

1 **Mill Plain Interchange**

2 This interchange will be reconfigured into a SPUI (Figure 3-19). The existing “diamond”
3 configuration requires two traffic signals to move vehicles through the interchange. The SPUI
4 will use one efficient intersection, allowing opposing left turns simultaneously. This will
5 improve the capacity of the interchange by reducing delay for traffic entering or exiting the
6 freeway. Highway exits to and from the north will be very similar to the interchange today.

7 Specific changes to traffic movements at this interchange include:

- 8 • Northbound I-5 traffic exiting at Mill Plain will travel on a CD ramp to Mill Plain. The CD
9 will also accommodate the movement from SR 14 to I-5 northbound.
- 10 • Mill Plain traffic will enter southbound I-5 from a CD ramp that will also accommodate
11 the movement from southbound I-5 to SR 14.
- 12 • Acceleration and deceleration distances will be lengthened.
- 13 • The right turns from I-5 south to downtown Vancouver will be accommodated with a
14 double turn lane. All the other right turns will be single-lane.
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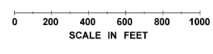
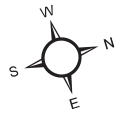
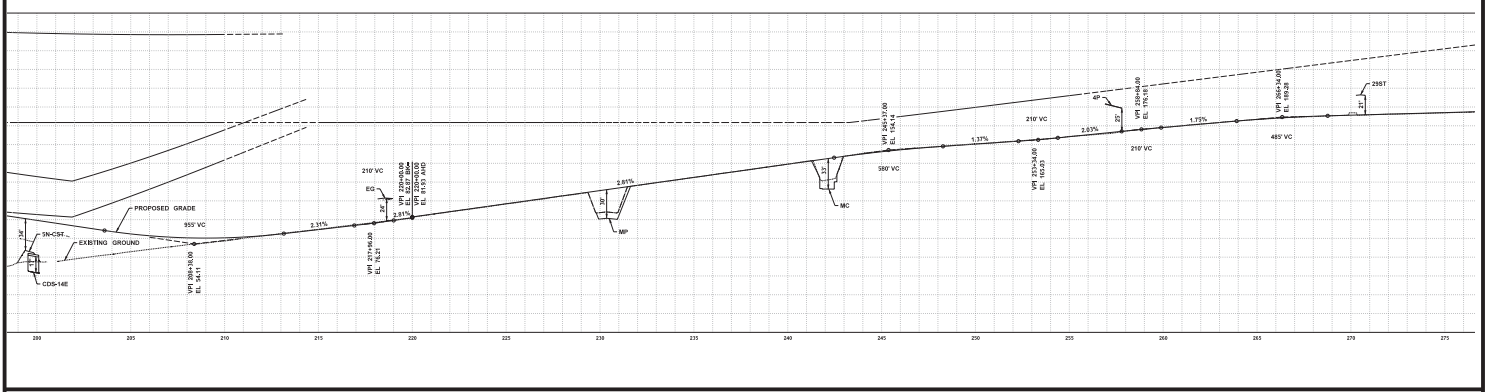
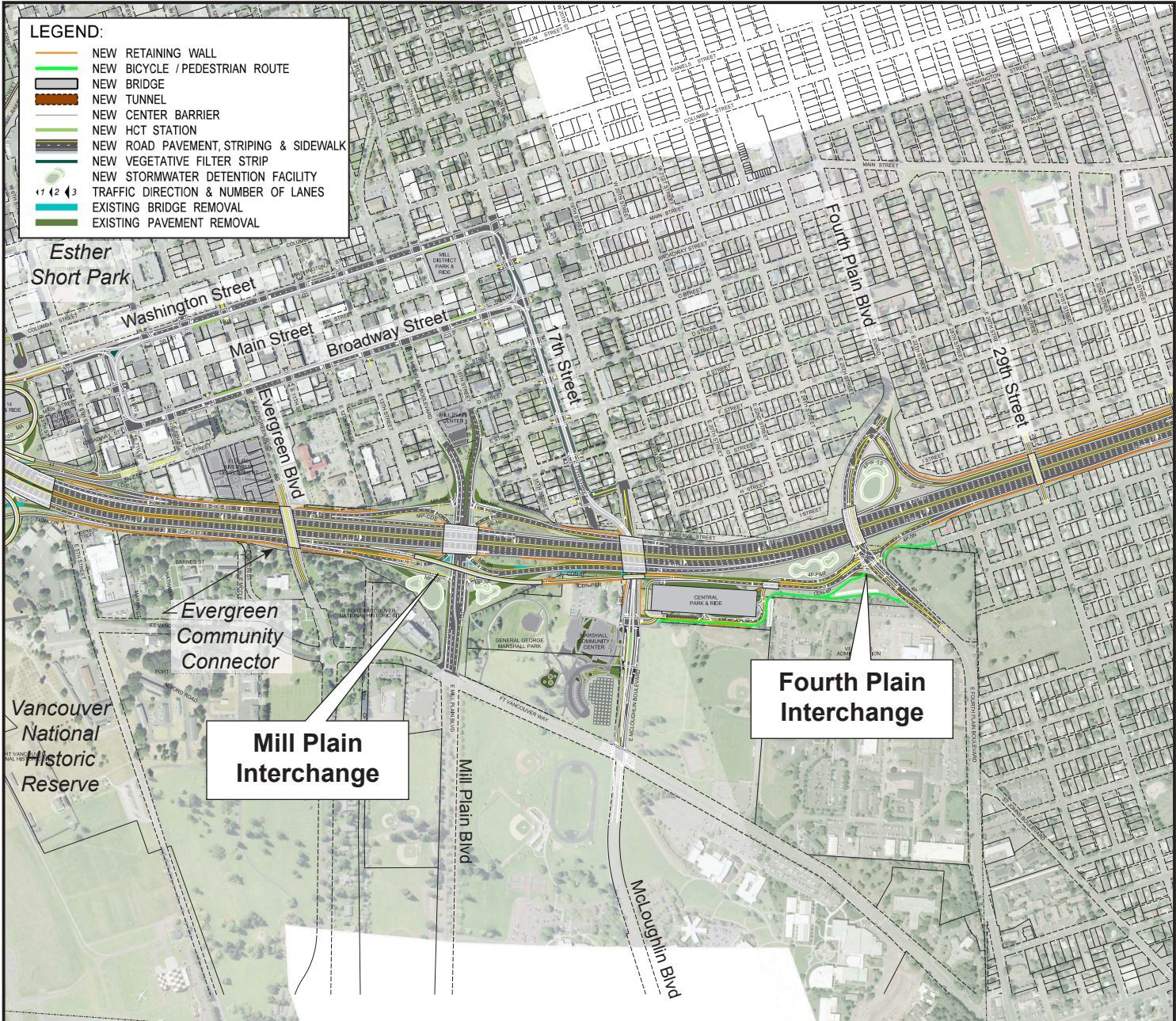


