

Legislative Campus Modernization Transportation Technical Report

April 2022



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1. INTRODUCTION

1.1. Study Background and Purpose

The Legislative Campus Modernization (LCM) Project would expand and upgrade office facilities for the Washington State House of Representatives and Senate. It proposes to build new legislative office capacity by replacing the existing Newhouse Building and expanding the existing Pritchard Building. This Transportation Technical Report (TTR) details the individual and cumulative parking and traffic impacts of these two proposed new buildings and associated site changes.

This TTR was performed during the COVID-19 pandemic. The number of employees on the Capitol Campus decreased substantially in March 2020 when Governor Inslee issued the *Stay Home, Stay Healthy* order. State employees immediately transitioned to work from home, which continued through the 2022 legislative session. The legislature also adapted to COVID-19, establishing new ways to engage remotely and conducting virtual hearings. Transportation analysis was performed using traffic volume data collected during pre-pandemic conditions. Some new traffic data was collected to fill in gaps in available information about background conditions. Although some of the COVID-19 adaptations—working from home and virtual engagement—are expected to continue in some form after the pandemic is over, the future effect is unknown. Therefore, the pre-COVID-19 conditions are used as a baseline for this analysis and reflect a worst-case condition for parking and traffic.

1.2. LCM Project Description

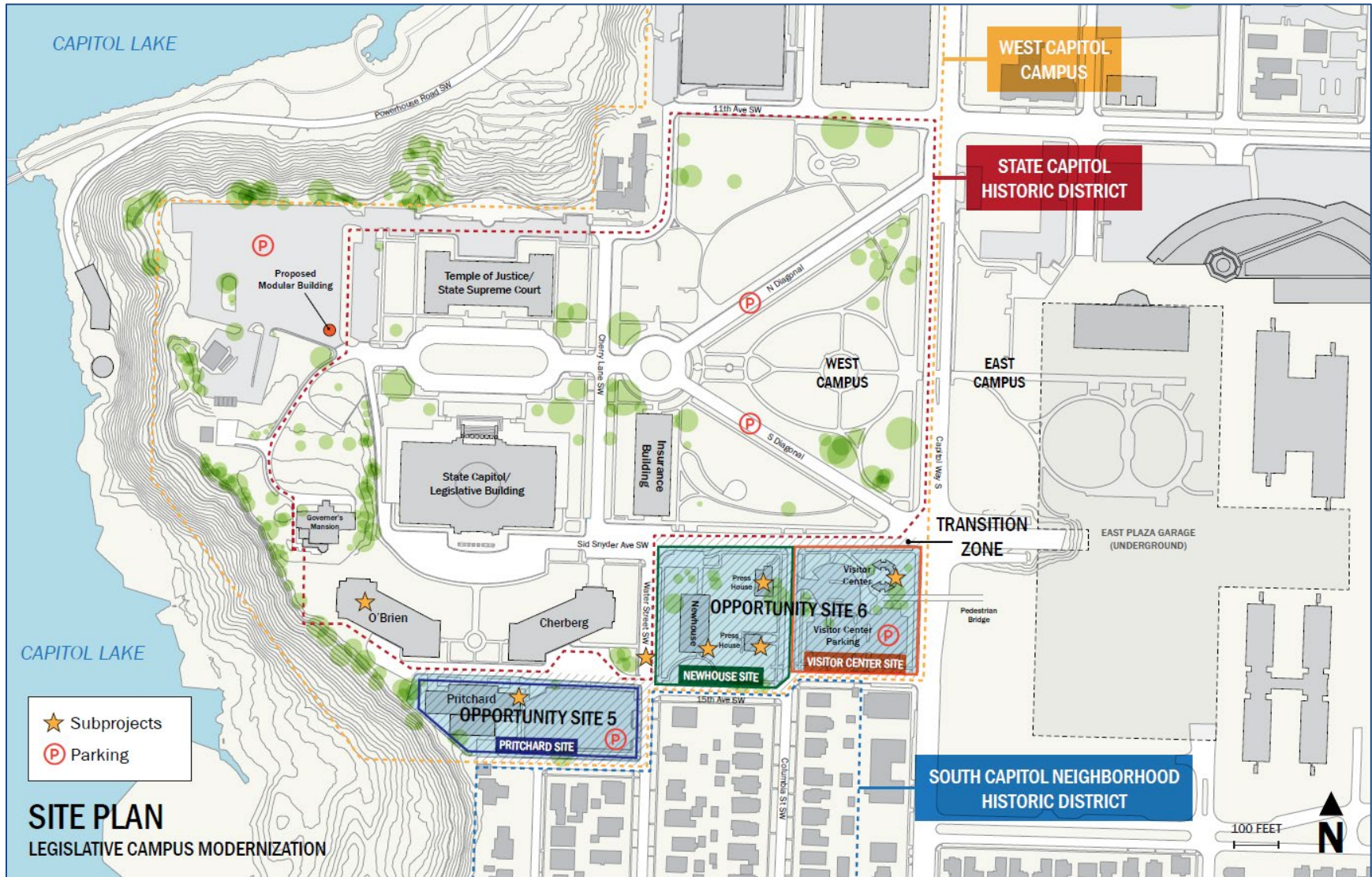
The LCM project would affect two sites in the West Campus. These sites were identified in the *State Capitol Development Study of Washington* as Opportunity Site 5 (Pritchard) and Opportunity Site 6 (Newhouse plus Visitor Center). Figure 1 shows these sites and vicinity. Both sites are adjacent to the South Capitol Neighborhood Historic District.

This transportation analysis was performed to assess the potential worst-case conditions and the cumulative effect of the LCM project. Preliminary design and program analysis of the two opportunity sites were performed for the *Legislative Campus Modernization Pre-Design Report*.¹ Subsequent design for each project is underway and many building and site elements have been refined since Pre-Design. The program features that would affect traffic and parking assumed for this analysis are described below.

¹ State of Washington Department of Enterprise Services, February 5, 2021.
<https://des.wa.gov/sites/default/files/public/documents/Facilities/LCM/18-527PredesignReport.pdf?b3c8a?c1d0d?4dfe6>



Figure 1. LCM Project Sites



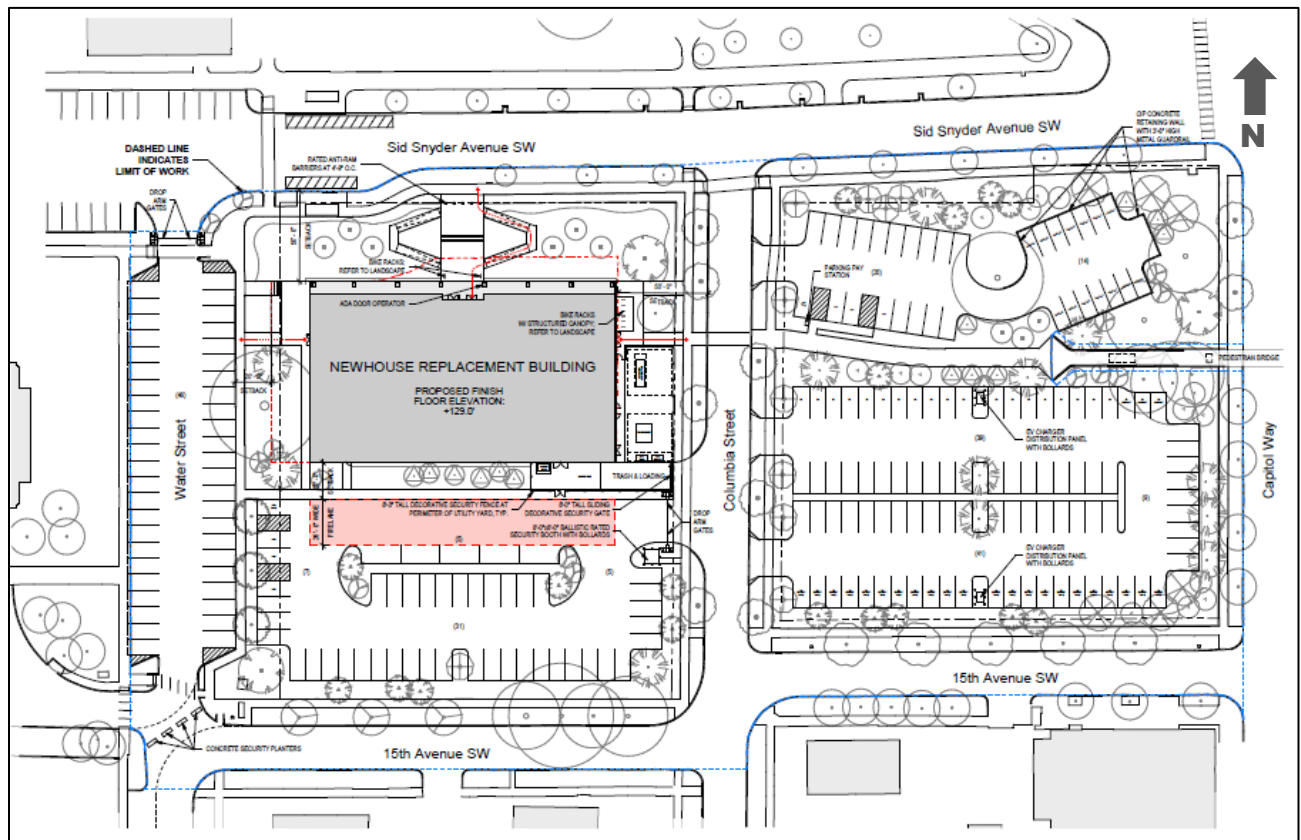
Source: GeoEngineers, January 2022



1.2.1. Newhouse Building (Opportunity Site 6)

Opportunity Site 6 is comprised of two blocks on the south edge of the West Campus. It is bounded by Sid Snyder Avenue SW to the north, Capitol Way S to the east, 15th Avenue SW to the south, and Water Street SW to the west. Columbia Street SW divides the site into two blocks. The block to the west of Columbia Street SW is where the existing Newhouse Building and Press Houses are located. These would be demolished and replaced with a new office building for the Senate as well as a print shop and loading dock. The block to the east of Columbia Street SW has the Visitor Center (currently unused except for restroom facilities) and a parking lot. The LCM project proposes to demolish the Visitor Center building, and reconfigure the parking lot. The walkway through the Visitor Center parking lot that connects to the Capitol Way Pedestrian Bridge would be improved. The project would regrade and reconfigure the lot, flatten the walkway's grade, eliminate vehicle conflicts with the pedestrian walkway, improve the landscaping, and add pedestrian-scale lighting. Figure 2 shows a schematic layout of the Newhouse site.

Figure 2. Site Plan for Newhouse Building and Visitor Center Parking Lot (Opportunity Site 6)



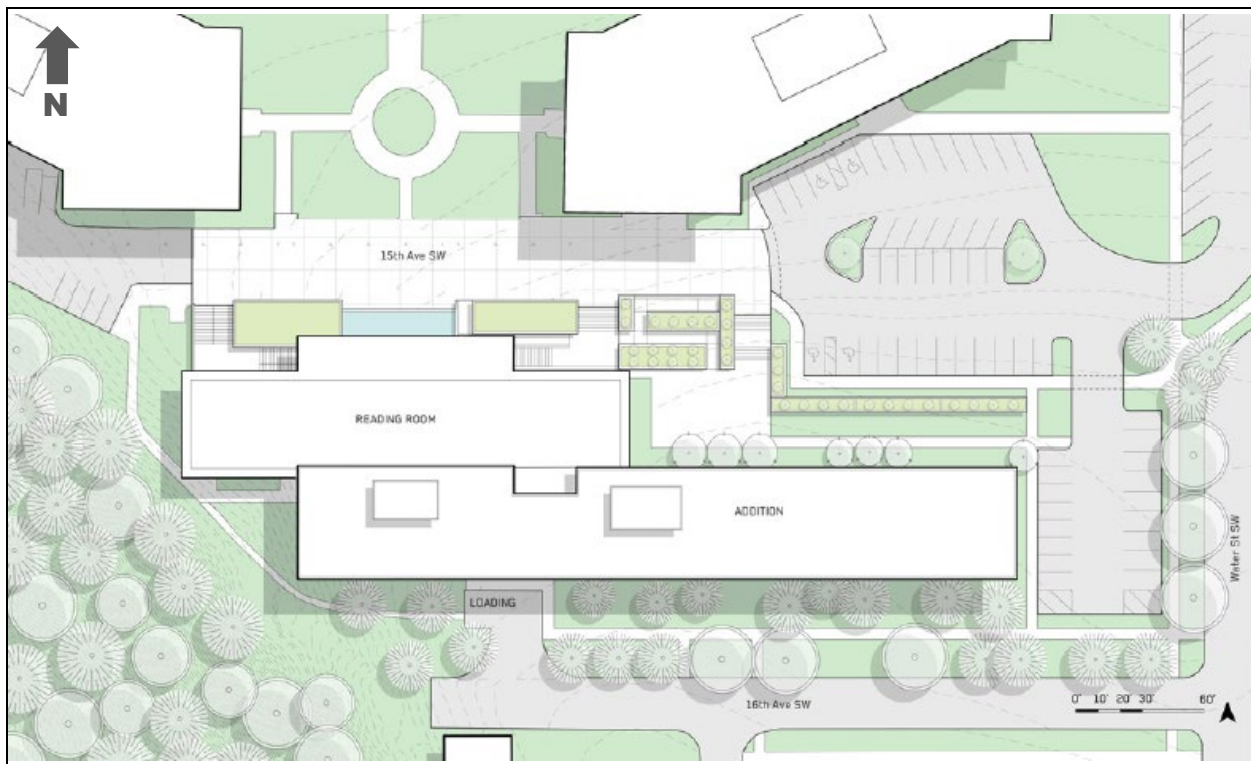
Source: Miller/Hull, Schematic Design Architectural Site Plan, February 24, 2022
Blue line indicates limits of work for this project.

1.2.2. Pritchard Site (Opportunity Site 5)

The Pritchard Building and its parking lot occupy Opportunity Site 5. The site is located west of Water Street SW and south of 15th Avenue SW. It is south of the O'Brien and Cherberg Buildings where the existing House and Senate offices, respectively, are located.

Many potential development schemes have been reviewed for the Pritchard Building, including options to demolish or repurpose the building, which previously housed the Washington State Archives and Libraries. The Preferred Alternative would retain most of the historic Pritchard Building (removing and rebuilding the library “stacks” which are not suitable for human occupants), and construct a wing that extends east from the existing building. Figure 3 shows the Preferred Alternative.

Figure 3. Site Plan for Pritchard Building (Opportunity Site 5)



Source: Mithun, Legislative Campus Modernization PreDesign Report Addendum: Pritchard Rehabilitation/Expansion Validation Study, March 31, 2022.

1.2.3. LCM Project Net Change in Building Space

The LCM project would increase the amount of usable building spaces for the House and Senate, but the project is not expected to increase staffing. The City of Olympia requested that the traffic analysis be based on the increased building size in the event that the spaces are ever used to accommodate future growth. Trip generation was based on the net change in office-related spaces, which was estimated at 48,367 sf for both buildings. This excludes the large common areas and storage spaces that would remain in the repurposed Prichard Building. Table 1 summarizes the net change in building program on each site.

Table 1. Net Change in LCM Building Program

Location / Element	Existing (GSF) ^a	Proposed (GSF)	Net Change (GSF)
Newhouse Site			
Newhouse Building to be demolished	25,100	0	-25,100
Press House 1 to be demolished	3,714	0	-3,714
Press House 2 to be demolished	5,576	0	-5,576
Visitor Center to be demolished	872	0	-872
Replacement Building (Senate)	0	65,012 ^b	+65,012
Total Newhouse Site	35,262	65,012	+29,750
Pritchard Site ^c			
Office / Meeting Uses ^d	30,183	48,800	+18,617
Public areas and other non-assignable space	24,527	28,210	+3,683
Total Pritchard Site	54,710	77,010	+22,300
Total Both Sites	89,972	142,022	+52,050
Net Change in Office-Related Use			+48,367

GSF = gross square feet

a. Mithun, October 12, 2020.

b. Miller / Hull, Schematic Design Space Planning, December 17, 2021.

c. Mithun, Office and meeting room space used for analysis was based on preliminary January 19, 2022 plans. Total space based on finalized schedule from Legislative Campus Modernization PreDesign Report Addendum: Prichard Rehabilitation/Expansion Validation Study, March 31, 2022.

d. Square footages assumed for analysis excludes repurposed common areas and storage.

