

Technical Report Errata for Project Modifications Since May 2011 LPA Iteration

August 26, 2011

Introduction

The Final Environmental Impact Statement (FEIS) for the Interstate 5 (I-5) Columbia River Crossing (CRC) project is expected to be issued in fall 2011. Much of the information in the FEIS is drawn from documents and technical reports previously prepared for the project. These documents, prepared largely between 2009 and 2011, include 28 technical reports that detail impacts from the project to elements of the environment or provide information on regulatory compliance and other issues. While the FEIS has been continually revised to reflect on-going updates in project details, impacts, and mitigation based on reviewer input and updated information, the technical reports are based on information available prior to May 2011, and will not be revised past that date. This errata describes the updated project and related information that is reflected in the FEIS but is not reflected in the technical reports. This errata serves as the update for all of the technical reports.

Updates or changes that are in the FEIS, and with this errata memorandum are incorporated into the technical reports, include:

- Avoidance of airspace impacts to Apple Tree Park
- Increase in treatment of stormwater runoff from pollutant-generating impervious surfaces (PGIS)
- A minor decrease in footprint of proposed river crossing piers
- A minor increase in displacements in Shumway neighborhood
- A minor decrease in displacements on Hayden Island
- A minor increase in acquisitions in Bridgeton area
- Modification of traffic pattern on Columbia Way in Vancouver
- Change in design of proposed Evergreen Community Connector
- Relocation of proposed I-5 North Portland Harbor Multi-use Path
- Redesign of proposed I-5/Mill Plain Boulevard interchange
- Addition of proposed Hayden Island roadway in LPA Option A
- Acquisition of USS LCI-713's temporary location on Hayden Island
- Recent updates in US Census demographic data

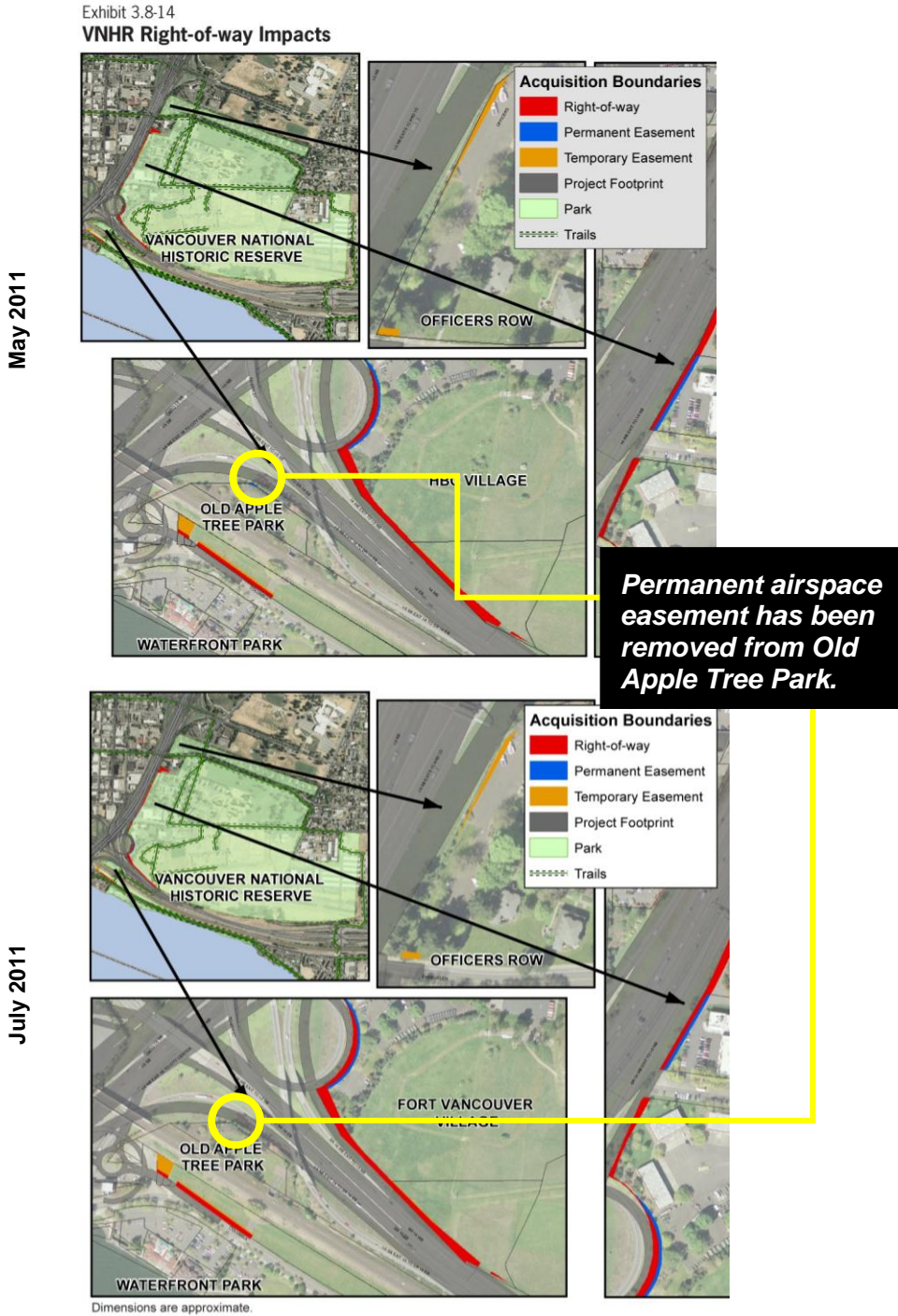
This errata updates the May 2011 technical reports and is reflected in the FEIS. In the descriptions of changes below, the May 2011 exhibits indicate the project and impacts as depicted in the technical reports, while the July 2011 versions of those exhibits depict the modifications made in the ensuing timeframe.

Apple Tree Park

Previously, the project was to require a 209-square-foot permanent airspace easement along the northeast portion of Old Apple Tree Park. The Heritage Apple Tree (a historic resource) is located within Old Apple Tree Park, both of which are located within the boundaries of the

Vancouver National Historic Reserve (VNHR). Since the publication of the Acquisitions, Historic Built Environment, and Parks and Recreation Technical Reports, the project design has been modified by relocating a ramp in order to avoid impacts to the park. Figure A below depicts the changes made to eliminate impacts at Old Apple Tree Park.

Figure A



Pollutant-generating Impervious Surface

Since publication of the Ecosystems, Geology and Soils, Hazardous Materials, and Water Quality and Hydrology Technical Reports, the project has committed to providing stormwater treatment for runoff from the entire contributing impervious area (CIA) associated with the CRC project. The CIA is comprised of existing, new, rebuilt, and resurfaced pollutant-generating impervious surfaces (PGIS) and non-PGIS that is located within the project area or drains onto the project area. Since publication of the technical reports mentioned above, the project has added more stormwater treatment, picking up the runoff from 8.1 acres of CIA that were not previously treated. This comprises 7.1 acres of new and resurfaced I-5 impervious surface immediately north of Victory Boulevard in the Columbia Slough watershed and 1.0 acre of State Route 14 eastbound lanes in the Columbia River North (Washington) watershed. Because this area will now be treated, the overall surface water, sediment, groundwater and aquatic habitat quality would be slightly higher than what was stated. Pollutant loads would decrease from previous projections; however, there would still be a slight increase in dissolved copper in the Columbia Slough watershed compared with no-build. Hydrologic impacts to project waterways would also be decreased from previous projections compared due to an increase in stormwater treatment.

