3.6 Public Services and Utilities

Public services such as schools, emergency response services, government offices, and hospitals are vital to the health of a community and can be affected by large construction projects and changes to the transportation network. Similarly, utilities such as electricity, water, sewer, natural gas, telephone, data, fiber optic, and other communications services can be temporarily disrupted by construction activities.

This section identifies the public services and utilities in the CRC study area and evaluates the potential long-term and temporary (construction-related) effects of the LPA to these resources. The information presented in this section is based on the CRC Public Services Technical Report and the CRC Utilities Technical Report, included as electronic appendices to this FEIS. A comparison of impacts from the LPA and the DEIS alternatives is summarized in Exhibit 3.6-3. A more detailed description of the impacts of the DEIS alternatives on public services and utilities is in the DEIS starting on page 3-181.

3.6.1 New Information Developed Since the Draft EIS

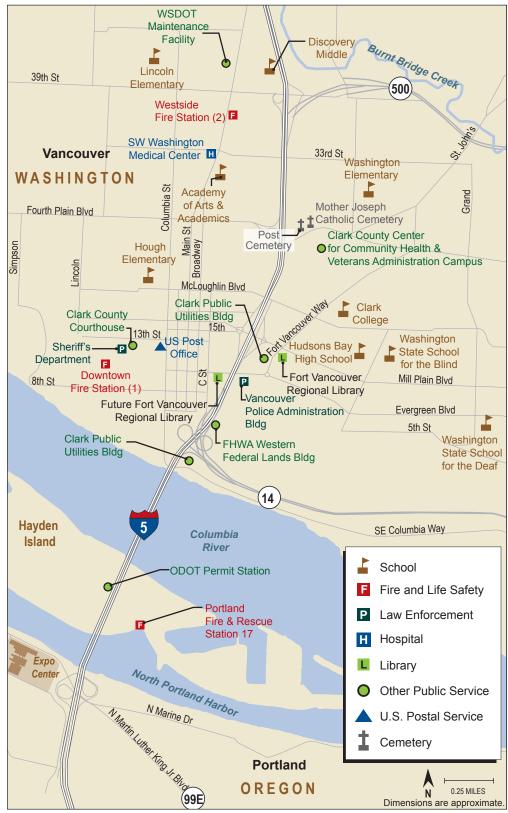
Data collection has continued since the DEIS but has not resulted in any significant new information or changes in impacts to public services from the project alternatives.

The FEIS includes refinements in design, impacts and mitigation measures. Where new information or design changes could potentially create new significant environmental impacts not previously evaluated in the DEIS, or could be meaningful to the decision-making process, this information and these changes were applied to all alternatives, as appropriate. However, most of the new information did not warrant updating analysis of the non-preferred alternatives because it would not meaningfully change the impacts, would not result in new significant impacts, and would not change other factors that led to the choice of the LPA. Therefore, most of the refinements were applied only to the LPA. As allowed under Section 6002 of SAFETEA-LU [23 USC 139(f)(4)(D)], to facilitate development of mitigation measures and compliance with other environmental laws, the project has developed the LPA to a higher level of detail than the other alternatives. This detail has allowed the project to develop more specific mitigation measures and to facilitate compliance with other environmental laws and regulations, such as Section 4(f) of the DOT Act, Section 106 of the National Historic Preservation Act, Section 7 of the Endangered Species Act, and Section 404 of the Clean Water Act. FTA and FHWA prepared NEPA re-evaluations and a documented categorical exclusion (DCE) to analyze changes in the project and project impacts that have occurred since the DEIS. Both agencies concluded from these evaluations that these changes and new information would not result in any new significant environmental impacts that were not previously considered in the DEIS. These changes in impacts are described in the re-evaluations

What is a Public Service?

For the purpose of this analysis, public services are defined as fire and medical services, law enforcement, schools, school transportation, cemeteries, postal services, and municipal solid waste service. Potential impacts to other community resources such as libraries, non-profit medical clinics, community centers or meeting spaces, and others are analyzed in Section 3.5, Neighborhoods and Environmental Justice. Potential impacts to parks, trails, and other recreational resources are analyzed in Section 3.7, Parks and Recreation.

