completed by the Lead Agency)
On the basis of this initial evaluation:
I find that the proposed project COULD NOT have a significant effect on the environmen and a NEGATIVE DECLARATION would be prepared.
I find that although the proposed project could have a significant effect on the environment here would not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION would be prepared.
☐ I find that the proposed MAY have a significant effect on the environment, and a ENVIRONMENTAL IMPACT REPORT is required.
I find that the proposed project MAY have a "potentially significant impact" or "potentiall significant unless mitigated" impact on the environment, but at least one effect: (1) has bee adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has bee addressed by mitigation measures based on the earlier analysis as described on attached sheets An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
I find that the proposed project MAY have a "potentially significant impact" or "potentiall significant unless mitigated" impact on the environment, but at least one effect: (1) has bee adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has bee avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revision or mitigation measures that are imposed upon the proposed project, nothing further is required.
Shari Meads Date

Community Development Director



RIGHT, © 2024, ALL RIGHTS RESE GARRETT **MCSORLEY** NOT FOR CONSTRUCTION C-33283 30 SEPT 2025 M<sup>c</sup> S O R L E garrett.mcsorley@gmail.com

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CITY OF FORTUNA FORTUNA FIRE PROTECTION DISTRICT

24 UNITS ÷ 3.91 ACRES = **6.1 UNITS / ACRE** FRONT: 20 FT (PROPOSED REDUCTION TO

15 FT PER VARIANCE APPROVAL), REAR: 10 FT, INT. SIDE: 5 FT, AND 1:1 HEIGHT SETBACK AT EXISTING SINGLE STORY RESIDENTIAL, AND 1:2 HEIGHT SETBACK AT EXISTING TWO STORY GROUND COVERAGE: NONE SPECIFIED

45 FT MAX., OK

LANDSCAPING, AND COMMUNITY GARDEN AREA.

1 & 2-STORY WOOD FRAME. TYPE V-B. 1-HR RATED BETWEEN UNITS & GARAGES, CONCRETE FOUNDATION SYSTEM PER STRUCTURAL ENGINEERING AND GEOTECH. TOWNHOUSES PER 2022 CA RESIDENTIAL BUILDING CODE (CRC)

1-BED: 12.5% = 3 UNITS (1-STORY)2-BED: 62.5% = 15 UNITS (2-STORY 3-BED: 25% = 6 UNITS (2-STORY)

INCLUDES ONE UNIT FOR ON-SITE MANAGER

TOTAL PARKING SPACES = APPROX. 85 (Incl. 24 One-car Garages) INCL. ACCESSIBLE AND ELECTRIC VEHICLE SPACES. ACCESSIBLE PARKING PER CBC CH.11B. 85 SPACES / 24 UNITS = 3.5 PARKING SPACES PER UNIT

2022 CAL-GREEN 4.106.4.2.2 EV-PARKING QUANTITIES: % REQ'D: MIN. REQ'D:

3. EV CHARGERS INSTALLED: (5%) 5 SPACES PROPOSED: IN-LIEU OF THE ABOVE MIN. REQ'S, THE PROJECT PROPOS TO PROVIDE (1) DEDICATED EVCS AT EACH OF THE (24) GARAGES.

THE PROPOSED PROJECT INCLUDES (24) UNITS TOTAL. THE FOLLOWING ANALYSIS CONSIDERES REQUIREMENTS FOR MEETING THE MOST RESTRICTIVE REQUIRMENTS OF CALIFORNIA RESIDENTIAL CODE AND CALIFORNIA BLDG CODE

(3) UNITS ARE SINGLE-STORY GROUND-FLOOR DWELLINGS, WHICH DEFINES THEM AS "COVERED MULTIFAMILY DWELLINGS" PER CBC 1102A.1. THESE UNITS

(21) UNITS WHITHIN THE PROJECT ARE MULTISTORY DWELLINGS WITH NO

AT LEAST 10%, BUT NOT LESS THAN ONE, (10% OF 21 = 2.1) COMPLY WITH THE 1. THE PRIMARY ENTRY TO THE DWELLING UNIT SHALL BE ON AN

2. AT LEAST ONE POWDER ROOM OR BATHROOM SHALL BE LOCATED ON THE PRIMARY ENTRY LEVEL, SERVED BY AN ACCESSIBLE ROUTE AND SHALL

COMPLY WITH THE PROVISIONS IN DIVISION IV. ALL ROOMS OR SPACES LOCATED ON THE PRIMARY ENTRY LEVEL SHALL BE SERVED BY AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH THE

PROVISIONS IN DIVISION IV. ROOMS AND SPACES LOCATED ON THE PRIMARY ENTRY LEVEL AND SUBJECT TO THIS CHAPTER MAY INCLUDE BUT ARE NOT LIMITED TO KITCHENS, POWDER RMS, BATHRMS, LIVING RMS, BEDRMS OR HALLS.

SITE PLAN ENLARGED SOUTH SITE PLAN ENLARGED NORTH EXISTING SITE PLAN CONSTRUCTION PHASE WETLAND PROTECTION PLAN PRELIMINARY GRADING & DRAINAGE PLAN SITE LIGHTING PLAN **EXISTING SITE CROSS SECTIONS BLDG TYPE 1 FLOOR PLANS** BLDG TYPE 1 ELEVATIONS BLDG TYPE 2 FLOOR PLANS BLDG TYPE 2 ELEVATIONS

**DESIGN REVIEW** 

26 AUG 2024



garrett.mcsorley@gmail.com

**HUMBOLDT DEVELOPMENT** 

GARRETT **MCSORLEY** NOT FOR CONSTRUCTION C-33283 RENEWAL DATE: 30 SEPT 2025 MC S O R L E Y ARCHITECTURE

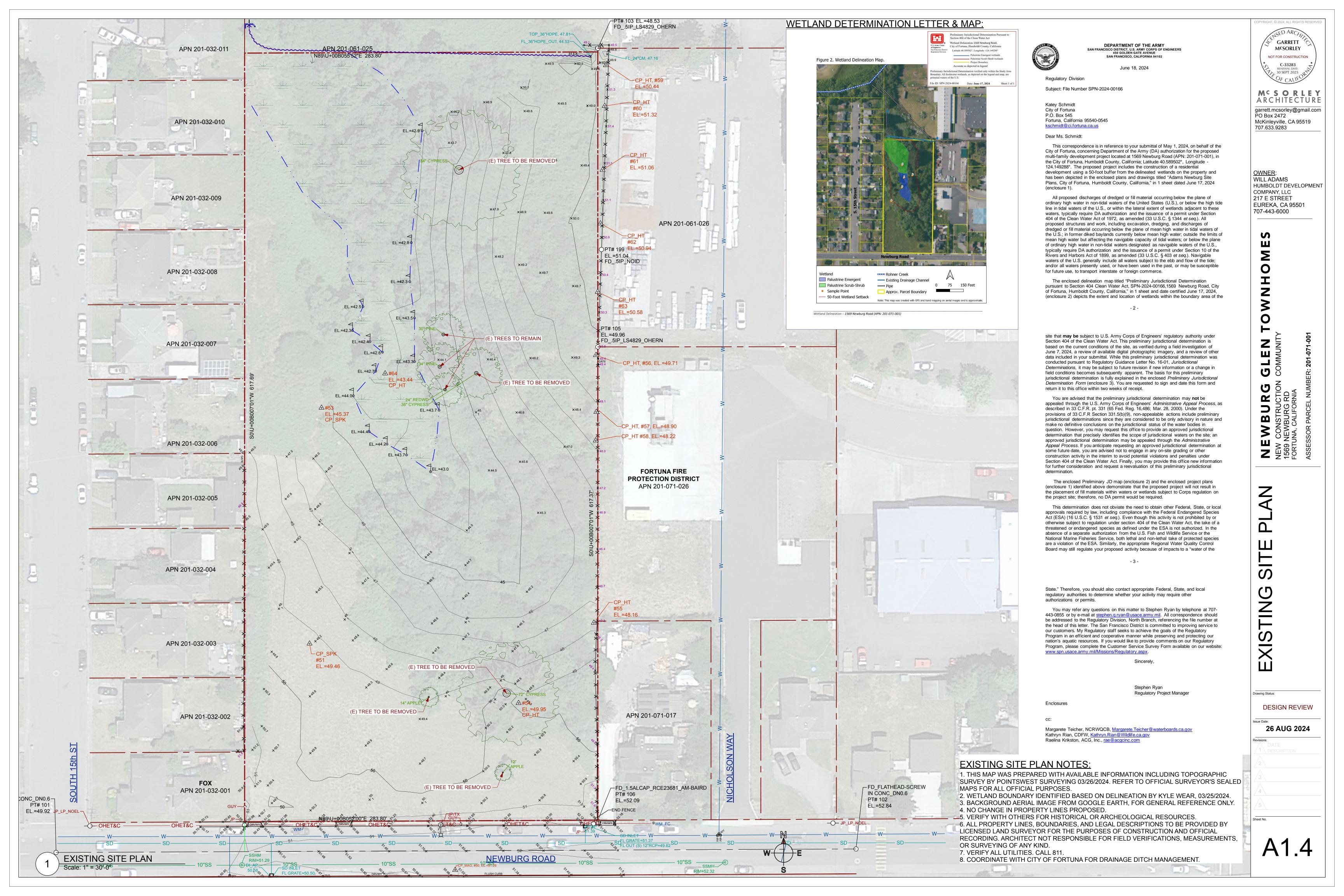
garrett.mcsorley@gmail.com PO Box 2472 McKinleyville, CA 95519 707.633.9283

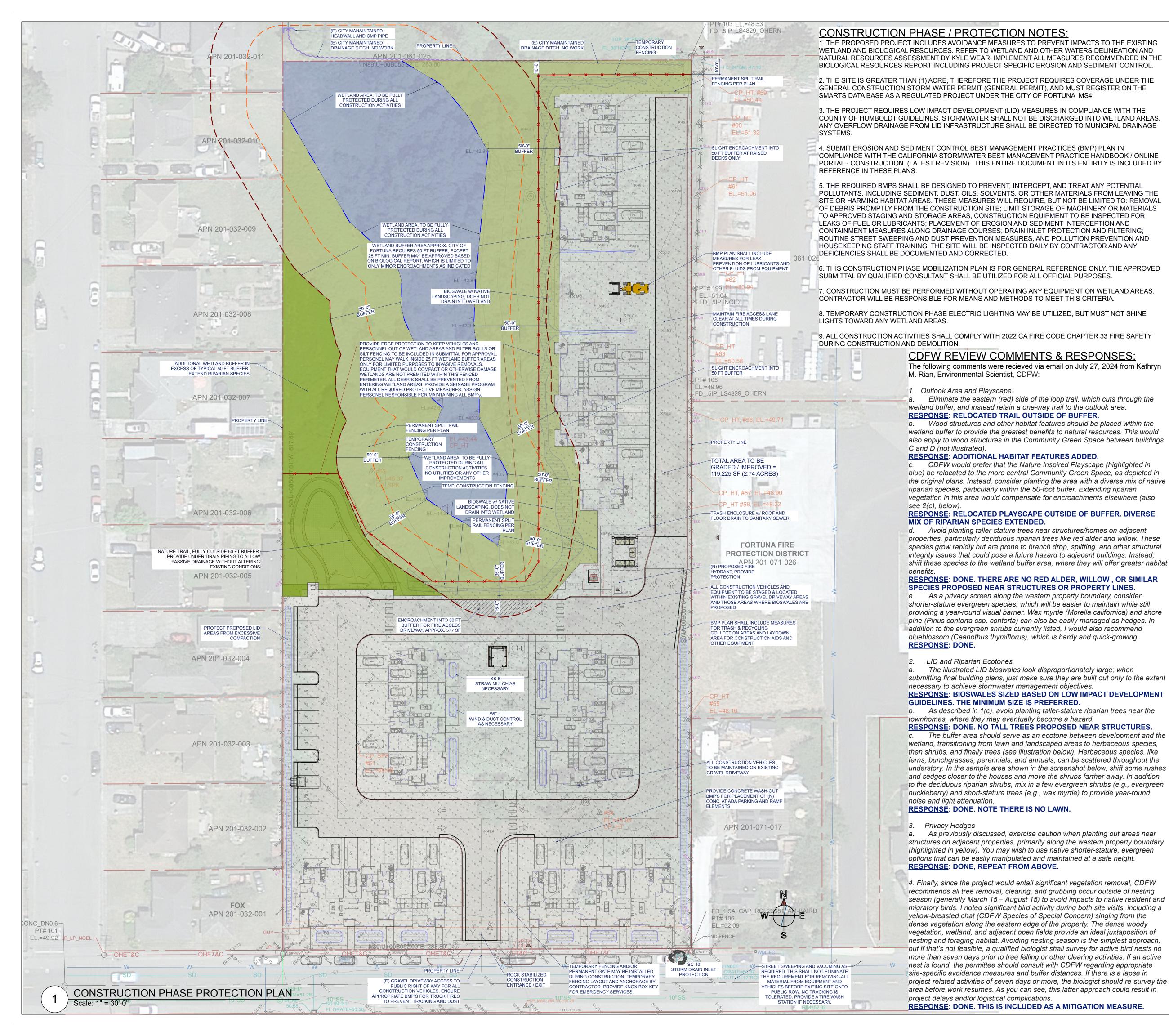
OWNER: WILL ADAMS **HUMBOLDT DEVELOPMENT** COMPANY, LLC 217 E STREET EUREKA, CA 95501

707-443-6000

SITE PLAREGED 

**DESIGN REVIEW** 26 AUG 2024





# **CDFW REVIEW COMMENTS & RESPONSES:**

The following comments were recieved via email on June 20, 2024 from Kathryn M. Rian, Environmental Scientist, CDFW:

1. Wetland and stream buffers are an effective means of maintaining habitat connectivity, attenuating disturbance, minimizing encroachment, and protecting water quality. The City of Fortuna's General Plan requires a Wetland Buffer Area of at least 50 feet, with development primarily limited to resource-dependent uses and public safety. Although buffers may be reduced, the Biological Assessment did not adequately substantiate the rationale for such a reduction. Given the high-quality habitat and connectivity with Rohner Creek, CDFW recommends adhering to the 50-foot buffer to the extent practicable.

RESPONSE: DESIGN HAS BEEN REVISED TO ADHERE TO 50 FT BUFFER IN ALL BUT MINOR EXCEPTIONS INDICATED.

2. As a group, we explored several options to shift development outside of the 50-foot buffer, including a variance for setbacks, alternative parking and access road configurations, and the elimination of individual housing units. CDFW supports any measures that would reduce encroachment into the wetland buffer, particularly of buildings, roads, and other impervious surfaces. Eliminating Unit 26 in Building E would go a long way toward achieving this goal, as would removing or shifting Units 17 and 18 in Building F. CDFW encourages the applicant to consider design alternatives that would shift the access road north or Buildings C and D farther south to reduce encroachment into the 50-foot buffer. RESPONSE: ALL OF THESE MEASURES HAVE BEEN IMPLEMENTED IN THE REVISED DESIGN.

THE REVISED DESIGN INCLUDES A REQUEST FOR A VARIANCE FOR A REDUCED FRONT SETBACK. THIS ALLOWS THE DRIVEWAY NORTH OF BUILDINGS C & D TO BE SHIFTED TO THE SOUTH. THE DRIVEWAY SEGMENT CLOSEST TO THE WETLAND IS TO THE MINIMUM WIDTH PERMITTED BY FIRE DEPARTMENT, AND THE SIDEWALK ALONG THE NORTHERN EDGE OF THAT SEGMENT HAS BEEN ELIMINATED IN ORDER TO KEEP PAVEMENT FURTHER AWAY FROM THE WETLAND. THESE MEASURES COMBINED ALLOW FOR AN ADDITIONAL 11'-6" OF WETLAND BUFFER AS COMPARED TO THE PREVIOUS DESIGN.

THE LONG DRIVEWAY ALONG THE EASTERN PROPERTY LINE HAS BEEN MOVED 3 FEET EAST, CLOSER TO THE PROPERTY LINE, AND THE DRIVEWAY WIDTH HAS BEEN REDUCED TO THE MINIMUM WIDTH PERMITTED BY THE FIRE DEPARTMENT.

**BUILDING E HAS BEEN DELETED ENTIRELY, ELIMINATING UNITS 25 AND** 26. THE PROJECT NOW INCLUDES (24) TOTAL DWELLING UNITS. THE DELETED UNITS ARE PROPOSED TO BE REPLACED WITH A NATURE-INSPIRED PLAYGROUND, TRAIL, NATIVE LANDSCAPING FEATURE, AND PICNIC LOOK-OUT AREA WITH INTERPRETIVE SIGNAGE TO PROVIDE INTEREST, EDUCATION, AND RULES FOR PROTECTING THE **WETLAND / HABITAT AREAS.** 

UNITS 17 AND 18 IN BUILDING F HAVE BEEN REDESIGNED IN ORDER TO MAINTAIN AS MUCH OF THE 50 FT BUFFER AS PRACTICAL

3. Minor encroachments into the buffer would be acceptable, particularly for LID and other native landscaping that also serve as a transitional ecotone, providing some of the benefits associated with riparian vegetation, such as foraging habitat, cover, and shading. Vegetated bioswales and other LID features should complement the adjacent wetland by incorporating more natural contours (e.g., sinuosity) and a significant riparian shrub and understory component. **RESPONSE: DONE. ONLY MINOR ENCROACHMENTS INTO BUFFER** REMAIN IN THE REVISED DESIGN. THE DRIVEWAY NORTH OF BUILDINGS C & D EXTENDS 15 FEET INTO THE 50 FT BUFFER FOR A TOTAL AREA OF 577 SF. THE SOLE REASON FOR THIS ENCROACHMENT IS TO PROVIDE

THE LANDSCAPING DESIGN HAS BEEN REVISED TO INCLUDE ADDITIONAL EMPHASIS AND ENHANCEMENT OF THE TRANSITIONAL ECOTONES. THE STRATEGIES INCORPORATED INCLUDE ADDITION OF STRATEGICALLY PLACED LOGS, BOULDERS, SHAPING OF BIOSWALES TO EMULATE NATURAL FEATURES AND CONTOURS WITH ADDITIONAL RIPARIAN SHRUB AND UNDERSTORY PLANTINGS.

4. CDFW appreciates the reliance on native plants in landscaping and has several suggestions to improve functionality:

FIRE ACCESS.

 Bigleaf maple (Acer macrophyllum) is a large-stature tree that would do best in an open, park-like setting rather than along fences or adjacent to buildings. Similarly, shining willow (Salix lasiandra) will ultimately dwarf LID features and may pose a hazard to adjacent buildings. Smaller stature willows, such as arroyo willow (Salix lasiolepis) may be better suited for landscaping, particularly in areas where they have adequate space.

 Other shorter-stature deciduous shrubs that would be well-suited for LID include twinberry (Lonicera involucrata), osso berry (Oemleria cerasiformis), Pacific ninebark (Physocarpus capitatus), and Douglas' spirea (Spirea douglasii), all of which are attractive, functional, and easy to maintain.

 The herbaceous layer for LID could incorporate a greater variety of native wetland species, including but not limited to spreading rush (Juncus patens), tufted hairgrass (Deschampsia caespitosa ssp. caespitosa), slender-footed sedge (Carex leptopoda), and California golden-eyed grass (Sisyrinchium

 For additional resources, please see the Humboldt County LID Manual, which has an excellent plant list. The local CNPS chapter provides several references for landscaping with native plants, including a list of locally tested species. CDFW is also happy to offer additional suggestions and feedback. RESPONSE: DONE. RECOMMENDATIONS INCORPORATED. FINAL LANDSCAPE DESIGN WILL BE SUBMITTED WITH BUILDING PERMIT APPLICATION. REVISED DESIGN DEMONSTRATES COMPLIANCE WITH THE SUGGESTIONS PROVIDED.

5. CDFW supports preserving the upland habitat west of the wetland and north of Building E as open space, potentially providing trail access for residents to enjoy and learn about the wetland.

RESPONSE: DONE. BUILDING E HAS BEEN DELETED AND REPLACED WITH A NATURE TRAIL AND PLAYSCAPE FOR THIS PURPOSE.

6. To ensure long-term wetland function and habitat value, CDFW recommends the City require the Project to implement and fund a long-term maintenance plan to address invasive species, trash, and other threats associated with adjacent land uses. During our site visit, we observed scattered trash and the remnants of encampments, as well as a variety of invasive plant species, including English holly (Ilex aquifolium), English ivy (Hederal helix), cotoneaster (Cotoneaster spp.), Himalayan blackberry (Rubus armeniacus), and parrotfeather (Myriophyllum aquaticum), among others. RESPONSE: AGREED. THE PROJECT WILL COMPLY WITH ALL

CONDITIONS OF APPROVAL FROM CITY OF FORTUNA.

GARRETT **MCSORLEY** NOT FOR CONSTRUCTION C-33283 RENEWAL DATE: 30 SEPT 2025

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707-443-6000

**U** 5

Z

**DESIGN REVIEW** 

26 AUG 2024



1. SEWER CLEANOUTS: EACH HORIZONTAL SEWER PIPE SHALL BE PROVIDED WITH A CLEANOUT (CO) AT ITS UPPER TERMINAL, AND EACH RUN OF PIPING THAT EXCEEDS 100 FEET IN TOTAL DEVELOPED LENGTH SHALL BE PROVIDED WITH A CLEANOUT FOR EACH 100 FEET, OR FRACTION THEREOF, IN LENTH. AN ADDITIONAL CLEANOUT MUST BE PROVIDED FOR EACH AGGREGATE HORIZONTAL CHANGE OF DIRECTION EXCEEDING 135 DEGREES [CPC 707.4]. REFER TO CODE SECTION FOR APPLICABLE EXCEPTIONS. SIZE CLEANOUTS PER TABLE 7-6. CLEANOUTS SHALL HAVE APPROVED TYPE OF GAS AND WATER-TIGHT PLUG AS APPROPRIATE FOR INSTALLATION CONDITION, BEING WITHIN CONCRETE WALKWAY, LANDSCAPE AREA, OR OTHERWISE.

2. GRADE OF SEWER PIPING: HORIZONTAL SEWER PIPING 4" AND LARGER SHALL RUN IN PRACTICAL ALIGNMENT AND AT A UNIFORM SLOPE OF NOT LESS THAN NOT LESS THAN 1/8 INCH PER FOOT, WHEN FIRST APPROVED BY AHJ [708.0]. CONSTRUCT TRENCHING AND BACKFILL SO THAT PIPE IS NOT SHIFTED OR DISPLACED IN A WAY THAT ALTERS POSITION OR GRADES. NOTE THAT PLANS MAY REFER TO "FL" TO MEAN FLOWLINE ELEVATION, SAME AS INVERT ELEVATION. VERIFY ALL ELEVATIONS AND SLOPES PRIOR TO THE WORK.

3. IF AND WHERE WATER & SEWER ARE INSTALLED PARALLEL IN JOINT TRENCH: BOTTOM OF WATER PIPE MIN. 12" ABOVE TOP OF SEWER LINE, WATER PIPE PLACED ON SOLD SHELF w/ 12" MIN. HORIZ. DISTANCE FROM SEWER PIPE. REFER TO CPC SECTION 609 FOR ADDITIONAL REQUIREMENTS.

4. VERIFY EXACT LOCATION OF WATER CONNECTIONS AT BUILDINGS, COORDINATE WITH RELATED TRADES. INSTALL, TEST, DISINFECT POTABLE WATER DISTRIBUTION SYSTEM PER CPC 609 AND AHJ REQUIREMENTS. PROVIDE BACKFLOW DEVICE PER APPROVAL OF CITY.

5. INSTALL WATER LINES WITH THRUST BLOCKS AT ALL REQUIRED LOCATIONS PER CITY OF FORTUNA STANDARD DETAILS AND SPECIFICATIONS, WHICH ARE HEREBY INCLUDED, IN THEIR ENTIRITY, AS PART OF THESE CONSTRUCTION DOCUMENTS BY REFERENCE.

6. FOR ALL PVC OUTSIDE UNDERGROUND WATER SUPPLY PIPING, PROVIDE BLUE INSULATED 18 AWG MIN. COPPER TRACER WIRE, SUITABLE FOR DIRECT BURIAL, INSTALLED ADJACENT TO PIPING. TERMINATE EACH END ABOVE GROUND IN APPROVED ACCESSIBLE LOCATION [CPC 604.9]

7. STORM DRAINAGE: INSTALL PERMANENT SIGNAGE AT EACH STORM DRAIN INLET THAT STATES "NO DUMPING, DRAINS TO RIVER." OR SIMILAR.

### **SITE GRADING PLAN NOTES:**

1. COMPLY WITH CITY OF FORTUNA MUNICIPAL CODE AND CITY STANDARD SPECS & PLANS. COMPLY WITH COUNTY OF HUMBOLDT LOW IMPACT DEVELOPMENT GUIDELINES.

2. WORK IN PUBLIC RIGHT OF WAY PER CONTRACTOR RESPONSIBILITY TO OBTAIN ENCROACHMENT PERMIT APPROVAL AND MEET ALL REQUIREMENTS OF THE CITY OF FORTUNA DEPT. OF PUBLIC WORKS: (707) 725-7650.

3. CONFIRM ALL LOCATIONS, DIMENSIONS, AND FINISH GRADES PRIOR TO EACH PORTION OF THE WORK FOR ADHERENCE TO ACCESSIBILITY AND BUILDING EGRESS REQUIREMENTS. EACH EGRESS DOOR SHALL HAVE LANDING (MIN. SIZE PER DOOR NOTES ON SHEET A1.2) WITH SLOPE NOT MORE THAN 2% AWAY FROM BUILDING. ACCESSIBLE WALKWAYS SHALL HAVE CROSS SLOPE NOT MORE THAN 2% AND RUNNING SLOPE NOT MORE THAN 5%, EXCEPT WHEN BUILT AS A RAMP PER CBC 11B-405.

4. SURFACE DRAINAGE SHALL BE DIVERTED TO A LANDSCAPED SWALE AND/OR TO A STORM DRAINAGE SYSTEM, AWAY BUILDINGS AS DESIGNED. MAINTAIN DRAINAGE IN PROPER WORKING ORDER AND CLEAN OUT ALL INLETS AND PIPING IMMEDIATELY PRIOR TO SUBSTANTIAL COMPLETION.

5. VERIFICATION OF ALL SUBSURFACE UTILITIES IS THE RESPONSIBILITY SOLELY OF THE CONTRACTOR. CALL FOR USA SERVICES (811) PRIOR TO ALL DIGGING.

6. DISCOVERY OF ARCHEOLOGICAL RESOURCES: SEE A1.1 FOR NOTES.

7. COORDINATE WITH UTILITY AND COMMUNICATIONS PROVIDERS FOR SPECIFIC REQUIREMENTS INCLUDING CLEARANCES, DEPTHS, COVERAGE MOUNTING PAD DETAILS, AND SEQUENCING. IF JOINT TRENCHES ARE TO BE USED, COMPLY WITH PG&E STANDARDS AND PROVIDE ENGINEERED DETAILS AS REQUIRED.

8. DO NOT COVER ANY INSTALLED SUBSURFACE UTILITIES, PIPING, OR OTHER IMPROVEMENTS UNTIL IT HAS BEEN INSPECTED AND APPROVED BY APPLICABLE AUTHORITIES HAVING JURISDICTION. SITE SAFETY AND OSHA REGULATION COMPLIANCE IS THE RESPONSIBILITY SOLELY OF THE CONTRACTOR.

9. CONDUCT CONSTRUCTION PHASE MONITORING BY QUALIFIED ENGINEER TO OBSERVE SUBGRADE PRIOR TO PLACEMENT OF ANY STRUCTURAL FILL MATERIAL. REFER TO AVAILABLE INFORMATION INCLUDING GEOTECHNICAL REPORT AS LISTED ON THE TITLE SHEET.

10. DEMOLITION & SITE CLEARING: SITE CLEARING INCLUDES REMOVAL OF ALL EXISTING A/C PAVING, CONCRETE, TREES, STUMPS, ROOT SYSTEMS, FENCING, TRASH, AND OTHER EXISTING CONDITIONS REQUIRING REMOVAL. VISIT SITE FOR OBSERVATION PRIOR TO BIDDING. RECYCLE ALL MATERIALS, OR, IF NOT POSSIBLE, DISPOSE OF WASTE MATERIALS, AND HAUL-OFF EXCESS EXCAVATION SPOILS IN A LAWFULL MANNER. NO WASTE MATERIAL MAY BE BURNED OR BURIED.

11. CONTRACTOR TO CALUCULATE CUT & FILL QUANTITIES AND SUBMIT FIGURES TO OWNER PRIOR TO THE WORK. CONTRACTOR SHALL STOCKPILE CLEAN TOPSOIL IN AN APPROVED LOCATION FOR LATER REUSE IN ON-SITE IMPROVEMENTS. WHEN THERE IS EXCESS SOIL, DEBRIS, AND MATERIALS NOT REUSABLE FOR THIS PROJECT IT SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

12. MAINTAIN RECORD-DRAWINGS AND SUBMIT UPON SUBSTANTIAL COMPLETION TO OWNER AND ARCHITECT SHOWING ANY CHANGES MADE THROUGHOUT CONSTRUCTION.

13. CUTTING AND PATCHING TO RESULT IN CLEAN FINISHED WORK.

14. REFER TO AND IMPLEMENT THE STORMWATER BEST MANAGEMENT PRACTICES PER THE CITY OF FORTUNA MS4 PERMIT FOR SMALL PROJECTS.

