

Oakland Local Street Network Plan

Technical Memorandum 3: Transportation Facilities and Services Inventory

I. Introduction

Technical Memorandum 3 summarizes transportation facilities and related dynamics for all modes of transportation services within the Oakland Local Street Network Plan Study Area, (the City's UGB). The inventory assesses the capacity and condition of the existing transportation system.

The inventory of the existing transportation system conducted as part of the local street network planning process includes:

- Existing street characteristics including physical features, road conditions, functional classification, accident data, and connectivity with primary emphasis on the arterial and collector street systems
- Other surface transportation such as intercity bus and passenger rail
- Pedestrian and bicycle systems
- Existing land uses and zoning ordinances as they pertain to transportation and connectivity.
- Natural resources and physical dynamics

The inventory data comes from a variety of sources and field collection. This inventory provides a basis for comparison for future assessment of transportation conditions in Oakland, and provides critical insights for street network planning and priorities.

II. Overview of Oakland's Existing Land Use Conditions

A. Land Use and Vacant Lands

For the purposes of this study, the project team used property class determinations from the Douglas County Assessor to determine current land uses. A write-off of Douglas County tax lots (obtained from Douglas County in July, 2014) is being used for this study. The majority of land in Oakland is dedicated to residential uses, followed by rural and farm land. Commercial land use is concentrated along First Street (Old Highway 99) and North and South East Locust Street. Table 1 shows the distribution of land uses by their development status (according to Douglas County Assessment records). **Map 1** depicts land use and development status within Oakland. Though numerous properties are identified with a vacant property class, many have significant development constraints (primarily slope).

**Table 1: Distribution (in acres) of
Land Use Types by Development Status**

Land Use, Developed	Acres
Residential	283
Commercial	7
Industrial	10
Rural	54
Farm	60
Multi-Family	4
Public	106
Unbuildable	29
Land Use, Vacant	Acres
Residential	62
Commercial	10
Industrial	59
Rural	125
Farm	115
Forest	55
Public	17

B. Zoning and Special Overlay Areas

Oakland has 10 zoning designations they include:

- Low Density Residential at 7,500 sq ft
- Low Density Residential at 10,000 sq ft
- Medium Density Residential
- Public Lands
- Rural Density Residential
- Agriculture/Open Space
- General Commercial
- General Industrial
- Light Industrial
- Duplex Overlay Zone

The majority of land within the Urban Growth Boundary (UGB) is designated as Low Density Residential. Significant portions of town are also in General Industrial zoning. The Commercial Zone is located along First/Front Street (north to south) and South & North East Locust Street except for a large area along Stearns Lane in the western portion of town. The City also has a Historic District Overlay which is primarily applied to Low Density Residential areas but also includes all of downtown, with its commercial uses. Table 2 provides a summary of the acres in each zone. Zone designations and special overlays are also presented in **Map 2**.

Table 2. Distribution of Zoning Types

Zoning Type	Acres
Agriculture/Open Space	27.7
General Commercial	85.4
General Industrial	65.6
Light Industrial	10.3
Low Density Residential (7,500 sq. ft.)	130.4
Low Density Residential (10,000 sq. ft.)	70.1
Medium Density Residential	53.6
Public Land	50.1
Rural Density Residential	61.7
Duplex Overlay Zone	16.8

C. Comprehensive Plan

Oakland’s Comprehensive Plan consists of nine land designations, they include:

- Light & General Industrial
- Public & Semi-Public
- Commercial
- Open Space/Agriculture
- General Residential 1 & 2
- Specific Residential 1

Over 40% of Oakland is designated Specific Residential, most of which is located in the center of town. The Light and General Industrial areas are located on the eastern and western ends of town, while the Commercial zones primarily lay in the center along First and Front Streets (old Highway 99). Open Space/Agriculture is located along Calapooya Creek and the majority of Public lands can be found on the north end of town along Old Town Loop Road (school district) and the southwest of town along Goodman Avenue (water treatment/public works). A table of Oakland’s Comprehensive Plan land designation by acreage is provided below. A map of plan designations is provided as **Map 3**.

Table 3. Comprehensive Plan Zoning Designations

Comprehensive Plan Zone Type	Acres
Commercial	21.5
General Industrial	65.5
General Residential 1	62.1
General Residential 2	55.5
Light Industrial	10.4
Open Space/Agriculture	31.3
Public	49.5
Semi-Public	4
Specific Residential 1	216.3

D Right-of-Way (ROW)

Table 4 presents the ROW widths along streets (and types) in Oakland. The ROW widths were measured using geographic information systems (GIS) data provided by Douglas County. A map of approximate ROW locations in Oakland is included in **Map 3**.

Table 4. Approximate Street ROW Widths

Street Name	Width
Old Highway 99/First/Front Street	100'
Ash Street (Undeveloped)	90'
Locust Street	80'
All other Streets	60'
All Alleys	20'

E. Current and Near-Term Developments

The City of Oakland does not have any immediate or near term developments.

III. Overview of Oakland's Existing Street Network

A. Location and Jurisdictional Responsibility

Douglas County and the City of Oakland each maintain portions of the existing street system within the study area. There are also a few privately maintained roads in the study area; these are not listed in the street inventory.

The following section presents a summary of the jurisdictional responsibility for the various streets and highways within the study area. Included are county roads and city streets. There are no state-maintained highways within the study area.

County-Maintained Roads and County Functional Classification

Douglas County maintains roads within the Oakland UGB. Table 5 shows the streets within Oakland's UGB maintained by Douglas County and their County functional classification. A brief description and images for these streets follows. A map including roads by jurisdiction (City vs County) can also be found on **Map 4**.

Table 5. Douglas County-Maintained Roads

Road Name	From	To	County Classification
Old Highway 99 North	North Old Town Road	NE Cypress Avenue	Arterial
NE First Street	NE Cypress Avenue	SE Locust Street	Arterial
SE First Street	SE Locust Street	SE Front Street	Arterial
SE Front Street	SE Maple Street	Bambi Lane	Arterial
Stearns Lane	SE Front Street	Interstate 5	Minor Collector
Oak Street	NE First Street	Driver Valley Road	Local
Driver Valley Road	NE Locust Street	Fair Oaks Road	Local

Where SE First Street becomes SE Front Street--Arterial (Looking North)

NE First Street is Old Highway 99. Posted speeds are 35 MPH on the north and south ends of town. There are not posted speeds through the downtown area.



Image from Google Street View

Old Highway 99 North --Arterial (Looking South toward NE Front Street)



Image from Google Street View

Stearns Avenue—Minor Collector (Looking West)

Stearns Avenue runs east and west from the intersection of SE Front Street and Old Highway 99 North to Interstate 5. Posted speeds range from 35 to 45 MPH.



Image from Google Street View

Stearns Avenue—Minor Collector (Looking East)



Image from Google Street View

Oak Street -- Local (Looking East)

Oak Street runs east and west from NE First, in the center of town, to Driver Valley Road on the east side of town. The posted speed is 25 MPH from the center of town all the way to Driver Valley Road.



Image from Google Street View

City-Maintained Roads and Functional Classification

The City of Oakland also maintains roads within the Oakland UGB. Table 6 shows the streets within Oakland’s UGB maintained by the City along with their city functional classifications (and where it is different, their county functional classification). A map including roads by jurisdiction (city vs county) can also be found on **Map 4**.

Table 6. City-Maintained Streets

Road Name	From	To	City/County Classification
Bambi Lane	SE Front Street	SE First Street	Local
Carlile Road	Wells Road	Dead End	Local
Clear Lake Street	Vista Lake Street	Dead End	Local
Crowsfoot Road	Driver Valley Road	Dead End	Local
Deer Ridge Lane	Old Town Loop Road	Dead End	Local/Rural Local
Driver Valley Road	NE Locust Street	Fair Oaks Road	Local
Goodman Ave	Stearns Lane	Dead End	Local
Lincoln Lane	Old Town Loop Road	Dead End	Local
Martin Road	Wells Road	Dead End	Local
NE Ash Court	NE Ninth Street	Dead End	Local
NE Cedar Street	NE Third Street	Old Town Loop Rd	Collector
NE Cypress Avenue	NE Fifth Street	Old Highway 99 North	Collector
NE Eighth Street	Oak Street	SE Locust Street	Local

Road Name	From	To	City/County Classification
NE Fifth Street	NE Cedar Street	SE Locust Street	Collector
NE First Street	NE Cypress Avenue	SE Locust Street	Arterial
NE Fourth Street	NE Cedar Street	NE Pine Street	Local
NE Locust Street	NE First Street	Driver Valley Road	Collector/Local
NE Ninth Street	NE Ash Court	SE Locust Street	Local
NE Pine Street	NE First Street	NE Fourth Street	Local
NE Second Street	NE Cypress Avenue	SE Locust Street	Local
NE Seventh Street	Ash Creek ROW	Oak Street	Local
NE Sixth Street	NE Cedar Street	Oak Street	Local
NE Third Street	NE Cedar Street	SE Locust Street	Collector
North Old Town Road	Old Town Cemetery Rd	Old Highway 99	Local
NW Pine Street	NE First Street	Dead End	Local
Oak Street	NE First Street	Driver Valley Rd	Arterial/Local
Old Highway 99 North	North City Limits	NE Cypress Avenue	Arterial
Old Town Cemetery Rd.	Old Highway 99 North	Dead End	Local
Old Town Loop Road	NE Cedar Street	NE Cedar Street	Other/Local
SE Apple Street	SE First Street	Dead End	Local
SE Chestnut Street	SE First Street	SE Fourth Street	Local
SE Eighth Street	SE Locust Street	Dead End	Local
SE Fifth Street	SE Locust Street	Dead End	Local
SE First Street	SE Locust Street	Dead End	Local & Arterial/Arterial
SE Fourth Street	SE Locust Street	Dead End	Local
SE Front Street	SE Maple Street	Bambi Lane	Arterial
SE Locust Street	NE First Street	Driver Valley Road	Collector/Local
SE Maple Street	SE Front Street	SE Eighth Street	Local
SE Pear Street	SE First Street	Dead End	Local
SE Second Street	SE Locust/SE Apple	SE Chestnut/Dead End	Local
SE Seventh Street	Dead End/Locust Street	Locust Street/Dead End	Local
SE Third Street	SE Locust Street	Dead End	Collector
SE Walnut Street	SE Front Street	SE Fourth Street	Local
Spencer Hill Lane	NE Locust Street	Dead End	Local
Stearns Lane	SE Front Street	Interstate 5	Arterial/Minor Collector
Vista Lake Street	Stearns Lane	Dead End	Local
Wells Lane	Wells Road	Dead End	Local
Wells Road	NE Locust Street	Dead End	Local

*County Classification listed if applicable or different than City Classification

NE & SE Locust Streets (Looking East)

NE and SE Locust Streets run in an east west direction from the intersection of NE & SE First Streets to Driver Valley Road. The posted speed is 25 MPH in the residential and commercial areas around downtown.



Image from Google Street View

NE & SE Locust Streets (Looking West)



Image from Google Street View

NW & SW Locust Streets (Looking East)



Image from Google Street View

NE Fifth Street (Looking North)

NE Fifth Street runs north and south from Locust Street to its end (Oakland School District) just passed NE Cedar Street. NE Fifth Street contains a separated path which is currently used as a pedestrian path, acting as a main travel route for students to get to school. There are no posted speeds on NE Fifth.



Image from Google Street View

SE Fifth Street (Looking South)

SE Fifth Street runs north and south from Locust Street to its end just passed SE Pear Street at the south end of town. Posted speed is 25 MPH.



Image from Google Street View

SE Third Street (Looking South)

SE Third Street runs north and south from Locust Street to its end just passed SE Pear Street at the south end of town. There are no posted speeds on SE Third.



Image from Google Street View

SE Walnut Street (Looking East)

SE Walnut Street runs east west from SE First Street to SE Fourth Street. There are no posted speeds on SE Walnut.



Image from Google Street View

B. Street Classifications

Current definitions of street functional class are based on Oakland’s Comprehensive Plan. Because the Comprehensive Plan is dated, functional class is also currently informed by the Oakland Subdivision Ordinance, and City of Oakland staff knowledge.