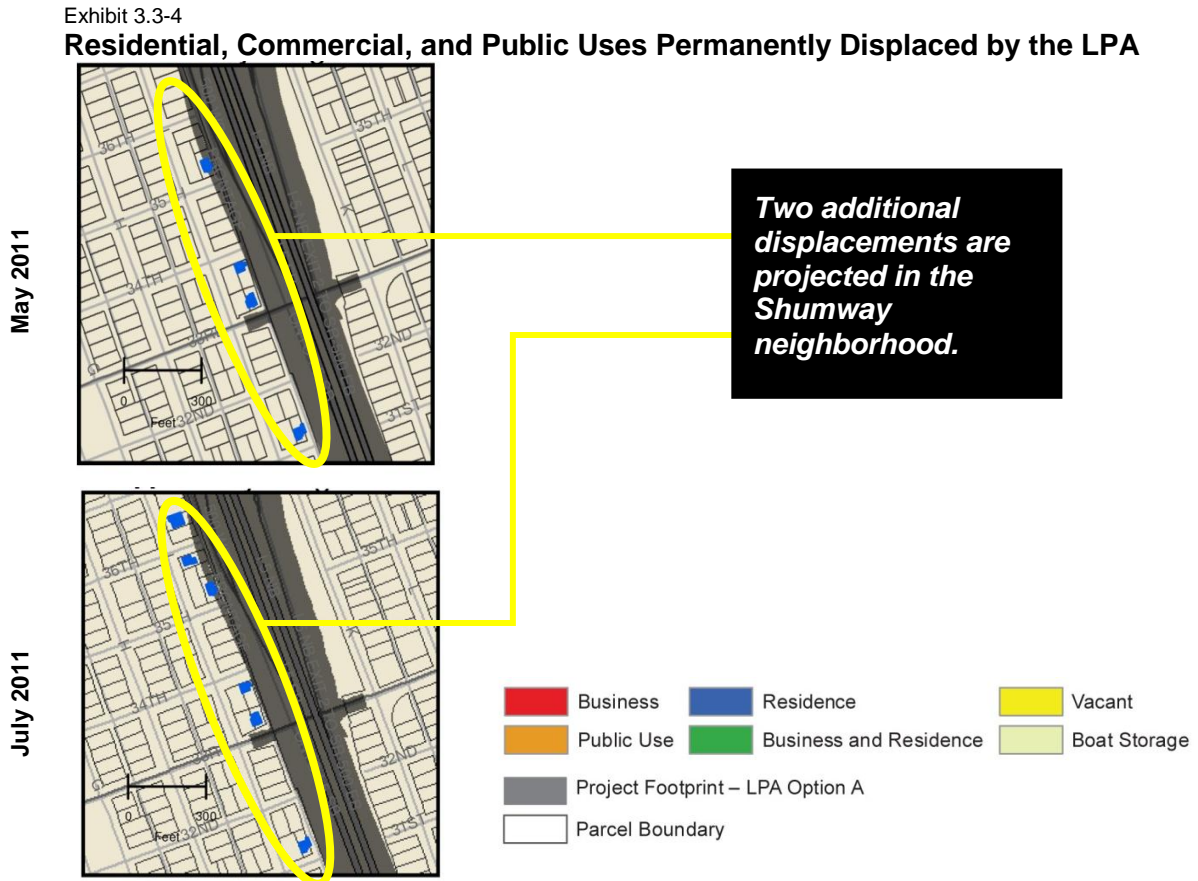
River Crossing Pier Diameter

As described in Section 2.7.9 of the FEIS, the assumed bridge type for the proposed structures crossing the Columbia River changed in April 2011 from an open web box to a composite deck truss. While there are many similarities between these bridge types, their differences in the materials used in the superstructure are enough to expect a reduction in pier size. The composite deck truss will be lighter than the open web box girder bridge type (due to lighter steel components in the composite deck truss compared to heavier concrete components in the open web box girder). The reduction in superstructure weight will likely allow a reduction in the bridge columns and foundation system that support the superstructure. Foundations supporting the composite truss superstructure will require fewer large (10-foot) diameter drilled shafts than were anticipated for the open web box girder. Fewer large diameter drilled shafts would result in smaller-diameter piers at the water surface and reduced volume of constructed material in the river.

Displacements in Shumway

Initially the exit ramp from southbound I-5 to Fourth Plain Boulevard was designed to cross underneath the 39th Street southbound on-ramp in a tunnel with a rigid frame structure. The crossing angle was close to parallel and the rigid frame structure was relatively long. In an effort to reduce the length of the structure and change the type to a conventional bridge, the alignment was modified to make the crossing angle more perpendicular. As a consequence, a wider footprint is needed for the off-ramp which results in two additional residential displacements along I Street in upper Vancouver to the west of I-5, for a total of six displacements in the Shumway neighborhood. Prior to this change, the two properties were not to have seen any right-of-way impacts. Refer to Figure B for an illustration of these additional project impacts.