GARRETT **MCSORLEY** NOT FOR CONSTRUCTION C-33283 RENEWAL DATE: 30 SEPT 2025

MC S O R L E ' ARCHITECTURE garrett.mcsorley@gmail.com PO Box 2472 McKinleyville, CA 95519

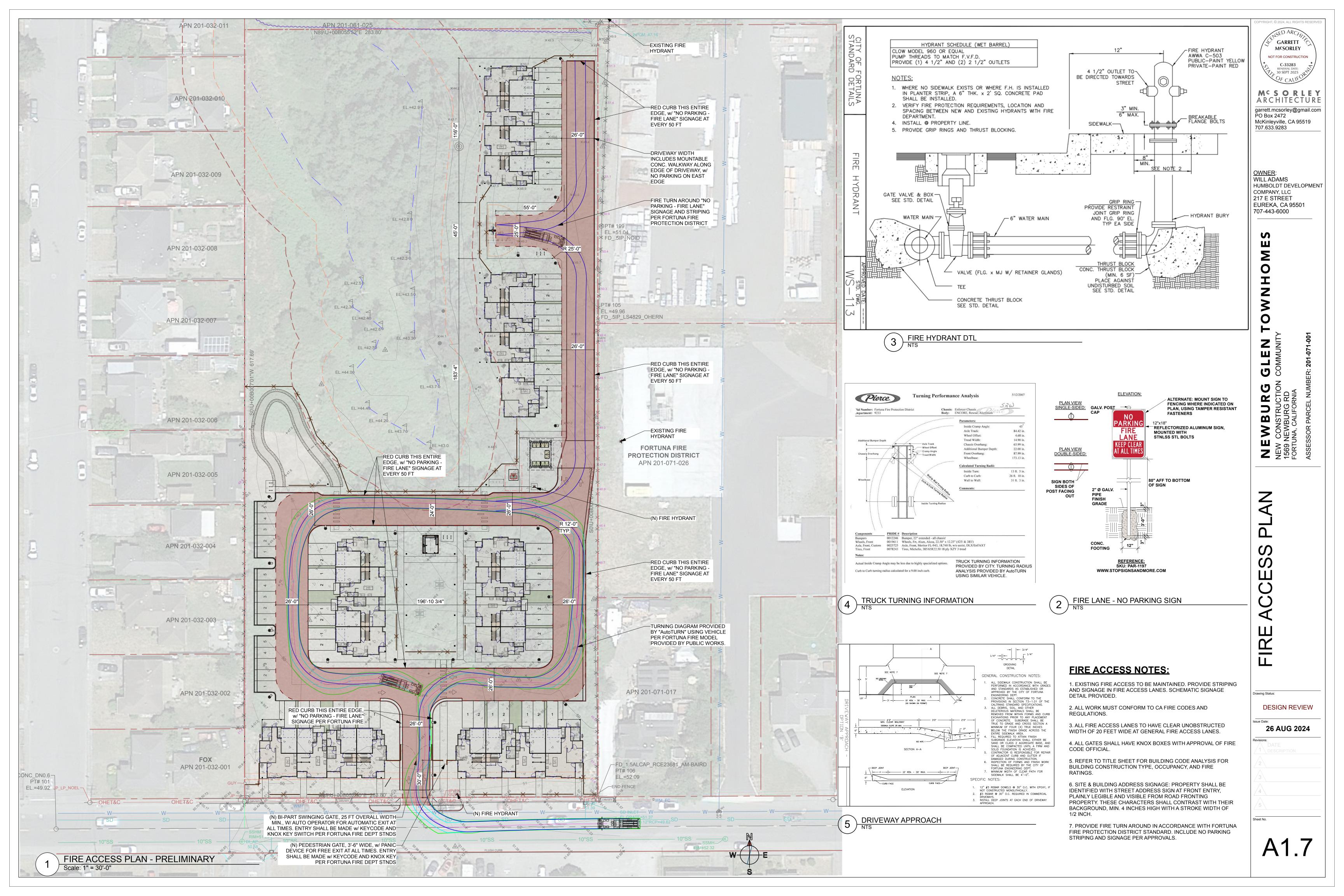
707.633.9283

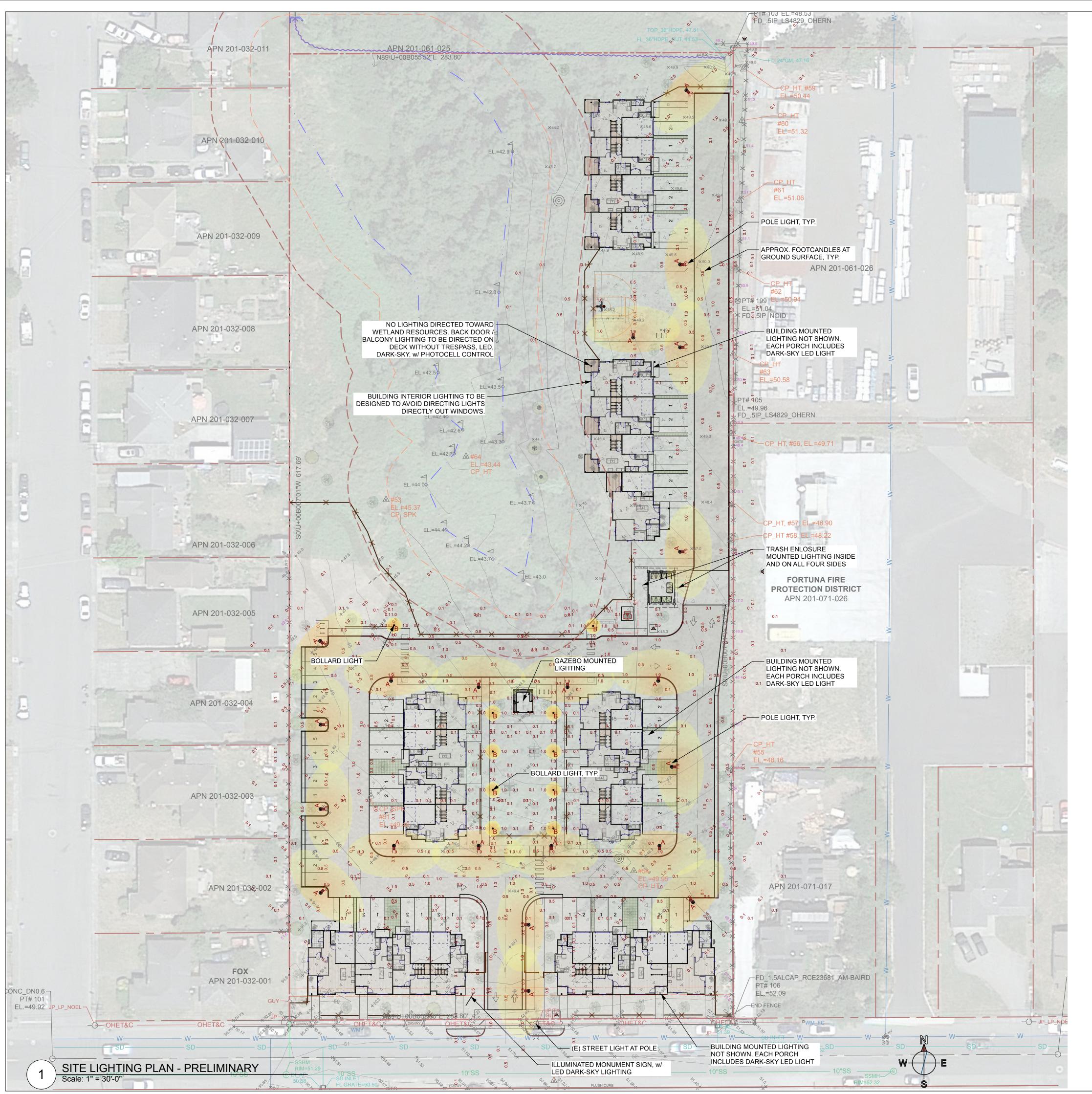
OWNER: WILL ADAMS **HUMBOLDT DEVELOPMENT** COMPANY, LLC 217 E STREET EUREKA, CA 95501

707-443-6000

**DESIGN REVIEW** 

26 AUG 2024





# **PRELIMINARY**:

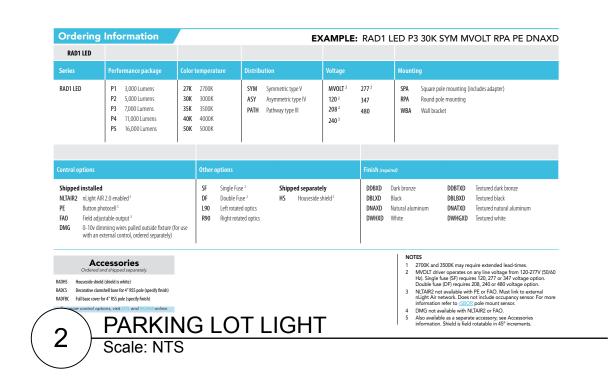
THE FOLLOWING LIGHTING PLAN AND INFORMATION IS PRELIMINARY FOR THE PURPOSES OF PLANNING AND DESIGN REVIEW APPROVAL. A FULL PLAN MUST BE SUBMITTED AS PART OF CONSTRUCTION DOCUMENT / BUILDING PERMIT SUBMITTAL

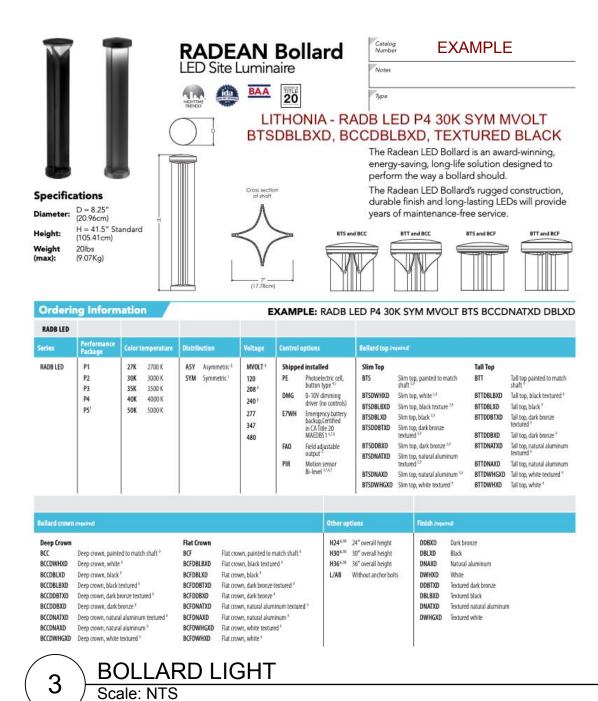
# **EXTERIOR LIGHT PRODUCT DATA:**

THE FOLLOWING PRODUCTS ARE PROVIDED AS THE BASIS OF DESIGN FOR THE DESIGN REVIEW PROCESS. FINAL LIGHTING DESIGN TO BE PROVIDED AT TIME OF CONSTRUCTION DOCUMENTS SUBMITTED FOR BUILDING PERMIT.



LITHONIA RAD1 LED P1 30K ASY MVOLT RPA PE FAO DBLBXD





# **EXTERIOR LIGHTING NOTES**

•BE FULL CUT-OFF: NO UPLIGHTING

1. THE PROPOSED NEW EXTERIOR LIGHT FIXTURES ARE INDICATED TO SHOW APPROXIMATE FINAL LOCATIONS AND FOOTCANDLES ON THE EXTERIOR SITE IN ORDER TO DEMONSTRATE BEST PRACTICES WITH REGARD TO PROTECTION OF WETLAND RESOURCES. THIS DESIGN IS IN REFERENCE TO CALIFORNIA GREEN BUILDING CODE LZ2 RURAL LIGHTING ZONE, PER TABLE 5.106.8. THE LZ2 ZONE MAXIMUM ALLOWABLE BACKLIGHT RATING (B), UPLIGHTING (U), AND GLARE (G), ARE ALL WITHIN

INTERNATIONAL DARK SKY ASSOCIATION STANDARDS. THESE GENERAL DESIGN MEASURES INCLUDE: •LIGHTING TURNED ON ONLY WHEN NEEDED: PHOTOCELL & MOTION SENSOR CONTROL

•ONLY LIGHT THE AREA THAT NEEDS IT: AT WALKWAYS, ENTRANCES, & DRIVEWAYS - NOTE THERE IS MINIMAL LIGHTING IN THE WETLAND BUFFER AREAS, PROVIDE LIGHT SHEILDS IF NECESSARY. •NO BRIGHTER THAN NECESSARY: IESNA RECOMMENDATIONS, DIM 25% WHEN VACANT •MINIMIZE BLUE LIGHT EMISSIONS: WARM 3000K TEMPERATURE

3. EXTERIOR LIGHT LEVELS ARE DESIGNED TO BE WITHIN THE RECOMMENDATIONS OF THE IESNA FOR RURAL OUTDOOR ENVIRONMENTS IMMEDIATELY ADJACENT TO BUILDINGS AND BUILDING ENTRANCES. GENERALLY, TARGET LEVELS ARE 2.0 fc AVERAGE AT WALKING SURFACES, AND UP TO 5.0 fc AT ENTRANCE AREAS, AS WELL AS STAIRS, RAMPS, AND AREAS OF HIGHER LEVELS OF SECURITY.

4. NOTE THE LIGHT LEVELS SHOWN IN THIS ANALYSIS ARE WITH THE LIGHT FIXTURES TURNED ON AT FULL POWER, HOWEVER, AS SPECIFIED THESE FIXTURES AUTOMATICALLY DIM TO 25% LIGHT OUTPUT WHEN THE OCCUPANCY SENSOR DOES NOT DETECT MOVEMENT FOR MORE THAN 5 MINUTES. THEREFORE, MAJORITY OF TIME THE ACTUAL LIGHT LEVELS WILL BE APPROXIMATELY 25% OF THOSE SHOWN.

GARRETT **MCSORLEY** NOT FOR CONSTRUCTION C-33283 RENEWAL DATE: 30 SEPT 2025

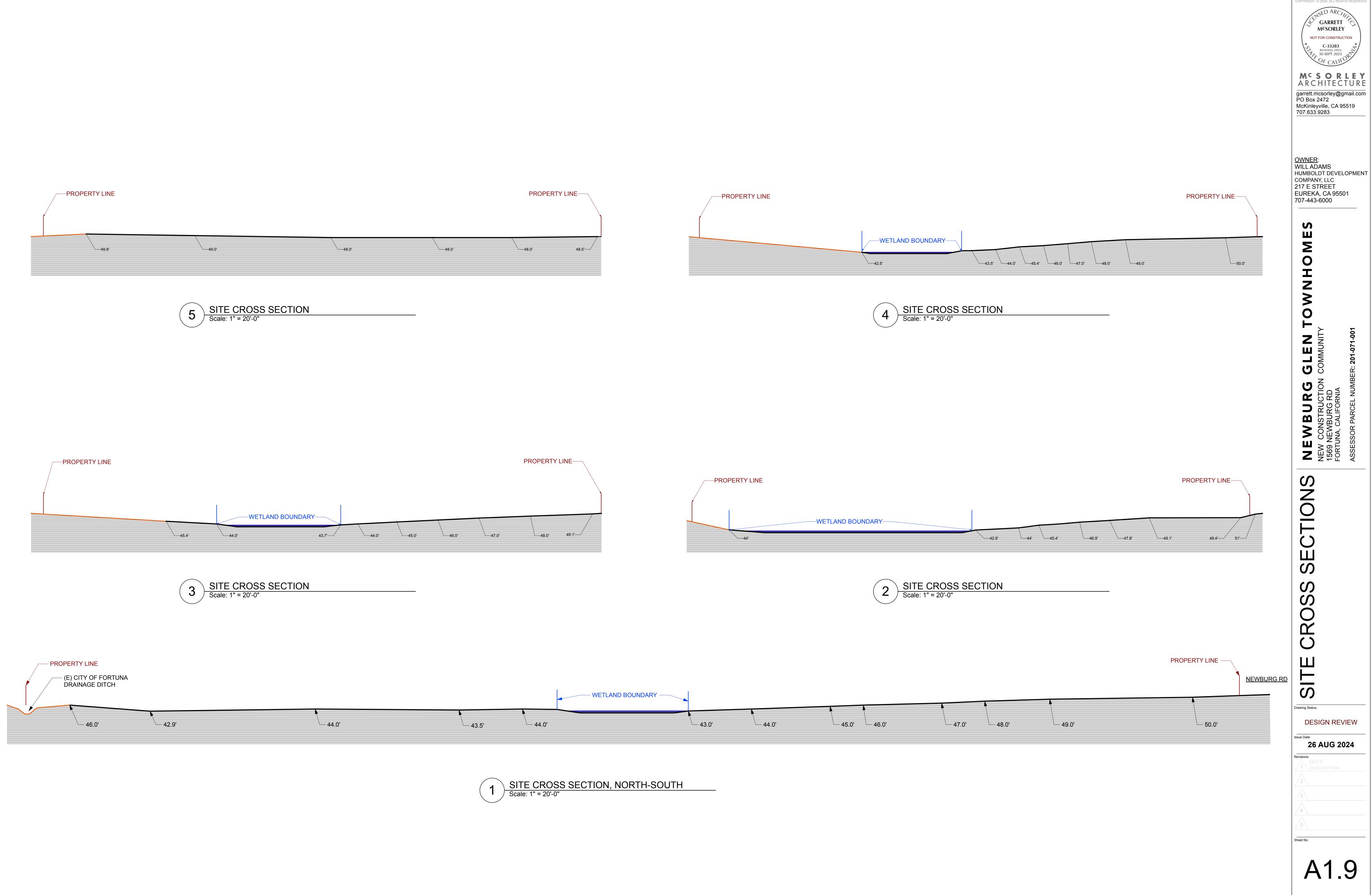
MC S O R L E ' ARCHITECTURE garrett.mcsorley@gmail.com

PO Box 2472 McKinleyville, CA 95519 707.633.9283

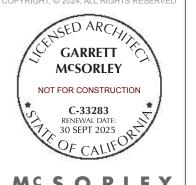
OWNER: WILL ADAMS **HUMBOLDT DEVELOPMENT** COMPANY, LLC 217 E STREET EUREKA, CA 95501

707-443-6000

**DESIGN REVIEW** 26 AUG 2024



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OWNER:
WILL ADAMS
HUMBOLDT DEVELOPMENT
COMPANY, LLC
217 E STREET
EUREKA, CA 95501
707-443-6000

TOWNHOME



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garrett.mcsorley@gmail.com PO Box 2472 McKinleyville, CA 95519 707.633.9283

OWNER: WILL ADAMS HUMBOLDT DEVELOPMENT COMPANY, LLC 217 E STREET **EUREKA, CA 95501** 

707-443-6000

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PE 1 ONS

Drawing Status: **DESIGN REVIEW** 

26 AUG 2024

A2.7





GARRETT **MCSORLEY** NOT FOR CONSTRUCTION C-33283 RENEWAL DATE: 30 SEPT 2025 MC S O R L E Y ARCHITECTURE

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OWNER: WILL ADAMS COMPANY, LLC 217 E STREET EUREKA, CA 95501

HUMBOLDT DEVELOPMENT

707-443-6000

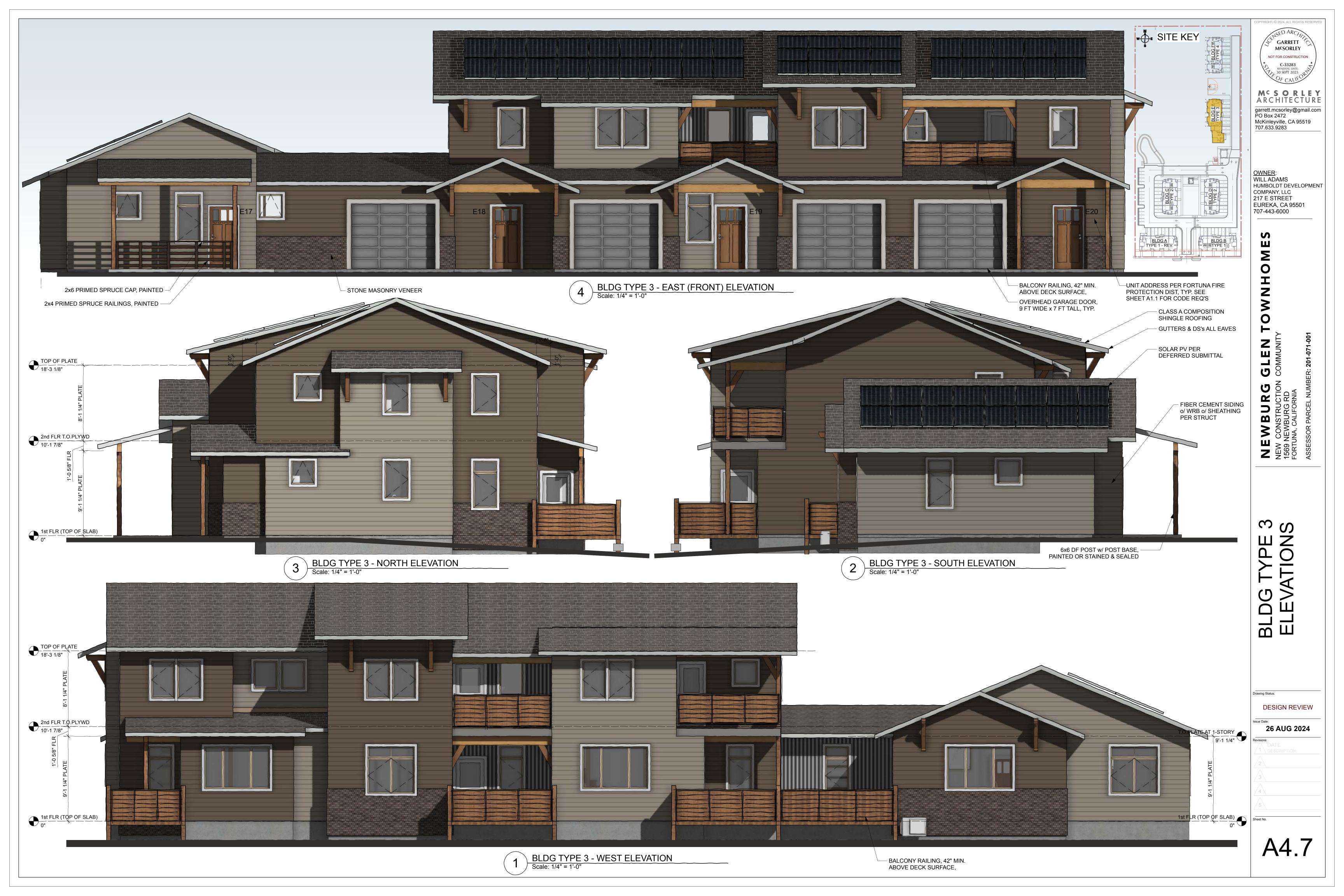
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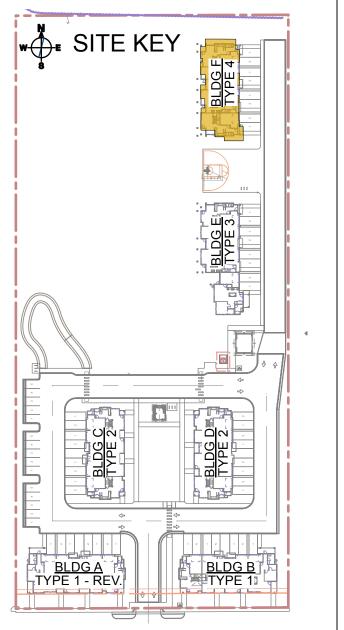
> **DESIGN REVIEW** 26 AUG 2024

A3.7









MC S O R L E Y ARCHITECTURE garrett.mcsorley@gmail.com PO Box 2472 McKinleyville, CA 95519 707.633.9283 OWNER: WILL ADAMS HUMBOLDT DEVELOPMENT COMPANY, LLC 217 E STREET EUREKA, CA 95501 707-443-6000

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GARRETT **MCSORLEY** 

NOT FOR CONSTRUCTION

C-33283 RENEWAL DATE: 30 SEPT 2025

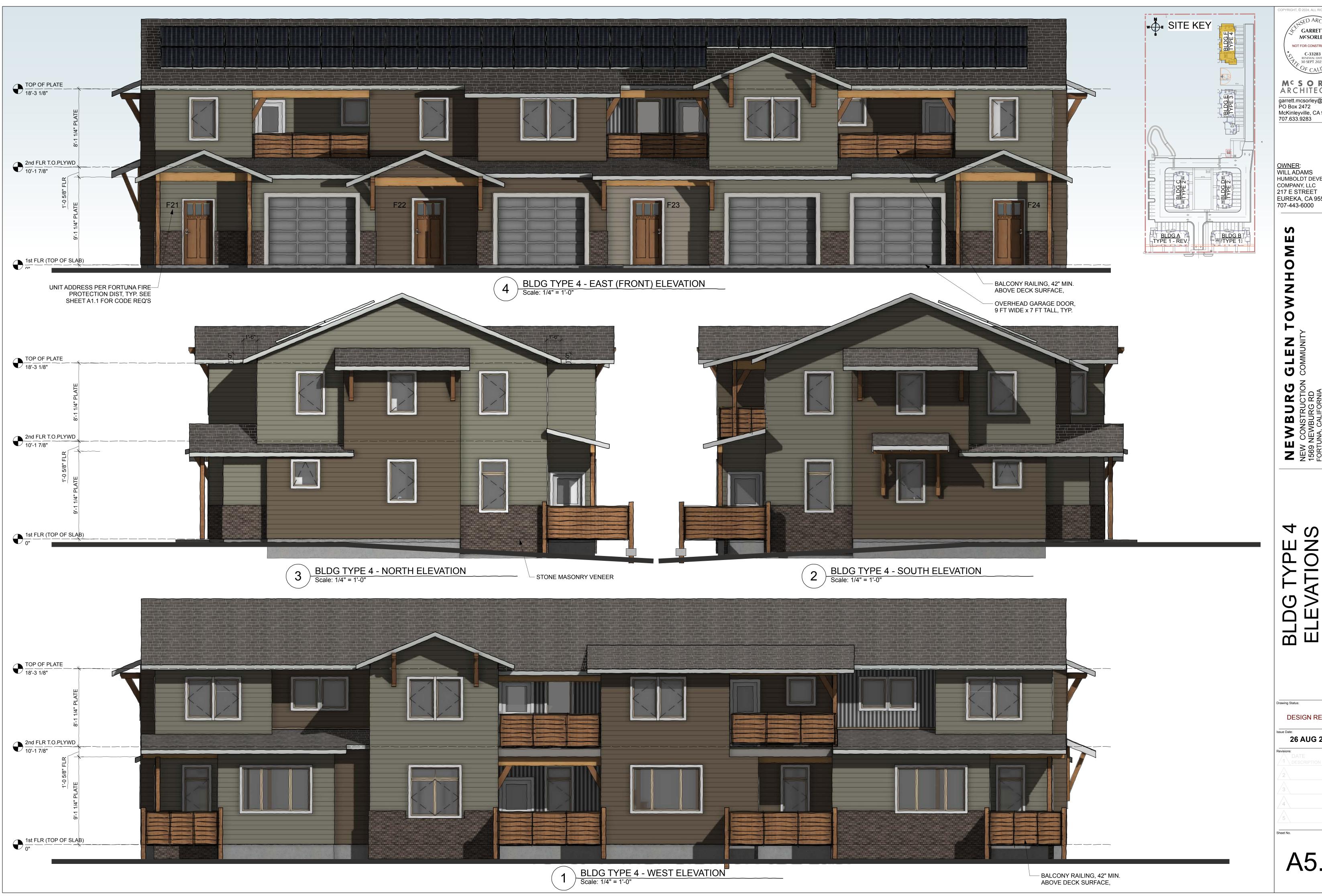
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**DESIGN REVIEW** 

26 AUG 2024

A5.0



GARRETT **MCSORLEY** NOT FOR CONSTRUCTION C-33283 RENEWAL DATE: 30 SEPT 2025 MC S O R L E Y ARCHITECTURE garrett.mcsorley@gmail.com PO Box 2472 McKinleyville, CA 95519 707.633.9283

OWNER:
WILL ADAMS
HUMBOLDT DEVELOPMENT
COMPANY, LLC
217 E STREET

EUREKA, CA 95501 707-443-6000

G TYPE 4 VATIONS

**DESIGN REVIEW** 

26 AUG 2024

A5.7



# **PRELIMINARY:**

PURPOSES OF PLANNING AND DESIGN REVIEW APPROVAL. A FULL LANDSCAPE PLAN MUST BE SUBMITTED AS PART OF CONSTRUCTION DOCUMENT / BUILDING PERMIT SUBMITTAL. THE FOLLOWING LIST OF PLANT SPECIES IS PROVIDED AS AN EXAMPLE LANDSCAPE PLAN DIAGRAM

# LANDSCAPE SCHEDULE

**DECIDUOUS TREES** Vine Maple | 5 gal | Native VM | Acer circinatum **CONIFEROUS & EVERGREEN TREES** 

SS Picea sitchensis Sitka Spruce | 1 gal | Native Shore Pine | 5 gal | Native Pinus contorta ssp contorta |RD | Sequoia sempervirens Coast Redwood 1 gal Native WX Myrica californica Wax Myrtle | 5 gal | Native

**DECIDUOUS SHRUBS** |RC | Ribes sanguineum Red Flowering Currant | 5 gal | AW | Salix lasiolepis Arroyo Willow 1 gal | Native BB | Vaccium Blueberry Blueberry |TB | Lonicera involucrata 1 gal | N.Fruit Twinberry OB Oemleria cerasiformis Osso Berry 1 gal | N.Fruit | DS | Spirea douglasii Douglas' Spirea | 1 gal | Native

Pacific Ninebark | 1 gal | Native PN Physocarpus capitatus **EVERGREEN SHRUBS** CB Braccharis pilularis Coyote Brush | 1 gal | Native OG Berberis aquifolium Oregon Grape tr Native California Huckleberry | 1 gal | Native HK | Vaccium ovatum ST | Garrya elliptica Silk Tassel | 5 gal | Native Gaultheria shallon 1 gal | Native RM Rosmarinus offcinalis Rosemary, 'Tuscan Blue' | 1 gal | Culinary | **HERBACEOUS / RUSH / SEDGE** 

Juncus effusus var. brunneus Soft Rush 4" Native Sickleleaf Rush 4" Native Juncus falcatus var. falcatus Polvstichum munitum Sword Fern | 1 gal | Native Hard-stemmed Bulrush 4" Native Scirpus acutus Spreading Rush | 4" | Native SR | Juncus patens) TH Deschampsia caespitosa ssp. caespit Tufted Hairgrass 4" Native Slender Footed Sedge | 4" | Native Carex leptopoda GE Sisyrinchium californicum CA Golden-eyed Grass 4" Native

SSES / VINES / GROUNDCOVERS					
Eschscholzia californica 'maritima'	California Poppy	4"	Native		
Trifolium microdon	Clover	seed	Native		
Festuca rubra	Red Fescue (Humboldt)	plug	Native		
Calamagrostis nutkaensis	Pacific Reed-Grass	plug	Native		
Fragaria chiloensis	Coastal Strawberry	4"	Native		
CH / GRAVEL					

Redwood Wood Mulch Mulch 4" thick Cover N/A 3" thick Cover 3/4 River Rock N/A

GARRETT **MCSORLEY** NOT FOR CONSTRUCTION C-33283
RENEWAL DATE:
30 SEPT 2025

MC S O R L E ' ARCHITECTURE garrett.mcsorley@gmail.com PO Box 2472 McKinleyville, CA 95519

707.633.9283

COMMON POT ORIGIN

WILL ADAMS **HUMBOLDT DEVELOPMENT** COMPANY, LLC 217 E STREET EUREKA, CA 95501

707-443-6000

**DESIGN REVIEW** 

26 AUG 2024



#### **DEPARTMENT OF THE ARMY**

SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
450 GOLDEN GATE AVENUE
SAN FRANCISCO, CALIFORNIA 94102

June 18, 2024

Regulatory Division

Subject: File Number SPN-2024-00166

Katey Schmidt
City of Fortuna
P.O. Box 545
Fortuna, California 95540-0545
kschmidt@ci.fortuna.ca.us

Dear Ms. Schmidt:

This correspondence is in reference to your submittal of May 1, 2024, on behalf of the City of Fortuna, concerning Department of the Army (DA) authorization for the proposed multi-family development project located at 1569 Newburg Road (APN: 201-071-001), in the City of Fortuna, Humboldt County, California; Latitude 40.589502°, Longitude - 124.149288°. The proposed project includes the construction of a residential development using a 50-foot buffer from the delineated wetlands on the property and has been depicted in the enclosed plans and drawings titled "Adams Newburg Site Plans, City of Fortuna, Humboldt County, California," in 1 sheet dated June 17, 2024 (enclosure 1).