Functional classification provides a systematic basis for determining future right of way and improvement needs, and can also be used to provide general guidance to appropriate or desired vehicular street design characteristics. Roadway functional classification is based on the relative priority of traffic *mobility* and *access* (see Figure 1). From a design perspective, the functions of mobility and access can be incompatible since high or continuous speeds are desirable for mobility, while low speeds are more desirable for access. At one end of the spectrum of mobility and access are freeways, which emphasize moving high volumes of traffic, allowing only highly controlled access points. At the other end of the spectrum are residential cul-de-sac streets, which provide access only to parcels with direct frontage and allow no through traffic. Between the ends of this spectrum are arterials,

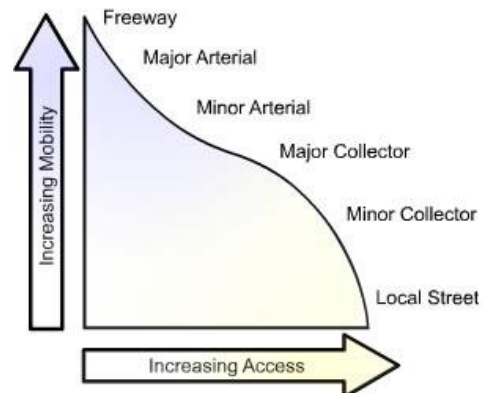


Figure 1 Functional Classifications

collectors and local streets each with an increasingly greater emphasis on mobility. Arterials emphasize a high level of mobility for through movement; local facilities emphasize the land access function; and collectors offer a balance of both functions. Classifications can be further stratified into major and minor arterials and collectors.

Current Street Classification in Oakland

Currently, the City of Oakland and Douglas County use different roadway classifications and standards for roads within the study area (see **Map 5** (City Classification) and **Map 6** (County Classification)). Following are definitions of Oakland's existing street functional classes.

- **Arterial:** Principle vehicular traffic arteries serving as connectors through Oakland and linking the community with other portions of the County, State, and Interstate transportations systems. Their main function is to move large volumes of traffic smoothly, to provide cross town access, and connect to major roads leading out from the city. Oak Street and Stearns Avenue are the only arterial in an east-west direction. They both connect to First Street (Old Highway 99), the city's only north-south arterial. Because of the large amount of traffic that they handle, arterials are suited for providing access to an area having commercial and industrial uses. Oak and First Streets in Oakland adjoin the city's business area, providing access from and throughout town.

It is important that arterials be designed so that their main function is not hindered. This should include limiting the number of access ways onto the street, including driveways and other streets. The presence of numerous access ways could slow traffic flow, and increase energy use, traffic congestion, and the potential for traffic conflict as the volume of use increases in the future.

- **Collector:** Collectors provide access to rural, commercial, and residential areas. As the name suggests, collectors generally serve the function of gathering traffic from local streets and moving it to an arterial street. Access to abutting property, and on-street parking, are secondary functions of collector streets, which should not interfere with the main purpose of these streets. Fifth Street, which provides access from the schools, Old Town, and residential areas within town to Oak Street, serves as a collector. Locust Street, also a collector, provides access from residential and commercial areas of town to First Street. Locust Street also provides immediate access to adjacent property, and on-street parking.
- **Local:** Local streets constitute a third category of access. Their principal purpose is the provision of access to abutting property, and to move local traffic to a collector street. As a result, they are not intended for heavy traffic. This kind of street can be found throughout Oakland, providing access to residential areas of town, and constituting the side streets in the business area. As side streets they can provide parking spaces.

To avoid undue traffic and noise, especially in residential areas, local streets should not provide through access across town. It is interesting to note that the presence of

numerous platted, but as yet undeveloped streets north of Oak Street, prevent through traffic on many of the local residential streets in that area.

The Local Street Network Plan for the City of Oakland can introduce updated functional classifications to support the system that the City would like to see. **Map 14** includes a preliminary conceptual reclassification of streets generated by project staff with input from Oakland City staff. The preliminary concept proposes an increase the number and distinctiveness of functional classes, to allow for greater variety and uniqueness in design standards.

As noted, Douglas County has its own functional classes identified for streets within Oakland's city limits. The relevant classifications for county roads are as follows:

- **Arterial:** (unknown definition)
- **Minor Collector:** Minor collectors are intended to distribute local traffic onto other minor collector, major collector, or arterial streets. Property access onto minor collectors is often allowed. In urban areas, minor collectors should border neighborhood thereby helping to establish neighborhood identity. In rural areas, minor collectors also connect rural residential areas. Traffic volumes generally can range up to 5000 vehicles per day.
- **Local:** Local roads are intended to provide direct access to abutting property and move traffic from origin to the major road network. The through movement of traffic on local roads is to be discouraged. Traffic volumes on local roads are generally less than 1500 ADT (Average Daily Traffic).

Map 5 shows city street classifications and **Map 6** shows county street classifications. Table 7, which follows, presents streets by posted speeds and street conditions, including underground conditions. The City has significant documented issues related to collapsed storm drains. Table 8 summarizes street widths requirements for each classification according to the subdivision ordinance and the comprehensive plan. **Map 7** portrays road types and conditions.

C. Pavement Condition and Width

Pavement and road conditions in Oakland have not been thoroughly evaluated. Information about the status and conditions of roads is based on city staff knowledge and basic observational and other anecdotal information. All roads in Oakland are two lane roads with the exception of an alley west of city hall, which is a single lane, one-way alley. The project team has not determined road width for individual streets. Oakland's road width guidelines are contained in both the Comprehensive Plan and the Subdivision ordinance. There are discrepancies between these documents related to local street width. Table 8 provides a summary of street widths from the Subdivision Ordinance and the Comprehensive Plan, with the discrepancy highlighted.

Table 7. Oakland Street Speeds, Conditions, and Documented Underground Issues

Road Name	Posted Speed	Condition	Surface Type	Documented Under Ground Repairs Needed
Old Highway 99 North	35	FAIR	asphalt only	no issues
NE First Street	35	FAIR	asphalt, curb, gutter	potholes to subsurface, broken grates, underground issues, receded edges, utility damages, needs painted street crossings
SE Front Street	NPS	POOR	asphalt only	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
Stearns Lane	45	FAIR	asphalt only	no issues
Oak Street	25	FAIR	asphalt only or curb	major underground issues with storm drain and water damage from surface flooding effects local homes and emergency routes.
Driver Valley Road	55	GOOD	asphalt only	no issues
Bambi Lane	5	FAIR	asphalt only	no issues
Carlile Road	NPS		gravel	no issues
Clear Lake Street	NPS	GOOD	asphalt, curb, gutter	no issues
Crowsfoot Road	NPS		gravel	no issues
Deer Ridge Lane	NPS		gravel	no issues
Goodman Ave	20	GOOD	asphalt only	no issues
Lincoln Lane			gravel	no issues
Martin Road			gravel	no issues
NE Ash Court	25	POOR	asphalt, curb, gutter	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
NE Cedar Street	NPS	BAD	asphalt only	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
NE Cypress Avenue	NPS	GOOD	asphalt only	no issues
NE Eighth Street	NPS	FAIR	asphalt, curb, gutter	underground drainage issues and sink holes
NE Fifth Street	NPS	POOR	asphalt only	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud

Road Name	Posted Speed	Condition	Surface Type	Documented Under Ground Repairs Needed
NE Fifth Street	NPS	POOR	asphalt only	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
NE Fourth Street	NPS	POOR	asphalt only	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
NE Locust Street	25	FAIR	asphalt, curb, gutter	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
NE Ninth Street	25	POOR	asphalt, curb, gutter	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
NE Pine Street	NPS	FAIR	asphalt only	underground drainage issues and sink holes
NE Second Street	NPS	POOR	asphalt, curb, gutter	Storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
NE Seventh Street	NPS	GOOD	asphalt only	no issues
NE Sixth Street	NPS	POOR	asphalt only	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
NE Third Street	NPS	POOR	asphalt only	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
North Old Town Road	55	FAIR	asphalt only	no issues
NW Pine Street	NPS	FAIR	asphalt only	underground drainage issues and sink holes; sides exposed to elements; loose gravel
Old Town Cemetery Road	35	FAIR	asphalt to gravel	edges falling away due to erosion from under the surface
Old Town Loop Road	35	POOR	asphalt only	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud

Road Name	Posted Speed	Condition	Surface Type	Documented Under Ground Repairs Needed
SE Apple Street	NPS	POOR	asphalt	potholes to subsurface (some patched) exposed edges
SE Chestnut Street	NPS	POOR	asphalt	10% + alligating; edges exposed; potholes filled
SE Eighth Street	NPS	POOR	asphalt to gravel	50% gravel surface some over asphalt; potholes; exposed edges
SE Fifth Street	25	FAIR to POOR	asphalt to Pear then gravel	some loose gravel; intersection at Locust crumbling; exposed edges
SE First Street	NPS	POOR	50% asphalt/50% gravel	exposed edges; 10%+ alligating; potholes (some filled)
SE Fourth Street	NPS	POOR	asphalt	exposed edges; 10%+ alligating; potholes (some filled)
SE Locust Street	25	BAD	asphalt, curb, gutter	Storm drain collection issues, continuous water damage, major pot holes, no rock in road base, needs new rock under base, drainage and overlay blended into curb
SE Maple Street	25	FAIR to POOR	asphalt only	some exposed edges; short asphalt berm for drainage; some sidewalk
SE Pear Street	NPS	POOR	asphalt to gravel	exposed edges; alligating; filled potholes; citizen paved eastern extension of Pear
SE Second Street	NPS	POOR	gravel surface	exposed edges
SE Seventh Street		POOR	asphalt to gravel	exposed edges;
SE Third Street	NPS	POOR	asphalt	exposed edges; alligating; filled potholes; weed growth in cracks in surface
SE Walnut Street	NPS	POOR	asphalt	exposed edges; 10%+ alligating; potholes (some filled)
Spencer Hill Lane	NPS	POOR	gravel	exposed edges; potholes
Vista Lake Street	NPS	GOOD	asphalt	newer development - newer street
Wells Lane	NPS	POOR	asphalt to gravel	potholes, patches and exposed edges
Wells Road	NPS	POOR	asphalt to gravel	uneven surface due to major patches; exposed edges; potholes filled.
<ul style="list-style-type: none"> • NPS = No Posted Signs. Where no speed limit is posted the following limit applies as per ORS 811.105(2)(a): 15 miles per hour when driving on an alley or a narrow residential roadway • Road Conditions were evaluated as follows: <ul style="list-style-type: none"> GOOD - No pot holes, might need surface coat to extend life, no alligator surface, rock under base, might need seal coat on edges, painted FAIR - 0 to 10% alligator surface, many cracks, needs overlay, minor potholes to sub layers, sides exposed to elements, no drainage POOR - Over 10% alligator, asphalt surface less than 1 inch thick, no rock under base, mud on road, numerous pot holes, drainage issues 				

Table 8: Street Classification by Width

Road Type	Subdivision Ordinance Width	Comprehensive Plan Min. Width
Arterial	60' -120'	60'
Collector	50' -80'	50'
Local	40' -50'	50'
Cul-de-Sacs	40' -50'	N/A
Circular ends of Cul-de-Sacs	92'	N/A
Hammerhead or "T" end of streets	30'	N/A
All other streets not specified	50'- 60'	N/A

D. Connectivity

Connectivity in Oakland varies across different areas of town. Downtown and the central area of Oakland are laid out in a small grid pattern. As you move east or north towards the hills surrounding Oakland, connectivity declines slightly with many streets ending in cul-de-sacs and dead-ends. Topographic constraints have left the Ash Street Right-of-Way unimproved which gives the northern part of town generally poor connectivity to the rest of the City. **Map 11** presents a topographic profile of Oakland, which highlights challenges for improved connectivity within the existing network.

E. On and Off-Street Parking

There is little designated on-street parking on local streets throughout the city. On-street parking in residential areas occurs at drivers’ discretion and as each street physically allows. Locust Street provides the bulk of designated on-street parking in Oakland, most of which are angled slots. Some parallel parking is available on First and Second Streets. Though not legal, residents and visitors frequently park perpendicular to First Street (Old Highway 99) along its western side on the southern end of town. A complete listing of on-street parking locations in Oakland is provided below. There are no public parking lots in Oakland.