Figure 3-19
 CRC Project Alignment
 Mill Plain Interchange



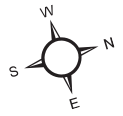
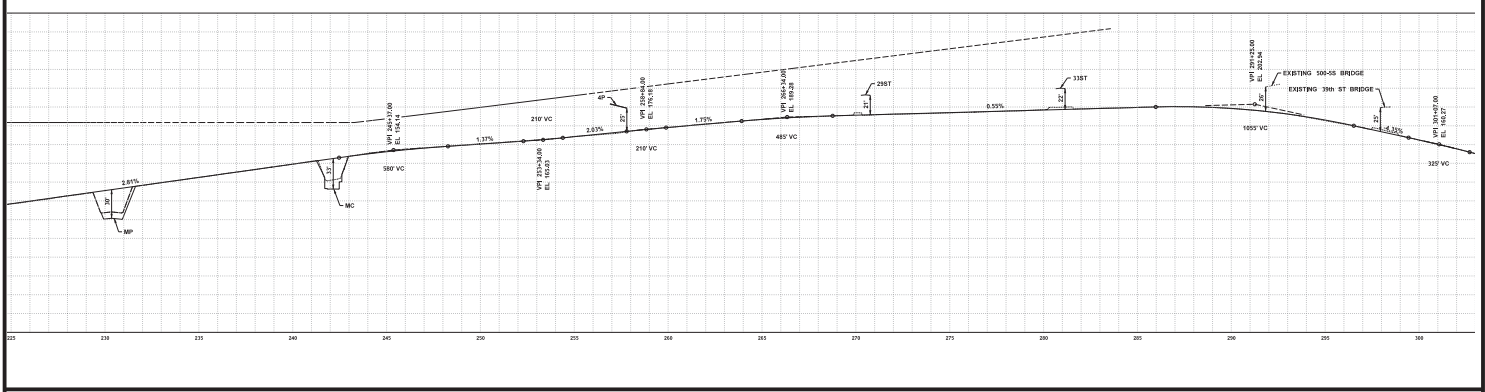
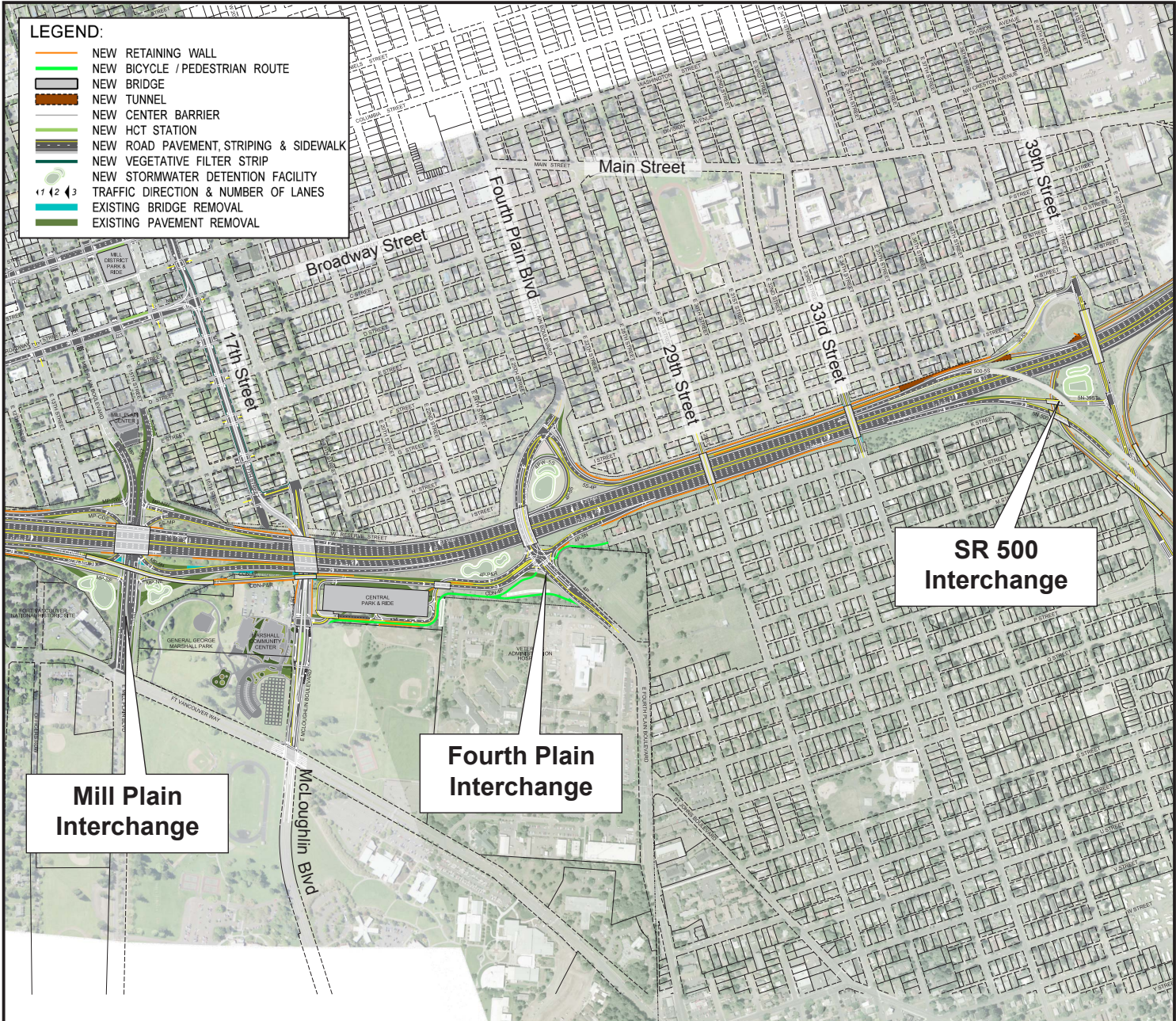
1 **Fourth Plain Interchange**