All proposed discharges of dredged or fill material occurring below the plane of ordinary high water in non-tidal waters of the United States (U.S.), or below the high tide line in tidal waters of the U.S., or within the lateral extent of wetlands adjacent to these waters, typically require DA authorization and the issuance of a permit under Section 404 of the Clean Water Act of 1972, as amended (33 U.S.C. § 1344 et seq.). All proposed structures and work, including excavation, dredging, and discharges of dredged or fill material occurring below the plane of mean high water in tidal waters of the U.S.; in former diked baylands currently below mean high water; outside the limits of mean high water but affecting the navigable capacity of tidal waters; or below the plane of ordinary high water in non-tidal waters designated as navigable waters of the U.S., typically require DA authorization and the issuance of a permit under Section 10 of the Rivers and Harbors Act of 1899, as amended (33 U.S.C. § 403 et seq.). Navigable waters of the U.S. generally include all waters subject to the ebb and flow of the tide; and/or all waters presently used, or have been used in the past, or may be susceptible for future use, to transport interstate or foreign commerce.

The enclosed delineation map titled "Preliminary Jurisdictional Determination pursuant to Section 404 Clean Water Act, SPN-2024-00166,1569 Newburg Road, City of Fortuna, Humboldt County, California," in 1 sheet and date certified June 17, 2024, (enclosure 2) depicts the extent and location of wetlands within the boundary area of the

site that **may be** subject to U.S. Army Corps of Engineers' regulatory authority under Section 404 of the Clean Water Act. This preliminary jurisdictional determination is based on the current conditions of the site, as verified during a field investigation of June 7, 2024, a review of available digital photographic imagery, and a review of other data included in your submittal. While this preliminary jurisdictional determination was conducted pursuant to Regulatory Guidance Letter No. 16-01, *Jurisdictional Determinations*, it may be subject to future revision if new information or a change in field conditions becomes subsequently apparent. The basis for this preliminary jurisdictional determination is fully explained in the enclosed *Preliminary Jurisdictional Determination Form* (enclosure 3). You are requested to sign and date this form and return it to this office within two weeks of receipt.

You are advised that the preliminary jurisdictional determination may **not** be appealed through the U.S. Army Corps of Engineers' *Administrative Appeal Process*, as described in 33 C.F.R. pt. 331 (65 Fed. Reg. 16,486; Mar. 28, 2000). Under the provisions of 33 C.F.R Section 331.5(b)(9), non-appealable actions include preliminary jurisdictional determinations since they are considered to be only advisory in nature and make no definitive conclusions on the jurisdictional status of the water bodies in question. However, you may request this office to provide an approved jurisdictional determination that precisely identifies the scope of jurisdictional waters on the site; an approved jurisdictional determination may be appealed through the *Administrative Appeal Process*. If you anticipate requesting an approved jurisdictional determination at some future date, you are advised not to engage in any on-site grading or other construction activity in the interim to avoid potential violations and penalties under Section 404 of the Clean Water Act. Finally, you may provide this office new information for further consideration and request a reevaluation of this preliminary jurisdictional determination.

The enclosed Preliminary JD map (enclosure 2) and the enclosed project plans (enclosure 1) identified above demonstrate that the proposed project will not result in the placement of fill materials within waters or wetlands subject to Corps regulation on the project site; therefore, no DA permit would be required.

This determination does not obviate the need to obtain other Federal, State, or local approvals required by law, including compliance with the Federal Endangered Species Act (ESA) (16 U.S.C. § 1531 *et seq.*). Even though this activity is not prohibited by or otherwise subject to regulation under section 404 of the Clean Water Act, the take of a threatened or endangered species as defined under the ESA is not authorized. In the absence of a separate authorization from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service, both lethal and non-lethal take of protected species are a violation of the ESA. Similarly, the appropriate Regional Water Quality Control Board may still regulate your proposed activity because of impacts to a "water of the

State." Therefore, you should also contact appropriate Federal, State, and local regulatory authorities to determine whether your activity may require other authorizations or permits.

You may refer any questions on this matter to Stephen Ryan by telephone at 707-443-0855 or by e-mail at <a href="mailto:stephen.q.ryan@usace.army.mil">stephen.q.ryan@usace.army.mil</a>. All correspondence should be addressed to the Regulatory Division, North Branch, referencing the file number at the head of this letter. The San Francisco District is committed to improving service to our customers. My Regulatory staff seeks to achieve the goals of the Regulatory Program in an efficient and cooperative manner while preserving and protecting our nation's aquatic resources. If you would like to provide comments on our Regulatory Program, please complete the Customer Service Survey Form available on our website: <a href="https://www.spn.usace.army.mil/Missions/Regulatory.aspx">www.spn.usace.army.mil/Missions/Regulatory.aspx</a>.

Sincerely,

Stephen Ryan Regulatory Project Manager

Enclosures

CC:

Margarete Teicher, NCRWQCB, <u>Margarete.Teicher@waterboards.ca.gov</u> Kathryn Rian, CDFW, <u>Kathryn.Rian@Wildlife.ca.gov</u> Raelina Krikston, ACG, Inc., <u>rae@acgcinc.com</u>

#### BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: 17-JUN-2024

#### B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

Ms. Katey Schmidt City of Fortuna PO Box 545 Fortuna, California 95540

#### C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

SPN-2024-00166, 1569 Newburg Road Residential Development Project

#### D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

# (USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: CA County/parish/borough: Napa County City: Napa

Center coordinates of site (lat/long in degree decimal format):

Lat.: 40.589502° Long.: -124.149288° Universal Transverse Mercator: 10N

Name of nearest waterbody: Rohner Creek

#### E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date:

X Field Determination. Date(s): June 7, 2024

# TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site Number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non- wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
SPN-2024-00166_ W1(PEM)	40.5898	-124.1494	6,876 square feet	PEM wetland waters	Section 404
SPN-2024-00166_ W2 (PSS)	40.5901	-124.1493	16,284 square feet	PSS wetland waters	Section 404

<sup>&</sup>lt;sup>1</sup> Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

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- 1			

- 1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
- 2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the.JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there "may be" waters of the U.S. and/or that there "may be" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

#### SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

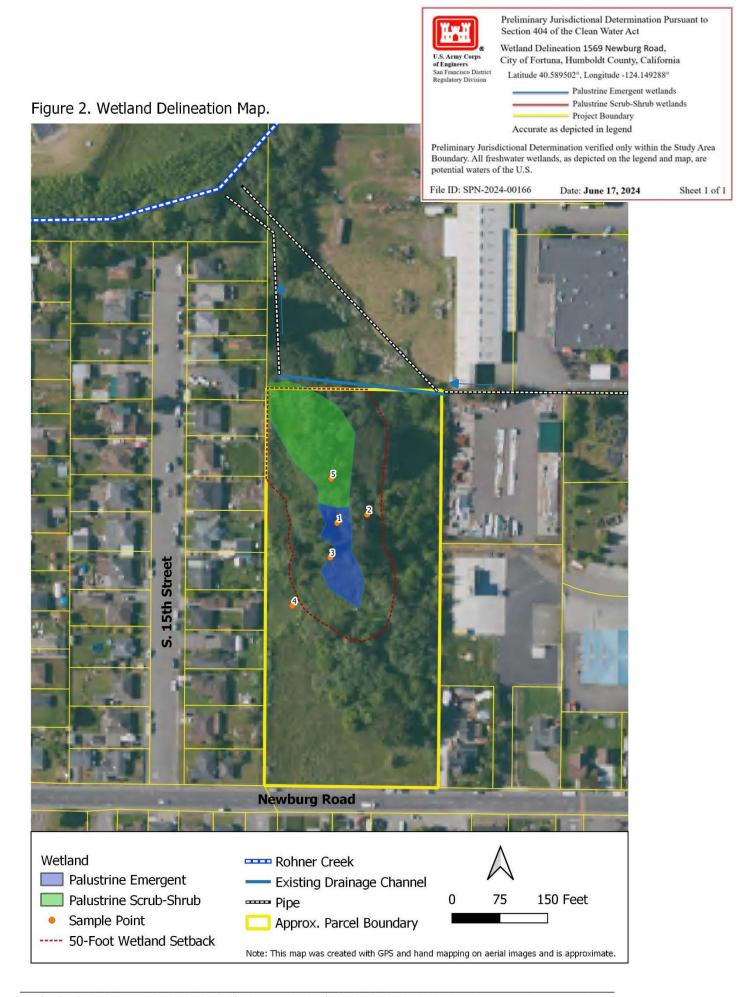
- \_X\_ Maps, plans, plots, or plat submitted by or on behalf of the PJD requestor:
  Map: Wetland Delineation 1569 Newburg Road (APN: 201-071-001) dated January 2024 (rev. 4/9/24)
- X Data sheets prepared/submitted by or on behalf of the PJD requestor.

<sup>&</sup>lt;sup>1</sup> Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

#### Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

	X Office concurs with data sheets/delineation report.
	Office does not concur with data sheets/delineation report. Rationale:
	Data sheets prepared by the Corps:
	Corps navigable waters' study:
	U.S. Geological Survey Hydrologic Atlas:
	USGS NHD data.
	USGS 8 and 12 digit HUC maps.
	U.S. Geological Survey map(s). Cite scale & quad name:
	Natural Resources Conservation Service Soil Survey. Citation:
	National wetlands inventory map(s). Cite name:
	State/local wetland inventory map(s):
	FEMA/FIRM maps:
	FEMA/FIRM maps:
	Photographs: Aerial (Name & Date):
	or Other (Name & Date):
	Previous determination(s). File no. and date of response letter:
	Other information (please specify):
MPOR'	TANT NOTE: The information recorded on this form has not necessarily been verified by
the Cor	ps and should not be relied upon for later jurisdictional determinations.
,	
Signatu	re and date of Regulatory staff Signature and date of person requesting
membe	r completing PJD PJD (REQUIRED, unless obtaining the
	signature is impracticable) <sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.



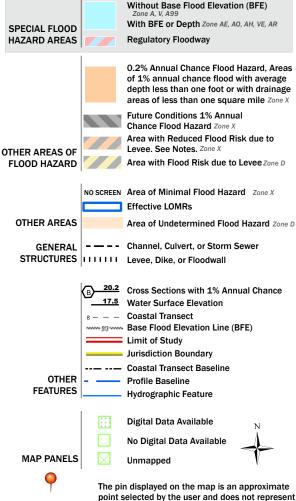
# National Flood Hazard Layer FIRMette





#### Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

an authoritative property location.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/19/2024 at 5:42 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

#### **Katey Schmidt**

From: Katey Schmidt

**Sent:** Thursday, May 30, 2024 11:25 AM

**To:** 'Catherine Buchanan'

Cc: Ana Canter (anacanter@brb-nsn.gov); Edwin Smith (esmith@brb-nsn.gov); Melanie

McCavour (thpo@brb-nsn.gov)

Subject: RE: FW: Tribal Consultation Request- Newburg Multi-family Development

Thank you, we'll add it to the conditions.

From: Catherine Buchanan <catherinebuchanan@brb-nsn.gov>

Sent: Thursday, May 30, 2024 8:20 AM

To: Katey Schmidt <kschmidt@ci.fortuna.ca.us>

Cc: Ana Canter (anacanter@brb-nsn.gov) <anacanter@brb-nsn.gov>; Edwin Smith (esmith@brb-nsn.gov) <esmith@brb-

nsn.gov>; Melanie McCavour (thpo@brb-nsn.gov) <thpo@brb-nsn.gov>

Subject: Re: FW: Tribal Consultation Request- Newburg Multi-family Development

Good morning, Katey,

Please have Inadvertent Discovery Protocols in place prior to any activity on the property.

Thank you.

Have a good day,

Cathie Buchanan

On Wed, May 29, 2024 at 4:07 PM Katey Schmidt <a href="mailto:kschmidt@ci.fortuna.ca.us">kschmidt@ci.fortuna.ca.us</a> wrote:

I'm just checking in to see if you will have any comments or requests for this project as the 30-day response window is closing.

Feel free to let me know if you have any questions or concerns or need any additional information.

Thank you,

Katey Schmidt- Planner II Community Development Department City of Fortuna-The Friendly City (707)725-1407

FriendlyFortuna.com<<u>https://www.friendlyfortuna.com/</u>>

From: Katey Schmidt

Sent: Wednesday, May 1, 2024 2:13 PM

To: Ana Canter (<u>anacanter@brb-nsn.gov</u>) < <u>anacanter@brb-nsn.gov</u>>; Catherine Buchanan

(<u>catherinebuchanan@brb-nsn.gov</u>) < <u>catherinebuchanan@brb-nsn.gov</u>>; Edwin Smith (<u>esmith@brb-nsn.gov</u>) < <u>esmith@brb-nsn.gov</u>>; Melanie McCavour (<u>thpo@brb-nsn.gov</u>) < <u>thpo@brb-nsn.gov</u>> Subject: Tribal Consultation Request- Newburg Multi-family Development

Good afternoon, THPO et al,

Please see the link below for a request for Tribal consultation regarding a proposed multi-family development in Fortuna. The project is currently in the preliminary Design Review phase; the applicant will be submitting additional information including building elevations to complete the application and design approval process prior to submitting full building plan sets as part of a future building permit application.

Link to Tribal Consultation Request

Files<https://www.dropbox.com/scl/fo/z6lj9cpofis1c8b7dggek/AIPkFcxx5WPFU6t0hisBSzg?rlkey=xdx1enno4reawqewhfy6sux6u&st=915z7ak2&dl=0>

Hard copies of the letter and referral will be sent via post.

Feel free to let me know if you have any questions or concerns.

Thank you

Katey Schmidt- Planner II
Community Development Department
City of Fortuna-The Friendly City
(707)725-1407
FriendlyFortuna.com<a href="https://www.friendlyfortuna.com/">https://www.friendlyfortuna.com/</a>

610 9th Street Fortuna, CA 95540

Phone: (707) 725-6926

April 3<sup>rd</sup>, 2024

Adams Commercial General Construction-ACGC 339 2<sup>nd</sup> Street Eureka, CA 95501 Attn: Mr. Will Adams

RE: Soils Report

**Proposed Multi-Family Residential Development** 

1569 Newburg Rd, Fortuna, CA

APN: 201-071-01

JN: ACG2401

Dear Mr. Adams,

Per your request, on February 9<sup>th</sup> and March 21<sup>st</sup>, 2024, I visited the above referenced site in order to perform a site soils investigation for a planned multi-family residential development to be constructed at this site. This site currently consists of an approximate 4 acre parcel that was historically used as a homesite for a single family residence. The parcel is bordered by a vacant field to the north, a residential neighborhood (at south 15<sup>th</sup> street) to the west, Newburg Road to the south, and a single-family residence, fire department training area, and commercial storage area to the east. During our site visits, we observed standing surface water at the wetland area near the north west corner of the parcel. The approximate northern half of the parcel was heavily vegetated with grasses, shrubs, and Alder Trees. The southern half of the parcel had abundant grass and a few small trees.

The scope of this report is limited to recommendations for the construction of the multi-family residential development, driveways and parking/recreational areas. I have not reviewed detailed construction plans for the proposed development. I have not performed an in-depth geologic stability study or overall geologic stability study of the property or the immediate surrounding area. The recent historic use of this parcel has been for a single-family residence. This existing parcel generally drains down to an approximate 1/2 acre wetland area located at the northwest side of the parcel. The wetland area drains toward Rohner Creek, approximately 400 ft northwest of the parcel. The previous structure(s) have been removed from the site; there may be remnants of foundation elements, septic tank(s), water wells etc. on this site.

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Elevation at the building site is approximately 45-50 feet above mean sea level. During my site investigation I observed the excavation of five test holes dug with a backhoe at various locations on the parcel.

Site soil generally consisted of a soft/medium density black slightly clayey silt to 20"-32" below grade. Below that to 38"-48" was a medium dense/dense brownish /orangish yellow silty clay. Ground water was encountered at 25"-43" below grade and generally appeared to be perched atop the lower brownish/orangish yellow silty clay layer.

The following information pertains to the seismic design loading for structural design:

- 1. Seismic importance factor I=1.0, occupancy category = II
- 2. Mapped spectral response acceleration  $S_S = 2.127$ ,  $S_1 = 1.075$
- 3. Site Class= D
- 4.  $S_{DS} = 1.701$
- 5. Seismic design category = D
- 6. Site Latitude: 40.58891° N, Site Longitude: 124.14950° W

A peak ground acceleration of Ss/2.5 shall be used for seismic design.

Although we have not performed an in depth geologic study of this parcel or the surrounding area, the geologic nature of the property appears to be stable. There is no indication in the immediate surrounding area of any geologic instability, earthquake faults, or ground water that would be detrimental to (with mitigating construction methods employed) the building site. According to the Humboldt County General Plan geologic maps, this parcel is classified as zone 1, low instability.

This site is located in the vicinity of several earthquake fault zones as defined by the Alquist-Priolo Earthquake Fault Zoning Act. Faults within these zones are considered to have been active during quaternary time. It should be noted that the attached maps may not show all potentially active faults, either within the special studies zones or outside their boundaries. However, the identification of these potentially active faults and the location of such fault traces are based upon the best available data to date.

The north coast area of California where this site is located is seismically very active and possibly subject to earthquakes of large magnitude which can produce significant ground shaking. This high to very high level of seismic hazards is typical for Northern California; residence and business owners routinely assume this risk. In general there are 5 sources of large magnitude earthquakes which could affect the project area. These sources include the Mendocino Fault Zone located some 34 miles northeast of Shelter Cove, the San Andreas Fault which leads out to the sea at Point Delgada, the subducted Gorda Oceanic Crustal Plate North of Shelter Cove, the complex

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April 3rd, 2024

northwesterly oriented systems surrounding the Humboldt Bay area (including the Little Salmon, Mad River and Gorda Fault Zones), and the Cascadia Subduction Zone, located off shore approximately 20 miles west of the site.

The Coastal Range Thrust Fault is located approximately 30 miles east of this site. The San Andreas Fault zone is approximately 24 miles southwest of this site. The Little Salmon Fault zone is located approximately 1.5 miles northeast of this site. The North Spit/Buhne Point/ Bay Entrance Fault Zone cluster is located approximately 10 miles northwest of the site. The Russ Fault zone is approximately 8 miles southwest of this site. The Goose Lake Fault zone is located approximately 5 miles southeast of the site. These fault systems are considered to have been active during assumed Historic, Holocene, and Pleistocene times, and are expected to have a relatively high potential for surface rupture.

According to the state of California Department of Conservation Division of Mines and Geology Special Publication 115 (1995) planning scenario, this parcel is located in an area of moderate to low liquefaction potential.

#### **CONCLUSIONS AND RECOMMENDATIONS**

In my opinion, soils at this site are capable of providing adequate support for the construction of the proposed multi-family residential development. However, you are still responsible for ensuring that this development conforms to all County, State, and local requirements.

The following construction considerations are presented to aid in project planning. They may not be comprehensive; other issues may arise which will require coordination of the owner's goals, the consultant's design assumptions, and the contractor's construction method and capabilities. The proposed development can be safely constructed at this site; provided the construction conforms to the 2022 California Building Code (CBC) and the following recommendations are complied with:

#### 1. FOUNDATIONS

All foundations and footings should extend downwards through upper disturbed soils/fill/soft organic top soils, if any, to bear upon/into lower native undisturbed, competent native orangish yellow clayey silty sub-soils. Alternatively, deep foundation excavations may be backfilled with a 2-sack per cubic yard concrete "slurry" to within 18" of finish grade. Structural footings should be poured atop the cured slurry. Spread footings and any foundation walls should be reinforced, and constructed per chapter 18 of the CBC. The bottom of all foundation excavations shall be level. As a mitigating measure for the observed high ground water and the presence of surface water at this site, as well as the classification of this site as having moderate to low liquefaction potential, all footings should extend a minimum of 18" below finish grade. It is recommended

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that perimeter and point load foundations be poured monolithically with floor slabs, (without a cold joint) and that rigid insulation NOT be placed between the perimeter foundation and floor slabs. All foundation excavations shall be inspected and approved by the building official or a representative of Whitchurch Engineering, Inc. prior to placement of rebar or concrete, to assure that foundations are set in competent sub-soils. The foundation plan for any structure shall be reviewed and approved by Whitchurch Engineering, Inc. prior to start of construction.

Any concrete slabs that are proposed should be a minimum of 4 inches thick (nominal) with #4 reinforcing bar placed 18 inches on center each way in the center of the slab. Service slabs that will be loaded with higher than ordinary foot traffic loading should be 6" nominal with #5 rebar at 18" o.c. each way in the center of the slab. In accordance with the CBC, residential floor slabs should be set at least 8"-9" above outside finish grade in order to satisfy building code requirements for wood (siding)/earth separation. Conventional floor section concrete slabs should bear upon a minimum of 2 inches of sand, over a 15 mil vapor barrier over a minimum 4 inch thick free draining capillary rock layer which bears on a geotextile fabric (Amoco 2002 or equal) which is set on competent subgrade soil or fill soil as necessary (see recommendation #2) and serves as a capillary break between the slab and the subgrade. Alternatively, the slab may be poured atop a minimum 15 mil vapor barrier which sits on a 6" thick capillary rock layer which bears on a geotextile fabric (Amoco 2002 or equal) which is set on competent subgrade soil. Capillary rock gradation shall require 100% passage of a 1" sieve and no passage of a #4 sieve. If gravels exceed 1 foot, they should be placed and compacted as engineered fill described in recommendation #2 below. The 15 mil vapor barrier should be lapped and sealed at the ends of the sheet per manufacturer specifications. No unsealed penetrations shall extend through the vapor barrier.

According to table 1806.2 of the CBC, the clayey silty sub-soils at this site are assigned an allowable soils bearing pressure of 1500 psf (pounds per square foot). As a mitigating measure for the moderate to low liquefaction potential at this site, I recommend that all foundations be designed for an allowable soil bearing pressure of 1000 psf. These values may be increased by 1/3 for a combination of loading which included wind and seismic loads.

#### 2. CUT/FILL

If any fill banks or cut banks are to be installed, they should be in conformance with appendix J and chapter 18 of the CBC.

All areas to receive fill, including areas beneath proposed concrete slabs, recreational areas, and parking lots, should be cleared of all organic top soil, trash material and soils which are not native soils as described above. The areas to receive fill should be "benched". This area should not slope more than 2%. Exposed soils should be compacted as necessary prior to placement of first fill lift. All areas to receive fill should be observed by a representative of Whitchurch Engineering, Inc. or

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the building official prior to placement of fill. Imported well graded river-run sandy gravel should be used as a fill material. A geotextile fabric (Amoco 2002 or equal) shall be placed atop the prepared subgrade prior to structural fill placement. Engineered fill should be placed in thin lifts (±6") and compacted to a minimum relative compaction rate ninety percent as per ASTM Test Method D 1557. Any fill which is to be placed under driveways or sidewalk areas should be compacted to 95% relative compaction. Compaction testing should occur a minimum of every three vertical feet. An equal bearing value is assigned to engineered fill as was given to native undisturbed soils as designed above.

#### 3. CUT/FILL SLOPES

All existing and proposed cut slopes and fill slopes should be re-vegetated to prevent erosion from rainfall. Protection of slopes should be installed immediately after slopes are disturbed.

#### 4. RETAINING WALLS

Cantilevered retaining walls are to be designed in accordance with chapter 18 of the CBC. A value of 0.25 times the dead load should be used to resist sliding forces. This value may be increased to 0.35 times the dead load if the bottom of the retaining wall is supported with concrete slab. Allowable bearing values should conform to the above recommendations. All retaining walls should be provided with adequate drainage including a continuous 4" diameter perforated drain pipe behind all retaining walls.

A minimum of two square feet of uncrushed drain rock encased in filter fabric should surround the perforated drain pipe. The drain should be directed away from the building into an approved drainage control facility by solid pipe once it is away from the retaining wall. Retaining walls which are horizontally braced at the top of the wall are to be designed to resist at-rest soil pressures as specified in table 1610.1 of the CBC.

#### 5. BUILDING DRAINAGE

Rain gutters are to extend along draining roof lines and lead to down spouts; these down spouts should lead to pipes or well-established drainage ways, which carry drainage away from the building site and away from any areas of fill or foundations.

Any proposed "Low Impact Development" rainwater retention structures/systems must be designed and constructed in a manner that does not introduce groundwater into the soil in the vicinity of the foundations of the proposed structures, or paved areas. The introduction of additional groundwater in the vicinity of the building foundations or paved areas will cause building moisture problems including mold growth, and will likely cause localized excessive

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April 3rd, 2024

building/pavement settlement resulting in cracking/movement/settlement of the floors/walls/finish surfaces of the structures.

All proposed retaining wall structures should be well drained to prevent the buildup of water pressure and to lower the up-hill water table level. Roof and/or surface drains should not empty into retaining wall drains. All drainage must be controlled to flow away from the building site in a non-erosive manner, toward established drainage ways.

In accordance with CBC section 1804.3, I recommend that a minimum positive drainage gradient of 5% be established away from all foundations and footings for a minimum horizontal distance of 10 feet, with the remainder of the building pad grading, as well as the overall site, establishing a minimum horizontal positive drainage of 1% from foundations and footings approved drainage control/facilities.

#### 6. SURFACE DRAINAGE

Surface water uphill of the building sites should be controlled to flow around and away from the building sites toward established drainage ways. Under no circumstances should uncontrolled surface water drainage be allowed to flow across the building sites or over any cut or fill banks. Drainage improvements will need to be continually maintained and regularly inspected to assure their effectiveness in directing the surface water away from the building sites.

#### 7. PAVEMENTS

Proposed paving for this project shall consist of a minimum of 0.25' of type "A" asphalt concrete, underlain by 8" of class 2 aggregate base (R-78 min). All organic top soil and incompetent fill soils are to be removed from underneath proposed parking lot and driveway areas. The resulting subgrade soil shall be inspected and approved by a by a representative of Whitchurch Engineering Inc. A geotextile fabric (AMOCO 2002 or approved equivalent) shall be placed (per manufacturer's specifications) over the prepared native sub-base soil in order to prevent migration of fine soil between fill and sub-base soil, and to improve the structural section strength at the subgrade level.

The pavement section is based on an assumed R-value of 45 minimum, and a traffic index of 6.0. It shall be noted that if pavements are constructed prior to building construction, the traffic index value may be too low and need to be increased. If pavements are placed prior to construction, or if more frequent heavy truck traffic is anticipated, this office shall be contacted to re- evaluate the pavement section design.

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#### 8. UTILITY TRENCHES

It should be anticipated that based on field observations at the time of our site inspection, water could seep into excavations which extend below approximately 12" below existing grade. A design groundwater depth of 0 feet shall be used to compute hydrostatic pressures and buoyant forces.

Utility trench backfilling beneath areas to support improvements, including parking lot/traffic areas shall be completed prior to subgrade compaction. Utility trench backfill shall be compacted to a minimum of 90% of the maximum dry density per ASTM-D-1557, and a minimum of 95% in the upper six inches in area to receive base rock and finish surface.

The contractor shall use appropriate equipment and methods to avoid damage to utilities and/or structures during placement and compaction of backfill materials. Trench backfills shall be placed in 8 inch lifts; moisture conditioned to within 2 percent of optimum and compacted to achieve the minimum relative compaction. Lift thickness can be increased if the contractor can demonstrate that the minimum compaction requirements can be achieved. Approved imported engineered fill may be used as final backfill in trenches. Jetting of trench backfill is not recommended to compact the backfill soils.

#### 9. SUBSURFACE CONSTRUCTION

All temporary and permanent earth retaining structures which placed greater than 12" below grade shall be designed to withstand the effects of hydrostatic pressure. Ground water levels can fluctuate with the seasons, storms (precipitation) events, runoff and other factors. Significant variations in ground water levels may occur from those observed during our investigation.

The active and at-rest pressure of the native soils saturated by ground water may assume to be equal to the pressures developed by a fluid with a density of 92 and 106 pounds per cubic foot, respectively. The at-rest pressure shall be used in determining lateral earth pressures against walls which are free to deflect; this includes temporary walls for trench shoring. For walls which are free to deflect at least one percent of the wall height at the top, the active earth pressure may be used.

#### CLOSING:

The following is a summary of required special inspection and items to be reviewed/approved by Whitchurch Engineering prior to construction:

- Review of the site grading/ drainage plan
- Foundation design (prior to permit acquisition)
- Driveway/parking area subgrade, prior to placement of geotextile fabric

www.whitchurchengineering.com Fortuna: (707) 725-6926 Eureka: (707) 444-1420

Whitchurch Engineering, Inc. Soils Report - ACG2401 1569 Newburg Rd, Fortuna, CA APN: 201-071-01 April 3rd, 2024

Provided footing design and dimensions are based upon given soil bearing values and recommendations given above, and if live loads are distributed uniformly across floor areas, differential settlement is not expected to exceed ½ inch for any 25 foot span for an assumed economic life of 50 years. Total uniform settlement is not expected to exceed 1 inch over the same economic life span under the same loading conditions. Initial construction settlement is not expected to exceed ¼ inch. Based upon site soils conditions observed during our site visit, as well as review of the State of California Department of Conservation Division of Mines and Geology Planning Scenario Special Publication 115 (1995) and the mitigating measures specified in this report (lower allowable soil bearing pressure, geotextile subgrade modification, deeper foundations) the resulting potential for liquefaction at this site is considered to be negligible.

Based upon the State of California Special Studies Zone (Alguist-Priolo Special Studies Zones Act) official map for this area, the potential for ground surface displacement due to faulting or lateral spreading at this building site is considered to be negligible. It is assumed that the test holes that have been observed at the site are representative of subsurface conditions throughout the site. If it is found that subsoil conditions differ from those described, the conclusions and recommendations of this investigation shall be considered invalid until the project is again reviewed by this office. Further discussion is possible at that time. Based on my visual review of the site and the surrounding terrain, in my opinion no further geologic evaluation or geologic consultation is warranted.

Determination of any potential environmental hazards due to the possible presence of hazardous and/or toxic waste is not part of this report.

If you have any questions or comments regarding this soils report, feel free to contact me at your earliest convenience.