Exhibit 3.6-1 **Public Service Locations**



Source: CRC Public Services Technical Report.

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and DCE included in Appendix O of this FEIS. Relevant refinements in information, design, impacts and mitigation are described in the following text.

3.6.2 Existing Conditions

Several fire stations, police stations, medical centers, schools, and other public services are located within the study area, as shown on Exhibit 3.6-1. Emergency service providers include two fire stations, one police station, and one medical center. These service providers depend on the local and highway transportation network to respond to emergencies, and although they are given signal priority, they can be negatively affected by traffic congestion.

Emergency mobile service providers designate critical access routes they rely on to provide rapid emergency response. I-5 is an important north-south access route through the area, and the only access route to and from Hayden Island. In Vancouver, other critical north-south access routes include NW Hazel Dell Avenue and SR 99. In Portland, critical north-south access routes include N Interstate, Vancouver, and Williams Avenues and NE Martin Luther King Jr. Boulevard.

Five Vancouver School District schools, two Washington state schools (Washington State School for the Blind and Washington State School for the Deaf), and one college are within the study area. Their students, faculty and staff rely on safe and efficient transportation facilities to reach the schools.

Utilities in the study area are described in Exhibit 3.6-2.

Exhibit 3.6-2 **Utilities with Infrastructure within the CRC Study Area**

| Utility Owner | Type of Utility | Comments | | | |
|---------------------------|--|--|--|--|--|
| AT&T | Communications | Local network services only. | | | |
| Clark Public Utilities | Power | Serves the area north of the Columbia River. The company also has its own fiber optic network. | | | |
| Comcast | Communications | | | | |
| Integra Telecom | Communications | Fiber optic network formerly owned by Electric Lightwave. | | | |
| NW Natural | Natural gas | Natural gas service provider for the area. | | | |
| Pacific Power & Light | Power | Generally serves the area east of I-5 and south of North Portland Harbor. | | | |
| Portland, City of | Water, sewer, stormwater, and communications | | | | |
| Portland General Electric | Power | Generally serves Hayden Island and the area west of I-5 and south of North Portland Harbor. | | | |
| Qwest | Communications | General telephone service provider for the area. | | | |
| Sawtooth Technologies | Communications | Owns a fiber optic line between the BPA Ross Complex and Vancouver VA Medical Center. | | | |
| Time Warner Telecom | Communications | Fiber optic network. | | | |
| Vancouver, City of | Water, sewer, stormwater and communications | | | | |

Source: CRC Utilities Technical Report.

Note: Initial meetings were held with all the utility owners listed in Exhibit 3.6-2 to determine what infrastructure they had within or close to the project footprint, especially infrastructure considered important to their operations, and the most appropriate means of obtaining information on type and location.

Several important utility lines travel across the Columbia River and North Portland Harbor to provide services to Hayden Island. These include a major water main, a natural gas feed line, and telephone, television, data, and fiber optic trunk lines carried on the I-5 crossing of North Portland Harbor. In addition, trunk communication lines (television, data, and fiber optics) are located on the southbound I-5 crossing of the Columbia River, and underwater power cable and telephone lines are located under the bed of North Portland Harbor, immediately west of the I-5 bridges. A major telephone trunk line is located under the bed of the Columbia River approximately 500 feet east of the existing I-5 bridges.

Other important utility lines or structures that could be affected by the project, all in Vancouver, include water mains that cross I-5 at SE Columbia Way, 5th Street, Mill Plain Boulevard, 16th Street, McLoughlin Boulevard, E 29th Street, E 32nd Street, 39th Street, and 40th Street. Another major (20-inch) water line is located parallel to the western right-of-way line of I-5 between McLoughlin Boulevard and E 16th Street.

Additionally, ODOT, WSDOT, and TriMet maintain internal infrastructure in the study area that serves the agencies' own uses and does not provide service to the public. These internal utilities include power, stormwater, water, and sanitary sewer.