2 The improvements to this interchange will better accommodate freight mobility and improve
3 access to the park and ride at Clark College. Northbound I-5 traffic exiting to Fourth Plain
4 Boulevard will continue to use the off-ramp just north of the SR 14 interchange (
5 Figure 3-20).

6 Specific changes to traffic movements at this interchange include:

- 7 • The southbound I-5 exit to Fourth Plain will be braided over/under the SR 500 connection
8 to I-5, eliminating the substandard weave between the SR 500 connection and the off-ramp
9 to Fourth Plain. This braided off-ramp will be in a tunnel between approximately 35th and
10 32nd Streets.
- 11 • This braided exit ramp will eliminate the direct connection between westbound SR 500
12 and Fourth Plain. This connection will still be possible by exiting SR 500 at St Johns Road
13 and then crossing over I-5 on 39th, or by traveling south on I-5 and exiting at Mill Plain.
- 14 • A southbound road will be added to provide access to the Clark College park and ride from
15 the north. This is for traffic exiting I-5 at Fourth Plain or already on Fourth Plain.
- 16 • The intersection at the entrance to I-5 south will be widened to better accommodate large
17 trucks.
- 18 • The intersection at the entrance to I-5 north will also be designed to accommodate large
19 trucks turning from Fourth Plain.
- 20 • Double left turns will be provided for the movements going east to north, south to east, and
21 west to south into the park and ride access road. Two through lanes will be added for the
22 northbound off-ramp to facilitate traffic coming from the park and ride.
23

- LEGEND:**
- NEW RETAINING WALL
 - NEW BICYCLE / PEDESTRIAN ROUTE
 - NEW BRIDGE
 - NEW TUNNEL
 - NEW CENTER BARRIER
 - NEW HCT STATION
 - NEW ROAD PAVEMENT, STRIPING & SIDEWALK
 - NEW VEGETATIVE FILTER STRIP
 - NEW STORMWATER DETENTION FACILITY
 - ← 1 2 3 TRAFFIC DIRECTION & NUMBER OF LANES
 - EXISTING BRIDGE REMOVAL
 - EXISTING PAVEMENT REMOVAL



0 200 400 600 800 1000
SCALE IN FEET

Figure 3-20
CRC Project Alignment
Fourth Plain Interchange



1 **SR 500 Interchange**

2 Improvements to the SR 500 interchange will add direct connections to and from I-5. Currently,
3 the connections between SR 500 and I-5 to and from the north require exiting the highway,
4 traveling on a local street (39th Street), and then re-entering the highway. On- and off-ramps will
5 be built to directly connect SR 500 and I-5 for both of these connections. I-5 southbound traffic
6 is proposed to connect to SR 500 via a new structure underneath I-5. SR 500 westbound traffic
7 will connect to I-5 northbound on a new ramp (Figure 3-21).