1.2.4. Proposed LCM Transportation System

Many revisions to the street system adjacent to the Newhouse and Pritchard sites are proposed as part of the LCM project. These will enhance the pedestrian network, upgrade facilities to meet Americans with Disabilities Act (ADA) standards, and reduce vehicular access points in order to improve campus security. Table 2 summarizes the proposed transportation network changes along with the LCM project that would likely implement each.



Table 2. LCM Transportation Network Changes

Proposed Transportation Network Changes	Constructed with:	
	Newhouse Project	Pritchard Project
Pedestrian / ADA Improvements		
<p>1. Build new /replace sidewalks and ADA ramps along the following site frontages:</p> <ul style="list-style-type: none"> a. North side of 15th Avenue SW between Capitol Way S and Water Street SW b. Both sides of Columbia Street SW between Sid Snyder Avenue SW and 15th Avenue SW c. East side of Water Street SW between Sid Snyder Avenue SW and 15th Avenue SW d. West side of Capitol Way S between Sid Snyder Avenue SW and 15th Avenue SW e. West side of Water Street SW between 15th Avenue SW and 16th Avenue SW f. South side of 15th Avenue SW along Pritchard site frontage g. North side of 16th Avenue SW along Pritchard site frontage 	<p>√</p> <p>√</p> <p>√</p> <p>√</p>	<p>√</p> <p>√</p> <p>√</p>
2. Retain sidewalk on Sid Snyder Avenue SW – Existing sidewalks along Sid Snyder Avenue SW adjacent to the Opportunity Site 6 frontage would be repaired if damaged during construction.	√	
3. Improve connection to Capitol Way Pedestrian Bridge – A new walkway connecting the existing pedestrian bridge to Columbia Street SW would be constructed through the reconfigured Visitor Center parking lot. It would be built to meet ADA standards and have pedestrian-level lighting.	√	
4. Add or upgrade crosswalks and curb ramps – This would consolidate crosswalks on 15 th Avenue SW between the Pritchard Building and Cherberg Building, update crosswalks on Water Street SW, and paint a new crosswalk across Columbia Street SW at the pedestrian bridge walkway. New pedestrian ramps would be constructed at intersections where needed and existing ramps along the frontage or on the far-side of the street would be upgraded to meet current standards.	√	√
5. Improve pedestrian wayfinding – New signs directing pedestrians to and from key destinations would be located at key decision points. These would include signs that direct visitors back to visitor parking located in the Plaza Garage.	√	√
Bicycle Improvements		
6. Provide bike parking and storage – Provide long-term bike parking for employees and short-term bike parking for visitors. The number of bike racks provided would meet City and/or LEED standards (whichever is greater).	√	√
7. Enhance bike access to buildings – Paths and stairways that connect between the street and bike parking locations would be designed to accommodate bikes including features such as stair runnels (sloped groove in stair for bike wheels) or landing areas where riders can dismount without blocking pedestrians.	√	√
Vehicular Access / Security		
8. Control access to legislative office buildings – To enhance security to the Cherberg, O'Brien, Pritchard, and Newhouse buildings, all vehicles that access adjacent streets or near-building parking lots would be screened (either with staffed booths or gates with card readers). The following measures are proposed:		
a. Add security gates to Newhouse Building parking lot	√	



Proposed Transportation Network Changes	Constructed with:	
	Newhouse Project	Pritchard Project
<p>b. Prohibit through traffic on Water Street SW between Sid Snyder Avenue SW and 15th Avenue SW by reconstructing the intersection at the Water Street SW / 15th Avenue SW intersection. The treatments would include:</p> <ul style="list-style-type: none"> • Adding a security gate at Water Street SW at Sid Snyder Way; • Constructing a raised diagonal diverter across this intersection from the southwest corner to the northeast corner; and • Reconstructing the northwest corner of the intersection to enlarge turning radius for two-way turns. <p>Because the Pritchard Project plans to reconfigure the street and parking lot south of the Cherberg Building, these improvements would be completed with that project.</p>		√
<p>c. Install temporary diverter at Water Street SW / 15th Avenue SW intersection – The security function described in Element 8b would be needed when the Newhouse Building is open, but the permanent diverted is not yet installed. Concrete barriers or planters may be placed in the intersection to function as a temporary diverter.</p>	√	
<p>9. Convert angle parking on Water Street SW to 90-degree parking. With the security changes described above, there would be no outlet for traffic that now parks in angle stalls along Water Street SW. This change in parking layout would allow vehicles to enter and exit the stalls without a U-turn maneuver.</p>	√	
<p>10. Vacate and reconfigure Columbia Street SW – This feature was evaluated as part of the Pre-Design, but is no longer proposed.</p>	Not Proposed	



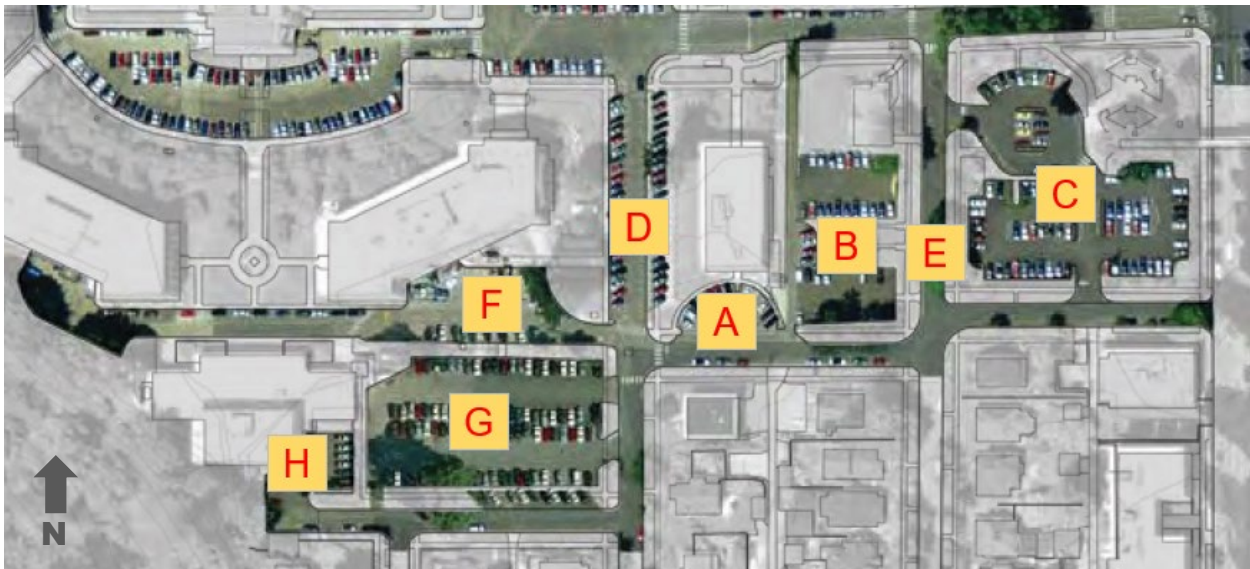
2. PARKING ANALYSIS

This section describes the LCM’s potential impact to parking. It first details the parking supply (number of parking spaces) in the vicinity of the two opportunity sites and describes how the supply will change. Then, it describes existing and historic parking conditions at and around the campus. Finally, it details the potential project-related impacts along with suggested measures to mitigate those impacts.

2.1. LCM Parking Supply Changes

Figure 4 shows State-controlled parking areas in the vicinity of the Newhouse and Pritchard sites. These include parking along most of the Capitol Campus streets north of 15th Avenue SW, which are subject to an agreement between the State and the City of Olympia (1984 Agreement²).

Figure 4. Existing Parking in Vicinity of LCM Sites



Source of base map: Washington State Department of Enterprise Services.

Table 3 summarizes the existing and proposed parking supply in the vicinity of the Newhouse and Pritchard sites. Attachment A details the existing parking supply in each of these areas by types of spaces. Parking in the vicinity of the Newhouse site is expected to increase by 22 stalls. Parking in the vicinity of the Pritchard site is expected to decrease by up to 87 stalls due to the expansion of the building and reconfiguration of the parking lot south of Cherberg to improve pedestrian access. Overall, the LCM project is expected to reduce parking in the West Campus area by 57 to 65 stalls.

² Agreement between State of Washington Department of General Administration and City of Olympia, April 6, 1984. See [Capitol Campus – City of Olympia Parking Agreement - 1984.pdf \(wa.gov\)](https://des.wa.gov/sites/default/files/public/documents/Facilities/LCM/LCMSEPA/Capitol%20Campus%20%E2%80%93%20City%20of%20Olympia%20Parking%20Agreement%20-%201984.pdf?=-f968e) or <https://des.wa.gov/sites/default/files/public/documents/Facilities/LCM/LCMSEPA/Capitol%20Campus%20%E2%80%93%20City%20of%20Olympia%20Parking%20Agreement%20-%201984.pdf?=-f968e>

Table 3. Existing and Proposed Parking Supply in Vicinity of LCM Sites

Location (See Figure 4 for Key Map)	Existing Stalls ^a	Proposed Stalls ^b	Net Change
Newhouse Building Vicinity			
A. Newhouse Lot	15	48	-15
B. Press House Lots	48		
C. Visitor Center Lot	84	123	+39
D. Along Water Street SW	43	46	+3
E. Along Columbia Street	5	0	-5
Total in Newhouse Vicinity	195	217	+22
Pritchard Building Vicinity			
F. South of Cherberg Building	34	41	+7
G. Pritchard Site	93	9 to 17	-76 to -84
H. South of Pritchard Site ^c	10	0	-10
Total in Pritchard Vicinity	137	50 to 58	-79 to -87
Total Both Sites	332	267 to 275	-57 to -65

a. Department of Enterprise Services, November 2021. (See Attachment A for additional detail about stall type)

b. Parking for Newhouse site from Miller Hull Preliminary Site Plan, February 24, 2022. Parking for Pritchard based on Legislative Campus Modernization PreDesign Report Addendum: Pritchard Rehabilitation/Expansion Validation Study, Mithun, March 31, 2022.

c. Excludes 4 parallel parking stalls along the south side of 16th Avenue SW that would remain with project.

A comprehensive parking analysis of the Capitol Campus was performed in 2014 and results were presented in the *State of Washington Capitol Campus Transportation and Parking Study*.³ At that time, the Capitol Campus had 6,095 parking stalls located in 28 parking facilities. Of those, 578 stalls (9.5%) were dedicated for visitors and the other 5,517 stalls (90.5%) were for employees.

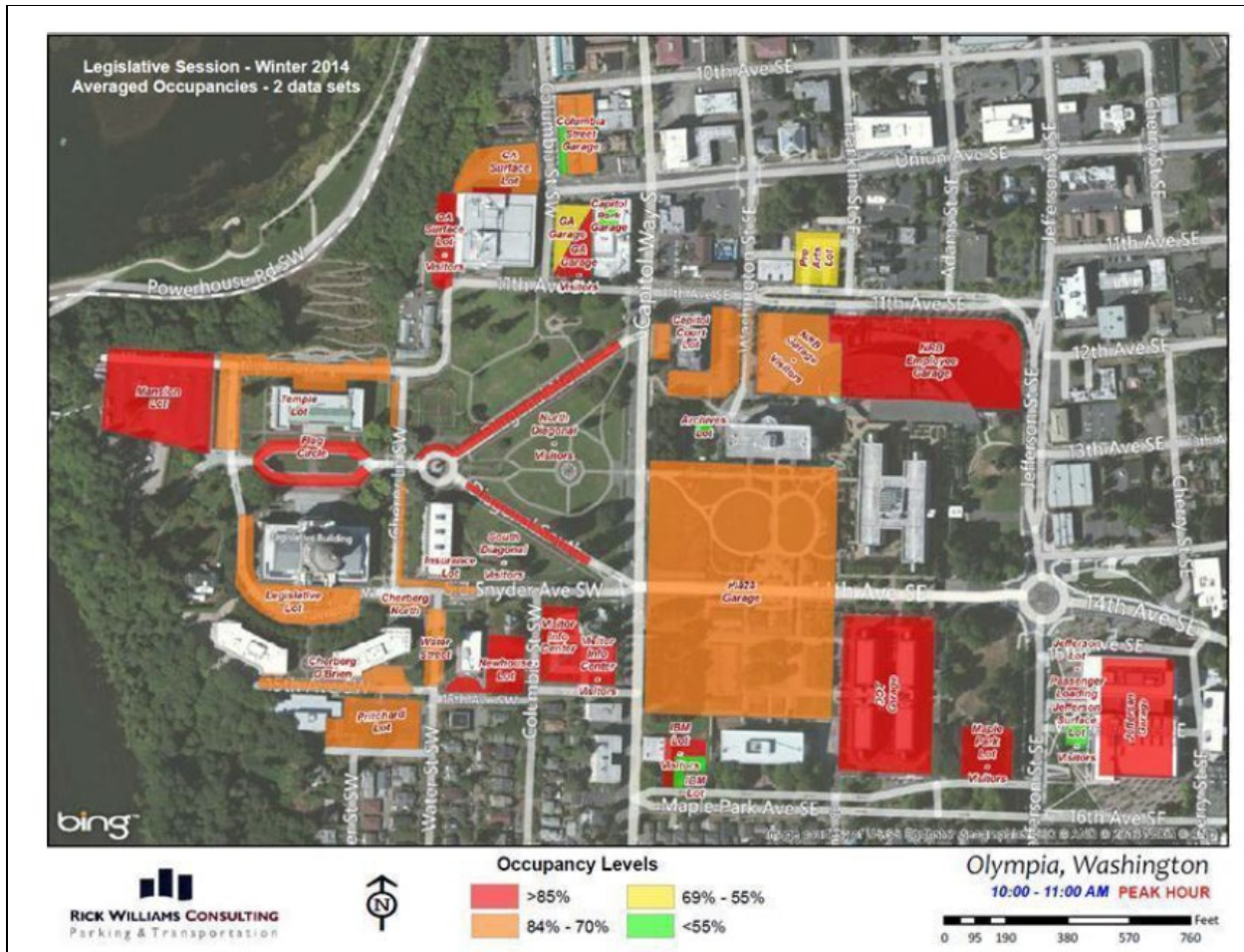
The study documented parking occupancy for conditions when the State Legislature was “In Session” and during “Non-Session” times. The In-Session analysis, which is most relevant to the LCM project, found that peak parking utilization occurred mid-morning (during the 10:00 A.M. hour) when about 84% of all parking stalls on the campus were occupied. Overall campus parking was about 75% occupied during the Non-Session peak period.

Figure 5 is the “heat map” from the 2014 *Parking Study* that shows peak In-Session parking occupancy for all campus facilities. It shows that the parking lots on the Newhouse, Press Houses, and Visitor Center sites were more than 85% occupied. Parking along Water Street SW, on the Pritchard Site, and behind the Cherberg and O’Brien buildings were between 70% and 85% occupied. It is noted that nearly all of the stalls in this area are assigned to specific legislators.