While there are a significant number of utilities that could be affected by the project (for example, overhead and underground lines and pipes located on Hayden Island and in Vancouver), this FEIS focuses on major infrastructure considered to be important to utility operations.

3.6.3 Long-term Effects

Exhibit 3.6-3 compares the impacts of the LPA to the other build and No-Build alternatives. Unless stated otherwise, the LPA with highway phasing would have the same impacts to public services and utilities as the LPA. Similarly, effects on public services and utilities are expected to be the same whether Option A or Option B is built, except where noted.

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Exhibit 3.6-3 **Comparison of Long-term Effects on Public Services and Utilities**

| | Locally Preferred Alternative ^a | | _ | Alt 2: Repl | Alt 3: Repl | Alt 4: Suppl | Alt 5: Suppl |
|--|--|---------------------|--|--|--|---|--|
| Environmental Metric | LPA Option A | LPA Option B | No-Build | Crossing with BRT | Crossing with LRT | Crossing with BRT | Crossing with LRT |
| Potential effect of traffic congestion on mobile public services (on I-5). | Substantially improved compared to No-Build. | Same as Option A | Traffic congestion would increase over time. | Substantially improved compared to No-Build. | Substantially improved compared to No-Build. | Improved compared to No-Build. | Improved compared to No-Build. |
| Potential effect of traffic congestion on mobile public services (in Vancouver). | Moderate | Same as Option A | Traffic congestion would increase over time. | Moderate | Moderate | Moderate- High | Moderate- High |
| Potential displacement of stationary public services. | ODOT Permit Station and Field Office, Clark Public Utilities building, and Clark College Annex. | Same as Option A | None | ODOT Permit Station and Field Office, Clark Public Utilities building, Clark College Annex, and FHWA Western Federal Lands building. | ODOT Permit Station and Field Office, Clark Public Utilities building, Clark College Annex, and FHWA Western Federal Lands building. | ODOT Permit Station and Field Office, Clark Public Utilities building, and Clark College Annex. | ODOT Permit Station and Field Office, Clark Public Utilities building, and Clark College Annex. |
| Potential need to relocate utilities as a result of transit component. | Moderate | Same as Option A | None | Low- Moderate | Moderate | Low- Moderate | Moderate |

Note: The impacts for the LPA are relative to No-Build and existing conditions.

The CRC team has avoided and minimized effects to public services and utilities by modifying the LPA design where possible and by considering access and travel times during construction and operation of the project. Additional measures to minimize impacts will continue as designs are refined.

Public Services

The ODOT Permit Station and Field Office on Hayden Island would be permanently displaced by the LPA. The mainline of the new bridges would pass directly above the current location of the facility. It is undecided at this time where the functions of the station would be relocated by ODOT.

The LPA would also displace the Clark Public Utilities building that is adjacent to the northbound I-5 bridge in Vancouver. At this time, it is undecided where the functions of the current building would be relocated.

The FHWA Western Federal Lands office property, north of 5th Street and immediately east of I-5, would have some right-of-way impacts. Acquisition

a The LPA with highway phasing performs the same as the full build.

along the west side of the parcel would impact six marked parking stalls, adjacent asphalt and curbing, landscaping, parking area illumination, and an electronic swing gate. It appears at this time, based on a vehicle turning radius analysis, that adequate spacing between the structure and the new I-5 right-of-way line would remain for vehicles to access the rear of the property.

The Clark College Annex and Recreation Fields would be impacted by the LPA. Long-term impacts at the Clark College Annex include the displacement of all structures and parking within the Annex area, and displacement of trees and landscaping to the south of the recreation fields near the Annex. The project would not impact any portion of the designated recreation fields or adversely impact the accessibility of the fields. Existing on-street parking on McLoughlin Boulevard—which is often used by members of the public accessing Marshall Park and Clark College Recreational Fields—would be eliminated to accommodate the light rail guideway and station, two lanes of traffic, turn lanes into the Community Centers and the Clark Park and Ride, bicycle lanes, and sidewalks. Clark College administration has requested a landscaped screening buffer between the new park and ride and the fields, and a pedestrian connection from the parking area to the fields. For more information about construction plans and mitigation at this location, please refer to Section 3.7, Parks and Recreation.