8 These improvements will eliminate the direct connections between 39th Street and I-5 to and
9 from the north. These connections will instead be made through the I-5/Main Street interchange
10 to the north.

11 Burnt Bridge Creek runs adjacent to this interchange. Impacts are limited to ground and
12 vegetation disturbance. These impacts are described in Section 3.7.1.4. No in-water work will
13 occur in the creek.

14 **3.7.1.2 Evergreen Boulevard Lid**

15 A new community connector/overpass will be built considerably wider to the south than the
16 current Evergreen overpass (approximately 300 to 400 feet wide) and will include landscaping,
17 pathways, and other public space. It will function as a lid over I-5 and as a “community
18 connection” between downtown Vancouver and the Vancouver National Historic Reserve. In
19 addition to improved bike/ped connections, the facility will improve visual and cultural
20 landscape connectivity. This new public space is proposed as part of the mitigation for the
21 project’s impacts to historic resources, parks and recreation resources, and aesthetic quality.

22 **3.7.1.3 Temporary Traffic Changes**

23 Widening I-5 and rebuilding interchanges will disrupt local and regional traffic flow. Typical
24 construction methods will require narrowing lanes and shoulders to accommodate equipment and
25 workers, shortening merge and exit distances, closing interchange ramps, and limiting some
26 turning movements. For example, during construction of a new SR 14 interchange, connections
27 between downtown Vancouver and SR 14 will be rerouted to Columbia Way, and I-5 traffic will use
28 the Mill Plain Boulevard interchange and local streets to access SR 14.

29
30



LEGEND:

- NEW RETAINING WALL
- NEW BICYCLE / PEDESTRIAN ROUTE
- NEW BRIDGE
- NEW TUNNEL
- NEW CENTER BARRIER
- NEW HCT STATION
- NEW ROAD PAVEMENT, STRIPING & SIDEWALK
- NEW VEGETATIVE FILTER STRIP
- NEW STORMWATER DETENTION FACILITY
- TRAFFIC DIRECTION & NUMBER OF LANES
- EXISTING BRIDGE REMOVAL
- EXISTING PAVEMENT REMOVAL