³ Rick Williams Consulting, Final Report, September 18, 2014. See [Parking & Circulation Study \(wa.gov\)](https://www.wa.gov) or <https://des.wa.gov/sites/default/files/public/documents/About/1063/TransportationParkingStudyReport.pdf?c=5229?e=1ecc3>



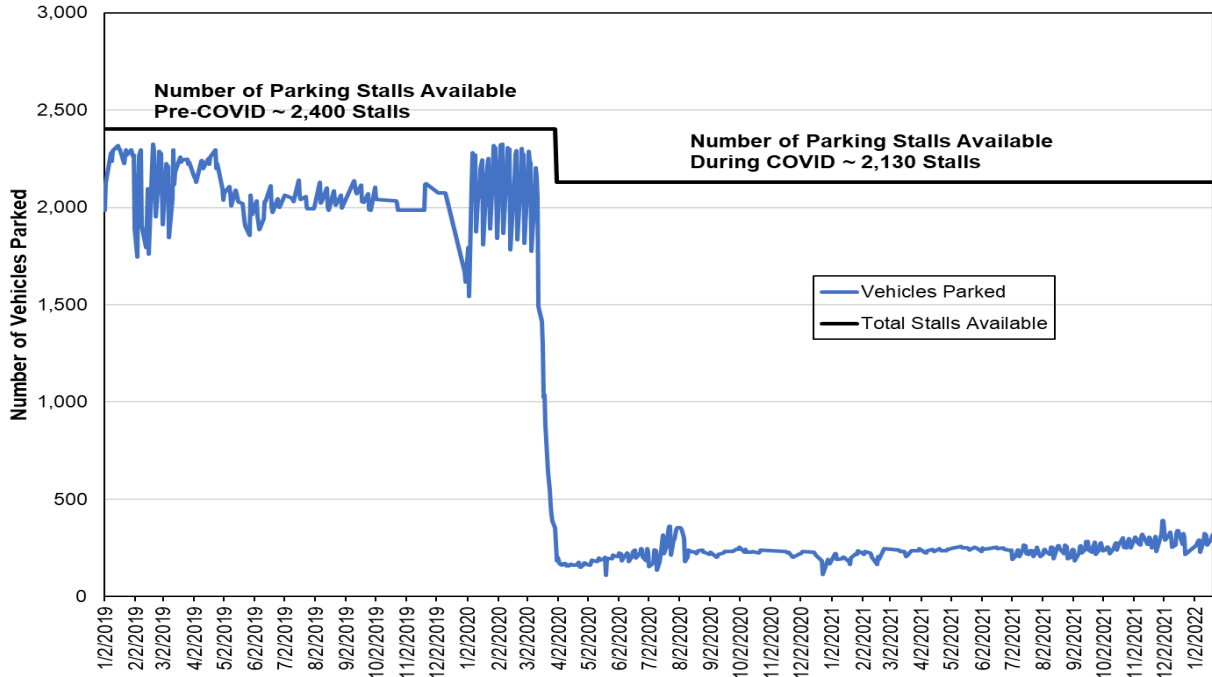
Figure 5. 2014 Peak Parking Occupancy



Source: Rick Williams Consulting, State of Washington Capitol Campus Transportation and Parking Study, September 18, 2014.

The Plaza Garage is the largest on the Capitol Campus with about 2,400 parking stalls. The 2014 *Parking Study* found about 85% of those stalls occupied during the legislative session, which is close to the peak occupancy rate for the overall campus. Given its size and use, the Department of Enterprise Services (DES) has performed frequent occupancy counts of the Plaza Garage. Figure 6 presents occupancy data collected since January 2019, which were compiled to show the effects of the COVID-19 pandemic. The data clearly show the peak parking utilization during the 2019 and early 2020 legislative sessions when the number of vehicles parked was about 2,300. Occupancy declined to fewer than 200 vehicles at the end of March 2020 when State employees were mandated to work from home. DES closed access to portions of the garage due to limited use. Since the start of COVID-19, the peak parking occupancy has not exceeded 400 vehicles.

Figure 6. Plaza Garage Parking Occupancy (10 A.M.)



Source: Department of Enterprise Services, January 2022. Data compiled by Heffron Transportation, Inc.

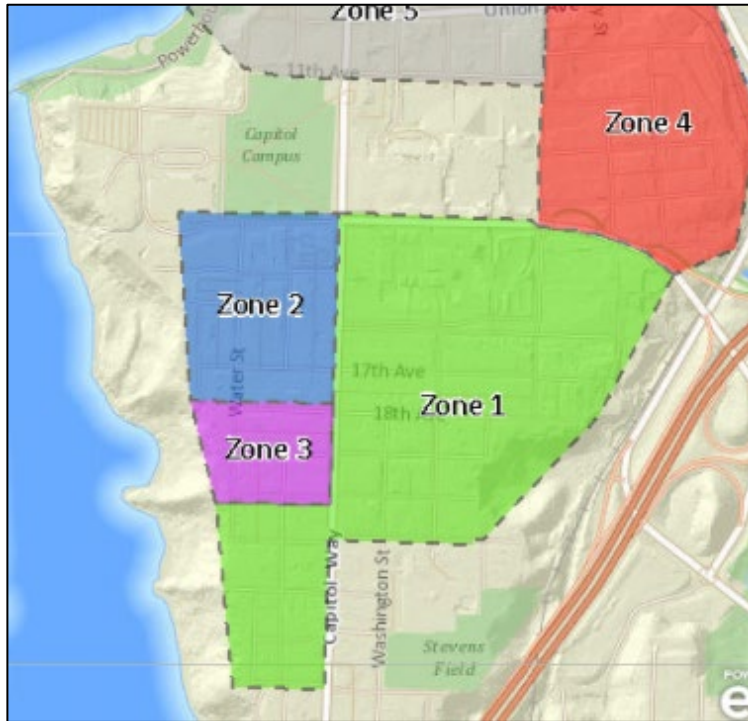
2.1.1. On-Street Parking

Parking along streets in the adjacent South Campus Neighborhood Historic District is restricted through the City of Olympia’s Residential Parking Program. Figure 7 shows the four residential parking zones. Within Zone 2, which is closest to the LCM sites, on-street parking durations are limited to 1 or 2 hours except with a permit. Residents can purchase up to 3 vehicle permits and can obtain a free guest permit.⁴

It is noted that Columbia Street SW between 15th Avenue SW and Sid Snyder Avenue SW has signage indicating that it is part of the Residential Parking Zone. However, per the referenced *1984 Agreement* between the State and the City of Olympia, this segment of street should be under the State’s jurisdiction to regulate.

⁴ Permits in zones 1, 2, and 3 are \$25 per vehicle per address. A third vehicle at same address can be registered for \$35. Residents can apply for and obtain a free guest permit for maximum 10 specific business days.

Figure 7. Residential Parking Zones



Source: City of Olympia,
https://www.olympiawa.gov/services/parking_services/residential_parking.php, accessed
January 26, 2022.

Parking occupancy counts were performed along residential streets that are part of the Zone 2 area shown above. These counts were performed on January 5, 2022 prior to the legislative session to assess the baseline residential use. The occupancy counts, summarized in Table 4, show that a total of 31 vehicles were observed before the session began, and these are assumed to be related to neighborhood residents. Based on historic counts performed elsewhere, the pandemic likely increased resident parking in the neighborhood since more people are working from home during a typical weekday.

Table 4. On-Street Parking Occupancy in Zone 2 – Non-Session Demand (1/5/2022)

Street	Number of Vehicles Parked (10:00 A.M.) ^a
Columbia Ave SW north of 15 th Ave SW	1
15 th Ave SW between Water Street SW and Capitol Way S	9
16 th Ave SW between Sylvester St SW and Water St SW	0
Water St SW between 15 th Ave SW and 17 th Ave SW	2
Columbia St SW between 15 th Ave SW and 17 th Ave SW	9
17 th Ave SW between Sylvester Ave SW and Capitol Way S	10
Total Vehicles Parked	31

Source: Parking counts performed by Heffron Transportation, Inc.

a. Counts performed on January 5, 2022 prior to legislative session (which started on January 10th).

The existing residential parking zone is the best measure to discourage Capitol-Campus-generated use of parking on local streets. The only change proposed to the zone is the removal of five parking stalls along Columbia Avenue SW between 15th Avenue SW and Sid Snyder Avenue SW. Per the referenced *1984 Agreement*, parking on this street is within the State’s jurisdiction. As detailed in Table 4, the underlying residential demand can be accommodated by other streets in the zone.

2.2. Long-Term Parking Impact of LCM Project

When the LCM project is completed, it is expected to reduce parking supply by between 57 and 65 stalls in the vicinity of Opportunity Sites 5 and 6. This includes the loss of 5 on-street parking spaces along Columbia Street SW. The LCM project is expected to accommodate the same number of legislators and staff who already work in this area of the campus, and the new office buildings are not expected to increase the number of visitor trips to the campus. The only potential increase in parking demand would be from employees who work in Production and Design, a new space that could be located in the Newhouse replacement building. That unit is expected to have fewer than 10 employees, and generate a peak parking demand of 7 vehicles. Overall, the potential net change in parking need (combining the loss of spaces and new demand) is estimated at between 64 and 72 vehicles.

The COVID-19 pandemic has induced a paradigm shift by which nearly all State employees at the campus are working from home. As previously shown on Figure 6, there are more than 2,000 unused parking stalls in the Plaza Parking Garage. After the pandemic ends, it is expected that many employees will continue to work from home on some days of the week. The reduction in everyday employee parking demand would open up parking capacity to use during the peak times when the legislature is in session. Eventually, an updated campus-wide parking study and assignment strategy may be needed, but not until overall parking in the Plaza Garage recovers to more than 80% occupied during the legislative session.

All on-street parking in the vicinity of the LCM sites has signed restrictions that reduce the potential for spillover parking associated with campus employees. Streets in the South Capitol Neighborhood Historic District are part of a Residential Parking Zone that limits parking durations to 1 or 2 hours except with a permit. Parking along West Campus streets is also restricted with reserved or time-limited spaces. No changes to on-street parking restrictions are proposed.

2.3. Short-Term (Construction) Parking Impacts of LCM Project

Construction of the new Newhouse Building would require demolition of the existing Newhouse Building and Press Houses. The employees in those buildings would be temporarily relocated to a Modular Building on the Mansion Site during construction. Once the new Newhouse Building is complete, the Modular Building would be used to accommodate employees displaced from the Pritchard Building during its construction. The Modular Building would eliminate 54 parking spaces and add 2 ADA spaces from the Mansion Parking lot for the temporary lifespan of that building.⁵

⁵ SEPA Checklist for the LCM Modular Building, January 2022. See [2022-0112 LCM Modular SEPA Checklist.pdf \(wa.gov\)](https://des.wa.gov/sites/default/files/public/documents/Facilities/LCM/LCMSEPA/2022-0112%20LCM%20Modular%20SEPA%20Checklist.pdf?_=39b21) ORr https://des.wa.gov/sites/default/files/public/documents/Facilities/LCM/LCMSEPA/2022-0112%20LCM%20Modular%20SEPA%20Checklist.pdf?_=39b21



Construction on the Newhouse site would also temporarily eliminate all parking on that site, as well as on the Visitor Center site, which is anticipated to be used for construction staging. As listed previously in Table 3, the combined sites currently have 195 parking stalls. When combined with the parking lost in the Mansion Lot, the total parking eliminated during construction would be 247 stalls.

There is sufficient parking available on campus to accommodate the cumulative loss of parking during construction, as well as demand from construction workers. Encouraging employees to utilize alternative modes of transportation and updating parking assignments to reflect the loss of parking are two measures recommended to occur prior to start of construction.

2.4. Parking Mitigation Measures

Although adverse parking impacts are not expected, many parking mitigation measures are recommended to shift existing parking demand to the Plaza Garage and reduce overall campus parking demand. These measures are described in Section 4.1.



3. TRANSPORTATION MODE ANALYSIS

This section describes the LCM project’s impacts to various modes of transportation including vehicular, transit, and non-motorized transportation. It evaluates the project’s potential impact to traffic operations at key intersections along Capitol Way S as well as intersections near the site. It also evaluates the effect of closing Water Street SW to unscreened through traffic between Sid Snyder Avenue SW and 15th Avenue SW in order to meet security protocols for the Newhouse Building.

3.1. Street Network

3.1.1. Existing Streets

The LCM project sites are located in the West Campus. Primary regional access to the campus is provided by Interstate 5 (I-5) at the 14th Avenue SE interchange (Exit 105), which is about a half-mile southeast of the project site. 14th Avenue SE connects to Capitol Way S and extends due west to the State Capitol Building as Sid Snyder Avenue SW. Table 5 describes key roadways in the site vicinity.

Table 5. Study Area Roadways – Existing Conditions

Street	Classification(s)	Lanes / Parking	Non-Motorized and Transit Facilities
Capitol Way S	Arterial T-3 Truck Corridor 15-min Transit Service Corridor	Two travel lanes in each direction, with auxiliary turn lanes at major intersections. On-street parking prohibited, except for a short segment on the west side of the street adjacent to the Tivoli Fountain.	Sidewalk on west side of the street between Maple Park Avenue SE and 11 th Avenue SE. Sidewalks on both sides otherwise. Bus stops every 2-3 blocks.
Sid Snyder Avenue SW	None	One travel lane in each direction with a second approach lane at the Capitol Way intersection. Intermittent on-street employee parking on both sides of the street west of Columbia Street SW.	Sidewalks on both sides of the street. An inbound and an outbound Dash shuttle stop between Water Street SW and Columbia Street SW.
Columbia Street SW	Local Access	Unmarked two-lane roadway. On-street parking on east side.	Sidewalks on both sides of the street.
Water Street SW	Local Access	Unmarked two-lane roadway. North of 15 th Avenue SW, angled on-street employee parking on both sides. South of 15 th Avenue SW, on-street parking permitted on east side.	Sidewalks on both sides of the street.
15 th Avenue SW, east of Water Street SW	Local Access	Unmarked two-lane roadway. On-street parking permitted on south side.	Sidewalks on both sides of the street.



Table 5. Study Area Roadways – Existing Conditions

Street	Classification(s)	Lanes / Parking	Non-Motorized and Transit Facilities
15 th Avenue SW, west of Water Street SW	None	Unmarked two-lane parking lot access roadway. Intermittent on-street employee parking on both sides of the street.	Sidewalk on north side of the street throughout. Sidewalk on south side only along the Pritchard Library frontage.
16 th Avenue SW	Local Access	Unmarked two-lane roadway. On-street parking permitted on south side between Water Street SW and Sylvester Street SW.	Sidewalks on both sides of the street.

3.1.2. Study Area Intersections

Seven intersections were evaluated for this study—three along Capitol Way S and four local intersections adjacent to the LCM sites. Table 6 lists the study intersections and traffic control.

Table 6. Study Area Intersections and Traffic Control

Intersections	Traffic Control
Capitol Way S / 14 th Avenue SE / Sid Snyder Avenue SW	Signalized
Capitol Way S / 15 th Avenue SW	Stop sign on 15 th Avenue SW
Capitol Way S / 17 th Avenue SW	Stop sign on 17 th Avenue SW
Sid Snyder Avenue SW / Columbia Street SW	Stop sign on Columbia Street SW
Sid Snyder Avenue SW / Water Street SW	Stop sign on Water Street SW
15 th Avenue SW / Water Street SW	Stop signs on 15 th Avenue SW
15 th Avenue SW / Columbia Street SW	Stop signs on 15 th Avenue SW

3.1.3. City-Proposed Transportation Improvements

The City of Olympia plans to reconfigure Capitol Way S to add buffered bicycle lanes as part of a resurfacing project that the City will implement by 2024.⁶ Generally, the project to add bicycle lanes would reduce the number of vehicle lanes from four (two in each direction) to three (one in each direction plus a center turn lane).

⁶ E-mail from Dave Smith to Marni Heffron, November 12, 2020. The City plans to fund the resurfacing projects from the City’s annual Street Repair and Reconstruction Program. 2021 Preliminary Capital Facilities Plan. Program #0599, Pages 5-25 and 5-26. <http://olympiawa.gov/~media/Files/AdminServices/CFP/2021-2026-Preliminary-CFP.pdf?la=en>



In addition, after the pre-COVID-19 traffic counts were performed, a new pedestrian crossing of Capitol Way S was installed for the new Capitol Childcare Center. It is located between Maple Park Boulevard and the Plaza Garage driveway. This crosswalk, with an actuated rapid-flashing beacon, has a center pedestrian-refuge island. Capitol Way S retains the southbound left-turn lane into the Plaza Garage; however, northbound left turns from Capitol Way S to 15th Avenue SW are now prohibited due to the new island. The analysis of future conditions on Capitol Way S account for this new pedestrian crossing and the change in turn restrictions.