- On-street parking exists on both sides of Locust Street from NE First to NE Seventh Street near City Hall then breaks for a block and continues from NE Eighth Street and stopping near Oakland Church of Christ.
- There is on-street parking on both sides of First Street/Front Street from NE Pine Street to SE Walnut Street.
- On-street parking exists on both sides of the south end of SE Maple Street between First and Second Street.
- There is on-street parking on both sides of Second Street from NE Cypress Street to SE Chestnut Street.
- There is some on-street parking on both sides of Oak Street from NE First Street to NE Eighth Street.
- No on-street parking along Old Highway 99 North.
- No on-street parking on Stearns Lane.
- No on-street parking is available on Fifth Street.

Off-street parking is available at some businesses. Off-street parking and loading requirements are found in the City’s Zoning Ordinance. Parking does not seem to be an issue in Oakland except for a handful of vehicles parking along First Street (Old Highway 99). City Officials have stated their desire for no parking along this street because of its higher volume of traffic, but have not yet taken any action.

IV. Overview of Oakland’s Existing Pedestrian and Bicycle Facilities

Pedestrian and bike facilities in Oakland are limited and often inadequate where they occur. Fifth Street is the only street with a separated pedestrian path; however, conditions on this path make it inaccessible for skateboards and rollerblades. On many local streets, traffic volumes are low enough to allow for safe bicycle travel, but neither the City nor the school district have any routes expressly designated for this purpose at present. Sidewalks exist in some parts of downtown, along both sides of Locust Street, the north side of Oak Street. Streets which Intersect with Locust Street (e.g. Second, Third, and Fifth) also have some existing sidewalks (see **Map 8**). The city has a cost sharing policy for constructing sidewalks; this has resulted in a number of small segments of sidewalk scattered throughout town with little or no connectivity.

A. Local Activity Centers in Oakland

There are facilities and activity centers in Oakland that have the potential to generate more trips than other locations. A map of these sites is included in **Map 8**.

Trip attractions can vary widely depending on the trip purpose. Employment destinations, schools, recreation facilities, and commercial areas all entice travelers for different reasons. The bicycle and pedestrian system in Oakland is not well developed, and destinations that may be attractive to users of the system may be underutilized (or not used) by bicyclists and pedestrians. Because there is not a developed bicycle and pedestrian network of facilities, origin and destination studies would be impractical to conduct. Therefore, with no empirical data, the attractions listed below have been identified by the project team with help from City officials and are consistent with “typical” attractions in other cities.

- Oakland Elementary School
- Lincoln Middle School
- Oakland High School
- Oakland City Hall
- Oakland Post Office
- Oakland City Park and Pavilion
- Stearns Hardware store
- Tolly’s Restaurant
- Oakland Tavern
- Stearns City Park
- Oakland Transfer Station (Public Waste Disposal at end of Manning Road)

Other possible bicycle or pedestrian attractions include Triangle Park, downtown shops, and neighborhood churches.

B. Bicycle Transportation System in Oakland

The City of Oakland has no bicycle lanes or routes explicitly identified. Currently, bicyclists must compete with vehicle traffic on streets and with pedestrians on the limited sidewalk system.

The only existing County bicycle facilities in the vicinity of Oakland is a Class III facility, meaning that it shares the roadway with traffic and is identified by signage and striping. The facility is located along Old Highway 99 North at the South end of Town.

Project staff, in consultation with City of Oakland staff and officials developed a preliminary map of possible future bicycle routes. The routes are depicted in **Map 13**.

C. Pedestrian Transportation System in Oakland

The City of Oakland's sidewalk system varies widely from neighborhood to neighborhood. Sidewalks exist in most of the downtown area and provide access to commercial areas and employment sites. However, many of Oakland's neighborhoods either do not have sidewalks or have limited and disconnected sidewalk system that are inconsistent with the Americans with Disability Act (ADA). On arterials and collectors, the availability of sidewalks is generally erratic and incomplete. On many blocks, the sidewalks may exist on one side of the street but be absent on the other side of the street, or partial sidewalks may be in place sporadically throughout the block, lacking continuity. A map of existing pedestrian and bicycle facilities in Oakland is provided on **Map 8**.

D. Crosswalk Locations and Conditions

Oakland has very few crosswalks. Most of them are located in the downtown area. Crosswalk conditions in Oakland have not been systematically been evaluated, and information about the status and conditions of crosswalks is based on city staff knowledge and anecdotal information. Oakland's crosswalks are nicely visible with little chipping or fading, but, in many cases, fail to meet regulatory width standards. They often run across continuous traffic (no associated stop sign). This can result in safety and traffic congestion issues. Crosswalk locations in Oakland are listed below:

- Along Oak Street at intersections of NE First, NE Second, NE Third, and NE Fourth Streets.
- Along Locust Street at intersections of SE First, SE Second, SE Third, and SE Fourth Streets.
- Along Maple Street at intersections of SE Front, SE Second, and SE Third Streets.
- Along Fifth Street at intersections of NE Cedar, NE Cypress, NE Oak, and NE Locust Streets.

E. Traffic Levels

Systematic evaluations of traffic and capacity levels have not been conducted at this time for roads within the city. However, based on city staff knowledge traffic levels are modest throughout town. Higher levels of traffic are found on roads used as thoroughfares going north or south to Interstate 5 and Sutherland. The highest levels of traffic are found on Old Highway 99/First/Front, Oak, Fifth and Locust Streets. More information on traffic levels will help refine street classifications in the future. There are no areas that would be considered "high" crash areas identified in Oakland (see Table 9). However, drivers must use caution when traveling to and from Sutherland along Old Highway 99 North.

V. Overview of Oakland's Rail Network

A. Railroad

Central Oregon & Pacific Railroad (CORP) is the service provider for the railroad running along Old Highway 99 North in Oakland. This line primarily handles logs, lumber, and plywood and follows the same alignment built in the 1880s. The line is maintained to Class 2 standards with maximum speed over the route of 25 mph, with many segments limited to 20 mph. A passenger rail service would be unable to match highway times. Rail running time on the present 205-mile rail route between Eugene and Medford would require over 8 hours, and the improvements necessary to reduce the rail running time to competitive levels would require major reconstruction.

Instances in Oakland where street right-of-way crosses the railroad line are limited. On the north end of town Old Highway 99 crosses the railroad where it runs parallel to Calapooya Creek. This is a bridge crossing and does not directly affect traffic flow. The only other right of way crossing is an at-grade crossing on Stearns Avenue near Front Street (Old Highway 99). This crossing has at-grade improvements and a flashing light signal (without automatic gates).

The only other railroad “crossing” to speak of is an undeveloped westward extension of Pine Street which crosses the rail lines. The crossing is at grade with minimal improvements (railroad ties). The crossing provides access to the City’s water intake. It is also included as part of conceptual bike loop connecting the north end of the City to Calapooya Creek and open space on the west side of town (see **Map 13**). Rail crossings are depicted on **Map 8**.

VI. Transit in Oakland

Oakland is not currently served by public transit. Douglas Rides, a local Dial-a-Ride service has a connecting *out of area* service line that runs along I-5 from Cottage Grove to Roseburg. This service can be used by Oakland residents to get to surrounding areas. The closest proper transit service is an Umpqua Transit line running from Sutherlin to Umpqua Community College in Roseburg. There is no passenger rail service in Oakland. Umpqua Transit has representation on the Project Advisory Committee and has expressed interest in investigating possible future opportunities for transit service in Oakland.

VII. Safety

A. Accidents

Crash data for Oakland was obtained by Douglas County. No crash data was directly available for the City of Oakland proper. Crash data is, therefore, limited to Douglas County maintained streets. Table 9 presents a summary of crash data on Douglas County facilities. **Map 4** also shows the accident occurrences.

Table 9. Crash data for Douglas County facilities in/or around Oakland

Accident	Year	Time	Weather Conditions	No. of Vehicles	Street	Accident Detail	Severity
1	1995	3 AM	unknown	1	Driver V.	car and bicycle	Injury
2	1998	9 AM	unknown	1	Driver V.	car left roadway, went through fence	Property Damage Only
3	2004	8 AM	clear/dry	1	Old 99 (S)	lost control of vehicle	Injury
4	2004	7 AM	clear/dry	3	Old 99 (N)	drove off road and hit two parked cars	Property Damage Only
5	2005	3 AM	clear/dry	1	Old 99 (S)	careless driving	Injury
6	2005	1 AM	clear/dry	2	Old 99 (S)	lost control of vehicle	Injury
7	2011	8 PM	rain/wet	2	Front	reckless	Property Damage Only

B. Bicycle and Pedestrian Safety Conditions

Bicycle and pedestrian safety concerns have not been broadly investigated by staff. Both the Citizen Advisory and Project Advisory Committees have bike and pedestrian representation and further concerns and details should arise from those meetings. Issues which have been apparent through preliminary conversations with staff and a tour of the City include the following:

- A general lack of sidewalks, shoulders and dedicated paths
- Collapsed storm drains (particularly at Locust Street and Fifth Street) create recurring hazard to pedestrians, and in particular school children, as it causes them to leave the safety of established sidewalks to avoid areas of backed-up drainage.
- Crossings along Locust and Oak (particularly at Fifth Street) are the most potentially dangerous areas for pedestrian school children.

VIII. Natural Resource/Feature Constraints

A. Wetlands

A local wetlands inventory has not been completed for Oakland, so the project team used the National Wetland Inventory (NWI) to determine potential wetland areas. The majority of wetlands are located near the borders of the City, predominantly on the western side of town (associated with Calapooya Creek). Several wetlands of note that are not directly associated with Calapooya Creek include areas on the industrial lands south of Stearns Lane and a possible feature near the intersection of Oak and Locust Streets on the eastern end of town. Although most of Oakland’s central area lacks mapped resources, simple observation by the project team reveals a number of potential resources in this area related to drainages. If the soil and vegetation dynamics of these areas are consistent with state and federal wetland criteria, they are the jurisdiction of the Department of State Lands and must be appropriately addressed in plans for development of any kind. Table 10 provides a summary of wetland type by acre. Locations of wetlands within the study area (and surrounding areas) are included on **Map 10**.

Table 10: NWI Wetland Types in Oakland

WETLAND TYPE	FEATURES	ACRES
Freshwater Emergent Wetland	9	35.1
Freshwater Forested/Shrub Wetland	7	7.8
Freshwater Pond	2	1
Riverine Perennial	1	23.1
Riverine Seasonal/Intermittent	6	11.3

B. Waterways and Drainages

There are a number of waterways and drainages in the City of Oakland. Some are more apparent than others. Table 10 shows that there is a mix of perennial and seasonal/intermittent waterways in Oakland according to the National Wetland Inventory. The National Hydrography Dataset (NHD) produced by the US Geological Survey reveals a number of additional drainages. These drainages are a useful reference for areas that may present natural resource constraints, but is also a useful characterization of the topographic challenges in Oakland.

C. Topography

The City of Oakland sits generally around 400 and 500 feet above sea level and gradually rises in elevation to the east and more dramatically to the north and southern parts of the city. Topography in Oakland constrains street system connectivity, necessitating significant engineering solutions to address.

D. Floodplain

A floodplain is an area that can be expected to flood following heavy rains and snowmelt. **Map 10** depicts the one-hundred-year flood plain in Oakland. The Federal Emergency Management Agency maps these areas because they figure very importantly in building permitting, environmental regulations, and federal flood insurance programs. There is a 1% probability of a flood event occurring in any given year within the 100 year floodplain. Existing streets that are located within the floodplain include a very small portion of First Street (Old Highway 99) and portions of Goodman Avenue. Some undeveloped or underdeveloped land in the western part of town lie within the floodplain. Consideration for floodplain constraints must be given to possible street, path or trail developments in these areas.