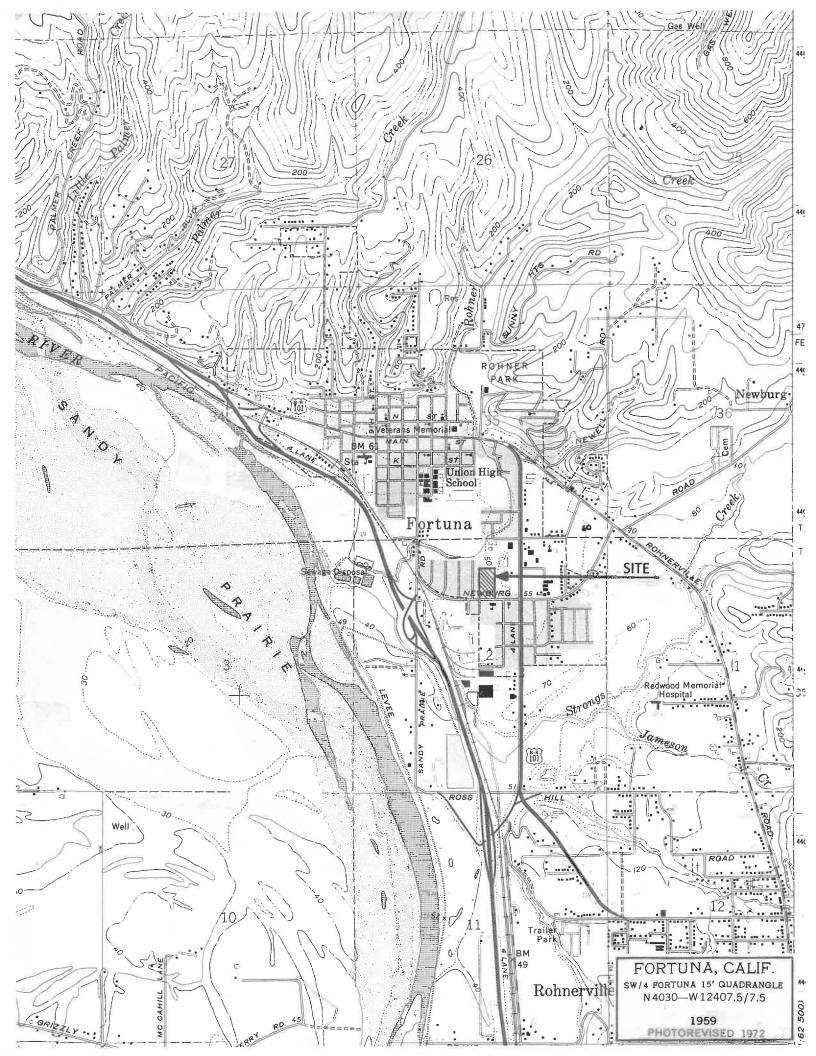
Sincerely,

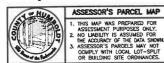
Mr. Terry O'Reilly, P.E.

RCE # 49506

TOR/gaa

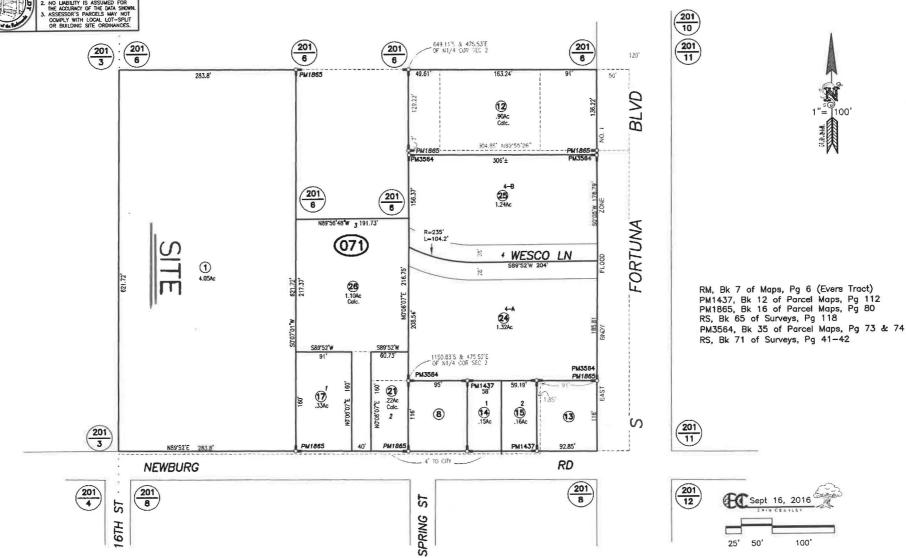
www.whitchurchengineering.com





NOTE - Assessor's Block Numbers Shown in Ellipses.

Assessor's Parcel Numbers Shown in Small Circles.



SITE PLAN

SOUTH 15th ST

# GENERAL PLAN GEOLOGIC MAP

MAP 2 OF 5

# SLOPE STABILITY

- 3 HIGH INSTABILITIY
- 2 MODERATE INSTABILITIY
- I LOW INSTABILITY

# STABILITY BOUNDARIES

KNOWNDASHED WHERE INFERRED

DOTTED WHERE CONCEALED

-?--?- QUESTIONED WHERE UNCERTAIN

# FAULT

KNOWN

- - DASHED WHERE INFERRED

DOTTED WHERE CONCEALED

-?--?- QUESTIONED WHERE UNCERTAIN

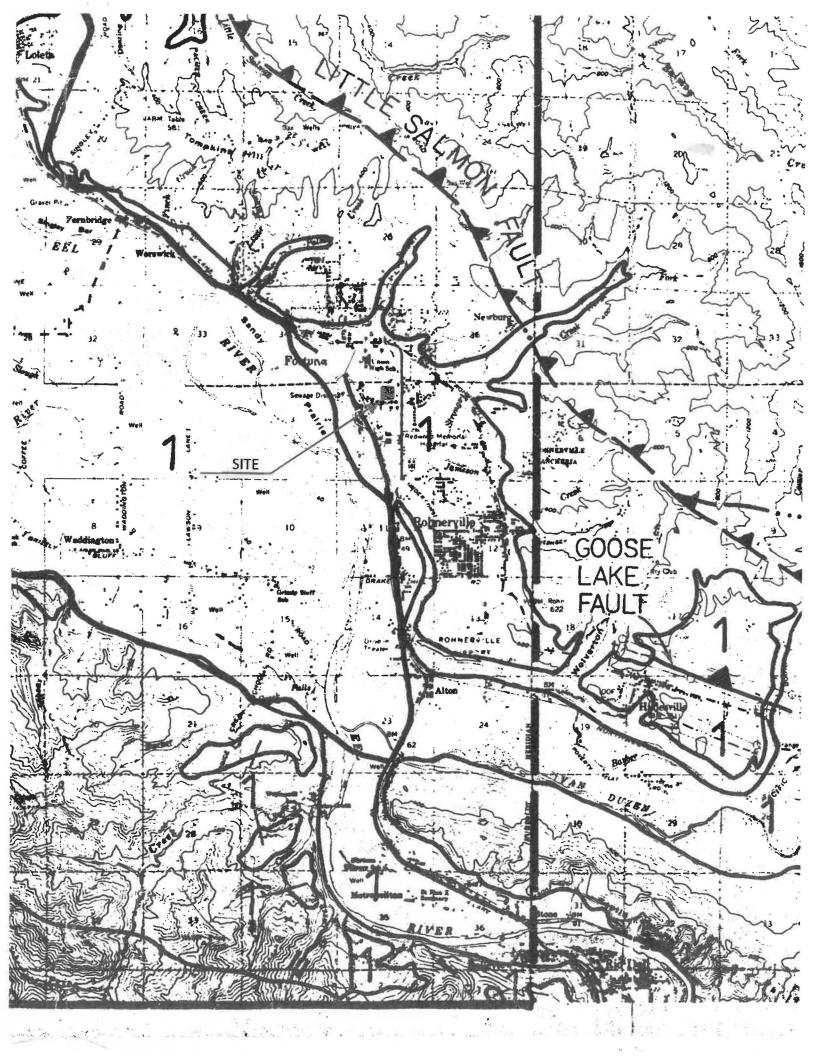
THRUST FAULT

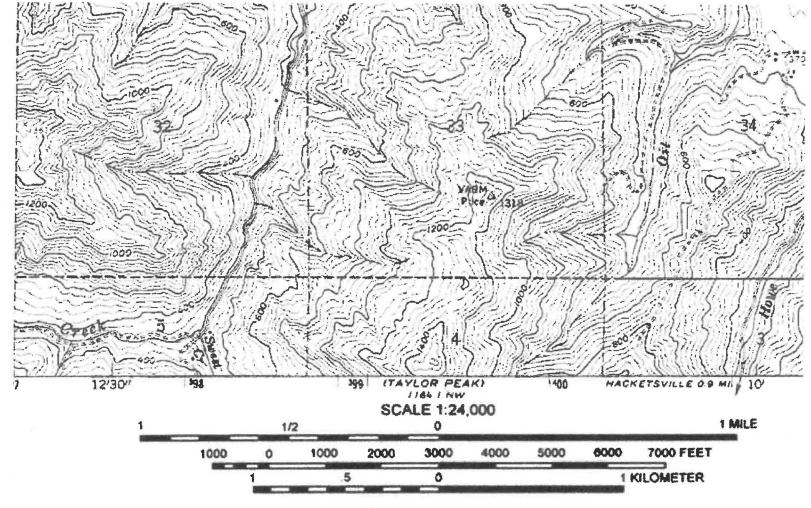
SHEAR ZONE

\*ALQUIST-PRIOLO SPECIAL STUDY ZONE BOUNDARY

Humboldt County
Planning Department

0 inch 1 0 mile 1





CONTOUR INTERVAL 40 FEET COTTED LINES REPRESENT 10-FOOT CONTOURS DATUM IS MEAN SEA LEVEL

# STATE OF CALIFORNIA SPECIAL STUDIES ZONES

Delineated in compliance with Chapter 7.5, Division 2 of the California Public Resources Code (Alquist-Priole Special Studies Zones Act)

FORTUNA QUADRANGLE

OFFICIAL MAP

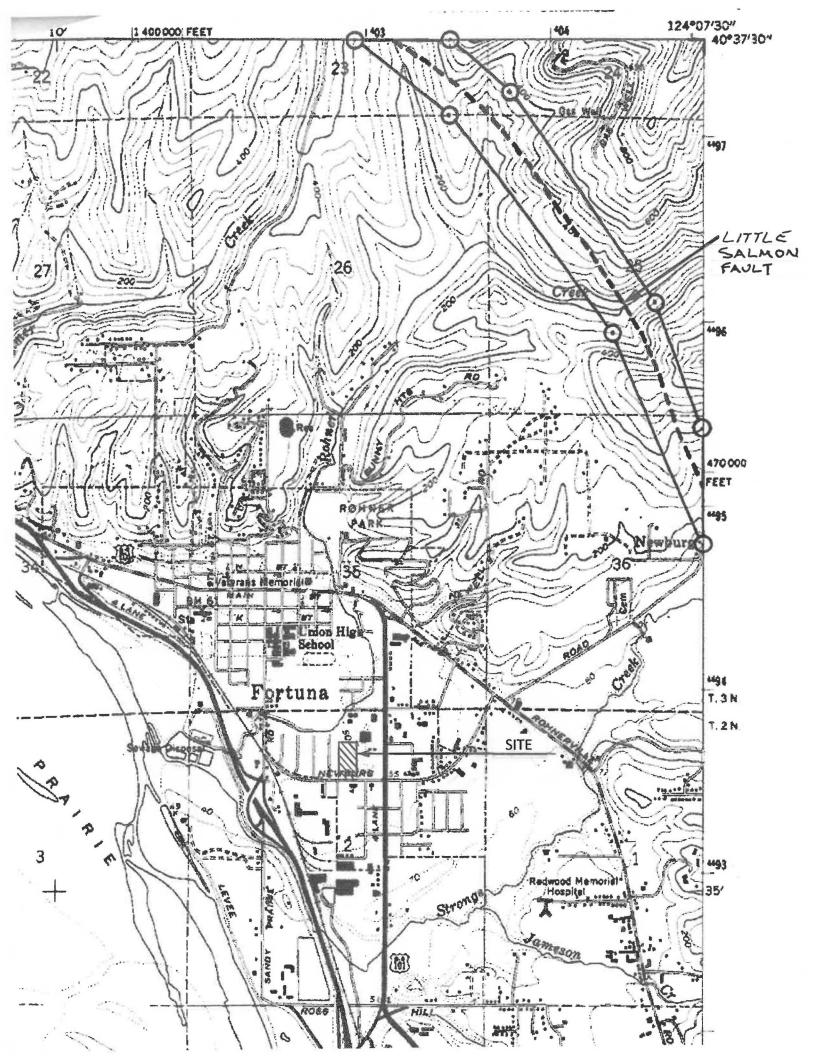
Effective: November 1, 1991

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1 turning

James & Caris

State Geologist



#### **SPECIAL PUBLICATION 115**

DEPARTMENT OF CONSERVATION

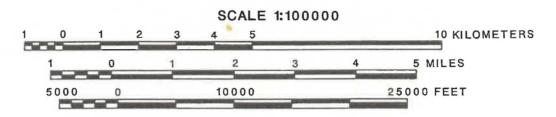
Division of

Mines and Geology

# PLANNING SCENARIO



# FOR A GREAT EARTHQUAKE ON THE CASCADIA SUBDUCTION ZONE



#### SEISMIC INTENSITY DISTRIBUTION

#### **EXPLANATION**

SHAKINGINTENSITY (Modified Mercalli Scale - Abridged)

VI

No significant damage to structures.

VII

Damage negligible in buildings of good design and construction, slight to moderate in well-built ordinary buildings, considerable in poorly built or badly designed buildings. Fall of plaster in considerable to large amount, also some stucco. Broke numerous windows, furniture to some extent. Broke weak chimneys at roof-line (sometimes damaging roofs). Fall of cornices from towers and buildings.



Damage slight in structures (brick) built especially to withstand earthquakes.

Considerable in ordinary substantial buildings, partial collapse, racked, tumbled down wooden houses in some cases, threw off panel walls in frame structures. Fall of walls, twisting, fall of chimneys, columns, monuments, also factory stacks, towers.

+ indicates values near the top of this range, -, values near the bottom.



Damage considerable in some structures built especially to withstand earthquakes; threw out of plumb some wood-frame houses built especially to withstand earthquakes; great in substantial (masonry) buildings, some collapse in large part; or wholly shifted frame buildings off foundations, racked frames, underground pipes sometimes broken.

Intensities >IX are generally attributable to surface faulting and ground failure.

#### LANDSLIDES



Known landslides of various types



Areas susceptible to coherent landslides

#### **LIQUEFACTION POTENTIAL**



Moderate to low



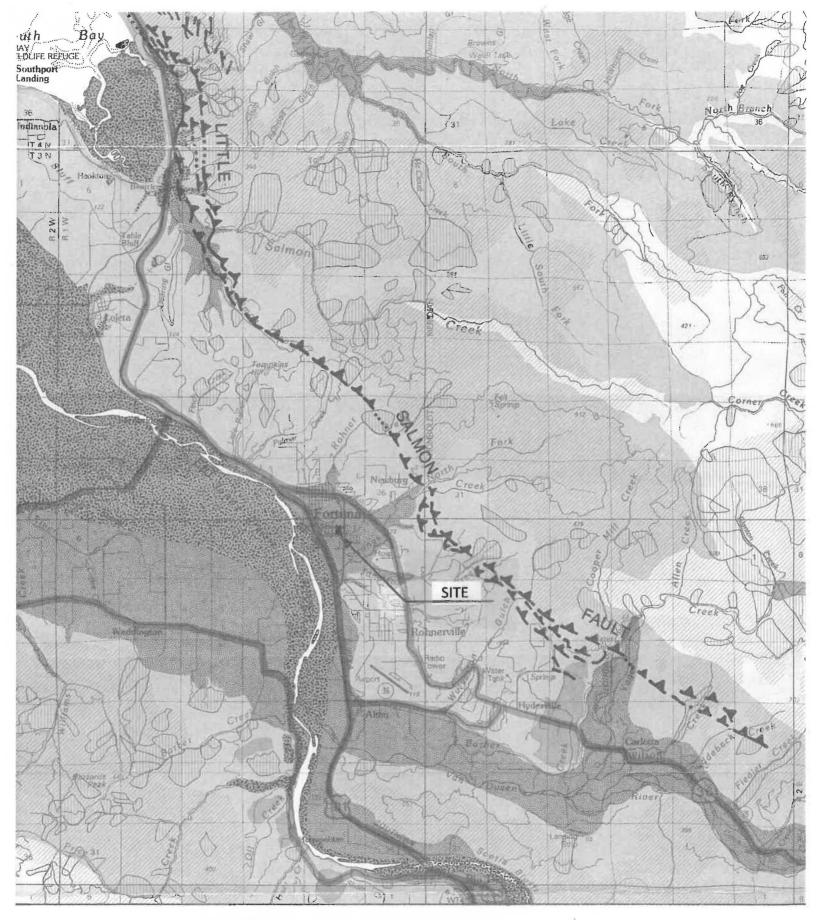
High



Tsunami runup, generalized From NOAA (Bernard and others, 1994)

Little Salmon

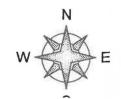
Fault



**SPECIAL PUBLICATION 115** 

# PLANNING SCENARIO

IN HUMBOLDT AND DEL NORTE COUNTIES, CALIFORNIA

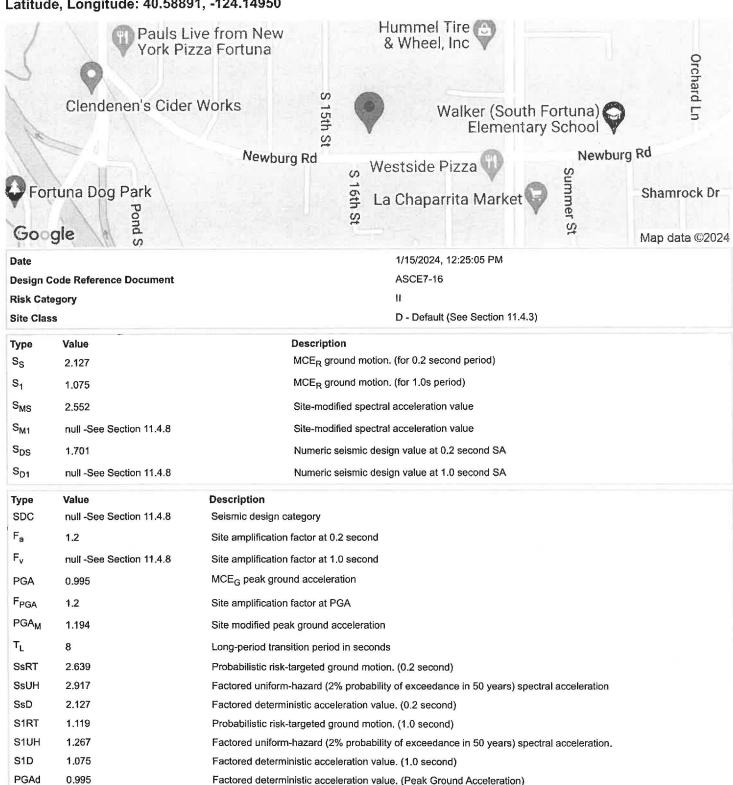




# OSHPD

# **ACGC 1569 Newburg Fortuna**

Latitude, Longitude: 40.58891, -124.14950



SHEET 1 OF 6 WHITCHURCH ENGINEERING **Building Design • Civil & Structural Engineering EXPLORATION** 610 9th STREET 716 HARRIS STREET **TEST LOG** FORTUNA, CA 95540 **EUREKA, CA 95501** APN: 201-071-001 (707) 725-6926 (707) 444-1420 JOB NO: **PROJECT NAME:** A C G 2401 GLEN TOWNHOMES NEWBURG LOGGED BY: HOLE #: TH- 1 SAMPLE DATE: HOLE TYPE: 2-9-24 BACKHOE SOIL DESCRIPTION LAB DATA MOISTURE CONTENT (%) RELATIVE COMPACTION SOIL, COLOR, MOISTURE, CONSISTENCY, REMARKS, UNCONFINED COMPRESSIVE STRENGTH (TONS/SF) DEPTH (FEET) **DRY DENSITY (PCF)** PLASTICITY INDEX WATER LEVEL(S) AND DATE(S) JOUID LIMIT (UNIFIED SOILS CLASSIFICATION SYSTEM) SLIGHTLY CLAYEY SILT, BLACK, MOIST, --1--1.5 -- ----2--27" SILTY CLAY BROWNISH YELLOW MOIST 3-3.5 DENSE --3----4--BOTTOM OF HOLE AT 48" GROUNDWATER AT 25" --5----6----7----8----9---- 10 ----11--

#### WHITCHURCH ENGINEERING

Building Design . Civil & Structural Engineering

610 9th STREET FORTUNA, CA 95540 (707) 725-6926 716 HARRIS STREET EUREKA, CA 95501 (707) 444-1420 SHEET 1 OF 6

# EXPLORATION TEST LOG

APN: 201-071-001

JOB NO: PROJECT NAME: A C G 2401 GLEN TOWNHOMES NEWBURG LOGGED BY: HOLE #: TH- 2\_ SAMPLE DATE: HOLE TYPE: FEB 9 2024 BACKHOE SOIL DESCRIPTION LAB DATA RELATIVE COMPACTION SOIL, COLOR, MOISTURE, CONSISTENCY, REMARKS, MOISTURE CONTENT UNCONFINED COMPRESSIVE STRENGTH (TONS/SF) **БЕРТН (FEET)** DRY DENSITY (PCF) PLASTICITY INDEX WATER LEVEL(S) AND DATE(S) LIQUID LIMIT (UNIFIED SOILS CLASSIFICATION SYSTEM) SOIL TYPE SLIGHTLY FINE SANDY SLIGHTLY CLAYEY SILT, BLACK, MOIST, SOFT/MEDIUM 3 DENSITY --1--20" SILTY CLAY BROWNISH YELLOW, MOIST, - -2 - -MEDIUM DENSITY. DENSITY INCREASES W/ DEDTH BECOMES MOTTLED/SLIGHTLY SANDY @ 36" DEPTH --3--48" --4--BOTTOM OF HOLE @ 48" DEPTH GROUND WATER SEEPING IN AT 40" --5----6----7----8----9---- 10 ----11--

#### SHEET 3 OF 6 WHITCHURCH ENGINEERING **Building Design • Civil & Structural Engineering EXPLORATION** 610 9th STREET 716 HARRIS STREET **TEST LOG** FORTUNA, CA 95540 **EUREKA, CA 95501** APN: 201-071-001 (707) 725-6926 (707) 444-1420 JOB NO: PROJECT NAME: GLEN TOWNHOMES ACG 2401 NEWBURG HOLE #: TH- 3 SAMPLE DATE: LOGGED BY: HOLE TYPE: FEB 9, 2024 TOR BACKHOE SOIL DESCRIPTION LAB DATA MOISTURE CONTENT (%) RELATIVE COMPACTION SOIL, COLOR, MOISTURE, CONSISTENCY, REMARKS, UNCONFINED COMPRESSIVE STRENGTH (TONS/SF) DEPTH (FEET) DRY DENSITY (PCF) PLASTICITY INDEX WATER LEVEL(S) AND DATE(S) (UNIFIED SOILS CLASSIFICATION SYSTEM) LIQUID LIMIT SOIL TYPE SAMPLE SLIGHTLY CLAYEY SILT, MOIST, BLACK, SOFT / MEDIUM DENSITY --1--20" .. .. FINE SANDY SILT, BROWNISH GRAY, MOIST, --2--SOFT -- --36" --3--SLIGHTLY SILTY CLAY, YELLOWISH BROWN HIGHLY MOTTLED ORANGE/GRAY, MOIST, DENSE. --4--BOTTOM OF HOLE AT 48" DEPTH GROUNDWATER AT 43" --5----6----7----8----9----10---- 11 --

#### SHEET 4 OF 6 WHITCHURCH ENGINEERING **Building Design • Civil & Structural Engineering EXPLORATION** 716 HARRIS STREET 610 9th STREET **TEST LOG** FORTUNA, CA 95540 **EUREKA, CA 95501** APN: 201-071-001 (707) 444-1420 (707) 725-6926 JOB NO: PROJECT NAME: ACG 2401 GLEN TOWNHOMES NEWBURG SAMPLE DATE: LOGGED BY: HOLE #: TH- 4 **HOLE TYPE:** TOR BACKHOE SOIL DESCRIPTION LAB DATA MOISTURE CONTENT (%) RELATIVE COMPACTION SOIL, COLOR, MOISTURE, CONSISTENCY, REMARKS, UNCONFINED COMPRESSIVE STRENGTH (TONS/SF) (FEET) DRY DENSITY (PCF) PLASTICITY INDEX WATER LEVEL(S) AND DATE(S) DEPTH ( (UNIFIED SOILS CLASSIFICATION SYSTEM) LIQUID LIMIT SOIL TYPE SLIGHTLY CLAYEY SILT, BLACK, MOIST, SOFT 3,0 --1--CLAYEY SILT, BLACK, SLIGHT YELOW, 20" MOIST, MEDIUM DENSITY SLIGHTLY FINE SANDY SLIGHTLY SILTY CLAY, HIGHLY MOTTLED GRAV/BRIGHT ORANGE, --2--30 --3--38" BOTTOM OF HOLE AT 38" BELOW GRADE GROUNDWATER AT 38" DEDTH --4----5----6----8----9----10----11--

#### SHEET 5 OF 6 WHITCHURCH ENGINEERING **Building Design • Civil & Structural Engineering EXPLORATION** 610 9th STREET 716 HARRIS STREET **TEST LOG** FORTUNA, CA 95540 **EUREKA, CA 95501** APN: 201-071-001 (707) 725-6926 (707) 444-1420 JOB NO: PROJECT NAME: ACG 2401 GLEN TOWNHOMES NEWBURG HOLE #: TH- 5 SAMPLE DATE: LOGGED BY: HOLE TYPE: TOR 3-21-24 BACKHOE SOIL DESCRIPTION LAB DATA MOISTURE CONTENT (%) RELATIVE COMPACTION SOIL, COLOR, MOISTURE, CONSISTENCY, REMARKS, UNCOMPINED COMPRESSIVE STRENGTH (TONS/SF) **JEPTH (FEET) ORY DENSITY (PCF)** PLASTICITY INDEX WATER LEVEL(S) AND DATE(S) LIQUID LIMIT (UNIFIED SOILS CLASSIFICATION SYSTEM) SLIGHTLY CLAYEY SILT, BLACK, MOIST, SOFT/MEDIUM DENSITY --1----2--32" SILTY CLAY SLIGHTLY ORANGISH --3--YELLOW, MOTTLED BRIGHT RED/GRAY/ ORANGE, MOIST, DENSE 48" --4--BOTTOM OF HOLE @ 48" GROUNDWATER @ 3 6" DEPTH --5----6----7----8----9--

-- 10 --

--11--

#### SHEET 6 OF 6 WHITCHURCH ENGINEERING Building Design . Civil & Structural Engineering **EXPLORATION** 610 9th STREET 716 HARRIS STREET **TEST LOG** FORTUNA, CA 95540 **EUREKA, CA 95501** APN: 201-071-001 (707) 725-6926 (707) 444-1420 JOB NO: PROJECT NAME: A C G 2401 GLEN TOWNHOMES NEWBURG SAMPLE DATE: HOLE #: TH- 6 LOGGED BY: HOLE TYPE: TOR 3-21-24 BACKHOE SOIL DESCRIPTION LAB DATA MOISTURE CONTENT (%) RELATIVE COMPACTION SOIL, COLOR, MOISTURE, CONSISTENCY, REMARKS, UNCONFINED COMPRESSIVE STRENGTH (TONS/SF) DEPTH (FEET) DRY DENSITY (PCF) PLASTICITY INDEX WATER LEVEL(S) AND DATE(S) LIQUID LIMIT (UNIFIED SOILS CLASSIFICATION SYSTEM) SOIL TYPE SLIGHTLY CLAYET SILT, BLACK, MOIST, SOFF/MEDIUM DENSITY --1--22" 1.75 SILTY CLAY SLIGHTLY ORANGISH YELLOW --2--MOTTLED BRIGHT REDIGRAME/GRAY MOIST, DENSE --3--40" BOTTOM OF HOLE @ 40". GROUNDWATER @ 34" DEPTH --4----5----6----7----8----9--

-- 10 --

-- 11 ---



# **Biological Resources Assessment**

1569 Newburg Road (APN: 201-071-001)

## Prepared by:

Kyle Wear Botanical Consultant wearkyle@gmail.com (707) 601-1725

Prepared for:

ACGC, Inc. 217 E. Street Eureka, CA 95501

Date:

March 2024

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- A. Site Plan
- B. Special Status Plant Scoping List
- C. Special Status Wildlife Scoping List
- D. Special Status Natural Community Scoping List

#### **SUMMARY**

This report was prepared for 1569 Newburg Road (APN: 303-270-028) to provide information on biological resources needed to complete the environmental review of the project. The project includes construction of 26 townhouses and associated parking and other amenities. Drainage will be accommodated with bioswales and, if needed, the city stormwater system.

The parcel is a mix of native and non-native herbaceous and woody vegetation and includes a wetland with connectivity to Rohner Creek. There is low potential for plants that would warrant protection under CEQA outside the wetland boundary. The wetland includes Slough sedge - Water-parsley - Small-fruited bulrush marsh, a sensitive natural community. The wetland and upland area, are habitat for northern red-legged frog (*Rana aurora*) and the trees and shrubs provide nesting habitat for migratory birds.

A reduced wetland setback is proposed from 50 to 25 feet to accommodate the planned development. In this case, the reduced setback is appropriate and will maintain the natural processes and habitat quality of the wetland.

Pre-construction surveys are recommended for northern red-legged frogs and nesting migratory birds if the vegetation clearing is done during the nesting season.

#### 1. INTRODUCTION

This biological assessment was conducted at 1569 Newburg Road (APN: 303-270-028) to collect information on biological resources required to complete environmental review of the project. This report addresses potential impacts to special status plants, sensitive natural communities, special status wildlife, and wetlands identified in the January 2024 wetland delineation.

The proposed development includes construction of 26 one-to-three-bedroom townhouses. The project also includes parking, a playground, a BBQ area, and community garden. The project will include native landscaping. Drainage from the site will be controlled with bioswales.

#### 2. BACKGROUND

#### 2.1. Special Status Plants

Special status plants include those listed as rare, threatened, or endangered under the federal Endangered Species Act (ESA), the California Endangered Species Act (CESA), and those with considered to meet the criteria of rare or endangered under California Environmental Quality Act (CEQA) Guideline §15380 (d). In practice, plants with CRPRs of 1A, 1B, 2A, and 2B are considered to meet the criteria. Plants with CRPRs of 3 and 4 are generally not considered to meet the criteria or warrant special consideration unless there are special attributes of the population.