Discovery Middle School and Kiggins Bowl, located at the northern end of the project area in the Lincoln Neighborhood, would have minor impacts. No structures would be displaced, and long-term use of the site would not be affected by the construction of a retaining wall adjacent to the highway in the southeastern corner of the property. Support for the retaining wall would require a permanent subsurface easement with some long-term surface use restrictions. Additionally, some use of the school circulation road between the school and I-5 may be temporarily restricted. For more information about construction plans and mitigation at this location, please refer to Section 3.7, Parks and Recreation. This permanent impact would not affect any provision of school transportation.

Traffic Effects to Public Services

A total of 98 local street intersections were analyzed for current conditions (2005 data). For 2030 conditions, 111 intersections were analyzed for the No-Build, and 130 intersections were analyzed for the LPA, and LPA with highway phasing alternatives. Of the total study area intersections, 44 in Vancouver and 19 in Portland are also on the critical emergency access routes identified in Exhibit 3.6-4. The traffic data presented in this section show the preliminary findings before mitigation techniques have been employed.

Exhibit 3.6-4

Mobile Public Service Critical Emergency Access Routes

| Service | Critical Emergency Access Routes | | | |
|-----------------------------------|---|--|--|--|
| North Precinct Portland Police | N Interstate Avenue, N Denver Avenue, NE MLK Jr. Boulevard and N Greeley Avenue. I-5 is the only critical access route to/from Hayden Island. | | | |
| Portland Fire & Rescue Station 17 | N Interstate Avenue, N Denver Avenue, NE MLK Jr. Boulevard, and N Tomahawk Island. I-5 is the only critical access route to/from Hayden Island. | | | |

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| Service | Critical Emergency Access Routes | | |
|---|--|--|--|
| Vancouver Fire Department Downtown Station (1) | Main Street/SR 99, Fort Vancouver Way and P Street. | | |
| Vancouver Fire Department Westside Station (2) | Columbia Street, Main Street, 39th Street. | | |
| Clark County Fire Marshal (District 6) | I-205, SR 99 and NW Hazel Dell Avenue. | | |
| West Precinct City of Vancouver Police | Main Street/SR 99, Fort Vancouver Way, P Street, SR 500 to I-205. | | |
| Clark County Sheriff's Office | NW Fruit Valley Road, NE Hazel Dell Road, NE St. Johns Boulevard, and NE Andresen Road (SR 500). | | |

In Portland during the AM Peak, one intersection on critical access routes would not meet standards under the No-Build Alternative and one intersection would not meet standards under the LPA. One additional intersection would operate with high delay but perform as well as or better than No-Build. In the AM Peak in Portland, the LPA would have the same impacts to emergency services as the No-Build. The LPA with highway phasing would have the same impacts as the LPA.

During the PM Peak in Portland, four intersections would not meet standards in the No-Build. With the LPA, no intersections would fail to meet standards and one would operate with high delay but perform as well as or better than No-Build. The LPA would have fewer impacts to emergency services than the No-Build. The LPA with highway phasing would have the same impacts as the LPA.

In Vancouver, during the AM Peak, six intersections would not meet standards under the No-Build. With the LPA one intersection would not meet standards and three would operate with high delay but perform as well as or better than No-Build. The LPA would have fewer impacts to emergency services than the No-Build. The LPA with highway phasing would have two intersections that would not meet standards and three that would operate with high delay but perform as well as or better than No-Build. The LPA with highway phasing would have greater impacts to emergency services than the LPA, but fewer than the No-Build.

During the PM Peak in Vancouver, six intersections would not meet standards in the No-Build. The LPA would have one intersection that does not meet standards and four that operate with high delay but perform as well as or better than No-Build. The LPA would have fewer impacts to emergency services than the No-Build. The LPA with highway phasing would have four intersections that do not meet standards and four that operate with high delay but perform as well as or better than No-Build. The LPA with highway phasing would have greater impacts to emergency services than the LPA and the No-Build.