3.2. Non-Motorized Facilities

The majority of the streets in the study area have sidewalks along both sides. The notable exception is a segment of Capitol Way S from just north of Maple Park Avenue SE to mid-block pedestrian crossing 250-feet north of 14th Avenue SE which does not have sidewalk on the east side of the street.

As noted above, the City plans to construct bicycle lanes on Capitol Way S. These are reflected in the analysis of future conditions and were considered in Newhouse Building design plans.

3.3. Transit and Shuttle Service

Intercity Transit (IT) provides bus service in the site vicinity. The following describes bus service and facilities in place prior to service reductions imposed as a result of the COVID-19 pandemic.

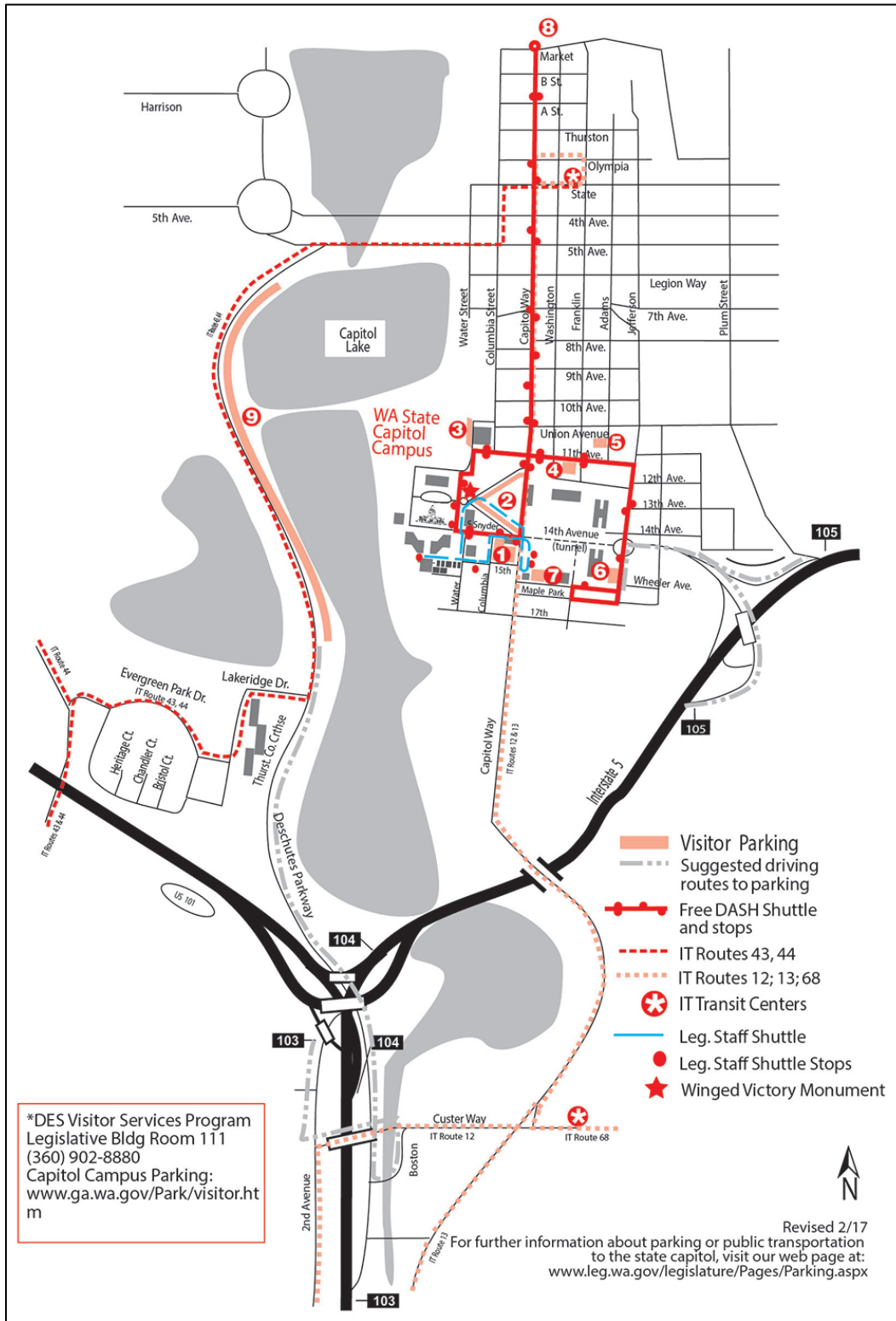
The closest bus stops are located on Capitol Way between 15th Avenue SW and Maple Park Avenue SE. These stops are served by IT Route 13, which operates daily between South Tumwater, Tumwater Square, Capitol Campus, and the Olympia Transit Center (TC) from about 6:00 A.M. to just after 9:30 P.M. with 15-minute headways (time between consecutive buses) on weekdays. Another pair of bus stops are located further northeast of the project site on Capitol Way S south of 11th Avenue SW, and are served by IT Routes 13 and 620. Route 620 operates daily between the State Route (SR) 512 Park-and-Ride (P&R), Lakewood Station, Martin Way P&R, Lacey TC, Capitol Campus, and Olympia TC from about 6:00 A.M. to about 9:00 P.M. with 60-minute headways. Prior to COVID-19, IT operated the Dash Shuttle, a fare-free service in and around the Capitol Campus and downtown Olympia. It was operated between Maple Park Avenue and the Farmer's Market with stops every two blocks, including stops near public parking lots with metered parking. The closest stops were along the northern bounds of the project site, at the intersection of Sid Snyder Avenue SW and Water Street SW. Figure 8 shows the pre-COVID-19 Dash Shuttle route and connections to other transit service.

Several planning and policy documents were reviewed to determine if there are any planned transit improvements that would affect the study area. These include the *Intercity Transit Strategic Plan 2022–2027*⁷ and the *2022-2025 Intercity Transit – Transportation Improvement Program*.⁸ The *Transit Strategic Plan* stated that, “*The November 2018 Authority approved Short and Long-Range Plan identified service principles and priorities for the future. COVID-19 has required the agency to pause in our expansion plans, respond to the best of our ability during this public health crisis and keep our eye on restoration and the continuation of those long-range plans. Specific timeframes are difficult to identify due to the unpredictable nature of current events.*” As of February 2022, most transit service was still operating on reduced schedules. Transit service is expected to return to pre-pandemic levels by 2028, but no further expansion of that service is expected.

⁷ Intercity Transit, adopted November 17, 2021.

⁸ Intercity Transit, adopted June 2, 2021.

Figure 8. Dash Shuttle Route (Before 2020)



Source: [Washington State Legislature Parking](https://leg.wa.gov/legislature/pages/parking.aspx) at <https://leg.wa.gov/legislature/pages/parking.aspx>, Map from 2/2017.

3.4. Traffic Safety

Collision data for the study area intersections were obtained from WSDOT’s Public Disclosure Request Center. An extended period was examined, between January 1, 2017 and the most recent records available as of January 1, 2022 (5 years). The data were examined to determine if there are any unusual traffic safety conditions that could impact or be impacted by the proposed project and are summarized in Table 7.

The highest number of collisions (8) occurred at the signalized intersection of Capitol Way S / 14th Avenue SE / Sid Snyder Avenue SW, which is fewer than 2 collisions per year. No collisions were recorded at the local intersections near the LCM sites. Overall, these data do not indicate any unusual traffic safety conditions.

Table 7. Collision Summary

Intersection ^a	Rear-End	Side-Swipe	Right Turn	Left Turn	Right Angle	Peds/Cycle	Other ^b	Total for 5 Years	Average/Year
<i>Capitol Way S / 14th Avenue SE / Sid Snyder Avenue SW</i>	3	2	0	0	2	0	1	8	1.6
Capitol Way S / 15 th Avenue SW ^c	1	0	0	0	1	0	0	2	0.4
Capitol Way S / 17 th Avenue SW	0	0	0	0	0	0	0	0	0
Sid Snyder Avenue SW / Columbia Street SW	0	0	0	0	0	0	0	0	0
Sid Snyder Avenue SW / Water Street SW	0	0	0	0	0	0	0	0	0
15 th Avenue SW / Water Street SW	0	0	0	0	0	0	0	0	0
15 th Avenue SW / Columbia Street SW	0	0	0	0	0	0	0	0	0

Source: WSDOT, January 2022. Collision data reflect the 5-year period between January 1, 2017, and January 1, 2022.

- a. Intersection in italics is signalized; all others are unsignalized.
- b. “Other” collisions include: one vehicle struck a jersey barrier.
- c. Includes one rear-end collision at the pedestrian crossing just south of 15th Avenue SW.

3.5. Vehicular Traffic – Background Conditions

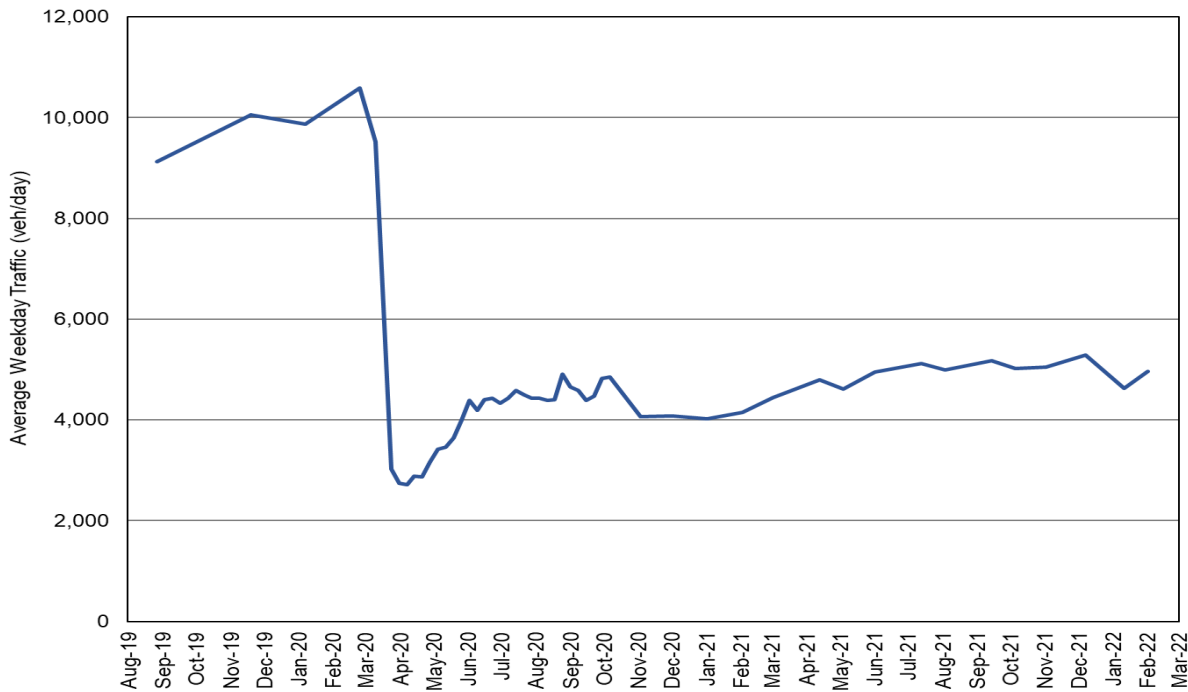
This section describes pre-COVID-19 traffic volumes in the project study area. It also presents forecast traffic for year 2028 without the proposed LCM project.

3.5.1. Pre-COVID-19 and Existing Traffic Volumes

This traffic analysis was performed during the COVID-19 pandemic when most State employees were working from home, and many of the legislative functions were performed with remote connection options. The effect of the pandemic on area traffic volumes was assessed using data provided by the City of Olympia for two permanent traffic counting locations: on Capitol Way S across I-5 and on 14th Avenue S near the I-5 interchange. Frequent counts have been performed at both locations since before the pandemic. Figure 9 illustrates average weekday traffic volumes on 14th Avenue S.



Figure 9. Average Weekday Traffic Volumes – 14th Avenue S west of Interstate 5



Source: City of Olympia Public Works Department, February 8, 2022. Note that data in 2019 was collected less frequently than after January 1, 2020.

As shown, traffic volumes on 14th Avenue S entering Olympia are about half of pre-pandemic volumes. Similar reductions were found on Capitol Way S and are very similar to the reductions in Plaza Garage parking occupancy previously shown in Figure 6. Given these substantial decreases in volumes, all subsequent traffic analysis of existing conditions and forecasted future conditions was based on historic traffic count data from the City of Olympia collected prior to the pandemic.

3.5.2. Traffic Volumes on Capitol Way S

Pre-pandemic traffic volumes for the study area intersections along Capitol Way S were extracted from a City of Olympia traffic operations model.⁹ The traffic volumes in that model reflected counts performed by the City between 2016 and 2019. For unsignalized intersections between 14th Avenue SE and 21st Avenue SW, traffic volumes were estimated using historic counts provided by the City as well as model information from the Thurston Regional Planning Council (TRPC).

⁹ Synchro files for 2018 AM, Noon, and PM peak hours, received from City of Olympia, June 2020.



3.5.3. Traffic Volumes on Local Streets

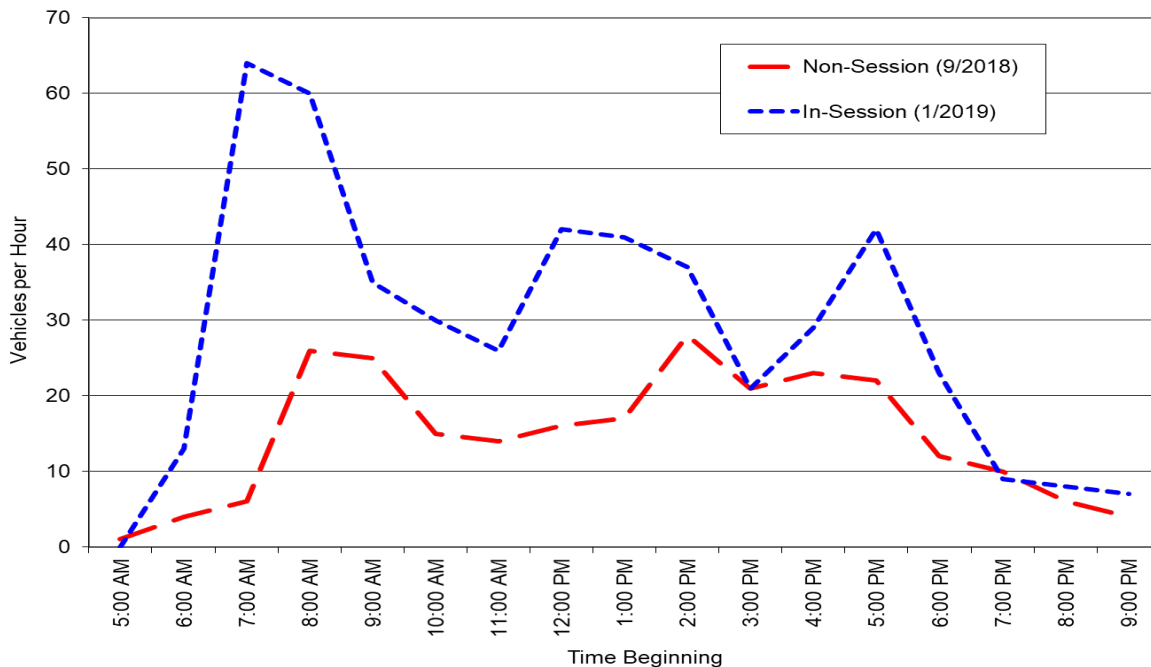
Available Traffic Data

As previously discussed, this analysis was performed during the COVID-19 pandemic, and in-person activities during the legislative sessions in 2021 were, and now in 2022 are, severely curtailed. It was not possible to collect new traffic data for local streets that accurately reflect peak conditions during a legislative session. Therefore, available historic data were obtained where available.