Figure B



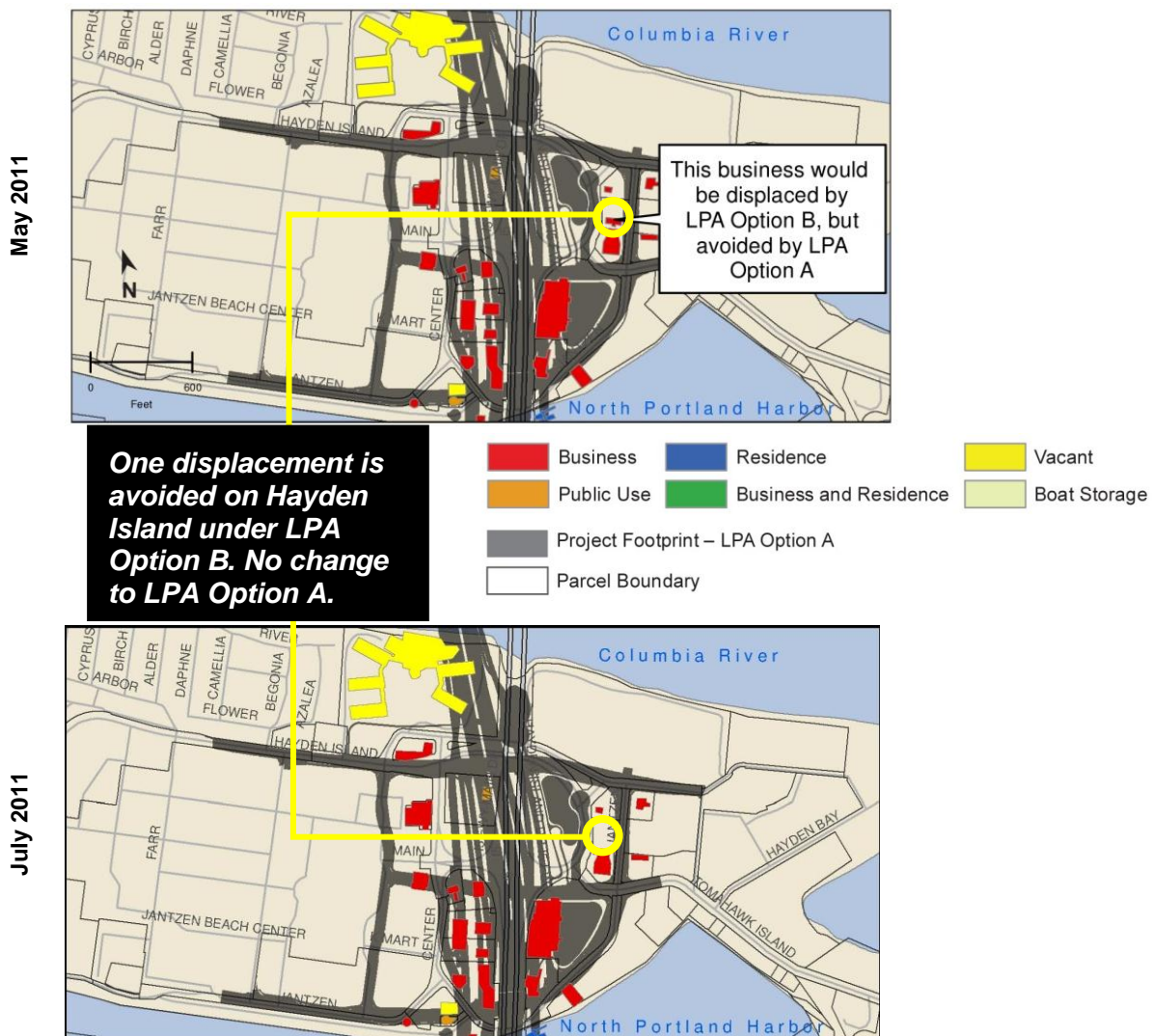
Displacements on Hayden Island

The Acquisitions Technical Report documented five commercial displacements along N Jantzen Drive east of I-5 between N Hayden Island Drive and N Tomahawk Beach Drive for LPA Option B, while LPA Option A would have avoided the displacement of a Burger King restaurant (for a total of four commercial displacements in this area). This was due to differing roadway geometries between the two options for this reconstructed portion of Jantzen Drive. However, based on additional findings since May 2011, it has been determined that the Burger King would not be displaced in either Option A or B of the LPA. Figure C reflects the change in the number of displacements on Hayden Island.

Figure C

Exhibit 3.3-4

Residential, Commercial, and Public Uses Permanently Displaced by the LPA



Bridgeton Acquisitions

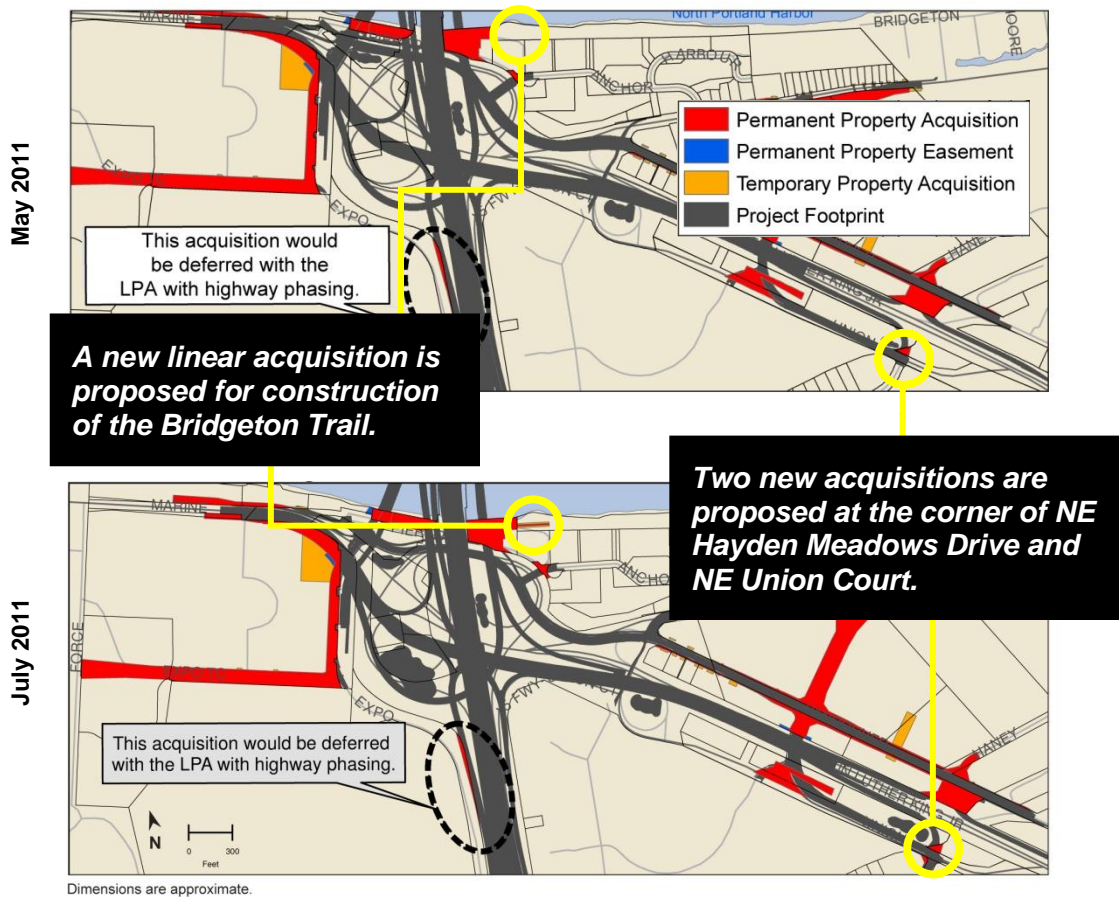
Through additional coordination meetings with the City of Portland staff, project right-of-way needs along Vancouver Way, Marine Drive, and Union Court were revised to better reflect the City of Portland street section requirements. At the intersection of NE Union Court and NE Hayden Meadows Drive, the acquisitions required for right-of-way were revised to better accommodate truck turning at this intersection. There are now an additional two permanent, partial property acquisitions foreseen at the southwest and southeast corners of the intersection. Moreover, the current 6-foot curb-tight sidewalk will be upgraded to a 12-foot pedestrian corridor which includes at least 6 feet of sidewalk, utilities, and bio-filtration strips. There are no additional displacements as a result of these partial property acquisitions.

Another modification includes a linear strip that is to be acquired for construction of the Bridgeton Trail. This is to be coordinated with the City of Portland which would build a separate segment of the trail in the future and will connect from the east to the CRC project area. There would be no additional displacements as a result of this partial parcel acquisition. Figure D illustrates the modifications made in the Bridgeton neighborhood.