In Vancouver, the streets with the most impacts are Main Street and 39th Street. During the AM and PM peaks, response times for mobile public services relying on Main Street or 39th Street as a critical access route could be negatively affected.

LPA Options A and B would have the same impacts to critical emergency access routes.

Whether a delay to an individual service trip would occur depends on many factors, including type and location of an emergency, traffic conditions on a given day, and whether emergency services have signal priority on a given traffic signal. Although there is a potential for delay to occur along Main Street or 39th Street, the project would create better local traffic conditions than would exist under the No-Build Alternative.

Emergency access to the transit guideway and bike/pedestrian paths on the lower decks of the bridge would be provided by the project design and would allow access for rescue trains and first responders.

Utilities

The project has confirmed that there is sufficient capacity in the region's electrical system to operate the light rail extension to Clark College. Utilities affected by the project would either be protected in-place or relocated. Once relocated, the utilities would most likely be more robust and reliable. Therefore, no long-term adverse impacts to utilities are expected. For a description of short-term impacts to utilities, please see Section 3.6.4.

Indirect Effects to Public Services and Utilities

Indirect effects on land use can affect schools, emergency responders, and hospitals. These public service agencies generally plan for service based on forecast population and development patterns found in the long-range comprehensive plans of the jurisdictions they serve. The public service providers evaluate future population growth and calculate needed future service increases such as increased numbers of police officers, new equipment, or new station locations. Because the anticipated density increases in downtown Vancouver and on Hayden Island are consistent with current long-range plans and growth assumptions, the project would not impact individual long-range service plans. In addition to population levels and distribution, the transportation network is an important factor in providing public services, in particular, in providing emergency and police services. In general, the LPA would improve traffic conditions on I-5; thus, response times for mobile public services relying on I-5 would be positively affected with or without anticipated land use changes.

Similar to public service providers, public and private utilities use future population estimates and the long-range plans of communities they serve to prepare for increases in demand for their services over time. The development pressures associated with the LPA would be consistent with the planning efforts of the Cities of Portland and Vancouver. Therefore, transit-oriented development (TOD) would be consistent with the long-term service planning efforts of public and private utilities. Increased service provision to new TOD would be made easier because such development and redevelopment would occur in heavily urbanized areas already receiving utility service.

3.6.4 Temporary Effects

This section focuses on the temporary impacts to public services and utilities caused by construction of the LPA, followed by a discussion of temporary

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impacts due to the expansion of the Ruby Junction Maintenance Facility and to off-site staging areas and casting yards.

Public Services

Increased delays and traffic on streets under construction may cause response time delays for mobile public services. Temporary effects to public services on Hayden Island include increased delays for the fire services stationed on Hayden Island, which have to utilize I-5 to reach their service areas in North Portland. Other services, such as law enforcement, would also experience delays accessing Hayden Island from North Portland or Vancouver. Construction of the project would likely cause many temporary effects within Vancouver consistent with all large construction projects. Those effects with the greatest potential to affect public services are traffic delays and noise and vibration at schools. All temporary construction on emergency transportation routes may cause delays in emergency services' response times and must be communicated with those agencies in advance. Temporary construction noise and vibration may affect Discovery Middle School and the recreation fields at Clark College. Standard construction practices would minimize these impacts.

Utilities

The largest temporary utility impacts would occur in the river crossing area, between Marine Drive and the SR 14 interchange, and coordination with utility providers prior to and during construction would be critical. Utilities are concentrated in a relatively narrow corridor between these interchanges, and potential impacts are complicated because utilities are located on or near bridges and parallel to and under the highway.

The more significant utilities that are located within or near the project footprint in Oregon that may be affected are:

- Communication cables across Hayden Island and on the southbound I-5 bridge across the Columbia River. Several of these are trunk lines and would be affected by bridge demolition and reconstruction of the Hayden Island interchange.
- Underwater communication and power cables downstream (west) of the North Portland Harbor bridge would be affected by construction of a new ramp across the waterway.

Some of these utilities are the only such links to Hayden Island. To maintain services, temporary utility relocation and/or staging and sequencing provisions for the construction of new structures and demolition of the existing structures would need to occur prior to the start of project construction.