The City of Olympia had two multi-day counts of Water Street SW north of 17th Avenue SW—one taken in September 2018 when the legislature was not in session, and the other taken in late January 2019 during the session. Both reflect pre-COVID conditions when most employees at State agencies were working at the office. Figure 10 shows the average weekday traffic volumes by time of day for each condition. As shown, traffic volumes on Water Street SW were much higher during the session. During the session, the AM peak hour occurred from 7:00 to 8:00 A.M. and the PM peak hour occurred from 5:00 to 6:00 P.M.—slightly earlier and later, respectively, than on non-session days.

Other historic counts from the City of Olympia included a 2014 in-session traffic count at the Water Street SW / 15th Avenue SW intersection that provided information about vehicles that use those streets to reach the parking lots south of the Cherberg and O’Brien buildings as well as the Pritchard Building.

Figure 10. Traffic Volumes on Water Street SW north of 17th Avenue NW

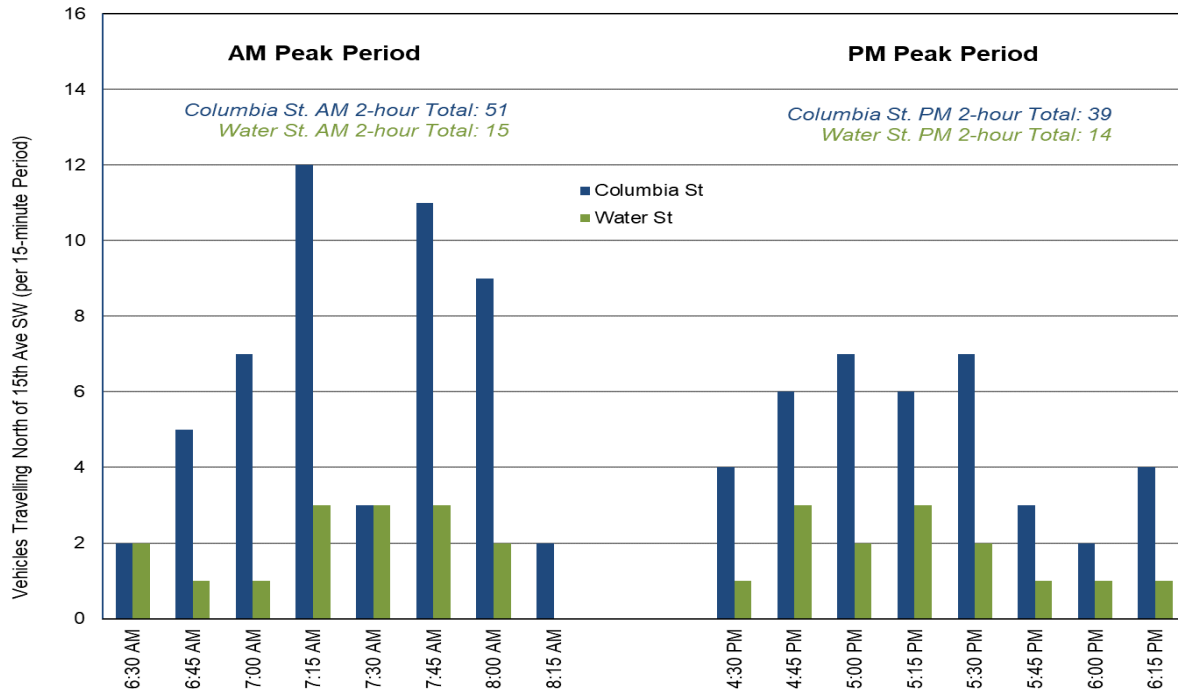


Source: City of Olympia, Traffic count performed the week of September 5, 2018 (non-session), and the week of January 28, 2019 (in session).

New traffic counts were commissioned to assess the existing level of neighborhood traffic on Water Street SW and Columbia Street SW adjacent to the site. These counts were performed on December 1, 2021 to assess conditions when the legislature is not in session and most State employees were working from home. The residual traffic on these streets is most likely generated by the local neighborhood; although, it is recognized that many of those residents may also have been working from home resulting

in reduced volumes. Counts were performed at two intersections—15th Avenue SW / Water Street SW and 15th Avenue SW / Columbia Street SW—during the AM peak period (6:30 to 8:30 A.M.) and PM peak period (4:30 to 6:30 P.M.). The peak periods were selected based on the City of Olympia’s historic counts described above. Figure 11 summarizes these new traffic counts. Further analysis of the turning movements at each intersection was performed to determine how much of each street’s traffic originated from or was destined to the South Capitol Neighborhood south of 15th Avenue SW. These results are presented in the next section.

Figure 11. Traffic Volumes on Water St SW and Columbia St SW north of 15th Ave SW



Source: Traffic count performed by All Traffic Data on December 1, 2021. Compiled by Heffron Transportation, Inc.

Use of Local Streets

The LCM project proposes to restrict use of Water Street SW between Sid Snyder Avenue SW and 15th Avenue SW to screened traffic only. In order to evaluate the effect of that restriction, it was necessary to estimate the type of traffic that would have otherwise used that segment of street. Similar analysis was also performed for Columbia Street SW. The types of traffic evaluated are listed below.

- **Neighborhood Traffic** – Traffic generated by the South Capitol Historic Neighborhood District that uses Water Street SW or Columbia Street SW to reach Sid Snyder Avenue SW.
- **LCM Site Traffic** – Traffic destined to parking located on the Newhouse site, Visitor Center site, Pritchard Building site or south of the O’Brien and Cherberg buildings.
- **Cut-Thru Traffic** – Traffic that uses either Water Street SW or Columbia Street SW to short-cut through the South Capitol Historic Neighborhood District to reach other parts of the Capitol Campus or downtown Olympia.



In addition to the traffic count data listed and described above, the TRPC performed detailed travel demand modelling to assist with estimating the amount of cut-through traffic on streets in the South Capitol Historic Neighborhood District. The model output included a “select zone” analysis, which showed the travel patterns for trips to the Capitol Campus and “select link” analysis to show use of each street and the destinations of that traffic. The model, combined with the count information, was used to estimate the types of pre-pandemic traffic on both Water Street SW and Columbia Street SW during the legislative session.

Table 8 summarizes the types of traffic on each street during the peak one-hour periods in the morning and afternoon. Substantially more neighborhood traffic is estimated to use Columbia Street SW than Water Street SW during both peak hours. However, cut-through traffic was determined to be higher on Water Street SW, likely because Columbia Street SW ends at 17th Avenue SW, whereas Water Street SW extends south to 21st Avenue SW.

Table 8. Types of Traffic that Use Water Street SW and Columbia Street SW

Type of Traffic	Water Street SW (Between 15 th Ave SW and Sid Snyder Ave SW)		Columbia Street SW (Between 15 th Ave SW and Sid Snyder Ave SW)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Neighborhood Traffic	3	3	28	18
LCM Traffic	23	17	44	22
Cut-Thru Traffic	47	33	12	8
Total Traffic	73	53	84	48

Source: Estimated by Heffron Transportation, Inc. using traffic counts performed in February 2014, September 2018, January 2019, and December 2021, along with model output provided by the TRPC for existing travel patterns.

3.5.4. Pre-Pandemic Traffic Volumes at Study Area Intersections

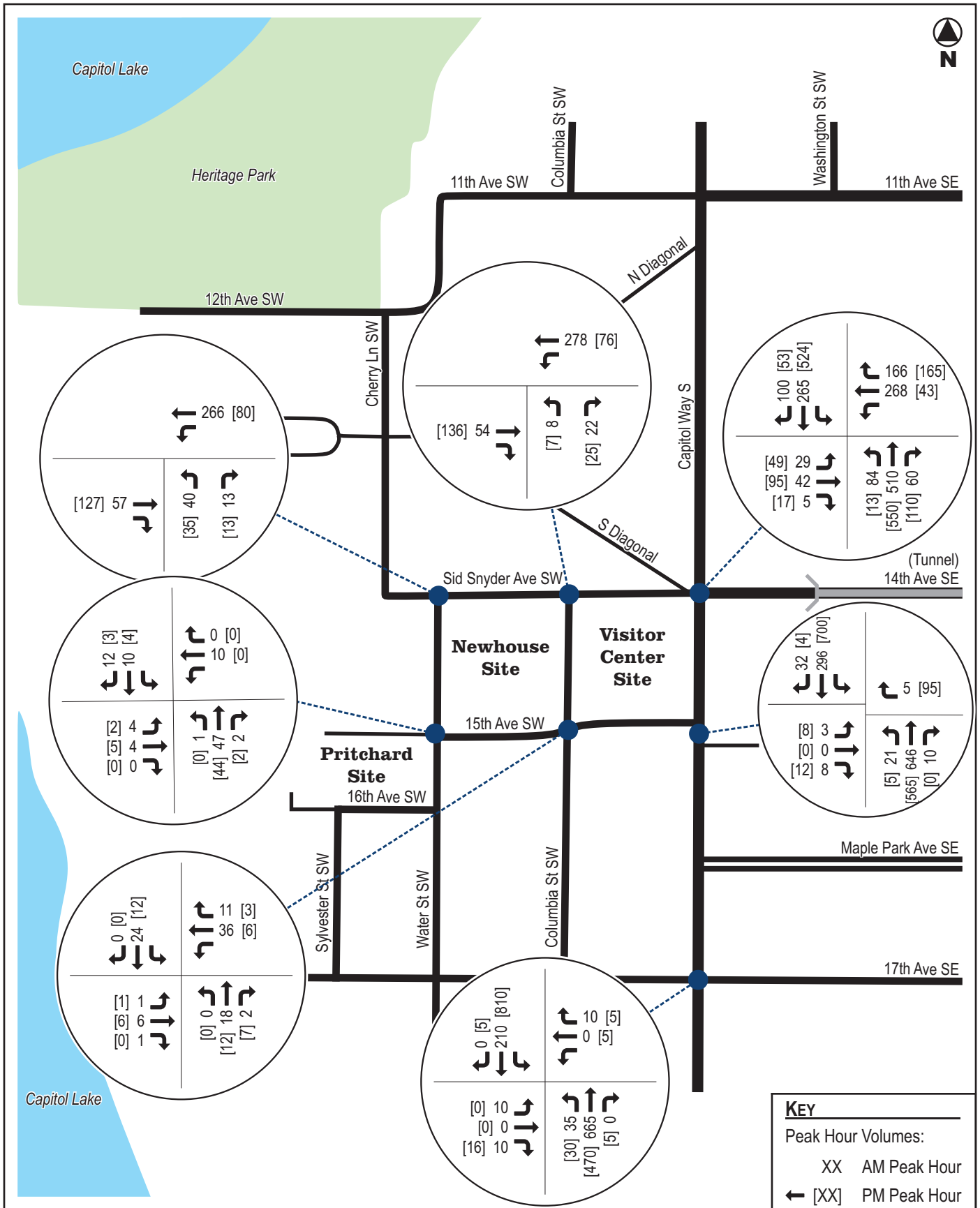
The data and approach described in the previous sections were used to estimate the pre-pandemic PM peak hour intersection turning movements that are shown in Figure 12.

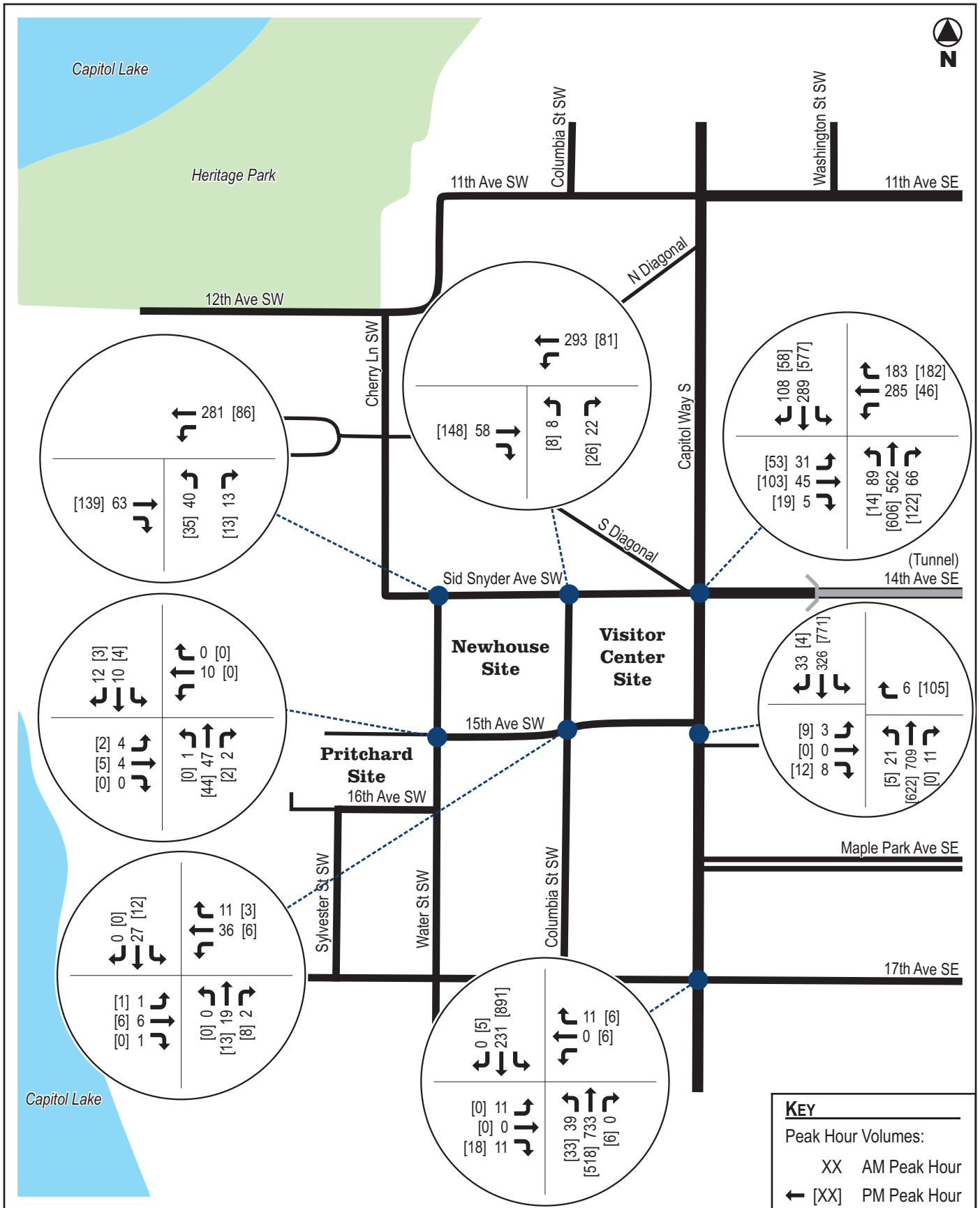
3.5.5. Future Traffic Volumes

To assess traffic operations in the future with City-planned changes along Capitol Way S and the LCM project, forecasts were developed for year 2028, which reflects about a 10-year horizon beyond pre-pandemic conditions analyzed in the previous section. Future volumes were estimated using a 1% compound annual growth rate applied to pre-pandemic volumes as recommended by the City of Olympia.¹⁰ Given that traffic volumes decreased substantially due to the pandemic, applying this growth rate to the pre-pandemic volumes likely results in a conservatively high estimate of future traffic. Figure 13 shows the forecast 2028 peak hour traffic volumes without the LCM project.

¹⁰ E-mail from Dave Smith to Marni Heffron, October 22, 2020.







3.6. LCM Project Trips and Changes to Travel Patterns

3.6.1. Trip Generation

Although the LCM project is not expected to increase employment levels of the House or Senate, the City of Olympia requested that the traffic analysis be based on the increased building size in the event that the spaces are ever used to accommodate future growth. The net changes in the project program were previously summarized in Table 1. For the Pritchard Building, the net increase is based on the change in office space, and does not include repurposing of the former library stacks (storage) or lobby spaces. Overall, the LCM project would add about 52,000 GSF of space to the Capitol Campus, about 41,800 GSF of which would be office space for Senate and House members and staff plus the new print shop in the Newhouse Building.