#### 2.2. Special Status Natural Communities

Special status natural communities are communities with limited distribution that may be vulnerable to environmental impacts. Updated information on California natural communities, including rarity rankings, is provided in *A Manual of California Vegetation Online Edition* (CNPS 2023a). Natural communities with G or S ranks of 3 or lower are considered sensitive by California Department of Fish and Wildlife (CDFW).

#### 2.3. Special Status Wildlife

Special status wildlife includes those listed or proposed for listing under the ESA and/or the CESA. CDFW Species of Special Concern (SSC), Fully Protected (FP), Watch List (WL), birds protected by the MBTA, Western Bat Working Group Priority Species, and other species with local or biological significance are also given special consideration under CEQA.

#### 3. ENVIRONMENTAL SETTING

#### 3.1. Project Location

The parcel is located at 1569 Newburg Road in Fortuna (Section 2, T2N, R1W) in Humboldt County (Figure 1).

#### 3.2. Soil, Topography, and Hydrology

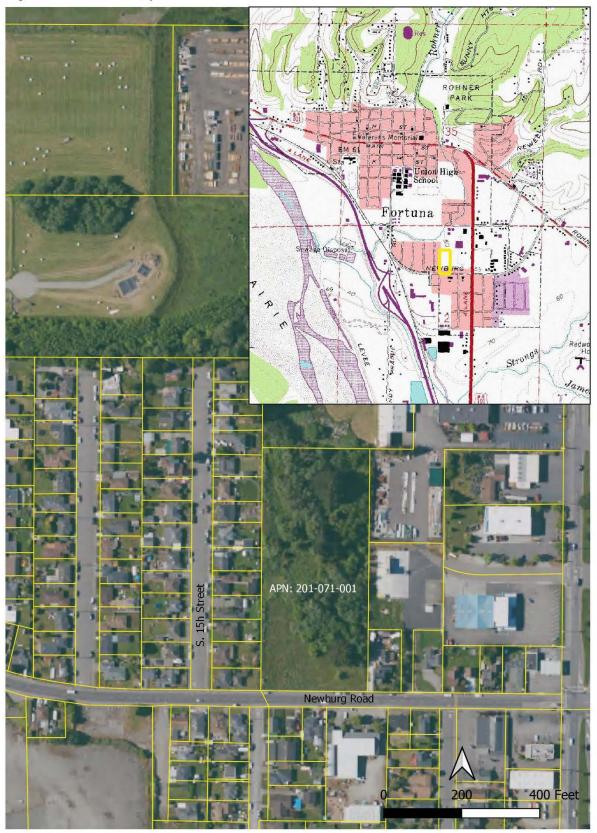
The soil mapped on the parcel is Urban land-Friendlycity association (United States Department of Agriculture, Natural Resource Conservation Service (USDA, NRCS, 2024). The soil is composed of alluvium derived from metamorphic and sedimentary rock.

The parcel is on a relatively flat terrace at approximately 50 feet above sea level. There is a delineated wetland associated with the drop in elevation to the northwest toward Rohner Creek.

#### 3.3. Vegetation

The open grassy area along Newburg Road is composed of non-native grasses and other herbaceous vegetation including tall fescue (*Festuca arundinacea*), Queen Anne's lace (*Daucus carota*), vetch (*Vicia sativa*), clovers (*Trifolium* spp.), dandelion (*Taraxacum officinale*), English plantain (*Plantago lanceolata*), and rough cat's-ear (*Hypochaeris radicata*). The woody vegetation is generally a mix of native and non-native trees, shrubs, and brambles, including spruce (*Picea sitchensis*), redwood (*Sequoia sempervirens*), Monterey cypress (*Hesperocyparis macrocarpa*), Monterey pine (*Pinus radiata*), red alder (*Alnus rubra*), willows (*Salix* spp.), red elderberry (*Sambucus racemosa* var. *racemosa* ), twinberry (*Lonicera involucrata* var. *ledebourii*), English holly (*Ilex aquifolium*), English ivy (*Hederal helix*), cotoneaster (*Cotoneaster spp.*), California blackberry (*Rubus ursinus*), and Himalayan blackberry (*Rubus armeniacus*). Portions of the wetland include stands of willows (*Salix lasiolepis* & *S. lasiandara* ssp. *lasiandra*). Other plants in the wetland include common rush (*Juncus effusus*) and Pacific water-parsley (*Oenanthe sarmentosa*).

Figure 1. Location Map.



#### 4. METHODS

#### 4.1. Scoping

Lists of special status plants (Appendix A) and wildlife (Appendix B) with documented occurances were generated by consulting (Fields Landing 9 quadrangle search) the *California Natural Diversity Database* (CDFW 2024a, 2024b, 2024c) and the CNPS *Inventory of Rare and Endangered Plants* (CNPS 2024b). A list of special status natural communities that occur in Northern California queried from *A Manual of California Vegetation Online Edition* (CNPS 2024a) is provided in Appendix C.

#### 4.2. Site Visits

The assessment was conducted on January 5 & 7, 2024 by Kyle Wear. Mr. Wear has an M.A. in Biology and over 25 years of experience conducting botanical surveys, wetland delineations, and biological assessments in northern California.

#### 5. RESULTS AND DISCUSSION

#### 5.1. Special Status Plants

The parcel has relatively low potential for special status plants. The site appears to have a history of disturbance and includes a mix of native and non-native plants as described in Section 3.3. Most of the special status plants on the scoping list occur in coastal dunes, salt marshes, along streams, and more natural coniferous forests and grasslands. Except for bristle-stalked sedge (*Carex leptalea*), and potentially other rare sedges that could occur in the wetland, no other plants listed under the ESA, CESA, or plants with CRPRs of 1 or 2 were considered to have at least moderate potential to occur on the parcel. Several plants with CRPRs of 4 on the scoping list have more potential, but these taxa are relatively common in Humboldt County and would not warrant special consideration under CEQA Guideline §15380 (d).

#### 5.2. Special Status Natural Communities

The vegetation in the open parts of the wetland is generally consistent with Slough sedge - Water-parsley - Small-fruited bulrush marsh (*Carex obnupta - Oenanthe sarmentosa - Scirpus microcarpus* Herbaceous Alliance), G4 S3. This community is considered special status because it has a S Rank of 3 and because it is wetland. The stands of willow are generally consistent with Arroyo willow thickets (*Salix lasiolepis* Shrubland Alliance), G4 S4.

#### 5.3. Special Status Wildlife

The wetland is potential habitat for northern red-legged frog (Rana aurora), which could also use the upland areas on the parcel. There is also potential nesting habitat for birds protected by the MBTA in the trees and shrubs in the wetland and upland habitat.

#### 6. REDUCED WETLAND BUFFER ANALYSIS

The City of Fortuna requires a 50-foot buffer from wetlands unless it can be demonstrated a smaller setback will not impact the wetland. The proposed project proposes to reduce the wetland buffer from 50 to 25 feet.

The parcel is relatively flat, and the drainage will be accommodated by bioswales and, if needed, the city stormwater system during high rainfall events. Thus, there is minimal risk of erosion or runoff from the development discharging into the wetland.

The wetland is influenced primarily by groundwater that discharges in the lower topographic swale-like area on the parcel and flows to the north. The water table should not be affected by the adjacent upland development.

Slough sedge - Water-parsley - Small-fruited bulrush marsh community is within the wetland and does not occur in the setback and will not be impacted by the adjacent development.

Because the parcel is within a mostly developed area with a significant baseline of nearby human activity and noise, the wetland is likely used predominantly by relatively common mammals and birds accustomed to residential areas and nearby human disturbance.

Although the wetland boundary beyond the property to the north was not mapped, it is assumed it is connected to Rohner Creek. This connection of the wetland and associated vegetation to habitat along the creek will be maintained.

Thus, the reduced 25-foot buffer will be sufficient to maintain the natural processes and habitat quality of the wetland.

#### 7. IMPACT ASSESSMENT

Impacts will include clearing a mix of native and non-native shrubs and trees on a parcel that has a history of human disturbance that is surrounded on three sides by developed and ruderal areas. The project has potential to impact birds protected by the MBTA and northern redlegged (*Rana aurora*). The reduced wetland setback also increases the potential for impacts during construction from runoff sediment and pollutants. Provided the mitigation recommendations below are followed the project will have a less than significant impact to sensitive biological resources or the wetland.

#### 8. RECOMMENDATIONS

1. Silt fencing and orange construction fencing should be placed between the development and the 25-foot wetland buffer during construction. This will provide a visual barrier between the development and wetland buffer and reduce potential delivery of

sediment from bare soil during construction and pollutants from equipment of construction.

- The wetland buffer should remain completely undisturbed during construction. There
  should be no parking equipment or storage of material in the wetland buffer.
  Construction personnel should be made aware of the buffer and restrictions within it.
- 3. Pre-construction migratory bird surveys should be conducted prior to removal of trees or other major vegetation clearing if it is done during the nesting season, which is from February through August. The surveys are not necessary if the work occurs outside the nesting season.
- 4. Pre-construction Northern red-legged surveys should be conducted by a qualified wildlife biologist prior to major vegetation removal. The survey should occur regardless of the time of year the work is done.

#### 9. REFERENCES

Baldwin, B. C., D. H. Goldman, D. J. Keil, R. Patterson, and T.J. Roasatti. Eds. 2012. *The Jepson Manual, Vascular Plants of California, Second Edition*. University of California Press. Berkeley, CA.

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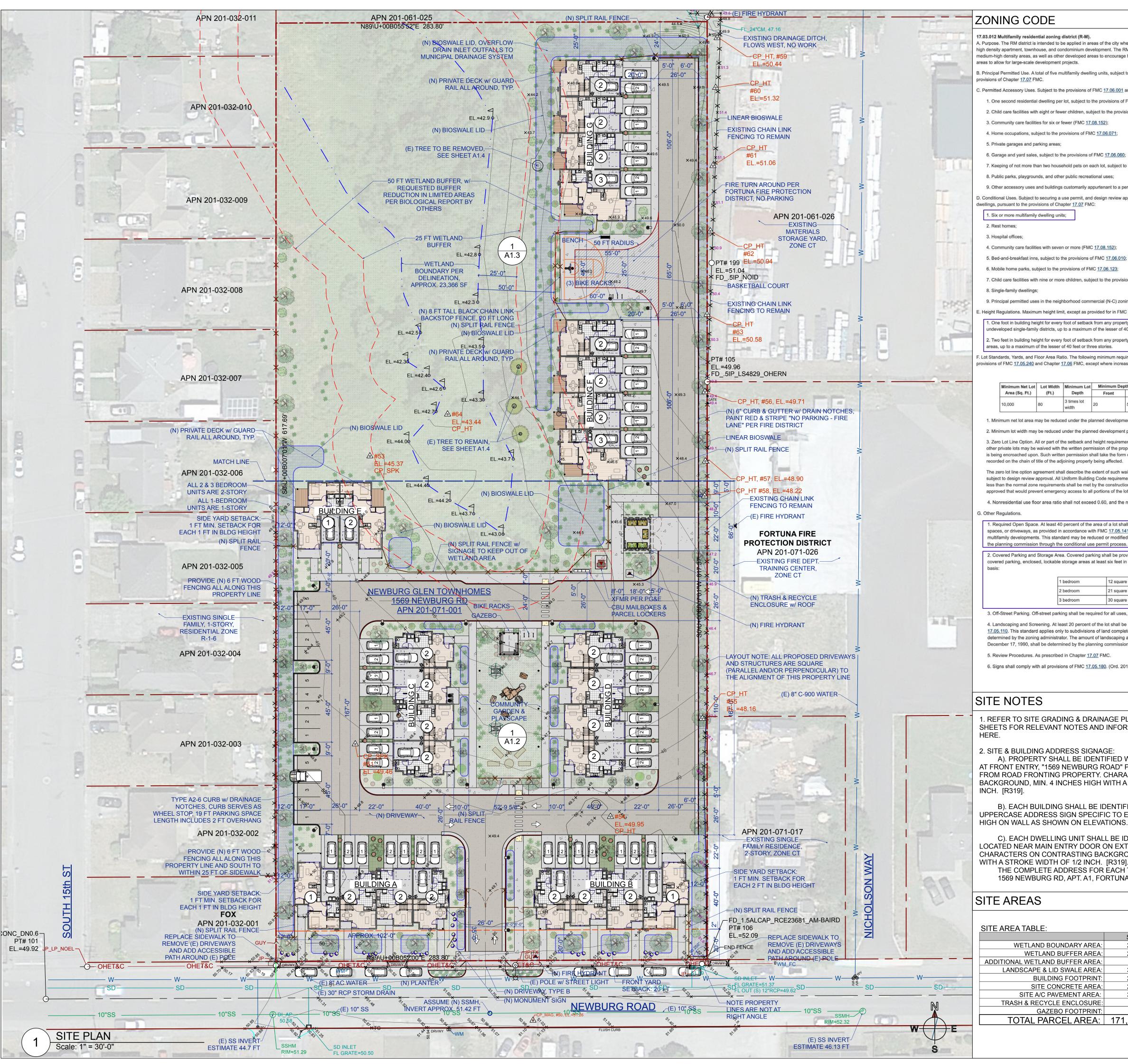
CDFW 2024b CNDDB *Rare Find 5*. Version 5.2.14. https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx

California Native Plant Society (CNPS). 2024a. *A Manual of California Vegetation Online Edition*. https://vegetation.cnps.org/

CNPS. 2024b. Inventory of Rare and Endangered Plants. http://www.rareplants.cnps.org

USDA, NRCS. 2024. Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov

# APPENDIX A Site Plan



# ZONING CODE

17.03.012 Multifamily residential zoning district (R-M).

A. Purpose. The RM district is intended to be applied in areas of the city where it is reasonable to permit and protect mediumhigh density apartment, townhouse, and condominium development. The RM district is intended to be applied in existing medium-high density areas, as well as other developed areas to encourage higher-density development and in undeveloped areas to allow for large-scale development projects.

3. Principal Permitted Use. A total of five multifamily dwelling units, subject to design review approval, pursuant to the provisions of Chapter 17.07 FMC.

C. Permitted Accessory Uses. Subject to the provisions of FMC 17.06.001 and 17.06.002:

- 1. One second residential dwelling per lot, subject to the provisions of FMC 17.06.183;
- Child care facilities with eight or fewer children, subject to the provisions of FMC 17.06.020;
- 3. Community care facilities for six or fewer (FMC 17.08.152);
- 4. Home occupations, subject to the provisions of FMC 17.06.071;
- Private garages and parking areas;
- 7. Keeping of not more than two household pets on each lot, subject to the provisions of FMC 17.06.006
- 8. Public parks, playgrounds, and other public recreational uses;
- 9. Other accessory uses and buildings customarily appurtenant to a permitted use.

D. Conditional Uses. Subject to securing a use permit, and design review approval with the exception of single-family dwellings, pursuant to the provisions of Chapter 17.07 FMC:

1. Six or more multifamily dwelling units;

- Community care facilities with seven or more (FMC <u>17.08.152</u>);
- Bed-and-breakfast inns, subject to the provisions of FMC <u>17.06.010</u>;
- 7. Child care facilities with nine or more children, subject to the provisions of FMC 17.06.020;
- Single-family dwellings;
- 9. Principal permitted uses in the neighborhood commercial (N-C) zoning district: (FMC 17.03.020).
- . Height Regulations. Maximum height limit, except as provided for in FMC 17.05.070:
- 1. One foot in building height for every foot of setback from any property line adjacent to developed single-family areas or eveloped single-family districts, up to a maximum of the lesser of 40 feet or three stories;
- . Two feet in building height for every foot of setback from any property line adjacent to developed two-story single-family
- areas, up to a maximum of the lesser of 40 feet or three stories. F. Lot Standards, Yards, and Floor Area Ratio. The following minimum requirements shall be observed, subject to the

provisions of FMC 17.05.240 and Chapter 17.06 FMC, except where increased for conditional uses:

Minimum Net Lot	Lot Width	Minimum Lot	Minimum Depth or Width in Feet of Required Y			
Area (Sq. Ft.)	(Ft.)	Depth	Front	Side	Rear	Public
10.000	80	3 times lot	20	5	10	10

- 1. Minimum net lot area may be reduced under the planned development provisions in FMC 17.07.080;
- 2. Minimum lot width may be reduced under the planned development provisions in FMC 17.07.080;
- 3. Zero Lot Line Option, All or part of the setback and height requirements of interior yards along property lines adjoining other private lots may be waived with the written permission of the property owner of the private lot adjoining the yard that is being encroached upon. Such written permission shall take the form of a zero lot line option agreement that shall be recorded on the chain of title of the adjoining property being affected.

The zero lot line option agreement shall describe the extent of such waiver. All construction utilizing this option shall be subject to design review approval. All Uniform Building Code requirements resulting from the use of an interior setback of less than the normal zone requirements shall be met by the construction. In no case shall a zero lot line option be approved that would prevent emergency access to all portions of the lot:

4. Nonresidential use floor area ratio shall not exceed 0.60, and the mixed-use floor area ratio shall not exceed 0.80.

1. Required Open Space. At least 40 percent of the area of a lot shall be open space, not covered by buildings, parking spaces, or driveways, as provided in accordance with FMC 17.05.141. This standard shall apply to all residential multifamily developments. This standard may be reduced or modified for any other use in the RM zone, as approved b the planning commission through the conditional use permit process.

2. Covered Parking and Storage Area. Covered parking shall be provided in accordance with FMC 17.05.140. In lieu of covered parking, enclosed, lockable storage areas at least six feet in height may be provided on the following per unit

1 bedroom	12 square feet
2 bedroom	21 square feet
hedroom	30 square fee

3. Off-Street Parking. Off-street parking shall be required for all uses, as provided in accordance with FMC 17.05.140. 4. Landscaping and Screening. At least 20 percent of the lot shall be landscaped and screened, as prescribed in FM0 17.05.110. This standard applies only to subdivisions of land completed after December 17, 1990, or to larger lots as determined by the zoning administrator. The amount of landscaping and screening for smaller lots created prior to

5. Review Procedures. As prescribed in Chapter 17.07 FMC.

6. Signs shall comply with all provisions of FMC 17.05.180. (Ord. 2014-712 § 1 (Exh. A); Ord. 2011-692 § 2 (Exh. A)).

# SITE NOTES

I. REFER TO SITE GRADING & DRAINAGE PLAN AND OTHER DRAWING SHEETS FOR RELEVANT NOTES AND INFORMATION NOT REPEATED

2. SITE & BUILDING ADDRESS SIGNAGE:

A). PROPERTY SHALL BE IDENTIFIED WITH STREET ADDRESS SIGN AT FRONT ENTRY, "1569 NEWBURG ROAD" PLAINLY LEGIBLE AND VISIBLE FROM ROAD FRONTING PROPERTY. CHARACTERS ON CONTRASTING BACKGROUND, MIN. 4 INCHES HIGH WITH A STROKE WIDTH OF 1/2

B). EACH BUILDING SHALL BE IDENTIFIED WITH 10" TALL (MIN.) UPPERCASE ADDRESS SIGN SPECIFIC TO EACH BUILDING, LOCATED HIGH ON WALL AS SHOWN ON ELEVATIONS.

C). EACH DWELLING UNIT SHALL BE IDENTIFIED WITH UNIT # SIGN, LOCATED NEAR MAIN ENTRY DOOR ON EXTERIOR WALL. THESE CHARACTERS ON CONTRASTING BACKGROUND, MIN. 4 INCHES HIGH WITH A STROKE WIDTH OF 1/2 INCH. [R319].

THE COMPLETE ADDRESS FOR EACH TOWNHOME IS AS FOLLOWS: 1569 NEWBURG RD, APT. A1, FORTUNA, CA 95540

# SITE AREAS

SITE AREA TABLE:

OTTE / IT INDEE.			
	SF	ACRES	% OF SITE
WETLAND BOUNDARY AREA:	23,366 SF	0.54 AC	13.6%
WETLAND BUFFER AREA:	28,180 SF	0.65 AC	16.4%
ADDITIONAL WETLAND BUFFER AREA:	4,500 SF	0.10 AC	2.6%
LANDSCAPE & LID SWALE AREA:	34,649 SF	0.80 AC	20.2%
BUILDING FOOTPRINT:	27,800 SF	0.64 AC	16.2%
SITE CONCRETE AREA:	22,160 SF	0.51 AC	12.9%
SITE A/C PAVEMENT AREA:	30,070 SF	0.69 AC	17.6%
TRASH & RECYCLE ENCLOSURE:	400 SF	0.01 AC	0.2%
GAZEBO FOOTPRINT:	200 SF	0.00 AC	0.1%
TOTAL PARCEL AREA:	171,325 SF	3.93 AC	100.0%



# **PROJECT INFO**

#### PROJECT DESCRIPTION

CONSTRUCTION OF A NEW 26 UNIT FAMILY HOUSING COMMUNITY IN FORTUNA, CA. EMPHASIS IS ON PROVIDING PRIVATE GARAGES, PROTECTION OF WETLANDS, CONNECTIVITY, ACCESS TO OUTDOOR RECREATION, AND POSITIVE COMMUNITY ACTIVITIES.

PARCEL INFO

PROJECT LOCATION: 1569 NEWBURG RD, FORTUNA, CA 95540 APN & ADDRESS: 201-071-001

TOTAL GROSS PARCEL AREA: 3.91 ACRES (171,325 SF)

JURISDICTION: CITY OF FORTUNA

FIRE DISTRICT: FORTUNA FIRE PROTECTION DISTRICT

**ZONING:** DENSITY (SIMPLE): 26 UNITS ÷ 2.41 ACRES = 10.8 UNITS / ACRE

SETBACKS: FRONT: 20 FT, REAR: 10 FT, INT. SIDE: 5 FT, AND 1:1 HEIGHT SETBACK AT EXISTING SINGLE STORY RESIDENTIAL, AND 1:2 HEIGHT SETBACK AT EXISTING TWO STORY RESIDENTIAL DEVELOPMENT.

GROUND COVERAGE: NONE SPECIFIED STRUCTURE HEIGHT: 45 FT MAX., OK

**AMENITIES** 

SITE INCLUDES, PLAYGROUND, BBQ AREA, NATIVE LANDSCAPING, AND COMMUNITY GARDEN AREA.

### **CONSTRUCTION TYPE**

2-STORY WOOD FRAME, TYPE V-B, 1-HR RATED BETWEEN UNITS & GARAGES. CONCRETE FOUNDATION SYSTEM PER STRUCTURAL ENGINEERING AND GEOTECH. TOWNHOUSES PER 2022 CA RESIDENTIAL BUILDING CODE (CRC)

UNIT MIX

1-BED: 11% = 3 UNITS (1-STORY) 2-BED: 81% = 21 UNITS (2-STORY)

3-BED: 8% = 2 UNITS (2-STORY) TOTAL = 26 UNITS

INCLUDES ONE UNIT FOR ON-SITE MANAGER

# PARKING & ELECTRIC VEHICLES

TOTAL PARKING SPACES = APPROX. 89 (Incl. 26 One-car Garages) INCL. ACCESSIBLE AND ELECTRIC VEHICLE SPACES. ACCESSIBLE PARKING PER CBC CH.11B.

89 SPACES / 28 UNITS = 3.4 PARKING SPACES PER UNIT 2022 CAL-GREEN 4.106.4.2.2 EV-PARKING QUANTITIES:

1. EV CAPABLE: (10%) 9 SPACES

2. EV READY RECEPTACLES: (25%) 25 SPACES 3. EV CHARGERS INSTALLED: (5%) 5 SPACES

# **ACCESSIBILITY SUMMARY**

THE PROPOSED PROJECT INCLUDES (26) UNITS TOTAL. THE FOLLOWING ANALYSIS CONSIDERES REQUIREMENTS FOR MEETING THE MOST RESTRICTIVE REQUIRMENTS OF CALIFORNIA RESIDENTIAL CODE AND CALIFORNIA BUILDING

SINGLE-STORY UNITS:

(6) UNITS ARE SINGLE-STORY GROUND-FLOOR DWELLINGS, WHICH DEFINES THEM AS "COVERED MULTIFAMILY DWELLINGS" PER CBC 1102A.1. THESE UNITS SHALL BE ADAPTABLE AND ON ACCESSIBLE ROUTE PER CBC 1104A.1.

**MULTISTORY UNITS:** 

(20) UNITS WHITHIN THE PROJECT ARE MULTISTORY DWELLINGS WITH NO ELEVATOR PER CBC 1102A.3.

THEREFORE, (2) OF THESE MULTISTORY UNITS SHALL COMPLY WITH CBC 1102A.3: AT LEAST 10%, BUT NOT LESS THAN ONE, (10% OF 20 = 2.0) COMPLY WITH THE FOLLOWING REQUIREMENTS: 1. THE PRIMARY ENTRY TO THE DWELLING UNIT SHALL BE ON AN

ACCESSIBLE ROUTE. 2. AT LEAST ONE POWDER ROOM OR BATHROOM SHALL BE LOCATED ON

THE PRIMARY ENTRY LEVEL, SERVED BY AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH THE PROVISIONS IN DIVISION IV. ALL ROOMS OR SPACES LOCATED ON THE PRIMARY ENTRY LEVEL SHALL BE SERVED BY AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH THE

PROVISIONS IN DIVISION IV. ROOMS AND SPACES LOCATED ON THE PRIMARY ENTRY LEVEL AND SUBJECT TO THIS CHAPTER MAY INCLUDE BUT ARE NOT LIMITED TO KITCHENS, POWDER ROOMS, BATHROOMS, LIVING ROOMS, BEDROOMS OR HALLWAYS.

	SF	ACRES	% OF SITE
WETLAND BOUNDARY AREA:	23,366 SF	0.54 AC	13.6%
WETLAND BUFFER AREA:	28,180 SF	0.65 AC	16.4%
ADDITIONAL WETLAND BUFFER AREA:	4,500 SF	0.10 AC	2.6%
LANDSCAPE & LID SWALE AREA:	34,649 SF	0.80 AC	20.2%
BUILDING FOOTPRINT:	27,800 SF	0.64 AC	16.2%
SITE CONCRETE AREA:	22,160 SF	0.51 AC	12.9%
SITE A/C PAVEMENT AREA:	30,070 SF	0.69 AC	17.6%
TRASH & RECYCLE ENCLOSURE:	400 SF	0.01 AC	0.2%
GAZEBO FOOTPRINT:	200 SF	0.00 AC	0.1%

# SHEET INDEX

TITLE & OVERALL PROPOSED SITE PLAN

SITE PLAN ENLARGED SOUTH

SITE PLAN ENLARGED NORTH

A1.4

**EXISTING SITE PLAN** 

CONSTRUCTION PHASE WETLAND PROTECTION PLAN PRELIMINARY GRADING & DRAINAGE PLAN

FIRE ACCESS PLAN A1.7

SITE LIGHTING PLAN

PRELIMINARY LANDSCAPE PLAN

GARRETT **MCSORLEY** NOT FOR CONSTRUCTION C-33283 30 SEPT 2025

M<sup>c</sup> S O R L E

garrett.mcsorley@gmail.com

McKinleyville, CA 95519

PO Box 2472

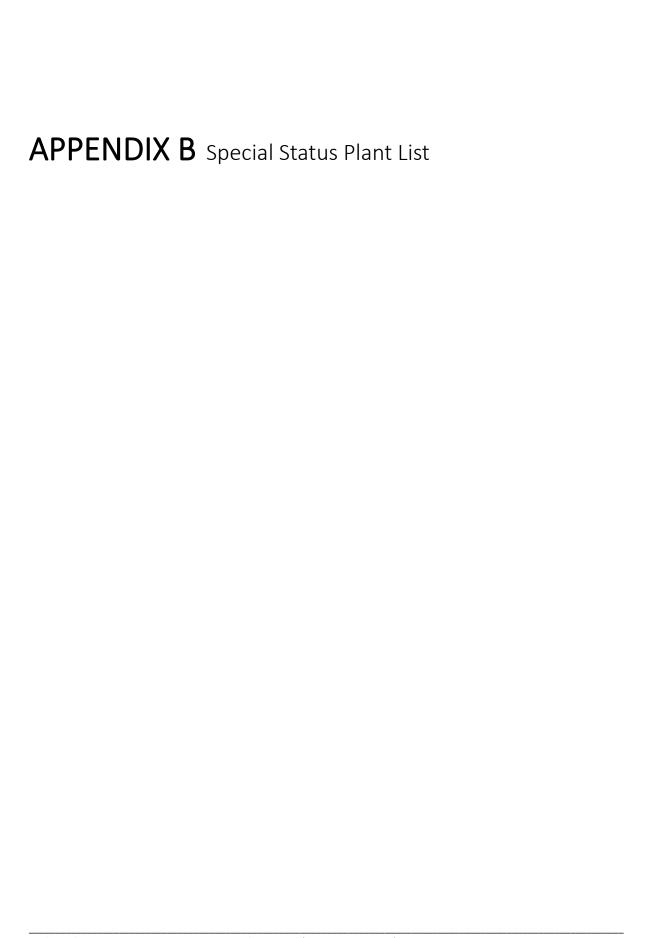
707.633.9283

**HUMBOLDT DEVELOPMENT** COMPANY, LLC 217 E STREET EUREKA, CA 95501 707-443-6000

**∞** ∐

PRE-APPLICATION SITE PLAN REVIEW SET

11 MAR 2024



Scientific Name Common Name	Listing Status	Blooming Period	Habitat	Potential to Occur on Parcel
Abronia umbellata var. breviflora	1B.1	Jun-Oct	Coastal dunes	None-no habitat
pink sand-verbena	16.1	Juli-Oct	Coastal dulles	None-no nabitat
Angelica lucida	4.2	Anr Con	Coastal bluff scrub, Coastal dunes,	None-no habitat
	4.2	Apr-Sep		None-no nabitat
sea-watch			Coastal scrub, Marshes and swamps	
	1		(coastal salt)	
Anomobryum julaceum	4.2		Broadleafed upland forest, Lower	None-no habitat
slender silver moss			montane coniferous forest, North	
			Coast coniferous forest-damp rock and	
			soil on outcrops, usually on roadcuts-	
			Roadsides (usually)	
Astragalus pycnostachyus var.	1B.2	(Apr)Jun-Oct	Coastal dunes (mesic), Coastal scrub,	None-no habitat
pycnostachyus			Marshes and swamps (coastal salt,	
coastal marsh milk-vetch			streamsides)	
Astragalus rattanii var. rattanii	4.3	Apr-Jul	Chaparral, Cismontane woodland,	None-no habitat
Rattan's milk-vetch			Lower montane coniferous forest-	
			Gravelly, Streambanks	
Cardamine angulata	2B.2	(Jan)Mar-Jul	Lower montane coniferous forest,	Unlikely-usually
seaside bittercress		(23.17.1.21.321	North Coast coniferous forest-	along streams
Seasine differences			wet areas-Streambanks	along streams
Carex leptalea	2B.2	Mar-Jul	Bogs and fens, Marshes and swamps,	High-wetland
bristle-stalked sedge	20.2	Iviai-Jui	Meadows and seeps (mesic)	Tilgii-wetianu
Carex lyngbyei	2B.2	Ans Aug		Unlikely-usually
, - ,	ZB.Z	Apr-Aug	Marshes and swamps (brackish,	
Lyngbye's sedge	40.2		freshwater)	brackish water
Castilleja ambigua var.	1B.2	Apr-Aug	Marshes and swamps (coastal salt)	None-no habitat
humboldtiensis				
Humboldt Bay owl's-clover				
Castilleja litoralis	2B.2	Jun	Coastal bluff scrub, Coastal dunes,	None-no habitat
Oregon coast paintbrush			Coastal scrub-Sandy	
Chloropyron maritimum ssp.	1B.2	Jun-Oct	Marshes and swamps (coastal salt)	None-no habitat
palustre				
Point Reyes salty bird's-beak				
Chrysosplenium glechomifolium	4.3	Feb-Jun	North Coast coniferous forest, Riparian	Moderate-maybe
Pacific golden saxifrage			forest-Roadsides (sometimes), Seeps	understory, closer to
-			(sometimes), Streambanks	wetland
Clarkia amoena ssp. whitneyi	1B.1	Jun-Aug	Coastal bluff scrub, Coastal scrub	None-no habitat
Whitney's farewell-to-spring			,	
Collomia tracyi	4.3	Jun-Jul	Broadleafed upland forest, Lower	None-no habitat
Tracy's collomia			montane coniferous forest-	
			Rocky, Serpentinite (sometimes)	
Downingia willamettensis	2B.2	Jun-Jul(Sep)	Cismontane woodland (lake margins),	Unlikely-no vernal
Cascade downingia	20.2	Juli-Jul(Jep)	Valley and foothill grassland (lake	pools, maybe
Cascade downingia				wetland margin
Erysimum menziesii	1D 1 CE EF	Mar San	margins), Vernal pools Coastal dunes	None-no habitat
Menzies' wallflower	1B.1, CE, FE	Mar-Sep	Coastal dulles	INDITE-110 Habitat
	20.2	Man Lun(1)	Cismontono was allered NAsselsons at	Halikalı verellerie
Erythronium oregonum	2B.2	Mar-Jun(Jul)	Cismontane woodland, Meadows and	Unlikely-usually in
giant fawn lily			seeps-Openings, Rocky, Serpentinite	rocky areas in oak
			(sometimes)	woodlands and
				coniferous forest,
				typically more inland
				habitat
Erythronium revolutum	2B.2	Mar-	Bogs and fens, Broadleafed upland	Unlikely-usually in
coast fawn lily		Jul(Aug)	forest, North Coast coniferous forest-	rocky areas in oak
			Mesic, Streambanks	woodlands and
				coniferous forest,