E. Habitat

Calapooya Creek has been identified as Essential Salmonid Habitat (ESH) for Coho Salmon. Essential salmonid habitat is defined as the habitat necessary to prevent the depletion of native salmon species (chum, sockeye, Chinook and Coho salmon, and steelhead and cutthroat trout) during their life history stages of spawning and rearing. The designation applies only to those species that have been listed as "Sensitive, Threatened or Endangered" by a state or federal authority. Calapooya Creek also provides habitat for winter steelhead and fall chinook, although the river is not identified as essential salmonid habitat for these species. Direct impacts to Calapooya Creek due to transportation development are not likely; however, indirect impacts must be considered (e.g. stormwater drainage and impacts to tributaries (drainages)).

Although not currently mapped, there may also be listed plants in Oakland's wetlands and uplands. Several populations of the endangered plant, *rough popcorn flower* occur in Sutherland, Wilbur, and Yoncalla area wetlands (in ash swales or regular palustrine emergent wetlands in meadows with pointed rush and coyote thistle). There are scattered populations of Kincaid's lupine in oak woodland or dry prairie-meadow uplands in Douglas County. There are no documented or known occurrences of these species in Oakland.

IX. Overview of Oakland's Existing Bridges

To comply with the National Bridge Inspection Standards (NBIS), Title 23, Code of Federal Regulations, Part 650, subpart C, all bridges within the United States must be inspected at two-year minimum frequency. One of the two bridges is inspected through a Local Agency Bridge Inspection Service contract administered by the Oregon Department of Transportation (ODOT). All bridges on interstate highways or state highways within Oakland are inspected by ODOT regional bridge inspectors.

The location of existing bridges in and around the study area are shown on **Map 9**. The NBI condition rating for the Old Highway 99 North (one-way) bridge is "Fair." The NBI Condition Ratings are an evaluation of a bridge's sufficiency to remain in service. Ratings range from 'Very Poor' to 'Very Good.'

X. Oakland Transportation System Maps

Project staff have developed fourteen maps referenced throughout the memorandum. The maps are attached and include the following:

- Map 1** - *Land Use – Vacant Lots*
- Map 2** - *Oakland Zoning*
- Map 3** - *Oakland Comprehensive Plan Designation/ Right-of-Way*
- Map 4** - *Street Jurisdiction & Safety*
- Map 5** - *City Functional Classification*
- Map 6** - *County Functional Classification*
- Map 7** - *Existing Road Conditions*
- Map 8** - *Existing Bike-Pedestrian System/Activity Centers*
- Map 9** - *Rail/Bridges/Culverts*
- Map 10** - *Natural Resources*
- Map 11** - *Topography*
- Map 12** - *Aerial*
- Map 13** - *Conceptual Bike-Pedestrian Routes*
- Map 14** - *Conceptual Street Classification*

Map 1 City of Oakland

Land Use with Vacant Lots

--- Rail Road

— Roads

□ Vacant Lots*

□ Oakland UGB

Land Use

□ Residential

□ Commerical

□ Industrial

□ Rural

□ Farm

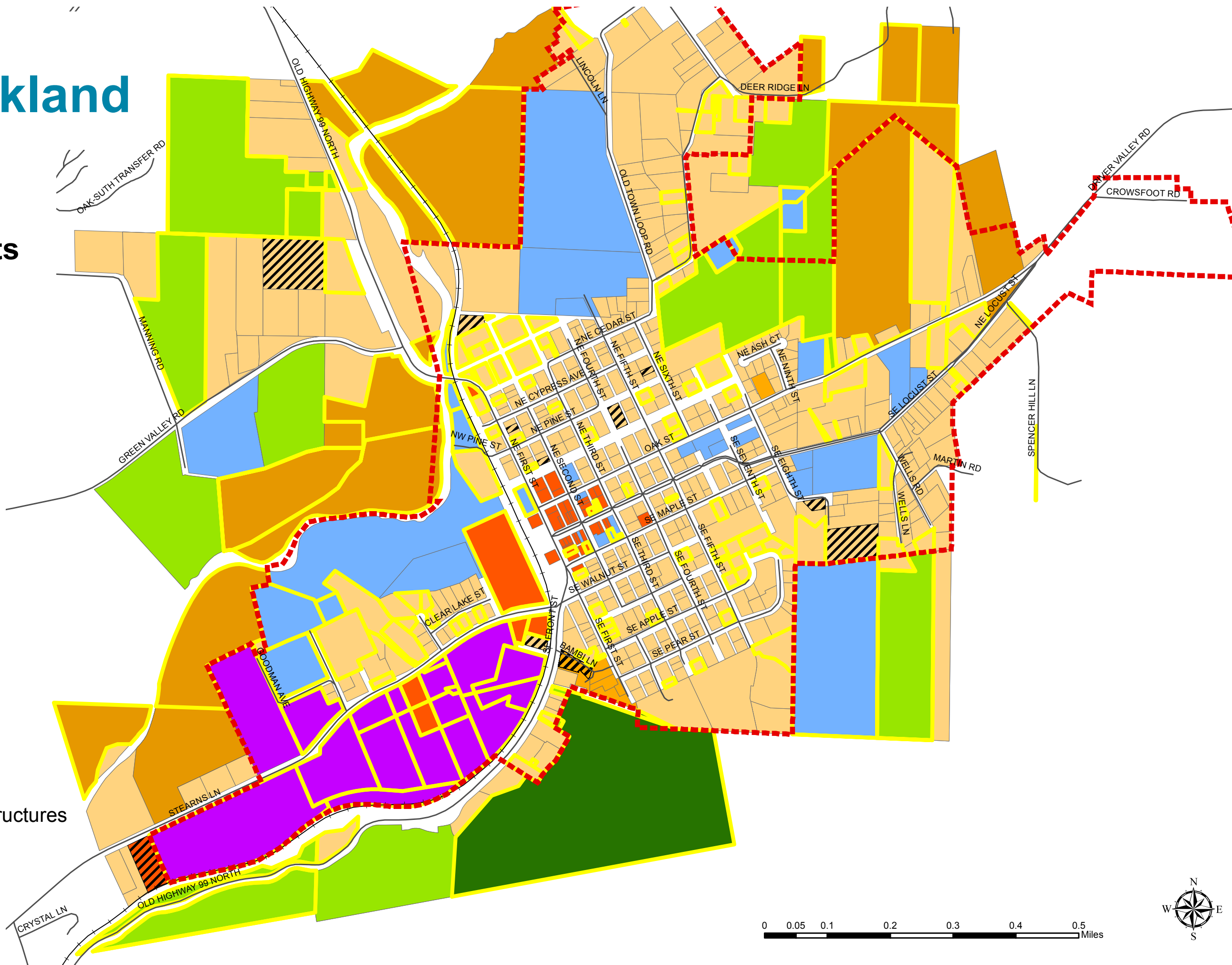
□ Forest

□ Multi-Family

▨ Manufactured Structures

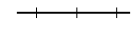



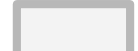

□ Public

*Vacancy is determined using
Douglas County property class



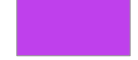




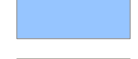




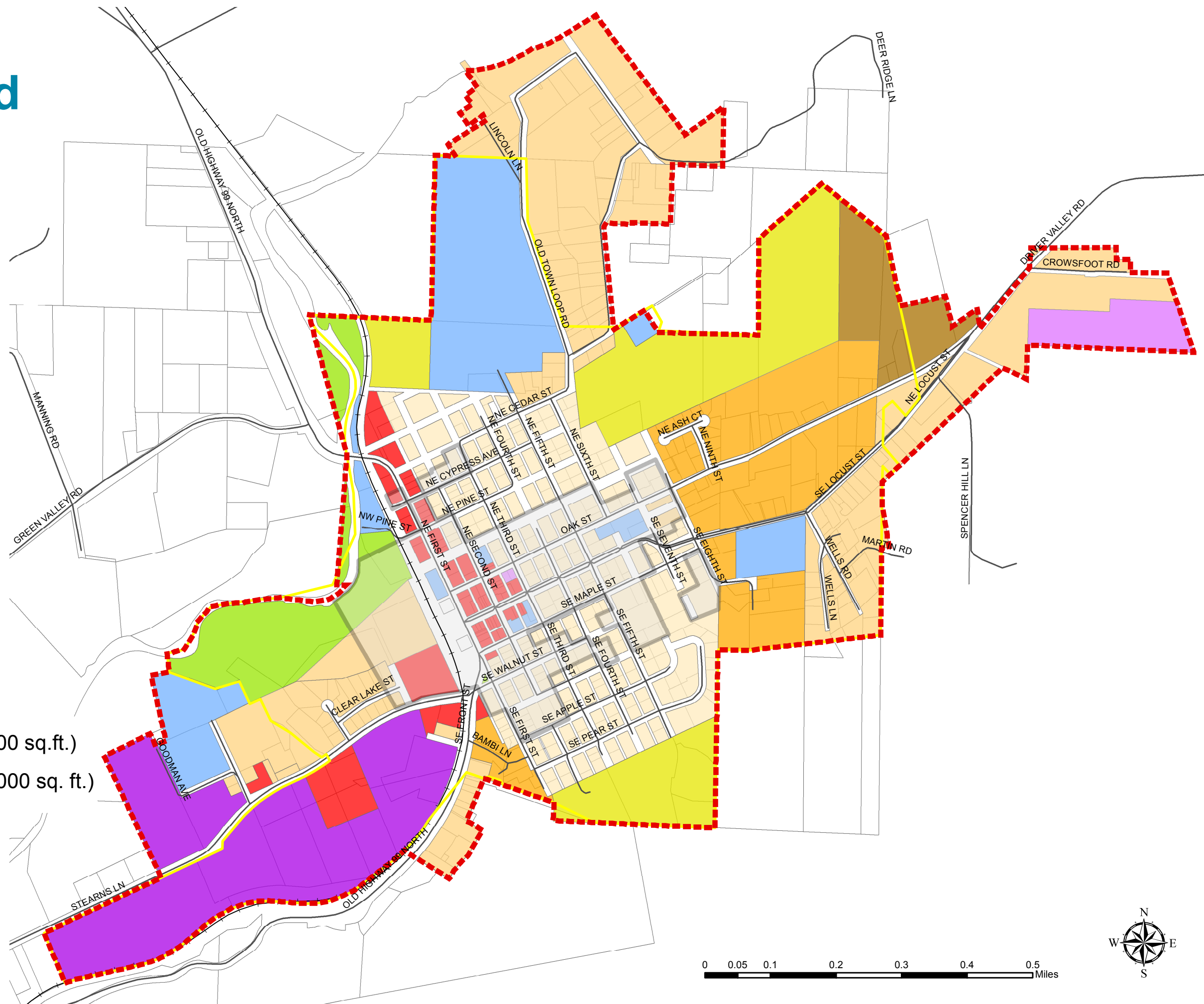
Map 2 City of Oakland

Zoning with Special Overlays

-  Rail Road
-  Roads
-  Oakland City Limits
-  Oakland UGB
-  Oakland Historic District
-  Oakland Parcels