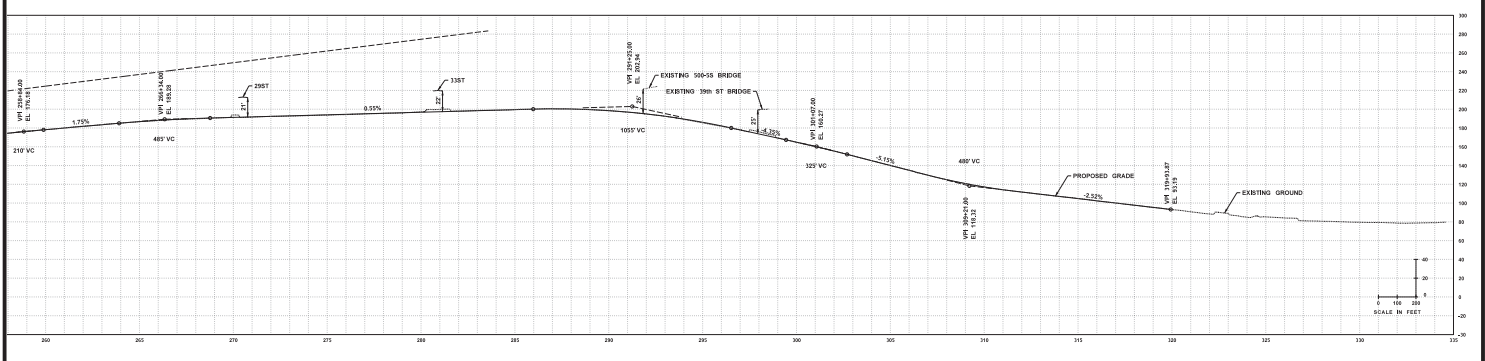


Figure 3-21
CRC Project Alignment
SR 500 Interchange

1 **3.7.1.4 Ground Disturbance, Vegetation, and Landscaping**

2 The roadway improvements will described in this section will occur on land and above OHW.
 3 Retaining walls will be constructed; the number, height, location, and materials (concrete or
 4 steel) are still undetermined. The project will also require upland activities, including pile
 5 driving, installation of drilled shafts, seismic ground improvements, and staging. Other work
 6 items that will cause ground disturbance include relocation, removal, and replacement of
 7 utilities; lighting/illumination structures; signals; signing; and intelligent transportation system
 8 (ITS) improvements (e.g., installation of variable message signs, traffic sensors and cameras,
 9 radio and telecommunications).

10 In North Portland Harbor and the Columbia River, effects to riparian habitat will be negligible,
 11 as there is very little functioning riparian vegetation in the project area. Approximately
 12 12 mature trees will be removed within the riparian zone of the Columbia River and North
 13 Portland Harbor. There will be no excavation or removal of trees from the Columbia Slough or
 14 Burnt Bridge Creek riparian area.

15 Ground disturbance, clearing, and grubbing related to roadway and transit improvements will
 16 permanently impact approximately 0.87 acres of existing vegetation in the Columbia River
 17 crossing area. The disturbed vegetation consists mainly of grasses and ground cover, with small
 18 portions of shrubs and trees. Activities at the Ruby Junction Maintenance Facility would disturb
 19 approximately 1.31 acres of grass lawns and trees associated with this residential and
 20 commercial site. In addition, approximately 415 acres of total ground disturbance is anticipated
 21 as part of the project. Table 3-21 provides a summary of these impacts by watershed.

22 **Table 3-21. Summary of Ground Disturbance by Watershed**

Watershed Name	Vegetated Acres	Vegetated and Non-Vegetated Acres
Burnt Bridge Creek	0.07	55
Columbia River	0.56	240
Columbia Slough	0.23	105
Fairview Creek	1.31	15
Total	2.18	415

23
 24 Temporarily disturbed areas within DOT rights-of-way will be replanted according to the
 25 Roadside Classification Plan (WSDOT 2006) on WSDOT right-of-way, and according to the
 26 Roadside Development Design Manual (ODOT 2006) on ODOT right-of-way. Site-specific
 27 assessments may result in permanent replanting that differs from these roadside classifications
 28 plans; this will be determined by a landscape architect. Disturbed areas within transit or local
 29 rights-of-way would be replanted to local regulation standards.

30 **3.8 PARK AND RIDE FACILITIES**

31 Three new park and ride facilities are proposed as part of this project. They are identified by their
 32 general locations at the SR 14 interchange, the Mill District, and Clark College. The park and
 33 ride structures will be built of precast or cast-in-place concrete and will be constructed using
 34 nearby staging areas. Construction of the structures will generate concentrated truck traffic that
 35 may impact local traffic. These traffic issues will be addressed in the Traffic Management Plan.

1 During excavation and foundation construction, dust and noise will be generated. These will be
2 minimized through implementation of the Spill Prevention, Control, and Countermeasures
3 (SPCC) plan. A Temporary Erosion and Sediment Control (TESC) plan will be implemented
4 during construction to prevent turbid discharges to surface waters.

5 **3.8.1 SR 14 Park and Ride**

6 The proposed approximately 570-space SR 14 park and ride structure will be located within the
7 curve of the SR 14 to southbound I-5 freeway ramp. The extension of Main Street will provide
8 an eastern boundary and access to the structure. Four to five levels of parking are needed for the
9 parking spaces. This sets the top parking level 5 to 9 feet above the road level of the roadway
10 loop ramp. The surface footprint of the parking structure is approximately 43,700 sq. ft., or
11 1 acre.