Scientific Name Common Name	Listing Status	Blooming Period	Habitat	Potential to Occur on Parcel
				typically more inland habitat
Fissidens pauperculus minute pocket moss	1B.2		North Coast coniferous forest (damp coastal soil)	Unlikely-usually more mesic forest
Gilia capitata ssp. pacifica Pacific gilia	1B.2	Apr-Aug	haparral (openings), Coastal bluff scrub, Coastal prairie, Valley and foothill grassland	None-no habitat
Gilia millefoliata dark-eyed gilia	1B.2	Apr-Jul	Coastal dunes	None-no habitat
Glehnia littoralis ssp. leiocarpa American glehnia	4.2	May-Aug	Coastal dunes	None-no habitat
Hemizonia congesta ssp. tracyi Tracy's tarplant	4.3	(Mar- Apr)May- Oct	Coastal prairie, Lower montane coniferous forest, North Coast coniferous forest-Openings, Serpentinite (sometimes)	None-no habitat
Hesperevax sparsiflora var. brevifolia short-leaved evax	1B.2	Mar-Jun	Coastal bluff scrub (sandy), Coastal dunes, Coastal prairie	None-no habitat
Hosackia gracilis harlequin lotus	4.2	Mar-Jul	Broadleafed upland forest, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps, Meadows and seeps, North Coast coniferous forest, Valley and foothill grassland-Wetlands-Roadsides	High-open areas, grassy areas
Lathyrus glandulosus sticky pea	4.3	Apr-Jun	Cismontane woodland	None-no habitat
Layia carnosa beach layia	1B.1, CE, FT	Mar-Jul	Coastal dunes, Coastal scrub (sandy)	None-no habitat
<i>Lilium kelloggii</i> Kellogg's lily	4.3	(Feb)May- Aug	Lower montane coniferous forest, North Coast coniferous forest- Openings, Roadsides	None-no habitat
Lilium occidentale western lily	1B.1, CE, FE	Jun-Jul	Bogs and fens, Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps (freshwater), North Coast coniferous forest (openings)	None-no habtat
Lilium rubescens redwood lily	4.2	(Mar)Apr- Aug(Sep)	Broadleafed upland forest, Chaparral, Lower montane coniferous forest, North Coast coniferous forest, Upper montane coniferous forest- Roadsides (sometimes), Serpentinite (sometimes)	Unlikely-no habitat
Listera cordata heart-leaved twayblade	4.2	Feb-Jul	Bogs and fens, Lower montane coniferous forest, North Coast coniferous forest	Moderate- understory
Lycopodium clavatum running-pine	4.1	Jun- Aug(Sep)	Lower montane coniferous forest (mesic), Marshes and swamps, North Coast coniferous forest (mesic)- Edges (often), Openings, Roadsides	Moderate- understory
Mitellastra caulescens leafy-stemmed mitrewort	4.2	(Mar)Apr- Oct	Broadleafed upland forest, Lower montane coniferous forest, Meadows and seeps, North Coast coniferous forest-Mesic, Roadsides (sometimes)	Moderate- understory around wetalnd
<i>Montia howellii</i> Howell's montia	2B.2	(Feb)Mar- May	Meadows and seeps, North Coast coniferous forest, Vernal pools-Roadsides (sometimes), Vernally Mesic	Unlikely-usually more open regularly disturbed wet areas

Scientific Name	Listing	Blooming		Potential to Occur
Common Name	Status	Period	Habitat	on Parcel
Oenothera wolfii Wolf's evening-primrose	1B.1	May-Oct	Coastal bluff scrub, Coastal dunes, Coastal prairie, Lower montane coniferous forest-Mesic (usually), Sandy	Unlikely-not typical habitat
Packera bolanderi var. bolanderi seacoast ragwort	2B.2	(Jan- Apr)May- Jul(Aug)	Coastal scrub, North Coast coniferous forest-Roadsides (sometimes)	Unlikely-not typical habitat
Piperia candida white-flowered rein orchid	1B.2	(Mar- Apr)May- Sep	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest-Serpentinite (sometimes)	Unlikely-not typical habitat
Pityopus californicus California pinefoot	4.2	(Mar- Apr)May- Aug	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest, Upper montane coniferous forest-Mesic	Unlikely-not typical habitat
Pleuropogon refractus nodding semaphore grass	4.2	(Feb- Mar)Apr- Aug	Lower montane coniferous forest, Meadows and seeps, North Coast coniferous forest, Riparian forest- Mesic	Moderate-around wetland margin
Polemonium carneum Oregon polemonium	2B.2	Apr-Sep	Coastal prairie, Coastal scrub, Lower montane coniferous forest	Unlikely-not typical habitat
Puccinellia pumila dwarf alkali grass	2B.2	Jul	Marshes and swamps (coastal salt)	None-no habitat
Ribes laxiflorum trailing black currant	4.3	Mar- Jul(Aug)	North Coast coniferous forest- Roadsides (sometimes)	Moderate-open areas, edges, around wetland
Ribes roezlii var. amictum hoary gooseberry	4.3	Mar-Apr	Broadleafed upland forest, Cismontane woodland, Lower montane coniferous forest, Upper montane coniferous forest	Moderate-maybe in shrubby areas and edges
Sidalcea malachroides maple-leaved checkerbloom	4.2	(Mar)Apr- Aug	Broadleafed upland forest, Coastal prairie, Coastal scrub, North Coast coniferous forest, Riparian woodland-Disturbed areas (often)	High-scrub edges, wetland margin
Sidalcea malviflora ssp. patula Siskiyou checkerbloom	1B.2	(Mar- Apr)May- Aug	Coastal bluff scrub, Coastal prairie, North Coast coniferous forest- often roadcuts- Roadsides (often)	Unlikely-marginal habitat at best in grassy area
Sidalcea oregana ssp. eximia coast checkerbloom	1B.2	Jun-Aug	Lower montane coniferous forest, Meadows and seeps, North Coast coniferous forest	Unlikely-marginal habitat at best in grassy area
Sisyrinchium hitchcockii Hitchcock's blue-eyed grass	1B.1	Jun	Cismontane woodland (openings), Valley and foothill grassland	Unlikely-not typical habitat
Spergularia canadensis var. occidentalis western sand-spurrey	2B.1	Jun-Aug	Marshes and swamps (coastal salt)	None-no habitat
Tiarella trifoliata var. trifoliata trifoliate laceflower	3.2	(May)Jun- Aug	Lower montane coniferous forest, North Coast coniferous forest- moist shady banks-Edges, Streambanks	Unlikely-no typical habitat
<i>Usnea longissima</i> Methuselah's beard lichen	4.2		Broadleafed upland forest, North Coast coniferous forest-On tree branches; usually on old growth hardwoods and conifers	Unlikely-maybe tree branches

#### SPECIAL STATUS PLANT LISTING STATUS

**Endangered Species Act (ESA)** 

**FE**: Federally Endangered

FT: Federally Threated FR: Federally Rare

California Endangered Species Act (CESA)

CE: California Endangered

CT: California Threated

CR: California Rare

#### California Rare Plant Ranks

1A: Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere

1B: Plants Rare, Threatened, or Endangered in California and Elsewhere

2A: Plants Presumed Extirpated in California, But Common Elsewhere

2B: California Rare Plant Rank 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

3. Review List: Plants about which more information is needed.

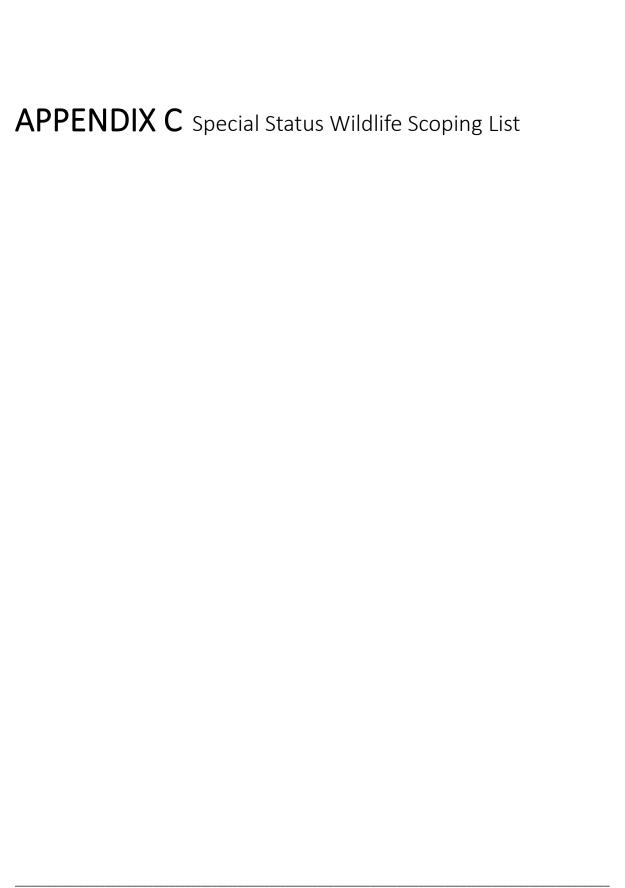
4. Watch List: Plants of limited distribution

#### Threat Ranks

0.1-Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

0.2-Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

0.3-Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)



Scientific Name Common Name	Federal	State	CDFW	Habitat	Potential to Occur in Project Area
Amphibians					
Ascaphus truei Pacific tailed frog	-	-	SSC	Occurs in montane hardwood-conifer, redwood, Douglas-fir & ponderosa pine habitats. Restricted to perennial montane streams. Tadpoles require water below 15 degrees C.	None-no habitat
Rana aurora northern red-legged frog	-	-	SSC	Humid forests, woodlands, grasslands, and streamsides in northwestern California, usually near dense riparian cover- Generally near permanent water, but can be found far from water, in damp woods and meadows, during non-breeding season.	High-in wetland and adjacent upland
Rana boylii pop. 1 foothill yellow-legged frog - north coast DPS	-	-	SSC	Partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats.  Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	None-no habitat
Rhyacotriton variegatus southern torrent salamander	-	-	SSC	Coastal redwood, Douglas-fir, mixed conifer, montane riparian, and montane hardwood-conifer habitats. Old growth forest. Cold, well-shaded, permanent streams and seepages, or within splash zone or on moss-covered rocks within trickling water.	None-no habitat
Birds				·	
Accipiter cooperii Coopers hawk	-	-	WL	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	Unlikely-no nesting habitat
Accipiter gentilis northern goshawk	-	-	SSC	Within, and in vicinity of, coniferous forest. Uses old nests, and maintains alternate sites. Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	None-no habitat
Accipiter striatus sharp-shinned hawk	-	-	WL	Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers riparian areas- North-facing slopes with plucking perches are critical requirements. Nests usually within 275 ft of water.	Unlikely-no nesting habitat
Agelaius tricolor tricolored blackbird	-	СТ	SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	Unlikely-needs more permanent water
Ammodramus savannarum grasshopper sparrow	-	-	SSC	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	Unlikely-not typical habitat
Aquila chrysaetos golden eagle	-	-	FP   WL	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Unlikely-no nesting habitat

n Project Area  Moderate-no nearby rookeries, could forage in
nearby rookeries,
sould forage in
Louid for age in
wetland and open
grassy area
Moderate-no
nearby rookeries,
could forage in
wetland and open
grassy area
None-no habitat
None-no habitat
None-no habitat
Jnlikely-not typical
nabitat
Jnlikely-usually
arger areas of
riparian vegetation
along rivers
210118 111013
Jnlikely-potential
winter visitor, rarely
observed in
Humboldt County
,
Moderate-no
nearby rookeries,
could forage in
wetland and open
grassy area
Jnlikely-not typical
nabitat
Jnlikely-rarely seen
n Humboldt County,
ootential occasional
visitor, willow
TOWER DATE OF THE DATE OF THE PROPERTY OF THE

Scientific Name Common Name	Federal	State	CDFW	Habitat	Potential to Occur in Project Area
				Low, exposed branches are used for singing posts/hunting perches.	thickets on site are likely no extensive enough
Falco peregrinus anatum American peregrine falcon	-	-	-	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Unlikely-no nesting habitat
Haliaeetus leucocephalus bald eagle		CE	FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	Unlikely-no nesting habitat
Icteria virens yellow-breasted chat	-	-	SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses- Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.	Unlikely-uncommon summer visitor
Nannopterum auritum double-crested cormorant	-	-	WL	Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state- Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	None-no habitat
Nycticorax nycticorax black-crowned night heron	-	-	-	Colonial nester, usually in trees, occasionally in tule patches- Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots	Unlikely-usually in areas with more permanent water
Pandion haliaetus osprey	-	-	WL	Ocean shore, bays, freshwater lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	Unlikely-no nesting habitat
Pelecanus occidentalis californicus California brown pelican	-	-	-	Colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators. Roosts communally.	None-no habitat
Poecile atricapillus black-capped chickadee	-	-	WL	An uncommon resident restricted to Del Norte, Humboldt, and Siskiyou cos. in northern California. Occurs locally in montane riparian habitat from coast into mountainous areas inland; also found locally in the more arid Shasta Valley, Siskiyou Co. Occasionally wanders in winter	Unlikely-maybe uncommon visitor
Progne subis purple martin	-	-	SSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly; also in human-made structures. Nest often located in tall, isolated tree/snag.	Unlikely-not typical habitat
Riparia riparia bank swallow	-	СТ	-	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert-Requires vertical banks/cliffs with finetextured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Unlikely-no nesting habitat

Scientific Name					Potential to Occur
Common Name	Federal	State	CDFW	Habitat	in Project Area
Setophaga petechia	-	-	SSC	Riparian plant associations in close proximity	Moderate-likely in
yellow warbler				to water. Also nests in montane shrubbery in	larger expanses of
				open conifer forests in Cascades and Sierra	willows and riparian
				Nevada. Frequently found nesting and foraging	veg., maybe some
				in willow shrubs and thickets, and in other	potential in willows
				riparian plants including cottonwoods,	and other brush
				sycamores, ash, and alders.	around wetland
Strix occidentalis	FT	СТ	-	Often old growth, but also occurs in younger	Unlikely-small stand
caurina				stand with suitable nest trees and high density	of young tress in not
Northern Spotted Owl				of woodrats.	suitable habitat,
					need more
					continuous and
					mature coniferous
					forest
Fish					
Acipenser medirostris	FT	-	-	Rivers, bays, estuaries	None-no habitat
рор. 1					
green sturgeon -					
southern DPS					
Acipenser medirostris	-	-	SSC	Rivers, bays, estuaries	None-no habitat
рор. 2					
green sturgeon -					
northern DPS					
Acipenser	-	-	SSC	Rivers, bays, estuaries	None-no habitat
transmontanus					
white sturgeon					
Entosphenus	-	-	SSC	Pacific Coast streams north of San Luis Obispo	None-no habitat
tridentatus				County, however regular runs in Santa Clara	
Pacific lamprey				River.	
Eucyclogobius	FE	-	-	Brackish water habitats along the California	None-no habitat
newberryi				coast from Agua Hedionda Lagoon, San Diego	
tidewater goby				County to the mouth of the Smith River.	
Lampetra richardsoni	-	-	SSC	Clear, cold, water in little disturbed	None-no habitat
western brook lamprey				watersheds, as well as clean gravel near cover	
				(boulders, riparian vegetation, logs, etc.) for	
				spawning	
Oncorhynchus clarkii	-	-	SSC	Small coastal streams from the Eel River to the	None-no habitat
clarkii				Oregon border.	
coast cutthroat trout					
Oncorhynchus kisutch	FT	СТ	-	Aquatic	None-no habitat
рор. 2					
coho salmon - southern					
Oregon / northern					
California ESU					
Oncorhynchus mykiss	FT	CE	-	Aquatic	None-no habitat
irideus pop. 48					
steelhead - northern					
California DPS summer-					
run					
Oncorhynchus mykiss	FT	-	-	Aquatic	None-no habitat
irideus pop. 49					
steelhead - northern					
California DPS winter-					
run					
Oncorhynchus	FT	-	-	` Aquatic	None-no habitat
tshawytscha pop. 17					

Scientific Name Common Name	Federal	State	CDFW	Habitat	Potential to Occur
chinook salmon -	reuerai	State	CDFVV	Парісас	in Project Area
California coastal ESU					
Spirinchus thaleichthys	CAN	СТ	-	Euryhaline, nektonic and anadromous. Found	None-no habitat
longfin smelt	CAIV	C'		in open waters of estuaries, mostly in middle	None no nabitat
iong.iii sinere				or bottom of water column. Prefer salinities of	
				15-30 ppt, but can be found in completely	
				freshwater to almost pure seawater.	
Thaleichthys pacificus	FT	-	-	Found in Klamath River, Mad River, Redwood	None-no habitat
eulachon				Creek, and in small numbers in Smith River and	
				Humboldt Bay tributaries. Spawn in lower	
				reaches of coastal rivers with moderate water	
				velocities and bottom of pea-sized gravel,	
				sand, and woody debris.	
Insects					
Bombus caliginosus	-	-	-	Coastal areas from Santa Barbara County to	Unlikely-potential
obscure bumble bee				north to Washington state- Food plant genera	nesting and foraging
obscure bumble bee				include Baccharis, Cirsium, Lupinus, Lotus,	habitat, but outside
	<u> </u>		<u> </u>	Grindelia and Phacelia.	current know range
Bombus occidentalis	-	CE	-	Nests near ground under wood, in old rodent	Unlikely-potential
western bumble bee				burrows. Forages on a variety of plants for	nesting and foraging
				nectar and pollen.	habitat, but outside
					current know range
Limnephilus atercus	-	-	-	Known only from Fort Dick in Del Norte	None-no habitat
Fort Dick limnephilus				County. AquaticKlamath/North coast flowing	
caddisfly				watersKlamath/North coast standing waters	
Mammals					
Antrozous pallidus	-	-	SSC	Deserts, grasslands, shrublands, woodlands	Unlikely-no typical
pallid bat				and forests. Most common in open, dry	roosting habitat
				habitats with rocky areas for roosting. Roosts	
				must protect bats from high temperatures.	
				Very sensitive to disturbance of roosting sites.	
Aplodontia rufa	-	-	-	Coast Range in southwestern Del Norte County	Unlikely-understory
humboldtiana				and northwestern Humboldt County- Variety of	is mostly to open
Humboldt mountain				coastal habitats, including coastal scrub,	and disturbed by
beaver				riparian forests, typically with open canopy	humans
A 1 .			666	and thickly vegetated understory.	11 121 1 1 1
Arborimus pomo	-	-	SSC	orth coast fog belt from Oregon border to	Unlikely-not enough
Sonoma tree vole				Somona County. In Douglas-fir, redwood &	conifers to support feeding
				montane hardwood-conifer forests. Feeds almost exclusively on Douglas-fir needles. Will	leeding
				occasionally take needles of grand fir, hemlock	
				or spruce.	
Corynorhinus	_	-	SSC	Throughout California in a wide variety of	Unlikely-not typical
townsendii			330	habitats. Most common in mesic sites- Roosts	roosting habitat
Townsends big-eared				in the open, hanging from walls and ceilings.	
bat				Roosting sites limiting. Extremely sensitive to	
				human disturbance	
Erethizon dorsatum	-	-	-	Forested habitats in the Sierra Nevada,	Unlikely-small
North American				Cascade, and Coast ranges, with scattered	mostly isolated
porcupine				observations from forested areas in the	stand of woody
·				Transverse Ranges- Wide variety of coniferous	vegetation is not
				and mixed woodland habitat.	typical habitat
Lasionycteris	-	-	-	Primarily a coastal and montane forest	Unlikely-no typical
noctivagans				dweller, feeding over streams, ponds and open	roosting habitat
silver-haired bat				brushy areas. Roosts in hollow trees, beneath	

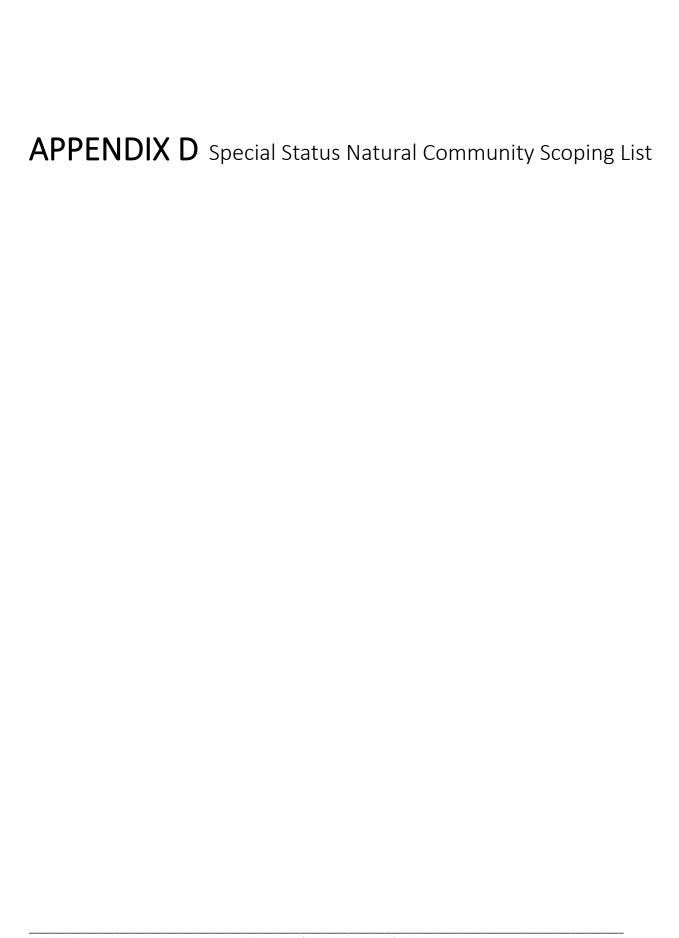
Scientific Name					Potential to Occur
Common Name	Federal	State	CDFW	Habitat	in Project Area
				exfoliating bark, abandoned woodpecker	
				holes, and rarely under rocks. Needs drinking	
				water.	
Lasiurus cinereus	-	-	-	Prefers open habitats or habitat mosaics, with	Unlikely-no typical
hoary bat				access to trees for cover and open areas or	roosting habitat
				habitat edges for feeding- Roosts in dense	
				foliage of medium to large trees. Feeds	
				primarily on moths. Requires water.	
Martes caurina	FT	CE	SSC	Occurs only in the coastal redwood zone from	Unlikely-no old
humboldtensis				the Oregon border south to Sonoma County.	growth forest
Humboldt marten				Associated with late-successional coniferous	
				forests, prefer forests with low, overhead	
				cover.	
Myotis yumanensis	-	-	-	Optimal habitats are open forests and	Unlikely-not typical
Yuma myotis				woodlands with sources of water over which	roosting habitat
				to feed. Distribution is closely tied to bodies of	
				water. Maternity colonies in caves, mines,	
				buildings or crevices.	
Pekania pennanti	-	-	SSC	Intermediate to large-tree stages of coniferous	Unlikely-typically in
Fisher				forests and deciduous-riparian areas with high	more natural and
				percent canopy closure. Uses cavities, snags,	mature forest that
				logs and rocky areas for cover and denning.	cover much larger
				Needs large areas of mature, dense forest.	area
Taxidea taxus	-	-	SSC	Most abundant in drier open stages of most	Unlikely-not likely to
American badger				shrub, forest, and herbaceous habitats, with	inhabit isolated
				friable soils. Needs sufficient food, friable soils	stand of vegetation
				and open, uncultivated ground. Preys on	surrounded by
"				burrowing rodents. Digs burrows.	development
Mollusks	I	1	1	1	T
Anodonta californiensis	-	-	-	Freshwater lakes and slow-moving streams and	None-no habitat
California floater				rivers- Generally in shallow water.	
Gonidea angulata	-	-	-	Primarily creeks and rivers and less often lakes.	None-needs
western ridged mussel					permanent water
Littorina subrotundata	-	-	-	Salt/brackish water snail known only from	None-no habitat
Newcombs littorine				Humboldt Bay in California- Salt/brackish	
snail				water snail known only from Humboldt Bay in	
A 4				California.	Name of balaises
Margaritifera falcata	-	-	-	Aquatic. Prefers lower velocity waters.	None-no habitat
western pearlshell Reptiles					
	DT		ccc	A Abrahaman Abra	Halthalia - I
Emys marmorata	PT	-	SSC	A thoroughly aquatic turtle of ponds, marshes,	Unlikely-needs
western pond turtle				rivers, streams and irrigation ditches, usually	more permanent
				with aquatic vegetation, below 6000 ft	water
				elevation- Needs basking sites and suitable	
				(sandy banks or grassy open fields) upland	
				habitat up to 0.5 km from water for egg-laying.	