Trip Generation Methodology

Trip estimates for the project were determined using procedures set forth in the *Trip Generation Handbook*.¹¹ The Institute of Transportation Engineers (ITE) recognizes that development projects located in urban environments generate fewer trips than those in suburban settings, and recommends processes to account for non-vehicle trips including those by transit, walking, and biking.

This process used to estimate vehicle trips for the LCM project is as follows:

1. Estimate the number of person trips for each land use;
2. Estimate the external person trips by mode of travel using the local mode of travel factors for the site; and
3. Convert the person trips by vehicle into adjusted vehicle trips using the local average vehicle occupancy (AVO) rates for the site.

Each of these steps is described in the following sections.

Person Trips

Person trips were derived using rates and equations in ITE's *Trip Generation Manual*,¹² and vehicle occupancy data in the *Trip Generation Handbook*. Trip generation rates for a "Government Office Building" were applied for this project and are summarized in Table 9. This land use is defined as "A government office building is an individual building containing either the entire function or simply one agency of a city, county, state, federal or other governmental unit."

The ITE rates reflect vehicle trips. Those were converted to person trips using assumptions about average vehicle occupancy (AVO) and vehicle trip percentages. However, there are no available data for these factors for a Government Office Building land use. Therefore, AVO data for a General Office were used, which reflect a condition where most of the trips occur by single-occupant vehicle. Table 9 summarizes the baseline rates used to determine the number of person trips. Table 10 summarizes the estimated person trips for the existing and proposed buildings, and the net changes that would result from the LCM project.

¹¹ ITE, *Trip Generation Handbook*, 3rd Edition, September 2017.

¹² ITE, *Trip Generation Manual*, 11th Edition, September 2021.



Table 9. Baseline Trip Generation Rates, AVO and Mode Share Assumptions

Time Period	ITE Trip Generation Rate ^a	Baseline Average Vehicle Occupancy (AVO) Rates ^b		Baseline Vehicle Trip % ^b	
		Inbound	Outbound	Inbound	Outbound
Daily	22.59 trips per 1,000 sfgfa	1.09	1.07	98%	99%
AM Peak Hour	3.34 trips per 1,000 sfgfa	1.06	1.06	99%	100%
PM Peak Hour	1.71 trips per 1,000 sfgfa	1.11	1.07	100%	99%

- a. Source: ITE Trip Generation Manual, 11th Edition, 2021. sfgfa = square feet gross floor area. The listed rates are for a “Government Office Building” (Land Use Code 730).
- b. Based on data in ITE’s Trip Generation Handbook, 3rd Edition; Tables B.1. and B.2. Baseline vehicle trip % inherent less than 100% reflect trips made by walk and transit modes. The rates used are for a General Office Building (Land Use Code 710).

Table 10. Net Change in Person Trips for LCM

Person Trip Summary	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Existing Buildings								
Newhouse Site	35,262	870	95	31	126	17	49	66
Pritchard Site ^a	30,183	750	81	27	108	14	42	56
Total Existing	65,445	1,620	176	58	234	31	91	122
Proposed Buildings								
Newhouse Site	65,012	1,610	174	58	232	31	90	121
Pritchard Site ^a	48,800	1,210	131	43	174	23	68	91
Total Proposed	113,812	2,820	305	101	406	54	158	212
Net Change								
Newhouse Site	29,750	740	79	27	106	14	41	55
Pritchard Site ^a	18,617	460	50	16	66	9	26	35
Net Change	48,367	1,200	129	43	172	23	67	90

Source: Heffron Transportation, Inc. January 2022. .

- a. Reflects office and meeting room space; storage space and public spaces are excluded.

Mode of Travel

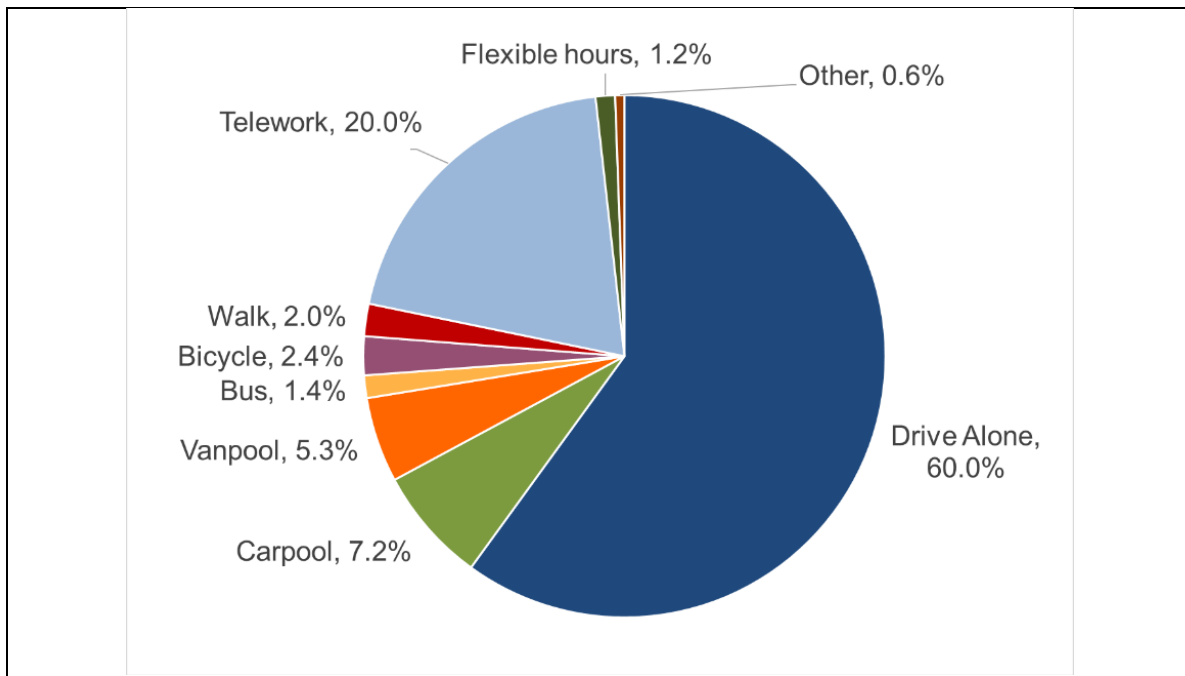
Given that parking supply on the LCM sites would decrease with the project, it is reasonable to assume that potential growth in building occupancy would require that more of the occupants use alternatives to driving alone. Mode-of-travel rates were derived from the State’s *Commute Trip Reduction (CTR)* program for which the long-term goal is that 40% of all trips occur by alternative commute methods,

including work-from-home.¹³ Figure 14 summarizes the mode of travel rate assumptions, which are based on the rates used for a recent project on the Capitol Campus.¹⁴ The analysis assumes that 60% of the buildings’ employees would drive alone in the future (single-occupant vehicle or SOV), another 7.2% are expected to carpool, 5.3% are expected to vanpool, and about 6% are expected to use bus, walk, or bicycle modes.

The CTR goals described above were set before the COVID-19 pandemic. Before COVID, fewer than 5% of all employees on the Capitol Campus reported that they worked from home (telework).¹⁵ In March 2020, Governor Inslee issued the *Stay Home, Stay Healthy* order to combat the COVID-19 pandemic. State employees immediately transitioned to 100% work-from-home. With systems and policies now in place to facilitate work from home, it is expected that more employees will continue to work for home at least part time. The 20% target for work-from-home in the future equates to working from home once per week.

It is acknowledged that most legislators and employees must be on site during the legislative session. However, the trip generation increase described above is based on a future worst-case condition that the proposed buildings accommodate future growth and not the staff who already work at the campus. Therefore, it is reasonable to apply these future mode of-travel rates to estimate the potential increase in trip generation. Table 11 summarizes the estimated net changes in person trips by mode of travel.

Figure 14. Employee Mode of Travel Assumptions – Year 2030 Goal



Source: *Mode of travel assumptions applied for the Office of Insurance Commissioner (OIC) and Department of Children, Youth and Families (DCYF) project, September 2020.*

¹³ State CTR Plan: 2015-2019 (amended). <https://tdmboard.ning.com/resources>, accessed 01/25/2022

¹⁴ Mode of travel assumptions applied for the Office of Insurance Commissioner (OIC) and Department of Children, Youth and Families (DCYF) project, September 2020. Assumptions discussed at June 10, 2020 meeting with stakeholder group. It was agreed that the State CTR goals for mode of travel apply to all agencies and are reasonable based on current travel behavior and future mode share targets for the Capitol Campus.

¹⁵ *Capitol Campus CTR Survey Summary*, City of Olympia, November 2021.

Table 11. Net Change in Person Trips by Mode of Travel

Mode of Travel	% Trips by Mode	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Person Trips by Vehicle	72.5%	870	94	31	125	17	48	65
Transit Trips	1.4%	20	2	0	2	0	1	1
Walk/Bike Trips	4.4%	50	6	2	8	1	3	4
Other (Telework, Flex)	21.7%	260	27	10	37	5	15	20
Net Change in Person Trips	100.0%	1,200	129	43	172	23	67	90

Source: Heffron Transportation, Inc. December 2021.

Vehicle Trips

The person trips by vehicle were converted to vehicle trips by applying the local AVO rate. The Capitol Campus AVO rate is 1.4 people per vehicle based on the expected drive alone, carpool and vanpool modes of travel. Table 12 summarizes the net change in vehicle trips for each of the LCM sites. If the buildings were used to accommodate higher employment densities in the future (as assumed for this analysis), they could generate a net increase of 630 vehicle trips per day, including 89 vehicle trips in the AM peak hour and 47 vehicle trips in the PM peak hour.

Table 12. Net Change in Vehicle Trips for LCM Sites

	Building Size (sf)	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Vehicle Trips by Condition								
Existing Vehicle Trips	65,445	830	91	30	121	16	47	63
Proposed Vehicle Trips	113,812	1,460	158	52	210	28	82	110
Net Change in Vehicle Trips	48,367	630	67	22	89	12	35	47
Net Change by Building								
Newhouse Building	29,750	390	41	14	55	7	22	29
Pritchard Building	18,617	240	26	8	34	5	13	18
Total Change Both Sites	48,367	630	67	22	89	12	35	47
Net Change by Parking Location								
	Net Change in Parking							
Newhouse Site	-15 stalls	-40	-4	-1	-5	-1	-2	-3
Visitor Center Site / Columbia St SW	+34 stalls	90	9	3	12	2	4	6
Water Street SW	+3 stalls	0	1	0	1	0	0	0
Pritchard and Prichard Lots	-87 stalls	-240	-26	-9	-35	-5	-13	-18
Central Garage	Overspill	820	87	29	116	16	46	62
Total	-65 stalls	630	67	22	89	12	35	47

Source: Heffron Transportation, Inc. January 2022.

3.6.2. Vehicle Trip Distribution Pattern

The TRPC used its regional travel demand model to perform a select-zone analysis for the West Campus. These data were used to derive trip distribution patterns for the potential new LCM trips. The TRPC analysis showed that inbound and outbound trips had similar patterns during the PM peak hour. The general distribution pattern derived from the model is summarized in Table 13.

Table 13. Vehicle Trip Pattern for Capitol Campus Trips

Travel Route / Direction	% Trips
14 th Avenue SE, East of Campus (Tunnel)	40%
Capitol Way S, South of Campus	25%
Streets North of Campus (into Downtown)	30%
11 th Avenue SE, East of Campus	5%
Total	100%

Source: Derived by Heffron Transportation, Inc. based on TPRC select zone analysis for TAZ 359, October 2020.

3.6.3. Change in Traffic Patterns Due to Water Street SW Restrictions

Security protocols for the proposed Newhouse Building will require that vehicle access to the segment of Water Street SW between Sid Snyder Avenue SW and 15th Avenue SW be limited to only authorized card-credentialed persons. The Newhouse Building project, which would be constructed before the Pritchard Building project, would implement this restriction with a drop-arm security gate at the north end of the street, and temporary barriers (e.g., concrete barriers or planters) at the south end of the street. The Pritchard Building project proposes a more permanent treatment at the Water Street SW / 15th Avenue SW intersection—a diagonal diverter. This feature is envisioned as a raised median-style barrier that would connect from the southwest corner of the intersection to the northeast corner. Local neighborhood traffic could continue to use Water Street SW south of the intersection, as well as 15th Avenue SW east of the intersection. Vehicles authorized to access the parking lots along Water Street SW, at the Pritchard Building, and south of the Cherberg and O'Brien buildings would have to enter the area from Sid Snyder Avenue SW.

The traffic that would be affected by restricting access and use of Water Street SW was previously described in Section 3.5.3 and summarized in Table 8. The number of vehicles that used Water Street SW as a short-cut route through the neighborhood is estimated at 47 vehicles (37 northbound and 10 southbound) during the AM peak hour and 33 vehicles (29 northbound and 4 southbound) during the PM peak hour. With the security changes and diagonal diverter, those trips would be diverted to other routes. While some of this traffic may divert to Columbia Street SW, as a worst-case condition, it was assumed to divert to Capitol Way S.

The diverter would also affect the routes that LCM traffic can use to reach parking on Water Street SW as well as parking at the future Pritchard Building and existing lots south of the Cherberg and O'Brien buildings. Vehicles would have to use Sid Snyder Avenue SW to reach those parking areas. The effect of restricting Water Street SW to authorized vehicles only has been accounted for in the trip assignments and traffic operations analysis described below.

3.6.4. Trip Assignment

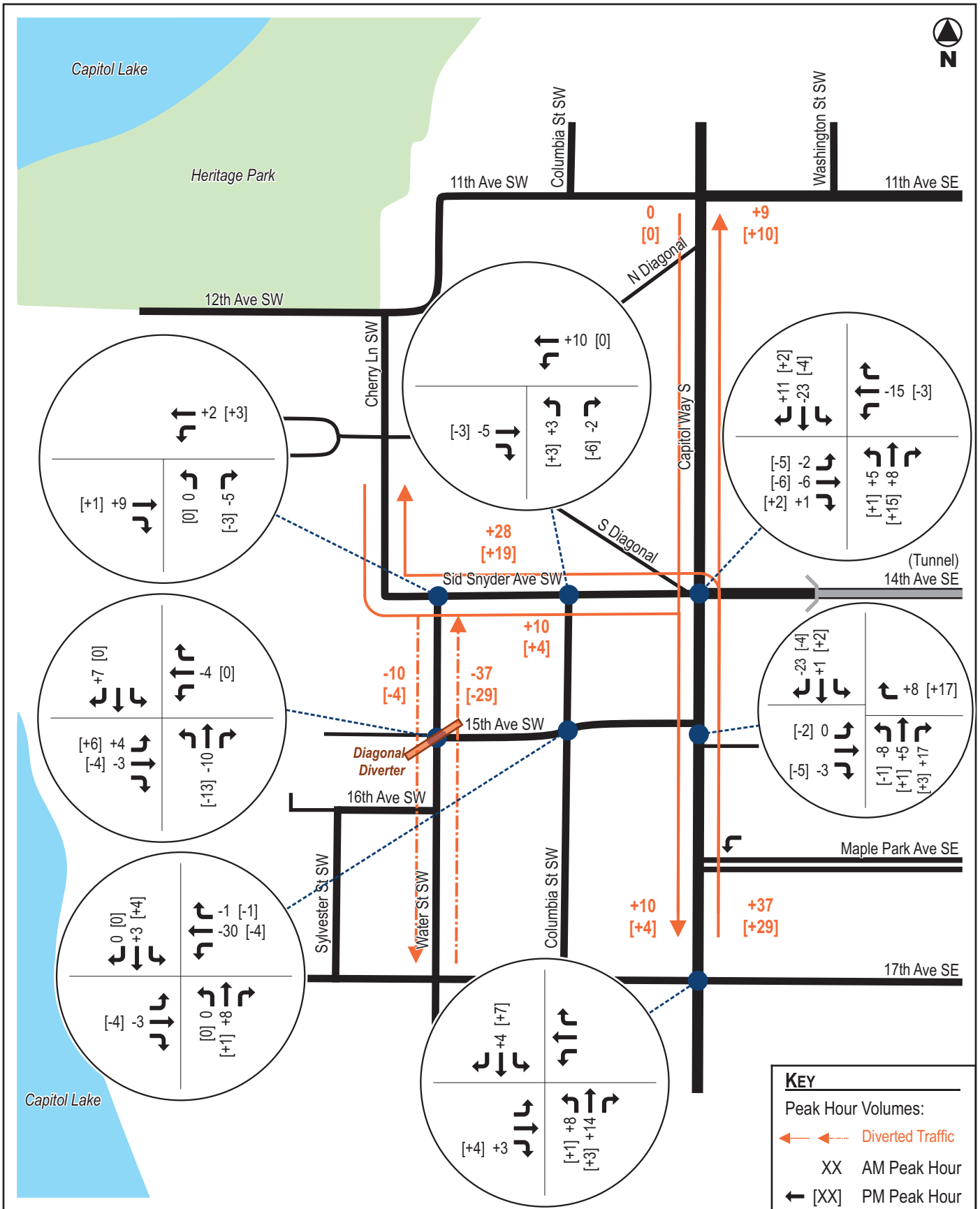
The cumulative traffic effects of the new LCM buildings, change in parking supply on the two sites, and the street changes were determined for AM and PM peak hour conditions. This was derived using the following steps.