12 The American Association of State Highway and Transportation Officials (AASHTO) suggests
13 one entrance and exit for every 500 cars; thus, two entrances and exits are preferred to
14 accommodate the 570 parking spaces. The main ingress/egress will be off the Main Street
15 extension, which must be placed about halfway between 5th Street and the 4th Street/SR 14
16 connection to allow for proper traffic movements. Main Street is on a fairly steep grade in this
17 area. A second entrance has been proposed off Washington Street, just south of 5th Street. It may
18 also include an exit. The street on this block is planned as a one-way northbound street that will
19 be a relief valve for the amount of traffic entering the downtown area from SR 14 onto Columbia
20 Street. The existing site is undeveloped, and the structure will create new impervious surface
21 area. A water treatment facility will be located within the interchange, and water collected from
22 the parking structure will be routed to the facility (Section 3.12).

23 **3.8.2 Mill District Park and Ride**

24 The proposed current location for this approximately 420-space park and ride is an existing
25 gravel lot bounded by 15th, 16th, Main, and Washington Streets in Vancouver's mid-town area.
26 The right-of-way for the block is a rectangle with the south line on a skew that creates
27 dimensions of approximately 201 feet along 15th and 16th Streets, 218 feet along Washington,
28 and 207 feet along Main Street. The longer length along Washington makes it a good place for a
29 light rail station because it will better accommodate ADA ramps at the ends of the platform. A
30 ground-floor retail space will be included in the parking structure design and along both Main
31 and Washington Streets. The parking structure will have one ingress/egress on 16th Street and
32 one ingress on 15th Street.

33 This location will be the primary transfer site in the downtown area between buses and light rail,
34 with 40 to 55 buses per hour stopping at this location. The current draft plan is to distribute bus
35 stops on Main, 15th, and Broadway Streets in close relationship to the Mill District station.
36 Coordination between bus stop layout design and retail accesses will need to occur.

37 The structure will include four to five full levels of structured parking above ground-floor retail
38 space. The footprint of the structure is approximately 37,025 sq. ft., or 0.85 acre. The existing
39 site is undeveloped and has been used as a graveled surface parking lot. Drainage for this site can
40 be routed through cartridge filters and an oil separator into the existing storm sewer system
41 (Section 3.12).

1 **3.8.3 Clark College Park and Ride**

2 The Clark College park and ride facility is slated to include approximately 1,910 parking spaces
3 on five levels and will be readily accessible from I-5. This site is currently being used as
4 overflow parking for the college's Physical Education Department offices. The Mill Plain/Fourth
5 Plain CD and I-5 border this site to the west, the Veterans Administration hospital grounds are to
6 the north, Clark College ball fields lie to the east, and McLoughlin Boulevard is to the south
7 (Figure 3-22). Access will be from McLoughlin Boulevard and the CD road from I-5 south. The
8 parking structure ingress/egress will be at the CD and McLoughlin Boulevard.

9 The footprint of the structure is approximately 178,425 sq. ft., or 4.1 acres. The site currently
10 contains 93,940 sq. ft. (2.15 acres) of impervious surfaces, including an existing asphalt parking
11 area and structures. As described in Section 3.12, stormwater will be drained from the park and
12 ride roof into a swale on the site.

13 **3.9 BUS IMPROVEMENTS**

14 Bus improvements within the CRC alignment in Oregon will include bus pullouts on Marine
15 Drive. In Washington, bus improvements within the CRC alignment will include the following:

- 16 • Provisions for bus operations at park and rides;
- 17 • Reconstructed bus stops on Broadway and Washington Streets due to construction of
18 LRT alignment;
- 19 • Adding bus pullouts on McLoughlin Boulevard at the Central Park station; and
- 20 • Modifying routes through the Central Business District to better facilitate transfers
21 between modes.