Figure D

Exhibit 3.3-3

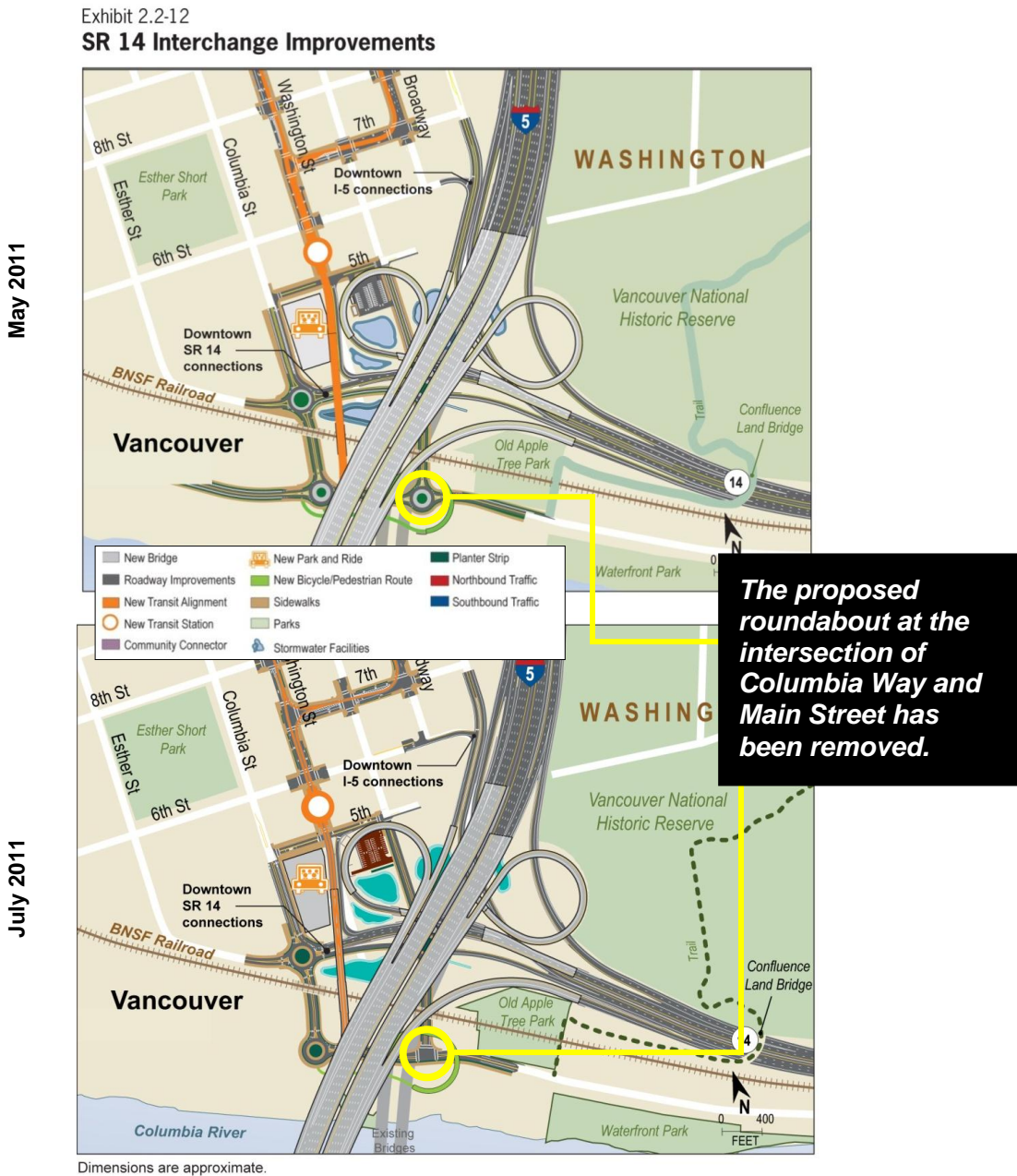
Permanent and Temporary Property Acquisitions



Roundabouts in Vancouver

The City of Vancouver’s vision for its waterfront includes greater pedestrian access between downtown and the Columbia River, and plans for future retail, residential, office and parks and recreation facilities are in development. The City has requested slight changes to the roadway design they had previously proposed in the area to better achieve these goals. Their previous proposed circulation in this area called for a roundabout at the new Columbia Way at Main Street intersection. Their revised plan changes this to an un-signalized T-intersection (with traffic control on Main Street). This has no additional impact to traffic and would reduce construction costs and conserve space that would be prioritized for parkland. Figure E shows this change from the intersection design shown in the technical report.

Figure E



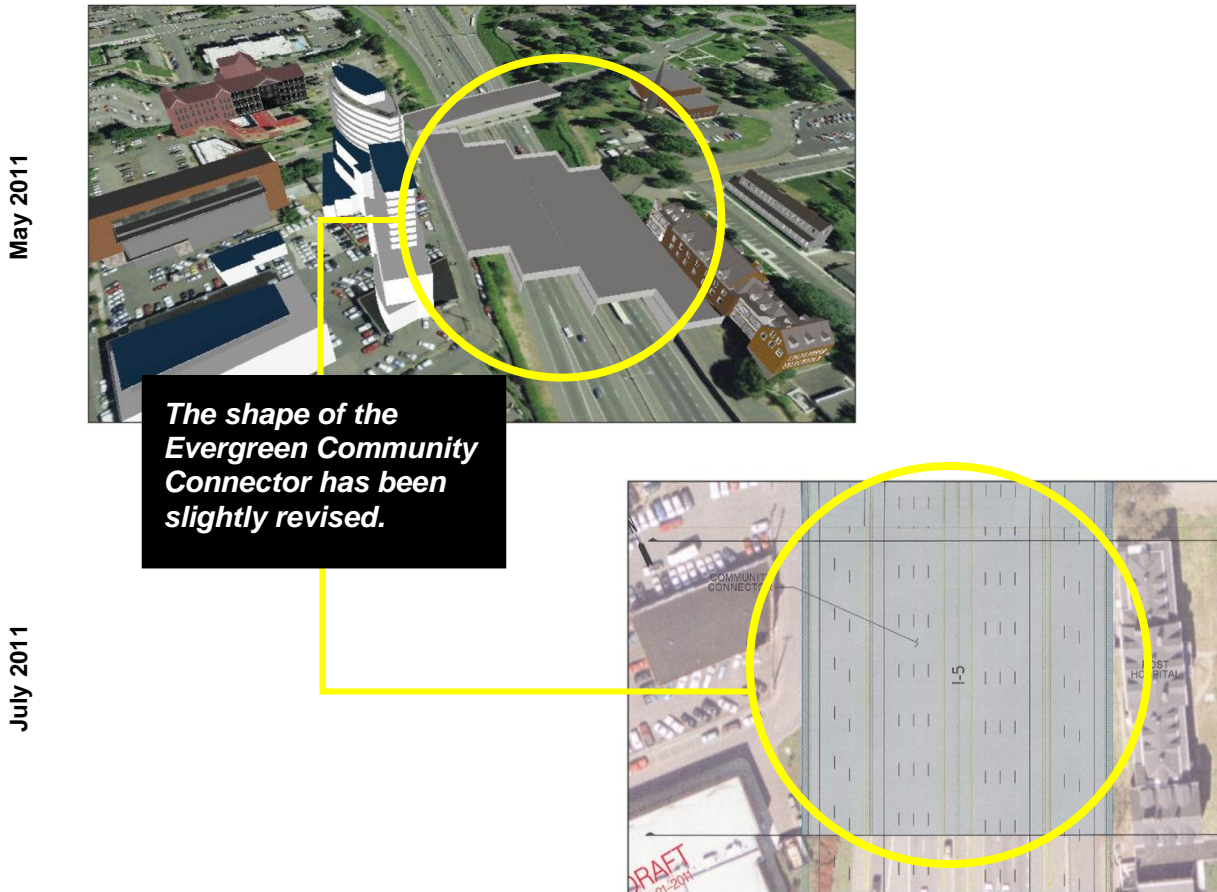
Evergreen Community Connector

The Evergreen Community Connector has been proposed as a new landscaped bridge or “lid” over I-5 that would provide enhanced bicycle and pedestrian access and cultural connectivity between downtown Vancouver and VNHR. The connector has been revised since previous designs, changing the shape from a parallelogram into roughly a rectangle, which will increase the footprint of the lid and improve connectivity for pedestrians by reducing the distance needed to cross I-5. The modifications to the connector are demonstrated in Figure F.