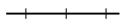




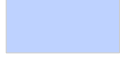








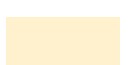

Oakland Zoning

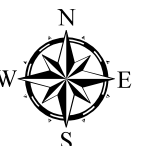
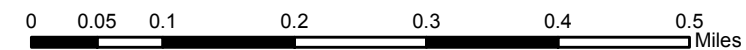
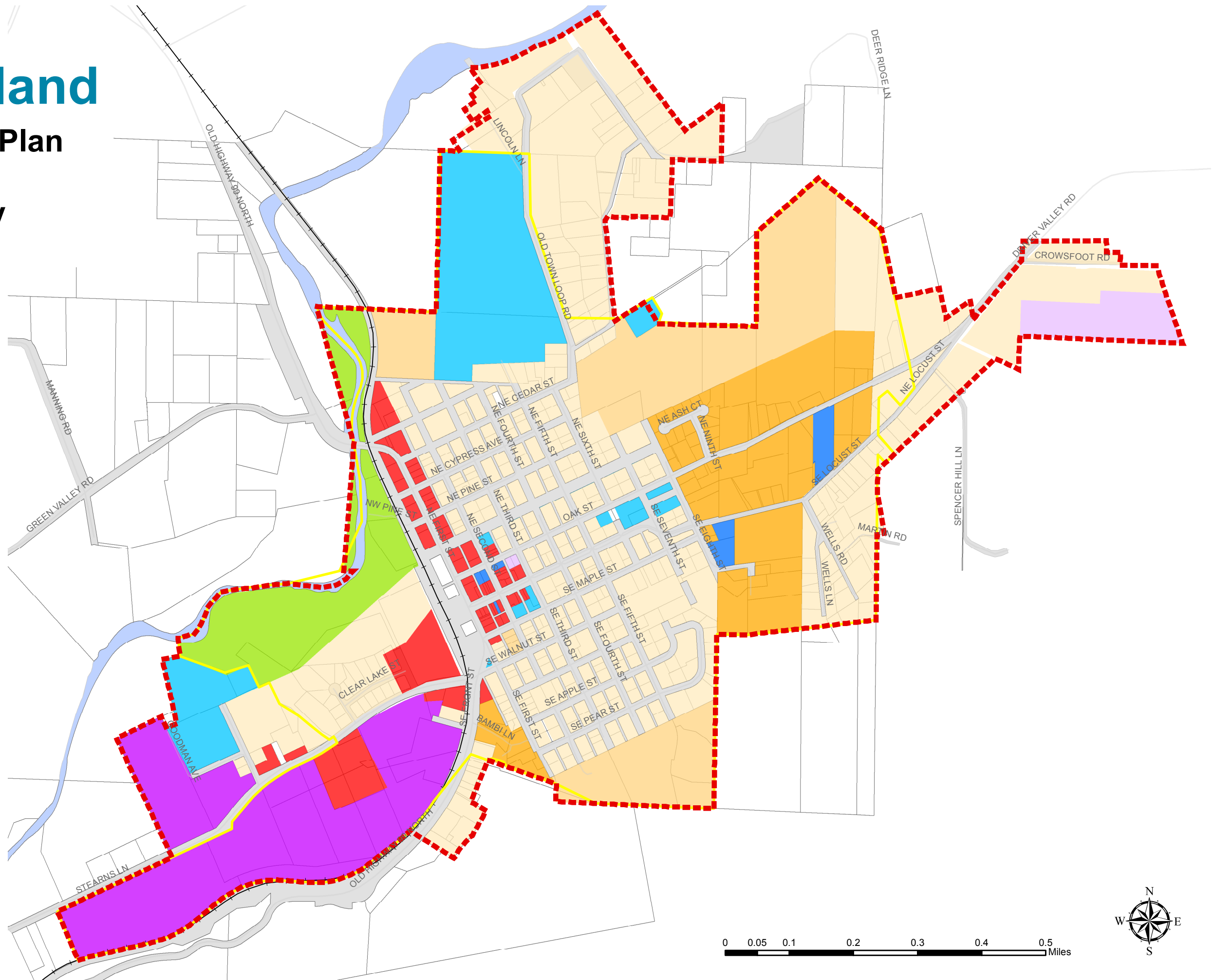
-  Agriculture/Open Space
-  General Commercial
-  General Industrial
-  Light Industrial
-  Low Density Residential (7,500 sq.ft.)
-  Low Density Residential (10,000 sq. ft.)
-  Medium Density Residential
-  Public Land
-  Rural Density Residential
-  Duplex Overlay Zone



Map 3 City of Oakland


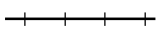






Comprehensive Plan and Right-of-Way

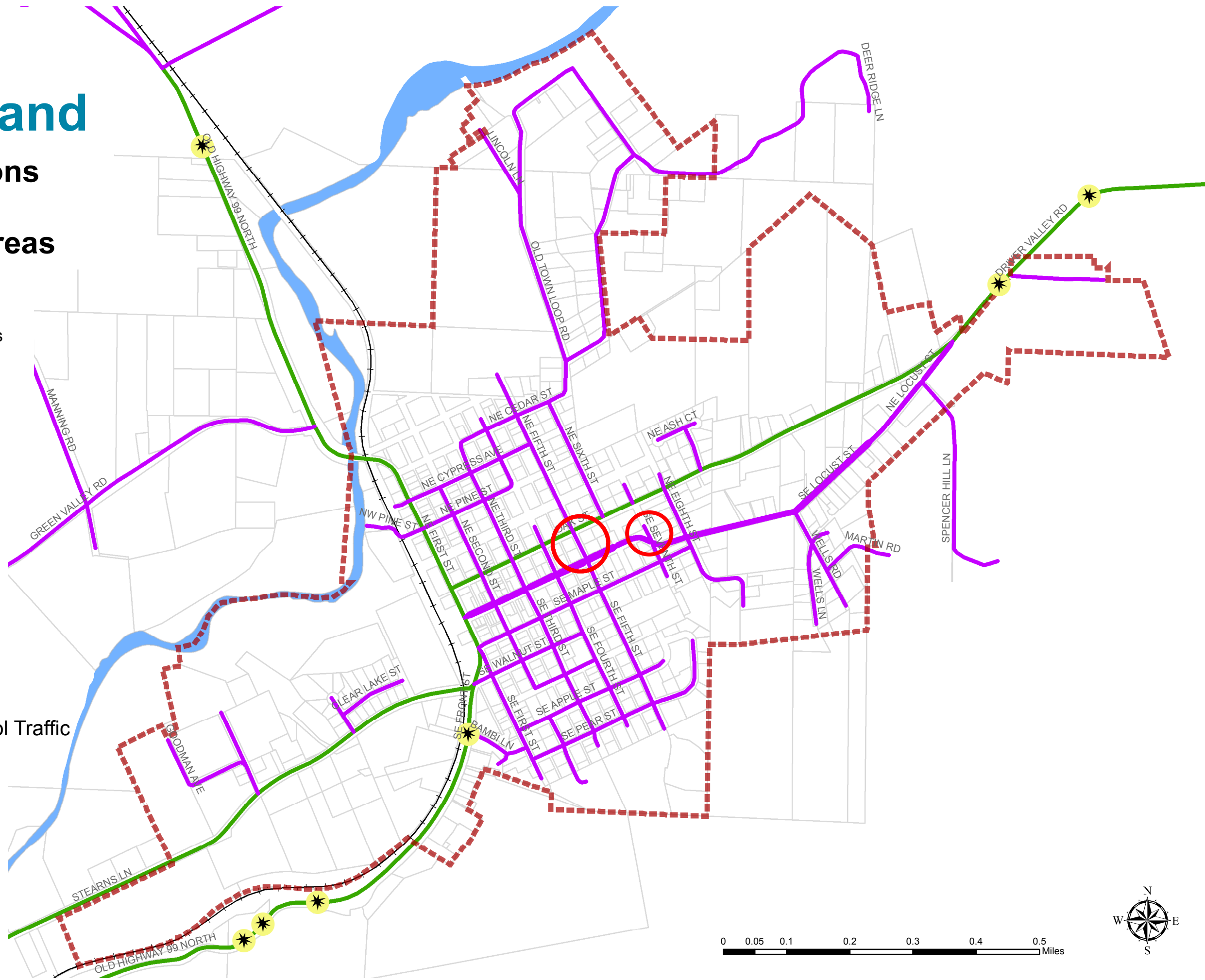
-  Rail Road
 -  Roads
 -  Oakland City Limits
 -  Oakland UGB
 -  Oakland Parcels
 -  Calapooya Creek
 -  Oakland ROW
- Oakland Plan Designation**
-  Commercial
 -  General Industrial
 -  General Residential 1
 -  General Residential 2
 -  Light Industrial
 -  Open Space/Agriculture
 -  Public
 -  Semi-Public
 -  Specific Residential 1



Map 4 City of Oakland

Street Jurisdictions & Safety Concern Areas

-  Oakland Street Accidents
-  Railroad
-  Oakland UGB
-  Oakland Parcels
-  Calapooya Creek
- Oakland Streets**
-  City/Municipal - M
-  County - C
-  Area of Sensitive School Traffic

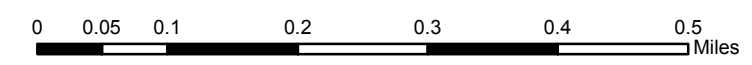
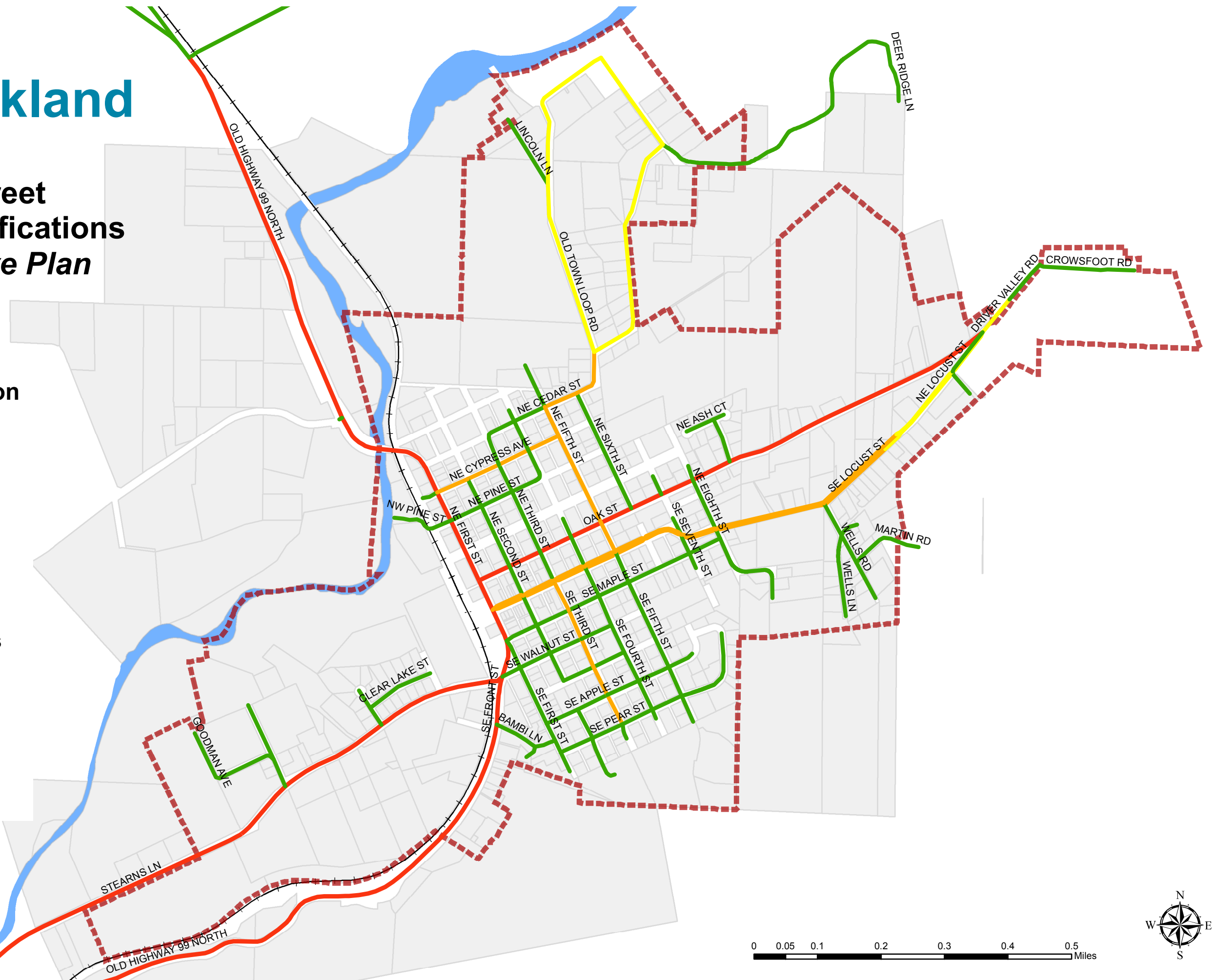


Map 5 City of Oakland

Existing Street Functional Classifications *Comprehensive Plan*

City Street Classification




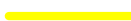
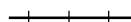

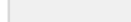

- Arterial
- Collector
- Local
- Other
- Oakland Railroads
- Oakland UGB
- Oakland Parcels
- Oakland Streams