# **Listing Status Codes:**

<u>Federal</u> <u>California</u> <u>CDFW</u>

FE=Endangered CE=Endangered SSC = Species of Special Concern

FT=Threated CT=Threatened WL = Watch List FC=Candidate CC=Candidate FP = Fully Projected



Scientific Name	Common Name	Global rarity	State rarity
Abies grandis	Grand fir forest	G4	S2.1
Abronia latifolia - Ambrosia chamissonis	Dune mat	G3	S3
Acer macrophyllum	Bigleaf maple forest and woodland	G4	S3
Acer negundo	Box-elder forest and woodland	G5	S3
Aesculus californica	California buckeye groves	G3	S3
Allium spp Streptanthus spp	Onion - twistflower - dwarf-flax serpentinite		
Hesperolinon spp. Serpentinite	rock outcrop	G2G3	S2S3
Alnus incana	Mountain alder thicket	G4	S3
Alnus viridis	Sitka alder thickets	G5	S3?
Alopecurus geniculatus	Water foxtail meadows	G3?	S3?
	Baker's or Mt. Tamalpais manzanita		
Arctostaphylos (bakeri, montana)	chaparral	G3	S3
Arctostaphylos (canescens, manzanita,	Hoary, common, and Stanford manzanita		
stanfordiana)	chaparral	G3	S3
Arctostaphylos glandulosa	Eastwood manzanita chaparral	G4	S3
Arctostaphylos (nummularia, sensitiva) -	Glossy leaf manzanita - Golden chinquapin	63	63
Chrysolepis chrysophylla Arctostaphylos patula - Arctostaphylos	chaparral Green leaf manzanita - Pinemat manzanita	G2	S2
nevadensis	chaparral	G5	S3S4
Bolboschoenus maritimus	Salt marsh bulrush marshes	G4	S3
	California brome - blue wildrye prairie	G3	S3
Bromus carinatus - Elymus glaucus			
Calamagrostis nutkaensis Calocedrus decurrens	Pacific reed grass meadows Incense cedar forest and woodland	G4 G4	S2 S3
			S3
Carex (aquatilis, lenticularis)  Carex barbarae	Water sedge and lakeshore sedge meadows White-root beds	G5 G2?	S2?
Carex echinata	Star sedge fens	G2?	S2 r S3?
	<del> </del>	G4?	S2?
Carex integra	Small-fruited sedge meadows		
Carex luzulina	Woodland sedge fens	G3	S2?
Carex lyngbyei	Lyngbye's sedge swathes	GNR	S1
Carex nudata	Torrent sedge patches	G3	S3
Carex obnupta - Oenanthe sarmentosa - Scirpus microcarpus	Slough sedge - Water-parsley - Small-fruited bulrush marsh	G4	S3
Ceanothus (oliganthus, tomentosus)	Hairy leaf - woolly leaf ceanothus chaparral	G3	S3
Cephalanthus occidentalis	Button willow thickets	G5	S2
•	Port Orford cedar forest and woodland		
Chamaecyparis lawsoniana Chrysolepis sempervirens		G3 G4	S3.1 S3.3
, , ,	Bush chinquapin chaparral Hazelnut scrub		
Corylus cornuta var. californica		G3 G4?	S2?
Darlingtonia californica	California pitcher plant fens	U4!	S3
Deschampsia cespitosa - Festuca rubra Brackish Salt Marsh	Tufted hairgrass - Red fescue brackish salt marsh	GNR	S2
Deschampsia cespitosa - Hordeum brachyantherum - Danthonia californica	Coastal tufted hair grass - Meadow barley - California oatgrass meadow	GNR	S3

Scientific Name	Common Name	Global rarity	State rarity
Diplacus aurantiacus	Bush monkeyflower scrub	G3	S3?
Equisetum (arvense, variegatum,	Field horsetail - scouringrush horsetail -		
hyemale)	variegated scouringrush wet meadow	GNR	S3S4
Eriophyllum staechadifolium - Erigeron	Seaside woolly-sunflower - seaside daisy -		
glaucus - Eriogonum latifolium	buckwheat patches	G3	S3
Festuca idahoensis - Danthonia californica	Idaho fescue - California oatgrass grassland	GNR	S3
Frangula californica - Rhododendron	California coffee berry - western azalea		
occidentale - Salix breweri	scrub - Brewer's willow	G3	S3
Frankenia salina	Alkali heath marsh	G4	S3
Fraxinus latifolia	Oregon ash groves	G4	S3.2
Glyceria ×occidentalis	Northwest manna grass marshes	G3?	S3?
Grindelia (stricta)	Gum plant patches	G2G3	S2S3
Hesperocyparis (pigmaea, abramsiana,			
macrocarpa, goveniana)	California coastal cypress woodland	G2	S2
Hesperocyparis (sargentii, macnabiana)	Ultramafic cypress woodland	G3	S3
Heterotheca (oregona, sessiliflora)	Goldenaster patches	G3	S3
Hydrocotyle (ranunculoides, umbellata)	Mats of floating pennywort	G4	S3?
Isoetes (bolanderi, echinospora, howellii,			
nuttallii, occidentalis)	Quillwort beds	G3	S3?
Juglans hindsii and Hybrids	Hinds's walnut and related stands	G1	S1.1
Juncus (effusus, patens) - Carex (pansa,			
praegracilis)	Soft and western rush - Sedge marshes	G4?	S3S4
Juncus (oxymeris, xiphioides)	Iris-leaf rush seeps	G2?	S2?
Lasthenia glaberrima	Smooth goldfields vernal pool bottoms	G2	S2
Leymus cinereus - Leymus triticoides	Ashy ryegrass - Creeping wildrye turfs	G3	S3
Leymus mollis	Sea lyme grass patches	G4	S2
Lupinus chamissonis - Ericameria ericoides	Silver dune lupine - mock heather scrub	G3	S3
Mimulus (guttatus)	Common monkey flower seeps	G4?	S3?
Nassella spp Melica spp.	Needle grass - Melic grass grassland	G3G4	S3S4
Notholithocarpus densiflorus	Tanoak forest	G4	S3.2
Nuphar lutea	Yellow pond-lily mats	G5	S3?
Picea sitchensis	Sitka spruce forest and woodland	G5	S2
Pinus balfouriana	Foxtail pine woodland	G3	S3
Pinus contorta ssp. contorta	Beach pine forest and woodland	G5	S3
Timas contorta ssp. contorta	Bishop pine - Monterey pine forest and	03	33
Pinus muricata - Pinus radiata	woodland	G3	S3.2
Populus fremontii - Fraxinus velutina - Salix gooddingii	Fremont cottonwood forest and woodland	G4	S3.2
Populus trichocarpa	Black cottonwood forest and woodland	G5	S3
Pseudotsuga menziesii - Calocedrus	Douglas fir - incense cedar forest and woodland	G3	S3
Pseudotsuga menziesii - Notholithocarpus			
densiflorus	Douglas fir - tanoak forest and woodland	G3	S3

Scientific Name	Common Name	Global rarity	State rarity
	Oregon white oak woodland and forest	G4	S3
Quercus garryana (tree) Quercus lobata		G3	S3
,	Valley oak woodland and forest		
Quercus lobata Riparian	Valley oak riparian forest and woodland	G3	S3
Quercus wislizeni - Quercus chrysolepis (shrub)	Canyon live oak - Interior live oak chaparral	G4	S3S4
Rhododendron columbianum	Western Labrador-tea thickets	G4	S2
Rubus spectabilis - Morella californica	Salmonberry - Wax myrtle scrub	G4	S3
Ruppia (cirrhosa, maritima)	Ditch-grass or widgeon-grass mats	G4?	S2
Salix gooddingii - Salix laevigata	Goodding's willow - red willow riparian woodland and forest	G4	S3
Salix hookeriana - Salix sitchensis - Spiraea douglasii	Coastal dune willow - Sitka willow - Douglas spiraea thickets	G4	S3
Salix lucida ssp. lasiandra	Shining willow groves	G4	S3.2
Sarcocornia pacifica (Salicornia depressa)	Pickleweed mats	G4	S3
Schoenoplectus (acutus, californicus)	Hardstem and California bulrush marshes	GNR	S3S4
Schoenoplectus americanus	Common Three-square marsh	G5	S3.2
Scirpus microcarpus	Small-fruited bulrush marsh	G4	S2
Selaginella (bigelovii, wallacei)	Bushy spikemoss mats	G4	S3
Sequoia sempervirens	Redwood forest and woodland	G3	S3.2
Sparganium (angustifolium)	Mats of bur-reed leaves	G4	S3?
Spartina foliosa	California cordgrass marsh	G3	S3.2
Stuckenia (pectinata) - Potamogeton spp.	Pondweed mats	G3G5	S3?
Torreyochloa pallida	Floating mats of weak manna grass	G3	S3?
Trifolium variegatum	White-tip clover swales	G3?	S3?
Tsuga heterophylla	Western hemlock forest	G5	S2
Umbellularia californica	California bay forest and woodland	G4	S3
Vaccinium uliginosum	Bog blueberry wet meadows	G4	S3
Vitis arizonica - Vitis girdiana	Wild grape shrubland	G3	S3
Zostera (marina, pacifica) Pacific Aquatic	Eelgrass beds	GNR	S3



# Wetland Delineation

1569 Newburg Road (APN: 201-071-001)

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January 2024 (rev. 4/9/24)

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#### 1. INTRODUCTION

This wetland delineation was conducted at 1569 Newburg Road (APN: 201-071-001) in Fortuna to identify the types and extent of wetlands on the parcel that constrain potential development. The proposed development includes construction of 26 townhouses and associated amenities and infrastructure.

#### 2. BACKGROUND

#### 2.1. Waters of the United States

Waters of the United States are regulated by the U.S Army Corps of Engineers (Army Corps) under the Clean Water Act. Waters of the United States include, but are not limited to, territorial seas, waters used for interstate or foreign commerce and their tributaries, and waters adjacent to the aforementioned, including wetlands.

Army Corps jurisdiction in waters such as creeks and rivers include the area below the ordinary high water mark, which is the line on the bank established by fluctuations of water that leave physical characteristics such as a distinct line on the bank, shelving, destruction of terrestrial vegetation, and presence of debris.

The Army Corps defines wetlands as:

"... areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

This definition requires that an area has indicators of all three wetlands parameters (hydrophytic vegetation, hydric soil, and wetland hydrology) to be considered wetland.

#### 2.2. Waters of the State

Waters of the state are regulated by the State Water Resources Control Board (Water Board) under the Porter-Cologne Water Quality Control Act. Waters of the state are defined as:

"... any surface water or groundwater, including saline waters, within the boundaries of the state."

Waters of the State includes water in both natural and artificial channels.

The Water Board's definition of a wetland is:

"An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface

water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation."

This definition also requires that an area has all three parameters to be considered wetland.

#### 3. ENVIRONMENTAL SETTING

#### 3.1. Project Location

The parcel is located at 1569 Newburg Road in Fortuna (Section 2, T2N, R1W) in Humboldt County (Figure 1).

#### 3.2. Soil, Topography, and Hydrology

The soil mapped on the parcel is Urban land-Friendlycity association (United States Department of Agriculture, Natural Resource Conservation Service (USDA, NRCSO 2023). The soil is composed of alluvium derived from metamorphic and sedimentary rock. All the soil components have non-hydric soil ratings.

The parcel is on a relatively flat terrace at approximately 50 feet above sea level. There is wetland associated with the drop in elevation to the northwest toward Rohner Creek.

#### 3.3. General Vegetation

The open grassy area along Newburg Road is composed of non-native grasses and other herbaceous vegetation. Most of the northern part of the parcel is a mix of native and non-native trees, shrubs, and brambles. There are stands of willows and other hydrophytes associated with the wetland in the northwest portion of the parcel.

#### 4. METHODS

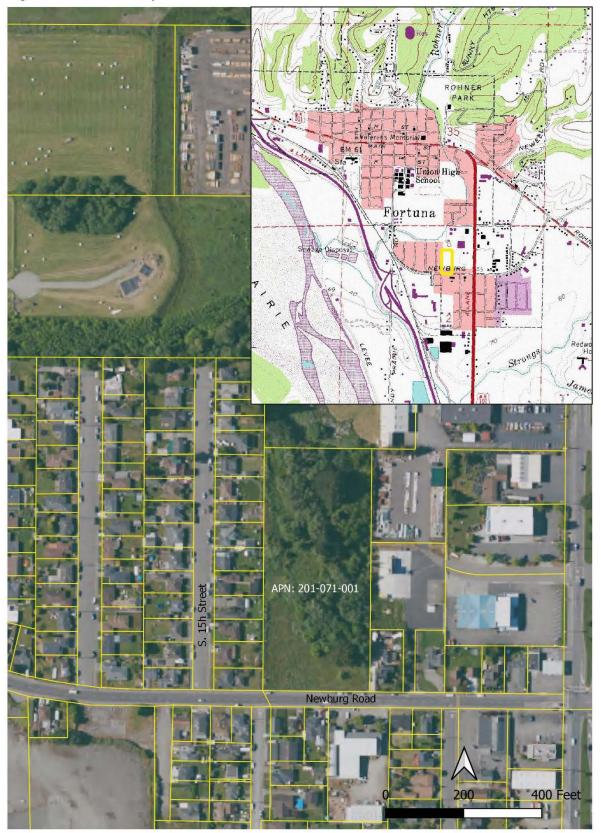
The fieldwork was conducted by Kyle Wear, M.A., on January 5, & 7, 2024. Mr. Wear has over 25 years of experience conducting botanical surveys, wetland delineations and other biological work in northern California and is trained in wetland delineation by the Wetland Training Institute.

Wetland delineation methods follow the 1987 Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual Western Mountains, Valleys, and Coast Region (Version 2.0) (Army Corps 2010). Five representative sample points were evaluated for hydrophytic vegetation, hydric soil, and wetland hydrology (Appendix A).

#### 4.1. Hydrophytic Vegetation

The vegetation is hydrophytic when the plant community is dominated by species that require or can tolerate long periods of inundation or soil saturation. The procedure for determining if

Figure 1. Location Map.



the vegetation is hydrophytic includes determining the wetland indicator status of each plant in the Western Mountains Valleys and Coast 2020 Regional Wetland Plant List (Army Corps 2020). The indicator status categories are:

Obligate Wetland Plants (OBL)	Almost always occur in wetlands	>99% frequency
Facultative Wetland Plants (FACW)	Usually occur in wetlands	67%-99%
Facultative Plants (FAC)	Equally occur wetlands and non-wetlands	33%-67%
Facultative Upland Plants (FACU)	Sometimes occur in wetlands	1%-33%
Obligate Upland Plants (UPL)	Rarely occur in wetlands	<1%

If more than 50% of the dominant plants across all vegetation strata (i.e. trees, shrubs, herbs) are OBL, FACW, or FAC, the vegetation is considered to be hydrophytic. Dominance of plants within the plots is determined using the "50/20" rule. This method involves estimating the absolute cover of each plant in each vegetation stratum. Dominant plants include the plants with the highest cover that collectively or individually account for 50% of the total vegetation cover. Additional plants are considered dominant if their cover is at least 20%.

#### 4.2. Hydric Soil

Hydric soils are formed under saturated and anaerobic conditions. Reduction and concentration of iron is a commonly observed indication of anaerobic conditions. In the absence of oxygen, microbes reduce iron from its ferric to soluble ferrous form. This results in the soil developing redox depletions which are grayish areas where iron has been depleted and when the soil dries, the dissolved iron oxidizes, and forms rust colored redox concentrations. Sulfur is also reduced in anaerobic conditions. This can result in a "rotten egg" smell. Anaerobic conditions can also slow the ability of microbes to decompose organic material leading to development of thick organic surface layers.

Soil colors were determined with standard Munsell color charts (GretagMacbeth 2000).

#### 4.3. Wetland Hydrology

Indicators of wetland hydrology include direct observations of surface water, ground water, and soil saturation. However, these indicators may only be present during a portion of the year and may be absent during the dry season or in drought conditions. These indicators may also be present in non-wetlands during periods of unusually high precipitation. There are a variety of indicators that show evidence of recent inundation or saturation. The water may leave sediment deposits, drainage patters, and water-stained leaves, surface soil cracks, and other evidence of wetland hydrology. There are also secondary indicators that are less reliable but may be indicative of wetland hydrology. Areas of concave topography, at the toe of a slope, and low elevations around bays and other waterbodies are areas where ground water would be expected during wet periods. The dominance of OBL and FACW plants that are adapted to saturated conditions also suggests the presence of wetland hydrology.

#### 5. RESULTS AND DISCUSSION

Approximately 23,009 square feet (0.528 acres) of wetland were identified on the parcel (Figure 2). This includes 16,284 square feet of Palustrine Scrub-Shrub wetland with a canopy of willows and 6,876 square feet of more open Palustrine Emergent wetland that generally lacks a woody canopy. The wetland is associated with the lower swale-like topography in the northwest part of the parcel. There is an existing municipal drainage ditch just north of the parcel that carries runoff from Fortuna Blvd. to Rohner Creek. The open ditch potentially has surface water connection with adjacent wetland in periods of flooding heavy rainfall.

#### 5.1. Palustrine Emergent Wetland

Dominant plants in the emergent wetland include common rush (*Juncus effusus* [FACW]) and Pacific water-parsley (*Oenanthe sarmentosa* [OBL]). The soil meets hydric soil indicator F3 (Depleted Matrix). There were several inches of surface water, or the soil was saturated to the surface with groundwater. Wetland hydrology indicators present included A1 (Surface Water), A2 (High Water Table), and A3 (Saturation). The early January 2024 field work was conducted after a period of relatively normal rainfall accumulation (Appendix B). Thus, the observed wetland hydrology is likely typical for January in most years.

#### 5.2. Palustrine Scrub-Shrub Wetland

The scrub-shrub wetlands area in lower and wetter topography. There is generally a canopy of willows (*Salix lasiolepis* [FACW] & *S. lasiandara* ssp. *lasiandra* [FACW]) with Pacific waterparsley (*Oenanthe sarmentosa* [OBL]) and other hydrophytes in the understory. There was approximately 6 inches or more of surface water meeting wetland hydrology indicator A1 (Surface Water). Because of the depth of water, no soil pit was dug. This soil is clearly hydric.

#### 5.3. Upland

The upland vegetation includes the grassy area along Newburg Road and the woody vegetation in much of the southern and eastern portions of the parcel. The open grassy area includes predominantly non-native grasses and other herbaceous plants including tall fescue (*Festuca arundinacea* [FAC]), Queen Anne's lace (*Daucus carota* [FACU]), vetch (*Vicia sativa* [UPL]), clovers (*Trifolium* spp.) dandelion (*Taraxacum officinale* [FACU]), English plantain (*Plantago lanceolata* [FACU]), and rough cat's-ear (*Hypochaeris radicata* [FACU]). The vegetation is not hydrophytic and there are no indicators of hydric soil or wetland hydrology.

The woody vegetation is generally a mix of native and non-native trees, shrubs, and brambles, including spruce (*Picea sitchensis* [FAC]), redwood (*Sequoia sempervirens* [UPL]), Monterey cypress (*Hesperocyparis macrocarpa* [UPL]), Monterey pine (*Pinus radiata* [UPL]), red alder (*Alnus rubra* [FAC]), willows (*Salix* spp. [FACW]), red elderberry (*Sambucus racemosa* var. *racemosa* [FACU]), twinberry (*Lonicera involucrata* var. *ledebourii* [FAC]), English holly (*Ilex aquifolium* [FACU]), English ivy (*Hederal helix* [FACU]), cotoneaster (*Cotoneaster* spp. [UPL]), California blackberry (*Rubus ursinus* [FACU]), and Himalayan blackberry (*Rubus armeniacus* [FAC]). The vegetation is not hydrophytic and there are no indicators of hydric soil or wetland hydrology.

Figure 2. Wetland Delineation Map.



#### 6. RECOMMENDATIONS

Wetland impacts should be avoided with appropriate setbacks from the development. The City of Fortuna requires a 50-foot setback from wetland boundaries. The setback can be reduced provided analysis in a biological report indicates a smaller setback would not impact the wetland.

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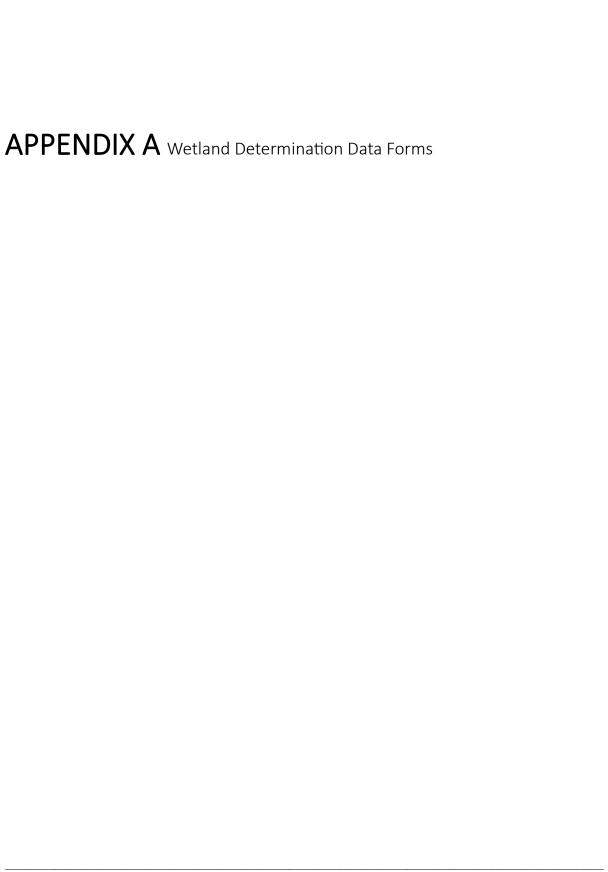
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GretagMacbeth. 2000. Munsell Soil Color Charts. New Winsdor, NY

USDA, NRCS. 2023. Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov



#### WETLAND DETERMINATION DATA FORM -- Western Mountains, Valleys, and Coast Region Newborg Rd. City/County: Forture Sampling Date: 1-5-29 Applicant/Owner: AC State: (VA Sampling Point: Section, Township, Range: Z1 TZWRIW Investigator(s): Local relief (concave, convex, none): Landform (hillslope, terrace, etc.): Lat: 40.58976100 Long: -124. 14937600 Subregion (LRR): Soil Map Unit Name: () 1800 ) and NWI classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_ No (If no, explain in Remarks.) Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_ Are "Normal Circumstances" present? Yes\_ \_\_\_ significantly disturbed? Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks: VEGETATION - Use scientific names of plants. Absolute Dominant Indicator **Dominance Test worksheet:** Tree Stratum (Plot size: ) % Cover Species? Status **Number of Dominant Species** That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species = Total Cover That Are OBL, FACW, or FAC: Sapling/Shrub Stratum (Plot size: \_\_\_\_\_) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species \_\_\_\_\_ x 1 = \_\_\_\_ FACW species \_\_\_\_\_ x 2 = \_\_\_\_ FAC species \_\_\_\_\_ x 3 = \_\_\_\_ FACU species \_\_\_\_\_ x 4 = \_\_\_\_ = Total Cover Herb Stratum (Plot size: 5 UPL species \_\_\_\_\_ x 5 = \_\_\_\_ 1. Oerathe samentosa Column Totals: \_\_\_\_\_ (A) \_\_\_\_ (B) 2. Runey crispus Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 4. N. + grass (64cein. 1 - Rapid Test for Hydrophytic Vegetation 5. Rukus ursinus 5 no FACU 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ \_ 4 - Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants1 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. \_\_\_\_ = Total Cover Woody Vine Stratum (Plot size: Hydrophytic Vegetation Present? \_\_\_\_= Total Cover % Bare Ground in Herb Stratum

Remarks:

Frome Des	cription: (Describe	to the dep	th needed to docu	ment the	indicator	or confirm	the absence of	indicators.)
Depth	Matrix			x Feature	es			
(inches)	Color (moist)	%	Color (moist)	%_	Type	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-6	10454/1	90	7.574/6	10		n	_ cv _	
	Concentration, D=De					ed Sand Gr		ion: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applie	cable to all	LRRs, unless othe	rwise not	ted.)		Indicators	for Problematic Hydric Soils <sup>3</sup> :
Histoso			Sandy Redox (				2 cm N	
	pipedon (A2)		Stripped Matrix					arent Material (TF2)
	listic (A3)		Loamy Mucky I		10 10 m	t MLRA 1)		hallow Dark Surface (TF12)
	en Sulfide (A4)	(444)	Loamy Gleyed		2)		Other (	(Explain in Remarks)
	ed Below Dark Surface Park Surface (A12)	æ (ATT)	★ Depleted Matrix  Redox Dark Su	100 IA 1100000			3Indicators	of hydrophytic vegetation and
	Mucky Mineral (S1)		Depleted Dark					hydrology must be present,
	Gleyed Matrix (S4)		Redox Depress	Control and State of the State				listurbed or problematic.
,								
Restrictive	Layer (if present):			******	7.		T T	
	Layer (if present):			was a second	7.77			
Type:	Layer (if present):					14 21 20	Hydric Soil Pr	
Type: Depth (ir	Layer (if present):	o See	medax in	«aLura	ited e	21.		esent? Yes 🔽 No
Type: Depth (ir Remarks:	Layer (if present):  oches):  difficult 1  in Sp3wwe	o see	redox in was not a	satura s wel	ited s	1/1/16		
Type:	Layer (if present):  nches):  d.Cf.wlf 1  in Sp3ww	re soil	redox in was not a	satura s wel	ited s	n, lico		esent? Yes 🔽 No
Type:	Layer (if present):  oches):  difficult to sp3www.  OGY  drology Indicators:	e soil	was not a	s we	Hed s	n, lico	edox 13	more visible
Type:	Action of displacements of the control of the contr	e soil	was Not a	s wel	-		edox 3	ry Indicators (2 or more required
Type:	Action (if present):  aches):  aches):  aches):  conches):  aches):  aches)	e soil	was N₃ ← a i; check all that appl — Water-Sta	y)	res (B9) (e:		edox 3  Seconda  Wate	ry Indicators (2 or more required er-Stained Leaves (B9) (MLRA 1
Type:	DGY  redrology Indicators:  cators (minimum of other Table (A2)	e soil	was w₅	y) ined Leav 1, 2, 4A, a	res (B9) (e:		edox 3  Seconda  Wate 4	ry Indicators (2 or more required er-Stained Leaves (B9) (MLRA 1
Type:	DGY  redrology Indicators:  cators (minimum of of Water (A1) ater Table (A2) on (A3)	e soil	i; check all that appl  Water-Stai  MLRA  Salt Crust	y) ined Leav 1, 2, 4A, a (B11)	es (89) (e.		Seconda  Wate  Jorain	ry Indicators (2 or more required er-Stained Leaves (B9) (MLRA 1 A, and 4B)
Type:	DGY  redrology Indicators:  cators (minimum of other Table (A2)	e soil	i; check all that appl  Water-Sta  MLRA  Salt Crust  Aquatic In	y) ined Leav 1, 2, 4A, a (B11) vertebrate	es (B9) (e) and 4B)		Seconda Wate Drair Dry-s	ry Indicators (2 or more required er-Stained Leaves (B9) (MLRA 1 A, and 4B) nage Patterns (B10) Season Water Table (C2)
Type:	DGY  rater (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2)	e soil	i; check all that appl  Water-Stal  MLRA  Sait Crust  Aquatic Int  Hydrogen	y) ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide Oc	es (B9) (e: and 4B) ss (B13) dor (C1)	xcept	Seconda  Wate  Drair  Dry-S  Satur	ry Indicators (2 or more required er-Stained Leaves (B9) (MLRA 1 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (
Type:	DGY  rdrology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) flarks (B1) not Deposits (B2) posits (B3)	e soil	i; check all that appl  Water-Stal  MLRA  Salt Crust  Aquatic Industrial  Hydrogen  Oxidized R	y) ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide Oc	es (B9) (e. and 4B) s (B13) dor (C1) res along I	xcept Living Root	Seconda  Seconda  Wate  4.  Drair  Dry-S  Satur  s (C3) Geor	ry Indicators (2 or more required er-Stained Leaves (B9) (MLRA 1 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (morphic Position (D2)
Type:	DGY  Inches):  I	e soil	i; check all that appl  Water-Stal  MLRA  Salt Crust  Aquatic Int  Hydrogen  Oxidized R  Presence of	y) ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide Oct thizospher of Reduce	es (B9) (e: and 4B) s (B13) dor (C1) res along I dd Iron (C4	xcept  Living Root	Seconda  Wate  4,  Drair  Dry-S  Satur  s (C3) Geor  Shall	ry Indicators (2 or more required er-Stained Leaves (B9) (MLRA 1 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (morphic Position (D2) ow Aquitard (D3)
Type:	DGY  Inches):  I	e soil	i; check all that appl  Water-Sta  MLRA  Salt Crust  Aquatic Int  Hydrogen  Oxidized R  Presence of Recent Irol	y) ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide Och thizospher of Reduce	es (B9) (e: and 4B) s (B13) dor (C1) res along I d Iron (C4 on in Tilled	xcept Living Root ) I Soils (C6)	Seconda  Wate 4 Drain Dry-s Satul s (C3) Geor Shall FAC-	ry Indicators (2 or more required er-Stained Leaves (B9) (MLRA 1 A, and 4B) Deason Water Table (C2) ration Visible on Aerial Imagery (morphic Position (D2) low Aquitard (D3) Poetral Test (D5)
Type:	Auger (if present):  Inches):  Inche	one required	i; check all that appl  Water-Sta  MLRA  Salt Crust  Aquatic Int  Hydrogen  Oxidized R  Presence of Recent Iron  Stunted or	y) ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide Oc chizospher of Reduce n Reduction	es (B9) (e: and 4B) ss (B13) dor (C1) res along I dd Iron (C4 on in Tilled Plants (D1	xcept Living Root ) I Soils (C6)	Seconda  Wate  Mate  Drain  Dry-S  Satuus  (C3) Geor  Shall  FAC- Raise	ry Indicators (2 or more required er-Stained Leaves (B9) (MLRA 1 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (morphic Position (D2) ow Aquitard (D3) Neutral Test (D5) ed Ant Mounds (D6) (LRR A)
Type: Depth (ir Remarks:	DGY  Inches):  I	one required	i; check all that appl  Water-Stal  MLRA  Salt Crust  Aquatic Ind  Hydrogen  Oxidized R  Presence of Recent Irol  Stunted or  Other (Exp	y) ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide Oc chizospher of Reduce n Reduction	es (B9) (e: and 4B) ss (B13) dor (C1) res along I dd Iron (C4 on in Tilled Plants (D1	xcept Living Root ) I Soils (C6)	Seconda  Wate  Mate  Drain  Dry-S  Satuus  (C3) Geor  Shall  FAC- Raise	ry Indicators (2 or more required er-Stained Leaves (B9) (MLRA 1 A, and 4B) Deason Water Table (C2) ration Visible on Aerial Imagery (morphic Position (D2) low Aquitard (D3) Poetral Test (D5)
Type: Depth (in Remarks:	Layer (if present):  Inches):  OCY  OGY  Orology Indicators: Cators (minimum of orology Indicators)  Attention (A3)  Introduction (B2)  Posits (B3)  Introduction (B4)  Posits (B5)  Soil Cracks (B6)  On Visible on Aerial Introductions:	magery (B7	i; check all that appl  Water-Stai  MLRA  Salt Crust  Aquatic Inc  Hydrogen  Oxidized R  Presence of Recent Iron  Stunted or  Other (Exp	y) ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide Oc thizospher of Reduce	es (B9) (e. and 4B)  s (B13) dor (C1) res along I de Iron (C4 on in Tilled Plants (D1 marks)	xcept Living Root ) I Soils (C6)	Seconda  Wate  Mate  Drain  Dry-S  Satuus  (C3) Geor  Shall  FAC- Raise	ry Indicators (2 or more required er-Stained Leaves (B9) (MLRA 1 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (morphic Position (D2) ow Aquitard (D3) Neutral Test (D5) ed Ant Mounds (D6) (LRR A)
Type: Depth (ir Remarks:	Layer (if present):  Inches):  OCY  OGY  Orology Indicators: Cators (minimum of orology Indicators)  Attention (A3)  Introduction (B2)  Posits (B3)  Introduction (B4)  Posits (B5)  Soil Cracks (B6)  On Visible on Aerial Introductions:	magery (B7	i; check all that appl  Water-Stai  MLRA  Salt Crust  Aquatic Inc  Hydrogen  Oxidized R  Presence of Recent Iron  Stunted or  Other (Exp	y) ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide Oc thizospher of Reduce	es (B9) (e. and 4B)  s (B13) dor (C1) res along I de Iron (C4 on in Tilled Plants (D1 marks)	xcept Living Root ) I Soils (C6)	Seconda  Wate  Mate  Drain  Dry-S  Satuus  (C3) Geor  Shall  FAC- Raise	ry Indicators (2 or more required er-Stained Leaves (B9) (MLRA 1 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (morphic Position (D2) ow Aquitard (D3) Neutral Test (D5) ed Ant Mounds (D6) (LRR A)
Type:	Layer (if present):  Inches):  Inche	magery (B7	W45 Ns a	y) ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide Oct hizospher of Reduction Stressed lain in Rei	es (B9) (eand 4B) ss (B13) dor (C1) res along I red Iron (C4 on in Tilled Plants (D1 marks)	xcept Living Root ) d Soils (C6)	Seconda  Wate  Mate  Drain  Dry-S  Satuus  (C3) Geor  Shall  FAC- Raise	ry Indicators (2 or more required er-Stained Leaves (B9) (MLRA 1 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (morphic Position (D2) ow Aquitard (D3) Neutral Test (D5) ed Ant Mounds (D6) (LRR A)
Type: Depth (in Remarks:	Layer (if present):  Inches):  Inche	magery (B7 Surface (B	i; check all that appl  Water-Stal  MLRA  Sait Crust  Aquatic Int  Hydrogen  Oxidized R  Presence of Recent Irol  Stunted or  Other (Exp	y) ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide Oct hizospher of Reduction Stressed lain in Red hes): hes):	es (B9) (eand 4B) s (B13) dor (C1) res along I red Iron (C4 on in Tilled marks)	xcept Living Root ) I Soils (C6) I) (LRR A)  Wetlar	Seconda  Seconda  Wate  4,  Drair  Dry-5  Satur  Shall  FAC- Raise  Frost	ry Indicators (2 or more required er-Stained Leaves (B9) (MLRA 1 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (morphic Position (D2) low Aquitard (D3) Neutral Test (D5) ed Ant Mounds (D6) (LRR A) -Heave Hummocks (D7)
Type:	Layer (if present):  Inches):  Inche	magery (B7 Surface (B	i; check all that appl  Water-Stal  MLRA  Sait Crust  Aquatic Int  Hydrogen  Oxidized R  Presence of Recent Irol  Stunted or  Other (Exp	y) ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide Oct hizospher of Reduction Stressed lain in Red hes): hes):	es (B9) (eand 4B) s (B13) dor (C1) res along I red Iron (C4 on in Tilled marks)	xcept Living Root ) I Soils (C6) I) (LRR A)  Wetlar	Seconda  Seconda  Wate  4,  Drair  Dry-5  Satur  Shall  FAC- Raise  Frost	ry Indicators (2 or more required er-Stained Leaves (B9) (MLRA 1 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (morphic Position (D2) ow Aquitard (D3) Neutral Test (D5) ed Ant Mounds (D6) (LRR A)Heave Hummocks (D7)