Figure F

Exhibit 3.8-38

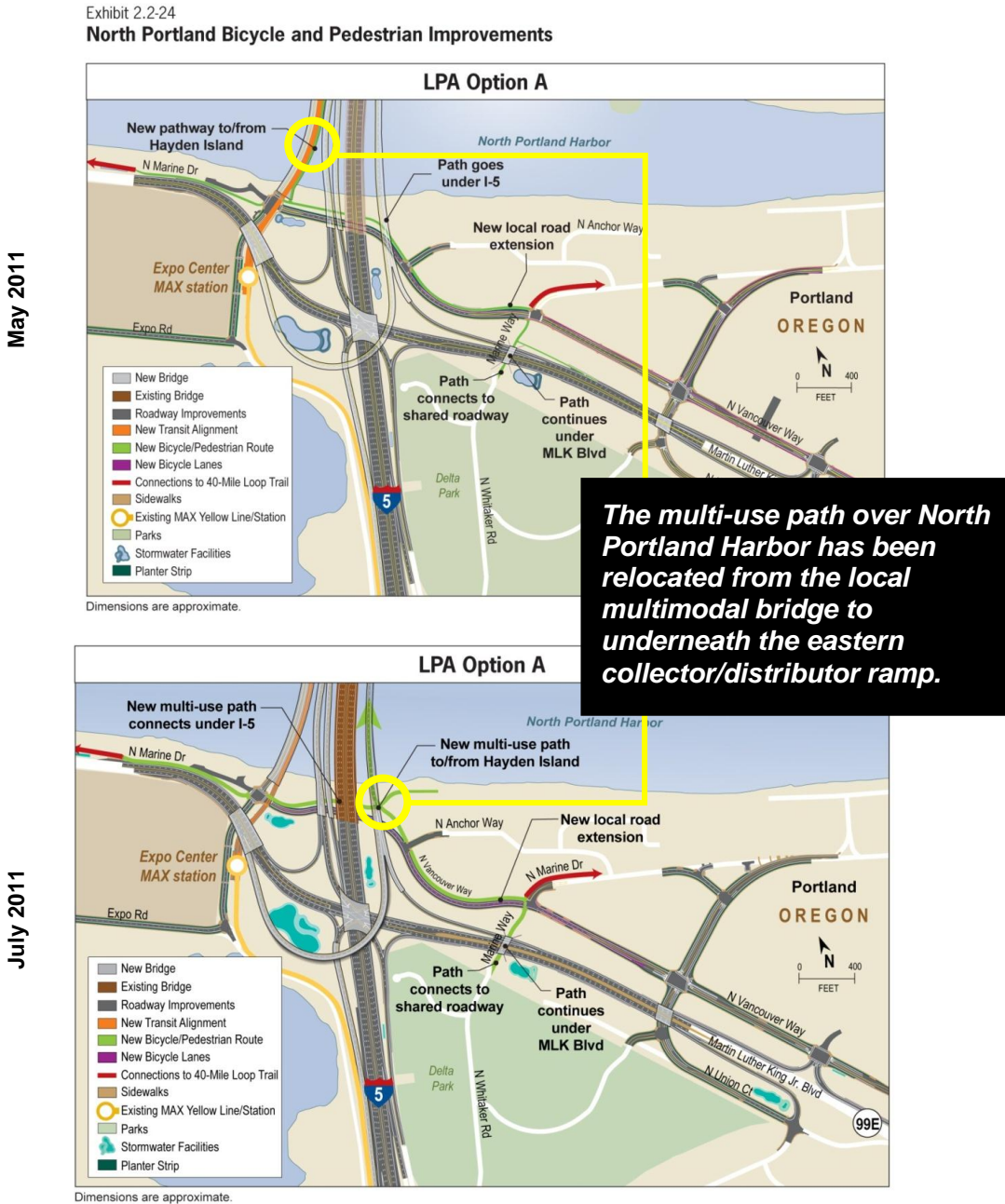
Evergreen Community Connector



I-5 North Portland Harbor Multi-use Path

Following additional public involvement with the Bridgeton neighborhood, the City of Portland recommended that the multi-use path to be built across North Portland Harbor be routed underneath the east side of the eastern collector-distributor ramp bridge over the harbor. This is an alteration from the previous design, which would have placed the multi-use path along the new local multimodal bridge (west of I-5) that will also carry automobiles and MAX light rail trains. The rerouted multi-use path is shown in Figure G. This change has little effect on environmental impacts, including no difference in in-water impacts.

Figure G



I-5/Mill Plain Boulevard Interchange

Proposed improvements to the I-5/Mill Plain Boulevard interchange, which was previously shown as a single-point urban interchange (SPUI) configuration, have been revised to a tight urban diamond interchange (TUDI) configuration.

The SPUI configuration had the advantages of allowing opposing left turns simultaneously. This would improve the capacity of the interchange by reducing delay for traffic entering or exiting I-5. A downside is that it requires a wide space over or under the freeway to accommodate all vehicular movements, which creates a longer structure than would be needed for a typical diamond interchange. The longer structure at Mill Plain Boulevard increased the cost associated with this type of interchange. In addition to the cost, Mill Plain Boulevard would have to be lowered by approximately 8 feet to meet vertical clearance requirements under the freeway structure. As a result of the increased cost and the undesirability of lowering the roadway, the proposed configuration was changed to a TUDI.

The TUDI configuration reduces queuing between the intersections and keeps traffic flowing better through the interchange. Another operational benefit results from the ability of pedestrians to cross Mill Plain Boulevard with fewer pedestrian-vehicle conflicts.

In order to evaluate the differences between the SPUI and the TUDI, the Synchro/SimTraffic software package was used to evaluate traffic operations near the I-5/Mill Plain interchange for both the morning and afternoon/evening peak periods. It is important to note that the SPUI summarizes all movements through the interchange at a single intersection. The TUDI operations are split out between the northbound and southbound ramp terminals.

During the morning peak hour, the intersection operations would be similar for both the SPUI and the TUDI. All movements would operate at an acceptable level-of-service (LOS) with queuing that does not extend into upstream intersections. During the afternoon/evening peak period, the SPUI is expected to operate at LOS E. The westbound and southbound approaches would experience high delay and operate at LOS F. The TUDI ramp terminals would operate at LOS C during the afternoon/evening peak period. Similar to the SPUI, the westbound and southbound approaches of the TUDI intersections would also experience high delays. The westbound approach would operate with LOS F similar to that of the SPUI. The southbound left would improve from LOS F under the SPUI to LOS E under the TUDI configuration.

Under SPUI signal timing, the northbound and southbound left turns are run together and would hold the phase if one of the two approaches still has vehicles entering the intersection. With the TUDI, the northbound and southbound approaches are separated and unused time can be reassigned to other movements. All other movements with a TUDI configuration would result in similar LOS as the SPUI configuration. Despite the differences in delay and LOS between the SPUI and TUDI, the queuing is forecast to be similar for both configurations.

In order to reduce project costs and improve the operations of this critically important interchange, the project has advanced the TUDI configuration. There will be no need for additional right-of-way nor does the change introduce any new adverse effects. The TUDI would perform slightly better for commuters, freight haulers, and pedestrians.

The modification in interchange design is illustrated in Figure H.

Figure H

Exhibit 2.2-13

Mill Plain Boulevard Interchange Improvements

May 2011



Dimensions are approximate.

The I-5/Mill Plain interchange has been redesigned as a tight diamond interchange.