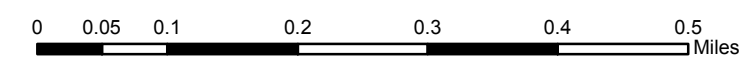
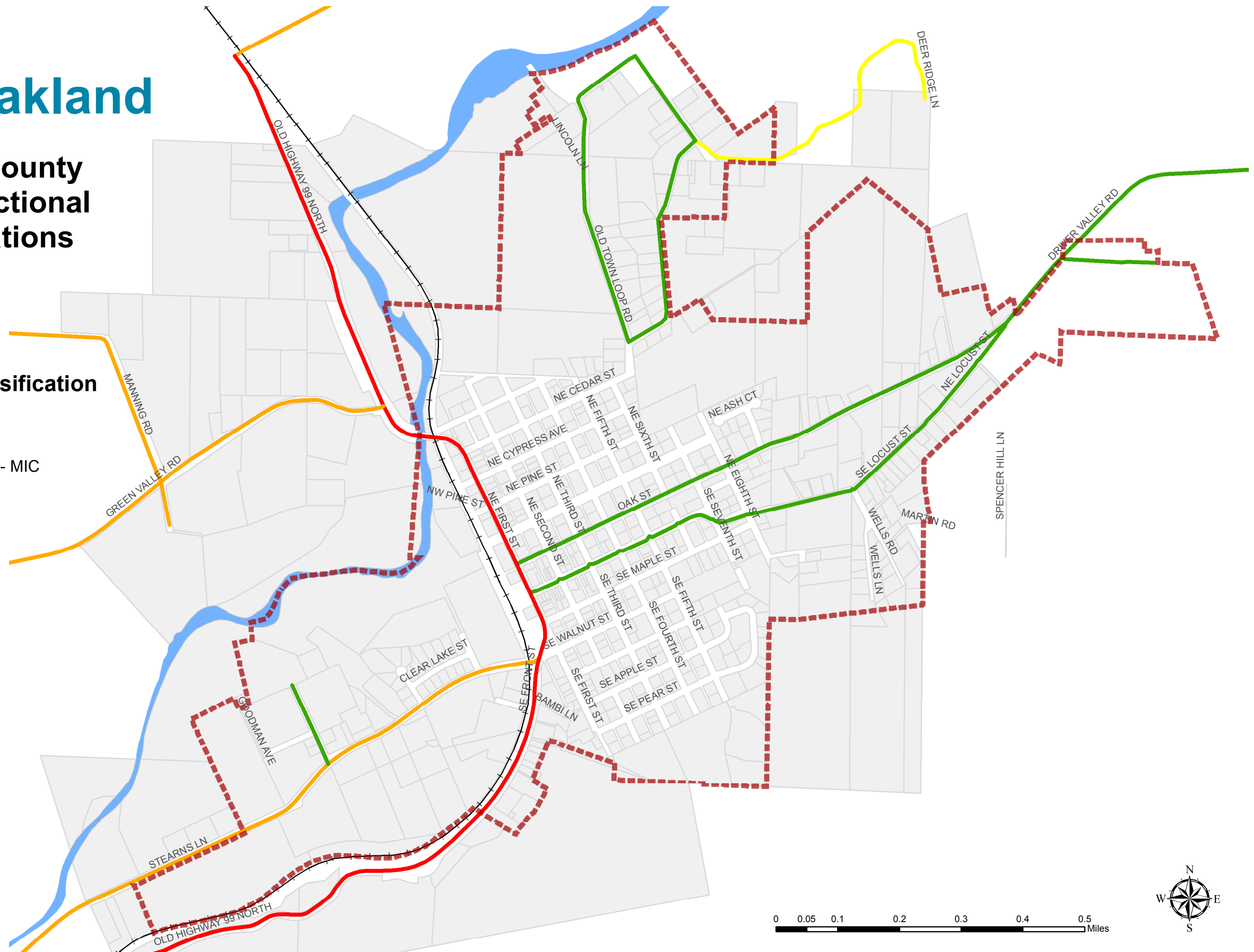


Map 6 City of Oakland

Douglas County Street Functional Classifications

Douglas County Classification

-  ARTERIAL - ART
-  MINOR COLLECTOR - MIC
-  LOCAL - LOC
-  Rural Local
-  Oakland Railroads
-  Oakland UGB
-  Oakland Parcels
-  Oakland Streams



Map 7 City of Oakland

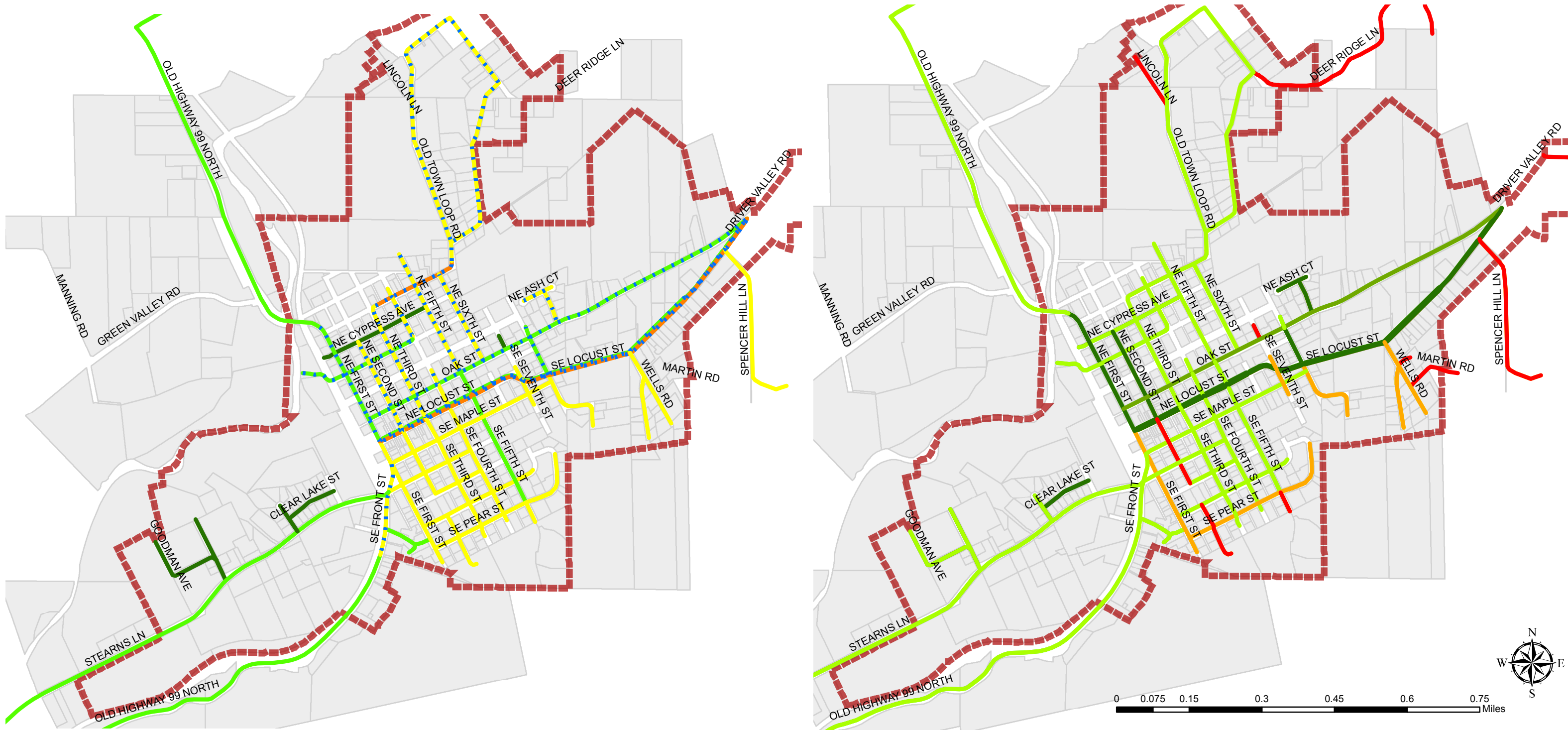
Road Conditions & Surface Types

Surface Condition

- Good
- Fair
- Poor
- Bad
- Streets with Storm Drain Issues

Surface Type/ Improvements


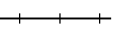








- Gravel
- Asphalt/Gravel
- Asphalt
- Asphalt/Asphalt and Curb
- Asphalt Curb and Gutter

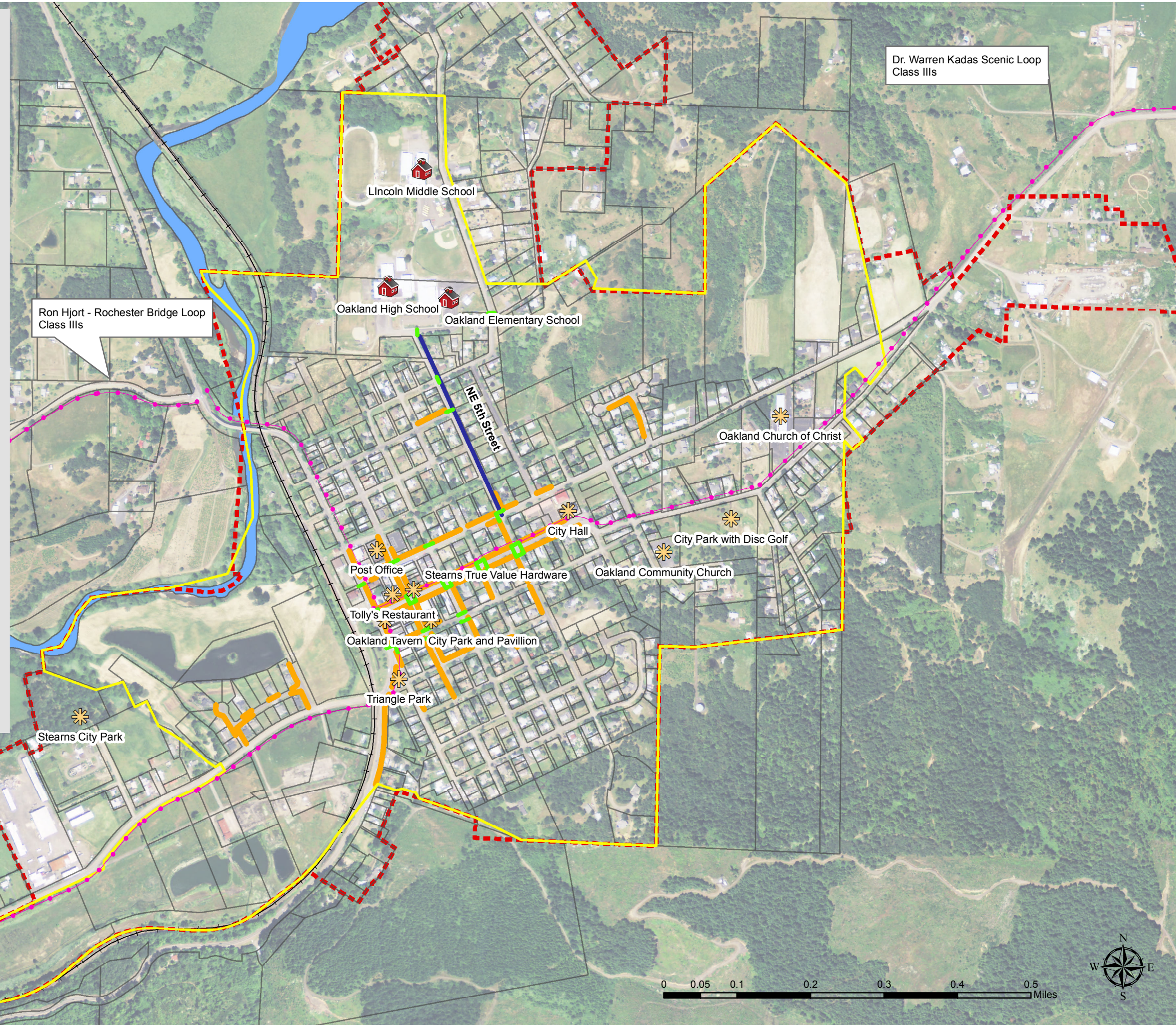


Map 8

City of Oakland

Existing Pedestrian & Bicycle Facilities with Local Activity Centers










-  Local Activity Centers
-  Rail Road
-  Oakland UGB
-  Oakland City Limits
-  Oakland Parcels
-  Oakland Schools
- Bike & Ped Infrastructure**
-  Existing Path Improved
-  Oakland Sidewalks
-  Oakland Crosswalks
-  Road Bike Routes