Other potentially affected utilities include:

- Water, power, gas, and communications infrastructure within the Marine Drive interchange would be affected by reconstruction of that interchange, including potential ground improvements.
- The main electrical feeds and switches and the main gas feed adjacent to I-5 on Hayden Island would be affected by reconstruction of the Hayden Island interchange and by construction of the light rail guideway. The extent of the impact would also depend on the scope of potential

ground improvements. These ground improvements would be required in order to decrease the seismic vulnerability of the structures by mechanically stabilizing the below-ground sediment. One method is to excavate land around a structure and bury stone columns into the ground; another is to bore into the ground and insert a stabilizing material, like concrete slurry, into the bored holes. The geotechnical engineers would work to avoid displacing utilities for ground improvements, but if the utilities cannot be avoided, they would be relocated before ground improvements are conducted.

Some utility companies may have an easement or other compensable property right on land to be acquired for the project. The most likely area for this to occur is on Hayden Island, where much of the property adjacent to the current I-5 right-of-way is privately owned. Elsewhere in the project area, utilities are generally located in public right-of-way. While the project has not advanced to the point that property rights have been fully researched or detailed utility relocation plans developed, the general approach would be to either relocate the utility within the new right-of-way by permit or franchise or provide the company with a new easement.

LPA Option A and Option B would have different footprints in Oregon. There would be no major differences in impacts to utilities as any difference between the options would be minor and localized. The same measures (e.g., coordination with utility providers, temporary utility relocation and staging, and construction sequencing) would be taken with either option.

There are a number of utilities within or near the project footprint in Washington that may be temporarily affected. The larger highway-related impacts are:

- A 33-inch gravity sanitary interceptor sewer crossing I-5 around 5th and 6th Streets in Vancouver could be affected by construction of new ramps at the SR 14 interchange.
- Communications infrastructure, a sewage lift station and forcemain, and a
 high-pressure gas line between the SR 14 interchange and the Columbia
 River may be affected by bridge construction, improvements to SR 14,
 and local street improvements.
- A water supply main crossing I-5 at Mill Plain Boulevard would be affected when the street is lowered to provide vertical clearance for the widened highway.
- A water supply main crossing I-5 at McLoughlin Boulevard may be affected when the vertical profile of the boulevard is lowered to provide a design vertical clearance for the widened highway and transit guideway, and by construction of the guideway S-curve between 17th Street and McLoughlin. Loss of the main could affect water supplies and fire flows.
- A communications cable crossing I-5 at Fourth Plain Boulevard may be affected by the construction of additional lanes.
- A high-voltage electrical transmission line crossing I-5 at 33rd Street may be affected by over-crossing reconstruction. One or both poles at either end of the existing bridges may conflict with construction of the new, longer bridges.

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- A water supply main crossing I-5 at NE 40th Street would be affected by construction of a new ramp at the SR 500 interchange. Deferring the construction of the ramps at the SR 500 interchange would defer impacts to this water supply main in the interim.
- A large-diameter gravity sanitary interceptor sewer located under 39th Street, east of I-5, could be affected by street reconstruction. Deferring the construction of the ramps at the SR 500 interchange would defer impacts to this utility.

Unlike the project footprint across North Portland Harbor and in the vicinity of the Hayden Island and Marine Drive interchanges, most of these utilities cross rather than run parallel to the highway.

Potential temporary impacts to major utilities from proposed light rail-related development include:

- At-grade and above-grade guideway construction could affect communications trunk lines belonging to two service providers located along Washington Street, south of 8th Street.
- At-grade guideway construction could affect a low- or medium-pressure gas feed line located on Washington Street and on 7th Street.
- An overhead electrical feed line (13 kV or less) crossing the light rail transit guideway would likely need to be raised or placed underground.

Transit Maintenance Base Options

Under the LPA the construction of light rail transit into Vancouver would require an expansion of TriMet's existing Ruby Junction Maintenance Facility in Gresham. No public service facilities would be impacted by the expansion. Utility impacts would be limited to infrastructure serving existing properties that would be acquired for the expansion.