Project/Site: 1569 Newburg Rd.		City/C	ounty	Forh	Una Sampling Date: 1-5-24
Applicant/Owner: ACCC					State: CLA Sampling Point: 2
Investigator(s): K. Wear					inge: Z, TZW, ZIW
The same of the sa					convex, none): Slope (%):
Subregion (LRR):	Lat: U	0.58	397	15800	Long: -124, 14917900 Datum:
Soil Map Unit Name: Uskan and Frie					
Are climatic / hydrologic conditions on the site typical for	1 /				
Are Vegetation, Soil, or Hydrology					"Normal Circumstances" present? Yes 🗡 No
Are Vegetation, Soil, or Hydrology					eeded, explain any answers in Remarks.)
				5x • UPA 5V 3F 3	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No X	T			
Hydric Soil Present? Yes	No X			e Sampled	
Wetland Hydrology Present? Yes	No X		WITH	in a Wetlar	nd? YesNo
Remarks:					
VEGETATION – Use scientific names of pla	anto				No. of the second secon
	Absolute	Dom	lnont	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:	% Cover				Number of Dominant Species
1. Picea sitonenis					That Are OBL, FACW, or FAC: (A)
2. Pinus radiata		70	25_	UPL	Total Number of Dominant
3.					Species Across All Strata: (B)
4.					Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)	SO	= Tot	tal Co	ver	That Are OBL, FACW, or FAC: 23 to (A/B)
1.		u- <u></u>			Prevalence Index worksheet:
2.					Total % Cover of: Multiply by:
3.					OBL species x 1 = FACW species x 2 =
4.					FAC species x 3 =
5.					FACU species x 4 =
Herb Stratum (Plot size: 51 -		= Tot	tal Co	ver	UPL species x 5 =
1. Polystichen munitum	20	VØ	خ	FAW	Column Totals: (A) (B)
2. Rubus urginus	20	ye	53	FALU	Prevalence Index = B/A =
3. Dadyts glomerala		'n		FACU	Hydrophytic Vegetation Indicators:
4. Galium sp.		no			1 - Rapid Test for Hydrophytic Vegetation
5.	-				2 - Dominance Test is >50%
6.					3 - Prevalence Index is ≤3.0¹
7.					4 - Morphological Adaptations (Provide supporting
8.		-			data in Remarks or on a separate sheet)  5 - Wetland Non-Vascular Plants <sup>1</sup>
9					Problematic Hydrophytic Vegetation¹ (Explain)
11					¹Indicators of hydric soil and wetland hydrology must
	_	= Tota	al Cov	/er	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)					
1					Hydrophytic
2					Present? Yes No 🛧
% Bare Ground in Herb Stratum		≈ Tota	l Cov	er	
Remarks:					1

5	SOIL		
r	D 611	Doccrinti	

	7
Sampling Point:	

Depth	mption: (Describe Matrix	e to the depth	needed to document the indicator or o Redox Features	ontirm the absence	e of indicators.)
(inches)	Color (moist)	%	Color (moist) % Type L	oc <sup>2</sup> Texture	Remarks
0-12	10712/2	100	The state of the s	a	
					-
	W - 100 H   1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1				
	···				
Tupo: C=C	opposite DeDo	plotion DM-D	duped Metric CC-Coursed or Control C	and Crains 21 c	postion: DI «Doro Lipina Matterix
			educed Matrix, CS=Covered or Coated S Rs, unless otherwise noted.)	A*************************************	ocation: PL=Pore Lining, M=Matrix. ors for Problematic Hydric Soils <sup>3</sup> :
WANTED THE		cable to all Liv			
Histosol			Sandy Redox (S5)		m Muck (A10)
	oipedon (A2)	ş <del>—</del>	Stripped Matrix (S6)		d Parent Material (TF2)
CONTRACTOR	stic (A3) en Sulfide (A4)	· ·	Loamy Mucky Mineral (F1) (except ML		ry Shallow Dark Surface (TF12) her (Explain in Remarks)
	d Below Dark Surfa		Loarny Gleyed Matrix (F2) Depleted Matrix (F3)	·	ier (Explain in Remarks)
•	ark Surface (A12)	~ (ATT)	Redox Dark Surface (F6)	3Indicat	ors of hydrophytic vegetation and
	fucky Mineral (S1)	-	Depleted Dark Surface (F7)		and hydrology must be present,
	Sleyed Matrix (S4)	8 <del></del>	Redox Depressions (F8)		ss disturbed or problematic.
	Layer (if present):		redox popressions (re)	- Transfer	os distances of problematics.
Type:	<b>)</b> (// p///				
Depth (inc	aboo):		_	Hudeia Cal	il Present? Yes No
Remarks:	aries),			Hydric 30	il Present? Yes No 💯
HYDROLO	CV	- <u>1</u> -2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2		- <u> </u>	
1	drology Indicators				
Primary India	cators (minimum of	one required; c	heck all that apply)	Seco	ondary Indicators (2 or more required)
39-3-23	Water (A1)		Water-Stained Leaves (B9) (exce	pt \	Water-Stained Leaves (B9) (MLRA 1, 2,
High Wa	iter Table (A2)		MLRA 1, 2, 4A, and 4B)		4A, and 4B)
Saturatio	on (A3)		Salt Crust (B11)	[	Orainage Patterns (B10)
Water M	arks (B1)		Aquatic Invertebrates (B13)	1	Ory-Season Water Table (C2)
Sedimen	nt Deposits (B2)		Hydrogen Sulfide Odor (C1)	8	Saturation Visible on Aerial Imagery (C9)
Drift Dep	oosits (B3)		Oxidized Rhizospheres along Livin		Geomorphic Position (D2)
Algal Ma	it or Crust (B4)		Presence of Reduced Iron (C4)		Shallow Aquitard (D3)
Iron Dep	osits (B5)		Recent Iron Reduction in Tilled So		FAC-Neutral Test (D5)
Surface :	Soil Cracks (B6)		Stunted or Stressed Plants (D1) (L		Raised Ant Mounds (D6) (LRR A)
Inundatio	on Visible on Aerial	Imagery (B7)	Other (Explain in Remarks)		Frost-Heave Hummocks (D7)
Sparsely	Vegetated Concav	e Surface (B8)	and the second of the second		1
Field Observ	ations:				
Surface Water	er Present?	/esNo	Depth (inches):		
Water Table I		es No			
			17		1
Saturation Pro (includes cap		/es No	Depth (inches):	Wetland Hydrolog	y Present? Yes No
		gauge, monito	ring well, aerial photos, previous inspect	ions), if available:	
Remarks:					
ricinarits.					

Project/Site: 1569 Newburg Rd.		0:- 10	Fach		Sampling D	1-5	-24
				State: CA			
Applicant/Owner: 1/6C							<del></del>
Investigator(s): K. Wear		Section, T	ownship, Ra	nge: 2,T2N,	KIW		110
Landform (hillstope, terrace, etc.): Lerrue		Local relie	ef (concave,	convex, none): Con Co	NV.	_ Slope (%):	
Subregion (LRR):	Lat: _40	).58°(	01400	Long: -124, 1444	1900	Datum:	
Soil Map Unit Name: Urbunland Frich	Might			NWI classifi	cation:		
Are climatic / hydrologic conditions on the site typical for the	his time of yea	ar? Yes_				_ *	
Are Vegetation, Soil, or Hydrology	significantly	disturbed?	? Are '	Normal Circumstances"	present? Ye	s N	0
Are Vegetation, Soil, or Hydrology	naturally pro	blematic?	(If n∈	eded, explain any answe	ers in Remark	s.)	
SUMMARY OF FINDINGS - Attach site map	showing	sampli	ng point l	ocations, transects	, importar	nt feature:	s, etc.
Hydrophytic Vegetation Present? Yes	No						
	No	10, 20,0	the Sampled thin a Wetlar	Area	No		
	No	Wit	umi a wenai	idi ies —	<u>.                                    </u>		
Remarks:							
VECETATION . Her rejentific names of pla	nto	16.	· · · · · · · · · · · · · · · · · · ·				
VEGETATION – Use scientific πames of pla		Damina	at Indiantas	Daminanas Tast way	rahaati		
Tree Stratum (Plot size:)	Absolute % Cover		nt Indicator  Status	Dominance Test work  Number of Dominant S		_	
1.				That Are OBL, FACW,		2	(A)
2				Total Number of Domin	nant	3	
3.			_	Species Across All Stra		>	(B)
4				Percent of Dominant S	eccion.	1:4	
		= Total C	Cover	That Are OBL, FACW,		6690	(A/B)
Sapling/Shrub Stratum (Plot size:)				Prevalence Index wo	rksheet:		
1				Total % Cover of:	M	fultiply by:	_
3.		****		OBL species	x1=		_
4				FACW species	x 2 =		
5.			-	FAC species		Alexander Company	
1		= Total C	over	FACU species			
Herb Stratum (Plot size: 5 )	-			UPL species			
		yes	The second second	Column Totals:	(A)		_ (B)
2 Raymonds repens	20	yes_	FAC	Prevalence Index	= B/A =		
3. Benathe sarmantos a	30	no	OBL	Hydrophytic Vegetati			
5. Holus lanatus	$-\frac{30}{2}$	yes.	FACE	1 - Rapid Test for I		egetation/	
6. Runey crispus	2	no	FAC	2 - Dominance Tes			
7. Helminthothern ecnoides	2	No No	FOU	3 - Prevalence Inde			
8.				4 - Morphological / data in Remark	loaptations ( s or on a sena	Provide supp arate sheet)	oorting
9.				5 - Wetland Non-V	THE PART OF THE PROPERTY PARTY.		
10				Problematic Hydro			n)
11				<sup>1</sup> Indicators of hydric soi	I and wetland	hydrology m	787
		= Total Co	ver	be present, unless distr	urbed or probl	lematic.	
Woody Vine Stratum (Plot size:)							
1.				Hydrophytic	×		
2.			· <del></del>	Vegetation Present? Yes	s X N	ο	i
% Bare Ground in Herb Stratum		= Total Co	ver	160			
Remarks:			1				
							į
							l

Sampling Point: \_\_\_\_\_\_

Depth Matrix	pth needed to document the indicator or confir Redox Features	<u>*</u>
(inches) Color (moist) %	Color (moist) % Type¹ Loc²	Texture Remarks
0-8 joyry/1 90	7.575/6 10 C m	a
υ μ γ.	1.51.5/5	A TO SERVICE OF THE S
	· <del></del>	
<sup>1</sup> Type: C=Concentration, D=Depletion, RN	M=Reduced Matrix, CS=Covered or Coated Sand C	Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to a		Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	31. 41. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.
Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Redox Dark Surface (F6) Depleted Dark Surface (F7)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):		The state of the s
Type:		
Depth (inches):		Hydric Soil Present? Yes X No
Remarks:		Tryunc con resent: Tes A to
Wetland Hydrology Indicators:		
	ed; check all that apply)	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)	ed; check all that apply) Water-Stained Leaves (B9) (except	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Ots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (Ca)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Ots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (Ca)  Stunted or Stressed Plants (D1) (LRR 4)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Ots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (Called Stanted or Stressed Plants (D1) (LRR 4)  Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9) ots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B  Sparsely Vegetated Concave Surface (B1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (Called Stanted or Stressed Plants (D1) (LRR 4)  Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  ots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B  Sparsely Vegetated Concave Surface (Field Observations:	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Castunated or Stressed Plants (D1) (LRR 4) Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  ots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B  Sparsely Vegetated Concave Surface (Field Observations:  Surface Water Present?	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (Castunted or Stressed Plants (D1) (LRR 4)  Other (Explain in Remarks)  No Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  ots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations:  Surface Water Present?  Water Table Present?	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (Castunted or Stressed Plants (D1) (LRR Astronomy)  Other (Explain in Remarks)  No ▶ Depth (inches):  Depth (inches): 3~4 at	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  ots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations: Surface Water Present? Water Table Present? Yes Saturation Present? Yes (includes capillary fringe)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C  Stunted or Stressed Plants (D1) (LRR A  Other (Explain in Remarks)  No Depth (inches): 3-4 M  No Depth (inches): 5yrface Wett	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9) ots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations:  Surface Water Present?  Water Table Present?  Yes  Yes  Saturation Present?  Yes  (includes capillary fringe)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (Castronia)  Stunted or Stressed Plants (D1) (LRR 4)  Other (Explain in Remarks)  No  Depth (inches):  Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9) ots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations:  Surface Water Present?  Water Table Present?  Yes  Water Table Present?  Yes  Yes  Jensel Concave Surface (B6)  Water Table Present?  Saturation Present?  Yes  Jensel Concave Surface (B6)  Water Table Present?  Yes  Jensel Concave Surface (B6)  Water Table Present?  Saturation Present?  Yes  Jensel Concave Surface (B6)  Water Table Present?	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C  Stunted or Stressed Plants (D1) (LRR A  Other (Explain in Remarks)  No Depth (inches): 3-4 M  No Depth (inches): 5yrface Wett	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  ots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations:  Surface Water Present?  Water Table Present?  Yes  Yes  Saturation Present?  Yes  (includes capillary fringe)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C  Stunted or Stressed Plants (D1) (LRR A  Other (Explain in Remarks)  No Depth (inches): 3-4 M  No Depth (inches): 5yrface Wett	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  ots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B  Sparsely Vegetated Concave Surface (Field Observations:  Surface Water Present?  Water Table Present?  Yes  Yes  Saturation Present?  Yes  Saturation Present?  Yes  Gincludes capillary fringe)  Describe Recorded Data (stream gauge, medicate)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C  Stunted or Stressed Plants (D1) (LRR A  Other (Explain in Remarks)  No Depth (inches): 3-4 M  No Depth (inches): 5yrface Wett	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  ots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (Field Observations:  Surface Water Present?  Water Table Present?  Yes  Saturation Present?  Yes  Saturation Present?  Yes  Gincludes capillary fringe)  Describe Recorded Data (stream gauge, medicate)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C  Stunted or Stressed Plants (D1) (LRR A  Other (Explain in Remarks)  No Depth (inches): 3-4 M  No Depth (inches): 5yrface Wett	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  ots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)

Project/Site: 1569 Newburg Rd.		City/C	ounty:	Fort	MA Sampling Date: 4
Applicant/Owner: ACGC		751			State: CA Sampling Point: 1-5-24
Investigator(s): K. Wear		Section	on. Tov	wnship. Ra	noe: 2, TZN, RIW
Landform (hillslope, terrace, etc.):					
Subregion (LRR):					
Soil Map Unit Name: Urban land Friend					
- I - I	7			1	
Are climatic / hydrologic conditions on the site typical for this					,
Are Vegetation, Soil, or Hydrology s				Are "	Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrologyn	aturally pro	blema	atic?	(If ne	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map		sam	pling	g point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes N	~		lo th	o Compled	Azon
Hydric Soil Present? Yes N				e Sampled in a Wetlar	V
Wetland Hydrology Present? Yes N	° <del>/</del>				
Remarks:					
VEGETATION – Use scientific names of plan	ts.	-		×11	
	Absolute	Dom	ninant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Spe	cies?	Status	Number of Dominant Species 1 0 2
1					That Are OBL, FACW, or FAC: (A)
2.					Total Number of Dominant 4 4 500
3.					Species Across All Strata: (B)
4.					Percent of Dominant Species 4 70%
Sapling/Shrub Stratum (Plot size:)		_= 10	tal Co	ver	That Are OBL, FACW, or FAC: (A/B)
1.					Prevalence Index worksheet:
2.					Total % Cover of: Multiply by:
3.					OBL species x 1 =
4					FACW species x 2 =
5					FAC species x 3 = FACU species x 4 =
Herb Stratum (Plot size: 51 - radus		_ = To	tal Co	ver	UPL species x5 =
1. Festuca arundinace	20	VP	S	FAC	Column Totals:(A)(B)
2. Daras carola	20	jes		FAW	Management as M. Management Section 24
3. tribolium Sp	20	Te		?	Prevalence Index = B/A =
4. Bellis perennis	tu	40		UPL	1 - Rapid Test for Hydrophytic Vegetation
5. Geranim sp	7	no	Control of the control	2	2 - Dominance Test is >50%
6. Hypochanis radicale	5	no		FAW	3 - Prevalence Index is ≤3.0¹
7. Tarayaum officinale	_5_	90		FAW	4 - Morphological Adaptations (Provide supporting
8. Pluntajo janceolata		no	)	FACU	data in Remarks or on a separate sheet)
9		-			5 - Wetland Non-Vascular Plants <sup>1</sup>
10.					— Problematic Hydrophytic Vegetation¹ (Explain)
11.					<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	100	= Tota	al Cov	er	be present, unless disturbed of problematic.
To the state of th					
1					Hydrophytic Vegetation
			al Cov	er	Present? Yes No
% Bare Ground in Herb Stratum				51	
Remarks:					

-	-		
	f 1	16	
u	$\mathbf{\sim}$	12	_

Sampling Point: 4

Profile Description: (Describe to the dept	needed to document the indicator or confi	irm the absence of indicators.)
Depth <u>Matrix</u>	Redox Features	-
(inches) Color (moist) %	Color (moist) % Type Loc2	Texture Remarks
0-12 10yr2/2		
1		
A STATE OF THE STA		
( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )		
The Committee Description Desc	2-1	Out 21 Hand Display Manageria
Hydric Soil Indicators: (Applicable to all L	Reduced Matrix, CS=Covered or Coated Sand	Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> :
B 37 75339		-
Histosol (A1) Histic Epipedon (A2)	Sandy Redox (S5) Stripped Matrix (S6)	2 cm Muck (A10) Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	3Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):		
Type:		. 1
Depth (inches):	<del></del>	Hydric Soil Present? Yes No X
Remarks:		
		j
INCREAL COV		
HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required	check all that apply)	Secondary Indicators (2 or more required)
Surface Water (A1)	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	4A, and 4B)
Saturation (A3)	Salt Crust (B11)	Drainage Patterns (B10)
Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Oxidized Rhizospheres along Living R	Roots (C3) Geomorphic Position (D2)
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Shallow Aquitard (D3)
Iron Deposits (B5)	Recent Iron Reduction in Tilled Soils (	C6) FAC-Neutral Test (D5)
Surface Soil Cracks (B6)	Stunted or Stressed Plants (D1) (LRR	A) Raised Ant Mounds (D6) (LRR A)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Frost-Heave Hummocks (D7)
Sparsely Vegetated Concave Surface (B	3)	
Field Observations:		
Surface Water Present? Yes N	Depth (inches):	
Water Table Present? Yes N	Depth (inches):	
Saturation Present? Yes N		etland Hydrology Present? Yes No
(includes capillary fringe)	352	
Describe Recorded Data (stream gauge, mon	itoring well, aerial photos, previous inspections	s), if available:
Remarks:		
		}

Project/Site: 1569 Newburg Pd.	4	City/County: FC	whya Sampling Date: 1-7-29
Applicant/Owner: ACGC		only/county.	State: CA Sampling Point: 5
		Section Township	Range: 2, TZN, RIW
Landform (hillslope, terrace, etc.): terrace			ve, convex, none): Concave Slope (%): D
A			30 Long: 124 14440143 Datum:
Subregion (LRR):			
	f	/ \/	NWI classification:
Are climatic / hydrologic conditions on the site typical for thi	s time of yea	,	
Are Vegetation, Soil, or Hydrology s	significantly	disturbed?	Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology r	naturally pro	blematic? (	If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	sampling poi	nt locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X N	lo		
THE MANUFACTURE OF THE PROPERTY OF THE PROPERT	lo	Is the Sam	V
Wetland Hydrology Present? Yes N	lo	within a We	etland? Yes No No
Remarks:			VA 34 1 1 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
VEGETATION – Use scientific names of plan	its.		
Tron Chrotism (Plot sing)	Absolute	Dominant Indicat	
Tree Stratum (Plot size:)  1		Species? Statu	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2.			Total Number of Dominant
3			Species Across All Strata: (B)
4.			Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 10 -7		= Total Cover	That Are OBL, FACW, or FAC: 106% (A/B)
1. Saliy Sp	40	ves FACE	Prevalence Index worksheet:
2.		1	Total % Cover of: Multiply by:
3.			OBL species x 1 =
4.			FACW species x 2 =
5.			FAC species x 3 =
1-6	40	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 5'-')	16		UPL species x 5 =
1. Barathe Sames tosa	970	yos obe	
3			Totalcine mack - Bix -
4			Hydrophytic Vegetation Indicators:
5			1 - Rapid Test for Hydrophytic Vegetation
6.			2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
7			4 - Morphological Adaptations¹ (Provide supporting
8.			data in Remarks or on a separate sheet)
9			
10.			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)	10_=	Total Cover	be present, unless disturbed or problematic.
1			
2		7	Hydrophytic Vegetation
		Total Cover	Present? Yes No No
% Bare Ground in Herb Stratum		. Otal Ouvel	
Remarks:			
		T.	

	1	I	
o	U	L	

Sampling Point: 5

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand G Hydric Soil Indicators: (Applicable to all LRRs, unloss otherwise noted.)  Histosol (A1)	Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) Red Parent Material (TF2)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5)  Histosol (A2) Stripped Matrix (S6)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1 Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)  Depleted Below Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) Redox Dark Surface (F6)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)  Sandy Gleyed Matrix (S4) Redox Depressions (F8)  Restrictive Layer (if present):  Type:  Depth (inches):  Remarks:  Water was too deep to dus pit soil in Surface (F7)  Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) Water Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Saturation (A3) Salt Crust (B11)  Sediment Deposits (B2) Hydrogen Sulfide Odor (C1)  Drift Deposits (B3) Oxidized Rhizospheres along Living Royal Mater As (B1) Presence of Reduced Iron (C4)  Iron Deposits (B5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR 1)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No Depth (inches):	Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10)  Red Parent Material (TF2)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present,
Addric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5)  Histic Epipedon (A2) Stripped Matrix (S6)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1  Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)  Depleted Below Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) Redox Dark Surface (F6)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F6)  Sandy Gleyed Matrix (S4) Redox Depressions (F8)  Restrictive Layer (if present):  Type:  Depth (inches):  Remarks:  Waler was loo deep to due pot our poly for the following forms and the following fol	Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10)  Red Parent Material (TF2)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present,
Nydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5)  Histic Epipedon (A2) Stripped Matrix (S6)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1  Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)  Depleted Below Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) Redox Dark Surface (F6)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F6)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)  Redox Depressions (F8)  Restrictive Layer (if present):  Type:  Depth (inches):  Remarks:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) Water Table (A2) MLRA 1, 2, 4A, and 4B)  Saturation (A3) Salt Crust (B11)  Sediment Deposits (B2) Hydrogen Sulfide Odor (C1)  Diff Deposits (B3) Naid Crust (B4) Presence of Reduced Iron (C4)  Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C  Surface Water Present? Yes No Depth (inches):	Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10)  Red Parent Material (TF2)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present,
Nydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5)  Histic Epipedon (A2) Stripped Matrix (S6)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1  Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)  Depleted Below Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) Redox Dark Surface (F6)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F6)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)  Redox Depressions (F8)  Restrictive Layer (if present):  Type:  Depth (inches):  Remarks:  Water Water (A1) Water June Water (A1)  High Water Table (A2) MLRA 1, 2, 4A, and 4B)  Saturation (A3) Salt Crust (B1)  Sediment Deposits (B2) Hydrogen Suffide Odor (C1)  Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C  Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)  Field Observations:  Furface Water Present? Yes No Depth (inches):	Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10)  Red Parent Material (TF2)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present,
Algoric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5)  Histic Epipedon (A2) Stripped Matrix (S6)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1  Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Matrix (F2)  Depleted Below Dark Surface (A12) Redox Dark Surface (F6)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F6)  Sandy Gleyed Matrix (S4) Redox Dark Surface (F7)  Restrictive Layer (if present):  Type:  Depth (inches):  Remarks:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) Water Table (A2) MLRA 1, 2, 4A, and 4B)  Saturation (A3) Salt Crust (B1) Aquatic Invertebrates (B13)  Water Marks (B1) Aquatic Invertebrates (B13)  Algal Mat or Crust (B4) Presence of Reduced Iron (C4)  Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C  Surface Water Yes Mo Depth (inches):  Surface Water Present? Yes No Depth (inches):	Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10)  Red Parent Material (TF2)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present,
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5)  Histic Epipedon (A2) Stripped Matrix (S6)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1 Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)  Depleted Below Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) Redox Dark Surface (F6)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F6)  Sandy Gleyed Matrix (S4) Redox Depressions (F8)  Restrictive Layer (if present):  Type:  Depth (inches):  Remarks:  Waler was loo deep to due pit (conscurtive)  Proposition (A3) Water Matrix (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Saturation (A3) Salt Crust (B1) Aquatic Invertebrates (B13)  Mater Marks (B1) Aquatic Invertebrates (B13)  Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C Surface Water Conservations:  Surface Water Present? Yes No Depth (inches):	Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10)  Red Parent Material (TF2)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present,
Addric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5)  Histic Epipedon (A2) Stripped Matrix (S6)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1  Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)  Depleted Below Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) Redox Dark Surface (F6)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F6)  Sandy Gleyed Matrix (S4) Redox Depressions (F8)  Restrictive Layer (if present):  Type:  Depth (inches):  Remarks:  Waler was loo deep to due pot our poly for the following forms and the following fol	Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10)  Red Parent Material (TF2)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present,
Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Mucky Mineral (F1) (except MLRA 1)  Thick Dark Surface (A12)  Sandy Mucky Mineral (F3)  Thick Dark Surface (A12)  Sandy Mucky Mineral (F3)  Depleted Matrix (F3)  Pedox Dark Surface (F6)  Depleted Dark Surface (F7)  Sandy Gleyed Matrix (S4)  Redox Depressions (F8)  Redox Depressions	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present,
Black Histic (A3)	— Very Shallow Dark Surface (TF12) — Other (Explain in Remarks)
Hydrogen Sulfide (A4)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (F3)  Redox Dark Surface (F6)  Sandy Gleyed Matrix (S4)  Redox Dark Surface (F7)  Redox Depressions (F8)  Restrictive Layer (if present):  Type:  Depth (inches):  Remarks:  Water Was too deep to dug pit soil is sufficiently conscentive.  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches):  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Depleted Matrix (F3)  Redox Dark Surface (F6)  Redox Dark Surface (F7)  Redox Dark Surface (F6)  Redox Dark Surface (F6)  Redox Dark Surface (F6)  Redox Dark Surface (F6)  Redox Dark Surface (F1)  Redox Dark Surface (F2)  Redox Dark Surface (F2)  Redox Dark Surface (F2)  Redox Dark Surfa	Other (Explain in Remarks)  3Indicators of hydrophytic vegetation and wetland hydrology must be present,
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Readox Depressions (F8)  Restrictive Layer (if present):  Type: Depth (inches):  Remarks: Date was too deep to duy pit soil is Sufurated for more than lid conscentive.  Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except MIRA 1, 2, 4A, and 4B) Saturation (A3) Salt Crust (B11) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Rolling Mater Toposits (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (Caster of Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No Depth (inches): 6	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,
Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8)   Restrictive Layer (if present):  Type: Depth (inches): Remarks:  Remarks: Depth (inches): Remarks: Depth (inches):	wetland hydrology must be present,
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8)  Restrictive Layer (if present):  Type: Depth (inches):  Remarks: Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 deep 10 dug pit 50il is Suffered Lor was 100 dug pit 50	
Remarks:  Depth (inches):  Remarks:  Water was too deep to dig pit soil is Sufurated for more than lid consciutive.  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches):	unless disturbed or problematic.
Type: Depth (inches):    Depth (inches):   Depth	
Depth (inches):  Depth	
Water Was too deep to dig pit, Soil is Sufurated for more than 14 conscribed for more than 15 conscribed for more	Hydric Soil Present? Yes No
Water Was too deep to dig pit soil is Sufurated for more than let conscribe.  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches):	<u></u>
Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	حر تن
Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Surface Water Present?  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C)  Stunted or Stressed Plants (D1) (LRR A)  Other (Explain in Remarks)	
High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Surface Water Present?  WALRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C)  Stunted or Stressed Plants (D1) (LRR A)  Other (Explain in Remarks)	Secondary Indicators (2 or more required)
Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Surface Water Present?  Surface Water Present?  Surface Water Present?  Self Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C)  Stunted or Stressed Plants (D1) (LRR A)  Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2,
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No Depth (inches):	4A, and 4B)
Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C  Stunted or Stressed Plants (D1) (LRR A  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches):	Drainage Patterns (B10)
Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Depth (inches):	Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Fresence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C)  Stunted or Stressed Plants (D1) (LRR A)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No Depth (inches):	
Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  ield Observations:  Ves  No Depth (inches):	Shallow Aquitard (D3)
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Surface Water Present?  Surface Water Present?  Sturface Water Present?	
Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes  No Depth (inches): 6	
Field Observations:  Surface Water Present? Yes  No Depth (inches): 6	Raised Ant Mounds (D6) (LRR A)
Surface Water Present? Yes No Depth (inches):	maised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Surface Water Present? Yes No Depth (inches): 6	
Vater Table Present? Yes No Depth (inches):	
includes capillary fringe)	Frost-Heave Hummocks (D7)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous Inspections)	Frost-Heave Hummocks (D7) and Hydrology Present? Yes No
Remarks:	Frost-Heave Hummocks (D7) and Hydrology Present? Yes No
	Frost-Heave Hummocks (D7) and Hydrology Present? Yes No
	Frost-Heave Hummocks (D7) and Hydrology Present? Yes No
	Frost-Heave Hummocks (D7) and Hydrology Present? Yes No