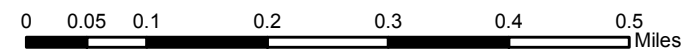
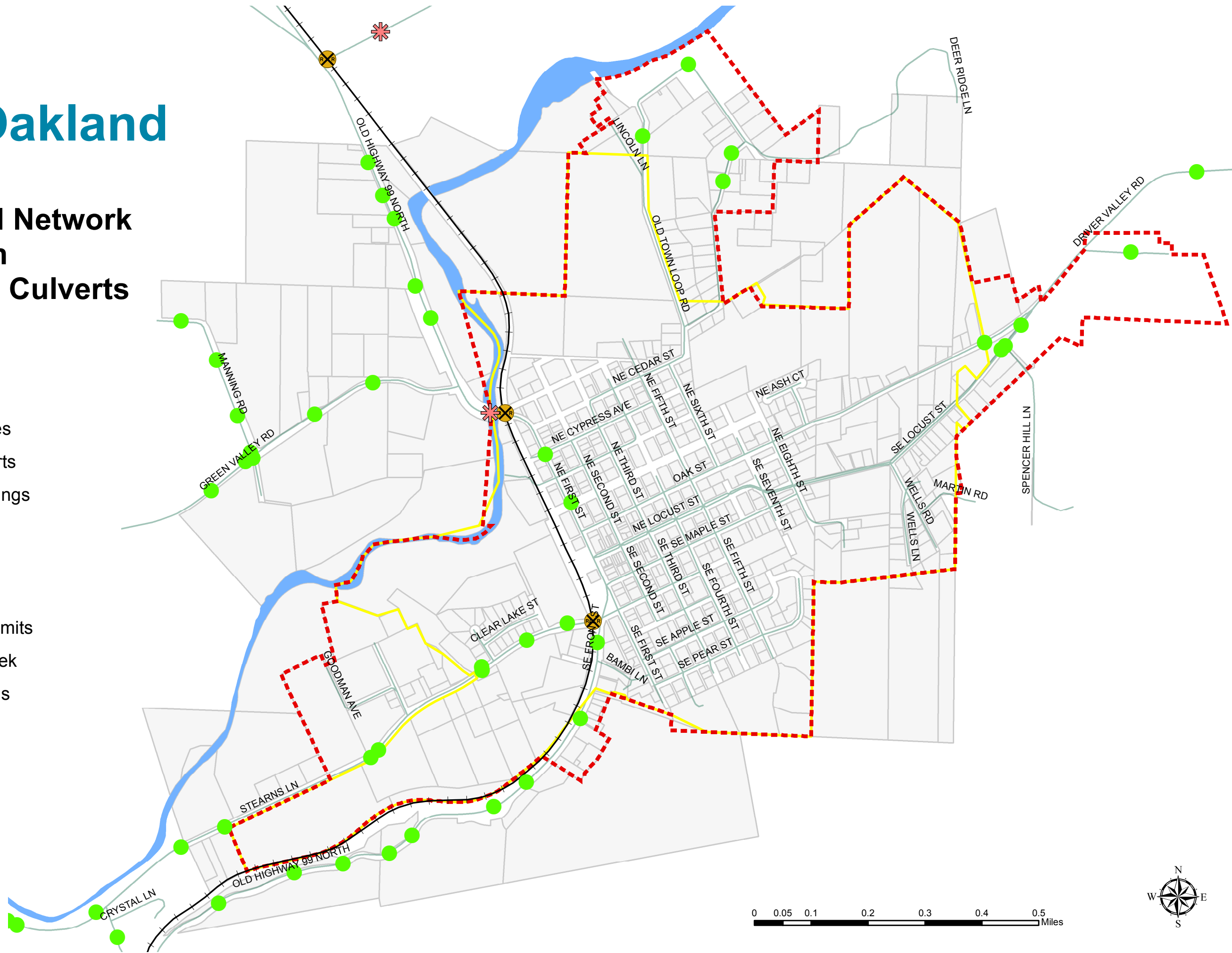


Oakland-Sutherland Route Class III

Map 9 City of Oakland










Existing Rail Network with Bridges and Culverts

-  Oakland Bridges
-  Oakland Culverts
-  Railroad Crossings
-  Rail Road
-  Roads
-  Oakland UGB
-  Oakland City Limits
-  Calapooya Creek
-  Oakland Parcels

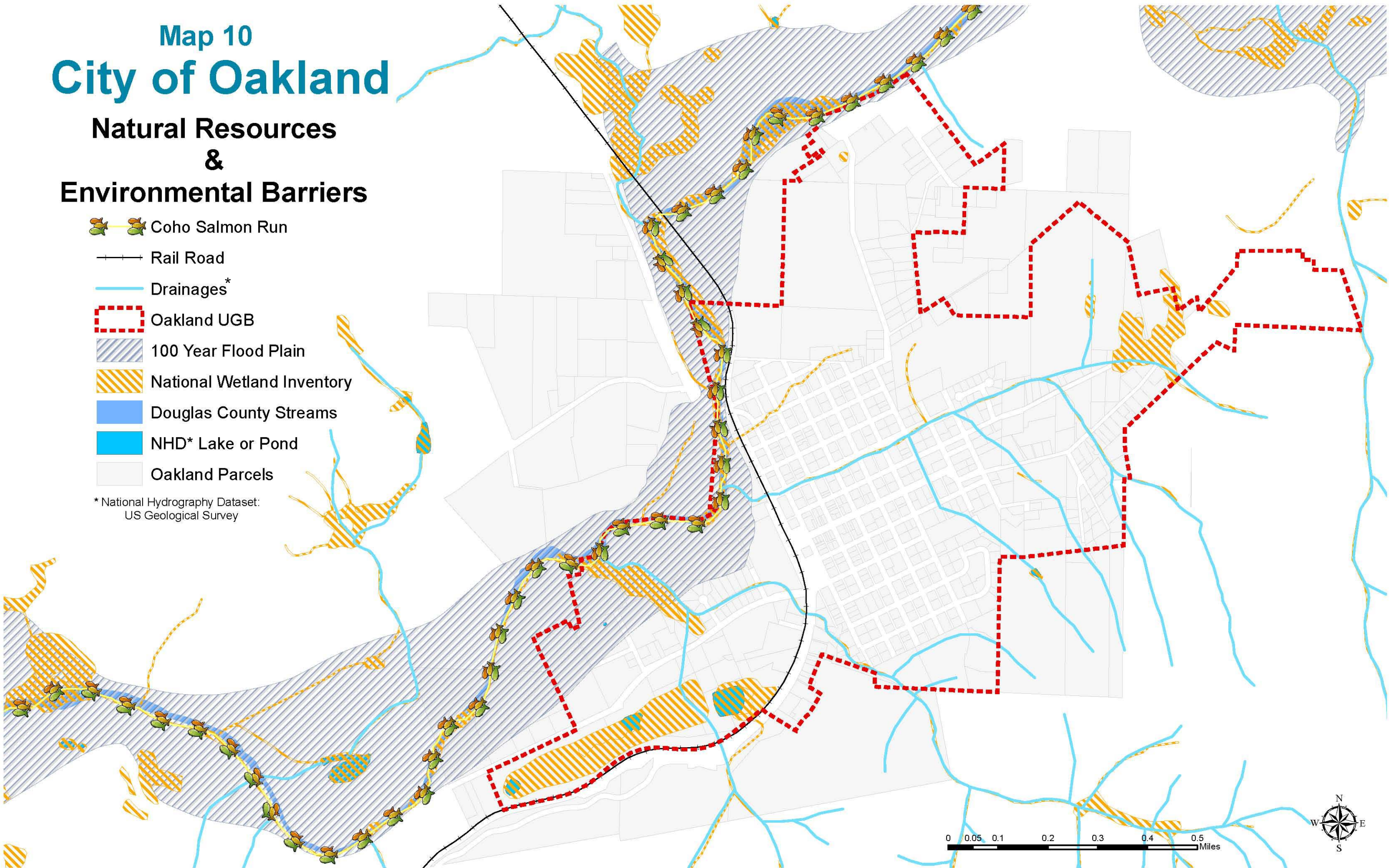


Map 10 City of Oakland

Natural Resources & Environmental Barriers

-  Coho Salmon Run
-  Rail Road
-  Drainages*
-  Oakland UGB
-  100 Year Flood Plain
-  National Wetland Inventory
-  Douglas County Streams
-  NHD* Lake or Pond
-  Oakland Parcels



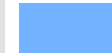

* National Hydrography Dataset:
US Geological Survey

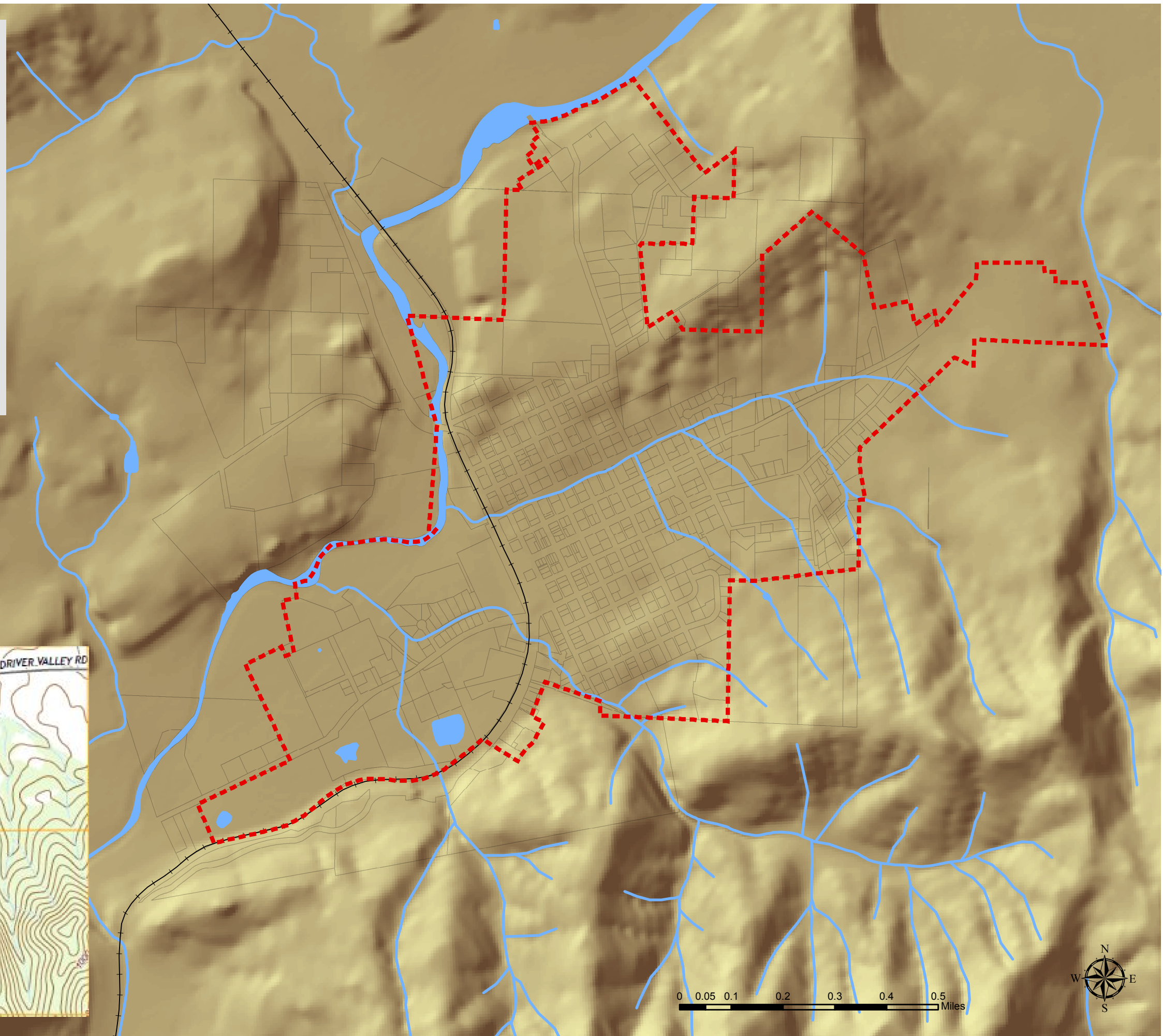
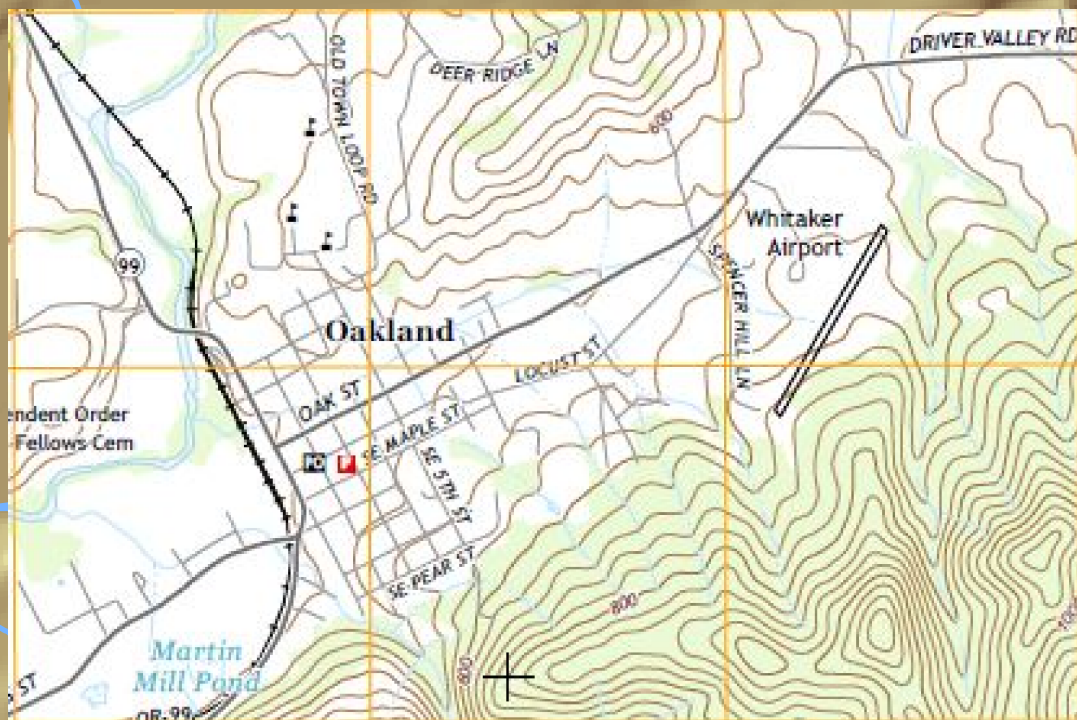