1. **Assign existing LCM trips based on current parking conditions.** The estimated peak hour trips generated by the existing buildings were allocated to the vicinity parking lots based on the trip distribution pattern described above and the current parking lot conditions, including number of parking spaces and access locations. These assignments assumed no changes in the street system.
2. **Assign future LCM trips with street changes.** The estimated peak hour trips generated by the proposed future LCM buildings were assigned based on the future parking condition. The assignments assume the diagonal diverter at the Water Street SW / 15th Avenue SW intersection would restrict travel routes to the LCM parking lots along Water Street SW and for Opportunity Site 6.
3. **Determine change in background traffic diverted by the street changes.** The cut-through traffic would otherwise use Water Street SW was assumed to divert to Capitol Way S and Sid Snyder Avenue SW to access the campus. A small amount of the cut-through traffic was assumed to stay on Capitol Way S to reach areas north of campus.

Figure 15 shows the net change in peak hour trips associated with the LCM project and diverted neighborhood cut-through traffic. This shows that the largest increases in traffic are expected to occur on the segment of Capitol Way S south of 17th Avenue SE (net increases of 76 AM peak hour trips and 48 PM peak hour trips) and on Sid Snyder Avenue SW west of Capitol Way S (net increases of 32 AM peak hour trips and 14 PM peak hour trips). Small increases in traffic are expected on Columbia Street SW south of 15th Avenue SW due to the restricted access on Water Street SW (12 trips in AM peak hour and 5 in PM peak hour). Reductions in traffic are anticipated on Water Street SW south of 15th Avenue SW due to the diverter and access restriction (net decreases of 83 AM peak hour trips and 50 PM peak hour trips).

Year 2028 traffic volumes with the LCM Project are shown Figure 16.

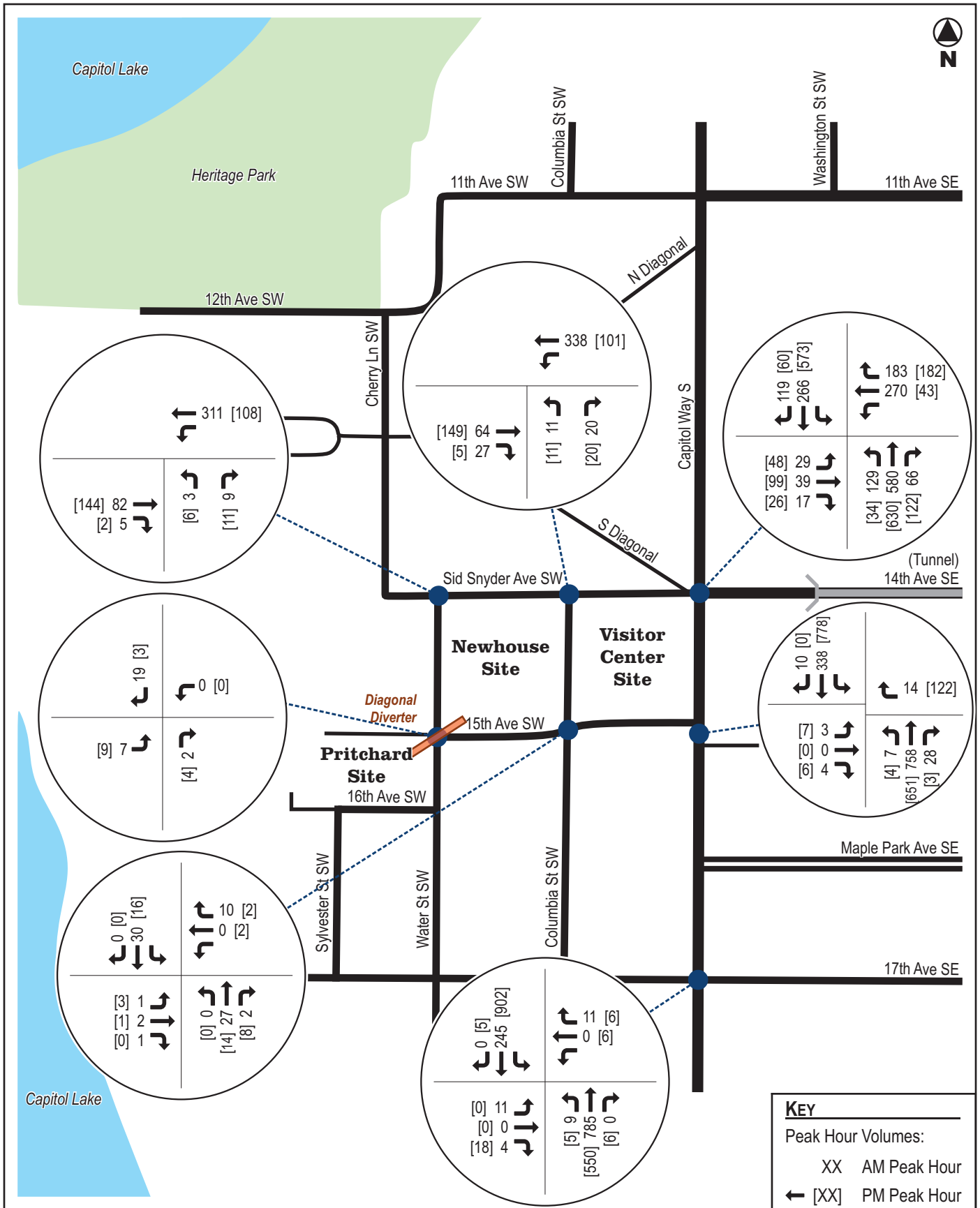




Capitol Campus LCM

Figure 15
 Net Changes in Traffic Due to LCM Project and Street Changes – AM and PM Peak Hour





Capitol Campus LCM

Figure 16
 Future (2028) Traffic Volumes With
 LCM Project – AM and PM Peak Hour



3.7. Traffic Operations

Traffic operations are evaluated using level of service (LOS), which is a qualitative measure used to characterize intersection operating conditions. Six letter designations, “A” through “F,” are used to define level of service. LOS A is the best and represents good traffic operations with little or no delay to motorists. LOS F is the worst and indicates poor traffic operations with long delays.

Levels of service for the study area intersections are determined using methodologies established in the *Highway Capacity Manual* (Transportation Research Board, 2016). Level of service for signalized intersections is defined in terms of average delay for all vehicles that travel through the intersection. Delay at signalized intersections is determined based on a combination of variables including lane configuration, traffic volumes by turning movement, signal phasing and cycle length and other variables. For one- or two-way stop-controlled intersections, level of service is based on the average delay per vehicle for each movement; delay is related to the availability of gaps in the main street’s traffic flow, and the ability of a driver to enter or pass through those gaps. Appendix B summarizes the level of service definitions and thresholds.

The City of Olympia has adopted the following operational standards that are applicable to streets within the transportation study area:¹⁶

- LOS E or better is acceptable on arterials and major collectors in the City Center and along urban corridors; and
- LOS D is acceptable in the rest of the city and Urban Growth Area.

Since it is an arterial, the LOS E standard is applied to intersections along the Capitol Way S corridor. LOS D is acceptable for the local intersections.

3.7.1. Existing Traffic Operations (Year 2018)

Existing traffic operations on Capitol Way S were evaluated using *Synchro* traffic operations models provided by the City of Olympia.¹⁷ Traffic volumes in the model reflect pre-pandemic conditions. The existing conditions reflect the existing four-lane configuration on Capitol Way S.

Existing traffic operations are summarized in Table 14. The signalized intersection at Capitol Way S / 14th Avenue SE / Sid Snyder Avenue SW currently operates at LOS C overall during the AM and PM peak hours. The two unsignalized intersections at 15th Avenue SW and 17th Avenue SW have side-street movements that currently operate at LOS C or better. The four local intersections all operate at LOS A or B. All of these are considered acceptable per the City’s level of service standards.

¹⁶ City of Olympia, *Comprehensive Plan, Transportation Element*. Adopted by Ordinance 6945, December 16, 2014, current through Ordinance 7199, passed July 19, 2019.

¹⁷ City of Olympia, *Synchro* model titled, "2018 - Existing_PM_TP2_10_OPTIMIZE_15", provided September 2020.

Table 14. Level of Service – Pre-Pandemic Conditions

Intersection / Movement	Traffic Control	AM Peak Hour		PM Peak Hour	
		LOS ¹	Delay ²	LOS ¹	Delay ²
Capitol Way S / 14th Ave SE – Overall	Signalized	C	30.0	C	28.4
Northbound Capitol Way S		C	26.6	C	25.3
Southbound Capitol Way S		C	24.2	B	17.6
Westbound 14 th Ave SE		D	38.9	D	50.4
Eastbound Sid Snyder Ave SW		D	37.5	D	39.6
Capitol Way S / 15th Ave SW – Overall	Unsignalized	A	0.4	A	0.3
Northbound Left Turn		A	8.2	A	9.8
Eastbound 15 th Ave SW	Stop Sign	B	11.3	C	18.8
Capitol Way S / 17th Ave SW – Overall	Unsignalized	A	1.1	A	0.5
Northbound Left Turn	Uncontrolled	A	7.8	A	8.7
Southbound Left Turn	Uncontrolled	A	0.0	A	7.9
Eastbound 17 th Ave SW	Stop Sign	B	13.5	A	9.9
Westbound 17 th Ave SW	Stop Sign	C	18.3	B	14.4
Sid Snyder Ave SW / Water St SW – Overall	Unsignalized	A	1.6	A	1.4
Northbound (Stop Sign)	Stop Sign	B	10.6	B	10.4
Westbound Left Turn	Uncontrolled	A	7.4	A	7.7
Sid Snyder Ave SW / Columbia St SW – Overall	Unsignalized	A	1.3	A	1.3
Northbound	Stop Sign	A	9.6	A	9.9
Westbound Left Turn	Uncontrolled	A	7.4	A	7.7
15th Ave SW / Water St SW – Overall	Unsignalized	A	3.1	A	1.6
Eastbound	Stop Sign	A	9.5	A	9.2
Westbound	Stop Sign	A	9.5	A	8.9
15th Ave SW / Columbia St SW – Overall	Unsignalized	A	5.2	A	4.2
Eastbound	Stop Sign	A	9.4	A	9.5
Westbound	Stop Sign	A	9.6	A	9.3

Source: Levels of service analysis performed by Heffron Transportation, Inc. using Synchro 10.3 model provided by the City of Olympia.

Results reflect Synchro’s Highway Capacity Manual (HCM) 6th Edition reporting module.

1. LOS = level of service
2. Delay = average seconds of delay per vehicle

3.7.2. Future Traffic Operations (Year 2028) Without LCM Project

Effect of Planned Bicycle Lane on Capitol Way S

Intersection operations were evaluated for future conditions without the LCM project. For the intersections along Capitol Way S, operations without and with the City’s planned bicycle lane improvements were evaluated. In general, the City’s improvements would reduce the vehicular travel lanes from four lanes to three lanes (one lane in each direction with a center two-way-left-turn lane). The analysis determined that northbound Capitol Way S should have three lanes approaching 14th Avenue SE (a left-turn lane, a through-only lane, and a right-turn lane). This is because the right-turn movement



(toward I-5) is high enough that if it has to share a lane with the through-traffic, queues could regularly back up through 15th Avenue SW and affect traffic exiting the Plaza Garage. Figure 17 shows the existing and assumed future configuration.

Figure 17. Existing and Assumed Future Geometry at Capitol Way S/14th Ave SW Intersection



Source: Images from Synchro files. It is noted that auxiliary movements such as those to and from the Plaza Garage on 14th Avenue SE are not shown, but were accounted for in the model.

Level of service analysis for year 2028 was performed without and with the planned changes to Capitol Way S. To show the effect of the City-proposed changes, PM peak hour traffic operations were evaluated, and are summarized in Table 15 (AM Peak Hour conditions with the bicycle lane are presented later in Table 16). It is noted that for all future conditions, the signal timings for the Capitol Way S corridor were optimized. The analysis found that the bike lanes would slightly increase delay, but all near site intersections would continue to operate at acceptable levels of service. The bike lane project would increase vehicle queues at the Capitol Way S / 14th Avenue SE intersection, particularly in the northbound and south direction.

Table 15. Level of Service on Capitol Way S (Year 2028) without LCM Project – PM Peak Hour

Intersection / Movement	With Existing Capitol Way S Configuration (4 Lanes)			With Planned Capitol Way S Bike Lanes (3 Lanes)		
	LOS ¹	Delay ²	Queue ³	LOS ¹	Delay ²	Queue ³
Capitol Way S / 14th Ave SE (Signalized)	C	29.9		D	41.6	
Northbound Capitol Way S	C	27.0	253'	D	37.1	517'
Southbound Capitol Way S	B	19.6	194'	C	29.2	326'
Westbound 14 th Ave SE	D	46.7	203'	E	67.0	256'
Eastbound Sid Snyder Ave SW	D	50.8	104'	E	58.9	104'
Capitol Way S / 15th Ave SW (Stop Sign) ⁴	A	0.4		A	0.5	
Northbound Left Turn	B	10.1	0'	B	10.1	0'
Eastbound 15 th Ave SW	C	22.2	8'	D	34.4	13'
Capitol Way S / 17th Ave SW (Stop Sign) ⁵	A	0.7		A	0.7	
Northbound Left Turn	A	9.0	3'	B	15.0	8'
Southbound Left Turn	A	8.1	0'	A	9.1	0'
Eastbound 17 th Ave SW	B	10.2	3'	C	20.8	8'
Westbound 17 th Ave SW	C	17.1	5'	B	11.4	3'

Source: Levels of service analysis performed by Heffron Transportation, Inc. using Synchro 10.3 model provided by the City of Olympia. Results reflect Synchro's Highway Capacity Manual (HCM) 6th Edition reporting module.

1. LOS = level of service
2. Delay = average seconds of delay per vehicle
3. 95th percentile queue (reported in feet) for the lane with the approach lane with the longest queue. For stop control analysis, Synchro estimates queue lengths in number of vehicles. The values reported were converted into feet by applying Synchro's assumed average vehicle length of 25 feet.
4. Side street vehicle movements would be unsignalized

Future Without LCM Project Level of Service at Local Intersections

Levels of service were also evaluated for the local intersections surrounding the LCM sites on Sid Snyder Avenue SW and 15th Avenue SW. All of those intersections are forecast to operate at LOS B or better in 2028 without the LCM project. Detailed results for each intersection are summarized later in Table 16 (AM peak hour) and Table 17 (PM peak hour).