July 2011

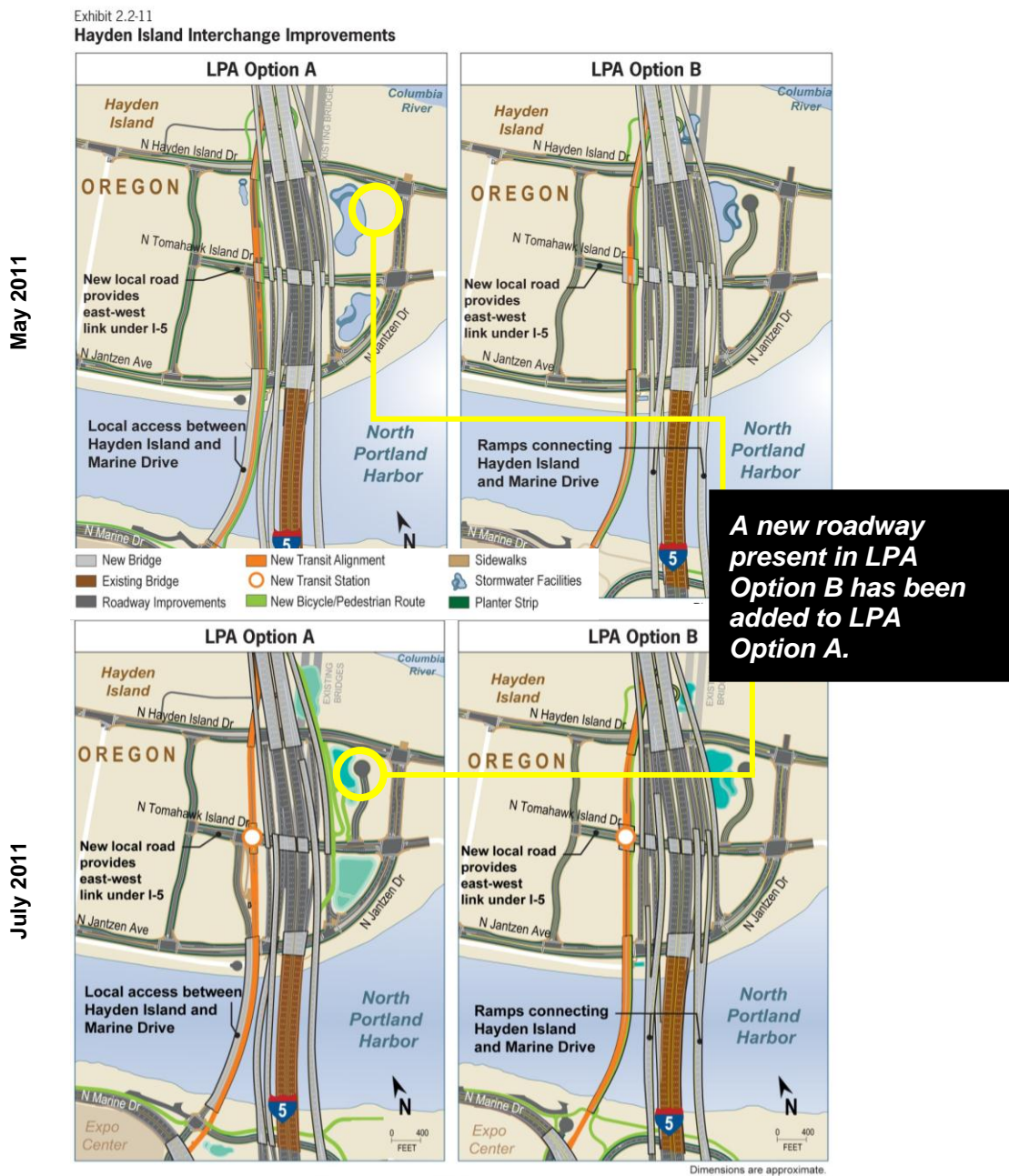


Dimensions are approximate.

Hayden Island Roadway

In the FEIS, two distinct LPA options are presented on Hayden Island and across North Portland Harbor. Previously, one unique feature between the two options was that LPA Option B featured a new cul-de-sac for local traffic off N Tomahawk Island Drive, east of I-5, that would provide commercial access for several adjacent business properties on Hayden Island. This roadway has now been added to the design of LPA Option A, as well, due to Oregon Interchange Access Management Plan restrictions on the number of curb cuts or driveways allowed for properties on the thoroughfare. Figure H depicts the additional roadway for LPA Option A. This will allow Option A to provide the same access to adjacent businesses as Option B provides. The cul-de-sac will result in a slight increase in PGIS, which will be treated with bioswales that are planted alongside the roadway. Construction of the cul de-sac would cause no additional displacements. Figure I portrays the change in design for LPA Option A from the technical reports as shown in the FEIS.

Figure I



USS LCI-713 Site on Hayden Island

The USS LCI-713 is a World War II landing craft infantry (LCI) 351-class amphibious assault vessel (see Figure J). The vessel was capable of landing men and material directly onto a beach without the use of docks and wharfage. Commissioned and built in 1944, the USS LCI-713 is significant at the national level under National Register of Historic Places (NRHP) criterion a, in the areas of maritime history and military history for its direct association with combat operations in the southwestern Pacific Ocean during World War II. It is also significant under criterion c in the area of engineering as the only known remaining example of an LCI in its original configuration, and only three comparable LCI ships of the same class as LCI-713 are known to exist. The vessel no longer has integrity of location and setting, since it has been moved to its current temporary mooring at the vacant Thunderbird Hotel site.

The vacant Thunderbird Hotel site is proposed as a staging area for the project. The owners of the ship, in consultation with Oregon State Historic Preservation Office (SHPO) staff, have plans to move the ship to another temporary location for repairs, and later to a new permanent location that will allow greater visitor access. It is not likely that the ship will still be in its current location when the project needs use of the property. Although the LCI-713 will have to be moved to a new location, the move would not change any character-defining features of the ship. Only the ship's location and setting would change, although the integrity of these would not be diminished as long as the ship is docked along a river with access to the Pacific Ocean. If the ship is still docked at the Thunderbird Hotel when the project needs use of the property, then the project will revisit the issue, coordinate with SHPO and provide assistance moving the ship to a new location. There would be no adverse effect to the historic property. Figure J shows an image of the ship docked at the Thunderbird Hotel site, while Appendix A of this errata includes a letter of concurrence from the Oregon State Historic Preservation Office in the Section 106 determination of "no adverse effect".

Figure J



Changes in Noise and Vibration Findings

Transit and traffic noise analysis were updated for the May 2011 Noise and Vibration Technical Report, but those updates in noise and vibration findings, including impacts and mitigation, are not reflected in other technical reports. The updated noise and vibration findings are, however, reflected in all relevant sections of the FEIS. The estimated noise and vibration impacts and recommended mitigation presented in the May 2011 Noise and Vibration Technical Report are consistent with the analysis included throughout the FEIS.

Evaluation of Demographic Data Updates

The FEIS includes minority and low-income population data from the 2010 United States Decennial Census and the 2005-2009 American Community Survey (ACS). The DEIS and earlier draft versions of the FEIS primarily cited the 2000 United States Decennial Census as that was the most current demographic data available at the level of geography necessary for detailed analysis. The release of preliminary 2010 Census results in early 2011 and ACS results in late 2010 have allowed the CRC project to utilize more recent data for the purposes of assessing project impacts to adjacent neighborhoods as well as environmental justice populations. These data are shown below and can be reviewed in Section 3.5 of the FEIS. Methodological issues as well as data limitations do not allow a full update of the neighborhood-focused demographic profiles developed for the DEIS.

Because the 2010 Census no longer includes questions regarding income, the project team reviewed the ACS data in order to provide more recent income information than the 2000 Census. The 2005-2009 ACS five-year estimate is the first data release available at the census tract- level since the survey's inception in 2005. It reports population and housing characteristics based on data collected from January 1, 2005, to December 31, 2009. It is not analogous to a population count like the census; rather, it provides estimates based on survey responses and is meant to replace the census long-form questionnaire. Beginning with the 2010 Census, all census questionnaires use a short form, only requesting basic demographic information on the number, relation, age, sex, and race/ethnicity of residents in each household.

While information retrieved from the 2000 Census for the DEIS was reported at the *census block group* unit of geography, data from 2010 Census and 2005-2009 ACS are only reported in the FEIS at the census tract level, which is one unit of geography larger than the block group. The DEIS analysis was based on a complex exercise with geographic information. Staff had assigned block groups and partial block groups to each neighborhood and developed neighborhood-specific demographic profiles. This same method cannot be repeated with the 2010 data because of changes in how census data are collected and managed. In order to update the analysis and see if any findings have changed as a result of changing demographics, an alternate methodology has been developed for comparing 2000 Census and 2009 ACS/2010 Census data. Project staff has compared 2000 and 2009-10 data for census tracts located within 0.25 mile of the main project study area, or primary area of project influence (API), in addition to Census Tract (CT) 98.01 which encompasses the Ruby Junction Maintenance Facility in Gresham, Oregon, that is slated for expansion as part of the project. Since the boundaries of these tracts are not contiguous with the boundaries of the neighborhoods, a full update of the DEIS neighborhood profiles is not possible. However, from the tract to tract comparison, certain trends can be identified. These trends, and the implications for local neighborhoods, are discussed herein and in Section 3.5 of the FEIS.