Off-site Staging and Casting

The following sites have been analyzed for major staging or casting sites:

- Port of Vancouver Parcel 1A site
- Red Lion at the Quay Hotel site
- Vacant Thunderbird Hotel site on Hayden Island
- Port of Vancouver Alcoa/Evergreen West site
- Sundial site between Fairview and Troutdale

Project use of one or more of these staging and casting sites is not expected to have any notable impacts to public services.

Because each of these sites comprises a single parcel or contiguous parcels, no significant effects would be expected, as impacted utilities would either be protected or relocated. Some of these sites may require temporary extension of utilities if utilities do not already adequately serve the site.

3.6.5 Mitigation or Compensation

Long-term Mitigation

The project will mitigate for any substantial traffic effects to public service emergency project routes as a result of the LPA. Mitigation is required for intersections operating below standards under the LPA or LPA with highway phasing that would otherwise meet standards with the No-Build Alternative. Mitigation strategies are provided in the Transportation section of this FEIS (see Section 3.1.6).

The displacement of publicly owned facilities such as the ODOT Permit Station and Field Office and Clark Public Utilities building would be mitigated by relocating the use or functionally replacing the property acquired with another facility that would provide equivalent use. Impacts to the Clark College Annex and Recreation Fields would be mitigated by a landscaped screening buffer between the new park and ride and the fields, and by a planned pedestrian connection from the parking area to the fields. The permanent loss of off-street parking would be mitigated by developing a shared-use agreement to allow park visitors use of the proposed Central Park and Ride during off-peak hours. Some of these mitigation measures could be instituted prior to the start of highway and transit guideway construction, to partially offset the loss of stalls temporarily displaced during construction.

To mitigate for the displacement of parking at the FHWA Western Federal Lands building, the project would restripe the existing FHWA parking lot. Restriping parking on 5th Street (the adjacent City of Vancouver street) would further mitigate parking lost from the FHWA property. WSDOT cannot commit to this mitigation as it does not have the authority to restripe this City street. WSDOT will continue coordinating with the City of Vancouver to encourage restriping of on-street parking.

With the stacked transit/highway bridge design, the design team would continue to address the fire, life, safety and security concerns associated with accessing the lower decks of the bridges. This would include a Safety and Security Management Plan, developed in accordance with federal requirements and in close coordination with the transit agencies, the Cities of Vancouver and Portland, Clark and Multnomah Counties, the Ports of Vancouver and Portland, and all associated police and fire departments. This coordination would take place during the final design, construction and operation of the project. The plan would provide emergency access, develop alternate plans or routes to avoid delays in response times, and institute other features as necessary so that safety and emergency services are not compromised. This mitigation would be particularly important for the SR 14 and Hayden Island interchanges.

Temporary Mitigation

To mitigate for service outages during construction or relocation activities, the DOTs would work closely with utility service providers to reduce the number and extent of outages and to provide advance notice when such outages might occur. Any utility relocation would occur in accordance with state and federal policies.

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To mitigate for all temporary construction activities affecting public services, detailed coordination regarding construction locations and phasing is required with the appropriate parties, including fire departments, emergency responder services, school transportation services, and law enforcement. Especially for emergency responders, this coordination needs to include any temporary access restrictions to highway on-ramps and exits and to critical emergency access routes.

A pre-construction communications plan would be developed, with all affected emergency response agencies detailing how detour and road closure information would be provided to the services. The potential to arrange for backup aerial emergency service (on-call emergency helicopter service) to transport patients across the river during bridge construction would be evaluated prior to beginning construction. This would mitigate for highway delays, especially for emergency incidents on Hayden Island during bridge construction.

During construction, emergency responders would monitor response times. If unacceptable delays occur due to construction, WSDOT and/or ODOT would meet with emergency service representatives to address construction concerns and develop solutions for better detour route communication.

In addition, where construction activity requires detours on routes typically used by the public to access public service locations (police and fire stations, hospitals, public schools, and post offices), detour signs would be provided.

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