22 No bus infrastructure improvements outside of the immediate CRC alignment are anticipated as
23 part of this project.
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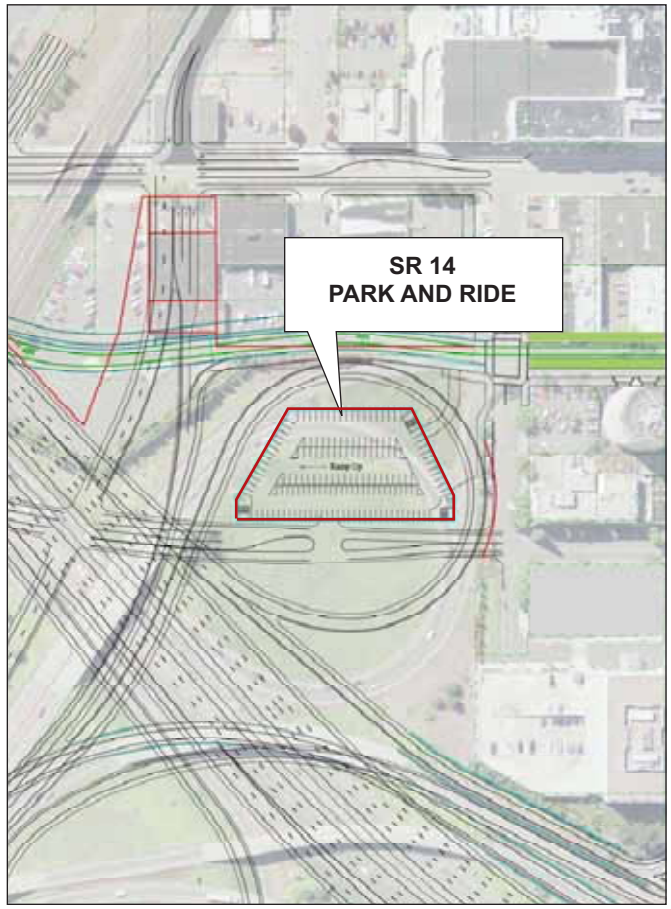
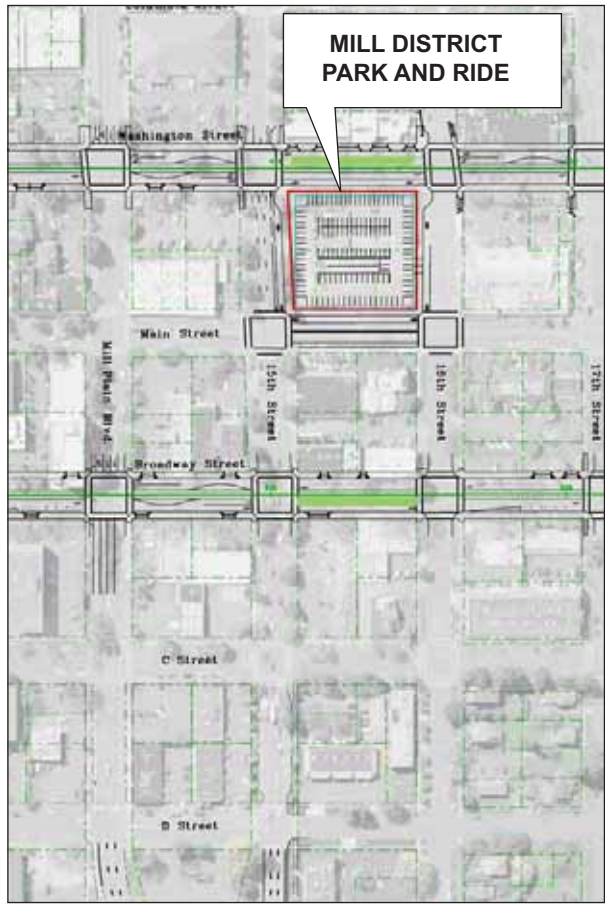


Figure 3-22.
Park and Ride Facilities
 Columbia River Crossing