Methods and Findings

Selected tables in Section 3.5, Neighborhoods and Environmental Justice, of the FEIS have been updated to reflect the most up-to-date information available. Table 1 reflects updates that

have been made to Exhibit 3.5-7 in the FEIS, Minority Populations Within Study Area, which now reflects 2010 Census data to determine the percentage of minority population within the main project area census tracts. Percent minority population was calculated by adding all minority populations (including Caucasian populations that identified their ethnicity as Hispanic or Latino) and dividing by the total population. Previous versions of this table included population figures within the indirect effects study area (see Exhibit 3.5-1 of the FEIS), which explains the lower population totals in the revised exhibit. According to the 2010 Census, 21 percent of the population in the main project area census tracts is minority. Although minorities are located throughout the area, the percentage of minority populations is higher in the Oregon census tracts (27 percent) than in the Washington census tracts (20 percent). In addition, 2000 Census data has been tabulated for the main project area at the census tract-level for purposes of comparison. As made evident by the two tables, the proportion of minorities has increased within the project area on both sides of the Columbia River, but most substantially in Oregon with a gain of 12 percentage points in Oregon main project area tracts compared to a gain of four percentage points within the entire project study area.

Table 1

Minority Populations Within Study Area (Exhibit 3.5-7 in FEIS)

Area	Total Population 2000 Census	Total Population 2010 Census	Percent 2000 Minority	Percent 2010 Minority
Oregon Study Area	4,081	4,849	15	27
Washington Study Area	34,460	35,799	17	20
Study Area Total	38,541	40,648	17	21

Source: 2010 Census Summary File 1 Tables P01 and P05, 2000 Census Summary File 1 Tables P07 and P08.

Note: Percent minority is calculated by tabulating the population of all minorities and Caucasians who identify their ethnicity as Hispanic and dividing this figure by total population. Data represent the census tracts within 0.25 mile of the main project area. Does not include data from Census Tract 98.01.

Table 2 reflects updates that have been made to Exhibit 3.5-8 in the FEIS, Race and Ethnicity of Population (Percent) Within the Study Area, which breaks down race and ethnicity data in the main project area census tracts as well as local jurisdictions (cities of Portland and Vancouver, and Multnomah and Clark Counties). Like the Exhibit 3.5-7 methodology, the methodology for Exhibit 3.5-8 has been revised to only include census tracts that are located within 0.25 mile of the main project area boundary. It has also been updated to include 2010 Census data. Of note, there is a higher percentage of African-Americans residing in the Oregon main project area tracts compared to both City of Portland and Multnomah County (8 percent vs. 6 percent). The Oregon main project area tracts contain a significantly higher proportion of minorities compared to the Washington main project area tracts and the main project area as a whole. In addition, Table 2 provides 2000 Census data for use in this exhibit for purposes of comparison with 2010 data using consistent methodology. There has been a substantial increase in proportion of non-white population in the Oregon main project area tracts during the last decade from 14 percent to 24 percent, which corresponds with a rise in percentage of individuals of Hispanic/Latino ethnic origin (from 3 percent to 9 percent).

Table 2

Race and Ethnicity of Minorities (Percent) Within the Study Area (Exhibit 3.5-8 in FEIS)

Area	Year	Race					Ethnicity		
		White Alone	Black or African-American Alone	American Indian and Alaska Native Alone	Asian Alone	Native Hawaiian and Other Pacific Islander Alone	Some Other Race Alone	Two or More Races	Hispanic or Latino
Oregon Study Area	2000	86	5	1	4	0	1	3	3
	2010	76	8	1	6	1	5	4	9
Washington Study Area	2000	86	3	1	2	0	4	4	8
	2010	84	3	1	2	1	4	5	10
Study Area Total	2000	86	3	1	2	0	3	4	7
	2010	83	3	1	3	1	5	4	10
Multnomah County	2000	76	5	1	6	0	0	4	7
	2010	76	6	1	7	1	5	5	11
City of Portland	2000	75	6	1	6	0	0	4	7
	2010	76	6	1	7	1	4	5	9
Clark County	2000	86	1	1	3	0	0	3	5
	2010	85	2	1	4	1	3	4	8
City of Vancouver	2000	82	2	1	4	1	0	4	6
	2010	81	3	1	5	1	4	5	10

Source: 2010 Census Redistricting Data (PL 94-171) Summary File, 2000 Census Redistricting Data (PL 94-171) Summary File.

Note: Data represent the census tracts within 0.25 mile of the main project area.

Table 3 reflects updates that have been made to Exhibit 3.5-9 in the FEIS, Poverty Rates for Local Jurisdictions, and includes updated poverty rates for local jurisdictions from the 2009 ACS. Poverty rates were calculated by dividing the number of individuals who reported being below the poverty level within the last 12 months by total population (for whom poverty status is determined) and range from 10 to 16 percent. By contrast, the 2000 Census included poverty rates reported during the year 1999.

Table 3

Poverty Rates for Local Jurisdictions (Exhibit 3.5-9 in FEIS)

Metric	Multnomah County	Portland	Clark County	Vancouver
Percent of Population Below Poverty Level (2009)	16	16	10	15

Source: American Community Survey 2005-2009 Table B17001.

Note: Percent low-income (below poverty level) is calculated by dividing the population that resides below the poverty level by total population (of individuals for whom poverty status is determined).

Table 4 contains percentage of minority and low-income populations within CT 98.01 in the Rockwood neighborhood in Gresham, Oregon. This tract will be affected by expansions slated for the Ruby Junction Maintenance Facility as part of the CRC project. The table has been created using the 2010 Census and the 2009 ACS, but only includes data at the census tract-level unlike previous analyses which were completed using block groups (smaller geographic areas). Data from the census and ACS indicate that half of the residents within this tract are minority and 34 percent have incomes below the poverty level. Census tract-level data from 2000 has also been provided herein for purposes of comparison in and shows a sizable

increase in the proportion of low-income population (from 29 percent to 34 percent) in the last 10 years.

Table 4

Ruby Junction Area Minority and Low-income Populations

Metric	Ruby Junction Area	Multnomah County	Project Area
Percent Minority (2000)	48	23	17
Percent Minority (2010)	50	28	21
Percent Low-income (2000)	29	12	16
Percent Low-income (2009)	34	16	19

Sources: 2010 Census Summary File 1 Tables P01 and P05; American Community Survey 2005-2009 Table B17001; 2000 Census Summary File 1 Tables P07 and P08, Summary File 3 Table P87.

Note: Percent minority is calculated by tabulating the population of all minorities and Caucasians who identify their ethnicity as Hispanic and dividing this figure by total population. Percent low-income (below poverty level) is calculated by dividing the population that resides below the poverty level by total population (of individuals for whom poverty status is determined).