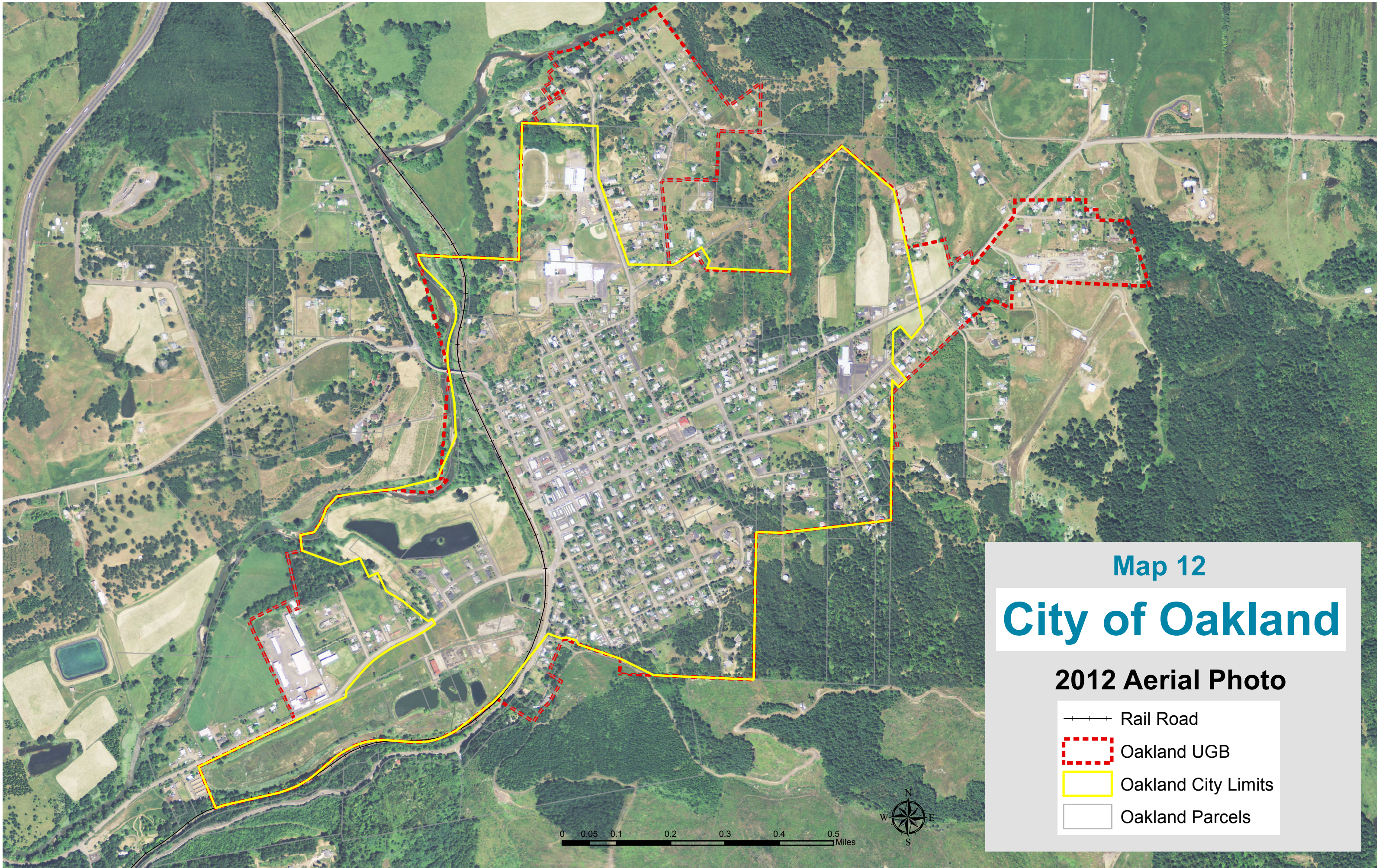
Map 11

City of Oakland

Hill Shade & Topography

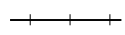



-  Rail Road
-  Oakland UGB
-  Waterbodies & Drainages
-  Oakland Parcels





Map 12 City of Oakland

2012 Aerial Photo

-  Rail Road
-  Oakland UGB
-  Oakland City Limits
-  Oakland Parcels

0 0.05 0.1 0.2 0.3 0.4 0.5 Miles

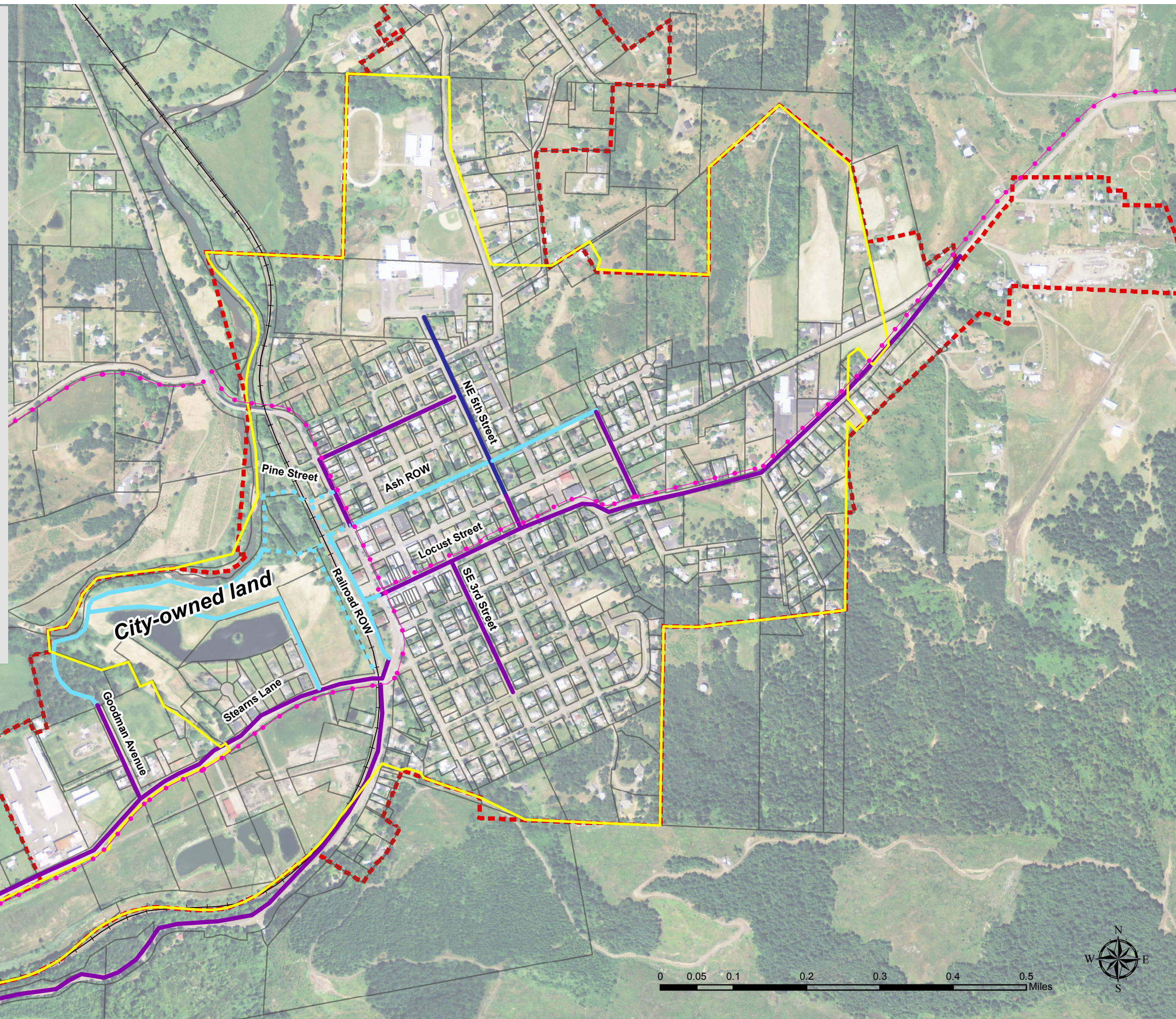


Map 13

City of Oakland


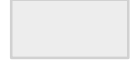








Future Pedestrian and Bicycle Facilities

- +—+— Rail Road
- ▭ (dashed red) Oakland UGB
- ▭ (yellow) Oakland City Limits
- ▭ (white) Oakland Parcels
- Bike & Ped. Path Concept**
- ▬ (purple) Dedicated Lane
- ▬ (light blue) Dedicated Path
- ▬ (dark blue) Existing Path Improved
- ▬ (dotted light blue) Railroad Crossing Alternative
- ▬ (pink with dots) Road Bike Routes



Map 14 City of Oakland

Street Classification Proposal & Conceptual Streets

-  Oakland UGB
-  Oakland Parcels
- Street Classification Proposal**
-  Arterial
-  Major Collector
-  Minor Collector
-  Major Local
-  Minor Local
- Conceptual Streets**
-  Other Conceptual
-  Existing Improvements
-  Existing Right of Way