3.7.3. Future Traffic Operations (Year 2028) With LCM Project

As described previously in Section 3.6, the LCM project would reduce the parking supply in the West Campus Area, and would shift existing traffic away from West Campus to available parking in the Plaza Garage. The LCM project would also restrict access to Water Street between Sid Snyder Avenue SW and 15th Avenue SW, and existing traffic that would otherwise use this street as part of a short-cut route through the South Capitol neighborhood was assumed to divert to Capitol Way S. This would be the worst-case operating condition for intersections along that street. The combined effect of both changes on area traffic operations was evaluated. Intersection levels of service are summarized in Table 16 for the AM peak hour and Table 17 for PM peak hour. Conditions without and with the LCM project are presented for comparison.

Table 16. Level of Service – Future (2028) **with** Capitol Way S Improvements – **AM Peak Hour**

Intersection / Movement	Traffic Control	Without LCM Project		With LCM Project and Water Street Closure	
		LOS ¹	Delay ²	LOS ¹	Delay ²
Capitol Way S / 14th Ave SE – Overall	Signalized	D	35.6	D	37.2
Northbound Capitol Way S		C	30.7	C	32.1
Southbound Capitol Way S		C	24.4	C	28.9
Westbound 14 th Ave SE		D	51.8	D	53.1
Eastbound Sid Snyder Ave SW		D	41.6	D	36.6
Capitol Way S / 15th Ave SW – Overall	Unsignalized	A	0.3	A	0.2
Northbound Left Turn		A	8.3	A	8.2
Eastbound 15 th Ave SW	Stop Sign	B	14.6	C	16.9
Capitol Way S / 17th Ave SW – Overall	Unsignalized	A	1.2	A	0.9
Northbound Left Turn	Uncontrolled	A	7.9	A	7.9
Southbound Left Turn	Uncontrolled	A	0.0	A	0.0
Eastbound 17 th Ave SW	Stop Sign	C	21.4	D	26.2
Westbound 17 th Ave SW	Stop Sign	C	24.3	C	24.7
Sid Snyder Ave SW / Water St SW – Overall	Unsignalized	A	1.5	A	0.8
Northbound (Stop Sign)	Stop Sign	B	10.8	A	9.5
Westbound Left Turn	Uncontrolled	A	7.4	A	7.5
Sid Snyder Ave SW / Columbia St SW – Overall	Unsignalized	A	1.3	A	1.0
Northbound	Stop Sign	A	9.7	B	10.2
Westbound Left Turn	Uncontrolled	A	7.5	A	7.5
15th Ave SW / Water St SW – Overall	Unsignalized	A	3.1	A	0.0
Eastbound	Stop Sign	A	9.5	A	0.0
Westbound	Stop Sign	A	9.5	A	0.0
15th Ave SW / Columbia St SW – Overall	Unsignalized	A	5.0	A	2.3
Eastbound	Stop Sign	A	9.4	A	9.2
Westbound	Stop Sign	A	9.6	A	8.9

Source: Levels of service analysis performed by Heffron Transportation, Inc. using Synchro 10.3 model provided by the City of Olympia.

Results reflect Synchro's Highway Capacity Manual (HCM) 6th Edition reporting module.

1. LOS = level of service
2. Delay = average seconds of delay per vehicle



Table 17. Level of Service – Future (2028) **with** Capitol Way S Improvements – **PM Peak Hour**

Intersection / Movement	Traffic Control	Without LCM Project		With LCM Project and Water Street Closure	
		LOS ¹	Delay ²	LOS ¹	Delay ²
Capitol Way S / 14th Ave SE – Overall	Signalized	D	41.6	D	44.8
Northbound Capitol Way S		D	37.1	C	34.6
Southbound Capitol Way S		C	29.2	D	36.8
Westbound 14 th Ave SE		E	67.0	E	75.9
Eastbound Sid Snyder Ave SW		E	58.9	E	56.4
Capitol Way S / 15th Ave SW – Overall	Unsignalized	A	0.5	A	0.3
Northbound Left Turn		B	10.1	B	10.1
Eastbound 15 th Ave SW	Stop Sign	D	34.4	E	39.6
Capitol Way S / 17th Ave SW – Overall	Unsignalized	A	0.7	A	0.4
Northbound Left Turn	Uncontrolled	B	15.0	B	14.4
Southbound Left Turn	Uncontrolled	A	9.1	A	9.3
Eastbound 17 th Ave SW	Stop Sign	C	20.8	C	20.8
Westbound 17 th Ave SW	Stop Sign	B	11.4	B	11.8
Sid Snyder Ave SW/Water St SW – Overall	Unsignalized	A	1.3	A	0.5
Northbound (Stop Sign)	Stop Sign	B	10.6	B	10.0
Westbound Left Turn	Uncontrolled	A	7.7	A	7.7
Sid Snyder Ave SW/Columbia St SW – Overall	Unsignalized	A	1.2	A	1.1
Northbound	Stop Sign	B	10.1	B	10.4
Westbound Left Turn	Uncontrolled	A	7.8	A	7.8
15th Ave SW/ Water St SW – Overall	Unsignalized	A	1.6	A	0.0
Eastbound	Stop Sign	A	9.2	A	0.0
Westbound	Stop Sign	A	8.9	A	0.0
15th Ave SW/ Columbia St SW – Overall	Unsignalized	A	4.1	A	2.4
Eastbound	Stop Sign	A	9.5	A	9.1
Westbound	Stop Sign	A	9.3	A	9.0

Source: Levels of service analysis performed by Heffron Transportation, Inc. using Synchro 10.3 model provided by the City of Olympia. Results reflect Synchro's Highway Capacity Manual (HCM) 6th Edition reporting module.

1. LOS = level of service
2. Delay = average seconds of delay per vehicle

As shown, the LCM project would not change the overall level of service for any of the study area intersection. Some individual movements would be degraded (and some would improve). The most notable change is projected on eastbound 15th Avenue SW at Capitol Way S, which would degrade from LOS D to LOS E during the PM peak hour. The analysis assumes that vehicles could turn left from 15th Avenue SW to northbound Capitol Way S. If delays are too long, motorists would have the option of using Columbia Street SW and Sid Snyder Avenue SW instead. Therefore, no improvements are recommended for this intersection.



4. SUMMARY AND MITIGATION

4.1. Parking

The LCM project would reduce the parking supply by 57 and 65 stalls in the vicinity of Opportunity Sites 5 and 6. The project is expected to accommodate the same number of legislators and staff who already work in this area of the campus, and is not expected to increase visitor trips. The only expected increase would be employees who work in Production and Design, a new space that could be located in the Newhouse replacement building. That unit is expected to have fewer than 10 employees and generate peak parking demand of 7 vehicles. Overall, the potential net change in parking need (accounting for lost stalls and new demand) is estimated at 64 to 72 vehicles.

The COVID-19 pandemic has induced a paradigm shift by which nearly all State employees at the campus have been working from home. As previously shown on Figure 6, during the January 2022 legislative session there were more than 2,000 unused parking stalls in the Plaza Parking Garage. After the pandemic ends, it is expected that many employees will continue to work from home on some days of the week. The reduction in everyday employee parking demand would open up parking capacity for use during the peak times when the legislature is in session. Eventually, an updated campus-wide parking study and assignment strategy may be needed, but not until overall parking in the Plaza Garage recovers to more than 80% occupied during the legislative session.

Although adverse parking impacts are not expected, the following measures should be considered to shift existing parking demand to the Plaza Garage and reduce overall campus parking demand.

1. Continue measures in support of the State's *Commute Trip Reduction (CTR)* program that encourage employees use of alternatives to driving alone for their commutes. The long-term goal for the Capitol Campus is that 40% of all trips occur by alternative commute methods, including work-from-home. The COVID-19 pandemic has substantially affected commute behavior. Before COVID, fewer than 5% of all employees on the Capitol Campus reported that they worked from home (telework). In March 2020, Governor Inslee issued the Stay Home, Stay Healthy order to combat the COVID-19 pandemic. State employees immediately transitioned to 100% work-from-home. With systems and policies now in place to facilitate work from home, it is expected that more employees will continue to work for home at least part time. Although legislators and their staff may not be able to work from home during the legislative session, other employees on the Capitol Campus will be more likely to work from home in the future. A 20% target for work-from-home in the future is reasonable and equates to working from home once per week.
2. Improve the user perception of the Plaza Garage and enhance the pedestrian connection between the West Campus and the Plaza Garage.
 - a. Improve the walkway that connects to the Capitol Way Pedestrian Bridge through the Visitor Parking lot. This would be done as part of the Newhouse Building's reconfiguration of the Visitor Center Parking lot. The project would regrade and reconfigure the lot, flatten the walkway's grade, eliminate vehicle conflicts with the pedestrian walkway, improve the landscaping, and add pedestrian-scale lighting.
 - b. Improve sidewalks around Newhouse Building.
 - c. Improve interior lighting and elevator efficiency.



3. Upgrade pedestrian wayfinding between the Plaza Garage and West Campus, particularly for pedestrians returning to the garage and its many elevator access points.
4. Work with City of Olympia to improve signage directing motorists to visitor parking in the Plaza Garage.
5. Provide information about Capitol Campus parking as part of event permits, employee on-boarding, and on public websites. Information should direct visitors to off-street parking locations and discourage on-street parking in South Capitol Neighborhood Historic District.
6. When demand warrants, re-institute the employee shuttle between the Plaza Garage and the West Campus.
7. Update the following campus-wide parking policies and operating procedures.
 - a. Change the assignment / reservation of individual parking stalls (necessitated by reduction of LCM parking).
 - b. Identify the number and location of visitor parking stalls. Some short-term (4 hours or less) visitor stalls should be retained in the West Campus area to reduce the potential for visitor overspill into the adjacent residential neighborhood.
 - c. Review the location and number of accessible and disabled-permit signed (ADA) stalls and managing supply of those stalls on a campus-wide basis. Consider consolidating accessible stalls in central locations that can serve multiple buildings.
 - d. Create a new type of employee parking pass to allow parking on fewer days than a monthly pass (for those who regularly work from home one or more days per week).
 - e. Implement policies that spread work-from-home days over the full week (rather than concentrated on Monday or Friday).
8. Continue to monitor parking use of Plaza Garage. Consider updating the Campus-wide Parking Study when Plaza Garage occupancy exceeds 80%.

4.2. Transportation

Security protocols for the proposed Newhouse Building will require that vehicle access to the segment of Water Street SW between Sid Snyder Avenue SW and 15th Avenue SW be limited to only authorized card-credentialed persons. The Newhouse Building project, which would be constructed before the Pritchard Building project, would implement this restriction with a drop-arm security gate at the north end of the street, and temporary barriers (e.g., concrete barriers or planters) at the south end of the street. The Pritchard Building project proposes a more permanent treatment at the Water Street SW / 15th Avenue SW intersection—a diagonal diverter. This feature is envisioned as a raised median-style barrier that would connect from the southwest corner of the intersection to the northeast corner. Local neighborhood traffic could continue to use Water Street SW south of the intersection, as well as 15th Avenue SW east of the intersection. Vehicles authorized to access the parking lots along Water Street SW, at the Pritchard Building, and south of the Cherberg and O'Brien buildings would have to enter the area from Sid Snyder Avenue SW.



Although the LCM project is not expected to increase employment levels of the House or Senate, the City of Olympia requested that the traffic analysis be based on the increased building size in the event that the spaces are ever used to accommodate future growth. If so, they could generate a net increase of 630 vehicle trips per day, including 89 new vehicle trips in the AM peak hour and 47 new vehicle trips in the PM peak hour. Many of these trips would be shifted from West Campus parking areas to available parking in the Plaza Garage.

The cumulative effect of the increased traffic and shifted traffic patterns would not adversely affect intersections in the vicinity of the site. The LCM project would make many improvements to site frontages as previously summarized in Table 2. No additional off-site traffic improvements would be needed to accommodate the project.



APPENDIX A
EXISTING PARKING SUPPLY DETAIL

Existing Parking Supply in Vicinity of LCM Sites

Location (See Figure 4 for Map Key)	Type of Parking Stall ^a					Total
	Reserved	Zoned	ADA / EV	Load / Service	Visitor & Public	
Newhouse Building Vicinity						
A. Newhouse Lot	13	--	1 / 0	1	0	15
B. Press House Lots	47	--	0 / 0	1	0	48
C. Visitor Center Lot	23	53 ^b	4 / 4	--	0 ^b	84
D. Along Water Street	41	--	2 / 0	--	0	43
E. Along Columbia Street	0	--	0	--	5 ^c	5
Total in Newhouse Vicinity	124	0	7 / 4	2	58	195
Pritchard Building Vicinity						
F. Pritchard Site ^d	50	46	4 / 7	1	0	108
G. South of Cherberg Building	22	--	2 / 10	0	0	34
H. South of O'Brien Building	23	--	0 / 1	0	0	24
Total in Pritchard Vicinity	95	46	6 / 18	1	0	166
Total Both Areas	219	99	13 / 22	3	5	361

Source: Department of Enterprise Services, November 2021.

- a. **Reserved** stalls are assigned to specific individuals; **Zoned** stalls are assigned to groups of staff but are available on a first-come/first-serve basis; **ADA** stalls can only be used by those with Disabled Person Placards; **EV** stalls are for electric vehicle charging.
- b. These spaces are assigned during the legislative session; they are metered visitor spaces during non-session times. .
- c. On-street parking spaces are signed "1 hr. parking 8 AM -5 PM, Once per Day Zone 2" indicating that neighborhood residents with a Zone 2 permit can park for a longer duration.
- d. Includes stalls located in loading area and along the south edge of 16th Avenue SW.

APPENDIX B

LEVEL OF SERVICE DEFINITIONS

APPENDIX B – Level of Service Definitions

Levels of service (LOS) are qualitative descriptions of traffic operating conditions. These levels of service are designated with letters ranging from LOS A, which is indicative of good operating conditions with little or no delay, to LOS F, which is indicative of stop-and-go conditions with frequent and lengthy delays. Levels of service for this analysis were developed using procedures presented in the *Highway Capacity Manual, Sixth Edition* (Transportation Research Board, 2016).

Signalized Intersections

Level of service for signalized intersections is defined in terms of average delay for all vehicles that travel through the intersection. Delay can be a cause of driver discomfort, frustration, inefficient fuel consumption, and lost travel time. Specifically, level-of-service criteria are stated in terms of the average delay per vehicle in seconds. Delay is a complex measure and is dependent on a number of variables including number and type of vehicles by movement, intersection lane geometry, signal phasing, the amount of green time allocated to each phase, transit stops and parking maneuvers. Table B-1 shows the level of service criteria for signalized intersections from the *Highway Capacity Manual, Sixth Edition*.

Table B-1. Level of Service for Signalized Intersections

Level of Service	Average Control Delay Per Vehicle
A	≤ 10 seconds
B	> 10 – 20 seconds
C	> 20 – 35 seconds
D	> 35 – 55 seconds
E	> 55 – 80 seconds
F	> 80 seconds

Source: Transportation Research Board, *Highway Capacity Manual*, Exhibit 19.8, 2016.

Unsignalized Intersections

For unsignalized intersections, level of service is based on the average delay per vehicle for each turning movement. The level of service for all-way stop or roundabout-controlled intersections is based upon the average delay for all vehicles that travel through the intersection. The level of service for a one- or two-way, stop-controlled intersection, delay is related to the availability of gaps in the main street's traffic flow, and the ability of a driver to enter or pass through those gaps. Table B-2 shows the level of service criteria for unsignalized intersections from the *Highway Capacity Manual, Sixth Edition*.

Table B-2. Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay per Vehicle
A	0 – 10 seconds
B	> 10 – 15 seconds
C	> 15 – 25 seconds
D	> 25 – 35 seconds
E	> 35 – 50 seconds
F	> 50 seconds

Source: Transportation Research Board, *Highway Capacity Manual*, Exhibit 20.2, 2016.