Furthermore, an additional table (Table 5) was produced, for Section 3.5 of the FEIS, which shows census tract-level variations between the 2000 Census and 2010 Census (for minority data) as well as variations between the 2000 Census and 2005-2009 ACS (for poverty data). It includes those 15 tracts that are either completely or partially within the main project area (or encompass the Ruby Junction Maintenance Facility) to provide a brief overview of changes that have taken place in the main project area since the 2000 Census. It is important to exercise discretion when evaluating the table due to inconsistencies inherent in comparing results from a count as opposed to a survey estimate with regards to low-income populations. In addition, minor alterations were made to two of the census tracts' boundaries between 2000 and 2010 (ACS uses 2000 Census geographies). The boundary of CT 72.02 has gained and lost territory to CT 71 and lost territory to CT 43. However, the boundary fluctuations are located directly over the Willamette River and are expected to have negligible impact on data comparisons. CT 410.02 has been bisected into smaller census tracts for 2010 (CT 410.1 and CT 410.11). Both tracts have been included for the purpose of maintaining consistency between 2000 Census and 2010 Census data. However, CT 410.1 is located outside of the main project study area. Table 5 is reproduced in the FEIS as Exhibit 3.5-10.

Table 5

Census Tract-level Comparisons for Minority and Low-income Populations (Exhibit 3.5-11 in FEIS)

2000 Census Tract (2010 Tract)	Percent Minority (2000)	Percent Minority (2010)	Percentage Point Change in Percent Minority	Percent Low- income (2000)	Percent Low- income (2009)	Percentage Point Change in Percent Low- income
Census Tract 72.01	8.08	14.54	6.46	8.51	7.86	-0.64
Census Tract 72.02 ^a	22.76	37.92	15.16	9.19	5.32	-3.87
Census Tract 98.01 ^b	48.33	50.33	2.00	29.48	34.07	4.59
Census Tract 410.02 (410.1) ^c	14.25	18.49	4.24	13.22	14.41	1.19
Census Tract 410.02 (410.11) ^c	14.25	16.53	2.28	13.22	14.41	1.19
Census Tract 410.03	12.47	15.90	3.44	8.35	14.20	5.86
Census Tract 417	32.90	33.22	0.32	22.99	27.66	4.67
Census Tract 418	19.97	27.47	7.50	22.35	20.79	-1.56
Census Tract 419	10.71	12.60	1.89	13.30	18.52	5.22

2000 Census Tract (2010 Tract)	Percent Minority (2000)	Percent Minority (2010)	Percentage Point Change in Percent Minority	Percent Low- income (2000)	Percent Low- income (2009)	Percentage Point Change in Percent Low- income
Census Tract 420	10.24	13.10	2.86	9.45	8.32	-1.13
Census Tract 421	12.21	22.69	10.48	9.10	32.08	22.97
Census Tract 423	16.28	19.07	2.79	19.55	22.12	2.57
Census Tract 424	15.19	16.64	1.45	47.59	23.77	-23.82
Census Tract 425	13.53	14.63	1.10	16.19	23.26	7.07
Census Tract 426	17.12	19.90	2.78	20.91	21.07	0.16

Sources: 2000 Census Summary File 1 Tables P07 and P08, Summary File 3 Table P87; American Community Survey 2005-2009 Table B17001; 2010 Census Summary File 1 Tables P01 and P05.

Notes: Percent minority is calculated by tabulating the population of all minorities and Caucasians who identify their ethnicity as Hispanic and dividing this figure by total population. Percent low-income (below poverty level) is calculated by dividing the population that resides below the poverty level by total population (of individuals for whom poverty status is determined).

- a There have been minor changes in the boundary of this census tract between 2000 and 2010. It has gained and lost territory to Census Tract 71 and lost territory to Census Tract 43. However, the boundary fluctuations are located directly over the Willamette River and are expected to have negligible impact on data comparisons.
- b Census Tract 98.01 is located in the Rockwood neighborhood in Gresham, Oregon, and is not considered part of the primary area of project influence nor is it included in tabulations of the total study area.
- c Census Tract 410.02 has been bisected into smaller census tracts for 2010 (410.1 and 410.11). Both tracts have been included for the purpose of maintaining consistency between 2000 Census and 2010 Census data. However, Census Tract 410.1 is located outside of the study area. American Community Survey uses 2000 Census geographies.

Neighborhood Findings and Conclusions

The recent availability of more up-to-date data has revealed largely nuanced demographic shifts for local jurisdictions when compared to the previous evaluation conducted by the project. Yet it has also illuminated several noteworthy changes that are more localized within the main project area since 2000. Several census tracts have undergone considerable changes, gaining or losing a large share of minority and low-income residents over the previous 5 to 10 years. Two census tracts in Oregon and Washington gained more than 10 percentage points in proportion of minority population while two others gained more than 5 percentage points. Notably, no census tracts observed a loss in minority population during this time span. In Washington, the proportion of low-income population in one census tract rose by 23 percentage points while falling by almost 24 percentage points in another. Three other tracts saw an increase of greater than 5 percentage points in percentage of low-income population.

Appendices B and C at the conclusion of this errata feature maps that illustrate percentage of minority population (in 2000 and 2010, respectively) within affected areas, while Appendices D and E show percentage of low-income population (in 2000 and 2009, respectively). Appendix F depicts percentage point changes in minority population between 2000 and 2010, and Appendix G depicts percentage point changes in low-income population between 2000 and 2009.

Examining tract-level data found within the 2000 Census, 2010 Census and 2009 ACS datasets can also help reveal substantial changes in the ethnic and socioeconomic character of a neighborhood within the intervening 10 years. For example, the Portland neighborhoods of Kenton, East Columbia, and Bridgeton are most likely to reflect the 15.2 percentage point increase in minority population that was observed in CT 72.02 between 2000 and 2010, which was the largest change observed within the main project area. Similarly, two Vancouver neighborhoods are most likely to exhibit the 23 percentage point increase in low-income population within CT 421 (Carter Park and Lincoln), while the Esther Short neighborhood reflects the 23.8 percentage point decrease in low-income population within CT 424.

Tables 6 and 7 indicate the local neighborhoods that have the largest changes in minority and low-income population percentages, respectively. Some of the demographic changes reflected in the results of Census and ACS data collection since 2000 are consistent with other indicators of demographic changes in the study area. For example, the many new, market-rate, multi-family residential projects constructed in Esther Short neighborhood since the 2000 Census, indicated a likely change in the neighborhood's household incomes. The 2009 ACS data reflected this change as the percentage of households in poverty fell 23.8 percent in CT 424 (roughly the Esther Short neighborhood). The number of households below the poverty level in this census tract remains higher than the average for the City of Vancouver or for Clark County. The areas with higher than average rates of households in poverty in 2000 were generally still the areas with higher than average rates by 2010.

Throughout the project area, the percentage of minority households has increased between 2000 and 2010. This kind of change generally increases the likelihood that any specific impact, such as a residential displacement, may affect a minority household. However, the project has surveyed each household that would be displaced by the LPA, and has collected reliable data on the demographics of most of those specific households. The findings of *no disproportionate impact* are based on the Census data for the area, as well as on this more precise survey data. The analysis compared the percent of EJ households to be displaced with the rates of EJ households for the area, city, and county.

Table 6

Significant Neighborhood Findings (Minority Status 2000-2010)

Census Tract	Percentage Point Change in Proportion of Minority Population	Affected Neighborhoods
CT 72.02	15.2	Kenton, East Columbia, Bridgeton
CT 421	10.5	Carter Park, Lincoln
CT 418	7.5	Rose Village
CT 72.01	6.5	Hayden Island

Source: Metro Regional Land Information System Database.

Table 7

Significant Neighborhood Findings (Low-income Status 2000-2009)

Census Tract	Percentage Point Change in Proportion of Low-income Population	Affected Neighborhoods
CT 421	23	Carter Park, Lincoln
CT 425	7.1	Arnada, Esther Short
CT 410.03	5.9	Northwest, West Hazel Dell, Lincoln, Northeast Hazel Dell
CT 419	5.2	Shumway, Carter Park, Lincoln
CT 424	-23.8	Esther Short

Source: Metro Regional Land Information System Database.